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READERS in search of a particular subject will find it useful to bear in mind that the references are in several cases distributed under two or more separate but nearly synonymous headings—such, for instance, as Brain and Cerebral; Heart and Cardiac; Liver and Hepatic; Renal and Kidney; Cancer and Epithelioma, Malignant Disease, New Growth, Sarcoma, etc.; Child and Infant; Bronchocele, Goître, and Thyroid; Diabetes, Glycosuria and Sugar; Light, Roentgen, Radium, *X* Rays; Status Lymphaticus and Thymus; Eye, Ophthalmia and Vision; Bicycle and Cycle; Motor and Automobile; Association, Institution, and Society; Paris, France; Berlin, Prussia, Germany; Vienna, Austria, etc. Subjects dealt with under the various main headings in the JOURNAL have been set out in alphabetical order under their respective headings—for example, "Act, Workmen's Compensation," "Correspondence," "Leading Articles," "Literary Notes," etc.; while under "Original Articles," will be found a list of those who have contributed papers on scientific and clinical subjects, with the titles of their contributions.

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The Horace Dobell Lectures

ON

INSECT PORTERS OF BACTERIAL INFECTIONS.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS.

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LECTURE I.

To intervene successfully in bacterial diseases of man and animals it is most important to know accurately the life-history of the parasite outside the host—how it leaves the old host, how it enters a new host, and where and how it passes the intervening period. If we are in possession of these facts, our efforts in the struggle can, at any rate, be intelligently directed and concentrated against the most vulnerable point of the enemy. The exercise of an adverse influence upon bacteria, once they have gained a footing in the body, has hitherto not been generally successful, although recent developments in chemotherapy have shown that there is ground for optimism in this direction.

In the early days of bacteriology, before the large number of pathogenic bacteria had been discovered and their peculiarities had been studied, it was generally assumed that bacteria once let loose from the body survived long periods upon inanimate objects and in water, soil, etc.; and efforts at prevention were directed to an indiscriminate disinfection of the belongings and surroundings of the patient. Some bacteria do, indeed, possess considerable powers of survival under such circumstances, and I would not be understood to deprecate measures of general disinfection. The majority of pathogenic organisms, however, are fortunately delicate creatures, and rapidly succumb to such adverse influences as drying and sunlight.

Another factor which must not be lost sight of is that many organisms which have acquired by selection the property of withstanding the adverse influence obtaining in the animal body fare ill in the competition with hardy saprophytic colleagues outside the body, and, if certain individuals do survive, these, whilst acquiring the capacity to live upon extracorporeal nutriment, diminish at the same time in pathogenicity. In other words, the conditions select a strain tending more and more towards saprophytism and away from parasitism. For these reasons it behoves us to be especially on the look-out for any machinery through the agency of which bacteria may be rapidly conveyed from sick to healthy, and their travels made easier for them.

In not a few diseases the infective agent usually passes almost directly from patient to patient, such as the organisms of syphilis, plague-pneumonia, diphtheria, measles, scarlet fever, small-pox, and numerous parasitic skin disease The spread of such highly infectious diseases can dealt with by isolation and segregation of contacts, for t. ir range is small.

Of recent years much attention has been bestowed upon the study of the rôle of insects in the transmission of disease. It is not my intention to deal with these discoveries as to the essential part played by insects in the transmission of protozoological parasites made by Smith and Kilbourne, Bruce, Ross; Reed, Carrol, and Agramonte, regarding the transmission of Texas fever, nagana, sleeping sickness, malaria of birds and animals, and yellow fever respectively, further than to point out that it was these researches which focussed attention upon the possibility of bacterial diseases being conveyed by a similar agency. In the latter case the insect plays a less essential part, and no particular phase in the life-history of the parasite takes place within it. I have accordingly, following a suggestion of my friend, Colonel Alcock, employed the term "porters" to describe this passive rôle of insects in the spread of contagion.

HOUSE-FLIES.

A deal of attention has been paid to flies lately in view of their possible influence in the dissemination of infection, more particularly in the case of such diseases as cholera, typhoid, and infantile diarrhoea, in which the infective agent escapes from the intestine and new infections are taken in by the mouth.

The first question is—Can the fly convey infection? Before referring to the numerous experiments which have afforded an answer, I will briefly refer to those points in the life-history, structure and habits of the house-fly which are of assistance in appreciating how it may play such a rôle. These subjects have been submitted to careful

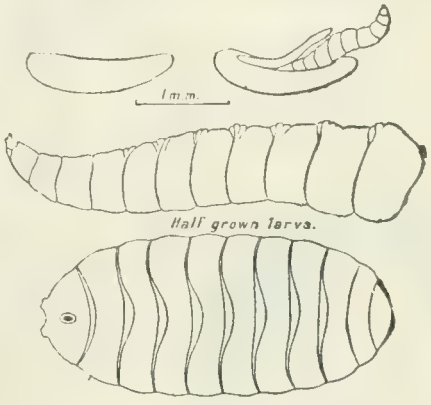


Fig. 1.

inquiry during the last few years, particularly in America and this country, and thanks to the observations of Lowne (1890), Howard (1912), Newstead (1907–9), Griffith (1908), Hewitt (1910), and Graham Smith (1910), we are now well acquainted with this insect, intimate knowledge of which was, until recently, curiously lacking.

The female fly lays about 120 eggs at each laying, and may produce four broods. Under ordinary conditions the eggs are mostly laid on horse, pig, or cow manure, but the excreta of almost any animal, or other fermenting refuse, suffices. The eggs are sausage-shaped with one end sharp, glistening white in colour, and about 1.5 mm. in length and 0.3 mm. in their greatest diameter. The eggs hatch in from three days to eight hours, according as the temperature ranges from 50° F. to 80° F. The larva is a little, active grub 2 mm. long, with a sharp anterior and blunt posterior end (Fig. 1). The larval stage lasts five days to

three weeks, according to temperature. At the time of pupation the grub is 6 to 9 mm. in length. Pupation lasts five days to a month, according to temperature. Thus the whole cycle from laying of egg to emergence of the fly occupies ten days to two months, according as the weather be warm or cold. Shortly after emergence from the chrysalis the young fly spreads its wings, which soon harden, and flies away in search of food. The young female is ready to lay its first batch of eggs in about ten days, or even sooner in warm weather.[5] During winter a few flies survive in warm and secluded places. In the spring these start the next year's supply. The possible progeny of one female fly from April to September have been estimated at 10[12]. Howard, of the United States Department of Agriculture, estimates that in forty days the descendants of one fly might number 12 million, or 800 lb. weight.

The only points in the structure of the fly it is essential to direct your attention to are the legs and feet and the general arrangement of the alimentary apparatus. These will be sufficiently obvious from the diagrams (Figs. 2 and 3). Please note that the feet are covered with minute hairs. The latter are, indeed, more numerous and finer than in the diagram, and extremely fine ones are also placed upon the pads (these are stated to secrete a sticky substance, by means of which the fly grips), the basal part of the claws, and the distal stiff hair which projects from the end of the last joint of the tarsus. Each leg is like a minute paint brush, which is applied to the surface of whatever it rests upon. When this is water the hairs do not appear to be wetted.



Fig. 2.



Fig. 3.

The essential parts of the alimentary canal are a gullet, stomach, crop, intestine and rectum. (See Fig. 3.) The gullet is prolonged to a minute opening between the flaps of the proboscis, halfway down which it is joined by the salivary duct. At the entrance to the stomach it is bifurcated, and one limb of the bifurcation is extended backwards to the bilobed crop. By a valvular apparatus at the entrance to the stomach, the insect can direct the liquid driven by the pump in its trunk into either the stomach or crop. The proboscis is a highly elastic muscular organ with universal movement. At the end are two flaps or labella (only one of which is shown), which it can open out like the leaves of a book, and apply the medial surfaces to the material it feeds upon. From the middle line or hinge minute chitinous channels pass outwards to the margin. These are seen in the diagram of the front view of the head of a fly (Fig. 4) in which the labella are shown opened out and facing forwards. These tubular structures are strengthened at frequent intervals by chitinous rings like a trachea, but are not complete tubes, being open to the surface by a minute linear channel with lateral bays in it. At the base of the trunk a number of muscle fibres are attached to the gullet by the peristaltic contraction of which fluid is pumped up from the mouth and propelled into the stomach or crop. The structural arrangement of the flaps of the trunk acts as a filter. Graham Smith (1911) is of opinion that solid objects larger than 0.006 mm. seldom pass into the gullet. According to Nicoll (1911) the ova of such tapeworms as do not exceed 0.035 mm. in their smallest diameter may be swallowed. These must therefore get into the mouth direct. When feeding on a liquid, the fly applies the labella to the surface, and sucks the liquid through the "strainer" first of all into the crop. When this is full some goes into the stomach. In the case of solid material such as sugar, dried blood or sputum, the insect must first dissolve the material. This is done by pouring saliva upon it or more generally by regurgitating some of the contents of the crop (Graham Smith, 1910).



Fig. 4.

Graham Smith (1910), by feeding experiments with coloured syrup, found that the meal was first taken into the crop, and subsequently transferred to the stomach at leisure. The fly could, however, first fill its crop and then its stomach. In a quarter of an hour the meal had passed on to the upper third of the intestine, and in a warm incubator at 37° C. reached the rectum within an hour. The fly seems to keep some of the fluid in its crop for days.

A well-fed fly deposits faeces abundantly. Graham Smith (1910) noticed flies to do this ten times in the first hour after feeding. A curious habit of flies, to which, so far as I know, attention was first drawn by Graham Smith, is the regurgitation of the contents of their crops. This has already been referred to as a means by which they are enabled to feed upon dry material soluble in water. They do this very frequently when walking over a clean glass, possibly with the idea of extracting nourishment from it. A fly, after a good meal, may often be seen blowing fluid bubbles from its trunk and sucking them in again, as in the diagram (Fig. 5), perhaps for practice.



Fig. 5.

From the above account it is clear that there are *a priori* reasons for suspecting the fly of carrying bacterial infection. Born in a dunghill, it spends its days flitting between the sugar basin, milk pan, and any faecal matter available. Its hairy, probably sticky, feet and the habit of regurgitating the contents of the crop and defaecating at frequent intervals suggests it to be an excellent inoculating agent for any bacteria it may pick up in the satisfaction of its unsavoury tastes.

That it does, indeed, operate in this way has been abundantly demonstrated. Flies which have wandered over cultures of organisms and afterwards been allowed to walk upon sterile agar plates leave a rich crop of germs as their footprints, which can be demonstrated by subsequent incubation. Castellani (1907) transferred yaws to monkeys in an analogous way.

The carriage of infection by the alimentary canal and its deposition by regurgitation or faeces has also been shown over and over again—Grassi (1883), Maddox (1885), Alessi (1888), Celli (1888), Sawtchenko (1892), Uffelmann (1892), Yersin (1894), Firth and Horrocks (1902), Manning (1902), Hayward (1904), Lord (1904), Chantemesse (1905), Buchanan (1907).

These modes are probably more important than the carriage of bacteria upon the exterior. Many pathogenic bacteria would soon die from desiccation on the appendages of the insect, and, at any rate, the number so conveyed is small compared to those contained in its crop and intestine.

Carriage within is certainly more lasting, for Graham Smith (1910), to whom we are indebted for the most

[5] ... be shorter or much longer under a wider ... that from which these records have been

thorough investigation of this subject, isolated typhoid and other bacilli from the intestinal contents of flies six days after feeding on material containing the organism under test. The faeces ceased to afford growths after two days when typhoid bacilli were the infecting organism used, but with a more robust organism, such as anthrax, which can protect itself from the effects of drying, the time was much longer.

The table below, taken from Dr. Graham Smith's report, summarizes the result of his experiments on the length of time after which various bacilli can be recovered from the outside and inside of flies fed on infected material. As the author is careful to point out, in these experiments gross infection was produced by feeding upon pure cultures, and they do not do more than indicate the duration of life of various pathogenic bacteria under favourable conditions.

Table showing the Longest Period after which Organisms were Recovered from Flies Fed on Cultures (Graham Smith).

Organism.	Legs.	Wings.	Head.	Crop.	Gut.	Faeces.
B. typhosus	—	—	—	—	6 days	2 days
B. enteritidis	7 days	—	7 days	8 days	7 days	—
B. tuberculosis (culture)	—	—	—	3 days	16 days	13 days
B. tuberculosis (sputum)	—	—	—	—	7 days	5 days
Yeast	2½ hrs.	2½ hrs.	2½ hrs.	2 days	3 days	2 days
B. diphtheriae	5 hrs.	5 hrs.	5 days	7 days	5 days	2 days
B. anthracis (no spores)	2 days	—	4 days	5 days	3 days	2 days
B. cholerae	30 hrs.	5 hrs.	5 hrs.	2 days	2 days	30 hrs.
B. prodigiosus	8 days	12 hrs.	11 days	5 days	17 days	6 days
Anthrax spores... ...	20 days	20 days	20 days	13 days	20 days	13 days

Cao (1906), Bacot (1911), Ledingham (1911), and Graham Smith (1911) have further shown that in the case of larvae fed on material infected with various organisms, *B. pyocyaneus*, *B. typhosus*, and *B. anthracis* respectively, the infection may be carried through the chrysalis stage and recovered from the contents of the intestine of the fly after its emergence. Fortunately, however, according to Ledingham, *B. typhosus* leads a precarious existence in competition with the natural bacterial flora of the larvae and pupae.

There are numerous recorded instances in which the pathogenic organisms of cholera, typhoid, phthisis, anthrax, and plague have been recovered from the interior or dejections of flies which have been captured in the immediate neighbourhood of cases of the disease or, in the last two cases, of carcasses of animals dead of the disease. Cholera vibrios were isolated from wild flies under these circumstances by Tizzoni and Cattani (1886), Simmons (1892), Tsuzuki (1904); typhoid bacilli by Hamilton (1903), Ficker (1903), Faichnie (on seven occasions) (1909), Bertarelli (1910), and Cochrane (1912); tubercle bacilli by Spillmann and Haushalter (1886), Hofmann (1888), Lord (1904), Hayward (1904), Cobb (1905), and Buchanan (1907); anthrax by Cao, and plague bacilli by Yersin (1894) and Hunter (1906).

The spread of ophthalmia in hot countries has, on good grounds, been attributed to the agency of flies in carrying the Koch-Weeks bacillus and the gonococcus from eye to eye—Budd (1862), Laveran (1880), Howe (1888), Axenfeld (1907). The seasonal and local prevalence of ophthalmia corresponds with that of flies, and a visit to Egypt during the fly season is sufficient to convince one that this must happen.

Are Flies the Determining Factor in Epidemics?

Although, however, flies may be discovered with the infection of a number of diseases in or upon them, and by their habits may not unlikely serve as agents in transferring infection, it by no means follows that they are the termining factor of epidemicity in the case of cholera hoid, dysentery, etc. In the case of fulminating epidemics of typhoid and cholera associated with an infected water supply this is obviously not so.

Flies in Relation to Typhoid Fever.

The conclusion that fly transmission is the principal means of spread of typhoid in military encampments and stations has been arrived at by a number of competent observers, amongst them Veeder (1898), Reed, Vaughan, and Shakespeare (1900), in their report on the origin and spread of typhoid fever in the United States military camps during the Spanish war of 1898, and by Tooth and Calverley (1901), Smith (1903), Purdy (1909), and Wanhill (quoted by Purdy).

The sanitary arrangements of a military camp are not exactly those of the Ritz Hotel, and the prevalence of flies in late summer can hardly be appreciated by those who have not had the experience. The conditions are most favourable for transmission by flies. The circumstantial evidence against them is so strong as to have left no doubt in the mind of the American Commission that these insects play a large share in disseminating infection, for page 28 of their general statement and conclusions reads thus: "Flies undoubtedly served as carriers of infection."

An estimate of the fly population and its relation to admissions of enteric was made by Ainsworth (1909) in Poona. The observations showed that enteric had a very definite season, commencing at the end of the hot dry weather with the onset of the rains, and reaching a maximum a few weeks after their cessation. The abundance of flies increased also soon after the beginning of the rains, but earlier than the admissions for enteric, and, speaking generally, the fly curve antedated that for enteric cases by about one month.

Taking into account the incubation period for the disease, this fact is in agreement with the view of a causal relation between cases and flies in Poona. The number of observations is unfortunately small.

In considering the possible influence of flies in the spread of typhoid in a well sewered city, it must be remembered that the opportunities for flies to pick up the infection are vastly less than under the conditions of a military encampment, or even in rural surroundings. In large cities, no doubt, dejecta and urine from patients may be left available to flies, but the bulk goes promptly into the main drain.

The discovery, in cities like London and Manchester, of the majority of cases of typhoid, and their removal to hospital before the period when the excreta contain large numbers of bacilli, must also greatly reduce the liability to the dissemination of the disease by flies. The typhoid-carriers, however, remain.

Dr. Niven (1910) has made observations upon the prevalence of flies in Manchester since 1904. Twelve to thirty-four bell traps were served out to the inhabitants of small dwellings in different quarters of the town and the catch collected every few days by his inspector. Data have thus been obtained which are sufficient to afford information as to the general time relationship between fly prevalence and the incidence both of enteric and infantile diarrhoea.

It must be remembered, however, that the number of flies entrapped in twelve or seventeen rooms indicates only in a general way the prevalence of these insects in a large city, so that too much significance must not be attached to other than the main features of the record.

On pages 62 to 69 of Dr. Niven's paper are plotted the numbers of cases of enteric (commencement) and the diarrhoea deaths for each week of the year from 1891 to 1908. Whilst the latter show well-marked rises during some ten to twelve weeks of the summer, the seasonal prevalence of the latter is not striking. Speaking generally, the typhoid season in Manchester is considerably later than the diarrhoea season, and the enteric cases reach a maximum in late autumn, at a time when most of the flies have already disappeared.

The census of flies commenced in 1904, and, for the years 1904–9, coincides fairly well in time with the diarrhoea deaths if these are antedated ten days to allow for the average period ensuing between commencement of the disease and death.

If we assume that the same close time relation existed throughout, the observations taken as a whole seem to me to lend little support to the view that typhoid in Manchester is to any material extent dependent upon transmission by flies.

The time relation of fly prevalence and typhoid cases was also studied in Washington during 1908 by Rosenau, Lumsden and Kartle (1909) in collaboration with Howard, Entomologist to the United States Department of Agriculture.

In Washington in 1908 the flies (*Musca domestica*) appeared in considerable numbers in April, and reached a maximum in July. During August and September they steadily diminished to about one-third, and rose again in October. The relation of the two curves was not such as to suggest that flies play much of a rôle in the transmission of typhoid fever in Washington.

In a subsequent report on typhoid fever in Washington Lennoden and Anderson (1911), from an analysis of the incidence of typhoid upon the population using privies or yard closets, discovered that the greater prevalence of typhoid among these persons during the summer coincided with the fly season.

Fig. 6 shows the time relation of fly prevalence to enteric fever notifications for London during 1908. The

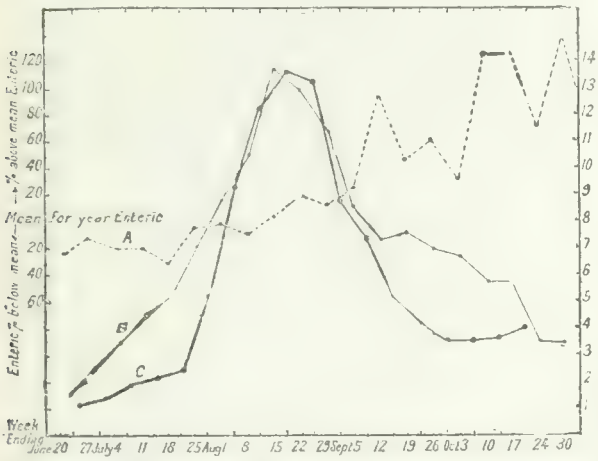


Fig. 6.—Relation in point of time between prevalence of flies, diarrhœa mortality, and cases of enteric fever, London, 1908. The deaths from diarrhœa have been antedated ten days; the cases of enteric notified have been antedated three weeks. A, Enteric cases. B, Flies caught per day ÷ 9,600. C, Diarrhœa deaths per week ÷ 20

data are taken from Dr. Hamer's (1909) observations giving the mean number of flies caught each day in 141 situations grouped around 9 centres. The observations being upon a larger scale, the sampling was presumably more representative of the fly population than the records in Manchester. I have antedated the records of the number of cases of enteric fever by three weeks—ten days for average lapse of time prior to notification, and eleven days for average incubation period. It will be seen that the number of cases of enteric fever rises steadily during the fly season, but that the rise continues independent of the fact that flies are rapidly diminishing, and reaches a maximum at a time when they have retired for the winter.

As regards seasonal incidence of typhoid fever, 1908 is fairly typical of what has occurred in London during the last twenty years. As the weather became warmer, the number of infections with typhoid increased, and was not cut short by the fall in temperature usually occurring in September, but reached a maximum in October and November—that is, at a time when there are hardly any flies about. Whether, as Dr. Niven believes, increased fly prevalence is a factor in determining the increasing incidence in Manchester and London at the end of the summer, it seems to me impossible to say, but, taking into account the circumstantial evidence against the fly, this may not unlikely be the case. It is clear, however, that other causes are operative, and that epidemics of typhoid occur in these cities in the absence of flies.

This is in striking contrast to the observations in military camps both during the Spanish-American war and the Boer war. In both these instances, with the onset of cooler weather and the first frosty nights, the nuisance from flies was at once relieved, and the cases of enteric diminished shortly afterwards.

Flies in Relation to Infantile Diarrhœa.

As the infective agent of infantile diarrhœa has not been identified, no direct evidence that flies do, on occasion, convey the germs of this disease is available. It is probable that more than one etiological factor for infantile diarrhœa exists. Different organisms have been found to be particularly prevalent in the stools in different epidemics in various localities. In America some of the epidemics have been associated with the presence of a dysentery bacillus (Flexner's bacillus) in the stools, Wollstein (1903), Park (1903), Duval and Schorer (1903), Cordes (1903), Weaver and Tunnicliffe (1905). In other epidemics (in America) no dysentery bacilli were found, and an epidemic in Vienna investigated by Jehle and Charleton (1905) was not found to be associated with dysentery bacilli. Metchnikoff (1909) is of opinion that *B. vulgare* is the causative organism.

A search for evidence of a causal agent was conducted on a large scale by Morgan (1906, 1907, 1909) and his colleagues of the Lister Institute during the epidemic in London in the years 1905, 1906, 1907, and 1908. The search was restricted to aërobic bacilli which neither fermented lactose nor liquefied gelatin—that is, to a group which includes the dysentery, typhoid and paratyphoid, and Gaertner bacilli. Stools and autopsy material were examined from several hundred cases of the disease and from other children. A very large number of organisms were isolated and examined, but the only one whose prevalence was found to be related to infantile diarrhœa was a non-motile bacillus of this group, which was peculiar in that it failed to ferment mannite and is now generally known as Morgan's bacillus No. 1. This organism was not infrequently recovered from the organs in fatal cases and produced diarrhœa when fed to monkeys and young rats. It was rarely encountered in children not suffering from acute diarrhœa.

Morgan's bacillus has been found in flies captured from houses in which cases of diarrhœa occurred, but until its causal relation to the human disease is proven too much significance cannot be attributed to these observations.

We are therefore entirely dependent upon epidemiological facts in testing whether the belief in the dominant influence of the house-fly upon the occurrence of epidemics of infantile diarrhœa, a view which has been warmly exposed by many excellent observers, is valid.

The Relations in Time between Cases of Diarrhœa and Prevalence of Flies.

Unlike the case of typhoid, which has just been discussed, epidemics of infantile diarrhœa in towns exhibit a close time-relation with fly prevalence. Epidemic diarrhœa of children does not occur except during that season of the year when flies are abundant and active, and, as will be seen on studying the charts, the relation between

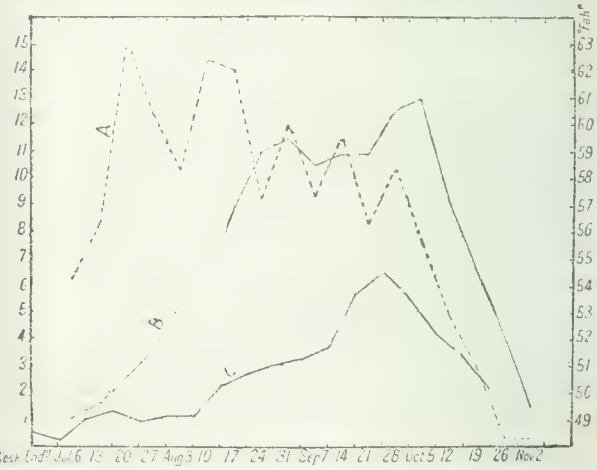


Fig. 7.—Dr. Hamer's observations on the relation in point of time between prevalence of flies and diarrhœa mortality in London, 1907 (165 fly-collecting centres). The deaths from diarrhœa have been antedated ten days. A, Weekly mean atmospheric temperature. B, Number of flies caught per day ÷ 10,000. C, Diarrhœa deaths per week ÷ 20.

fly population and diarrhœa cases is so striking as to suggest something more than a mere accidental dependence upon the same phenomena.

The charts, Figs. 7, 8, 9, 10, and 11, show the relation of diarrhœa and fly-prevalence in time. The three first are derived from Dr. Hamer's observations in London in 1907, 1908, and 1909. Figs. 10 and 11 are constructed from Dr. Niven's (1910) observations in Manchester in 1904 and

1906. I have selected these particular years from the Manchester data because they represent what happened in a warm summer in which the number of cases was considerable.

The charts have undergone some manipulation at my hands. I have antedated the deaths by ten days, which, according to Dr. Niven's observations, represents the average period intervening between onset and death. They ought no doubt to be antedated further to include the incubation period, but I have no data to determine what this should be. In the case of Dr.

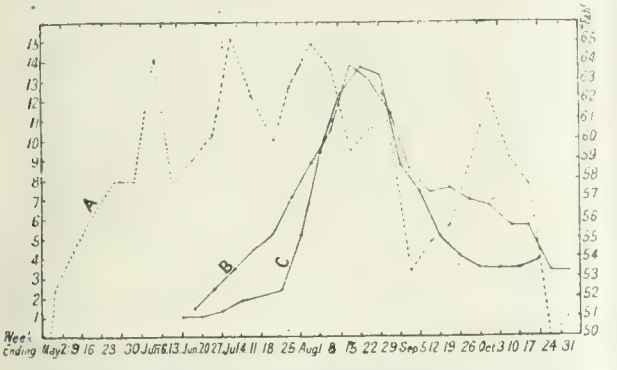


Fig. 8.—Dr. Hamer's observations on the relation in point of time between prevalence of flies and diarrhoea mortality in London, 1908. The deaths from diarrhoea have been antedated ten days. A, Mean atmospheric temperature for the week. B, Number of flies caught per week ÷ 9,600. C, Diarrhoea deaths per week ÷ 20.

Hamer's observations, I have summed his tri-weekly observations and plotted the fly-catch for the whole week. In this way I have eliminated most of the irregularities and obtained smoother curves. I have also added the weekly mean temperature for London for the period comprised by Dr. Hamer's observations, and (in Fig. 8) for about two months previously.

The procedure adopted by Drs. Niven and Hamer to obtain data regarding fly prevalence was common in all cases. The number of flies caught on sticky paper, or entrapped in a series of domestic dwellings, generally in

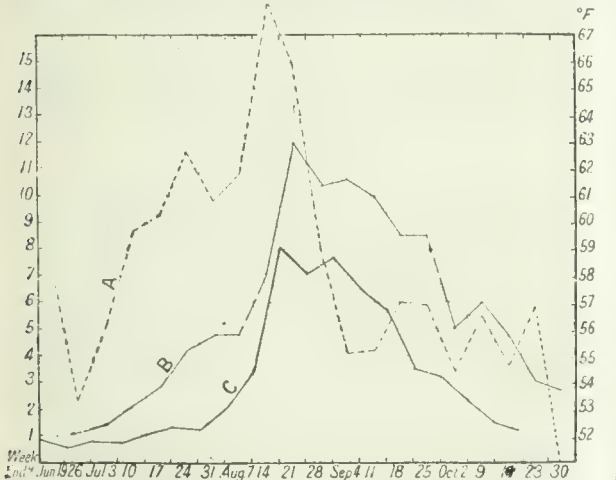


Fig. 9.—Dr. Hamer's observations on the relation in point of time between prevalence of flies and diarrhoea deaths, London, 19-9 (thirty-five fly-collecting stations). The deaths have been antedated ten days. A, Weekly mean temperature of atmosphere. B, Number of flies caught daily ÷ 2,500 (weekly mean) 4. C, Diarrhoea deaths weekly ÷ 20.

neighbourhoods inhabited by poor people, were recorded every two or three days. This estimate of the prevalence of flies, together with the deaths from diarrhoea, were then plotted as ordinates against weeks as abscissa. Dr. Niven's observations extend over five years, and refer to several districts in Manchester. Dr. Hamer's organization for the capture of flies was on a larger scale, and his observations were made at various parts of London during 1907 and 1908 and 1909, mostly in the neighbourhood of refuse and manure depôts, where flies are bred. Another excellent series of observations was made by Dr. Dudfield (1912) in Paddington during the summer of 1911. It concerns a smaller number of cases, but this enabled a more intensive study of many factors contributing to the epidemic to be made.

The first point brought out by all these observations is the dependence of both the number of flies and the epidemic upon the cumulative effect of previous warm weather—as, for instance, is indicated by the earth temperature 4 ft. below the surface, a fact to which attention was first drawn by Ballard (1889). The curve for flies rises first, followed soon by that for cases. The latter is longer in getting going; this is particularly marked in the

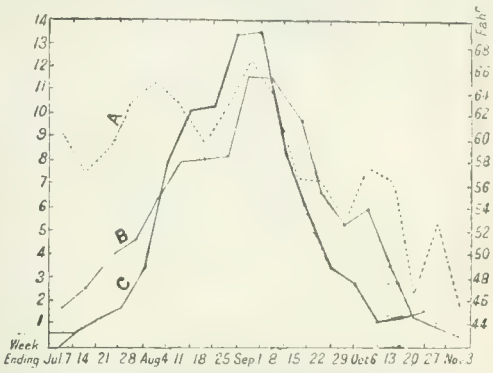


Fig. 10.—Dr. Niven's observations in Manchester, 1906. The deaths from diarrhoea are antedated ten days. A, Mean weekly temperature. B, Number of flies caught ÷ 2,000. C, Deaths from diarrhoea.

cool summer of 1907. Both flies and cases reach their maxima about the same time. In 1907 the number of cases is diminishing whilst flies are still on the increase. In 1908 and 1909 both curves decline together, but that for flies more gradually.

A notable feature of the curve is that the same fly population is accompanied by a rise in the number of cases in early August and with a fall in early September. This fact has been quite properly emphasized by the critics of those advocating the importance of flies.

If we propose to regard the time relations of fly prevalence and diarrhoea cases as more than an interesting

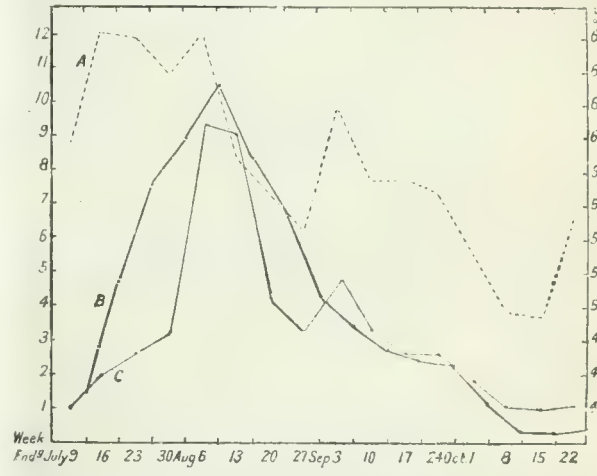


Fig. 11.—Dr. Niven's observations, Manchester, 1904. The deaths from diarrhoea have been antedated ten days. A, Mean weekly temperature. B, Deaths from diarrhoea ÷ 10. C, Number of flies caught ÷ 2,000.

coincidence, we must find a satisfactory explanation for the above facts. Let us consider for a moment how the dependence of diarrhoea epidemics upon the accumulated effect of temperature might be explained.

The reason why the number of flies should be dependent upon this factor is obviously because the generation time (cycle from egg to egg) is dependent on temperature and requires three weeks or upwards in our climate. Months of warm weather are therefore required to produce any multitude of flies from the few surviving the winter.

Why the epidemic should exhibit this dependence is not obvious. Not knowing the etiology of diarrhoea, we must assume some sort of infective agent. From analogy with

typhoid, cholera, acute food poisoning, and dysentery, we will suppose that we have to deal with some form of bacterium with which our aliments might become infected. In this case, would the dose of infection be dependent upon the accumulated effect of temperature during the previous three months? Assuredly not. The generation time of bacteria is so short—in the case of *Bacillus coli* it is one hour at 20° C. and half an hour at 30° C.—that the number present at any moment is to all intents and purposes dependent only upon the mean temperature during the last few days. To take a homely illustration, whether one's milk sours does not depend upon the temperature last month but last night.

Rate of Multiplication (Maximum Observed).

Days.	House-fly, August–September, 1907. Brighton.			*B. coli communis*, 20° C.
0	1 (Female).			1
	1st Gen.	2nd Gen.	3rd Gen.	
1	—	—	—	10^7 (10,000,000)
2	—	—	—	10^{14}
5	—	—	—	10^{35}
10	—	—	—	10^{70}
20	100	—	—	
30	100	—	—	10^{720}
40	100	5,000	—	
50	100	5,000	—	
60	—	5,000	125,000	10^{1440}
	Total		150,000	

In the accompanying table I have set out the rate of multiplication of *B. coli* at 20° C. and that of flies inside a house during a summer in England. You will observe that one female fly might under these conditions possess 150,000 progeny in sixty days, but the bacteria derived from one organism become innumerable in two days. Unless, therefore, the effect of two months' summer weather be to change the nature of the organism so as to enhance its virulence, it is quite impossible to account for this striking characteristic of the epidemic by chance contamination of food supply by pathogenic bacteria. In a state of innocence regarding the etiology of the disease, we have no means of knowing whether any such change in virulence occurs under the influence of continued warm weather, but it is just conceivable.

On the other hand, we have excellent *a priori* reasons for supposing that flies could transmit the infective agent of diarrhoea. Any one familiar with the domestic *ménage* of the average working man on a hot summer day, with the baby sick with diarrhoea and other small children to care for, must realize that the opportunities afforded for fly transmission are adequate enough.

It seems to me, therefore, that before abandoning the view that diarrhoea is a bacterial infection, or making the gratuitous assumption that a long spell of warm weather is necessary to awaken pathogenicity, one must carefully examine the adequacy of the view that the dependence of the epidemic on accumulated temperature is to be accounted for by the operation of this factor upon the means of transmission.

We will now see whether this interpretation fits the rest of the facts.

The greater steepness of the rise of the diarrhoea curve is consistent with this view, for at first the opportunities for a fly to transmit the infection are small, but as the cases increase opportunities increase likewise.

As has been pointed out by Hamer and Peters (loc. cit.), if variation in the number of fly transmitters of an infective agent existing in the stools of patients were the sole factors concerned, the curve for diarrhoea cases should shoot up beyond and come down later and more slowly than that representing the number of flies, because the opportunities afforded to flies to pick up the infective agent are increasing *pari passu* with the development of the epidemic. This is, however, not what happens. On the contrary, the epidemic is arrested while flies are numerous and declines more quickly than the fly population. We are therefore confronted with the question, What arrests the rise in the epidemic wave?

Exhaustion of susceptible material has been suggested. This obviously plays a part in every epidemic, and the observations of Peters (1910) in Mansfield, where, under similar conditions, in one section of the town the epidemic was nearly finished whilst in another it was beginning, afford a demonstration that it is a factor of importance. As, however, small epidemics in cool summers exhibit the same feature, this cannot be entirely responsible for the arrest.

Another factor which must be taken into account is the atmospheric temperature at the time. A glance at the charts (Figs. 7, 8, 9, 10, 11), in which the weekly mean temperature is also shown, suggests that this is playing an important part, for the decline of the epidemic occurs immediately upon a considerable drop in mean temperature, and a diminution of fly prevalence often follows shortly afterwards. The influence of atmospheric temperature appears to be more marked upon the number of infections than upon the number of flies. Whereas in London, 1908 and 1909, following shortly upon the colder weather, both curves drop in a remarkably similar fashion; in the small epidemic of 1907 the number of flies still remains up and even increasing, whilst the epidemic is rapidly disappearing. The same general facts emerge from the Manchester observations. We might invoke the assistance of coincident exhaustion of susceptible material or diminished activity of flies, although still numerically sufficient, in explanation of this. They may indeed be operative, but I think that a completely satisfactory interpretation of the above facts, and also of the fact that, with a given number of flies, the epidemic wave is ascending during the early weeks of an epidemic and subsiding a month or six weeks later, is afforded by taking into account the influence of the variations in atmospheric temperature upon the rate of multiplication of the infective agent. Regard for a moment (Fig. 8) the chart expressing the results of Dr. Hamer's observations in London, 1908. Take the weeks ending August 25th and September 12th, in which approximately the same number of flies were caught. The mean temperature for the former week was 62.6° F.; for the latter it was 54.8° F., and it had been down to 53° F.

The atmospheric temperature is a factor to which insufficient attention has been given, since the origin of the epidemic showed but small relation to it. It is capable, however, of explaining why the epidemic wave rises in August and falls in September, although the number of flies may be the same. Assuming, for the sake of argument, some form of bacterial infection is the etiological factor in infantile diarrhoea, it would be in accordance with general experience to suppose that the chance of infection is determined by the quantity of the infecting agent imbibed.

This will depend upon the multiplication which has taken place in the infected medium prior to ingestion; this, in turn, is a function of the temperature at which the milk or other foodstuff has been kept. The temperature coefficient of bacterial multiplication is not higher than that governing ordinary chemical processes—namely, two to three times for 10° C.—but as bacterial multiplication proceeds logarithmically a comparatively small change in rate is sufficient to produce a large difference in the number of organisms contained in, say, an infected milk, if an interval of some hours elapses between inoculation and drinking. Thus if N *Bacilli coli* be inoculated in milk at 60° F. and 70° F. respectively, the number after twelve hours will be 126 N and 4,000 N respectively.*

We have, then, two factors which may contribute in varying degree to the decline of the epidemic.

1. A fall in temperature diminishing (*a*) the activity and number of supposed transmitters, and (*b*) the dose of infection which the child ingests owing to the effect upon the rate of multiplication of the infective agent.

2. The exhaustion of the more susceptible individuals. Sometimes one, sometimes another of the above factors appears to predominate. For instance, we have the fact to

* For the observations on which this calculation is based, see Dr. Janet Lane-Claypon's paper, "Multiplication of Bacteria and the Influence of Temperature thereon," *Journ. of Hygiene*, ix (1909), p. 239.

which attention was drawn by Peters (1909), that in a much hotter climate, such as Australia, the epidemic often declines, notwithstanding the fact that the temperature may continue to rise for several weeks. In Fig. 12 below I have plotted from a paper by Stawell (1899) the monthly mean temperature and monthly diarrhoea mortality in Melbourne for the years 1895–96. In this city, where winter and summer succeed one another without the long intervening periods we have here, the epidemic lasts for six months instead of six weeks. It will be noticed that in 1895 the temperature continued to mount for two months after the summit of the epidemic. In Melbourne the decline cannot be due to diminished dose of the poison owing to slower rate of bacterial growth, but must be attributed to exhaustion of susceptible individuals or to the effect upon the presumed transmitting agents, the flies. In

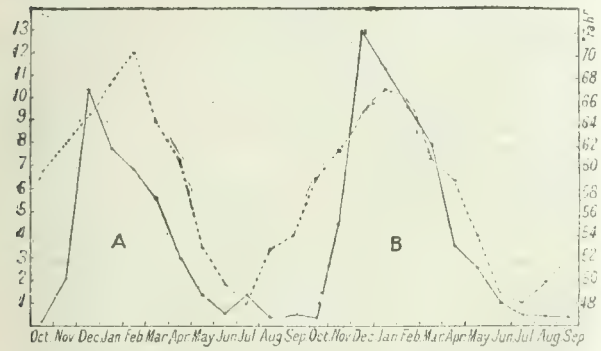


Fig. 12.—Diarrhoea mortality and mean monthly temperature, Melbourne, Australia. A, Summer, 1895–6. B, Summer, 1896–7.

the absence of definite quantitative observations I cannot speak dogmatically, but, as far as my memory serves me, I think the number of flies diminishes in Melbourne, as in Washington, during the hotter weather. A monthly mean temperature of 70° in Melbourne indicates that there were a good many days with a maximum shade temperature of over 100° F., which in that locality is associated with extremely dry north winds. Such meteorological conditions are very fatal to flies both in larval and imago stage. On hot-wind days flies have to seek shelter out of the sun, or they rapidly become desiccated. For the same reason they succumb on an exposed window pane, and large numbers of dead flies accumulate on the window frame.

The Relation of Fly Prevalence and Diarrhoea on Space.

No quantitative observations upon the relation between number of flies and the distribution of cases of infantile diarrhoea have, as far as I am aware, been made, but I may mention a few impressions by different observers for what they are worth. Nash (1909), who, whilst medical officer of health for Southend, made, during 1904, spot maps of the epidemic there, says: "The great majority of the deaths from diarrhoea were shown to have occurred in streets in proximity to brickfields, in which were deposited daily some thirty tons of fresh house refuse, which bred incalculable numbers of flies" directly the meteorological or seasonable conditions became favourable for their development.

Dr. Niven (1910, p. 45) is of opinion that the close correspondence between flies and cases of fatal diarrhoea receives a general support from the diarrhoea history of sanitary subdivisions of Manchester, and that the few facts available for the study of correspondence of flies and fatal cases in different subdivisions (Manchester) in the course of the same year also lends support. In his view no other explanation even approximately meets the case.

Peters (1910), in his very exhaustive study of the epidemic in Mansfield in 1908, paid especial attention to the possible part played by flies. From an analysis of his observations, he, I think justly, came to the conclusion that the evidence pointed to the fact that whatever part they might play as carriers from an infected household to a neighbour, flies did not bring infection with them from the manure heaps where they had been bred.

Peters constantly noted that the individual seemed to be a source of infection to the neighbours adjacent to the house within the precincts of which his excreta, if infectious, would most likely be deposited. This, he points out, could be most readily explained by the supposition that flies were the agents of dissemination of the infection, but from the frequent want of correspondence in different localities between numbers of flies and amount of diarrhoea, although not negativing it, gave no support to this view.

I doubt very much whether any evidence of great value could be obtained upon this point. Even supposing it to be true that fly-carriage is of first importance, I should expect that, if all the facts were known, a much higher correlation would be discovered between diarrhoea and carelessness with regard to disposal of excreta and protection of food from the visitation of flies, than between diarrhoea and fly prevalence.

Many of the facts which I have brought forward merely indicate some form of infective agent and do not necessitate recourse to the hypothesis that carriage by flies dominates the situation. I would point out, however, that—

1. The fly-carrier hypothesis is the only one which offers a satisfactory interpretation of the extraordinary dependence of the epidemic upon the accumulated effect of temperature.

2. That it offers a ready explanation of the spread of infection to neighbouring children who have no direct personal contact with the patient.

3. That the peculiarities of the relation in time between fly prevalence and the epidemic in different localities are not inconsistent with the view that fly-carriage is essential to epidemicity. No other interpretation which is at present forthcoming is nearly so satisfactory, and it is at least worthy to guide in the meantime our efforts at prevention.

BIBLIOGRAPHY.

Ainsworth (1909): The House-fly as a Disease Carrier. *Journ. Roy. Army Med. Corps*, xii, p. 485.

Aldridge (1908): House-flies as Carriers of Typhoid Infection. *Journ. Trop. Med.*, xi, p. 303; *Journ. Roy. Army Med. Corps*, x, p. 135.

Alessi (1888): *Arch. per le Scienze med.*, xii, p. 279 (quoted by Galli-Valerio, 1910).

Axenfeld (1907): *Die Bakteriologie in der Augenheilkunde*. Jena, 1907.

Bacot (1911): The Persistence of *B. pyocyaneus* in Pupae and Imagines of *Musca domestica*. *Parasitology*, iv., p. 67.

Ballard (1889): Diarrhoea and Diphtheria. Supplement to Report of the Medical Officer of the Local Government Board (1887).

Bertarelli (1910): Verbreitung des Typhus durch die Fliegen. *Centralbl. f. Bakt.*, I. Orig., liii, p. 486.

Buchanan (1907): Carriage of Infection by Flies. *Lancet*, ii, p. 216.

Budd (1862): Observations on the Occurrence of Malignant Pustule in England. *Lancet*, ii, p. 164.

Cao, G. (1906): Sul passagio dei germi a traverso le larve di alcuni insetti. *Ann. d'Igiene sper.*, xvi, p. 645.

Castellani (1907): Experimental Investigations on Framboesia tropica (Yaws). *Journ. Hyg.*, vii, p. 568.

Celli (1888): Transmissibilita dei germi patogeni mediante le dejezione delle mosche. *Bull. Soc. Lancisiana d. ospedali di Roma*, fasc. i, p. 1.

Chantemesse (1905): Cholera and Flies. Report of meeting of Acad. Méd. de Paris; review in *Med. Record*, lxviii, p. 989.

Cobb (1905): Is the Common House-fly a Factor in the Spread of Tuberculosis? *Amer. Med.*, ix, p. 475.

Cochrane (1912): A Small Epidemic of Typhoid Fever in connexion with Specifically Infected Flies. *Journ. Roy. Army Med. Corps*, xviii, p. 271.

Cordes (1905): Results of the Examination of 51 Cases of Gastro-intestinal Disturbance in Infants. *Proc. New York Path. Soc.*, vol. iii, p. 147.

Dudfield (1912): Diarrhoea in 1911. *Proc. Roy. Soc. Med.*, v, Epidem. Section, p. 99.

Duval and Schorer (1905): Results of the Examination of 79 Cases of Summer Diarrhoea. *Proc. New York Path. Soc.*, iii, p. 144.

Fairchild (1909): Fly-borne Enteric Fever and Source of Infection. *Journ. Roy. Army Med. Corps*, xiii, p. 580.

Ficker (1903): Typhus und Fliegen. *Arch. Hyg.*, xlvi, p. 274.

Firth and Horrocks (1902). Inquiry into the Influence of Soil, etc., in Dissemination of Enteric Infection. BRITISH MEDICAL JOURNAL, ii, p. 936.

Galli-Valerio (1910): Etat actuel de nos connaissances sur le rôle des mouches dans la dissémination des maladies parasitaires, etc. *Centralbl. f. Bakt.*, Orig., lv, p. 193.

Graham-Smith (1910): Observations in the Ways, etc., Flies Carry and Distribute Pathogenic Bacteria. Local Government Board Reports, N.S., No. 53.

Graham-Smith (1911): Some Observations, etc., on the Blow-fly. *Journ. of Hyg.*, 1911, xi, p. 390.

Graham-Smith (1911): Further Observations on the Ways in which Artificially Infected Flies Carry and Distribute Pathogenic and other Bacteria. Reports of the Local Government Board on Public Health and Medical Subjects, No. 53.

Grassi (1883): *Gazzetta d. Ospedali*, No. 59, 1883 (quoted by Galli-Valerio, 1910).

Griffith (1908): Life-History of House-flies. Public Health Reports, p. 122.

Hamer (1908, 1909, and 1910): Nuisance from Flies. Reports of the Public Health Committee of the London County Council, 1908, 1909, and 1910, Appendices.

Hamilton (1905): The Fly as a Carrier of Typhoid, etc. *Journ. Amer. Med. Assoc.*, ii.

Hayward (1904): The Fly as a Carrier of Tuberculous Infection. *New York Med. Journ.*, lxxx, p. 613.

Hewitt (1907): Structure, Development, and Bionomics of the House-fly. *Quart Journ. Med. Sci.*, li, part 3.
Hewitt (1910): *The House-fly: A Study of its Structure, etc.* Manchester: The University Press.
Hofmann (1888): Ueber die Verbreitung der Tuberkulose durch Stubenfliegen. *Correspondenzbl. aerztl. Kreis. u. Bezirksver. in Koenigsr. Sachsen.*, xliv, p. 130.
Howard (1912): *The House-fly, Disease Carrier.* London: John Murray. 1912.
Howe (1888): Egyptian Ophthalmia. Seventh Internat. Congr. Ophthalmology. Wiesbaden: Becker and Hess. P. 325.
Hunter (1906): The Spread of Infection by Insects. *Cent. f. Bakt.*, Orig., Bd. xl, p. 43.
Jeble and Charleton (1905): Ueber epidem. u. spor. Ruhr in Kindesalter. *Zeit. f. Heilk. Abt. int. Med.*, xxvi, p. 402.
Klinger (1909): Epidemiologische Beobachtungen bei der Typhusbekämpfung in Sudwesten des Reiches. *Arb. a. d. Kais. Gesundheitsamte*, xxx, p. 584.
Laveran (1880). Contribution à l'étude du bouton de Biskra. *Ann. dermatol.*, 2 ser. I. p. 173.
Ledingham (1911): On the Survival of Specific Micro-organisms in Pupae and Imagines of *Musca domestica*, etc. *Journ. Hyg.*, xi, p. 355.
Lord (1904): Flies and Tuberculosis. *Boston Med. and Surg. Journ.*, cli, p. 651.
Lowne (1890-92): *The Anatomy, etc., of the Blow-fly.* London: R. H. Porter, 18, Princes Street, Cavendish Square.
Lumsden and Anderson (1911): Report No. 4 on the Origin and Prevalence of Typhoid Fever in the District of Columbia. Bull. No. 78 Hyg. Lab. U.S. Pub. Health and Mar. Hosp. Service, Washington, p. 161.
Maddox (1885): Experiments on Feeding Insects with Comma Bacillus, etc. *Journ. Roy. Microsc. Soc.*, ser. 2, v, p. 662 and p. 941.
Manning (1902): A Preliminary Report on Transmission of Pathogenic Germs by the Common House-fly. *Journ. Amer. Med. Assoc.*, xxxviii, p. 1291.
Metchnikoff (1909): *Semaine Médicale*, p. 361, 1909.
Morgan (1906): Bacteriology of Summer Diarrhoea in Infants. BRITISH MEDICAL JOURNAL, April 21st, 1906, vol. i, p. 908.
Morgan (1907): Loc. cit., vol. ii, 1907, p. 16.
Morgan and Ledingham (1909): Bacteriology of Summer Diarrhoea. *Proc. Roy. Soc. Med.*, Epidem. Section, March, 1909.
Nash (1909): House-flies as Carriers of Disease. *Journ. Hygiene*, ix, p. 255.
Newstead (1907): Preliminary Report, etc., of the Common House-fly as Observed in the City of Liverpool. Liverpool: C. Tinling and Co., Limited.
Newstead (1909): Second Interim Report.
Nicoll (1911): Part played by Flies in the Dispersal of the Eggs of Parasitic Worms. Report of the Local Government Board on Public Health and Medical Subjects. N.S., No. 5, 1911.
Niven (1906): Annual Report of the Medical Officer of Health for Manchester, p. 262.
Niven (1910): House-fly in Relation to Summer Diarrhoea and Enteric Fever. *Proc. Roy. Soc. Med.*, April, 1910, iii.
Nuttall, G. H. F. (1897): Zur Aufklärung der Rolle welche die Insekten bei der Verbreitung der Pest spielen. *Cent. f. Bakt.*, Orig., xxii, p. 87.
Park, Collins and Goodwin (1903): Results of an Investigation upon the Etiology of Dysentery and Acute Diarrhoea. *Proc. New York Path. Soc.*, N.S. III, p. 148.
Peters (1909): Season and Disease. *Proc. Roy. Soc. Med.*, Epidem. Sec., vol. ii, part 2, p. 1.
Peters (1910): Observations upon the Natural History of Epidemic Diarrhoea. *Journ. Hyg.*, x, p. 602.
Purdy (1909): Flies and Fleas as Factors in the Dissemination of Disease. *Journ. Roy. San. Inst.*, xxx, p. 496.
Reed, Vaughan, and Shakespeare (1900): Report on the Origin and Spread of Typhoid in the U.S. Military Camps during the Spanish War, 1898. Abstr. of Report, Washington Gov. Printing Office, 1900.
Rosenau, Lumsden, and Kastle (1909): Report No. 3 on Origin and Prevalence of Typhoid Fever in the District of Columbia. Bull. No. 52, Hyg. Lab. U.S. Pub. Health and Mar. Hosp. Service. Washington, p. 39.
Sawtchenko (1892): Le rôle des mouches dans la propagation de l'épidémie cholérique. *Vratch* (St Petersburg) rev. in *Ann. Pasteur*, vol. vii, p. 222.
Simmonds (1892): Fliegen und Cholerauebertragung. *Deut. med. Woch.*, p. 931.
Smith (1905): Municipal Sewerage. *Journ. Trop. Med.*, vi.
Spillmann and Haushalter (1886): *Comp. Rend. Acad. Sci.*, cv, p. 352.
Stawell (1899): Summer Diarrhoea. *Intercol. Med. Journ. of Australasia*, March, 1899.
Tizzoni and Cattani (1886): Untersuchungen ueber Cholera. *Cent. f. d. med. Wissensch.*, Berlin, p. 769, 1886
Tooth and Calverley (1901): In a Civilian War Hospital, etc., in S. Africa: Work by the Professional Staff. London: John Murray.
Tsuzuki (1904): Ber. ueber meine epidem. Beobachtungen, etc., im Jahre 1902. *Arch. f. Schiff's u. Tropenhyg.*, viii, p. 71.
Uffelmann (1892): Beitr. zur Biol. des Cholerabacillus. *Berl. klin. Woch.*, p. 1213.
Veeder (1898): Flies as Spreaders of Disease in Camps. *New York Medical Record*, p. 429.
Weaver Tunnicliffe, Heinemann, and Michael (1905): Summer Diarrhœa in Infants. *Journ. Infec. Diseases*, vol. i, p. 70.
Wollstein (1903): The Dysentery Bacillus in a Series of Cases of Infantile Diarrhoea. *Journ. Med. Res.*, x, p. 11.
Yersin (1894): La peste bubonique à Hongkong. *Ann. de l'Inst. Pasteur*, vol. viii, p. 662.

THE Swiss Society for the Scientific Study of Tuberculosis will hold its first meeting at Lausanne on January 18th and 19th. The society has eighty-eight members.

BY way of promoting *esprit de corps* among those who are still nominally serving, or have served, in the civil medical departments of the West African Colonies, two dinners are annually held, one in the summer, one in the winter. The next winter gathering is to take place at the Grand Hotel, Charing Cross, on January 15th, its official title being the dinner of the West African Medical Staff. The honorary secretary is Dr. J. P. Fagan, 27, Scarsdale Villas, Kensington, to whom early application for tickets should be made.

An Address
ON
GALL STONES.*

BY
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ONE of the most interesting advances made in recent years by the intrepid surgeon into the dim territory of abdominal afflictions was that which disclosed to us the frequency, the symptoms, and the appropriate modes of treatment of cholelithiasis. In this direction, as in so many others, the new vision which has come from a study of the pathology of the living has compelled us to re-arrange our ideas and to adjust them in accordance with the different modes of examination which can now be conducted in all the various stages of this disease.

It is now a matter of general acceptance that gall stones are caused by an infection which, having its origin, or at least its refuge, in some part of the alimentary canal, reaches the liver either by way of the blood stream or ascends to it through the common bile duct. Lartigau has shown that the organisms carried to the liver by the portal vein are generally destroyed by the liver's action; but that when from any cause the number or the virulence of the micro-organisms is increased, some may well escape in the bile and find a lodgement within the gall bladder. As soon as any bacteria which have escaped with their lives from the liver reach the gall bladder they begin to act as a menace to the welfare of the patient. The economy, therefore, exerts the protective influence which it seems here also to possess. When a needle intrudes into the knee-joint it is covered over by a plastic exudation and converted into a "loose body." When a bullet is embedded in the soft parts, or in the chest or abdomen, it is wrapped up securely in a coating of fibrous tissue. When a hairpin or a catheter lies in the bladder it is surrounded by salts normally present in the urine, which crystallize out probably in an effort to render the intruder harmless. So in the gall bladder, when germs which have perhaps undergone the process of "clumping" find lodgement there, they are safely immured in a covering of salts, cholesterin in whole or in part, or bilirubin calcium, with the purpose, no doubt, of rendering them inert and of destroying them. Indeed, every gall stone is a tombstone erected to the evil memory of the germ that lies dead within it. Among the organisms which perish in this manner, the bacillus of typhoid, the colon bacillus, and the pneumococcus, which I have on several occasions recovered from the bile, appear to be the most frequent.

It is true that stones, as in cases of cirrhosis of the liver, may be formed within the intrahepatic or hepatic ducts. But such cases are of merely pathological importance. In all cases of cholelithiasis which come for surgical treatment it would appear to be quite certain that the stones have formed within the gall bladder. When calculi are found in the hepatic duct, the common bile duct or the ampulla of Vater, the gall bladder itself may be void of stones. Yet the stones which are removed bear clearly the traces of having been formed within the gall bladder, from which long ago or recently they have migrated. As soon as stones are once formed within the gall bladder symptoms begin to assert themselves. In medicine fallacies die hard, but rarely is one so tenacious of life as that ancient one which expresses the view that in a great majority of cases gall stones do not give rise to symptoms. In all my experience I have only twice met with a case in which an attack of "hepatic colic" was the first indication of the presence of a stone. Indeed, in those rare cases in which the diagnosis admits of doubt, the presence or absence of what I have described as the "inaugural symptoms" of gall-stone disease may nearly decide the question. The description of these symptoms, which I gave some years ago, has been corroborated by other writers—Sherren, Mayo, and more recently by Grube and Graft in their little work on gall-stone disease (see also Rolleston, our first authority, *Diseases of Liver*, etc., second edition).

* Abstract of a paper read before the Halifax Medical Society.

By the great majority of patients the word "indigestion" is vaguely and variously used to indicate all the several forms of distress which are the forerunners of a crisis of acute biliary colic. The very great majority of medical writers, when dealing with the topic "indigestion" or "dyspepsia," assert that in a large proportion of such cases the symptom owes its origin to "functional" causes, and that it is not dependent upon any structural change in the abdominal organs. Again it is said, when the question of cholelithiasis is considered, that only a very small number of those patients who carry stones in the gall bladder suffer from troubles caused thereby. No one seems to have correlated the two statements, or to have shown how the error in one is explained by the error in the other. The truth is that a very large number of patients—probably, indeed, a large majority—who have suffered for years from "gastric" disorders have no organic disease in the organ impugned, but have a real structural disease in other parts, notably the gall bladder or the appendix. Nothing is more remarkable in connexion with the surgical investigation of dyspepsia than the progressive broadening of the organic bases upon which the clinical symptoms are found to be built. It is the stomach, whose sensibilities are tender, that cries out the warning when other organs are suffering attack.

The symptom "dyspepsia" or "gastralgia" may be due, it is now known, to structural diseases, not in the stomach alone, but also, indeed chiefly, in the gall bladder, duodenum, appendix, or any part of the intestinal canal.

The "inaugural symptoms" of gall stones may very briefly be recapitulated here. The patient complains of a fullness, weight, and distension, or oppression in the epigastrium coming on soon after meals, within half or three quarters of an hour, relieved by belching, and dismissed almost on the instant by vomiting, elicited with remarkable constancy by certain articles of diet, especially those of a "greasy" nature, and dependent rather upon the quality than upon the quantity of the food. There is a sensation of great tightness, which if unrelieved may become acute pain, from which the patient obtains ease by bending the body forwards, by flexing the right thigh on the abdomen, or by loosening all garments which fit tightly to the waist. There is frequently great complaint of "acidity" or heartburn, and in the act of belching there may be sour or acid regurgitation. While the discomfort lasts the patient may notice a "catch" in his breath, and he finds, perhaps, that it is impossible to breathe deeply without feeling an acute stabbing pain at the right costal margin. There may be a feeling of faintness and nausea, and, rarely, vomiting may occur spontaneously. After a more than usually severe attack of "indigestion" the body and side may feel stiff for several days. A frequent and a very characteristic early symptom of cholelithiasis is the occurrence during an attack of indigestion of a slight sensation of chilliness, especially in the evenings after a meal. The patient may shiver for several minutes, and may hasten from the table to huddle over a fire. The sensation of "goose flesh" is often experienced, and several medical men upon whom I have operated have said that in the severer phase it was not unlike a very slight rigor, the chilly stage being quickly followed by one in which the body feels hot and the skin begins to act freely.

Such are the symptoms which may be present for months or even for years before a sudden and dramatic attack of acute pain, perhaps amounting to agony, occurs, as the result of a disarrangement of the stones, or of an attempt on the part of one stone to escape from the gall bladder. The cause of attacks of pain in gall stones is always primarily mechanical; inflammatory attacks, due to infection, are the results of the movements and impactions of the calculi. Among the commonest of all causes of attacks of "biliary colic" is the impaction of a stone in the "pelvis" of the gall bladder, close to or actually at the orifice of the cystic duct. The patency of the cystic duct is all-important. As Keith has said, the valves of Heister, made by an infolding of the mucosa in spiral form, are designed for the purpose of keeping the duct open. The gall bladder acts not as a reservoir of bile—it is too small for that purpose, holding only the amount of bile which can be excreted in an hour and a half or two hours—but as a controller or regulator of the steady supply delivered on demand into the duodenum. It is very essential, therefore, that the cystic duct should be kept open to the free flow of bile in and out of the gall bladder. So soon as this is arrested, so soon does pain begin. The symptoms caused by the impaction of a stone in the cystic duct are quite characteristic. There is probably a sense of gastric uneasiness, with flatulence, belching, and a sense of distension, as is so often the case in the cholelithic patient after meals. Quite suddenly, however, often with onset as instant as if he were stabbed, the patient is seized with the most acute pain, felt across the epigastrium, often more on one side than the other, and nearly always through to the back, near the tip of the right shoulder. The agony may be terrific, and the patient may reach the very limit of human endurance. He is infinitely restless, and in this differs from the rigid and motionless patient, who has suffered the perforation of a gastric or duodenal ulcer. He is moaning and moving without pause, pressing the body with one hand or both, or bending over a chair or clutching a hot bottle to the abdomen. He sweats and yet feels cold and clammy. He breathes with difficulty, owing to a spasm of the diaphragm, which, like the other abdominal muscles, is tightly contracted to form that firm muscular splint whose purpose it is to keep at rest and free from harm a lesion in need of protection. Nausea, and nearly always vomiting, occur, and vomiting may cause relief, probably by reason of the muscular relaxation which it induces. Very often the pain disappears with absolute abruptness. One moment the patient writhes in agony, the next he smiles in relief. The instant beginning and the instant cessation are characteristic of cystic duct obstruction—they never occur in any other form of gall-stone obstruction with anything like the same precision. The pain is almost always referred to the back, and Boas's sign can often be elicited in and after a seizure. If an attack last for some hours, the distended, tense, and tender gall bladder may be felt. It is often exquisitely sensitive, and may remain so for many days. The importance of tenderness along the lower border of the liver in cholelithiasis was first indicated by Naunyn, who wrote that, in patients who have recently suffered from an attack of colic, "pain is induced when, during a deep inspiration, pressure is made with the hand as far upwards as possible beneath the right costal border. At the moment when the liver impinges upon the tips of the fingers the patient experiences a deep-seated pain."

Dr. J. B. Murphy, one of the greatest of surgeons in a country prolific in the production of surgeons of the first rank, has emphasized the same truth: "The most characteristic and constant sign of gall-bladder hypersensitiveness is the inability of the patient to take a full inspiration when the physician's fingers are hooked up deep beneath the right costal arch below the hepatic margin. The diaphragm forces the liver down until the sensitive gall bladder suddenly reaches the examining fingers, when the inspiration suddenly ceases, as though it had been shut off. I have never found this sign absent in a case of calculus or in infectious cases of gall bladder or duct."

My friend, Mr. Jordan Lloyd, many years ago, called attention to the importance, as a diagnostic sign in cases of renal calculus, of a "jab' suddenly made with the thumb in the ilio-costal space. If a stone lies in the kidney this sudden assault causes a sharp stab of pain. Similarly he has found that a "jab" beneath the costal arch opposite the ninth cartilage, or the striking of the abdominal wall below the ribs with the inner border of the hand, causes a sharp stab of pain when stones lie within the gall bladder.

My own experience does not lead me to attach much importance to these signs unless there has been a quite recent attack of colic. I have repeatedly failed to find any physical evidence of any kind in cases where a day or two later many stones were found in the gall bladder. In the presence of these signs we may therefore safely rely upon their value—their absence signifies nothing.

These symptoms are all doubtless due to the impaction and release of a stone at a point so close to the entrance to the cystic duct as to cause obstruction to the free ebb and flow of bile. If the stone should not fall back into the bladder then it may be tightly and permanently wedged, or it may at last work loose. If it is firmly and immovably fixed in the duct, one of two conditions may develop:

(a) The gall bladder may become distended with clear fluid, with the result that a condition of "hydrops"

develops. So large may a gall bladder be in such circumstances that a diagnosis of ovarian or parovarian cyst may seem well founded. The largest gall bladders recorded contained over five gallons of fluid (Terrier) and three gallons (F. W. Collinson), and even so alert a surgeon as Lawson Tait operated upon a "parovarian" cyst to find that its pedicle was the cystic duct containing a small calculus.

(*b*) The gall bladder, probably after trivial and temporary distension, begins to contract, and eventually closely embraces the single large stone, or the many stones that lie within it, until all trace of a cavity disappears; the cystic duct remains completely and permanently closed, and the patient has been submitted to what Rutherford Morison calls "Nature's cure" by the rude performance of intraperitoneal cholecystectomy. In such cases the "cure" is not always permanent. Infections arise, new symptoms develop, and an operation has to be performed. It is invariable then to find so large a dilatation of the common duct as to lead to the belief that a stone lies within it.

Whatever the function of the gall bladder may be, its loss results in a considerable distension of the common and hepatic ducts. If the stone which for a time has been closely gripped by the walls of the cystic duct at last works loose, it may lie in a fusiform dilatation of the canal, in a cavity communicating by a niggardly opening on the one side with the gall bladder, and on the other with the common duct. In such cases typical symptoms may be present. There are, briefly, the occurrence of many slight attacks of colic within a brief compass of time. Two or three attacks may appear in one week—attacks beginning quickly, and ending quickly, and of no great degree of severity. The pain is felt in all the upper abdomen, and passes round to the back. There is no chilliness, and no jaundice, and no loss of flesh. The frequent repetition of mild attacks of colic indicates that a stone is loosely impacted, either in the cystic or in the common duct. If in the cystic duct, the symptoms are those indicated above; if in the common duct, the attacks are milder, the pain is restricted to the epigastrium, it occurs more frequently, and is attended by chilliness and possibly a very slight rigor; wasting is almost invariable. Jaundice is commonly absent in both forms. This form of arrest in the progress of a stone is far more frequent in the common than in the cystic duct, so that when many slight attacks of colic occur within a brief space of time, it is very probable that a small stone is loosely impacted in the common bile duct. The absence of jaundice in such a case is of no diagnostic importance, for I find that in almost exactly 25 per cent. of the patients from whose common ducts stones are removed there is not at the time of operation, nor has there ever been in the history of the case, any appearance of jaundice.

When the presence of stones within the gall bladder has been recognized, what is the treatment to be adopted? There is, of course, no medical treatment of gall stones. Nothing that can be wrought by drugs will have any effect in dissolving stones. That is, I suppose, universally admitted. All that is claimed for the treatment at the various spas is that the stones are rendered "latent," and that the patient can bear them for years or months without suffering. Whatever "latency" may be invoked in respect of the clinical declarations of gall stones, there is certainly none attaching to their pathological manifestations. When patients are operated upon after undergoing one or more "cures" extending over several years, it is at once evident that, though symptoms have been kept in subjection, insidious morbid changes have been steadily progressing, changes which may involve the gall bladder, the liver, the duodenum or stomach, or the pancreas; and of these the last is certainly not the least serious. I hold that when once a diagnosis of gall stones has been made operation is always indicated unless there are grave reasons forbidding resort to surgery. Reasons should not be asked to support a plea for operation, but to justify any other course than this. For surgical treatment, all things considered, is far safer than medical treatment; it is curative, not palliative; it is permanent, not temporary. All of us, I hope, read Montaigne's essays, the epitome of human wisdom. Many of the years of Montaigne's life were made wretched by a stone in the bladder, for which in his day nothing but medical treatment could be considered. No one nowadays treats a vesical calculus by other procedures than operation, preferably lithotrity. Yet one still hears a voice raised against the surgical treatment of stones in the gall bladder, though these can be recognized almost as certainly as vesical calculi, though they give rise to suffering equally terrible, though their consequences are at least as serious, though they can be removed with greater safety, and though the chances of recurrence are far less.

There are few problems that have so vexed the minds of surgeons as that concerned with the relative merits of cholecystotomy and cholecystectomy. In surgical controversy it is often heat that is engendered rather than light. At the moment there seems to be an international diversity of opinion upon this subject. The surgeons of America and of England lean towards cholecystotomy; the surgeons on the Continent of Europe, swayed by the powerful influence of Kehr, incline to the routine removal of the gall bladder and the drainage of the hepatic duct. The ideals are different, I believe, because the material is different. Our view is that the diagnosis of gall stones, after a due study of "inaugural symptoms," can be achieved in an early stage of the disease, that the gall bladder is then but little affected, its musculature is almost or quite unimpaired, and the cystic duct remains patent. We hold that when such a gall bladder is opened, relieved of its stones and deprived of its infection by drainage, it may confidently be expected to return to its normal condition and to perform its functions as well as ever. We hold, too, that there are occasions, fortunately very rare, upon which the presence of the gall bladder is almost essential to life or to health; as for example in cases where, owing to a stricture of the common duct, or to a chronic inflammation of the pancreas, it is necessary to find another passage for the bile to the intestinal canal.

The Continental view seems to be that the early recognition of gall stones is not yet possible, that when a diagnosis of gall stones has been made, operation should be reserved for cases in which the cystic duct is blocked, and a hydrops or empyema has developed; for cases of the recurring cholecystitis; or for cases where there is a chronic occlusion of the common duct. In such cases it is held the gall bladder should be removed and the hepatic duct drained.

If the former view be adopted operations will be more numerous, but each operation will be simpler in character, convalescence will be quicker, the death-rate lower, and the complete and permanent recovery more frequent. I am therefore an advocate of the superior claims of cholecystotomy. But in practice I find that I am compelled still to remove the gall bladder with a frequency far greater than I desire.

It is difficult to give the exact reasons which decide one during the conduct of an operation to remove or to empty and drain the gall bladder. Briefly, it may be said that where the capacity and the musculature of the gall bladder are unimpaired, and the patency of the cystic duct remains, the gall bladder should not be removed. Where the walls of the gall bladder are so modified by disease that neither the storage nor the expulsion of bile is possible, and where the canal through which the bile is emptied is in any degree obstructed, the gall bladder, being always useless and often a source of danger or discomfort, should be taken away.

To this general rule, apparently so simple, there are, however, some exceptions. The most important of these concerns the cases in which a stone, usually a solitary stone, has been for some little time engaged in the orifice of the cystic duct. Such a stone, either by reason of the constant pressure which it exerts, or of the fretting of the mucosa which it may cause, is often responsible for the production of an ulcer. Such ulcers are often seen within the gall bladder, in the pelvis, or at the entrance to the cystic duct, when the parts are examined after the operation of cholecystectomy. If such an ulcer forms it tends to heal after the stone which caused it has been removed. In or after healing there must be some contraction of the scar, and the result is the formation of a stricture in the duct. In such a case there is a "recurrence of symptoms" a few months after the operation, and very great and most natural disappointment. The symptoms and the signs which result from a stenosis of the cystic duct are in most cases hardly to be distinguished

from those aroused by a stone. About 10 per cent. of the operations I perform upon the biliary system are secondary—that is to say, a previous operation has been performed with little or no relief. One of the common causes calling for a second operation is the existence of this tight stricture near the orifice of the duct. It is therefore better at the primary operation to remove a gall bladder when a stone is so tightly driven into the cystic duct that it cannot easily be dislodged. As I have said, such a stone is often solitary, and is made up almost entirely of cholesterin, the crystals of which are arranged along lines radiating from the centre to the circumference. Such stones (radiarer cholesterinstein), according to Aschoff and Bacmeister, own a different origin from other stones, being the result in aseptic bile of an increased production of cholesterin by the uninflamed mucosa of the gall bladder. There is, accordingly, this additional reason, if their views be correct, for the removal rather than the drainage of a gall bladder whose lining membrane is subject to this primary disorder.

Again, there are certain cases in which, though the walls of the gall bladder appear healthy and the channel through the duct seems quite patent, a few tiny "beads" are so buried in the mucosa of the duct that they cannot be disturbed. In such cases I have several times emptied the gall bladder of two or three hundred little stones, and have had then to take the gall bladder away because, as soon as the duct had been emptied of bile, these tiny little obstacles in the channel were discovered. In the *Annals of Surgery* (1909, L, 1265) I described "a disease of the gall bladder requiring cholecystectomy." This disease may be present with or without stones. The reddened mucosa of the gall bladder presents on examination a series of white or yellow specks due to small, sharply demarcated areas of a fatty degeneration, to fine scars, or to the deposit of tiny crystals of cholesterin. This condition was also described by Dr. McCarty of the Mayo Clinic, Rochester, under the very appropriate title "strawberry gall bladder." In these cases, too, the gall bladder, though it may appear healthy, and though the expulsion of its contents may not be opposed, should be excised. When, however, all the exceptions are considered, it may still be accepted as the readiest rule to remember at the moment of operation that a gall bladder whose muscular power is unimpaired, whose cavity has suffered no appreciable diminution, and whose duct is not obstructed, should be drained, and not removed.

There is no doubt that even now, in the most practised hands, mistakes are still made in this matter. Gall bladders are taken away that were better left behind and some left that it would have been wiser to remove. But the more expert the hand and the more experienced the judgement the fewer the mistakes. If a mistake must be made it is better to err by leaving a gall bladder than by needlessly taking one away.

A LECTURE
INTRODUCTORY TO AN ADVANCED COURSE ON TUBERCULOSIS

AT THE PUBLIC HEALTH LABORATORY, MANCHESTER,

BY

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THE adoption of State-aided systems of insurance in Germany and Great Britain has of late forced upon the attention of statesmen what was previously well known to medical observers—namely, the great importance of tuberculosis as a source of waste of life and energy. Whatever may have been said to the contrary by recent theorists, the voluntary preventive work which has been carried out in the face of much public indifference during the past forty-eight years by the medical profession, under the influence of pathologists, bacteriologists, and hygienists, has resulted in a considerable diminution of mortality from tuberculosis.

It may reasonably be hoped that, with the help now given by the State, greater improvements will be obtained in the near future. In order, however, that the opportunities now offered should be used to the greatest advantage, it is necessary that medical men engaged in the fight against tuberculosis should be conversant with sound methods, well-ascertained facts, and the few working theories which may serve as guides in the search for more knowledge. Practical acquaintance with facts and methods is needed, not only for the proper discharge of current duties, but also for the purpose of gaining the confidence that is necessary in order to steer the right course and not be constantly tossed to and fro by the various more or less wild hypotheses which gain in rapid succession a short-lived popularity.

The doubts created by these constant changes often lead one to question the value of the best ascertained facts, and may cause a sceptical state of the mind which prepares it for laxity or eccentricities of thought and practice.

Thus an attempt which has been made of late years to apply very accurate mathematical methods to the interpretation of data of doubtful value has disturbed scientific opinion to such an extent that facts capable of clear experimental proof are now doubted.

Heredity, which had ceased to be considered as having more than a secondary share in the spread of tuberculosis, is once more brought forward as a factor of first importance.

The very wide distribution of the Bacillus tuberculosis, and the fact that the great majority of people have at one time or another been harbouring the tubercle bacillus and yet have recovered, as well as the analysis of returns of very unequal values, have led some statisticians, Karl Pearson for instance, to doubt whether tuberculosis should be considered as an infectious disease in the ordinary sense.

Such views, if correct, would strike at the root of all modern methods of prevention of tuberculosis.

The importance of predisposing factors is often so great that not a few clinicians and administrators have given but scant attention to the essential cause. It must be acknowledged that in many cases it is possible to obtain excellent results by dealing thoroughly with predisposing causes, and often there is no other course open to us. It is, however, never safe to disregard, even temporarily or partially, the *causa causans*, because it is liable to variations and may, under the influence of circumstances, acquire infective powers exceeding the average. Neither is it safe to trust entirely to the action of natural or artificial curative agencies. Recoveries from infectious diseases may be apparent or real, and do not invariably result in so great a reduction in the number of infective centres as might be expected. Recoveries brought about by natural processes introduce an additional element of complexity in our estimates of the incidence of various infectious diseases.

In studying the conditions which influence the prevalence of any infectious disease we must, therefore, take account of the possible action of a great number of factors, which may roughly be grouped into the following categories:

1. Distribution and habits of the infecting parasite.
2. Conditions influencing the quantity of the parasite.
3. Conditions influencing the virulence of the parasite.
4. Opportunities and channels of infection.
5. Conditions influencing the resistance of the possible host.
6. Proportion and completeness of recoveries.

Even with regard to clinical observations and experimental investigations great divergences of opinion have occurred of late.

Infection through the alimentary canal was ten years ago considered of little importance by the majority, but now there are observers who believe it to be of paramount importance.

Bovine tuberculosis, which was on apparently good grounds considered a variety of the disease observed in man, is supposed now by some to be a different disease.

These difficulties and others indicate the basis upon which has been framed the advanced course on tuberculosis which has begun this winter in connexion with the Public Health Department of the University of Manchester.

[After these introductory remarks, Professor Delépine gave a demonstration of the results of infection through

the skin, the alimentary canal, and the lungs, and discussed, among other matters, von Behring's and Calmette's views.]

THE CULT OF IODINE AND THE DREAD OF SKIN.

By J. LYNN THOMAS, C.B., F.R.C.S.,
SURGEON TO KING EDWARD VII HOSPITAL, CARDIFF.

THE many papers which have lately appeared upon the action of iodine preparations upon skin in the practice of surgeons seem to me to be a reincarnation of the old dread of skin. I have not yet seen evidence that other surgeons have carried the ritual of iodine into the regions which it has invaded in my practice for many years. The end of another year prompts me to record my faith in the cult of iodine evolved unconsciously from the days when "Bryant's sherry," otherwise "diluted tincture of iodine," was in general use with me instead of carbolic acid—1 in 20—which played havoc with my skin, and more than once produced carboluria.

It is over twenty years ago that a German sailor was brought to the Cardiff Infirmary about midnight with a "huge bark" of his shin, caused by the crank-shaft of an engine. The damage had received "first aid" treatment, for "the bark" had been plugged with waste wrung out of oil. The skin of the shin for a few inches below the knee had been stripped up, carrying with it periosteum and ligamentum patellae. The knee-joint had been freely opened, and into it the "first aid" dressing had been introduced.

A large bucketful of "Bryant's sherry" was prepared, and the patient was anaesthetized and turned on his face in order to get the fully flexed knee-joint into the lotion. After thorough cleansing by immersion and mopping, the parts were replaced and the joint put at rest by splinting. Next morning by daylight I was alarmed to find that my hands were discoloured by iodine, showing that the "sherry" was stronger than was usual in my practice; the patient's skin was stained in the same way, and this caused me some anxiety, for I feared "irritation." My fears turned out to be groundless, for the case did well, and my dread of an overdose of the iodine preparation vanished. The man returned some months afterwards with the compliments of a German professor upon the good result obtained by the treatment.

Slowly and by cautious steps I got into the practice of applying the undiluted tincture by means of the eye end of a needle to the redness which often resulted in suture holes before the use of gloves was introduced into my practice in 1898. An account of this appeared in the BRITISH MEDICAL JOURNAL in January, 1899, the first paper, I believe, to be published in this country on the subject.

I well remember that in one of the first cases in which I used screws, a case of fractured tibia with displacement due to oblique injury, in private practice in 1896, redness and signs of "irritation" were observed a few days after operation; removal of all sutures with free swabbing of the wound with the tincture gave a happy result, for all went well. From that time until the present tincture of iodine has on and off played an important part in my routine practice in almost every region upon which operations are done, and I will indicate briefly the conditions in which I think it is of great use, because it has a strong action as an antiseptic, and there is little or no tendency to absorption through the lymphatics.

In the Nursery.

In order to minimize the risks of infection during accidents in childhood I kept a stock bottle of tincture of iodine in the nursery in order to have it promptly applied to bruises, "gravel rashes," etc. I gave up carbolic fifteen years ago, because on returning home I often found that there was no visible evidence of its having been applied to the required spot. I therefore substituted the tell-tale iodine, and was often amused to find that in such a case as that of a small scratch upon the front of the knee, iodine had been diligently applied half way up the thigh and down nearly to the ankle—ritual run riot. During the last few years, when visiting many home and foreign clinics, I have been amazed to find that those who know better than a nursemaid do very much the same thing when they paint mahogany colour the whole of the front of the abdomen and part of the chest in cases of appendectomy!

I will now leave the subject of iodine and skin, and will give illustrations of cases in regional surgery where I feel the use of iodine is indicated, either on account of pre-existing sepsis, or because I feel that there is a possibility of infection in a clean wound—in such cases, for instance, as an accidental tear in a rubber glove, or those in which during an operation upon quiet gall-bladder and appendix troubles septic conditions are found.

Brain Surgery.

In cases of abscess of the brain I always fill the cavity with the pure tincture, and plug with gauze soaked in it. I may cite a case from my friend Mr. Naunton Morgan, F.R.C.S.E., of a large abscess of the frontal lobe which would not heal up satisfactorily until I removed the hernia cerebri with the cautery, and then dealt with the cavity by swabbing it with iodine.

Cerebellar Tumour.

In a case of a large tuberculous tumour which was removed successfully, the cloth which had been in contact with the skin came accidentally in contact with the damaged cerebellum, and in order to render the area less suitable for the growth of organisms, I painted freely with iodine.

Cerebral Tumour.

Last year I removed successfully an extraordinary tumour—a large calcified parathelioma, or endothelioma, from the left lateral ventricle. As I had removed the tumour with a naked finger and thumb dipped in iodine, I afterwards gently swabbed the damaged area of the cortex cerebri with iodine. The wound healed up promptly.

Abdominal Surgery.

In all cases of abscess due to appendicitis I always and immediately apply iodine freely to the surfaces that have been exposed by incision and mopping up of the pus; the result, in my opinion, has been more satisfactory than it used to be before its introduction.

Suppuration of Right and Left Ovarian Cysts.

A woman, who had been very ill with pain and pyrexia for over a week, had a fixed hard tumour occupying the abdomen from about 2 in. above the umbilicus downwards to the pelvis, where on vaginal examination I found an immovable hard vault. The operation had to be done expeditiously, and whilst placing the gauze roll above the tumour to isolate the intestines many ounces of offensive pus welled out through two gangrenous patches on the posterior surface of the cyst right into contact with them. After much serious trouble and difficulty in dissecting the left tumour from Douglas's pouch, uterus and bladder, I was compelled to leave three long haemostatic clamps upon big vessels at the bottom of Douglas's pouch. I then found that there existed a second small suppurating cyst in the right ovary, the size of my fist, attached to the appendix and ascending colon, and this also during its removal burst through one gangrenous patch in the cyst wall. As the peritoneum had been packed, only the pelvis and parietal peritoneum were flooded; after careful and forcible mopping the whole surface and the intestines were dealt with by pouring in about two ounces of iodine and swabbing. The forceps were removed on the second day, and after a little oozing through the opening left the case did well.

Urogenital Surgery.

In several cases of pyonephrosis, some large with pultaceous material in the calyces, and extending down a dilated ureter, I have been able to get the damaged kidney restored to function without a fistula in the loin. I am much more conservative as regards the removal of kidneys damaged by tubercle or calculus than the majority of surgeons whose practice I have had the privilege of witnessing; I was led to adopt this conservative attitude by two incidents. The one occurred in my practice many years ago: a lady had a large pyonephrosis with creamy contents; when the patient was convalescent with a drain in her side, I told her husband that, in my opinion, it was advisable to remove the kidney. Afterwards he told his wife of my views and we had a further consultation. They

did not accept my advice, which at that time I believe was in accordance with the view of the majority of urogenital surgeons, and perhaps now. The wound in the side healed up firmly, and the patient has remained quite well and has borne several children. This is a significant example of the curability of tubercle in organs which are easily removable, and perhaps too often removed. The other case was that of a practitioner, who removed a kidney that he thought had been irretrievably damaged by calculi; it turned out to be the only kidney the patient possessed.

In all the kidney cases of the above nature I thoroughly and forcibly mop the removable material from the interior of the cavity and wash with iodine.

Urethrotomy.

Since I introduced into my practice the method of injecting tincture of iodine forcibly by a glass syringe half full of air, both before and immediately after performing urethrotomy, I have not been worried with "urethral fever" or other symptoms of septic absorption from the wounded urethral canal.

Prostatectomy.

At the annual meeting of the British Medical Association in Toronto (1906) I advocated the plan of performing prostatectomy in two stages in cases where patients suffered severely from toxaemia, partly on account of the fact that an operation created additional raw surface, through which an additional dose of septic matter took place at once; this, in my opinion, too frequently turned the balance against the patient. Since that time I have given up the operation in two stages (*à deux temps*), because I have improved the technique in the direction of prevention against the immediate absorption from the raw surfaces made at the operation. This is done in the first place by a preliminary injection of an ounce of tincture of iodine into the bladder before distending it with air; by my combined method of performing prostatectomy, which usually takes only a few minutes, I have been able to save several moribund patients since the introduction of the free use of iodine—one was an octogenarian with calcified arteries, which showed almost like stems of "churchwarden" pipes upon the radiographic plate.

Rectal Operations.

After thoroughly mopping the mucous membrane—for example, in operating for haemorrhoids—I swab the mucous membrane with iodine, and then pass an anchored iodine-soaked mop up the rectum for about six inches. This prevents a possible infection of the field of operation; when the operation is finished the mop is pulled out.

Psoas and Iliac Abscess.

Lastly, I should like to draw attention to the following method of treating psoas or iliac abscesses which have not been previously incised nor broken down spontaneously. After opening the abscess in one or more places, according to the requirements laid down by Treves many years ago, I complete the evacuation of the pus and of the lining membrane in the thorough manner which he advocated. I then flood the whole of the interior of the cavity with tincture of iodine, and then mop it dry; afterwards the whole cavity is plugged firmly with a roll of sterile gauze, and the wound closed by mass sutures. The patient is then swathed in cotton-wool, and bandaged firmly in order to keep pressure from without upon the dressing within. On the second day the mass sutures and the gauze are removed from the cavity, and the wound is closed "in tiers," as in the ordinary operation for hernia.

I have twice performed this operation with success upon double psoas abscesses, but not at one sitting.

Every surgeon suffers more or less from what may be called "the dread of skin," and in my case the cult of iodine has developed to such a degree that I venture to record the way it has almost imperceptibly evolved.

THE Research Defence Society has opened a bureau at 171, Piccadilly (opposite Burlington House), for the exhibition of pictures and specimens and the distribution of literature.

ABERRANT AND RECURRENT OSTEOMYELITIS.

BY

R. CLARK McGUIRE, M.B., CH.B.GLASG.,

BISHOPTON, RENFREWSHIRE.

UNDER the heading of "Acute Epiphysitis," a very instructive article appeared in the JOURNAL of July 20th, 1912, by Mr. Charles M. Kennedy, F.R.C.S., and I venture to publish the notes of three cases occurring in my practice, which support and partly supplement the conclusions arrived at by him. Mr. Kennedy applies the term "acute epiphysitis" to that acute destructive inflammation of the growing end of bones usually due to virulent infection by the staphylococcus. He dislikes the term "osteomyelitis" as applied to that disease, because it is vague, and though admitting that "epiphysitis" is a misnomer, he prefers it on account of its convenience. I prefer the term "osteomyelitis," which, although it covers conditions other than the disease above mentioned, has the merit of being a more exact description of the actual pathological condition. It is the name used by the Glasgow school of surgeons, and favoured particularly by Sir William Macewen, whose work in connexion with the disease is well known. In my opinion "epiphysitis" holds the same relation to "osteomyelitis" that "typhlitis" did to "appendicitis." Both are misnomers, are incorrect, and ought not to be used; the names of medical and surgical diseases should be made to indicate, as nearly as possible, the exact anatomo-pathological condition of the structures involved.

CASE I.

H. M., a boy aged 14 years, came under my notice on February 28th, 1911. He had a rigor two days before, and complained of pain at the upper part of the right thigh, made worse by walking or standing. His temperature was 103° and pulse 120. His face was flushed, the eyes bright, and tongue coated with a dirty white fur. The urine was distinctly albuminous. Physical examination revealed a spot of definite tenderness at the upper part of the thigh just below the middle of Poupart's ligament. Percussion of the outer side of the right trochanter also caused pain in this part. The hip-joint moved freely and without pain in all directions, except for slight adductor spasm when the thigh was abducted. There was no swelling or discoloration of the skin over the painful area. None of the other joints were swollen or painful, and apart from headache he made no complaint of pain in any other part of the body. The heart sounds were quite clear. On the face, chest, and back brownish stains and flat adherent scabs, due to impetigo contagiosa, were discovered. I suspected he was suffering from acute osteomyelitis of the upper part of the right femur, and asked a surgeon to see him in consultation. The latter concurred in my opinion, but, as the local signs were somewhat abating, it was considered advisable to wait and watch how the symptoms progressed. The following day, as the boy's general condition had not improved, the temperature being still 102°, I sent him to the Royal Alexandra Infirmary, Paisley. Owing to the doubtful nature of local signs at the upper part of the right femur, operation was again deferred, but two days after I received a note from the surgeon saying that he had been obliged to operate on the left tibia, where he found about a pint of pus under the periosteum, which was completely stripped from the shaft. No complaint of pain in that region had been made by the boy either before or after entering the hospital, and the condition was only discovered by the surgeon himself in course of his examination. After operation, slight pain continued in the upper part of the thigh, but no further advance of symptoms took place here. The temperature remained at 102°, pulse 112, and signs of pyaemic infection of the lungs occurred, from which death took place about three weeks after admission to hospital.

Mr. Kennedy, in his paper, mentions cases which are admitted to hospital with pyrexial symptoms and a tender spot. These are entered as "? epiphysitis," and if they recover, as sometimes happens in a few days without operation, they are then most probably ascribed to monoarticular rheumatism. The case above reported, no doubt, would have been classed as "? osteomyelitis" of the upper part of the right femur, but the occurrence of definite symptoms of acute osteomyelitis of the tibia of the opposite leg makes it more than probable that there was a primary focus of osteomyelitis in the upper part of the right femur, which although it, in a manner, abated or retrogressed, was undoubtedly responsible for the subsequent infection of the tibia. The simultaneous occurrence of impetigo contagiosa on the skin, when the bone symptoms developed, is a striking illustration of the theory that skin lesions are the chief sites of entry for the organisms (staphylococci) of acute osteomyelitis, and

the subsequent development of the disease in the left tibia, at a situation far removed from the primary focus in the femur, is strong evidence of the extreme vulnerability of growing bone tissue to staphylococcal infection without previous trauma. The case above reported is of an unusual and aberrant type, but Sir Hector Cameron has described a case still more unusual: a man, aged 25 years, developed an abscess in the left leg, due to staphylococcic osteitis of the left tibia, eight years after having had his right leg amputated for acute osteomyelitis and necrosis of the right tibia.

Acute osteomyelitis is one of the most formidable diseases of childhood, and entails considerable loss of life and limb. The suffering during the acute stage is very great and the convalescence after operations on affected limbs is very tedious. Much deformity as a rule results in those cases in which bone loss has been great as a result of necrosis, and it is in cases such as these that a successful bone-grafting operation gives excellent results. The operation of transplanting bone removed from tibias on which osteotomy had been performed was first performed by Sir William Macewen in the case of a boy who had lost the shaft of his humerus by necrosis due to acute osteomyelitis. This operation was attended by brilliant results, and although Macewen's conclusions—namely, that bone forms bone and the periosteum has little to do with the process of repair—have not been accepted by all surgeons, others have followed his teaching, and many cases of successful bone transplantation have now been recorded. In a case of necrosis of the whole diaphysis of the tibia, due to acute osteomyelitis, I have seen the fibula split longitudinally and a portion laid in a bed of granulations springing from the tibial epiphysis, with the result that a large portion of the lost tibia was regenerated. Unfortunately, the sufferings of those afflicted with osteomyelitis do not always end when the acute disease has been successfully combated. Sir Hector Cameron says:

> Few patients pass through a serious illness of this kind, especially with necrosis and formation of sinuses in such important bones as the femur, tibia, or humerus, without having relapses, sometimes numerous, and often very severe in character.

These relapses may take place years after, with intervals of good health between them, and they may persist, off and on, till a very advanced age. I give below the notes of two cases of recurrent osteomyelitis, which illustrate the relapsing nature of the disease.

CASE II.

J. L., aged 38, a shepherd, came to me on July 15th, 1908, complaining of pain and stiffness of the right leg on walking. On examination I found that the lower third of the right femur was markedly thickened: there was a depressed adherent scar, 2 in. long, situated on the inner side of the lower third of the thigh. The skin around this was thickened and stained a brownish-red colour: deep pressure over the scar region revealed a spot of distinct tenderness; there was no fluctuation, although the skin and underlying tissues were much swollen, and he had no fever; his general health was apparently good. He stated that he had suffered from bone disease in the part complained of when he was 10 years old, and that "little bits of dead bone had come away" then. Six years before I saw him he had an abscess in the part complained of, which was treated in the Royal Infirmary, Glasgow, but no bone was removed. I diagnosed his condition as chronic osteomyelitis with an acute exacerbation, and ordered him to lie up and rest his leg for a week or two. Hot antiseptic fomentations were applied to the inner side of the thigh over the painful area. He did not improve; his temperature, previously normal, rose to 101° F., and the area of redness and tenderness increased. A large bulla formed over the scar area; this was opened and dressed antiseptically; it contained only clear serum. I expected to find an abscess form and point at any time, and at every visit I went prepared to have to open it. His condition remained unchanged for three weeks, when I tried, under Sir Anthony Bowlby's recommendation, the effect of 15-grain doses of potassium iodide t.i.d. and mercurial ointment applied on flannel to the painful part. He began to improve shortly after, and the pain and tenderness subsided, so that he was able to resume his occupation. The swelling also diminished, but the area round the scar remained firmly indurated.

The slow progress of this case meant a period of over twelve weeks' disablement for the patient, and though his painful symptoms subsided without requiring operation, I have no doubt that his leg will again prove a source of trouble to him. Sir Anthony Bowlby, who happened to be resident on holiday in the district at the time, very kindly offered me his opinion on the case. I had been rather puzzled owing to its rebellious nature, and feared that a sequestrum was forming and the inflammatory symptoms had developed in the process of separation. I remember Sir Anthony Bowlby then informed me that old-standing cases of osteomyelitis frequently gave trouble in after-life, and his opinion was that the periosteum at the seat of the old disease was in a spongy, hypervascular condition, which readily gave rise to subperiosteal haemorrhages, as a result of slight injuries. Suppuration did not always ensue, although the parts frequently appeared on the point of breaking down. He related the case of a patient on whom, when a boy at Eton, he had operated for acute osteomyelitis of the humerus, and who had frequent relapses in later life, when the parts around the seat of the old disease assumed a very threatening appearance. I am much indebted to Sir Anthony Bowlby for his kind assistance in the case above mentioned, as well as in other cases in which he favoured me with his advice.

CASE III.

J. W., aged 24 years, a law clerk, came to me on February 8th, 1912, complaining of weakness of the right arm and hand and pain and tenderness at the upper and inner side of the right humerus. On examination I found the right arm about 3 in. shorter than the left. The muscles of the arm and forearm were atrophied, and the limb looked very much stunted, and was carried in a limplike condition at the side of the body. There was a scar about ¾ in. long situated on the upper third of the right arm at its inner side, and pressure over this revealed a spot of tenderness. The movements of the shoulder-joint were quite free, but caused some pain at the seat of the scar. He said that when he was 12 years old his arm first began to trouble him, causing him great pain, and that the scar on the inner side was the result of the opening of an abscess in that situation by the doctor who attended him. Previous to the onset of this trouble his right arm was the same length and as strong as the left. His present condition was unaccompanied by fever, although the skin around the old scar was reddened and tender. He had been lifting some heavy ledgers the week before he came to me, and blamed that as the exciting cause of his condition. Two years before he came to me he had been in the Paisley Infirmary under the care of a surgeon there. He said that his arm was x-rayed, but no operation was performed, and he was discharged without any improvement. I advised him to rest the arm in a sling, and, by the use of potassium iodide internally and mercurial ointment applied locally on a piece of flannel, the inflammatory symptoms subsided, but the weakness of the arm and hand still remained.

This was another instance of recurrent osteomyelitis. The shortened arm was, no doubt, the result of injury to the upper epiphysis of the humerus at the time of his first attack. No operation on the bone was done on that occasion, and it is just possible that, if the bone had been trephined and the medulla curetted, his epiphysis would have been saved. The disastrous results to the arm in this case are a serious lesson that periostitis with abscess, in the limb of a growing boy, should always be regarded as strongly suspicious of accompanying osteomyelitis, and treatment ought not to end in simply evacuating the abscess, but search should be thoroughly made for a primary focus of osteomyelitis in the bone shaft on the diaphyseal side of the epiphysis.

The two cases reported above serve to show that in bones previously affected with pyogenic organisms the organisms may still persist in the parts, and give trouble years after the primary disease has subsided and the patient thinks himself quite free. In a lecture entitled Clinical Illustrations of the Persistence of Disease Germs in the Human Body, Sir Hector C. Cameron says:

> I do not think it is sufficiently appreciated what a lifelong trouble this infantile infective disease of bone often proves itself, laying a man aside from business time after time during his life. Twice I have seen men over 70 years of age laid up by most serious and painful abscesses, occurring in each case in connexion with a tibia from which in early life numerous and large sequestra had separated and been removed after long-continued suppuration. In each the tibia was greatly deformed and showed the depressed scars of many old sinuses, and more than one relapse had occurred during the long life of both men. But recurrence is not always confined to the part in which the primary infection takes place. It may occur years afterwards in another part of the body.

I have never used any antistaphylococcic serum in the treatment of relapsing osteomyelitis. In acute cases it is said by those who have tried it to be of no value. It certainly could not take the place of incision with the knife, but in the recurrent type of case, such as the last two described above, it would probably have some value and would be well worth a trial.

PRIMARY SARCOMA OF BOTH BICEPS MUSCLES.

BY E. SCOTT-CARMICHAEL, M.B., F.R.C.S.,
ASSISTANT SURGEON TO THE ROYAL INFIRMARY AND HOSPITAL FOR WOMEN, EDINBURGH.

THE condition found in the following case seems sufficiently rare to justify its publication; I have not been able to find in the literature a record of this pathological condition affecting the biceps muscle.

The interest of the case lies in the nature of the tumour, the fact that it was bilateral, and situated in identical positions in the biceps muscles.

A working man, aged 56, was sent to hospital on July 27th, 1912, complaining of a swelling in the right upper arm, with a smaller and similar swelling on the left upper arm. He first noticed the swelling on the right side in April, that on the left side being noticed about a week before he came to hospital. They caused him no pain or inconvenience, but he thought his

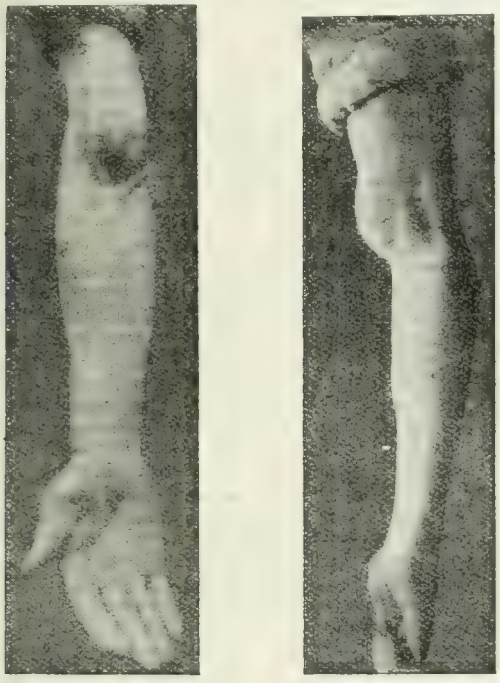


Fig. 1.

biceps muscle was more prominent than it ought to be, and therefore came for advice.

Condition on Examination.

The patient had symmetrical swellings in the lower part of both biceps muscles. They were painless, rather firm and elastic, and of the consistence of muscle in contraction. The swelling in the right muscle was about the size of a large hen's egg, that in the left of a small marble. There was no discoloration of the skin over them, and the swelling was limited to the biceps muscle, except that on the right side there was a small pea-like nodule in the brachialis anticus muscle. The patient denied any syphilitic history, and there was no history of an injury.

The general appearance and characters of the swelling in spite of the history led one to make a provisional diagnosis of gummata in both biceps muscles, and the patient was put upon antispecific treatment for a fortnight.

Operations.

It was thought advisable, however, to explore the smaller swelling on the left side under a local anaesthetic. This was done, and a semisolid tumour was shelled out of a fairly well-defined capsule. The tumour had a yellowish-grey appearance, but showed dark areas, obviously haemorrhages, throughout its substance. The pathological report was that the tumour was of a sarcomatous nature, consisting of mixed round cells.

The patient was therefore admitted for operation for the tumour in the right biceps muscle, which was performed on August 5th.

The tumour was removed along with a large portion of the lower half of the biceps muscle, a small slip being preserved posteriorly behind the musculo-cutaneous nerve. The nodule in the brachialis anticus was also removed.

PATHOLOGICAL REPORT BY DR. JAMES MILLER, PATHOLOGIST, ROYAL INFIRMARY.

The tumour in the biceps measured 3 by 1¼ in. It was grey in colour, with numerous small haemorrhages, especially at the margins and some opaque white areas of necrosis in the centre.

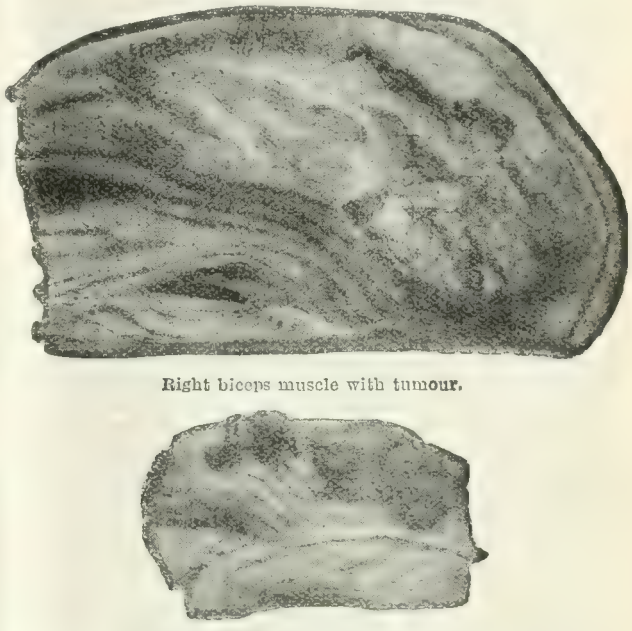
The tumour in the brachialis anticus measured 1¼ by ½ in. It was more haemorrhagic and less well defined.

Microscopic Report.—The tumour was uniformly cellular except for bands of well-developed tissue running through it. The cells were rounded or polygonal, moderately large, but varying considerably in size. The nuclei were large, rather pale, staining with a wide-meshed chromatin network. Mitotic figures were fairly frequent. Occasionally larger cells were met with containing six, eight or more nuclei. There was very little stroma between the cells. Many of the vessels were fairly well developed, but some were thin walled. No haemorrhage or necrosis was found in the portion examined. Summing up the histological characters of the tumour, it may be called a medium-sized round-cell sarcoma.

After-History.

The patient since the operation has been under treatment with Coley's fluid. He reported himself on November 2nd,

Naked-eye Appearance of Tumours.



Right biceps muscle with tumour.

Right brachialis anticus muscle with tumour.

Fig. 2.—Drawings to show sarcomatous growth in right biceps and brachialis anticus muscles.

when the actions of the biceps at the elbow and superior radio-ulnar joints were normal, except that they were slightly weaker than the left; he expressed himself highly satisfied with the power and use of his arm.

There was no sign of any recurrence of the growths.

DR. WALTER HUNTER, M.O.H. for the West Bridgford Urban District, has been appointed to the Commission of the Peace for Nottingham.

THE annual report of the Surgeon-General of the United States Navy, published on December 11th, states that while contagious diseases have markedly diminished among the men in the navy, mental affections have increased. About 28 per cent. of men enlisted from the Southern States are infected with hookworm; 50 per cent. of these come from South Carolina and Alabama.

ON December 17th a circular was sent to the medical practitioners of New York informing them that in future they would be expected to report promptly all cases of venereal disease coming under their notice. The name and address of the patient are not to be given, but the sex, age, and the character and stage of infection, with any other relevant information, must be stated. A supply of cards to be used for the reports will be furnished by the Health Department on application. The Wassermann test is made free of charge by the Department, which also provides facilities for gratuitous bacteriological examinations in cases of suspected gonorrhoea.

COCAINE POISONING.*

BY

CHUNILAL BOSE, M.B., F.C.S.,

A CHEMICAL EXAMINER TO THE GOVERNMENT OF BENGAL; FELLOW OF THE CALCUTTA UNIVERSITY.

NOT many years ago cocaine was a drug hardly known to the people of India outside the medical profession, and now, sad to reflect, it has taken a vigorous hold of a certain class of people in this country both in town and village. In Calcutta, despite the vigilance of the excise authorities, and notwithstanding the stringent measures directed by the Government against the possession and the sale of this substance by unlicensed persons, there is reason to believe that the cocaine habit has much increased and is rapidly spreading. Moreover, it is perhaps safe to say that a considerable proportion of the crimes committed in this city may be traced to the utter moral depravity which follows the habitual use of cocaine. The daily papers are full of the reports of raids on cocaine dens and of cocaine seizures, and the references made to the Chemical Examiner in connexion with the illicit import and the unlawful possession of cocaine are rapidly and progressively on the increase, as may be seen from the figures given below, compiled from the annual reports of the Chemical Examiner's Department, Bengal, for the last four years:

Year.	Number of Samples of Cocaine Seized and Sent for Examination.
1908	125
1909	243
1910	621
1911	2,138

Although the cocaine habit has been described by Erlenmeyer as the third scourge of humanity, the two first being alcohol and opium, yet in some respects cocainomania is more disastrous in its effect on the moral, intellectual, and the physical well-being of the subject. Professor Berkeley, of the Johns Hopkins University, has observed that he would trust a cocaine debauchee even less than he would a morphinomaniac, stating as his reason that the moral rectitude and the will power of a cocaine eater always suffer more severely. In Taylor's *Principles and Practice of Medical Jurisprudence*, it is said, referring to chronic cases, that,

> like morphia, the habit of cocaine seems to sap the moral fibre of its devotees, so that they become reckless of everything in their efforts to obtain their dose—lying, cheating, stealing, nothing comes amiss to them, so that their craving is satisfied.

Dr. A. H. Brundage, Professor of Toxicology in the Brooklyn College of Pharmacy, remarks that the cocaine habit

> is the most seductive, dangerous and mentally, physically and morally destructive of all the drug habits. Cocaine fascinates by the promptness with which it relieves all sense of exhaustion, dispels gloom, and exhilarates, producing a sense of happiness and well-being which transports at once to a longed-for Elysium. Primarily the after-effects are scarcely perceptible, but through continual indulgence an intense craving for the drug or its effects is produced.

It is the utter banishment of gloom and the delightful sense of *bien-être*, which together are directly responsible for the intense craving, characteristic of the habit and productive of the physical, mental and moral degradation and depravity which ensue.

Professor Berkeley reports that the body weight sinks rapidly, even one-fifth to one-third of it being lost within a few weeks.

Dr. Kailas Chandra Bose, Rai Bahadur, C.I.E., in the March number of the *Indian Medical Gazette*, 1902, recorded several cases of the habitual use of cocaine, and summarized the principal symptoms noticed. These were headache, anorexia, emaciation, insomnia, a blackening of the tongue and teeth, dilated pupils, rapid and feeble, sometimes irregular or intermittent pulse, fainting attacks, hallucinations, incoherent speech and convulsions. In one case there was obstinate diarrhœa, and in another there were symptoms of acute mania.

Prognosis.

Professor Berkeley observes that the prognosis is "most gloomy," for,

> even though the patient recover from one attack, he very frequently relapses into his evil habits. In the most favourable cases there remains an extraordinary weakness of the will power, with accentuated tendency to relieve the physical and psychical languor by substituting for the cocaine alcohol, morphine, and other nervines in large quantities.

Dose.

The medicinal dose of the hydrochlorate of cocaine is $\frac{1}{3}$ to $\frac{1}{2}$ grain. The minimum fatal quantities on record are $\frac{1}{5}$ grain hypodermically, 12 to 15 grains by the mouth, and 22 grains by rectal injection.

A few cases have been recorded in European practice in which the drug either proved fatal or produced very severe symptoms when it was injected hypodermically or passed into the natural cavities prior to a surgical operation or administered internally. In one case the injection of $3\frac{1}{2}$ grains into the breast of an adult woman was immediately followed by epileptiform convulsions, and in twenty minutes by death. In another instance, the hypodermic use of $\frac{3}{4}$ grain in a woman, aged 71, proved fatal in five hours. In the *Pharmaceutical Journal*, 1886 (iii, 16, 721), a case is recorded in which the hypodermic injection of $\frac{1}{20}$ grain caused dangerous symptoms in a girl aged 12 years. On November 2nd, 1895, a case was reported in the *Lancet*, in which 2 drachms of a 10 per cent. solution of cocaine (representing 12 grains of the drug) taken internally for the relief of a toothache caused death in twenty minutes, with epileptiform convulsions. In another case $\frac{1}{100}$ grain applied locally to the conjunctiva gave rise to dangerous symptoms; while in still another instance acute manifestations followed the injection of half a drachm of a 10 per cent. solution—that is, grains iij—into the urethra. A rectal injection of 22 grains of cocaine has been productive of death.

The prominent symptoms in all these acute cases of poisoning consisted of dryness and numbness of the mouth and throat, vertigo, dyspnœa, failure of the special senses of sight, hearing, and smell, numbness of the extremities, rapid and feeble, sometimes irregular or intermittent pulse, muscular tremors, a staggering gait, dilated pupils, epileptiform, sometimes tetanoid convulsions, cyanosis, and insensibility.

The practical lesson to be learnt from cases like these is the extreme care which is necessary in administering the drug for the production of local anæsthesia in dental practice and surgical cases.

No case has yet been recorded in Indian medical practice, so far as I have been able to ascertain, of acute cocaine poisoning with a fatal result. In the twenty-seven years during which I have been connected with the Chemical Examiner's Department in Bengal, I have not had a single case of fatal cocaine poisoning referred to me, except the three which I am about to recount, all of which occurred within the past six months. Not only does this fact appear to indicate that the drug is very easily procurable by the common people, in spite of the strict regulations against it, but it also seems reasonable to infer that the people are getting to be more familiar with the uses to which the substance can be put.

CASE I.

B. D., a Hindu male, aged about 25 years, a resident of Calcutta, and by occupation a pressman, was addicted to alcohol and to cocaine. On May 28th, 1912, he played cards with his friends up to a late hour of the night and distributed pan (betel) with cocaine to his companions, taking the largest share himself. He left the place soon after, and at 2.30 a.m. on May 29th, he was found lying unconscious and groaning at a neighbour's doorway. Medical aid was summoned, the man was removed to hospital, but died on the way there.

Post-mortem Appearances.

Body poorly nourished; rigor mortis present; pupils normal. The lungs, the kidneys, the brain and its membranes and the mucous membrane of the stomach were found congested. The stomach contained about 2 oz. of recently taken food without any special odour.

* Read at a clinical meeting of the Calcutta Medical Club, November, 1912.

Chemical Analysis.

The viscera of the deceased, and a small quantity of urine found in his bladder were forwarded to me for chemical analysis, and I detected cocaine in both. I could detect no other poison in the viscera. The dose taken by the deceased could not be ascertained.

CASE II.

K., a Hindu female, aged about 28 years, a woman of the town, was in the habit of taking cocaine. She left home at about 1.30 a.m. on August 29th, 1912, and returned at 6.30 a.m. a few hours later. She was seen to be staggering while washing her mouth at a hydrant hard by. Very soon afterwards she lay down, became unconscious, and in a few minutes she died.

Post-mortem Appearances.

Body fairly nourished; rigor mortis present; pupils slightly contracted: there were no marks of violence on the body. The brain and its membranes, the liver, the spleen, the kidneys, the ovaries, the bladder, and the mucous membrane of the stomach were found congested. The right heart was dilated, and contained dark fluid blood. The stomach contained about 3 oz. of recently taken vegetable food without special odour.

Chemical Analysis.

The viscera in the case were sent to me for chemical analysis, and I detected a marked quantity of cocaine in them. I detected no other poison in the viscera. Neither the dose taken nor the fatal period could be ascertained in this case.

CASE III.

M. K., a Hindu female, aged about 20 years, lived with her husband in Calcutta. On October 17th, 1912, she visited her sister-in-law, L. K., and at about 7 p.m. on the following day she offered L. some white powder which she believed to be a specific remedy for acidity and indigestion. They each took some of the powder, and within half an hour they became ill and then unconscious. M. died soon after, but L. regained consciousness about four hours later, and recovered at the Medical College Hospital.

Post-mortem Appearances.

Rigor mortis present; body well-nourished; pupils slightly contracted; there were no external marks of violence visible. The brain, the meninges, and the lungs were highly congested. The liver, the spleen, the kidneys, the larynx, and the trachea were also found congested. The stomach contained about 9 oz. of sour-smelling food.

Chemical Analysis.

The viscera were forwarded to me for chemical analysis and I detected cocaine in them. There was no other poison present in the viscera. The dose taken by the deceased could not be ascertained, but death took place in this case in about half an hour.

CASE IV.

The case of L. K., sister-in-law of victim No. III, constitutes a fourth case, but it did not terminate fatally. The dose taken rendered the patient unconscious in half an hour, and kept her so for four hours. Her pulse and respiration are said to have been normal during her stay in hospital and her pupils slightly dilated.

The stomach washings were sent to me for chemical analysis, and I detected cocaine in them but no other poison.

Method of Detection.

In all these cases I extracted cocaine by Stas's process. The ethereal extract, on being applied to the tongue, produced very marked anaesthesia. When this was dissolved in dilute hydrochloric acid and evaporated to dryness in a water bath it left a residue which gave well-marked reactions with the principal alkaloidal reagents.

The hydrochlorate thus obtained, when treated with a solution of picric acid, gave a copious precipitate which under the microscope showed the usual long needles arranged in star-shaped bundles.

A fresh portion of the residue treated with a drop of a strong solution of alum and next with a drop of potassium permanganate solution yielded a deep reddish-brown precipitate. The latter, under the microscope, showed the characteristic rectangular plates.

Another portion of the residue was treated with strong nitric acid and evaporated to dryness. The addition to it at this stage of a few drops of an alcoholic solution of potash caused the characteristic peppermint-like odour of ethyl benzoate to evolve.

A 5 per cent. solution of chromic acid added to a solution of the hydrochlorate produced an abundant precipitate which disappeared on shaking. The subsequent addition of a drop of strong hydrochloric acid caused a copious yellow precipitate.

Treatment.

In acute cases the stomach pump should be used, as the anaesthetic effect of the drug on the mucous membrane of the stomach might interfere with the action of an emetic. Hot coffee and stimulants, such as brandy, ether, and ammonia, should be freely given, and hypodermic injections of ether, strychnine, and digitalis might be desirable. In convulsions I may say that chloroform is useful. Morphine appears to possess an antidotal action against cocaine, and it might be used hypodermically. Inhalation of amyl nitrite has also been recommended. Perfect rest in a lying position should be enjoined in all cases.

My best thanks are due to Captain St. John Moses, M.D., D.Sc., F.R.C.S., F.R.S.E., I.M.S., police surgeon of Calcutta, for kindly supplying me with the notes of the *post-mortem* examination of the three fatal cases and for generally revising this paper.

AN EXPERIMENT TO ILLUSTRATE THE EFFECT OF SIZE OF POPULATION ON THE RATE OF SELECTION OF NEW BACTERIAL RACES.

BY W. J. PENFOLD,

ASSISTANT BACTERIOLOGIST, LISTER INSTITUTE, LONDON.

IN the course of a research into the question of the selection of a variant of *B. typhosus* in respect of dulcite-fermenting power, the following experiment was designed with the view of ascertaining whether the bulk of the fluid medium in which the organism was grown had any marked influence on the rate of selection of the new race.

A set of nine beakers, each beaker being 5½ cm. in diameter, and a set of nine test tubes, each tube being 1 cm. in diameter, were filled to the depth of 1 in. with the same sample of dulcite peptone water of the following composition, and containing litmus as indicator:

Peptone (Witte)	...	...	...	20 grams
Dulcite	...	...	...	5 ,,
Salt...	...	...	...	5 ,,
Water	...	...	...	1 litre

The dulcite-peptone water was rendered faintly alkaline to litmus and sterilized by steaming on three successive days. The tubes and beakers were of the same height, so that the condition of aëration of the medium was strictly similar in each series. This precaution is necessary, as it is well known that alkali formation from the peptone is greatly favoured by free access of air. Each member of these two series was inoculated with the same quantity of *B. typhosus* broth. The strain selected for this purpose was one which, from previous testing, was known to acquire the power of fermenting dulcite more slowly than the majority of strains. All the cultures were incubated at 37° C.

The time taken to produce acidity in the original beakers and tubes is given in Table I, and it will be noted that no test-tube culture became acid during the period of observation (twenty-six days).

After eight days' growth subcultures were made from each tube and each beaker into 6 c.cm. quantities of dulcite-peptone water contained in ordinary test tubes. The times taken to produce acidity in these subcultures are given in Table II. Again no subculture from the original test tubes became acid.

After a further period of seven days—that is, fifteen days from the commencement of the experiment—subcultures were again made from the original beakers and tubes into ordinary 6 c.cm. quantities of dulcite broth. The times required for appearance of acidity are indicated in Table III.

These various tables show that a fermenting race is much more quickly produced by growth of the organism in large quantities of culture medium than in small quantities. If the original small tubes be inoculated with small doses of *B. typhosus* broth and the beakers with large doses, the sizes of these doses being related to each other as the volumes of the dulcite broths to be inoculated, the fermenting race is again found to arise more quickly in the large quantities.

The original small tubes never developed an acid reaction, and their subcultures likewise did not, within the limits of observation. The large cultures in beakers developed an acid reaction in every case by the fifteenth day. Their first subcultures showed three with a full acid reaction by the tenth day. In the second subcultures from the original beakers nine became fully acid in reaction by the sixth day.

The experiment above detailed was led up to by a preliminary experiment performed with a *B. typhosus* strain which was known to acquire the power of fermenting

dulcite more quickly than the above-mentioned strain. The details of this earlier experiment were as follows: 50 c.cm., 20 c.cm., and 5 c.cm. quantities of dulcite-peptone water were put up in three series. In each series there were ten such quantities. Every member of the different series was inoculated with the same dose of *B. typhosus* broth. On the tenth day after inoculation all the broths were subcultured into ordinary test tubes containing 6 c.cm. quantities of dulcite broth, and the times required to produce acidity were noted. The results are given in Table IV.

It will be observed that all the subcultures from the initial cultures of 50 c.cm. showed full acidity by the second day. The subcultures from the 20 c.cm. quantities showed four with a full acid reaction on the second day. In the case of the subcultures from the 5 c.cm. tubes not one showed a full acid reaction on the same day.

We conclude, therefore, that, other things being equal,

TABLE I.

Beakers. 1	2	3	4	5	6	7	8	9	CONTROL	Days of Observation.	Small Tubes. 1	2	3	4	5	6	7	8	9	CONTROL
–	–	–	–	–	–	–	–	–	–	8th	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	af	–	–	9th	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–		–	–	12th	–	–	–	–	–	–	–	–	–	–
af	–	a½	–	–	–	–		–	–	13th	–	–	–	–	–	–	–	–	–	–
	a½	af	a½	–	a½	–		a½	–	14th	–	–	–	–	–	–	–	–	–	–
	af		af	af	af	af		af	–	15th	–	–	–	–	–	–	–	–	–	–
										20th	–	–	–	–	–	–	–	–	–	–
										26th	–	–	–	–	–	–	–	–	–	–

TABLE II.

First Subcultures from Beakers into Small Tubes (6 c.cm.). 1	2	3	4	5	6	7	8	9	CONTROL	Days of Observation.	First Subcultures from Small Tubes into Small Tubes (6 c.cm.). 1	2	3	4	5	6	7	8	9	CONTROL
–	–	–	–	–	–	–	–	–	–	2nd	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	6th	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	af	–	–	7th	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–		–	–	8th	–	–	–	–	–	–	–	–	–	–
af	–	af	–	–	–	–		–	–	10th	–	–	–	–	–	–	–	–	–	–
	–		–	–	–	–	–	–	–	11th	–	–	–	–	–	–	–	–	–	–
	–		–	–	–	–		–	–	19th	–	–	–	–	–	–	–	–	–	–

TABLE III.

Second Subcultures from Beakers into Small Tubes (6 c.cm.). 1	2	3	4	5	6	7	8	9	CONTROL	Days of Observation.	Second Subcultures from Small Tubes into Small Tubes (6 c.cm.). 1	2	3	4	5	6	7	8	9	CONTROL
a¼	–	a¾		–	–	–	a¼	a¼	–	2nd	–	–	–	–	–	–	–	–	–	–
af	–	af	a½	a½	a½	–	a¾	a¾	–	3rd	–	–	–	–	–	–	–	–	–	–
	–		af	af	af	–	af	af	–	4th	–	–	–	–	–	–	–	–	–	–
	a½					a½			–	5th	–	–	–	–	–	–	–	–	–	–
	af					af			–	6th										

Af=full acid reaction. *A*=acid. The fractions indicate grades of partial acidity.

TABLE IV.

	1	2	3	4	5	6	7	8	9	10	Day of Observation.
Subcultures from tubes of 50 c.cm.	A.f.	A.f.	A.f.	A.f.	A.f.	A.f.	A.f.	A.f.	A.f.	A.f.	Second day.
Subcultures from tubes of 20 c.cm.	A.f.	A.½	A.f.	A.½	A.½	A.½	A.f.	A.½	A.f.	A.½	Second day.
" "		"		"	"	"		"		A.f.	Fourth day.
" "		"		"	"	"		A.¾			Fifth day.
Subcultures from tubes of 5 c.cm.	A.¼	A.¼	A.¼	A.¼	A.¼	A.¼	A.¼	A.¼	A.¼	A.¼	Second day.
" "	A.½	"	"	"	A.f.	"	"	"	"	A.½	Fourth day.
" "	A.f.	A.½	A.½	A.½		A.½	A.½	A.½	A.½	A.f.	Fifth day.

the larger the culture the sooner will a new race be selected out. This more effective selection from a large population is mainly due to there being more extreme variants from the mean in the large population. The explanation is not chiefly to be sought in the fact that in the larger cultures a few more generations are required to produce the same population per cubic centimetre. By inoculating into constant volumes of dulcite broth seedings of *B. typhosus* of different size the number of generations required to produce the same population per cubic centimetre is altered, but the tubes with small seedings do not give regularly earlier acidity than the tubes with large seedings.[1]

Since bacterial selection can be conducted more efficiently from a large population, it would appear probable that the selection of variants by animal passage would, other things being equal, be more successful in a large rather than in a small animal.

CONCLUSION.

The rate of selection of dulcite variants of *B. typhosus* varies directly with the size of the population from which the selection is made.

REFERENCE.

[1] Penfold (1911): Studies in Bacterial Variation, *Journal of Hygiene*, vol. xi, p. 30.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

TOXIC SYMPTOMS AFTER TAKING A PROPRIETARY PILL.

IN the JOURNAL for May 11th, 1912, and in subsequent numbers correspondence took place on green urine due to a proprietary pill, and while in two cases it was stated that those who took the pills showed symptoms of illness which might be referable to the pills, the majority of the cases seemed mainly interesting from the fact that green urine was passed. The correspondents at that time all wrote from parts of England. The proprietors of the pills are now evidently transferring their energies to Scotland, for besides the following case, which is of interest, a practitioner in the town has informed me that one of his patients has been taking the pills without, however, showing any symptoms except the green urine.

J. M., a mason, had for some time felt a pain in the back on rising in the morning, but this passed off soon after starting work. He thought his kidneys were affected, and when a sample of kidney and bladder pills was handed in at his house he thought he would give them a trial. On October 14th he took one pill before dinner, one before tea, and two before going to bed, as directed on the box. That evening on passing urine he noticed that it was greenish, but as the instructions informed him to expect this he was in no way alarmed. On October 15th he took one pill before breakfast, and now noticed small round spots like "heat spots" appearing on the front and back of the neck. Another pill was taken before dinner, and by this time the spots had greatly increased, appearing now on the face, and the neck had become so swollen that he had to take off his collar and put on a muffler before he could go out to his work. He began to think that the pills might be the cause of his condition, as previously he had been in good health except for the slight backache. He had taken six pills in twenty-four hours, and now ceased taking them. By evening the eyelids were swollen and felt stiff and heavy, the right eye being almost closed. The spots were still present on the face, neck, and upper part of the chest, and felt hot and itchy. A poultice with vinegar and water added was applied to the neck and diminished the swelling, but on October 16th his face had such a blotchy and puffy appearance that he could not go to work. He called to see me on the evening of October 17th, and the red papular eruption was very marked on the face and neck, while below both the lower eyelids there was marked oedema, the skin pitting on pressure. Several of the papules were scaly on top, while in various places on the face and neck there was a fine desquamation. Since he had left off taking the pills his condition had improved, and by October 19th all trace of the eruption or oedema had disappeared. The urine two days after ceasing to take the pills had lost its greenish colour, and was in no way abnormal.

Dundee. MARTIN SMITH.

THE RISK OF ECLAMPSIA RECURRING IN A SUBSEQUENT CONFINEMENT.

A VERY personal interest concerning the above impels me to sound a note of warning to those of the profession who are especially concerned in obstetric practice, and who may be called upon to express an opinion in the matter. For myself, I can never again give a hopeful prognostication, for the following reasons, as exemplified in two recent cases.

CASE I.—Four years ago a lady, aged 36, the wife of a major in the Indian Medical Service, came home to be delivered of her first child. She was advised to fortify herself for the event, somewhere in Scotland for preference, and, accompanied by her husband, she proceeded thither, a sheltered seaside resort being selected as the temporary home. Analyses of the urine were made from time to time, and all went well until early in the seventh month, when eclampsia gripped her with great suddenness and violence. Thanks to a most excellent village doctor—one of God's good men—and to his promptness in securing the best of skill from Edinburgh, she was spared on this occasion, though convalescence was very protracted. Eighteen months later she was back in Bengal, and in a year, becoming pregnant once more, she was again sent home. Every precaution was taken, nothing apparently overlooked; but, despite every attention and treatment, including Caesarean section, she died in an eclamptic state (at about the end of the seventh month of pregnancy).

CASE II.—A lady, aged 30, daughter of a noted surgeon in a Canadian city, and therefore, as in the case of the former patient, able to secure the best attention, had the same experience exactly as regards the incidence of eclampsia in each of her two confinements, with this exception, that Providence spared her life and that of her infants. Albuminuria in her case was transient during the sixth month of her second pregnancy and absent in her first, save at the crisis. Labour in each instance was, of course, induced and at about the eighth month.

As both the foregoing cases occurred in my family circle, is it any wonder that for the future I shall not have much use for the actuary, nor time for his statistics, and that I shall, should the occasion arise, feel it to be my duty to urge on those interested that there is indeed a very grave danger of a repetition of what might easily lead to irreparable disaster?

Putney. ATHELSTANE NOBBS, M.D.

ATTEMPTED SUICIDE BY DRINKING LYSOL.

ON October 18th I received an urgent call to a patient, aged 63 years, suffering from melancholia, who had swallowed an unknown quantity of lysol. Two days previously I had seen her for this nervous breakdown, and had warned the family to be careful and watchful, as she would probably try to take her life. It never occurred to them that she would drink the lysol, which was used for disinfectant purposes, and was placed upon the washstand.

I found her sitting upon the bed, coughing and hawking up frothy, thick mucus; her voice was rough and hoarse, as if some of the fluid had gone into the larynx. The mouth inside was whitish, and the lips excoriated; the characteristic odour of phenol was present. Upon swallowing she made a wry face, and held her hand to her chest as if the act was painful; she was excited and talkative between the spasms of retching and spitting, and informed me that the devil was inside her; nothing I could give her would do her any good—God had given her up, and she could not die whatever she took. She drank the lysol at 3 p.m. The family discovered it at once owing to the smell and the convulsive coughing, and immediately gave her three glasses of milk. This was vomited soon after she drank it, the vomit smelling strongly of lysol.

It was 4.30 p.m. when I first saw her, and, taking into consideration her general condition, the fact that she had vomited the contents of the stomach soon after taking the poison, and the length of time since the act occurred, I did not wash out the stomach, but contented myself with giving her a solution of magnesium sulphate, which she

took after a little persuasion, and evidently with great pain. As her general condition was fair, I left with instructions to call me if there was any change for the worse, and sent round a stimulant mixture to be taken if required.

Next morning I saw her again. She had slept well during the night, and, apart from her mental symptoms, was apparently very little the worse for her escapade. The tongue had a distinct bluish tint, but was not excoriated. I think she had pain in the alimentary tract, but everything was accredited to snakes, devils, and what not by the patient.

The relatives could not be certain of the amount of lysol in the bottle, but apparently the amount taken was about half an ounce. Martindale mentions that lysol is supposed to be less poisonous than carbolic acid. The early and copious vomiting after taking the milk seems to have been the saving clause in this case.

H. Knights-Rayson, M.D., M.R.C.S., L.R.C.P.

Bayville, S. Africa.

EMPYEMA IN AN INFANT.

On March 24th, 1912, I was called to see a baby aged four months who had suffered from repeated attacks of bronchitis.

The symptoms resembled those of abdominal colic, and râles and rhonchi were present in the chest. The temperature was 101°. On March 25th the child was still in great pain and a rectal enema was given. On the following day dullness appeared over the base of the right lung with lessened breathing. The area of dullness gradually increased, and on using an exploratory needle pus was found. Paracentesis was performed, and about 2 oz. of pus drawn off. The next day it was necessary to do a thoracotomy, which the little patient stood well, and a drainage tube was left in the opening.

The baby gradually improved, so that on the tenth day the tube was removed, and the wound healed in a few days.

Since then the child has had an attack of whooping-cough, but is now strong and healthy.

The following are the points of interest in the case:

The age of the patient, the absence of any history of pneumonia, that the symptoms pointed to colic, and that thoracotomy proved efficient.

W. G. Cummings, M.B.

West Ealing, W.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

JENNY LIND INFIRMARY FOR CHILDREN, NORWICH.

A CASE OF STRANGULATED INGUINAL HERNIA IN A CHILD OF 18 MONTHS, CONTAINING THE CAECUM AND VERMIFORM APPENDIX.

(By B. B. Riviere, F.R.C.S.Eng., Assistant Surgeon.)

As several cases of strangulated hernia in young children have recently been reported in the British Medical Journal, the notes of the following case, which came under my care, may be of interest:

S. E., a male child aged 18 months, was admitted on July 9th, 1912, the history being that he had had a rupture on the right side since birth, which had now been down for four days. During these four days the bowels had not been open, and for the last twelve hours the child had been vomiting.

On admission the child looked ill, with somewhat sunken eyes and distended and rather rigid abdomen. In the right groin was a tense swelling in the position of an inguinal hernia, irreducible, and with no impulse on coughing.

Two hours after admission the child was anaesthetized, and as the swelling was still found to be irreducible, it was cut down upon. On opening the sac it was found to contain the caecum and vermiform appendix, which were somewhat congested in appearance and tightly constricted by the neck of the sac. The bowel could not be reduced, nor could any more bowel be pulled down until the neck of the sac had been divided. This was done, and the bowel returned to the peritoneal cavity. The sac was then ligatured and removed, the aponeurosis of the external oblique sutured, and the wound closed.

The child made an uninterrupted recovery, and was discharged on August 1st.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

STAFFORDSHIRE BRANCH.

Stoke-on-Trent, November 21st, 1912.

Dr. J. A. Codd, Vice-President, in the Chair.

Cases.

Dr. Allardice showed (1) a boy whom he had operated upon for *Chronic middle-ear disease with abscess in the temporo-sphenoidal lobe;* (2) a girl whom he had operated upon for *Lateral sinus thrombosis due to middle-ear disease*, the internal jugular vein having been ligatured in the neck. Dr. Allardice read short notes of the cases, with interesting details of the technique employed, and it was seen that both patients had made a rapid and most satisfactory recovery.

Tuberculin: When and When Not to Use it.

Dr. E. C. Myott read a paper on this subject, and showed eight patients whom he had treated with tuberculin. He also gave a lantern demonstration. He said tuberculin should not be given without a clear week's genuine temperatures, taken four-hourly. Three to ten minutes' retention in the mouth might be necessary for an efficient record. If the patient had not sufficient perseverance for this treatment should not be begun. The practitioner should learn to catch the temperature fake, for instance, registering successively the same. Patients should be divided into febrile and afebrile. The afebrile might be passed for treatment. Afebrility did not, however, betoken the absence of a mixed infection. There might be a tox-immunity to the mixed germ which might enter upon a phase of renewed activity during a negative tuberculo-opsonic period. Where febrile, if the patient were only recently ill or worse, rest in bed should materially modify the purely tuberculous infection. If the temperature were satisfactorily falling one could afford to wait until the excessive autoinoculation had ceased before commencing the injections. These should then be of a mild type, B.E. or T.R., of small calibre $\frac{1}{100}$–$\frac{1}{1000}$ c.cm., of sufficient interval, five to ten days. If the pyrexia were persistent it should be noted whether continuous or intermittent in type, or both. The sputum should be examined for complicating bacteria in lung cases. Where present, a secondary vaccine should be prepared. A few cases did well with the exhibition of tuberculin alone. The specificity of the secondary vaccine should be verified before starting the tuberculin. It should be remembered that tuberculin would not cleanse the mouth, empty the rectum, or drain pus pockets. Therefore one should avail oneself of hygienic measures—mouth, lung, and intestinal antiseptics—also prompt surgical assistance. Where treatment had been begun already, it should be suspended upon the advent of a concomitant affection—for instance, acute tonsillitis, influenza. Although hypersensitiveness and immunity were both specific, yet they drew upon the one general fund or treasury of the natural resistance. The patient's interpretation for a reaction, "Caught a cold," should not be accepted unless other members of the household had had one. Every result was not due to tuberculin; one boy had haematuria and lost 5 lb. whilst preliminarily taking his temperatures. Too long a gap should not be allowed between the injections, especially where employing the soluble form; the patient might become hypersensitive. Slight haemorrhage was not an indication for cessation, only

for caution, unless backed up by other signs, subjective or objective. Subjective signs might be the only indications to go upon in chest cases. Objective signs were well to the fore in all surgical types—marked skin reaction and induration, ready temperature response. Tuberculin should not be given to a patient who had got up from bed to come to the doctor's surgery. One could not differentiate the effects of the unwonted autoinoculation and the injection. Febrile cases of all sorts were best started on the treatment in bed at home, hospital or sanatorium. Patients should be treated "socially"; the old ones balanced up the young, and prevented the raw recruits from stampeding in the early stages. One should not allow oneself or the patient to be discouraged by an initial loss of weight. An afebrile should not be turned into a febrile case by overdosage; it was better to run the risk of producing a hypersensitiveness, which sometimes followed the employment of too small doses. One should not attempt the bold finesse of one's teacher when one first began. Dr. Myott's paper was discussed by Drs. RIDLEY BAILEY and FORTUNE, and Dr. MYOTT replied.

Prophylaxis in Eye Work.

Mr. S. MCMURRAY read a paper on this subject. He strongly recommended that endeavours should be made to find the cause of eye troubles. If the exciting cause were found many eye diseases could be prevented or at least limited.

Ophthalmia Neonatorum.—He suggested the use of 1 per cent. AgNO$_3$ in the eyes of all children at birth.

Toxic Amblyopia.—Limitation of the amount of tobacco and alcohol consumed after the age of 40, especially in the case of persons suffering from Bright's disease or diabetes and when the occupation becomes more sedentary.

Cataract.—Prevention should aim at delaying the development of arterio-sclerosis.

Glaucoma.—Prophylaxis should aim at a quiet life, freedom from worry, and an antiarthritic régime.

Eczematous Ophthalmia.—Fresh air, good food, and cleanliness.

Trade Injuries.—The tear passages should be examined in all cases of corneal abrasion, and, if found to be diseased, should be washed out.

Miners' Nystagmus.—Periodic examination would allow of early recognition and so shorten the time of incapacity.

He also recommended the correction of all errors of refraction in these cases.

Mr. McMurray's paper was discussed by Drs. RIDLEY BAILEY, DICKSON, KING ALCOCK, and FAULDS, and Mr. MCMURRAY replied.

Specimens.

Dr. HIND showed a bullet and radiogram from a case in which he had successfully removed a *Bullet from the brain of a boy*. Dr. F. N. COOKSON showed an *Enlarged prostate* removed during an emergency operation in a case of profuse haematuria associated also with vesical calculi. Mr. R. H. DICKSON showed a specimen of *Glioma of the retina* with a section under the microscope.

THE Babies' Welfare Association, which has done good work in New York during the past few months, was permanently organized at a meeting of the Academy of Medicine held on December 12th, 1912. The Association (says the *Medical Record*) is made up of seventy different philanthropic and medical societies, and has for its aim the lessening of infant mortality. Health Commissioner Ernst J. Lederle has been elected honorary president.

THE Carlsbad Medical Society offers a prize for the best essay on the treatment of diabetes mellitus, with special reference to balneotherapy. The judges are Hofrat Dr. Ritter v. Jaksch, of Prague; Dr. Luethje, of Kiel; Dr. Ortner, of Vienna; Dr. Schmidt, of Innsbruck; and Dr. Edgar Ganz, president of the society. The judges may, as they think fit, award either one prize of 5,000 kronen, or two prizes of 3,500 kronen and 1,500 kronen, or three prizes of 2,500 kronen, 1,500 kronen, and 1,000 kronen. The competition is open to medical practitioners of all countries. The essays, which may be written in any language, should be sent in before December 31st, 1913, to the Society of Carlsbad Physicians, Carlsbad, from which any further information may be obtained.

Reports of Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND

SECTION OF MEDICINE.

Friday, December 6th, 1912.

DR. J. O'CARROLL, President, in the Chair.

Specific Treatment of Pulmonary Tuberculosis.

DR. CROFTON described the treatment of pulmonary tuberculosis by intravenous injections of iodoform dissolved in ether. When, in exceptional cases, this could not be carried out the combination should be given intramuscularly or by the mouth. He thought Szendeffy's formula—namely, iodized peptone, menthol, and radium—was less effective, but was useful sometimes for its tonic effect, and could be usefully used to supplement tuberculin. No treatment of pulmonary tuberculosis was complete unless a course of tuberculin were given to increase the patient's resistance. The best preparation was made by dissolving tubercle bacilli in benzoyl chloride. This was given combined with iodoform by intramuscular injection. The results so far had been very good. Dr. MARY STRANGMAN (Waterford) said that since Dr. Crofton's previous paper had been published she had tried the treatment in two of her cases. The first was one that might have been looked on as a forlorn hope. There were cavities in the left apex, and the right base was the only part of the lungs that could be looked upon as sound. There was loss of appetite, wasting, high temperature, and night sweats and extreme weakness. When the treatment was started she was much struck with the improvement within the first few days—the night sweats were practically stopped and the sputum very much diminished; but, unfortunately, at this stage, in giving one dose very quickly, a cough was brought on, which started a haemorrhage which frightened the patient so much that he would not allow another injection for a week. After this the injections were resumed, and have been kept up since. The sputum has now very much diminished, being about 1½ oz. in the twenty-four hours, the temperature has fallen, and all the other symptoms improved. The treatment was carried on for ten weeks. The second case was that of a young girl. The patient consulted her last May for an attack of pneumonia, which was found difficult to treat. A slow recovery was made, and the patient was sent to the country. When she returned she had reduced in weight, had night sweats, loss of appetite, and a few tubercle bacilli were found in the sputum. Iodoform injections were immediately started. For the first three weeks there was no very marked improvement. This was attributed to a low blood pressure. Her sputum, from being profuse, had now diminished to less than a drachm in the day. Cough was very slight. She still suffered from emphysema, but her case was a very hopeful one. Dr. MELDON had tried the treatment in four cases; in each case the temperature came down, the cough lessened, and the patients appeared much better. The treatment appeared to be efficacious, and in one case he considered the result very good. Dr. NESBITT said he had tried the treatment in one case, and found it did well. The case was one of massive consolidation of the left base in a man aged 30. He was taken into hospital and given thirty-one injections of iodoform, and after three months' treatment his temperature had returned to normal, and had remained so since September last. He increased in weight, lost his cough, and the sputum (which had contained numerous tubercle bacilli) disappeared entirely, although the pulse did not react as he would have wished. He would not go so far as to claim this as the one and only form of treatment, but there was little doubt that iodoform did benefit his patient. Half-grain doses were given in plain solution of ether, and the patient found no bad symptoms, nor did he object to it. Other methods might, he thought, do as much good, but he felt quite justified in trying the iodoform injections in further cases. Dr. MOORHEAD said Dr. Nesbitt touched one very important point—that is, in judging any treatment one should have some idea of the history of the disease. It would, he thought, be admitted that in the natural course all cases

on any form of treatment, and even those not being treated, were subject to considerable variation, and it was only by very careful comparison with a very large number of cases one could form an opinion of the value of a particular form of treatment. He could not help feeling surprised that phthisis was in existence at all, so many remedies had been put forward. He was very much struck with the series of drugs employed in the cases reported, and he was at a loss to know which of them, if any, had a beneficial effect. Iodoform appeared to have a very good effect if any of the three forms of administration suited. He would like to know if a patient who had an opportunity of having first-class sanatorium and climatic treatment consulted Dr. Crofton which form of treatment would he select for him—the sanatorium or the treatment just now advocated. Dr. HAYES said, as his name had been mentioned as having *x*-rayed Dr. Crofton's patients, he would like to make clear his conclusions. The first was a case of enlarged mediastinal glands, and the patient had been previously operated upon for tuberculous glands in the neck. Nothing else could be detected but these enlarged mediastinal glands. After a course of treatment Dr. Crofton had her examined again, and there was a distinct diminution in the extent of the glands. Dr. COLEMAN said he thought the cases narrated could be taken to prove little. The great difficulty was that Dr. Crofton had not mentioned the number of cases in which the treatment was tried; he had not mentioned any bad or fatal results, nor had he said anything about controls. In order to derive any conclusions from the effect of iodoform treatment it would certainly be necessary to have a large number of cases fully set out and the same number of controls, and if the treatment with iodoform then showed marked improvement by comparison something could be said for iodoform. Dr. CROFTON, in replying, said that every one who had used the treatment was pleased with the results. Iodoform had been used in hundreds of cases without any fatal result. The cases reported were not specially picked ones, but were ones which would have been considered suitable for sanatorium treatment. He wanted to emphasize that the combination of iodoform and specific immunization was the ideal to be aimed at. With regard to the selection of sanatorium treatment under climatic conditions or the home treatment as indicated, he would prefer the latter. He did not think he would use controls even had he an opportunity of doing so, as he considered the cases turned out by sanatoriums were quite sufficient for comparative purposes. The hope of the future was in the prevention of the disease and not in cure, and to bring the resistance up to or above normal would be the best preventive.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

AT a clinical meeting on December 18th, 1912, Mr. J. M. COTTERILL, President, in the chair, the following were among the exhibits:—Mr. DENIS COTTERILL: A case of *Congenital subspinous dislocation of the shoulder* in a boy, simulating an Erb's paralysis, and possibly due to some injury at birth. Dr. GEORGE MACKAY: *A haematoma of posterior orbit* in a man, caused by a blow, and cured by a modified Krönlein's operation. Mr. J. W. STRUTHERS: (1) A woman, aged 50, after removal of a segment of the cervical oesophagus for *Squamous carcinoma*, causing isolated stricture behind the larynx. (2) Female, aged 39, after removal of the right kidney for acute suppurative pyelonephritis. Mr. SCOT SKIRVING: Two men, illustrating rapid improvement from severe *Tertiary syphilitic lesions* with neo-salvarsan. In one of these mercurial treatment had produced little benefit, and had been badly borne. Mr. G. CHIENE: A case of *Recurrent pyonephrosis* in a woman, aged 35, treated in the first instance by operation, and followed by the development of stone, which had since been removed. Mr. H. WADE: Two patients illustrating *Plastic surgery;* one of an extensive skin graft on the hand, derived from a "pocket" of the abdominal skin; the other of transplantation of portion of the palmaris longus and cephalic vein to restore the function of the divided extensor longus pollicis. Dr. GULLAND: (1) A case of *Senile chorea* in a woman, aged 51, developing within four months, but preceded by delusions and affection of speech for two years. There was a marked rheumatic history. (2) A case of *Pulmonary abscess* in a man, aged 64: it began as a cold which was followed by pneumonia of the left base. Dr. R. FLEMING: A case of acute *Toxic polyneuritis* in a sailor, aged 24, apparently due to ten days' working with naphtha paint. There was paralysis of extensors of arms and legs, with muscular hyperaesthesia, reaction of degeneration, and delayed sensory conductions. Dr. BOYD: (1) Two cases of *Syphilitic spinal paralysis*, both treated with mercury, and one also with salvarsan, and both still giving a positive Wassermann reaction. (2) A case of *Purpura haemorrhagica* in a man, with haemorrhage from gums, stomach, and intestine; severe attacks of colic, marked joint pains, interstitial haemorrhagic nephritis, and purpuric rash on skin. Dr. JOHN THOMSON: (1) *Oxycephaly* in a girl, aged 14, showing the typical features of exophthalmos, large oblique orbital cavities, defect of cranial ridges, peaked vertex; but without deformities of extremities or mental defect. (2) A case of mild *Cretinism* in a child, aged 9, showing extraordinary growth of thyroid, the weight being doubled in four months, and trebled in thirteen months. Dr. J. S. FOWLER: A case of *Sarcoma of the liver* in a child, aged 9. Dr. E. BRAMWELL: Three brothers, aged 33, 31, and 27, the youngest living members of a family of twelve, showing *Myotonia atrophica;* the leading features were indistinct articulation, bilateral facial weakness, atrophy of sterno-mastoids, weakness of hand movements, the relaxation of grasp being slow and difficult, but carried out more promptly after repetition, weakness of dorsiflexors of foot, no marked atrophy of limbs nor hypertrophy, no fibrillary tremors, tendon jerks diminished. Dr. RAINY and Mr. DOWDEN: A man, aged 47, with *Intestinal haemorrhages* of some weeks' duration, with melancholic and slightly suicidal symptoms. The bleeding was shown by the sigmoidoscope to be from the colon. Lavage with 2 per cent. protargol, followed by saline, brought about complete recovery.

ROYAL SOCIETY OF MEDICINE.

SECTION OF BALNEOLOGY AND CLIMATOLOGY.

AT a meeting on December 12th, 1912, Dr. PERCY LEWIS, President, in the chair, Dr. BAIN, in a paper on *Cholelithiasis*, said the successful medical treatment depended, first, on accurate diagnosis, and, secondly, on clear recognition of the causes operating in each individual case. The possible predisposing causes included bile stagnation, anxiety, worry, and indigestion. Besides microbic infection an additional causative factor must be assumed. Recent work tended to show that gall stones were formed independently of infection. Apart from mechanical effects, such as the passage of a calculus, gall stones did not give rise to pronounced symptoms unless there were an accompanying cholecystitis. The early symptoms varied considerably, and did not usually suggest involvement of the gall bladder, consequently the affection very often escaped recognition. Flatulent dyspepsia was one of the commonest. Others were fullness, distension, and discomfort in the stomach; acidity, heartburn, a slightly furred tongue, occasional pain in the epigastrium coming on from thirty minutes to an hour after meals, induced by special kinds of food; lassitude, heaviness, drowsiness, disinclination for work, and occasionally a feeling of weight or a dull heavy sensation in the right hypochondrium. Often symptoms of intestinal indigestion predominated. Depression of a fleeting character was a frequent symptom, and might be the only one. The true nature of the case was revealed by examination of the liver. That organ might or might not be slightly enlarged, but there was invariably tenderness on pressure in the region of the gall bladder. This tenderness, due to cholecystitis, either preceded the formation of biliary calculi, or was associated with their presence. A normal gall bladder would dissolve any gall stone that was introduced into it under aseptic conditions; hence the principles of treatment were to improve the digestion by adapting the diet to the patient's digestive powers, to foster nutritional efficiency by suitable forms of exercise, to disinfect the biliary passages, and to correct any injurious habits. The rational treatment of a case in the first instance should be symptomatic. When the digestion became fairly normal colalin and urotropin should be administered for several months. The PRESIDENT drew

attention to the fact that nearly all the items of treatment advocated by Dr. Bain acted on the general lines of improving the resistance of the tissues to microbic invasion. The ordering of an annual visit to a spa was a reproach to the efficiency of the treatment there carried out. Dr. SOLLY (Harrogate) said that he considered that once the diagnosis of gall stones was established surgical treatment was the only satisfactory cure. Dr. ACKERLEY (Llandrindod Wells) said that some recent inquiries he had made confirmed the statements of Thudichum and Brockbank as to the rarity of gall stones in animals other than man. In 1,400 necropsies since 1903 made on mammals at the London Zoological Gardens gall stones were found in only 5 cases—twice in ajoutis, once in a spotted cavy, once in a musquash (all four rodents), and once in a wild swine. This evidence tended to show that not bacterial infections, but the artificial habits, especially the food habits, of civilized man were much the more potent factors in the etiology of cholelithiasis. Mr. CAIRNS FORSYTH regarded the treatment of cholelithiasis as entirely surgical. No doubt cure sometimes resulted from escape of the calculi into the bowel, and temporary relief might be obtained by medical treatment, but the dangers of delay were great. To postpone operative interference until complications arose was a procedure which was unfair to both patient and surgeon. Dr. KEAY said that as one who had himself suffered from an aggravated form of the complaint he regarded the description of symptoms given by Dr. Bain as decidedly superior to that found in most medical, and especially surgical, textbooks. The disease was eminently adapted to medical treatment, but there was no universal remedy, and each patient must be treated individually, and in that treatment less consideration should be given to its supposed microbic origin and more to the avoidance of worry, the improvement of digestion, and consequent character of the bile. If proper treatment were adopted his patients entirely recovered, and it was only in very rare cases that operation was called for. Since undergoing treatment in Karlsbad a number of years ago he had been entirely free from all symptoms of the disease. Dr. BAIN, in reply, said that urotropin was excreted in the bile. The reason why he advocated a yearly visit to a suitable health resort was that the causes which lead to the development of gall stones were in most cases not removed by operation. He agreed with Dr. Ackerley that highly-spiced foods and most condiments should be avoided in gall-stone disease. He agreed with Dr. Edgecombe that when a patient obtained complete relief from his symptoms it was impossible to say, without an abdominal section, if the calculi had broken up and disappeared. Regarding the criticism of the surgeons, his point was that they rarely saw the mild cases, consequently their dogmatic statements were based upon the manifestations of the disease in its advanced stage. They surely could not expect every case of cholecystitis, however mild, to submit to an operation.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on December 19th, 1912, Dr. LLOYD ROBERTS, Vice-President, in the chair, Dr. THURSTAN HOLLAND, in a note on *X-ray diagnosis of gall stone*, said that in three recent cases he had been able to recognize shadows as those of gall stones. Owing to the composition of the stones their greater part was transparent, but they had a crust of lime salts which gave a marked shadow with a transparent centre. He subsequently showed on the screen that the ring of shadow differed from that of a calcareous gland, which resembled a blackberry, and from a renal calculus, which gave a clear, sharp, homogeneous shadow. Dr. T. R. BRADSHAW showed a clerk, aged 17, with *Paralysis of the motor portion of the fifth nerve*, with complications. The earliest trouble was in February, 1912, when he had some weakness of the right leg. In May he was thrown from his bicycle. He had a slight accident bicycling directly after this. His sight was impaired and he had headache. Next day he had diplopia and difficulty in swallowing, with regurgitation of fluids through the nose. When admitted for treatment in June there was paralysis of the right external pterygoid muscle, and the masseter and temporal were weak. There was also lateral nystagmus, especially on looking to the right, diplopia, and the right palpebral fissure was narrower than the left. The right leg, which the patient said was weak, showed absence of knee-jerk. The grasp of the right hand was impaired. There was no pain or interference with sensibility. The palate was unaffected. The pupils and discs were normal. In the past six months there had been slight improvement. The nystagmus was no longer apparent, and there was no regurgitation through the nose. Dr. Bradshaw could give no satisfactory explanation of the lesion. Dr. WARRINGTON thought the lesion might be a vascular lesion in the medulla or pons. Dr. R. J. M. BUCHANAN suggested an early cerebellar tumour, probably medullary. Dr. W. PERMEWAN thought it important that a thorough examination should be made of the condition of laryngeal muscles. In reply, Dr. BRADSHAW said it was difficult to correlate the lesions with the condition of the right arm and leg. Dr. JOHN HAY, in a paper on vagaries of the auricles, said that normally the auricles contracted at regular intervals about seventy times per minute, and each systole of the auricles was followed by a systole of the ventricles. In some cases extra-systoles arose in some portion of the auricular muscle, causing a premature beat of the heart. In another class of case there was paroxysmal tachycardia, the auricle contracted 200 or more times per minute, each auricular systole being followed by a systole of the ventricle. The stimulus to which the auricle contracted was abnormal in site of origin. The onset and cessation of these auricles were sudden; the rate was uninfluenced by emotion or movement. Dilatation was the result and not the cause of the rapid heart action. In a third class of cases there was a condition of auricular flutter; there was greater acceleration of the auricles—the rate was from 250–330 per minute. The stimulus here also arose in an abnormal site. The ventricular rate was 1 to 2, 1 to 3, 1 to 4 of that of the auricles.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on December 11th, 1912, Dr. WALTER SWAYNE, President, in the chair, Mr. HEY GROVES showed a number of specimens and skiagrams illustrating the operative treatment of both simple, comminuted, and compound fractures in experimental work. He also demonstrated some of the practical applications of these experimental results, namely: (1) Various intramedullary pegs, including those which could be removed after healing of the fracture. (2) Apparatus for the treatment of compound and comminuted fractures. Illustrative cases in which these methods had been used were shown. Mr. A. L. FLEMMING demonstrated the use of intravenous ether anaesthesia with the apparatuses of Rood and Schlesinger, and stated that the latter had the advantages of greater simplicity while giving a more certain drop. Dr. WATSON-WILLIAMS and Mr. A. J. WRIGHT gave demonstrations of upper bronchoscopy, and also of the use of the naso-pharyngoscope, showing cases to illustrate the normal and stenosed appearances of the orifice of the Eustachian tube. Mr. F. G. BERGIN demonstrated the appearances seen in the fluorescent screen in a normal individual after a bismuth meal. Mr. STACK demonstrated the use of the gastroscope of Hill and Herschell upon an oesophagus and stomach removed *post mortem*. Dr. J. A. NIXON and Dr. H. W. BYWATERS demonstrated the use of the polariscope in the estimation of sugars. Dr. A. RENDLE SHORT demonstrated a method of estimating the CO_2 content of the blood. Dr. R. S. S. STATHAM showed the method of performing a urinary acidosis estimation, and emphasized its importance in such toxic conditions as eclampsia. Dr. JAMES TAYLOR showed skiagrams illustrating the condition found at varying periods after the administration of a bismuth meal to cases of intestinal stenosis. Professor WALKER HALL and Dr. KAY-MOUAT showed specimens illustrating the internal secretions of the thyroid, thymus, pancreas, and other glands; also some naked-eye specimens of hearts and lungs with blood vessels injected and the tissues afterwards made transparent. They also demonstrated the action of the blood of pregnant women upon placental protein, with the necessary controls, as a test for pregnancy and eclampsia, upon the lines recently suggested by Abderhalden.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT a meeting on December 13th, 1912, Professor E. W. HOPE in the chair, a paper on temperatures of school children as an aid to early diagnosis was read by Dr. F. E. WYNNE. It was based on observations made by him with respect to the temperatures of 1,000 school children. The observations were made in the anticipation that they would enable an early diagnosis of cases of measles to be made. About an equal number of boys and girls were examined and they were all considered to be in a normal state of health. About 8 per cent. had subnormal temperatures and about 25 per cent. had temperatures of 99° or above. Of the latter, 6 subsequently developed measles and 3 scarlet fever. Dr. Wynne thought that the systematic taking of temperatures in schools might have an important bearing in connexion with the discovery of tuberculous children. Among the children whose temperatures were above normal nearly one-fourth were found to react to the tuberculin test. In discovering early cases of tuberculosis among school children weight should therefore be attached to the occurrence of even transitory rises in temperature, and temperature observations should be useful in sorting out cases for the application of the more troublesome methods of tuberculin diagnosis. He came to the conclusion that the systematic taking of temperatures in day schools was not likely to be of much assistance in preventing epidemics, but that it might very usefully be carried out with good results in institutions.

Reviews.

BRIGHT'S DISEASE.

IN other departments of medicine, observers are sensible that many older conceptions have had to be revised and on occasions entirely replaced by new ones. The study of bacteriology has brought with it ideas concerning the significance of disease which are effecting a revolution in the outlook of the physician. It is not, therefore, surprising that during recent years very real interest has been taken in the group of cases which constitute Bright's disease and its allies. Judging by a recent book on Bright's disease by a London physician, there is a spirit of unrest abroad due to a fundamental dissatisfaction with the theories held for so many years concerning the mechanism of the various processes which accompany diseases of the kidney. The volume on *Nephritis*,[1] by Professor FISCHER, of Cincinnati, founded on his Cartwright Prize Essay for 1911, demands careful attention, and we feel it a duty to our readers to briefly refer to the important problems raised by Dr. Fischer and to the ingenuity and learning which he has brought to bear upon them. Bright's disease may be due to a number of agents reaching the kidney through the blood stream and leading to alteration of the renal parenchyma; the alteration of the parenchyma leads to a loss of the proteins of the plasma, and albuminuria results. This, however, does not explain how the poisonous agents affect the parenchyma nor why it is that though albuminuria results there may be also dropsy, cardiac hypertrophy, anaemia, etc. Nor do we know the exact nature of the toxins which operate on the kidney, although of late years Ascoli and others have been at pains to bring them into line with Ehrlich's lysins. Dr. Fischer believes that the harmful agents which bring about so many of the changes with which we are familiar in kidney disease are acid bodies; his views are supported by experiments made with acids such as hydrochloric, but he does not assume that ultimately it will be shown that the acid agent is of this nature; it may, for instance, be some acid body such as is developed in the katabolism of protein. Interesting as is this theory of the harmful effect of acid bodies, even more striking is Dr. Fischer's contention that the albumen escaping by the urinary tract in this disease is not derived from the blood at all, at any rate directly, but from the renal parenchyma. The experiments described certainly support Dr. Fischer's thesis. He gives details of the experiments which show how important is the presence of acids or various salts in determining whether such bodies as gelatine or fibrin when placed in water will merely swell up (that is, assume the "gel" state) or actually become dissolved (that is, assume the "sol" state). Then follow ingenious experiments on animals showing the effect of the same acids and salts upon the renal epithelium, and how this tissue, existing naturally in the "gel" state, is as a result of the experiments made to assume the "sol" state, and as such is responsible for albuminuria. An important conclusion from the experiments is that the "sol" state of the renal epithelium is remediable; it can be made to reassume the "gel" state, and the albuminuria then ceases. This principle established experimentally suggests a line of treatment the details of which we commend to the reader's notice. If Dr. Fischer's views are correct, then the theories of French workers elaborated during recent years, which have led to the belief that sodium chloride is a cause of the dropsy met with in kidney disease, can no longer be maintained. Dr. Fischer is quite well aware of these views, and meets them with arguments which are reasonable. Whatever the ultimate fate of Dr. Fischer's theory as to the possibility of albuminuria being really due to actual loss of parenchyma protein instead of plasma protein, he has brought forward a view which deserves attention and consideration; it is in harmony with views developed in this country which have attributed the changes met with in renal disease to the absorption (not extrusion) of the renal cells into the system.

DR. HORST OERTEL'S lectures on the morbid histology of Bright's disease,[2] delivered in the Russell Sage Institute of Pathology, are published in a handsome and well illustrated volume. The author states in the preface that he has attempted to emphasize the relations of the histological facts, and to reconstruct the whole as a unit of interwoven processes, a method of treatment which, so far as his knowledge goes, does not exist in English literature. We cannot follow him here, for in the London schools, at all events, morbid anatomy, macroscopic and microscopic, has never been divorced from pathology and clinical medicine. There are other remarks in the preface which would come with more grace from some one else; for example, "a spirit of anatomical renaissance, therefore, permeates these lectures." This leaves so little to the reviewer. One more grumble about the adjectival terminations. Words such as "pathologic," "anatomic," and the like we understand, and there is much to be said for them. But when, in the same sentence, "pathologic" is used once, "pathological" twice, and "anatomical" twice, whilst in another "anatomic" is used, we venture to suggest that these little points are not beneath the notice of a microscopist. The first lecture contains an interesting historical summary ranging from Ætius, who concluded, between 300 and 400 A.D., that certain cases of oedema and anasarca were associated with hardened kidneys, to the classical observations of Richard Bright. The minute anatomy of Bright's disease may be said to have been put on a sound basis by Henle in 1841 to 1847. Then, as now, the gaps in the knowledge of the histology and physiology of the healthy organ gave the chief opportunities for wrong conclusions as to pathology. No one can deny that the nomenclature of nephritis has been far from satisfactory. The author has no qualms in breaking with many old terms, such as "parenchymatous," "interstitial," "diffuse," which have been used in differing senses. When he also discards "acute" and "chronic" on the ground that they do not precisely describe the time limit of a nephritis, we feel, whilst appreciating their want of significance in the laboratory, that at the bedside these terms mean much. He asks, When does an acute nephritis become chronic? We may ask in reply, When does East become West? There is no precise answer; yet the expressions are full of practical meaning. The author classifies the chief forms of nephritis as simple, degenerative, exudative, haemorrhagic, proliferative, degenerative and productive, and atrophic. The simple nephritis occurs in fevers and toxic states. When desquamation and proliferation of the epithelium are marked, and turbid fluid can be squeezed

[1] *Nephritis, an Experimental and Critical Study of its Nature, Cause, and the Principles of its Relief.* By Dr. Martin H. Fischer, Hichberg Professor of Physiology in the University of Cincinnati. First edition. New York: John Wiley and Sons; London: Chapman and Hall, Ltd. 1912. (Demy 8vo, pp. 212; figs. 31. Price 10s. 6d. net.)

[2] *The Anatomic Histological Processes of Bright's Disease, and their Relation to the Functional Changes.* By Horst Oertel. Philadelphia and London: W. B. Saunders Company. 1910. (Roy. 8vo. pp. 227; 46 illustrations. 21s.)

out of the medulla, the nephritis is described as "proliferative." This is Virchow's catarrhal nephritis. The degenerative and exudative nephrites are the result of intense general intoxications and infections, including the septicaemias and pyaemias. The degenerative changes are regarded as the passive features of the inflammation, and are contrasted with the reactive, proliferative, and exudative phenomena. In the fourth lecture, which may be read with much interest and profit, the productive changes following degenerative and exudative nephritis are described. The significance of recent work on autolysis and on the chemistry of the lipoids or phospholipines is made clear. The last lecture treats of productive nephritis, which is usually spoken of as "chronic interstitial nephritis." Wilks and Grainger Stewart, leaving Bright's uniform view of the whole nephritic process, regarded the large white and the small granular kidneys as independent affections. The modern tendency has perhaps been toward the older view. The author believes that there is no essential anatomical difference between any of the changes in productive nephritis and those observed in the other forms; but that contracted kidneys differ from one another, chiefly as regards the mode of origin and development of the change, either, for example, from a diffuse inflammation or from one of a circumscribed patchy, creeping type. Hence, the kidney of productive nephritis offers the greatest variety of pictures. The histological features of each type of disease are clearly described and beautifully illustrated. Nevertheless the author fulfils his promise to treat of the pathological processes as a whole, and does not confine himself to microscopic detail. These are good lectures, full of information, clearly written, and we can recommend them.

The monograph on the morphology of renal secretion[3] by Dr. SUZUKI, of Japan, is introduced by a few words by Professor L. Aschoff, in whose laboratory the work has been done. Its novelty consists in the combination of "vital staining" by intravenous injection of carmine solution during life with the use of various methods by which the structure or function of the kidney is affected. We found descriptions of effects on the kidneys of uranium, corrosive sublimate, cantharadin, arsenic, and potassium bichromate; in haemoglobinuria, in hunger and thirst, after injection of urea and uric acid; after administration of lactose, caffeine, potassium chlorate and oxalic acid; after clamping the renal artery, and after unilateral extirpation of the kidney. The changes observed are described in minute detail, and the descriptive sections are followed by summaries of the conclusions to be drawn from the facts disclosed. The highest praise should be given to the plates, which give twenty-one beautifully coloured drawings of the microscopical appearances. We commend Dr. Suzuki's book to the attention of all interested in the minute anatomy and physiology of the kidney as observed in various small rodents under normal conditions and as altered by the various agencies already mentioned. The method of staining *intra vitam* appears to be most successful.

FOOD AND DIETETICS.

DR. WILLIAM TIBBLES'S work on *Foods: Their Origin, Composition, and Manufacture*,[4] gathers together into one volume a large amount of information on this important subject from a variety of sources, including a good deal of matter from recent issues of technical and scientific journals. The point of view throughout is mainly that of the dietician—that is to say, the composition and food value of the various alimentary substances dealt with are most fully described, the source and manufacture being as fully stated as is necessary for a discussion of the composition; food analysis is only touched on incidentally. The author has not confined himself to the foods in most common use in European countries, but has made a comprehensive compilation of facts; due balance, however, is maintained between the more and less important matter, so that valuable information is not smothered under a mass of statistics, as sometimes happens. The book is divided into five parts. The first contains some seventy pages, and deals with the chemistry of first the elements, and then the proximate principles of which foods are composed. This preliminary matter disposed of, the other four parts are devoted respectively to foods derived from the animal kingdom and from the vegetable kingdom, condiments and spices, and beverages. The first part of the book necessarily presupposes a fair amount of general chemical knowledge on the part of the reader, and it is, perhaps, easier to find statements to which exception might be taken here than in the main part of the work. For example, the author repeatedly uses the term "ion" as though synonymous with "radical," speaking of methylene $CH_2=$, methine $CH=$, and the imino group $NH=$, etc., as ions; "ethyl alcohol would be *reduced* to an aldehyde" occurs; the term "protein" is defined as including all the nitrogenous compounds of animal or vegetable bodies except the meat bases and amino-compounds such as leucin or asparagin, although in subsequent pages proteoses, peptones, etc., are excluded from the group of proteins. Such faults as these, however, are not sufficient to mar the clearness of the text to a serious extent. The subsequent parts of the book, dealing with foods under the headings mentioned above, deserve high praise for the large amount of valuable information brought together. On controversial matters the author avoids dogmatism and presents both sides. In regard to the so-called "standard bread," after fairly stating the advantages claimed for it, he adds:

> The presence of the cerealin and germ in the flour really increases the total percentage of nitrogen and phosphorus very little. Adequate reasons have been given for their exclusion. It remains for the advocates for their inclusion to show good reasons for doing so, such as will be in keeping with modern physiological knowledge. But at present such reasons are not forthcoming.

The experiments of Hill and Flack on feeding rats with white flour and flour containing germ and cerealin, which were recorded in our columns, are discussed, and the view is expressed that a diet almost devoid of cellulose, like fine white flour, is unsuitable for rats, and that this would account for the inferior nutritive properties shown by it in these tests. Dr. Tibbles's book will certainly take a high place among works of reference on the subject of diet.

We have several times suggested that a small manual to assist practitioners in the calculation of food values and construction of dietaries would be useful. In supplying this want our colleagues in the United States have taken the lead, for not long ago we had the pleasure of drawing attention to the little book on food values published by Dr. E. A. Locke of the Harvard Medical School, and now we welcome a *Laboratory Handbook for Dietetics*,[5] written by Dr. MARY SWARTZ ROSE of Columbia University. In the preface she says:

> It is the purpose of this little book to explain problems involved in the calculation of food values and food requirements and the construction of dietaries, and to furnish reference tables which will minimize the labour involved in such work without limiting dietary study to a few food materials. . . . Tables are included giving the food value for the hundred-calorie portion which is taken as the standard portion in the sense that it serves as a convenient unit in building up a day's ration to yield a stated number of calories; for the gram, which is the unit of weight for all scientific workers; for the ounce, the common unit of the small family group; and for the pound, the unit of the large family or institutional group. These tables have been in practical use for several years in the author's classes, and their value in relieving the student of monotonous clerical labour has been demonstrated.

As may be expected from this description, the book consists very largely of tables, giving analyses of all the ordinary articles of food used in the United States, showing the proportions of protein, fat, and carbohydrate and their fuel value in calories. In addition there are many other useful tables, such as those of height and weight for men and women, boys and girls at different

[3] *Zur Morphologie der Nierensekretion unter physiologischen und pathologischen Bedingungen.* Von Dr. T. Suzuki, Arzt in Japan. Mit einem Vorwort von L. Aschoff. Freiburg i. B. Jena: Gustav Fischer. 1912. (Roy. 8vo, pp. 252; Abln. 6, Tfln. 6. M. 15.)

[4] *Foods: Their Origin, Composition, and Manufacture.* By William Tibbles, J.I.D., M.D. (Hon. Causâ) Chicago, L.R.C.P.Edin., M.R.C.S.Eng., L.S.A.Lond. 1912. London: Baillière, Tindall, and Cox. (Demy 8vo, pp. 950. 18s. net.)

[5] *Laboratory Handbook for Dietetics.* By Mary Swartz Rose, Ph.D., Assistant Professor, Department of Nutrition, Teachers' College, Columbia University. New York and London: Macmillan and Co. 1912. (Demy 8vo, pp. 135. 6s.)

ages. Any moderately intelligent person should find no difficulty in constructing, with the assistance of this book, a dietary containing the required number of calories. It should be mentioned that a table is given of the approximate amount of refuse in common food materials as purchased, showing the percentage loss in these, but we miss a good feature of Dr. Locke's book—namely, the effect of cooking, which is often very large, and, unless taken into account, may seriously modify the results of calculation, especially in the case of meat, which may lose a considerable proportion of its fat, and a less, but by no means insignificant, amount of its protein. Undoubtedly if the broth and dripping are eaten as well as the meat there is no loss, but in many cases they are not. Subject to this omission we have nothing but praise for the manner in which Dr. Mary Rose has performed her task.

The Principles of Human Nutrition,[6] a Study in Practical Dietetics, is the title of a useful book by WHITMAN H. JORDAN, the Director of the New York Agricultural Experiment Station and author of a previous work on *The Feeding of Animals*. The author writes in a clear, popular style, and his aim is to show the adjustment of physiological knowledge to a rational system of nutrition "without insisting upon adherence to technical details that are not feasible in the ordinary administration of the family dietary." He makes no claim to write on his own authority, but has digested and served up a readable and useful survey of the conclusions "of those authorities and investigators whose sound scholarship in this field of knowledge is unquestioned." He deals with the plant as the source of human sustenance, the chemical elements and compounds of human nutrition, the digestion of food, the distribution and transformations of the digested food, and the functions of food compounds and laws of nutrition; he then passes on to practical dietetics, the selection and regulation of diet, its relation to varying conditions of life, food economics, special dietetic methods such as vegetarianism and eating of raw foods, the nutrition of the child, the character and food value of such commercial articles as meat extracts, breakfast foods, alcohol, and the preparation, sanitation, and preservation of food. Tables are added giving the chemical composition of all the common American foodstuffs. The lay reader will find much sound information on all these points, and those who have control of the feeding of children, etc., cannot fail to gain much insight into the proper execution of their vocation from the perusal of Mr. Jordan's book. The practical application to daily life is shown by a table contrasting the worth of a meal of bread and honey with one of bread and milk. The uncontrolled child will, of course, prefer the former, while the latter has fourteen times as much fat, three times the mineral matter, over twice the protein, and as much food energy. Those children who are allowed to partake freely of sweets, especially between meals, must not be expected to develop with maximum vigour. Such foods not only are incomplete in themselves, but spoil the appetite for the plainer and more nutritious articles of diet. "Farm animals could not be developed to their best estate in so irrational a system of feeding." Discussing the cost of food, the author says, "certainly the groceryman and the baker contribute to the ease and comfort of housekeeping, but those purveyors of prepared foods must be paid for their services, and heavy cash payments are in this way substituted for home labour. Many families do not realize how much is paid for the distribution and preparation of food before it comes into the house." The enormous waste of food is undoubted, he says, in the United States. "The people probably waste enough raw food materials to properly feed half their number." We should doubt whether the waste is really so very great, for much of it must find its way to the fowl-run or pig-trough. A large part of the population, he says, lives at an expense that is a great drain upon individual and social energy. A simple breakfast at a high-class hotel costs as much as the raw material required to feed a man for three days. The nation "is expending an undue proportion of its activities in paying for expensively compounded and expensively served foods, with a corresponding limitation of the means which might secure larger individual and social values."

[6] *The Principles of Human Nutrition*. By Whitman H. Jordan, New York. London: The Macmillan Company. 1912. (Demy 8vo, pp. 471; figs. 16. 7s. 6d. net.)

THE THEORY OF SCHIZOPHRENIC NEGATIVISM.

In a paper which two years ago ran through four numbers of the *Psychiatrisch-Neurologische Wochenschrift*,[7] under the title of *Zur Theorie des schizophrenen Negativismus*, Professor BLEULER, of Zürich University, discussed the several explanations which had been advanced of the various symptoms collected under the name "negativism." Having found all these theories—psychological and other—either incorrect or unsatisfactory, Professor Bleuler gave the grounds for their rejection, and expounded his own admittedly incomplete explanation. His essay has now been translated into somewhat American English by Dr. WILLIAM A. WHITE,[8] the Superintendent of the Government Hospital for the Insane at Washington, and the author of the admirable *Outlines of Psychiatry*, which forms No. 1 of the same series. The predisposing cause of negativistic phenomena Professor Bleuler finds in: (*a*) *Ambitendency*, which sets free with every tendency a counter-tendency; (*b*) *ambivalency*, which gives to the same idea two contrary "feeling-tones"; (*c*) "*the schizophrenic splitting of the psyche*," which hinders the proper balancing of the co-operating psychisms; and (*d*) a "lack of clearness and imperfect logic of the schizophrenic thoughts in general, which make a theoretical and practical adaptation to reality difficult or impossible."

On the basis of these predisposing causes, as Professor Bleuler considers them, either external or internal negativism may develop. External negativism consists in the negation of external influences, or what one would normally expect the subject to do, internal negativism being the negation in the patient's own mind of his own will, intention, or idea. As to the direct causes, "the autistic withdrawing of the patient into his phantasies, which makes every influence acting from without comparatively an intolerable nuisance," is given as the most important factor, though the "existence of a hurt (negative complex, unfulfilled wish) which must be protected from contact" is given also among other causes of external negativism.

Obviously these do not furnish any exhaustive explanation of negativistic phenomena. Even granting that "ambitendency" and "ambivalency" are distinctive and necessary predisposing causes of negativism—an entirely unwarranted assumption—the cause of the "schizophrenic splitting of the psyche" (surely an unnecessary tautological phrase!) remains unexplained. Perhaps the true explanation is given when Professor Bleuler says, "On close examination the same grounds will be found as causes of pathological negativism as for the negative attitude in health," and later, "with this conduct the patients exaggerate and caricature only one of the usual manifestations of the normal."

By the "negative attitude in health" Professor Bleuler means the resistance and perhaps resentment which the normal man opposes to what he does not wish, either to do, or it may be to disclose. The ordinary man does not wear his heart upon his sleeve, and quickly repels too curious probing of old wounds. This negative attitude may be maintained with full consciousness of its *raison d'être;* or it may depend upon the existence of some deeply buried and long forgotten "hurt"—to use Dr. White's translation—which may yet be laid bare by psycho-analytic methods. In pathological negativism this "hurt" may be imagined and delusional, as, for example, in a case related by Professor Bleuler, when the patient reacted negatively to nearly every request or command, under the delusion that it was desired to hypnotize her. But if this be so, should not the explanation of negativistic phenomena be sought in the source of the delusional frame of mind rather than, or at any rate as much as, in "ambitendency," "ambivalency," and "the schizophrenic splitting of the psyche?"

[7] E. Bleuler, "Zur Theorie des schizophrenen Negativismus." *Psychiatrisch-Neurologische Wochenschrift*, vol. 12. 1910-11. Nos. 18, 19, 20, 21.

[8] *The Theory of Schizophrenic Negativism*. By Professor E. Bleuler, Zürich. Translated by William A White, M.D., Washington. Nervous and Mental Disease Monograph Series. No. 11. New York: The Journal of Nervous and Mental Disease Publishing Co. 1912. (Med. 8vo, pp. 36. Price 0.60 dol.)

Some departments of science are characterized by the tendency to create neologisms, quite apart from necessary technical terms, shibboleths which must be acquired before entering that particular camp. Modern pathological psychology appears to be one of these, and in no recent essay has this tendency been more marked than in this translation. The difficulty of comprehension is increased by a bizarre and entirely original punctuation.

The English reader who desires to become acquainted with Professor Bleuler's views, but does not read German, is advised to purchase a grammar and dictionary and read the original. He will find this the easier way.

THE CLINICAL ASPECTS OF HEART DISEASE.

THE study of heart disease presents a double fascination. To the laboratory worker the interpretation of graphic indications is of absorbing interest, and becomes constantly more so as new forms of delicate mechanism are devised to demonstrate them. To the clinical worker, on the other hand, the evidences of cardiac disorder are constantly presenting new features, which have to be studied as a whole. The interpretation of cardiographic and electro-cardiographic tracings, interesting and enlightening as they are, cannot as yet take the place of clinical experience when treatment and prognosis are under consideration. A purely clinical work has its place therefore alongside of some of the recent records of scientific research, and a small work by Dr. R. O. MOON,[9] dealing with heart disease as it appears to the average practitioner, will be found interesting. As a careful student of all the cardiac literature of modern times his account presents a faithful reflex of the best clinical thought and experience, and his own observations have been sufficiently extended to warrant him in offering them to the profession.

Writing in an easy conversational style, each subject is dealt with in turn by the author, who keeps steadily to his themes of prognosis and treatment.

Recognizing, in common with all experienced clinicians, that cardiac abnormality does not by any means imply cardiac insufficiency, he proves the need for care in prognosis, and the importance of watching the efficiency of the heart's action as shown by the results upon other organs rather than by the way in which the heart is doing the work. Murmurs, abnormal areas of dullness, and even irregular action are not of themselves of importance so long as efficient circulation is maintained. They may serve to put the clinical observer on his guard against possible failure in the future, but they do not prove that present function is imperfect.

In almost every case of heart failure the first line of treatment should be to relieve the cause rather than to strengthen the failing power. The instant use of some form of diffusible stimulant may be necessary, but of far more importance is it to discover and to counteract the functional disorder of circulation which is putting the strain upon the central pump.

Dr. Moon's work brings out all these points into strong relief and, although arranged in book form, it conveys all the interest of bedside teaching, the introduction of illustrative cases and apt quotations combining to form an excellent picture of heart disease from the purely clinical point of view.

AËRIAL CONVECTION OF SMALL-POX.

DR. ALEXANDER COLLIE'S essay on *Small-pox and its Diffusion*[10] deals almost exclusively with the hypothesis of aërial convection. This hypothesis, it will be remembered, was first propounded by Mr. (now Sir William) Power in 1881, as a result of his inquiry into the alleged prevalence of small-pox round the Western Hospital at Fulham; and it supposes that the virus of small-pox can, under certain conditions, be diffused through the air round a hospital so as to infect susceptible persons. During the last few years little has been heard of this hypothesis, because small-pox has not been prevalent to any notable extent. But from 1881 to 1903 it was not infrequently under discussion. In April, 1903, there was a full-dress debate on the subject at the Epidemiological Society; and if the reader will turn to the published account of that debate he will find all that can be said in favour of the hypothesis and most that can be brought against it. We say "most" and not "all," because we have a shrewd suspicion that all the adverse evidence has not been forthcoming, partly because it is by no means easy to obtain, and partly because, when obtained, it may be held (though often unjustly) to reflect on the administration of this or that particular hospital. Consequently we range ourselves with those who hold that the distal transmission of small-pox through the air is not proven, though we are far from thinking it is not possible. Dr. Collie is evidently of the opinion that the evidence he sets out in his book is sufficient to dispose of the hypothesis; but he confines his attention, so far as details are concerned, to the instance of the Eastern Hospital, Homerton, up to the year 1885, when it ceased to be used for small-pox. The evidence he brings forward is concerned almost entirely with the subject of the transmission of infection from the small-pox to the fever and other patients who were under treatment on the same site. But no writer on aërial convection can afford to neglect the evidence which has been gathered since 1885. Moreover, Dr. Collie, though ostensibly arguing against the possibility of aërial convection, is really arguing against, we will not say the possibility, but the probability of the spread of small-pox round a hospital at all. We do not think that he will find many to follow him in this view. In the discussion to which we referred above most of the leading epidemiologists took part; and the majority of them, whatever were their views on aërial convection, were unanimous in the belief that a small-pox hospital is a source of danger to its neighbourhood unless certain rules, affecting the staff especially, are rigidly and invariably enforced. We have little doubt that the question will sooner or later be settled, but we do not think that Dr. Collie's book materially helps us to attain that desired end.

PRACTICAL PHYSIOLOGICAL CHEMISTRY.

THE last few years have seen much progress in the direction of placing the study of physiological chemistry in its true position as a branch of organic chemistry as well as of physiology. DR. ADERS PLIMMER, in his *Practical Physiological Chemistry*,[11] has aimed at producing a complete handbook of practical work, for which the need had certainly arisen. It is hardly fair to compare older text-books with it, but it will be seen how great the difference is when we mention the scope of the leading sections. The chief groups of organic substances which are the constituents of living matter, or are concerned in vital processes, are first treated. The student begins by separating benzoic acid and purifying it by recrystallization, by the separation of certain mixtures, the determination of boiling-points, melting-points, and molecular weights, by tests for the elements and the quantitative estimation of them. We agree strongly with the author in preferring copper sulphate to potassium sulphate as an aid to oxidation in the Kjeldahl process. As a matter of small detail it might be worth while to say that the crystal should be about the size of a pea; in class work it will be found that the term "small crystal" is not quite definite for men who may not have a teacher at hand at the moment. This section of the book is succeeded by elementary practical studies of the hydrocarbons and their halogen derivatives, of alcohols, esters, ethers, aldehydes, ketones, fatty acids, fats, and carbohydrates; of the action of enzymes, of the cyanogen compounds, amines, amino-acids, amides, purins, aromatic compounds, and the proteins. A short study—perhaps too short—of the common foodstuffs comes next, followed by carefully arranged experiments in the study of digestion, blood, urine, and metabolism. In each section sound practical exercises are given, with pictures of the essential apparatus, every group of experiments being preceded by an explanatory summary of the points involved. The summaries are packed with information, much of which

[9] *The Prognosis and Treatment of Diseases of the Heart.* By R. O. Moon, M.A., M.D.Oxon., F.R.C.P., Physician to the National Hospital for Diseases of the Heart, &c. London: Longmans, Green and Co. 1912. (Cr. 8vo. pp. 121. Price 3s. 6d. net.)

[10] *Small pox and its Diffusion.* By Alexander Collie, M.D.Aberd. Bristol: John Wright and Sons, Ltd. London: Simpkin, Marshall, Hamilton, Kent, and Co., Ltd. 1912. (Demy 8vo, pp. 58. 2s. net.)

[11] *Practical Physiological Chemistry.* By R. H. Aders Plimmer, D.Sc. London: Longmans, Green, and Co. 1910. (Roy. 8vo, pp. 278; illustrated. 6s.)

has not hitherto been given in works of this class, and are freely illustrated with chemical formulae. A good list of reagents and their strengths and a full index complete this workmanlike volume. Dr. Plimmer's experience as a teacher is a sufficient guarantee for the accuracy of the experimental part of the book. We have no doubt that this is, and will become still more, the book for class work in the subject. We can imagine no better introduction to the study of physiological chemistry.

ENDOSCOPY OF OESOPHAGUS AND STOMACH.

IN a handy little volume of about 100 pages, Dr. CAVAZZA[12] gives a clear account of recent work in connexion with endoscopic inspection of the oesophagus and stomach, with a passing reference to the sigmoidoscope. The illustrations which accompany the text show various endoscopic instruments, and foreign bodies add considerably to the value of the book. As the author points out, in view of the antiquity of the practice of certain jugglers in swallowing swords and other rigid bodies, it was curious that a rigid instrument for passage into, and inspection of, the oesophagus should have been so long in coming as it was. In choosing amongst the various instruments on the market, reference is made with approval to a saying of Professor Moure that the best instrument is the one already in your possession; it is not so much the tool as the man using it. Probably the Brüning instrument is the most generally useful for inspecting the oesophagus. For the very necessary anaesthesia of the pharynx the author prefers cocaine to the newer preparations. Retrograde oesophagoscopy, that is, looking up the oesophagus from an opening in the stomach, may sometimes reveal lesions not otherwise seen. Foreign bodies not giving a shadow to *x* rays may still be detected by the aid of bismuth, if they are in the oesophagus. A brief reference is made to the existence of those imaginary foreign bodies which are so real to patients of a certain type. Gastro-diaphanoscopy and gastroscopy are also discussed, and there are two rather uncomfortable looking sketches of the passage of Moure's gastroscope. The author does not suggest that the oesophagus and the stomach should be rashly and at once explored by endoscopy, and in any case it is well to get the oesophagus fully accustomed to the passage of sounds, bougies, etc., and as far as possible to exclude the existence of aneurysm, ulceration, and other dangerous conditions before going on to the use of the more formidable instruments. But as to the value of skilful endoscopy in suitable cases this book gives sufficient evidence. There is a bibliography at the end.

NOTES ON BOOKS.

MR. W. HARRISON MARTINDALE, Ph.D., has printed in a small volume entitled *Digitalis Assay*[13] the full text of the paper on the subject which he read at a recent meeting of the Pharmaceutical Society. It opens with a comparison of physiological and chemical results, and contains full details, illustrated by a coloured plate, of the colorimetric method of assay which the author has devised. It is claimed for it that it shows whether a tincture is above or below standard, and with certainty an excessively strong or a weak preparation. He finds that selected leaves recently dried will, as a general rule, produce tinctures up to standard, but that in practice variations are so great that one pharmacy may supply a preparation twice as strong as another. The author considers that the ideal conditions for growing digitalis have not yet been ascertained. He found that the most potent leaves were those of second year's plants grown in a sunny exposed situation, and showing no flower spikes.

Professor SCHÄFER has reprinted in a pamphlet the address on *Life: its Nature, Origin, and Maintenance*,[14] which he delivered as President of the British Association last September. The address excited much interest and some controversy at the time, and many of those who then read it in our columns will be glad to have it in this convenient form. Not a little of the controversy was due to a misapprehension of the point of view from which it was written. Its intention, as is expressed in the preface the author has written for this reissue, was to indicate in clear language the general trend of bio-chemical inquiry regarding the nature and origin of living material and the manner in which the life of multicellular organisms, especially that of the higher animals and man, is maintained. It is obvious that life as we know it must have originated at some time; and almost certainly it must have originated on this globe and was not carried to it by some chance meteorite or intraplanetry dust. The statement seems to have excited some opposition, but, as the author says, there can be "no difference of opinion upon this point among scientific thinkers."

Second editions have appeared both of *Primary Studies for Nurses*[15] and *Clinical Studies for Nurses*,[16] the authoress in each case being Miss CHARLOTTE AIKENS, a lady who was formerly Superintendent of the Columbia Hospital, Pittsburg, and other like institutions. The second of the books mentioned we reviewed in detail on its first appearance. In effect it is a heterogeneous collection of papers dealing with pretty nearly every kind of medical and surgical disorder, and the companion volume is of much the same kind, anatomy and physiology, hygiene, bacteriology, therapeutics, dietetics, and cooking being the main subjects. The object in view would appear to be to bring within a comparatively brief compass the information which a nurse might conceivably wish to possess in regard to the strictly medical and surgical sides of her work; but the impression is left that what nurses need to know on the subjects dealt with would be much better acquired by attendance at lectures, supplemented, in the case of the more enterprising, by study of ordinary textbooks.

The fifth edition of *A Handbook for Nurses*,[17] by Dr. J. K. WATSON, contains eighty-six pages more than the original volume, and is stated to have been completely revised, but otherwise it is not materially altered. The first edition we reviewed in detail, and regret to be unable to take any more favourable view of the publication than was then indicated. It is an attempt to supply in one volume an account of anatomy, physiology, emergency and other surgery, midwifery, gynaecology, and pretty nearly the whole range of medical disorders. In the circumstances it is quite natural that the information supplied, though at times surprisingly full, should usually be very brief and often unduly sketchy.

The contents of the thirty-seventh volume of *The Transactions of the Edinburgh Obstetrical Society*[18] are about equally divided between gynaecological and obstetric papers. Included among the former is an elaborate account by Dr. F. J. McCann of the technique of the more extensive abdominal operations for uterine cancer, and among the latter is a record of an attempt by Sir Halliday Croom to determine sundry points regarding eclampsia, and more especially whether it exhibits any true seasonal variation. The investigation was based upon the records of the Edinburgh Maternity Hospital; the general conclusion was that eclampsia showed a tendency to increase in prevalence but to be less fatal in its results, and that the factors which have led to a suggestion of seasonal variations are dependent not truly on season but on sudden alterations in temperature and rainfall. The volume contains an account of a conjoint meeting with the Glasgow Obstetrical and Gynaecological Society for the purpose of discussing the effect of the maternity benefit clauses of the National Insurance Act on obstetrical teaching and practice in Scotland.

[12] *L'Endoscopia del Sistema Digerente.* By E. Cavazza. Bologna: N. Zanichelli. 1912. (Roy. 8vo, pp. 98; figs. 35.)

[13] *Digitalis Assay.* By W. H. Martindale, Ph.D. Marburg, F.C.S. London: H. K. Lewis. 1913. (Demy 8vo, pp. 47.)

[14] *Life: its Nature, Origin, and Maintenance.* By E. A. Schäfer, LL.D., D.Sc., M.D., F.R.S., Professor of Physiology in Edinburgh. London: Longmans, Green and Co. 1912. (Med. 8vo, pp. 36. Price 1s. net.)

[15] *Primary Studies for Nurses: A Textbook for First-Year Pupil Nurses.* Second edition, thoroughly revised. By Charlotte A. Aikens. Philadelphia and London: W. B. Saunders Co. 1912. (Cr. 8vo, pp. 437. Price 8s. net.)

[16] *Clinical Studies for Nurses: A Textbook for Second and Third Year Pupil Nurses, and a Handbook for all who are engaged in Caring for the Sick.* By Charlotte A. Aikens. Second edition, freely illustrated. Philadelphia and London: W. B. Saunders Co. 1912. (Crown 8vo, pp. 569; figs. 189. Price 10s. net.)

[17] *A Handbook for Nurses.* By Dr. J. K. Watson. Fifth edition. London: The Scientific Press, Limited. 1912. (Cr. 8vo, pp. 533; figs. 85. Price 5s. net.)

[18] *The Transactions of the Edinburgh Obstetrical Society.* Vol. xxxvii; Session 1911–1912. Edinburgh: Oliver and Boyd. 1912. (Med. 8vo, pp. 353; plates 6; figs. 25.)



BRIGHTON SUSPENSION PIER (ABOUT 1820).

EIGHTY-FIRST ANNUAL MEETING

OF THE

British Medical Association,

BRIGHTON, JULY, 1913.

HISTORY OF BRIGHTON.

(Continued from p. 1631, vol. ii. 1912.)

IMPRESSIONS OF A VISITOR IN 1778.



SIR JOHN CORBY BURROWS, M.P., M.D., Three times Mayor of Brighton.

AN amusing account of Brighton as seen in 1778 through the eyes of a discontented visitor is given in *A Sentimental Diary*, by one J. Ryall.[1] Writing under date August 27th, 1778, he says he left Littlehampton and arrived in the evening at the Crown and Anchor in Brighthelmstone for the first time in his life. "All was confusion and consequence here. The building of Babel and Vanity Fair." On Friday, the 28th, he chronicles that he walked on the Steyne and saw the Assembly Rooms:

> The new one near the Steine is extremely grand, though the cieling and ornaments are by no means so elegant and high finished as those in the buildings called Portland Place in London. . . . Lay at the Crown and Anchor again. Mem. They charge two shillings a night for lodging, too much at least when one lives at the same house. Will remove to a private lodging to-morrow.

On Sunday, 30th, he writes:

> Have surveyed this town thoroughly; like the place well enough, but abominate both townsmen and visitors. The townsmen look upon all strangers as lawful prize, a sort of god-sends as the Cornishmen call wrecks. . . . The townsmen seem to have forgot that the ocean encircles an island; another such season as the present, however, may clear up this mystery, tho' not perhaps to their entire satisfaction. The people who come to bath appear reserved and sullen. Of course unsociable as if the principal complaint laboured under was pride. . . . The principal business going on among the great vulgar is gaming; after all as many shoppers undoubtedly resort to these places, reservedness in general may be somewhat excusable; and yet, must remark, this makes Brighthelmstone a very disagreeable place to me; to select parties it may be pleasurable, but not belonging to any such, am sincerely sorry I left Little Hampton. This town is built on spots in patches, and for want of regularity does not appear to advantage; every one as to building seems to have done what appeared right in his own eyes. Here is no magistracy; if there is an affray the parties must go as far as Lewis, which is much the prettier town to have it settled. Upon recollection this town may be the quieter for having no trading justices resident on the spot. Am since informed a gentleman in the commission of the peace attends here occasionally from Lewis. There can be no antiquities for Brighthelmstone was only a small obscure village, occupied by fishermen till silken folly and bloated disease under the auspices of a Dr. Russel deemed it necessary to crowd one shore and fill the inhabitants with contempt for their visitors.

[1] *A Sentimental Diary, kept in an Excursion to Little Hampton, near Arundel, and to Brighthelmstone, in Sussex.* London: Printed for J. Ryall, in Union Street, Westminster; and sold by W. Lee, Printer, in Lewes, and all the Booksellers and News-Carriers in Town and Country. 1778

Johnson, the Thrales, and Fanny Burney.

Samuel Johnson's name is associated with Brighton, for in the later years of his life he went there pretty frequently. In 1769 Boswell came to London in the autumn, and found that his illustrious friend was at Brighthelmstone with Mr. and Mrs. Thrale. From that place we find Johnson writing to Boswell on September 9th:

> I do not find that I am likely to come back very soon from this place. I shall, perhaps, stay a fortnight longer, and a fortnight is a long time to a lover absent from his mistress. Would a fortnight ever have an end?

On October 21st, 1776, he writes to Levett as follows:

> Dear Sir,—Having spent about six weeks at this place we have at length resolved upon returning. I expect to see you all in Fleet Street on the 30th of this month. I did not go into the sea till last Friday, but think to go most of this week, though I know not that it does me any good. My nights are very restless and tiresome, but I am otherwise well.

Robert Levett was, according to Boswell, "an obscure practiser of physic amongst the lower people; his fees being sometimes very small sums, sometimes whatever provisions his patients could afford him; but of such extensive practice in that way that Mrs. Williams has told me that his walk was from Houndsditch to Marylebone." Johnson's acquaintance with Levett began about the year 1746, and so high was the great man's opinion of his sagacity that he declared he would not be satisfied though attended by the whole College of Physicians unless he had Levett with him. Levett had a room in Johnson's house, and his death in 1782 was the occasion for some of the best verses the author of *The Vanity of Human Wishes* ever wrote. Every one who knows

anything of the literature of the eighteenth century remembers the poem in which the following lines occur:

> Well try'd through many a varying year
> See Levett to the grave descend;
> Officious, innocent, sincere,
> Of every friendless name the friend.
>
> * * * * *
>
> When fainting Nature call'd for aid
> And hov'ring Death prepar'd the blow
> His vigorous remedy display'd
> The power of art without the show.
>
> In Misery's darkest caverns known,
> His ready help was ever nigh
> While hopeless Anguish pour'd his groan
> And lonely Want retir'd to die.
>
> No summons mock'd by chill delay,
> No petty gains disdain'd by pride,
> The modest wants of every day
> The toil of every day supply'd.
>
> His virtues walk'd their narrow round
> Nor made a pause nor left a void;
> And sure the eternal Master found
> His single talent well employ'd.

On July 29th, 1775, we find Johnson writing to Mrs. Thrale:[2]

> I am very desirous that Mr. ——— should be sent for a few weeks to Brighthelmstone. Air and vacancy and novelty, and the consciousness of his own value and pride of such distinction and delight in Mr. Thrale's kindness would, as Cheney [Cheyne] phrases it, afford all the relief that human art can give or human nature receive. Do not read this slightly. You may prolong a very useful life.

Dr. Birkbeck Hill adds the following note:

> The learned, philosophical, and pious Dr. Cheyne, as Boswell calls him, whose books on health and English malady were recommended to him by Johnson. The English malady was melancholy or hypochondria. There is some comfort in knowing that so long ago as 1733 Cheyne pointed out that the conditions of modern life "have brought distempers with atrocious and frightful symptoms scarce known to our ancestors. These nervous disorders are computed to make almost one-third of the complaints of the people of condition in England." (*The English Malady*, ed. 1733, preface, p. 2.)

On August 29th, 1775, we find Johnson writing again to Mrs. Thrale from London:

> This sorry foot! and this sorry Dr. Lawrence, who says it is the gout! But then he thinks everything the gout; and so I will try not to believe him. Into the sea I suppose you will send it, and into the sea I design it shall go.

On November 29th, 1777, he writes again to Boswell:

> I was not well when he left me at the Doctor's, and I grew worse. Yet I stayed on, and at Lichfield was very ill. Travelling, however, did not make me worse, and when I came to London I complied with a summons to go to Brightelmstone, where I saw Beauclerk, and stayed three days.

In another letter to Boswell, dated December 7th, 1782, he says:

> Having passed almost this whole year in a succession of disorders, I went in October to Brightelmstone, whither I came in a state of so much weakness that I rested four times in walking between the Inn and the lodging. By physic and abstinence I grew better, and am now reasonably easy, though at a great distance from health. I am afraid, however, that health begins after seventy and long before to have a meaning different from that which it had at thirty. But it is culpable to murmur at the established order of the creation as it is vain to oppose it; he that lives must grow old; and he that would rather grow old than die has God to thank for the infirmities of old age.

Johnson did not admire the Downs at the back of Brighton. He said a man would soon be so overcome by their dismal character that he would hang himself if he could find a tree strong enough to bear the rope, but that this he would fail to do.

Fanny Burney visited Brighton several times in company with Mrs. Thrale, who was evidently fond of the place, and other friends. The Thrales lived at 75, West Street. On her first visit in 1779 the author of *Evelina* was much annoyed by her own celebrity. She was stared at every time she entered the Assembly Rooms or walked on the Steyn. She went to a big dinner at the Ship Tavern, given by the officers of the garrison, who had their mess there. "It was situated," she writes (in May),[3] "exactly opposite to the inn in which Charles II hid himself after the battle of Worcester, previously to his escaping from the kingdom. So I fail not to look at it with loyal satisfaction; and his black-wigged Majesty had from the time of the Restoration been its sign." In the autumn of the same year she was back again at Brighton, when she writes:

> We left Tunbridge Wells, and got by dinner time to our first stage—Uckfield. . . . Our next stage brought us to Brighthelmstone, where . . . the morning after our arrival our first visit was from Mr. Kipping, the apothecary, a character so curious that Foote designed him for his next piece before he knew he had already written his last. He is a prating good humoured old gossip, who runs on in as incoherent and unconnected a style of discourse as Rose Fuller, though not so tonish.

A note to this passage says that Foote had spent his last summer at Brighton. There was a Kipping, a surgeon, at 28, West Street, in 1800, and it was a Dr. Kipping who in 1775 attended Single-Speech Hamilton when he had a serious horse accident on Brighton downs. During this visit Miss Burney met Lady Diana Beauclerk and Mrs. Musters, mother of the man who married Byron's first love, Mary Chaworth. In a letter to Miss Burney, dated Brighthelmstone, Wednesday, July 19th, 1780, Mrs Thrale describes her life there as follows:

> I write now from Bowen's shop where he has been settled about three days I think, and here comes in one a man Hopping and asks for "Russell on Sea water" another tripping, and begs to have the last new novel sent him home tonight; one lady tumbles the Ballads about, and fingers the harpsichord which stands at every blockhead's mercy; and another looks over the Lilliputian library and purchases polly sugar cake for her long-legged missy. My master is gone out riding and we are to drink tea with Lady Rothes. After which the Steyn hours begin, and we cluster round Thomas's shop and contend for the attention of Lord John Clinton, a man who could I think be of consequence in no other place upon earth, though a very well informed and modest mannered boy. . . . The players this year are rather better than the last, but the theatre is no better than a band box which is a proper precaution I think as here are not folks to fill even that. The shops are all shut still and a dearth of money complained of that is lamentable. But we have taken some Spanish ships it seems and Laveracruise besides.

In October, 1782, Miss Burney was again in Brighton with the Thrales and Dr. Johnson. On Monday, October 28th, she writes:

> At dinner we had Dr. Delap and Mr. Selwyn, who accompanied us in the evening to a ball, as did also Dr. Johnson, to the universal amazement of all who saw him there; but he said he found it so dull being quite alone the preceding evening that he determined upon going with us, for he said it cannot be worse than being alone.

On Saturday, November 2nd, she writes:

> We went to Lady Shelley's, Dr. Johnson again excepted in the invitation. He is almost constantly omitted either from too much respect or too much fear. I am sorry for it, as he hates being alone, and as, though he scolds the others, he is well enough satisfied himself; and having given vent to all his own occasional anger or ill humour, he is ready to begin again, and is never aware that those who had been so "downed" by him never can much covet so triumphant a visitor.

Brighton air or society, or the two together, appear to have been too much for Dr. Johnson's temper, for on Thursday, November 7th, Miss Burney writes:

> Mr. Metcalf called upon Dr. Johnson and took him out an airing. Mr. Hamilton is gone, and Mr. Metcalf is now the only person out of this house that voluntarily communicates with the doctor. He has been in a terrible severe humour of late, and has really frightened all the people till they almost ran from him. To me only I think he is now kind, for Mrs. Thrale fares worse than anybody. 'Tis very strange and very melancholy that he will not a little more accommodate his manners and language to those of other people.

The only mention of bathing occurs on the last day of the 1782 visit, which was passed, according to Miss Burney, in the following manner:

> Wednesday, November 20th. Mr. and the three Miss Thrales and myself all arose at six o'clock in the morning and "by the pale blink of the moon" we went to the seaside where we had bespoke the bathing women to be ready for us, and into the ocean we plunged. It was cold but pleasant. I have bathed so often as to lose my dread of the operation which now gives me nothing but animation and vigour. We then returned home and dressed by candlelight, and as soon as we could get Dr. Johnson ready we set out upon our journey in a coach and a chaise and arrived in Argyll street at dinner time.

It was at Brighton that Mrs. Thrale met Piozzi, whom she afterwards married, to the indignation of society, but

[2] *Letters of Samuel Johnson Collected and Edited by George Birkbeck Hill.* Oxford. 1892.

[3] *Diaries and Letters of Madame D'Arblay (1778-1840), as edited by her niece, Charlotte Barrett, with preface and notes by Austin Dobson.* London and New York: Macmillan and Co., Limited. 1904.

apparently to her own satisfaction. In her *Autobiography*[4] she gives an account of her first meeting with the Italian singing master:

I was at Brighthelmstone in August, 1780, or thereabout, when the rioters at Bath had driven my sick husband and myself and Miss Thrale (Fanny Burney went home to her father) into Sussex for change of place. I had been in the sea early one morning and was walking with my eldest daughter on the cliff, when seeing Mr. Piozzi stand at the library door I accosted him in Italian, and asked him if he would like to give that lady a lesson or two whilst at Brighton that she might not be losing her time. He replied coldly that he was come thither himself merely to recover his voice, which he feared was wholly lost, that he was composing some music and lived in great retirement. So I took my leave and we continued our walk, Miss Thrale regretting she had lost such an opportunity; but on our returning home the same day, Mr. Piozzi started out of the shop, begged my pardon for not knowing me before, protested his readiness to do anything to oblige *me* and his concern for not being able to contribute to our amusement, but that I should command everything in his now limited power. We parted, and at breakfast the post brought me a letter from the present Madame d'Arblay [Fanny Burney], saying that her father's friend, Mr. Piozzi, was gone to Brighthelmstone where she hoped we should meet. . . . And that I should find him a companion likely to lighten the burden of life to me as he was *just a man to my natural taste*. . . . Mr. Thrale found his performance on the forte-piano so superior to everything heard in England and in short took such a fancy to his society that we were seldom apart except while Mr. Piozzi was studying to compose. . . . His voice strengthened by sea bathing, but never recovered the astonishing powers he brought with him first from Italy.

Royalty at Brighton.

The true begetter of Brighton in a social sense was George IV, but he was not the first royal personage whose name is associated with the place. As mentioned by Fanny Burney in one of the passages quoted, it was from Brighton on the night of October 14th, 1651, that Charles II escaped from England after the battle of Worcester. He lodged or, as our ancestors used to say, lay at a small inn called The George, which stood in West Street. It has since been known as the King's Head. He was taken across to Fécamp in a collier by Nicholas Tettersell. Unlike too many of those who befriended the Merry Monarch in his adversity, Tettersell received a valuable ring and an annuity of £100 for himself and his descendants. His craft is said to have been fitted up and admitted into the Royal Navy under the name of the *Royal Escape*. She mouldered quietly away at Deptford till 1791, when the little that was left of her was broken up for firewood. Tettersell was constable of Brighthelmstone in 1670 and died in 1674. He is buried in the churchyard of St. Nicholas, where there is a tomb with inscriptions in prose and verse.

It was in 1782 that George IV, then Prince of Wales, first visited Brighton. He was the guest of his uncle, the Duke of Cumberland, and was so pleased with the air and with the town that he went there frequently, and for years was almost a resident. Thackeray says:

It is the fashion to run down George IV, but what myriads of Londoners ought to thank him for inventing Brighton. One of the best physicians our city has ever known is kind, cheerful, merry Doctor Brighton.

There the First Gentleman of Europe built his famous Pavilion, aptly described by Hare as "a foolish Chinese palace." The number of minarets made Sydney Smith say it seemed as if the dome of St. Paul's had come down to Brighton and pupped. William Wilberforce said, even more happily: "It looks very much as if St. Paul's had come down to the sea and left a litter of cupolas." Charles Lamb, in his essay on Barrenness of the Imaginative Faculty in the Productions of Modern Art, tells the following story:

The Court historians of the day record that at the first dinner given by the late King, then Prince Regent, at the Pavilion, the following characteristic frolic was played off. The guests were select and admiring, the banquet profuse and admirable, the lights lustrous and oriental, the eye was perfectly dazzled with the display of plate, among which the great gold salt cellar brought from the regalia in the Tower for this especial purpose, itself a Tower! stood conspicuous for its magnitude. And now the Rev. . . . the then admired court chaplain was proceeding with the grace when at a signal given the lights were suddenly overcast and a huge transparency was discovered in which glittered in gold letters—"BRIGHTON—EARTHQUAKE—SWALLOW-UP ALIVE!"

Imagine the confusion of the guests, the Georges and Garters, jewels, bracelets, molted upon the occasion! The fans dropped and picked up the next morning by the sly court pages! Mrs. Fitz—what's her name, fainting, and the Countess of * * * holding the smelling bottle till the good-humoured Prince caused harmony to be restored by calling in fresh candles and declaring that the whole was nothing more than a *pantomime hoax*, got up by the ingenious Mr. Farley, of Covent Garden, from hints which his royal highness himself had furnished! Then imagine the infinite applause that followed, the mutual rallyings, the declarations that "they were not much frightened" of the assembled galaxy.

This joke was in questionable taste, but later the Pavilion acquired an evil reputation which shocked the most loyal among the respectable inhabitants. Moralists shook their heads and said they were happier before Brighton was captured by fashion and the vices which followed in its train. But it was very lively. There were,[5] says an anonymous author, grand reviews on the downs, sham boat fights out at sea, gala nights at the grove, balls and feasts at the castle, fireworks in the Steyn, and raffling at Gregory's library. Gregory often had a thousand names on his lists for half-guinea and guinea tickets. George was called "Brighton's support," but though his presence was profitable to the natives it was very costly to visitors. Some moralist of the time recorded his impressions of the costliness of Brighton in the following epigram:

Say why on Brighton's church we see
A golden shark displayed.
But that was aptly meant to be
An emblem of its trade.
Nor could the thing so well be told
In any other way.
The town's a shark that lives on gold,
The company its prey.

Thackeray, in his *Four Georges*, gives us a specimen of the orgies at the Pavilion:

And now I have one more story of the Bacchanalian sort, in which Clarence and York and the very highest personage of the realm, the great Prince Regent, took part. The feast took place at the Pavilion at Brighton, and was described to me by a gentleman who was present at the scene. In Gilray's caricatures, and amongst Fox's *Jolly Associates*, there figures a great nobleman, the Duke of Norfolk, called Jocky of Norfolk[6] in his time, was celebrated for his table exploits. He had quarrelled with the Prince, like the rest of the Whigs, but a sort of reconciliation had taken place, and now, being a very old man, the Prince invited him to dine and sleep at the Pavilion, and the old duke drove over from his castle of Arundel with his famous equipage of grey horses still remembered in Sussex. The Prince of Wales had concocted with his royal brothers a notable scheme for making the old man drunk. Every person at table was enjoined to drink wine with the Duke—a challenge which the old toper did not refuse. He soon began to see that there was a conspiracy against him. He drank glass for glass, he overthrew many of the brave. At last the First Gentleman of Europe proposed bumpers of brandy. One of the royal brothers filled a great glass for the Duke. He stood up and tossed off the drink. Now, says he, I will have my carriage and go home. The Prince urged upon him his previous promise to sleep under the roof where he had been so generously entertained. No, he said, he had had enough of such hospitality. A trap had been set for him. He would leave the place at once and never enter its doors more. The carriage was called and came, but in the half-hour's interval the liquor had proved too potent for the old man. His host's generous purpose was answered, and the Duke's old grey head lay stupefied on the table. Nevertheless, when his postchaise was announced he staggered to it as well as he could, and stumbling in bade the postillions drive to Arundel. They drove him for half an hour round and round the Pavilion lawn. When he awoke that morning he was in bed at the Prince's hideous house at Brighton. You may see the house now for sixpence. They have fiddlers there every day, and sometimes buffoons and mountebanks hire the riding house and do their tricks and tumbling there. The trees are still there, and the gravel walks round which the poor old sinner was trotted. I can fancy the flushed faces of the royal princes as they support themselves at the portico pillars, and look on at old Norfolk's disgrace, but I can't fancy how the man who perpetrated it continued to be called a gentleman.

With Brighton, too, is connected the name of Mrs. Fitzherbert, who was really married to George, as is proved

[4] *Dr. Johnson's Mrs. Thrale. Autobiography, Letters, and Literary Remains of Mrs. Piozzi.* Edited by A. Hayward, Q.C. Newly selected and edited, with introduction and notes by J. H. Lobban. Published by T. N. Foulis, Edinburgh and London. 1910.

[5] *Brighton: The Road, the Place, the People.* London: Published (for the proprietors) by J. H. Thomson, 49, Fleet Street. 1862.

[6] This is the same duke of whom it is recorded that he would say: "Next Saturday, with the help of Providence, I intend to be drunk." He attended the funeral of Lord Brougham's mother, and the party was so drunk that the coffin was dropped over a bridge into a river on the way, the loss not being discovered till the party arrived at the churchyard.

by the documents published by the late Mr. Wilkin in his book, *Mrs. Fitzherbert and George IV.*

William IV did little for Brighton beyond building the Norman entrance to the Pavilion, and Queen Victoria is said to have turned her back upon it for ever because when she walked on the Chain Pier butchers would insist upon following her and kissing the hem of her garment. From that time the Pavilion ceased to be a royal palace and became the property of the town. The building which had cost a million was sold for £54,000.

The "Queen of Watering Places."

Brighton has been called the "Queen of Watering Places," and its social attractions are very great. It has many rivals, but none with the special advantage it possesses of being at the point of the south coast nearest to the capital. It is so accessible by railway that a large number of busy toilers in the City and other metropolitan centres of work make it their residence; hence it is appropriately styled "London-on-Sea." The air is bracing, and it is a favourite place for the completion of the recovery of convalescents and the recuperation of the overworked. A full account of the geology of the soil, and of the meteorology, vital statistics, climatic qualities, and of the indications and contraindications of Brighton as a health resort is given in the *Climates and Baths of Great Britain, being the Report of a Committee of the Royal Medical and Chirurgical Society of London* (Macmillan and Co., London, 1895, p. 363). It may be noted that the mineral spring at Furze Hill to which Relhan attributed such therapeutic virtue, and which was more accurately analysed by Marcet, receives only a passing mention in that work.[1]



Royal Sussex County Hospital, Brighton.

In this discursive sketch we have traced the growth of Brighton from a fishing village, the life of which for many centuries was a struggle against the encroachments of the sea, the visitations of storm and flood, and the depredations of foreign foes, to a large and prosperous city. On another occasion we may supply some omissions and describe more in detail its claims to the interest of the visitor who goes thither for pleasure, and its advantages as a health resort.

THE MEDICAL INSTITUTIONS OF BRIGHTON.

The medical institutions of Brighton comprise the Royal Sussex County Hospital, the Royal Alexandra Hospital for Sick Children, the Sussex Eye Hospital, the Throat and Ear Hospital, the Women's Hospital, the Dental Hospital, the Dispensary, and various others of less importance. In addition there are two medical societies—the Brighton and Sussex Medico-Chirurgical Society, and the Brighton Division of the British Medical Association.

The Royal Sussex County Hospital.

The Royal Sussex County Hospital, which is the chief hospital in the county, is situated in the eastern part of the town, and is a very old-established institution, dating, in fact, from early in the nineteenth century. Prior to 1813, a small hospital known by the same name existed in Middle Street, and in its day did much good work. During the year mentioned, however, the Earl of Egremont, then Lord Lieutenant of the county, called a meeting with a view to discussing the advisability of organizing a medical institution with a broader and more comprehensive basis than the one already in operation. This proposition did not meet with immediate favour, and it was not till 1824 that any definite scheme was arrived at. Lord Egremont gave £1,000 towards the first building fund, and Mr. Thomas Read Kemp presented the site and £1,000 towards the building. Lord Egremont laid the foundation stone on March 15th, 1826, and the hospital was opened with three in-patients admitted on the very day of the inauguration on June 28th, 1828. The in-patients for the ensuing twelve months numbered 224, the accidents 13, and the out-patients 72. These figures were more than doubled in two years, and quadrupled within twelve years, the figures for 1840 showing 874 in-patients, 254 accidents, 60 urgent cases, and 1,208 out-patients. In 1839 the Victoria wing was added, and named after Her Majesty the Queen; the Adelaide wing, named after the Consort of William IV., was opened in 1841; the east and west wings in 1855, the chapel in 1856, the enlargement of the west wing in 1867, the museum in 1870, the new library and museum and the Lady Grant block in 1887, and the York building in 1893. This building was so called in honour of the Duke and Duchess of York, whose wedding took place about the time the wing was opened. Since then many improvements have been added to the hospital, such as a home for nurses, a new out-patient department, and a new operating theatre.



The Dispensary, Royal Sussex County Hospital, Brighton.

The foundation stone of the new out-patient department was laid by the late King (then Prince of Wales) in 1896, and has now, of course, been completed many years. His Royal Highness was not the only member of the Royal Family who has shown an active practical interest in the work of the hospital, as various tablets and inscriptions about the interior bear witness. George IV, William IV, Queen Adelaide, and Queen Victoria have all been among its patrons, Queen Victoria having given £1,000

[1] The following is Marcet's analysis as given in *Brande's Chemistry*:

Muriate of soda	3.0
Muriate of magnesia	0.75
Sulphate of lime	4.0
Oxide of iron	1.4
Silica	0.11
Solid contents	9.29
Cubic inches of carbonic acid	—
100 cubic inches of water	9.29

Temperature, cold

At the present time the hospital has 195 beds. In 1911 2,507 cases were admitted, 1,389 operations were performed in the theatre, and 628 in the surgery; 10,340 out-patients were admitted, 7,083 casualties treated, and 119 patients sent to the convalescent home belonging to the hospital at Ditchling. The staff consists of three consulting physicians, including Dr. Ainslie Hollis, President-elect of the Association, three consulting surgeons, including Mr. T. Jenner Verrall, whose work in connexion with the Association is so well known, a consulting gynaecologist, and a consulting dental surgeon. There are three physicians and three surgeons, with a corresponding number of assistant physicians and assistant surgeons. In addition there are physicians or surgeons in charge of the special departments of ophthalmology, dermatology, electrical and *x*-ray work, and dentistry, as well as two anaesthetists and a medical and a surgical clinical assistant. The hospital serves a very large district indeed, and is one of the largest and most important in the South of England. The fact that on an average 186 of the available 195 beds are occupied is sufficient to prove that the institution is appreciated by those for whom it is intended.



Royal Alexandra Hospital for Sick Children, Brighton.

The Royal Alexandra Hospital for Sick Children.

The Royal Alexandra Hospital for Sick Children is situated in the centre of the town, in the Dyke Road. It was founded in 1868, and was the concurrent and simultaneous work of several benevolent ladies and gentlemen. The patients were at first treated at a house in Western Road, with only three or four small rooms for the accommodation of the inmates. The hospital was attended with immediate and great success, thus showing that the originators were correct in their estimate that such a place was wanted in a town as populous as Brighton. The medical profession was enthusiastic, and such men as Sir William Jenner and Dr. Charles West were warm in its praises. H.R.H. the Duchess of Cambridge and H.R.H. the Duchess of Teck were the first royal patronesses. The number of patients increased to such an extent that it was deemed necessary to enlarge the hospital, and premises were taken which stood on the site of the present building. After being occupied for some time they were found to be insanitary and ill-adapted for hospital purposes, and it was therefore decided, in 1875, to discontinue repairing and patching them, and in 1880 the foundation stone of the present building was laid, with Masonic rites, by the Right Worshipful Brother Sir Walter W. Burrell, M.P., Provincial Grand Master of the Freemasons of Sussex. In July, 1881, the present hospital, consisting of three spacious wards, each containing twenty beds, and the necessary household accommodation, was opened by their Royal Highnesses the Prince and Princess of Wales. The Princess of Wales graciously acceded to the request that the hospital should be called the Royal Alexandra Hospital for Sick Children. In 1887 the hospital work increased so much that an assistant physician was appointed, and later on an asistant surgeon. Later an orthopaedic surgeon and a skiagraphist were appointed, and the operating theatre was enlarged and improved. In May, 1896, H.R.H. Princess Louise, Duchess of Fife, laid the foundation stone of the Nurses' Dormitory, a detached building approached from the hospital by a covered way. In the same year the hospital was visited by the Prince of Wales, who inspected all the wards, and wrote as follows in the visitors' book: "Found the hospital in excellent order.—Albert Edward." In the same month the Princess of Wales also honoured the hospital with a visit. The Princess was accompanied by her three daughters and Prince Charles of Denmark. Noticing the entry made by the Prince of Wales in the visitors' book, the Princess remarked to the matron that she was thoroughly prepared to endorse the Prince's gratifying comment. During the year 1902 the new laundry was built at a cost of over £900, and plans for the new out-patient department were prepared and passed. This building has since been opened and contains, in addition to the usual rooms, a small theatre for minor operations and a well-fitted *x*-ray and electrical room. There is also a room fitted with the appropriate apparatus for the treatment of lateral curvature and other deformities.



Out-patients' Department and Isolation Block, Royal Alexandra Children's Hospital, Brighton.

At the present time the hospital consists of three wards, with 61 beds, with an isolation ward, an operating theatre, an *x*-ray department, and a well-organized out-patient department. The staff consists of two physicians, two surgeons, an assistant surgeon, a dermatologist, a dentist, and a skiagraphist. The number of patients admitted in 1911 was 814, and out-patients and casualties numbered 4,332. The number of operations performed was 351. It is interesting to note, as showing the advance in surgery, that in 1870 ten operations only were performed as follows: 1 tracheotomy, 1 excision of joint, 1 amputation of finger, 2 tenotomies, and 5 operations for removal of bone.

The Throat and Ear Hospital.

The Throat and Ear Hospital, situated in Church Street, Queen's Road, near the railway station, was founded in 1878 by Mr. Cresswell Baber and Dr. Scatliff. It was first started in two small rooms in Grenville Place. It was soon transferred to a house in Queen's Road, and, finally, the present spacious building was opened by the Duke of Norfolk in 1898. The staff consists of four acting surgeons with a dental surgeon. There are twenty beds in the hospital, which are always more or less full. In 1911 the number of out-patients was 1,524, and of in-patients 322. The operations performed under general anaesthesia numbered 622.

The Sussex Eye Hospital.

The Sussex Eye Hospital, situated in Queen's Road, was founded in 1832. The present building was built in 1847, and rebuilt in 1882. At first out-patients only were attended, the number in the year of foundation being 397. In 1911 there were 219 in-patients and 4,926 out-patients. The

staff consists of three surgeons and three assistant surgeons.

The Hospital for Women.

The Hospital for Women, West Street, is a hospital for the treatment of diseases peculiar to women and for attending women in their confinements. The present building contains eight beds, and 176 in-patients were admitted, and 468 out-patients seen in 1911. In addition 1,161 midwifery cases were attended. There is a branch for midwifery patients in Hove. Attached to the hospital are four acting members of the staff, and nurses are trained there for midwifery work. It is intended, as soon as the necessary funds can be raised, to obtain a more suitable sight and building for the hospital.

The Dispensary.

The Brighton, Hove and Preston Dispensary is the oldest medical institution in the town. It was founded in 1809, and the following extract from a letter written in 1849 by Mr. Thomas Attree, the first Honorary Secretary of the institution, is of interest in connexion with its origin:

About forty years ago, in the year 1809, when I was Vestry Clerk to the Commissioners of the town and to the Directors and Guardians of the Poor, and conducting a large practice as a solicitor, was Honorary Secretary to the various fresh schemes for the improvement of Brighton, then in the first blush of its prosperity, and thinking of becoming a town of itself and not an adjunct of Lewes. At this time when I was overworked with business, a stranger, a new client (as I thought) was shown into my office. He was dressed as a quaker, with a ready smile heightened to a short laugh as he noticed my manner in asking his business.

"'Tis not business, friend, and yet it is, for 'tis the business of charity Richard Phillips comes about. I'll tell thee. For the benefit of the sick poor of this town thee must have a dispensary. Thou canst help. Thou dost not say no, so Richard Phillips takes it for 'Yes.'" *And so it was.* I found I had taken upon me another, and not a trifling occupation.

The dispensary was then founded, and the first building used was situated in Nile Street, near the market. The work grew rapidly, and in 1811 it moved to larger premises in North Street, and it was at this time that the scheme of the Earl of Chichester to connect it with an infirmary and an accident ward was commenced. Rooms were fitted up to contain 10 beds, and these wards, it was hoped, would eventually expand into a county hospital. For a short time the institution, now termed the "Brighthelmston Dispensary and Sussex County Hospital," had to go into temporary premises in Duke Street, till in 1818 a much larger building in Middle Street, with accommodation for 20 in-patients and more room to deal with out-patients, was purchased. In 1849 the dispensary was transferred to the present site in Queen's Road, and branches were established later on in Hove and Preston. The Hove branch was improved and the present building opened in 1888; it contains 2 wards of 6 beds each for the reception of accident and urgent cases, so that they may not have to be conveyed four miles to the County Hospital. The work of the institution has increased enormously increased; in 1809 the number of out-patients was 429; in 1911 the number was 9,179. The number of in-patients at the Hove branch in the first year of opening, 1889, was 33; in 1911 it was 195 and 252 operations were performed. In addition to these there were at the three branches 1,216 casualties.

It is interesting to notice that one of the first physicians appointed to the staff of the dispensary was Dr. (afterwards Sir Matthew) Tierney, Physician Extraordinary to His Royal Highness the Prince of Wales, and that during over one hundred years there have been only three honorary secretaries—Mr. Thomas Attree, 1809 to 1835; Mr. Somers Clarke, 1835 to 1889; and Mr. Cecil Somers Clarke, appointed in 1889, the present holder of the office. There is a Samaritan Fund in connexion with the dispensary, which is chiefly used to provide additional nourishment to to those patients who, in the opinion of the medical officers, need it to aid their recovery.

The Lady Chichester Hospital.

The Lady Chichester Hospital and Dispensary for Women and Children which is officered by medical women consists of two portions, the hospital in Brunswick Place with thirty-three beds, and the dispensary in Ditchling Road. The object of this charity is especially to provide early treatment for cases of serious breakdown among poor women and girls, and to afford to poor women of Brighton and the neighbourhood the opportunity of free consultation with doctors of their own sex. That the institution is appreciated is shown in the fact that there were 7,850 attendances during the year 1910 at the dispensary.

The Dental Hospital.

The Dental Hospital is situated in Queen's Road, and has a good staff for the treatment of dental diseases. There is also a Dental Society which meets for the discussion of matters connected with the speciality.

THE BRIGHTON AND SUSSEX MEDICO-CHIRURGICAL SOCIETY.

The Brighton and Sussex Medico-Chirurgical Society is of old standing, for it was established in 1847. At a meeting of the medical officers of the Brighton Dispensary held at that institution in May, 1847, Dr. King in the chair, it was resolved that it was desirable to establish a Brighton Medical Society. A circular was sent to the members of the profession in the town inviting them to meet and discuss the matter, and as the result of that meeting the Brighton and Sussex Medico-Chirurgical Society was formed, and at the outset forty members joined. It is interesting to note that among them were many men whose sons are now practising in the town. The society was established for the advancement of medical and surgical knowledge among its members, and the first ordinary meeting was held on August 5th, 1847. Dr. King was the first chairman, when Mr. Hingeston read the first paper on the sequelae of measles and scarlet fever.

The society gradually increased in numbers, till at the present time it has a membership of 135. The chairman is Dr. E. Hobhouse, who will be the president of the Section of Medicine at the annual meeting at Brighton this year. Meetings of the society are held monthly when cases are shown and papers read, and, in addition, clinical and pathological meetings take place at the various hospitals in the town. The society possesses an excellent library, which is constantly being augmented by the addition of fresh works. The membership in the past has included many names of note—for example, E. L. Ormerod, F.R.S., John Cordy Burrows, M.P., W. Mellitt Hollis, John Jardine Murray, Dr. Withers Moore (the President at the last annual meeting which was held in Brighton twenty-six years ago), Arthur Newsholme, T. Jenner Verrall, and E. Cresswell Baber. The society is in a flourishing condition, with an increasing membership, and its meetings are well attended by the practitioners in the town and neighbourhood.

THE BRIGHTON DIVISION OF THE BRITISH MEDICAL ASSOCIATION.

The Brighton Division of the South-Eastern Branch of the British Medical Association was formed in June, 1903, when Mr. W. J. Stephens was elected first Chairman; Dr. W. Ainslie Hollis, Vice-Chairman; and Mr. T. Jenner Verrall, Honorary Secretary. At the present time the Division is one of the most flourishing in the South of England, the membership now exceeding 200. Dr. Ryding Marsh is the Chairman; Dr. Benham, Secretary; and Mr. Burchell, Assistant Secretary. Meetings are held frequently, and great activity has been displayed in medico-political matters, notably in the matter of the Insurance Act, in connexion with the Brighton and Hove Education Committee's school appointments, and medical appointments under the Board of Guardians.

THE mid-December meeting of the United Services Medical Society was held at the Royal Naval Medical School at Greenwich, this being the first occasion on which the society has met at this new institution. The president of the society, Fleet Surgeon P. W. Bassett-Smith, R.N., presided, and Fleet Surgeon Munday gave an account of the medical work involved by the attempts carried on since 1909 to put down the illicit trade in arms in the Persian Gulf.

LITERARY NOTES.

MR. H. K. LEWIS announces that No. 1 of Volume II (January, 1913) of the *Journal of Vaccine Therapy* was published on January 3rd. Dr. W. D'Este Emery has succeeded Dr. Allen as editor. A feature of the new volume will be a monthly review of progress in vaccine therapeutics. It is intended to devote some pages each month, if there be sufficient matter, to short extracts from articles in current periodical literature bearing on the subject dealt with by this journal. Special attention will also be given to applied bacteriology in relation to vaccine therapy, since success in treatment is dependent upon accuracy in diagnosis of the infecting organism or organisms. Record will be made of such improvements and discoveries in bacteriological science as may conduce to this end, particularly in regard to methods of procedure and general technique likely to be of value to the general practitioner.

The November number of *L'Hygiène* contains, in addition to an interesting record of Dr. Rebreyend's experiences in the French hospital at Adrianople, a short article by Dr. A. Maurice on the re-education of the sense of hearing; an account by Dr. "Horace Bianchon" of the present state of public health in France and the notification of tuberculosis; and some excellent advice by Professor George Viau, of the Dental School of Paris, as to the best means of preserving the teeth. Dr. George Rosenthal discusses the physiological exercise of respiration and breathing gymnastics. The illustrations are, as usual, numerous and on the high level of artistic finish to which we have become accustomed in our excellent contemporary.

In the JOURNAL of December 14th we discussed the value of a well sounding name. The paragraph attracted some notice in the lay press, and from comments that appeared it was evident that the justice of our remarks was recognized by lawyers and men of business as well as doctors. Since then, on looking through the recently published life of G. F. Watts, we were interested to find that the great artist abhorred the surname which he had made so famous, doubtless thinking it too common and bourgeois. One of the "devout female sex," by many members of which he was made the object of an innocent worship, found a solution which gratified him. She called him the "Signor," and by that designation he was always known among his friends.

Jules Lemaître is fond of the conversations of doctors and especially of surgeons, because they know human nature well, as they see men in the circumstances in which they show most clearly what they are. The continued sight of the worst sufferings combined with this knowledge of mankind inspires them with a melancholy and lofty philosophy sometimes brutal and negative, but with great pity at bottom. In his *Contemporains* Lemaître tells the following story, which he had from a well-known doctor, who in 1870 was surgeon-major in the army of Metz. The ambulances were full of wounded. There were terrible operations to be performed, and many of them, and the chloroform had run out. A messenger was sent under a flag of truce to ask a supply of the anaesthetic from the Germans. They did not answer for four days, and then the reply was to the effect that under their articles of war they were not allowed to permit chloroform to be sent into a besieged place, that substance being a derivative of alcohol! The surgeon had only one small bottle of chloroform, and was puzzled how to select the cases in which it should be used. The first patient who came under his hands was a little soldier with a shattered hand. Amputation through the forearm was necessary. The soldier begged for an anaesthetic, and although the doctor explained the situation, he still insisted that he was too weak to bear the operation without an anaesthetic. The surgeon finally gave way, but whilst he was getting ready the little soldier suddenly cried out: "There are others in much worse case than I am. It would be beastly to be a coward!" So he declined the anaesthetic. Another patient was an officer with a terrible wound requiring a long operation. When the surgeon said that he was going to give him an anaesthetic, the captain replied: "Monsieur le Major, you must keep that for those who are not officers."

In the JOURNAL of December 28th, 1912, some account was given of the authority given to bishops under the "Act for the Appointing of Physicians and Surgeons," passed in 1511, of granting licences to practise the art of healing. It may interest some of our readers to learn that the subject was dealt with Dr. Henry Barnes, of Carlisle, in a paper read at Seascale in 1902, which was printed in the Cumberland and Westmorland Antiquarian and Archaeological Society's *Transactions*, Vol. III, New Series, and issued in pamphlet form in 1903. Speaking of the fact that bishops also licensed midwives, he says this was necessary, inasmuch as if there was any danger of the child dying before the priest could be summoned the midwife was bound to baptise it. Before the licence was given, she had to take an oath containing fifteen items. She was to use "pure and clean water only, and not any rose or damask water, or water made of any confection." Dr. Barnes states that in the Norwich Diocese Book there is between 1770 and 1786 a record of licences granted to thirty persons "to perform the office, business, and functions of midwife," and to three persons, two of whom were women, to practise as surgeons, and to others to practise phlebotomy. No licences were granted after 1786. About three years ago, Dr. Pol Gosset of Rheims published in the *Revue Médicale du Nord-Est* an account of the selection of women to act as midwives by the curé of the parish. The following oath was administered to them:

> You promise to God, and you pledge yourself by oath, to assist by night and day the women with child, whether rich or poor, who may have recourse to your aid: and to devote yourselves to the preservation of their infants, as much from religion as in accordance with promise, or for presents, or other consideration whatever. You will not do anything, nor agree to anything being done, to hasten delivery by any extraordinary procedures, nor anything which could injure the health of the mother or child.

The curé was enjoined to choose midwives from among the most respectable and virtuous women of the parish. Any one who had ever been suspected of heresy or sorcery must be rejected. Women chosen for the office were instructed in the ritual of baptism, which they were to administer only in case of necessity.

In the JOURNAL of December 28th, 1912, reference was made to the fact that Jean Jacques Rousseau had been sounded for stone by Frère Côme. It may interest some readers to read Rousseau's own account of the matter as given in *Les Confessions*. Rousseau all his life suffered more or less from urinary troubles and he became convinced that he had stone in the bladder. In 1762 his suffering became so acute that Marshal de Luxembourg, who befriended him, insisted on his seeing Frère Côme. He himself brought the Friar-Surgeon to the patient's bedside, and in Rousseau's words had the courage, "certainly rare and meritorious in a great lord," to remain beside him during the operation, which was severe and prolonged. Rousseau proceeds:

> Nevertheless it was only a question of being sounded, but I had never been able to have this done even by Morand who tried several times, always without success. Frère Côme, who had a hand of unequalled skill and lightness, succeeded at last in introducing a very fine catheter after making me suffer more than two hours, during which I strove to refrain from groaning so as not to rend the sensitive heart of the kind Marshal. On the first examination Frère Côme believed he had found a large stone and told me so. At the second he found nothing. Having tried again more than once with a care and thoroughness which made me find the time very long he declared there was no stone, but that the prostate was scirrhous and of extraordinary size. He found the bladder large and in good condition and ended by telling me that I would suffer much and live long. If the second prophecy is fulfilled as exactly as the first my sufferings are not near their end. Thus after having been treated successively for so many years for twenty diseases which I had not, I ended by knowing that my disease, incurable without being mortal, would last as long as myself. My imagination held in check by this knowledge, no longer made me see in perspective a cruel death in the pains of calculus. I ceased to fear that the end of a bougie which had broken in the urethra long before had formed the nucleus of a stone. Freed from imaginary fears more cruel for me than real evils I endured the latter with greater equanimity. It is certain that since that time I have suffered much less from my disease than I had till then.

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SATURDAY, JANUARY 4TH, 1913.

THE UNDERTAKING AND PLEDGE.

A considerable number of practitioners have written to the central office urging that the Association should relieve them of their Undertaking and Pledge, thus allowing them to accept service on panels. As it is impossible at the present time to answer these letters individually, the following may be taken as a general reply. It is evident that in most cases the request for release was made because of sheer economic pressure, and not because the applicant desired of his own free will to accept service.

The position of the practitioner who is a loyal and devoted member of the Association, and therefore anxious to carry out its policy, but who finds himself faced by the fact that some of his neighbours are going on the panel, is indeed a cruel one, and the State Sickness Insurance Committee, when it considered the matter at its meeting on Monday, December 30th, 1912, would have been glad to find some way out of the difficulty which, while maintaining the policy of the Association, would not penalize the loyal practitioner. In the opinion of the Committee, however, the terms of the Undertaking clearly preclude practitioners who have signed it from either making individual arrangements for service under the Act or entering into any agreement which is not in conformity with the policy of the Association. Those who signed the Undertaking and Pledge can be released from their bond only by the deliberate decision of the Representative Body. Only by ignoring the spirit which underlies the whole conception of the Undertaking and Pledge can the binding nature of these documents be denied. There is no doubt that those who signed them did so with the intention of acting with the profession as a body, and, in conformity with ordinary democratic principles, they agreed to be bound by the ruling of the majority. There is no getting away from the fact that the opinion of the majority of the profession, as expressed in the vote of the recent Divisions and reflected in the findings of the last Special Representative Meeting, was strongly against accepting service under the Act under present conditions. Those who now wish to evade their pledge must remember that the present policy of the Association of refusal to accept service under the Act is the consequence of the vote which has recently been given in the Divisions, and it must be assumed that when that vote was given the Divisions acted with a full sense of the probable consequences. There is no doubt that in any district where the profession remains absolutely or even practically united in refusal to serve, those responsible for the provision of medical attendance will be compelled to allow arrangements to be made outside the Act. The threatened whole-time service would be difficult to form not only on account of the controversy with the profession, but because the idea would be repugnant to the average insured person. The Government, which is now refusing to allow persons to make their own arrangements, would undoubtedly be glad to do so if it found that in the whole, or the greater part, of the kingdom panels were not likely to be formed.

Another aspect of this question requires special mention. Some practitioners, fortunately very few, seem to imagine that by resigning their membership of the Association they get rid of their responsibility for the present situation and their Undertaking and Pledge. This is, of course, an entirely mistaken idea. It cannot be too strongly urged upon every member of the Association that whatever the result of the present fight may be, the necessity for a strong combination of the profession in order to defend its interests will be greater than ever under the new conditions of medical practice.

GASWORKS PITCH INDUSTRIES AND CANCER.

Two reports on ulceration of the skin and epitheliomatous cancer occurring in workers employed in the manufacture of patent fuel and grease have been published by the Home Office. Apart from the frequency of epithelioma and ulceration of the corneal surface of the eye in men who handle tar and tar products, and the pathological problem raised, their occurrence is of interest to the medical profession, since both of these conditions, as also the scrotal epithelioma of chimney-sweeps, have been added to the third schedule of the Workmen's Compensation Act. Men who handle pitch or are engaged in the manufacture of briquettes occasionally suffer from warty growths which may ulcerate and become the seat of epitheliomatous cancer, or particles of pitch strike the eyes and induce severe inflammation of the conjunctiva and cornea, which may end in loss of vision. In South Wales there are nearly 1,000 persons employed in the manufacture of briquettes. Epithelioma of the skin is not unknown among grease workers in the north of England, but the largest number of cases is reported among the pitch makers of South Wales. The manufacture of patent fuel is an important industry. Of 1,604,000 tons made in this country 1,449,000 tons are made in South Wales. Sooner or later the skin of the men who follow the employment becomes swarthy, the hair follicles and sebaceous glands become blocked with minute plugs of pitch, shotty particles are felt distributed throughout the skin, especially of the forehead, neck, and forearms; or warts develop, and these ulcerating may become epitheliomatous. Of 246 patent fuel workers examined by Dr. T. M. Legge 51 were found to be affected by warts, while 28 showed signs of having been previously affected. Between July 1907 and 1911, 30 cases of epithelioma were reported for compensation under the Workmen's Compensation Act. It was hoped that the adoption of means for the prevention of pitch dust, provision of better washing accommodation in the works, enforcement of washing before each meal, bathing, and the wearing of goggles and overalls, would reduce the number of cases. These recommendations were not favourably received, either by the employers or by the workmen. The latter objected to the bathing on account of the soreness of the skin caused by contact with the pitch.

Mr. Albert Herbert Lush, barrister, in his report to the Home Secretary on the proposed draft regulations, encouraged manufacturers to do all they

could to reduce dust in the factories. He also expressed the hope that the mischievous agent in pitch might be detected and measures employed for its elimination, believing that if this were done without any injury to the product commercially, it would be the most satisfactory solution of the difficulty. It would appear as if the hope expressed by Mr. Lush were about to be fulfilled. In the BRITISH MEDICAL JOURNAL of April 15th, 1911, there appeared, under the title of "The Gasworks Pitch Industries and Cancer," a suggestive and helpful paper by H. C. Ross and J. W. Cropper, in which it was shown that the cancerous affections were caused by gasworks pitch and not by blast-furnace pitch. There are certain substances known as auxetics, containing amidines, amines, and amido-acids, which are produced in the human body as the result of injury. These have the power of inducing division of leucocytes. Ross and Cropper expressed the opinion that pitch-workers' cancer might be due to the chemical auxetics and augmentors of cell division found in gasworks tar, and that these substances were not contained in blast-furnace tar. Traumatism has for long been regarded as predisposing to cancer. It is probable, therefore, that in cancer "there must be present primarily in the injured site the auxetics which cause benign cell proliferation *plus* augmentors which cause malignant cell proliferation when mixed with auxetics."[1] Either factor is by itself harmless; it is the mixture which is the causative agent. The fact that only one of the two kinds of pitch alluded to causes cancer is of importance as indicating the possible conjoint play of auxetics and kinetics. Ross and Cropper found that these principles are soluble in water. They can be dissolved out of the pitch by washing, but one very important commercial drawback to the grinding and washing of the pitch is that the "steaming power of the briquettes made from such pitch was found to be lowered when tried in a locomotive; the binding quality of the pitch also was reduced. Washing of the pitch is therefore, from a sales point of view, not practicable. The auxetics and kinetics are present in the tar before it is distilled and run into the moulds to set as pitch. Briquette manufacturers dislike the presence of water in tar. Every effort is made to keep the tar free from water, since it forms with the soot in the tar an emulsion which froths up out of the retorts, making distillation a slow process and one requiring the use of more fuel, as well as the employment of more labour.

There is more cancer among the workmen to-day than formerly, a circumstance which some attribute to the retention of anthracene oils in the pitch. Experiments do not support this supposition. The dangerous principles are not anthracene or anthracene oils, but some substance mixed with those, the exact nature of which is as yet unknown. All that can be said is that pitch is more dangerous than tar, and tar more dangerous than coal. The problem is how to distil out of the tar those harmful principles without injury to the pitch commercially. Washing will accomplish this, but the difficulty is how to have it carried out. The subject is one well worthy not only of further inquiry on the part of the Howard McFadden Research scholars, but of experimentation on a large scale by manufacturers. It is the briquette makers and not the owners of gasworks and tar distilleries who would benefit. Tar distillers might object to the recommendation of washing the tar on the ground of expense, but if increased cost is incurred it must be met by raising the selling price of the briquettes. From a health point of view, this first charge might be settled by some international agreement. At any rate, washing of the tar on a large commercial scale seems worthy of trial. It would seem as if, through the labours of Messrs. Ross and Cropper, we were on the eve of ascertaining the true cause of cancer in pitch workers, and of a comparatively easy and effective way of preventing it. Should the Government make further investigations into this subject, the above are the lines upon which the inquiry might well be conducted.

[1] *The Problem of the Gasworks Pitch Industries and Cancer.* The John Howard McFadden Researches. London: John Murray, Albemarle Street. 1912. (Price 6d.)

TALES OF HIPPOCRATES.

DURING a recent visit to the island of Kos, Professor Meyer-Steineg[1] collected several tales of Hippocrates from the lips of a native guide, Jakobus Zaraftis. Although the name of Hippocrates figures extensively in titles of wells and different localities, even the better educated classes in the island seem to possess only a hazy knowledge of its most illustrious citizen. In the legends concerning the great physician he has been confused with, and included among, the numerous saints of the Greek Church. But though he has thus acquired a spurious halo, his miracles are largely concerned with the arts of healing and diagnosis, and in this respect tradition has preserved his dominant claims to fame. The following tales contain some quaint conceits.

A consumptive, whose appeal to Hippocrates for aid was refused, retired in despair from the town to the mountains, where he intended to die. Here he saw a snake vomiting milk after it had swallowed a cow. Thinking that this milk must be poisonous, the consumptive drank it to hasten his end. He then retired to the shade of a tree where he slept for several hours, after which he awoke, hungry and refreshed. He rapidly recovered. On his way home he met Hippocrates, and told the physician how despair had driven him to the mountains, where he had regained his health; but, before he came to the incident of the snake, the physician exclaimed, "How could I provide you with milk vomited by a snake?" Delighted by this display of wisdom, the consumptive seized Hippocrates by the hand, and hailed him as the world's greatest physician. The refusal of Hippocrates to treat the consumptive tallies with the frequently repeated injunction in the *Corpus Hippocraticum* to abstain from treating the incurable. The snake's contribution to the miraculous recovery is interesting as illustrating the not uncommon part played by this reptile as a healing power both in heathen mythology and in the Old Testament.

One day Hippocrates met a shepherdess on the road, and greeted her with the salutation: "May it be well with thee, maiden!" When he met her again on her way back, he greeted her thus: "May it be well with thee, woman!" Struck by the repeated blushes of the girl, a companion of Hippocrates asked him why within the same day he had first called the girl maiden and then woman. Hippocrates replied: "Because earlier in the day she was a maiden, and now she is a woman." His curiosity aroused, the companion addressed himself to the girl, who, weeping, admitted that she had in truth been merely a maiden in the morning, but that she had been assaulted and seduced by the shepherd's son on her return from the flock. When questioned as to how

[1] *Archiv für Geschichte der Medizin*, May, 1912.

he had detected that the girl had been violently seduced, Hippocrates replied: "The gait of a maiden differs from that of a woman." Here, again, Hippocrates appears as an acute observer, not as a healer.

A girl who had been bitten by a snake and who was hastening to obtain medical aid, met a man to whom she applied for guidance to one who would give her an antidote. The man, whose identity with Hippocrates was unknown to the girl, replied, "Before seeking the aid of a physician, seek that of God by making offerings unto Aesculapius and Hygieia." He then lighted a piece of sponge which he applied, still blazing, to the wound. The flesh seethed under this treatment, but Hippocrates endowed the patient with courage and superhuman powers to endure the pain. He also comforted her by assuring her that the offerings were accepted, and that she would be healed of her wound by the servant of God. He then retired to a cleft in a mountain where he found a tortoise which he killed; he caused the patient to drink its blood, and applied its flesh to the burnt spot. The patient was then directed to return home, and to repeat the treatment with tortoise blood and flesh twice, after which she would be healed. In this story Hippocrates is incognito, and he combines mysterious rites with the doubtless equally efficacious procedure of cauterization.

A king's daughter, whose illness was incurable, was affianced to a young man who had spent the whole of one night in a chapel in prayer for the invalid. As he was returning in the morning from this place he met a white-bearded old man carrying a rod, on the top of which was a living snake's head. In its mouth was a sweet-smelling clove flower. After exchanging greetings the old man said: "You have prayed to God for the recovery of your beloved. It is right that you do penance, for your erotic songs have brought her to this pass. But God has taken pity on you, and has sent me to tell you that she will recover." The lover would have kissed the old man's hands and feet, but dared not for fear of the snake. Perceiving this the old man said: "I know how thankful you are for what I have said, but I am sent from God. I am the physician Hippocrates, and in the mouth of my snake there is a flower. This is the remedy for the illness, which is jaundice. Take the whole root of this flower, crush it, and squeeze the juice out of it. Give it her so that she breathes it in by the nostrils, and you will see all the poisons streaming out of them, her colour will again bloom, and all her former strength and beauty will return." Saying this, the old man became invisible. The lover did as he was told, and his prayers were granted. There seems to be considerable confusion in this story, for the reference to a chapel places the incident with those of Christian tradition, while the snake perched on the rod is plainly borrowed from tales of Aesculapius. It is interesting to note that the influence of the emotions on the bile was recognized at such an early date.

The following tale closely resembles those told by Grimm and Hans Andersen: A king's daughter had suffered for many years from snakes, which dwelt within her and devoured her. The king, her father, sent heralds throughout his kingdom to proclaim that he who could heal his daughter should receive many and royal gifts. Numerous physicians practised their arts in vain. A young man, hearing of the prizes to be won, prayed God to show him how to gain them and heal the patient. His prayer was heard, for he met an old man, who told him that "God hears everybody, but everybody hears not God. He has heard you, and has sent me, the physician Hippocrates, to show you the remedy for the patient. Find juicy portulaca, and from its seed press a cupful of oil. Give this to the patient on an empty stomach, and, if she continues to fast till midday, you will see the snakes leave her both from above and from below, and she will recover." The young man seized the old man by the hand, and exclaimed, "I thank God Who has sent thee, O god-like Hippocrates." The old man immediately became invisible, the youth cured the patient, received the promised gifts, and gained thereby the lady of his love. Probably the "snakes" of this tale are not unfamiliar objects with the modern representative of the healing arts.

THE FORTHCOMING REPRESENTATIVE MEETING.

In response to a requisition in due order according to the regulations of the Association a Special Representative Meeting has been summoned to meet in London on Friday, January 17th. The main business of this meeting will be to consider the situation created by the attitude of the Government towards the decisions of the Representative Body, and whether it is desirable to release practitioners from the pledge and undertaking they have given in connexion with the National Insurance Act. The events of the last fortnight have, we are aware, caused much distress to many members of the profession who are loyally attached to the British Medical Association. The contrast between the voting in the Divisions and the reports published with regard to the resolve of very many practitioners in various parts of the country to join the panels with the intention of working the Act has led to much wild talk of a *débâcle*. It is, however, most unwise to draw any such conclusion. It must be remembered that one of the great parties in the State is committed to getting medical benefit under the Act to work, and that its political organs in the press may not consider it obligatory to show both sides of the picture, or to imitate the caution of Mr. Lloyd George, who on Monday declined to express any opinion on the question whether it was not practically certain that a sufficient number of doctors will come forward to work the Act. Any one who wishes to know how far political rancour and party fears may carry a twentieth century journalist towards rivalling the style of the pamphleteers of the eighteenth should read recent issues of the London *Daily News and Leader*. At the time we are compelled to go to press no authoritative information which even approaches completeness is available, and the discussion which Mr. Worthington Evans desired to raise in the House of Commons on Tuesday evening, which might have enabled the Chancellor of the Exchequer to state his views on the situation, could not then come on owing to a blocking motion on the paper. It is reported that in some parts of the country the applications from medical men are numerous enough to form adequate panels; in others it is asserted that their number is large enough to enable panels to be formed which the Insurance Commission will feel justified in regarding as sufficient. On the other hand, in others there are no applications, or they are so few in number that a sufficient panel cannot be formed. The Insurance Commissioners have this safeguard—that December 31st, 1912, was a date selected by them as conveniently fitting in with their arrangements, but any medical practitioner would be at liberty to apply to go on the local panel or fall in with any other provisional arrangement at a later date. There is no cause for panic, and no wisdom in talking about disruption of the British Medical Association. There are no signs of any such catastrophe and the fear is groundless, if only for

the reason that, as the Association is a democratic organization, its policy can be and is determined by the members themselves. The constitution of the Association does not permit action as hasty as some members at this moment would appear to desire. It is true that those who voted at Divisional meetings did not number more than about half of the total number of practitioners in active practice in the United Kingdom, and it is open to any one to put his own explanation upon the abstentions. Some have assumed that the majority of those who did not attend to vote proved themselves by so abstaining to be in favour of the Act. Others contend that the majority of those who abstained did so because they looked upon the result as a foregone conclusion. Neither deduction rests upon any solid basis. Many letters have been received urging that the Association should take a ballot or poll of the profession by post, the writers believing that in that way a much larger vote, more nearly reflecting the opinion of the majority of the profession, would have been obtained. With regard to this, it may be again pointed out that the Association has no constitutional power to take a postal vote. When the constitution was under discussion there was a considerable volume of opinion in favour of taking this power, but the suggestion did not commend itself to the majority at that time. A Division can at its own cost take a postal vote in its own district, but the result would not be binding and would not be the decision of the Division.

LISTER'S EARLIEST OPERATIONS IN FRACTURE.

THE letter by Dr. Theobald A. Palm, published in the JOURNAL of December 21st, 1912, recalling an early case in which Lister operated for badly united fracture—the operation was performed in the Edinburgh Royal Infirmary on December 12th, 1870—and the note appended giving the reference to this JOURNAL and the *Collected Papers* has brought us an interesting letter from Dr. Just Lucas-Championnière who, as is well known, was one of the first surgeons to study and adopt the antiseptic system. Our distinguished correspondent recalls that before the date of the operation above mentioned he had published in the number for January, 1869 (p. 18) of the *Journal de Médecine et de Chirurgie Pratiques*, which he conducts with so much success, a note of a case in which in 1868 Lister had, at the Glasgow Royal Infirmary, operated to correct a badly united fracture. The details of the case, Dr. Lucas-Championnière says, made the greater impression on him because he was present at the operation, and the patient was a Frenchman. The following is a translation of the note published in January, 1869: "We have seen a patient cured in whom the operation would never, Mr. Lister said, have been attempted had he not long before acquired the certainty that he could by his method transform a compound fracture, even one involving a joint, into a simple fracture. The case was that of a man in whom fracture of the lower extremity of the tibia and the two malleoli had been followed by a deviation of the foot outwards and forwards accompanied by displacement on to its inner side. The deformity was maintained by a voluminous and shapeless mass of callus. Four months after the accident Mr. Lister, after incising the soft tissues behind the internal malleolus, covering the parts as he went on with carbolic oil, divided the internal malleolus at its base under cover of a compress soaked in carbolic oil, and, opening into the joint, divided also the external malleolus. Traction was made on the foot, the resistance was felt suddenly to give way, and the foot was brought into position. The patient was dressed with carbolic compresses and plaster renewed every day or every other day. There was no suppuration and no complications. Later on Mr. Lister divided the Achilles tendon, and after that the patient did very well; we have seen him walking in the hospital." In commenting now on this case, Dr. Lucas-Championnière writes: "No record, I think, better shows how Lister attacked the opening up of the site of a fracture, and one moreover involving an articulation," and goes on to express the pride with which he now recalls that he was the first to appreciate and record this case. It may justly be called an epoch-making case, for although there is a discrepancy in the description of the deformity of the foot, his note almost certainly refers to the first case in which Lister cut down on a badly united fracture. As recorded in the address delivered before the Medico-Chirurgical Society of Glasgow and published in sections in the BRITISH MEDICAL JOURNAL during 1868 and early in 1869,[1] he operated on April 11th, 1868, on a man, aged 29, who four months previously had sustained a simple fracture into the ankle-joint, the fibula being broken two inches above the joint and the internal malleolus at its base. When the man came under treatment the foot was useless. It was clear that the foot could not be replaced without breaking through the callus, which could be plainly felt in both bones, and there seemed no prospect of doing this without cutting down and adopting means which, in the case of the tibia, "would necessarily involve opening into the articulation, or producing artificially a compound fracture into the ankle-joint. This," Lister continued, "I certainly should not have dreamed of doing without the aid of the antiseptic system, being well aware of the disastrous course such injuries commonly run under ordinary treatment." He had, however, already had experience of the successful result of the antiseptic treatment of recent compound fractures, and he therefore did not hesitate to operate in the manner described by M. Lucas-Championnière. Healing under a scab, the end which was sought, was delayed by the formation of two sores with exuberant granulations, but these were completely healed on June 4th, the bones having been firmly united a fortnight earlier. The tendo Achillis was divided on July 26th, and the plantar fascia also, to correct an exaggerated arching of the foot. When last seen, early in September, 1868, he could walk firmly and well and complained only of some remaining stiffness of the ankle.

FILARIA LOA.

WE have received from the London School of Tropical Medicine a copy of a telegram sent by Dr. R. T. Leiper, Helminthologist to the School, and Interim Wandsworth Scholar, from Calabar, West Coast of Africa, on December 27th, 1912. The telegram was to the following effect: "The metamorphosis of *Filaria loa* has been proved to take place in the salivary glands in a fly belonging to the genus *Chrysops*." According to Sir Patrick Manson[2] *Filaria loa* has been known for over three hundred years. It is African in origin, but the cases of the affection caused by the parasite first described occurred in the West Indies in negroes who must have been attacked in West Africa before their deportation as slaves to America. The parasite appears to be widely distributed throughout tropical West Africa from Sierra Leone to Benguela. In some parts, as in Old Calabar, Cameroons, and the Ogowé River, a very large proportion of the inhabitants are the hosts of the parasite. *Filaria loa* has been noticed very frequently beneath the skin of the fingers, and has been excised from under the skin of the back, from above the sternum, from the left breast, the frenum of the tongue, the loose skin of the penis, the eyelids, the conjunctiva, and the anterior chamber of the eye. It has been stated that it may

[1] The report of the case was contained in the section of the address published in the BRITISH MEDICAL JOURNAL on October 31st, 1868, p. 462. It will be found in the *Collected Papers*, vol. ii, p. 71 et seq.

[2] *Tropical Diseases*. Fourth Edition, p. 677.

wander about under the scalp, but the part most frequently affected is the eye, for which the parasite seems to have a predilection. In the conjunctiva it may produce considerable irritation and congestion; sometimes there is pain with swelling to such a degree as to block up the eye. As a rule, the migrations of the parasite give rise to no serious inconvenience, but they may cause sensations of pricking, itching, creeping, and sometimes produce oedematous tumefaction in different parts of the body. These "Calabar swellings" are the commonest result of the invasion of the parasite. The swellings, which are due to the worm's migrations in the deeper parts of the limbs, in the muscles, and round the tendons, are painful, and impair movement so that the victim may be unable to write or even to use his hands. The swellings rarely last for more than a few days, but often recur in the same or another part of the body. There is some reason to suspect that at times, when travelling inside the skull, the worms cause epileptiform convulsions. It is obvious that if the parasite should wander into the glottis or the urethra the results might be serious. The effects are, however, seldom fatal. The embryos of *Filaria loa* are found in the blood only during the day time, and have therefore been called *Microfilaria diurna* by some, in distinction from *Filaria bancrofti*, the cause of elephantiasis, whose embryos are found in the blood only during the night and are known as *Microfilaria nocturna*. Sir Patrick Manson, many years ago, surmised that this nocturnal periodicity pointed to a nocturnal blood-sucking insect as the intermediate host, and he proved that the intermediate hosts were certain species of mosquitos. The diurnal periodicity of the embryos of *Filaria loa* suggested that the intermediate host was a day-biting insect, a member of the genus *Chrysops*. This, according to the telegram, has now been proved by Dr. Leiper. The importance of the discovery lies in this—that now it will be possible to determine the conditions under which human beings become infected. This gives ground for hope that means of preventing such infection will be found. The members of the genus *Chrysops* are day-biting flies, and are very widely distributed not only in the tropics but also in temperate climates, even in the British Isles. It is expected that Dr. Leiper will now be able to show which species of *Chrysops* are the carriers, as it is known that *Filaria loa* is limited to West Africa.

HEALTH RESORTS OF THE BRITISH ISLANDS.

THE study of British climatology and its application to medical treatment was greatly stimulated by the establishment of the special society which is now the Section of Balneology and Climatology of the Royal Society of Medicine. Under its auspices a descriptive textbook,[1] edited by Dr. Neville Wood, has recently appeared, in which a large amount of useful information is brought together as to the existing facilities for climatological and balneological treatment in the British Isles. Such a work is of course bound to cover, to a certain extent, some of the ground traversed by the account of the climates and baths of Great Britain, published ten years ago by the Royal Medical and Chirurgical Society. Borrowing a hint from the numerous publications relating to spas and health resorts published on the Continent, the editor has arranged the material at his disposal in a form that makes reference easy, and has dealt with individual places rather than with the corresponding features of larger areas. The inland health resorts and those which are commonly known as "watering places" are first described. In alphabetical order Bath heads the list, and the account of its therapeutic advantages is supplied by the Bath Medical Committee. A new property has of late years been credited to the waters—namely, radio-activity. The part that radium may play in the elimination of uric acid has not been determined, but the results of treatment by the Bath waters have always been attended with a remarkable measure of success. Efforts have not been wanting at Bath, as at many other British health resorts, to supply all forms of treatment and to render the "cure" as attractive as possible. Many Continental spas owe their popularity to the social amenities which they provide, and the complete change of scene and surrounding are as attractive to the British visitor as the curative reputation of the waters. It is hoped to attract Continental visitors in like manner to British spas, and to that end a French translation of the book is in preparation. The leading features of Scottish and Irish health resorts are included, and the addition of well-selected photographic views of all the more important places adds greatly to the practical usefulness of the volume. It is frankly admitted that in the practice of hydropathy many of our institutions are by no means up to the Continental standard. Some of them are simply comfortable residential hotels with baths attached to them. The average British patient, as a rule, unless he is seriously ill, will not place himself under doctor's orders with the same unquestioning faith displayed at Nauheim. Where faith is lacking, the "cure" is apt to be incomplete. But there are many valuable "hydros" fully described in Dr. Wood's book, where all sorts of treatment, with or without faith, can be carried out under one roof, and the well-equipped mineral water hospitals at Bath, Buxton, and elsewhere, afford relief to a large number of poorer sufferers every year. The coasts of the British Isles teem with health resorts of varying character, and a knowledge of these variations is very necessary before recommending any seaside place to an invalid. Much of the information with regard to them is derived from local medical committees. Some of the individual writers have supplied accounts which fall a little short of completeness. The reader unacquainted with the West of Scotland, for instance, might form the erroneous impression that there is only one hotel at Oban! Information as to the chief sanatoriums for tuberculosis, and a comparative summary of the relative advantages of healthy resorts at home and abroad, conclude a handbook which we can cordially recommend as a most useful addition to the number of works of reference which have become a necessity to the practitioner of modern medicine.

[1] *Health Resorts of the British Islands.* Edited by Neville Wood, M.D., Member of the Council of the Section of Balneology and Climatology of the Royal Society of Medicine, with the assistance of an Advisory Committee appointed by the Council of the Section. London: University of London Press. 1912. (Med. 8vo, pp. 268; 40 illustrations and 2 maps. 10s. 6d. net.)

HOSPITAL PATIENTS AT ADRIANOPLE.

AT the present moment, when the eyes of Europe are centred on the Near East, and the name of Adrianople is on every one's lips, it is interesting to find a description of the Thracian capital written by one of the few Europeans who have spent some time within its walls. The November number of *L'Hygiène* contains an article by Dr. P. Rebreyend, at one time surgeon to the French hospital at Adrianople, in which the writer draws a vivid picture of the quaint old city on the banks of the Maritza. His account of the hospital itself is by no means the least interesting part of his narrative. Founded at the time of the Russo-Turkish campaign, it was taken over at the end of the war by the French Assumptionists, who placed it under the care of nuns of the same order; and for some years past this modest little establishment of 45 beds has been a lodestone for the sick poor of every nationality and creed within a radius of many miles. As may be imagined, therefore, Dr. Rebreyend during his stay at Adrianople had ample opportunity for studying at close quarters the mingled elements which go to make up the population of this portion of the Balkan States; and it is both interesting and instructive to note his comments on the strong racial

characteristics which still distinguish one from the other a group of alien peoples who are all equally poor, equally ill-fed, and, with few exceptions, almost equally unhygienic. Dr. Rebreyend confesses that he found his Armenian, Jewish, and even his Greek patients extremely trying. Their hysterical lack of self-control was in striking contrast to the calm endurance of the Bulgars, whom the writer describes as being as fearless as they were dirty. He relates how he found one man waiting for him, seated upright on a chair: a train had passed over his arm, yet he retained his composure even when, on the removal of his vest, the injured limb came away in the doctor's hands. The greatest courage of all, however, was manifested by the Turkish men patients; their womenkind, as a rule, were excessively timid and neurotic. Dr. Rebreyend cites as a proof of the passive endurance of which the Turk is capable the case of one of his own patients, a man upon whom he himself had operated, and who alarmed him by his failure to awaken from the anaesthetic. He lay upon the operating table breathing as calmly and as regularly as a child, and the most vigorous slappings and shakings failed to have any effect upon his unnatural quiet. At length, in despair, after exerting themselves to the utmost for some twenty minutes, the assistants raised him to a sitting posture; and as he continued to pay not the slightest heed to those about him, started flicking him with wet towels. Their feelings may be imagined when the patient suddenly remarked: "It is of no use; you will never send me to sleep." He had been awake for the last half-hour!

THE DISCOVERY OF CHLOROFORM.

DR. PRIDEAUX G. SELBY (of Teynham, Kent) writes: "About the year 1885 Dr. Matthews Duncan, in speaking to me about the discovery of chloroform, told me that on the historic November 4th, 1847, it was he who took the chloroform to Simpson's house, and that he had found it in the chemical laboratory of the late Professor Gregory at Edinburgh. Dr. Matthews Duncan narrated how they were trying every possible form of inhalation in their search for an anaesthetic, and had all made themselves very ill by inhaling ordinary coal gas. The above scarcely agrees with the statements in your issue of December 14th, 1912, but anything bearing on that historic occasion is of intense interest, and Dr. Matthews Duncan's statement seemed worthy of record." We see nothing in the statement here attributed to Dr. Matthews Duncan that conflicts with the account of the first experiments with chloroform given in the JOURNAL. Dr. Matthews Duncan may have taken the bottle to Simpson's house, but it was not he that suggested that a trial should be made of it. On this point we have Simpson's positive statement, quoted in the JOURNAL of December 14th, 1912 (p. 1681). This is confirmed by the independent testimony of David Waldie, whose statement is contained in a paper on chloroform read by him at a meeting of the Liverpool Literary and Philosophical Society on November 29th, 1847. The following quotation from that paper, which we find in the *Chemist and Druggist* of December 21st, 1912, is conclusive. After dealing with the discovery of the chemical substance by Soubeiran in 1831, made again a year later by Liebig, who named it perchloride or terchloride of formyle, and referring to the fact that Dumas gave it the name of chloroform in 1834, Waldie proceeds: "To the best of my knowledge, from the result of many inquiries, it seems to have been introduced into this country as a medicinal agent, first in Liverpool, where, indeed, in the form of a spirituous solution, it has been more known than in any other part of the country, and from which, I believe, the knowledge of its therapeutic properties has extended. About the year 1838 or 1839 a prescription was brought to the Apothecaries' Hall, Colquitt Street, one ingredient of which was chloric ether. No substance being known there of that name having the properties of that with which the mixture had been previously prepared, Dr. Brett, then the company's chemist, in investigating the subject, found, in the United States Dispensatory, the formula for its preparation which has been noticed above, and prepared some. Its properties pleased some of the medical men, particularly Dr. Formby, by whom it was introduced into practice in this town. After coming to take charge of the company's laboratories, I found that the method of preparation yielded a product which was not of uniform strength, and sometimes of disagreeable flavour. Accordingly, I altered the process by separating and purifying the chloroform and dissolving it in pure spirit, by which a product of uniform strength and sweet flavour was always obtained. The vapour of the so-called chloric ether seems to have been tried as a substitute for sulphuric ether in February or March last, but without very satisfactory results, which, indeed, could scarcely be expected, unless the vapour of alcohol possessed the same properties, it being composed principally of alcohol. When in Scotland, in October last, Dr. Simpson introduced the subject to me, inquiring if I knew of anything likely to answer. Chloric ether was mentioned during the conversation, and being well acquainted with its composition, and with the volatility, agreeable flavour, and medicinal properties of chloroform, I recommended him to try *it*, promising to prepare some after my return to Liverpool, and send it to him. Other engagements and various impediments prevented me from doing this so soon as I should have wished, and in the meantime Dr. Simpson, having procured some in Edinburgh, obtained the results which he communicated to the Medico-Chirurgical Society of Edinburgh, on November 10th, and which he published in a pamphlet entitled 'Notice of a New Anaesthetic Agent as a Substitute for Sulphuric Ether in Surgery and Midwifery.'" Miss Eva Blantyre Simpson, speaking of her father's recklessness in experimenting on himself, says it is not unlikely that he may have made a private trial of chloroform, and laid it aside again "to start fair with his two assistants (Duncan and Keith) who had worked so unflinchingly with him." She adds that some other compounds were tried on that night of November 4th, 1847, "and then chloroform, which was lying in its little phial among some papers, was unearthed." This, as we know, was supplied by Duncan and Flockhart.

A PARASITIC MOULD OF THE HOUSE-FLY.

IN our issue for November 30th, 1912, appeared a letter from Dr. H. de Riemer Morgan, of the Lister Institute, Elstree, recording the fact that he had succeeded in obtaining an artificial cultivation of the *Empusa muscae*. It would appear, however, from information that has reached us that this is not the first time that corresponding success has been obtained. The existence of this parasite of the house-fly was, it is said, first recorded over fifty years ago by a German worker, and in 1910 Dr. Julius Bernstein, who was then engaged in bacteriological investigation on the subject of flies on behalf of the Local Government Board, suggested in one of his reports that an artificial cultivation of the *Empusa muscae*, if it could be obtained, might prove highly valuable in ridding towns of the pest of flies derived from horse-dung. Another person interested in the same subject was Mr. Edgar Hesse, whose regular occupation is that of assistant to a taxidermist in London, and whose hobby it is to study subjects of a bacteriological kind. This gentleman, a year or two ago, began to devote his energies to an investigation of the *Empusa muscae*, and at the beginning of last July submitted to the Local Government Board a sample of what he believed represented a successful attempt to cultivate this organism. The Local Government Board, through Dr. Monckton

Copeman, who is interested in the same subject, had the specimens examined by Dr. Julius Bernstein, who reported that the organism present was, in fact, the *Empusa muscae*. In the same month another experiment by Mr. Hesse proved successful, for he succeeded in killing three species of fly—*Musca domestica*, *Faunia canicularis*, and *Stomoxys calcitrans*—by feeding them on food impregnated with spores derived from one of his own artificial cultivations of the *Empusa muscae*. Mr. Hesse, it appears, placed the first of these facts on record in the issue of *The English Mechanic and World of Science* for July 12th, 1912, and a somewhat inaccurate version of this communication was published shortly afterwards in the American press. Since then Mr. Hesse has carried his experiments, we learn, somewhat further by inseminating manure with artificially-cultivated spores, and then attempting to develop fly larvae therein. The result was encouraging, for though the larvae assumed the chrysalis form, they did not hatch out. Other facts which Mr. Hesse believes he has proved are that the *Empusa muscae* is polymorphic, and by nature a saprophyte, though capable of living a parasitic existence when its spores happen to be swallowed by a fly. In the saprophytic condition it produces gonidia, but forms zygospores and gemmae when its food supply is exhausted. The spores produced persist, he finds, in a torula condition, and by inducing flies to swallow the spores by placing the latter in syrup he has subsequently been able to recultivate the conidia thrown off by them, thus completing the life cycle of the fungus. These observations are of interest because hitherto describers of this fungus have asserted that its spores work their way into the fly through the surface of its abdomen, while Mr. Hesse's experiments would seem to indicate that they are swallowed and probably germinate in the crop.

PELLAGRA IN AMERICA.

THE Pellagra Commission of the New York Post-Graduate Medical School and Hospital has spent four and a-half months in studying pellagra in South Carolina. It is stated that there are at least 50,000 persons in the south suffering from the disease. At first it was confined almost entirely to the poorest class, but is now spreading considerably among the well-to-do. It is proposed to send another expedition in the spring. The Report of the United States Public Health Service issued at Washington on December 14th states that the number of persons who have died of pellagra in the States in the period 1907 to 1911 is 6,205.

BOY NIGHT-WORKERS.

THE Committee on the Night Employment of Male Young Persons in Factories and Workshops,[1] of which Lord Ashton of Hyde was chairman, and which was appointed by the then Home Secretary, was the outcome of a debate in the House of Commons on May 24th, 1911. Objections were raised to the permission granted by an Order, dated April 10th, 1911, to employ boys of 16 years of age and upwards at night in the process of making artificial silk fibre in non-textile factories. There was a feeling against the night employment of boys generally, and it was thought that the Orders had been unduly extended. The Committee visited sixty-eight factories, and as several of the visits were paid during the night-shift period, so that the members of the Committee had the opportunity of seeing for themselves the exact conditions of work. The Factory Acts allow the employment of boys of 14 years of age in certain industries, and when the Acts were first applied in 1867 to some of the chief industries it was thought proper, owing to the continuous nature of some processes, to make special modifications allowing night employment of boys. Provision was also made for the extension of the same privilege to other trades by means of a Special Order of the Secretary of State. By the Act of 1895, and which was reaffirmed in the Act of 1901, night work was allowed for boys of 14 to 18 years of age at blast furnaces, in iron mills, letter-press printing works, and paper mills; power was also given to the Secretary of State to extend the exception by Special Order to boys employed in non-textile factories provided that the nature of the business required night work and that the processes were not injurious to the health of young persons. Among the industries excepted were certain departments in iron works, sugar refining, the galvanizing of sheet metal and wires, china clay works, electrical stations, and the manufacture of cordite and gun-cotton. No young person can be employed more than twelve hours in any consecutive period of twenty-four hours. The Committee tried to ascertain whether the health of boys employed in night work had suffered. It was difficult to obtain accurate information upon this point. Many of the medical men examined had not observed any injurious effects. Others thought the lads had suffered through want of adequate rest and sleep, deprivation of sunlight, and irregularity of feeding. Some factory surgeons, again, thought that the growth had been retarded, but there was no unanimity of opinion on these points. The conclusions arrived at by the Committee were that night work was unnatural, that the alternation from day to night work in the three-shifts system did not allow sufficient time for the individual to adapt himself to the unnatural conditions, and that night work deprived youths of the beneficial influence of sunlight and of sound continuous sleep. The Committee found, further, that the supervision of boys in the factory at night was not so efficient as during the day, and that the employment deprived the boys of the opportunity of attending evening classes. The Committee is therefore of the opinion that it is undesirable to employ boys under 18 years of age in factories where night work is required. A boy who is earning wages at the age of 14 is usually better fed than a boy who is not occupied at all, and it is better to have boys under some restraint between 14 and 16 years of age than running wild. It has to be remembered that boys of 14 are allowed to work in coal mines. Why, then, it may be asked, refuse to give permission to work in the factories? The Committee expresses its belief in the three-shift system of eight hours per shift with a half an hour interval of rest, in the advisability of boys being periodically medically examined until the age of 18, of employers giving proof of having made all effective provisions, and the Secretary of State only granting exceptions under the most necessitous circumstances.

[1] London: Wyman. 2½d.

THE MADNESS OF KINGS.

THE recent death of the aged Regent of Bavaria, and with it the reopening of the whole painful story of this ill-fated house, raises questions of peculiar interest in connexion with the psychiatry of royal personages. It would appear at first sight that, if the moral and intellectual qualities of a sovereign can add to the enrichment and glory of a nation, the contrary should also hold good. It is remarkable to note, however, how little dependent the evolution of a nation really is upon the mental or physical health of its monarch. Moreover, the history of the House of Bavaria shows that a madman clothed in purple can on occasion be an excellent head of the State. The outstanding cases of insanity in reigning monarchs are not numerous. Perhaps one of the earliest to which historical reference is made, is that of Nebuchadnezzar, King of Babylon, who suffered from lycanthropy, a form of insanity of comparative frequency in antiquity as well as in the Middle Ages. Beyond being afflicted with jealousy amounting almost to

monomania, there is no indication that Saul, King of Israel, was insane. More recently Peter III of Russia, grandson of two great kings—Peter I on the maternal side, and Charles XII of Sweden—was a degenerate in the full meaning of the term. Paul I of Russia, his son, was sickly, weak, and epileptic from birth. He it was who proposed that the sovereigns of Europe should settle their differences by mortal combat! Although he imperilled the country by his extravagance and eccentric habits, the pathological history of Paul is interesting in that he was incontestably the superior of his father from a psychological point of view. His death by strangling was defended as a matter of necessity for the welfare of his country. The subject is one of great interest for the physician and the philosopher, and we do not know that students of psychiatry have hitherto given it the attention it deserves.

EPSOM COLLEGE.

ELSEWHERE will be found an appeal by Sir Henry Morris, Honorary Treasurer of Epsom College, on behalf of that most deserving institution. The calls on the profession are so great, and its financial future is at present so shrouded in threatening clouds, that there is some danger lest the appeal should fall on ears deafened by the din of a fight *pro aris et focis*. It need scarcely be pointed out, however, that Epsom is intimately connected with the domestic hearths of doctors. To many of them it is what Byron called

> That schoolboy spot
> We ne'er forget though there we are forgot.

To others it is the place where their sons are receiving a public school education of the highest class at a moderate cost, and where the sons of some of their less fortunate brethren are boarded, clothed, and maintained free of charge. To others, again, Epsom represents a haven of refuge for men who have been buffeted about by the storms of life, for widows and for orphans of medical men. To meet the cost of all these benefactions a sum of nearly £7,000 a year is required, of which £4,500 must be obtained by annual contributions. More money is urgently needed for general purposes, among which Sir Henry Morris mentions the provision of adequate arrangements for the sick in time of epidemic illness, and other improvements. Full details of the great work done by the foundation will be found at p. 7 of our advertisement columns in last week's issue. The medical profession is by no means rich, and it is highly creditable to the spirit of brotherhood which animates its members that it should, mainly by its own efforts, have raised such a monument of benevolence. We have all reason to be proud of Epsom, and not a few of us owe it a debt of gratitude. We therefore most earnestly commend Sir Henry Morris's appeal to the favourable notice of our readers. We hope that the support which has been so liberally given in the past will not be wanting at this hour of special need.

NEW YEAR HONOURS.

AMONG the honours conferred by the King on the occasion of the New Year is that of knighthood to be received by Dr. R. W. Philip, physician to the Royal Infirmary and senior physician to the Royal Victoria Hospital for Consumption, Edinburgh, in recognition of the pioneer work he has done in the organization of a co-ordinated system for dealing with tuberculosis. The same honour is conferred on Dr. George Turner, formerly medical officer of health for the Transvaal, and medical superintendent of the Pretoria Leper Asylum, whose services in these capacities were conspicuous; and on Dr. David Hardie, of Brisbane, member of the Medical Board and Central Board of Health, Queensland. Inspector-General Duncan Hilston, R.N., C.B., honorary physician to the King, formerly in charge of the Royal Naval Hospital, Haslar, is promoted to be K.C.B. The Kaisar-i-Hind Gold Medal is conferred on Major H. W. Grattan, R.A.M.C., officer in charge of the enteric fever convalescent depôt at Naini Tal; on Dr. J. Andrew Turner, Health Officer to the Bombay Municipality; on Major E. Reinhold Rost, I.M.S., senior civil surgeon, Rangoon, whose name is known for his researches on the morphology of the lepra organism, and the treatment of leprosy; and on Major E. L. Ward, I.M.S., Punjab. The honour of knighthood is accorded also to Mr. Francis Darwin, who, after studying medicine at St. George's Hospital and graduating M.B., became personal assistant to his illustrious father, and has won distinction as a botanist. The same honour is conferred on Mr. Stewart Stockman, Chief Veterinary Officer to the Board of Agriculture. Professor Wyndham Dunstan, formerly lecturer on chemistry in the medical schools of Oxford and St. Thomas's Hospital and at the Pharmaceutical Society, becomes C.M.G.

LADY ALMONERS AND THE AFTER-CARE OF HOSPITAL PATIENTS.

THE institution of the lady almoner as an adjunct to the hospital staff has already proved very effectual as a means of checking actual abuse. The mere fact that such an officer is empowered to inquire into the social status of hospital patients prevents application by those who are not prepared to face her. But the functions of the lady almoner go far beyond those of the inquiry officer. While the medical staff in the casualty or out-patient departments can prescribe treatment and give valuable advice they are quite unable to see to it that either are used intelligently. It is only by knowledge of home conditions and social surroundings that the average patient can be satisfactorily helped to regain his health. The lady almoner and her trained assistants are now at hand to help him, if he be a patient of St. Thomas's Hospital. A system has been in force at that institution for the last three years, started and financed by the trustees of the Cicely Northcote Trust, whereby a large number of the hospital's patients, particularly tuberculous and gynaecological cases, have been materially assisted in their own homes by the sympathetic aid and advice of a number of lady assistants, trained to the work and acting under the general guidance of the lady almoner. To give such help in strange households without undue interference with established customs, requires no small amount of tact on the part of the visitor, but experience has shown that it is for the most part received with gratitude if offered in a sympathetic way. The Cicely Northcote Trust has recently issued its third annual report, which contains, not only a full account of the work done, but also some interesting statistics as to the social conditions commonly prevailing amongst the patients with whom it has had to do. Such facts as the following, for instance, are somewhat striking. Of 341 consumptive patients visited in their own homes no less than 287 were found to be sleeping with at least one other person, and sometimes with three or four, in the same bed. The help given to gynaecological patients naturally calls for the exercise of much tact and perseverance to overcome prejudice and rooted habits, but good work appears to have been done particularly amongst unmarried girls and women. In many cases a reference to other charitable agencies has provided the needed help. Such work as this, if it could be extended to all the great hospitals, would greatly increase their practical value to the community. The published accounts of the Trust go to prove that administrative expenses are heavy, but no explanatory details on this point are given in the report. Administrators of

large legacies left for charitable purposes would be well advised in following the example of the Cicely Northcote Trustees.

SIR RONALD ROSS, who intends to reside in future in London, has been appointed Physician for Tropical Diseases to King's College Hospital. On the transference of the hospital in South London in the course of the summer, he will have charge of beds for cases of tropical disease.

DR. ALEX HILL has been appointed Principal of Hartley University College, Southampton. Local interest in placing the college on a sound footing has been greatly stimulated in recent years. A sum of £32,000 has been raised for the erection of the first block of a new college, and it is believed that Dr. Hill's long experience in educational work will be of great assistance in the development of the institution. In addition to his work in Cambridge, where he was Master of Downing College from 1888 to 1907, and Vice-Chancellor in 1897–99, he served as one of the Commissioners reporting to the Treasury on University Colleges, as a member of the Welsh Colleges Committee, and as President of the Teachers' Guild. He has also held the office of President of the Neurological Society, and was Secretary of the Congress of Universities of the Empire held in London last year.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Medical Benefit.—Mr. F. Hall asked whether, under the National Insurance Act, an insured person will be entitled to be treated by his own medical practitioner; and, if so, whether in the event of a number of doctors refusing to accept service under the Act, any amendment thereof will be sought to meet the situation thus arising. The Chancellor of the Exchequer replied: The insured person is entitled to a free choice amongst the doctors registered on the panel subject to conditions defined by Section 15 (2) of the Insurance Act. If, however, the doctor of his choice declines to go on the panel, the insured person is not entitled to claim as a right that he should be treated by his own medical practitioner at the expense of the insurance fund. Mr. F. Hall: May I ask whether, in the event of private medical practitioners not coming on the panel, the insured person is to be at the mercy of the Insurance Commissioners or the Insurance Committee? and how does that really fit in with Section 15 of the Act and the promises made? Mr. Lloyd George: If the hon. member will take the trouble to read the Act he will see that there is only a right of choice amongst doctors on the panel, and that if any private arrangements are made with doctors outside they must be subject to the allowance of the Insurance Committee and the Insurance Commissioners. Mr. F. Hall: May I ask the right hon. gentleman whether, when he went into that question, he thought so many medical practitioners would not accept service under the Act? Captain Murray: Can the right hon. gentleman say whether it is not practically certain now that sufficient doctors will come forward to work the Act? Mr. Lloyd George: I prefer not to express an opinion. Mr. Worthington Evans: May I ask whether any objection will be made by the Insurance Commissioners to allowing Insurance Committees to permit private practitioners in counties to continue attendance for individual patients under Section 15, Subsection (3), of the Act? Mr. Lloyd George: I think that would depend entirely upon circumstances. Earl Winterton: Will the right hon. gentleman make a general statement as to what he proposes to do in cases of counties where the whole of the doctors have refused to serve? Mr. Lloyd George: I should first of all have to wait and see whether there are any counties of the kind. Earl Winterton: There are.

There was a desire to raise a discussion on medical benefit with reference especially to the conditions under which insured persons can make "their own arrangements," and on the motion for the adjournment of the House on Tuesday evening Mr. Worthington Evans asked whether the business would be in order in view of a blocking notice put down by Mr. Sherwell (Huddersfield). Mr. Lloyd George said that the Government would not oppose, and he would be happy to answer questions, but the Speaker ruled that a debate would not be in order, and appealed to Mr. Sherwell to withdraw his block so that the matter might be discussed on Wednesday; this suggestion was accepted.

Tuberculosis Prevention in Ireland.—A bill entitled the Tuberculosis Prevention (Ireland) Bill was introduced into the House of Commons on December 16th by the Chief Secretary for Ireland. The memorandum prefixed to the bill states that its main object is to amend the law under which provision is made by local authorities in Ireland for the treatment of tuberculosis. It amends and extends the Tuberculosis Prevention (Ireland) Act, 1908; it is to be construed as one with that Act, and the two Acts are to be cited together as the Tuberculosis Prevention (Ireland) Acts. The first clause of the bill would make the notification of tuberculosis compulsory throughout the whole of Ireland; at present it is only in force in those sanitary districts in which the provisions of Part I of the Act of 1908 have been adopted. The second clause directs that cases of tuberculosis are to be notified to the medical superintendent of the tuberculosis dispensary which may have been established in any county instead of the local medical officer of health. The third clause varies the regulations as to the classification of expenses incurred by county councils in connexion with tuberculosis hospitals and dispensaries, and provides that all such expenses are to fall upon the poor rate. The clause also contains a temporary provision with regard to such expenses during the current financial year. The fourth clause empowers county councils providing a common hospital or dispensary to adjust the proportion of the expenses to be borne by each county. The fifth clause would enable a joint hospital provided by sanitary authorities under the Public Health (Ireland) Act for the treatment of tuberculosis to be transferred to a county council. The sixth clause declares that a person suffering from tuberculosis may be admitted, and maintained and treated in any hospital provided under the Act, notwithstanding that he is not an inhabitant of a county the council of which has provided or joined in providing the hospital. The seventh clause authorizes the Local Government Board to place any land vested in it at the disposal of the county council as a site for a dispensary. The eighth clause repeals certain sections and subsections of the Tuberculosis Prevention (Ireland) Bill.

Tuberculosis Act (Ireland), 1908.—Mr. Hugh Barrie asked the Chancellor of the Exchequer whether he was aware that, until it was definitely known what grant-in-aid was to be provided by the Treasury, Irish county councils were reluctant to adopt Part II of the Tuberculosis Act, 1908, with its financial responsibilities; and whether he would take an early opportunity of intimating the amount of the Treasury grant. Mr. Masterman said that the Irish Local Government Board was now preparing a circular explaining the distribution of the grant, including the additional sum to be provided in connexion with the provision for non-insured persons. In reply to a further question, Mr. Masterman said that he was unable to say whether the circular would be in the hands of the Irish county councils at their next meeting (January 10th), but would communicate with the Irish Office.

AT the meeting of the Medico-Legal Society to be held at 11, Chandos Street, London, W., on Tuesday, January 21st, at 8.30 p.m., Professor Benjamin Moore will read a paper entitled "First Steps towards a State Medical Service."

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

PRACTICAL INSTRUCTION ON TUBERCULOSIS AT EDINBURGH.

The opening of the well-equipped new dispensary buildings at Edinburgh has added much to the teaching facilities in relation to tuberculosis. There are now available for purposes of study the Tuberculosis Dispensary, the Sanatorium (Royal Victoria Hospital), and the Royal Victoria Hospital Farm Colony. These are all linked together closely, and those attending the course have the opportunity of studying the co-ordinated system in operation. In addition, the pathology of the subject is overtaken in the pathological department of the new school and the new pathological museum and laboratory attached to the dispensary.

The next course commences on Monday, January 13th, at the new dispensary. As the numbers attending previous courses have been large, graduates and others proposing to join the present course are advised to make early application. A further announcement regarding the course will be found in this week's advertisement columns.

SCHOOL BOARDS AND MEDICAL TREATMENT.

A good deal of interest has been aroused by the recent decision in the Court of Session with reference to the medical and dental treatment of school children under the Glasgow Board. It may be explained that the Glasgow School Board will get a share of the sum of £7,500 which was set apart by Parliament for the treatment of necessitous school children in Scotland for the year ending February 28th, 1913. This money is available for the purposes of treatment. In Edinburgh premises have been rented by the School Board, although the arrangements for treatment so far as the staff is concerned have been made to February 28th only. The amount which the Edinburgh Board will obtain is £850. Glasgow's share will be much larger. The judgement of the Court of Session does not deal with this money but merely makes it clear that the School Board is not empowered to take money from the rates for the purposes of treatment. That was the view of the board before the raising of the action, but as the Education Department was rather of opinion that the Education Act made it possible to do certain things, a legal decision was necessary to remove any doubt in the matter. Hence the test case. It may be noted that the cost of medical inspection undertaken in the schools of the Glasgow Board amounts to about £5,000, half of which is rated for. The staff consists of a principal medical officer and three full-time medical assistants, together with thirteen part-time medical assistants. There are ten nurses employed. In addition there are specialists for eye and throat diseases and for the mentally defective cases. Under the Govan School Board, also in Glasgow, there are two medical officers devoting their whole time to the work of medical inspection, and ten are engaged part time. The cost is about £1,800. In Aberdeen the School Board works in co-operation with the Public Health Committee of the Town Council. The medical arrangements are in charge of Dr. Rose, who has an assistant and a staff of nurses. Recently the School Board appointed a dentist to give half-time service at a salary of about £250 a year, the cost being defrayed out of the Treasury grant. In Dundee the duties of the school medical officers are confined to inspection and giving advice as to the most common school ailments, especially defective sight, bad teeth, and ringworm.

MILK AND RETURN CASES OF SCARLATINA.

In his usual report to the Health Committee of Glasgow, Dr. A. K. Chalmers, M.O.H. for the City, drew attention in November to an unusual experience in connexion with return cases of scarlatina. Twelve cases in all occurred, affecting eleven households. An interval of sixteen and thirteen days respectively separated the two earlier cases from the others, the dates of sickening being November 2nd, 5th, 18th, 23rd, and 26th (1 case each), November 20th (3 cases), and November 21st (4 cases). All the employees at the dairy of which these families were customers were medically examined without furnishing a history or showing any symptoms suggesting scarlet fever, but when the farm from which the milk supply of the dairy was obtained was visited and the members of the household examined, it was found that two of the farmer's children had been dismissed from one of the county fever hospitals, one on October 26th and another on November 16th, and that the former was suffering from an acrid nasal discharge so frequently associated with return cases of the disease, while the latter bore evidence of having recently had a similar discharge. This is believed to be the first instance in which milk appears to have become the carrier of infection thus acquired, and the explanation in the present instance would appear to be that the mother attended to the child with the discharge, and was also engaged in milking. The children were at once removed from the farm and the premises disinfected. Since then no further cases have occurred.

OVERCROWDED GLASGOW.

An important pronouncement will shortly be made with regard to the problem of dealing with congested areas in the city of Glasgow. No fewer than five committees of the Corporation are at work, and, with a view to ascertaining the rate of progress and arriving at a common policy, the Lord Provost held an informal meeting a few weeks ago with the principal members of these committees. As a result, proposals for a definite policy on a large scale will shortly be submitted. The financial aspects are large and give rise to controversy, but it is generally recognized that the time has come when some forward step must be taken. The most important of the committees is that on the Housing of the Working Classes Acts, of which Bailie Dr. E. McConnell is convener. It is tackling the question of back lands in slum areas. The tramways surplus of £56,000 handed over to it two years ago is a start. Though the magnitude of the task renders progress slow, several slum areas are to be purchased for demolition and the creation of open spaces in congested districts. The City Improvement Committee, and special subcommittees of the Health, Tramways, and Statute Labour Committees of the Corporation are also dealing with different phases of the problem.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

TUBERCULOSIS SCHEMES.

AT its last meeting the Dublin County Council elected Dr. M. J. Cuffe as tuberculosis medical officer at a salary of £500 a year, with £100 additional travelling expenses.

The Cavan County Council proposed to appoint a tuberculosis officer at a salary of £200 per annum, with £50 for travelling expenses. At the last meeting a letter was read from the Local Government Board suggesting that they should fix the proposed salary at £400 and expenses. Letters were also read from the secretaries of the Conjoint Committee and of the co. Cavan Local Medical Committee, stating that any doctor appointed under the terms proposed by the county council would not be in a position to receive the co-operation of the general practitioners of the county, inasmuch as the terms were distinctly at variance with those laid down by the Conjoint Committee. After discussion the matter was adjourned pending the receipt of particulars as to the number of insured persons in the county.

The Insurance Act County Committees' Association, after considering the Local Government Board circular on the scheme for the distribution of the maintenance grant for treating non-insured persons and dependants of insured persons, passed a resolution that, in view of the uncertain cost of the treatment required and the inadequate promises made hitherto by the Exchequer, the committee could not recommend the county councils to undertake for the present institutional treatment of non-insured persons other than such dependants as could be wholly provided for out of the funds of the Insurance Committees.

P. F. COLLIER MEMORIAL DISPENSARY.

At a meeting held at the Mansion House, Dublin, on December 16th, the Countess of Aberdeen, on behalf of the Women's National Health Association, formally handed

over the P. F. Collier Memorial Dispensary for the Prevention of Tuberculosis to the Lord Mayor and Corporation. The first annual report was read by the Medical Superintendent, showing that from July, 1911, to November, 1912, 1,176 patients had been seen and examined, and 547 were diagnosed as suffering from definite pulmonary tuberculosis. Béraneck's tuberculin had been administered to a large number of patients with very satisfactory results. The total number of attendances of patients at the dispensary during the year was 8,400, and an extensive system of home visitation had been carried on. The Honorary Secretary, Sir William Thompson, Registrar-General for Ireland, submitted the balance sheet, which showed that the building, equipment, and initial expenses were £2,519, which with the other expenses, wages, medical appliances, brought the total expenditure to £4,114. The Corporation had agreed to pay £2,000 for the dispensary.

Lady Aberdeen said that when Mr. Robert Collier made his generous offer he expressed the hope that it might be found possible to hand it over to the rightful keepers, the municipality.

Belfast and its Milk Supply.

Some months ago the City Corporation sought powers from the Local Government Board to inspect dairies outside the borough from which milk was sent into the city. Some 12,000 of the 18,000 gallons consumed come from outside dairies. The councils of some districts objected that no English city had these powers, and that difficulties would arise from the double inspection and the different standards demanded; but it was pointed out that if a dairyman complied with the Act he had nothing to fear. The Local Government Board has come to the conclusion that, while it is right that the city council should satisfy itself of the purity of the milk supply, it would be better for inspection to be a matter of consent on the part of the district councils.

The Draft Rules for Midwives in Belfast.

The Public Health Committee, on December 19th, 1912, received an objection from the Local Government Board to the draft rules which the committee had drawn up to give effect to the provisions concerning midwives practising in Belfast, contained in Part 8 of the local Act of 1911. These draft rules had been laid before the medical guild in Belfast, and had been discussed. The Board pointed out that the provisions relate to certificates to practise, the midwives' roll, and the notification of intention to practise, but that the corporation was not given any powers to make rules or regulations in respect of the practice of midwifery.

Salaries of Medical Officers.

At the last weekly meeting of the Thurles Board of Guardians the salary of Dr. Thomas Barry, medical officer of Littleton Dispensary District, was raised from £120 to £160, in order to place him on equal terms with the other medical officers in the Thurles Union.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

MANCHESTER AND DISTRICT.

Post-Graduate Classes.

The course of post-graduate demonstrations given by members of the honorary staff of the Manchester Royal Infirmary will be resumed on Tuesday, January 14th. The demonstrations will be given on Tuesday and Friday of each week during the second half of the winter session, the medical demonstrations being on Tuesdays and the surgical on Fridays. Notice of subjects will be published, and will also be found posted in the Oxford Road lodge of the Royal Infirmary.

Course in Tuberculosis.

An advanced course in tuberculosis commenced on December 17th in the Public Health Laboratory of the University of Manchester, when a laboratory class began its work under the guidance of Professor Sheridan Delépine, assisted by Drs. Sidebotham and Sellers. This part of the course will be supplemented by lectures and demonstrations, and we publish this week the introductory lecture given by Professor Delépine. The first course of clinical instruction will begin on January 20th at the out-patient department of the consumption hospital, and will be under the direction of Drs. Moritz, Haring, Renshaw, Marsden, and Cunliffe. The first course of instruction on administration will be conducted by Dr. Niven at the Manchester Public Health Office, beginning on April 5th. The whole course extends over a period of not less than six months, and the course of clinical instruction is continued throughout the whole period.

The Manchester and Salford Provident Dispensary Association.

Some months ago, when the resignations of the clubs were sent in throughout Manchester and Salford, there was evidently some doubt as to whether the resignations applied only to members who would become insured persons or to the whole club. Opinions varied among the medical officers of the provident dispensaries, but in order to arrive at uniform action a meeting was held, and they decided to inform the officials of the Dispensary Association that their resignations must be regarded as applying to the whole of the members, many of whom are women and children. It was also decided that the final decision as to any new terms that might be offered for treatment of the non-insured members should be left to the Joint Committee of the Manchester and Salford Divisions acting as the Provisional Medical Committee. Soon afterwards a communication was received from the Dispensary Association saying that it was prepared to make an increase in the capitation payment to the medical officers. At present there are nine branch dispensaries, whose funds are kept separate, and which have a total membership of over 15,000 on the books, or, reckoning those children of members who are under 14 years of age for whom no subscription is required, the gross number is about 17,000. After the withdrawal of those who will be insured persons under the Act, it is expected that from 8,000 to 10,000 will still remain on the books, and it was for these non-insured that it was proposed to continue the dispensaries. The present contribution is a penny a week, with a provision that the subscription for all children under 14 years of age in any one family shall not exceed twopence a week, children over this age paying as separate members. There is also an entrance fee of 6d. a member or 1s. for a family, and persons actually suffering from illness may join on paying an entrance fee of 5s., provided that the whole of the family of the applicant joins at the same time. A penny is also paid for each bottle of medicine or other article supplied. Members have a free choice among the doctors of the branch they join, and the medical officers receive one half of the ordinary contributions according to the number of members on their lists, and in addition, if there is any balance after defraying expenses, at least two-thirds of it, and sometimes the whole, is distributed to the medical officers in proportion to the amount already received. In 1910 the receipts from subscriptions and entrance fees were £3,187, and the sum paid to the medical officers, who number 32, was £1,695, which does not include fees for special visits nor confinements, for which a special charge is made. There is no fixed income limit, but the dispensaries are understood to be only for those who are unable to pay ordinary fees, and if any question arises on any person applying for admission it is referred to the Charity Organization Society for investigation. Under the new terms offered the contributions would have been raised so as to provide about 50 per cent. increase in the remuneration of the medical officers, who would also have been entitled to control the admission of new members, and membership would also have been open to review at any time if a member's circumstances changed so as to make him reasonably independent of a charitable institution. These conditions were suggested owing to complaints that not a few of the members could well afford to pay ordinary medical fees. The offer of the Dispensary Association was laid before the Joint Committee of the Divisions, which decided to submit it to the medical officers themselves before coming to any decision. A conference was accordingly held,

and after some discussion the medical officers, voting separately, decided to reject the offer not to appoint any committee to negotiate about any fresh arrangements, and expressed the opinion that the dispensaries, at any rate on their present basis, should be ended. These resolutions of the medical officers present at the conference were then confirmed by the Joint Committee, and the following reasons for the decisions were assigned: (1) That the dispensaries cannot be carried on as a satisfactory business undertaking. (2) That the management expenses are extravagant, and cannot be proportionately reduced when insured persons now members are withdrawn. (3) That any medical charity should be solely under the control of the medical profession. It was recognized that this decision will undoubtedly be serious for a few of the medical officers, and it is hardly to be expected that the council of the Dispensary Association will willingly acquiesce in the ending of an institution which has been in existence for upwards of thirty-six years.

NORTHUMBERLAND AND DURHAM.

THE decision of the recent Representative Meeting was awaited with great anxiety by all the members of the medical profession in the industrial districts of Northumberland and Durham. When the decision and the resolutions, with the remedy suggested, were known, great astonishment was expressed that the meeting should have tampered with one of the cardinal points, as it was feared that the attack which has been so successfully carried on by the profession against the National Insurance Act would thus be weakened. The men in this area have been working for years to get rid of friendly society control, and for any legislative body of their profession to ask them to again place themselves in such a position seemed to them most unwise. The loyalty and devotion with which the members of the profession have united in face of a common foe have been most striking. At the many meetings held since the Representative Meeting the great depths to which the roots of this loyalty have penetrated have been proved. It has only been owing to what is regarded as the sheer necessity of the situation, and the impossibility of carrying out the resolution of the Representative Meeting, that the men in so many areas have agreed to work the Act provisionally. They are still heart and soul with the Association; and, so far from there being any ground to fear for the maintenance of the Association, it is certain that it will increase in power, and go on growing upon a foundation even more solid than that on which it has hitherto rested. At one of the largest meetings of the Branch Council ever held, a very long and able discussion took place, and the opinion of an independent legal authority was obtained which stated that, owing to the action of the Representative Meeting, the pledge was no longer binding on the members of the Association; the Branch Council passed a resolution to that effect, and advised the members to accept service provisionally under the Act, and at the same time to renew their demands for the points for which they had been fighting. This line of action has been adopted by all the Divisions in the Branch with the exception of two, and it seems probable that even these two, although they are very strong and their circumstances are unexceptional, will find it impossible to resist accepting service under the Act.

A notice of meeting was sent to all the members and non-members in the area, outside the county boroughs, asking those unable to attend to express their views on the present position in writing. Only some fifteen replies against working the Act were received, as compared with close on a hundred stating that owing to the recent action of the Representative Meeting there was nothing for it but to work the Act provisionally. This is the feeling which prevails generally throughout the Branch; but there is a deep feeling of sorrow and regret that this action has been forced on its members. One and all state that some other and more dignified way out should have been found. There is every indication that the men in this area intend to stick to the Association; but, it is said, men in other areas in the country will have to learn to give and take, and not to ask men to carry out impossibilities and sink their principles, as has recently been demanded of them.

LONDON.

LONDON COUNTY COUNCIL.

Medical Treatment of School Children.

DURING an all-night sitting of the London County Council on December 17th, 1912, Mr. R. A. Bray moved an amendment to a formal report of the Education Committee on the subject of school medical work:

> That the Education Committee do consider as to the establishment of one or more school clinics under the direct management of the Council.

He urged that the Council should try various methods of supplying medical treatment and select the one that proved the best. Of the two methods at present in operation, the Board of Education had stated that it could not sanction the arrangements with hospitals as anything more than a temporary expedient. Those in touch with the negotiations knew that the hospitals generally would never conform to the "London Hospital type," as required by the Board of Education. There were also difficulties connected with the other method of providing medical treatment—that of local centres managed by committees of local practitioners. The Board of Education only allowed the Council to make the agreements from year to year, and that made it difficult to obtain premises at a reasonable rent. Furthermore, it would be very convenient to the Council to be able to move its medical men about, and this could not be done with the local medical committees. The local practitioners had undertaken for a fixed rate of pay to provide medical treatment at a certain place, but sometimes the Council was not able to supply the full number of cases agreed upon. If the doctors were in the service of the Council it would be possible to arrange for them to go to another centre and put in the rest of their time there. As to the cost of a clinic, a private house could easily be adapted for the purpose. The second element of expense was the payment to the doctor. He had very good reason for believing that the doctors under the present arrangement had asked to be paid not only time-rates but piece-rates as well. They wanted £50 a year for one half-day a week, and at the same time they would only see a limited number of new cases each time. The experience of Miss McMillan at the Deptford health centre showed that the doctors there could see a great many more new cases each time than those under agreement with the Council saw. The Council had agreed to everything the doctors had asked for, without any sort of bargaining. If the doctors were in the direct employ of the Council their attendance for a definite time to see all the cases that the Council liked to send could be secured. By this means the work could be done much more cheaply. Finally, Mr. Bray urged that the present arrangements with the hospitals were unsatisfactory because a child with more than one ailment might be sent to one hospital for one complaint and to another for a second, while the nursing treatment which followed was provided by a third organization.

Miss Adler, who seconded, called attention to the fact that under the present arrangements in 3,000 cases out of 27,000 the children did not complete the course of treatment. A clinic would be more convenient to parents and would enable inspection and treatment to be co-ordinated.

Mr. F. R. Anderton, chairman of the subcommittee of the Education Committee concerned, claimed that the local treatment centres were practically clinics, and were so described in the report of the medical officer to the Board of Education. In addition to the arrangements now in force at eleven hospitals and eleven treatment centres, schemes were in prospect for treatment at one more hospital and five other centres. These would provide for the treatment of 48,000 defective children. No figures had been adduced by previous speakers to show that local treatment centres were more expensive than would be clinics managed by the Council. One of the advantages of the present arrangements was that the doctors on the rota of the practitioners' centre were known locally; they were the people whom the parents would be most likely to trust, their reputation being known. There was no need for an experiment of the kind suggested.

On a division, the proposal was lost by 55 votes to 40, and the report of the Committee was adopted.

Further Provision for Dental Treatment.

Mr. Bray moved a further amendment:

That the Education Committee do consider and report as to the establishment of additional dental centres which will, with existing centres, make provision for the treatment of not less than 50,000 cases a year.

He pointed out that it was proposed this year to increase the provision only from 13,000 to 19,000, and then only to treat children of three age groups—6, 7, and 8. Nevertheless, of the whole number of London children, a very large proportion required dental treatment.

In reply, Mr. Cyril Cobb, Chairman of the Education Committee, announced that additional schemes were under consideration which he hoped would be thought entirely adequate. There were seven treatment centres at present; four more were about to be established, and seven more in the course of the year. By this time next year the Council would be treating 32,000 children. A sum of £8,500 was included in the estimates to meet the cost.

The amendment was lost, and the Committee's report was then adopted.

Correspondence.

EPSOM COLLEGE: AN APPEAL.

SIR,—Will you allow me to ask your readers to respond to this appeal on behalf of the Royal Medical Foundation of Epsom College? The need of fresh supporters has never been more acutely felt than at present, because, apart from the annual loss of many staunch friends who became attached to the institution in its earliest years, the general increase in taxation, and the uncertainty which is overshadowing future medical practice, are seriously affecting the income derived from annual subscriptions.

As is well known to all your regular readers, the foundation provides annuities of £30 each for fifty aged members, or widows of members, of the medical profession, and gives a first-class education, together with clothing and maintenance, to fifty necessitous sons of medical men. To meet these urgent liabilities a sum of close upon £7,000 a year is required, of which about £4,500 must be obtained by annual contributions.

The applicants far exceed in number those that can be helped, even when the whole of the sum just mentioned is subscribed.

Besides the demands on the foundation funds, the general purposes fund of the college has been wellnigh exhausted in making good the ravages of time and of weather on extensive buildings situated on an elevated and exposed (though very healthy) site, in making such structural alterations as changes in educational methods and in the ordinary requirements of a large institution necessitate, as well as in substituting modern sanitary conditions for those which were in use when the college was built some sixty years ago.

Much still remains to be done in providing adequate and up-to-date arrangements for the sick in times of epidemic illness, in repairing boundaries and roads within the boundaries, in providing increased accommodation in the college chapel, and in making other improvements. The council therefore would welcome contributions specially earmarked "general purposes," as well as donations and fresh annual subscriptions to the Royal Medical Foundation Fund.

In order that this letter may not be too long, full details of the work which is being carried out by the college were given in last week's advertisement columns of the BRITISH MEDICAL JOURNAL.—I am, etc.,

HENRY MORRIS,
Honorary Treasurer.

London, W., Dec. 18th, 1912.

MANIFESTATIONS OF A HEALTHY HEART.

SIR,—While Dr. James Mackenzie's paper (December 21st, 1912, p. 1697) is highly interesting and instructive, yet there are points which appear to me somewhat obscure, and if they could be cleared up it would be of great advantage to the profession.

It is clear that both the mechanical details of the pump as well as the driving power must be in order for the heart to be "normal," and if the first are faulty the second is called upon for more work, and if the first are sufficiently faulty the second cannot supply this work.

In the paragraph, "Significance of Murmurs," Dr. Mackenzie excludes from the discussion "murmurs due to damaged valves," and states that he confines himself to the question of "functional" murmurs, winding up the paragraph with the words: "I am justified in stating that functional murmurs in the young, in the absence of evidence of muscle affection, are signs neither of disease nor of impairment."

This last sentence shows that the term "functional" requires defining before any discussion on the subject can be satisfactory, as, in at any rate the minds of some, the essence of a functional murmur is that it should not be due to "disease or impairment" in the first place.

Again, in respect of the method of teaching complained of: Is it not in the natural order of science to make the regular and murmurless hearts the rule for normality, and to include some with murmurs and irregularities as exceptions to the rule? Yet the author evidently means more than this, but what it is is not plain.

I think it must be held that the examiner for life insurance, who sees the examinee for the first time, is met with the question as to whether a murmur is due to previous disease and malformation or not, and that until a "functional" murmur is defined and methods of proof with statistics are worked out, the verdict can only be given chiefly by means of the clinical experimental method as opposed to scientific demonstration *in toto*, which does not yet exist.

Dr. Mackenzie's paper, however, foreshadows further assistance to the profession in these matters, and I am sure it will be much welcomed when it comes.—I am, etc.,

SHEFFIELD NEAVE, M.R.C.P.

London, W., Dec. 12th, 1912.

TRANSITORY BIGEMINAL PULSE.

SIR,—The disabilities of living so far away from the centre of the medical universe are great, inasmuch as one's opinions are apt to get somewhat stale in transit. In spite of this drawback, may I venture to comment on a case reported in the JOURNAL of October 5th, page 841, by Dr. William Johnstone, under the heading "A Case of Abnormal Pulse Rhythm"? I will ask your permission to go even further. May I have the temerity to criticize the case reported by Sir Lauder Brunton in the issue of October 19th—a case arising directly out of Dr. Johnstone's report?

I would premise my remarks on both these matters by asking why so many medical men ignore the information to be derived from a tracing of the jugular pulse? In both the cases under review a definite conclusion is impossible without such a record.

Failing certain information one can but suggest probabilities: I would like to suggest to Dr. Johnstone that his case is merely one of a regularly recurring "interpolated extra-systole"; the fact that the combined periods of the first two elements of the trigeminy equal in duration the longer periods makes this explanation very probable. I have noticed that when a heterogenetic rhythm tends to persist, there is frequently a reflex acceleration of the sinus rate, the apparent object of which is to anticipate the heterogenetic beat, and the certain result to restore the normal sequence of contraction of the heart's chambers, and eliminate the intrusive irregularity which must obviously interfere with the efficient performance of the cardiac functions—points which explain the subsequent regular pulse at a rate which is, in virtue of the absence of a time record, probably enhanced, if one may judge by the periods themselves. Dr. Johnstone's case is probably quite simple after all.

Sir Lauder Brunton records a case of bigeminy. The description of the albuminuric patient leaves one with the impression that he conforms to the type in which extra-systoles are common, even though his field of cardiac response is not markedly contracted. On examining the

very meagre radial tracing published, one immediately notes that, if the lesser of the two beats is an extra-systole, the pause is not fully compensatory. Since we are not dealing with "ventricular extra-systoles," the mind turns to "auricular extra-systolic bigeminy" as an explanation, and since this is simple and, on *a priori* grounds, probable, one asks why Sir Lauder Brunton does not advance it. If, however, Sir Lauder demands a really erudite explanation of his tracing I can suggest the following:

1. Pulsus alternans is found in conditions in which the contractility of the muscle is impaired. It is probably dependent on an interference with the rate of restoration of the muscle, such interference being attributable to insufficient blood supply.

2. Dr. Thomas Lewis has recorded a case of "alternation of impulse conduction"—a point noted during some experiments to determine whether the phenomena of asphyxiation depended on oxygen deprivation or CO_2 poisoning.

3. Given "alternation of contractility" and "alternation of impulse conduction," why not "alternation in the rate of impulse formation"? I can conceive of a localized arteritis interfering with the nutrition of the sino-auricular node; I can conceive of a localized area of fibrosis in that region bringing about a similar result; I can conceive of a lesion of the vagal termini just sufficient to keep up for some time an alternating series of inhibitory impulses, provided that some outside influence originated a maximal, or nearly maximal, stimulus.

If Sir Lauder scorns "auricular extra-systole" as being too simple an explanation of his case, I feel sure that "alternation of rate of impulse formation" will not fail by virtue of its lack of complexity. Anyway, I would like to suggest a jugular tracing or any electro-cardiographic record as being easily available steps towards elucidation.—I am, etc.,

MACNEILL SIMPSON.

Sydney, New South Wales, Nov. 24th, 1912.

ESSENTIAL CONDITIONS FOR MILK CONTROL.

SIR,—In addition to the important points raised in the leading article of the JOURNAL upon "Essential Conditions for Milk Control" (December 21st, p. 1720), it is desirable to draw immediate attention to a recent decision of the High Court of Justice bearing upon the registration of purveyors of milk (Spiers and Pond, Limited, *v.* Green). It was decided that a person who occasionally sells milk in connexion with another business, where the selling of milk does not form a substantial part of the business, does not carry on the trade of a purveyor of milk, and therefore does not require to be registered under the provisions of the Dairies, Cowsheds, and Milkshops Order, 1885. This important decision will remove hundreds of small milk vendors from the supervision of sanitary authorities, and experience shows that it is the small dealers that need most supervision, at any rate as far as the condition of the premises is concerned. It is to be hoped that the new bill introduced by the President of the Local Government Board will provide for the supervision of all premises used for the storage and sale of milk, however small the "turnover."—I am, etc.,

THOS. E. FRANCIS, M.D., D.P.H., M.O.H.

Llanelly, Dec. 21st, 1912.

ASSISTANT MEDICAL OFFICERS IN ASYLUMS.

SIR,—I have read with considerable interest the letters in the recent issues of the BRITISH MEDICAL JOURNAL. It is not to be wondered at that there is a difficulty in getting young medical men to fill these appointments. I have had over fifteen years' experience as an assistant medical officer in an asylum, and I consider that there is very great room for improvement in the position of the office. An assistant medical officer is, to my mind, little better than a "glorified house-surgeon and clerk" rolled into one. We have heard a lot of late about the Medico-Psychological Association trying to improve "the status" (whatever the association may mean by this vague term) of the assistant medical officer. Candidly, I think this association has done very little for the assistant medical officer in trying to better his position, and I am afraid is not likely to do much. I know of several asylums where the assistant medical officer is absolutely nobody—kept in the background by the resident medical superintendent; and as to appealing through the resident medical superintendent to his committee of management for due recognition as to his position, why, it would be rank insubordination. Too often the assistant medical officer does practically all the work but the resident medical superintendent usurps the kudos. This is not as it should be. To the public the term "assistant medical officer" means a very minor official indeed. Would not the title "assistant medical superintendent" tend to elevate the status, at least in the eyes of the man in the street? The assistant medical officer's position is one of great responsibility. He has much real hard work, for which there is too often no recognition whatever. The subordinate staffs of asylums are making strong efforts, and rightly so, to improve their positions by the National Asylum Workers' Union. Why should not the assistant medical officer do likewise? I am sure the Lunacy Commissioners and inspectors would support them in their efforts.—I am, etc.,

SENIOR A.M.O.

(Member B.M.A. and Medico-Psychological Association).

December 28th, 1912.

THE REPORT OF THE DEPARTMENTAL COMMITTEE ON SIGHT TESTS.

SIR,—In reference to your article on colour vision at sea in the BRITISH MEDICAL JOURNAL of December 21st I may say that the Board of Trade has suffered through its advisers. For instance, the method of classifying colour blindness recommended by the Committee is absolutely erroneous. The Committee recommends a method of classifying colour blindness by measuring the luminosity of the colour sensations of those examined by the flicker method of photometry. Light sensation and colour sensation are two distinct things. I have examined two bad cases of colour blindness (dichromics who confuse red with green), and their ratios of red to green came out precisely the same as normal on the method recommended by the Committee. I then examined a man in whom I could not detect the least defect of colour perception, and he appeared very colour blind on the Committee's method. Professor A. W. Porter and I examined one of the colour-blind men with very feeble lights from all parts of the spectrum. We could find no defect in his perception of luminosity. As stated in the BRITISH MEDICAL JOURNAL of the time, I offered to demonstrate cases to the Committee, and this offer was refused.—I am, etc.,

London, W., Dec. 22nd, 1912. F. W. EDRIDGE-GREEN.

Public Health AND POOR LAW MEDICAL SERVICES.

EXAMINATION OF ALLEGED LUNATIC.

A CORRESPONDENT writes that he was called in by a relieving officer and magistrate to examine and advise on a case of alleged lunacy, with a view to the committal of the patient to an asylum. After examination he did not feel justified in certifying that the patient was of unsound mind, but directed his removal to the union infirmary. Is he entitled to a fee?

*** This depends on the magistrate. If he ordered a fee the guardians are bound to pay it, but under the Lunacy Act he is not bound to make such an order. The fee is due for making the examination and furnishing the certificate, whether the patient proves to be a lunatic or not.

DR. JULES CONSTANTIN, formerly an assistant of Dr. Doyen of Paris, but lately an aviator with the Bulgarian army, was killed while flying in his biplane over the Turkish army at Tchatalja. It is said he had gone up into the air with the object of dropping bombs into the Turkish intrenchments.

Universities and Colleges.

UNIVERSITY OF OXFORD.

THE following candidates have been approved at the undermentioned examinations:

FIRST B.M.—*Organic Chemistry:* A. G. East, F. C. Gladstone, W. R. Greenshields, A. Hodgkinson, R. M. Humphreys, R. W. Lush, J. J. Savage, J. Le B. Shibley, D. H. Skinner, C. H. Terry, A. E. Thomas, W. S. Tunbridge, B. E. Wall, K. F. D. Waters. *Human Anatomy and Physiology:* E. W. Bowell, W. Brown, B. A. Bull, J. J. Conybeare, K. M. Dyott, O. H. Gotch, T. R. Price, S. W. F. Underhill.

SECOND B.M.—*Materia Medica and Pharmacology:* A. C. Ballance, L. R. Broster, L. G. Brown, F. B. Chavasse, R. C. Fairbairn, R. St. A. Heathcote, R. J. Inman, E. E. Mather, N. A. Sprott, T. O. Thompson, H. A. B. Whitelocke. *Pathology:* F. W. Browne, E. W. Carrington, J. C. Davies, R. St. A. Heathcote, E. W. N. Hobhouse, A. Jackson, M. R. Lawrence, C. W. B. Littlejohn, H. G. Morris, G. S. Robinson, A. H. Southam, G. Stanger, A. B. Thompson, W. W. Waller. *Forensic Medicine and Public Health:* T. B. Batchelor, G. E. Beaumont, R. F. B. Bowes, H. T. Evans, R. A. Fawcus, S. Hibbert, A. Juett, R. C. Ozanne, W. R. Reynell. *Medicine, Surgery, and Midwifery:* G. E. Beaumont, R. A. Fawcus, W. J. Hart, S. Hibbert, A. Juett, E. O'Connor, R. C. Ozanne, W. R. Reynell, J. Sainsbury, E. Scott, G. H. Varley, G. W. Carte.

Degrees.

The following degrees have been conferred:

D.M.—C. D. H. Corbett.

B.M., B.CH.—H. T. Evans, G. H. Varley, G. Stanger, R. A. Fawcus, E. Scott, J. Sainsbury.

Radcliffe Travelling Fellowship.

A competition for a Radcliffe Travelling Fellowship, of the annual value of £200 and tenable for three years, will commence on February 18th. The names of candidates must be submitted to the Regius Professor of Medicine by February 10th.

UNIVERSITY OF CAMBRIDGE.

THE following candidates have been approved at the examinations indicated:

FIRST M.B. PART I. *Chemistry.*—E. V. Beale, D. C. Beaumont, W. E. L. Brown, H. Chell, W. L. Dandridge, W. D. Doherty, A. M. Gaselee, H. H. Ginsburg, R. T. S. Gwynne, S. L. Higgs, M. H. Jupe, W. N. Leak, P. C. Livingston, A. G. F. McArthur, J. H. Naumann, J. S. Need, J. W. McK. Nicholl, S. W. Page, E. D. Spackman, M. B. R. Swann, W. E. Vaudrey, S. Waterworth, W. G. Woolrich.

PART II. *Physics.*—E. V. Beale, W. E. L. Brown, T. A. Collot, R. S. Corbett, W. L. Dandridge, W. D. Doherty, A. W. R. Don, A. M. Gaselee, C. I. C. Gill, H. H. Ginsburg, L. B. Hartley, S. L. Higgs, C. R. Hind, J. S. La Fontaine, W. N. Leak, J. B. S. Lewis, R. Lumsden, G. Lyon Smith, R. Mansell, S. W. Page, F. S. W. Raikes, G. M. Shackel, E. D. Spackman, M. B. R. Swann, W. E. Vaudrey, Y. S. Wan, S. Waterworth, W. G. Woolrich.

PART III. *Biology.*—D. J. Batterham, P. J. Briggs, F. B. Brown, G. W. Brown, T. A. Collot, T. L. Crawhall, W. D. Doherty, A. W. R. Don, W. N. Leak, G. T. Lipshytz, G. Lyon Smith, G. S. Need, M. B. R. Swann, G. D. C. Tracy.

SECOND M.B. PART I. *Human Anatomy and Physiology.*—C. G. Ainsworth, F. H. R. Altounyan, J. Aydon, B. F. Bailey, O. A. Beaumont, S. L. Bhatia, W. K. Bigger, A. B. Bratton, F. V. Cant, H. Chadwick, V. M. Coates, A. O. Courtis, D. Crellin, C. S. Dodson, J. S. Ellis, J. S. Eloff, E. T. D. Fletcher, C. Gardner-Hill, C. B. Hawthorne, R. C. Hewitt, E. P. Hicks, L. G. Jacob, L. W. Jones, C. E. Kindersley, J. B. Leather, F. G. Lewtas, M. L. Loveless, W. B. Loveless, H. D. McIlroy, E. O. Morrison, B. Mountain, E. G. D. Murray, F. P. Nicholas, K. Playfair, R. T. Raine, W. F. R. Schloss, E. P. W. Wedd, W. L. Willett, A. G. P. Wills, C. B. Wilson, W. R. Wilson, G. W. Woodhouse, F. H. Young.

SECOND M.B. PART II. *Pharmacology and General Pathology.*—J. W. Adams, W. F. Benstead-Smith, J. H. Cumming, R. W. B. Gibson, G. D. Sherwood, G. H. S. Thomas, R. W. Willcocks.

THIRD M.B.* PART I. *Pharmacology and General Pathology, Examined and Approved:* J. W. Adams, W. F. Benstead Smith, J. H. Cumming, R. W. B. Gibson, G. D. Sherwood, G. R. S. Thomas, R. W. Willcocks.

PART II. *Surgery, Midwifery, and Medicine.*—F. S. Adams, J. W. Adams, H. C. Attwood, T. E. Banister, H. W. Barnes, F. S. Bedale, E. Calvert, W. T. Chaning-Pearce, D. G. Cherrington, A. C. Clifford, H. J. Couchman, H. G. Earle, J. V. Fiddian, E. C. Hardwicke, T. L. Hardy, I. W. Joynt, W. C. D. Maile, C. G. H. Morse, H. J. S. Morton, T. H. Oliver, T. E. Osmond, G. M. Parker, S. H. Rouquette, L. T. Rutherford, A. S. Seabrooke, F. B. Smith, G. W. Spencer, F. S. Tinker, J. W. Tonks, C. Warner, A. M. Zamora.

THIRD M.B.† PART I. *Surgery and Midwifery.*—K. B. Aikman, J. Brewer, E. N. Butler, A. M. Humphry, H. Y. Mansfield, S. G. Platts, Ff. Roberts, D. N. Seth-Smith, W. J. F. Symons.

PART II. *Medicine, Pathology, and Therapeutics.*—E. Wordley.

M.C.—J. G. Sauer.

* Under old regulations. † Under new regulations.

UNIVERSITY OF LEEDS.

Degrees.

The following degrees have been conferred:

M.B., CH.B.—C. Metcalfe,† H. Angel,† J. H. Blackburn, N. V. Mitton, J. J. Pickles, M. Peto, S. Samuel, W. H. Symons, and B. W. F. Wood.

* First class honours † Second class honours.

Examinations.

The following candidates have been approved at the examinations indicated:

SECOND M.B., CH.B., *Part I.*—H. S. Bhalla, H. Franklin, H. M. Holt, C. E. Leake, H. S. Lockwood, J. Rosencwige, J. Smith, R. S. Topham, A. Umanski. *Part II.*—H. S. Bhalla, M. Hutchinson.

FINAL, *Part I.*—W. D. Anderton, S. N. Cohen, J. C. Gillies, F. King, H. R. Knowles, W. H. Lonen, J. J. Pickles, H. W. Robinson, H. Schochet, H. L. Taylor, C. Wilson, J. Wright.

D.PSYCH.MED.—Alice E. M. Babington.

D.P.H.—H. F. Horne.

LONDON SCHOOL OF TROPICAL MEDICINE.

THE following candidates were approved at the examination held at the end of the fortieth session:

S. H. Daukes, A. Moore, *J. A. Beattie, de V. Condon, Major I.M.S.; G. R. Footner, A. Ismail, E. H. Mayhew, *G. Browse, Major I.M.S.; G. L. Johnston, *J. L. Pawan, *W. C. P. Winter, A. K. Sinha, R. S. Turton, C. H. Marshall, G. E. Dodson, F. D. Bana, *F. E. Whitehead, *A. C. Swertz, *F. Rice, A. F. Wallace, H. G. F. Spurrell, W. A. Lamborn, J. Dalrymple, P. J. Dunn, *E. M. Condy, A. da Gama, F. G. Rose, *J. M. Benson, H. W. Hayes, *J. F. Hoare, C. W. Mason, R. C. Chakraborty, R. A. Murphy, *E. T. MacIntyre, W. E. Roberts.

* Colonial Medical Service.

Medical News.

THE second International Congress on Life Saving and the Prevention of Accidents will be held at Vienna in September (9th–13th), 1913. His Imperial Highness Archduke Leopold Salvator is patron of the congress. Communications relative to the Congress should be addressed to the General Secretary, Dr. Heinrich Charas, Radetzkystrasse 1, Vienna 3.

WE are requested to state that a dance under the auspices of the Birmingham School of Medicine will be held in the Edgbaston Assembly Rooms on January 21st, when it is hoped that all past students and other medical men interested in the school will be present. Further information can be obtained from the secretaries, Cyril A. Raison and Mary I. Hemingway, University Club, Birmingham.

THE first of the Friday evening discourses for the coming session of the Royal Institution of Great Britain will be given by Sir J. J. Thomson on January 17th. He will discuss some further applications of the method of positive rays, and on February 28th Mr. C. T. R. Wilson, F.R.S., will describe the photography of the paths of particles ejected from atoms. Other discourses will be given by Sir John Murray on life in the great oceans, and by Professor Andrew Gray on gyroscopes.

THE general meeting of the Roentgen Society will be held, under the presidency of Sir J. Mackenzie Davidson, M.B., on Tuesday next, January 7th, at 8.15 p.m., when a paper on spark photographs at high pressure will be communicated by Professor A. W. Porter, F.R.S., and Mr. W. B. Haines. It has been arranged that the society shall meet on the first Tuesday of each month. Further particulars can be obtained from Dr. Robert Knox, 7, Harley Street, W. The meetings take place at the Institution of Electric Engineers on the Victoria Embankment at the bottom of Savoy Street.

THE eleventh annual dinner of the Royal Free Hospital and London School of Medicine for Women was held at the Trocadero Restaurant on December 11th. Mr. Stanley Boyd, F.R.C.S., who was in the chair, said that progress and increasing prosperity were the signs of the times, and that the present history of the school was a cause of deep satisfaction to those who, like himself, had known it from its early days. He referred to those who had worked so enthusiastically to create a medical school for women, among whom the name of Mrs. Garrett Anderson, the President of the School, stood foremost. For the first time for many years the school stood free of debt, and, in spite of increasing expenditure in all directions, the finances might be said to be satisfactory. The entry in October last of thirty-seven new students, making a total of 180 students in the school, was the largest for many years. The generous gift of a considerable piece of freehold land adjoining the present buildings would enable the hospital to begin a much-needed extension of premises, which would include a new out-patient department and maternity wards. Several valuable scholarships, bursaries and prizes had been endowed during the past year, and many generous gifts for special purposes had been received from friends of the school. Dr. Walter Carr and Dr. May Thorne responded, and the toast of "The Guests" was proposed by Dr. W. d'Este Emery, and responded to by Sir John Rose Bradford and Admiral Pelham Aldrich. Dr. Sainsbury proposed the health of the Chairman, who briefly replied.

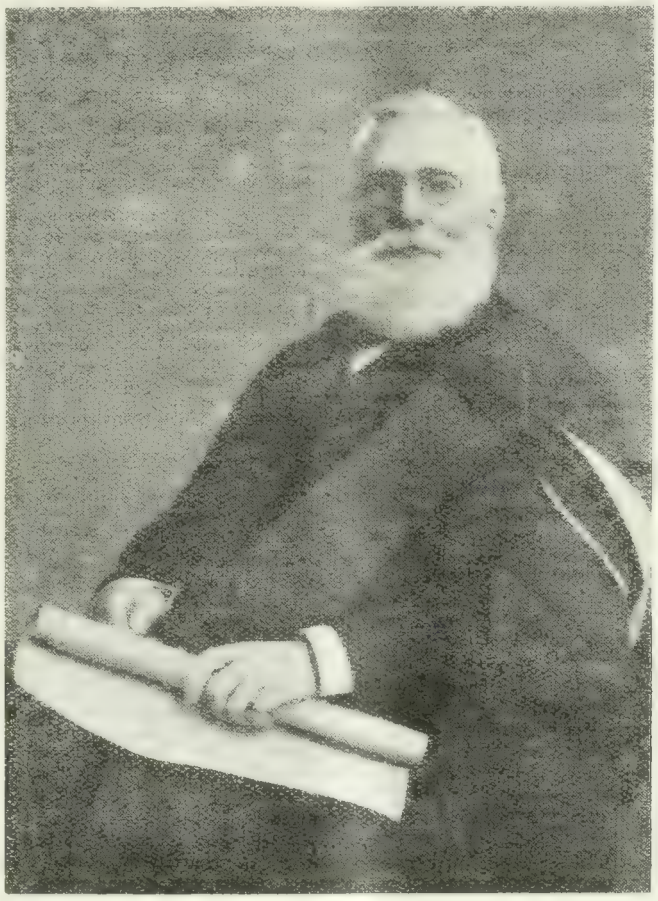
Obituary.

PETER REDFERN, M.D.Lond., F.R.C.S.Eng., D.Sc.,

EMERITUS PROFESSOR OF ANATOMY AND PHYSIOLOGY IN THE QUEEN'S UNIVERSITY, BELFAST.

THE announcement of the death of Professor Redfern was received with great regret throughout the profession in Ulster and by a very large circle of lay friends. On December 17th he celebrated his ninety-first birthday at his seaside home, Templepatrick House, Donaghadee, co. Down. He was then in wonderful health, but caught a cold, which became a bronchial attack, and he died on December 22nd.

Dr. Redfern's was one of the most familiar names for years in the North of Ireland; his outstanding personality, his eloquence, his powers of demonstration, his quickness of thought, his absolute determination to let no preconceived idea influence his observations, his sterling and unflinching honesty, his constant appeal to facts, all constituted him the centre of academic life in the faculty of medicine and a court of appeal in many civic enterprises.



PETER REDFERN.

Photograph by] [W. J. Kilpatrick, Belfast

Dr. Redfern was born at Chesterfield in Derbyshire, and received a great part of his education in Scotland. He was a student at the University of Edinburgh, and during his student career there was greatly influenced by the teaching of Dr. Hughes Bennett, Professor of the Institutes of Medicine, and enjoyed the friendship of Dr. Handyside and Mr. James Spence, afterwards Professor of Clinical Surgery in Edinburgh. He was, however, a graduate of the University of London: he took the degree of M.B. in 1844, and that of M.D. in 1847, receiving the gold medal at each examination. He became a Member of the Royal College of Surgeons in England in 1843, and a Fellow by examination in 1851, the year before Lord Lister received that diploma.

In 1845 Redfern was appointed lecturer in anatomy and physiology in Aberdeen, and subsequently became professor of those subjects and surgeon to the Royal Infirmary. In 1860 he was appointed first professor of anatomy and physiology in the New Queen's College in Belfast; this post he held till his resignation in 1893, so that he was a teacher of these two subjects for forty-eight years, thirty-three of which were in Belfast. In Belfast Dr. Redfern came amongst a number of very able men. Thomas Andrews, who discovered the liquefaction of gases, was professor of chemistry: Wyville Thomson, subsequently the scientific director of the *Challenger* expedition, was professor of natural history; James Thomson, as profound a thinker as his illustrious brother, Lord Kelvin, was professor of engineering; McCosh, subsequently head of the Princetown University in America, was professor of metaphysics. In the original plans of the Queen's College no provision had been made for a faculty of medicine, and it fell to Dr. Redfern to guide the authorities in the matter; one result was the erection of dissecting-rooms, museums, and lecture-rooms, well up to date in convenience and facilities for work, and much in advance of those of the time. When he entered on his duties the largest class for anatomy and physiology was 79: chiefly attracted by his teaching, the numbers rose to 156 in 1866 and to 325 in 1881–2. When the Royal University was established and trust in the stability of university life in Ireland was lost, Ulster students flocked across the water and the numbers fell. Dr. Redfern foresaw what was about to happen. As a whole-time professor his retiring allowance was based on the average number of students of the last three years, and when the authorities were hesitating he promptly resigned and brought the chief teaching of the medical school to an abrupt termination. Finally he was practically asked to withdraw his resignation, and, as was understood, on his own terms. His action in this emergency showed his determination, courage, and foresight.

Any reference to the life of this veteran would be incomplete without some mention of him in the lecture-room or dissecting-room. The notice of his death will recall literally to hundreds of medical men scattered throughout the world occasions of sharp, yet kindly, reproof, of terse sentences of condensed wisdom, that are probably, in their universality, a guide in life to them even now. "Oh, you think you see! Cannot you see a body of a red colour, measuring so many inches by so many, without thinking?" "Mr. ——, do you know the peritoneum?" "Oh, reduced to hoping you know it; a very poor condition!" "Mr. —— did not see what was before him; he saw what he thought; what was in his own mind."

A collection of these sayings, repartees, and aphorisms would furnish no mean guide to public, private, and scientific life. What he had said, what he had advised, what he had found, was more frequently quoted from day to day by generations of students than the words of any other teacher in the school. In his earlier days he made several contributions to medical literature on the growth and nutrition of cartilage.

On his retirement in 1893 his colleagues, pupils, and friends presented him with his portrait, which now hangs in the Examination Hall of the Queen's University. The chair which he had filled for so long with distinction was divided; Dr. Symington was appointed professor of anatomy, and, thanks to the munificence of the Dunville family, a separate chair of physiology was instituted, to which Dr. W. H. Thomson was appointed. Dr. Redfern acted as examiner for the London University and other boards, and was an original member of the Senate of the Queen's University in Belfast.

He received the honorary degree of D.Sc. from the Queen's University, and was a corresponding member of the Royal Academy of Medicine, Belgium. He was one of the secretaries of the annual meeting of the British Association

in Belfast in 1874, and when the British Medical Association met in that city in 1884 Professor Redfern delivered an address in physiology. After his retirement he continued to take an interest in educational matters, and was a member of the Board of Governors of the Belfast Royal Academical Institution and of Campbell College.

He married in 1860 Miss Youngrove, a member of a distinguished Aberdeenshire family, and is survived by her and by three sons and five daughters. His eldest son is Dr. J. J. Redfern, visiting physician to the Croydon General Hospital; two other sons are in the army; his eldest daughter married Professor W. H. Thompson, now of Trinity College, Dublin.

At a meeting of the Belfast County Borough Local Medical Committee held in the Medical Institute, Belfast, on December 23rd, 1912, when there was a large attendance, Professor Sir John W. Byers, who was in the chair, referred in feeling terms to the great loss sustained by the profession in the recent death of Dr. Redfern. The following resolution was proposed by Dr. R. W. Leslie, LL.D., President of the Ulster Medical Society, and seconded by Sir Peter R. O'Connell, M.D., D.L., and passed in silence, the members standing:

> That the members of the Belfast Local Medical Committee desire to take the earliest opportunity to express their sense of the great loss sustained by the medical profession in the recent death of Dr. Redfern, who during the thirty-three years of his professorship at Queen's College, Belfast, did so much to establish and extend the prestige and reputation of the Belfast Medical School. They rejoice to know that in all phases of his pre-eminent career he did everything in his power, both by precept and example, to uphold the scientific position and the dignity and honour of the profession of medicine.

We regret to record the death of Dr. EDWARD MAZIÈRE COURTENAY, which occurred on December 20th, 1912, as a result of pneumonia. He was the son of the Rev. D. C. Courtenay, Rector of Glenarm, and a nephew of Sir Mazière Brady, Bart., Lord Chancellor of Ireland. After graduating in Medicine at the University of Dublin, he directed his energies from the first to the study of mental disease. He commenced his practical work in England, but after a few years he was appointed Medical Superintendent of the Limerick District Asylum, a post which he held till 1890, when he became Inspector of Lunatics and Member of the Board of Control of Asylums in Ireland. In this position he did the work of his life. At that time lunatic asylums were abodes of dread; admission to the "madhouse" was regarded not only as a misfortune but as a stigma. Through strenuous and persistent efforts, extending over years, the entire character of these institutions has been altered. The "airing yards," with their hopeless rows of idle patients, have disappeared; tracts of land were acquired, on which even the incurable can be healthily engaged, and work in some form has been found for almost every one. Industries have been fostered, not so much for the sake of economical administration as for the curative influence of employment. A sense of comfort was introduced, and even amusement was not forgotten. As a natural consequence, listlessness gave place to interest, and comparative happiness prevailed in place of an atmosphere of sullen gloom. Cures were effected in increasing numbers. Prejudice was gradually dispelled, and the friends of the inmates came to look upon asylums as real refuges for the mentally afflicted. This was all the more important as the ratio of insanity in Ireland was increasing. In initiating and carrying out these reforms Dr. Courtenay took a leading part, and many a medical superintendent of asylums feels grateful for the assistance perseveringly and successfully rendered in securing better conditions of life and treatment for the most helpless and most pitiable section of our population. The private life of Dr. Courtenay was marked by the same qualities as were manifested in his service to the public. Unassuming and unselfish to a singular degree, he has left behind him in the hearts of many a memory and an ideal of what a friend can be.

Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Attiology, Westrand, London*. The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, Westrand, London*.

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

SPINAL PUNCTURE IN EPILEPSY.

AUDAX asks if the treatment of epilepsy by spinal puncture advocated by Dr. Giacomelli has been adopted by any one else, and, if so, with what result. Further, is there any painful reaction a few hours afterwards?

ANSWERS.

DR. J. S. BOLTON (Nottingham), in reply to "T. H. G." (December 21st, 1912, p. 1740), states that *x* rays will often cure blind external fistula, and suggests that the same treatment would be suitable in "Delta's" case.

VARICOSE ULCERS.

DR. R. ALLAN (Dumbarton) writes: If "J. H. M." would apply Mead's rubber plaster once every sixth day, the plaster to be applied only 1 in. beyond the edge of the ulcer, and covered with Gamgee tissue, then apply elastic bandage 3 in. by 3½ yds., and before renewing dressings clean skin with turpentine, taking care not to touch the granulations with anything, I think he would meet with success.

DR. H. J. THORP (Ipswich) writes: I have found the following ointment most serviceable: R Hyd. ox. rub. benè levigat. gr. x, vaselin. alb. ad ʒj. Ft. ung. *Yellow* vaseline is too irritating. The varicose vein must be supported by bandaging the limb.

DR. GEORGE PERNET (London) writes: A good method is that recommended by Unna. I dealt with it fully in the BRITISH MEDICAL JOURNAL for 1909, vol. i, p. 463. If carried out on the lines laid down it is very useful in the ambulatory treatment of this obstinate condition.

F. W. writes, in reply to "J. H. M.": Grafting meets with success, after getting ulcers in a healthy state by rest, elevation of limb, boracic lotions, and, of course, treating the cause.

DR. W. ODELL (Torquay) writes, in reply to "J. H. M.," to say that in his opinion calcium iodide given in 3-grain doses, well diluted, thrice daily, will promote permanent healing of varicose ulcers more rapidly than any other drug.

T. H. M. writes: Varicose ulcers will not heal while they are kept in a septic condition with ointments, etc., nor will they heal while the tissues are gorged with venous blood; to get them to heal the thickened edges must be reduced. In favourable cases they can be got to heal by wearing a Martin's bandage while on foot and an antiseptic lotion at night, and I may mention that an old bicycle tube, split and washed, the thickened join cut away and old patches removed, make the best "Martin's" bandage I have used; the old used tubes are best. If "J. H. M." cannot cure his patient's ulcer by this means, he had better tell him that unless he goes to bed and has his ulcers treated on ordinary surgical lines, including skin grafting if possible, he will have to put up with them. The only place for effectually dealing with these cases is hospital.

LETTERS, NOTES, ETC.

DR. EDWARD COYLE, of Belfast, writes to express his interest in a paper by Dr. Mackenzie published in the JOURNAL of December 14th; after thirty years' experience of cardiac cases he desires heartily to endorse Dr. Mackenzie's attitude with regard to the need for reform in the diagnosis of heart affections.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

An Address

ON

THE HISTORY AND NATURE OF CERTAIN SPECIMENS ALLEGED TO HAVE BEEN OBTAINED AT THE POST-MORTEM EXAMINATION OF NAPOLEON THE GREAT.*

(WITH SPECIAL PLATE.)

BY ARTHUR KEITH, M.D., F.R.C.S.,

CONSERVATOR OF THE MUSEUM, ROYAL COLLEGE OF SURGEONS, ENGLAND; HUNTERIAN PROFESSOR.

ON May 5th it wil be ninety-two years since the great Napoleon died. The physicians who attended him during his exile in St. Helena from October 17th, 1815, until the stormy evening of May 5th, 1821—O'Meara, Stokoe, Antommarchi, Arnott—are all dead long ago. We cannot question them now concerning the Emperor's symptoms and mortal disease. We must form our opinion of the nature of his illness from the letters they wrote and the diaries which they kept. So minutely have these documents been studied and their reliability discussed, that the verdict pronounced by modern writers such as Lord Rosebery [1] and by M. Paul Frémeaux [2] carries with it an air of finality. Their verdict is (1) that in his last illness Napoleon was attended by a series of incompetent physicians, who formed a wrong opinion of the case and applied disastrous remedies; (2) that Napoleon died of cancer of the stomach, the Emperor himself being the only one to form an approximately accurate diagnosis.† It seems scarcely possible at this distance of time that any new evidence bearing on Napoleon's last illness can be in existence, yet I hope to convince you that the two small specimens from the Museum of the Royal College of Surgeons of England are actually parts of the great Emperor's body, and that they throw a new light on the "drama of St. Helena."

In the history of these specimens John Hunter, the patron saint of this society, is indirectly connected. They have been preserved on the shelves of the museum founded by him; they came to that museum through one of the most famous of Hunter's pupils—Sir Astley Cooper—the dominant surgeon in England at the time of Napoleon's death. They came to Sir Astley Cooper from Napoleon's physician, O'Meara, who had good reason to remember Hunter's existence, for in 1823, when living in the Edgware Road, London, O'Meara married the aged widow of Captain Donellan, whom Hunter tried to save from the hangman's rope in 1781. Soon after Antommarchi took up his post at St. Helena, in succession to his friend O'Meara, Napoleon questioned him regarding the inheritance of disease, fearing then (November, 1819) that he suffered from the malignant condition which carried off his father at the early age of 39—cancer of the stomach. The authority quoted by Antommarchi to convince his august patient that disease is not inherited was John Hunter. "Hunter," said Antommarchi,[4] "one of the greatest physicians England has produced, was the first to combat that theory (the inheritance of disease), and all the schools have adopted his ideas on the subject" (vol. i, p. 237). A thin thread of Hunter thus runs through the story of Napoleon's last illness.

Before proceeding to relate the history and prove the authenticity of the Napoleonic documents now brought before you, it will be well to give first a brief account of their appearance and nature. They are two small pieces of the human bowel suspended in sealed bottles filled with alcohol. A superficial observer might easily believe that he is looking at two small oblong tags of dusky skin, each with a curious wart-like raised patch in its centre (Figs. 1 and 2). The largest of the specimens could be covered by six postage stamps; it measures 55 mm. long by 35 mm. wide; the smaller measures 48 by 25 mm. The expert, however, observes that the two surfaces of the specimen are totally different in texture and appearance. One side is covered by the inner or mucous lining of the bowel; this lining membrane is here and there raised up into transverse folds, so shallow and slight that one infers with certainty that the specimens have been cut from the lower part of the small intestine—the ileum. The wart-like plaques are really elevated areas set within the lining membrane of the bowel, and in life it is clear they must have been situated on the free side of the bowel—on the opposite side to that which is attached to the suspending membrane or mesentery of the bowel. While one side of the specimen is thus covered by a shaggy mucous lining, the other, or outer, is smooth, being composed of the peritoneal and muscular coats of the bowel. Even on the outer or smooth surface the wart-like growth on the inner surface is apparent; its outline comes through as a blackish patch or spot (see Fig. 3), but, since the wart-like growth contains some effused blood and dilated vessels, these patches at the *post-mortem* examination must have shown out on the free surface of the bowel as red patches, and must have then been sufficiently prominent to catch the eye of the anatomist. These two small tags of bowel seem very slight documents to throw light on the old and vexed questions relating to Napoleon's death, but they have the advantage over all other available documents that they are facts for all time, whereas diaries and letters are but imperfect reflections of what man's brain believed at one time to be facts.

I shall now proceed to lay before you a series of documents which will explain why this source of evidence has been neglected during these seventy years past. The first document is from the pathological catalogue of the Museum of the Royal College of Surgeons; it was written by Sir James Paget when he was revising a new edition of the catalogue in 1883 and represents the mature opinion of the foremost of surgeon-pathologists of the Victorian period.

No. 2526. A portion of small intestine with a raised, rounded plaque of cancer projecting about one-eighth of an inch above the mucous membrane, and five-eighths of an inch in diameter; its surface is broken and fissured, and its edges overlap the mucous membrane around its base of attachment.

No. 2527. Another portion of small intestine, with a much smaller oval cancerous nodule having a smooth rounded surface.

This and the preceding were in the Museum of Sir Astley Cooper.

The following entry is in the MS. Catalogue of Sir Astley Cooper's Museum.

"Incipient Fungus in the Glands of an Intestine Napoleon. Barry O'Meara to Sir Astley Cooper."

The truth of the statement that these portions of intestine were taken from the body of the Emperor Napoleon I is open to grave doubt. Dr. Antommarchi, Napoleon's personal physician, states, in his very complete account of the *post-mortem* examination, that "the mucous membrane of this canal (intestinal) appeared to be in a sound state"; and in the separate report, drawn up by the English surgeons present at the autopsy, the statement is found that, with the exception of the stomach, "the abdominal viscera were in a healthy condition." It further appears from Dr. Barry O'Meara's memoir (*Napoleon in Exile*, etc.) that he was recalled to England nearly three years before Napoleon's death; and the steps taken by Napoleon's personal attendants to prevent the abstraction of the heart and stomach also show the improbability of these specimens having had the source ascribed to them.—October, 1883.

It is very clear that Sir James Paget did not believe that these specimens represent parts of Napoleon's body. His reasons may be summarized thus: (1) No mention is made of similar appearances in the *post-mortem* report; (2) O'Meara was in England when Napoleon died; (3) Napoleon's body was closely guarded, so that abstraction of parts was impossible.

The next document I produce is from M. Paul Frémeaux, who is rightly regarded as the highest authority in everything pertaining to Napoleon. The letter was addressed to the editor of the *Daily Mail*, and it is by his courtesy that I am enabled to publish it now.

Sir,—The *Daily Mail* has published on 12th of February last (1910) a very favourable review of *The Drama of St. Helena*, the English translation of *Les Derniers Jours de l'Empereur*, which had just come out in London. A few days later, on the 18th, my

* Second Hunterian Lecture of the Hunterian Society; delivered January 8th, 1913.

† After this lecture was prepared for publication, M. H. Beclard called my attention to a work just published, *The Illness and Death of Napoleon Bonaparte*, by Dr. Arnold Chaplin (Hirschfeld Bros., 1913). Dr. Chaplin does not accept the specimens here described as authentic, and regards the Emperor's death as due to cancer of the stomach secondary to an ulcer of the stomach. See also BRITISH MEDICAL JOURNAL, December 28th, 1912, p. 1761.

name and book were again kindly alluded to in your columns. I feel so much indebted to the *Daily Mail* that I beg to be allowed to elucidate for its readers, if I can, the question you have raised as to the authenticity of a Napoleonic relic preserved at the Royal College of Surgeons. "There," according to your statement, "in a small upper room, are two bottles, each containing a section of intestinal membrane. The label says: *Two portions of small intestine with cancerous growths projecting above the mucous membrane. They came from the museum of Sir Astley Cooper, with the following description: Incipient fungus in the glands of an intestine. Napoleon. Barry O'Meara to Sir Astley Cooper. It is almost certain that these specimens were not taken from the body of Napoleon.*" The label does wisely, I think, in expressing such a doubt. To realize this it is only necessary to examine two points. First, is it possible that any part of the Emperor's corpse can ever have been abstracted and have become an anatomical relic? Be it said at once that it is possible, but highly improbable. Secondly, admitting that portions of intestine were ever abstracted from the Emperor's corpse, can the specimens in the museum of the Royal College of Surgeons be those portions? This time the answer will be No!!! it is not possible.

Napoleon expired on the evening of the 5th of May, 1821. His autopsy took place on the following day, the 6th of May, at 2 p.m., as related in *The Drama of St. Helena*. The work of dissection was undertaken in a green painted and crudely lighted room of Longwood House by the Emperor's own physician, Dr. Antommarchi, under the eyes of five English Surgeons, the Doctors Short, Arnott, Mitchell, Burton and Livingstone, and of two assistant surgeons, Doctors Rutledge and Henry. Lieutenant-Colonel Thomas Reade, Major Harrison and Captain Crokat represented the Governor, Sir Hudson Lowe; Grand Marshal Bertrand, Count de Montholon, and the Abbé Vignali, the French Colony at St. Helena. Three servants of Napoleon, Marchand, St. Denis, and Picheron, who had brought in the corpse and laid it on a large table covered with a sheet, were also present.

Dr. Antommarchi opened the body.

The cavity of the thorax was first exposed to view, and the lungs and the heart detached from it; the liver, the stomach, and the intestines were next taken out of the abdomen. When the several organs had been duly examined, they were, with the exception of the heart, which was to be offered to the ex-Empress Marie Louise, and of the stomach, which had been found the seat of the mortal disease, restored to their places, and still under the eyes of all the spectators, the closing of the body by means of a suture was made by Dr. Antommarchi.

Napoleon's remains were then dressed for interment in the uniform of a colonel of Chasseurs of the Old Guard, and Assistant Surgeon Rutledge was ordered to take charge of them. He has left a memorandum of his watch in which he says: "The heart and stomach were put in a silver case by me, and I was directed by Sir Thomas Reade not to lose sight of the body or the vase, to take care and not to permit of the cavities being opened a second time for the purpose of the removal of any part of the body, and not to allow the contents of the vase to be disturbed without an order from him to that effect. . . ."

On the evening of the seventh, Dr. Rutledge saw the corpse and the vase containing the stomach and the heart, placed and soldered up in a leaden coffin, and on the ninth, Napoleon was carried to his grave in Geranium Valley.

This short account is sufficient to show, I think, how unlikely is the supposition that any part of Napoleon's body may have been clandestinely removed, either during the process of autopsy, or later on, during Dr. Rutledge's watch. During the autopsy, the abstraction could hardly have escaped the notice of a rather numerous party; during Dr. Rutledge's watch, the complicity of this surgeon would have been required in order to commit a most criminal and a most downright sacrilege—the undressing and secret reopening of the corpse.

But, admitting, as I said before, the possibility of portions of the small intestines having been taken from the body of Napoleon, the specimens on view at the Royal College of Surgeons and described as infected with incipient fungus, cannot be those identical portions. The impossibility is clearly shown by the *post-mortem* observations made on the 6th of May at St. Helena. There exist two reports of the autopsy: an official report established by Drs. Short, Arnott, Mitchell, Burton, and Livingstone, and the private report of Antommarchi. According to the official report, the only abdominal viscera presenting unhealthy appearances were the liver, which suffered from abnormal adhesions, and the stomach, which was perforated by an ulcer and had become a mere mass of cancerous disease. In the private report of Antommarchi, where the state of all the organs is described at fuller length, it is a question of the intestines, but the remark made on them is "that the *large* intestines were covered with a substance of a blackish colour and extremely viscous." This blackish substance must have been simply an exudation of matter coming from the stomach; for in a note written to Count de Montholon previous to his report, Antommarchi says that:—"all the intestines were sound." Dr. Henry, who was, as it has been seen, one of the persons present at the autopsy, states also, in an unpublished letter to Sir Hudson Lowe I have in my possession, that the intestines were in a healthy condition.

The Napoleonic relic on view to the public at the Royal College of Surgeons is consequently a more than dubious one. The distinguished Curator of this Museum, Dr. Keith, interviewed by one of your representatives, pointed out to him that a man of the social standing and medical reputation of Sir Astley Cooper, who was President of the College of Surgeons in 1827, and at one time made £30,000 a year in fees, would hardly have left the statement inscribed on the label above referred to unless he had been convinced of the genuineness of the specimen. But this statement does not seem indeed as explicit as it ought to be for such an exceptional specimen. Instead of "Incipient fungus in the glands of an intestine: Napoleon," one would like a somewhat longer and more precise mention, such for instance, as: "Incipient fungus in the glands of an intestine: two affected portions of small intestine *taken from the body of Napoleon.*" Further, is it not surprising that Sir Astley Cooper did not take the trouble to write out and commit to some separate and special paper a full story of so precious an anatomical relic, and to tell among other things, how Barry O'Meara, who was not at St. Helena at the time of the Emperor's death, had been able to procure it? If the divulgation would present, about 1840, any danger for anybody, nothing was so easy for Sir Astley as to state that the paper would be kept sealed up and remain secret for a given number of years after this date.

The reasons which led M. Frémeaux to reject the specimens before you as authentic Napoleonic relics are Paget's reasons amplified and emphasized. When I produce the third document, by my esteemed colleague Mr. Shattock, Pathological Curator of the College of Surgeons' Museum, you will have lost faith both in the specimens and in myself. Sir Astley Cooper described the intestine as showing incipient fungus, which, in our terms, may be translated as an early stage of cancer; Sir James Paget unhesitatingly said the intestinal outgrowths were "rounded plaques of cancer." Soon after Sir James Paget wrote the description printed above, Sir Frederic Eve,* when acting as Pathological Curator to the Museum, examined sections of the outgrowths under the microscope—a method unused in diagnosis until long after Napoleon's time—and found they were not cancerous in nature. There the matter rested until recently, when a part was cut from each tumour, and a continuous series of sections were cut, stained by various methods to bring out the nature of the tissues, and examined microscopically. The results of that examination will be seen in Mr. Shattock's report, which is as follows:

DESCRIPTION OF SPECIAL PLATE.

Fig. 1.—The larger piece of bowel, showing the plaque-like outgrowth on the surface of the mucous coat. (From a photograph; natural size.)

Fig. 2.—The same specimen viewed on its peritoneal or outer surface. The plaque-like growth is also apparent on this surface; the serous coat over it is frayed and ragged. (Natural size.)

Fig. 3.—The second piece of bowel with a similar but smaller outgrowth in the mucous coat. (Natural size.)

(Figs. 1, 2, and 3 are from blocks prepared by Mr. Frank Butterworth for new edition of the Guide to the Museum of the College.)

Fig. 4.—Section across the edge of the larger plaque (Fig. 1), showing its relation to the coats of the bowel. The mucous coat ascends on the edge of the plaque but ceases there. The lymphoid tissue comes to the surface and is breaking down, especially towards the centre. The submucous coat splits at the edge of the plaque so as to enclose the cellular mass. Strands derived from the submucous coat (represented by black lines) are seen to be scattered in the mass, as in a Peyer's patch. The inner or circular muscular coat is very thin and beneath the plaque becomes partially opened out by intrusions of the small round-celled tissue. The outer longitudinal and serous coats have become detached from the inner circular coat—a rupture which may have been caused during manipulation of the specimen. (Magnification × 20.)

Fig. 5.—Section across the edge of the smaller plaque. The same coats are seen as in Fig. 4; the lymphoid mass is enclosed in the submucous coat. The mucous coat passes on to the summit. Ulceration seen in the last is absent. There is no infiltration of the inner muscular coat. (Magnification × 20.)

HISTOLOGICAL REPORT UPON SECTIONS OF THE TWO INTESTINAL LESIONS STATED TO HAVE BEEN OBTAINED FROM THE BODY OF NAPOLEON I.

April, 1910.

I.

The *smaller* lesion, the edge only of which was histologically examined, is a somewhat prominent hemi-

* Mr. Shattock and I were unaware of Sir Frederic Eve's examination until after our own investigations were completed. It will be thus seen that two independent examinations have been made.



FIG. 1.



FIG. 3.



FIG. 2.

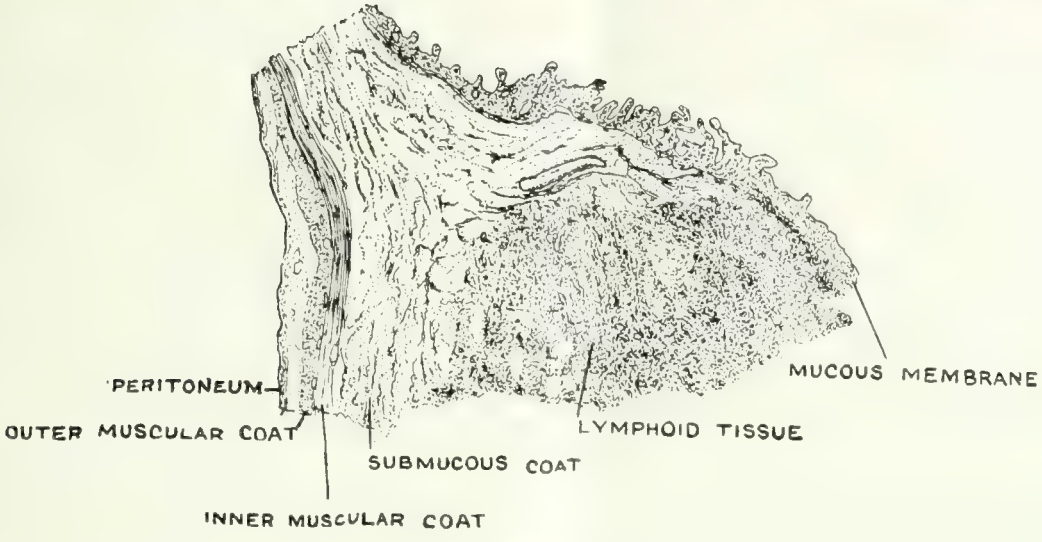


FIG. 5.

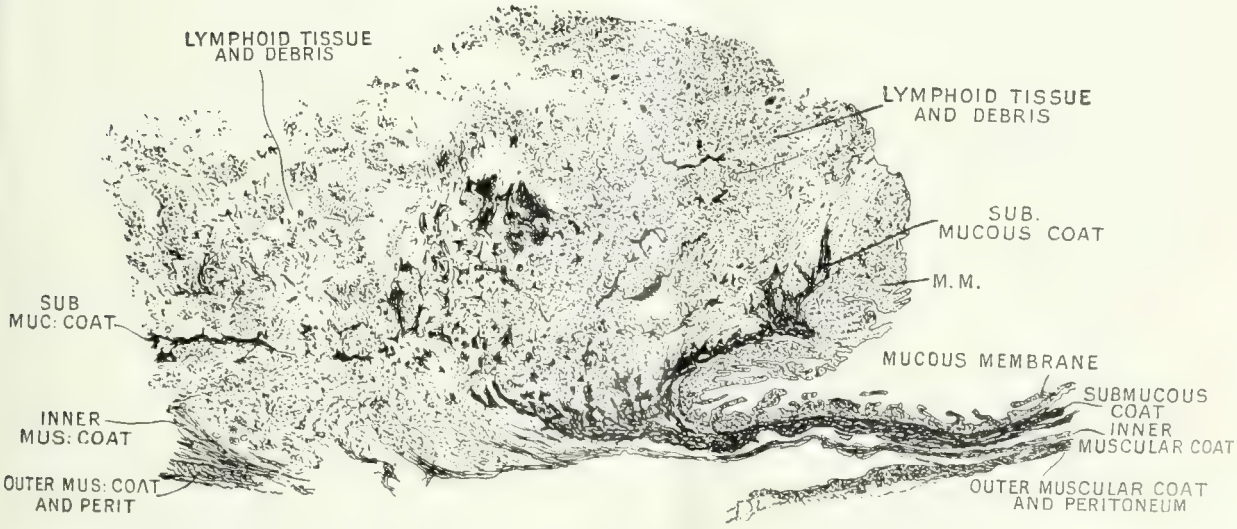


FIG. 4.

spherical eminence 6 mm. in diameter, overhanging its base of attachment, and projecting from the mucosa into the lumen of the bowel, the outer surface of which is smooth and flat.

The sections include portion of the normal intestine beyond the eminence, and were cut vertically to the free surface; they were stained by Van Gieson's method. Although the several histological elements have stained with very little differentiation (with the exception of the fibrous tissue), the general structure is readily traceable: the glandular epithelium is fairly preserved, and the columnar form of the individual cells, patches of which remain in certain of the crypts, is quite distinct, although the nuclei are undifferentiated.

In the unaffected portion of intestine beyond the lesion the several coats are easily to be recognized; the villi are intact, but their investing epithelium is wanting. Over the edge of the swelling the villi are likewise entire; there is no ulceration or necrosis. The swelling itself is confined to the submucosa, and is sharply limited both laterally and on the deep aspect. It consists of small cells lying in a stroma of connective tissue.

There are in it certain denser collections or blocks which at first suggest an epithelial origin, but these do not lie in proper alveoli of their own, but in the midst of the other tissue; and all gradations between such and the general mass of cells occur. In no instance are such collections furnished with a lumen (which in the crypts is well pronounced), and in none can they be resolved into columnar cells, although in the proper crypts such cells are quite distinct.

The examination of a second series of sections, made so as to include the whole extent of the lesion, shows that the nodule is strictly confined to the submucous tissue, that it is circumscribed, and that it consists of a uniform collection of cells supported in the meshes of a somewhat scanty stroma of connective tissue. There is no indication of a second epithelial structure in its midst.

Although badly preserved and in consequence indifferently stained, the mass can, under one-sixth objective, be resolved in favourable spots into small round cells arranged in the meshes of a delicate stroma, the whole of the appearances corresponding with those of a "solitary gland."

In places the tissue is strewn with brownish pigment, as though it had been the seat of past haemorrhage.

II.

The larger lesion takes the form of a low, discoidal elevation, slightly overhanging its base, and measuring 15 mm. in diameter. The peritoneal surface of the gut is smooth and flat. The microscopic sections include the edge of the lesion, with the adjoining piece of the bowel.

The lesion is practically limited to the submucosa, and is sharply circumscribed both laterally and on its deep aspect. The deeper coats of the intestine are intact beneath it. The mucosa ceases over the summit of the eminence.

Structurally it consists of a uniform mass of small cells, with little stroma.

A considerable amount of brown, spheroidal pigment is scattered throughout the lesion, indicative of past haemorrhage.

Remarks upon the Histological Data.

There can be no doubt that the two lesions represent a solitary and an agminated gland of the lesser size.

Their limitation to the submucosa, their circumscription, and the extension of the mucosa over them all combine to show this. In form and size they resemble such glands when enlarged from inflammatory or hyperplastic conditions. There is no indication that either is the seat of a carcinomatous inroad from the epithelium.

Into both glands haemorrhage appears to have occurred.

In sections stained with Cresylecht violet the presence of bacteria, chiefly short, stout bacilli (probably *B. coli*), is very obvious.

S. G. SHATTOCK.

It will thus be seen that these pieces of bowel do not show secondary cancerous growths at all, but enlargements of those areas of lymphoid tissue which are normally present in the lower part of the small bowel, known as Peyer's patches, the use of which—be it spoken for our encouragement—we do not even yet know. We do know, however, that such patches become enlarged in many chronic diseases which are endemic in the tropics, and the clinical notes made by Napoleon's physicians leave not a shadow of doubt, as I shall show presently, that the Emperor suffered from a disease in which the lymphoid tissue of the body was subject to enlargement.

My faith that these specimens might prove genuine—at least, that their history was worth investigating—rested on my belief in Sir Astley Cooper. He had John Hunter's passion for collecting specimens, especially such as illustrated the diseases of distinguished patients. When a puzzling case had ended in death he summoned his assistant, Mr. Lewis, and addressed him thus: Mr. ——— is dead: I must have an inspection of that tumour."[3] When the tumour was obtained a small label was attached, and it was dropped into a big tank with many others. Sir Astley, like all busy men, expected leisure days to come in the eve of his life when the specimens could be arranged, catalogued and described—but when the time came the will and desire had abated. Hence, when his collection—comprising 1,500 specimens—was acquired by the Royal College of Surgeons after his death in 1841, at the age of 73, my predecessor, Mr. Clift, reported to the Council of the College that Sir Astley had attached only the briefest of descriptions to his specimens, and that full histories could be obtained only by a search through his private papers—a search that was never carried out. Hence the description attached to the Napoleonic specimens—"*Napoleon, Barry O'Meara, to Sir Astley Cooper*"—is perfectly in order. Two preparations obtained at the *post-mortem* examination of royal personages have even briefer labels—merely the name of the distinguished patient and the date. There can be no doubt, then, that the two specimens were in the possession of Astley Cooper, and that he believed they were genuine, and, we may be certain, had good reason for this belief.

Sir Astley Cooper had peculiar opportunities of acquiring anything of particular medical interest. He was recognized as the leading, learned, and popular surgeon of his time. He was surgeon to King George IV and to King William IV. He was the trusted medical adviser of Lord Liverpool, the Tory Prime Minister during the exile, illness and death of Napoleon; he was well acquainted with Lord Bathurst, Secretary for War and for the Colonies, who had the care and keeping of Napoleon. He must have been consulted often by these two men about the Emperor's case. If any one in England could possibly command or obtain any first-hand evidence from the *post-mortem* examination, Sir Astley Cooper was that man. We know, too, he was an alert man of the world—a shrewd judge of men, and the very last person to deceive himself or to wilfully mislead others when in the quest of truth. Hence, when he attached the brief label to the Napoleonic relics we may be certain that he knew how O'Meara obtained them.

I have said that it was my faith in the judgement and honesty of Sir Astley Cooper that induced me to investigate the history of these specimens. It was a study of Antommarchi's account of the *post-mortem* examination which brought the conviction that they must be authentic. Paget and Frémeaux appeared to have overlooked the passage which I now quote from Antommarchi's report:

> The digestive canal was distended by a great quantity of gas. In the peritoneal surface and in the folds of peritoneum (mesentery) I observed small spots and patches of a pale red colour (petites taches et de petites plaques rouge, d'une nuance très légère) of various dimensions and scattered at some distance from each other. The mucous membrane of this canal *appeared to be* in a sound state. The large intestine (that is, its lining membrane) was covered by a blackish, very viscous matter.[4]

I have mentioned that the raised lymphoid plaques in the two Napoleonic specimens contain effused blood and dilated vessels. They must have appeared, therefore, as red patches scattered along the intestine, giving rise to the exact condition described by Antommarchi. We have to suppose, therefore, if these two specimens are not genuine, that O'Meara, having read Antommarchi's report, obtained by some miracle similar specimens from another *post-mortem* examination, and foisted them on a shrewd man like Sir Astley Cooper as genuine Napoleonic remains.

We have seen that Sir James Paget quotes the second sentence of the above extract from Antommarchi's report, "The mucous membrane appeared to be in a sound state." Could an intestine showing raised plaques be described as apparently in a sound state? The explanation is to be found in the conditions under which the *post-mortem* examination was carried out. In a modern *post-mortem* room with large sinks and ample supply of water the viscous matter which coated the lining membrane of the bowel could be thoroughly cleansed away and the plaques would then become apparent. But at Longwood there were neither sinks nor a sufficient supply of water; the lay representatives of Napoleon's staff and of Sir Hudson Lowe's establishment were looking on; a satisfactory cause of death had been discovered before the bowels came to be examined. Even if he had so desired, it would have been impossible for Antommarchi to carry out the tedious and disagreeable duty of examining the lining membrane of the bowel from end to end. That his examination was cursory is apparent from his words—"The mucous membrane *appeared to be* in a sound state."

The question may well be asked here: Why is it, then, that the official report, drawn up by the five medical officers who looked on while Antommarchi made the examination of Napoleon's body, contains no mention of these red spots and plaques on the intestine? The official report simply states that the stomach was the seat of an extensive cancer and that the rest of the body was healthy, except that the upper surface of the liver was bound to the dome of the diaphragm by adhesions. Every medical man knows that the official report cannot be true; a cancer so extensive as that of Napoleon's must have spread and there must have been secondary growths along the lymph streams leading from the stomach. That there were such secondary deposits we learn from Antommarchi's report. He records that:

> The gastro-hepatic omentum was contracted, swollen and very much hardened and broken down. The lymphatic glands in this fold of peritoneum and those situated along the curvatures of the stomach, as well as those situated over the pillars of the diaphragm were in part enlarged, scirrhous and some were even in a state of disruption. . . . Many of the glands of the air passages of the lungs (bronchiac) and in the space between the lungs (mediastinum) were somewhat enlarged, almost breaking down and undergoing suppuration. . . . The left lung was slightly compressed by a pleural effusion and had numerous strands of adhesion to the *posterior* and lateral parts of the chest and to the pericardium. I carefully dissected the lung and found the superior lobe strewn with tuberculae (nodular masses) and some small tuberculous excavations.

It is clear from Antommarchi's description that the cancer had spread, and that the appearances described by him are exactly those which we expect to find in the later stages of a case where death has resulted from cancer of the stomach. The English surgeons simply say "trifling adhesions of the left pleura were found; the lungs were quite sound." Why is it that we have to refer always to Antommarchi's account to obtain the details relating to the marks of disease in Napoleon's body? There are two reasons: (1) As I shall show, Antommarchi was a skilled anatomist and pathologist, trained under and assistant to Paul Mascagni, the very ablest anatomist and pathologist in Europe at the beginning of the nineteenth century; the English naval and army surgeons had no special training in such investigations. (2) The official report was a political, not a medical, document; it had to convince the opponents of Lord Liverpool's Government, the enemies of the Governor of St. Helena—Sir Hudson Lowe—and the partisans of Napoleon, that the Emperor died, not from a disease caused by his confinement in St. Helena, but by one which, at that time, was regarded as a dispensation of Providence. It is true that Antommarchi wished to prove that his patient had died from a "chronic gastro-hepatitis," but he sets the facts down which he observed as he made the examination, and they are twisted in no manner whatsoever to support the theory he was so desirous of proving—namely, that Napoleon was killed by his confinement in St. Helena. There is really only one report of Napoleon's *post-mortem* examination; that is Antommarchi's, and in that document we find described the appearances which agree with those to be seen in the two specimens preserved in the Museum of the Royal College of Surgeons.

We have thus traced the history of these specimens at two points in their history. We have Sir Astley Cooper's word for it that they came into the possession of Dr. Barry O'Meara. We have an authentic document showing that Antommarchi saw morbid appearances of the same kind as those shown by the two specimens when he performed the *post-mortem* examination on May 6th, 1821, twenty hours after the Emperor's death. Only Antommarchi thought them worth mention and therefore worth acquiring or investigating. How and why did they pass from Antommarchi to O'Meara? We shall see that neither the opportunity of acquiring them, the means of transferring them, nor a good reason why they should have been given by the Corsican to the Irishman are wanting.

Those two men being the centre figures of my story must be surveyed at close quarters and their movements and motives followed. Modern writers have formed a very indifferent opinion of them. Lord Rosebery[1] says of O'Meara: "Least of all, perhaps, to be depended on is O'Meara." And as to Antommarchi his lordship writes: "No one of the chroniclers is less reliable. . . . We must take the Antommarchian narrative for what it is worth, and that is very little." M. Frémeaux[2] says of him: "In spite of his incompetency, he succeeded at first in giving the impression of being a good doctor." As regards O'Meara, Colonel Knollys sums up his character thus (*Dict. Nat. Biography*): "There seems no doubt that his conduct throughout was that of an indiscreet person or rather a puppet of Napoleon. His diagnosis of his patient's case as one of liver disease, induced by the malignity of the climate, was falsified by Napoleon's subsequent death from a disease which is not affected by climate." O'Meara and Antommarchi, if we accept the verdicts just quoted, seem to be the very last persons on whom we can place any reliance. We shall see how far they deserve to be thus maligned.

When Napoleon stepped on board the *Bellerophon* on July 15th, 1815, O'Meara was one of the surgeons on board. The Emperor was in his forty-sixth year, the surgeon in his twenty-ninth; O'Meara's knowledge of the Italian tongue became a bond between them; the young Irishman of Trinity College, Dublin, was chosen to accompany the Emperor to St. Helena as personal medical attendant. His services were not seriously required until the summer of 1816, when the Emperor had his first attack of a peculiar fever which recurred again and again until death occurred on May 5th, 1821. The attacks were recurrent and lasted for irregular periods; their average duration was about three weeks; they were always most severe in the closing months of each year; they became more frequent and more severe as the case progressed. The attacks were ushered in by rigor, fever, and headache; usually the first symptoms of each onset was an attack of colic attended by diarrhœa or intestinal disturbance; usually the throat and air passages became inflamed and catarrhal; the gums became swollen, ulcerous, and bleeding. The tonsils enlarged; so did the lymphatic glands in the groin; we may safely infer that the lymphoid tissues of the whole body, including Peyer's patches in the intestine, were also involved. The feet and legs became swollen and remained swollen until the attack had passed away, leaving the Emperor weak in body and depressed in mind. In the attack at the close of 1816 no symptoms of a special affection of the liver were observed. During the attacks of fever which commenced towards the end of 1817, however, all the characteristic symptoms of an inflammatory condition of the liver became manifest, and in every recurring bout of fever these symptoms became more and more prominent. There is no kind of cancer of the stomach, nor of ulcer of the stomach, unless that ulcer is part of a general infection, that can give rise to such attacks of fever as Napoleon suffered from in the first three years of his illness. On the other hand, we do know that many forms of fever endemic to tropical countries may first attack the bowel, or enter the body by the bowel, and at a subsequent date give rise to disturbance or inflammation of the liver.

O'Meara formed the opinion—he could not have done otherwise—that Napoleon was suffering from a form of inflammation of the liver, or hepatitis, which is endemic to, and then prevalent in, St. Helena. It is very easy for

us now to see, with our modern knowledge of tropical diseases, that Napoleon was the unfortunate victim of a general infection—one affecting particularly the alimentary tract and secondarily the lymphoid tissues of the body—a form of infection in which the liver often becomes the seat of disease. No wonder if Napoleon did become infected with the diseases endemic to St. Helena; sources of infection abounded. Mosquitos buzzed round him; the water which he drank was carried from a distance and stored in open vessels. We know that some of the water sources of St. Helena were infected. In November, 1817, the convict ship *Friendship* came into the harbour of Jamestown, all on board being well on her arrival. She took water on board, and in ten days over 100 of the convicts were prostrate with attacks of diarrhœa and fever, similar to those which overtook Napoleon.* There were goats on the island, which, in the Mediterranean region at least, are the transmitters of Malta fever; rats also abounded at Longwood.

O'Meara's position in St. Helena was one of great difficulty; he had to serve two masters—Napoleon and the Governor, Sir Hudson Lowe. He stuck manfully by his patient, with the result that he was sent home on July 25th, 1818. On November 2nd of that year his name was ordered to be erased from the list of naval surgeons. He then settled in London, took up the cause of Queen Charlotte, and later became an ardent follower of O'Connell and an advocate of the first Reform Bill. In January, 1819, Napoleon was for three days in the medical charge of Surgeon Stokoe, of H.M.S. *Conqueror*. He saw Napoleon in one of the attacks of the recurrent fever, diagnosed inflammation of the liver with impending abscess. He was court-martialled and dismissed the navy. Sir Hudson Lowe had forbidden the diagnosis of any endemic disease of the liver—at least, in the island under his charge.

Before Antommarchi enters our narrative it will be well to again refer to the condition found in Napoleon's body after death. We have seen that the English surgeons admitted there was some pathological adhesions between the liver and the diaphragm. For fuller information we turn to Antommarchi's report:

> The spleen and liver were *indurated*, *enlarged*, and *distended* with blood. The texture of the liver, which was of a brownish-red colour, did not, however, exhibit any remarkable alteration in structure. The gall bladder was filled and distended with very thick and clotted bile. The liver, which was affected by chronic hepatitis,† closely adhered by its convex surface to the diaphragm; the adhesions occupied the whole extent of that organ, and were strong, cellular, and of old formation.

We see, then, that not only did Napoleon manifest in his illness all the symptoms which indicate an inflammatory infection of the liver, but that at his death the clearest evidence was found that the liver had been the seat of an inflammation so acute that the diseased tissue which had formed round the liver had become converted into tough bands of adhesion.! Yet O'Meara and Stokoe were dismissed from the navy by ignorant laymen because they were competent and truthful physicians. In Napoleon's case the presence of cancer was masked by the severity of the original disease, an endemic tropical fever, one of a family of diseases the nature and cause of which are only now becoming understood. It will also be perceived how anxious O'Meara must have been when the Emperor's death occurred to obtain some evidence that the diagnosis he made of the case was well founded and right. We shall see that Antommarchi had every reason to supply him with such evidence.

We now turn to Antommarchi, the much misunderstood Malvolio of the drama of St. Helena. At the time of O'Meara's dismissal, near the end of the summer of 1818, Antommarchi was in Florence attached to the hospital of St. Mary's as assistant or prosector in anatomy and pathology—the two subjects were not then separated. He was at that time a man of 29—three years younger than O'Meara—a Corsican by birth, a Frenchman by nationality, an Italian by education, and the most excitable mortal ever caged within the walls of a laboratory. In 1812 he became assistant to Mascagni; in 1815 that great master of anatomy died, leaving his magnificent illustrations and discoveries unpublished. In 1818 Antommarchi was busily preparing Mascagni's plates for publication, on behalf of a committee which had raised money for this purpose. O'Meara, on reaching England in 1818, dispatched two letters to Italy, one from Napoleon requesting "Madame Mère" to get him a physician, another giving a full description of Napoleon's case to guide the physician chosen as his successor at St. Helena. Cardinal Fesch chose two men—Abbé Vignali, a cleric, who had acquired a smattering of medicine, and Antommarchi, who, late in the autumn of 1818, sat in the dissecting room at Florence preparing Mascagni's plates for publication. The winter 1818–19 was spent in preparing to depart; in February, 1819, Antommarchi went to Rome, where Napoleon's case, as set out by O'Meara, was discussed at a sederunt of physicians. He reached London on April 19th, 1819, on his way to St. Helena; he left London on July 9th. During his stay of nearly three months in London he saw O'Meara almost every day, consulting and receiving advice about Napoleon's case. The Corsican had more in his head than Napoleon's case; he carried Mascagni's plates under his arm, and showed them to everybody and everywhere. At first the authorities refused him permission to take these plates to St. Helena; they suspected that these drawings of the lymph vessels of the human body might cover a Napoleonic plot in hieroglyphics. Antommarchi overcame their prejudices; before he left he was able to inform his colleagues in Florence that he had obtained permission to dedicate the preliminary volume of Mascagni to the Prince Regent of Great Britain and Ireland.§ He reached St. Helena on September 20th, 1819—fourteen months after O'Meara had left—and was in charge of Napoleon—except for the occasions in which he was in disgrace—for a period of nineteen months. During that period the feverish attacks already described, except for an interval in the spring and summer of 1820, kept recurring with greater virulence, and as we now know, became intensified by the disturbances due to the onset of cancer.

No wonder Antommarchi has been misunderstood by distinguished writers like Lord Rosebery and M. Frémeaux! He belongs to a peculiar genus of humanity, the product of our research laboratories and of enthusiasm for science. Outside the laboratories those men seem unbalanced in their judgements and actions when measured by that conventional standard known as common sense. Inside the laboratories they are at home; their eyes are open and accurate then; their brains seek out puzzles which to the mind of the mere layman seem matters unworthy of attention. Napoleon knew the species of man Cardinal Fesch had sent him at once: "A kind of Cuvier," said the Emperor, "to whom he would give his horse for dissection, but not trust the cure of his own foot." In short, the Cardinal had selected the right man to work out the botany of St. Helena and to perform the autopsy on Napoleon, but altogether the wrong man to treat skilfully what in its event proved to be a most difficult, puzzling, and fatal case of illness. Those curious red spots which he saw on the intestine, as he carried out the final examination, were exactly the kind of thing which would arrest his attention; they were anomalous appearances which were at least worth keeping, perhaps worth investigation and explanation. They might confirm the diagnosis which O'Meara and he had made—namely, that the Emperor died of a disease endemic to St. Helena.

The question now remains to be answered: Could Antommarchi have abstracted such specimens unobserved either during or after the autopsy? M. Frémeaux answers very decidedly, No, it was impossible. Medical men will be less dogmatic in their answer. Centuries of a struggle to elucidate the problems of human disease against the obstacles raised by prejudice on the part of the public at large have compelled the best medical men to carry out the behests of science and human well-being by underhand and crafty means. I have known cases where great parts of the body were removed under the most strict surveillance. Antommarchi was an expert at annexation; he stole and smuggled out of St. Helena that fine death mask of Napoleon, which I

* Clause probably inserted by Antommarchi subsequent to the original draft of his report.

† Dr. Arnold Chaplin regards the widespread adhesions between the liver and diaphragm as the result of the ulceration of the stomach, the condition which he supposes preceded cancer. Such adhesions are always the result of an inflammation round the liver, and usually follow inflammation of the liver—never, so far as I know, an ulcer of the stomach. There was no adhesion of any part of the stomach to the diaphragm; the adhesion of the cancerous area of the stomach to the liver was not a strong one; when separated the peritoneal coat of the stomach was unbroken.

have no doubt we owe chiefly to the Irish surgeon, Burton, a cousin of the great Dublin physician Graves.[7] We know, however, that Antommarchi had the opportunity of obtaining such specimens as those at the College of Surgeons. The *post-mortem* examination began a little after 2 o'clock on the afternoon of the day following Napoleon's death; by 5.45 the examination was finished; Antommarchi had cut out the heart and the stomach (it would have been easy to take some parts of the bowel too—the English surgeons did not think them worthy of attention) and placed them in a silver vessel filled with spirits of wine. Does any one believe that the laymen and doctors stood by and watched until Antommarchi put the last stitch in Napoleon's final toilet? The atmosphere, the absence of water, the excitement at finding cancer, gave an opportunity to a man like Antommarchi, if he were inclined to use it. His friend, Dr. Arnott—Arnott always speaks of *Professor* Antommarchi—was placed on watch; M. Frémeaux states that Surgeon Rutledge was placed as custodian; no doubt Arnott and Rutledge relieved each other, for twenty-four hours elapsed between the time of the autopsy and the arrival of the four-fold coffin. During that period the silver vessel stood open to Antommarchi, who was "at home" at Longwood; the other surgeons were strangers there. When the coffin came Antommarchi was ordered—he was most reluctant—to place the heart and the stomach in the coffin. He prayed to be allowed to take them home with him. He took the stomach out and placed it in a silver sponge box removed from Napoleon's dressing-table; he left the heart in the original vessel, and makes the statement that he soldered down the lid of that vessel. That was the last opportunity Antommarchi had of retaining any of the relics he may have wished to carry away.

We have shown, then, that specimens of the kind now in the Museum of the Royal College of Surgeons were seen at the *post-mortem* examination of Napoleon and that the man who saw them had the opportunity and the will to obtain them. We must now follow Antommarchi's movements back to London. He left St. Helena on May 27th, 1821; by August 5th he was in London. O'Meara was there then: so was Sir Astley Cooper. The coronation of George IV was just over; Queen Charlotte lay on her death-bed—events in which both Cooper and O'Meara were interested. Like the rest of England they wanted to know the details of Napoleon's death. The first news of that event reached England on July 4th; on July 8th O'Meara wrote a letter to the *Morning Chronicle*, pointing out that the cause of Napoleon's death given in the official report must be received with reserve and scepticism; he drew attention to the fact that the official report was not signed by Antommarchi—the man best qualified to express an opinion had refused to sign the document; that the symptoms and history of Napoleon's case were incompatible with death from cancer; that the adhesions of the liver to surrounding parts indicated hepatitis and confirmed his diagnosis; that the official report of the *post-mortem* examination was, what we now know to be the truth—a political document. We have no record of the meeting of Antommarchi and O'Meara: we simply know they were both in London in August, 1821, but does any one doubt that those two men, who met so often two years before in the most friendly manner, who spoke a common language, whose reputations were at stake over the same case, would meet and see if they could retrieve their position and convince the public that they were right in their diagnosis and that the Hudson Lowe faction was in the wrong? It is likely that Antommarchi gave those relics of the examination at St. Helena to O'Meara as mere relics to be added to his Napoleonic collection, or it may have been with the view of having a final verdict as to their nature and their bearing on Napoleon's illness. They came, at least, from O'Meara to Sir Astley Cooper, and when the famous surgeon saw them he pronounced them cancerous growths, the very diagnosis which O'Meara, at least, wished to disprove. We have seen that Sir James Paget also regarded them as cancer, but did not substantiate his diagnosis by the more precise modern methods. And now, long years after, when all the actors are dead and gone, these specimens are submitted to modern and accurate methods and they prove to be not cancer but diseased lymphoid patches, probably manifestations of the infection of the body by one of those diseases which are still endemic to tropical or semi-tropical countries—a diagnosis which ought to give the disturbed ghosts of O'Meara and Antommarchi nights of blissful rest. Micro-organisms are still to be seen in the lymphoid plaques. Antommarchi, it may be added, returned to Italy, and led a life of continuous quarrel; then to Paris, where he tried to publish copies of Mascagni's plates as his own;[8] and then went abroad and died at Santiago in 1838, at the age of 49. Dr. Barry O'Meara, after marrying Captain Donellan's widow in 1823, died in the Edgware Road on June 3rd, 1836, at the age of 50, a result of attending one of O'Connell's (the Liberator) meetings.[9] At the sale of his effects the tooth (third molar) he extracted from Napoleon was sold for 7½ guineas; the tooth forceps then employed, 3 guineas; a lock of the Emperor's hair, £2 10s.* It will be thus seen O'Meara would naturally desire to add to his Napoleonic collection, and we may reasonably suppose one so much indebted to him as Antommarchi would like, if possible, to gratify his desire.

It will be seen that this narrative deals with two problems: (1) The history of two specimens in the Museum of the Royal College of Surgeons of England; (2) with the nature of Napoleon's illness during the last four and a half years of his life. The evidence which I have produced here has convinced me of the authenticity of the specimens. Such specimens were observed at the *post-mortem* examination; Antommarchi had opportunities of taking them; there were inducements for him to take them, and reasons why he should give them to O'Meara; we know O'Meara gave them to Sir Astley Cooper; we know that he was a keen collector of such specimens; we know they were transferred from Sir Astley Cooper's museum to their present abode.

The two specimens show a diseased enlargement of the lymphoid tissue of the bowel; we know that in his attacks, four and a half years before his death and probably two years before Napoleon became the subject of cancer, the lymphoid system of the body—the tonsils—the lymphatic glands became enlarged. Sir William Leishman informs me that all the symptoms manifested in the attacks of fever "are very similar to those of a chronic form of Malta fever, or, as we are now told to call it, undulant fever."

No one who has tabulated from the records left by O'Meara, Stokoe, and Antommarchi the symptoms manifested month after month by Napoleon during the first three years of his illness can doubt the recurrent febrile nature of his original disease. The symptoms are neither those of gastric ulcer nor gastric cancer, but of a nature which shows he suffered from a form of Malta fever, or of an infection nearly akin to Malta fever. The following letter from Sir William Leishman throws an important light on this point:

> Royal Army Medical College
> (University of London),
> Grosvenor Road,
> London, S.W.,
> December 5th, 1912.
>
> Dear Professor Keith,
>
> What you tell me is extremely interesting. From the details you give I think it very probable that Napoleon must have suffered from a chronic form of Malta fever—or, as we are now told to call it, undulant fever. There is nothing in your account inconsistent with this; the recurrent febrile attacks with occasional jaundice and hepatic pain are well known in this disease, and a chronic hypertrophy of the lymphoid tissues is well marked in some cases, especially in connexion with the spleen, and various groups of lymphatic glands, such as the mesenteric, inguinal, axillary and others. My assistant, Major Kennedy, who was one of the Malta Fever Commission and had a considerable experience of *post mortems* on these cases, also tells me that Peyer's patches *are* frequently enlarged in chronic cases and sometimes even ulcerated, and this in cases in which enteric fever could be definitely excluded. Such cases also show at times distinct scorbutic symptoms and bleeding from the gums.
>
> Malta fever was probably widespread over the Mediterranean long before it was identified as a clinical entity, but I cannot say anything about St. Helena, though I think if you were able to find that goats' milk was in use in the island in Napoleon's time, and especially if they imported Maltese goats as they did at Gibraltar and elsewhere, there would be a reasonable suspicion that he might have been reinfected there too.
>
> Very truly yours,
> W. B. LEISHMAN.

* I have been unable to trace the further history of these relics. A description of Napoleon's third molar would be of interest.

Three years before Napoleon's death we may reasonably suppose that the inflammation of the liver which frequently appears in cases of fever endemic to tropical countries had brought about adhesions to the diaphragm and stomach. Hence it was impossible to feel any tumour in a stomach thus bound down beneath the liver. Skilled physicians like Héreau (1829)[5] and Boudouin (1901)[10] have supposed the great ulcer found in the stomach at death to have been caused not by cancer, but by inflammation. I do not think that their opinion can be upheld; it is altogether in opposition to the appearances and characters described by Antommarchi—the only account worthy of a moment's thought. Nor do I think that the view adopted by Dr. Chaplin—that the earlier symptoms were solely due to an ulcer of the stomach—can be accepted as a full and satisfactory explanation.

It is plain, then, that Napoleon suffered originally from an endemic fever in which the liver was severely affected, and that in the course of the illness cancer of the stomach—his father's ailment—supervened, but the symptoms of the superadded disease were entirely masked by the original disease. When that interpretation is applied, Napoleon's case becomes clear, definite, and understandable. It was a condition which might well have baffled and misled the most skilful physicians in Europe, until the terminal illness in the spring of 1821, when Dr. Arnott[11] alleges he began to suspect that the stomach was the seat of Napoleon's trouble. The discovery of cancer at the autopsy was a revelation to all; the Emperor alone anticipated the result. Poor O'Meara, Stokoe, and Antommarchi! Dismissed, court-martialled, and maligned by the laymen in authority and by modern lay writers because they did not solve a problem which only was capable of a full solution after death. In the main they were right in their diagnosis; most unfortunate in their treatment. It is an open question whether it was the fever or the cancer which actually killed Napoleon; the best that can be said is that, whether in St. Helena or out of it, cancer would have ended the career of the great Emperor.

REFERENCES.

[1] Lord Rosebery, *Napoleon, The Last Phase*, 1900. [2] Frémeaux, P., *The Drama of St. Helena*, London, 1910 (translation of *Les Derniers Jours de l'Empereur*, Paris, 1909). [3] *The Life of Sir Astley Cooper, Bart.*, Bransby B. Cooper, 1843, vol. ii, p. 108. [4] Antommarchi, F., *The Last Days of Napoleon*, 1825; see also renderings of Antommarchi's report given by J. Héreau (the most accurate) and by M. Frémeaux. [5] *Napoléon à Sainte Hélène*, by J. Héreau, surgeon to Madame Mère and the Empress Marie Louise, 1829. [6] *Prodromo della Grande Anatomia*, Seconda Opera Postuma di Paolo Mascagni: da Francesco Antommarchi Dissettore Anatomico. Firenze, 1899 (dedicated to Georgio Federigo Augusto, Prince Regent). [7] *London Medical and Surgical Journal*, 1835, vol. vii, p. 785 (two volumes numbered vii were published in 1835; the only copy in London is at the College of Physicians). [8] *Lettre des Héritiers du feu Paul Mascagni à Monsieur le Comte de Lasteyrie*, à Paris, 1823. [9] Barry E. O'Meara, *Napoleon at St. Helena*, edition of 1888. [10] Marcel Boudouin, *Gazette Médicale de Paris*, 1901, lxxii, p. 81. [11] Archibald Arnott, M.D., *An Account of the Last Illness, Disease, and Post Mortem of Napoleon Bonaparte*, 1822.

THE German Gynaecological Society will hold its fifteenth annual meeting at Halle in May (14th–17th). The principal subject proposed for discussion is the relation between diseases of the heart and kidneys as well as disturbances of internal secretion with pregnancy.

THE Department of Health of the city of New York has authorized the performance by its inspectors of anti-typhoid vaccination under conditions similar to those governing the free administration of diphtheria antitoxin. The vaccine will also be supplied free to medical practitioners for their own use.

THE January issue of the journal entitled *Concrete and Constructional Engineering* contains some striking statements with reference to the safety of various buildings in London in regard to fire. Seven years ago a very large number of buildings had been officially recognized as not meeting the requirements of the London County Council in regard to general construction, the provision of escapes, and other measures designed to diminish the annual number of deaths from fire. It is stated that there are now over 90,000 buildings within the metropolitan area which are officially "unsafe." Suggestions as to how the evil might be remedied without undue delay are also put forward in the journal in question. The other articles, though mainly technical, contain nevertheless a good deal that is of general interest. A subject worthy of discussion in its pages would seem to be the truth or otherwise of a popular impression to the effect that "fireproof" buildings burn up quite as quickly, or quite as effectually so far as destruction of life is concerned, as buildings which claim no such title.

The Horace Dobell Lectures

ON

INSECT PORTERS OF BACTERIAL INFECTIONS.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS.

BY C. J. MARTIN, M.B., D.Sc., F.R.S.,

DIRECTOR OF THE LISTER INSTITUTE OF PREVENTIVE MEDICINE; PROFESSOR OF EXPERIMENTAL PATHOLOGY IN THE UNIVERSITY OF LONDON.

LECTURE II.

THE TRANSMISSION OF PLAGUE BY FLEAS.

MAY I remind you that bubonic plague is not an infectious disease? The patient is a negligible source of danger to his surroundings, provided he does not develop a secondary pneumonia. The reason is that, even if the excreta do contain some plague bacilli, there is no mechanism available to convey them into a second human being, as pest is not easily contracted by feeding. From an epidemiological point of view bubonic plague must be regarded as a disease of rats, in which, under suitable conditions, the infection spreads from rats to man.

It would be impossible for me to put before you this afternoon the mass of evidence for the above statements. I have already surveyed it in opening the discussion on the "Spread of Plague" at the meeting of the British Medical Association at Birmingham in 1911 (Martin, 1911), and, moreover, it is now well known.

It was difficult to explain how the bacillus was transferred to man from the rat, especially as man-to-man infection had been shown to be negligible. On epidemiological grounds, Ogata (1897), Simond (1898), and Ashburton Thompson (1900) came to the conclusion that the agent must be some form of insect, and for various reasons choice fell upon the flea.

You will naturally inquire why, if the flea is to be considered an agent of transmission from rat to man, does it not transmit from man to man? The answer is quite satisfactory, but I will, with your permission, postpone it until we have considered the case for carriage from rat to man.

If the blood of the animal contain a sufficiency of plague bacilli, some will obviously be taken in by a flea whilst feeding, and Ogata (1897) found that crushed fleas taken from a plague-infected rat produced the disease when injected into mice. This experiment was repeated with success by Simond (1898) and Tidswell (1900).

*The Mechanism by Means of which the Flea might Infect a Healthy Animal.**

The blood is sucked up from the wound made by the pricker. This structure is composed of three parts—the epipharynx and the two mandibles (Fig. 14). The apposition of the three forms a fine tube (Fig. 15), up which the blood is drawn, and passed down the gullet into the stomach by successive waves of contraction from before backwards of the muscles actuating the chitinous pharynx. The stomach is a pear-shaped organ occupying a considerable part of the abdomen of the insect. The internal economy of a flea and the arrangements of the mouth parts may be gleaned from the diagrams (Figs. 13, 14, and 15), which are borrowed from the Reports of the Commission.

The average capacity of a rat-flea's stomach was found by the Commission for the Investigation of Plague in India (Report, 1907, p. 397) to be 0.5 c.mm., and the number of bacilli in the blood of a plague-infected rat before death anything up to 100,000,000 bacilli per cubic centimetre. If, therefore, a rat-flea imbibed the blood of such a rat, it would receive into its stomach 5,000 germs.

* In dealing with the agency of fleas in the spread of plague I shall draw largely upon the work accomplished during the last few years by the Commission for the Investigation of Plague in India, with which I have had the honour to be associated. The Reports of the Commission have been published as special numbers of the *Journal of Hygiene*, 1906 to 1912.

Evidence of Multiplication of Bacilli in the Stomach of the Flea.

The Commission fed fleas on plague-infected rats until the death of the latter and afterwards on healthy animals, a fresh animal being supplied each day. Each day a number of the fleas was dissected and the stomach contents examined as to the presence or absence of plague bacilli. In 5 to 30 per cent., according to the time of year, plague germs were found up to the sixth day, and in one instance on the twentieth day (Reports, 1907, pp. 398–405). The bacilli were often present in immense numbers, far more numerous than ever seen in blood, and massed together as in culture. We have good evidence in this observation that multiplication of plague bacilli may take place in the flea's stomach. During the season of the year when the epidemic occurs the proportion of infected fleas for the first four days after removal from the plague rat was 43 per cent., on the sixth day there were 15 per cent., on the eighth day 16 per cent., and on the twelfth day 9 per cent. In the non-epidemic season only 5.2 per cent. were infected during the first six days.

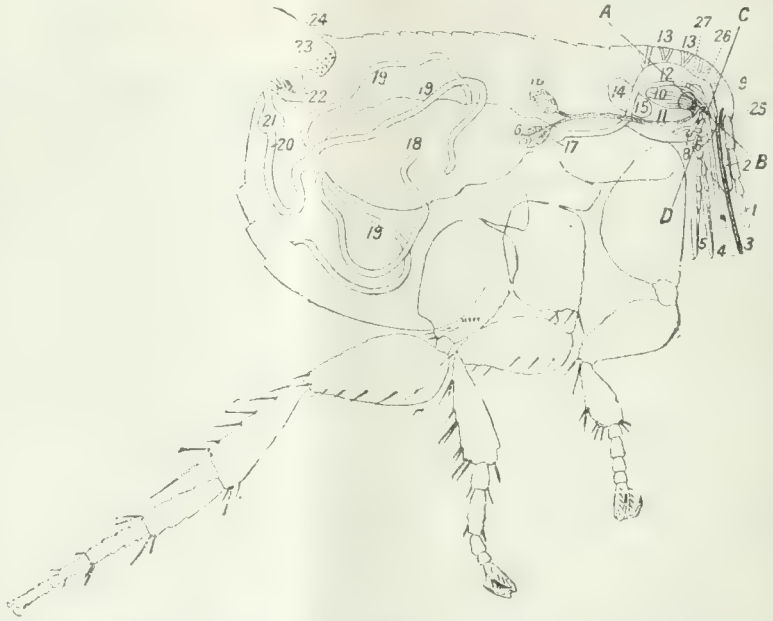


Fig. 13.—Diagrammatic mesial sectional view of *Xenopsylla cheopis*. 1, Maxillary palp; 2, maxilla; 3, epipharynx; 4, mandibles; 5, labium; 6, undivided portion of labium; 7, basal portion of labium; 8, basal portion of mandibles; 9, salivary pump; 10, hypopharynx; 11, salivary duct; 12, aspiratory pharynx; 13, muscles operating the aspiratory pharynx; 14, supraoesophageal ganglion; 15, suboesophageal ganglion; 16, salivary glands; 17, gizzard; 18, stomach; 19, Malpighian tubules; 20, rectum; 21, rectal glands; 22, claspers; 23, pygidium; 24, antepygidial bristle; 25, termination of dorsal contour of epipharynx; 26, mouth; 27, ligament.

The Distribution of Plague Bacilli in the Body of the Flea.

The blood on completion of the digestive process in the stomach passes into the rectum of the flea as a thick, slimy, dark-red mass, and appears at the anus as minute, dark-red or black, tarry droplets. It was demonstrated by cultural and microscopical examination that the rectal contents were often crowded with plague bacilli.

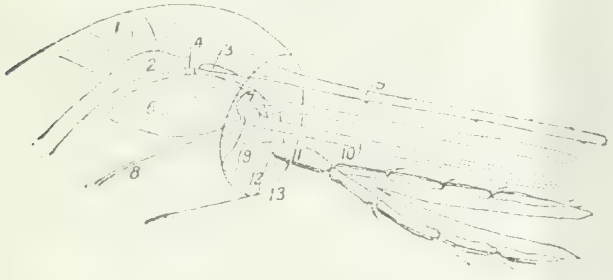


Fig. 14.—Diagram of the mouth parts of the flea. 1, Muscles operating aspiratory pharynx; 2, aspiratory pharynx; 3, mouth; 4, ligament; 5, epipharynx; 6, hypopharynx and muscles operating salivary pump; 7, salivary pump; 8, salivary duct; 9, basal element of mandible; 10, mandible; 11, labium; 12, basal element of labium; 13, perioral ring.

Fleas, taken from plague rats at intervals varying from a few hours to several days, were dissected, and the various parts of the body examined for the presence of bacilli. In not a single instance were plague bacilli observed outside the organs already mentioned. No infection of the body cavity was seen, and although particular attention was paid to the salivary glands, nothing at all resembling a plague bacillus was ever detected in them.

How the Flea may Transmit its Infection to the Healthy Animal.

Several methods of transmission are possible, such as (*a*) the animal eating the infected fleas; (*b*) the mechanical conveyance of the bacilli by the pricker; (*c*) the regurgitation of the stomach contents down the pricker; (*d*) the deposition of the faeces on the skin, the bacilli being subsequently rubbed in by scratching.

This last method is the only one which has been proved capable of bringing about infection. A well-fed flea deposits a considerable amount of faeces in a surprisingly short time, and it was proved by both the Commission for the Investigation of Plague in India (Report, 1907, p. 418) and Verjbitski (1904) that wounds made by the pricker might afford a sufficient avenue for the entrance of bacilli when liquid containing them was gently applied to recent bites.

Whilst, however, experiments have shown that infection may be brought about in this way, the possibility of infection by a regurgitation from the stomach preliminary to sucking blood cannot be excluded.

Proof that Plague is Carried from Animal to Animal by Fleas.

Simond (1898) infected one rat from another by placing them in a bottle together with twenty fleas. The second, uninfected rat, was enclosed in an iron box with a grating, so that the two animals could not come into contact. Gauthier and Raybaud (1902, 1903) repeated Simond's experiments under better controlled experimental conditions. They employed a cage divided in the middle by two wire grills 2 cm. apart, placed in a glass jar. In one compartment was placed an inoculated white rat on which had been deposited a dozen fleas captured upon rats from ships in the harbour at Marseilles. When the inoculated animal died a healthy rat was placed in the second compartment, and after some hours had elapsed, during which the fleas transferred themselves from the dead to the living animal, the cadaver was removed. Gauthier and Raybaud succeeded five times in conveying the infection from one rat to another; the number of negative experiments is not stated. An examination of the stomachs of the fleas found upon the septicaemic animals showed the presence of *B. pestis*. The fleas used in their early experiments were not identified. Tidswell (1903) made further attempts to convey plague from rat to rat by the agency of fleas, but was unable to do this.

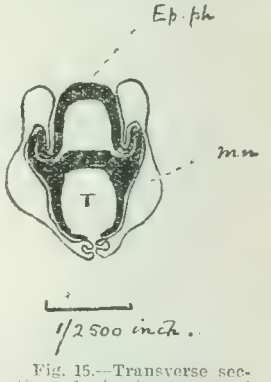


Fig. 15.—Transverse section of piercing organ of flea. Ep.ph., Epipharynx. Mn, Mandibles. T, Tube through which blood is sucked.

Verjbitski (1904) carried out an extensive series of experiments on the flea-transmission of plague in St. Petersburg. He showed that the plague bacilli could be recovered from the stomach contents of fleas six days after they had fed on plague rats, and that the faeces of such fleas contained the *B. pestis* for about the same time. He succeeded in infecting rats with fleas from diseased rats fifteen times in seventy-six experiments. In each experiment ten possibly infected fleas were allowed to feed on the rat. Verjbitski also made experiments similar to those of Gauthier and Raybaud described above, and out of forty experiments, using ten fleas apiece, infection was conveyed in four.

Liston (1905) pointed out that the common flea infesting rats in India was not *Ceratophyllus fasciatus* or *Typhlopsylla musculi*, as in Europe, but a non-pectinated flea identified by Rothschild as *Xenopsylla cheopis*. Liston observed multiplication of the plague bacillus in the stomach of this flea. Although his experiments on transmission, which were made by allowing fleas to bite first an animal suffering from plague and subsequently a healthy animal, were not successful, he brought forward much interesting and valuable circumstantial evidence in favour of the view that plague is epidemiologically thus spread. He showed that *X. cheopis* takes readily to another host, for example, guinea-pigs and man, when rats are not available.

The possibility of the rat-flea carrying plague from one rat to another was demonstrated in a considerable series of experiments by the Commission for Investigation of Plague in India (Report, 1906, pp. 435–450). A glass case was used containing two wire cages side by side, each standing in a tin tray which collected the urine. Both trays were filled with sand in order to provide dryness and shelter for the fleas. Each cage was furnished with a lid through which the rats were introduced and food and water given to them, and the whole apparatus was covered in with fine muslin to prevent the escape of the fleas. A rat placed in one of these wire cages could not come in contact with a rat in the other cage, nor with its urine or faeces.

The method of experiment was as follows: A plague-infected rat and a number of rat-fleas were placed in one of the wire cages. After the rat died, a fresh healthy rat was put into the other cage, the corpse of the infected rat being left in for twenty-four hours longer.

Sixty-six experiments with English white rats and with Bombay wild rats were done in this way, with the result that 30 healthy rats contracted plague; fleas formed the only apparent means of transmission of the bacilli from rat to rat.

In order to exclude aërial infection a second series of experiments was carried out, in which fleas were taken from a rat which had died of plague and placed on a fresh rat in a clean flea-proof cage of similar construction to that already described, but containing only one wire cage. Out of 38 experiments 21 successful transmissions were obtained in this way.

The Importance of Flea-Transmission in Epizootics.

The following experiments, which had as their object the determination of the relative importance of the Indian rat-flea, *X. cheopis*, and of actual close contact in the absence of fleas in the dissemination of plague from animal to animal, were carried out by the Commission (Reports, 1906, pp. 450–467; 1907, pp. 421–436; 1910, pp. 315–335) in a series of small cabins, which were built especially for this purpose. In these animal houses plague-infected animals, rats or guinea-pigs, were kept in close contact with healthy animals. They ran about together in a confined space and ate out of the same dishes.

The plague-infected animals were allowed to die, and the corpses were not removed until some time after death. In some instances the concentration of infection was very great, in one case 21 infected animals being at one time in contact with 25 healthy ones. The cabins were never cleaned out, so that the animals ate food contaminated with the faeces and urine of their infected companions. In the experiments with rats, the healthy frequently ate the carcasses of the infected ones introduced.

Sixty-six series of experiments were carried out, each involving about 40 to 70 animals. In 35 experiments fleas were present, and 31 were control experiments in which no fleas were introduced. In all the control experiments not one of the healthy animals contracted plague, whereas in those cases where fleas were present an epizootic occurred, varying in extent and rate of spread according to the number of fleas present.

Some interesting experiments (Reports, 1906, p. 461) were also carried out in the animal houses that had been used for some of the previous experiments. Guinea-pigs and monkeys were introduced into them for one night. Some of the animals were in cages placed on the floor, and others in cages covered by fine muslin, gauze, or surrounded by a layer of sticky fly-paper, 6 in. wide—that is, the simplest precautions were taken to exclude fleas.

Of 13 unprotected monkeys, 6 died; of protected, none. Of 24 unprotected guinea-pigs, 18 died; of protected, none. The animal houses remained infective three weeks after the last animal had died of plague. This period corresponds with the maximum time fleas fed on a plague rat have been shown to remain infective when placed on a series of healthy animals.

Experiments in Plague Houses.

The Commission subsequently (Reports, 1906, pp. 467–482, and 1907, pp. 436–446) repeated similar experiments in plague houses in Bombay. The infectivity of 142 houses where cases had occurred or rats had died was tested by placing a guinea-pig there overnight. The guinea-pig was subsequently segregated, and in 31 cases it died of plague.

Ninety-two experiments were made in which two similar animals—monkeys, guinea-pigs, or rats, the one protected by gauze or sticky paper, the other not protected—were placed in suspected houses; 15 unprotected animals died; none of the protected.

On ninety-six occasions fleas taken off guinea-pigs which had spent the night in a suspected house were transferred to a healthy animal. In 26 cases the second animal died of plague, although not infrequently the guinea-pig from which they had been removed escaped infection. The conclusion that in a plague-infected house the infection is due to infected rat-fleas, and not to an infection of the soil or the air, seems to me abundantly justified.

Fleas as the Agents of Transmission from Rat to Man.

In considering how far the results just detailed can be applied to man, we enter at once upon less secure territory, because it is impossible to put conclusions to the test of experiment. The only measure of the correctness of such an interpretation is its adequacy to interpret all the known epidemiological facts concerning the spread of plague.

The justice of applying the results of these animal experiments has been severely criticized in several quarters, and particularly by Galli-Valerio (1907), on the ground that rat-fleas do not bite man. It is true that, speaking generally, different animals harbour specific parasites; but the more we learn upon this subject the clearer it becomes that such specificity is not so sharply defined as was imagined, and that a particular flea, although commonly confined to a few hosts of allied species, may frequently be found in considerable numbers upon quite different animals. Moreover, it has become abundantly clear that a flea, although exhibiting a decided preference for one species, will, if hungry, betake himself to animals of widely different type in the absence of its proper host.

The common flea found on rats in India and other warm parts of the world* is *X. cheopis*. This flea is a non-combed species, and not unlike the human flea, *Pulex irritans*, in appearance. That *X. cheopis* readily feeds on man was observed by Tidswell (1903), Gauthier and Raybaud (1903), and Liston (1905). The Commission for the Investigation of Plague in India kept *X. cheopis* alive for four weeks upon an exclusively human diet, and my colleague Mr. Bacot has bred them for years on the same regimen.

With regard to the readiness with which *Ceratophyllus fasciatus*, the common rat-flea in Europe, attacks man, considerable divergence of opinion has hitherto existed. According to Wagner (quoted by Tiraboschi, 1904, p. 180), Tiraboschi (1904, p. 266), and Galli-Valerio (1907), this

* The distribution of rat-fleas has recently been dealt with by Dr. Chick and myself in the *Journal of Hygiene*, vol. ii. p. 129 (1911).

Table showing Results of Feeding Experiments with Ceratophyllus fasciatus.

	Subject.								Summary.	Rat.	Rabbit.
	C. J. M.	H. C.	A. M.	J. H. S.	H. Y.	G. F. P.	H. W. A.	S. R.			
Total number of experiments ...	161	118	39	33	52	51	40	23	517	101	32
Positive	106	65	30	12	36	25	19	15	308	59	23
Negative	55	53	9	21	16	26	21	8	209	42	9
Per cent. positive	65.8	55.1	76.9	36.4	69.2	49.0	47.5	65.2	59.6	58.4	71.9

flea does not bite man. On the other hand, Gauthier and Raybaud (1903 and 1909) and McCoy and Mitzmain (1909) found that when hungry it fed on man with readiness.

Dr. Harriette Chick and I (1911) have made some hundreds of experiments on this question, and are at a loss to understand the negative conclusions arrived at by Tiraboschi and Galli-Valerio. Under the conditions of our experiments *Ceratophyllus fasciatus* fed upon man as readily as upon a rat. Nevertheless, it is doubtful whether *Ceratophyllus fasciatus* is attracted to man as readily as is *X. cheopis*. Compared with the latter, it is a poor jumper.

We also made 107 experiments with *Ctenopthalmus agyrtes*, a flea common on *Mus decumanus* in this country, when living in fields, ricks, or barns, and 122 experiments with the mouse-flea, *Ctenopsylla musculi*. Under the conditions of the experiment the former would not bite man at all, and the latter only very occasionally. This latter experiment is interesting, because mice, although dying of plague, have not been found to be associated in the same way as rats with the origin of plague epidemics.

The Capability of Flea Transmission to Interpret the Epidemiological Facts regarding Bubonic Plague.

(1) Poverty, dirt, storage of grain in the bedroom, accumulation of refuse, and insanitary conditions generally, have been shown to be effective in so far as they lead to the support of a large rat population in close association with human beings. All these conditions also increase the population of rat-fleas, and man's accessibility to them.

(2) In 75 per cent. of cases the situation of the bubo is such that the bacillus must have obtained entry at some superficial area of the body. This is also consistent with infection by fleas

(3) A number of instances have occurred during the last ten years in India in which the introduction into a distant village of the effects of a person dead of plague has been followed after an interval of about a week by mortality amongst the rats, and subsequently by an epidemic of plague. The same sequence has also taken place after the visit of an individual who had worked or resided in a house where some of the inmates had suffered from plague, although the stranger himself did not suffer from the disease.

These observations are better explained on the assumption that the infection was transported in the bodies of fleas contained in the clothing or upon the person of the stranger than by any other suggestion that has been put forward, for at the earliest opportunity rat-fleas would betake themselves to the rats, and could thereby start an epizootic. That such transmission of rat-fleas does actually happen has been proved by the Commission for the Investigation of Plague in India, members of which frequently carried away rat-fleas upon their persons and clothing when visiting native quarters in the course of their scientific duties.

(4) Perhaps the most striking feature of epidemics of bubonic plague is the marked seasonal prevalence of the disease amongst rats and amongst men. In places where it is endemic the epizootic, followed by the epidemic, starts at or about the same time each year, grows, declines, and more or less disappears. As one passes away from the Equator the plague season becomes later. In Bombay the height of the epidemic is in March, in Lahore in April, in Jhelum in May, in Rawal Pindi in June, and further north in July, August, and September. The epidemics of London in 1665, and of Marseilles in 1720, reached their maximum in September. The effect of latitude in determining the season when plague flourishes is analogous to that upon the flowering and seeding of a plant, and indicates dependence upon some biological factor. Within the tropics, where temperature variation is less and the seasons are determined by the prevailing winds and rainfall, the epidemic season is also well defined, but varies in different localities.

The seasonal incidence of plague is not due to any periodicity in the breeding of rats. In India, in localities where the latter was investigated, it bore no relation to the season when plague occurred. It was found by the Commission (Reports 1908, p. 266; and 1910, pp. 446 and 483), however, that the epidemic season coincided with the

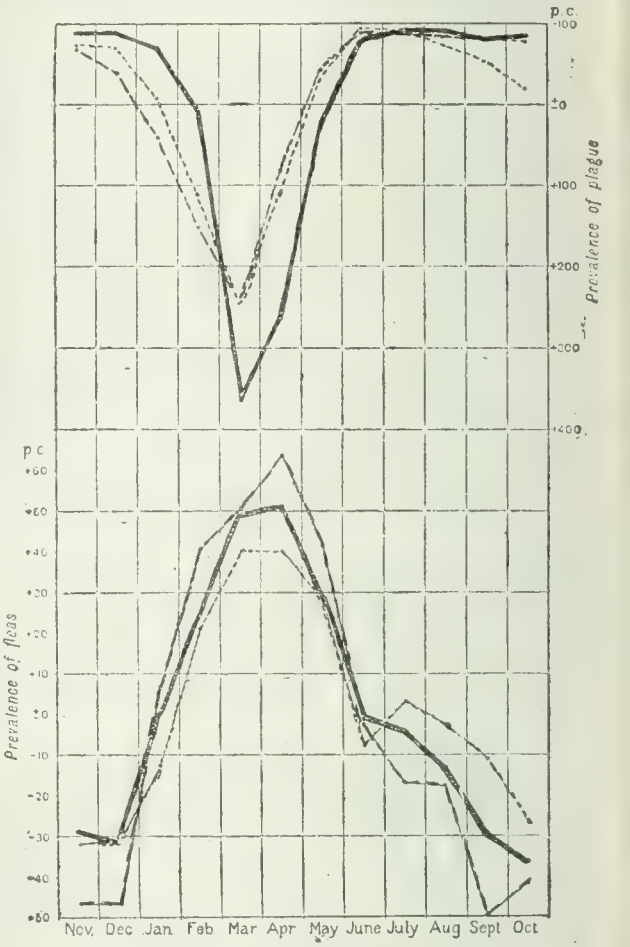


Fig. 16.—Prevalence of fleas in Bombay

Human plague.
Plague in *M. decumanus*.
Plague in *M. rattus*.
Fleas on all rats,
Fleas on *M. decumanus*.
Fleas on *M. rattus*.

period of greatest flea prevalence. In Bombay, Belgaum, Poona, and two Punjab villages the Commission undertook a census of rat-fleas upon captured rats, in the course of which the fleas on 150,000 rats were recorded. In each case the observations extended over more than one year.

The analysis of the figures showed a seasonal variation in the number of rat-fleas in all the localities. The average number per rat varied in Bombay between 3 and 7, in Poona between 2 and 11, in the Punjab between 2 and 12, and in Belgaum between 1 and 17. The interesting point is that



Fig. 17.—BELGAUM. ——— Average number of fleas per *Mus rattus*: weekly figures: observations made in 1908–1909.
——— Average number of deaths from plague, calculated for each week of the year, from May, 1897, to May, 1909 (twelve years), in Belgaum city.

in all the places examined plague is epidemic when the average number of fleas is well above the mean, and the height of the epidemic corresponds fairly closely with the season of maximal flea prevalence. This coincidence is brought out in the attached charts (Figs. 16 and 17) borrowed from the reports, which show the variations in the number of fleas per rat and number of deaths from plague each week for Bombay and Belgaum respectively.

A similar seasonal variation in the prevalence of *X. cheopis* and correspondence between the maximum of these fleas and the epidemic period has been observed by Kitasato (1909) in Japan, Tidswell (1910) in Sydney, and by Gauthier and Raybaud (1910–11) at Marseilles, and by Andrew (1911) in Tongschang in Northern China. The incidence of the epidemic period in the season of greatest flea prevalence under such different climatic conditions as obtain in Bombay, the Punjab, Poona, Tongschang, and Marseilles, is in itself suggestive, and, in view of the results of animal experiments already referred to, one is justified in believing that the most favourable time for the epidemic is largely determined by the seasonal prevalence of rat-fleas.

(5) The rat-flea hypothesis also affords an interpretation of the fact that epidemics decline when the mean daily temperature passes 85 F. A mean temperature of 85° F. in India means also dry weather. Fleas, whether in the larval, pupal, or imago state, are rapidly killed off at this temperature unless associated with a high degree of humidity.

The Commission for the Investigation of Plague in India found that in Bombay the proportion of fleas which became infected, the time they remained infected, and the number of successful experiments on flea transmission was greatest during the winter months (Reports, 1907, pp. 197–204; 1908, pp. 510–515 and 529–538). An analysis of their results showed 67 per cent. successful transmissions when the temperature was 73° to 78° F., against 14 per cent. successes when the temperature was 82° to 85° F. Transmission experiments were therefore carried out simultaneously at 70° and 85° F. in suitable chambers both upon rats and guinea-pigs. The results were consistent with previous experience. The possibility that the virulence of the bacillus might undergo some variation if grown at one or other temperature was examined by the Commission and excluded.

The claims of flea transmission to be the predominating mechanism of spread from rat to man may be briefly summarized as follows:

1. The experimental evidence that plague is easily transmitted from animal to animal by rat-fleas.

2. That in presence of fleas, the epizootic, if started, varies as regards severity and rate of progress with the number of fleas present and the season of the year, whereas all attempts to induce epizootics in the absence of fleas have failed.

3. That under natural conditions (experiments in plague-houses, etc.) an animal can be protected from infection by any simple procedure which will exclude the visits of fleas.

4. The only discovered infection in plague-houses resides in plague-infected fleas.

5. Rat-fleas *X. cheopis* and *Ceratophyllus fasciatus* readily bite man.

6. The conclusions drawn from animal experiments, when applied to the problem of the spread of plague amongst human beings, afford a reasonable interpretation of every cardinal epidemiological fact.

The Part taken by the Human Flea.

It is possible to transmit plague experimentally by means of *P. irritans*. Nevertheless the direct transmission of the disease from man to man cannot, at the present time, be of frequent occurrence, or we should have evidence of direct infection instead of dependence upon the epizootic.

The reason why the human flea is ineffective is because in human cases the average degree of septicaemia before death is so much less than in rats that the chance of a flea imbibing even a single bacillus is small.

A variation of the plague bacillus in the direction of greater infectivity, with perhaps diminished toxicity leading to a higher degree of septicaemia in man, would permit of direct transmission by human fleas. Bubonic plague would then be independent of the rat, and spread

directly from man to man. For several reasons it seems to me not improbable that this may have happened in the plague of the Middle Ages.

SOME OTHER DISEASES TRANSMITTED BY INSECTS.

Three other diseases which can be transmitted by insects—typhus, relapsing fever, and poliomyelitis—must be mentioned, although I am not sure that I am justified in including any of them under the heading "bacterial." The infective agent in typhus has, so far, not been isolated, but it is ascertained that it is an organism capable of propagation, for Nicolle (1910) and Wilder (1911) have succeeded in carrying the disease through a number of generations of monkeys by inoculating them with 1 c.cm. to 5 c.cm. of blood or serum from an infected animal. The organism is held back by Berkefeld and porcelain filters. It is, therefore, free in the blood and of some considerable size.

Relapsing fever is caused by a spirochaete, and there is considerable difference of opinion as to whether spirochaetes should be classed amongst the bacteria or protozoa.

The infective agent of poliomyelitis is a minute invisible organism, which passes readily through a porcelain filter, so that it escapes the clutches of the systematist altogether.

THE TRANSMISSION OF TYPHUS FEVER BY LICE.

Typhus is a disease associated with poverty and dirtiness. It occurs in temperate climates, and mostly in the winter and spring. In warm climates it is uncommon. In Mexico, where it still flourishes amongst the poor Indians and half-caste population, it is confined to the central plateau 4,000 to 10,000 feet above the level of the sea, and does not affect the population of the lower hot country, although cases are frequently introduced from the higher lands.

Typhus has been shown to be capable of transmission by the agency of body lice (*Pediculus vestimenti*) by Nicolle, Compte. and Conseil (1909), and by Ricketts and Wilder (Wilder, 1911).

THE BIONOMICS OF LICE AND THE MECHANISM BY MEANS OF WHICH THEY MIGHT CARRY INFECTION.

Life-History of the Body Louse.

The life-history of the body louse has recently been studied by Warburton (1909), to whom and to my colleague, Mr. Bacot, I am indebted for most of the following facts on the subject. Unlike fleas, lice have no grub stage. The eggs take one to five weeks or longer to incubate, according to temperature. The young louse when just hatched is a small edition of the parent, and sucks blood at the earliest opportunity. It is, however, not sexually mature; three moults occur, and in about fourteen days its growth is complete and the insect is sexually mature. The females lay 100–200 eggs. Lice, especially when young, are delicate creatures. They are voracious feeders, and must be fed at frequent intervals. They, as a rule, are unable to stand starvation for more than two days. They are very sensitive to heat and drying, and soon succumb at temperatures above 25° C. unless the air be kept nearly saturated with moisture. They live in clothing and bedding, and feed several times in the twenty-four hours if opportunity be given. The optimum condition for their development occurs in the case of those persons who seldom wash their clothing or change it for sleeping.



Fig. 18.—Alimentary canal and mouth parts of louse (*Pediculus vestimenti*).

The general arrangement of the alimentary canal may be seen in Fig. 18, which also shows the sac in the floor of the mouth which contains the piercing organ. The four salivary ducts (two only of which are shown) open into the base of this sac. The pharynx is a chitinous organ which collapses by its elasticity, and suction is produced by the contraction of the muscles (*m*) attached to its dorsal surface and the chitinous skeleton of the cranium. The blood is forced into the stomach by the relaxation of these muscles in order from before backwards.

The stomach or crop is a capacious organ with two later diverticuli from its anterior end.

The body louse obtains its nourishment entirely by sucking blood. It is provided with penetrating instruments the apposition of which forms a canal through which the blood is pumped into the stomach by a pharyngeal pump similar to that of the flea. These piercing instruments are not permanently exterior to the head and carried tucked away in a labium as in fleas and bugs, but, as described by Pawlovsky (1906), the apparatus is retractile and contained in a special pocket in the floor of the mouth (Fig. 18, *p*). The anterior part of the mouth is provided with a ring of hooklets, which is everted when the pricker is thrust out (Fig. 19 A, *h*).

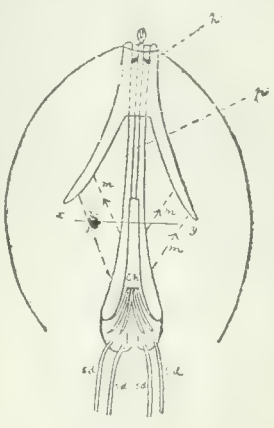


Fig. 19 A[1].

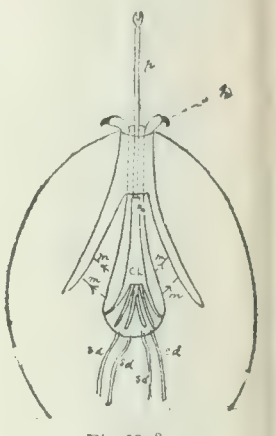


Fig. 19 A[2].

When the insect feeds, the tubular "pricker" (*p*) is protruded through the mouth and penetrates the skin of the host, and the hooklets serve to attach the mouth to the skin. The exact way in which the sucking tube is built up is not quite clear, but from preparations made by my colleagues Mr. Bacot and Dr. Rowland* the arrangement of these parts appears to be as follows.

Three elements enter into the formation of the "pricker," each of which is bifurcated at its base (see Fig. 19 A). From the dorsal and ventral aspects of two of these parts, just anterior to their bifurcation, a chitinous expansion is given off which runs forward and embraces the finer piercing organs (Fig. 19 A and Fig. 19 B, *Ch*). The two together form a sheath round the basal portions of the piercing organs.

The relation of the three elements to one another and how the sucking tube is formed may be seen from Fig. 19 B, which represents a transverse section in the neighbourhood of the line *x-y* in Fig. 19 A[1]; *Ch* is the chitinous sheath, *a* the dorsal element which we may call the stylet, *b* the median, and *c* the ventral element. The interlocking of the lateral chitinous expansion of *b* and *c* forms the canal *s.t.* up which blood is sucked.



Fig 19 B.

Fig. 19 A[1], is a diagrammatic representation of the head of a louse with the pricker retracted, A[2] with the pricker extruded; *p* is the "pricker" made up by the apposition of the three parts mentioned above. Anteriorly these pass through a tunnel in the substantial chitinous piece shaped like an inverted Y, which apparently also forms a skeletal framework for the attachment of the muscles (*m*, Fig. 19 A) which pull the whole organ forward.

Ch is the sheath covering the basal portion of the piercing parts. At the base the bifurcation of the three elements is seen, and also the four salivary ducts (*sd*)

* I am greatly indebted to Mr. Bacot and Dr. Rowland not only for lending me specimens of the mouth parts of the louse, but also for their kindness in making fresh dissections for the purpose of this lecture. The mechanism of the sucking apparatus of the louse is much more difficult to comprehend than that of the flea or bug, and the description given merely represents the conclusions I have been able to arrive at without a prolonged study of the intricate arrangement of the organ.

which enter there, but the precise connexion of which has not yet been made out.

When the whole organ is pulled forwards it not only drives out the "pricker," but evaginates the lining membrane of the sac and everts the ring of hooklets (*h*) whereby the head is anchored to the epidermis.

Summary of the Position with regard to the Transmission of Typhus by Lice.

1. The infection of typhus circulates in the blood during and for some time after the febrile period.

2. It is taken up by lice when they feed upon a patient, and may be transmitted to monkeys by them.

3. As in the case of fleas and plague, a considerable number of insects—ten or more—are required to give a reasonable chance of infection to a monkey, an animal which is probably much less sensitive than man.

4. There is reason to believe that the virus proliferates inside the insect; for, in order to produce infection by means of blood taken from a patient, the volume required is much larger than could possibly be contained in the lice employed (Wilder).

5. The infectivity of lice endures seven days, and seems to be greater some days after feeding on a typhus patient than immediately (Nicolle and Wilder), but the number of experiments so far performed is not adequate to establish this.

6. There is reason to believe that the infection may be transmissible to a second generation of lice (Wilder).

7. The present limitation of outbreaks of typhus to the most vermin-infested section of the population, its occurrence at a period of the year when the clothing is rarely removed from such persons, and washing of either takes place at considerable intervals, and the practical limitation of the disease to cold climates, all receive ready interpretation on the assumption that lice are essentially the porters of infection.

8. Further support is provided by the non-infectivity of typhus under modern hospital conditions, and the success attending prophylaxis directed towards the extermination of insect parasites: and I am unaware of any epidemiological fact inconsistent with the view that lice carry the infection.

The Transmission of African Relapsing Fever by the Tick.

Relapsing fever is widely distributed about the world, and was at one time very common in this country. In 1868 Obermeier discovered the presence of spirochaetes in great abundance in the blood of patients during the febrile attacks. These were subsequently shown to be the cause of the disease.

In 1905 Dutton and Todd (1905), in the Congo, and Koch (1905) in German East Africa, discovered that the tick-fever of Africa was relapsing fever, and that the spirochaete was conveyed from patient to patient by the tick *Ornithodoros moubata*.

Bionomics of Ornithodoros moubata.

These ticks are common in the native caravan routes. The adult feeds several times and lives a long time. They are very hardy insects, and can endure many months without food both in the larval and adult stages. In their habits they more resemble the bed-bug than the majority of the Ixodes; during the day they hide in the earth of the floors or in crevices in the walls and roofs, and at night emerge to feed upon the occupants. The female lays several broods of some hundreds of eggs in crevices of the ground. Incubation lasts from eight days to two months, according to temperature. The first moult occurs within the egg. The young larval *Ornithodoros* somewhat resembles its parent, has four legs but undeveloped sexual organs. It feeds upon blood and moults a few times, after which it is a sexually mature insect.

The number of infected ticks along the caravan routes of German East Africa is considerable. Koch (1905, 1906) found 5 to 15 per cent. contained spirochaetes, and in one instance 50 per cent. of the ticks collected from a particular locality contained spirochaetes.

Ticks, once infected, may retain the infection and transmit it to their progeny, for Dutton and Todd (1905) and Koch (1905–06) found that young ticks raised from the egg were infective. Möllers (1908) further discovered that the second generation from infected ticks were also capable of giving rise to relapsing fever. The same fact was demonstrated by Hindle (1912) for *Spirochaeta gallinarum* and *Argas persicus*, the fowl tick. These facts, no doubt, account for the large proportion which harbour the infection.

The precise mechanism of transmission in relapsing fever is still uncertain. For a few days after feeding on an infected animal Dutton and Todd (1905) and Koch (1905) found the spirochaetes in the alimentary canal of the tick. Subsequently they disappeared from the stomach and gut, but were found by these observers in some of the internal organs, ovaries, Malpighian tubes, and salivary glands.

Leishman (1909), working in London upon a number of ticks sent from Africa, failed to find spirochaetes, although the ticks were capable of infecting monkeys. He noticed, however, that the cells lining the Malpighian tubes contained large numbers of minute chromatin-containing granules, and that similar granules were present in the ovary, and eggs of ticks, which subsequently gave rise to infective individuals. Ticks in which he failed to find these granules did not give rise to infection.

From these and other observations Leishman was led to the conclusion that the chromatin granules represent a stage in the development of the parasite. These interesting observations have been confirmed by Balfour (1911) in Khartoum in the analogous case of *Argas persicus* and fowl spirochaetes. Some experiments by Hindle (1911) also have a bearing upon this point. Hindle failed to find any spirochaetes in infected ticks kept some time at 21° C., but similar ticks warmed up to 35° C. for a few days showed spirochaetes throughout the body, and all the organs were infective, when injected into suitable animals.

The Structure and Arrangement of the Mouth Parts and Alimentary Canal of Ornithodoros moubata.

The general arrangement of the mouth will be seen from the diagram Fig. 20. The boring instrument or rostrum

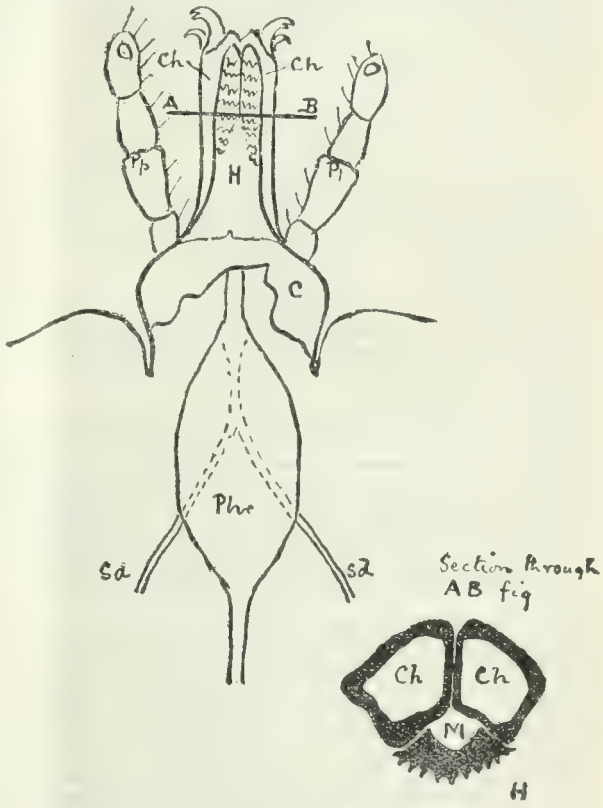


Fig. 20.—Mouth parts of tick (*Ornithodoros moubata*).

consists of three parts, two chelicerae (*ch*) and a ventral hypostome (H). The chelicerae are hollow chitinous organs inside which are muscles which operate the terminal claws; the hypostome is barbed. In the act of boring the claws are straightened and the three parts of which the rostrum is

composed are advanced a little further. The claws are again advanced for a further pull, and the barbed hypostome prevents any slipping back. By a succession of these efforts the rostrum is buried in the skin.

The three instruments of the rostrum, when apposed, form a canal, at the base of which is the mouth. This widens into a pharynx, which is alternately compressed and expanded by a co-ordinated contraction of the individual muscle fibres attached to it. The blood is driven by the pump through the narrow oesophagus into the crop or stomach (*st*). The stomach is a capacious pouch (Fig. 21),

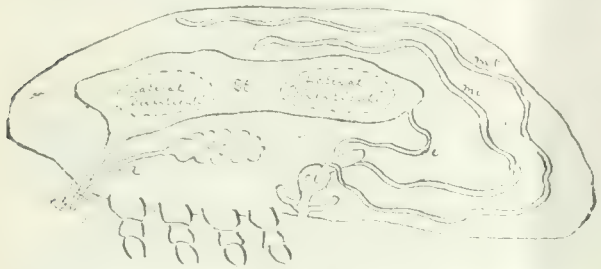


Fig. 21.—Alimentary canal and mouth parts of tick (*Ornithodoros moubata*)

having extensive lateral diverticula, which themselves branch so that after a full meal the organ distends the insect. The intestine is a very narrow tube connecting the stomach to the cloaca (*c*). The anus is not terminal, but opens in the mid-line just behind the last pair of legs.

The salivary glands (*sg*) are of the compound racemose type, each with one duct (*sd*) passing forward to the mouth.

Koch was of opinion that the spirochaetes passed from the salivary glands during the act of sucking, but both Leishman and Hindle consider that the infection is not transmitted by this channel, but that the infective excrement from the Malpighian glands passes out per rectum, and is washed into the puncture made by the insect by means of the coxal secretion which is deposited during the latter stages of feeding.

The Transmission of the Relapsing Fevers of Europe, America, and India.

Whether the spirochaetes which are responsible for relapsing fever in various parts of the world represent distinct species (Novy and Knapp, 1906; Uhlenhuth and Haendel, 1907), or merely varieties, does not seem to me proven in view of the observations of Darling (1909), and Manteufel (1908). Anyhow, they are very similar, and can all be transmitted by the tick *Ornithodoros moubata* (Manteufel, 1908, and Neumann, 1909). It is, however, clear that this tick was not the transmitting agent in Ireland and England, where relapsing fever was common fifty years ago, nor is it so in Russia, America, or India, at the present time.

The epidemiology of the disease in these countries is not yet clear. Spirochaetes are such obligatory parasites that the agency of an insect transmitter seems almost necessary. The only certain way of producing the disease is by inoculating a minute quantity of the blood of a patient during the febrile stage. Spirochaetes have been found in the urine, but no one has succeeded in producing infection by this means. It must also be remembered that they can find their way through the unbroken skin.

The distribution of relapsing fever among the population is consistent with the view that insects are necessary, for, like typhus, this disease is in Europe almost confined to the poorest and dirtiest members of the community. It has been frequently suggested that bugs might disseminate the disease. Tictin (1897) and Karlinski (1902) found that the stomach contents of the bed-bug remained infective for two or three days after feeding on the blood of a patient, and Kladnitzky (1908) observed appearances strongly suggestive of multiplication of the spirochaetes in the stomach of the bug. With one exception, however, all the numerous attempts to transmit the disease by the bed-bug have been unsuccessful. Experiments have also been made with fleas by Sergent and Foley (1908) and others. The results were negative. A further reason for doubting the importance of either of these insects is that the disease is not more prevalent at the time of year these insects abound, but rather the contrary. In Europe the disease occurred in epidemic form throughout the year, the greatest prevalence being usually during winter and spring.

The only remaining ectoparasites are lice—*Pediculus capitis* and *Pediculus vestimenti*. The general bionomics of these insects has been dealt with, and it only remains to point out that their prevalence is not confined to the warmer months, but is greatest during the winter (Hamer, 1910), when clothes are least changed and washed.

Mackie (1907), in an investigation of an outbreak of relapsing fever in a mission school in India, brought forward some rather striking epidemiological facts pointing to lice, rather than bugs, as being concerned with the epidemic. He found spirochaetes in 14 per cent. of the lice taken off the boys. They were present in the alimentary canal, ovary, and Malpighian tubes of these insects. From his observations he came to the conclusion that spirochaetes multiplied greatly in the stomach of the insect, reaching their maximum on the third day. Mackie fed lice from the patients upon monkeys, but he failed to transmit the disease. In two experiments by Sergent and Foley (1910) relapsing fever followed the infection of the clothing by lice from patients.

The spirochaetes of relapsing fever infect rats, and Manteufel (1908) made some observations on the capacity of the rat-louse (*Haematopinus*) to transmit the disease. He first ascertained by forty experiments that, when free from lice, sick and healthy rats could be caged together without the latter contracting the disease, and then repeated the experiments with the addition of lice. Two infected rats were caged together with seven healthy ones. The sick animals were killed by ether at the height of the disease, and then put back into the cage in order that the lice might crawl off the cadavers and attach themselves to the living animals. Three of the seven became infected. In another similar experiment with *Spirochaeta duttoni*, one out of eight rats became infected. Manteufel could not find spirochaetes in the louse outside the alimentary canal, nor in the eggs.

These experiments were confirmed by Neumann (1909), so that it seems highly probable that relapsing fever is spread by lice as well as by the tick *Ornithodoros moubata*. Although the former agent may not be nearly so efficient as the latter, it may make up by its greater numbers and persistency.

The details of transmission by lice are still unknown, but, from the habits of these insects to freely discharge the contents of their alimentary canal during feeding, and the readiness with which spirochaetes can penetrate uninjured epithelium, it is not difficult to imagine how this may happen, even supposing the salivary secretion does not contain the infection.

Transmission of Poliomyelitis by Stomoxys calcitrans.

At the International Congress on Hygiene, held in Washington last September, Rosenau announced that he had succeeded in conveying poliomyelitis from an infected monkey to several other monkeys by means of the bites of *Stomoxys calcitrans*, the small biting stable-fly.

This observation has recently been confirmed by Anderson and Frost (1912). Three monkeys exposed daily to the bites of 300 *Stomoxys* which had previously fed on two infected monkeys during the whole course of their illness all developed the disease seven to nine days after their first exposure. The observation is of particular interest because hitherto the transmission of poliomyelitis by the subcutaneous inoculation of blood from an infected monkey has been very uncertain even when large quantities of blood have been transferred. It suggests that either the previous experiments have been made at the wrong stage of the disease, or else that the virus multiplies or intensifies in the body of the fly. The seasonal incidence of the disease being summer and autumn is consistent with insect transmission, but the continuance of the epidemic in Sweden after flies have disappeared indicates that there are other means of spread.

Bed-Bugs (Cimex lectularius) as Porters of Infection.

The general career of the bed-bug is more or less familiar to most people, but it may not be unnecessary to

point out that, unlike fleas, there are no larval or pupal stages, but the insect emerges from the egg as a little bug. For the following facts I am indebted to my colleague, Mr. Bacot, who has made observations on this subject.

The young bug sucks blood on the earliest opportunity, grows and moults, and feeds again. After five moults it is a sexually mature and adult insect. Bugs only visit their hosts for food, and then preferably at night; they strongly resent light, and during the day hide themselves in some cranny of the room or furniture. They are very hardy and do not require the constant feeding which is so troublesome in breeding lice and fleas. They can survive without food for six months or more.

A bug which has imbibed a good meal retires to some secluded spot and slowly digests it. It is some days before he develops a fresh appetite and sallies forth again in search of prey.

The Arrangement of the Alimentary Canal and Mouth Parts of the Bed-Bug.

The general scheme of the alimentary canal will be sufficiently clear from the diagram (Fig. 22). There are



Fig. 22.—Alimentary canal and mouth parts of bug (*Cimex lectularius*).

two pairs of salivary glands (*sg* and *sg*^{1}) and the duct of the larger of the dorsal pair (*sg*^{1}) bifurcates shortly after it emerges from the gland and both tubes run forward to the base of the piercing organ. The exact way in which the three salivary ducts on each side terminate has not yet been determined. The mouth parts also differ from those of the flea in that the sucking tube is made up by the apposition of four elements instead of three. These are two maxillae (*mx*) and two mandibles (*md*). When not in use these delicate piercing instruments are carried in a groove on the dorsal aspect of the three-jointed labium (*la*). Whilst feeding this support is folded backwards under the head.

Experiments on the Transmission of Relapsing Fever, Typhus, and Plague by Means of Bed-Bugs.

The observations of Tictin have already been referred to. Although these show that the spirochaetes of relapsing fever may live from some hours to many days, according to circumstances, in the stomach of the insect, they give no information as to whether the bed-bug can in a natural way transmit the disease.

Christy (1902) and M. Rabinowitch (1907) and Shellack (1909) tried the experiment on themselves without success. Their attempts were very thorough; Shellack, for instance, fed 168 bugs, which had been previously nourished on a diet of rat-blood infected with *Spirochaeta recurrentis*, upon himself. The experiment lasted a month, and was so arranged that a variety of intervals elapsed between the ingestion of infected blood and the second meal.

Breinl, Kinghorn and Todd (1906), and Rabinowitch (1907), and Sergent and Foley (1910) have also tried to transmit relapsing fever to monkeys by means of bugs. Large numbers of insects were employed by the former observers, sometimes as many as 590 to one monkey.

Their experiments were carried on over two or three months. Bugs which had fed upon an infected monkey at all stages of the disease were used, and the interval between feeding upon the infected and healthy animal varied. Nevertheless, no transmission of the disease occurred.

The only case of a successful transmission was one experiment by Nuttall (1907), who removed a bug shortly after it had commenced to feed upon an infected mouse, and allowed it to complete its meal upon a normal mouse.

Bed-bugs were excluded from consideration as transmitters of typhus by Nicolle (1910) and by Wilder (1911), as the distribution of these insects both in time and space does not coincide with that of typhus. Wilder, however, tried experimentally to convey the disease from monkey to monkey by bugs, but without success.

Verjbitski (1904) made a number of experiments on the transmission of plague by the bed-bug. He showed that plague bacilli multiply in the stomach of bugs, as they do in that of fleas, and that their virulence was unimpaired. He succeeded in conveying plague to guinea-pigs by the bites of bugs, but only up to four days after they had fed on an infected animal.

There is really no evidence to incriminate the bed-bug in the case of either typhus or relapsing fever. It is possible to transmit plague experimentally by means of bugs, but there is no epidemiological reason for supposing this takes place to any extent in nature.

There are two differences in the habits of bugs and those of fleas and lice which may possess epidemiological significance. The first concerns their customary intervals between their meals. Bugs show no disposition to feed for a day or two after a full meal, whereas fleas and lice will suck blood several times during the twenty-four hours. The second is in respect to the time the insects retain a meal and the extent to which it is digested before being excreted. Fleas and lice, if constantly fed, freely empty their alimentary canals, and the nature of their faeces indicates that the blood has undergone but little digestion.

Both these insects evacuate such undigested, or half digested, blood per rectum during the act of feeding, and the remnants of the previous meal are thus deposited in the immediate vicinity of a fresh puncture. It is not unlikely that, should the alimentary canal of the insect be infected with plague bacilli, spirochaetes, or the organism responsible for typhus fever, these may be inoculated by rubbing or scratching.

Bugs have not this habit, and in all the cases I have examined their dejections were fully digested, almost free from protein, and consisted mostly of alkaline haematin.

This is, however, probably not the whole explanation, and there is, I believe, much yet to learn as to the mechanisms of insect transmission, and why one blood-sucking parasite is an effective porter and another not, even in the cases of bacterial infection where no stage in the life-cycles of the organism takes place within the insect host.

BIBLIOGRAPHY.

Reports on Plague Investigations in India, issued by the Advisory Committee:
Journ. of Hyg., 1906, vi, pp. 425-536.
" " 1907, vii, pp. 324-476.
" " 1907, vii, pp. 694-985.
" " 1908, viii, pp. 162-308.
" " 1910, x, pp. 315-568.

Anderson and Frost (1912): Transmission of Poliomyelitis by the Stable-fly. *Lancet*, vol. 183, p. 1592.

Andrew (1911): *The Prophylaxis of Plague.* Issued by the Bacteriological Laboratory, Chingwangtao, China.

Balfour, A. (1911): Spirochaetosis of Sudanese Fowls. Report IV, Wellcome Research Laboratories, A (Medical), p. 76.

Breinl, Kinghorn, and Todd (1906): Attempts to Transmit Spirochaetes by the Bite of *Cimex lectularius*. Liverpool School Trop. Med. Mem. 21, p. 113.

Chick and Martin (1911): Fleas Common on Rats in Different Parts of the World. *Journ. of Hyg.*, xi, p. 129.

Christy, C. (1902): Spirillum Fever. *Journ. Trop. Med.*, v, p. 39.

Darling, S. T. (1909): The Relapsing Fever of Panama. *Arch. Intern. Med.*, iv, p. 150.

Dutton and Todd (1905): The Nature of Human Tick Fever, etc. Thompson Yates Reports, N.S., vi, part 2, p. 111.

Galli-Valerio (1907): L'état actuel de nos connaissances sur le rôle des puces dans la transmission de la peste bubonique. *Cent. f. Bakt.*, Ref. xxxix, p. 625.

Gauthier and Raybaud (1902): Sur le rôle des parasites du rat dans la transmission de la peste. *Comptes rendus Soc. Biol.*, liv, p. 1497.

Gauthier and Raybaud (1903): Recherches expérimentales sur le rôle des parasites du rat dans la transmission de la peste. *Revue d'Hyg.*, xxiv, p. 426.

Gauthier and Raybaud (1909): La puce du rat (*C. fasciatus*) pique l'homme. *Comptes rendus Soc. Biol.*, xlvii, p. 859.

Gauthier and Raybaud (1910–11): Les puces du rat, etc., piquent l'homme, *Comptes rendus Soc. Biol.* lxviii, p. 941.

Hamer (1910): Flies and Vermin. Report of the Public Health Committee, L.C.C., for 1909. Appendix IV, p. 7.

Hindle (1911): Transmission of *Spirochaeta duttoni*. *Parasitology*, iv, p. 133.

Hindle (1912): The Inheritance of Spirochaete Infection in *Argas persicus*. *Proc. Camb. Phil. Soc.*, xvi, part 6, p. 457.

Hindle (1912): On the Life-Cycle of *Spirochaeta gallinarum*. *Parasitology*, iv, p. 463.

Karliuski (1902): Zur Aetiologie d. Recurr. Typhus. *Cent. f. Bakt.*, Bd. 31, p. 566.

Kitasato (1909): Rat Fleas, with Special Reference to the Transmission of Plague in Japan. *Trans. Bombay Med. Cong.*, 1909, p. 95.

Kladnitzky (1908): Ueber die Vermehrung der Rückfallspirochäten in Körper der Wanzen. *Cent. f. Bakt.*, orig., Bd. 45, p. 126.

Koch (1905): Vorläufige Mitteilungen ueber die Ergebnisse einer Forschungsreise nach Ostafrika. *Deut. med. Woch.*, p. 1865.
Koch (1906): Ueber afrikanischen Rekurrens. *Berl. klin. Woch.*, p. 185.
Leishman (1909): Preliminary Note on Experiments in Connection with the Transmission of Tick Fever. *Journ. Royal Army Med. Corps*, xii, p. 125.
Liston (1905): Plague, Rats, and Fleas. *Journ. Bombay Nat. Hist. Soc.*, xvi, p. 253. Also separate pamphlet, Thacker Spink and Co., Calcutta.
Mackie (1907): The Part Played by *Pediculus corporis* in the Transmission of Relapsing Fever. British Medical Journal, vol. ii, p. 1796.
McCoy and Mitzmain (1909): Experimental Investigation of Biting of Man by Fleas from Rats and Squirrels. Reports Public Health and Marine Hospital Service of U.S.A., xxiv, No. 8.
Manteufel (1907): Experimentelle Beiträge zur Kenntnis der Rekurrensspirochaeten u. ihrer Immunsera. *Arb. Kais. Ges. Amte.*, Bd. xxvii, p. 327.
Manteufel (1908): Experimentelle Untersuchungen zur Epidemiol. des Europäischen Rückfallfiebers. *Arb. a. d. Kais. Ges. Amte.*, xxix, p. 555.
Manteufel (1908): Weitere Untersuchungen über Rückfallfiebers. *Arb. Kais. Ges. Amte.*, xxix, p. 337.
Martin (1911): The Spread of Plague. British Medical Journal, November, 1911, p. 1249.
Möllers (1908): Experimentelle Studien ueber die Uebertragung des Rückfallfiebers durch Zecken. *Zeit. f. Hyg.*, lviii, p. 277.
Neumann (1909): Ueber das Verhalten der Spirochaeten des Rückfallfiebers in Tierkörper u. die exp. Uebertragung der Parasiten durch Zecken u. Läuse. Natur-hist. Medizin Verein zu Heidelberg. *Muench. med. Woch.*, lvi, p. 477.
Nicolle, Compte and Conseil (1909): Transmission expérimentale du typhus exanthématique par le pou du corps. *Comptes rendus Acad. des Sci.*, vol. cxlix, p. 486.
Nicolle, C. (1910): Recherches expérimentales sur le typhus exanthématique. *Ann. de l'Inst. Pasteur*, xxiv, p. 242.
Nicolle, C. (1911): Recherches expérimentales sur le typhus exanthématique, ibid., xxv, p. 1.
Novy, F. G., and Knapp, R. E. (1905): Studies on *Spirochaeta obermeieri* and Related Organisms. *Journ. Infect. Dis.*, iii, p. 291.
Nuttall (1907): Note on Behaviour of Spirochaetes in *Acanthia lectularia*. *Parasitology*, i, p. 143.
Ogata (1897): Ueber die Pest-Epidemie in Formosa. *Cent. f. Bakt.*, xxi, p. 774.
Pawlowsky, E. (1906): Über den Stech- und Saugapparat der Pediculiden. *Zeit. wiss. Insektenbiol.*, Bd. 2, pp. 156–162, 198–204.
Rabinowitch, M. (1907): Ueber die Rückfalltyphus-epidemie in Kiew. *Berl. klin. Woch.*, xliv, pp. 1408, 1458.
Rabinowitch, M. (1908): Zur pathologischen Anatomie der Febris recurrens. *Muench. med. Woch.*, p. 1067.
Sergent and Foley (1908): Fièvre récurrente du sud Oranais et *Pediculus vestimenti*. *Bull. Soc. Path. Exotique*, i, p. 174.
Sergent and Foley (1910): Recherches sur la fièvre recurrente. *Ann. de l'Inst. Pasteur*, vol. xxiv, p. 337.
Shellack (1909): Versuche zur Uebertragung von *Spirochaeta gallinarum* und *Spirochaeta obermeieri*. *Arb Kais. Ges. Amte.*, xxx, p. 351.
Simond (1898): La propagation de la peste. *Ann. Pasteur*, xii, p. 625.
Thompson, Ashburton (1900): Report of Chief Medical Officer on Outbreak of Plague at Sydney, N.S.W., p. 1–49.
Tictin (1897): Zur Lehre vom Rückfalltyphus. *Cent. f. Bakt.*, xxi, p. 179.
Tidswell (1900): Appendix A to Report on Outbreak of Plague at Sydney by A. Thompson, 1900, p. 56.
Tidswell (1903): Report to Board of Health on Second Outbreak of Plague at Sydney in 1902, p. 71.
Tidswell (1910): Report Government Microbiol. Department, N.S.W. for 1909, p. 20.
Tiraboschi (1904): Les rats, les souris et leurs parasites cutanés. *Arch. de Parasitol.*, viii, p. 161.
Uhlenhuth and Händel (1907): Vergleichende Untersuchungen ueber die Spirochaeten der in Afrika, etc., vorkommenden Rekurrenserkrankungen. *Arb. a. d. Kais. Ges. Amte.*, xxvi, p. 1.
Verjbitski (1904): Part played by Insects in the Epidemiology of Plague, M.D. Thesis St. Petersburg. *Journ. of Hyg.*, viii, p. 162.
Warburton (1909): Preliminary Investigation on Flock as Possible Distributor of Vermin and the Life-History of the Body Louse (*Pediculus vestimenti*). Reports to L.G.B. on Public Health and Medical Matters, N.S., No. 2.
Wilder, R. W. (1911): Transmission of Typhus Fever. *Journ. Infect. Diseases*, ix, pp. 11–101.
Yersin (1894): La peste bubonique à Hongkong. *Ann. de l'Inst. Pasteur*, ix, pp. 662–667.

As already announced in the JOURNAL, the second International Congress on life-saving and precautions against accidents will be held at Vienna in September (9th to 13th). The Permanent Secretary of the British Section of the Congress is Mr. Samuel Osborn, F.R.C.S., Constitutional Club, Northumberland Avenue, W.C.

THE fourth congress on the hygiene of the dwelling will be held at Antwerp this year from August 31st to September 7th. The following is the programme of subjects proposed for discussion: (1) Hygiene of the emigrant; (2) colonial hygiene; (3) hygiene of ports and ships; (4) the extension of towns. Further information may be obtained on application to the General Secretary, Hotel de Ville, Antwerp.

THE Roborat Company, 23, Cloth Fair, E.C., has recently issued a catalogue relating almost entirely to diagnostic appliances and instruments other than clinical thermometers and stethoscopes. A special feature is the number of means provided for enabling practitioners to make use themselves of methods of diagnosis for the assistance of which they are commonly dependent on the co-operation of laboratory workers.

An Address
ON
MEDICINE AND LIBERTY.

GIVEN AT A MEETING OF THE DEVON AND EXETER MEDICO-CHIRURGICAL SOCIETY ON JANUARY 9TH, 1913.

BY WILLIAM GORDON, M.D., F.R.C.P.,
EXETER.

It is, however, certain that men who begin by losing their independence, will end by losing their energy.—Buckle, *History of Civilization in England*, vol. ii, p. 186.

I HAVE to thank this society for allowing me to discuss within its tranquil, scientific atmosphere a question vital to the future of English medicine, needing the calmest and clearest deliberation, yet now forced by circumstance into the arena of political conflict. It is unfortunate that no attempt has hitherto been made, so far as I am aware, to deal philosophically with this question, and in making the attempt I must make large claims upon your indulgence.

The demand has just been made upon English medicine, in the National Insurance Act, to part with a great measure of its independence, and, in considering this demand, there are four questions which we are bound to put to ourselves:

I. What is it that we are asked to part with?
II. To whom are we asked to hand it over?
III. Why has the demand arisen? and
IV. What must be the consequences of our acquiescence?

I. WHAT IS IT WE ARE ASKED TO PART WITH?

It is now the independence of much of our practice, soon of most of it, ultimately perhaps of all of it; and here we have to consider two points.

(*a*) What is the value of independence to medicine? and
(*b*) What is the present value to this country of its medical profession?

I propose to show that for the fullest expansion towards perfection of medicine, liberty is essential, and that English medicine at the present time is foremost in the world.

MEDICINE AND LIBERTY IN HISTORY.

If we look back over the history of medicine, as far as it is traceable, we shall have no difficulty in recognizing that there have been four great periods of pre-eminent progress. The first was coincident with the golden age of Greek culture and culminated in the lifetime of Hippocrates, about the second half of the fifth and the beginning of the fourth centuries before Christ. The second occurred rather late in the Renaissance, and its activities centred round Padua in the sixteenth century of our era. The third followed close on the second, reaching from the seventeenth century onwards to culminate in the nineteenth, its activities centering round England. The last, which is but the expansion of the third, began within the nineteenth century, and its activities reach throughout the civilized world.

Now if we examine these periods attentively we shall find that all of them have this salient characteristic in common, a remarkable development of intellectual and personal liberty. The first period corresponds to that wonderful epoch in which human intelligence suddenly attained to heights not since surpassed, and in which admittedly one chief cause of so great a growth was the unexampled intellectual freedom which then permeated the Hellenic world. The second period formed part of that great European revival of learning which followed the flight of Greek scholars to Italy and the invention of printing. As its activities centred around Padua, it was associated with the greatest intellectual freedom of the time, for Venice was then mistress of Padua, and in every way fostered its university, that it might worthily advance the new learning. It was under the protection of the enlightened Venetian Senate that Vesalius enjoyed

those unique opportunities for the study of anatomy which enabled him, in 1543, to publish his work on the *Structure of the Human Body*—a work that broke the medical slumber of more than a thousand years, shattered the fabric of Galenical authority, and, by founding modern anatomy, made possible the construction of a new physiology and a new medicine. The third period opened with the work of another Paduan—our own William Harvey—who, after four years' study under Fabricius, the discoverer of the valves in the veins, took his degree in 1602, and twenty-seven years later published his immortal work on the circulation of the blood. It was in post-Elizabethan England, then practically working out an ideal of popular liberty unknown elsewhere, that he completed his investigations, and that, untroubled by Government interference, there followed him the succession of illustrious medical observers who may be said to have culminated in Lister.

Significant that round sea-going, liberty-loving Greece, sea-going, liberty-loving Venice, and sea-going, liberty-loving England should have centred the achievements of these three great periods of medical history.

But the third period extended also to countries close to England, and these illustrate the same relations between medicine and liberty. In Holland, freed at the end of the sixteenth century from Spanish tyranny, Boerhaave taught and Haller began his work. In France at a later time, freed from the oppression of the Bourbons by its revolution, Bichat published his great work on anatomy and Laënnec discovered auscultation.

The fourth period is, as I have said, but the world-wide expansion of the third, and in it may be discerned a clear relation between national liberty of thought and exceptional medical progress.

Thus, in all these periods of pre-eminent medical achievement liberty has been pre-eminent also.

To complete our survey, however, of the historical relations of medicine and liberty, we must also look at those periods of history in which freedom was restricted, and try to discover what effect this restriction of liberty produced upon the development of medicine.

After the fall of Hellenic freedom, amidst the decline of Hellenic literature and art, medicine declined also. Even the anatomical revival under the early Ptolemies at Alexandria about 300 B.C. produced no such genius as Hippocrates, although the influence of enlightened rulers seems to be reflected in the work of Hierophilus.

At Rome, to which Greek medicine extended its practice, the influence of enlightened governments, with relative freedom of thought, seems connected especially with medical advance. Asclepiades flourished in the last days of the Republic, the friend of Cicero and of Mark Antony; Celsus wrote just after the end of the Augustan period; Soranus, Ruphus, and perhaps Aretæus, adorned the golden age of Trajan and the Antonines, constituting a series which terminated in Galen. Galen forms one of the most conspicuous figures in medical history, and was contemporary with Marcus Aurelius, whom he attended; but, remarkable as he was, the spirit of Hippocrates was not his, and his fatal formalism petrified medical knowledge for many succeeding centuries. "If a man were called to fix the period in the history of the world," wrote Gibbon, "during which the condition of the human race was most happy and prosperous, he would, without hesitation, name that which elapsed from the death of Domitian to the accession of Commodus. The vast extent of the Roman Empire was governed by absolute power, under the guidance of virtue and wisdom." And of the two Antonines: "Their united reigns are possibly the only period in history in which the happiness of a great people was the sole object of government."

After Galen, medical attainment rapidly fell away, and no great name broke the long slumber of thirteen hundred years which stretched to the coming of Vesalius. The dogmatic rule of the Church, admirable as it was for its time and its peculiar task, made medical advance impossible. At the same time, in the Eastern empire, medicine was merely mechanically preserved, though it is interesting to note that Alexander of Tralles, whose work has been called a refreshing oasis in the desert of Byzantine literature, was the contemporary of Justinian.

Turning from these regions of the Eastern and Western empires, thus become sterile, to the extraordinary outburst of Saracenic civilization, we come again upon medical work of no mean order. Rhazes, the most notable of the Arabic physicians, followed on the most splendid era of the Caliphs of Bagdad. As in Moslem Spain, Avenzoar followed on the golden age of Cordova; on the other hand, Avicenna, born nearly a century and a half later than Rhazes, and in a beginning period of decline when dogma was in the ascendant, was little but a brilliant commentator and highly endowed compiler. It seems to be a singular fact noticeable in successive ages of enlightenment that medicine takes a longer time to mature than other arts and sciences. Yet, in spite of the encouragement of princes who encouraged every form of art and science, of well-equipped hospitals, and innumerable translators of Greek medicine, Arabic medical achievement, so far as we can discover, is curiously disappointing. Anatomy was forbidden, and the rule of intellectual dogmatism in all subjects was practically supreme. Thus liberty was restricted. Only Rhazes and Avenzoar seem to have ventured, in great measure, to think and observe for themselves. Similarly, rather later, in Italy, Salerno, fostered by Frederick II, who drew his culture from the Arabs but partook of their spirit of autocracy and intolerance, produced no work of enduring value.

Coming to later times, whilst medicine was flourishing in free England, in France, under the tyranny of Louis XIV, conditions were widely different. "His age cannot boast," says Buckle, "of a single medical writer whose name is now known as having made any specific addition to our knowledge. In Paris the practice of medicine was notoriously inferior to that in the capitals of Germany, Italy, and England, whilst in the French provinces the ignorance, even of the best physicians, was scandalous."

In Spain, even so late as the end of the eighteenth century, whilst intolerance of opinion still reigned supreme, the science and practice of medicine are described as having been at the lowest ebb.

Thus the lesson of history, however tested, reads the same—that for pre-eminence in medical progress pre-eminence in liberty is essential.

MEDICINE AND LIBERTY IN OUR TIME IN ENGLAND.

Turning next to the survey of our own experience of the influence of lay control, we have a fair field of observation; for there are certain departments of medicine which can scarcely be otherwise than under some measure of lay control, yet in all of them we may observe that the tendency of progress is more and more to yield to medicine the utmost possible measure of independence.

The Army Medical Service.

In the latter part of the last century, following the medical breakdown of the Crimean war, great pains were spent on the improvement of the Army Medical Service. The old regimental system, socially popular as it was, was found unsuitable for modern requirements, since the entire subordination of a medical officer to the military commandant, however able a soldier and amiable a man he might be, was often incompatible with progress. A medical service was therefore established independent of regimental military control, and a certain amount of advantage was thereby undoubtedly gained for the army. Wanting, however, the requisite military rank and title to secure a sufficiency of authority, this service was still found defective in efficiency. In the year 1898 the public necessity for the grant of military rank and title was recognized, and these were conceded by Lord Lansdowne, whilst at the same time a most important administrative change constituted a civilian medical advisory committee to aid in controlling the new corps. How vast has been the effect of these successive relative enfranchisements every one who has watched the progress of the Army Medical Service must be well aware.

The Public Health Service.

Taking next the public health service of this country. This has long been under the rule of local and personally interested authorities possessing an undue amount of power over the tenure of office of their medical officers, and the consequence has been a serious embarrassment to the promotion of sanitary improvement. Gradually,

however, by improved terms of service, by greater powers given to the Local Government Board and its medical advisers, this branch of medicine also has been working towards fuller enfranchisement. The results on the national health have been such as cannot be mistaken. Now, moderate and far-sighted thinkers are already urging the establishment of a Ministry of Public Health, with an adequate staff of medical administrators, which, by still further freeing medical science from unintelligent control, will, it is held, still further advance the well-being of the nation.

The Medical Charities.

Turning to our medical charities, I can give an interesting personal experience extending over more than twenty years. Eighteen years ago I was on the staff of three important medical institutions. In one of these the entire staff was *ex officio* on the governing committee. Scientifically and financially this institution was, and has remained since, extremely flourishing, and has admirably maintained its position in the forefront of modern work. In the second charity only two members of a large staff represented their colleagues upon the board. It was then fairly flourishing, though definitely behind the times, and since then, through friction and short-sighted administration, it has fallen hopelessly behind. The third charity had then no representation whatever upon the weekly committee, and matters were in a truly deplorable state. The charity was financially discredited, backward scientifically, and the scene of constant unnecessary friction. A few years later the entire staff were placed upon the board. Immediately a remarkable change took place in the progress of the institution. Not only did its scientific development go forward by leaps and bounds, but, owing largely to the staff, its finances were put upon a flourishing basis; and friction absolutely ceased.

Thus what history indicates, the experience of our own time in our own country corroborates.

Foreign Experience.

But we may be told to look abroad where Government interference with medicine is producing, it is claimed by some of us, beneficial results. But is this really the case? In the first place, the experiment has not yet lasted long enough for reliable deductions to be drawn. The progress of medical decline has seldom been sudden, and its beginnings are open to question. Already there are some observations which appear to be worth making. It does not seem to me, from what I and others have seen abroad, that the average general practitioner in these Government-controlled medical professions is as capable as he is in this country. It is perfectly obvious that the sanitation is behind our own, and that the nursing is not equal to English nursing. The tables given illustrate the superior progress in the country where medicine has hitherto been freest—that is, in this country.

General Death-rate All Ages per 1,000 Living.

	1910.		1910.
England and Wales ...	13.5	London	13.7
German Empire (1909)...	17.2	Berlin	14.7
France	18.0	Paris	16.7
Austria	21.2	Vienna	16.6
Switzerland	15.1	Berne	13.2

Phthisis Death-rate per 1,000 Living.

	1910.		1910.
England and Wales ...	1.02	London	1.23
German Empire	1.44	Berlin	1.76
France	1.80	Paris	3.66
		Vienna	2.61
Switzerland	1.61	Berne	1.95

Far be it from me to speak disparagingly of my foreign friends, to forget many kindnesses, many invaluable privileges and priceless instruction received at their hands. I have been filled with admiration at the teaching of these men, and gladly recognize those particulars in which they are definitely ahead of my own countrymen, but here it is a matter of immediate vital importance to English medicine to compare foreign conditions with our own, and I am certain that the foreign conditions, taken as a whole, show nothing which is in favour of a fuller Government control. I have heard a distinguished surgeon abroad point to the miserable conditions under which he worked and say, "Whilst money is required by Government for other purposes the medical department will have to wait."

Mr. J. G. Gibbon, B.A., D.Sc., in his work on medical benefit, founded on the experience of Germany and Denmark, who has no reason to approach the subject in any other spirit than that of disinterested scientific inquiry, lays it down that "detailed control in expert matters should be exercised through the organization of the doctors themselves" (p. 126). "The work of an expert can," he says, "only be properly criticized in matters of detail by another expert"—the layman's "control will prove clumsy and ineffective."

In short, however we look at the question, wherever we turn for information, we find nothing to support a claim that undue lay interference with medicine is for its advantage. *The fullest possible liberty is, everywhere and always, clearly the accompaniment of the fullest medical efficiency.*

THE VALUE TO ENGLAND OF ITS EXISTING MEDICAL PROFESSION.

Coming now to the exact standing of English medicine at the present time—on which, indeed, I have already touched—I may briefly summarize matters thus: No branch of modern medicine since Harvey can show so splendid an array of productive genius as the English. Sydenham, Hunter, Edward Jenner, James Simpson, Lister, Spencer Wells, Horsley, Manson and Ross, Wright, Bruce bring the records continuously down to our own day. The discoveries of Horsley, Ross, Wright, and Bruce are affairs, so to speak, of yesterday. English preventive medicine is admittedly unequalled in the world. Our hospitals are superbly equipped, our teaching is admirable, and its arrangements are such as to afford the greatest possible individual training to the largest number of medical students, not only in the science and art of their calling, but in the priceless sense of responsibility and of duty to humanity, making, as I have just said, the English general practitioner the best in the world. It is only in respect of where we come in contact with undue lay control, as in our public health appointments governed by interested local bodies, in our public services where lay control is excessive, in such hospitals as do not give their staffs adequate representation on their committees, above all, in club practice, where the medical man has been placed under the control of the insufficiently educated, do we discern serious necessity for reform, reform which is admittedly in every case the grant of greater liberty for the medical officers.

To sum up, we are asked to part with the freedom of the finest branch of the medical profession in the world, a demand which is not merely novel and unjustifiable, but obviously retrograde and evil.

II. TO WHOM ARE WE ASKED TO PART WITH IT?

If this vast, intricate, highly technical, intellectual, responsible body of knowledge were to be controlled by correspondingly intellectual and responsible persons, such as would probably constitute a great, all-embracing Ministry of Medicine, we might not, perhaps, expect a greater falling off in the standard of English medicine than Greek medicine undoubtedly suffered under the successors of Alexander the Great or under the Antonines at Rome. But the proposal made is very different. What we are asked to do is so amazing that I refrain from here characterizing it as I might. We are asked to place the control of medicine in the hands of committees whose majorities are drawn from the less educated strata of the community. Bear this well in mind. It is the fundamental fact in the greatest crisis through which modern medicine has been called to pass. Financial details, details of administration, are relatively immaterial. What we are asked to do is to sell our freedom to inferior intelligences, to place knowledge under the control of ignorance. In saying this I should be sorry to hurt the feelings of those whom circumstance has denied advantages which have been given to us, of many who with equal good fortune might have proved my own intellectual betters. I am one of those who would rejoice to see equal opportunity at the outset for all. But we are dealing with things as they actually are, and the

issues at stake are so tremendous that we must face facts and state them plainly.

III. Why is the Demand made of us?

The ostensible reason is to improve the medical attendance on the poor. On this subject I venture to assert that a vast amount of malevolent nonsense has been written and spoken. As a medical consultant, with a considerable experience extending for more than twenty years, I am in a position to appraise the value of the much abused club doctor. When I recall the self-forgetful, tireless good work done by him under conditions so altogether disgraceful, not to him, but to the community at large, I am filled with admiration. Defects there have been, grave defects, but how, under the circumstances, were they to be avoided? The grant of State aid to enable the poorer classes to properly remunerate their medical men so as to enable them to devote the time they desire to their cases is altogether right. But if this had been the real reason for the proposals now put forward, there would have been no necessity for keeping the preparation of the National Insurance Bill a close secret from the medical profession — a short-sighted policy which, by excluding expert advice, ensured the measure being unworkable; for the refusal to hand to the profession advance copies of the bill when its completion was announced; for the attempt to rush it through Parliament with no adequate discussion; and now to force it upon the medical profession, by methods which I will not characterize, in spite of protests from every authoritative quarter.

The National Insurance Act, when dispassionately examined in the history of its construction, the defective details of its design, and the startling mendacity of its advocates, is clearly aimed not chiefly at the improvement of the medical treatment of the poor, which it will impair and not improve, but at the advancement of a political party and the establishment of a personal predominance.

IV. What will be the Consequences if we Acquiesce in these Arrangements?

I shall consider very briefly and carefully not what the results may be, but what they must be. Medical men are, by the Act, required to place themselves under the control of committees armed with punitive powers, chiefly composed (by a majority of three-fifths of their number) of representatives of men of less culture and training than the medical man—by men, in fact, drawn from the very group which has already proved to the hilt its utter unfitness for such duties. They will be charged with work which will occupy them too fully to permit of reasonable recreation, and leaving no time for the professional reading which is necessary to prevent their falling behind the current standard of knowledge, and will be liable to punishment in their professional capacity by a body wholly incompetent to pronounce an opinion on such matters. Under such circumstances we have to ask ourselves if an adequate supply of efficient medical men can be maintained for the national needs?

The experience of the Army Medical Service affords us a test of what is likely to happen. Twenty years ago the Army Medical Service was reasonably well paid, only moderately badly treated, was at least under the control of well-educated, cultured men, and afforded interesting opportunities of travel and a share in the distinctions of military life. Yet there was a serious shortage of candidates for it and efficiency fell off. Why? Because its conditions were officially and socially unpleasant, and the pursuit of knowledge was hindered.

But the conditions of the Army Medical Service twenty years ago were paradise to what the conditions of the "panel" will be now. These conditions will be so degrading to self-respect and pride of work that energy, professional enthusiasm, and knowledge must fall off, and the question faces us, Will educated and self-respecting men enter such a service or put their sons into it? It is unimaginable that a sufficient supply can be maintained. Already the supply has fallen to an alarming degree. In the two-year period, 1911 and 1912—the period affected by the introduction of the National Insurance Bill—the entry of medical students in the United Kingdom has been about 450 fewer than in the two-year period 1909–10. And since, in the inevitable degradation of medicine, all its branches will share alike —for any one who enters medicine must run the risk of the "panel"; no boy beginning his hospital work, can be certain of better fortune—general practitioners, consultants, surgeons, specialists, public servants either in army, navy, or public health, medical teachers and medical investigators all must clearly degrade in efficiency together. How is it possible to think otherwise? And as medical teaching begins to suffer, the profession must obviously take a further long step down.

Whatever, therefore, may be our views with regard to the control of medicine by Government under the auspices of the highest intelligences in the community, there cannot be a moment's hesitation in condemning as highly dangerous to the national welfare the present proposals. We may, I submit, only too confidently draw the following conclusions:

Conclusions.

1. There is sound historical and contemporary evidence that the progress of medicine is intimately related with liberty of thought and action.
2. That wherever lay control exceeds what is necessary, the progress and practice of medicine are impaired.
3. That the proposals now made in the National Insurance Act are so pernicious that it is the duty of the medical profession to resist them by every legitimate means in its power.

SALVARSAN IN PERNICIOUS ANAEMIA.

BY

E. F. MAYNARD, M.D., M.R.C.P.,

PHYSICIAN, SUSSEX COUNTY HOSPITAL.

Every one reading the notes of the case reported in your issue of December 14th last by Dr. Hobhouse will congratulate him on the happy result of his treatment; the case taken with those reported by Dr. Byrom Bramwell might lead one to suppose that in salvarsan we had possibly a specific in pernicious anaemia; that such, however, is not the case is unfortunately borne out by the total failure of this drug in the following instance, which is still under my care in the Sussex County Hospital. Why in one case the drug should bring about an apparent, if temporary, cure, and in another totally fail to produce any improvement remains for the future to elucidate.

C. H., aged 61, stated that he had not been fit to work for two years; that he had had indigestion and jaundice, had lost weight considerably, and had vomiting and diarrhœa, headache and drowsiness. His skin was bronzed on face and hands, but there was no pigmentation of mucous surfaces, nor around the nipples. The heart and lungs were normal.

He was at first thought to be the subject of Addison's disease, but a blood examination negatived this diagnosis, and showed the condition to be pernicious anaemia. The temperature was never as high as 100 F., but invariably at night ranged between 99 and 100°; on the night following the first injection of salvarsan it was somewhat higher, but ever afterwards distinctly lower, never reaching above 99°. He was admitted on October 3rd, 1912, and the following are the blood counts:

Date.	Red Cells.	White Cells.	Haemoglobin.	Colour Index.
October 6th	1,184,000	3,050	40	1.6
October 11th	1,108,000	3,250	45	2
October 22nd	1,243,000	4,750	50	2.08
October 28th	1,332,000	4,350	35	1.4
November 5th	1,016,000	2,850	35	—
November 15th	1,088,000	2,830	40	1.9
November 27th	1,344,000	—	35	1.3
December 9th	1,152,000	4,800	35	1.7
December 18th	1,272,000	3,150	40	1.6

The first dose of 0.3 gram of salvarsan was given intramuscularly on October 13th, after which there was a

definite increase in the number of red cells for a fortnight, when a second dose of the drug was given (October 29th). Examination of the blood a week later revealed a diminution in the red cells; the treatment was therefore stopped. The patient has since November 30th been treated with an autogenous vaccine of pure culture of streptococci obtained from the gums, and the latest report shows some improvement in the number of red cells, and the colour index, and fewer normoblasts and megaloblasts. The following notes were made by the pathologist:

October 6th. One normoblast on film: cells irregular, but stain well.
October 11th. Megaloblasts and normoblasts present; cells stain badly.
October 22nd. Several megaloblasts; poikilocytosis and anisocytosis marked.
October 28th. One megaloblast.
November 5th. Megaloblasts and normoblasts present; staining irregular.
November 27th. Nucleated cells; megaloblasts and normoblasts.
December 18th. One normoblast and one megaloblast; marked poikilocytosis.

My thanks are due to Mr. Cheves, the house physician, for the notes of the case, and to Dr. Galt and Mr. Healey, pathologists, for their careful reports on the blood.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

EXTERNAL MYIASIS IN A MONKEY.

On June 25th, 1912, two small groups of dipterous larvae were noticed on a specimen of *Cercopithecus callitrichus*. The monkey was suffering from acute tuberculosis, and died the day following the observance and removal of the parasites. One batch of these larvae were taken from the nose and region of the face surrounding the mouth, the other from the right side of the body near the groin. In both cases the larvae were in various stages of development, some of them having apparently only recently hatched. Altogether twenty-one of these parasites were removed from the host, and were subsequently placed in petri dishes containing raw flesh and sand.

It became evident that at least two species of diptera were incubated, sixteen specimens being of the typical *Muscid* type and the remainder larvae of *Fannia canicularis*. Two examples of the latter were allowed to complete their development, the adult emerging on July 27th and August 5th. The majority of the remaining larvae pupated by June 29th, but four specimens remained in the larval stage until July 5th, 6th, and 7th respectively. The four specimens referred to were separated, and subsequently on July 16th, 18th, and 19th three specimens of the blow-fly, *Calliphora erythrocephala*, emerged, the remaining example having shrivelled up. From the remaining puparia seven specimens of *Muscina stabulans*[1] were obtained, the period spent in this stage varying from eleven to nineteen days.

The above records are of some interest, as neither *Fannia canicularis* nor *Muscina stabulans* can be classed among the "flesh flies," although both, but more especially the former, have been known to occur in the alimentary tract of human beings. The natural breeding places of the so called lesser house-fly (*Fannia*) are human excrement and decaying vegetable matter, but records are in existence of its having been reared from the larvae of a lepidopterous insect (*Epischnia canella*) and of its occurrence in the nest of the common bumble-bee (*Bombus*). It is possible, therefore, that the larvae in question may have been derived from an external source, as, for example, the food of the monkey at the bottom of the cage; but, however this may be, they were found by us on the animal itself. In this connexion also it is worth noticing that the monkey was taken a considerable distance from the cage before the larvae were removed. The larvae of *Muscina stabulans* also feed on decaying vegetable substances and dung; they sometimes, however, attack growing plants, but in these cases have probably been introduced with the manure. The fly has also been reared from human excrement and from the pupae of certain insects, notably those of the gipsy moth, although there appears to be some doubt whether the pupae attacked were healthy or not.

[1] The identification of this species was kindly confirmed by Mr. E. E. Austen.

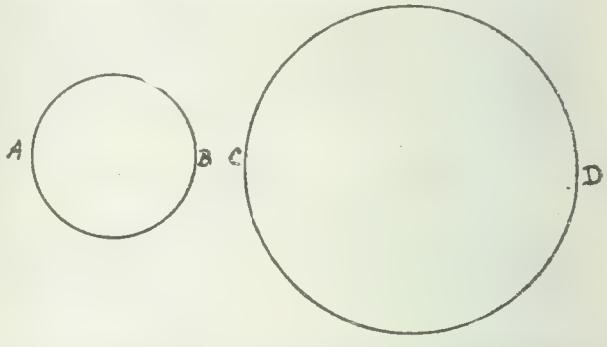
HENRY F. CARTER, F.E.S.,
B. BLACKLOCK, M.D.
(From the Runcorn Research Laboratory.)

THE CAUSATION OF THE CRESCENDO CHARACTER OF THE PRESYSTOLIC MURMUR IN MITRAL STENOSIS.

I HAVE frequently in former communications called attention to the physical fact that the auricle, as it contracts, can exert a rapidly increasing pressure on its contents. The ventricle could do the same were it not that as soon as the pressure on its contained blood rises above that in the aorta it escapes into that vessel, which acts as a safety valve to the ventricle, preventing its pressure ever rising further.

When, however, in mitral stenosis the escape of blood from the auricle into the ventricle is hindered, the auricle can probably increase the pressure on its contents to an extent far greater than is commonly supposed. It can, apparently, force it with ever-increasing pressure into the ventricle as its contraction progresses, even without the necessity of hypertrophy of the auricular walls to aid it.

This follows as a simple consequence of certain physical principles, which must apply to a greater or lesser extent to the contractions of such hollow viscerae as the heart chambers, uterus, bladder, etc.



Let AB and CD be two thin, hollow contracting spheres (elastic or muscular), the larger CD being double the diameter of the smaller AB. If they be equally thick, it can be shown that CD has four times the quantity of material in its walls than AB has; and if they are contracting on their contents with equal force per unit of material, it can also be shown that the pressure within the smaller sphere will be double that in the larger. The smaller sphere has, therefore, an eightfold mechanical advantage over the larger, in that with one-quarter the contractile material it can produce double the pressure on its contents.

If the smaller sphere were one-third the diameter of the larger it would, by the same reasoning, produce three times the pressure on its contents with one-ninth of the contractile material in its walls; that is, it would have a mechanical advantage over the larger of 27 to 1.

Supposing, then, that the larger sphere were to contract to half its diameter, it could, if its force of contraction remained constant, increase the pressure on its residual contents eightfold; and if it contracted to one-third its diameter it could, theoretically, raise the pressure on its residual contents twenty sevenfold.

In fact, the pressure which a thin, spherical, contractile wall can exert on its contents varies inversely as the *cube* of its diameter.

I do not mean these figures to be taken as mathematically precise as applied to the auricle, uterus, bladder, or other hollow viscus. They, however, indicate the immense mechanical advantage which these organs must have as their contraction on their contents progresses, and partial expulsion of these contents takes place; for the same physical principles apply necessarily to them.

I have little doubt that it is largely due to this fact that the presystolic murmur is crescendo in character. As the contents of the auricle are expelled through the stenosed

mitral orifice, and the auricle becomes itself smaller and contracted, the pressure the auricle can exert on its residual contents can enormously increase, from merely physical principles, without any additional effort on the part of the auricle. The murmur would, therefore, go up to, or even into, the first sound, as a crescendo murmur; in consequence of and in accord with the rising pressure under which its blood is expelled into the ventricle.

Mentone. D. W. SAMWAYS, M.D., D.Sc.

DIABETES MELLITUS AND LIFE ASSURANCE EXAMINATIONS.

IT is well known that not every case in whom sugar is discovered in the urine should be refused for life assurance; but I do not intend here to discuss the various glycosuric cases which, after careful examination, may be accepted at special rates. I shall merely, as have many others, refer to the possibility of temporary absence of sugar from the urine of diabetic patients, when undergoing medical treatment, becoming a source of serious error from the assurance point of view. Every one knows that in slight cases the sugar in the urine may be got rid of by suitable diet; and the use of certain drugs, such as aspirin and calcium iodide, has been said occasionally to have a similar effect. But it is not quite so generally well known that in grave cases of diabetic mellitus, in which sugar cannot be completely got rid of from the urine by ordinary dietetic methods, it may occasionally be temporarily banished by the employment for a day or two of (more or less disguised) starvation methods.

Thus, in a young woman, aged 23 years, under my care in 1909 at the German Hospital, the sugar in the urine was reduced by careful dieting to about 70 grams for the twenty-four hours. On September 10th the diet was temporarily limited to 200 to 300 grams of olive oil in the day, with as much water as was wished for, and a codein-phosphate pill (which the patient had been taking three times a day) was continued. As a result of this disguised starvation method sugar completely disappeared from the urine on September 12th and on September 13th I ordered a return to the special diet for her diabetes. On the next day the urine contained 4.5 per cent. sugar again. During the days of exclusive olive oil diet the patient did not feel hungry or as if she was being starved. Once or twice she felt a little sick, owing to the oil, but she looked well and had her usual somewhat florid complexion. She lost only about 4 lb. in body weight. She was not emaciated, and on the whole gained weight whilst she was in the hospital. This case was one of grave diabetes mellitus, but surely a life assurance examiner, had he examined her when the sugar disappeared, might have been deceived. The reaction for diacetic acid ("Gerhardt's reaction") was indeed positive, but in the absence of sugar the examiner would hardly have tested the urine for diacetic acid. I should not repeat this dietetic trial in a similar case, for I think that it might conceivably favour the onset of diabetic coma, from which indeed I heard that this patient, like so many young diabetics, afterwards died.

Other "hunger cures" or "starvation cures" can similarly temporarily remove the glycosuria. Thus, at the Edinburgh Medico-Chirurgical Society on December 15th, 1909, Dr. F. D. Boyd brought forward a case of severe diabetes mellitus in which a single "hunger day" caused complete disappearance of glycosuria for twenty-four hours, the sugar reappearing afterwards in only small amount. Dr. G. Guelpa of Paris, on page 57 of the English translation of his *Fasting in Diabetes* (London, 1912) refers to the case of a man who was refused for life assurance on account of diabetes. The result of Dr. Guelpa's treatment by starvation and purgation was that on the evening of the second day of treatment the urine no longer reduced Fehling's solution. On the third day the man presented himself for life assurance examination, and no obstacle to his acceptance could be found. In grave cases sugar may sometimes vanish from the urine on a trial of von Noorden's "oatmeal diet."

F. PARKES WEBER, M.D., F.R.C.P.,
Physician to the German Hospital, London.

Reports of Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Friday, December 13th, 1912.

Dr. A. J. HORNE, President, in the Chair.

Diagnosis of Uterine Inversion.

DR. E. H. TWEEDY described the case of a patient sent to him with a diagnosis of *Inversion of the uterus*. She was a union patient in a far-advanced state of anaemia and shock, and half-witted. Her condition was so serious he did not dare to examine her for at least eight days. Ergot and stimulants were administered and the vagina was plugged. At the expiration of a week he found a round tumour protruding to within an inch of the vulva. It bled easily. Under anaesthesia he failed to make a diagnosis by any of the recognized methods. The cervix could not be felt. Rectal and bimanual examination afforded no information. He, however, established the diagnosis by a method not before suggested. Two fingers were passed into the vagina above and below the tumour, and these were placed on its pedicle. The feeling of the latter was unmistakably that of uterine tissue. He thought it was worth remembering that if there was inversion of the uterus with a polypus the pedicle would give this characteristic feel. He proceeded to remove the myoma, and in doing so he opened a cyst which contained fluid under great tension. There was very severe bleeding from the wound. The uterus was easily inverted by the application of three-bullet forceps. Continuous rectal irrigation was afterwards kept up for twenty-four hours. Dr. SOLOMONS said it seemed to him that the treatment accorded to the patient before operating had saved her life, whereas immediate operation would probably have killed her. The severe constitutional symptoms often associated with uterine polypi, both large and small, were never dealt with sufficiently in textbooks. He wondered if a diagnosis might have been more easily made by splitting the perineum, whereby the operation itself would have been facilitated. Dr. SHEILL thought a point of interest was the reference to the palpation of the pedicle of the tumour. He found that the uterus felt like a collapsed tube, whereas a tumour was not hollow and more resistant. Dr. PUREFOY said the difficulty of diagnosis in these cases in which polypus had given rise to inversion was considerable, especially where the polypus was sessile. In such cases it became exceedingly difficult to determine how much of the tumour was polypus and how much was uterus. He congratulated Dr. Tweedy on the jubilant way in which he spoke of reinversion of the uterus. He had three cases of the kind where the inversion complicated parturition, and some months elapsed before they came under treatment. In such case the reposition was effected by steady pressure applied to the fundus while the cervix was held by two-bullet forceps. He had shown at a meeting of the Section a simple repositor which had proved very helpful in the proceeding. Dr. TWEEDY, in replying to the remarks, said he found it very easy to push back the uterus in one case, but in the second there was some difficulty.

Complications of Hysterectomy.

Professor ALFRED SMITH recorded a case in which, after performing a subtotal hysterectomy, he proceeded to make the peritoneal toilette, when he found his finger pricked by some sharp instrument. On investigating the cause he found the point of a needle sticking through the wall of a small intestine. On searching further more needles were found, some lying in the omentum, others projecting from the wall of the intestine but covered by a smooth covering, as if a diverticulum had been formed from the intestinal wall. The appendix, which was markedly hypertrophied and congested, was removed. An *x*-ray photograph revealed two needles and one pin in the lumen of the appendix. The patient complaining of more abdominal pains, aggravated on pressure, was skiagraphed. Two of the plates located three needles, one on the right side evidently broken, another on the left side at pelvic brim, and a third somewhere about the pubis. A second laparotomy was

performed, and all three needles successfully removed. In all, ten needles and one pin were found. The general literature of foreign body appendicitis due to sharp-pointed metallic bodies was dealt with. It was remarkable that so many needles could be swallowed with impunity, and the intestinal wall perforated, with so little disturbance to the organism; the presence of three sharp-pointed metallic bodies in the appendix was unique. The PRESIDENT said the case demonstrated further the difficulty of diagnosis. It had been suggested that these needles were probably taken in a packet when the patient was a child, so that probably all the needles were taken in at the same time, and it was well known that when a needle entered the body it travelled in the most extraordinary manner to different parts of the system. Dr. PUREFOY referred to the case of a lady who had come under his care, having swallowed, during an epileptic fit, a plate with four teeth on it. They, however, passed through the alimentary canal in a fortnight afterwards. Dr. JELLETT referred to a case treated at the Adelaide Hospital some years ago in which thirty-nine needles were removed from a girl's stomach, and within two years she returned with a further crop. Dr. ROWLETTE said that some years ago, in a *post-mortem* examination at Steevens's Hospital, he found an inch and a half pin in the appendix which had given rise to abscess of the liver. He considered that foreign bodies were more common as the cause of appendicitis than reports showed.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on December 13th, 1912, Mr. G. H. EDINGTON, Vice-President, in the chair, Dr. T. K. MONRO reported the last phase of the illness of a patient shown to the society on May 3rd, as a subject of *Splenomegaly*, polycythaemia, increased arterial tension, arterio-sclerosis, cardiac hypertrophy, albuminuria, and gangrene. He died on June 21st. Dr. J. H. TEACHER described the *post-mortem* findings. A large atheromatous patch in the abdominal aorta had involved the orifice of a common trunk which supplied the superior mesenteric artery and coeliac axis, producing complete occlusion. The circulation had been restored and maintained through an extraordinary development of arteries and veins in the omentum and in adhesions between the upper abdominal viscera and parietes. The principal source of this was the inferior mesenteric artery. The spleen showed a large infarction and advanced general fibrosis. The splenic artery was obliterated. There had been thrombosis of the portal vein, possibly secondary to the infarction of the spleen, and the circulation had been restored by the development of a mass of cavernous tissue between the root of the mesentery and liver. There was no increase of marrow in the long bones, and that of the ribs appeared normal. There was marked atrophy of the kidney, secondary to arterial disease. Dr. J. SHAW DUNN gave an account of the Grawitz tumour of the kidney or *Renal hypernephroma*, based on the investigation of eleven tumours of this nature examined in the pathological department of the Western Infirmary during the past three years. The tumours exhibited varied in diameter from 2 to 7 inches; some appeared well encapsuled, and others tended to invade renal tissue; their colour varied according to the degree of haemorrhage and necrosis present, but the well-preserved tumour tissue was of a very characteristic bright opaque yellow, due to the presence of fat. Histologically, the tumour cells were shown frequently to contain abundant fat, doubly refractive material, and glycogen. Their striking dissimilarity to the renal cells had led Grawitz in 1885 to suppose that these tumours might arise from aberrant portions of suprarenal tissue, a view which held the field for over twenty-five years. Recently it had been shown, specially by Stoerk, that in cirrhotic kidneys certain areas of renal tissue might undergo metaplasia, with production of cell characters resembling those in Grawitz tumours. This was confirmed by Dr. Dunn, who was inclined to regard the tumour as a true cancer of renal tissue, probably growing from the altered renal epithelium lining minute cysts in senile or cirrhotic kidneys. Metastatic growths might occur in lung, liver, or in one or other of the bones. Dr. J. R. RIDDELL showed a series of negatives and lantern slides illustrative of *Plastic skiagraphy*. Dr. W. P. GIBB, reporting further on the tumour of biceps muscle shown at the last meeting, submitted a note by Dr. Joshua Ferguson on the histological findings. The tumour had proved to be an angeioma, spreading diffusely amongst striated muscle bundles and in the fat.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

AT a meeting on December 11th, 1912, the President, Dr. LINDSAY, showed a fresh specimen of an *Abortion sac* which exhibited a marked disproportion between the size of the embyro and the containing sac. Professor JARDINE gave a practical demonstration on the *Management of difficult labour*, showing the various manipulations on the phantom, and exhibiting the several instruments required. He also showed numerous specimens of fetal abnormalities, and in particular a full-sized pregnant uterus with Bandl's ring and rupture of the lower uterine segment. Dr. Jardine dealt first with occipito-posterior presentations, explaining the mechanism in cases which rotate normally. In speaking of non-rotated cases of occipito-posterior presentation the method of inserting the hand and producing rotation to the front, while the anterior shoulder is pushed round by the external hand, was demonstrated. Also shown, in connexion with cases in which the shoulder cannot be felt externally on account of obesity, was the method of producing rotation by pushing the fingers of the hand in the vagina upward and completing the movement from the vagina. Face presentations were next demonstrated. Easy flexion of the head by the hand—the fingers over the occiput and the thumb on the forehead—was advocated. When a tumour of the neck existed the treatment was version. Version should be performed early. When the case had become malrotated, with the chin backward, the only method of delivery, except in the case of small children, was craniotomy, done through the orbit or mouth. The difficulties encountered in impacted breech cases where the membrane had ruptured and the uterus was moulded round the fetus were attributed to the upper uterine segment retracting, the lower segment becoming thinned out, and the retraction ring gripping the child round the chest or abdomen, the heels being above the ring. In these cases the patient should be deeply anaesthetized and one foot brought down; this was generally sufficient to relieve pressure, and delivery could be effected by traction on the foot. In transverse cases early treatment by version must be done. If impaction had occurred, or where an arm was down, version, unless performed by an expert, was dangerous, on account of the probability of rupture of the uterus occurring. In these cases the child was generally already dead, and decapitation should be performed. In performing decapitation, Ramsbotham's hook might be pushed through the lower uterine segment. The speaker showed his modification of Braun's hook; it had a smaller curve and a sharp cutting edge. When an arm was down, it might be necessary to cut through the chest from the upper side of the neck to the lower axilla. Baudl's ring as a cause of obstruction was discussed. Two cases were mentioned where the ring formed a distinct ledge in front of the presenting head. The treatment advocated in these cases was Caesarean section. Sometimes cases were met with where the ring was firmly contracted round the neck, the head of the child being free: early rupture of the membranes had taken place in these cases, and often embryotomy was necessary. The ring might form in the third stage of labour and cause retention of the placenta above it—the so-called hour-glass contraction of the uterus. In contracted pelvis the question was not so much the diameter in actual inches as whether a head could get through a particular pelvis. These cases should be diagnosed early and Caesarean section arranged for when necessary. In some cases the anterior parietal presentation would come through, whereas in a pelvis of the same size a presenting head of similar size would not come through if the presentation were a posterior parietal one. It was important to diagnose these varieties of presentation as the forceps might be quite effectual in the anterior, but delivery by the forceps impossible in the posterior. In anterior cases the forceps in its traction simulated Nature's method, while in the posterior parietal presentation the instru-

ment, by pulling down the anterior half of the head, made matters worse. In posterior presentations version should be performed early, or, if possible, the posterior presentation should be changed into an anterior one by manual manipulation, the posterior parietal bone being pushed up so as to allow the anterior to come down. Forceps might then effect delivery. The methods of performing craniotomy were described and the instruments demonstrated. The value of Professor Jardine's combined instrument for crushing and extraction was pointed out.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on January 3rd, Dr. G. P. SHUTER, President, in the chair, the following were among the exhibits:—Mr. OSWALD L. ADDISON: *Cirsoid aneurysm* in a boy, aged 7 years. A small swelling appeared on the side of the head eighteen months ago, and during the last few months it had increased in size. On the corresponding side of the head, over the right temporal muscle, there was a large tortuous vessel about 2 in. in length, running vertically. Pulsation was marked, and the vessel wall felt much thickened. Mr. ASLETT BALDWIN: A boy in whom he had reduced successfully a congenital dislocation of the left hip joint by *Lorenz's method*. The hip appeared to be quite sound; movement was free, and the patient was able to play football. Two radiographs illustrated the condition before and after reduction; in the latter picture the head of the femur was opposite, but apparently not in the acetabulum. It was explained, however, that this was due to the fact that the cavity was filled with fibrous tissue at the time the radiograph was taken. After some months this fibrous tissue was absorbed by the pressure exerted by the head of the femur, and the latter entered into its natural position in the socket. Dr. T. C. STOREY (for Dr. H. J. Davis): A case of *Epithelioma of the middle ear* in a man, aged 58, with a long history of discharge from the ear. Few cases had been reported, and in literature it was stated that such growths originated usually from the tympanic end of the Eustachian tube, and followed trauma. In this case there was no history of an injury. Mr. N. BISHOP HARMAN: *Congenital deformity of both fore-limbs* and of the *External recti muscles* of each eye in a boy, aged 16, the only child of a father who had similar deformities of the hands. Both were shown by Dr. C. W. Chapman at the Clinical Society of London in 1900, but the ocular defect of the son was not recorded. In discussing this case Dr. SEYMOUR TAYLOR referred to the subject of "maternal impressions" as a cause of congenital deformities, and Mr. BISHOP HARMAN replied that here there were two generations showing a similar but progressive defect in development. Since it was hereditary it was due to a germ-plasm defect, and a maternal impression that could produce this inheritance must have occurred when the germ plasm which grew the elder of these two men was laid down. This meant that the maternal impression affected the grandmother. The first generation "sinned," and the second received bad germ plasm which figured in the third and fourth generations. Mr. BISHOP HARMAN also showed a case of *Monocular albuminuric retinitis* in a woman aged 63. She had some degree of hemiplegia a year ago, and was now complaining of eye trouble. In the right eye the macula was dotted with white patches of exudate with minute haemorrhages, and the disc was blurred. The left eye was free from changes with the exception of marked angio-sclerosis, which was present in both eyes. Having been asked why one eye only was affected in a general disorder, Mr. Bishop Harman suggested the possibility of the affected eye having had some long-standing defect, such as an error of refraction, since he had noticed that when one eye had had poor vision for many years degenerative changes were apt to appear in that eye earliest. In view of the gloomy prognosis associated with albuminuric retinitis, Dr. SEYMOUR TAYLOR asked for an estimate of the probable duration of life in this elderly patient. Was the condition as grave a sign in old people as in early adolescents? Mr. BISHOP HARMAN replied that the prognostic significance of albuminuric retinitis must be answered by a reference to the age of the patient. In young subjects when retinal changes appeared they appeared early and were of serious import. In the elderly such changes were much later in appearance and did not imply so grave an issue. He had watched some cases for several years. Dr. ARTHUR SAUNDERS: *Paraplegia after whooping-cough* in a child aged 5. The paralysis developed a year ago, was said to supervene on a paroxysm of coughing, and was of the flaccid type. The sphincters were unaffected, and the abdominal and cremasteric reflexes were present.

HUNTERIAN SOCIETY.

AT a meeting on December 11th, at St. Bartholomew's Hospital, the following were among the exhibits:—The PRESIDENT (Mr. A. H. Tubby): A specimen of growth removed from the large intestine of a man aged 52. Clinically, there was a swelling in the right lumbar region. There had been no vomiting, constipation, or signs of obstruction. The diagnosis lay between an enlarged cystic kidney and a *Growth of the large intestine*. An exploratory operation showed it to be the latter, and the growth was enucleated and some enlarged glands dissected out. Some twelve months after the operation the patient was entirely well. Mr. GIRLING BALL: (1) A vault of the skull, the seat of an *Osteoplastic flap operation* two years before death. Also shown was the brain of the patient, a girl aged 20, the subject of a right-sided hemiplegia since birth. There was a lack of development of the whole of the convolutions in front of the Rolandic fissure, the ventricle in this side (right) being markedly distended with clear fluid. The condition seemed to be one of porencephaly. (2) A case of *Carcinoma of the pylorus* to illustrate the condition of a gastro-enterostomy ten days after the operation. Dr. W. LANGDON BROWN: A case of malignant *Ulcer of the stomach* with communication into the transverse colon. Dr. WESTERMAN: A case of *Pharyngo-mycosis* simulating follicular tonsillitis.

Reviews.

IMMUNITY AND VACCINE THERAPY.

THERE has been much need for a handy textbook on immunity suitable to those, not actually engaged in laboratory research, who desire (and who does not?) to learn the main facts regarding the modern development of pathology that is making itself so felt in practical medicine. The *Manual of Immunity*,[1] by Dr. ELIZABETH T. FRASER, admirably meets this demand. The various textbooks on immunity that have been published, chiefly abroad, are so long, involved, and tinctured with the ideas and theories of the particular schools from which they have emanated that their only use is as works of reference to other laboratory investigators, and a perusal of such works by the practitioner would lead him to conclude that a working knowledge of the problems and advances can only be gained, if at all, by many years of practical study. Any one who would sift the wheat from the chaff and explain in simple language the real facts of immunity must needs have an intimate experience of the work of the various schools, a good critical faculty, and the gift of lucid exposition. Miss Fraser, who has herself done good original work on immunity, is to be envied the possession of these qualifications; the manual which she has written is a pleasure to read, and the charming little touches of humour here and there add to the interest of the style. The first chapter is devoted to a historical survey, brief but lacking in no essential particulars, of the observations that go to make up our present knowledge. The respective parts played by the body fluids, the cells, and the micro-organisms are separately considered in successive chapters, and one is gradually introduced to the application of the knowledge to diagnosis. Such reactions as the Widal test, the precipitin reaction, opsonic estimations, Wassermann reaction, and even the recent serological methods for the diagnosis of malignant disease, are carefully explained. We gather that the authoress, after considerable experience of the technique, does not place any great reliance on opsonic estimations either in diagnosis or during the treatment of bacterial

[1] *A Manual of Immunity: For Students and Practitioners.* By Elizabeth T. Fraser, M.D., late Assistant Bacteriologist, Glasgow Royal Infirmary; Beit Research Fellow. Glasgow: MacLehose and Sons. 1912. (Cr. 8vo, pp. 209. 5s. net.)

diseases. The rationale of complement deviation tests is clearly set forth, so that the Wassermann reaction can easily be understood. Miss Fraser is rightly scornful of the "simplifications" that have recently been introduced: all of them accentuate and add to the fallacies of the original method. To obtain reliable results, so far from attempting to simplify Wassermann's technique, one must adopt rigorous controls of the variable factors in the reaction, a precaution to which even Wassermann does not pay sufficient attention. She prefers Boas's method, which is described at length, and which is certainly very reliable, though in certain respects it does not seem to be as scientifically perfect as the Browning-Mackenzie method, in which non-variable antigens are employed, and where the variability of the complement is accurately ascertained on each occasion. A chapter is devoted to the practical consideration of serum and vaccine therapy, and the phenomena of anaphylaxis are briefly reviewed. Ehrlich's "side-chain" theory, instead of dominating the book as is generally the case, is rightly relegated to an appendix, so that the reader is in a position to understand it clearly and to form some appreciation of its value. A glossary of technical terms brings the book to a close. We congratulate Miss Fraser on this interesting little manual, and are safe in predicting for it a wide circulation.

In the recently issued fourth edition, Dr. ALLEN has considerably enlarged and completely rewritten his work on *Vaccine Therapy*.[2] Whilst continuing to uphold his belief in the accuracy of the determinations of the opsonic index, when performed by skilled hands, he admits, we are glad to find, that adverse criticisms have served a useful purpose by leading to a closer scrutiny for possible sources of error, and to improvements of technique for the purpose of avoiding them. He also concedes that there is a difficulty, especially with regard to the tubercle bacillus, in explaining the precise scientific significance of the opsonic determinations of the phagocytic activity of the polymorphonuclear leucocytes. He writes:

> Phagocytosis of the tubercle bacillus is normally performed, not by the polymorphonuclear leucocytes which require prior opsonization of the bacilli, but by the lymphoid and endothelial cells, which may well be capable of dispensing with this preliminary.

Incidentally it is to be regretted that the author does not make his views on this matter a little clearer. Does he mean that normally, in the living tissues, polymorphonuclear leucocytes do not ingest tubercle bacilli? And to what type of "lymphoid" cells does he attribute phagocytic properties? But, to return to the main point, he proceeds:

> It might well be asked, therefore, what earthly use is there in determining the phagocytosis performed by certain cells which normally do not perform the task after opsonization of the bacilli when normally this may not be requisite?

This is rather clumsily expressed, perhaps, but still one must admit that it is a pertinent question. His answer, and a very fair answer too, is that the weight of the above objection is minimized by the results of experience, taken in conjunction with clinical observations, which show that "whatever may be the deficiencies of the method, it yet does furnish something of a reliable guide to the processes whereby the body tissues defend themselves against invasion by the tubercle bacillus." This is a subject upon which further light might probably be thrown by animal experiment. It should be possible, by recording the opsonic indices of tuberculous animals and then killing them at various stages of the disease and examining their tissues, to determine how far the opsonic index really is a reliable guide. Whatever one may think about Dr. Allen's theories, where there is room for differences of opinion, in two respects his book is unquestionably good. It gives an excellent account of the technique of opsonic work, and it provides a useful record of the progress which has been made in the applications of vaccine treatment to the bacterial diseases of the various parts of the body.

[2] *Vaccine Therapy: Its Theory and Practice.* By R. W. Allen, M.D., B.S. Fourth edition. London: H. K. Lewis. 1912. (Demy 8vo, pp. 454; charts 12. 9s. net.)

The first edition of Dr. JULIUS CITRON's book on immunity, diagnosis, and therapeutics[3] was published in 1910; the second edition consists of a series of nineteen lectures, which are intended to place before the student and practitioner the essential facts of immunity in so far as this subject lends itself to practical therapeutics. Dr. Citron has fulfilled his object with conspicuous success. He has avoided the lengthy excursions into theory which few except those actually engaged in research can be expected to master, but at the same time he never shirks the difficulties of his subject. Writing in a clear, business-like style, he tells the practitioner exactly what he ought to do and provides him with the scientific reasons for every step he takes. Dr. Citron is didactic without being unduly dogmatic, and whenever he expresses definite opinions on matters which are still the subject of controversy it is evident that he has no intention of forcing his own ideas upon the reader, but aims at presenting him with definite information the clear comprehension of which will enable him to think for himself. The two chapters on the use of tuberculin in diagnosis and treatment form an excellent introduction to this subject of rapidly increasing importance; the advice given is good on the whole, but perhaps some authorities would think that the author might have warned the novice a little more strongly against possible risks attending the application of the ophthalmo-reaction. Upon the obscure question as to the scientific explanation of the tuberculin reaction Dr. Citron propounds an interesting theory, the value of which must be left to the future to decide; at all events, it may serve as a useful working hypothesis, and it is important that the clinician should have at the back of his mind some sort of reasonably scientific explanation of the action of tuberculin if he is to treat his patients intelligently. Lecture VII, on diphtheria antitoxin, may be specially recommended to practitioners who are not content with merely injecting something from a bottle but want to understand the why and wherefore of what they are doing. Opsonins come in for their fair share of recognition, and we are glad to see that the enterprise and originality of Sir Almroth Wright is now gaining from German scientists the appreciation he deserves. Dr. Citron is also particularly good in his lectures on the Wassermann reaction, anaphylaxis, and the chemical therapeutics of atoxyl, salvarsan, and allied products.

[3] *Die Methoden der Immunodiagnostik und Immunotherapie und ihre praktische Verwertung.* Von Dr. Julius Citron. Zweite erweiterte und verbesserte Auflage. Leipzig: Georg Thieme. 1912. (Roy. 8vo, pp. 300, with illustrations. M. 8.)

DIABETES AND SOME OTHER METABOLIC DISORDERS.

THE portly volume on diseases of nutrition,[4] one of a series of manuals published under the same direction, is the work of F. RATHERY, A. GY, L. BABONNEIX, and J. CASTAIGNE. The first writes on rheumatism, obesity, emaciation, gout, oxalaemia, diabetes mellitus and insipidus, and "arthritism"; Babonneix writes on osteomalacia and rickets, while Castaigne and Gy collaborate in the articles on alcoholism, saturnism, and the other intoxications. The articles are written in a systematic way, and generally give an adequate account of the present position of knowledge of the various subjects with which they deal; the positive statements are for the most part based on adequate authority, but there is a disposition in the writers to rely too exclusively on their own countrymen and to ignore views which have not an autochthonous origin. For example, under pellagra there is no mention of Sambon's work or of the occurrence of cases in Scotland, where maize is not an article of diet. Further, it is doubtful whether outside France there are many believers in "arthritism," to which an article is devoted; it is defined as "a morbid temperament which reacts by a great vulnerability of the connective tissue, with a tendency to hyperplasia, to fibrous transformation, and to fibrous retraction." M. Babonneix's article on rickets may be singled out for special praise. It is surprising to read that the author of the article on diabetes would "accept for insurance every case of fat diabetes

[4] *Manuel des maladies de la nutrition.* Sous la direction de MM. G. M. Debove, Ch. Achard J. Castaigne. Par L. Babonneix, J. Castaigne, A. Gy, et F. Rathery. Paris: Masson et Cie. 1912. (Royal 8vo, pp. 1080; figs. 119. Fr. 20.)

over 35 and cases of simple diabetes (that is, cases in which the sugar disappears from the urine on strict diet) whose coefficient of assimilation is sufficiently high and whose urine does not give Gerhardt's reaction" (the ferric chloride reaction). As cases of grave diabetes often show in the early stages most gratifying reaction to treatment, and as many, if not most, fat diabetics are bad lives, we can only express our disagreement with such teaching. Again, in the same article we are told that "gluten bread" contains only 10 to 15 per cent. of starch. From numerous analyses we can say that this is misleading; the late Mr. Callard told the writer of this notice that it was impossible to bake gluten bread with less than 25 per cent. of starch, and at that time all the French gluten breads sent here contained 35 to 40 per cent. No doubt breads made from a milk basis with the addition of cocoa-nut or almond flour may contain only 5 or 6 per cent. of carbohydrate, but these are not properly termed "gluten bread." The article gives a table of a "strict diet," but no detailed instructions for feeding patients after they have gone through this stage. The writer describes the dyspnoea of diabetic coma as causing "terrible anguish"—a statement we are unable to confirm. In the discussion of diabetes insipidus no distinction is drawn between those cases which begin with thirst and those which begin with polyuria; cases in which hydronephrotic degeneration of the kidney has been found associated with grave deficiency of urea are not even mentioned.

This book on the relations of carbohydrate metabolism to internal secretion, by Dr. PAUL HÖCKENDORF,[5] is a review of the work done on this subject during recent years, especially in its bearing upon the pathogenesis of diabetes. The plan of the book is to describe in successive chapters the advances that have been made in our knowledge of (1) the nerve centres that preside over the production of glycogen and of sugar, especially the work of Ivor Bang, published in Hofmeister's *Beiträge* (1907, No. 10), (2) on the formation of sugar from fat by Magnus Levy and his co-workers, (3) the work of Missiroli and others on the influence of the thyroid upon the formation of sugar by the splitting of proteins, (4) that of B. Aschner on the fat-splitting function of the pituitary body, and (5) the significance of the internal secretion of the parathyroids for sugar synthesis and urea formation. The last chapter is a summary of the bearing of these discoveries on the theory of diabetes. According to the author, the proximate cause of diabetes is the inability of the liver cells to store glycogen, this in turn being due to insufficiency of the glycogen-forming ferment either in consequence of deficiency of hepatic ferment or of the pancreatic ferment which combines with the former to produce glycogen or of both at the same time. He suggests that the failure of hepatic ferment may be caused by the action of abnormal metabolic acids on the liver cells or by functional aberrations of the glands concerned in sugar synthesis, the thyroid, pituitary body, and parathyroids. The pancreatic defect may be due to primary disorders of that organism, especially to fibrosis. At first the excess of sugar in the blood is converted into fat so that no glycosuria occurs, but later a stage is reached when this process of conversion is no longer possible, and hyperglycaemia and glycosuria result. The presence of hyperglycaemia paralyses the glycogen-forming nerve centre, while a reduction of the sugar in the blood restores its function and permits the resumption at least in part of the glycogen-forming function of the liver and pancreas. The failure of the liver to store up glycogen leads to "glycogen hunger," and consequently to a nearly permanent process of synthetic sugar formation, so that a vicious circle is established.

THE SNAKES OF SOUTH AFRICA.

IN the second edition of *The Snakes of South Africa*,[6] Mr. F. W. FITZSIMONS has published much first-hand information about snakes that is not only of great interest to the scientist but also of practical use to the traveller. As director of the Port Elizabeth Museum the author has for many years kept snakes in confinement, but the book is in no sense written in the style so often associated with a museum official. He gives evidence throughout that, in addition to his museum duties, he has had numerous opportunities of observing the habits of snakes in their native haunts, and has thus been able to control and correct impressions gained from observing these reptiles in confinement. The author gives us a good deal that is new with reference to the mambas—one of the most deadly of all poisonous snakes—and records many hitherto unobserved facts about the ringhals or spitting snakes. Apart from the general interest of the book to naturalists, there is much practical information as to the treatment of snake bite. The author has recorded, very impartially we think, the results of his investigations upon the numerous native "cures" for snake bite, and has conclusively demonstrated their worthlessness. On the other hand, he gives the results of many of his own experiments with antivenene, and concludes that this serum has not only prophylactic properties, but is the only known reliable antidote when once the snake poison has entered the general circulation. If injected in doses of 25 c.cm. (intravenously if possible) its effect is very rapid, and there is no doubt that it should be given, if practicable, even in apparently hopeless cases. Reference is also made to the treatment by ligature and the early application of potassium permanganate to the freely-incised wound. The book is illustrated with many good photographs and one indifferent coloured plate.

"MEAT HYGIENE."

IT was not until some six or seven years ago, and then only in consequence of the startling disclosures that were made, that the United States Government paid any serious attention to the control of the food supplies of that country. The methods of inspection and the regulations then introduced were largely based upon those in force in Germany, so that the *Textbook of Meat Hygiene*[7] written by Dr. EDELMANN, the Royal State Veterinarian of Saxony, has not inappropriately been translated by two expert officails of the United States Bureau of Animal Industry. The explanation (or, to use the exact words of the author, the justification) of the use of the term "meat hygiene" is that it includes anything which concerns the procurement of wholesome meat foods for man, their value to the public health, and the dangers which threaten the consumers of diseased or unsound meat. Having in mind this broad conception of his subject, the author has produced a work which is far more than a treatise on the examination and inspection of meat, on methods of slaughtering, and the construction of abattoirs. All these matters are dealt with, and in a detailed manner, but there are chapters also on the conservation of meat, on meat poisoning, on the *post-mortem* changes in meat, and on abnormal conditions and diseases, infectious or otherwise, of food-producing animals. The translators have included an interesting account of the methods of inspection of meat now enforced in America. The principal official in charge of inspections at all stations where slaughtering is done must before appointment have completed a three years' course at a reputable veterinary college, of which institutions only fourteen are recognized. A Civil Service examination has then to be passed, when the successful candidate is employed for six months on probation. If this is satisfactory he is not even then given full power to pass or condemn meat, but is placed with an experienced inspector that he may learn the law and regulations and the methods of their application. Promotion is said to depend entirely upon efficient and faithful service. In the laboratories connected with the Bureau of Animal Industry are officials selected through Civil Service examination in the principles of bacteriology and chemistry, with special application to meats. There are also meat inspectors of two classes, to examine live stock and the slaughtered animals

[5] *Der Kohlehydratstoffwechsel und die Innere Sekretion.* Von Dr. Paul Höckendorf. Berlin: August Hirschwald. 1912. (Roy. 8vo, pp. 127. M. 2.40.)

[6] *The Snakes of South Africa, their Venom and the Treatment of Snake Bite.* By F. W. Fitzsimons, F.Z.S. New edition. Cape Town: T. M. Miller; London: Longmans, Green. 1912. (Roy. 8vo, pp. 533, with over 200 illustrations. 12s. 6d. net.)

[7] *Textbook of Meat Hygiene, with Special Consideration of Ante-mortem and Post-mortem Inspection of Food-producing Animals.* By Richard Edelmann, Ph.D. Translated by John R. Mohler, A.M., V.M.D., and Adolph Eichorn, D.V.S. London: J. and A. Churchill. 1912. (Roy. 8vo, pp. 398; 152 illustrations and five coloured plates. 21s. net.)

respectively. Neither class seems to be required to have special training. The law is very stringent as regards the bribery of these officers, the minimum punishment for giving or receiving a bribe being a fine of £1,000 and one year's imprisonment. The work is profusely illustrated, and the coloured plates are admirably executed.

ARGENTINA.

THE readjustment of any fixed idea concerning hitherto unknown persons or places is usually rather an unsettling process; and to those who have always been accustomed to hear the Argentine Republic spoken of as a veritable El Dorado it may cause some surprise to learn that this great wealth is quite a modern development, and the present flourishing condition of the land of comparatively recent date. It is little more than a hundred years ago since the first real attempt was made to utilize on a large scale the practically unlimited resources of this vast country; whilst for two hundred and fifty years previously that which is now the richest and most prosperous of the South American Republics had been regarded merely as the vassal State of Chili and Peru. Mr. W. H. KOEBEL, in his most interesting book, *Argentina, Past and Present*,[8] relates that the Spanish explorers who in the middle of the sixteenth century took possession of the territory on the banks of the River Plate were chiefly concerned with it as a means of opening up a fresh route into Peru and the adjacent countries; and it was not until 1810, when the colony broke away from Spain, that the foundations were laid of her present prosperity. The extent and magnitude of this prosperity may be gathered from Mr. Koebel's enthusiastic account of this modern land of Canaan. He writes with the great advantage of first-hand knowledge, and his facts have therefore a value apart from their own interest, as his descriptions possess a charm quite independent of their literary merit. There is no lack of the latter, however, for Mr. Koebel writes with ease and fluency, and has the happy knack of bringing a scene before the eyes of his readers in a few graphic sentences. His narrative makes excellent reading, even when regarded solely as an unusually interesting book of travels; but the author has had another and more serious object in view. His pages are full of sound practical advice as to the life and prospects which lie before the young Englishman who meditates starting life afresh in this corner of Spanish South America. The intending emigrant could hardly do better than make a careful study of this attractive volume; it is well printed in large, clear type, and profusely illustrated with excellent photographs.

NOTES ON BOOKS.

ALTHOUGH the Royal Sanitary Institute established an examination for health visitors and school nurses more than four years ago candidates have hitherto had to consult a variety of textbooks when preparing for the examination. Dr. HUTT'S *Hygiene for Health Visitors, School Nurses and Social Workers*[9] appears, therefore, very opportunely, for it has been designed to cover the ground of the syllabus of the institute. The initial chapter on physiology is clearly and concisely written and in language sufficiently plain not to alarm the student at the outset. Each subject is thoroughly treated in its appropriate chapter, and on nearly every page there are practical hints which cannot fail to be of service to health visitors or school nurses when actively engaged in carrying out their duties. The work is thus far more than a textbook for examination purposes and should assist in increasing the efficiency of the certificated official. The chapter on the prevention of communicable disease is one which a zealous health visitor would find herself constantly wishing to refer to in the course of her work, for it would enable her to explain intelligently why the advice she tenders is correct and why it should be carried out. There are over seventy illustrations in the book, nearly all of which have been judiciously selected. They add materially to the value of the work, which we can confidently recommend to those for whom it has been written.

It is difficult to believe that every year there is so much that is new in surgery that it requires a volume of over six hundred pages to tell about it. But in the *Year Book on General Surgery* for 1912,[10] edited by Dr. JOHN B. MURPHY of Chicago, there seems to be something new on every page. If it is not a new operation or a new method of technique it is a new view or a new opinion. And so knowledge grows. The editor apparently makes no claim that the new thing will find a permanent place for itself, but he is content to let it be found in his pages—opinion based on experience will soon find for it a true place. The introduction is from the editor's vigorous pen. He thinks that surgical technique is now almost universally thoroughly established, that the average major operation is performed in all large clinics with an almost identical detail, that the immediate management of fresh wounds is a policy of non-interference except for removal of injured infected areas. But we note with some surprise that "simple fractures are very commonly plated with the Lane or other bone-plate on the third or fourth day after the accident." We feel sure that the percentage of primary operated fractures is still so low that the word "commonly" is unwarranted. However, on a later page an important qualification is introduced when he says that in the discussion of the relative values of the operative and non-operative methods the personal equations of both operator and patient must be considered in each individual case. The arrangement of the matter is such that it can be easily followed, the index is copious, and the book is one which ought to have a place very close to the surgeon's elbow on his study table.

In a small book entitled *On Gastroscopy*[11] Dr. WILLIAM HILL has brought together a great deal of information on the subject indicated. His main object is to describe the special method of examining the oesophagus and stomach devised by himself to secure both a direct and indirect vision of the part under observation. Incidentally he describes and illustrates practically all the methods at present known. A good deal of the matter is a rehearsal of statements made by the author at various times in our own columns. The volume concludes with a valuable bibliography of the subject.

The twenty-fourth volume of *The Transactions of the Southern Surgical and Gynaecological Association*[12] relates to the proceedings of this body at its meeting in Washington some twelve months ago. It is, as usual, freely illustrated by plates and woodcuts in the text. The different papers read and discussed number as many as forty-two, and cover between them the majority of the conditions coming within the range of general and gynaecological surgery. Among them is a paper by Dr. C. L. REED entitled "The Farce of Medical Ethics," the particular point of medical ethics in question being the dishonesty of the medical attendants of patients dividing with consultants the fees received by the latter. From the discussion which followed it would appear that this medical crime is somewhat prevalent in certain parts of the United States.

In the volume entitled *First Steps to Nursing*[13] Miss MABEL CAVE, Matron of Westminster Hospital, gives a comprehensive account of what the occupation of nursing has to offer, and deals in detail with the qualities, physical and moral, which those who desire to become nurses should possess. She also gives a very good idea of the work they have to perform and of the knowledge which as probationers they will be expected to acquire. It is an informing and well-written volume, and deserving of the compliments paid to it by Sir John Wolfe Barry in the preface supplied by him.

[8] *Argentina, Past and Present.* By W. H. Koebel. London: Kegan Paul, Trench, Trübner, and Co., Limited. 1910. (Sup. roy. 8vo, pp. 464; illustrated. 12s. 6d.)

[9] *Hygiene for Health Visitors, School Nurses and Social Workers.* By C. W. Hutt, M.A., B.C., D.P.H. London: P. S. King and Son. 1912. (Demy 8vo, pp. 431; figs. 71. 7s. 6d. net.)

[10] The Practical Medicine Series. Edited by G. G. P. Head, M.D., and Colonel Mix, A.M., M.D. Volume ii. *General Surgery.* Edited by John B. Murphy, A.M., M.D., LL.D., Professor of Surgery in the North-Western University, Chicago. Chicago: The Year Book Publishers. 1912. (Cr. 8vo, pp. 616; plates 33, figs. 49. Dols. 2.00.)

[11] *On Gastroscopy and Oesophago-Gastroscopy.* By William Hill, B.Sc., M.D.Lond. London: John Bale, Son, and Danielsson. 1912. (Demy 8vo, pp. 53; figs. 47. Price 3s. 6d. net.)

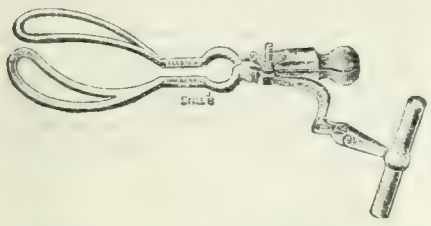
[12] *The Transactions of the Southern Surgical and Gynaecological Association.* Vol. xxiv. Edited by W. D. Haggard, M.D. Nashville, Tenn.: Published by the Association. 1912. (Med. 8vo, pp. 693.)

[13] *First Steps to Nursing: a Manual for Would-be Probationers.* By Mabel H. Cave, Lady Superintendent and Matron of Westminster Hospital. London: S. W. Partridge and Co. 1912. (Demy 8vo, pp. 136. 1s. net.)

MEDICAL AND SURGICAL APPLIANCES.

Axis Traction Forceps.

DR. E. C. STACK (Burton-on-Trent) writes: The advantages I claim for the design of tractor illustrated in the accompanying drawing are that the forceps have the very simple attachment of the original "Neville's," which enables them to be used equally well with or without the tractor. Also the tractor can be put on or taken off at any stage of the delivery. They differ from and are superior to the original "Neville's" in that the latter were admittedly not in the real pelvic axis, while my tractor, 1¼ in. longer in the longitudinal limb, gives practically the same axis of traction as Milne Murray's and the other more recent instruments, an axis through which force is much more economically applied and delivery more easily effected than in the original "Neville's." With forceps of this design the general practitioner has a reliable instrument for all those easier cases where instrumental delivery may be desirable, and at the same time a powerful help in really difficult midwifery. The blades can be made to suit the wishes of each user.



BOARD OF EDUCATION.

FOURTH ANNUAL REPORT OF THE MEDICAL OFFICER.

THE fourth annual report[1] of the medical officer to the Board of Education, which made its appearance some two months later in the year than its predecessor, is divided into fourteen sections, each dealing with one or more of the various aspects of school work, and some eight appendices. Nominally it relates only to the year 1911, but it contains information as to many events subsequent to the end of that year.

An introductory chapter, in which the contents of the volume are described as a summary of work done rather than a full appreciation or searching criticism thereof, indicates certain main tendencies perceptible during the year.

(*a*) Concurrently with improvement and extension of arrangements for remedial treatment (which will be further encouraged by the Treasury grants) local education authorities are taking a more comprehensive view of their responsibilities.

They realize that the prescription of drugs, the performance of operations, and similar forms of remedial treatment do not necessarily go to the root of the matter or cover the whole field, and that any effective scheme for the upbringing and equipment of the subnormal child must involve the liberal use of such preventive and curative means as physical exercises, provision of meals, manual training, and special and improved methods of education.

(*b*) Consonant with the general character of the policy set forth by the Board of Education in sundry memorandums, the active interest of a good many local education authorities is extending outside the limits of actual school life. Hence they are endeavouring to make the work of school hygiene (a term apparently used to cover every measure concerned in the medical guidance of the education of children) effective by means calculated to improve the physical and domestic influences to which a child is submitted before it reaches the age of 5 years and thus comes directly under the care of the education authority. Similarly, they are regarding the mental and physical fitness of the child for good employment on leaving their schools as a criterion of the methods adopted thereat, and are becoming more and more reluctant to lose touch with the leavers when they obtain their first employment. Among other results has been the bringing into existence of work described as "mother-craft," which is stated to be having an indirect but beneficial effect on the health and rearing of children prior to their attainment of school age.

(*c*) During the year was demonstrated the necessity—if a school medical service is to be effective—of the whole work done in connexion with schools being under the jurisdiction of the local education authority, which should place the school medical officer in such a position that he can really be responsible for the unification of all the various activities concerned. These are medical inspection, medical treatment, sanitation of schools, provision and management of special schools for the defective, the teaching of physical training and personal hygiene, and the feeding of school children. Only if properly correlated can the full value of these contributory activities be secured.

MEDICAL INSPECTION.

Numbers Inspected.

Satisfaction is expressed at the fashion in which local education authorities have grappled with the duties imposed upon them in regard to medical inspection. Their arrangements for the year ending July 31st, 1912, included the inspection of about a million and a quarter entrants and leavers; while at least a quarter of a million ailing or defective children were specially inspected, apart from the requirements of the code. Besides this, in over a hundred areas arrangements were in action for the inspection of groups intermediate between the entrants and leavers. Several authorities have completed the inspection of all the children on their rolls.

Schedule of Medical Inspection.

The schedule of medical inspection originally suggested by the Board, and in regard to the suitability of which there was some dispute, is stated to have worked well. Few defects, it is believed, are overlooked when the schedule is properly used, and little or nothing that might be regarded as investigation of an inquisitorial or unnecessarily elaborate character has taken place. In the case of 344 schools permission has been accorded to hold the inspection elsewhere than as originally prescribed, namely, on the school premises.

Organization.

Satisfaction is also expressed at the amount of co-ordination secured between the Public Health and the School Medical Service. At the end of the school year terminating July 31st, 1912, schemes of medical inspection had been approved in 302 out of a total of 317 areas, and in 243 of these the school medical officer was also medical officer of health. In 135 areas such medical officer was not deemed to require an assistant, but in the other 167 areas there were altogether 597 assistants, 212 being whole-time and 385 part-time officers. In the 15 areas whose arrangements had not been approved at the time of writing the report (October, 1912), there were 45 school medical officers. The School Medical Service for England and Wales thus consisted of 943 medical practitioners wholly or partly employed in this work, 74 of them being women. The arrangements for medical inspection in the county of London, which in previous reports were the subject of severe animadversions, are detailed, but no opinion concerning them is expressed beyond saying that their reorganization, which was in view at the time of the last report, had since been more or less completed.

Nurses and School Attendance Officers.

In more than two-thirds of all the areas nurses or health visitors are employed in connexion with the school medical service. Those in the direct employ of the authority, either as whole or part time officers, numbered 632, while in some other areas nurses were supplied as required by local nursing associations. Some progress was also made during the year in bringing about closer co-ordination between the school attendance department and the medical service. A school-attendance officer, especially if he be a whole-time officer, can be of great service to the medical department by keeping it posted up in regard to absences due to medical causes.

Miscellaneous Matters.

During the year a large number of special inquiries by school medical officers or their assistants were either in

[1] Annual Report for 1911 of the Medical Officer to the Board of Education. 1912. London: His Majesty's Stationery Office. (Med. 8vo, pp. 334. Price 1s. 5d.) (Cd. 6530.)

progress or completed. The diversity of the questions to which they related illustrate the comprehensiveness of school hygiene. Apart from the interest of the results of such inquiries and their possible importance from an educational point of view, local education authorities are advised that they will do well to encourage work of this order. In an increasing number of areas the authorities are undertaking medical inspection not only of elementary but also of secondary schools. In the teaching of physical exercises increased interest and steady improvement is being shown. In Essex this work is under the inspection of the school medical officers, and this should everywhere be the case. The instruction in hygiene given at the training colleges, as evidenced by the results of written examinations thereat, is still not satisfactory. The Board regards with special interest all efforts aiming at stimulation of the enthusiasm of teachers in regard to physical education and increasing the effectiveness of their methods, for wise physical education of children is a matter of extreme importance. In regard to sanitary and lavatory accommodation at schools, steady improvement was visible.

The Physical Condition of School Children.

As in previous reports the section on the physical condition of school children consists mainly of more or less lengthy excerpts from the reports of school medical officers; little attempt has been made to correlate them or to draw therefrom conclusions as to the different forms of defect in England and Wales as a whole. This year, however, the account of matters is preceded by an excursus on the general subject of medical inspection.

It would appear that some medical officers confine their work to the detection of defects which directly influence a child's capacity for benefiting from the educational opportunities afforded it, and this does not meet Sir George Newman's view of what should be done. The medical inspection of any child should, he holds, be made of direct benefit to that child, and it is the beginnings of disease that should be sought out. Not only is a higher degree of clinical study and investigation required than has been rendered in some areas, but a more thorough appreciation of disease as a crippling agency in the child. The whole life and condition and circumstances of any child under inspection in relation to disease should come within the purview of the medical inspector.

Solid progress in this matter depends upon two broad conditions—first, upon the medical inspector's *professional work*, his medical knowledge, his accuracy, caution, thoroughness, and particularly upon his avoidance of besetting fallacies, both in his examination and in his deductions and interpretations; and, secondly, upon his capacity as a *practical administrator*. The fulfilment of the first condition calls for imagination, as well as clinical ability, exact observation, and experience; the school doctor must learn to understand much more fully than hitherto the sequelae of even minor morbid conditions. The fulfilment of the second demands a wide knowledge of the circumstances of the case, and of what is expedient, practical, and reasonable in the way of remedy or prevention. In both parts of his calling, its medical side and its administrative side, the school doctor needs to carry with him the true spirit of research and investigation into the unknown, combined with common-sense knowledge of things as they are and of the powers which his authority and the law have placed in his hands.

Malnutrition.

Such figures as are supplied indicate great variation in the prevalence of malnutrition. A considerable proportion of the ill-nourished children rank well in point of intelligence. For such children, it is noted, the ordinary school curriculum is in some respects unsuited. Stress is laid on the definite value, in connexion with estimates of malnutrition, of weighing and reweighing children at different periods.

Uncleanliness.

Much still remains to be done before the discreditable conditions of uncleanliness among many school children can be removed. It is continuous, not spasmodic, action in this connexion that is of value. The less the attention paid to personal cleanliness in the child's house the greater the need for inculcating self-respect in this regard at school. The Board is prepared to consider proposals from local education authorities for the installation of shower baths; in some areas these already exist.

Defective Vision.

The number of authorities which have made special provision for the detection of defects and diseases of the eye has increased, and is increasing, but by this time there should be facilities for the adequate examination and treatment of all cases of defective vision in every area.

Defective Hearing.

In most areas estimation of the degree of defective hearing is not carried out with sufficient exactitude: the whisper test is described as the most suitable. The inadequacy of the provision in most areas for the prompt and persistent treatment of the allied conditions, discharging ears, enlarged tonsils and adenoids, should receive the serious attention of their authorities. Stress is laid on the necessity of after-treatment if an operation for adenoids or enlarged tonsils, however skilfully performed, is to be of much utility.

Ringworm.

Attempts to eradicate ringworm cannot be successful unless notice is taken of its occurrence in children under school age. The saving in school attendances is very great in areas in which *x*-ray, not drug, treatment is in use (average school attendances lost at Bradford under *x*-ray treatment 35, as compared with 287 under drug treatment).

Heart Disease.

Discontent is indicated with regard to the amount of attention paid to the subject of heart disease among school children. Its diagnosis is not difficult as compared with that of tuberculosis, and many cases are probably overlooked. Treatment for acute disease cannot be properly undertaken, but much can nevertheless be done to prevent the extension of defect and bring about early compensation. The kind of attention which should be paid to such children is described.

Tuberculosis.

The reports show further diminution in the number of cases of tuberculosis diagnosed, and this is regarded by Sir George Newman as difficult of explanation. The real diminution is probably not equivalent to the diminution observed since 1908, yet the amount of attention devoted to the subject is probably greater than previously. Possibly some part of the decline is due to the exclusion of tuberculous children from school. The experience of school medical officers as a whole appears, it is said, to show that pulmonary tuberculosis in a form which can be diagnosed with certainty is rare among school children. The arrangements for treatment appear to have undergone not much development during the year under review. The existing provision for the treatment of tuberculous school children is altogether insufficient, especially in regard to surgical tuberculosis. In selecting sites for new schools the provision of facilities for open-air instruction should be borne in mind; likewise the desirability of establishing sleeping camps in connexion with open-air schools, or even in playgrounds of ordinary elementary schools. The relationship of the tuberculosis dispensary to the school medical service will need careful adjustment in order to secure effective co-ordination. An ordinary medical inspector is not always practised in the diagnosis of pulmonary tuberculosis, and the power to refer tuberculous children to specialists might be of great assistance. Subject to certain provisos, the Board considers that a school clinic and a tuberculosis dispensary might, if necessary, be housed in the same building. In regard to tuberculosis in general, the following are the main points submitted for the consideration of education authorities:

1. Improved arrangements for securing the detection and diagnosis of the disease among children, possibly in association with the tuberculosis dispensary when such exists.
2. The provision of additional accommodation for residential treatment, particularly of "surgical" cases.
3. An extension of open-air teaching by means of open-air schools, playground classes, etc., and, if possible, by the establishment of "night camps."
4. The need for systematic and prolonged after-care and following up.

ROYAL MEDICAL BENEVOLENT FUND.

AT the December meeting of the Committee twenty-six cases were considered, and grants amounting to £217 made to twenty-two of the applicants. Appended is an abstract of the cases relieved:

1. L.S.A., aged 68. Used to have an excellent practice in the south-west of London, but lost it through ill-health and other misfortunes, and is now trying to re-establish himself in a working-class district. Relieved four times, £51. Voted £12.

2. Daughter, aged 54, of late M.R.C.S. Nursed her father for several years before his death, and is now unfitted to maintain herself. No income. Relieved five times, £52. Voted £15.

3. Daughter, aged 63, of late M.R.C.S. Only income £12 a year. Voted £12.

4. Widow, aged 63, of L.S.A. Since husband's death has held a post as companion, etc., but is now in bad health and unfitted for regular employment. Voted £12.

5. Widow, aged 62, of L.S.A. Since husband's death, more than twenty years ago, has supported herself in different ways, but is now no longer able to do so on account of bad health. No children. Voted £12.

6. Daughter, aged 71, of late M.R.C.S. Only income 15s. a week. Voted £5, and to be advised to consider the purchase of an annuity with such of her capital as she can control.

7. Widow, aged 41, of M.B., C.M.Aberdeen. Practically unprovided for at husband's death a few months ago, and being deaf is obliged to depend upon relations who can ill afford to help. Three children, one receiving an education through the kindness of a friend, and the other two candidates for an institution. Voted £10.

8. Widow, aged 68, of L.R.C.P., L.R.C.S.Edin. Several years ago, with the assistance of two daughters, started a school, which has just supported them, but no longer pays owing to the opening of a secondary school. The daughters are endeavouring to obtain posts as governesses, and meanwhile are in considerable difficulties. Voted £12.

9. Widow, aged 45, of M.D. Quite unprovided for at husband's death from phthisis a few months ago, and is quite incapacitated by a spinal complaint. No income; two children, aged 6 and 4, who are temporarily sheltered at a Church Army home. Voted £5, and case to be again considered after further inquiry.

10. Widow, aged 50, of late M.R.C.S. Husband's means exhausted by a long illness which preceded his death; no children. Is endeavouring to establish a boarding house, but finds great difficulty in meeting expenses. Relieved three times, £30. Voted £10.

11. Widow, aged 53, of L.S.A. No income, and tries to support herself by needlework. Two children, one receiving a small salary as a governess, the other earning a few shillings a week by sewing. Relieved seven times, £70. Voted £12.

12. Widow, aged 66, of L.F.P.S.Glasg. Supplements a pension of £20 a year by addressing envelopes. Relieved fifteen times, £146. Voted £5.

13. Widow, aged 67, of M.R.C.S. No income, and health too bad to allow regular occupation. Relieved three times, £36. Voted £12.

14. Widow, aged 57, of L.R.C.S.Edin. No income; endeavours to maintain herself by taking a lodger and doing needlework. Three children, one in ill health, and the others only just self-supporting. Relieved four times, £54. Voted £12.

15. Daughter, aged 65, of late M.D.Edin. Only income £10 a year, and unable to do anything to support herself, because obliged to nurse two older and invalid sisters. Relieved seven times, £84. Voted £12.

16. Widow, aged 64, of L.R.C.P., L.R.C.S.Edin. Has just obtained a pension from a charitable fund, but had to spend so much on canvassing that she is in temporary difficulties. Earns a few shillings a week by taking lodgers. Relieved thirteen times, £97. Voted £5.

17. Widow, aged 39, of M.R.C.S. Since husband's death a few years ago has endeavoured to support herself by dealing in cast-off clothing, but failed for want of capital. Two children, aged 6½ and 3½, the elder very delicate. Relieved once, £10. Voted £10.

18. Daughter, aged 62, of late M.D. Is in feeble health, and having no means is dependent on a sister whose only income is derived from two small pensions. Relieved three times, £36. Voted £12.

19. Daughter, aged 29, of late M.R.C.S. Is a typist, but owing to bad health is only able to earn a few shillings a week, and is at present out of work. Relieved four times, £22. Voted £5 and case to be further considered.

20. Widow, aged 67, of L.R.C.P.Edin. Supplements an income of £20 a year by crochet, but finds great difficulty in selling her work. No children. Relieved thirteen times, £150. Voted £12.

21. Widow, aged 82, of M.R.C.S. Four children, aged 51 to 45, three being deaf and dumb. Has a small income, but asks for a little help on account of their afflictions and her own infirmities. Relieved ten times, £65. Voted £5.

22. Widow, aged 39, of M.B., C.M.Aberd. Since husband's death six years ago has supported herself as a companion, but is now in difficulties owing to an illness that has lasted some months. Two children, both at an institution. Relieved once, £5. Voted £10.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, W.

LITERARY NOTES.

The Bookseller of January 3rd, 1913, states that the total number of publications issued in this country during 1912 was 12,886. Of these 367 are classified under the heading "Medical and Surgical."

Speaking of his admission to the English College of Surgeons Sir Charles Bell says: "The College received me with all possible respect. The question asked me—facetious dogs!—was of what disease I thought Buonaparte would die? And so I was admitted." This was in 1813. Bell does not record his answer. Neither he nor his examiners could have foreseen the lingering agony of St. Helena—

> La chaine, le rocher brulé du ciel d'Afrique
> Et le Titan—et le vautour!

Messrs. Macmillan and Co. will publish on January 14th the second volume of the translation of Professor Luigi Luciani's *Human Physiology*, which they are issuing. The volume deals with internal secretion, digestion, excretion, and the skin.

The January number of *Bedrock* contains the text of Professor Metchnikoff's Priestley Lecture to the National Health Society on the warfare against tuberculosis. Psychical research forms the subject of interesting contributions by Dr. Ivor Tuckett, Sir Ray Lankester, and Sir Bryan Donkin; Dr. A. M. Gossage writes on crucial tests of evolution, and Dr. Eric Pritchard discusses the milk problem. The other contents are up to the high standard to which the previous issues of this "quarterly review of scientific thought" have accustomed its readers.

In *Paris médical* of December 28th Dr. Mousson-Lanauze gives an account of Guillaume Loyseau, a surgeon of Bergerac in Périgord, who was held in high esteem by all the warriors of his day, notably by Henry IV when King of Navarre. He saved the life of one of the King's stoutest lieutenants, Geoffroy de Vivant, to whom was due the victory at Coutras in 1587, where he was dangerously wounded. Loyseau gave a detailed account of the wound in his *Observations médicales et chirurgicales*; it was customary at the time to cite the names of the patients, especially if they were people of importance. The case is sufficiently remarkable to deserve a brief record. De Vivant received two spear wounds, one going through the whole thickness of the right arm, the other above the pubes, going upwards towards the stomach. By this blow de Vivant "was thrown backwards on the crupper of his horse; the rider was going so fast that the wood of the spear broke, and the iron remained deeply fixed in the belly." He had often been badly wounded before, but said he had never felt such pain. He had been struck on his breastplate earlier on the same day with such force that the lance broke and the iron fell on the saddle between his thighs; it dropped out when he was taken off his horse, and hence was thought to be the cause of injury. When Loyseau saw him on the third day he found that the abdominal wound had been overlooked by the surgeons. Finding, however, that the severe pain persisted, that there was much bleeding into the dressings behind, and that there was continual need of the bedpan, he probed the wound and found about half a foot upwards from the opening a hard foreign body. He made an incision four finger-breadths in length and found two splinters of wood. Later, as the pain and bleeding continued, he probed again and found the iron end of the spear; to extract this he had to enlarge the wound and pull the foreign body out with his hand. Just as Loyseau had done this the king sent for news of the patient; by way of answer the surgeon sent him the spearhead, whereat His Majesty marvelled exceedingly, and abused the other surgeons for having overlooked such a wound. The next day the patient took some broth, and an enema was administered; part of both the broth and the enema came out through the wound. Loyseau then applied a balsam to the wound night and morning, forbidding solid diet. "God so blessed this work that on the sixteenth or seventeenth day I applied only a solid vulnerary plaster, and the said Sieur de Vivant mounted his horse and came to sleep at Sainct-Sernin at the house of a relative of his being perfectly cured." Henry himself did Loyseau the honour to consult him for an inveterate gonorrhoea. So successful was the treatment that in 1591 Loyseau was

appointed one of the King's surgeons in ordinary "with all the honours, authorities, prerogatives, pre-eminences, franchises, liberties, wages, rights, fruits, profits, revenues, and emoluments belonging to" that office. Among these privileges was exemption from all taxes and immunity from billeting of troops.

One of the great Jewish physicians of the Middle Ages was Moses Ben Maimun, commonly known as Maimonides, who was born at Cordova, then one of the greatest centres of Arab culture, in 1135 or 1139. He was educated there, and after wandering about for several years with his family he became physician to Saladin, whose name is well known to us owing to his relations with Richard Cœur de Lion. Maimonides records that every morning he went to the palace, and if any of the numerous officials and dependents there were ill he had to prescribe for them, getting back to his own house in the afternoon when "almost dying with hunger." There he would find, in his own words—

> Jews and Mohammedans, a varied crowd who are seeking my medical advice. There is scarcely time for me to get down from my carriage and wash myself and eat a little, and then until night I am constantly occupied so that from sheer exhaustion I must lie down. Only on the Sabbath day have I the time to occupy myself with my own people and my studies, and so the day is away from me.

Maimonides wrote on philosophy as well as medicine. The most interesting of his writings was a series of letters on dietetics written for the son of Saladin, who seems to have been something of a neurotic, suffering from indigestion, constipation, and depression. The rules laid down by Maimonides have become part of the popular medical tradition. In view of the originality claimed by so many minor prophets of the present day for views that are almost as old as disease, it may not be amiss to give a summary of them. We should eat and drink only when hungry and thirsty, and should be particularly careful of the regular evacuation of the bowels and bladder. The inclination should as far as possible be satisfied at once. A man must not overload his stomach, and should not drink much during the meal, and only of water and wine mixed. Food should be taken always in the sitting position. There should be no riding or walking or movement of the body until digestion has finished. Day and night should be divided into twenty-four hours. We should sleep for eight hours, and so arrange our sleep that the end of it comes with the dawn, so that from the beginning of sleep until sunrise there should be an interval of eight hours. We should leave our beds about the time that the sun rises. During sleep a man should lie on his side—the beginning of the night on his left and at the end on his right. He should not go to sleep for three or four hours after eating and should not sleep during the day. Fruits that are laxative—as grapes, figs, melons, gourds—should be taken only before meal-time and not mixed with other food. We should eat what is easily digestible before what is difficult of digestion—the flesh of birds before beef, and the flesh of calves before that of cows and steers. In summer we should eat cooling food, acids and no spices. In winter, on the contrary, warming foods, rich in spices, mustard and other heating substances should be taken. Large salt fish, old cheese, old pickled meat, young new wine, evil-smelling and bitter foods are often poisonous. Large fish, cheese, milk more than twenty-four hours after milking, the flesh of old oxen, beans, peas, unleavened bread, sauer-kraut, onions, radishes should be taken only in small quantities and in the winter time. Beans and lentils are to be recommended neither in winter or summer. As a rule we should not eat tree fruits, especially when they are dry, and even less when they are green. The fruits that are to be recommended dry as well as fresh are figs, grapes, and almonds. Honey and wine are not good for children, though beneficial for older people, especially in winter. Special care should be taken to have regular movements of the bowels. Every medical means should be taken to overcome constipation. Young people should be given salted food, materials that have been soaked in olive oil, salt itself, or certain vegetable soups with olive oil and salt. Older people should take honey mixed with warm water early in the morning, and four hours later should take their breakfast. This should be done from one to four days until the constipation is overcome. Immoderate eating is a poison to men and the cause of many of the diseases that attack them. Most diseases come from eating either too much or unsuitable food. Every week at least a man should take a warm bath. He should not bathe when hungry nor after eating till the food is digested, and should bathe the whole body in warm but not too hot water, and the head in hot water. Afterwards the body should be washed in lukewarm water, and finally cold water should be used. Bleeding should not be frequent: it is only meant for serious illness. After the age of 50 there should be no bleeding. Whoever observes these rules of life faithfully will live long without disease, and in the fullness of his years he will die a natural death. Only the healthy should keep these rules. Whoever is ill or a sufferer from any injury or has lost his health through bad habits, for him there are special rules for each disease only to be found in the medical books. Every change in a life habit is the beginning of an ailment. Maimonides rejected astrology, and was never afraid to say he did not know anything. He died in 1204, and his thought had a great influence on philosophy as well as medicine.

SCIENCE NOTES.

The nature of the Roentgen rays has long been a matter for speculation. The original theory of Stokes that they consisted of sets of ether ripples was generally accepted, in spite of the fact that no evidence could be produced of refraction, reflection, or diffraction. The failure of the strongest magnetic fields to produce deviation pointed to ether disturbance and seemed to negative certain attempts to prove that the rays were corpuscular in character. More recently it was suggested by Professor Bragg of Liverpool that the rays may consist of neutral pairs of corpuscles. He was led to this conclusion as the result of some very ingenious experiments on the secondary radiations arising from surfaces irradiated by the x rays. This view was strongly combated by Professor Barkla of King's College, who produced further experiments as well as explanations of Bragg's results based on the more generally accepted ether-pulse view. The fact was, no crucial experiment had been devised. A few weeks ago Herr Laue announced a startling result. He found that when a narrow pencil of x rays passes through a crystal of zinc blende curious regular markings appear upon a photographic plate placed behind the crystal. It looked at first as if this had to do with some diffraction effect; but Mr. W. L. Bragg (son of Professor Bragg), as the result of an experimental and theoretical investigation of the phenomenon, showed that the new results may be regarded as reflections from certain cleavage planes existing in the crystal or, very probably, boundaries of molecular groups. This latter view is strengthened by the fact that the distribution of the rays of the beam are what might be expected from the recent theories of Barlow and Pope on crystal structure. In *Nature* of December 12th, 1912 Mr. Bragg described an experiment carried out on the suggestion of Mr. C. T. R. Wilson, F.R.S., in which the cleavage plane effect is clearly demonstrated. A narrow beam of x rays, obtained by a series of diaphragms, was allowed to fall at an angle of incidence of 80 degrees on a strip of mica 1 mm. thick mounted in thin aluminium. A photographic plate enclosed in two light-opaque envelopes was placed behind the mica in such a position that the direct rays would give a darkening, whilst, in addition, if any rays were reflected they also could affect the plate. Such an action was observed. It is almost certainly not merely a surface action, although an increase in the thickness of the mica did not produce an increase of the effect upon the plate. Mr. Bragg demonstrated that there was true specular reflection obeying the usual optical laws. At a glancing angle the reflection was very marked. It would seem, therefore, that the x rays are composed of at least two sorts of rays, one capable of reflection and the other not. And, not for the first time, it would follow that both apparently antagonistic theories are right after all. It now remains to examine the respective ionizing and other properties of these rays, and to test their relative therapeutic values; and already, we believe, the workers in the radiotherapeutic department of the Cancer Hospital have taken up the question. The fact that the reflected rays can be concentrated ought to prove of great service.

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ARRANGEMENTS FOR MEDICAL BENEFIT.

DURING the past week decisions have been reached by members of the profession in many parts of Great Britain which seem to make it certain that it will be possible for the Government to bring medical benefit into force in many areas on the appointed day, January 15th. In some districts definite arrangements have been entered into, and in others a reluctant assent has been given to a proposal in general terms to go on the panels and to work under the Act. The decision seems in practically every case to have been taken under economic pressure, which the more fortunate members of the profession in various districts found it impossible to advise their younger or less fortunate brethren to resist. In his speech to the Advisory Committee—which some of those members of the British Medical Association who resigned in response to its call last summer have rejoined—Mr. Lloyd George indulged in recriminations to which it does not seem worth while to retort at length. It must, however, be pointed out that he clearly could not have understood the scheme of the Association when he talked about the inexplicable change which had taken place in its attitude towards the approved societies. The profession has for many years objected to friendly society control, and it objects to it and will resist it just as strongly now as ever. The alternative policy of the Association in going to the approved societies is meant to offer to insured persons a better service than that of the Government, and free from the hampering regulations of the Government service. The approved societies would do the administrative work, the doctors on their side would guarantee an efficient medical service under the sole control of the Local Medical Committees. Mr. Lloyd George again threatened the profession with the dire consequences of maintaining its independent attitude. The first threat to "close the panels" for unspecified periods, those who had joined them being authorized to take assistants and partners, is contrary to the policy frequently expressed at earlier dates, some of them quite recent, by Mr. Lloyd George, and does not seem to be authorized by the Act. As to the second—to introduce a system of whole-time medical officers where no panel which could be deemed adequate had been formed—the Commissioners, it seems certain, would not have been able to carry it out in more than a few districts. The fact seems to be that in their anxiety to bring medical benefit into force by the appointed day a campaign has been started in the Advisory Committee and in the press in which what is lacking in solid fact and argument is made up by a combination of bluff and intimidation. The result has been to produce a feeling of apprehension and anxiety which has lent additional force to the arguments of those members of the profession who on various grounds were disposed to give a trial to the Act. Some of them, believing that the object of the Act was beneficent, were ready to overlook its defects; others had come to the conclusion that these defects had been so materially diminished through the efforts of the British Medical Association that it might be tested for a period, and that this test would, on the principle *solvitur ambulando*, inevitably lead to amendment. It is clear, however, that in the great majority of districts the decision to enter into provisional arrangements for the first three months was due to the pressure of economic necessity.

The Insurance Commissioners, through Mr. Claud Schuster, have approved a scheme agreed in Manchester and modelled on that already adopted in the neighbouring borough of Salford—centres of the most densely populated industrial areas in the country. A similar scheme submitted by the Council of the Administrative County of Lancashire has, it seems, met with the acceptance of representatives of the medical profession in that area. In each case the scheme is stated to embody arrangements for the provision of medical benefit in accordance with the Act and the Regulations. The main point appears to be that the Insurance Committee enters into an honourable agreement that medical attendance shall be given on the ordinary lines of private practice, and undertakes that the total sums available for medical attendance and treatment of insured persons shall be distributed among the doctors giving treatment and attendance to such persons in accordance with a scale of fees to be settled. The sum thus available is to be the limit of the liability of the Insurance Committee—except for drugs and medical appliances—and each doctor accepting service is required to give an undertaking that he will not make any claim or bring any action against an insured person or the Committee for additional payment, but he is not precluded from making an arrangement beforehand with any individual insured person for the payment of higher fees agreed between them. If the total amount is insufficient to meet all the charges of the doctors in accordance with the scale, the amount payable to each doctor will be subject to a *pro rata* reduction. Further, the committee of doctors undertakes that every insured person in the area shall receive adequate medical treatment and attendance, and that every insured person shall have the free right to arrange with any doctor within the accepted service to attend him during the continuance of the scheme.

In London the London Medical Committee has instituted a strenuous campaign, and has raised a fighting fund. Its guiding principle has been to secure for the insured person in the administrative County of London the free choice of doctor. The Committee was well aware that its task was no light one, and it has been meeting from day to day. It has kept the press well informed of the progress of affairs, and, although its communications have met with a different sort of welcome from different papers it has succeeded in thoroughly arousing public attention and in interesting insured persons. Posters and leaflets have been displayed and distributed telling the insured in what way they may be able to retain the services of their own doctor, and forms claiming this right have been filled up by insured persons and forwarded to the London Insurance Committee in very large numbers. The enthusiastic meeting, summoned at three days' notice and attended by over eighteen hundred medical practitioners, at Queen's Hall on Tuesday last, which is

reported in the Supplement, was organized by the Committee, and, in addition, meetings of insured persons, which are very largely attended, are held every evening in various parts of London, and resolutions expressing the determination of the insured persons to have full freedom to choose their own doctor, whether he be on the panel or not, are being passed by overwhelming majorities. The London Medical Committee is very much encouraged by the evidence that the insured persons are on the side of the doctor, and one immediate result of what it has done is shown by the small response to the immense efforts made by the London Insurance Committee to obtain an adequate panel. The official figures, which are published elsewhere, show that the total number of doctors willing to serve on the panel in the 29 boroughs into which the administrative County of London is divided is 759, although it is claimed that this should be increased by 100 doctors residing a short way beyond the boundaries of London who are said to have undertaken to attend insured persons within. Official lists for other parts of the country have not been published, and the statements which have appeared in the press must, in respect of many districts, be received with reserve. It is probable, however, that in many others panels which are held to be adequate have been provisionally formed, and in not a few the large majority of doctors practising in the area have joined, though in many instances under protest, and with a strong feeling that they are being coerced and unfairly treated.

It must be borne in mind that all arrangements now made are provisional, for the period from January 15th to April 14th, and are subject to revision at the instance of either party, the Insurance Committees or the medical profession. It should be noted that the Commissioners, in requiring that the arrangements made now by Insurance Committees should be only provisional, did not profess to be acting out of consideration for the medical profession; the reason assigned for taking this course was that the register of insured persons was not complete and could not be made complete by January 15th, and that in consequence the allocation of insured persons to the care of individual practitioners could not be carried out by that date. The Insurance Committees were enjoined to make provisional arrangements which would afford reasonable certainty that every insured person entitled to medical benefit would, on the presentation of a card issued to him by the Committee, obtain treatment in accordance with the promise of the Act and Regulations. In this strawberry-tinted card the insured person is so informed, and he is directed to apply to the post office, or the officer of customs and excise, for the list of doctors willing to give such attendance.

The provisional nature of the arrangements cuts both ways, but it is abundantly evident that during the next three months the utmost vigilance must be observed, and that the profession has never stood in greater need of local organization with central co-ordination, such as the British Medical Association alone affords, than at the present time. It is of course possible, if not probable, that some of the conditions now regarded with the greatest distaste and suspicion by the medical profession may prove in working to be of minor importance, while others not hitherto brought into prominence may give rise to serious difficulties. This was the case in Germany, where some of the more intolerable defects in the law became evident only after it had been brought into force. The German medical men then had to set to work to organize defence associations, whereas the profession in this country is already provided with such machinery in the British Medical Association. We have good reason to know that this opinion is strongly held by the great bulk of the profession in this country, and that not only will those who are already members rally to it but that others who have not yet joined it will hasten to do so. We are in a position to give a categorical denial to the statements which have been circulated by Government organs in the press to the effect that large numbers are resigning their membership of the British Medical Association. This is not the case. At this season of the year a certain number of members for various private reasons terminate their membership. This year the number of resignations has been in some districts slightly in excess of the average, but only slightly. Some have undoubtedly been actuated by the mistaken opinion that a member by so doing relieves himself of the obligation of the pledge and undertaking into which he freely entered. The pledge was asked for at the expressed wish of the members of the Association, and as was pointed out last week can only be abrogated if they express the wish that it should cease to be of force. During the last year or eighteen months the number of members of the British Medical Association has increased enormously—in many districts by over 50 per cent. This is true of Great Britain; it is true also of Greater Britain, and the home members have received many gratifying assurances of sympathy and support from their fellow members in the overseas dominions.

A RIDDLE OF RELICS.

The extraordinary interest displayed in everything relating to Napoleon has in recent years led in France to the growth of a dense and tangled forest of literature. In this country the interest is hardly less keen. A good many of the books dealing with his career and character—his victories and his defeats, his administration, his opinions on politics, religion, love, and all manner of subjects, his marriage, his mistresses, the garments wherewith he was clothed, the food he ate and how and when he consumed it, his physical infirmities, his last illness and death—have been translated. Nor have books written in English been wanting, the most notable being Lord Rosebery's *Last Phase*, in which the great Emperor is discussed by one who combines with the largeness of view of the statesman and the insight into character of the man of the world a rare gift of literary expression. The medical aspects of Napoleon's last illness have been discussed with great ability by Dr. Arnold Chaplin in a book reviewed in the Journal of December 28th, 1912. In this issue we publish an address in which Professor Arthur Keith surveys the case from a different and, as far as we are aware, entirely novel point of view. The new facts he adduces in evidence are of the highest interest, and his presentation of the case is marked by remarkable ingenuity.

Professor Keith's address may be resolved into two theses. One is that the fragments of small intestine, which are said to have been given by Barry O'Meara to Sir Astley Cooper, and which, on the death of the famous surgeon, came into the possession of the Royal College of Surgeons of England and are now in its museum, were taken from the body of Napoleon. The other is that the ill health of the Emperor at St. Helena before the development of the gastric

cancer from which he suffered was caused by Malta, or as it is now styled, undulant, fever. There are, then, two wholly distinct questions: Are the relics authentic? And is the theory of undulant fever proved by such evidence as is available? The theory does not stand or fall by the authenticity of the relics, for it is obvious that Napoleon may have had undulant fever, while the pathological evidence of the disease may have been buried with him.

To most the question of the authenticity of the relics is the more interesting. It is well known that there are in the museum of the Royal College of Surgeons of England two small pieces of human bowel taken from the lower part of the ileum which came from the museum of Sir Astley Cooper, and were described in the MS. catalogue of that museum as "Incipient fungus in the glands of an intestine. Napoleon. Barry O'Meara to Sir Astley Cooper." The specimens are described in the edition of the Pathological Catalogue of the College Museum, revised by Sir James Paget in 1883, as the seat of cancerous lesions. Grave doubt was, however, expressed by Paget as to the authenticity of the relics. The reasons for his scepticism are that no mention of such lesions is made in Antommarchi's report of the *post-mortem* examination, where it is stated that the mucous membrane of the intestinal canal appeared to be in a sound state; that O'Meara, who gave them to Cooper, was in England when Napoleon died, having been recalled nearly three years before the end of the drama at St. Helena; and, finally, that Napoleon's body was so closely guarded that it is improbable that anything could have been taken away.

M. Frémeaux, one of the highest authorities on everything relating to Napoleon, admits that it is possible, though highly improbable, that any part of the Emperor's body can have been abstracted; but he insists that it is impossible that any such specimen can have found its way to the museum of the College of Surgeons. The examination, which was made by Antommarchi, was carried out under the eyes of seven English surgeons, and several representatives of Sir Hudson Lowe and of the Emperor's household. When the body was sewn up, one of the surgeons, Rutledge, was ordered to take charge of the remains, and Dr. Chaplin, who has gone to the original sources, the "Lowe Papers" in the British Museum, says that from his account therein contained there can be no doubt that he never lost sight of the corpse till it was soldered down in the coffin. The heart was placed by Rutledge in a silver vase with spirits of wine, and the stomach in a silver pepper-box, without any preservative, the supply of spirits of wine having been exhausted. When the coffin was opened in 1840, the two silver vessels were found in it. Rutledge says that Antommarchi begged to be allowed to take away the stomach that he might show the family the disease which had killed the Emperor, while Madame Bertrand asked that she might have the heart. These requests were refused, a fact which goes to show that the order that nothing should be taken away was no mere formal injunction. It must be remembered that Sir Hudson Lowe, all the time he had had the Emperor in his custody, kept a watch of the most jealous kind on his movements, and visited the slightest breach of his orders on the part of officers under his command with swift and severe punishment. It must be remembered, too, that the case was far outside the domain of ordinary *post-mortem* experience, and the watch must therefore be taken to have been proportionately strict. Therefore, though it may be admitted to be within the bounds of possibility that something was removed, it requires a somewhat vigorous "wish to believe" for it to be accepted as a fact that this was actually done.

As to the disease shown in the fragments of intestine which form the relics, Cooper and Paget agree in describing it as cancer. This has been disproved by examinations of the specimens by modern methods. Sir Frederic Eve found, on making microscopical sections of the outgrowths, that they were not cancerous. A further examination, made more recently by Mr. Shattock, shows that the lesions represent a solitary and an agminated gland of the lesser size. In form and size, he says, they resemble such glands when enlarged from inflammatory or hyperplastic conditions. There is no indication that either is the seat of a carcinomatous inroad from the epithelium. In both glands haemorrhage appears to have occurred, and bacteria, probably *B. coli*, can be plainly seen in them.

Professor Keith's faith that the relics might prove authentic rested, he tells us, on his belief in Sir Astley Cooper, who had, as is well known, special opportunities of acquiring anything of particular medical interest. Moreover, he was the trusted medical adviser of Lord Liverpool, the Tory Prime Minister during the captivity of Napoleon, and he was well acquainted with Lord Bathurst, Secretary for War and for the Colonies, who had Napoleon specially under his care. Professor Keith takes it for granted that he must often have been consulted by these two men about the Emperor's case. If he is right in this conjecture some part of the responsibility for the medical muddle at St. Helena must be transferred from the doctors there to Astley Cooper. We know that it was the official view, obstinately held and impressed on the doctors, that Napoleon was not ill at all. When the Emperor was actually dying that egregious person, Lord Bathurst, who had treated the plague of rats at Longwood as a matter for stupid jesting, wrote: "*If he be really ill* he may derive some consolation by knowing that the repeated accounts which have *of late* been transmitted of his declining health have not been received with indifference." There is no reason whatever to call in question the judgement or honesty of Sir Astley Cooper, but we think we may be excused for not having the same trust in Barry O'Meara. As O'Meara had left St. Helena nearly three years before Napoleon's death, it is obvious he could not have stolen the specimens himself. Professor Keith thinks that they were given to him by Antommarchi. Of this there is no proof. Both men were in London in August, 1821, and it is likely enough that they may have met; but Professor Keith's conjecture that they would meet "and see if they could not retrieve their position and convince the public that they were right in their diagnosis" is scarcely felicitous in view of the fact that Antommarchi's own examination had already shown that the diagnosis was wrong. All the rest is more or less plausible assumption. Neither O'Meara nor Antommarchi was a person whose unsupported word could be relied upon, a fact which Professor Keith seems to us to slur over. He thinks they were maligned, but we are inclined to believe that he wastes his sympathy. Antommarchi, on whom Professor Keith mainly pins his faith, interpolated a statement to bolster up the hepatitis theory in his report of the *post-mortem* examination, and later published the pathological plates of his master, Mascagni, as his own. Apart from this his book from internal evidence is untrustworthy. Professor Keith says Antommarchi was much misunderstood;

our impression is that he was too well understood. It is his credit, not his scientific knowledge, that is in question, and on that point we think we may safely accept the judgement of Napoleon and Lord Rosebery.

The authenticity of the relics, then, finally depends on the indirect testimony of O'Meara, who gave them to Sir Astley Cooper. Great collectors are usually enthusiasts, and strange things have been palmed off on them by interested persons. Cooper may have therefore accepted the relics without too close an inquiry into their provenance. On the whole we would say, as Falstaff's tailor said of Bardolph, that the defenders of their authenticity should procure us better assurance than O'Meara; we like not the security.

Coming to the second thesis, Professor Keith shows that the supposed growths are enlargements of Peyer's patches, and he says that these lesions, together with the clinical notes made by the doctors, prove that the Emperor suffered from a disease in which the lymphoid tissue of the body is subject to enlargement. Both the clinical and the pathological evidence correspond to those of undulant fever, and there was abundant opportunity for the conveyance of infection. This is a theory, plausible enough in itself, but it does not, if accepted, prove the authenticity of the relics. What Professor Keith has to show is not only that the owner of the diseased intestine suffered from undulant fever, but that the owner was Napoleon. The pathological examinations throw light on the nature of the disease in the part subjected to inspection, but none on what we regard as the principal problem. Professor Keith has proved that Sir Astley Cooper and Sir James Paget were mistaken in thinking that the lesions were cancerous; he has shown it to be highly probable that Napoleon suffered from undulant fever. But while thanking him for a communication of quite exceptional interest, we think he has somewhat strained the evidence as to the relics. At any rate his solution of the riddle leaves us with the impression that the only safe conclusion is what Rabelais might have called *Un grand peut-être.*

THE SENSORY PHRENIC AND ITS ORGANS.

The habit of regarding the phrenic as no more than the motor nerve supplying the diaphragm is, we believe, deeply ingrained in most medical men. To learn the full extent and variety of its sensory distribution comes, to one who is not a professed anatomist, perhaps with something of a shock; and this aspect of its functions is worthy of the thorough and well-documented analysis to which it has recently been subjected by Dr. Kidd.[1] For the last twenty years or so the sensory phrenic has been unduly neglected by clinicians. Both Hippocrates and Galen were aware that subdiaphragmatic pains were sometimes associated with pains in the region of the clavicle, and Dr. Kidd would have us believe that these Fathers of Medicine were also acquainted with the anatomy of the various sensory branches of the phrenic nerves.

Be that as it may, no further clinical advance was made till 1835, when Bouillaud referred some of the pains of the cardiac neuralgias and the pain of pericarditis to irritation of the phrenics. In 1853 Gueneau de Mussy wrote a most interesting clinical account of diaphragmatic pleurisy and its relationship with the phrenic nerves, and showed how spontaneous pains in the region of the shoulder and above the clavicle might be afferent phrenic pains due to such diseases as pericarditis, pleurisy, and hepatitis. In 1871 Peter described diaphragmatic or phrenic neuralgia, a clinical entity the existence of which would nowadays be denied by many; his paper is described as "by far the greatest piece of clinical work ever done on the sensory phrenic," and he emphasized the fact that the phrenic is a mixed nerve, and not exclusively motor. The additions made to our clinical knowledge of the phrenic nerves since Peter wrote are few; James Ross (1883) made the addition of hepatic abscess to the morbid conditions that might underlie pain over the shoulder-tip, but made no further original contribution to our knowledge of the sensory phrenic.

In 1891 the proof that many of the nerve fibres in the phrenics were sensory and afferent in function was furnished by Ferguson. In a fatal case of progressive muscular atrophy with paralysis of the diaphragm, he found *post mortem* that about one-third of the fibres of the phrenic nerve were normal, while partial or complete degeneration had taken place in the remaining two-thirds. Experimental section of the phrenic nerve or of its contributory cervical dorsal nerve roots in the cat confirmed his view that only two-thirds of the nerve fibres in the phrenics were motor fibres. Ferguson's discovery of these sensory fibres was confirmed three years later by Sherrington, and in 1898 Sand found that the sensory fibres of the diaphragm are connected with the third to the sixth cervical spinal ganglia. Dr. Kidd believes that these sensory fibres are of two sorts—muscle-sensory and postural. As he points out, there are many gaps in our knowledge of the phrenic nerve: What is its developmental history? Does it contain non-medullated nerve fibres? In which of its branches do the afferent fibres mainly lie? What is the ganglionic origin of its suprarenal branches? All these are important questions crying out for investigation. It is certain that branches of the right phrenic go directly to supply the pleura, pericardium, diaphragm, peritoneum, inferior vena cava, and right auricle of the heart, and, by way of the diaphragmatic plexus, also to the liver, coronary ligament, and right suprarenal body. The left phrenic nerve supplies the pleura, the pericardium sometimes, the diaphragm, and, by way of the coeliac plexus, the left semilunar ganglion and the left suprarenal body.

Large numbers of cases of referred phrenic pains have been misunderstood by clinicians in the past for want of appreciation of the extent to which the sensory phrenic supplies—or, as for want of definite anatomical proof one ought perhaps to say, presumably supplies—the organs on either side of the diaphragm. In any case of pain in the neck, the shoulder, the clavicular region, the inner side of the upper arm, it may be that the pain is a referred pain from one of these viscera by way of the sensory phrenic nerve. Thus, such various disorders as old pleuritic adhesions at the base of the lung, peritonitis, pericarditis, angina pectoris, cancer or abscess of the liver, suprarenal tumour, gall stones, cervical tabes, aortic aneurysm, may all by pains in the neck and shoulder betray themselves to the clinician whose attention has once been directed to the sensory fibres of the phrenic nerve. To diagnose neuritis or neuralgia in such instances, and to confine treatment to the aching neck or shoulder, are clearly inadequate

[1] The Sensory Phrenic and its Organs. By L. J. Kidd. *Review of Neurology and Psychiatry*, vol. ix, p. 587

procedures, though cases in which this has been done cannot be very infrequent.

There are other interesting points in Dr. Kidd's paper—the possible connexion between arthritis of the shoulder and diaphragmatic disease, for example, or the part played by the sensory phrenic in the development of a diaphragmatic hiccoughing tic. For these we must refer the reader to the able and timely original article in which Dr. Kidd has set out no small amount of novelty, together with much sound learning that has been undeservedly forgotten.

INSECTS, DIRT, AND DISEASE.

IT is about thirty-five years ago since the idea that insects might act as disseminators of disease was given a sound basis of fact by the observations of Manson, Lewis, and other workers on the life-history of filaria, and its transmission by the mosquito. It is almost exactly eighteen since Manson published in this JOURNAL the hypothesis that malaria was transmitted by mosquitos, founding himself on general considerations as to the etiology of the disease and the nature of the parasite discovered by Laveran in Algiers. It is rather less than seventeen years since Ross proved the truth of this hypothesis by his brilliant observations in India. At about the same time Manson ventured the forecast that we were then only at the threshold of a great expansion of knowledge of the part played by insects in the dissemination of diseases both of man and animals. It appeared then to many of those most disposed to accept the truth of the prophecy that it would be found to apply chiefly to the diseases of tropical and subtropical countries. How far short of the facts this opinion fell appears from Dr. C. J. Martin's lecture before the Royal College of Physicians of London, the publication of which is concluded in this issue. He confined himself to bacterial infections, but had a formidable indictment to make. The biological interest of the way in which the insect porters of infection do their evil work is less than that which attaches to the more complex story of the part played by insects in the cycle of the protozoal, trypanosome, and filarial parasites. In the bacterial diseases with which Dr. Martin deals the insect is not an essential, though it may be the most frequent, disseminator. The relation is to so large an extent accidental in, for instance, typhoid fever that the disease may easily remain endemic or become epidemic in the absence of flies; on the other hand, the circumstances may be such as to make the insect a most important, if not the most important, factor, as in the typhoid fever of camps. In the cases of typhus fever, relapsing fever, and bubonic plague, the importance of the part played by the insect—the louse, the tick, and the flea respectively—is greater, and there is good reason to believe that effective prevention of the access of these parasites to man would go a very long way to prevent the prevalence of these three diseases which they are undoubtedly capable of disseminating. As to poliomyelitis, the evidence is incomplete, but there is reason to put the biting stable fly, *Stomoxys calcitrans*, under suspicion, since it has been proved capable of transmitting this terrible disease. There are few insects which so well have earned the contempt bred of familiarity as the housefly, few which excite so much repugnance in the normal, cleanly man as the louse. The lesson of Dr. Martin's lecture seems to be that repugnance is a more healthy attitude of mind towards domestic insect pests than contempt. If the louse means loathsome, personal uncleanliness, the fly and the flea mean domestic dirt which ought to be not less loathsome.

THE DEFINITION OF STILLBIRTH.

AT the November meeting of the Royal Statistical Society[1] Dr. Reginald Dudfield read a paper on stillbirths in relation to infantile mortality. The chief medical interest of the subject centres on the definition of the term "stillbirth." In the JOURNAL of August 31st, 1912, will be found a notice of the valuable report on infantile mortality prepared by a committee of the Royal Statistical Society presided over by Dr. Dudfield. In that report a definition of "stillbirth" was submitted by the chairman for discussion, in which functional activity of the heart was taken to be the basal sign of life, and the period of gestation required to bring the product of conception within the category of births was assumed to be seven lunar months. The definition did not form part of the conclusions adopted by the committee, and in criticizing this definition we ventured to point out that the question whether the heart does or does not beat cannot always be answered by any but skilled observers, and that the age of the fœtus can only be determined by a *post-mortem* medical examination. With respect to the former point, Dr. Dudfield admits that "the final test of life—whether in a newborn child or in an adult—must involve a knowledge of medical and physiological sciences which is not possessed by the uninstructed and popular world." With regard to a determination of the period of gestation, Dr. Dudfield is of opinion that his definition should be amended. At his request the subject was referred by the Council of the Obstetrical Section of the Royal Society of Medicine to a committee of that body, and the following definition was approved by them: "A stillborn child means a child which measures more than thirteen (13) inches in length from the top of the head to the heel, and which, when completely extruded from the body of the mother (head, body, and limbs, but not necessarily the afterbirth), exhibits no sign of life by crying, or breathing, or by pulsation in the cord at its attachment to the body of the child or by beating of the heart. (N.B.—The final test of life is the pulsation of the heart, but this can only be ascertained by an expert.)" Dr. Dudfield prefers the following modification of this definition: "A 'stillborn child' means a child whose body at birth measures not less than 13 inches (32 centimetres) in length from the crown of the head to the sole of the heel, and who, when completely born (the head, body, and limbs of the child, but not necessarily the afterbirth, being extruded from the body of the mother), exhibits no signs of life—that is to say, whose heart has ceased to function, as demonstrated by the absence of pulsation in the cord at its attachment to the body of the child and absence of any heart sounds or impulses. (Note.—Crying and (or) breathing—being secondary signs of life, manifested only when the heart is acting—can be relied upon as signs of life, but the absence of either or both is not to be held to be proof of the absence of life in the child.)" In the course of a discussion of the suggested definitions Drs. Amand Routh and Walter Griffith expressed a preference for the form proposed by the Obstetrical Section, and emphasized the difficulty, alluded to in our previous remarks, of detecting the pulsations of the fetal heart when beating feebly. Drs. Butler and M. Greenwood, jun., took a similar line, pointing out also that, from the purely scientific point of view, it might be questioned whether there were any one basal test of life, Dr. Butler remarking that "there is no physiological necessity for relying upon evidence of circulation as the sign of life or its absence as the sign of death." In his reply Dr. Dudfield observed that the doubts as to the possibility of giving one basic test of life or death did not seem to him pertinent to the matter under discussion. He said that the test of life which was being sought was one that could be used in the ordinary

[1] *Journal of the Royal Statistical Society*, December, 1912, p. 1.

routine of medical practice. Persistence of the heart's action had been selected as the test of life in a newborn child, because common experience pointed to the fact that in ordinary routine work resuscitation of an apparently dead infant was not possible after the heart had ceased to beat. It will be seen that Dr. Dudfield's critics objected to his use of the heart-beat in the definition on two grounds—namely, that if the definition were to be regarded as a scientific enunciation it was not strictly accurate, and if it were merely to be taken as a working rule it involved a higher degree of skill than was usually available. Dr. Dudfield's reply suggests that he desires the definition to be regarded from the point of view of practice, and we think that from that point of view many will be found to agree with those who preferred the form advocated by the Obstetrical Section. The whole subject is one of great interest, and the Royal Statistical Society in general, and Dr. Dudfield in particular, deserve the hearty thanks of the medical profession both for the original report on infantile mortality and the illuminating discussion which Dr. Dudfield has initiated.

DYNAMICAL DIAGNOSIS OF THE PULSE.

CHRISTEN[1] of Berne has recently raised the question why many clinicians consider palpation of the pulse of more value than tracings by the sphygmograph or sphygmomanometer. This opinion was shared by the late Sir William Broadbent. He proceeds to answer the question by pointing out that there are two important qualities of the pulse—namely, "plenitude" and "intensity" of pulse-beat, about which sphymomanometry give us no information. These qualities can be appreciated by palpation; if they are to be measured an exact definition must be established. What is called "plenitude" of the pulse is an appreciation of the blood volume which is filling the collapsed artery by the action of the pulse-beat. The "intensity" is the mechanical energy required for filling the artery against an obstacle. In other words, the greater the systolic increase, the greater the obstacle overcome by the pulse-beat, the greater will be its "intensity." The latter may be found accurately by multiplying the two former quantities. No problem in physiology is so essentially dynamical as the circulation. Pressures as measured by the sphygmomanometer are static quantities only. The filling of a collapsed artery against a given pressure is a dynamical process, and the mechanical energy required is therefore a dynamical quantity. Christen suggests that palpation may equally be transformed into a scientific method. Two of the factors in this connexion—namely, the plenitude of the pulse and its intensity—have already been defined. The third factor is the obstacle set in the way of the pulse-wave in place of the palpating finger. For this purpose the ordinary inflated pneumatic armlet is used. By means of an apparatus he has devised called the "Energometer," Christen claims to be able to compute these factors. A manometer of minimal inertia and friction is necessary, and for this purpose he finds a delicate metallic manometer is best. A mercurial gauge would be unsuitable, and would falsify the results. He interprets the method of ascertaining the plenitude and intensity of the pulse in a description of the practical use of the instrument. Usually the intensities of healthy people vary between 200 and 350 gr. cm., according to their body weight, whereas in cachetic conditions the intensity remains below 100 gr. cm. The author chooses the calf of the leg for demonstration, as the amplitude of oscillation is somewhat greater than in the arm. The results of energometry are not only independent of the thickness of the soft parts and the elasticity of the armlet, they are equally independent of the gas volume within the armlet. From investigations on the elasticity of the arterial wall, Christen concludes that the particularly high values of intensity in arterio-sclerosis are partly due to elastic energy, and not to the intrinsic energy of the pulse-beat. Energometry opens up new fields of clinical investigation based upon exact mathematical conceptions.

[1] *Edinburgh Medical Journal*, October, 1912.

MEDICAL TERMS IN THE "NEW ENGLISH DICTIONARY."

THE current part of the *Oxford English Dictionary*[1] is the first of the tenth volume of the whole work; in other words, Sir James Murray and Drs. Craigie and Bradley, who are associated with him in the editing of this *magnum opus* of lexicography, have reached the last volume of their great task. Much remains to be done, for the eighth and ninth volumes have to be finished, and this is only the first part of the tenth, and yet with all the three editors at work the end is really in sight and may perhaps be reached in three or four years. The first medical term in this instalment is *tibia*, with its adverb *tibiad* and its adjective *tibial*; Sir James Murray has succeeded in getting an illustrative quotation on the last-named from the sixteenth century, from a book of *Physicke* (of 1599), which tells "if it be a tibialle Fracture, he must continuallye lye on his Backe." The word *tic* has a very interesting history; in French *tic* (*ticq*, *tiquet*) was first the name of an equine affection, a disease "which on a sudden stopping a horse's breath, makes him to stop, and stand still," and was perhaps related to the Italian *ticchio*, a whim or caprice; now it is a disease characterized by spasmodic twitching of certain muscles, especially of the face, but most often it is used as a synonym for *tic-douloureux* in which the twitching of the facial muscles is accompanied by severe neuralgia of the fifth nerve and its branches. *Tick*, which is a name for several kinds of mites or acarids, has an obscure etymology, and has come prominently into notice lately in connexion with some tropical maladies; it is quite a different word from *tick*, meaning a cover containing feather or flocks, as well as from *tick*, signifying a pat, tap, or beat, as "a tick of the pulse." In describing the sound of the heart-beat the words *tick-tack* are often used, but they are usually put in the French form, *tic-tac*. Another interesting term is *tincture*. At first it meant the (supposed) essential principle of any substance in solution; thus, "tincture of the Moon was a dissolution of some of the more rarify'd parts of Silver" (hence Moon) "made in Spirit of Wine, and whetted by Alkali-Salts." Now, in modern pharmacy, it signifies "a solution, usually in a menstruum of alcohol, of some principle used in medicine, chiefly vegetable, as tincture of opium (laudanum), but sometimes animal, as tincture of cantharides, or mineral, as tincture of ferric chloride." *Tincture* has also a number of obsolete meanings, such as the action of staining, a blemish, a physical quality other than colour, etc. The *Dictionary* does not miss any rare terms, although, as a matter of fact, there are not very many in this section; amongst these the surgical instruments known as *tire-fond* and *tire-tête* may be noted. *Toilet* has many meanings, but "the cleansing of a part after operation" is not omitted. Finally, the balsam of *tolu*, with all its derived words (*toluate*, *toluene*, *toluides*, *toluidine*, etc.), is not forgotten; indeed, the whole chemistry of the substance is compressed within thirty-seven lines, and illustrative quotations occupy forty-seven more. Doubtless there are slips and printers' errors in the *Dictionary*, but it is hard indeed to detect them.

[1] *A New English Dictionary on Historical Principles*. Edited by Sir James A. H. Murray. Ti—Tombac. Volume x. Oxford: At the Clarendon Press; Henry Frowde. Double section, January 1st, 1913. Price 5s. ($1.25).

THE DIAGNOSIS OF VENEREAL DISEASE.

A LITTLE more than a year ago the Public Health Department of the City of New York initiated an investigation into the extent of the prevalence of venereal disease of all kinds within its area. The first step taken was to direct all superintendents of public institutions to report promptly to the Board cases of venereal disease of any kind coming under their notice, and a similar request was made to a certain number of private medical men. After some months' experience the Board resolved to proceed a step further, and has now requested every medical man practising within the confines of New York City to report every case of venereal disease seen by him during the year 1913. In reporting any case the name and address of the patient are to be omitted, but the age and sex are to be stated, together with the character, stage, and duration of the infection, and, if possible, the date of its acquirement and its source. Each report is to be filed by the Board under a descriptive number which is to be given to the reporting medical men. Forms on which to make the reports are to be supplied, together with stamped envelopes for their transmission. The information furnished is to be regarded by the Board as absolutely confidential, and the records are not to be deemed public records, and will therefore be inaccessible to members of the public. A further step is the establishment of two clinics to which patients can be sent by medical men, if they so desire, for the purpose of having a precise diagnosis of the disorder made, one of such clinics being open in the morning, the other in the evening. The Wassermann test and bacteriological examination of discharges will also be performed free of charge, and outfits for taking specimens will also be supplied free. This enterprise constitutes, we believe, an entirely new departure in any country, and can hardly fail to produce some very interesting figures. Possibly, however, those figures will be incomplete, for a certain proportion of medical men are likely to fail to supply the reports requested. In addition, the records of a certain number of cases are likely to be duplicated, since patients with venereal disease are very prone to change their medical advisers, and apparently the Board's arrangements include no method by which any given case can be distinguished or identified with one previously brought to the notice of the Board. The precise object of the Board in making the investigation is also not very clear, since the collection of the statistics in view can hardly affect the question of treatment or the facilities for infection. Possibly, therefore, the Board is merely laying the foundations for some further measure, or desires to attract attention to the serious loss of health due to the causes in question by laying before the public what are certain to be very high figures. Still the public can hardly fail to be already aware of how immense is the damage done by venereal disease, especially syphilis, or of the fact that in no other connexion are the sins of the father so relentlessly visited on the children, and of the further fact that syphilis plays a large part in filling the asylums for the insane. Despite this knowledge, any attempt to introduce measures likely to reduce the possibilities of infection would be met, if past experience in this connexion is any gauge, by the most strenuous resistance on the part of a certain number of the British public. But to the second feature of the New York undertaking different considerations apply. The arrangements for the precise diagnosis of venereal diseases are certainly calculated to promote its more accurate and enduring treatment, and some step of the kind is certain to be found necessary in connexion with the National Insurance Act. Venereal diseases are among those which medical men on the panels will have to treat, and undoubtedly they will not infrequently require diagnostic assistance. Laboratory diagnosis in this connexion will, indeed, be one of those many side sources of heavy expenditure for which Mr. Lloyd George is not known so far to have made provision, though he has made an undefined reference to the need for the employment of modern means of exact diagnosis. An additional point worth noting is that the records of their work that medical men on the panels will have to keep will, so far as the insured classes are concerned, automatically supply returns of a kind equivalent to those now being sought by the New York authorities, though possibly the interests of individuals will not be so fully safeguarded.

SOMERSAULTS AT SIXTY.

AT a recent meeting of the Swedish Medical Society, the transactions of which are published in the November number of *Hygiea*, an address, followed by a demonstration, was given by Dr. H. Hogner, who expatiated on the advantages of walking on the hands. This gymnastic feat he began to practise at the age of fifty as a cure for gastroptosis. He has now completed his sixtieth year, and almost daily practises this and similar exercises, such as pedestrianism and various movements of the stomach, legs, and arms. He also attached great importance to somersaults, and found that walking on his hands had become almost as natural a mode of progression as walking on his feet. He pointed out that daily somersaults had contributed to the perpetual youth of a famous American beauty, and that such exercises could be performed by anyone with energy and application, provided he was not too stiff or clumsy. He also attached great importance to temperance in eating, and the surrender of that comfort and good living which he contemptuously termed ill-living. He concluded by saying that walking on the hands, with the exercise it entailed, was the best combination of gymnastic movements, and that it comprised the good effects of all. It therefore deserved to rank as the best gymnastic exercise for the promotion of long life and continuous youth. After the address Dr. Hogner illustrated how a man of sixty can walk on his hands and perform somersaults. We do not wish to belittle Dr. Hogner's treatment, the adoption of which by certain elderly epicures might not be amiss. But a similar doctrine has already been advanced and practised by the hero of Lewis Carroll's lay:

> "You are old," said the youth, "as I mentioned before,
> And have grown most uncommonly fat;
> Yet you turn a back somersault in at the door—
> Pray, what is the reason of that?"

We are a little tempted to wonder why Dr. Hogner does not include standing on his head among his other gymnastic accomplishments. Like Father William he might find this exercise free from danger to the cerebral hemispheres.

THE INTELLECTUAL STANDARD OF DOCTORS.

A CORRESPONDENT in a weekly paper which has lately devoted a considerable amount of its space to abuse of doctors, writes that, apart from professional knowledge, the intellectual standard of medical men is much higher abroad than in this country. "Abroad" is a wide term, but it would appear that it is intended to mean France and Germany. English doctors, we are told, make no pretence to be classical scholars, "but how few there are who are really at home in either French or German!" To which we may retort, How few of the English clergy, lawyers, and so forth, who are placed on a pinnacle by the writer, are really at home in either French or German! There is not the slightest reason, as far as we are aware, to believe that doctors are linguistically inferior to parsons or lawyers. It might also be asked, How many Frenchmen are really at home

in English? The Germans, to be sure, are better linguists, but it must be remembered that Germany does not give English doctors anything like the same chance of becoming familiar with her language that we give to the invading Teuton. The writer's assertion that English doctors are inferior in general culture to their French and German brethren is, as far as we have had an opportunity of forming a judgement, entirely unwarranted by facts. It is true that many of the keenest minds of the nation are attracted to fields of activity which offer a better financial return. But fortunately many men of intellect are attracted to the profession by the interest of the work, and it would be strange indeed if medical men whose education is more elaborate and costly than that of any other class of the community should have a lower intellectual standard than that of other professional men. Men of culture, as a rule, delight in the society of doctors. Quite recently we had occasion to quote the experience of the famous French writer, Jules Lemaitre, on this subject. It is recorded by Boswell that Johnson "in general had a peculiar pleasure in the society of physicians." Sir James Paget, as is mentioned in his *Memoirs and Letters*, sat one evening at that very select club, Grillion's, between Gladstone and Matthew Arnold. The talk turned on professions, and Gladstone said that medicine, steadily developing and improving, was the profession of the future. Arnold said he had been much impressed in America by the superiority of the doctors over the clergy and the lawyers. As regards classical culture in particular, that is becoming more and more the appanage of a highly specialized class. Members of Parliament no longer quote Latin, and the time is long past when, as Sydney Smith said, a false quantity in early life was a serious stumbling-block in the career of a young politician. Yet we have some first-rate classics in our ranks, and many men of wide and varied culture that need fear no comparison with any one of any country or profession.

NEW YEAR HONOURS.

In the note upon the honours conferred at the New Year the names of two officers of the Indian Medical Service were accidentally omitted. The distinction of C.I.E. has been conferred upon Lieutenant-Colonel W. J. Buchanan, M.D., who has been Inspector-General of Prisons in Bengal for eleven years, and has initiated several reforms in the Jail Department. He has been for several years editor of the *Indian Medical Gazette*. The other officer honoured in the same way is Major W. G. Liston, M.D., Director of the Bacteriological Laboratory at Parel, and senior member of the Plague Research Commission.

THE Secretary of State for the Colonies has appointed Lieutenant-Colonel Sir William B. Leishman, M.B., C.M.Glas., R.A.M.C., F.R.S., Professor of Pathology at the Royal Army Medical College, London, to be a member of the Advisory Medical and Sanitary Committee for Tropical Africa.

UNDER the will of the late Mrs. Ellen Greer, the Royal National Hospital for Consumption at Newcastle, co. Wicklow, and the Molyneux Asylum for the Blind, near Dublin, each receive a bequest of £500.

MR. WILLIAM LANG, F.R.C.S., consulting surgeon to the Royal London Ophthalmic Hospital (Moorfields Eye Hospital), has given a special donation of £450 to the hospital for the endowment for three years of a clinical research scholarship.

THE Bavarian Administrative Council has decided that there is no legal objection to the practice of cremation in that country. As a result of this decision, the City Council of Munich has lost no time in utilizing the crematorium of the Cremation Society, which was already in existence.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

School Medical Inspection.—In reply to Mr. Charles Bathurst the President of the Board of Education stated, on January 1st, that the total expenditure on medical inspection and treatment of children in elementary schools in England and Wales, as shown by the returns received from local education authorities for the financial year 1910–11, amounted to £186,999. This was the latest year for which complete returns had been received. The whole of the cost was borne by the local authorities. In reply to a question by Mr. William Thorne on January 6th, the President of the Board of Education said that all the local education authorities had appointed school medical officers. Sixty-seven local education authorities had received sanction under the Education (Administrative Provisions) Act, 1907, for the establishment and maintenance of school clinics. Some authorities had established more than one clinic, and others had been established by voluntary effort, but he could not give the exact number.

Sanitary Authorities.—Mr. Stanier asked the President of the Local Government Board, on January 1st, the number of sanitary authorities, other than a rural district, who had populations of 50,000 and upwards, 100,000 and upwards, 250,000 and upwards, and 500,000 and upwards, respectively? The President of the Local Government Board replied that the numbers in England and Wales were as follows:

With a population of 50,000 and upwards	...	122
,, ,, 100,000	,,	...	65
,, ,, 250,000	,,	...	16
,, ,, 500,000	,,	...	3

Twenty-seven metropolitan boroughs were included in these figures.

Disposal of Trade Effluent.—In reply to Mr. Tyson Wilson, the President of the Local Government Board stated, on January 3rd, that he had a bill in preparation dealing with the reception and disposal of trade effluent as recommended by the Royal Commission on Sewage Disposal.

Ophthalmia at Hanwell.—Mr. Burns, in replying to a question by Lord Ninian Crichton-Stuart on January 6th, said that the number of children isolated or treated during the outbreak of ophthalmia at the Park School, Hanwell, was 159; the number of children resident in the Park School on December 31st last was 337; and their average age about 5½ years. The outbreak was attributed to the admission of children the condition of whose eyes, though there was no active disease, was unhealthy, and such children were not in future to be admitted. The buildings were used as an ophthalmic school up to March, 1903, and were not made use of for other purposes until the experts consulted advised that this could safely be done.

Mental Deficiency Bill and Scotland.—Mr. Duncan Millar asked the Secretary for Scotland, on January 7th, whether his attention had been drawn to the resolutions adopted at a large meeting of representatives of parish councils from all parts of Scotland, recently held in Glasgow, in favour of a separate bill for Scotland dealing with the care and control of the feeble-minded. Mr. McKinnon Wood, in reply, said that he could not at present give any undertaking on the subject, but he expected shortly to receive the views of the parish councils in greater detail, and would then be in a better position to come to a final decision. There was a good deal to be said for a separate bill.

Canada.

[FROM OUR SPECIAL CORRESPONDENT.]

Dominion Medical Council.

The organization of the Medical Council of Canada, at a meeting of representatives of the various provinces in Ottawa on November 7th, 1912, was the first-fruits of the Canada Medical Act, or what is commonly spoken of as the "Roddick Bill."

History.

The prime mover in securing the passage of this Act was Dr. T. G. Roddick, of Montreal, a man well known and honoured both by the profession and the public. The condition of things which weighed upon Dr. Roddick, and for the removal of which he began his labours nearly fifteen years ago, although somewhat modified since then by other circumstances which have arisen in certain parts of the Dominion, still remains and practically prevails throughout Canada. A medical man, no matter how well qualified by diploma or by additional long experience, cannot cross, perhaps, a country road or stream in the exercise of his calling, if such streak on the map should happen to be the boundary line of his province, without violating the laws of the other province and becoming at least technically liable to penalties. At the same time he is unable to remove this barrier without going through the ordeal of an examination not only in the final practical professional subjects, but in most cases in the earlier scientific subjects—chemistry, anatomy, physiology as well, and of course in addition paying a licence fee. Such a state of matters is annoying and embarrassing to the practitioner, even though to some extent he understands why the thing is so; to the public, who cannot appreciate the reasons set forth, it seems ridiculous.

Two methods at first presented themselves by means of which it appeared that the difficulty might be removed. The first was what is known as direct interprovincial reciprocity, by which each province would agree to accept registered practitioners in good standing coming from any other province. The second might be called indirect reciprocity, as by it each province would first secure recognition and reciprocity with Britain, and as the natural outcome of this, interprovincial reciprocity could easily result. Attempts to attain the objects in view by the first method had failed for reasons which need not be gone into. The method which involved that each province should first secure reciprocity with Britain has been adopted by Nova Scotia, Quebec, and Prince Edward Island, and so far as these provinces are concerned has been eminently successful. But all the provinces for one reason or another did not see fit to proceed along this line.

The aim of the "Roddick Bill" which became the Canada Medical Act, 1902, was to endeavour to accomplish the object in view by creating a general medical council for the Dominion, and by establishing a Dominion qualification and a Dominion register, with the intent that any person who should obtain such qualification after examination before a board of examiners appointed by the Council or should otherwise become registered in the Dominion register should *ipso facto* be entitled without further examination to registration for practice in any and every province of Canada.

The great difficulty which from the first confronted Dr. Roddick was the fact that under the British North America Act the Dominion Parliament could not pass an absolute Act dealing with the matter. It was necessary that any such Federal legislation in order to become operative should be endorsed by the addition to the Medical Act of each province of what is known as an "Enabling Clause." The Medical Board of Nova Scotia, while fully alive to the practical difficulties which would still have to be met even after the Act should become operative, was among the first, if not the first, of the provincial councils to secure the necessary enabling legislation in 1903, but it was not until after much discussion in the various councils and medical associations, and after a further amending Act had been passed, that in 1912 the last province in the Dominion passed an enabling clause making it possible for the Dominion Council to be organized and begin operations under the Act.

Constitution of the Council.

The setting of the date and place for holding the organization meeting at Ottawa devolved, under the Act, upon the Minister of Agriculture, but instead the Government appointed the Hon. W. J. Roche, M.D., Secretary of State, to assist the various provincial councils in the organization of the General Council. Under instructions from Dr. Roche the bodies entitled to representation were requested to select their representatives, and later these representatives were notified to attend at Ottawa in the Parliament building on the morning of November 7th, 1912, for the purpose of organization. Under the Act the Council must be composed of:

(*a*) Three members who shall be appointed by the Governor in Council, each of whom shall reside in a different province; but until such time as the provinces of Saskatchewan, Alberta, and British Columbia shall have been entitled to university representation, two of the three members so appointed shall be chosen from two of these provinces.

(*b*) Two members representing each province, who shall be elected under regulations to be made in that behalf by the Provincial Medical Council.

(*c*) One member from each university or incorporated medical college or school in Canada having an arrangement with a university for the conferring of degrees on its graduates, engaged in the active teaching of medicine, who shall be elected by the university or by such college or school under such regulations as may govern in that behalf.

(*d*) Three members who shall be elected by the homoeopathic practitioners in Canada, each of whom shall reside in a different province.

In accordance with these requirements, the following representatives were selected from the various provinces:

Alberta.—Dr. R. G. Brett, Banff; Dr. John Park, Edmonton.

British Columbia.—Dr. R. E. Kechnie, Vancouver; Dr. R. E. Walker, New Westminster.

Manitoba.—Dr. J. S. Gray, Winnipeg; Dr. R. S. Thornton, Deloraine. University of Manitoba: Dr. J. R. Jones, Winnipeg.

New Brunswick.—Dr. A. B. Atherton, Fredericton; Dr. W. W. White, St. John.

Nova Scotia.—Dr. A. W. H. Lindsay, Halifax; Dr. John Stewart, Halifax. Dalhousie University: Dr. D. Fraser Harris, Halifax.

Ontario.—Dr. W. Spankie, Wolfe Island; Dr. R. J. Gibson, Sault Ste. Marie. Queen's University: Dr. J. C. Connell, Kingston. Toronto University: Dr. J. M. McCallum, Toronto. Western University: Dr. H. A. McCallum, London.

Prince Edward Island.—Dr. S. R. Jenkins, Charlottetown; Dr. Alex. McNeil, Summerside.

Quebec.—Dr. E. P. Normand, Trois Rivieres; Dr. Arthur Simard, Quebec. Laval University: Dr. E. P. Lachapelle, Montreal. Laval University: Dr. P. C. Dagneau, Quebec. McGill University: Dr. F. J. Shepherd, Montreal.

Saskatchewan.—Dr. W. A. Thomson, Regina; Dr. A. McG. Young, Saskatoon.

The Governor in Council appointed Dr. T. G. Roddick, Montreal; Dr. W. Bapty, Victoria, B.C.; and Dr. G. A. Kennedy, Macleod, Alberta.

The homoeopathic representatives were: Dr. E. A. Hardy, Toronto; Dr. G. E. Sugden, Winnipeg; Dr. J. D. Morgan, Montreal.

First Meeting of the Council.

All the representatives with one exception were present. The first session was opened by an address from the Hon. Dr. Roche, now Minister of the Interior, who, after pointing out the importance of the undertaking and congratulating Dr. Roddick and the members of Council on the success so far attained, called upon the meeting to elect a President and to proceed with the general business of organization. Dr. Roddick was thereupon elected the first President of Council, and Dr. Thornton, vice-President. Several committees were appointed and set to work. It was soon fully realized by all that the real difficulty was yet to be met—that is, to decide how, when, and where the examinations should be held and what the nature of the examinations to be exacted for the diploma of the Council should be. The various committees worked hard day and night. The reports submitted by them were carefully considered and criticized, but the Council had to adjourn before a final decision to adopt any report was reached.

It would, however, be a serious mistake to conclude that nothing had been accomplished. By free open discussion in the Council room and personal talks in private many misunderstandings were cleared away, and if any came with any narrow sectional aims and claims it was made apparent that the final best interests of any province or teaching body would be advanced through consideration

for others and by decisions and regulations which would tend to the general good. Marked harmony prevailed in all discussions and increased as time passed. As new light was thrown upon different matters members were willing and prepared to modify the views they had at first expressed and even to amend the vote they had at first recorded. As a result of the modification of views which came about through these discussions it became evident that, instead of finally adopting any of the reports submitted it would be better to adjourn the Council, and to refer all reports to a small special committee for revision and amendments, and that all other matters bearing upon the working of the Act which might or might not have been discussed should be referred to the same committee for careful consideration, with instructions to report at an adjourned meeting in Ottawa, in June, 1913, about the time of the meeting of the Canadian Medical Association in London, Ontario. The registrars of Nova Scotia and Manitoba, Dr. A. W. H. Lindsay, 241, Pleasant Street, Halifax, and Dr. J. S. Gray, 358, Hargrave Street, Winnipeg, were requested to act as such committee and they have already undertaken the duties thus imposed upon them.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Royal Infirmary of Edinburgh.

Effect of the Insurance Act.

The annual report of the managers of the Edinburgh Royal Infirmary presented to the annual meeting on January 6th stated that there were 796 patients in the infirmary on October 1st, 1911, and that 11,895 were admitted between that date and October 1st, 1912, so that the total number treated during the year was 12,691. Of these, 7,563 were discharged cured, and 838 died. Deaths within forty-eight hours after admission numbered 181. The percentage of deaths to cases treated was 6.6, against 6.9 last year. Deducting those dying within forty-eight hours of admission, the percentage was reduced to 5.2. The number of out-patients was 39,566.

In response to a representation from the members of the surgical staff, the managers had agreed, in the interests of the patients and the surgeons alike, to appoint to each ordinary surgeon, to each gynaecologist, and to the surgical out-patient department a qualified assistant to supervise the administration of anaesthetics, and rules have been made for the guidance of these officers. As each supervisor is to receive an honorarium of £20 per annum, this will represent a future annual charge of £200.

In their last report the managers stated that they had grave misgivings as to the effect the National Insurance Act would have upon contributions. These features had unfortunately proved well founded, for the voluntary contributions to the infirmary funds showed a total diminution of £1,340 as compared with the figures for the preceding year. Apart from the subscriptions of individuals who had intimated their withdrawal of future support, there was a marked falling off in the collections made in public works and establishments since midsummer. If this state of affairs continued, the full effect of the Act will not be known until the expiry of another twelve months or more.

In July, after a meeting with representatives of the honorary medical and surgical staff and serious deliberation, the managers adopted the following resolutions:

1. That in present circumstances, insured persons being entitled to medical benefits under the Insurance Act, should not be treated in the out-patient departments of the hospital except in accident cases, urgent cases, and suitable consultation cases.
2. That the honorary staff shall be entitled to exercise the option (recognized in private practice) to decline to meet any practitioner in consultation should such a course be considered advisable, but always provided that no patient shall be denied immediate advice or treatment if that be requisite on medical grounds.
3. That the question of investigating the circumstances of applicants for the benefits of the hospital by means of almoners or otherwise is one which will require time and care in consideration owing to its undoubted complexity. The managers will, however, give the subject their most careful attention in due course.

As there seemed to be widespread misunderstanding in the minds of the public as to the meaning and effect of the board's decision with regard especially to the first resolution, an official communication was published, pointing out that the first resolution was only to apply to out-patient cases, and to them even with this important reservation—that all serious, urgent, and proper consultation cases would continue to be attended without question as heretofore. In other words, there would be no change in the policy of the infirmary in the reception or treatment of persons coming to the institution, with the sole exception of those attending as out-patients whose injuries or ailments were of such a nature as could readily receive proper attention from the ordinary practitioner. It was further pointed out that this modification would involve no hardship upon the working classes, who, under the Insurance Act, would be provided with ordinary medical attendance. Nor would it in any way limit the usefulness of the institution, whose greatest work was, of course, done in treating the in-patients in the wards; for as regards these the position would be that, as cases calling for hospital care, they were, *ipso facto*, urgent cases, and would be admitted and treated as freely as in the past. All dependants of insured persons who were suitable cases would continue to receive treatment as formerly.

Inquiries were recently made by the Local Government Board as to whether the managers were proposing to enter into an arrangement with the Insurance Committees for the treatment of tuberculous cases, as if so the institution would require to be inspected and passed in the first place. After consideration it was agreed to intimate that in the meantime, at least, the managers had no intention of coming to any such agreement.

There are at present about 560 employees—nurses, servants, and others—who come under the provisions of the Act, and the contributions by the institution on their account will amount to £365 or thereby per annum.

Glasgow Fog and the Death-rate.

The medical officer for Glasgow, Dr. Chalmers, in a report to the Health Committee, states that the death-rate for the week ending December 7th, 1912, was 25.6, compared with 19 for each of the weeks preceding, and with 17 for the corresponding weeks of last year. The contrast, he says, afforded illustration of the results of low temperature when combined with fog. In the week ended December 7th the deaths rose from 289 to 385, those of children under 5 from 118 to 157, and those of persons over 60 years from 66 to 102. Respiratory diseases, which in the week ended November 30th had numbered 78, rose to 115, which was equal to 34 per cent. of the total deaths, and a rate of 6.6 per 1,000 of the population. Having in recollection the experience of the week ending February 10th, 1912, when Glasgow had prolonged low temperature, but no fog, the recent experience served to mark how rapidly fog and low temperature, when combined even for a short period, were disastrous alike to persons at both extremes of life.

Hospital Reconstructions.

At a meeting of the directors of the Arbroath Infirmary, held a few days ago, the question of the reconstruction of the infirmary was discussed. From a circular issued to the directors it appeared that estimates obtained by the Building Committee for the work showed that the approximate cost would be £14,500. One of the directors, Mr. Balfour, of Inchoch, offered £1,000 towards the construction of a new building and a large subscription towards the cost of furnishings. Dr. Mackintosh, Western Infirmary, Glasgow, assisted in drawing up the plans.

The Hamilton Town Council has agreed to proceed with the erection of a new hospital at an estimated expenditure of £20,000.

The Conscientious Objector.

At a meeting of the Public Health Committee of the Inverness Town Council held last week the Convener said that, in consequence of the relief given to conscientious objectors to vaccination, the result had been that non-vaccination had been increasing. If an outbreak of small-pox occurred, the results, he was afraid, would be extremely serious. He found that the committee had absolutely no power, because the parents had the right to become conscientious objectors. It was a serious menace

to the health of the community to have so many children unvaccinated.

Home for Scottish Nurses.

Shortly after the death of King Edward VII the suggestion was made that the nurses of the country should pay a fitting tribute to a monarch who recognized in many ways the great and beneficent work they accomplished. The proposal soon took definite shape, and a sum of £9,000 was raised by the nurses and their friends to establish homes for nurses as a fitting memorial. A home was established at Clapham with accommodation for twenty-one nurses. The London Committee suggested the establishment of a similar home—or more than one if necessary—north of the Tweed, and for this purpose a sum of £3,000 was promised. A Scottish committee, which has taken the scheme in hand, proposes that there should be one home in the east of Scotland and another in the west, but states that £3,000 will not be sufficient to meet the expenses of the establishment, though the institutions will eventually be self-supporting. The sites of the homes have not yet been definitely settled upon, but it is thought that the home in the East of Scotland should be somewhere near Edinburgh.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

The Dublin Clinical Hospitals and the Teaching of Tuberculosis Officers.

Early last summer the Local Government Board made public the qualifications that they considered necessary for tuberculosis officers under the sanatorium benefit of the new Insurance Act. These were, in general terms, either (1) residence in a sanatorium, (2) a course of instruction in the diagnosis and treatment, etc., of tuberculosis, (3) other means by which the Local Government Board was satisfied that the candidate was specially qualified to diagnose and treat tuberculous patients. At the time exception was taken by the medical profession in Ireland to this third method, and it was pointed out that unless the men appointed as whole-time tuberculosis officers were specially qualified, they would not command the respect and co-operation of practitioners throughout the country. The Local Government Board stated that the third method of qualification would only be made use of in exceptional cases. The Committee of the Allan Ryan Home and Collier Dispensary in Dublin then advertised a fortnight's course of instruction for candidates for these posts, and issued certificates to those who attended it; altogether over thirty medical men entered their names for this course. The Local Government Board, however, said that it would not recognize this certificate as proof of the necessary qualification.

The Committee of the Allan Ryan Home then approached the clinical hospitals of Dublin, asking them to combine in giving a six months' course of instruction in tuberculosis. But the clinical hospitals were unwilling to associate themselves with these institutions which had no standing as teaching bodies, and thought it better that their instruction should be given as a separate course. Representatives therefore interviewed the Local Government Board, and at its request drew up a scheme for a course of post-graduate instruction in tuberculosis, which would include both surgical and medical clinics, pathology, and teaching in special subjects such as ophthalmology, laryngology, and gynaecology. As the Local Government Board had in the meantime recognized a six months' course to be given by the Allan Ryan Home as a sufficient qualification, the clinical hospitals asked that their course should be made an essential part of the course, as otherwise it would be useless for them to go to the trouble of establishing it for the few men who would be likely to take it out.

The Local Government Board has now replied, thanking the clinical hospitals for the time and trouble which they have taken in formulating the draft scheme, and concurring in their views as to the advantages to be gained by future tuberculosis officers from attending a course of instruction given by so large and experienced a body of teachers having under their care such a vast amount of clinical material comprising the various forms of pulmonary and surgical tuberculosis. The Board goes on to express its regret that the committee should have attached the imperative condition that the course must be regarded "as essential," as it would be impossible for the Board to accept this condition at present, chiefly because, as there is no similar course anywhere in the United Kingdom, it would compel all tuberculosis officers in Ireland to take it and would therefore be unfair to many of those who were already undergoing training not only in Ireland but also in England and Scotland. The Board, however, expressed the hope that the committee would carry the scheme into effect, as it felt satisfied that in course of time it would come to be recognized as an almost indispensable qualification for persons taking appointments in connexion with the administration of the Tuberculosis Act in Ireland. The Board states that it is prepared to assist the committee as far as possible and to bring the course under the notice of tuberculosis officers.

It is calculated that the number of whole-time tuberculosis officers under the Act in Ireland will only be about forty, certainly less than fifty, and already over thirty men have entered their names for the course given by the Allan Ryan Home. These, with a few who are believed to be taking out a course in England or Scotland, leave a very small number, not more than about a dozen at the most, who would be likely to attend the course given by the clinical hospitals, and, once the appointments throughout the country are made, there would only be an occasional applicant for the course as a vacancy occurred. In these circumstances it can be seen at once that it would be useless for the clinical hospitals to go to the trouble of establishing and conducting such an elaborate scheme of instruction for the small number of men who would be available to attend it unless the Local Government Board change its mind and makes the course an essential one.

Special Correspondence.

PARIS.

Treatment of Cancer by Radium.—The Tolerance of the Peritoneum towards Foreign Bodies.—Haemolysis.

At the last meeting of the Surgical Society several reports on the treatment of malignant disease by radium were read and discussed. M. Regnier reported the case of a patient who was admitted to hospital in January last with a sarcoma of the femur the size of a fetal head, attended by considerable oedema of the leg. An aperture was made into the tumour by means of a trocar, and the tube of radium was left in the tumour for forty-eight hours. After the first application the tumour diminished considerably in size, the pains disappeared, and the oedema diminished. At intervals of some weeks three further applications of radium were made, and the tumour decreased until it was a small hard sclerosed mass of the size of a walnut. M. Chiffelian then removed this small tumour, which was adherent to the femoral vein. On microscopic examination it was found to consist of fibrous tissue and deformed tumour cells. A second case reported by M. Regnier was one of inoperable cancer of the uterus. Four applications of radium were made with great amelioration in the patient's general condition as well as in the diseased uterus. The patient's weight increased from 53 to 63 kilos, the sanguineous discharge stopped and the tumour diminished in size. There was, however, a large mass of secondary growth in the abdomen, and though the patient was greatly improved temporarily, recovery could not be looked for. M. Sieur reported a case of epithelioma of the larynx treated with good result. M. Schwartz related a case of sarcoma of the forearm greatly benefited by radium treatment; and M. Hartmann stated that he had seen very good results from radium in the treatment of lymphosarcoma. Radium must be introduced into the tumour mass to obtain beneficial results and not merely laid on the tumour.

M. Walther recorded an interesting case of perforated appendix with escape of a coprolith into the peritoneal cavity. The history of the case was interesting, as it shows how the peritoneum may in some cases be entirely protective. The patient was on board an Atlantic

liner when he was suddenly attacked with severe pain in the right side. He lay down for several hours, the pain passed off, and he soon felt quite well again. Six weeks afterwards M. Walther opened the abdomen and removed the appendix, which showed a cicatrix near the tip. Lying free in the left side of the peritoneal cavity was a coprolith which had evidently burst through the appendix six weeks earlier.

At a recent meeting of the Society of Biology Professor Achard and Dr. Foix reported the results of recent researches into the phenomena of haemolysis. They found that the blood corpuscles of the dog were much more fragile than those of man or rabbits. Extracts of different organs of the dog haemolysed the red corpuscles much more readily than either in man or rabbits; and with extracts of human and rabbits' organs, also, haemolysis of the dog's corpuscles occurred much more rapidly than either of the other species. The substance in the extracts is not a true haemolysin, but appears to belong to the group of lipoids; it is soluble in alcohol. The blood corpuscles of the dog are haemolysed by the lipoid sodium oleate. The haemolysis caused by heating serum to 56 C. they attribute to the destruction of a protecting substance in the serum, and not to the production of a haemolysin, since the addition of fresh unheated serum prevents haemolysis.

VIENNA.

Annual Report of the Board of Health for the Year 1911.—New Lectureship at the University of Vienna. —Foreign Body in the Trachea.

THE annual report of the Vienna Board of Health for the year 1911, which has recently been published by the municipal authorities, contains much that should be of particular interest to its medical readers. For example, the report states that in 1911 there were 3,018 doctors practising in the city of Vienna, the population of which at that time amounted to 2,120,000; that is to say, there was one doctor to every 555 inhabitants. Forty-seven of these practitioners were women. It should be added, however, that these figures are not strictly accurate, since the report includes the hospital doctors, who, of course, have no outside practice. This high ratio of medical men amongst the general population is, perhaps, one explanation of the small incomes earned by so many members of the profession in Vienna. The following figures may be of interest as showing the statistics of different diseases during the year 1911. No case of small-pox and only 4 of cholera were reported during the course of that year, whilst the number of typhoid cases sank from the 465 of the previous year to 323. There were 4,606 cases of scarlet fever in place of the 4,038 of 1910; whilst the diphtheria returns showed a decrease from 3,076—of which 279 died—to 2,679 with 219 deaths. The mortality in diphtheria cases was therefore only 8 per cent. instead of 36 per cent., as in the days before the treatment by serums. In the present instance 2,624 of the 2,679 cases reported were treated with serum; and it should be remembered that the majority of deaths occurred in those cases where the disease was recognized or the serum injected only after the fourth or fifth day of illness. A great decrease was also to be observed in the number of cases of measles, there being only 3,073 cases reported during 1911 in place of 12,657 during the previous year, whilst the number of deaths from this disease sank from 687 to 334. An even greater decrease was remarked in the cases of epidemic cerebro-spinal meningitis, of which 19 cases occurred in 1911, 32 in 1910, and 298 in 1907. Five cases of anthrax and 4 of poliomyelitis (13 cases of the latter disease had occurred during 1910) were reported in 1911; and it is interesting to note that every one of these cases was imported, and in each instance the patient was a hair-worker. As regards the death-rate in Vienna during the year 1911, it was, though actually higher, yet relatively lower than in the preceding year—namely, 16.45 instead of 16.75 per 1,000. An increase was noticed in the number of deaths from new growths, organic diseases of the heart, and gastro-intestinal diseases in infants; whilst there was a marked decrease in the mortality arising from diseases of the respiratory organs. Out of the total number of deaths (which amounted to 33,215) 20 per cent. were due to tuberculosis, and 15.7 per cent. to tuberculous disease of the lungs. These figures are almost exactly the same as those of the two previous years, thus showing that the campaign against tuberculosis has as yet had no appreciable results.

A new lectureship at the University of Vienna has just been founded in memory of the late Professor Nothnagel. The first lecture was delivered a few days ago, when a most instructive paper on the importance of the liver for the metabolism of sugar was read by Professor Hofmeister of Strassburg. This is the first time that the memory of one of our famous physicians or surgeons has been perpetuated in this fashion, the custom of commemorating the dead by the endowment of a lectureship being hitherto quite unknown in Austria.

An interesting case of a foreign body in the trachea was described some time ago by Professor Koschier at the meeting of the Medical Society. Fifteen months previously a man had been brought to him who had already undergone tracheotomy, and who was then suffering from attacks of suffocation. No history of the case could be obtained, and when Koschier removed the tracheotomy tube for examination he found that he was unable to replace it, and had to perform tracheotomy immediately in order to save the patient's life. A mass of granulations was removed from below the site of the tube without much effect upon the condition of the patient; but finally, after dividing the whole anterior aspect of the trachea, a piece of bone was discovered and removed with some difficulty, and the dyspnoea at once disappeared. Up to the time of Professor Koschier's demonstration the nature of the bone had not been ascertained. It had evidently either been inadvertently swallowed by the patient or had passed, owing to suppuration of the thyroid gland, into the trachea, as has happened once before. The history of the case, if it were known, might help to clear up the mystery.

Correspondence.

THE FUTURE ORGANIZATION OF THE ASSOCIATION.

SIR,—In a letter to the BRITISH MEDICAL JOURNAL (published at the beginning of February, 1911) in defence of contract practice, I pointed out that the low scale of pay for such work was due to our want of unity, and also to the fact that our subscription to the British Medical Association was too ridiculously small to enable it to become a proper fighting or even defensive organization.

Then came the Insurance Bill, and after its passage into law I wrote another letter to the BRITISH MEDICAL JOURNAL (December, 1911) emphasizing my former contention and pointing out how few modifications of the bill had been brought about by the action of our Association with its existing machinery.

The subsequent concessions of the Chancellor were not due to the fighting power of the British Medical Association, but simply to the fact that under the original provisions of the Act it was impossible for any ordinary practitioner to undertake the work at the prices offered. Hence the 27,000 pledges, which would certainly have been kept had not Mr. Lloyd George correctly gauged the situation, and, with consummate skill, thrown the golden apple at exactly the right moment.

Relieved of the fear of any great loss of income, men with families to maintain and other financial obligations to meet felt that they could no longer face ruin in an unequal fight between the Government of the country with its unlimited resources and our Association, officered almost entirely by amateurs, and with a fighting income of 4s. a member per annum, and a guarantee fund which must utterly fail to compensate men in any fair-sized town where a State medical service was set up.

Of course our best thanks are due to our amateur leaders, to the members of our Council for their hard work and devotion, to our State Insurance Committee for its untiring labour, and also to those Divisional and Branch secretaries who have done their work conscientiously and well. We are also indebted to our Representatives for their plucky and exhausting attempt to crowd into two strenuous days an amount of work which

might easily occupy a fortnight. The lot of the unfortunate Representative is not a happy one. He receives his instructions from a meeting at which perhaps a quarter of the members of the Division are present. Between this date and the Representative Meeting most important events may occur, totally altering the position of affairs, yet he is bound to vote according to his instructions, and often against his own judgement.

With such an organization how can we expect success when it comes to close fighting? Surely it is time for us to recognize the fact that the British Medical Association must either relapse into the condition of a purely scientific body, or it must, whatever the cost and trouble, be turned into a trades union with well-paid officials and ample funds.

Many artisans pay 1s. 6d. a week and more to their unions, and surely we, with so much more at stake, can afford the modest sum of 2s. a week or £5 5s. a year. Let those who are too stingy to increase their subscription or too proud to be associated with anything so low as a trades union stay outside until they find out their mistake.

The Representative Meeting should be abolished and the Council in future should consist of a President, the Medical and Financial Secretaries, the Editor of the JOURNAL, and the Branch Secretaries, all specially appointed whole-time men with large salaries and considerable powers of negotiation, but subject on all really important matters to a postal referendum of the whole of the British Medical Association members.

This Council should meet regularly once a month, and oftener when necessary, and sit day by day until all business is settled without undue hurry. In the interval it should be the duty of every Branch Secretary to attend all Branch Meetings and as many Divisional meetings as possible, and to keep in touch with all Divisional Secretaries. He should also be provided with a motor car, and should be expected to visit and make the acquaintance of every medical man in his Branch, keeping up the interest of members and bringing non-members into the fold. He should be provided also with a clerk to do the purely clerical work and to collect overdue subscriptions.

The Branch Secretaries would thus keep the Council in touch with the wishes of men in all parts of the country, and every practitioner would feel that he was a recognized unit.

Divisional Secretaries should also be paid a reasonable sum for their services, and we should then be entitled to grumble at them or replace them if they failed to carry out their duties.

There should be a large reserve fund for fighting purposes and for assisting any members suffering loss from loyalty to the Association; also a benevolent fund for helping those in distress through unavoidable circumstances, and last, but not least, a department cutting off any possible supply of blacklegs by assisting men to find appointments, assistantships, and practices.

I sincerely hope that when our Representatives meet on January 17th they will spend their time in laying the foundations of a new and a stronger Association, rather than pelting one another with the ruins of the old one. Judging by the number of men who have already put their names upon the panels, the policy of the medical profession and that of the British Medical Association as formulated at the last Representative Meeting are no longer identical; and if the British Medical Association is to retain its position of authority a new policy must be inaugurated. The last four lines of "The Lesson," with one or two small alterations, for which I apologize to Mr. Rudyard Kipling, are singularly appropriate to our present situation:

> It was our fault and our very great fault; and now we may turn it to use.
> We had 27,000 reasons for failure, but not one single excuse.
> So the more we work and the less we talk, the better results we shall get;
> We have had no end of a lesson; it may may make us a union yet!

—I am, etc.,

North Shields, Jan. 4th. F. C. MEARS.

SIR,—The serious defeat of the last few days should make the leaders and members of the British Medical Association and the rank and file of the medical profession think furiously. Inherent defects of organization and weakness and absence of cohesion among the individuals are the causes of the *débâcle*. We have allowed ourselves to be turned out of an impregnable position by a few skeleton battalions and the feints and false attacks of an adroit antagonist, aided, as he has been, by defections from among our leaders, who vainly try to whitewash themselves by pointing to irregularities in our Enlistment Act (Pledge).

Recriminations as to the past are useless, and I do not intend to indulge in any. As to the future, much may be done. A lost battle does not necessarily mean the loss of the campaign. We have been badly hustled and from inexperience have run away from the feeblest of bogeys. But we can regain our breath and formation, our war chest (which should receive prompt attention) is intact, and no serious damage is done beyond some loss of prestige. The lesson should be valuable. The remedy is obvious:

1. The Council must be granted liberty of action and given full control over affairs. Peace or war should be decided by vote of the Representatives but all executive details should be left in the hands of a committee. The Council must be purged of all who cannot act loyally with a majority. Resignations on the field of battle are disgraceful.

2. The Divisions must stop crying out that they are betrayed if the Council finds it necessary to withdraw from a position found to be untenable, or to change front to meet an attack on either flank. To have to consult the Divisions on minor points is impractical and absurd. The Divisions should relieve the Council from all anxiety as to the condition of the finances and agree to act loyally by one another and sink minor differences. They must recognize the fact that it is impossible for each one of twenty thousand men to have his own way, and they must obey orders and observe the rules of strict discipline. No other course is open if a victory is desired.

For good or evil the National Insurance Act is with us, and panels are in existence for three months at least. If the medical profession is satisfied with the conditions laid down and the state of affairs the matter is ended. If dissatisfied, it must set to work on sensible lines and with the determination to fight to a finish.—I am, etc.,

Southport, Jan. 6th. FRANCIS J. BAILDON.

SIR,—Now that the profession has been defeated—and no reasonable man can deny that it has been defeated—in its efforts to obtain terms consistent with its dignity and character, it will be well to look into the causes of our discomfiture, and see what can be learnt from them. Apart from Dr. Addison's efforts on behalf of the Government, our defeat is due entirely to the policy, or lack of policy, of the Council of the Association itself. Not only have we had individuals such as Sir Victor Horsley and Dr. Lauriston Shaw betraying our best interests, but we have had no support from the Council as a body. How is this? Were the efforts of those in favour of working the Act sufficient to nullify the efforts of those supporting the rank and file? Presumably the Council felt itself unable to recommend such methods as addressing meetings of insured persons and canvassing the country in general. It may be said that these steps are being taken now, but they are, of course, months too late. Even if we get the masses on our side now it will not alter the fact that hundreds of us by sheer economic pressure have been compelled to break our pledges and go on the panels. As a result of the Council's weakness, to whatever cause it may be due, each man in the profession has had to fight not as one of a disciplined force, but as one of a mob of individuals. He has felt himself to be alone in the fight, without support and *without reserves*. Why the Association was not better prepared for the fight it is very difficult to say, considering that the Chancellor's intentions were known quite two years ago.

The final stroke was the resolution passed at a Representative Meeting to treat insured persons through approved societies while remaining off the panels. This was, of course, a most appalling blunder. It broke a cardinal point, and so gave scores of wavereers the excuse that their pledges were no longer binding, and quite ignored the obvious fact that the Government could not allow it to be done.

No, Sir, whatever efforts are made now we have lost our

fight, and have now to consider the future. To every thinking man it must be obvious that this struggle is but the prelude to a far greater one—that in which efforts will be made to force us to become the puppets of a State Medical Service. This will most certainly take place in five years, probably in three. Are we to enter that fight as we entered this, unprepared, no war chest, with disordered ranks and disloyal captains, or shall we be found ready, shoulder to shoulder, with leaders who *will* lead and not simply consent to be pushed?

This is a question beside which the present one sinks into absolute insignificance. First of all, let there be no more silly talk of "blacklegs"; let an act of oblivion cover the past. Next, let us be loyal to the Association, on the panel or off the panel, remembering that it is our duty to strengthen it by cohesion and subordination of personal interests, not to weaken it by internal dissensions. And, above all, let us see to it that we have a Council composed, not simply of men of high professional standing, but men of business ability, men who have been proved to possess the gift of organization and to really represent our best interests. The *débâcle* of to-day must lead to the victory of to-morrow, and "*Unity*" must be the watchword.—I am, etc.,

London, S.W., Jan. 5th. J. H. MEERS, M.R.C.S., L.R.C.P.

THE LIFE-HISTORY OF SPIROCHAETES.

SIR,—In the issue for December 14th E. H. Ross, in an article on An Intracellular Parasite Developing into Spirochaetes, writes in reference to the spirochaete of syphilis: "Intracellular stages of the various other spirochaetes have been described by many authorities . . . but the relations between the various bodies described above and the *Spirochaeta pallida* were not hitherto demonstrated."

In an article on the *Spirochaeta pallida* published in the *Glasgow Medical Journal* for March, 1906, I wrote in referring to Siegel's bodies: "In my opinion, the *Spirochaeta pallida* and the *Cytorrhyctes luis* are different stages in the life-history of the same parasite." Again, in the BRITISH MEDICAL JOURNAL for May, 1906, in an article on the *Spirochaeta pallida* and its variations, a number of figures and photomicrographs are shown to demonstrate the intracellular parasite. The whole article is a plea for the view that the *Spirochaeta pallida* is only one stage in the life-cycle of the infective agent in syphilis.

In 1907 a demonstration of the variations of the *S. pallida* was given at the Medico-Chirurgical Society, and the paper appears in vol. xc of the *Transactions*. On that occasion I stated that it was my intention to show part, at least, of the life-cycle of the parasite. The intracellular parasite was again illustrated. Similar small bodies to those found in syphilis were shown under the oil-immersion lens as being associated with the *Spirochaeta pertenuis*. These few facts may prove that the intracellular bodies were in 1906 already recognized as being associated with the *Spirochaeta pallida* in syphilis.—I am, etc.,

Glasgow, Jan. 2. ALEX. MACLENNAN.

BOVINE AND HUMAN TUBERCULOSIS.

SIR,—The leading article on the Italian investigation on this subject in the BRITISH MEDICAL JOURNAL of November 23rd, 1912, p. 1485, is full of interest. Professor Gosio traverses all the findings of our Royal Commission. He endeavours to upset what we have come to regard as settled theories. His principal conclusion is that where there is much tuberculosis in animals there is little tuberculosis in man, and that where there is much tuberculosis in man there is little or no tuberculosis in animals. It would tend to a clearer understanding if in discussing this subject we could distinguish between bovine and human tuberculosis. It has long been agreed that these two conditions are due to different types of bacilli. This was very clearly set out in the excellent paper in the JOURNAL of November 23rd, 1912, by Dr. John Fraser. Our present system of nomenclature is clumsy and leads to confusion.

Professor Santoliquido affirms "that in the North of Italy, where is grave diffusion of bovine tuberculosis and where milk is largely used, peritoneal tuberculosis is not proportionately increased, while in the Midlands, where little milk is drunk, and where often bovine tuberculosis is unknown, peritoneal tuberculosis is high." Italy must be peculiar in this respect, for we are told that in regions like Australia and the Sandwich Islands the infection of the inhabitants has followed the introduction of tuberculous cattle. The poorer classes in China do not suffer from tuberculosis, whereas among the dominant Tartar class (milk and meat consumers) the disease is prevalent. In South America, where the use of milk is almost unknown, or used only after being boiled, the natives are not affected. Tuberculosis is unknown in Morocco, where there are no European dairy cows. In Guernsey the proportion of cattle affected with tuberculosis is about ½ per cent., and Dr. Bishop, the medical officer of health, says that "the forms of human tuberculosis are consequently exceedingly rare." In England and Wales, in 1909, 10,000 children under the age of 5 died from tuberculosis (other than pulmonary tuberculosis), and it is estimated that 70 per cent. of our dairy cattle are affected with tuberculosis! During the last forty-five years the returns show a reduction in the death-rate from all forms of tuberculosis of 27.9 per cent. in Great Britain, the reduction in deaths from phthisis reached 66 per cent., while the corresponding reduction from tabes mesenterica only reached 3 per cent.

Adami says that "impure and infected milk is the essential factor in the production of abdominal tuberculosis in children, if mesenteric tuberculosis were in the main due to infection with human tubercle bacilli, then with the lessening of tuberculosis in adults there ought to be a corresponding diminution in the number of cases of tabes mesenterica in children, and this has not occurred." Having regard to these facts and opinions, we can scarcely be expected to agree with Professor Santoliquido's conclusion "that the fatal march of this contagious disease will not be stopped, even for a moment, simply by rendering meat and milk free from infection."

I would especially draw Professor Santoliquido's attention to the experiments of the British Royal Commission with the anthropoid apes. When these animals were fed with milk from a tuberculous cow they developed general progressive tuberculosis.

We may await with equanimity the publication of the full reports of the Edinburgh investigation. The foretaste Mr. Stiles has given us is comforting—"that a large proportion of surgical tuberculosis, at any rate in children, was of bovine origin."—I am, etc.,

Beverley, Dec. 2nd, 1912. T. READMAN.

THE MADNESS OF KINGS.

SIR,—I speak under correction, but I submit that there is not a tittle of evidence that Nebuchadnezzar suffered from lycanthropy, or kynanthropy, as Actius calls it. Practically the sole authority we have on this disease is Oribasius, for though it is described in detail by Actius, Paulus Ægineta, and others, they took their descriptions word for word from Oribasius, either directly or through Marcellus Sidetes, who transcribes him literally. The description given by Oribasius is detailed and definite, and leaves little room for mistakes in diagnosis. "Those affected by this malady go out of their houses in the night time, and in everything imitate wolves, wandering about the sepulchres of the dead till daybreak. You may know them by these symptoms: their countenances are pale, their eyes heavy, hollow, dry, without the least moisture of a tear; their tongues exceedingly parched and dry; no spittle in the mouth; extreme thirst; their legs, from the falls and bruises among stones and thorns, are full of incurable sores." Actius and Paulus Ægineta say they open the tombs of the dead, but neither of them seems to have seen a case, and both Oribasius and Actuarius say "they run about among the tombs." The demoniac of the Gospels, who seems to have been a lycanthropist, "had his dwelling among the tombs" (Mark v, 3), "abode in the tombs" (Luke viii, 27). No such habit and no such symptoms are recorded of Nebuchadnezzar. He did not voluntarily go out of his house in the night time: he was "driven from men." He

did not imitate wolves in anything, unless it is a practice of wolves to eat grass as oxen, which I believe is not the case. So far from suffering from extreme drought, his body was wet with the dews of heaven. To suppose that he suffered from lycanthropy is clearly a mistaken diagnosis.

On the other hand, I agree with you, Sir, that there is no evidence whatever that Saul, King of Israel, was insane; and I go further than you, and maintain that it is very unfair to suggest that his jealousy amounted to insanity. His crown was not nailed to his head. On the contrary, it fitted very insecurely, and David was a popular, and therefore a dangerous rival. Eastern potentates and primitive potentates, such as Saul, have usually a very short way with rivals to their thrones, and it is much to Saul's credit that he exercised such exemplary forbearance towards David. There has been much speculation as to the nature of Saul's malady when the evil spirit was upon him, but it seems to me as clear as day that it was nothing but this—he was bored to death. Saul was eminently a man of action—a fighter. The common resource of every military man in times of peace is the chase; and from this occupation Saul was precluded, no less by the customs of the Jews than by the Rabbinical law. It is very remarkable, though I think it has never been remarked, that in the whole of the Old Testament there is no simile or metaphor drawn from the chase, nor any allusion to hunting, except in the description of Nimrod, who was not a Jew, and in the despicable stratagem of Jacob, who lived before the Jews were a people. Saul, therefore, was precluded from the chase; he was not a legislator, nor, if he had been, would he have been able to initiate legislation; for the Rabbinical law already regulated the lives of the populace down to the minutest detail, and brooked no interference. His elevated position cut him off from ordinary occupations, and from much social intercourse. There was nothing to divert the poor man in his solitary grandeur; and, being a Jew, and therefore having a natural taste for music, he found his sole refuge from boredom in listening to the music of David's harp. It says much for Saul's magnanimity that he would send for his rival, and permit him to display his accomplishment in the presence of his sovereign and the court. It is small wonder that the presence of that formidable rival, and the display of his superior skill, should sometimes exasperate beyond bearing an irritable monarch; and if this irritability was from time to time increased, as we may conjecture it was, by the jarring of a false note, or by the faulty execution of a run or a shake, is it any wonder, is it any discredit to Saul, that he corrected the offender with a javelin? The very fact that he took care to miss—Saul was a good marksman, and David was within easy distance—is further evidence of Saul's good nature. Who of us, even in these humanitarian times, would exercise such forbearance in similar circumstances? For my own part, I feel thankful that, when present at certain public concerts, I have not had a javelin handy. My skill with the weapon does not compare with Saul's, but I shudder to think of the lifelong remorse I might now be suffering, in the neighbouring parish of Portland, if I had had Saul's opportunities.

I do not know whether your list of kings who were insane is intended to be exhaustive. Perhaps it was an ardent patriotism that moved you to omit from the list the Sovereign in whose name this realm was administered a hundred years ago. If we are to include among the insane the degenerates—a term whose meaning has not been fixed, but which is generally employed to stigmatize those whose tastes and habits we do not approve—I am afraid we could furnish from the illustrious roll of our own monarchs several other examples—William II, Richard II, Edward II, Charles II, and James II, for instance. It will be noticed by the curious that all these are the second bearers of their respective names, and if we add, as some historians would agree, the name of the second George, we find it a rule, broken by the Henrys only, that the second bearer of any Christian name is always a degenerate. It would be interesting to inquire whether the rule obtains in private families also. I could furnish several examples from my own acquaintance. Perhaps I may be permitted to forestall inquiries by adding that no previous member of my family has been entitled to sign himself

Parkstone, Jan. 4th. CHAS. MERCIER.

ANTIVACCINATION AT THE CHILDREN'S WELFARE EXHIBITION.

SIR,—May we ask you to publish the following letter which we have sent to the *Daily News* in consequence of the antivaccination stall at the Children's Welfare Exhibition?—I am, etc.,

London, W., Jan. 3rd. MACLEOD YEARSLEY.

131, Harley Street, W.,
January 13th, 1913.

To the Editor of the *Daily News*.

Sir,

On invitation we gave our names as patrons of the Children's Welfare Exhibition now open at Olympia, and which has been organized by the *Daily News*.

We have learned that the exhibition is being utilized to oppose the carrying out of vaccination.

As we cannot too emphatically express our disapproval of such an object, and as our names have been associated with the exhibition, we think it only right to say that we should never have permitted them to appear in connexion with it had we any idea that such use would be made of the exhibition as the one referred to.

We remain,
Yours very truly,
H. MACNAUGHTON-JONES,
C. W. SALEEBY,
MACLEOD YEARSLEY.

P.S.—Since the above was written, the following letter has been received by Dr. Macnaughton-Jones. Doubtless the directors were within their rights to make arrangements for the use of any stall at the Children's Welfare Exhibition, but they cannot defend their action in inducing medical men to become, even indirectly, patrons of a stall the object of which they entirely repudiate, and which is distinctly contrary, in their belief, "to children's welfare":

The *Daily News*, Ltd.,
Bouverie Street,
London, E.C.,
January 6th, 1913.

Dear Sir,

In reply to your letter of the 5th inst., the Antivaccination League has taken and paid for space at the Children's Welfare Exhibition on precisely the same terms as ordinary traders; no solicitation or preference has been extended to them. In these circumstances I think you will see that the directors of the exhibition could not have refused to accept them as tenants of a stall without entering into controversial matters—a course which would generally be regarded as improper.

Yours faithfully,
EDWIN COOKE,
Director.

Universities and Colleges.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on December 18th, 1912, the Vice-Chancellor, Dr. W. P. Herringham, in the chair.

Recognition of Teachers.

The following have been recognized as teachers in the subjects indicated:—

King's College for Women: Dr. Janet E. Lane-Claypon (Physiology).

St. Bartholomew's Hospital Medical School: Mr. Alexander Macphail (Anatomy); Mr. Raymond B. Etherington Smith (Surgery).

London Hospital Medical College: Dr. Robert Hutchison (Pharmacology); Dr. Hubert M. Turnbull (Pathology).

London School of Medicine for Women: Dr. Frederic Wood Jones (Anatomy).

King's College Hospital Medical School: Mr. Charles E. Wallis (Dental Surgery).

St. Mary's Hospital Medical School: Dr. Thomas G. Stevens (Midwifery).

London School of Dental Surgery: Mr. Arthur Hamilton Tebbutt (Bacteriology).

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.: Dr. Conrad M. Hinds Howell, and Dr. Samuel A. Kinnier Wilson (Neurology), Mr. Leslie J. Paton (Ophthalmology).

Mr. Vivian Bernard Orr has been granted probationary recognition as a teacher of anaesthetics at the Westminster Hospital Medical School for a period of two years as from December, 1912.

Conferment of Titles.

The title of Professor of Pathology in the University has been conferred on Dr. Frederick William Andrewes, of St. Bartholomew's Hospital Medical School, and that of Reader in Physiology in the University upon Dr. M. S. Pembrey,

of Guy's Hospital Medical School. The titles were conferred on the recommendation of relevant boards of advisers acting under the regulations on university titles.

Report of Professor of Protozoology.

An abstract of the report of the Professor of Protozoology for the year ending June 30th, 1912, was received. It contained a list of works published by the department. The full report has been forwarded to the Colonial Office, and will be included in an official publication.

Award of the Paul Philip Reitlinger Prize.

Mr. Frederick J. F. Barrington, M.S., of University College Hospital Medical School, has been awarded the Paul Philip Reitlinger prize for 1912 for an essay on the innervation of the bulbo-urethral glands and their histological changes during activity. The prize, which is of the value of £30, was founded with funds given to the university by Mr. Albert Reitlinger in memory of his son, a student of St. George's Hospital Medical School, who died in December, 1911. In 1915 the prize will be awarded for the best essay on the influence of the conception of evolution on moral or social philosophy.

D.Sc. Degree in Bio-Chemistry.

The degree of D.Sc. in bio-chemistry has been conferred on Dr. Hugh Maclean, an internal student, of the Lister Institute of Preventive Medicine. His thesis was entitled "A contribution to the study of lipoids," and consisted of two parts—the phosphatides of the kidney, and the purification of phosphatides. In addition Dr. Hugh Maclean submitted several other contributions to the advancement of science published independently or conjointly.

Semon Lectures in Laryngology.

The first course of lectures under the Semon Lecture Trust will be delivered on January 22nd and 24th, at University College, by Dr. Peter McBride, late lecturer on diseases of the ear, nose, and throat at the University of Edinburgh. The chair at the first lecture, which will be on Sir Felix Semon's personal history and career and the circumstances which influenced his career, will be taken by Sir Rickman Godlee, Bart. The second lecture will deal with Sir Felix Semon's work and its influence on laryngology, with special reference to general policy, laryngeal paralysis, and malignant disease. The foundation was established in May, 1911, by Sir Felix Semon, K.C.V.O., M.D., who transferred to the university, for the foundation of a lectureship and medal in laryngology, the sum of £1,040 presented to him by the British laryngologists on his retirement from practice. Admission to the lectures will be free by ticket, to be obtained from the Secretary of the University College, Gower Street, E.C.

Advanced Lectures in Physiology.

The following advanced lectures in physiology are announced during the second term:

Eight lectures on the relations of electrolytes to living tissues, by G. R. Mines, M.A., at the University on Tuesdays, at 5 p.m., beginning January 21st.

Eight Page-May memorial lectures on the functions of cerebral cortex, by F. W. Mott, M.D., F.R.S., at University College on Fridays, at 5 p.m., beginning on January 24th.

Four lectures on colour vision, by F. W. Edridge-Green, M.D., at University College on Wednesdays, at 5 p.m., beginning on February 19th.

Four lectures on recent work in chemical physiology and pathology, by Otto Rosenheim, Ph.D., at King's College on Mondays, at 4.30 p.m., beginning on February 10th.

Eight lectures on animal heat, by M. S. Pembrey, M.D., at Guy's Hospital on Thursdays, at 4 p.m., beginning on January 16th.

The course of lectures by Professor G. N. Stewart announced for the second term has been postponed until the third term.

Lectures by the Professor of Protozoology.

A course of twenty-one lectures on the protozoa will be given at the Lister Institute, Chelsea, by Professor E. A. Minchin, M.A., F.R.S., on Mondays, Wednesdays, and Fridays, at 5 p.m., commencing January 20th. The course is intended to provide instruction (*a*) to students past the intermediate stage—that is, to those preparing for the B.Sc. examination pass or honours, or taking protozoa as a special subject for the B.Sc. examination, or to those preparing a thesis upon the group for the D.Sc. degree; (*b*) for medical men and others interested in the practical aspects of protozoology. The course is open free to all members of the university, to all medical men, or registered medical students, and other persons on application to the Academic Registrar.

KING'S COLLEGE.

The Early Diagnosis and Control of the Specific Treatment of Tuberculosis by Dr. Carl Spengler's Methods.

A course of six lectures and demonstrations with practical work will be given at the University Laboratories, 62, Chandos Street, Strand, W.C., by Mr. W. H. Fearis (voluntary bacteriological assistant to Dr. Carl Spengler), on Dr. Spengler's methods for the diagnosis and control of the specific treatment (with immune substances—I.K.) of tuberculosis. The class will meet on Monday and Thursday afternoons, commencing Monday, January 20th, at 3.30. The fee for the course is £4 4s. Further particulars can be obtained on application at the above address to Professor Howlett, who will be glad to receive names at once, as the class will not be held unless at least six students enter.

MEDICAL SERVICE IN THE HIGHLANDS.

THE report of the Highlands and Islands Medical Service Commission, which met under the chairmanship of Sir J. A. DEWAR, Bart., M.P., has just been issued.

The committee was appointed to consider how far the provision of medical attendance in these districts is inadequate, and to advise as to the best method of securing a satisfactory medical service therein, regard being had to the duties and responsibilities of the several public authorities operating in such districts.

The committee examined a large number of witnesses, and travelled over the Highlands and Islands to see for themselves the conditions under which the medical men in these districts performed their duties.

There are several outstanding features which demanded their special attention, for instance, the poverty of the crofters, the insanitary condition of the dwellings, the survival of superstition, the need for hospitals and nurses.

The following summarized conclusions are put forward by the committee:

(*a*) That on account of the sparseness of population in some districts and its irregular distribution in others, the configuration of the country and the climatic conditions, medical attendance is uncertain for the people, exceptionally onerous or even hazardous for the doctor, and generally inadequate.

(*b*) That the straitened circumstances of the people preclude adequate remuneration of medical attendance by fees alone.

(*c*) That the insanitary condition of life prevailing in some parts render medical treatment difficult and largely ineffective.

(*d*) That in default or disregard of skilled medical advice and nursing, resource is not infrequently had to primitive and ignorant methods of treating illness and disease. These methods are a source of danger, especially in maternity.

(*e*) That there is danger of physical deterioration from defective dieting, and more markedly in the infantile and juvenile population.

(*f*) That rural depopulation is not a feature of the whole area of one remit, and even when notable the necessity for medical provision is not materially reduced.

(*g*) That the local rates, from which the doctor's income is derived, are in many cases overburdened.

(*h*) That, owing to the industrial conditions, the Insurance Act is only very partially operative.

(*i*) That, in short, the combination of social economic and geographical difficulties in the Highlands and Islands—not to be found elsewhere in Scotland—demands exceptional treatment.

The report next proceeds to examine the conditions affecting the adequacy of medical service, among which are mentioned defective means of locomotion and communication.

The Committee is of opinion that the general inefficiency of the existing medical service is produced by:

(*a*) By inadequate remuneration.
(*b*) By inability to provide for old age and infirmity.
(*c*) By difficulties of locomotion and communication.
(*d*) By insecurity of tenure under the parochial system of appointments.
(*e*) By the difficulty of obtaining suitable house accommodation.
(*f*) By lack of facilities for holidays and post-graduate instruction.

Recommendations.

The recommendations of the Commission are as follows:

(*a*) It is clear that, having regard to the economic conditions prevailing in the Highlands and Islands, the extent to which the foregoing services are at present subsidised from imperial funds is quite inadequate, and that as local resources are in many parishes already wellnigh if not wholly exhausted, any general amelioration of the existing medical service cannot be achieved without a further and more substantial subsidy.

(*b*) It is shown that in the Highlands and Islands, general medical practice rests very largely on the subsidy from the Poor Law authority, and to a much less extent on subsidies from other public authorities. But it must be pointed out that the remuneration from these various authorities bears no proper relation to the work done or to the degree of responsibility involved. Consequently the individual practitioners are discouraged, and medical service as a whole suffers.

(*c*) But the Committee are of opinion that by proper administration of an additional imperial grant all these public services could be so developed and correlated administratively as to provide a more satisfactory financial basis for general medical practice.

(*d*) For the administration of any subsidy granted by the Treasury for the carrying out of the policy indicated in this report the Committee suggests that a central authority and a local authority be constituted.

(*e*) The Committee, after carefully considering the administrative conditions, are of opinion that a special central authority and a special local authority would be required.

(*f*) The Committee suggest that the central authority should contain a representative of each of the four principal central departments concerned with the administration and control of medical services, namely, the Local Government Board for Scotland, the National Health Insurance Commission, the Scottish Education Department, and the General Board of Lunacy; a representative nominated by the General Council of Medical Education and Registration of the United Kingdom; a chairman nominated by the Secretary for Scotland approved by the Treasury.

(*g*) In making this recommendation the Committee have had regard to all the medical interests involved, the duties and responsibilities of the public authorities operating in the Highlands and Islands, and the desirability of bringing about, as far as is practicable, a consolidation of the various services. The central authority thus constituted would act under regulations made by the Treasury.

(*h*) To enable the central authority to administer the suggested grant with due regard to the conditions of each locality, a local authority would also be required. It is not desirable to multiply authorities without necessity, and in the Highlands and Islands, on account of the difficulties and expense of attending meetings, this principle deserves special consideration. As it is of primary importance to retain the administrative interest of the parishes, and as all the parish councils are already represented on the District Committee, which is the local authority for public health, the Committee recommend that the local authority for the administration of this special grant should be the District Committee along with representatives from the Insurance Committee of the county or District Insurance Committee, a representative from any county or district nursing association, or, in default of such association, a representative nominated by the District Committee, a representative from the local Branch of the British Medical Association; and an officer from one of the central departments concerned—this officer to act as assessor. The medical officer of health for the county or chief medical officer of health for the district might attend meetings of the Committee for the purpose of giving advice and assistance.

It would be the duty of this Local Medical Service Committee to prepare a scheme of improved medical and nursing service for submission to the central authority with a view to an Imperial grant.

Medico-Legal.

ALLEGED PERSONATION.

A MAN, whose age was given as 47, was charged in the name of Richard Henry Barber at Bow Street on January 7th with having, on November 16th, 1906, wilfully procured himself to be placed on the *Medical Register* by making and producing false and fraudulent representations in writing, and with having between February 12th and March 9th, 1912, at Treeton, near Rotherham, forged and uttered nine certificates of death. The circumstances of the death of Dr. Richard Henry Barber in Oregon, U.S.A., were related in the report of the proceedings before the General Medical Council at its last session (SUPPLEMENT, December 28th, 1912, p. 734). The accused, while being conveyed from Liverpool to London, escaped, but was rearrested. He maintained an obstinate silence during the hearing; but Dr. Maurice Craig, who examined him in Banstead Asylum, gave his opinion that he was perfectly sane. Mr. Bodkin, for the prosecution, stated, according to the report in the *Times*, that the prisoner had no medical qualification and his name was not Barber. The magistrate granted a remand for a week.

THE Lent term of lectures at the Brompton Hospital for Consumption will commence on Wednesday next, when Dr. Inman will give a lecture on recent investigations into the pathology of tuberculosis at 4.30 p.m.

The Services.

"HONORARY PHYSICIANS AND HONORARY SURGEONS TO THE KING" IN THE ARMY.

SURGEON-GENERAL GEORGE J. H. EVATT, C.B., writes: Since 1858 we have had certain *honorary* appointments given to distinguished medical officers of the army with the above titles. I think this high honour would gain in actuality and definiteness if the title was changed to "Field" Surgeons and "Field" Physicians to the King. The officers chosen are past-masters in their own speciality of war experience, and my suggested title would emphasize the fact. Where an officer was Surgeon-General I would call him "Field Surgeon-General to the King."

Obituary.

THE LATE PROFESSOR REDFERN. — A correspondent writes: To your very interesting biography of Professor Redfern, whom Aberdeen is proud to have possessed, though for too short a time, it might be well to add that although no doubt he got inspiration as regards eloquence and teaching faculty from Bennett, the real influence was from Goodsir. At that period that great genius was in the zenith of his powers, and as he had the Ludwig-like faculty of suggesting fertile plans of research to his pupils, Redfern got from him the hint to study the development of cartilage.

Medical News.

DR. ROBERT JONES, Resident Physician and Superintendent of the Claybury Asylum and Lecturer on Mental Disease to St. Bartholomew's Hospital, has been elected an honorary member of the Clinical Society of Mental Medicine of France.

DR. LEONARD HILL, F.R.S., and Dr. Henry S. Kenwood have been appointed respectively civilian physiologist and civilian sanitary expert to the Army Medical Advisory Board in succession to Dr. M. S. Pembrey and Dr. L. C. Parkes, whose terms of service expired on December 31st, 1912.

A SERIES of ten lectures on the diagnosis and treatment of cancer is about to commence at the Cancer Hospital, Fulham Road. They will be given at 5 p.m. on each Wednesday, from January 22nd to March 26th, both days inclusive, and will be free to all medical practitioners and senior students.

A COURSE dealing with diseases of the chest, and designed to cover six months, will commence at the Royal Hospital for Diseases of the Chest, City Road, London, E.C., next Tuesday. The work will include lecture demonstrations, tuberculin administration, clinical study, and practical bacteriology. Information as to the fees and hours of attendance can be obtained from the dean of the hospital, Dr. Barty King.

AT the seventh annual dinner of the past and present students of the Royal London Ophthalmic Hospital the chair will be taken by Mr. W. A. Brailey, consulting ophthalmic surgeon to Guy's Hospital, who in his early days did such valuable work as curator and registrar to Moorfields. The dinner will take place at the Imperial Restaurant, Regent Street, W., on Thursday, January 23rd, at 8 p.m. Further particulars can be obtained from Mr. Herbert Parsons, 54, Queen Anne Street, W.

THE usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on December 20th, 1912. Dr. F. J. Allan was in the chair, and it was reported that for the last few months the claims had been steadily diminishing, but not, it was feared, in sufficient numbers to neutralize the excess in the first half-year. During the last two months there had been an excellent increase in the new proposals. The premium rates of the society are such that at age 30 for £7 2s. 6d. per annum a man may secure £4 4s. a week for twenty-six weeks in case of illness, and after that £109 4s. per annum until the age of 65 in cases of permanent incapacity. The society is run entirely on mutual lines, and the profits all go to the members. Since 1884, the year of its foundation, over £17,000 has been returned them under this heading alone. Prospectus and all further information can be obtained from Mr. Bertram Sutton, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, W.C.

Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A. asks for suggestions in the treatment of a lady, aged 22, who suffers from offensive breath. The teeth are good, and she is not a mouth breather; she does not suffer from constipation, but the stools are offensive, and the tongue is always a dull white. The conditions have been treated with small and repeated doses of calomel, with salol, besides the usual stomachics, and she has had a long course of soured milk, but nothing has made any difference.

BRAIN EXTRACT.

MR. PHIROZE A. DALAL (Bombay) writes to express the hope that Dr. Maule Smith (BRITISH MEDICAL JOURNAL, 1912, ii, p. 1451), will give further details as regards the dosage and method of administration of brain extract.

IODINE AS A SKIN ANTISEPTIC.

MR. VAUGHAN PENDRED, F.R.C.S.Eng. (Ilford) writes: A month ago I did a ventrifixation operation for a stout woman. The abdomen had been four times painted with 2 per cent. tinct. iodi. The conditions were as aseptically perfect as possible in a modern hospital. On removing the stitches on the ninth day pus (2 drachms) welled up from a deep sinus. A well-known London surgeon, whom I saw operating without iodine on the patient's skin, told me that he had seen two bad suppurations follow dependence on iodine. It would be very helpful if your readers would kindly tell us whether they have met with a like fate.

ANSWERS.

DR. MARGARET SHARPE (London, W.) writes in answer to "T. H. G." (December 21st, 1912, p. 1740): Fistula can be cured easily and rapidly by electricity with the minimum of pain and discomfort to the patient.

C. M.—(1) The foul smell from the auditory meatus may be due to suppuration in the ethmoidal or frontal sinus. This should be ascertained, if possible, by transillumination. If pus is found in any of the accessory nasal cavities surgical treatment is required. Failing this, a careful examination of the tympanic cavity would reveal the cause of the smell, and would account for the itching if a source of irritation were found. This naturally must depend on the exact condition of the ear and the neighbouring organs. (2) Few physiologists hold that the formation of uric acid is favoured by sodium chloride. Haig, in his book on uric acid, mentions that chlorides and many other anions diminish the excretion of uric acid, and consequently favour the accumulation of the same in the blood and tissues. This action of chlorides is recognized, and can be clinically demonstrated in cases of uric acid diathesis, in which an increase in the quantity of the acid is found in the blood after the ingestion of an excess of chlorides.

THE TREATMENT OF HAEMOPHILIA.

C. W. C.—The paper by P. Emile-Weil was published in the *Presse médicale*, 1909, pp. 673–76.

LETTERS, NOTES, ETC.

INSENSIBLE PERSPIRATION.

DR. JOHN HADDON (Hawick, Scotland) writes: I have a post-card from an anonymous correspondent in London saying that it would be interesting to know the weight lost in the day by insensible perspiration. I cannot answer anonymous correspondents except through the JOURNAL, and I hope you will allow me to answer him. I could make such an observation for the whole day, but there are so many factors to take into consideration that it can never be satisfactory. The loss, however, is very considerable, and most, of course, upon a hot day under severe exercise. I have known 1½ lb. lost by the skin and lungs in a walk of six miles, which gives some idea of the value of exercise. Another correspondent asks when the verses on Dr. Jephson's one prescription appeared in the JOURNAL, and I am sorry I cannot tell him, but they are worthy of being reprinted in a prominent part of the JOURNAL, along with the paragraph from the EPITOME on "Idiopathic Anasarca."

DRAW-SHEETS.

A SUBSTITUTE for draw-sheets which when shown by Dr. Vickerman Hewland at a recent meeting of the Hastings Division was regarded with considerable approval consisted of a flat muslin bag with a slit on one side and containing a piece of mackintosh and a layer of cotton-wool. The idea was that when the pad was soiled the mackintosh should be removed by the slit and the whole of the rest of the appliance burnt. It was stated that the cost of the material was 2d., this estimate covering cheap butter muslin and cheap cotton-wool. The size of the pad shown was 18 in. square, but obviously one could be made to suit the needs of any particular case. The pad was devised by a lady in Hastings, who originally intended to patent it.

SANITARY TOWELS.

MESSRS. ARNOLD AND SONS have recently put upon the market some sanitary towels which are claimed to present the advantage of not getting stiff and of not being liable to drop off. Instead of being enclosed in muslin, with tapes attached thereto, the padding of antiseptic wool is covered by a network of thread, drawn out at either end to form a loop continuous with the rest of the fabric. In addition, there is on the lower surface of the padding a sheet of impermeable material. The device, which is said to have been worked out by a medical man, is entitled the "Mosana," and on the grounds stated may be regarded as justifying the claims made in respect of it. It is made in several sizes, the prices ranging from 1s. a doz. to 3s. a doz. in the case of those intended for use after confinement.

A HOSTEL FOR SANATORIUM PATIENTS.

DR. C. MUTHU (Hillsgrove, Wells, Somerset) writes: So much has been said about the after-care treatment of sanatorium patients that one is surprised that so little has been done for those who leave the sanatorium more or less fit for work, and who wish to continue the open-air life after returning to their work. It is admitted that for these patients something should be done which would combine the sanatorium treatment with home life. When I was in London I came across a hostel (Sussex House, Bishopswood Road, Highgate, London, N.) with these objects. The proprietress has had six years' sanatorium work, and has been a Sister in one or two sanatoriums, and is very enthusiastic. The house is situate on the northern heights, with plenty of open-air space around, the rooms are large and airy, and it is within easy distance of the city. The place has been established for about a year. Having seen it and stopped there for a time, I can speak from personal experience. It is just the place for those who have been in an open-air sanatorium and who want to live where the open-air treatment combined with home life can be carried out with pleasure and comfort.

AN ADHESIVE BOOK-MARKER.

DR. CALANTARIENTS, of Scarborough, has invented an ingenious marker, which may prove very useful for certain purposes, especially, perhaps, for marking pages when doing work which involves a good deal of reference backward and forward. It is made of soft leather, such as is used for kid gloves, and is of the shape of a featherless arrow, 1½ in. long. The back of the head is covered with some adhesive material, and, when gently pressed on to the page, it adheres with sufficient force to keep its place, but can be easily removed. It does not seem to injure the paper in any way, but works better with smooth than rough paper, as it becomes clogged after a time with fluff from the latter; it can, however, be cleaned with water, dried, and used again. The inventor suggests that a set of the markers, which are made in different colours, would be useful for turning over music leaves. The markers, which are called "Students' Markerettes," can be obtained from Harrods and the Army and Navy Stores, price 1s. a dozen.

TO WORKHOUSE MEDICAL OFFICERS.

Dr. R. W. H. MEREDITH (Wellington, Somerset) writes: A short, dark, stout man who says he is an ex-soldier, and gave the name of John Kelly, has been "working" workhouses and hospitals in the West of England in a very interesting manner. He has the power of inflating his parotid glands and causing a subcutaneous emphysema extending from the temples to the middle of the chest. He takes about a quarter of an hour to inflate himself and about two or three days to absorb. The emphysema about the upper part of the chest, however, remains a long time. If he is not attended to, however, as seems best to him, he has become violent. He has likewise suffered from retention of urine when it pleased him. He is quite interesting for a few days, but should not be left when there are no male attendants, as he has been insolent and at times dangerous to nurses. I should be glad to hear from any one who has had him under treatment.

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PERICOLITIS.

BY

T. CARWARDINE, M.S., M.B.LOND., F.R.C.S.,

HONORARY SURGEON TO THE BRISTOL ROYAL INFIRMARY.

PERICOLITIS has its simplest manifestation in the local peritonitis which accompanies the firm impaction of a faecal mass in the colon. The bowel is congested and granular, and peritoneal exudate surrounds the area.

In lesions of the mucous membrane of the colon causing infection through the lymphatics the adjoining mesentery becomes thickened and shortened from chronic inflammation, a feature met with opposite the diseased area in chronic appendicitis, which causes kinking of the appendix at its middle or proximal part.

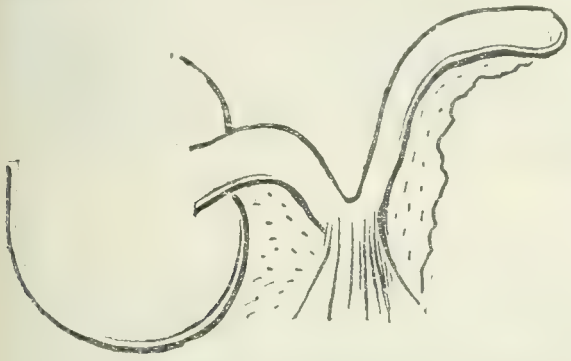


Fig. 1.—Effect of chronic inflammation of the mesentery of the appendix—mesoappendicitis.

It cannot be doubted that infection is a factor of the local exudate around the faecal mass in the one case and of the contracting scar in the mesoappendix in the other case. They are but simple instances of pericolitis, which, in some of its more complicated forms, I propose to consider in relation to the kidney, appendix, and gall bladder.

The correct interpretation of vague pains and tenderness in the right lumbar and iliac regions may be very difficult, especially in the female; and my own experience of the important part played by pericolic adhesions is in accord with that of some recent observers. In nephroptosis we have an opposite extreme to the simple illustrations already given, yet pericolic inflammation and adhesions may result from wandering kidney and demand treatment.

PERICOLITIS FROM WANDERING KIDNEY.

Wandering kidney sometimes causes colitis. This is primarily mechanical, from local irritation, from displacement and distension of the ascending colon, and from the strain on the colic vessels acting more readily upon the veins than on the arteries, and so inducing passive congestion. In addition, the colitis causes infective inflammation of the pericolic tissues. Thus a vicious circle is induced, mechanical on the one hand, infective on the other; the caecum and ascending colon being in lymphatic connexion with the right kidney, so that bacteria and toxins can pass from the colon to the kidney.[1] Whether as a result of mechanically-induced nephritis, or by infection from the colon, the fact remains that wandering kidneys requiring operation always show distinct adhesions on the true capsule with whitish areas of fibrosis at their attachments. It is the surrounding capsule which is really loose, even permitting the kidney to pass with it across the middle line of the abdomen.[2,3] Such patients are usually thin, but as the fatty capsule of the kidney is often well marked, the view that emaciation is caused by toxins from the bowel acting upon the fat would seem to be untenable.

In more advanced cases the intraperitoneal pericolitis may be so distinct as to prove a dominating factor in the causation of symptoms, as in the following cases:

CASE I.—*Attacks Resembling Appendicitis.*

Mrs. C. had suffered from "bilious attacks" for years, beginning with severe headaches and accompanied by distension, nausea, anorexia, and occasional vomiting. They lasted for two days, and she applied hot-water bottles to the abdomen to obtain ease, which was associated with a sensation of something moving before she was relieved. A month before I saw her with Dr. Lees she had a severe attack of pain and tenderness in the right iliac fossa, with fullness and indefinite swelling, and she had a recurrence with slight fever subsequently. In the earlier attacks the pain was epigastric; in the later ones in the region of the appendix and like colic.

The right kidney was freely mobile, with tenderness, gurgling, and indefinite resistance in the caecal region. In March, 1911, a long ilio-lumbar incision was made and the muscles separated. The middle of the ascending colon was adherent to the parietal peritoneum, and beset with numerous bands which required division with scissors, with intervening cystic spaces containing clear fluid. The caecum was dependent in the pelvis, dilated and hypertrophied. The appendix was small and apparently normal, and the other organs were healthy. The kidney was fixed by the writer's method,[4] and the patient has been cured of her attacks (Fig. 2).



Fig. 2.—Pericolitis from wandering kidney with cystic spaces containing clear fluid.

CASE II.

A woman, under the care of Dr. Powell, first noticed severe pain in the right side fourteen months before, with a history of previous indigestion. The pain passed to the right shoulder-blade and was followed by tenderness in the right side. Urination had been frequent for a year, and sometimes the patient detected a swelling.

The right kidney was fixed after excising some fatty capsule. Strong pericolic adhesions required division, also some between the ascending and transverse colon; the caecum was low down in the pelvis. With the patient on her side the whole of the fatty capsule with its fascia dropped away from the parietes, together with the kidney, leaving an exceptionally large retroperitoneal space reaching to the middle line mesially and down to the false pelvis below (Fig. 3).

CASE III.—*Wandering Kidney fixed with only Temporary Relief. Subsequent Exploration and Treatment of Pericolitis.*

I was asked to see a lady with Dr. Roberts in July last with wandering kidney dating from confinement many years previously. She complained of a dragging feeling in the loin aggravated by two recent falls, with abdominal tenderness; and on one occasion, when in London, she experienced a sensation of "something turning over inside." Belts had not given relief.

In September her kidney was fixed, but soon after her return home the abdominal pain, tenderness, and attacks of faintness described as "qualms" returned. Consequently I explored the right loin in November through a long sphincter incision. The kidney was absolutely fixed, but there was very obvious pericolitis, the ascending and transverse colon being bound together; a special tongue of mesentery of the ascending colon was adherent to the peritoneum of the loin, and beneath this the ascending colon towards its upper part was deeply angulated and constricted by strong pericolic bands with intervening empty spaces. It required time and patience to restore the colon to natural conditions, and the adherent portion of the mesentery of the ascending colon had to be cut away except a piece above which was stitched to the under surface of the liver to support the hepatic flexure.

Very soon after the operation she began to lose the "qualms," abdominal pain, and tenderness, the bowels acted more freely than before, and she is at the present time restored to health.

A case of nephritis with granular casts which appeared due to chronic appendicitis is recorded by Pilcher, pericolic

adhesions and recent perinephritis being present: also the case of a constipated patient who had passed blood and been advised to have her kidney removed, but whose renal symptoms cleared up after the removal of a chronically inflamed appendix, and the release of the caecum and ascending colon from pericolic bands.

Membranous Pericolitis, with Symptoms of Appendicitis.

The association of membranous pericolitis, with symptoms of chronic appendicitis has been graphically described by Lewis S. Pilcher.[11] The bands may be thin and veil-like, membranous, or as firm sheets of fibrous tissue binding down the caecum and appendix. They tend to restrict peristalsis and to angulate the colon and appendix (Figs. 9, 10, 11, 12, 13). They must have been observed repeatedly, although Jackson (1908) has given us a clear description.[5] In most of the cases of pericolitis described by Pilcher the appendix had been removed previously, either during an acute attack or for supposed chronic appendicitis. The persistence of symptoms in the right iliac region and loin led to further operation, and after dealing with the pericolic adhesions the patients were either cured or greatly relieved.

Parker Syms[6] described a case diagnosed as appendicitis which presented little sign of it at operation, yet the ascending colon was enveloped in a typical Jackson's membrane, spreading from the parietes over the colon, which moved freely beneath it.

Lane has described similar adhesions between the outer wall of the colon and the parietes in connexion with chronic constipation, and regards them as hypertrophy of the membranous anchors of the bowel, compensating for the strain of prolonged ptosis but also interfering with peristalsis.[7] As regards intestinal stasis, he submits the argument that inflammation of the appendix is not necessarily the primary condition; that bands of adhesions may form about the ascending colon and hepatic flexure as a result of constipation and the erect posture.[8] Charles Mayo suggests that in some cases these bands and films may be due to late rotation of the bowel and descent of the caecum from its hepatic position after the formation of the parietal portion of the peritoneal cavity in the fetus.[9] The reduplication of the ascending colon, which one occasionally meets with surgically, supports this view in certain instances. Generally speaking, the opinion of Gerster[10] and Pilcher,[11] that they are the result of oft-repeated or long-continued mild infections of the peritoneal covering of the caecum and appendix, is no doubt correct. Moreover, it should be noted that although the initial appendical attack may subside completely, the accompanying pericolitis may persist in the form of fibrous bands.

Symptoms and Diagnosis.

The symptoms of pericolic membranes have a great similarity, and resemble closely those of chronic appendicitis. Discomfort and pain are complained of in the right iliac region, with tenderness on deep pressure. These vary with diet and exercise, and colicky cramps occur which may be felt and even seen. Caecal constipation is caused by the defective peristalsis and mechanical impediment, and pain is caused by muscular spasm. This faecal stasis, where absorption is normally active, causes symptoms of autointoxication. The pain is often referred to the stomach, and secondary digestive disturbances are common.

The diagnostic value of x rays may be great in determining the position and size of the caecum and any angulation of the colon. Twelve hours after a bismuth meal, given after a thorough clearance of the bowels, supplemented if necessary by an enema of bismuth emulsion shortly before the examination, the colon and caecum may be examined, the disposition of the appendix may be seen, and by repetition at intervals one can determine approximately the relative stasis in the caecum. But operation will alone determine the conditions with precision.

Operation.

The incision will necessarily be such as to expose the parts more freely than has been customary. It may be a vertical incision towards the outer part of the right rectus, as advised by Pilcher, or the long ileo-lumbar gridiron incision, with separation of the musculature, which I have employed. The bands are then divided with scalpel or scissors until the bowel is set free, and the bare parts are covered over with peritoneum. Generally the bands are divided near the bowel, and are then utilized to cover the bare parietal areas by anchoring them behind the bowel with a few stitches, any free visceral ends of the adhesions being sutured to the bowel in front, close to their attachment. The incision should be long enough to expose the terminal ileum, caecum, and the whole of the ascending colon; and the history of a previous removal of the appendix should not preclude such an exploration.

In an examination of the after-histories of 100 cases operated on for chronic appendicitis, E. MacD. Stanton[12] found that 36 were not cured, either from erroneous diagnosis, such as the non-recognition of gall bladder or renal conditions, or from some factor not appreciated at first. Of these he states that mobile caecum accounted for the greatest number, 16 per cent., and in them the relief by appendicectomy was only temporary. The symptomatic importance of mobile caecum, and the value of operations for its relief, are variously estimated; and inasmuch as uncomplicated mobility of the caecum is not the cause of pericolic adhesions, except on the constipation theory, the consideration of mobile caecum as a primary condition may be omitted from a consideration of membranous pericolitis.

Pericolitis Due to Appendicitis.

Case I.

A little girl, aged 11, under the care of Dr. Thompson, had an attack of pain of gradual onset three years before, with sickness and slight pyrexia. Five weeks previously she had a sudden attack of pain, was not sick, and remained in bed a few days but without feeling quite well afterwards. There was no history of indigestion or biliousness. The appendix was found to the outer side of the colon, pointing upwards, and there were adhesions between it and the outer side of the colon, also pericolic adhesions joining the ascending and transverse colon (Fig. 4).

Case II.

In this case there had been pain settling in the appendix region, with tenderness, rigidity, and initial sickness. The appendix was firmly bound down behind the caecum, and firm bands united the head of the caecum to the ileum a few inches away from the ileo-caecal junction, so that a free loop of ileum was suspended thereby (Fig. 5).

Case III.—*Appendicectomy without Relief; Pericolitis Discovered at Subsequent Operation.*

A girl of 15 was seen in July last with Dr. Harvey with symptoms of appendicitis. Pain of three months' duration, was very severe at times though sometimes absent; referred to the right loin, thigh, and iliac region, where there was tenderness; the pulse was quick with slight pyrexia. The appendix was removed without drainage. On returning home the pain recurred in the right loin and towards the back. It was very severe at times, and worse when up and about. I saw her again in October. Nothing could be felt in the abdomen, and I suspected pericolitis. X-ray photographs after bismuth meals revealed very distinct stasis in the caecum, bismuth remaining therein unaltered from twelve to seventeen hours, and still present after forty hours. A long ilio-lumbar sphincter incision was therefore made through the former scar. The caecum was dilated, and, together with the ascending and transverse colon, was bound down by pericolic films, including omental bands which were attached to the outer part of the colon, the head of the caecum, and the scar (appearances, Fig. 6; skiagrams, Figs. 7 and 8).

Case IV.—*Pericolitis from an Abnormally Placed Appendix, causing Attacks of Biliary Colic with Jaundice.*

A lad of 20 was seen with Dr. Lucas in 1908 with a history of sudden pain at the navel two years previously, followed by attacks resembling gall-stone colic, with jaundice, marked flatulence and vomiting, and so severe that he used to double himself up over the back of a chair. The gall bladder and cystic duct were buried in firm adhesions, separable with difficulty. No stone could be found, the gall bladder was drained, and he passed several mucous stools for the first five days after operation. Seven months after he had an attack of general peritonitis, when its cause and that of the previous pericolitis was found in a gangrenous appendix that passed almost vertically upwards behind the caecum and ascending colon, the tip being apposed to the lower border of the duodenum close to the common bile duct (Fig. 14).

Case V.—*Pericolitis from Abnormally Placed Appendix (? Developmental) and Symptoms of Gastric Ulcer.*

A woman was referred to me by my colleague, Dr. Nixon, with a view to gastro-enterostomy if the indications were obvious. The history was that of pain after food ever since she was a girl, with much flatulence and occasional vomiting and haematemesis. There was localized tenderness in the epigastrium to the left of the middle line. Exploration revealed

a tortuous ascending colon, with adhesions between the bends and firm ones uniting the ascending and transverse colon together. The appendix, which was very long, passed up under a filamentous covering in the ascending mesocolon to the hepatic flexure, where it turned to the left, its extremity lying for some distance in the gastro-colic omentum, and the gall bladder was adherent at this site. Gastro-enterostomy was not indicated, the stomach was normal, and the long appendix was removed after dividing the filamentous pericolic covering (Fig. 15).

CASE VI.—*Tuberculous Pericolitis.*

A little boy was seen recently who gave a history of a few previous attacks of appendicitis. The appendix was accordingly removed, and on examination of the region a hard mass of tuberculous glands could be felt behind and to the outer side of the caecum and in the lower part of the mesocolon, whence they were excised. Professor Walker Hall reported the append. to be the seat of early tuberculosis (Fig. 16).

Actinomycosis.

In the later stages of actinomycosis of the appendix, which is not at all uncommon, the pericolic tissues become infiltrated and sinuses form in the loin, prior to



Fig. 3.—Pericolitis from loose kidney.
Fig. 4.—Pericolitis from appendicitis.
Fig. 5.—Ileum fixed by pericolic adhesions.
Fig. 6.—Pericolitis causing persistent symptoms after appendicectomy.
Fig. 7.—Skiagram of previous case seventeen hours after bismuth meal, similar to that taken twelve hours after bismuth.
Fig. 8.—Skiagram showing bismuth still in caecum seventy hours after bismuth meal.
Fig. 9.—Appendicular adhesions. (Pilcher.)
Fig. 10.—Pericolic films. (Pilcher.)
Fig. 11.—Perisyphlitic films. (Pilcher.)
Fig. 12.—Pericolic films binding ascending and transverse colon together. (Pilcher.)
Fig. 13.—Jackson's membrane and double-barrel gun arrangement. (Pilcher.)
Fig. 14.—Pericolitis and jaundice from abnormally placed appendix.
Fig. 15.—Pericolitis from abnormally placed appendix, with symptoms of gastric ulcer.
Fig. 16.—Tuberculous pericolitis.
Fig. 17.—Pericolic actinomycosis.
Fig. 18.—Pericolitis from cholecystitis of pregnancy.

the involvement of the hepatic region and subsequent death of the patient (Fig. 17).

Pins in the appendix have been noted by many surgeons, and may cause pericolitis. In a collection of 63 published cases R. H. Fowler refers to a case of W. W. Keen, in which the tip of the appendix was solidly incorporated in the bladder. At the age of 7 the patient had dysuria, and a pin, which he believed he had swallowed, was removed from the urethra.[13]

Pericolic adhesions may cause intestinal obstruction, as in a case recently operated upon at midnight, in which a coil of small intestine had passed under a band of such origin.

Cholecystitis with Pericolitis.

Inflammation of the gall bladder, leading to localized peritonitis in its neighbourhood, is a common cause of pericolitis in the hepatic region, and is invariable in severe or long-standing cases. The following will serve as an example of pericolitis following cholecystitis of pregnancy:

The last child was 7 years old, and the pain, of five months' duration, was first noticed in the epigastrium and passed round to the back. It was of a severe shooting character, worse at night and on walking, doubling her up, and relieved by the vomiting which always occurred. She had had indigestion for two years. There was tenderness in the epigastrium, not over the gall bladder, which could not be felt. At the operation the gall bladder was thickened and mottled, but no stone was present in it or in the ducts. Marked pericolitis was present, the ascending colon being adherent to the anterior abdominal wall and the liver adherent to the gastro-hepatic omentum. In particular there was a strong band of omentum adherent to the lumbar peritoneum (Fig. 18).

It will be seen, therefore, that pericolitis is a frequent accompaniment of inflammatory affections of the appendix and gall bladder. Its persistence as bands and adhesions may give rise to symptoms after the successful treatment of the original focus, particularly in appendicitis. In wandering kidney it is now demonstrated that pericolitis may coexist with encysted intraperitoneal collections of fluid. In the surgery of the right loin more attention will doubtless be paid to this associated condition by more complete examination of the region at the time of operation; and, by extended observation, the pathology of vague pains and after-pains will be more fully understood.

References.

[1] Francke: Coli-infektion der Harnwege. *Mitteilungen aus den Grenzgebieten der Med. und Chir.*, xxii, No. 4, 511-674.
[2] Glantenay et Gosset: Le Fascia Péri-rénal. *Annales des maladies des organes génito-urinaires*, 1898, p. 118 et seq.
[3] Morris, H.: *Surgical Diseases of Kidney and Ureter*, 1901, i, pp. 103, 104.
[4] Carwardine: *Bristol Medico-Chirurgical Journal*, 1905, xxiii, p. 24.
[5] Jackson, Jabez: Membranous Pericolitis. *Transactions of the Western Surgical and Gynecological Association*, 1908; also *Surgery, Gynaecology, and Obstetrics*, 1909, ix, 278.
[6] Syms, Parker: *Transactions of the New York Surgical Society*, February, 1912.
[7] Lane: *Surgery, Gynaecology, and Obstetrics*, 1908, vi, 116.
[8] Lane: British Medical Journal, 1911, ii, 914.
[9] Mayo, C. H.: Collected Papers, vol. ii, 1911, p. 221.
[10] Gerster: *Annals of Surgery*, 1911, ii, p. 325.
[11] Pilcher: Ibid., 1912, i, p. 3.
[12] Stanton: Ibid., 1911, i, p. 813.
[13] Fowler, R. H.: Ibid., 1912, ii, p. 433.

The bequests made by Miss Alphonsine Sarah Jarry, of Settle, Yorkshire, included one of £600 to Halifax Infirmary.

Wolbach and Todd, in the Third Report of the Expedition of the Liverpool School of Tropical Medicine to the Gambia in 1911, state that they have established the presence throughout the Gambia of that form of ulceration occurring in the tropics which is associated with the presence of spirochaetes and fusiform bacilli. In 17 cases the pathological history of the ulcers was studied; although they varied greatly in their gross appearances, their histological features had so much in common that they could be regarded as having a common etiology. The conditions observed excluded as etiological factors, syphilis, varices, acid-fast bacteria, blastomyces, Leishmania, actinomyces, and the streptothrices. The presence of spirochaetes in nine of their cases lends support to the view that they are the cause of the process. These spirochaetes corresponded accurately to the parasites described by v. Prowazek, Keysselitz and Mayer, Balfour, and other authors, and named by v. Prowazek *Spirochaeta schaudinni*. Subcutaneous inoculations made by the authors into white rats gave negative results.

A Lecture

on

SOME POINTS ABOUT DRAINAGE OF THE ABDOMEN UNDER VARIOUS CONDITIONS OF INFLAMMATION.*

By ARTHUR E. BARKER, F.R.C.S.,

SURGEON TO UNIVERSITY COLLEGE HOSPITAL, AND CONSULTING SURGEON TO THE QUEEN ALEXANDRA MILITARY HOSPITAL, MILLBANK.

The subject chosen is one pre-eminently difficult to handle. Anyone dealing with it even in the most detached way is very liable to be misunderstood. I hope I shall be able to avoid this in the present instance.

I want to speculate from evidence before us as to whether the current views on drainage of the abdomen in inflammatory conditions may not in some cases be modified with advantage to-day, as they have required to be in the past.

I need hardly remind a senior audience that not so long ago stirring debates took place in our societies as to the employment of drainage of the abdomen in such simple non-inflammatory conditions as early and uncomplicated ovariotomies. Yet now such a measure is rarely if ever adopted; the wound is at once sewn up. The reason is obvious. Any effusion which follows such an operation nowadays is either absolutely aseptic or the few organisms which may have gained access to it from without are easily disposed of by the germicidal properties of the fresh exudation with its phagocytes, and are absorbed by the extensive lymph sac which the peritoneal sac may be described to be. The effect of discarding drainage in such simple aseptic cases was, of course, to reduce the number of weak scars and consequent ventral herniae, and to diminish the liability to subsequent dangerous adhesions about the track of the drain. A painful after-treatment was also avoided, as was also a great loss of fresh healthy serum which otherwise would be returned by the lymphatics to the system with benefit.

Appendicitis.

Let me now ask you to recall the earlier medical experiences of appendicitis before the operative treatment of the affection became established. From these it soon became clear that many acute cases could recover without opening the abdomen, and without any escape of pus or other effusion either externally or into the intestines. It was a fair deduction from such experiences that the peritoneal cavity could dispose of a large amount of septic inflammatory matter. Otherwise none of these cases could have recovered.

Later on it was recognized that in many cases the amount of septic matter was too great to be left entirely to the resources of nature, and abscesses were encouraged to burst under fomentations, or operations were undertaken to evacuate them. But even here much was left behind which was not carried off by drainage, and could only be destroyed on the spot. From our experience of these operations we now know that ventral herniae and kinks of the intestine were not uncommon sequelae. But the operations on these very ventral herniae themselves following upon extensive suppuration within the abdomen have taught us, perhaps, more than anything else of the marvellous powers the peritoneum possesses of arresting and repairing the damage done. We have undertaken a radical cure, perhaps, a year or so after we had actually seen all the coils of bowel in the right flank matted together by foul lymph, and have found in many cases no traces of adhesions and all the peritoneal surfaces polished and as healthy looking as if they had never been involved in so dangerous a septic inflammation. Another point must have struck many surgeons after making long incisions to evacuate appendical abscesses. The ends of the incisions have been stitched up, leaving a drain in the centre, and we have seen the ends heal practically by first intention, in spite of being bathed in pus under a fomentation for days in many cases.

* Delivered at the Medical Graduates' College.

From all this it has seemed to many surgeons both at home and abroad, that perhaps we have been too wholesale in routine drainage when dealing with inflamed appendices, and that more discrimination is desirable. In other words that, after the removal of the inflamed organ and the septic products around it as far as possible by careful mopping, we might perhaps with advantage in some cases stitch up the abdominal opening after cleaning its edges, and obtain primary union with all its advantages. Here, of course, some traces of the septic matter would be left behind within the abdomen; but this, as we have seen from our experience noted above, can be disposed of by the defensive powers of the peritoneum.

Those who have taken this view can now point to numerous cases of acute epityphlitis in which inflamed and even gangrenous appendices surrounded by septic effusion have been dealt with and which have yet healed *per primam* after careful suture. In some of these cases the septic fluid from within has obviously flowed over the edges of the wound during the operative manipulations, and the inflamed lymph-covered organ has perhaps been in contact with them, and yet the result has been as perfect as if this had not been the case. Of course there remain a large number of cases in which thorough and prolonged drainage appears absolutely called for by common consent. This is our great difficulty, only to be overcome by experience. But it appears equally obvious that there are many in which drainage can be dispensed with to the great advantage of the patient, immediate and remote.

So far, then, as can be seen from clinical and experimental observation, a very considerable amount of septic matter is tolerated by the peritoneal surfaces, and can be prevented by them from doing irremediable injury when not in too great amount or overpoweringly virulent. That the virulence of the particular infection affects the issue is, of course, generally known. But that this general knowledge does not sufficiently affect our practice is what I am trying to bring out. We must all realize that every case of acute appendicitis is not the same affection, though the same organ is attacked in all. Let us take examples.

One patient is seized, and within a few hours has all the symptoms of profound toxæmia, which may be present to a degree almost precluding hope of recovery, with or without operation. In his case, if an operation is done, but little is found but a perforated vermiform appendix and a small quantity of a thin, greasy exudation from all the deeply injected peritoneal surfaces in view, but without a trace of plastic lymph. The intestines are distended, and more or less paresed. All we can do here, if we operate at all, is to remove the appendix, and with it a source of further infection. But the toxic infection has got a firm hold, and the natural forces alone can arrest it, aided, perhaps, by measures to be alluded to presently.

Another patient has an apparently similar attack: the same time has elapsed, but the general condition in this case is fairly good; there are, in other words, no marked symptoms of toxæmia, or very few. But if we open the abdomen we find what might at first sight be taken for a worse local condition. There is an inflamed appendix, as in the first instance, and the changes around it look more severe. But they are localized. There is much plastic lymph about, and the intestines in view are little, if at all, injected, paresed, or dilated. These are the cases which used to, and still do, get well with and sometimes without operation.

Now, these two conditions belong to entirely different categories. They are almost different diseases. In the first death will frequently follow, in spite of any operation which can be done for the local catastrophe. The general infection is too profound. The initial dose of poison has multiplied and saturated the whole system, either because the micrococcal strain was more than usually virulent, or because of a low standard of resistance in the individual.

In the second condition the virulence of the cocci is lower, is controlled by the greater vitality of the patient, and their effects are expended locally. It is unnecessary to refer to the particular cocci concerned in both processes. They may possibly be the same morphologically, but of a different strain as regards virulence.

Such differences in the cases we have to treat are seen daily. Is it rational that they should all be dealt with in the same stereotyped way when we come to operate on them? I think not, and an ever-increasing number of operators are of the same opinion, to judge from the literature of appendicitis, both home and foreign. It must not be forgotten, too, that there are many degrees of severity between the two extremes just mentioned. And herein lies our difficulty—a difficulty which has led to a too uniform method of procedure. But we are growing every day in knowledge of the vital processes in action, and ought to be, and are, better able to discriminate as to the aims of operative procedure to be applied to each variety. We have come so far as to realize that the milder attacks may be left until they have passed off, and then operated on for the removal of the appendix without drainage. We are coming to know what cases of suppuration must be drained. We are getting to believe that some cases with actual pus formation need not be drained, and acting on this belief, have obtained results which contrast very favourably with those treated by prolonged and often troublesome drainage.

The question is, Can we, by careful clinical study, determine during an operation whether an acute appendicitis ought to be drained or not? I think such a thing is possible. Let us take a case or two by way of illustration. It is quite clear that in all so-called "interval cases," or *appendicite à froid*, no drainage is required. We close the wound after removal of the organ, and expect and obtain primary union. But on a recently inflamed organ we often find much discoloured and foul lymph, with adhesions to surrounding parts, and not infrequently more or less turbid fluid. Can we venture in such a case to close our wound after removal of the organ and careful mopping with gauze, and dispense altogether with drainage? Experience shows that we certainly can in a large proportion of cases, and my own lists show that this practice is increasingly common and successful. And yet, when we come to think of it, these conditions are septic, and it can hardly be claimed that the removal of the inflamed organ can be accomplished without more or less contamination of our incision edges. Why, then, do these adhere and unite faultlessly, as they certainly do in many cases? This can be explained in several ways: Either the inflammatory exudation on and around the vermiform appendix was practically sterile, or, if not, the amount of organisms already inhibited by the action of effused serum was not enough to overpower the active tissue cells of the freshly made wound and the plastic lymph which repairs it. In some cases we have found that the effused fluid in such cases poured out in response to the infection from the inflamed vermiform appendix is actually sterile. No organisms have been grown from it on the ordinary culture media. The appendix itself was undoubtedly infective, but the serous fluid effused around it was probably prophylactic, as we know it to be elsewhere, and inhibited the development of the organisms. It was not to be wondered at that here the wounds healed primarily. But what about other cases where there has been a small abscess round a putrid appendix? Here, too, we have had in some cases the best results from immediate closure of the wound. We must suppose, then, that though some of the pus did undoubtedly reach the edges of the wound, the same inhibiting forces had affected the cocci in it, and that they were overpowered by the patient's own living cells in the wound, just as part of a wound which is being drained, and is consequently covered by pus, may heal up *per primam*.

In some few instances we have underestimated the chances of infection, and some suppuration, usually very slight, has taken place in our closed wound. But it is notable that the peritoneal conditions have in no case been unfavourably influenced by this. When the wound has shown blemishes it has apparently been due to the accumulation between the skin and the deeper stitches of some blood clot which has proved a suitable soil for the growth of organisms. Usually the escape of a little turbid serum through the stitch holes or of broken-down blood clot from a corner of the wound has been followed by sound union, as though nothing had happened. In some very few cases the insertion of a subcutaneous drain has been necessary, and a stitch or two have worked out. But in the end union has taken place with apparently no more loss of time than had the wound been drained from

the first. Such blemishes will be inevitable occasionally until we have accumulated experience enough to know how far we may go with non-drainage, and what cases must have a drain from the first. So long as the intraperitoneal conditions are not unfavourably influenced by non-drainage, the superficial processes are of secondary importance. Of course, if we follow the routine of draining all inflammatory intra-abdominal processes without exception, we escape the need of discrimination. But in this case there will be many more weak scars and ventral herniae to be dealt with subsequently, and probably more dangers from adhesions and infection from without.

If we endeavour to lay down formulae for our general guidance in such cases, they would be somewhat as follows: Given a case in which on opening the abdomen an inflamed vermiform appendix is found, around which there is a moderate amount of obviously plastic lymph shutting off the process, whether it be suppurative or not, and if outside this the abdomen contain a certain amount of clear effusion and the intestines in view are normal in appearance, if at the same time the patient's condition is good, his colour fresh and his pulse moderate in frequency and in quality, and if the offending organ can be removed with comparative ease, I am inclined to close the wound carefully without drainage. The clear fluid around the immediate area of trouble is probably prophylactic, and will often be found to be sterile.

But if, on the other hand, on opening the abdomen, a rotting or inflamed appendix be found with little or no plastic lymph anywhere, and the intestines in view are red, injected, and dilated from paresis and covered by a greasy exudation or immersed in a thin ichorous, discoloured effusion; and if this picture is associated with feeble, rapid pulse, great asthenia, loss of colour, perhaps frequent vomiting—in short, with clear signs of toxaemia—it is better to drain freely. The cocci in this case are particularly virulent and have led to a completely aplastic peritonitis, with toxaemia and consequent loss of general vitality. All that we can do here is to remove the exciting cause in the form of the peccant appendix (if this can be done without prolonged operation) and keep the wound open in the hope that some of the toxins, at all events, may escape from the peritoneal cavity by drainage. We are dealing here with a profound general poisoning, and the prognosis is extremely grave. Such cases must be spared from all prolonged exposure to the depressing effects of manipulations and the anaesthetic. In most all search for the appendix should be left for a subsequent operation unless it present itself at once. From evidence before us it appears more than probable that the effect of chloroform plays a large part in the general depression.

While writing the above I have seen 7 cases which illustrate the varieties alluded to on which I have operated with the last few days:

1. A mild quiescent case; appendix removed; no drainage.
2. A mild active case; appendix removed; no drainage.
3. A severe general case with much effused aplastic fluid in the right flank reaching to the diaphragm and producing cough, but with only moderate toxaemia and a relatively fair pulse; appendix removed; free drainage.
4. Severe inflammation with sloughing appendix and abscess, but general condition fairly good — organ removed; free drainage.
5. Severe attack with localized abscess and appendix imbedded in wall of caecum. Temperature high. Organ dissected out; drainage.
6. Intense inflammation; appendix imbedded in caecal wall and acute enlargement of mesenteric glands in the angle between the ileum and colon; caput coli and last two inches of ileum solid with oedema; appendix removed, no drainage. The patient had incipient pneumonia with much herpes on cheek and lips. Temperature very high before operation.
7. Intense inflammation of distal third of appendix with pus just about to burst through its serous coverings in many white patches; vascular adhesions all round; organ removed; wound closed without drain.

All 7 cases recovered. Of the 6 with fresh acute inflammation 3 were drained, and are practically quite well; 3 were stitched up without any drain, 2 of these healed without a flaw, one showed a perfectly healed skin incision with a little turbid serum from two stitch holes. A few days later: The wound is now dry, and has all the signs of primary union, being firm and soft. One of the cases (No. 4) in which drainage was employed would, I now think, have done equally well or better without drainage. Not so long ago all, except the first, would have been treated with drainage, and would probably ultimately have developed ventral herniae.

Perforation of Stomach and Duodenum.

This same question—whether we ought to drain or not—confronts us after operations for several other acute inflammatory conditions within the abdomen. Nowhere is it more momentous than after perforation of the stomach or duodenum. Here after we have closed the perforation it is difficult in some cases to say whether drainage should follow or not. I have treated many in both ways, and have gained the impression that those whose wounds have been closed at once have suffered less from the catastrophe itself and the operation than those whose wounds have been drained. I do not think I have ever regretted not having drained. I have often concluded that drainage had been of no use if not actually injurious. One thing is, I think, pretty clear, namely, that if a drain be used the escape of fluid is only from the abdomen in the immediate neighbourhood of our wound. No effectual means of draining the abdomen have yet been devised. We ask ourselves, then, Is it worth while to drain an area not larger than could be covered by the closed hand, and probably for not longer than 24 hours? For by this time the field of operation will be shut off from the rest of the abdomen by plastic exudation. Indeed, I have often speculated whether, in some cases at least, our drain has not prevented the completion of this plastic process, and interfered with the apposition and union of the damaged viscus with the parietal peritoneum and other parts around. And if an aplastic peritonitis is the sequel to a perforation the fluid effused will gravitate into the flanks, and here it could not be withdrawn by any drain in the epigastric incision. Fresh wounds in the flanks might be made, but they are, as a rule, unsatisfactory in these cases. Indeed, a patient with aplastic diffuse peritonitis after perforation is in a desperate condition from which no amount of drainage will save him, and each fresh opening in the abdomen weakens him. His own powers of resistance alone can save him. I have seen collections in the flanks and pelvis appear and disappear in these cases without incisions.

From all these considerations I have been led for several years considerably to modify some older views about drainage in such cases. In many of them after careful mopping of the infected surfaces, however extensive, the wound in the abdominal wall has been completely closed in many cases. And I cannot recall one in which there has been reason to regret the practice. There is good ground for believing, as already stated, that fresh serum in the peritoneum and other serous cavities is germicidal, and further, dilutes the toxins produced by the bacteria. It is effused rapidly, and quickly absorbed, carrying the toxins with it, to be eliminated by the kidneys. The leucocytosis which is at the same time induced, acts further in destroying the septic germs, and between these two processes the infection is controlled if only the patient's general vitality is maintained. We believe we can assist in the cycle of events in several ways. For instance, copious subcutaneous or intravenous infusions of normal saline solution, or of 5 per cent. of glucose in distilled water, not only help to raise the vascular tension lowered by sweating, vomiting and toxaemia, but also further the dilution and elimination of the toxins by the kidneys; moreover, leucocytosis is said to be increased by these means.

The same processes for the destruction of bacteria are seen in operation in other analogous cavities of the body, notably the joints and spinal canal when infected through the blood stream. A joint thus recently infected may be found to swarm with bacteria. Subsequent aspirations may show—except in the most virulent infections, usually from without—an ever diminishing number of organisms, until at last they cannot be found either in smear preparations or by cultivation. The same is seen in cases of spinal meningitis. I have had several which have recovered perfectly. Two are recorded (and many more collected from other publications) in the *Transactions of the Royal Society of Medicine*, 1907, where suppurative meningitis of the dura, producing almost hopeless general conditions, recovered under no other treatment than repeated withdrawal of the highly infected fluid by repeated tapping of the lumbar sac.

There is much evidence, then, for the belief that the serous cavities of the body, being so important, are provided with specially powerful defensive works to protect them from bacterial invasion. It should be our aim to assist them surgically when they are in danger of being overpowered by the accumulation of bacteria and their toxins—sometimes by evacuation with drainage, sometimes by evacuation without drainage. We should always study to interfere as little as possible with the natural protective agencies. Overhandling, overdisturbance, overstimulation with chemical germicides, have long been recognized as harmful, and I feel sure that overfree use of drainage also often plays an injurious rôle. The mere fact that a wound in the epigastrium is kept open by the insertion of foreign material must more or less disturb the vascular balance within the abdomen; and the presence here of an open wound is more painful during the first few critical days than a closed one, on which the movements of respiration have less effect. The daily readjustment, too, of drains and dressings must cause a great addition of pain with all its depressing influences at the patient's weakest time, besides increasing the risk of added sepsis. I do not think there can be any question that a patient's general condition is more satisfactory with a closed wound healing more or less by first intention under a dressing untouched for days than with an open wound.

Of course an attempt to obtain primary union may not be quite successful in some cases. Invisible septic particles may have lodged in the wound and may infect the deeper or superficial stitches, and some of these may suppurate. But this, if it occur at all, will take place after some days, during which the peritoneal cavity has, at all events, been at rest. At the worst in such cases some of the deep stitches have worked out without delaying the general recovery longer, perhaps, than had the wound been drained. This is a small price to pay for getting the abdomen closed at once and giving the patient rest for the first few days while the catastrophe within is repaired. As a matter of fact, the number of cases of perforated gastric and duodenal ulcers treated by immediate closure of the abdominal wound, treated in my beds by myself and others, has largely increased, and primary union has been the result in an ever larger proportion of late. Some will continue to be drained after such lesions, but I think fewer and fewer.

Here, again, the character of the fluid met with when the abdomen is opened will help to decide the point in question. If much putrid food have escaped from the perforation and the resulting peritonitis has yielded an acrid acid fluid as tested at once by litmus paper, the case is a bad one. If, besides, there is deep injection of the intestines with distension, and little or no plastic lymph is seen, we may count on a virulent form of infection, which would inoculate our wound at once and prevent its healing. Here I should drain freely, but with small hope for the patient.

But in some cases of fasting stomach there is little extravasation through the perforation. Here we find a bland whey-like alkaline or neutral fluid with no deep injection or distension of the intestines, while they show an inclination to adhere by plastic lymph. In these cases, after careful cleansing of all the pockets of the peritoneum accessible to swabs on holders, I am now inclined to close the abdomen completely without drainage. Many such cases have healed without further trouble by primary union. For instance, in a case of duodenal perforation the diagnosis was very obscure, and an opening was made over the vermiform appendix, which was under suspicion. The whole peritoneal cavity was full of the bland fluid alluded to, and there was some free gas. Recognizing the true condition now, I opened in the epigastrium, found the perforation near the pylorus, and closed it. After thorough swabbing of the whole peritoneal cavity I stitched up both wounds without drainage, and permanent primary union without a flaw was the result, the patient being soon well.

PYOSALPINX.

Let us take now another acute abdominal condition. If on opening the abdomen a pyosalpinx with localized peritonitis is found, there need be less hesitation. Here the immediate closure of the wound may be done in the large majority of cases. In the first place, it is known to bacteriologists that the pus from pyosalpinx is sterile in about 50 per cent. of ordinary cases. In this group there is no special reason for drainage if oozing from adhesions can be quite controlled. But in the other half of the cases the virulence of the bacteria mitigated by long residence in the body is low, as indicated by the plastic exudation and the absence of inflamed and paresed intestines, and a carefully sutured wound will heal *per primam* in the majority of cases in spite of the pus. I have seen this over and over again, and also after ruptured tubal pregnancy.

INTESTINAL GANGRENE.

Again, in another class of lesions the same question has to be considered. I allude to gangrene of the gut from internal strangulation. Here, except where there has been perforation and faecal extravasation, drainage should be avoided after removal of the damaged portion. The plastic processes appear to me to be more perfect without a drain, which may prevent the apposition of healthy structures around our line of suture. I could produce many instances to illustrate this point; one or two will suffice. A few years ago I had to remove four feet of small intestine black and gangrenous from constriction of an omental band. On opening the abdomen, over a pint of dark putrid flocculent fluid escaped. After the excision of the gangrenous coils and junction of the ends, the wound was completely sutured without drainage, and primary union followed. Her doctor tells me the lady has remained perfectly well ever since, with no signs of adhesions. Another similar case occurred to me in hospital a few years earlier. Here I removed 5½ ft. of small gut for gangrene with a couple of pints of dark putrid fluid. Perfect primary union followed without drainage. The patient was a feeble woman of 76, and was quite well when I last saw her two years after operation. In both cases the putrid fluid, one would have thought, ought to have interfered with primary union, but it did not.

In cases of removal of the caecum where we open up areolar planes it may be a different matter. Drainage may perhaps be required unless we are perfectly certain of our asepsis in removing the gut. To deal with more or less sepsis in the peritoneal cavity is quite another thing to arresting its progress in areolar tissue. But even here drainage may be discarded in many cases, as I know.

I have asked your consideration of these points and given you some of my experiences in the hope of drawing your attention to a subject upon which our conclusions are not yet fully crystallized and in an attempt to arouse a more careful clinical study which must always go hand in hand with bacteriological work. I am addressing experienced practitioners, not young student beginners who might be likely to draw wrong conclusions from the speculations offered them. These are of no recent growth. It must be more than twelve years ago since I ventured to publish a paper on this subject. And experience, in many cases combined with what we have learnt from bacteriology, has served to confirm and amplify the deductions then put forward.

THE Royal Dental Hospital, Leicester Square, has received from the executors of the late Captain T. B. Heathorn a donation of £400.

THE Association of Infant Consultations and Schools for Mothers, which is now doing its work as a department of the National League for Physical Education and Improvement (4, Tavistock Square, London, W.C.), has in view a competition in the subject of mothercraft, the competitors being women attending the various schools for mothers in London. It is proposed that each of the schools shall select by competition not more than six representatives, and that these shall subsequently take part in a competition held by the association itself for prizes in nine classes of work. Among the latter are dressing and undressing a baby, laundry work, cooking, cutting out and making garments, knitting, and cleansing babies' bottles. A prize will also be given for the baby evidencing the best condition and greatest care, provided that it is shown by a mother in possession of a favourable report as to her home for a period of not less than three months signed by a health visitor or other responsible person. The competition is to take place during the health week, April 6th to April 12th.

APPENDICOSTOMY IN PLACE OF COLOSTOMY FOR RELIEF OF OBSTRUCTION CAUSED BY IRREMOVABLE CANCER OF THE RECTUM AND COLON.

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I PROPOSE to show, in cases of cancer of the rectum and colon too far advanced for excision, that colostomy, in particular left inguinal colostomy, is often an operation in excess of the requirements; and that in such cases appendicostomy can afford sufficient relief, whilst avoiding the great discomfort and disability provoked by colostomy. There is no sufficient evidence that colostomy checks the progress of the cancer itself, and it does not prevent pain from setting in when the pelvic nerves become involved. Left inguinal colostomy is especially indicated for inoperable cancer of the lower part of the rectum; when the disease is situated higher up appendicostomy may be substituted.

Even when the colostomy has been performed in a completely successful way, yet the irregular escape of gas and faeces, excited by any unusual incident, is the cause of grave discomfort. The patient, if a man, finds himself unable to dispense with the services of a nurse, and when the advance is slow the continuous attendance of a nurse becomes very trying. If a wife or daughter acts instead of a nurse, the changing of the dressing, especially at night, induces weariness and disgust, and when time proves that the colostomy has been done for a non-malignant condition, then the limitation which the colostomy imposes upon an active life becomes a heavy burden; a man cannot go an hour from a lavatory because he cannot be sure when he may need to clean himself. One patient upon whom left inguinal colostomy was performed, for what was diagnosed as inoperable cancer, died seven years later, apparently not of the cancer at all. Another similar case has lived longer still, cut off from active life, as just mentioned. Both have bitterly complained to their friends of the excessive nature of the operation.

My practice of appendicostomy owes its origin to the late Mr. Keetley,[1] although I do not find that he or any subsequent writer on appendicostomy has advocated it as I do here. Moreover, in the reports of recent discussions on cancer of the rectum and colon by those especially interested in these subjects,[2] no one advocated any other alternative than colostomy for inoperable cancer; at the same time there appears in such discussions no due recognition of the great discomfort incidental to colostomy, even when perfectly successfully carried out.

Before using it as recommended in this paper I had successfully employed appendicostomy in several cases for the relief of tympanites complicating acute appendicitis. In two cases in which the tympanites persisted after the appendicitis, unrelieved by other measures, the reopening of the wound and the establishment of an appendicostomy afforded relief, and the patient recovered without a fistula persisting.

I have made the appendicostomy opening just at the funnel-like junction with the caecum as seen when the appendix is drawn out. Into this is inserted a winged rubber catheter, or a glass cannula with a flange which is fixed by turning in the margins as described in the gastrostomy method known by the names of Kader and Senn. Such a fistula will close spontaneously if the tube be soon left out, say after ten days. If a tube is kept in, a valvular fistula becomes established. If after, say, three months the catheter is then omitted to be regularly passed, the fistula will tend to scab or skin over, but is readily reopened.

By attaching rubber tubing and a funnel to the outer end of the catheter fluid may be run in or gas and faecal fluid siphoned off at will, without moving the patient or his dressings. When the distension has been once relieved an ounce or two of olive oil shaken up in a pint of soap and water, and run in early in the morning, will induce a motion per rectum in an hour or so, sufficient for the next twenty-four hours.

If olive oil is not sufficient, a drachm or more of castor oil or magnesium sulphate may be added, but excess excites repeated motions and has to be avoided. Scybala are got rid of by increasing the amount of soap and water run in. When the motions are thus regulated there is but rarely any escape of gas or faecal fluid by the fistula, and the patient can get about with a pad and bandage over the fistula, without fear of having to change it or of any faecal odour being perceptible. Should he find later on, as in the few, that the bowels can be regulated by aperients and the catheter is no longer passed, the fistula will scab over and then no dressing at all is required.

The cases upon which I have performed appendicostomy divide themselves into three classes:

1. Cases of acute intestinal obstruction who survived only a few days.
2. Cases which lived for months whilst the disease pursued its course to the end.
3. Cases who returned to active life.

During this period I have performed left inguinal colostomy in two cases for inoperable cancer involving the lower third of the rectum, and in two other cases certainly suffering from inoperable cancer I advised that there were no sufficient indications for any operation at that time.

1. *Cases of Acute Intestinal Obstruction in which Appendicostomy was done and Gas and Fluid Siphoned off until the Distension was Relieved.*

(*a*) Female, aged 53, with inoperable cancer of the sigmoid flexure. Appendicostomy was done on March 4th, 1910, and she died the next day.

(*b*) Male, aged 65, with cancer of the splenic flexure and transverse colon. Appendicostomy was done on December 16th, 1909, and he died on December 23rd.

(*c*) Female, aged 78, with cancer of the ascending colon and multiple growths all over the abdomen. Ileo-sigmoidostomy and appendicostomy were done on December 11th, 1908, and she died on December 15th.

(*d*) Male, aged 32, with cancer of the upper part of the rectum. Appendicostomy was done on December 29th, 1910, and he died on January 8th, 1911.

There was in these cases no recurrence of the distension; the nurses frequently ran in fluid through the tube, and siphoned off faecal fluid without disturbing the patients; also faeces passed per rectum.

2. *Cases which Survived for Some Months.*

(*a*) Female, aged 56, with cancer of the upper part of the rectum. Appendicostomy was performed on November 9th, 1910, and she died on June 12th, 1911. Meanwhile the patient got about, and did not suffer until about three weeks before death. She was under the observation of Dr. Francis of Uxbridge.

(*b*) Female, aged 64, with cancer of the sigmoid flexure and a secondary mass in the anterior edge of the liver which came to involve the transverse colon. Appendicostomy was performed on March 25th, 1911, and she died on August 11th, 1911. She remained comfortable, and was able to get out in a bath chair. She suffered very little. She was under the observation of Dr. Collier of Westminster and Dr. Lush of Hampstead.

(*c*) Female, aged 62, with cancer of the upper part of the rectum. Appendicostomy was done on November 7th, 1911, and she died on March 31st, 1912. She got about well at first and was under the observation of Dr. Bennion of Orpington. During the last few weeks she suffered a great deal of pain.

(*d*) Female, aged 57, with inoperable cancer of the upper part of the rectum. She had become exhausted by irregular attacks of fever, the cause of which was obscure until the intestinal obstruction intervened. Appendicostomy was done on August 15th, 1912, after which she remained in a comfortable state without either obstruction or pain but with irregular elevations of temperature until her death on November 10th. She was under the care of Dr. F. H. Spooner.

The colleagues under whose observation these patients were after the establishment of the appendicostomy agreed with me in instituting comparisons favourable to appendicostomy, as affording a sufficient relief from obstruction. In none of these was there any marked haemorrhage or discharge from the growth. The fluid ran in through the appendicostomy fistula every morning produced a sufficient motion and prevented any recurrence of intestinal distension and obstruction.

3. *Three Cases have Returned to Active Life after the Appendicostomy.*

(*a*) Female, aged 65, with inoperable cancer of the upper part of the rectum. Appendicostomy was done on April 16th, 1912, and I saw her on November 15th. She had got a little thinner but was quite active, the abdomen flat, the fistulous opening in

which she was keeping the catheter surrounded by healthy skin. She had been running in only a small amount of olive oil and soap and water daily, but the growth was advancing and the amount required to be increased. She was under the observation of Dr. Glegg of Datchet.

(*b*) Male, aged 58, with inoperable cancer of the rectum at the level of the promontory, of which there had been symptoms for more than a year. Appendicostomy was done on November 2nd, 1910. A year later he came to the hospital to see me; he had been working meanwhile as a packing-case maker. He had passed a catheter through the fistula for three months, then, finding he could regulate his bowels by aperients through the mouth, he had omitted to pass it, and the fistula had become covered by a thin skin. He had latterly felt himself getting weaker, and proposed to work half time; the growth had made some advance. He attended again on November 25th, 1912—that is, two years after the operation; he had continued at work, and only complained of what he called "chronic diarrhoea."

(*c*) Male, aged 63, bachelor. A large fixed mass occupied the left inguinal region, in the centre of which was an abscess coming forwards to the surface, and upon this intestinal obstruction had supervened. Appendicostomy was performed on October 9th, 1909, and at the same time the abscess incised; it seemed to be situated in the middle of a mass of cancer round the sigmoid flexure. On November 28th he was able to leave the nursing home with the abscess healed. On February 10th he had recovered sufficiently to resume his previous active life, the bowels acting well when fluid was run into the fistula, and from which there was no regurgitation. He could manage this himself, and had only a manservant to attend on him. The mass in the left inguinal region had shrunk to a hard fixed mass. He continued under the observation of Dr. C. P. Sampson. In September, 1911, a friend who travelled with him on the Continent described him as in magnificent health.

Perhaps time may prove that in this case the disease was really inflammatory.

REFERENCES.

[1] Keetley, BRITISH MEDICAL JOURNAL, 1894, ii, 1112; 1905, i, 1299; 1905, ii, 863. *Lancet*, 1906, i, 1023; 1907, i, 1761 (Cavendish Lecture). *Proceedings Royal Society of Medicine*, November 10th, 1908, vol. ii, Surgical Section, p. 67. (Keetley died in December, 1909.)

[2] Discussion on Cancer of the Rectum and Pelvic Colon, by Mr. W. E. Miles and others, at the London Meeting of the British Medical Association (BRITISH MEDICAL JOURNAL, 1910, ii, 941), and by Mr. Harrison Cripps and others at the Liverpool Meeting of the Association (BRITISH MEDICAL JOURNAL, 1912, ii, 843).

GANGRENE OF THE VERMIFORM APPENDIX AND OF A COIL OF SMALL INTESTINE; OPERATION: RECOVERY.

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THE conditions in the case related below seem sufficiently unusual to be put on record:

A single woman, aged 31, gave the following history: In May, 1911, she had an attack of pain in the right side of the abdomen, which ceased after a few days. Six months later, on November 2nd, at 2 a.m., she was again seized by a similar but more severe and continuous pain. Dr. D. M. Mackenzie of Southall saw her, and diagnosed acute appendicitis. The bowels acted, but the pain increased rather than diminished. The woman, who was in domestic service, was taken in a cab to her own home on November 2nd, and was admitted to the Samaritan Free Hospital at 7 p.m. on November 4th, sixty-five hours after her illness began.

She was then flushed, and looked very ill. The temperature was 100° F. The abdomen, which moved only slightly in respiration, was tender and distended, there being marked resistance to pressure over the caecal region. The rectum was loaded, and an enema caused the bowels to act, after which the distension of the abdomen subsided, and all pain ceased.

When I saw the patient, about two hours later, she still looked very ill, but the flushed condition had given place to extreme pallor, the pulse was feeble (140), and the abdomen was flaccid, there being neither pain nor tenderness nor resistance to palpation anywhere. By combined pelvic and vaginal examination an ill-defined soft mass of tissue was felt in the upper part of the pelvis on the right side. The woman was not collapsed, and she felt very much better when the pain ceased. The relief was so great that I hesitated about operating, but the history and the conditions observed seemed to indicate that an examination by incision was necessary.

At 10 p.m., sixty-eight hours after the first onset of pain, a short incision was made parallel to Poupart's ligament on the right side, and immediately several ounces of bluish-black fluid of the consistence of serum escaped from the wound. This fluid had no resemblance to pus. It was apparently free in the peritoneal cavity, and my first impression was that a ruptured extrauterine fetation existed, and that the indefinite mass in the pelvis was blood clot. Further examination showed that a piece of intestine was gangrenous, and a second incision was made in the middle line to allow free access to the parts. A loop of small intestine in a necrotic condition was partially and lightly adherent round the lower end of the caecum. This coil after being easily separated was wrapped in swabs, and placed out of the way in the middle of the abdomen. It was then seen that the vermiform appendix was gangrenous and perforated. It was adherent to the inner side of the caecum, and had been surrounded by the dark coloured fluid most of which had already escaped or been swabbed away. The appendix was removed by crushing and ligaturing its base and inverting the stump by a purse-string suture.

Then the unhealthy portion of small intestine was again exposed. It had a faintly putrid odour, and its surface over a length of about 12 in. was dead, being in some places quite black, in others having various shades of grey. The junction between the diseased and healthy parts was well defined. The bowel was double-clamped and divided above and below the necrosed portion and the mesentery of the isolated piece was cut away. There was just enough small intestine left attached to the caecum to allow a lateral anastomosis to be made after inverting and securing the retained divided ends of the bowel.

The peritoneal cavity was drained through both incisions, and there was a very free discharge of yellow serum for a few days, but except a looseness of the bowels, which continued for rather more than a week, there was no complication of any kind during convalescence, the highest temperature being below 101° F.

The patient came to the hospital on March 22nd, 1912, four and a half months after the operation, to report that she was quite well and that the bowels gave no trouble. She wished to know if she might emigrate to Canada, and I thought she might safely do so.

The necrosis of a coil of small intestine which occurred in this case is a condition which I have not seen before in association with gangrene of the appendix. Some years ago[1] I suggested that gangrene of the appendix frequently occurred without any symptoms until after a portion of its wall had died. I published a case[2] in which profuse haemorrhages from an opened appendix abscess cavity were associated with areas of gangrene.

These were seen when the apposed and apparently healed surfaces of the wound were separated with a view to finding the bleeding point. They consisted of dark-coloured superficial areas, about a quarter of an inch in diameter, scattered over the freshly exposed cut surfaces, exactly like cultivations of an organism upon a solid nutrient material. No bleeding point was found, but there was no further haemorrhage, and the visible necrotic areas gradually separated after the wound was laid open and drainage of its deep part was made very free. It seemed certain, therefore, that the necrotic areas were caused by the action of an anaërobic microbe which destroyed the wall of some vessel or vessels in the deep part of the abscess cavity. As there was no sign that the abscess would not heal well in that case until the first haemorrhage took place, it may be inferred that the cause of the necrosis did not induce any irritation or inflammatory reaction.

The gangrene of the intestine in the case now related seems also to have been due to some microbe in the fluid around the gangrenous appendix. It is hardly possible that the intestine could have been in the condition described for the three days, or very nearly three days, of the patient's illness. I am inclined rather to think that the pain was due to tension within the appendix; that relief was due to rupture of the appendix; and that the necrotic change in the bowel was very recent, being caused by an exceedingly rapid action of some micro-organism in the fluid that escaped into the peritoneal cavity after the patient's admission to hospital. Serous fluid of a yellow colour, and more or less clear, is often seen collected in a pool around a gangrenous appendix, although not held there by adhesions. In the case now recorded the fluid was of a very dark colour, and apparently it had a necrogenic effect upon the bowel.

It is, of course, conceivable that the condition of the bowel was the cause of pain, and that the cessation of pain was due to the emptying of the intestine by the action of the enema and to the consequent relief of tension within it; but it is very difficult to believe that an enema would act if the bowel had been even for a very few hours in the condition above described; and the pain was of very nearly three days' duration.

Pain is undoubtedly sometimes due to the escape of the contents of a vermiform appendix into the peritoneal cavity; but there is quite commonly a stage, as in this case, in which after the appendix has ruptured, and apparently immediately after its rupture, there is for a time complete freedom from pain.

It is a question whether an enema should have been administered when the patient was admitted to the hospital. In this particular instance the effect was good, for the operation was easier with the intestines collapsed than

it would have been if they had remained dilated. But if acute appendicitis requiring operation is diagnosed, it is usually better to operate first and to clear the bowel afterwards. The enema seemed to determine the onset of the condition in which alarming symptoms subside, and therefore its effect was to help the patient not to a cure but to a further stage of the disease, to that dangerous state in which the practitioner is tempted to believe that his patient is better, and that operative interference is not necessary. If this view had been adopted in the case now recorded, it is certain that a few hours' delay would have made the conditions very much more serious, if not altogether hopeless. An operation then, or a *post-mortem* examination, would have shown an intense general peritonitis affecting the parts around the appendix region most severely.

Whatever the exact interpretation of the symptoms may be, the case illustrates (1) the imperative need for operative treatment in certain cases of appendix mischief, and (2) the importance of sudden cessation of severe pain as a sign that the conditions have become not less but more urgent. I do not believe that appendix cases can be understood until it is recognized that there are two distinct forms of mischief—one, inflammation commencing in the mucous membrane; the other, gangrene brought about by the action of a necrogenic microbe which causes no inflammation until the dead part is separating, or has separated. Each of these conditions may complicate the other, but typical cases are easily defined. There can at least be no question that, in many cases of gangrene, operative treatment is alone of use, whilst there are other cases in which even severe inflammation causes little real danger.

But the difficulty of recognizing which condition exists is sometimes so great that the surgeon thinks the safest course is to assume the worst, and operate at once, believing that if the patient would recover without operation, an operation will not prevent his recovery, and knowing that if the appendix is ruptured without adhesions having formed, delay in removing it is exceedingly dangerous, whilst a sufficiently early removal is almost always successful.

REFERENCES.

[1] Appendicitis and Gangrene of the Appendix considered as Separate Diseases, *Medico-Chirurgical Transactions*, 1905. [2] *Clinical Society Transactions*, 1906.

TWO CASES OF GANGRENOUS APPENDICITIS WITH UNUSUAL HISTORIES.

BY

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THE two cases of appendicitis the histories of which are given below were met with within twenty hours of each other, and, showing as they do several points of interest, are, I think, therefore worth recording.

CASE I.

J. P., male, aged 9 years, was first taken ill on September 1st, 1912, when he complained of pain in the stomach. He had previously been healthy, although from infancy he had from time to time complained of pain on passing water. When seen first he had no objective symptoms; the pulse was 88, and the temperature normal, the belly soft without any tenderness; a bismuth mixture was prescribed. Between September 1st and September 6th he was seen each day. The pulse remained steady and below 90, and the temperature both night and morning was normal. When seen he was generally playing with his toys and free from pain, though there was always the story that he occasionally would cry out with paroxysmal attacks of sharp pain. His bowels were opened each day. On September 6th I was sent for as the child had been attacked with severe pain while passing a motion. On examining him an hour after the pain had commenced I found his belly wall absolutely rigid. The pulse was 80, and the temperature 98.8°. The tongue was moist, but he wore a somewhat worried look. I diagnosed acute abdomen, and had him removed to hospital. On admission the temperature was 101.4° and the pulse 120. I operated immediately and found the belly full of pus. On feeling for the appendix I found it hanging over the edge of the pelvis. It was adherent to the bowel and bladder, but was separated with ease. It was a long one; the first 2 in. appeared healthy, but distal to this it was enlarged to the thickness of one's thumb. It was gangrenous and had a perforation. On opening it I found a concretion the size and shape of a "monkey nut." The appendix was removed, the pus swabbed out and the belly drained in four places, in each loin and in each flank. The boy made an uneventful recovery.

CASE II.

J. C., male, aged 32, came to consult me on his way home from work on September 5th, complaining of severe pain in his abdomen; the pain was localized and was eased by pressure. I found no tenderness of the abdomen. I was able to feel the outline of the pelvic brim throughout its whole extent, and no tenderness was elicited on deep pressure; the pulse was 80 and the temperature 98.2°. He was sent home to bed with a simple remedy. I was called to see him on September 7th, and found that he had been vomiting all the preceding night. The pulse was 88 and the temperature 98.6°. There was no tenderness on deep pressure in the iliac region nor in any part of the abdomen. The tongue was moist, but his face had a slightly anxious mien.

I think because of the remembrance of the case of the preceding night more than because of any definite signs or symptoms, although the man's expression was suggestive, I determined to explore his abdomen. On opening the belly a little clear fluid escaped. I felt for the appendix and found it lying in exactly the same position as in the case of the boy, hanging down into the pelvis against the bladder. I removed the appendix, and here again found the first 1½ in. healthy, the distal 3 in. gangrenous and enlarged to the size of a small banana. I put in a large drain, swabbed up the fluid in the abdomen, and sewed the rest of the wound up. This patient also made an uneventful recovery.

On incising the appendix I found the dilatation full of pus and containing six tin tacks and eight little shot. To explain the presence of this medley I subsequently discovered that the patient up to eight years ago followed the trade of a joiner, when he was accustomed to hold the nails in his mouth. The nails, he explained, were thrown from a box which contained small bits of lead and other remnants into his mouth, and he remembered that he often got odd bits of lead, etc., in his mouth with the nails.

From these two cases several interesting and instructive lessons, I think, may be gained.

Neither patient had a raised temperature or quickened pulse, although in both cases we must, I think, presume that pus was present in the appendix before the acute symptoms arose. I think the explanation of this lies in the fact that the appendix in each case was chronically thickened by the presence of the foreign bodies and therefore there was no escape of poison into the circulation and no infection of peritoneum.

In the case of the child the perforation occurred obviously while he was straining at stool, which is an interesting point.

The paroxysmal pain which each patient suffered before the acute symptoms was a true appendicular colic, the organ trying to expel the foreign bodies it contained.

Almost all surgeons are now agreed as to the advisability of operating immediately appendicitis is diagnosed, but here were two cases with an appendix enormously dilated which were not diagnosed before acute symptoms supervened, although both cases were examined systematically and thoroughly with one clinical method omitted—that is, examination per rectum. The excuse for this is obvious; there was nothing to lead one to suppose mischief in the appendix, although it was carefully examined, but I feel confident that, had a rectal examination been made, the local tenderness would have thrown light on the condition one had to deal with, and spared the patients the acute termination which so greatly endangered their life. These cases emphasize the importance of this examination being made as a matter of routine in all abdominal cases.

Another point which both these cases illustrated is the importance of the abdominal facies. When first seen, except for the rigid abdomen in the case of the boy, neither patient had any objective symptoms except this worried anxious look.

THE late Dr. Frederic Bagshawe, of St. Leonards, left estate valued at £80,817, of which £78,534 was net personalty.

HEARSEY, in his sleeping sickness *Diary* (Part XVIII) for the Nyasaland Protectorate, states that since the issue of the last number 17 additional cases of the disease have been diagnosed by Dr. Shircore. These, added to the 76 previously recorded, make a total of 93 cases. The value of a new drug, "Dye B. S. (Brieger and Krause)," was tested in some of the cases, but Dr. Shircore finally came to the opinion that it was not only useless as a therapeutic agent, but might even be harmful.

THE METABOLIC UTILITY OF RECTAL FEEDING.*

BY

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In order to alleviate starvation, when a patient cannot be fed by the stomach, it is the custom to introduce various food materials into the rectum. This procedure depends on the assumption that such materials can be absorbed by the colon and are metabolized in a normal manner when absorbed. When given in this way saline solution is undoubtedly useful as a source of water. Dextrose solution is fairly well absorbed, but starch and fat are probably of no value. The utility of protein is doubtful. Langdon Brown found no increase in urinary nitrogen as a result of giving partly predigested protein by the rectum, and concluded that earlier observations, showing that as much as 50 per cent. of the protein given might be absorbed, were largely fallacious owing to the notorious difficulty of washing out the colon completely.

1. *The Disappearance of the Nitrogen of Peptonized Milk and of Dextrose from the Colon.*

To a girl 6 years of age, who could not be fed by the mouth, 10 per cent. dextrose was given per rectum for two days. Peptonized milk was then given for two days, and then 10 per cent. dextrose again for two days. The whole of each enema was retained; but, as is customary, the colon was washed out at the end of each day with saline solution. The nitrogen recovered in this way up to fifty-eight hours after the last administration of milk amounted to only 0.34 gram out of a total of 2.80 grams given in the milk, so that 88 per cent. of the nitrogen was apparently absorbed. Of the dextrose 99 per cent. was absorbed. The urine showed a good reaction for indican on the days when milk was given, and none when dextrose was given, so that evidently some bacterial decomposition of the protein preceded absorption.

It may very well be the case that bacterial decomposition is necessary before protein can be absorbed in this way. As various toxic substances may thus be produced, it becomes doubtful whether rectal feeding with protein is desirable, even when considerable absorption takes place.

2. *The Influence on Metabolism of Dextrose Administered by the Rectum.*

The abnormalities in the urine during starvation, which are due to lack of carbohydrate, are: (*a*) The presence of creatin†; (*b*) the presence of acetone, diacetic acid and oxybutyric acid with the resulting acidosis and increase in the proportion of nitrogen as ammonia.

Cathcart has shown that, when a diet consisting only of carbohydrate is taken, these abnormalities are largely prevented, and the total daily nitrogen of the urine is less than in starvation, and that, when carbohydrate alone is taken after starvation, the creatin and acetone bodies disappear rapidly, but the fall in urinary nitrogen and in the proportion of nitrogen present as ammonia is much less rapid.

We have investigated the changes produced in the urine by the administration of dextrose per rectum in four cases—a girl, a boy, and two men. The girl has already been referred to. No definite changes were observed on giving dextrose by the rectum, but the periods were probably too short. As is usual with children in starvation, the acetone bodies were present in considerable quantity, as much as 0.57 gram total acetone and 1.94 grams oxybutyric acid being obtained on one day by Shaffer's method of estimation. On the first day of the second period of dextrose the urine contained 0.05 per cent. lactic acid, or 0.36 gram per diem, which fact indicates that there was considerable formation of lactic acid from dextrose by bacteria in the gut.

In the other 3 cases 10 per cent. dextrose was given by the rectum for various periods, of which the greatest was six days. In one case the effect of increasing the dextrose was observed; in another dextrose was given by the rectum after a period of starvation and followed by milk given by the stomach; in the last case the effects of salines per rectum, dextrose per rectum, dextrose by the mouth, and milk and eggs by the mouth were compared. Dextrose absorbed from the rectum was found to cause a reduction in the daily amount of creatin and of total nitrogen in the urine roughly equivalent to that of similar amounts of dextrose, or other carbohydrate, when given by the mouth, but to be far less efficient than that given by the mouth in reducing acidosis and the formation of the acetone bodies. In these cases the lactic acid in the urine was scarcely above normal, and only traces of lactic acid were found in the material returned from the rectum, so that the failure of the dextrose enemata to influence the acetone bodies can scarcely be accounted for by bacterial change occurring in the alimentary canal, and we have no other explanation to offer.

One of the adult cases had had rectal salines, but no food, for a week, owing to œsophageal obstruction, which was probably malignant. He was then given 10 per cent. dextrose per rectum, so that he received and retained 114 grams dextrose on the first day and 170 grams on the second, third, and fourth days. On the third day the operation of gastrostomy was performed with chloroform anæsthesia. On the fifth day feeding by the stomach was begun, so that he received on this day protein nitrogen 0.95 gram, fat 6.1 grams, carbohydrate 37 grams. The allowance of food was increased day by day, so that on the eighth and seventeenth days he was receiving 100 grams and 210 grams of carbohydrate respectively.

No diacetic acid was detected at any time. When dextrose was given by the rectum the daily creatin fell continuously. The anæsthetic on the third day caused a distinct acidosis, but no increase in the creatin. The nitrogenous excretion was probably influenced by the anæsthetic. It showed no diminution up to the fourth day. On the fifth day the carbohydrate given by the stomach was much less than that given previously by the rectum. A marked rise in the creatin occurred, and a rise in the nitrogen greatly in excess of the nitrogen in the food.

Table showing Results Obtained.

Day.	Grams per Diem.					Acidity cc. N/10 per Diem.	Ammonia Ratio per Cent.
	Total Nitrogen.	Creatinin.	Creatin.	Oxybutyric Acid.	Acetone.		
2	9.95	0.92	0.37	0.070	+	292	5.3
3	8.97	0.80	0.31	—	+	419	8.5
4	9.56	0.88	0.28	0.061	+	358	10
5	17.4	1.48	0.93	0.049	Trace	505	8.5
6	15.8	1.27	0.32	—	0	173	5.6
7	12.0	1.06	0.47	—	0	207	5.5
8	11.9	1.17	0.31	—	0	325	6.9
17	—	1.28	0.00	—	0	—	—

In these experiments 10 per cent. dextrose was employed in order to obtain as large an absorption of dextrose as possible, but for general use a 6 per cent. solution in tap water, which is isotonic with blood, would be found more convenient as it is less irritating; 15 oz. or more of this solution given four times a day is frequently well retained by an adult, if the rectum is thoroughly washed out once a day with saline solution. It is more useful than saline solution in that:

(*a*) The 100 grams or more of dextrose which is thus daily supplied to the body causes a diminution of nitrogenous waste.

(*b*) The substance employed to render the solution

* Expenses of this investigation have been defrayed from a grant made to J. H. Ryffel by the Science Committee of the British Medical Association.

† Some creatin is normally present in the urine of children, but not in that of adults.

isotonic is oxidized in the body, so that isotonic dextrose solution is more efficient as a source of water than an equal volume of isotonic salt solution.

In conclusion we desire to thank Dr. Hale White, Mr. Symonds, and Mr. Steward, of Guy's Hospital, for permission to publish the results of investigations made on patients under their care.

REFERENCES.

Cathcart, *Journ. of Physiol.*, xxxv, 1907, 500; xxxvi, 1907, 27; xxxix, 1909, 311. Langdon Brown, *Proc. Roy. Soc. Med.*, iv, 1911, Part III, Therapeutical Section, p. 63.

RENAL CALCULUS IN CHILDHOOD.

WITH A REPORT OF TWO SUCCESSFUL CASES OF NEPHRO-LITHOTOMY IN YOUNG CHILDREN.

BY

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As to the infrequent occurrence of stone in the kidney in young children all writers are agreed. Sir Henry Morris,[1] in an analysis of 283 cases of renal calculus, met with only one case in a patient under 10 years of age. Drew records the removal of a uric acid stone from the kidney of a child aged 6 years. The rarity of calculi causing symptoms at this period of life seems somewhat extraordinary, when one remembers that at autopsies on the bodies of infants it is extremely common to find small brown granules of uric acid deposited in the pelves and calyces of the kidneys. Holt[2] considers that very small calculi are common in infancy, but in a series of 1,000 autopsies made by him on the bodies of children under 12 years only one stone of any noteworthy size was found.

It is probable that the almost exclusively fluid diet of the first two years of life is responsible for the solution, or washing out, of these uric acid granules, though the earlier histories of certain cases which come to operation in later years make it extremely likely that the calculi were present in childhood. Morris records that on several occasions he has met with a history of symptoms dating back from twenty to thirty years, showing that the calculi existed in quite early life. Amongst his cases also are those of children of 13 and 11 years who had presented symptoms of calculus for seven and three years respectively.

Heaton[3] gives an account of the successful removal of a uric acid stone weighing 35 grains from a female child of 11 years; the patient suffered severely from shock after the operation, but ultimately recovered. Amongst cases in which calculi were found at autopsies are three reported by Newton Pitt.[4] These were all uric acid stones, and weighed 2 grains, 4 grains, and 2 grains respectively, being found in children under 2 years of age who died of diphtheria and bronchopneumonia. In the second of these cases the mother noticed polyuria but no haematuria; in the last case haematuria was observed, but in the first case there were no renal symptoms at all. A similar case is noted by Partridge[5]; at autopsy a stone of 4 grains weight was found in the pelvis of the left kidney. The child had shown no symptoms suggesting the presence of a calculus, and no examination of the urine was made. Death occurred from pneumonia.

The reputed uncommon occurrence of stone in the kidney in children is probably the chief reason why it is overlooked when actually present. Again, renal pain is practically always referred, by a child, to the abdomen, and so is ascribed to gastro-intestinal disturbance, the most common of the complaints of childhood. The pain may also be referred to the hip or spine, and produce simulation of disease in these regions to such an extent that the kidneys are never suspected, and escape examination. Pain due to renal calculus depends on the position and mobility of the stone or stones; the kidney substance is insensitive, the pelvis and calyces highly sensitive. The pain is frequently referred to the groin; in boys it is accompanied by retraction of the testicle, which is much more commonly seen at this stage of life than in later years.

It is obvious, from what has already been said, that in children, as in adults, calculi may be present without causing any symptoms. The most constant and reliable symptom, however, is haematuria. Lumbar pain is not common in children. The presence of fine uric acid sand should be looked for in suspected cases; the urethral irritation caused by this substance is sometimes a cause of nocturnal incontinence, and the urine of patients suffering from this trouble should always be carefully examined for uric acid crystals. Transient haematuria may be caused by the effect of these small grains on the tender kidney tubules, and is not of much importance; if it persists it must be regarded as serious and especially so if there be pain along with the haemorrhage.

In infants from 6 to 18 months old the commonest cause of haematuria is scurvy, and it must be borne in mind that blood may be present in the urine for some days before tenderness of the limbs becomes noticeable. In Drew's case, mentioned above, intermittent lumbar pain was the only symptom; there was no haematuria, but a skiagram revealed the presence of a calculus.

In May, 1912, Dr. J. J. Cox asked me to see the following case:

A little girl, aged 3 years, who had been suffering from intermittent haematuria for some weeks. In May, 1911, there had been a similar attack, and I am informed that on one or two occasions the child complained of some slight lumbar pain. From that time until January, 1912, there was no further evidence of any disease, the child appearing to be in perfect health. For three months before the time when I saw her the general health had been failing, though the child looked well nourished. Dr. Cox noticed the presence of slight haematuria and a little tenderness in the back; on some days blood was absent, but a trace of albumen was always there. On no occasion were casts or pus cells present.

Cystoscopic examination showed the escape of clear urine at regular intervals from both ureteric orifices. Nothing abnormal was seen beyond some slight congestion round the orifice of the left ureter. A skiagram showed the presence of a calculus in the left kidney, the rest of the urinary tract being quite clear.

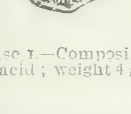
Operation.

On May 20th, 1912, the usual lumbar incision was made, the kidney exposed and brought out on the loin. Careful palpation afforded no indication as to the whereabouts of the stone, but the radiogram showed that the stone lay about 1 in. above the lower pole. The cortex was incised along its convex border over the position of the shadow and a rough spiculated stone about ⅜ in. in diameter was removed. The cortex was sewn up by interrupted catgut stitches, the muscles brought together and the wound closed, a small rubber drainage-tube with gauze filling ("cigarette" drain) being placed down to the kidney.

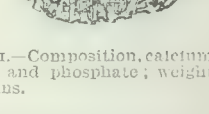
After-History.

The drain was removed in forty-eight hours. The wound was quite sound at the end of ten days and the child pursued a quite uninterrupted convalescence. On the fifth day after the operation there was but a mere trace of blood in the urine and by the end of the week it had disappeared entirely.

Calculi removed (actual size).



Case I.—Composition, uric acid; weight 4 grains.



Case II.—Composition, calcium oxalate and phosphate; weight 16½ grains.

The second case came under observation on June 26th, 1912.

A boy, aged 8 years, a patient of Dr. Mumford, had suffered from occasional attacks of abdominal pain in the left side for twelve months; during the last three months the attacks had been more severe. The pain was of an aching character and was frequently accompanied by vomiting. On examination nothing abnormal was found except some little tenderness below the twelfth rib in the left lumbar region and also by deep pressure on the kidney from the front. The urine contained 0.05 per cent. of albumen but no blood. Microscopic examination was negative and the cystoscope showed no abnormality. A skiagram was taken and showed a calculus in the lower pole of the left kidney, which was slightly enlarged.

Operation.

On June 28th, 1912, a rounded, very hard spiculated stone weighing 16½ grains was removed from the lower part of the left

renal pelvis. The wound was treated as in the previous case; the child was up and about in three weeks, and left the hospital on July 22nd. He has had no trouble since that time.

Such cases impress upon us the importance of being on the look-out for renal calculi, which are probably much more common during childhood than is generally supposed. In cases of abdominal, spinal, hip-joint, or lumbar pain where the signs and symptoms are not clear, the urine should be carefully tested and a microscopic examination made. The kidney area should be closely examined and a skiagram taken of the whole urinary tract. If possible a cystoscopic examination should also be made.

If no sepsis has occurred, the prognosis is excellent. Post-operative shock is the only real danger. Heaton's second case suffered severely from shock, and Aldibert lost one case out of a series of three in children. When sepsis is present a fistula may persist—this happened in Morris's case and required nephrectomy to remedy it. Palliative treatment by alkalis and other solvents may be effective when mere sandy particles are present, but when a calculus exists of size sufficient to be shown on an *x*-ray plate, it is quite certain that nothing short of operation will remove it. It must also be borne in mind that the sooner the operation is undertaken the better the condition of the kidneys, and therefore the better the chances of success.

REFERENCES.

[1] Morris: *Surgical Diseases of the Kidneys and Ureters*, 1906. [2] Holt: *Diseases of Infancy and Childhood*, 1908. [3] Heaton: *Birmingham Med. Review*, 1897. [4] Newton Pitt: *Trans. Path. Soc. Lond.*, 1895. [5] Partridge: *Trans. Obst. Soc., New York*, 1910.

THE QUALITATIVE AND QUANTITATIVE EFFECT OBSERVED ON POLYMORPH NEUTROPHILE LEUCOCYTES IN THE TREATMENT OF TUBERCULOSIS BY TUBERCULIN.

By E. HAMILTON BLACK, M.B., CH.B.EDIN.,

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It is with diffidence that I desire to draw attention to the following phenomena noticed by myself in a series of cases, some of which I have not previously seen recorded. From a clinical standpoint they may have great significance. Some of these observations have not been checked, so far as I know, by other contemporary workers, and therefore require confirmation. An important change occurs in the qualitative and quantitative values of polymorph neutrophile leucocytes after tuberculin treatment in those cases of tuberculosis in which these values on investigation have been found to be poor and below the normal. No doubt this fact has been overshadowed or perhaps overlooked by workers investigating the more complex questions in relation to dosage, antibodies, tox-immunity, etc.

One phenomenon observed, due to the formation of antibodies, is the increased power of the neutrophile polymorph leucocytes to draw into their substance the invading micro-organism—a fact made use of in estimating the opsonic index.

I have repeatedly observed by a series of counts that this increased power is almost equally shared by what I term "all qualities" of neutrophile polymorph leucocytes—that is to say, by those having one or more than one nucleus. This should be kept clearly in mind, in view of the following facts which I have from time to time carefully collected, and which I think are deserving of consideration on account of their clinical significance.

First, the phagocytic value of polymorph neutrophile leucocytes in drawing into their substance tubercle bacilli is increased in proportion as the number of nuclei contained in them is also increased. This is contrary to the view held by so[illegible]hat those neutrophile leucocytes with more than one [illegible]cleus are examples of degenerated forms.

Counts were taken from a series of slides prepared from emulsions of leucocytes treated by control serums, and those freshly obtained from tuberculous patients. Whether the tuberculo-opsonic index was high or low, it was found that the average values were maintained throughout with little variation as follows: Taking equal numbers of the variously nucleated neutrophiles, the number of tubercle bacilli ingested by polymorph neutrophile leucocytes with one nucleus was found to be about 10 per cent., by those with two nuclei about 18 per cent., by those with three nuclei about 22 per cent., by those with four nuclei about 25 per cent., and by those with five nuclei about 25 per cent. These figures represent the combined results of all the counts made from the whole series of slides. Charts 1, 2, and 3 are some examples of the counts made from the series of slides above mentioned. Hence, instead of those

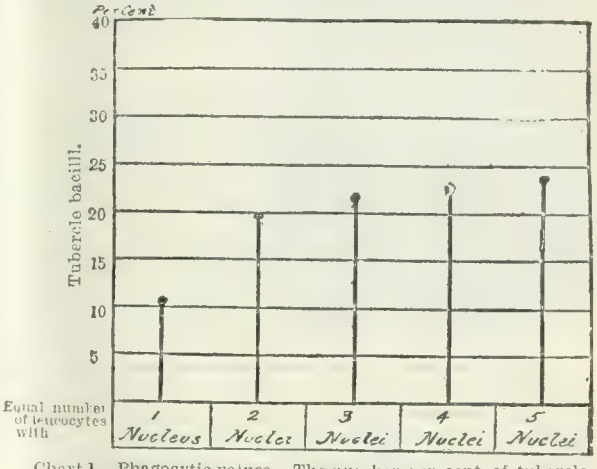


Chart 1.—Phagocytic values. The number per cent. of tubercle bacilli ingested by equal numbers of the variously nucleated polymorph neutrophiles treated with fresh serum from the blood of a phthisical patient.

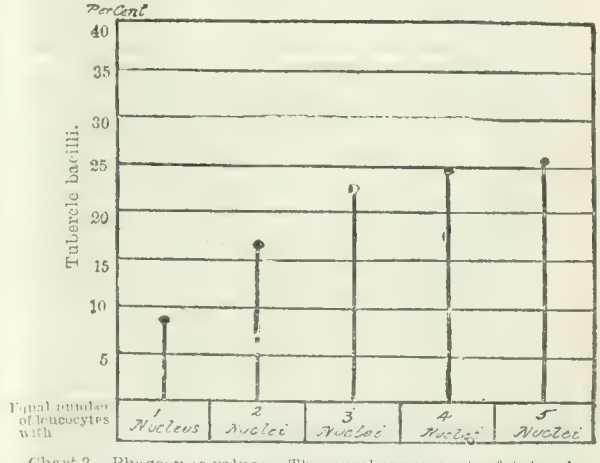


Chart 2.—Phagocytic values. The number per cent of tubercle bacilli ingested by equal numbers of the variously nucleated polymorph neutrophiles treated with the fresh serum from the blood of a healthy non-tuberculous subject.

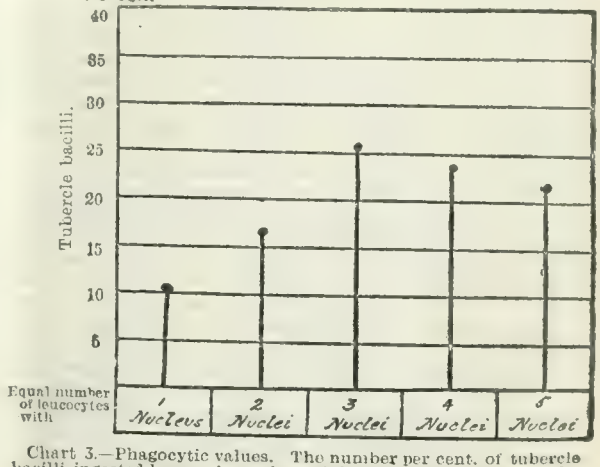


Chart 3.—Phagocytic values. The number per cent. of tubercle bacilli ingested by equal numbers of the variously nucleated polymorph neutrophiles treated with fresh serum from the blood of a phthisical patient.

with more than one nucleus being assumed to be degenerated forms, their phagocytic value proved to be actually increased; from my observations I concluded that they were also examples of more mature forms, and better fitted to carry on the defensive work in the body economy. As curious coincidences they were even occasionally found with nine distinct nuclei, arranged round the periphery of the cell, and containing a large number of bacilli; they were not unlike giant cells.

It was observed that the effect of repeated doses of tuberculin (given to a number of tuberculous patients whose polymorph neutrophile leucocytes were found to be of low value) was considerably to increase that value, by reason of increasing the number of nuclei in each cell.

In the normal blood there are, roughly, 5 per cent. of mononuclear polymorph neutrophile leucocytes, 30 to 35 per cent. with two nuclei, 40 per cent. with three nuclei, 20 per cent. with four nuclei and over. The following is an example of a series of cases in which the nuclei were estimated before and after treatment with repeated doses of tuberculin.

Before treatment polymorph neutrophiles with one nucleus were estimated to be 33 per cent., after treatment

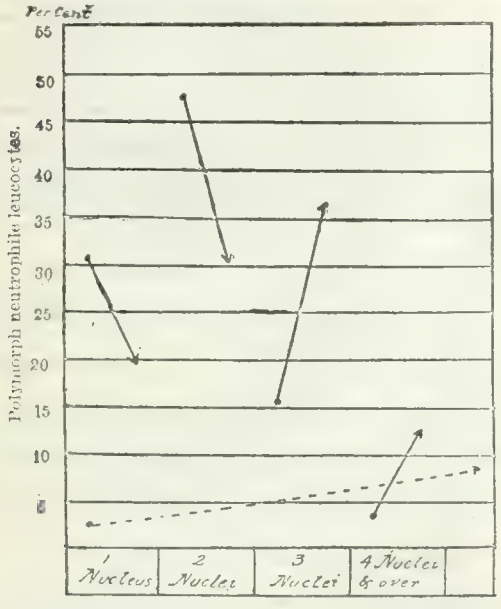


Chart 4.—The percentage of the various nucleated polymorph neutrophile leucocytes in the blood of a tuberculous patient, E. G., before and after repeated doses of tuberculin injected for treatment. 1,000 leucocytes per c.mm. shown by the broken line, indicating the increase after repeated injections of tuberculin.

9 per cent.; those with two nuclei 40 per cent., after treatment 32 per cent.; those with three nuclei 16 per cent., after treatment 42 per cent.; and those with four nuclei and over 11 per cent., after treatment 16 per cent.

Charts 4 and 5 are two other examples of the same series of cases illustrating the increase in the number of nuclei after treatment with repeated doses of tuberculin. This nuclear increase was noted in all cases in which counts were taken and reactions obtained by doses of tuberculin, which were never given in such small doses as are injected in order to avoid reactions.

The number of leucocytes in normal blood is from 8,000 to 10,000 per cubic millimetre. In most chronic tuberculous cases, as I expected, it was found to be much below normal. After repeated injections of tuberculin, therapeutically administered, the number of leucocytes per cubic millimetre was increased in all cases in which counts were made. For example, before treatment in one case the leucocyte count was estimated to be 3,000 per cubic millimetre, and after several injections of tuberculin this was raised to 9,000 per cubic millimetre; in another case the count before treatment was estimated to be 6,800 per cubic millimetre. After several injections of tuberculin, the same rose to 14,500 per cubic millimetre, and so on (*vide* Charts 3 and 4).

From the foregoing observations it may be deduced that in certain cases of tuberculous disease tuberculin treatment increases both the quality and quantity of the leucocytes. Further, since it has been shown that the more mature polymorph neutrophiles are of greater phagocytic activity, and also that the relative proportion of these is increased by tuberculin treatment, as is likewise the total number of leucocytes per cubic millimetre, the total result must be to increase the resistance of the whole body organism against the invading enemy.

These observations were made in the course of a study of the behaviour of the tuberculo-opsonic index of a number of insane tuberculous patients, who were being treated by injections of tuberculin, and were designed to assist in forming an opinion as to whether the treatment was of real benefit in such cases, since in dealing with the insane we are sometimes confronted with anomalous conditions which have to be taken into consideration in the diagnosis, prognosis, and treatment by tuberculin. The trophic centres and nervous organization generally may be so altered and possessed of such low dynamic quality that not only can the body nutrition be largely modified by the foregoing conditions, but that there may be actual wasting from this cause, apart from that caused by the presence of tuberculous foci.

The degree of malnutrition in the insane may be

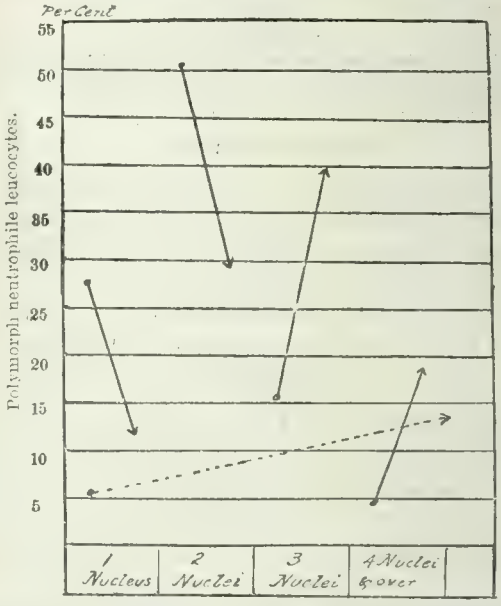


Chart 5.—The percentage of the various nucleated polymorph neutrophile leucocytes in the blood of a tuberculous patient, Mrs. S., before and after repeated doses of tuberculin injected for treatment. 1,000 leucocytes per c.mm. shown by the broken line, indicating the increase after repeated doses of tuberculin.

further complicated by persistent refusal of food, apart from any recognized definite cause. The above classes of patients, unlike those in whom the nervous organization is still unimpaired, are slow at first to gain weight under tuberculin treatment, or may show no improvement for some considerable time, or at first may even continue to lose weight, in spite of the fact that the symptoms and focal lesions show distinct and marked signs of improvement, and that the temperature, previously remittent, has steadily remained normal after treatment with tuberculin, or the tuberculo-opsonic index has been raised, and the qualitative and quantitative values of the polymorph neutrophile leucocytes have markedly increased. So, if at first the body weight and nutrition in such a class of the insane are negative or slow to improve, the eventual results justify a recommendation for the continuance of the tuberculin treatment.

UNDER the will of the late Mr. George Harwood, M.P. for Bolton, the Bolton Infirmary and Dispensary receives a bequest of £1,000.

THE General Council of King Edward's Hospital Fund for London held its usual January meeting on January 13th. The resolutions providing for the work of the current year, adopted at the meeting in December, were formally approved, and the list of appointments made to the General Council and to various committees by the governors of the Fund was read out.

OBSERVATIONS ON SUSPENSION LARYNGOSCOPY, WITH THE NOTES OF A FEW CASES.

BY EDWARD D. DAVIS, F.R.C.S.ENG.,

ASSISTANT SURGEON, NOSE, THROAT, AND EAR DEPARTMENT, CHARING CROSS HOSPITAL; CLINICAL ASSISTANT (IN CHARGE), LARYNGOLOGICAL DEPARTMENT, MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.

PROFESSOR KILLIAN, of Berlin, has recently devised and adapted a new method for the examination of the pharynx and larynx. The head of the patient is suspended in an extended position in such a way as to bring the mouth, pharynx, and larynx into one line so as to obtain a direct view of these structures.

The patient lies flat on his back on a firm table, with the head and neck extended over the edge and supported

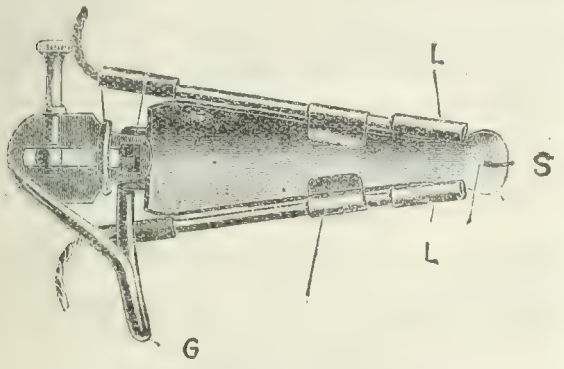


Fig. 1.—L, Lamp; G, gag; S, spatula.

by an assistant. A spatula or tongue depressor is fixed to a long handle with a hook for attachment to the horizontal bar of the stand. The spatula is placed over the tongue and epiglottis of the patient as far down as the arytenoid region. It is then attached by the hook to a horizontal bar fixed to an upright stand. When the spatula and hook are adjusted and the desired view is obtained, the assistant releases the head, which is then suspended as shown in the illustration. The arm of the hook should be inclined obliquely downwards and not hang vertically above the mouth of the patient. The mouth is gagged open by the special device with a screw adjustment attached to the handle of the spatula.



Fig. 2.—A, Handle; B, screw adjustment for gag; C, spatula; G, gag. (Pfau, Berlin.)

Professor Killian has devised fourteen different spatulae, but of these there are only four, of varying sizes, which are commonly used.

The illumination I have most frequently used is the reflected light from an ordinary forehead mirror, although in some cases a small electric torch has been found useful. Professor Killian himself uses a Kirstein head mirror and lamp, but an efficient illumination is obtained from two small lamps attached to the edges of the spatula, as shown in Fig. 1. During operations the light from the two small lamps is said to be obscured by the blood, but for demonstration purposes the illumination is extremely good. Another method of illumination is by means of a lamp fixed to the gag in the angle of the mouth.

The anaesthetic employed by Professor Killian in the majority of cases (about 50) in which this method was employed was scopolamine and morphine given two hours before operation and a second dose after one hour. The dose administered was morphine gr. $\frac{1}{6}$, scopolamine gr. $\frac{1}{100}$. Occasionally slight chloroform anaesthesia was added. In patients under 16 chloroform anaesthesia is advisable, with an addition of 8 to 10 drops of a 1 per cent. solution of codeine to restrain the cough. In the cases about to be recorded chloroform anaesthesia was used with a preliminary swabbing of the tongue, pharynx, and larynx with a solution of 20 per cent. cocaine and adrenalin.



Fig. 3.

The pharynx is perfectly seen, and a view of the posterior plate of the cricoid cartilage with the arytenoids can be obtained. The faucial tonsils are particularly well shown, and the position appears to be an excellent one to adopt for enucleation of the tonsils. The only apparent disadvantage is the unusual aspect; all the manipulations would be upside down. The base of the tongue, the vallecula, the epiglottis, and the arytenoid region are well shown. The posterior two-thirds of the vocal cords are seen under favourable circumstances, but the anterior commissure of the larynx cannot be seen even when the larynx is pressed backwards from the outside.

After a number of trials of the position on different patients the method was first employed to remove a safety pin from the pharynx of an infant aged eleven months.

CASE I.

A male infant of 11 months swallowed an open safety pin 1¼ in. in length, and was immediately brought to Charing Cross Hospital. Although the child did not appear to be distressed or dyspnoeic, and the pin could not be seen when the tongue was firmly depressed, yet the house-surgeon could feel the upper end in the pharynx.

The child was chloroformed and placed in position for suspension laryngoscopy, and then the pin was easily seen lying vertically on the posterior pharyngeal wall, with its bent point uppermost and embedded in the lateral wall of the pharynx. It was opposite the opening of the larynx, with the lower end about the level of the upper edge of the cricoid cartilage. The shaft of the pin near the pointed end was seized with Patterson's forceps and pushed downwards to free the point. The forceps were then slipped down the shaft of the pin to its lower extremity, and the whole pin rotated on its point, so that its position was exactly reversed with the lower end uppermost, and was then withdrawn in that way without damage to the pharynx.

The chief advantage of the position of the patient lies in the comprehensive view of the pharynx obtained as compared with the small area visible by the oesophagoscope; also more room is afforded for the manipulation of instruments and better illumination of the field of operation is obtained.

CASE II.

A woman, aged 34, complained of smarting pain when she swallowed hot or cold fluids and of difficulty in swallowing solid food. There was distinct tenderness when pressure was applied to the cricoid cartilage, forcing it backwards on to the pharyngeal wall. Examination with the laryngoscope showed slight redness and oedema of the left arytenoid. These symptoms and signs indicated an epithelioma; accordingly, the patient was anaesthetized with chloroform and placed in the position for suspension laryngoscopy. The upper edge of a warty epitheliomatous ulcer was seen on the posterior pharyngeal wall, behind the cricoid cartilage and surrounding the lumen of the pharynx.

A piece for microscopy could have been removed with ease, but the oesophagoscope was used to complete the examination of the limits of the growth; a piece for examination was then punched out with Brüning's forceps and proved to be an epithelioma.

CASE III.

A male patient suffering from advanced laryngeal tuberculosis, with ulceration of the vallecula and of both ventricular bands. The ulcerated epiglottis had been previously removed with epiglottis punch forceps used in the usual manner.

The patient was examined in the position for suspension laryngoscopy after the application of 20 per cent. cocaine solution to the tongue and pharynx. A very satisfactory view of the larynx was obtained and it was seen to be easily possible to curette the larynx in this position.

It was proposed to do this at a later date, but unfortunately

owing to a mistake the patient was discharged before this was done. Had the operation been carried out, it was proposed to anaesthetize the patient with scopolamine and morphine.

CASE IV.

An infant, aged 4 months, presented the symptoms of laryngismus stridulus with some stridor. It was considered to be a case of infantile epiglottis with inspiratory collapse of the arytenoids.

The child was examined by suspension laryngoscopy with chloroform anaesthesia, but owing to vomiting and a considerable secretion of mucus the view was unsatisfactory. An attempt with the bronchoscope was equally unsatisfactory.

CASE V.

A boy, aged 3 years, was said to have laryngeal or tracheal obstruction, and the attacks of dyspnoea were so severe that an examination by the bronchoscope was considered necessary.

The child was chloroformed and the pharynx and epiglottis were swabbed with 10 per cent. cocaine and adrenalin solution. He was placed in the suspension laryngoscopy position, and a good view of the pharynx and arytenoid region was obtained, but the vocal cords were invisible. Accordingly the apparatus was discarded for the bronchoscope, which showed the glottis and trachea perfectly, but nothing abnormal was found.

The child was then returned to the usual prone position adopted for removal of adenoids and an adenoid growth which was previously known to exist was removed.

For cases requiring examination and manipulation of the pharynx and larynx suspension laryngoscopy will probably supersede the oesophagoscope and bronchoscope.

The comprehensive and clear view obtained, the more efficient illumination, the increased space for the manipulation of the instruments with both hands free, appeals to one who is accustomed to use the bronchoscope.

It is important to select the cases, and as a rule those patients who can be examined by the bronchoscope and its open spatula are suitable for suspension laryngoscopy. It is unnecessary to add that the new method is useless for examinations of the oesophagus and bronchi, but the bronchoscope and oesophagoscope can be used when the patient is already in the position for suspension laryngoscopy.

The patient with a large open mouth and no front teeth is excellently adapted for suspension laryngoscopy, and the suitable case will be easily recognized if a trial or a preliminary examination with an ordinary Kirstein tongue depressor is made without the use of local or general anaesthetics. Patients suffering from tuberculous laryngitis, who have been educated by frequent manipulations of the larynx make exceptionally good subjects, in addition they are not adversely affected by morphine and scopolamine. Unfavourable after-results are rare. There is no pain and the unusual position and strain on the hyoid muscles does not cause discomfort, and the tongue can be protected from the sharp lower incisor teeth by covering these with a piece of lint; as a matter of fact the tongue is not so sore as when a tongue clip has been used during a long anaesthesia.

The position is that usually adopted for cleft palate operations, but the method of fixation and gagging is a distinct improvement.

The blood can be siphoned out of the pharynx and naso-pharynx by a soft rubber tube passed through one nostril.

BIBLIOGRAPHY.

Gustav Killian, *Archiv für Laryngologie und Rhinologie*, vol. xxvi, No. 2. Gustav Killian, *Berliner klinische Wochenschrift*, No. 13, p. 581.

RECOVERY AFTER TAKING 8¾ GRAINS OF CORROSIVE SUBLIMATE.

By A. LEONARD FULLER, F.R.C.S.I.,

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THE following notes are, I think, interesting in consequence of the age of the patient and the quantity of sublimate.

J. H., aged 85, had been in the habit of passing a catheter for himself four or five times during the twenty-four hours. He was a very careful and methodical old gentleman, and the soloid of sublimate containing 8¾ grains with which he made a solution for the catheter was always placed in one particular spot on his mantelpiece, whilst a cachet of urotropine, which he always took in the evening, was placed in another.

All went well for twelve years, but on the evening of February 9th, 1912, the unexpected happened and he swallowed the soloid in mistake for the cachet. The mistake was at once recognized, and he drank a tumberful of barley water, as was his custom after the urotropine, and sent for me. I arrived within half an hour and administered white of egg and water. He retched and brought up blue-stained mucus. I then passed the stomach tube and washed out the stomach with large quantities of albumen-water and milk and water. There was frequent and urgent desire for the bowels to act, but very little more than mucus was passed. The patient became extremely collapsed, he was cold and pallid, and there was a clammy sweat. The pulse was almost imperceptible and quite uncountable. I administered strychnine hypodermically and gave him milk and brandy by the mouth. Hot blankets and bottles were applied.

When I visited him the next morning he had revived somewhat, but was still in a very critical condition. The nurse told me that during the night the soiled linen was stained blue. During the next few days the bowels continued to be very irritable, but his general condition improved. Cremor magnesiae and brandy were administered in milk at frequent intervals, and he took a good deal of albumen water. After a slow convalescence he quite recovered from the effects of the poison.

The dose taken—8¾ grains—appears to me to be sufficiently large to be worthy of record. Though patients have recovered after larger quantities, nevertheless others have died after considerably smaller. A fatal case after 2½ grains is recorded, death ensuing in three weeks from diarrhoea.[1]

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, 1905, vol. i, p. 767.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF CARCINOMA OF THE OESOPHAGUS WITH COMPLETE PARALYSIS OF THE LARYNX.

COMPLETE bilateral paralysis of the larynx is so rare a condition as to merit publication of the following case.

The patient, a male, aged 52, and by occupation a coal-heaver, was first seen about the middle of July, 1912, when he came to the Stanley Hospital complaining of loss of voice, difficulty in swallowing, and obstruction to the breathing. These symptoms had developed in the order given at intervals respectively of five months, two months, and one month previously.

On examination the patient was seen to be much wasted. The voice was very weak, being little more than a toneless whisper. Respiration was impeded to the extent that, although there was no stridor, inspiration required distinct effort. No glands were felt in the neck. On attempting laryngoscopy the breathing became very difficult, and there was ineffectual coughing with purulent expectoration. After cocainization, however, a view of the larynx was obtained. Both cords were in the cadaveric position. In endeavouring to phonate they remained motionless, and in the deep, gasping inspiration which the patient took a moment later, instead of flying widely out, they merely flapped slightly downwards and inwards quite passively in response to the partial vacuum produced in the trachea.

The patient was admitted and examined with the *x* rays. An oesophageal stricture was detected just above the thoracic inlet, and, as some of the bismuth meal appeared in the bronchi, a fistulous communication between the trachea and oesophagus was diagnosed.

The patient became rapidly worse, and after a week in hospital the respiration had become distressingly embarrassed. Since the glottis was known to be fully wide enough for the respiratory needs, this difficulty in breathing was attributed to fungation of the growth into the trachea, and, in the hope of getting a tube through the obstruction, tracheotomy was performed. The operation, however, gave no relief, and the patient died a few hours subsequently.

The *post-mortem* examination revealed a growth of the oesophagus nearly 3 in. in length, and almost entirely limited to the anterior wall. The upper limit of the tumour reached to within 1 in. of the lower border of the cricoid. Anteriorly the growth had ulcerated into the trachea, largely obstructing it. After careful dissection, both recurrent nerves were found hopelessly involved, and in fact for about 1 in. of their course it was quite impossible to dissect them through the growth. The left

nerve was caught in an extension of the tumour itself just above the arch of the aorta, while the right nerve was implicated in a mass of glands behind and above the subclavian artery.

The case is, I believe, an example of a very rare condition. The chief points of interest may be summarized thus:

(*a*) Limitation of the growth to the anterior wall of the œsophagus.

(*b*) Early involvement of the recurrent nerves, leading to a change in the voice, before the onset of symptoms of œsophageal obstruction.

(*c*) Complete destruction of the function of both recurrent nerves.

(*d*) Fistulous communication with the trachea, which, however, did not occasion any pulmonary inflammation.

COURTENAY YORKE, M.D., B.S.,
Liverpool. F.R.C.S.Eng.

HYDATID OF THE SUBMAXILLARY GLAND.

THE patient, a little Kaffir girl, presented a somewhat pendulous tumour immediately below the left ramus of the mandible. It was probably about six years since the tumour was first noticed, and it had caused no symptoms. It occupied the left submaxillary triangle, and the skin over it was thin, but not adherent. It was movable, fluctuating, tense, and of regular surface. It projected a little into the floor of the mouth, but was not attached to bone. It suggested a half-buried, plastic globe of fluid about 2½ in. in diameter.

Adhesions made dissection difficult, but eventually the cyst was found to be closely related to the submaxillary salivary gland, lying below, and external to, this structure, which enveloped its upper part. In removing the cyst entire, some gland substance was damaged and snipped away.

The cyst contained 79 c.cm. clear fluid, many scolices, hooklets, and some small daughter cysts. The specific gravity of the fluid was 1005, without albumen. The wound was drained. Within twenty-four hours sufficient saliva had escaped from the wound to soak through the dressings, but on the third day this ceased, and the wound rapidly healed.

Bedford Cape. H. F. B. WALKER, M.D.Lond.

IODINE AND TYPHOID FEVER.

IN the BRITISH MEDICAL JOURNAL (1907, vol. ii, p. 143) I gave my favourable experience of the treatment of this illness by tincture of iodine. In the same volume (p. 262) Dr. David Walsh wrote in confirmation, stating what his own successful results had been, and suggested a collective investigation comprising a large number of cases treated in this very simple way.

The *Journal de médecine et de chirurgie pratiques* for December 10th, p. 967 (Art. 23868) publishes a very remarkable article which I venture to bring before the notice of the readers of the BRITISH MEDICAL JOURNAL. In it the literature of the last few years on the subject is reviewed, and the evidence is so favourable that it seems to me the time has arrived to put this method through the only practical test there is, and which Dr. Walsh suggested—that is, that the metropolitan fever hospitals, with all the means at their disposal, should undertake the treatment of a sufficiently large number of cases, well checked and observed, to pronounce definitely on its merits.

It appears to be confirmed that in enteric fever there is a marked diminution in the number of leucocytes; that iodine has a marked influence in increasing their number and thus helping in the defence of the organism invaded; that it also brings about a mononuclear reaction[1] which favours immunity.

During the last few years the administration in enteric of small and frequently repeated doses of pyramidon (⅛ to ½ grain every half-hour) has been largely tried in France, and also in Germany as a substitute for baths in keeping down the temperature. It may be that pyramidon might be a help to the iodine treatment, but all these points can only be satisfactorily settled by large statistics. The mortality attending enteric fever leaves still much to be desired, not to say anything of the amount of extra labour attending the nursing of these cases by frequent baths and spongings, if simpler and more successful means of dealing with them can be found.

GEORGE V. PEREZ, M.B.Lond.
Puerto Orotava, Teneriffe.

[1] Labbé and Lortat-Jacob, *Presse méd.*, November 28th, 1903.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

BOLTON INFIRMARY, LANCASHIRE.

A MULTILOCULAR OVARIAN CYST OF GREAT SIZE.

(Reported by RONALD BUTE MACFIE, M.B., F.R.C.S.Edin.)

THE following case, treated at the Bolton Infirmary when I was resident surgical officer thereat, presents points of interest.

The patient was a married woman, aged 42, who had only had one child, and that twenty years ago. She had never been very regular at the menstrual periods, and there had been no sign of the menses since the beginning of her existing complaint. This was twelve months previously, when she experienced vague abdominal pain and suffered from constipation.

The Conditions Found.

On examination a huge tumour was found to be occupying the abdomen, extending from the ensiform cartilage above to the symphysis pubis below, and measuring 32 in. between these two points in the median line. The umbilicus was situated 8 in. above the symphysis pubis, and at this point the tumour appeared to be somewhat elongated. The point of greatest girth was 6 in. above the umbilicus, and here the measurement was 57 in. The entire tumour was dull on percussion. There was no pain or tenderness and no marked interference with respiration or the heart's action. She was able to go about without much discomfort; in fact, when she came to seek advice she walked up to our out-patient department and showed no signs of discomfort or exhaustion. Vaginal examination revealed nothing of note; the cervix was normal in situation and character.

Operation.

The patient willingly consented to operation, and the following points of interest were revealed:

The abdominal wall was oedematous, the fat was 2 in. in depth, the musculature was very poor. There were some thin adhesions to the anterior abdominal wall from the tumour.

The tumour was tapped and its fluid contents drained off as far as possible; the tumour being then easily delivered through the wound—it was seen to be a multilocular ovarian cyst, growing from the right side and deriving its proliferant blood supply from three sources, which were: (1) The pedicle. (2) By means of a very well developed ligament of Clado (which contained an artery of medium calibre and several veins); a point of note in this region was the vermiform appendix, which was hypertrophied to almost the dimensions of the small intestine. (3) The omental adhesions.

The pedicle and omental attachments were ligated; the ligament of Clado with the appendix was then removed, and the tumour, being thus separated from all its attachments, was removed.

Size of the Tumour.

The fluid contents of the tumour measured 58 pints (7¼ gallons). Each pint weighed 1¼ lb.; so that the total weight of the fluid contents was 72½ lb. The tumour weighed 13¾ lb.; therefore the total weight of tumour and contents was 86¼ lb., or 6 st. 2 lb. 4 oz.

Remarks.

Whether the above measurements constitute a record for size and weight I cannot say, but I think the case is interesting both for the size of the tumour and its sources of blood supply.

I am much indebted to Mr. Douglas Gray for permission to publish these notes, and to Dr. Cecil Barnham for photographing the abdomen prior to operation. I should add that the patient has made an uninterrupted recovery.

Reports of Societies.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, January 8th, 1913.

Dr. HAIG FERGUSON, President, in the Chair.

Primary Ovarian Pregnancy.

MR. GEORGE CHIENE, in a paper on ovarian pregnancy, illustrated by lantern slides, described the case of a married woman, aged 34, who was admitted to hospital supposed to be suffering from acute appendicitis. There was no amenorrhœa. Ruptured ectopic pregnancy was suspected, and, the abdomen having been opened and a large quantity of blood evacuated, a cherry-like mass was found protruding from the uterine end of the right ovary. The ovary was removed. It was cut in serial sections, and the mass was found to be blood clot, in which chorionic villi were imbedded. There was no fetus discovered. No corpus luteum nor decidual cells were present. The approximate age of the pregnancy was two to three weeks. Dr. BERRY HART said it was an undoubted case of ovarian pregnancy.

Biometrics and Pregnancy.

Dr. BERRY HART, in a paper on the insemination-parturition interval in mammals as studied by biometric curves and length of human pregnancy, said the probability curve of the figures for 912 ewes prepared by Tessier was narrow and symmetrical, like that of coin-tossing, when 50 was thrown for a certain number of times. In the figures for cattle—1,206 in all—from the Tessier and Earl Spencer series, the curve was similar, but somewhat skew. Von Winckel's 245 cases in the human, where the infants weighed over 4,000 grams, gave a probability curve less narrow and with several peaks. The majority of cases lay between the 284th and 288th days, reckoned from the first day of the last period. The minimum was 240, and the maximum 334 days. The author believed that the calculation in the human should be reckoned from the first day of the period, and the date of labour would be somewhere in the fortnight with the 280th day as its centre. The delay of the date of labour was not necessarily due to an actual prolongation of pregnancy; it might simply mean that the fertilized ovum corresponded to the next period. There was no exact number of days for the duration of human pregnancy, and the human probability curve was as yet unknown. Dr. BARBOUR thought that Dr. Hart's curves would be of small value as applied for prophesying the date of labour. They were of great theoretical interest. Dr. HAULTAIN disagreed with the belief that an actual prolongation of pregnancy might not occur, and mentioned a case where the child was two and a half months overdue, and weighed 14 lb.

ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

AT a meeting on January 10th, Sir WILLIAM OSLER, President, in the chair, the following were among the exhibits:—Dr. J. D. ROLLESTON: *Diphtheritic hemiplegia* in a boy, aged 5. It had occurred suddenly on the twenty-first day of the disease. Peripheral neuritis had also been present. Dr. F. PARKES WEBER: *Non-syphilitic arteritis obliterans* ("thrombo-angeitis" of Leo Buerger), with intermittent claudication of the left leg. The characteristic symptoms of the disease were: (1) Redness or cyanosis of the foot, when it was allowed to rest in a dependent position; (2) pallor of the foot on movement of the ankle-joint; (3) intermittent claudication with cramp or pain in the calf or instep on walking for a few minutes; (4) absence of pulsation in the arteries of the foot, notably in the dorsalis pedis artery. Also a case of *Chronic acholuric jaundice*, with anæmia, slight splenomegaly, and nervous disorder, in a woman aged 43. There was no undue fragility of the red corpuscles. Wassermann's test was negative. Dr. W. ESSEX WYNTER: *Acholuric jaundice* after splenectomy in a girl aged 22. The jaundice had disappeared and blood appearance improved. Dr. FILIP SYLVAN: Cases of *Pulmonary tuberculosis* before and after gymnastic treatment. In one case the vital capacity had increased from 3,100 c.cm. to 5,500 c.cm. from November 26th, 1912, to January 6th, 1913. Dr. H. D. ROLLESTON: *Actinomycosis* of the liver in a syphilitic subject. Mr. JOHN D. MALCOLM: Two cases of *Nephrectomy* for hydronephrosis, the first thirteen years and the second sixteen years after nephrolithotomy. In the latter, half the kidney only was affected, and this was removed, leaving the remainder. Mr. PHILIP TURNER: *Abscess of the liver (left lobe)*, ten years after an abscess in the right lobe. Dr. A. F. HERTZ and Dr. W. JOHNSON: *Polio-encephalomyelitis*, associated with optic neuritis, nephritis, and myocarditis and a case of *Bilateral hemiatrophy of the face*.

UNITED SERVICES MEDICAL SOCIETY.

AT a meeting on January 8th, Fleet Surgeon BASSETT-SMITH, President, in the chair, Lieutenant-Colonel G. DOUGLAS HUNTER, R.A.M.C., in a paper on the *Tactical employment of field medical units*, said instruction in this subject should consist not merely in the learning of principles, but in the application of these principles to the solution of concrete problems. This could be attained in peace, by the working out of the disposition of medical units on the map according to definite schemes of attack and defence, by staff rides, and by subsequent conferences to discuss the points raised. As regards the preliminary measures in real warfare, great stress was laid on the importance of intimate co-operation between the A.D.M.S. and the divisional commander and his staff. The success or non-success of the medical arrangements would depend upon whether the A.D.M.S. thoroughly grasped the situation and comprehended the object which the commander had in view. As to the points to be dealt with in operation orders for medical services, these might be tabulated as follows: The body of troops each medical unit would serve; the times and order of march; the area allotted to each unit, with limits of frontage if possible; sites of dressing stations (these might be laid down beforehand in operations of defence, but rarely in those of attack); the place to and roads by which field ambulances would evacuate their wounded; site of divisional collecting station; places to which reports and messages to the A.D.M.S. should be sent. During the actual fighting the A.D.M.S. would have to leave the actual collection and removal of the wounded to the initiative of the officers commanding field ambulances and the regimental medical services. He himself must be mainly concerned in co-ordinating the work of the different units under his command with the requirements of the fighting troops and in endeavouring to maintain the link between field medical units and the clearing hospitals. Whatever the method of evacuation adopted it was imperative that the field ambulances should be cleared, so as to be ready for a further immediate advance after a successful attack. The A.D.M.S. or his staff officer should always remain at divisional head quarters so as to receive messages from the medical units and take action on the information as it came to hand. At present the means of communication between him and the officers commanding field ambulances were somewhat limited, and it was hoped that there would be improvement in this respect. The medical units in reserve should be in convenient situations, and the A.D.M.S. should always keep in hand as large a reserve as possible to provide for emergencies as they arise. It should be remembered by medical officers that needless exposure of themselves or the bearers to the enemy's fire was unnecessary and reprehensible.

MIDLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

AT a meeting at Bristol, on December 6th, 1912, Dr. WALTER SWAYNE, Vice-President, in the chair, the following were among the exhibits:—Dr. PURSLOW: (1) A specimen of *Tubal pregnancy* exhibiting both threatened abortion and rupture. The patient, a multipara aged 37, five days before her admission to the Queen's Hospital, Birmingham, on March 19th, 1912, was seized with abdominal pain, and uterine hæmorrhage occurred one week before the expected period. On the day of admission a much more severe attack occurred, and at the time of operation the patient presented all the signs of severe internal hæmorrhage.

The specimen showed a mass of blood clot protruding from the ostium of the Fallopian tube, and also a rent in the wall of the ampullary portion of the tube through which a fetus of eight weeks' development had escaped in its amnion. (2) A uterus the seat of a fibroid undergoing *Necrobiotic degeneration*, removed during the puerperium. The tumour had caused obstruction to the passage of the fetal head, and the question of Caesarean hysterectomy was discussed. Owing to the exigencies of the case, unfavourable surroundings, and absence of fetal heart sounds, it was decided to deliver by the vaginal route. This was accomplished with some difficulty, after version had been performed. The patient made an afebrile recovery, and the uterus containing the fibromyoma was successfully removed during the fourth week of the puerperium. Dr. WALTER SWAYNE: A specimen of *Spontaneous rupture of the uterus* at the thirty-eighth week of pregnancy. The fetus and its membranes had partially escaped into the peritoneal cavity through a stellate laceration at the fundus large enough to admit almost three fingers. The patient, a multipara, aged 37, had been curetted two years previously on account of a septic incomplete abortion, but the exhibitor did not think that the uterus had been perforated upon this occasion, as the curettings showed only endometrium, and no muscular tissue. The patient was admitted to the Bristol Royal Infirmary with a diagnosis of concealed accidental haemorrhage. The uterus was removed by Porro's method, but the patient was moribund, and expired at the close of the operation. Mr. BECKWITH WHITEHOUSE: A specimen from a case of splenectomy in a 6-para, aged 30, who complained of severe abdominal pain of sudden onset, with urgency and difficulty of micturition, and presenting a large, solid tumour firmly impacted in the right iliac fossa. The spleen weighed 2 lb. 10 oz. The uterus was markedly retroverted. The patient had made an uninterrupted recovery after the operation, and had continued well. Dr. NEWNHAM described a case of *Foreign body in the peritoneal cavity*. It was a bone crochet needle, which had been introduced into the vagina by the patient in order to procure abortion. Examination under an anaesthetic and exploration of the uterus failed to produce the foreign body, and it was thought that the story was fallacious. The needle was eventually located by the *x* rays, and laparotomy successfully performed for its removal. There was much peritonitis present.

HUNTERIAN SOCIETY.

AT a meeting at St. Bartholomew's Hospital on January 8th, Mr. A. H. TUBBY, President, in the chair, Professor ARTHUR KEITH delivered the second Hunterian Lecture on the history and nature of certain specimens alleged to have been obtained from the *post-mortem* examination of Napoleon the Great. It was reported in full in our issue for January 11th, at page 53. Dr. ARNOLD CHAPLIN, in proposing a vote of thanks, congratulated Professor Keith on the able way in which the whole subject had been treated. At the same time it did not appear to him that the evidence offered as to the authenticity of the specimens sufficed to outweigh the documentary evidence in existence, and which pointed in the opposite direction. The Hunterian Society was, nevertheless, indebted to Professor Keith for the lecture, which was one of the most important and notable contributions to the closing periods of "St. Helena history" that had yet been made.

LONDON DERMATOLOGICAL SOCIETY.

AT a meeting on December 17th, 1912, Dr. MORGAN DOCKRELL, President, in the chair, a discussion took place on the *Anomalies of pigmentation*. To get a clear comprehension of these, the PRESIDENT suggested that as the best classification all pigmentary diseases should be divided into hypertrophic and atrophic, and that each of these be subdivided into congenital and acquired. Under hypertrophic the congenital included the different variety of moles, the acquired being subdivided into lentigo and chloasma. Chloasma would then be, first, idiopathic with its divisions of traumatic and toxic, and secondly, symptomatic with its divisions of uterine and cachectic. As for atrophic forms, leucoderma represented the congenital and partial, albinism the congenital and universal, the acquired variety being known as vitiligo. Dr. BUNCH, discussing etiology, referred to the popular theory as to the origin of birthmarks through maternal influences on the embryo. He had not been convinced as to the truth of this idea, and mentioned the case of the negress who had black and albino children alternately. Dr. GRIFFITH dwelt on the histology of the pigmentation; and Dr. SIBLEY, discussing treatment, divided the cases into two classes: (1) Those with a loss of pigment, and (2) those with excess of pigment. In the first group, such as leucoderma, he had been able to bring back the pigment by prolonged hyperaemic treatment of the area. For removal of excessive pigment he referred to the application of solid carbonic dioxide, electrolysis by means of multiple needles and ionization, especially with perchloride of mercury, all of which processes he found curative for different forms and degrees of localized pigmentary deposit.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

AT a meeting held on January 7th the PRESIDENT (Dr. Constance Long) read a paper on *Scopolamine-morphine in labour*. She had used these drugs in private practice in 15 selected cases. Labour had not been prolonged beyond the average time, nor had the infant been in any way endangered, in spite of a certain amount of cyanosis at birth. The dangers to the child had been overstated by British writers. Scopolamine was a perfectly safe drug for the mother, provided its dosage were understood; for the safety of the child the initial dose of $\frac{1}{6}$ $\frac{1}{8}$ grain of morphine should not be repeated. The effect of the drug in modifying labour pains, combined with the amnesia commonly produced, might abolish the dread of parturition, and thus induce a rise in the birth-rate. The constant attendance of the physician was not essential, provided an intelligent nurse was in charge; the patient should be kept on her side until the effects of the drug had passed off, and the same precaution should be observed with regard to the infant. Mrs. MEAKIN HAARBLEICHER gave an account of the use of scopolamine at Krönig's Hospital, Freiburg. There practically all parturient women were given the option of being put under the influence of the drug, provided no contraindication were present—for example, primary inertia, general debility, placenta praevia. In eclampsia it had been found beneficial. The injections were commenced when the pains became regular and disagreeable to the patient. In about 76 per cent. of cases the action of the drug had been typically successful. Although the patients had been roused by each pain and had been able to answer questions, yet it was found afterwards that they had no memory whatever of the period of labour. No prolongation of labour was noticed. The drug was not found to affect the secretion of milk nor the involution of the uterus; the kidneys were not affected, nor was there any tendency to femoral thrombosis. Some 13 per cent. of the children were born asphyxiated, though this condition could in many instances be traced to causes other than the drug. Infant mortality had been shown by Gauss to be lower in cases treated by scopolamine than in others. Dr. MAY DICKINSON BERRY described the administration of anaesthetics at the Mayo Clinic, Rochester, Minnesota: only *open ether* was used, and it was administered by trained nurses. For operations on the stomach $\frac{1}{6}$ gr. morphine was injected half an hour before their commencement. Light anaesthesia was aimed at, and the amount of ether used was small, 4 oz. in thirty to fifty minutes being the average. No account was taken of the eye reflexes.

PART 2, volume I, of the *Tropical Diseases Bulletin*, deals with papers on plague, undulant fever, filariasis, helminthiasis, and splenomegaly. Adequate abstracts are given of the different papers, so that a man working in the tropics, far away from any library, may keep fully up to date in any or all of the subjects dealt with. In other numbers malaria, trypanosomiasis, beri-beri, and the other subjects that make up tropical medicine, will be treated.

Reviews.

THE GROUNDWORK OF SCIENCE.

MR. WESTAWAY'S book on *Scientific Method*,[1] although primarily adapted to the needs of science teachers, deserves the attention of all who are interested in the principles which underlie and regulate modern investigation. The subject, of course, recalls Professor Karl Pearson's *Grammar of Science*, but the treatment is entirely different, being in the main historical. The author keeps his own views in the background, allowing the numerous authorities quoted, as far as possible, to speak for themselves. His reading has been extensive; and by judicious choice of representative passages a very clear and comprehensive idea of the evolution and present position of scientific method is conveyed to the reader, while in his comments upon doubtful points and antagonistic opinions he proves himself a sound and capable critic.

The book is divided into four sections, of which the first deals with the philosophy and the second with the logic of scientific method. The third gives illustrative passages from the works of scientific discoverers, and the fourth discusses the principles and practice of science teaching. The author holds that the ultimate aim of science is "to reduce the complexities of nature to their fundamental elements, and to express in an exact and quantitative form the relations among those elements." And since the necessary division of labour involved by this task leads to a constant increase of specialism, there is an obvious danger that, in the absence of some contrary influence, the whole will be lost sight of by reason of attention to the parts. This contrary influence is supplied by philosophy, to which the author assigns the rôle of critically examining the hypotheses and results of the scientific specialist, and, so far as may be, co-ordinating them into a self-consistent system of knowledge.

Some twenty pages of the first section are devoted to Lord Bacon; and in these the author gives a good account of the strong and weak points of the Baconian doctrine. It was not merely the insistence upon the necessity of proceeding from the facts of experience that was novel in this doctrine—many of the ancient thinkers had recognized that. But whereas Aristotle, for example, from a cursory consideration of such facts, had rushed immediately to the most general conclusions, Bacon clearly saw and strongly enforced the indispensability of a more cautious and gradual ascent from the particular to the universal. As might have been expected, his attempt to formulate clear directions for the achievement of this end are imperfect and obscure; but there can be no doubt of the soundness of his view as to the importance of the elimination of the non-essential. On the other hand, Bacon seems to have seriously contemplated the possibility of exhaustively cataloguing the facts of nature, and, thereafter, in a few years, by the almost mechanical application of his method, attaining to something little short of omniscience. He also failed to appreciate the scientific utility of deduction and imaginative insight.

In the section dealing with logic there is a full and clear description of the rules formulated by Mill for the guidance of scientific investigators, commonly known as the canons of induction. These comprise five methods of procedure—namely, that of agreement, of difference, the joint method, the method of residues, and the method of concomitant variations. On analysis, however, the first two are found to form the basis of all Mill's rules. In the main the author considers them useful rather as models and tests of logical proof than as practical guides to discovery.

In the chapter dealing with analogy there are some judicious remarks on the fallacies that result from a loose and undiscriminating employment of that somewhat dangerous method. Because two things resemble one another in certain respects, it is not safe to assume, as is commonly done, that they may be regarded as to all intents identical.

Some interesting reading will be found in the third section, mainly consisting of excerpts from the writings of such men as Guy Lussac, Boyle, Newton, and Faraday. In the last section, devoted to science training, the author advocates the heuristic method, of which Professor Armstrong is a well known pioneer. This involves the placing of students in the attitude of discoverers, making them find out things, as far as possible, for themselves.

[1] *Scientific Method, its Philosophy and its Practice.* By F. W. Westaway. London: Blackie and Son. 1912. (Post 8vo. pp. 449. figs. 24. 6s.)

SYPHILIS.

A VOLUME of contributions to the pathology and treatment of syphilis, by a number of writers, embodying the work on experimental syphilis carried out in Java during the years 1905 to 1908 and continued at Breslau, by Professor NEISSER and his assistants, has been issued.[2] In the introduction Professor Neisser gives a graphic account of the Java expedition and details concerning the methods of work. The first part of the book deals with experimental inoculation of apes and the results derived therefrom. The chief of these are briefly as follows: Positive inoculations were obtained with human syphilitic material from primary, secondary, and tertiary lesions of the skin, primary and secondary glands, the blood from the organs and also from the nasal mucus from cases of congenital syphilis; with material from syphilitic apes, from the liver, spleen, bone-marrow, ovary, testicle and glands, and also with material from rabbits inoculated with syphilis. As regards the semen, although Finger succeeded in obtaining positive inoculations, Neisser's were all negative, but he obtained positive results by inoculation with ape's testicle. The bearing of this on the question of paternal transmission is mentioned. The length of the incubation period and the results of inoculation were found to depend largely on the quantity of spirochaetes inoculated. It was found that the spirochaetes became generalized before the appearance of the primary sore, an observation which accounts for the usual failure of excision of the chancre. Subcutaneous inoculation was usually negative, but occasionally positive; intravenous inoculation, on the other hand, was generally positive, but intraperitoneal inoculation was always negative. The vitality of the spirochaete was destroyed by drying the material by exposure to a temperature of 10° C. for three hours and by keeping on ice for twenty hours. Material from chancres and condylomata, when kept moist, remained virulent for six to ten hours, and living spirochaetes were found in a still-born fetus fifty hours after birth. The evidence went to show that there is no true immunity in syphilis; when a case is cured reinfection may take place. There is a condition of "anergy"—that is, a state refractory to fresh inoculation as long as the virus is present in the body, but this condition is relative and not absolute, for super-infection is possible, at any rate in the tertiary stage. Attempts to produce both active and passive immunization failed, and also attempts to produce a vaccine; no attenuation of the virus took place after passage through animals. Neisser considers that the severity of syphilis among Europeans in the tropics is due more to their mode of life than to any special malignancy. The disease was comparatively mild among the natives, although tertiary lesions of the bones were common; syphilis of the nervous system was rare, and tabes and general paralysis unknown, possibly owing to the absence of alcoholism. In the next part of the book, which deals with treatment, Neisser points out that the earlier treatment is begun in trypanosome diseases the more rapid is the cure. The action of mercury and arsenic is discussed, and the results of treatment by the numerous organic preparations of arsenic are given. Six apes are said to have been cured by a single injection of arsenobenzol (salvarsan). Quinine was found to have neither a preventive nor a curative action on syphilis, but potassium iodide, contrary to the accepted belief, showed evidence of direct action on the spirochaete. Neisser recommends, therefore, that iodides should be given in the early stages. Although in favour of arsenobenzol, he concludes that this must be combined with mercury and iodides. The next part of the book deals with serum-diagnosis, and is written by Bruck. The

[2] *Beiträge zur Pathologie und Therapie der Syphilis.* Unter Mitwirkung von Drs. G. Bärman, C. Bruck, Dohi, Kobazashi, Kuznitzky, Pürckhauer, Halberstädter, Prowazek, Scherescheswsky, und Siebert. Herausgegeben von Dr. Albert Neisser. Berlin: Julius Springer. 1911. (Imp. 8vo, pp. 624.)

percentages of positive Wassermann reactions given are 94.1 for secondary, 73.9 for tertiary, and 50 to 60 for latent syphilis. As a rule the reaction does not appear till the sixth week after infection. Brack remarks that the evidence afforded by serum diagnosis is against the frequency of paternal transmission, though it does not exclude the possibility. He looks upon the reaction as a guide to treatment, and holds that treatment should be continued till the reaction is found, by repeated examination, to be permanently negative. The book concludes with several shorter articles written by other fellow-workers. This record of Professor Neisser's valuable and painstaking researches will form one of the classics of modern syphilology.

Drs. McIntosh and Fildes in the preface to their work on *Syphilis from the Modern Standpoint*[3] announce that they are not carried away in the flood of enthusiasm which overran the medical world when Ehrlich's discovery was promulgated. They have striven to make a critical survey of the enormous mass of literature on syphilis, to confine themselves to actual facts and to draw logical conclusions from these premises. The true history of syphilis, they say, dates from 1903, the year of the discovery of the spirochaete; up till that date treatment was empirical, since then it has been scientific. The authors are rather sceptical as to the claims originally urged, perhaps in the first flush of excitement, that permanent rapid cures were certain to follow the administration of salvarsan. More might have been made of what has been rightly enough styled a "revolution in the treatment of syphilis." The book, however, is not directly concerned with the cure of syphilis, but rather with the study and destruction of the *Spirochaeta pallida*, though the two subjects appear to be complemental. The researches recorded in the work were conducted in the laboratories of the Pasteur Institute in Paris, and have been continued in the laboratory at the London Hospital. The work is a thorough, painstaking, and practical review of the subject; it is devoid of unnecessary embellishment and detail and every page tells. To those desirous of a clear statement of the new theories and lucid presentment of the new facts this book can be most confidently commended. The volume is well arranged and from the bibliographical point of view complete. Some photographs of the recent German workers in syphilology are given.

Professor Zinsser's book[4] on syphilitic affections of the mouth and affections resembling them, is an interesting contribution to syphilography. The introduction deals with the discrimination between the *Spirochaeta pallida* and other spirochaetes found in the mouth—the *S. buccalis* and the *S. dentium*. The former is easily distinguished by being thicker and larger, with fewer and flatter and more irregular spirals. The *S. dentium* is more difficult to distinguish, and it resembles the *S. pallida* more than any other form of spirochaete. It is, however, shorter, with more closely approximated spirals, and has less tendency to lateral bending movements. The diagnostic value of the Wassermann reaction is next discussed, and the author wisely remarks that this reaction is of use only when taken in conjunction with the whole of the clinical picture. In fact, he regards a positive Wassermann reaction as of similar value to a positive history of syphilis. The next part of the book comprises a concise and clearly written account of primary, secondary, tertiary, and congenital syphilitic affections of the buccal cavity. With regard to congenital syphilitic teeth, besides "Hutchinson's teeth," the author considers that hypoplasia of the crown of the first molar, and sometimes of the lower incisors, is pathognomonic of congenital syphilis. Other abnormalities of dentition he regards as of doubtful syphilitic origin. The third part of the book deals with the various buccal affections, which may be mistaken for syphilis, and their differential diagnosis. Attention is drawn to the danger of syphilitic infection of the mouth through the medium of dental and other instruments. Professor Zinsser's book, which is profusely illustrated with forty colour process plates, should be especially useful to dentists, to whom a knowledge of the various syphilitic affections of the buccal cavity is indispensable.

[3] *Syphilis from the Modern Standpoint.* By James McIntosh, M.D.Aberd., Grocers' Research Scholar, and Paul Fildes, M.B., B.C.(Cantab.), Assistant Bacteriologist to the London Hospital. London: Edward Arnold. New York: Longmans, Green and Co. 1911. (Demy 8vo, pp. 243; plates 8, figs. 5. 10s. 6d. net.)

[4] *Syphilis und Syphilisähnliche Erkrankungen des Mundes.* Von Professor Dr. T. Zinsser. Berlin und Wien: Urban und Schwarzenberg. 1912. (Super roy. 8vo, pp. 146; 44 plates, 40 coloured. M. 15.)

THE TREATMENT OF CANCER.

In a volume entitled *The Enzyme Treatment of Cancer and its Scientific Basis*[5] Mr. J. Beard, D.Sc., has set forth at much length his views on the subject indicated. The book consists largely of annotated references to the author's own writings, added to similarly annotated accounts of what has been said by others regarding his views. It appears to be designed for the information both of the general public and of the medical profession. It is written in a discursive style, and contains a superfluity of references to the facts or theories of the higher physiology, and may therefore not receive from either class quite as much attention as its author would presumably wish, or as it possibly deserves. Summarizing the author's expressions of his views, but utilizing as far as possible his own phraseology respecting them, it may be said that Mr. Beard's treatment of cancer seems to be based upon the application of a trilogy of doctrines—namely, evolution with predestination, the morphological continuity of germ cells, and an antithetic alternation of generations. This trilogy is in effect an indivisible unit, which owes its existence to the author of this volume, though in respect of one of its components he was anticipated, he says, by Weismann. On this basis Mr. Beard set to work to deal with the problem of cancer, advancing his forces along the only two lines by which he deemed it open to attack—namely, embryology and stereochemistry—and together they have achieved the complete overthrow and decisive rout of cancer. The latter phrase, as also most of the others in the foregoing sentences, is that used by the author himself, but it is not to be concluded therefrom that Mr. Beard in any wise suggests that it represents a common view. On the contrary, he makes it clear that though his treatment has at one time and another been tried by quite a large number of workers, the opinions they have subsequently expressed have in most instances been entirely unfavourable to it. The most notable exception is an army officer who some two years ago reported a case of sarcoma treated on the system in question with great success. Though the results of this case were certainly confirmatory of Mr. Beard's views, one or two swallows do not make a summer, and the general impression left by the book can best, perhaps, be described as agnostic. Real knowledge of the chemical biology of abnormal growths is still in the making, and, despite the fact that many workers, of an industry and ability not less than Mr. Beard's own, hold that his views are entirely erroneous, it is possible that one day or other they may be proved to have contained the germ, at any rate, of the final solution of the cancer problem. Meantime, all that can be said is that the clinical results as a whole are far from an encouraging kind; indeed, one would regard them as totally condemnatory but for one circumstance. There is no more certain way of strangling a possibly valuable idea than premature attempts to apply it in practice, and it seems possible that Mr. Beard's conception may have suffered from this cause. The book, at any rate, makes it obvious that when Mr. Beard first invited a general trial of his method he himself was not very clear as to how it should be applied or even as to the part which trypsin and amylopsin respectively should play therein. Even after this latest exposition of his views a careful student might be puzzled as to the precise lines on which he should endeavour to carry them out. For the rest, Mr. Beard's disappointment that the greatness of his achievement has not been generally recognized is quite comprehensible, but in the circumstances it is on his own head rather than on those of the medical profession that the vials of his wrath should be poured.

[5] *The Enzyme Treatment of Cancer and its Scientific Basis.* By John Beard, D.Sc. London: Chatto and Windus. 1911. (Demy 8vo, pp. 308; figs. 11. Price 7s. 6d. net.)

DENTAL SURGERY.

Die Missbildungen des Gebisses[6] is one chapter of a comprehensive treatise on the morphology of deformities of man and beast, edited by Dr. ERNEST SCHWALBE of the Rostock University. The writer, Professor PECKERT, has made an extended study of the literature (chiefly of the German literature) of the subject, and having himself a good experience, has succeeded in producing a valuable monograph. He opines that the cause of a great part of all tooth deformities is mechanical, and first makes itself felt when the question of room becomes acute. He finds the origin of some in an earlier period of development than is by many believed; thus gemmation is referred to the time of root development, and the formation of a follicular (dentigerous) cyst to some unknown force interfering with the early tooth germ. The short notice of "degenerate jaws" shows the wide divergence of opinion which exists as to the origin of misshapen palates. The author ascribes considerable importance to rickets, but thinks heredity plays an undoubted part. He inclines to the belief in the connexion between idiocy and ill-formed jaws; but we believe it has been demonstrated that the jaws of idiots are generally large and well-formed. The author has tried to exclude all deformities due to post-natal illness, and has not taken cleft palate as part of his domain. The deformities of animals receive but small attention.

In the preface to *The Extraction of Teeth*[7] Mr. J. H. GIBBS (Edinburgh) tells us that his only justification for adding still another to the list of books upon the extraction of teeth is that he has something new to say. If this were truly his only justification publication of the book is hardly vindicated. Most of the author's points are, at least in the London dental schools, current teaching; certain of them are, indeed, as vigorously combated by some as upheld by others. The author believes he breaks new ground in advising the use of single-bladed "root" forceps for all teeth, many-rooted and single-rooted alike, and thinks to have discovered a new method of use. This is explained on p. 73: "In the case of the (upper) molars and praemolars firm steady upward pressure is made and whilst maintaining the upward pressure the tooth is moved steadily outwards in one movement . . ." The beginner's fault lies in relaxing the upward pressure as soon as the outward movement is begun, with the result that the lingual blade slips. To those who use the "old-fashioned" molar forceps this upward force is an unnecessary violence, and it is difficult to understand Mr. Gibbs's objection to the employment of the molar forceps on the plea that it is impossible to estimate the strength of a decayed molar crown. This use, however, of none but root forceps; disuse of the elevator; avoidance of "pull"; disbelief in the local use of opium, are no new things in the south. An illustration on p. 68 shows a method of grasping upper root forceps which seems to be both new and useful. From p. 123 we appear to learn that Mr. Gibbs considers dislocation of the mandible a common accident of tooth extraction. He rightly condemns the use of chloroform, but fails in his criticism of local anaesthesia by injection through ignoring regional anaesthesia. The style of the book is rather too rhetorical. On the whole and in spite of the criticisms just made, the book is worth the reading, yet it cannot be said to mark any great advance in the art of tooth extraction.

Dr. HOFFENDAHL'S handbook of dentistry[8] for medical practitioners is, so far as it goes, interesting and practical. He strongly denies the existence of the so-called disorders of dentition, and supports his position well. He gives useful and minute advice concerning the causes of toothache and the temporary treatment of teeth, and as to extraction and the means of producing local anaesthesia. He is convinced of the necessity of a full set of teeth, believing that the loss of but few entails destruction of the remainder. He urges immediate replacement of a lost tooth. The argument is well set out, but does not stand in the light of experience or of a full knowledge of dental sepsis, and it is in this direction that the book fails. To the author leucoplakia is a mystery, but he has never examined it in the light of dental sepsis. Malignant tumours are mentioned, but the author has not observed their intimate relation to dental sepsis. Finally, out of 160 pages but one is given to tooth affections as the cause of diseases of other organs, and in this there is no note of diseases of blood, intestines, etc., except that "chronic indigestion is often caused by masticatory failure."

Mr. STEWART LERVY MCCURDY of Pittsburgh has written *Oral Surgery*[9] as "the first of a series of textbooks which has been planned by the Commission on Textbooks of the Institute of Dental Pedagogics." The book is divided into two parts—"Principles of Surgery" and "Oral Surgery," but it cannot be said that the author displays profound knowledge of either subject. As examples, under "inflammation" (pp. 7 and 8), we read of contraction, dilatation, and degeneration of vessel walls of the arteries, and the only mention of capillaries occurs in connexion with diapedesis of red corpuscles; under "diagnostic signs" (p. 83) we learn that "strabismus is usually of no particular importance." On p. 376 we read of fibrinous ankylosis of the temporo-maxillary articulation; on p. 423 of the "hypoglossus muscle." The author holds that the floor of the orbit may be pushed up by pus in the antrum and the eyeball displaced (p. 344). He appears to be ignorant of the epithelial nature of a dental cyst, describing it (p. 297) under "cysts from the roots of developed teeth"; "it is," he says, "doubtless caused by irritation and infiltration at the apex, as an apex cyst, following the removal of a nerve and filling the root canal." On p. 200, in the course of a chapter on bone regeneration, we are told that "the new bone, known as cloaca, is deposited in concentric layers." There are some good photographic illustrations (though the attempt to photograph intra-oral conditions fails), among them that of an impacted first lower permanent molar; and there is an interesting description of a method of wiring fractured mandibles by means of which the author has obtained brilliant results.

That *Mouth Hygiene* was written by Dr. MARSHALL[10] as much with the view of educating the public as of providing the dental profession with a not too technical book on mouth hygiene and mouth sepsis may, perhaps, stand as an excuse for the statement (p. 94) that "many children habitually breathe through the mouth, simply because they have not been taught to breathe through the nose, and not because there are any obstructions in the nasal passages"; and even of the description of antral abscess (p. 136) from which we learn that pent-up pus in the antrum may cause protrusion of the eyeball. A better excuse is found in the author's sincere desire to spread a knowledge both of the evils of mouth sepsis and of the means of prevention, evidenced by such vigorous language as "The only obstacles in the way of a complete revolution in this matter (the prevalence of mouth sepsis) are indifference, prejudice, and ignorance"; and in his outspoken advice to operating surgeons. He thinks stiff bristles will pass "between the dental interspaces"—but, surely, at most they will but begin to enter. In our experience the large brush he advocates for adults is entirely a mistake; a small one allows of far greater freedom of movement. Dr. Marshall served in the United States Army, and we note that during the Spanish-American war from 10 to 12 per cent. of the force was constantly incapacitated for duty by reason of dental disease. The book should do much to effect among the thinking public the revolution Dr. Marshall so ardently desires, and doctors and dentists will find in it much useful information.

[6] *Die Missbildungen des Gebisses.* Von Prof. Peckert in Tübingen. *Die Morphologie der Missbildungen des Menschen und der Tiere.* Herausgegeben von Dr. E. Schwalbe. IV Lfg. 2 Abteilung, 5 Kapitel. Jena: Gustav Fischer. 1911. (Sup. roy. 8vo, pp. 60; figs. 58.)

[7] *Extraction of Teeth.* By J. H. Gibbs, F.R.C.S., L.R.C.P., L.D.S. Edin., Dental Surgeon, Edinburgh Royal Infirmary, etc. Edinburgh: E. and S. Livingstone, 1912. (Demy 8vo, pp. 165; 53 illustrations. 7s. 6d. net.)

[8] *Taschenbuch der Zahnheilkunde fur praktische Aerzte.* By Dr. Kurt Hoffendahl, teacher of dentistry in the Kgl. Friedrich Wilhelms University of Berlin. Berlin and Vienna: Urban and Schwarzenburg. 1912. (Cr. 8vo, pp. 160; illus. 47. M.4.)

[9] *Oral Surgery: a Textbook on General Surgery and Medicine as applied to Dentistry.* By Stewart Lervy McCurdy, Professor of Anatomy and Oral Surgery, School of Dentistry, University of Pittsburgh, etc. New York and London: D. Appleton and Co. 1912. (Demy 8vo, pp 492; 228 illustrations. 12s. 6d. net.)

[10] *Mouth Hygiene and Mouth Sepsis.* By John Sayre Marshall, M.D., Sc.D., Syracuse University, Capt. (retired) U.S. Army, formerly Examining and Supervising Dental Surgeon, U.S. Army. Philadelphia and London: J. B. Lippincott Co. 1912. (Demy 8vo, pp. 274; figs. 12. 6s. net.)

Under the title *Preservation of the Teeth*[11] Captain EUSTACE LEES has devised in durable book form a dental history sheet which is prefaced by a note on dental hygiene. By the use of abbreviations the history of each tooth can be succinctly recorded, and the author rightly thinks this may be of considerable service, when change of locality necessitates change of dentist.

NOTES ON BOOKS.

THE edition of *Nisbet's Medical Directory* for 1913[12] has been issued. The first edition was published in 1908, and the regular annual appearance of the volume shows that there is a demand for a condensed publication of this kind. It consists of two parts; the first is a directory in a single alphabetical arrangement of medical practitioners with the address and the principal appointment held, and a note of the principal book or paper published. The second part is a local directory, in which the names are classified under places of residence. The book is well printed on thin paper, and is very convenient to handle.

The thirty-second volume of *The Transactions of the Ophthalmological Society of the United Kingdom*[13] covers its proceedings during the session 1911–12, and contains as many as seventy-six communications, a considerable proportion being illustrated by charts, diagrams, *x*-ray pictures, and coloured plates. Included is the report presented by the council of the society at its annual meeting, showing a satisfactory financial position and a membership of over 500. Owing to the holding of the International Medical Congress in London next summer, it was decided to postpone the delivery of the next Bowman Lecture until 1914.

Books that Count[14] is, we gather from the preface, intended primarily to help the ordinary reader and the young student to ascertain quickly the aim and scope of the books dealing with various departments of learning "which treat their subjects on broad lines and in point of knowledge, research and reflection approximate to standard value." It may be described as an expansion of the idea of the "hundred best books" applied to biography, fine arts, geography and travel, history, literature, medicine, music, philology, philosophy, religion, science, sociology, and sports and pastimes. It includes brief accounts of about 5,500 books. The labour of compilation must have been very great, and, as far as we have been able to test the lists, the particulars given are accurate. But the selection of books often reminds one of Louis Veuillot's lines:

> Qui me dira comment se fait l'Académie,
> Pourquoi Pantoufle en est et Sabot n'en est pas?

In several of the subdivisions of the section devoted to medicine the "books that count" are conspicuous by their absence, while a place is found for some which certainly cannot be said to "approximate to standard value." To doctors, therefore, the list is of little value, while for the public the books included are too technical. In other sections, notably those of history and literature, much of the information given as to the purpose and general character of the books mentioned is likely to be useful to readers who are not experts. To them, indeed, the work may be recommended as a conveniently condensed *Conversationslexicon* on books in the English language.

Dr. H. J. MACKAY, who is Assistant Director of Medical Services for the Wessex Division of the Territorial Forces, has brought out a second edition of *Improvised Methods of Aid in the Field*.[15] It is intended for the use of members of voluntary aid detachments and others, and despite its extreme portability contains an immense amount of information on the subject of devising ways of safely transporting patients, extemporizing hospitals, and other like matters. It is in Germany perhaps that this subject has been chiefly studied, and the book contains a useful summary of recent German and other Continental literature dealing with it.

There is a certain type of novel that deals with events so far removed from the sober commonplaces of everyday existence that it comes under the heading of romance rather than of fiction. To this class belong many of Mr. and Mrs. EGERTON CASTLE'S clever stories, particularly their latest, *The Grip of Life*,[16] which deals with the gradual awakening of a bookish young don to the stern realities of life. The cause of this awakening is his unexpected accession to a baronetcy, together with the sudden advent of two women into the world he has made for himself in his library; and between them they bring about the metamorphosis of the lonely student into the country squire, the worthy head of an ancient house. This development from the chrysalis into the butterfly is not accomplished without the shattering of many cherished illusions; but Sir Ughtred Maxwell has been born under a lucky star, and is weaned in time from the guilty passion that threatens to poison his existence by the sane and wholesome affection of the generous hoyden whom he finally marries. His emotional sufferings are many and varied enough to satisfy the most inveterate novel reader. The book has much of the rather artificial charm which has characterized its predecessors, and if it does not actually enhance at least should not detract from the reputation of its popular authors.

MEDICAL AND SURGICAL APPLIANCES.

A New Tourniquet for Use in Intravenous Injections.

MR. R. H. JOCELYN SWAN, M.S.Lond., F.R.C.S., London, has designed the pneumatic tourniquet here illustrated for use in giving an intravenous injection. He had found on more than one occasion that after having passed a cannula needle into a vein, the movement during the release of the ordinary rubber tourniquet resulted in the needle piercing the wall of the vein or even leaving the vein; the pneumatic tourniquet was devised on this account. It is described as follows by Mr. Swan: It consists of a tube of firm rubber connected by a smaller tube to an inflating ball. In this smaller tube is placed a three way valve tap so that the pneumatic tube can be inflated, kept filled or deflated, by a very small movement of the handle of the tap. The pneumatic tube is loosely attached to a firm band of webbing fitted with a buckle to fix on the upper arm. In use the webbing band covering the tube is fixed loosely in position and the latter inflated by pressing the ball; the valve is turned into the mid position, and in a few seconds the veins are made prominent. After the selected vein is punctured, the valve is again turned to the third position when the tube becomes deflated and the venous circulation of the limb recommenced and the injection given. The deflated tube remains in position until the injection is finished, in this way obviating any movement of the limb whilst the needle is *in situ*, the whole cycle being worked by the operator with ease. I have used this tourniquet now many times and find it answers all the requirements I wished. This appliance has been made for me by Mr. J. H. Montague, 69, New Bond Street, W.



THE late Miss Mary Houldsworth, of Rozelle, Ayr, bequeathed £500 each to the London Hospital and the Hospital for Sick Children, Glasgow, and directed that a like sum should be paid to any hospital founded in Glasgow and conducted by homœopathists.

THE Ilford Company has issued a new catalogue giving full particulars of its well-known photographic plates for *x*-ray work, and of some additions thereto. By way of showing the capabilities of these plates, some excellent reproductions are supplied. Copies of the catalogue can be obtained on application. The address of the company is Ilford, Essex.

[11] *Preservation of the Teeth, with Charts to Record their Past and Future Treatment.* By Eustace Lees. Wolverhampton: Alfred Hinde. London: Simpkin, Marshall, Hamilton, Kent, and Co. 1912. (Post 8vo. 1s. net.)

[12] *Nisbet's Medical Directory, 1913.* London: James Nisbet and Co. 8vo, pp. 926. 8s. 6d.)

[13] *The Thirty-second Volume of the Transactions of the Ophthalmological Society of the United Kingdom.* London: J. and A. Churchill. 1912. (Demy 8vo. pp. 475; plates 26. Price 12s 6d. net.)

[14] *Books that Count: A Dictionary of Standard Books.* Edited by W. Forbes Gray. London: Adam and Charles Black. 1912. (Cr. 8vo. pp. 707. Price 5s. net.)

[15] *Improvised Methods of Aid in the Field.* By H. J. Mackay, M.D., Col. A.M.S.T.F. Second edition. London: Eyre and Spottiswoode, Ltd. 1912. (Post 16mo, pp. 160; illus. 81; diagrams 2. (Price 1s. 6d. net.)

[16] *The Grip of Life.* By Agnes and Egerton Castle. London: Smith Elder, and Co. 1912. (Demy 8vo, pp. 406. Price 6s.)

BOARD OF EDUCATION.

FOURTH ANNUAL REPORT OF THE MEDICAL OFFICER.

(Concluded from page 80.)

"Following Up."

In his opening remarks on the subject of "following up" Sir George Newman states that the experience of each year has served to bring into stronger relief the place, importance, and purpose of "following up" the ailing or defective child until it receives the treatment of which it stands in need. The evidence available, he suggests, indicates that medical inspection has served to awaken and develop, rather than to weaken, the feeling of parental responsibility. In many parts of the country parents are taking keen interest in inspections and their results. Teachers are also co-operating admirably. The assistance of a school nurse in following up is probably indispensable, but her work should not overlap that done in the sanitary department of the area. Close co-operation between the medical officer and the attendance officer is also of importance. In many areas a large amount of work in the nature of "following up" is being done by voluntary agencies. The medical officer himself has a double duty; he should definitely supervise all the agencies employed by the authority in "following up," having the work done by these agencies recorded on some systematic and simple method. Once he has detected a defect or disease in a child he should keep that child under his observation until he is satisfied that its condition has been remedied, or he finds reason to believe that nothing can be gained by further following up the case. Some figures supplied with references to 35 "typical" areas would seem to suggest that in many of them a considerable proportion of recommendations have been followed by actual treatment: but the figures given are not added up nor are any percentages given, so in this as in many other connexions the reader is left without any precise guidance as to what is the position of affairs.

Medical Treatment.

The sections on medical treatment commence with a chapter setting forth the powers possessed by local authorities in the matter, and what steps they have generally taken. The aims of treatment are discussed; the defects and disorders that have to be dealt with are often merely incipient, or otherwise not serious in themselves; but even if they hardly require to be remedied on their own account, their underlying causes must be seriously considered, the aim being to build up the resistance of the child and to obtain a healthy school population. A very small gain in this direction may spell a disproportionately large gain in the physical health capacity and energy of the people as a whole. Remedies adopted under the medical treatment of school children can seldom be those which can be quickly applied and immediate in effect. They must be of a preventive nature and include a training in hygiene and in habit—in the hygiene of the skin, the eye and ear, and of the teeth—and in the habit of life which affects the organic systems of the body—the muscular, digestive, and excretory systems, the heart and lungs. Measures such as the provision of a pair of spectacles or the extirpation of adenoids are but the beginning of treatment.

Nurses.—During the year under consideration eighty-five authorities received permission to employ school nurses in treatment as well as inspection. "There is hardly any more economical expenditure in relation to school medical work than that laid out on an efficient nursing staff."

Spectacles.—In a considerable number of areas permission has been accorded for the provision of spectacles, subject to the condition that they have been prescribed by medical men of suitable experience, and that, when possible, parents shall be made to contribute towards the cost of them. Children provided with spectacles should be re-examined at intervals, and all points connected directly and indirectly with defective vision kept under consideration. The findings of the committee of the British Association in regard to the influence of school work on eyesight are quoted at length. One of them was to the effect that a serious cause of visual defect was that the books provided were not printed so as to be easy to read.

Ringworm.—A considerable number of authorities have been permitted to provide themselves with special *x*-ray clinics, and the number that made arrangements for *x*-ray treatment of ringworm of one kind and another increased during the year. No dependence can be placed, it is stated, upon a cheap installation, but, given an apparatus mechanically perfect and an intelligent operator, there should be no difficulty in curing practically every case of ringworm within, it is said, five weeks.

Contributions to Hospitals.—It is suggested that the wisdom of the Board in sanctioning arrangements with hospitals for contributions, either as a sole or as one of several means of providing medical treatment for school children, has been amply confirmed. Altogether thirty-one authorities received the sanction of the Board for such arrangements during the year ending July 31st, 1912; besides these, a very large number of other authorities were using hospitals for the treatment of their children. Hence, despite the fact that in some areas the medical staffs or governors of the local hospitals have declined to undertake the treatment of school children, thereby compelling the authority to make its own arrangement, tens of thousands of children in the country have received such treatment, and the voluntary hospitals have thus made a very large contribution towards the immediate relief of ailing school children.

The Board's dealings with the London County Council in regard to its medical treatment schemes are described. It is admitted that a composite scheme is inevitable in London, and in a general way the Board would appear to be satisfied that the present arrangements secure skilled treatment and an adequate degree of control over the various institutions on the part of the Council. An impression is left that the Board is disposed to be more exacting in its requirements in regard to treatment centres than in respect to hospitals.

School Clinics.

The considerable extension during the year of the work of the inspection clinic is regarded by the Board with much satisfaction. At these inspection clinics children noted to be defective at ordinary inspections are further examined, and they form the centres from which all work in the nature of "following up" is controlled. In large towns and in country areas it is useful to have several of them. The establishment of thirty treatment clinics had been authorized down to July 31st, 1911, the end of the school year, and from a list supplied of all those sanctioned up to the end of the following year there would appear to be fifty-six of these institutions now at work under the aegis of the Board. It is held that it is especially the treatment of minor ailments which should be kept in view at these institutions. At some of those which are described in detail and with approval, charges, we note, are made. How they are officered is seldom stated. Generally the treating medical officer would appear to be the school medical officer, aided by clinical assistants, or a health visitor or nurse, or the deputy school medical officer similarly assisted.

Dental Disease.

Stress is laid on the prevalence of dental disease, it being suggested that high as are some of the figures (these indicating on the average of a large number of areas that only 5.6 per cent. of children of school age have sound teeth), the real prevalence is even higher, because the school medical officer at his routine inspection is only likely to note teeth whose decay is easily observable. The prevalence appears to be slightly less in country than in urban schools. Certain reports also reveal some ground for holding that children artificially fed during infancy develop dental caries more readily than others. In a good many areas toothbrush drill and toothbrush clubs have been established. Dental treatment is carried on apparently at about half the school clinics. It is indicated that while many of the causes of dental decay are beyond the control of education authorities, it is feasible to deal with caries in its earliest stages in newly-erupted teeth of the permanent set, with results which are fully commensurate with the expenditure involved. It is on such teeth that attention should be concentrated. Two rooms are required at a clinic for dental use, though they need not necessarily be used solely for that purpose. Their equipment costs between £20 and £40. One dentist working five days a week, or several part-time dentists working for an equivalent

period, should be able to deal effectively with a school population of some 3,000 to 4,000 children. Those who perform the work should be responsible not only for the treatment, but also for selection of the children to be treated. They should be regarded as part of the staff of the school medical officer, and do their work under his general supervision, as only thus can the unity of the school medical service be preserved and due consideration secured for the collateral issues raised by dental disease.

Special Schools.

There are 331 schools classed as special—namely, 36 for the blind, 48 for the deaf, 169 for the mentally defective, 62 for the physically defective, 2 for the phthisical, 6 for the epileptic, and 8 for those requiring open-air treatment. The total accommodation is for 25,266 children, and fifty-two of the schools are maintained by voluntary contributions. Further accommodation is likely to be required. Before the year 1908 only well-marked cases falling into well-defined groups were sent to such schools, but now new and formerly unrecognized cases requiring special educational arrangements are being brought to light by medical inspection. The duty of a school medical officer is to discover subnormal children, make a precise diagnosis of their condition, determine the medical treatment appropriate thereto, and arrange for or afford any medical treatment required.

Deafness.

It is stated that the cost of educating deaf children is not likely to decline or even to remain stationary. Only about 50 per cent. of those who are totally deaf and who have been taught speech on the oral method seemingly use speech after leaving school; but of those who are partially deaf and who have been taught in the same fashion practically all take advantage of their education on this point.

Epilepsy.

It is stated that such after-care returns as are available render it fairly certain that for cases of epilepsy which are at all severe there is usually only one end, whatever be their mental condition—namely, colony life.

Mental Subnormality.

Children in this category are divided into four classes: Dull or backward, feeble-minded, imbeciles, and idiots. Reasons are given for assuming that, leaving out the dull and the ineducable, there must be at present some 24,000 children whose mental condition demands that some special form of education should be provided for them, and for about half this number some kind of provision seems already to exist. In regard to diagnosis, stress is laid on the value of the system of Binet as a means of classifying the mental ability of any given child; and it is suggested that in many areas observation schools—that is, schools to which children could be sent before deciding finally on securing their admission to a special school—would be very useful. The sections on this subject end with an extensive series of desiderata.

Open-air and Allied Schools.

The movement in favour of open-air education is, it is stated, beginning to spread through the schools of the country, some advantage, however small, being taken of whatever facilities exist for open-air training. Stress is laid on the advantages of this fact both to the children themselves, and as bringing nearer the day when the public at large will regard open air as an essential factor in the life of a healthy person. Numerous examples are given of ways in which open-air conditions are being secured. A further type of school, some examples of which already exist, is the "School of Recovery"—a residential school designed for the education and prolonged physical treatment of children whose health is under par from any cause. Sanatorium schools are foreshadowed in a chapter describing how they should be built, officered, and managed.

Mother-craft.

Stress is laid on the value of schools for mothers, and it is indicated that the Board is prepared to make grants to these institutions. It is suggested that it would be of great advantage if the work related not only to infants, but to children, and regret is expressed that at present it is impossible to exercise any compulsion over actual or prospective mothers. It is also pointed out that it would be of advantage if all children could be kept under skilled observation from their birth up to the time when they already come under the care of the local education authority. Teaching of infant care in elementary schools is useful, but it would be much more useful if continuation classes in this subject were arranged.

Juvenile Employment.

A long chapter is devoted to the subject of juvenile employment, among the suggestions made being that the time has arrived when the information obtained with regard to the children who are about to leave school should be handed on to juvenile employment committees and other like bodies, that steps should be taken to co-ordinate the work of school medical officers and factory surgeons, and that all children who are employed, though still of school age, should attend the school medical officer's inspection clinic as "specials."

Provision of Meals.

The final chapter in the report deals with the question of the provision of meals. It is stated that in some places where meals are provided insufficient care is taken in the way they are served. The children should not only be fed, but be taught how to behave at meals, and to acquire a taste for simple cookery. The provision of meals should not be regarded as a form of Poor Law relief, their true purpose being to ensure that a child's capacity to profit by the opportunities of education afforded to it is not lessened by its being insufficiently or otherwise improperly fed. No meal arrangements can really be satisfactory unless the school medical officer:

1. Has the right to nominate for school feeding any children found at the routine medical inspection or on special examination to be suffering from malnutrition due to insufficiency or unsuitability of food.
2. Is always consulted as to the dietary provided.
3. Has the right and duty of inspecting the actual arrangements made in regard to the preparation, distribution, and service of the meals.
4. Is consulted in all cases of doubt as to the necessity for retaining a child on the feeding list owing to its physical condition.

Before concluding this summary it should be noted that scattered throughout the report are notes as to the information obtained either by Sir George Newman or members of his staff during official visits last year to the Continent, United States, and Canada.

INTERNATIONAL CONFERENCE ON POST-GRADUATE MEDICAL INSTRUCTION.

DURING the International Medical Congress, August, 1913, a conference on post-graduate medical instruction, in connexion with the meeting of the International Committee, will be held in London. Under the auspices of the Privy Council, a British committee, composed of the British delegates to the International Committee and of representatives of post-graduate medical schools has been formed, with Sir William Osler as chairman, to make the necessary arrangements for the conference.

The following programme has been drawn up by the International Committee, of which Professor von Waldeyer is president and Professor Kutner, Berlin, is secretary:

I. *Reports:*
- Topic 1.—The curriculum of medical education in the United Kingdom.
- Topic 2.—The present condition of post-graduate medical instruction in the United Kingdom.

II. *Discussions:*
- Topic 3.—The reforms in the present methods of instruction necessary to ensure technical proficiency in the general branches of medical practice.
- Topic 4.—The importance of the sociological aspects of medicine (public health, school hygiene, tropical disease, health insurance, physical training, etc.), in post-graduate medical instruction.

Reports on Topics 1 and 2 will be prepared by Sir Henry Morris and Dr. C. O. Hawthorne respectively. The discussions on Topics 3 and 4 will be introduced by speakers

appointed by the International Committee; Sir Clifford Allbutt will take part in the discussion on Topic 3. The British Committee will be pleased to consider offers of short papers relating to the discussion on Topic 4. In connexion with Topic 2, the British Committee will be glad to receive syllabuses of post-graduate medical courses from any institution which through oversight has not already been communicated with. An abstract of all the syllabuses will be published as a part of the Transactions of the Conference.

The honorary secretary of the British Committee is Major C. E. Pollock, R.A.M.C., War Office, Whitehall, S.W.

MEDICAL SERVICE IN THE HIGHLANDS AND ISLANDS OF SCOTLAND.

(Continued from p. 99.)

In our last issue a short account was given of the first volume of the report of the Commission which, under the chairmanship of Sir J. A. DEWAR, M.P. for Inverness, has been inquiring into the conditions of medical service in the Highlands and Islands of Scotland, issued a few days earlier. The report which was issued on January 13th is of great importance, and there is good reason to hope that its recommendations will lead to a bettering of the conditions.

SCOPE AND METHOD OF INVESTIGATION.

The Committee decided to take evidence from the counties of Argyll, Caithness, Inverness, Ross and Cromarty, Sutherland, Orkney and Shetland, and from the Highlands of Perthshire, areas in which isolation, topographical and climatic difficulties, and straitened financial circumstances are found most generally in combination, and therefore areas generally within which the question of adequate medical provision is most pressing. The instruction to the Committee was to consider how far the provision of medical attendance in districts situated in the Highlands and Islands of Scotland is inadequate, and to advise as to the best method of securing a satisfactory medical service therein, regard being had to the duties and responsibilities of the several public authorities in such districts.

With the view of facilitating the inquiry and rendering the collection of information more systematic, two sets of Query Schedules were prepared and issued to all medical men, with few exceptions, practising in the counties above referred to, and to other persons known to be conversant with the problem to be investigated. In all 260 schedules were issued—102 to doctors and 158 to other persons. Of these 87 were returned, duly answered, by doctors and 144 by others. It was decided that the Committee should visit the area of the remit in order not only to take oral evidence on the spot, but also to investigate as far as possible, and by actual observation, the various difficulties connected with medical provision in the localities where they were understood to be particularly urgent. This most praiseworthy decision cost those Commissioners who were not good sailors many hours of discomfort, but they have the satisfaction of knowing that they sacrificed to Neptune in their country's cause. The total number of witnesses examined was 258, selected from all classes of the community and with due regard to the various interests involved.

SPECIAL PROBLEMS.

The report emphasizes the fact that the Highlands and Islands present special features which demand special consideration. The great part of the area investigated is sparsely populated, and in many cases there is no doctor within twenty or thirty miles. In winter especially travelling is difficult, owing to the peculiar geographical configuration, with the result that not alone isolated homesteads, but fairly populous districts, may be for lengthened periods without any means to relieve suffering or stay otherwise preventable disease. This is borne out by the evidence of a Rona fisherman, who said:

> It is just the Portree doctor we have, and he must come in a boat, and in the winter time he cannot come. We may possibly have to wait a fortnight for him, and the patient will be suffering pain all the time. It is quite possible the patient may die without seeing a doctor at all.

Dr. Cochrane, Shetland, said:

> I have known a case being without medical attendance there (Papa Stour) for eighteen days simply because they could not cross the Sound.

Dr. Roger McNeil, Medical Officer for the County of Argyll, said:

> The population is so scattered that only a comparatively small number are within reasonable touch of a doctor in any one locality. . . . The difficulty of communication sometimes makes it impossible to get medical attendance in time to save life. I know myself of two such cases which occurred in the Island of Colonsay, before a resident doctor was provided, where two married women died before a doctor could be got from Islay, leaving two young families of seven and five, ranging in age from birth upwards, uncared for.

POVERTY OF THE CROFTERS.

Under such conditions the cost of medical aid must obviously be high, and in the great majority of cases even prohibitive. The bulk of the people are, over large sections of the area, in very straitened circumstances, especially at certain seasons of the year, and are consequently unable to pay for medical attendance even when the fee, having regard to time and distance, is quite inadequate to compensate the doctor. Ready cash is a rarity with the ordinary crofter, and the amount is at most so small that when he has provided for the necessaries of life and paid his rent and rates, he has, as a rule, little or nothing left to pay the doctor. The medical evidence was unanimous on this point, one witness declaring that a doctor might count practically on 30 per cent. of his work being gratuitous work, while some placed the number of unpaid visits as high as 76 per cent.

In these circumstances medical treatment becomes eleemosynary, and there is conclusive evidence that, even on that basis, it is not available for a large number of cases of illness, especially among poor non-pauper people. According to the testimony of witnesses, such cases constitute a large percentage of the population, and the high percentage of uncertified deaths is further conclusive evidence in the same direction.

Insanitary Dwellings.

The report refers to the housing problem as lying close to the root of the whole matter. To take one instance: In recent years the Island of Lewis has been reported on unfavourably as having dwellings in a grossly insanitary condition; a paragraph from the last report of the medical officer of health on Lewis is quoted, as follows:

> Houses of practically only one room, with damp walls, damp clay floors, sunless interiors, a vitiated and smoky atmosphere, and the cattle under the same roof with the human inmates, the surroundings usually badly drained, and the site often damp. When a case of phthisis occurs in one of these houses isolation is impossible. In too many cases the patient spits on the floor, and on the floors of churches and meeting places, scattering tubercle bacilli all round. When one considers also the probability of the cattle being affected with tuberculosis, under the conditions prevailing what could we expect than a wide prevalence of the disease?

Primitive Customs and Habits.

Some curious examples of the lingering belief in inherited skill and traditional "cures" are given. A witness from the remote island of Rona (Skye), which a doctor rarely visits, was particularly interesting in a description of some of the various "cures" which, in default or disregard of medical advice, are frequently resorted to. He told, for example, of a "cure" recently applied in the case of an epileptic; it consisted of burying a black cock alive beneath the spot where the patient had had the first attack of epilepsy. He also described the successful treatment of a woman suffering from "King's evil" by a seventh son, to whom she had gone all the way to the Island of Scalpay, Harris. On this branch of the inquiry Dr. Tolmie, South Harris, said:

> When they have bone disease, they use the old remedies. . . . There was a man suffering from keratitis, and he was not getting well. It is a difficult disease to cure in an old person. He was not getting on, and I had to go one very wild day to see him, and when I arrived he was away from home—it was a fearful day—and he had to drive nine miles and walk about another to an old lady at Lieisto. The old lady made up some rhyme and mixed grasses with water and sand, and sung. He came back and said he was better. The seventh son is supposed to be able to cure such disease. I know of one case of a person who had a carbuncle on the back of his neck, and it did not

heal, and he got a seventh son to come to his house, and every night for a long time he put cold water on it and a sixpence round his neck.

Inferior Diet.

The character of the food consumed, especially by the children, seemed to the Committee a relative fact of serious import. It was brought out that in South Uist no meal is ground, the surplus sheep and cattle are sold for urgent cash, every egg is bartered for shop commodities, and the milk supply is insufficient, especially in winter. The excessive indulgence in over-brewed tea, especially by children, is deplored by several witnesses. Dr. Murray wrote:

The great feature in the decadence of the school child's menu is the abuse of tea. The good old porridge pot has fallen from its high estate, and the tea-pot has been exalted in its place. Probably 50 per cent. go to school on a breakfast of tea and loaf bread, the former usually being brewed. . . . A large proportion of the children live so far from school that they cannot get home for a mid-day meal. These may walk from one to two and a half miles to and from school in all sorts of weather, and they work at their lessons all day on an inadequatebreakfast. . . . All this works untold mischief, and it is impossible for the average child—say, in the afternoon—to be in a fitly receptive condition for education.

Tuberculosis often attacks those who are insufficiently nourished, as the examination of Dr. Reardon, South Uist, shows:

Have you much tuberculosis?—Yes.
Both kinds?—Yes, pulmonary and non-pulmonary.
Is it increasing?—I am sorry to say it is.
What do you blame?—To begin with, there is no foundation for the children. The mothers don't nurse their children, and at the age of three months they are supposed to be able to take porridge and sops. The reason for that is that the milk of their cows is given to their calves, and there is no milk for the children. It is a case of the survival of the fittest.
They are rearing calves instead of rearing children?—Yes.
Why do the women not nurse their children?—They are not able; they have not the strength.

Parish Councils Overburdened.

So far the parish councils are the only public bodies that have taken any steps towards the provision of general medical attendance on the inhabitants, but the report declares that any further strain on their resources, under existing conditions, seems in most places out of the question. Speaking of the effect of the Insurance Act, the report continues:

The industrial situation in the crofting districts renders the National Health Insurance Act much less operative in the Highlands and Islands than in other parts of Scotland. Except for casual employment and short periods of service at such occupations as ghillieing and occasional fishing, the crofting population is out-with the compulsory provisions of the Act. The amount of voluntary insurance is at present negligible, and there is reason to believe that in some cases the contributions made during the temporary employment referred to may not be supplemented by the number of contributions necessary to entitle such insured persons to the minimum benefit under the Act.

The general opinion of the witnesses examined in this matter was that any system of insurance by voluntary contribution would, in the economic conditions obtaining among the crofter population, have but little chance of success.

Conclusions.

To summarize the foregoing conditions, which make medical provision in the Highlands and Islands a special problem, the Committee put forward certain conclusions; these will be found on p. 98 of the JOURNAL of January 11th.

Conditions Affecting the Adequacy of Medical Service.

The report next proceeds to examine the conditions affecting the adequacy of medical service, among which are mentioned defective means of locomotion and communication. The advantages of motor cars or boats are reviewed, as is the necessity for an extended telephonic service. The lowness of the average doctor's income is illustrated, cases being cited where the gross income is only £100 per annum, yielding a net weekly wage of between £1 and 30s. A prominent witness, after stating that in many parishes the doctor does not earn more than £50 to £70 a year, went on to say:

In one island that I know the doctor only gets £5 a year from the parish council, and I am sure he cannot make more than £40 a year. He lives alone, and when I called he had his coat off and his sleeves up, and was cooking his dinner.

In view of the inadequacy of his remuneration, it is not surprising to learn that the average doctor is seldom able to take a holiday. The cost thereof, including the fee for a locumtenent, is beyond his means.

This is regrettable in many respects. An annual holiday of, say, four weeks would go far to mitigate the disadvantages of isolation, and to relieve the strain of medical practice.

In connexion with the foregoing the Committee put forward the opinion that the general efficiency of the medical service is impaired by certain conditions which were noted on p. 98 of the JOURNAL of January 11th.

Percentage of Uncertified Deaths.

One of the most conclusive proofs of the inadequacy of medical attendance is the number of uncertified deaths. For the whole of Scotland during the past five years the average of uncertified deaths was about 2 per cent. In the insular rural districts of the county of Ross during 1908–10 the percentage was 47.5 of the total, ranging from 69 per cent. in Uig to 17 per cent. in Stornoway. On the mainland the percentage in some places was as high as 80.9. Many witnesses were disposed to attribute the failure to call a doctor and the consequent non-certification to a fatalistic attitude towards death in the case of the aged, while others put it down to poverty, and also to inaccessibility. Whatever the cause, the report states that "the evidence is cumulative that there is a vast amount of illness among poor non-pauper people not medically attended." Some witnesses put such cases as high as 50, and even 75 per cent. Again, the frequent reference in the evidence to the habitual delay in calling in the doctor, even when there is no fear of a fee, is attributed not alone to apathy or ignorance or poverty, but to an attitude of patience in suffering which has been evolved from the lack of medical advice and assistance in the past.

Popularity of Patent Medicines.

An interesting and not unimportant type of evidence, it is pointed out, indicating inadequacy of medical attendance, is the brisk trade in patent medicines which has developed in recent years, and more particularly in the case of quack medicine of American manufacture.

We are told that the quantity of such medicine sold is much more than that supplied on a doctor's prescription. This practice of self-doctoring is increasing, and will so continue so long as the need to which it owes its origin is not more adequately met by the provision of skilled medical attendance.

NEED FOR TRAINED NURSES.

The Committee states that no matter affecting the welfare of the people of the Highlands and Islands is more urgent than the provision of an adequate supply of trained nurses. Any provision which exists at present is based on the voluntary efforts of individual benefactors and philanthropic agencies, and a tribute is paid to the public spirit and generosity displayed by many proprietors, shooting tenants, and others, in providing nursing attendance for these poor people.

The report suggests a classification of the nursing service as maternity nurses, cottage nurses, and fully trained nurses. As a proof of the insufficiency of the existing supply of nurses, the following passages may be quoted:

Dr. Ross (Barvas) described the attendance of crofters' wives on one another as a "social danger." In North Harris, Dr. Macleod informed us that not only a neighbour, but occasionally even the husband, was the only attendant in confinements, and that in the absence of any trained nursing only a small proportion of these cases received any skilled attendance. He mentioned that he had known of the deaths of as many as three mothers in twelve days. Another doctor told us of a case where a woman, at the crisis of her confinement, read out to her husband from a medical treatise directions to enable him to afford her the necessary assistance.

Evidence was forthcoming from witnesses representing several other parts of the area as to serious, sometimes fatal, results from the lack of skilled nursing. Father McNeill of Eriskay, after stating that the infant mortality there was abnormally high, informed the Committee that no doctor had attended a maternity case on the island for the last seven years, and that on one occasion, when no other help was available, he "had to bring out the medical dictionary and to take it to the schoolmaster to get him to attend." He further stated that last year, out of eleven deaths on the island, no less than five had been of infants under twelve months, and that he attributed this to the lack of a competent person to advise the mother.

The Committee is therefore satisfied:

1. That the total number of nurses is quite inadequate.

2. That in a great part of the area of the inquiry the efficiency of nurses suffers from lack of organization.

3. That, while tending generally to alleviate suffering and remove danger in sickness and disease, efficient nursing is at present urgently required in connexion with:

(*a*) The birth and infancy of children.

(*b*) The "following up" and treatment of diseases and defects in children as disclosed by school medical inspection.

(*c*) Promoting among the people a knowledge of personal and household hygiene, dietary, etc.

(*d*) The earlier detection of illness.

Recommendations.

It accordingly recommends:

1. That all existing voluntary nursing agencies, where practicable, be organized under a county or district scheme, but that, in order to retain local interest and support, the system of local nursing committees be continued and encouraged. Such nurses could, by arrangement, be utilized by public bodies under such a scheme, and the public bodies in question could have representation on the Management Committee.

2. That the total number of nurses be largely increased, and that the claim of island communities receive special consideration.

3. That nursing be regarded as an integral part of the medical service, and that in the discharge of her duties the nurse, through the organization, be directly responsible to the medical attendant.

4. That a suitable lodging or residence be provided for the nurse.

5. That the telegraph-telephone system now in use in many parts of the Highlands and Islands be made available for telephonic communication in connexion with the nursing service.

NEED FOR HOSPITALS.

Discussing the need for hospitals, the report says:

Both lay and medical witnesses strongly urge the necessity of providing cottage hospitals, within easy reach or erected near a doctor's residence, and in charge of a competent nurse. At present cases like the following are reported: "I have had to operate in a hut on a case of strangulated hernia, where a clerk gave chloroform, and light was obtained from a tallow candle, held by a neighbouring crofter, who fainted during the proceedings!"

The Committee is quite satisfied from the evidence on these points that the existing general hospital provision is quite inadequate, even if available in every case to the fullest extent of its capacity: that there is urgent need of further provision, and that such provision should be mainly in the form of cottage hospitals, and for the following special purposes:

(*a*) To bring near to the doctor a distant case of illness requiring frequent visits.

(*b*) To provide for the removal of patients from conditions which render medical treatment futile.

(*c*) To reduce the cost and danger of travel entailed in removal from outlying parts to most of the existing hospitals.

(*d*) To provide a home for the district nurse and a dispensary for the doctor.

Recommendation.

It is accordingly recommended:

That cottage hospitals be erected at various convenient centres, and of such a size as to accommodate from two to four patients, with a nurse and necessary assistance, and to provide a local dispensary for the doctor: and that the provision of tuberculosis hospitals, more particularly in the larger islands, should receive special consideration.

PROVISION OF MEDICINES.

The question of the provision of medicines and medical appliances is discussed at some length. The Committee notes that, while there is some evidence by druggists to indicate that the dispensing of drugs by doctors is regarded more or less as an encroachment on the druggists' proper sphere, yet so-called "counter prescribing" and advice by druggists are not uncommon. The report suggests that the provision of cottage hospitals at convenient centres would largely meet the difficulties as to prompt delivery of medicine, while the doctor might have a chest containing a small stock of the more important drugs conveyed on his motor car.

EFFECT OF THE INSURANCE ACT.

Before suggesting improvements the Committee examine the existing organization of medical services, which are: (*a*) Public health service, (*b*) school medical inspection, (*c*) health insurance medical service, (*d*) medical service under the Poor Law, (*e*) general medical practice, and (*f*) specialized medical service. The correlation of these services with a view to their administrative consolidation, and the provision of more satisfactory financial basis for private practice is fully expounded by Dr. Leslie Mackenzie, a member of the Committee, in an appendix to the report.

In regard to the insurance medical service the report says:

Though this branch of medical service has not yet come into operation, it has to be reckoned with in any scheme of amelioration under our remit. The number of insured persons is not at present ascertainable. In their case it is the duty of the County Insurance Committee to make arrangements for the administration of medical benefit in terms of the Act. In so doing account must be taken of the question of distance and of those geographical and climatic difficulties that have been referred to as prominent factors in the adequacy of the existing medical provision in the Highlands and Islands.

Inquiry was made from time to time as to whether the average crofter would be ready to pay contributions in respect of at least twenty-six weeks—that is, an annual average of 3½d. a week. The invariable answer was that in those districts contribution without compulsion is unreliable, and that even if legislative power to compel were forthcoming the system would still lack the main guarantee of success—namely, an employer responsible for the employed contribution. We are, therefore, convinced that the industrial conditions of the Highlands and Islands are such as to make the provision of the Insurance Act less operative than in other parts of Scotland, and we foresee considerable trouble in providing medical benefits for fully-insured persons far removed from a medical centre, more particularly when it is borne in mind that so large a portion of them are so situated. Special subvention even in their case would indeed appear to be necessary, and the provision of medical attendance for their dependants is also a matter requiring urgent consideration.

GENERAL MEDICAL PRACTICE.

In regard to the scope of general practice in the Highlands and Islands, the report attaches importance to the following statement by Dr. Mackenzie, of North Uist:

The remuneration should be adequate to attract capable men, who would elect to stay. At present, owing to the general poverty of the class that chiefly demands their services, this is not so, with the result that the positions are very frequently occupied by two classes: (*a*) Young men recently out of college, who make the appointment merely a stepping stone to something better, who remain only a year or two, not long enough to become sufficiently acquainted with the idiosyncrasies of the people, or the diseases that families inherit or are liable to. (*b*) Older men, who, after perhaps a chequered career, fall back on such places as a last resort and harbour of refuge; while to the capable man who, from inclination or perhaps the force of circumstances, elects to spend his life in these regions, the most hopeful outlook before him is to die in harness, in case he dies of starvation when old age and decrepitude render him unable to continue work.

Frequent Change of Doctor.

In consequence of these unfavourable conditions there is in some districts a constant change of doctors. Certain parishes have, indeed, attained unenviable notoriety in this respect. To give a few instances: In one parish there have been ten doctors and as many locumtenents in twenty-two years, and in two other parishes there have been in ten years seven and five doctors respectively and several locumtenents. Such frequent changes cannot but affect adversely the efficiency of the medical service in these localities.

Forms of Remuneration.

(*a*) *Fees and Subsidies.*—The question of remuneration from general medical practice has already been referred to in some detail in the discussion as to the doctor's income, and in the paragraph dealing with the economic circumstances of the people. It is unnecessary here to retell the facts. Suffice it to repeat the general conclusion, which is borne out by all parts of the evidence, that private practice, more particularly among the cottar and crofter population, is

far from being remunerative. In some of the poorer districts it is of little consequence as a supplement to the doctor's income. The general effect is very much as put by Dr. Bremner medical officer of health for Sutherland:

> The sum paid to the doctor by the parish is hardly sufficient to live on and pay his ordinary expenses, and in many cases he has few or no private patients from which to supplement his income. Consequently, the question of expense is always uppermost in his mind, and at whatever cost to himself he must reach his patient in the cheapest way possible and as seldom as he conscientiously can.

There are, indeed, a few exceptional cases where by reason of continued successful fishing, or liberality of proprietors and shooting tenants, or of a special industry peculiar to a locality (as for instance, quarrying, afforestation, electric works, etc.), the regularity of the people's income is such as to enable them to defray medical services on the very moderate scale of fees calculated on the basis of mileage, of time, and of the degree of professional attention required. It has, however, to be recognized that those who have to pay for distance and time are placed at a great disadvantage as compared with their fellows to whom such heavy additional outlay does not apply. To redress this marked and unavoidable disability should be one of the chief aims of the betterment of medical service in the Highlands and Islands.

Subsidies from Imperial Grants.—The extent to which ordinary medical practice is subsidized by the pauper lunacy grant, the grant in respect of medical officers of health and of school medical treatment, is, as already indicated, of little moment. As regards the grant in aid of medical relief, which, though never adequate, has been the mainstay of local resources in the provision of medical attendance for the inhabitants, it is shown to have fallen to less than half the rate in the pound which ten years ago encouraged parish councils to offer salaries sufficiently high to attract medical men to these remote parts. The steady reduction in this grant has two obvious effects, especially in the poorer districts: it has entailed corresponding increase of the parish rates and has tended to discourage increase of the medical officer's salary.

General Recommendations.

The Committee conclude their report by making certain recommendations, which are detailed in last week's JOURNAL, pp. 98–99, the most important recommendation being the establishment of a central authority for the control and administration of medical services.

After considering the evidence and statements submitted by the medical witnesses, the Committee expresses the opinion in a general way that for public and private medical service (in single practice areas) a minimum income of £300 per annum, with travelling allowance, should be secured to every medical practitioner recognized by the central authority.

In the case of doctors living in a common centre (multiple practice area) where it would be in the public interest to arrange that outlying patients be attended at small fees, the doctors should receive an annual subsidy to enable this to be done.

As suggested by Sir Donald MacAlister, on the analogy of India, a tariff of fees suited to local circumstances should be prepared by the doctor for inclusion in any scheme submitted by the local authority for approval of the central authority.

The relations of the Medical Service Committee to all the other authorities and interests would be adjusted by regulations issued by the central authority, who would be authorized to make grants conditional on the establishment and maintenance of a satisfactory medical service—the conditions to include any special qualifications necessary for medical officers, nurses, and others; questions of tenure of office, submission of tariff charges for private practice and the like. The central authority would act in concert and consultation with the central departments represented on it.

These are the recommendations of the Committee as to what might be the best way to administer the proposed grant; but the Committee recognize the possible objections to the creation of a new central authority, and that the Government may consider it more expedient to administer a grant through the existing central and local authorities acting in concert.

SCHEME FOR CONSOLIDATION OF MEDICAL SERVICES.

Appended to the report is a suggested scheme for the administrative consolidation of medical services, by Dr. Leslie Mackenzie, medical member of the Local Government Board (Scotland), a notice of which we hope to be able to give at an early date.

SCIENCE NOTES.

SOME experiments carried out recently in the Runcorn Research Laboratories of the Liverpool School of Tropical Medicine on the resistance of the bed-bug to various powders, liquids, and gases designed for its destruction are reported in the last number of the *Annals of Tropical Medicine and Parasitology* by Dr. B. Blacklock. In houses it infests the bug dwells in some place where it is protected from attack. It prefers a refuge close to its human source of food supply, and therefore prefers to live in the crevices of a wooden bedstead, or behind the wall paper close at hand, but as it is a rapid walker its refuge may be in a remote corner of the room. It feeds rapidly, running from place to place, stopping for a few seconds to puncture the skin with its stylets, suck up some blood, and pass on. In a few minutes it is swollen and shiny; it appears that it does not as a rule defaecate at once on or near its host, so that there may be no marks on the bed-clothes, even though bugs be plentiful in the room. Eggs may be laid within twelve hours after feeding; they hatch out in seventeen days at ordinary summer temperature, and the young can begin to feed within an hour or two. The vitality of the eggs was found to be destroyed by immersion in cold water for twenty-four hours, and the young are destroyed by moisture, their legs and antennae becoming glued together. The insect powders in common use appear to act mechanically. The powder must be fine, dry, and light, and must come thoroughly into contact with the bug: the fine particles then adhere to the body, antennae, and legs, the insect turns on its back and so struggles until it dies, after a period varying from a few minutes to several days. The eggs do not seem to be injured by the powders, but if the young hatch out in contact with powder, they often become entangled and may die. Bugs do not drown easily, though immersion for twenty-four hours is too much for them; they are killed by boiling water poured on to them, but can withstand water at ordinary scrubbing temperatures. Of the other liquids tried, carbolic acid (5 per cent. and 10 per cent.), mercury perchloride (1 in 1,000), and paraffin oil, the last was the most efficient, but they can walk over a board smeared with paraffin and survive. There is no evidence, therefore, that insecticide powders or liquids can be depended on to clear bugs out of a house under domestic conditions. Gaseous substances present the best prospect of success, and of such substances sulphur dioxide is both effective and cheap. It kills both the insect and its egg and acts more rapidly at a slight pressure. Unfortunately bugs are not easily killed by deprivation of human blood. A bug kept in a glass tube by Geer without any food at all lived for a year "quite comfortably." Blacklock kept some in a glass tube for three months, and at the end of that time they were still alive and active. In another experiment he put thirty newly-hatched bugs in a tube; some of them died from time to time and their bodies disappeared, but at the end of three months nearly half (fourteen) were alive and active. He states, as a matter of common report, that in the case of old barges infected with bugs very prolonged complete immersion of the woodwork does not destroy the insects, probably because they are so securely hidden that the water never actually comes in contact with them. Considering the tenacity of life they display, it would appear that the means used for their extermination in a house—even sulphur dioxide gas—should be repeated after an interval of a few weeks. The expense of the inquiry was defrayed by Sir E. Durning-Lawrence, as was also that of another made by Dr. Blacklock and reported in the same issue of the *Annals*, into the resistance of the tick, *Ornithodoros moubata*, to various sheep dips. The general conclusion was that, used in the strength recommended and for the time suggested, the dips examined had very slight effect on this particular tick, which is extensively distributed throughout tropical Africa and attacks both man and beast.

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SATURDAY, JANUARY 18th, 1913.

THE CULTIVATION OF THE MALARIA PARASITE.

The current number of the *Annals of Tropical Medicine and Parasitology*[1] contains a paper by Thomson and McLellan confirming the observations of Bass of the Tropical Medicine School of the Tulane University, New Orleans, to which reference has already been made, as to the cultivation *in vitro* of the malarial parasite. This seems to mark the beginning of another, and it would almost seem the final, stage in the elucidation of the life-history of the parasite and its relation to the disease. Sir Ronald Ross, in a note to the paper in the *Annals*, says that he is quite convinced that the specimens sent to him by Bass, and those made by Thomson and McLellan at Liverpool, give indisputable evidence of the successful cultivation of *Plasmodium falciparum* (the malignant tertian parasite) up to the sporulating forms. "These forms," he says, "are much too numerous in the specimens to admit of the supposition that the parasites have not developed since the blood was taken from the patient. The advance thus made is one of great importance, as all efforts to cultivate the parasites of malaria have hitherto failed since their discovery by Laveran in 1880." Bass states that he has been successful also in cultivating *Plasmodium vivax* (the benign tertian parasite) and *Plasmodium malariae* (the quartan parasite). That the conditions to be fulfilled in any successful repetition of the experiments demand minute attention to detail is shown not only by the failure of all previous attempts made by many investigators, but also by the fact that experiments made early last year by J. A. Sinton at Liverpool to repeat Bass's observation gave negative results, apparently because Bass in his earlier publications had omitted to state that the addition of a solution of dextrose to the cultivation was an important factor.

Thomson and McLellan have succeeded in two cases. The procedure was as follows: The arm of the patient was first scrubbed thoroughly with an alcoholic solution of mercury biniodide; the antiseptic was washed off and the epidermal scales fixed by a 70 per cent. solution of alcohol, which was allowed to evaporate before the puncture was made. It is not advisable to wash the arm with any watery solution, as two points have always to be safe-guarded—namely, that no micro-organisms (usually the *Staphylococcus albus*) be either carried into the vein or deposited in the culture tube, and, secondly, that no antiseptic shall be carried into the culture tube. The median basilic vein was punctured at the bend of the elbow and 8 c.cm. of blood allowed to flow into the syringe, slowly forcing up the piston by its own pressure. It was then transferred as quickly as possible, in order to prevent clotting, into a sterile culture tube containing 0.1 c.cm. of sterile solution (50 per cent.) of Merck's dextrose. Through the woollen plug with which the tube was closed passed a thin glass rod, which was used to stir up the blood in order to defibrinate it and mix it with the dextrose. Throughout these procedures it was necessary to be careful to avoid air bubbles. The mixed defibrinated blood was then introduced into two culture tubes, the column of blood in each being 1 in. or 2 in. thick. The tubes were incubated at 38° C., when the red blood cells gradually settled, and three layers were formed. A top layer of ½ in. to 1 in. of clear serum, a thin intermediate layer of loose red corpuscles and white cells—the culture layer—and a bottom layer, consisting mainly of red cells, in which the parasites died in periods varying from two to twenty hours. A few of the surface cells were drawn off with a capillary pipette after twelve, twenty-five, twenty-seven, and thirty-two hours. Small drops were placed on clean glass slides, smears were made, fixed in methyl alcohol for twenty minutes, and stained in the usual way with Giemsa or modified Romanowsky solution. It was found that the smears should be somewhat thick, owing to the amount of serum mixed with the cells.

In preparations so made a most remarkable appearance was noted after twenty-five hours' incubation at 38° C., definite segmenting forms being seen in large numbers showing the nucleus broken up into fragments. The paper is illustrated by a microphotograph showing a portion of a slide on which hundreds of these schizonts were seen clumped together. The pigment mass was quite distinct and where segmentation was nearly complete the merozoites were arranged concentrically round it, thus forming the so-called rosette. No evidence of these merozoites having entered new corpuscles and so beginning another generation of parasites was obtained. In a second case examined the results were not so conspicuous, possibly, as Thomson and McLellan suggest, because the patient had been in the habit of taking quinine with great regularity.

They are unable to explain why the parasite should grow in the culture tubes only in the thin layer between the serum above and the main mass of the red blood cells below. The serum was probably filled with antibodies produced by repeated sporulation of parasites, yet it was apparently powerless to stop parasitic growth so long as that growth remained intracorpuscular. After incubation for twenty-seven hours few segmenting forms were found, the probability being that the corpuscles had burst, causing the merozoites to be dispersed, thus subjecting them to the destructive action of the serum and leucocytes. This subject remains for future investigation, as also the question whether the parasites grow better or worse in normal human serum.

AN ENGLISH PHYSICIAN OF THE FOURTEENTH CENTURY.

Chaucer's picture of the Doctour of Phisyk is a *locus classicus* of our literature. Among the many authors whom he had read is "Gatesden," John of Gaddesden, author of the treatise known as *Rosa Anglica*. This treatise is familiar by name to all interested in the history of medicine, though it may not be very rash to conjecture that it has been more spoken of than read. John of Gaddesden was a man of great note in his day. He had a large practice and numbered royal personages among his patients. Little is certainly known about him, though he is frequently quoted and referred to by later writers. Every stray fragment of information has been

gathered up by Dr. H. P. Cholmeley, and out of the materials thus collected he has made a most interesting book.[1] In it John of Gaddesden is made the central figure in a picture of fourteenth century physic in this country. Around him are grouped details of the medical lore and practice of that day, gathered from contemporary sources and skilfully focussed so as to throw every available particle of light on the subject of the work.

John of Gaddesden was probably born about 1280, and died in 1361. His active life therefore covers the first half of the fourteenth century. He was educated at Oxford, and is mentioned by Anthony à Wood as being a "Doctor in Medicinis" at Merton College in 1320. To become a doctor he must previously have graduated in Arts; this implies an intellectual discipline of considerable severity, however barren many of the problems on which the student's mind was exercised may seem to us. Then the candidate for a medical degree had to spend four years of special study, at the end of which he had to pass an examination. There is no evidence of clinical training being required, and a fourteenth century English physician was let loose on the world unprovided with any other knowledge than such as could be got from books. There was, in fact, properly speaking no school of medicine at all in this country till the early part of the eighteenth century, when those of Dublin, and a little later Edinburgh, came into existence. Hence men had to go to foreign schools, chiefly Italian, to learn the practical part of the art. Although partly conjectural, we may take it that the chronology of Gaddesden's life as given by Dr. Cholmeley is fairly correct. According to this he entered Oxford for grammar at the age of 14 in 1294, and incepted as M.A. He began to study medicine in 1303, and graduated B.M. in 1307, and D.M. in 1309. He wrote the *Rosa Anglica*, or as he called it *Rosa Medicinae*, in 1314. The preface, written in the pedantic and somewhat grotesquely ornate style characteristic of the period, states that the author's aim was to write a book for the humble to read. The title of the book, he says, has reference to the five appendages which belong to the rose, as it were five fingers holding it, concerning which it is written "Three are bearded, and two are not." That is to say, three of the parts surrounding the rose are hairy, and two are smooth, and the same is the case with the five parts of his book. "The first three are bearded with a long beard, for they treat of many things and about general diseases, and for a discussion of what constitutes a general or common disease, look in the introduction to the second book. The two following books treat of particular diseases together with some matters omitted in the preceding books and they are as without a beard (shorter)." He winds up with the modest remark: "And as the rose overtops all flowers, so this book overtops all treatises on the practice of medicine, and it is written for both poor and rich surgeons and physicians, so that there shall be no need for them to be always running to consult other books, for here they will find plenty about all curable disease, both from the special and the general point of view." The work is largely a compilation from the Greek, Arabian and Jewish physicians, together with the works of his immediate predecessors, such as Gilbertus Anglicus and Bernard of Gordon, but there are not a few records of his own experience. Guy de Chauliac, however, refers to the book as "a foolish rose of England" in which, instead of the odour of sweetness he expected to perceive, he found only the fables of Hispanus, Gilbert, and Theodoric. Freind's judgement is more favourable. He says that Gaddesden "seems to have made a collection of all the receipts he had ever met with or heard of; and I believe this book can afford us the best history of what medicines were in use, not only among the physicians of that time, but among the common people of England, both in the empirical and the special point of view." Gaddesden never fails to make the most of his successes, which gives Dr. Cholmeley the opportunity of saying that he would have agreed with Matthews Duncan, who used to say to his class, "If you don't believe in yourself nobody else will." The *Rosa Anglica* is best known by the famous passage referring to the use of what may be called a red atmosphere in the treatment of small-pox. By wrapping the patient—"son of the most noble King of England"—completely in red cloth, and having everything about the bed of the same colour, he cured him without pitting. Gilbert Anglicus before him had mentioned that the old women of his day believed that red substances had "an occult property of curing small-pox," and centuries later we find a bill for red cloth supplied when Charles V, as a young man, was ill with small-pox. We need only remind our readers that the treatment of small-pox by red light was advocated by the late Dr. Niels Finsen in this journal only a few years ago.[2]

Travel in the fourteenth century was an extremely serious business. Besides the perils from shipwreck and robbers, there were the innumerable dangers of infection at insanitary inns. The author of the *Rosa Anglica* advised that those about to go on a journey should, by way of preparation, be bled or purged, so that the body might be cleanly. If the air was foul the wayfarer was recommended to sniff camphor or roses or violets, and if there was a stink, to hold his nose. Sensible directions are given as to eating and drinking, clothing, the care of the feet and the perineum, and keeping the feet warm and dry.

A comparatively small portion of the book is devoted to surgery. Among the operations described are lithotomy, herniotomy, and the reduction of dislocations. John of Gaddesden does not disdain to give directions as to cosmetics for the cure of freckles, pustules, and sunburn. He gives prescriptions for complexion washes, and for sweetening the breath and the body generally. He urges the need of frequent baths and the importance of cleanly underclothing with an insistence that may surprise those who think of the Middle Ages as a time when the gospel of dirt was universally practised. He explains that he writes these things for delicate women and for noble men. There is a section on the care of the health based on the regimen of Salerno. Our modern believers in fruit as the preventives of all disease will doubtless be shocked by his views. After speaking of ill-regulated lives, too much eating, and so on, John of Gaddesden says: "Again with fruits; some eat more of them than of other food, wherein they do not well, for all fruits make watery useless blood and prone to putrefaction." He allows pears, figs, and apples after dinner to those inclined to looseness of the belly; prunes, cherries, raisins, and figs should be taken before dinner. On the whole, however, he says it is best to do without fruit altogether, and he quotes Galen as stating that his father lived for one hundred years because he never ate fruit.

[1] *John of Gaddesden and the Rosa Medicinae.* By H. P. Cholmeley, M.A., D.M. Oxford: At the Clarendon Press. 1912. (Med. 8vo, pp. 181, 8s. 6d. net.)

[2] Remarks on the Red Light Treatment of Small-pox, BRITISH MEDICAL JOURNAL, June 6th, 1903, p. 1297.

After the dissertation on health in general comes a discourse on colic, a complaint which seems to have been common in the Middle Ages. Probably we think it appears common because it was more spoken of, just as one might imagine that, from the frequency of allusion to the complaint in popular French speech and literature, it was more common than it is among ourselves, the fact being that the difference is probably due to the curious reticence about such matters caused by the *pudibonderie Anglaise*. But that our mediaeval ancestors suffered very much like Father Tom *in partibus interioribus* from their appalling diet, there is no doubt. They ate enormous quantities of meat, much of it salted. They also consumed salt fish very largely, and their dishes were seasoned with ambergris and a number of substances that must have made them acutely trying to the most vigorous digestion. An amusing account of mediaeval diet was given in *L'Hygiène* not long ago by a French writer who tried some of the "horrifiques recettes" of his ancestors on himself. They were also great eaters of sweets and fruits. This possibly may have inspired John with the bad opinion of fruit that he expresses. The *Rosa*, according to Dr. Cholmeley, may be taken as giving a fair picture of an English physician of the fourteenth century. He was a man of good general education, familiar with the writings of his predecessors. Of anatomy and physiology he knew nothing, but within limits he seems to have been a fairly accurate clinical observer.

On certain points we think Dr. Cholmeley is not altogether fair to John of Gaddesden. He says: "The book bears out the somewhat unfavourable estimate of the character of the leech which is expressed by Chaucer, by Langland through the mouth of Piers Plowman, and by John of Salisbury, for Gaddesden appears to have been fond of his fees, and by no means to have neglected the by-ways of medicine such as diet, cookery, and the care of the complexion or beautifying of the body." He would have been foolish if he had; and as for fees, are we to believe that lawyers were not eager for money, and that ecclesiastics did not look for benefices? Did Chaucer himself forego the emoluments of the various offices he held under the Crown? Samuel Taylor Coleridge said that a certain indifference about money was a characteristic of a gentleman. Whereon Carlyle made the sensible comment that to warrant such indifference a man must have no need of money. John of Gaddesden was rather inclined to magnify his office, but that is a state of mind not altogether unknown at the present day. He seems to have held that medicine was a mystery, the secrets of which should not be revealed to the profane. Yet his book is clearly to some degree intended for the enlightenment of the laity on matters of health; if they were at the same time enlightened as to the author's skill as a practitioner, that, from his point of view, was all to the good.

Dr. Cholmeley has evidently made the study of John of Gaddesden a labour of love, for he has collected everything that bears on the subject from mediaeval literature. His book is, in fact, a storehouse of learning on the subject. He has taken infinite pains to trace and examine the writers whom John might have read, and to give an idea of the contents of their works. His *apparatus criticus* includes, among other things, the text of the regulations of the Emperor Frederick II of Sicily as to unqualified and regular practice in the kingdom of Sicily in the thirteenth century; the text of the decree of Pope Boniface the Eighth concerning the mutilation of bodies, which has so often been misinterpreted as meaning the prohibition of dissection; and a version of the *Isagoge*, or introduction to medicine, of Joannitius (or to give him his Arab name, Hunin), which explains the technical terms used by mediaeval writers. Dr. Cholmeley's work is a well ordered storehouse of learning and a solid contribution to the history of medicine.

THE GLUT OF OPIUM IN CHINA.

IN an article which appeared in the JOURNAL on September 14th, 1912, it was pointed out that a crisis was to be expected, in the near future, in the opium traffic between India and China. We indicated that, paradoxical as it might appear, the opium merchants, the anti-opiumists, and the Chinese reformers were at one in desiring a cessation of poppy cultivation in India for purposes of the Indo-Chinese opium trade. Unfortunately, the Indian Government, which has pocketed large surpluses in past years from opium sales to merchants trading with China, was not disposed to reduce the present area of 200,000 acres under poppy cultivation in India. The result is a present glut of opium in the warehouses of the treaty ports in China, to the estimated value of £11,000,000. There is a growing disproportion between demand in China and the supply from India. The latter has been almost forced upon the merchants by the sales at auction conducted by the Government of India with an eye to revenue. The demand in China has been reduced by the fact that during the unsettlement consequent on the revolution the home production of the drug was illegitimately augmented, while more recently a recrudescence of energy on the part of the Republic has cancelled licences to smoke opium and conducted a vigorous anti-opium campaign.

It is true that by agreements made with the Imperial Government of China in 1907 and 1911 the Indo-Chinese trade was to terminate in 1916, but it was also rather illogically arranged that until that date Indian opium should be permitted to enter those provinces of China which themselves continued to produce the drug. While it appears to be the sincere desire of the wisest heads among the Chinese authorities to bring to an early and complete termination a trade which they are convinced is demoralizing and degrading their people, there is also little doubt that there are keen business men who desire that so long as opium fetches highly remunerative prices the large profits should go into the pockets of the Chinese growers rather than into those of the British merchants, with rather un-British names, who are anxious to unload upon the citizens of the Republic the product of the Indian Government's poppy fields.

In a debate which took place in the House of Commons just before Christmas it was pointed out, on behalf of the Government, that we were under no obligation to secure a profitable market in China for Indian opium merchants. The question to be answered, it was said, was whether the planting of the poppy was going on in China under the sanction of the Republican Government; if this was the case and the import of Indian opium was being obstructed, the agreement of 1911 was being infringed and the consequences might be serious. If, on the other hand, as recent reports appeared to show, the new Government of China was making real endeavours to restrict the growth, consumption, and trade in this perilous drug, no question of cancellation of our agreement could arise.

This policy, as stated by Mr. Acland for the Government of India, is, we believe, in accord with

public opinion—at any rate, in this country—though it may create an unpleasant position for the Indian merchants, and not be altogether free from embarrassment to the Government of India. We agree with the *Times*, which, in a recent article on the subject, indicated that a war to insist upon the fulfilment of these opium agreements with China would be "regarded as indefensible."

We read of the burning of seven chests of Malwa opium at Anking, and the dispatch of H.M.S. *Flora* thither with a British consul-general on board. If, as is alleged, this opium was in the hands of a Chinese purchaser when destroyed, it is not clear that any case for British intervention has arisen, since a recent dispatch from Delhi states that the Indian Government, after next April, will suspend opium sales for China, and reduce the amount to be sold for consumption outside China by 4,200 chests. This, it is hoped, will unload some of the accumulations in the treaty ports of the opium, which has become in very truth a "drug in the market."

Meanwhile the date fixed by the Hague Convention for a fresh step in the way of practical performance of the International Opium Convention of 1912—namely, December 31st—has passed. We understand that some Powers have not yet signed the convention, and, according to the protocol, it will be forthwith the duty of the signatory Powers to meet at the Hague and consider how practical force can be given to the International Convention without waiting any longer for the laggards.

We are aware, of course, that the Anglo-Chinese treaties were ruled out of consideration at the Hague Conference, but we look to the coming into force of this International Convention as the means for bringing enlightened public opinion to bear upon the extinction of the opium vice as well as the abuse of morphine and cocaine all the world over.

MEDICAL INSPECTION OF SCHOOLS.

ELSEWHERE in this issue will be found the conclusion of our summary of the latest report of the Chief Medical Officer to the Board of Education. Like its predecessors, this fourth report is full of details of an interesting character; but, also like its predecessors, it sometimes, indeed often, fails to supply any summing up giving precise information as to the position of matters and as to the line of action the Board would commend to education authorities. It is clear, however, that a considerable number of school medical officers throughout the country are giving attention to the consideration of matters of principle, despite the preoccupations of a large proportion of them by the ordinary duties of a medical officer of health. On one point Sir George Newman's views are very plainly set forth—that is, the right performance of the duty of medical inspection. He points out that the main purpose of medical inspection is preventive, and that to be effective it must be sufficiently thorough and clinical. Its value for each individual child depends upon the degree to which the medical officer brings to bear his medical skill, knowledge, and experience combined with powers of observation and judgement. He must thoroughly appreciate disease as a crippling agent, even when present only in minor degrees. The whole life and condition and circumstances of the child in relation to disease must come within his purview. The sum total of physical data taken in relation to the child's environment must be thought of, not as an abstract proposition, but as it concerns the present welfare and the future development of the child. Some of the factors on which his success will depend are his medical knowledge, his accuracy, caution, thoroughness, and the avoidance of besetting fallacies in his examinations, and in his deductions and interpretations. The work calls for imagination as well as for clinical ability, exact observation, and experience. The sequelae of even minor morbid conditions must be understood. All this is admirable, but obviously its attainment demands a high degree of clinical acumen and intimate knowledge of the family to which each child belongs. The work requires, in short, a combination of qualities which can hardly be expected except in family practitioners of lengthy experience. It is probably in view of this circumstance that not only in the United States but also in Germany, which rightly or wrongly has for some years past been regarded as the true leader of thought in regard to the State application of medical knowledge, the school medical service has been staffed almost exclusively by part-time medical officers, that is to say, by general practitioners who are prepared to devote a portion of their energies to school work. Sir George Newman records this fact in his notes on the two countries, but does not point out how different is the policy it represents from that which the Board of Education in this country appears to have adopted. The medical inspection of school children in this country is mainly in hands other than those of family practitioners. In 243 areas out of 302 the school medical officer is the medical officer of health. Many of them, no doubt, possess considerable clinical experience, but this can hardly be the case in regard to their 212 whole-time assistants. These, for the most part, must be young men who have specialized early in the direction of public health work, and no amount of organization will enable them to obtain that intimate knowledge of the home circumstances of a child which comes to a family practitioner in the course of his ordinary work, and which often enables him to give sound advice to its parents as to its educational career. Yet this is what Sir George Newman deems to be necessary if the real objects of medical inspection are to be attained. There are many other points in the report which afford room for thought, notably Sir George Newman's suggestions as to the establishment of sanatorium schools, and sundry passages which indicate a desire to bring children under a continuous official control, which will begin on the day of their birth and only end on the day when they come under that of the managers of the great labour organizations of the country.

STATE INSURANCE SICK CLUBS IN GERMANY.

DURING the period of five years from 1907 to 1911 the total number of sick clubs under the State Insurance in Germany (Krankenkassen) fell from 23,232 to 23,109, but the number of members rose from 12,138,966 to 13,619,048. In 1911, 5,772,382 cases of illness with inability to work were dealt with, as against 4,956,383 in 1907. In respect of these, sick "benefit" and treatment in some form of institution was paid for 115,328,905 days in 1911, as against 97,148,780 in 1907. The ordinary income of the clubs rose from Mk. 319,592,187 in 1907 to Mk. 412,290,611 in 1911, and the expenditure from Mk. 300,379,186 in 1907 to Mk. 388,442,459 in 1911. The excess of assets over liabilities for 1911 was about Mk. 312,000,000. The average cost per member in 1911 worked out at Mk. 24.83. The amount of money paid to the doctors for attendance on sick insured persons was Mk. 63,325,782 in 1907 and Mk. 83,754,224 in 1911; the cost of drugs, etc., rose from Mk. 40,157,749 in 1907 to Mk. 53,171,234 in 1911. In 1911 the doctors' bill came to Mk. 6.15 per member and the drug bill to Mk. 3.90. It will thus be seen that the average number of days during which members were in receipt of benefits was eight and a half, while of the 24s. which each member cost the clubs about 10s. went for

the doctor and medicines. A further significant fact may be deduced from the current figures—namely, that while the clubs, taken as a whole, received about £20,600,000 from the members as contributions and spent £19,400,000 in sick pay, etc., the actual excess of assets over liabilities amounted to the huge sum of £15,600,000. Unfortunately we cannot state the number of days' illness for which ordinary medical attendance was given, and therefore we cannot gauge the average remuneration received by the doctors in comparison with the work done.

VOLVULUS, DIET, AND RACE.

Two interesting articles, making together a monograph on pathological torsion of the large intestine, appeared at the end of last year in a French contemporary.[1] M. Duroux, the author, finds that volvulus of the large intestine is very rare in France and western and southern Europe, whilst it forms an appreciable proportion of all cases of intestinal occlusion registered by surgeons and pathologists in Scandinavia, Finland, Russia, and Poland. Duroux quotes half a dozen authorities who work in these northern and eastern lands, and finds that they have sufficient material at their disposal to determine with some accuracy averages of the relative frequency of volvulus in different portions of the large intestine. Whilst in France only 18 authentic cases of volvulus of the caecum have been reported, Leichtenstern, Philipowicz, and others have made out that this, the rarest form of volvulus, is much more frequent in Slavonic and Scandinavian countries. Taking statistics in which volvulus of the small intestine is included, these writers estimate that the caecum is the seat of volvulus in no less than 10 per cent., the ileum in 34 per cent., and the sigmoid colon in 50 per cent., isolated volvulus of the transverse colon making up the remainder. The relative frequency of volvulus of the caecum as compared with the same lesion in the small intestine, in the north and east of Europe, will surprise surgeons and pathologists in the United Kingdom. It would be interesting to draw up an "all-British" table of volvulus. The French *cuisine* and the dietary of the other Latin nations is more delicate than ours. Plenty of poor folk in this country eat very little meat, and the potato-eating Irish peasant must be taken into account, though the diet in the south and west of the sister isle is not so unvaried as it was before the famine. The modern Norseman and Slav are vegetarians on the whole. According to Tarentsky, Dreike, and Rolssen there are no differences in the morphology of the intestine in different races. But Hyrtl found that when one cat was kept for a year on a vegetarian diet and a second cat on animal food for the same space of time, the intestine of the former became 3 in. longer than that of the flesh-fed animal. It is doubtful, however, if elongation of the bowel becomes marked in vegetarian races. Duroux admits that there is no evidence that such is the case. On the other hand, he points out that badly-cooked vegetable food of inferior quality undoubtedly causes dilatation of the bowel and, what is directly to the point, that well-known clinical symptom, atony of the colon, so closely associated with volvulus. This atony is increased by the dyspepsia and other ailments due to the hardships of life and the rigours of climate prevailing in northern Europe. No doubt where one case of torsion occurs there must be hundreds of persons suffering from loaded colon, which implies evil effects far more frequent.

PSYCHOLOGICAL AND PHYSIOLOGICAL STUDIES ON APES.

THE idea of prosecuting a scientific study of the psychology of the anthropoid apes is not new, but hitherto this study has been limited to artificial surroundings. The observations of military officers and of other persons not trained in psychological technique cannot, in Professor M. Rothmann's opinion,[1] be relied upon, and too much importance should not be attached to the mentality of apes kept in captivity in the various zoological gardens, or to those trained animals which perform at circuses. On the other hand, some exceedingly important work has been conducted on the physiological processes of apes by well-known neuro-physiologists. Professor Rothmann briefly sketches some of the available information in regard to the psychology of gibbons, chimpanzees, orang-outangs, and gorillas, and after reviewing the physiological investigations claims that there is urgent need for the institution of an "observation station" for anthropoid apes. The suggestion that such a station should be organized in Germany has been abandoned on account of technical and financial difficulties. A suggestion to establish the station in the Cameroons was found to be fraught with many difficulties owing to the long journey and to the climate. It was therefore decided to find an intermediate home for the apes, and Teneriffe has been chosen. The Governor of the Cameroons and the German Colonial Office have lent assistance to the scheme by providing animals, and the Woermann Line has generously consented to carry them free of charge; the initial expenses have been met by the Selenka Trust and the Plaut Trust. The management has been placed in the hands of a committee, of which Professor Waldeyer is president. Two chimpanzees have already arrived and are reported to be doing well. If the climate proves suitable to the animals it is proposed to send out a young investigator next year to study in a methodical manner the sounds uttered by the apes, their gesticulations, their comprehension of spoken language, their comprehension of numbers, the power of differentiation of colour, the development of the hands, and other matters of primary importance. Later, it is suggested that psychological studies should be extended to orang-outangs.

MEDICINE IN THE ENCYCLOPAEDIA OF RELIGION AND ETHICS.[2]

REFERENCE has on a previous occasion (vide this JOURNAL for February 24th, 1912, p. 452) been made to the medical interest which is excited by the perusal of this remarkable *Encyclopaedia*; and, although there are not in this volume (the fifth) articles which are so distinctly medical as several which appeared in the earlier ones, yet there are many which deal with subjects closely related to the practice of the physician and surgeon. The only purely medical article is that on *Drunkenness*, written by Dr. J. F. Sutherland. There are some very interesting paragraphs in this contribution regarding the degeneracy of the offspring of drunkards, a degeneracy "about which until quite recently there has never existed a doubt." Dr. Sutherland deals very carefully with the question, but he sums up quite decidedly: "As far as the controversy has gone, there can be no doubt that the authorities who believe that alcoholism, not gross alcoholism—about that no doubt exists—but that fairly general kind of free indulgence which takes place daily, with frequent 'week-end' bouts, does lead to the physical and mental impairment of the offspring, are in the right, and can produce unquestioned evidence in support of their view." It may be mentioned, in this connexion, that the subject of *Eugenics*, which should in alphabetical order have been taken in this volume, has been postponed, and will be considered along with *Marriage*; we shall then see whether Professor Pearson and his co-workers have succeeded in weakening the generally accepted opinion on the degeneracy of the drunkard's child. An article in

[1] Les torsions pathologiques du gros intestin et leur traitement chirurgical. I. Volvulus du caecum. *Rev. de gynéc. et de chir. abd.*, October, 1912. II. Torsions du colon transverse et de l'S-iliaque. Ibid., November, 1912.

[1] *Berl. klin. Woch.*, October 14th, 1912.

[2] *Encyclopaedia of Religion and Ethics.* Edited by James Hastings, M.A., D.D., Fellow of the Royal Anthropological Institute. Vol. v. Dravidians—Fichte. Edinburgh: T. and T. Clark.

which there is a marked medical substratum is that on *Dwarfs and Pygmies*, and in it there is evidence of the marked shifting of anthropological opinion during recent years regarding these curious peoples: for according to Kollmann and Schmidt (and they have many followers) the pygmies are "the oldest of peoples on the earth—the child-race of mankind," and it is possible that the belief Leland reached by an intuitive process years ago—namely, that "mankind was originally a dwarf"—may soon be accepted as the verdict of anthropology and ethnology. In this connexion it is to be noted that this volume also contains an article on *Ethnology* from the pen of Dr. A. H. Keane; it is a most condensed but at the same time valuable contribution, and by its bibliographies throws open the way to further research on the part of the interested reader. In the various articles which fill the nine hundred pages of this instalment of the *Encyclopædia* there are constant references to the medical side of things, and we may name, in particular, the papers on *Dreams and Sleep*, on *Dress*, on the *Emotions*, on *Enthusiasm* and the *Enthusiasts*, on *Ecstasy*, on *Environment*, on *Euthanasia*, on *Evolution*, on *Fasting*, on *Fear*, on *Feeling*, and on *Fetishism*. Further, the chief contribution, that on *Ethics*, occupying over one hundred pages and written by some twenty authors, has many allusions to and bearings upon matters which cannot fail to interest every doctor, be he general practitioner, alienist, or specialist. The subject of *Eunuchs* is treated by Dr. L. H. Gray, who also writes on *Duelling*, *Eskimos*, *Expiation*, and *Fate*; castration, its mental and physical effects, its birthplace, its ethical bearings, and the strange question of the status of the eunuch-priest are all fully discussed. The *Evil Eye*, as a strange widespread belief, has a most interesting story, and it is well told in these pages; the phallic and other protections against its baleful influence lead the inquirer into a most curious region of medical folk-lore. The theory that the baby's coral and bells is a modern form of the ancient amulets against the evil eye is accepted. Two other articles call for notice. The one is on what is called the *Female Principle*, and deals with the relation between femininity and religion, with sexless deities, and other curious phenomena of a psychological kind in this department; the other is devoted to a careful presentation of *Faith-healing*, containing quotations from Sir Henry Morris's article in this JOURNAL in 1910. The author (W. F. Cobb, D.D.), under the term "faith-healing" includes mental healing, magnetic healing, spiritualistic healing, and spiritual healing; in all of them, he says, "suggestion plays a leading part," and he adds, "the most widely spread subspecies of mental healing is that known as Christian Science, and the strongest form of suggestion is that called hypnotism." Dr. Hastings is to be congratulated on having completed the first half of his gigantic task in the editing of this unique encyclopædia, always supposing, however, that his original estimate of ten volumes is not to be overpassed.

SEX OF INFANTS AND AGE OF MOTHERS.

WE must take nothing for granted, especially statistics, and above all statistics which appear to prove questions about fertility, decadence, and determination of sex. Such is the moral of a recent communication[1] by Professor Ahlfeld, well known for his works on teratology and obstetrics. There is a notion prevalent that to elderly primiparae male children are born in an unusually large proportion. Ahlfeld himself made out some time ago that whereas 100 females to 106 males was the general proportion, in the case of elderly primiparae the males amounted to 137. He warned his pupils at the time that some accidental factor might lie hidden in the series on which these statistics were based, but other long series of births analysed after Ahlfeld's tended to confirm his evidence. Then Eckhardt set to work and brought out a somewhat different result. The proportion of males was high in primiparae from 30 to 34, and higher between 30 and 39; but in women who conceived for the first time after 40 excess of females over male children appeared to be the rule. More recently, in scrutinizing a series of 8,000 births at Marburg, Ahlfeld himself obtained actually opposite results. Out of 280 primiparous mothers aged from 30 to 49, 151 gave birth to girls and only 129 to male children, or 85.4 males to 100 females. This reversed Schramm and Ahlfeld's proportion of 132.8 males to 100 females collected at Leipzig. Ahlfeld still doubts whether all the statistics above noted, lumped together, would be sufficient to warrant a confident conclusion. Believing that not thousands, but millions, carefully collected and scrutinized, would be necessary, Ahlfeld has combined these already known statistics and publishes them in tables which obstetricians and publicists may study with interest and possibly with advantage. It seems pretty well established that young primiparae give birth to more males than females. Bidder made out 133 males to 100 girls in primiparous mothers from 14 to 18 years of age, but in primiparae between 18 and 30—that it is to say, women in the prime of sexual life—the proportion was 109.3 males to 100 females, the lowest proportion of all. On the other hand, in primiparae over 40, the proportion was 130.3 males to 100 females, the excess of boys being less than in child-mothers. Bidder held that the female, as members of that sex are very prone to believe in the present day, is the higher sex, physically at least, and that consequently women in their prime bear more female children proportionately than do young girls or women approaching the menopause. Thus the weaker women bear the most male children. The one fact the statistics seem to show is that, as a total, more males are born than females. One point quite unsolved, Ahlfeld reminds us, remains to be settled: Is the sex already determined in the ovum before impregnation? Experiments on tadpoles have led to the belief that the sex may be influenced by the temperature of the water in which they are reared. Ahlfeld says nothing of these experiments, but remarks that scientists have distinguished male from female ova in *Dinophilus apatris* and *Phylloxera vastatrix*. He urges registrars, midwives, and others to gather more information.

[1] Die Einfluss des Alters der Mutter auf das Geschlecht des Kindes. *Monats. f. Geb. u. Gyn.*, September, 1912, p. 271.

MEDICAL STUDENTS IN OLD PARIS.

G. J. DE BOYER DE CHOISY, in a thesis presented to the University of Paris some time ago, gave an account of the medical students of Paris in the sixteenth century, and showed that they came from the upper ranks of the bourgeoisie, and from the families of magistracy. For admission to the Faculty the degree of Master of Arts was necessary. In the colleges the students, like the professors, were obliged to speak Latin, even out of class. Latin was also spoken in the Faculty of Medicine. It was not Ciceronian, but was a useful means of communication among the learned all over the world. Readers of Rabelais will remember the Limousin and his amazing jargon. The normal period of medical study for the degree of Bachelor was four years. Two further years of study led on to the licence which gave the right to practise. Finally came the degree of doctor. The total cost of the degrees was about 2,000 livres. Marino de Cavalli, in 1546, reported to the Doge that the University of Paris was attended by sixteen to twenty thousand students, most of them miserably poor, living in the colleges founded for that purpose. A curious description of the toilet of a student in 1555 is given by Victor Gay from the colloquies of Mathurin Cordier. "As soon as I awoke I got up, put on my doublet and my tunic. I sat down on a stool, put on my breeches and stockings, then took my shoes, fastened my breeches to my doublet with

hooks, fastened my stockings with garters above the knee. I took my belt, I combed my head, I took my cap, which I shook well, I put on my gown, and then going forth from the room I went downstairs, made water in the court against a wall, took some water out of a bucket and washed my hands and face, drying them with a towel." The students in the Middle Ages had to work under less comfortable conditions than those of the present day. The class-rooms had only a stool for the professor and a little straw strewn on the ground for the students to sit upon. They wrote on their knees. This position was justified by a decree of Pope Urban V in 1366, in which he says that that position was intended to remove from them the temptation of pride. The medical students went to lecture at six o'clock in the winter and at five in summer. In the sixteenth century a change came over academic life. The literatures of antiquity were studied and imitated, and grammar and rhetoric gradually took the place of logic. The professors read the works of masters, and dictated lectures in which discussions were summed up. Although the literary side of education became greatly developed, medical teaching was still very narrow. Anatomy, for instance, could not be properly learnt, as only the bodies of executed criminals were available for dissection; the professor never handled the scalpel, but was assisted by a prosector, usually a bachelor, who summed up the lesson of the master. But the true prosector was the barber surgeon, who was strictly confined to dissection. Clinical studies were almost entirely neglected. The students were only asked to be present at the lectures in the school and public debates. They attended hospitals only after they had taken the bachelor's degree, and then but very little. Young men intending to be surgeons were apprenticed to a master. Some of them were admitted to the hospitals, as we know from the life of Ambroise Paré, who was companion, or as we should now say, *interne* or house-surgeon, in the Hôtel-Dieu, Paris, for two years. Apprentices apparently discharged the duties of dressers. The lodgings of the students in the Latin quarter were not, as a rule, luxurious. Many lived under the same roof, and there was not much furniture. One room, with a single bed, was usually occupied by two students. The works of Hippocrates and Galen, and some books of medicine and philosophy and Greek and Roman literature, constituted the library of the medical student. Meals were taken where they could be got, but there were places of entertainment suited for every purse. In his leisure hours the student of medicine gave much time to the worship of the *dive bouteille*, especially on feast days. It was a time of great eating, and banquets were given on the least pretext. After every examination there was a dinner at the expense of the candidate, in which wine figured largely. Care was taken that the dinners should be good, for we find that by a special decree dated February 11th, 1546, it was ordered that thenceforward several doctors should be deputed to taste the wines, and see the victuals were good. The professors and students often dined at the same table, took part in the same games, and shared in the same debauches. We are sorry to say that often students were convicted of theft and murder. It may be not inappropriate here to recall the fact that Dr. Routh, of Magdalen, who died in 1854, could remember the hanging of two undergraduates for highway robbery. An order of Parliament dated August 20th, 1544, was issued to stop the acts of violence and excess every day committed in Paris, especially in the University and the adjoining quarters. The University held sway in the Latin quarter, and would not suffer the authority of the police. When students were so clumsy as to get themselves put into prison the masters would go and claim them. There were town and gown riots, especially at the feast of the Landit, which dated from the twelfth century, and was in reality a religious procession in honour of the true cross, of which the cathedral of Paris had received a fragment in 1109. Although turbulent and licentious, the medical students were for the most part workers. Their examinations were numerous, and required laborious preparation. To say they were occasionally riotous and dissipated is only to say that they were young men of their age.

TOXICITY OF THE URINE IN MEASLES.

It has long been recognized that the diagnosis of measles in its early stages is important from a public health point of view. Even the recognition of Koplik's spots in the buccal mucosa does not permit the disease to be diagnosed early enough for preventive measures. Any method of determining the existence of measles infection at a very early period is, therefore, worthy of attention. Drs. Hans Aronson and Paul Sommerfeld,[1] in the course of their experiments on the urine in connexion with their study of anaphylaxis, have found that the urine of patients suffering from measles contains a thermostabile, dialysable poison, which, when injected intravenously, rapidly kills guinea-pigs and rabbits; as a rule, 2 c.cm. of urine are lethal. They further found that this or a similar poison is present in the urine of anaphylactic animals, and that the urine of patients suffering from what is probably the "fourth disease" and from serum exanthems also acts toxically. The urine of patients suffering from typhoid fever, tuberculosis, diphtheria, whooping-cough, and scarlet fever does not contain any such poison. It is of importance to note that the appearance of the poison does not coincide with the acutest period of the illness nor with the onset of the rash. It is detectable at a very early period, and lasts for a considerable time. It would seem that this urinary toxin is in some manner associated with a hypersensibility of the organism toward certain proteins. In measles there may be some peculiar anaphylactic condition, as is indeed suggested by the fact that during the period of the illness, as von Pirquet has shown, an individual susceptible to tuberculin becomes temporarily insusceptible. So far the test must be made in animals, but it may become possible in future to recognize the toxin chemically. In any case, this quality of the urine of the patient suffering from measles in the earliest stage may prove of practical value.

THE CONVEYANCE OF POLIOMYELITIS BY INSECTS.

The infection of poliomyelitis can often be referred to direct or indirect contact with cases in the acute stage of the disease, but not infrequently it occurs sporadically, apparently in the absence of any acute source. The virus of poliomyelitis has several times been demonstrated in the tonsils and naso-pharyngeal secretion of persons suffering from the disease, and the disease has been reproduced experimentally by swabbing the nasal mucous membrane with the virus. The presence of the virus in dust has also been established, for it can withstand drying and low degrees of temperature. Evidence has recently been brought forward to indicate that healthy people in contact with acute cases may act as carriers of the infection, the virus having been found in their nasal secretions. The fact that the seasonal incidence of poliomyelitis roughly corresponds with the annual prevalence of insects suggested to Howard and Clark[2] the possibility of transmission of the infection by common insects. Experiments were conducted with flies, such as *Musca domestica*, with the bed-bug (*Cimex lectularius*), and lice, and with mosquitos. Flies have access to contaminated products, and may convey whatever virus they pick up therefrom to food and other objects, owing to the fact that they regurgitate in order to moisten and dissolve the stuffs on which they feed. In the experiments the flies

[1] *Deut. med. Woch.*, September 12th, 1912.
[2] *Journal of Experimental Medicine*, December, 1912.

were allowed to feed on infected cords or on materials containing cord emulsion; they were afterwards isolated, and after varying periods were killed with ether, ground up with sand and saline solution, and filtered through a Berkefeld bougie, and the filtrates were injected into the brain of monkeys. The experiments showed that the virus of the disease was retained on or in the bodies of flies for at least twenty-four to forty-eight hours. The viscera were also removed with aseptic precautions, and it was found that the virus existed in the digestive system for at least six hours. In the case of mosquitos the filtrates in no case produced poliomyelitis in monkeys. It has been shown by Flexner and Lewis that the virus exists only in minute quantities in the blood stream of experimentally infected monkeys, so that the conveyance of the disease from this source by biting insects would not seem at first sight to be very probable. Howard and Clark's experiments with lice were entirely negative, but when they allowed bed-bugs to feed on infected monkeys they found that the filtrates on one occasion (in sixteen experiments) produced poliomyelitis when injected into a normal monkey—a remarkable finding in view of the exceedingly dilute condition in which the virus exists in the blood stream. In this case the virus must have been carried by the bugs for at least seven days. More direct experiments have been reported by Rosenau, and by Anderson and Frost,[1] on the conveyance of poliomyelitis by the biting stable fly, *Stomoxys calcitrans*. The flies were allowed daily to bite infected monkeys, and were then transferred to healthy monkeys with the result that the latter all developed the disease seven to nine days after the first exposure.

THE LUNACY LAWS IN GERMANY.

AT the opening sitting of the German Reichstag this winter a debate was raised on the administration of the lunacy law. It appears that some believe that there are many unjust detentions of persons in lunatic asylums, and certain members of the Reichstag sent a petition to the Commissioners, calling for fresh legislation for the regulation of the treatment of the insane. The Commissioners preferred to refer the petition to the Imperial Chancellor. In the debate it was urged that the existing law had proved insufficient to safeguard the interests of the public in respect of frequent incarceration of sane persons into asylums. Dr. Gerlach, in reply, pointed out that the charges of a highly sensational character, which found their way into the daily papers, emanated from patients discharged from asylums who had been obsessed by imaginary grievances during their detention; these grievances continued to obsess them after their discharge. He urged that the medical men who conducted the asylums and the professional members of the Commission were quite capable of protecting people against unjust detention. Dr. Struve also spoke against the folly of this organized campaign against asylum doctors. The matter will be brought up again, it is said, on the discussion on the Budget.

THE UTILIZATION OF SEWAGE SLUDGE.

Two cases of death from sewer gas poisoning occurred in Dublin last week. The accident happened at the Pigeon House Fort, where sewage tanks were erected a few years ago in connexion with the new drainage system of Dublin. A man was overcome by gas in a culvert, and a comrade who went to his rescue was also overpowered; they were both rescued by another workman. The first man was dead when his body was recovered, but the second man, though unconscious, was alive, and was taken to the nearest hospital; he died seven days afterwards, death being due, according to the doctor's evidence given at the inquest, to septic pneumonia. The fatal results are attributed to the inhalation of sulphuretted hydrogen, the presence of which in large quantities is explained by the fact that a large amount of sludge had been stored in one of the tanks since last summer. It had fermented, and the officials at the place had observed a very bad smell for some time and had to make arrangements for the escape of the large quantities of gas that had formed. In connexion with the disposal of the solid part of sewage, an experiment has been carried on for the last twelve months in Yorkshire with an invention of a Dublin man. The solids are collected and compressed into cakes, which are put into large retorts and burned by the combustion of the contained hydrocarbons. The results of this combustion are drawn off and dealt with so as to collect the products evolved. From the cake, which hitherto cost a considerable sum to dispose of, an oil suitable for lubricating and other purposes is obtained, and also sulphate of ammonia, thousands of feet of gas, and a valuable residue in the ashes. The cost is said to be very small, as the necessary heat is got by combustion of the material itself. The amount of gas generated is said to be sufficient to enable a town or city consuming its own sewage cake in this manner to run all the electric machinery for the municipality with the power derived from the gas.

[1] Cited by Dr. C. J. Martin, BRITISH MEDICAL JOURNAL, January 11th, p. 66.

OTTAWA WATER SUPPLY.

FOR some time past the water supply of the capital of the Dominion of Canada has been causing considerable anxiety, and in the hope of finding out the cause and a remedy for the trouble the Government has decided to get the aid of two experts from the Mother Country. We understand that Lord Strathcona, who represents the Dominion in this country, has asked Sir Alexander Binnie, formerly chief engineer to the London County Council, to help the Canadian Government on the engineering side of the problem, and on the bacteriological side he has approached the Metropolitan Water Board for the services of Dr. Houston, Director of Water Examinations. We understand that the Board has felt it its duty to render what help it could to Canada in this important matter, and has allowed Dr. Houston to undertake the work. In a few days these two gentlemen will be on their way to Ottawa, and we feel sure that every Britisher sincerely hopes that they will be successful in suggesting some scheme that will give to the capital of the Dominion a plentiful supply of pure water.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Isolation Hospitals and Small-pox.—Mr. Black asked the President of the Local Government Board on January 9th whether he was aware that in a report recently issued by the Department on isolation hospitals, Dr. H. Franklin Parsons stated that there was no near prospect that local authorities would find it unnecessary to be provided with hospital accommodation for the isolation of infectious diseases other than small-pox, though the scale on which such accommodation might be needed would vary in different districts; whether he agreed with the view therein expressed; and, if so, why he considered there was a near prospect of further hospital accommodation for the isolation of small-pox being unnecessary. Mr. Burns, in reply, said that the paragraph in Dr. Parsons's report to which reference was made was one dealing with the case of hospitals for diseases other than small-pox. The following paragraph dealt with the question of small-pox hospitals, and there was no suggestion in it that small-pox hospitals were as yet unnecessary.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

Small-pox and Vaccination at Kirkcaldy.

A recent report of the outbreak of small-pox in Kirkcaldy and Dysart gives details of 43 cases. Of these, 31 were known to have been vaccinated and 12, including an infant infected prior to birth, were either unvaccinated or showed no vaccination scars. There were 13 deaths. Six were patients who showed evidence of vaccination. Of these 2 were females, aged 50 and 52 years respectively, not vaccinated since infancy, one male aged 47, vaccinated in infancy, and another male aged 37, who had been revaccinated twenty-three years previously. The remaining 2 cases were females who both died in puerperium, 1 aged 23 with two vaccination scars, the other aged 33 with one vaccination scar. Seven deaths occurred in persons who showed no evidence of vaccination. Of these, 2 males, aged 47 and 46, were registered as having been vaccinated in infancy, but no vaccination scar was found. An infant now known to have been infected with small-pox before birth was vaccinated when two days old and died six days later after the small-pox rash had appeared.

Excluding 3 cases revaccinated within nine days of infection with small-pox, only 1 revaccinated case (and that revaccinated over twenty years before) occurred during the outbreak. A number of persons were infected who refused the offer of vaccination or revaccination. An analysis of the vaccinated cases reveals the striking fact that in no single instance were there four scars. Of the 31 vaccinated cases, 13 showed only one scar, 16 only two, and 2 showed three scars. A higher standard of vaccination is distinctly indicated than that obtained in the bulk of these cases. Very careful observations have been recorded regarding the vaccinal condition of the cases in the Kirkcaldy outbreak. The antivaccinators have agitated for this, but the details fully maintain the claims advanced for vaccination. It is unfortunate that certificates of "successful" vaccination should be issued, as has frequently happened, since the consequences tend to produce an altogether erroneous impression in the minds of antivaccinators and others. There exists a uniformity in the certificates, but by no means a uniformity in the vaccinations. There are many cases recorded in which certificates have been given without inspection, and the case for vaccination suffers by this, and there are other indications of laxity in regard to vaccination certificates. If certificates are to be taken as proof of vaccination the greatest possible care is essential. It has been suggested that the certificate should contain a statement as to the number of insertions made and the number of vesicles obtained. In the case of public vaccination this information is recorded in the register, but these details are not provided in private vaccination. The Kirkcaldy outbreak was of a severe type, as reflected in the mortality-rate. If the two doubtful cases—registered as having been vaccinated but showing no scars, and who refused the offer of vaccination—are added to those showing definite evidence of more or less imperfect vaccination, the mortality in that class was 8 in 33. The mortality in the unvaccinated class (including the infant born with small-pox) was 5 in 10. The extensive vaccination and revaccination of contacts and of large numbers of the general population in Kirkcaldy has proved to be a valuable weapon in the hands of the authorities in combating the outbreak, which, it is hoped, has now been effectively checked.

The Weather of 1912.

The total amount of bright sunshine recorded during 1912 at the Royal Observatory, Edinburgh, by the Campbell-Stokes instrument was 1,071 hours, or 29.3 per cent. of the possible. This shows a deficit of 308 hours when compared with the average of twelve years, and of 474 hours when compared with 1911. June and August were remarkably sunless, and only aggregated 135 hours, or 40 per cent. of the normal, while December could only muster 16 hours. April was the sunniest month, with 176 hours, but all the others, with the sole exception of September, were below the average, and the year has no parallel during the twelve years over which records extend.

The total rainfall for the year measured 26.91 inches, as against an average for seventeen years of 25.22. April was by far the driest month, the total being only 0.24 inch, but the fall during January, May, October, and November was below the average. August was the wettest month, with 4.75 inches, but Edinburgh was fortunately too far north to share in the phenomenal floods which devastated East Anglia on August 25th, when nearly double the Edinburgh fall for the whole month came down in twenty-four hours. On two days—August 4th and September 30th—the fall exceeded 1 inch, as against one day in 1911 and six days in 1910. There were eighteen consecutive days without rain in April, and twenty in September.

The mean shade temperature for the year was 46.8° F., which is the exact average for the past seventeen years. All the summer months were cooler than usual, and August and September were the coldest on record at this observatory. July was the warmest and January the coldest month. The shade temperature only once exceeded 70° (74.6° on July 12th).

Snow fell on fourteen days during the year, but in no case to any considerable depth, nor did it ever lie for more than a few days.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

Emigration from Ireland in 1912.

Although over 29,000 emigrants left Ireland last year there was a reduction of over 1,200 compared with 1911. In fact, with only two exceptions—that is, 1908 and 1909—the number for 1912 is the smallest recorded in any year since 1890, before which date such statistics were not kept. In spite of this distinct reduction in the numbers there were six months of the year during which they exceeded those of the corresponding months of 1911. Though no fewer than 20,466 of the 27,477 who emigrated to foreign countries and the colonies went to the United States, there has been a distinct increase in the number going to the colonies. The decrease was distributed over the four provinces, but Ulster, where the decrease is smallest, is still responsible for about 60 per cent. of the total number of emigrants.

Victoria.

Medical Inspection of School Children.

The report of the school medical officers for 1911 has lately been issued, the second since inspection has been instituted. The number of children examined was 9,601. The inspectors state that the year's results amply support the statement in the last report, that a large amount of unsuspected defect and disease exists in the apparently healthy children of the schools. About one child in every six has some defect of vision, one in seven defect of hearing, and one in four defect of the nose and throat, while deformities of posture are frequent, and dental decay almost universal, not one in twenty having a clean mouth. Only about one-third of the children in metropolitan and one-half in country schools escape notification to parents for defects of vision, hearing, nose and throat, and general defects (heart, lungs, etc.). As a result of the notification, the immediate response of parents has been only a moderate one, one in four of all children visiting a doctor, oculist, or dentist. As all Australian boys are, under the Defence Acts 1903–11, required to serve as junior and senior cadets, and as it is necessary to submit each boy to medical examination on his entrance to the service, the question arises whether it would not be more economical and more effective to utilize the school medical inspectors for this purpose. An interesting and unique feature of the work for 1911 was the examination of the aboriginal children at the Lake Tyers State School, sixteen in all. Physically the girls were well developed, and appeared

well above the average in height and weight. Of the defects found the most marked was the presence of enlarged tonsils and of post-nasal growth. Amongst the girls no skin disease was found, but one very bad case came under notice among the boys. Contrary to expectation the teeth were found to be very defective, caries being almost as common as amongst white children.

Correspondence.

ANTIVIVISECTION IN GLASGOW.

SIR,—In my letter which you published on December 14th, 1912, I stated, with regard to the antivivisection lecture given here by Dr. Hadwen, that "another part was devoted to the immorality of drinking alcohol, and the uselessness and danger of vaccination." Dr. Hadwen states in his letter you published on December 28th:

> This assertion is simply amazing and almost unpardonable; not one word about alcohol drinking or vaccination escaped my lips the whole evening.

The following gentlemen were present at the lecture besides myself: Dr. Cathcart, Dr. J. Mill Renton, Dr. William Campbell Mackie, Dr. Charles Bennett, and Dr. H. E. Whittingham. I have spoken to all of them, and they allow me to state that they all agree with me that the following is accurate and true in substance with regard to what Dr. Hadwen said about alcohol and vaccination. He said that the opinion of the public and of the profession had changed with regard to the use of alcohol. He quoted the story of a man who many years ago was refused by an insurance office because he was a total abstainer, and pointed out that now some offices gave specially advantageous terms to abstainers. He said that vaccination was useless and dangerous, and in support of this he said that he had never been vaccinated, that he had frequently been exposed to contagion, but that he had never caught small-pox. He spoke at length upon both these subjects, and said a great deal more than I give here, but that he said these particular things we are all agreed. I have not the slightest doubt that if I knew who had been at the meeting I could produce many more witnesses who would remember these things.

Now this is positive and not negative evidence. One reputable person who is prepared to swear that a certain thing was said upon a certain occasion is worth any number who will swear that it was not.

In view of the fact that Dr. Hadwen actually spoke at length upon subjects with regard to which he declares not one word escaped his lips during the whole evening, it is perhaps unnecessary for me to say that other statements in his letter are made in such a manner as to be entirely misleading. Dr. Hadwen did ask a question regarding the centrifuge. Dr. Hadwen did imply that though Sir Frederick Treves had practised vivisection formerly, he now disapproved of it. This is perfectly obvious from the report in the *Glasgow Herald* which Dr. Hadwen says is almost verbatim. His attack upon Sir George Beatson occupied a large part of his lecture; it occupies more than half the report in the *Glasgow Herald*. I have the report before me and have just measured that part devoted to the lecture, excluding the discussion. Yet Dr. Hadwen refers to this report as supporting the statement that he only made two references to Sir George.

That Dr. Hadwen should consider the recovery of a micro-organism from the body of an individual inoculated with this organism as an astounding feat is more surprising than the feat itself, which any one with any experience in a pathological laboratory must have seen performed hundreds of times as a matter of routine. But then we must remember that Dr. Hadwen considers that Pasteur was "a French charlatan," and that to him the greatest surgeons here and abroad are "Lister and his fatuous school." He regards the peerage conferred upon Lister as "one of those ironics of history which should be a warning to 'science' in the future." Finally, he declines to put what he professes to believe to the proof. He is prepared to risk nothing to demonstrate either that he really believes his own statements, or to prove by demonstration that there is any justification for the cause he advocates, otherwise he would accept my challenge and allow himself to be inoculated with some of those micro-organisms in which he says he does not believe, the organisms having been washed thoroughly free of the "environment" in which he says he does believe.

I have said enough, and more than enough, about Dr. Hadwen and his lecture, but I should be glad if you would permit me to say a few words with regard to an offensive statement in Dr. Hadwen's letter which does not refer to myself only. In writing of me he says:

> He had two or three hundred students at his back, howling, yelling, and gesticulating like dancing dervishes.

This implies that the students were there on my account, came to back me, and behaved disgracefully. As a matter of fact, I had nothing to do with their being there, and was not known to them even by sight. I am not connected with the university. The lecture had been freely advertised, and one of the well-known and disgusting antivivisection exhibitions had been in the town for some time. With regard to the behaviour of the students, speaking as one who has had a good many years' experience in official capacities of university students, I have no hesitation in saying that they were extraordinarily good tempered under considerable provocation. The tub-thumping, gesticulating, and posturing type of oratory is irresistibly funny to the healthy male youth, which Dr. Hadwen evidently did not realize. Had I, as he did, waved my arms and body about in the course of any of the lectures I have had to give in different universities I should have expected, and doubtless should have got, *at least* the same treatment as he did. However, they gave him a perfectly fair hearing in spite of the interruptions, and received his grossly offensive remarks about themselves with perfect good humour. They evidently regarded his exhibition of temper as being as funny as his oratorical methods. They came to see fair play, and they achieved their object admirably. Every one who spoke was subjected to interruptions, just as Dr. Hadwen was, but every one was allowed to say what he wanted to say as far as the students had anything to do with the matter.—I am, etc.,

Glasgow, Dec. 29th, 1912. CHARLES WALKER.

HUMAN AND BOVINE TUBERCULOSIS.

SIR,—In the letter of Dr. T. Readman, published in the BRITISH MEDICAL JOURNAL of January 11th, occurs the following remark: "The poorer classes in China do not suffer from tuberculosis, whereas among the dominant Tartar class (milk and meat consumers) the disease is prevalent." China is a large country, and European medical men who have had experience of disease amongst the Chinese must be comparatively few. It would be interesting to learn something of the nature of the experience of the medical man who gave rise to the above statement. A relative of mine, who is medical officer to a mission hospital in China, has told me that the only cattle in the district in which his hospital is situated are draught animals. Children never under any circumstances are given milk from the cow, yet all the forms of tuberculosis met with in England are admitted into the hospital for treatment.

Preconceived ideas often determine the character of observations, and it is justifiable to doubt whether any of the statements quoted by Dr. Readman would bear careful investigation. Amongst these statements is one which says that "tuberculosis is unknown in Morocco, where there are no European dairy cows." Of medical experience in Morocco I know little, but a medical man—also a relative—resident for twenty-three years in districts in Central Africa, where the natives possess no domestic cattle, has informed me that tuberculosis is by no means unknown.

We are asked to await with equanimity the publication of the full reports of the Edinburgh investigation upon questions connected with infection from bovine tuberculosis. Edinburgh justly holds a high reputation throughout the world for soundness of judgement, but even in Edinburgh it is possible for preconceived ideas to influence observations and conclusions of the mind. Although the interest of some medical men in Edinburgh in various aspects of tuberculosis is stimulating, certain

teaching which emanates from there is, it seems to me, likely to give rise to difficulty.

In another part of the same issue of the BRITISH MEDICAL JOURNAL is a reference to the last annual report upon medical inspection of school children by Sir George Newman. It is suggested that the school children might with advantage be referred to specialists when the question of the presence of pulmonary tuberculosis arises. In a previous report respect has been expressed for the teachings of Edinburgh in the matter of tuberculosis in children. To refer children to specialists who hold Edinburgh views upon the diagnosis of pulmonary tuberculosis in children, I believe, would be unfortunate. It is my contention that the teaching which is becoming widely spread from Edinburgh displays little knowledge of morbid affections of the lungs, of chronic nature, occurring in children as seen in the *post-mortem* room, and that reliance upon methods of diagnosis without this knowledge will militate against successful dealing with the disease.—I am, etc.,

January 13th. THEODORE FISHER.

THE SPHYGMOGRAPH, REFERRED PAIN, AND SOMERSAULTS.

SIR,—There are three articles in the JOURNAL of January 11th which deserve to be specially noticed: (1) "Dynamical Diagnosis of the Pulse." I am old enough to remember when neither the sphygmograph nor thermometer were used by physicians even in the Edinburgh School of Medicine. By working with these two instruments, while resident physician in the University clinical wards of the Royal Infirmary in Edinburgh, I made observations and experiments which, owing no doubt to their originality, being made the subject of my graduation thesis, were awarded the gold medal. The thermometer is now regarded as an indispensable instrument in the diagnosis of disease, chiefly, I believe, through the improvements on the old instrument, but the sphymograph, in spite of its imperfections is a far more reliable guide, not only in diagnosis but in treatment, than the thermometer. Both require skill and care in their use, for both may do more harm than good in unskilled hands. Few would think of trusting to a nurse to take a sphygmographic tracing, but a reliable observation with the thermometer is almost as difficult; nevertheless, the nurse too often has to record the temperature of the patient. I have seen temperature charts, used to illustrate febrile diseases by physicians, whose falsity was apparent to any one who had used the thermometer in such diseases with care and intelligence. By its use I was able to show that in every infectious disease there is a primary and a secondary fever, before any bacillus had been discovered to account for them; but I found that the sphygmograph gave a much earlier indication of a favourable or fatal issue than the thermometer, and I feel sure that in time it will be considered as necessary as the thermometer in the diagnosis and treatment of disease. As to the "plenitude" and "intensity" of the pulse beat, without the previous study of sphygmographic tracings they can have no meaning. Hippocrates himself without a sphygmograph would have had no chance with the average modern practitioner, who understands the indications that instrument is capable of giving. I would therefore urge my professional brethren, in spite of the Insurance Act, to take to the study of the sphygmograph and they will get a rich reward, were it only for their surpassing skill in prognosis. The sphygmomanometer is, so far as I have seen, a comparatively useless instrument, and owes its popularity more to the ease with which it can be used, and the little skill required in its use, than to the value of any indications it gives.

2. "The Sensory Phrenic and Its Organs." That article I look upon as an acknowledgement of our ignorance of the sensory nerves, and the need there is for more knowledge as to their relation to those of motion. I have little doubt that every ache and pain will in time be discovered to be "referred." Toothache and neuralgia in the region of the teeth is an example deserving of study. With a decayed tooth we will have toothache every time we make the saliva acid by sugar for example, and if we continue for three days to take too much sugar we will have neuralgia all round the decayed tooth proceeding from the nerve centre, and owing to the over-acidity of the lymph. The toothache as well as the neuralgia is "referred," but neither occurs without some decay. Such is with every ache. A solution of continuity, or some degenerative change in a spot on the skin, or on the mucous membrane of any part of the intestinal tract, will cause first an ache and then neuralgia, all "referred," but perhaps far from each other. Thus a wrong meal may cause angina pectoris, apoplexy, or heart failure in those suffering from the Russian physician's new disease, "idiopathic anasarca"—just another name for the "plethora" of Hippocrates.

3. "Somersaults at Sixty." This article rightly understood emphasizes the fact that it is not years that make us stiff and unable to turn somersaults, but the bad habit of eating for pleasure and by the clock. If the Romans could conquer the world, eating only one meal in the twenty-four hours, what excuse can we have for eating oftener? If we do, need we wonder that we require doctors, of whom Rome in her best days would have none within her walls.—I am, etc.,

Denholm, Hawick, Jan. 11th. JOHN HADDON, M.D.

NAPOLEONIC RELICS.

SIR,—With reference to the interesting address by Dr. A. Keith, on the alleged *post-mortem* relics of Napoleon, the question is raised as to the whereabouts of the molar extracted by Dr. O'Meara, and sold at the sale of the latter's effects for 7½ guineas. This tooth is without doubt in Madame Tussaud's Museum, and has the following label attached:

> Tooth of Napoleon, extracted by Dr. O'Meara. It is said that the Emperor suffered much, and had three extracted by him. On visiting Italy the doctor gave one to Madame Mère, one to the ex-king of Spain—Joseph—and the last he kept."

The relic is an upper third molar. In the same museum, among several other personal belongings of the Emperor, is also exhibited a toothbrush which has no apparent signs of wear.

In *Napoleon, the Last Phase*, by Lord Rosebery (p. 231), it is stated:

> His digestion endured for a life-time, hearty meals, devoured in a few moments, and at odd times. His first tooth was extracted at St. Helena, and then it appears unnecessarily. But this operation was the only one he ever under-went.

In the BRITISH MEDICAL JOURNAL (March 2nd, 1912), the following remarks with reference to his rapid feeding appear:

> Napoleon ate very fast, remaining at the table only from eight to twelve minutes—a bad habit, which caused continual indigestion. This haste led to neglect of ordinary decencies of the table, the Emperor often using his fingers in place of a fork or a spoon. He even drank out of the dish, and steeped his bread into the sauce. He followed no order in his feeding, passing from side dishes to the *hors d'œuvres* and back again to the roast. He would not be trammelled by the order of a classic meal.

According to the recent work by Dr. Chaplin, *The Illness and Death of Napoleon Buonaparte*, there is a strong possibility that the cancerous condition of Napoleon's stomach arose from chronic gastric ulceration, and when we consider the peculiar habits of Napoleon when feeding, it is not startling that his gastric apparatus broke down from the abnormal strain, and this would naturally predispose to malignant growth.

I do not know of any available information as to Napoleon's back teeth, but in Lord Rosebery's work are quoted the following observations on Napoleon's appearance (p. 254): "Teeth are bad and dirty but he shews them very little"; and also, "Good white, even teeth, but small (he rarely showed them)."—I am, etc.,

CYRIL H. HOWKINS, M.R.C.S., L.D.S.

Birmingham, Jan. 15th.

UNDER the will of the late Mrs. Anfie Maria Jones, of Rusholme, the Victoria University and Manchester Royal Infirmary each receive a donation of £1,000. Other bequests include sums of £500 to the University College of Wales at Aberystwyth, and £300 each to the Children's Hospital at Pendlebury, Manchester, the Christie Cancer Hospital, the Manchester Surgical Aid Society, and the gynaecological department of St. Mary's Hospital. The testatrix was the widow of the late Mr. Thomas Jones, who until his death some fifteen years ago was Professor of Surgery at Owens College.

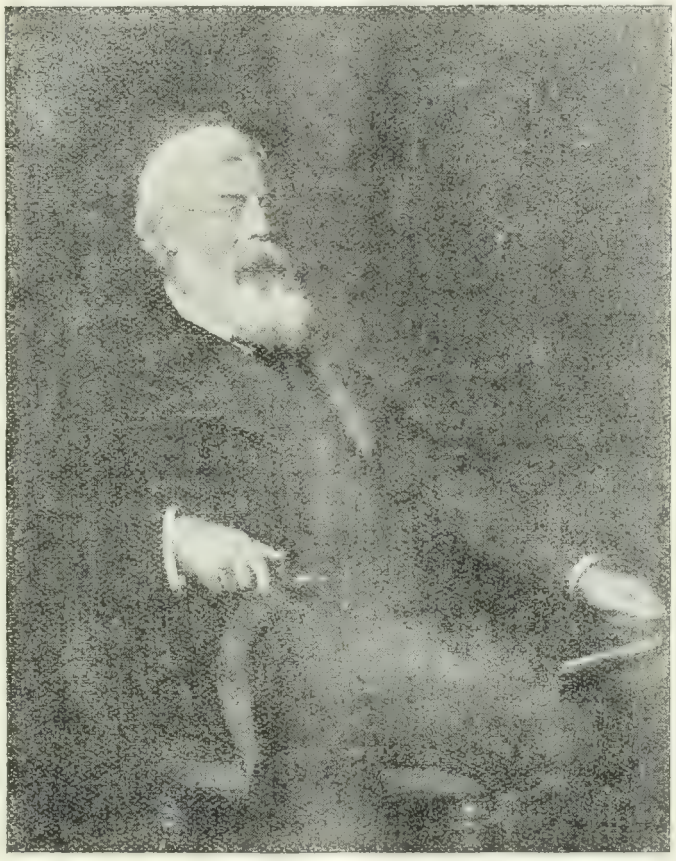
Obituary.

WILLIAM HOWSHIP DICKINSON, M.D.Cantab., F.R.C.P.Lond.,

CONSULTING PHYSICIAN TO ST. GEORGE'S HOSPITAL.

THE announcement of the death on January 9th of Dr. William Howship Dickinson will be received with deep personal regret by all old students of St. George's Hospital who are approaching or who have now reached middle age, as well as by many others who knew him at the Hospital for Sick Children in Great Ormond Street and as an active member of the medical societies of London.

William Howship Dickinson was born at Brighton in 1832 and educated at Caius College, Cambridge, of which he was at the time of his death an honorary fellow. He entered St. George's Hospital in 1851 when J. A. Wilson, Nairn, Page, and Bence Jones were physicians and Pitman and Fuller assistant physicians. He graduated M.B. Cantab. in 1859 and M.D. in 1862. His first appointment at St. George's Hospital was that of curator of the museum. At that time there was a strong company of Cambridge men at St. George's Hospital with Timothy Holmes and Dickinson at their head, and included Reginald Thompson, Robert James Lee (son of Dr. Robert Lee, for many years obstetric physician to St. George's Hospital), and Sir William Dalby. He became assistant physician to St. George's Hospital in May, 1866, physician in 1874, and became consulting physician on his retirement in January, 1894.



W. Howship Dickinson

Dr. Dickinson was appointed assistant physician to the Hospital for Sick Children, Great Ormond Street, in 1861, physician in 1869, and consulting physician in 1884.

He became a Member of the Royal College of Physicians of London in 1858, and was elected a Fellow in 1865. He held many offices in the College; he was an examiner for three periods between 1872 and 1884, he served on the Council from 1879 to 1901, was a Censor in 1885–86, and Senior Censor in 1892. He delivered the Croonian Lectures in 1876; the Lumleian, on the tongue as an indicator of disease, in 1888; and the Harveian Oration in 1891. He was an examiner in medicine to the Royal College of Surgeons of England at various periods, and to the universities of Cambridge, London, and Durham. As an examiner he was strict but courteous, and in oral examinations put the candidate at his ease by giving him the impression that the object was to ascertain what he knew and not so much what he did not know.

Dr. Dickinson was vice-president of the Section of Pathology and Bacteriology at the annual meeting of the British Medical Association held at Cambridge in 1880, and president of the same Section at the annual meeting at Bournemouth in 1891. He was president of the Section of Diseases of Children at the annual meeting at Bristol in 1894.

We are indebted to a colleague of Dr. Dickinson's for the following estimate of the value of his contributions to clinical medicine:

Dr. Dickinson was an all-round physician and wrote on nearly all branches of medicine. His advice was most often sought in consulting practice for diseases of the kidney and of children on account of the book (1875–85) on renal and urinary affections and because of his long connexion with the Hospital for Sick Children; but his contributions to diseases of the nervous, cardio-vascular, and digestive systems were numerous and always worthy of attention both for the matter and for the purity of his Addisonian English. With the exception of a now forgotten *Experimental and Pathological Inquiry into the Functions of the Cerebellum* (1865), which entailed operations upon snakes, frogs, and fish, his work was based on hospital cases observed during life and carefully checked by the *post-mortem* results, the statistical method being largely used in arriving at conclusions. It is difficult to decide how far medicine of the present is indebted to writers of a past generation; for a few years after a fresh point is established the observer's name accompanies the statement; but except on epoch-making advances the name soon drops out of the current text-books. In order to form a just impression of his influence on contemporary medicine, reference will now be made to some of Dr. Dickinson's more important contributions, most of which are referred to in the first edition of Fagge's *Principles and Practice of Medicine* (1886). He attacked the embolic hypothesis of chorea, and described arterial haemorrhages and peri-arterial degeneration in the brain and cord (1875). From his experience at the Hospital for Sick Children, Great Ormond Street, he wrote on the visceral changes in rickets and on hepatic cirrhosis in children. In a statistical paper on the morbid effects of alcohol as shown in persons who trade in liquor (1872) he showed that alcohol favours tuberculosis of all sorts, but contended that the injurious effect of alcohol on the kidney had been exaggerated, on the ground that the incidence of renal changes was practically equal in 149 persons exposed to alcohol and in a corresponding series not so handicapped. His observation of hereditary albuminuria in four generations of a family has not, perhaps, attracted its due share of attention. Although Treitz had long before described uraemic ulceration of the intestine in chronic renal disease, and ascribed it to the irritating effects of ammonium carbonate, Dickinson's account of albuminuric ulceration was entirely independent; he examined 22 cases, including three of gastric ulceration, and brought forward evidence to show that the ulceration was due to previous haemorrhage in the intestinal wall. By a long series of observations and drawings made by his own hand of sections he showed that the media of the larger arteries is hypertrophied in chronic renal disease. His Harveian Oration on Dropsy (1891) and an elaborate

paper on this same subject in the *Medico-Chirurgical Transactions* for 1892, in which he concluded that the dropsy was truly cardiac though not cardiac *ab initio*, were based on prolonged examination of the cardiac vascular system in renal disease. Influenced no doubt by Fuller's results at St. George's Hospital, he was a strong advocate of the alkaline treatment of rheumatism, and later brought forward statistical evidence in favour of the view that the incidence of cardiac complications is lowered by adding full doses of alkalis to salicylates. In 1897, when President of the Royal Medical and Chirurgical Society, he gave an account of some cases of pure aortic stenosis in which the only murmur was a musical apex bruit due to mitral regurgitation.

During its periods of greatest activity, when morbid anatomy constituted progressive pathology and was advanced by the younger clinicians, Dr. Dickinson was a prominent figure at the Pathological Society of London, of which he was successively Secretary (1869–71), Vice-President (1872), and President (1889–90). He contributed numerous papers and took part in several important debates, such as those on diseases of the lymphatic system, including leukaemia and lymphadenoma (1870), on lardaceous disease (1879), which he introduced, and on the morbid anatomy of diabetes (1883).

On the last two subjects he had previously expressed very definite opinions, which, though they have not met with the sanction of general opinion, are of some historical interest. In 1867 he read a paper before the Royal Medical and Chirurgical Society, in which he argued that lardaceous or amyloid disease was due to the presence of de-alkalized fibrin in the affected organs, and that this infiltration was caused by the removal of potash which occurred in the suppurative processes responsible for the change. He therefore proposed, as a more accurate title, "depurative disease." When, twelve years later, he opened the discussion at the Pathological Society on this subject, his views met with considerable criticism and opposition. In 1870, at the Royal Medical and Chirurgical Society, he described as "the morbid changes in the nervous system in diabetes" empty spaces around the blood vessels, especially the arteries, in the central nervous system. The significance of this change, which was soon widely copied into text-books, was subsequently challenged at the discussion at the Pathological Society by Dr. F. Taylor and Dr. Hale White, and a committee appointed to report on the question came to the conclusion that the nervous system does not present any constant lesion in diabetes, and that some of the appearances are due to artefacts.

He was a student of disease rather than of medical literature, and until the time limit necessitated his retirement from the active staff of the hospital was constantly engaged on some clinico-pathological problem or research. Untiring in collecting his data, he stuck to his conclusions against all opposition, and made a vigorous fight for his beliefs. This was exemplified by the controversy on what he termed "the presystolic murmur falsely so called." Though a notable physician and pathologist in his generation, it seems unlikely that his name will be specially connected with any important advance in the science at which he worked so vigorously.

Dr. Dickinson retired some years ago to his house at Tintagel, where he eventually died.

Dr. Dickinson married a daughter of Dr. James Arthur Wilson, and had four daughters and two sons, one of whom, Dr. William Lee Dickinson, a man of much promise, died at an early age in 1904; the other son entered the Church.

We are indebted to another colleague of Dr. Dickinson for the following appreciation:

With Dr. William Howship Dickinson there passed away a most remarkable individuality, a man of great originality of thought, who brought to bear upon any subject which occupied his attention ideas peculiarly his own and oftentimes somewhat at variance with the opinions of his contemporaries. He held strong views on many subjects, and always made a gallant fight in supporting them.

Whatever he did, whether it was a walk from London to Brighton in the days of his youth or the strenuous advocacy of a theory in his later years, he always threw his whole soul into the work, and, though he used to proclaim himself to be a man of peace, he seemed in reality to enjoy the amenities of controversy.

Dr. Dickinson was a great reader, and in consequence his conversation was always interesting and attractive. He had a quaint way in expressing himself and a great sense of humour. As an instance of this may be a remark which he made once to the writer on being told that an ardent student had had engraved on the stage of his microscope the words, "All thy works praise thee, O Lord." "I should have thought," said Dickinson, "'We magnify thee, O Lord,' would have been more appropriate." This sense of humour contributed greatly to his popularity: it was one of his chief characteristics and one of the main attractions of his daily visits to the wards of the hospital, where his audience was always a large and appreciative one. His contributions to medical literature were many and various and well known. It is only necessary to mention in this notice his early work on the kidney, to which his reputation as a pathologist was due.

A certain abruptness of manner, probably the result of shyness, was often liable to repel a first acquaintance, and those who were not fortunate enough to be able to improve that acquaintance often credited him with a curtness which he never intended. As soon as the ice was broken one knew the man for what he was—genial, witty, and well informed. He delighted in the society of men, and was never happier than at a gathering of a dining club or when entertaining friends at his own house. Many of his sayings are still household words at St. George's Hospital, and many of those who listened to them are now asking sadly: "Where be your gibes now . . . your flashes of merriment that were wont to set the table in a roar?"

Mr. G. R. Turner, senior surgeon to St. George's Hospital, has written the following note at our request:

Dr. Dickinson in the Seventies and Eighties of last century was a great character—in the best sense of the word—at St. George's Hospital, and his practice was followed by crowds of students anxious not only to acquire medical lore and knowledge but to have the opportunity of appreciating the quiet humour with which he abounded. He believed very thoroughly in the surpassing importance of his art and made others believe it. He was in earnest and made others earnest. He regarded a hospital physician as the noblest work of God, but had a wholesome, and not unmerited, dislike of the surgery of his early days. He was always a little behind the triumphs of Listerism and spoke "of those dismemberments and eviscerations that surgeons regard with such complacency, their patients with such inquietude." He constantly advocated "the safer processes of nature," even when mechanical intestinal obstruction existed; indeed, to him surgery was a *dernier ressort*, and the surgeon but a bradawl or other occasionally useful tool. He was a masterful man in his diagnosis, to which he would hear no objection—indeed, it was irreverently said that if the required dullness was not present his stiffened finger made it. He disliked a diagnosis being made for him by his house-physician. On one occasion, on being taken to a patient suffering, he was told, from gout, he said, "A more typical case of rheumatism I never saw." Yet next day it was "typical gout" and treated as such. The interest of the patients was ever his first care, and though sometimes afraid of they were always fond of him. This too was the way students, terming him affectionately "Old Dick," also regarded him. As a lecturer he always held his audience, and enlivened even the dullest details of pathology by apt illustration and story. Of his stories he enjoyed none more than those that told against himself and his habit of sometimes thinking aloud. He was a man of backbone and character, upright, cultured, and honourable—a good friend and a bitter enemy. His picture hangs in many an old St. George's man's consulting-room, and his memory will long be affectionately treasured by them.

An old colleague and contemporary writes:

I believe no more honourable, straightforward man could be imagined, and no more true friend could any man have. His watchword was *truth*. Through a somewhat rough exterior could be detected a tender heart by those who knew him.

Dr. S. RUSSELL WELLS, who was at one time house-surgeon, house-physician, and medical registrar to St. George's Hospital, writes:

Dr. Howship Dickinson was an excellent representative of a type of physician formerly far more common than at present. Cultured, skilled, possessing considerable literary attainments and a pungent wit, he rather prided himself upon a certain brusqueness and on the freedom with which he stated his opinions.

The writer well remembers how profoundly he influenced the St. George's students of some twenty-five years ago; his aphorisms, his strong and freely expressed views and criticisms of men and things, burnt themselves into one's mind and remain as lasting impressions. Some feared and rather disliked him, but those who got to know him well admired and were devoted to him.

His intolerance and contempt for all that savoured of pretentiousness, sham, or incompetence manifested itself on many occasions. A student who was asked what he thought of the tension of a certain patient's pulse, and who tried to conceal his ignorance by saying it was "a little tense and a little soft," was promptly told that he was "a little wise and a little fool." A drunken valet, an in-patient of the hospital, who hoped to obtain extra privileges and consideration by sententiously informing Dr. Dickinson that he was in the service of Lord So-and-So, and was in fact his lordship's most confidential servant, received as answer: "I don't know and I don't care who is your master; I know what you are, you are a drunkard, a beer drunkard;" and on the man protesting that he was almost a teetotaler, he was told, "You are a drunkard, and, what is more, you are a liar."

He encouraged an independence of mind, and taught that because a view or theory was popular at the moment it should not be accepted on that account alone. Medical writers and speakers he divided into two classes: those "who spoke because they had thought and had something to say," and those "who spoke because they thought they had to say something." If a student entered the lists with him and acquitted himself well he accounted it to the student's credit. The capping a quotation, a clever rejoinder, or a really apposite criticism pleased him. On one occasion he informed his clerks that he had been at a dinner of the College of Physicians the night before, and that there had been a menu with an appropriate Shakespearean quotation to each item, and asked them if they could give him a suitable one from Milton for the wine, say the port; one of the clerks replied, "You said, sir, it was a dinner of the College of Physicians; might I suggest, 'Sons of Belial flown with insolence and wine.'?" Dickinson chuckled, and confessed that he thought it was better than the one that had occurred to him—namely, "The memory of that heavenly port."

He was intensely proud of his hospital and its traditions; woe betide the student who spoke of the digitalis, squills and mercury pill as Guy's pill, he would immediately be told that that combination was first devised by Matthew Baillie, a former St. George's physician—"Guy's pill, indeed, they stole our pill." The great Thomas Young, who was at one time physician to St. George's Hospital, was one of his heroes, and he surprised many by showing from the old records of the hospital that the average mortality in cases of pneumonia treated by Young was distinctly lower than the present mortality in that disease. *Apropos* of pneumonia, it may be mentioned that he was never tired of impressing on the students the harm that may be done by lengthy examination of such cases. "Make sure of your diagnosis, and then do not examine a pneumonia patient again until he is better, unless there is some very real occasion for it; more than this is gratifying an idle curiosity on the part of the physician at the expense of the patient."

Howship Dickinson was essentially a clinical physician, and had high ideals of the duties and responsibilities of his vocation; he taught that whenever a patient died one should if possible obtain a *post-mortem* examination, and afterwards ask oneself three questions—first, "Have I done anything that can have hastened the end?" Secondly, "Could I have done anything to have delayed or averted it?" Thirdly, "In light of what I now know how should I treat a similar case in future?" He constantly impressed upon us that we should endeavour to place ourselves in the position of the patient we were seeing, and then adopt that line of treatment we should desire to have employed on ourselves under like circumstances.

That all his views and opinions on matters medical should subsequently have been proved to be correct is hardly to have been expected, but the majority of his former pupils must feel, like the writer, that they owe an incalculable debt to his sane, robust, and stimulating teaching.

The portrait here reproduced is from the autotype print of the oil painting by the Hon. John Collier, which hangs in the board room of St. George's Hospital.

W. R. DUGUID, M.A., M.D.,

BUCKIE.

WE regret to have to announce the unexpected death, on January 10th, of Dr. Duguid, a highly respected Banffshire practitioner; it occurred with startling suddenness when he was attending one of his patients at a farm in the country. He was going about in his ordinary health at his duties the previous day, and when he received a call to a patient at Williamstown, about three miles out of town, he motored there. The sympathy felt in the community was expressed in the tolling of the town bell for the passing of one who for half a century was prominent, not only in Buckie, but throughout the North of Scotland. As President of the Banff, Elgin, and Nairn Division of the Association, he has been attending regularly all meetings in connexion with the National Insurance Act. As the Representative for his Division he attended the last Representative Meeting, and had a few words to say on the conditions of practice in his area, while only a week or two ago, as the Representative of his area on the Scottish Medical Insurance Council, he attended the last meeting in Edinburgh. Professionally, he was well known and highly esteemed by his brethren, and exceedingly popular, especially among the fishing community. Dr. Duguid, who was 72 years of age, and was born at Udny, was educated at Green of Udny School, Aberdeen Grammar School, and Aberdeen University. He took the M.A. degree as long ago as 1858, he graduated M.B. and C.M.—both with honours—in 1862, and took the M.D. degree some years later. Dr. Duguid went to Buckie over fifty years ago, and opened up a practice at a time when Buckie was merely a collection of fishing hamlets. His first appointment was that of parish medical officer, which he held all along. He was at various times during his career Provost of Buckie, Chairman of Rathven School Board, President of the Moray Firth Fisheries' Association, and Surgeon-Lieutenant-Colonel of the Banffshire Volunteers. He was also an Honorary Sheriff-Substitute of Banffshire, and a Justice of Peace for the county. He served as a member of the Scottish Fishery Board for fifteen years. He had for the past few weeks been giving sittings to Mr. Allan Sutherland, of Aberdeen, who is staying in Buckie, for a public presentation portrait that was subscribed for over a large area, in commemoration of the completion of his professional jubilee. Fortunately the portrait is in a sufficiently advanced state to make its completion an easy matter. Dr. Duguid was a widower, his wife having died some years ago. One of his sons has been associated with his father in the practice.

JOHN LOUIS CHAMBERS, L.R.C.P.EDIN., M.R.C.S.ENG., L.S.A.

ON December 21st, 1912, passed away at his residence, 249, Hackney Road, Dr. John Louis Chambers, at the age of 65. His practice was one of the oldest in the north-east of London, having been founded more than a century ago by his uncle, the late Dr. Frederick Chambers, who practised there for many years, subsequently retiring to Margate, where he was thrice mayor. He was succeeded by Dr. John Chambers, the father of the subject of our notice. John Louis Chambers received his medical education at the London Hospital, took the diploma of L.S.A. in 1869, that of L.R.C.P.Edin. in 1870, and that of M.R.C.S.Eng. in 1871. He was born in the house in which he died, had lived all his life in Shoreditch, and was one of the senior practitioners in that borough. His familiar figure will be sadly missed in the locality and his loss lamented by a large circle of patients. He attended the meeting of the

City Division at the Shoreditch Town Hall, on December 13th, and voted with the majority. He seemed then in his usual health, but on December 15th he had a slight fit and developed symptoms of heart failure. In spite of unremitting care and attention, he gradually became worse and died, as stated, on December 21st.

We regret to record the death of Mr. Albert Henry Hughes, of Brunswick Terrace, Plymouth, at the early age of 40. It took place on December 10th, 1912, after a very brief illness, due to appendicitis. A Bristol man by birth, Mr. Hughes received both his general and professional education in that city; he became L.S.A. in 1905, and settled two years later in Plymouth. There he enjoyed much popularity, especially among the poorer classes in the east end of the town, among whom his practice chiefly lay. He also held an appointment under the Poor Law guardians. He had begun to take interest in public affairs, and contested an election for the town council of Plymouth a year or two ago. His funeral was attended by a large gathering of his friends, including representatives of various public bodies and of his professional colleagues. Mr. Hughes, who was a member of the Plymouth Division of the British Medical Association, married some six years ago, and is survived by his wife and a daughter.

Deaths in the Profession Abroad.—Among the members of the profession in foreign countries who have recently died are: Dr. L. Wille, professor of psychiatry in the University of Basel, aged 78; Dr. Alfred Genzmer, extraordinary professor of surgery in the University of Halle, aged 61; Professor Jules Felix, of Brussels, formerly physician to the household of the King of the Belgians, well-known as a hygienist, and one of the founders of the Belgian Society of Hydrology; Dr. Eduard Clason, sometime professor of anatomy in the University of Upsala; Dr. Caesar von Ramdohr, formerly professor of obstetrics in the New York Post-Graduate Medical School and Hospital; and Dr. J. Wood McLane, emeritus professor of obstetrics in the Medical Department of Columbia University, New York, aged 73.

The Services.

HEALTH OF THE NAVY.

The *Statistical Report of the Health of the Navy for the Year 1911*[1] has recently been issued.

Summary of Returns for Total Force.

The returns for the total force for the year 1911 show a continuous improvement in the general health of the fleet as compared with the preceding five years. The case, invaliding, and death ratios for the year under review are again lower than the average ratios for the last five years, and the average loss of service for each person compares favourably with the five years' ratio and with that of 1910. The total force, corrected for time, in the year 1911, was 117,100, and the total number of cases of disease and injury entered on the sick list was 76,463, which gives a ratio of 652.97 per 1,000, a decrease of 26.96 as compared with the average ratio for the preceding five years.

The number of entries per man for disease and injury was: Home Station, 0.76; Home Fleet, 0.56; Atlantic Fleet, 0.63; Mediterranean, 0.67; North America and West Indies with Fourth Cruiser Squadron, 0.56; China, 0.64; East Indies, 0.87; Australia, 0.73; Cape of Good Hope, 0.67; Irregular List, 0.73. The average for the total force was 0.65, which is identical with the average for 1910. The average number of men sick daily was 3,170.33, giving a ratio of 27.07 per 1,000, a decrease of 1.00 in comparison with the previous five years. The total number of days' sickness on board and in hospital was 1,157,172, which represents an average loss of service for each person of 9.88 days, a decrease of 0.36 as compared with the average for the preceding five years. The ratio per 1,000 of men sick daily on the various stations was: Home Station, 35.85; Home Fleet, 23.36; Atlantic Fleet, 23.7; Mediterranean, 25.11; North America and West Indies and Fourth Cruiser Squadron, 19.84; China, 24.43; East Indies, 31.3; Australia, 23.39; Cape of Good Hope, 22.54; and the Irregular List, 40.32. For the total force the ratio was 27.07. The North America and West Indies Station, as in 1910, shows the lowest sick rate, and, as usual, the Irregular List the highest, but this is due to the inclusion of sickness of invalids on passage from foreign stations.

Invalidings.

The total number invalided was 2,110,[2] which gives a ratio of 18.01 per 1,000, a decrease of 1.81 in comparison with the average ratio for the preceding five years. The total number of persons *finally* invalided was 1,876, of whom 71 were invalided after refusing operative treatment. The ratio per 1,000 of *final* invalidings was 15.94, a decrease of 0.5 as compared with the average for the previous five years. Of the 2,110 invalidings, 1,970, or 16.82 per 1,000, were for disease, and 140, or 1.19 per 1,000, for injury.

Deaths.

The total number of deaths was 366, giving a ratio of 3.12 per 1,000, a decrease of 0.23 in comparison with the average ratio for the last five years. Of this number, 260, or 2.22 per 1,000, were from disease, and 106, or 0.9 per 1,000, from injury.

General Diseases.

The following is a summary of the returns under the head of general diseases:

Small-pox.—One case from the Atlantic fleet, and occurred in the *Formidable*. The disease, it is stated, was probably contracted at Gibraltar where that ship was undergoing a refit, and was of moderate severity.

Cow-pox.—845 cases, 714 of which were from the Home Station.

Chicken-pox.—15 cases, 13 of which were contracted in Home Waters, and 2 in the Mediterranean.

Measles.—227 cases, with 4 deaths.

Rubella.—279 cases; 194 from the Home Station, 48 from the Home Fleet.

Scarlet Fever.—120 cases, with 1 invaliding.

Dengue.—2 cases, both from Australia.

Mumps.—101 cases. The Home Station contributed 43, the Home Fleet 36, and the Australian Station 14.

Other Infective Diseases.—1,598 cases (including all the preceding cases). The total includes 5 cases of septicaemia, 2 of osteomyelitis, and solitary instances of ulcerative endocarditis, pyaemia, and plague. Five deaths resulted from septicaemia, 2 from ulcerative endocarditis, 1 from osteomyelitis, and 1 from pyaemia. A case of sequelae of osteomyelitis was finally invalided. The discrepancy between the number of entries for ulcerative endocarditis and the number of deaths is due to a case which was entered originally under another heading.

Influenza.—1,364 cases, with 2 deaths, giving a decrease of 12.82 in the case ratio as compared with the average. The disease was, on the whole, of a very mild type.

Diphtheria.—172 cases.

Enteric Fever.—137 cases, with 2 final invalidings and 30 deaths. The case and death ratios per 1,000 were 1.16 and 0.25 respectively, as compared with 1.47 and 0.22, the average ratios for the previous five years.

Mediterranean Fever.—6 cases, with 1 final invaliding. The case ratio is 0.05 per 1,000, as compared with an average of 0.5. Five fresh infections are reported from the Mediterranean, three Englishmen and two Maltese being affected, in three of whom the vehicle of infection was undoubtedly unboiled goat's milk partaken of on shore.

Pyrexia.—350 cases, giving a decrease of 0.63 in the ratio as compared with the average. The Mediterranean contributed 144 of the total, but the report states that many of these were probably "sand-fly" fever.

Dysentery.—55 cases, showing a decrease in the case ratio.

Pneumonia.—455 cases, with 5 final invalidings and 30 deaths.

[1] London: Published by His Majesty's Stationery Office. To be purchased, either directly or through any bookseller, from Wyman and Sons, Limited, Fetter Lane, E.C., and 32, Abingdon Street, S.W.; or His Majesty's Stationery Office (Scottish Branch), 23, Forth Street, Edinburgh; or E. Ponsonby, Limited, 116, Grafton Street, Dublin; or from the Agencies in the British Colonies and Dependencies, the United States of America, the Continent of Europe, and Abroad of T. Fisher Unwin, London, W.C. Printed by Eyre and Spottiswoode, Limited, East Harding Street, E.C., Printers to the King's Most Excellent Majesty. 1912. Price 1s.

[2] This number includes men temporarily invalided from foreign stations, many of whom are again able to join the active force. The number finally invalided represents the waste of the Service during the year.

Malaria.—413 cases, with 1 final invaliding and 2 deaths, giving a decrease of 1.51 in the case ratio as compared with the average. The East Indies contributes 162 cases, of which the majority of instances of fresh infection were contracted at Bombay, while many were recurrent attacks for short periods in men who had acquired the disease during the landing at Lingah in 1910. On the whole 1911 can be regarded as a good year for malaria on the East Indies Station. The highest case ratios were furnished by this station, 70.43; North America and West Indies, 14.83; China, 9.38; Australia, 9.27; and the Irregular List, 4.58. The total, as usual, includes a large number of relapses, and does not imply that 413 individuals were affected.

Septic Diseases.—34 cases of erysipelas are returned under this heading.

Tuberculosis.—286 cases, with 237 invaliding and 38 deaths. The case, invaliding, and death ratios per 1,000 were 2.44, 2.02, and 0.32 respectively, as compared with 2.73, 2.02, and 0.27, the average ratios for the previous five years. Of the whole number, pulmonary tuberculosis contributed 245 cases, of which 25 proved fatal; joints, 9; testicle, 8; meninges, 4; glands, 4; peritoneum, 3; kidney, 2. There were 6 cases of miliary tuberculosis, all fatal. The remainder were single instances of tuberculous growth of the intestine (which proved fatal), disease of bone, skin, and bladder respectively. The East Indies contributed the highest case ratio and the Home Fleet the lowest.

Venereal Diseases.—The total number of cases recorded is 13,461—namely, chancroid, 2,349; primary syphilis, 658; secondary syphilis, 2,959; gonorrhoea and its sequelae, 7,495. There were 120 final invalidings—namely, 1 for chancroid, 61 for secondary syphilis, and 58 for gonorrhoea and its sequelae. Four cases ended fatally, 3 being due to constitutional syphilis and 1 to sequelae of gonorrhoea. The case, invaliding, and death ratios per 1,000 were 114.92, 1.01, and 0.02 respectively, as compared with 121.23, 1.45, and 0.05, the average ratios for the previous five years. The total number of days' loss of service was 308,917, while the average daily number of men ineffective from these diseases was 846.34—a ratio of 7.21 per 1,000, as compared with 8.01, the average for the preceding five years. The China Station shows the highest case ratio per 1,000 with 147.45, and the Home Station 131.24, while the Cape of Good Hope Station, with 67.57, shows the lowest. The total days' sickness for primary and secondary syphilis is less by 10,477 days than that of 1910, so that the reduction, says the report, anticipated by the use of salvarsan as a treatment is already felt to an appreciable extent.

Rheumatic Fever.—892 cases, with 5 final invalidings and 1 death. The case and invaliding ratios per 1,000 were 7.61 and 0.04 respectively, as compared with 5.83 and 0.56, the averages for the preceding five years. The increase in the case ratio is partly due to the concentration of the Fleet in Home Waters, and to more accurate classification, rheumatic fever and muscular rheumatism being formerly classed as one in the returns. Corresponding with the increase in the case ratio under this head, there is a substantial decrease under "Organs of Locomotion."

Parasitic Diseases.—3,306 cases, of which 3,152 were scabies. The ratio shows a decrease, as compared with the average, of 5.81 per 1,000.

Alcoholism.—83 cases, with 1 final invaliding and 2 deaths, an improvement upon 1909 and 1910, and also as compared with the average for five years.

Poisons.—218 cases, with 5 final invalidings and 7 deaths. Lead poisoning was responsible for 26 cases, and ptomaine poisoning for 150, with 2 of the deaths. Of the remainder, carbon dioxide was the cause in 9 (of which 3 were fatal), coal gas 8, carbon monoxide 4, tobacco (including 3 of tobacco amblyopia) 5, morphine 2, Jatropha Curcas or the "physic nut" of Jamaica 2, iodoform 2, and single cases of poisoning by zinc fumes, cordite fumes, mercury, copaiba, cocaine, turpentine, iodine, corrosive sublimate, chloroform, and jelly-fish sting.

Other General Diseases.—464 cases: 189 of gout, 166 non-malignant and 19 malignant new growths, 10 of diabetes, 57 of anaemia, 8 of beri-beri, 5 of osteo-arthritis, 5 of climatic debility, 2 of leucocythaemia, and solitary cases of splenic anaemia, Hodgkin's disease, and pernicious anaemia. There were 14 deaths from malignant and 1 from non-malignant new growth, 2 from diabetes, 2 from beri-beri, and 1 from pernicious anaemia.

Local Diseases.

Diseases of the Nervous System.—916 cases, with 328 final invalidings and 13 deaths. The case, invaliding, and death ratios are 7.82, 2.79, and 0.1 per 1,000 respectively, as compared with 7.66, 2.44, and 0.12, the average ratios for the preceding five years. "Nervous Diseases" accounted for 835 cases, with 282 invalidings and 12 deaths; and "mental diseases" for 81, with 46 invalidings.

Diseases of the Eye.—908 cases, with 162 final invalidings, mostly errors of refraction.

Other Organs of Special Sense.—830 cases, with 117 invalidings and 6 deaths. Diseases of the ear accounted for 749 cases, 113 of the invalidings, and all the deaths; diseases of the nose for 81 cases, and 4 of the invalidings.

Diseases of the Circulatory System.—728 cases, with 329 final invalidings, and 38 deaths. The case, invaliding, and death ratios are 6.21, 2.8, and 0.32 per 1,000 respectively, as compared with 5.75, 2.00, and 0.33, the average ratios for the preceding five years. Organic heart disease accounted for 253 cases, with 265 final invalidings, and 29 deaths; functional heart disease 195, with 29 final invalidings; aneurysm for 22, of whom 8 died; diseases of veins, 244; and 14 other diseases, of whom 1 died.

Diseases of the Respiratory System.—8,108 cases with 92 final invalidings and 8 deaths. The case ratio shows a decrease of 0.36 per 1,000, as compared with the average for five years. Catarrh furnished 6,867 of the cases; the remainder include 138 of diseases of the larynx, 629 of bronchitis, 304 of pleurisy, 66 of asthma, and 104 of "other diseases."

Diseases of the Digestive System.—13,445 cases, with 141 final invalidings and 29 deaths, giving case, invaliding and death ratios of 114.81, 1.2 and 0.24 per 1,000 respectively, as compared with 104.14, 2.08, and 0.2, the averages for the previous five years. The increase of 10.67 in the case ratio is mainly due, says the report, to the large number of entries returned for minor diseases, sore throat, tonsillitis, and enteritis being exceptionally prevalent on the Home, Mediterranean, and Australia Stations. "Mouth and teeth" diseases accounted for 848 cases, with 3 invalidings; sore throat and tonsillitis for 6,388; gastric and intestinal diseases for 1,388 and 3,504 respectively; hernia for 669, with 86 invalidings, 27 of whom refused operative treatment; haemorrhoids for 440; hepatitis for 54; other diseases of the liver, chiefly catarrhal jaundice, 154. Among the cases under intestinal diseases there are notes of 302 cases of appendicitis, 122 of which were operated upon. The highest case ratios were furnished by the Home Station, East Indies, and Irregular List; the lowest by North America with the Fourth Cruiser Squadron, Home Fleet, and Atlantic Fleet.

Diseases of the Lymphatic and Glandular System.—592 cases with 1 final invaliding and 1 death. Non-venereal bubo accounted for 412 cases. The East Indies, the Cape of Good Hope, and the Irregular List show the highest ratios.

Diseases of the Urinary and Generative System.—906 cases, with 89 final invalidings and 14 deaths. Renal diseases, mainly various forms of nephritis, accounted for 13 of the deaths and a majority of the invalidings, but a considerable number of persons were also invalided for incontinence of urine.

Diseases of the Organs of Locomotion.—1,516 cases with 72 final invalidings. The case ratio is 12.94 per 1,000, as compared with 17.31, the average for the preceding five years, the decrease corresponding with the apparent increase under the heading "rheumatic fever." Diseases of joints accounted for 15 invalidings, but the majority were called as "other diseases," the commonest cause being flat-foot.

Diseases of the Connective Tissue and Skin.—8,923 cases, with 14 final invalidings and 2 deaths. The case ratio varied from 140.86 in the East Indies to 63.61 and 65.19 in the Home Station and Home Fleet respectively.

Injuries.

(*a*) *General.*—331 cases, with 3 final invalidings and 68 deaths, the case and invaliding ratios being nearly identical, and the death ratio slightly decreased as compared with the averages. The deaths were due to: Drowning, 43; burns and scalds, 2; heat-stroke, 4; caisson disease, 1; asphyxia, 4, 2 of whom were due to the inhalation of vomited liquid when drunk ashore; suffocation, 2. Three cases of caisson disease were recorded, and 211 of heat-stroke.

(*b*) *Local.*—15,950 cases, with 111 final invalidings and 26 deaths, giving case, invaliding and death ratios of 136.2, 0.94, and 0.22 per 1,000 respectively, as compared with 142.06, 1.17, and 0.16, the average for the previous five years. Under the heading, 'Burns and Scalds," 1,280 cases are classed, and 14,670 under "Injuries."

(*c*) *In Action.*—Three wounds in action are recorded. Two of the entries, however, refer to one man, who was wounded when a punitive party was landed from the

Torch in the Solomon Islands, and the other occurred in the Persian Gulf during the operations against gun-runners.

Suicide.

Twelve deaths are returned under this heading, 4 each by cut-throat and by drowning, 2 by gunshot, 1 each by hanging and by jumping into a dry dock.

Papers.

An appendix to the report contains an interesting communication on Yangtzse Fever, by Surgeon W. Harold Edgar, M.B. A case of bullet wound of posterior tibial artery is recorded by Staff Surgeon J. Martin. Fleet Surgeon P. W. Bassett-Smith, C.B., R.N., contributes a paper on the serum diagnosis test for syphilis at Haslar during 1911. Fleet Surgeon R. H. J. Browne reports a case of plague at Shotley. The Royal Navy is to be congratulated on the continuous improvement in the health of the force shown by the report, and the papers are a proof of the professional efficiency of the medical officers.

ARMY MEDICAL SERVICE.

THE Secretary of the War Office announces that the appointment of Director-General, Army Medical Service, will in future be tenable for four years, as in the case of other staff appointments at army head quarters, instead of for three years, as hitherto. Surgeon-General Sir W. L. Gubbins, K.C.B., whose tenure was due to expire on March 6th, will, therefore, continue in his appointment of Director-General, Army Medical Service, until March 6th, 1914.

Medico-Legal.

WORKMEN'S COMPENSATION.

Appendicitis and Accident.

IN the case Brewster *v.* Bradford and Co. (Stafford, December 6th, 1912) it appeared that the deceased workman had been employed by the respondents, and had visited the County Asylum to obtain particulars prior to his firm submitting a tender to do certain work. While there he fell from a ladder a distance of 15 ft., and afterwards complained of having received an injury. The question at issue was the connexion between this fall and the man's death, which took place some time later. An operation was performed on the deceased at Leeds Infirmary for appendicitis, and a tin-tack was found in the appendix. Medical evidence was called on behalf of both applicant and respondent.

His Honour said that both he and the medical referee agreed that it was a case of appendicitis caused by a foreign body being in the appendix, but they were not satisfied that death was brought on by the fall "lighting up" the tin-tack. Judgement would therefore be for the respondents. Costs were not asked for.

Medical News.

DR. PERCY E. ADAMS has been presented by his patients and friends with a handsome pair of silver candlesticks suitably inscribed and a cheque on leaving Hartley Wintney, where he was in practice for eleven years.

THE Gresham Professor of Physic, Dr. F. M. Sandwith, will continue his lectures on the relief of the sick and wounded in war on Tuesday, January 28th, and the three following days. The lectures will be given at the City of London School, Victoria Embankment, at 6 p.m. each day, and are free to the public.

AT the request of the Council of the Pharmaceutical Society of Great Britain, Professor R. T. Hewlett, M.D., will give a course of three lectures on microbiology and pathological chemistry and microscopy in relation to the pharmacist in the lecture theatre of the Society at 8 p.m. on Wednesdays, January 22nd, February 19th, and March 19th.

MR. E. HURRY FENWICK, F.R.C.S., Professor of Urology, and Consulting Surgeon to the London Hospital, will give a course of three lectures on the haematogenous infections of the kidney in the clinical theatre of the hospital on Monday, Wednesday, and Friday, January 20th, 22nd, and 24th, at 1.30 p.m. The attendance of members of the medical profession and medical students is invited.

THE *Times* states that the executive committee of the Liberal Association of the Harborough Division of Leicestershire has decided to recommend the name of Sir Victor Horsley for adoption as Liberal candidate on the retirement of Mr. J. W. Logan, which will take place at the next general election. Sir Victor Horsley contested London University in 1910, when he was defeated by Sir Philip Magnus. He was adopted for North Islington in 1911.

THE Metropolitan Asylums Board, on January 11th, received a letter from the Local Government Board approving the arrangements proposed to be made at the Downs School for the conversion of the premises into a tuberculosis sanatorium in co-operation with the London County Council. It was announced that in future the institution would be known as the Darenth Sanatorium. The cost of alterations to the premises was stated to be £1,645; this will be borne by the London County Council.

WE are informed by the Imperial Merchant Service Guild that it has drawn the attention of the Board of Trade to a letter from Dr. Edridge-Green which appeared in our issue for January 4th, and has expressed a hope that a previous omission will be rectified by the Board taking advantage of an offer made by Dr. Edridge-Green at the time the committee on colour blindness was sitting. The Board of Trade at present proposes to classify colour blindness by measuring the luminosity of the colour sensation by the flicker method, but Dr. Edridge-Green is prepared to show by actual cases that this method may result in a colour blind person being returned as normal and a normal person as colour blind.

THE Local Government Board has issued a circular to port and riparian sanitary authorities calling attention to the fact that cholera is now prevalent in and around Constantinople and in a number of districts and ports in Asia Minor and Syria, and is severely epidemic in Mecca and Hedjaz, from which pilgrims are now returning to Turkey, Egypt, and Southern Europe. It is hoped that the statement issued weekly by the Board to medical officers of health of port and riparian sanitary authorities, which contains information as to such cholera occurrences as come under notice, will be of assistance in enabling them to keep themselves informed as to the spread of the present outbreak of cholera. Reference is made to the General Order issued on September 9th, 1907, relating to cholera, yellow fever, and plague on ships arriving from foreign ports.

A CURIOUS case has just been decided in the Saxon medical ethical courts. A certain specialist for skin and venereal diseases had employed a lay assistant for a number of years. This man was sentenced to imprisonment for an unnatural offence in 1910. A complaint was lodged against the specialist for continuing to employ the man after having become aware of the nature of his habits. The local court dismissed the charge, but the matter was referred to the court of appeal, which reversed the findings of the lower court, holding that, inasmuch as the man was brought into close contact with patients in carrying out inunction and other forms of treatment, the patients were exposed to an unwarrantable risk, and further that the knowledge of the facts would tend to lower public respect for the profession. The court of appeal, however, holding that the specialist only continued to employ the man out of pity, did not pass any sentence and did not require the defendant to pay costs.

A QUARTERLY court of the directors of the Society for Relief of Widows and Orphans of Medical Men was held on January 8th, the President, Sir Thomas Boor Crosby, in the chair. Sixteen directors were present. Two gentlemen were elected members of the society, and it was reported that three members had died since the last court. The sum of £514 was paid in December, 1912, as a Christmas present to the widows and orphans in receipt of grants, each widow receiving £10, each orphan £3, and each orphan on the Copeland Fund £10. This grant is in addition to the usual half-yearly grants. The invested funds of the society now amount to £101,600; £1,313 10s. was voted for the payment of the half-yearly grants. An application for relief was received from the widow of one of the members on behalf of herself and five orphans; her late husband had paid in subscriptions £16 16s. The court voted a grant at the rate of £50 per annum for the widow and £20 per annum for each orphan, making a total grant of £150 per annum. In addition, the widow will probably receive at Christmas £10, and each orphan £3, bringing the total amount she will receive from the society up to £175 per annum. A more striking example of the advantages of joining the society can hardly be shown. Membership is open to any registered medical practitioner who at the time of his election is resident within a twenty-mile radius of Charing Cross. The annual subscription is two guineas. Special terms for life membership. Further particulars and application forms for membership may be obtained from the Secretary at the offices of the Society, 11, Chandos Street, Cavendish Square, W.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following candidates have been approved at the examinations indicated:

D.T.M.H.—A. B. Arora, F. D. Bana, J. A. Beattie, G. Browse, de Vere Condon, A. da Gama, S. H. Daukes, G. E. Dodson, P. J. S. Dunn, A. E. A. Ismail, R. K. Mhatre, A. Moore, A. K. Sinha, W. C. P. Winter.

UNIVERSITY OF LONDON.

Examinations.

THE following candidates have been approved at the examination indicated:

FIRST M.B.—G. C. Agarwala, G. N. Anderson, K. N. G. Bailey, J. R. Banks, Grace M. Beaven, †H. F. G. Berncastle, A. B. Bond, G. W. J. Boustield, T. Carlyle, P. C. L. Carrier, O. C. Carter, P. S. Clarke, C. G. Coombs, R. C. Davenport, G. Day, *J. D. Dyson, G. W. Elkington, C. F. Eminson, G. H. FitzGerald, L. B. Goldschmidt, Iris Harding, G. W. Heckels, *W. A. Hewitson, E. A. Holmes, C. A. Hutchinson, J. W. D. Hyde, J. Joffe, D. M. Jones, V. E. Jones, M. H. K. Kane, G. E. Kidman, E. E. Lightwood, Marguerite F. J. Lowenfeld, Ethel M. McCartney, R. G. Mack, T. E. Malins, H. I. Marriner, P. N. Menon, J. O. R. Montocchio, A. Morford, M. Munir, †N. Olivier, Irene G. Parsons, V. J. E. C. del S. Perez y Marzan, E. S. Phillips, Sybil M. G. Pratt, T. D. Pratt, S. H. de G. Pritchard, C. N. Read, J. B. Reed, F. E. Rendel, P. G. Riggall, H. B. Russell, M. Shimberg, Ellen Syik, A. A. Thiel, N. B. Thomas, K. R. Traill, K. T. K. Wallington, R. E. S. Webb, A. D. Weeden, A. W. Wells, Effie A. Wharton, G. S. Wilson, W. F. P. Wilson, Sik To Wong, C. Young.

* Awarded a mark of distinction in Inorganic Chemistry.
† Awarded a mark of distinction in Physics.
‡ Awarded a mark of distinction in Biology.

LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.

Scholarships and Bursaries.

A bequest has been received from the late Miss Mabel Sharman-Crawford to found a scholarship to bear her name. The scholarship, offered annually, of the value of £20 a year for four years, will be awarded for the first time in July, 1913, on the result of an examination in biology, chemistry, and physics. Other scholarships to be awarded in July, 1913, are the Isabel Thorne Scholarship, value £30, and the St. Dunstan's Exhibition, value £60 a year for three or five years. The Agnes Guthrie Bursary for Dental Students, value £60, and the Mabel Webb Research Scholarship, value £30 a year for one, two, or three years, will be awarded in September, 1913. The Dr. Edith Pechey-Phipson Post-graduate Scholarship of the value of £40 will be awarded in June, 1913. Full particulars can be obtained from the Secretary of the Medical School, 8, Hunter Street, W.C.

Gifts.

Valuable gifts have recently been received for the Library from the Worshipful Company of Clothworkers and Sir Montagu Turner, for apparatus from Mr. Alfred Langton and Dr. Florence Stoney, and for bursaries from Mrs. Anstruther and Dr. Eleanor Lowry.

UNIVERSITY OF EDINBURGH.

ANNUAL REPORT FOR 1912.

Numbers of Students.

DURING the past year the total number of matriculated students (including 572 women) was 3,404. Of these, 466 (including 25 women) were enrolled in the Faculty of Science, 1,339 (including 6 women) in the Faculty of Medicine. The numbers in the Faculties of Arts and Medicine show a small reduction, but the number of students in the Faculty of Science is the best ever reached, exceeding by 40 that for 1911, and by 84 that for 1910. Of the students of medicine, 591, or over 44 per cent., belonged to Scotland; 228, or over 17 per cent., were from England and Wales; 95 from Ireland; 102 from India; 265, or 20 per cent., from British colonies; and 49 from foreign countries. The number of women attending extra-academical lectures, with a view to graduation in medicine in the university, was 69.

Degrees Conferred, Etc.

The following degrees were conferred during 1912: Bachelor of Science (B.Sc.), 71 (the highest number ever reached); Doctor of Science (D.Sc.), 4; Bachelor of Medicine and Master in Surgery (M.B., C.M.), 2; Bachelor of Medicine and Bachelor of Surgery (M.B., Ch.B.), 201; Doctor of Medicine (M.D.), 55.

The General Council of the University now numbers 11,941.

The Diploma in Tropical Medicine and Hygiene was conferred on one candidate; the Diploma in Psychiatry on four candidates.

Scholarships, Etc.

The total annual value of the University Fellowships, scholarships, bursaries, and prizes now amounts to about £19,420, and includes: In the Faculty of Science, £1,190; in the Faculty of Medicine, £5,230. A number of bursaries are in the gift of private patrons, but the great majority of the university bursaries, prizes, etc., are awarded by the Senatus after competitive examination. In addition to the above, a sum of upwards of £660, being the income of the Earl of Moray Endowment Fund, is annually available for the encouragement of original research.

Lectureships, New Courses, Etc.

During the year six new lectureships have been instituted by the University Court, and the courses are being delivered in the current session. Of these there are as follows: Neurology —J. J. Graham Brown, M.D.; Physical Methods in the Treatment of Disease—Harry Ramsay, M.A., M.D.; Physical Optics—J. R. Milne, D.Sc. A second Lecturer upon Diseases of the Skin has also been appointed in the person of Dr. Frederick Gardiner.

New Ordinances, Etc.

Early in the year the sanction of His Majesty in Council was given to the Ordinance of the University Court of the University of Edinburgh, No. 13 (Institution of Degrees in Veterinary Science, and relative Regulations). The Court's Ordinance, No. 14 (Foundation of Chair of Bacteriology), has been submitted to the King in Council and laid before Parliament. The foundation of the new Chair is due to a munificent bequest, intimated several years ago, by Mr. Robert Irvine, of Royston, Granton, for this purpose. The sum in the hands of the trustees has been allowed to accumulate until it has reached £30,000, and it is available not only for the founding of the Chair, but also for the equipment of a class-room and laboratory connected therewith. A draft Ordinance has also been framed for the foundation of the Monerieff Arnott Chair of Clinical Medicine.

New Buildings.

The year just closed has seen the completion of a portion of the western annexe of the physical laboratory, a suite of rooms having been so fitted up as to provide accommodation both for the laboratory work of the Medical Physics Class and for the tutorial work of the Natural Philosophy Class.

Benefactions, etc.

As in former years, the university has to make grateful acknowledgement of numerous benefactions. Among others may be noted a sum of about £1,200, being the residue of the estate of the late Mr. John Bruce, M.B., C.M., of Kirkwall, for the foundation of a bursary in the Faculty of Medicine, to be called the "Whiteside Bruce Bursary"; and a sum of £33 7s. 2d. subscribed by medical practitioners in the Straits Settlements to provide a medal in the subject of tropical diseases. A highly interesting and much-prized donation has also come to the university by the bequest of the late Lord Lister (at one time Professor of Clinical Surgery in the University), of his orders and medals, the caskets presented to him in connexion with the conferring upon him of the freedom of London, Edinburgh, and Glasgow, and the numerous diplomas and congratulatory addresses received by him at various times from British and foreign learned societies, together with his portrait, painted by Mr. J. H. Lorimer. All of these have been placed in the university library.

Miscellaneous.

Inclusive fees have been instituted in the Faculty of Arts, in the Faculty of Science (Department of Pure Science), and in the Faculty of Law, to apply to those who are studying with a view to graduation in these faculties.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Council was held on January 9th, Sir Rickman J. Godlee, Bart., President, in the chair.

Votes of Thanks to Donors.

The thanks of the Council were given to Mr. Harold Peake, of Westbrook House, Newbury, Berks, for his gift of a collection of skulls and skeletons of Anglo-Saxons of the seventh century, found near Newbury. Likewise to Mr. H. E. Juler, for a gift of 150 specimens illustrating injuries and diseases of the eye, and to Dr. T. Colcott Fox for presenting a series of cultures of ringworm fungi.

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Letters, Notes, and Answers.

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Communications respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisments, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, Westrand, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, Westrand, London.*

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2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

FINELAND asks for the details of Van Noorden's treatment of constipation, or for reference to some work in English giving these details.

MAC asks for suggestions in the treatment of a lady of 70 who has lost appreciation of touch in her fingers. On taking hold of an object it feels as if it were something else or that something has been introduced between the finger and the object. No neurotic element is present. Treatment for gout ineffectual. Would, he asks, constant current be of any use; if so, how should it be applied?

A. M. asks for suggestions in the treatment of the two following cases: (1) A multipara is much troubled with severe after-pains, so severe as to be agonizing every few minutes for the first few days; no clots are passed; she is dreading another confinement because of this. (2) A female patient, aged 37, has been troubled for about twenty years with excessive sleepiness at the wrong time; the total amount of daily sleep is not too much, but sleep commences about seven o'clock each evening, then she is unable to sleep in the early hours of the morning.

X RAYS AND PRURITUS ANI.

SHERWOOD asks for experience regarding the treatment of pruritus ani by means of the *x* rays and whether there is danger of any of the surrounding organs becoming atrophied. He has under treatment a case of ten years' standing.

DAILY DRUGGING.

FINCH asks if any unpleasant symptoms are known to be associated with the daily taking of a small dose of liquid paraffin for constipation.

JUNIUS asks if injurious effects have been known to follow the taking of sodium bicarbonate in 30-grain doses every four hours over a prolonged period in a case of gastric hyperacidity. He wishes to know whether the alkalinity of urine so produced has any bad effects on the urinary system, and whether some form of magnesia would not be better, and, if so, what preparation.

INCOME TAX.

CALCULUS has recently secured an appointment at a salary of £300; previously he was earning about £90 a year. He desires to know whether he is entitled to be assessed on the average of three years.

*** If the appointment represents our correspondent's sole source of professional income, the average does not apply, and he should be assessed for the current year on the amount of salary receivable for the period up to April 5th next, with an addition for his earnings during the period from April 5th last to the date of appointment. The usual allowance of £160 will be due from the total assessment if his income from all sources be under £400.

ANSWERS.

DR. W. LONGWORTH WAINWRIGHT (Henley-on-Thames) writes: "A." will find that a dose of 1 or 2 grains of potassium permanganate in a glass of soda water is a simple and certain cure if taken on an empty stomach.

DR. BRAMWELL (Liverpool) writes: In answer to "A.," a probable cause of offensive breath is offensive secretion blocking crypts in the tonsils. This secretion is sometimes so deeply placed as to be quite out of sight of an ordinary examination. Slight loss of tone in the soft palate will sometimes cause food to lodge behind it, in the neighbourhood of the posterior nares, and so undergo decomposition. Also powerful eructations from the stomach will sometimes drive up small particles of food to lie in the same position. Loss of muscular tone may also cause food to lodge in either sinus pyriformis at the upper extremity of the œsophagus. Attention to such causes might result in cure. Enucleation, tonics, strychnine, electricity, etc.

IODINE AS A SKIN ANTISEPTIC.

MR. J. LIONEL STRETTON (Senior Surgeon, Kidderminster Infirmary and Children's Hospital) writes: In reply to Mr. Vaughan Pendred, I would point out that the deep suppuration he mentions had probably no connexion with the condition of the external skin. From his brief account it appears that the skin healed. There are so many other sources of infection that it is hardly fair to describe occasional cases of suppuration as failure of the iodine method as originated by me. In ventrifixation operations it is easy to get an infection from the sutures in the uterus. I am preparing a further contribution on the subject of iodine sterilization in which I deal with this question.

LETTERS, NOTES, ETC.

POISONING BY ARSENIC IN CARPETS.

IN a note upon cases of poisoning traced to arsenic in carpets published in the BRITISH MEDICAL JOURNAL, November 30th, 1912, p. 1570, founded upon observations made in Germany by Dr. Kuttner and reported by him to the Hufeland Society (*Berl. klin. Woch.*, 1912, No. 45) it was stated on his authority that arsenic was used in the manufacture of cheap linoleum. We have received from Messrs. Barry, Ostlere, and Shepherd, Ltd., of Kirkcaldy, a letter stating that this statement is incorrect, either as regards cheap or dear linoleum, except in so far as some of the raw materials employed may contain the merest trace of that substance. Messrs. Barry state that some time ago analyses were made by the Edinburgh city analyst, Mr. J. Falconer King, and in their own laboratories on standard samples of their goods, and the result was to show that the amount of arsenic present was not more than 0.17 mg. of metallic arsenic per 50 sq. cm., a quantity which it is considered would be quite incapable of exercising a deleterious influence on the users of an apartment in which the linoleum was laid.

"GLUTEN BREAD."

MESSRS. CALLARD AND CO. (Regent Street, London, W.) write: We notice in your review of a French "manual on nutrition" (January 11th, p. 76), that a statement is made in reference to the starch-content of gluten bread. The reference to a statement by our late principal prompts us to explain that the term "Gluten Bread" has ceased to be applied to any standard preparation. All bread made from wheat flour contains some gluten, and this fact seems to justify the name of "Gluten Bread" being applied to any white bread. Many so-called gluten breads contain as much as 55 per cent. of starch, and are, therefore, no better than ordinary bread for the use of diabetic patients, although much more expensive. We have made for many years a gluten bread, containing not more than 7 per cent. of starch, but it is not palatable, although eatable. Gluten bread of any kind is out of date; it has been superseded by the newer breads made from casein, eggs, and butter, which are palatable and absolutely free from carbohydrate. Our experience shows that physicians prefer to treat their patients with these starch-free breads, and give a definite weight of potato or ordinary bread at each meal when they desire to administer carbohydrate. This is more accurate than ordering any so-called palatable "Gluten Bread" which may contain any proportion of starch from 30 to 55 per cent.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

A Report of the Work

CARRIED OUT AT

THE RADIUM INSTITUTE

FROM AUGUST 14TH, 1911, TO DECEMBER 31ST, 1912.

BY

A. E. HAYWARD PINCH, F.R.C.S.,
MEDICAL SUPERINTENDENT.

(Published with the Authority of the Committee.)

THIS report deals with all the cases which have presented themselves for treatment at the Radium Institute during the period extending from August 14th, 1911, to December 31st, 1912. For its correct appreciation it is necessary to state at the outset that the cases treated were in no instance selected. Ever since the opening of the Institute applications have been received for the treatment of patients many of whom have exhausted all the known resources of medicine and surgery, their condition being almost hopeless.

The only cases refused have been those in which the patients were practically moribund, or where the disease was of a kind for which radium therapy was manifestly unsuitable.

It has been the purpose of the Committee to give equal prominence to the cases in which radium has appeared to be useful, as well as to those in which it has been useless or possibly harmful.

It is one object of this report to point out the conditions under which radium is therapeutically of no service.

The repute of radium therapy has suffered severely from that irrational enthusiasm and that unthinking expectation which often attend the début of a new remedy. These distorting influences have been especially marked in the present instance, for radium has astounding physical qualities, and it seems to have been assumed that its therapeutic powers must be equally penetrative and marvellous.

It is important to note that no examples of malignant disease—rodent ulcer alone excepted—have been treated, other than those in which operation had been declared to be unjustified or in which operation had been absolutely declined by the patient.

The term "apparent cure," used in relation to cases of malignant disease, must be interpreted as representing a condition in which all trace of the original lesion or lesions has disappeared, in which there is no sign of any recurrence, and in which the patient is, so far as can be determined by a thorough and careful examination, free from any indication or symptom of the disease.

With reference to the figures appearing in the column headed "abandoned treatment," it must be explained that in not a few instances treatment was given up because the patient had been obliged to leave London or was unable to defray the cost of repeatedly travelling from the country to the Institute.

THE APPARATUS.

APPLICATORS.

The method by which the apparatus is prepared is explained more fully in the appendix on the work of the Chemico-Physical Laboratory by Mr. W. L. S. Alton. Here it will be sufficient to give the following particulars:—

The apparatus employed in treatment is of several types:

(*a*) *Flat varnished applicators*, rectangular, square, and circular; the superficial area of the various applicators ranging from 0.7 sq. cm. to 28 sq. cm.

They are either—

1. Full strength, containing an amount of radium sulphate equivalent to 10 mg. of radium bromide to each square centimetre.
2. Half strength, containing an amount of radium sulphate equivalent to 5 mg. of radium bromide to each square centimetre.
3. Quarter strength, containing an amount of radium sulphate equivalent to 2.5 mg. of radium bromide to each square centimetre.

The smallest applicator contains	...	7 mg.
The largest " "	...	150 mg.

(*b*) *Capillary glass tubes, filled with radium sulphate*, closely packed so as to prevent any movement of the salt.

Their length varies from	...	2 to 4 cm.
Their diameter " "	...	0.2 to 0.3 cm.

The amount of radium sulphate contained is the equivalent of 25, 30, 50, 60 or 100 mg. of radium bromide.

(*c*) *Radium emanation.* This may be—

1. Collected in glass tubes or metal containers, and used with appropriate screens, exactly as the radium salts themselves are used, due regard being paid to the gradual fall in radio-activity resulting from the decay of the emanation.
2. Dissolved in distilled water or a weak saline solution, and administered by drinking or injection.

SCREENS.

The screens employed as filters for the different rays are:

(*a*) *Aluminium*—0.01, 0.02, 0.04, 0.08 mm. thick. These are principally used with short exposures in the treatment of capillary naevi, pruritus, neuro-dermatitis, and superficial skin lesions.

(*b*) *Silver*—0.5 and 1 mm. thick. These are most useful as shields for the glass tubes of radium when introduced into tumours, and also in the treatment of keloid and vicious cicatrices.

(*c*) *Lead*—0.1, 0.2, 0.4, 0.5, 1, 1.5, and 2 mm. thick. Screens less than 0.5 mm. in thickness are valuable in the treatment of flat superficial epitheliomata, leucoplakia fibromata, and granulomata.

Those exceeding 0.5 mm. are used when it is desired to employ the hard beta and gamma rays only, and to give prolonged applications without causing any surface irritation.

METHODS OF APPLICATION.

Duration of Applications (Exposures).

Very short exposures of half a minute to three minutes' duration, according to the age of the patient and the character of the lesion. Principally used in the treatment of superficial skin troubles. The apparatus is applied without any screen beyond that afforded by a covering of thin rubber sheeting.

Short exposures of five minutes to one hour's duration. Most frequently resorted to when treating warts, senile keratoma, some forms of naevi, shallow ulcers, lupus erythematosus, etc. The screening in these exposures rarely exceeds 0.04 mm. of aluminium.

Moderately long exposures of one to eight hours, adopted when it is desired to obtain the destructive action of the rays. Used in cases of rodent ulcer, rapidly growing epithelioma, lupus vulgaris, etc. No screening beyond thin rubber sheeting is employed, and a total exposure of three to eight hours is extended over two, three, or four days.

Prolonged exposures of twelve to one hundred hours, or longer. These are employed in the treatment of deep-seated malignant growths, in cancer of the rectum, uterus, breast, etc. Lead screens are always employed, usually of 2 mm. thickness. Exposures are given in periods of six to twelve hours, with an interval of at least twelve hours between successive exposures.

Screens and Appliances.

A varnished applicator is always covered with a thin layer of rubber sheeting, thus effectively protecting it from contact with any excretions or moisture, and avoiding the necessity of repeatedly cleaning the apparatus.

When silver or lead screens are used, the passage of the gamma rays through these metals gives rise to secondary rays, which are very irritating, though their action is superficial only, and it becomes necessary to absorb these rays. With this object, from six to twenty-four sheets of black photographic paper and one or two layers of lint are interposed between the metal screen and the outer rubber covering. When tubes shielded with lead or silver screens are introduced into the vagina, rectum, uterus, etc., they are enveloped in rubber tubing of 3 mm. thickness for the same purpose. These secondary rays vary greatly in amount according to the nature of the metal and the thickness of the screen employed.

The lesion to be treated is gently cleaned and dried, and all crusts or flakes of secretion are removed. The healthy skin and tissues surrounding the lesion must be carefully protected by a layer of lead-rubber sheeting—similar to that used in *x*-ray work—an aperture being cut in the sheeting the exact size and shape of the lesion. For external lesions the apparatus is best fixed in position with some non-irritant adhesive rubber plaster.

To retain tubes in the vagina or uterus the employment of a tampon is generally necessary. In the rectum, nasal and buccal cavities the apparatus is attached to a handle of thick silver wire, which can be easily bent and fastened to the gluteal fold, cheek, or ear by adhesive plaster.

THE REACTION.

All tissues when treated with radium respond in some manner, but the nature and extent of this response vary very greatly, and depend upon:

1. *The apparatus, screening and dosage employed.*
2. *The nature of the tissue treated.*
3. *The condition of the tissue treated.* If *x* rays, ionization, CO_2 snow, etc., have been previously used in the attempts to bring about a cure, the reaction in such cases is frequently atypical, and repair is exceedingly slow.
4. *The extent of the area treated.* The reaction is dependent not only upon the strength of the applicator, but also upon its superficial area. For example, the reaction from an applicator of half strength applied over an area of 4 sq. cm. is often not more intense in degree than that obtained with an applicator of quarter strength over a surface area of 16 sq. cm.
5. *Personal idiosyncrasy.* This is most important and often productive of curiously puzzling results. In this respect factors to be considered are age, sex, and temperament, susceptibility to actinic rays generally—for example, as in persons who suffer much from freckling or solar eczema—hyperidrosis, exalted vasomotor sensibility, etc.

Nature of Reaction.

The reaction usually appears between the seventh and fifteenth days and may vary in character from a slight erythema to a destructive ulceration.

Four degrees may be clearly distinguished:

1. Simple erythema.
2. Erythema followed by desquamation.
3. Vesication with superficial ulceration.
4. Deep ulceration; sometimes accompanied by the production of an eschar.

With some patients the time of reaction is much delayed, with others the response is exceedingly prompt, and it is difficult, if not impossible, to say why this difference should be. It is particularly noticeable in the treatment of capillary naevi, and cases have been seen in which, instead of the reaction appearing on about the seventh or eighth day, it has been evident three days after the exposure. In others a period of four weeks has elapsed before any effect has been perceptible, though in all of these cases the applicators employed, the screening, and the times of exposure have been identical.

The increased susceptibility to changes of temperature over areas that have been treated with radium is very remarkable, and many patients who have had rodent ulcers and superficial skin lesions cured with radium state that they experience great discomfort at the site of the old lesion when very cold or very warm air plays upon it. This susceptibility, however, gradually returns to the normal in two or three months.

A very marked condition of lethargy is frequently, it might almost be said invariably, noted in patients receiving prolonged exposures with large quantities of heavily screened radium. It generally makes its appearance about the fourth day of the treatment, and passes off within a few days of the cessation of the exposures.

RESULTS OF TREATMENT OF DISEASE.

The results of treatment in 578 cases treated by radium or its emanation at the Radium Institute are given in the following tables. It will be noted in Table I, which contains a summary of 657 cases, that 38 were examined but not treated, and that in 41 the treatment is too recent to enable any conclusion as to the results of treatment to be stated. In Table II the cases are arranged according to the nature of the disease and its site. The tables are followed by a general discussion in which typical cases of the various conditions are reported in detail.

TABLE I.—Summary of Cases.

Examined but not treated	38	Improved	245
Recently treated and results not yet noted	41	Not improved	70
Received prophylactic irradiation only	39	Abandoned treatment	88
Apparently cured	53	Dead	55
Cured	28	Total	657

TABLE II.—CLASSIFICATION OF CASES.

Disease.	Examined but not Treated.	Recently Treated, but Results not yet Noted.	Received Prophylactic Irradiation only.	Apparently Cured.	Cured.	Improved.	Not Improved.	Abandoned Treatment.	Dead.	Total.
CARCINOMATA.										
Squamous-celled (Epitheliomata)—										
Buccal, lingual, and pharyngeal mucous membranes	6	3	8	—	—	10	15	9	9	60
Oesophagus	3	—	—	—	—	2	—	1	5	11
Larynx	2	1	—	—	—	—	—	—	3	6
Cheek and hand ...	—	3	2	4	—	3	2	2	—	16
Neck and scalp ...	1	—	1	—	—	1	—	—	—	3
Vagina and vulva ...	—	—	3	—	—	3	1	1	—	8
Uterus	—	1	1	3	—	19	2	10	5	41
Penis	1	—	—	—	—	1	—	—	—	2
Spheroidal-celled—										
Breast	2	5	9	1	—	34	11	15	12	89
Liver and gall bladder	—	—	—	—	—	—	—	—	3	3
Thyroid...	—	—	—	1	—	1	—	—	—	2
Paget's Disease	—	—	—	1	—	1	—	—	—	2
Columnar-celled—										
Large intestine ...	2	—	3	—	—	1	—	1	—	7
Rectum	3	1	2	1	—	9	6	17	4	43
Stomach	—	—	—	—	—	2	1	2	2	7
Ovary	1	—	—	—	—	2	—	—	2	5
Testicle	—	—	—	—	—	—	—	1	—	1
Prostate	—	—	—	—	—	—	1	1	—	2
RODENT ULCER	—	10	1	31	—	41	12	6	—	101
SARCOMATA—										
Spindle-celled... ...	3	1	7	—	—	4	2	1	1	19
Round-celled	1	—	—	1	—	2	3	2	2	11
Melanotic	—	—	—	—	—	—	—	2	1	3
Endothelioma ...	—	—	—	—	—	—	—	—	1	1
Lymphosarcomata ...	—	—	—	1	—	1	—	—	2	4
Lymphadenoma (Hodgkin's disease)	—	—	—	—	—	4	—	—	—	4
Malignant disease of glands	—	1	—	—	—	3	1	2	2	9
Parotid tumour	1	—	—	2	—	4	—	—	—	7
Abdominal tumours ...	—	—	—	—	—	2	—	1	1	4
Mediastinal tumours ...	—	—	—	—	—	1	—	—	—	1
Villous tumour of bladder	3	2	2	—	—	2	—	1	—	10
Granulomata	1	—	—	—	2	1	—	1	—	5
Adenoma of breast ...	—	—	—	—	—	1	—	1	—	2
Adenoma of thyroid ...	—	—	—	—	—	—	1	—	—	1
Fibroid disease of uterus	1	1	—	—	—	3	—	—	—	5
Fibroma of penis	—	—	—	—	—	2	—	—	—	2
Enchondroma	—	—	—	—	—	—	1	—	—	1
Leucoplakia		—	—	—	—	2	1	—	—	3
NAEVI—										
Capillary	—	2	—	—	—	3	25	1	—	31
Cavernous	—	1	—	—	—	2	7	—	—	10
MOLES AND WARTS AND PAPILLOMATA	2	1	—	—	—	6	6	1	2	18
TUBERCULOSIS—										
Of glands	1	—	—	—	2	—	1	—	—	4
Of periosteum	—	—	—	—	—	—	—	1	—	1
Of skin (lupus vulgaris)	1	—	—	—	—	—	2	—	—	3
Of conjunctiva ...	—	—	—	—	1	—	—	—	—	1
Trachoma	—	—	—	—	—	—	4	—	—	4
Spring catarrh	—	—	—	—	1	—	4	—	—	5
Chronic mastitis	—	—	—	—	—	1	—	—	—	1
Endocervicitis	—	—	—	—	—	—	1	—	—	1
Urethritis	—	—	—	—	—	—	—	1	—	1
Hypertrophic nasal mucosa	—	—	—	—	1	—	—	—	—	1
Varicose ulcer	—	—	—	—	—	—	1	—	—	1
Tropical ulcer	1	—	—	—	—	—	1	—	—	2
Rectal stricture	—	1	—	—	—	—	—	—	—	1
SKIN DISEASES (various)—										
Keloid and keloid acne	1	2	—	—	—	3	8	—	3	—	17
Lupus erythematosus	—	—	—	—	—	1	5	—	—	—	6
Psoriasis	—	—	—	—	2	—	5	—	—	—	7
Pruritus...	—	—	—	—	—	1	2	—	2	—	5
Chronic eczema ...	—	—	—	—	—	1	—	—	—	—	1
Lichenification of skin	—	—	—	—	—	2	1	—	1	—	4
Hyperkeratosis of nipple	—	—	—	—	—	1	—	—	—	—	1
Ichthyosis hystrix ...	—	—	—	—	—	—	1	—	—	—	1
Mycosis fungoides ...	—	—	—	—	—	—	1	—	—	—	1
Xerodermia pigmentosa	—	—	—	—	—	—	—	1	—	—	1
Locomotor ataxy	—	—	—	—	—	—	—	1	—	—	1
Diabetes mellitus... ...	—	—	—	—	—	—	—	—	1	—	1
Arthritis deformans ...	1	4	—	—	1	9	5	1	—	21
Dupuytren's contraction	—	1	—	—	—	—	—	—	—	—	1
Neuralgia	—	—	—	—	—	1	1	1	—	3
Totals	38	41	39	53	28	245	70	88	55	657

CARCINOMATA.

Squamous-celled (Epitheliomata) of the Skin.

Very different results are obtained with epitheliomata affecting the glabrous skin as opposed to those involving mucous surfaces.

Epitheliomata of the face, trunk, or extremities, if flat and superficial and accompanied by little or no ulceration, give satisfactory results when treated with quarter or half strength apparatus, screened with 0.2 mm. of lead, the exposures varying from six to twelve hours' duration, spread over a period of three or four days. The retrogression of the growth is quickly brought about and little or no scarring results.

Ulcerating epitheliomata without much subjacent infiltration, require treatment with quarter or half strength apparatus applied unscreened for a total exposure of two to six or eight hours, spread over a period of four or five days, and repeated after an interval of six weeks if necessary. A destructive reaction follows, but the result is usually quite good, and there is but little cicatricial contraction.

Ulcerated epitheliomata with great infiltration, require prolonged treatment with heavily-screened apparatus emitting "ultra-penetrating" rays. Exposures of thirty to sixty hours given during one week, and repeated in five or six weeks' time are best; but if the growth shows signs of rapid extension the borders should be given a vigorous treatment with unscreened apparatus.

CASES.

Epithelioma of Cheek.

M., aged 82 (Case No. 47). The growth began as a small warty nodule six months before the patient was seen at the Radium Institute. It had grown steadily in size until October, 1911, when it was submitted to radium treatment. It was then an oval tumour measuring 2.7 by 2 cm., and projected 0.5 cm. above the surface of the skin. The whole mass was wartlike, with an ulcerated apex, situated over the zygoma, and surrounded by a zone of infiltration. The infiltration reached to the ear; the pre-auricular gland was enlarged and hard. The nature of the disease had been verified by microscopical examination. The patient had refused operation.

He was treated for two hours with a half-strength apparatus screened by aluminium foil 0.01 mm. in thickness, and a similar treatment of one and a half hours was given a month later.

In January, 1912, the patient's medical attendant reported that no sign of the carcinoma remained.

Epithelioma of Right Hand.

M., aged 53 (Case No. 231). The patient's skin had always been peculiarly susceptible to the influence of light. When he was examined in May, 1912, the exposed parts of his body (face and hands) were deeply freckled and had several small warty growths upon them. The condition strongly resembled an early case of xerodermia pigmentosa. Eighteen months previously a small tumour was removed from the back of the patient's right hand, and proved to be carcinomatous on microscopical examination. He came for the treatment of a circular ulcer 1.5 cm. in diameter, with everted edges and indurated base, which had originated at the extremity of the scar of the previous operation. It was situated over the centre of the middle metacarpal bone of the right hand. No pain was associated with the growth.

A full strength apparatus without a metal screen was applied to the ulcer for fifty minutes.

In July the patient reported that there had been a very sharp reaction, but that the ulcer had healed completely and that no sign of the lesion remained.

Epithelioma of Hand.

F., aged 67 (Case No. 5,034). The patient had for ten years a small wart on the back of the right hand. In April, 1911, it commenced to grow rapidly and became very painful. The growth was excised, but recurred, and subsequent treatment with caustics and ointments produced no improvement. In September, 1912, an oval tumour, 3 cm. by 2.5 cm. and 1 cm. in height, was situated on the back of the right hand. Its raised centre was covered by a dry irregular crust. It was immovable, and the site of almost constant severe pain. The axillary glands were not enlarged. The patient refused operation. Seven treatments of two hours each were given with a half-strength apparatus, an interval of one month intervening between the applications. No screen was employed.

The growth steadily improved from the beginning, and in April, 1912, no sign of it remained except a smooth cicatrix.

Epithelioma of Neck and Scalp.

M., aged 65 (Case No. 39). Disease of ten months' duration. Its nature had been determined by microscopical examination.

The patient was first seen on October 10th, 1911. He then had an enormous ulcerated epithelioma extending from a point 2 in. above and behind the tip of the left ear to 3 in. below the mastoid process. There was a deep and wide fissure just behind the ear cleaving the growth in a vertical direction, with which a cavity left by a previous mastoid operation communicated. The whole auricle was greatly swollen and infiltrated with carcinomatous deposit. There was a profuse and offensive purulent discharge. The patient complained of constant and intense pain.

He was treated with 250 mg. of radium, both tubes and flat applicators being used, with screens of silver of 1 mm. and 1.5 mm. respectively, and received in all an exposure of twelve hours on October 10th and 11th. There was a slight reaction about a fortnight afterwards; the ulceration commenced to heal and the pain was considerably lessened.

On October 28th, in compliance with the urgent request of the patient's friends, the injection of Coley's fluid was commenced by the surgeon in charge of the case, and half a minim was injected every second day until December 7th.

Under the action of either the radium or the Coley's fluid, or perhaps the combination of the two remedies, the patient's condition slowly but steadily improved, and when seen on December 12th a remarkable change was apparent.

The greater part of the ulceration had healed, and much of the surrounding carcinomatous infiltration had disappeared. The vertical fissure behind the ear had closed at its lower extremity, was much shallower and covered with epithelium, save for one small ulcerated area at the spot where it communicated with the mastoid cavity. The auricle was much less swollen. Discharge was scanty and non-offensive. During the last four weeks the pain had returned with increasing severity, and the patient desired a further application of radium with the object of relieving the pain. On December 16th and 17th he received a further treatment of twelve hours' duration in all, with 460 mg. of radium screened with 2 mm. of lead.

On January 17th, 1912, his surgeon reported that the wound had completely healed, and that the whole of the previously ulcerated area now presented an almost keloidal appearance. The pain had been much lessened but not entirely abolished. The patient was, however, suffering from vomiting, which was found to be due to acetonuria.

The patient died on February 6th, 1912, from acetonaemia.

EPITHELIOMATA IN RELATION WITH MUCOUS MEMBRANES.

Epitheliomata of the tongue, buccal, gingival, and pharyngeal mucous membranes are almost uniformly disappointing in their ultimate response to radium-therapy.

Temporary improvement is not infrequently seen, and this sometimes goes as far as disappearance of the original lesion; but the treatment has practically no effect in preventing or delaying the appearance of metastatic deposits in the cervical glands and elsewhere.

The rate of growth of the infected glands can often be retarded by the prolonged and persistent use of the "ultra-penetrating" rays. If the dose given be a large one, the glands sometimes break down and discharge a milky-white fluid through a small sinus, and it is remarkable that ulceration of glands thus treated rarely occurs.

Considerable difficulty is experienced in giving satisfactory exposures within the oral cavity, as patients are often unable to tolerate the presence of applicators in their mouth for the necessary length of time, and should the reaction be at all pronounced the congestion of the tissues occasions great discomfort. There is the further danger that a severe reaction may act as a stimulus to the original growth, increase its size, and hasten metastasis.

CASES.

Epithelioma of the Lower Jaw.

M., aged 72 (Case No. 87). A malignant epulis was removed from the right side of the lower jaw of this patient, together with a portion of the mandible, in March, 1911. The microscopic diagnosis was squamous-celled carcinoma. The incision healed well save at one small spot, which closed up under radium treatment. The glands became enlarged on the right side of the neck, and were removed in May, 1911.

A recurrence took place in the jaw at the beginning of November, 1911. Later in the month a small circular nodule, 1.5 cm. in diameter, was evident in the mucous membrane over the lower jaw, immediately to the right of the middle line. It was ulcerated, bled freely when handled, and had a sinus at its centre leading to the bone. The left submaxillary glands were enlarged and hard. A tube of 50 mm. of radium unscreened was placed for two hours in the middle of the growth. In a month the tumour had disappeared, leaving an oozing cavity. The glands of the right side of the neck had much increased in the meantime.

In January, 1912, three half-strength applicators containing 230 mg. radium were placed over the enlarged glands of the right side of the neck with 2 mm. of lead interposed, and an exposure of thirty hours given. In February the enlargement of the glands had made steady progress, but the nodule on the gum had disappeared entirely. The patient died in March, 1912.

Epithelioma of Left Superior Maxilla.

F., aged 69 (Case No. 397). The history of this case was very indefinite, but the first symptom which attracted the patient's attention was a persistent muco-purulent discharge from the left nostril. This was first noted in August, 1912. At the end of September the left nostril was becoming obstructed. She consulted a leading hospital surgeon, who diagnosed a malignant growth in the left superior maxilla, and advised operation, but this the patient refused.

She was seen at the Institute on October 15th, 1912. Transillumination showed great opacity of the left antrum extending up to the orbital margin. The left cheek was much swollen and the left naso-labial fold obliterated. Complete occlusion of the left nostril and slight epiphora were noted. The left half of the palate was pushed downwards, so that the patient was unable to wear her upper dental plate. There was one hard, enlarged gland just below the left mandible.

On the evening of October 15th an incision was made through the mucous membrane over the socket of the first bicuspid in the left upper jaw, and a silver tube, 1 mm. in thickness, containing radium emanation equivalent to 95.6 mg. radium bromide, was inserted into the antrum and left there for twenty-four hours. The patient was again examined on November 5th. The swelling of the cheek was no longer appreciable externally, and the naso-labial fold was distinct. The epiphora had disappeared. She could breathe easily through her left nostril and wear her upper dental plate with comfort. The gland under the left jaw had increased considerably in size and was becoming fixed. Transillumination showed the opacity of the antrum to be much diminished, but still existent.

The treatment was therefore repeated on November 6th. An emanation tube of the initial activity of 114.8 mg. in a screen of 1 mm. silver was inserted into the growth for twenty-four hours.

At the urgent solicitations of her friends the patient consented to have the gland excised a few days later. The gland

was examined microscopically, and the growth found to be a squamous-celled carcinoma.

The patient's doctor reported on December 13th that the patient had no pain or trouble in her face, and was in excellent health.

Epithelioma of the Mucous Membrane of the Right Cheek.

M., aged 68 (Case No. 5,023). In this case three operations had been performed to eradicate an epithelioma of the angle of the mouth on the right side, but after the last operation, in which a piece of the lower jaw had been removed, recurrence again took place.

When examined, the patient was capable of only very limited movement of the lower jaw. A small ulcerated surface, 1 by 0.5 cm., could be seen far back on the buccal mucous membrane in the angle between the cheek and the mandible. It was hard on palpation and fixed. A large mass of hard immovable glands was present in the right submaxillary and sublingual regions.

The ulcer was treated for three hours with two tubes, each of 25 mg.; of radium screened with 1 mm. of lead, and over the glands were placed two full-strength applicators (80 mg.) screened with 2 mm. of lead for six hours on five successive days.

In a month the glands were scarcely palpable and the buccal ulcer was smaller and less indurated. Two similar treatments were repeated, with the result that the ulcer steadily improved. No fresh enlargement of glands took place. The patient died from an unrelated illness.

EPITHELIOMATA OF THE VAGINAL AND UTERINE MUCOSA.

These conditions are more amenable to the action of radium, and some distinctly encouraging results have been obtained.

Small primary growths of the vaginal mucosa unaccompanied by much deep infiltration of the vaginal tissues may be completely eradicated by treatment with full strength or half strength apparatus and an unscreened exposure of one to three hours.

With larger ulcerated and deeply infiltrating growths radium is best applied heavily screened, and with prolonged exposures of from thirty to sixty hours extending over a week or ten days. This frequently checks the rate of growth, heals the ulceration, and lessens the amount of infiltration.

Secondary non-ulcerated deposits in the cellular tissue of the vagina often respond extremely well to treatment with the "ultra-penetrating rays," and in some instances the deposits completely disappear.

CASE.

Epithelioma of Vulva.

In March, 1912, the patient, aged 73 (Case No. 258), had a squamous-celled carcinoma removed from the region of the clitoris. In May it recurred near to the urinary meatus. Further operation was refused.

When she came to the Institute for treatment, there was a hard malignant ulcer, 1.7 cm. in diameter, extending into both labia, and surrounded by a dense zone of infiltration. Its surface bled easily, and it was tender to the touch. On two successive days a tube of 50 mg. of radium was applied for one and a half hours without metal screen. The improvement was marked in a month. The same treatment was then repeated for two hours. Two months later no sign of the growth remained.

CARCINOMA OF THE UTERUS.

In cases of inoperable malignant disease in this situation radium will often bring about results which cannot be attained by any other known method of treatment.

The haemorrhage is arrested, the discharge is diminished in amount and rendered inoffensive in character, the ulceration is healed, and the pain is greatly relieved.

The rate of growth is checked, sometimes completely arrested, and the surrounding infiltration and induration are so much lessened that in a few instances cases previously declared to be inoperable become operable.

The treatment is best carried out by the introduction of a tube containing 50 to 100 mg. of radium, screened with 2 mm. of lead and 3 mm. of rubber into the cervical canal, or, if this be not practicable, into the posterior fornix, a large flat strong applicator screened with 2 mm. of lead being placed on the abdominal wall over the fundus of the uterus. The exposures should be prolonged, and should be from thirty to sixty hours' duration, spread over a period of from five to ten days.

The series of exposures should be repeated at intervals of not less than six weeks.

The action of radium is, however, only local, and though it may, and often does, check the rate of growth, yet in most cases dissemination will sooner or later occur, and the disease spread to parts beyond the effective range of radium.

CASES.

Carcinoma of Uterus.

The patient, aged 63 (Case No. 14), had been married forty years, and had had six pregnancies, the last child being stillborn.

The duration of the disease was three years. The first symptom was a slight vaginal discharge which slowly increased in amount through a period of two years, finally becoming profuse and purulent. In June, 1911, she had a sudden severe haemorrhage followed by others of less degree.

On examination on September 7th, 1911, the cervix uteri was found to be surrounded by a fungating mass which bled when touched, and the vaginal walls were indurated almost to the vulva on the right side and anteriorly. The uterus was enlarged and fixed. The patient complained of pain and a feeling of weight in the lower abdomen, increased frequency of micturition, and an offensive vaginal discharge.

She had one series of treatments for twelve days of sixty-six hours in all, a tube containing 50 mg. in a screen of 2 mm. of lead being inserted daily into the cervical canal for five and a half hours.

Three months later she reported that all the symptoms had so lessened in degree that she could perform all her duties in comfort. Her general health was much improved, and she went to Australia.

Carcinoma of Uterus (Recurrent).

This patient, aged 61 (Case No. 167), had had a subtotal hysterectomy performed fifteen years before coming for treatment, her previous trouble having been increasing menorrhagia for nearly eleven years. She remained well until September, 1910, when she noticed a slight vaginal discharge, which after continuing some months became sanguineous. She consulted a well-known surgeon, who refused to operate, as he found carcinoma of the cervix with implication of the bladder wall. Treatment with *x* rays was begun, and some improvement followed. She was then advised to try radium.

On examination on March 18th, 1912, the cervix uteri was found to be enlarged, hard, and ulcerated. The anterior fornix was obliterated, and the posterior fornix very shallow, the walls of the vagina being much indurated. The growth projected into the rectum about 7 cm. from the anus, but the mucous membrane covering it was normal. The patient complained of sacral pain, constipation, and vaginal haemorrhages, the last of which occurred on any slight exertion.

She had one series of treatments, five days of six hours each, a tube containing 100 mg. of radium screened with 1.5 mm. of lead being placed in the vagina. During four of these sittings an emanation tube, initial activity 73 mg., screened with 2 mm. of lead, was fixed opposite the tumour in the rectum.

Three months later she reported that no haemorrhage had occurred since a week after the treatment ceased. The pain had lessened very much, and the constipation was less troublesome. Her general health was much improved.

Carcinoma of Uterus.

The patient (Case No. 178), aged 56, was perfectly well until within eighteen months of coming for treatment, when she noticed a slight occasional discharge from the vagina. A sudden profuse haemorrhage led to examination in February, 1912, and a leading provincial surgeon pronounced her to be suffering from inoperable carcinoma. The cervix was enlarged, indurated, and ulcerated, and the uterus was fixed. The anterior wall of the vagina was ulcerated, and both the fornices were full and infiltrated. She had frequent uterine haemorrhages and was quite unable to get about.

On March 25th, 1912, an emanation tube, initial activity 85 mg., with a screen of 2 mm. of lead, was passed into the cervix and left in for two periods of eighteen hours, with twenty-four hours' interval. This produced diminution of the induration.

Two months later the cervical canal was dilated and the uterus curetted, and an emanation tube, initial activity 80.5 mg., with a screen of 1.5 mm. of lead, was placed in the cervix for thirteen and a half hours, and after an interval of one day, in the uterus for thirty-two hours.

A month later the os was contracted almost to normal size, and covered with healthy epithelium. There was much less induration. Pain, haemorrhage, and discharge had ceased, and the patient had resumed her usual duties.

Carcinoma of Uterus (Recurrent).

The patient, (Case No. 180), aged 53, had hysterectomy (Wertheim's operation) performed on November 19th, 1911, for carcinoma uteri. She made an excellent recovery, and kept well until the end of February, 1912, when recurrence took place in the upper part of the recto-vaginal septum. The condition was declared to be inoperable.

She was seen on April 1st, 1912. Examination per rectum revealed a definite ridge-like growth stretching transversely across the recto-vaginal septum 5 cm. from the anal orifice.

She was treated with two tubes of radium containing 75 mg., and screened with 1.5 mm. lead, one tube being placed in the rectum and one in the vagina; she had in all twenty hours' treatment—five hours for four consecutive days.

She was examined by her surgeon on June 7th, who reported

that all trace of the growth had disappeared and that the patient looked and felt perfectly well. She wrote at the end of October, 1912, saying she was in excellent health.

Carcinoma of Uterus.

The patient (Case No. 291), aged 62, had no symptoms, save a slight vaginal discharge during the three months before coming for treatment. The appearance of blood in the discharge so alarmed her that she consulted a surgeon in August, 1912, who found inoperable carcinoma of the cervix. The uterus was quite fixed, both rectum and bladder were implicated, and the induration at the right side extended up almost to the iliac vessels. The growth was curetted and the thermo-cautery applied.

The patient received two treatments. A 100-mg. tube in a screen of 1.5 mm. of lead was inserted in the vagina for six hours daily for five consecutive days. This led to slight general improvement, and five weeks later the treatment was repeated, a screen of 2 mm. of lead being used.

Seven weeks later the patient was almost free from pain, the discharge had nearly ceased, and the cervix uteri was covered with healthy epithelium externally. Her general condition was much improved. She expressed her intention to continue the treatment at a later date.

Carcinoma of Uterus (Recurrent).

In this patient (Case No. 5,109), aged 53, the disease was of four years' duration. Hysterectomy (Wertheim) had been performed in July, 1908. The patient made a good recovery and kept well until the end of 1911, when she began to suffer from a purulent vaginal discharge. She again consulted her surgeon, who detected a recurrence (inoperable) and advised radium.

The patient was first seen on February 7th, 1912. The scar at the vaginal roof was healthy. There was a hard, rounded lump the size of a walnut above and a little anterior to the scar on the right side, and there was a similar but smaller swelling the size of a muscat grape just behind the left angle of the scar.

The patient had three series of treatments, the first of ten days' duration in February, six hours each day; the second of five days' duration in April, six hours each day; the third of five days' duration in May, six hours each day; 60 mg. of radium in a screen of 1.5 mm. lead were used throughout.

The nodules of recurrence gradually decreased in size and the discharge ceased.

Her surgeon wrote on June 11th saying that he had examined the patient and that the nodules had completely disappeared. The patient reported herself for examination at the Institute on June 28th. She expressed herself as feeling perfectly well. No trace of the nodules in the vagina could be felt or seen.

Carcinoma of Uterus.

The patient (Case No. 5,037, aged 46) had suffered from intermittent haemorrhages from the vagina for nearly four years, but did not consult a surgeon until six months before coming for treatment on September 8th, 1911. She was then found to have inoperable carcinoma of the cervix. The uterus was fixed and the cervix ragged and ulcerated; induration extended laterally almost to the pelvic wall, and filled up the fornices of the vagina. In the anterior vaginal wall was a hard mass continuous with the cervix, extending to the ostium vaginae. The patient suffered from very severe pain and much discharge.

The first treatment was with a tube containing 60 mg. of radium in a screen of 2 mm. of lead inserted for six hours daily for twelve days. For the first four days a plate containing 40 mg. with a similar screen was placed on the abdomen. This caused a rapid cessation of pain, and a month later the induration and ulceration were appreciably less. A second treatment of five days, six hours each, with a 60 mg. tube and screen of 2 mm. of lead followed: and similar treatments, eleven in all, have been carried out at intervals of about five weeks, a screen of 1.5 mm. being sometimes used instead of 2 mm. As a rule the symptoms increased at the end of the interval, and lessened at once after each treatment. The ulceration returned after the fifth treatment, and the hard mass in the anterior vaginal wall ultimately gave way, leaving a vesical fistula.

The patient is now slowly going downhill, and her general health is failing, but at no time has her pain been as constant and severe as it was before she was treated. It is sixteen months since she first came, and she is still under observation.

Carcinomata of Uterus (Recurrent).

The patient (Case No. 5,199), aged 52, had suffered from occasional haemorrhages for some time before the disease was diagnosed. Abdominal hysterectomy was performed in April, 1909, and four months later two recurrent nodules were removed from the vagina. In the spring of 1912 she noticed some vaginal discharge, and had abdominal pain with occasional vomiting in June.

Examination on June 28th, 1912, revealed a large, hard, movable tumour in the upper abdomen, and in the anterior vaginal wall were two almond-sized swellings which bled when touched, surrounded by much induration. She was very weak and cachectic. She was treated by two 80 mg. plates, with a screen of 2 mm. of lead, placed on the abdomen over the tumour, and a 100-mg. tube in a screen of 2 mm. of lead inserted in the vagina. She did not come back for further treatment as arranged, but on September 16th, 1912, the surgeon wrote to say that all sign of growth in the vagina had disappeared.

Two months later the patient died from intestinal obstruction.

Carcinoma of the Rectum and Alimentary Canal.

Rectum and Intestine.

Radium therapy not infrequently proves of considerable value in the treatment of these carcinomata, but it is extremely difficult to say what are the factors which determine or contribute to the success of the treatment.

Speaking in general terms, the application of radium results in the arrest of haemorrhage, the healing, partial or complete, of any ulcerated surface, a diminution of the amount of the discharge, less pain, and a retardation of the rate of progress.

In some instances more striking changes manifest themselves. The growth shrinks in size, undergoes a fibrous transformation, and becomes much less fixed to the underlying tissues, so that a carcinoma which before radium treatment was regarded as inoperable can be easily and completely removed.

A few patients manifest an unusual degree of susceptibility to radium when applied within the rectum, and a relatively short treatment of eighteen to twenty-four hours with heavily screened radium is followed by a severe though transient proctitis.

The routine method of treatment in rectal cases is the introduction—through an operating sigmoidoscope, if necessary—of 50 to 100 mg. of radium screened in 2 mm. of lead and 3 mm. of rubber. It is maintained in position by a stem of soft silver wire, which is bent at an acute angle at the anal orifice, and fastened by strapping and a T bandage in the fold between the buttocks. Each exposure is from six to twelve hours in duration, and is repeated daily until a total treatment of thirty to sixty hours has been given. The series should be repeated after an interval of six weeks.

Cases.

Carcinoma of Rectum.

The patient (Case No. 35), M., aged 53, on account of severe rectal haemorrhage, sought the advice of a leading London surgeon; he diagnosed carcinoma of the rectum, but refused to operate, and suggested radium.

When first seen, on October 9th, 1911, there was a craggy, hard, annular ulcerated growth, the lower margin of which was 3 cm. from the anal orifice, while the upper margin was 9 cm. above the orifice. It was moderately fixed, its chief attachment being posteriorly. It bled on examination.

The patient was treated with a tube of 60 mg. radium screened with 2 mm. of lead, and received an exposure of sixty hours' duration, spaced over ten days.

He was examined six weeks later; the growth was found to be much reduced in size, and no longer ulcerated. It was much less fixed to surrounding tissues.

He was examined by his surgeon again on December 6th, who declared the condition to be so greatly improved that it was quite operable, and performed Kraske's operation.

On March 4th, 1912, the patient returned to the Institute for a course of prophylactic irradiation, and received thirty hours' treatment with 60 mg. of radium screened with 2 mm. lead.

He reported himself on June 18th, 1912, as being perfectly well and in excellent general health. No sign of recurrence could be detected after a most thorough examination.

Carcinoma of Rectum.

In this case (No. 48), M., aged 61, there was a six months' history of alternating diarrhoea and constipation. Immediately before coming to the Radium Institute he had been examined by a well-known surgeon, who declared him to be suffering from an inoperable carcinoma of the rectum.

The patient complained of "pressure" in the rectum, with difficulty in defaecation, and the passage of a mucoid discharge. No bleeding had taken place. On rectal examination a growth could be felt 5 cm. above the anus. It was firmly fixed, annular, and ulcerated, and affected chiefly the anterior wall of the rectum. The lumen of the growth admitted the tip of the little finger. Fifty mg. of radium in a tube, covered by a screen of 2 mm. of lead, were applied in the lumen of the growth for six hours a day for ten days.

A month later considerable improvement was noted. The growth was much smaller and covered with smooth intact mucous membrane. Above the stricture could be felt one or two nodules. Treatment as before was repeated for five days.

Five months later no infiltrating growth could be felt, and only what was apparently an easily dilatable fibrous stricture remained.

Carcinoma of Rectum.

The patient (Case No. 108), M., aged 55, was first seen on December 15th, 1911, and found to be suffering from recurrent carcinoma on the posterior wall of the rectum, which had appeared five years after a Kraske's operation. Colotomy had been performed on November 24th, 1911.

The rectal opening was close to the sacrum, and extremely contracted by malignant infiltration, so that no digital examination could be made. One or two nodules were visible at the

posterior border of the orifice of the bowel. The patient complained of much persistent pain in the rectum and left thigh and of frequent bleeding.

The first treatment consisted of thirty hours' application in the rectum of a 50 mg. tube of radium in a screen of 1.5 mm. of lead.

Two months later the patient felt better; all haemorrhage had ceased, the pain had nearly disappeared, and the induration round the anus was much less.

The patient remained in this condition for some months, but the bleeding and pain reappeared, a rectal discharge developed, and the buttocks on either side of the anus became infiltrated. The patient was treated with the same tube three times, but in May, September, and November, 1912, flat half-strength applicators containing 180 mg. radium were screened with 2 mm. of lead and placed over the infiltrated buttocks. This resulted in considerable improvement. The induration appreciably diminished, the discharge became less, the pain was alleviated.

The patient's general condition is good. He attends business at his office. He is still under treatment.

Carcinoma of Rectum.

This patient (Case No. 117), M., aged 68, who was the subject of advanced mitral disease, had suffered from persistent diarrhoea for six months. He was examined by a leading provincial surgeon, who diagnosed carcinoma of the rectum, but considered operation inadvisable by reason of the patient's age and ill health.

He was first seen on December 29th, 1911. Sigmoidoscopic examination revealed a flat hard carcinomatous plaque ulcerated at its upper part. It was confined principally to the posterior rectal wall, and its lower border was 16 cm. from the anal orifice. The patient experienced constant pain, which was very severe on defaecation.

He was treated by inserting a tube of 50 mg. of radium screened by 2 mm. of lead into the lumen of the bowel and received an exposure of thirty hours' duration, spread over five days.

Following the treatment the patient slept well, ate well, the diarrhoea ceased, and all pain disappeared. Seven months later he died, but his medical attendant stated that the freedom from pain persisted right up to the day of his death.

Carcinoma of Rectum.

This patient (Case No. 185), F., aged 56, was seen in April, 1912. She had an indefinite history of abdominal pain and obstinate constipation. A surgeon examined her and declared her to be suffering from an inoperable carcinoma of the rectum.

Examination revealed a hard annular growth of the bowel 16 cm. above the anus. It was slightly ulcerated anteriorly, bled readily on examination, and invaded the surrounding tissues. The lumen was very small and irregular, the size of a crow quill, and a very offensive discharge was continuously present. There was constant rectal pain. The patient was very weak and emaciated.

On April 3rd, 1912, an emanation tube, initial activity 83 mg., screened with 1.5 mm. of lead, was placed in the lumen of the growth and left there for twenty-four hours. Six weeks later a severe reaction was reported, but afterwards the patient's health improved much, the discharge ceased to be offensive and the pain was only slight. The lumen of the bowel was much larger and the ulceration had disappeared.

On June 5th the patient was again treated with an emanation tube, initial activity 63.2 mg., placed in a screen of 2 mm. of lead, and an exposure of twenty-four hours was given. In October the patient had no discharge and no pain, was having natural actions of the bowel, attending to her household duties, and improving much in general health. She had gained nearly 2 st. in weight. She declined examination on the ground that she was perfectly well.

Carcinoma of Rectum.

This patient (Case No. 5,088), M., aged 37, had suffered from tenesmus and the passage of blood-stained mucus from July, 1910. He steadily became worse. In July, 1911, inoperable carcinoma of the rectum was diagnosed and the nature of the growth verified microscopically. A month later colotomy was performed.

In December, 1911, the patient was examined at the Radium Institute. He was in constant pain, had much bleeding and discharge, and was thin, worn, and anxious. On rectal examination an annular growth could be felt 2.5 cm. from the anus. It was hard, craggy, ulcerated, and firmly fixed. The lumen was small and tortuous.

Treatment consisted of the insertion of a tube, containing 60 mg. of radium screened by 2 mm. of lead, into the lumen of the growth for periods of six hours for five days. This was repeated five weeks later, and in March, 1912, the patient's weight had increased. He slept well, and the discharge was much diminished. The pain had gone. The growth was still large and hard, but the ulceration had disappeared. The same treatment was then given for four days.

In November, 1912, the patient again presented himself for examination. He looked in good health and had been doing four hours a day of manual labour. During the last few weeks he had some return of pain. The growth was harder and smaller. Treatment is being continued.

CARCINOMA OF THE STOMACH.

A few inoperable cases of cancer of the stomach have been treated by radium, not in the hope of cure, but with the object of checking the growth and alleviating the symptoms.

Some slight degree of benefit has resulted from the application of powerful apparatus screened with 2 mm. of lead over the gastric region, the pain being lessened, the frequency of vomiting decreased, and the general health improved.

CARCINOMA OF THE BREAST.

The results of radium therapy in the treatment of cancer of the breast are, on the whole, encouraging, and this is especially the case when the primary growth is of the sclerotic rather than of the medullary type, when the secondary deposits occur in the skin lymphatics and lymphatic glands, and there are no internal metastases.

Radium should never be used as a substitute for operative interference, but when the case is inoperable it will do much to relieve pain, promote the healing of ulcerated surfaces, and check the growth of the secondary deposits. In not a few cases it will bring about the almost complete absorption of superficial carcinomatous nodules and infected glands. Instances have been noted in which the physical signs were strongly suggestive, if not positively indicative, of carcinomatous deposits in the lungs, and the prolonged application of from thirty to forty hours of a large quantity of radium screened through 2 mm. of lead has brought about an apparent resolution. In rapidly growing cancers of the encephaloid type radium can do little but relieve pain. The post-operative lymphatic engorgement of the arm on the affected side is sometimes distinctly benefited by the application of a heavily screened tube of 50 to 100 mg. of radium placed at the apex of the axillary cavity, an exposure of twenty-four to thirty hours spread over five days being given.

CASES.

Carcinoma of Breast.

In this case (No. 89), F., aged 46, the disease had existed for five years before the patient consulted a surgeon. The condition was then quite inoperable.

In December, 1911, she came for treatment. The right breast was densely indurated, firmly fixed, and surmounted by a superficial ulcer 6 by 4.5 cm. in area, which had completely destroyed the nipple. The right axillary, supraclavicular, and infraclavicular glands were all enlarged and hard. She complained of a cough and pain in the right side of the chest, where the expansion was relatively much diminished. She had also pain in the right arm, and the movements of the shoulder-joint were much restricted.

The first treatment consisted in placing a half-strength plate containing 50 mg. of radium over the ulcer, with a 30 mg. tube in the axilla. The screening was 2 mm. of lead; the exposure was six hours daily for five consecutive days. This produced a local improvement, but at the end of January her respiration was much embarrassed and the cough much more troublesome.

In February a second treatment was given, the screening and time being exactly the same as at first, the apparatus employed being two quarter-strength plates containing 40 and 70 mg., two full-strength plates containing 30 mg. each placed directly over lesions, and a tube of 30 mg. in the axilla. This was followed by local and general improvement.

In April, during a third treatment, a half-strength plate containing 150 mg. was also used, with the view of acting on the implicated pleura and lung tissue.

In May the air entry to the lung was free, the pain and cough were gone, and the induration of the breast was much less. A fourth treatment was then given, resembling the third, and in July the ulcer had healed completely, the induration was almost gone, and all the glands were smaller. Unmistakable signs, however, pointed to an extension of disease within the chest below the axilla, and a fifth treatment was undergone.

In September the superficial lesions were all negligible, but the dullness below the right axilla had increased, and respiration was hurried and embarrassed, the patient having to use oxygen. She then had a sixth similar treatment, and at the end of November was feeling better and breathing more comfortably, whilst the physical signs were no worse. She is to come again early in 1913.

Carcinoma of Right Breast (Recurrent).

In March, 1910, the patient's right breast and right axillary glands (Case 129, F., aged 52) were removed for carcinoma, and a recurrence which appeared in August, 1911, was not shown to the surgeon till the end of the year, when the condition was inoperable.

In January the patient came for treatment with many nodules and a diffuse induration around the operation scar, the latter extending to both folds of the axilla. The right supraclavicular and infraclavicular glands were enlarged, hard, and fixed. At

the centre of the scar was an ulcer 2 cm. in diameter. The left breast was hard, and some glands could be felt in the left axilla.

She was treated with a 30 mg. tube in each axilla, and five flat applicators containing 200 mg. of radium placed directly over the affected parts. The screening was 2 mm. of lead throughout, and the period of exposure six hours daily for five consecutive days.

Two months later the ulceration had healed, and all the enlarged glands, as well as the mass in the left breast, were reduced in size. The induration was less, except in the anterior axillary fold, where it had increased slightly.

A second similar treatment, using only 180 mg. radium, was then given.

Later in the year the medical attendant reported that the condition was quiescent, that the patient was feeling very well, and attending to all her duties.

Carcinoma of Right Breast (Recurrent).

The patient (Case No. 151), F., aged 64, had the left breast removed and the axilla cleared in June, 1911, for carcinoma. In February, 1912, some progressive induration appeared at the upper end of the scar incision, and the left arm began to swell.

She was treated by three applicators containing 130 mg. of radium and a tube of 30 mg. placed in the axilla. The screens were 2 mm. of lead throughout, and the duration of exposure six hours daily for five consecutive days. By the end of April much of the induration had disappeared and the swelling of the arm was greatly reduced.

A second treatment by one 30 mg. applicator and the 30 mg. tube was repeated with the same screen and exposure.

The patient was seen last in November. There was then no induration perceptible, the swelling of the arm had disappeared, and her health was excellent.

Carcinoma of Left Breast (Recurrent).

The patient (Case No. 191), F., aged 49, had the left breast and left axillary and supraclavicular glands removed in July, 1907. A recurrent nodule was excised from the scar in November, 1909. A second recurrence early in 1912 was considered inoperable.

When she came for treatment in April a nodule of 1.5 cm. diameter was adherent to left fifth rib, the overlying skin being ulcerated, and the tissues over the fifth and sixth costal cartilages were much indurated. Some small hard glands were left behind the left sterno-mastoid. She was losing weight.

Applicators containing 160 mg. with a tube of 60 mg. radium were applied for six hours daily for five consecutive days, all screens being 2 mm. of lead. Six weeks later the nodule had disappeared, the glands and induration were less, and she had gained in weight.

After a further six weeks fresh induration appeared over the third and fourth left costal cartilages, and there was considerable dyspnoea on exertion. Applicators containing 300 mg. and a tube of 60 mg. of radium were applied, time and screens being as before. Three months later all the induration had disappeared and the glands were as small as swan shot; there was no longer any dyspnoea.

In October a gland was discovered at the apex of the axilla with some redness over the fifth rib. She was again treated for the same period as before, with the same screens, with applicators containing 300 mg. She is still under treatment, steadily improving in general health, and gaining weight.

Carcinoma of Right Breast.

In this case (No. 295), F., aged 55, the disease had existed for one year before the patient consulted her medical attendant in September, 1912. The whole of the right breast was then indurated and firmly fixed to the underlying tissues, and in the upper and outer quadrant was a rounded mass of 6 cm. in diameter, bright red in colour, and ulcerated. On the inner side of this and extending to the edge of the sternum was a leather-like area of "cancer en cuirasse," while numerous small nodules could be felt at the lower border of the breast. In the right axilla, supraclavicular fossa, and posterior cervical triangle enlarged glands were felt. The patient complained of excessive pain.

A tube of 30 mg. was placed in the axilla and three half-strength plates, containing 50, 80, and 150 mg., applied over breast and glands. The screening was 2 mm. lead, and the exposure five consecutive days of six hours each.

Two months later the mass on the breast was much reduced in size and the ulcer had healed. The infiltrated area by the sternum had become quite soft, and the glands and affected areas were smaller. The pain was quite gone and the patient had gained in weight.

The same treatment was given a second time, and the improvement continued. She is still under treatment.

Carcinoma of Right Breast (Recurrent).

In this case (No. 5,100) F., aged 60, the disease was of five years' duration. An operation had been performed by a leading hospital surgeon in January, 1906, when the breast was removed and the axilla cleared. Recurrence took place in June, 1910, with several small nodules arranged in the form of a circle 6 cm. in diameter, having its centre at the middle of the breast incision. These nodules were treated with *x* rays for some time, but steadily increased in size.

The patient was first seen on February 1st, 1912. She then had six hard nodules arranged as above described, each the size of a small walnut and very tender on pressure.

She was given two series of treatments, with half-strength applicators screened with 2 mm. lead—the first of five days' duration, six hours each day, February 1st to 7th; the second of five days' duration, six hours each day, April 22nd to 26th. The nodules steadily decreased in size and the tenderness disappeared.

She came for examination on June 4th. All the nodules had gone. There was no longer any tenderness, and she was in excellent general health. She was afterwards seen by the surgeon who operated on her, who expressed his great satisfaction at the result of the radium treatment.

Carcinoma of Breast (Left).

In Case No. 5,216, M., aged 72, the duration of disease was about three years. The nipple of the left breast became hardened and retracted, and finally ulcerated. The patient was not considered a suitable subject for operation.

Examination revealed an oval tumour of 5 cm. diameter surmounted by an indurated ulcer 1.7 by 1.3 cm., which occupied the site of the nipple. In the skin towards the inner side five hard nodules could be felt.

He was treated in July, 1912, with applicators containing 110 mg. of radium with screens of 2 mm. of lead. Over the ulcer a screen of only 1 mm. of lead was used. The time of exposure was five hours daily for five consecutive days.

In September, 1912, the ulcer was smaller and the swelling less. A fresh treatment for a similar period was carried out, the screens being 1.5 mm. of lead and applicators containing 190 mg. of radium being used for the same time as previously.

In October the ulcer was much softer, and a similar treatment was carried out. In November the tumour had disappeared, the ulcer was healed over, and the nodules were scarcely perceptible. The patient is still under treatment.

Carcinoma of Right Breast (Recurrent).

This patient (Case No. 5,008), F., aged 53, came in August, 1911, for treatment of some small hard nodules in and below the right axilla. The right breast had been removed with the glands of the right axilla in June, 1904, and two earlier local recurrences had been excised in 1908 and 1910. She had much pain in the axilla and right arm, and was taking morphine.

Screens of 2 mm. of lead were used throughout. The nodules were treated with an applicator containing 30 mg. of radium daily for three hours on four consecutive days.

Three weeks later these nodules had disappeared, and the pain was quite gone. Some fresh nodules, however, could now be felt just below the clavicle; the same apparatus was used again for three hours daily for four consecutive days in September, and again for three hours daily for seven days in October. In December she wrote saying all the nodules had disappeared, and she had no pain.

In April, 1912, some thickening appeared in the scar in two places, and a nodule was found at the posterior border of the right sterno-mastoid. Applicators containing 110 mg. were used, with a 50 mg. tube in the axilla, all being applied for six hours daily on five consecutive days. An applicator of 40 mg. was put over the nodule on the sterno-mastoid for the same period; it became much smaller, and the induration disappeared.

In September the patient came again with pain in the arm, stiffness of the shoulder, dyspnoea, and thickening in the anterior axillary fold. She was weak and very thin. A tube of 60 mg. and applicators were again used as before for six hours on four consecutive days, and a month later a similar treatment with somewhat larger apparatus was carried out. Eight weeks after this the dyspnoea had become less, the pain was gone, and the patient could move her arm freely again. She is still under treatment.

PAGET'S DISEASE.

Two patients afflicted with this condition have been treated with radium.

The first, an unmarried woman of 35, had a patent urachus, and the disease had commenced at the umbilicus. It readily yielded to radium, and an apparent cure was effected.

The second, a married woman aged 58, had the left breast affected. She came under treatment quite recently, but a very great improvement has already been brought about, though the case is not yet finished.

In both instances treatment was carried out with a quarter strength applicator, unscreened, and an exposure of one and a half hours' duration.

CASES.

Paget's Disease of Umbilicus.

The disease (Case No. 5,010, F., aged 35) was of three years' duration. It had been subjected to a variety of treatments without effect, and was slowly but steadily increasing in size.

The patient was first seen on August 21st, 1911. There was then a roughly circular patch 5.5 cm. in diameter, with its centre at the umbilicus, covered with a flaky, yellowish crust, which, when detached, left a reddish, slightly ulcerated surface underneath. There was no bleeding, no infiltration, and no rolled edge. The diagnosis of Paget's disease had been made by a leading dermatologist. The patient had a patent urachus.

A quarter strength applicator of sufficient size to cover the lesion completely was applied without screen for one and a half hours on August 21st, 1912.

She was examined on September 13th. There had been a fairly vigorous reaction. The inner portion of the ulcer nearest to the umbilicus was covered with new healthy epithelium, but the outer portion was still red and inflamed. She came again a fortnight later, when the lesion was found to be completely healed.

A slight recurrence took place early in September, 1912. The same treatment was adopted with an equally good result. The patient has since kept perfectly well.

CARCINOMA OF THYROID.

In Case No. 5,127, F., aged 35, the disease was of six months' duration. The symptoms were cough with occasional haemoptysis, dysphagia, and dyspnoea; marked stridor accompanied any exertion or excitement. She consulted a leading hospital surgeon in March, 1912, who diagnosed carcinoma of the thyroid (inoperable), and advised radium.

She was first seen on March 26th, 1912. Examination showed distinct enlargement and hardness of the thyroid, most marked inferiorly. The percussion note was impaired over the apex of the right lung, and vocal resonance and fremitus were increased in the same area. *X*-ray screening showed a faint shadow just below the inner end of the right clavicle.

The patient had three series of treatments with half-strength apparatus containing 120 mg. radium screened with 2 mm. lead. The first, of four days, six hours each day (March 27th to 30th); the second, of five days, six hours each day (April 29th to May 3rd); the third, of five days, six hours each day (June 3rd to 7th).

She reported herself for examination on September 23rd, 1912. The enlargement and hardness of the thyroid had disappeared. Her general condition was good, and she had gained weight. She no longer had any dysphagia and experienced only a very slight degree of dyspnoea on great exertion. There was no stridor. The physical signs at the apex of the right lung were unaltered.

The patient has returned to her work as schoolmistress, but still reports herself every two months. No further treatment has been necessary.

RODENT ULCER.

This is of all forms of malignant disease the one which is most amenable to the action of radium. Untreated rodent ulcers not exceeding 2 cm. in diameter, and not affecting mucous membrane, cartilage, or bone, almost invariably yield to one exposure of one to three hours' duration with a full-strength applicator unscreened.

If the ulcer occupy a large superficial area—say, 20 sq. cm. and upwards—an unscreened application over the whole area at the same time is inadvisable in view of the severe systemic disturbance which would follow such a procedure, and the lesion should be treated by two, three, or four applications made in rotation to different parts of its surface, at intervals of three weeks or a month.

When a mucous membrane is affected rodent ulcers prove much more refractory, though exception should perhaps be made in regard to the palpebral mucosa, as small rodent ulcers in this situation often respond well to exposures of strong unscreened apparatus of fifteen to twenty minutes' duration given consecutively for three days.

If the rodent ulcer has attacked bone or cartilage, great care must be exercised not to give too heavy an exposure, or a very acute, painful, and prolonged inflammation may be produced.

When the extent, position, or character of the ulcer precludes the possibility of strong unscreened exposures, the best results will probably be attained by prolonged exposures with heavily-screened apparatus using the "ultra-penetrating" rays only. This method is followed by little or no active inflammatory change, and, in addition, often alleviates the pain of the ulcer in a very definite manner. The action of radium in these cases can be greatly aided by judicious skin grafting as soon as the base of the ulcer has assumed a healthy appearance.

Many of those ulcers which have received treatment extending over a period of many years with *x* rays, zinc ionization, CO_2, etc., respond badly to radium treatment, and it is unwise to attempt to make any pronouncement as to the probable result. Quite frequently the previously treated tissues break down to an extent which far exceeds the existing ulceration, and repair is very slow and imperfect.

More than half of the cases of rodent ulcer which applied for treatment at the Radium Institute during the past year were of this character, and the destruction of tissue was so great that no hope of satisfactory repair could be entertained.

CASES.

Rodent Ulcer of the Back.

In Case No. 102, F., aged 53, the disease was of twenty-five years' duration. All kinds of treatment had proved ineffective, and during the last three years the ulcer had steadily grown larger.

The patient was first seen on December 12th, 1911. There was a flat, roughly oval, shallow ulcer in the right lumbar region, measuring 4.2 by 2.7 cm. The patient was given one treatment with a half-strength applicator containing 70 mg. of radium, unscreened, for one and a half hours, on December 20th, 1911.

She reported herself for examination on February 2nd, 1912, when the ulcer was found to be almost healed and to measure only 2.6 by 1.3 cm. No further treatment was given, but the patient was asked to come again in two months.

She returned on May 14th, 1912, when the ulcer was seen to be completely healed.

Rodent Ulcer.

The patient (Case No. 66), M., aged 59, had an oval ulcer measuring 1.5 by 1 cm. situated just below the inner canthus of the left eye. It had begun two and a half years before and was steadily increasing in size.

A full-strength applicator was placed in contact with the lesion, without a screen, for two hours on November 9th, 1911. On February 24th, 1912, nothing of the lesion remained. In September a nodule the size of a millet seed appeared at the site of the former lesion. This was again treated as before and after a few weeks nothing save a faint scar was left.

Rodent Ulcer.

The patient (Case No. 133), M., aged 75, had been treated during three years by zinc ionization, carbon dioxide snow and radium, with temporary success, for a small rodent ulcer on the right ala nasi. Each new treatment had brought about an apparent cure, but recurrence took place within two months. On January 24th, 1912, a full strength applicator was placed in contact with the ulcer without a screen for one and a half hours. The reaction was slow, but by April nothing remained of the lesion but a small white depressed scar. There has been no trace of recurrence.

Rodent Ulcer of Ala Nasi.

In Case No. 175, M., aged 65, the disease was of three years' duration. He had been treated with *x* rays, high frequency, fulguration, and thoradin, but without any good result.

He was seen and treated on March 27th, 1912. He then had an almost circular ulcer, 1.3 by 1.4 cm., on the centre of the right ala nasi. The floor of the ulcer was very thin, being composed of but little more than nasal mucous membrane. The edge of the ulcer was much infiltrated, especially at its upper part. He was given one treatment with a full-strength apparatus applied for fifty minutes to the floor, and one and a half hours to the edge of the ulcer.

He was examined on May 23rd, 1912, when the ulcer was found to have healed perfectly, and to be covered with a smooth and supple cicatrix.

The patient, who lives in Canada, wrote at the end of August saying there was no sign of recurrence.

Rodent Ulcer.

Case No. 242, male, aged 49, had had a rodent ulcer on the left side of his neck for eighteen years. It had been treated by many applications of *x* rays, and three times by excision, but never healed completely.

When he came to have radium applied in June there was an ulcerated area of 10 by 7 cm. on the side of the neck. The whole of the area was covered by half-strength applicators with screens of $\frac{1}{2}$ mm. of lead, for four hours on each of four consecutive days. This treatment was repeated three weeks later. The upper part of the ulcer rapidly healed, while the edges became much thinner. Two similar treatments were given at longer intervals, and the physician reported towards the end of the year that the ulcer was nearly healed, and that the patient had left England.

Rodent Ulcer.

This patient (Case No. 5,137), F., aged 69, had been treated through nine years by many methods, including the cautery, carbon dioxide snow, and *x* rays, but never with complete success.

When she came she had an ulcer with raised margin measuring 2 by 1 cm., situated close to the inner canthus of the right eye. A half-strength applicator was placed over the ulcer without any screen for one and a half hours on May 1st.

On June 12th the ulcer had healed, but a nodule remained close to the inner canthus. This was treated by a small full-strength applicator, applied for one and a half hours without a screen; the nodule subsequently broke down. When the wound healed in July there was a smooth, soft, healthy scar.

Rodent Ulcer.

The patient (Case No. 5,044), F., aged 50, had a circular ulcer of 1.8 cm. diameter situated high up on the left cheek. It was of four years' duration and had recently increased in size more rapidly. She had had no previous treatment excepting with ointments.

On September 16th, 1911, a half-strength apparatus was placed directly over the ulcer for one and a half hours. On October 27th following she came to show herself, and a smooth white scar occupied the site of the former ulcer.

Rodent Ulcer.

Case No. 5,227, M., aged 60, when seen had a roughly circular lesion 2 cm. in diameter on the left eyebrow. It had existed for sixteen years in spite of treatment with lotions and ionization. The base was indurated, the margin was thick and irregular, and the floor red and tender.

A full strength applicator was put on the growth for one and a half hours without any screen on July 27th, 1912. The ulcer rapidly cleared up, and the induration slowly disappeared. When seen in November there was a perfectly smooth, healthy scar.

SARCOMATA.

Whenever possible sarcomata are best treated by the insertion into their centre of a tube containing 50 to 100 mg. of radium, with a screen of 0.5 or 1 mm. of silver; it is left in position for twenty or thirty hours; the application is repeated after a month.

This frequently proves most effective; the tumour steadily shrinks in size, and becomes replaced by a dense fibrous nodule which shows little or no tendency to grow.

If this method be impracticable, prolonged exposures with flat applicators screened with 1 or 2 mm. of lead, and placed so as to cover as great an extent of the growth as possible, and to produce a "cross-fire" action of the rays, will often do much to check the growth; but this procedure is not nearly so promising as the preceding one. In either case it is essential to give as vigorous a treatment as possible, as the great vascularity of these growths, and their rapid and wide dissemination by the blood stream, are factors which militate very strongly against the chances of success.

Cases.

Sarcoma of Superior Maxilla.

The patient (Case No. 148), M., aged 72, was first seen on February 20th, 1912, when the disease was stated to be of three months' duration. The growth was rapidly increasing.

Little or no alteration in the size of the maxilla was appreciable externally, but there was marked bulging downwards of the left half of the hard palate, and the left nostril was occluded by the pushing of the antral wall over to the nasal septum. The patient had epiphora and diplopia.

On February 20th an emanation tube (initial activity 44.5 mg.) in a screen of 1 mm. of lead was inserted into the growth, and left there for twenty-four hours. A portion of the growth was removed at the time of operation and submitted to microscopical examination. It proved to be round-celled sarcoma.

The patient was examined on April 25th. The bulging on the left half of the palate was much less, and the left nostril was no longer occluded. There was no diplopia and no epiphora. Transillumination, however, showed that there was still some abnormal opacity of the left antrum, and the patient was advised to have a second treatment.

On April 26th an emanation tube (initial activity 30 mg.) in a screen of 1 mm. of lead was inserted into the antral cavity and left there for twenty-four hours.

The patient's doctor wrote on July 20th, 1912: "I have again seen our patient, and he is wonderfully well. There is nothing in the nostril now, nor is there any pain. The swelling in the mouth has gone. His general condition is excellent."

Sarcoma of Pharynx.

At the beginning of 1912 the patient (Case No. 232), M., aged 56, experienced a choking sensation at night with a sharp pain in his neck. He consulted a surgeon, who found a swelling in the posterior pharyngeal wall, and, after a biopsy which showed the growth to be a sarcoma, excised the tumour, cutting down to the bone, which was found to be roughened. After this the patient's neck remained very painful and stiff, and, though it improved with massage, it still caused great suffering and inconvenience. Shortly after the operation a mass of granulation tissue in the posterior pharyngeal wall was treated with the cautery, but the wound never healed and there was continuous suppuration.

When seen on May 29th, 1912, the posterior pharyngeal wall was bulging forward. A rectangular area of ulceration, measuring 3 by 1.5 cm., covered with granulations, was situated on the centre of the prominence, with pus exuding from its lower end. Deep palpation behind the angles of the jaw revealed a swelling, more marked on the right side. The patient was very weak, had considerable dysphagia, and suffered from constant pain in his neck. The first treatment lasted through five consecutive days. Three applicators, containing 310 mg. of radium screened with 2 mm. of lead, were fastened externally below and behind the angles of the jaw, so as to cross-fire the affected areas. This was done five hours daily for five consecutive days. The exact situation was altered slightly from day to day. A small circular applicator, containing 30 mg. of radium screened with 1 mm. of silver and arranged with a thick lead case to protect the mouth, was held by a silver wire against the ulcer for an hour each day. Before this treatment had been completed the patient reported that he had been able to sleep well for the first time for many months.

On July 16th he came to be treated again. He had then no pain or dysphagia. The suppuration had ceased and the pharyngeal ulceration had completely healed. The swelling in the pharynx was reduced to an oval prominence about 3 cm. long, and no definite tumour could be detected by external palpation. The patient was back at his ordinary work and feeling well. The treatment was then repeated, and the patient returned to his home. He has not reported since.

Lympho-sarcoma of Neck.

In Case No. 50, M., aged 41, the disease commenced in December, 1910, as a growth just below the right mastoid. An operation was performed in April, 1911; the growth on microscopical examination proved to be sarcoma. It recurred in June, 1911, and a second operation was performed on August 14th, 1911. There was recurrence again in September, 1911. The patient then consulted a leading hospital surgeon, who declared the condition to be inoperable and suggested radium.

The patient was first seen on October 24th, 1911. There was an oval swelling at the level of the angle of the jaw behind and below the right ear. It measured 6.5 by 4 by 1.3 cm.; it was hard and firmly fixed to the underlying tissues. The skin over its most prominent part was glazed and hyperaemic. The growth was the seat of occasional severe lancinating pains.

He had fourteen treatments between October 24th, 1911, and January 16th, 1912, with full-strength applicators containing 260 mg. radium screened with 2 mm. of lead. The growth steadily decreased in size and all pain disappeared.

When examined on February 16th, 1912, no trace of the growth could be found, and the patient expressed himself as feeling quite well.

He was seen again on June 29th, 1912. He was then in perfect health and had gained 9 lb. in weight.

Sarcoma of Thigh.

The patient (Case No. 211), M., aged 18, had an injury to the right thigh at the junction of the middle and lower thirds in March, 1912, and shortly afterwards an increasing swelling appeared at the site of the injury. The tumour was smooth and oval, with ill-defined edges, and slightly tender on pressure. Careful examination led an eminent surgeon to pronounce it to be periosteal sarcoma, and he advised operation, but the patient refused to submit.

On May 10th, 1912, an emanation tube with initial activity equivalent to 100 mg. of radium bromide, in a screen of 1 mm. of lead, was embedded in the tumour and left for twenty-four hours. A portion of the growth was removed at the time of the operation, and microscopical examination showed it to be spindle-celled sarcoma. Seven weeks later an emanation tube of initial activity equivalent to 75 mg., in a 1 mm. lead screen, was inserted for twenty-four hours. After the first treatment the tumour ceased to enlarge, after the second it became somewhat smaller, and the patient was able to walk with comparative ease.

The surgeon reported in November that no signs of dissemination had made their appearance, and that the original tumour was not causing the patient any trouble whatsoever.

NAEVI.

Flat Superficial Naevi, Capillary Naevi—"Port-Wine" Stains.

These are the most difficult of all naevi to treat, and much care and patience must be exercised in order to bring about a satisfactory result.

The factor of personal idiosyncrasy is always prominent, and it is exceedingly difficult to lay down any definite rules as to strength and duration of exposure. It is best to proceed with great caution, giving a short, unscreened exposure, and if necessary gradually increasing the same until a satisfactory reaction has been obtained. As a general rule, apparatus of quarter or half strength should be used, the screening should not exceed 0.02 mm. aluminium, and the exposures should range from ten to sixty minutes' duration.

The best results can be looked for when the naevus is quite superficial, and shows no tendency to infiltration. If much infiltration exist the treatment will have to be much more vigorous, and a destructive reaction of slight degree produced. A smooth, supple, and white scar will be left.

Cases.

Capillary Naevus.

In Case No. 174, F., aged 19, the naevus was congenital; it was roughly circular, dark, plum-coloured, and about 3 cm. in diameter. It was situate in the centre of the right cheek. No previous treatment had been tried. On March 27th, 1911, a half-strength applicator screened with 0.01 mm. of aluminium was placed in contact with the naevus for forty minutes. A fair reaction followed.

On May 9th a quarter-strength applicator with the same screen was used for one hour. On June 20th the first treatment

was repeated. The patient was seen in September, when the naevus was so light in colour as to be scarcely noticeable, and the overlying skin was perfectly smooth.

Capillary Naevus.

The patient (Case No. 229), F., aged 4 months, was brought on May 29th, 1912, with a raised blue circular naevus 2 cm. in diameter over the middle of the left parietal bone. A full-strength apparatus screened with 0.04 mm. aluminium was applied to cover the lesion for seventeen minutes.

When seen a month later only the posterior margin remained discoloured, and the patient was treated with a half-strength applicator, screened as before, for twenty minutes.

On September 13th the naevus had almost disappeared, the tissues felt normal, and the hair was covering the slightly red area which remained.

Capillary Naevus.

The patient (Case No. 5,040), F., aged 16, came on September 11th, 1911, for treatment of a very disfiguring purple superficial naevus occupying the upper half of the left cheek. It dated from birth, and electrolysis and other treatment had brought about very little improvement. It was treated, a portion at a time, with a large quarter-strength or smaller half-strength applicators screened with 0.01 mm. of aluminium, the exposures varying from forty minutes to one hour. An interval of a month was allowed for each reaction. The patient emigrated in September, 1912, and the colour then was reduced to a fairly uniform pale pink tint, except close to the eyelids, where it was somewhat deeper.

CAVERNOUS NAEVI.

These lesions are frequently particularly suitable for treatment by "cross-fire," and in such cases good results can generally be expected.

Half-strength applicators should be used with screens of 0.1 mm. of lead and exposures of from twenty minutes to one hour's duration, given daily for three consecutive days, and the series repeated in a month's time. Under this method of treatment the naevus slowly and steadily shrinks, and the process is unaccompanied by any surface irritation.

CASES.

Venous Naevus of Finger.

Case No. 19, F., aged 11, presented a venous naevus of the right middle finger, which was congenital but had slowly increased in extent in spite of two operations.

When seen in September, 1911, she had a large blue, pulpy, subcutaneous mass occupying the dorsal palmar and outer surfaces of the right middle finger. Two half-strength applicators, containing 60 mg. screened with 0.04 mm. of aluminium were used to cross-fire the naevus, the exposure being twenty minutes. A sharp reaction followed.

On November 16th the naevus was smaller, and the treatment was repeated for a thirty minutes' exposure.

In January, 1912, and again in March the same applicators were used for forty-five minutes with a screen of 0.1 mm. of lead. Finally in May this treatment was repeated for thirty minutes on two consecutive days.

When seen in September the finger was normal in colour, and though some slight thickening remained it was not sufficient to trouble the patient either by its size or appearance.

Cavernous Naevus.

In Case No. 5,021, F., aged 1 year, a small naevus was present on the tragus of the left ear at birth, and rapidly increased to the size of a large orange in spite of treatment by electrolysis and carbon dioxide snow.

When first seen, in August, 1911, the cavernous tissue involved the lower part of the ear and the side of the neck, while a scarred swelling rested on the clavicle, dragging the child's head down to the left.

Four half-strength applicators containing 30 mg. each, with a screen of $\frac{1}{20}$ mm. of lead, were used throughout the treatment; the exposures were made at first for four, and later for three, consecutive days, beginning with sittings of fifteen minutes each, gradually and carefully increasing the time to thirty minutes. The intervals allowed for reaction were slightly over a month. When seen in November the patient had had nine treatments in all. The naevus was reduced to the size of a pigeon's egg, occupying the posterior portion of the pinna and lobe of the ear. Some bluish capillary areas were present in the soft relaxed skin, but the scarring had almost completely disappeared, and the child's head was no longer displaced by the size and weight of the tumour.

Cavernous Naevus.

Case No. 5,104, F., aged 18 months, was brought to be treated for a large hemispherical pulpy naevus of 4.5 cm. diameter occupying the upper part of the left cheek. The condition had developed from a congenital red flat birth-mark, in spite of treatment with carbonic snow and electrolysis. The child's mouth and nose were distorted, and the swelling projected upwards in front of the left eye.

The exposures for this treatment were always given on three consecutive days with two half-strength applicators of 30 mg. each screened with 0.1 mm. of lead. The time of each sitting was twenty minutes during the first treatment in February, 1912, increased by five minutes each time up to three-quarters of an hour. The treatments were given at intervals of slightly over a month, and the child has had eight in all.

When seen in December the lesion was reduced in size sufficiently to relieve the dragging on the mouth and nose, and there was no obstruction to vision.

This patient is still under treatment.

KELOID.

The results obtained in the treatment of this condition with radium are admirable. Keloids of recent formation and occurring in young subjects are the most easily cured. Applicators of half strength should be employed with screens of 1 mm. of silver and an exposure of from fifteen to twenty hours extended over three successive days. The series should be repeated at intervals of one month.

By this method of treatment a steady and gradual return of the tissues to the normal is produced without any surface irritation.

Small elevated and rapidly growing keloids may be safely treated by a single exposure of one to one and a half hours' duration with a half-strength apparatus unscreened. The resultant scar is usually quite smooth and supple, and shows no tendency to further keloidal formation.

CASES.

Keloid of Face and Hands.

Case No. 13, F., aged 27, was severely burnt on the face and hands with petrol on March 30th, 1911. Healing was not complete until the middle of June, and shortly afterwards all the scars became keloidal and rapidly increased in size.

The patient was first seen on September 11th, 1911. At that date there was a large, very dense, bright red keloid covering the nose and both cheeks, and occupying the position usually picked out by lupus erythematosus. Both lower eyelids were drawn down, and there was epiphora. There were other keloids over the forehead (most marked on the right side) while in front of each ear there was a dense keloidal band 0.3 cm. in height and running from the level of the external canthus to the angle of the jaw. Another small keloid was present on the left side of the upper lip. The face was like a mask, rigid and expressionless. The dorsal surfaces of both hands were covered with darkly pigmented keloidal masses which also implicated the thumb and the first and second fingers of the left hand, so that the finer movements of the hands were performed stiffly and with much difficulty.

The patient was under treatment from September 12th, 1911, to May 20th, 1912, receiving six series of treatments, each series being of five days' duration, with exposures ranging from two to six hours each day. The applicators used were of half strength, and screened with 1 mm. of silver.

The improvement was steady and uninterrupted, and when seen in September, 1912, scarcely any facial blemish was appreciable, the epiphora had disappeared, and the texture of the skin over the greater part of the face was normal.

All the keloidal tissues had disappeared from the hands, though the skin was still slightly pigmented.

Keloid of Chin and Cheek.

This child (Case No. 158), F., aged 14, was severely burnt about the neck and chin on April 17th, 1911. Keloid formation was first noted in the scar in September, 1911; since that date it had steadily increased.

The patient was first seen on April 17th, 1912. There were then two extremely dense keloidal bands passing from the under surface of the chin to the right sterno-clavicular articulation and exercising so much traction that she was unable to close her mouth. There was another dense band running along the lower border of the right jaw from its angle to the symphysis menti, and all the skin between the right jaw and the clavicle was keloidal.

The case was treated with large-size, quarter-strength applicators screened with 1 mm. of silver; the exposures were of six hours' duration, and the patient received in all twenty treatments between March 11th and October 11th, 1912.

The child is still under treatment, but great improvement has already been effected. She can close her mouth perfectly, there is no longer any traction on the chin, the keloidal tissue on the right side of the neck has disappeared, and the dense bands leading from the chin to the sternum are much smaller and softer.

Keloid of Cheek and Chin.

In Case No. 5,060, F., aged 5, there was a very dense and highly coloured keloid, following on a burn received fifteen months previously.

The patient was first seen on October 30th, 1911. There was then a wide, ribbon-shaped band of keloid running from the right temple down the descending ramus of the jaw and spreading out so as to invest completely the right half of the chin on its inferior and lateral aspects.

The patient received in all thirty-two treatments between October 3rd, 1911, and October 15th, 1912. Half-strength applicators were used with screens of 1 mm. of silver, and each exposure was of three hours' duration.

Steady and uninterrupted improvement resulted from the treatment, and when the patient was examined on December 16th, 1912, scarcely any keloidal tissue was noticeable except at the right angle of the mouth, and this, the patient's mother stated, was rapidly disappearing.

Keloid Acne.

In Case No. 5,106, M., aged 37, the duration of disease was five years and all treatment had been ineffective. The patient suffered from intense irritation at the back of his neck, and a thick keloid patch 5 by 2 cm. had slowly developed, surrounded by an area of red, roughened skin.

The first treatment consisted in applying a quarter-strength applicator over the lesion for two hours on two consecutive days. The reaction was fairly sharp, with hyperaemia and tenderness, but the patch was much softer at the end of a month.

The second treatment was by a half-strength applicator for one hour, and this was repeated every five weeks till in December only a very small nodule remained in the centre of the part treated, and the patient was free from irritation.

No screen was used in treating this patient.

PAROTID TUMOURS.

These growths appear to be peculiarly susceptible to radium, and in almost every instance distinct improvement, frequently going on to apparent cure, is observed.

The treatment must, however, be lengthy, and much patience and perseverance are needed to bring about a successful result. Applicators of half or full strength should be employed and screened with 2 mm. of lead, the tumour should, if possible, be covered over its whole extent, and the exposure should be of not less than thirty hours' duration extended over five days.

The series of exposures should be repeated at intervals of four to six weeks so long as is necessary.

CASES.

Parotid Tumour.

The patient (Case No. 183), M., aged 55, was sent by a leading surgeon who had found him to be suffering from inoperable malignant tumour of the parotid. He had a hard oval tumour measuring 6 by 3.5 cm. firmly fixed to the ascending ramus of the right jaw. It was not tender on pressure, and occasioned very little discomfort, but it was growing rapidly.

The patient was treated on four occasions at intervals of six to eight weeks, the screen used being 2 mm. of lead throughout, and the exposure being four hours daily on alternate days for six, five, or four sittings; three to five full-strength and half-strength applicators, containing each from 20 to 80 mg. of radium bromide, were employed to cover the whole surface of the tumour, cross-firing it as much as possible, about 240 mg. being used on each occasion. After each treatment the swelling grew less, till only a hard nodule, measuring 3.2 by 2.4 cm., was left behind the angle of the jaw.

He is to report again if any further activity should become evident.

Parotid Tumour (Recurrent).

In Case No. 5,105, F., aged 18, the tumour was of four years' duration. It was removed by operation, July, 1910, but recurred in December, 1910. The growth steadily though slowly increased, and had not been checked by *x* rays.

The patient was first seen on February 5th, 1912, when there was a definite hard, fixed growth immediately below the lobule of the right ear. It measured 4.5 by 3 cm., and was distinctly tender to the touch. The patient complained of intermittent acute lancinating pains in it.

She received in all thirteen treatments between February 8th, 1912, and May 10th, 1912, with half-strength applicators screened with 2 mm. of lead, and the growth gradually decreased in size, and became far less tender.

When the patient came for examination on June 21st, 1912, the growth had completely disappeared. She no longer had any pain, and was in excellent health.

Parotid Tumour.

The patient (Case No. 5,159), F., aged 39, had a tumour excised from behind her right jaw in September, 1909; recurrences were removed from the same area in January, 1910, and February, 1911. A further recurrence was considered inoperable, and the disease was held in check for a time by *x*-ray treatment.

In May, 1912, the tumour was situated below, and anterior to, the right ear, filling up the fossa behind the jaw. It was oval, firm to the touch, and quite fixed, measuring 7 by 4 cm., and causing partial closing of the external auditory meatus. There was an enlarged gland to be felt near each end of the hyoid bone.

The patient was treated with five applicators, containing 260 mg. of radium, placed so as to "cross-fire" the tumour thoroughly, screened with 2 mm. of lead, for five hours daily for five consecutive days.

Two months later the tumour was reduced to half the size, and a further similar treatment with three applicators of 30 mg. each was carried out. In September no tumour could be felt, and the glands were shot size.

In November a very small nodule could be felt at the edge of the masseter. This was treated by a 20 mg. plate, screened with 1.5 mm. of lead, the time of exposure being as before. The nodule rapidly disappeared, and the patient was in excellent health when seen late in December, 1912.

FIBROMATA.

Two cases of fibromata of the penis have been treated, and both cured. In both instances all previous treatment had proved quite ineffective.

CASES.

Fibroma of Penis.

In Case No. 74, aged 56, the disease was of seven months' duration. No cause was ascertainable. The patient was awakened every night about 4 a.m. by painful erections, which occasioned him great discomfort and annoyance. He was impotent.

He was first seen on November 16th, 1911. There was then a small oval fibroma, 1 by 0.5 cm., situate on the dorsum of the penis in the middle line immediately behind the corona.

The patient was given eighteen hours' treatment six hours a day on three successive days, with a full strength applicator screened with 2 mm. of lead.

He reported himself on January 23rd, 1912. He stated that he had had no trouble or discomfort from painful erections since November 28th, and that he was no longer impotent. Palpation revealed the presence of an extremely dense nodule about the size of a BB shot at the site of the original tumour. It occasioned the patient no pain or annoyance. He has since remained perfectly well.

Fibroma of Penis.

The patient (Case No. 5,152), aged 51, had complained of a hard lump on the dorsum of the penis for nine months. It was not painful, but it caused slight retraction and impotence.

When seen in May, 1912, the tumour was the size of a walnut, and was situated in the corpus spongiosum at the root of the penis.

The patient had four treatments at intervals of about six weeks. On each occasion two full-strength applicators of 30 mg. each, screened with 2 mm. of lead, were fixed at right angles over the tumour for six hours daily for three consecutive days. There was a steady diminution in the size of the lump till in December it was no larger than a pea, and gave rise to no symptoms whatever.

FIBROID DISEASE OF THE UTERUS.

Only four patients suffering from this condition have as yet been treated with radium, and of these two only have been under observation long enough to enable any opinion to be formed as to the benefit which may be obtained. In both instances distinct improvement has resulted, but the cases are still under treatment.

CASES.

Fibroid Disease of Uterus.

In Case No. 237, aged 26, the disease was of three years' duration. The dysmenorrhoea and menorrhagia had steadily increased in severity. In May, 1911, she consulted a leading gynaecologist, who curetted the uterus; this was followed by slight but transient benefit. In April, 1912, she again saw her surgeon, who told her she had fibroids, and advised hysterectomy. This was declined and the patient determined to try radium.

She was first seen on June 3rd, 1912. She stated that her menstrual period lasted for seven days, the flow being excessive and the pain very severe, especially during the first three days, so that she was unable to leave her bed. Per vaginam the uterus was the size of a three months pregnancy and nodular. The cervix was hypertrophied, elongated, and oedematous.

This patient had two series of treatments, each for five consecutive days, six hours each day—the first June 3rd to 7th, the second July 22nd to 26th—with a tube containing 100 mg. of radium with a screen of 2 mm. of lead.

She reported herself on September 11th. Her last period, which occurred during the first week of September, lasted but four days; pain was only experienced on the third day, and then was but trifling. She estimated that the loss of blood had been reduced to one-eighth of the former amount. Vaginal examination showed no increase in the size of the uterus. The cervix was much firmer, shorter, and not oedematous.

The case is still under treatment.

Fibroid Disease of Uterus.

The patient (Case No. 5,093), aged 43, had suffered from menorrhagia, gradually increasing in severity for six years, till the period now lasted for a fortnight at a time and was accompanied by intense pain. She had also a constant mucoid discharge from the vagina, and was very thin and pale. She had some difficulty in walking.

Examination on June 6th, 1912, revealed a large irregular tumour reaching to the umbilicus, and by its size fixing a nodular and anteverted uterus in the pelvis. The anterior lip of the cervix was enlarged and oedematous.

The first treatment in January, 1912, was conducted by inserting a very small tube containing 50 mg. of radium bromide (screened by 1.5 mm. of lead) into the patulous cervix for six hours daily for ten days. This produced sufficient

amelioration of symptoms to make the patient wish for further treatment. In March a tube of 60 mg. was used as on former occasion for five days, and in May the 50 mg. tube was used as before for five days. By the end of the year the patient had had normal menstruation without much pain, and there was no vaginal discharge. She was looking and feeling well.

LICHENIFICATION OF SKIN.

This peculiarly intractable form of skin lesion is quickly cured by short exposures to half-strength applicators unscreened, or screened with the thinnest aluminium, and the relief afforded to the intolerable irritation is often marked within twenty-four hours. Cases so treated show little or no tendency to relapse.

Lichenification of Neck.

In Case No. 236, F., aged 31, the disease was of ten years' duration and had resisted all attempts at cure. There were two lesions—one, triangular in shape, with sides of 6 cm. in length, was situated at the lower part of the left posterior cervical triangle; the other, a circular patch 3 cm. in diameter, over the anterior surface of the left axillary fold. The patient complained of a frequent and almost intolerable irritation in the spots, which was aggravated by warmth and was exceptionally severe during menstruation.

She was treated on June 3rd, 1912, receiving a ten minutes' exposure with an applicator of half strength, screened with 0.01 mm. aluminium

She reported herself for examination on July 15th. The lesions had completely disappeared, leaving normal and healthy skin, and she stated that she no longer experienced even the slightest irritation.

She has since kept perfectly well.

Lichenification of Skin.

Fourteen years previously the patient, M., aged 58 (Case No. 278), was attacked by eczema on which lichenification developed. For several years itching had been a very marked feature of the case. When seen there were superficially scarred red patches over each clavicle. Between the shoulders at the back was a quadrilateral patch of skin with numerous scattered red papules. Similar lesions were present on the inner side of each knee and the sock area from the ankle upwards.

Five areas on the back were treated each for ten minutes with an unscreened quarter-strength apparatus. Three months later all the treated areas had responded well and the irritation had ceased. Six more patches were treated, and all cleared up in the same manner. There was no tendency to recurrence.

PRURITUS.

Radium is undoubtedly of great use in this condition, especially if it be of long standing and associated with leucoplakia or hyperkeratosis. When no actual lesion exists and the trouble is purely nervous in character the results are not so satisfactory, and often little benefit follows the application.

No definite rules can be laid down for treatment, as the local conditions vary so greatly, but the screening and exposures must be adjusted in relation to the character of the lesion.

CASES.

Pruritus Vulvae.

In Case No. 122, aged 62, the disease was of twenty-six years' duration. She had had every possible kind of treatment with lotions, ointments, baths, and high-frequency currents without success. The irritation at times was intolerable, and she was unable to get any rest.

She was first seen on January 5th, 1912. On examination two small hyperaemic and inflamed but non-ulcerative patches were found immediately within the ostium vaginae just above the fourchette, one on each labium, the right being the larger. She also complained of great irritation immediately above the clitoris, but there was no visible lesion at that site. Between her first visit and April 26th, 1912, she received in all nine treatments, each of five minutes' duration, with a half-strength applicator unscreened.

Slight but quite definite and persistent improvement followed on each treatment, and on May 9th she came to report herself as completely cured.

She has since kept perfectly well.

Pruritus Ani.

In Case No. 236, M., aged 57, the disease was of more than thirty years' duration. The patient was operated on by the late Mr. Allingham for a condition of hyperkeratosis of the anal orifice in 1897. He had, however, never been wholly free from pruritus since that date, and during the past two years the condition of hyperkeratosis had returned, and steadily increased, while the itching had become intolerable. All remedies had proved utterly futile.

He was first seen on May 24th, 1912. The anal orifice was cone-shaped and covered with a dense pearly epithelium, which was hard to the touch and traversed by numerous radiating fissures which showed the vascular corium at their base. The condition of hyperkeratosis extended upwards towards the spine and forwards to the perineum, and was surrounded by a zone which was hyperaemic and eczematous.

The patient had three series of treatments between May 28th, 1912, and September 26th, 1912; each series occupied four days, with exposures of three hours' duration each day. Half-strength applicators were used with screens of 1 mm. of silver.

When examined on November 14th, almost the whole of the hyperkeratosis had disappeared, except for a small circular patch close to the anal orifice. There was no longer any induration; the itching was but slight, was of an intermittent character, and easily bearable.

Pruritus with Leucoplakia Vulvae.

In Case No. 5,197, F., aged 50, the condition was of five years' duration. She was in a bad neurasthenic condition, due to the insomnia, loss of appetite, and loss of weight, which had followed on the almost ceaseless irritation.

She was first seen on June 25th, 1912, at which date there was a condition of hyperkeratosis in the angles between the folds of the labia minora, all round the ostium vaginae, and spreading backwards towards the anus. On the inner surface of the right labium was a rectangular patch of leucoplakia 2 by 3 cm. The patient complained greatly of the irritation, which she declared to be almost intolerable.

She had seven treatments between June 25th and September 5th, with the result that all the hyperkeratosis and leukoplakia disappeared, and the intolerable irritation became reduced to a very slight, inconstant, and quite easily bearable itching. She reports that she is still improving.

CHRONIC ECZEMA: PSORIASIS.

These conditions generally yield readily to short unscreened exposures with quarter-strength apparatus applied for two to three minutes on three successive days, the exposure being repeated after a week or fortnight if necessary.

With chronic eczema the cure may be permanent, but in psoriasis the patches tend to recur sooner or later, and require further treatment.

CASES.

Chronic Eczema.

Case No. 4, F., aged 52. This patient had been treated by routine methods for eighteen months for a widespread chronic eczema, but a number of intractable patches on the abdomen remained. Four of these were treated by an unscreened half-strength applicator applied to each spot for three minutes on three successive days.

In a month no sign whatever of the rash remained on the areas treated. Several other patches were treated in a similar manner, and all cleared up in the same remarkable way. Eight months later no recurrence had taken place.

Psoriasis.

In Case No. 5,148, F., aged 12, four small scaly patches of psoriasis were present eighteen months before the radium treatment was undertaken, one on each knee and on each elbow. The spots on the elbows had yielded to ichthyol, but no treatment had availed to clear the knees.

Quarter-strength plates were applied unscreened to the knees for periods of three minutes on three successive days. One month later the left knee showed only slight signs of the rash. The treatment was repeated to the left knee, and to a fresh patch that had arisen on the left elbow. In two months the elbow was free of disease, but the left knee still showed a small scaly area.

One month following the above date the knees and elbows were quite free from psoriasis, but two months later slight recurrences had taken place on each knee. The same treatment was repeated. The patient has not yet returned for examination.

LUPUS VULGARIS.

Treatment with Finsen light is to be preferred to radium in cases of this disease, and whenever possible it should always be adopted.

If radium be used, however, half-strength or full-strength applicators should be employed without screen, and a destructive reaction produced.

LUPUS ERYTHEMATOSUS.

This very intractable condition, which so often defies all treatment, is usually greatly improved by radium. Care must be taken not to give too strong a dose, and the best results usually follow the use of a quarter or half strength applicator sufficiently large to reach well beyond the borders of the lesion unscreened or screened with 0.01 mm. aluminium, and an exposure of forty to sixty minutes' duration.

CASES.

Lupus Erythematosus.

In Case No. 177, F., aged 31, the disease was of six years' duration, and began as a small spot just outside the outer

canthus of the right eye, whence it rapidly extended to the left cheek, nose, right cheek, and right upper eyelid. She had been treated with arsenic, quinine, iron, and mercury internally and salicylic acid, resorcin, and carbon dioxide snow locally, without benefit. Hyperæmia was a marked feature of the condition.

The treatment adopted was the application of unscreened quarter strength plates for an hour over various portions of the lesion. This was continued at intervals of a month for four months. The disease steadily retrogressed from the beginning. In October, 1912, the left wing of the lesion was hardly noticeable. Two small active patches were present, one on the left side of the nose, and one near the inner canthus of the left eye. Most of the right wing of the affected area was healthy, the lower edge alone remaining somewhat scaly.

The patient is coming at long intervals for treatment, and there is little doubt that her condition will eventually be cured.

Lupus Erythematosus.

In Case No. 5,129, M., aged 24, the condition began as a small whitish patch on the left cheek. It grew steadily, and a few months later a similar lesion arose on the right cheek. No vasomotor phenomena were present, except that both ears were scarred and somewhat purple in colour. Just before treatment there were three slightly raised red patches, one on the right cheek (2.5 by 3.5 cm.) and two on the left (2.5 by 1.3 cm. and 1.7 by 1.7 cm.). There was no rash on the nose. The red areas itched and smarted.

Treatment consisted of the application of a quarter-strength plate without metal screen for one hour over each patch. The reaction was smart, and the disease became less marked. All subjective symptoms ceased, and a month later the same treatment was repeated. This apparently cured the disease. Examination six months later showed the patches to be covered by smooth, supple, healthy scars, and no sign of activity had manifested itself.

TUBERCULOUS ADENITIS.

Prolonged exposures of from twenty to thirty hours' duration in all, with heavily screened radium apparatus emitting only the ultra-penetrating rays will generally bring about a steady diminution in size of the infected glands without causing suppuration or surface irritation.

Cases.

Tuberculous Adenitis.

The patient (Case No. 34), F., aged 24, came in October, 1911, to be treated for two enlarged tuberculous glands below the left jaw. She had had several operations previously for the removal of similar glands.

Two applicators of 20 and 30 mg., screened with 2 mm. of lead, were placed so as to cross-fire the glands, and applied for four hours daily for three consecutive days. This led to a considerable diminution in size, and the treatment was repeated in November. The glands shrank to small hard nodules and caused no further trouble.

Tuberculous Adenitis.

The patient (Case No. 103), F., aged 16, came in December, 1911, to have treatment for an enlarged tuberculous gland fixed to the skin by scar tissue, the remains of an old sinus. Two full-strength applicators, containing 30 mg. each, were applied, with screens of 2 mm. of lead, for three consecutive days, that over the scar remaining for three and a half hours and that over the gland for seven hours each day. When seen four months later the gland had shrunk to the size of a BB shot, and was movable under the skin; the scar was scarcely noticeable.

ARTHRITIS DEFORMANS.

This extremely obstinate, progressive, and crippling malady is not infrequently strikingly benefited by the daily drinking of 250 c.cm. of radium emanation solution of a strength of 1 to 2 millicuries per litre. The treatment must, however, be persisted in for quite a long time, and at least six weeks are likely to elapse before any change is noted.

In a favourable case the articular and muscular pains are lessened or disappear, the movements of the affected joints become much freer and are accompanied by less grating, the muscles controlling the joints regain much of their lost tone, and the general health of the patient is greatly improved.

With the majority of the patients the emanation solution produces a definite diuresis, and with a few it acts as a slight laxative, though free purgation has never been noted.

Up to the present time only twenty-one patients have been treated, but the results obtained are sufficient to warrant the hope that radium emanation solution will prove a most valuable addition to the routine medical treatment

Cases.

Arthritis Deformans.

In Case No. 197, M., aged 39, the disease was of twenty-five years' duration, the joints chiefly affected were the wrists, elbows, ankles, and knees.

The patient was first seen on April 25th, 1912. He complained of great pain, especially in his knees, elbows, and shoulders. He was unable to stand upright without sticks. He walked very slowly and with extreme difficulty, and could not cross his knees. The movements of his upper extremities were greatly restricted so that he was unable to brush his hair or shave himself.

The patient was put on a course of radium water, and took 250 c.cm. of radium emanation solution daily, except on Sundays, for eighteen consecutive weeks.

He was seen and examined on September 3rd, 1912, and very general improvement was noted. Pain in the affected joints was so slight as to be practically negligible, and he slept well. He was able to flex his knees and cross them one over the other. He could stand and put on his overcoat without supporting himself with a stick, and he stated that he felt much more secure when walking. The movements of his upper extremities were much freer and more exact, and he could now brush his hair and shave himself. Appetite was good, and the general health excellent.

The patient is still under treatment, and is steadily improving.

Arthritis Deformans.

In Case No. 220, M., aged 56, the disease was of four years' duration and commenced with synovitis of the right knee. The attack lasted for eighteen months, and was accompanied by much swelling and grating of the joint on movement. In January, 1912, the left knee-joint became affected and painful so that the patient was unable to bear his weight on his left leg.

He was first seen on May 17th, 1912. The left knee-joint was slightly swollen, and a little free fluid was present. Movement of the patella over the articular surface of the femur with the quadriceps tendon relaxed elicited slight grating, principally on the external aspect. The patient complained chiefly of a feeling of weakness and insecurity in the joint. The pain was not very severe and was most acute when he walked upstairs.

He received a six weeks' course of radium emanation water—from May 20th to June 29th. He was examined on July 11th, when he expressed himself as feeling much better, and said that the feeling of weakness in the knee-joint had disappeared, and that he was able to run a little. Examination of the joint showed a considerable diminution of the swelling, no free fluid was present, and passive movement no longer elicited grating. In October the improvement was still maintained.

Arthritis Deformans.

In Case No. 222, M., aged 35, the disease was of nine years duration. It commenced in May, 1903, with synovitis of the right knee following an injury. The knee was kept in splints for two years under the assumption that the disease was tuberculous. At the end of that period the joint was firmly ankylosed. The right elbow and right wrist became affected in June, 1904, complete ankylosis of these joints was noted in June, 1909. The left hip and ankle were attacked in September 1908, the hip becoming almost completely ankylosed at the end of 1910. The disease made its appearance in the right hip in the year 1908, but this never became so severely affected as the left one. The patient had been treated with hot air, peat, pine, and electric baths, high frequency, massage, etc., and had had 5 gr. of guaiacol three times a day for three years; nothing had served to arrest the progress of the disease.

He was given two courses of treatment with radium emanation solution. Each course lasted for six weeks and the patient drank 250 c.cm. of radium emanation solution every day except Sundays. The first course was from May 20th to June 10th, the second from October 14th to November 25th.

He was examined on December 12th. Very great improvement had taken place. All his movements were freer. He could walk much better, and no longer had pain in any of the affected joints. He stated that he could now dress himself completely without any help, except putting on his shoes, a thing which he had not been able to do for more than four years. His general health was excellent.

The improvement is still being maintained.

Arthritis Deformans.

The disease in Case No. 5,084, F., aged 52, was of twelve years' duration. The first symptoms were limitation of flexion at the hip-joint and pain under the gluteus maximus of an intermittent character. These symptoms gradually increased in severity for ten years, but in November, 1910, the patient had an acute exacerbation, and all movements at the hip-joint became restricted, and were attended with intense pain. In September, 1911, this pain was so severe and constant that she was unable to sleep for more than half an hour at a time, and became extremely worn and emaciated. Every possible form of treatment—dietetic and medicinal—had been tried without effect.

The patient commenced to take radium emanation solution on October 9th, 1911, and continued until December 21st, 1911. Slight improvement was noticed about six weeks after the treatment commenced, and from that time progress was both steady and rapid. The patient was examined on December 28th, 1911. The pain at the hip-joint had disappeared and all

the movements could be accomplished with ease. She stated that she was able to button her boots, which had been impossible for the last ten years. She slept well every night, and was able to lie in any position without discomfort. The patient was seen again in November, 1912, and was quite well.

Arthritis Deformans.

In Case No. 5,194, M., aged 54, the disease was of eighteen months' duration; it had commenced in January, 1911, with severe synovitis of the left knee which left the joint swollen. All movements of the knee became painful and were accompanied by coarse grating. Wasting of the left thigh muscles was very marked. The left hip became affected in February, 1912. The patient had tried all forms of medicinal treatment, electric and hot air baths, but without much effect.

Treatment was commenced on May 14th, 1912, and the patient drank 250 c.cm. of radium emanation solution of a strength of 6 millicuries per litre daily, Sundays excepted, until July 26th, 1912.

He was examined on September 3rd. There was then scarcely any restriction of movement at the left knee and hip, and all movements could be accomplished without pain. The wasting of the thigh muscles was no longer so pronounced, and the muscular tone was greatly improved. The patient stated that he was able to walk for three or four miles at a time without experiencing any discomfort.

This improvement has been steadily maintained.

GRANULOMATA.

Granuloma of Bridge of Nose.

The patient (Case No. 185), M., aged 16, struck his nose against a lamp-post on January 21st, 1912, splitting his skin in a vertical direction. The wound was sutured, but did not heal, and pus formed. It was then treated by fomentations, etc., and the split closed, but left a very marked thickening, which resisted all attempts to bring about its absorption. The thickening was confined entirely to the epidermis and subjacent connective tissue, and did not involve the periosteum. It was not tender, and only slightly painful on pressure, but occasioned the patient much annoyance by its unsightliness, as it gave him a Roman nose of an extremely pronounced type.

He was first seen on April 3rd, 1912, and received two treatments, each of six hours' duration, on April 4th and April 11th, with applicators of half strength, screened with 2 mm. of lead.

The mother of the patient wrote on June 3rd, 1912, saying that he had returned to school, that his nose was perfectly well, and there was no longer any distortion of its shape.

PAPILLOMATA.

Warty Growth.

The patient (Case No. 240), F., aged 30, was first seen on June 5th, 1912. A small, flat, warty growth was found on the dorsal surface of the metatarso-phalangeal joint of the left great toe, 1 cm. in diameter, surrounded by a zone of marked hyperaemia.

It was of six months' duration, and had steadily grown in spite of all kinds of treatment. It was very tender on pressure and acutely painful. The patient could not wear a boot, walked with great difficulty, and was taking morphine in order to get sleep at night.

She was given one treatment with a full-strength applicator unscreened for one hour on June 5th, 1912. She reported herself on July 8th, when the growth was found to have completely disappeared. The patient was wearing a boot, and could walk perfectly well. All pain had gone.

PROPHYLACTIC TREATMENT.

During the period between September, 1911, and December, 1912, thirty-nine patients who had recently undergone operation for malignant disease received post-operative prophylactic irradiation. Only seven recurrences had been reported at date January 1st, 1913.

In the treatment of these cases full and half-strength applicators with screens of 2 mm. of lead and containing from 50 to 500 mg. of radium were used. The length of exposure varied between twenty and sixty hours spread over a period of three to ten days, according to the nature of the disease.

It would be utterly futile at so early a date to make any statement as to the precise value of radium treatment in preventing or minimizing the danger of recurrence, but as the majority of these patients had suffered from extensive, severe, and rapidly progressive malignant disease, and the operators had expressed grave doubts as to the probability of their remaining free from the disease for more than a few months, the relatively slight percentage of recurrences so far noted does much to justify the routine adoption of post-operative irradiation. It should prove of especial service in those cases of malignant growth in which it has been found impossible to operate well beyond the appreciable area of the disease.

In the compilation of this report much valuable assistance has been rendered by my assistants, Dr. J. E. A. Lynham and Dr. A. Burrows, who have been associated with me in the treatment of the majority of the cases described.

APPENDIX.

REPORT OF THE CHEMICO-PHYSICAL LABORATORY.

By W. L. S. ALTON,

FELLOW OF INSTITUTE OF CHEMISTRY; DIRECTOR.

THE Laboratory has been concerned since the foundation of the Institute with measurements in connexion with the purchase of the radium salts acquired. Not only have the available amounts of radio-active material been excessively uncertain, but until the recent preparation of International Radium Standards, the use of various methods of determining the activity proved that the real value of the term "radium bromide" differed as much as the methods themselves.

The laboratory has prepared, with a few exceptions, all the applicators now in use, and in fact was engaged in this work during the building and equipment of the Institute; so that at the time of opening, there were twenty-four pieces of apparatus ready for use. Since then, with the acquisition of more radium salts, eleven applicators have been added, which, with their maintenance and the additional applicators still to be made, will keep the staff constantly employed.

In addition, work and experiments with radium emanation have developed steadily; the increasing utility of this form of treatment, both by means of applicators and by means of radio-active solutions, has necessitated the setting aside of a very large amount of radium salts to provide the emanation required. The Laboratory is solely responsible for the preparation of radio-active applicators and screens in accordance with the prescriptions of the medical staff for work within and without the Institute.

The total activity of the emanation produced for this purpose, and for radio-active solutions, exceeds that of 5,900 mg. of radium bromide.

The preparation of a continual supply of radio-active water has now gone beyond the experimental stage, and has resulted in the construction of a new type of apparatus which appears to be highly efficient. The amount of radio-active water prepared since the opening of the Institute exceeds 400 litres.

Finally, the Laboratory is called upon to perform all the determinations of the activity of the apparatus employed, and, in the case of all emanation applicators, the dosage during the period of application.

APPLICATORS.

Radium applicators may be of two kinds:

(*a*) Applicators containing radium salts, which may be further subdivided into two classes—(1) those in which the radium salts are fixed by means of varnish, and (2) those in which the radium salts are contained in capillary glass tubes.

(*b*) Applicators containing radium emanation.

Before describing the varnished apparatus, it will be well to point out that consideration must be paid to the concentration of the radium salt per unit area, as well as to the purity of the salt. It is obvious that a different therapeutic result will be obtained from 10 mg. of radium bromide spread over 1 sq. cm. of surface, than from the same amount spread over twice the area.

For this reason a unit of concentration has been adopted. This consists of a centigram of radium bromide spread over a square centimetre. Applicators containing radium salts to this extent of concentration are said to be "full strength" applicators; similarly, "half" and "quarter" strength applicators contain respectively 0.5 and 0.25 eg. of radium bromide respectively to each sq. cm.

Radium bromide has been accepted by the medical profession as the unit of measure for describing the content of radium applicators. This salt was the first salt of radium prepared, and happens to be most unsuitable for fixing to applicators by means of varnish, or for filling tubes.

In all probability all the apparatus at the Institute will be remeasured during the course of the coming year, and its radium content stated in terms of the element radium; not only will this procedure be more exact, but the applicators containing emanation can be more closely compared with those containing radium salts.

1. *Varnished Applicators.*

Flat varnished applicators have been made in three shapes:

(*a*). Squares, measuring 0.7, 1.5, 2.0, and 4.0 cm. across.

(*b*) Rectangles, measuring 2.0 by 3.0 cm.

(*c*) Circular plates of 6 cm. diameter.

The general method of making these flat varnished applicators has consisted in carefully weighing out the required amount of radium bromide or chloride, converting it to radium sulphate by means of sulphuric acid, and transferring the dried, ignited radium sulphate to the applicator, a flat shallow tray made of German silver, previously prepared by being coated with one or two carefully dried layers of varnish. The radium sulphate mixed with the third coat of varnish has then been evenly distributed over the prepared area and also carefully dried. Three more layers of varnish are added, care being taken to dry each one, and the applicator has been given a finishing coat of another type of varnish which gives it a glass-like surface. The temperature best suited for drying has been obtained in an electrically heated oven kept constant at 120° C. In addition, cylindrical surfaces and rods have been coated with varnish and radium salts by a similar method, except that these latter have been rotated in the electrical oven when drying, so as to obtain an even distribution of the varnish and radium.

The time taken to prepare an applicator by this method has been on the average about six weeks. Apparatus of this type has been found in general to be very durable. It is all-important that each coat of varnish should be thoroughly dried before adding the next, if the applicator is to be in permanent use, otherwise the surface of the varnish becomes uneven and covered with bubbles, and the applicator very soon breaks down. "Full-strength" applicators need remaking every two years, but "half" and "quarter" strength apparatus may be kept effective for a much longer period by means of an occasional coat of varnish.

The destructive power of radium emanation (which produces the rays of radium) towards organic matter is responsible for the relatively short life of the "full-strength" applicators, but experiments have been made which satisfactorily prove that, in spite of this drawback, no other varnish resists as well as the one that is used.

These applicators may be exposed to a temperature of 120° C., and, if need be, may be sterilized by means of alcohol, mercuric chloride, or ether. But they may not be treated with dilute phenol solution, nor is it advisable to dip them in boiling water for more than a few seconds.

2. *Tube Applicators.*

The second type of radium applicators containing radium salts consists of capillary glass tubes filled with radium sulphate, closely packed so as to prevent any movement of the salt. This type of applicator is a great improvement on the one frequently met with, in which the tube is relatively large, and in which the radium salt shifts from place to place whenever the patient moves. It also has the advantage that it can be employed with screens of varying material and thickness, which advantage has not been the case with metal tubes packed with radium. Further, on account of their small size (they vary from 2 to 4 cm. long, and are no larger than 3 mm. in diameter), they can often be employed in quite small cavities. The capillary walls are quite thin, and are protected by means of a second glass sheath; in case of a breakage, fortunately rare, the capillary tube remains unharmed.

Emanation Applicators.

Applicators containing radium emanation may be divided into two classes: (1) Flat applicators; (2) tubes.

The activity of all radium salts or solutions depends principally upon the emanation they contain. If they are heated or subjected to a vacuum, they lose nearly all their activity, which may be collected in the form of gas by suitable means. This gas, radium emanation, glows in the dark, can be condensed at the temperature of liquid air, and produces a series of radio-active bodies, radium A, B, C, etc., from which are derived the alpha, beta, and gamma rays of radium salts. The activity of the gas, at first about 90 per cent. of the total activity of the original salts or solutions, decays gradually, falling to half value in 3.85 days, ceasing to be active in about a month, and finally yielding helium, an inert gas. Conversely, the salts or solutions regain their lost activity at the same rate as the activity of the emanation obtained from them has decayed.

It was obvious that this emanation could be of therapeutic use, for not only was it possible to make applicators or tubes for special cases, and to impart to them either a high or a low activity, but these applicators could be sent to most places in the United Kingdom, while the parent stock of radium remained at the Institute to furnish in a short while emanation for further needs.

The stock of radium salts at the Institute which had been set aside to produce radium emanation is divided into convenient amounts and introduced in aqueous solution into small bulbs.

These small bulbs, in sets of five, are so distributed between several mercury vacuum pumps that each pump shall deal with the emanation produced from about 250 mg. of radium bromide. From time to time the mixed gases containing radium emanation (for aqueous solutions of radium salts evolve oxygen and hydrogen) are pumped off, collected, and transferred into applicators in the following manner:

1. *Flat Applicators.*

These are simply hollow boxes, made of German silver, with one of the faces turned down on the lathe to about 0.3 mm.; it is not desirable to screen off too many of the rays, as additional screens can be added at will. The boxes are fitted with a lead tube having a capillary bore; they can be made in both circular and rectangular form and of large or small area.

To fill an applicator it is attached to a mercury vacuum pump and pumped empty; the mixed gases from the emanation apparatus, after having been sparked in an eudiometer tube to get rid of the oxygen and hydrogen, are drawn into the evacuated box by means of a special apparatus in connexion with the vacuum pump. When all the emanation has entered the applicator, the capillary lead tube is firmly pinched with a pair of pliers in order to make a hermetical seal; the box is then detached from the pump, and is ready for use.

2. *Tubes.*

Large glass tubes, with a capacity of 0.2 cm. and upwards, can also be filled by a similar method; the tubes are somewhat constricted at one end, and when filled are

sealed at this constricted end with a mouth blow-pipe. They can be used alone, or introduced into metal tubes which act as screens.

Capillary glass tubes, suitable for use in the smallest cavities, need a somewhat more elaborate method in their preparation. A tube of this kind, sealed on to a small glass bulb, is filled, by means of the vacuum pump and the apparatus spoken of above, with mixed gases from the emanation apparatus. The bulb and capillary tube are then cooled by means of liquid air to a low temperature (about −200° C.), when the emanation is condensed, but the other gases, oxygen and hydrogen, remain in the gaseous condition. These are pumped off and the bulb completely exhausted; the liquid air is removed, and the purified emanation again becomes a gas. Mercury is now allowed to enter the bulb, and, rising, forces the emanation into the capillary tube. Like the larger tubes, this can be hermetically sealed, and used with or without metallic screens.

Measurement of Activity.

The activity of these applicators and tubes is compared with a standard of radium bromide; they have varied in strength from 40 to 200 mg.

During the year eleven applicators and thirty-three tubes have been made. The total activity of all the emanation applicators and tubes made has been equivalent to 3,403 mg. of radium bromide.

Radio-active Solutions.

The coincidence that nearly all the well-known spas in Europe, whose waters are efficacious for gouty and rheumatic troubles, contain radium emanation in solution, has led to the preparation with some success of artificial radio-active waters.

These solutions can be made either with distilled water, or water containing the same kind of saline constituents as the majority of spa waters.

These liquids when violently agitated with gas from the emanation apparatus become radio-active. This is due to the solubility of radium emanation, and the radio-activity depends on the amount of gas introduced and on the volume of liquid present.

The apparatus at the Institute is designed to give solutions with an activity from 1 to 2 millicuries per litre, an activity much greater than the best of the radio-active waters from natural sources.

Measurements.

All determinations of the radio-activity of specimens of radium salts or of applicators are made by direct comparison with a standard specimen of radium chloride. An International Standard has been acquired, and comparisons of the gamma-ray activities are made with an electroscope by Rutherford's method. The walls of the electroscope must be made of lead at least 3 mm. thick, and the readings obtained for the standard, and for the specimen measured, must be obtained under the same conditions of distance, screening, etc.

Emanation applicators and tubes must be measured after four hours, in order that the gas may have reached its maximum activity, which is attained when it has produced its equilibrium quantity of radium A, radium B, and radium C. The value of the applicators at any time can be found by calculation from the decay curve of radium emanation, and, consequently, the dosage over any particular period obtained.

Measurements of the activity of the radio-active water used at the Institute are made from time to time. Since the water has a relatively high activity, it can be directly compared with a small standard tube of radium chloride, the measurements being made by the gamma-ray method.

When the activity of a solution is small, such as that of natural waters, or of artificial waters containing only a small amount of emanation, the gas must be expelled from solution by boiling, and introduced directly into a gas electroscope. The standard emanation in this case is obtained either from a dilute solution of radium salt, or, better, from a small amount of pitchblende whose radium content has been determined. These determinations of the radio-activity of solutions are given in millicuries, a millicurie being the amount of emanation in equilibrium with a milligram of radium.

Screens.

The screens used to filter off the different rays given out from the radium apparatus are:

(*a*) *Aluminium*: 0.01, 0.02, 0.04, and 0.08 mm. thick;
(*b*) *Silver*: 0.5 and 1.0 mm. thick;
(*c*) *Lead*: 0.1, 0.2, 0.4, 0.5, 1.0, 1.5, and 2.0 mm. thick.

Radium salts, when in equilibrium with the emanation produced from them, give out three kinds of ray: the alpha, beta, and the gamma.

The alpha ray is particulate—that is to say, it consists of actual particles emitted from the source. These particles lose their velocity and therefore their activity in a few centimetres of air, and since the absorption of all the radium rays has been found to be directly proportional to the density of the screen, it is obvious that the alpha rays will be completely absorbed by a very thin screen of aluminium (about 0.1 mm.). Since the layer of varnish in most applicators is more dense than this amount of aluminium, it follows that the alpha rays are completely stopped, but the coats of varnish gradually become permeable, due partly to minute cracks, which spread throughout the layers, and partly to the absorption of emanation by the varnish, so that in course of time an applicator emits alpha rays.

The beta rays are far more penetrating than the alpha rays, and consist of negatively charged bodies projected with velocities of the same order as the velocity of light. They vary considerably as to their velocities, and are distinguished by the terms "soft beta" and "hard beta." For this reason a considerable variety of screens are used, depending on the nature of the radiation required.

Again the rule that the absorption varies directly with the density applies, and since the coefficients of absorption of aluminium, silver, and lead to the beta rays are 14.0, 75, 122, it follows that very much more aluminium than lead must be used to absorb all the beta rays.

The gamma rays are extremely penetrating, and are somewhat analogous to very penetrating Roentgen rays. When all the beta rays are absorbed by 5 mm. of lead, the radiation escaping is nearly all of the gamma-ray type; it is therefore obvious that with the screens used at the Institute, none of the gamma rays are absorbed.

Secondary Rays.

The use of thick screens of heavy metal is, however, accompanied by the production of secondary rays, which are capable of causing considerable surface irritation. This secondary radiation is screened somewhat by the use of many layers of black paper or black rubber tubing.

The whole subject is one of great interest, as the ideal screen should be capable of cutting out the primary beta rays during a long period of exposure, while at the same time giving rise to very little secondary radiation. Screens of different metals will be under trial during the coming year, and it is hoped that some progress will be made in this difficult question.

External Work.

The laboratory has undertaken from time to time the preparation of applicators and radium apparatus for medical men; four applicators have been made. It has also performed eleven determinations of the radio-activity of various specimens of radium salts, including minerals and natural waters.

AT the annual meeting of the Liverpool Medical Institution held on January 16th, the following office-bearers and members of council were elected. Those marked * did not hold the same office last year: *President*, Mr. Robert Jones; *Vice-Presidents*, *Thomas Bushby, *W. B. Warrington, C. J. Macalister, J. Lloyd Roberts; *Treasurer*, R. J. Hamilton; *General Secretary*, *Frank Hugh Barendt; *Secretary of Ordinary Meetings*, Alexander Stookes; *Secretary of Pathological Meetings*, W. Blair Bell; *Librarian*, *Nathan Raw; *Editor of the Journal*, John Hay; *Council*, T. R. Bradshaw, T. B. Grimsdale, Edward W. Hope, W. S. Henderson, N. Percy Marsh, C. E. Solomon, *R. E. Harcourt, *M. T. Stack, *A. W. Riddell, *D. Moore Alexander, *J. A. Howard, *W. B. Bennett; *Auditors*, W. S. Henderson and *A. P. Hope Simpson.

A Lecture

ON

THE DIAGNOSIS AND TREATMENT OF CANCER OF THE RECTUM.

Delivered at the Cancer Hospital, Brompton, on January 22nd, 1913.

BY

W. ERNEST MILES, F.R.C.S.,

SURGEON TO THE CANCER HOSPITAL AND TO THE GORDON HOSPITAL FOR RECTAL DISEASES, ETC.

The rectum is conveniently divisible into three parts:

1. The *anal canal*—that portion embraced by the external and internal sphincters and by the horizontal fibres of the levatores ani.

2. The *ampulla*, consisting of a lower part below the peritoneal reflection and an upper part covered by peritoneum in front and at the sides only; and

3. The upper portion joining the terminal part of the pelvic colon at the level of the middle of the third piece of the sacrum about 4½ or 5 in. above the muco-cutaneous junction of the anus.

Above this the bowel is pelvic colon. Anatomists formerly described as part of the rectum the portion of bowel extending from the left sacro-iliac synchondrosis to the middle of the third piece of the sacrum, but nowadays they relegate this portion to the pelvic colon, and we shall avoid a great deal of confusion if we follow them.

Cancer may occur in any of the three parts of the rectum. You see before you sixty specimens of the lower bowel removed for cancer, and an examination of them will convince you that in no single case is the lowermost border of the growth at a greater height than 5 in. from the anal margin. It is obvious, therefore, that a cancerous tumour of the rectum can always be reached by digital exploration, and that if the growth is beyond reach it is not in the rectum at all, but in the pelvic colon.

Now, the position of the growth has a considerable bearing on its appearance and on the symptomatology when the case first comes under observation. If it is situated in the upper portion it generally involves the whole circumference of the bowel and tends to produce invagination; if in the ampulla it usually encompasses from a half to four-fifths of the circumference, and in nearly all cases is found to have infiltrated the posterior wall; if it has arisen in the anal canal the anterior wall is generally the site of election, and from a third to a half of the circumference is involved.

Symptoms.

It is of the utmost importance that the earliest symptoms indicative of the presence of a malignant tumour in the rectum should be known and recognized. The disease is insidious in its inception and early progress, and may exist for six months or longer before giving rise to symptoms which may induce the patient to seek advice. For this reason many cases do not come under observation until the disease is far advanced and beyond the limits of useful operation. About 25 per cent. of the cases under 60 years of age that I see are probably beyond operation. Let us see how the position of the growth affects the symptoms. If the neoplasm involves the anal margin, a situation where the mucous membrane is particularly well supplied with sensitive nerve terminals, pain is an early manifestation. If the growth is situated in the upper portion of the rectum, owing to the great tendency there to circular infiltration of the gut, a stenosis is produced and an attack of mechanical obstruction may ensue quite early. In both these cases the patients seek advice while the disease is still in an early phase of development. When the lesion occurs in the ampulla the case is different. Here the mucous membrane is much less sensitive, and the lumen of the bowel is so large that a considerable time must elapse before the entire circumference has been encompassed by the growth. Under these circumstances the patient, until he begins to lose blood from the rectum, or notices a discharge, is not aware that there is anything of a serious nature amiss with him. There is a considerable latent period during which there are no objective symptoms at all, the growth being still in the pre-ulcerative stage. So soon as surface disintegration commences, bleeding from the rectum makes itself manifest, and this is generally the first objective symptom that causes the patient to seek advice. The symptoms indicative of the presence of a cancerous growth in the ampulla of the rectum may be conveniently considered during the successive phases of its progress, as follows:

(*a*) *Symptoms Prior to the Disintegration of the Surface of the Growth.*

From what I have already said it is obvious that the growth has existed for several months prior to the onset of the first objective symptom that impelled the patient to seek advice. But I want to call your attention to a particular sign which is always suggestive of cancer of the rectum in this situation, and the two patients here to-day are illustrative of its importance. Careful inquiry as to the habits of life during the year or two preceding the onset of objective symptoms will nearly always reveal the fact that a prolonged and well marked attack of constipation occurred several months beforehand. This attack of constipation is not of the ordinary kind which is speedily relieved by aperients, but is of the nature of a temporary functional inertia persisting for several days or weeks at a time and not yielding to treatment. Aperients appear to have little effect beyond producing small ineffective motions and the passage of flatus. After a period varying from three to six weeks, diarrhœa, slight at first but showing a tendency to become more marked, supervenes and persists. It is important, therefore, that a thorough examination of the rectum be made in every case in which diarrhœa supervenes upon a prolonged attack of constipation and persists in an otherwise healthy patient, since the possibility of carcinoma being the cause is very great and should not be lost sight of. The temporary inertia of the bowel is not associated with abdominal distension, indicating an absence of mechanical obstruction.

(*b*) *Symptoms During the Process of Surface Disintegration.*

The growth having become ulcerated, local symptoms of a more definite and objective character appear. The rectum becomes irritable and intolerant of the presence of faeces. Hence there is a desire to evacuate frequently, the bowels acting from twelve to twenty times during twenty-four hours. As a rule, the first and second evacuations consist of faeces, the remainder consisting almost entirely of mucus mixed with blood and pus. Bleeding, though occurring with each action of the bowels, is seldom copious, but is more marked in cases of papilliferous cancer than in the infiltrating adeno-carcinoma. If the bleeding is free, the blood generally comes from coexistent internal piles. The appearance of an increased quantity of mucus in the stools is characteristic of ulceration of the growth taking place. This mucus is peculiarly offensive in odour. Local pain in the rectum from the contact of the faeces with the ulcerated surface is usually present, though not severe, as long as the growth does not extend into the anal canal. When the anal canal becomes involved, the pain is acute at each movement of the bowels, and persists for some time afterwards. During this stage of the disease the patient begins to lose flesh in a decided manner. The loss of weight generally begins to show itself in from six to twelve months after the initial attack of constipation, and becomes progressive. If bleeding is free, and especially if suppuration is profuse, emaciation sets in, and is frequently rapid.

(*c*) *Symptoms when the Growth has Infiltrated the Perirectal Tissues and Perforation of the Rectal Wall has Taken Place.*

When the disease has reached this stage the symptoms are pronounced, and usually indicate the implication of neighbouring viscera. They consist of haemorrhage, which is often free; pus in considerable quantity on account of pelvi-rectal suppuration and the development of ischio-rectal fistulae; deep-seated pain in the pelvis, over the sacrum, and extending down the thighs from

implication of the sacral plexus by extramural spread of the disease; and the supervention of general cachexia from chronic septic absorption.

(d) Symptoms when almost Complete Occlusion of the Lumen has Supervened.

This stage is generally reached in eighteen months or two years after the onset of the earliest symptoms, and the disease is then too far advanced for removal. The attendant symptoms are: (1) Obstinate constipation alternating with diarrhœa; (2) local pain and intermittent attacks of abdominal pain; (3) intermittent haemorrhage; (4) increasing abdominal distension; (5) rapid emaciation; and finally (6) an attack of absolute obstruction.

EXAMINATION OF A CANCEROUS TUMOUR OF THE RECTUM.

A thorough exploration of the whole of the rectum in a systematic manner is the most reliable way of detecting the presence of malignant disease. The finger should be introduced to its full extent, so that the highest possible point can be reached. With an ordinary length of finger the promontory of the sacrum can nearly always be felt. The finger should then be swept round the entire circumference and gradually withdrawn as each encircling movement is made. In this way even a small nodule in the rectal wall can scarcely be missed. If a tumour be felt the following points should be noticed. Is the growth sessile or pedunculated? Is the surface smooth, lobulated, or excoriated? How much of the circumference is implicated by the growth; is the lumen of the bowel at the site of the growth stenosed? if so, can the finger be introduced through the stenosis? Is the growth movable or fixed to the muscular coat? if so, is the diseased part of the bowel movable or fixed? Finally, does the growth extend upwards beyond the reach of the finger?

Additional information as to mobility and possible extramural permeation may be obtained by bimanual examination, under an anaesthetic if necessary. The sigmoidoscope should always be used in order to verify the findings of the digital examination. You will have the opportunity of examining the condition in these two cases by the sigmoidoscope.

DIFFERENTIAL DIAGNOSIS.

From the clinical point of view the conditions which are most likely to be mistaken for carcinoma are polypus, villous papilloma, benign stricture, invagination of the rectum, gummatous deposits, and tuberculous ulceration. Polypi are very rare in adults. They are soft, pedunculated, free from induration, and seldom of a large size. Villous papilloma is fairly common. It is pedunculated, and may reach a large size. Its surface is soft and irregular, and as it secretes a large quantity of watery fluid it produces frequent evacuations of the bowels, but no induration exists anywhere. In benign stricture the margin is firm and regular; it does not bleed, and it is freely movable and generally accompanied by a purulent discharge. Invagination of the rectum may, when advanced, simulate carcinoma, but it is distinguishable from cancer by its even contour, the regular outline of its lumen, and the absence of induration. Gummata of the rectum are rare, and they may be distinguished from cancer by their smooth, round, elastic feeling, by the history of antecedent syphilis, and by the result of a Wassermann reaction. Tuberculous ulceration is not very common. It is difficult of diagnosis owing to the swelling produced and the chronic inflammatory thickening accompanying it, as you will see from the specimen shown; but in tubercle the ulceration is generally superficial, and the edges of the ulcer are not everted. Evidence of tuberculosis in other parts is often found.

THE EVOLUTION OF THE GROWTH.

An early adeno-carcinoma of the rectum forms a sessile, rounded, or oblong tumour, involving the mucous and submucous coats of the bowel. The growth increases in size in all directions, though apparently more rapidly in a transverse than in an upward or downward direction. Though at first freely movable on the subjacent muscular coat, it sooner or later becomes adherent to it. This adherence denotes that infiltration has commenced, and gradually the whole tumour becomes firmly fixed to the wall of the bowel. It is impossible to determine how long infiltration of the muscular coat occurs after the primary appearance of the growth as a definite tumour, as cases vary in the rapidity of their evolution, but from a calculation based on the time of onset of the first symptoms I should say that six months is a rough average. As the growth increases in size the oldest part of the surface, probably owing to malnutrition, disintegrates and a definite ulcer appears—superficial at first, but gradually becoming deeper. The ulcer exhibits the well-known malignant characteristics of an irregular indurated margin, an uneven, excavated surface, and an indurated base. The lateral extension of the growth is not rapid, and when one-half of the bowel has been encroached upon the disease has probably been in existence for about a year; when three-fourths or five-sixths have been involved the growth is from eighteen months to two years old. These are rough averages. As the growth encompasses more and more of the circumference the wall becomes correspondingly rigid, and marked narrowing of the lumen results. Concurrently with the increase in size the spread of the disease is taking place partly by infiltration and partly by permeation of the lymphatics. Spread occurs both intramurally and extramurally. Intramurally the cells grow along the submucous lymphatics only to a very slight extent longitudinally in the majority of cases. They tend more to permeate by radial intramuscular channels to a deeper lymphatic plexus, where the area of spread may be of considerable extent, and from this they are conveyed by collecting channels running extramurally to the lymph glands. The clinical fact that recurrence may take place in the cut end of the bowel at a distance of several inches from the site of original growth strongly supports the view that cancer cells may permeate the intramural lymphatics for a considerable distance. It is impossible to state how soon after a cancerous tumour has developed extramural spread occurs. It is quite wrong to suppose that it takes place very late in the course of the disease. I have seen several small and freely movable growths, clinically early, which had given rise to widespread lymphatic involvement and to deposits of cancer in the pelvic mesocolon and pelvic peritoneum at a distance of several inches from the site of primary growth. Visible spread like this can only be recognized when the abdomen is opened and cannot possibly be detected by the ordinary methods of rectal examination. The invisible spread is much more subtle. From clinical observations of post-operative recurrences, I am quite convinced that cancer cells, even in comparatively small and early growths, invade the lymphatic channels to a distance far beyond the limits of the visible spread, and consequently all the tissues contained in the lymphatic areas leading from the primary growth to the lymph glands must be regarded as invaded territory. I divide these areas into three—the zones of downward, lateral, and upward spread. There is a free intercommunication between the lymphatics of the rectal wall and those contained in the ischio-rectal fat, perianal skin, and the external sphincter. Involvement of this area does occur even when the primary growth is situated in the upper part of the rectum. The lateral zone comprises the levatores ani, retrorectal lymph glands, internal iliac glands, the prostate, the base of the bladder, and, in the female, the cervix uteri, and the base of the broad ligament with Poirier's gland. Situated between the upper surface of the levators and the pelvic diaphragmatic fascia there is an extensive lymphatic plexus which freely communicates with the intramural lymphatics. In several cases I have observed small plaques of growth located either in the substance of the levators or upon their upper surface close to the rectal wall, and, in one instance, in the substance of the muscle close to the origin of the muscle from the pelvis. The levator ani muscle is therefore exceedingly vulnerable to the spread of rectal cancer, and should in all instances be freely removed. The zone of upward spread is the most important of the three. The structures in this lymphatic area are—the peritoneum of the floor of the pelvis, the whole length of the pelvic mesocolon, the paracolic lymph glands, and the glands grouped at the bifurcation of the left common iliac artery. Spread occurs into these very rapidly.

I have gone very briefly into the pathology of the spread in order to show you that any operation on cancer

of the rectum that is useful at all must remove certain areas of highly dangerous tissue. The facts of surgical pathology alone are sufficient to damn all such restricted operative procedures as perineal excision and resection with end-to-end anastomosis. I cannot speak of the end results of perineal operation in the hands of others. I only know that I gave them far too long a trial, extending their scope as far as possible, limiting my selection of cases more than I do now, and faithfully following my results. I did 58 such operations; I had 55 recurrences; and I am convinced.

TREATMENT.

The failures of restricted operations and the observations clinically on the areas of recurrence led me to devise the radical abdomino-perineal operation. I shall not now describe my operation, but you will have the opportunity to-morrow of seeing one of these cases operated upon by the method; the other will be operated upon on Thursday, January 30th. Briefly, the operation consists in removing nearly the whole of the pelvic colon, the whole of the mesocolon, the whole of the levatores ani, and the whole of the rectum and anus and ischio-rectal tissues, and making a permanent inguinal colostomy. You will see the results in those patients who have been good enough to return to us to-day for examination after three and more years since the operation, and you will find that they have practically complete sphincteric control of the abdominal anus, and that this artificial anus is neither uncleanly nor unsightly, nor is it a source of discomfort. The operation is a severe one. I do not think that it should be performed on those over 60 years of age; of 10 such cases all died. With regard to the remainder, of whom there were 36, 8 died from the effects of the operation, 4 have had recurrence, 2 died of intercurrent disease, while 22 are to-day alive and well after periods varying from six months to six years.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

THE TREATMENT OF OBSTINATE SCIATICA BY PHENAZONUM INJECTIONS.

THE treatment of obstinate sciatica is attended with so many difficulties that success by Tubache's method[1] may be of interest.

A. V., aged 66, of robust constitution, weight 15 stone, came under my care on August 30th, 1912. He had had a sharp attack of sciatica in 1886, and was quickly cured by the baths of Hammam R'Irha, Algiers; again, in 1905, he was apparently cured of another attack by visiting the same baths. An attack in September, 1911, was greatly relieved by three weeks of Harrogate treatment, baths, massage, electricity, etc., and in June, 1912, after a sharp attack of lumbago, a more severe trouble arose from a return of the sciatica. Three weeks at Droitwich; baths, massage, and Aix douche made the patient's condition steadily worse. He returned home and took to his bed on September 3rd. The daily application of an electric light bath was tried, and blisters along the course of the sciatica nerve, salicylates, potassium iodide, and other remedies, but he continued to experience the most acute pain on the slightest movement. He could only lie on his left side, the sciatica affecting his right leg from thigh to foot.

On September 21st I commenced the deep hypodermic injections of the following: Phenazonum, ʒijss; cocain. hydrochlor., gr. ijss; aq. destill. steril., ʒijss; 1 c.cm. (mxv) being injected into the upper part of the thigh over the nerve. The injection was repeated at different places along the course of the nerve on September 23rd, 25th, 27th, and October 3rd, 7th, 9th, 13th, 17th. They caused no pain at the time, but invariably about 6 hours after a great deal was experienced, which lasted some hours, and sometimes necessitated an injection of morphine. There was no great relief from the treatment until October 12th, but the nearer the injection got to the nerve the greater the relief seemed to be. For instance, the injection over the external popliteal behind the head of the fibula gave great relief, and another injection, on October 13th, on the dorsum of the foot completely removed the pain after four hours, and it has not returned.

After October 12th the patient rapidly improved; the pain ceased and movement became easy. About this time some anxiety was felt because of some slight cardiac trouble, causing a slow and intermittent pulse; but a mixture of strychnine and digitalis put this right again. Since October 28th the patient has gradually resumed his usual habits, and experiences only a considerable stiffness in his right leg. The power of walking is gradually improving.

High Wycombe. LEWIS W. REYNOLDS, M.R.C.S.Eng.

[1] *Practitioner*, July, 1912.

RUPTURE OF THE PLEURA WITHOUT FRACTURE OF RIBS CAUSED BY A BUFFALO.

W. R., a German hunter aged 27, was attacked by a buffalo on October 7th, 1912, near Kasisi Camp, on the Anglo-Belgian frontier, about 40 miles from Fort Portal, Toro, in the Uganda Protectorate.

The buffalo first attacked a native porter, goring him in the abdomen from one side to the other as it tossed him. The man died on the spot. It next turned its attention to W. R., threw him on his back, and tried to crush him by pressing his chest with its head. With great presence of mind W. R. then pushed two fingers of each hand into the animal's eyes, which made it start back suddenly. Before he could get hold of his rifle (which lay by his side) the buffalo made a second rush at him and tried to crush him as before, the hunter trying to relieve the pressure by seizing both the animal's horns. In the meantime one of the other porters succeeded in killing the buffalo after three shots.

In the struggle the following injuries were sustained:

1. General bruising of the whole body and limbs.
2. A lacerated wound of the neck on the right side, and a double wound of the middle of the right arm, caused by penetration with the horn, and another lower down.
3. The principal injury, however, was rupture of the pleura between the fourth and fifth rib just outside the nipple line for 4 to 5 in.

The patient was first seen by me on October 11th, four days later. He was very anaemic, and there was a well marked mitral bruit. At each expiration the lung protruded from the aperture above described to the size of a large walnut. There was extensive emphysema of the chest wall up to the sixth rib in front and to the fourth in the axillary line. No pleuritic rub could be heard, being probably masked by the crepitations. The base of the lung was clear. The temperature was 101° F., the pulse 100, and the respirations 32.

A pleuritic rub was heard reaching to the base of the left lung on October 14th. The temperature was 98.6° in the morning, and 102.4° at 8 p.m.

The patient made a rapid recovery, and on October 18th the temperature was 98.2°, the pulse 84, and the respirations 26. The treatment was then stopped at the patient's request, but there was still dyspnoea and pain on November 2nd.

Note by DR. CROPPER, *late of the C.M.S. Hospital, Toro.*

I saw this patient on November 2nd and three following days. He was very anaemic, and I diagnosed malaria; this was confirmed by the microscope, which showed well marked benign tertian rings. Quinine in doses of gr. xv quickly put an end to the fever. The wounds were nearly healed. Pain in the left chest was diminishing, but there was still dullness at the left base, probably due to effused blood still unabsorbed. The rent in the pleura was closing, but on forcible expiration there was still a small protrusion of the lung nearer to the shoulder-joint than the nipple, and apparently more external than just after the injury. This could be controlled by a well fitted pad strapped on.

S. R. BHAGWÂT, L.R.C.S.E.,
Government Surgeon, Fort Portal, Uganda.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ROYAL NAVAL HOSPITAL, MALTA.

THREE CASES OF INTEREST.

(Reported by G. T. BISHOP, Fleet Surgeon, R.N.)

THE following notes of three cases occurring at the above hospital have been forwarded for publication by the Director-General of the Medical Department of the Royal Navy:

1. *Two Inguinal Herniae on the Same Side.*

P. R., 28, A.B., a Maltese. Admitted for operation with a right inguinal hernia, which he sustained about two years before. Examination showed a bubonocele, which extended down to the external ring. When the parts were exposed, two well-developed sacs were found, a direct (which was empty) coming through the conjoined tendon, and an oblique, containing some non-adherent intestine. Both sacs approximated towards their distal ends, and they were nearly touching at the external ring.

REMARKS.—I have previously seen a similar case, but it was not reported. Perhaps in all cases of direct hernia a sac of the oblique variety should be looked for, which may not be so apparent as in the above patient.

2. *Salvarsan in Locomotor Ataxy.*

E. H., 36, leading seaman, admitted with locomotor ataxia. Has two circular punched out ulcers on plantar surface of right foot about the size of a split pea and a threepenny piece respectively. Pupils do not react to light, knee-jerks absent. Romberg's sign very marked. Gait unsteady. The patient is very thin, and looks ill. Shooting pains down both thighs and legs. No cutaneous anaesthesia could be made out. Wassermann's reaction positive. Urine contained a trace of albumen, otherwise normal.

On August 10th 0.3 gram of salvarsan administered intravenously. This was followed by some slight pyrexia and an increase of shooting pains; subsequently also by some girdle pains.

On August 26th 0.6 gram of salvarsan was given as before. This time there was more pyrexia, temperature reaching 103°. It became normal, and remained so after August 29th.

On October 1st the patient was discharged for passage to England. He walks quite well and speedily. Romberg's sign is negative. No albumen in urine; one ulcer has healed, and the larger practically so. Pupils react sluggishly to light. Has had no lightning pains for a month. Knee-jerks still absent. Most marked was the improvement in general health. The care-worn look the patient had on admission was replaced by a cheerful expression, and his face filled out considerably.

REMARKS.—It is of course impossible to say whether this great improvement will be maintained, but the case certainly shows what salvarsan can do in an early case of tabes. The patient could not say when the various symptoms commenced, but he thought he had had unsteadiness for two months at least before admission.

3. *Iodine in Corneal Ulcer.*

J. Q., 23, stoker, was admitted with a history of ulcer of the cornea for three weeks past, which showed no inclination to improve.

Examination showed a crescentic, unhealthy-looking ulcer below the pupil, accompanied with much pain, circumcorneal inflammation, slight chemosis, photophobia, and lacrymation. The patient was treated for four days with boracic fomentations and irrigation, with just sufficient atropine to keep the pupil dilated. This resulted in no improvement.

On October 9th, after some 2 per cent. solution of cocaine had been dropped in the eye, tincture of iodine was applied to the ulcer by means of either a probe or camel-hair brush. This treatment was continued twice a day (with an occasional drop of atropine solution) until October 14th, when it was discontinued. The ulcer was then quite clean-looking, although much circumcorneal injection remained. This inflammation soon cleared up and the eye was well on October 20th, there being only slight opacity at the seat of the ulcer.

REMARKS.—I hasten to report this case, for I am not aware that iodine has been applied to corneal ulcers, and its effect here was very striking.

A fine camel-hair brush was found the best means of applying the tincture. It was possible that the treatment was not required for so long a period as five days, for the surrounding inflammation persisted while the application was being made and rather masked the improvement in the ulcer. Cocaine was required after instillation as well as before.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, January 13th, 1913.

Sir W. WATSON CHEYNE, President, in the Chair.

The General Practitioner-Surgeon.

MR. T. NORTH read a paper on the rise and possibilities of the general practitioner-surgeon. The object of the paper was to show the possibilities of operative surgery in general practice. Patients who required operative treatment might be divided into three classes. First, the rich, who could afford whatever might be necessary in treatment. They would go, as before, to surgeons whom they knew or had heard of as being pre-eminent in the class of operation they required. At the other extreme were the very poor, who would continue to receive treatment, in the future as in the past, from the hospitals. Between these two and merging into each was a class who could afford moderate fees or some fee for surgical treatment, but who could not find any one willing to operate for fees within their reach, or, if willing, capable of doing it. This condition of affairs would soon pass and there would be soon men capable and willing to operate for moderate fees. The extent to which operative procedures should be carried on in general practice could only be answered by the individual who undertook them. The advantage to the consulting surgeon would be great, as it would leave him more time for original work, and he could become a pure consultant. His aid would be sought more frequently if the patient remained under the general practitioner's care. The opinions expressed in the paper were based on between 700 and 800 operations of all kinds performed in general practice.

Treatment of Recent Injuries by Massage.

Dr. J. B. MENNELL, in a paper on this subject, recounted the good results which attended massage if properly applied. Most of the dissatisfaction which had arisen as to the treatment was due to the fact that it was not practised as described by its originator. Dr. Mennell demonstrated the correct methods both of massage and movement in cases of recent fracture.

ROYAL SOCIETY OF MEDICINE.

SURGICAL SECTION.

Tuesday, January 14th, 1913.

Mr. MAKINS, President, in the Chair.

Actinomycosis.

DR. A. G. HAYNES LOVELL recorded a case of actinomycosis primarily affecting the inferior maxilla. The disease commenced in the tooth sockets followed by an inflammatory mass attached to the jaw; after teeth extraction an exploration was made and a vaccine of actinomycosis prepared from the culture of the pus obtained. The vaccine was given every ten days and potassium iodide administered. The patient was quite cured at the end of sixteen months. The speaker claimed that actinomycosis of bone was usually secondary to infection of the overlying soft parts. Osteoporosis took place without bony thickening; the neoplastic form was rare in man but common in animals. He thought that an early diagnosis was an essential to successful treatment and that surgical interference should not be attempted until the vaccine and potassium iodide has been tried.

Mr. T. H. KELLOCK, in a paper read by Mr. PEARCE GOULD, said that actinomycosis was ubiquitous, and divided the cases into two classes, the clean and the septic; in the latter it was difficult to grow cultures. The disease usually occurred in the alimentary and respiratory tracts, especially in the salivary glands and the appendix. It was common in the lower jaw but rare in the upper, and when it did occur it started at the orifice of the parotid duct. He thought that the liver became infected directly from the duodenum. Actinomycosis of the lung spread to the chest wall; the spot in the lung was often very small and so easily overlooked. He had seen cases diagnosed as

gumma, streptococcal infection, tubercle, sarcoma, and carcinoma. The spread by direct continuity resembled malignant growths. The characteristic signs were painlessness, linear puckering, the degree of infiltration, and the small amount of pus; also the fact that the growth usually started in the openings of ducts on mucous surfaces and that it was followed by very little deformity.

Mr. A. G. R. FOULERTON compared the age and sex incidence, site of infection, and the mortality of the 76 cases of this disease that had come under his notice with the statistics given on the Continent and in Allbutt's *System of Medicine*. He found that they substantially agreed—65.4 per cent. occurred in males, 70 per cent. from the age of 15 to 35, 51.2 per cent. occurred in the mouth, tongue, and neck, 25.6 in the appendix, and 17.2 in the lungs. He divided the cases according to the kind of parasite present; most of them belonged to the mould type and spread by direct continuity; the others were a rapid blood infection leading to secondary abscesses. Actinomycosis attacked the workers amongst vegetable products; 5 of his own cases were due to passing infected cotton through the mouth. None of the cases had been diagnosed before operation and examination of the pus. Cases were often overlooked even after examination of the pus owing to the varying morphology of the parasite. He illustrated some of the forms by a series of photomicrographs, in which the coccal form was indistinguishable from tubercle.

Mr. BARKER said he had found great improvement from the injection of iodopin in one case.

Mr. WILSON reported 6 cases occurring in the appendix; 3 resembled acute appendicitis and 2 local peritonitis. In these two residual abscesses developed after appendicectomy. One formed a tumour in the cæcal region and spread into the walls of the cæcum without causing ulceration.

The PRESIDENT thought that everybody was liable to the disease; his experience was that the abdominal and pulmonary cases died; vaccines might in the future be able to save them.

Mr. BERRY thought that the diagnosis was extremely difficult and that the deeper forms were usually fatal. He did not agree with Dr. Lovell that surgical treatment should be postponed; the early isolated infection was the ideal for removal; scraping operations were bad.

Mr. FOULERTON, in a reply, said that up to the present only 4 cases had been reported in which a vaccine had been tried.

SECTION OF LARYNGOLOGY.

AT the meeting on January 10th, Mr. HERBERT TILLEY, who was in the chair, exhibited the chart of a patient, aged 10, with a continuous evening temperature of 100° F. for fourteen days, with slight tonsillitis and enlarged glands, which had subsided under *Vaccinal treatment*. A swab culture from the tonsil revealed *Streptococcus longus* with staphylococci. Dr. EYRE also isolated a similar streptococcus from a bladder specimen. The opsonic index was 0.72, when an autogenous vaccine from the tonsil was injected. This was followed by a reaction; 10 c.cm. of polyvalent antistreptococcic serum was injected (Lister Institute), and next day 1.25 million of autogenous bladder streptococci. The temperature, which had mounted to 103° F., subsided before the third injection of vaccine prepared from the bladder streptococci had been used. The marked improvement after the last vaccine was the feature of the case. Mr. DE SANTI suggested that the symptoms were due to a general streptococcal infection. Mr. F. J. STEWARD related similar cases with recurrence of fever. Dr. JOBSON HORNE did not attribute benefit to the vaccine. The PRESIDENT showed, in a healed condition, a case where galvanic puncture had been used in a *Tuberculous ulcer of the cord* by the direct method under cocaine. Evidence of lung trouble with tubercle bacilli in the sputum was adduced. The PRESIDENT also showed a case of *Granular congestion of the cord* the result of an ulcer which had healed under potassium iodide. In connexion with Mr. C. I. GRAHAM'S case of *Cyst of the pituitary fossa*, operation by the nasal route was discussed. The patient was admitted under Dr. Wilfred Harris with failing sight, temporal headaches, drowsiness, slow mental reaction and incontinence of urine for several months. A skiagram showed the pituitary fossa to be flattened out and enlarged. An incision was made in the middle line from the tip of the nose into the lip, splitting the columella; the greater part of the septum was removed. The mucous membrane over the sphenoid was raised, and then the anterior wall and intersinous septum removed till the pituitary fossa was opened (Cushing's method). Two drachms of fluid escaped. During the first twenty-four hours there were thirst and polyuria. The patient still suffered from defective sight, but this was improving. Dr. WILLIAM HILL said that in Cushing's operation the upper lip was turned up, and pointed out the advantage in the use of Killian's long speculum. Mr. F. J. STEWARD asked that full notes might be inserted in the *Proceedings*, as this was the first case dealt with by this procedure in England. Dr. DAN MCKENZIE said that Hirsch of Vienna had found that the advantage of this route was the diminished danger of sepsis. Mr. L. COLLEDGE exhibited two cases of *Laryngeal paralysis* due to central lesions in the vagus area, probably tuberculous in nature. The PRESIDENT recalled a case of syringomyelia in which similar signs were present. Mr. F. A. ROSE related a somewhat similar case which recovered. Dr. HEMINGTON PEGLER ascribed the lesion to pachymeningitis. Mr. S. W. BADGEROW'S case of *Congenital web of the larynx*, in which a white web was attached to the anterior two-thirds of the cord in a boy aged 6, was the subject of a prolonged discussion. The PRESIDENT described a case in which coloboma iridis was also present. Mr. C. HORSFORD recommended excision by the indirect method, but said that it was well to be prepared for tracheotomy. Dr. WILLIAM HILL recommended laryngo-fissure, kept open for one month, during which time a splint was inserted. A case of his could not do without a tube, but could speak quite well. Dr. A. S. HUTCHISON questioned the advantage of operation unless good articulation were obtained. Dr. FITZGERALD POWELL considered that such cases were best left, though Lack's tubes used after a laryngotomy gave good results. Dr. DUNDAS GRANT was of opinion that such a condition would call for tracheotomy during one of the exanthemata. Dr. E. A. PETERS'S case of *Extraordinary mobility of the tongue*, which could be passed into the post-nasal fossa, was discussed. Mr. BADGEROW indicated that irritation of the pharynx was the immediate cause of the use of the tongue. Dr. DONELAN related that suicides in slave ships were caused by passing the tongue in this manner. In commenting on a case of *Multiple papillomata of the larynx*, shown by Dr. E. A. PETERS, Mr. JOBSON HORNE suggested that it should be dealt with by the direct method, and repeated removals, if necessary, once a month. Mr. F. J. STEWARD also recommended this method, and considered the difficult age was about 2 years. At the age of 9 the tendency to recur had diminished. Mr. C. W. M. HOPE supported this view, though the resulting oedema sometimes made intubation necessary. Dr. FITZGERALD POWELL mentioned that tracheotomy alone cured some cases. Mr. F. A. ROSE had used magnesium sulphate without improvement. Dr. WILLIAM HILL said that he saw such a case every fortnight. Dr. DUNDAS GRANT said that he removed the growths as they appeared, and rubbed alcohol and salicylic acid into the base. The PRESIDENT mentioned a case of his which sprouted with papillomata even in the tracheotomy wound. This patient had undergone forty-three operations, and was seen every two to three months. Dr. WILLIAM HILL took the chair, and a case of *Soft bony growth of the antrum* in a girl of 14 years was shown by Dr. E. A. PETERS. It was opaque to transillumination, and the walls, except the palatal, bulged slightly. An artificial antrum had been scooped out of the solid mass nine months ago, and the condition was stationary. Dr. W. H. KELSON referred to similar cases in which the condition was bilateral. Mr. F. H. WESTMACOTT had met with cases which were due to a hyperplasia, instead of vacuolation of the superior maxilla: he advised gouging out of all the soft material contained in the bone, and considered the prognosis in a case so treated to be good. Mr. C. W. M. HOPE exhibited a case of unusual form of *Syphilitic laryngitis* incident during residence in Norway. The uvula, arytenoids, and superior ventricular bands were occupied by white solid swellings. The palate was not anæsthetic, but healed scars were present. Wassermann's reaction was positive, and 0.6 gram of salvarsan was given with marked reaction and subsequent

local improvement. Another similar intravenous injection was followed by another reaction. Dr. LIEVEN of Aix considered that in tertiary syphilis, owing to the diminished number of spirochaetes, 0.5 gram, or in a small patient 0.3 gram, was the correct dose. These reactions were dangerous, and had probably caused the death of many patients. In one series of early cases in which there was no glandular enlargement Wassermann's reaction became negative in 5 per cent., but this was rarely observed. Relapse in secondary cases treated by the salvarsan method were uncommon; he considered that only a few of the fatal cases had been published. Dr. JOBSON HORNE showed a case of *Dysphagia* with pain running up into the right ear, and lasting one month. The tongue was protruded to the right side and there was a fullness at the base of the tongue. A course of potassium iodide resulted in cure of the condition, which was probably due to a gumma at the base of the tongue.

SECTION OF OTOLOGY.

THE meeting of this Section on January 17th, under the presidency of Dr. DUNDAS GRANT, was devoted to a discussion on *The treatment of meningitis of otitic origin.* Dr. WILLIAM MILLIGAN, of Manchester, in opening the debate, referred to the difficulty of diagnosis and the disappointment met with in treatment in many cases of the disease. The march of surgery in conquering septic organisms gave him hope of greater success in connexion with this disease. The symptoms were headache, vomiting, stiffness of neck muscles, and increased arterial tension. The disease was not necessarily fatal provided it was diagnosed early and prompt treatment instituted. One must have courage to operate when the full series of textbook symptoms were not present. Meningitis could be divided into two groups: (1) Localized, (2) diffuse. When the infective organism reached the subdural spaces the tendency was for suppuration to be generalized. The most formidable form was purulent lepto-meningitis, that is, when the meshes of the pia arachnoid membrane were involved, and here there was often brain abscess or sinus thrombosis also. But the fact that it remained for a time localized afforded hope for operation even in this form. Increase of temperature he held to indicate the invasion of fresh areas. When the full range of textbook symptoms was present the patient was usually beyond the hope of surgery. Diminished alkalinity of the fluid denoted bacterial invasion, while an acid reaction showed that purulency had become established. Dr. Milligan proceeded to discuss the mechanism of the condition and the methods of operation, pointing out that bacteria were not found in films or cultures in the early stages of the disease. Oedema or fluffiness at the edge of the optic disc he regarded as a very important sign of the disease, and too much significance could not be attached to progressive increase of intracranial tension, which was usually accompanied by cerebral anaemia. Lumbar puncture as a therapeutic agent was of the greatest use when the fluid, though possibly turbid, was still alkaline and reduced Fehling's solution, but lumbar puncture he considered to be more a diagnostic than a therapeutic agent. When the labyrinth was the chief focus of serous meningitis he favoured a decompression operation in the posterior fossa, at some distance from the original focus, so as to avoid the risks of infection. An autogenous vaccine he regarded as merely an adjuvant. The internal ear was the most frequent avenue of infection to the meninges and the most dangerous. Dr. Milligan concluded with a historical survey and a description of the various operative procedures now employed, with especial regard to the prevention of herniation of the brain. His own records showed 37 cases of meningitis serosa with 29 recoveries and 8 fatalities. In the latter the cerebro-spinal fluid was purulent, and the decompression operation did not succeed. The PRESIDENT remarked that a similar hopeful tone was manifest concerning this grave condition at a discussion held by the German Otological Society, and there the best results were said to have followed excision of dura mater. Mr. C. E. WEST expressed his objection to the terms "meningitis serosa" and "pachymeningitis externa." In the latter case why call it meningitis at all? One did not speak of peritonitis when the seat of suppuration was outside the peritoneum. His results were not so good as those which Dr. Milligan was able to produce, probably largely because the cases were not seen early. He considered inferior vestibulotomy adequate for drainage; labyrinthectomy was an operation of unnecessary severity. Mr. SIDNEY SCOTT was not satisfied with the term "subdural"; the words "intradural" and "extradural" expressed all that was needed. He spoke highly of the operation of translabyrinthine drainage. Dr. DAN MCKENZIE emphasized the diagnostic value of pain in meningitis, as well as occipital headache in association with some rigidity of the neck. The great aspect which required attention and study was the treatment of purulent meningitis when the disease had passed the incipient stage and had entered the realm of the desperate. An important operation was multiple trephining and drainage in the neighbourhood of the base. Dr. MILLIGAN replied, and was accorded the hearty thanks of the Section.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, January 15th, 1913.

Mr. J. M. COTTERILL, President, in the Chair.

Endemic Febrile Illness in a Boy's Industrial School.

Dr. C. MCNEIL and Dr. J. P. MCGOWAN described peculiar outbreaks of endemic febrile illness in a boy's industrial school near Edinburgh which had occurred periodically for over ten years. The illness had assumed three types: Cases of acutely fatal illness terminating within forty-eight hours; a total of 20 such cases occurred in the period. Cases of irregular pneumonia; total, 51 cases. Cases of uncomplicated fever; total, 175 cases. The common features of the three types, their occurrence together in groups, their identical onset, and their similarity of clinical phenomena showed that they constituted a single morbid entity, and that an atypical or distorted pneumonia. *Post-mortem* evidence in the acutely fatal illnesses confirmed the suggestion of pneumonia. There still remained to be explained the irregular type of the pneumonia and its prevalence in epidemic and endemic character. The authors advanced the hypothesis that this was due to the pre existence in the boys of an abnormal constitution or diathesis. A clue as to the nature of this diathesis was found in the appearances of status lymphaticus found in certain of the *post-mortem* records. This might explain the fulminant character of the fatal cases, and its existence in a less marked degree might produce the irregular features of the other non-fatal illnesses.

Professor LITTLEJOHN discussed the subject of status lymphaticus, and Dr. SHENNAN observed that his remarks emphasized the difficulty of this investigation, a difficulty which, from what Dr. McNeil had said, had evidently been deeply felt by the authors. He and several of his colleagues had conducted *post-mortem* examinations of several of the earlier cases referred to. He had examined four or five cases himself, and had concluded that the only explanation, and that not altogether a satisfactory one, was that they were probably of the nature of acute pneumococcal toxaemias. He had in several cases noted the persistent enlargement of the thymus gland and the hypertrophy of the lymphatic tissues, but had not attached the importance which the authors did to these changes, as conducing to the fatal result. This was the additional and highly important contribution made by the authors to the possible pathology of these cases. In none of his cases had he seen evidences of pneumonia sufficient to justify his classing them as cases of that disease, and supposed that the intoxication had been so profound that the patients had died before the anatomical lesions had become pronounced. He suggested that if it had been possible to employ specific agglutinating reactions the question of food poisoning could have been more definitely excluded. Dr. J. GREEN, Dr. R. J. JOHNSTONE, Mr. WADE, Dr. GOODALL, and Dr. FRASER also took part in the discussion, and Dr. MCNEIL replied.

Tuberculosis of Bone.

Mr. J. FRASER said that in differentiating human and bovine types of tubercle bacilli obtained from bone lesions the best method was the inoculation test, performed

by injecting intravenously into rabbits 0.01 gram of the culture of tubercle bacilli. Rapid emaciation and death denoted a bovine infection; continuation of health indicated a human infection. Employing the above test in 100 cases of bone and joint tuberculosis in children, the results showed a proportion of 62 per cent. due to bovine infection, of 35 per cent. to human infection, and 3 per cent. to a mixed infection of human and bovine types. With regard to the question of infected milk, in those children showing a bovine infection 73 per cent. were under 3 years of age, and had been brought up on unboiled cow's milk, while in the cases showing a human infection 71 per cent. gave a family history of tuberculosis. As to the paths of infection, it was very difficult to experimentally infect a bone with tubercle unless the marrow was first made to undergo a fibro-myxomatous degeneration; and such a marrow degeneration might result from an endarteritis of the nutrient vessel, or a tuberculous infection of the neighbouring joint. Tubercle might attack a bone as a pure diaphysitis, as an epiphysitis or as a metaphysitis. The question of epiphysitis or metaphysitis depended on whether the synovial membrane extended only as far as the epiphysis, or beyond it into the diaphysis. The stages of the pathological process in the bone began with the development of a tubercle follicle in the bone marrow. Following this, changes took place side by side in the periosteum, in the bone lamellae, in the marrow, and in the blood vessels; a thickening of the periosteum from the deposit of cancellous bone, either rarefaction or hyperostosis of the bone lamellae, fibrosis of the bone marrow, and a tuberculous endarteritis in the blood vessels. The gross pathological varieties of bone tubercle might be classed as follows: Encysted, infiltrating, atrophic, and hypertrophic. The paper was illustrated by numerous lantern slides.

Mr. STILES highly complimented the author on his paper, which was the outcome of two years' work, and only contained a fragment of that work. In almost every particular he agreed with the conclusions of the paper. The beginning of tuberculous infection in bone was a chronic endarteritis in a nutrient vessel, due to a chronic toxaemia derived from a tuberculous focus elsewhere and most probably in a gland. Tubercle rarely began in the epiphysis, and when it did so was nearly always secondary to synovial tubercle; but there were many cases of primary disease in the metaphysis. It was important to distinguish cystiform from infiltrating tubercle in the metaphysis, for the method of treatment was different, rest and immobilization being demanded in the former, and operative interference in the latter. But the great value of the paper was that it had established the source of the great majority of bone infections—tubercle-infected milk. The inspection of dairies in Scotland was scandalously inadequate; indeed, in many rural districts it was totally absent. Further discussion was postponed to the next meeting.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on January 8th, Dr. WALTER SWAYNE, President, in the chair, Dr. A. J. NIXON gave a demonstration on the technique of the *Intravenous administration of neo-salvarsan*. He stated that it was necessary in syphilis to give doses at intervals of a week or less until Wassermann's reaction had become negative, and remained so for at least four weeks, four or five doses being usually required. Dr. C. W. J. BRASHER, in a paper on *Intermittent swelling of the parotid gland*, related the case of an adult female who had had attacks of acute parotid swelling at intervals for more than ten years. A vaccine of the *Micrococcus catarrhalis* grown from the interior of Stenson's duct gave a year of freedom from attacks, but the condition had since recurred. Dr. J. O. SYMES said that he had seen a boy with bilateral parotid swelling occurring every evening for some weeks following an attack of mumps, and Dr. CAREY COOMBS said that he had seen a similar condition affecting the submaxillary glands. Dr. R. S. S. STATHAM showed a specimen of primary *Rupture of the pregnant uterus before labour*. When the patient, who was eight months pregnant, was first seen it was thought to be a case of concealed accidental haemorrhage, but laparotomy revealed an extensive rupture of the uterus and the child free in the peritoneal cavity. She had been curetted a year previously for a septic abortion, and no other cause could be found. Dr. F. H. EDGEWORTH related a case in which *Phosphaturia and oxaluria* alternated, the latter condition being accompanied by renal colic and haematuria. The condition was cured by more complete mastication, the patient having previously bolted his food. Dr. BRASHER mentioned a case of oxaluria accompanied by haematuria and renal colic.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on January 17th, the PRESIDENT (Dr. Dobson) in the chair, Mr. ALEXANDER D. SHARP showed a number of *Skiagrams of the mastoid area*. A bismuth plug had been placed in the external auditory meatus before sending the patient to the radiographer. A very distinct outline of the canal appeared on the negative. This formed a useful guide to the mastoid antrum, lateral sinus, etc., and simplified the interpretation of the plate. In some cases it might be more useful to smear the drum-head only with the bismuth paste. Mr. HAYES showed a case in which there had been a five months' history of *Oesophageal obstruction*. A diagnosis of oesophageal epithelioma was made, and this was confirmed by the oesophagoscope. An operation was performed by Mr. J. F. Dobson, and the growth, which was an extensive one, successfully removed, the upper end of the cut oesophagus being sutured to the skin. The specimen was also shown. Mr. J. F. DOBSON exhibited some cases showing the advantage of "block" dissection in the *Removal of cervical glands* for malignant disease. Cases were also shown by Dr. VINING, Dr. BRONNER, Mr. WALTER THOMPSON, Mr. BASIL HALL, Mr. LITTLEWOOD, Dr. TELLING, Dr. GRIFFITH, and Dr. OLDFIELD. A paper was read by Dr. CARLTON OLDFIELD on *Obstetric surgery, its uses and limitations*. He discussed the treatment of eclampsia, comparing the surgical methods of simple induction of labour and of vaginal and abdominal Caesarean section with expectant and therapeutic measures. Pernicious vomiting of pregnancy he regarded as a neurosis, and advocated treatment by full feeding and suggestion. As a rule, surgical interference was not indicated in this condition, nor was it in fibroid tumours or in pyelitis complicating pregnancy. The necessity in some cases for cranioclasty and decapitation was deplored. The need for these could usually be avoided by examination during pregnancy, when Caesarean section would be indicated.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on January 9th, Mr. ROBERT JONES, President, in the chair, Mr. C. A. ADAIR-DIGHTON, in a paper on *Cavernous sinus thrombosis*, reported two cases. The first was a girl, aged 13, who had had a mastoid abscess on the right side. After the radical operation on the mastoid the girl did well for a week. Then her temperature ran up, she had rigors, with exophthalmos, drooping of the eyelids, with haziness of the cornea and optic neuritis. The right internal jugular vein was ligatured close to the clavicle and dissected up to the mastoid. The lateral sinus was exposed, curetted, and a current of fluid passed through it. Multivalent serum was administered. She made a good recovery, after showing signs of septic synovitis in several joints. The second case was a boy, aged 6. In this case the trouble arose from the nasal region, the right orbit being affected. The superior bony wall of the orbit was removed, the frontal lobe elevated, the cavernous sinus curetted, and a rubber drain introduced. The child died of acute meningitis. Mr. R. E. KELLY showed a case of *Suture of the crucial ligaments of the knee*. The patient, a carter, aged 33, had been kicked on the outer side of the knee while the joint was extended, a portion of the skin on the inner side being caught as a fold between the ends of the tibia and femur. There was extreme mobility of the joint, which could be dislocated backwards and replaced easily. The leg was put up in a Thomas's knee splint for five days. Then Mr. Kelly opened the joint by a long horizontal incision. The crucial ligaments and the internal lateral ligament were sutured with thirty-day catgut. The wound was closed and the leg kept at rest on a

Thomas's splint for three months. The PRESIDENT, after congratulating Mr. Kelly on the result, said he had seen several cases of this injury recover without operation when fixed on a splint at once. Mr. RUSHTON PARKER also thought that though the result justified the operation in this case, in most cases immediate fixation was the most important point in treatment. Mr. G. C. E. SIMPSON related a case where he had started treatment four months after the injury, with the result that after six months of splint treatment there was still a flail joint. Mr. G. C. E. SIMPSON, in a paper on *Congenital anomalies of the umbilicus*, described 3 cases of laparotomy for congenital exomphalos. In one the major part of the liver was included in the sac. The other two cases were successful. In 2 cases of ectopia the trigone of the bladder had been implanted into the sigmoid portion of the large intestine. The one lived for four months, dying from pyelitis. The other died from the shock of the operation. The anomalies of the urachus were discussed and a case of urachal umbilical polypus was described. Cases of umbilical polypi due to abnormalities of the Vitelline duct were considered. Four had been treated with success. The results of a Meckel's diverticulum was illustrated in various forms.

Reviews.

RADIO-ACTIVE SUBSTANCES.

ANY person who, though not engaged in the pursuit of pure science, yet has a grasp of the principles of scientific method, experiences keen intellectual pleasure in following an account given by a master of his subject of the way in which a new field of science has been entered, explored, and, as to its broad features at least, mapped out. Such a pleasure is in store for such persons who possess themselves of Professor RUTHERFORD'S new volume, *Radio-active Substances and their Radiations*.[1] We refer in particular to Chapter I, on radio-active substances, to Chapter VIII, on the continuous production and decay of radio-active matter, to Chapter XI, on the theory of successive transformations, to Chapter XVIII, in which the general results and relations are summed up, and to Chapter XIX, in which the radio-activity of the earth and atmosphere are discussed. These contain the general map of the new world which is being explored. The general methods of the exploration are explained in chapters on the ionization of gases and on methods of measurement, and details are filled in by others on the alpha, beta, and gamma rays respectively, on the properties of radiations, on radio-active gases and active deposits, and on uranium, ionium, and the origin of radium. Two chapters are given to radium and its emanation and active deposit, and these are followed by others on actinium and thorium and their products, and on the production of helium and the emission of heat.

In dealing with each subject the historical method is followed. That is to say, an account is first given of the manner in which the knowledge of the subject has been developed, and the data are then discussed in all their bearings.

Professor Rutherford's style is in general so perspicuous that the reader is left with the conviction that where some ambiguity or uncertainty seems to exist it is due not to any defect of expression, but to the circumstance that the facts have not yet been fully ascertained, or brought into relation with others which have been fully established.

It is true that the mathematical discussions which fill many pages in almost every chapter may present a formidable appearance to such as are not endowed with the mathematical faculty. But if they are content to accept these discussions as beyond suspicion, as safely they may, and pass on to the conclusion of each matter, they will find no difficulty in understanding the significance of the results and their relations.

The book, therefore, attains the rare success of appealing both to the specialist and to the generality. The detailed description of methods of experiment, the full mathematical discussions, and the copious references will make it invaluable to the former, while the clearness of statement and the logical sequence observed in the development of the subject and each of its parts will fascinate the latter.

The book is a masterpiece, and we would strongly commend its study to all those who desire to gain an intelligent appreciation of a new department of science intensely interesting in itself, and possessing for medical men the special attraction that one of its technical applications may have an important influence on the development of their art. The science itself is still young. The radio-activity of uranium was only discovered by Becquerel in 1896. The existence of radium was established by M. and Mme. Curie two years later, and since then an enormous amount of work has been done by an army of workers, one of the chief of whom has been the author of this work. But the therapeutic application of radio-active matter is still in its infancy. The theory of radio-activity is complex and not yet fully elucidated: the theory of living matter and its disorders is even more complex, and still less understood, and Professor Rutherford refrains from more than the briefest reference to the physiological action of radio-active substances.

[1] *Radio-active Substances and their Radiations.* By Professor E. Rutherford. Cambridge: University Press. 1913. (Demy 8vo. pp. 766; figs. 131. 15s. net.)

THE BLOOD IN DISEASE.

THE volume on *The Blood*,[2] by Drs. GULLAND and GOODALL of Edinburgh forms a notable addition to the list of monographs dealing with diseases which influence the blood in such a way as to render their detection certain in some cases and probable in others. The research and learning of its two authors and the richness of the clinical opportunities from which they have drawn their conclusions justify the opinion we express that it will for a long time be an authoritative guide to a most difficult but important medical subject.

It is divided into five parts, and concerns itself with those studies which have to do with every departure of the blood from the normal, with one exception. That exception is the bacteriological aspect of blood diseases and all that its study implies, such as the investigation of the effects of bacterial antigens, of the immune and anaphylactic reactions to such agents, and with the curative methods which have been devised to combat infection, through the mechanism of various antibodies. Only half a page is given to the bacteriological examination of the blood, and this closes with a reference for further information to bacteriological treatises. Lest this remark should damp the reader's inclination to peruse the work, it is only necessary to say that the rest of the volume is packed full of information on problems connected with the blood, which no student of medicine, however much impressed with the importance of infection, can ignore. All that can be hoped for is that the authors some day will give the medical profession another such volume dealing with those changes in the blood which are intimately connected with bacteriological study, and on lines as thorough, as scientific, and as useful as are followed in this work.

The first 46 pages deal with the examination of the blood by methods which have been thoroughly tested and approved by experience, and include those which are of far-reaching importance, as the methods of Haldane and Lorrain Smith for estimating the haemoglobin content, and the colouring methods advocated by Pappenheim, Leishman, and others. The second part of the volume is devoted to a study of the formed elements of the blood, and if the reader would like to test the reserve and practical-mindedness of the writers we would commend this section to his notice, for they have made the descriptions as simple as possible, and have avoided the excesses of differentiation and nomenclature in which German workers, who are the chief offenders, have indulged. Chapters XI, XII, and XIII (dealing with the blood in animals, with the histology of the marrow, and with the development of the cells of the blood) will serve to show the thorough-going and broad-minded attitude of the

[2] *The Blood: A Guide to its Examination and to the Diagnosis and Treatment of its Diseases.* By G. Lovell Gulland, M.A., B.Sc., M.D., F.R.C.P.E., Physician to the Royal Infirmary and to the Royal Victoria Hospital for Consumption, Honorary Physician to Chalmers Hospital, Lecturer on Medicine at Surgeons' Hall, Edinburgh; and Alexander Goodall, M.D., F.R.C.P.E., Lecturer on Physiology and on Practical Medicine at Surgeons' Hall, and on Diseases of the Blood in the Edinburgh Post-Graduate Courses in Medicine. Edinburgh and London: William Green and Sons. 1912. (Roy. 8vo, pp. 358; figs. 16, coloured plates 16. 15s. net.)

authors towards problems which will almost certainly find their full solution only in comparative pathological study and in embryology. The third part is devoted to a study of the blood, of the bone marrow, and of the lymphoid tissues in disease, and, as we have already said, in some of these the blood examination yields results which make diagnosis possible; whereas in others it fails, or succeeds only when taken in conjunction with other data independent of blood examination. The chapters dealing with haemophilia and congenital family cholaemia are of special interest and importance, containing as they do reference to recent work on these subjects. The condition known as status lymphaticus, which presents so serious a stumbling-block to the clinician and the pathologist, receives adequate treatment so far as is possible in the present uncertainty of opinion even as to its existence. Part IV is devoted to a study of the cytological changes of the blood in special infectious diseases, and is the least satisfactory of the volume, for it is wanting in that pointedness which would have been given had it been accompanied by what we have already expressed we hope will follow, a study of the bacteriological side of the questions discussed. The fifth and final part is devoted to a study of the animal parasites of the blood, such as cause malaria, kala-azar, sleeping sickness, relapsing fever, and filariasis. There is a very complete index, and the excellent coloured plates deserve high praise.

AFTER-RESULTS OF ABDOMINAL OPERATIONS.

In collecting and reprinting his papers on the *After-results of Abdominal Operations*,[3] contributed to the *Journal of Obstetrics and Gynaecology of the British Empire*, Dr. ARTHUR GILES has rendered a service to surgery of no little importance. During ten years he has spent much time and trouble in following up the whole of the cases operated on before July, 1909. The statistics refer to operations upon the female generative organs only; 80 per cent. of all cases have been traced and investigated. It is notable that the operative mortality is only 4 per cent., but the detailed inquiry into the after-history of all these cases—revealing as it does somewhere about 60 or 70 per cent. of complete restoration to health—should enable both surgeon and patient to take heart of grace. Moreover, the 30 per cent. of women, previously suffering from the effects of diseased or damaged organs, who recovered without complete restoration to health, were by no means badly off; the majority of them found themselves, and declared themselves, very much better off than they were before operation.

All the conclusions to be deduced from the results of these consecutive inquiries are worth consideration, but it is only possible here to select casually a few. Dr. Giles thinks that "soiling of the peritoneal cavity with the contents of an ovarian cyst favours the occurrence of later disease, and therefore the interests of the patients are safeguarded by the removal of these cysts (however large) intact, without tapping." It would appear that removal of the appendages of one side involves a liability to the occurrence of extrauterine pregnancy. Removal of both tubes and ovaries has no marked detrimental effect on the subsequent health; the influence of the artificial menopause in causing mental depression is relatively small. The fate of the cervical stump after supravaginal hysterectomy need cause no apprehension; amongst 181 cases there was no instance of malignancy and practically no trouble of any sort.

The period of invalidism after this class of abdominal operations is less than three months in 60 per cent. of cases, and very rarely lasts beyond twelve months even in women well on in years. With this class of operations as with those elsewhere, it is found that the severity of the operation itself is not the most important factor in determining the period of convalescence. Dr. Giles has noticed some deterioration of the memory in as many as 20 per cent. of his cases, and thinks it was more marked in proportion to the duration of the operation; it would thus appear to be a result of the anaesthetic intoxication; if this be the case it should be recognizable equally after other than pelvic operations, but is it so?

This is a book that should be in constant requisition in every library, and one that no surgeon should neglect. It is so liberally documented that even the sceptical public may well accept its reassuring statements; to be operated upon is, after all, not to bid farewell to normal health and happiness!

[3] *A Study of the After-results of Abdominal Operations on the Pelvic Organs.* By Arthur E. Giles, M.D., F.R.C.S. London: Baillière, Tindall, and Cox. (Med. 8vo, pp. 262. 10s. 6d.)

ENZYMES.

IT has been truly said that the fundamental training of a physician should be that course of study which makes of him a good biologist. This newer conception is of comparatively recent date, and some of us can remember when medicine was an affair of chemistry—not of biochemistry, but of that "inorganic" order which sought to cure epilepsy with silver and bronchitis with antimony. Gradually bacteriology came to the front, and we now seem to have reached another period of development—bacteria are not the ultimate recognizable elements of disease, but both bacteria and animal cells are found to exert their influence by means of unorganized agencies which can only be recognized by the product of their activities—ferments or enzymes. Professor COHNHEIM has contrived in the small compass of his book on *Enzymes*[4] to give a survey of the subject which will provide the reader with much information. The book, which has been presented in English with great skill by Dr. W. B. Cannon, practically divides itself into three parts. The first is concerned with the study of those fourteen or eighteen enzymes, hydrolytic in character, the seat of origin and operation of which is the alimentary canal, including the doubtfully digestive ferment found in the liver and intestine—arginase. To the physiologist concerned in the processes of assimilation such ferments are of the greatest importance, and no doubt in the future more will be heard from the pathologist of those clinical conditions which represent disturbed action of these ferments. A second section, introduced in Chapter XXI, deals with those enzymes the activities of which are directed not to the preparation of foods for mere absorption, but for the far more important function of extracting from such absorbed foods the energy which gives birth to the heat of the body on the one hand, and that power of movement which is an essential in all animal life. The animal body by means of these metabolism-enzymes is rendered the most perfect engine known, for it makes mechanical use of 30 per cent. of the energy represented by the food intake, and the best engineering skill can make use of not more than 10 to 13 per cent. of the total potential energy of the fuel used in steam engines for mechanical purposes. A subsection of the discussion on metabolism-enzymes has to do with the important autolytic enzymes, that is, with ferments which are not yet clearly shown to have any anabolic or katabolic importance, but which come into operation in molar and molecular death of the individual, and are possibly responsible for those wholesale losses of parenchyma seen in cases of arterial occlusion—for example, infarction of various organs.

The third and last section deals with ferments which subserve neither assimilation of food and its internal combustion, nor the removal of tissues no longer capable of surviving. The fibrin ferments represent a group of agencies which in evolution have been found necessary for the protection of the life of the individual. When a blood vessel is opened by accident or by biological activity, here are agents whose function is purely therapeutic, namely, the duty of stopping haemorrhage. Scarcely less interesting is the discovery by Professor Cohnheim himself of the first-known metabolism-enzyme, namely, the ferment which attacks sugar and is due to the conjunction of two agents derived from two different kinds of tissues—muscle and pancreas. A full index to subjects and authors closes a book which is of first-rate importance to biologists.

[4] *Enzymes.* By Otto Cohnheim, Extraordinary Professor of Physiology, Heidelberg. Six lectures delivered under the Herter Lectureship Foundation at the University and Bellevue Hospital Medical College (1910). First edition. New York: John Wiley and Sons; London: Chapman and Hall, Ltd. 1912. (Cr. 8vo, pp. 180. 6s. 6d. net.)

THE PROSTATE.

PROFESSOR VON FRISCH'S monograph on the diseases of the prostate[5] is one rather for the genito-urinary expert than

[5] *Die Krankheiten der Prostata.* Von Dr. A. von Frisch. Second edition. Vienna and Leipzig: A. Hölder. 1910. (Sup. roy, 8vo, pp. 305, Mk. 6.50.)

for the practitioner. It has a bibliography of thirty pages, and is so fully bedecked in the text with the names of those who have written on the subject, whether exhaustively or casually, that it is a little difficult at times to see the forest for the trees; it is difficult to arrive at the proper views of the author himself. The whole field is traversed, from anatomy, through physiology—including a discussion of the vexed question of the real function of the prostatic secretion, and the even more obscure question of the nature of the internal secretion—to etiology and pathology in their various aspects. One or two points are easily demonstrated. For example, the author confirms the opinion of Sir Henry Thompson that no one of the multitude of etiological factors assumed or asserted as the *fons et origo* of prostatic hypertrophy has any claim to pre-eminence, least of all gonorrhoea; sexual excess no more than continence. Almost positive, too, is the author's assurance that prostatorrhoea is not a constant or even common symptom of chronic prostatitis. It will be gathered that Professor von Frisch is more interested in the pathogeny and the symptomatology of the prostate when it is stated that the pages devoted to total enucleation of the organ are fewer by far than those expended on discussions of the worth and mode of action of the various "indirect" methods of effecting atrophy or regression. There is, of course, an enormous amount of information in the book, ranging over all forms of acute and chronic inflammation to tuberculosis (with no reference, however, that we have detected, to its occurrence in very young children), concretions, and new growths, and, lastly, parasitic affections such as echinococcus cysts. It is a book for reference, not only as to theories of origin, but also as to the manifold methods of instrumental and other forms of treatment which the diseased organ has suffered.

Dr. KARO's book on the pathology and treatment of hypertrophy of the prostate[6] is a small monograph intended for doctors and students. It contains nothing new on the subject, but what it does contain of facts well known to the specialist is clearly and attractively set out. Only when it comes to deal with hypotheses is it found wanting. It starts with a long exposition of the latest hypothesis which is fashionable in Germany, namely, that the prostate produces a "hormone" which is supposed to activate the bladder nerves (*sic*). It is this hypothesis which dominates the whole essay, but to support it not one single fact is brought forward which appears to us to pass muster. Accepting this hypothesis, the author proceeds to detail certain cases of so-called "prostatism without residual urine and without enlargement of the gland," in which he claims to have obtained a complete cure by injections of testiculin and yohimbin. We fail to see the connexion between the theory and the practice. It would be interesting to know why the average German writer at the present time wilfully refuses to recognize French and English work. To take one instance from many out of this book, Karo enunciates a now well recognized fact that the only part of the prostate which undergoes "hypertrophy" is that part which lies between the urethra and the ejaculatory ducts, and that in prostatectomy a certain part of the prostate is not removed, nor are the ejaculatory ducts torn. We could overlook the fact that this was pointed out a good many years ago in a book by Wallace of St. Thomas's Hospital, but we cannot overlook the fact that these propositions were elaborated in an admirable and very complete article in German by Marion, a Frenchman, in the *Zeitschrift für Urologie*, Bd. 5, No. 8, 1911, exactly one month before the article which Karo calls classical of Tandler and Zuckerkandl in the *Folia Urologica*. Yet Karo overlooks the article of Marion, and writes as if Tandler were the first to point to the facts. Science should know no frontiers.

TEXTBOOKS OF PHYSIOLOGY.

PROFESSOR SCHÄFER has written a little practical book on *Experimental Physiology*[7] in the same clear style and with the same excellency of arrangement which characterizes his well known *Essentials of Histology*, a book familiar to every student of medicine. The book before us is illustrated with eighty-three excellent figures and is founded on twelve years' experience of classes at Edinburgh. The electrical circuits and frog muscle and heart preparations are particularly well figured, and the text suffices to give the student a clear and succinct account of the work he has to do in each practical lesson. The exercises chosen are mostly of the old familiar type such as have become traditional in physiological laboratories, but we note among the demonstrations an interesting and novel experiment on the lactating mammae by which is demonstrated the fact that a decoction of corpus luteum or posterior lobe of pituitary body causes a rapid flow of milk.

HERMANN'S *Lehrbuch der Physiologie*[8] has reached its fourteenth edition and has been revised and enlarged by the learned author. The continued popularity of this work must depend on its containing such a summary of physiological science as can be crammed up by the student or referred to by the practitioner, for the work is remarkable for dullness, and is not written in such a way as to inspire the reader or give him any love for the science. We note very little reference to English work. Thus, in the section on reflex action we look in vain for the fundamental researches of Sherrington. In that on the circulation we find no mention of Bayliss's researches which prove that vaso-dilator nerves to the skin run in the posterior roots, or to the researches of Leonard Hill on the influence of posture on the circulation. In this latter respect an erroneous research carried out by two pupils of the author is alone cited. In the section dealing with speech there will be found an account of Hermann's phonographic records of vowels and consonants. The physics of physiology are dealt with particularly well by the author, and in all the physical sections this work may be consulted with advantage.

HEATING AND VENTILATION.

NOTWITHSTANDING the great amount of attention which has been paid in recent years to the question of the ventilation and warming of dwelling houses and of public buildings there is still a vast amount of ignorance displayed by those who are called upon to carry out practical schemes. A great deal of that ignorance would be dispelled by a careful and intelligent perusal of Mr. A. H. BARKER'S work on the *Theory and Practice of Heating and Ventilation*[9] which deals with the whole subject in an elaborate and masterly manner. The author has studied the many difficult problems, which he admits exist, both scientifically and practically, and he is able to show how many of them may be solved. Although a large portion of the book deals with technical matters of interest primarily to engineers there is still much to be learnt from it by those less expert. For example, the chapter on heating by fireplaces and stoves contains a very clear account of both these methods of warming a room. Among the disadvantages of an open fire as a means of heating Mr. Barker places first its inefficiency, which he considers to be not more than one-fifth or one-sixth of that of a system of heating by radiators for an approximately equal effect. Moreover, it causes an immense amount of labour in carrying fuel and in the removal of ashes, while in addition a great deal of dust is produced. For an ordinary sitting-room he considers that, if no regard is to be had to the initial cost or to the cost of upkeep, the most satisfactory method of warming is by a combination of open fires and radiators. The chapter dealing with the plenum system of ventilation is a very clear exposition of the subject dealt with, and although the author is evidently favourably disposed towards this method of ventilating he has considered it in a very fair and impartial manner.

[6] *Die Prostatahypertrophie. Ihre Pathologie und Therapie.* By Dr. med. Wilhelm Karo. Berlin: Oscar Coblentz. 1912. (Cr. 8vo, pp. 50. Mk. 1.60.)

[7] *Experimental Physiology.* By Professor E. A. Schäfer, F.R.S. London: Longmans, Green and Co. 1912. (Med. 8vo, pp. 120; figures 83. 4s. 6d. net.)

[8] *Lehrbuch der Physiologie.* By L. Hermann. Fourteenth edition. Berlin: A. Hirschwald. (Roy. 8vo, pp. 800; figs. 274. Mk. 18.)

[9] *The Theory and Practice of Heating and Ventilation.* By A. H. Barker, B.Sc., B.A. London: The Carton Press. 1912. (Sup. roy. 8vo. pp. 732; illustrations 142. 21s. net.)

NOTES ON BOOKS.

DR. R. C. MACFIE is among the latest contributors to the flood of neo-vitalist speculation, of which Professor Bergson's philosophy is a prominent example. In *Heredity, Evolution, and Vitalism*[1] he deals with "some of the discoveries of modern research into these matters, their trend and significance." He has evidently given considerable study and thought to the subject, and he writes in a style that may be commended as both scholarly and picturesque, though obscure in parts. He deals first with the morphology and chemistry of the cell, development, the various more or less conflicting theories of heredity, and such cognate problems as the transmission of acquired characters and the determination of sex. Medical readers will here find themselves on familiar ground, and will doubtless appreciate the ability of the exposition, as well as the acuteness of the criticism evoked by the consideration of controversial points. But we fear that the uninstructed—and the book purports to make a general appeal—will find the author's treatment too condensed and technical for their powers. In the last few chapters Dr. Macfie comes to grips with his main problem—the bearing of recent discoveries upon the theory of continuous evolution, and especially upon Darwinism. He is pronouncedly anti-Darwinian; for him the publication, or at all events the ultimate acceptance by the scientific world, of the *Origin of Species* was "a spiritual disaster," the victory of the evolutionists "a matter for tears." With Professor Pflüger, he regards vital force as a specially embodied energy of thermal nature and origin, rejecting the view that life has been built up from or is explicable in terms of the inorganic. Dr. Macfie is sceptical as to the common origin of life and the simian ancestry of man. His alternative hypotheses are interesting, but would have been more effectively presented if he had more clearly defined to himself the quality of the audience he wished to address. In any return to the subject it would be well to adopt a method either frankly popular, or taking for granted much of such doubtfully relevant information as he has compressed into this volume.

Mr. W. H. WHITE'S *Handbook of Physics*[2] is one to which unqualified praise can be given. Although it is written avowedly to cover the ground required for the intermediate examinations of the universities, and the author has not thought it *infra dig.* to distinguish by a particular mark those paragraphs with which medical students need not concern themselves if they only wish to do what is required for their examinations, yet it is as far as possible from being a mere cram book. The matter is presented with great economy of words, but the author succeeds in being more and not less interesting from the terseness of his explanations. The subjects of mechanics, heat, light, sound, magnetism, and electricity are dealt with, and each chapter is followed by questions selected from the examination papers of various universities. Mr. White is lecturer on physics at St. Mary's Hospital Medical School, and medical students will find his book an excellent one.

Captain J. W. S. SECCOMBE'S *Bacteriologist's Aid to Memory*[3] is a compilation from standard works on bacteriology. It is a large sheet, upon which are arranged in tabular form the chief cultural, morphological, and pathogenic characters of the chief races of micro-organisms. The information is accurate, but most of it would be quite superfluous to any competent bacteriologist. It may be useful to clinical pathologists of little experience, or to those who are preparing for examinations.

The twenty-third volume of the *Transactions of the American Pediatric Society*[4] relates to its meeting in the summer of 1911. Among the thirty-six papers read and discussed were four dealing with metabolism in children, and five with cases of epidemic anterior poliomyelitis, including a brief report on the subject presented by a special committee which had been appointed to consider the subject on behalf of the society. Among its recommendations was the application of strict quarantine measures for at least a month to every case and the exclusion of children belonging to infected households from schools. A case of diabetes mellitus in a child aged 7 months was recorded by Drs. P. J. Eaton and E. B. Woods, and a careful clinical and pathological study of amyotonia congenita was presented by Drs. J. P. Crozier Griffith and W. G. Spiller. Three authors, including Drs. Henry Koplik and Francis Huber, dealt with the special problems of ward arrangement and administration created by the needs of children; and Professor E. E. Graham recorded in detail his experience with the vaccine treatment of 24 cases of whooping-cough. It justified, in his opinion, a more extensive trial of vaccine treatment in this disease. The volume is edited by Dr. L. E. L. Fétra.

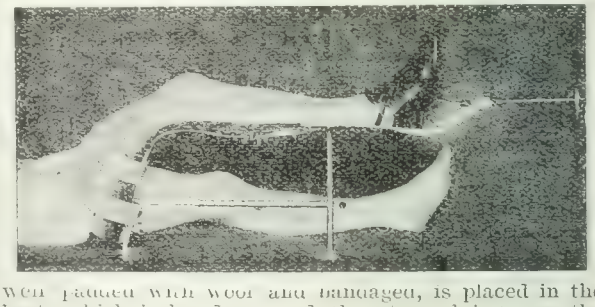
The first English translation of DIEULAFOY'S *Textbook of Medicine*[5] was based on the fifteenth French edition, and met with considerable success on its publication some two years ago. A further translation by the same workers, Dr. V. E. COLLINS and Mr. J. D. LIEBMANN, Ph.D., LL.D., is based on the sixteenth edition, which appeared only a few days before the lamented death of Professor Dieulafoy in the autumn of 1911. That edition contained a considerable amount of new matter, so that the present volume is more up to date than its predecessor. Vaccines, the opsonic index, the Wassermann reaction, and salvarsan all receive notice, while there are also sections dealing with various syphilitic and parasyphilitic phenomena, gonococcic septicaemia, and haemolytic icterus. Nothing could destroy the attraction of the clarity of thought which helped to win for Professor Dieulafoy his great popularity as a writer, and the translators have at times managed to reproduce something of the charm of the idiomatic phraseology of the original work.

MEDICAL AND SURGICAL APPLIANCES.

Apparatus for the Extension of Fractures of the Tibia during Plating and Screwing Operations.

MR. LAWRIE MCGAVIN, F.R.C.S. (London), writes: The difficulty of bringing into apposition the overriding fragments in fractures of the tibia when operations are undertaken for the screwing or plating of this bone are well known to all surgeons. This difficulty is especially marked in old-standing fractures which, in spite of the manipulative skill which will often overcome the displacement in *recent* injuries, are frequently impossible to reduce without the exertion of considerable leverage and force. To overcome this difficulty I have recently devised the extension apparatus shown in the accompanying photograph, which I have found of great assistance.

The apparatus is placed upon the operating table, and the patient's knee being flexed, the limb is placed upon it, the thigh being strapped to the thigh piece. The foot,



well padded with wool and bandaged, is placed in the boot, which is laced up, and the straps lying over the malleoli are drawn tight. The ring in the sole of the boot is now placed in the swivel which is attached to the end of the extension screw, the thread of which is very fine, when, by screwing this up tight, the bones are brought into accurate alignment and can be plated with the greatest ease upon the apparatus. The apparatus, covered by sterilized towels, thus takes the place of the operating table, and is adjustable to suit varying lengths of femur and tibia.

This method does away with the irregularity of manual traction, which makes the operation so prolonged and difficult in old cases, as well as with the necessity for introducing levers between the broken ends, which so frequently results in bruising and cracking of the bones and stripping of the periosteum. The apparatus has been made for me by Messrs. Allen and Hanbury, who will be pleased to demonstrate its use to any surgeon.

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[1] *Heredity, Evolution, and Vitalism.* By Ronald Campbell Macfie, M.A., M.B., C.M. Bristol: John Wright and Sons. London: Simpkin, Marshall, Hamilton, and Kent. 1912. (Demy 8vo, pp. 302. 6s. net.)

[2] *A Handbook of Physics.* By W. H. White, M.A., B.Sc., A.R.C.Sc. London: Methuen and Co. 1912. (Crown 8vo, pp. 680; 341 diagrams. 7s. 6d.)

[3] *The Bacteriologist's Aid to Memory.* By Capt. J. W. S. Seccombe, R.A.M.C. A handy reference sheet for the laboratory. London: J. Bale, Sons, and Danielsson. 1910. (3s. 6d.; on linen, 4s. 6d.; with rollers, 5s. 6d.)

[4] *Transactions of the American Pediatric Society.* Vol. xxiii. (Roy. 8vo, pp. 395.)

[5] *A Textbook of Medicine.* By G. Dieulafoy. Second edition, translated from the sixteenth French edition by V. E. Collins, M.D.Lond., and J. D. Liebmann, Ph.D., M.A., LL.D. In two vols. London: Baillière, Tindall and Cox. 1912. (Roy. 8vo, pp. 2180; plates 9, figs. 100. Price 25s. net.)

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY REMEDIES.

THE Select Committee appointed to inquire into the sale and advertisement of proprietary medicines resumed its sittings at the House of Commons on January 16th.

The Chairman (Sir Henry Norman) mentioned a case to which the attention of the Committee had been called by a member of the public of an alleged clergyman advertising his willingness to send inquirers a free cure for epilepsy. The method was to forward a prescription, accompanying it with a letter advising the recipient to obtain the principal ingredient from a manufacturing chemist whose premises were in the same town in Cheshire as that in which the "clergyman" resided. Whereas the ordinary price of the ingredient in question was from 2s. to 3s. 8d. per pound, 16s. per pound was charged by the chemist. Inquiries of the local police revealed the fact that the "clergyman's" letters emanated from the address of the manufacturing chemist, and as a matter of fact no clergyman had ever lived there within the knowledge of the police.

PROPRIETARY ARTICLES SECTION, LONDON CHAMBER OF COMMERCE.

Evidence was then given by Mr. E. S. Waring, of Nottingham, a Director of the business of Boots Cash Chemists, who attended at the request of the Proprietary Articles Section of the London Chamber of Commerce. He stated that from his experience, 121 out of the 269 preparations mentioned in *Secret Remedies* and *More Secret Remedies* had no sale whatever; most of them he had never before heard of, and some he knew were dead. Of the remainder, 57 had a very poor, intermittent sale, 12 had a fair sale, 23 a good sale, 25 a very good sale, and 30 a very large sale. He did not consider the prices charged for proprietary medicines to be unreasonable; a chemist would charge 1s. 6d. for making up a box of 56 pills similar to those for which the proprietary medicine vendor charged 1s. 1½d. Proprietary articles which did not impress the public as having real merit died out rapidly. He did not think the interests of the public would be served by the publication on the label of the name of a poison contained in a proprietary medicine; the tendency would be for the victims of certain drugs to buy the medicine for the sake of the drug contained. He was strongly opposed on behalf of the retail trade to any publication of formulae. It would lead people to purchase the ingredients separately and attempt to compound the medicines themselves—perhaps with disastrous results. Publication of formulae would lead to unfair competition; a preparation would be advertised as "according to the formulae" of some well-established remedy.

Sir Philip Magnus: They can do that now from the publication of the formula in *Secret Remedies*.

The Witness: Assuming that it is the correct formula.

Sir Philip Magnus: It is probably as correct as any formula that could be put on the label of a bottle of medicine.

Continuing, the witness said he was in sympathy with any restriction of the improper sale of abortifacients, and he mentioned the steps taken by his firm to prevent abuse in this matter. The witness gave a list of sixteen proprietary articles which, from inquiries at 105 shops of Boots Cash Chemists, he found to be prescribed by doctors.

The list was not fully disclosed, but the Chairman remarked that a good many of them were not secret remedies of the class the Committee had been dealing with.

Mr. Newton examined the witness at some length with regard to preparations manufactured by his firm for female ailments and for gonorrhœa. The witness said this was a legitimate business done by chemists of all classes.

The witness agreed with Mr. Glyn Jones that not much harm would be done if the law prohibited the sale of anything advertised for the treatment in any way of women's functional troubles. He admitted that the traffic in these preparations was large and had serious results.

In reply to Mr. Bathurst, the witness expressed the view that medical men were largely influenced to prescribe proprietary medicines by the advertisement of these in the medical journals. As to the publication of the name of a poisonous ingredient, the witness admitted that there were not many proprietary preparations containing a sufficient quantity of a deleterious drug to make it worth while for a victim of a drug habit to take the preparation. The witness agreed that the advertisement of preparations purporting to cure incurable complaints should be prohibited by law.

The witness was also questioned with regard to a preparation for gonorrhœa manufactured by his firm, but sold under another name, Messrs. Boots being described as agents.

The Chairman said the witness had used the word "legitimate" several times in the course of his evidence. Did he think it legitimate to sell a medicine bearing on its label a guarantee of genuineness signed in the "facsimile" signature of a non-existent person? The witness replied that he considered it quite legitimate. This was a business that his firm had purchased.

The Chairman: I do not remember any reference by you to the admittedly fraudulent large class of proprietary medicines. You alone of all the witnesses called have not alluded to this.

The Witness: I am sorry I did not say anything about it. There is such a class of medicine; it is advertised through the post mainly. It is desirable that these preparations should be dealt with by legislation.

MOTOR CARS FOR MEDICAL MEN.

SMALL CARS.

THE Clement Bayard Company of Levallois, Paris, has recently opened an agency in London (98, High Street, Marylebone) for the sale of certain cars which are to be known under the title of the Bayard. They appear to have been brought out in answer to the demand for small cars with multiple cylinders, but otherwise of simple construction. The cars now being marketed are in three sizes—8 h.p., 10 h.p., 14 h.p. They all have four cylinders cast in monobloc form, chassis of pressed steel, Bosch magneto ignition, thermo-syphon cooling, automatic pump lubrication, leather cone clutches, and four speeds, including reverse. The transmission is by a Cardan shaft enclosed in a torque tube carried back to a bevel-driven back axle. The brakes are foot brakes and act on the back wheels, and the wheels of wire furnished with Michelin tyres. The wheel base of the 8-h.p. car is 5 ft. 5 in., and its total length 9 ft. 5 in., while its cylinders are 60 by 20. The price of this car when fitted with a two-seater torpedo body is £197. The bore and stroke of the 10-h.p. four-cylinder Bayard are 65 and 120 respectively; the price when fitted with a four-seater torpedo body is £241. In the 14-h.p. four-cylinder Bayard the bore is 80 and the stroke 130, the wheel base being 9 ft. 5 in., and the total length 12 ft. 11 in. The price of the chassis alone is £308. We have not yet had an opportunity of trying these cars, but expect to find that they are of a satisfactory character, because the Clement Bayard Company has a very high reputation in France.

IN the course of a paper on acetylene lighting, read before the Illuminating Engineering Society on January 10th, Mr. C. Hoddle said that in the United States acetylene is used, not only to light motor cars, but to start the engine. On a recent American tour he saw these motor starters being made by the thousand, and they appeared to work very satisfactorily on the cars fitted with them. A small charge of compressed or dissolved acetylene was pumped into the cylinder by a simple hand-pump and fired by the ordinary electric spark. In this country the use of acetylene for motor cars seemed to be limited to lighting purposes, its great advantage being the convenience with which the tubes containing dissolved acetylene could be carried from place to place. Mr. Hoddle stated that acetylene was being employed for miners' lamps to a great extent on the Continent. In France 50,000 acetylene lamps were in use in the mines, and double this number in Germany. The qualities of acetylene lamps for mines had recently been the subject of careful attention, and inquiries into the experiences obtained with open acetylene lamps in the metalliferous and salt mines of Prussia had lately been made by the Prussian Minister of Trade and Commerce, and a corresponding inquiry had been instituted in France.

Nova et Vetera.

PROVERBIAL MEDICINE.

Prognosis in Proverbs and Folklore.

Prognosis in disease is proverbially difficult, and so it comes about there are not many proverbs which can be said to yield real assistance in forecasting the future. It requires a very old doctor or a much experienced nurse to foretell a patient's death, and few care to risk their reputation on a guess as to the exact time of the end. "Death defies the doctor"[1] in more senses than one. Further, prognostic proverbs are so closely allied to superstitious beliefs as to be sometimes incapable of separation from them. Nevertheless, there are many interesting sayings of a prognostic kind in common use which are worthy of consideration by the medical man who wishes to be acquainted with popular notions regarding sickness and the signs of approaching recovery or impending death. It is always disconcerting for the doctor to be ignorant of beliefs known to his patients or their friends, even when these are only of the nature of folklore.

Shakespeare's picture[2] of the prognostics of the approach of death is so well known and so often quoted as almost to have acquired proverbic force. The hostess says to Bardolph, concerning Falstaff's death:

> A'parted even just between twelve and one, even at the turning o' the tide, for after I saw him fumble with the sheets and play with flowers, and smile upon his fingers' ends, I knew there was but one way; for his nose was as sharp as a pen, and a' babbled of green fields. . . . So a' bade me lay more clothes on his feet. I put my hand into the bed and felt them, and they were as cold as any stone; then I felt to his knees, and they were as cold as any stone, and so upward and upward, and all was as cold as any stone.

Thomas Lupton's description[3] contained a few more details:

> If the Forehead of the Sick wax red, and his Brows fall down, and his Nose wax sharp and cold, and his left Eye become little, and the corner of his Eye run, if he turn to the wall, if his Ears be cold, or if he may suffer no brightness, and if his Womb fall; if he pulls Straws or the Cloaths of his bed, or if he pick often his Nostrils with his fingers, and if he wake much: these are most certain tokens of death.

In these descriptions the medical reader will recognize many of the symptoms of impending dissolution put into popular language, and other signs are hinted at in some sayings and beliefs as the following. Thus the loss of transparency of the cornea may be the origin of the saying reported by Adams[4] that

> Some physicians maintain that, if looking in a sick man's eyes they see their image, there is hope of life; but the want of this resultance is held an argument of instant death.

Again, there is the adage, "Hunger in sick folks doth foretell death's sad approach," referring to the keen desire for food which is superstitiously explained as the earth or the grave calling for them. The proverbial "death-rattle" is due, of course, to the noise caused by mucus in the trachea which the sick man cannot bring up; and there is the saying, "I shall die, I cannot spit from me," which may point to the same *ante-mortem* inability.

Unusually high spirits in any one are often held to presage an illness or even death; and physiological conditions, such as a rising temperature, doubtless underlie and cause the phenomenon. In some persons an attack of gout or megrim is preceded by a feeling of well-being or of mental brilliancy. In Scotland, principally, this state of mental exaltation is commonly known as *being fey*, possibly from the Old English *fǽge*, fated to die or near to death; and there are such proverbial sayings as "death on the fayest falls," and "there'l nae man die but him that's fie." In Wright's *Dialect Dictionary*[5] the explanation given of the word is that it was formerly used to express the state of a person who was supposed to be dying, but who would rise from his bed and go about the house, conversing with his friends as if nothing ailed him; but it was also used of persons in health whose eyes displayed unusual brightness, and who appeared to act and speak in a wild and mysterious manner. This state of feydom or feyness has been illustrated by several examples in *Notes and Queries*[6] taken from Shakespeare (*Romeo and Juliet*), Casanova's *Memoirs*, Howell's *Letters*, Scott's *Guy Mannering*, and Tytler's *History of Scotland* (death of James I); but the instances chosen were all cases of sudden and violent death. The "lightening before death"[7] following upon disease has another cause, if, indeed, we can speak of these historical cases of feyness as anything more than mere coincidences brought to mind after the event by superstitious people. It is to be explained probably by changes in the cerebral circulation; and it may very easily deceive the unwary doctor as well as the uneducated relatives into a hopeful prognosis.

It is possible that some of the death warnings so often spoken of by the superstitious may have their origin in the visual and auditory phenomena which result from disturbance of the functions of the liver or kidneys or are due to acute degrees of anaemia. In this group may perhaps be placed "seeing a black dog cross the path," hearing "heavy rumbling sounds" or "strange voices," and dreams, especially of the nightmare type. Even the detection of an unpleasant smell (for example, "smelling the grave to-night will see the corpse to-morrow") may originate in one of the sensory disturbances of the olfactory nerve known to precede some diseases; but the proverb quoted probably refers rather to another's death than one's own.

Osler,[8] again, writes of the anomalies of vision which may go before apoplexy (the so-called "warnings"), and apoplexy is just the sort of disease which lends itself to the public mind as an instance of mysterious visitation. A blue mark on the skin appearing without known cause and called a *dede-nip* or *witch's nip*, has been regarded as of grave import; may it not in some instances have been purpuric?

Sir Thomas Browne[9] refers to a curious belief that a dying person "loses his own face" and begins to look like some of his near relations, and alludes to a case in which a young man, dying of consumption, "maintained not his proper countenance, but looked like his uncle, the lines of whose face lay deep and invisible in his healthful visage before"; he reflects that "as from our beginning we run through variety of looks, before we come to consistent and settled faces; so before our end, by sick and languishing alterations, we put on new visages; and in our retreat to earth, may fall upon such looks which from community of seminal originals were before latent in us." Sir Thomas is not referring here to the *facies cadaverica s. hippocratica* ("nose as sharp as a pen," etc.), for he calls it that "odd mortal symptom not mentioned by Hippocrates."

Osler has a saying regarding death which may yet become a proverb—namely, "A man rarely dies of the disease from which he suffers." The explanation of this apparently paradoxical statement is, of course, the incidence of terminal infections made possible by the weakened resistance of the tissues occurring some little time before death; the primary disease makes death possible, but the terminal infection gives the *coup de grâce*. In this relation reference may be made to the somewhat commonly remarked coincidence that a physician dies of the disease he has specially studied or has been specially successful in treating. Nearly every one can bring to mind such cases; but it is doubtful whether they are really common, for whilst their occurrence is certain of recognition and comment their non-occurrence passes without remark.

Many proverbs declare the certainty of death—"All men are mortal" (*Mors omnibus communis*) is very true, but "All men think all men mortal but themselves"[10] is the form in which the ordinary man interprets it; "No one can escape death" (*Mortem effugere nemo potest*); "Nothing is certain but death and the taxes"; "Thou know'st 'tis common, all that lives must die, passing through nature to eternity";[11] "The first breath is the

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[1] Ramsay, Allan, *A Collection of Scots Proverbs*.
[2] Shakespeare, W., *King Henry V*, Act II, sc. iii, lines 12-28. (See also Hippocrates's *Presages*, et al.)
[3] Lupton, Thomas, *A Thousand Notable Things*, Bk. III, 1660 (*vide* Loan's *Collect*, II, 572).
[4] Adams, T., *Works* 1629 (*vide* Loan's *Collectanea*, II, 579).
[5] *Dialect Dictionary* (Wright's), vol. II, p. 346.
[6] *Notes and Queries*, Series I, vol. II, pp. 84, 150, 1851.
[7] Lean's *Collectanea*, vol. II, pp. 572, 573, 1903.
[8] Osler, W., *Principles and Practice of Medicine*, fifth edition, p. 960, 1905.
[9] Browne, Sir Thomas, Letter to a Friend. *Works*, vol. iii, p. 66.
[10] Young, E., *Night Thoughts on Life, Death, etc.*
[11] Shakespeare, *Hamlet*, Act I, scene ii, lines 72, 73.

beginning of death" (*Nascentes morimur, finisque ab origine pendet*);[12] "Death borders upon our birth, and our cradle stands in the grave";[13] "Death is common to every age" (Cicero);[14] "A man may not see to-morrow, but he will certainly see the day of his death," and so on, and so on. Death is indeed the ultimate prognosis. Some proverbs, recognizing this universality of the mortal ending of life, put the best face on it and say it is "Better to die quickly than to live sickly," and "*Bona mors est homini, vitae quae exstinguit mala*" (Death, which destroys the evils of life, is good to a man); others boldly say "*Mortem optare malum, timere pejus*" (To wish for death is bad, to fear it worse), and "*C'est ici que j'attend la mort, sans la désirer, ni la craindre*"; and yet others, with a high hope embedded in them, briefly declare "*Mors janua vitae.*"

The idea of death "a necessary end" which "will come when it will come"[15] seems to be reflected in such proverbs of a prognostic kind as "If doctors fail, what shall avail?" and "While the doctors consult the patient dies"; and it may possibly be shadowed forth in the proverb quoted by Rabelais that "Happy is the physician who is called in at the end of the illness" (*Heureux est le médecin qui est appellé sus la déclinaison de la maladie*)—meaning, it may be supposed, that then the appointed end of recovery or of decease is no longer dependent upon his skill or lack of it. "There is no remedy against death in the herbarium of the apothecary (*Contra malum mortis non est medicamen in hortis*) is another such saying. The danger of relapses in disease is well known to the proverbialist, who puts it in such forms as "The relapse is worse than the disease," "The second fall in sickness is ever most dangerous," and "Our sinnes, I fear, will work worse afterclaps, and there's most danger in a re-relapse."[16]

The almost invariably fatal result of certain diseases has also been crystallized into proverbs. Thus, Lucretius wrote of the plague in Egypt, which defied the best medical skill of the time: *Mussabat tacito medicina timore* (The art of medicine murmured low in mute fear);[17] and, of the same malady in Sicily, Silius Italicus said, *Succubuit medicina malis.* Then there is the French proverb of the four disastrous states whose names end in *ique: Les maux terminant en ique font au médecin la nique.* These were *hectique, apoplectique, paralytique,* and *léthargique;* and in English we might render the adage, "Diseases ending in ick, give the doctor the kick." With all the advances that have been made, it is still true that consumption (hectic), apoplexy, paralysis, and lethargy (Arbuthnot's "lighter sort of apoplexy") are maladies of grave import, and, with some slight readjustment of opinion, are even now reckoned of the worst prognosis. It may be added that "*faire la nique*" means to give a sign of contempt or mockery, as in the expression, "*Un vrai philosophie fait la nique à la fortune, aux richesses*" (A true philosopher turns up his nose at fortune, at wealth); it may be compared with Shakespeare's "Do you bite your thumb at us, sir?"[18]

Ague, by which we must suppose that a chill or rigor is sometimes intended, has given rise to some prognostic proverbs. The saying that "a quartan ague is the reproach or shame of physic" (*opprobrium medicorum*) may possibly refer to the risk of relapses and reinfections. There is also the proverb that "quartan agues kill old men and cure young," and there is that other somewhat mysterious adage that "No man dies of an ague or without it";[19] possibly a rigor is all that is here meant. "An ague in the Spring is Physic for a king" may perhaps be explained by the other proverb (a French one) which declares that "From a great illness a man comes to a great health" (*De grande maladie vient on en grande santé*); and there is another saying which affirms that "autumnal agues are long or mortal," which is connected, no doubt, with the adage, "Agues come on horseback, but go away on foot," appearing in French as "*Les maladies viennent au cheval retournent à pied.*"

The common cold in the head has given rise to some proverbs of a prognostic kind. Thus we hear it said "A cold must have its course," a form of prognostic fatalism which is probably no more than a reflection of the more widely reaching saying that every disease will have its course. There is greater exactness in the adage which declares that a cold takes "Three days to come, three days to stay, and three more to go away."[20] There are other proverbial sayings about colds, such as "A cold begins with the cat and goes through the house," but they are etiological or therapeutical.

Burton, in his immortal *Anatomy of Melancholy*,[21] has a characteristically rich and entertaining chapter on the "prognosticks" of that dread malady. Notice has already been taken of the proverbial effects of ague, and Burton adds another when he writes that "All melancholy men are better after a quartan"; and then he quotes Jobertus, who "saith, scarce any man hath that ague twice: but whether it free him from this malady, 'tis a question; for many Physicians ascribe all along agues for especial causes, and a quartan ague among the rest." He passes to the evil "prognosticks": "*inveterata melancholia incurabilis,* if it (melancholy) be inveterate, it is incurable, a common axiom, *aut difficulter curabilis,* (or), as they say that make the best, hardly cured. . . . As Lucian said of the gout, she was the Queen of diseases, and inexorable (*Regina morborum et inexorabilis*), may we say of melancholy." So Burton discursively but delightfully runs on, "skimming off the cream of other men's wits, picking the choice flowers of their tilled gardens," and furnishing forth adages, axioms, semi-proverbs, and proverbs for the amusement and the edification of all who have fallen under his spell.

Some prognostic proverbs of a miscellaneous kind may be brought together here. Among surgical ones there is the German saying, *Kleine Feinde und kleine Wunden sind nicht zu verachten* (Little enemies and little wounds are not to be despised). There is here, perhaps, a proverbic warning against the infected prick or puncture of sepsis. There is also a Danish form of this proverb[22]—namely, *Ingen skal foragte lidet Saar, fattig Fraende, eller ringe Fjende* (Despise not a small wound, a poor relation, or a humble enemy). Whilst one proverb says "A green wound is soon healed," another gives the bad prognosis that "A wound never heals so well but that the scar can be seen." The busy operating surgeon of the present day will be indisposed, perhaps, to agree with the Latin proverb which says:

Medicus dedit qui temporis morbo curam,
Is plus remedii quam cutis sector dedit

(The physician who allows time for the cure of a disease gives a better remedy than if he used a knife).[23]

And there is another Latin adage (from Ovid[24]), which says:

Principiis obsta: sero medicina paratur
Quum mala per longas convaluere moras

(Resist the first advances: too late is a cure attempted, when through long hesitation, the malady has waxed strong).

And there is yet another,[25] which states that there is no use asking for hellebore when the skin is dropsical, *Venienti occurrite morbo* (Meet the approaching disease). The following French adage is probably a reflection of the one already quoted about an ague in spring; it runs thus:

Qui a la fièvre au mois de May,
Tout l'an demeure sain et gai.

It is sometimes a little difficult to distinguish between proverbs which have a prognostic meaning and those which are rather to be reckoned as etiological. This observation applies specially to such sayings as "A green winter makes a fat churchyard," "Many sloes, many cold toes," "Often drunk and seldom sober, falls with the leaves in October," etc. Another problematical proverb is, "If the patient and the disease join, then in vain is the physician"; but it may be taken to mean that if the patient is hopeless in his forecast then the physician cannot form a good prognosis, although it

[12] Manilius, *Astronomica*, Bk. iv.
[13] Hall, Joseph, *Epistles*, Dec. iii, ep. 2.
[14] "*Omni aetati mors est communis.*"
[15] Shakespeare, *Julius Caesar*, Act II, sc. ii, lines 33, 37.
[16] Lean's *Collectanea*, vol. i, p. 507, 1902.
[17] Lucretius, *De rerum natura*, vi, 1177.
[18] Shakespeare, *Romeo and Juliet*, Act I, sc. i, line 51.
[19] Lean's *Collectanea*, vol. i, p. 504.
[20] Lean's *Collectanea*, vol. i, p. 507, 1902.
[21] Burton, Robert, *The Anatomy of Melancholy*, Part I, Section IV, mem. i.
[22] *Cassell's Book of Quotations* (Benham), p. 769.
[23] *Classical and Foreign Quotations*, W. F. H. King, p. 323, 1889.
[24] Ovid, *Remedia Amoris*, line 91.
[25] Persius, *Satire III*, line 63.

y also signify that there is no chance for the sick man o allies himself with his malady by refusing to take his ctor's medicines or submit himself to the surgeon's ife, or who continues to do the things which have used his disease. These rambles among the prognostic overbs may be brought to an end by the best known of em all, "While there is life there's hope," with its Latin uivalent, *Spes vitae cum sole redit*, or that Greek one om Theocritus (*Idyll* IV, line 42), ἐλπίδες ἐν ζωοῖσιν, ἔλπιστοι δὲ θανόντες ("hopes are among the living, and e dead are beyond hope"). One ought to take heart. *l desperandum : dum spiro, spero.*

LITERARY NOTES.

a paragraph published in this column on December st, 1912, it was said that there was no documentary idence that Flaubert, though the son of a famous rgeon in Rouen, had himself ever studied medicine. It as added that there was evidence that before introducing lusions to medical matters he sought the counsel of edical friends, and that he was sometimes coached by s lifelong friend Louis Bouilhet, who had been a medical udent. The paragraph has brought us a note from r. William Fingland, of Liverpool, reminding us that in ie BRITISH MEDICAL JOURNAL of January 31st, 1903, it as stated that M. Charles Fortin, an *officier de santé*, as the trusted adviser of Gustave Flaubert, "not only as his health, but as to medical matters with which he ished to deal in his writings." The death of M. Fortin ad occurred in Rouen shortly before this note appeared, ad it would seem that the fear then expressed that he ad left no reminiscences was well founded, for as far as e are aware nothing from his pen has been published uring the ten intervening years.

The influx of foreign dancers, who for the last few years ave taken the hearts of Londoners by storm, has done uch to revive the ancient national love of dancing, and as given fresh impetus to the movement which has for bject the resuscitation of the beautiful old English ances. Moreover, it has helped to show dancing in its ue colours as one of the most excellent of all forms of hysical exercise; even the most ardent devotee of alisthenics or Swedish drill is now beginning to recog- ize its virtues as a means of promoting health and ctivity. It seems to have been left to M. Emile aques-Dalcroze, the founder of the College for urhythmics at Hellerau, near Dresden, however, o discover the hitherto unsuspected value of the ancing lesson as an educational factor in the life of chool children. The January number of *The Child* ontains an interesting account, by Mr. Charles B. ngham, of the Jaques-Dalcroze system, which com- ined a "natural and graceful physical culture with n assured knowledge of all the complexities of the heory and notation of music and a high degree of ensibility to the basic form or mould of interpretative motional consciousness, rhythm." The happiest results ave already been obtained from this system, whose uccess was amply demonstrated by the grace and in- elligence of the little pupils who accompanied M. Jaques- Dalcroze on his recent visit to this country, and who gave ome charming displays of singing and dancing under his irection. It has been said that children, when properly nstructed, dance as naturally as they walk; and it might e added with equal justice that many of them act with he same simplicity and lack of self-consciousness. An rticle by E. Flower on the Village Children's Historical Play Society, which appears in the January number of *The Child*, proves the aptitude of the normal boy or girl "to strut and fret his hour upon the stage," and the educational value of this form of amusement. The same number also contains an article on the feeding of infants, by Dr. James Oliver, and another on school hygiene by Dr. Arnold L. Gesell; whilst Dr. A. Gilmour discusses "Measles and Child Welfare," and Lady Henry Somerset has contributed a short account of her home for destitute children at Duxhurst in Surrey.

No one who has ever had the pleasure of reading the letters of Isabella d'Este, Marchioness of Mantua, the sister-in-law of Lucrezia Borgia, and one of the most brilliant women of her time, can fail to have been struck by the writer's passion for collecting. Books, pictures, jewellery, curios, all were fish that came to her capacious net, so that at one time the palace of the Gonzagas at Mantua must have resembled a museum crowded with rare and beautiful objects, of which, it need hardly be added, their owner was justly proud. This love of collecting, however, was by no means peculiar to the Marchioness Isabella, but was shared by nearly all her contemporaries, both in Italy and other countries. The earliest museums on record, therefore, were really the rooms set apart in the private houses of enthusiastic collectors for the accommodation of the owner's most precious possessions. M. Pierre-Amédé Pichot, writing in the December number of *L'Hygiène*, gives an interesting description of several of these old-world collections. Probably the one that would have appealed most strongly to a modern mind was that of a Liverpool man named Bullock, which from 1809 to 1819 was on view at the building afterwards known as the Egyptian Hall. This collection comprised several authentic relics of the first Napoleon, of which the most important was the travelling carriage captured by the Prussians at Waterloo, and presented by Blücher to the Prince Regent. The First Gentleman in Europe displayed doubtful taste in selling the property of his defeated adversary to Mr. Bullock, who afterwards disposed of it, in his turn, to a Mr. Hopkinson, a coach-builder in Holborn. It may be remarked in passing that this same carriage is now on view at Madame Tussaud's, having found its way there after leaving Hopkinson's hands. Such personal belongings as were found in the berline at the time of capture were sold separately, when Mr. Bullock's collection was broken up and brought under the hammer. They consisted of a small canteen containing a couple of flasks, plate, goblet, china egg-cup, and a silver salt-cellar, pepper-box and mustard-pot, which still held the remains of the condiments with which they had once been filled, a set of chessmen used by the Emperor during the Russian campaign, a flask half full of rum, and two of the imperial toothbrushes. Perhaps the most pathetic reminder of departed glory, however, was the tiny uniform of a miniature colonel of lancers, which had originally been made for the child who afterwards became Napoleon III.[1] This suit, with all the accoutrements, was knocked down for less than £4, a sad ending for what was probably a source of infinite pride and pleasure to its little owner. The December number of *L'Hygiène* also contains an excellent article by Dr. Maurice de Fleury on the treatment of neurotic patients; whilst Dr. Robert Wurtz has contributed a short account of the present state of the public health in France, and M. Henri Mourisse advises his readers how to keep healthy during the winter months.

[1] The child referred to was not Napoleon's son, but his nephew, who afterwards succeeded him as Emperor, and was the husband of the Empress Eugénie.

A NURSING Conference and Exhibition will be held at the Horticultural Hall, Westminster, on April 22nd and the three succeeding days. The conference, which will discuss both nursing and midwifery, is being organized by a committee of matrons representative of all branches. Further particulars may be had from the office, 22–24, Great Portland Street, W.

THOUGH the total number of persons who went to Carlsbad last year for treatment showed a fall from 70,955 to 68,269, there was an increase of nearly 100 English patients. There was a decline of 600 in the number of American patients. It is said that most resorts of the kind had fewer visitors than usual last year owing, it is thought, to the bad weather of the summer, and the disturbed political situation in Europe.

THE Woman's Medical Association of New York City notifies that an appointment will be made to the Mary Putnam Jacobi Fellowship of 800 dollars for post-graduate study on June 1st, 1913. Applications must be received by April 1st. The fellowship is open to women graduates in medicine, and will be awarded upon proof of ability and promise of success in the chosen line of work. Further particulars can be obtained on application to Dr. Martha Wollstein, 325, Central Park West, New York.

SCIENCE NOTES.

THE final and successful attempt to set up a universal radium standard dates from 1910, when the Congress of Electricity and Radiology, meeting in Brussels, appointed an international committee of physicists to select a well-defined unit in which quantities of radium emanation might be expressed. The result has been the adoption of the unit known as the curie. But as certain other standards, more or less arbitrary, have hitherto been in vogue, and have found their way into literature, it becomes necessary to tabulate their comparative values with the new standard. MM. Jacques and Gaston Danne[1] group the various units employed to express the quantity of radium emanation as follows: (1) Curie, millicurie, microcurie; (2) gram-second, gram-minute, milligram-second, milligram-minute; (3) maché. Without entering fully into the questions involved in the setting up of this new standard, the fact may be recalled that radium emits, spontaneously and continuously, a gas (emanation) which itself is a radio-active substance. The transformation of this gas into another radio-active product follows the law that the quantity of emanation destroyed at each instant is proportional to that which is not yet transformed. While radium has a very slow period of decay, its emanation has a very rapid period, and therefore, owing to the decomposition of the emanation itself, the process of accumulation cannot be carried beyond a certain point. That point is reached when the quantity of emanation produced at each instant is equal to that which is destroyed, and at this moment of radio-active equilibrium the quantity of emanation is the greatest possible for the amount of radium involved. The curie represents the quantity or mass of radium emanation in equilibrium with one gram of radium (element), while the millicurie and the microcurie are quantities in equilibrium with one milligram and one-thousandth of a milligram respectively. The gram-second is the quantity of emanation freed by a gram of radium (element) during one second, and the milligram-minute, by which the greater number of French thermal stations express the radio-activity of their waters, is the quantity of emanation produced by a milligram of radium during one minute. The maché unit, an expression common in this country and in Germany, depends upon the ionizing effect of the radiation emitted by radio-active substances. The ions thus formed may be collected, and the electric current produced in an ionization chamber is easily measurable by means of electrometer or electroscope. The maché unit represents the quantity of emanation, without disintegration products, which produces a current of limited saturation—that is to say, in a receptacle of very large dimensions—equal to one-thousandth of the electrostatic unit of current intensity. It is a very small unit, whereas the curie is a large one. The emanation contained in 10 litres of mineral water moderately radio-active is of the order of 0.1 microcurie, whereas in maché units it would be expressed by hundreds. The table of equivalents is as follows:

Curie.	Millicurie.	Microcurie.	Milligram-minute.	Maché.
1	1000	1000000	7992000	25000000000
0.001	1	1000	7992	25000000
0.000001	0.001	1	7.992	25000
0.00000208	0.00208	2.08	16.66	5213.5
0.0001248	0.1248	124.8	1000	312812
0.000000002	0.00000208	0.00208	0.0166	5.213
0.0000001248	0.0001248	0.1248	1	312.8
0.000000000004	0.000000004	0.0004	0.00319	1

To find the gram-minute figures, the figures for the milligram-minute are in each case divided by 1,000.

The electric condition of the earth in relation to the atmosphere is forced upon attention during a storm of lightning, and it has been stated that thunder clouds are sometimes negative and sometimes positive towards the surface of the earth. But it is not easy to get any clear ideas on the general subject from books. From an article Dr. George C. Simpson contributed recently to *Nature* it seems that the physicists have not yet arrived at any certain and comprehensive conclusion. He sums up the present state of knowledge by stating that a flow of negative electricity takes place from the surface of the whole globe into the atmosphere above it, and that this necessitates a constant return current of more than 1,000 ampères, but that nevertheless not the slightest indication of any such current has so far been found, and no satisfactory explanation for its absence has been given. The loss takes place from all regions of the earth, subject to normal or fine weather conditions, so that it would appear that a return current can only exist in regions of disturbed weather; in such regions the potential gradient is often reversed, and the rain charged. Though a reversed field causes a flow of negative electricity into the earth, yet the time during which the field is reversed is only a very small fraction of the time during which it is normal. If the loss were made good in this way the flow of electricity would be so enormous that it could not escape detection. It was believed for many years that the electricity comes to the earth in the disturbed area as a negative charge on rain. But experiments in many widely separated parts of the world show that in all kinds of rain, from that of thunderstorms to a drizzle, more positive than negative electricity is brought to the earth. So that rain only makes the problem more difficult. Nor does it seem probable that lightning discharges from cloud to earth can play an important part. Thus, Dr. Simpson says, the science of atmospheric electricity has come to a deadlock, and there is at present no indication of a way out.

Klausner found that in over 50 per cent. of syphilitic cases and in certain skin diseases a precipitate was obtained if the serum were diluted with three times its volume of water. Further investigation of the mechanism of this reaction has revealed certain very interesting phenomena, which may shed considerable light on the *rationale* of the Wassermann and kindred reactions. In the *Biochem. Zeitschr.* for November 20th, 1912, Klausner gives the details of his experiments with normal and syphilitic serums, both heated and unheated. He shows that every serum which gives the particular reaction loses that property when it is heated or after extraction with ether. In the latter case the property can be restored; in other words the serum can be reactivated by the addition of an ethereal extract of brain lipoids, but in the former case this addition does not restore the property. A normal unheated serum gains the property of giving a precipitate on dilution with water if the ethereal extract of brain lipoids be added to it, whereas this does not occur with heated normal serum. On the other hand a serum which has been activated by the addition of the lipoids is rendered permanently inactive by heating, but if the lipoids be heated *separately* their activating properties are not destroyed. The active property is only lost when they are heated in the presence of the serum, and in that case the addition of fresh serum does not restore it. A positive serum rendered inactive by extraction with ether becomes again positive if its extract be restored to it; the addition of the same extract to a normal serum renders it also active, and it is even possible to activate a negative serum by adding to it the ether extract of a normal serum although in this case higher concentrations of the ethereal extract must be employed.

In view of the claim put forward by Neubauer and Fischer, and supported by others, that many cases of cancer of the stomach contain an enzyme capable of hydrolyzing glycyltryptophan, and that the detection of this ferment by a simple method was of considerable diagnostic value, Schryver and Singer (*Quarterly Journal of Medicine*, October, 1912), have investigated the gastric contents after test meals in 200 cases of grave stomach disorder for the presence of a peptolytic ferment. Such a ferment was found in 17 of the 200 cases, but gastro-jejunostomy had been performed in 4 of these, and in these instances the ferment was regarded as being of duodenal origin. The remaining 13 formed a well-marked group in which the total acidity was low, free hydrochloric acid was absent, the total and active chloride was below normal, and what the writers term the "peptic

[1] *Archives d'électricité médicale*, December 10th, 1912.

index" was very low. It is worthy of note that, though the results of gastric analysis of these 13 cases would generally be regarded by the clinician as being indicative of cancer of the stomach, yet only in 4 of them was a malignant growth present, and in one of the latter it was situated in the duodenum and not in the stomach. The presence of the peptolytic ferment is certainly not characteristic of gastric cancer, for in 25 undoubted cases of the disease a positive result was obtained only in one. The writers associate the presence of the ferment with gastric dilatation and atrophy of the walls, and consider that it is of local origin.

THE DEVELOPMENT OF BATH.

VISIT OF LONDON MEDICAL MEN.

ONLY the weather was inhospitable on January 18th, when, by the invitation of the Mayor, a number of leading members of the medical profession paid a visit to Bath. Immediately on arrival the visitors were taken on a fleet of motor-cars to the heights of Lansdown and other beautiful environs of the city; and at night, in the Grand Pump-room, the after-dinner toasts were being drunk only ten minutes before the return train was due. It was stated, by the way, to have been the first time within the memory of the oldest inhabitant that the ancient Tompion clock and the solemn-eyed statue of Beau Nash have looked down upon anything so vulgar as a dinner.

A brief lecture on the city's antiquities was given among the Roman remains, and then, to compare ancient things with modern, the visitors made a tour of the bathing establishment, and also inspected the institute for medico-mechanical treatment, which is one of the most recent additions to the therapeutic equipment of the spa. Still more recent, however, is the "inhalatorium," where, at Sir William Ramsay's suggestion, special apparatus has been installed for the inhaling of the mineral water finely atomized by the "niton" gas or radium emanation. An ingenious spraying arrangement, hitherto fed with air or with air and steam, is now fed also with the natural gas rich in its radio-active properties, and is being used in the treatment of disorders of the nose and naso-pharynx, and in various local affections. The idea is that by this means, not only the radio-activity of the water, but the higher radio-activity of the gas itself, is brought into play.

At a subsequent gathering in the concert hall, the MAYOR (Mr. G. T. Cooke) laid stress upon the national character of the asset which Bath possesses in her mineral waters, and expressed the determination of the city to make it realizable to the full. He hinted that the authorities had been approached by those who were prepared to spend from a quarter to half a million upon the baths, but whether this would mature or not, Bath as the premier English spa must go forward.

Sir WILLIAM RAMSAY then delivered an address which was to a great extent a recapitulation of his previous statement as to the radio-activity of the Bath waters.[1] The amount of radium present in the form of emanation, he said, compared favourably with the richest waters on the Continent, such as those of Carlsbad. The emanation had 75 per cent. of the radio-active property possessed by its parent radium in the subterranean depths, and its decomposition, after being given by the mouth or by injection, was followed by similar physiological effects. The fact that the emanation issuing from the gas in the Bath spring was so much greater (perhaps twenty times greater) than the emanation in the water itself, seemed to have a practical bearing upon the therapeutic application of the substance. Therefore he had suggested—and the suggestion had been put in practice in the "inhalatorium"—that the gas from the waters should be bottled up under pressure and used in spraying the water for the treatment of local conditions. It would be an advantage if in such cases, as well as in other treatments in the baths, the patient were insulated and rather strongly electrified negatively, as the absorption of the radio-active particles, which were for the most part positively charged, would then be accelerated. There were three possible methods of applying the emanation therapeutically. One method was to drink the waters saturated with the substance, and this had been carried out for centuries in the pump-room; the second method was to inject a solution of the gas below the skin, and for this purpose the water was insufficiently charged to produce a result with any practicable quantity; the third method was to inhale the gas, for which special provision had now been made. Sir William added that the use of the emanation in one form or another had a great advantage over any possible means of swallowing or injecting doses of radium, for, apart from the expense of this latter procedure, the slow period of radium decay would mean that very little of it would decompose during the time in which it could remain in the system, whereas the shorter life of the emanation made it therapeutically much more potent.

Sir LAUDER BRUNTON, in a few reminiscent remarks, said that, so far as he knew, Sir William Ramsay was the first to suggest the use of radium in medicine. He came to him (Sir Lauder) seven or eight years ago with the idea that radium might be of service in the treatment of cancer. The suggestion was not put into practice within his own experience until almost two years later, and, although in that particular instance, there was subsequent recurrence, the events were sufficient to demonstrate the potentiality of the radium. In rodent ulcer its effect was remarkable, and in such conditions as sciatica and neuritis he believed radium treatment to have done a great amount of good. From his own experience of radium he had learnt two things—namely, that radium did excite tissue activity, and that extreme care was necessary with regard to dosage.

It was, however, the development of Bath itself in view of its treasure trove that was chiefly discussed. Dr. LEONARD WILLIAMS here revealed himself as the candid friend. He said that, in spite of the smiles of those who talked about the influence of suggestion, it was known that all so-called indifferent thermal waters had a virtue in certain pathological conditions, and among such waters those of Bath were, perhaps, the most efficacious. But when it came to the question of the arrangements at Bath he was less inclined to be laudatory. Comparing the Somerset spa with some of those which were best known on the Continent, he had to reply that the accommodation for bathers and the attractions for visitors were inadequate. He trusted that the English thermal station, in no respect behind its rivals in natural advantages, would develop its resources and bring its establishments up to the high level which its past history warranted.

Further comparisons of Bath with foreign spas were forthcoming at the dinner, when Sir LAUDER BRUNTON, in proposing the toast of "Prosperity to the baths of Bath," said that he had visited almost every health resort of importance in Europe and some out of Europe, but after forty years' wandering his choice was limited to Bath and Aix-les-Bains, the latter suffering, of course, from the disadvantage of distance.

Sir BERTRAND DAWSON, in supporting the toast, said that Bath would have to bid farewell to the evil tradition which had haunted the spas of this country. The tradition might be summarized in the word "haphazard." It was necessary to remember not only the definite treatment of the patient, but the life he had to live. It was useless to bathe a man for his gout in the morning and allow him to nullify the effect with a five-course dinner at night. A stricter regimen was necessary, and he suggested that possibly something might be done in this direction in Bath by means of the hotel owned by the Corporation. Careful organization such as this was the true secret of the success of Carlsbad and other places on the Continent. There a rigorous dieting was enforced, the patient having to do what he was told; he was directed to take graduated exercise, and the distances of his walks were marked out with red posts for the first week and with green posts for the second, and so on. Bath had a band of medical men, progressive, full of knowledge, and up-to-date, but no scheme of organization could succeed without the far-sighted and enterprising layman.

Dr. W. HALE WHITE expressed the thanks of the visitors for the hospitality they had enjoyed. It should be added that no small amount of the success of the occasion was due to the local medical men, whose spokesman, Dr. E. J. CAVE, in a brief speech, said that it was impossible for any man to practise his profession in Bath and remain sceptical as to a specific and potent virtue attaching to its waters.

[1] BRITISH MEDICAL JOURNAL, March 16th, 1912, p. 617.

British Medical Journal.

SATURDAY, JANUARY 25TH, 1913.

THE THERAPEUTICS OF RADIUM.

THE first report of Mr. Hayward Pinch, the Medical Superintendent of the Radium Institute, founded in London in 1911 at the suggestion of King Edward VII, and through the munificence of Sir Ernest Cassel and Viscount Iveagh, is an interesting and in many ways a remarkable document, for the opportunity of publishing which we are indebted to Sir Frederick Treves, Chairman of the Executive Committee of the Institute. It is remarkable, first, for the temperate spirit and scientific caution with which it is drawn up, and it is remarkable also for the striking benefit derived by certain patients in a distressing and hopeless condition from the treatment provided by the Institute. Too often those who have been concerned in the earliest application of a new method of treatment producing effects patent to any observer have been carried off their feet, and in the first flush of enthusiasm, generalizing from insufficient data, have made promises which later experience has not fulfilled. The report now published is free from that defect, and Mr. Pinch takes occasion to utter a warning against the irrational enthusiasm and unthinking expectation which has often attended the introduction of a new remedy and so led to cruel disappointment. He gives a rigid interpretation to the term "apparent cure," which is understood to be a condition in which all trace of the original lesion or lesions has disappeared, in which there is no sign of any recurrence, and in which the patient is, so far as can be determined by a thorough and careful examination, free from any indication or symptom of the disease.

The report deals with the work of the Institute since it was opened in August, 1911, down to the end of last year, a period of a little over sixteen months. Owing to the generosity of the founders, the Institute is in possession of a very large stock of radium, so that practically any quantity considered advisable can be used in the treatment of any case, but Mr. Pinch makes it clear that great discretion must be exercised in determining the amount which should be used, the duration of application, and the amount of screening in any given case. All cases applying to the Institute have been received, except those practically moribund or those in which the disease was of a kind for which radium-therapy was manifestly unsuitable.

Probably most readers will look first at those passages in the report which deal with cancer. Any attempt to form an opinion with regard to them must be governed by the statement in the opening sentences of the report that no examples of malignant disease, with the single exception of rodent ulcer, have been treated unless operation has been declared to be unjustified or the patient has absolutely refused operation; the rigid interpretation given to the term "apparent cure" must also be noted. No useful purpose would be served by a minute analysis of the statistics, and Mr. Pinch does not attempt it. The stages and extent of the disease vary so much fro case to case that only a very large number wou warrant use of the statistical method, but son general impression may be obtained from a summa view of certain classes. It appears that the tot number of patients suffering from epithelioma wh applied for treatment at the Institute was 14 of these, 13 were not treated; in 8 the trea ment was commenced so recently that no opinio on its result can be stated, and in 15 the appl cation of radium was prophylactic only. Th leaves 111 cases in which the treatment of epithelion was undertaken, although it was abandoned b 23 patients. Of the 88 cases that remain if thes be deducted, 20 are not improved and 22 are dead if to them, on the assumption that the abandonmer was due to the patients' disappointment with th result, we add the cases in which the treatment wa abandoned, we get a total of 65 failures, or near three-fifths. To set off, we have 7 cases in whic the patient was apparently cured and 39 in whic there was improvement—a total of 46, or about two fifths. Applying the same system of classificatio we find that in cancer of the breast the treatmer failed in 38 cases and was attended with more o less success in 35, and that in cancer of the rectur it failed in 27 cases, or about three-fourths, an succeeded in 10, or rather over one-fourth. Th report is quite definite in advising that radiu should never be used in cancer of the breast a a substitute for operation, and the same is true o cancer of the rectum. It seems established, how ever, that, in inoperable cases of cancer of th breast, radium is often able to relieve pain, promot the healing of ulcers, and check the growth o secondary deposits; in a few instances superficia carcinomatous nodules and enlarged glands disap peared, and reports are given of several such case in which the results were very remarkable.

In cancer of the uterus the immediate results re ported are so satisfactory that it would appear wel worth while to submit any patient with inoperabl disease to the radium treatment. It has been applie by introducing into the cervical canal a tube con taining radium for periods of thirty to sixty hour spread over five or ten days. In a considerable pro portion of cases haemorrhage is arrested, discharg diminished and rendered inoffensive, ulceratio healed, pain relieved, and the growth even in som cases stopped. Out of 39 cases treated 3 wer apparently cured, while 19 were improved, but th report points out that the action is only local, that i most cases dissemination will occur, and the growth spread to parts beyond the effective range of radium.

The evidence as to rodent ulcer seems to justify th conclusion that the best advice which can be given t a patient with rodent ulcer of the skin is to resort a once to treatment by radium. It has been found tha if the lesion has been treated for prolonged periods b the *x* rays, zinc ionization, and carbonic acid snow the healed tissue frequently breaks down after radium and repair is slow and imperfect. A small roden ulcer limited to the skin and not previously treate may be cured by a single exposure, probably becaus it is safe to use a full-strength applicator unscreened With a large ulcer it is necessary to proceed mor cautiously, as an unscreened application to the whol area will produce severe systemic disturbance. Dif ferent parts of the surface are therefore treated a intervals of three or four weeks. If the disease ha attacked bone or cartilage, still more caution i requisite to avoid the risk of acute painful an prolonged inflammation. Rodent ulcer of a mucou

membrane is refractory to treatment by radium, though small lesions of the palpebral mucous membrane often respond well to a strong unscreened application. The statistics are encouraging. Omitting one case in which the application was prophylactic only and 10 treated so recently that the result cannot be stated, there remain 90 cases. Of these, 12 were not improved, 6 abandoned treatment, 31 were apparently cured, and 41 improved. If we assume that treatment was abandoned owing to its want of success, it will be seen that the treatment failed in one-fifth of the cases, succeeded in about one-third, and produced improvement in the remainder. It will be noted that all the patients who applied to the Institute were treated. The cases of sarcoma are relatively few; 26 were treated, of whom 9, or about one-third, were improved, it being said of two of them that they are apparently cured.

Among the other diseases treated the most striking results were obtained in keloid and naevus. In the former disorder they are described in the report as "admirable," and whether judged by the statistics or by the individual cases narrated the epithet seems to involve no exaggeration.

Of the 14 cases of keloid or keloid acne treated, 3 are reported cured and 8 improved, while the treatment was abandoned in the remaining 3. One of the chief practical difficulties in the therapeutic application of radium is so to adjust the strength and duration of the application as to avoid a severe reaction. The cause and nature of the reaction has not yet been fully elucidated. Why it should commonly be delayed for two, three, or even four weeks, is not at all clear, and we are not aware that any explanation has been suggested. In some cases where an eroded surface exists the radium reaction proper is, there can be little doubt, complicated and aggravated by septic infection, and it would seem that in some such cases the severe pain suffered during the reaction is in part, at least, due to this cause.

We are indebted to Professor E. Rutherford, F.R.S., of Manchester, for the information that in his laboratory a number of cases have occurred in which fingers have been burnt by exposure to the alpha rays. This has usually occurred in transference of the emanation or in fixing an alpha ray tube in an apparatus when the fingers were brought into close contact with the tube. As a rule, nothing is noticed at the time, but a week or ten days later the finger becomes very painful, and a slight bluish tinge is observed under the skin. About three weeks after exposure the cuticle peels off, and is replaced by a new layer. The general effect later is that the finger has lost to a great extent its sensitiveness of touch, but there have been no cases of sores which would not heal. These particulars are an interesting addition to the information given in the brief reference to the subject in his *Radio-active Substances and Their Radiation*, a book to which we confidently refer all serious students of the subject.

The treatment at present is in the empirical stage. To get an institution of this novel kind into working order and to evolve and test rules for its administration has been no easy task. Now that it has been accomplished we may look forward to the prosecution of inquiries into the physiological action of radium, for on the perfecting of knowledge on this side the establishment of principles governing the scientific use of the radiations in therapeutics must depend. A question of vital importance is to ascertain whether the rays of radium exert a specific action on cancerous or developing tissue. At present it is not clear which rays produce the effects observed in carcinoma. So far as can be judged, it is improbable that the alpha rays, under the conditions described, can, as a rule, have reached the tissues. Whether the most penetrating rays—the gamma rays—have any physiological effect is not known with any certainty, but the evidence seems, on the whole, against such an hypothesis. There remain, therefore, the beta rays, which are themselves complex. An analytic study of the physiological effects of the several groups of rays would be a worthy object for the Radium Institute with its unrivalled resources and magnificent opportunities.

A NEW CHAPTER.

THE two matters which seem to be of particular moment among the events of the last week or ten days are, in the first place, the decision of the Representative Meeting last Saturday releasing members of the profession from the obligation to it implied in the undertaking and pledge; and, in the second place, the failure of the determined attempt made in certain quarters to split the Association, or, to use the phrase adopted by some political newspapers, to "smash it."

The decision to release all practitioners from the undertaking and pledge was seen to be inevitable in the circumstances brought about by the success of the tactics of the Insurance Commissioners and some members of the profession itself, with the assistance of the Government press. The further decision to rescind the resolution passed at the Liverpool meeting calling on all practitioners to refrain from applying for or accepting any post in connexion with the Insurance Act until the Government had satisfied the Association that its demands would be met, leaves members free to constitute statutory Local Medical Committees and to accept nomination to Local Insurance Committees, to which their presence will help to give a right direction. After coming to this decision the Representative Meeting unanimously adopted a resolution instructing the Council to take all necessary steps to protect the interests of the profession and asking members of the profession to supply information to the Association after they had had some experience of the working of the present provisional arrangement. The meeting further reiterated its opinion that the Act is unsatisfactory, and instructed the Council to give every assistance in its power to medical practitioners in districts in which opposition to the Act was maintained.

With regard to the campaign against the Association, its political basis, in London at least, has been undisguised. It has signally failed, and it is not necessary to play the part of Bunyan's man with the muck-rake; much may be forgiven to politicians in a funk. The Representative Meeting, like many of the individual Divisions of the Association, recorded its emphatic protest against the discreditable methods adopted by the Government whereby a position of urgency was created under which many practitioners, finding themselves threatened with financial ruin, were compelled to give unwilling service under the National Insurance Act. The profession has been hustled into the insurance scheme, but it does not mean to be hustled out of the British Medical Association. Of this there is ample evidence in the opinions expressed by members of the medical profession in all parts of the country; it is further established by the hearty response which so many members of the profession are making to the recent call for a further instalment of their guarantees to the Central Defence Fund.

The profession in most parts of the country is committed to the provisional arrangements which have been entered into for the first three months, and it is of the first importance that steps should be taken at the earliest date to nominate medical members of Local Insurance Committees, and to apply for the statutory recognition of Local Medical Committees.

The importance of the duties assigned to Local Medical Committees will not have escaped the attention of any student of the Act and of the Regulations for medical benefit. Where in any county or county borough or any area for which a district committee has been formed a Local Medical Committee has been formed by members of the medical profession in the area, it must be recognized by the Insurance Commissioners if they are satisfied that it is representative of the duly qualified medical practitioners resident in the county, county borough, or district. Where such a Local Medical Committee has been set up and recognized it must be consulted by the Insurance Committee with regard to the conditions of service upon which it is proposed to afford treatment to insured persons and as to the method of remuneration. Before approving any arrangement with practitioners submitted to them by an Insurance Committee, the Commissioners must consider any representations made to them by the Local Medical Committee. Before fixing, varying, or abolishing an income limit the Insurance Committee must consult the Local Medical Committee, and that Committee may at any time, by notice in writing to the Insurance Committee, dispute the right of an insured person to receive medical benefit on the ground that the income of that person exceeded the income limit. Any question arising between an insured person and a practitioner attending him under the arrangements made by the Insurance Committee, in respect of the treatment rendered by the practitioner or the conduct of the insured person while receiving that treatment, would stand referred to the Medical Service Subcommittee, consisting of six members and a chairman. Of the six members three would be appointed by the Local Medical Committee and three by and from the members of the Insurance Committee who represent insured persons. The chairman would be selected by the six persons, and would be one of those members of the Insurance Committee appointed by the county council or the Commissioners who are neither insured persons nor practitioners. The complaint must be stated in writing and sent to the Clerk of the Insurance Committee. Under the general regulations mentioned above it would be referred direct to the Medical Service Subcommittee; the persons authorized to attend the inquiry would be the complainant and respondent, a representative of the society (if any) to which the insured person belonged, a representative of the Local Medical Committee, and any witness or assistant of either party, but not a barrister or a solicitor. The Medical Service Subcommittee would make a report to the Insurance Committee, stating the facts established and recommending the action to be taken. The findings as to the facts must be accepted by the Insurance Committee as final. With regard to complaints falling into another category—those involving the efficiency of the medical service—made by a practitioner on a panel against any other practitioner on the panel, they would be considered by the Local Medical Committee, which would be empowered to apply to the Commissioners to remove the name of the practitioner from the panel, or to take such other action as they might deem proper. The Insurance Committee would have a similar power of making representations to the Commissioners. In either case the Commissioners would be required to refer the matter to an Enquiry Committee composed of two practitioners and one other person who must be a barrister at law or a solicitor in actual practice. The Commissioners also take power to refer any similar representations made by any other body or any person to the same committee if they think it advisable so to do. The Enquiry Committee would appoint one of its members to be chairman, but the chairman would not have a casting vote. The procedure of the Enquiry Committee would be such as it thought fit, subject to the approval of the Commissioners. At the inquiry either party might appear in person, or with the consent of the Enquiry Committee, by counsel or solicitor, or by any member of his family, or by any officer or member of a society to which he belonged, or, in the case of a company, by any officer or director of the company. The Enquiry Committee would be empowered to take written as well as oral evidence, and to require any statement to be verified by a statutory declaration. Upon the determination of the hearing, the Enquiry Committee would draw up a report to the Commissioners stating such relevant facts as had been established by the evidence and the inferences, if any, which in the opinion of the Enquiry Committee might properly be drawn from the facts so found. Should a practitioner raise a question as to whether an operation or other service is comprised in the treatment which he has by agreement undertaken to give, that question would be referred by the practitioner to the Local Medical Committee, and if the Local Medical Committee and the Insurance Committee failed to come to an agreement the matter would be submitted for decision to referees established under the Regulations. A Local Medical Committee would also be empowered to represent to the Commissioners that the inclusion or continuance on the list of persons supplying drugs and appliances (a chemist or other person) would be prejudicial to the service in the county, and the Commissioners must thereupon hold an inquiry. The Insurance Committee must prepare a list of the prices which it is willing to pay for the drugs ordinarily supplied and for appliances, and the Insurance Committee, if it proposes to revise the list of drugs and appliances must consult the Local Medical Committee before submitting its proposals to the Commissioners.

It will be seen, therefore, that the functions of a Local Medical Committee are of no little importance and it can hardly be necessary to insist on the importance of constituting such committees, and obtaining their statutory recognition in every county, county borough, or insurance district in which panels have been formed.

REPAIRING THE PERINEUM.

Is it necessary to repair the torn perineum after confinement? Dr. Frederick Blume[1] says that many practitioners do not regard it as necessary, or rather—and this is not quite the same thing—they do not wish to do it, yet they would not allow a laceration of the skin in any other part of the body to remain ununited. They would put stitches at once in a tear extending out from the angle of the mouth or of the eye into the cheek. Why, then, do they not put sutures into a tear extending from the vulva into the perineum? Dr. Blume recently operated upon a

[1] *American Journal of Obstetrics*, pp. 1028-1036, December, 1912.

patient who had a complete perineal laceration' running back into the rectum, but before the woman came into his hands she had been kept in bed by her physician for three weeks with her legs tied together, "to give Nature a chance" as he termed it. Now, why did he act so foolishly? If she had been riding a bicycle and had fallen on to the bar of the machine and had torn her perineum from the anus into the vagina, her physician would never have thought of tying her legs together "to give Nature a chance"; he would have stitched up her perineum.

Dr. Blume names two or three possible reasons which prevent doctors putting stitches in the perineum in labour cases. He says that obstetrics is so poorly paid that medical men spend as little time as possible over their confinements, and are very glad to leave the repair of the perineum, when it is torn, to Nature, believing—or shall we say hoping?—that she will be able to manage it. This may be one reason. If it be so, then it goes to strengthen the truth of the saying that the lazy obstetrician makes the busy gynaecologist. But there is another reason. Labour no doubt is a physiological process, and it is argued that as it is a natural act, no tear, therefore, is to be expected; but if it occur by any chance, why then it should be left to heal by natural processes. This is an infirm argument. A physiological process may go astray, and a great part of all medical practice is to prevent such going astray or to remedy the error.

Dr. Blume gives other reasons why the torn perineum is sometimes left unsutured; but there is one at least to which he does not refer—it is simply because the medical attendant does not look to see whether it is torn! He does not put a thumb on each side of the perineum and hold the parts aside; he forgets that after soft parts have been widely distended they fall together again naturally; he sees no gaping wound, and concludes that there is no wound at all.

The last reason given by Dr. Blume—and the profession may feel indebted to him for putting it in black and white—is that patients regard the torn perineum as a sign of incompetence on the part of the doctor. They are shocked, and they show that they are shocked, when their physician tells them that he has had to put a stitch or two into the skin. He feels sure they will criticize him severely in discussing his management of the case with other women, and especially with other women who have been attended by doctors who did not confess to perineal tears by announcing the insertion of sutures. More than this, when he meets with a really deep laceration—one which certainly ought to have six or seven sutures in it—he contents himself with putting in one or two stitches, and so risks failure of union altogether rather than confess to what his patient may, and almost certainly will, regard as the result of mismanagement. There are patients, it seems, who "estimate the efficiency of the obstetrician according to the number of sutures which he uses in the repair of the perineum"; the fewer he puts in the higher he is in their regard!

These outspoken remarks and candid criticism of the profession by Dr. Blume call for action. He himself suggests that medical men should begin by educating women in the knowledge of what is involved in childbirth, and he is quite right. A woman ought to know that at her first confinement it is very likely that there will be a tear of the perineum, and that no obstetric skill will be able to prevent it, although proper care will lessen the chances of it occurring and will certainly limit the extent of it. She ought also to be told that under certain circumstances deeper tears are also unavoidable. Most important of all, she ought to understand that her medical attendant ought to stitch up all such tears, small as well as deep, and that the number of sutures required depends entirely upon the size of the wound, and should be sufficient. It may then come about that the woman with an extensive laceration will praise and not blame the doctor who puts in many stitches.

There are other things, of course, which must be attended to: the best method of managing the passage of the head over the perineum must be taken, the lateral posture in labour should be adopted, and the like; but the chief matter at present is to counteract the prevalent belief that laceration is always avoidable, and so make it possible for the conscientious man, without loss of prestige, to do what is needful and right. In the discussion which followed the reading of Dr. Blume's paper (at the annual meeting of the American Association of Obstetricians at Toledo, Ohio) some speakers maintained that it was better to stitch up such tears twenty-four hours after their occurrence; but that is beside the point, which is that they be recognized and sewed up.

CANVASSING FOR INSURANCE PATIENTS.

It is evident from information which is arriving at the offices of the Association that the new conditions of practice brought about by the National Insurance Act are leading some members of the medical profession into methods of seeking patients which are not only entirely contrary to the traditions of the profession, but which, if persisted in, will inevitably lead to charges before the General Medical Council. There is evidence that some practitioners are issuing circulars informing insured persons that they are on the panel and are open to accept names on their lists; and these circulars, to which probably little exception might be taken if they were sent to actual patients on the books of the practitioners issuing them, are apparently in some instances being distributed broadcast. Not only this, but there are indications that some practitioners have not scrupled to secure the influence of officials of approved societies in order that their persuasive efforts may be brought to bear on those persons who may not have any strong views as to choice of doctor. Already some Divisions have called the attention of the local profession to the need of care in this matter, but it seems that some strong general note of warning is needed if the honoured traditions of the profession in regard to advertising and touting are not to receive a blow from which they will only recover after a series of sharp disciplinary proceedings at the hands of the General Medical Council. The Association will of course lend all its aid in repressing such practices, and looks to the Divisions to watch any tendency of the kind with a jealous eye.

THE RADIUM INSTITUTE IN LONDON.

The first report of the Radium Institute[1] in Riding House Street, Langham Place, London, W., which is published in full this week, seems to show that it has fully justified its existence; and it may be useful to recall the conditions under which patients are admitted for treatment. In the first place, it is to be noted that it is open to all classes of the community, and that paying as well as gratuitous patients are received. According to the rules by which the administration of the Institute is carried out, patients

[1] An illustrated description of the Institute was published in the BRITISH MEDICAL JOURNAL, 1911, vol. ii, p. 302, and full particulars of the rules governing the admission of patients, with a tariff of fees charged those able to pay, were there given.

are only treated in association with or through the introduction of their medical adviser. At their first visit they must either be accompanied by him or must bring with them his written statement giving details of the treatment already employed. Necessitous patients are admitted to free treatment if certified by their ordinary medical adviser to be suitable subjects for charity. All other patients are charged according to a scale of fees; the fee for a first consultation at the Radium Institute with the patient's medical adviser or upon a written statement from him is two guineas, and the fees for treatment vary from two guineas to five for each application, being governed by the site of the lesion and the strength of the apparatus used. The duties of the Medical Superintendent towards patients are clearly defined in a letter written by Sir Frederick Treves, the Chairman of the Executive Committee.[1] In this letter it is stated that it rests with the Medical Superintendent to indicate the specific treatment to be employed in each case as well as the details of that treatment, and to see that the treatment by radium recommended is carried out. For that treatment he is responsible, and it rests with him to decline to treat any case in which he considers treatment by radium likely to be of no service to the patient. The diagnosis of the malady rests with the doctor who brings or sends the patient to the Institute. Should a third opinion be considered necessary, the patient's medical adviser is asked to arrange this and to select the consultant, and the ordinary fee for such consultation must be paid by the patient. If the applicant is necessitous, and is therefore being treated as a gratuitous patient, the opinion of a member of the honorary consulting staff can be obtained free, the relation of that staff to the Institute being precisely the same as exists between any other honorary staff and the charitable institution with which the staff is associated. Paying patients at the Institute have no claim whatever upon the services of the consultant staff, and the members of that staff are in no other relation to such patients than are all other consultants or specialists; and the medical superintendent is specially instructed to leave the selection of a consultant to the discretion of the patient's ordinary medical adviser; the supervision of the patient between the attendances at the Institute for the application of radium is in the hands of his ordinary medical adviser. The services of the medical superintendent himself are free to all patients, but his services are entirely confined to the treatment actually given in the Institute and where that treatment involves special manipulation, as, for instance, in the application of radium to the larynx, œsophagus, rectum, bladder, or uterus, he is instructed to ask the medical adviser of the patient for the assistance of a specialist. The Institute has a well-equipped physico-chemical laboratories under the direction of Mr. W. Lester Alton, who has a private work-room, and will carry on researches into the action of radium as part of the work of the Institute. His first report is published as an appendix to the report of the medical superintendent, printed elsewhere in this issue. It is to be gathered that since the laboratory was opened it has been so busily engaged in measurements connected with the purchase of the radium salts required and in the preparation of applicators and of radio-active solutions, that there has been little opportunity for original research. The laboratory determines the activity of the apparatus employed, and, in the case of all emanation applicators, the dosage during the period of application. The work of preparing the applicators began before the Institute was ready to be opened, and by that time twenty-four pieces of apparatus were ready for use, all, with a few exceptions, prepared by or under the supervision of the director. Since then eleven more applicators have been made, and others will be prepared.

[1] BRITISH MEDICAL JOURNAL, 1911, vol. ii, p. 302.

CANCER OF THE RECTUM.

IT is a trite saying that surgery is our only present hope of curing cancer. By "cure" one means total eradication of the diseased process. If a cancer be wholly removed it does not recur, and the obvious corollary is that a recurrence is evidence not so much of the failure of surgery as of the incompleteness of the particular surgical technique employed in such cases. Whatever be the outcome of experimental research, it is unlikely that surgical treatment will be superseded for many years to come, if, indeed, it will ever be wholly replaced. Time and time again medicinal treatments and more or less wondrous chemical applications are rushed into temporary prominence, cures are vaunted; but in a disease that differs so widely from all other diseases, that is of such widespread distribution throughout the animal kingdom, the causation and mode of onset of which are unknown, and the natural evolution of which is almost invariably a progression towards a fatal issue, the administration of drugs on the chance of effecting a cure is as the act of one who would attempt to extinguish a volcano with a squirt. Many so-called "cures" that one reads of are based upon an imperfect acquaintance with the natural course of the disease. The resources of surgery are always extending, and it would be rash, indeed, to seek to delimit the possible scope of the surgical treatment of cancers. It comes to be a question not of removing tissues wide of the disease in a haphazard manner, such as too often characterized the operative measures of the past, but of removing the definite structures through which the outrunners of the tumour are, or may be, permeating unseen. These danger tracts have, therefore, to be more exactly mapped out and understood, and the surgical endeavours that will recognize them will be the measures of hope. The observation, too, of sites of recurrence after imperfect operations is of considerable practical assistance. The results of particular operative procedures, frequently fortuitous, are not the best means of determining their practical effectiveness. There will always be those who ask for a sign, but when the lapse of years brings the practicable result for them to appraise, the progress of knowledge will by that time have rendered the operation a thing of the past. If, however, surgical measures be built on the surer foundation of pathological facts, progress will be quicker as the means adopted are more rational. Evidently, then, investigations into the surgical pathology of cancer are of immediate practical value to the surgeon. The more extended the operations become, following such lines, the greater the number of cases amenable to treatment. The greater risk must be met by increased dexterity. That is the surgeon's problem; it is beyond the field of the pathologist. As Seneca said of philosophy, it is not the office of pathology to teach men to use their hands. But of late years a younger school of surgeons has arisen, applying to the problem of the treatment of cancer the observations on the surgical pathology of the disease made in the laboratory by themselves or their associates. The operations of Sampson Handley on mammary cancer, of Berkeley and Bonney on uterine cancer, and of Miles on cancer of the rectum, are typical evidences of the work of this school. Under these advanced operations the number of cases amenable to treatment has risen to about 75 per cent., and one might be erring on the safe side to assume that the effectiveness of the operations—that is to say, the proportion surviving a three years' limit of those actually seen—is well over 40 per cent. With the earlier recognition of the signs and symptoms of cancer, we may well hope for greater improvement than has already taken place within the last few years. In Mr. Miles's clinical lecture published in this issue attention is called to the early symptoms of cancer of the rectum. When the disease affects the anal canal or the upper portion of the rectum noticeable symptoms occur early, but when the ampulla is affected the malignant

rocess may proceed for a considerable time before the atient is impelled to seek advice, and the occurrence of ıtractable constipation followed by a period of diarrhœa ıd probably due to atony of the bowel wall may prove a ymptom of great service in recognizing an early case of ıncer in this situation. The whole paper is a brief but ɔrcible exposition of the author's views on a subject that as recently, notably at the annual meeting of the Associa-on at Liverpool, excited much discussion.

SIR GEORGE TURNER, M.D.

HE fact with which many of his friends have been for ome time acquainted with regard to Sir George Turner, hose name appears in the New Year Honours list, hat he is suffering from leprosy, has recently been made ublic. We shall not now be violating confidence by tating that the letter published in the BRITISH EDICAL JOURNAL of April 20th last, p. 925, was ritten by Sir George Turner. In that letter he xpressed certain opinions founded upon his experi-nce of leprosy in South Africa. These opinions were hat leprosy is not hereditary, that it is contagious, hat it is spread wholly and solely by contagion nmediately and mediately, that it is communicable rom the sick to the healthy, but not nearly so easily s phthisis, and that it is not such a danger to the ublic health as syphilis. He laid stress upon the ifficulty which might in some cases be encountered n diagnosing the disease, and said that if he pre-ented himself for examination and treatment at a hos-ital, especially if he concealed the fact that he had een associated with lepers, his disease would probably ot be correctly diagnosed by the majority of physicians. He strongly urged that leprosy should be made notifiable, nd his advice has the more weight because he added, "You may be sure I do not desire that lepers should be ubjected to more restrictions or annoyances than are ctually necessary, but they should cheerfully submit to ny and every precaution likely to prevent others from uffering in the same way as they themselves are uffering." Sir George Turner entered the civil service of Cape Colony as medical officer of health in 1895. He vas then nearly 50 years of age, but in the period that ollowed, until his retirement twelve years later, he endered very great services to South Africa and to he world at large. An outbreak of rinderpest occurred n Cape Colony in 1896. The late Professor Koch was hen studying the disease and had devised a system of noculation, but had to leave South Africa before his work vas complete; for the last three weeks of his stay Dr. Turner was with him. Six months later Dr. Turner ad produced a curative and preventive serum, but the mmunity produced only lasted for three weeks. He ccordingly continued his researches and had for his ssistant Wilhelm Kolle, and within six months devised a ystem of simultaneous inoculation of virus and serum, vhich produced the most excellent results. The report on his subject was signed by him and Dr. Kolle, and the nethod is now commonly spoken of as the Kolle-Turner nethod, whereas it ought certainly to be known as the Turner-Kolle, or the Turner method. The inoculations hen made amounted to an experiment on an unusually arge scale: how many animals were treated cannot be ccurately stated, but in the case of 14,000 the results were ascertained. The epizootic was arrested, and within a year the disease was stamped out. The Government of Cape Colony then closed Dr. Turner's station, but as the prophylactic there produced was urgently required in Rhodesia and Egypt, Mr. Cecil Rhodes defrayed the cost of carrying it on for another four months; then the work finally ceased. Dr. Turner, after his eighteen months of hard work, during which he lived in tents among the cattle, took a holiday in England. On his return to Cape Colony the then Minister of Agriculture intended to propose a vote of thanks in the Cape Parliament, and to move a grant of money, in recognition of Dr. Turner's great services, which had resulted in the saving of millions of money in South Africa alone; but the Ministry fell, and nothing was done. When the war in South Africa broke out Dr. Turner volunteered at the outset, but it was not until the following year, when the prevalence of typhoid fever in the army had become very severe, that Lord Roberts asked for Dr. Turner's services in dealing with the epidemic in the army and in the concentration camps; subsequently, Lord Roberts bore testimony to the value of Dr. Turner's work. In 1901 rinderpest broke out again, and Lord Kitchener asked for Dr. Turner's help. A station was with some difficulty started at Pretoria, and in twelve months rinderpest had once more been stamped out. On this occasion, also, the prophylactic was supplied to Egypt and Natal. There was at that time at Pretoria a leper asylum containing about 50 Dutch and 40 native patients. Dr. Turner worked there for seven years, the first three purely as a labour of love. He saw the lepers each morning and evening, and gave up the whole of Saturday and Sunday to them. Here he conducted many *post-mortem* examinations, and arrived at the conclusions which have been mentioned in the beginning of this note. Upon reaching the age limit Dr. Turner retired, but continued the study of the bacteriology of leprosy. After several years of laboratory work he had to make the diagnosis of leprosy in himself. He is now living in seclusion in this country, suffering from definite leprosy of the nervous type, which has produced great loss of power in the left arm and some weakness in the right. It is understood that Sir George Turner's name was included in the New Year Honours list on the initiative of the King, who had recently become aware of the facts. His Majesty's ready action in this instance will appeal to every member of every profession, and most of all to the profession of which Sir George Turner is so great an ornament. It has appealed, and will appeal, to all members of the public, and it will be appropriate if the Cape Government to-day carries out the intention of the earlier Ministry. It could, perhaps, best do this by making a substantial increase in Sir George Turner's retiring allowance, so that the disabilities attaching to his unfortunate position may not be aggravated by the pecuniary anxieties which a father crippled in health and with educational responsibilities towards his children must suffer.

PASSPORTS.

A CASE heard recently before Mr. Justice Darling at the Central Criminal Court contains a warning for all medical men. A medical practitioner in London was charged with having put forward false declarations made for the purpose of obtaining passports for two men with foreign names. The passports were issued, and the two men were subsequently taken into custody at Stuttgart on the charge of having procured a girl from England. The counsel who appeared for the Foreign Office said that it was not suggested that the defendant had the smallest knowledge of the real character of the men, and that when the police communicated with him he treated the matter quite frankly and gave full information. Before a passport can be issued to any person there must be a declaration signed by some one of certain specified classes (mayors, magistrates, justices of the peace, ministers of religion, barristers-at-law, physicians, surgeons, solicitors, and notaries) to the effect that to the best of his personal knowledge the applicant is a fit and proper person to receive a passport. The form has recently been changed, and it now bears an endorsement stating that any person who made a statement which proved to be untrue would be liable to prosecution. It appeared that in this case the men were unknown to the medical practitioner

who signed the forms but were recommended to him by a patient in whom he had great confidence. The defendant, through his counsel, expressed great regret for the mistake he had made. The judge, while accepting the defendant's explanation that he was quite unacquainted with the character of the men, imposed a fine of £25 each in respect of two declarations. From this case and from one of a similar order which was reported in this JOURNAL in September, 1911 (page 770), it is clear that medical men are not fully aware that the Foreign Office attaches great importance to the declaration which has to be made by an applicant for a passport which must be supported by some person in a responsible position who is acquainted with the applicant. It is dangerous to give such guarantees unless sufficiently acquainted with the applicant to feel certain that the declaration made is absolutely true. It is, moreover, very desirable to make certain that the applicant is himself about to proceed upon a journey abroad and therefore really requires a passport.

A MAP OF THE INSURANCE ACT.

WE have received from the Association of Standardized Knowledge, Limited, of 15–16, Buckingham Street, Adelphi, W.C., a chart of the National Health Insurance Act, prepared on a novel plan. The subject matter of the Act is arranged in vertical columns and the compilers have chosen as headings a series of seven functions into which the operations of the Act naturally fall. Horizontally, the subject matter is further arranged under headings of the different groups of persons coming within the jurisdiction of the Act. By this ingenious system, a map is made, in which the functions of the Act may be termed its longitudes, and the people brought within its operations its latitudes. This device makes it comparatively easy to ascertain the operations of the Act in reference to any particular person or subject; only the essence of the Act is given, but it is to be found rapidly and conveniently. An important feature of the chart is that appended to every statement is the number of the clause of the Act, so that direct reference can be made if desired. The chart has evidently been prepared without political bias, but incidentally it brings out many curious points, for instance, men in the army or navy only receive maternity benefit, so that out of 100,000 men in the regular army who pay insurance tribute, 80,000 have no chance of receiving anything in return, not more than 20 per cent. of the men in the service being married. The Association of Standardized Knowledge appears to be an offshoot of a body called the "Organization Society" which exists to propound and explain the science of organization based on the axiom that society is an extension of the individual, and on three principles—of degree, of a universal duality, and of the line of least resistance—to teach its principles and advocate their application. The president of the society is Mr. Marshall Bruce-Williams, and the other members of the executive committee are Colonel B. R. Ward, R.E., and Colonel F. N. Maude, C.B. Captain R. R. Gibson is the acting honorary secretary, and further information can be obtained from him at 15, Buckingham Street, Adelphi, W.C. The society will arrange for giving lectures illustrated by lantern slides, will institute classes, and is prepared to affiliate literary, scientific, or debating societies which may desire to work along its lines.

A MEDICAL UNION UNDER THE TRADE UNION ACTS.

MEDICAL practitioners in Leicestershire and Rutlandshire are making an experiment which will be watched with much interest. They have formed a Union of Medical Practitioners, drafted rules, and conformed to all conditions entitling the Union to be registered under the Trade Union Acts of 1871 and 1876. The certificate of registration was issued on December 14th, 1912. We are indebted to the chairman, Dr. R. Wallace Henry, of Leicester, whose brief letter appears elsewhere in this issue, fo copy of the Rules of the Union; but it has not b possible in the time at disposal since its receipt to sub them to more than a cursory examination. It m however, be noted that any registered medical practitio who has not, in the opinion of the Central Committee of Union, been guilty of conduct detrimental to the honour interests of the profession, or calculated to bring it i disrepute, may become a member of the Union on signing undertaking to conform to the rules of the Union and to working rules of the Public Medical Services establish and controlled by the Union. There are two classes members—acting, who are prepared to give medi attendance on contract terms through the Public Medi Service; and honorary, who are not. The Union authorized to establish branches in the United Kingd and to institute a system of school clinics for the tre ment of necessitous children, and takes power to g legal assistance to its members. The entrance fee annual subscription are to be fixed at a sum not exceed one guinea in each case, but the Central Committee power to make a levy not exceeding £5 on each memb In the constitution provision is made for members una to attend a meeting to exercise their right to vote. Union has taken power to indemnify a member in resp of any loss incurred by him on account of action taken him in accordance with the advice or instructions of Union. The Union, Dr. Wallace Henry informs us, is no sense intended to be a rival to any other organizatio

THE CHINA MEDICAL MISSIONARY ASSOCIATION.

THE China Medical Missionary Association, which held its triennial conference in Peking during the ea part of January, is a society which exists for the purp of uniting all medical missionaries in China working connexion with the various missionary societies. *China Medical Journal*, issued quarterly by the asso tion, is perhaps its most important work, and this not o deals with important questions of missionary policy, also includes papers on a variety of professional subje The association is a purely advisory body, but it has b of great assistance to the missionary societies, particula with reference to the subject of medical education, has undertaken the translation and publication in Chin of many medical works, including such volumes as Gra *Anatomy*, Halliburton's *Physiology*, Osler's *Medicine*, R and Carless's *Surgery*, and Caird and Cathcart's *Surg Handbook*. Conferences are held annually at vari centres, but a general conference takes place only o every three years. It was in connexion with this c ference that the President of the Republic (Yuan-Shi-K on January 15th received the members present with gr honour, as is reported in a Reuter's telegram. Reply to an address presented by the missionaries, Yuan-Shi- said: "I am delighted to receive the medical missionar We are most gratified to you for your charitable servi especially in the interior, where the importance of sanit principles, once comparatively unknown, is being incre ingly recognized throughout the land, owing to y labours. It is also due to you that destitute women children are being succoured and that the poorest peo are receiving the elements of an enlightened educati Many of you assisted during the plague, materially aid in restricting the ravages of the disease which alarmed the world, while during the revolution many you faced dangers and difficulties in order to relieve sufferers. I am glad of this opportunity to offer you most sincere personal thanks, and I hope that you continue your labours, thus adding to the glory of y reputation and strengthening the bonds of friendsh between your countries and ours, which I hope strengthen every year."

SECRET COMMISSIONS.

SINCE the passage of the Prevention of Corruption Act, 1906, there would seem to have been a cessation of the corrupt offers to medical practitioners to recommend drugs, appliances, medicated wines, mineral waters, schools and homes for mentally deficient persons, of which examples were brought to our notice in former years, and from an answer given by the Attorney-General in the House of Commons to a question by Sir Samuel Scott it appears that during these six years there have been only eighty applications for the Attorney-General's *fiat*, twelve of which were refused, leaving only sixty-eight instances in which there was a *prima facie* case. It is therefore to be hoped that these discreditable attempts have been largely checked by the Act in question. A medical correspondent, however, has recently sent us a copy of a typewritten letter received by him from the head office of a company concerned in the manufacture and sale of a certain appliance, one paragraph of which reads as follows: "Any member of the medical profession may take advantage of similar discount rates to those granted to our agents, or, if so desired, a commission basis can be arranged for the introduction of our instruments to any patient whom the doctor considers would benefit by its use. The patient so sent to us must bear a letter of introduction, and we handle the case entirely from that moment." There can be little doubt that such a communication is contrary to the spirit of the law, and that any medical practitioner who entered into such an arrangement might render himself liable to the penalties fixed by the Act.

MEMORIAL TO MISS LOUISA TWINING.

A STRONG desire having been expressed, a sum of money has been privately subscribed in order to perpetuate the name of this well-known worker in a manner which she herself would have approved. Miss Twining has left an example of public spirit, of much work accomplished under difficulties, and of increasing efforts to make known the needs of many who could not speak for themselves. The better conditions of the sick in hospitals, under the Poor Law, and in their own homes, the appointment of women to serve on public bodies, the training and protection of young workhouse girls, the care of aged and lonely women, all engaged her powers, and in the latter cases led to her founding homes, which have proved of great value. Beyond these and many other interests, the sad position of poor people suffering from epilepsy appealed strongly to her sympathies. For many years Miss Twining took charge of a certain number of these women, who, while of superior education, were debarred from earning their living by their cruel affliction; she understood their needs and their difficulties, and her home was their home. Thus their loneliness was lessened, and good treatment, combined with the utmost care and patience, led in some cases to restoration to health. It was felt that Miss Twining would like her name to be remembered by the endowment of a memorial bed in one of the homes for women at the Chalfont colony, Bucks. She thoroughly approved of the methods pursued there by the National Society for Epileptics, and subscribed liberally to the funds of the society during her lifetime. The cost of endowing a bed at the colony is £200, and there is urgent need for such help. This has been paid over to the society, and some of the money will be spent on a first-rate "regulator" clock for one of the dining halls of the colony. A donation will be sent to the Women's Local Government Society, 17, Tothill Street, S.W., of which Miss Twining was a Vice-President at the time of her death. As a guardian Miss Twining's name will be long remembered, and she inspired many women to undertake similar work. She herself considered that, if understood rightly, one of the most responsible and the noblest title any human being could possess was "guardian of the poor." J. Wilson (Honorary Secretary and Treasurer), 10, South Hill Park Gardens, Hampstead; Lieutenant-Colonel E. Montefiore, Naval and Military Club, Piccadilly, W. (Joint Treasurer).

LOCAL MEDICAL COMMITTEES.

WE are told that there is an idea in some parts of the country that the medical practitioners elected to form a Local Medical Committee must be themselves members of the panel. A glance at the Act, section 62, would have shown that this notion was erroneous. The Act says that the Insurance Commissioners must be "satisfied that such committee is representative of the duly qualified medical practitioners resident in the county, or county borough," or "any area for which a district committee has been formed." Nothing is said about the practitioners elected being on the panel, and we imagine that the omission was deliberate in order that all classes of the profession and all kinds of practice should be represented on the Local Medical Committee. We give above (p. 185) a short account of the important functions which the Act and Regulations assign to a Local Medical Committee.

THE subject selected by Dr. A. J. Jex-Blake for his Goulstonian lectures before the Royal College of Physicians of London, February 25th and 27th and March 4th, is "Death by Lightning and Electric Currents." Dr. F. de Havilland Hall in his Lumleian lectures on March 6th, 11th, and 13th, will deal with intrathoracic aneurysms.

Medical Notes in Parliament.

Health of the Navy.—Mr. Burgoyne asked on January 15th whether the recent official return on the health of the navy might be accepted as a criterion of the established strength of the personnel at any average moment: and, if so, wherein lay the difference between the figures there given and the estimated total for which money was taken in the year in question. Mr. Churchill said that the answer to the first part of the question was in the negative; and he readily admitted that the return referred to was somewhat misleading except for the special purposes of the Naval Medical Service. The figure given under the heading "Average Force," on page 98 of the return—namely, 117,100—represented the average number of men liable to treatment on board, or at the naval establishments, throughout the year. Cadets, Coastguard, and Royal Marines at head quarters were excluded, the latter being shown separately on pages 141, 147, and 166 of the return. The actual number borne on December 15th, 1911, was 133,498 officers and men.

Public Health (Acquisition of Water) Bill.—The Prime Minister informed Mr. Peto, on January 20th, that he feared it would not be possible to give facilities to proceed with this bill this session.

Royal Commission on Sewage Disposal.—Mr. Watt asked the President of the Local Government Board whether he proposed to introduce any legislation in accordance with the recommendations of the Royal Commission on Sewage Disposal so as to enable local authorities to deal satisfactorily with trade effluents which at present prevented purification of rivers; and, if so, would he say when he expected to introduce such legislation? The President of the Local Government Board said that a bill was in preparation, but he was not at present in a position to say when it would be introduced.

THE National Vaccination Officers' Association will hold a public meeting at the Battersea Town Hall on Thursday, February 6th, at 8.15 p.m., to consider the manner in which the President of the Local Government Board is dealing with the question of the loss of income sustained by vaccination officers owing to the number of persons claiming exemption from vaccination under the Vaccination Act and Order, 1907. Mr. John Burns has been invited to attend the meeting.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LIVERPOOL.

THE PANEL.

IN Liverpool the Insurance Act in its various relations is still a burning question. An uneasy feeling prevails that the most has not been made of the strong position which the profession held locally. Down to January 4th Liverpool medical men were practically united in a determination not to place their names on the panels. On that date the Local Provisional Medical Committee quite unexpectedly expressed the opinion that the battle was lost, and that, in view of the situation, men who went on the panel could not be held to blame. An unofficial circular conveying this decision to the profession had the effect of a cry of "Sauve qui peut!" and by January 6th, when the first panel closed, 175 men had joined. This number has been officially declared adequate for the 250,000 insured persons in the area. In practice it is unlikely that they will prove equal to the task, and the irregular distribution of panel doctors among the insured persons will not help matters. Even now there are rumours of a compromise on the lines of the Manchester scheme. Of those who held out until the Special Representative Meeting on January 18th, some will probably join the panels, others will wait the result of the most recent movement in the direction of compromise. The Local Insurance Committee is discouraging "contracting out," and endeavouring to cast the onus of showing cause on the individuals who apply to make their own arrangements.

Surveying the whole course of events, men feel that the Association has suffered from the lack of a certain elasticity in constitution which would have permitted a more rapid adjustment of policy to problems which were changing from day to day. Probably better results would have been obtained by allowing more independent action to an executive elected on such a democratic basis.

DEATH OF DR. O. T. WILLIAMS.

The whole profession mourns the loss of DR. O. T. Williams, who died last week at the early age of 36. A sketch of his career appears in another page of the JOURNAL. It can only be said here that in DR. Williams the profession has lost one of the most brilliant of the younger generation of physicians, and in scientific research one of its most original and enthusiastic workers.

SIR RONALD ROSS.

Sir Ronald Ross's departure for London, where he has been appointed Physician for Tropical Diseases at the new King's College Hospital, will entail considerable changes in the School of Tropical Medicine, but for the moment these have not taken definite shape. He has accepted the offices of Professor of Tropical Sanitation in the University of Liverpool and Lecturer on Malaria in the Liverpool School of Tropical Medicine.

MANCHESTER AND DISTRICT.

THE ABERGELE SANATORIUM.

ONLY about nine months have elapsed since the South Manchester Board of Guardians opened the sanatorium for consumption at Plas Uchaf, near Abergele, and they have now agreed to transfer it to the Manchester Corporation. Plas Uchaf is an estate with a large mansion and grounds covering nearly 300 acres. It cost the guardians about £12,000 in addition to some further expenditure in making alterations to fit the mansion as a sanatorium. By the agreement for transfer the corporation undertakes to refund to the guardians all their expenditure on the estate and furnishing and alterations, and to accept all incipient cases of phthisis arising in the township of South Manchester which would in the ordinary course apply to the guardians. The corporation agrees to rent to the guardians the bungalow called Pen-y-Coed, in which there are at present eight children suffering from tuberculosis, so long as the guardians require it, or in the alternative to receive such children and provide medical treatment for them at Plas Uchaf at a weekly charge to be agreed upon. It is further stipulated that the doctor and matron shall continue to serve the corporation on the present terms and conditions, that the corporation shall take over all running contracts and liabilities of the guardians in respect of the sanatorium, and that the costs of conveyance shall be paid by the corporation. The most important part of the agreement is that the corporation shall receive all the cases of phthisis for which the guardians would otherwise have been called on to provide, without distinction as to whether they are insured persons or not. The number of sanatorium beds previously at the disposal of the corporation for the treatment of insured and uninsured was far too small, and even with the addition of the Abergele sanatorium will be none too great, but the great advantage of the arrangement is that it will allow of a more systematic and co-ordinated control of all tuberculous cases under the single management of the committee of the Manchester Corporation.

THE CARE OF THE FEEBLE-MINDED.

At the annual meeting of the Lancashire and Cheshire Society for the Permanent Care of the Feeble-minded it was stated that there are now 265 boys and girls in the colony, 90 of whom are 16 years of age or upwards. They came from all over England and Wales, and many applications had been received with which at present the society could not deal. Plans for a hospital had been begun, but the money in hand was not sufficient to complete the work. In the day school there were 174 children, and both boys and girls had shown remarkable progress in the handiwork to which they were trained. The laundry girls, for instance, had earned a considerable sum of money, which was of substantial assistance towards their keep. The financial statement showed an increase in both income and expenditure, but it was satisfactory to find that the excess of expenditure over income was £200 less than in the previous year. The Lord Mayor of Manchester expressed the opinion that the strongest representations should be made to the Government to pass a measure which, while allowing the feeble-minded to live their lives as happily as they could, would prevent their going out into the world, marrying, and bringing fresh feeble-minded children into existence. Sir T. T. Shann, President of the society, said that in the report of the chief medical officer of the Board of Education, great praise had been given to the society's homes at Sandlebridge. Several speakers expressed regret that the Mental Deficiency Bill had been dropped to make room for more debatable measures, and Miss Dendy moved a resolution, which was passed, deploring the delay in the passing of the bill, and requesting the Government to pass it next session as amended in committee. The resolution added that without powers of detention, the help given to many individual cases was thrown away, and, without financial help, private charity must always be inadequate to deal with the greater number of feeble-minded persons needing care and attention.

BIRMINGHAM.

NEW CHILDREN'S HOSPITAL, BIRMINGHAM.

HER ROYAL HIGHNESS PRINCESS LOUISE will lay the foundation stone of the new children's hospital in Ladywood Road on April 23rd. The new hospital, together with the statue to be erected in Victoria Square, is the city's memorial to the late King Edward VII. For many years the old hospital in Broad Street has been inadequate to deal with the large numbers of patients urgently needing admission, and the old building is quite unsuitable for the work of a modern hospital; in addition, the lease of the present building has only a few years to run. The cost of the new hospital has been variously estimated at from £50,000 to £60,000. It is expected that the building will be completed by the beginning of 1915, and before that date £13,000 will have to be raised if the hospital is to be opened free from debt.

The new hospital will be a substantial brick and stone structure fronting to Ladywood Road, and the main entrance will be in that road. In the centre of the block

will be the residential accommodation for the staff, with offices and board-room. The out-patients' department will be erected at the extreme end of one wing when more funds are forthcoming, and on the other side provision is made for a large recreation room for the use of the nursing staff. The out-patients, operating, and *x*-ray rooms now to be put up will be of a temporary character only.

The in-patients' wards will be built at the rear and at an angle with the buildings in Ladywood Road; they will be approached from the main corridor, on either side of which will be rooms for the resident medical staff, matron, nurses, and dispensary. Adequate provision will be made for dealing with infectious disease, one of the most troublesome matters which the management of a children's hospital has to meet. In a special annexe of the administrative block are a group of rooms for the admission of in-patients. There they will be medically examined, and if a patient is found to be affected by infectious disease it will be taken into an isolation ward pending removal. The accommodation of the wards is for 150 children, but as open-air treatment will be an important feature of the work of the hospital, the number of patients may be considerably greater. There will be two main ward units on each of three floors, and in favourable weather patients will be wheeled out into the open air. Each wing consists of a main ward containing fourteen beds, a ward for five beds, in which a high temperature may be maintained, and a smaller room for the reception of children whose surgical dressings require renewing. A lift will give access to the operating theatres on the top floor. All floors will be fire-resisting reinforced concrete, and each ward will have an escape staircase for use in case of fire. The hospital will be heated throughout by a hot-water system. Among the adjuncts are a laundry and pathological department.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

IRISH MEDICAL PROFESSION AND THE FRIENDLY SOCIETIES. ON January 3rd the County Borough of Dublin Local Medical Committee drew up the following provisional arrangement for medical attendance upon members of friendly societies pending the extension of the medical benefit clauses of the National Insurance Act to Ireland, and last week sent a copy of them to all the practitioners in the county borough:

1. Societies approved for State insurance, a capitation grant of 7s. 6d., inclusive of drugs, for a member, his wife and family, to include certificates for State and other purposes.
2. Benefit societies which are not State approved, a capitation fee of 6s., to include drugs and certificates for the payment of sick benefits, *but certificates required for State insurance purposes to be paid for at the rate of 2s. 6d. per certificate.*
3. Members of female and juvenile branches (children under the age of 16 years) to pay a capitation fee of 3s., to include attendance, drugs, and all certificates.
4. There is no special rate for single men.
5. In the case of medical officership to friendly societies, where the payment is by fixed salary, the remuneration must not be less than, on calculation, would be produced by the above capitation rates.
6. That those doctors who, in compliance with the request of the Local Medical Committee, resigned from their societies in the last quarter of 1912, be not penalized by the societies for having done so, but that each medical officer be reappointed to his respective society (or societies) upon the conditions set out herein.
7. The arrangements for medical treatment must be made through the Local Medical Committee.
8. It was further suggested that in making arrangements under the foregoing terms an endeavour should be made to limit medical benefits to persons with a gross income of less than £160 per annum.

At a meeting of delegates of the medical profession from all parts of Ireland, held on Tuesday, January 14th, at the Royal College of Surgeons, with Dr. Robert Woods in the chair, a prolonged debate took place on the terms of this provisional settlement, and the following resolutions were passed:

1. This meeting of delegates, representing the whole profession in Ireland, repudiates the action of the Dublin Medical Committee in accepting the terms offered for attendance on members of friendly societies
2. That we accept the same terms as those agreed upon by the British Medical Association until the 31st March, 1913.
3. That dispensary medical officers be requested to refuse certificates to dispensary patients under the Insurance Act, except on terms satisfactory to local medical committees, pending the settlement of the question.
4. The medical delegates of all Ireland assembled in Dublin on January 14th, 1913, on receipt of the report of Conjoint Committee, declines to appoint a medical committee with plenary power to negotiate final terms, as they are satisfied the amount of money available is not adequate to meet the cost of certification; but should the amount be supplemented to the extent of rendering an agreement possible, we empower the Executive Committee to take necessary action towards completing arrangements with the Commissioners.
5. That as the additional grant of £1,650,000 made by the Chancellor of the Exchequer to the British doctors for working the Insurance Act is an Imperial tax to which Ireland will contribute its share, we demand that a proportionate grant be made to Ireland on the basis of its taxable capacity, or in proportion to the number of insured, for the medical administration of the Act in Ireland, and thus afford the Irish parliamentary party an opportunity of redeeming its pledge to the Irish medical profession.

OYSTERS AND SEWAGE AT CORK.

Arising out of the recommendation of the Medical Officer of Health for Cork, that samples of shellfish should be obtained and submitted for bacteriological examination, the Local Government Board applied to the Public Health Committee in Cork for a copy of the report of any such examination. Dr. McCormack, Medical Inspector to the Local Government Board, attended the last meeting of the Public Health Committee, and reported that he had made inquiries into the circumstances connected with the four cases of enteric fever which occurred recently in Cork City, and were attributed to the eating of oysters gathered from the flats below Blackrock Castle, about two miles from the city. The liability to contamination arose from the large volume of crude sewage of the city which emptied itself into the river Lee at that point. The oysters are taken direct to Cork, and sold in the city at the public bars, restaurants, and in the streets. Dr. McCormack once more urged on the public health authority to obtain samples of shellfish and water from suspected layings in Cork Harbour and inlets, and submit them to bacteriological examination. The solicitor to the Corporation of Cork said that the difficulty lay in the fact that Blackrock was not under the jurisdiction of the corporation. The only thing it could do was to let it go to the public that oysters found within the tidal limits of the river Lee were more or less subject to be contaminated with sewage, and consequently were dangerous.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

LIVINGSTONE CENTENARY CELEBRATION IN GLASGOW. A MEETING of the representative committee in connexion with the Dr. David Livingstone centenary celebration in Glasgow was held on January 15th in the City Chambers. The Lord Provost presided, and among those present were Principal Sir Donald MacAlister, K.C.B., Professor Glaister, M.D., Dr. Macintyre, Mr. A. E. Maylard, and representatives of several public bodies interested in the commemoration. It was unanimously agreed that a fund be inaugurated for the purpose of establishing a permanent memorial of Dr. Livingstone, and there was a full discussion as to the form which this should take. The committee unanimously resolved to submit to the public the following finding:

That a Livingstone Centenary Memorial Fund be established for the promotion (1) of medical missionary work in Central Africa, especially in connexion with the London Missionary Society, the Livingstonia Mission of the United Free Church, and the Blantyre Mission of the Church of Scotland, and towards the establishment of a Livingstone scholarship in Anderson's College Medical School for the training of medical missionaries; and (2) for the promotion of the scientific study of geography in the University of Glasgow by the endowment of a Livingstone lectureship or professorship.

An appeal is now being issued for subscriptions, and subscribers are asked to indicate to which section of the memorial they desire their subscriptions to be allocated.

GLASGOW CITY ANALYST AND PURE FOOD SUPPLY.

In his annual report Mr. F. W. Harris, the Glasgow Corporation Chemist and City Analyst, states that the number of samples examined each year had steadily increased since the department was established in February, 1900, and last year 4,832 samples were dealt with. Speaking of the Sale of Food and Drugs Acts, Mr. Harris stated that effectual control of food manipulation is of ever-increasing difficulty both from the analytical and administrative point of view. The avowed object of the manufacturer was to place on the market something which appealed to the public taste, and many processes and systems applied to foodstuffs were of questionable value. The question as to what is a pure article of food must under existing conditions be fought out in the law courts, and resulted frequently in decisions which were most unsatisfactory from the public health point of view. The present-day method of arriving at a definition of what is a pure article of food was both cumbersome and unsatisfactory, involving totally unnecessary expenditure both of public and private funds. The procedure before a properly constituted board of reference would be simpler and more satisfactory. The usefulness of such a board had been fully recognized in other countries and in the Dominions. Of the food samples examined last year 15.8 per cent. were found adulterated, compared with 11.9 and 13.5 in the two preceding years. In addition, out of 235 samples of milk officially tested 69 were found adulterated.

Special Correspondence.

PARIS.

The Cocaine Habit in Paris.—A Case of Paratyphoid Appendicitis.—Intestinal Obstruction from Cherry-stones.—Tribute to the late Professor Guinard.—Mediastinal Cancer.—Mitral Stenosis and Laryngeal Paralysis.

AT a recent meeting of the Society of Mental Medicine a discussion on the cocaine habit in Paris was raised by Drs. Briand and Benssart, who cited examples in which persons addicted to cocaine had presented various hallucinations and delusions due to the habit. Dr. Provost described the various methods of administration employed, but spoke principally of the "snuff" method. Among the evil consequences of this method was, he said, perforation and ulceration of the septum nasi. Cocaine cannot legally be obtained in France without a qualified medical man's certificate; but, in spite of this, a great amount is sold in the Montmartre quarter. The drug can be obtained in some of the cafés, where, after a certain hour of the night, it is sold almost openly; and as many of the clients of these cocaine dens belong to the demi-moudaine class, this accounts for the fact that many of this class take to cocaine drugging.

M. Walther recently reported an interesting case of paratyphoid appendicitis to the Medical Society of Paris. A girl, aged 13, showed all the typical signs of acute appendicitis. At the operation thickening and oedema round the caecum was found, and the appendix was turgid and hard, with a small abscess and a coprolith at the tip. One of the paracaecal glands was enlarged and removed. After operation, the temperature rose to 40° C. each night for four days, and then gradually came down to normal. There was no peritoneal reaction to explain this rise of temperature, the result of Widal's test was negative for Eberth's bacillus and paratyphoid A bacillus, but markedly positive for paratyphoid bacillus B. It appears probable, therefore, that the case was one of paratyphoid fever, complicated by an attack of appendicitis due to the paratyphoid bacillus B, which was found in the appendix and in the gland removed from the mesentery.

M. Souligoux has reported to the Society of Surgery the case of a patient admitted to hospital suffering from signs of intestinal obstruction. He admitted having eaten a quantity of cherries, and that he had swallowed the stones. Laparotomy was performed, and a tumour 30 by 20 cm. was found in the small intestine. This tumour consisted of 770 cherry-stones. Entero-anastomosis was performed, and the patient recovered.

At the annual meeting of the Surgical Society of Paris, M. Rochard paid a tribute to the late Professor Guinard, who, as will be remembered, was killed in June, 1912, when leaving the Hôtel Dieu Hospital, after his morning's operations, by a lunatic who had been his patient. M. Rochard said that Professor Guinard had left his home for Paris with the fixed intention of one day becoming surgeon to the Hôtel-Dieu. All through his career Professor Guinard never forgot the "human" side of his profession, and took every opportunity of reminding his students that the charitable side of medicine and surgery must always be remembered. M. Rochard described the great surgeon's last illness, and how, before being operated upon, he gave instructions regarding the incision to be made and the search for the bullets lodged in the abdomen.

The difficulty in diagnosing many mediastinal conditions was illustrated by a case reported at a recent meeting of the Medical Society of the Hospitals by Drs. Bensaudi and Emery. The patient was a man aged 48, in whom diagnosis of cancer of the lung had been made by several physicians, and it was due to a secondary lesion which occurred on the septum nasi that the correct diagnosis was arrived at. On the septum nasi a gumma was visible and Wassermann reaction was markedly positive. After salvarsan was administered and the consolidation of the lung diminished, expectoration decreased and the patient put on weight and lost his cachetic appearance; *x*-ray examinations confirmed the diminution in the consolidation of the lung, and at present the patient is in good health.

At the same meeting Dr. Claisse reported two cases in which an extremely interesting and uncommon complication of mitral stenosis was observed. In both cases there was aphonia due to paralysis of the left vocal cord; both suffered from mitral stenosis, with marked enlargement of the left auricle, as proved by *x*-ray examination. In one of the cases *post-mortem* examination showed that the aorta was normal and there was no glandular enlargement, but there was marked hypertrophy of the left auricle and increased amount of fibrous tissue in the mediastinum. In both cases the paralysis appeared to have been due to pressure by the left auricle on the recurrent laryngeal.

Correspondence.

THE FUTURE ORGANIZATION OF THE ASSOCIATION.

SIR,—In the *Times* of January 17th appeared a letter from Dr. Davy, of Exeter, in which was urged the necessity of a postal vote of the members if the corporate opinion of the Association is to be fully ascertained; and in the same issue the editor of the *Times*, in a leading article, suggested that such a vote would afford probably the best solution of the present difficulties. Dr. Davy's argument may perhaps be supplemented by a modern instance. On the day immediately preceding the publication of his letter I moved, in the Marylebone Division, that the Representatives of the Division be instructed to propose in the Representative Meeting that no further action in reference to the pledge and to the Insurance Act should be taken until, by means of a postal vote, the wishes of the members of the Association had been definitely expressed. This proposal was rejected by a considerable majority. The meeting then proceeded to "instruct" the Representatives to press for the full rigour of the pledge, and consequently these six gentlemen were in a position at the Representative Meeting to advance some six to seven hundred votes, although as a matter of fact their immediate authority did not include more than forty members of the Division. I venture to ask whether a safe basis for any policy needing for its success the general support of professional opinion can be found in an arrangement which permits forty voters to appear as though they were really six hundred and fifty.—I am, etc.,

C. O. HAWTHORNE.

London, W., January 21st.

THE UNION OF MEDICAL PRACTITIONERS.

SIR,—As there have been many inquiries as to whether any attempt has been made in Leicestershire to carry out the trade union policy, which I with others advocated at the Liverpool meeting of the British Medical Association last year, may I, through your columns, inform those interested that, in accordance with the unanimous resolution of a large meeting of the practitioners of Leicestershire and Rutland, a committee was appointed to take action thereon.

Articles and rules were drafted in consultation with counsel and submitted to the Registrar, and a certificate of registration under the Trades Union Acts has now been received.

A copy of the rules will be forwarded to any one desirous of obtaining one, on receipt of 1s., by the Secretary, Mr. R. Wood, 6, Market Street, Leicester.—I am, etc.,

R. WALLACE HENRY,
Leicester, Jan. 18th. Chairman, Union of Medical Practitioners.

THE *POST-MORTEM* EXAMINATION OF NAPOLEON.

SIR,—In your critical review, entitled "A Riddle of Relics," in which you deal with Professor Keith's most able and interesting lecture on the history of the specimens in the Museum of the Royal College of Surgeons, you were kind enough to quote a passage from my little book, *The Illness and Death of Napoleon*. The quotation is as follows: "From his (Rutledge's) account in the 'Lowe Papers' there can be no doubt that he never lost sight of the corpse until it was soldered down in the coffin." I should like now to state the nature of the evidence concerning the *post mortem* examination of Napoleon, on which such a positive assertion is based. The italics in the following quotations are mine.

The *post-mortem* examination was performed at 2 p.m. on May 6th in the so-called drawing-room of Longwood, an apartment about 15 ft. by 18 ft., and lighted on one side by two windows. It has been contended that this room was badly lighted, and that at the end of the examination the daylight was failing. But in the "Lowe Papers" (vol. 20,133, f. 126) there is a hastily written letter from Sir Thomas Reade, the Deputy Adjutant General in St. Helena, to Sir Hudson, dated, Longwood, May 6th, 1821, *4 p.m.*, in which he says:

> Nothing was said about the heart until Dr. Shortt ordered the body to be sewn up. . . . I was obliged to consent to its being put in a vessel and left, under the particular care, in the same room with the corpse, of Dr. Rutledge. . . I shall wait here until dark and go to Alarm House.

It is, therefore, clear that the *post-mortem* examination was concluded before 4 p.m.; and in St. Helena there is little or no twilight, and darkness falls at about 6 o'clock.

It has been suggested that the supply of water necessary for the performance of the *post-mortem* examination was limited; but there must have been a sufficiency, for only a few months before Napoleon had ordered from the individual who has passed into history as the "one-eyed cooper" a tub 12 ft. square for his garden, and had established a somewhat elaborate system of waterfalls from one reservoir to the other.

Sir Hudson Lowe did not attend the examination, and he gives his reasons for not being present in a conversation with the Marquis Montchenu. He states that he had never in his life attended a dissection, that he did not know what the effect might be, and that he had, therefore, directed Sir Thomas Reade to represent him. Whether Sir Thomas Reade had any qualms does not transpire; at any rate, he obeyed the order and wrote a long report of what took place at the examination. This report is to be found in vol. 20,133, f. 133 of the "Lowe Papers," and shows how closely he was watching the proceedings, and the care he took to prevent any tampering. He says:

> The liver was afterwards examined. The moment the operator took it out, Dr. Shortt instantly observed it was enlarged. All the other medical gentlemen differed with him in this opinion. . . . At this moment the liver was in the hands of the operator, and upon my appearing desirous to see it close, he immediately took his knife and cut it open from one end to the other, observing to me, "It is good, perfectly sound, and nothing extraordinary in it." . . . After this I desired Dr. Shortt would give directions for the body being sewed up, and I requested it might be done *previous to my leaving the room*. Dr. Shortt desired Professor Antommarchi to do so. . . . The heart was placed in a small silver cup, and given in charge to Assist. Surgeon Rutledge of the 20th Regiment, who was placed in charge of the corpse, and to whom *I gave the most pointed orders* that he was not to allow it out of his sight. . . .

From these two letters it will be seen that, at the *post-mortem* examination, which took less than two hours to perform, the most vigilant supervision was exercised. Seven British doctors and three combatant officers, all hostile to Antommarchi, the operator, were carefully watching his movements. Can it be supposed for a moment that anything he did could have escaped their notice?

Thomas Rutledge, the assistant surgeon to the 20th Regiment, and the junior medical man present, also gives his account. Those who know Reade will understand the way in which he gave those "pointed orders," and the effect they would have upon a young doctor in the army, with a career depending upon his implicit obedience.

Rutledge has left two reports in the "Lowe Papers," vol. 20,133, f. 150, and f. 159. The first is headed "Memorandum during my visitations at Longwood from May 6th, 1821," and describes in detail how he guarded the body, which had been *sewn up and dressed*, and how he finally saw it placed in the coffin, and securely soldered down. In order to abstract parts from the cadaver, the thief would have to undress the body, to undo the suture, to find the intestines, to remove the pieces, and to sew up and dress the corpse again. Could it be done in less than half an hour, even supposing Rutledge had been absent for that period? But he mentions that after the coffin had been soldered down at 7.30 p.m. on May 7th he felt himself free to accept the invitation of Madame Bertrand to dinner. But he was not alone in his vigil from May 6th to May 7th, for Captain Crockatt the orderly officer was with him, and all day on May 7th a constant stream of people paraded before the corpse, marshalled by Crockatt.

The second report of Rutledge in the "Lowe Papers" is most important, for it is a critical commentary of the *post-mortem* appearances described in Antommarchi's book. Knowing the thorough untrustworthiness of Antommarchi, and the exposure of the many false statements he has made, it has always been a question as to how much of his account of the *post-mortem* examination can be believed. Now, those who assert that the *post-mortem* examination proved that hepatitis had existed, base their belief on a sentence in Antommarchi's report, in which he says:

> The liver was closely united on its convex surface to the diaphragm, *the adhesion extended over the whole organ, and was strong, cellular, and of long standing.*

But in vol. 20,133, f. 159, of the "Lowe Papers," Rutledge quotes this sentence, and says:

> There was no adhesion of the liver to the diaphragm excepting through the medium of a little coagulable lymph *which I easily removed with my finger when taking out the liver for examination.*

Again, in reply to Antommarchi's statement that:

> The concave surface of the left lobe of the liver adhered closely and firmly to the corresponding part of the stomach, and that at every point of contact the lobe was sensibly thickened, swollen, and hardened.

Rutledge states:

> The part of the left lobe of the liver which had been in contact with the cancerated part of the stomach was indurated, and there was a superficial thickening which extended to about the one-fourth of an inch round the circumference of the cancer. The remainder of the left lobe was free from disease.

Finally, Rutledge concludes his criticism with a gem of English prose, and says, "These trifling matters add to the number of mistakes which Antommarchi's book are replete with."

Both the official report, and that of Henry, speak of a small adhesion to the diaphragm, and with the direct contradiction of Rutledge it is impossible to believe that Antommarchi has stated the truth in his description of the condition of the liver and its capsule. Dr. Burton, in a letter in the "Lowe Papers" (vol. 20,214), tells us that Antommarchi expressed himself in agreement with the official report when it was read over to him, but on the advice of Count Bertrand, refused to sign it. Rutledge was the junior surgeon present at the autopsy, and it is quite conceivable that to him would be deputed the

unpleasant work of removing the organs from the body preparatory to their examination.

To show how dangerous it was, not only to act, but even to think, in a manner contrary to the official view, the *post scriptum* of a letter from Lowe to Lord Bathurst (vol. 20,133, f. 170) may be quoted. Dr. Shortt had so far forgotten his official duty, that he had the temerity to say that he thought the liver was enlarged, while Arnott, who had been longer with Lowe, stoutly maintained that it was normal. Lowe, therefore, writes:

> Dr. Arnott has appeared to me to have conducted himself as a perfectly upright and honest man in not encouraging the desire evinced to ascribe the disease to the liver, and showed his judgement also in having an opinion to the contrary. Dr. Shortt, however, thought the disease proceeded from the liver, without his having even seen the patient alive, but he feels a little ashamed, I believe, of the opinion he has expressed.

But Arnott's reign of favour was short-lived, for when he published his book in 1822, both Lowe and Reade fell foul of him for having the imprudence to say that the followers of Napoleon evinced sorrow at his death, and were devotedly attached to him.

A masterly criticism of the "Lowe Papers" can be read in *A Polish Exile with Napoleon*, by G. L. Watson, and all interested in this subject would do well to consult it.—I am, etc.,

London, Jan. 20th. ARNOLD CHAPLIN.

SIR,—With reference to the lecture of Professor A. Keith published in the BRITISH MEDICAL JOURNAL of January 11th, it may interest your readers to know that there is a case of tooth instruments in the museum of the Royal Army Medical College, Millbank, S.W., accompanied by a card bearing the following inscription: "A case of tooth instruments which belonged to the Emperor Napoleon the First. The case is incomplete, but contains eleven instruments and five key extractor claws. Presented by Inspector-General J. Paynter, to whose father the case was given by Dr. Barry O'Meara, the ex-Emperor's medical attendant at St. Helena."—I am, etc.,

London, S.W., Jan. 22nd. F. S. IRVINE, Major, R.A.M.C.

THE INTRACELLULAR PARASITES IN SYPHILIS.

SIR,—Since my paper on this subject appeared in the BRITISH MEDICAL JOURNAL on December 14th, 1912, I have received a number of letters concerning it, and some have appeared in the columns of the JOURNAL. The writers either state that they have confirmed some of my observations or that they have already seen, and in some cases have published, one or other phases of the structures I described in human syphilis. As I stated in my paper, many observers have described "bodies" in the lesions of human syphilis, and some have noticed "threads," "flagella," "tails," etc., but they do not seem to know what these bodies are. The latter are usually described as "pseudo-parasites," "perhaps parasites," "possibly parasites," "symbiotic structures," "vacuoles," "in my opinion they may be parasites," etc.

But this is not the point. It is not sufficient to find "bodies" in the lesions of a disease in one species of animal for them to be accepted as the causative agents of that disease. In the case of protozoal parasites some diffidence has always been exhibited before such have been accepted generally as disease-producing parasites because of the difficulty of applying Koch's postulates to the protozoa. More evidence is required than the mere finding of "bodies." It is even doubtful whether Schaudinn's discovery would have been accepted had not Metchnikoff and Roux inoculated syphilis into apes and again found the spirochaetes in the lesions produced. Indeed, it is not sufficient to see different shaped bodies in any one species of animal and to weave them into a life-cycle.

The point is this: What are the "bodies" seen outside and within the cells of the blood and lesions in primary and secondary syphilis? Are they parasites, and have they any connexion with the organism known as *Spirochaeta pallida*, which is generally accepted as the causative agent of syphilis?

I have said that the bodies I have found are parasites. This is because they have been found in five different species of animals, and because they are accompanied by similar lesions in four of those species. I have named these parasites Lymphocytozoa, and I am publishing my reasons for the name in the forthcoming volume of the collected papers of these researches. We are a step further than the mere finding of "bodies." We now know the phases of the homologous blood parasite of guinea-pigs, which constitute the cycles of schizogony and sporogony. This has enabled us to name the guinea-pig parasite *Lymphocytozoon cobayae*; the gametes are spirochaetes, and these are formed in a definite manner. A similar parasite, *Lymphocytozoon lumbrici*, has been found in the vesiculae seminales of earthworms; these also have a spirochaete phase developed in the same definite manner. Another prototype, *Lymphocytozoon pallidum*, has been found in the blood of cases of human syphilis, and these also develop into spirochaetes in the same way as the parasites of guinea-pigs and earthworms. Similar parasites have been found affecting rabbits and hares (*Lymphocytozoon leporis*) and rats (*Lymphocytozoon muris*). All these different species of the Lymphocytozoa resemble each other very closely in all their phases, and each species possesses gametes which are indistinguishable from spirochaetes.

In addition, the animals infected with these parasites—human beings, rabbits, hares, guinea-pigs—show lesions which also resemble each other, and which are the same as those of human syphilis.

Lastly, these parasites have been found in the circulating blood as well as in the lesions of the various animals infected. Two hundred consecutive cases of human syphilis have now been examined, and *Lymphocytozoon pallidum* found in every case. This same observation applies to all the animals showing similar lesions—the species of lymphocytozoon peculiar to the animal has always been seen. Moreover, so far as can be determined at present, these parasites—in human beings, rabbits, guinea-pigs—are amenable to treatment with mercury and arsenical compounds.

Therefore, I think we are now justified in naming these "bodies" parasites, and regarding their presence as diagnostic of disease in the various animals concerned, including human syphilis.

In consequence of several requests it has been arranged with Messrs. Evans, Sons, Lescher, and Webb, of London and Liverpool, to supply at a small cost jellies ready made for the examination of these parasites.—I am, etc.,

E. H. ROSS.

The John Howard McFadden Researches, S.W., Jan. 20th.

"OXYTOCIC."

SIR,—May I protest against the incorrect spelling of a word which occurs in a headline of the current BRITISH MEDICAL JOURNAL—"Pituitrin as an Oxytoxic"? I have only seen the word once before, also misspelt, and it would be well to correct the error before it becomes widespread. If spelt rightly, "oxytocic," it might be a valuable word possessing the Greek characteristic of condensing into one word a whole sentence, "causing to bring forth quickly." The Greek ὀξὺς means sharp, keen, swift, all suitable adjectives to apply to childbirth, not excepting the last, if pituitrin fail us not. The latter half of the word is derived from τόκος, birth, and the Greek κ in English usually becomes *c* (not *x*), which gives us "oxytocic." Spelt "oxytoxic" the word can only have one meaning, "acting as a swift poison," and in these days of toxins there is much danger of misapprehension arising.

The etymology of the word "toxic" is interesting. It meant originally "of or pertaining to the bow," and hence was applied to the arrows which were tipped with poison, but the word was not used in this connexion by the classic Greek writers.—I am, etc.,

Birmingham, Jan. 19th. H. EWAN WALLER.

ANTIVIVISECTION IN GLASGOW.

SIR,—I do not propose to bandy words with Dr. Walker over personalities and trivialities which can serve no useful purpose, and which have no bearing upon the subject I dealt with in Glasgow. Nor is it necessary for

me to disprove again statements which he only repeats, apparently under the impression that repetition will make them true. Your correspondent has so sufficiently answered himself that any further rejoinder from my pen is scarcely required. I therefore confine myself to the particular point regarding which he says he has secured "positive evidence" against me.

He again declares in regard to my lecture that "another part was devoted to the immorality of drinking alcohol and the uselessness and danger of vaccination." I again reply: "This assertion is simply amazing and almost unpardonable; not one word about alcohol drinking or vaccination escaped my lips the whole evening." He produces, as evidence, an anecdote I gave after my lecture was concluded, in reply to an observation from himself in which he sneered at my being almost alone in my opposition to vivisection, and asserted that I had practically the whole of the medical profession against me. The anecdote, as his own quotation shows, had nothing whatever to do with "the immorality of drinking alcohol," but merely went to show that a minority in one generation became converted into a majority in the next. His inability to grasp the point of my argument I can only attribute to the extreme state of nervousness which appeared to possess him at the time.

Similarly in regard to vaccination, not a single word on the subject was mentioned by me in the course of my lecture. I simply stated, in reply to a question subsequently put to me by some one in the audience as to whether I believed vaccination to be a protection against small-pox:

Perhaps my best answer to that will be that I have probably mixed with as much small-pox as any medical man in this city, and yet I have neither been vaccinated nor contracted the disease. My own experience has convinced me that vaccination is no protection against it.

To say, as Dr. Walker does, that I "spoke at length upon both these subjects," is positively false. I never mentioned them. My lecture dealt wholly and solely with the subject of vivisection in its various aspects. Your correspondent, upon the other hand, dealt only in side issues, mostly of an irrelevant nature, as he seeks to do now.

Dr. Walker appears incapable of construing even a written statement correctly. His faculty for turning things upside down is in the following instance highly amusing. He says:

That Dr. Hadwen should consider the recovery of a micro-organism from the body of an individual inoculated with this organism as an astounding feat is more surprising than the feat itself, which any one with any experience in a pathological laboratory must have seen performed hundreds of times as a matter of routine.

Permit me to say I see nothing "astounding" in the "feat," nor could I have believed that my ironical remark at Dr. Walker's expense could possibly have been taken seriously! He must be strangely deficient in sense of humour. Even had I possessed no laboratory or medical experience whatever, I should have had no difficulty in subscribing to the simple and self-evident proposition he has so laboriously advanced.—I am, etc.,

WALTER R. HADWEN, M.D., J.P.,
President British Union for Abolition of Vivisection.

Gloucester, Jan. 20th.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.D.—G. Browse.
M.B., B.C.—E. G. S. Cane, W. T. C. Pearce, Ff. Roberts.
B.C.—J. W. Joint, G. M. Parker, F. B. Smith.

UNIVERSITY OF LONDON.

THE name of the following successful candidate should be added to the list previously published:

Third M.B., B.S.—Vincent Glendining, Guy's Hospital.

KING'S COLLEGE.

Special Lectures in Physiology.

A course of four lectures on recent advances in chemical physiology and pathology will be given by Dr. Otto Rosenheim in the Physiological Laboratory, King's College, on the following Monday afternoons at 4.30 p.m., beginning on February 3rd.

The lectures are free to all medical students in London medical schools, and to all internal students of the University of London, and to medical men on presentation of their cards.

UNIVERSITY OF LIVERPOOL.

Professor Hebblethwaite.

IT is with great pleasure we congratulate Professor Hebblethwaite, Registrar of the University, on his return to work at the university after a term's leave of absence owing to illness. Delighted with his recovery, we join in wishing him many more years of health and ability to do the work to which he is so devoted. The work of the University Settlement is progressing well in the newly erected buildings. In the south end of Liverpool the warden and his colleagues are busy with their social work. There is still a debt of £1,000 upon the building, and a sum of £3,000 is necessary and urgently needed for endowment. Those who are interested in the work sincerely hope that the funds will be forthcoming, and that the work will not be crippled for want of them.

Public Lectures.

The following public lectures will be delivered during the Lent term: At 8 p.m. on January 24th Dr. T. R. Bradshaw will lecture on "Some Aspects of the Doctor and his Work." Professor Ernest Glynn, the newly appointed Professor of Pathology in the University, will deliver his public inaugural lecture at 5.30 p.m. on February 21st, and he has chosen as his subject, "The Study of Diseases in Domestic Animals and its Importance to the Community." On March 7th, at 8 p.m., Dr. Kenneth Forbes, Lecturer in Education in the University, will lecture on "Convention and Conventionality in Teaching." All these lectures will be delivered in the Arts Theatre, and admission is free without ticket.

Prize Essay.

Mr. Robert Caspe, a medical student in his second year, has been awarded the first prize in a competition organized by the Home University Library for an essay on the value and use of such a library. Mr. Caspe is to be congratulated upon his success in an open competition of this character.

UNIVERSITY OF GLASGOW.

Final Year Medical Dinner.

A COMPANY of 140 attended the "Final Year Medical Dinner," held in St. Enoch Station Hotel on January 14th. Professor W. K. Hunter presided, and there was a good gathering of the medical professors and lecturers, including Professors Samson Gemmell, Sir Wm. Macewen, Murdoch, Cameron, Muir, Glaister, Stockman, Munro Kerr, Bower, and others. A capital souvenir programme was prepared, illustrated by topical sketches, one of these, entitled "Childe Harold to the dark tower came," depicting the fortress of "General Practice," with a sinister figure of Mr. Lloyd George crouching behind the left wing of the tower, and flourishing a deadly-looking bludgeon. A photo gallery of "Men of the year" (1908–13) was also given, with a list of their names, and opposite each a more or less descriptive couplet. The list of guests was also provided with classic and other quotations for each. After the loyal toasts Mr. Ian D. Grant proposed "Alma Mater," which was responded to by Professor Samson Gemmell, who took occasion to refer to the affiliations which he said were in the air. The Technical College was to be affiliated; music, too, would soon have affinities; and he thought there was no reason why the Veterinary College should not come in also, and bring the university up to date. Professor Ralph Stockman replied for the guests, and Dr. J. Crawford Renton proposed "The Year," which was acknowledged by Mr. William A. Brechin.

General Council Register.

The Register of the General Council of the University of Glasgow for the year 1913 contains the names of 8,546 members, an increase of 301 on the previous year. At the annual revision 409 names were added, and those of 108 deceased members removed, including three who died respectively in 1892, 1899, and 1900, regarding whom information had only recently been received. There is still much room for improvement in the matter of intimating deaths and changes of address; no fewer than 187 reports last October were returned through the Dead Letter Office.

SOCIETY OF APOTHECARIES OF LONDON.

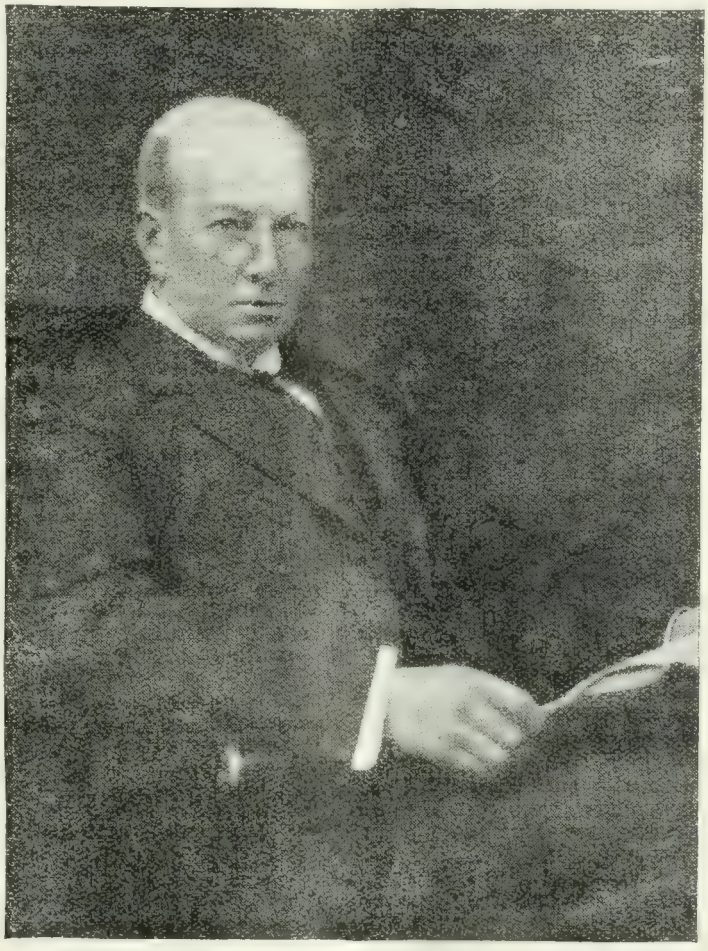
THE following candidates have been approved in the subjects indicated:

MATERIA MEDICA AND PHARMACY.—J. C. P. Bayley, J. D. Ferguson, C. T. Gasking.
ANATOMY.—J. B. Fairclough, J. D. Ferguson, L. Kahan, G. Nootl, N. W. Rawlings, J. Totton, G. C. Wright.
PHYSIOLOGY.—C. G. Bunn, J. D. Ferguson, W. Fox, H. C. C. Hackney, L. Kahan, G. Nootl, N. W. Rawlings, J. Totton, G. C. Wright.

Obituary.

GEORGE ALEXANDER GIBSON, M.D., D.Sc., LL.D., F.R.C.P.E., F.R.S.E., Etc., EDINBURGH.

We regret to have to report the death of Dr. George A. Gibson, of Edinburgh, which occurred at his residence, 3, Drumsheugh Gardens, early on Saturday morning, January 18th. He took an active part in the work of the Annual Meeting of the British Medical Association in Liverpool last year, for he not only gave the Address in Medicine on the Relations of the Circulation, but also introduced a discussion on non-valvular cardiac disease. He had himself suffered for several years from cardiac disease, and in August last his health broke down, and, though he struggled bravely and hopefully on, the end has come before he had reached 59 years. He had led a constantly strenuous life. After his breakdown in August a cruise to Norway was suggested, but it brought no improvement. Thereafter complete rest was recommended, and for a time it seemed as if he were going to rally, but some three weeks ago these hopes were shattered; there was growing weakness and gradual decline.



Photograph by] GEORGE ALEXANDER GIBSON. [*W. Crooke, Edinburgh.*

George Alexander Gibson was a native of Perthshire, and was born on January 27th, 1854, at Kelliebank, Muckhart, in that county. He was the eldest son of George Gibson, solicitor, Alloa. He was educated at Dollar Academy and at the Universities of Glasgow and Edinburgh. The Bar, for which his father destined him, did not attract him, and he took to scientific studies, with the result that he graduated B.Sc. at the University of Edinburgh in 1874. From 1874 to 1877 he held the Falconer Memorial Fellowship. In 1876 he had gained the degrees of M.B., C.M.; in 1877 the degree of D.Sc. He became F.R.C.P.Edin. in 1880, and graduated M.D. in 1881. In 1876 he was appointed a resident physician to the Royal Infirmary of Edinburgh. Thereafter he studied at Dublin, London, and Berlin. In July, 1878, he was appointed assistant physician to the General Hospital, Birmingham, but only retained the appointment till the end of the following year, when he settled in Edinburgh. Soon after he became lecturer in the extra-academical school. Then followed his appointment to the staff of the Royal Infirmary, where he remained for twenty-two years; at the time of his death he was senior physician. For ten years he was one of the physicians to the New Town Dispensary, and on its foundation he became physician to the Deaconess Hospital; this position he held for three years, when he was appointed consulting physician. He was principal medical officer to the Life Association of Edinburgh.

For some three years he was tutor in clinical medicine in connexion with the extramural school; for five years he was a lecturer in materia medica, and later a lecturer on the principles and practice of medicine in the same school. In 1897 he became one of the lecturers on clinical medicine in the Royal Infirmary. During these years he visited the universities and hospitals at home, as well as those of France, Germany, Italy, and America, in order to make himself more fully conversant with the methods prevailing in other medical schools.

He was honorary medical referee for the National Hospital for Consumption at Ventnor, lieutenant-colonel 2nd Scottish General Hospital of the Territorial Force, and a member of the Royal Company of Archers, the King's bodyguard in Scotland. He was at various times examiner in medicine for the Universities of Glasgow, Edinburgh, and Oxford; inspector of examinations for the General Medical Council. He had earlier been a demonstrator of anatomy in the University of Edinburgh.

He wrote many articles in the medical periodical press, and was himself for some time editor of the *Edinburgh Medical Journal*. He wrote many articles for the last edition of the *Encyclopaedia Britannica*, for the *Textbook of Medicine*, and for other works. With Dr. William Russell he was joint author of *Physical Diagnosis*, third edition, 1902. He wrote books on *Cheyne-Stokes Respiration* in 1892, on *Diseases of the Heart and Aorta* in 1898, on *Nervous Affections of the Heart*, second edition, 1905, based on his Morison Lecture to the Royal College of Physicians of Edinburgh in 1902–3. This last book was translated into German. Quite recently he published a volume entitled *Memorials of Sir William Gairdner*, to which Sir Clifford Allbutt makes some references below.

At the age of 23 he was elected President of the Royal Medical Society and of the Dialectic Society of the University of Edinburgh. He was at one time Honorary Secretary to the Edinburgh Branch of the British Medical Association and also of the Medico-Chirurgical Society of Edinburgh. At the meeting of the British Medical Association in 1898 he was vice-president in the Section of Medicine. For ten years he was secretary to the Royal College of Physicians of Edinburgh; subsequently he was on the Council of the College, and had he lived he would this year have been its President. He had been a member of the Council of the Royal Society of Edinburgh, Vice-Chairman of the Governors of the Medical School of the Royal Colleges, a director of the Town and Gown Association, inspector of examinations in Ireland under the General Medical Council, and a special commissioner appointed by the Local Government Board in connexion with the examination and registration of trained nurses. He was an honorary member of the Medico-Chirurgical Society of Norwich, and Correspondent Etranger d'Honneur de la Société de Thérapeutique de Paris. He received honorary degrees from many universities—the M.D. from Dublin, the B.Sc. from Harvard and Liverpool, and LL.D.

from St. Andrews and McGill. He was also an honorary F.R.C.P. of Ireland.

Such is the scaffolding of his life's work. But what of the filling up? He was a man of many interests and boundless energy. He was never at rest. He had always something on hand, and so wore himself out before his time. Apart from his outstanding position in the medical profession, he was a man of culture and of wide reading in general literature. He was not a man of one book. He was interested in everything. He was a most genial companion, of happy disposition, and an excellent friend. He saw the best in everybody. His friends were innumerable, both at home and in America. His teaching was of a high order, and he was a favourite with his students, in whom he took the greatest interest. He was interested in most field sports; latterly curling, fishing and golfing attracted him most. He was a member of the Honourable Company of Golfers, and was frequently seen on their course at Muirfield. He was a member of the University Club.

Dr. Gibson is survived by his widow, a son and a daughter.

The funeral took place from St. George's Church in Charlotte Square on Tuesday afternoon, where there was a very large congregation representing the two Royal Colleges of Physicians and Surgeons, the Territorial Forces, and the general public.

Sir CLIFFORD ALLBUTT, Regius Professor of Physic in the University of Cambridge, has written the following appreciation of George Gibson's life and work for the JOURNAL:

The shock and distress of the announcement of the death of George Gibson are such as, for the present, to make us silent rather than vocal in our sorrow. My words must be few. It is not many weeks since Gibson's affectionate and interesting life of Gairdner came into our hands; and for many of us who knew both men well, and who are suffering year by year in the passing of old comrades, there is a still deeper note of sadness in this passing, as it were, of two generations from us. It seems but the other day that Gibson and I were sitting with Gairdner, then nearing death, in his house in George Square—Gibson his skilful and devoted physician, I a visitor to him for the last time. That austere and kindly home, under the shadow of his old University, was a type of both men, of the best of Scottish men. Dear Gairdner, one eye blind, the other armed with a strange conical shield, was on our entrance still undauntedly searching in some treatise of medicine for more light; and it was characteristic of both men that in this crisis of their deep affection they so ruled their hearts as to follow together every trace and winding of the elder man's malady; Gairdner acutely analysing every one of them as dispassionately as if the case were that of a hospital patient. Again the best of Scottish life—earnest and loyal, deep and true.

And with the same strength above passion, not many years later Gibson in his turn had to watch over his own dissolution: again by a heart disease, again in the very sphere of medicine which each had made his own, winning knowledge for us and honour for himself. Three years ago it would have been an unmixed joy to me to find near ourselves, then at Ambleside, Gibson and his family, at Lowwood, had he not been there, as a friend had forewarned us, on account of a breakdown in health. For no man could the prospect of long and healthy life have seemed brighter; but the action of his heart had been much disturbed, and myocardial change more than suspected. Dispassionately watching, as I have said, his own symptoms, he ascribed them to influenza—an opinion which seemed a probable one. It is true he had worked very hard; he had poured into his teaching, his large private practice, and his original researches all his gifts of energy, skill, and insight; and his private practice carried him far and wide over Scotland. But in my experience, both personal and medical, hard work hurts no healthy man, so long as he lives, as Gibson did, a physiological life. He was naturally a man of powerful frame and untiring energy, and in his happy home free from all worries. It seemed probable, then, that influenza, or some other such toxin, must have cut in upon him; and it was with some apprehension that his son and I witnessed his brave if rather wilful determination to reinvigorate his heart, then, as we all hoped, convalescent, by climbing, methodically no doubt, the fells behind his hotel. However, the method seemed to be justified. He returned to work, and I presumed his recovery to be complete until we heard that his amendment had not endured. And a letter from Mrs. Gibson was by no means reassuring; so it was with more regret than surprise that a few weeks ago I heard from Dr. James Ritchie that his condition had grown so far worse that there were grave fears for his life.

George Gibson had done much scientific medical work, and much inspiring teaching and research; and much more yet was, we hoped, to have come from his hands. A while ago, in answer to my inquiry, he told me that he had not yet perfected his large recording sphygmometer, on Erlanger's pattern, but was still at work upon it. It is hard to believe that all these labours, these teachings, this devotion to the sick who looked to him for succour, are finished; and we are too prone to murmur at the dispensation under which those whom we can least spare are taken away.

It is not yet time to appreciate Gibson's work in all its bearings; like himself it was strong, orderly, and accurate. In a recess in his library was preserved a remarkably complete series of books on diseases of the heart; he knew them well, and gave to the contents of each its due place in his own writings. Happily much of this survey he had made, and his admirable work on *Diseases of the Heart and Aorta* will keep its place also among the classics. But again, it is not the time yet for such reckonings and comparisons; we his many friends can now feel only that a strong, true, warm-hearted, and learned colleague has been taken from us. To me Gibson was twice a friend, a dear friend in himself, and a memorial of Gairdner, for in him much of Gairdner seemed still to live.

Dr. WILLIAM RUSSELL (Edinburgh) writes:

It is unnecessary to enlarge upon the loss that Dr. Gibson is to the Edinburgh School of Medicine and to Scottish medicine. What is wanted from me is a personal estimate and appreciation of a man who has been a friend for forty years. In acceding to the request of the Editor of the BRITISH MEDICAL JOURNAL, I do so in that capacity, and in the hope that my words may in some degree express the feelings of many of his friends.

Gibson began his medical studies in Edinburgh after spending two years at Glasgow University, and at the outset was marked out from most of the men of his year as a student of science as well as of medicine. He had an excellent brain and a retentive memory, which made the details of science easy to him, so that at the end of his second year as a medical student he not only took the B.Sc. degree, but was awarded the Falconer Memorial Scholarship in Geology. This in itself made him a prominent figure amongst us. But this was only one side of him; the other side made his personality distinctive—he had a fine athletic figure, which he carried with grace, while he had the open, frank, friendly, and somewhat rollicking manner of a young man prepared to be on good terms with his fellows, and evidently looking at life in a spirit of the utmost friendliness. Everyone knew Gibson, and his circle of acquaintances was large.

Our friendship was formed at the end of our first summer in medicine, on board a steamer going to the North of Scotland, and the remarkable tenacity of his friendships was strikingly illustrated in our earlier relations, for it was he who kept us from drifting apart in those days. Looking back, as one has often, one has recognized how the faculties of mind, the genial, forceful, and yet easy bearing of those early days naturally developed into the erudite physician and the strong, yet sympathetic, and gracious bearing of the esteemed consultant. His personality was exceptionally attractive, and most people acknowledged it. He had nevertheless ardent dislikes and strong antipathies, and he carried into them the same frank and forceful manner. When he despised men and methods he did so openly, for he was no compromiser between what to him was upright and straight on the one hand and mean and crooked on the other. He always stood, and stood openly, on the side of honour and truth. For the lower forms of self-seeking he had the greatest contempt. The openness and frankness and easy courage of his manner often enabled him to

speak unpalatable truths without arousing a deadly animosity. In all medical affairs he took a keen interest and an active part, and was ever ready to give a helping hand to any good work.

As regards the professional side of Gibson's life, the most outstanding characteristics were his great devotion to the science as well as the practice of his profession and his extraordinary love of work; the latter was almost a form of dissipation with him, in so far, at least, as that he ignored the fact of the strongest of bodies having its physical limitations. The work he published had always a literary distinction and displayed the man of erudition and of critical faculty. There was no mistake about that, however much you might differ from his judgement. He was a great student and a cultured exponent of what to him was the truth in the particular department of medicine he might be dealing with at the moment. His chief interest, although by no means his only interest, was centred in cardiac diseases. The inspiration of this came from Dr. G. W. Balfour, to whom Gibson had been a house-physician in the old Royal Infirmary. It was in this department that he made his earlier reputation, but Gibson never took up the narrow and restricted view of the "specialist." The whole field of medicine attracted him.

As a teacher of students, a man such as I have endeavoured to outline Gibson as being was bound to be popular and to attract many to his clinics, and this he did. The students were fond of him, and his house-physicians and clinical clerks were devoted to him in a special measure. He had the faculty of knowing them by name and remembering them; he was ever ready to help them, and he kept in touch with many of them scattered all over the world. The statement that no one can take Gibson's place in the affection of his friends seems like a platitude, yet it means that no one compared Gibson's personality with any other—it was unique: he was Gibson, and we knew him and we loved him.

Mr. JAS. W. B. HODSDON (Edinburgh) writes:

The whole world of medicine is familiar with the work of the late Dr. George A. Gibson as an investigator, an author, and a cultured and skilled physician; while the academic distinctions conferred upon him at home and across the seas were an acknowledgement of his scientific attainments.

In the later Seventies, in the anatomical department of the old university buildings, where a second year's man was dissecting, a tall and somewhat spare demonstrator with a breezy and kindly manner offered to help the student with his difficulties.

From that day a friendship began between the writer and George Gibson which became closer and more intimate after Gibson's return to Edinburgh from Birmingham. For well over thirty years we have been closely associated in public and in private, and in writing a short appreciation of Gibson one would refer to the latter rather than to the former and to his interests in the Edinburgh Medical School.

The debt which the Edinburgh School of Medicine owes to him is one which the present generation of teachers hardly can recognize.

The school founded by the Royal College of Surgeons, which had given the first professors to the newly-established medical faculty of the university, had gradually been dissociated from the Royal Colleges and had resolved itself into a mere collection of separate teachers. It had no position as a whole and no form of government. Gibson was far-sighted enough to see that in such a state it could not maintain its position, and he threw himself with all his wonted energy into a scheme of reform whereby it was made a homogeneous whole and was again brought under the aegis of the Royal Colleges. The result was that when the Carnegie Trust was instituted the School of Medicine of the Royal Colleges was in a position to represent its claims and to secure the benefits which it now enjoys on equal footing with the universities. For many years he was Chairman of the Business and Finance Committee; he was from its institution a member of the governing board of the school, and at the time of his death its chairman.

From the first Gibson was one of the promoters of the foundation of the Royal College of Physicians' Research Laboratory, and his unfailing support has had much to do with making it the success it has become.

He was one of the founders of the Pathological Club—that most successful of informal societies—and, in its early days, one of its strongest supporters and most regular attendants, and none of those who can recall these early meetings will forget the enthusiastic and genial way in which he threw himself into the discussions, bringing to the subjects touched upon his wide knowledge of science and of medicine and his keen intelligence.

He was the representative of the Royal College of Physicians on the General Medical Council, and when he took his seat last May he was welcomed by his colleagues as one who, by his thorough knowledge of educational affairs, sound judgement, and genial presence, would speedily become a valuable and prominent member of that body.

Gibson had the welfare of the medical student at heart, while his ability and culture as a clinician attracted to his wards the best type of men in every respect. To them he was counsellor and friend as well as the beloved teacher, and his memory will ever be held in affection where Edinburgh men are gathered. There are scattered throughout the empire not a few successful practitioners who can directly attribute their success to the influence, advice, and help of George Gibson. He set them a noble example. The very soul of honour in his dealings with all men, he abhorred meanness, scheming, and self-seeking, and when occasion arose he would denounce such in no measured terms.

Gibson's relations to his patients all through his professional life were characterized by an unselfishness and devotion which made him beloved of all; he never spared himself—it was sufficient that a fellow-creature required his assistance, and he gave his best, even to the humblest. We have heard his entrance into a sick-room described as a "ray of sunshine." Had he considered himself more and husbanded his strength in recent years when the calls upon his time became greater and greater he might have been with us to-day.

He was a many-sided man whose interests were not confined to medicine: widely read in the classics and in general literature, his ready and fluent speeches were embellished by apt quotations. He had travelled much at home and abroad, and readily made widespread and enduring friendships. He loved, however, best of all, the hills and straths of his native land, and was well versed in its traditions and folk lore. To those of us who had the privilege of enjoying his intimate friendship, the most vivid memories must be of George Gibson in holiday time, when, throwing aside professional cares, he became the jovial boy he remained in heart to the end. His tremendous zest in life, his enjoyment of all the beauties of Nature, his overflowing generosity, his humour, his modesty, and his sincerity made him the prince of good fellows, while his wide general knowledge rendered intercourse with him a constant delight.

There is no one who can fill the blank caused by Gibson's death, while those who have been intimately associated with him in his professional and social life, who had reason to be thankful for his skill and devotion in the time of illness, who have been his companions on moor, on loch, or on golf links, cannot yet realize the extent of their loss.

Professor SAUNDBY (Birmingham), writes:

I should like to express my regret at the premature death of my old friend Dr. George Alexander Gibson, and my admiration for his character, ability, and attainments. My first recollection of him is when he joined the Royal Medical Society in the winter of 1874–5, but I did not get to know him well until four years later when he became my colleague as assistant physician at the General Hospital, Birmingham. Although after one year of service Edinburgh reclaimed him, our friendship continued up to his death. I have watched his progress with pleasure, and it was with especial satisfaction that I moved the vote of thanks to him at Liverpool last July, where he delivered the Address in Medicine, which is the highest scientific distinction that the Association has in its power to confer upon a physician. Some who were present may remember that he had difficulty in making himself

heard; this was partly, perhaps, due to the acoustic qualities of the theatre, but mainly because he was feeling exhausted. He told me that he was badly in want of a rest. He had been working very hard at his practice, for success had come to him, and he was in demand as a consultant all over Scotland. From Liverpool he went straight to join a steamer for a holiday in Norway and Sweden, planned so that his journey might be taken everywhere by water. It seemed likely to afford him the physical repose he needed, yet he returned home so ill as to be obliged to go to bed, and, although by the end of November he was able to take walks of some miles, the improvement unhappily did not prove permanent. His loss is great not only to his family and his friends, but to the medical world of Edinburgh and to all who are interested in the scientific progress of medicine. His life has been all too short, and his early death has robbed him of the harvest he had so well earned. His numerous contributions to the science of medicine are well known and will survive him. Had he lived he would undoubtedly have succeeded to such posts of honour as his University and the College of Physicians have it in their power to bestow. He was deservedly popular, for a more frank, joyous, generous, unselfish man never lived. He had an inexhaustible fund of humour, was an excellent after-dinner speaker, a charming companion, and a faithful friend.

Non, Torquate, genus, non te facundia, non te restituet pietas;
Infernis neque enim tenebris Diana pudicum liberat Hippolytum
Nec Lethaea valet Theseus abrumpere caro vincula Perithoo.

DR. JAMES MACKENZIE writes:

It was with the deepest regret that I heard of Dr. Gibson's death. It was known that he had been ailing for some months, but the news of his death has caused a great shock to many of his friends. Until lately he had been so full of buoyant energy, and led such an active and strenuous life, that it is difficult to realize that he has gone.

His whole life has been one of tireless energy. In the early days of his professional career he laid the foundations of his great reputation by long and patient investigations, both clinical and experimental. A good deal of the work of those early days has not been properly appreciated—such, for instance, as his investigations into the nature and causes of the incompetence of the valves of the heart. Although in later years his researches were confined to the clinical field, his interest in and appreciation of experimental work never abated, and few people had such a thorough grasp of the advances which have been made in the various fields of clinical medicine.

In the department of cardiology probably no one had such a familiar acquaintance with the writings of authorities, from the earliest to the most recent times. He could always tell the origin and development of any idea which had a recognized place in the clinical or experimental world. His own writings were always characterized by a wealth of illustration, and this was not confined to those taken from scientific authorities, for he had laid under contribution the whole field of general literature in order to embellish and illustrate his meaning. Thus it was that his contributions to medicine were graced with an attraction that compelled attention for their literary as well as their scientific merits.

The commanding position which he held in the profession was world-wide, not only by reason of his scientific attainments, but also from the remarkable character of the man himself. He was not only a man of wide culture, but he was possessed of a genial humour which ever and anon lighted up the subject of his discourse. Those who were brought into intimate contact with him felt his peculiar charm. Large-hearted and genial, he was a man to rejoice with, and a man whose cheerful disposition invariably brightened his surroundings; he was a man, too, of great kindness and truly sympathetic, as those who in distress have met him well know. His self-sacrificing disposition was almost proverbial, for no one ever appealed to him in vain, and many a one could tell of infinite labour and trouble he has given in order to help a friend in difficulties.

While the world may deplore the loss of a distinguished and cultured physician, those who knew him deplore the loss of a big-hearted and lovable man

J. E. GARNER, M.D.ABERD.,

PRESTON.

WE have the very great regret to record the death of Dr. J. E. Garner, Representative of the Preston Division of the Lancashire and Cheshire Branch. In that capacity he attended the Special Representative Meeting on January 17th and 18th. He returned home on Saturday evening apparently in his usual health, but on Sunday morning suffered an apoplectic seizure, to which he succumbed on the following day.

John Edward Garner was the son of Captain John Garner, R.N., and was born sixty years ago in Aberdeen. He received his education in the university of that city, and graduated M.B., C.M. in 1873, in which year he was appointed junior house-surgeon to the Preston Royal Infirmary. In the following year he became senior house-surgeon, a post he retained until he entered private practice in Preston in 1876. In 1881 he proceeded to the degree of M.D., and in 1886 was appointed honorary medical officer of the Preston Royal Infirmary. For over thirty years he had been medical officer of the first district of the Preston Union. He was an active member of the British Medical Association, in the work of which he took a great interest, and was a member also of the North of England Obstetric and Gynaecological Society.

Dr. Garner was much interested in the various phases of Church work. For over twenty years he was vicar's warden at St. James's Church, and took an active share recently in raising a special fund for beautifying the interior of the church. His interest in sport was shown by his being one of the founders of the Preston Golf Club, of which he was captain from 1895 to 1905; on resigning that office the members presented him with his portrait, which now hangs in the club-house. He was a member and had been president of the Curling Club, and was a member of the Bowling Club. The Preston Board of Guardians, at its meeting on January 21st, adopted a vote of sympathy with the family of Dr. Garner, who was senior medical officer of the union. Dr. Garner leaves a widow, three daughters, and two sons, one of whom, Dr. Colin Garner, has for several years been associated with him in practice.

C. W. MARRIOTT, M.D.ST. ANDREWS, M.R.C.P.LOND., F.R.C.S.EDIN.,

READING.

DR. MARRIOTT, who was Representative of the Oxford and Reading Branch of the British Medical Association in 1905–6, died on January 9th, his 80th birthday, after a short illness. He was born at Leamington on January 9th, 1833, and educated at Bedford. He studied medicine at University College Hospital, and afterwards at Paris. He then began practice in his native town, where he remained until 1891, when he went to Reading. He was appointed a physician to the Royal Berkshire Hospital in that town, and held that post until the end of 1912. Dr. Marriott was a justice of the peace for Berkshire, consulting physician to the Helena Nursing Home, and to the Berkshire Friendly Society, and a medical visitor in lunacy for Berkshire. He was also physician to the Queen Victoria Institute and County Nursing Association. Besides holding these civilian appointments, Dr. Marriott was surgeon to the old Warwickshire Militia, which afterwards became the 4th Battalion of the Royal Warwickshire Regiment, and he retired as surgeon-lieutenant-colonel. He not only had a large private practice, but his total hospital work extended over fifty-four years, as in Leamington he had been for a long period associated with the Warneford Hospital.

Dr. Marriott was extremely popular both in Leamington and in Reading. He was a keen sportsman, and in his younger days an excellent shot. Dr. Lansdown Guilding, at a meeting of the Reading Pathological Society on the evening of Dr. Marriott's decease, referred to the great services which he had rendered to humanity, and to his kindness, his geniality, and his wit. Dr. Marriott was a very good friend, and he had that great virtue that no one ever heard him say an unkind word of any one. Though always active in hospital and private practice, Dr. Marriott wrote but little. He was a Churchman, and a Unionist in politics.

OWEN T. WILLIAMS, M.D., B.Sc.Lond., M.R.C.P.Lond.,

ASSISTANT PHYSICIAN, ROYAL INFIRMARY, LIVERPOOL.

It is with deep regret that we have to record the sudden death of Dr. O. T. Williams, of Liverpool, Honorary Assistant Physician to the Liverpool Royal Infirmary, on January 15th, at the early age of 35 years, of acute pancreatitis. He was a native of Liverpool, and was educated at the Liverpool Institute and the Liverpool University. His career throughout his whole course of study at school and university showed one long unbroken record of brilliant successes. He entered the university as a county scholar from the Liverpool Institute, and during his period of undergraduate study at the university carried off every possible honour and distinction in scholarship available along his course. He graduated as Bachelor of Science, London, in 1900; in 1903 he obtained the degree of Bachelor of Medicine, with honours in medicine, and in the following year he took the M.D. The Membership of the Royal College of Physicians, London, was added to the long list of his achievements in 1907. In the years following his graduation Dr. Williams continued his study of the science of medicine in British and foreign schools of medicine, at the Universities of Liverpool, London, Berlin, and Johns Hopkins, Baltimore. Everywhere throughout his post-graduate career he earned the high esteem of those under whom he studied, and his ripe knowledge he placed freely and wholeheartedly at the service of Liverpool when he was appointed, in 1908, to the honorary staff of the Royal Infirmary.



Photograph by] OWEN T. WILLIAMS. *[Medrington's Ltd., Liverpool.*

The special province of medicine which claimed his devotion was the bio-chemistry of the processes of disease especially in relation to the problems of digestion and nutrition. Although his career, so full of brilliant promise, lasted for only a few years, he had already achieved a success which will endure in the annals of science. He was already a master in his science, and co-workers in the acquisition of knowledge of this newest branch of medicine throughout the scientific world will lament the calamity of his death no less keenly than his colleagues in Liverpool. Dr. Williams conducted his researches in the bio-chemical laboratory of the university, and he always had working under his direction a number of the younger graduates of medicine whom he had fired with some of his own enthusiasm for inquiry into the chemical problems of disease. He held the position in the university of lecturer on pharmacology and demonstrator of bio-chemistry, and in these capacities he endeared himself to all the research students by his willing help in every difficult problem. Full as his mind was of new ideas demanding the test of experiment, he always found time and energy to help others, to cheer them on to victory, and rejoice with them in their successes. It is this kindliness of heart and nobility of mind that all who knew him remember to-day, and this is the recollection of him that they will always cherish.

As it was in the laboratory, so was it on the other aspect of his life-work in the hospital. His wonderful ability as a teacher was prized by the students, his knowledge and skill as a physician were admired by his colleagues on the staff, but it was his depth of human sympathy which endeared him to every one around him, so that patients, students, nurses, and colleagues alike felt that he was a friend upon whom they could depend. Dr. Williams possessed one of the rarest gifts in medical science—a capacity for correlating clinical work and scientific observation—and his work in the laboratory always stood in closest relationship to his study of cases by the bedside. He was a master mind in both domains, and yet he never lost sight of the human aspect of his work. He took a deep interest in the lives of earlier workers in medical science, and the title of his recent memoir, "Christian Hertes, one who championed the cause of idealism in medicine," might be applied appropriately to his own life-work.

Professor BENJAMIN MOORE writes: On behalf of his colleagues in research at the Johnston Bio-chemical Laboratory of the University, may I be allowed in a few words to express our sorrow at the loss of our friend in life, and in the pursuits we have loved together? For ten years we had worked together cheering one another in the vicissitudes of our inquiries, and rejoicing together when discovery came to any of us; and now in the prime and glory of his strength he has gone from his labours, and no more shall we see his pleasant smile, or hear his voice to cheer us in the labours of the day. Yet he has left with us a thing of wondrous beauty, which will abide with us for ever untarnished by the flight of time. The memory of a noble life, filled with the highest ideals that our profession can give remains with us like the thought of the beauties of an eternal springtime untouched by the breath of winter. He lived unselfishly for all that was highest in his science and all that was best and loveliest in life. The thoughts and aspirations that he planted in our minds can never die, and he in them will live in us, and from us pass to live in others.

GEORGE GRANVILLE BANTOCK, M.D.Edin., F.R.C.S.Edin.,

CONSULTING SURGEON TO THE SAMARITAN FREE HOSPITAL, LONDON.

THIS well-known gynaecologist, so prominent in the Eighties, when abdominal surgery was rapidly developing beyond the boundary of ovariotomy, and when Listerian surgery was at its apogee, died in London on January 15th after a lingering illness. Bantock was born at Dunrobin, Sutherlandshire, on October 10th, 1837, but was of a Suffolk, not a Scottish, family. He studied at Edinburgh University, worked as an unqualified assistant in England for three years, and being appointed surgeon to a whaler went on a cruise to Melville Sound, in Arctic America. He returned to Edinburgh, took the degree of M.D. in 1861 and the diplomas of L.R.C.S. and L.M.Edin. in the same year. He practised at Chester

for several years, but in 1865 went to London and was elected surgeon to the London Surgical Home. At that institution he soon distinguished himself for his manual dexterity, especially in plastic operations on the perineum and vagina. He also undertook ovariotomy with success, so that in 1869 he was elected physician for out-patients at the Samaritan Hospital, and assistant surgeon in 1877. In the middle of the next year Sir Spencer Wells retired, and Bantock and Knowsley Thornton became full surgeons. Bantock did not retire until 1896, six years after the hospital was built as it now stands in the Marylebone Road. Its previous quarters, so closely associated with Sir Spencer Wells's ovariotomies, were in Lower Seymour Street, Portman Square.

Bantock distinguished himself greatly in advancing the surgery of uterine fibromyoma. As the intraperitoneal treatment of the stump was associated with disastrous results thirty years ago, and panhysterectomy was rarely practised, he employed the serre-nœud with results good at that time, as the mortality in those days was very high. He was a great advocate of draining Douglas's pouch through the lower end of the abdominal incision, after Koeberlé's method. Foreigners used to visit the hospital in large numbers, and took great interest in his operations. The Italians in particular were impressed by his manner and his methods, and in return he learnt to speak their language with ease. Bantock was also highly popular in America. In 1887 he crossed the Atlantic, operated in American hospitals, and gave an address on abdominal surgery before the Canadian Medical Association. He was elected an honorary fellow of that institution and of the American Gynaecological Society, and was also associated with several similar learned bodies in Europe.

In 1883 there was a schism in the ranks of the Obstetrical Society of London, and he was one of the original members of the British Gynaecological Society, which was founded in December, 1884. He held the office of President in 1887, and his inaugural address, delivered on January 26th in that year, is preserved in the third volume of the *British Gynaecological Journal*. It was a condemnation of Listerism. The true secret and merit of that system, he contended, was the cleanliness which it ensured, but the spray and carbolic solutions were superfluous or even harmful. He had, we must remember, the high authority of Sir William Savory in support of his views. Further research has proved that neither were right in their arguments, although they reasoned right on wrong premisses. Antiseptic chemicals, it was found, do damage the tissues which they touch, and thus expose them under unfavourable conditions to infection. Absolute cleanliness was aimed at by Bantock, and he did his very best to ensure it, being one of the cleanest operators in London, but he flourished before it was found that asepsis can only be attained by a special technique, soap, nail-brushes, and filters being insufficient. Bantock outlived the spray and the chemical antiseptics applied to the peritoneum, and in his later days operated occasionally with sterilized water, instruments, and dressings. Most assuredly had aseptic methods as now practised, been at his service in the Eighties he would have had results even better than those he could claim, and did proclaim in his inaugural address.

In 1888 Dr. Bantock took an active part in a discussion at the Obstetrical Society on electrolysis in gynaecological practice. He actively condemned the Apostoli treatment, and declared that he had at the time no confidence in the method, failing to find evidence sufficient to convince him of its utility to anything like the extent claimed for it by its advocates; while he stood on one side with his mind still open to conviction, he was content to allow others to pursue it, provided it were done in a truly scientific spirit and free from the empiricism which at that date characterized it. The President (Sir John Williams) supported Bantock's view, as did many other authorities. It was made clear that Apostoli's results were quite unconvincing. Subsequent experience justified this unfavourable view of the method.

In purely manual dexterity Bantock excelled his distinguished predecessor and his able colleague, and to that fact, there can be no doubt, was due many good results, which would have been replaced by death or bad sequelae had the operator been slow, heavy-handed, and careless about clean water, sponges, and dressings. His plastic operating was admirable, and the short treatise, *Treatment of Ruptured Perineum*, was perhaps the best of his writings, which elsewhere consisted mostly of papers in the transactions of societies and articles in medical journals.

After retiring from the active staff of the Samaritan Hospital, Bantock practised in London for several years, and then moved to Pinner, Middlesex. For the last three or four years, spent in retirement, he lived at King's Norton, near Birmingham. His health rapidly failed last year, and he returned to London in the autumn.

Bantock was a very familiar figure in London twenty years ago. He was of medium height, and wore a long, pointed beard, which gave him a venerable aspect; in short, he was a handsome man of a very "professional" appearance. He was a skilled salmon fisher, having learnt the use of the rod and the fly in his early boyhood, and greatly distinguished himself in this respect in Canada during his tour in 1887.

Dr. Bantock was married, and leaves a family of four children, the eldest of whom, Mr. Granville Bantock, is known as an eminent musician.

On Saturday, January 18th, the funeral service was held at the Crematorium, Golder's Green; the ashes were deposited at Kensal Green in the afternoon.

WILLIAM TAYLOR COLBY, M.D., J.P.,

MALTON, YORKS.

THE death took place on December 22nd of Dr. William Taylor Colby, of Malton, a medical man equally well known both in social and professional circles in the North Riding of Yorkshire. One of the oldest members of the medical profession in the North of England, he was among the senior of those surviving students of St. Thomas's who attended its medical school in the days when it was in the borough. Dr. Colby was born in May, 1827, and entered St. Thomas's in his twenty-first year; he became M.R.C.S., L.S.A. in 1851, and took the M.D. degree of the University of St. Andrews at a later date. One of his contemporaries at St. Thomas's was Sir Thomas Boor Crosby, and those on the teaching staff under whom he directly served included Sir John Simon and Mr. Le Gros Clark. In other than medical connexions in Yorkshire, where he was known as a staunch Conservative in politics, he had attained corresponding seniority, for he was one of the oldest justices of the peace for the North Riding, and was among the first twenty-eight volunteers enrolled at Malton. They helped eventually to form the 2nd Volunteer Battalion of the Princess of Wales's Own Yorkshire Regiment. With this corps Dr. Colby remained connected for a very long period, and finally retired with the rank of Surgeon-Lieutenant-Colonel and the long service Volunteer decoration. Dr. Colby was an early member of the British Medical Association. He maintained his interest in gardening and sport. He himself was an excellent shot, and, despite his advanced age, had been out with the guns a month before his death. This took place when he was within four months of completing his eighty-sixth year, and was largely the outcome of anxiety over the illness of his eldest son. He had five children—three sons and two daughters, two of the former being members of the medical profession.

JAMES COULDREY, M.R.C.S.ENG., M.S.A.LOND.,

SCUNTHORPE, LINCOLNSHIRE.

WE regret to record the death of Dr. James Couldrey, which occurred at his residence, Fairholme, Scunthorpe, Lincolnshire, on St. Thomas's Day last, aged 62; he was unmarried. He was the third son of the late Mr. Thomas Couldrey of Abingdon, Berkshire, and was educated at the grammar school of his native town under the late Rev. Dr. Strange. On leaving school he was apprenticed to his cousin, Dr. Thomas Knight of Brill, Buckinghamshire. Subsequently he entered Charing Cross Hospital, London, where he had a brilliant career, gaining medals for materia medica and medicine. He became a Licentiate of the Society of Apothecaries of London in 1873 and later a Member. He took the diploma of M.R.C.S.Eng. in 1875. He was a member of the British Medical Association and of the Royal Society of Medicine. He was the oldest practitioner in Scunthorpe, having practised there thirty-

seven years. He had an extensive practice and held the appointments of Medical Officer and Public Vaccinator for the Scunthorpe district in the Glanford Brigg Union, of Certifying Factory Surgeon, and of Honorary Surgeon to the Frodingham Cottage Hospital. His contributions to the medical press included the record of a case of tetanus following burns (*Lancet*, 1879) and treatment of scarlet fever by sodium salicylate (*Lancet*, 1882). He was one of the first members of the St. Lawrence Lodge of Freemasons when it was formed at Scunthorpe, was a devout churchman, and was honoured by being the first churchwarden of the beautiful parish church built by the late Lord St. Oswald. He was very musical and a composer of several hymn tunes. In private life Dr. Couldrey was a man beloved by all who were brought into contact with him. A man of simple tastes, unassuming modesty, of generous and unselfish nature, his counsel was sought by many, and his hand was ever ready to help without ostentation those who were in need; he annually distributed charity to the widows of the district on St. Thomas's Day. He has left behind the fragrant memory of a good man.

The large funeral and the great number of wreaths bore sorrowful testimony to the general esteem in which he was held; he was borne to his last resting place by the churchwardens and sidesmen, while the flag of the church tower was hoisted at half-mast.

WE regret to announce the death of DR. J. HERBERT FINEGAN, which took place recently at his residence in Liverpool, at the age of 75 years, after a brief illness. He was born in county Monaghan, Ireland, but was brought to Liverpool at a very early age, and received his scholastic education at the Liverpool Institute. At the age of fourteen he was apprenticed to Dr. Hill of Liverpool. Four years later he attended the Royal Infirmary, and obtained his first distinction, consisting of a two years' scholarship. From that onwards his career was steadily successful, not only in his profession, but as a spirited swimmer, yachtsman, marksman, and all-round sportsman. As a general medical practitioner, for a long time he lived in Rodney Street, but about two years ago removed to Upper Parliament Street. At his death he was the oldest practitioner in Liverpool, and the senior member of the Liverpool Medical Institution. He was for many years connected with the 64th L.R.V. (Liverpool Irish), of which he became Surgeon-Colonel. The following is a list of the distinctions which he gained in his profession and otherwise at various times: Scholarship at the Royal Infirmary and medal for midwifery; certificate of honour in practical chemistry; certificate of honour and medal for surgery at the Liverpool Royal Infirmary. He became a member of the Royal College of Surgeons of England in 1858, received the L.S.A. in 1859, and the M.D.St. Andrews in 1862. He obtained the bronze medal of the National Rifle Association in 1860, and was winner of the challenge cup for marksmanship in the L.R.V., 1871. Dr. Finegan was also honorary surgeon to the Maternity Hospital, and on his retirement became consulting medical officer. He was known throughout his career as a man of genial and kindly disposition, always sympathetic with and ready to relieve distress and poverty. Though latterly his health was far from good, devotion to duty found him attending his patients until within a few days of his death.

DR. JAMES BARCLAY MONTGOMERY, of Penzance, Cornwall, who died on the night of Christmas Day, was born in 1829. He graduated M.D. in Glasgow in 1851, and took the diplomas of M.R.C.S.Eng. and L.R.C.S.Edin. in 1852; he became a Member of the Royal College of Physicians of London in 1859, and a Fellow in 1875. He settled in Penzance, and had a very wide and select practice, extending at one time from Truro to the Land's End. He was in that part the last of a fine type of general practitioner and consultant and physician in one, which is now everywhere dying out. He was honorary physician, with personal attention to out-patients and in-patients, at the West Cornwall Infirmary and Dispensary from 1856 to 1906. When, at his jubilee of office, he retired he was honoured with a presentation of plate and a purse. As a consultant physician his services were sought by medical men all over Cornwall. He was a J.P. for the borough of Penzance, but did not, outside his medical work, enter much into public life, though probably one the best informed and most cultured men in the count He was of a cheerful, witty disposition, with all t kindly courtesy of the physician of his time. The latt years of his life were, however, saddened by the loss of l only son, Dr. Hugh Montgomery, who had lived wi him since 1886 and was associated with him in l practice. He nevertheless retained his marvellous memo for people and events and his love and knowledge f music until the end. His wife, with whom he lived happily, survives him.

CAPTAIN JAMES MARTIN BUIST, R.A.M.C., who died January 8th at Davos, Switzerland, aged 36 years, w the youngest son of the late Major-General D. S. Bui He obtained the degrees of M.B., Ch.B.Edin. in 1899, a entered the service in December of the same year, becomi Captain in December, 1902.

Public Health AND POOR LAW MEDICAL SERVICE

VITAL STATISTICS IN ENGLAND AND WALES (1912

WE are indebted to the Registrar-General for the followi statement showing the birth-rates and death-rates and the r of infantile mortality in England and Wales, and in cert parts of the country during the year 1912.

ENGLAND AND WALES.

Birth-rates and Death-rates in the Year 1912 (Provisional Figur

	Annual Rates per 1,000 Living.			Deaths under One Yea to 1,000 Births.
	Births.	Deaths.		
		Crude.	Corrected*	
England and Wales...	23.8	13.3	13.3	95
95 great towns, including London	24 9	13.8	14.6	101
146 smaller towns ...	23.8	12.4	13.0	99
England and Wales, less the 241 towns	22.6	12.9	12.1	89
London	24.7	13.6	14.3	90

* The corrected death-rates are the rates which would have be recorded had the age and sex constitution of the populations of t several areas been identical with that of England and Wales as e merated in 1901. The corrections applied to the crude rates have be necessarily based upon the constitution of the populations of the are as enumerated in 1901, and are therefore only approximately applica to the conditions of 1912.

Medical News.

PROFESSOR ARTHUR KEITH, Conservator of the Muse of the Royal College of Surgeons of England, has be elected President of the Royal Anthropological Institu of Great Britain and Ireland.

THE anniversary dinner of the Hunterian Society London will be held at De Keyser's Hotel, Blackfria Bridge, on Tuesday, February 4th, when the Presiden Mr. A. H. Tubby, will take the chair at 7.30 p.m.

THE *Times* states that Mr. Lloyd George has decided appoint a committee to consider how far medical benef under the Insurance Act should be extended to Irelan Mr. H. T. Barrie will represent Irish Unionists on th committee.

On January 21st the Isle of Man House of Keys passe by 17 votes to 5, the third reading of a Vaccination Amen ment Bill, which contains clauses making it impossib for a person to be convicted twice in respect of the sam unvaccinated child.

THE next Oxford Ophthalmological Congress wi assemble on July 16th, and the business will be transacte on the two following days. A discussion on the prese position of ophthalmology will be opened by Mr. Robert W Doyne, Master of the Congress. Members who desire t take part in the discussion or to show cases and specimen are requested to communicate with the Honorary Secretary Mr. Sydney Stephenson, 33, Welbeck Street, London, W.

THE King has authorized Dr. Llewellyn Powell Phillips, Professor of Medicine at the Medical School, Cairo, to accept and wear the Insignia of the the Third Class of the Imperial Ottoman Order of the Medjidieh conferred upon him by the Khedive of Egypt.

THE Lent term of lectures at the Royal Eye Hospital, Southwark, commenced on Tuesday last. The subsequent lectures will be given at 4.30 p.m. on every alternate Tuesday till April 1st. The course fulfils the conditions of Clause 4, Paragraph XXI, Section II of the Regulations of the Examining Board in England. Further particulars can be obtained on application to the Dean at the hospital.

MISS M. E. VERRALL, honorary treasurer of the Lady Chichester Hospital for Women and Children, writes to call attention to an omission from the account of it which was given in the course of an article on Brighton in the JOURNAL of January 4th, p. 34. In this account reference was made to two departments only of the work—the hospital for nerve cases in Brunswick place, and the out-patient department in Ditchling Road. It should have been said that at Ditchling Road there is a third department, a hospital for medical and surgical cases containing twelve beds. This was opened last November, and is quite full. Two houses have been made to communicate, the lower part being used for the out-patient department and the upper for the hospital.

ON the occasion of his retirement from the editorship of the *Bristol Medico-Chirurgical Journal* after twenty-one years of service Dr. Shingleton Smith was entertained at a complimentary dinner at Fortt's Restaurant on January 18th, by the members of the Bristol Medico-Chirurgical Society and other local medical men and afterwards presented with a picture, an antique silver salver, and an album with the names of the subscribers. Mr. N. C. Dobson, in making the presentation, thanked Dr. Shingleton Smith for all he had done for the profession during and since the foundation of the society in 1874. Mr. Richardson Cross, who also spoke, said that to no man did the local profession owe so much for his ceaseless energy on behalf of the society and *Journal* and during the early days of University College.

THE Home Secretary has appointed a committee to inquire and report as to the conditions necessary for the adequate and suitable lighting (natural and artificial) of factories and workshops, having regard to the nature of the work carried on, the protection of the eyesight of the persons employed, and the various forms of illumination. The members of the committee are: Dr. R. T. Glazebrook, C.B., F.R.S., Director of the National Physical Laboratory (Chairman); Mr. Leon Gaster; Dr. Francis Goteh, Professor of Physiology in Oxford; Mr. J. Herbert Parsons, Ophthalmic Surgeon to University College Hospital; Mr. W. C. D. Whetham, Fellow of Trinity College, Cambridge, well known as a writer on heredity, and Sir Arthur Whitelegge, K.C.B., M.D., Chief Inspector of Factories. The Secretaries of the Committee are Mr. D. R. Wilson, an inspector of factories, and Mr. C. C. Paterson, of the National Physical Laboratory. All communications should be addressed to Mr. Wilson at the Home Office.

A SERIES of lectures to advanced students and others interested in the subjects discussed will be given at the Lister Institute of Preventive Medicine, Chelsea Gardens, during February and March. The lectures are open to students of the university free, and others can obtain a card of admission on application to the Secretary of the Institute. The first lecture, to be given on Tuesday, February 4th, at 5 p.m., will appropriately deal with the early bacteriological work of Lord Lister, and will be given by the Director of the Institute, Professor C. J. Martin, F.R.S. On February 6th and 11th Dr. G. H. K. Macalister will deal with the various products of the tubercle bacillus used in diagnosis and treatment, and current views upon their mode of action; on February 13th and 18th Dr. J. A. Arkwright will lecture on some recent work on the agglutination of bacteria, with special reference to agglutination with acids; on February 20th and 25th Dr. J. Henderson will speak on recent work on bacteriolysis and serum-fast bacteria respectively; on February 27th and March 4th Dr. H. Maclean will lecture on lipoids; on March 6th Dr. H. Chick will deal with the subject of the laws governing disinfection by various agencies; and on March 13th and 18th Professor A. Harden, F.R.S., will lecture on the chemical action of bacteria—the chief types of chemical change produced by bacteria and the aid which can be obtained from chemical action in the identification and classification of bacteria and the enzymes concerned. The lectures will be given at 5 p.m. on each day.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

S. asks for results of experience of the value of hypnotism in stammering.

G. P. B. would be grateful to learn of a portable typewriter in which jarring of the fingers is reduced to a minimum. One suitable for use in neuritis of the arm, or writer's cramp, is required.

RECURRENT PHLEBITIS.

V. asks for suggestions as to the possible etiology, prophylaxis, and treatment of a case of recurrent phlebitis. The vein usually affected is the left internal saphenous vein. The first attack dates back nearly four years and was due to trauma, but the three or four subsequent attacks have been without ascertainable cause. The patient is a man aged 24, whose urine presents no abnormality, who is not constipated, and who, except for these attacks, is apparently perfectly healthy. There is no history of gout in the family, and his father and grandfather are both alive. Of the half-dozen doctors who have seen him none has been able to throw any light on the case. Most of the attacks have been below the knee.

ANSWERS.

BRAIN EXTRACT.

DR. W. MAULE SMITH (Worcestershire Asylum, Barnsley Hall, Bromsgrove) writes, in reply to Mr. Phiroze A. Dalal's request, contained in the JOURNAL of January 11th: I have to state that the extract is given by the mouth three times a day. The dose varies from two to four teaspoonfuls. In private practice I would recommend commencing with the former, but the latter is the routine dose given in asylum cases. Messrs. Martindale, New Cavendish Street, London, have placed the preparation on the market.

VARICOSE ULCERS.

DR. W. E. PAIN (London) writes: If "J. H. M." will apply hot boracic fomentations night and morning, bandage the leg with a crêpe bandage, taking internally a tablet of omnopon at night, which relieves pain without inducing constipation or headache, giving a dose of magnesium sulphate every morning, his ulcer will soon get well. I have been the means of curing a great number by using hot calamine, when there is much irritation, for the hot fomentation and bandaging.

LETTERS, NOTES, ETC.

THE RISK OF ECLAMPSIA RECURRING IN A SUBSEQUENT CONFINEMENT.

"A VILLAGE DOCTOR" writes: Dr. Athelstane Nobbs's most unfortunate experience (BRITISH MEDICAL JOURNAL, January 4th, 1913, p. 19) might, in my limited experience, be considerably mitigated should the general practitioner take up a bolder attitude in dealing with such cases on the recurrence of pregnancy. I happen to be the village doctor he mentions in Case I, and immediately after attending her I delivered another case single-handed by vaginal Caesarean section, and she got quite well. Just at the same time as Dr. Nobbs's Case I became pregnant a second time my own case also became pregnant. I was aware that she had had eclampsia during her two previous pregnancies from her history and my own previous experience of her. I therefore sent her to a maternity hospital and strongly urged the authorities there to induce abortion. My humble suggestion was absolutely ignored, and she was sent home. On my own responsibility, I induced abortion at the third month, and she got absolutely well. The ultimate result, compared with Dr. Nobbs's case, created a deep impression on my mind. I have therefore made it a rule that, should a previously eclamptic patient in her next pregnancy show any sign of renal inefficiency which does not immediately yield to general treatment, the uterus should be emptied at once, and should a patient have shown eclampsia in her two preceding pregnancies gestation should on no account be allowed to proceed in her next beyond the third month.

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An Address
ON
THE EXOTIC FLORA OF THE UTERUS IN RELATION TO FIBROIDS AND CANCER.

DELIVERED BEFORE THE BRADFORD MEDICO-CHIRURGICAL SOCIETY ON THE OCCASION OF ITS JUBILEE, JANUARY 21ST, 1913,

BY SIR JOHN BLAND-SUTTON,
SURGEON TO THE MIDDLESEX HOSPITAL.

In the year 1910, at the Middlesex Hospital, the uterus was removed for fibroids on 65 occasions, and all the women recovered. During the same period the uterus was extirpated for cancer of its neck in 17 women, and of these 4 died. The annual report for that year shows that 13 patients with cancer of the cervix uteri were examined under an anaesthetic and found to be "inoperable." In 5 more women with the same disease the condition of the pelvic organs was examined through an incision in the abdominal wall, and proved to be unsuitable for hysterectomy. Thus, out of 35 women with this terrible disease 17 were selected with extreme care as suitable for hysterectomy, and of these 4 died from the operation or its sequelae.

Although these facts are taken from the reports of one hospital, the results are by no means peculiar to it. An examination of the reports of some other hospitals in London reveals practically the same picture. In the year 1910 abdominal hysterectomy was performed for fibroids in seven hospitals in London on 370 patients with 9 deaths:

	Cases.	Deaths.
Middlesex	65	0
Chelsea (for Women)	113	2
Samaritan (for Women)	53	3
New (for Women)	41	1
University	14	0
St. Thomas's	50	3
St. Bartholomew's	34	0
	370	9

In that year (1910) abdominal hysterectomy was performed for cancer of the neck of the uterus in the same hospitals as in the preceding table on 81 patients with 13 deaths:

	Cases.	Deaths.
Middlesex	17	4
Chelsea (for Women)	12	2
Samaritan (for Women)	17	1
New (for Women	12	0
University	9	2
St. Thomas's	11	3
St. Bartholomew's	3	1
	81	13

The explanation of the difference in the results of removing the uterus for fibroids and for cancer of the neck of the uterus is simple and interesting. It depends mainly on the flora of the uterus.

Bacteriology of the Female Genital Tract.

A large amount of patient labour has been expended in investigating the bacteriology of the female genital tract. The varieties of micro-organisms found there are numerous, but the chief are the gonococcus, streptococcus, staphylococcus, and the tubercle bacillus. Of these the gonococcus attacks mainly the mucous membrane, and is more destructive to function than to life. The streptococcus flourishes in loose connective tissues, and when this tissue is vascular, as in the neighbourhood of the uterus, the micro-organism enters blood vessels and lymphatics. It invades the uterine and peri-uterine tissues through breaches of continuity in the genital tract caused by childbirth, miscarriage, operations on the uterus, and criminal abortion. The streptococcus is especially destructive to life and often flourishes in company with the staphylococcus, *Bacillus coli communis* and *Bacillus pyocyaneus*.

Until the advent of puberty the uterus is functionless and free from micro-organisms. When the girl becomes pubic and sexual life is established, she runs risks from two sources: Infection when the male suffers from urethritis, especially gonorrhoea; and, if she become pregnant, the danger of accidental sepsis at the lying-in. The infection has unfortunate results; some of the patients die. In others the infective agents die, the inflammatory changes in the tissues subside, but the essential organs of reproduction are often so damaged that these infected women become chronic invalids, incapable of conceiving.

The common agents of wound infection are universal in civilized communities; they are present in dust, soiled clothes, dirty surgical instruments, and the like. They exist in suppurating sores on the fingers of doctors, midwives, and nurses, and on the body of the patient. The transmission of pathogenic micro-organisms can only be avoided by scrupulous cleanliness. The leading features of septic infection of the puerperal uterus are well-known. A woman with a submucous fibroid in her uterus, like a pregnant woman is very liable to become septic, but with this difference: Pregnancy terminates at some date within a period of thirty-six weeks, but a fibroid may be retained for thirty-six years, and during the whole of this period the uterus persistently endeavours to extrude it. These extruding efforts dilate the mouth of the uterus and open the door to pathogenic micro-organisms. In fact, a woman with a submucous fibroid is like a parturient woman with a retained piece of placenta and is menaced with the liability of septic infection as long as she retains it. When the uterus succeeds in extruding a submucous fibroid into the vagina and the condition is recognized, the surgeon promptly removes the tumour and no harm follows; but when the extruded fibroid is allowed to remain, it becomes oedematous because its circulation is interfered with, or the surface of the tumour may be abraded, or ulcerated. Breaches of continuity of its surface allow micro-organisms, present in the vagina, to colonize the tumour and convert its tissues into a stinking, decomposing slough. The infection extends to the endometrium and a condition identical with puerperal fever is established. An extruded uterine polypus the size of a golf ball infected with streptococci sometimes destroys life quicker than a virulent cancer.

A woman with cancer of the neck of the uterus is in much the same condition as one with an extruded and septic fibroid, for the cancerous tissues soon become invaded with pathogenic flora; of these the steptococcus is the most deadly. The micro-organisms which flourish in cancerous tissue make this disease so destructive to life; the streptococci in uterine cancer are very virulent, especially for the peritoneum.

The Relics of Bacterial Invasion.

The tolerance of the tissues in regard to micro-organisms varies enormously. For example, the gonococcus thrives and multiplies for a time and then dies out, but leaves its mark in the pelvis in the form of occluded Fallopian tubes, pyosalpinx, and adhesion of the uterus to the bowels, the omentum, bladder, and adjacent peritoneum. A woman with subserous fibroids is as liable to contract gonorrhoea as one free from such tumours, but when the infecting exudate leaks into the pelvis, in addition to its damaging effect in cementing the ovaries and tubes to each other, and sealing up the tubal ostia, it glues the surface of a subserous fibroid to any adjacent viscus. In my early operations on acute chronically infected tubes and ovaries I was often astonished that patients recovered after a large pus sac had burst in the course of removal and drenched the pelvic organs with pus. This led me to have a careful bacteriological investigation made as a routine measure of all tubes removed for inflammatory troubles. They were, as a rule, sterile. Occasionally in a pyosalpinx, which had burst through the rectum and then refilled, the reaccumulated pus would contain the colon bacillus or the streptococcus. It was in the course of this investigation I obtained conclusive evidence that gonorrhoeal exudate leaking into the pelvic cavity sets up peritonitis; in the acute stage the gonococcus can be obtained in pure culture from the peritoneal exudate. This is no longer disputed.

Uterine Infections form Two Groups: Puerperal and Non-puerperal.

Clinically uterine infections form two groups—puerperal and non-puerperal. In the former group the streptococcus is the dominant organism and in the latter the gonococcus. Both organisms cause destructive changes in the tubal tissues; after the micro-organisms have died out, there is nothing in the lesions which enables us to decide whether the damage to the tissues was caused by a gonorrhoeal or a mild streptococcal infection. In clinical terms this means it is impossible to decide in a chronic case whether the trouble began as a puerperal or a non-puerperal infection. The tendency for micro-organisms to die out also applies to tuberculous lesions: it requires much patience to demonstrate the presence of the tubercle bacillus in tuberculous disease of the tubes and endometrium. This bactericidal power of the tissues explains the success which attends surgical enterprises on the Fallopian tubes and the uterus when they are damaged as the result of chronic infection.

Sixteen years ago I satisfied myself that in tubal lesions—such as pyosalpinx, tubo-ovarian abscess, and hydrosalpinx—it was rare in the chronic stages to find micro-organisms in the diseased tissues. This was a stumbling-block in determining the factor which caused the initial lesions. It interested me to find that Dr. N. F. Lock, in an excellent investigation carried out at St. Thomas's Hospital (1911), has come to the same conclusion.

I have again felt it necessary to inquire into the micro-organisms of the uterus in order to seek an explanation for the extraordinary frequency with which pulmonary embolism occurs after hysterectomy for fibroids and for cancer, whilst it is unknown to me after operations performed for lesions due to the gonococcus.

The Spectre of Convalescence after Hysterectomy.

Among the many advances in surgical art which have taken place since the foundation of this society in 1863 the establishment of pelvic surgery holds a foremost place. At that date the word "hysterectomy" was uncoined. The principles concerned in the transport, destiny, and effects of emboli had just been made plain; pyaemia was endemic in every hospital and antiseptics unknown, and the surgical treatment of uterine fibroids was attended by such a heavy mortality that the removal of the uterus ranked as one of the most dangerous operations in surgery. To-day a subtotal hysterectomy for fibroids is one of the safest and most beneficent operations in the whole range of surgery; but I regret to add that there is one danger connected with this operation which invests it with peculiar anxiety—namely, fatal pulmonary embolism. Indeed, every surgeon who has had much experience of hysterectomy fears this sequel, for it occurs so suddenly and so unexpectedly in patients who are apparently making a satisfactory recovery that this tragic occurrence may be spoken of as the spectre of convalescence.

It is difficult to determine the actual frequency of pulmonary embolism as a sequel of hysterectomy, for surgeons are very reluctant to publish their experience; but there is sufficient evidence available to give some notion of its relative frequency and the variations met with in the practice of different surgeons. Baldy states that among 366 operations for fibroids in the Gynecean Hospital, Philadelphia, there were 13 sudden deaths attributed to embolism. In the Middlesex Hospital from 1896–1906, both years inclusive, there were 212 abdominal hysterectomies for fibroids, and of these patients 3 died from pulmonary embolism. At the New Hospital for Women, London, during 1901–1910 hysterectomy was performed for fibroids on 189 patients, and of these 2 died from embolism.

In the practice of individual surgeons the frequency of fatal pulmonary embolism varies widely. Lyle, among 8 subtotal hysterectomies for fibroids, lost 1 patient: H. R. Spencer lost 2 patients from this cause out of 85 total hysterectomies, and Olshausen lost 5 patients among 366 who had hysterectomy performed for fibroids. Among 1,500 abdominal operations for fibroids I lost 3 patients from pulmonary embolism. A broad study of statistics indicates that in the practice of some surgeons fatal pulmonary embolism occurs in at least 1 per cent. of the patients who have abdominal operations performed for fibroids. This tragic mode of death is more frequent after total than subtotal hysterectomy; it is a recognized sequel of hysteropexy, and the risks of its occurrence after abdominal hysterectomy for cancer is higher than for any other pelvic operation. These figures refer to fatal pulmonary embolism. It is not uncommon for women recovering from hysterectomy to be seized with sudden pain in the chest severe enough to fill them with alarm. Such attacks are usually followed by fever and the ejection of bloodstained sputum. The symptoms gradually subside. These attacks are often due to the lodgement of small emboli in branches of the pulmonary artery.

Thrombosis from the use of Buried Sutures.

At the Hunterian Society, London, in 1909, I attributed the frequency of pulmonary embolism after hysterectomy to infection of the buried sutures used to close the abdominal incision, the channels of infection being the epigastric veins. Being desirous of ascertaining the bacteriologic condition of the cervical canal and the uterine cavity of women with fibroids, I had a series of observations made in cases of subtotal hysterectomy. The investigation was conducted by two independent observers (Mr. Somerville Hastings and Mr. C. H. S. Webb) and their findings tallied uniformly and were confirmed by the clinical course of the patients. In the majority, especially nulliparous spinsters, the cervical canal and uterine cavity were sterile; in married women who have had children, and in whom the mouth of the womb is patulous, staphylococcus, *Bacillus coli*, and Döderlein's bacillus occur. The proportion of cases is small in which micro-organisms are found, but they are more common in a uterus containing a submucous fibroid in a woman who has had children than in that of a nulliparous spinster with a narrow cervical canal.

In regard to the fibroids, I have had very many examined, especially those which have undergone degenerative changes, such as softening and red degeneration. In all cases except one they have been sterile, the exception being a subserous fibroid in a gravid uterus; the tumour was in the condition known as red degeneration, and contained staphylococci. The comparative freedom of the uterus from pathogenic micro-organisms explains the great success of subtotal hysterectomy.

Femoral thrombosis and fatal pulmonary embolism are recognized sequels of hysteropexy. In this operation, if the retaining sutures traverse the endometrium and it be septic, the sutures will become infected and cause trouble. A study of thrombosis occurring under such conditions led me to believe that the factors which produce changes leading to thrombosis of the external iliac or the femoral veins are the buried sutures in the abdominal incision. I made a series of trials in which a number of abdominal incisions were closed with buried silk sutures, also a series of cases in which through-and-through sutures were employed. However carefully the suture material is prepared and inserted with hands covered with sterilized rubber gloves, now and then a buried suture will give trouble. Even when the sutures appear to settle down without disturbance they often cause slight rises of temperature.

For a period of two years I buried no sutures in an abdominal incision, except in one patient. During that period I had no post-operative thrombosis, and only one case of pulmonary embolism, and this happened to the patient in whom I closed the wound with buried sutures. She was a midwife on whom I performed hysterectomy for a big submucous fibroid, and as this woman was very stout and led an active life, it seemed expedient to take every precaution to secure a sound scar. This patient seemed to be making a satisfactory recovery, but on the eighth day her temperature rose to 103° F. On examination some hardness could be felt in the lower portion of the wound. I warned the house-surgeon that there was probably thrombosis of the deep veins, and impending danger of pulmonary embolism. She died suddenly a few hours later, and an embolon was found at the *post-mortem* examination firmly plugging the pulmonary artery.

In 1902, Clark, of Philadelphia, published some observations on post-operative femoral thrombo-phlebitis, especially as a sequel to coeliotomy. He believes that it has its origin as a primary thrombus of the deep epigastric

veins due to injury of the edges of the incision by metal retractors. The thrombosis is slowly propagated along the vessel to the external iliac vein, and by retrogressive thrombosis to the femoral vein. He also published a very convincing case. A woman aged 32 had hysteropexy performed for retroflexion of the uterus. The vermiform appendix was removed at the same operation. Thirteen days later there was well-marked femoral thrombosis. Two months later, the patient's condition being unsatisfactory, the abdomen was reopened; the right ovary and tube, being inflamed, were removed. In the course of the operation the right epigastric veins were found to be varicose and inflamed. They were "like dense cords as large as goose-quills." The epigastric vein was obstructed at its entrance into the iliac vein.

It will be obvious to any one who has studied the flora of the uterus that the surgeon's fingers must become contaminated by handling the tissues of the cervix in the course of a total or subtotal hysterectomy, when the uterus contains pathogenic micro-organisms. It is, of course, true that the uterus, in a large proportion of patients, is sterile, but micro-organisms are present in a sufficient number of cases to account for the frequency of inguinal thrombosis as a sequel of hysterectomy.

The excessive frequency with which inguinal thrombosis follows total abdominal hysterectomy, performed for cancer, is worth bearing in mind, for cancer in the neck of the uterus almost invariably teems with streptococci and staphylococci. Of these cocci, the former are notorious agents in causing thrombi to form in blood vessels. The deep epigastric veins are in intimate relation with the wound area when the abdomen is opened by a median subumbilical incision, whether the cut be made in the linea alba or to one side of the middle line in the belly of the rectus muscle. The branches of the vein collect the blood from the subcutaneous as well as from the subserous tissue in the parts adjacent to the linea alba. Some of the branches bleed freely when they happen to be transfixed by a needle in the process of suturing the wound. The deep epigastric artery is accompanied by two veins (venae comites) and they become confluent immediately above the spot where the conjoint vein enters the external iliac vein.

Pulmonary embolism is more frequent after abdominal than after vaginal operations; useful evidence is furnished by Klein, who collected the statistics of the Bettina-stiftung (Vienna), and found 9 fatal cases of pulmonary embolism in 1,720 abdominal sections. During the same period there was no instance of fatal embolism among 1,992 vaginal operations. Wertheim in a recent discussion on this matter admitted that in his practice thrombosis was three times more frequent after abdominal section for myoma than after vaginal myomectomy and hysterectomy for fibroids. It is unnecessary to adduce further figures, because this opinion is accepted by most surgeons who have had a wide experience in this class of surgery, but the evidence furnished by Klein is good circumstantial evidence towards implicating buried sutures as causative agents in the production of the primary thrombosis. Having satisfied myself that the fingers of the surgeon do become contaminated in the course of abdominal hysterectomy when the cervical canal contains micro-organisms, and in this way infect the suture material in the course of the operation, I adopt the following preventive measures:

After amputating the body of the uterus I apply iodine by means of a piece of cotton-wool on a probe to the cervical canal, and also lightly swab the cut surface of the stump with tincture of iodine before tying the vessels and introducing the mattress sutures. In a total hysterectomy I carefully swab the cut edges of the vagina with tincture of iodine before ligaturing the vessels. This trifling modification in procedure has a great influence for good on the post-operative course of the case.

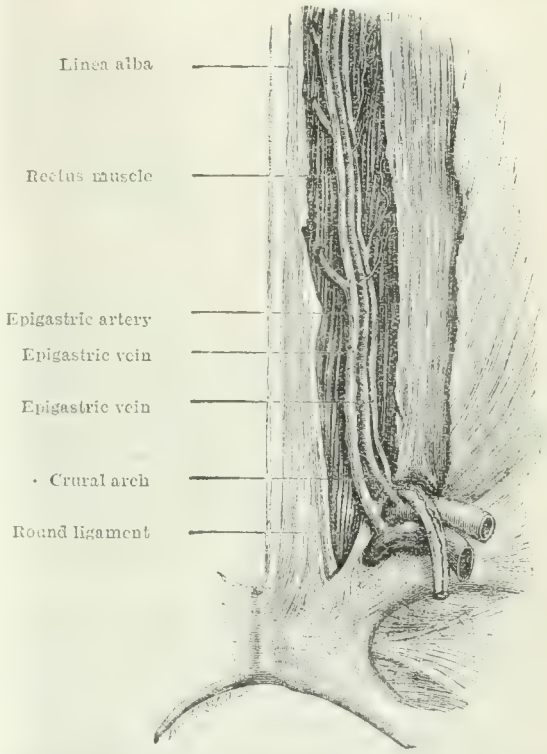
After completing the pelvic part of the operation I wash my gloves with warm soap and water, and rinse them thoroughly with warm water and dip them in a solution of perchloride of mercury (1 in 5,000) before introducing the sutures. In clean cases I insert three or four silk sutures (No. 2) to bring the fascia together, and the wound is closed by a series of through-and-through sutures.

In operating for conditions known to be septic no sutures should be buried in closing the abdominal incision.

Suture Material.

It is the fashion to lay the blame for stitch abscess after hysterectomy upon the suture material, or on the method employed for sterilizing it. I have endeavoured to show that, in spite of every precaution, buried sutures are liable to be infected in the course of this operation when the cervical canal contains micro-organisms. For many years I have employed silk thread as suture material exclusively. The thread, wound on a spool, is boiled for an hour, reboiled immediately before use, and inserted with the hands protected by sterilized rubber gloves.

As evidence that buried sutures used to close the abdominal wall in pelvic operations are liable to become infected by the surgeon's fingers and thus become the cause of suture abscess, I will describe what happens in operations for the removal of the breast. When this organ is amputated for a non-ulcerating cancer, if the cancerous focus be examined with the caution usually displayed in bacteriological investigations it will be found



Posterior view of the rectus abdominis muscle below the level of the umbilicus. The origin of the deep epigastric artery and the termination of the vein is shown. Venous branches are seen coming through the muscle.

free from micro-organisms. Therefore, if the surgeon has taken care that the skin overlying the operation area has been carefully treated with the antiseptic solutions usually employed for this purpose, and his hands, tools, and material used for haemostasis have been rendered germ free, the wound heals speedily and soundly. During the past fifteen years I have used fine silk thread exclusively for ligatures.

During this period I have removed the breast more than 300 times, and each operation requires on an average ten ligatures. This experience concerns 3,000 pieces of silk. Throughout the whole of this period I have had no trouble from these buried ligatures; and throughout the whole of my surgical work, in hospital and private, I have never had a patient die in consequence of amputation of the breast. I mention these facts because they support my contention that buried sutures, used to ensure a firm scar after abdominal hysterectomy, often defeat the purpose for which they are inserted because they become infected by the surgeon's fingers when the cervical canal contains infective organisms.

One of the most conspicuous features connected with pulmonary embolism, apart from its suddenness and the rapidity with which it sometimes causes death, is its unexpectedness. Inguinal thrombosis after abdominal

pelvic operations is by no means uncommon, but it is an extremely rare event for pulmonary embolism to happen in this form of thrombosis. The oedema of the leg associated with this common form of thrombosis is usually attributed to obstruction of the iliac and femoral veins by internal clot, but there is in addition infection of the lymphatics, and this causes a hard painful swelling of the thigh in consequence of interference with the lymphatic circulation. Surgeons know well that during operations in the armpit the axillary vein is occasionally cut. This accident is easily repaired by the application of a ligature to the vein above and below the opening. No oedema of the limb follows. When the axillary lymphatics are blocked by perilymphangitis due to an extension of mammary cancer, a solid oedema of the limb ensues. This is true of the lower limb. The femoral vein is sometimes wounded accidentally by the surgeon in the course of an operation, but it is safely controlled by an encircling ligature placed above and below the hole in the wall of the vein. No oedema follows, nor is the circulation in the limb impaired.

Reservoirs of Clot.

It often happens that a *post-mortem* examination is made on a patient who has died in consequence of a pulmonary embolism, and the source of the embolus cannot be found. In considering embolism of the pulmonary artery in relation to hysterectomy it is necessary to point out that the pelvis contains two potential reservoirs of blood clot—the iliac veins and the ovarian veins. Experience, however, teaches that the external iliac veins are the common source of the fatal clot.

An embolus large enough to fatally plug the pulmonary artery comes, as a rule, from large vessels like the iliac veins, the caval veins, or the right auricle. Virchow pointed out that it is not uncommon for an entire thrombus to slip out of a vein, and an elongated thrombus from a venule may appear to be too thin to obstruct a large vessel, but, when such an elongated thrombus reaches its destiny, it is doubled up by the blood stream and serves as an effective plug. An embolus too small to occlude the pulmonary artery may lodge on the ridge separating the right from the left branch, becoming what is called a riding thrombus; such a clot may act as an autochthonous thrombus, and induce the formation of additional clot such as will fill and fatally occlude the main trunk and both branches of the pulmonary artery, as well as many of its subdivisions in the lungs.

Pulmonary embolism may occur as a sequel to hysterectomy at any time from the hour of the operation onward to the thirtieth day. In the majority of instances it happens about the twelfth day, and many observers have noticed that the detachment and transit of the clot is usually preceded by movement, such as getting out of bed for the first time after the operation, even sitting up in bed, but more particularly in straining during defaecation; sometimes it is deferred until the patient is apparently well, and when about to leave the hospital she may fall dying across the bed, on the floor of the ward, or in the courtyard of the hospital. The periodical literature of surgery and gynaecology contains many instances of these dramatic forms of sudden death due to post-operative pulmonary embolism.

The Bacteriology of the Clot.

The bacteriology of the clot is an interesting matter in relation to thrombosis and embolism. In the opening remarks it was mentioned that the common organisms found in infected uteri are streptococcus, staphylococcus, gonococcus, and the colon bacillus. The common micro-organism found in thrombi and emboli is the streptococcus; it is sometimes mixed with the staphylococcus, the *Bacillus pyocyaneus*, or the colon bacillus, but never the gonococcus. This is a matter of great interest. Extensive pelvic operations are often performed for damage caused to the uterus and the Fallopian tubes by the gonococcus, sometimes in the acute, but more often in the chronic stage of the disease. I have never had a case of pulmonary embolism as a sequel of an operation on the uterus or tubes when the lesion was the consequence of a gonorrhoeal infection. This seems to show that the gonococcus causes great irritation of tissues, and produces masses of adhesions, but does not coagulate blood. The facility with which the streptococcus causes blood to coagulate in the living vessels is well known, and the extreme frequency with which thrombosis and its sequel, embolism, occur in connexion with cancer of the uterus is explained by the partiality which streptococci manifest for exposed cancerous tissue.

M. B. Schmidt found that when cancer particles enter the blood streams by invading lymphatics and veins they excite thrombosis, and the thrombus contracts upon and may ultimately destroy them. This prophylactic power of the blood prevents colonization of the blood stream, but I hold the opinion strongly that the thrombosis around the cancer particles is incited by the micro-organisms or their toxins which these cancer fragments contain.

It is undeniable that death from pulmonary embolism is especially frequent after abdominal hysterectomy performed for cancer of the uterus; it is far more frequent than after the removal of the uterus for fibroids, and the evidence indicates that the greater frequency of this catastrophe in operations for cancer of the uterus depends on the greater luxuriance of the flora in cancerous tissue, and that the streptococcus, of all the forms of micro-organisms which abound in such uteri, holds the greatest "enmity with blood of man."

In order to improve the results of abdominal hysterectomy performed for fibroids, surgeons must be more careful and more moderate in the use of buried sutures when closing the abdominal incision.

The risks of operations for cancer of the neck of the uterus will be lessened when surgeons, with the aid of bacteriologists, devise means to rid cancerous tissues of noxious organisms before undertaking hysterectomy. The widespread tilling of the pelvic connective tissue inseparable from the operation ironically called radical abdominal hysterectomy favours the sowing, growth, and rapid multiplication of streptococci, with the result that in many instances Death becomes the reaper.

It must be obvious to all thoughtful men that the surgeon in the operating room, as well as in the clinical ward, must look to the bacteriological laboratory for guidance, in the same way that the navigating officer on the bridge directs the ship, under the tutelage of the astronomical observatory, across the trackless ocean.

REMARKS ON ATYPICAL EXOPHTHALMIC GOITRE.*

BY H. L. MCKISACK, M.D., M.R.C.P.LOND.,
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THE recognition of a well-established case of Graves's disease is one of the easiest tasks of a medical practitioner. The classical signs, with which we are all familiar, leave no room for doubt as to its nature. The chief of these are: Rapidity of heart beat, protrusion of the eyeballs, enlargement of the thyroid gland, tremor, sweating, flushing, sleeplessness, and other evidences of nervous excitement.

Functions of the Thyroid Gland.

It has been established both by clinical and experimental evidence that the thyroid secretion is necessary for the proper development of the bony structures and their maintenance, and also for the due development of mental power, for the growth and maintenance of fatty tissue, skin, hair, and nails. The sexual functions are stimulated by thyroid secretion. In myxoedema, where the secretion is deficient, amenorrhoea is the rule, while excessive menstruation is usual in the contrary condition of exophthalmic goitre. In pregnancy also the symptoms of Graves's disease, if previously present, become accentuated. A notable result of excessive thyroid action is stimulation of the sympathetic system, and it is from this action that many of the classical symptoms arise, and in particular irritability of the vasomotor system. This was well exemplified in cases No. 7 and 15, where a patch of hyperaemia, lasting for a considerable time, resulted from the slightest stimulation of the skin. In a lesser degree it was noticed in

*Delivered at a meeting of the Ulster Branch of the British Medical Association.

several of the other cases. Another effect of excessive thyroid secretion is diarrhoea. The thyroid gland exerts an inhibiting influence on the pancreas; hence diabetes, the result of pancreatic inefficiency, is a not uncommon consequence of exophthalmic goitre. Thyroid secretion increases the activity of nitrogenous metabolism and opposes the accumulation of fat, with the result that emaciation is usual in well-marked exophthalmic goitre, and may also be seen in many of the imperfectly developed cases. The thyroid gland is unique in containing a noteworthy amount of iodine, and it is found that the administration of iodine or its salts increases the activity of the gland, and may in susceptible subjects even produce some of the symptoms of exophthalmic goitre.

Etiology and Symptoms of Exophthalmic Goitre.

It is the difficulty in accounting for the alteration in the quantity or quality of the thyroid secretion that gives rise to the differences of opinion as to the cause of exophthalmic goitre. The simplest way to increase the quantity of the internal secretion in the blood is to administer the extract of the gland by the mouth. By this means the symptoms of excessive thyroid action, or "hyperthyroidism," may readily be produced. Inflammatory or degenerative changes of the thyroid gland may cause it to enlarge, sometimes with excess of function, more frequently the reverse. Emotions, particularly fear, are credited with being a cause of exophthalmic goitre. In this connexion it is noteworthy that the symptoms closely resemble a state of terror. Here the excessive activity of the gland may be produced by direct stimulation. It has been shown by Crile that the more powerful emotions have a definite influence on the functions of the body, either by stimulation or by inhibition of various glands. Breuer suggests that the emotion of fear producing vasomotor changes causes the gland to empty itself quickly into the circulation with subsequent compensatory activity, and perhaps hypertrophy. In another group of cases the thyroid is unequal to the task of supplying the amount of internal secretion required by the organism, and in order to overcome this deficiency the gland becomes hypertrophied with, in many cases, hyperthyroidism. It is in this class of case that the administration of thyroid extract by the mouth has been advised, on the assumption that the assistance of the swallowed extract would do away with the necessity for compensatory hypertrophy of the gland. (See case No. 9.)

Cases of exophthalmic goitre in which the majority of the classical signs are absent are apt to be overlooked, and I have no doubt we miss many that should be identified. In hospital practice I have not succeeded in observing more than a few of this class of case, but that, perhaps, is to some extent explained by the fact that such imperfectly developed cases are not usually sufficiently ill to be admitted to the wards of a hospital; no doubt, also, many have escaped my attention. In private practice we are more likely to come across such cases, and my experience only extends to twenty-one instances, to which I wish briefly to direct your attention. I have, of course, excluded the more common fully developed cases of Graves's disease.

The cases are too few to permit any reliable generalizations to be founded on them; but it will be observed that in all the heart-rate was above normal, and in practically all the patient was aware of the rapid beating, either in the form of general throbbing of the arteries or as palpitation of the heart. This is the symptom which should always arouse suspicion, and when combined with tremor and with even a slight protrusion of the eyeballs it may be accepted as an evidence of hyperthyroidism. This last-named sign was, however, absent in 15 of my 21 cases. Careful examination will generally reveal an increase in the size of the thyroid—sometimes only to a very slight degree. In 3 cases it was normal, in 5 it was of moderate size, in 2 considerable enlargement existed, and in 11 there was slight enlargement. Tremor was absent in 9 of the cases. Twelve of the cases were between the ages of puberty and 30, and the remainder were between 30 and 60. All but three were females, and one of the three men, while incomplete in the development of signs when first seen, soon progressed rapidly in an unfavourable course, and became a typical case in a very short time. Two of the cases, as already mentioned, showed marked vasomotor excitability.

No.	Sex.	Age.	Residence and Medical Attendant.	When First Seen.	Pulse-rate.	Exophthalmos.	Tremor.	Thyroid Gland.
1	F.	39	Belfast	4/3/02	140	0	0	+*a*
2	F.	21	Co. Down	11/10/05	110	0	*a*	+*a*
3	F.	26	Co. Antrim (Dr. Reid)	11/5/06	120	0	0	+*a*
4	F.	34	Somerset	4/6/06	110	0	*a*	N.
5	F.	54	Co. Down (Dr. Knight)	26/8/07	120	0	*b*	+*b*
6	F.	60	Co. Armagh (Dr. Doman)	10/12/07	120	0		+*c*
7	F.	22	Co. Cork	1/6/09	116	?	*a*	+*a*
8	F.	25	Belfast	3/6/09	110	0	0	N.
9	F.	13	Belfast	10/6/09	110	0	0	+*a*
10	F.	47	Co. Down (Dr. Knight)	8/9/09	125	*a*	*a*	+*b*
11	M.	36	Co. Down (Dr. Knight)	2/2/10	115–130	*a*	*a*	+*a*
12	M.	24	Belfast	25/5/10	Fast	0	*a*	+*a*
13	M.	23	Co. Down	3/10/10	116	*a*	0	N.
14	F.	28	Belfast (Dr. M. Henry)	28/1/11	130	?	*a*	"
15	F.	32	Co. Antrim	6/2/11	126	0	0	+*b*
16	F.	24	Co. Monaghan	8/2/11	98	*a*	*a*	+*a*
17	F.	45	Co. Down	29/3/11	120	0	0	+*b*
18	F.	25	Co. Antrim	7/11/11	72–100	0	0	+*b*
19	F.	24	Co. Sligo (Drs. Quin and Craig)	18/12/11	130	*b*	*a*	+*a*
20	F.	18	Co. Antrim (Dr. MacWilliam)	17/5/12	98	0	0	+*c*
21	F.	34	Co. Tyrone (Dr. Condy)	28/8/12	120	?	*a*	+*a*?
22	F.	44	Co. Down	18/10/12	115	0	*a*	N.
23	F.	50	Co. Down	18/10/12	120	0	*a*	N.

NOTE.—N=Normal. 0=*Nil*. *a*=Very slight. *b*=Moderate. *c*=Considerable. +=Enlargement. ?=Doubtful. '=One eye.

Case 9 was an example of hyperthyroidism in a developing female at the age of puberty. The thyroid gland was slightly enlarged, and headaches, palpitation, flushing, and nervousness were present. These symptoms and the enlargement of the thyroid had only very recently attracted attention, and it seemed probable that the gland had become hypertrophied at puberty in the endeavour to meet the new demands upon its secretion caused by sexual development. Small doses of thyroid extract were therefore administered by the mouth, so as to assist the gland in its work, with the result that the hypertrophy disappeared and the patient got quite well after one or two relapses.

One of the most erratic of the cases is No. 18, in which there is apparently an alternating condition of hypo- and hyper-thyroidism. The prevailing symptoms are perhaps those of deficient rather than excessive thyroid secretion. She is inclined to grow stout, is somewhat phlegmatic in manner and character, sleeps well at night and is often drowsy during the day; her hair falls out freely on brushing it, and her thyroid gland is distinctly enlarged—indications of a mild degree of myxoedema. She first came for medical advice on account of a hard, harsh cough, caused probably by the mechanical irritation and pressure of the gland. Her pulse ordinarily is about 70. After a short course of small doses of thyroid extract, the contrary condition of hyperthyroidism appeared, and when the extract was stopped the tachycardia, palpitation, flushing, etc., continued for a considerable time. There still remains a mixture of symptoms indicating an inefficient thyroid, while her functions are very sensitive to the help obtained by the thyroid extract given by the mouth.

Case 19 was of interest owing to the fact that only one eye projected; the other symptoms of exophthalmic goitre were typical. The patient's sister, however, told me that six months previously both eyes were equally projecting in about the same degree as the one eye then was.

The last two cases are inserted in order to draw attention to a large group of cases, many of which are probably examples of hyperthyroidism. These are generally, and

no doubt correctly, described as functional disturbance due to the menopause. It must be remembered that many cases of true exophthalmic goitre begin about this time of life. We know also how intimate is the relation between the sexual functions and the thyroid gland. It therefore seems probable that the ordinary menopause symptoms, which so closely resemble those of hyperthyroidism, are largely the result of temporary hyperthyroidism.

Treatment.

As regards the treatment of these atypical cases, it differs in no material respect from that of the fully developed disease. I do not propose to occupy your time with this aspect of the subject, but I should like to ask the members to give a trial to the *x*-ray treatment. This procedure seems to offer a fair prospect of reducing the activity of the gland, without having to subject the patient to the risk of an operation for the purpose of removing a portion of the gland or ligaturing some of its vessels.

Finally, I would suggest that the name "exophthalmic goitre" be as far as possible discarded, and that the condition be spoken and thought of as "hyperthyroidism." This term would include all degrees of the abnormal condition, while the more usual description, "exophthalmic goitre," merely suggests two of the chief, but by no means the most constant, symptoms.

THE PORTALS OF ENTRY OF THE TUBERCLE BACILLUS, ESPECIALLY IN CHILDHOOD.

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AN enormous amount of work has been undertaken during recent years with regard to the tubercle bacillus, but certain landmarks stand out prominently. These are, first, the differences which distinguish the human from the bovine variety of the tubercle bacillus, and, secondly, the extended use of von Pirquet's reaction.

There exist portals of entry of the tubercle bacillus that have long been recognized. For example, no one denies the transmission into the lungs of tubercle bacilli suspended in air in minute particles of moisture or in dust. Recent experimental evidence has amply demonstrated this very important avenue of infection, and has incidentally shown that the number of bacilli required, all things being equal, to set up pulmonary tuberculosis is relatively small as compared with the number necessary to induce tuberculosis elsewhere—as, for example, into the intestinal tract (1, 2).† No one questions transmission through the intestinal tract, especially in infancy, and here, again, experimental evidence shows that not only may the bacillus induce a lesion in the gut, but may enter the intestinal wall without producing a lesion at the seat of entry (3, 4, 5, 6). No one, again, questions transmission through the naso-pharynx; there is ample evidence, both clinical and experimental. Transmission can occur also through the skin, as was demonstrated in the case of a former colleague of mine, who contracted, presumably in the *post-mortem* room, a tuberculous lesion on his hand (see also 7). Experimentally, transmission through the unbroken skin has been demonstrated (8). Lastly, we reach the antenatal avenue of entry. Omitting for the present this last portal of entry, we may say, with Calmette (9), that "the more frequent channels of invasion are the mucous membranes of the natural cavities of the body, particularly the digestive and pulmonary epithelium, and to these may be added the naso-pharynx." Whether we can go further with him and say, "Of these the digestive path is the one most commonly chosen," is open to question.

Few observations have been so startling, or have had a more profound bearing on the problem of tuberculosis than the extended application of von Pirquet's reaction. Numerous statistics are now available, and Calmette (10), reviewing them, shows that, up to the age of 1 year, 9 per cent. of all children give positive results, up to the age of 2 years 22 per cent., from 2 to 5 years 53 per cent., and from 5 to 15 years 80 per cent. This reaction, which indicates tuberculous infection, has been controlled by statistics obtained from *post-mortem* records, and Binswanger (11) adduces a remarkable agreement between the two sets of figures (see also 12, 13). The reaction is carried out by the use of Koch's old tuberculin. The one forearm is scarified and a few drops of undiluted tuberculin introduced, as in vaccination, the other forearm being inoculated with normal saline in order to act as a control. The development in the course of some days of an inflammatory reaction is acknowledged to indicate the presence of tuberculous sensitiveness—that is, that the person so reacting has circulating in his blood serum certain specific antibodies to the tubercle bacillus—antibodies present owing to an infection, recent or remote, active or quiescent, by the tubercle bacillus. The reaction partakes of the character of anaphylaxis (14), inasmuch as the local inflammation is the result of poisonous products resulting from the disintegration of the introduced tuberculin, which has been acted upon by the two elements in the patient's serum, complement and antibody. There appears to be no specificity regarding the use of human and bovine tuberculin (15), and there does not appear to be any agreement between the intensity of the reaction and the extent of the tuberculous lesion (16, 17),‡ though the reaction tends to become feeble or absent in severe cases, probably due to the using up of antibodies and complement. It is not my purpose to discuss the subcutaneous (18) injection of tuberculin for diagnostic purposes, or to enter into the evidence so afforded of focal as well as local reaction (19), as full comparative statistics are not yet available.

Does this relative absence of von Pirquet's reaction, then, mean that infants possess a greater insusceptibility to tuberculosis, even when, as above, substantiated by *post-mortem* findings? Two points have to be taken into account in meeting this observation: First, that in children, and especially infants, antibodies are deficient (20), or, at any rate, their non-detection would seem to warrant such a statement; and, secondly, in the *post-mortem* room it is unquestionable that the disease may not be recognized macroscopically as the tubercle is often in the prefollicular stage (21, 22). I would ask especial attention to these explanations of the non-detection of tuberculous infection in infancy, as I shall refer to them later when dealing with the antenatal transmission of the infection.

The full significance of the extended application of von Pirquet's reaction has been held to justify von Behring's (23, 24) pronouncement in 1903:

> The seeds of phthisis are laid in infancy through the intestinal mucosa, remaining latent until the powers of resistance happen to become impaired; the disease then becomes active. The tubercle bacilli are usually introduced in cow's milk and absorbed through the intestine.

No doubt von Behring has felt justified in his prophetic utterance by the statistics of von Pirquet (25), Hamburger (26), and a host of other observers (27, 28, 29), which would seem, at first sight, so eminently to substantiate his pronouncement.

But there exists a most important stumbling-block to the full acceptance of von Behring's theory, even though supported by the advocacy of Calmette and his school. It is the placing upon a scientific basis the grounds for distinguishing between two varieties of the tubercle bacillus, the human and the bovine (30, 10). Briefly, they consist, first, in the constant inoculation differences—that is, the rabbit succumbs to a progressive generalized tuberculosis in four to five weeks' time after inoculation with the bovine strain, but exhibits retrogressive lesions with the human strain; and, secondly, in the inconstant, but occasionally useful, cultural differences, as evinced by the comparatively easy and luxuriant growth of the human variety. The allusion in the report of the Royal Commission to peculiar quasi-intermediate forms occurring in lupus and in tuberculosis of the horse (see also 31), while they give us to pause in being too insistent on the distinctions which serve to separate the human from the bovine variety, cannot, I think, in the face of the very many unsuccessful experimental attempts to convert the one variety of bacillus into the other (32, 33, 8), completely

* A paper read before the Cardiff Medical Society.

† The figures in parentheses refer to the bibliography at end of paper.

‡ Moriand (*Lancet*, 1912, ii, p. 638) suggests the contrary.

shake our belief in the separate identity of the two varieties.

In the first place, assuming these differences do exist (34), I agree with Cobbett (3) when he says that "von Behring's theory as to the causation of phthisis, so far as it relates to infection by cow's milk, cannot be accepted," on the ground that, with remarkably few exceptions, the bacillus isolated in phthisis belongs to the human variety. Calmette (10), at the International Tuberculosis Congress held last year in Rome, stated that, over the age of 16 years, 98.09 per cent. of all fatal cases of tuberculosis were due to the human tubercle bacillus (see also 35); since, over the age of 16 years, the vast majority of deaths from tuberculosis result from phthisis, it follows that the human variety accounts for practically all the cases of phthisis (36), and not the bovine variety, as von Behring's statement would imply.

In the second place, assuming the "seeds of phthisis were laid in infancy by the drinking of cow's milk," in the face of these statistics there would have to be postulated a mutation of bovine into human tubercle bacilli, and this, in our present state of knowledge, we cannot accept. Statistics culled from all sources agree in assigning to the bovine variety of the tubercle bacillus varying percentages of cases of tuberculosis under the age of 16. Calmette (10) gives 26.5 per cent. up to the age of 5 years, and from 5 to 16 years a percentage of 25. At the same time it cannot be questioned but that considerable divergences in percentages may be obtained (34). Presumably the source of infection is cow's milk, which, in its turn, is infected chiefly through tuberculosis of the udder, though the bacilli have been shown to be present in the milk of tuberculous cows in the absence of actual affection of the udder itself, either directly or indirectly, by reason of the contamination of the milk by the cow's tubercle-laden faeces (37). Incidentally, this country has a long way to go before it attains to the measure of freedom of its dairy cattle from tuberculosis such as obtains in Denmark. Chiefly through the instrumentality of Professor Bang of Copenhagen, legal statutes enact the separation of herds, by means of the tuberculin test, into two separate divisions, followed by the gradual elimination of reacting animals. The success following these measures has been remarkable, and affords an example of how the problem of infected milk is best attacked.

Surely if the intestinal mucosa is the chief portal of entry, and cow's milk the chief source of the tubercle bacillus, we would reasonably expect to find a very much higher percentage of cases due to bovine infection. As a matter of fact you will note that even under the age of 5 years (see also 36), nearly three-quarters of the cases of tuberculosis are traceable to infection from a human source.

We have travelled far since Koch (38) startled the scientific world by declaring that infection in the human was wholly, or practically so, due to the human variety of the tubercle bacillus, but I think some of us must retrace our steps from having advanced too far in the opposite direction.

The broad facts are these: that whereas bovine infection does occur in infancy and childhood to the extent of 25 per cent., the remaining 75 per cent. of the cases, and practically the whole of the cases after the age of 16 years, are due to the human bacillus.

Ritter and Vehling (39) have found that cases of tuberculosis, where the disease was recognized in childhood, or where, owing to infected relations, infection was more than probable, would appear to run a milder course, and be more amenable to sanatorium treatment, than cases where the disease was not recognized in childhood and where the relations were not infected (see also 40). In support of their contention that previous infection renders the disease less virulent they adduce evidence from Turkey to show that, in districts where the disease is almost unknown, tuberculosis, when it does occur, runs a very rapid course. While, as a corollary, they affirm that the ordinary healthy adult, in this and other countries similarly situated as regards the disease, possesses a more or less complete immunity (see also 41).

This opens up several important questions. It suggests that if immunity can be so produced (42) how much better it would be to produce it artificially, as proposed by Calmette (43), than to run the grave risks attending infection by the usual method. It suggests that persons infected with tubercle bacilli in early life are capable of dealing with fresh infections without difficulty. It suggests that bovine infection in childhood may possess an immunizing effect in later life, and that infection by tubercle bacilli in milk, provided they are not present in too great numbers, may have that desired effect. It suggests that where previous infection can be excluded, the disease runs a course very different from that run where previous infection cannot be excluded. It suggests that miliary tuberculosis, if not due to an overwhelming infection of tubercle bacilli, is due to infection on virgin soil, and that the more common cavernous tuberculosis is to be regarded as a phenomenon of a certain degree of immunity.

How are we, then, to account for the undoubted high percentage of infection—a percentage which I gave reasons for supposing to be very much higher than is generally conceded—in infants? In other words, what are the portals of entry of the human variety of the tubercle bacillus in infancy?

On the one hand, it cannot be denied that, where one or both parents are phthisical, or where the infant comes into direct contact with persons suffering from phthisis, the chances of infection, both by way of the respiratory system and the alimentary tract, are considerable, and no doubt infection does certainly occur in this manner (44). It is also reasonable to suppose that, where the infective material is abundant, where the dose, in other words, is high, the infant should develop tuberculosis of the miliary type, especially if the predisposing factors are in evidence, and the natural forces of defence weakened (45).

On the other hand, the possibility of the transmission of tubercle bacilli through the placenta must not be altogether disregarded, as would almost appear to be the case at the present time. With the exception of Baumgarten (46), who, it seems, has held the view of antenatal infection for some years, observers in general assign but very little importance to this portal of entry. Schmorl (47) goes even so far as to say that, unless the placenta is definitely diseased, infection by this channel is impossible. One of the strongest arguments used by those opposed to placental transmission is the extreme rarity of congenital tuberculosis (9, 48, 49). It is undoubtedly rare, and, when it does occur, exhibits generalized characters (49). But because congenital tuberculosis is rare, or rather because generalized tuberculosis occurring before or immediately after birth is rare, is, to my mind, no argument against the transmission, in very many instances, of the tubercle bacillus by way of the placental circulation.

In the first place, when we take into consideration the enormous proportion of our population who are definitely tuberculized, well over 90 per cent. (43), and whose systems are constantly being infected with the tubercle bacillus; when we realize that pregnancy, with its stress and debilitating effects, renders the organism less ready to cope with and destroy the infections as they occur (33), we will not be surprised if, in the circulating blood of the mother (50, 51, 13), there may exist tubercle bacilli in far greater numbers than are to be found under normal conditions.

In the second place, when we understand that it has been shown that the normal mucous membrane of the intestine may constitute a portal of entry of the tubercle bacillus and leave no sign by which one can recognize its penetration (see also 52), it is difficult for us to believe that the cells of the chorionic villi, though they be endowed with properties not yet thoroughly understood (53), can prevent the passage of such an extremely resistant body as the tubercle bacillus into the fetal circulation.

Lastly, when we surmise that the bacilli thus introduced into the fetus may, after all, be relatively few in number; that the lesions they produce may be prefollicular and eventually retrogressive; that, as we have before noted, von Pirquet's reaction may yet be absent, it will be very difficult for us to deny the possibility, or even the strong probability, that such manner of infection does occur, that antenatal infection constitutes a portal of entry of the tubercle bacillus.

To sum up, then: the portals of entry of the tubercle bacillus, especially in childhood, include the respiratory system, the alimentary tract, the mucous membrane of the naso-pharynx, the skin, and, lastly, the placenta.

The significance of these many portals is evidenced in the practical tuberculization of the community (48), and is of interest in the detection of the source of infection, both human and bovine.

The questions that yet remain to be solved concern the latency of the infection contracted in childhood. Where do the bacilli live? Do they live in the tuberculous glands and old lesions so frequently found *post mortem*? Do they there remain quiescent for indefinite periods, capable, when the time comes, of setting up disease, as exemplified in the recent attention drawn to pulmonary tuberculosis resulting from extension from tuberculous bronchial glands (54, 55)? If so, how are we to account for the negative results obtained by Cobbett (3) after inoculating animals with the tuberculous tissues? Do the bacilli live in the blood and tissues generally (50, 51, 13), having established a *modus vivendi*, wherein they are tolerated but not allowed to multiply to any extent? This may be so, and thus the vast majority of the people in this country are in reality tubercle carriers, awaiting some impairment of the powers of resistance—to quote von Behring—in order to become obvious sufferers from tuberculosis.

Much might be said regarding the view that the first infection in childhood, by conferring a partial immunity, determines that, in the largest proportion of cases in adult life when tuberculosis does supervene, the disease shall run its most chronic form with cavity formation in the lungs (55, 56), and not the acute miliary form.

From what has been already brought forward it will be seen that, although the problems that tuberculosis still offers for solution are of far-reaching consequence, still the recognition of the portals of entry and the source of the infection places us in a stronger position than formerly, and enables us to say, in the words of the resolution adopted at last year's International Congress, "Prophylaxis of tuberculosis must principally be directed towards the suppression of contamination from man to man, and principally in the family, and, whilst contamination of man by bovine infection is of less frequency, it is, nevertheless, necessary to maintain all measures against infection from this source."

References.

1. Cobbett: Second International Report, Royal Commission on Tuberculosis, 1907, App. iii, p. 219.
2. Findel: *Zeitschr. f. Hyg.*, Bd. lvii, S. 101.
3. Cobbett: *Journ. Path. and Bact.*, April, 1910.
4. Griffith: Second International Report, Royal Commission on Tuberculosis, 1907, App. i, pp. 628 and 696.
5. Ravenel: *Journ. Med. Res.*, 1903, vol. x, p. 460.
6. Ravenel and Reichel: Ibid., 1903, vol. xviii, No. 1, p. 1.
7. Hess: *Studies from Res. Lab. of City of N. York Dep. of Health*, 1909, vol 4, p. 64.
8. Koenigsfeld: *Centralb. f. Bakt.*, 1911, Abt. 1, Orig., v, 60, p. 44.
9. Calmette: *Echo Méd.*, April 21st, 1912.
10. Calmette: Report International Tuberculosis Congress, British Medical Journal, April 20th, 1912.
11. Binswanger (cited by Méroz and Khalatoff): *Rev. méd. de la Suisse rom.*, October 20th, 1911.
12. Lapage: British Medical Journal, November 16th, 1912, p. 1375.
13. Kurashige: *Zeitschr. f. Tuberkulose*, 1911, vol. xvii, p. 347.
14. Belin: *Compt. rend. de la Soc. de Biologie*, 1912, vol. lxxii, p. 692.
15. McNeil: British Medical Journal, September 21st, 1912.
16. Crowe: British Medical Journal, June, 1912, p. 1230.
17. Méroz and Khalatoff: Loc. cit.
18. Hamburger and Monte: *Muench. med. Woch.*, 1909, No. 9.
19. Riviere: British Medical Journal, April 6th, 1912, p. 764.
20. Brendel and Müller: *Muench. med. Woch.*, 1912, p. 1754.
21. Muggia: *La Pediatria*, An. 19, No. 12.
22. Takeya: *Arbeit. auf d. Gebiet. d. Path. Anat. u. Bakt.*, Tübingen, 1910, v. 7.
23. von Behring: *Lancet*, 1903, vol. ii, p. 1199.
24. von Behring: *Deutsch. med. Woch.*, 1903, S. 689.
25. Hamburger: British Medical Journal, 1900, vol. ii, p. 76.
26. von Pirquet: *Verhandl. d. Gesellsch. f. Kinderheilk.*, 1907, S. 32.
27. McNeil: British Medical Journal, November 6th, 1909.
28. McNeil: British Medical Journal, September 21st, 1912.
29. Mills: British Medical Journal, May 14th, 1910.
30. Woodhead: *Lancet*, June 1st, 1912, p. 1452.
31. Lindermann: *Berl. klin. Woch.*, 1912, p. 1185.
32. Griffith: Final Report, Royal Commission on Tuberculosis, 1911, Part II, App. vol. i.
33. Baldwin: *Studies from Saranac Laboratory for Study of Tuberculosis.*
34. Frazer: *Journ. Exper. Med.*, October, 1912.
35. Möllers: *Deut. med. Woch.*, 1911, p. 341.
36. Park and Krumweide: *Journ. Med. Res.*, September, 1912, p. 111.
37. Reichel and Deubler: Ibid., 1911, vol. xxiv, p. 5.
38. Koch: *Trans. Brit. Cong. Tub.*, London, 1911, vol. i, p. 25.
39. Ritter and Vehling: *Berl. klin. Woch.*, October 25th, 1909.
40. Hay: *Med. Off.*, November 18th, 1911.
41. Griffith: Final Report, Royal Commission on Tuberculosis, 1911, Part II, App., vol. iii.
42. Webb and Whitridge-Williams: *Journ. Med. Res.*, 1911, vol. xxiv, p. 1.
43. Calmette: *Univ. Med. Rec.*, April, 1912.
44. Harbitz and Kossel: Rep. Internat. Cong. Tub., April 20th, 1912.
45. Hay: *Med. Off.*, May 20th, 1911.
46. Baumgarten: *Deut. med. Woch.*, 1909, S., 1729.
47. Schmorl (cited by Dietrich): *Berl. klin. Woch.*, 1912, p. 877.
48. Philip: British Medical Journal, April 20th, 1912.
49. Oliari: *La Pediatria*, May, 1911.
50. Tessen and Rubinowitsch: *Deut. med. Woch.*, June 16th, 1910.
51. Rosenberger and Liebermeister (cited by Jessen and Rubinowitsch): Loc. cit.
52. Adami: *Principles of Pathology*, 1908, vol. i, p. 290.
53. Emrys-Roberts: *Journ. Anat. and Phys.*, vol, xliv, p. 202.
54. Stoll: *Amer. Journ. Med. Sci.*, January, 1911.
55. Hamburger: *Allgemeine Path. u. Diagnost. d. Kindertub.*, 1910, S. 98.
56. Römer: *Berl. klin. Woch.*, May 3rd, 1909.

THE VARIETIES OF TUBERCULIN IN THE TREATMENT OF TUBERCULOSIS.

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In the paper which I published in the British Medical Journal in 1903 I ventured to suggest that a considerable amount of tuberculosis in children was caused by the bovine tubercle bacillus. Since that time a great amount of scientific investigation has been carried out over the whole world, and especially by our own Royal Commission, with the result that we are now certain of the following conclusions:

1. That the great mass of tuberculosis occurring in the human subject in the form of pulmonary tuberculosis is caused by the human bacillus (*Typus humanus*), and is conveyed from person to person by infection.
2. That a considerable amount of so-called surgical tuberculosis in children and adults is caused by the bovine bacillus (*Typus bovinus*), received into the alimentary canal through milk and food.

Originally of a common species, the bacilli have, owing to long environment in different hosts, assumed marked characteristics, so that we are able, experimentally, to divide them into two types:

1. *Bacilli of the Typus humanus*, which cause:
   - (*a*) Pulmonary tuberculosis and pleurisy.
   - (*b*) Secondary tuberculous enteritis.
   - (*c*) Tuberculous laryngitis.
   - (*d*) Fistula in ano and possibly some other lesions.
2. *Bacilli of the Typus bovinus*, which cause:
   - (*a*) Primary abdominal tuberculosis.
   - (*b*) Tuberculous lymph glands.
   - (*c*) Bones and joints (probably).
   - (*d*) Genito-urinary tuberculosis.
   - (*e*) Acute miliary tuberculosis.
   - (*f*) Lupus. Meningitis.
   - (*g*) Pulmonary tuberculosis (a small percentage).

I have for the last ten years separated my wards in hospital into human and bovine wards, and after an observation of over 6,000 cases of tuberculosis, I am impressed with the fact that it is rare to see lesions of the human and bovine type associated in the same patient. In fact they seem to be antagonistic to each other, so that one rarely observes a patient suffering from pulmonary tuberculosis develop any other lesions beyond those mentioned in the human group. It is also rare for cases of gland or bone tuberculosis to develop true pulmonary tuberculosis except in the course of a general systemic infection.

It is necessary to mention this clinical fact to explain my reason for using tuberculins of the opposite strain in the treatment of the disease. There seems to be little doubt that a mild infection by bovine bacilli in the human body, such as neck glands, by way of the alimentary canal, will protect against an infection by human bacilli, and it is most probable that a large number of people are immunized against pulmonary tuberculosis in after-life by having been infected in early childhood by bovine bacilli through milk or food. In all the experimental work throughout the world it has been found to be a rare occurrence to find both types of bacilli in the same body.

Variations in Virulence.

Whether or not a patient is going to be destroyed by tuberculosis seems to me to depend on two important factors: (1) Virulence of infection; (2) individual resistance.

The variability in virulence of the tubercle bacillus is

well recognized. In many cases, fortunately, the infection shows little tendency to progress in the body, so that we constantly see in practice patients who have suffered from tuberculosis for twenty or thirty years. In other cases the infection is virulent and rapid, and kills the patient in two or three weeks.

In the former cases the bacilli are of low virulence, in the latter they are highly virulent, giving the body no chance to offer any resistance to the attack.

Treatment by Tuberculin.

It is in the avirulent bacillary infections that tuberculin is of such great service, and I have found it of little or no value in acute virulent infections.

The whole object of treatment by tuberculin is to produce an immunity in the blood against infection by tubercle bacilli; and, what is even more important, to prevent the further spread of the bacillary infection in the tissues. Whether or not it is possible to ever produce a complete lifelong immunity against tubercle is a matter of doubt.

As a result of my experience I have found that the lesions in the body which are caused by the *Typus humanus* are benefited more quickly and certainly if a tuberculin prepared from the opposite strain—namely, bovine tuberculin—is used; and in all cases of pulmonary tuberculosis I now only use bovine tuberculin. It is less toxic, and does not so readily cause reaction, is more easily tolerated, and causes the bacilli to disappear from the sputum more quickly. For the lesions caused by the *Typus bovinus*—namely, lymph glands, tuberculous peritonitis, lupus, tuberculous disease of the bladder, bones, and joints—I invariably use Koch's old tuberculin prepared from human cultures.

The question of dosage is of vital importance, and my routine practice is to administer a course of tuberculin in twelve weekly injections, then resting for a month, and, if necessary, repeating the maximum injection every week. My dosage is as follows of either human or bovine tuberculin:

0.0001 mg.	0.0006 mg.	0.006 mg.
0.0002 ,,	0.0008 ,,	0.0075 ,,
0.0004 ,,	0.001 ,,	0.008 ,,
0.0005 ,,	0.004 ,,	0.01 ,,

A special watch must be kept on the temperature, pulse, and blood.

It is rare to observe a general reaction if the above dosage is carefully followed.

In a great many cases the tubercle bacilli disappear entirely from the sputum at the end of a course of injections, but, unfortunately, if the tuberculin is not persisted in they in many instances speedily return—so that in some cases of pulmonary tuberculosis the injections should be continued for an indefinite time.

Whilst tuberculin *per se* cannot be expected to heal cavities in the lung or replace damaged tissues, yet it undoubtedly has the power of preventing the spread of the tubercle to healthy parts by means of its immunizing effects. Time is thus given for repair of the affected tissues.

In conclusion, I would like to express my opinion, after treating over 600 patients with injections of tuberculin, that it is a remedy of the greatest value, especially in early cases and where the deposit of tubercle is localized, as in one apex or in a lymph gland or single joint; but where the tuberculosis is disseminated and complicated by secondary infections the use of tuberculin cannot be expected to be of much avail. It ought, however, to be tried in every case with the hope of some relief or possible benefit, as we cannot allow the patient to suffer and die without making every effort to arrest the progress of the disease.

Tuberculin is not going to revolutionize the treatment of tuberculosis. It is a valuable aid to the other methods of treatment, hence it must be used with care and discrimination and with a full knowledge of its dosage and therapeutic effects.

I would conclude by saying that the best treatment we can offer to-day to a person infected with tuberculosis is a prolonged open-air life, preferably in a well-conducted sanatorium, excess of nutritious food, gentle exercise followed by plenty of rest, and a course of tuberculin by a careful physician.

ON THE "CONTROLLED" THERAPEUTIC USE OF NEW TUBERCULIN IN THE TREATMENT OF PULMONARY TUBERCULOSIS.

BY

E. E. A. T. RIGG, M.B., B.S.LOND., ETC.,

LATE HOUSE-PHYSICIAN TO THE BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.

Introductory Remarks.

THE success claimed for various tuberculins used in various methods in the treatment of pulmonary tuberculosis has been considerably discounted by the fact that many do very well on ordinary hospital or sanatorium treatment or even at home at work, without tuberculin, and this discount is emphasized by the fact that the advocates of the use of tuberculin (or at any rate some of them) say that only such cases of pulmonary tuberculosis as are afebrile and up and about are fit subjects for the treatment.

With these considerations in mind, Dr. Batty Shaw (upon whose patients and at whose instigation these investigations were carried out) suggested that I should carry out observations on the comparison of afebrile cases of pulmonary tuberculosis treated for three months, half with tuberculin and half without, the cases being compared at the beginning and end of this period. The plan of *controlling* the therapeutic use of tuberculin in the way described in this paper is entirely due to Mr. W. Palin Elderton, F.I.A.

Criteria.

The question arose as to what criteria should be used in estimating the improvement or the reverse of the cases after their course of treatment.

1. *General Condition.*—This, as judged by the patient's own feelings and the observations of the medical attendant, was self-evidently too fallacious to place stress upon, as a patient quite often says he or she is better when the temperature has risen or the physical signs show extension of the disease in the chest. This therefore was relegated to a secondary place.

2. *Increase of Weight.*—This also was evidently fallacious, as it might easily coexist with extension of disease and not be present, or to a much less extent, in a case which was in all other respects much improved.

3. *Functional Capability.*—An attempt is made to estimate this partly at the Brompton Hospital by registering the number of miles per diem a patient walks, but this also self-evidently will vary with the natural constitution and habits of the patient.

4. *Occurrence or Non-occurrence of Relapses.*—In a period of three months this could not well be judged of, and the occurrence of temperature, if maintained for more than a day or two, was considered as disqualifying the patient from the conditions of the experiment. No reliance was placed upon the disappearance of tubercle bacilli from the sputum as a sign of improvement, for the extrusion of phlegm is so obviously under the control of the patient, and temporary absence of tubercle bacilli in the sputum of patients suffering from active pulmonary tuberculosis is not infrequent.

5. *Physical Signs.*—The only criterion that remained, therefore, was alteration in the physical signs—that is, whether there was extension or retrogression of them during the three months—and of these the greatest attention was paid to râles as being the most definite indication of the extent of disease which could easily be demonstrated to another observer. Therefore, at admission, the râles were estimated and diagrammatized to the actual intercostal spaces and parts of intercostal spaces (outer and inner ends) in which they were heard. This was done for the front and back of both lungs. These observations were made independently by Dr. Batty Shaw and by myself, and in nearly every case substantial agreement was arrived at. At the end of three months, the cases were again examined by Dr. Batty Shaw (without examination in the interval, and, as far as possible, without his knowing whether the patient had been treated with tuberculin or not). The examination was carried out in the same way, râles being diagrammatized to the space without reference to the first diagram, and then the two diagrams compared. The cases were examined independently by

me, and I made separate diagrams which were afterwards compared with those of Dr. Batty Shaw. Out of 19 cases there was substantial agreement in 17 cases, and minor differences in 2, which were afterwards adjusted. In some cases the extent of râles had increased, in some retrogressed, and in others remained stationary, while in still others there had been increase of râles in one lung and diminution in another. In such cases a balance had to be struck between the two, and the case adjudged as worse, stationary, or better accordingly.

Physical signs were, therefore, taken as the main criterion, and alteration and increase of weight, amount of exercise, and general condition correlated secondarily.

Choice of Cases.

In agreement with one of the safest recognized methods of giving tuberculin, it was adopted as a *sine qua non* that all the cases should be afebrile when up and about all day, and that rise of temperature maintained for more than a day or two should disqualify the patient from being one of the series.

Another point now cropped up, which was that many cases are adjudged suffering from pulmonary tuberculosis on slight and often equivocal signs at one apex, or on no signs at all, and on some haemoptysis which may very possibly have not been haemoptysis at all, but have been concealed epistaxis or bleeding from gums: teeth, or posterior naso-pharynx. Therefore, as the second *sine qua non* it was resolved to take only those patients into the scheme who had expectorated sputum in which tubercle bacilli had been found.

The third point was the distribution of the cases between the two methods of treatment, and where a number of cases presented all grades of involvement of the lungs from very slight to extensive (1 apex to 5 lobes), and where some showed fibrosis and some not, it would be almost impossible to apportion the cases fairly between the two treatments so as to be free from any suspicion of bias. To obviate this, the patients were chosen by lot. In this way two series of nine were chosen, but, because of rise of temperature or because they left the hospital, three soon fell out from the names not treated by tuberculin. To replenish these, the next four patients fulfilling the conditions of afebrile tuberculosis drew lots, one to have tuberculin treatment, and three not. The final result was that ten patients were treated with new tuberculin (T.R.) and nine were not, the one out of the latter ten cases being set aside, as she left the hospital before the expiration of three months.

Method of Giving Tuberculin (T.R.).

As before mentioned, tuberculin was only given to afebrile cases.

Dosage.—Treatment was commenced with a very small dose, increased every second day at first, and afterwards at intervals of four days.

General Scheme.—The dose given was as follows in milligrams every second day: 0.00001, 0.00003, 0.00005, 0.00007, 0.0001, 0.00015, 0.0002, 0.0003, 0.0005, 0.0007, 0.001, 0.0015, 0.002, 0.003, 0.005, 0.007, 0.01, 0.015, 0.02, 0.03, 0.05, 0.07, 0.1.

Every Fourth Day.—0.15, 0.2, 0.3, 0.5, 0.7. The last—0.7 mg.—was the maximum dose reached.

The injection, however, was conditioned by the occurrence of reactions. If the temperature rose to 99° F. or above with all but the smallest doses (where the temperature was possibly not due to the injection of tuberculin) the patient was put to bed until it became normal, and no further dose was given for five to ten days (five with small doses and up to ten with the larger), and then the last dose repeated. In the case of the smallest doses, the next dose was given after an interval of four or five days. If the temperature now remained normal, the original increase of dosage was gone on with. If another reaction occurred, the patient was again put to bed till the temperature was normal, and when it had kept normal for from two to seven days, the same or a smaller dose was given. If this produced a reaction a still smaller dose was given after an appropriate interval until one was found which produced no response. This dose was now repeated two or three times before increasing again.

Out of 10 cases, 2 gave no reaction till 0.7 mg. was injected. A third case reacted first with 0.1 mg., whilst the other cases reacted two to seven times with various doses.

A Typical Example.

CASE V.

First dose=0.00001 mg. This produced a reaction temperature 100° F. After eight days' interval 0.00003 mg. was given, and at two days' interval, 0.00005, 0.00007, 0.0001, 0.00015, 0.0002, 0.0003, 0.0005, 0.0007, 0.001, 0.002, 0.003, 0.005, 0.007, 0.01, 0.015, and 0.02 mg. After this last the temperature rose to 99°; five days' interval, and then 0.02, 0.03, 0.05, 0.07, and 0.1 mg. were given at two days' interval, then at four days' interval, 0.15, 0.2, 0.3, 0.3, and 0.3 mg.

At the end of three months all the 19 cases were again examined in the way described and note also made of their weight and amount of exercise taken.

SUMMARY OF RESULTS.

1. *Physical Signs:*
   (*a*) Tuberculin-treated patients. Out of 10: Improved 1, worse 4, *in statu quo* 5.
   (*b*) Non-tuberculin-treated patients. Out of 9: Improved 4, worse 3, *in statu quo* 2.

2. *Increase of Weight:*
   (*a*) Tuberculinized patients (10 cases). Gained 10–20 lb. 4, gained less than 10 lb. 4, *in statu quo* 2.
   (*b*) Non-tuberculinized patients (9 cases). Gained over 20 lb. 2, gained 10–20 lb. 3, gained less than 10 lb. 4.
   In (*a*): Average per cent. of increase of weight, 6.3 per cent.
   In (*b*): Average per cent. of increase of weight, 10.3 per cent.

3. *Exercise*—capacity of walking, maximum amount per diem:
   (*a*) Tuberculin patients (10 cases). Two miles and over, 3; 1–2 miles, 5; less than 1 mile, 2.
   (*b*) Non-tuberculin patients (9 cases). Two miles and over, 6; 1–2 miles, 3; less than 1 mile, 0.

4. *General Condition.*—This is a difficult criterion, but, generally speaking, in (*a*) only 5 out of 10 were in thoroughly good condition; in (*b*) 8 out of 9 were in thoroughly good condition.

The net result of these observations is to show that the administration of new tuberculin by one of the more popular approved methods is not followed by greater improvement in the *physical signs*, nor by greater increase in weight, nor by more greatly increased capacity for physical work, nor by a greater improvement in the general condition, as compared with the results of ordinary hospital methods.

The observations on the signs do not support the idea that new tuberculin in any way lessens the activity of the local lesion. It is possible that the less favourable influence on weight, the less capacity for work, and the falling off of the general condition are due to the disabilities imposed on the patient by being treated with tuberculin, as they so often were kept in bed to help restore the temperature to normal.

ORGANIC ACID RATIO OF URINE AFTER TUBERCULIN.

BY ARTHUR H. GREGSON, M.B., B.CH.VICT.,
BLACKBURN.

A GIRL, born in 1892, had suffered from lupus vulgaris of the left cheek from 1895 to 1905. Roentgen rays were tried, but did not benefit. Curetting was successful in 1905, but afterwards the glands of the neck and beneath the jaw on both sides enlarged.

She consulted me, and on December 4th, 1909, received an injection of $\frac{1}{10000}$ mg. T.R. This was repeated weekly in increasing dose until, on February 1st, 1910, $\frac{1}{1000}$ mg. T.B.E. was given; after this the temperature rose to 103° F., the patient became delirious, and suffered from severe abdominal pain and tenderness. The temperature was intermittent for months; various methods were tried to reduce it, including administering on May 3rd and 22nd of $\frac{1}{10000}$ mg. T.R. of human origin, as before, but without benefit.

About the middle of July $\frac{1}{5000}$ mg. of bacillary emulsion of bovine origin was administered; the temperature fell to normal and pains decreased.

It seemed as though the failure were associated with the human origin and the success with the bovine origin, and it was determined to repeat the experience.

On August 2nd, 1910, the patient weighed 7 st. 8½ lb., and $\frac{1}{5000}$ mg. T.B.E. was administered. It was increased to $\frac{1}{3500}$ mg. on the 13th and to $\frac{1}{1000}$ mg. on August 23rd and September 1st, after which the temperature became erratic. The question of over-dosage had to be considered, but on September 6th the girl weighed 8 st., a gain at the rate of 1 lb. a week; the idea of the wrong variety of tuberculin was therefore adhered to, and $\frac{1}{3000}$ c.cm. original bovine tuberculin was administered on September 13th.

The temperature fell suddenly on the eighth day. Increasing doses were given on September 23rd, October 6th, October 19th, and reached $\frac{1}{3000}$ c.cm. concentrated bovine tuberculin on October 26th.

The patient felt considerably better, and it was determined to attempt an investigation into the acidity of the urine under the action of the different varieties. No constant effect was found upon the total free acidity, and this was then divided into the mineral and organic portions, and the following results obtained for the ratio of organic to total acidity:

Increased Organic Acidity after Human Tuberculin on January 4th.

Before.	Injection.	After.
0.26	$\frac{1}{2000}$ c.cm. T. Koch	1.04 (2 days); 2.2 (5 days); 2.5 (6 days).

Decreased Organic Acidity after Bovine Variety on January 17th, 26th, and February 6th.

Before.	Injection.	After.
1.7	$\frac{1}{1000}$ c.cm. P.T.	1.6 (3 days); 1.5 (6 days).
2.5	$\frac{1}{750}$ c.cm. P.T.	1.1 (5 days).
1.0	$\frac{1}{500}$ c.cm. P.T.	0.56 (2 days); 0.4 (9 days).

An injection of $\frac{1}{5000}$ c.cm. T.K. on December 19th had sent the temperature to 100°, but no rise was noticed after that on January 4th, whilst after the bovine tuberculin on February 26th the temperature rose again to 100°, so this is some evidence that the difference in result is not dependent upon the weaker nature of the bovine variety.

As the effect of only one "human" injection had been tested the following confirmatory observations were made, and the effect upon the lime, magnesium, and phosphorus noted at the same time:

E. H.

February 12.		Feb. 15.	Feb. 20.	Feb. 28.
	Injection $\frac{1}{5000}$ c.cm. T.K.	Grams.	Grams.	Grams.
Lime in 24 hours ... ... 0.122 gram		0.288	0.378	0.254
Lime in 100 c.cm. ... ... 0.0135 ,,		0.026	0.031	0.026
Mg in 24 hours ... ... 0.536 ,,		0.277	0.708	0.451
Mg in 100 c.cm. ... ... 0.049 ,,		0.025	0.059	0.044
Ratio of organic to total acid ... 1.37		1.65	1.44	2.1
Ratio of phosphorus to total acid .. 0.2		1.2	0.7	0.5
Ratio of phosphorus to lime... ... 1.75		2.9	2.35	2.35

A. E.

		Oct. 27.	Nov. 1.
	Inject $\frac{1}{500}$ c.cm. T.K.	Grams.	Grams.
Lime in 24 hours ... ... 0.688 gram		0.799	0.292
Lime in 100 c.cm. ... ... 0.055 ,,		0.046	0.03
Mg in 24 hours ... ... 0.979 ,,		0.884	—
Mg in 100 c.cm. ... ... 0.034 ,,		0.026	—
Ratio of organic to total acid ... 0.03		1.59	1.15
Ratio of phosphorus to total acid ... 0.02		0.3	0.26
Ratio of phosphorus to lime ... 1 1		0.8	1.5

These and four other experiments therefore confirm the increase of the organic acid ratio after administering human tuberculin, and show that it is not due to the lime and magnesium being reduced.

The methods used were as follows:

Total Acid.—Neutralization with decinormal NaOH after adding 1 per cent. neutral potassium oxalate, using phenolphthalein as indicator.

Ammonia.—After neutralization of 20 c.cm. as above, add 8 c.cm. freshly neutralized 40 per cent. formalin and continue the addition of decinormal NaOH.

Ethereal SO_4.—Difference between precipitation of urine by barium nitrate with and without previous oxidation by conc. HNO_3.

Mineral Acidity.—Add 5 c.cm. decinormal NaOH, ignite, oxidize, boil with excess of acid, neutralize, and estimate alkali lost. Deduct the ammonia and ethereal SO_4.

Organic Acidity=Total acidity—mineral acidity.

I have been unable to trace any similar experiment. If the prevailing opinion be correct, that there is no fundamental difference between the various tuberculins, we may as well settle the relative activities and cease to encumber ourselves with so many specimens. If incorrect, we ought to find their differences and discover the indications for each.

A YEAR'S EXPERIENCE OF DIORADIN IN SURGICAL TUBERCULOSIS.

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ALMOST a year ago I read a paper before this Section of the Academy, giving the results of treatment by dioradin of 15 cases of tuberculosis. Since then I have been more or less continuously engaged in the further treatment of these and other cases by the same means, and I desire to record the results I have obtained during fifteen months' trial of this remedy in cases of surgical tuberculosis, and the conclusions at which I have arrived as to the value of this method of treatment.

I shall first consider the cases which I reported a year ago; they were 15 in number, but to-night I shall only speak of 14 of these, as one of them was a case of pulmonary tuberculosis, and the number of this class of case has been too small to be worth recording the results at present. These 14 cases were divided into two classes according to whether they were complicated by sepsis or not.

Of the 5 uncomplicated cases each had received one course of injections, and one was apparently cured, and the other 4 were greatly improved, and they showed an average gain in weight of 8.3 lb. Four of these have since received a second course of injections, with the result that there are now 4 apparently cured, and 1 greatly improved, and the average gain in weight is 10.5 lb.

Of the 9 cases in the second class, that is, cases complicated by sepsis, there was 1 apparent cure, 2 greatly improved, 4 improved, and 2 not improved, with an average gain in weight of 2 lb. Four of these cases were given a second course of injections, and a fifth was given both a second and a third course, with the result that there were 3 more apparent cures and 1 greatly improved. The fifth, which was a case of tuberculous and septic hip which had been excised, improved further after a second course of injections, but about a month later developed acute nephritis and died. The average gain in weight of these 5 patients was 5.4 lb. As regards the other 4 of this group who did not receive a second course of injections, 1 was a case of multiple foci which left the hospital cured after the first course (No. v previous paper[1]). The second, a septic hip in which there was always much doubt as to the presence of tuberculous disease, left hospital unimproved after the first course of injections (No. VIII, previous paper). The third was a case of tuberculous cystitis with almost certainly a similar affection of both kidneys as well; he also left hospital unimproved after the one course of injections and died shortly afterwards (No. XII previous paper). And the fourth was a case

* Read before the Surgical Section of the Royal Academy of Medicine in Ireland, November 29th, 1912.

of lupus which left hospital improved after the first treatment; she reported since that the improvement continued, but she did not return for a second course (No. xiv previous paper). I shall now give a brief account of the treatment of a further series of 14 cases.

CASE XV.

T. E., male, aged 35, admitted January 20th, 1912, with tuberculous disease of left knee, started one and a half years before, had got rapidly worse in previous month. Bier's passive congestion was tried for a month after admission with no sign of improvement; left knee 2 to 3 centimetres larger than right, bulging spot with fluctuation on outside of joint, marked tenderness, increased local temperature; pain on movement, traction, or percussion of heel. Knee flexed to angle of 140°, movement of about 20° only. Put in plaster and given course of injections. Discharged April 11th, 1912. Pain relieved, and patient had put on flesh; unfortunately he had not been weighed before the injections were commenced. Readmitted July 25th; when the plaster was removed an abscess was found on point of bursting on outside of knee. This was opened and scraped on August 3rd; no direct entry into the joint could be found; a second course of injections was given from August 2nd to September 25th. The abscess closed rapidly, but a second formed lower down and was opened and scraped, September 14th; again no direct opening into the joint could be found; a third course of injections were given from October 9th to November 26th, when he was discharged with knee in plaster, both wounds soundly healed, the leg straight and painless, and the knee practically the same size as the other. His weight increased by 10¾ lb. during his second stay in hospital.

CASE XVI.

B. G., female, aged 9, admitted September 14th, 1911, complaining of limp on right side. Patient fell on right hip some months before. A month later there was some pain in the hip, which continued on and off till admission. On examination there was apparent lengthening, slight flexion and abduction, pain on percussion of heel, the movement at the joint was greatly limited, and there was loss of tone of the gluteal muscles on the affected side. A course of injections was given between December 18th and February 14th. The patient was kept in bed with extension most of that time. She was put in plaster and allowed up on crutches on January 27th, and discharged soon afterwards. Her weight was the same as on admission. A second course of injections was started early in March, given every second day, as the patient attended as out-patient. She received twenty injections, then ceased to attend, but reported shortly afterwards that she was going about without crutches. She has not been heard of since.

CASE XVII.

A. G., female, aged 32, admitted April 18th, 1912. For the last eight years she had a swelling of the right wrist. She was operated on four years ago and again two months before admission. The swelling was most marked in front and on the ulnar side of the wrist. There was a scar 3 in. in length on the ulnar side with a sinus over the ulnar styloid. She also had a swelling of the base of the first phalanx of the right index finger. No extension of the wrist was possible; flexion was possible only to about half a right angle, and she was only able to partially close the fingers. There were several large glands in right axilla and one small one above the right clavicle. A skiagram showed general blurring of the carpal bones and fusion of the semilunar and os magnum. A first course of injections was given from April 19th to June 7th. The swelling of the wrist became less and the sinus healed. There was less pain on attempted movement, and the weight increased 8½ lb. She was sent to the country with her wrist in plaster. She was readmitted on July 9th, 1912. There was no pain in the wrist, the swelling was further reduced, and the sinus was still healed; the movement was more extensive; loss of weight of 3 lb. had occurred. A second course of injections was given from July 11th to August 28th. She was sent back to the country on September 3rd in plaster; the glands in the axilla were greatly reduced in size and the patient had added over 3 lb. in weight, making a total increase of 8½ lb. since the commencement of treatment.

CASE XVIII.

K. C., woman aged 31, admitted July 8th, 1912. There was a history of pain in the back for about a year, and there was an enormous abscess in the left iliac fossa. An x-ray photograph showed extensive destruction of the third and fourth lumbar vertebrae. There was no visible deformity. On July 21st an incision was made above Poupart's ligament, and over a pint of tuberculous pus was evacuated; the cavity was douched out and partially filled with 2 per cent. formalin in glycerine, and the incision closed. Injections of dioradin were given from July 22nd to September 7th. A week after operation there was an escape of some dark-coloured serum from the wound, the lower end of which remained open, necessitating dressing twice a week. The sinus so formed was scraped on September 11th, when some tuberculous infection of the divided abdominal muscles was found. The wound was cleansed with carbolic acid and iodine, and rapidly healed, and the patient left hospital on September 23rd, 1912. Her weight had increased by 4 lb. 9 oz.

CASE XIX.

F. W., male, aged 26, admitted April 26th, 1912. He had pain in his back, said to be rheumatic, a year ago, and noticed a swelling in the right groin three months ago. On admission there was an enormous swelling of the right iliac fossa and the upper part of the thigh; fluctuation was present, both above and below Poupart's ligament. An x-ray examination showed disease of the third lumbar vertebra on the right side. There was no pain in the back or tenderness, but there was rigidity of the lumbar spine. On May 4th the abscess was opened above Poupart's ligament; about 1½ pints of tuberculous pus was evacuated, and the cavity injected with 2 per cent. formalin in glycerine and completely closed. Five days later a large quantity of blood-stained fluid was let out. After this there was a slight serous discharge necessitating dressing two or three times a week. Injections of dioradin were commenced on May 3rd and finished on June 20th. The patient was sent home on July 6th with the wound healed. Though he was not weighed, he appeared to have put on flesh.

CASE XX.

S. M., female, aged 24, admitted April 11th, 1912. An angular deformity existed in the mid-dorsal region which had been coming on for about a year, with great pain in the back and also radiating round the lower part of the chest; paraplegia was also well marked. She was kept flat on her back for over four months. The paraplegia increased till all movement of the lower extremities was lost except slight contraction of the great toes. Pain also increased. An x-ray examination showed extensive disease of the fifth to the eighth dorsal vertebrae, with a large mediastinal abscess. On September 14th the right transverse process of the sixth vertebra was removed and the head and neck of the corresponding rib; the abscess was opened, and nearly a pint of pus and caseous material removed. The cavity was filled with 2 per cent. formalin in glycerine and the wound closed in layers. A slight serous discharge from the lower angle of the wound began after ten days, and has not quite ceased yet. Forty injections of dioradin were given between September 16th and November 5th. The condition of the patient has much improved; she has very little pain now and some movement of the legs has returned. It is hoped that she may be put in plaster shortly and get up and about with the aid of crutches. She has not been able to be weighed, but she has evidently put on flesh.

CASE XXI.

H. S., male, aged 18 months. Admitted November 6th, 1911. He was in hospital in the previous June with tuberculous dactylitis of the left middle finger, which was amputated; the wound healed slowly. On admission the patient had a discharging sinus of the right ankle, the finger stump was discharging, there were enlarged glands in the right submaxillary region, also in both groins, and there was a sinus on the right arm. He was given a course of forty injections of ½ c.cm. of dioradin between December 6th and February 12th. The os calcis was scraped out on November 14th. The submaxillary glands were removed on January 9th; his weight increased 2 lb. The finger stump healed, also the submaxillary incision; but the os calcis still discharged and necessitated further operations on February 20th and March 12th. He left hospital some time later with his condition not much improved.

CASE XXII.

E. Q., aged 7½, a delicate looking boy, was admitted on November 29th, 1911. Swelling and pain of the right knee began four months before. The joint was 1 in. larger than the left; an x-ray examination showed early erosion of the end of the femur. There was marked tenderness, and pain at night. There was no fluctuation. Forty injections were given between December 4th and February 8th. He developed diphtheria while in hospital, and was discharged with his knee in plaster on February 22nd. The gain in weight was 3½ lb. He was seen in the dispensary, and was going on well. Towards the end of May he developed signs of tuberculous meningitis, and died in ten days.

CASE XXIII.

J. A., male, aged 16. Admitted October 21st, 1911. He had pleurisy of the left side, but no signs of phthisis. While in hospital a lump was discovered in the left epididymis; it increased in size, and was tender. He was given eighteen injections of dioradin; he increased 3½ lb. in weight, but the nodule increased in size. He was operated on on December 9th. The testicle was removed; there was a large caseous mass in the epididymis, semi-liquid in the centre, which was beginning to burst through the coverings. The wound healed, and the patient was discharged December 23rd.

CASE XXIV.

M. L., female, aged 4. Admitted June 6th, 1912. She showed all the signs of early tuberculous disease of her left hip. Extension was applied, and she was given a course of forty injections of ½ c.cm. of dioradin. She was put in plaster and discharged on July 27th. She was in the dispensary recently; the hip was still in plaster, and she was walking well without crutches and with no pain. The record of her weight was lost, but it had increased.

CASE XXV.

R. W., female, aged 18. Attended as out-patient from February 23rd to April 8th, 1912. She had enlarged glands in her neck, there were two scars on the right side, and one on the left where the glands had broken down, and discharged on

three occasions, the last time about six months before. She was given twenty-six injections of dioradin on alternate days. The glands disappeared, her general health greatly improved, and she increased 3 lb. in weight.

CASE XXVI.

J. D., male, aged 18 months. Admitted December 20th, 1911. The left eye had been eviscerated at the Royal Victoria Eye and Ear Hospital for anterior staphyloma the result of tuberculous ulcer. There was a copious discharge from both ears, extensive ulceration under right eye, discharging ulcers on backs of both hands; the right foot was also discharging, and there was a large cold abscess on the left ankle. The temperature varied from 97° to 101°. The weight was 1 st. 1½ lb. Forty injections of ½ c.cm. of dioradin were given between December 22nd and February 16th. By this time his weight had increased by 1 lb., his temperature was normal, and he was taking his food better; the discharge from the ears and ulcers was about the same. On March 1st a large piece of dead bone was removed from under the right eye, after which this wound healed; otherwise the patient did not improve further, and was discharged some time later.

CASE XXVII.

N. B., female, aged 16. Admitted June 19th, 1912. There was tuberculous disease of the right ankle, present for nearly a year; the joint was greatly swollen, and there was great pain on any movement, but the skin was unbroken. Forty injections were given between June 20th and August 14th, and the foot was put in plaster. The plaster was removed on September 10th, the swelling was greatly reduced, there was almost no pain on movement, and she had increased 2 lb. in weight. The plaster was reapplied, and the patient was sent to the country on October 7th, 1912.

CASE XXVIII.

K. L., female, aged 13. Admitted June 10th, 1912. She had tuberculous disease of the right ankle, which was enormously swollen, with several sinuses, both knees were contracted, and there were numerous superficial tuberculous lesions over both thighs, also enlarged glands in her neck. Forty injections were given between June 20th and August 6th. She increased 3 lb. in weight. She developed phlyctenular conjunctivitis and an ulcer, which healed. There was no definite improvement, and she left hospital on September 28th, 1912.

Dividing these 28 cases into two classes according to the presence or absence of sepsis, there were 15 in which there was no sepsis and 13 in which sepsis was a complication. In the first class there were 7 apparent cures (46.6 per cent.), 4 cases of great improvement, which will probably result later in cures (26.6 per cent.), 2 cases showing some improvement (13.3 per cent.), and 1 case which progressed steadily in spite of the injections and had to be operated upon. Finally, there was 1 case which first improved rapidly and gave hopes that it would go on to a cure, but afterwards developed tuberculous meningitis and died. In the second class of 13 cases there were 4 apparent cures, 2 were greatly improved and will probably become cured, 1 was somewhat improved, 5 showed no improvement, and 1 which improved for a time died later of acute nephritis.

Cases uncomplicated by Sepsis.

Case No.	Disease.	Apparent Cure.	Great Improvement (Probable Cure).	Some Improvement.	No Improvement.	No. of Injections.
I.	Pott's caries (early)	+				80
IV.	Tuberculous knee		+			80
VI.	Tuberculous ankle	+				80
IX.	Tuberculous hip (large abscess)	+				80
X.	Tuberculous hip (early)	+				40
XV.	Tuberculous knee		+			120
XVI.	Tuberculous hip (early)	+				60
XVIII.	Pott's caries (large iliac abscess)		+			40
XIX.	Pott's caries (large iliac abscess)		+			40
XX.	Pott's caries (mediastinal abscess)			+		40
XXII.	Tuberculous knee		+*			40
XXIII.	Tuberculous epididymitis				+	18
XXIV.	Tuberculous hip (early)	+				40
XXV.	Tuberculous glands	+				26
XXVII.	Tuberculous ankle			+		40

* Died later of tuberculous meningitis.

Cases complicated by Sepsis.

Case No.	Disease.	Apparent Cure.	Great Improvement (Probable Cure).	Some Improvement.	No Improvement.	No. of Injections.
II.	Tuberculous cystitis	+				80
III.	Tuberculous hip (late septic)	+				120
V.	Multiple foci	+				40
VII.	Multiple foci	+				60
VIII.	Hip (septic)				+	40
XI.	Hip (late after excision)			+*		80
XII.	Cystitis (probable nephritis)				+	40
XIII.	Ascites and fibroid phthisis		+			80
XIV.	Lupus			+		40
XVII.	Wrist		+			80
XXI.	Multiple foci				+	40
XXVI.	Eye, ear, and multiple foci				+	40
XXVIII.	Ankle and multiple foci				+	40

* This case died later of acute nephritis.

In the whole 28 cases there were 11 apparent cures—1 case of Pott's caries without abscess formation, 2 cases of multiple foci, 3 cases of hip disease in an early stage, 1 case of hip disease with a large abscess, 1 case of hip disease in very advanced stage with septic infection, 1 case of advanced disease of ankle, 1 case of cervical glands, and 1 case of cystitis.

In 7 cases there was great improvement, which in some will probably result in cure—1 diseased wrist, 2 cases of Pott's caries with large psoas abscess, 1 case of ascites and fibroid phthisis, and 3 cases of disease of the knee; one of the latter, however, died later from tuberculous meningitis.

In 4 cases there was some improvement—1 case of lupus, 1 case of Pott's caries with mediastinal abscess, 1 ankle, and 1 late case of hip disease after excision and with septic infection, which after considerable improvement died of acute nephritis. In 6 cases there was no definite improvement—1 case of advanced septic hip, where it was doubtful if there was tuberculous disease, 1 case of advanced cystitis with probable involvement of both kidneys, 3 cases of very extensive and advanced multiple foci, and 1 case of acute epididymitis; this latter is really the only marked case of failure, the other 5 were all very bad advanced cases where no treatment could be expected to do much or any good, but this, though an early case, progressed steadily and rapidly while the injections were being given, and at operation the process was found spreading extensively.

As the result of this extended trial of dioradin, I have come to the following conclusions:

1. Dioradin injections are not a certain cure for all cases of tuberculosis; in some cases they will produce a cure more rapidly and more certainly than any other treatment I have had experience of.

2. Early cases of joint disease treated by injections, combined with ordinary methods of rest, good food, etc., will recover more rapidly and more surely than when treated without these injections. The same is probably true of glandular and other surgical affections.

3. In advanced cases with abscess formation, if injections are started before or at the time the abscess is opened, the abscess will usually heal rapidly, the tuberculous process apparently comes to an end, and a cure results in a large proportion of cases.

4. Finally, in those cases complicated by septic infection dioradin injections will generally reduce the temperature to normal, increase the appetite and weight, and lessen the amount of discharge, and in some cases even bring about a final cure, as in Cases III, V, and VII.

After giving over 3,000 injections I can say that I have never seen any harm, either local or constitutional, result from them; it is usually advised that they should be given intramuscularly, but it is just as good to give them subcutaneously: they cause no pain, and have never in my

experience led to abscess formation. Disease of the kidneys is usually mentioned as a contraindication, and Case XI, which died of acute nephritis after two courses of injections, might be thought to point to this; however, the symptoms of nephritis did not start for more than three weeks after the second course was concluded, and there had been septic absorption with a septic temperature off and on for more than twelve months. Also in a case of advanced phthisis, when the urine was loaded with albumen, I gave forty injections on alternate days with no apparent harm to the kidneys. So, if care is exercised and the injections are given every second day instead of daily, even kidney disease need prove no insuperable bar to this method of treatment.

In conclusion, I must acknowledge my indebtedness to Dr. Bernheim of Paris, who has generously provided me with the material used in the treatment of these cases, and also to my colleagues at the Royal City of Dublin Hospital, who have kindly allowed me to try this method on some of their patients, and have seen and examined many of the cases whose history I have brought before you to-night.

Reference.
[1] *Medical Press and Circular*, March 27th, 1912.

GASTRIC HAEMORRHAGE AND OTHER COMPLICATIONS IN A CASE OF CHILDBIRTH.

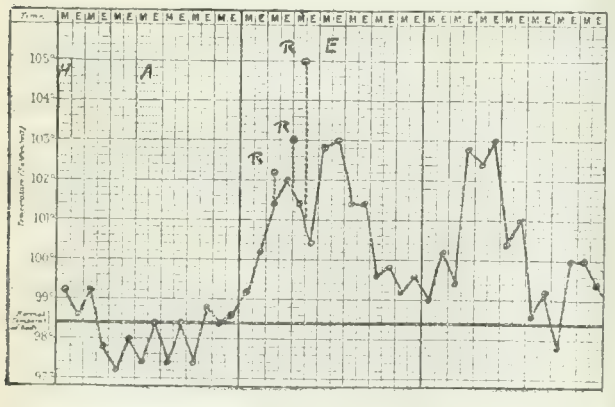
By W. D. STURROCK, M.A., M.D.Oxon.,
Oxford.

In recording the following case I wish to state facts rather than to draw conclusions, and to seek information rather than attempt to impart it; at the end of the description, however, I have ventured on a few tentative suggestions.

The patient, a primipara aged 43, was delivered on August 9th, 1912. The history of the confinement and of the *post-partum* period is somewhat remarkable.

The *ante-partum* history was uneventful save in one particular - that for three weeks before labour micturition was performed with great difficulty. The urine was examined from time to time during this period, but showed no trace of either pus or albumen; nor were there any other symptoms of pyelitis.

The patient was of excellent physique and constitution, with a roomy pelvis, and there was no reason to fear any special difficulties, though a prolonged labour was likely, in view of the age of the patient, and consequent rigidity of the soft tissues. This was exactly the case so far as the mechanical processes of labour were concerned; there was no bony obstruction, but the cervix dilated with extreme difficulty, and, further, the uterine contractions were for twenty-four hours distinctly weak. Progress was, therefore, extremely slow, and the application of



H, Gastric haemorrhage; A, acetonuria; E, septic endometritis, *B. coli* and staphylococci; R, rigors.

high forceps was considered, but, since the general condition remained excellent, was rejected for the time being. Shortly after this decision the pains became much more vigorous and progress more rapid; but before long, though the pulse-rate never exceeded 84, the patient became noticeably restless, and very noticeably thirsty. In view of this state of affairs, and since the perineum was obviously offering great resistance, I applied forceps.

Severe Gastric Haemorrhage.

Here we obtained evidence of the first untoward occurrence. Under the anaesthetic (chloroform) the patient vomited a very large quantity of blood, which I should judge had been lost into the stomach some three or four hours previously. To judge of quantities under such circumstances is obviously extremely difficult, but to all of us present an estimate of two pints appeared very moderate. This haemorrhage, together with the length of the labour, fully explains the restlessness and thirst described above; it is only remarkable that there was no greater effect on the pulse.

Delivery was effected as rapidly as possible: the uterus contracted reasonably well, the placenta was delivered intact, and there was no remarkable bleeding: the uterine haemorrhage, however, together with the gastric, constituted a serious loss of blood and necessarily caused some anxiety. The good condition of the pulse was fortunately reassuring, and it soon became evident that the patient, though seriously weakened, was no longer in imminent danger. The weakness and the bruising and laceration of the soft tissues made the patient particularly liable to septic trouble. I did not, however, give an intra-uterine douche but ordered vaginal douching; I do not, as a rule, douche either uterus or vagina.

The gastric haemorrhage led to further trouble from the fact that it produced intense heartburn, which practically prevented the patient from taking any nourishment. She was encouraged to take frequent small drinks of water; in addition to this the usual fluid nutriments were tried in turn, but for forty-eight hours the only practicable diet was peptonized milk in drachm doses. In consequence of this limitation of diet the patient was still further weakened; as was natural, the secretion of milk was entirely suppressed.

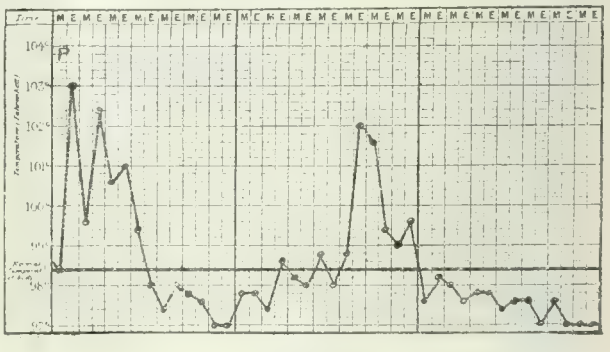
Acetonuria and Acidaemia.

By the fourth day, though nourishment was much better taken, and though the pulse was good and the temperature normal, fresh symptoms supervened; the patient was drowsy, listless, and mentally confused, her memory greatly at fault, and her conversation irrational. She was obviously extremely ill, but I was greatly puzzled to find the cause; true mental disturbance naturally suggested itself, but I did not believe this to be the correct solution.

By the aid of Dr. Eardley Holland, whom I called in in consultation, and to whom my best thanks are due, the cause was eventually found in the presence in the urine of large quantities of acetone and di-acetic acid. To relieve the acidaemia rectal injections were given containing sodium bicarbonate and glucose in solution; though they were retained for some time, there was practically no absorption of fluid. I believe recovery was commencing before this treatment was adopted; none the less, it is very possible that, though the bulk of each injection was returned, the crystalloid substances in solution may have been partly absorbed. In any case, however, the patient improved rapidly, the injections were discontinued, and by the seventh day she appeared to be out of danger.

Septic Endometritis (B. coli and Staphylococci).

On the eighth day the temperature rose to 100.2°; coincident with this rise there was marked tenderness of the breasts, which, in the absence of any sign of uterine trouble, appeared amply sufficient to account for the disturbance. Three rigors, however, supervened, in the last of which the temperature rose to 105° and the pulse to 150; the breasts at the same time became less tender, and it was clear that a further cause must be sought. The lochia had throughout been inoffensive but not suppressed, and there was no uterine tenderness; involution had, however, not been perfect, and the organ was somewhat



P, Pyuria, *B. coli*.

flabby. Examined under an anaesthetic by Dr. Holland, the cervix was found to be rather patulous, and the endometrium smooth and thickened; there was no visible discharge, but culture tubes inoculated from the uterine cavity developed a few small colonies of *B. coli* and staphylococcus, the former preponderating. Two blood cultures which I prepared the next morning were entirely negative. Vaccines were prepared from the culture colonies and held in readiness, but were never used, and treatment consisted of intrauterine douching twice daily and quinine by the mouth. The uterus contracted well, and the temperature soon fell, but rose again on the sixteenth day to 103.2°; the patient again went through a spell of fever,

this time without any rigors. The uterus throughout this attack appeared quite normal. The temperature again fell, but rose once more on the twenty-second day.

Pyelitis (B. coli).

I had examined the urine regularly every other day, and found nothing amiss save a considerable quantity of urates; the acetone had gradually diminished, and was by now scarcely to be detected. At this stage, however, a turbid deposit appeared, after solution of urates, which under the microscope was found to consist of pus with a few granular casts; a catheter specimen was drawn off into a sterile bottle, and from the pus a pure culture of *B. coli* was obtained.

The patient was given urotropine and bland fluids, and it was hoped that the condition would turn out to be pure pyelitis and not pyelonephritis; this was, fortunately, the case, despite the presence of casts, and though there was a further relapse on the thirty-third day the temperature settled down for good on the thirty-sixth; three weeks later the urine was completely free from pus or albumen. The patient is now in good health and steadily recovering her normal vigour.

The patient was, I believe, in the gravest danger on three separate occasions: First, from the loss of blood occasioned by the combined gastric and uterine haemorrhages; secondly, from acute acidaemia; and, thirdly, from septic infection with her resistant powers reduced by loss of blood, lack of nourishment, and also, probably, by the acidaemia.

Gastric haemorrhages during labour, at any rate of a severe type from a healthy stomach, are, I believe, very rare, though they have been recorded, as have also intestinal and intraperitoneal haemorrhages. In this instance the patient had shown no sign whatever of any previous abnormal condition of the mucous membrane. I believe the stomach was perfectly healthy.

The acidaemia opens up a large field of inquiry; the three questions immediately arise—(1) whether the urine already contained acetone before labour commenced; (2) whether, if so, the protracted labour increased the amount; and (3) whether the condition was partly or wholly one of delayed chloroform poisoning. Not much chloroform was administered; a little was given during the pains when the head was reaching the perineum, but it was discontinued at the patient's request, and the delivery by forceps was quite a short process; certainly there was far less chloroform given than is frequently the case. I am quite unable to give an answer to these questions; I understand, however, that there is a growing belief among some obstetricians that there is considerable danger in the administration of chloroform in the free manner so usual during confinements.

The septic infection also raises an interesting point. I am obviously unable to prove that the germs were not introduced from without; the facts, however, that the soft tissues were much bruised and the perineum lacerated, that the patient was in an ideal condition for the successful lodgement of germs, and that there was no disturbance until the eighth day, make it unlikely that pathogenic germs were introduced by an exploring finger. The question which particularly interests me is that of the possibility of the urine having contained *B. coli* before the confinement and throughout the subsequent illness. The frequency of pyelitis, when micturition is seriously interfered with in the *ante-partum* period, is well known; here was a case of serious interference with micturition, but without any albuminuria, pyuria, or other signs of pyelitis. Under the circumstances the idea of looking for bacilli did not suggest itself to me; but it appears to me conceivable that there may have been bacilli in the urine, even though actual pyuria did not appear until twenty-two days after confinement. Were such bacilli present, a secondary infection of the uterus does not seem a far-fetched idea.

Lastly, it is worth mentioning that throughout the illness we were handicapped by the great depression of the patient. This could obviously be largely accounted for by the nature, both general and specific, of her long illness, but was unquestionably also of a true psychical nature. The child, who, it may be mentioned, was with great difficulty induced to breathe, was born with a hare-lip and cleft palate; his advent had been greatly longed for by the mother, and his deformity was an intense and lasting disappointment. A successful operation by Mr. Berry on the hare-lip had a very noticeable effect on the patient's ultimate recovery.

A CASE OF CARDIAC ASTHMA.

BY

CLAUDE WILSON, M.D.,

TUNBRIDGE WELLS.

A FEW months ago there was some correspondence in these columns as to whether the term "cardiac asthma" was properly applicable to any clinical entity, and, if so, to what. The following case illustrates the condition which this, and no other term, connotes, and to which the appellation should, I believe, be confined:

C. M., aged 71, a retired clergyman, gouty manifestations for many years, albuminuria and casts for several, and dyspnoea on going uphill or stairs for some months. Heart sounds pure, pulse regular, and blood pressure 160 to 180. Sudden angina pectoris a month ago; two or three moderately severe attacks, followed by "gouty conjunctivitis" in both eyes—one after the other (similar to many previous attacks). Great prostration and dyspnoea on slight movement in bed. Insomnia. Pulse regular, 80 to 90; blood pressure as above; heart sounds pure. Gradual convalescence, first walking into an adjacent room with help on December 26th—a process which was repeated twice on December 27th, the patient feeling better than at any time since the original seizure. Bromides, chloral, veronal, paraldehyde, hyoscine, heroin, and morphine had been used from time to time, none of which affected adversely the heart or the renal secretion. The patient settled for the night at 10 p.m. on December 27th, and as a wakeful night seemed probable heroin gr. $\frac{1}{36}$, which had proved efficacious on two occasions, was injected. Sleep was not obtained; the patient was not comfortable, and at 1 a.m. on December 28th the attack of cardiac asthma developed suddenly. I reached the house at 1.40, to find the patient in a very alarming condition, with the family and two nurses assembled in the room, or just outside, anticipating death. The following notes show the clinical picture presented and the subsequent course of the attack:

1.40 a.m. Patient raised on a pile of pillows. Face and neck congested and cyanosed. Hands and forearms cold, pale, and clammy. Respirations rapid, gasping, oral, 48 per minute. Pulse irregular ("absolutely") and uncountable. Heart, "delirium cordis," no murmurs. Coarse mucous rales all over both sides of the chest anteriorly and laterally; back not examined. Amyl nitrite had failed to relieve.

1.45 a.m. Injection of strychnine and digitaline āā gr. $\frac{1}{60}$, with morphine gr. $\frac{1}{3}$, into left arm subcutaneously. Oxygen administered from cylinder.

1.55 a.m. Aspect easier, respirations 36.

2.10 a.m. Comfortable. Respirations 28. Pulse about 100, and nearly regular.

2.20 a.m. The patient told his wife to go to bed. He was "all right." Slept and dozed all night, taking nourishment once or twice.

8 a.m. Moving easily in bed, and turning from side to side without assistance. Pulse, 82; regular in time, and nearly so in volume. Heart sounds normal. No rales audible anywhere. Respirations 18.

8 p.m. Has spent a very comfortable day in bed.

It would be easy to comment on this case and to speculate on its cause and true nature, as well as on the share the various remedies had in producing the improvement which so rapidly supervened after their administration; but the sole object of this communication is to give a brief clinical picture of "cardiac asthma" as I understand it.

Subsequent History.

Convalescence was resumed and there was no further attack of angina or dyspnoea till 6.30 p.m. on January 17th, when a second attack of "asthma" developed with abrupt suddenness. The clinical picture at 7 p.m. was the same as described above. The same remedies were used, but their effect was slower and no relief was obtained until another $\frac{1}{4}$ grain of morphine was injected. The distress was relieved by 7.45, but disturbed respiration, irregular fluttering pulse, and coarse rales over the lungs continued. The patient gradually sank and died on the evening of January 18th.

THE twelfth International Congress of Ophthalmology, to be held in 1914 in St. Petersburg, will begin on Monday, August 10th (N.S.), and end on Saturday, August 15th. Members desirous of communicating reports are directed to forward the manuscript and inscription fee not later than February 1st, 1914; papers must be written in one of the official languages—English, French, German, Italian, Spanish, or Russian. The official subjects for discussion, selected at the proceeding congress at Naples, are, the etiology of trachoma and the nutrition of the eye. The President will be Professor Arnaldo Angelucci, chosen in homage to the committee of officers of the last congress. The corresponding members for the United Kingdom are Mr. Walter Jessop, London, Sir H. R. Swanzy, Dublin, and Dr. George Mackay, Edinburgh. Further information may be obtained from Mr. Jessop, and from Professor L. G. Bellarminof, Ophthalmic Hospital, 38 Mochowaja, St. Petersburg.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

EMPYEMA IN AN INFANT.

With reference to Dr. Cummings's memorandum (Journal, January 4th, 1913, p. 20) mentioning a baby four months old suffering from empyema, may I quote the following case in a much younger infant, with which I met last March?

I was asked to see a baby three weeks old, at whose birth I had attended, the complaint being that the infant had a cough. The temperature was 102°; dyspnoea and a croupy cough were present. On examination of the chest the following condition was found: Right side, normal in front and behind; left side, in front resonant, and a few râles over the upper lobe; behind, at the left base the resonance was much impaired, with distant breath and voice sounds. Next morning marked bronchial breathing was heard over the left upper lobe in front, while behind marked dullness was present from the base up to the spine of the scapula. Breath and voice sounds were diminished over this area. Exploration showed the presence of pus, some of which was aspirated; later a piece of rib was resected. The infant passed through the operation well, but unfortunately died next day.

West Hoathly. Cecil Worster-Drought.

STRANGULATED HERNIA IN YOUNG INFANT.

On August 3rd, 1910, when I was house-surgeon to the Liverpool Infirmary for Children, J. E., aged 1 month, was admitted suffering from right strangulated inguinal hernia. Attempts at reduction by taxis and by raising the pelvis and applying ice having failed, the skin was prepared with lysol and spirit soap, and an attempt at taxis under anaesthesia having also failed, I operated. A loop of dark purple small bowel was released, but could not be returned till the ring was nicked (1 drachm of fluid in sac). The sac was transfixed, tied, and cut away. The ring was closed with two or three catgut sutures, and the skin with horsehair and a silkworm gut relaxation stitch. A dressing of collodion acetonum and wool was applied.

Twice during the operation the child stopped breathing and needed artificial respiration. This possibly accounted for faulty haemostasis, which produced a haematocele by next day, but this cleared up without interference, and the wounds healed by first intention. On August 11th I circumcised the child, as it had a bad phimosis.

Bute, South Australia. Gilbert Brown.

RECOVERY AFTER TAKING LARGE DOSES OF CORROSIVE SUBLIMATE.

Mr. A. Leonard Fuller reports in the British Medical Journal of January 18th, p. 116, a case of recovery after taking 8¾ grains of corrosive sublimate. It may be of interest to record that I have had two such cases.

I was called to see Mrs. A. on the day after confinement, and found her collapsed, pulseless, and apparently dying. On inquiry I discovered that a soloid which I had unwisely left to prepare a lotion had been administered to her by a somewhat bibulous attendant. Fortunately immediate vomiting brought up a greater part of the soloid undissolved. Eggs were administered freely, and stimulants and later intestinal sedatives; after a few days of anxiety she was well again.

At Marseilles, while acting as ship surgeon, a passenger inadvertently swallowed the whole solution he had made with an 8¾ grain soloid, not noticing his mistake owing to a rather too festive evening ashore. He was forced to take eggs to the number of, I think, a dozen, and after abdominal pain for a few days was well. In this case also immediate vomiting, owing to the intensity of the poison, saved the patient.

The above experiences have taught me the danger of entrusting such powerful poisons to persons unless assured of their sanity and sobriety.

Ferguson Floyd, M.B.,
Medical Officer, Kilkeel Union Infirmary.

Reports

on

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

CHELTENHAM GENERAL HOSPITAL.

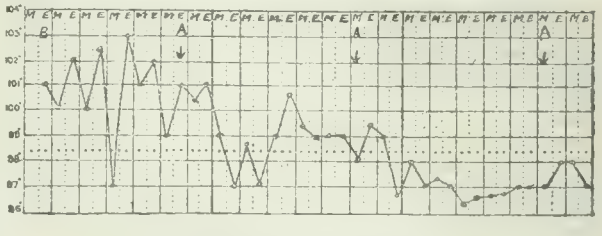
RHEUMATISM AND CHOREA.

(By J. Rupert Collins, M.A., M.D., Honorary Physician.)

The important paper of Dr. Branson on the Avenues of Rheumatic Infection, published in the British Medical Journal of November 23rd, 1912, in which he alludes to the relationship between rheumatism and chorea, may render a brief note of the following case of interest.

N. Y., a servant girl, aged 18, was admitted under my care in January, 1911, suffering from severe chorea. She was so violent and difficult to control as to necessitate the use of padding round the sides of the bed, to prevent her hurting herself, and the constant care of a nurse. Arsenic and various kinds of sedatives—including bromides, chloretone, chloral, and morphine—were tried with little or no benefit. A hot pack at night quieted her to some extent, and this was employed for some weeks. Thyroid extract was tried and was followed by a very marked improvement for four days, when the patient's choreic movements became even more violent than before, and she looked so ill as to raise grave doubts as to her recovery. On January 21st I made a lumbar puncture, and 15 c.cm. of clear cerebro-spinal fluid came away freely. The patient was very quiet following the rachicentesis, and had a good night's sleep. Hitherto she had been much troubled with insomnia. The cerebro-spinal fluid proved sterile and free from cellular exudation. The improvement only lasted a few days. On January 30th I drew off 50 c.cm. of blood from the median basilic vein into a flask containing 60 c.cm. of ordinary nutrient broth and 25 c.cm. into a similar flask containing lactic acid lactose milk broth. When incubated the former flask proved sterile, but the latter yielded a pure culture of a diplococcus. This coccus grew in twos and in short chains of four and six, but no long chains were found. It grew fairly vigorously on agar and was Gram-positive, but not strongly so, a long application of alcohol decolorizing it. A vaccine was prepared of this organism, and on February 6th I inoculated 10 million and on February 7th 50 million of this vaccine. The patient began to improve almost at once after the first injection. On February 9th she was well enough to allow of her bed being pushed on to the balcony, and on February 11th she was able for the first time since her admission to feed herself. On February 14th the sister of the ward showed me that she could now hold a cup without spilling the contents. She continued to improve steadily, and was discharged from the hospital on March 14th. As there was still a tendency to jerkiness when attention was drawn to her, she attended at the hospital for three months as an out-patient, receiving an inoculation once a week for some time after all trace of her unsteadiness had ceased.

Shortly after the above patient was discharged, a girl, M. H., aged 19, was admitted suffering from a second attack of typical rheumatic fever. This patient had a



A = Inoculation with vaccine, 100 million each time.
B = Admission to hospital.

mitral systolic bruit, and her knee and hip joints were swollen and tender. She was given no other treatment than injections of the vaccine prepared from the above case, and her temperature, as figured in the chart, showed

an improvement, which was accompanied by a general improvement of her other symptoms. Her temperature remained down, and she made a good recovery. No doubt it will strike some as being merely a coincidence. Perhaps it was. As the nature of the organism was not investigated by the inoculation of animals I have hitherto abstained from publishing the case, and do so now with diffidence and simply as of some possible interest in relation to Dr. Branson's paper.

Reports of Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Friday, January 10th, 1913.

Mr. R. D. PUREFOY, F.R.C.S.I., President, in the Chair.

Tuberculosis of Lower End of Femur.

MR. W. I. DE C. WHEELER exhibited three cases of tuberculosis of the lower end of the femur in children, illustrating recent pathological and anatomical work on this subject, and spoke on the pathology of tuberculosis in bone. In each of the three cases the disease occurred at the site of election, the metaphysis, and in each case the femur was divided with a Gigli's saw above the diseased area and wrenched from the epiphysis. New bone was rapidly formed, with excellent results. *X*-ray photographs showed the accurate and complete manner in which the new bone replaced that which was removed. The first case was operated upon in 1909, before any work on the subject had been published. The reason the metaphysis and not the epiphysis or diaphysis was the site of election for tuberculosis in bone was anatomical. The infection was haemogenic, and could be traced in most instances to the milk supply. The nearer the metaphysis was to the joint the more readily the joint became affected, as was seen in the case of the elbow and hip. Mr. Wheeler said that scraping, curettage, and drainage were unscientific methods only to be employed when there was some special reason for not performing the ideal radical operation. Mr. J. BOYD BARRETT asked Mr. Wheeler to illustrate a little of the after-treatment. Mr. W. PEARSON considered that this method of treatment was the only sound practice in dealing with a bony cavity of any large extent. He was of opinion that some extension was necessary while the new bone was forming, otherwise there would be a great amount of shortening of the limb, and he had no doubt that even in the cases shown there would be some shortening. Possibly a less extensive operation, not involving the excision of the whole circumference, might be helpful. He was much interested in the cases, which illustrated how rapidly the bone formed in young subjects. Mr. HAUGHTON said that the cases proved the excellence of the operation. His experience was that the vital point in the treatment was the removal of all disease. *X*-ray photographs should be relied on to ascertain the extent of the disease, and the operation could then be planned precisely. He referred to his experience with osteomyelitis, and said that complete removal of the diseased bone was followed by complete recovery. In a recent case he had removed about 8 in. of the diaphysis of the femur, and when the sequestrum was removed there was a 3-in. gap. Extension was put on, and in three months' time the wound was healed, and in six months' time the patient was walking on a new column of bone. Mr. MAUNSELL said that he thought that a great many of these cases were looked on as tuberculous which were really septic osteomyelitis; but he had no doubt that afterwards they had become tuberculous. He was in agreement with the removal of all diseased tissue, but he had seen cavities which had not been laid thoroughly flat, and they healed up perfectly well. In osteomyelitis cases, either tuberculous or non-tuberculous, he thought that it was not wise to proceed with great haste, and that they should be guided by *x* rays. He thought that certain cases would heal up with a much more modified operation than the total removal of the diaphysis. These cases taught the surgeon not to be afraid of removing a large quantity of bone. The PRESIDENT related a case under Dr. Barton, a boy with four-fifths of one tibia in a shocking condition from chronic disease of the bone. The sequestrum was removed, and the boy made an extraordinary recovery, and a couple of years afterwards had grown to nearly 6ft. in height. Mr. WHEELER, in reply, referred to the after-treatment. He said that this seemed important at first sight, but he found that 7 lb. or 8 lb. of sand-bags were good enough for the pull. He pointed out that the interesting part of the subject was really new, and that it was first pointed out by Lexer, who showed that all the blood vessels anastomosed in this region, and that contusions and sprains easily set up tuberculous abscesses in the joint. With regard to Brodie's abscess, he would like to dissociate himself from everything but tuberculous disease. As to the periosteum being adherent in each of the three cases, he found it easy to separate that membrane. He used bismuth paste and iodoform, and did not attempt to fill up the cavity. The cases were very chronic when he got them, and there was no hurry about them. In the first case he had tried scraping without effect.

Scapular Crepitation.

Mr. W. PEARSON showed a child, aged 7, who first came to him about two years ago for creaking in the shoulders. The condition was first noticed after an attack of measles. Symmetrical crepitations were to be found on moving the scapula. *X* rays showed nothing to account for this. Massage and fibrolysin injections were tried, but there was no apparent change in the condition. The crackling was quite audible. There might be cartilaginous formation or exostoses, which might be so small as not to be shown by *x* rays. There was nothing in the muscles to account for the peculiarity, and there was certainly nothing in the joint. Mr. MAUNSELL suggested hysteria. He had a patient under his care who could make a similar kind of grating with both knees. He knew of another girl who could crack her knees as loud as a carter's whip. The PRESIDENT said that, although unwilling to hazard any observations on a purely surgical question, he had in mind the case of a young girl in which the movement of one knee was attended by a cracking sound that caused her discomfort, but he thought the condition afterwards disappeared. He looked on the case as of rheumatic origin. Mr. WHEELER suggested the possibility of some myositis ossificans affecting some of the muscles. Mr. PEARSON, in replying to the remarks, said he was not inclined to look on the condition as hysterical on account of the child being so young (only 5 years old when first seen). Myositis ossificans ran into his mind, but if this was the cause he thought the movements should be somewhat restricted, and something should be seen by the *x* rays.

Aneurysm of Abdominal Aorta Cured by Operation.

Mr. R. CHARLES B. MAUNSELL showed a woman, aged 30 years, upon whom he had operated on August 3rd, 1912, for cure of a large aneurysm of the abdominal aorta in the region of the coeliac axis. Before operation the aneurysm had a diameter of over 7 in., pulsated violently, and caused much pain. The operation consisted in abdominal section and the insertion of a Colt's wire wisp, which measured 5 in. and contained 150 in. of wire, having a surface area of 3½ sq. in. On the eighth day after operation she was allowed fish, etc., and on the eighteenth day she was permitted to sit in a chair, but she did not leave hospital until November 5th—three months after operation—as she would have had to work for her living as soon as discharged. Her present condition was excellent; she was free from pain and was able to do ordinary work, including the scrubbing of floors. There was a firm, hard mass, of about 3 or 4 in. diameter, to be felt in the epigastrium, which pulsated with pulsations transmitted from the aorta, but exhibited no distensile pulsation. There was a mitral bruit to be heard over the heart, but the loud bruit over the aneurysm had disappeared. *X*-ray examinations did not show any distensile pulsation. Mr. C. A. BALL inquired if a Wassermann's reaction had been done, as the case seemed to be of syphilitic origin, and also if any antisyphilitic treatment had been given in addition to the operation. Mr. WHEELER said that he had treated three patients by a similar method, and he thought it was important that every such case should be published, seeing that abdominal

aneurysm was not frequently seen. All had pain like Mr. Maunsell's, which disappeared in a few days after operation. His first case was very similar to Mr. Maunsell's, and it was now done two years, and the man had been working ever since. One ended fatally, but it was complicated by an enterostomy. Mr. MAUNSELL, replying to the remarks, said that a Wassermann's reaction had not been done, but he had no doubt the case was of syphilitic origin. The first case he had met with was in a man who was under treatment for vomiting, and the aneurysm was not discovered until *post mortem*. The second was in a woman who was supposed to need a gastro-enterostomy. The fourth was also a stomach case, and it was accidentally that the aneurysm was found. He had seen seven aneurysm cases, but in only two had he operated.

Child with Webbed Fingers and Toes.

Mr. J. BOYD BARRETT showed a child with webbed fingers and toes. There were six toes on each foot, and the amputation of the outer toe was contemplated. As two of the fingers were adherent, Didot's operation was proposed, lest the deformity should interfere with growth. The PRESIDENT referred to a case of a similar nature, in which the mother of the child exhibited a similar deformity. Mr. MAUNSELL said that recently he kept a patient with extra digits in hospital for a long time, and removed them and separated the fingers. He would advise not doing too many fingers at once; the skin could be brought together perfectly if they were drawn apart and a little of the fat cut out. His method of grafting was to stitch the edges. The hands were now absolutely normal. Mr. J. BOYD BARRETT, in replying, said he was in full agreement with Mr. Maunsell's remarks.

SECTION OF PATHOLOGY.

AT a meeting held on Friday, January 3rd, Professor A. H. WHITE, President, in the chair, Dr. W. G. HARVEY showed a car-driver, aged 39, suffering from *Norwegian scabies*, with specimens under the microscope. His general health had always been good. The eruption commenced ten years ago on his hands and fingers, and remained limited to them till recently. About two years ago his hands were *x* rayed, the condition having been probably regarded as a form of hyperkeratosis. He came under the care of Dr. Wallace Beatty, who found that the scalp was covered with abundant dry, greyish scales, forming in places a thick coating resembling psoriasis. The trunk was universally reddened (erythrodermia), the skin somewhat thickened, especially of the back, and the surface was covered more or less abundantly with dry scales, causing roughness in most places, but on certain prominent parts—on the shoulders over the scapulae—the scales formed a thick, dry, hard, adherent coating, and places on the back showed traces of moisture suggestive of an eczematous state. There was an extremely heavy coating of dry adherent scales on the prominences of the hips over the trochanters and on the buttocks, especially the right buttock, on which the patient rested, on account of achondroplasia of the thigh, present on the left side. The extensor aspect of the elbows was covered with thick, heaped-up, dry, adherent scales; the arms showed patchy redness and scaling, but were not universally affected. The hands and fingers presented a remarkable appearance; projecting conical masses of dry, greyish scales were present over and round the nails. There were also smooth scaly masses, readily detached with the blade of a forceps once the edges had been raised all round. This method of removal caused much pain, so that the remainder were left for subsequent removal by softening in hot sulphur lotion. The toes were affected in a similar but slighter degree to the fingers. Mr. WILLIAM PEARSON showed a specimen of *Villous adenoma of rectum* from a female, aged 56, complaining of piles with attacks of diarrhoea and haemorrhage. The patient was a good colour, but stated she had been losing weight. Altogether the abdomen suggested chronic intestinal obstruction in the lower bowel. On rectal examination no haemorrhoids could be found, but the entire mucous membrane, from immediately above the anal canal to the upper limit which could be reached by the finger, felt soft and hypertrophied, with numerous polypoid masses. An exploratory abdominal incision was made through the left rectus muscle, when an enormously distended atonic colon and caecum were exposed, and it was seen that no growth existed above the rectum. The abdomen was then closed, and the specimen presented was removed by drawing it out of the anus with clip forceps and excising it as in Whitehead's operation for haemorrhoids. It stripped easily off the muscular coats of the bowel. Microscopic section of the growth showed no malignancy. Since the operation the patient had been quite free from symptoms, and control over the bowels was perfect. Dr. R. M. BRONTE showed two cases of *Ruptured thoracic aneurysm*. One had burst into the pericardial sac, the other was a dissecting-room specimen. It showed an aneurysm on both sides of the thorax, the left side dilatation causing extensive compression of the upper lobe of the lung. Both cases were associated with extensive pleurisy. Dr. T. T. O'FARRELL showed a specimen of *Rupture of the right ventricle*. The patient was a middle-aged man who had just fallen 62 ft., and was admitted dead into hospital. Several bones of the extremities were fractured. An examination of the thorax showed fracture of the second and third left costal cartilages, fracture of the sixth rib on the right side, and fracture of the sternum at the junction of first with second part. The pericardium was adherent to the sternum, but not to the heart, and was found full of blood, though not greatly distended; no definite perforation or laceration could be detected. The heart showed some excess of fat, and was contracted. The right ventricle was injured in two places. First, an irregular semicircular wound 1¾ in. long, beginning below the origin of the pulmonary artery, and extending downwards more or less parallel to and with its convexity towards the interventricular groove. Secondly, a punctured wound ½ in. in diameter slightly below the auriculo-ventricular groove, and at the point of junction between the middle third of a line drawn from the margo acutus to the interventricular groove. The injuries to the sternum and costal cartilages did not correspond to the generally accepted surface-marking of the right ventricle. The right ventricle was said to be covered by most of the middle portion of the sternum and the third, fourth, fifth, and part of the sixth left costal cartilages, none of which, with the exception of the sternum, were injured in the present case. The right auricle seemed more exposed to injury. The only explanation would appear to be that in falling the liver, which was enlarged, pressed the heart upwards.

MIDLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

Tuesday, January 7th, 1913.

Dr. MALINS, President, in the Chair.

THE PRESIDENT announced that the Council had accepted an invitation from the North of England Obstetrical and Gynaecological Society to take part in a joint meeting with the North of England, Glasgow, and Edinburgh Societies, to be held in Manchester upon some date to be fixed in May next.

Endothelioma of the Undescended Testis.

Dr. THOMAS WILSON read notes upon a case of endothelioma of the undescended testis occurring in a male pseudo-hermaphrodite aged 29. The patient, who had been brought up as a woman, sought advice on account of severe lower abdominal pain and of the passage of blood in the urine, said to represent a catamenial period. In the hypogastrium a fairly defined, rounded, tense, and elastic tumour extended from the pubes upwards to 2 in. below the umbilicus. The temperature and pulse were high, and there was troublesome vomiting. The patient had been carrying on the trade of a butcher in partnership with a woman. The voice was quite masculine; the cheeks, chin, and upper lip were covered by sparse coarse hair, ½ in. in length, forming a rudimentary beard and moustache. The hair of the head was fairly plentiful and nearly 3 ft. in length. The patient's figure was markedly feminine, although the breasts were small. The vulva presented an unusual appearance. The labia majora were thin, and between them was a deep cleft, in the anterior part of which was a penis-like organ 2½ in. long, with a well marked glans. A depression, but

no orifice, was present on the lower surface of the glans. An inch further back in the middle line was a urethra-like orifice. A catheter passed into this canal met with obstruction after passing about 1 in. It then turned upwards and forwards and entered the bladder. In the right labium majus was a small, elastic, tender body, which could be pushed upwards into the inguinal canal. The left inguinal canal and labium were empty. The pelvis was filled with a fixed tender swelling the size of a cocoanut. The patient stated that at about 20 years of age she began for the first time to lose blood with the urine, and since then had done so fairly regularly for three days every month. Laparotomy was performed, but complete removal of the tumour was impossible. The patient died a fortnight after the operation, having undergone extreme wasting. Microscopically the tumour was considered to be an endothelioma developing in relation with the undescended left testicle. The paper was illustrated by a series of photomicrographs, demonstrated with the epidiascope. Mr. BECKWITH WHITEHOUSE thought that the occurrence of periodical haemorrhages was a point of much interest. He was at a loss to know whence the blood came. Furthermore, if it was a case of true menstruation, the supposed necessary hormone must have been produced by the testicle. The only alternative explanation was that the gland in the right labium was an ovary, the case being thus one of true hermaphroditism. As regards the histology of the tumour, he was not quite prepared to admit that it was undoubtedly an endothelioma. It was an obscure neoplasm in which cells of an embryonic type were present, and to which the term sarcoma could be applied. Beyond this he did not think it was possible to dogmatize. Dr. EDGE agreed with the difficulty raised by Mr. Whitehouse as to the explanation of the alleged catamenia. He suggested that the so-called testicle was in reality an ovary, what appeared to be seminiferous tubules really consisting of mesonephric ducts. The specimen was referred to the consideration of the Pathological Subcommittee.

Chorion-epithelioma.

Dr. EDGE showed a uterus the seat of early chorion-epithelioma, and by means of the epidiascope demonstrated microscopical preparations of the same. Dr. WALTER SWAYNE, quoting his own experience, did not think that chorion epithelioma was so often preceded by vesicular mole as was believed. Chorion-epithelioma occasionally underwent spontaneous cure, as in a patient of his that developed metastases in the lungs, with bloody sputum, six years ago. She had recovered completely and was well to-day. Dr. EDGE agreed with Dr. Swayne's remarks about vesicular mole. If it was as much as 40 per cent. of all cases of chorion-epithelioma, then to him this was an indication to remove the uterus for vesicular mole. His experience was that deposits did not fibrose.

Treatment of Obstructed Labour.

A discussion on the treatment of obstructed labour was opened by Dr. THOMAS WILSON, who said that a satisfactory definition of "obstructed labour" was not possible. It was meant to imply the presence of some factor which interfered with the ordinary sequence of events of normal labour. Obstruction was met with in all degrees, and gave rise at one end of the scale to a little interference with the presentation of the fetus, or mechanism and duration of delivery, and at the other, in the absence of skilled help, to the death of the mother and the child. The most frequent cause for neglected cases of obstruction was failure on the part of the patient or midwife to call in medical advice at a sufficiently early stage. Furthermore, there was also a too prevalent idea that the whole art of midwifery consisted in extracting the fetus, gently if possible, but extracting by any means. The remedy for much of the illness and suffering arising from obstructed labour must be sought in the better teaching of midwifery, which in the future would have to be more practical and clinical than had been possible in the past. By proper care, obstructed labour could generally be foreseen, and its ill-effects obviated. It was well to regard every labour as like to be obstructed, or in some other way complicated, for here most emphatically forewarned was forearmed. Every woman who engaged a medical man or a midwife to attend her first labour should at least have the external pelvic measurements taken. A history of steadily increasing difficulty in successive labours was not uncommon. The explanation was to be found in Matthews Duncan's observations that the birth weight of the children of a woman gradually increased until her age was 35, after which it again diminished. Another point to note was that contraction at the outlet was more common than was usually understood, and the diameters here should also be measured. Dr. Wilson then drew attention to the importance of "Müller's impression" method in estimating the relation of the size of the fetal head to the pelvic brim. The method had been slightly modified by Munro Kerr and was frequently known by his name. Rules were then formulated to guide treatment, adapted to the various conjugate diameters. Cases in which the true conjugate lay between 2¾ in. and 3½ in. were those which furnished most of the difficult problems. Labour should rarely be induced in a first pregnancy. Frequently a living child was born at term through a pelvis that appeared to offer grave difficulties, and it was good practice to regard the first labour as a test one and to watch its course and result very closely. At the onset of labour, if difficulty were expected, the importance of a thorough cleansing of the vulva and detailed examination could not be too strongly emphasized. One vaginal examination made on a patient who had been imperfectly cleansed might be fatal to the success of an operation that later became necessary. Dr. PURSLOW referred to the damage frequently produced by the injudicious use of forceps, to which practically every case of badly lacerated cervix was due. In selecting an instrument, care should be taken to obtain one in which the possibility of slipping of the blades was reduced to a minimum. Milne Murray's axis traction forceps was the best instrument. A proper anaesthetist should be present wherever difficult forceps delivery was contemplated. Craniotomy was still quite justifiable when local surroundings absolutely precluded the possibility of performing Caesarean section. Mr. CHRISTOPHER MARTIN concurred in the importance of selecting a method of treatment in accordance with the patient's surroundings; they were not justified in submitting a mother to risk for the sake of a doubtful child. Reliance could not always be placed upon the previous obstetrical history in guiding future treatment. For example, he remembered the subject of a prospective Caesarean section for pelvic contraction who delivered herself with ease. He thought that symphysiotomy and pubiotomy would eventually fall into disuse. The tendency nowadays was to perform more and more Caesarean sections. If this operation were undertaken before labour set in, the risk was very little more than with ordinary labour. Dr. EDGE asked if diet could in any way influence the size of the fetus. He had seen cases of severe cervical laceration not due to the forceps or any other instrument. With regard to "suspect" cases of Caesarean section, he had successfully practised a method of delivering the membranes covering the lower uterine segment into the vagina by pushing them through the cervix. He did this to obviate infection, inasmuch as he thought that the membranes covering the internal os and the lower uterine segment were most likely to be contaminated. Dr. WALTER SWAYNE referred to cases of elderly primiparae in whom the pelvic measurements were practically normal, and yet when labour was in progress it was necessary to deliver by craniotomy. The cause of dystocia was undoubtedly in these cases a rather large child. The difficulty was usually not recognized until labour had been in progress for some time. In such a class of case pubiotomy or symphysiotomy might be valuable, although he was not strongly in favour of either as an operation of election. Dr. SMALLWOOD SAVAGE thought that symphysiotomy and pubiotomy might be of use in producing some enlargement of the pelvis after forceps had failed, and that these operations should be reserved for such cases. He had performed pubiotomy upon two cases, and had been satisfied with the results. Sepsis was undoubtedly a contraindication to the operation, but it was difficult to say which cases were at the time infected. The PRESIDENT observed that the greatest troubles in the treatment of obstructed labour were usually due to want of diagnosis of position. Frequently forceps were applied to undiagnosed occipito-posterior positions, with disastrous results. No speaker had referred to the advantages

of version in preventing obstruction. In some cases of flat pelvis he had found it a very easy and effective operation. With regard to Caesarean section, it would undoubtedly replace craniotomy and become the operation of election and not necessity. Craniotomy performed upon the living child should never be entertained. The President also referred to the importance of the presence of meconium with a head presentation as a sure indication of impending death of the child. Dr. THOMAS WILSON, in his reply, thought that it was sometimes difficult to avoid craniotomy upon a living child. Quite recently he had had to choose between this operation and Caesarean hysterotomy in a case that was obviously infected, and he had preferred the former. He was thus in accord with Mr. Martin's principle, to save the mother primarily, but if possible save both. In Catholic countries, on the other hand, conservative midwifery of the fetus was of greater import. As regards diet, he did not think that it had much influence upon the size of the child, although a diet as free as possible from carbohydrates and fluids had been recommended to produce reduction of weight. He had expected to hear something upon pubiotomy in the course of the discussion, and had not been disappointed. Personally he had performed five pubiotomies, and had had no cause to regret the same from the maternal side. The use of this operation would always be reserved for "borderland" cases, in which the fetus was alive. It should not be employed in first labours, nor yet, again, when infection was present.

ROYAL SOCIETY OF MEDICINE.

PATHOLOGICAL SECTION.

Tuesday, January 21st, 1913.

Professor R. T. HEWLETT, President, in the Chair.

The Transformation of Non-pathogenic into Pathogenic Bacteria.

DR. D. EMBLETON and Dr. F. H. THIELE made a communication upon this subject. The authors showed that they were able to produce septicaemia in animals with non-pathogenic bacteria. It was found that non-pathogenic bacteria could be divided into two main groups: (1) Those represented by *B. mycoides*, *smegmae*, *phlei*, which would not produce septicaemia unless they were inoculated into animals which had been previously sensitized to them by the injection of the dead homologous bacteria. (2) Those which would not produce septicaemia in the above-mentioned way, and which were not pathogenic even in massive doses, but were rendered pathogenic by injecting the bacteria in a medium which hindered the access and delayed the activity of the antibodies present in the animals. The media which were used for the suspension of the bacteria were hypertonic saline and strong gelatine. These by themselves had no effect on the animal. Thus the authors were able to produce septicaemia with *B. hoffmannii*, *B. cyanogenus*, *Sarcina lutea*, *Proteus zenkeri*, the organism being recovered in all cases from the heart's blood and spleen. Septicaemia was also produced with staphylococci and streptococci not pathogenic to guinea-pigs. They further showed that the bacteria which had been thus rendered pathogenic had now become so virulent that they were capable of producing septicaemia in normal animals without the aid of the above-mentioned processes, and not only in animals of the same species as those used for the original experiments, but also in animals of other species. To quote the case of *B. mycoides*, this organism, as is well known, normally will not grow at 37° C.; the authors educated it to grow at this temperature, and after inoculating an agar slope of this into a guinea-pig which had been sensitized a week previously with dead *mycoides*, were able to produce a septicaemia closely resembling anthrax. The organism isolated from this animal was now capable of producing septicaemia in normal guinea-pigs, rats, and rabbits. The organism had also changed its characters in that it had lost its flagella and had developed a capsule. Similarly a miliary tuberculosis was produced in normal guinea-pigs and rabbits by a like procedure, using *B. phlei* and *B. smegmae*. The authors from their experiments concluded that bacteria do not possess a toxic "endotoxin," but that the toxic substance is only liberated from the bacterial protoplasm by the action of antibodies in the animal body. They have demonstrated that, in animals dying from any form of bacterial infection or toxaemia, a toxic substance is present in the blood and effusions, which, when inoculated into normal guinea-pigs, produces rapid death. The symptoms and *post-mortem* appearances are identical in every case. The authors considered that the toxic substance was liberated from the bacterial protoplasm by the action of normal and induced specific antibodies, which they considered acted on the bacterial protein similarly to digestive ferments. The toxic substance is an early product of this action, and produces according to its accumulation, the symptoms, fever and death, of bacterial infections. The authors have come to the conclusion that the phagocytic sequence in serous-cavity-infections depends upon: (*a*) The "innocuousness" of the bacteria; this may be primary or the result of the action of the antibody degrading the toxic to non-toxic substance. (*b*) The rate of accumulation of toxic substances formed from the bacteria. A migration of polymorphonuclear cells proportioned to the degree of toxicity occurs before the complete sequence ensues, or the animal may die in this stage. They concluded that immunity was cellulo-humoral. The authors considered that: (*a*) Pathogenicity depends upon (1) the virulence of the bacterium; (2) the antibody activity present in the animal body. Thus they have shown that some bacteria do not become pathogenic until the animal has developed an antibody against that bacterium—for example, *B. mycoides*. On the other hand, other bacteria do not become pathogenic until the antibody activity is greatly diminished. Thus by diminishing the ferment activity by hypertonic salines they were able to produce septicaemia with these organisms—for example, Hoffmann's bacillus, *B. cyanogenus*, sarcina, etc. (*b*) The virulence of a bacterium depends upon the rate of liberation of toxic (aggressive) substance, and the retention of the same in the immediate vicinity of the bacterium. The *Bacillus mycoides* was shown to develop a capsule. And, further, the action of the hypertonic saline used is to bring about the formation of a capsule—that is, a halo of bacterial protoplasm. The authors considered that this capsule protected the bacterium from the further action of the antibody by producing a zone of ferment equilibrium around it, which on the one hand acted aggressively and prevented phagocytosis, and on the other protected the bacterium from destruction by the antibody. The authors were able to produce by their methods septicaemia with the Hoffmann bacillus, which up to now has never been possible, and were able to demonstrate in the blood of these animals the same toxic substance as is present in the blood of all animals dying from septicaemia and toxaemia. They further argued that the so-called exotoxin is only exuded bacterial protoplasm, and, like the so-called endotoxin, only becomes toxic after it has been acted upon by the antibodies of the infected animals.

HUNTERIAN SOCIETY.

CLINICAL AND PATHOLOGICAL MEETING.

Wednesday, January 22nd, 1913.

Mr. A. H. TUBBY, M.B., F.R.C.S., President, in the Chair.

Treatment of Fractures.

THE PRESIDENT showed a number of *x*-ray photographs, showing the results of treatment of fractures. He pointed out that some are best treated by wiring, others by the use of splints. He specially recommended operation in the case of fractures of the olecranon and of the patella, and found that operative treatment was satisfactory in separation of the upper epiphysis of the femur from the shaft, separation of the upper epiphysis of the humerus from the shaft, certain fractures of the leg just above the ankle-joint, and certain fractures of the lower part of the forearm.

Malignant Disease of Tonsil.

Dr. KELSON showed a case of malignant disease in a man aged 45, apparently originating in the lower part of the right tonsil. It pressed the larynx over to the left side, and there was dysphagia. He asked whether, in

view of the inoperable character of the case, any members present had had experience with selenium, Coley's fluid, *x* rays, or radium.

Specimens.

Mr. F. S. Kidd showed: (1) A curious case of bone disease in a boy, the diagnosis being osteogenesis imperfecta. (2) Skiagrams of kidneys whose pelves had been filled with collargol. Dr. Haldin Davis showed a case of Paget's disease of the nipple, which had been treated by radium; also microscopical slides of molluscum contagiosum and favus.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

At the January meeting, Dr. F. W. Eurich in the chair, Dr. Wrangham read a paper on *Poisoning*, which was considered chiefly from the point of view of diagnosis. The medico-legal aspect was also discussed. Poisoning might be suicidal, accidental, or homicidal. Clear evidence of suicidal poisoning was, as a rule, not wanting, for generally the poison was known or the symptoms were convincing. If not, or if the patient were found dead, the stomach contents must be investigated. In these cases, although legally the police should be informed, it was not always in the interest of the patient to do so. In most cases of accidental poisoning the fact that the patient had been poisoned was quite clear, as for instance after partaking of poisoned food, when the symptoms appeared suddenly and perhaps more persons were similarly affected. In the cases where medicine had been taken by mistake, the facts were stated readily enough and every assistance given to the medical man. In chronic cases, such as the Manchester epidemic of arsenical poisoning from beer, it was the cumulative evidence of numbers of individuals affected which led to detection. Lead poisoning from water came under the same heading. In acute homicidal cases, and in those where death ensued, the diagnosis was, as a rule, fairly clear. In chronic homicidal cases, as for instance arsenical poisoning, the medical man was often in great difficulty and the question as to the advisability of informing the relatives or the police in such cases was very minutely considered. The paper was discussed by Drs. Honeyburne, Rabagliati, Lankester, Angus, Hughes, Lodge, and Eurich; and Dr. Wrangham replied. Dr. Honeyburne read a paper on *Toxaemia*. Toxic poisoning in some shape or other was met with in all of the following morbid processes: (1) All the specific infective fevers; (2) diseases of animal parasites; (3) chronic intoxication, such as alcohol, lead, arsenic; (4) food poisons (fish, meat, cheese); (5) diseases of metabolism (gout, diabetes, uraemia). The toxaemias of the specific infective fevers were taken as an example, more especially that of diphtheria, being the best known of all. After reviewing our knowledge of the diphtheria bacillus and explaining the formation of endotoxins and exotoxins and the action of antitoxins, Dr. Honeyburne pointed out that it was only in the case of the exotoxins that antitoxin was formed, and unfortunately in man the exotoxins only occurred in diphtheria and tetanus. He then went on to discuss anaphylaxis, explaining the cause and showing how it could be avoided. He next described the bactericidal substance in the blood which caused the destruction of the invading bacilli and which was made up of two separate ingredients—the amboceptor and the alexin or complement. A short account was then given of the agglutinating substance and of opsonins. The paper was discussed by Drs. Eurich, Angus, Lodge, Lankester, Wrangham, and Hughes; and Dr. Honeyburne replied.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

At a meeting held on January 17th, Dr. Arnold W. W. Lea, President, in the chair, Dr. H. R. Clarke (Manchester) showed a case of *Uterine endothelioma* arising from the mucous membrane near the entrance of the left Fallopian tube. Dr. Wallace (Liverpool) showed lantern slides illustrating three cases of *Chorion-epithelioma*, which he described at the last meeting. Dr. Stookes (Liverpool) read a paper on *Some points in the puerperal mortality*. For the last ten years the average death-rate from puerperal sepsis had been 1 per cent. in Liverpool, and the average for England and Wales 1.7 per cent. He considered this good result to be due to the high standard set in the examination for midwives originally in Liverpool and now under the regulations of the Central Midwives Board. Dr. M. Moritz (Manchester) read a paper on *The nature of the so-called ligaments of Mackenrodt*. By means of dissections and drawings he conclusively showed these so-called ligaments to be perivascular tissue surrounding the vessels supplying the uterus, and not separate ligaments.

Reviews.

GYNAECOLOGICAL ANATOMY.

Although pictorial anatomy is not so necessary as it was in days when anatomists and prepared dissections were rare and only to be heard and seen at universities in distant foreign towns, still it has yet its uses. Dr. Liepmann has prepared an atlas[1] which is excellent as a collection of anatomical drawings, but will, we must feel, be more resorted to on account of certain matters of deep importance to the gynaecologist. Radical operations, which are really complicated dissections, are largely undertaken for the extirpation of the cancerous uterus and all suspected tissues and structures in its neighbourhood; whilst, on the other hand, the palliative and operative treatment of displacements and prolapse of the pelvic viscera remains quite unsettled. The first question would be solved already were it not for the wholesome dread the operator entertains lest the ureter be wounded or divided, or lest that duct or the bladder itself be stripped of its nutrient vessels, with disastrous results. The surgeon does his duty in making a clean sweep of doubtful surroundings when he extirpates malignant disease of the uterus, but it is now known that the patient, though immune from recurrence, may have her life made miserable by incontinence of urine and ultimately jeopardized by disease advancing up the urinary tract. Liepmann has drawn or caused to be drawn a number of sections of the pelvis and its viscera, hardened by formalin, alcohol, or freezing. The method of preparation in individual or special dissections is explained and will be of service to curators and professional dissectors. The surgeon and gynaecologist will not appreciate the numerous very pretty looking sections across different planes of the pelvis, so familiar in an anatomical atlas, so much as he will value the far more instructive dissections of the pelvic viscera as seen when the subject is placed in the Trendelenburg position. Thus Plates 10 and 11 are just the kind of illustrations which the operator desires and can utilize. They show him what he wants to see and can see when he exposes the pelvic cavity through an incision dividing the abdominal walls, and they explain certain puzzling appearances produced when the surgeon draws the uterus upwards and downwards, or backwards or forwards, or sideways. The full bladder fallen backward in Plate 11 is well worth the surgeon's inspection, and in the preceding plate attention is turned by lettering to the *ligamentum infundibulo-colicum* which Dr. Liepmann distinguishes from the *ligamentum infundibulo-pelvicum* closely related to it. This plate depicts quite graphically an appearance familiar to all who have got through a complicated ovariotomy. Amongst what we may term "the pure sections," Plate 9, made at the level of the cervical canal, is one of the most instructive. The position of the ureters—the bugbear of the operator—is well indicated, as is the *spatium praevesicale mediale*. Some other sections help to teach what the surgeon cannot precisely determine even in the course of a necessarily complicated operation.

The question of displacements is quite different from the surgico-anatomical problems to which we have alluded. When we turn to prolapses all is still obscure. Tandler and Halban, Paramore and other living authorities are not always in agreement. Hence the starting point, which is the musculature, fascia and ligamentous flooring of the pelvis, deserves very close scrutiny, for we cannot understand how the uterus loses, or frees itself

[1] *Atlas der Operations-anatomie und Operations-pathologie der weiblichen Sexualorgane mit besonderer Berucksichtigung des Ureterverlaufes und des Suspensions- und Stützapparates des Uterus.* Von Dr. W. Liepmann. Berlin: A. Hirschwald. 1912. (Pp. 48; Tafeln 35. Mk. 24.)

from, its supports until we thoroughly recognize what these supports may be, and as yet the problem is not thoroughly understood. Liepmann's plates will aid the anatomist in his researches if—much virtue in an "if," as Touchstone says—he takes care to verify the author's conclusions by making, or directing to be made, fresh dissections. The section (Plate 2) of the pelvis of a woman, aged 28, who died during menstruation is interesting; the uterine mucosa is even thicker than might be expected. There are also some good representations of pathological changes.

CUNNINGHAM'S ANATOMY.

In the fifth edition of Professor Cunningham's well-known *Manual of Practical Anatomy*[2]—the first edition which has appeared since his death—Professor Arthur Robinson, his successor in the Chair of Anatomy in Edinburgh, has introduced certain new features, one of which must have far-reaching effects. The anatomists of Great Britain and Ireland have not, up to the present, given their whole-hearted support to what is known as the Basle anatomical nomenclature, a form of international terminology adopted in Basle in 1895 by a committee of anatomists. The idea of the commission originated in and was carried out by members of the *Anatomische Gesellschaft* in Germany, and can be regarded as international only in so far as that society and its affiliations can be so regarded. The reasons for this aloofness are, amongst others: (1) Many of the names recommended are cumbrous; for example, the conjoined tendon masquerades as the *Falx aponeurotica inguinalis*, the external annular ligament as *retinaculum musculorum peronaeorum, superius* and *inferius*, whilst the white line in the pelvis is the *arcus tendineus musculi levatoris ani*. (2) Some terms seem to us most unsuitable; for example, musculo-spiral nerve and groove become the *radial* nerve and groove respectively, whilst the circumflex nerve becomes the *nervus axillaris*. (3) Although the modifications suggested by the new terminology may be followed with advantage in many cases, its consistent use seems, in the words of Professor Piersol, "less in accord with the directness of English scientific literature than the enthusiastic advocates of such adoption have demonstrated." Undoubtedly there is much good in it, and if we could only take this and leave out or modify the recommendations, which even the most ardent supporter of the scheme would admit are not wholly satisfactory, it might receive a warmer welcome here. Be that as it may, Professor Robinson has boldly taken the step, and has adopted the nomenclature throughout. It should be stated, however, "that the labours of the commission were conducted not to ensure the adoption of a Latin terminology in every country, but rather a uniform system of nomenclature, and the abolition of many different terms." In England we may translate these names as seems best to us. Experience has already shown that students who commenced their work at the beginning of the present session, and have used this edition as the guide to their work in the dissecting-room, have found little trouble with the new terms; but for the teachers it is otherwise. And when these same students go across to the wards of the hospital after passing in anatomy and physiology, and use terms with which the physicians and surgeons for the most part have little or no acquaintance, there must necessarily be a period of transition which will be difficult and trying for all concerned. However, with patience and a recognition of the central factor that a system like this can never be forced on either teachers or students, a gradual acceptance of its best and most helpful terms may confidently be anticipated. With regard to the additions and improvements which Professor Robinson has made in the text, we notice that in vol. i the plans of dissection of the axilla, abdomen, and pelvis have either been entirely altered or greatly modified. In vol. ii the alterations are not less numerous and important. They include changes in the method of dissecting the face, tympanum, the posterior triangle, and the deeper parts of the neck. We have already, in a previous notice, commented on the great advantages arising from the alterations in the pelvic dissections. The parts are shown in such a way as the necessities of present-day operative procedure demand, and the same may be said of the dissection of the axilla and the special parts, such as the middle ear. In each case we have nothing but praise for the way in which the various stages of the dissection are described. They are admirably clear and constitute, with some new illustrations, a really valuable addition to the work. Leaving out the question of nomenclature, we take this opportunity of again congratulating Professor Robinson on the various alterations he has made, and there is every indication that the book will continue to hold the unique position which it has attained.

Although so many books have been written on the bones of the body, another has recently been added to the list by Professor A. Francis Dixon of Dublin. In his *Manual of Human Osteology*[3] Professor Dixon has given an excellent account of the bones, written from an essentially practical standpoint, and illustrated by a fine series of figures, many of them in colour. It is obvious that in preparing both the letterpress and illustrations the greatest care and attention to detail have been displayed, and the volume can be confidently recommended to those who require a handy textbook as a companion to Cunningham's *Practical Anatomy*, issued by the same publishers. The student will find that the description of each independent bone is not too long, and yet is quite sufficient for all ordinary purposes. Special chapters at the end of the book are devoted to the teeth, composition, shape and structure of bones, the development and the epiphyses of bones—a convenient arrangement for reference. With regard to the vexed question of terminology, the author has taken the plunge along with Professor Robinson, and throughout the text has given the names arranged by the Basle Committee. These are printed in black type, whilst the old names appear in italics or in the type used for the text. As this decision is in agreement with that come to by other writers on anatomy whose books have been recently issued from the Oxford University Press, it follows that a considerable number of those who have commenced their medical studies at the beginning of the present winter session must now become familiar with the old and the new terms in anatomical literature—another burden to the already overworked medical student. The many merits of the book will, however, soon be realized by students and practitioners, and we can recommend it to those who are reading for the ordinary qualifying examinations, and also to others who are preparing for the higher examinations, as containing an accurate account of the human skeleton.

CHEMISTRY.

While new textbooks on one branch or another of chemistry appear with great frequency, the number of those which present much new matter or deal with the subject from a new point of view is by no means large. Among the latter a conspicuous place is due to Molinari's *Treatise on General and Industrial Inorganic Chemistry*,[4] an English translation of which, by Dr. E. Feilmann, has just appeared. The work is divided into three parts, headed "General," "Non-metals," and "Metals." The first of these deals in a very thorough manner with the fundamental laws; in this section modern conceptions, such as the principles of thermo-dynamics, the ionic theory, the phase rule, and the known facts as to colloidal solutions, radio activity, and the disintegration of atoms, are given their proper place in the systematic study of the subject; it also includes a historical sketch of chemistry up to the beginning of the modern development of the science, ranging from the ancient Chinese to the work of Lavoisier. In the second and third parts the distinctive feature is the prominence given to industrial processes and statistics of production. Laboratory methods of producing each substance are first given, somewhat briefly and

[2] *Manual of Practical Anatomy.* By the late D. J. Cunningham, Fifth edition. Edited by Arthur Robinson, Professor of Anatomy, University of Edinburgh. Two vols. Edinburgh and London: Henry Frowde, and Hodder and Stoughton. 1912. (Cr. 8vo, vol. i, pp. 701, figs. 255; vol. ii, pp. 646, figs. 256. 10s. 6d. per vol. net.)

[3] *Manual of Human Osteology.* By A. F. Dixon, Professor of Anatomy, Trinity College, Dublin. London: H. Frowde, and Hodder and Stoughton. 1912. (Cr. 8vo, pp. 328, 178 figures, some coloured. 10s. 6d. net.)

[4] *Treatise on General and Industrial Inorganic Chemistry.* By Dr. Ettore Molinari. Third revised and amplified Italian edition, translated by Dr. Ernest Feilmann, B.Sc., Ph.D., F.I.C. London: J. and A. Churchill. 1912. (Roy. 8vo, pp. 720; 280 illustrations and 3 plates. 21s. net.)

as a rule without illustrations of ordinary apparatus; its actual uses are mentioned somewhat fully, then the methods by which it is produced industrially, in many cases with illustrations of the plant employed; finally, figures showing the amounts produced in different countries or by different processes are briefly presented. The book is intended principally not for those who are previously quite ignorant of the subject, but for those who have such a general knowledge of chemistry as is now commonly given at a technical institute; for the student who is intending to devote himself to industrial applications of chemistry the information here presented gives the subject a reality and concrete interest which are not imparted by the ordinary textbook, while for the more general student of the subject also its interest is greatly increased. In the numerous cases where rival methods of production dispute the field, it is possible from the descriptions and statistics given to form a fair estimate of their relative importance and advantages. Since the author is an Italian professor of industrial chemistry, prominence is naturally given to the Italian point of view, but the value of the work to students of other nationalities is not appreciably lessened thereby, while many interesting facts as to national progress come under notice. The book occupies an intermediate position between a textbook of inorganic chemistry and an advanced work on chemical technology, and the information given in this third edition is evidently thoroughly up to date. The translation appears to be very well done (though misprints are unfortunately rather numerous), and the book is to be strongly recommended.

Chemical Theory and Calculations,[5] by Messrs. F. J. WILSON and I. M. HEILBRON, is an elementary textbook for chemical students devoted to a portion of the subject which is not always adequately treated in larger works. The atomic theory and methods of determining atomic weights, valency, the theoretical portion of quantitative analysis, and the elements of thermo-chemistry are among the subjects to which chapters are devoted; numerous examples are given of the calculations necessary to be made in connexion with these and with the laws of diffusion of gases, and of the effect on volume of changes of temperature and pressure, etc. The book will be useful, but a student working without assistance might occasionally be puzzled by apparent discrepancies, as, for example, the statement on p. 8 that specific gravities are determined at 20° C. by means of the pyknometer, and on p. 11 that a temperature of 15° C. is taken when the Westphal balance is employed.

The third volume of THORPE'S *Dictionary of Applied Chemistry*,[6] like its predecessors, is characterized by the wide range and comprehensive nature of the information which it contains. The section of the alphabet included in this part is from Gr to Oils. Amongst the matters of interest in medicine which are comprised in this volume are some twenty vegetable drugs dealt with individually, besides many included in the articles on gums, gum-resins, and essential and fixed oils; many medicinal chemicals are discussed under their appropriate headings; while the dietetic articles include the important substances milk, meat extracts, and lecithin, with many others of more restricted interest. It is impossible to turn over the pages without lighting on articles full of value, while for those who require the fullest detailed information on any of the subjects treated the copious references to original papers will be very convenient. The list of contributors to the present volume includes between thirty and forty names, nearly all well known in one department or more of chemical work.

When a textbook has reached its tenth edition it may fairly be supposed to fill its place in a satisfactory manner; the tenth edition of SIMON'S *Manual of Chemistry*[7] shows revision and additions which will ensure that it in no way falls behind its predecessors. Among the matters newly introduced or more fully dealt with than formerly are reversible reactions, osmotic pressure, dissociation, etc.; among new compounds touched on are atoxyl and salvarsan. The distinctive features of the book remain the same, including the use of coloured plates to show the exact colours obtained in many tests, both in the inorganic and organic branches.

MR. J. W. MELLOR'S *Modern Inorganic Chemistry*[8] is, as its title indicates, an account of that section of chemistry distinguished as inorganic, in which recent work and modern theories are included. The earlier part of the book is chiefly devoted to general laws and theories, and in this part each chapter and often each section is introduced with a quotation from some more or less famous chemist or philosopher: these quotations will perhaps tend sometimes rather to distract than to assist the student, and they are occasionally liable to be misapplied, as, for example, that on p. 56, commending "some boldness and licence in guessing." The author indicates at the outset that he considers it more important to impart an appreciation of method than a mere knowledge of facts; this point of view is fairly obvious throughout the book, which concludes with an "epilogue" and a quotation from Sherlock Holmes! The work might perhaps have been improved had the author exercised greater restraint in the use of quotation, but as it is, it is certainly a very good book.

DR. EKELEY'S *Laboratory Manual of Inorganic Chemistry*[9] is stated to be written and arranged for use in connexion with Holleman's textbook of inorganic chemistry. It is impossible to discover what merit there can be in the arangement adopted, and not easy even to justify calling it an "arrangement" at all. The book is divided into some three hundred and odd sections, each headed with the name of the substance or subject referred to. The treatment in most cases is meagre; for example, the whole section headed "Fluorine" is called "Experiment 57," but consists merely of two questions: one, "Draw a diagram of Moissan's apparatus"; and the other, "State the physical and chemical properties of fluorine." The section headed "Volumetric Analysis" occupies half a page, and that headed "Thermo-chemistry" a third of a page; these two are sandwiched between "Sodium Thiosulphate" and "Nitrogen."

HARELIP AND CLEFT PALATE.

ONE of the most striking demonstrations before the Surgical Section of the Annual Meeting of the Association at Birmingham in 1911 was Mr. James Berry's account of his results in the operation for cleft palate. Those present were impressed by two features in the cases shown—the admirable reconstruction of the palate and the excellence of the voice production. In the paper read at the meeting Mr. Berry strongly advocated the claims of what is now the old operation, or properly, the Langenbeck operation, and he maintained that the results obtained with other operations, ingenious and indeed audacious as these mostly were, were not comparable with those achieved by the Langenbeck method. In a volume on *Harelip and Cleft Palate*,[10] Mr. BERRY and his colleague Mr. LEGG have very fully set out the whole anatomical and developmental story of these deformities, and have given in elaborate detail the various operative procedures for treatment and their results. On the question of the proper time to operate the advice is that closure of harelip should be done when the child is about a month or 6 weeks old, provided that the infant is other-

[5] *Chemical Theory and Calculations.* An elementary textbook by Forsyth James Wilson, D.Sc.Edin., Ph.D.Leipzig, and Isidor M. Heilbron, Ph.D.Leipzig, F.I.C., A.R.T.C. London: Constable and Co., Limited. 1912. (Crown 8vo, pp. 158; figs. 9. 2s. 6d. net.)

[6] *A Dictionary of Applied Chemistry.* By Sir Edward Thorpe, C.B., LL.D., F.R.S. Revised and enlarged edition. In five volumes. Vol. iii, Gr to Oils. London: Longmans, Green and Co. 1912. (Medium 8vo, pp. 797. £2 5s. net per vol.)

[7] *Manual of Chemistry.* By W. Simon, Ph.D., M.D., and Daniel Base, Ph.D. Tenth edition, thoroughly revised. London: Baillière, Tindall, and Cox. 1912. (Roy. 8vo, pp. 774; 82 illustrations and 3 coloured plates. 15s. net.)

[8] *Modern Inorganic Chemistry.* By J. W. Mellor, D.Sc. London: Longmans, Green and Co. 1912. (Demy 8vo, pp. 891; 316 illustrations. 7s. 6d.)

[9] *A Laboratory Manual of Inorganic Chemistry.* By John B. Ekeley, Ph.D., Sc.D. New York: John Wiley and Sons; London: Chapman and Hall, Ltd. 1912. (Cr. 8vo, pp. 136; figs. 46. 4s. 6d. net.)

[10] *Harelip and Cleft Palate, with Special Reference to the Operative Treatment and its Results.* By James Berry, B.S.Lond., F.R.C.S., Senior Surgeon to the Royal Free Hospital, Consulting Surgeon to the Alexandra Hospital for Children with Hip Disease; and T. Percy Legg, M.S.Lond., F.R.C.S., Surgeon to the Royal Free Hospital, Assistant Surgeon to King's College Hospital. London: J. and A. Churchill. 1912. (Med. 8vo, pp. 340; 242 figs. and appendix of cases of operation for cleft palate. 12s. 6d. net.)

wise healthy. Generally speaking, the sooner the operation is done the better, even (in the case of exceptionally robust children) within the first few days of life. In regard to the palate operation, we find in the second appendix, containing notes of Mr. Berry's 154 consecutive cases, that 20 cases were operated on under 2 years, 50 from 2 to 4 years, 30 from 4 to 8 years, 35 from 8 to 12 years: so that here also no fixed age limit for operation is made.

The authors are strongly in favour of performing the harelip operation before the cleft palate operation, for the reason chiefly that a remarkable degree of spontaneous closure of the cleft, especially the alveolar portion of it, follows the harelip operation. The details of operation for both deformities are extraordinarily, but not unnecessarily, full. We agree with the authors that no operations in the whole range of surgery will better repay attention to minute detail. Gentleness of handling of the tissues is of prime importance; roughness in sponging or in cutting will materially interfere with the nutrition of flaps. The authors accordingly recommend that in cleft palate operations the paring of the edges should be left till after the separation of the muco-periosteal flaps. The most difficult clefts to close satisfactorily are the incomplete wide median clefts which stop short of the incisor teeth, the alveolar arch being normal. These clefts are often very wide and have a broad, rounded, anterior extremity, which is difficult to deal with.

This is an altogether admirable monograph. It is commendable for its clearness, for its ample details, and for its wealth of illustration. It should appeal at once to any surgeon within whose sphere of work these cases come, and mostly to the young surgeon who may be tempted to think that the new ingenious operations are the best, for the work is at once a defence of the Langenbeck or Smith operation and an exposition of what that operation can accomplish.

NOTES ON BOOKS.

AMONGST all those who dabble in eugenics and pin their faith to the doctrine of heredity, none has adopted the most advanced theories more readily than the novelists who find the creed of the eugenists a convenient peg on which to hang a story. This belief in the transmission of hereditary qualities from parent to child, irrespective of training and environment, is the *Leit-motif* of Mr. RICHARD WASHBURN CHILD'S recent novel, *The Blue Wall*,[1] in which the daughter of a drunken libertine, brought up from infancy in the most favourable surroundings, suddenly develops an irresistible craving for strong drink. Her gallant struggle for self-mastery and the extraordinary effect that her mental sufferings have upon all who approach her form the subject of a curious story, the enjoyment of which is only spoilt by the confusion of the narrative. The circumstances leading up to and attending poor Julianna's despairing efforts to overcome her "vice of blood" are minutely described by four or five different persons, and the result is a bewildering medley of incident in which the main plot is occasionally lost sight of or forgotten. To make confusion worse confounded, the reader in the end is left in a state of doubt as to the heroine's real parentage, and consequently as to whether her predisposition to vice is inherited from the degenerate Cranch or is merely the result of suggestion. But his curiosity is piqued and stimulated by the skilfully accumulated "ruin on ruin, rout on rout." The book is gaily bound and contains several illustrations by Mr. E. Coles Phillips and Mr. Harold J. Cue.

Dr. G. FRANK LYDSTON is well known on the other side of the Atlantic as the author of several books in which he has advocated the sterilization of the unfit as the only effectual means of checking the present alarming increase of crime and degeneracy, and breeding a race of sane and healthy men and women. His latest work, a play in four acts, called *The Blood of the Fathers*,[2] has been written with the intention of arousing the lay public to a fuller sense of the danger in which it stands, and might serve as a modern illustration of the old text which has warned countless generations of unheeding mankind, that the sins of the fathers will be visited upon their children. The plot of the play is very simple. It is merely the unhappy love story of a rising young doctor who, against his better judgement, risks a marriage with the beautiful daughter of a notorious criminal, and lives to repent it. The style and phraseology are intensely American, and the comic relief afforded by Allyn's Japanese valet and his wife's cockney maidservant appears at times (at least to English ears) to be a little forced and crude; but no thoughtful reader can fail to be struck by the justice of the author's opinions, and the outspoken courage with which he expresses them. In his preface Dr. Lydston tells us that he has adopted his present method of propaganda because "dramatic form is most effective in driving home a social lesson." Those of his readers who share his apprehensions concerning the future welfare of their fellow men, and with him desire to secure for the generations yet unborn the health and sanity which ought to be the birthright of every human being, can only hope that the good seed may not fall on barren soil, and that the solemn warning conveyed by the play may not have been uttered in vain.

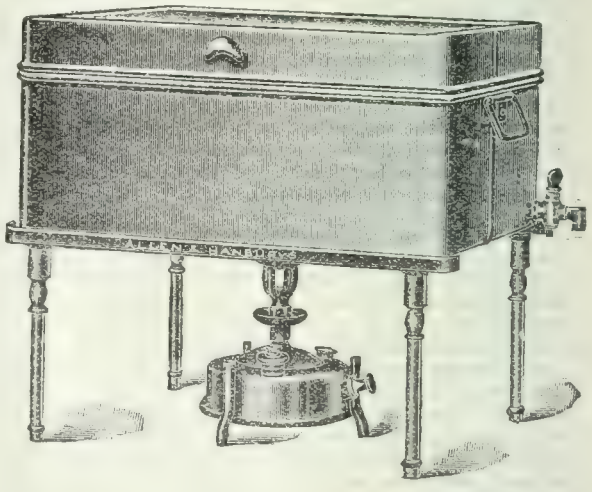
[1] *The Blue Wall*. By Richard Washburn Child. A Story of Strangeness and Struggle. Illustrated by E. Coles Phillips and Harold J. Cue. London: Constable and Co., Ltd.; Boston and New York: Houghton Mifflin Co. 1912. (Cr. 8vo pp. 386. Price 6s.)

[2] *The Blood of the Fathers*. A Play in Four Acts. By G. Frank Lydston. Chicago: Riverton Press. 1912. (Post 8vo. pp. 241. Price $ 1.25, cloth; $ 2.25 edition de luxe.) (Sold by subscription only.)

MEDICAL AND SURGICAL APPLIANCES.

Sterilizer.

MR. C. A. STIDSTON (Wolverhampton) writes: The following are the details of a sterilizer which I have designed for operations in private houses. With the exception of caps, gowns, and dry towels, which are taken already dry-sterilized in drums, everything connected with an operation can be sterilized in the operating room independently of any source of heat in the house. The sterilizer is of copper, and is 14½ in. long, 12 in. wide, and 7 in. deep. Inside it are packed: (1) a collapsible stand; (2) a nest of two circular copper bowls, 7½ in. by 3½ in.; (3) instrument cage, 11½ in. by 3½ in. by 3¼ in.; (4) a needle box; (5) a glove box; (6) a number of towels; (7) swabs, sponges, ligatures, drainage tubes; (8) ligature tray, 10¼ in. by 11½ in. by 1 in.; (9) a picnic "Primus" lamp in tin 6 in. by 4 in. by 8 in., inside which are tins of paraffin and methylated spirits, spares, and all fittings; (10) instruments and dressings. In the back lower corner of one side is a



hole into which screws (1) a block stop, or (2) a tap. By means of the tap the water or lotion (I use weak lysol) contained in the sterilizer can be run off into instrument and ligature trays, into bowls for hands and gloves, etc., into a douche can, etc. The sterilizer may be boiled on a gas range or coal fire, but with the "Primus" lamp (especially added to dispense with the uncertainty of reliable heat being found at the house) 16 pints of water can be brought to the boil in 30 minutes. The sterilizer will hold midwifery forceps and the largest instruments, and is large enough to contain accessories. By a skewer joint the cover is removed, inverted, and acts as an instrument tray. Messrs. Allen and Hanburys are the makers.

AT the annual meeting of the National Dental Hospital for London it was stated that considerable improvements had been effected, but that the funds in hand were not sufficient to complete the equipment. The proposed arrangements for amalgamation with a general hospital had been suspended at the request of the Board of Education until the issue of the report of the Royal Commission on University Education in London.

MEDICAL SERVICE IN THE HIGHLANDS AND ISLANDS OF SCOTLAND.

(Continued from page 129.)

In an appendix to the report of the Committee on the Medical Service in the Highlands and Islands, Dr. Leslie Mackenzie, Medical Member of the Local Government Board for Scotland, deals with a scheme for the administrative consolidation of medical service.

This appendix is analysed below. It contains many valuable suggestions as to the appointment of a central authority for the administration of medical services in the Highlands and Islands.

Introduction.

The Committee's remit contains the words: "To advise as to the best method of securing a satisfactory medical service therein, regard being had to the duties and responsibilities of the public authorities operating in such district." Dr. Mackenzie points out that if such a grant is to result in the establishing of a "satisfactory medical service," it is essential that the existing medical services shall be consolidated and a large number of statutes affecting the health of the country as a whole readjusted. As the Committee is concerned only with the Highlands and Islands, the present seems a favourable occasion for the framing of a scheme to show how far, through the instrumentality of a grant, it is possible to bring about an administrative consolidation of existing services. Such an administrative consolidation would result in increasing the efficiency and developing the resources of the present services, in demonstrating what additional service is necessary, and in preparing the way for any legislation afterwards found to be expedient.

There are several factors in the problem: The smallness of the unit area of administration of parish medical service, the economic deficiencies of particular districts, the geographical difficulties of transit, the conflicting interests of local administrative authorities, the insufficiency of general and special hospital service, the inadequacy and imperfect organization of general and special nursing services, the economic difficulties of private medical practice, the comparative absence of specialized medical practice. To show how some of these difficulties and defects may be overcome it is necessary to enter with some detail into the statutory constitutions and obligations of the existing medical services, to indicate some statutory resources that are still undeveloped, and to show how the public services, once properly correlated, may become the basis for a more adequate system of private medical practice. A primary point to consider is the relation of the public medical services to private medical service; for it may here be said at once that, over large areas of the Highlands and Islands, private medical practice on the ordinary lines is a demonstrated failure. Large numbers of sick people go untreated; yet the doctors cannot make a living.

The Medical Services.

The medical services here to be discussed may be classified as follows:

1. Poor Law Medical Service.
2. Old Age Pension Medical Service.
3. Local Lunacy Medical Service.
4. Vaccination Medical Service.
5. Public Medical Service.
6. School Medical Service.
7. Maternity Medical Service.
8. National Health Insurance Medical Service.
9. Factory Medical Service.
10. Post Office Medical Service.
11. Nursing Service.
12. Private Medical Practice, including the club system, fee-paying practice, etc.

Poor Law Medical Service.

At present the following medical services, though not all under the Poor Law Acts, and therefore not all affecting the registered poor as such, are, nevertheless, carried out by the Poor Law authority, namely, the parish council:

A. Medical attendance on the registered poor in poorhouses or outdoor.
B. Medical attendance on old age pensioners.
C. Medical attendance on pauper lunatics.
D. Vaccination of defaulters.
E. Attendance, nursing or other, on paupers in poorhouses and also on outdoor paupers and pauper lunatics.

The salary of the parish medical officer must be approved by the Local Government Board, who determine what proportion of the salary shall rank for the medical relief grant. This grant amounts to £20,000 for the whole of Scotland. A first charge on it is made for trained sick nursing in poorhouses; the remainder is distributed as a subvention in aid of the medical officer's salary. This subvention at present amounts to about 4s. 3d. per £. No part of the grant is available for the nursing of outdoor paupers, or for lay attendance on paupers or pauper lunatics. The fact that trained sick nursing *in poorhouses* is a first charge on the grant affects unfavourably the Highlands and Islands districts; for in those districts the vast majority of the registered poor are on the outdoor roll; only a small minority are in the poorhouses. It follows that, although the proportion of poor is large, the proportion of the medical relief grant is small. In the memorandum prepared by Mr. Maxwell, Secretary to the Local Government Board, full details are given as to the inequitable incidence and operation of this grant.

In order to obtain medical officers to discharge these functions, the parish councils have been obliged to offer salaries sufficient to induce men to reside in localities not otherwise likely to attract a private medical practitioner. Consequently, the salaries, compared with the salaries given elsewhere in Scotland, are, in the Highlands and Islands, very frequently out of proportion to the number of paupers and pauper lunatics that have to be medically attended. The incidental result is that the poor rate, supplemented by the medical relief grant, bears to a considerable extent the burden of a "free" medical service; for it is a common understanding that the medical practitioner appointed as parish medical officer shall attend non-paupers at reduced fees. Frequently, indeed, the parish medical officer attends poor but non-pauper residents without any prospect of obtaining a fee. In the Highlands and Islands that is an extremely common practice.

Old Age Pension Medical Service.

As indicated above, the parish medical officer attends on old age pensioners. This is because the majority of old age pensioners in the Highlands and Islands districts cannot afford the expense of a private medical attendant, and they are not disqualified by receipt of medical relief, even when administered under the Poor Law.

The medical attendance on old age pensioners does not amount to a separate service, but it illustrates very pointedly the power of the Poor Law to administer medical relief without involving the recipient in any disqualification either as to his pension or as to certain rights of voting. What applies to old age pensioners applies equally to all others in need of medical relief alone. But it must be said that the medical attendance on old age pensioners does not constitute a serious item at present in the work of the parish medical officers. In some cases the medical officer had never been called to an old age pensioner, although there were many in the parish. Probably the failure to call the doctor is in many cases due to ignorance of the legal right. But, apart from the Poor Law, there is no provision for medical attendance on old age pensioners, and, as they are presumably unable to afford ordinary medical fees, they may in many instances go without medical attendance, even when they require it. The medical officer of the parish is not specially paid for his attendance on old age pensioners, and in one case brought before the notice of the Committee the medical officer himself had to provide any drugs prescribed for such pensioners. This he had to do in every case where application for medical relief had not been made through the inspector of poor in the regular way. This is not a satisfactory state of affairs. The attendance on old age pensioners, who are a special class, ought to be paid separately, and no medical officer should have to pay out of his own pocket for the drugs prescribed.

Local Lunacy Medical Service.

Although the pauper lunatics are attended by the parish medical officer, the Lunacy Medical Service is distinct from the Poor Law Medical Service. The treatment of lunatics, both in poorhouse lunacy wards and in private houses, is supervised by the General Board of Lunacy, who control both parish and other asylums. The local lunacy boards are distinct from the parish councils. It is, there-

fore, important to note that the Lunacy Medical Service is a distinct medical service. In the Highlands and Islands the proportion of lunatics is larger than in many other parts of Scotland, and consequently the cost of the treatment of lunacy is a heavy burden on local rates. It has, on more than one occasion, been suggested that the treatment of lunacy should be entirely met from Imperial funds. If this were done, one serious burden on the Highlands and Islands would be removed. In any claim for an Imperial grant to increase the adequacy of the medical service in the Highlands and Islands, the cost of lunacy may legitimately be emphasized. In several localities it was pointed out to the Committee that lunacy was the most expensive item in the whole medical service. To a certain extent this burden has been relieved in the western islands by the use of the two poorhouses (Stornoway and Lochmaddy) for the accommodation of suitable cases of lunacy. The local lunacy medical service should be paid for on a more adequate scale than at present.

Vaccination Medical Service.

Under the Vaccination Acts the parish council is charged with the duty of vaccinating defaulters, and taking all legal proceedings necessary for the purpose. There is no system of public vaccination as in England. In Scotland vaccination is normally a private medical service rendered by a practitioner to his patient, and paid for by the patient. Only when a child's guardian becomes a defaulter is the child vaccinated at the public expense. In many of the Highland and Island parishes practically all the guardians of infants become defaulters, and thus have their children vaccinated at the expense of the poor rate. There is no grant to assist parishes in the execution of the Vaccination Acts. It may be added that the fee for vaccination acts as a deterrent.

A Vaccination Medical Service is also provided for under the Public Health (Scotland) Act, 1897, which authorizes the local authority for public health to defray the cost of vaccination and revaccination. This power, however, is permissive. In the Highlands and Islands vaccination is entirely carried through by the parish councils, except occasionally, when there is a small-pox outbreak or a small-pox "scare." Vaccination is then offered freely by the public health authorities. It has been suggested that the work of vaccination should be a statutory obligation on the local authority for public health, which is the authority directly interested in the prevention of small-pox. This authority may at any time defray the cost of vaccination and revaccination, but it cannot be placed under obligation to carry out the Vaccination Acts until those Acts are amended.

The operation of the Vaccination (Scotland) Act, 1907, has largely converted compulsory vaccination into voluntary vaccination; and as voluntary vaccination is provided for under the Public Health Act, it is from the public health authority that any future improvement in the Vaccination Medical Service is to be expected.

Public Medical Service.

(a) Hospitals, Convalescent Homes, and Reception Houses.

The Public Health Medical Service is concerned with all conditions affecting the health of the community, and, in particular, with the isolation and treatment of all infectious diseases. For these purposes the public health authorities are under obligation to appoint medical officers of health and sanitary inspectors. They may also be required by the Board, and in practically all cases have been required, to provide hospitals, temporary or permanent or portable, for persons suffering from infectious disease, with the nursing services incidentally necessary. They have also power and may be required to provide reception houses for persons convalescent from infectious diseases; but, although in many cases eminently desirable, these reception houses have nowhere been provided in the Highlands and Islands. Further, they may be required to provide reception houses for persons who may have been exposed to infectious disease. Such houses, however, have nowhere been provided in the Highlands and Islands. Hitherto the hospital accommodation provided has tended to the minimum necessary for the isolation and treatment of a proportion of the persons affected by the most serious infections. (These obligations are contained in Section 66 of the Public Health (Scotland) Act, 1897.)

In many localities, however, the provision even of hospitals has been found so difficult, on account of the poverty or the geographical conditions of the area, that, even for the major infections, no hospital at all is available. These localities are undoubtedly the exception; but the economic conditions are frequently such that the rates would be grossly overburdened if adequate provision of hospitals, convalescent homes, and reception houses were rigidly enforced. This is an item that may legitimately be pressed in the claim for an additional Imperial grant.

(b) Domiciliary Medical and Nursing Service.

Under the same section (66) the Public Health Authority, with the consent of the Local Government Board, may also, either instead of providing such hospitals or houses, or in addition to such provision, employ nurses to attend persons suffering from infectious disease in their own houses, and may also supply medicines and medical attendance for such sick. In several localities in the Highlands this power has been employed. One or two public health authorities in the Highlands have appointed nurses to attend patients in their homes; but the comprehensive powers of domiciliary treatment conferred by the Act have not been developed to any considerable extent. This, no doubt, is largely due to the expense involved both in the provision and in the housing of trained nurses. All over the Highlands the Committee has been confronted with the difficulty of housing nurses and doctors. In some cases, too, the public health rate has approached or reached its statutory maximum—namely, 1s. per £. In those cases no adequate provision, either of hospitals or of nursing, is possible without Imperial assistance. At the same time, probably the failure to provide nursing may fairly be assigned in part to the inadequate appreciation of the need for nursing. Frequently epidemic diseases—such as measles, whooping-cough, scarlet fever, or diphtheria, typhoid, and even typhus fever—are allowed to run riot until the number of immediately susceptible persons is exhausted. In many localities the nursing provided is quite inadequate for epidemic work; but there is evidence that the need for domiciliary nursing is being better appreciated.

It may here be added that in a great many localities the houses are quite unsuited for the isolation and treatment of any infectious disease (including tuberculosis). It follows that any system of home nursing for infectious diseases must remain more or less abortive. Yet, in the large epidemics that occasionally occur, particularly among children, nursing at home is an essential adjunct of any public medical service.

Hitherto only one or two local authorities have made any fixed arrangements with medical practitioners for attendance on infectious patients at their own homes. This, however, is clearly a competent arrangement under the section, and as the public health authorities are responsible for the management of all infectious diseases, that may legitimately be urged to develop the domiciliary medical treatment of infectious cases where no other arrangement is, for the time being, practicable. In the evidence placed before the Committee several cases were mentioned where the local medical practitioner had to attend, on behalf of the local authority, a large number of infectious cases—such as persons suffering from diphtheria and typhoid fever; but in most localities such attendance was regarded merely as an ordinary part of the duty of the general practitioner to his patients, and was not paid for by the local authority.

The term "infectious disease" in this section includes tuberculosis, whether the disease be compulsorily notifiable or not. The Local Government Board in reports and circulars have indicated their view that the Public Health Act is applicable to tuberculosis as to other forms of infectious disease. In particular they have issued an order requiring the notification of the pulmonary forms of tuberculosis. It is therefore open to the local authority for public health to provide for the domiciliary treatment of tuberculosis, and this has been indicated in a circular recently issued by the Board (P.H., XVII, 1912).

The powers conferred by this section (66) of the Public Health (Scotland) Act, 1897, are, therefore, of the greatest

practical importance in the Highlands and Islands, where hospital accommodation is, for geographical reasons, frequently difficult to establish; where, as in some of the islands, the housing is particularly defective and insanitary; where, too, the population is frequently very much congested. No doubt the occurrence of tuberculosis is largely a problem of housing; but, pending the improvement of housing, there is abundant need for an extension of the domiciliary medical and nursing systems. Illustrations could be taken from almost any part of the Highlands and Islands.

Generally it may be said that in the Highlands and Islands the powers of hospital provision, convalescent home provision, and provision for patients that have been exposed to infection, have not been developed to anything like their full extent, nor has adequate attention been concentrated on the possibilities of medical attendance and nursing at home. Probably, if additional assistance from Imperial grants were available, medical and nursing service for infectious disease, including tuberculosis, could be made immensely more adequate. A nursing service developed under these powers would also cover a large part of the cases emerging from the medical inspection of school children, who, as is well known, suffer in considerable numbers from diseases such as ringworm, impetigo, and other infectious diseases, not to speak of infectious eye diseases, septic catarrh of the ear, and septic conditions of the throat. The amount of money available from the public health rate and the Imperial funds might thus become a substantial basis for a nursing system that could be readily extended to non-infectious cases. There seems to be no sound reason why a nursing system established by a district committee (that is, the local authority for public health) should not be consolidated with any nursing system established under a parish council. If the various moneys available were funded, there is no reason why the nursing work of a whole district should not be so arranged as to suit the purposes of every parish within the district. Such a system would be at once more economical and more efficient than the scattered and sporadic efforts at present made to deal with individual cases.

(c) Control of Non-infectious Endemic or Epidemic Diseases.

By Section 78 of the Public Health (Scotland) Act, 1897,

> The Board may from time to time make, alter, and revoke such regulations as to the said Board may seem fit, with a view to the treatment of persons affected with any epidemic, endemic, or infectious disease, and preventing the spread of such disease . . . and may declare by what authority or authorities such regulations shall be enforced and executed.

It is under this section that the recent order for the compulsory notification of pulmonary tuberculosis was issued. If it be held that the terms "epidemic" and "endemic" are to be read as alternatives to the term "infectious disease" it will at once be clear that the powers of this section may cover a number of serious and widespread diseases, infectious and non-infectious. Among the diseases that might be dealt with in such an order are hydatid disease, which is common in Shetland; croupous pneumonia, which is common everywhere; and the malignant diseases (including cancer), which at present cannot receive in the Highlands and Islands the same medical attention they receive even in small towns. It need hardly be said, however, that any serious extension of the present obligations of the public health authorities along those lines could not be contemplated without additional assistance from Imperial funds.

(d) Cleansing and Disinfection of Houses and Clothing.

Under the Public Health Act also there are abundant powers for the cleansing and disinfection of houses, for the cleansing and disinfection of clothes, for the transport of patients to and from hospital. In the direction and execution of such work an adequate service of nursing might be developed with the greatest social profit. Over and over again the Committee has had impressed upon it the value of trained nurses in educating the inhabitants in the maintenance of cleanliness, both of house and of person. Amongst the many incidental benefits from a public nursing system this is undoubtedly one of the greatest. Such educative direction subserves in no small degree the primary purposes of the Public Health Act.

(e) Ambulance Service.

Further, if it be legitimate to take the larger view of the terms "epidemic" and "endemic" disease, the development of the public health ambulance system might readily dovetail into any ambulance system that was found to be necessary for the removal of cases of general sickness. This would bring the transit of patients either to large distant hospitals or small local hospitals into relation with the public health service of the area. At present patients are removed to hospitals in carts or other conveyances, without any consideration for the nature of the illness or the danger to the patient. The damage to patients must from time to time be considerable. At any rate it is eminently desirable that some regular system of ambulance should be established, and one ambulance could serve for a very large area. The ambulance associations in the thickly-populated centres of Scotland do an enormous amount of good work in this connexion, and if there were proper organization of nursing and medical service, those associations might find for their ambulances a fairly continuous use in the Highlands and Islands. It does seem unsatisfactory that every public health authority should have to provide for the removal to hospital of cases of infectious fever, while a case of pneumonia, or acute rheumatism, or Bright's disease, or heart disease, should have to rely on any chance vehicle that the individual himself may find available in the locality. For insured persons and dependants, cost of removal to or from sanatoriums or other institutions may be defrayed out of the sums available for sanatorium treatment.

This, however, is offered only as one of many possible illustrations of the uses that might be made of the powers of the public health service to provide the mechanism to assist the organization of general treatment and the management of hospitals of every variety.

(f) Pathological Service, including Bacteriological Examinations, etc.

As a pathological service is an essential part of any adequate medical service, it is important to consider how far such a special service can be provided. Already all local authorities for public health have the power to provide for the bacteriological examinations of cases of infectious disease—tuberculosis in all its forms, diphtheria, enteric fever, etc. These powers include the full pathological investigation of all such diseases. Most of the Scottish local authorities have already made arrangements for the most urgent parts of this work, and some local authorities have special laboratories of their own. Such arrangements might, without any difficulty, include such work as the diagnosis of tuberculous cases by tuberculin, the technical direction of tuberculin treatment or other similar treatment, the preparation of special vaccines, and the like. With very little additional outlay a full system of pathological assistance and consultation could be instituted. This would be an eminently suitable subject for a subsidy from any additional grants contemplated.

School Medical Service.

This medical service has been organized under the powers of the Education (Scotland) Act, 1908.

The School Medical Service will soon be, where it is not already, supported by a system of school nurses, whose first duty will be the "following up" of the cases discovered at the medical inspection. The nurse will thus come to act as a most important intermediary between the school medical officer, the parent, and the parent's family attendant. In the evidence placed before the Committee it was made abundantly clear that hitherto the number of children brought by the parent to the medical practitioner is very small relatively to the numbers needing treatment and notified to the parent by the school officer. There is here an important gap to be filled if the School Medical Service is to be made efficient. This gap can be filled by the school nurse, who, at the instance of the school medical officer, would "follow up" the case in the home, and, under the direction of the medical practitioner, would carry out the treatment prescribed.

Recently a grant has been given by the Scottish Education Department to such school boards as have asked for it to

enable them to ensure that medical treatment is provided for "necessitous" children. A certain portion of this money might well be spent in securing the assistance of the local medical practitioners for the treatment of such ailments as they might properly undertake to treat or do habitually treat. The school nurse would normally superintend or carry out the treatment prescribed by the medical man in charge. But such a nurse would in many localities have time to do nursing work for the parish or the public health authority, or the Insurance Committee. There is here, therefore, opened another line of possible organization of nursing and medical service.

Where the districts are sparsely populated, and where a concentration of nursing and treatment work is readily accomplished, it would be a waste of money and energy for each *ad hoc* authority to provide its own nurses. The "following up" of school cases might easily be fitted into the treatment of such cases and adapted to the other nursing work of a district.

Maternity Medical Service.

In the course of the Committee's investigations nothing has been more striking than the casual nature of medical service in regard to birth and infancy. The medical practitioners in their returns indicate that they are summoned in a considerable percentage of confinements, but the greater percentage of confinements almost everywhere is left to the charge of trained nurses, partially trained midwives, or totally untrained women. In some localities that are difficult of access, or far from a doctor, births take place either without any assistance whatever or with such assistance as the husband or other person can render on emergency. The evidence shows that only a small number of cases are attended even by trained nurses; the majority are attended by the partially trained midwives or by unskilled persons. In almost no locality, however, is there any definite understanding between trained nurses, midwives, unskilled persons, and local doctor. The doctor, no doubt, is often summoned in difficulties, but that is accidental. There is no obligation of any kind on any midwife, trained or untrained, to summon a doctor; there is no notification of births; there is no registration of midwives; there is, in a word, no systematic relation between doctor and maternity nurses. This is true with very few exceptions.

From no standpoint can this chaos of casual practice be regarded as an adequate medical service. Apart, however, from the obvious want of system or mutual understanding, the damage done by the unskilled management of confinements is known to be considerable. Where practice is so casual precise information is naturally very difficult to obtain, but the Committee has had abundant indications of the injury done to individual mothers by the unsuperintended and undirected practice of partially skilled or unskilled women.

The Midwives Registration Act does not apply to Scotland. Consequently, midwives of any grade of qualification may practise absolutely without supervision by any medical man or by any other external authority. In none of the country districts visited has the Notification of Births Act been applied by the local authority. The result is that the attendant at a birth is not brought into official connexion with the health authority. The Act has been adopted in the town of Inverness.

As a first step towards the remedy of this entirely indefensible condition of practice, two things may be suggested: (1) That the bill recently before Parliament for the registration of Scottish midwives should be passed into law at as early a date as possible; (2) that the local authorities should be requested to apply the Notification of Births Act over their whole area.

The medical and nursing care of infancy from the first year to school age is, as nearly everywhere else in Britain, entirely unprovided for as such. It is left simply to the accident of parental solicitude and the availability of a doctor. There is evidence that among these infants bronchitis and catarrhal pneumonia are common, as is to be expected from the conditions of the housing. The perpetual inhalation of peat smoke, whatever other results it may have, may fairly be set down as a contributing cause of bronchitis and pneumonia in infancy. Indirectly it may thus increase the predisposition to tuberculosis. Further, the proved inadequacy of the milk supply in various localities is a cause of malnutrition, and there was much other evidence that in some of the poorer localities the infants of 1 to 5 years, no less than those of later age, failed to receive their fair share of nourishment. In order, therefore, to bring birth and infancy into line with the services already enumerated, it is eminently desirable first to establish the notification of births, and thereafter to encourage the appointment of skilled health visitors. Both duties fall to the local authority for public health.

In any claim for an additional Imperial grant the care and management of birth and infancy ought to receive a very prominent place. Under the existing law the whole cost, both of the notification of births and of all health visitors, would fall on the public health rate of the district.

Insurance Medical Service.

Whatever medical service is ultimately organized under the National Health Insurance Act, it is certain that at many points it will come into contact with, or overlap, the existing medical services. To prevent overlapping and waste of energy and money it is essential that the Insurance Medical Service should be adjusted to the others. This can be readily done. Whether the work be carried out by the panel system or by whole-time officers, the same medical man will frequently be in a position to undertake the treatment necessary under the Insurance Act, the Poor Law Acts, Public Health Acts, the Education Acts, and the Factory Acts. It ought to be a simple matter to arrange, through the local body afterwards suggested, that the attendance of insured persons, like the attendance on the poor and the school children, shall be made a functional part of a single medical service on the lines already indicated. There is nothing in the special work likely to be required of a medical man under the Insurance Act that should in any way militate against an administrative consolidation of this and the other medical services. On the contrary, the same family may contain a sick insured person, a sick poor person, a sick old-age pensioner, a sick infectious person, a sick school child, and a sick lunatic—each entitled to medical attendance under a special statute.

In the same way, any nursing service established under the Insurance Act could be worked into a system with other nursing services.

Factory Medical Service.

Under the Factory and Workshop Acts there are two chief medical services: First, the Public Health Service, acting through the medical officer of health, who has certain duties in relation to factories and workshops, workplaces, bakehouses, etc.; secondly, the service of certifying surgeons concerned with the personal certification of the workers. Where there is no certifying surgeon for a factory or workshop, the Poor Law medical officer for the district acts for the time being as the certifying surgeon. This is another instance in which unification might be desirable. Factories are not numerous in the Highlands, but workshops and workplaces are. The work of medical inspection of workshops and workplaces normally falls to the medical officer of health. The work of certifying falls to the medical practitioner. As in so many other public health functions, so here—the service of the local medical practitioner might very well be utilized as part of the public health service.

Post Office Medical Service.

Like the certifying surgeoncies, the Post Office medical officerships are under the patronage of the central department. In the Highlands and Islands the money value of the service does not amount to much, except, perhaps, in some of the towns. Like the factory service, however, the Post Office is mentioned as a type of a medical service under the direct control of a central department, yet carried on by a local practitioner who may have many other official duties.

Nursing Service.

Any voluntary association capable of providing a service of trained nurses might well be assisted by contributions,

both from the local authorities and Imperial funds. To a certain extent this is already done, as parishes contribute to the associations, but there is room for organization and development. Thus, if a county nursing association were established on a voluntary basis it would be systematically subsidized either by annual contributions or by payments for work done. In none of the public medical services enumerated is there anything to prevent organization of such nurses into various grades, according to the predominant requirements of the district.

Private Medical Practice.

(a) Relation of Private Practice to Official Services.

All over Scotland private medical practice is frequently bound up in greater or less degree on one or several official services—for example, the parochial medical service, the public health service. In the Highlands and Islands this is more strikingly the case; for, as the evidence everywhere shows, the great mass of practitioners reckon the income from public service as an important factor in their practice. In some cases the whole income amounts to little more than the subsidy from the official services. In a large proportion of the parishes no medical practitioner can live on the income obtainable from private practice alone. The principle, therefore, of securing to the doctor an official income sufficient to induce him to practise in the locality is already everywhere accepted. In the argument here set forth it is proposed to do two things: first, to relate the local practitioner in an official capacity to as many public services as possible, thereby extending the financial basis for a living practice; second, by a correlation of services to develop and extend the medical activities of the public authorities.

(b) Club System.

If the club system were to be made a substantial basis for the better organization of medical services it would have to be compulsory; this would involve legislation. As, however, the purpose of the suggested scheme is to ascertain what can be done without legislation, the club system is considered solely from the standpoint of administrative consolidation of services as distinct from legislative consolidation. It is believed that the club system might in certain localities be developed on a voluntary basis if an Imperial grant in aid of local contributions were made available—that is to say, if an association in any locality raised a certain sum, an equivalent sum might be contributed from the grant.

(c) System of Official Subsidy with Low Fees.

It seems reasonable to conclude that in many localities within the area the private practitioner, if he is to perform effectively his multiform duties to the community, must have a minimum official salary assured to him from public services.

But a satisfactory medical service does not consist of general practitioners alone. No hospital medical service is complete without its staff of nurses, wardmaids, and other administrative servants. No outdoor medical service is complete without a parallel system of nurses and other servants. But to constitute a "satisfactory medical 'service'" there must also be provision for consultation between equals, between juniors and seniors, between general practitioners and specialists. There must be provision for assistants at operations. There must also be special provision for such highly specialized work as no country practitioner does normally or can properly undertake.

The Administrative Consolidation of Existing Medical Services.

(1) *The Local Committee.*

(a) Area.—If the activity of the various services is to be effectively correlated, the area of any committee must not be limited to a single parish. Probably the area of the local authority for public health would, on the whole, be the most suitable. This area, as determined by the Local Government Act of 1889, has been found after twenty years' experience to be very suitable for public health purposes. It always contains several parishes, and therefore provides for interparochial adjustment of the services; but, except in two of the Highland counties, it is never co-extensive with the county council area. It is certainly advisable that no new area should be created for the type of committee proposed. It is, further, eminently desirable that the expense of meetings should be reduced to a minimum. In the Islands the difficulty of holding meetings has been found exceptionally great. Consequently the Islands must form a special area.

(b) Constitution.—Of existing authorities, the District Committee—that is, the local authority for public health—would form the most natural nucleus for a composite committee. The various interests, so far as not already represented on it, might be either associated with it in the form of a consultative committee or incorporated in it. As, however, legislation is to be avoided, the services of the members of the District Committee would be entirely voluntary. Another form of committee which it is considered would be possible is one composed of representatives from the District Committee; a representative from the Local Insurance Committee; a representative from a group of parish councils; a representative from any local medical association; the medical officer of health of the county or district; one or more officers from the central bodies mainly concerned—that is, the Local Government Board, Scottish Education Department, or the National Health Insurance Commission, or the Central Lunacy Board—such officer to act as assessor.

(c) Duties.—The primary duty of the Committee would be to consider the special needs of the area, the financial position of the various authorities and bodies represented, the accommodation for nurses and doctors, the establishment of nursing homes or small hospitals, etc. It would prepare a scheme of improved medical and nursing service for submission to the central authority with a view to the Imperial grant. The central authority could form leading regulations for the duties and responsibilities of the Committee.

(2) *The Central Body.*

I. *Constitution.*—The central body would naturally be composed of representatives from the statutory central authorities already existing—namely:

(a) The Local Government Board, which is the central authority for Poor Law, old age pensions, public health, notification of births, unemployment, housing, and local government business generally; for the distribution of the capital grant to county councils and other authorities for sanatoriums and other institutions under the Insurance Act; for the approval of tuberculosis sanatoriums or other institutions under that Act, and for the approval of the manner of treatment of tuberculosis and other diseases otherwise than in sanatoriums, and for the distribution to local authorities of grants in aid of tuberculosis treatment.

(b) The National Insurance Commission, which is the central authority for the administration of the Insurance Act, and medical services under that Act other than such service as is rendered by the public health authorities.

(c) The Scottish Education Department, which is the central authority for the medical examination and supervision of school children, and for the administration of the grants made for the treatment of necessitous children.

(d) The General Board of Lunacy, which is the central authority for the medical supervision of asylums, lunacy wards in poorhouses, and boarded-out lunatics.

These four central authorities are, each in its own sphere, responsible for the official medical and nursing services already enumerated. Any additional grant made by the Treasury would normally be distributed through those central authorities for the work required of them under the various statutes. As, however, the grant contemplated would be a special grant for removing the inadequacies of medical service, it is desirable that the Treasury should also be represented on the proposed central authority. It is suggested that the Treasury representative should be chairman of the central authority, which might be designated as "The Highlands and Islands Medical Service Committee."

II. *Duties.*—The Committee would be responsible for the allocation of the grant. It would adjust the allocation to the specific requirements of the departments

concerned. It would adjust, in consultation with the various departments, the conditions to be assigned to grants for the various purposes.

CONCLUSION.

Of the system of administrative consolidation of medical and nursing services suggested by Dr. Leslie Mackenzie, the objective would be to build up a minimum salary for medical practitioners from official sources, local or central; to make each general practitioner needed for the locality the officer of as many of the local services as was found on inquiry to be expedient; to make the minimum salary such as to attract well-trained medical men to the difficult and remote localities; to organize a service of nurses for surgical, medical, and maternity nursing; to secure, by whatever official channel was most appropriate, a service of pathological and clinical specialists; and thus, by adjustment of areas where necessary, by the development of existing statutory powers, and by arrangements for the unification of official duties, to effect a working consolidation of the present services.

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY REMEDIES.

EVIDENCE REGARDING BEECHAM'S PILLS.

ON January 23rd evidence was given by Sir Joseph Beecham, of St. Helens, Lancashire, proprietor of Beecham's pills and Beecham's cough pills.

The witness informed the Committee that the business of Beecham's pills was established over sixty years ago by his father, the pills being then made in his father's shop. They were not advertised, but they had a good sale among the customers of the business. Later on his father began to advertise, and had such success that he gave up the shop and proceeded to manufacture the pills on a large scale. The business had continually increased. The witness objected that *Secret Remedies* did not distinguish between household remedies which had been sold for a number of years in great quantities, and fraudulent preparations. Beecham's pills were made from a valuable secret formula; the analysis published in *Secret Remedies* was inaccurate and omitted some active ingredients. Fifty years ago Beecham's cough pills contained some morphine. When the law was altered rendering it necessary for proprietary medicines containing poisons scheduled under the Poisons Act to be labelled "poison" and their sale to be restricted to druggists, the morphine was omitted from the ingredients. Afterwards a very small percentage of the drug was again used, but a High Court decision made it clear that as the proportion was so small the medicine need not be labelled poison.

The witness said he had refrained from publishing medical or other testimonials regarding Beecham's pills although he had received thousands. He knew of many medical men who had advised patients to take Beecham's pills as a useful aperient, and the success of the medicine had been built up entirely on public approval. The circular issued with each box advised purchasers to consult a medical man as to serious or complicated disorders of the nervous system. Other complaints were also specified as requiring the attendance of a qualified medical man. As far as possible the advertising of Beecham's pills was confined to newspapers which did not insert announcements of an objectionable character. Sometimes he made it a condition that if he advertised questionable advertisements should cease to appear in the paper. Since 1906 the sale of Beecham's pills in the United States had more than doubled. In proportion to population the sales in Australia and New Zealand were larger than anywhere else.

The witness expressed the strongest objection to compulsory publication of the formulae of proprietary medicines; this was not required by the law of either Australia or America. Publication would obviously lead to the making up of widely advertised articles by chemists, the imitation being sold to the public as "according to the formula of" the well known preparation. He understood that one of the results of the increased strictness of the law in Germany in regard to this matter was the growth of the practice of medicine by unlicensed persons. In this connexion the witness quoted an article in the BRITISH MEDICAL JOURNAL of May 11th, 1912, which stated that unregistered practitioners in Berlin had increased from twenty-eight in 1869 to 1,013 in 1911, a much larger increase having taken place in Prussia.

The Chairman (Sir Henry Norman), after consulting the file of the BRITISH MEDICAL JOURNAL, remarked that the witness had evidently misunderstood the purport of the article in the JOURNAL with regard to the German law. The statement was made that, because of laws passed relaxing the conditions under which men were allowed to practise, there had been a great increase of medical humbugs of all kinds.

Continuing, the witness said he regarded it as an advantage to the public that a good formula should be compounded on a large scale. The public would not reap an equal advantage from the same formula made up by different chemists under widely varying conditions. As regards the present state of the law in relation to the proprietary medicine business, the witness considered vendors of medicinal preparations to be liable to a civil action for any fraudulent statements.

Replying to Dr. Lynch, the witness said he did not know whether his father was the discoverer of the therapeutic value of the drugs used in Beecham's pills; it was a case of the discovery of an excellent combination.

Mr. Lawson: He discovered the money value. (Laughter.)

In further reply to Dr. Lynch, the witness intimated that he did not care to state the annual turnover of the business, but he believed it to be the largest of its kind in the world. Over a million pills were sold every day of the week. The total weight of the pills made in 1912 was 50 tons.

Dr. Lynch: Is your turnover about £360,000 a year?—I do not think that is far out. We spend, roughly, £100,000 a year in advertising.

Mr. Lawson asked the witness whether, having regard to his establishment charges and the cost of advertising, other firms could not manufacture similar pills at a lower price at a reasonable profit. The reply was that it depended on the skill displayed in advertising the goods.

Mr. Lawson: Then you consider the reason for the price charged for your pills is the cost of the advertising necessary to inform the public of what you claim to be their merits?—Yes.

In the course of further examination on the question of cost, the witness mentioned that he took the formula published in *Secret Remedies* as the formula of Beecham's pills to three chemists in different large cities to be compounded, and the prices charged for the same quantity as were contained in the 1s. 1½d. box were 1s., 1s. 9d., and 2s. 6d. respectively.

The Committee adjourned for three weeks.

THE National Association for the Prevention of Infant Mortality and for the Welfare of Infancy has arranged to hold an English-speaking conference on infant mortality at the Caxton Hall, Westminster, on August 4th and 5th, immediately before the International Medical Congress. There will be two sections: the administrative will discuss the responsibility of central and local authorities in the matter of infant and child hygiene, and the administrative control of the milk supply. The medical section will discuss the necessity for special education in infant hygiene, medical milk problems, and antenatal hygiene. The President is Mr. John Burns, M.P., and the Chairman of the Executive Committee is Sir Thomas Barlow, President of the Royal College of Physicians of London. The Vice-Chairmen are Alderman Benjamin Broadbent, Councillor W. F. Anderson, of Glasgow, and Sir Lauder Brunton, M.D., F.R.S. The Executive Committee is composed of representatives of statutory administrative authorities, medical officers of health, members of the medical profession engaged in clinical practice, and representatives of voluntary associations. The Honorary Secretaries are Dr. A. K. Chalmers (Glasgow) and Dr. Eric Pritchard (London), and the Foreign Honorary Secretary is Miss Janet Lane-Claypon. The offices are at 4, Tavistock Square, London, W.C., and further information can be obtained on application to the secretary at that address.



"Swarth Gill," the birthplace of Dr. Haygarth.

Nova et Vetera.

A MEDICAL PIONEER: JOHN HAYGARTH OF CHESTER.

By John Elliott, M.D., F.R.C.P.,
Physician to the Chester Infirmary.

In the beautiful valley of the Clough, in the West Riding of Yorkshire, and in the parish of Garsdale, stands an old manor house—"Swarth Gill"—hard by the road leading from Sedbergh to Hawes, and some five miles distant from the former. On the porch in a stone panel are cut the initials "I. H. I." and the date "1712"—initials which are repeated on the hinges of the massively studded oaken door and on various oak panels within the house. On the other side of the road winds the river in its rocky limestone bed, fed by mountain streams, or "gills," one of which, crossed by a quaint rustic bridge, skirts the gabled end of Swarth "gill" to dive beneath the road and join its parent stream.

This was Haygarth's home, and the initials "I. H. I." are those of his parents, John and Isabella Haygarth.

Distant a short mile is Garsdale Hall, a long, low farmhouse abutting on the road, which he also owned and farmed in his later years. On the hillsides, in front of Garsdale Hall and in the neighbourhood of Swarth Gill, are the remains of the forest trees which he planted to beautify his native dale.

In the parish church the beautiful stone and marble pulpit bears the following inscription:

TO THE GLORY OF GOD
AND IN
MEMORY OF
JOHN HAYGARTH, M.D., F.R.S.,
BORN AT GARSDALE, 1740.
DIED AT BATH, 10TH JUNE, 1827.
PRESENTED BY HIS GRANDDAUGHTER, 1898.

These are the only existing memorials of one who was a prominent figure in the medical history of his time.

Educated at the famous Grammar School of Sedbergh, he proceeded to St. John's College, Cambridge, in 1759, and graduated M.B. of that university in 1766. He was one of the three first pupils of John Dawson, the Surgeon of Sedbergh, and self-taught mathematician, who relinquished his profession for the pursuit of his favourite study about the year 1788, and coached no fewer than eleven senior wranglers. Dawson, who is said to have been a kinsman of Haygarth, was born at Raygill, in the parish of Garsdale, and "Dawson's rock" on the hillside above Raygill is still pointed out as the spot where he pursued his lonely mathematical studies.

It is noteworthy, as showing the possible influence of romantic and beautiful surroundings in the determination of character, that two other contemporary physicians of fame, Dr. John Fothergill and Dr. Anthony Askew, originated from the same neighbourhood which produced Haygarth and Dawson.

We shall hear much of Dawson in Haygarth's works, for he provided the statistical data with which the latter loved to embellish his arguments. After completing his studies at Edinburgh, London, and elsewhere, Haygarth was appointed physician to the Chester Infirmary in 1767, and the way in which he utilized the clinical material at his disposal will be best told in his own words: "Since the commencement of my profession in the year 1767 I have constantly recorded, in the patient's chamber, a full and accurate account of every important symptom, the remedies which were employed, and, when an opportunity offered, the effects which they produced. These clinical cases have always been written in Latin, as being most concise and expeditious, and as best adapted to conceal the complaints, especially female complaints, that are confidentially revealed to a physician."

Among the higher and middle ranks of society I have noted and classed the cases of 10,549 patients, from 1767 to 1801 inclusive. I have also written clinical reports of a large number of diseases among persons in the lower ranks of life, being the cases of all my in and out patients at the Chester Infirmary for thirty-one years.

His friend Dr. John Fothergill was in the habit of spending two months of his leisure time each summer at Lea Hall in Cheshire, and thither the young Chester physician constantly repaired for guidance and advice.

The physicians of Manchester, Liverpool, and Chester met four times in the year at Warrington for the discussion of medical subjects and the interchange of views; frequent reunions took place also at Frodsham, whilst the rules of the Chester Infirmary provided for a consultation of the whole staff every week on doubtful and difficult cases.

Such were his opportunities; it will soon be apparent that he was not slow to make the fullest use of them.

The Prevention of Fevers.

In a paper read before the Royal Society in January, 1777, on the population and diseases of Chester in 1774, Haygarth gave the first hint of his plan for preventing the spread of fevers by isolation. Typhus fever and small-pox had both been epidemic in the city during that year. There had been 285 cases of fever with a mortality of 1 in 10. The proportion of deaths by the

natural Small Pox to all deaths that year had been 1 to 2 and 7-10ths, and from a general survey of the City it appeares that

out of a population of 14,713 inhabitants only 1,060 (that is 1 in 14) had never had the Small Pox.

Speaking of the fever he says:

If a regulation could be universally adopted of immediately removing out of the family such of the poor people as are seized with fevers, it is evident that the most salutary consequences would follow. Reasonable objections might be made to receiving such patients into the general infirmary, even into separate wards, lest the infection should spread through the whole house, which, in a former paper on this subject, was proved to be healthy to an uncommon degree when compared with other hospitals. But might not this and every other objection be obviated by erecting, on the ground which adjoins and belongs to the Infirmary, a building to be divided into spacious, airy, separate apartments, where patients affected with fever and properly recommended might be received on any day of the week?

It will be observed th proposal, first formulated in 1774, at his original recommended the erection of infectious wards outside the infirmary building. The reasons which induced him to establish fever wards within the infirmary itself will appear subsequently.



The porch at "Swarth Gill."

Small-pox.

Haygarth was now, however, occupied with another matter. The dreadful mortality from small-pox in Chester in 1774, when it was epidemic, and the fact that the so-called "casual small-pox" was never entirely absent from the city, concentrated his whole attention on the possibility of exterminating the pestilence.

In the year 1777 he began to study by exact observation the laws which govern variolous infection. In this year the distemper again became epidemic. Two circumstances rendered the task of fighting the infection peculiarly difficult: the first was the almost universal belief among medical men, following the teaching of Sydenham, that the cause of any infectious fever becoming epidemic was some morbid condition of the atmosphere, a widely spread influence which it was useless to attempt to combat. The other was the ignorance and superstition of the poorer classes, who, far from endeavouring in any way to avoid infection, were in the habit of deliberately exposing their children to the infection of the small-pox, so that they might have the disease and get it over. The graphic accounts given by Haygarth of the way in which patients afflicted with the small-pox, and in every stage of the eruption, were walking on the Walls, in the Rows, and in the public streets, in close association with those susceptible to the disease, sound almost incredible.

Haygarth's exact observations during the course of this epidemic, and the conclusions he drew from them, led him to propose, at first privately in 1777, and then in March, 1778, publicly, a plan for preventing the spread of infection, and the formation of "The Small-pox Society" in Chester, at a public meeting at the Pentice on March 16th, 1778, was the practical outcome of his inquiries.

It was not, however, until 1784 that he published his *Inquiry how to Prevent the Small Pox*.

The argument on which he based his rules of prevention is summed up under nine headings. It will be sufficient briefly to summarize the principal points:

1. Small-pox never was known to be produced by any other cause than infection.

2. The incubation period is from six to fourteen days after inoculation, and not much longer in the casual small-pox.

3. Clothes, furniture, food, etc., exposed to the variolous miasms never, or very rarely, become infectious.

4. The air is rendered infectious, but to a little distance, from the variolous poison.

5. Persons liable to the small-pox are infected by breathing the air impregnated with variolous miasms either:

(*a*) Very near the patient in the distemper, from about the time that the eruption has completely appeared till the last scab has dropped off the body; or

(*b*) very near the variolous poison in a recent state; or

(*c*) that has been shut up ever since it was recent.

6. Consequently the small-pox may be prevented by keeping persons liable to the distemper from approaching within the infectious distance of the variolous poison till it can be destroyed.

In addition Haygarth laboured to prove that the poison is soluble in the air; a theory which was at once challenged by his medical correspondents, notably by his friend Dr. Percival of Manchester, and by Dr. Waterhouse of New Cambridge in America. His principal argument in support of this theory was the fact that air impregnated with the poison remained transparent even when illuminated by a ray of sunlight.

It will be seen that the view put forward in the fourth heading—namely, that the air is rendered infectious *only to a short distance*, is at variance with the experience of those in touch with modern small-pox hospitals. Their conclusions, however, are open to fallacy, and, in my opinion, Haygarth produces overwhelming evidence in support of his contention. This also was challenged by Dr. Waterhouse, the physician of New Cambridge, on very strong evidence, but, after careful study of a subsequent epidemic in America, he gave his adherence to Haygarth's conclusion.

Another notable feature of the above argument is the assertion that clothes, furniture, etc., do not become infectious, the author making the important reservation "unless they have adhering to them serum, pus, or scabs

from an infectious patient." Here again he encountered opposition from the same source, evidence of infection through a doctor's wig being forthcoming; Haygarth, however, stuck to his guns, and routed his opponents to his own satisfaction.

Based on the results of *The Inquiry* are the *Rules of Prevention*, which must be given in their entirety:

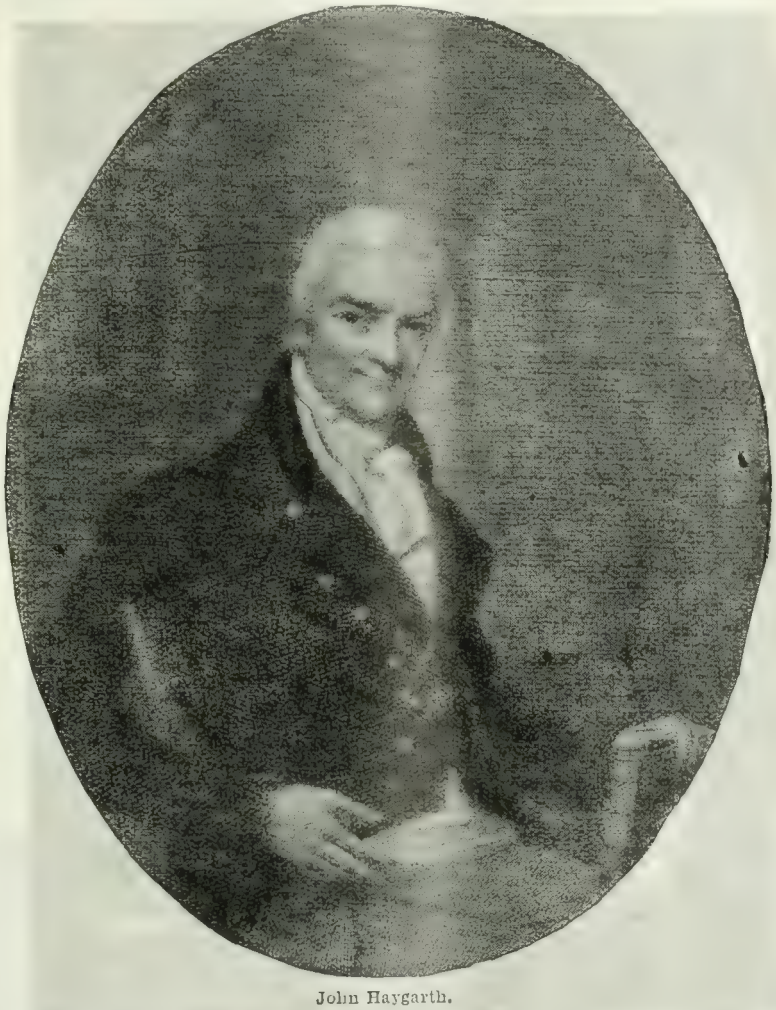
Rules of Prevention.

1. Suffer no person, who has not had the Small-Pox, to come into the infectious house. No visitor, who has any communication with persons liable to the Distemper, should touch or sit down on anything infectious.

2. No patient, after the pocks have appeared, must be suffered to go into the street, or other frequented place.

3. The utmost attention to *cleanliness* is absolutely necessary: *during* and *after* the Distemper, no person, clothes, food, furniture, dog, cat, money, medicines, or any other thing that is known or suspected to be bedaubed with matter, spittle, or other infectious discharges of the patient, should go out of the house till they be washed: and till they have been sufficiently exposed to the fresh air. No foul linen, or any thing else that can retain the poison, should be folded up and put into drawers, boxes, or to be otherwise shut up from the air, but immediately thrown into water, and kept there till washed. No attendants should touch what is to go into another family, till their hands are washed. When a patient dies of the Small-Pox, particular care should be taken that nothing infectious be taken out of the house so as to do mischief.

4. The patient must not be allowed to approach any person liable to the distemper, till every scab is dropt off, till all the clothes, furniture, food, and all other things touched by the patient during the Distemper, till the floor of the sick chamber, and till his hair, face and hands, have been carefully washed. After everything has been made perfectly clean, the doors, windows, drawers, boxes, and all other places that can retain infectious air should be kept open till it be cleared out of the house.



John Haygarth.

It will be seen that the measures relied on for disinfection were washing with water and exposure to the air. No doubt this is why Haygarth clung with such tenacity to his theory of the solubility of the poison in air.

The Small-pox Society.

So much for theory; the results of the inquiry were now to be put to the practical test. At a general meeting of citizens held at the Pentice on March 16th, 1778, a "society for promoting inoculation and preventing the casual Small Pox in Chester" was formed, comprising most of the leading citizens, with Thomas Falconer as chairman.

The proposal to establish the society and the subsequent annual reports were written by Haygarth, and they are models of concise reasoning and persuasive eloquence. He gave statistics to prove that all the inhabitants of the city who were susceptible to the disease were actually infected, except perhaps eight annually; that inoculation was only fatal to 1 in 100, so that if general inoculation had been practised it would have resulted in the saving of 58 lives annually; that partial inoculation at various times and secretly would perhaps tend to spread the disease, whilst general inoculation at stated and known intervals would be productive of nothing but good. Those who feared that other diseases might be communicated by inoculation he answered by the results of experience and by quoting authorities, for example, Dr. Monro of Edinburgh, who had had a long and extensive experience.

The Small-pox Society was formed, supported by voluntary contributions. Inspectors were appointed (apothecaries or apothecaries' assistants), the medical men of the city gave their services gratuitously, rewards were given to any one who notified an outbreak of the disease, rewards also to parents for nursing their children who had been inoculated, and also to those who were successful in preventing the spread of the disease. A general inoculation was recommended every two years, and in the intervals the *rules of prevention* were put in operation.

At the end of twelve months' work the report of the society tells us that the spread of the disease had been stopped in thirty-seven places; in thirty-two of these without infecting a second family.

In 1780, 85 children were inoculated; there were no dangerous cases and all recovered. It did not spread the disease, for in the districts where most were inoculated there were fewest cases of the casual small-pox.

In March, 1781, there was not a single case of casual small-pox in Chester. In this spring 128 poor children were inoculated.

In September, 1782, it was reported that 416 cases had been inoculated since the beginning of the society, with 2 deaths (1 in 208). These deaths were doubtfully due to the inoculation. There had been great difficulty in preventing the spread of infection from reckless soldiers quartered in Chester on their way from Ireland, but the deaths from casual small-pox in Chester had been diminished by nearly one-half since the society had been in operation. The results were so striking that Leeds and Liverpool followed the lead of Chester, and the Royal College of Physicians of Edinburgh appointed a committee to inquire into the matter.

The Inquiry was translated into French and German, and attracted universal attention and approbation. In 1791 Haygarth received a letter from the Syndick and Council of Health of Geneva, couched in the most complimentary terms, asking his advice and assistance in establishing a similar institution to the Small-pox Society in Geneva; to this he suitably replied.

The initial success of the Small-pox Society was so

great that Haygarth suggested privately to Dr. Fothergill a plan to exterminate the disease in 1778. This he afterwards elaborated in his *Sketch of a Plan to Exterminate the Casual Small Pox from Great Britain, and to Introduce General Inoculation.* This was published in 1793, and dedicated to the King. John Dawson, the mathematical genius of Sedbergh, provided the calculations and estimated that such a plan, if successful, would result in an increase of population in Great Britain in ten years' time of 300,000, assuming the population to be 8,000,000, and the annual deaths from small-pox 35,000.

The *Plan* proceeded on the lines of the Small-pox Society, applied to the whole country and reinforced by legal authority, with rewards and punishments, inspectors and directors, etc.

VACCINATION.

After the epoch-making discovery of Edward Jenner it could have no other than historic interest, and need not detain us. There can be little doubt, however, that if rigidly carried out it would certainly have been successful in stamping out the disease for a time; then, however, would have arisen a difficulty foreseen by Haygarth himself. The public would have grown chary of submitting themselves to inoculation, and a dreadful epidemic might have arisen. He consoled himself with the reflection, however, that on the first signs of the outbreak they would have flocked to the inoculator.

In a later edition of *The Inquiry* Haygarth wrote as follows of Jenner's discovery:—

> The discovery of Vaccine Inoculation by Dr. Jenner is the most fortunate and beneficial improvement that medical Science ever accomplished. It does not, however, preclude the necessity of investigating the variolous poison, and of considering by what regulations its propagation may be prevented. In order to secure the unthinking multitude from this destructive Pestilence, measures to prevent the Casual Small Pox should everywhere accompany Vaccine Inoculation.

So much for Haygarth's energies and activities in connexion with the prevention of small-pox.



The memorial pulpit to Dr. Haygarth, Gawsdale Church.

THE MANAGEMENT OF FEBRILE CONTAGION IN GENERAL.

No sooner had the Small-pox Society of Chester been launched on its triumphant career of usefulness than his fertile brain was busy on another matter which was to bring him undying fame.

In 1780 and 1781 he turned his attention to the laws which govern febrile contagion in general. He had ascertained that the pernicious effects of the variolous poison were limited to a short distance from the patient.

> I soon also discovered that the Contagion of Fevers was confined to a much narrower sphere. Upon these principles . . . I discerned the safety and wisdom of admitting Fever patients into separate wards of the Chester Infirmary itself, instead of an adjoining building, as I had proposed in 1774. . . .
>
> In the year 1783, on looking out for proper accommodation, I found the attick story on the north side of the building unoccupied, and merely a lumber-room. It is 96 ft. long, 21 ft. broad, and being not ceiled, it is open to the roof, which is 16 ft. high. This chamber is divided by a partition in the middle, thus forming two wards of 48 ft. in length. Through them is admitted a very free circulation of air, by nine windows, which are placed on all sides of the wards, and by others in the adjoining passages; by a door in the partition between the wards, and by a large aperture in the upper part of the partition. Several of these windows are constantly open during the day, nor are they all closed at night, if the patients be numerous, and the weather moderate. Adjoining to the west end of these wards is a room for the nurse, into which a fever patient is sometimes admitted. At the east end of the wards a wash house is conveniently situated, so that no foul clothes need be brought among the other patients. On the same side and floor there is placed a separate necessity, which prevents of personal intercourse with the rest of the hospital.
>
> At the commencement of this institution, at Chester, apprehensions of the danger of infection were so prevalent that no nurse could be persuaded to attend the Fever wards. In these difficulties a surgical patient was prevailed on to undertake this office in the men's ward. He caught the Fever and died of it. When a proper nurse was procured she (Lowry Thomas) had the care of both wards for eleven years with only occasional assistance. During this period she was infected by the fever several times, and died of it in July, 1794, on the fifth attack, after a week's illness. The nurse who succeeded has twice caught the Fever, and was each time very ill of it, but otherwise has enjoyed good health for four years. A night nurse . . . caught the Fever. And other occasional nurses may probably have suffered infection, but, as far as has come to my knowledge, these four are the only instances of Infection communicated in the Fever Wards at Chester during a period of fourteen years and a half—from August, 1783, till March, 1798. Both these nurses (Lowry Thomas and Jane Bird) were susceptible of Fever. They "both exposed themselves to Infection without reserve, even more than was necessary and useful, especially the former. In spite of cautions and exhortations to the contrary, which I have often given her, she used to approach those who were very weak and ill, so close that she must have inspired the infectious breath of a Fever patient with very little dilution of other air, in thousands of instances, without receiving infection. . . . No medical or other visitors were ever suspected to have caught infection in these wards, though they have touched the patients in innumerable instances. Yet the Apothecary (Mr. Manning) was susceptible of infection. He caught a very dangerous putrid Fever by visiting a poor sick family (which I also visited) as out-patients in a close, dirty room. Unreasonable prejudices prevented these poor people when attacked by the Fever from accepting the benefit which the Infirmary offered to their choice of being admitted into the house.

This account of the first institution of fever wards in a hospital is taken from Haygarth's work, *A Letter to Dr. Percival on the Prevention of Infectious Fevers* (1801), which has been justly described as a model scientific

treatise. To the general medical reader it cannot fail to be of the greatest interest, whilst to those resident in Chester and the district it is a fascinating study. In his classical researches on the "latent period" (or incubation period) of fevers, he tabulates by name the cases in the order in which they were attacked; many of these names are familiar Cheshire surnames to-day. As an instance, may be quoted the first series of cases of typhus investigated, which occurred among the family and dependants of Mr. Cheers, a farmer of Barrow, who went a journey to Manchester on April 21st, 1781, where he contracted typhus, which spread through his household, only three out of twenty escaping. The descendant of Mr. Cheers is still farming at Barrow.



"Garsdale Hall," a farm owned by Dr. Haygarth.

The success of the experiment at the Chester Infirmary was immediate. "During the first year," says the annual report, "30 cases of Fever were admitted, many of them in the most imminent danger; yet they all, except one, recovered." Dr. Currie, a colleague of Haygarth, writing in 1802, says:

> I constantly attended the Infirmary for sixteen years, and there never was at any one time reason to suspect that contagion had been communicated from the Fever wards to the other patients in the house.

The provision for isolation effectually stopped the spread of an epidemic of typhus, which caused considerable alarm in the city in 1784, and carried off some of the principal inhabitants.

Chester was visited by John Howard, the philanthropist, on his tour of inspection of gaols and hospitals in the United Kingdom. He was so impressed with the "good rules" for the fever wards that he reproduced them. His observation on both the gaols and infirmary are here quoted verbatim as an instructive object lesson that the extremes of ignorance and enlightenment can exist side by side in the same city:



"Haygill," the birthplace of John Dawson.

CHESTER CITY AND COUNTY GAOL.

Chester City Gaol.—No alteration. Prison not secure. The convicts, and prisoner for trial, were severely ironed, by the neck, hands, waist, feet, and chained to the floor; and at night to their beds in the horrid dungeon. Here was the first iron glove I have seen in England, which, though not yet used, shews the severity of the gaoler's disposition. Allowance, a pennyworth of bread to felons, and a pound to debtors; inferior in quality to that sold in the city. Debtors and felons are permitted to beg some hours in the day. That prisoners are not supplied with necessary food is a disgrace to such an opulent city. No proper separation of men and women either here, or in the county gaol. Gaoler's salary £50 in lieu of the tap.

1787, Dec. 21:
Debtors 6. Criminal 1. Convicts 6.
1788, March 2:
Debtors 8. Felons &c. 7. Women Convicts, 2.

City Bridewell.—Chester City Bridewell. A small alteration made by dividing a room or two.* No employment: no allowance. Court not secure. Keeper has a spacious garden: his salary only £4. He sells beer.

1787, Dec. 21:
Prisoners 3.
1788, March 2:
Prisoners 2.

CHESTER GENERAL INFIRMARY.

Infirmary.—The wards are spacious and clean, and the beds not crowded. The two fever wards were not in the least offensive: they were fitted up on the upper floor, on account of a contagious fever in Chester in 1784, and very properly were not ceiled, but plastered to the tiles.* By the attention of the ingenious Dr. Haygarth, and his colleague, most of the patients then recovered. The good rules for these wards I here copy.

Rules for the Fever Wards; to Prevent the Infection of Other Patients in the Chester Infirmary.

Chester Infirmary Rules.—I. Fresh water and coals are to be brought up to the fever wards every morning; and other necessaries on ringing a bell.

II. No fever patients, nor their nurses are suffered to go into other parts of the house. No other patient is allowed to visit the fever wards; nor any stranger, unless accompanied by the apothecary or his assistant.

III. Every patient, on admission, is to change his infectious for clean linen; the face and hands are to be washed clean with warm water, and the lower extremities fomented.



The old ward in the Chester Infirmary, which was used by Dr. Haygarth for the isolation of fever patients in 1785.

IV. All putrid discharges from the patients are to be taken out of the ward as soon as possible.

V. The floors of the wards are to be washed very clean twice a week, and near the beds every day.

VI. All foul linen is to be immediately thrown into cold water; and carefully washed twice out of clean water, in the adjoining room.

VII. Blankets, and other bed and body clothes are to be exposed to the open fresh air for some hours, before they are used by another patient.

* Such upper rooms in most hospitals and workhouses, having joists laid across, and being ceiled at the square, are generally bad apartments; so also the upper rooms in many houses are by this practice made close, unhealthy places, which, had they been ceiled pretty near the ridge and had the sides coved, would have been more pleasing to the eye and fresher to the inhabitants.

VIII. All the bed clothes of the fever wards are to be marked "FEVER WARD," and all the knives, forks, pots, cups, and other utensils are to be of a peculiar colour, lest they be inadvertently taken among other patients.

IX. All the windows of the fever wards are to be kept constantly open in the day, except the weather be very cold or wet; and some of them should not be shut in the night, if the patients be numerous, and the weather moderate.

X. No relation or other acquaintance can be suffered to take away any linen unwashed, nor other clothes till they have been long exposed to the fresh air.

Writing on the subject of education John Howard remarks:

But no plan that I have seen for the extended instruction of the poor seems more judiciously calculated for the purpose than one lately instituted by the trustees of the Blue Coat Hospital, in the City of Chester, where, to an ancient establishment of an hospital for poor children, a charity for the education of a large number of out-scholars has been annexed, and has been productive of the happiest effects. I will, therefore, here transcribe the following particular account of it.



The Ancient Pentice Court at the High Cross, Chester.

Plague.

In the second edition of his work in 1791 John Howard prints two letters from Dr. Haygarth on the establishment of lazarettos for the plague; Hilbre Island is here recommended as a suitable site for a lazaretto for the protection of the Port of Liverpool in connexion with the Turkey trade. Of these letters it is sufficient to say that in scientific acumen they are far in advance of their day, and his plans for shortening the absurdly long period of quarantine then in vogue remind one strangely of the regulations now in force in the ports of Great Britain.

The Manchester House of Recovery.

As a consequence of the success of the Chester Fever Wards, Manchester, in 1796, opened a "House of Recovery" on similar lines. The beneficial effects of this were at once apparent. The number of fever cases fell from 267 in the preceding year to 25 in the following one. "The bills of mortality for 1796 show a decrease in the burials amounting nearly to 400." "In 1797 the expense of pauper coffins was diminished to one third." As at Chester, the fever patients were conveyed to the House of Recovery "in a sedan chair to be employed solely for this purpose, with a moveable lining, which should be made of linen, and always exposed to the air after it had been used, and frequently washed." "Fever wards were established in 1797 at Liverpool, in imitation of ours at Chester, but groundless fears soon excluded them from the Infirmary."

General Hospitals.

In 1801 Dr. Haygarth was informed that Guy's Hospital was about to follow the example of Chester, and reserve two wards for fever cases. When I entered St. Bartholomew's Hospital as a student in 1881 there were similar fever wards (the Radcliff wards), which no doubt owed their inception to the same example.

Incubation Period of Fevers.

Much might be written on the subject of Haygarth's researches on the incubation period of fevers, of which he was the pioneer; on his hint that possibly the "putrid fevers" might embrace some varieties different from true typhus, based on the variability and long duration of their incubation periods; on his advice as to the prevention of fevers in barracks, in army encampments, and in the navy, tendered to the Government, who afterwards sent down to Chester Castle instructions strictly enforcing his own Rules of Prevention, apparently oblivious of the trifling fact that he himself was the author of them; on his determination of the incubation period of scarlet fever; and his significant instructions that influenza was subject to the same rules of prevention as other infectious fevers.

Isolation Wards in Public Schools.

He was the first to recommend isolation wards in public schools, which he did in the following words:

In every boarding school a large airy room ought to be appropriated to the reception of scholars ill of infectious Distempers. Where the patients are numerous, or where there are several patients in different boarding houses near each other, it would be more commodious, though by no means indispensably necessary, to provide lodgings for them in a separate house.

Yellow Fever.

Published along with the *Letter to Dr. Percival* is an *Address to the College of Physicians at Philadelphia on the Prevention of the American Pestilence*, "because I have the fullest confidence that the measures which it recommends, from my own experience at Chester, would effectually suppress the American pestilence" (the yellow fever).

It is noteworthy, in this connexion, that an American contemporary physician (Dr. Caldwell) ascribes the disease

to a peculiar constitution of the atmosphere, "as proved by the multitude of grasshoppers, flies, and *muskitos*."

Epidemic Hysteria.

Haygarth was now at the zenith of his fame. He enjoyed the friendship of, and corresponded with, the principal physicians of the day. He was consulted on all obscure and difficult medical questions, for example, an epidemic of convulsions which occurred in Anglesey in September, 1796, and threatened to assume extensive proportions; he at once diagnosed it as hysterical in nature, to be cured by isolation of the sufferers. The affection appeared only among women, and those only who had witnessed the manifestations in others. He quotes a similar epidemic which occurred in Angus some thirty years before, and makes the interesting observation that convulsive affections were excluded from the female wards of the Chester Infirmary.

Life in Chester.

He resided during the earlier years of his practice in Watergate Street, but subsequently built for himself and occupied the house in Foregate Street, now in the occupation of Messrs. Churton and Elphick. He had an extensive garden, which, together with the house, he sold on his retirement from Chester to "Madame" Bold. The garden was built upon and occupied the area now known as Bold Square, and named after the lady who acquired the property.

"Metallic Tractors."

In 1798 he removed to Bath, where he practised his profession at No. 17, The Circus, and renewed his friendship with Dr. Wm. Falconer, F.R.S., a former colleague at the Chester Infirmary. About this time Perkins's metallic tractors had acquired a wonderful reputation in the cure of rheumatic affections on account of the animal magnetism which they were reported to exert. It occurred to Haygarth that a lifelike imitation of the tractors, executed in wood, might work similar miracles on the unsuspecting patient, and in conjunction with Dr. Falconer the experiment was tried on some patients of the latter in the Bath General Hospital, with all due solemnity, in the presence of several members of the hospital staff. Five cases were selected for the experiment, being well marked cases of affections of the joints—ankle, knee, hip, and wrist (January 7th, 1799). The result was a complete success, and the patients experienced great relief. Next day the real Perkins's tractors were used, with the same result. These experiments were repeated by Mr. Richard Smith at the Bristol Infirmary; tenpenny nails coloured with sealing wax, bits of tobacco pipe, etc., artfully disguised, were used on various occasions with the most gratifying success. So great a reputation did he acquire that the number of candidates for the tenpenny nail treatment reached quite embarrassing proportions. The reader will find a full account of the matter in Haygarth's work, *Of the Imagination as a Cause and as a Cure of Disorders of the Body, etc.* (1800).

Essays Written at Bath.

Having no hospital appointment now, he set to work to analyse the clinical records which he had industriously accumulated; and in 1805 he published (1) *A Clinical History of the Acute Rheumatism*, (2) *A Clinical History of the Nodosity of the Joints*.

The treatise on rheumatic fever was written to show the efficacy of the Peruvian bark in the treatment of that disease, of which 170 cases are analysed and tabulated. On one of Haygarth's early visits to Dr. John Fothergill at Lea Hall, the latter had advised the use of this drug in preference to blood-letting, purging, and the other methods of treatment then in vogue. It appears that there was a prejudice against using the bark in cases of high fever. Haygarth made an extended trial of the drug, and proved its efficacy. His method of procedure was to "cleanse the stomach and bowels with antimonials," and then administer the bark in increasing doses. The treatise, with its careful clinical records, well merits extended study. As usual, it attracted much notice in the medical world, and led to voluminous correspondence with leading physicians. Haygarth's conclusions will meet with the approbation of the physician of the present day, who is in the habit of using quinine in cases which prove refractory to the salicylates. Haygarth contended that it prevented the chronic rheumatism, which is so painful a sequela of the acute disease.

"Nodosity of the joints" was a name which he proposed to substitute for "rheumatic gout." His treatise on this affection is remarkable for a clear conception of the difference between the various forms of rheumatism and gout. He had read a paper on this affection in 1779 at one of the medical meetings at Warrington.

In 1810 he published his *Synopsis Pharmacopoeiae Londinensis*.

Free Schools.

He had always been interested in the state of the free schools in the north of England, and this formed the subject matter of his *Letter to Bishop Portcous*, 1812. It is said that he exerted himself strongly to influence members of Parliament in this question.

Savings Banks.

In the year 1813 the city of Bath adopted his plan of self-supporting savings banks, concerning which he published his *Explanation of the Principles and Proceedings of the Provident Institution at Bath for Savings* (1816).

The Climate of Chester.

Dr. Haygarth's account of the climate of Chester, although the subject of one of his earliest publications (*Phil. Trans.*, vol. lxviii, for the year 1778), has been reserved for later notice. There seems to be nowadays a widespread belief that in some unexplained way the climate is unfavourable, and a surprising amount of sympathy is constantly being showered upon the inhabitants of that devoted city on account of their supposed disadvantages of climate—sympathy which, however, is entirely thrown away upon them, for they are very far from participating in this literary emotion. It would be easy to show from published records that in respect of rainfall, mean temperature, absence of fog and east wind, etc., Chester has a favourable record, but this information is accessible to all. Moreover, it is a well-known fact that children and old people thrive in Chester, and that the latter live to a great age in that city, whilst the climate is a mild and equable one in the winter. What does Haygarth say?

After an exhaustive study of the death-rate in all the principal towns both in Great Britain and on the Continent in his day, and also in rural districts, he concludes:

> That the centre is the most healthy part of the city; that a less proportion die annually here than in most country villages; and, as far as observations have hitherto been made, that it is probably as healthy a spot as any on earth are surprising facts; yet these facts are clearly evinced by the united evidence of six separate districts taken on a medium of ten years.

Again, having shown that the death-rate in women is comparatively low in Chester, he says:

> It will not be improper to observe that the women, especially in the higher and middle ranks of society, are remarkably beautiful. These facts clearly prove that the manners and situation of Chester are peculiarly favourable to the female constitution.

Again:

> The average of deaths within the Walls is 1 in 58. This is much superior to what is recorded in the country, and no other large Town approaches it in longevity nearer than in the proportion of 28 to 40.

During his later years Dr. Haygarth paid frequent visits to his native dale, where he owned several farms, and for the inhabitants of which he entertained the warmest affection. His long and useful life, spent in honour, came to a close on Sunday, June 10th, 1827, at Lambridge House, near Bath, at the ripe age of 87.

The name of Haygarth is venerated in Chester, the city of his adoption, the cradle of his fame. The ancient Pentice Court has gone, removed in 1803 as an obstruction to the all too narrow thoroughfares. The fever wards in the Chester Infirmary, still persisting, will be renovated under the reconstruction scheme now in progress. It has been proposed, and the suggestion has met with approval, that the landing comprising these two wards shall be called the Haygarth Block, and the wards named after the two heroic nurses (Lowry Thomas and Jane Bird), who gave their lives for the relief of suffering humanity.

There can be no doubt that the services of one who did

so much for the city will never be forgotten in Chester, but the writer of this essay is of opinion that they have not received adequate recognition from medical writers of to-day. It would be difficult for one, around whose judgement has been cast the glamour of local interest, and perhaps, also to some extent, the bias of hero worship, to form a strictly impartial estimate of them. He will therefore content himself with simply recording the facts as above, and leave them to the judgement of his professional brethren, and venture to recommend to their perusal the works of Dr. Haygarth, and especially his *Letter to Dr. Percival on the Infectious Fevers.*

MEDICAL BENEFIT UNDER THE GERMAN SICKNESS LEGISLATION.[1]

THE long-promised Report on the Medical Benefit under the German Sickness Insurance Legislation has been issued. It is based on inquiries made for the Government in the course of a number of visits to towns in various parts of Germany, where typical methods of organizing the insurance medical service are in operation.

In the Prefatory Note it is shown that the German Sickness Insurance system is organized on a local basis by trades, occupations or undertakings, that the rates of contribution are not uniform, and that additional benefits beyond the minimum required by law are freely given. Great variety thus results; thus at one extreme we get the "parochial" organizations, composed mainly of poorly-paid workers, receiving the minimum benefits, while at the other extreme are the factory or works organizations, in which the higher grades of labour are represented, and which give various additional medical benefits. Between these two extremes are so many varieties that it is impossible satisfactorily to compare the German Insurance Medical Service with anything that exists under the more uniform British system.

As regards the cost of medical treatment, the Report points out that in the German official returns cost is calculated by reference to the number of persons insured, though treatment is in many cases extended to dependants. In other words, the cost per head of persons entitled to treatment is not given. In order to ascertain as far as possible what this cost amounts to, it will be seen below that two groups of societies are taken: (1) Those which give medical treatment to members only and (2) those which also give treatment to dependants of members. In each of these groups, again, a great variety is found, depending largely on the social status of the members and the amount of their contributions. It is also noted that the German law may include services which are not included in the British Insurance Act, such as treatment by specialists and dental treatment, and many societies incur considerable expenditure on providing baths, milk, medico-mechanical, and other forms of treatment.

As regards the cost of drugs, it is almost impossible to make a comparison with the English system. The cost of drugs is enhanced by the fact that the chemists' trade is a monopoly, the number of pharmacists licensed to dispense being strictly limited in every district, so that there are always large numbers of fully qualified chemists who can only go as assistants to the licensed pharmacists. Dispensing by doctors is stated to be almost unknown in Germany. It is also to be noted that in many societies drugs are supplied to dependants. In Leipzig, for instance, where the costs of drugs is put down at 3s. 6½d., as a matter of fact 1s. 4½d., or 39 per cent., is incurred on behalf of dependants of the insured. The cost of various expensive appliances, dental treatment, milk, baths, etc., is also included. On the other hand, medical attendance is only given in most cases for twenty six weeks, whereas in Great Britain it is to be given during the whole period of disablement: it has not been found possible to estimate the additional cost which this will entail.

In 1910 the aggregate number of persons coming under the Sickness Insurance was 13,955,000, and the clubs or "funds" (Kassen) numbered about 23,000. Ordinary wage-earners are compulsorily insured, irrespective of the amount of their earnings, but certain other classes, including works officials, foremen, technical officials, and persons in a similar position only come under the law if their remuneration does not exceed £100 a year. This was increased to £125 by the law of 1911, which, however, will not come into full operation till the beginning of 1914. Eight types of insurance "funds" are recognized by the law, the societies being organized by separate trades or undertakings, except that in the larger towns there are "federations" for groups of trades, mutual aid associations, and organizations formed by the parochial authorities for persons not entitled to join the trade societies. The result is that the various organizations present a wide variety of social conditions, some composed of workpeople with relatively high wages and others representing the lower grades of labour. All the funds are autonomous, subject to some supervision by the commune or the State. Each is limited to the district for which it was formed, and is governed by an executive council elected by the insured and the employers in the proportion in which they bear the cost of the contributions—namely, two-thirds insured and one-third employers. The law of 1911 so extends compulsory insurance to fresh classes of wage earners that it is estimated that when it is in full operation it will include 19,000,000 persons.

SCOPE OF MEDICAL BENEFIT.

The law does not define what is to be understood by medical treatment, and the widest latitude is allowed to the funds. The doctors claim, and the funds tacitly agree, that medical treatment may comprise everything necessary for restoration to health, irrespective of the cost; the doctor in attendance has alone the right to decide what this treatment shall be. All operations necessary to restore the patient to health are included, but not operations to remove defects or blemishes which do not affect working capacity. At the same time, the surgical work of the insurance doctors is not great owing to the large extent to which the public hospitals are used. Contracting out, that is, a cash payment instead of medical treatment, is allowed only in the case of members who have ceased to be employed, and have become voluntary contributors and reside outside the district served by their fund. The minimum benefits which all funds must provide are (*a*) medical treatment for twenty-six weeks, (*b*) medicines, spectacles, trusses, and similar appliances during such sickness, or (*c*) hospital treatment in lieu of (*a*) and (*b*). The "parochial" funds are not permitted to exceed these minimum benefits, but many of the higher grade societies provide, for an extra contribution, some or all the following additional benefits:

1. Treatment with medicine and appliances may be prolonged for not over fifty-two weeks.
2. A wider range of appliances.
3. Treatment during convalescence for not more than a year.
4. Attendance by midwife and doctor in ailments of pregnancy.
5. Free medical treatment with or without medicines and appliances for families and dependants.

Extensive use is made of specialists, with whom the societies often have special agreements. Thus, of the 341 doctors engaged by one of the large Berlin funds, 159 are general practitioners and 155 specialists for eye, ear, nerve, skin, throat and lung, stomach and urogenital diseases, surgery, and diseases of women; homœopathic practitioners also are employed. In Berlin the general practitioners confine themselves as far as possible to consultations, and refer patients to surgeons on the list for even small operations. Treatment often comprises *x*-ray applications, electrical treatment, baths, and all kinds of medico-mechanical treatment. Dental treatment is generally included, and some funds contribute towards the cost of artificial teeth, or even have fully equipped dental clinics of their own. The insurance doctors are, as a rule, allowed a free hand in prescribing, but some funds prohibit drugs whose therapeutic value is not sufficiently proved, and certain expensive drugs. The prescriptions may be made up by any qualified pharmacists, except where the fund has a special agreement with particular pharmacists. The prices are as scheduled in an official scale, as provided by the law, with a payment for dispensing and vessels, but subject in general to from 10 to 20 per cent. discount. The appliances that must be supplied are spectacles, trusses, and "similar"

[1] Parliamentary Paper Cd. 6581. Price 4½d. Eyre and Spottiswoode.

appliances, and "it has been held that the test of 'similarity' may be a test either of purpose or of expense." Some of the larger funds provide more expensive appliances, such as artificial limbs, appliances for splay foot, corsets, and other supports up to a maximum cost per member of £2 10s. in Berlin or £3 15s. in Leipzig.

Hospital treatment is very largely given, and forms an important part of the cost of medical benefit. The provision of hospitals is in Germany a duty of the local government authorities, and the public hospitals are used for the great majority of patients so treated. But a certain proportion are also sent to institutions managed by ecclesiastical bodies, or to State, university, or private clinics. "Maintenance fees," which vary from 2s. to 3s. a day, are paid in respect of patients in hospitals. In the public hospitals there is no extra charge for operations, but in private clinics extra payment is required not only for operations, but for the more expensive dressings and appliances. In addition to the sanatoriums and convalescent homes provided under the German Invalidity Insurance, many of the sickness insurance societies have sanatoriums and homes of their own paid for out of the receipts for sickness insurance.

Families and Dependants.

Insurance of families and dependants of the insured is an optional benefit and is paid for in various ways—for example:

(*a*) The members pay for it separately and the accounts are kept separate.
(*b*) The married members simply pay a higher contribution, but no separate accounts are kept.
(*c*) Family benefits are given to the married members, though there is a uniform contribution for married and single alike, and no separate accounts are kept.

In some cases only treatment is given, but without medicines or appliances for dependants. In most cases the doctors receive an inclusive fee for members and families. No record, official or otherwise, exists as to the extent to which family insurance is provided, and the fact that the cost is often defrayed out of the common fund explains why in the annual Government returns no attempt is made to assign to members and dependants their respective shares of the amount under the composite heading "medical treatment." In Leipzig, Stuttgart, and Dresden family insurance is common, but it is rare in Berlin. Moreover, there is wide divergence in the meaning attached to the word "dependants." In some cases it only means wife or husband and children below 14 years of age, but in others it includes relatives in charge of the household, parents, or parents-in-law, and often any relatives by blood or marriage wholly or mainly dependent on the insured member. Thus the capitation fee paid to a doctor who has to attend both member and dependants for that fee is no criterion of the actual payment per person on his list.

Methods of Remuneration.

The sickness funds have a free hand as to the method of remunerating their doctors, though in the absence of a formal agreement payment is by attendance according to the minimum fees of an official scale, and where the doctors are well organized, as in Leipzig, they have insisted on this scale being adopted, making perhaps some modifications in its details; they cannot, however, increase the minimum fees therein specified, but in very few towns is any uniform system adopted. The methods of remuneration may be grouped as follows:

1. *Payment by Attendance.*—Here as a rule a capitation payment per insured person is put into a pool, out of which the doctors are paid for each attendance actually given. The fees are the minimum of the official scale, though in some cases there is a reduction in the case of often recurring services or a general agreed reduction varying between 5 and 20 per cent. on all official minimum fees alike. Under this system the pool is generally limited in advance, but in some cases it is unlimited, and here it is almost invariably found that the total cost is higher; for example, in Munich, in funds where the pool is limited, the cost is about 6s. a member, which covers all services; where the pool is fixed except for extra fees for special services the total is from 5s. 9d. to 7s. 6d., and where there is payment per attendance on the official minimum scale without a fixed pool the cost is from 8s. to 10s. In one large factory fund when the pool was limited in advance the cost was 9s. 4d. per member, which included treatment of dependants, but when the pool was unlimited the cost was 15s. 10d.

2. *Capitation Payment.*—Here there is a fixed yearly fee per head for all persons on the doctors' lists, choice of doctor being allowed yearly, but different capitation fees are paid to general practitioners and specialists. In a large number of cases general practitioners get 4s. a year, while specialists have from 6s. to 10s. for the treatment during twenty-six weeks, if necessary, of each case referred to them by a general practitioner, the lower fee being paid to eye specialists and the higher fees to specialists for ear, nose, throat, skin, and sexual diseases; surgeon-dentists receive 5s. a case. In some cases, in addition to the 4s. capitation fee to general practitioners, there are extra fees – 15s. for confinements, 4s. night visits, 2s. night consultations, and fees for assistance to other doctors.

3. *Capitation Payment into a Pooled Fund, with or without Extra Fees for Special Services.*—This is probably the most common method adopted, the fees for special services being first deducted and the balance being then divided among the doctors according to services rendered. In some cases, however, the pool is all divided among the doctors, and certain specified services are paid for outside the pool. Thus, in the Munich Federation, there is a pooled capitation fee of 4s. 3d., which is divided among the doctors according to services rendered, but extra payments are also made for certain services. In the Essen Federation the capitation sum pooled is 3s. 6d., but there is an arrangement by which the doctors are guaranteed 90 per cent. of the value of their individual services charged for on the basis of 1s. for a consultation and 1s. 6d. for a visit. In Düsseldorf there is a capitation pool from which payment by attendance is made, and the amount of the capitation is based every year on the average value of the services performed during the three preceding years, charged on an agreed scale of fees. In this way the capitation sum paid to the pool has ranged from 6s. to 6s. 6d. per member.

4. *Payment per Case of Sickness Attended.*—This is an uncommon method, but the Frankfort Federation pays its doctors for members resident in rural districts 5s. a case of sickness, subject to the condition that for this fee a patient must be attended for twenty-six weeks, if necessary, and that three cases of sickness at the most may be charged for any one member in one year.

5. *Fixed Salaries with Private Practice Allowed.*—This is also an exceptional method, though it is adopted by two of the largest federations. The Dresden Federation divides its area into 160 districts of unequal extent, and a doctor is assigned to each. The salaries range from £30 to £250, and the only extra payments are 3s. for night visits, and mileage in the rural districts. The total cost of medical attendance, including attendance on dependants, was only 6s. 4½d. a year per member, but the cost of hospital and other institutional treatment, partially given to dependants, was 5s. 3½d., while for medicines and appliances, supplied only to members, it was 4s. 5d. A variation on this method is a minimum retaining salary with an addition dependent on the amount of service actually rendered.

6. *Whole-time Service.*—This has been tried at times, but only experimentally, the longest experiment being for seven years at Remscheid, where six doctors were appointed to attend 10,000 members and their families at salaries of £300 to £350, except an eye and ear specialist, who received £350, rising to £400. Each doctor had an assigned district, but in case of excessive work could refer patients to a colleague. The cost of medical attendance ranged from 5s. 9d. to 7s. 3d. per member, though dependants also had to be attended.

7. *Medical Benefit Associations.*—In Berlin, Munich, and Cologne groups of societies have established associations for providing medical attendance, the association administering all the statutory medical benefits on behalf of the affiliated societies. The Berlin association has 191,000 members and divides the city and suburbs into districts, appointing one doctor at least to each district at a fixed salary: there are now 160 general practitioners and forty specialists engaged. Members may consult any doctor on the list, but for visits must call in one who is near at hand. The affiliated societies pay 3s. 9d. a member to the association, and the doctors' salaries average £150, but

they are free to attend other members of unaffiliated societies. At Munich a similar association pays the doctors according to services rendered from a fixed pool, consultations being reckoned at 9d. and visits at 2s., with fees for operations according to scale.

Probably most of the chief sickness funds have tried various methods of remuneration, and the medical arrangements are still in a state of flux. In the new Insurance Law of 1911 the Government deliberately refused to bind the funds to any particular mode of engaging the doctors or to any special rate or basis of remuneration, contending that these matters are better left for free negotiation.

Cost of Medical Benefit.

The wide latitude allowed to the sickness funds in regard to the contributions that may be levied upon workpeople and employers would seem to have encouraged a liberal expenditure on medical benefit, and there has been a steady increase in the percentage levy on wages. Taking all the sickness funds together, in 1888 the yearly expenditure per member for medical treatment, including general practitioners, specialists and extras, and also including treatment of dependants in many cases, was only 2s. 3d., and some of the largest funds were actually able to obtain medical treatment for 1s. a member. From this very low beginning there has been a steady rise until in 1910 the expenditure was 5s. 10½d. per member. In the same period medicine and appliances, including cost for dependants, rose from 1s. 10d. to 3s. 8d., while hospital treatment rose from 1s. 6d. in 1892 to 3s. 5½d. in 1910, but it should be noted that the hospital treatment here mentioned does not include the sanatorium and institutional treatment given under the invalidity insurance, which in 1910 amounted to 1s. 4½d. per member. Taking the two extreme grades of societies, in the parochial funds which only supply minimum benefits and for members only, the cost in 1910 was 4s. 2.2d. a head for attendance, 2s. 2.4d. for medicines and appliances, and 3s. 1.8d. for hospital treatment, a total of about 9s. 6½d. a member. In the factory funds, which have higher contributions and supply additional medical benefits, often for dependants as well as for members, the cost was 7s. 10.6d. for attendance, 4s. 9.7d. for medicines and appliances, and 3s. 6d. for hospital treatment, a total of 16s. 2d.; but, as already explained, these figures for the factory funds throw no light on the remuneration of the doctors per person on their lists, as the societies, as a rule, do not know the number of the dependants on their members for whom they are liable. The payments to the doctors were, however, ascertained for twelve large sickness funds with an aggregate membership of 985,000, the expenditure of which does not include attendance on dependants, and also for six funds with 475,000 members, which were funds of the highest type, giving a wide range of additional medical benefits in which attendance on dependants was included. In the first class, where dependants were not included, general practitioners and specialists together received an average of 4s. 10d., while in the second class, where attendance on dependants was included, they received an average of 7s. 8d. a member. There is, however, considerable variation in the cost of attendance as between funds of the same type and those of different localities. For example, in the large funds of Berlin, where members only receive attendance, the payment to general practitioners and specialists ranged from 3s. 8d. to 4s. 7½d., while in the Munich Federation it reaches 5s. 9d.

DRUGS.

The report goes on to deal at length with the German pharmacy system and the monopolies enjoyed by the pharmacists. The data available show that the extension of medical treatment to the dependants greatly swells the drug bill. The case of Leipzig has already been mentioned, where in 1911 drugs and dressings came to 3s. 6½d. per member, but of this amount 1s. 4½d. was incurred on behalf of dependants. In the same way the medicines prescribed by the doctors of the Stuttgart Federation came to 4s. per member, but 1s. 8½d. of this was on account of dependants.

MISCELLANEOUS.

Full details are given of the cost of attendance, drugs, and various appliances and hospital treatment for a considerable number of individual societies and federations of various classes, and the report concludes with translations of the forms of agreement between the doctors and the funds in Leipzig and Berlin, agreements with pharmacists at Frankfort-on-Main, and the rules of the doctors' federation of Wurtemburg, relating to economical methods of prescribing.

ROYAL MEDICAL BENEVOLENT FUND.

AT the January meeting of the Committee nineteen cases were considered, and grants amounting to £172 voted to eighteen of the applicants. The following is an abstract of the cases relieved:

1. Widow, aged 60, of M.R.C.S. Supported herself for some years after the death of her husband by acting as housekeeper, etc., but is now in failing health. Expects to be elected to a pension from another society in a few months, and is temporarily provided with a home by a relation who can ill afford to help. Asks for a small grant towards the expenses of the home. Voted £5.

2. Widow, aged 38, of M.R.C.S., L.R.C.P. At husband's death about four years ago the small estate was left in trust for the elder child, now aged 9 years, and applicant has been unable to earn a living because compelled to give constant attention to a younger child. Her father, too old for work, and living on his savings, has given them a home, but cannot continue to do so unassisted. Voted £5.

3. Daughter, aged 58, of late M.R.C.S. Maintained herself for several years as a companion, but has recently broken down in health, and is quite unfitted for any permanent employment. Relieved twice, £24. Voted £12.

4. Daughter, aged 61, of late M.R.C.S. Supplements a pension of £21 a year by needlework, etc.; sight failing. Relieved six times, £72. Voted £9.

5. Widow, aged 75, of L.R.C.P.Edin. Supplements an old age pension by letting lodgings; has recently had an acute illness of several weeks' duration. Relieved once, £12. Voted £12.

6. Daughter, aged 42, of late M.R.C.S. Is a complete invalid, and practically dependent on a sister who, having been obliged to nurse her mother, has been unable to earn for some months past. Relieved three times, £30. Voted £12.

7. Daughter, aged 57, of late M.R.C.S. Has been unable to support herself owing to ill health for many years past, and is dependent on two half-sisters who have to earn their living. Relieved eight times, £71. Voted £10.

8. Widow, aged 67, of M.R.C.S. Quite unprovided for at husband's death a few years ago. Endeavours to support herself by receiving paying guests; slight help from friends. Relieved twice, £12. Voted £6.

9. Widow, aged 64, of L.S.A. Earns about 15s. a week by selling sweets, but has to maintain a delicate daughter who is unfitted for regular occupation. Relieved five times, £60. Voted £12.

10. Widow, aged 84, of M.R.C.S. Only income an old age pension and an annuity of £10. Children unable to help. Relieved twice, £12. Voted £6.

11. Widow, aged 55, of L.R.C.S.Edin. Asks for assistance to remove to a seaside place where a lodger she has had for many years is ordered to live, and where applicant will obtain a larger house for a smaller rent, and so be able to let more rooms. Relieved five times, £47. Voted £15.

12. Daughter, aged £75, of late M.R.C.S. Income £20 a year, and earns a few shillings a week by needlework. Health and sight both failing. Relieved fourteen times, £137. Voted £5, and to be recommended to apply for an old age pension.

13. Widow, aged 40, of M.D.,R.U.I. Receives £25 a year for the benefit of her child, aged 3½, and is given rooms and light in exchange for services as a caretaker. Relieved twice, £20. Voted £5.

14. Daughter, aged 65, of late M.R.C.S. Only income a small allowance from a society for the relief of the blind. Relieved seven times, £66. Voted £12.

15. Daughter, aged 51, of late F.R.C.S. No income. Had a situation as cook, but was obliged to give it up on account of ill health, and finds it very difficult to get employment for which she is fitted. Relieved seven times, £40. Voted £12.

16. Widow, aged 45, of L.R.C.P.Edin. Unprovided for at husband's death a few years ago, and, being lame and in bad health, is unable to obtain a paid post. At present receives a home at a boarding-house for a few shillings a week in exchange for services. Relieved six times, £34. Voted £10.

17. Daughter, aged 37, of late M.R.C.S. Supplements small earnings by letting rooms, by making marmalade, keeping poultry, etc. Health too delicate to allow regular employment. Relieved eight times, £73. Voted £12.

18. Widow, aged 60, of L.R.C.P., L.R.C.S.I. No income, and unfitted for employment owing to the loss of a hand and general bad health. Children unable to help. Relieved nine times, £80. Voted £12.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, W.

LITERARY NOTES.

We have received from Messrs. Williams and Norgate a copy of the first number of the *British Review*, with which is incorporated the *Oxford and Cambridge Review*; it is to be issued monthly at the price of one shilling net. The editor is Mr. Richard Johnson Walker. The first number includes a good psychological article, "Falstaff: the English Comic Giant," by Mr. W. L. George; a memoir by Leo Tolstoy on true and false science; and a remarkable paper on "Huxley and the Catholic Faith" by Mr. Cecil Chesterton. "The Opium Thrall," by Mr. Litchfield Woods, suggests De Quincey.

The *Arena* for December, 1912, contains a good article on the life and work of a medical student by "A. R. E." It is a very fair sketch of medical education previous to qualification, written in a light style. "Some time ago," we read, "one of the hospital magazines propounded the question 'Who carries the most side, a dresser starting his work in the hospital, or a freshly qualified man.' We have not yet discovered the correct answer." The writer dwells on the greater popularity of surgery than medicine; perhaps it would have been good had he hinted that physician's work is far too much depreciated by the average student. A further feature about medical education not touched upon here, and little noted elsewhere, is the fact that fifty years ago the student began as apprentice to a qualified man, whilst now he commences his medical education in a college or a hospital. As for hospital life, "A. R. E." clearly writes from experience.

Mr. D'Arcy Power[1] has been supplementing the biography of John Banister, the noted surgeon of Elizabethan times, by a careful study of a picture in the Hunterian collection in Glasgow. The picture represents John Banister delivering the "Visceral Lecture," in 1581, in the Barber-Surgeons' Hall in Monkwell Street, London, and so minute is the detail that a great deal can be made out, much more than if the impressionist school of artists had been at work in those days. We may indeed be thankful to Mr. Power for showing how much can be learnt from such a study, and through him to the late Dr. Frank Payne for suggesting to him the investigation of this particular picture. It is an open question whether the solution of many problems in medical biography and history may not lie hidden in old portraits and the like; medical iconography is a little worked and, it may be, a rich mine. Mr. Power, at any rate, has done some profitable digging in it. It is an interesting fact that Banister practised both as a physician and as a surgeon at a time when the surgeons were still servants to the physicians. Perhaps this may account for a curious passage in the commendatory preface written by Banister's friend, William Goodrus, for the former's book, *An Antidotarie Chyrurgicall*, published in 1589. It would seem that Banister had enemies; at any rate, here is what Goodrus writes:

> What their malice hath been able to achieve against you hethertoo, you have good experience; it is not to be hoped of them that time to come will bring more prosperous windes for their sayling, although they threaten, feare them not: A wise man said, Those that proudlie threaten others, doe eyther suppose themselves to be Gods, or els thinke that those things which they threaten others with, cannot fall upon themselves. . . . The Quaile is said to bee most delighted to feede on venimous seedes: and so is the evill tonged man in casting forth venimous speaches, thus envie alwaies traceth vertue, and treadeth upon her heeles. . . . Plinie saith, the Camelaeon hath verie great lunges, but nothing els within her bodie, so (saith hee) there be some that beside their bosting and swelling ostentation have nothing to be found in them . . . but like as the Maidenhaire, though it bee sprinkled or dipped in water, will nevertheless look still as though it were drie, no more shall reproche and infamie (though it be notablie attempted) cleave or sticke unto a good man.

So with strange zoological and botanical figures Goodrus encourageth his friend Banister against his enemies. But who were they? Perhaps they were only the almost inevitable crowd of unwilling witnesses to all successful men, perhaps there was a particular reason for their existence. Perhaps Mr. D'Arcy Power can find out for us; again, perhaps, it is not worth his while to try or ours to inquire.

Le Nourrisson (The Nursling) *Revue d'Hygiène et de Pathologie de la Première Enfance* is the name of a new serial of which the first number appeared this month; it will be issued, we are informed, six times in the year. The editor in chief is Professor Marfan, Physician to the Children's Hospital, Paris, and he is assisted by Drs. Apers, Aviraguet, Boulloche, Hallé, Lesage, Renault, Triboulet, and Weill-Hallé. Each number will contain at least one article written by a member of the editorial committee above named. The first number includes a paper by Marfan on a case of congenital stricture of the pylorus, with considerations on infection of gastric origin, and another by Aviraguet on control of the rearing of the infants of the poor, in which the author dwells on the legislative and administrative aspects of the question. M. Apers contributes an excellent critical review on the temperature of the newborn at term and the newborn premature child. Under the head of Médecine Pratique Dr. Triboulet writes on Ziehl's fuchsin as an external application in the treatment of pyodermitis, interesting when we remember the obstinate nature of impetigo and allied pustular affections. Lastly, there is a copious report of current writings in the form of abstracts, a valuable feature in a publication of this type, which deserves to prove successful. The annual subscription is Fr. 12; the price of each number is Fr. 2; the publishers are Messrs. J. B. Baillière et fils.

Gratitude has been defined as "a lively sense of favours to come," but the feelings of the convalescent patient towards the doctor who has cured him are usually of a more disinterested character. The sincerity of Louis XIV's gratitude to the physicians who attended him during his frequent illnesses is testified by the gifts he showered upon them; and even the kingly generosity of *le roi Soleil* scarcely surpassed that of Robert II of Scotland, the grandson of Robert Bruce, whose "beloved and faithful Farquhar Leech" was the recipient of numerous and substantial tokens of regard from different members of the Royal family. Even the King's younger son, the savage "Wolf of Badenoch," gave evidence of an unusual amount of kindly feeling in his dealings with his father's favourite physician, whose sister, according to some authorities, was his own "handfasted" wife and the mother of his children. We learn from the *Caithness and Sutherland Records*, Part VII, vol. i, recently published by the Viking Society for Northern Research, that on September 4th, 1379, the lord of Badenoch bestowed on the court physician a large tract of land in Sutherlandshire, the gift being confirmed on the same day at Perth by the King in the following charter:

> Robert, by the grace of God King of Scots and all good men of his whole realm, greeting. Knowye that we have approved and ratified and by this our present charter have confirmed that gift and grant which our beloved son, Alexander Stewart, Knight, Lord of Badenoch, made to and conferred upon Farquhar, our physician, of the lands of Melness, and the two parts of the Hope with their pertinents: To be held and possessed by the said Farquhar with all and sundry liberties, commodities and easements and their just pertinents whatsoever belonging to the aforesaid lands with their pertinents or which by any manner of way may justly be held to belong thereto in time coming, as freely and quietly, fully, entirely and honourably in all and by all as is more fully contained and set forth in the charter granted by our said son to the said physician thereupon, saving our service. In witness whereof to this our present charter of confirmation we have ordained our seal to be appended; witnesses, the venerable fathers in Christ, William, and John our Chancellor, Bishops of the Churches of St. Andrews and Dunkeld; John, Earl of Carrick, our eldest son, Steward of Scotland; Robert, Earl of Fife and Menteith, our beloved son; William, Earl of Douglas and Mar, our Cousin; James of Lindsay, our dearest nephew, and Alexander of Lindsay, our cousin, knights. At Perth, 4th September, in the ninth year of our reign.

Some years later Farquhar's skill in treating the King (who, we are told by Froissart, suffered from chronic inflammation of the eyes) was rewarded by another grant of land, confirmed in a charter dated December 31st, 1386:

> Robert, by the grace of God King of Scots, to all good men of his whole realm, cleric and laic, greeting. Knowye that we have given and granted and by this our present Charter have confirmed, to our beloved and faithful Farquhar Leech, for his service rendered and to be rendered to us, the islands of Jura, Calva, Sanda, also Ellangowan, Ellanwillighe, Eileau Roan, Ellanhaga, Ellanwhoera, Ellanegelye, Ellanyofo, and all our islands between Rhu Stoer in Assynt and Rhu Armadale, within the Sheriffdom of Inverness: To be held and possessed by the said Farquhar and his heirs of us and our heirs in fee and heritage by all their right meiths and marches,

[1] *Proc. Roy. Soc. Med.*, vi, Sect. of Hist. of Med., pp. 18–35, 1912.

with all and sundry liberties, commodities, easements, and just pertinents whatsoever belonging to the said islands or which may belong thereto in time coming, freely, quietly, fully, entirely and honourably, well and in peace: Rendering to us and our heirs the services of old, used and customary, therefrom. In witness whereof to this our present Charter we have ordained our seal to be appended; witnesses, the very reverent father in Christ, Walter, by the grace of God Cardinal of the apostolic see; the venerable father in Christ, John, Bishop of Dunkeld, our Chancellor; John, Earl of Carrick, our eldest son, Steward of Scotland; Robert, Earl of Fife and Menteith, and James, Earl of Douglas, our beloved sons; and Archibald of Douglas and Thomas of Erskine, our cousins, knights. At Edinburgh, 31st December, in the sixteenth year of our reign.

Little beyond these few details is known of Farquhar the Healer, or Ferchard, as he is sometimes called. He is said to have been a member of the powerful clan Mackay, and possibly a son of its chieftain, Iye of Strathnaver. This, of course, is more or less conjecture; but it seems tolerably certain that Farquhar found both fame and fortune at the Scottish court. The gifts of his royal patients enabled him to found a landed family of Mackays; and his estates in the north were held by his descendants until the early part of the seventeenth century, when the last of his property passed into the hands of another branch of the same clan.

THE MILK AND DAIRIES BILL.

Professor Sheridan Delépine, Director of the Public Health Laboratory, Manchester, has sent us the following notes on the Milk and Dairies Bill introduced into the House of Commons by the President of the Local Government Board on December 10th, 1912.[1]

The notes deal only with three points about which the writer is specially competent to speak, namely:

1. The danger of failure due to the inadequacy of means of efficient inspection in a large number of districts (Clause 2).
2. The absence of any statement as to the duty of farmers or other persons to notify cases of disease which, though not certainly due to tuberculosis, might on investigation by competent persons be proved to be due to that disease. These doubtful cases are very common, and doubt is often used as an excuse for neglect.
3. The absence of reference to the means of obtaining reliable information regarding samples of milk collected by Medical Officers of Health or Veterinary Inspectors.

Past experience has shown that whenever adequate measures have been successfully applied to the control of a milk supply, bacteriological examinations by competent bacteriologists working in suitably equipped laboratories have been essential to success. Co-ordination in the work of the medical officer of health, bacteriologist, and veterinary inspector has not been less essential. Neither the medical officer of health nor the veterinary inspector is (generally speaking) competent to do the bacteriological work, nor, if competent, could he give the time necessary to that work without neglecting his primary duties.

The following suggestions are made in order to meet these omissions. They are put in the form of addenda or corrigenda for the sake of clearness, but without any desire to indicate what the wording should be. Nor has any attempt been made to indicate all the passages which the suggested alterations would affect.

1. Inadequacy of Means of Efficient Inspection in Many Districts.

Clause 2 (p. 2, line 35).—"And in other cases to the Council of the district in which the dairy is situated." . . . *Add* something to that effect . . . provided that the said Council can command the services of a medical officer of health *devoting the whole of his time to the duties of his office* and of a veterinary surgeon or inspector *recognized* for the purpose of this Act (or Section) by the Board of Agriculture and the Local Government Board, and devoting the *whole of his time to the duties of his office*.

Failing which the said Council shall make such arrangements as those indicated in Clause 10 . . . with the county or county borough or other local authority commanding the services of full-time medical officer of health and veterinary inspector *recognized by the Board for the purpose of this Act*.

2. Necessity of Notification of Doubtful Cases.

Clause 12 (p. 6).—Somewhere in that clause, or immediately after that clause, or elsewhere, the following provisions should be made:

If a person (owner, farmer, veterinary attendant) does not notify to (the proper authority) the presence of any cow affected with some enlargement or induration of the udder or general wasting, the cause of which is not known to him to be *certainly* other than tuberculosis, he shall be liable to a fine of. . . .

3. Recognition of Persons Competent to Conduct Bacteriological Examinations.

The following additions or their equivalents are suggested:

Memorandum 2.—"The inspection of dairies," . . . *Add: and the examination of cow's milk.*

Clause 2 (3) (p. 3, line 13).—"*And separate samples thereof furnished.*" *Add:* When a bacteriological examination of such samples is needed, *the samples shall be examined by a Bacteriologist* (or Public Health Bacteriologist) *and in a laboratory (recognized for the purpose* by the Local Government Board). (See definition of bacteriologist, Clause 24).

Clause 3 (p. 3, line 22).—"If on any inspection of a dairy." *Add: or on receipt of a bacteriological report on the milk of a dairy.* (I have some doubt as to the need of that addition.—S. D.)

Clause 3 (p. 3, line 30).—"Any report furnished to him by" . . . *Add: the bacteriologist.*

Clause 12 (p. 7, line 12).—"To take for examination." *Add:* by a *bacteriologist recognized for the purpose* (or the Official or Public Health Bacteriologist).

Clause 14 (p. 7, line 36).—"For the purpose of this Act." *Add: a bacteriologist recognized by the L. G. B.*

Clause 15 (p. 8, after line 14).—*Add: The bacteriological examination of samples of milk.*

Clause 24 (p. 13, after line 36).—*Add:* The expression "*Bacteriologist recognized for the purpose of this Act*" (or *Official Bacteriologist or Public Health Bact.*) means.

A duly qualified practitioner, provided with adequate laboratory accommodation and recognized by the Local Government Board as competent to carry out the investigation of milk and other products by microscopical, cultivation, inoculation, and other experimental methods such as are used in investigations bearing upon causation and prevention of disease.

Mr. Asquith has stated in the House of Commons that the Government did not propose to proceed with the measure this session, and added that though he could make no promise for next session, the claims of the bill would certainly be considered.

[1] British Medical Journal, 1912, vol. ii, p. 1720.

SANATORIUM TREATMENT OF INSURED PERSONS IN GERMANY.

A voluminous report has recently been issued on the results of the treatment of insured persons in the Hanseatic towns (Hamburg, Lübeck, and Bremen) in the year 1911.[1] It appears that in that year 6,262 applications for treatment were received, and 420 cases remained over from the previous year; 1,741 patients were admitted to treatment on account of pulmonary tuberculosis, which, with those remaining over from the previous year, gave a total of 2,037 cases under observation. The statistics of individual sanatoriums are elaborately analysed. As an example we reproduce the report on the tuberculosis patients of the Oderberg-Gebhardsheim Sanatorium, which is as follows:

Pulmonary Condition.

1. The slight physical signs present on admission were still present, but of lesser degree, in 253 = 29 per cent.
2. The slight physical signs present on admission were unchanged in 323 = 38 per cent.
3. The marked physical signs present on admission were diminished in 84 = 10 per cent.
4. The marked physical signs present on admission were little, if at all, changed in 188 = 22 per cent.
5. The physical signs present on admission were aggravated in 10 = 1 per cent.

General Condition.

1. Marked improvement in 493 = 57 per cent.
2. Some improvement in 282 = 33 per cent.
3. Little or no improvement in 65 = 8 per cent.
4. Worse in 18 = 2 per cent.

Earning Capacity.

1. For the time practically complete, but may not be maintained, in 642 = 75 per cent.
2. Improvement to an extent to take the patient out of the legally defined class of "Erwerbsunfähige" in 155 = 18 per cent.
3. Unable to work, in the sense of the invalidity law, in 61 = 7 per cent.

The report contains a very large number of tables dealing with almost every aspect of the subject.

[1] Heilbehandlung von Versicherten und Fürsorge für Invalide bei der Landesversicherungsanstalt der Hansestädte im Jahre 1911. Lübeck: Werner und Hörnig. 1912. (Post 4to, pp. 95.)

British Medical Journal.

SATURDAY, FEBRUARY 1st, 1913.

MEDICAL SERVICE IN THE HIGHLANDS AND ISLANDS OF SCOTLAND.

The summary of the report of the Committee on the Medical Service of the Highlands and Islands, which appeared in recent issues,[1] will, we believe, have interested many readers for different reasons. Many, probably, will have had difficulty in believing that the conditions of medical practice, as detailed by medical witnesses and others, in the evidence given before the Committee, could exist at the present day. But that such conditions exist is made painfully manifest throughout the report. To those familiar with the Highlands and Islands, the revelations of the Committee will not have come as any surprise, and, although the disadvantages and difficulties of medical practice have been known to the different parties concerned, and described in our columns over and over again, nothing has hitherto been attempted by the Government, or other controlling body, to remedy what may to many seem an almost incredible condition of affairs. The Poor Law Commission in its report brought to light the want of proper medical attendance on non-paupers, as well as paupers, in the Highlands and Islands. Once more it has been fully demonstrated that the social and economic conditions at present existing in these areas cannot be paralleled on a similar scale in any other part of Great Britain. Insanitary dwellings, poverty-stricken households, persistent superstition, the economic bankruptcy of whole districts, families wanting the barest necessities of life, and people, both old and young, dying from want of medical attendance—these are some of the conditions mentioned in the report. It is well that this reproach to our administrative methods should have been brought to the notice of Parliament and of the country in a form which cannot be gainsaid. Clearly some means must be devised to remedy the existing condition of affairs, and we are glad to see that the member for Orkney and Shetland has already shown a desire to take the matter up, and feel sure that he will not allow himself to be put off with official platitudes.

At a time when the benefits of the National Insurance Act are being loudly proclaimed by its author and those who support him, the report discloses the fact that the Insurance Act cannot be applied to a large part of the Highlands. "Inquiry was made from time to time," says the report, "as to whether the average crofter would be ready to pay contributions in respect of at least twenty-six weeks—that is, an annual average of 3½d. a week. The invariable answer was that in those impoverished districts contribution without compulsion is unreliable, and even if legislative power to compel were forthcoming, the system would still lack the main guarantee of success—namely, an employer responsible for the employed contribution. . . . We are, therefore, convinced that the industrial conditions of the Highlands and Islands are such as to make the provision of the Insurance Act less operative than in other parts of Scotland, and we foresee considerable trouble in providing medical benefit for fully insured persons far removed from a medical centre, more particularly when it is borne in mind that so large a portion of them are so situated."

What we are more immediately concerned with is the medical aspect of the report. It shows clearly and conclusively the inadequacy of the medical service. Owing to geographical and economic circumstances, regular medical attendance is barely procurable, and those who know the Highlands and Islands will not be surprised to read that probably between 50 and 75 per cent. of illnesses are not attended by any doctor. The figures cannot, of course, be given exactly; but it is a confirmation of this estimate that in many parts of the Highlands the percentage of persons whose deaths are uncertified ranges as high as 80, and that over the whole of the rural insular parts of Ross it was over 47 per cent. In these places, as would naturally be expected, infant mortality is high, and the number of women who die in childbirth is distressing.

Such, then, are the conditions—or at least some of the conditions—which the evidence before the Committee elicited. What, then, is the remedy? One essential factor in any remedial measure is more money, and fundamentally this is really the chief recommendation of the Committee. That a large Government grant must be given is very evident. The administration of this grant may present some administrative difficulty. Two administrative authorities—one central and one local—are recommended. A Government grant would render necessary the creation of a central controlling body, and the recommendations of the Committee show how this could be done. The Committee has had regard to all the medical interests involved, the duties and responsibilities of the public authorities operating in the Highlands and Islands, and the desirability of bringing about, as far as practicable, a consolidation of the various services. It would be necessary, no doubt, that this central authority should act under regulations made by the Treasury.

If the money is forthcoming the Committee has a long programme to suggest for the spending of it; every suggested item of expenditure seems absolutely necessary. First, there is the strongly expressed opinion of the Committee that a minimum income of £300 per annum, with travelling allowance, should be secured to every medical practitioner recognized by the central authority. In the case of several doctors living in a common centre, where it would be in the public interest to arrange that outlying patients should be attended at small fees, it is advised that the doctors should receive an annual subsidy to allow this to be done. Should these two proposals be carried out, the financial position of medical practitioners in the Highlands and Islands would be very materially improved, and there would be more inducement for men to remain in the Islands much longer than is at present the rule. Other recommendations of the Committee would very greatly facilitate the working of a practice in the Highlands. They include the provision of small cottage hospitals, the institution of a general and special nursing service, the provision for every person below a certain income of medical attendance on terms adapted to his economic condition; specialized medical service, such as special local consultations, local assistance at operations, dental treatment, eye treatment, and so on. The

[1] January 11th, pp. 98-99; January 18th, pp. 126-129.

need for special travelling allowance for doctors and nurses is also recognized, as also the provision of an ambulance service available in the district for sick or disabled persons, and the extension of telegraphic and telephonic facilities in widely scattered areas.

It is clear enough that the recommendations of the Committee are most moderate, and that the lot of the doctor in the Highlands and Islands and the efficiency of the medical service will be vastly improved when they have been carried out. We have every reason to believe that the Committee is wholly in sympathy with the profession, and recognizes that the conditions under which medical practice is at present carried on in the Highlands demand urgent and liberal consideration.

We give this week (p. 229) a summary of the very valuable appendix to the Committee's report by Dr. Leslie Mackenzie, medical member of the Local Government Board for Scotland. He indicates a way by which the recommendation of the Committee with regard to the creation of a central authority could be carried out, and his suggestions are the outcome of many years' experience in matters connected with public health work; they will, we doubt not, carry much weight with the Government in the drafting of the scheme which it is now under a distinct obligation to propound without delay.

STIMULATION OF REPAIR.

An account was given some months ago[1] of the curious and interesting experiments conducted by Dr. Alexis Carrel in the Rockefeller Institute for Medical Research, New York, on the growth of portions of mammalian tissue after complete separation from the body. Connective tissue lived and grew, was cultivated as it were, in plasma, and the heart of a chick went on beating for as long as one hundred days. He has recently published some further information as to the nature and properties of the plasma used.[2] The research seems to have had its origin in the speculation that it was possible that certain modifications in the internal economy of the tissues might bring about increased multiplication of their cells and so, perhaps, a more rapid healing of aseptic wounds or fractured bones. The results of some preliminary experiments on animals favoured the theory, but showed also that the living organism presented conditions too complex to afford probability of precise conclusions. The method used by Harrison for studying the growth of the central nervous system of frog embryos in a drop of lymph then suggested itself, and in 1911 Carrel and Burrows observed that the growth of chicken tissues was more rapid in a culture medium to which extracts of the Rous chicken sarcoma or of chicken embryo had been added. It was in the course of these researches, or as a consequence of them, that Carrel made the observation to which we referred last July.

His more recent paper deals mainly with an attempt to estimate quantitatively the influence of tissue juices on the growth *in vitro* of connective tissue. A hypotonic plasma was obtained by adding two volumes of distilled water to three volumes of normal plasma. Extracts were made from chick embryos from six to twenty days old, of spleen, kidney, and muscle of the adult chicken, of the Rous sarcoma, of thyroid gland, spleen, and muscle of the adult dog, and of the spleen of the adult rabbit. The tissues were cut into very small fragments or cut and ground with sand in a mortar, or cut, ground, and frozen and then put for a short time in an incubator at 38° C. They were then placed in tubes and one-third of a volume to four or five volumes of Ringer's solution added. The tubes were kept in cold storage for varying periods and were then centrifugalized. The culture medium was made by adding one volume of the supernatant fluid to two volumes of hypotonic plasma. The tissue cultivated was in most instances a fragment of the ventricular wall of the heart of a chick embryo seven to fifteen days old, but fragments of skin were also used, and fragments of the periosteum of the dog. In estimating the effect of the various tissue extracts used, the area of the ring of new tissue formed around the fragment was calculated in relation to the diameter of the original fragment; as the thickness of the ring could not be exactly ascertained, it was not generally taken into account. In every experiment the fragments of heart, skin, or periosteum grew more rapidly in the plasma containing an extract than did the control fragments in hypotonic plasma without addition. The acceleration of growth was greater when the mixture of tissue and Ringer's solution was allowed to remain in the refrigerator for twenty-four hours or several days before being centrifugalized: in one instance in which embryonic pulp had been thus preserved for twenty days the area of new connective tissue formed in twenty-four hours was thirty times larger in the cultures containing the extract than in the controls. The extracts of tissues cut in small fragments mashed and frozen were generally very active, and embryonic tissue gave the most active extracts, though extracts of adult spleen and the Rous sarcoma fell only a little behind. Extracts of kidney and heart were much less active, while those of connective tissue and of blood corpuscles caused a slight acceleration only. The influence of extracts of thyroid gland and muscle of the dog on the growth of periosteum was very marked, the thyroid extract being the more active. The power of an extract to stimulate a growth was observed only in respect of tissues of another animal of the same species, and seemed therefore to be specific. The activating power of the extracts was diminished by heating to 56° C., and destroyed by heating for ten minutes to 70° C. Experiments with extracts of chick embryo and of the Rous sarcoma diluted with Ringer's solution showed that their power was not diminished by filtering through filter paper—was, indeed, slightly increased if the extract contained much cellular débris. The activating power of extracts was greatly diminished by filtering them through a Berkefeld filter and entirely removed by a Chamberland filter.

These experiments, as Carrel suggests, though they may have no immediate practical application, may indirectly lead to the discovery of some of the factors determining the growth of tissues, in elucidating the dynamics of the cell, and in throwing light, ultimately, on the mechanism of the cicatrization of wounds.

Dr. Carrel more recently has reported to the Académie de Médecine in Paris[3] the success of another experiment which will probably produce a greater impression at first sight than his other observations, though not, as it seems to us, of so great intrinsic scientific significance. He has succeeded in keeping alive and active for as long as

[1] BRITISH MEDICAL JOURNAL, July 20th, 1912, p. 135.
[2] *Journal of Experimental Medicine*, January, 1913.
[3] *Bulletin*, January, 1913.

thirteen hours practically the whole of the abdominal and thoracic viscera of a mammal entirely separated from the head and body. In most of the experiments the animal used was a cat. The animal was anaesthetized with ether, and the skin of the neck, thorax, and abdomen sterilized. All the subsequent proceedings were carried out with aseptic precautions. The oesophagus was ligatured and divided. The trachea was cut across, and an india-rubber tube introduced to permit artificial respiration to be performed by the method of Meltzer and Auer. The abdomen was opened, and the aorta and vena cava tied, and severed near their bifurcation. The small intestine and the ureters were next divided, and then all the posterior branches of the aorta and vena cava were tied and cut. The abdominal viscera were thus completely detached from the abdominal walls, and remained connected with the thoracic organs by a pedicle consisting of the aorta and vena cava. The thorax was opened, and the diaphragm separated from the costal wall; the innominate arteries, the superior vena cava, and the azygos were tied and cut, and the animal died. The vagus, sympathetic and phrenic nerves were next divided, as also the posterior branches of the thoracic aorta. Generally at this stage the cardial pulsations were feeble, and the arterial pressure very low. The thoracic and abdominal viscera were then removed in one mass and placed in a basin of Ringer's solution at a temperature of 38° C. As a rule the heart was still beating slowly and regularly, but feebly; the blood pressure was low, and the organs appeared very anaemic; in a few minutes, in some cases, the blood pressure rose, and sometimes became almost normal. As a rule, some blood from another cat was infused at this stage, whereupon the blood pressure rose, the heart became regular at 120 to 150 a minute, and the lungs assumed a pink colour. Pulsation in the aorta was strong, and could be seen and felt in the arteries of the stomach, spleen, kidneys, and ovaries, and peristaltic contractions were visible in the stomach and intestines; the viscera, in fact, resumed their normal appearance. This "visceral organism" was then placed in a box full of Ringer's solution, covered with a piece of thin Japanese silk, and protected by a sheet of glass. The tracheal tube was brought through a hole in the side of the box, a tube fixed in the oesophagus, by which water or food could be introduced into the stomach through another, and a tube passed into the cut end of the intestine through a third. The box was then kept in an incubator at 38° C. The viscera continued to live and to present a normal appearance. The heart was beating strongly and normally, the intestines showed peristaltic contractions and emptied itself through the artificial anus, and bile and intestinal mucus were afterwards evacuated. In one experiment, in which the stomach was full of meat when the animal was killed, digestion continued normally for several hours. In some experiments the "visceral organism" died rather suddenly in three or four hours, but in most it continued active for ten, eleven, and even as long as thirteen hours. Death was preceded by irregularity and feebleness of the heart, which finally stopped suddenly. Dr. Carrel believes that the study of the visceral organism under these artificial conditions may help in the solution of many physiological and chemical problems. However this may be, the experiment is of interest, as M. Pozzi, who related Dr. Carrel's observations to the Academy, observed, in showing how independent is an animal's life of relation of its vegetative life.

THE ECONOMIC VALUE OF SANATORIUM TREATMENT.

THE question is often asked whether sanatorium treatment is or is not of any value to the State, and a pessimistic answer is frequently given. Every one has experience of success in individual cases, but the general economic effect upon the community of the temporary rehabilitation of tuberculous persons can only be estimated by the study of statistics ranging over a wide field of inquiry. The results of such study carried out under the auspices of the Bureau of Labour at Washington have recently been published,[1] and will help towards the formulation of a trustworthy answer to the question to which we have referred. Under the title of Care of Tuberculous Wage Earners in Germany, a comprehensive analysis of the practical experience gained in Germany since the year 1900 is presented, with comments and comparative statistics. It deserves close attention in this country, where too little has as yet been done to co-ordinate the various agencies for dealing with tuberculosis.

By a law which came into force on January 1st, 1900, power was given to insurance institutions in Germany to cause their tuberculous beneficiaries to undergo a cure, compulsory in the case of unattached persons, but requiring the consent of the individual when possessed of a home or responsible belongings. From small beginnings, a widespread system of sanatoriums has been established during the past eleven years, and at the present time there are no less than ninety-nine such institutions scattered throughout the German Empire. The Grand Duchy of Baden appears to have been active especially in the foundation of tuberculosis dispensaries, by means of which all patients are directed into the most appropriate institutions for their needs. The greater number of these institutions have been built and maintained by the invalidity insurance authorities at a very considerable cost, and, in addition to the ordinary sanatoriums, many private establishments have sprung into being during the same period.

The needs of tuberculous children have also been cared for, and the segregation of advanced cases has been attempted. Dispensaries and polyclinics for the observation, regulation, and study of the disease have in like manner kept pace with public demand, and the whole system is under the supervision of the German Central Committee, which has the necessary means at its disposal, derived from subscriptions, donations, and the Imperial subsidy. The antituberculosis movement in Germany is thus thoroughly organized and sustained by ample funds. It should be noted that the life insurance companies are on a different footing to the invalidity insurance institutions which operate under the law of 1900. They none of them undertake the care or treatment of their tuberculous policy holders. The payment of death claims by such societies is quite distinct from the payment of invalidity or disablement benefit under the law.

Turning now to the results which have been achieved by the vast expenditure of capital that has taken place during the past decade, a very large amount of material is available for analysis. More than 270,000 individuals of both sexes have been treated in public institutions at a cost of approximately 4s. 7d. a day each, but against this very heavy expenditure must be placed the saving effected by the relief to the disablement annuity funds of all the sums otherwise

[1] *Care of Tuberculous Wage Earners in Germany.* Bulletin of the United States Bureau of Labour. Washington: Government Printing Office. 1912.

due to those who have been rehabilitated as wage-earners by the treatment received. So satisfied have the central authorities been with the results, that provincial and communal authorities have followed their lead and have devoted large sums of money to the rehousing of their working-class population, fully recognizing the direct relation between defective dwellings and impaired health. This movement cannot fail to react to the advantage of the German people as a whole, and if the present estimate be borne out in future it is expected that not less than 75 per cent. of the wage-earning sufferers from early tuberculosis will be rendered capable of service for many years at comparatively small cost. Apart from the purely economic question, the restored health of the bread-winner must have far-reaching influence upon the stability of family life.

It is notable that the effort to segregate the advanced cases of tuberculosis has not met with complete success. The dying consumptive, although he be a constant source of danger to those about him, prefers to spend his last hours with his belongings. Comparison with the system in vogue in the United States shows that much has yet to be done before the results shown in Germany can be rivalled; but the elaborate investigation which the Washington Labour Bureau has undertaken is deserving of the closest scrutiny, containing as it does the fullest available statistics and information upon a subject which must appeal to all classes of the community.

CANCER OF THE KIDNEY.

THE kidney is not uncommonly the seat of malignant tumours of a rather perplexing type, not only from the point of view of diagnosis, but also owing to the problems their histogenesis presents, and the wide variations they exhibit in microscopic characters. Leaving on one side the peculiar sarcomas that arise in infancy, the other malignant tumours were formerly variously labelled as carcinoma, sarcoma, and endothelioma, and the confusion remained long after Grawitz, now nearly thirty years ago, propounded the theory that the great majority of them were derived from aberrant parts of the suprarenal gland. They are now generally classed under the term "hypernephroma," and until recently Grawitz's theory was unquestioned. It is indubitable that small bodies composed of cells bearing an exact histological resemblance to those of the zona fasciculata of the adrenal may be found not only in the neighbourhood of that organ and on the under surface of the liver, but also in the cortex of the kidney, along the course of the ureter, in the broad ligaments, and in the spermatic cord. An interesting paper on such adrenal rests was contributed to the *Birmingham Medical Review* of May, 1910, by Mr. Percival Cole. The frequency with which these "rests" have been found in the cortex of the kidney, combined with the influence of Cohnheim's theory of the origin of malignant tumours from embryonic inclusions, gave colour to the supposition that the renal hypernephromata arose from aberrant portions of suprarenal tissue, and this was almost elevated into a certainty by the observation that these tumours were composed of cells identical with adrenal cells, not only in microscopic appearance and arrangement but also in that they contained doubly refractile particles, fats, glycogen, and metachromatic nucleoli. Such cells have long been supposed to occur only in adrenal parenchyma, and they bear no resemblance to those of renal epithelium. It is a striking fact, however, that true primary tumours of the adrenal gland itself are very uncommon, and with the possible exception of a tumour in the liver described some years ago by Lorrain Smith and Mair, we cannot recall any case of a tumour arising from adrenal rests in other situations.

These hypernephromata have a very characteristic appearance: some are definitely encapsuled, while others invade the substance of the kidney; they generally all show a peculiarly mottled appearance, at parts yellow, at other parts dark red, owing to haemorrhage, and again dull grey or gelatinous, owing to necrosis. It has been pointed out recently by Stoerk that in cirrhotic kidneys the undoubted renal epithelium may undergo changes and present the appearance of the cells characteristic of hypernephromata. In many other pathological conditions as widely separated as proliferative mastitis, ovarian cysts, and myeloma, groups of cells may occasionally be found with the histological characters of adrenal cells, and doubts are beginning to accumulate whether, after all, the so-called hypernephroma is really derived from an adrenal rest. In this country, Dr. J. Shaw Dunn has been one of the foremost opponents of the theory of Grawitz. He regards the tumours as originating from renal epithelium, and therefore to be classified as carcinomas. He has been able to demonstrate in a minute renal cyst composed of typical Grawitz cells a direct connexion with the tubules. It may be remarked, too, that hypernephromas seem to occur most frequently in the lower pole of the kidney, whereas adrenal rests are more common in the upper part.

The degree of malignancy of these tumours is said to vary considerably, but here, as in other malignant neoplasms, it is merely a question of the extent of dissemination at the time of removal. Secondary nodules occur in the lungs and liver and less frequently in the bones, and, in contrast to other types of carcinoma, the cells are carried by the blood stream and not by the lymphatics. In a lecture given at the Cancer Hospital, Brompton, on January 29th, Mr. R. H. Jocelyn Swan showed specimens of 12 cases of these interesting tumours, 10 of which he had removed by operation. In 7 out of the 10, haematuria was the first symptom that attracted the patient's attention; in 2 haematuria developed later than the pain; and in 1 the presence of a tumour was detected before either pain or haematuria had supervened. This is interesting in view of the remark of Sir John Bland-Sutton in the latest edition of his book on *Tumours Innocent and Malignant*, that "these tumours do not give rise to haematuria because the tumour does not invade the pelvis. This is the most striking fact in their clinical history." Some of Mr. Swan's tumours did invade the pelvis, but in at least one of them, in which case haematuria was the earliest symptom, the tumour seemed to be definitely encapsuled, and did not penetrate far even into the cortex. This tends to show that the occurrence of haematuria is not necessarily related to encroachment on the pelvis. All Mr. Swan's cases were upwards of 40 years of age, and it is difficult to conceive, if the tumours were traceable to adrenal rests, that the potentiality of malignancy should have remained dormant so late in life. Recurrences took place in 4 of the series in from three months to two years in the vicinity of the original tumour or in the lungs or liver. At the same lecture Mr. Leitch demonstrated a renal tumour, which showed at parts the typical structure of a pure malignant adenoma, and at other parts

typical Grawitz structure, with all gradations between the two, this tending further to confirm the origin of these tumours from renal epithelium.

Two very remarkable cases of renal cancer are recorded by Dr. Herbert French in the last number of *Guy's Hospital Reports*. The first occurred in a girl 6½ years of age, and was associated with the development of the pubic hair and genitals from the age of 8 months. She experienced a sudden attack of abdominal pain and vomiting, and died after operation. Numerous secondary deposits were found in both lungs, which were invaded from the pulmonary arterioles. The tumour was a renal hypernephroma. The other case occurred in a man of 45, and was considered to be a carcinoma. The symptoms were indefinite, or rather, the abundance of symptoms was too perplexing for diagnosis, and the clinical report given will supply problems enough to baffle the acutest diagnostician. At the necropsy the growth was found to have made its way along the renal vein, up the vena cava, and into the right auricle as an unbroken thrombus.

THE NEXT FIGHT: CONTRACT MEDICAL ATTENDANCE ON UNINSURED PERSONS.

Now that the rates for medical attendance on persons insured under the National Insurance Act have been, at any rate for the present, fixed, a question of hardly less importance faces the profession and presses for solution. We allude to the rates of payment for contract medical attendance on the uninsured. A case which has just happened in London will serve as an illustration both of the dangers to be feared and of the correct method of dealing with them. The Provident Association of Warehousemen and Clerks, having its offices in Cheapside, London, became an approved society, and, in consequence, found itself obliged to make arrangements for medical attendance on a considerable proportion of its members who, for reasons of age, disability, or income, have not become insured persons, or are not entitled to medical benefit under the Act. It applied to its former medical officers, who had resigned their contracts as requested by the British Medical Association, and asked them to undertake the treatment of this residue at the previously accepted rate of 6s. a member per annum. The Provident Association was obviously surprised when a large number of these practitioners, owing to organized action taken on the initiative of Dr. J. A. Butler and Dr. J. Galt, declined to accept these terms, and have demanded rates of 9s., including medicine, for those of the members who are in receipt of less than £160 per annum, and 10s. 6d. for those earning above that amount. The Provident Association does not see, or does not wish to see, that such a demand is perfectly reasonable, and that practitioners who accept less would, in fact, be stultifying themselves in the eyes of the public. The members for whom the fee of 6s. is offered are, in the nature of the case, either not so fit physically as the insured members of the Provident Association, or they are financially better off, and on either of these grounds it seems obvious that there is a perfectly fair claim for, at the very least, the 9s. assigned under the Government Insurance scheme for medical attendance and medicines provided for the insured. The State Sickness Insurance Committee of the British Medical Association has sent a circular letter to the medical officers of the Provident Association urging them to adhere to their just demands, and at the same time promising the support of the Association to the fullest possible extent. It is hoped that no practitioner will be so ill-advised as to accept the inadequate terms now offered by the Provident Association. There are several morals to be derived from this incident, but the chief is that the profession will have to be very careful in its dealings with this subject if it is not to fall into serious inconsistencies and set up precedents which will be extremely awkward in the future. It will have been useless to have fought a long and expensive battle for adequate remuneration under the Insurance Act if the profession is prepared at the first demand to accept inferior rates of payment for the same kind of work to be done on behalf of people at least as well off as the insured, many of them being also old and ailing. The insured, being subsidized by their employers and by the State, are precluded from any claim on the charity of the profession, but it may be necessary in dealing with some classes of the uninsured to make allowances on the ground of poverty; the profession has always done so and will doubtless be willing to continue to do so. But the plea of poverty does not apply in cases like that dealt with above, and even where it does apply it must be made perfectly clear that the lower rates charged for contract medical attendance on the poor uninsured shall not be used as a precedent if, at a later date, it is proposed to include them in the insured classes. It is in order to forestall attempts of this kind that the profession must be on its guard in all arrangements made for contract attendance on uninsured persons. While making due allowance for economic conditions, the profession must see to it that the rates now fixed bear some more reasonable relation to the work expected than has been the case in the past. This can only be accomplished by increasing vigilance on the part of the profession in each locality, and by consultation in each Division before local rates are fixed. There must be no individual arrangements made in the bad old way, without a thought of the influence on others and on the general situation.

ATTENDANCE ON AGED AND INFIRM MEMBERS OF APPROVED SOCIETIES.

Another aspect of the question discussed in the preceding note calls for mention, since it seems to be the cause of much misunderstanding. Section 15 (2) (*c*) of the National Insurance Act states that the Regulations shall require the adoption by every Insurance Committee of such a system of administration of medical benefit as will secure the provision of medical attendance to members of friendly societies, which become approved societies, who were either (*a*) not entitled to medical benefit because they were 65 or upwards at the commencement of the Act, or (*b*) not insurable because they were permanently disabled at that date; the provision is to be made on the same terms as to remuneration as those arranged with respect to insured persons. Regulation 51 leaves it optional for such persons, or their approved societies on their behalf, to claim their medical attendance under the arrangements which the committees are required by the above-quoted section to provide. Circular A.S. 75 of the Commissioners, headed "Medical Benefit," in referring to the fact that Insurance Committees are required to make the above-mentioned arrangements, says, "This is, however, an option granted to societies, and the Act does not make it obligatory upon a society to avail itself of this provision, nor does it either expressly or by implication require any payments made by a society in respect of this treatment to be on the same scale as in the case of insured persons if the society can obtain treatment at a lower rate." Whatever construction may be forced upon an apparently straightforward clause of the Act, it is beyond doubt to those who know the history of this clause that all attempts on the part of friendly societies—and they have been very common—to secure attendance for these classes of their members at lower rates, are an attempt to get behind an understanding which was come to between representatives of the friendly societies

and representatives of the Association. This understanding was reached at a conference held at the Treasury, with the Chancellor of the Exchequer in the chair, on October 16th, 1911, when a large number of leading representatives of the friendly societies were present, including Messrs. Moffrey, McNicoll, Lister Stead, and Marlow. It was regarded at the time by the friendly society representatives as a distinct concession on the part of the Association, and they not only expressed their gratitude for it, but, so far as they could bind their societies, agreed in return not to reopen the demand that the administration of medical benefits should be handed back to the approved societies. The representatives of the societies had felt that there was a danger that the medical profession, if it undertook the proposed statutory obligation to treat the insured, might decline to attend the aged and infirm members of the societies except at higher rates, and there is no doubt they regarded the embodiment of the understanding in the Act as a distinct gain. This arrangement was reported to the Special Representative Meeting in London in November, 1911, and was there endorsed (Minutes 30 and 31), but it would appear that the heads of the friendly societies have neglected to make the understanding on the subject known to their local branches, for from many quarters we have been informed that attempts are being made to secure attendance on these aged or infirm members at the old rates. The State Sickness Insurance Committee has already reminded all Division Secretaries of the requirements of the Act, and has urged that the local profession should take steps to protect its legitimate interests. It need not be feared that in doing so any hardship will be inflicted on the friendly society members referred to. The Insurance Committees are charged with the duty of seeing that they get their medical attendance at the same rate as the insured get theirs; the societies are bound to provide it for them; the physical condition of the persons concerned precludes any appeal for lower terms except on the ground of poverty; and the reserves which have been set free by the operations of the Act leave the societies quite able to meet the extra charge on a small and diminishing class.

CANVASSING FOR INSURANCE PATIENTS.

If anything could add to the sense of humiliation experienced by many members of the profession owing to the events of the last few weeks it must have been the revelations of the means to which some doctors on the panels have permitted themselves to resort in order to attract insured persons to send the strawberry cards to them for signature, with the intention, no doubt, of using this provisional arrangement as an introduction to a large number of insured persons. We called attention to this matter last week, but information given to the Council of the British Medical Association on Wednesday shows that lapses of this nature have been more common than was known last week. Nothing can excuse such a course of conduct. It may be true that the methods recently pursued by the Insurance Commissioners have not reached the high ethical standard which the country has a right to expect from a body of persons to whom functions of great national importance have been confided by the State; it may be true also that these methods appeared to be countenanced by some members of the profession who had no doubt persuaded themselves that the end, which they regarded as good, justified the means. But all this cannot justify the gross departure from the well-recognized ethical rules by which the members of the profession have learnt to govern their relations with each other, which is involved in resort to canvassing by postcards, leaflets, and personal visits to insured persons. Instances of such procedures were given to the Council, and it was also told of the action taken in certain districts by Divisional or Local Medical Committees to recall men, who may have acted without sufficient consideration, to a sense of their duty to their brethren and to the traditions of the profession to which they belong. It is satisfactory to know that these representations have as a rule produced the effect that was to be expected, and that the canvassing cards and leaflets have been withdrawn and the personal canvassing stopped. But we understand, also, that a considerable number of complaints have been lodged with the General Medical Council, and there can be no doubt that, if evidence of such canvassing were advanced, the cases would be investigated by that Council as it has investigated charges of canvassing with regard to contract practice or in other connexions in the past.

THE SUPPOSED DANGERS OF THE TUBERCULOSIS SANATORIUM.

The provision of sanatorium treatment is slowly proceeding, and some of the difficulties attending it are becoming manifest. One of these difficulties arises from the not unnatural aversion of rural communities to the settlement of numbers of tuberculous persons in their midst. The average dweller in country or suburb has acquired a vague conviction that consumption is infectious, and hence that consumptive people are to be avoided if possible. Very few, however, have taken the trouble to inquire into the conditions under which infection may take place. It is therefore all the more necessary to point out by the light of experience and common sense that such pessimistic notions are not consistent with the proved facts of the case. The two main objections to the establishment of a sanatorium in a new locality may be thus stated: Firstly, the practical risk of infection of local inhabitants; and secondly, the social aversion to the constant presence of invalids. The supposed liability to infection is probably the more potent influence of the two, but when tested by the facts of death-rate statistics, the evidence affords no confirmation of the supposition. In many health resorts, such as Ventnor and Bournemouth, where consumptive persons have congregated for many years, there is absolutely no evidence forthcoming to show that their disease has been communicated to those among whom they have lived. Instances are probably known to every one where one member of a family has alone been affected by tuberculous disease, although living in close association with others. Such cases are indeed far more common than instances of the converse. It has needed a good deal of careful research to bring to light the well-authenticated cases of direct infection in the family circle. The risk to immediate associates being so small, it follows that the actual risk to the community, living under other roofs, is really infinitesimal. The means by which bacilli may be conveyed are now so well known and so easily controlled that the danger of infection is reduced to the common minimum. Although the tubercle bacillus has occasionally been detected in other excreta, every one knows that it is by way of the sputum that infection is most likely to be spread. Already the habit of public spitting has been greatly diminished, and consumptive persons have been educated so to dispose of their sputum as to prevent its diffusion. There remains, however, the social objection, and that also is apt to be greatly exaggerated. In most sanatoriums the patients are in the earlier stages, and present hardly any distressing features. The advanced case—the typical hectic consumptive of fiction—should have no place in a sanatorium, and, if such cases are eliminated, it is probable that few inmates of the sanatorium would be recognized as such at sight. It will be seen that objection has recently been taken to the use of a certain school in Surrey as a sanatorium for insured persons. The grounds of objection urged by the local authorities illustrate the objections often raised. Amongst other points, the possible contamination of a local milk supply is even hinted at. It is assumed that cows can be infected with the human

bacillus, but the fact is ignored that no such infection has ever been proved except by inoculation of enormous doses for experimental purposes. So far from the sanatorium being a danger to the dairy the fact ought to be recognized far and wide that a single cow with unrecognized tuberculous disease may yield infective milk which may be distributed daily to a whole community of children, and may set up those insidious changes in the glandular and alimentary systems which, although known by various names, are essentially tuberculous in origin. The presence of a sanatorium in such a district would lead to the discovery of a danger of this kind, and thereby confer a benefit which would far outweigh the small risk which might arise from the carelessness of an insubordinate patient. In most sanatoriums the neglect of precaution on the part of a patient leads to immediate dismissal, and thus even that slight risk is soon removed. The public places of a country town where spitting may proceed unchecked are, indeed, far more dangerous than the vicinity of a sanatorium. In Australia and in many other countries the general public are better informed on these matters than they are in country places in England. Frankly, we are behindhand in the organization of our antituberculosis campaign, and it is time that prejudice should give place to knowledge and common sense.

MIRABEAU AN ABNORMAL INFANT.

MIRABEAU—the great Mirabeau, Honoré-Gabriel Riquetti, who had so strong an attraction for Carlyle[1] that the latter called him "world-compeller and ruler over men," and made him, so to say, the hero of his *French Revolution* (if that marvellous work can be said to have had a hero) —Mirabeau was almost, if not entirely, a monstrosity at birth. Carlyle, in one of the finest of his Essays,[2] that in which he reviews the eight volumes of *Mémoires biographiques, littéraires, et politiques de Mirabeau*, gives some hint of the abnormalities of this "heir of all the Riquettis" at his birth. "A magnificent, 'enormous' fellow, as the gossips had to admit, almost with terror; the head especially great; 'two grinders' in it already shot!—rough-hewn truly, yet with bulk, with limbs, vigour bidding fair to do honour to the line." S. G. Tallentyre,[3] in his much more recent *Life of Mirabeau*, gives further details of this momentous birth. "Then, in 1749," he writes, "there appeared with a twisted foot, a gigantic head with two teeth already cut, tongue-tied, monstrous and hideous, not merely the greatest of Mirabeaus but one of the greatest of the sons of France. The creature was so extraordinary that the Marquis had to be warned and prepared for his first introduction to him." Carlyle, with his genius for restoring past scenes, says: "The paternal Marquis, to whom they said, '*N'ayez pas peur*, Don't be frightened,' gazed joyful, we can fancy, and not fearful, on this product of his; the stiff pedant features relaxing into a veritable smile." He, whom Carlyle calls "the paternal Marquis," was Victor Riquetti, the representative of an old Florentine family which flourished about Dante's time in North Italy and later in Provence. Many notables had sprung from this line: it was a fine eugenic stock; they were "the Well-born of the World," says Carlyle, and yet here was a most abnormal baby, a most dysgenic result. Such babies are born now and again, and are labelled cases of multiple malformations in the newborn, or are more specifically called fetal rickets; but how comes a Riquetti to be rickety? The writer of Victor's life in the *Biographie universelle*[4] hints that this "Friend of Men" (*L'Ami des hommes*), as he was called, had by his debauchery several times compromised the health of his wife (Marie-Geneviève de Vassan). Antenatal pathology may well have been at work here, poisoning the blue blood of the Riquettis and de Vassans, and leading to this teratological phenomenon in the family annals. Carlyle must have been very far out when he imagined the Marquis Mirabeau looking down joyfully on this product of his; it may have been sorrowfully or shamefacedly, it could hardly have been joyfully, unless indeed he was able to read far into the future, and see that strange "sprawling oaf" with the destinies of France in his hand, the one man capable, had he lived, of chaining the titanic forces of that world-shaking event, the French Revolution. But he was not to live, but to die at the age of 42. Looking out through the window on that last morning of his full-filled but short life, he hailed the sun: "If that there be not God, he is at least his cousin-german," cried he. He was a prodigy at his birth, and he remained prodigious, gigantic, world-compelling, all the days of the years of his life.

[1] Carlyle, *French Revolution*, Bk. IV, c. ii.
[2] Ibid., *Critical Essays*, vol. v, p. 228.
[3] Tallentyre, S. G., *Life of Mirabeau*, p. 4, 1908.
[4] *Biographie universelle*, xxix, p. 89, 1821.

LEPROSY AND GOATS.

THE evidence in favour of regarding goats as a source of leprosy in man has lately been collected by Dr. P. Engelbreth,[1] who holds that leprosy is not transmitted from man to man. The strict isolation of lepers in ancient days and in the Middle Ages, he asserts, did not cause an appreciable reduction of the disease. It spread rapidly, and, though isolation was maintained with equal strictness in England, Central and Southern Europe, the disease disappeared only in the two former areas. Further, it does not increase in such countries as Egypt, where isolation is not enforced, while it appears in places where it has previously been unknown. Out of 512 marriages, of which records were obtained, leprosy subsequently developed in the healthy mate of a leper in 17 cases only. The presumptive evidence of the existence of an intermediate host is therefore strong, and for the following reasons Dr. Engelbreth suspects the goat of acting this part. Leprosy is a disease of mountainous countries where the goat is bred. In ancient times, Egypt, Arabia, Asia Minor, and India were centres of leprosy and goat breeding. Both goats and leprosy were imported from Asia Minor into Greece, whence they were simultaneously transmitted to Italy and Spain. In the time of Charlemagne, goats were far more numerous than cattle and sheep; but in the sixteenth and seventeenth centuries, goats were largely ousted by sheep, whose wool rose in value. As goats became scarce, leprosy began to disappear. This coincidence was, he says, most striking in Denmark, where, about the year 1400, flocks of 50 to 200 goats were kept on every farm, and where there were twenty leper hospitals. Owing to their ravages on the woods, goats were expelled in 1473 from Fyen by Christian I. In 1541 a war of extermination was waged against them throughout the country, and fourteen years later, Christian III was able to abolish all the leper hospitals, and Dr. Engelbreth estimates that fourteen years is the average term of a leper's life. Norway, however, has kept both her goats and her lepers, and in 1848 there were over 2,000 lepers and about 500,000 goats. Now, the tale of goats has been halved, and that of the lepers has been reduced to 200. All the countries in which leprosy still exists are also goat-breeding countries; and in America, where leprosy was unknown before Columbus, the distribution of leprosy corresponds with the prevalence of goats. The parts colonized by the Spaniards, the Portuguese, and negroes have both goats and lepers; while the northern states, which were colonized by the English, possess neither. In a paper published by Hertha in 1912, two forms of tuberculous disease in the goat have been described. The one is identical with bovine tuberculosis; the other is totally different, and is characterized by greyish-yellow, firm, but

[1] *Hospitalstidende*, October 9th, 1912.

not caseous, nodules in the internal organs. These nodules closely resemble those found in the internal organs of lepers. Whether the infection is carried from goat to man by the finger-nails of the person who tends the infected goat, or by the milk, Dr. Engelbreth does not pretend to decide; but he thinks that much may depend on the extent of the disease in the goat, and on the opportunities for contact with man. He suggests that lepers may again transmit their disease to goats, and, if this be so, the isolation of the former may yet be of use. But he attaches more importance to a campaign against infected goats by diagnostic injections of tuberculin, which causes a reaction in lepers as well as in the tuberculous. He further suggests that a tuberculin prepared from infected goats should be given to the surviving lepers, whose numbers he computes at 300,000, as he believes that in this way a speedy extinction of leprosy would be brought about.

EARTH-EATING.

THAT mine of curious information, *Notes and Queries*,[1] whose vitality has not been diminished by the loss of the services of its distinguished editor, the late Mr. Joseph Knight, has been publishing lately a series of letters bearing upon the subject of earth-eating, and has elicited some new, and brought forward some old, facts regarding this strange practice. A query as to earth-eating among Swedish tribes started the discussion, and although to it no direct answer has yet been forthcoming, some information has come in regarding geophagy in several other countries—in the Sudan, for instance, and in India, China, the Malay Archipelago, and elsewhere. Curiously enough, the nearest answer to the original query about Sweden has come from Japan, the correspondent pointing out that Bennett and Murray (*Handbook of Cryptogamic Botany*) state that "in some countries, such as China, Japan, Siberia, Lapland, etc., they [the fossilized siliceous shells of diatoms] form, cemented together by salts of lime, the edible earths which are mixed with meal to make a kind of flour." Probably it was the allusion to Lapland in this quotation which had been lingering in the mind of the querist who raised the subject. Several replies touch upon earth-eating in times of scarcity; there is, for example, the statement that the Japanese Ainus used to eat a paste made of a mixture of diatomaceous earth and starch in famine years; and another correspondent tells of a native he met in North India who ate a mixture of clay and black ants, and found it pleasant on account of the formic acid in it. The Indians of Guatemala eat a yellowish edible earth containing sulphur, taking it not simply as a food, but also as a prophylactic against disease. Is this, we wonder, the old superstition of the sulphur ball for rheumatism cropping up in Guatemala? The practice of geophagy seems to be particularly common in the islands of the Malay Archipelago; the earth eaten there consists of bituminous clay, is called *ampo*, and is offered for sale in the markets of Java and other places. It is stated that "women in delicate health eat sometimes *ampo* because it is supposed to benefit their babies yet unborn." The practice just referred to may have some connexion with what has been called the perverted appetite (or pica) of pregnant women, and it is just possible that this desire for earthy materials may represent a real physiological outcry by the tissues of the mother or fetus (or of both) for some mineral constituent lacking in the feto-maternal economy. The dirt-eating of children has probably another origin, and a fatal case of earth-eating was published in this JOURNAL in 1884 (vol. i, p. 994). If some of the correspondents to *Notes and Queries* can lay their hands on the *Index-Catalogue of the Library of the Surgeon-General's Office of the U. S. Army*, they will find there under "Appetite, abnormal," a number of references to articles in medical journals bearing on the subject of geophagy as a disease.

[1] *Notes and Queries*. Eleventh series, vol. vi, pp. 290, 351, 397, 514, 1912.

APPLIED SCIENCE IN MEDICINE.

AT the first meeting for this year of the Académie de Médecine in Paris, the retiring president, M. Gariel, Professor of Medical Physics in the Faculty of Medicine, inducted his successor, the veteran Professor Chauveau, who gave a short address, which, though slight in texture, yet touched on a subject of far-reaching importance. He said that he and his predecessor both belonged to the category of workers engaged in the discovery and codification of the laws which govern the phenomena of life, and it was, he said, proper that the presidential sceptre should pass next year into the hands of the newly elected Vice-President, M. Perier, Surgeon to the Paris Hospitals, who was one of those charged with the duty of preventing or combating disease by the practical application of the laws made and codified in the laboratory and the study. M. Chauveau pointed out that when an occasion arose to apply the discoveries of pure science to practical medicine, it was important always to recognize the position which medicine should take and the share that it should have in the interpretation of results. As an example he quoted the application of the Roentgen rays in diagnosis and treatment. There had been, he said, a controversy between the faculties of science and medicine in Paris as to which should give instruction in this subject. He had been reproached by some scientists *pur sang* for siding with the faculty of medicine. "How is it," he was asked; "that you are siding with the doctors and opposing science?" His answer may be taken to heart in this country also. "I side with the doctors," he said, "in order that I may be on the side of science; with reference to the constitution, the mechanism and the functions of the tissues of the organism, whether normal or pathological, they alone possess the scientific ideas which are the indispensable guides of the observer who would interpret the organic troubles which examinations with the *x* rays are capable of revealing." It is, as M. Chauveau went on to say, curious to find this prejudice expressed at the present day. There was a time when practitioners of medicine were almost the only serious students of biology. Medicine did not at first share fully in the growth of the application of the experimental method which took place during the final third of the nineteenth century; pathology remained almost exclusively observational, and even in physiology the experimental method was comparatively little applied. With the rapid application of experiment to the study of physiology, and with the extraordinary impetus given to pathology by the development of bacteriology, the conditions changed. But a new danger arose—the divorce of medicine from the sciences which it had caused to spring into life. It was seen some years ago in the attitude of the professed physiologist, and in the academic manner of teaching the elements of the subject to medical students. It is still to be detected among laboratory workers, but it is being steadily modified through the influence of many of the leaders among the physiologists and biologists, especially, we would venture to think, in this country, where so much physiological and pathological work of the highest kind is being done.

AN UNFORTUNATE OBSTETRIC METAPHOR.

IT will be remembered that shortly after King Henry VII came to the throne of England he had no small trouble with the pretenders, Lambert Simnel and Perkin Warbeck, who were doubtless favoured greatly by the Lady Margaret of Flanders, widow of Charles the Bold of Burgundy and sister of the late Edward IV. "The Lady

Margaret," wrote Lord Bacon,[1] "was called by the king's friends Juno, because she was to him as Juno was to Aeneas, stirring both heaven and hell to do him mischief." In 1492 the Perkin Warbeck conspiracy was beginning to look serious, and, although the Treaty of Etaples closed France against the lad, who was, to quote Bacon again, "a finer counterfeit stone than Lambert Simnel, better done and worn upon greater hands," it did not prevent him being received at the Court of Margaret; that lady, indeed, openly acknowledged him as her nephew, and gave out that he was Richard, Duke of York. Henry was well aware of the danger he was running, and, having discovered the true name and origin of Warbeck, he sent ambassadors to the Archduke Philip's Council in Flanders to try to persuade that body to bring pressure to bear on the Lady Margaret and have the pretender expelled. The ambassadors were Sir Edward Poynings and Dr. William Warham (afterwards Archbishop of Canterbury),[2] and the latter is said to have made a "remarkably telling speech." The remonstrance, however, was fruitless; and after reading Dr. Warham's remarks, as preserved for us by Lord Bacon, this result is not altogether surprising. Alluding to the countenance given by Margaret of Flanders to the two pretenders, he said: "To speak plainly to your lordships, it is the strangest thing in the world, that the Lady Margaret—excuse us if we name her—whose malice to the king is both causeless and endless, should now when she is old, at the time when other women give over childbearing, bring forth two such monsters; being not the births of nine or ten months, but of many years; and whereas other natural mothers bring forth children weak and not able to help themselves, she bringeth forth tall striplings, able soon after their coming into the world to bid battle to mighty kings." There can be little doubt that this laboured metaphor and coarse witticism produced an effect upon the Archduke's Council not very dissimilar from that which Philip of France's obstetric gibe about corpulence had upon William the Conqueror; at any rate the Council replied that the duchess dowager (Margaret) was absolute in the lands of her dowry, and Perkin Warbeck continued to trouble the throne of England for some years longer.

THE UNIVERSITY OF CALIFORNIA.

The University of California has its principal seat at Berkeley, on the east coast of San Francisco Bay, about nine miles from the city. Hitherto the teaching in the Medical Faculty has been divided between Berkeley and San Francisco—anatomy, pathology, and bacteriology being taught in the former place. Rather more than a year ago the committee on medical instruction recommended that the departments of the medical school at Berkeley and San Francisco should be brought together in the latter city, that the clinical years should be put upon an academic basis, and that a teaching hospital and a laboratory should be provided, so that the medical school could attain the highest standard. Last April the Medical Faculty decided that clinical instruction should be carried out in three main departments: First, gynaecology and obstetrics, which was to be put upon an academic basis at once, with full salaries for a professor and an assistant. Secondly, medicine, including pediatrics, neurology, and dermatology; this department[3] cannot as yet be put upon a full academic basis, but a sum of about £600 has been set aside for the payment of assistants for the current year. The third main department will be surgery, including orthopaedics, urology, ophthalmology, rhinology, otology, and laryngology; the money available being insufficient to put the department on a full academic basis, a sum of about £350 has been set aside to pay three assistants. The work of the hospital pathologist was reorganized, and an additional assistant professor of pathology at a salary of £500 a year appointed. A sum of about £250 was assigned for work in radiography. The proposals to provide a new university hospital have gone so far that plans have been prepared for four units of forty to fifty beds each for surgery, medicine, diseases of women, and diseases of children respectively. About £70,000 has already been given by private individuals to build and equip the departments of medicine and children's diseases. Meanwhile, alterations will be made in the existing hospital to accommodate the clinics, and clinical and pathological laboratories will be equipped.

[1] Bacon, Francis, *History of King Henry VII*, 1622.
[2] *Dict. of Nat. Biography*, lix, p. 378.
[3] *Science*, January 3rd, 1913.

COLLOIDAL COPPER IN THE TREATMENT OF CANCER.

Drs. Loeb, McClurg, and Sweek contribute to an American journal[1] a report based on the recent work of Wassermann on the effects of intravenous injections of selenium and eosin on mice. They claim good results from the injection of a colloidal solution of copper in cases of ulcerated cancer in man. They first tested the effect of various copper preparations on mouse carcinoma, and then applied the method to man, using a colloidal solution of copper prepared according to Bredig's method. Each patient received daily an intravenous injection of from 300 to 400 c.cm. of the solution warmed to about the normal temperature of the blood and introduced slowly into the vein. Usually injections were given every week, and were always followed by a temporary rise of temperature. The tumour became hyperaemic and sensitive in a few hours, and the discharge from any ulcerated part increased, but after about fifteen injections both these symptoms disappeared and distinct retrogression of the tumour became noticeable. This retrogression seemed continuous. Eight cases in which carcinoma had developed in different parts of the body are reported. The authors of the paper urge that their treatment seems effective in causing the retrogression of various kinds of cancer which have till now withstood other modes of treatment. They admit that a definite judgement on the ultimate outcome must be suspended. Like other observers, they point out that mouse cancer is an extremely malignant disease, and if controllable by agents introduced into the blood carriers, as seems to be the case, it may be hoped that carcinoma in man may be yet more effectively controlled by similar means.

[1] *Interstate Medical Journal*, St. Louis, Missouri, December, 1912.

AUSTRALASIAN MEDICAL CONGRESS IN NEW ZEALAND.

At the annual general meeting of the British Medical Association at Liverpool Dr. Barrett of Melbourne, addressing the members present, gave a cordial invitation to them to attend the tenth session of the Australasian Medical Congress which is to be held at Auckland, New Zealand, on February 9th to 14th, 1914. A letter has now been received from Dr. Bernard J. Dudley, of Auckland, honorary secretary, written on behalf of the Executive Committee of the Congress, confirming the invitation. It is expected that many representatives from all parts of Australia will be present, and they would be delighted to welcome colleagues from Great Britain. A large Dominion Exhibition, which will give visitors exceptional opportunities of viewing the resources of New Zealand, will be open in Auckland at that time. After the congress facilities will be afforded to visit some of the famous thermal wonders and scenic beauties of the Dominion. It is expected that special favourable arrangements will be made with the various shipping companies for members who may be able to visit New Zealand on this occasion.

At the instance of the President-elect, the Council, at its meeting on Wednesday, decided to add to the Sections to be held at the Annual Meeting of the British Medical Association at Brighton next July a Section of Balneology and Climatology.

"APPENDICITIS—a Plea for Immediate Operation" is the title of a paper Mr. Edmund Owen will read at the Medical Society of London on Monday evening, February 10th. Among those who have expressed their desire to take part in the discussion which will follow are Mr. W. H. Battle, Sir George Beatson, Mr. C. P. Childe, Mr. Connell (Sheffield), and Mr. Grey Turner (Newcastle-on-Tyne). The secretaries will be pleased to receive the names of others desirous of taking part in the discussion.

THE Royal Statistical Society has appointed a committee, with Dr. Reginald Dudfield as chairman, to report on the available statistics of morbidity and mortality in the United Kingdom. It is believed that many valuable collections made by hospitals and institutions may be unknown to the society, and the chairman appeals to the authorities of such institutions to communicate any collected data, published or otherwise. The information may be addressed to him at the Royal Statistical Society, 9, Adelphi Terrace, Strand, London, W.C.

DR. J. W. W. STEPHENS, Walter Myers Lecturer in Tropical Medicine in the School of Tropical Medicine in the University of Liverpool, has been appointed to the Sir Alfred Jones chair of tropical medicine in succession to Sir Ronald Ross. Dr. Stephens, who has been associated in the teaching work of the school for ten years, graduated M.D. of the University of Cambridge in 1898, and at one time held the John Lucas Walker studentship of pathology of that university. In 1897 he was appointed assistant bacteriologist to the Government of India, and was subsequently a member of the Royal Society's Malaria Commission in Africa and India.

Medical Notes in Parliament.

Workmen's Compensation Act Regulations.—Mr. Steel-Maitland asked the Home Secretary, on January 22nd, with regard to the fact that in cases of appeal under Section 8 of the Workmen's Compensation Act, 1906, the present Regulations did not state whether the worker possessed a right to have his medical attendant present at the examination by the medical referee, whether he was notified of the right; and whether such modifications could be made in the Regulations as to establish such a right and to provide for the worker being notified of its existence.—Mr. McKenna said that the Regulations gave both workman and employer the right to make any oral statements, or to submit any written statements, to the referee; and this included a written statement by the workman's or employer's doctor, but they did not give either party the right to have his doctor present at the examination. The question of giving such a right was carefully considered when the Regulations were framed in 1907, and it was decided that it would be undesirable to do so. He was not aware of any sufficient ground for making a change in the Regulations on this point. He added that it was open to the referee, if he thought it desirable, to allow the doctors to be present and to question them, and that was, he believed, sometimes done.

Lead Poisoning.—Mr. Steel-Maitland questioned the Home Secretary, on January 22nd, with reference to a case in which a girl had been certified by four doctors to be suffering from lead poisoning, but the medical referee on appeal pronounced against her claim.—Mr. McKenna said that the case had been brought to his notice in November last, when it was stated that the girl and her mother complained that the referee had made only a perfunctory examination. The medical referee had stated that he had very carefully examined the girl, and his detailed report on the case corroborated that statement. The medical referees were men of high standing in their profession and very carefully selected, and he did not think that there was any negligence on the part of the referee in the case referred to in carrying out his duties.

Calf Vaccine Lymph.—In reply to Mr. Sutton, the President of the Local Government Board, on January 22nd, said that all calves which were used for the production of lymph were slaughtered and then examined by the Board's veterinary surgeon, and the lymph from any animals not certified to be healthy was destroyed. The carcasses of the animals were also subject to veterinary inspection by the officers of the Corporation of the City of London, and dealt with in accordance with its strict regulations. Any carcasses which were certified as unfit for human consumption were destroyed.

Scottish Universities.—In reply to Mr. Pirie and Sir Henry Craik, the Financial Secretary to the Treasury said that he hoped to lay the correspondence between the Treasury and the Scottish Universities upon the table during the week. The Treasury had made the stipulation that payment in full of the additional grants would be made only on the institution of inclusive fees in all four Scottish universities, and on the footing that all fees should be uniform. The correspondence would show the present position with regard to the institution of such inclusive fees by the universities.

East Africa Protectorate.—In reply to Mr. Crawshay-Williams, the Secretary of State for the Colonies stated, on January 15th, that the question of the sanitation, not only of Nairobi but of the East Africa Protectorate generally, had been recently before him, and he was considering, in consultation with the Governor and his expert advisers, the best method of improving the present state of affairs.

Board of Trade Medical Staff.—Mr. Peto asked the President of the Board of Trade, on January 27th, whether the present medical staff of the Board of Trade was so inadequate that its duties were almost wholly confined to the inspection of emigrants travelling on emigrant-carrying ships; and, if so, what action he proposed to take in the matter.—Mr. Buxton said that the medical officers of the Board of Trade were appointed to perform certain specific duties under the Merchant Shipping Acts, including the inspection of emigrants. He had no reason to think that the staff was inadequate to perform those particular duties.

Colour Blindness.—Mr. Cathcart Wason asked the President of the Board of Trade, on January 27th, if he was assured that the classification of colour blindness by the Departmental Committee of the Board of Trade was satisfactory, or if he proposed to take any steps to modify it.—Mr. Buxton replied that, as at present advised, he did not propose to take any steps to modify the method of classification of colour-blind persons adopted by the Departmental Committee, which was only one of several methods used by the appeal examiners. The Committee recognized in its report that the method had had only a short trial, and expressed the opinion that the final decision as to whether, in a given case, colour deficiency was so great as to involve incompetency ought to remain with the appeal examiners.

Highlands and Islands Committee.—The Prime Minister on January 23rd, said he could not say approximately at what time the Government's intention with regard to the report of the Highlands and Islands Committee would be stated; and in reply to a further inquiry by Mr. Cathcart Wason (Orkney and Shetland), on January 27th, Mr. Masterman would not go further than say that he hoped to make a statement shortly. An attempt to extract information by a question addressed to the Prime Minister, on January 28th, as to the supplementary estimates, also failed to elicit any definite reply.

Mental Deficiency Bill.—In reply to Mr. Alan Sykes, the Prime Minister renewed his promise that the Mental Deficiency Bill should be introduced early next session.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

The Chair of Bacteriology in Edinburgh.

Edinburgh University has waited long and patiently for its professor of bacteriology. He is in sight at last—at least his chair is. A White Paper issued on January 21st contained an ordinance of the Court of the University providing for a professorship to be called the "Robert Irvine Chair of Bacteriology"; the professor is to belong to the Faculties of Medicine and Science, and his salary is to be the annual free income of the £25,000 which constitutes the Robert Irvine endowment. The late Mr. Robert Irvine, of Royston, Granton, near Edinburgh, left estate to accumulate till it reached the sum of £25,000 or £30,000, for the purpose of founding this professorship and of furnishing the equipment of a class-room and laboratory. The money is now available. Mr. Irvine was a Fellow of the Chemical Society and of the Royal Society of Edinburgh, and contributed in collaboration with Sir John Murray papers to the latter society on blue muds on the floor of the ocean, and on manganese oxides and manganese nodules in marine deposits; to him also the same society awarded the Neill Prize in 1895 for his papers on the action of organisms in the secretion of carbonate of lime and silica, and on the solution of these substances in organic juices. Local medical opinion has already settled who the first occupant of the Robert Irvine Chair of Bacteriology is to be.

Two Medical Problems.

Emeritus Professor Crum Brown presided over the annual meeting of the Edinburgh Medical Missionary Society at the Edinburgh Café on January 23rd. The ordinary business was transacted and the financial statement made, and thereafter Dr. Prentice of Livingstonia and Dr. D. D. Muir of Manchuria, both of them former students of the society, gave addresses. In each address a pressing medico-political problem was alluded to. Dr. Prentice spoke of South Africa as the land of insect-borne diseases, and gave a graphic account, not unmixed with dry humour, of the numerous ticks and their insinuating ways; but he spoke more gravely of *Glossina palpalis* and *morsitans* in their relation to sleeping sickness and the protection of the wild game. He expressed his conviction that the antelope served as reservoirs for trypanosome infection. Dr. Muir gave his experience of the attempts being made in Manchuria to stamp out opium-smoking. Whereas some years ago medical missions had to deal with numbers of cases of suicide due to the drug; when he left China they were scarcely meeting with one. The Chinese police, he said, were in earnest about tracking down the vendors of the opium. The last case of attempted suicide from opium which he had seen before leaving Mukden had been brought into the hospital by two Chinese policemen; and the two representatives of the law managed by clever and persistent cross-questioning to find out from the man (not, perhaps, in the clearest state of mind to defy their inquisition) from whom he had bought the drug. Three years ago it was common in travelling through the land to see many fields with crops of the opium poppy and to witness the women going up and down making incisions and collecting the juice; when he left none of these things were to be seen. Dr. Muir also spoke of the 142 Chinese candidates who appeared for the preliminary examination in medicine at the Mukden Medical College, and of the dismay of the examiners, whose duty it was to read the more than seven hundred examination papers (in Chinese) which resulted therefrom. About fifty students had passed, and were doing well at the college.

Medical Service in the Highlands.

The Committee of Management of the Highlands and Islands Approved Society have sent to Mr. Lloyd George a memorial with reference to medical service in the Highlands. It is pointed out that the memorialists represent a society which was formed as the outcome of appeals made by the Scottish Commissioners to the Supreme Courts of the Presbyterian Churches in Scotland, asking their assistance in administering the Insurance Act in the poorer and remote parts of the Highlands. After conference among representatives of the churches, drawn from their Highland Committees, it was deemed best to form an approved society. The memorialisis, as honorary members, are managing the society until the first annual meeting, and express their satisfaction with the report of the Committee of Inquiry on Medical Service in the Highlands and Islands. They hail the proposals of the report as an earnest of sorely-needed reform, and point out that the large contribution which the Highlander makes to the personnel of the Empire demands medical care not merely for men and women of insurable age, but also for school children and infants. Local resources are admitted to be inadequate. The economic conditions of certain portions of the Highland area call for generous treatment by the Treasury, which treatment should include special consideration of educational questions, and particularly of medical inspection and treatment of school children. The memorialists express the hope that the recommendations of the report will be ungrudgingly endorsed by the Treasury and at once adopted by Parliament.

At a meeting of the Executive Committee of the Queen Victoria's Jubilee Institute for Nurses, held at the central office, Edinburgh, the following resolution was adopted:

> That in view of the terms of the report of the Highlands and Islands Medical Service Committee and of the expression of approval of the work done by Queen's nurses in the Highlands and Islands, following on similar expressions in the reports of the Departmental Committee of the Local Government Board for Scotland (1904), and of the Royal Commission on the Poor Laws and Relief of Distress (1909), the Executive Committee of the Scottish Branch of Queen Victoria's Jubilee Institute for Nurses urges that the claims of these nurses may be recognized in the allocation of any Government grant towards the support of medical service in the Highlands; that copies of the above resolution be forwarded to the Chancellor of the Exchequer, the Secretary for Scotland, and to the Chairman of the National Health Insurance Commission for Scotland.

Joint Sanatorium for Forfarshire.

At a conference held on January 24th in Dundee to discuss the question of co-operating in regard to the provision of one large sanatorium suitable for the needs of the county of Forfar, the Dundee Public Health Committee, the county council, and all the burghs throughout Forfarshire were represented. The convener of the Dundee Health Committee, who presided, said that they believed it would be to the advantage of the county to co-operate with Dundee in a large scheme in which cheaper management was possible. Dundee would be responsible for the building and management of the sanatorium, and the county council would be required to guarantee a certain number of beds. The arrangement would be for sanatorium treatment only, for the advanced cases the outside districts would have to make their own provision. During the discussion which ensued, Dr. Templeman (Dundee) pointed out in reply to a question, that it was impossible to give the cost per patient to be charged by Dundee, as the capital expenditure that might be involved was not yet known. The Lord Provost said that negotiations had been opened with the directors of the Royal Infirmary for the purchase of the Sidlaw Sanatorium at Auchterhouse; it would be the most suitable and probably the least expensive. The feeling of the meeting was that it was expedient to co-operate with Dundee.

The late Dr. George A. Gibson.

At the weekly meeting of the managers of the Edinburgh Royal Infirmary, on Monday, January 27th, Sir James Affleck moved the adoption of a minute recording their deep regret at the death of Dr. George Alexander Gibson, senior ordinary physician to the Royal Infirmary. The minute recalled the fact that it was through Dr. Gibson's instrumentality that a considerable sum of money was given by an anonymous donor to establish and equip a clinical laboratory within the infirmary in which various modern scientific appliances could be utilized for the more accurate investigation of disease. The minute was approved.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

ROYAL COLLEGE OF SURGEONS.

THE Charter Day dinner of the Royal College of Surgeons in Ireland will take place on Saturday, February 1st, at 8 p.m. A meeting of the College will be held immediately before the dinner for the purpose of conferring the Honorary Fellowship on Surgeon-General Sir Launcelot Gubbins, K.C.B., Director-General Army Medical Service, and Sir Berkeley Moynihan, F.R.C.S. The Lord Lieutenant has accepted the invitation of the President and Fellows to be present at the dinner.

RESEARCH DEFENCE SOCIETY.

At the fourth annual general meeting of the Dublin branch of the Research Defence Society, held in the Theatre of the Royal Dublin Society, Dr. Sims Woodhead, Professor of Pathology in the University of Cambridge, delivered a lecture entitled "Experimental Research and its Bearings on Modern Medicine." At the outset he spoke of the necessity there was for making it perfectly clear that experiments on living animals were carried out only under a full sense of what those who were making the experiments owed to their subjects. Between the time of Galen and Harvey knowledge of the conditions under which the blood circulated through the body had made little or no advance, in spite of the fact that anatomists had begun to make dissections of the human body. The whole history of inflammation, of specific infectious diseases of various types, of the action of drugs, of the healing of tissues, of protective inoculations, of localization of function of the brain and spinal cord, of improved methods of diagnosis, had been modified, in fact, had been dependent upon those basal observations and researches made by Harvey and Bell. The real friend of both animals and man was he who, in his search for means of alleviating pain, was not cowardly enough to run away from the clear duty of using every legitimate means of gaining knowledge.

INFANT MORTALITY IN DUBLIN.

The Dean of St. Patrick's preached recently in the cathedral on infantile mortality in Dublin. He dwelt on two facts. The first was that in Dublin hundreds of infants died every year from preventable causes. The second was that the Dublin Corporation had taken definite action towards saving the lives of the children. He described the work that is being done in Dublin by the committee of voluntary helpers who are trying to save the lives of young children by giving them a chance to survive the dangers of unprotected infancy. The first duty was the education of the poor regarding the rearing of children; no money was given to the mothers by the visitors, but all health visitors had books of dinner tickets, which they distributed in necessitous cases. The importance of breast feeding was urged on the mothers, and free pure milk was supplied to those who were unable to nurse their infants. The dean pointed out that these health visitors, numbering over a hundred, were nearly all working women, shopkeepers, shop assistants, and working girls, who, after their hard day's work, gave their leisure, short though it were, to save children's lives. They had to attend lectures and pass an examination before they were allowed to undertake the work. He concluded by an earnest appeal for funds in order to assist in the continuance of the work.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

STAFFS OF INSTITUTIONS AND MEDICAL BENEFIT.

THE Finance Committee of the Metropolitan Asylums Board on January 25th reported as to the arrangements to be made for medical benefit of the insured members of the staff, comprising some 1,800 persons, of whom 1,750 were women, practically all being entitled to residential emoluments. In the case of the non-resident staff, the Committee said there was no reason why they should not proceed as ordinary insured persons, selecting their medical attendant from the panel or otherwise conforming with the regulations. The case of the resident insured staff, however, was different. Under the regulations any or all of the medical men on the local panel might be chosen by different individuals of the resident staff of any institution. This could hardly fail to give rise to difficulties, even if the managers were willing to allow outside doctors free access to their institutions. The medical superintendents of the Board's London hospitals were unanimous as to the impracticability of such a position. The Board's medical officers were required to attend sick members of the resident staff, although the staff could not demand treatment as a right. In view of the serious considerations of administration and discipline, and the questions of medical responsibility involved, informal inquiries were made of the Insurance Commissioners who advised that the Board should communicate with the Insurance Committees for the areas concerned with a view to their allowing the resident insured staff collectively, in lieu of receiving medical benefit under arrangements made by the Committees, to take their medical benefit direct from the Board. The Board would guarantee treatment, medicines, etc., practically on the lines voluntarily followed heretofore, some modifications in the matter of records being made, and the Board would be entitled to claim from the Insurance Committees in respect of this service. While individual employees were under no obligation to accept this proposal, the Committee expressed the hope that they would all do so.

LOCAL OBJECTIONS TO A TUBERCULOSIS SANATORIUM.

The arrangements are now almost completed for the reception at the Downs School, Sutton, Surrey, of tuberculous persons entitled to sanatorium benefit. The nature of the agreement entered into by the Metropolitan Asylums Board with the London County Council have already been reported, but objection was raised by a deputation from the Sutton Urban Council to the Metropolitan Asylums Board on January 25th. Dr. G. H. J. Hooper, who was the spokesman of the deputation, said that to the south of the Downs school there was some small property, and immediately opposite an elementary school. On the north side was a large eligible building property. The people interested in the development of this property and those living in the vicinity were horrified at the idea that these poor patients should be treated at the school. Near the building was a farm from which a large number of residents were supplied with milk. He did not regard a building intended for the accommodation of 600 girls as suitable for a sanatorium for 300 patients. The consumptives could not be kept within the four walls of the Downs estate; they must have exercise, and would be found walking over the downs and in the streets of Sutton. That involved a danger to the inhabitants; it might be replied that the patients would be supplied with the necessary utensils, but would they use them? The inhabitants knew they could not object to having institutions built in their midst, but there were questions of risk and also of sentiment involved. He did not think the Downs school, from its exposed situation, was suitable for a sanatorium, and that a more suitable place could be found without injuring a prosperous residential town. Sir Edward White, a member of the Board, pointed out that the Brompton Hospital was in the midst of a purely residential neighbourhood, and that the patients could be seen from the road taking exercise in the grounds. Dr. Hooper replied that patients were only kept at Brompton Hospital until they could be sent to a more suitable place. The Chairman (Mr. W. Dennis) said, in reply, that it would not be fair that the deputation should go away under the impression that the arrangements to which it objected could be completely abandoned, after having received the approval of all the authorities and Government departments concerned. These arrangements would only obtain until March, 1914, though he could not promise that they would not be extended. Neither could he say whether it would be possible to keep the patients within the boundaries of the institution. He could assure the deputation that in arriving at its conclusion the Board had had advice which it thought thoroughly reliable and good. No discussion took place after the deputation had withdrawn.

The Board approved the arrangements suggested.

Proposed Midwifery School in Workhouse Wards.

The Wandsworth Board of Guardians, at their meeting on January 23rd, adopted a scheme embodying the establishment of a training school in midwifery for nurses at the lying-in wards at the workhouse. It is proposed, with the sanction of the Local Government Board, that eight senior probationers shall be allowed to enter on a fourth year of training, during six months of which they shall be taught midwifery, the remainder of the time being spent in the ordinary wards. They are to be paid £18 a year. No charge is to be made for the special training, but the probationers are to sign an undertaking to remain for the whole of the fourth year in the guardians' service. Dr. A. E. Dodson, the medical superintendent at St. James's Infirmary, is to undertake the teaching. The guardians, in agreeing to the proposal, decided to ask the Central Midwives Board to recognize the lying-in wards at the workhouse as a training school.

Correspondence.

THE *POST-MORTEM* EXAMINATION OF NAPOLEON.

Sir,—No one is more inclined to accept everything that Dr. Arnold Chaplin writes concerning the fatal illness of Napoleon as authoritative than myself; and yet his letter in your last issue, where he cites Surgeon Rutledge against our mutual friend, the pathologist Antommarchi, confirms me in my belief that the evidence produced in my Hunterian Lecture is convincing proof of the authenticity of the Napoleonic specimens which are now in the museum of the Royal College of Surgeons. The chief point which my opponents have to meet is: How was it possible for O'Meara to hand to Astley Cooper specimens which tally exactly with morbid appearances incidentally described by Antommarchi in his *post-mortem* report? They are specimens which could be obtained only from a case of chronic infection such as we have good reason for supposing Napoleon to have been the subject. Dr. Chaplin has overlooked that part of my evidence and addressed himself to the strictness of the watch over Napoleon's body. Surgeon Rutledge had a vigil by the corpse and the vessels containing the heart and stomach of over twenty-four hours; during that time Antommarchi stole Napoleon's mask, and, we may suppose, could, from his experience in Florence, have easily invented a manœuvre to obtain anything else he desired.

I know that Dr. Chaplin agrees with me in regarding Antommarchi's account of the *post-mortem* appearances as by far the most complete and reliable document we now have; without it we should know nothing of Napoleon's disease, except that there was cancer of the stomach. Surgeon Rutledge's statement that he cut the liver out is in contradiction to every other account available to me, and no one knows better than Dr. Chaplin that every attempt to discredit Antommarchi's statements would receive the most ready encouragement from the Lowe party, to whom he owes Rutledge's statement. Antommarchi's account of the condition of the liver must stand; the clinical symptoms of Napoleon's case leave not a shadow of doubt that at one period there was an inflammatory disturbance of the diaphragm and of the liver.

There is also another aspect of Napoleon's case to which Dr. Chaplin has not done justice—the evidence that Napoleon's illness was of the nature of a recurrent fever accompanied by enlargement of the lymphoid tissues, and the fact that the specimens in the museum of the College of Surgeons show an enlargement or hyperplasia of a part of this system.

As I corrected the proofs of the above part of this letter I received a communication from Sir Alexander Russell Simpson which throws a welcome light on the manner in which the watch was kept over Napoleon's remains. Many must have come across the tradition that the rats of Longwood attacked the heart, which was preserved in a separate vessel. My friend, Mr. Mackellar, first told me of this tradition; I have also come across it in newspapers, but have hitherto failed to trace the account to any reliable source. Sir Alexander Simpson has kindly allowed me to make the following extract from his letter:

When my uncle, Sir James Simpson, came back from a professional visit in Berwickshire, where he had met Dr. Arnott, he was full of what Arnott had been telling him of his time in St. Helena. What specially impressed him was that Dr. Arnott had charge of the heart and other things that had been removed at the autopsy for the following night. Afraid that some of the Napoleonic retainers might come in and carry off the vessel in which they had been put at the time of the dissection, he emptied them into his wash-hand basin, covered them up with water, and lay down to sleep with loaded pistols under his pillow. He slept lightly. Hearing a splashing sound he jumped up, expecting to see Bertrand or some one at the preparations, and found that it was only rats trying to get at the flesh. "*Fancy rats trying to make away with Napoleon's heart!*" said Sir James, in repeating the story.

This account corroborates Antommarchi's statement that Arnott was the officer on watch. Probably he relieved Rutledge. In my lecture I stated that these two men kept alternate watch; the point I wish to emphasize is that Arnott was predisposed towards Antommarchi.

I should like to take this opportunity of thanking—not only Dr. Chaplin, but the other correspondents who have sent me valuable information—Mr. Cyril H. Howkins and Major F. S. Irvine. I wonder if any of your readers could help me in tracing those two parts of the mould of Napoleon's bust taken by Dr. Burton, who was a cousin of Graves, the famous physician of Dublin. The missing parts are: (1) The mould giving the impress of the back of the head and neck; (2) the front of the neck. They were, according to Graves, in the possession of Dr. Burton and may still be preserved by some of his descendants who have not realized their value. If they were recovered, an accurate cast of the head of the great Emperor could be obtained.—I am, etc.,

London, W.C., Jan. 27th. A. Keith.

RESEARCH DEFENCE SOCIETY.

Sir,—It is said that the fifth year in the life of any society is the critical period of its fortunes. The Research Defence Society was founded on January 27th, 1908. To all who are interested—and who is not?—in medical research, we beg you to let us say that the Society has its hands full of work, and only wants more money to do more work. Much has already been done, by lectures and by distribution of literature, to bring home to people the truth about experiments on animals in this country, and the great value of them, not only to mankind, but also to the animal world. The expenses of our society are heavy, but the good results of our work are extended far and wide. We have lately opened a bureau and exhibition at 171, Piccadilly (opposite Burlington House). We are exhibiting pictures, portraits, charts, anaesthetics and inhalers, germs in pure culture, tsetse flies and mosquitos, and so forth. This little exhibition, every day and all day long, displays to "the man in the street" the facts of the case. We are the only society which is doing work of this kind; but, of course, it cannot be done without money. Our record for the last four years gives us the right to hope for a great increase of our membership, and of our funds, in the coming year.—We are, etc.,

David Gill,
President.
F. M. Sandwith,
Honorary Treasurer.
Stephen Paget,
Honorary Secretary.

21, Ladbroke Square, W., Jan. 24th.

ANTIVIVISECTION IN GLASGOW.

Sir,—Dr. Hadwen repeats the statement, "Not one word about alcohol drinking or vaccination escaped my lips *the whole evening*" (the italics are mine). He then professes to quote what he now says he did say upon these subjects, with the reservation that they were said during the discussion, and not during the lecture. Dr. Charles Bennett, one of the gentlemen whose names I quoted in my last letter, was not present at the discussion, but left before the end of the lecture. He remembers, as do the rest of us, that Dr. Hadwen spoke at length on these subjects. My object in writing was to show that many of Dr. Hadwen's statements to you were incorrect. Besides

my own evidence as to this, I have been able to bring several reputable witnesses with regard to a positive matter of fact; and with regard to two other matters of fact. I sent you a copy of the report in the *Glasgow Herald* in order to verify my statements with regard to them, and to prove the inaccuracy of Dr. Hadwen's. As all the cards I care to play are on the table, I can do no more than leave you and your readers to judge as to who is accurate.—I am, etc.,

Glasgow, Jan. 25th. CHARLES WALKER.

THE TREATMENT OF CANCER.

SIR,—Under this title you published a review on p. 121 of your issue of January 18th. Kindly allow me space in your pages to note one or two points in the review, and to correct one or two errors. You say that I "first invited a general trial" of the pancreatic enzymes without myself being "very clear as to how it (the method) should be applied." I never "invited" any trial at all. On your invitation I published in the JOURNAL (January 20th, 1906) a brief account of some preliminary experiments upon cancerous mice. That sufficed. At once, from all parts of Europe and America, but not from Great Britain, I was overwhelmed by requests from medical men either for preparations of ferments or for addresses where such could be obtained, or for general directions for the use of such preparations in cancer. To these I responded because I wished to help my fellow-men. How could I, or any one else, then, seven years ago, know how such preparations should be used to obtain the best results? Like Lord Lister's method of antiseptic surgery, or tuberculin, or salvarsan, much had to be learnt from actual experience of the method; and, moreover, the manufacturing chemists had to find out how to put up active, strong, and keeping injections of the ferments. In 1879 I often saw Professor Edward Lund and Mr. Sam Bradley perform major operations under Listerian methods as they then were. But if either of those departed surgeons could now witness a major operation, undoubtedly he would recognize little or nothing of the Listerian methods they employed. None the less, you would not venture to suggest that Lord Lister should have waited until his methods were made perfect before giving them to the world. Even his first attempts at antiseptic surgery yielded *some* instances of success; in the same way the very first preparations of trypsin and amylopsin made "for Dr. Beard," as the makers put it, in 1906 furnished a very few cures. I am hardly responsible for damage done by *inert* preparations.

The preparations of pancreatic ferments, to which I was obliged to refer medical men in 1906, for instance, had only *one-twentieth part of the potencies* of those I should name to-day, and the latter are put out by the same firm of specialists. Therefore, if Dr. Baetzner, who has just published a paper upon the treatment of surgical tuberculosis by means of trypsin,[1] had had to employ the trypsin of 1906, he would scarcely have got the brilliant results he has recorded. Moreover, any one using such a weak trypsin, or some of the useless, even inert, injections still on sale, would, if endeavouring to test Baetzner's finds, conclude, as so many have done after using weak or inert ferments in cancer, that the method was worthless and the author not what he will turn out to be, a very great surgeon. You refer to an "army officer," now in Burma, who cured 3 out of 4 cases of cancer treated by him. If my account of the treatment be puzzling, in his own words his own procedure is recorded in the book reviewed. But, although the book was published nearly fifteen months ago, and although preparations of pancreatic ferments, which appear to fulfil every scientific requirement, that is, the ones Dr. Baetzner employed, have been on sale in London since April, 1912, at this moment I do not know of a single case of cancer in this or any other country which has had a full course of treatment on the lines laid down by this army officer, with such powerful preparations, and in the doses he employs. Indeed, one might imagine cancer had ceased to be the curse of the human race, but for such facts as that only a day or two ago in the weekly summary of deaths it was stated that last week there were eleven deaths from malignant disease in this city. Probably it would not be too much to assert, that not one of these cases was treated with pancreatic ferments after my methods.

In examining any scientific find, or supposed find, experimentally, nothing is easier than to get a negative result, especially if inert reagents be employed. But in the chemical experiment the observer must satisfy himself as to the true nature of his reagents, and, as the late Professor D. J. Cunningham once remarked to me, "Negative results never prove anything in science." There are many members of the medical profession still living and treating cases of cancer who had declared that the pancreatic ferments were "useless" or "futile" in cancer, and who had in good faith drawn this conclusion after using preparations which were inert, and without even knowing that they were inert. In fact, in the use of inert ferment preparations, in the lack of knowledge of the inert nature of their reagents, and in the erroneous conclusions drawn from such vitiated experiments these medical men agreed with the official researchers.

Any "disappointment" I may feel is in a recognition that mankind would rather die than believe the truth. I have never once spoken, or written, or even thought of "the greatness of his (my) achievement"; on the contrary, I have described the whole thing as merely a side-issue, which it is. Shortly now, for it is in the printer's hands, you will be given an opportunity of reading an account of a small piece of experimental work of mine. This does not deal directly with cancer, and its title is the very simple one, "On the Occurrence of Dextro-rotatory Albumins in Organic Nature." To use a phrase which in a similar connexion has been employed by a distinguished living investigator, in this small paper "*the unchallengeable proof*" is given, not only that dextro-rotatory albumins similar to those of cancer do occur in organic nature, but that they are widely represented. Incidentally, the paper confirms once more my statement, first made some years ago, that the cancer conclusions were merely a side-issue.

Possibly, as you say, "many workers . . . hold that his (my) views are entirely erroneous." If so, they are very careful to avoid pointing this out in places where a reply from me would also be published. Their silent "arguments" and "evidences" cannot be very convincing, otherwise you would scarcely add, that possibly one day these "erroneous" views may turn out to have contained the germ of the final solution of the cancer problem. Again, the successful case of sarcoma you mention is not by any means the only case of cure, and scientifically it is not at all clear why "erroneous" views should lead to successful results. Even one cure is a new fact, and Pasteur held, rightly, that erroneous theories never produced new facts. Pardon me for insisting that we are not dealing with the question of the number of swallows which makes a summer, but with the problem of what is *a crucial scientific test*. "If a doctrine be challenged," said Pasteur, "it happens seldom that its truth or falsity cannot be decided by some crucial test. Even a single experiment will often suffice either to refute or to consolidate the doctrine." An instance of this kind, where *a single scientific experiment* suffices to establish the truth of my doctrines, is the case of the pancreatic ferments, trypsin and amylopsin, *versus* cancer. Finally, permit me to express complete agreement with the following, written by a modern author: "'And,' he added, 'speaking of gratitude, those who lead the way do not expect gratitude. It is enough for them to have led the way.'"—I am, etc.,

Edinburgh, Jan. 22nd. J. BEARD.

BOVINE AND HUMAN TUBERCULOSIS.

SIR,—I do not know whether the omission was the printer's fault or mine, but the part of my letter relating to the geographical distribution of tuberculosis should have been in inverted commas. I got the information from Green's *Encyclopaedia and Dictionary of Medicine and Surgery*. I am sorry to say I have forgotten the name of the writer, but he evidently knew what he was talking about. It is a pity Dr. Fisher did not deal with the portion of my letter referring to the condition of affairs as to tuberculosis in Guernsey, where Dr. Bishop tells us that "only ½ per cent. of the cattle are tuberculous, and consequently that cases of bovine tuberculosis in human beings are extremely rare." On the other hand, may I repeat that in 1909, 10,000 children died in England and Wales from

[1] *Practitioner*, January, 1913, p. 205.

tuberculosis (other than from pulmonary tuberculosis) and that 70 per cent. of our dairy cattle are tuberculous.

These facts alone form a strong argument against the acceptance of the Italian axiom that where there is much tuberculosis in man there is little tuberculosis in animals, and where there is much tuberculosis in animals there is little tuberculosis in man.—I am, etc.,

Beverley, Jan. 20th. T. Readman.

TO ESPERANTISTS.

Sir,—At a meeting of the Universal Medical Esperanto Association (Tutmonda Esperantista Rinacista Asocio) held in Cracow last August a committee was appointed to organize an Esperanto section, similar to that which was held during the last International Congress at Budapest, in connexion with the forthcoming International Medical Congress. A considerable number of Russians, Poles, Hungarians, and others stated that they would go to London if hopes could be held out of forming such a section. Will any Esperanto medical men or others willing to help kindly communicate with me?—I am, etc.,

G. Jameson Johnston, F.R.C.S.I.

13, Lower Fitzwilliam Street, Dublin,
Jan. 20th.

CERVICAL RIB.

Sir,—On February 14th the meeting of the Clinical Section of the Royal Society of Medicine will be devoted largely to the subject of cervical rib—particularly the results of operative treatment. We should like very much to have: (1) Cases showing the results of the removal of the rib; (2) cases showing neuro-muscular features; (3) cases with vascular features. Gentlemen wishing to show cases will please communicate with the Secretaries, Chas. H. Fagge, M.S., 3, Devonshire Place, W.; W. Essex Wynter, M.D., 27, Wimpole Street, W.—I am, etc.,

Oxford, Jan. 13th. William Osler.

The Services.

INDIAN MEDICAL SERVICE.

The result of the January examination was announced on January 25th. There were 28 candidates, the first 12 being admitted as lieutenants on probation with effect from January 25th.

The names of the successful candidates with the marks obtained by each out of a possible total of 5,100 are given below, together with their degrees and medical schools:

Name.	Degrees, etc.	Medical School.	Marks.
R. R. M. Porter ...	M.B., Ch.B.Aber., M.A.Aber.	Aberdeen University, Aberdeen Royal Infirmary, and Aberdeen Eye Institute	3,707
R. Sweet	M.B., Ch.B.Glasg.	Glasgow University	3,489
E. Calvert	M.R.C.S., L.R.C.P., B.A.Cantab.	St Bartholomew's Hospital and Cambridge University	3,320
P. J. Walsh ...	M.B., Ch.B., B.A.O.(N.U.I.)	University College, Cork, North Charitable Infirmary, Cork, and Cork District Hospital	3,308
J. R. D. Webb ...	M.R.C.S., L.R.C.P.,	Liverpool University, and University College Hospital	3,301
F. Phelan	L.and L.M., R.C.P. and S.Irel.	University College, Cork	3,203
A. H. C. Hill ...	M.R.C.S., L.R.C.P.	Middlesex Hospital and Vienna General Hospital	3,130
N. C. Kapur ...	M.R.C.S., L.R.C.P., B.A.Punjab	Lahore Medical College and University College Hospital	3,086
J. F. Holmes ...	M.R.C.S., L.R.C.P.	Medical Hospital, Calcutta, and Charing Cross Hospital	3,062
A. C. Macrae ...	M.B., Ch.B.Aberd.	Aberdeen University	3,057
H. S. G. Haji ...	L.M. and S.Bombay, M.R.C.S., L.R.C.P.	Grant Medical College, Bombay, London Hospital, and Cambridge University	3,011
N. K. Bal	L.M. and S.Bombay, M.R.C.S., L.R.C.P.	Grant Medical College, Bombay, and Middlesex Hospital	3,008

Obituary.

WILLIAM LIVESAY, M.D.Edin.,

formerly of Sudbury, Derbyshire.

We regret to have to record the death, in his 68th year, on January 24th, at the Pines, Bembridge, I.W., of Dr. William Livesay, who practised for nearly forty years at Sudbury, Derbyshire.

He was born at Ventnor, and received his medical education at the University of Edinburgh, where he graduated M.B., C.M., in 1871, and took the M.D. degree in 1875. He interrupted his medical studies in 1869 in order to accompany Mr. (now Sir James) Lamont on a voyage of sport and discovery to Spitzbergen and Novaja Zemlja, acting as artist to the expedition. He afterwards edited the account of the voyage (*Yachting in the Arctic Sea*. London: Chatto and Windus. 1876), the book being profusely illustrated by woodcuts from his beautiful drawings in black-and-white and water colour. In those days photography was not the convenient process for travellers that it is now, and even water colour drawing was not easy where, as he has told the writer, his washes often froze on the paper. In 1871–2 he was successively resident surgeon to Mr. (afterwards Professor) Annandale and resident physician to Dr. Haldane, while he also received the distinction of being one of the Presidents of the Royal Medical Society.

As a student he took great interest in botany, obtaining a prize for a herbarium, and on his return from the Arctic he read a paper to the Edinburgh Botanical Society on the plants he had collected on that voyage. His interest in botany had an important influence on his life, for it was at the house of Professor John Hutton Balfour that he became engaged to a daughter of the late Dr. Thomas Shapter, of Exeter. He married and settled at Sudbury in Derbyshire, where he remained for the rest of his professional life. To his friends it was somewhat of a disappointment that he aimed no higher, but he was fond of the country and possessed private means which made earning a large income no special object. He enjoyed his life, and generally managed to get a month in Scotland every autumn, while he frequently travelled in the spring. He was an accomplished etcher, and an associate of the Society of English Etchers; but he published few plates. He designed book plates for his friends, and for many years sent them an etched Christmas card. About three years ago his heart began to fail; this was possibly connected with an attack of acute rheumatism in 1872; on the advice of his friends he retired from practice and went to live in the Isle of Wight, but last autumn his condition grew much worse and left no hope of his recovery. He possessed the gift of making friends and will be missed by a wide circle who appreciated his sterling goodness of heart, his love of fun, his ready wit and his genial sympathy.

He lost his wife many years ago, but two daughters survive who have devoted themselves to the work of the Wantage and East Grinstead Anglican Sisterhoods.

THE OBITUARY NOTICES OF DR. G. A. GIBSON AND OF DR. J. E. GARNER.

Sir James Barr writes to us as follows:

The deaths of these two friends, whose obituary notices appear in your issue of January 25th, has cast a gloom over my household, as well as over many others. I should like to take this public opportunity of adding my meed of praise to the character and work of the deceased, and to add my sympathy, which has already been privately expressed, with the sorrowing relatives. Both men lunched together here at the annual meeting of the British Medical Association, both were in exuberant spirits and without the slightest apprehension of their premature decease. I say premature, though both were in the neighbourhood of 60 years, as neither had finished his life's work. Both had a fund of energy and capacity for work, which might have carried them at full steam ahead for many years. Both were hard-headed, industrious, intellectual Scotsmen, though cast in different moulds. Dr. Garner had the solidity and the tenacity of the Aberdonian, while Dr. Gibson possessed all the fire of the

Celt combined with the resourcefulness and energy of the Lowland Scot.

Such deaths often set me soliloquizing, and make me feel, in the language of the Sun-child in Butler's *Erewhon Revisited*, that "in the midst of death we are in life." How long will we remain so? "As for man his days are as the grass, as a flower of the field, so he flourisheth. For the wind passeth over it, and it is gone; and the place thereof shall know it no more." Why should strong, healthy, vigorous, intellectual men drop off about the age of 60 years? In a presidential address at the Liverpool Medical Institution in 1904, I said that to my mind it is a deplorable fact that many of the ablest and most popular members of our profession are cut off in the prime of life and vigour of manhood by disorders of the circulation, which are much more easily prevented than the so-called preventable diseases. Men who are engaged in directing others should teach by example as well as precept. I suppose the fact is that medical men are often too busy treating disease to devote much attention to its prevention, and the last individuals to receive attention are themselves. I am not an advocate of longevity for the mere sake of a long life. It is the fullness of a man's life which should count rather than its length. A man cut off in his prime may be remembered as an intellectual giant, whereas if he had existed till his cerebral arteries had become sclerosed, and he had become slow of thought and speech, or tended towards drivelling dementia, much of his former glory would have waned and the memory of him would quickly pass into oblivion. One of the most regrettable features of the present generation is their ephemeral memory of the great and good. Happy in life and blessed in death is the man who has got those near and dear to him to care for him, and mourn their loss.

I have known George Gibson for at least half my lifetime. There was a mutual affinity—because we were working on similar lines—which made us fast friends long before we met one another, and as years rolled on that friendship became more firmly cemented, so that the wrench which has now separated us I keenly feel.

My dear old friend, Dr. Garner, of Preston, was one of those warm-hearted, genial men whom to know was to love and esteem. He took a keen interest in the welfare of his profession, and was never actuated by any selfish motives. As an active and able surgeon to a county hospital he kept well abreast of modern developments in a well cultivated field. He took a keen interest in the Insurance Act as it affects the medical profession. I last saw him at the Representative Meeting on January 17th. He told me that he had had recently some anginal pains, and he promised to see me in the beginning of the succeeding week, but alas! on the first day of that week he had a fatal apoplectic seizure. He has gone, mourned and regretted by all who knew him.

By the death of Alexander Minto McDonald, M.B., C.M., which took place on January 9th at his residence, 108, Gilmore Place, still another break has occurred in the ranks of the British Medical Association in Edinburgh. Though in indifferent health for several months, he continued his work till within a fortnight of his death. He was born in Crail, Fifeshire, but spent the greater part of his life in Edinburgh. Having completed his course and taken his degree in Pharmacy, he went on to the study of medicine at the University, and graduated in 1892. Soon afterwards he began general practice in the city, and some years later joined Dr. Stewart Stirling as assistant in the Skin Dispensary, Lauriston Place. On the death of the latter ten years ago he became senior medical officer of the institution. He was devoted to his work there, and that devotion was testified to by the very large attendance of grateful patients at Warriston Cemetery on the occasion of the funeral on Sunday, January 12th. Dr. McDonald was an elder in St. Cuthbert's United Free Church, and took a keen interest in Church work and in all schemes of social amelioration. For the long period of thirty-seven years he was connected with the Riego Street Mission for Young People, first as monitor and later as superintendent. A man of essential probity of conduct and of sociable and kindly disposition, he leaves a blank in the wide circle of his friends which will not easily be filled, and a greater blank in the life of his only sister and life-long companion.

Dr. W. Wake Clark, J.P., M.D.Edin., M.R.C.S., L.S.A., died, at the advanced age of 80, on Saturday, January 11th, at his residence in Wellingborough, after several years of retirement. He came of an old family long associated with that town, and was a direct descendant of Archbishop Wake; after pursuing his medical studies at Edinburgh, and graduating in 1856, he assisted Dr. Mash at Northampton, and succeeded to his father's practice in Wellingborough and several appointments in 1893. He was the first medical officer of health appointed when the Local Board was established, and only resigned at the end of 1912. Dr. Wake Clark joined the Volunteers when the movement began in 1859, and retired at the end of thirty-six years' service, holding the rank of lieutenant-colonel. He was the first officer in the Northamptonshire Volunteers to receive the V.D. distinction. He was an alderman of the Northamptonshire County Council. Dr. Wake Clark's funeral, on January 14th, was numerously attended, the procession being escorted by members of the 4th Battalion of the Northamptonshire Regiment, with the regimental band, the body receiving on its interment the usual military honours.

The *Journal* of Grahamstown, Cape Colony, announces the death of Mr. Gerald Eustace FitzGerald, L.R.C.P., M.R.C.S.Eng., at the Albany Hospital, on November 22nd. He studied medicine at St. George's Hospital, London, and was a member of the British Medical Association. He was surgeon to the hospital in which he died, and medical superintendent of the Chronic Sick Hospital, Grahamstown. He was deeply loved and respected in the city where he practised his profession, and his funeral was on that account one of the largest and most representative that has ever taken place in Grahamstown. A full choral service was held in the cathedral, and conducted by the Very Rev. Dean Vincent; the deceased was afterwards interred in the Anglican cemetery.

Surgeon John Milford Barnett, who died on January 24th, at the age of 82, was the son of Mr. Richard Barnett, of Belfast and Holywood. He was educated privately at Trinity College, Dublin, and at the University of Edinburgh, where he graduated M.D. in 1852; he became M.R.C.S.Eng. in the same year. He entered the service of the Honourable East India Company, on the nomination of the late Marquis of Dafferin, in 1853. As surgeon to the 26th Bombay Regiment N.I., he served with the Persian Expedition under Outram and Havelock, and was present during the forced march on Boorazjoon, the night attack and the battle of Khooshab, where he was wounded, as well as at the bombardment and capture of Mohumera and forts. He served through the Indian Mutiny. When Staff Surgeon at Asserghur he received the thanks of the Bombay Medical Board for his report on the Simrole Ghaut route to the front. He was Staff Surgeon to the Kattiawar Field Force against the Wagheers in 1860, and was promoted to Surgeon and Major in 1865. He received the medal and clasp for his Persian service. He retired in 1869 and settled at Holywood, co. Down, where for many years he devoted much of his time to philanthropic and temperance work. He left Ireland some fifteen years ago and settled first in St. Leonards, but afterwards removed to Bexhill, where he died. He leaves a widow, a daughter of the late General Brooke Boyd, and three daughters and four sons, one of whom is a Major in the Royal Army Medical Corps. Dr. Barnett lived a busy and useful life after his retirement from the Indian service, and while resident at Holywood was occupied in the work of numerous missions and associations in Belfast, including the Presbyterian Orphan Society for All Ireland. He was invited to the Indian Mutiny dinner for veterans in London some two years ago, but was unable to be present.

Universities and Colleges.

UNIVERSITY OF LONDON.

London Hospital Medical College.

A course of lectures and demonstrations on neurology will be held on Mondays, Wednesdays, and Fridays during February and March, at 4.30 p.m., beginning on Friday, February 7th. Dr. Theodore Thompson will deal with lesions of the peripheral nervous system and spinal cord; Drs. Turnbull and Gordon Holmes with the pathology of the central nervous system; Dr. Gordon Holmes with clinical anatomy and regional diagnosis; and Dr. Henry Head with common diseases of the nervous system. The course is intended for senior students and post-graduates preparing for the diplomas in psychiatry. The fee is three guineas. Further particulars can be obtained from Professor William Wright at the College.

SCOTTISH INTER-UNIVERSITY CONFERENCE.

The Scottish Inter-University Conference opened at Aberdeen on January 24th. The four universities (Aberdeen, St. Andrews, Glasgow, and Edinburgh) were represented, and Principal George Adam Smith, in welcoming the delegates, referred to the growth of students' representative councils, and said the system worked extremely well. He acknowledged gratefully their co-operation with the authorities of the university, and said that any suggestions they might put before the court would receive very careful consideration.

A motion that the President of the Students' Representative Council should attend meetings of Senate when motions affecting that council were under discussion was adopted. A motion was also adopted recommending that the vacations and terms of the four Scottish universities be concurrent, and that the vacations and terms of the faculties be as nearly as possible concurrent.

The conference was continued on Saturday, the 25th, when the following, among other, resolutions were adopted:

That an inter-university committee, composed of members of the Senatus of the different faculties of the four Scottish universities, be appointed to obtain information with regard to vacancies in the Government and other services, and to publish a list of any such vacancies at the four universities for the benefit of students.

That in view of the fact that students taking biology for the degree of B.Sc. (pure) are unable to complete their first science classes in one year, the period between sitting the last subject of the first science examination and the first subject of the final examination be reduced from one year to six months in such cases.

SOCIETY OF APOTHECARIES OF LONDON.

The following candidates have been approved in the subjects indicated:

Surgery.—†E. M. Brand.
Medicine.—*†G. M. Cordingley, *G. E. Cuttle, *†R. B. F. Frazer, *†J. W. Harrison, *G. R. Lynch.
Forensic Medicine.—J. A. A. Boddy, G. M. Cordingley, R. B. F. Frazer, H. C. C. Hackney.
Midwifery.—G. M. Cordingley, G. E. Cuttle, J. A. Prendergast, L. C. Smith.

* Section I. † Section II.

The diploma of the Society has been granted to E. M. Bran.

Medico-Legal.

WORKMEN'S COMPENSATION.

A correspondent asks for advice in the case of a workman who received an injury about a year ago resulting in the extraction of the lens and incapacity since. There is a difference of opinion between the doctor acting for the insurance company and other medical men.

*** As to precedents in law it would be advisable to consult a solicitor. The applicant for compensation must submit himself to the examination of the doctor paid for by his employer, and the patient can claim that his own doctor shall be present at the examination. We know of no precedent for a medical man representing the employer or the insurance company demanding that the patient should be treated in an institution under his own care. Our correspondent might consult the following books: *Diseases of the Nervous System Resulting from Accident and Injury*, by P. Bailey (London: S. Appleton, 1905); *Injuries of the Eye of the Employed and the Compensation Act*, by W. M. Beaumont (London: H. K. Lewis, 1907, price 5s.); *Industrial Diseases and Accidents*, by W. J. Greer (Bristol: J. Arrowsmith. London: Simpkin Marshall and Co., 1909, price 7s. 6d.); *The Eye and Nervous System*, by W. E. Posey and W. G. Spiller (London: J. B. Lippincott and Co., 1906, price 25s.); *The Diagnosis of Nervous Disease*, by P. Stewart, third edition (London: Edward Arnold, 1911, price 15s.).

Medical News.

The King has appointed Dr. James Cran, of Belize, to be an unofficial member of the Legislative Council of British Honduras.

The annual dinner of the West London Medico-Chirurgical Society will be held in the Wharncliffe Rooms, Hotel Great Central, Marylebone Road, on February 6th, at 8 p.m.

The annual oration before the Hunterian Society of London will be given in the library of St. Bartholomew's Hospital by Dr. Edward W. Goodall, on Wednesday, February 12th, at 9 p.m.; the subject selected is serum sickness.

At a meeting of the Royal Sanitary Institute, at 90, Buckingham Palace Road, S.W., on Tuesday, February 11th, at 7.30, Dr. Samuel Rideal will open a discussion on the eighth report of the Royal Commission on Sewage Disposal, on standards and tests for sewage and sewage effluents discharging into rivers and streams.

Dr. Herbert Hawksworth, on the occasion of his retiring from Welshpool, where he has been in practice for thirty-one years, was, on January 16th, presented by his friends and patients with an album address and a wallet containing £260; Mrs. Hawksworth was on the same occasion the recipient of a sapphire and pearl pendant.

The new Hounslow Hospital, which will provide accommodation for twenty-four patients, was opened by H.R.H. Princess Christian on January 23rd. The hospital, which is situated on the Staines Road, was built from the designs of Mr. E. Francke at the cost of £5,000, and replaces the old hospital in Bell Road, founded by Dr. Sydney some forty years ago.

The usual monthly meeting of the Executive Committee of the Medical Sickness, Annuity, and Life Assurance Society was held at 429, Strand, London, W.C., on January 17th, Dr. F. J. Allan in the chair. The accounts for the year were considered, and it was shown that though heavy sickness claims and bonuses had been paid to members, the funds of the society showed an increase. The bonuses now paid at 65 are for substantial amounts, and it is hoped that after the next valuation they will be continued. Many letters from members are received at the office thanking the committee for the way their claims have been settled, and expressing satisfaction with the system of weekly payments. Prospectuses and all further information of the Secretary, Mr. Bertram Sutton, Medical Sickness and Accident Society, 33, Chancery Lane, W.C.

We have received from the President, Herr O. von Angerer, a programme of the forty-second congress of the German Surgical Society, which will meet in Berlin from March 26th to March 29th. The official orders, programmes, and admission cards will be issued from 8 a.m. to 8 p.m. on Tuesday, the 25th, and on the following day from 8 a.m. to 10 a.m. The general meeting will be held in the forenoon of Wednesday, March 26th, and in the afternoon of the following Friday. Gentlemen intending to read papers or to make demonstrations are desired to announce their intention not later than February 12th. The Roentgen-ray demonstrations will be held at 8 p.m. on March 26th. The subjects selected for discussion are (1) duodenal ulcer, (2) the surgery of the brain and spinal cord, and (3) the treatment of tuberculosis of the bones and joints. Inquiries are to be addressed to the Secretary, Deutsche Gesellschaft für Chirurgie, Berlin N., Ziegelstrasse 10-11 (Langenbeck-Haus).

The trustees of the Chadwick Trust have arranged a course of lectures on hygiene and sanitary science during March, April, and June. The first course of three lectures on hygiene of the home will be given by Mr. H. Percy Boulnois, M.Inst.C.E., at the Royal Sanitary Institute, Buckingham Palace Road, on Friday evenings at 8.15 p.m., beginning on February 7th. In April Dr. J. T. C. Nash will give a course of three lectures on the evolution of epidemics, at the London County Hall, Spring Gardens; and in June Dr. F. W. Mott will give a course at the Royal Society of Arts on nature and nurture in mental development. Lectures will also be given under the auspices of the trust in Manchester, Birmingham, Glasgow, and Bristol. The lectures in Manchester will be by Professor Henry Kenwood on the public milk supply; those at Birmingham, by Mr. E. P. Hill, M.Inst.C.E., on water supply. The lectures, which are intended for post-graduate and advanced students of engineering and medicine, are free. Further particulars can be obtained from the secretary of the trust, Mrs. Aubrey Richardson, 8, Dartmouth Street, Westminster.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Aliquis, who has a patient who wishes to try antidiphtherial serum for asthma, desires to know the proper dose, how often it is to be repeated, and whether it is given before or during the attacks.

M.R.C.S. asks whether extreme susceptibility to Coley's fluid has been observed in inoperable sarcoma of mamma, with involvement of mediastinal glands; and, if so, what dose is best, and what results, if any, have been obtained.

ANSWERS.

Portable Typewriter.

Dr. J. M. Carvell (London) writes: In reply to "G. P. B.," I would recommend the Bennett typewriter, sold by the Bennett Typewriter Co., 75, Cannon Street, E.C. It is, he says, portable, the measurements when in case being 11 in. by 5½ in. by 2½ in., and there is hardly any jarring of the fingers. The price is £4 4s.

Transfer of Practices.

A. 36.—In the transfer of medical practices the income from appointments is usually reckoned together with that from other practice, and the sum of all the professional emoluments constitutes the gross value. It is not usual to put a higher value on private practice than on appointments, and one year's purchase has been the average value of the latter; but not infrequently the amount estimated in the gross value from appointments is made conditional on the latter being transferred to the purchaser.

Foul Breath.

J. O. P. (Paris) writes, in reply to "A": Offensive breath in young people, when no local condition can be detected in the digestive or in the respiratory tract to account for it, should be regarded as due to a disturbance of the sympathetic system with perversion of the glandular secretion brought on by habitual masturbation. Many other signs for which no obvious explanation can be found are probably related to the same cause in the young of both sexes. Such are: Some degree of dilatation of the pupils, constant congestion of the nasal mucosa, frequent attacks of palpitation, abnormal sweating in the palms of the hands, the armpits, and the soles of the feet (sweat often foul-smelling), flushing and morbid blushing, offensive breathing, dry cough, etc. It will be seen that all these signs are referable to the vasomotor system and loss of general nerve tone. They may all be grouped together under the general term "sexual syndrome," and may exist either separately or in combination. For the treatment direct questioning and advice to the patient will certainly prove the most efficient means of cure. *Sublata causa tollitur effectus.* When the patient learns that such symptoms may occur as the result of his own injurious habit he is sure to exercise more self-control and bring about a rapid cure; otherwise all treatment may prove of little avail, or the complaint may recur under some form or other. Bromides and belladonna will be useful; tonics may be necessary, but care is required in their administration lest over-stimulation may contribute to the continuance of the evil practice; physical exercises may be recommended, provided they be sufficiently prolonged so as to induce considerable physical fatigue, especially of the lower limbs; mild, unstimulating diet, total abstention from alcohol in any form, and generally the avoidance of every thing likely to raise erotic feelings. In fact, the whole treatment may be summarized under the general formula—sexual rest and general sedatives and tonics.

LETTERS, NOTES, ETC.

Dr. H. Boshouwers (Haarlem) writes in reply to the first question of "A. M." (p. 148): If "A. M." will inject every two hours into the rectum a little glycerine enema syringeful of 1 or 2 grams of antipyrin dissolved in about 200 c.cm. of water, he will certainly keep away the after-pains (*morsi uterini* of the Italians). I may refer him to the *Therapeutische Neuheiten*, July, 1908, and *Deutsche medizinische Wochenschrift*, October 1st, 1908, where I described the treatment.

Treatment of Chronic Bronchitis and Emphysema.

Dr. Charles Read (Hampstead) writes: Having derived so much benefit from the continued taking of heroin gr. $\frac{1}{12}$ and menthol gr. $\frac{1}{10}$ in the form of lozenges for the last two years, I think it may possibly interest some of my medical brethren if I give a brief account of my personal experience. I am now 75 years of age, and for upwards of thirty years I have suffered from occasional attacks of bronchitis, which have gradually passed into the chronic stage, with a considerable amount of accompanying emphysema. For the last two years I have regularly taken two lozenges at night, one on going to bed, and another later on if the cough or the breathing is troublesome, and sometimes, though rarely, a third, and their effect on me is most beneficial, soothing, and comforting. The menthol is a very useful addition to the heroin, for besides its own specific effect it diffuses a sense of grateful warmth through the chest. The heroin has, I think, an undoubted effect, not merely in soothing the cough through its action on the nervous system, but also in exercising a beneficial influence on the bronchial mucous membrane itself, modifying and checking its secretion. Altogether I am so much better than I was twelve months ago, the cough being now very slight and the mucous expectoration much lessened and of a simple character, that I cannot help attributing the improvement largely to the regular taking of these lozenges. I am not conscious of any heroin habit having formed, as I can omit taking them without experiencing any sense of desire for them. The lozenges are made for me by Messrs. Meggesant Co., lozenge manufacturers, of Miles Lane, Upper Thames Street, E.C.

Stories of Hippocrates.

Dr. John Haddon (Denholm, Hawick) writes: The stories about Hippocrates in the Journal, whether authentic or not, tend to prove the wonderful power of observation which he, no doubt, possessed. They remind one of the stories told of the late Dr. Joseph Bell, who stimulated the observant power of his students by the way in which he astonished his patients by the remarks he made, as to what they had been doing, or where they came from. Nevertheless, when Dr. Bell explained how he knew so much about one whom he had never seen or heard of before, there was no great mystery involved. We may never be able to tell how Hippocrates gained the power he possessed—so rare even in our profession, which ought to cultivate the power of observation more than any other—but we may try to explain the story told of his saluting the maiden who had lost her virginity. It could not be by her gait, as was the explanation suggested, but the blush that lends a beauty to the maiden's face when he first met her, and its absence on the second occasion, might quite easily account for the difference between the two salutations.

A Royal Hoax.

Dr. Clippingdale (London, W.) writes: In the admirable articles which have appeared in the Journal, preparatory to the meeting of the Association at Brighton this year, I have not seen reference to the hoax played upon the doctors of Brighton by the Prince of Wales in 1785. The Prince, who was in residence at the Pavilion, gave a party. Present at this party was a Mrs. Laurell. As this lady was unaccompanied by her husband she thought it discreet to leave early. She left about nine o'clock. Her early departure annoyed the Prince, who sent word that he would come and sup with her. This proposal not meeting with the whole-hearted sanction of her husband, Mrs. Laurell sent word to the Prince that she was unable to receive his Royal Highness as her husband was ill in bed. The Prince, observing that it was "a pity poor Laurell should die for want of a doctor," sent, about one o'clock in the morning, all the apothecaries, surgeons, and physicians (including his own physician, Sir Lucas Pepys) in Brighton to the residence of the Laurells, to find, of course, that their services were not required. (Lady Slanover's Memoirs of Mrs. Delany.)

Treatment of Metritis.

An appliance for facilitating the administration of very hot douches in cases of metritis which has been brought under our notice presents some points of novelty and possible utility. It consists of a narrow metal tube for the introduction of the hot water, surrounded by (1) another metal tube for its escape, and (2) by an indiarubber sac or hollow jacket which, when filled with cold water, is intended to fit the vagina. This jacket ends in a cuff, which remains outside and protects the vulva from contact with the attachments of the metal tubes to those communicating with the douche-can and slop-pail respectively. The idea is that, thanks to this water jacket and its cuff, very hot injections may be applied to the cervix without any chance of the vaginal walls or vulva suffering from contact either with the heated irrigation tube or the returning stream of hot water. The name of the appliance is the Leedro double current syringe, and further information concerning it can be obtained from the Leedro Company, 6, Summerhill Avenue, Newport, Mon.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Note.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

VACCINES AND FEVER.

BY

E. C. HORT.*

(From the Lister Institute: The Constance Trotter Researches.)

In the great majority of infective diseases accompanied by marked systemic disturbance the most prominent clinical feature is that form of intoxication which is expressed in fever. The relationship of fever to general infection is so constant that whenever continued fever occurs we may be almost certain that an infective process is at work. Continued fever is in fact an index both of the continued activity of micro-organisms pathogenic to the individual infected and of the absence of effective protection against such activity. On the other hand, the absence of fever does not necessarily indicate the absence of infection. On the contrary, it is a familiar experience that in severe infections leading to a fatal issue there may be no fever on account of grave impairment of the reactive functions of the infected body. This impairment may exist prior to infection or may be the expression of extreme intoxication after infection has occurred. This observation can be verified with great ease. We have therefore learnt to recognize that whilst the continuance of fever is an excellent indicator of the continuance of infection and of the absence of effective immunity thereto, it is also an index that the power of reaction—whatever that may prove exactly to mean—is not yet lost. Now the power of reaction to infection in terms of fever is in some unknown way intimately associated with the complex problems presented by immunity. And we have some reason to believe that the mere presence of continued fever is a sure sign that the machinery of immunization has been set in motion and is still running. The solution therefore of the mystery that surrounds the nature and source of the substances that are the immediate cause of the fever of infective disease can hardly fail to throw light on many of those problems in immunity production which are at present totally obscure.

Hence determination of the essential cause of the fever of infective disease—from the pathological standpoint as opposed to that of physiology—is a matter of immediate concern to all students of immunity. And, as I shall show, this particularly applies to those who administer dead bacterial vaccines, whether for purposes of prophylaxis or of treatment, as well as to those who make use of bacterial emulsions in test tube reactions.

In all immunity problems, whether of the test tube or the living body, the keystone on which all inquiry rests has long been recognized to be the antigen, or substance that provokes the manifestation of antibodies. Similarly in the pathological problems presented by fever inquiry must always start from the pyrogen, or substance that provokes the manifestation of fever.

The antigens, then, and pyrogens of infective disease are substances so vital to the production of immunity and of fever that precise knowledge of their true source, as well as of their chemico-physical nature, must always be a necessary preliminary to an intelligible conception of how they act.

It is widely believed, largely in consequence of Pfeiffer's early work, that the main source of supply of both antigen and pyrogen in infective disease is dissolved bacterial protoplasm. In an infected subject the primary source of supply of these substances is therefore, we are taught, one foreign to that subject, whether the agents affecting their liberation be of an autolytic or heterolytic character. Moreover, since antigen and pyrogen are supposed to be genuine derivatives of bacterial protoplasm in solution, the theory lays down that it is only dead organisms that can supply them. The living bacterium as such has, we must infer—if we accept the theory—no antigenic or pyrogenetic values. Its potential worth, in terms of the production of antibodies and of fever, only becomes kinetic when bacterial death followed by bacterial solution and absorption has occurred.

So far as antigen is concerned, the theory that it is derived from dead bacterial protoplasm has in the main been accepted without question for many years. And incidentally it is the bedrock of that form of vaccine-therapy—the use of dead vaccines—which is under trial in this country to-day. So far as fever is concerned, the theory that the pyrogen of infective disease is a derivative of dead bacterial protoplasm in solution has also, as a rule, been accepted without serious question till comparatively recent date.[1]

In consequence of the general acceptance of this hypothesis as to the source of antigen and pyrogen in infective disease it might reasonably be supposed that it rests on a sound experimental basis. Whether this supposition be well grounded in the case of antigen is a question that cannot be discussed here. In the case, however, of pyrogen I shall show that the evidence hitherto relied on in favour of the view that it is a genuine derivative of dead bacterial protoplasm can no longer be accepted. On the contrary, I shall cite experimental data which suggest—if they do not conclusively prove—that the fever of infective disease is the direct result of absorption of pyrogen derived from the medium offered by the tissues of the infected host in consequence of the activity of the living organism or its products on such medium. And as a corollary I shall indicate the practical bearing of this displacement of current theory on the administration of dead vaccines for prophylactic or therapeutic purposes, as well as on all such test-tube experiments as involve the use of bacterial emulsions of the same nature.

The experimental basis of the theory that dead bacterial protoplasm is the direct source of the fever of infective disease is the undoubted fact that fever does frequently follow the injection into healthy subjects of dead cultures of certain organisms. At first sight this evidence would seem to be conclusive, especially if fever were found to follow the injection of all known forms of dead pathogenic bacteria and protozoa. It has, however, for some years been recognized that there are exceptions to what is by many still believed to be a general rule. For example, injection of dead cultures of the bacillus of Koch, *B. anthracis* and *B. diphtheriae* into healthy subjects has from time to time been found not to be followed by fever. In the case of the bacillus of Koch it was believed that the "waxy envelope" prevented bacterial solution and consequent extraction of the pyrogen with which this organism was credited. In the case of *B. anthracis* and *B. diphtheriae*, however, no explanation was forthcoming as to the absence of fever after injection of the killed organism. Nevertheless, these exceptions were looked upon as unimportant, and were to a great extent forgotten. When the practice of administering dead bacterial vaccines became general it was soon found that their injection might give rise to mild forms of intoxication, including fever. Prophylactic injections into healthy subjects of dead vaccines of *B. typhosus* are a case in point. Belief in dead bacteria as the primary source of pyrogen became therefore more firmly rooted than ever, though again no explanation was given—beyond a quantitative one—of the frequent experience that fever did not follow, for example, injections of certain staphylococcal vaccines. The subject, in fact, does not seem to have been investigated.

Early in 1911, therefore, I examined, with the aid of my laboratory colleague, Dr. Penfold, a large number of dead and living bacterial vaccines by injecting them, for the most part intravenously, into healthy rabbits. The organisms examined in respect of their pyrogenetic properties are given in the subjoined list. They are divided into two groups, according to whether they did or did not on intravenous injection produce immediate fever if the organisms were first killed. The character of the list given is, I think, sufficient answer to the very reasonable suggestion that the absence of immediate fever after injection of an emulsion of organisms might be due to difficulty of lysis of the particular organism. In all cases the vaccines injected were made from laboratory cultures. Many different strains of several of the organisms were examined, an important point, as will be seen, in the study of the relative pyrogenetic properties of any bacterial emulsion. Attention is drawn to the fact that the list of the organisms from laboratory cultures which did produce fever is a list also of Gram-negative organisms. On the other hand, the list of organisms injection of which did not

* The protocols for many of the experiments referred to in this paper have already been published. In most of the experiments detailed in such protocols I was aided by Dr. W. J. Penfold. Full data of the additional experiments referred to in this paper will be published elsewhere, and for these I accept sole responsibility.

produce fever is a list also of Gram-positive organisms. The parallelism is a striking one, though its interpretation is at present obscure.

PYROGENETIC VACCINES.	APYROGENETIC VACCINES.
B. typhosus.	*B. diphtheriae*.
B. coli.	*B. anthracis*
B. influenzae.	Koch's bacillus.
B. pestis.	*B. mallei*.
B. melitensis.	Streptococcus.
M. catarrhalis.	Pneumococcus.
V. cholerae.	*Staphylococcus aureus* (certain strains).
Acne bacillus.	(Tuberculin.)
S. albus (certain strains).	(Mallein.)
S. citreus (certain strains).	
S. aureus (certain strains).	

Clearly, then, the list of organisms that apparently do not contain any pyrogenetic substances is much longer than has previously been realized. And no doubt further examination will reveal yet other laboratory-grown organisms injection of which does not produce fever if they have been first killed. So far I have not examined for the presence or absence of pyrogenetic function such protozoa as can be grown on laboratory media. It should also be noted that repeated injection at suitable intervals into the same animal of a dead vaccine of the apyrogenetic type does not produce fever. This observation seriously affects the question of anaphylactic fever in the sense employed by Continental observers. We have gone more fully into this subject in a paper read at Liverpool in the summer of 1912.[2]

In the face of the experiments referred to here,[3] it must be admitted that if some laboratory-grown organisms appear to contain a protoplasmic pyrogen—because they produce immediate fever when injected dead—it is difficult to understand why so many others do not.

In further experiments, however, published[4] in the autumn of 1912, we showed that certain strains of organisms which after growth on agar are primarily apyrogenetic when injected dead appear to acquire pyrogenetic properties if subcultivation on fresh agar is carried out. For example, some subcultured strains of *S. aureus* readily exhibit the power of provoking fever if the heated organisms be injected. This is particularly the case if animal passage has taken place before subcultivation, the rabbit being selected as the medium of passage. In other words, subcultivation on laboratory media, especially if preceded by passage, appears to select out a race of organisms trained to extract from the culture medium a pyrogen that the original strain either could not extract or had become incapable of extracting. Control observations showed that the uninoculated media used produced no fever in the case both of agar and of broth. The suggestion therefore arises that when the subcultivated heated organism is injected pyrogen extracted or synthetized from the medium by the action of the living organism is unavoidably injected at the same time. It is possible, therefore, that the pyrogenetic properties of all those organisms injection of which when dead produces fever are in reality due not to the possession of pyrogenetic properties of their own, but to adsorption of something elaborated by the action of the living organism on the medium of growth. As will be seen, it has so far not been possible to detach completely this substance from organisms that have picked it up, possibly owing to its inclusion in interstices in the bacterial wall. Adsorption on the free surface of the bacterial wall appears not to prevent partial detachment of this adventitious pyrogen, since its presence can readily be demonstrated in the washings by the fever that follows their injection. If this theory—that the pyrogenetic effect of dead vaccines is due merely to adsorption of some substance manufactured from the medium of growth—is true, we ought to find that an inoculated medium when it has been deprived of its organisms is still pyrogenetic. And experiment proves this to be the case, provided that the centrifuge is used as the means of separation and not the bacterial filter.

A large number of observations have from time to time been made on the toxicity of bacterial filtrates expressed in fever.[5] And numerous observers have shown that many filtrates are practically non-toxic and produce no fever. At the same time it was shown that the heated material held up by the filter was often in these cases found to be strongly pyrogenetic as well as the heated unfiltered cultures. These findings naturally gave additional support to the view that the fever of infectious disease was caused by dead bacterial protoplasm. As, however, we showed[6] in 1911 the use of the filter is quite inadmissible in determining the presence or absence of pyrogenetic substances in culture media. And for two reasons. In the first place, it is difficult—if not impossible—to avoid contamination of the filtrates with antipyretic salts derived from the filter itself. Calcium salts, for example, were, we showed, traceable in the filtrate even after repeated passage of freshly distilled water. And calcium salts have been shown by many observers to inhibit fever. In the second place, although in view of our observation that pyrogen appears to be a body of small molecule[7] there is no guarantee that filtration of a colloidal liquid containing bodies of small molecule as well as of larger molecule, such as bacteria, will allow the filter to hold back the large and let through the small. On the contrary, larger bodies must tend to block the filter and prevent to an undetermined extent passage of the smaller.

Furthermore, apart from the question of filtration, if we wish to demonstrate the presence or absence of pyrogen by injection, it is always necessary to be sure that a sufficient volume of pure water is used as the diluent or vehicle of injection. This is necessary because increase of the volume of the diluent increases the amount of fever produced by injection of pyrogen, whilst injection of the same quantity of pyrogen in a smaller volume of diluent may produce no appreciable effect. Again, if normal saline be used as diluent instead of water, injection of one animal may produce high fever, whilst injection of a second animal of the same weight with the same quantity of pyrogen in the same quantity of saline may produce none. Experiments[8] dealing fully with all these points we have published elsewhere, though at present it is not possible to explain them. All observations, therefore, that deal with the pyrogenetic properties of bacteria, or of emulsions of bacteria, must be regarded as suspect (*a*) if the filter is used, (*b*) if saline be employed as the diluent, (*c*) if the relation of the volume of pure water and of the quantity of pyrogen containing material to body weight be not clearly stated, (*d*) if the water used for injection be not freshly distilled each day and used at once. The numerous fallacies introduced into the study of fever by absence of knowledge as to the necessity for this last precaution we have fully dealt with in other papers.[2 3 4 7] Here it will be sufficient to point out that the experimental evidence hitherto relied on in favour of the existence of such distinct entities of fever as water fever, salt fever, salvarsan fever, lactose fever, glucose fever, saccharose fever, protein fever, nuclein fever, tissue fever, fibrin ferment fever, serum fever, blood cell fever, haemolytic fever, transfusion fever, and anaphylactic fever no longer exists, since we have reproduced fever charts typical of all of these by injecting pyrogen-containing water alone, whilst the injection of each of these substances in pure water produced no fever.

Hence the only satisfactory method of determining by injection if an infected culture medium, after separation of the infecting organisms, is or is not toxic in the sense of producing fever is to use an efficient centrifuge and to employ as diluent freshly-distilled water in constant and stated volume. When these precautions are taken, the reputed atoxicity of many organism-free culture media that have been submitted to infection entirely disappears. The results of the large number of experiments we have carried out on this subject may be briefly illustrated.

METHOD OF EXPERIMENT.

An eighteen-hours culture, for example, of a stock strain of *B. typhosus* on broth is examined in the following ways:

A.—*Unheated.*

1. A measured quantity—sufficiently small not to kill—of the whole broth is injected intravenously in a suitable quantity of water into a healthy rabbit of known weight. Fever rapidly follows, reaching its maximum in two to four hours, and disappearing in six to eight hours. Observations are taken every thirty minutes. Observations taken at much longer intervals than this are useless. The next day and on several successive days observations are again repeatedly taken, but fever does not return within the limits of observation.

2. The centrifuged deposit of an equal quantity of the same culture is repeatedly washed and is then injected in water into a second animal, and observations are taken as before. The results are precisely the same as in the first experiment, allowing for the slight variations in the degree of fever produced as a result of the varying personal equation on the part of the animals injected.

3. The supernatant fluid not injected in Experiment 2 before washing is now injected in water into a third animal. Once more the same essential features are recorded.

B.—*Heated (to 100.0 C.).*

Precisely the same experiments described under A are now repeated with the heated culture, the heated centrifuged and washed organisms, and with the heated supernatant broth. And again the same results are recorded in every case. Examination of the heated supernatant broth shows that no organisms are present.

The heated and unheated centrifuged deposits from a fresh broth culture of the same strain are then washed with a solution of hydrogen peroxide. This procedure entirely removes their pyrogenetic properties, as was shown by injection into several animals. Microscopic examination of stained films of the deposit before and after this treatment reveals no differences. The heated and unheated centrifuged deposits from fresh samples of the culture are repeatedly washed with pure water, and the washings pooled. The washings produce on injection slight fever, the deposits produce high fever which is immediate. The heated and unheated centrifuged deposits from yet other samples of the culture are repeatedly washed with 1.4 per cent. sodium citrate solution in pure water and the washings pooled. These produce more fever than do the water washings. The deposits, however, are still markedly pyrogenetic. Finally, the heated and unheated centrifuged deposits from the remainder of the culture are repeatedly washed with pure ether and the washings again pooled. These are then evaporated in a water bath and the residue taken up in citrate solution and injected. The procedure is followed by high fever. The original deposit of organisms, however, is still somewhat pyrogenetic, possibly because it is not easy to get rid of all the other soluble pyrogen present. Owing to contamination of the bottom and sides of the test tube with the residue of pyrogen left after evaporation of the last remnants of the ether unavoidably left behind in removal of the supernatant fluid this appears to be the probable explanation. Examined by the microscope the ether washed organisms appear intact but moniliform, and they stain badly.

The points brought out by these experiments with ordinary laboratory strains may be thus epitomized:

B. typhosus grown in broth produces, if the heated or unheated organism be injected, an immediate and fugitive fever characterized by a sharp rise and fall. The animal does not become infected after injection of the living organism, and does not show any late fever after injection of either the living or the dead organism. Precisely the same events take place on injection of the culture-medium after separation of the organisms. The pyrogen therefore is present in the separated broth, and in or on the surface of the bacteria. This pyrogen cannot be completely washed away from the organisms, but it can be better detached by citrate solutions than by pure water, and better still by ether. It is, in short, feebly soluble in water, more soluble in citrate solution, and markedly soluble in ether. It cannot therefore, be a protein. It is apparently oxidized by peroxide since washing with this subject renders it inert, and standing for twelve hours in the semi-dry state has the same effect. We find in addition that it is active after incubation with a strong solution of tryptic ferment. Chloroform appears to some extent to inhibit its activity, but it is difficult to determine if this action is reversible owing to the difficulty of accurate determination of relative degrees of fever in the rabbit.

This pyrogen appears to be a preformed pyrogen when injected and to bear in its effects no relation to any known form of infection-fever occurring naturally in man and animals. After the immediate fever has passed off there appear to be no after-effects and there is no secondary fever, and this is also true after injection of the living or dead organism that has been allowed to stand in minimal quantities of water or saline. The pyrogen is, in addition, remarkably heat stable.

Such are some of the characteristics of a pyrogen that has hitherto been believed to be the purely bacterial product of a laboratory-grown organism that is known not to be pathogenic to the rabbit. Clearly, then, *B. typhosus* is not an organism in which it is possible to study natural pyrogen as it occurs in the body. Examination of other strains of *B. typhosus* on broth produced the same results, as also did examination of this organism on agar.

In order, therefore, to determine whether the pyrogen of infective disease is or is not a true bacterial product it is necessary to select for examination an organism that is pathogenic to the rabbit, and which at the same time has not become contaminated by a preformed pyrogen derived from the medium employed in artificial culture.

Certain strains of *S. aureus* satisfactorily meet these conditions. The absence of contamination in such strains is readily proved by injection. If, for example, the heated or unheated agar or broth culture be injected without separation of the organisms from the agar scrapings or broth no immediate fever is produced. The same negative result is obtained if the washed centrifuged organisms, or the supernatant fluid in the case of broth, or the washings in the case of agar, are injected. If, moreover, repeated observations are taken for several days of all the animals injected, it is found that fever only occurs in those which have received the living organism. In these animals, provided that the dose is not large enough to produce early death, or small enough to prevent infection, fever appears in a day or two, and continues till death or recovery takes place. If the virulence of the organism injected has not been reinforced by recent subcultivation, or by subcultivation *plus* animal passage, recovery is the rule. The fever generally begins within twenty-four hours of injection, but the latent period—if avirulent strains have been selected—was well marked in all the numerous cases examined. Here, then, is a very different picture to that produced by injection of *B. typhosus*. The fever set up is late in appearing instead of early, occurs always after injection of a suitable number of the living organisms, and never after injection of the dead; it has a slow instead of a rapid rise, and continues for several days instead of from one to eight hours. Further, it is not provoked by injection of the culture media from which the organisms have been separated, in marked contrast to the result obtained by injection of *B. typhosus* cultures deprived of that organism. The fever curve produced is that of a natural infection instead of one that bears no resemblance thereto. And finally, the substance—enzymic or what not in nature—which in the living organism liberates or synthetizes pyrogen is heat labile, whereas the pyrogen derived from laboratory media is remarkably heat stable.

Nevertheless the experiments so far quoted do not reveal the true source of the pyrogen in actual infections. A laboratory product, of course, natural pyrogen cannot be, as appears to be the case in the artificially produced fever set up by injection of cultures of *B. typhosus* and other members of the same group. Since, therefore, the source of natural pyrogen is not dissolved bacterial protoplasm, it can only be the substrate offered to the living organism by the tissues of the host.

The next step in the solution of the problem, therefore, was to discard laboratory media and to employ, as far as possible, the natural media of the animal body. For this purpose red cells from the blood of healthy rabbits were washed free of plasma with pure solution of sodium citrate, and were at once lysed in freshly distilled water. Samples of this blood-cell extract medium were exposed for one hour to air infection, and were then placed in a sterile flask, which was at once hermetically sealed and then incubated for twelve hours at 37.0° C. At the end of this time a copious growth of a staphylococcus was present, and demonstrated by film preparations from the centrifuged deposit. Control blood cell extract medium prepared at the same time and treated in the same way, with the exception of exposure to air, was found to be sterile. Injections of this control extract were followed by marked depression of temperature. Injections were then made of the infected extract into different animals as follows: (*a*) The heated washed centrifuged organisms; (*b*) the unheated washed organisms; (*c*) the unheated supernatant blood cell extract proved by control inoculations of agar to be free from organisms capable of growth. In each case immediate fever resulted of a precisely similar nature to that obtained by injection of *B. typhosus* cultures or of staphylococcal cultures after subcultivation preceded by passage. The animals injected with the heated organisms or with the supernatant liquid on the other hand failed to show any secondary fever. The animals, however, that were injected with the living organism

exhibited in addition to immediate fever the late continued fever of a natural infection with a much shortened latent period.

From these experiments it is clear that a pyrogen clinically indistinguishable from the pyrogen elaborated from agar or broth can be readily obtained if blood-cell extract be used as the medium. It is also clear that the immediate fever produced after injection of the heated organism or the supernatant fluid or the unheated organism was due to injection of preformed pyrogen—elaborated from the blood extract in the test tube—whilst the late fever produced after injection of the living organism was due to a second pyrogen—elaborated from the circulating blood or other tissues. The fact that the organisms were obtained direct from the air excludes the possibility of transference of any contamination from the ordinary laboratory media. These experiments appear to support the view that an organism that is unable to produce immediate fever dead or alive can do so both dead and alive if the living organism is first able to extract and adsorb from the medium on which it grows a pyrogen elaborated from that medium. We have elsewhere shown that organisms derived from the air, and not allowed to grow on the ordinary laboratory media, produce no immediate fever on injection provided that pyrogen-free water or saline is employed as the vehicle of injection. The pyrogen of blood-cell extract is just as heat stable as is the pyrogen derived from agar or from broth.

Owing to individual variation in the degree of fever produced in rabbits even after injection of constant quantities of pyrogen in constant quantities of water relatively to body weight, it has not been found possible accurately to measure the increase of "test tube pyrogen" from day to day in living cultures. The concentration, however, of "test tube" pyrogen is certainly high after twelve hours' growth, and remains high, in broth cultures, for many weeks. Abstraction of pyrogen taking place spontaneously is, of course, impossible, and no great destruction occurs within reasonable limits of observation. On the other hand, in the living body, during a natural infection we should not expect to find the same conditions. The concentration of pyrogen in the circulating blood of a feverish subject, for example, should be relatively low, since abstraction, if not destruction as well, must continually be going on. We should expect, therefore, to find that in order to produce fever in a healthy animal by injecting blood from a feverish animal it would be necessary to inject large quantities of blood. And on experiment this proves to be the case. For example, I injected into a series of healthy animals varying quantities of a 40 per cent. centrifuged citrated blood plasma from an animal exhibiting the continued fever of an acute genuine infection. The mixture of plasma and 1.4 per cent. citrate solution was centrifuged in order to get rid of any organisms that might be present. Injections up to 5.0 c.cm., equivalent to one four-hundredth of the weight of the animal injected, produced no fever. Injections of 10.0 c.cm. provoked slight rise of temperature, whilst injection of 15.0 c.cm. produced slight but definite fever. Control injections of healthy citrated plasma produced no rise of temperature. Clearly, therefore, the amount of pyrogen circulating in the blood in such case is much less than that contained in blood-cell extract in the test tube, which only requires injection of 0.50 c.cm. of a 25 per cent. extract, from which the organisms have been separated by the centrifuge, to produce high fever. The next step, therefore, was to determine if the injection of heated organisms after recovery from the body of a feverish animal does or does not produce immediate fever. If it were found that injection of such organisms did produce an immediate fever similar to that produced by injection of heated organisms after test tube growth on agar or broth or on blood cell extract, the fact would appear to make demonstration of the true source of pyrogen in infective disease by this method of investigation an almost impossible achievement. If, on the other hand, injection of heated organisms recovered from infected subjects produced no fever whatever the number injected, the theory that dissolved bacterial protoplasm is the primary source of the pyrogen of infective disease would be clearly untenable. Demonstration of this would, in conjunction with the experiments already described, leave no alternative but acceptance of the view that fever is the expression of the activity of living organisms, or their products, in and on the infected body.

Further experiments were therefore carried out (*a*) with organisms recovered from the fixed tissues of infected subjects, including pus, (*b*) with organisms recovered from the blood in subjects of septicaemia.

Recovery of Organisms from Infected Tissues.

Organisms were recovered from infected tissues in the following way:

An unheated laboratory strain of *S. aureus* that produced no immediate fever was injected into a series of healthy rabbits. A late continued fever resulted in all cases. After a week's illness with fever one of the animals was killed, and from the multiple abscesses present in the kidneys large numbers of organisms were heated before injection to 57° C. No fever whatever followed the injection early or late. The experiment was repeated with another animal which was killed at an earlier stage of the infection and the same results were obtained. In another experiment an unheated laboratory strain of a pneumococcus of low virulence was injected into a healthy rabbit. No immediate fever followed injection, but a late fever set in. On the eighth day, the fever still continuing, the animal was killed. An emulsion of splenic pulp, shown by film preparations to contain enormous numbers of organisms, was injected. Again no fever followed injection. In this experiment, as well as in the first series, control cultivations from the kidney and spleen showed that living organisms were present in the material examined, since copious growth was obtained on agar. Injection of the heated and unheated agar organisms produced high immediate fever in every case, and the injections in the case of the living organisms led next day to a fatal issue.

These observations therefore appear to show that organisms recovered from tissues other than the blood, and injected at once, possess no pyrogen, but that when grown on laboratory media they readily elaborate a contaminating pyrogen from such medium, which they subsequently adsorb. They also show that the concentration of body pyrogen cannot be high in the infected organs, since the tissue material injected in some of the cases was considerable in amount. Owing to the difficulty, however, of freeing organisms recovered in this way from tissue débris, their enumeration cannot be satisfactorily carried out. Moreover, it is conceivable that absence of pyrogen in the dead organisms after recovery from the body might be explained by exhaustion of any pyrogen they might have contained whilst in the body during the continuance of fever. The low concentration of pyrogen, however, already demonstrated in the blood plasma during high fever, and the fact that injection of organisms recovered from the body at an earlier stage of an infection shows them also to be pyrogen free, make such a view improbable.

Fresh Human Pus.

Pus was first taken from an abscess believed to be tuberculous in a patient with a temperature of 100° F. In film preparations no organisms could be found. Intravenous injection of small quantities of this pus in water was not followed by fever, early or late, whether heated or unheated. Samples of fresh pus were then taken from several patients with fever, and were examined bacteriologically and by intravenous and subcutaneous injection. Only those specimens were selected for injection which were found to contain large numbers of micro-organisms indicating the presence of recently-formed pus, or of pus from the periphery of abscess sacs. Control cultivations on agar gave in all cases selected copious growth. The organisms injected in different specimens included staphylococci, diplococci, and streptococci. One specimen contained both staphylococci and streptococci. In no case did injection of quantities of heated pus from 0.1 gram in 1 c.cm. of water to 2.50 grams in 2.50 c.cm. of water produce fever early or late. On the other hand, injection of sufficient quantities of unheated pus in this series never failed to produce a continued fever with a much shortened latent period.

These experiments are of interest in view of the numerous observations that have been published to show that injection of pus is constantly followed by fever. Such observations can only be explained by injection of pus in pyrogenetic saline, or by injection only of unheated pus. The experiments here quoted, however, lend additional support to the view that fever can only be produced during a natural infection by the living organism. In the case, however, of pus injections it is again impossible to carry out satisfactory enumeration of the organisms injected, and this method was therefore abandoned.

The only convenient method remaining of determining whether organisms recovered from the body during an infection with fever do or do not produce immediate

fever when injected dead is to obtain them direct from the blood stream in cases of septicaemia. If the circulating blood in septicaemia be received into pure sodium citrate solution and the mixture at once centrifuged, the deposit can, after lysis of the red cells in pure water, be readily examined. Any organisms present can then be counted in the ordinary way. In laboratory experiments, however, as is well known, it is a difficult matter to produce a genuine bacteriaemia, since the injection of organisms after growth on ordinary laboratory media is followed by their rapid disappearance from the blood stream as estimated by ordinary cultivation methods. And the cultivation of serum-fast strains has certain disadvantages. I have, however, overcome these difficulties by growing, for example, a laboratory strain of pneumococcus on the rabbit blood cell extract above described for forty-eight hours. Injection of the living organism from such extract into a healthy rabbit produces an infection with fever that can be demonstrated for some days. And injection of known numbers of organisms recovered from the blood during this fever can be readily carried out. Injection of 3,090 million dead organisms recovered in this way failed to produce any fever early or late, whilst injection of 10.0 c.cm. of a 40 per cent. citrated solution of plasma from the same animal, after removal of any organisms present by the aid of the centrifuge, produced slight but definite rise of temperature, and injection of the living organisms produced a typical continued fever.

Demonstration of the absence of pyrogen in dead bacterial protoplasm of organisms recovered during natural infections appears therefore in the cases examined to be complete. Whether this will prove also to be true of all organisms recovered from infected subjects, including man, is a question that only further study can decide.

In the meanwhile, in view of the cumulative evidence here presented, it is difficult to resist the conclusion that a rising temperature is not—as we have paradoxically been led to believe—a sign of increase of bactericidal and bacteriolytic function, but is on the contrary an expression of the activity of living organisms. Dead organisms, in short, do not in natural infections give rise to fever.

The next question that arises is the practical bearing of these observations on immunity problems in general and in particular on the administration of dead bacterial vaccines in the diagnosis, prevention and treatment of infective disease.

It will, I think, be clear that the non-bacterial pyrogen derived from laboratory media which is so misleading a factor in the experimental study of fever is also one that we cannot afford to ignore in practical medicine.

There are in connexion with prophylactic and therapeutic vaccines two possibilities to be considered. On the one hand contamination of bacterial vaccines with pyrogenetic substances of purely laboratory origin may greatly enhance their prophylactic and therapeutic value. In this connexion the observations made some years ago on the effect of injecting nucleinates are of interest, though they cannot be dealt with here. If comparative experiments with the vaccines at present in use and with detoxicated vaccines prove that the presence of non-bacterial substances is an advantage, steps will have to be taken by subcultivation or in other ways to ensure that all vaccines are toxic. At present some vaccines are toxic in this respect, and some are not. Some of the causes for these differences I have explained. On the other hand, contamination of vaccines with laboratory material may be a distinct disadvantage. If this prove to be the case, vaccines, before they can be justifiably used in man, must first be tested for the absence of medium derivatives by injection of animals with the precautions mentioned, or in some other way. And such vaccines as are found to be toxic must then be rendered atoxic by one or other of the methods given, or by some other method if shown to be more convenient. It will not be forgotten that the injection of contaminated vaccines into healthy subjects for purposes of prophylaxis may be a less serious affair—if disadvantage be proved—than therapeutic injection of subjects already gravely ill. In these the question of dosage will necessarily be a matter of special concern, unless vaccines shown to have been detoxicated, or to be primarily atoxic, are employed.

Of more importance, however, even than the question of the positive good or harm effected by injections of contaminated vaccines is the larger question of to what extent the specific antigenic values of vaccines in general depend on the presence of this contamination. (In passing it may be well to point out that there is some evidence that the toxic substances elaborated from culture media by the action of living organisms on such media are to a certain extent specific to those organisms.*)

In other words this problem presents itself: Have we at present unimpeachable evidence that a pure dead vaccine has any antigenic values in the prophylaxis or treatment of general or local infections? It is worth notice that the vaccines for which the highest protective and therapeutic values are claimed are just those in which the content of laboratory pyrogen is highest. Cases in point are *B. typhosus*, *B. coli*, possibly *B. pestis*, and the acne bacillus. I am not here suggesting that this relation is more than accidental, or that dead vaccines have no specific antigenic values apart from their laboratory contamination. It is obvious, however, that until the point has been fully investigated we are no longer justified in attributing to dead bacterial vaccines antigenic values that may prove to belong—in whole or in part—to substances that are not primarily derived from dead bacterial protoplasm. At present when we employ these vaccines we have no guarantee that any single vaccine provided is a pure vaccine.

In future, therefore, we shall require such guarantee, as well as an assurance that the process of purification has not damaged any genuine antigen the purified vaccine may possess. And in passing it may be well to glance at the question of the so-called autogenous vaccine, which in one important respect is a somewhat misleading name, as I pointed out in 1911. A vaccine made from dead organisms collected from the blood or other tissues of an infected subject and injected without intermediate cultivation on laboratory media is a genuine autogenous vaccine, and its injection in animals appears not to be followed by toxic symptoms, though it remains to be seen if it has any therapeutic effect. A vaccine, however, that is made from organisms collected in the same way, but then cultivated on artificial media and then injected—after death of the organisms has taken place—is not a genuine autogenous vaccine, because, as I have shown, the toxic symptoms that may now arise are due to contamination from the laboratory medium of growth. The organism, in short, has had a new function imposed upon its descendants by such growth, and it is not impossible, therefore, that the increased therapeutic values with which the *soi-disant* autogenous vaccine is credited may prove to be due to this very fact.

It is not stretching the argument too far to point out that it is also necessary in view of the experiments here described to examine afresh the evidence that has hitherto been relied on in favour of the existence of bacterial toxins in general and especially of the so-called endotoxins. The endotoxin of *B. typhosus* is a case in point. In all these cases it will now be necessary before we can postulate the existence of a genuine endotoxin to be sure that the organism selected for purposes of extraction, whatever the method of extraction selected, is first of all deprived of the highly toxic material elaborated from the culture medium. In all experiments so far undertaken with the reputed toxin of *B. typhosus* when cultivated on laboratory media this precaution has for obvious reasons not yet been taken.

Finally comes the question of diagnosis. If, for prophylactic or therapeutic purposes, it is necessary to use pure vaccines, it is equally so in all those test tube reactions in which antigen and antibody are the essential factors. We shall not only have to make certain that only pure vaccines are used for the production of animal immune serums, but we shall also have to ensure that all bacterial emulsions used as diagnostic antigens are equally above reproach. In the case of such organisms as the bacillus of Koch, and of such other members as apparently do not elaborate

* For example, the centrifuged washed organisms of *B. coli* laboratory cultures cannot be deprived of their pyrogenetic properties by washing with hydrogen peroxide. This fact appears therefore to indicate that the living *B. coli* elaborates from its culture medium a pyrogen of a different nature to that elaborated by the living *B. typhosus*. Moreover, *B. coli* is able to synthetize a pyrogen from protein-free media which before inoculation with the living organism are apyrogenetic.

this contamination from culture media these precautions may prove unnecessary. On the other hand, in the case of all those organisms which we have shown to be characterized by their ability in the living state to elaborate toxic derivatives from the media of artificial growth, these precautions cannot be neglected.

In conclusion, although it is premature to indicate the practical lines of direct immunity research opened up by these experiments, it is impossible to ignore the suggestions they offer as to the meaning of sensitization and the superiority of living vaccines over dead, as well as to the necessity for re-examination of the whole scheme of vaccine-therapy. And in the meanwhile, if they do no more than press home the necessity for fresh investigations into the true source and character of the natural antigens of disease they will faithfully have served their purpose.

NOTE.—Since this paper was placed in type two articles on experimental fever have appeared in a German periodical by Thiele and Embleton which might seem at first sight to affect some of the conclusions reached in this communication.[9] In the articles referred to, the authors—as so many have done before them—have fallen victims to the very fallacies which Dr. Penfold and I have already exposed in the English journals.[10] One of the fundamental errors, for example, in all study of experimental fever produced by injection is the assumption that water which is innocent of demonstrable infection at the time of injection must also be innocent of pyrogen, and that water collected direct from the condenser of a distilling apparatus in daily use and then filtered is necessarily pure water. In consequence, therefore, of failure to recognize this source of error these workers in many of their experiments unwittingly used impure water, as is clearly shown in their own protocols. This accident is alone sufficient to invalidate all the experiments and deductions based thereon, though there are other fallacies of almost equal importance which I have fully described elsewhere.

REFERENCES.

[1] Hort, E. C.: Autoxaemia and Infection, *Proc. Roy. Soc.*, B, vol. lxxxii, 1910.
[2] Hort and Penfold: A Study of the Pyrogenetic Properties of *B. typhosus*, BRITISH MEDICAL JOURNAL, November 9th, 1912.
[3] Hort and Penfold: Micro-organisms and their Relation to Fever, *Journ. of Hygiene*, vol. xii, No. 3, October 21st, 1912.
[4] Hort and Penfold: Further Studies in Experimental Fever, *Proc. Roy. Soc. Med.*, 1912, vol. vi (Path. Sect.), pp. 76-84.
[5] Emery: Immunity and Specific Therapy, 1909, p. 393. S. Martin, *Manual of Path.*, 1904, p. 77 et var.
[6] Hort and Penfold: The Dangers of Saline Injections, BRITISH MEDICAL JOURNAL, December 16th, 1911, p. 1510.
[7] Hort and Penfold: A Critical Study of Experimental Fever, *Proc. Roy. Soc.*, B, vol. lxxxv, 1912, p. 175.
[8] Hort: Normal and Immune Serum-Therapy, BRITISH MEDICAL JOURNAL, November, 1911.
[9] *Zeitschrift für Immunitätsforschung*, 1913.
[10] The Relation of Salvarsan Fever to other Forms of Injection Fever. *Proc. Roy. Soc. Med.*, 1912, vol. v (Path. Sect.), p. 137. Chart.

APYREXIAL TYPHOID.

BY

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YEOVIL.

APYREXIAL typhoid, although known to exist, is of excessively rare occurrence, and may therefore readily pass unrecognized, particularly in the absence of an epidemic of the disease. Cases of this type have been described by Gerhardt and Dreschfeld, and of these brief mention is made by the latter in Allbutt's *System of Medicine*.

In typhoid fever we know that, in patients of over 40 years of age, the temperature curve is lower and less characteristic, but although cardiac, pulmonary, and renal complications are more common, splenic enlargement and rose rash are frequently absent. For these reasons, therefore, the diagnosis may be rendered more difficult. The case recorded below will serve to illustrate these points.

The patient was a woman aged 60, who had resided in the same house for more than thirty years, and during that period had never required medical assistance for more than minor ailments. A careful investigation into her previous history precluded all possibility of any previous attack of typhoid fever.

The present illness commenced in the first few days of September, with the usual feelings of malaise, and with gradually increasing diarrhoea. She took to her bed on September 8th. When first seen, on September 10th, the patient was in an exhausted condition, with a dry, furred tongue and subnormal temperature. The outstanding feature of the case at the time was the exceedingly profuse diarrhoea, which persisted in spite of all the usual remedies. On September 12th (two days later) the patient began to wander, and sank into a semi-comatose state, in which she remained for the ensuing fourteen days. During this period the intestinal symptoms were unchanged, there was a moderate distension of the abdomen, but no spots or enlarged spleen were present then or later. Widal's reaction on September 16th was positive in every dilution. From the onset of the attack until September 25th (that is, the fourth week of the disease), when complete consciousness returned, the mouth and surface temperatures were invariably subnormal, and the rectal temperature, taken twice daily, never exceeded 99.4°. From September 26th to October 4th the mouth and rectal temperatures each reached their maximum of 99.6° and 100.4° respectively, after which they dropped again.

During the fourth week a further specimen of serum was obtained for the purpose of comparative agglutination reactions to *B. typhosus* and other allied organisms, with the following results:

B. typhosus agglutinated up to 1 in 2,000.
B. paratyphosus B agglutinated up to 1 in 200.
B. paratyphosus A agglutinated very slightly.
B. enteritidis (Gaertner) agglutinated not at all.

The patient ultimately made a good recovery, and without serious complications.

An investigation of the water-supply of the (isolated) dwelling revealed a privy in close proximity to the well, which constituted the sole supply of drinking water on the premises. This water, on examination by the county authority, proved to be contaminated with sewage.

In the light of all the bacteriological findings, I think there can be very little doubt that in this case there existed a true typhoid infection.

A SIMPLE AND RAPID METHOD FOR THE ADMINISTRATION OF SUBCUTANEOUS SALINES.

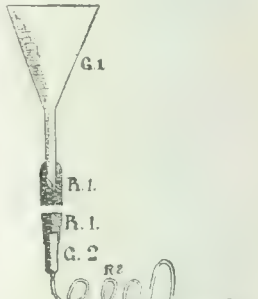
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THE administration of saline solution by the method of subcutaneous injection has many points in its favour and should by no means become obsolete. There is no method to equal it when the absorption of a large quantity of fluid is required.

In numerous cases of late years I have made use of an apparatus which, from its convenience and simplicity, has served to replace more cumbersome methods.

The only requisites are (1) a large silver cannula from a Southey's tube apparatus; (2) Southey's rubber tubing; (3) a small piece of glass tubing, narrow at one end to fit this tubing, and larger at the other (for this an ordinary clean fountain-pen filler does very well); (4) a large glass funnel connected to the glass tube by rubber. The various parts are joined together and the whole is sterilized by boiling.



G1, Glass funnel. R1, Large bore rubber tubing. G2, Glass tube. R2, Southey's rubber tubing. T, Trocar. C, Cannula.

The mode of introduction deserves special notice, for it differs considerably from the usual method. The anterior axillary fold is grasped firmly and drawn outwards. The trocar with its cannula is then passed into the skin in a direction vertical to the chest wall and is pushed steadily through the axillary fold so that its point emerges within the axilla. The trocar is then withdrawn and the cannula is pressed onwards into the axilla until its shoulder rests flush with the skin.

The fluid as it emerges from this cannula spirts in all directions and is poured out into three distinct plains, separated anatomically into watertight compartments by the deep fascial layers. Into the most superficial of these

fluid flows into the fatty tissue over the pectoral muscle and around the breast and extends upwards over the clavicle into the neck. Beneath this saline exudes into the pectoral muscles and is limited by the deep fascia on either side. Absorption is here rapid owing to the great vascularity of the part and to the pressure maintained by the fascial limitations. Lastly distension of the axillary space takes place and the normal concavity of the axilla is replaced by a rounded swelling.

Fluid is absorbed very rapidly when introduced in this way and two pints can be run into the tissues in twenty minutes, little trace of swelling being found. After an hour the cannula is left *in situ*, and the administration can be repeated as often as necessary.

This method has one disadvantage, and I think only one. The introduction is rather painful, but hardly more so than when the needle is merely inserted beneath the skin, while the pain resulting from distension is largely obviated. But in the majority of cases the patient is still under the influence of the anaesthetic when the administration is given or is so collapsed as to be insensitive to pain.

This objection is more than compensated for by the ease of introduction and rapidity of absorption of a large quantity of saline by means of a simple appliance which every practitioner has at his command.

ADRENALIN IN THE EMERGENCY TREATMENT OF NON-CORROSIVE POISONING BY THE MOUTH

(CYANIDE, STRYCHNINE, ACONITE, ETC.).

BY

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WHEN a chemical substance enters the stomach or bowel it must first be absorbed into the circulation before it can exert a general direct action on the body. One of the chief factors determining the rate of absorption of any substance introduced into any part of the gastro-intestinal tract is the vascularity of the part, and particularly of the lining membrane. Now if, after the introduction into the stomach of a poisonous chemical substance whose general toxic action depends partly upon the rate at which it enters the circulation, we are able to limit the rate of absorption of the drug—for example, by diminishing the blood supply to the mucosa of the stomach—time is provided for the preparation and adoption of methods to neutralize any possible action which would normally follow the introduction of the particular substance into the stomach, either by removing it altogether by means of a stomach tube and a stomach wash-out, or by inactivating it by means of a chemical antidote. Particularly valuable would such an agent be which would lower the rate of absorption into the circulation of a substance which, entering the blood in large quantity, would destroy the life of the individual, but which the body is able, by the exercise of special powers, to efficiently neutralize when it gains entry into the economy slowly. To such a category belong the cyanides. Theis[8] and Buttron[1] have demonstrated that when an animal has been killed by a lethal dose of KCN the amount of cyanide present in the organs diminishes on standing, while Lang[4] and Grober[3] have shown that when HCN is introduced into the diet of an animal the amount of cyanide in the stomach diminishes, while the amount of sulphocyanate in the saliva and urine is increased.

Intraperitoneal injection of adrenalin has been found by Exner[2] to diminish the rate of absorption of a poison, such as strychnine or potassium cyanide, when introduced into the stomach. This academical piece of work suggested the investigation of the effect of the introduction of adrenalin* *into the stomach* on the absorption of rapidly-acting poisons, such as cyanides, strychnine, and aconite, also introduced into the stomach, and whether such administration of adrenalin had any value in the practical treatment of cases of accidental poisoning by these rapidly-acting drugs.

* Throughout this investigation adrenalin (P. D. and Co.) and hemisine (B. W. and Co.) were both used with the same effect.

CYANIDES.

The hitherto generally recognized antidote in cases of cyanide poisoning has been that advocated by Professor C. J. Martin and Mr. J. A. O'Brien.[5] Its principle is the formation in the gastro-intestine of Prussian blue, which is a practically innocuous substance, by the administration subsequent to the cyanide poisoning of ferrous sulphate and alkali. They proposed that 30 c.cm. (1 oz.) of ferrous sulphate solution of 25 per cent. strength, 30 c.cm. (1 oz.) of KOH (5 per cent. solution), and 2 grams (30 grains) of magnesia, the former two kept in hermetically sealed phials, be mixed and immediately taken. In their experiments on rabbits, using a lethal dose of 0.01 gram, given as 10 c.cm. of a 0.1 per cent. solution of KCN per kilogram of body weight, they found that death invariably ensued unless the antidote were administered within five minutes. Considering that the antidote consists of three separate ingredients, which must be mixed before use, the preparation of the antidote must occupy time and would probably take about two minutes, even if everything were at hand; so that if about three minutes were lost before discovering that cyanide had been accidentally taken, the patient's chances of recovery would be very small, for we may legitimately assume that the respite or "latent period" would only be a little if any longer in the human being than in the rabbit. Also, the ordinary medical man might not have the antidote ready at hand, and the value of some means of delaying the absorption of the poison from the gastro-intestine is apparent, and this is especially so in the case of poisoning by cyanide, whose action is so rapid.

Intraperitoneal injections of adrenalin having been found to diminish the rate of absorption of strychnine introduced into the stomach,[2] it was therefore decided to try and see if adrenalin administered by the mouth would have any effect in giving us more time to treat a case of cyanide poisoning. As a preliminary investigation, KCN solution, of strength varying from 1 per cent. to 5 per cent., was painted on various mucous membranes (conjunctiva, buccal mucous membrane, gastric mucosa) for five minutes, and then adrenalin (1 in 10,000) painted on, when blanching occurred in every case.

These experiments showed that adrenalin will still exert its vaso-constrictor action even after the arteriolar wall has been subjected to cyanide.

Further experiments showed that when adrenalin solution was administered (about 4 to 5 c.cm. 1 in 10,000 solution per kilogram body weight, the rabbit receiving the lethal dose of 0.01 gram KCN per kilogram body weight) either with or subsequently to the administration of the poison the animal's life was prolonged, and if the adrenalin solution were administered within five minutes of the poison, and Martin and O'Brien's antidote given, or the stomach washed out within four or five minutes *subsequent* to the administration of the adrenalin, the animal's life would be saved. Thus, the administration of adrenalin "on sight" would give a respite of some minutes during which the antidote could easily be prepared and administered or the stomach contents evacuated.

The results of a few of the more crucial experiments are appended. A number of experiments have been discarded because the rabbits did not tolerate the washing out of the stomach to which many were subjected. It may also be stated at the outset, that Martin and O'Brien[5] found that if a dose of cyanide were going to prove fatal the rabbit always died within thirty minutes, so that we may take it that if we are able to tide a patient over the fatal thirty minute limit by any means at our disposal, then the patient will have a very fair chance of recovery. Of course, if it be borne in mind that the adrenalin only delays the absorption of the poison (principally by its vaso-constrictor action on the vessels of the mucosa), it will be recognized (as Experiment No. 4 shows) that those cases are practically hopeless in which a large dose of the poison has been taken and in which the amount of poison being absorbed through the mucosa even under maximal adrenalin influence exceeds the lethal limit, unless the chemical antidote be immediately given or the stomach immediately evacuated. The time relation here indicated (namely, that the pathological effect depends to a certain degree upon the amount of poison coming into contact with the tissues per unit of time), and the fact that the administration of

an amount of KCN below a certain limit is accompanied by very little, if any, evident effect on the animal, seem to suggest that we have in the case of the action of chemical substances on all tissues of the body a parellelism to the action of various strengths of stimuli acting on a motor nerve and affecting the muscular response in the presence of a limen or threshold, an optimum and maximal strengths of stimulation. Further research, however, is required to determine this.

Further experiments showed that the administration of doses of adrenalin far in excess of those recommended by the cited experiments left, as far as the eye could detect, no lasting effects on the animals. The general results obtained from rabbits were:

The animal (receiving a lethal dose of 0.01 gram KCN per kilogram body weight) will recover if—

1. Adrenalin (3 c.cm. 1 in 10,000 solution) be administered within five minutes of the poison.
2. Martin and O'Brien's antidote given or the stomach washed out within about four minutes of the administration of the adrenalin.
3. A further small dose of adrenalin be given.

The area of a rabbit's stomach was found to be 95 sq.cm. That of a man is given as about 3,000 sq.cm.[5] Therefore the dose of adrenalin which a man should take on this basis of, say, 3 c.cm. of 1 in 10,000 per 100 sq.cm. stomach area, would be about 90 c.cm., that is, 9 c.cm. (3 dr.) of the 1 in 1,000 solution, diluted (that is, 90 c.cm. or 3 oz. of 1 in 10,000 solution) followed afterwards by about 5 c.cm. (1½ dr.) of the 1 in 1,000 solution, diluted (that is, 50 c.cm., or nearly 2 oz. of 1 in 10,000 solution).

Method of Treatment.

The experiments seem to show that in a case of cyanide poisoning the following procedure is advisable:

1. Adrenalin be immediately given.
2. Then Martin's antidote if it be at hand.
3. Then wash the stomach out; and
4. After having washed the stomach out, administer some more adrenalin.

The object of the latter is to "follow up" any cyanide which has escaped the washing out process or Martin and O'Brien's antidote, and so retard its absorption, for Martin and O'Brien found that if death did not ensue within thirty minutes of administering the cyanide, the animal would live. It might also be advisable to give a brisk saline purge soon afterwards. Should Martin's antidote not be at hand, the order of procedure should be 1, 3, 4, as above.

There are two further considerations which must be taken into account before the recommendations made above are to receive acceptance. First, is the adrenalin affected by the HCl of gastric juice or by the pepsin? This question has been answered by Oliver and Schäfer[7] who showed that gastric digestion (by pepsin—HCl) for twenty-four hours does not seem to lessen the physiological properties of extract of suprarenal gland. Secondly, how long will the adrenalin introduced into the alimentary canal continue to act on the lining membrane? The results obtained by Oliver[6] furnish the desired information. To quote from his paper, "Suprarenal extract invariably produced the most decisive contraction, and one, moreover, which persisted for thirty to sixty minutes. The constriction was equally pronounced whether the spinal cord remained intact or was destroyed. The velocity of the circulation was likewise lessened, and at the acme of the constriction the onward flow might cease." Oliver's recommendation that these might be verified on the inflamed conjunctiva of a rabbit has been confirmed. It was also found that on administering adrenalin solution to a rabbit with a *full* stomach, there was a constricting action not only on the vessels of the gastric mucosa but also on the vessels of the mucosa some inches down the small intestine, which lasted for quite fifteen minutes.

STRYCHNINE AND ACONITE.

In the case of these poisons, too, a number of experiments were performed, and the efficiency of adrenalin in delaying absorption conclusively proved. With these poisons the administration of adrenalin until the stomach can be thoroughly emptied is indicated, and in them the stomach *must* be emptied and the poison got rid of, otherwise the poison will be absorbed and exert its action on the body when the action of the adrenalin on the stomach has ceased. This is shown by Experiment No. 14.

Experiments were also tried with other rapidly acting poisons, such as potassium binoxalate (neutral), but the gastric mucosa was found (*post-mortem*) corroded, and free blood was found in the stomach, so that disturbing factors due to erosion and not remediable by adrenalin were present.

From these experiments on rabbits and dogs it is at once seen that in extract of the medulla of suprarenal gland—which is marketed under the names of adrenalin (P. D. and Co.), hemisine (B. W. and Co.), suprarenin, epinephrin, adrenine, renaglandin, etc.—we have an agent which will convert the stomach or other absorbing viscus on which it is acting into a practically non-absorbing bag in which the poison lies, ready to be absorbed when the action of the adrenalin passes off, but at the same time being absorbed in relatively small amount while the adrenalin is acting; and so a respite is gained during which the poison can be removed by mechanical means or neutralized *in situ* by some chemical antidote.

SUMMARY OF PRINCIPAL EXPERIMENTS.*

Experiments with Cyanide.

Experiment 1.—Rabbit. *Conjunctiva:* KCN (0.1 per cent.) painted on for five minutes. Adrenalin (1 in 10,000) applied. Blanching. *Mucosa of Lips:* Same as conjunctiva.

Experiment 2.—Rabbit. Chloralized. Stomach opened. One spot on mucosa painted with *5 per cent.* KCN for five minutes (and another control spot with normal saline). Adrenalin (1 in 10,000) then painted on both spots, and blanching produced in both.

Experiment 3.—Two rabbits *in full digestion.* Chloralized. Stomach tube passed per oesophagus.

Rabbit A, 1,100 grams. 11 c.cm. KCN solution (0.1 per cent.) administered. Three minutes after giving KCN respirations ceased.

Rabbit B, 1,100 grams. 11.5 c.cm. KCN solution (0.1 per cent.) administered. Eight minutes after giving KCN respirations reduced to mere flicker, then respirations improved and became normal, then gradually shallower. Thirty minutes after giving KCN respirations ceased. On opening the stomach the mucosa was seen to be red.

Experiment 4.—Two rabbits in full digestion. Chloralized.

Rabbit A, 1,000 grams. 4 c.cm., 0.5 per cent. KCN solution. Two and a half minutes after giving KCN respirations ceased.

Rabbit B, 1,200 grams. 4 c.cm., 0.5 per cent. KCN solution:

2 minutes after giving KCN, 4 c.cm. 1 in 10,000 adrenalin given.
2½ minutes after giving KCN, respirations ceased.

Experiment 5.—Rabbit, 1,600 grams in full digestion. 16 c.cm. KCN (0.1 per cent.) solution given:

2 minutes after giving KCN, 6 c.cm. adrenalin (1 in 10,000) were given.
6 minutes after giving KCN, rabbit had a few convulsions which passed off.
10 minutes after giving KCN, commenced washing stomach out, but washing out process was unsuccessful.
24 minutes after giving KCN, further convulsions.
29 minutes after giving KCN, respirations ceased.

The stomach-tube was found blocked with a piece of stomach content (mucus).

Experiment 6.—Rabbit, 1,600 grams in full digestion. Etherized, 16 c.cm. KCN solution (0.1 per cent.) given:

2 minutes after giving KCN, convulsions.
4½ minutes after giving KCN, 4 c.cm. adrenalin (1 in 10,000) given.
7 minutes after giving KCN, stomach washed out.
65 minutes after giving KCN, respirations ceased.

There were signs of hypostatic congestion and oedema of the lungs on *post-mortem* examination.

Experiment 7.—Rabbit, 1,300 grams. Chloralized (lightly), 13 c.cm. KCN solution (0.1 per cent.):

2 minutes after giving KCN, convulsions.
2½ minutes after giving KCN, 6 c.cm. adrenalin solution (1 in 10,000).
6 minutes after giving KCN, stomach washed out.
7 minutes after giving KCN, 3 c.cm. adrenalin solution (1 in 1,000).

Recovery.

*Some of these results originally appeared in the *Intercolonial Medical Journal of Australasia*, July 20th, 1909.

Experiment 8.—Rabbit, 700 grams, in full digestion. Chloralized lightly.

7 c.cm. KCN solution (0.1 per cent.) given.
4 minutes after giving KCN, 6 c.cm. adrenalin (1 in 10,000 given).
9 minutes after giving KCN, stomach washed out.
19 minutes after giving KCN, 3 c.cm. adrenalin (1 in 10,000 given).

Recovery.

Experiment 9.—Rabbit, 950 grams, 9.5 c.cm. KCN solution (0.1 per cent.) given:

5 minutes after giving KCN, 6 c.cm. adrenalin (1 in 10,000 given).
8½ minutes after giving KCN, Martin's antidote administered.

Convulsions. Recovery.

Experiment 10.—Rabbit, 1,250 grams. 12.5 c.cm. KCN solution (0.1 per cent.):

4 minutes after giving KCN, 3 c.cm. hemisine (1 in 10,000).
8 minutes after giving KCN, convulsions.
12 minutes after giving KCN, Martin and O'Brien's antidote given.
25 minutes after giving KCN, respirations ceased.

Experiment 11.—Rabbit, 1,300 grams. 13 c.cm. KCN solution (0.1 per cent.) administered:

3½ minutes after giving KCN, 3 c.cm. adrenalin (1 in 10,000) given; convulsions.
11 minutes after giving KCN, Martin's antidote + 2 c.cm. adrenalin (1 in 10,000) given; respirations were slowed.
15 minutes after giving KCN, respirations were of expiratory type for about one minute.

Conjunctival reflex absent and pupils dilated till about twenty-two minutes after poisoning. Pupils then began to contract somewhat. At this time the breathing was alternately mouth and nasal, and respirations were sixteen per minute. About thirty-seven minutes after poisoning respirations were twenty per minute, and breathing still mouth and nasal alternately. Conjunctival reflex returning fifty-two minutes after poisoning; respirations twenty-four per minute, and nasal in character. Animal apparently asleep, and breathing quietly, when it was left tied up in the laboratory two hours after administering the cyanide. Found dead next morning. There was a strong smell of gas in the laboratory and it is quite possible that the animal died of CO poisoning.

This experiment shows the beneficial effect to be derived from giving the animal a further small dose of adrenalin.

Experiment 12.—Rabbit, 1,300 grams. 28 c.cm. adrenalin (1 in 10,000) given. Twenty-four hours afterwards stomach examined. No pathological condition of mucosa apparent.

Experiment 13.—Rabbit. 35 c.cm. adrenalin solution (1 in 10,000) administered. Twenty-four hours afterwards no abnormal appearances in stomach, intestines, kidneys, liver, heart.

Experiments with Strychnine, Aconite, and Other Poisons.

Experiment 14.—Two rabbits, in full digestion, were taken.

Rabbit A, weight 950 grams. Received 11.5 c.cm. strych. sulph. solution (that is, 12 c.cm. per kilogram body weight) into its stomach. Death occurred forty-two minutes after.

Rabbit B, weight 1,150 grams. Received 13.8 c.cm. strych. sulph. solution + 4 c.cm. adrenalin (1 in 10,000) into its stomach. It was still alive four hours twenty minutes after, but was found dead next morning in position of opisthotonos.

Exner[2] showed that rabbits which received a dose of 0.0052 gram strychnine sulphate on the average exhibited convulsions in ten minutes and death in twenty minutes.

Experiment 15.—Dog, weight about 8½ kg.; starving; was morphined, and received ⅛ grain (0.025 gram) strych. sulph., dissolved in 30 c.cm. saline.

10 minutes after giving the strychnine, 12 c.cm. adrenalin (1 in 10,000) were given.
16 minutes after giving the strychnine, stomach washed out.
21 minutes after giving the strychnine, 8 c.cm. adrenalin (1 in 10,000), immediately followed by 1 oz. mag. sulph.

Recovery.

A dog of about the same weight, size, age, and breed received ⅛ grain strych. sulph., and died in six hours.

Experiment 16.—Eighteen days after Experiment 15. The same dog used; in full digestion; morphined. Received ⅛ grain (0.026 gram) strych. sulph., dissolved in 30 c.cm. water.

12 minutes after giving the strychnine, 12 c.cm. adrenalin (1 in 10,000) given.
18 minutes after giving the strychnine, commenced washing stomach out.
27 minutes after giving the strychnine, 8 c.cm. adrenalin (1 in 10,000), immediately followed by 1 oz. mag. sulph.

Recovery.

Experiment 17.—Two rabbits in full digestion taken.

Rabbit A, weight 1,150 grams. Received 11.5 c.cm. lin. A.B.C. Died fifty-nine minutes after.

Rabbit B, weight 1,250 grams. Received 12.5 c.cm. lin. A.B.C. + 5 c.cm. adrenalin (1 in 10,000). Died two hours four minutes after.

Experiment 18.—Two rabbits in full digestion taken.

Rabbit A, weight 1,350 grams. Received 13.5 c.cm. lin. aconit. (lin. aconit. *B.P.*, diluted ½). Died fifty-seven minutes later.

Rabbit B, weight 1,350 grams. Received 13.5 c.cm. lin. aconit. (lin. aconit. *B.P.*, diluted ½) + 5 c.cm. adrenalin (1 in 10,000). Died six hours twenty-five minutes later.

Experiment 19.—Two rabbits in full digestion.

Rabbit A, weight 1,300 grams. Received 2 grams pot. oxalate in 20 c.cm. water. Died fifty minutes after poison.

Rabbit B, weight 1,400 grams. Received 2 grams pot. oxalate in 20 c.cm. water + 5 c.cm. adrenalin solution (1 in 10,000). Died fifty-eight minutes after poison.

My sincere thanks are due to Professor W. A. Osborne, D.Sc., under whose direction this research was conducted, for the very valuable advice and encouragement he has given me while the work was in progress.

REFERENCES.

[1] Buttron, H., Inaug. Diss. (Giessen), 1909, p. 24. [2] Exner, A., *Archiv f. Exper. Path. u. Pharm.*, Bd. 50, S. 313. [3] Gruber, J. A., *Arch. klin. Med.*, 69 (1901), p. 243. [4] Lang, quoted by F. N. Schulz, *Hand. d. Biochem.* (edited by C. Oppenheimer), Bd. III, 1te Hälfte, p. 34. [5] Martin, C. J., and O'Brien, R. A., *Intercol. Med. Journ. of Aust.*, 1901, p. 245. [6] Oliver, G., The Action of Animal Extracts on Peripheral Vessels, Proc. Physiol. Soc., March 20th, 1897; *Journ. Physiol.*, vol. xxi (1897), p. 22. [7] Oliver, G., and Schäfer, E. A., Proc. Physiol. Soc., March, 1895; *Journ. Physiol.*, vol. xvii, p. 13. [8] Theiss, A., Inaug. Diss. (Giessen), 1909, p. 27. [9] Vierordt, H., *Daten u. Tabellen für Mediziner* (3te Aufl.), S. 115.

THE LATE VASOMOTOR PARESIS DUE TO ADRENALIN.

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A GENTLEMAN consulted me on account of multiple exostoses of the external auditory meatus, which so far occluded the lumen that beyond them only the finest Eustachian bougie was passable, and nothing was visible. Presumably the marked tinnitus, which was his chief complaint, was due to an accumulation of sebum and epithelial débris deep to the growths; for this tinnitus remained absent so long as he regularly used drops of hydrogen peroxide.

His unwillingness to persist with this treatment; a moderate degree of obstructive deafness to speech, acoumeter, and tuning-fork; and the danger that an infection of débris between the growths and the membrane might lead to perforation and otitis media, were the indications for surgical interference.

The external meatus was unusually tortuous; the growths, only one of which was pedunculated, were very deep, and at subsequent operation proved to be actually continuous with the annulus tympanicus. The difficulty of access emphasized the necessity for a clear bloodless field in operating. Therefore, before making the postaural incision, adrenalin chloride was injected along the superior, posterior, and inferior meatal walls as far as the growths—5 drops of a 1 in 2,000 solution in each situation. The whole area became and remained remarkably bloodless, and a branch of the posterior auricular was the only vessel tied during the operation, at the conclusion of which a rubber tube, of such a length that its outer end hitched just under the tragus, was pushed down to the intact drum.

At the first dressing, on the third day, the tube had become slightly unhitched from the tragus, and had slipped out about ⅛ in. It could be pushed back, but on the release of pressure again emerged for this small distance, very slowly, as if levered up by an elastic body beneath. Next day the tube projected about ½ in.; it was again replaced, and pressure applied over it by a small pad under the dressings.

On the fifth day, finding it impossible to keep the tube in position, it was removed, and an inspection made. The membrane was completely hidden by the edge of the skin of the posterior meatal wall, where this skin had been cut across just distal to the growths. The skin could not be replaced in position, being pushed forwards from behind, presumably by blood-clot.

On the seventh day, as the flap showed no promise of retracting, I reopened the post-aural wound, and found that from here all along the posterior meatal wall bone and skin were separated by a clot. In amount this clot was sufficient to fill a dessert-spoon, and more than the space would be expected to hold; much of it lay in the deepest part of the meatus, levering the cut skin-edge forwards, so that it lay directly over and parallel to the drum. After the removal of the clot and the passage of a tube as before, healing, with a good lumen and cure of all symptoms, was uneventful.

This case shows that, apart from any of its general physiological disadvantages, adrenalin may cause mechanical trouble by reason of the vasomotor paresis which follows the phase of vaso-constriction.

THE BREAKING OF THE VICIOUS CIRCLE.

BY

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DISEASE, when complicated by the presence of a vicious circle, presents problems for solution peculiar to itself. The physician is no longer confronted with a morbid process which Nature is doing her best to rectify, and where treatment mainly consists in furthering and regulating her efforts. When a circle is present Nature is aggravating the disorder. The *vis medicatrix* has become the *vis devastatrix*, and what looms before the sufferer is at best a prolonged disorder, at worst a *descensus Averni*.

Vicious circles are widespread in their distribution, and play a great part in clinical medicine. Their study promotes a visualization of those pathological sequences that are ever acting reciprocally on each other, and greatly assists the accurate adaptation of remedies to the complex conditions of disease.

Although a large part of the *ars medendi* consists in "breaking the circle," this aspect of therapeutics has, strange to say, almost wholly escaped attention. True, many years ago a great teacher wrote: "Let it be a cardinal principle of treatment to make an effort to interrupt vicious circles."[1] But even to-day our textbooks give but little assistance in the solution of problems presented by reciprocally acting consequences. It may be useful to indicate the principles on which treatment under such circumstances must be based, and to illustrate those principles by a few examples.

LOCUS MINORIS RESISTENTIAE.

One signal advantage presented by the circle is that there are at least two points at which its evil round may be interrupted. In the words of Lauder Brunton, "We must see where the circle can best be broken," since, "if we can break the circle at one point, we allow recovery to commence."[2] Our first step then is to seek the *locum minoris resistentiae*. The discovery may not be easy, inasmuch as it presupposes an accurate diagnosis of the various factors that constitute the circle, and this may involve a painstaking investigation, as emphasized by Clifford Allbutt:

> First of all we shall begin by a close searching for any vicious circle of function, and, if found, of cutting any link of it, whatsoever or wheresoever. . . . A floating kidney, a disorder of the uterus, a faulty eye, a "tea" or "tobacco" heart, or other local irregularity, trivial enough perhaps in itself, may close and perpetuate the vicious orbit of function.[3]

When the factors constituting the circle have been elucidated, our duty is to break it through at the weakest point. If the gyration can be stopped the whirling currents will be restored to their normal direction. "The hound which had turned to hunting its own tail may be put again on the track."

The *modus operandi* will vary with the special circumstances of each case. But some illustrations may be grouped under the following heads:

I. The breaking of the circle by hygienic measures.
II. The breaking of the circle by surgical appliances.
III. The breaking of the circle by drugs.
IV. The breaking of the circle by operation.

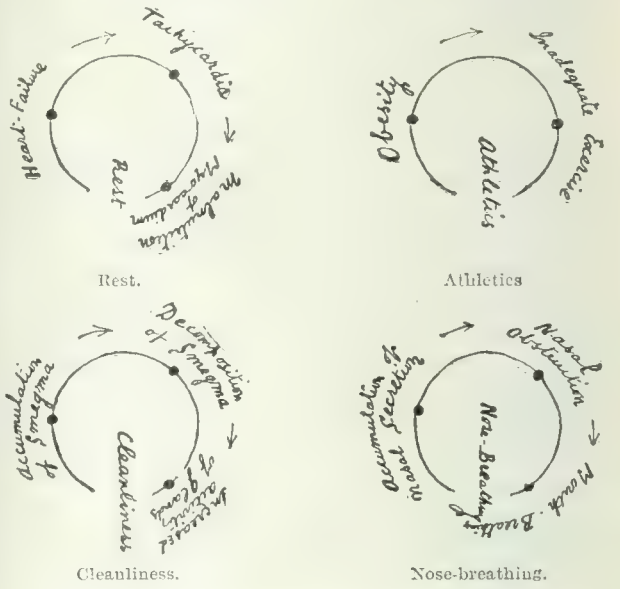
I. *The Breaking of the Circle by Hygienic Measures.*

Rest.—Physical rest is a powerful means of breaking some circles. An illustration is presented by many cases of cardiac failure, where a dilated and overburdened myocardium is associated with visceral disorder, the two conditions acting and reacting on each other.

Gibson thus describes the circle:

> Sooner or later, according to its form and severity, chronic valvular disease, with compensation, itself disposes to failure by establishing a vicious circle of slow, progressive impairment of the viscera and their great vital functions—the lungs, liver, stomach, bowels, kidneys, indeed the myocardium itself.[4]

In many such cases, if the patient is kept so quiet as "not to take one beat out of the heart more than can possibly be avoided," immense relief is given to the failing myocardium. More blood is sent to the lungs and viscera, and returns as a more nutrient and aërated supply. The cardiac action is strengthened, its tonicity is raised, so that the heart can pump out the stagnating blood and lower the venous pressure. Even moribund persons



THE BREAKING OF THE CIRCLE BY HYGIENIC MEASURES.

recover, and continue practically well for years. Lauder Brunton describes the value of such absolute rest:

> As in many other things the conditions in cardiac disease form a vicious circle. The disordered circulation disturbs the function of other organs, and these in turn make the circulation worse. . . . In such cases it is evident that the patient is bound to die, and to die a somewhat painful death, unless medical art can afford him some assistance. It is very fortunate, however, that in such cases medical art can do so much. . . . If we break the vicious circle at one point, we allow recovery to commence; and one of the most important agents—I think I ought to say *the most important agent*—in the physician's power *is absolute rest*.[5]

Exercise.—Under other circumstances the opposite measures, namely, increased exercise, is called for, as in the circle of obesity, which Krehl describes:

> As soon as the accumulation of fat begins to deter the patient from taking active exercise a vicious circle is established, and he tends to increase in weight more and more.[6]

If the physician insists on some athletic sport, or at any rate on a more active mode of life, the morbid correlations may be interrupted and health restored.

Cleanliness.—Want of cleanliness may give rise to various circles, as, for example, to seborrhoea genitalium, where retained and putrefying secretions irritate the prepuce and glans, and thus provoke further secretion and putrefaction. In Corner's words:

> The greater the irritation of the glands by decomposing secretion the greater the amount of secretion they produce. In this way a vicious circle is established.[7]

The regular removal of these secretions will rapidly diminish the excessive glandular activity, and thus check the morbid reactions.

Prevention of Infection.—This may be illustrated by the success of preventive measures where thread-worms are present. When a case is left to Nature, the irritation at the anus secures by auto-infection the continuance of the race of parasites producing it, and patients thus keep up their stock of parasites for many years. If, however, precautions are taken so as to prevent reinfection from without as well as auto-inoculation, the worms disappear rapidly and a radical cure may be looked for in four to six weeks, that being the period by which all the ova swallowed on a particular date will have developed into worms and been evacuated in the faeces.[8]

Nose-breathing.—A fifth illustration may be found in restoration of nasal respiration, where mouth-breathing has established a circle. In weakly children nasal secretions are sometimes allowed to accumulate and block the nostrils until the child resorts to mouth-breathing. This in its turn favours the retention of nasal secretions and consequent nasal obstruction. As Ashhurst says:

> Obstruction, by preventing or interfering with the expulsive force of the expiratory current, prevents the removal of the usually abnormal amount of secretion, either by blowing the nose or otherwise; its accumulation is in its turn an efficient factor in producing obstruction, and a vicious circle . . . is thus established.[9]

By efficient use of the pocket-handkerchief the nasal passages can be cleared and the circle broken.

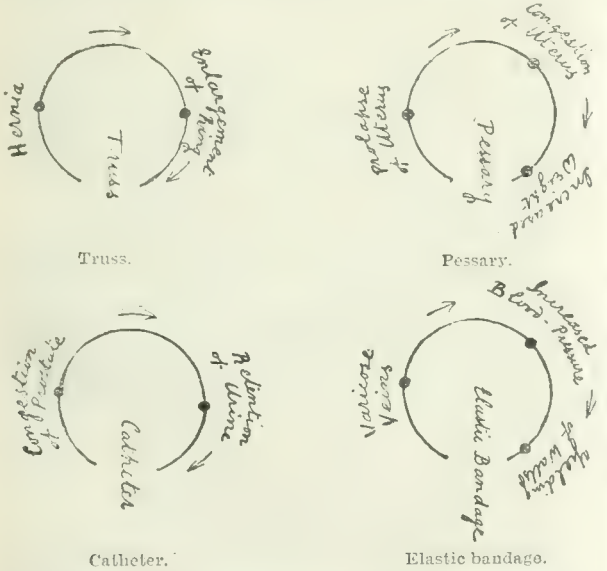
II. *The Breaking of the Circle by Surgical Appliances.*

Elastic Bandage.—Varicose veins are frequently complicated by a circle, since the dilatation leads to increased tension on the vein-walls, and the increased tension aggravates the dilatation. As Romberg writes:

> It is often impossible to say how the disorder originates, for the venous dilatation (due to some mechanical obstruction) and the anatomical changes in the vein-walls act reciprocally on one another. Thus a vicious circle, whose pathogenesis is obscure, controls the course of events.[10]

The use of an elastic bandage supports the weakened walls of the veins, prevents their further dilatation and breaks the circle.

Catheter.—Prostatic retention of urine is often due to reciprocal correlations. For the enlarged venous plexuses



The Breaking of the Circle by a Surgical Appliance.

surrounding the prostate in elderly men readily become congested, causing obstruction to the urine which accumulates in the bladder. The pressure of the urine in its turn aggravates the venous engorgement, and so the process is perpetuated. Catheterization by evacuating the bladder relieves the pressure on the venous plexuses and cures the retention.

Pessary.—Uterine congestion and prolapse are other conditions which aid and abet one another, and so give rise to a circle. A well-adjusted pessary prevents the prolapse and thus relieves the congestion, and breaks the circle.

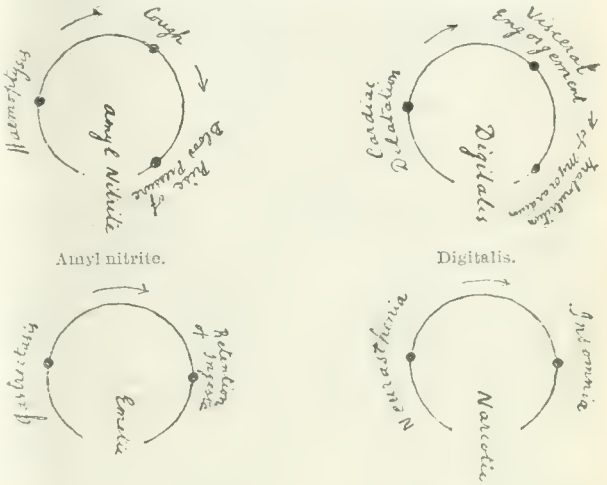
Concave Lens.—A fourth illustration is presented by progressive myopia in which the myopia and the elongation of the eyeball react on one another. As Sattler writes:

> If the elongation of the eyeball has once begun, myopia has a tendency to react upon itself by a kind of vicious circle as long as the noxious conditions which caused it are still in action. The posterior wall of the sclerotic, now somewhat attenuated, is more liable to give way, and the more egg-shaped the globe becomes the longer is the region of contact of the muscles with the surface of the eye.[11]

The prescription of concave lenses removes the near point, relieves the undue pressure on the globe, and checks the progress of the myopia.

III. *The Breaking of the Circle by Drugs.*

Amyl Nitrite.—Haemoptysis may be complicated by what Hare calls "one of the most highly vicious circles in pathology," the haemorrhage, the cough, mental per-



The Breaking of the Circle by Drugs.

turbation and rise of blood pressure being factors that act and react on one another. One practitioner considers that he can best break the circle by using amyl nitrite[12] to lower the blood pressure. A second prefers to lull the cough by means of morphine. A third pins his faith to the styptic action of ergot. In each case what appeared the *locus minoris resistentiae* is attacked.

Digitalis.—Many cases of failing heart are complicated by tachycardia. The enfeebled myocardium beats so rapidly that the ventricles can neither fill nor empty themselves as they should. The result is progressive weakening of the myocardium, and a dangerous circle is present, which may be broken by digitalis, as Pavlov describes:

> An uncompensated heart beats rapidly, and thereby only aggravates its condition. Its time of rest—that is of recovery—of restitution of the organ is shortened. A vicious cycle is set up. The weak action of the heart lowers blood pressure, the lowering of this leads (from known physiological causes) to an increase in the number of beats, the quickening leads to weakening of the organ. Without doubt the digitalis aids by breaking through this vicious cycle in that it greatly slows the pulse, and thereby gives new power to the heart.[13]

Sedatives.—Conditions of exaggerated reflex excitability are often met with in which prolonged irritation and weakness have led to a state of unrest which perpetuates and intensifies the weakness. Thus the respiratory centre may be exhausted by constant irritation of the air passages giving rise to incessant coughing. Or the gastric centre, taxed by severe stimulation from stomach, kidney or uterus, lapses into a similar condition of irritable weakness. Although useless, the vomiting continues incessantly and may prove fatal.

> Rest is urgently indicated for all cases of this kind, and has to be secured in many instances by means of morphine, which breaks the vicious circle of unrest and irritability; and a beginning once made, rest begets rest.[14]

Other circles are closely associated with the presence of pain or insomnia. The reciprocal correlations can here be

attacked by a suitable sedative, which by the removal of pain will break the circle; as Herman has well described:

The great causes of neurasthenia are conditions which (*a*) cause continuous pain, and (*b*) prevent sleep. The two things often form a vicious circle. A small local cause disturbs sleep, and want of sleep makes the nervous system over-sensitive. In proportion as the neurasthenic symptoms have coincided in time with the development of local pain, so surely may we conclude that the removal of the local pain and the procuring of sound sleep will cure the neurasthenia.[15]

Emetic.—A troublesome circle may be due to dilatation of the stomach associated with prolonged retention of food. The dilatation increases the stasis, and the stasis the dilatation.

Dilatation may be the cause, accompaniment, or sequel of chronic gastritis; subacidity with fermentation and stagnation forms a vicious circle constituting Cohnheim's so-called vinegar and gas factory, and may likewise be regarded an an important etiological factor.[16]

The timely use of an emetic may rapidly and completely relieve the condition. Even a greatly dilated and overloaded stomach may be braced up. The unburdening is followed by contraction and renewed functional activity.

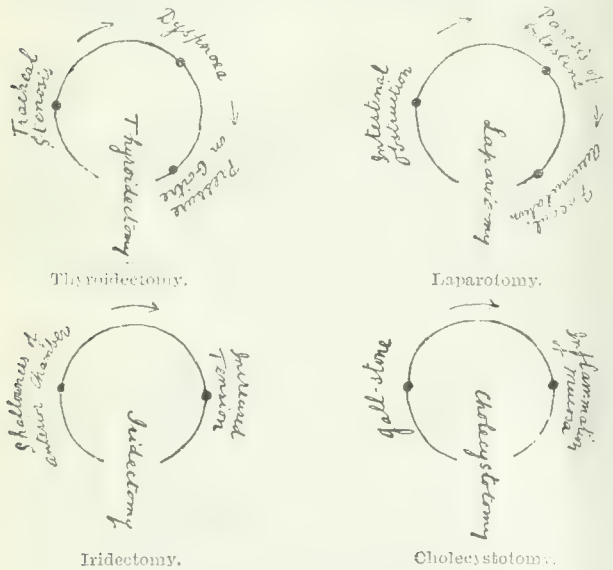
IV. *The Breaking of the Circle by Operation.*

Surgery achieves some of her greatest triumphs by attacking the *locum minoris resistentiae*, and so breaking the circle.

Cholecystotomy.—Biliary, renal, vesical, and other calculi are all associated with reciprocal correlations established between the mucosa and the irritating calculus. Rolleston thus describes the circle associated with gall stones:

Although gall stones are due to inflammation, of a comparatively mild character, of the gall bladder, their presence predisposes to fresh infection of the gall bladder, and thus to cholecystitis and to a vicious circle.[17]

Here the surgeon can remove the calculus that is perpetuating the morbid condition. The pathological sequences



THE BREAKING OF THE CIRCLE BY OPERATION.

are interrupted, and the mucosa returns to a more or less quiescent condition.

Thyroidectomy.—Another circle frequently broken by operation is associated with tracheal stenosis due to goitre. When an enlarged thyroid compresses the trachea so as to greatly reduce the lumen, any unusual effort may interfere with the adequate supply of oxygen. Nature, in response, calls the supplementary respiratory muscles into action. But unluckily the contraction of these muscles, so beneficent in some respects, presses the hypertrophied thyroid further against the trachea so as to narrow the lumen even more than before. They thus increase instead of relieving the dyspnœa, which often ends in self-strangulation. In Fraenkel's words:

The sufferer gets into the clutches of a vicious circle. The greater the want of oxygen, the more vigorous and prolonged the muscular contractions; the more vigorous the latter, the greater the compression of the trachea and the less room for the admission of air.[18]

Here prompt relief can be given by thyroidectomy, which relieves the stenosis and arrests the dyspnœa.

Iridectomy.—Glaucoma is another grave disorder, which, in the words of Priestley Smith, "perpetuates and intensifies itself in a vicious circle." The correlations are thus described by Lawson:

The sudden raising of the intra-ocular pressure increases the congestion, to be followed in its turn by a serous exudation from the venous channels, with a consequent further increase of pressure, and thus a vicious circle is quickly established, with symptoms of ever-increasing violence.[19]

The iridectomy lowers the intra-ocular pressure, which would otherwise end in blindness.

Laparotomy.—Intestinal obstruction may be complicated by various circles, which the surgeon breaks by laparotomy. One of them is thus described by Nothnagel:

Paresis and paralysis of the bowel may appear very early in the course of peritonitis, especially in perforative peritonitis, where it is most probably due to reflex inhibition of intestinal peristalsis. Paresis gives rise to meteorism, since gas continues to collect and accumulate in the bowel, as it is not driven onward. . . As soon, however, as a considerable quantity of gas accumulates in the intestine, the vicious circle is completed, for gaseous distension of the intestine leads to further impairment of its muscular powers and eventually to over-distension and paresis or to definite paralysis.[20]

These few examples illustrate the principle of breaking the circle by attacking the *locum minoris resistentiae*.

TREATMENT OF SEVERAL FACTORS.

At other times it may be impossible to ascertain the weakest link in the chain. The wisest course is then to attack each of the factors concerned, at any rate in such complex conditions of disease as Amand Routh describes:

We have frequently to deal with a vicious circle, with local and constitutional states so interacting that no real improvement is possible until both the general and local states receive their due share of attention.[21]

Striking examples of this are met with where digestive disorders are associated with disease of other organs, whether as cause or consequence of the visceral condition. Thus Mitchell Bruce writes:

The pathological relations of the gastric disorder or catarrh and the diseases of the other organs are usually complex, a vicious circle being set up between them; and the stomach therefore calls for direct treatment as well as attention to the cause.[22]

If the practitioner cultivates the habit of thinking of disease as operating in circles, he will continually meet with illustrations of that interdependence of organs and of the importance of attacking each factor in the morbid process. His study of the art of breaking the circle will render his treatment more philosophical and more successful.

THE IMPORTANCE OF EARLY TREATMENT.

Lastly, since the circle is a self-aggravating process, it should be broken at the earliest moment. As Clifford Allbutt graphically says:

In vicious circles every gyration deepens the groove, an abnormal habit is formed so that arrest of such a local waste of energy and such a distress becomes more and more difficult. . . . The longer the "habit"—the fixtures of organic memory—the harder the impulse needed to "break the circle," for the habit has become independent of the original cause, which, indeed, had often vanished.[23]

Worthy to be kept in everlasting remembrance are the words of Ovid:

> Principiis obsta; sero medicina paratur,
> Cum mala per longas convaluere moras.

REFERENCES.

[1] M. Bruce, *Principles of Treatment*, p. 263. [2] *Therapeutics of the Circulation*, p. 129; BRITISH MEDICAL JOURNAL, 1910, vol. ii, p. 1392. [3] Allbutt and Rolleston, *System of Medicine*, vol. viii, p. 777; BRITISH MEDICAL JOURNAL, 1910, vol. i, p. 413. [4] *Textbook of Medicine*, vol. ii, p. 127. [5] *Therapeutics of the Circulation*, p. 129. [6] *Clinical Pathology*, tr. by Hewlett, pp. 342, 344. [7] *Male Diseases in General Practice*, p. 398. [8] Allbutt and Rolleston, *System of Medicine*, vol. ii (iii), pp. 892-3. [9] Ashhurst, *Cyclopaedia of Surgery*, vol. v, p. 404. [10] *Krankheiten des Herzens und der Blutgefässe*, p. 496. [11] *Transactions of the Ophthalmological Society of the U.K.*, 1907, vol. xxvii, p. 12. [12] Hare records some remarkable cases in which the circle that complicates haemoptysis was instantaneously broken by amyl nitrite, *Food Factor in Disease*, vol. ii, p. 97. [13] *The Work of the Digestive Glands*, tr. by Thomson, 1910, p. 233. [14] M. Bruce, *Principles of Treatment*, p. 251. [15] BRITISH MEDICAL JOURNAL, 1910, vol. i, p. 183. [16] Osler and Macrae, *System of Medicine*, vol. v, p. 285; Cohnheim, *Lectures on General Pathology* (N.S.), pp. 859, 862. [17] *Diseases of the Liver*, 1905, p. 746. [18] *Lungenkrankheiten*, p. 8. [19] *Diseases and Injuries of the Eye*, p. 256. [20] *Diseases of the Intestines and Peritoneum*, p. 773. [21] Allbutt, Playfair, and Eden, *Gynaecology*, p. 737. [22] *Principles of Treatment*, p. 459. [23] *Nature*, 1911, vol. i, p. 374.

THE TREATMENT OF MUSCULAR PARESIS BY MEANS OF ECCENTRIC MOVEMENTS.

BY

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THE treatment of conditions of muscular paresis by means of the so-called eccentric movements originated in Sweden; though widely used in Scandinavia and Germany, it is apparently little known in England.

The terms "eccentric" and "concentric" as applied to muscular movements are rather clumsy; but it is necessary to adhere to them, because they are in general use on the Continent. By a "concentric movement" is meant the ordinary movement of a muscle which does work while *becoming shorter*; on the other hand, a muscle is said to perform an "eccentric movement" when it does work while *becoming longer*. The significance of the terms arises from the fact that during concentric movements the ends of the muscle approximate more nearly to the muscle's central point; while during eccentric movements they become more widely separated from it.

To take a simple example: if a patient flexes his arm at the elbow-joint by means of his biceps, the biceps performs a concentric movement, for it does work while becoming shorter. If now a manipulator grasps the wrist of the patient's flexed arm, and gradually extends the arm at the elbow-joint while the patient resists the extension, the biceps performs an eccentric movement; for in resisting the extension at the elbow-joint, the biceps does work while becoming gradually longer.

The general rule for the performance of eccentric movements is that the manipulator first puts the muscle into its shortest position, and then gradually elongates it, while the patient resists the elongation.

In England, concentric movements are almost exclusively used in the treatment of paresis, the use of eccentric movements being very little known.

Paresis after Fracture.

The following case, however, shows that the little-used eccentric movements may be of far more value than the more ordinarily used concentric movements.

H. M., aged 11 years, suffering from wrist-drop due to fracture of the lower end of the humerus eight weeks previously. Callus, which had obviously interfered with the musculo-spiral nerve, was to be felt at the seat of fracture. The paralysis had been treated for four weeks, without effect, by means of electrical treatment and massage, and the limb had been splinted with the hand in the hyperextended position.

At the commencement of the treatment by eccentric movements the paralysis of the extensors of the wrist appeared at first sight to be complete. The hand hung limply in the position of extreme flexion; the extensors of the wrist were overstretched, and the power of raising the hand was completely lost. In such a case exercise of the extensors by the ordinary concentric movements was obviously impossible; the boy could not begin to raise his hand, so could not initiate the movement. Eccentric movements were here of high value. These were performed in the following manner: The manipulator first grasped the boy's hand, and raised it into the position of full extension, thus putting the extensors of the wrist into the shortest position; the manipulator then gradually and slowly allowed the hand to sink into the position of flexion, at the same time urging the patient to delay the fall of the hand. The hand did not fall completely "dead," thus showing that the extensors, when put into the shortest position, possessed a trace of contractile power in the way of resisting elongation, although in their overstretched position they had seemed quite powerless.

By repeating the described manœuvre, it was possible to exercise the extensors, with the result that rapid daily improvement took place, so that by the end of ten days the boy could hold his hand in a horizontal position. Thus treatment by eccentric movements for ten days produced a more marked effect than one month's previous treatment by massage, electrical treatment, and splinting in the hyperextended position.

At this stage the extensors were exercised somewhat differently. The boy held his hand in a horizontal position, and the manipulator pressed it down into the position of flexion, while the boy resisted the movement. Complete recovery of the power of the extensors took place more slowly, occupying several weeks, but was ultimately complete.

The above case illustrates the advantages of treatment by eccentric movements. In the first place, they enable the muscles to be exercised while still too weak to raise the weight of the limb; in the second place, it will frequently be found that a muscle which in the overstretched position appears quite powerless may yet, if put into its shortest position, give evidence of undoubted power in the way of resisting elongation. The concentric movements ordinarily performed bring the muscle into action in its longest or overstretched, and therefore least favourable, position; eccentric movements, on the other hand, bring the muscle into play in its shortest, and therefore favourable, position. Thus, by their means, it is possible to exercise a paretic muscle at the earliest possible moment, when it possesses only the smallest trace of contractile power. Herein lies the value of this treatment, for if a muscle can be got to contract physiologically, however feebly, the restoration of function will be far more rapid than can be brought about by merely passive manipulations.

In the case of wrist-drop just described, the delay in recovery was clearly not due to the continued pressure of the callus on the nerve, but was caused by some change in the muscles themselves, which was a sequel of that pressure, for it was only necessary to exercise the muscles for rapid recovery to take place.

Anterior Poliomyelitis.

In the treatment of the results of anterior poliomyelitis eccentric movements are of great service. It may be of interest, for the sake of contrast, to quote the description of the method usually employed in England, as given by Mr. Tubby:[1]

> When there is footdrop, or paralysis of the dorsiflexors, the attendant may gently press his hand against the sole, and encourage the patient to dorsiflex the foot.

It will be noticed that what is described is a concentric movement; it is open to the objection that in a severe case the movement could not be carried out because the paretic extensors would not be strong enough to raise the weight of the foot, and thus the patient could not initiate the movement. In such a severe case the value of eccentric movements would be evident, for by their means the extensors could be exercised long before they were strong enough to raise the weight of the foot. To perform them the manipulator would first bring the foot into a position of extreme dorsiflexion, thus putting the paretic muscles into their shortest position; he would then gradually allow the foot to drop, while the patient attempted to delay the fall of the foot. By this means even the smallest trace of contractile power could be utilized, and the muscles could be exercised at an earlier date—often many months earlier—than would be possible by the method followed in England.

Other affected muscles are dealt with on a similar plan. I frequently see cases of this condition, which had been treated without avail by massage and electricity, improve considerably under eccentric movements. It is worth noting that treatment by eccentric movements takes far less time each day than electrical treatment or massage—a matter of importance when numbers of patients have to be dealt with. All three methods may be well used in conjunction.

Facial Paralysis.

In facial paralysis a similar method is followed. In dealing with the muscles of expression, the manipulator first draws the affected muscle into its shortest position, and the patient attempts to hold it there, and this manœuvre is repeated. If, owing to paresis of the orbicularis, the eye can only be partially closed, the manipulator first draws the upper lid fully down by means of the forefinger; he then removes his forefinger, and the patient endeavours to delay the opening of the eye. Later, when the orbicularis possesses more power, the lid is first closed, and the manipulator then draws it gently upwards with the forefinger, while the patient resists the movement. Even in old-standing cases, this treatment is sometimes successful.

Paresis of the Upper Limb.

In treating the paresis of the deltoid which so often follows injuries to the shoulder, the manipulator first raises the affected arm to the horizontal; he then supports the arm by placing his hand under the patient's wrist; the manipulator then gradually lowers the arm, while the

patient endeavours to delay its fall. By this means the deltoid may be exercised while still too weak to raise the arm from the side.

Paresis of the short muscles of the hand and of the flexors of the fingers provide suitable cases for this form of treatment. As before, the muscles are first put into their shortest position and then elongated, while the patient resists the extension.

Mode of Application.

The question as to how often the movements should be performed is of importance. They should be performed from five to ten times at each sitting, and the sittings may be given once or twice daily. A common mistake is to exercise paretic muscles too frequently. If this is done, the muscles become exhausted and recovery is retarded, not hastened. The manœuvres must be performed slowly and carefully with a strength proportionate to the muscle's power.

The results obtained will obviously depend largely on the nature and causation of the paresis. In general terms, cases of lower-segment paralysis are better suited to this form of treatment than cases of upper-segment paralysis. In order that the treatment may be of benefit, the affected muscles must not be absolutely paralysed, but must possess some trace of contractile power. But it must be remembered that a muscle, which in its over-stretched position may appear absolutely paralysed, may yet possess latent contractile power which may be obvious in its shortest position. In general terms, it may be said that if a muscle possesses any contractile power at all, that power may be increased by the persevering use of eccentric movements. This holds good even in long-standing cases; in such cases possibly the result is obtained by the hypertrophy of individual muscle fibres.

As mentioned before, treatment by eccentric movements may well be used in conjunction with electrical treatment and massage. Percussions and vibrations may also be used, and in certain cases the limb may be splinted so as to prevent over-stretching of the affected muscles. The writer, however, considers that eccentric movements are the most valuable single measure in the treatment of paresis.

Theoretical Explanations.

I suggest that an explanation of the above phenomena is to be found in the microscopic structure of striped muscle fibre. Schäfer's[2] views on the histology of muscle are here followed, but are only given in bare outline; the division of the muscle fibre into sarcostyles and sarcomeres is omitted as not essential to the present question.

A striated muscle consists of fibres each of which is marked by transverse bands of alternate light and dark material. According to Schäfer, the dark bands are made up of longitudinal channels or tubules arranged parallel with the long axis of the muscle fibre. Each such channel or tubule is closed at one end (line of Hensen), but at its other end opens by means of a minute pore towards the light band, which is composed of clear translucent material. In Schäfer's view, when the muscle contracts, the translucent material of the light band flows or is drawn into the channels of the dark band, and becomes hidden from view. By this means each individual channel of the dark band becomes shorter and wider, and by the sum of similar processes shortening and widening of the muscle fibre occurs. The evil effects of over-stretching on a muscle may now be considered in the light of this minute structure.

Mr. Robert Jones[3] has recently emphasized the injurious effects of over-stretching. He suggests that it has the effect of causing the nerve cells to become inactive, though not extinct. I put forward the view that the evil effects of over-stretching have nothing to do with the nervous apparatus of the muscle, but have their origin in certain changes produced by the stretching on the muscle itself.

When a muscle fibre is over-stretched its sheath (sarcolemma) is brought into a state of tension, causing lateral compression of its contents. By this lateral compression the longitudinal channels which compose the dark bands will be compressed one against the other, and this will have the effect of obstructing the orifices of the minute pores through which the translucent material gains entrance to the channels. This affords a simple mechanical explanation of the ill effects of over-stretching; for since the ingress of the translucent material into the channels of the dark band is impeded, so also will physiological contraction of the muscle be hindered or prevented, even though the nervous mechanism of the muscle may be intact.

The same considerations explain why a muscle, which appears functionless when over-stretched, can yet exhibit contractile power when put into its shortest position; for in the latter position the sheath of the muscle fibre is relaxed, the channels of the dark band do not press on one another, and therefore their pores will be unobstructed and the ingress of the translucent material easy.

It will also be clear why physiological contraction is so important in the treatment of paresis, for it is the only means of causing ingress and egress of the translucent material to and from the channels, passive manipulations being powerless to effect this. The rapid improvement that sometimes takes place in a paretic muscle as the result of exercise (as in the case of wrist-drop quoted above) may be explained by supposing that through disuse the entrances to the channels may become clogged, and possibly the translucent material altered in consistence. A few physiological contractions may serve to clear the entrance to the channels, and thus bring about rapid improvement in the muscle's power.

CONCLUSIONS.

1. In order to perform eccentric movements, the manipulator first brings the affected muscle into its shortest position and then gradually elongates it, while the patient resists the elongation.

2. Such movements are of more value in the treatment of paresis than the more ordinarily employed muscular movements.

3. The explanation of the effect of such movements is to be found in the microscopic structure of striped muscle.

REFERENCES.

[1] Tubby, *Deformities, including Diseases of the Bones and Joints*, vol. ii, p. 615. [2] *Gray's Anatomy*, seventh edition, p. 38. [3] Robert Jones, BRITISH MEDICAL JOURNAL, December 9th, 1911, p. 1520.

RAYNAUD'S SYNDROME AND SYPHILIS.

BY

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It would appear that Sir Jonathan Hutchinson was the first to call attention to the relation of syphilis to certain cases of Raynaud's disease,[1] so that the idea of their possible association is by no means new. Since his paper (1889) there have been an ever-increasing number of reports of similar cases, and the occurrence of one in the out-patient department at the Great Northern Hospital, which Dr. Whitfield has kindly allowed me to make use of, and was the subject of an animated discussion at the Dermatological Section of the Royal Society of Medicine,[2] must be my excuse for once more calling attention to the importance of recognizing not only the syndrome which Raynaud described, but still more to the vital necessity, from the patient's point of view, of tracing to its ultimate cause or causes the etiology of the condition.

Inasmuch as the physician has in a majority of cases only the clinical evidence to go upon, it would be better to look upon Raynaud's disease, not as a disease *sui generis*—a tendency which is undoubtedly still generally prevalent—but rather as an associated clinical picture, a symptom complex, dependent, perhaps, on a variety of factors in which the angiospastic conception of Raynaud plays only a part, and for which some organic and structural change of the vascular system concerned is mainly responsible.

The case referred to is that of a woman aged 56, who has suffered for over seven years from symptoms which Raynaud would have called typical, and which in the present attack have terminated in gangrene (of the dry type) of the tips of the thumb, first, fourth, and little fingers of the left hand, and in local syncope as evidenced by cyanosis of the third left finger, and of the digits of the right hand. In none of these situations is more than the pulp of the distal phalanx involved, and the

nails, though scored by transverse dystrophic lines, the evidence doubtless of past attacks, show no tendency to separate at present.

There are no symptoms of Raynaud's syndrome elsewhere, although there is a history of a similar asphyxial affection of the toes, ears, and nose, without gangrene.

As far as can be ascertained there has never been haematuria, and at the present time there is nothing abnormal in the urine.

The Wassermann reaction is positive.

The present attack began in the early part of September, 1912, when intolerable aching of the arms (a not unusual symptom in acroasphyxia of the upper extremity) first brought her to the hospital. On September 18th she presented herself, with gangrene well advanced, and although she had been taking mercury (hyd. c cret.) and iodides since the Wassermann reaction had proved positive, and had entirely lost her pain, the gangrene had supervened notwithstanding.

The points of importance in this case are the following: The woman can recall nothing suggestive of a syphilitic infection. She has had five children, one of whom died in infancy from bronchitis, and another at 9 years from lymphadenoma. There have been no miscarriages, and her husband, though not living with her, is alive and well.

It seems plausible to suggest that a more energetic antiluetic treatment (as, for example, salvarsan injection), commenced on the day the result of the Wassermann reaction became known, might have entirely prevented the onset of gangrene, and it is with the object of urging this procedure in similar cases that I have appended the following cases from the literature:

CASE I.—The symptoms were engrafted on hereditary syphilis in a boy, aged 4, who is reported by Krisowski[3] in an exceedingly able article (1895), in which he takes an identical view of the position of Raynaud's syndrome, to have been the victim of a symmetrical gangrene involving the tips of the ears. The condition was very quickly brought under control by administration of iodides and energetic inunctions of mercury; but, of greater importance still, it never relapsed thereafter, in spite of intentional exposure of the child to cold weather, which had in previous years always brought about an attack of local syncope, thus proving that an essential factor in the production of the syndrome had been removed.

Krisowski took the view, and in that he was considerably ahead of his contemporaries, that the Raynaud syndrome is the product of at least three factors: (1) A disease which produces an organic structural change in the blood-vessel wall, and of all diseases syphilis is probably the most potent in this respect; (2) some poisonous substance or toxin which is able to produce spasm of the arterioles; and (3) the external influence of cold. Patients with Raynaud's disease are notoriously worse in winter, and the most exposed parts—namely, the ears, nose, and fingers—are those most subject to syncope and gangrene.

In his own case he removed, by his energetic inunctions of mercury, probably the whole of factor (2), and considerably alleviated the first. The third factor then, unsupported by the other two, became impotent, and the child was able to run about out of doors in all weathers.

Whether this attractive hypothesis is indeed the true explanation of certain cases of Raynaud's disease must be left at present undecided; it is sufficient if it forms the basis of therapeutic measures; and whether the first and second factors be syphilis (congenital or acquired) or, as has been claimed at other times, tuberculosis, rheumatism, malaria, and gout, the true underlying etiological causes should always be sought for, and such remedial measures as massage, galvanism, etc., relegated to a position of secondary importance.

CASE II.—Gaucher[4] recently showed a young man who developed the symptoms of symmetrical acroasphyxia one month after the appearance of a chancre and a fortnight before the eruption of the roseola. The symptoms were typically spasmodic and involved the index, middle, and ring fingers of both hands, which during the crisis became painful and lost their tactile sensibility, whilst at the same time the distal phalanges were objectively observed to change their tint through red and violet to black. Cold water accentuated the syndrome, and stimulating lotions and friction relieved it. The condition completely cleared up in one month from the commencement of biweekly mercurial injections and did not recur.

CASE III.—At the same meeting Brocq[4] reported a similar case in a congenital syphilitic, aged 30, in whom the condition had gone to gangrene of the toes of both feet after a prodromal history of Raynaud's disease lasting over several years. This case was also cured by iodides and mercurial inunctions.

Both these cases are interesting in that they are definite proofs of the possible association of both congenital and acquired syphilis (even in its secondary stages) with the complex of symptoms described by Raynaud, and in themselves justify the examination of the blood for the Wassermann reaction in every case the etiology of which is at all doubtful.

In the American literature also the association of syphilis with the syndrome has not escaped observation:

CASE IV.—In 1906 Lustgarten[5] showed a case of a young man who had had Raynaud's symptoms for two years, culminating in gangrene of the finger-tips. It does not appear that Wassermann's reaction was sought for (the test was published in the same year) in this case, but there was a suspicion of luetic infection in the history, and "leukoplastic patches" in the mouth supported the presumption. Under antiluetic treatment the pains were cured, but, as in my case, the gangrene was not arrested. Salvarsan was not in use at that date.

His demonstration was followed by the relation of three similar cases in his practice by Dr. Klotz. All three had shown the coldness and blueness of fingers with superficial necrosis of the tips, and they had entirely lost their symptoms under mercury. Two of them had remained well for years. In the discussion at this meeting the pathology of the condition was held to be an endarteritis obliterans of many small arteries of an ascending type. Exception has been taken to such a view on the ground of its unlikely manifestation in so symmetrical a fashion, but, if it be remembered that syphilis is undoubtedly a constitutional disease and that evidence is rapidly accumulating that the organism, in one stage at least, is present in the circulating blood, the difficulty in accepting the premise should vanish.

The literature on Raynaud's disease is exceedingly voluminous, and it has been found impossible to do more than select for my purposes just those cases in which the etiology of syphilis was undoubted. But those are not the cases which are commonly met with in practice or in the out-patient departments of hospitals. If Raynaud's syndrome can be caused by florid syphilis—and of that there would seem to be no doubt—it would be very difficult to disprove its inability to produce the same train of symptoms at later and less obvious stages, and therefore I would urge that in every case of the syndrome Wassermann's test should be applied; that the physician should not be satisfied with one negative result, but should institute a second inquiry at some interval of time, with or without a provocative injection previously of salvarsan or mercury. As far as I am aware, salvarsan has not as yet been administered in these cases, but in view of the vascular involvement and the occasional concomitancy of haemoglobinuria, which is now admittedly in its paroxysmal variety often found associated with a positive Wassermann reaction, the intravenous injection of the drug should prove a valuable adjunct to the treatment of the condition.

REFERENCES.

[1] *Medical Times and Gazette*, i, 347. [2] *Proceedings of the Royal Society of Medicine*. [3] Ein Fall von symmetrischer Gangrän auf hereditärluetischer Grundlage (*Jahrbuch f. Kinderheilkunde*, Leipzig, 1895, xl, 57-69). [4] Maladie de Raynaud d'origine syphilitique (Gaucher, *Bulletin de Soc. Franç. de Derm. et Syph.*). [5] *Zeitschrift für klin. Med.*, 1910 (Fejes and Keutzler, p. 204).

IN a paper read at a meeting of the British Medical Association at Capetown last October, Dr. Bayon summed up the present position of leprosy research. He believes that the isolation and artificial cultivation of Hansen's bacillus has at last been successfully achieved, and the definite etiological relationship of the culture to leprosy conclusively established by morphological examination, animal experiments, serological tests, and by the observation that a specific reaction follows upon an injection of a filtered cultural extract. The micro-organism of human leprosy only reaches its bacillary acid-proof stage after injection into animals, but retains these properties in further artificial cultures. Vaccine treatment by killed cultures is not to be recommended in leprosy because the bacilli remain absolutely quiescent in the tissues, and the production of antibodies does not follow. Bayon said that the existence of an insect vector of the disease has not been established, and expressed the belief that investigation on these lines should be preceded by the acquisition of a thorough knowledge of the complete life-cycle of the micro-organism in man and rats, and the similar bacteria found in cattle and horses.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF VERONAL POISONING.

The following case may be of sufficient interest to merit publication, as the lethal dose of veronal is a disputed point.

At 11.30 p.m. on January 21st, 1913, I was called to see a case of supposed poisoning. I found the patient, a retired prize-fighter, aged 36 years, in bed, fully dressed except his boots. His wife said he had taken some drug to make him sleep, that he had been sleeping all day, and that they could not wake him. A lodger told me he thought veronal had been taken, and gave me a bottle containing ten tablets, each 0.5 gram. The patient was pallid, the hands cold and clammy, and the pulse 72, very soft and feeble, and difficult to count. The breathing was semi-stertorous. The pupils were not dilated, but did not react to light; this puzzled me until I found out that the patient had been for years an habitual chlorodyne drinker and had been taking it heavily for some weeks. I was told he was "just as you see him" for about twenty-seven hours.

All my efforts to wake him having failed, I gave at once a hypodermic injection of strychnine and digitalin and in a quarter of an hour one of strychnine alone. As the pulse and appearance of the patient were improving steadily, I used a small-sized siphon rubber stomach pump and washed out the stomach. I only passed the tube with considerable difficulty, after having well warmed and oiled it. Using a weak solution of sodium bicarbonate, I got away a lot of flocculent material and mucus. After passing in half a pint of strong black coffee and 2 oz. of brandy and finding it retained, I contented myself with occasional hypodermic injections of strychnine, strychnine and digitalin, and oleum camphorae. The latter, in 20-minim doses every quarter of an hour, I firmly believe in; it keeps the heart going, and an overdose is impossible.

About 1.30 a.m. on January 22nd (after over two hours' treatment) I fed the patient by nasal tube, giving bovril and brandy. In about an hour he opened his eyes, after a "shake and shout," and since then his recovery has been uneventful.

The interest in this case lies in the following facts, which I carefully verified:

1. He had taken chlorodyne for some years, and for one week preceding January 20th took 2 oz. of Collis Browne's preparation daily. Between 5 and 6 p.m. on that date he emptied the bottle, taking 150 drops, all that was left. Fearing he could or would not sleep, he remembered the veronal bottle. This, which had been in his possession about one year, had been given to him by a man who cleaned out the rooms of a poor fellow who died from veronal poisoning. The patient took three tablets every quarter of an hour between 7 p.m. and 8 p.m., and after taking the last lot he felt dizzy, and had just time to drop into bed as he was, dressed.

2. The chlorodyne was taken to relieve pain in his stomach, and also a feeling as if "his stomach was dropping out," which he had felt for years as the result of the heavy blows he had received in that region in the prize-fighting ring.

3. The remaining tablets weighed, on the average, 8½ grains each. Allowing for excipient the amount of veronal present would be 7½ grains. The dose on the label was 0.5 gram. This would mean that the patient took 6 grams, or just over 92½ grains.

4. The bottle of tablets, which originally held twenty-five, had been opened one year previously and three taken out. Can veronal deteriorate in one year so that 92 grains of the "aged" drug cannot be reckoned as a poisonous dose? I have looked up all the literature I could find without satisfactory result. The poisonous dose appears doubtful, and its stability is not mentioned.

5. The patient's wife states that he had had no food for two days. I questioned her closely as regards this, and she stated "he would take nothing, only dose and sleep, wake and dose." Absence of food in the stomach confirms this.

6. Could the veronal and chlorodyne (150 drops one hour previously) have any counter-effect and thus save the man? The patient has more than once confirmed his statement as to how and when he took the drug. The splendid physique and stamina of the man no doubt stood him in good stead, and the fact that he had been a total abstainer all his life.

Hampstead, N.W. ERNEST A. RONALD LAING.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

MANCHESTER ROYAL INFIRMARY.

A CASE OF GASTRIC HAIR BALL.

(By S. B. Radley, M.B., B.S.Lond., M.B., Ch.B.Vict.)

For courteous permission to report the following case I am indebted to Professor William Thorburn, under whose care the patient remained during her stay in hospital:

The patient, a female, aged 21, was admitted on December 21st, 1911, complaining of a "lump" in her abdomen, which she had noticed for some months, and with a history of diarrhoea of some months' duration. She had never vomited, though she had suffered a good deal from wind and distension. Her appetite was quite good, and there was no feeling of distaste for certain kinds of food. No history of pain after food could be obtained, and indeed she had not been troubled with pain at any time beyond the discomfort associated with the flatulence and distension after meals. There was no history of haematemesis or melaena. The patient stated that she had lost weight latterly, but this was not marked. No history of peculiar dietetic habits could be obtained.

Condition on Admission.

On examination the patient appeared undersized and poorly developed for her age. She presented a somewhat infantile character, mammary development being almost *nil*, and the axillary and pubic hairs scanty. The general skeletal development was less infantile than these remarks would suggest. The state of nutrition was quite average.

The abdomen showed some general fullness. A distinct swelling could be seen in the left epigastrium, moving from under the left costal margin on inspiration. The mass was quite hard and nodular, and in size rather larger than a hen's egg. It was not tender. It was movable to a limited degree in the abdomen. The liver, kidneys, and spleen were not palpable.

Operation.

A laparotomy was done by Mr. Thorburn. A median incision was made in the epigastrium, and on inserting the hand into the abdomen the swelling was found to be contained in and formed by the stomach. The stomach was drawn up to the wound, and the tumour was found to be inside the gastric cavity and to fill it completely. An incision about 3 in. long was made into the stomach in a horizontal direction and the hair ball was extracted. The stomach was then closed with Lembert sutures and the abdominal wall sewed up in layers.

The patient made an uneventful recovery. The sutures were removed on the tenth day, and the patient left the hospital in three weeks.

Shape of the Ball.

The accompanying illustration gives a good idea of the shape of the hair ball. It is a perfect replica of the shape of the stomach, the muscular wall of which was contracted down on to it. It is a really noteworthy example of the shape of the full or nearly full stomach. It shows quite well the incisura angularis, the pyloric vestibule (which sags rather low), and the well marked off pyloric canal. Its dimensions were as follows:

Lesser curvature	5¼ inches
Greater curvature...	14 ,,
Longitudinal diameter	6½ ,,
Circumference of body (mid-point)	7⅜ ,,
Circumference of pyloric antrum ...	8½ ,,

(The weight in the dried condition was 11½ oz.)

In appearance it was of a dull brownish-grey colour, composed of masses of hair fibres twisted and squeezed into a solid body, with a coating and admixture of mucus and food debris between the fibres of hair. It subsequently transpired that the hair composing this mass had been obtained indiscriminately from the hair-clad regions of the body, this accounting for the sparseness of hair noted above. The long hairs—the greater number—which held the mass together, were derived, of course, from the scalp, whilst the plentifully interlaced shorter ones were of axillary and pubic origin. When taxed with her evident habit she admitted its existence on and off for several years.

Remarks.

The diagnosis of the condition presented, of course, many difficulties, particularly as the patient denied absolutely the possibility of the presence of a foreign

body. No skiagram was taken or bismuth meal given owing to the absence of any marked history of dietetic upset or idiosyncrasy. Mr. Thorburn was, however, strongly impressed with the resemblance of the clinical signs and symptoms to a case of hair ball on which he operated some few years previously. An infinite variety of foreign bodies may be found in the stomach, some of which have been swallowed by the insane, in other cases by accident, and occasionally by people of a hysterical or degenerate type. To this list we must add people such as this girl whose case is now recorded—a girl without the classical hysterical stigmata but whose nervous balance is evidently in an unstable condition.

The absence of vomiting and the normal appetite are two of the outstanding features of this case. That the stomach should be able to perform the functions normally, that peristalsis should be apparently healthy and well co-ordinated is a very striking thing. In view of the recent work of Cannon and Washbourne on hunger, the fact that appetite should be normal is very interesting, whilst the feeling of fullness and flatulence after meals appears to be quite natural, though not inevitable, this condition being dependent rather upon how much gas is present in the stomach than upon the degree of "fullness" from solid contents. When one considers what a great obstacle a hair ball of such a size must have been to the performance of the gastric functions, it is surprising that



the "ball" was not expelled by the stomach when yet small enough to pass the pylorus.

In Mr. Thorburn's previous case loss of weight and vomiting were marked features, though the "ball" was only about the volume of a kidney. In the present case, despite the increased size of the foreign body, these symptoms were inconspicuous.

Butterworth gives an exceedingly interesting account of hair ball, and reports a full bibliography. At the time of writing (1909) there were 42 cases in the literature. The largest "balls" on record are one of 5 lb. 3 oz., which we believe is in the Museum of the Royal College of Surgeons of England, and that of Mermet d'Hautville, which weighed 6 lb. in the fresh condition and 2½ lb. when dry.

I wish to take the opportunity to express my indebtedness to Mr. G. Jefferson, F.R.C.S., for the assistance he has rendered me in the bibliography of the subject.

References.

Pell-Ilderton, British Medical Journal, vol. i, 1907. Cannon and Washbourne, An Explanation of Hunger, *Amer. Journ. Phys.*, March, 1912. Hertz, Motor Functions of Alimentary Canal, British Medical Journal, February 3rd, 1912. Butterworth, Hair Ball of the Stomach, *Journ. Amer. Med. Assoc.*, August 21st, 1912.

The twelfth congress of the German Society of Orthopaedic Surgery is announced to meet in Easter week, on Thursday, March 25th, 1913, at the Langenbeckhaus, Ziegelstrasse, Berlin. The chief subject selected for debate is the treatment of chronic arthritis (arthritis deformans). Dr. Friedrich Kraus, Geheimrat, will introduce the discussion, with observations on symptomatology, pathogenesis, and internal therapy; Dr. Ibrahim of Munich will read notes on chronic arthritis in childhood; and Dr. Preiser of Hamburg will read a paper on the orthopaedic treatment of that disease.

Reports of Societies.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, January 23rd, 1913.

Mr. Robert Jones, F.R.C.S., President, in the Chair.

Fracture of Neck of Femur.

Mr. Rushton Parker read a note on fracture of the neck of the femur, and showed specimens from two aged subjects, with lantern slides. The first patient was 82 years of age, and died ten days after the injury. The second was 72, and died ten weeks after the injury. The specimens showed true bony union. Mr. Parker said he preferred to treat them on a "Thomas" hip splint, though in some cases the "Thomas" knee splint answered.

The President said the specimens were worthy of attention, as the possibility of bony union was denied. In making the initial diagnosis an injury to the hip which produced eversion of the foot and some loss of power in the leg was quite sufficient. In treating these cases he used extreme abduction of the injured limb. By this means the broken surfaces were turned on to each other, muscular tension was released, and if an angle of 45 degrees were obtained the neck of the femur was fixed against the acetabulum. He reduced displacement by pulley or manual extension, then abducted the limb with the knee flexed. The limb was fixed in a special abduction frame, or where an injury occurred out of reach of apparatus good fixation could be obtained by plaster-of-Paris. Fixation should be kept up for at least two months, usually three months. Massage and passive movements were important; the patient could be trained to move the limb in the abducted position. In cases in which deformity had occurred and the limb was abducted with eversion he forcibly abducted the limb under an anaesthetic and kept it fixed for ten days, and then massaged.

Acute Yellow Atrophy.

Dr. Nathan Raw read a note on seven cases of acute yellow atrophy of the liver, which demonstrated the relation of the disease to syphilis. All 7—namely, 4 males, of the ages of 23, 15, 40, and 27, and 3 females, 17, 23, and 26 years of age—had suffered from syphilis. In 4 of the cases leucin and tyrosin were demonstrated in the urine. The youngest of the female cases was pregnant.

Rectal Carcinoma.

Mr. K. W. Monsarrat read a paper on carcinoma of the rectum. In choice of the operation to be performed it was necessary to consider the extent of removal required. Where the edge of the growth was defined and limited he had not been able to trace with the microscope the changes which had been described by another observer beyond the actual naked-eye growth. The inguinal glands were not liable to be infected except in cases involving the anal margin. As the peritoneal surface might be invaded, an abdominal section should be performed as a preliminary in all cases to make sure of this point. There was no necessity to remove any great length of bowel beyond the growth. In most cases he thought an inguinal artificial anus satisfactory. There was no doubt that the mortality from the operation was serious. He had lost 3 cases out of 13—2 from sepsis, 1 from syncope three months after.

Mr. F. T. Paul said it was thirty-five years since he had first removed a rectal cancer, and he had found that the growth did not extend far in the length of the bowel. The microscope showed practically no infiltration beyond the naked-eye margin of the growth. He found that a sacral anus was more satisfactory than an inguinal anus, while a perineal anus was unsatisfactory. He did not consider an abdominal incision necessary. He did not think high and fixed cases, especially if involving the bladder, worth the risk of removal of the growth, especially as cases might live for years after an inguinal colotomy alone.

Mr. R. W. Murray thought the operation unsatisfactory, and even went so far as to believe these cases were best left alone until a colotomy had been performed. He had seen a large number of cases in Vienna, some of which

had been undertaken fourteen years ago, and he had been unfavourably impressed with the results of the formation of a sacral anus. He thought an inguinal anus the least harmful.

Mr. DAMER HARRISSON and Dr. NATHAN RAW also took part in the discussion.

MEDICAL SOCIETY OF LONDON.

Monday, January 27th, 1913.

Sir W. WATSON CHEYNE, President, in the Chair.

Exhibition of Clinical Cases and Pathological Specimens.

THE following were among the exhibits: Dr. F. PARKES WEBER: (1) A case of *Splenic anaemia* in a woman aged 30. Dr. Weber believed that the case was one of a clinical group of cases of "splenic anaemia" in adults which improve under arsenical treatment and do not necessarily develop into typical cases of "Banti's disease" with hepatic cirrhosis and ascites. (2) Case of probable *Tertiary visceral syphilis* with pyrexia and extreme cachexia. The patient, a woman aged 43, had been previously shown as a case of acquired chronic acholuric jaundice, with a blood picture resembling that of pernicious anaemia. There had been acholuric jaundice and splenomegaly, but no excessive fragility of the red blood corpuscles. Dr. J. L. BUNCH: (1) *Lupus erythematosus* in a girl, aged 14, benefited by carbon dioxide snow; and (2) a case of *Syphilide resembling tubercle* in the neck and upper part of the thorax in a young woman. Mr. PAUL ROTH: A boy, aged 8, on whom he had successfully performed *Transperitoneal uretero-lithotomy*. The stone was oval, its diameters being $\frac{5}{16}$ and $\frac{7}{16}$ in. Mr. W. H. CLAYTON-GREENE: *Hair ball removed from the stomach* of a young woman, aged 23. Abdominal pain and vomiting had been accompanied by a large gastric tumour. This proved to be a hair ball, which extended from the cardia to the jejunum and formed a cast of the stomach and duodenum. Also a specimen of an enormous *Mucocele of the appendix*, which had formed a large iliac tumour. Dr. LANGMEAD: Suprarenal glands from a case of *Addison's disease* in a boy of 10. They were almost entirely tuberculous. It was brought forward on account of its great rarity in children. Dr. P. S. LUKIS: *Acholuric jaundice* in a boy, aged 6½ years. The spleen and liver were enlarged, and the blood showed undue fragility and reticulation of the red blood cells. Mr. A. E. RAYNER, for Mr. C. A. BALLANCE: A case of *Bony tumour of the femur*, in which the question arose as to whether it was a simple osseous tumour or an osteo-sarcoma.

ROYAL SOCIETY OF MEDICINE.

SECTION OF MEDICINE.

Tuesday, January 28th, 1913.

Dr. FREDERICK TAYLOR, President, in the Chair.

Records of King Edward VII Sanatorium.

Dr. NOEL D. BARDSWELL read a paper containing an analysis of 1,079 patients discharged between July, 1907, and July, 1911. In 1,027 of these cases the diagnosis of the disease was confirmed in the sanatorium, leaving only 52 not so confirmed. The bacilli were discovered in the sputum of 82.7 per cent. Of the 1,027 definite cases, 112 had been lost sight of and could not be traced; the remaining 915 had been traced up to October, 1912: 764 of the latter number had the bacillus on admission; in 151 no tubercle bacilli were found at any time. In 1912, 57.1 per cent. were well or alive, 42.8 per cent. dead. Dr. Bardswell presented the figures separately according to the stages of the disease. The condition in 1912 of the 151 in whom no bacilli of tubercle were found was as follows: 88.7 per cent. were well or alive; 11.2 per cent. were dead. Of the 764 in whom tubercle bacilli were found, 148 (19.3 per cent.) lost their bacilli before discharge. Of these 148, 124 were well or alive in 1912—that is 83.7 per cent. In 1912, of the 616 with tubercle bacilli present on both admission and discharge, 313 (or 50.8 per cent.) were well or alive, 303 (or 49.1 per cent.) dead. The author laid great stress on the criterion of diagnosis being the actual discovery of the bacillus in the sputum: once that was departed from, all kinds of elements of uncertainty could enter to modify the figures and therefore a right conception as to the efficacy of curative measures.

Dr. HARTLEY commented on the large percentage of cases in which the tubercle bacillus was found, and asked whether intensive methods were employed. It was a pity that so large a number as 112 could not be traced.

Dr. ACLAND spoke highly of this valuable contribution, especially when there was so much inaccurate statement and unjustifiable deduction prevalent as to the disease. He hoped definite evidence would soon be forthcoming as to the relationship between the cutaneous reaction and the complement-fixation test in tuberculosis.

Dr. CECIL WALL suggested the addition of one or two tables, including one giving the average expectation of life for the different ages dealt with, apart from tuberculosis, because many of the patients might presumably have been dead from other causes by the same date if they had not had the disease. It would also be of great value if Dr. Bardswell would draw up a table giving the duration of the disease from the date when the patient definitely felt unwell. The anatomical classification was not a reliable index to prognosis; a consideration of intensity of symptoms was much more informing.

Dr. PARKES WEBER agreed that the only safe criterion to take was the presence or absence of the tubercle bacilli in the sputum. Moreover, there were many persons going about in apparent health who harboured the tubercle bacillus, and who responded to tests for tubercle, yet who were not likely to be subjects of active pulmonary tuberculosis.

Dr. MCCULLOCH spoke of the rarity of cases of the disease in Himalayan villages, which he was able to verify by a twelve years' residence there. He had been able to get very good results on tuberculous glands by *x*-ray irradiations.

The PRESIDENT (Dr. Frederick Taylor) said it would be instructive if any one could compare the modern results of treatment of the disease with those of thirty years ago, at which latter period, no doubt, cases taken from the slums to the wards of a general hospital and given food to which they had long been strangers, left very much improved, and their fever and cough abated.

Dr. BARDSWELL replied, and promised to add fresh tables.

SECTION OF PSYCHIATRY.

Tuesday, January 28th, 1913.

Sir GEORGE H. SAVAGE, President, in the Chair.

Insanity and the Neuropathic Inheritance.

Dr. F. W. MOTT read a paper on this subject. He said there were individuals born of sound mental and physical stocks that no acquired conditions, such as disease, drink, and poisons, either engendered within the body or taken from without, nor head injuries, emotional shock, distress, and even combined misery and destitution, could render insane. There were others, in most cases subjects derived from a neuropathic stock, whose mental equilibrium might be disturbed by any one of these conditions, or even without any apparent cause, except the physiological conditions appertaining to the functions of the sexual glands. Between these two extremes all gradations of mentality were found, from the congenital imbecile and the insane adolescent dement at one end of the scale, to the potentially sound mind and body which no combination of acquired conditions could render permanently insane. Every case of insanity should be regarded as a biological problem, and the study resolved itself into the acquirement of a knowledge of what the individual was born with—Nature—and what had happened after birth—nurture. The former could be ascertained by a study of the ancestral stocks. The neuropathic tendency might be differently manifested in different members of the stock. Just as bodily features were transmitted from one generation to another, so was temperament. Special racial and family characters were of later development, therefore were far less fixed, stable, and organized in the nervous system. Galton found that twins developed from one ovum, and therefore identical germ plasm, living in a different environment, remained similar in temperament and

character, whilst binovular twins, brought up and living in the same environment, remained dissimilar. Galton also made a statistical inquiry into the inheritance of good and bad tempers, and concluded that one set of influences tended to mix good and bad at haphazard, another tended to assimilate them, another tended to divide families into contracted portions; and in that way there was a tendency to revert to the normal average of the race. Morel had pointed out that nervous irritable weakness and neurasthenic predisposition might be the first evidence of degeneration of a stock. The signs of degeneracy might be manifested as self-centred narrow-mindedness in religious beliefs, fanaticism, mysticism, spiritism, and unwholesome contempt of traditional custom, social usages, and morality, a vain spirit of spurious art and culture, a false, self-loving vanity in the pursuit of a sentimental altruism, the intelligence being well preserved. Such qualities might be combined with latent or active genius; but the brilliant intellectual qualities of a degenerate were generally associated with either a lack of moral sense or of sound judgement and higher control. Dr. Mott declared that the world's history had been made by men who were either epileptics, insane, or born of a neuropathic stock: Alexander the Great, Julius Caesar, Napoleon, Peter the Great, Frederick the Great, Pitt, Earl of Chatham, Mahomet, the Apostle Paul, Martin Luther, Emanuel Swedenborg, and others. Among English poets, Cowper, Wordsworth, Byron, Gray, Burns, Chatterton, Thomson, were either insane or possessed the neuropathic temperament. The author then proceeded to describe the work which had been done in the pathological laboratories of the London County Asylums on heredity in relation to insanity, chiefly by means of a card system which he instituted four years ago concerning no less than 1,450 families, the total number of cases inquired into having reached 3,118. That showed the following facts: (1) In the insane offspring of insane parents daughters were much more numerous than sons. (2) Amongst the insane members of the same family (brothers and sisters), sisters were more numerous than brothers, which fact might be usefully correlated with the further fact that there were more women in asylums than men. More than half the residents of the London County lunatic asylums had been resident there more than ten years. Among the reasons for the preponderance of women inmates were that general paralysis, which was three times more frequent in men than in women, was a fatal disease: again, women were more likely to be insane because of the physiological emergencies connected with reproduction. Moreover, women had a more unstable nervous system or mental equilibrium. To those factors must be added, in his opinion, the enforced suppression, by modern social conditions, of the reproductive functions and the maternal instinct in women of emotional temperament. The author then proceeded to establish the principle of anticipation or antedating, and Nature's means of mending or ending degenerate stock, showing a number of pedigrees, one of which exhibited the elimination of unsound elements in a stock in which there was a dual insane inheritance. It was generally admitted that in the pedigrees of general paralysis of the insane the neuropathic taint was not found to anything like the extent that it was in the pedigrees of patients suffering from neuroses, psychoses, and feeble-mindedness. This was not surprising, seeing that general paralysis was an organic disease due to the action of the syphilitic organism. He had been able to support his contentions by the investigation of upwards of 3,000 relatives of persons admitted into the London County asylums.

Dr. WHITE demonstrated a number of very instructive pedigree charts, and the manner in which the data were ascertained. It seemed to be the general rule that the abnormality on the mother's side was greater than that on the father's side.

Sir GEORGE SAVAGE (President) referred to some cases within his experience in which a man, after a head injury, slowly became weak-minded, and the children begotten after it were also weak-minded. He also spoke of the alternation of neuroses, gout or asthma alternating with insanity in several cases he had seen, while glycosuria and insanity were said to behave in the same way. Diabetics sometimes had insane or epileptic offspring. Marriage between offspring of degenerate parents was not such a serious matter where the contracting parties did not themselves show a neurotic taint as where that did exist. This presence or absence of a neurosis also entered largely into the question of whether cousins should marry.

Dr. ROBERT JONES (Claybury Asylum) said he took the histories of 100 cases of general paralysis, and found that in 28 per cent. there was a history of paralysis of some kind in the progenitors, in some of whom it was called "spinal paralysis"; but he knew that in others it was general paralysis. And there was a history of some member having been insane in 38 per cent., while in 18 per cent. there was a history of drink in the parents; 12 per cent. gave a history of epilepsy, and 31 per cent. a history of tuberculosis. He considered that disorders of the ductless glands were responsible for much insanity. He believed in the transmissibility of general paralysis of the insane.

Dr. HYSLOP pointed out the protean character or conditions grouped as insanity, and the fact that in some cases the condition was due to a gross physical defect in the thyroid gland, for example; and he counselled caution in applying Dr. Mott's statistics in too sweeping a manner.

SECTION OF THE HISTORY OF MEDICINE.

A MEETING of this Section was held on January 29th, Sir WILLIAM OSLER, Bart., F.R.S., President, in the chair. Sir W. T. Thiselton Dyer, K.C.M.G., F.R.S., the Right Rev. Francis Aidan Gasquet, D.D., O.S.B., A. Rudolf Hoernle, Charles Louis Taylor, H. S. Wellcome, and Sidney Young, F.S.A., were elected Corresponding Fellows as "persons who have distinguished themselves in the subjects for the study of which the Section is established."

Medical Allusions in the Writings of Francis Bacon.

Dr. STEEVES read a paper upon medical allusions in the writings of Francis Bacon. The subject was considered under the following heads: (1) Bacon's mental attitude towards the profession, and the duties pertaining to it. (2) His views on public and domestic hygiene. (3) Remarks on disease in general and special diseases. (4) Medicines and special medical applications. (5) The special senses. (6) Generation; decay and death. The paper was discussed by Dr. RAYMOND CRAWFURD and Dr. LEONARD GUTHRIE.

Plague Banners.

Dr. CRAWFURD showed some plague banners by means of lantern slides in the epidiascope. He said that these banners were formerly carried in processions in times of plague. He traced back the custom of carrying such pictures in public as far as the time of Gregory the Great at the end of the sixth century. He alluded to the many wonder-working Madonnas that abound in Italy, and assigned them a place in the lineage of plague banners. He showed a fifteenth-century fresco from the church of S. Pietro in Vincoli at Rome, which depicted the carriage of a plague banner of the Madonna sheltering her suppliants beneath the folds of her robe. Passing to the gonfaloni of Perugia, he showed that such banners were not an exclusive product of the Umbrian school. They fall into three groups, according as the central figure of the banner is the Madonna, Christ, or a plague saint, usually St. Sebastian, on account of his local veneration. Examples of each type were exhibited and the salient features explained. Dr. SAMBON took part in the discussion.

Some Oddities in Nomenclature.

Mr. B. GLANVILLE CORNEY, I.S.O., read a paper on this subject. He said that in Rio de Janeiro during the epidemics of influenza which occurred in 1777 and 1802–3 the disease was called "zamporinion" and "corcunda." He also cited an epidemic of dengue which ran through Brazil in 1847 and was called "polka" at Rio and "rabo aberto" at Bahia. The term "zamporinion" was adopted from the name of a Venetian singer who was popular at Rio at the time, and has nothing to do with the Portuguese name for measles, "sarampao"—in Spanish, "sarampion"—which is directly derived from the Greek, the bright colour of the rash resembling that of a faded

vine leaf. "Corcunda" means hunchbacked, and came into popular use because of the bent condition in which patients were left at the end of each paroxysm of cough, which was said to be of a very spasmodic character and closely to resemble whooping-cough. Dengue was called "polka" because of a distinguished court beauty at Rio who was a native of Poland and was in great vogue at Bahia at the time of the epidemic. The same epidemic received the name "rabo aherto" because there chanced to be coincidently an unusual glut of the fish of that name. Mr. Glanville Corney advanced the theory that an epidemic of cerebro-spinal meningitis was coincident with the Bahia epidemic and that whooping-cough played a part in the "corcunda" attack. He also alluded to the older folk names for influenza—namely, "le tac," "the new delight," and the "jolly rant," which have in turn displaced each other and have themselves been replaced by "the flue."

Eighteenth Century Obstetric Forceps.

Mr. ALBAN DORAN demonstrated by means of the epidiascope some eighteenth century obstetric forceps. He showed *Grégoire's forceps.* This is a heavy instrument weighing 1 lb. 9 oz., measuring 17 in. in length, with no pelvic curve, but with fenestrated blades. It differs from Grégoire *fils* original type in its simpler lock, and in a mechanism to allow of one handle being used as a sharp crotchet, as in Freke's instrument. It is uncertain if Grégoire devised this modification since he never wrote on his own forceps, and Boehmer is the original literary authority. *Orme-Lowder forceps*: Very short, blades straight, broad, narrower at the free ends, which are 1⅜ in. apart when the handles are closed; the fenestrae are wide. The evidence, again, is that of contemporaries, because Orme left no writings; Lowder admitted Orme's priority in some manuscript lectures. Kühn wrote the first published description of Orme's forceps in 1783. Mulder, a pupil of Orme and Lowder, published important evidence, and sketched their forceps himself. The inventors considered that the wide fenestrae and narrowing of the broad blades near the tips adapted their instrument to the fetal head. Lowder rejected Orme's leather covering for the handles. Mulder and Kilian differ as to the extent of the leather covering in Orme's forceps. The instrument exhibited seemed intermediate, being longer than Orme's and shorter than Lowder's, whilst the handles were lined with leather. Haighton's forceps were an exaggeration of the main features in the Orme-Lowder type, but there was no description of his forceps in his manuscript lectures. Blundell, Haighton's nephew, noticed Orme's and his uncle's forceps in his textbook, ignoring Lowder's. There is some uncertainty about the precise nature of variation in Haighton's instrument. David Davis designed forceps with even wider fenestrae. Conquest's widely fenestrated forceps had a screw-joint in one handle. *Osborn's Forceps:* The instrument exhibited corresponded exactly to a drawing in the inventor's *Essays* (1792). It was a miniature Levret, a light, short forceps, with relatively slender blades bearing a pelvic curve; it was also broadest at the tips, which were ¾ in. apart when closed. The whole instrument, including the fenestrae, was covered with leather. Mulder's contemporary evidence and Denman's own writings awarded the priority to Osborn. Denman's forceps were similar, but the blades had no pelvic curve. Thynne retained the pelvic curve and made the blades proportionately longer, according to Mulder; Thynne himself left no description of his modification in the abstract of his lectures.

SECTION OF OBSTETRICS AND GYNAECOLOGY.

AT a meeting held on January 2nd, Dr. AMAND ROUTH, President, in the chair, Dr. CUTHBERT LOCKYER read a paper on *Adeno-myoma of the recto-uterine and recto-vaginal septa.* The author first remarked upon the rarity of new growth arising in the connective tissue of the recto-vaginal septum, and described a case which had come under his own observation. The patient was a sterile married woman, aged 35. There had been menorrhagia for twelve months and a good deal of pain in the rectum, and latterly defaecation became difficult. There had been no bleeding from the bowel. A hard mass was felt in the posterior fornix, which was attached to the supravaginal cervix and projected into the rectum, the rectal mucous membrane covering it being intact. The vaginal cervix was normal. Laparotomy showed that the body of the uterus and the appendages were normal; there was no cellular infiltration, and the growth, which was extraperitoneal, was firmly fixed to both rectum and uterus. The ureters were dissected out, the left being firmly incorporated with the growth; then the uterine arteries were tied and the parametric tissues divided as far out as possible. The bladder was then separated and the anterior vaginal wall divided. The rectum was divided between clamps above the growth, freed as low down as possible, and again divided, along with the posterior vaginal wall below the growth. The lower end of the rectum was closed and the upper end fixed in a separate opening in the left iliac region. Suprapubic and vaginal drainage was employed. The patient was making a good recovery. Microscopic examination showed that the growth resembled an adenomyoma of the uterus. Histologically it was comparatively benign, and might have originated in some vestigial remains of the Wolffian duct. An epidiascopic demonstration on the lighting of Continental operating theatres was given by Dr. MACNAUGHTON JONES, and short communications upon cases in which a foreign body was removed from the abdomen by laparotomy were read by Dr. RUSSELL ANDREWS and Dr. G. F. BLACKER.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF STATE MEDICINE.

Friday, January 17th, 1913.

Dr. T. P. C. KIRKPATRICK in the Chair.

Sanatorium Benefit in Ireland.

DR. R. J. ROWLETTE read a paper on this subject. He summarized the clauses of the National Insurance Act dealing with the sanatorium benefit, and sketched the machinery by which it is administered. He then defined the relations of the Insurance Committees and the county councils, and described the various agencies to be employed in a tuberculosis campaign. He concluded with an appeal to the profession to assist cordially in the working of the benefit. Dr. T. J. CROWE pointed out the disadvantages of the arrangement by which the dispensary was to be only a place for consultation. In Dublin most of the cases had just been sent up by the practitioners with letters asking them to be dealt with, and the rules laid down forbade the tuberculosis officer doing so. Dr. PATRICK HEFFERNAN said that there seemed to be great uncertainty as to the definition of domiciliary treatment. Sir JOHN MOORE agreed with Dr. Crowe that the Insurance Act had raised great difficulties in respect to tuberculosis. Provision was made, it had been pointed out, in the Act for extension to other diseases; although pneumonia killed between 40,000 and 50,000 people in England and Wales every year, there was no notification or sanatorium treatment provided in this country for patients recovering from it. With regard to the advanced cases the conditions were deplorable, and the Act had made no provision for them. If the Insurance Act provided for the remuneration of medical officers in connexion with the tuberculosis section of the Act, he thought the honorary staffs of hospitals should not consent to work those sections of the Act without fair remuneration. Dr. CROFTON considered that much advance would not be made in the treatment of the disease until institutions were provided completely equipped and having whole-time directors and assistants as in Germany. Dr. MCDONALD, referring to his own experience, objected to examine patients apart from the practitioner in attendance, but the Commissioners insisted on his doing so. Dr. LAW said that the paper had shown how unsatisfactory was the Act. It was of the greatest importance that every case should be notified. How the expense of treatment was going to be met out of the money available was not clear. Advanced cases among the poor were an imminent danger to the whole community, which demanded compulsory segregation. The CHAIRMAN dwelt on the difficulties in working the Act and the way in which it was proposed to work it, but he thought that if the medical profession joined whole-heartedly it would

greatly aid in stamping out the disease. In the past, when a patient, a bread-winner, was met with in which there was hope for improvement, he perhaps could not afford to undergo the treatment, but under the present Act this difficulty would in part at least be removed. Dr. ROWLETTE, in replying, said that every effort would have to be made to confine dispensary officers to consultation work, but he saw no reason why one of the dispensary staff should not go in consultation to the home of the patients to examine contacts. Domiciliary treatment meant whatever treatment could be carried out in the home of the patient. The necessity for provision for advanced cases seemed most important, yet county councils were rushing into provision of sanatoriums and taking no care whatever of such cases. As to treatment, he pointed out that no general practitioner could be employed to attend his own patient without the manner of treatment being approved by the Local Government Board. Referring to the question of finance, the amount available for sanatorium benefit for the city of Dublin would be about £3,000. The corporation would have power to levy a 1d. rate, which would bring about £4,000, and if this were done the Treasury would add a further £4,000, making the total for providing treatment £11,000. He agreed with Sir John Moore about the honorary staffs of general hospitals. As to what constituted treatment under the Act, there was great difficulty in ascertaining the point. Food supplied on a doctor's order was at first held not to be treatment, but it had since been held to be treatment.

The Mental Deficiency Bill and its proposed Extension to Ireland.

Dr. W. R. DAWSON referred to Standing Committee B, by which up to the end of the year seven clauses had been considered and amended, providing for the constitution of the central authority (for England), the constitution and duties of the local authority, and defining the persons subject to be dealt with under the bill. After referring to certain amendments, Dr. Dawson remarked that on the whole the bill had gained greatly in Committee. The class of persons who had become mentally infirm from age or decay of their faculties had wisely been withdrawn. The local authorities were to be the county and borough councils respectively, but they were not to be obliged to provide accommodation unless one-half the net cost of maintenance was contributed by Parliament. The numbers to be provided for might be roughly estimated at 10,000, not including persons in asylums, but many of these were already provided for at public expense, so that their present cost would have to be deducted from the amount required to work the bill. As matters stood at present the bill was to apply to England and Scotland, but not to Ireland, which required such a measure far more than either of the former. It would not offer a complete provision, but would make a much-needed beginning, and if the present opportunity was lost, there seemed little chance of any legislation on this pressing matter for years to come. The CHAIRMAN said the matter had occupied the attention of the Medico-Psychological Society (Irish Branch) for a long time, and they had done a great deal to urge the extension of the bill to Ireland. Dr. LEEPER added that no one, unless he had worked amongst the insane of Ireland, would realize the importance of this measure to the country, where the insane population was yearly becoming greater, and he felt that that increase would go on until such a measure as the one referred to was introduced. He proposed the following resolution:

> That the Section of State Medicine of the Royal Academy of Medicine in Ireland strongly approves of the extension of the Mental Deficiency Bill to Ireland, and recommends the Council of the Academy to adopt this resolution and forward copies to the Chief Secretary for Ireland, the Lord Chancellor, and to the Irish members of Parliament.

He considered that if the Section gave its support they would be doing much good to the country. Sir JOHN MOORE seconded Dr. Leeper's resolution, which the CHAIRMAN put to the meeting. It was declared carried unanimously. Dr. DAWSON referred to the method of treatment which children had to undergo in asylums, and said that he did not like to see children in asylums at all. Of course, in the Stewart Institution they could only be detained if they were certified as lunatics. He saw no difficulty about the application of the Act to Ireland.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this society was held in the Glasgow Royal Asylum, Gartnavel, on December 20th, 1912, the PRESIDENT (Dr. Freeland Fergus) being in the chair. A clinical and pathological demonstration was given by the staff of the asylum, in the course of which the SUPERINTENDENT (Dr. L. R. Oswald) read a paper on, and demonstrated several cases of, *Dementia praecox*. Dr. R. M. MARSHALL discussed the differential diagnosis of dementia praecox from manic depressive insanity. Dr. F. MURCHIE made a short communication on *The eyes in dementia praecox;* and Dr. IVY MCKENZIE read note on *Dementia praecox and general paralysis: a comparison and contrast.*

At a meeting held on January 17th, Dr. J. CRAWFORD RENTON being in the chair, Dr. IVY MCKENZIE showed and described pathological preparations from the following cases: (1) A woman, aged 40, an inmate of the Glasgow Royal Asylum, Gartnavel, suffering from *Recurrent insanity with exophthalmic goitre, leucoderma, and bronzing of the skin*, also auriculo-ventricular tachycardia (230 per minute) and auricular fibrillation. *Post-mortem* examination showed disease of the thyroid gland and of the upper cervical sympathetic ganglion, and hypertrophy of the medulla of the suprarenals. (2) A man, aged 40, a dement, who died suddenly in Gartnavel Asylum with symptoms simulating intestinal obstruction, tympanites, faecal vomiting, etc. *Post-mortem* examination showed *Necrosis of the pancreas and necrosis of the mucous membrane of the small intestine*, involving the whole length of the bowel. Dr. DAVID NEWMAN read a short paper on *Certain urinary conditions in women, associated with frequent or painful micturition*, and demonstrated with the projectoscope the cystoscopic appearances presented in the early stages of tuberculosis of the bladder, and in the various stages of colon-bacillus infection of the bladder. He pointed out that one of the slightest forms of colon infection of the bladder was seen frequently in infants and young children as the result of want of cleanliness in changing the child's napkins. The frequency of micturition might not be noticed in infancy, and for years afterwards the child suffered from nocturnal incontinence, which might persist until puberty or even later. Dr. J. A. WILSON read a paper on *Myopia: a review of 500 cases, with special reference to their etiology.* From an analysis of his cases he found: (1) Keratitis as the cause of myopia in 16 per cent.; (2) evidence of heredity in 54.8 per cent.; (3) cases without opacities and without evidence of heredity in 29.2 per cent. In the hereditary group were 17 cases with opacities; 65 cases showed monocular myopia, largely accounted for by keratitis and by heredity. Lenticular changes were found in quite young people. The evidence regarding near work as a cause was reviewed, and it was pointed out that for evident reasons German school hygiene had not lessened the amount of myopia.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this society was held on January 31st, the PRESIDENT, Dr. Dobson, being in the chair. Dr. G. W. WATSON opened a discussion on *Tuberculin*, its place in modern medicine. Remarks were made on the varieties of tuberculin in common use, and the various methods of administration were outlined, with descriptions of the types of case suitable for each method. Dr. Watson was of opinion that the efficacy of tuberculin was so far proved that its use was essential in the proper treatment of most cases of tuberculosis of the lungs. He deplored the tendency under recent legislation to make the treatment of phthisis a speciality and to give it into the hands of the few rather than to obtain the skilled and enthusiastic co-operation of the whole of the profession. Dr. CHRISTY WILSON spoke of his experience of Béraneck's tuberculin, and instanced cases in which it had proved of great value. Dr. BARRS spoke of the treatment as being still on its trial, and confessed that no convincing example of its usefulness had yet come within his experience. Mr. J. F.

DOBSON spoke of the value of tuberculin in the treatment of cases of surgical tuberculosis. He was in favour of the method of administration recommended by Wright. Dr. COPLANS contributed some interesting information about tuberculosis in animals. Cases were shown by Dr. HELLIER, Mr. A. L. WHITEHEAD, Mr. CONSTABLE HAYES, Mr. J. F. DOBSON, Dr. C. OLDFIELD, Mr. COUPLAND, Mr. MICHAEL TEALE, and Dr. WATSON.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on January 22nd, the President, Mr. W. G. LAWS, in the chair, Dr. L. W. MARSHALL opened the discussion on the *Medical aspect of education*. The first aim of teachers should be to produce physical fitness and then mental culture in their scholars. The attention of teachers should be drawn to the various parts of the body developed at different periods. Private tuition was bad. It was most important that the preparatory schools should be good, and such as gave great attention to the early development of the body. "Only" children were greatly to be pitied. From 4 to 7 years the Kindergarten system was the best. From the 7th to the 9th years neuroses developed and should be carefully watched. At this period, also, the teeth were changing, and sleep was apt to be affected. The cardio-vascular system developed about the 9th year. Discipline should be enforced from the 7th to the 9th years; more mental pressure might be applied from the 9th to the 13th years. The "will power" was now developing, and became confirmed after the sexual development at the age of 13 years. Miss SARAH GRAY laid great stress on eliminating all physical defects. The "nervous child"—that is, one of exalted sensibility in particular—should be carefully watched. The aim of teachers should be to (1) make the child a healthy animal, (2) avoid stimulation in every way, (3) provide for ample sleep, (4) allow the child a definite amount of daily leisure when it should amuse itself; and, lastly, not to overwork the child, especially between the ages of 9 and 13 years. Drs. S. E. GILL, J. S. BOLTON, and W. HUNTER continued the discussion.

HARVEIAN SOCIETY.

A CLINICAL meeting of the Harveian Society of London, held at St. Mary's Hospital on Thursday, January 30th. The following cases were shown:—(1) Dr. SIDNEY PHILLIPS: An abdominal case, probably tuberculous. (2) Dr. WILLCOX: Two anomalous cases of *Exophthalmic goitre*, a case of *Chronic enlargement of joints resembling Charcot's joints*, and a case of *Perforating ulcer of the foot*. (3) Dr. REGINALD MILLER: *Post-pneumonic fibrosis of the lung*, and a case of *Endemic cretinism* fifteen years old. (4) Dr. GRAHAM LITTLE: A man with *Psoriasis* covering his whole body, and a woman with *Lichen planus hypertrophicus verrucosa*. (5) Mr. COPE: A case of *Syringomyelia*, and a case of recovery after *Rupture of the jejunum*. (6) Dr. WILLIAM HILL: A case of *Epithelioma of the Larynx*, and a case of *Stricture of the pharynx* after swallowing glacial acetic acid with suicidal intent. (7) Mr. BRYAN: A girl with a *Sarcoma of the lower jaw*, and a man with a large tumour just above the ankle of doubtful nature. (8) Mr. DUNCAN FITZWILLIAMS: A *Fibrolipoma* in a child, and a man with a large *Epithelioma*, growing rapidly from an old urinary fistula.

LONDON DERMATOLOGICAL SOCIETY.

AT a meeting held on Tuesday, January 21st, Dr. MORGAN DOCKRELL in the chair, Dr. W. GRIFFITH showed a case of *Ichthyosis* in a boy aged 13, displaying the typical "crocodile hide" marked over the chest and back, where the thickened skin lay in large folds. He proposed treating him with thyroid extract. Dr. Griffith also showed another but milder case of ichthyosis. Dr. BUNCH considered 3 grains of thyroid extract three times a day to be a fair dose. The PRESIDENT, who had recently prescribed it freely, thought that a patient should take at least 9 grains a day, though he had himself often taken as much as 15. Dr. KNOWSLEY SIBLEY considered that recently too large doses of thyroid were administered. A grain and a half once daily, only very gradually increased, seemed sufficient. Doses of $\frac{1}{4}$ and even $\frac{1}{10}$ grain were now often given. Dr. J. M. BUNCH showed a case of *Mycosis in the fungoid stage* in a woman aged 26. For about nine months she had been subject to a pinkish, yellowish, and slightly scaly eruption over her body. Dr. GRIFFITH showed a case of *Angioma serpiginosum* which had been completely cured in the electrical department. Dr. HAMPSON explained that it had been treated with solid carbon dioxide and x rays. Dr. SIBLEY showed several cases: (1) Of a man aged 28 with a considerable amount of keloid scar formation over his face and the back of the neck, the result of acne, which he was treating with benefit by hyperaemia. (2) A man aged 50 with an extensive eruption of lichen planus. (3) A man 28 years of age with some remarkable old standing lesions on his hard palate, and some few brownish, scaly, ringed-like patches on his skin, probably old syphilis. (4) A man aged 30 with a marked tertiary patch on his right cheek. (5) A woman aged 23 with condylomatous patches on her lips, chin, thighs, and genitalia. Dr. J. M. BUNCH opened a discussion on *Bullous eruptions*, in which he described in detail the various skin lesions which were the result of or accompanied by bullae. The PRESIDENT, Dr. GRIFFITH, and Dr. SAMUEL joined in the discussion.

Reviews.

GIBSON'S LIFE OF GAIRDNER.

THERE must be many not only of his old pupils and personal friends, but amongst the medical profession in all parts of the world, who will be glad to possess this *Life of Sir William Tennant Gairdner*,[1] and to find included in it a selection of his general and medical papers. But the work possesses an additional value to not a few as being the last production of the pen of the greatly beloved GEORGE ALEXANDER GIBSON, who, as the intimate friend and latterly the medical adviser of Sir William, was selected by the family for the honourable duty of preparing this memorial to one who was undoubtedly the most notable figure in Scottish medicine during the last half-century.

Gairdner came of a family which has many distinguished connecting links with the medical profession; the late Professor Sir Douglas Maclagan was a cousin in some degree, as was also the distinguished naval surgeon Sir Gilbert Blane, while William Gairdner, the author of the well-known work on *Gout*, was his uncle. John Gairdner, the father of Sir William, was President of the Edinburgh College of Surgeons in 1830–31, and wrote many papers on the history of the profession, while his mother, Susanna Tennant, was a sister of Sir James Tennant, K.C.B., who commanded the artillery at Chillianwalla and Gujerat.

William Tennant Gairdner was born on November 8th, 1824; he was his father's second son, and in connexion with his family it is only necessary to add that a younger brother was the distinguished historian, James Gairdner, C.B., LL.D., D.Litt. Gairdner's education was received at the Edinburgh Institution and the university of his native city, which last he entered in 1840, taking his M.D. degree in 1845, evidently at the earliest possible age of 21. Among his contemporaries were many who became distinguished men, but the writer of this notice has heard some of them say that they looked up to Gairdner as their leader. After graduation he had the advantage for so young a man of accompanying Lord and Lady Beverley (afterwards Duke and Duchess of Northumberland) to Rome, where he remained a year; the mental impression then received was never effaced. On his return to Edinburgh he entered the Royal Infirmary as a resident, serving both as house-physician and house-surgeon during a period extending over two years, and the maturity of his mind is shown by the fact that he then prepared his papers on the pathology of the kidney. In 1848 he was appointed pathologist to the infirmary, and began to lecture on pathology with such success that the

[1] *Life of Sir William Tennant Gairdner*, K.C.B., M.D., LL.D., F.R.S., Regius Professor of Practice of Medicine in the University of Glasgow. By George Alexander Gibson, M.D., Sc.D., LL.D. Glasgow: James Maclehose and Sons. 1912. (817 pp. 12s. 6d.)

members of his first class gave him a copy of Bright's *Hospital Reports*, with a letter expressing their sense of the high value of his teaching; among the signatures appended to that letter are to be found the well-known names of James Warburton Begbie, Henry Duncan Littlejohn, Thomas Keith, Arthur Scott Donkin, and Alexander Fleming. In 1853 he became physician to the Infirmary; meanwhile he had published many of those papers which founded his reputation as a scientific physician; in the same year he commenced lecturing on the practice of medicine. In 1855 he was a candidate for the Chair of Medicine in Edinburgh, vacant by the death of Alison; but the choice of the curators, guided, it is said, by Sir James Simpson, fell upon Thomas Laycock, a physician of York. In 1862 he published his *Clinical Medicine*, and in the same year was appointed Regius Professor of the Practice of Medicine in Glasgow, henceforth to be his home and the centre of his educational and professional life until his retirement in 1900. Gairdner's interests were by no means limited to his profession, for he was keenly alive to questions of theology or philosophy, politics or literature, as his letters published in this volume bear witness: but into these channels his mind overflowed without prejudice to the main stream of his thoughts, which was always, even to the end of his life, directed to the advancement of the science of medicine.

Gairdner did not marry until he had reached the mature age of 46; he has left a family of four sons and three daughters to be a solace and support to Lady Gairdner in her widowhood.

He died at the age of 83, on June 28th, 1907, at his house at Colinton, near Edinburgh. For the last five years of his life he had suffered from the condition known as "heart-block," and the study of his own case in the light of new methods of research which Dr. Gibson was so well qualified to employ, gave him much food for thought. He ultimately passed away quite quietly in one of his fits of unconsciousness.

His many-sided mind is vividly illustrated by the papers reprinted in this volume. Among British physicians of his day Gairdner was indisputably the foremost academical figure; there was no teacher like him; he lived for his chair and his students, but his words reached a wider audience and his spirit inspired many who had never seen him or heard his voice.

All those who read Dr. Gibson's book will feel that they owe a debt of gratitude to the author for the admirable manner in which he fulfilled his task, and will join in regretting that it is now too late to offer him even a few poor words of thanks for this memorial to which he devoted so much care and labour.

THE CARRIER PROBLEM IN INFECTIOUS DISEASES.

UNDER the title of *The Carrier Problem in Infectious Diseases*,[2] Drs. LEDINGHAM and ARKWRIGHT have prepared a useful historical summary of the main facts about infection by "carriers" in six important diseases. Nearly half the book, and distinctly the best part, is occupied by typhoid fever, the transmission of which by carriers is a subject of universally recognized importance, thanks largely to the investigations initiated by the late Professor Koch in 1902. The present survey of this problem is to a large extent a reproduction of Dr. Ledingham's excellent report to the Local Government Board, issued in 1910 (New Series, No. 43), and we are glad to see that his work is now given the opportunity of a wider publicity. Unfortunately little or no success has been attained in many of the attempts hitherto made to cure the chronic carrier of typhoid bacilli. The administration of drugs seems useless, or at least to have no more than a temporary effect. Sour milk treatment has been equally disappointing in the hands of Dr. Ledingham and some other observers; and cases of alleged cure by this method are, in Dr. Ledingham's opinion, open to the criticism that the permanency of the cure has not yet been fully established. The author gives us an interesting account of attempted cures by surgical operation on the gall bladder, but here again he thinks the prospects of success are small in long standing cases, though a definite pronouncement must be postponed until the cases have been under bacteriological supervision for at least one or two years after operation.

Next in order of interest is the chapter on the cholera carrier. From a review of the data available, Dr. Arkwright concludes that about half the persons who recover from an attack of true cholera retain the vibrios for from ten days to a fortnight. Only 5 or 6 per cent. remain infective for over twenty-five days, but of these latter 1 or 2 per cent. continue to excrete the vibrio intermittently for two or three months. This raises the important question whether the danger of the cholera carrier is sufficiently great to justify a bacteriological examination of all passengers on ships arriving from cholera-infected ports. Dr. Arkwright tells us that at New York, between July and November, 1911, 26,455 passengers were examined bacteriologically for cholera vibrios: "150 were detained for further examination, and 26 (1 per cent.) were eventually proved to be carriers." In the last sentence the printer has apparently omitted a decimal point, as the above figures give an average of only 1 carrier per 1,000, a difference which is of very considerable importance in estimating the value of this irksome interference with the convenience of passengers and the interests of trade.

The lengthy chapter on diphtheria carriers covers well-trodden ground and calls for no special comment. The three other diseases which are dealt with are paratyphoid fever, epidemic cerebro-spinal meningitis, and dysentery. The collection, from various sources, of statistics as to carriers of the meningococcus has been made with great care, and will be much appreciated by epidemiologists.

ASTHMA.

DR. SIEGEL'S treatise[3] contains the orthodox view on the nature of asthma. After surveying the experimental enquiries into the function of the bronchial muscles Dr. Siegel defines asthma to be "a reflex neurosis characterized by asthmatic attacks" (*sic*), and concludes that these are due to a combination of a bronchial spasm with an abnormal bronchial secretion, of which the former is the predominant factor and that organic lesions which may be discerned during life or which have been found at the *post-mortem* examinations hitherto recorded have no bearing whatever on the mechanism of the dyspnoea, this being a purely functional derangement.

Dr. Siegel's pathology, however, is not consistent with facts, and appears to have been constructed, as too commonly happens, not merely with preconceived notions but also on the basis of cases which he had seen in the intervals between, rather than during, the attacks. Had he actually observed a large number of the latter he could hardly have failed to notice, that just amongst the neurasthenic and the hysterical, whom he had in his mind, it occurs not infrequently that even at the height of the dyspnoea the air passages are perfectly pervious and that there is at the time not the slightest sign of any impediment to the ingress and egress of air. In these circumstances, whatever the immediate cause of the seizure may be, it is clearly not a bronchial spasm. True, in the majority of instances there is obviously an obstacle in the bronchial tree; but the nature of this obstacle can only be rightly inferred from the just appreciation of the clinical data. In that respect Dr. Siegel has completely failed. His notion, for instance, that the deformities of the chests of asthmatics are the consequence of their faulty attitudes during the paroxysms is amply disposed of by the facts, as Berkart has pointed out, that these deformities exist long before the onset of the first dyspnoeal paroxysm and that, if opportunities are given of examining the parents, or members of the same family who are not asthmatic, they also present deformities of the osseous system. A little reflection, moreover, would have convinced him that there are certain data which militate against his conclusion. He himself has observed that occasionally the obstruction is entirely limited to one lung—an observation which he

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[2] *The Carrier Problem in Infectious Diseases.* By J. C. G. Ledingham, M.B., D.Sc., and J. A. Arkwright, M.D. International Medical Monographs. London: Edward Arnold. 1912. (Demy 8vo, pp. 326. 12s. 6d. net.)

[3] *Das Asthma.* Von Dr. Wolfgang Siegel. Jena: Gustav Fischer. 1912. (Roy. 8vo, pp. 170. Mk. 4.)

claims to be original, but to which Berkart has called attention more than twenty years ago. Does the spasm affect, then, only one lung? And what about the results of the *post-mortem* examinations of the cases which have succumbed during the attacks? There were found dilated bronchioles filled with morbid exudation and with walls either atrophic or degenerated by interstitial connective tissue proliferation; yet, in spite of the progress of these lesions, which clearly preclude any active contractions of the bronchioles, the dyspnoeal seizures have maintained their types, and have increased in frequency and severity.

Equally unsatisfactory is the method of treatment which Dr. Siegel advocates. His book is avowedly intended for the use of practitioners who have had no special experience in dealing with asthmatics. In order to supply this deficiency he gives them exhaustive lists not only of the remedies and remedial measures commonly in use, but also of the numerous nostrums which industrial enterprise has placed on the market. Definite indications he can give only for a few of them; instead of them he over and over again advises the inexperienced practitioner to try them all—*ausprobiren*, as he calls it—on the chance that the one or the other may produce the desired results. It is difficult to conceive of anything more painful to read than such recommendation. To his credit, however, it must be said that he is averse from the haphazard operations on the nose. The proud edifice, he states, which has been built on their first introduction has entirely collapsed, as experience has shown that the successes have been few and the failures many. Dr. Siegel does not rely entirely on medicinal or other method of treatment. An indispensable element in the management of asthmatics is, he holds, the individuality of the practitioner—that particular tact which cannot be acquired but must be innate in the successful asthma specialist. Without this quality all efforts to combat the disease must, he maintains, remain vain. We are led to suppose that with this endowment and with the advantages of a salubrious climate such as that of Reichenhall where, moreover, there are cabinets for inhaling compressed air, the prospect of obtaining full mastery over what is otherwise one of the most intractable of complaints is very promising

SHORT TEXTBOOKS OF MEDICINE.

THERE are few works on the science and practice of medicine which can claim to have retained the favour of professional appreciation for such a long and uninterrupted period as thirty-two years. This highly satisfactory record has been achieved by Professor CARTER'S treatise on the *Elements of Practical Medicine*,[4] and we congratulate the distinguished author on the appearance of the tenth edition of a work which has been so successful as to prove acceptable for nearly one-third of a century. Practical medicine has become so extensive as to make it a matter of much difficulty for any author to compress into one volume the main outlines of a subject to which enormous treatises have been devoted. Dr. Carter modestly declares that his book attempts to deal only with the elements, but he has succeeded in producing a trustworthy synopsis of the essential facts belonging to clinical medicine, and has marshalled his material in such a masterly way as to provide his reader with a bird's-eye view of the present position of knowledge in its relationship to the broad outlines of etiology, pathology, symptomatology, and treatment in their bearings upon the recognition and management of medical disorders. In common with all books that attempt the delineation of such an extensive subject as general medicine, Dr. Carter's volume suffers from the compression which is essential to the fulfilment of the plan of production. Much important detail is of necessity omitted, and, especially on the question of treatment—which is, after all, the practical application of research and knowledge to the requirements of the sick—the information afforded is too generalized to be of great value to the busy practitioner. Still, in regard to treatment, as to all the other factors that go to make up a complete picture of disease, the author succeeds in giving the outlines of his story in terms of sufficient comprehensiveness to guide his readers along the true pathway of clinical investigation, and to direct them to an accurate appreciation of the methods of prevention and cure which, in the light of present knowledge, are most generally acceptable. For more detailed information recourse must be had to larger textbooks and to works more extensively devoted to the consideration of special subjects. The favourable criticisms that have been expressed concerning previous editions may be confidently reiterated concerning this tenth issue. The book has been carefully revised and many chapters rewritten, new information in connexion with the more recent advances in medical science and practice has been added, and the application of general principles to the recognition and treatment of disease has been elaborated at the sacrifice of details. This has been done with a view to keeping the volume within moderate compass and to fulfilling its purpose of being useful to students and junior practitioners as a guide and remembrancer rather than a textbook. Practically the whole of the re-editing has been undertaken by the author personally. This gives to the various sections of his work a level merit and plan of execution which is sadly wanting in many of the treatises produced after the present day fashion of multiplicity in authorship. We are able to recommend Dr. Carter's new edition as cordially as we have recommended its predecessors to the perusal of students and practitioners alike. They will find it a concise and reliable guide to practice, uncumbered by theoretical disquisition, but bristling with ascertained facts—in short, a *multum in parvo*, which records the outcome of the author's extended personal experience, and may be relied upon for accuracy and wise guidance. The book is pleasantly written, has the advantage of a copious index, and comprises a therapeutic guide illustrative of the author's experience in drug combinations.

DR. FLEMING must be congratulated upon his success in preparing the second edition of his *Short Practice of Medicine*.[5] The medical student preparing for his final examinations in medicine and the practitioner anxious to get at the centre of the many problems connected with medical diseases will be grateful to an author who, whilst giving the essentials, has skilfully avoided entering into vexed controversies. If Dr. Fleming has been ruthless in this direction and has not given as much attention to some of the more modern points of view, such for example as the unity of so-called rheumatic fever, the alleged benefit to be derived from the use of tuberculin in the treatment of pulmonary tuberculosis, and the toxic origin of cardiac hypertrophy, the reader must feel that although the author has set out to write an account in short compass of the practice of medicine, he is inclined to be critical and rightly so, for the readers of this volume will mostly want facts and not theories. On page 599, it is evident that the two sentences beginning "Schlösser" have got out of their place. We may call the attention of teachers of medicine to some of the very cogent remarks in Dr. Fleming's preface to the original edition. He has evidently formed a true estimate of the duties of a lecturer in medicine. He leaves to the student the duty of learning for himself from a textbook the general outline of each individual disease and provides in lecture form special points, clinical illustrations, and hints on treatment. This volume is admirably designed for such a scheme.

A LIBRARY OF THERAPEUTICS.

THE large *Bibliothèque de thérapeutique*, projected and edited by Professors A. GILBERT and P. CARNOT, of the Faculty of Medicine at Paris, is divided into three series and twenty-eight volumes. The first series, comprising fourteen volumes, deals at full length with the various therapeutic agents at our command; eight of these volumes have now come out. The third series, to be completed in eleven volumes, will describe the treatments applicable to the various diseases of the different

[4] *Elements of Practical Medicine.* By Alfred H. Carter, M.D., M.Sc., Professor of Medicine, University of Birmingham: Emeritus Professor of Physiology, Queen's College, Birmingham, etc. Tenth edition. London: H. K. Lewis. 1912. (Crown 8vo, pp. 700. 9s. net.)

[5] *A Short Practice of Medicine.* By Robert Fleming, M.A., M.D., F.R.C.P.E., F.R.S.E., Lecturer in Practice of Medicine, School of the Royal Colleges, Edinburgh; Assistant Physician, Royal Infirmary, Edinburgh. Second edition. London: J. and A. Churchill. 1912. (Med. 8vo, pp. 849; 55 illustrations. 12s. 6d. net.)

systems of the body. The second series, with which we are now concerned, is divided into three volumes, and discusses the treatment of symptoms and signs. It is often difficult to decide whether a given symptom demands treatment or not, whether it should be encouraged or combated: what means (if any) should be applied to the end desired; the phenomena of inflammation may be quoted as an instance of this difficulty, or the occurrence of epistaxis in a patient with abnormally high blood pressure. The object of the second series is to throw light on these often difficult, or even insoluble, problems; and its first volume,[6] on general symptomatic treatment, is written by a number of the most distinguished clinicians in France. To mention the separate chapters written by each of them is impossible; it is sufficient to say that the book contains a series of fairly detailed sketches setting out the general lines of treatment in such general conditions as fever, the infections and intoxications, developmental defects, senile involution, oedema, and the like. These sketches are well written, give much general advice, together with a few detailed prescriptions, and are thoroughly up to date. In addition, they contain very useful descriptions of the physiology and pathology of the various diseased conditions they describe. The volume may be warmly commended to the philosophical practitioner.

ELEMENTARY ZOOLOGY.

Among the many excellent scientific works that have emanated from the Oxford University Press during recent years, the *Manual of Elementary Zoology*,[7] by Mr. L. A. Borradaile, can by no means be reckoned the least important. As the author says in his preface, he has "endeavoured so to treat of the animals which are most often studied in courses of elementary zoology as to introduce the student by their means to the principal problems of the science." He has kept this object in view throughout, and the manual is one we can thoroughly recommend to those students, medical or other, who are commencing the study of zoology. After a clear but concise introductory chapter on the animal organism, the author departs from the usually accepted order of considering the animal kingdom and starts with the frog. By so doing he is enabled to describe in detail much of the minute anatomy of this animal, and so to demonstrate, as he goes along, the provisions that exist for carrying out the various physiological functions that he has previously referred to in his introduction. He then turns to the monocellular amoeba and goes forward in an ascending scale through the polyps and medusae to the flat and round worms, on to the crayfish, mussel, lancelet, and dogfish, and so reaches finally the mammal, as exemplified by the rabbit. There are, in addition, chapters on reproduction and sex and on embryology, and an appendix of instructions for practical work. The book is of handy size, well printed, and profusely illustrated. Many of the illustrations are from the pen of Dr. Edwin Wilson, whose name is a guarantee of their accuracy. We must take exception, however, to Fig. 216—the skeleton of a pigeon—and point out that the outermost toe of a bird has three interphalangeal joints and not two only, as in the drawing. The error, though apparently slight, is unfortunate, because the only way of discriminating between the right and left foot of a bird, when detached from the body, is by counting the number of (interphalangeal) joints in the three front toes.

To write an elementary scientific primer which shall be lucid, accurate, and up-to-date is indeed a difficult task. Such a difficulty has been successfully overcome by Professor Graham Kerr in his little work on *Zoology*,[8] one of Dent's series of scientific primers. The three animal types selected are the amoeba, hydra, and the earthworm, a chapter being devoted to each. The structure and physiology are described in simple and clear language. Then follows a short and succinct account of the natural groups of the animal kingdom which lie nearest to the main phylogenetic stem, such groups as the sponges and echinoderms being rightly neglected. The remaining three chapters are devoted to the fact and method of evolution and to the mechanism of heredity and variation. These difficult subjects are dealt with in a very elementary fashion, but are nevertheless admirable examples of lucidity. To the beginner, and to all those who may wish to acquire an elementary knowledge of biological facts, this book may be safely commended.

[6] *Médications générales.* By Twenty-one Authors. Paris: J. B. Baillière and Sons. 1911. (Post 8vo, pp. 712; 42 figs. Fr. 14.)

[7] *A Manual of Elementary Zoology.* By L. A. Borradaile, M.A. London: Henry Frowde, and Hodder and Stoughton (Oxford University Press). 1912. (Cr. 8vo, pp. 479; 301 illustrations. 10s. 6d. net.)

[8] *Zoology.* By J. Graham Kerr, F.R.S., F.L.S., F.Z.S., F.R.S.E., Regius Professor of Zoology in the University of Glasgow. London: J. M. Dent and Sons, Ltd. (Fcap. 8vo, pp. 100; figs. 13. 1s. net.)

NOTES ON BOOKS.

An excellent book for mothers and nurses is Dr. Brockbank's *Children: Their Care and Management*,[9] whilst doctors will pick up from it many practical suggestions not to be gained in hospital work or found in more pretentious books. From the chapter on the hygiene of the expectant mother to the last, on first aid in the nursery, the book is a storehouse of information on child management and care. On artificial feeding, weaning, the care of the infant, clothes, the nurseries, diet, digestion, and development, attention to the calls of nature, the teeth, bad habits, the special senses, schools and holidays, Dr. Brockbank has something useful to say. Whilst the hygiene of the older child is not omitted, the care and management of the infant get the fullest treatment: and, fortunately, Dr. Brockbank has not considered beneath his notice details, trivial in themselves, but of the greatest importance to the child and those who have charge of it. He lays stress upon the value of drinks of water to young babies, and refers to the need for using accurate measures in the preparation and administration of food. In the chapter on first aid there is no reference to that not uncommon nursery emergency, croup: and for cases of drowning Sylvester's plan of artificial respiration is given in preference to Schäfer's, which obviates the need for inversion of the body. The book is the work of one who has had much practical experience in the management of infants and children. Messrs. James Woolley, Sons, and Co., Limited, Manchester, supply a handy "First-aid Box for the Nursery," fitted up in accordance with Dr. Brockbank's suggestions.

MEDICAL AND SURGICAL APPLIANCES.

Non-Cutting Dissecting and Surgical Forceps.

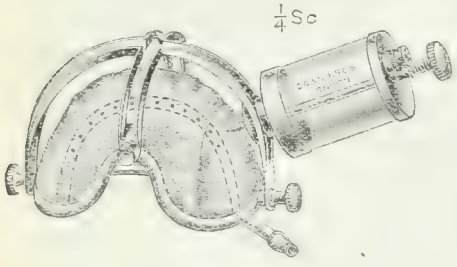
Mr. Gordon G. Copeland, B.A., M.B., (Toronto, Canada) writes: The forceps illustrated embodies two new principles—the special non-cutting tips and a grip-handle which does not tire the hand. The tip or end has been modelled after the human fingers. There are no sharp edges that can cut or damage a ligature held by them, or on which a knot is tied. It is designed to hold delicate structures such as vessels, nerves, tendons, and fine ligature material, and soft tissues generally. The length of the forceps is such that deep work, as in the pelvis can be done easily, whilst it is not so large as to be clumsy. Ligatures not infrequently cut through after they have been tied tightly down on a forceps with serrated edges. Either the ligature is allowed to slip, by the withdrawal of the forceps too soon to prevent the above accident occurring, or the operator takes the risk. I have tried a large number of knots that have been tied tightly down against an ordinary tissue forceps, and in each case the ligature has been damaged, most of all if it be soft catgut. The instrument is of special use in orthopaedic work, such as tendon transplantation, blunt dissection, keeping a running suture tight while the needle is taking a fresh stitch; and in operations on delicate and soft structures in general. The handle is a combination of the lateral corrugations and a longitudinal central groove. The curved depression allows the pulp of the fingers to fit in it and affords a broader bearing surface, which is much less fatiguing than any other type. This type of handle will no doubt be more generally applied to ordinary tissue forceps, and others. Messrs. Allen and Hanburys are the makers of this instrument.



[9] *Children: Their Care and Management.* By E. M. Brockbank, M.D., F.R.C.P., Honorary Physician, Royal Infirmary, Manchester. London: Henry Frowde and Hodder and Stoughton. 1912. (Cr. 8vo, pp. 272. 3s. 6d. net.)

An Anaesthetic Mask.

Mr. H. TORRANCE THOMSON, Anaesthetist to the Leith Hospital, writes: For several months I have used an anaesthetic mask which Messrs. Down Brothers made at my request. The mask proper is made after the pattern of one introduced by Kocher a few years ago. The feature of this is that the rim is notched to receive the bridge of the nose, so that accurate apposition of the mask to the face is possible. A perforated metal pipe arches over the vault of the mask internal to the gauze, with its inlet at the edge of the rim; through this a stream of oxygen, or of the vapour of chloroform from a Junker's inhaler, or of ethyl chloride, can be introduced. Superimposed on the mask is a second framework consisting of double parallel metal bars curved so as to arch antero-posteriorly and laterally to fixed points on the rim, and to intersect at the summit of the vault. These bars carry the ether chamber, which has a capacity of 2 oz., and a screw adjustment to regulate the size and rate of flow of the drop. The chamber is gripped by and can be moved in various directions between the parallel bars, so that the drop can be brought to bear upon the mask in whichever of the ordinary positions the head may be placed. A flange springing from the rim of the mask gives a fixed point for the left thumb to act upon, and the fingers of the left hand command the lower jaw. The right hand is available for such purposes as testing the depth of the anaesthesia, examining the pulse, adjusting and refilling the ether chamber. If it is desired to administer a more concentrated vapour a petticoat of Gamgee tissue may be applied over the upper framework of the mask. The advantages claimed for the apparatus are: (1) That a steady, continuous, and easily regulated quantity of ether can be administered; and (2) that the right hand, being freed from the task of holding the dropper, is more available for the performance of other necessary functions.



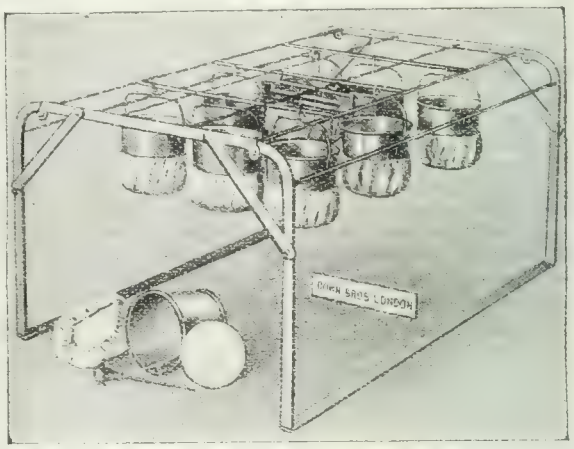
Sterilizer Forceps for Vaccine Syringes.

Dr. J. F. HALLS DALLY (London) writes: It is a matter of common experience that injection syringes are frequently dropped and broken, or the fingers are burned in the endeavour to keep hold of a syringe the temperature of which has been raised to about that of the boiling point of water or of oil. Equally futile is it in many cases to attempt to lift a syringe out of the boiling liquid in a sterilizer by means of ordinary dressing forceps, since these are apt to lose their grip on the circular and slippery surface of the syringe or neck of needle. Where time is valuable, as, for instance, in the administration of tuberculin to many out-patients in succession, where it is not desirable to wait until the syringe has cooled, the pair of forceps shown in the illustration will be found of practical utility in avoiding these inconveniences. The syringe with attached needle can be lifted out of the sterilizer without risk, drained of fluid, and then held securely whilst it is filled with the required dose. By this time the syringe is cool enough to be grasped by the fingers, and the injection may then be given, the piston being lifted out by its top in like manner. The forceps have been made to my design by Messrs. Allen and Hanburys, Limited, and are devised for use in departments for therapeutic inoculation. In addition to being serviceable for removing small vaccine syringes from the sterilizer, they can be employed also for use with hypodermic, serum, and exploring syringes of any capacity up to 25 c.cm., as well as more generally for operation instruments.



An Ice Cradle.

Miss K. C. BRAIDWOOD, Matron, Infectious Hospital, Mylands, Colchester, has designed the ice cradle illustrated in the accompanying drawing. The apparatus consists of a light folding body cradle, to the top frame of which are attached a thermometer and set of eight ice pails, the bases of which are enveloped in flannel caps, which, by absorbing the moisture due to condensation, effectually prevent dripping. The pails can be detached singly or otherwise, and the number in use at any time thus regulated to the requirements of the case. The advantages claimed for it are: (1) Convenience in carriage and storage; the cradle folds flat when not in use. (2) Avoidance of all discomfort to the patient, who also need not be moved. (3) Economy of time and labour, as compared with that of other methods, such as baths, packs, etc. (4) It can be easily managed by one nurse.



The method of use is as follows: The patient wears a long flannel gown and bed socks or is covered with a thin blanket, and has a water bottle at the feet, and the cradle is placed over the patient, well up over the trunk, and the pails and thermometer put in position. Two blankets are arranged over the cradle to open in the middle so that no inrush of air shall accompany inspection of the cradle thermometer. As the patient's temperature falls one or more pails are taken out. The nurse in charge of the apparatus notes the cradle temperature every time the patient's temperature is taken, and keeps the pails replenished. This is only the work of a moment if a bowl of chipped ice and an empty bowl into which to drain the pails are brought to the bedside. The makers of the apparatus are Messrs. Down Brothers, Ltd., St. Thomas's Street, London, S.E.

The Finger-Grips of Forceps.

Mr. N. BISHOP HARMAN (London, W.) writes: The finger-grips or plates of forceps have many varieties of markings thereon to ensure a proper hold of the instrument. The old file-markings that were in almost universal use are now considered obsolete in these days of "aseptic handles," although it is curious to note that similar serrations still are retained as indispensable at the business ends of the blades! File-markings have been succeeded by various breadths and depths of flutings, or by a broad, shallow groove extending the whole length of the finger-plate. Neither of these grips prove satisfactory; they are barely sufficient when the fingers are dry, they are inefficient when the fingers are wet, and a hold is impossible when the fingers are slippery. For the last two years I have been using sundry eye instruments and forceps in which



the finger-grips were secured by cutting holes in the flat plates. My experience of them has been most happy. They are superior in security to even the old file-markings. The figure shows a pair of iris forceps of the pattern used as conjunctival forceps in my new squint operation of sub-conjunctival reefing. The holes are cut square edged and give a most sensitive grip; in fact, "grip" is a poor word in its suggestion of strenuousness. Even when the fingers are wet or purposely slippery it is possible to hold these slender forceps accurately. The holes lighten the instrument (a matter of some consideration in eye work) and they are obviously clean. The size of the holes can be made large in proportion to the size of the forceps. The forceps illustrated were made by Messrs. John Weiss and Son, of Oxford Street, W.

Nova et Vetera.

PROVERBIAL MEDICINE.

Proverbs of Diet.

As might be expected, many proverbs reflect the very general and often well founded belief in the therapeutic value of diet, and reference has been made (Journal, January 25th, p. 178) to such maxims as "Diet cures more than the lancet" and "Use first Dr. Quiet, then Dr. Merriman, and Dr. Diet"; but there are many other adages which illustrate and exemplify special aspects of this widespread and in many cases well founded belief, and to some of these proverbic expressions attention will now be directed.

To begin with Homer,[1] some have read into the phrase *Δαὶς ἔϊση* (an equal repast) an early Greek reference to care in dieting among the gods of Olympus, and the words have thus been used with something of proverbial force; but it has, on the other side, been maintained that the expression means no more than the "banquet equally shared." Even if this objection hold good, however, there is the maxim which has been ascribed to Theognis, according to which "Surfeit has killed many more men than famine" (*πολλῷ τοι πλέονας λιμοῦ κόμος ὤλεσεν ἄνδρας*); and Hippocrates[2] had an aphorism that "Everything in excess is inimical to Nature" (*πᾶν γὰρ τὸ πολὺ πολέμιον τῇ φύσει*).

The direction thus given to proverbial wisdom about food by the Greek writers was maintained by those who came after them, and the result is the long list of adages which warn against excess in eating and drinking. Some of these express the danger thus arising by more or less arresting comparisons; thus, Theognis's maxim finds modern equivalents in "Surfeit slays mae than the sword" (a Scottish proverb from Ray's collection), "Surfeits slay more than swords," and a Latin counterpart in "Non plures gladio quam cecidere gula." Two other Latin proverbs put the same idea in different words: "Multo plures satietas quam fames perdidit viros" (Many more men die of surfeit than of hunger), and "Multos morbos multa fercula fecerunt"[3] (Many diseases are the result of dinners of many courses). Amongst G. H.'s (George Herbert's) "Outlandish Proverbs" there is one which says, contrasting the evil effect of over-eating at suppertime with the good results following Galen's practice, "By suppers more have been killed than Galen ever cured"; and of this there seems to be a Danish equivalent which also contains one of the previous comparisons, namely, "Flere Folk draebes af Nadver end af Svaerd" (More people are killed by supper than by the sword). A laconic adage says, "Much meat, many maladies"; an outspoken one says, "Quick to the feast, quick to the grave"; an unpolished one declares that "The glutton digs his grave with his teeth"; a military one foretells that "A double charge will rive a cannon"; and a far-seeing one announces that "Feastings are physicians' harvests."[4] Hernan Nuñez[5] gives a Spanish proverb which again emphasizes the danger of heavy suppers by contrasting their evil influence with the curative effects of medicine, namely, "Mas mato la Cena che curo Avicena" (The supper kills more than Avicenna cures); this maxim has what all require to ensure complete success in the world of proverbs, rhyme. Rhyme is not indeed an essential part of a wise saying, but it fixes it in the public mind like a nail, and it may actually give it a longer life than will a large amount of contained wisdom.

Another group of maxims is concerned with the setting forth of the other side of the truth—namely, the good effect upon the health which spare diet, and especially a light supper, has. Gurney Benham[6] has succeeded in gathering together quite a number of these: There is "Light supper makes long life"; there are two Spanish ones—"Come poco y cena mas poco" (Dine lightly and sup more lightly"), and "Come poco y cena mas, duerme en alto y viveras" (Dine lightly and sup more so, sleep high up and live long"); there is an Italian one—"Chi ben sena ben dorme" (Who sups well sleeps well) which seems to contradict the others, unless, as is very likely, we understand the first *well* as meaning *wisely;* and there is a mediaeval Latin proverb which contains a double rhyme: "Ex magna coena stomacho fit maxima poena, ut sis nocte levis, sit tibi coena brevis" (From a great supper comes a great pain, that you may sleep lightly sup lightly). "Light suppers make clean sheets" is a saying quoted by Ray (1670); it is intelligible enough to the medical if not to the lay mind.

There is a hint of the high mental and spiritual possibilities following upon fasting in Milton's well-known lines in *Il Penseroso*:[7]

> And join with thee Calm Peace and Quiet,
> Spare Fast, that oft with gods doth diet,
> And hear the Muses in a ring
> Aye round about Jove's altar sing;

And, as Masson says, this was a favourite Miltonic principle (*vide* his *Elegia Sexta*, lines 55 to 66). According to another proverb "spare fast" brings also advantages of a more mundane nature, and a somewhat feeble rhyme commands us to "eat less and drink less, and buy a knife at Michaelmas."[8] It is conjectured that the knife is for the carving of the goose, which was brought on the day of St. Michael by the tenant to induce his landlord to be lenient regarding the rent; the date is September 29th, when the bird is at perfection, as Churchill sings:

> September, when by custom (right divine)
> Geese are ordained to bleed at Michael's shrine.

A sinister suggestion is that the knife is for the fasting man to end his life with; but we put the thought away from us, relying upon Sir William Gull's dictum, "First get your patient hungry, and then keep him so."

Horace[9] has a satire on the advantages of simple fare: "In you," he sings, "consists the pleasure of the treat, not in the price or flavour of the meat" (*non in caro nidore voluptas summa, sed in te ipso est*); in the next line he adds, "seek relishes by sweating toil" (*tu pulmentaria quaere sudando*); and, a little further on, come the words: "Hear now what blessings, and how great, a frugal diet brings, and first of all you'll be in health" (*accipe nunc victus tenuis quae quantaque secum afferat, in primis valeas bene*). *Optimum obsonium labor*[10] ("Labour gives the best relish") is a Latin proverb, which Horace possibly had in mind as he penned his satire; and "Hunger is the best sauce" is the English maxim, whilst a French one says "Il n'est sauce que d'appétit";[11] an Italian one rhymingly says, "L'asino che ha fame mangia d'ogni strame"[11] (The hungry ass will eat any kind of litter), and another Latin one puts it pithily as "Fabas indulcat fames"[11] (Hunger sweetens beans). "The stomach," wrote Seneca, "is not a hard creditor," *parvo dimittitur, si modo das illi quod debes, non quod potes* ("a small amount satisfies it, provided you give it what you ought, not what you can").

But one might continue proverbializing almost without end upon the text, so to say, that a man "ought to feed by measure and defy the physician"; it must suffice now to throw together, out of our notebooks, the following more or less familiar maxims. Here they are, let the reader choose: "The sparing diet is the spirit's feast"; "a little sufficeth nature"; "leave off with an appetite"; "lever de table avec l'appétit"; "keep a corner for a friend"; "enough is good as a feast, and better than a surfeit"; "enough is too much"; "'tis best eating when one's hungry"; and "full bellies make empty skulls." Herrick (in his *Hesperides*) has the lines:

> Go to your banquet then, but use delight
> So as to rise still with an appetite.

Sir Philip Sidney,[12] also, may be quoted: "The rules of health and long life are Moderate diet, open air, Easy labour, free from care." One proverb descends to particulars, and says, "Moderation produces clear complexion."

Some powers of clinical observation would seem to lie behind the lines:

> Eat till you're cold,
> And you'll live to grow old.
> Eat till you're hot,
> And you'll die on the spot;

[1] Homer, *Iliad*, Bk. XV, line 95.
[2] Hippocrates, *Aphorisms*, II, 51 (Sydenh. Soc., p. 714).
[3] Seneca, *Epistolae*, 95.
[4] Kay, J. R., *Public Health*, xviii, p. 566, 1906.
[5] Nuñez, Hernan, *Refraws o Proverbios*, Valladolid, 1555.
[6] Gurney Benham: *Book of Quotations*, p. 817.
[7] Milton; Il Penseroso, *Works* (Masson's edition, i, p. 374).
[8] Howell: *Paroimiologia*, quoted by Lean, *Collectanea*, I, p. 505.
[9] Horace, *Satires*, Bk. II, Sat. ii, lines 19-20, 70-71.
[10] W. F. H. King, *Classical and Foreign Quotations*, p. 402.
[11] Ibid., pp. 233, 285, 176.
[12] Lean, *Collectanea*, vol. i, pp. 478, 503, 504, 505; vol. iv, pp. 29, 30, 36, 47.

and behind the saying, "cold after eating is a sign of long life." We think of the coolness of the skin due to the natural determination of blood to the stomach on the one hand, and, of the flushed face of indigestion on the other hand, and we get the vision of long life and eupepsia in the one case and of gastric disability and apoplexy in the other.

There are, however, two sides to every truth, and it is possible to think too much about eating and drinking, for, after all, in whatever sense we take it "we live not to eat but we eat to live" (*non vivas ut edas, sed edas ut vivere posses*), or, as the French put it, "il faut manger seulement pour vivre, non vivre pour manger." This maxim goes back to Socrates, about whom it was reported, "they live that they may eat, but he himself eats that he may live" (*οἱ μὲν ζῶσιν ἵν' ἐσθίωσιν, αὐτὸς δ' ἐσθίει ἵνα ζῇ*).

Truly, "it seems to me," said Imlac to Rasselas (in Johnson's famous tale),[13] "that while you are making the choice of life, you neglect to live," and it is obviously a gigantic blunder *propter vitam vivendi perdere causas;* so also with eating, as Hans Busk (the elder)[14] put it into rhyme, there are those who "by little eating hope to grow the stronger, and starve themselves to death to live the longer."

But whilst it may be freely admitted that over-anxiety about what and how much food is to be eaten is not good, yet the proverbs against gluttony carry the day both in respect to number and force; and many fashionable physicians of the present time might do wisely to give to the well-fed and free-living patients who consult them the penetrating advice which Dr. John Abernethy, with some degree of masterful roughness and with almost brutal plainness of speech, administered to the wealthy Londoners of a century ago. Boldly combining dietetic treatment and ergotherapy, Abernethy shouted to his would-be patient, "Live on sixpence a day—and earn it." There is a saying that "the fire of London was a punishment for gluttony" (Bohn); and another seventeenth-century adage had reference to *the Devonshire man's disease*, which had become somewhat epidemic. This malady, agreeing in at least one of its symptoms with the ergophobia of the present day, was thus described:[15] "Che's not zick nor che's not well; che can eat and drink most woundily, but che cannot work."

The Wisdom books of the Hebrews put some of these maxims in their own way and with their own imagery. Thus, in Proverbs (xxvii, 7) we read, "the full soul loatheth an honeycomb; but to the hungry soul every bitter thing is sweet." Here the literal rendering of *loatheth* is *trampleth upon* or *treadeth under foot*, an even more powerful figure; it appears in the Vulgate as "anima saturata calcabit favum; et anima esuriens etiam amarum pro dulci sumet." A Latin echo is found in Horace's *jejunus raro stomachus vulgaria temnit*[16] ("a hungry stomach does not often despise coarse food"). In Ecclesiastes (x, 16, 17), too, morning feasting is condemned in the well-known proverb, "Woe to thee, O land, when thy king is a child, and thy princes eat in the morning! Blessed art thou, O land, when thy king is the son of nobles, and thy princes eat in due season, for strength and not for drunkenness!" "For strength" ought, perhaps, to be "in strength," that is, with self control. In another book (Isaiah v, 11) a special woe is declared unto "them that rise up early in the morning that they may follow strong drink"; and, indeed, morning feasting is held generally to be the extremity of gluttony and intemperance.

Other proverbs refer to the state of mind in which food is taken, and, generally speaking, to the hygienic accompaniments of eating. Thus, there are the familiar passages (Proverbs xv, 17; xvii, 1), "Better is a dinner (or dish) of herbs where love is, than a stalled ox and hatred therewith"; "Better is a dry morsel and quietness therewith, than an house full of feasting with strife." "Mickle corn, mickle care," is a Scottish proverb reflecting the Biblical "great treasure and trouble therewith" (Proverbs xv, 16). Another Scots saying tells us that "Welcome! is the best dish in the kitchen." So also Shakespeare (*Comedy of Errors*, Act v, scene i, lines 73, 74) makes the abbess say to Adriana, "Thou say'st his meat was sauced with thy upbraidings; unquiet meals make ill digestions"; and the advantage of having a jester to aid digestion was appreciated by the diners of the Middle Ages. "It is good to be merry at meat" is one of Ray's *English Proverbs*, and one of George Herbert's is "a cheerful look makes a dish a feast"; the latter collector of maxims has another saying which emphasizes the importance of peaceful surroundings at meal times, namely, "a little with quiet is the only diet." "Cease your chatter, and mind your platter" epitomizes the whole matter.

Other proverbs bring out the advice to eat sparingly but often, and not to have an unvarying diet. "Little and often; a good potecary's shop" is a sixteenth-century saying, from Bullein's *Bulwarke of Defence;* "often and little eating makes a man fat" is one of Ray's *Collection;* and "better meals many than one too merry" comes from Davies's *Satyricall Epigrams*. Proverbs, however, are apt to be paradoxical, and one which says "sometimes a riot's as good as a diet" seems in opposition to those which have been referred to above; but there is no real opposition here, only another aspect of the truth, for every one knows that too restricted a diet may do harm by not bringing into action all the gastric powers, and that in such circumstances a good mixed meal may work wonders, astonishing no one so much as the poor dyspeptic who has fancied himself incapable of any digestive exertion. It is true that another reading of "a riot's as good as a diet" has been found in the sinister recommendation to eat so heartily once a month as to bring on a vomit; but happy is the man whose dietetic history has in it no such dislocating events, "happy the people whose annals (dietetic and political) are vacant." But a monotonous diet is also to be avoided; "a man must not always eat one sort of meat" said Rowley in *All's Lost by Lust* (1633), and "shift of meat is good" is from Thomas Bacon's *Boke of Matrimony* (1542); and "he who eats but of one dish never wants (that is, lacks) a physician" is a somewhat enigmatical presentation of the same truth. "Variety's the very spice of life, that gives it all its flavour," wrote Cowper in *The Task;* the Latin proverb is *jucunda rerum vicissitudo;* and there is a Greek saying (from Euripides's *Orestes*), *μεταβολὴ παντῶν γλυκεῖα*, or "the variety of all things forms a pleasure."

Proverbs in various languages gather round the well-known advice, "After dinner sit awhile; after supper walk a mile," which has been altered slightly by Beaumont and Fletcher (in *Philaster*), to suit the fair sex, into "Women should talk an hour after supper; 'tis their exercise." The advantage of rhyme (that excellent thing in proverbs) attaches also to the sayings in foreign languages which express this advice. Thus, the Latin proverb is *Post epulas stabis vel passus mille meabis;* the Venetian one is *Dopo pranza sta, dopo cena va* ("After dinner rest; after supper walk"); and the German one is, *Nach dem Essen sollst du stehen, oder tausend Schritte gehen* ("After dinner you must stand or walk a thousand paces"). The dinner referred to in these proverbs would be the midday meal, and the wisdom of putting no strain upon the body after eating freely in the hot part of the day is easily accepted; supper should be followed by an interval of time so as to ensure that digestion is completed before sleep is sought, and in the cool of the evening the time may be safely occupied by exercise. "If you would be ill, sup and go to bed," is another way in which this truth is expressed; the proverb that says, "Who goes supperless to bed, all night tumbles and tosses," is in apparent contradiction to it: but it is easy to see that what is here meant is the restlessness which follows fasting, supper taken at a suitable and sufficient time before retiring to rest being rewarded by quiet slumbers. The waning digestive powers of old age are perhaps hinted at in the saying, "He wrongs not an old man who steals his supper." Codrington, in his *Collection of Proverbs* (1672) gives the secret of long life: "To rise at six and dine at ten, to sup at six and go to bed at ten, will make a man live ten times ten"; but Hastings Gilford[17] has collected together some facts about centenarianism which shake the stability of this view, and seem to show that power to pass the fourscore years is

[13] Johnson, S., *History of Rasselas*, ch. 30.
[14] Busk, H. (sen.), *The Banquet*, 1819.
[15] Poor Robin, *Prognostications*, London, 1684 (quoted by Lean, *Collectanea*, I, p. 63).
[16] Horace, *Satires*, Bk. II, Sat. ii, line 38.
[17] Hastings Gilford, *Disorders of Post-natal Growth and Development*, p. 543, 1911.

due to an "inherent faculty of persistence of life," which is independent of environment, and even of habits.

The superiority of diet over medicinal means is borne out by a number of proverbs—some familiar, others less known. Thus there are: "Better pay the butcher than the doctor"; "Better wait on the cook than the doctor"; "The poor man's physic lies in his garden"; "Kitchen physic is the best physic"; "A good cook is half a physician"; and "The cook's boy in the kitchen . . . was the best physician among the doctors, for by his kitchen physic the sick was cured."[18] There is much truth in this; and many of the constipated patients who are for ever trying new purgative medicines would do well to bear in mind that the aperients which are to be had in the grocer's, the greengrocer's, and the baker's shop are safer and better in the long run than those which are purchased at the chemist's.

But it is time to bring this reading in proverbial medicine to a close, leaving the proverbs which laud or reproach certain special articles of diet—for example, alcohol, cheese, salad, etc.—and other allied matters for another occasion.

NOTIFICATION OF ALL CASES OF TUBERCULOSIS.

NEW GENERAL ORDER: ENGLAND AND WALES.

THE new General Order of the Local Government Board in England, the short title of which is the Public Health (Tuberculosis) Regulations, 1912,* which extends the principle of compulsory notification to all forms of tuberculosis, came into force on February 1st.

In a circular letter accompanying the Order it is pointed out that more than half of the deaths from non-pulmonary tuberculosis are those of children under 5 years of age, and that it is probable that a much higher percentage of the total number of persons suffering from non-pulmonary tuberculosis are children of this age. The hope is expressed that the notification of these cases will facilitate the investigation of sources of infection and assist in securing improvement in the conditions under which the children live. The circular points out that the Insurance Act contemplates the provision of treatment on a comprehensive scale for persons suffering from tuberculosis, and reiterates the general agreement of the Board with the recommendations of the report of the Departmental Committee on Tuberculosis. That committee expressed the opinion that any scheme which is to form the basis of an attempt to deal with the problem of tuberculosis should be available for the whole community, and recommended that the unit area for administrative action should generally be the county or county borough area, or in some cases groups of counties and county boroughs.

The Order directs that notification is to be made on the strength of evidence other than that derived solely from tuberculin tests. There are two forms of notification—primary and supplemental. Primary notification is to be made on a special form to be supplied by the authority, and is required in respect of every case of tuberculosis, whatever organ be affected, unless the practitioner has reasonable grounds for believing that the case has already been notified. Primary notification of every new case of tuberculosis is to be made on the specified form by every private practitioner, district medical officer of a Poor Law union, medical officer of a tuberculosis dispensary, and by medical officers of hospitals. Notifications in respect of hospital patients are to be sent in the case of out-patients to the medical officer of health for the district in which the patient's residence at the time of notification is situated, and in the case of in-patients to the medical officer of health for the district in which was the usual place of residence of the person before his admission to the hospital.

In the case of patients in Poor Law institutions or sanatoriums who have been already notified, particulars will be entered weekly on a general form showing all the patients admitted during the week. Supplemental notifications will be made on a form giving particulars of all the patients admitted during the week, and a similar form will be made up weekly of patients who have been discharged during the week.

A school medical inspector is required to notify all cases of tuberculosis which come to his notice in the course of inspections at public elementary schools. These notifications will be made on a general form to be sent in at the end of each week, and will be transmitted to the medical officer of health for the district within which the children's homes are situated. The fee to be paid to a private practitioner is 2s. 6d., to the medical officer of a hospital or Poor Law institution or to a district medical officer 1s. for a primary notification. The medical officer of a Poor Law institution is to receive a fee of 1s. for the first name on each weekly list and 3d. for each additional name.

The medical officer of health is required to keep a register with full particulars of each notification received by him, and to send to the medical officer of the county at the end of each week a statement of all notifications received during the week. Any notification addressed to him in error he is to send on to the proper district, informing the notifying practitioner that he has done so. The medical officer of health by himself, or by one of his officers, is to make such inquiries and to take such steps as may be necessary or desirable for investigating the source of infection, for preventing its spread, and for removing the conditions favourable to it. "It is contemplated," the circular continues, "that for the purpose of carrying out the requirements of this article a visit to the home of the patient will generally be necessary, and the medical officer of health will doubtless avail himself of the co-operation of the notifying practitioner. When a case is notified, inquiry should be made to ascertain the state of health of all other members of the household." The necessity of close co-operation between the medical officer of health and the tuberculosis officer of the dispensary which serves the district is insisted upon. It is suggested that the county tuberculosis officer or some other officer of the dispensary should undertake the duties or some of the duties of the medical officer of health under the Order, and for this purpose act as an officer of the sanitary authority under the direction of the medical officer of health.

A circular addressed to the board of guardians and managers of asylums and school districts points out that medical officers appointed by Poor Law authorities are not required to fill up counterfoils, as under the previous regulations, or to submit an account of fees claimed, and the sanitary authorities are not empowered to demand any such account. Relieving officers and superintending officers of Poor Law institutions, who are not medical officers, are not required to notify under the new Order, and are therefore relieved of the obligations in the Regulations of 1908, which, as well as other tuberculosis Orders and Regulations, are revoked and replaced by the new Order.

SCOTTISH POOR LAW MEDICAL OFFICERS' ASSOCIATION.

THE annual meeting of the Scottish Poor Law Officers' Association was held at the St. Enoch Hotel, Glasgow, on January 31st, with Dr. GILBERT CAMPBELL in the chair.

The report of the committee stated that much correspondence had been involved in giving possible applicants for appointments particulars of the conditions of appointments, area of district, character of roads, probable value of private practice, average outlay for expenses, and house accommodation. It had the satisfaction of announcing that no case of dismissal of a medical officer by a parish council had come to its knowledge—a fact which appeared to show that the councils were more careful in the treatment of their medical officers than had been the case in the past. Two instances were given in the report of the ungenerous and unsympathetic treatment to which medical officers are exposed at the hands of local and central authorities. In one case the parish was for a time without a medical officer, and a medical practitioner in the neighbourhood found it necessary to attend several paupers and rendered an account to the parish council; payment was refused, the inspector covering himself by saying that he had given no written instructions to the medical man. It was pointed out that the action of the inspector, though it may have been legally right, was morally wrong. Advice was given to the medical practitioner which it is believed led to an adjustment of the matter. In the other case it

[18] Lean's *Collectanea*, vol. i. pp. 478, 504, 506, 1902

*London: Printed by Eyre and Spottiswoode, Ltd. 1912. 1d.

was found that the parish council advertised its appointment at a salary of £80 a year, the fact being that this sum was made up by £30 from the parish council and £50 from a medical aid association. The committee had had a correspondence with the Local Government Board on this subject, without, however, any satisfactory result. Many inquiries had been received with regard to the Insurance Act, the chief question being what was to be done in the case of an insured person living 10, 20, or 30 miles from the medical officer. The advice given was that the inquirers should notify the Insurance Commissioners that while they were ready to attend insured persons within a radius of 2 miles, in all other cases provision must be made by the insured person for attendance as a private patient unless the Insurance Commissioners granted an adequate mileage fee for each visit.

The report was adopted unanimously.

The report of the committee on the conditions of medical service in Highlands and Islands was referred to the Committee of the Association for consideration.

Considerable discussion took place with regard to the action of the City of Glasgow Corporation in respect of the notification of pulmonary tuberculosis. The new regulations issued some time ago by the Local Government Board in Scotland had assigned a fee of 2s. 6d. to Poor Law medical officers for each notification. The city of Glasgow refused to pay more than 1s.; but the Scottish Poor Law Medical Officers' Association recommended its members not to accept, and the secretary, Dr. W. L. Muir, was instructed, if no satisfactory arrangement was reached, to raise an action against the Corporation in the Sheriff's Court.

The usual votes of thanks brought the proceedings to an end.

LITERARY NOTES.

The Poetry Review, which with its new name seems to have won new vigour, has in its February number a paper by the editor controverting the customary doctrine that Shakespeare was an optimist who took a detached view of life, and looked on it with a humorous smile for the foibles of mankind. For Mr. Stephen Phillips he was a burning spirit in revolt against the injustice of fate. The author has not given himself space enough to develop his thesis, and does little more than indicate the line of evidence he is prepared to call; but the note is suggestive, and will appeal especially to the disciples of Mr. Frank Harris. The same number contains an eloquent article on the melody of Moore by Dr. H. Macnaughton-Jones, who sets out to show Moore's versatility "in his double gift of melody and power of illustration by contrasts." Moore, Dr. Macnaughton-Jones says, felt an indivisible link between the music and the words, and in an endless variety of allegory brought to his aid all that in nature and life stirs the memory and recalls friendships, scenes, and personalities.

In his second instalment of the Scott-Baillie Letters, which appears in the January number of the *Edinburgh Review*, the librarian of the Royal College of Surgeons deals with the serious illness of Sir Walter Scott, attributed by a writer in these pages to gall stones, though Scott himself set it down to gastric cramp. Scott's illness, which first manifested itself acutely on the night of March 5th, 1817, figures at some length in his correspondence, and is familiar to all readers of Lockhart's *Life*. In February, 1819, the great writer suffered from so terrible an attack of pain that his end was thought to be near. "We find," says Mr. Plarr, "Charlotte Sophia Scott, his eldest daughter, who was soon to be married to John Gibson Lockhart, writing in her delicate Italian hand to Joanna Baillie to say that her father had not been able to take up his pen because he had been dangerously ill, and was still very weak." To this letter there is a remarkable and unexpected addendum in the handwriting of Scott himself, and, as this joint composition has not been reprinted in the *Edinburgh* we take this opportunity of publishing it here for the first time. The letters, of course, are from the Scott-Baillie collection in the library of the Royal College of Surgeons, to which they were presented by the son of Matthew Baillie. The future Mrs. Lockhart writes:

My dear Mrs. Baillie

I am sorry to be obliged to give you a very poor account of Papa's health, the spasms never leaving him for more than twenty-four hours at a time. We took the liberty of making Doctor Clarkson who attends him here write his case to your brother [Dr. Matthew Baillie] to request his advice. Papa would have wrote himself, but he has not been able to write for some time, for he has really been dangerously ill and is still very very weak, and is so very much disheartened with the constant return of the spasms that it is quite miserable, but we are in great hopes that the spasms are not so dreadfully violent these two last days. That is the only thing that comforts us. He sends you a letter from Mrs. Siddons [daughter-in-law of Sarah Siddons] he ought to have sent you long ago, but he has been so ill that he quite forgot it.

Dear Miss Baillie, I hope soon to be able to write you a better account of Papa than I can do at present and I hope that you will excuse the shortness of this letter, but I have so few minutes to spare from attending Papa and so tired from being up almost every night that I must conclude with subscribing myself in haste

Very affectionately yours
Charlotte Sophia Scott.

Abbotsford Friday 26th 1819

[The following is in Sir Walter's handwriting:]

Turn over

Dearest friend

I cannot let Sophia's dolorous epistle go without adding two lines to say that I think I am now getting really better. The combat between the medicines and the disease having been carried on entirely at the expence of my body corporate I feel after so long and obstinate a conflict as I suppose the town of Saragossa did when it had been so desperately attacked and defended. I have no apprehension of any great danger, but till of late the agony was intolerable and lasted six, seven, and eight hours without intermission. The fever is now much milder. I have reason to thank God for placing me in circumstances so much above my deserts in every respect and am much too grateful for the blessings which have attached themselves to me in every respect than disposed to murmur under the natural evils of humanity. Kind love, my dear friend, to your sister, Mrs. Baillie, the Dr., and believe me always, well or ill, most affectionately yours

W. S.

. . . My hours have been divided betwixt pain and stupidity.

In the following April Sir Walter believed himself to be face to face with death. He took a solemn leave of his children, but later, his symptoms having improved, we find him writing to Dr. Matthew Baillie, the brother of Joanna and Agnes Baillie and nephew of John and William Hunter, in a strain of relieved tension. The letter, never before published, takes high rank among the confidences of ailing genius to medical science.

Dear Sir,

The Greeks were, I believe, allowed to consult Esculapius by proxy while they were patients, but on recovery were expected to pay their grateful thanks in person. I need not say how much I was obliged by your kind attention to Mr. Clarkson's letter, which gave us all much confidence, which in the extremity of pain and subsequent exhaustion I really could not have drawn from less authority than yours.

The quantity of opium and anodynes of all kinds I was obliged to swallow during these paroxysms, often with little effect, was truly frightful. But, thank God, the last returns of the pain have been of a description so mild as to yield to the hot bath alone. I begin to sleep at nights, and crawl out on my pony by day, and my bowels seem to be regaining their natural state. I had hoped to have seen you, Mrs. Baillie, and my excellent friends your sisters this spring, but that is now impossible. Some time in the year, however, I may come up for the purpose of getting my son settled in the army.

Believe me, my dear sir,

Very sincerely,
Your obliged and grateful servant,
(Signed) Walter Scott.

Abbotsford. 17th April.

Dr. Baillie wrote his interesting unpublished memoirs in August, 1818, while in attendance on George III at Windsor. In these he mentions a number of lifelong friends, but had he written after the date of Sir Walter's letter he could not have failed to describe his intercourse with his illustrious compatriot. As long ago as 1813 he had been instrumental in obtaining for Sir Walter a lock of Charles I's hair when that monarch's body was exhumed and identified at Windsor Castle. Scott had some gold mohurs melted down to form a setting for the relic, and in December, 1818, we find him dispatching twenty brace of ptarmigan to the doctor. Matthew Baillie predeceased his famous patient by ten years, dying in 1823 of old man's consumption induced by a too strenuous attention to duty. He was, indeed, a model physician, one of the finest type of a bygone school, and Scott in nowise exaggerates when

he writes to Joanna Baillie on the subject of her brother Matthew's death in October, 1823:

We have, indeed, to mourn such a man, as, since medicine was first esteemed an useful and honoured science, has rarely occurred to grace its annals, and who will be lamented as long as any one lives, who has experienced the advantage of his professional skill, and the affectionate kindness by which it was accompanied. My neighbour and kinsman, John Scott, of Gala, who was attended by our excellent friend during a very dangerous illness, is mingling his sorrow with mine, as one who laments almost a second father; and when in this remote corner there are two who join in such a sincere tribute to his memory, what must be the sorrows within his more immediate sphere of exertion!

FRIENDLY SOCIETIES AND THEIR AGED AND INFIRM MEMBERS.

IN the JOURNAL of February 1st, p. 251, we dealt somewhat fully with this question, but make no apology for returning to it in view of its importance, and especially as an interesting instance of action by one of the important friendly societies has just come to our notice. Section 15 (2) of the National Insurance Act states that:

"The Regulations made by the Insurance Commissioners . . . shall require the adoption by every Insurance Committee of such system as will secure:

(*c*) The provision of medical attendance and treatment on the same terms as to remuneration as those arranged with respect to insured persons, to members of any friendly society which, or a separate section of which, becomes an approved society who were such members at the date of the passing of this Act, and who are not entitled to medical benefit under this part of this Act by reason either that they are of the age of 65 or upwards at the date of the commencement of this Act, or that being subject to permanent disablement at that date they are not qualified to become insured persons:"

It may be of interest to note the annotation following this section of the Act in the book *National Insurance*, by Carr, Garnett, and Taylor (second edition), which has a preface by the Right Hon. D. Lloyd George, M.P.:—

There is an interesting history attached to this paragraph (*c*), as the persons here alluded to are not insured persons under the Act. The subsection is the result of a mutual arrangement between the British Medical Association and the friendly societies. The persons must have been members of a friendly society on or before December 6th, 1911, though they need not have reached the age of 65 or become permanently disabled until July 15th, 1912, or up to January 1st, 1913, if the Act does not commence till then.

It is quite evident, and it is strongly impressed upon the memories of those who were present at the time, that, at the time the above-mentioned "mutual arrangement" was arrived at, the friendly societies were extremely anxious that the operations of the Act should not prevent them from fulfilling the obligations which they then felt they were under to their old members who would not be insurable under the Act. The representatives of the Association agreed that these old and disabled members should not be charged any more than insured persons for their medical attendance, although it must be obvious, from a merely business point of view, that they might well be charged at a much higher rate. Friendly societies all over the country are now, however, trying to evade this obligation by attempting to induce medical men to undersell one another and to take these old members at less than the Insurance Act rate. This has apparently failed in London, and the following letter, which has been sent to a member of a friendly society lodge in London, is an example of meanness which it may be hoped is not likely to be followed:

February 3rd, 1913.

Dear Sir and Bro.,

In reply to yours to hand, Dr. ——— has ceased to be surgeon to the Court, his notice resigning having expired.

The Court have no surgeon now, and you must find your own doctor in future, and pay him yourself.

Of course you will not in future be charged the 1s. per Qr. for surgeon. You can thank Lloyd George for this.

Yours, fraty.,

(Sgd.) ——— Sec.

No one will think us anxious to excuse Mr. Lloyd George from any of his responsibilities in regard to this Act, but this seems to be an instance of attempting to put upon his shoulders a responsibility which clearly lies elsewhere. The friendly society has probably received for many years the contributions of the unfortunate member and now that he has reached a time of life when he is most likely to require medical attendance, it calmly informs him that he must shift for himself, and that it washes its hands of all responsibility for his medical attendance. The fact is, of course, that medical attendance can easily be got for such old members of friendly societies if the societies are prepared to pay a fair price for it, but they have been so accustomed to getting it at charitable rates that they cannot bring themselves readily to pay the fair price. We trust that full publicity will be given to this miserable attempt of one of the largest friendly societies in the kingdom to evade its responsibilities to the very class of members who should have most claim on the sympathy and fraternal feeling which, we have always supposed, was the basis on which friendly societies have been built up.

CONTRACT MEDICAL ATTENDANCE ON UNINSURED PERSONS.

THE State Sickness Insurance Committee of the British Medical Association had under consideration, at its meeting on February 6th, the question of fees and other conditions concerning attendance upon uninsured persons, a matter which had been referred to it by the Council.

The Committee adopted the following minute:

That in general in considering the necessity for obtaining the approval of the State Sickness Insurance Committee mentioned in a minute of the Council of January 29th, 1913 (see SUPPLEMENT, page 131), the following principles must be adhered to:

(*a*) Free choice of doctor.
(*b*) Remuneration not less than that given in respect of insured persons—that is, 9s. including medicines.
(*c*) Persons earning over £160 not to be treated under contract terms at all.
(*d*) Juveniles (under 16) to be treated at special rates.

That the Committee realizes that the conditions in certain areas will not allow of the above terms being obtained; and that in these circumstances the approval of the State Sickness Insurance Committee for a scheme involving a less payment may be given provisionally when the local profession can show that the economic conditions in the area demand it.

That one of the conditions necessary for the approval of schemes at lower rates of payment shall be the inclusion amongst the rules of a statement that the approval by the Association has been given to the rates only because of special economic conditions.

MOTOR CARS FOR MEDICAL MEN.

Small Cars.

IN the notice of the Bayard cars published in our issue of January 25th, p. 177, there were several slight errors. In addition to the 8-h.p., 10-h.p., and 14-h.p. cars mentioned, the company also supply 11-h.p., 12-h.p., and cars of higher power than the 14-h.p. referred to. The engines of the 8-h.p. and 10-h.p. cars are monobloc, while the engines of the 14-h.p. cars are cast in pairs; the 8-h.p., 10-h.p., and 11-h.p. have three speeds. Wire wheels are fitted only to the 8-h.p. and 10-h.p. as standard cars. The wheel bases of the 8-h.p., 10-h.p., and 14-h.p. cars are 7 ft. 5 in., 8 ft. 3½ in., and 9 ft. 5 in. respectively, and the size of the cylinders of the 8-h.p. car is 60 by 120. The foot-brake acting on the back wheel is used only in the 12-h.p. cars.

THE report presented to the annual meeting of the Royal Infirmary, Sunderland, stated that there was urgent need to rebuild the administrative block erected in 1868, which had become inadequate to the needs of the institution. The amount received from workpeople during the year was £7,778 out of a total of £12,533. The children's hospital, opened on March 26th, had already received 795 patients into its wards, and the number of patients treated at the Heatherdene Convalescent Home was 575, an increase of 166 on the previous year. Dr. Rowstron had been appointed honorary assistant physician to the infirmary, and his place at the Children's Hospital had been taken by Dr. Herbert Bruce Low, and Dr. Heslop had been re-elected assistant surgeon to that institution.

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THE DOCTOR IN POLITICS.

Lord Ilkeston, who played a conspicuous part for many years in Parliament, was an example of one who attained high distinction both in medicine and politics. Staunch to his political colours, he did not give up to party what was meant for his profession. Allusion is made elsewhere to the work he did on behalf of the profession in Parliament, but necessarily it is impossible to relate in detail all that he did during a parliamentary career extending over twenty-seven years.

It may be interesting, however, and perhaps stimulating even at this time of day to recall the strong views to which he gave expression some thirty years ago as to the duty of medical men to render service to the State in public capacities. In his presidential address delivered at the annual meeting of the Birmingham and Midland Counties Branch of the British Medical Association, on June 28th, 1883, he dealt with the political powerlessness of the medical profession, indicated its causes and suggested remedies. After pointing out that the tendency of the Legislature for some years before had been to give more and more attention to social and sanitary questions, he referred to the Medical Act of 1858, which when he spoke it was expected would shortly be amended, and which was, in fact, amended in 1886. The position then existing was, he said, the result of more than a quarter of a century's education on the part of the Association and of its Medical Reform Committee. "As far back even as 1831 the profession had begun, under the leadership of that honoured veteran, Dr. A. P. Stewart, to demand an improved educational course, and in 1833, at the second annual meeting of the Association, medical reform was discussed in Dr. Barlow's address. From the beginning even until now we have consistently and continuously pleaded 'that instead of having sixteen modes (now nineteen) of entering the profession, one only should be adopted, and that the profession at large should be represented on its Medical Council.' In 1840 these demands were first drafted into shape in Mr. Wakley's bill, and then session after session attempts were unsuccessfully made to pass some measure. The history of these attempts from 1837 to 1858 forms about as depressing a piece of reading for any one jealous of the position and influence of his profession as I can well imagine, except the dismal diary of our struggles and failures from 1858 till now. In both periods we have a similar catalogue of petitions presented and forgotten; of deputations courteously received and dismissed; of Select Committees and Royal Commissions framing laborious reports; of remonstrances unheeded; of hopes raised and disappointments reached. When at the end of the first twenty-five years' campaign we did at last obtain the Medical Act of 1858, we won neither of the essentials demanded by the Association; neither a single mode of entering the profession, nor direct representation on the General Medical Council. Direct representation, we were told, could not be granted till a register of the profession was made to enable it to vote. For a quarter of a century the register has been complete, the medical practitioners of the United Kingdom have contributed from their narrow means £150,000 for the support of a council to represent and defend the interest of the colleges in opposition to the wishes of the profession; and, as a result of our taxation, to leave us the worst governed medical body in Europe." He went on to say that after an experience of the Act extending over some seven or eight years a sense of its failure caused the Medical Reform Committee to resume its work, and in 1869 a petition, signed by some 10,000 practitioners, was presented, in which direct representation and a uniform mode of admission to practice were demanded as essential reforms. As the Medical Council showed itself indifferent to the demands of the profession, reform was sought through parliamentary channels. "Year after year medical bills have been introduced and withdrawn because we as a profession have had no adequate medical representation in the House." Warned by the long weariness of waiting, he said, broken by repeated disappointment and defeat, the Association had accepted the bill drawn up as the result of the labours of its Medical Reform Committee, and especially of its Chairman, Dr. E. Waters of Chester, giving four seats in a Council of eighteen for the representatives of the 24,000 practitioners in the United Kingdom. "Surely," he said, "such small success, after such long labours, must convince us of the political impotence of the profession to which we belong."

He made an appeal to the profession to take its due share in the public work of the communities in which it lived. "The nature of our daily work is to many of us," he said, "so absorbing in its interest and demands so much of our time for calm, careful reflection and for scientific investigation that we turn with the dislike of philosophers from the noise and dust of the forum. With some of us possibly there may be a lurking fear that pronounced opinions on political and social questions are apt to injure a doctor in public estimation and so to lessen his professional influence and his pecuniary profits. In the sad quietude of the sick chamber, where the finer issues of life and death have to be weighed, the brawling politician would jar on the sensitive nerves of the sufferer. Truly; but we need not be brawling politicians; nor need we allow political questions to so occupy our thoughts as to interfere with that absolute concentration of mind on the case of every patient which is essential to the most perfect performance of our work. Every man needs some variety in the direction and subject of his thoughts; as a class we are apt from lack of this variety to become, as compared with other classes, rather narrow-minded and wanting in sympathy with the great movements going on around us."

What Lord Ilkeston said so well in 1883 has its application to-day, and it suggests again the question that has so frequently been discussed, Why are there not more doctors in Parliament? It would be a very decided benefit to the profession if it had a larger share in the making of laws and in the management of affairs, and it would be even more beneficial to the public if the special knowledge of medical men were placed more directly and more fully at its service in matters concerning the suppression of disease and the preservation of the public health.

In regard to the duty which the medical profession owes the public in this respect, we may quote what

was said by Mr. Cleveland, then President of the United States, at the celebration of the New York Academy of Medicine of its semicentennial anniversary. After paying the profession the conventional compliments demanded by the occasion, he went on to point out certain evils, such as the imperfect isolation of some communicable diseases, the want of adequate protection against dangers to health from unwholesome water and noxious surroundings, and the practically unchecked prevalence of quackery, and he hinted that, although the doctors were not responsible in a professional sense for these results of the insufficiency of the laws, or of laxity in their execution, it was doubtful whether as citizens they were doing all in their power to remedy the situation. "We cannot but think," he said, "that the discoveries and improvements in the medical practice which we now enjoy are dearly bought if the members of the profession in their onward march have left behind them their sense of civic obligation, and their interest in the general public welfare. We cannot accuse you of utter neglect of your duty to the country, and yet we cannot keep out of mind the suspicion that if your professional work in exposing evils were more thoroughly supplemented by labour in the field of citizenship, these evils would be more speedily corrected. If laws are needed to abolish abuses which your professional investigations have unearthed, your fraternity should not be strangers to the agencies which make the laws. If enactments already enforced are neglected or badly executed, you should not forget it is your privilege and duty to insist upon their vigorous and honest enforcement. Let me also remind you of the application to your case of the truth embodied in the homely injunction—if you want a job well done do it yourself. If members of your profession were oftener found in our national and State legislative assemblies ready to advocate the reformatory measures you have demonstrated to be necessary, and to defend your brotherhood against flippant and sneering charges of impracticability, the prospect of your bestowal upon your fellow men of the ripened results of your professional labour would be brighter and nearer." These words may find an application in this country not less than in the United States. It may be hoped that the profession will lay to heart another remark of Mr. Cleveland to the effect that "no object of personal ambition and no activity of professional life should be permitted to withhold from our government the tithe of devotion and service due from its thoughtful and intelligent citizens."

This injunction applies not only to Parliament, but to other elected bodies which discharge important duties in the body politic. Dr. Cuff reminds us, in a letter published this week, that there never was a time when the obligation on medical men to take their due share in local administrative work was more imperative. Dr. Cuff declares that doctors are conspicuous by their absence from county councils, town councils, rural councils, and all bodies in which the local government of the country is vested. Though this exaggerates the extent of the default, there is a great measure of truth in the general accusation, and the approaching county council elections afford an opportunity for making it good. It is true that the methods of the party canvasser may be distasteful, and that the successful candidate may find that his new duties as a councillor make serious calls upon his time and energy. But we may recall Bacon's words in the preface to *Maxims of the Law*: "I hold every man a debtor to his profession; from which as men of course do seek countenance and profit, so ought they of duty to endeavour themselves by way of amends to be a help and ornament thereunto."

PLACENTA PRAEVIA AND PRE-MATERNITY TREATMENT.

Professor Paul Bar has been writing on the subject of placenta praevia,[1] and what he has to say on that matter is always worthy of attention. There are, however, certain statements embedded in this particular article which are in danger of being overlooked because their position is not prominent and because they are not emphasized. Yet they are, as we take it, of extraordinary importance.

Professor Bar has been dealing with the somewhat sombre matter of the maternal mortality in placenta praevia, and he has found that his hospital statistics give him a death-rate of 9.2 per cent.; in other words, in 153 cases of placenta praevia he lost 14 mothers. These deaths were spread over the period from 1897 to 1912, but they were not all in the same hospital though all in Paris. Professor Bar was in charge of the Saint-Antoine Maternity from 1897 to 1907, but from the latter year to the present time he has been at the Clinique Tarnier. Naturally enough he has been comparing the results obtained in the two hospitals, and he has found that whilst in the former he lost 10 mothers from infection following the placenta praevia, in the latter he had lost none from this cause.

This difference obviously calls for inquiry, and even for close scrutiny. Of his 153 cases of placenta praevia, 108, or about two-thirds, were treated in the maternity department of the Saint-Antoine Hospital, and 45, or about one-third, in the Clinique Tarnier. The total maternal mortality, as has been said, was 14; 4 of these deaths were due to the haemorrhage, whilst 10 were caused by infection and its sequelae. In placenta praevia, therefore, the mother runs more risk to her life from infection than from haemorrhage and the acute anaemia induced by it. This conclusion is printed in italics, and quite rightly, since it is a very important fact for the obstetrician to bear in mind; but why should all the infection-deaths have occurred in the one hospital?

We gather that Professor Bar's methods of dealing with placenta praevia did not undergo any essential change when he went to the Clinique Tarnier; and there is no hint that the two institutions differed in any way in their sanitary conditions. There were, however, two marked differences in the management. In the Saint-Antoine, in cases of urgency, the resident doctor or student (he is called *l'élève de garde*) had to do the best he could for the patient; in the Clinique Tarnier, under similar circumstances, the chief physician or his substitute did what was needful. Professor Bar does not place great weight upon this difference, indeed he puts it after the other, although we can easily see that with the best will in the world the learner of practical obstetrics could hardly render as much assistance as the practised senior. It is on this other difference that he lays stress, and it is on it also that we would insist.

When patients came to the Saint-Antoine suffering from some pathological state connected with pregnancy, no special pressure was put on them to induce them to remain in the hospital. In other words, they were probably told to come back when the pains had begun. At the Clinique Tarnier, on the other hand, many pregnant patients came for advice;

[1] *Arch. mens. d'obstét. et de gynéc.*, Ann. I, No. 10, pp. 162–176, 1912.

and it was very rare for a woman, when counselled to stay in the hospital, to disregard the recommendation. Now, what was the result? In the one hospital, where no effort was made to hospitalize (so to say) morbid pregnancies, placenta praevia cases were rushed into the wards, bathed in their blood (as Professor Bar says), having had several floodings, and having suffered several attempts at treatment, including in all probability a packing of the vagina. In the other hospital there was always a chance that the diagnosis of placenta praevia would be made in the course of the pregnancy; that the patient would be in what we call in Britain the prematernity or pregnancy ward, and that therefore she would be within reach of the best treatment when the first sign of haemorrhage appeared. In the former case the patient may be infected before she reaches the hospital: in the latter, there is a far better chance of making the whole process aseptic. In the Parisian statistics one can hardly fail to find a remarkably strong argument in favour of the idea of providing all maternity hospitals with prematernity or pregnancy wards, an idea which was pressed upon the profession by Dr. J. W. Ballantyne of Edinburgh in this JOURNAL[2] as long ago as the early part of 1901.

Two questions may be asked: Can placenta praevia be diagnosed in pregnancy before the occurrence of haemorrhage? and did the facilities for the treatment of pregnancy cases in the Clinique Tarnier diminish the deaths from haemorrhage? With regard to the former, the answer is, Yes. If on abdominal palpation the head be felt at brim of the pelvis, and if on vaginal examination, made at the same time, the cervix be found to be thicker than usual with a soft substance lying between the fingers and the presenting part, then the diagnosis, even if there have been no slight premonitory bleedings, is fairly certain. To the latter question Professor Bar's statistics cannot give an answer. There were four deaths in all due to haemorrhage, and two of these occurred in the first half and two in the second half of his fifteen years' experience. We cannot affirm that the risks from the bleeding will be less, although we think that logically they ought to be so; but we have the sure evidence that the risks of septic infection are much reduced.

We wonder in how many maternity hospitals in this country prematernity or pregnancy wards have been established since the plea for such things was published in these pages in 1901. We know that in the same year the Edinburgh Royal Maternity Hospital set aside first a bed and later a ward for pregnant patients suffering from the maladies of gestation, and we know that reports[3] of the cases dealt with there have been from time to time put on record, but it would be interesting to know how many other hospitals have adopted an idea to which Professor Bar has given support in a manner all the more striking because apparently unintentional

FAULTS IN THE CONSTITUTION.

THE resolutions of the Special Representative Meeting in January with reference to the need for an alteration in the regulations of the Association in order that it may be possible to obtain more quickly than at present the decision of the Association in cases of urgency, and requesting that the postal vote should be utilized on such questions, or such as are concerned with any suggested future line of policy, were referred by the Council at its quarterly meeting last week to the Organization Committee, with instructions to treat the matter as one of urgency. Recent events have shown the necessity of proceeding with this matter without further delay. Action will be facilitated by the fact that the difficulty which has now arisen was foreseen and the whole subject very fully discussed five years ago. The letter which Dr. Henry Davy of Exeter addresses to us this week will be read with interest, for he writes from a very full acquaintance with the subject. As President of the Association in 1907–8, he endeavoured to reconcile conflicting opinions, and after discussion between some of those who had taken a leading part in drawing up the draft of the Charter and representatives of the opinion that it was defective in the respects indicated above, a compromise was provisionally reached which was embodied in resolutions moved on behalf of the Cardiff Division at the Annual Representative Meeting in Sheffield in 1908 by Dr. Maclean. The first amendment proposed that the referendum whenever taken should be by means of voting papers to every individual member of the Association. The mover pointed out that under present circumstances probably not more than 10 per cent. recorded their votes, since they could only vote by attending a meeting of the Division. This, he declared, was an unsatisfactory condition of things. The proposal to introduce the principle of a postal referendum into the regulations of the Association embodied in this motion was, however, rejected by 63 votes to 34, and the present system, to which the term "referendum" has been applied, was retained. It is, Dr. Davy says, "nothing more than an appeal by the Council from the decisions of meetings of Divisions, as expressed by Representatives instructed at these meetings, back again to the meetings of the Divisions." It is not a referendum in any sense known to any national constitution, and would be laughed out of court if proposed as part of the political organization of this country.

Dr. Davy in his letter refers also to the mode of election of Representatives by the members of Divisions. At present a Division can elect its Representative either by the votes of those members who happen to be able to attend a general meeting, or it can, if it so decide, make the election by voting papers sent to each member of the constituency. It was proposed as part of the compromise at Sheffield that the election should always be by voting papers, but this also was rejected at that time.

Another point made by Dr. Davy is that the existing rule, according to which a Representative is instructed by a meeting of his constituency, does not work satisfactorily, since the instruction may be given at a meeting attended by a very small proportion of the members of the Division, and the Representative may therefore be called upon to vote at the Representative Meeting without having any opportunity of ascertaining the opinion of the majority of his constituents, and therefore possibly contrary to their wishes. Dr. Davy suggests a method by which this difficulty could be met. Upon its feasibility we are not prepared to express any opinion. What seems obvious is that some means must be found by which every member of the Association shall be able to exercise his legitimate influence in determining the policy of the Association, and no scheme can be successful which does not take fully into account the special conditions of medical life, and the fact that the

[2] BRITISH MEDICAL JOURNAL, vol. i. 1901, p. 813.
[3] BRITISH MEDICAL JOURNAL, i. 1903, p. 65; *Journ. of Obstet. and Gynec. of the Brit. Empire*, xv, 93, 169, 1909; *Internat. Clinics*, vol. iii, 1911, p. 211.

exigencies of his calling and the distance he may have to traverse may prevent him from attending a meeting at a stated hour and place.

The Association has been placed in a false position, and has suffered in consequence in the eyes of the public and the profession alike. Means should speedily be taken to prevent the occurrence of such a misfortune again. The public has laughed at what it looks upon as another proof of its doctrine that doctors are not good men of business. Dr. Davy explained the position to the public in a letter to the *Times* published on January 17th, and our contemporary, in commenting on the matter, wrote: "The actual difficulty in which the Association finds itself must be attributed largely to a faulty constitution. No doubt the underlying causes go deeper than mere methods of administration; but if a postal referendum had been taken instead of relying on Divisional and Representative Meetings the true situation would have been more clearly revealed and the danger have been avoided. . . . The inference is obvious that, before taking any other decision, it would be wise to ascertain the real trend and strength of opinion among the members by an individual vote. We presume the Representative Body has power to do this." The Representative Body, however, has not got this power, and the Association under its present constitution has no constitutional means of ascertaining the opinion of the majority of its members.

THE MOTIVES OF THE PROFESSION.

On Sunday last the Bishop of Manchester, preaching in his cathedral on behalf of the hospitals of the city, said that medical practitioners knew the poor as no other profession—not even the clergy—knew them; and he had, he said, been "filled with great indignation to witness how little has been understood the attitude of the medical profession towards the Insurance Act, as if they had never worked without payment, as though they had never treated cases out of sheer charity. It has been assumed too often that the whole profession has been haggling after sixpences, whereas, so far as I can judge, they have desired only that the work which they had under the Insurance Act should be thorough and not scamped work, and that the diseases of the poor should receive the same careful attention as the diseases of the rich. In all this they had in reality been fighting the battle of the poor, and they deserve the gratitude of the nation for the endeavour which they have made to secure conditions under which medical attendance under the Insurance Act should be a reality and not a sham. This is, at all events, my impression, and, in justice to the profession to which we are all indebted, I am bound to record it." The Insurance Act, he went on to say, brought no relief for diseases requiring special medical or surgical treatment, and none to the uninsured, among whom were many who most needed it. Hospitals and dispensaries would continue to be necessary for most of the worst cases and for the most needy classes, and for the present the Act had not diminished the work of the hospitals. The loss to the nation would be great if the hospitals ceased to be voluntary institutions; it would no doubt be possible to provide excellent infirmaries at the public cost. The workhouse infirmaries were in many respects admirable, but it would, he said, be a poor day for the national life when the self-denial of the nation took the form of rates and taxes. The Bishop showed a true insight into the motives by which medical practitioners are inspired, and it is pleasant to record the sympathetic attitude of a distinguished member of a sister profession.

MEDICAL SERVICE IN THE HIGHLANDS AND ISLANDS OF SCOTLAND.

Medical men in the Highlands and Islands of Scotland owe a debt of gratitude to the member for Orkney and Shetland—Mr. J. Cathcart Wason—who, in his place in the House of Commons and at public meetings, has taken every opportunity to show the disabilities under which medical practice is carried on in the Highlands and Islands. In a letter published elsewhere in this issue Mr. Cathcart Wason draws attention to two points—namely, security of tenure and the doctor's house. It is an anomaly that in England parochial medical officers have fixity of tenure and medical officers of health have not, while in Scotland the position is reversed. As Mr. Cathcart Wason points out, Scottish Secretaries have always refused to sanction any change in the arrangements. The Poor Law Medical Officers' Association of Scotland has over and over again agitated to have fixity of tenure granted, but the demand has never been met. If fixity of tenure—with, of course, the right of the Local Government Board to institute an inquiry where it might deem it necessary—was one of the conditions of parish medical appointments a better class of candidate would be forthcoming. At present the parochial medical officer is at the mercy of a board, one or two members of which may have had some social quarrel to which the doctor is unwittingly a party, and in a spirit of revenge may deprive the doctor of his appointment. This is known to have happened more than once in the Highlands and Islands. The outstanding grievance to which Mr. Cathcart Wason refers is that in many parishes it is difficult, and often impossible, for the doctor to get a house, or even to get suitable accommodation, in the village or hamlet where he practises, befitting a man in his position. The evidence given by the witnesses before the Committee is quite in keeping with the facts which are within our knowledge. We are pleased to learn, from Mr. Wason's letter, that it is proposed to introduce a bill to deal with the matter; the measure, we are sure, will meet with the sympathy and support of the members of the House of Commons, as many of them—when visiting the Highlands in pursuit of sport—must have been struck by the very meagre accommodation provided for medical men in comparison with the manses erected for the army of clergymen who have invaded the Highland parishes during recent years. It will be seen that a supplementary estimate for the present financial year, issued last week, allots a sum of £10,000 for mileage and other special charges in the Highlands and Islands of Scotland. Thanks to the efforts of Mr. Cathcart Wason and other Scottish members of Parliament, the outlook for medical men in their districts is becoming brighter.

THE FEAR OF ANAESTHETICS.

Dr. Dudley W. Buxton has published in the *Contemporary Review* an excellent article designed to allay the fear of anaesthetics, a fear aroused in the minds of many laymen by the rather large number of cases of death under chloroform which occurred during some past years. The personal equation of the human being, he says, must always render the use of a powerful anaesthetic a delicate and intricate matter. Danger cannot be completely eliminated from empirical methods, but he points out that the recent report of the Special Chloroform Committee of the British Medical Association has done much to lift the premier anaesthetic "from the limbo of empiric practice to a more rational and scientific level"; but there is still need for legislation which shall check the wanton abuse of one of the most important discoveries of modern times. In the opening part of the article, which is entitled "Sleep and her twin sister, Death," Dr. Buxton traces rapidly the evolution of anaesthetics from the nepenthes of Helen to chloroform. He mentions Humphry Davy's statement that nitrous oxide might be used as an

anaesthetic in minor operations, which is of course familiar to all students of the subject, but the fact remains that after the effect of the substance had been clearly pointed out no one paid the smallest attention to it for over forty years. Nothing could be more definite than Humphry Davy's statement, which we quote once more, as many people, even at the present time, seem to be unacquainted with it. In 1800 Davy, in experimenting with the gas, found that it relieved pain, and gave his experience in the following words: "The power of the immediate operation of the gas in removing intense physical pain I had a very good opportunity of ascertaining. In cutting one of the unlucky teeth called *dentes sapientiae*, I experienced an extensive inflammation of the gum, accompanied with great pain, which equally destroyed the power of repose and of consistent action. On the day when the inflammation was most troublesome I breathed three large doses of nitrous oxide. The pain always diminished after the first four or five inspirations, the thrilling came on as usual, and uneasiness was for a few minutes swallowed up in pleasure. As the former state of mind, however, returned, the state of organ returned with it." In his book *Researches, Chemical and Philosophical, Chiefly Concerning Nitrous Oxide and its Respiration*, Davy pointed out the possible applications to which the anaesthetic gas might be put by surgeons. We again quote his own words: "As nitrous oxide in its extensive operation appears capable of destroying physical pain it may probably be used with advantage during surgical operations in which no great effusion of blood takes place." It will be seen that nothing could be more definite than this. Eighteen years later, in 1818, a paragraph in the *Journal of Science and the Arts*, probably written by Faraday, drew attention to the fact that "when the vapour of ether is mixed with common air and inhaled it produces effects very similar to those occasioned by nitrous oxide"; but this plain intimation of the anaesthetic properties of ether also fell on deaf ears. Dr. Crawford W. Long of Jefferson, Jackson County, Georgia, guessing, possibly from this hint of Faraday, that ether, which was then in use in what were called "ether frolics," might deaden the sense of pain under the surgeon's knife, tried it in practice in 1842 with success. He did not, however, apparently take much pains to make this discovery known, and from this we should gather that he did not appreciate its importance. It is to an American dentist named W. T. G. Morton that we owe the successful application of ether in surgery. He had long been looking for an anaesthetic, and the use of ether was suggested to him by Dr. Charles T. Jackson, a distinguished chemist of Boston. To him belongs the credit of having got this great discovery accepted, just as to Simpson belongs the glory of having introduced and popularized the use of chloroform, the trial of which was suggested to him by Mr. David Waldie. It is, as Sydney Smith somewhere says, not the man who gives the first hesitating hint of a new truth, but he who shouts it from the housetop, and gets people to listen to him, who is the real discoverer. Dr. Buxton refers briefly to the psychology of the anaesthetic dream sleep, a subject on which we have often dwelt, giving particulars from the well-known story of Oliver Wendell Holmes's supposed discovery of the riddle of the universe, which resolved itself on his awakening into the cryptic formula, "A strong smell of turpentine pervades the whole." Dr. Dudley Buxton pleads strongly for the scientific use of chloroform by exact methods. "The subject," he rightly says, "is no longer a mere handicraft but a science; and the art which it teaches is based upon physiological knowledge and experiment." An attempt has been made recently to get a law passed forbidding the use of anaesthetics by any person not possessing a medical qualification; but, so far, nothing has been done in this direction, and thus, Dr. Buxton says, "the menace of a grave danger to the public remains."

THE SUPPOSED INFERIORITY OF THE FIRST AND SECOND BORN.

IN a memoir published in 1907,[1] Pearson described the results of an inquiry which tended to show that the earlier born members of families were more likely to develop phthisis than their younger brethren; he also concluded that the fertility of phthisical stocks was, if anything, above the average. Very similar results were reached by Heron in his analysis of asylum data.[2] Both these conclusions, if established, would be of considerable importance, and it is not, therefore, surprising that they have been questioned. We have received a copy of an essay by Mr. T. B. Macaulay, a former President of the Actuarial Society of America,[3] who is of opinion that Pearson's results depend upon statistical fallacies and are consequently worthless. In Mr. Macaulay's judgement, the first conclusion, namely, that elder-born children are more likely to develop the disease in question, is due to the fact that, partly owing to phthisis being a disease which develops mainly in adult life, partly because sanatorium patients are usually adults, the diseased members of the families studied, who formed the starting point of the inquiry, were past childhood. But since a man of 40, if he have brothers and sisters, is more likely to be the eldest in family than a boy of 15 with the same number of brethren, a selection of persons above 15 years of age will contain a higher proportion of eldest sons than the population at large. Mr. Macaulay's argument is vividly expressed in the following sentences which we quote from his address to the Eugenics Congress. He remarks: "I can begin with this very audience now before me. It is certain that very many of you have younger brothers and sisters who are yet but boys and girls. The percentages of elder born among you will therefore certainly be decidedly in excess of those for the younger born. Would I be justified, however, in assuming from this that the composition of this audience proves that first and second born children are mentally superior to their younger brothers and sisters? It would be very pleasant if I could pay you that flattering compliment, but truth compels me to say that all that such statistics would really prove would be that children and babies are too young to attend this congress." Mr. Macaulay seems to have overlooked the fact that not only children and babies were excluded from the congress but also persons of any age who happened to be dead. If we had a gathering confined to survivors of the Balaclava charge and then considered only those veterans who had living brothers and sisters, we should no doubt discover an overwhelming proportion of eldest sons. But if we do not draw such a line, it is not obvious that the percentage of first-borns among men of 80 should be greater than among children of 1 month, unless there be correlation between longevity and order of birth. The argument, therefore, is sophistical. Mr. Macaulay's second objection to Professor Pearson's work, namely, that the fertility of stocks when determined from the children is artificially increased, since the large families are relatively more likely to be represented in a sample of children than are the small families, has recently been advanced by Weinberg[4] in a slightly different form. It is well known that when fertility is estimated from data based on the statements of children as to the number of their brethren, the mean fertility per family may be overestimated, owing to the weighting of each family with the number of children it contains. Pearson[5] specially considered this point some years ago. If it be possible,

[1] K. Pearson, *A First Study of the Statistics of Pulmonary Tuberculosis*, London, 1907.
[2] D. Heron, *A First Study of the Statistics of Insanity*, etc., London, 1907.
[3] *The Supposed Inferiority of First and Second Born Members of Families—Statistical Fallacies*. By T. B. Macaulay, F.I.A., F.A.S. Pp. 17 + 3. (Herald Press, Montreal.)
[4] *Arch. f. Rassenhygiene*, vii, 1910, p. 634.
[5] *Phil. Trans.*, A, vol. cxii, p. 261.

owing to the possession of complete pedigrees, to sort out the children into their respective families, so that any family is not counted more than once, and if sterile marriages be excluded from the normal data used for comparison, the force of the objection is notably weakened. As will have been gathered from the foregoing remarks, we are not greatly impressed by the cogency of Mr. Macaulay's arguments, but this is not to say that the conclusions of Pearson and Heron are self-evidently just. The importance of the matter is so great that we hope the staff of the Galton laboratory will consider some of the difficulties ordinary readers are likely to meet with in studying their results. Thus the sanatorium patients dealt with by Pearson seem each to have come from a separate family. It is not, *prima facie*, obvious that the proportion of first-borns among the tuberculous members of these families should be the same as that prevailing among all the members of the stocks taken together. The conclusion may be correct, but it certainly seems to require further elucidation. The matter is, however, a technical one, and cannot fittingly be discussed in these columns. We have only noticed the subject because it illustrates the intrinsic difficulty of statistical problems having a direct bearing upon public health teaching.

THE PORTRAYAL OF THE BLIND IN JAPAN.

FROM earliest times the blind have been favourite subjects for the artist's brush, and portraits of the blind alone do much to reveal the standard of painting at various epochs. The subject was treated with great realism by the Greeks, but the most relentless realism was displayed by the Dutch painters. With the exception of the Dutch school, however, Japanese artists are, according to Professor Greeff,[1] the most faithful portrayers of blindness in its many aspects. In an interesting paper he brings out many curious features of the life of the blind in Japan, and of their portrayal by Hokusa, who was born about the year 1759. He ranks in European opinion as Japan's greatest painter, yet he appears to have been ignored by his contemporary fellow countrymen, and to have died in poverty and obscurity. After middle age he issued a series of sketches representing life in Japan, and he depicted as many as twenty-four distinct types among the blind. His vivid realism lays him open at first sight to the charge of caricaturing. But Professor Greeff thinks that such an interpretation is unjust, and that the artist has caught true, but possibly fleeting, expressions of the blind. Some appear happy and scarcely affected by their blindness, others bear the stamp of sorrow and resignation, others look stupid, and others again are portrayed as idiots. Their attitude, gait, and expression betray the action of a common affliction on characters of widely different type. Massage is an accomplishment commonly acquired in Japan by the blind, whose sense of touch is naturally well developed; and, as massage has been in common use since the eighth century, the blind masseur is well established. Massage is to-day prescribed for almost every form of illness, and it is commonly employed after baths or exercise. It is therefore not surprising that even the smallest villages in Japan can boast a blind masseur, and that he has been frequently depicted in the exercise of this art. Professor Greeff reproduces two such scenes depicted by Japanese artists, who evidently have caught characteristic expressions of both the masseur and his subject. The former, in one sketch, wears an expression of grim determination as he apparently digs his elbow into the small of the back of his subject. The latter's quaint expression of resignation scarcely suggests pleasurable sensations. In the other sketch, the masseur's expression denotes extreme despair and exhaustion, while the fatuous and languishing expression of his subject suggests the placid contentment of a pig being tickled.

[1] *Deut. med. Woch.*, January 2nd, 1913.

THE ANALYSIS OF COLOUR VISION.

PROFESSOR A. W. PORTER and Dr. F. W. Edridge-Green reported recently to the Royal Society the result of further researches into the question of the negative after-images and successive contrast with pure spectral colours. The object was to ascertain the appearance of pure spectral colours after the eye had been fatigued by light of a known wave length or situated in a portion of the spectrum between two known wave lengths. They used lights of only moderate intensities for a short time, and their experiments thus differed from those of Burch, who used lights of extreme intensity, or from those of Edridge-Green and Devereux Marshall, who used very weak lights for a prolonged period. The eye was kept rigidly fixed during the fatiguing process, and a very clear after-image was produced. The results obtained could all be explained on the Edridge-Green theory. It was found that the complementary to the exciting light was never strengthened in the spectrum on the screen by the after-image, and the after-image was not surrounded by the primary colour as it should be according to the Hering theory. According to the Young-Helmholtz theory, the effect of fatiguing the eye with a monochromatic region should cause the uniform grey band to vary in colour and luminosity across its breadth, but this did not occur. On the Helmholtz theory the after-image should change colour on fading because of the varying amount of fatigue of the hypothetical colour sensations, but this was not the case. Regions like the violet, after fatigue to red, should be very little affected, but they were the most affected. The fatigue light should most affect the region used for the fatigue, but again this was not the case. Yellow should change to green after fatigue to red, or to red after fatigue to green, but this was not so. These facts, as well as some others, are used by the authors to still further disprove the theories of Hering and of Young-Helmholtz and as arguments in favour of the Edridge-Green theory, which does explain all these phenomena.

TUBERCLE BACILLI IN THE BLOOD.

PROFESSOR LYDIA RABINOWITSCH,[1] whose careful and exact work on tuberculosis always claims the serious attention of pathologists, has recently published some interesting details in regard to the presence of tubercle bacilli in the blood of consumptives. She points out that twenty-two years ago Virchow expressed his conviction that tuberculin "mobilized" tubercle bacilli. Orth, at that time in Göttingen, came to an almost identical opinion, and showed that the action of tuberculin was to produce a reactive change in the tuberculous foci which led to the liberation of the bacilli and their appearance in the circulating blood. Several investigators confirmed this observation, but others, including Ehrlich, Guttmann, and Kossel, had only negative results. Professor Lydia Rabinowitsch states that she did not succeed while working at the old Koch Institute in demonstrating bacilli in the blood; this, she now thinks, was due to the methods then in use. Utilizing the Stäubli-Schnitter method, she has recently obtained positive results in guinea-pigs and rabbits infected with tubercle bacilli three or four weeks previously, in whose blood no bacilli could be found. The animals were then treated with tuberculin and the existence of bacilli in the blood was demonstrated both microscopically and by inoculation into fresh guinea-pigs. This result was obtained with small as well as with large doses of tuberculin, although not with the same regularity. Some years ago she examined with Jessen of Davos the blood of a number of phthisical patients, and found that bacilli could be detected in the blood in about 33 per cent., but the effect of tuberculin was not then investigated. The importance of the presence of tubercle bacilli in the blood after the absorption of tuberculin

[1] *Berl. klin. Woch.*, January 20th, 1913.

is self-evident, and calls, therefore, for further observations in order that its significance may be thoroughly understood. No satisfactory deduction can be drawn until it has been established whether tubercle bacilli are usually absent from the blood in tuberculosis. Some at least of the negative results have been due to inefficient methods, and before a definite step forward can be made it will be necessary to ascertain whether some method cannot be devised which will reveal with certainty the presence in the blood of even a few bacilli. It may then appear that they are always or frequently present in tuberculous infection with pyrexia. It seems possible that the bactericidal action of substances contained in the serum may limit the life of the bacilli in the blood under ordinary conditions, and in this case the number of living bacilli might be extremely small. Professor Rabinowitsch raises the question whether the acid-fast bacilli found are true tubercle bacilli, for such organisms have been found in apparently healthy persons. Bacmeister and Rüben have put forward the view that they are not tubercle bacilli at all, chiefly because of the results obtained when the blood has been injected into rabbits. Professor Rabinowitsch has no difficulty in demonstrating that this argument is untenable, and that the point cannot be decided by experiments on rabbits. There is already experimental evidence that tuberculin can liberate a sufficient number of bacilli to render their recognition in the blood by existing methods possible in a majority of cases. Further, we have evidence to the effect that in man tubercle bacilli may under circumstances which have yet to be determined be present in the blood. Before we are justified in considering the effect of this observation on the therapeutic value of tuberculin, further evidence is required in regard to the presence or absence of tubercle bacilli in the blood when no tuberculin has been employed. We understand that investigations in this direction are at present being carried out.

TUBERCULOUS PERITONITIS AND STERILITY.

ABDOMINAL surgery, more accurate registration of hospital cases, and bacteriological research have taught us a great deal about tuberculous peritonitis, especially in women. General opinion, based on recent practice and observation, seems to hold that surgical measures are inadvisable unless the tuberculous disease is limited to one organ, so that the knife may pass through perfectly healthy tissues and the ligatures lie safely in those tissues. Otherwise grave complications may probably ensue. It is also believed that although extensive tuberculous deposits may disappear under medical treatment, the functions of the internal organs may be very seriously disturbed. That this is not invariably the case is shown by a very definite instance reported recently by M. Delassus,[1] where the diagnosis was confirmed by two abdominal sections. The patient was a pale, sickly lady aged 29, who had been married five years. There was no family history of tubercle, but she grew thin and weak and ascites developed. M. Delassus found that there was no evidence of thoracic disease, but that ill-defined solid deposits could be felt in the abdomen and Douglas's pouch. They were not tender. The abdomen was tapped. For a few weeks daily injections of 5 cg. of sodium cacodylate were administered with good general results, but the peritoneum filled up again, although the patient grew stronger. M. Delassus opened the peritoneal cavity by a median incision and found tuberculous deposits widely disseminated; the omentum was infiltrated, and on the surface of the uterus and Fallopian tubes were characteristic nodosities. There were no adhesions between the intestines. Nothing was removed. Six months later, as fresh effusion had occurred into the peritoneum and incisional hernia had developed, M. Delassus, in January, 1911, operated again and found that the peritoneum presented the same appearances as before; it was dried and closed. After convalescence the patient became pregnant within eighteen months of the date of the second operation and was delivered of a living child. In September, 1912, she was in perfect health. No bacteriological examination was made, but there seems to be little or no doubt that the peritonitis was tuberculous. There were none of the signs of the more purely inflammatory forms of peritonitis, such as multiple adhesions, and the after-history showed that the solid bodies were not disseminated malignant growths. There appeared to be no obstruction of the tubes, which so often complicates any disease of the upper part of the female genital tract, and necessarily involves sterility, not only because the passage of the ovum is thus impeded, but also because destructive inflammatory changes occur. The case seems to prove the possibility of gestation after tuberculous peritonitis, so that no patient who recovers should be held as hopelessly sterile, though marriage could hardly be advised in the instance of a single patient. In the case of any married woman it is important to note the relation of tuberculous peritonitis to pregnancy, as there is some difference of opinion as to the same relation of pulmonary tuberculosis, which instead of being extremely rare is one of the commonest of all grave diseases, and does not act as an immediate check on conception and pregnancy. The case is incomplete in one respect, as it affords no evidence as to whether the local changes in gestation act beneficially on the adjacent peritoneum or whether the tuberculous disease may not become more active than ever after the pregnancy has ended—a phenomenon not unknown in phthisis.

[1] *Bulletin de la Soc. d'Obstét. et de Gyn. de Paris, Lille, etc.*, November, 1912, p. 898.

THE INFANT'S CRY.

"THE infant does not speak," says Dr. Rousseau-Saint-Philippe,[1] "he is *in fans*." Etymologically, he must not speak; but he cries, and we find his language in his cry. It is part of the physician's business to learn his language, and so to interpret the child's sensations. The infant comes into the world with a cry, and the writer quotes Longet, who declares that this first cry is a shout of triumph, for the bonds of intrauterine existence have been burst by the unknown force which dominates all the phenomena of life. There is, however, a more prosaic reason for this initial cry—namely, the contact of the child's body with the cold atmospheric air. The healthy babies cry loudly, while those which are congenitally weak cry feebly and little, and the doctor should be on his guard in the case of the silent and the sleepy ones. It is, of course, always important to find out the cause of crying; but there are babies who cry for no real cause, and these are the screamers ("les criards"), generally the offspring of defectives, alcoholics, and neuropaths, and likely to grow into neuropaths themselves by and by. But there is usually a real cause. Among the external ones are what may be called "the four p's" (p's in French, at least)—the pricks of parasites, such as fleas, lice, and bugs (puces, poux, punaises), and of pins badly placed; but there are others—such as the tightness of clothes, the presence of diapers soiled with faeces or urine, hot bottles, extremes of temperature, and especially very hot days. The internal causes are harder to find, but it is of great importance to discover them. Fortunately, the commonest, which is hunger (and perhaps thirst), is the most easily cured; it ceases when the child has had the breast. If it does not so cease, it may mean that the milk is poor or scanty, and then weighing the infant will clear up the diagnosis. But it may be due to other causes, of which the second in frequency, according to Dr. Saint-Philippe, is internal discomfort due to

[1] *La clinique infantile*, xi, p. 17, January 1st, 1913.

dyspepsia, and especially to dyspepsia with colic. Crying now is increased by giving the breast; it comes on suddenly and ceases abruptly when wind or a stool is passed; if it be the result of a full bladder, it disappears with micturition. The third of the internal causes is pain, and again the intestinal tract may be at fault; but now it is more than discomfort—it is sharp suffering, as in cases of enteritis, and particularly, says Saint-Philippe, of athrepsia, as was pointed out long ago by Parrot. Of course many causes of pain may exist, among which teething and local maladies of the bones and skin may be named. A fact of some importance is, as was pointed out by Dr. Genaro Sisto, of Buenos Aires, that persistent crying, in the absence of other causes, may be due to hereditary syphilis; if it be, it ceases with the commencement of the specific treatment. Much, then, may be learnt from the cry.

OBSERVATION AND JUDGEMENT.

THE address delivered at the inauguration of the present winter session of the Royal Veterinary College, London,[1] by Major-General F. Smith, C.B., C.M.G., F.R.C.V.S., has been printed. In it he called attention to the necessity of bearing in mind the relation of observation to judgement when treating man or animals. Observation depended largely on the personal factor. There were, he said, many varieties of observation, and probably no man possessed them all to an equal extent. There were some people who never forgot a face—the mental picture formed was ineradicable; some never forgot horses they had once seen, others could never remember them. There were people so unobservant as to locality that they did not recognize a street they had often seen before, and others who never failed to remember one along which they had once passed. Similarly there were men who could see clinical features and differences when they were pointed out, but failed to find them for themselves, yet the recognition of these differences in practice was of the utmost importance, and there were even commoner features in connexion with the sick or their surroundings, which some utterly failed to notice. He aptly turned attention to Zadig and the queen's dog, the most often quoted passage from Voltaire's witty story, and transformed Zadig into a veterinary surgeon, who, by his common-sense powers of observation, reported on the state of the regal stables and their inmates after simple inspection, during which he never spoke a word nor asked a question nor received any spoken information. This report showed that the stables and the horses were, to say the least, in a highly unsatisfactory condition. Judgement, Major-General Smith declared, was infinitely more difficult than observation, and required a longer apprenticeship. The mental analysis of symptoms and evidences constituted the essence of judgement, which was directed by experience and the application of the senses. His advice to the student of the diseases of horses was such as students of disease in man may consider with profit, for infants, like animals, are "dumb," and there are also men and women who seem unable to give any precise account of their symptoms and thousands more who mislead us by their false conclusions, which is worse. "In order to be good practitioners I urge you," he said, "to train your observation and judgement, and be, as far as possible, independent of outside help in the diagnosis of disease. Look and see. . . . The absence of speech is no very serious disadvantage excepting in cases of lameness, and though the truth-saving advantages of a dumb patient may be neutralized by the untruthfulness and gross inaccuracies of those in attendance, the observant practitioner can silently afford to neglect most of what he hears."

[1] *Journal of Comparative Pathology and Therapeutics*, January, 1913.

THE SEMON LECTURES.

WHEN about three years ago Sir Felix Semon, in the full vigour of his faculties and the high tide of professional success, announced his intention to retire from active practice—a resolution made more often than it is carried out—his brother laryngologists all over the world, in Germany, Hungary, Austria, Russia, Scandinavia, Denmark, the Low Country, France, Italy, Spain, and America resolved to express their esteem for the man and their respect for his scientific achievements and for the work he had done to raise the status of the speciality to which he had added distinction. The presentation, which was accompanied by a sum of money subscribed by British laryngologists, was made at a banquet in July, 1909, at which the late Sir Henry Butlin, who was in the chair, after referring to Semon's achievements in the science and art of laryngology, and to his success in establishing the *Centralblatt für Laryngologie*, said that it was only after reading the tributes paid to him on that occasion by laryngologists and laryngological societies all over the world that he had seen him in his true aspect—"the defender of the laryngological faith throughout the world, the constant protector of all oppressed bodies of laryngologists; the man whose name is spoken with affection and respect in every place where laryngologists do congregate." Sir Felix Semon determined to devote the money gift which he had received on this occasion to the advancement of laryngology, and we had the pleasure of recording in June, 1911, that the Senate of the University of London had gratefully accepted his offer to transfer to the University the sum of £1,040 presented to him, for the foundation of a university lectureship and medal in laryngology. The first lectures under this foundation were given by Dr. Peter MacBride, formerly lecturer on the diseases of the ear, nose, and throat in the University of Edinburgh, at University College. At the first, on January 22nd, when Sir Rickman Godlee, President of the Royal College of Surgeons of England, was in the chair, the subject dealt with was Sir Felix Semon's personal history, his career, and the circumstances which influenced it. The second, on January 24th, when Dr. Watson-Williams occupied the chair, dealt with his work and its influence on laryngology, with special reference to general policy, laryngeal paralysis, and malignant disease.

THE SENSORY FIBRES OF THE PHRENIC.

THE sensory fibres of the phrenic nerve, discussed by Dr. Kidd in a paper recently noticed in this JOURNAL (January 11th, 1913, p. 86), have been investigated by Dr. G. C. Mathison[1] in the performance of a series of experiments upon the innervation of respiratory muscles. Part of the evidence for the existence of these sensory fibres he obtained was indirect, part direct. The indirect evidence was furnished by the rise in the carotid blood pressure resulting from electric or other stimulation of the central end of the cut phrenic nerve in anaesthetized dogs, rabbits, and cats; no rise, but even a fall, was observed when the anaesthesia was deep and produced by chloroform. Similarly, pinching and stretching the pericardium evoked a rise of blood pressure, which was distinctly lessened but not entirely abolished by section of the phrenic nerve in the neck; the pericardium has apparently a further sensory supply. In curarized dogs, pinching the peripheral muscular portion of the diaphragm on the thoracic side also produced a rise of blood pressure not entirely abolished by section of the phrenics; Mathison argues that this structure also, therefore, apparently possesses a further sensory supply, probably through the intercostal plexus. Stimulation of the central end of the cut phrenic was never found to produce anything in the nature of an expiratory reflex,

[1] The Sensory Fibres of the Phrenic Nerve. By G. C. Mathison, M.D. *Review of Neurology and Psychiatry*, London, 1912, x.

and it is probable, therefore, that sensory impulses passing up the phrenic nerves play little or no part in the normal regulation of the respiratory movements. The direct evidence that sensory fibres travel in the phrenics of the dog was furnished by dissection. On the right side these fibres leave the phrenic nerve near the diaphragm, and ascend in two strands along the inferior vena cava to be distributed to the pericardium, one branch going to the auricular portion, an arrangement corresponding with that described by Luschka in man. Two branches given off from the left phrenic as it goes behind the heart pass to the pericardium.

ROYAL DENTISTS.

The choice of a hobby is largely a matter of individual temperament; and, whereas one man will seek refuge from fatigue and worry in books or music, or some other sedentary occupation, another can only find refreshment for mind and body in severe manual labour. The need for some wholesome relaxation, however, is felt by high and low alike; and even kings have not disdained to occupy their leisure hours in working with their hands like the meanest of their subjects. Louis XV, one of the idlest of men, strove to dissipate his continual boredom by means of a private printing press set up up for him in his apartments at Versailles by Quesnay, Madame de Pompadour's favourite doctor; and Louis XVI, his grandson and successor, became in course of time a skilful locksmith. Neither of these monarchs, however, was as versatile in his amusements as the ill-fated hero of Flodden, King James IV of Scotland, who was not only an amateur carpenter and blacksmith, but a dentist to boot. The accounts of his private expenditure, extracts from which are given in Miss Green's *Lives of the Princesses of England*, prove that although he indulged his eccentric tastes at the expense of those who surrounded him, James knew how to console his victims for the sufferings they endured at his hands. That the royal dentist's involuntary patients were well paid for their complaisance is shown by the following extract, quoted by Miss Green, though one wonders why the unfortunate Kynnard was less generously treated than the anonymous "fellow" who preceded him, and if the latter proved a more refractory patient than the barber:

	£	s.	d.
Paid for a psalter, three compasses, a hammer, a turcase to take out teeth, and two pair of beads, to the King	0	7	8
Item, to ane fellow because the King pullit furht his tooth	0	14	0
Item, to Kynnard, the barber, for twa teith drawin furht of his hed be the King... ...	0	14	0

This bald statement of the old accountant is oddly reminiscent of Major Drury's amusing story of the savage potentate who, like the Scottish king, was afflicted with "a mania for experimental surgery," and cheerfully sacrificed the teeth of his unhappy courtiers in the pursuit of his most inconvenient hobby.

TRANSMUTATION OR SYNTHESIS?

At the meeting of the Chemical Society on Thursday Professor Norman Collie, of University College, and Mr. Patterson, of Leeds University, described recent experiments they had made independently which show that on subjecting hydrogen to bombardment by the cathode rays both neon and helium make their appearance. The essential point appears to be that these elements are produced under conditions which exclude the possibility of their appearing in the apparatus as impurities, a suggestion which it will be remembered was put forward when Sir William Ramsay, a few years ago, stated that under the influence of radium emanation various transmutations occurred. In the new experiments neon and helium are collected in relatively large quantities—that is, in terms of thousandths or tens of thousandths of a cubic centimetre. Another interesting feature of the discovery is that whereas the most familiar instance of transmutation—namely, that seen in the breakdown of the radium atom—is an instance of a highly complex atom resolving itself into simpler and more stable constituents, the present case is one of the formation of elements which must be regarded as being among the simplest known. They are the first to appear in the nascent stars, and it is only when these have cooled down—as in the case, for instance, of our own sun—that the existence of the other more complex elements known on the earth can be determined by the spectroscope. It is difficult to avoid drawing the conclusion that in these experiments we may be witnessing the occurrence, on a small scale, of the conditions under which the worlds of the universe came into being.

Medical Notes in Parliament.

Medical Service in the Highlands and Islands. — Mr. Ainsworth asked the Secretary for Scotland, on February 4th, whether his attention had been drawn to the necessity of an improved medical service for the Highlands and Islands of Scotland, and also to the fact, as made clear by the report of Sir John Dewar's Committee, that the rateable value of the Highland counties was insufficient to meet the demands of modern local government, especially as regards medical service; and what steps he proposed to take to remedy the present state of affairs in these counties.—Mr. McKinnon Wood said he had carefully considered the report of the Committee, and his knowledge of the Highlands and Islands led him to agree entirely with their view that an improved medical service was urgently needed. The report had also received the sympathetic attention of the Government. A special item for the current year dealing in part with the matter appeared in the Supplementary Estimates, and the whole subject was receiving the most careful consideration.—Mr. Cathcart Wason asked the Secretary to the Treasury, on February 4th, if he was aware that doctors in the Highlands and Islands were under liability to attend insured persons without receiving any adequate compensation for journeys by land and sea which might often occupy twenty-four hours or more; and, in view of the fact that doctors only accepted service under the National Insurance Act believing that they would receive reasonable consideration, if he would take an early opportunity of stating what provision will be made.—Mr. Masterman said that the Supplementary Estimates included provision of £10,000 for mileage and other special charges in the Highlands and Islands of Scotland in connexion with the medical attendance and treatment of insured persons.—The Marquess of Tullibardine inquired if that was the full sum which was going to the service, or was there to be a larger sum later on for those other points which were not strictly under the Insurance Act.—Mr. Masterman replied that the report of the Committee was now under consideration.

Royal Commission on Vivisection.—The Home Secretary stated, on February 5th, that he was now in a position to give practical effect to nearly all the recommendations of the Royal Commission on Vivisection. The new administrative arrangements were already far advanced. The inspectorate would be increased to four by the appointment of two additional inspectors, and the present senior inspector would be made chief inspector for the whole country. The new inspectors would be qualified medical men who would give their whole time to the work, and the appointments would be made at an early date. It was also proposed to constitute, in accordance with the recommendation of the Commission, an advisory body to guide the Home Secretary in the exercise of his powers, and the Royal Society and the Royal Colleges of Physicians and Surgeons had consented to assist in the selection of the members of this Committee. He proposed to publish the names in due course, and hoped that the committee would be constituted at an early date.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

The Milk Supply.

In its quarterly report as to action taken under the London County Council General Powers Act, 1907, relative to the milk supply, the Public Health Committee reported to the Council on February 4th that during the three months ended December 31st, 1912, 720 samples of milk were taken at London railway termini. The examination of 772 samples (some taken in the previous quarter) was completed, and 51, or 6.6 per cent. proved tuberculous. Of 3,589 cows examined at various farms throughout the country, 15, or 0.4 per cent., were found to be suffering from tuberculosis, and the sale of milk from these cows in the county of London was stopped. The Committee stated that since the Act came into operation on July 1st, 1908, the examination of 10,638 samples of milk had been completed, 1,071, or 10.1 per cent., proving tuberculous. Of 55,947 cows examined, 637, or 1.1 per cent., were found to be affected by tuberculosis of the udder.

Commenting on the announcement that the Milk and Dairies Bill, 1912, had been dropped, the Public Health Committee reviewed the efforts it has made every year since 1907 to obtain powers to deal with contaminated milk, the Council's proposals being withdrawn time after time on a promise of general legislation by the Government. In view of the urgent necessity for action, the Committee regarded it as a matter for extreme regret that another session had passed without any real efforts being made to deal with the subject of the milk supply, and that the Prime Minister had stated that he was not prepared to give any pledge that facilities would be afforded for the Milk and Dairies Bill in the next session of Parliament.

Tuberculosis Dispensaries at Lambeth.

The Lambeth Borough Council, at a meeting held last week, adopted the general outlines of a scheme for the establishment of tuberculosis dispensaries in the borough. It is proposed to establish a central dispensary in Effra Road, Brixton, close to the Town Hall, to be entirely under the control of Dr. J. Priestley, M.O.H., and an assistant tuberculosis officer. A branch dispensary for patients living in the northern part of the borough will be established at St. Thomas's Hospital. The governors of the hospital are prepared to establish and maintain a branch dispensary where all persons, both those insured under the National Insurance Act and those not so insured, may be treated for tuberculosis. The department will be controlled by the governors and staff of the hospital and independent of control of all outside bodies except such administrative control as devolves on Dr. Priestley, as medical officer of health for the borough. The governors have appointed Dr. R. C. Wingfield, medical officer in charge of the department, and beds in the hospital will be placed at his disposal for the treatment of suitable cases. He will not visit homes in the borough for the purposes of treatment.

With regard to the whole scheme when presented to the council, Dr. J. Baird proposed that it be referred back to the committee for further consideration with a view to rediscussing the other commitments the council were bound to take up under the scheme of the Local Government Board. The provision of the dispensaries was only a part of the scheme, and they were bound to provide sanatorium treatment. Mr. W. Gough-Cook seconded. Mr. J. E. Wood protested against any further delay. Mr. Frank Briant, a member of the London Insurance Committee, said he failed to see to what further financial burdens the council was committed by establishing the dispensaries. The London County Council had practically agreed to take over one of the institutions of the Metropolitan Asylums Board for a sanatorium, and the borough council would not be called upon to establish one. The resolution to refer the report back to the committee was defeated.

Dr. J. McKeith proposed that the resolution of the council adopted at a previous meeting relating to the establishment of a branch tuberculosis dispensary at St. Thomas's Hospital be rescinded, and that the Public Health Committee consider and report as to the establishment and maintenance by the council itself of a branch dispensary in North Lambeth. The council had previously declined to invite voluntary aid in the establishment of dispensaries, and had agreed that they should be under the control of and maintained by the borough council. Under the scheme for the establishment of the branch dispensary at St. Thomas's Hospital the council gave up its right of control over the tuberculosis officer, who would have the treatment of a large number of patients. The council had decided not to have voluntary assistance, and yet patients would be compelled to go to St. Thomas's Hospital to be treated as charitable cases. Let the hospital have its own tuberculosis department, but the council, for the sake of economy, should not shirk its responsibilities. Dr. J. Baird seconded. Alderman Evans said that the governors of St. Thomas's Hospital had offered the council all the facilities and help they could, and the council, considering what it would have to contribute in other ways in general expenses, was extremely fortunate in being able to accept the offer. He failed to see what more could be secured than the acknowledgement by the governors that the whole scheme was to be under the administration of the medical officer of health. Mr. Frank Briant said that rejection of the offer of the governors of the hospital would be to the detriment of the hospital itself and the students attending it. Mr. J. E. Wood pointed out that it would cost the council £5,000 to fit up a dispensary similar to that at St. Thomas's Hospital. The resolution proposed by Dr. McKeith was defeated by a large majority.

MANCHESTER AND DISTRICT.

Sanatorium Benefit in Manchester.

The Manchester Sanitary Committee has just issued a lengthy report dealing with tuberculosis in Manchester, and it would appear that it has at last, after numerous abortive proposals, arrived at a scheme for sanatorium benefit which may be accepted. At the next meeting of the City Council the Finance Committee will propose that application be made to the Local Government Board for sanction to borrow the sum of £44,945, which is estimated to be the capital cost of the scheme. The population of Manchester is about 720,000, and according to the report of the Special Committee on Tuberculosis, which recommends one tuberculosis dispensary for every 250,000 of population, there ought to be three dispensaries in Manchester. It is considered, however, that one central dispensary will be much more convenient and economical, and will allow of better combination of the public health work and clinical work, and it is proposed that the Hardman Street Dispensary should be used for this purpose, being extended, as required, to accommodate both the public health and the dispensary staffs. It will be used as a receiving and clearing house, a centre for diagnosis, observation, and treatment, a centre for examination of contacts and after-care, an information bureau and educational centre. The existing staff of five physicians will be retained at salaries of £250 a year each, and they will act as consultants to general practitioners. There are also to be four whole-time tuberculosis medical officers, the senior to receive not less than £500 a year, and to be independent of the medical officer of health in clinical matters, and the junior officers to receive £300 a year. The staff of the Consumption Hospital will attend at Hardman Street as usual, and two of the whole-time officers will attend in the afternoons of the first five days of the week. In this way, if patients are seen on an average once a fortnight, it will be possible for 840, or even 1,000, to be seen regularly and without undue hurry. Eight nurses are to be appointed as a minimum, and, if more are required, arrangements are to be made with the District Nursing Association; some extra clerks will also be necessary. Recommendations for sanatorium benefit are to be made through the medical officer of health, the senior tuberculosis officer being appointed as his deputy for the purpose, but the whole-time staff are to be in administrative subordination to the medical officer of health.

If the advice of the Special Committee on Tuberculosis were taken, that there should be one sanatorium for every 5,000 population, about 150 beds would have to be provided in sanatoriums, and the same applies to beds in other institutions. But it is stated that the incidence of tuberculosis in Manchester is greater than in the rest of the country, in the proportion of nearly 3 to 2, so that more than the average number of beds will be required. At present there are 150 beds at the Baguley Sanatorium, and it is proposed to double these by adding 100 for men and 50 for women, giving a total of 300 beds which would be available for moderately advanced cases. There are also to be 62 beds at the Crossley Sanatorium for early cases only. In addition, arrangements are to be made to take over from the South Manchester Guardians the Abergele Sanatorium, where there are at present 50 beds. This gives a total of 412 beds available if the arrangements are carried out in full. It was originally proposed to provide for the treatment of surgical cases at the Manchester Royal Infirmary, the Ancoats Hospital, the Children's Hospital, and the Swinton House Schools, but these proposals have had to be dropped—at any rate, for the present—owing to the expense and difficulty of making arrangements.

From the point of view of infection, tuberculosis of the lungs is regarded as the most dangerous form of the disease, entailing the greatest expense in prevention and treatment, but the recent Order of the Local Government Board, which came into operation on February 1st, and makes all forms of tuberculosis compulsorily notifiable, was anticipated, and allowance is made for the additional expense that will be entailed in investigations and administration consequent on the Order.

It is recommended that two special committees be formed—one a committee of medical men, whose business it will be to devise methods of tracking down the disease and securing early diagnosis. It is suggested that it might consist of a medical representative from each of the principal voluntary medical institutions, three representatives of medical practitioners, Professor Delépine (Director of the Public Health Laboratory), Dr. Niven (Medical Officer of Health), and the senior whole-time tuberculosis officer. The second committee, to be called the Tuberculosis Care Committee, is to be a fairly large one, containing representatives of the university, the corporation, the Insurance Committee, the clergy, and medical practitioners, representative employers of labour, and representatives of numerous societies for social welfare, such as the Charity Organization Society, the City League of Help, and others. This committee is to consider, among other things, how to assist needy families when the breadwinner is in a sanatorium, and to provide for consumptive patients who cannot continue at their ordinary work some suitable employment in which they may engage without danger to the health of others. It is proposed to place the sum of about £500 at the disposal of this committee for the provision of food and clothing.

It is estimated that the total capital expenditure will be about £44,945, and the annual expenditure about £39,600. The income of the Manchester Insurance Committee under the head of sanatorium benefit will be about £15,000 a year, of which £6,000 is to be retained for domiciliary treatment and £700 for provision of food and clothing, and the remaining £8,300 is to be handed to the corporation for the treatment of the insured suffering from tuberculosis at the dispensary or in institutions. This leaves a sum of £31,300 to be provided, half of which will be defrayed by the Treasury and the other half out of the rates. It is expected that a saving of £7,000 may be effected by the transference of fever cases from Baguley to Monsall, and that a number of minor savings are possible, but when everything is taken into account the scheme will probably entail a total increase in the Manchester rates of at least £5,000 a year.

LIVERPOOL.

DEATH OF DR. CARTER.

FOLLOWING so soon on the death of Dr. O. T. Williams we have this week again to record the death of a distinguished Liverpool physician. Dr. Carter died on February 2nd after a short illness. For some four years he had retired from the Professorship of Materia Medica and from his various hospital appointments, but he maintained a lively interest in medical life and progress in Liverpool till the end.

CHANGES IN THE SCHOOL.

The death of Dr. Williams has caused a vacancy on the medical side of the Royal Infirmary. Already there are three strong candidates in the field.

The impending retirement of Mr. Damer Harrisson from the Northern Hospital will cause a further change in the teaching staff in Liverpool.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

COMMITTEE ON THE EXTENSION OF MEDICAL BENEFITS TO IRELAND.

IN reply to Mr. John Redmond, in the House of Commons on February 4th, Mr. Lloyd George stated that he had appointed a committee

> To consider and report as to the advisability of applying to Ireland the provisions of the National Insurance Act, 1911, with respect to medical benefit, and as to the alterations, legislative or otherwise, which, in the event of such provisions being applied, would be desirable in the systems for affording medical relief at the present existing.

The members of the committee are Lord Ashby St. Ledgers, chairman; Mr. Hugh T. Barrie, M.P. (Londonderry N.), Mr. Joseph Devlin, M.P. (Belfast W.), and Mr. J. C. R. Lardner, M.P. (Monaghan N.), Mr. J. Bradbury, of the Treasury, Mr. J. T. Stafford, medical member of the Local Government Board for Ireland, Mr. J. A. Glynn, and Dr. W. J. Maguire, chairman and medical member respectively of the National Health Insurance Commission for Ireland, and Mr. W. L. Micks, a member of the Congested District Board for Ireland. In reply to Mr. Booth, who asked whether the Committee would simply have to report whether the medical benefit system in operation in England should be applied to Ireland or would have power to suggest some alternative system, Mr. Lloyd George, while declining to express any opinion, stated that the Committee would have to consider the Irish position as a whole, and he thought it probable that it would have to adapt it in some way or other to the conditions existing in Ireland.

The Committee has been asked to proceed speedily with its inquiry, because, if the extension of medical benefit to Ireland is recommended, a bill to amend the Insurance Act will be introduced by the Government next session, which will begin next month. The Committee met on the day of its appointment and arranged to take evidence from the urban districts in the north of Belfast on February 17th and 18th, to meet in Dublin on February 19th, 20th, and 21st, where evidence will be taken from Dublin, Cork, Limerick, and Waterford. The first part of the inquiry will be directed to ascertain the extent of the demand for medical benefit in the urban areas, and whether it should be at once instituted. The inquiry as to the rural areas will not, it is said, be made until after Whitsuntide.

Need for Representation of the Poor Law Medical Officers.

The members of the County Cork Branch of the Irish Medical Association, at a meeting held last week, passed a resolution calling on the Committee of Council of the Irish Medical Association at once to take steps to secure that representatives of the Irish Poor Law medical officers be placed on the Committee appointed by Mr. Lloyd George to consider the question of the extension of medical benefits to Ireland, as the question was very urgent, and vitally affected the interests of those officers. They also requested that members of the Irish medical profession should be put on the proposed committee.

The medical practitioners of South Tipperary have decided that in that district it will be regarded as an unprofessional act for any medical man, either in private or Poor Law practice, to give certificates for sick benefits to insured persons pending a final settlement of the

question—this to include workhouse hospitals, county infirmaries, and any other hospitals.

Midwives.

The Women's National Health Association has outlined a scheme for midwives employed under the Local Government Board. If a board of guardians appoints as midwife for a dispensary district a woman having the qualifications laid down by the Insurance Commissioners for a midwife attending women on behalf of whom the maternity benefit is to be applied, the Women's National Health Association will endeavour, through its branches or through special committees to be formed for the purpose, to bring up the midwife's salary to £1 a week, with bicycle and allowance for uniform, on certain conditions; the principal conditions are that the midwife so appointed works under the local branch of the Women's National Health Association in her spare time; that she attends to the mother and baby for a month after birth, giving special care and attention to the care and management of babies; and that she takes no private practice save that provided for the wives of insured persons or women who are themselves insured.

The Kenmure Board of Guardians wrote to the Local Government Board asking the Board's advice on the scheme, and the Local Government Board has replied advising the guardians to wait for further information before agreeing to the fundamental alteration in the duties and present system of control and remuneration of the dispensary midwives.

Treatment of Surgical Tuberculosis.

Under the auspices of the Women's National Health Association two lectures were given in Dublin last week explaining the work that is being carried on at Lord Mayor Treloar's Cripples' Hospital and College, at Alton, Hants. The lectures were delivered by Dr. Gauvain, Medical Superintendent of the Home, and Sir William Treloar. An unfortunate misunderstanding arose about the first lecture, for which invitations were sent by the Women's National Health Association to all the Dublin doctors. As it was advertised in the public press along with the other lecture, and was given in the theatre of the Royal Dublin Society, with the Countess of Aberdeen in the chair, it was naturally supposed that it was to be a public lecture, and the medical profession took exception to a lecture entitled "The Conservative Treatment of Surgical Tuberculosis of the Bones and Joints" being delivered by a doctor to a general audience. In spite of a prominent notice in the paper on the morning of the lecture, saying that only medical men had been invited to attend, there was a very small audience, only about forty doctors being present. The lecture was extremely interesting, as showing what could be done for surgical tuberculosis by conservative methods, when neither time nor money were spared. Dr. Gauvain explained his methods, and illustrated them by lantern slides and cinematograph films. There was a short discussion after the lecture. It is a pity that the lecture was not delivered at the Royal College of Surgeons, which would have assured a good attendance, and it is to be hoped that Dr. Gauvain will understand that no discourtesy to himself was intended by the absence of the majority of the profession. In the evening Sir William Treloar explained how he founded the home, and explained the working of it, illustrating his lecture with lantern views showing the patients at work and play. This lecture was well attended, and Lady Aberdeen, who presided, expressed the hope that a similar home would be started in Ireland. Already there is an institution for Belfast carrying on similar work, with homes in Belfast and Bangor.

The Royal College of Surgeons in Ireland.

On February 1st, being Charter Day, the Royal College of Surgeons held its annual dinner. The President of the College, Dr. R. Dancer Purefoy, occupied the chair, and the guests included His Excellency the Lord Lieutenant and the two new Fellows on whom the Honorary Fellowship had just been conferred in the board room of the college—Surgeon-General Sir Launcelot Gubbins, K.C.B., M.V.O., K.H.S., M.D.Dub. (*hon. causa*), and Sir Berkeley George Andrew Moynihan, F.R.C.S.

Sir Launcelot Gubbins, speaking after dinner, referred to the sections of the Officers' Training Corps raised both by the College of Surgeons and Trinity College, and said that he had been much struck with their physique and personal appearance. He also spoke of the great improvement that had taken place in the general health of the army in the last ten years. Whereas in 1901 there were 170,000 cases of disease and 1,700 deaths, in 1911 (although the strength of the army was greater by 30 per cent.) the numbers were 90,000 and 800. He mentioned especially the striking decrease in the numbers of remissions and deaths on account of enteric fever and in the numbers of men invalided from India. An important cause of this improvement was the better training of officers and the increased attention paid to hygiene. During the course of the evening an enjoyable selection of musical items was rendered by the Leinster Male Voice Quartet—Messrs. J. Barklay Walker, W. C. Lewin, J. Gerard, and Dr. Wm. S. Haughton.

A Doctor's Fee.

At Portadown last week, in a case under the Workmen's Compensation Act, it was stated that the doctor who attended the plaintiff would not give evidence unless a fee was put in his hand, and that the man was unable to pay it. The judge said it was a pity the doctor had not given evidence, for he could have given him a guinea for his attendance; he went on to say that they often heard about the benevolence of the medical profession, but it would seem that a good deal of it was only on the surface. It is a pity that a man in the position of a judge should have made such a remark. We know nothing about the facts of the particular case, but we do know that in cases under the Workmen's Compensation Act the fee of one guinea is often ridiculously inadequate for the doctor's time and trouble in attending court, and unless the doctor looks after his own interests very carefully he may not get even that. We are glad to note that a solicitor remarked that medical men did much for charity, and that in some cases they were imposed upon.

Insanitary Conditions in Dublin.

At the annual meeting of the Dublin Chamber of Commerce the Chairman drew attention to the insanitary conditions under which the poor of Dublin lived. He said that the commercial community, he was sure, were willing to bear its share in the cost of remedying this state of things, which was a stigma on the city, provided the remedy was carried out in a businesslike way, with forethought and without extravagance. The tenement occupiers, he said, had the remedy in their own hands, as they possessed a majority of votes in many of the city wards. Besides being the first and greatest sufferers from the epidemics engendered by bad sanitation, the tenement occupiers were the largest ratepayers in the city in proportion to their incomes, though this was concealed from them by the system of compounding for rates.

Carrick-on-Suir Medical Officers' Salaries.

The Carrick-on-Suir Guardians, at their last meeting, had a motion before them to increase the salaries of the five dispensary doctors of the district. The doctors had a solicitor present to put forward their claims, and Dr. McCormack, Local Government Board Medical Inspector, was also present to advise the guardians. Some of the guardians present asserted that Dr. McCormack had a brief for the doctors and that the guardians would refuse to be dictated to by the Local Government Board. The guardians therefore refused a hearing to both Dr. McCormack and the solicitor of the dispensary medical officers, and the motion for the increase of salaries was defeated by 23 to 19 votes.

Prevention of Disease.

The Oughterard District Council, at its meeting on January 23rd, unanimously adopted a resolution expressing deep concern at the frequent recurrence of fever in the union owing to the defective sanitary conditions under which the people live, conditions they are unable to remedy with the resources at their disposal owing to the poverty of the union and the high rates prevailing. Drastic remedies are required, involving an outlay entirely

beyond the powers or resources of the council. In the district are hundreds of insured persons and hundreds of persons suffering from tuberculous disease. But no lasting benefit can be expected from the National Insurance Act or from the Tuberculosis Act, because when patients are sent to hospitals or sanatoriums and cured they have to return to the same insanitary surroundings, with the result that they develop the same disease again. No remedy can be permanent until the housing question is seriously taken in hand. The resolution concluded as follows:

> In our opinion the proper authorities to take remedial measures in unions like ours, where congestion, poverty, insanitary conditions, and their usual accompaniments of typhus, typhoid, and tuberculosis exist, are the Congested Districts Board, the Local Government Board, and the Irish National Health Insurance Commissioners. We urgently call on these bodies to form a committee of inquiry to investigate the conditions which prevail in this union, with a view to having proper remedial measures taken to put an end once and for all to these deplorable conditions, which are a disgrace to any civilized Government. We pledge ourselves that this council and each individual member thereof will assist by every means in our power any such committee of inquiry, and we are confident that when the members of the above-mentioned bodies become fully aware of the true conditions which prevail they will see the urgency of having the necessary remedial measures adopted with the least possible delay.

Presentation to Dr. Blakeney.

On Saturday, January 25th, a number of Roscommon gentlemen waited on Dr. and Mrs. Blakeney at the Infirmary House, Roscommon, and presented them with an illuminated album and a purse of sovereigns. The presentation was on the occasion of the doctor's marriage.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Recent Extension of the Edinburgh Royal Maternity Hospital.

During the past months a considerable extension has been made to the Edinburgh Royal Maternity and Simpson Memorial Hospital, and a number of improvements have also been effected in the internal arrangements and lighting of the institution. One of the existing defects of the hospital was lack of proper accommodation for the nurses in training as well as for the sisters and staff nurses engaged in the work. Formerly, when only ten or twelve pupils could be trained at one time the accommodation was not much below the necessary amount, although the nurses' quarters were badly lighted and far from cheerful. When, however, the hospital began to train as many as twenty or even twenty-three or twenty-four pupil nurses at once, all the defects and inconveniences became more obvious, and every difficulty was increased. Welcome relief came when the directors purchased the neighbouring building, which had been used as a residence for medical students, and was called the Milne Murray Lodge. Very few alterations were needed to convert the lodge into an ideal residence for the nursing staff; it was already united to the hospital by a bridge; the bedrooms were large, airy, and well lighted, and there were also sitting and reading rooms. There were in all sixteen bedrooms, three of which were double, so that nineteen nurses were accommodated in the extension, a few others remaining in the hospital itself. The supply of hot water was improved as well as the heating of the building.

Through the transference of so many of the nurse pupils to the new block, space was given in the hospital itself for sundry much needed improvements. A more spacious board room was made available for the meetings of the managers and medical board, a ward for sick nurses was provided, and a large dining hall in which all the nurses could take their meals together was found. Small wards for special purposes were added to those already existing for the pregnancy cases (Hamilton or prematernity ward), and for patients in the first stage of labour.

Further improvements were made possible by reason of the helpful action of a number of ladies in Edinburgh and the neighbourhood, who arranged for a performance of *Penelope* at the King's Theatre. The proceeds of the performance (a *matinée*) were given to the hospital, and were used for the construction of a new operating theatre with the most recent equipment and appliances for the installation of the electric light throughout the building, and for the furnishing of the nurses' sick room, etc. Minor alterations were also carried through, with the result that the institution is now much more worthy of the name "Simpson Memorial" which it bears, and much better adapted for the important work which is carried on in it.

Memorial to the late Dr. G. A. Gibson.

The late Dr. George A. Gibson's friends (and he had many) all over the world will be glad to hear that a movement is on foot to found a suitable memorial to him. Last week Dr. Graham Brown, President of the Royal College of Physicians of Edinburgh, presided over a meeting, summoned by a notice in the newspapers, in the hall of the college. Lieutenant-Colonel Sir Joseph Fayrer, Bart., Sir William Osler, Bart., Sir Clifford Allbutt, K.C.B., Sir Alexander Simpson, Sir Halliday Croom, Sir William McCormick, Sir James Affleck and others sent apologies for absence; and Sir Thomas Clouston, Sir Robert Philip, Dr. Byrom Bramwell, Professor Alexis Thomson, Professor Noël Paton (from Glasgow), Mr. Victor Noël Paton, W.S., Mr. George Berry, and many others were present. The meeting lasted a short time, and cordially expressed approval of the proposal to found a memorial. The motion to this effect was proposed by Dr. Byrom Bramwell and seconded by Mr. Hodsdon. A committee was then appointed to carry the proposal into effect.

Special Correspondence.

PARIS.

Salvarsan and New Arseno-Mercurial Drugs.—Febrile Reaction after Injection of Salvarsan.—Pregnant Syphilitics Treated by Salvarsan.—Transposition of Viscera.

On January 17th, at the meeting of the Medical Society of the Hospitals, the results of treatment of syphilis with the new arsenical compounds of mercury were discussed. Drs. Beurmann and Tanon related the successes which they had obtained with the drugs numbered 1116 and 1151. The authors claim that these two new drugs give more satisfactory results than salvarsan (606). The new drugs, they said, influenced the chancre as well as the secondary and tertiary lesions, and at the same time had no unfavourable effect upon the circulatory and nervous systems. The dose of the new drugs varied between 40 cg. to 5 cg. dissolved in distilled water containing 12 grams of sodium carbonate per litre. In practice, a small ampoule containing the 1116 or 1151 is inserted into a larger ampoule containing the sodá solution. The whole is sterilized and can be kept for a considerable period without undergoing alteration. When required for injection the small ampoule is broken by shaking, and the solution in the large ampoule is then ready for immediate injection.

At the same meeting Dr. Jeanselme read a report by Dr. Jacquet and himself on the febrile attacks which may follow salvarsan injection. They have come to the following conclusions: (1) That the fever following the first injection is not a toxic fever; (2) that the febrile reaction occurs only in patients who show active virulent syphilitic skin lesions or lesions on the mucous membrane; (3) that injection of salvarsan cuts short a syphilitic febrile reaction, but has no effect on the febrile disturbances from other causes (typhoid, phthisis); (4) that a febrile reaction takes place only when a large initial dose is given and only after the first dose, and that it is due to the wholesale destruction of the spirochaetes, which does not take place when small doses, often repeated, are given, or where mercury treatment is carried out. In syphilitic cases which have previously undergone a course of

mercury, no febrile reaction follows the injection of salvarsan.

Dr. Jeanselme made another communication, on the treatment of syphilitic pregnant women with salvarsan as a prophylactic measure for the child as well as for the mother. During the past two years he has carried out this line of treatment with very encouraging results; the cases in which the patient had previously always miscarried are probably the most interesting. Fourteen women who showed marked active syphilis, and who were treated by weekly doses varying from 30 to 40 c.cm., gave birth to children who showed no signs of congenital syphilis, and were well up to weight and apparently healthy. Two women who had had repeated abortions carried the child to full term, and gave birth to apparently healthy children. Dr. Jeanselme contrasts these cases with the results obtained in similar cases treated with mercury.

The transposition of the viscera, though perhaps not extremely rare, has probably never been demonstrated in the same way as in a woman in Paris at present, whose case was reported to the Medical Society of the Hospitals by Drs. Podevin and Dufour. Dullness was found in the left hypochondrium, and the heart sounds were best heard to the right of the sternum. By *x*-ray examination the heart and liver were found transposed; the patient was given a bismuth meal, and another *x*-ray photograph taken, which showed that the stomach lay on the right side, and the pylorus towards the left; the cæcum was in the left iliac fossa, and was well seen after the bismuth had passed through to the large bowel. The cerebral functions are normal, and the patient is not left-handed.

Correspondence.

THE CONSTITUTION OF THE ASSOCIATION.

SIR,—There seems to be a consensus of opinion that the Insurance Act must be amended at an early date if it is to be worked as a practical scheme by the profession. There seems also to be an equally strong consensus of opinion that the Representative Meeting has clearly demonstrated that it may completely fail to represent the majority of the profession.

Many of those who are best acquainted with the constitution of the Association have long thought that this might happen, for a constitution under which a large proportion of the busiest general practitioners throughout the country were bound to travel distances of from six to forty miles in order to have a voice in

(*a*) Electing their Representative,
(*b*) Instructing this Representative as to how he was to vote,
(*c*) To give his vote on any question referred to him for a referendum,

was bound to result in causing a very large number of these general practitioners to have no voice in the policy of the Association.

That this is so is clearly seen by the voting at the meetings called in the Divisions last December. In these divisional meetings 2,000 voted in favour of working the Act, 11,000 voted against doing so, but the opinion of some 14,000 or 15,000 members was never ascertained at all. Yet, in spite of not knowing the opinion of this large proportion of members, the policy of the Association was declared at the ensuing Representative Meeting. How little binding was this "declared policy of the Association" was shown by the way in which it was repudiated by the members of the Association within a week or two of its declaration.

Now, the British Medical Association is the only body which can speak with a wide amount of true authority for the bulk of the practitioners throughout the country, and it has already done a great deal of good work for the profession generally. There is no doubt that the present terms under which the Insurance Act is being worked are far better than the terms originally proposed; and for this improvement the profession has to thank the British Medical Association. I have nothing but admiration for the work which has been done by leaders in the Association like Mr. Verrall and Dr. Macdonald, and the whole profession owes them a great debt of gratitude for the work they have done.

But the Association can never be really successful in formulating a policy for the profession until every general practitioner, however busy, has an opportunity of recording his opinion as to what the policy of the Association should be before it becomes its declared policy.

There seems to be a considerable body of members who think that everything will be solved by allowing the Council of the Association to obtain a postal referendum. There is no question that by granting this power to the Council a very great reform would be effected, for the present mode of taking a referendum is no referendum at all. The process now called a referendum in the existing regulations is nothing more than an appeal by the Council from the decisions of meetings of Divisions, as expressed by Representatives instructed at these meetings, back again to the meetings of the Divisions. A true referendum as defined in the Concise Oxford Dictionary is:

> Referring of certain political questions or of such questions under certain circumstances to the electorate for direct decision by a general vote on the single question.

The present process does not refer the question "for direct decision by a general vote," and to apply the term "referendum" to the present process is a misnomer, a pretence, a sham.

But the crux of the whole question cannot be settled by a postal referendum alone. The question is, How can the busy general practitioner, living from six to forty miles from his Divisional centre, have a voice in the policy of the Association before it becomes the declared policy? for if he is deprived of his opportunity of giving his voice as to this declared policy he will never feel bound to carry it out.

I would suggest that the following changes in the constitution of the British Medical Association could easily be carried out, and would effect the necessary reform:

1. That every Division should choose its Representative by a postal vote.
2. That a Representative should speak and vote at a Representative Meeting in accordance with the wishes of his constituents, but that a plan should be devised to replace the present haphazard system under which a Representative may receive "instructions" from a meeting attended by perhaps less than 10 per cent. of the members of the Division. I suggest that it should not be competent for a Division meeting to "instruct" the Representative of the Division unless at least two-thirds of the members of the Division are present at the meeting. A decision of the Association is a very serious act, and the Council in preparing the agenda which it issues for the information of members should state in plain and unmistakable language the matters on which formal decisions fixing the policy of the Association are to be invited. If a sufficient number of members of a Division cannot attend the meeting of the Division, then the Representative of the Division who has been elected by the postal vote, which gives every member a choice in his selection, should be free to speak and vote in accordance with his judgement after hearing the arguments in the Representative Meeting.
3. That the Council have the power of taking a postal referendum on the principle embodied in the Swiss Constitution on all matters which they cannot settle by a two-thirds majority.

I venture to submit these suggestions to the consideration of the members of the Association, not in any spirit of hostile criticism, but because I am sure that no "declared policy of the Association" can succeed until it is supported by the actual vote of the majority of the members. It has been this want of support by the majority which has paralysed the work of the Association in the immediate past, *and it will paralyse it again in every crisis and negotiation which may arise.* It is of no use to obtain the opinion of 14,000 members if the opinion of another 14,000 members is not known.—I am, etc.,

Exeter, Feb. 1st. HENRY DAVY.

MEDICAL MEN IN PUBLIC LIFE.

SIR,—Insurance Committees will within the next two months be fully formed; the bodies who will have much say in their final constitution are the county councils. The coming March will bring elections of county councils upon us. I have watched in vain for a sign that this situation is appreciated. The present position of our profession is, I venture with all humility to suggest, in some considerable part due to the fact that we do not take our due position or accept our responsibilities in the body politic, neither by our own presence at its councils nor by influencing the election of candidates whose feelings may harmonize with ours. County councils, town councils, rural councils, all bodies in whom the local government of the country is vested—in these the doctor is conspicuous by his absence. If medical men will not come out into the arena of public life and take up some of the duties themselves (surely many might secure election), at least they may exert much influence to secure the success of candidates who have the will, as they will have the power, to mitigate in some small measure the situation created for the profession by this unspeakable Act. I venture once more, Sir, to suggest that we shall not better our position by indifference in the coming contests. Lack of time we should not plead, so clear is the call of duty. Opportunity is here. "The heart that seizes quick hold of opportunity can achieve." No new truth this, nor dimmed because of past neglect.—I am, etc.,

ROBERT CUFF,
Chairman, North Riding (Yorks) Medical Committee.

Scarborough, Feb. 4th.

MEDICAL SERVICE IN THE HIGHLANDS AND ISLANDS OF SCOTLAND.

SIR,—It is quite clear from the report of the Committee on the Highlands and Islands Medical Service that the conditions of life prevailing in many districts is quite out of keeping with modern requirements. The Insurance Act has been of inestimable benefit to the Highlands and Islands in drawing public attention to the prevailing conditions.

I had the opportunity of bringing the matter before the Chancellor of the Exchequer, and was cordially supported by my friend and colleague, Mr. Macpherson, M.P. for Ross and Cromarty, and the Chancellor, in reply, promised that the cases we brought forward would receive sympathetic consideration and attention. In pursuance of that promise he appointed the Committee which has now issued its report, and we understand that a special grant will be made to make adequate provision for both doctors and nurses; but in the meantime we are extremely anxious, as it is, of course, absolutely impossible for doctors to attend insured persons in anything like the terms of the Act.

Doctors have other grievances, which are dealt with very ably by the report.

Security of Tenure.

The first is with reference to security of tenure. Doctors for many years have protested vainly against the injustice of being summarily dismissed by a parish council without any appeal. Twelve years ago I presented a memorial to Lord Balfour, signed by practically all the Scottish unofficial members of both parties, praying for this very reasonable request, and although we know of no objection, Scottish Secretaries have persistently refused the demand. The report will, I trust, give doctors hopes of a reasonable amount of fair play.

Doctors' Dwelling-houses.

A very serious difficulty is again with reference to doctors' houses. The paragraph of the report is worth quoting in full:

THE DOCTOR'S DWELLING-HOUSE.

39. The provision of a dwelling-house for the doctor that would be satisfactory both as regards accommodation and situation is of extreme importance.

Complaints were frequent that the house provided is ordinarily too small, is in many cases neither wind nor water tight, is insanitary, and lacking in even the most elementary conveniences of civilized life.

40. Moreover, instead of being centrally situated and so affording ready access to all parts of the practice, the doctor's residence is occasionally found in the remote corner of a large parish and distant some 15 to 20 miles from half his patients. The main reason given for this anomaly, which seriously affects both the cost and readiness of medical attendance, is that the parish council, however willing in the matter, have not the requisite statutory powers to build or buy a suitable doctor's house.

41. On this question, Mr. Maxwell, Secretary of the Local Government Board, writes:

> "In some parishes it is difficult for the medical officer to find a suitable house. It has, unfortunately, been held that parish councils have no power to provide a house for the medical officer out of the poor rates. But for this restriction, it is probable that most parishes would ere now have provided a house for the medical officer. I consider the provision of a suitable house is second in importance only to the provision of an adequate salary."

There was evidence that the local proprietor or agent is occasionally responsible for this difficulty. Mr. Tulloch (Eday) says:

> It is the trouble with the house that is the great difficulty. . . . There were proposals made to build one. The first thing was to go to the proprietor's agent for a site. At first they were favourable, and then they refused and would not give a site.

And Dr. Moir (Inverness):

> I know of a case where a doctor had the use of a house, and the relations between the doctor and the factor became strained and he was asked to move.

"In marked contrast," the report says, "are a school board's powers in regard to sites and buildings."

To give effect to this legislation is imperatively demanded, and it is proposed to introduce a bill dealing with the matter, which it is hoped will receive unanimous support.

The case mentioned of Eday is bad enough, but Papa Westray is even worse, for there we have raised sufficient money to build a house, but up to now have been unable on any terms to obtain a site for the house, as the person representing the landlord or mortgagees has persistently refused to either grant, sell or lease any ground. The Islanders with extreme difficulty have, in one way or other, contrived to secure the services of a doctor, but it is only by the kindly action of the Scottish Local Government Board that they have been able to do this, as the same person who, unfortunately, is in charge of the Island, used every effort to deprive the Island of the services of the doctor.—I am, etc.,

J. CATHCART WASON,
M.P., Orkney and Shetland.

House of Commons, Jan. 30th.

P.S.—Since writing the above I am very thankful to learn that an interim grant of £10,000 has been made for the Highlands and Islands.

FEES TO PRIVATE PATIENTS.

SIR,—The conditions of practice are being so greatly altered by the operation of the Insurance Act, at least in most localities, that, it appears to me, a corresponding change should now be made by the whole profession in the scale of fees for private patients.

The *raison d'être* for the old sliding scale no longer applies with the same force. Medical men are no longer expected by the public to act from charitable motives. The basis of the Act is the repudiation of charity, and is a demand for a business arrangement.

Let the profession respond in the same spirit. I appeal, therefore, to the Association to confer a much-needed and long overdue boon on the profession by the compilation of a scale of fees, as well as a capitation rate, of a more generous nature than that which has heretofore existed.

The justice of the move will be admitted by the public, and the present unanimity and temper of the profession can be relied on to enforce it. The time is ripe, *carpe diem*. Next year it may be too late.—I am, etc.,

W. COODE ADAMS.

London, N.W., Feb. 3rd.

THE SIGHT TESTS OF THE BOARD OF TRADE.

SIR,—I have examined the sight tests of the Board of Trade and find them most unsatisfactory, and not in agreement with modern science.

Form Vision.

In the form vision test the letters are printed on canvas, to which a piece of wood is attached. In the normal position this rolls up at the bottom, and has to be held

down by a tag by the examiner. I have never before seen anything so primitive. For curiosity I ascertained whether these tests were obtainable at the ordinary opticians. I tried two or three of the leading ones in London, and found they were not on sale or on their lists. The objections to this kind of test are as follows: The surface is liable to crack, and the letters become distorted. It is very difficult to obtain a flat surface by the method used, in fact when I was being examined the surface was to a certain extent concave, and therefore an astigmatic effect was produced. I found I could read the letters better by tilting my glasses, so that the images formed of the test types on my retinas were astigmatic. The effect of this is that men having a defect of the eyes might read the test types better than a man without this defect. The arrangement of lighting was lateral and very defective, and as the daylight varies considerably men would not be examined in similar conditions.

The method to be adopted should be that which is employed by nearly every ophthalmic surgeon. The letters should be printed on a smooth white surface, preferably white porcelain. The letters should be the standard size—that is, the letter should subtend an angle of 5 minutes on the observer's retina, and each part of the letter should subtend an angle of 1 minute. I do not know whether the size of the letters I saw was correct; the letters, however, could be easily measured with the aid of a sextant. The illumination should be constant and uniform and free from all points of glare. It should be by diffused daylight when possible, the source of the light to be opposite the type and not placed laterally, as is the case with the Board of Trade. The lighting should be such that a normal sighted person should be able to read all the letters at the required distances with the greatest ease.

It is obvious that any standard must be arbitrary, and efficiency is only compatible with a high standard. Whether the standard given is too high can only be decided by a series of experiments. This would take a considerable time.

Colour Vision.

The Wool Test.—This has not been improved. The method of dividing the wools into sets is a very bad one, and the non-use of colour names makes the test very defective and unreliable. There are numerous colours which ought to be present and are absent. The test as used is very confusing to a normal sighted person. I think the test will be even less efficient than it has been previously. Normal sighted persons will be rejected and colour-blind ones passed as before.

The Lantern Test.—This lantern is an imperfect copy of my lantern and lacks many of its essential features. It is a paraffin lantern which shows one or two small lights simultaneously which are reflected from a mirror. Its chief defect is that it lacks any means of regulating the luminosity of the light; only two colours and white are used in the lantern, so that a man knows beforehand that he will only be shown these three lights. The method of having two lights is not a good one, and is one that I have carefully investigated. Change of colour due to simultaneous contrast is likely to cause the rejection of many normal sighted persons, and those with slight and unimportant defects of colour perception. On the other hand, in my opinion many colour-blind persons who have practised themselves in distinguishing between the three lights employed, particularly if with one of these lanterns or one of similar construction, whilst in reality very dangerous persons and liable to cause accidents at sea, will be passed.

The Classification of Colour Blindness Recommended by the Committee.—This method is absolutely erroneous. I have examined two colour-blind persons on this method, and found that they appeared normal sighted. I have also examined a normal sighted person who appeared very colour blind on this method. The method is strictly analogous to endeavouring to ascertain whether a man had a good musical ear by measuring the distances at which he could hear different notes. The two things are quite distinct.

It is curious that whilst one Government department (the Admiralty) uses such very efficient methods, another should use methods which are so imperfect and unscientific. A thorough inquiry into the methods of the Board of Trade by unbiassed persons is needed in the interests of the mercantile marine and the nation.—I am, etc.,

London, Jan. 29th. F. W. Edridge-Green.

THE SUPPORTS OF THE UTERUS.

Sir,—On p. 225 of the British Medical Journal for February 1st there is a review of Liepmann's Atlas of Gynaecological Anatomy. In the course of his remarks the reviewer writes: "When we turn to prolapses all is still obscure." And again, "We cannot understand how the uterus loses or frees itself from its supports until we thoroughly recognize what these supports may be, and as yet the problem is not thoroughly understood."

Surely his position is unduly agnostic, for many gynaecologists have ceased to regard prolapses as "obscure," and various anatomists now demonstrate the "supports" which have so long been wrapped in mystery. During recent years the whole subject has been cleared up in the *Journal of Anatomy and Physiology*, in the *Transactions* of the Royal Society of Medicine, in the *Journal of Obstetrics and Gynaecology of the British Empire*, and in various books. There are still some who ignore the available information, and fail to realize that this problem has been settled; therefore contributions to its discussion are still required. One of these, curiously enough, is mentioned on the same page with the review in question. Thus—Dr. M. Moritz read a paper on the fracture of the so-called ligaments of Mackenrodt. By means of dissections and drawings he conclusively showed these so-called ligaments to be perivascular tissue surrounding the vessels supplying the uterus and not separate ligaments.—I am, etc.,

Manchester, Feb. 4th. W. E. Fothergill.

MEDIAEVAL MEDICINE.

Sir,—Of course I appreciate very much that lengthy discussion of my Old Time Makers of Medicine in the issue of the Journal for December 28th, 1912. May I be permitted to make just one comment?

When I began ten years ago to study mediaeval medicine and surgery I was amazed to find how many anticipations of what I had been used to think of as modern were to be found in the old textbooks. That amazement has grown with the years and each year presents new reasons for its continuance. Instead of exaggerating it always seems to me that my ignorance has up to the present time made me make too little of these old masters. I am learning every day to appreciate them more.

Take the single department of intestinal surgery. The operations for the radical cure of hernia were many. They were performed in the Trendelenburg position with the patient on a board slanting against the wall of the operating room. The *Iconographie de la Salpêtrière* published a picture of this mode of operating taken from an old-time book. In wounds of the large intestine, especially when transverse, it was suggested by the Four Masters that the trachea of an animal should be put into the intestinal lumen and the intestine brought together over it. The wound was then brought near the abdominal wound in order to provide for drainage if necessary, which these old surgeons understood very well. The commentator on the Four Masters expressed the positive opinion that in time the trachea will be absorbed or discharged. Dr. Lutz, in the *Interstate Medical Journal* for November, calls attention to the work of Dr. Pfolsprundt in the fifteenth century. He suggested in intestinal transverse wounds the insertion of a silver tube with blunt ends larger than the middle over which the cut ends of the bowel were to be fastened. What was to happen to this forerunner of the Murphy button Pfolsprundt does not say. But he assures us that a patient so treated might survive from forty to fifty years. His technique for plastic surgery, as for the making of a new nose, is perfect in every detail. In every other matter of surgery that he touches there is the same practical character.

Of course there are the textbooks, but most of us sincerely hope that we will be judged by the textbooks and only the best among them. But fortunately Time's winnowing can usually be depended upon.

Compare for a moment the declaration of Theodoric in 1266 that pus is unnecessary and due to mistakes in

treatment, and Nussbaum's expression just six centuries later, about 1869, when before Listerism came to him he declared that he would close his hospital because he could not avoid purulent processes. Can we say too much of the man who had solved that problem six centuries before? More knowledge is all that is needed for enthusiastic admiration and not merely complacent recognition of the work of the Middle Ages.—I am, etc.,

New York, Jan. 14th. JAS. J. WALSH.

The Services.

ℭ AND 𝔐.

IT may be of interest to some readers to learn that the two distinguishing letters ℭ and 𝔐 have recently been introduced into the official *Monthly Army List*. These letters signify "Crimea" and "Mutiny," and are prefixed in Gothic lettering to those officers on the active and retired lists who served in either or both of these campaigns.

Altogether there are 2 officers on the active list and 186 on the retired list distinguished by the letter ℭ, and 3 on the active and 402 on the retired lists by the letter 𝔐. Fifty officers have both.

Medical officers to the number of 36 (including one quartermaster) are on the list, there being 8 with ℭ, 20 with 𝔐, and 8 with ℭ 𝔐.

A full list of these retired officers follows:

ℭ 𝔐.

Boustead, Surgeon-Major R., M.D., [F]. Also served in China (60), Abyssinia (67), and Soudan (85).
Home, Surgeon-General Sir A. D., V.C., K.C.B., [R]. Also served in China (60), New Zealand (63-65), and Ashanti (73-74).
Innes, Honorary Deputy Surgeon-General C. A., M.D.
Jackson, Honorary Deputy Surgeon-General Sir R. W., Knt., C.B., [R], [F]. Also served in Ashanti (73-74), Zulu (79), and Egypt (82).
Loughurst, Surgeon-Major A. E. T., M.D.
Reade, Surgeon-Major-General Sir J. B. C., K.C.B., K.H.S., [R]. Also served in Afghanistan (78-80).
Rendell, Surgeon-Major W. J. Also served in Bhootan (65).
Sinclair, Deputy Surgeon-General E. M., C.B., M.D., [R]. Also served in South Africa (81).

ℭ.

Cattell, Deputy Surgeon-General W. Also served in Afghanistan.
Fletcher, Surgeon-Major W.
Gorman, Honorary Major L., Quartermaster (retired), Army Medical Staff. [R]. Also served in Canada (66-70), Zulu (79), and Egypt (82).
Gulland, Honorary Surgeon-General A. D., M.D., [R]. Also served in China (60), and Hazara (88).
Lawrence, Honorary Brigade-Surgeon H. J. H. Also served in Soudan (85).
Read, Honorary Brigade-Surgeon C. C. Also served in Soudan (85).
Rose, Honorary Deputy Surgeon-General H. J. Also served in China (60), and Afghanistan (78-80).
Saunders, Honorary Deputy Inspector-General G., C.B., M.D.

𝔐.

Bidie, Surgeon-General G., C.I.E., M.B., K.H.S., [R].
Bradshaw, Surgeon-Major-General Sir A. F., K.C.B., K.H.P. Also served in Afghanistan (79), Zhob (84), and Hazara (91).
Collins, Honorary Brigade Surgeon F., M.D.
Colvin-Smith, Surgeon-General Sir C., K.C.B., M.D., K.H.S., [R], [F]. Also served in Burma (52), and Egypt (82).
Don, Honorary Deputy Surgeon-General W. G., M.D. Also served in Baltic (55).
Fairweather, Deputy Surgeon-General J., M.D. Also served in North-West Frontier (57).
Giraud, Surgeon-Major-General C. H., [R]. Also served in China (60-64), and Zulu (79).
Hopkins, Honorary Brigade-Surgeon E. Also served in North-West Frontier (63), Afghanistan (78-80), and Soudan (84).
Hoysted, Honorary Brigade-Surgeon I. Also served in Burma (85-87).
Joynt, Deputy Surgeon-General C., M.D. Also served in Persia (57), and Abyssinia (67-68).
Landale, Deputy Surgeon-General J.
Loch, Deputy Surgeon-General J. H., M.D.
Mackinnon, Honorary Brigade-Surgeon C.
Planck, Surgeon-General C.
Sexton, Brigade-Surgeon E., M.D. Also served in China (60), and Abyssinia (67-68).
Smith-Wynne, Deputy Surgeon-General W. A.
Thornton, Deputy Surgeon-General Sir J. H., K.C.B., M.B. Also served in China (60), Cosavah (62-3), Bhootan (65-6), Egypt (82-85), and Hazara (88).
Veale, Brigade-Surgeon T. S., M.D. Also served in Bhootan (65-6), and Afghanistan (79-80).
Watson, Deputy Surgeon-General G. A. Also served in Afghanistan (79).
Wyndowe, Deputy Surgeon-General S. J., M.D.

[F] signifies the bestowal of a foreign decoration.
[R] signifies the possession of a reward for distinguished service.
K.H.S. and K.H.P. denote the Honorary Surgeons and Physicians to the King.

Medico-Legal.

WORKMEN'S COMPENSATION ACT.

Two Deaths from Pneumonia.

A CASE decided in the Court of Session, Edinburgh, on January 25th, raises an important point under the Workmen's Compensation Act.

Judgement was given by a bench of seven judges in a stated case under the Workmen's Compensation Act between the Alloa Coal Company, Ltd., and Mrs. Margaret Walls or Drylie and others. The question in the case was whether John Drylie, a brushing contractor, who was employed at the Brucefield Pit of the Alloa Coal Company, and who contracted a chill, which was followed by pneumonia, had met with an accident, arising out of and in the course of his employment. On September 25th, 1911, while Drylie was at work, water began to accumulate at the pit bottom, owing to a defect in the pump. The pump was stopped in order that the defect might be remedied. Drylie and his two companions became alarmed when they found the water rising, and they decided to leave the pit. When they arrived at the pit bottom they were heated, and had to stand there up to the knees in icy cold water, and with a draught of cold air falling down the shaft on them for about twenty minutes until the cage descended. On arriving at the pithead Drylie remained for about twenty minutes or half an hour, and on reaching his house complained of chill. He was at his work off and on until September 29th. Two days later he was told that he was suffering from pneumonia, and he died on October 8th. The Brucefield Pit was a wet pit, but it was unusual for water to accumulate to the depth of 2 ft.

Sheriff-Substitute Dean Leslie found that the pneumonia from which Drylie died was due to the chill which he got on September 25th; that his remaining at the pithead in his wet condition and his working on the days following, and his wetting on these days, had not a favourable effect upon the illness; and that the pneumonia was a natural sequence of the chill. He held that Drylie's death resulted from injury by accident arising out of and in the course of his employment, and found that the widow and her three children were entitled to compensation amounting to £265 5s. 8d.

The Court, Lord Salvesen dissenting, held that the appellants had failed to show a case for disturbing the decision of the arbiter, and dismissed the appeal with expenses.

Lord Dundas, who gave the leading opinion, said this case seemed to be near the line which separated liability from non-liability for compensation by an employer. The Sheriff-Substitute had decided that it lay on the side inferring liability, and his lordship did not see any reason for disturbing his decision. His lordship thought one might postulate, as the result of all decisions, that they must have a definite accident of some sort, not necessarily an occurrence extraneous to the workman, involving something unusual, unexpected, and undesigned to which the injury or death could be unequivocally, or at least by a reasonably inferred use of causation in fact, attributed; and also, probably as a corollary, that death from disease, apart from the industrial diseases specially mentioned, was not an accident unless the disease which caused death could be definitely collocated in the relation of effect and cause with some unusual, unexpected, and undesigned event arising at an ascertained time out of the employment. He thought the elements of an accident were present in this case.

The other judges, excepting Lord Salvesen, concurred.

Lord Salvesen, who dissented, said this case was one of the most important that their lordships had had to determine under the Workmen's Compensation Act, as it was the first in which an arbiter had decided that a death which resulted from pneumonia following on a neglected cold was a death resulting from injury by accident. If their lordships decided the case in accordance with the views of the Sheriff-Substitute, it opened up an endless vista of legislation under the Workmen's Compensation Act, and covered cases which could hardly have been considered by the framers as falling within the Act. His lordship was unable to reach the conclusion that the deceased met with an accident which caused him an injury by accident within the meaning of the statute.

A few days after the case reported above was decided in the Court of Session another appeal was heard, in which the condition of water in the pit was held to be "normal."

The appeal was in respect of the claim of John Brown, miner, Rutherglen. He was at work in No. 2 pit, Gilbertfield Colliery, on June 26th, 1911, where, in consequence of a wreck in the shaft, all the men in the pit were ordered to ascend to the surface. They proceeded towards the shaft of No. 2 pit, by which they were usually raised to the surface. They were met by an official, who told them to proceed by the communication

road to the shaft of No. 1 pit. Here they had to wait at a midlanding for about an hour and a half, and a very strong current of air blew in on Brown and his fellow miners. After reaching the surface Brown complained of feeling cold, and ran part of the road home to try to recover warmth. The next morning Brown went down the pit, but he was unable to start work on account of illness, due to the chill incurred on the previous day. Pneumonia supervened, and he died on July 3rd, 1911. The Sheriff-Substitute found that Brown died from the effect of injuries by accident received by him on June 26th, and awarded compensation to the respondent.

The Divisional Court reversed this decision, deciding that Brown's death was not due to an accident arising out of or in the course of his employment. There was nothing abnormal, it was held, in the circumstances in which the deceased and the other men found themselves at the shaft No. 1, as it was the down-cast shaft, and the current of air was always blowing there. The case was entirely distinguished from the Drylie case, inasmuch as in that instance there was the abnormal condition in the presence of water, which had not been there before and in which the men had to stand. In the present case the conditions were entirely normal.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

The following degrees have been conferred:

M.D.—B. P. Campbell.
M.B.—J. W. Adams, W. B. G. Angus, A. C. Johnson.
B.C.—J. W. Adams, W. J. Carr.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

A comitia was held on Thursday, January 30th, Sir Thomas Barlow, Bart., K.C.V.O., President, being in the chair.

Admission of Members.

The following gentlemen having passed the required examination were admitted Members of the College:

Anthony Feiling, M.B.Camb., L.R.C.P.; Nathan Mutch, M.B.Camb., L.R.C.P.; Robert Hunter Steen, M.D.Lond.; Francis Martin Rouse Walshe, M.D.Lond.

Licences Granted.

Licences to practise physic were granted to ninety-eight candidates who had passed the necessary examinations.

Diplomas in Public Health.

Diplomas in Public Health were granted jointly with the Royal College of Surgeons of England to the following:

F. J. Ayre, L.R.C.P., M.R.C.S., L.S.A., St. Mary's and Cardiff; H. Balme, F.R.C.S.Eng., L.R.C.P., M.R.C.S., King's College; Jamasp Cursetji Bharucha (Lieut. I.M.S.), L.R.C.P., M.R.C.S., L.M. and S.Bombay, Bombay and King's College; *Elsie M. Chubb, M.D., B.S.Lond., Royal Free and University College; W. E. Cooke, M.B., Ch.B.L'pool., Liverpool; A. Ferguson, M.B., B.S.Lond., L.R.C.P., M.R.C.S., St. Bartholomew's; C. A. Gill (Capt. I.M.S.), L.R.C.P., M.R.C.S., University College; H. Hilliard, L.R.C.P., M.R.C.S., St. George's and University College; J. E. Hodgson (Major R.A.M.C.), L.R.C.P., M.R.C.S., Manchester and R.A.M. College; H. M. H. Melhuish (Capt. I.M.S.), L.R.C.P., M.R.C.S., St. Bartholomew's and University College; A. L. Otway (Capt. R.A.M.C.), M.B., B.Ch., B.A.O.Dubl., Dublin and R.A.M. College; P. Rose, L.R.C.P.Lond., Guy's and University College.

* Under the Medical Act, 1876.

Communications.

The following communications were received: (1) From the Secretary of the Royal College of Surgeons of England, dated December 12th, 1912, and January 10th, 1913, reporting proceedings of the Council of that College on December 12th and January 9th respectively. (2) From the Clerk to the Privy Council, dated December 19th, 1912, enclosing a programme of the Fourth International Congress on Physio-Therapeutics to be held at Berlin from March 2.th to March 30th next, and stating that should the College nominate a representative the Lord President of the Council would ask the Foreign Office to give him credentials as delegate of His Majesty's Government. Dr. A. E. Garrod was nominated as representative of the College. (3) From the Colonial Office, dated January 3rd, 1913, with enclosures, concerning the appointment of some distinguished medical man to represent His Majesty's Government at the tenth session of the Australasian Medical Congress, to be held at Auckland, N.Z., February 9th to February 14th, 1914. The matter was left in the hands of the officers of the College. (4) From the Home Office, dated December 20th, 1912, asking the opinion of the College on an application from the Liverpool Infirmary for Children for permission to use the prefix "Royal." A favourable reply was returned.

Appointment of Councillors.

Sir E. Cooper Perry, Dr. F. W. Andrewes, Dr. E. H. Starling, and Sir J. Rose Bradford were elected Councillors.

Representative on the Central Midwives Board.

Sir Francis Champneys was appointed the Representative of the College on the Central Midwives Board for one year from pril 1st next.

Discussions on the Insurance Act.

Dr. F. J. Poynton brought before the College certain difficulties in the position of Fellows of the College who are hospital physicians due to the altered conditions that have arisen with the establishment of the medical panels. He said that these difficulties related to the hospitals and their honorary physicians, to the doctors on the panels and to the patients themselves. The main difficulty was the matter of determining which patients were suitable for hospital relief, and which for treatment by the doctors on the panel; there was some danger of patients being sent to and fro between the hospital and the doctor. It would often be onerous for the physician to outpatients to decide the question, and he was afraid the result would be that the hospital would be blamed whatever happened. He hoped the College would keep a sympathetic eye on the difficulties he had mentioned.

The President observed that the difficulties should be settled locally at the various hospitals. Two committees had already been appointed to consider the circumstances of the Insurance Act.

The Treasurer (Sir Dyce Duckworth) placed reliance on the lay management of the hospitals, and referred to the plan adopted at St. Bartholomew's Hospital.

Some further discussion took place, but no resolution was proposed.

Dr. H. Sainsbury, in accordance with notice, called attention to the medical working of the Insurance Act to the resolutions passed at a meeting of the Joint Committee on November 13th, 1912, and urged upon the College the necessity for a further consideration of the present situation with a view to further action. (These resolutions were published in the Supplement to the British Medical Journal of November 16th, 1912, p. 551.) Dr. Sainsbury urged that the majority of doctors were working the Act under compulsion, and labouring under a strong sense of injury; that the conditions were temporary and could be adjusted; and that in three months some further decision would have to be reached. He hoped that the resolutions passed by the College would not remain as mere pious opinions, but that they would be acted upon. The general practitioners were the backbone of the profession, and they had never stood in greater need of guidance than at present. On grounds of freedom of action and development of character, and on the grounds of the interest of the insured, he urged that the College should give the matter its continued attention. He moved the following resolution:

> That this College do summon a meeting of the Conjoint Committee at the earliest possible day to further consider the resolution passed on November 13th, 1912, and to report to the College.

This was seconded by Dr. F. J. Smith, who referred to the methods which had been adopted to force doctors to go on the panel, and trusted that the College would be roused to a sense of its responsibilities to the Licentiates. The resolution was carried.

Reports.

A report from the Committee of Management dated December 3rd, 1912, recommended that Radley College and King Edward VII School, Lytham, which had been visited by members of the Committee and reported on as fulfilling the requirements of the Board, be added to the list of institutions recognized by the Examining Board in England for instruction in chemistry and physics, and that the course of laboratory instruction in public health at the University of Cambridge be added to the laboratory courses recognized by the Royal Colleges for their diploma in public health.

The report was adopted.

After some further formal business the President dissolved the Comitia.

CONJOINT BOARD IN SCOTLAND.

The following candidates passed the quarterly examinations held in Edinburgh which concluded on January 25th:

First Examination.—Umanath Rao Hattiangadi, I. Davies, L. H. Peries, J. T. W. Gale; and four passed in Physics, three in Biology, and one in Chemistry.

Second Examination.—A. G. McKee, J. L. Hendry, P. Chisholm, A. G. Bee, C. E. S. Runciman, F. H. A. Stegmann, R. V. Clarke, H. A. G. Dykes, J. Fitzpatrick, Elfrida H. B. Coghill, J. P. Fairley, J. H. Blackburn, H. R. Fisher; and three passed in Anatomy and one in Physiology.

Third Examination.—Florence W. Heyworth, S. A. Faulkner, J. Corcoran, Krishnarao Abbaji Deodhar, J. R. Fleming, E. C. Brooks, W. S. O'Loughlin, C. Popham, A. W. Cochrane; and two passed in Pathology, and five in Materia Medica.

Final Examination.—E. W. Ingle, W. Laird, Baljiapet Seshachalam, J. Williamson, P. Giuliani, Isabel Quanbrough, W. A. S. George, E. Clubomi-Beckley, T. Sheehan, J. E. Rees, H.W.Ward; and six passed in Medicine, two in Surgery, thirteen in Midwifery, and nine in Medical Jurisprudence and Public Health.

The Royal Academy of Medicine, Turin, offers for competition the thirteenth Riberi prize, of the value of 20,000 francs. All who desire to submit scientific researches in medical science for competition are requested to announce their intention before December 31st, 1916. For information and forms of application competitors should apply to the Secretary of the Royal Academy of Medicine, 18 Via Po, Turin, Italy.

Obituary.

THE RIGHT HON. LORD ILKESTON, P.C., M.D., F.R.C.P., D.C.L., LL.D.,

CONSULTING PHYSICIAN, GENERAL HOSPITAL, BIRMINGHAM; EMERITUS PROFESSOR OF MEDICINE, QUEEN'S COLLEGE, BIRMINGHAM.

It is with the deepest regret we have to announce the death of Lord Ilkeston, better known to the profession as Sir Walter Foster, which took place at his residence in Grosvenor Road, London, on January 31st. Some sixteen months ago Lord Ilkeston began to suffer from symptoms pointing to obstruction of the bowel, and at the beginning of October, 1911, lumbar colotomy was performed by Sir Anthony Bowlby. He bore the operation well and made a good recovery. He continued to follow with the keenest interest the shifting scenes of professional life during the last year. During the last month or two, however, it became more and more clear that he was failing, and he suffered a good deal of pain. Some weeks ago haemorrhage from the bowel took place, and although he rallied from the immediate effects of the loss of blood he gradually sank, facing the end which he knew to be inevitable, as he had borne his illness, with unruffled fortitude. When the disease, the true nature of which he had himself suspected from the beginning, was positively pronounced to be malignant, he heard the decision with perfect calmness. He sent for a friend to whom he conveyed the news as coolly as if he had been announcing that he was going out of town, and discussed the details of the operation and the chances of success in a manner which showed that he perfectly realized the situation, and was prepared for whatever fate had in store for him. He passed easily into conversation about other things—reminiscences of his professional life at Birmingham, the men he had known, his relations with Mr. Chamberlain, and so forth, showing all his old practical insight into affairs and his power of portraying a personality with one or two touches. The Greek philosopher discoursing with his friends before drinking the hemlock was not more free from any unmanly fear.

Balthazar Walter Foster was the son of Balthazar Foster of Beaulieu, Hampshire, and Marian Green of Cambridge. He was born in 1840, and was therefore in his seventy-third year when he died. He has so long been a conspicuous figure in the medical and political world that probably most people who did not know believed him to be older. It must be remembered that he entered on active professional life at an age when most students nowadays are struggling with their preliminary examinations. Till the onset of his last illness he was remarkably alert in his movements and bright in manner; even in appearance he did not seem his age.

At the age of 8 or 9 he went with his family to Ireland. He was educated at the Drogheda Grammar School, where he had a brilliant career, gaining at the age of 13 all the three medals, in classics, science, and English. His first intention was to enter the ministry, and before leaving school he read through the undergraduate course of theology. Changing his mind, however, he decided to enter the medical profession, and accordingly went up to Dublin in October, 1857. There he was a student at Trinity College and at the school of the Royal College of Surgeons. He was the best anatomist of his year, and was made prosector to the professor, John Hatch Power, whose junior colleague was Professor Alexander Macalister, now of Cambridge. Early in 1860 he obtained the licences of the Colleges of Physicians and Surgeons in Ireland. He obtained the degree of M.D. from the University of Erlangen in 1864, was admitted a member of the Royal College of Physicians of London in 1865, and was elected a Fellow in 1873.

As soon as he was qualified he applied, in answer to an advertisement, for the professorship of practical anatomy and the post of medical tutor at Queen's College, Birmingham. But owing to his youth he had so little hope of success that he was actually on his way to present himself for examination for a commission in the navy when he received a telegram announcing that he had received the Birmingham appointment. This changed his whole career. On his arrival to take up his duties he discovered that he was also to hold the post of assistant physician to Queen's Hospital. Therefore he was a hospital physician and a professor of anatomy before he had completed his 21st year. In 1864 he became full professor of anatomy in succession to Furneaux Jordan. In 1866 he left Queen's College to join the Sydenham College as professor of anatomy and medicine. Strong efforts were then being made to bring about an amalgamation of the two schools, and this was achieved in 1868, when the School of Medicine was reconstructed by Act of Parliament. In the meantime Foster had become full physician to the Queen's Hospital, an office which he retained till 1868, when he was appointed physician to the General Hospital. He was also appointed professor of medicine in conjunction with James Russell. That position he held from 1868 till 1890, when he became Emeritus Professor and consulting physician to the General Hospital. In addition to these appointments he was consulting physician to the Birmingham Hospital for Skin and Genito-Urinary Diseases, and to the Kidderminster Infirmary.

He acquired a large private practice as consulting physician, and published various writings on professional subjects. He gave special attention to diseases of the heart, and his best-known contribution to medical literature was a book on the sphygmograph which appeared in 1866. His interest in the heart is symbolized in the coat of arms designed for him when he was made a peer; a picture of this appeared in the JOURNAL of June 24th, 1910. Among his other publications are: *The Use of Ether and Etherized Cod-liver Oil in the Treatment of Phthisis* (1868); *Method and Medicine* (1870); *The Prince's Illness: Its Lessons—a Lecture on the Prevention of Disease* (1872); *The Therapeutics of Diabetes Mellitus* (1872); a collection of lectures and essays entitled *Clinical Medicine* (1874); *Comparative Mortality of Birmingham and other Large Towns* (1875); *Diabetic Coma, Acetonaemia* (1879). He was the author of the article on valvular disease of the heart in *Quain's Dictionary of Medicine;* and of papers on the treatment of pleuritic effusion (*Birmingham Medical Review*, 1881).

From an early part of his professional career he had been active in the work of the British Medical Association. He was elected co-secretary of the Birmingham Branch in 1872, and was one of the secretaries of the annual meeting held at Birmingham in the same year. He was Vice-President of the Section of Medicine at the annual meeting held at Bath in 1878. In 1883–4 he was President of the Branch, when he delivered an address on the political powerlessness of the medical profession, which did much to arouse doctors to a feeling that if ever they were to be a force with which the politicians had to reckon they must organize themselves into a united body. In 1884 he was elected President of the Council, an office in which he displayed great zeal for the better organization of the profession. During his term of office the Association took new premises in the Strand, and Foster interested himself in getting its head quarters made a freehold. In 1886 he was elected one of the first direct representatives of the profession on the General Medical Council, and for ten years, in conjunction with Dr. Glover and Mr. Wheelhouse, he fought the battle of reform against the apathy or active opposition of the Council. Of this fight he bore the brunt. Although the work was generally distasteful and too often thankless he struggled on, often beaten but never allowing defeat to dishearten him. By his tact, resourcefulness and quiet but resolute persistence he succeeded not only in gaining for the cause which he championed a hearing that could not have been won by violence, but in carrying many useful reforms. To his efforts the appointment of the Penal Cases Committee was largely due. He always laid the greatest stress on the importance of maintaining a high standard in medical qualification, and in particular he did good service by denouncing laxity in the conditions of granting diplomas in public health at that time. When his period of service came to an end in 1896 he did not seek re-election, but in the following year when a by-election unexpectedly occurred, he was induced to stand again, but he was not returned. Not long before, at the

annual meeting, his services to the profession and those of his colleague, Mr. Wheelhouse, had been recognized by the award of the Gold Medal of the Association. He was —with the exception of Mr. Andrew Clark—the last survivor of those distinguished men on whom the Association has bestowed this signal honour.

He delivered the Address in Medicine at the annual meeting of the Association held in Birmingham in 1890, taking as his subject the public aspects of medicine. It was a remarkable address, the orator tracing the evolution of preventive medicine through the scientific work of the profession, and foretelling the advent of a day "when the State shall awaken to the value of such services, and recognize in the trusty dispenser of a nation's charity, or the wise saviour of a city's health, servants of the State more worthy of its honours than the successful soldier or the astute diplomatist." He was President of the Section of Public Medicine at the annual meeting held at Nottingham in 1892, and of the Section of State Medicine at the London meeting in 1910.

At a comparatively early period of his career Foster had begun to take an active part in public affairs outside the profession. He was elected to the Birmingham Town Council in 1885, and served on that body for five years. It was also in 1885 that he entered Parliament as member for Chester. When he sought re-election after the great split in the Liberal party in 1886 he was defeated by a narrow majority. In the same year he received the honour of knighthood in recognition, as Mr. Gladstone expressed it, not only of his medical eminence, but of his services to the great town of Birmingham and his political work. In 1887 he was returned for the Ilkeston Division of Derbyshire, which he continued to represent till 1910, when he gave up the seat, which he had won by an enormous majority, in favour of Colonel Seely, now Secretary of State for War, who had failed to secure re-election elsewhere.

In Parliament, while faithful to his political constituency, he never forgot that he was one of the representatives of the larger constituency of his professional brethren. He took a prominent part in the discussion of all questions affecting directly or indirectly the interests of medical practitioners. He rendered invaluable service in the passing of the amended Medical Act of 1886, and he was largely instrumental in obtaining direct representation of the profession on the General Medical Council. As the advocate of the redress of various grievances of medical officers he earned the gratitude of the Army Medical Department. His defence of the late Captain Fowler, the victim of one of the grossest acts of injustice ever perpetrated even by the War Office, was a fine instance of his courage in standing up against a Government at that time all powerful, which only escaped-defeat by using the party machinery at full pressure. In connexion with the Public Health (Scotland) Bill, the Midwives Bill, and the Poor Law Officers' Superannuation Act, Foster showed sleepless vigilance in safeguarding the interests of medical practitioners.

He became Parliamentary Secretary to the Local Government Board in 1892. On his appointment to that office a dinner was given in his honour, which was attended by more than a hundred and fifty members of the profession from all parts of the kingdom. Among them were many of the leaders of the medical profession and the men prominent in the Association at that time. It was felt, as several speakers on the occasion said, that the appointment marked an important epoch and indicated a public recognition of the parliamentary work done by the Association for the furtherance of public health and the welfare of the State. In his speech Sir Walter Foster, as he then was, referred to the fact, mentioned by the President, Dr. Withers Moore, who was in the chair, that he had served in nearly every office of the Association, and in the discharge of these functions he had had his education for public life in the State. He added that as an officer of the Association he had learned some other arts. He had been for a long time a member of the State Medicine Committee, and in that capacity had learned something about the State medicine which it was then to be his lot to administer. "That Committee of State Medicine," he said, "was after all the nursing mother of sanitary science in this country, and helped to do much to place the law of public health in the position in which it stands to-day." He went on to say that he had also been a member of the Medical Reform Committee, and during the many struggles they had had for medical reform he had learned the arts of an agitator which might be useful.

He held the office of Parliamentary Secretary to the Local Government Board till 1895. In that capacity he proved himself a first-rate administrator, and did excellent work in periods of difficulty, notably in strengthening the system of defence against cholera in 1892 and again in 1894. Here, too, he lost no opportunity of improving the position of medical officers of health and parish doctors and increasing the influence of the profession. In 1893 he presided over the Select Committee on Death Certification, but the Ministry to which he belonged went out of office in 1895 before an opportunity of legislation on the lines recommended by the Committee occurred. To the disgrace of both parties nothing has yet been done to give effect to these recommendations, and both the report of the Committee over which Foster presided and that of the Coroners Committee, which reported much to the same effect in 1910, seem to have been consigned to the official pigeon-hole, the limbo of legislative stillbirths.

Foster's political career was very successful till the Liberal Party returned to power in 1905, when he was trodden down by hungry generations of younger aspirants for office. It was generally expected that he was to have been President of the Local Government Board. We believe that, as a matter of fact, he was to have been First Commissioner of Works, but was set aside to make room for Mr. Lewis Harcourt. He was offered the Deputy-Chairmanship of Committees, but declined that post as inadequate to his deserts. His constituency felt so much that his claims had been ignored, that it insisted on some recognition being given. As there was no opportunity of a post of suitable rank, he accepted a peerage in 1910, taking the title of Lord Ilkeston at the expressed wish of the constituency he had represented for twenty-three years. He had been a Privy Councillor since 1906.

Of his multifarious activities in other directions an idea may be formed from the following enumeration of public positions held by him at different times in addition to those that have been mentioned. He had held the office of President of the British Medical Benevolent Fund and was the first President of the Irish Medical Schools' and Graduates' Association. He was Chairman of the National Liberal Federation from 1886 to 1890, President of the Allotments and Small Holdings Association in 1892, and President of the Land Law Reform Association, 1899, 1908. He was a J.P. for the county of Warwick. In addition to the distinctions already mentioned, he received the honorary degree of D.C.L. from the University of Durham in 1893, and that of LL.D. from the University of Montreal in 1897. Ilkeston conferred upon him the freedom of the borough in 1904.

Lord Ilkeston married Emily, daughter of Mr. W. L. Sargent, of Edgbaston, and by her had one son, the Hon. Stephen Foster (now Lord Ilkeston), and three daughters, two of whom survive him. To his widow, who helped throughout his married life with encouragement and support, and who ministered to him with the most self-sacrificing devotion in his illness, the sympathy of the profession and of his many friends outside it will go out in her bereavement.

The funeral took place at Brookwood Cemetery on February 3rd. A memorial service held at St. Margaret's, Westminster, was attended by a number of friends, including Earl Spencer, Lord Shaw of Dunfermline, Lord Southwark, Lord Rotherham, Colonel Seely, M.P., Mr. John Burns, M.P., Mr. Eugene Wason, M.P., Sir Edward Coates, M.P., Sir Henry Cotton, Sir Herbert Raphael, M.P., Sir James Reid, Bart., Sir David Brynmor Jones, M.P., Sir Horace Monro, Secretary to the Local Government Board, and Sir R. Douglas Powell. The Royal College of Physicians was represented by Sir Thomas Barlow, Sir Dyce Duckworth, Dr. Sharkey, Dr. Percy Kidd, Dr. Samuel West, Dr. W. Hale White, Dr. Liveing, Dr. Ormerod (Registrar), and Mr. Fleming (Bedell); the British Medical Association was represented by Mr. E. B. Turner, Member of Council, who attended at the request of the President, and Mr. Guy Elliston, Financial Secretary. The Land Law Reform Association, the National Liberal Federation, the Ilkeston Division Unionists

Association, the Ilkeston Division Liberal Association, and the Women's Imperial Health Association were also represented.

The Right Hon. ROBERT FARQUHARSON, M.D., writes:

When Walter Foster deserted medicine for politics many of his friends, myself included, thought that he had made a mistake, for his position in the North was unassailed and unassailable. Not only had he the largest consulting practice, but he was a successful lecturer and clinical teacher; he had written largely and well on the heart and other important matters, and his professional income must have been very large. But he always had a love for public life, and was prepared to make sacrifices to embark in it. Chamberlain and he were great friends in earlier days; he enjoyed the intimate confidence of Schnadhorst, prince of organizers, and on one occasion, if I remember aright, he was president of the National Liberal Federation, the highest honour to which an outsider can aspire. So the road was plain and simple towards higher honours, and he moved along it with perfect success. At first he represented Chester, but when the *débâcle* came he was swept out of his seat and had to take refuge elsewhere, and Ilkeston opened its embracing arms and took him in and held him with unceasing and increasing devotion until he was called away to the "other place." He very quickly caught on in the House, for he spoke early but not too often, and he had a remarkably attractive House of Commons manner, which, like the bedside manner he must have possessed to perfection, is, I fancy, born, not made, though, of course, it may be partially acquired by practice. To this was added a rich and well modulated voice, through which ran a strain of the brogue which bespoke Hibernian readiness in debate and retort—a clear, balanced mind, which thought out his subject carefully and communicated his views in well-arranged and judicious language, neither too brief nor too copious, but satisfactory at the moment and standing the test of subsequent reflection. Like a wise man, although he occasionally took part in general discussion, he confined himself mostly to his own subjects, on which he became a recognized authority, and the House always filled up when he rose to speak of them. In 1894, when Sir Henry Fowler was President of the Local Government Board, he passed that wide-reaching and eminently successful piece of legislation, the Parish Councils Bill, and in the following letter he generously acknowledged the eminent services of Sir Walter Foster, then his chief lieutenant:

Local Government Board, 15th January, 1894.

My dear Foster,

I cannot let the passage of our bill be completed without conveying to you my cordial thanks for the valuable, unflinching, and pleasant assistance you have so ungrudgingly rendered to me in my arduous task. I know that on several points you would have preferred to see the provisions of the bill more in accordance with the views of several of our friends behind us, but you have so fairly recognized the difficulties of the Government, and the wisdom of obtaining substantial and unprecedented advantages, and you have so loyally discharged your duty as a member of the Government, that it would be the height of ingratitude if I did not express my appreciation of your conduct, etc., etc.[1]

When the next Liberal Government was framed it was inevitable that a place should be found for him, and the Local Government Board was ideally fitted to bring out his best powers. I think he was the first medical man who held parliamentary office under it, and the wisdom of the choice was quickly shown, for both in and out of the House he was emphatically the right man in the right place, and spoke on vaccination and vivisection and all matters concerning public health with a convincing authority which was recognized and appreciated. When the Tories succeeded the Liberals and we were in the throes of the disastrous South African war, Sir Walter patriotically placed his services at the disposal of the Government to go out and bring order out of chaos and try to save the numerous valuable lives which were being preventably sacrificed by want of sanitary co-ordination. But with the infatuated obstinacy which regulated the proceedings at head quarters during that dark and dreary time, his valuable aid was rejected, and history now tells the mournful tale of what might have been. When the next Liberal Government was framed Sir Walter and his friends were disappointed to find that no place had been found for him. Doubtless there were difficulties in the way—a Cabinet portfolio had to be found for John Burns, and Sir Walter as a senior man could not serve under him at the Local Government Board. But he accepted the situation loyally, and manfully continued to do his useful work as a private member, and when translated to what has been sometimes called the lethal chamber he determined that he would stir up the stagnant waters and introduce fresh life into the gilded chamber, which only requires to be wakened up to impress its mass of sterling ability on the minds of the people. He moved or seconded the Address with marked ability, and was beginning to feel his feet and stand firmly on them when the blow fell. And it was with regretful surprise that we heard of his serious illness, for he was a surprisingly young-looking man for his age, with abundant hair barely flecked with grey, a buoyant mind and walk, and all the appearance of a constitution that would long defy the ravages of time. But here, again, his abounding vitality and elastic nature and Christian resignation came to his aid. When I went to see him not long after the operation and asked how he was, he characteristically replied, "As well as a man can be who has got a hole in his side," and I consoled him by reference to the case of a mutual friend, high placed officially, who led an active life, even hunting occasionally, after a colotomy which was still kept open; and he confidently looked forward to regaining his seat in the House of Lords and joining occasionally in debate. But it was not to be. Gradually the shadows grew deeper around, and although brightened by an occasional gleam of hopeful sunshine, as when radium seemed to cause some arrest of the advancing disease, they closed in upon him at last, and the end came; and perhaps, under the circumstances, we cannot regret that the curtain fell. It would be unthinkable to imagine bright, breezy, active, likeable Walter Foster as a chronic invalid, incapacitated by bodily and perhaps mental infirmity from taking part in the *Sturm und Drang* of forceful political life, where he worked so long and so well. The drama of his strenuous and useful career is over, and nothing is left us but to render our true and respectful sympathy to his devoted wife, who shared his joys and his sorrows, exulted at the mark which her lost husband made in two great and essential departments of human activity, and brightened his later hours by her energetic cheerfulness; and I think she may be consoled for her heavy loss by the reflection that his work has not been in vain—that he has alleviated human suffering and lengthened human life, and that he leaves behind him the high and inspiring example of how a good man can live and how he can die.

Professor SAUNDBY writes:

My recollections of the late Lord Ilkeston carry me back a great many years. When I came to Birmingham in 1876, although he was under 40, he was already one of the leading consulting physicians in the city and district, and held the position of physician to the General Hospital, and of Professor of Medicine in Queen's College Medical School. He impressed me at the time as being a man not only of remarkable ability but far ahead of his local contemporaries in knowledge of recent scientific medicine. He had already published a number of important papers, which had carried his name far and wide, his pioneer work with the cardiograph being of considerable originality. I have often heard his "bedside manner" spoken of as being perfect, and unquestionably he had a large practice in bedside consultations, his carriage being constantly seen all over the city. When I came upon the Council of the British Medical Association, he was its President as the title then was, and there never was a better chairman; for many years we used to look back to those days as affording a model to all times of the orderly dispatch of business. The Council used to meet in Exeter Hall, which was a long, narrow room, in which it was difficult for those who sat at the lower end to make themselves heard, or to take any proper share in the proceedings; the duties of the chair were not lightened by these circumstances, and it says much for him that so many should have carried away so strong

[1] *Life of Lord Wolverhampton*, p. 272.

an impression of his merits. After he entered Parliament, in the early eighties, he necessarily had to give up a good deal of practice, and his life thenceforth was devoted in a much greater extent to the public. His monument must be the Medical Act of 1886, which he carried successfully through Parliament; it will always be remembered as enfranchising the medical profession and widening the General Medical Council by making it no longer almost exclusively representative of the licensing bodies. Quite appropriately Sir Walter Foster, as he then was, became one of the first group of direct representatives of the medical profession in the Council, a post he held until 1896, and there can be no question that the choice of a man of his ability and position as one of the first direct representatives gave these new members a standing in the Council which they might otherwise have taken years to attain. There is no need to recall the incidents of his rejection at the 1896 election, but after that time he was no longer in a position to represent the medical profession. He had given up his posts in Birmingham and had removed to live in London. Except for the short period from 1892-5, when he was Parliamentary Secretary of the Local Government Board in Mr. Gladstone's last administration, his career was that of a member of Parliament sitting in opposition. On the return of his party to power many hoped that the medical profession would be recognized by his appointment to the Presidency of the Local Government Board, but that was not to be, and the Government was the weaker for his exclusion. It is impossible to doubt that had Lord Ilkeston been taken into the confidence of the Chancellor of the Exchequer many of the mistakes of the Insurance Act would have been avoided.

J. F. J. SYKES, M.D., D.Sc.,

MEDICAL OFFICER OF HEALTH, ST. PANCRAS.

The announcement of the death, on January 30th, of Dr. J. F. J. Sykes, from peritonitis after an operation, has come as a shock to many friends who knew his ceaseless activity in the office which he held.

John Frederick Joseph Sykes was born at Brighton sixty years ago, and was educated in that town, at Guy's Hospital, and at the University of Edinburgh. He took the degree of M.D.Edin. in 1878, and the diplomas of L.R.C.P.Lond. and M.R.C.S.Eng. in the same year. He studied also in Paris and Frankfort. He graduated B.Sc.Edin. in 1880, and took the degree of D.Sc. in Public Health in the same university in 1893. From an early stage of his career he devoted himself to public health work, and for some years was assistant examiner in hygiene to the Science and Art Department. The chief work of his life was done as Medical Officer of Health of St. Pancras, an appointment which he received in 1885. He gave himself to the duties of this arduous office with zeal; and very much of the more general work which he accomplished was, as it were, a by-product of his special duties. He early directed attention to the insufficient control with respect to the burial and identification of deceased persons and the verification and certification of deaths, and gave evidence before the Select Committee on this subject which sat in 1893 under the chairmanship of Lord Ilkeston (then Sir Walter Foster), whose death we have also the regret to record in this issue. Dr. Sykes interested himself in 1889 in the question of the provision of hospital accommodation for diphtheria in the metropolis. In 1895 he drew attention to the risk of the spread of puerperal fever by midwives, and in the same year gave evidence on the spread of disease in barrack schools before the Poor Law Schools Committee. To complete this brief note on his work with regard to infectious diseases it may be said that in 1901 he took the lead in obtaining the provision for the notification of chicken-pox during the prevalence of small-pox. He was President of the Society of Medical Officers of Health, and had previously been President of its metropolitan branch. He took great interest in the work of the Royal Sanitary Institute; was a member of its council almost continuously from 1883, and at various times served on the Congress, Examination, Referee, Education, Museum, Finance, and Parliamentary Committees. He was the Chairman of the Congress Committee from 1892 to 1897, and was honorary or recording secretary of one of the sections of the congresses of the Institute from 1884 to 1904. He was a Fellow of the Royal Statistical Society, and was by that society awarded the Howard Medal in 1900. In 1901 he gave the Milroy Lectures before the Royal College of Physicians of London on public health and housing. He was the author of a work on *Public Health Problems* in the Contemporary Science Series, and wrote a handbook of *Home Hygiene* for the St. John Ambulance Association. He was Secretary of the Section of Architecture in relation to hygiene at the International Congress of Hygiene and Demography in London in 1891, and was a delegate to the next following congress held at Budapest in 1894. He was a member of the Epidemiological Society, of the Société Française d'Hygiène, of the Société d'Hygiène Publique of Paris, and of the Deutsche Verein für öffentliche Gesundheitspflege.

Dr. Arthur Newsholme, Medical Officer to the Local Government Board in England, writes:

Although in the time available I cannot hope to do justice to Dr. Sykes's memory, I avail myself of your invitation to add my personal tribute to the high value of his life and his work.

The outstanding characteristic of Dr. Sykes was the extremely and sometimes almost painfully thorough fashion in which he dealt with every problem with which he was faced. While current it formed the subject of his constant thought, it was investigated from every viewpoint, and the results of his work were presented with conscientious completeness. To the superficial reader or hearer he may sometimes have appeared unnecessarily to labour one or other point of detail, but this was the defect of the quality of thoroughness which gave importance to his opinions and his conclusions. He had an original mind, exceptionally fitted for analysing public health problems; and had not his time been over-full of and his energies sapped by the vast mass of minor administrative detail daily requiring his attention, his contributions to the advance of our knowledge would have been more numerous even than they were. Notwithstanding the clog of excessive administrative work, he impressed the mark of his mind on several important subjects. His work on *Public Health Problems* did not, I believe, have the circulation it deserved; but it well repays study, even at the present time, nearly every chapter embodying broad-minded and original suggestions on the wide aspects of public health problems. The book on *Housing and Public Health*, giving the substance of his Milroy Lectures on this subject, contains some of his most thoughtful work; and the chapters on "Construction and Misconstruction" and on "Usage and Misusage" should not be neglected by any medical officer of health to whom urban housing is a pressing problem. Dr. Sykes was the pioneer of the school for mothers in this country, and in inaugurating this work he not only realized fully the importance of the educational element in the hygiene of infancy and childhood, but also the great value which attaches to the yoking of voluntary with official efforts directed against excessive child mortality.

But my chief wish in writing these lines is to add my tribute of grateful appreciation of Dr. Sykes's life and work. His memory is among the precious possessions of his friends, and public health is the poorer because of his —as it appears to us—too early rest from work.

Dr. R. M. Beaton (Chairman of the St. Pancras and Islington Division of the British Medical Association) writes:

Quite recently Dr. Sykes was in our midst, going out and in and doing his duty—then a sudden attack, an operation, and in a week he is gone. The suddenness startled those of us who heard of his illness and of his passing in quick succession, and even now we can hardly believe that the alert, active presence which has so long and so well watched over the health affairs of St. Pancras is gone from us. It was in his capacity as medical officer of health that I knew him best, especially during the last ten years. For the greater part of this period I was associated with him as a member or Chairman of the Public Health Committee of St. Pancras. I found him a most devoted officer, courageous in the exposition of his views, and fearless in the carrying out of his duty. He was a

man of many ideas, some of which possessed him, and when this was the case he never spared any effort to make himself complete master of the particular subject. Nothing gave him greater delight than to expound his favourite views to an individual or a committee, and he would do this with an elaboration of detail which often amazed and sometimes puzzled his hearers. I was frequently struck with the original lines of thought and argument by which he would seek to prove any case he expounded, as well as by the earnestness of his manner and ring of conviction in his voice. United to his fondness for detail he had a wide outlook and took a long view of things. Often his ideas were rejected, but he laboured on with much enthusiasm and great hopefulness. He has left his mark for good on St. Pancras. Now he rests from his labours and his works do follow him.

CHARLES ORTON, M.D.DURH., F.R.C.P.EDIN.,

CONSULTING PHYSICIAN, NORTH STAFFORDSHIRE INFIRMARY.

THE announcement of the death on January 16th of Dr. Charles Orton, consulting physician to the North Staffordshire Infirmary, at the age of 73, has caused much regret throughout the profession in the Pottery districts. He received his medical education at King's College, London, and Edinburgh, became M.R.C.S.Eng., and L.S.A. in 1862, and F.R.C.P.Edin. in 1881, taking the degree of M.D.Durh. in the same year.

He was one of the old pupils of the old North Staffordshire Infirmary at Etruria, and was house-surgeon there in 1862. After commencing practice at Newcastle-under-Lyme, he was appointed one of the honorary medical officers of the infirmary, an appointment which he retained until 1889, when he became consulting physician. He took part in the formation of the Staffordshire Branch of the British Medical Association in 1874, was its president in 1883–4, and from 1882 to 1888 one of its representatives on the old Parliamentary Bills Committee. His address as president of the Branch was on the effects of our present system of education on the health of our children. He was surgeon to the 4th Battalion of the North Staffordshire Regiment (Prince of Wales's), and retired with the rank of surgeon-major.

In 1870 he visited the seat of the Franco-Prussian war with Mr. W. D. Spanton, when they wrote an account of their experiences; he also wrote an essay on the medical wants of the Potteries. He had a wide practice in and around Newcastle-under-Lyme until he retired, for he was highly esteemed as an able practitioner and man of culture, qualities which, combined with his kindness and hospitable disposition, won him the universal respect and esteem of his professional brethren. When he gave up practice, he spent some time abroad, chiefly at Florence and Rome, and then settled in Hastings, but a few years ago removed to Bradley Court, Wotton-under-Edge, a delightful old manor house, with an interesting history. Here he died after a very short illness, leaving a widow and three daughters, one of whom is the wife of Mr. Douglas Coghill, formerly M.P. for Stoke, and another is married to Mr. W. B. Yarde, formerly one of H.M. Inspectors of Education. He was buried at Wotton-under-Edge.

Mr. W. D. SPANTON sends us the following appreciation of his friend's life and character:

I am glad to have the opportunity of saying a few words concerning my old friend Charles Orton. It has been my pleasure to have had an unbroken friendship with the late Dr. Orton for more than half a century; and, during the many changes we have both taken part in, nothing has ever disturbed it.

Dr. Orton married Miss Kate Leslie, of Aberdeen, forty-seven years ago, and they had a family of three daughters, all of whom are now living. His brother Dr. John Orton was a surgeon-major in the Indian army, and died several years ago.

Dr. Orton was a proficient artist, and had some skill in sculpture, while he was especially fond of outdoor sports of all kinds, cricket particularly; and in later life whilst resident in Rome took an active part in the work of the Archaeological Society there.

We were long associated on the active staff of the North Staffordshire Infirmary, and he was always ready to take energetic action in any matter which conduced to its welfare and efficiency. He never wrote much or took a prominent part in public medical matters, but he could always be relied on to come forward to help a colleague or do anything to uphold the best traditions of our profession, for he was trained in the old school of masters and apprentices, as I was, and believed more in levelling up than the more modern style of levelling down. His pleasant manner, his perfect uprightness, and his loyalty to his chosen profession as well as to his friends are the most marked characteristics I can recall; and although for many years he had passed out of the region of active work, except sometimes in Italy in the winter, he will be greatly missed by all his old friends.

JOSEPH BAYLEY, M.R.C.S., L.S.A.,

MEDICAL SUPERINTENDENT AT ST. ANDREW'S HOSPITAL, NORTHAMPTON.

WE deeply regret to record the death of Dr. Joseph Bayley, which occurred at Bryn-y-Neuadd, Llanfairfechan, on January 19th.

Dr. Bayley, who was in his 78th year, had been ill for some eleven weeks; on November 2nd he went to Llanfairfechan to pay one of his periodical visits to the Welsh branch of the institution, and was taken ill whilst staying there. His death removes one of the most highly respected residents of Northampton, a man of conspicuous ability in his profession, and an exceptionally successful organizer. His life-work was bound up with the institution with which he was so honourably associated for forty-eight years in Northampton.

Joseph Bayley was born on January 17th, 1836, and was the son of Dr. Joseph Bayley, of Odiham, Hampshire. He was educated at Reading School, and proceeded to King's College, London, where he completed his education. He took the diploma of M.R.C.S. in 1857, and that of L.S.A. in 1858. He entered the Royal Navy as a surgeon, and on the outbreak of the Crimean war gallantly responded to the call for volunteers. He served with the Baltic Fleet on board H.M.S. *Colossus*, one of the first-class line of battleships during the Crimean war, and was present at the bombardment of Bomarsund, and at Kronstadt. For his services he received the Baltic medal. At the conclusion of hostilities he was appointed surgeon on H.M.S. *Shannon*, a vessel of the frigate order. He did not continue long in Her Majesty's Service, resigning his commission to enter the Lunacy Service. He was first appointed assistant medical officer at Leicester County Asylum. He afterwards became assistant medical officer at the Salop and Montgomery Asylum, Shrewsbury, under Dr. Oliver, whose daughter he married. On the death of Dr. Oliver he was appointed superintendent of the Shrewsbury Asylum, and in 1865 he was appointed medical superintendent at St. Andrew's Hospital, Northampton. Here for close on half a century he devoted himself to the welfare of the institution which under his skilful administration became one of the leading asylums of its kind in the country. In the management of the hospital itself no less than in the treatment of patients he was most successful, and St. Andrew's became recognized as one of the largest and best places for the treatment of patients of the upper and middle classes.

When Dr. Bayley went to Northampton the asylum possessed about 100 acres of land; St. Andrew's Hospital now has, including the Welsh Estates, over 1,000 acres. The buildings themselves have been enlarged time and again, new houses and blocks of buildings being added, private residences in the vicinity acquired, and, in fact, the whole hospital has been so completely remodelled that it now possesses hardly a feature in common with the institution of half a century ago. The average number of private patients admitted annually has risen from 20 to about 100, and the total number of inmates is now about 450.

In the care of the patients Dr. Bayley always laid special emphasis on the importance of pleasant surroundings and recreations. The grounds at St. Andrew's are beautifully laid out with terraces, avenues of fine trees, picturesque walks and groves, and broad meadows and lawns. Some twelve or thirteen years ago hockey, tennis, cricket, and croquet lawns were laid down. Bryn-y-Neuadd was acquired in 1900. The patients were

encouraged to participate in outdoor athletic games, and the effect was very marked. Dr. Bayley himself was interested in all forms of sport. He used to run his own pack of harriers at Northampton, and he also went in for coursing, owning some fine greyhounds. He was also a cricketer in his younger days. His interests, however, apart from athletics and sport, were mostly confined to the development of St. Andrew's Hospital.

Dr. Bayley was an actor in amateur theatricals in his youth, and many admirable performances were given by members of the staff and patients, even operas of the calibre of *Il Trovatore* being undertaken.

His work—and the continual development going on over a long period of years—proves him to have been a shrewd, capable, far-seeing man, possessing exceptional grasp and well-directed outlook, a man of large organizing power and practical enterprise, and a good judge of other men. Clear of perception and of ready decision, he may have seemed sometimes a little quick-tempered; but at heart he was one of the best of men, and friends and officials who survive him can alike testify gratefully to many acts of kindness and consideration.

An old friend and professional colleague writes: Now that Dr. Bayley's lamented death has terminated a long and much-valued friendship, I cannot refrain from giving expression to the feelings of admiration which I have always entertained for his attainments as a physician and his skill in that branch of the profession which he had adopted and for so long practised. In the ranks of the alienists his death creates a distinct loss which it will be difficult to fill, for it was to the eminent position he occupied and which was so widely recognized, that the success of St. Andrew's as a hospital for the care and treatment of the mentally afflicted was due more even than to the unusual talent for organization which he undoubtedly possessed, and to the watchful care which he gave to the working of the institution which he may be said to have created. St. Andrew's before his time was a struggling institution with scarcely any but local connexion. It is now the favoured resort to which patients from all parts of the kingdom, of all degrees, are sent—a tribute indeed to the skill of the superintendent and to the widespread nature of his reputation. It has happily been Dr. Bayley's lot to complete the work to which he had devoted his lifetime, and to put the hospital into so finished a state that it may reasonably be expected to maintain in the future the position it has now long held as one of the best and most useful institutions of its kind in the United Kingdom. As a man and as a physician his kindness of heart was at all times manifested, and his anxious care for the well-being, and if possible the cure, of those committed to his charge was a marked feature in his relations with their relatives and friends, and added no little to the favour with which the hospital is regarded. Dr. Bayley was a man of great determination, and having once made up his mind as to the right course to pursue, was not to be turned aside from his purpose. In his early days at St. Andrew's he had to meet many difficulties, but he did not give way, but by tact and firmness overcame them.

This is scarcely the place to speak of Dr. Bayley in his private relations—they were most happy; he made many friends, who now feel how great is their loss, and no enemies; while the former live his many amiable qualities will not be forgotten.

The late Dr. Gibson.—The University Court of the University of St. Andrews, at a meeting on February 1st, adopted the following minute:

The University Court deeply regret the death of their former colleague, George Alexander Gibson, M.D., LL.D., etc., Edinburgh. They desire to put on record their sense of the great loss caused thereby to science, medicine, and Scottish culture. They recognize how great was his distinction as a physician, an original investigator, and a learned and accomplished writer on many branches of medicine.

They recall with thankfulness his valuable services as member of University Court, and the constant kindness, courage, and courtesy which he showed in all the relations of life. They grieve over the bereavement of his widow and family, and direct that a copy of this minute be sent to them as an expression of sympathy.

Dr. James Waterston, J.P., of Sunderland, died on the morning of January 22nd, having reached the advanced age of 85. He was a man of remarkably strong physique and followed his profession up to within a few weeks of his death, although he had been ailing for some time. A native of Edinburgh, he was educated at Heriot's Hospital, and took the diploma of L.R.C.S. in 1848. He commenced his professional career as medical officer to a vessel on a voyage to the Arctic region; it was shipwrecked, and he was with difficulty rescued. He practised for a time in Haltwhistle, and was later on in Gateshead during the period of the great cholera epidemic. Then he settled at Sunderland and practised there for more than half a century. He was connected with the Royal Infirmary for many years. Dr. Waterston was Chairman of the Sunderland Division of the British Medical Association in 1905. Twenty years ago he was appointed a Justice of the Peace, and attended most assiduously to work on the Bench. He always declined to become a candidate for municipal honours. He was a staunch Liberal in politics and a member of the committee of the Liberal Club. Dr. Waterston was twice married, and leaves one son and two daughters.

Deputy Inspector-General Anthony Gorham, R.N., died at his residence, Glen Ierne, Clifden, Ireland, on January 26th. He took the degree of M.D. of the Queen's University, Ireland, in 1866, and entered the navy in the following year. He received a decoration and special promotion to the rank of Staff Surgeon for his services in Perak in 1876, and after serving in nearly all quarters of the empire, including China, India, Mediterranean, and the various home stations, he retired in 1900 with the rank of Deputy Inspector-General of Hospitals and Fleets, having declined the offer of further promotion in the service. The deceased officer, who was not married, was one of a numerous family of doctors, two of whom, Dr. P. C. Gorham, of Clifden, and Dr. J. J. Gorham, J.P., of London, attended his funeral on January 30th. A younger brother, Dr. John Gorham, died a short time ago in South Africa.

A gloom was cast over the Edinburgh School of Medicine for Women at the close of the past week by the sudden death of Miss Agnes Rothe, a young Danish lady who had taken some of her medical classes in Glasgow, and was completing her course in Edinburgh. The death occurred with startling suddenness at an early hour on Saturday morning. Miss Rothe had been quite well on the previous day; indeed, she had been present at the meeting of the Women Students' Medical Society on Friday evening, and had been in good health and spirits then; about 3 o'clock on Saturday morning she awoke with severe haematemesis, and in a few minutes thereafter she passed away. She was living in the Muir Hall of Residence in George Square, and she was able to summon one of her comrades to her assistance; but, as has been said, the fatal issue was almost immediate.

Medical News.

The anniversary dinner of the Medical Society of London will be held at the Whitehall Rooms, Hotel Metropole, on Wednesday, March 5th, at 7.30 p.m.

The annual meeting of subscribers to the Royal Medical Benevolent Fund will be held at 15, Wimpole Street, W., on Tuesday, February 18th, at 4.30 p.m.

We are asked to state that any old student of Charing Cross Hospital who wishes to attend the annual dance at the Royal Palace Hotel, Kensington, on February 13th, should communicate with the honorary secretaries at the hospital.

A "Masque of Learning, Mediaeval and Modern, being a Pageant of Education through the Ages," devised by Professor Patrick Geddes, will be presented in the Great Hall of the University of London on March 11th and the following evenings of that week, as well as on Saturday afternoon, March 15th.

Sir Squire Bancroft will give a farewell "reading" of Dickens's *Christmas Carol* on the afternoon of Tuesday, March 11th, at the St. James's Theatre. Sir Squire Bancroft's first public reading was in aid of the Middlesex

Hospital, and the final reading will be given for the same great charity, on the weekly board of which he has served for twenty-five years.

A COURSE of lectures and demonstrations arranged by the Child Study Society will be held during February, March, April, and May at the house of the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W. The first lecture will be given on Thursday, February 13th, at 7.30 p.m., when Dr. James Kerr will speak on brain mechanisms and handwriting. The chair on this occasion will be taken by Sir James Crichton-Browne.

A TABLET with the following inscription has been fixed over the "Coronation Aerial Post Bed" in the King Edward VII Hospital, Windsor: "This bed was endowed by a donation from the fund realized in aid of charities by the 'Coronation First United Kingdom Aerial Post, A.D. 1911,' organized by Mr. D. Lewis-Poole and Captain Windham, by sanction of His Majesty's Postmaster-General, for the conveyance of mails by aeroplane from London to Windsor, and from Windsor to London, in September, 1911, to commemorate the Coronation of Their Majesties King George V and Queen Mary."

THE next Special Post-graduate Course on the diagnosis and treatment of pulmonary tuberculosis at the Brompton Hospital will commence on March 3rd, and will continue for a fortnight. Each morning there will be demonstrations and practical work in the laboratory, and each afternoon there will be clinical demonstrations in the general and special out-patient departments, and in the wards. In connexion with the course a series of public lectures will be given at 4.30 p.m., and on Friday, March 14th, there will be an expedition to the Frimley Sanatorium. The syllabus of the course, the list of lecturers, and other particulars may be obtained on application to the Dean at the hospital.

THE Scottish Red Cross unit, which was stationed at Uskub during its period of service, returned to Glasgow on January 28th, after an absence of eleven weeks. The unit consisted of eighteen members, under the command of Major H. E. M. Douglas, V.C., D.S.O., R.A.M.C. On arrival at Uskub the Welsh unit was joined with it, and they were given a disused Turkish hospital: 137 beds were made, and 637 patients were treated, many being enteric cases. One member of the Welsh unit died of enteric fever, but the Scottish unit was fortunate in having no casualties. The medical officers with the Scottish unit were Dr. H. C. R. Rankin and Dr. C. Stewart Black. Several medical students were among the orderlies.

THE Obstetrical and Gynaecological Section of the Royal Society of Medicine has arranged to hold a discussion on "ventrifixation" of the uterus on Thursday, March 6th, at the Society's rooms, 1, Wimpole Street. The subject will be divided into three parts: (*a*) Indications for the operation, to be opened by Dr. W. S. A. Griffith; (*b*) varying technique of the operation, to be opened by Dr. Henry Briggs, Liverpool; and (*c*) clinical results of the operation, to be opened by Dr. A. E. Giles. It is requested that any one desiring to take part in the discussion will communicate with the honorary secretaries, Dr. Walter Tate, 32, Queen Anne Street, W., or Dr. T. Watts Eden, 26, Queen Anne Street, W., not later than Saturday, March 1st.

A SERIES of reports on blackwater fever in the Tropical African Dependencies, recently presented to Parliament, gives a general idea of the prevalence of the disease. It is interesting to note that in Northern Nigeria, out of eight cases in which details were obtained, all, with one exception, had been living in native-built houses. Of four other cases in which details were not supplied, three lived in native houses and one died in a canoe on the Gongola river. Native houses for Europeans, it is stated, have mud walls, but the floors are usually cemented; the wood used in building is the ordinary forest timber, unseasoned; the roofs are made with bamboo or the midribs of the palm, and roofed with the usual grass thatch. There is no reason to suppose that the usual blood-sucking flies are more attracted to these houses than to the ordinary bungalow, but they are more liable to the ravages of the white ant, common throughout the country. This question of the native house seems an important one and should be further inquired into. The idea now seems to be gaining ground that those who do not take the daily dose of 5 grains of quinine are more liable to blackwater fever than those who do, the conclusion being that blackwater fever is a manifestation of malarial toxicity. Recently much work has been done as to the etiology of this interesting disease, and Colonial reports such as the above should prove valuable, especially from the epidemiological point of view.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisments, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, Westrand, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, Westrand, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

COUNTRY DOCTOR asks for advice in the treatment other than operative of a case of enlarged thyroid in a girl aged 18. The enlargement is increasing in spite of thyroid extract and external remedies; there are no other symptoms.

HORNY SCAR.

M. desires suggestions for the treatment of a large scar of upper arm, contracted after a burn in infancy, which has for a few years taken on a horny character. Patient is a female over 40 years old, and her arm is contracted into a flexed position. The horn is heaped up at one part to a thickness of ⅝ in., and a certain amount might be removed mechanically. Other parts are divided up, showing tender cracks in the skin. In other places the scar is studded with small horns as the sole of a boot is with nails.

ANSWERS.

PORTABLE TYPEWRITERS.

A SURGICAL correspondent writes in reply to a recent question on the subject to recommend the Corona, made by the Folding Standard Company, U.S.A. The price is ten guineas. In its case (which looks like a small dressing case) it measures 11 by 9½ by 4½ in. and weighs 8½ lb. Its working is delightfully easy. It is truly portable, for it can be used without removing it from the case; when that is open, and the paper carrier turned back, it is ready for work. I frequently write with it when sitting in an armchair with the machine on my knees. After this eulogy I had better add I know nothing of either makers or sellers of the machine.

LETTERS, NOTES, ETC.

CORRECTIONS.

IN the paragraph on foul breath, in the JOURNAL of February 1st (p. 264, line 13 of paragraph), the words "offensive breathing" should read "oppressive breathing."

A misprint occurred also in Dr. Clippingdale's note on a royal hoax, which appeared in the same issue of the JOURNAL (p. 264, col. 2). The authority on which the note is based was Lady Llanover.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

APPENDICITIS:

A PLEA FOR IMMEDIATE OPERATION.[*]

BY EDMUND OWEN, F.R.C.S.,

SURGEON TO THE FRENCH HOSPITAL, AND CONSULTING SURGEON TO ST. MARY'S HOSPITAL, LONDON.

In April of last year a short paper of mine in the BRITISH MEDICAL JOURNAL, in which the word *quickness* was associated with the disease appendicitis, drew forth a good many letters. But the correspondence drifted into a wordy warfare in which the main object of the paper became somewhat obscured. When controversial ammunition seemed to be running short, the Editor closed the discussion, and announced that the subject would be reopened at an evening's debate before the Medical Society of London. And may the hope be expressed that in the forthcoming discussion, speakers will be so good as to confine their remarks as closely as possible to this question—"Is the best result in the treatment of appendicitis to be obtained in the greatest number of cases by immediate operation or by temporizing?"

The question of *when* to operate in a case of appendicitis is often one of extreme anxiety. The general practitioner finds it difficult; so may the operating surgeon. The only person to whom, in my experience, it appears as a simpler matter is the "illustrious" physician. He likes to take time in making up his mind; but whilst he is musing the fire burns. He sometimes prefers to see the presence, or even to await the development, of nearly all the classical signs of appendicitis before giving his consent to an operation, and his help in such circumstances is apt to be an embarrassment to the family doctor and to the surgeon, and to prejudice the patient's prospect of recovery. I have deliberately used the word *illustrious* in connexion with the physician, so that no physician may take it to himself that there is anything personal in the matter—unless, indeed, he deems himself to be really "illustrious." Perhaps, after all, the *illustrious* physician does not actually exist, any more than the illustrious surgeon—that he is but a figment of imagination—so no slur can possibly be conveyed by my words on any individual Fellow of the Sister College.

I will go so far as to say that patients with acute or subacute abdominal troubles ought not to be considered as medical cases at all. I remember some years ago a physician to a children's hospital writing upon the subject of intussusception, and speaking slightingly of what he called the *apotheosis* of surgical measures in the treatment of that disease. But if every child with intussusception were submitted to operation as soon as the diagnosis was made, much of the terror of this disease would be removed. Surely it is safer to deal with an intussusception directly and gently with a surgical finger and thumb, than to try and unravel the intestinal sheathing by forcible and blind distension of the large intestine. But that is not the question for this evening, and I drag it in only to strengthen my claim that true progress in acute abdominal disease is in the line of quick surgical assistance. Acute or subacute disease of the appendix is no more a "physician's case" than is one of septic gangrene of the foot, whitlow, or strangulated hernia, to each of which diseases, by-the-by, appendicitis has considerable pathological resemblance.

"UNNECESSARY" DEATHS.

If we look around the circle of our personal friends and acquaintances, say of the last twenty years, we can scarcely fail to realize the fact that a considerable number—or, at any rate, several—have dropped out as the result of blood poisoning started by disease of the appendix. Several colleagues and friends of my own have thus needlessly perished. Indeed, medical men, who in my opinion, ought to enjoy an exemption from all disease, have paid a heavy toll to appendicitis. Not a few have been rescued by prompt operation, but too many have not accepted for themselves that definite line of treatment which, in like circumstances, they would unhesitatingly recommend to those for whose health they were responsible. But unfortunately, medical men make, as a rule, bad patients—bad in this sense, that they do not readily hand themselves over, bodily and entirely, to their *confrères*, and bad also in that the *confrère*, when he has undertaken entire charge, is apt to hesitate to insist upon an extreme measure lest his views should fail to meet with the full acceptance of his friend. The adjective which I have applied to most of these deaths as "unnecessary" would not so readily be applied to a death from typhoid fever, cancer of the liver, or pneumonia, for instance, but it was *unnecessary* in that if only an early operation had been resorted to no calamity would probably have taken place. In Surgery, as in the affairs of the State, what is to be desired is the greatest good for the greatest number; and if we could have back amongst us those friends whom uncontrolled appendicular disease has taken away, and could start treatment afresh, and begin it by early removal of the inflamed appendix, many of them no doubt would still be with us. But, unfortunately, the nature of our work is such that we cannot have our failures back and try them over again in a different manner. The barrister who is not satisfied with the result which his conduct of a case has received from any particular Judge, can take the case up to another court and have it tried over again, altering his treatment, may be, and securing, perhaps, a different verdict. But there is no Court of Appeal for the surgeon who has been unsuccessful in his management of a case. It behoves him, therefore, so to act that he may take no needless risk when entering into a contest with his great Adversary, the Man with the Scythe. Nearly all these deaths, I insist, were unnecessary, and the imaginary illustrious physician would himself admit, as he looks back, that not a few of the cases which he has seen in consultation might have been saved if earlier operation had been resorted to. Though there is no Court of Appeal open to the unsuccessful operator, the physician must feel that *his* branch of the Profession is less closely shut in, and I can scarcely imagine the physician, in his practice, being placed in a position of such intense anxiety as is the operating surgeon when he is suddenly called upon to insist upon the necessity of an operation in a case of appendicitis, whilst surrounded by a group of the patient's friends and relations unconscious of near danger, and expecting to hear smooth words.

UNCERTAINTY CONCERNING ACTUAL CONDITION OF APPENDIX.

Appendicitis is different from most other acute diseases in this, that one cannot tell exactly what is the state of affairs without making an incision. The senses are prevented in their working, in that the deeply-lying appendix is unapproachable. In the case of pneumonia, bronchitis, or heart disease the ear tells precisely what is wrong and how things are going; when the liver, the kidney, or the bladder is in trouble the sense of touch imparts valuable or precise information, whilst in most cases the eye gives important help. But an inflamed appendix can no more be felt than seen, and it is impossible to inform oneself of its exact condition. Holmes, the poet and physiologist, suggestively remarked that one cannot tell what wood a table is made of until he lifts up the cloth. And so it is with the disease in question: one cannot tell the exact state of the appendix until it has been exposed to view by operation.

I should think that no part of the body has caused so many surgical surprises as the appendix. In one case the symptoms of disease have been uncertain, or definite but slight; and when the surgeon exposes the appendix he finds it mortified. In another case he thinks that he can distinctly feel it in the iliac fossa; but in the operation not only is it absent from its proper situation, but, after half an hour's anxious search, he finds it in the depths of the pelvis or tucked up behind the liver.

In other cases, where the symptoms have been unmistakable and even acute, much to his surprise, the surgeon finds nothing worse than a little catarrhal inflammation in the vermiform process. But the commonest surprise of all is the discovery of a perforated appendix when the symptoms have been slight and the operation has, by good fortune, been undertaken early. I think that the time will come, and that shortly, when these perilous associations of appendicitis will be obviated;

[*] A paper read before the Medical Society of London, February 10th, 1913.

this, however, can only be by a general agreement that no case ought to be allowed to drift, but that operation should be resorted to as soon as the presence of disease is recognized.

The "Quiet Stage."

It is generally considered that operations done on about the fifth or sixth day of the disease have a particularly high mortality. The explanation is simple: precious time has been lost. It does not mean that the surgeon is not to operate on the fifth or sixth, or any other day: it means that the disease has gone on developing from, perhaps, an apparently simple beginning, that by this time, as likely as not, an abscess has formed, and that the surgeon's chance is by so much the worse. Further, it does not mean that if the operation is postponed to the seventh, or eighth, or to any other day, the chances of recovery would be better. With, or without operation the patient may die; but the surgeon must do his best without regard to omens or statistics. It is out of the question now that he could advise waiting for the oncoming of the "quiet stage" before operating. The quiet stage in such a case may be nothing less than the silence of death itself. There would be no "fifth" or "sixth" or any other ominous day in the course of an appendicitis if operation had been promptly resorted to. And as for the so-called "quiet stage," I think it a misfortune that the specious term has ever been applied to appendicitis. But it has a great attraction; and even in medical conversation it is often spoken of as if there were actually a period in the course of the disease in which all urgent symptoms, local and general, passed away, and Nature seemed to be pausing in order that the surgeon might have a free and unhampered chance of putting a happy end to the trouble. Of course, in many cases the urgent symptoms do so clear up, but who is to know whether in any individual case they are going to subside or to rush forward with hurricane speed? No one can possibly tell; and it is because of this uncertainty that recourse to immediate operation offers the greater safety. One hears people talking of the oncoming of the quiet stage in appendicitis as if it were as clearly marked in the pathological time-table as is the crisis in pneumonia, or the fall of temperature in a remittent fever. It may prove, however, but a Will-o'-the-wisp.

Walling off of the Appendix.

Associated with the theory of a "quiet stage" in the general run of cases of appendicitis is that of a "walling off" of the area of disease. In some cases there is, no doubt, a walling off, and it is pleasant when operating on them to find the appendix shut off and lying handy in a small abscess. But in hurricane cases there can be no attempt at a walling off. Nature seems to be taken by surprise and robbed of all chance of building up protective earthworks. One could scarcely expect a gangrenous appendix to glue itself to neighbouring coils of bowel, or to cause the production of helpful plastic lymph. In these furious cases there is usually no attempt at "walling off," so the germ-laden, sero-purulent exudation may be found tracking across to the opposite side, or draining down into the pelvis. There is evidently no more chance for a "walling off" than for the on-coming of the "quiet stage."

A Fool's Paradise.

There is apt to be a Fool's Paradise stage in appendicitis, and it may come early or late in the course of the disease. Its occurrence is somewhat in this manner: A patient has been complaining of pains in the abdomen for a day or two, with some slight tenderness in the right iliac fossa; the pulse has been, perhaps, at about 100 to 120, and the temperature at 101° F. After a baddish night the man wakes up and finds that the pains have gone, and that he is better in every way. The pulse has dropped, may be, to 90; the temperature is a degree lower, and the man's appearance is much better. His nearest relation, who has been in to see him, is delighted with his improvement. The nurse also recognizes a great change, and the family doctor admits that since his visit of the previous night a marked alteration has taken place.

But in spite of all this, the lower part of the right rectus remains motionless or rigid; there is still a resistance in the other muscles over the iliac fossa, and some tenderness on pressure over the caecal region still remains. The patient is not actually better; he is worse. The state of his pulse and of his temperature is of no real clinical value—it is, on the other hand, actually misleading, and the sensations and the aspect of the patient are certainly not to be taken as indications of improvement in the presence of persistent rigidity of the lower part of the abdominal wall. What exactly has happened to produce this sudden change one cannot say. As likely as not, the swollen appendix has given way to internal pressure, and some thick muco-purulent fluid, or even a solid concretion, has escaped. Or it may be that an abscess in, or close to, the appendix has burst its bonds. At any rate, some deeply seated tension has been relieved and quiet has been restored—at least for a time.

This remission of symptoms is not seen in the course of every case of appendicitis, but it is fairly common, and its occurrence is apt to be fraught with great danger, especially if it so happens that the consultation with the physician has been arranged for that particular morning.

Of all those who are in connexion with the case, the surgeon is the least likely to be deceived. The continued rigidity of the abdominal muscles (which probably is still marked) is evidence to him that the storm-warning must not be lowered, although some heavy clouds have been rolled away and the sky looks brighter. He is still anxious to open the abdomen and so to *assure* himself; but in the altered circumstances he may be tempted to give way. Indeed, unless he is unusually firm—obstinate, his friends call it—he *will* give way. And perhaps by night the urgent symptoms have returned, the patient breaks out in a sweat, or has a rigor, and after a loss of twenty-four precious hours, leave to perform the necessary operation is given. The surgeon then finds a diffuse abscess, and possibly the patient is so bad that he dare not venture to search for the ruptured appendix. How greatly does he then regret that he did not open the abdomen as soon as the diagnosis was definitely made!

If only the figures from Nature's clinical case-book could be shown upon the blackboard of how many times, say in the last year, the abdomen was opened too early in appendicitis, and how many times too late, there would be no need for me to be appealing for more resolution and promptness in the treatment of this disease.

Danger of Waiting.

In the correspondence to which I have referred, Dr. F. J. Dixon urged that it was better "to take a little increased risk by waiting than subject a great many patients to unnecessary operations." But unfortunately the man who is waiting cannot measure or control the risk to which he is subjecting his patient. A delay of a few hours in one case may prove fatal; in another case it may do no harm; but as one cannot possibly tell in which it may be harmful, delay is best avoided altogether. Dr. Dixon rightly hopes that the surgeon would not be in such haste to operate as to open the abdomen for a passing attack of colic. Such haste as that would, indeed, be blameworthy; but if in any case at a consultation held a few hours later, it could not be positively settled whether the appendix was in trouble or not, the greatest safety would be found in looking at it. In a case of doubt, localization of the symptoms of "colic" in the right iliac fossa should render one anxious to exclude appendicitis, and this can be done only by making a small incision.

Mr. Paterson wrote that fifteen hundred deaths take place in England and Wales every year from appendicitis—"unnecessary deaths," I have called them. If all of these cases could be diagnosed and operated on straightway, how many could be saved? Why not every one? And the only reason that can be urged against their all having the benefit of an immediate operation is a vague fear that, if the practitioner were to make it part of his working creed that such treatment was advisable, he and his surgical associates might be regarded as needlessly enterprising, or "too fond of the knife"—to use a common expression. But if, as would happen as the result of their treatment, pretty nearly every one of their cases got well, it would not, after all, greatly matter.

When every practitioner holds these views the Golden Age in Surgery will have begun to dawn. And then the operator who has his fair share of cases of appendicitis

throughout the year will be able to say at the end of it "I have not lost a single case, because I have got them all early"! And this will be by the family doctor, the physician and the surgeon all agreeing that as soon as ever the diagnosis is made that an appendix is inflamed it should be removed; and that if there is doubt about the diagnosis it must be settled by the making of an incision, the making of the incision being part of the scheme for arriving at a sure diagnosis—just as one employs the *x* rays in an obscure case of hip injury.

Appendicitis and the Public.

But before this improvement can take place public opinion will also have to be educated. At present the greeting given by the friends to the surgeon who has been called in is apt to be, "We *do* hope that you will not think it necesary to operate." The mention of the word "appendicitis" has already caused alarm in the household, and the people have heard of so many deaths from that complaint after operation that they are inclined to attribute the fatal result to the operation rather than to the disease. Our Profession recognizes the fact that it is not well for the Public to be kept ignorant on medical matters, and from the platform and by the newspapers much useful medical knowledge is being constantly and widely imparted. Thus, on such questions as the Listerian method, hygiene, food and drink, tuberculosis, and infection the public have learnt much, and the time has now come that they should be told something about the danger of delay in appendicitis; that in the case of acute or obscure pain in the abdomen they ought at once send for their doctor, and if he advises that a surgeon be called in, no opposition should be urged to the proposal of an operation. They should be made to understand that it is not the operation but the delay in performing it to which a fatal result should be generally attributed.

Not long since I was called to operate on a boy from a large school with whose obscure abdominal pains the Matron had deemed herself competent to deal! Persons with abdominal pains are not cases suitable for treatment by Matrons or First Aiders; for every case of the kind the doctor should be *at once* called in. If after making his examination he is able to say that the complaint is not serious, so much the better. If, on the other hand, he finds the appendix at fault, the case at once becomes serious; and neither he nor anyone else can say how serious it may prove if it is allowed to drift.

Two Series of Cases.

In imagination let us take a hundred cases of appendicitis, from the beginning of their manifest infection, and form a rough estimate of the course which they will run, basing our guess on what we have seen in other instances. It might be fair to suggest that 30 of them would probably get well with what is called "medical treatment." This might be too large a proportion, but it may pass. Of the 70 remaining cases perhaps ten might have subsequent slight local troubles, from which they also may get quite well without active help, whilst an equal number might have recurring attacks which rendered them chronic dyspeptics, or even, from time to time, suddenly and most inconveniently took them from their occupation and threatened them with disaster. At last, finding the appendix a constant source of worry and anxiety, they had it removed when the trouble was in the "quiet stage." Accepting this estimate, there are still 50 cases left which will not fall into any one of those three groups. Five or six of them, perhaps, will go on with alarming rapidity, and when a day or two later the abdomen is opened—tardily opened, I will say—the appendix will be found gangrenous or perforated, with, may be, an unsuspected abscess in its neighbourhood. It matters not who the surgeon is who operates, some of those patients will certainly die, the proportion being settled, apparently, by blind chance. Of the remaining serious cases which do not run a hurricane course, some will be associated, perhaps, with subphrenic abscess, some with pelvic abscess, some with diffuse suppuration of the abdomen, with intestinal obstruction, or with septic intoxication. The list of the later complications of neglected appendicitis is long and appalling, and they claim a large number of victims. They ought all to have been avoided. It is impossible even to make a guess of the actual figure of the fatal cases, so, being unknown, let it be called *a* —*an x percentage* out of the fifty is lost.

Now, by way of contrast, let another hundred cases of appendicitis in the earliest stage be taken, and let every one of them be operated on as soon as the diagnosis is made. By the light of our former series, it is at once seen that 40 cases have been submitted to operation which would have recovered without surgical aid. I admit it. But has any harm been done by operating? Have any people been wronged by the operation or any surgical principles violated? At any rate, those people, 40 of them (for they have all recovered), will not run the risk of having appendicitis again—and that is something to be thankful for. Then, by the early operation, we have put right those cases of slight relapsing forms of the disease; these ten people have been saved the misery of an annoying chronic dyspepsia—which is a common, and often unrecognized, complication of a lurking appendicitis. We have made those twenty persons absolutely safe and happy. There yet remain 50 individuals who, in the other series, became the subject of local and diffuse abscess in the abdomen and pelvis, or were attacked by some form of blood poisoning. We have got them also safe, every one. And we have not lost a single case out of the hundred—because the appendix was removed as soon as it was found to be diseased. What a contrast between the two series! Yet in the beginning the patients were all alike—all apparently simple cases of appendicitis. There can, I think, be no difference of opinion on the subject—*x per cent.* of the first lot of cases was lost because of want of surgical enterprise, whilst not a single death occurred in the second series. So that early operation in appendicitis gives *x per cent.* the better result.

Then, why is it that early operation in appendicitis is not the rule? The reply may be that it is all very well to talk about *series of cases*, but when the family doctor is in attendance on any particular case, and is surrounded by anxious parents and apprehensive and criticizing friends, he has to disregard the average and think only of the *individual*. That, in other words, circumstances alter cases. Still, if circumstances do alter cases, they ought not to disturb the principles on which surgical cases should be treated. But hitherto there has been no principle laid down by general professional consent and teaching in England as to what should be the rule and guide in the treatment of appendicitis. But it must come ere long. And when it comes it will be, I think, in some such form as this, "As soon as it appears fairly certain that the appendix is inflamed it should be removed by operation." The rule of treatment should be made as definite and rigid as is that for the treatment of a strangulated hernia or a cancer of the breast.

Stealthy Appendicitis.

There is a small group of cases of appendicitis of extreme interest and importance to which special attention should be drawn in a paper of this sort. Two or three of them, I dare say, might be found in every hundred cases, and they come like a thief in the night. Let me give an imaginary clinical sketch of one of them:—An athletic young man who has never known a day's serious illness, has been for a long bicycle ride, and, returning home, has eaten a hearty supper, and gone to bed dead tired. In the night he wakes up feeling very ill; he vomits, and then, finding himself much better, goes back to bed and falls asleep. But in the morning he is not inclined to get up, and as he complains of pain, his mother calls in the doctor, and, meeting him in the hall, says that the boy had eaten something for supper which made him sick; that he is better now, but she hopes the doctor will not let him go to the office that day. He looks fairly well, and he is lying flat on his back with his knees not drawn up; his pulse-rate is scarcely quickened, and his temperature is but slightly above normal. May be, his face is a little flushed and anxious; he has some slight tenderness in the right iliac fossa but there is no swelling to be made out. Perhaps there is some rigidity of the neighbouring muscles. He is strictly dieted, and a fomentation is applied all over the abdomen. In the evening he is not so well, but he has not vomited again, and he says that the fomentations have eased his pain. The doctor is by no means happy about him, but he says some cheering words, and promises to come round early in the morning

to see him. The patient passes a very restless night, and when the doctor examines him he finds that there is a marked contraction of the lower part of the right rectus and more tenderness in the fossa. An operation is talked about, but, for some reason or another, it is not done till the evening. A gangrenous and perforated appendix is then removed, and a large quantity of foul sero-purulent fluid wells up; a drainage tube is inserted, and fomentations are reapplied.

What is the prognosis? Is it not quite likely that the lad will die? We all meet with these cases, quiet and deceiving in their origin, and formidably quick in their course. The surgeon wishes that he could have been called in the day before; but if he had been called in would he have been allowed to operate? If his rule had been to urge operation in every case as soon as he suspected the existence of appendicitis, and he had been allowed to follow it, he would certainly have increased the chances of recovery of this man. For aught that one knows, every early case of appendicitis may be going to turn out like this—no one can tell. Probably it is always a question of the virulence of the germs or of the vulnerability of the tissues—or both—which determines the pace at which the local changes will work out. And as one cannot possibly have any knowledge on either point, it will be far safer that the surgeon should act as if he suspected in each case that he had virulent germs and vulnerable tissues to deal with. He should banish all hesitation.

"When to Operate in Appendicitis."

Supposing that there is a surgeon here who does not hold these views in connexion with the treatment of appendicitis, and some one asks him, as a matter of information, what are his guides as to when an operation should be advised, he may not find it easy to reply. The pulse and temperature may be normal, and the patient's aspect may be good although the disease is far advanced, and there may be no fullness in the iliac fossa and but slight resistance, yet the case is in urgent need of help. It is unsurgical to wait for some beacon-flash telling him when in any particular case he should advise operation, and I think that he would find it difficult to satisfy his questioner. On the other hand, if he held the opinion which has been forced upon most of us, he would simply reply, "I would urge operation as soon as ever I suspected that the appendix was inflamed." That is a clear answer; it cannot be misunderstood.

And amongst the many great advantages of the early operation is this, that no risk is run of the need of any of those secondary procedures which are apt to be called for if the case is allowed to drift on to suppuration. After the early operation the wound is closed once and for all; no drainage tube is used, and there is no fear of a future ventral hernia or of a bulging at the scar, of inflammatory adhesions or intestinal obstruction.

"Look and See."

It is constantly argued that if the appendix is removed as soon as it is believed to be inflamed, some cases will be submitted to operation in which, after all, no disease of the appendix is discoverable, and that many others will be so dealt with which might probably have got well without any active surgical help. This I fully admit; but it is the only argument which can be raised against the early operation. However, the admission by no means weakens my appeal. We sometimes hear the same sort of criticism made in the course of our practice by persons who have no claim to express any opinion of value in the matter—"This boy," says a proud mother, "had an attack of stomach-ache last month, and the doctor wanted to have him operated on. But his father wouldn't allow it, and the boy has been perfectly well ever since!" That valiant decision exalted the man in his wife's opinion, and at the doctor's expense: but my sympathy is all with the doctor. And it is more than likely that if the boy got another attack of the kind, and the father again stayed the surgeon's hand, the result would be disastrous, and the father might regret that he had ever stood in the way of operation.—The conclusion of an attack of appendicitis is not infrequently associated with regret.

Let me briefly give a clinical sketch of the imaginary case just mentioned:—The boy had been sitting on damp grass watching a cricket match, and next day he was seized with acute catarrhal appendicitis. The doctor found him with a pulse of about 120; his respirations were quick: he had vomited, and he complained of pain and tenderness in the right iliac fossa. The doctor, perhaps, had recently had a case with like symptoms in which, when an operation was tardily resorted to, a mortified appendix was found in a stinking abscess, and the patient had sunk. He dreaded a repetition of the scene, and he was anxious to be in time on this occasion. And he was right!

It is because of the two-fold uncertainty which must always be associated with appendicitis—uncertainty as to the actual state of the disease, and uncertainty as to the course which it will take—that the surgeon should be anxious to *look and see*. But, as it is, there is no general agreement as to what should be the exact procedure. One medical man may urge treatment by rest and opium, because he has seen several patients get satisfactorily over an attack when thus dealt with. Another may insist that treatment should be by castor-oil or Epsom salts, because he has known it answer well; and a third will swear by starvation, fomentation, and enema. And no one can affirm that in any case the adoption of one of these methods may not meet with success. But after dealing with a few more cases on such lines he would scarcely fail to be pulled up short, and to find his faith rudely shaken.

A whist-player with five trumps in his hand may win the trick although he leads from his short suit, but a fuller acquaintance with the game will prove to him that it is not safe play. In the course of time the experience of the many has been crystallized out into *Rules*, which intelligent players find it to their advantage to observe. And so is it in Surgery: out of the experience of the many, definite principles of practice are constantly being laid down to become in due course accepted as Rules. And, judging from what one sees and hears, the Rule is gradually being established in this country that a case of appendicitis should be operated on as soon as ever the diagnosis is made—within the first twelve hours, if possible—that the patient will then not only get well, *almost for certain*, but will get well very quickly.

Exploratory Incision.

But would it really be a terrible calamity if an incision were made over a suspected appendix in a case in which it was not actually affected? For my own part, I give the question an unhesitating "No." A cleanly-made opening into the abdomen can do no harm, and I look forward to the time when it will be no unusual thing to hear that such and such a surgeon has been looking into an abdomen, or, to be more precise, has been passing his finger into an abdomen for this purpose, and that, after all, there was nothing wrong with the appendix. The dread of advising an incision in a case where the appendix might be found little or not at all affected, is greatly exaggerated. The surgeon's reputation as a diagnostician is of far less importance than the safety of the patient, and if his fruitless act be called a *mistake*, at any rate, it is a mistake on the right side. The surgeon who is haunted by the fear of making a mistake has made an unfortunate choice of his Profession. I can remember the time when a surgeon was afraid to cut into a mass of inflamed tissues lest, by chance, there should be no pus found. He preferred to "wait for fluctuation" (the expression even yet sounds familiar). But now that one understands the danger of acute inflammation and of tension, one unhesitatingly makes a free incision into an area of acute cellulitis so as to end painful disease and diminish the risk of sloughing, and of other effects yet more serious. But the same surgeon is still apt to be content to dally with, and hover helplessly over, an inflamed appendix because he is not "quite sure." In politics the motto "wait and see" may suffice: for the surgeon in a case of possible appendicitis it should be "*Look and See*," and Medicine and Surgery will not be in a satisfactory state as regards the treatment of appendicitis until the prompt making of a small iliac incision becomes part of the routine treatment. An inch incision through the abdominal muscles will suffice if it is made quite early, but an incision of 6 in. or more may prove ineffectual if it is delayed.

I have long since made up my mind what I shall do if I, in my turn, become the subject of appendicitis—I shall forthwith call in a surgical friend, and if he says "Yes, I think that the appendix is at fault," I shall ask him if he would mind my getting another surgeon (not a physician) to come and see me with him for the purpose of confirmation; and on the diagnosis being confirmed, I shall beg him *at once* to operate. And if these principles were adopted in all cases of appendicitis, would not the mortality of the disease be lowered by more than *90 per cent.*? I think so.

I have not hurriedly formed the opinion that the greatest safety in appendicitis is in the early operation. And certainly I did not start with that opinion: I have been steadily driven to it. I have seen a fair share of cases of appendicitis, with some of which I have been associated from the beginning of the attack; to more I have been called in when the disease had already made considerable headway, and for others my help has been asked only towards the close of the chapter. And my deliberate opinion is that if it were generally recognized that safety lay in prompt operation, the present high death-rate in the disease, as I have already said, would be greatly lowered.

At various times in our professional life we have to study our bearings, take soundings, and re-shape our course. How greatly thus has our treatment of cancer of the breast, for instance, improved in recent years, for even if there is a slight margin of doubt in that diagnosis we now urge immediate and complete operation. There is no waiting for the appearance of signs which shall render the diagnosis so clear that there is no chance of mistaking a chronic inflammatory thickening for a malignant infiltration; the patient and not the tumour is now given the benefit of the doubt, and the improvement in our results has, in consequence, been most remarkable. In diphtheria, too, antitoxin is injected without a moment's delay; and in the case of suspected renal calculus the kidney is explored for a likely stone even if the *x* rays fail to reveal its presence.

Misleading Conditions.

Whether all the views advocated in this paper prove acceptable or not, there is, at any rate, one point which ought to receive a more general recognition: it is the reference to the fact that there may be a comparative absence of clinical signs in the presence of advanced and perilous disease in the appendix. It does not at present seem to be universally realized that the pulse and temperature of a person may be normal in spite of the appendix being gangrenous or perforated; that in some of these stealthy and rapid cases there is absolutely no fullness in the fossa; and that if the chief pathological change in the appendix is gangrene, there need be very little local tenderness—for there is no sensation in dead tissue; that as there is no sensation in a mortified appendix, there need be no reflex rigidity of the abdominal muscles covering the fossa; that there being no excitement of pulse or temperature, and little or no local pain or tenderness, the patient may make light of his trouble and that his aspect may be deceivingly cheerful. Thus, in the most dangerous class of cases of appendicitis there may be but little either to cause anxiety or to attract serious attention. Every operating surgeon will bear one out in this, and will agree that, for the happiness of all concerned, the family doctor should never sit pondering over his case of suspected appendicitis, but should *at once* call in surgical aid. If the surgeon then says that because he is not sure he would rather wait a little, at any rate, whatever happens, the doctor will not afterwards have anything to reproach himself with. But I do not think that there are many surgeons who would counsel delay; we have all seen enough of the danger of waiting.

In no respect, I think, has improvement in surgical treatment in the last quarter of a century been more marked than in that of strangulated hernia. Taxis and the hot bath happily have become things of the past. The general practitioner sends his patient into the hospital without hesitation or delay, or calls in the surgeon for immediate operation: and instead of there being now a high death-rate from strangulated hernia, statistics would show a most remarkable improvement. And what, in my opinion, is wanted at the present time is a similar waking up of the profession with regard to the treatment of appendicitis.

We have heard of the sailor who, when his ship was in action, saw an unexploded shell, with a time fuse attached, land upon the deck. He did not wait to see the development of events, but, taking the shell up in his arms, dropped it over the ship's side out of harm's way. An inflamed appendix is a shell with a lighted time fuse, and though in any case it may happily fail to explode, it is far safer to lift it out at once and drop it overboard.

In the course of this paper scarcely a word has been said as regards alternative methods of treatment, for, in my opinion, *there is no place for the discussion of general measures until after the inflamed appendix is out.*

Whilst waiting for leave to operate, nothing whatever should be given by the mouth, and no fomentation or water-dressing should be used, because wetting the skin spoils the antiseptic effect of the tincture of iodine, which should at once be freely and widely painted over the region in preparation for operation. But there will be plenty of scope for treatment after the appendix has been removed, and especially so in those cases in which the blood or the peritoneum has already been poisoned by absorption.

The discussion at the present time should be directed towards the solution of the important question as to whether immediate operation or temporizing ought to be the rule in the treatment of appendicitis. If the answer is in favour of immediate operation, such subjects as that of the choice of anaesthetic, the routine washing out of the stomach before the patient leaves the table, the administration of opium, or of purgatives, may well be referred to; but the main question should first be settled. And in a meeting such as this the answer will be likely to prove useful towards the drawing up of a Rule for the guidance of the practitioner in the treatment of every case of appendicitis.

THE FUNCTION OF THE APPENDIX AND THE ORIGIN OF APPENDICITIS.

BY

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Shortly after his death, which took place so lately, a paper by Mr. C. B. Keetley was published in the *Annals of Surgery* about the function and value of the appendix. Both he and Sir William Macewen regard the appendix as an actively useful and valuable organ not to be sacrificed lightly. Their opinions are based largely upon clinical, and therefore complicated, observations. Other observers, such as Mr. W. J. Mayo, incline to the other extreme—that the value and function of the appendix is so small that it is absolutely inconsiderable when compared to the dangers which it may cause. When the enormous number of people are considered who have had their appendix removed and are in perfect health, one cannot but sympathize with the latter view put forward. Yet as a matter of scientific interest the appendix has a function; and, when removed, that function is undertaken by neighbouring tissue, and the patient is relieved of a passive tube containing actively poisonous material. This view I advocated in the Erasmus Wilson Lectures delivered before the Royal College of Surgeons in 1904,[1] and, in view of Mr. Keetley's recent death, shall content myself with restating them. This is done in four sections: The natural history of the ileo-caecal region, the physiology of the appendix, the development of the appendix, and the pathology of chronic typhlitis and appendicitis.

The Natural History of the Ileo-caecal Region.

Food in the mouth is reduced by the action of the teeth to a more or less pulpy condition, in which state it enters the stomach, where it is further broken into fragments by the action of the hydrochloric acid, pepsin, and churning muscular movements. The casein of our primitive natural food—milk—is precipitated and also fragmentated. The

pylorus, the smallest portion of the alimentary canal, allows, or should allow, no large pieces to pass into the duodenum. The work of the stomach and mouth may be regarded as chiefly, if not entirely, preparatory to chemical digestion and absorption and to partake of the physical nature of fragmentating the food. The more perfect the work of the stomach the more completely will the food be reduced to a molecular condition, and consequently the more perfectly will it be adapted for the chemical action of the bile and pancreatic secretions. The next twenty odd feet of the small intestine are given over to these chemical changes and the absorption of nutriment. The products of digestion having reached the ileo-caecal valve, it is the duty of that sphincter only to allow water, soluble material, and very small pieces of indigestible débris to enter the caecum. There are similarities in the physiologies—that is, homologies—between the pylorus and the ileo-caecal valve. The former is the portal between fragmentation on one hand, and chemical digestion on the other; the latter stands between chemical digestion and specialized absorption on the one hand, and possibly excretion and the absorption of water on the other. The stomach prepares food for the small intestine, the caecum for the large.

Fluid or semi-fluid material is passed from the small intestine through the ileo-caecal valve into the caecum. The latter is not adapted for the carriage of fluid by peristalsis; it is too large and thin-walled to contract efficiently unless it is tightly distended like the bulb of a Higginson's syringe. In addition, in man gravity works against it. As a result, the faeces must remain in the caecum until the absorption of water from them and the addition of mucus have rendered them of the proper consistency for their transit along the large intestine. Hence it is easy to understand why the caecum is so often the most capacious part of the large bowel, and why at operations, particularly for intestinal obstruction, surgeons so frequently find it distended out of all proportion to the rest of the alimentary canal, the bowels being full of fluid.

Hence, just as there is a natural pause for food in the stomach, so is there another for the products of digestion in the caecum; and in both the contents are prepared for their course in the succeeding part of the alimentary tract. To turn to the pathological significance of this halt, pause, or rest, it will be seen at once that the caecum is the breeding ground for bacteria *par excellence* of all parts of our intestine. The enumerations of the colonies from different parts of the alimentary tract bear this out, and have proved that colonies of bacteria are more frequent by hundreds and thousands here than in any part of the intestinal tract, even after a period of starvation. And it is only to be expected that this difference will show manifold increase when food is taken. It is now very easy to understand why Nature has established so large a storehouse of lymphoid tissue in the ileo-caecal region—to furnish leucocytes and protect the body from the bacteria, to which region the appendix is an intestinal "tonsil," an index of the fermentative processes which are going on within the caecum, a culture tube for the bacteria therein contained. Hence the very great frequency of its inflammation—appendicitis.

It will now be seen that there is strife between the micro-organisms and lymphoid tissue in the caecum of every living being. Hence the gradual disappearance of the lymphoid tissue as age advances. If the strife becomes a little more severe than it is ordinarily in health some inflammation about the ileo-caecal region will result, such as after a dietetic indiscretion. In the very great majority of cases this inflammation in the ileo-cacal region shows itself as appendicitis. In consequence, appendicitis may be regarded as a result of an exaggeration of the fermentative processes natural to the ileo-caecal regions of all.

The Physiology of the Appendix.

It has long been taught that this organ was functionless, and that most probably in this lay its apparent incapability to resist the attacks of disease. That it represents the terminal portion of the caecum, which has become differentiated in development, is undeniable. But that it is functionless is undoubtedly untrue. Like the rest of the intestinal mucous membrane, that of the appendix has numerous glands, whose secretion has apparently an insignificant digestive action on all foods. As little, if any, contents of the caecum ever enter the appendix, any digestive action it has must be of the smallest, whilst its absorption of products of digestion cannot be greater.

To sum up this phase of intestinal physiology: In the small intestine the products of digestion are fluid, and are being continuously passed onwards by peristalsis; the caecum is the first great "resting place" for these products since they have left the stomach; the large intestine, as its name implies, is of greater calibre than the small, and is more suited for the carriage by peristalsis of solid than of liquid faeces; the caecum being rendered less mobile owing to its peritoneal attachments and, in man, having to work semifluid material against gravity, the products of digestion have to remain in it until their consistence has become such as allows of their easy passage along the large intestine; the change in consistence is made by the deposition of mucus from the glands of the large intestine and the absorption of water. In consequence, the caecum of the child loses its tapering form, and becomes larger by the formation of pouches between the taeniae muscularis. During this pause further quantities of digested material will be deposited in the caecum and dilate that structure, possibly delaying the dispatch of the first "faecal" contribution. Hand in hand with these processes will go the fermentative changes of myriads of micro-organisms, to whom the temporary stagnation offers opportunity of multiplication. Hence the far greater quantity of bacteria in the large than in the small intestine. The temporary delay in the passage of the intestinal contents, the absence of a secretion like that of the stomach, the presence of large quantities of active micro-organisms and their products, point to the necessity for the development of a protective armament on the part of the host to counteract them. Hence the large development of lymphoid tissue in the terminal and most dependent part of the caecum, that is, the appendix, and its specialization, not degeneration. The need of the presence of this "intestinal tonsil" is apparent in the caecal region. The comparative absence of lymphoid tissue in the rest of the large intestine is explicable, as it is in the caecum that the faeces should have been brought up to the proper consistence to allow of their passage along the colon, and in consequence there should be no more considerable periods of "rest"; and as the faeces become dryer and harder, there will be less fermentative action.

Hence it may be said that:

(*a*) Lymphoid tissue is the characteristic feature of the caecal apex. The vermiform appendix of man is represented in the vertebrate kingdom by a mass of lymphoid tissue, situated most frequently at the caecal apex.

(*b*) As the vertebrate scale is ascended, this lymphoid tissue tends to be collected together into a specially differentiated portion of the intestinal canal, the vermiform appendix.

(*c*) The vermiform appendix of man is not, therefore, solely a vestigial structure, though it undoubtedly represents the terminal part of the caecum. On the contrary, it is a specialized part of the alimentary canal, Nature having made use of a disappearing structure and endowed it with a secondary function by giving it lymphoid tissue to protect the body against the micro-organisms in the ileo-caecal region.

Development and Life-History of the Appendix.

The development of this organ illustrates the previous contentions, and can be studied both in the individual—ontogeny—and in the animal series—phylogeny. That of the human fetus will be given first.

Up to the third month of intrauterine life the diverticulum of the primitive intestine, which subsequently becomes the caecum, is of uniform calibre throughout. At this period its growth becomes unequal, the terminal portion failing to increase in size at the same rate as the proximal. The inequality thus established becomes more and more marked as time goes on. At birth the terminal part of the caecum, or the appendix as it is called, forms a tapering prolongation of the caecal diverticulum.[2] It is not until later that a definite line of demarcation is to be seen between the two structures. The fetal type of caecum is, therefore, an inverted cone whose apex imperceptibly shades off into a prolongation of the

appendix.[3] It will now be seen that the appendix represents the terminal portion of the original caecum.

Turning to the animal series for suggestions to aid in the explanation of this phenomenon, it is found that a distinct appendix is only seen in man, anthropoid apes, lemurs, and the opossum. On the other hand, it is common to find a lymphoid structure at the distal portion of the caecum, which undoubtedly represents the appendix.[4] In the latter series of examples the caecum and its lymphoid appendage conform to the human fetal type. It is quite a later phase, both in ontogeny and phylogeny, that the caecum loses its conical form by the development of pouches between its three thin muscular bands. And it is by that the appendix becomes distinctly separated.

As age advances the appendix undergoes changes both in position and structure. In the fetus it is situated along with the caecum under the liver, and later it descends into the iliac fossa. Sometimes it remains in its fetal position, or it may be arrested at any part of its descent. An examination of the appendices for different decades shows that they are both relatively and absolutely longest and thickest between the ages of 10 and 30. The walls during this same period are packed with lymphoid nodules. After the latter age the appendix begins to undergo a slow involution both in length and thickness. The lymphoid nodules disappear also, though more slowly and uncertainly.

Robert Morris[5] has directed attention to the association of pain, intestinal and general symptoms with this involution. The change is certainly of a chronic inflammatory character, such as would be expected to occur in nearly every one who has an appendix, and is the result of the continued irritative action of bacteria throughout years. Still more recently Sir Berkeley Moynihan and Mr. Paterson have redirected attention to the occurrence of appendix dyspepsia, its more modern name.

The situation of the appendix in the pelvis is an acquired feature, associated with intestinal dyspepsia, constipation, pregnancy, visceroptosis, etc.

Pathology of Chronic Typhlitis and Appendicitis.

It is a matter of more or less common knowledge in the profession that, as years pass by, changes are found in the appendices of people who have never had a clinically recognizable attack of appendicitis. How much these changes are physiological it is impossible to decide, and it is not very important, because, whatever they are, they will interfere with the normal performance of the work of the appendix, and so lead to evil results. One of the best known of the changes is the disappearance of the lymphoid follicles that are so plentiful in early life. Is this disappearance pathological or physiological. Yet if sections are cut of appendices removed from people over 60, or even older, these follicles sometimes can be found in abundance. The persistence in these cases may be due to individual variations in the rate of ageing, or perhaps more probably they indicate that the disappearance is of more pathological than physiological import.

In considering the physiology of the appendix, it has been shown that the caecum is the first great place of rest, pause, or stasis for the products of digestion after they have left the stomach, and, as a result, the appendix, serving as an index to the chemical and bacteriological processes which occur there, is well supplied with lymphoid tissue. One well-known property of lymphoid tissue is that by producing leucocytes it is actively protective to its possessor against foreign invaders. Situated in a blind tube in whose lumen are represented types of the organisms inhabiting the large bowel and their fermentations, the lymphoid follicles must have a great deal of work to do, more even than the tonsils, to which the appendix has been likened. It is well-known that the tonsils undergo fibrosis or chronic inflammation without the occurrence of an acute attack. In a like manner do similar changes occur in the appendix, but unfortunately there is a very marked difference. Fibrosis of the appendix interferes with the efficiency of its peristaltic action and the tube becomes incapable of emptying itself. By these means a vicious circle is established; the more pabulum which remains the more will bacteria flourish, and the more likely is it that the chronic inflammation will progress, and the organ become still more incapable of performing its own evacuation. Such a condition may be aptly called appendicular constipation. The inspissation of the contents will lead to the formation of an appendicular calculus or faecal concretion, which may be likened to scybala elsewhere in the large intestine. It may be assumed that the presence of concretions indicates the existence of pathological change. And their association with chronic inflammation explains the fact that they are frequently found by the surgeon and the pathologist in cases which have never had a clinically recognized attack of appendicitis.

The results of chronic appendicitis may be at times far more extensive than this. The fibrosis, with its subsequent contraction, leads to further disappearance of the lymphoid follicles and impairment of the muscular action. The appendix consequently becomes an inert breeding ground for micro-organisms, and if they escape into the caecum the multiplication is continued there. The caecum will be affected sooner or later by the continued escape into it of toxic material elaborated in the appendix, and as it is necessary that the products of digestion remain there until they are of suitable consistency to be passed on into the ascending colon, those toxic materials will become still further elaborated and give rise to chronic typhlitis. Again there is the vicious circle, as the inflammatory condition will impair the contractile power of the caecum, and so lead to further bacterial growth and further chronic inflammation. In this way a colitis may be established throughout the entire length of the large bowel.

Our life history as regards the micro-organisms in our intestines is of interest. Before birth the meconium in our bowel is sterile. With the first taking of its food the baby is introduced to their action and begins a lifelong education from his alimentary tract. In this connexion it is of great importance to note that the frequency of appendicitis is greatest between the ages of 10 to 20, the decade of the first habitual excesses in human life. After 30 years of age the lymphoid follicles are disappearing and the patient is becoming immune; but, should appendicitis occur after 30, the suppurative complications, abscess and peritonitis, are more frequent than they are at earlier ages. Indeed, in the fifth and sixth decades of life appendicitis with obvious suppuration is more common than appendicitis without obvious suppuration.[6]

REFERENCES.

[1] *Clinical and Pathological Observations in Acute Abdominal Disease* (Constable and Co.), 1904. [2] Keith, *Human Development and Morphology.* [3] Battle and Corner, *Surgery of the Appendix*, Fig. 2, A, p. 28. [4] Berry, *Journ of Anat. and Phys.*, 1901. [5] Morris, *Amer. Journ. of Obstet. and Gynaec.*, 1901, p. 439. [6] *Surgery of the Appendix* (Constable and Co.), p. 35.

THE report presented to the annual meeting of the Women's Imperial Health Association, held at its office at 7, Hanover Square, stated that schools for mothers had been started in Lambeth, North Kensington, and Tottenham, and that a juvenile health crusade was enlisting children. The caravan tours, which had proved successful in the past, had been continued. During the year Sussex had been visited and certain places in Kent and Surrey. The London parks caravan worked during the summer at Battersea Park, Clapham Common, Wandsworth Common, and Tooting Common. During the year no fewer than 310 lectures had been delivered under the auspices of the association, many of them illustrated by lantern slides and cinematograph films.

IN response to the wish of the Dresden branch, a general meeting of the Deutsche Gesellschaft zur Bekämpfung des Kurpfuschertums (German Society for the Suppression of Quackery) decided on January 18th, 1913, to remove its headquarters to Dresden. Dr. Seifart, the first chairman, who has carried out his onerous duties for upwards of ten years, has repeatedly intimated his wish to resign, and during the last few months has pressed the Executive Committee to accept his resignation. The Executive paid a warm tribute to the untiring work of the chairman. It regretfully accepted his resignation. A new Executive Committee, consisting of Wirkl. Geh.-Rat Exzellenz Professor Dr. Fiedler, Geheimrat Professor Dr. Schmorl, Professor Beythien, Medizinalrat Thiersch, and others, has been elected. Dr. Neustätter (of Dresden-Hellerau) has been elected Provisional Chairman and Business Manager, to whom all communications, inquiries, etc., concerning the German Society for the Suppression of Quackery should be addressed.

A Lecture
ON
CARCINOMA OF THE COLON.

DELIVERED AT THE CANCER HOSPITAL,

BY

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THERE are certain clinical aspects in the study of carcinoma of the colon which I propose to bring before you.

In the first place, let me say that the stage of complete obstruction is still unfortunately the most common at which the surgeon meets it. A typical instance is the following case:

A patient was admitted to the Royal Free Hospital with a distended abdomen, persistent vomiting, and inability to pass either faeces or flatus. The abdomen was opened in the mid-line. A hugely distended caecum presented, and on it was a patch of gangrene about half the size of one's palm. There was just sufficient time to pack around it with gauze before the caecum burst, flooding the wound with pints of liquid, offensive colon contents and running on to the floor. A Paul's tube was then fixed in the opening, and the patient made an uninterrupted recovery. Some weeks later the abdomen was reopened and a carcinoma of the sigmoid excised. At a third operation the caecal fistula was closed.

The most striking lesson to be derived from this case has always seemed to me that the gangrenous condition of the caecum and its early rupture, thus preventing any further abdominal exploration, was the means of saving his life. This brings me to the point. What should be done when a patient's abdomen is very distended and obstruction is complete? If a growth can be felt from the rectum or vagina, colostomy of the sigmoid may be performed. If not, the abdomen should be opened to the right of the mid-line, and if the caecum presents it should be opened without further exploration. If it does not, the first distended coil found should be used for the purpose of drainage.

You may say that without a proper exploration of the abdomen a strangulation under a band, or some other form of intestinal obstruction, may be overlooked. Even so the chance of the patient living is greater the less the intestines are handled, for consider their condition. They are filled with offensive liquid faeces, their walls are oedematous and brittle, the elasticity is diminished, the peritoneal covering cracks and splits even with gentle handling, allowing toxins and germs to invade the peritoneal cavity. Colostomy without an exploration for the cause of the obstruction, in very distended cases, brings about far better results than when a search is made.

The safest method of performing a temporary colostomy for drainage purposes is by using the curved clamp invented by Sir Thomas Smith (Fig. 1). A portion of the lumen

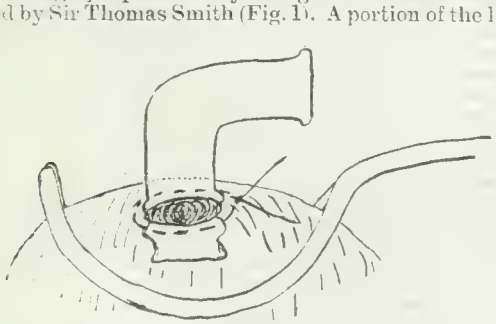


Fig. 1.

of the distended colon is emptied and then clamped. An incision is made and a purse-string suture inserted around it. A Paul's tube is now slipped in and the purse-string stitch tied around it. The clamp is then removed, and the gush of fetid faecal matter is carried well clear of the wound into a receiver by means of the rubber tube attached to Paul's apparatus.

We now come to the case of carcinoma of the colon in which obstruction has not become complete.

Here we have very typical symptoms, but which are often overlooked, either because the patient does not go to his doctor, or because the symptoms are improperly recounted, or because the symptoms are treated without any attempt at finding the cause.

Let us look at a typical specimen of the commonest type of growth, that of the sigmoid, and you will notice there is very little to be seen on the outside. The appearance is that of a string having been tied around the bowel. If we look at the interior we will see that the growth is of both an ulcerative and a cicatrizing nature.

Now any form of ulcer in the colon gives rise to frequency in the calls to empty the bowel. The excessive secretion of mucus and the call to get rid of it makes the patient think he has diarrhoea.

As the colon becomes narrowed by the shrinking of the growth, colicky pain is induced by taking food or drinking hot fluids, both of which stimulate peristalsis. This the patient attributes to "wind."

The most typical symptoms, then, of the early stage are the frequent passage of loose motions and mucus with blood occasionally, and colicky pain on taking hot drinks or food.

If these symptoms persist in spite of diet, bismuth, and rest in bed, an examination with the sigmoidoscope is called for. Failing definite evidence with that, the only means of settling the diagnosis is by exploration of the abdomen. I must here admit that in four cases of those I have explored with these symptoms the disease has been chronic appendicitis and not growth; but as their troubles have disappeared with the removal of the diseased appendix, the mistake was a good one.

A still later stage, and one during which no mistake should be made, is that in which there is gradually increasing constipation and *visible peristalsis*.

The picture of visible peristalsis once seen is never to be forgotten. If the abdomen is watched during one of the attacks of pain, coils of hypertrophied intestine will be seen standing out and raising the abdominal wall in waves. Visible peristalsis always means obstruction, and there should be no hesitation in opening the abdomen when this sign is present.

I was once asked to go to the country to fix a movable kidney which was causing pain in a patient whom I had never seen but who had been recommended to have the operation by a surgeon who devotes a good deal of attention to kidneys. While examining the lump which she had in the right kidney region she had one of her attacks of pain, and I was able to observe very well-marked peristalsis. I received permission to open the abdomen instead of fixing the kidney, and the condition I found was a chronic intussusception lying in the ascending colon and forming a lump which had been mistaken for the kidney. I was able to reduce the intussusception, which originated from a tumour of the ileum, causing the intestine to be invaginated into itself, and so producing chronic obstruction. The growth, with a good length of intestine, was excised, and the patient is now well, some eighteen months later.

Cases are not all of a straightforward character. An ulcer of the intestine, from whatever cause, may lead to an attack of localized peritonitis, and this is not uncommon in connexion with the chronic cases, especially in the region of the caecum. Invasion of the wall of the intestine occurs through the base of the ulcer, and what follows is exactly the same as in a case of appendicitis—namely, adhesions, a localized abscess, or general peritonitis. Most of the lumps found in these cases are due to this complication, the mass consisting mainly of inflamed adherent omentum and not of actual infiltration of the growth.

These cases may exactly resemble attacks of recurrent appendicitis, and one very interesting example, whose caecum I show you, was like that.

The patient was the wife of a doctor, and the subject of chronic phthisis. Some months before she was taken ill with pain in the right iliac fossa, vomiting, and constipation. A lump appeared in the region of the appendix, and for a day or two it was doubtful whether she had not an abscess, but all her symptoms cleared up in the course of a few days, and the lump gradually vanished. Two or three months later a second attack came on resembling the first. It was deemed advisable, as soon as she had recovered from this attack, to remove the appendix. On opening the abdomen and exposing the region of the appendix and caecum it was found that instead of a merely diseased appendix there was a much more formidable condition to be dealt with, namely, tuberculous disease of the appendix, caecum, and ascending colon. In this case there is no doubt that her attacks of localized peritonitis were not due to tubercle, but to

secondary infection by the *B. coli*. A portion of the ileum, the caecum, and the ascending colon were removed; the ileum was then joined to the transverse colon, and I am glad to say she is now going about feeling perfectly well.

The interest of a case of hyperplastic tubercle of this kind is that it may very easily be mistaken for carcinoma.

Another case I will relate to you illustrates very well the condition of a localized abscess in connexion with carcinoma of the colon.

A woman of 53 was admitted to the Royal Free Hospital complaining of abdominal pain. She soon developed a lump in the region of the sigmoid flexure which quickly became adherent to the abdominal wall and was clearly inflammatory in origin, but it was recognized that there was something more behind it—either a new growth or possibly a foreign body which had perforated the intestine. The abscess was opened, and a quantity of foul-smelling pus was let out. The major portion of the cavity was in the muscle of the abdominal wall, but there was a small sinus leading deeper into the abdominal cavity. This was allowed to drain for about two weeks, during which time no faecal matter escaped, and the discharge became very small in amount.

I then opened the abdomen by incisions which surrounded the abscess cavity. The lump which could be felt before the operation proved to be what I show you—a carcinoma of the colon with an ulcer which has perforated its wall, the great omentum, which has exercised a protective influence by becoming stuck over it. The abscess has then progressed through the omentum into the abdominal wall. An interesting feature is that the portion of colon involved turned out to be the transverse, although it was fixed in the region of the sigmoid. I was able to remove the whole mass, including practically the whole of the great omentum, 8 in. of the transverse colon, and the corresponding portion of the mesocolon.

Another case of similar interest was the following:

I saw with Mr. Boyce Barrow a lady suffering from pelvic peritonitis. Her symptoms rapidly cleared up when an abscess discharged itself through the vagina; but ten days or so later she developed intestinal obstruction of the mechanical type. On opening the abdomen the cause of all her troubles was found to be a carcinoma in the last six inches of the ileum which had perforated, forming a localized abscess at the bottom of Douglas's pouch; this it was which had discharged itself through the vagina. We were able to excise the growth with the caecum, ascending colon, and glands, and she went home well.

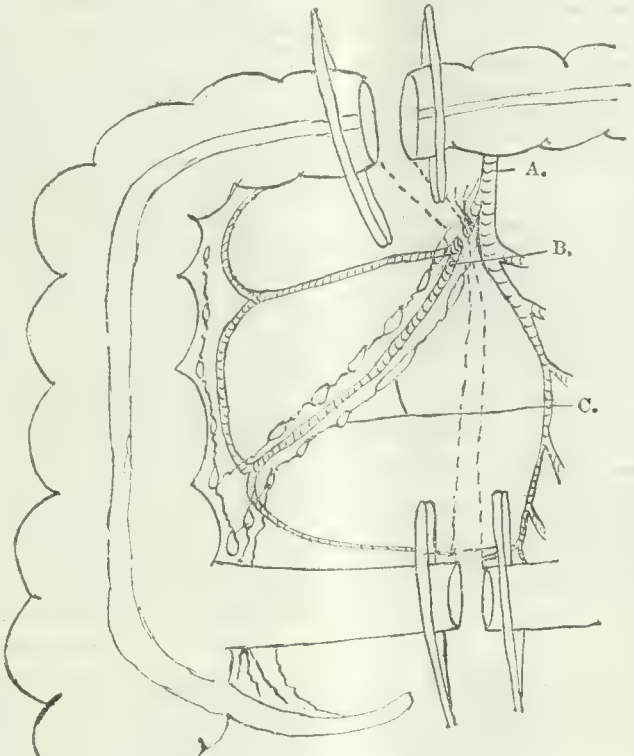


Fig. 2.—Diagram showing blood supply and lymphatics of caecum and ascending colon. Dotted lines show division of posterior layer of peritoneum, mesentery of the small intestine and mesocolon, with clamps on the bowel. A, Superior mesenteric artery. B, Ileo-colic artery, with right colic artery coming from it. C, Lymphatic glands.

One other case of mine was of interest. The abdomen was opened for a growth causing chronic obstruction, which proved to be in the ascending colon, but she also had an entirely separate and irremovable growth in the stomach.

Treatment.

In the treatment of cancer of the colon, apart from those with complete obstruction and very distended abdomens, dealt with at the beginning of this lecture, there are various problems to be solved when the abdomen is opened.

I.

If the growth is removable, is there a sufficient amount of obstruction to render it a dangerous operation to immediately resect the growth and unite the divided ends?

This is a point where grave consideration is necessary, and a wise decision may make all the difference between life and death.

If the intestine is distended and contains fluid faeces, and especially if purgatives have been unwisely and unsuccessfully given shortly before the operation, the intestine above the growth is likely to be oedematous and brittle and hold the stitches badly. In this condition a temporary colostomy is the wisest choice, however aggravating such a measure may be for both surgeon and patient.

If a temporary colostomy has to be performed, what situation shall be chosen? This depends upon the site of the growth. If it is in the sigmoid, descending or transverse colon, then the caecum is the best place in which to make the safety valve. If the caecum is involved (though caecal growths are usually discovered before obstruction occurs), then the fistula must be made into the ileum.

The site of a temporary colostomy should be planned, if possible, as much away as possible from the site of the incision for the subsequent removal of the growth, for the skin in the immediate vicinity of the colostomy is likely to be irritated by the fluid nature of the faeces in the caecum, and impossible to sterilize when the abdomen is opened again. As a rule, there is not much difficulty in obtaining such a site, but in one of my cases it would have been wiser to have substituted the old-fashioned lumbar colostomy of the ascending colon, such was the uncontrollable irritation of the skin of the whole abdomen.

II.

The next point to be considered, supposing there is no sufficient obstruction to render immediate resection dangerous, is, Can the growth be completely removed? If it cannot, then can any form of anastomosis be planned to short-circuit the growth and so avoid the otherwise inevitable obstruction? If the growth is so low in the sigmoid that this is not feasible, we are allowed no alternative but to leave the patient with a colostomy.

Another point arises here. If the patient has a removable growth but infected glands extending into such a situation that it is not possible to remove them, should nothing more be done and the abdomen closed? I say No. The patient is certain to come to a painful end either from obstruction or peritonitis. This may be avoided if the growth in the intestine can be completely removed. Of course, death will ensue from spread to the liver, but an end of this kind much more resembles the "decline" of the novelist, and entails no suffering, but only an increasing anaemia and weakness, ending in death.

The operative measures designed to radically cure by complete excision, not only of the growth, but of the lymphatic areas into which it has spread visibly, or is likely to have spread microscopically, have been much extended of late years. Formerly the bowel was cut across much too near the growth. Now we know that there is no risk in removing many inches of the intestine. The whole colon may even be removed, though this is rarely necessary.

Carcinoma of the Caecum and Ascending Colon.

As will be seen from the diagram (Fig. 2), the caecum and ascending colon are supplied by one artery, the ileo-colic, the right colic usually coming off as a branch from it. The lymphatic vessels and glands follow the course of this artery. The plan adopted is to tie the ileo-colic at its origin from the superior mesenteric just at the lower

border of the transverse portion of the duodenum. The peritoneum, fat, and glands are then stripped downwards and outwards to the caecum and ascending colon. The ileum is clamped 8 in. from the caecum and divided. Clamps are similarly applied to the transverse colon at a movable and convenient point, and it and the transverse mesocolon severed. It now only remains to divide the peritoneum on the outer side of the ascending colon, and the removal is completed. The cut ends of the divided

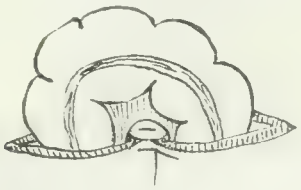


Fig. 3.—Colostomy performed by uniting the whole thickness of the abdominal wall through a hole made in the mesentery.

intestine are then closed and a lateral anastomosis performed. The advantages are that the operation is practically a bloodless one, the lymphatics and glands are removed in one piece with the growth, while the subsequent junction is easy as movable portions of the intestine are to be dealt with.

Transverse and Descending Colon and Sigmoid.

Similar measures are adopted, due attention being paid to leaving uninjured the blood supply of the remaining parts of the colon. When the growth is so low in the sigmoid that no junction is possible after excision, then the rectum must be removed as well as the sigmoid by the combined abdomino-perineal operation.

Closure of Temporary Colostomy.

I now come to the question, how to close a temporary colostomy.

1. The spur may be removed painfully and tediously by crushing with a clamp or enterotome.
2. Excision of the opening or the portion of the intestine into which the opening has been made.

The plan I practise is to incise the skin at a distance of 1½ to 2 in. from the margins of the colostomy (Fig. 4). This

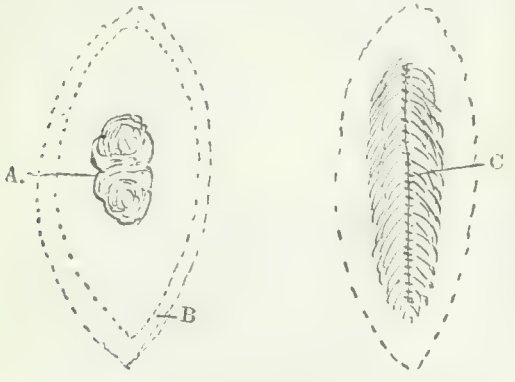


Fig. 4.—A, Colostomy. B, Incision in skin. C, Island of skin sutured over colostomy.

island of skin is dissected up towards the opening, and its edges sutured together with strong silk, so that it forms a watertight covering for the opening. This gets rid of two difficulties:

1. The leakage of faecal matter during the operation.
2. The septic skin around the opening.

The abdomen is then opened at some little distance to avoid the adhesions in the immediate neighbourhood, and it is then easy and quick, by sacrificing a little of the muscle of the abdominal wall, to completely free the opening. Clamps are then applied and the colostomy cut away. If it is the caecum, the edges of the wound are then united by a double row of stitches. If there is so little lumen left that there would be a stricture after repair, then that portion of the intestine is excised and end-to-end anastomosis performed.

It but remains to describe formal and permanent colostomy. Every one has his own plan, and many are good. The one I like best is to bring the colon through the outer part of the left rectus a little below the umbilicus. A hole is made through a bloodless portion of the mesentery, and the whole thickness of the abdominal wall is then united through this opening. A few days later the colon is opened in the ordinary way.

THE RESULTS OF EXCISION OF THE HIP-JOINT IN 34 CASES OF SUPPURATING TUBERCULOUS DISEASE.*

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This is a consecutive series of 34 cases of excision of the hip-joint with 35 operations (as in one case both hip-joints were excised) for tuberculous disease, but I have performed also 3 other operations on the hip-joint. One was a sequestrotomy of the head and neck of the femur for necrosis, and the other two were arthrectomies for tuberculous disease. The total number of operations for tuberculous disease of the joint is therefore 37. In no case have I operated for tuberculous hip disease until there was evidence of suppuration in the joint, nor do I think it is desirable to operate before suppuration occurs. I recognize, of course, that some surgeons consider that all that should be done in suppurating tuberculous hip disease is to scrape out the abscess sac; but I agree with those surgeons who maintain that it is better, when once operation has to be performed, to do more than this, and remove as much of the diseased tissue of the joint as possible. In my comments on the series of cases I shall point out what bearing the cases have on this view.

I have written to inquire about all the cases there was any hope of reaching that were operated on during the last twelve years. It seemed hopeless to try and get at those operated on longer ago than this. Some of those operated on within the last twelve years I have been able to examine lately; with regard to others, I have had to be content with reports from the mothers. Most of the cases were young children, some were over 12, a few were adults, and 1 case operated on this year (1912) was 57. I have had no death from the operation in the whole series.

THE OPERATION.

All my operations have been performed by the anterior incision, which starts just below the anterior superior spine and runs downwards, passing between the sartorius and the tensor fasciae femoris, and then between the rectus and gluteus minimus. Very often the abscess is opened in reaching the joint by this route. The neck is divided with an Adam's saw, and the soft parts around it cut with scissors. There is often much difficulty in turning out the detached head. I have found that the now almost obsolete perineal lithotomy scoop is a useful instrument for this purpose. Lion forceps crush the soft head too much, but sponge-holding forceps will sometimes be useful.

I then cut away with scissors curved on the flat all the tuberculous tissue I can. Occasionally I have been able to remove in this way quite large pieces, but it is a very different matter from doing an arthrectomy of the knee, in the performance of which it is so easy to see all the diseased tissue. In excision of the hip one has to be very largely content with free scraping of the diseased soft tissues, and scraping and gouging away diseased bone in the acetabulum; and, of course, sequestra are searched for and removed. In my first 24 cases I found sequestra in 10; in most of the cases several were present either in the head or acetabulum, most often in the latter. One sequestrum measured 1 in. by ¼ in. The frequency with which sequestra are present in these cases is, I think, one reason in favour of excision rather than simply scraping out the abscess. No doubt many of these sequestra would in time disintegrate and come away, but I am sure their removal would tend very materially to hasten the process of recovery. In all cases the abscess sac, as well as the

* A paper prepared for the discussion on The After-Results of Major Operations for Tuberculous Disease of the Joints, in the Section of Diseases of Children, at the Annual Meeting at Liverpool.

interior of the joint, is scraped and flushed with 1 in 10 biniodide solution, and carbolized iodoform is applied to the wall. I have always drained for as long as discharge came away.

Early Results.

All cases were drained, but within two months in most cases all discharge ceased and the wounds healed. This is more than I think we can expect if we simply deal with the abscess sac, and is, I think, the great advantage of excision as compared with methods in which the abscess alone is dealt with.

Late Results.

In nearly all cases flexion to a right angle was possible, but lateral movement was not usually as good as flexion, and in some cases was quite limited, but in one of the cases movement was almost perfect in all directions. Shortening was usually present to the extent of 2 to 2½ in. in cases seen some years after the operation, but may not be more than 1 in. for some time after the operation. In one case it was 4 in. nine years after the operation, the position of the trochanter indicating how the stump of the neck had become forced up on the dorsum ilii. In some cases the limp was slight, but in others, some years after the operation, it was marked, even when the shortening had been compensated for by extra thickness of sole of the boot. There seemed to be a marked want of stability about the joint. But even in these cases the patient could walk a considerable distance. In some of the cases with more stable joints they could walk many miles, and one boy was said to be able to climb trees just like other boys. It seems to me that to remove the head of the bone must tend to instability of the joint from displacement on the dorsum ilii, and that therefore we cannot expect as stable a joint after excision as after an operation which simply deals with the abscess. Yet it seems to me that it is so desirable to get away as much of the disease as possible when we have to operate, that this fact would not make me abandon excision in favour of simply dealing with the abscess. This instability of the joint after excision can, of course, be prevented by inserting the trimmed top of the great trochanter into the acetabulum after removal of the head, but this is likely to be followed by ankylosis; and it seems to me that it might be quite doubtful whether in the course of years a patient was better off with an unstable or an ankylosed hip-joint. Moreover, the joint may become ankylosed in a position of flexion and adduction.

I cannot say whether the range of movement is as good after recovery when simply the abscess is dealt with and the head of the bone is not removed, because in the only two cases in which I did not remove the head (the two cases of arthrectomy) I did not see the cases years after; but I should not expect as good a range of movement. I know that some surgeons who treat suppurating cases of hip disease by dealing with the abscess only say that in all after recovery movement is good, but, as I have said, with the exception of my two cases of arthrectomy I have done excision in all my suppurating cases, and therefore I cannot express any opinion about it. All I can say is that in some cases after excision the range of movement possible is astonishing, that flexion to a right angle is almost always possible, and that in many cases lateral movement becomes fairly free also.

With regard to the amount of shortening after recovery from the two forms of operation, Mr. Barber says:[1] "How often have we seen patients treated on splints for years recover without abscess, and yet with two or three inches of shortening"; but I must say I should expect to get greater shortening in some cases after excision than one would be likely to get after simply draining the abscess, because I have seen the stump of the neck displaced so high up on the dorsum in some cases many years after the excision.

We must, however, remember that two very potent causes of marked shortening exist apart from excision of the head—wearing away of the head by the disease, and the production of a "wandering acetabulum," which would allow of much the same displacement of what was left of the head on the dorsum ilii as occurs after excision of the head.

In one of my cases deformity recurred eight years after operation, and was removed by weight extension. There was no recurrence of the disease. Recurrent deformity was only rarely present in my series of cases.

Cases of Excision of the Hip-joint.

1. C. R., aged 13; operated on in November, 1894. By December there was no discharge, and the wound was "almost healed." An abscess subsequently formed in the gluteal region. This was operated on in February, 1895, and was healed in April. In February, 1895, there was no deformity, could flex to half right angle, but there was no lateral movement; 1½ in. shortening; had not yet walked on it.

2. M. T., aged 10; operated on in March, 1896. Wound healed in April. In 1898 abscess formed in connexion with cavity at base of trochanter; this was scraped out, and soon healed. On examination in October, 1897—that is, eighteen months after operation—the patient could then walk freely with some limp; 1 in. shortening; could flex to right angle, but hardly any lateral movement. When examined again in 1899, there was 1⅜ in. shortening. There were lateral movements as well as flexion possible. In 1907—that is, eight years later—had to have weight extension for recurrent flexion and adduction, but movement was still fair, and no signs of recurrence of the disease.

3. G. P., aged 5; operated upon in March, 1897. The wound became infected with tubercle, and did not heal for many months. There were tuberculous iliac glands four years later. At this time—that is, four years after operation—the hip was noted as "sound, with remarkable freedom of movement."

4. M. L., aged 9; operated upon in July, 1897. Wound healed in August. Six years after operation abscess was found in connexion with cavity in upper end of femur, which healed in a year, and then remained well for six years, and then another abscess formed in connexion with another cavity in the same situation containing sequestra. Sinus was known to persist for at least another year.

5. W. T., aged 31; operated on in July, 1896. Wound healed in August. Seven months after operation the position of limb was normal; slight flexion, extension, and rotation out possible, but no lateral movement. There was no pain with movement, and could bear weight on limb in walking without pain. There was 2 in. shortening.

6. F. S., aged 11; operated on in March, 1897. The wound did not heal until late in summer, and the patient was sent to convalescent home in November. There was no late note of this case.

7. A. R., aged 9; operated on in November, 1897. Wound healed in December. Some superficial breaking down of scar which soon healed. This case was sent to the county workhouse. There was no late note.

8. M. B., aged 4; operated on in March, 1898. Wound healed in May. The patient died from tuberculous meningitis in May, 1898, associated with suppurating mastoid. On *post-mortem* examination firm adhesions were found in joint.

9. C. M., aged 6; first operation in December, 1897. The wound had "almost healed" in February, 1898. No note of when quite healed. Disease came in the hip on the other side, and this was excised in November, 1900. The wound had healed in December. A year after the first excision the note says: "Good position; fairly free flexion and lateral movement; 1 in. shortening." The range of movement became very great later. The patient went back to the workhouse from which it had been admitted, after second excision. There was no further note.

10. G. S., aged 12; operated on in May, 1897. Wound healed in July. A year later an abscess formed behind trochanter. There was no communication with hip. There was painless movement in joint. This soon healed. A sinus was found in the scar of excision three years after operation and was present when last seen six months later. Eighteen months after operation the patient could flex hip to right angle and adduct a little but not abduct. Position good; there was 2½ in. shortening.

11. E. Y., aged 14; operated on in May, 1898. Healing had taken place in June. An abscess formed more than a year after, and the patient was lost sight of at that time. Five months after operation there was a little movement possible; there was 1 in. shortening.

12. H. C., aged 15, was operated on in June, 1898, for recent septic sinuses. Rapid healing of the excision wound took place, but when discharged in August one of the old sinuses still discharged. There was no late note of this case.

13. S. G., aged 16; operated on in April, 1899. A sinus persisted in the position of the wound, leading to acetabulum. A year later a fresh abscess formed, and when the patient was last seen a sinus persisted.

14. B. E., aged 6; operated on in January, 1902. Wound healed in February. In April the patient was found to have tuberculous disease of the metatarsal bone. This was operated on and healing took place. A note made in April says the hip was sound, but no late note was made, and a letter of inquiry this year (1912) was returned through the Dead Letter Office.

15. A. D., aged 13, was operated on in February, 1902. The wound had almost ceased to discharge in March, and was healed in May. In October very fair movement in hip in all directions. Examined two and a half years after operation, the patient could then flex to right angle, and fair lateral movement. There was 2 in. shortening, and even with sole 2 in. extra thickness limps a good deal.

16. L. T., aged 5; operated on in June, 1902, and wound healed in July. A sinus formed in the scar, and persisted for months.

In June, 1905, an abscess formed from disease in the upper end of shaft. The joint was not affected, and the abscess healed in a few months. But a letter written this year elicited the information that after I lost sight of her she had two further "operations," and was never able to walk, and died last year (1911), that is, nine years after the excision. On examination two years after the operation, the patient could then flex to right angle, but there was very little lateral movement. There was 1½ in. shortening.

17. L. H., aged 10. This was a case in which septic sinus and fresh abscess were present before operation in March, 1903. The sinus persisted when last seen that summer.

18. A. M., aged 4, was operated on in July, 1903. The wound did not heal until the beginning of 1904. In 1907 there was abscess from disease of the ilium, which healed in 1908 but left the joint fixed. A letter of inquiry in 1912 was returned through the Dead Letter Office.

19. A. F., aged 8; operated on in May, 1903. The patient died in August with pneumothorax.

20. G. H., aged 8; operated on in August, 1903. Healing had taken place by October. The wound broke down and discharged twice after it healed, but when last seen it was only a superficial granulation patch. A letter of inquiry sent in 1912 was returned through the Dead Letter Office.

21. M. P. was operated on in May, 1903. Wound healed in July. In January, 1904, a gluteal abscess was operated upon, and as a sinus persisted was again operated on in 1905. No further relapse had occurred when examined eight years later. In 1905 the patient had fair movement in hip without pain, and sinus could not be traced to hip or to any bone here. Examined in 1912, nine years after operation, he limped down on affected side very much; there was 4 in. shortening, and only compensated for ½ in.; movement of flexion and adduction very good, but abduction very limited. Trochanter raised to level of anterior spine.

22. B. H., aged 6; operated on in February, 1904. Wound healed by March. There was no further note of this case. A letter written in 1912 was returned through the Dead Letter Office.

23. Mr. B., aged 35, suffered from phthisis. He was operated on in July, 1904. In August there was only a small granulation patch on scar, but later a sinus formed and persisted. The patient died from haemoptysis in 1905.

24. P. A., a child, operated on in August, 1904. The wound had healed, all but superficial area, in September, and had quite healed in October. An abscess formed later in autumn and sinus persisted. The patient was again operated on in May, 1905, and bare bone found in the shaft of the femur several inches below the joint. The joint deformity recurred in 1907, and the limb had to be straightened by weight extension, and then an abscess formed, and sequestra were removed from the acetabulum; there was then no sign of disease about the neck of the femur. In August, 1906—that is, two years after the operation—she could flex to right angle, and there was some lateral movement and rotation; ¾ in. shortening; there was not much limp. The patient died from general tuberculosis one month after operation on acetabulum, the symptoms of general tuberculosis starting a fortnight after operation.

25. G., aged 16, operated on in July, 1904. The wound had healed in August, 1904, but some deformity persisted. A sinus subsequently formed, healed, and then recurred, and in October, 1906, sequestra discharged. The sinus persisted for several years. The mother wrote in 1912 to say the sinus had been healed for two years, and that with a high-soled boot she does not limp much.

26. E. P., aged 27, operated on in November, 1906. The wound had healed in December. When examined eighteen months after operation there was fair movement in all directions. On examination in 1912, six years after operation, there was very free flexion and fair lateral movement, but she limped down on the affected side very much. There was 2½ in. shortening, but this was compensated by a high sole. She required a crutch for outdoor walking.

27. E. S., aged 9; operated on in April, 1907. The wound had healed in June. A sinus formed in the scar in July, 1908, and a soft patch of bare bone was found in the acetabulum; the stump of the neck was well covered in. In February, 1910, nearly three years after the last operation, the joint was quite sound and movements almost as free as usual. There was 2½ in. shortening. The mother wrote in 1912 that the child was in good health and only limped slightly, but that two abscesses had formed since 1910.

28. A. T., a child, was operated on in July, 1907, and healing had taken place in August. The mother wrote, in reply to a letter in 1912, that the child had had no relapse; she walked with a stick. In February, 1910, she died, after an illness of nine days, with some affection of the "back passage."

29. J. W., aged 9; operated on in August, 1907. The wound healed in September. There was no further note of this case. A letter of inquiry in 1912 was returned through the Dead Letter Office.

30. F. E., aged 12; operated on in April, 1907. The wound healed in June. In June, 1908, there was superficial ulceration in the scar. A note made in May, 1908, says: "Moderate movement in all directions. Some eversion; 2½ in. shortening." There is no note when the ulcer in scar healed: but the mother wrote in answer to a letter in 1912 that the patient was very well, and often did a 6-mile walk easily, but limped a little.

31. B. H., aged 3; operated on in December, 1907. The wound "healed rapidly." The patient had an attack of scarlet fever with breaking down of the wound, which did not heal until May, 1908. By October, 1908, there was almost perfectly free movement in all directions; 1 in. shortening. An abscess formed in the scar in December, 1908, and sequestrum discharged, but healing had taken place by January, 1909. Examined in 1912—that is, five years after operation—there was quite a normal range of movements, but limps much down on the affected side from instability of hip. There was 2 in. shortening, compensated for by high sole.

32. G. D., aged 12, was operated on in February, 1909. There was a septic sinus present. Healing had taken place in May, 1909. When seen again in April, 1910, the scar was sound, and there was fairly free movement in all directions; 2 in. shortening. In answer to a letter in 1912 the patient's relations reported that he could walk "wonderfully well," and climb trees like other boys, and was "not very lame," by which was probably meant that he did not limp very much.

33. E. C., aged 13, was operated on in April, 1910. The wound healed without any suppuration. The patient died with symptoms of tuberculous meningitis in June, 1910.

34. M. B., aged 57; operated on in February, 1912. Primary union took place, but a superficial ulcer formed in the scar: there were no complications.

Case of Excision of Head of Femur for Acute Necrosis.

M. F., aged 12, was operated upon in August, 1908; sequestration of head and neck after acute necrosis. In March fair movement of joint. A sinus near trochanter had recently healed after scraping.

Two Cases of Arthrectomy of Hip for Tuberculous Disease.

1. G. B., aged 5, was operated on in August, 1904. Healing had taken place in September. The patient was readmitted in December, 1904, with some swelling about the joint, but no abscess, and was discharged in Thomas's splint in February. An abscess was found three months later, which was opened by a doctor, and eventually a piece of bone was discharged. The patient died with symptoms of tuberculous meningitis three and a half years after arthrectomy.

2. M. S., aged 6, was operated on in March, 1906; soft tuberculous tissue was scraped away from around head and acetabulum. In May the wound was quite superficial, but an abscess formed in the gluteal region, which was opened and scraped out. In June a tuberculous abscess formed in the arm, and was operated on, and in August the same condition was present in the other arm. There was then a persisting sinus into the hip. There was no further note of this case.

Reference.

[1] *Lancet*, 1900, vol. i, page 1499.

NOTE ON A SERIES OF FIFTY-FIVE CASES OF SUPRAPUBIC PROSTATECTOMY, WITH FOUR DEATHS.*

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The operation of prostatectomy has done so much to relieve the distress of a large section of elderly men that it is well to review the risks that they run in subjecting themselves to the ordeal. Many of my medical friends have told me that they hesitate to recommend what may, perhaps, prove to be an execution rather than a cure. The object of this paper is to bring forward the results of my own experience. In the June number of the *Practitioner* Mr. Hugh Lett, of the London Hospital, makes the following statement:

> The operation of prostatectomy cannot be looked upon as a trivial one, and I am strongly of opinion that, if statistics of this operation were compiled from the registers of a large number of hospitals, the mortality would prove to be not far short of 20 per cent., and possibly higher.

I am of opinion that a much lower percentage must be attained if the operation is to be more generally accepted by the profession and the public. I have up to the present operated on 55 cases with 4 deaths—a percentage of 7.2. The patients have not been specially chosen, but have been taken as they came, excepting only those who were obviously unfit for any operative procedure, however slight. The list includes patients from the age of 53 to the borders of 80—patients well preserved and relatively strong and patients broken down and exhausted, patients who were obese and patients who were emaciated, patients with fair

* Read at a meeting of the Ulster Branch, British Medical Association, in Belfast.

arteries and good hearts, and patients with marked degeneration of vessels and advanced cardiac disease.

The condition of the kidneys is perhaps the most important consideration, and marked renal inadequacy would prove an insuperable barrier to operation.

Some years ago I operated on a man, aged 53, for severe prostatic haemorrhage. He weighed 20 st., and most of the fat was in the omentum and abdominal wall. I had to have a footstool to reach his abdomen, and I had to put my whole hand into the bladder to reach the prostate. He had had several attacks—called "weak turns"—said by his medical adviser to be due to his heart. Notwithstanding all this he made an excellent recovery, and is at present in full employment in a responsible position in a mill.

In 1908, I operated on an old man—a sexton—aged 78 years, for recurrent attacks of haemorrhage with excruciating pain due to the clots. His arteries were hard and tortuous and he had a double aortic murmur. In addition, he had cystitis with a good deal of muco-pus in the urine. His doctor was very anxious that something should be done to relieve him, so in fear and trembling I removed his prostate, the operation from the skin incision to the delivery of the prostate lasting one and a half minutes. He made a good recovery and is now, at the age of 82, in good urinary health.

In 1909 a gentleman, aged 73, had, ten days before I saw him, a severe cardiac attack in which the pulse fell from its normal rate of 72 to 40 per minute. During this attack he became pale, blue, and collapsed, and his hands and feet were "dead" as far as the wrists and ankles. He recovered from this attack, but the pulse-rate remained at 40. When I saw him, ten days after this seizure, he had complete retention, and any attempt to pass a catheter was attended with bleeding and blocking of the eye of the instrument. Suprapubic puncture failed to relieve him, no urine being obtained, though the bladder was obviously full. On the same day I removed a huge sugar-loaf shaped prostate weighing 17½ oz. under ethyl chloride given by Dr. Fielden; the operation lasted fifteen minutes. After some anxious days, during which shock, haemorrhage, and hypostatic congestion of the lungs almost claimed their victim, the patient began slowly to recover, and he is to-day free from all urinary trouble, though his heart still beats at the rate of 40, and he suffers much from dyspnoea on exertion. With the prostate I removed a beautiful specimen of mulberry calculus.

This case was published in the BRITISH MEDICAL JOURNAL of May 22nd, 1909, and I was rather severely taken to task by a correspondent for my conduct of it, but "the proof of the pudding is in the eating," and my patient has had three years of comparative health and complete freedom from urinary trouble. He takes a lively interest in his own case, and occasionally invites a passing student to view his prostate in a glass jar at the Queen's University. I have given these few examples to show that grave general trouble need not necessarily be a barrier to operation.

The causes of the deaths in my series were as follows:

The first, an old gentleman aged 75 years, apparently in good health, with clear urine of good specific gravity, free from pus and albumen, died on the third day with symptoms of uraemia. I was not prepared for this result as I had had him examined as to his general condition by one of my medical colleagues before operating on him. There was more than the usual amount of bleeding, and, as a precaution, I packed the prostatic cavity with gauze.

In the second case, a gentlemen aged 54, who had had repeated attacks of haemorrhage with great pain, death took place six weeks after operation from perinephritic abscess.

This I attributed to an unsuspected collection of phosphates and débris in the bladder which failed to come away with the irrigation. I now make it a practice, if in doubt, to insert my finger down to the base of the bladder and the prostatic pouch to satisfy myself that all foreign matter has been got rid of. In the third case death was due to spinal anaesthesia.

The patient, a man aged 68, had a weak heart and a double aortic murmur. His medical attendant declined to take the risk of giving him a general anaesthetic. I was asked to give him spinal anaesthesia, which I did with disastrous results. 1 c.cm. of a 15 per cent. solution of novocain with 1 mg. of strychnine was injected. Anaesthesia was excellent, but the patient immediately began to vomit and became grey, cold and collapsed. After a slight rally the prostate was removed, but the patient continued to vomit and died the same night.

I have included this as a death from prostatectomy, though I feel sure I should be justified in attributing it to the anaesthetic.

The fourth case was a gentleman aged 66. He had been up to his last illness an alcoholic subject. He was taught to pass the catheter and had been doing this for some months every two hours day and night. The urine at the time of my seeing him was very foul and the bladder was intensely inflamed and irritable. I kept him in a nursing home and washed out his bladder for ten days with practically no improvement. As a last resort I removed the prostate and a phosphatic calculus. The former weighed 6 drachms and the latter was about the size and shape of a pigeon's egg. For some days the patient did well, but soon the surface of the wound became foul and sloughy, the pulse increased in rate, the tongue became furred and covered with aphthae, which also appeared on the mucous membrane of his lips, cheeks, and gums; his temperature rose a little in the evening, he complained of thirst, and he lost flesh and colour. He died at the end of twelve days with all the symptoms of an acute septic intoxication, with pinched face, sunken eyes, cold extremities, and rapid thready pulse, retaining his faculties almost to the last, the picture recalling that of a patient dying from acute general peritonitis.

On reviewing this case I do not know whether it would not have been better to have simply drained the bladder, reserving the prostatectomy for a later date. I have no doubt that he infected his bladder with the catheter, and I always feel that this is the great risk in allowing a patient to enter catheter life. On the other hand, some of my patients have been dependent on the catheter for years, as in the following case, who, but for an accident, would probably have gone on with the use of the instrument to the end of his days.

A farmer, aged 73, had had trouble with his water for fifteen years. For ten years he had had to use the catheter several times a day, being unable to pass urine without. About six weeks before I saw him he was using a well-worn gum-elastic catheter, when, as he describes it, the skin came off and remained inside. After this he had great pain, and when I saw him he was passing the catheter every fifteen minutes. With the cystoscope the outer shell of a catheter could be seen curled up inside the bladder, which was much inflamed. I made an attempt to remove the foreign body with a small lithotrite, but it was so friable that I could not remove it completely. I then did a prostatectomy, and at the same time rid him of his foreign body. The patient was up in a fortnight's time, and his wound was dry on the sixteenth day. He now passes water with the courage and success of a boy.

The results in the cases that recovered have been, in the overwhelming majority, gratifying in the extreme. In most the patients can lie all night without being disturbed. A few report that they rise once in the night, and of these some say that this is due more to force of habit than any uncontrollable desire. In a few cases I have not been able to quite get rid of a certain amount of cystitis. Like other infections elsewhere in the body, infections of the bladder are hard to eradicate completely, notwithstanding careful irrigation carried on long after the wounds in the bladder have healed up. Two of the prostates removed, though apparently benign, proved on section to be malignant, and the patients died some months after from recurrence. In one case the tumour fungated through the abdominal wound after the latter had been soundly healed.

In one case a permanent suprapubic fistula remained. The operation was performed in the early days of prostatectomy before the exact anatomy of the procedure had been worked out. I must have removed a portion of the pelvic fascia in addition to the prostate. If violent efforts are necessary to remove the obstruction the surgeon may feel sure he is in the wrong layer and should desist lest damage be done to the neck of the bladder. The prostate must be enucleated, not torn out.

In two cases incontinence resulted after the operation. In one this was due to a drainage opening in the perineum, which was kept open for a long time. The compressor urethrae was, no doubt, damaged by the incision and the prolonged use of the drainage tube, which was rendered necessary by the absence of any attempt at healing of the suprapubic wound. Due respect should be paid to the integrity of at least a portion of the compressor. The anterior portion should be left to act as a sphincter in case the sphincter vesicae does not resume its functions. In the second case, the prostate was of the hard fibrous type. In my attempts to remove this I must have gone beyond the limits of the prostate. The first complication was a stricture, which I divided, with the result that the patient now has incontinence. In future I do not propose to make any attempt to remove such a prostate. It is beyond the art of surgery to remove completely a hard fibrous prostate with impunity. Prostatotomy, as recommended by Pardoe, or the use of the prostatic punch of Young, may prove to be of service in these cases.

The most serious complications that I have had to deal with have been as follows:

Haemorrhage.—This has usually been primary, occurring during the first forty-eight hours. It is always present to

a certain extent, and it requires some judgement to determine when it has passed safe limits and when interference is necessary. In some cases it is due to wounding of a vessel in the bladder wall when opening into it, and in some to tearing of the mucous membrane during the removal of the prostate. I use no instrument to tear through the mucous membrane over the prostate, but with the tip of the index finger rupture the internal meatus in an upward direction. The proper layer is soon felt. At the junction of the prostate with the base of the bladder posteriorly, separation ought to be carefully carried out, else a long strip of mucous membrane is liable to be torn away with the prostate, giving rise to haemorrhage. In most cases the bleeding comes from the plexus of veins around the prostate. In a few cases I have found it necessary to pack the cavity from which the prostate had been removed with a narrow sterilized bandage. This arrests the haemorrhage and is easily removed in a few days. I have tried a plug of gauze tied on to the end of a catheter and pulled through the urethra without success. I had one case of secondary haemorrhage of an alarming character on the seventh day after operation. This was due to separation of sloughs and was at first very hard to arrest. The narrow bandage packing was ultimately successful. Raising the foot of the bed on chairs has proved of value in some of the slighter cases. It cannot, of course, be continued for long in the case of old people.

Shock.—In most of my cases a fair amount of shock has been present. I have noticed it most when strenuous efforts are being made to enucleate the gland. This complication can, however, be reduced to a minimum by proper preparation of the patient and rapidity of operation. I have my patient's bladder washed out and all preparations, including those of the surgeon and his assistant, completed before the anaesthetic is given. If possible, I secure the services of an anaesthetist skilled in the administration of ethyl chloride as a general anaesthetic. I have completed the removal of the prostate in sixty-seven seconds from the beginning of the skin incision until the prostate was delivered. A few additional moments are spent in rapidly washing out the bladder and suturing the wound. A large drainage tube is left in the bladder. The patient is got back to bed as soon as possible and warmth applied. Salines by rectum should be administered until the shock has disappeared, which it generally does in a few hours. If it continues, subcutaneous infusion is resorted to. I do not use strychnine. I believe lives are sometimes lost by slow and too deliberate operating. The patients are often old and worn out, and the less they are handled the better. The least that can be done must be done with as much rapidity as is consistent with safety.

Hypostatic congestion of the lungs has more than once caused me considerable anxiety. The patient with the very large prostate, referred to above, developed it after a few days, but ultimately recovered. Change of posture and the use of the usual well-known remedies are indicated.

Sepsis is one of the most troublesome and dangerous complications I have had to deal with. If the bladder is septic I have it washed out before operation for some days, and in a few cases I have drained suprapubically as a preliminary measure. The drainage provided by the suprapubic wound is, however, not ideal. In one or two cases after operation I have tried, as an additional safeguard, perineal puncture, as suggested by Lynn Thomas, with satisfactory results. I would advise, however, that the drainage tube in the perineal wound be not kept in too long. I wash out the bladder every day while the patient is in the home or hospital, or until the urine is quite clear. While the suprapubic wound is still open this is done by inserting the nozzle of the syringe into the external meatus and forcing the fluid through the urethra into the bladder. Débris from the cavity vacated by the prostate is thus stirred up from below, and thorough cleansing is more certain thus to be obtained. I have no experience of vaccines in these cases, but I am very willing to give them a trial, and should expect benefit from them.

Epididymitis and epididymo-orchitis have given me a good deal of trouble. The torn ends of the ejaculatory ducts are liable to be infected, while the raw surface left after removal of the prostate remains unhealed. Every effort must be made to keep this surface as aseptic as possible in the hope of preventing this complication. It is often accompanied by a milk-white discharge from the meatus. It may be unilateral or bilateral, and is attended with a good deal of pain and constitutional disturbance. During the treatment of this condition the testicles ought to be supported on a broad strip of strapping from thigh to thigh placed as near the fork as possible. Glycerine and belladonna will relieve the pain, due care being exercised to prevent absorption of the belladonna.

Suprapubic fistula is an occasional complication. If this shows any tendency to persist I tie in a catheter, if I am satisfied that all sloughs have separated and the interior of the bladder is free from foreign matter. I have been in no hurry to remove the suprapubic drainage tube. It acts as an exit for phosphatic deposit and tags of mucous membrane, which might otherwise form nuclei for calculi. I have only had one case of permanent fistula. Touching the edges of the fistula with nitric acid or the actual cautery has proved successful in some, while in others I have been obliged to curette once, and occasionally twice, under a local or general anaesthetic. I have also faith in the occasional passage of a full-sized dilator. In one case I found that the cavity left after the removal of the prostate was maintained as a separate cavity, communicating by a small opening with the bladder. Radial incisions in the diaphragm threw the two cavities into one and cured the fistula.

Phosphatic deposit on the suprapubic wound and in the bladder is most annoying, and I have tried almost everything suggested to prevent it. I am at present trying the application of a few drops of acetic acid to the wound and dropped into the bladder through the drainage tube. I have not sufficient evidence to warrant me in recommending this procedure, but it can do no harm, and seems to me to be a likely remedy. In addition an attempt may be made, by suitable diet and excess of fluid, to prevent the deposition of salts.

Stone in the Bladder.—I have not had a case in which I have had to operate for a stone of any size. In one case the patient had attacks of pain and retention shortly after his wound was healed. With the cystoscope I detected a small calculus, which I crushed with a small lithotrite, without an anaesthetic. His symptoms immediately disappeared. In another case I picked out through the urethroscope a small stone which had blocked the urethra. Attention to the details I have given above will go far to prevent this complication.

Uraemia occurring immediately after operation generally ends fatally. In a more chronic form it may appear in the weeks or months following. The outlook is not good, but the patients may be kept going for a while by diuretics and aperients. One of my patients succumbed on the third day from this complication.

Stricture of the urethra ought not, I think, to occur with proper methods of operating and the choice of suitable cases. It is liable to occur after attempts to remove hard, fibrous prostates. As I have stated, it was present in one of my earlier cases.

Incontinence of urine occurs in some cases for a short time after the operation. In a very small proportion it persists. I have had two cases of permanent incontinence. From the experience I have had in these two cases I believe it can be avoided by keeping to the proper layer in removing the gland and in paying due respect to the compressor urethrae muscle.

Abscess in the kidney region occurred in one of my cases, as I have mentioned. Probably the patient had pyelonephritis. He began to have rigors about a fortnight after the operation, and, although I opened the abscess, he never rallied, but sank a few days later, and six weeks from the time of his operation.

Haematemesis occurred in one of my cases. It only lasted a few days, however, and the patient left the hospital apparently quite well. He was a worn-out old man of 80. I hear that he died some months later, but I do not know the cause.

Ventral Hernia.—I have had at least two cases in which the scar stretched to an uncomfortable extent. This must be a sequela in a certain number of cases, especially if the bladder is septic at the time of operation. It is wise, having regard to the possibility of this complication, not to make the wound in the abdominal wall too large, and to bring the cut margins of the sheath of the rectus together

with deep sutures. A suitable bandage is all that is necessary in the way of treatment.

Mental symptoms of a mild type have been present in several of my patients. One old man used to weep like a child without any apparent reason. My nurses say that a prostate patient is always a little "queer," and many of them are very difficult to deal with. I have not met with an acute outbreak requiring restraint.

Notwithstanding the low mortality in this series of cases I cannot say that I look lightly upon the operation of prostatectomy. Many are the pitfalls before the patient can be pronounced free from danger, and the medical attendant must give the closest attention to the after-treatment if he is to bring the case to a successful issue.

The patient, from his point of view, usually indicates to his medical attendant when his sufferings have reached the limit of endurance, and it is for the surgeon to determine whether the case is suitable for operation or not. In the future, I believe, cases will be subjected to operation earlier, before permanent damage is done to the urinary organs, with a corresponding diminution in the mortality.

SOME PROBLEMS CONNECTED WITH RHEUMATOID ARTHRITIS.

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Though we are now able to distinguish rheumatoid arthritis from other forms of arthritis, and definite criteria have been established upon which to base a reasonably sound diagnosis, little corresponding advance has been made with reference to the pathogeny of the disease, and in consequence our methods of treatment are still almost entirely empirical. Attempts have been made towards a rational form of treatment—first, by the administration of intestinal antiseptics, on the assumption that the disease is a result of intestinal toxaemia; and secondly, by vaccine-therapy, on the assumption that the disease is a general infection. Neither of these assumptions is proved, and our present somewhat blindly directed methods of treatment are anything but uniformly successful in cutting short the disease, and it only too frequently happens that the victims of this relentless disorder get steadily worse. The swollen and tender joints become progressively more ugly, the wasted and distorted limbs more burdensome and useless. The false hopes engendered by remission are promptly quenched by the inevitable relapse. In no case, however slight, can we look upon the disease as otherwise than serious, and it is incumbent on all who see much of the disorder to consider carefully the bearings of such knowledge as we now possess relative to the intrinsic nature of the disease, and to see in what direction further investigations might profitably be undertaken to establish an accurate and complete pathological basis.

Rheumatoid arthritis may be defined as a disease, characterized by the occurrence of more or less symmetrical, spindle shaped, inflammatory swellings of the peri-articular structures, affecting first the smaller joints of the hands and feet, and accompanied by wasting, cramps, and contractures of muscles. The more severe cases are marked by moderate fever, anaemia, and occasional swelling of lymphatic glands and spleen, and most cases show more or less well marked sensory abnormalities and vasomotor changes. The disease tends to last for many years, with occasional intermissions of varying duration. Nearly every joint in the body may be ultimately affected, and the later stages may be complicated by osteophytic outgrowths resembling the condition found in osteo-arthritis. The intensity of the disease varies within wide limits, and the clinical picture may be correspondingly diverse. The fact that various local foci of infection may be associated with the disorder has given rise to the suggestion that the cases presenting the above-mentioned characteristics do not constitute one disease. The tendency in some quarters is to limit the term "rheumatoid arthritis" to the more acute type occurring in young women, more particularly after childbirth, the less severe and less typical cases being considered in a different category under the term "infective arthritis." The proof that the associated infective foci are the direct cause of the disorder is insufficient, and clinically one is able to trace a complete series of cases, from the severe type mentioned above to those in which the characteristic joint lesions, themselves slight, constitute almost the only evidence of the disease. It would appear more correct in the present state of our knowledge to confine the term "infective arthritis" to those conditions such as pneumonic, tuberculous, pyogenic, and gonococcal infections, in which there is indubitable proof of the microbic origin of the joint lesions. The term "rheumatoid arthritis" indicates by common consent a certain combination of clinical phenomena, and, as regards doubtful etiological factors, is entirely non-committal. On the other hand, the term "infective arthritis," as applied to conditions conforming more or less closely to the rheumatoid type, implies knowledge which we can hardly claim and conveys no indication of clinical features.

The more closely we become acquainted with this condition, the more patent does it become that we are dealing, not with a localized condition of arthritis, but with a general disorder by which the whole system is profoundly affected. The anaemia, wasting, glandular enlargements, vasomotor symptoms, cramps, and trophic disorders, all point the same way, though in the slighter cases these symptoms are less prominent and apt to be overlooked.

Apart from the joint lesions, one of the most noticeable and constant phenomena in true rheumatoid arthritis is a remarkable condition of vasomotor instability of the extremities.

No one who is frequently brought into contact with the disease can fail to notice the constancy of these associated vasomotor changes, from which patients suffer great discomfort and considerable pain. A condition in which the extremities look blue, congested, and puffy, giving rise to a tense, swollen sensation, alternates with a form of spasmodic ischaemia, in which the fingers are cold, pallid, waxy, and numb. The intensity of these vascular changes varies within considerable limits, but may be so great as to suggest the presence of Raynaud's disease. In illustration of this I may be allowed to quote the case of a well-known member of our own profession with typical rheumatoid lesions of both hands, who at the commencement of his illness, before joint lesions became manifest, diagnosed his own condition as Raynaud's disease.

The vasomotor abnormalities may exist in greater or lesser degree for long periods before other symptoms of rheumatoid arthritis supervene. Patients will frequently state that they have been subject to "bad circulation" or "dead fingers" for many years before the onset of joint lesions. One middle-aged patient stated that for something like thirty years there had been such a severe tendency for the fingers to become "numbed and dead" that ordinary housework was almost impossible, and it is not uncommon for patients to give a history of five or more years during which they have noticed similar symptoms.

A study of the histories of a considerable number of cases suggests that the tendency to marked vasomotor instability is an index of some personal idiosyncrasy predisposing to the disease, rather than a direct result of the exciting cause.

Associated with the vasomotor changes are the muscular cramps, which are very characteristic of the disease, and occur with great frequency. They do not necessarily occur in the muscles directly connected with the affected joints, and may occur entirely in the legs when the hands and arms are the site of the more severe articular lesions. In such a case I have known walking to be entirely prevented owing to the pain occasioned by violent cramps in the calves directly the patient attempted to get about. The coexistence, in both rheumatoid arthritis and Raynaud's disease, of spasmodic ischaemia of the extremities and cramp of the limbs, suggests that the latter is due in both conditions to spasms of the arteries supplying the muscles, with resultant accumulation of metabolic end products.

The early incidence of rheumatoid arthritis on the nervous system is indicated by the marked increase of reflexes, early wasting, and definite sensory disorders, which together go to make up a large part of the clinical

picture presented by the disease. The late Dr. W. M. Ord was the earliest to suggest that the disease was primarily a nervous disorder, and though the exact significance of the nervous symptoms has not been determined, further researches in this direction may possibly throw light on the essential nature of the disease.

The well-marked increase of deep reflexes is a notable feature in the early stages of the disease, and Dr. R. J. Llewellyn, who has made a careful study of the superficial reflexes, states that these also may be definitely increased. Muscular wasting may ensue with considerable rapidity, and even precede any marked lesions of the joints. In addition to the general wasting associated with the disease, the extensor muscles of the affected joints seem to be specially picked out. As the shoulder-joint is frequently affected next in order to the joints of the hands and wrist, it not uncommonly happens that the early wasting of the deltoids, together with the smaller muscles of the hands, is somewhat suggestive of the early stages of progressive muscular atrophy.

Sensory changes, as numbness, formication, and sensations of pins and needles, are constant and early phenomena. The exact distribution of sensory changes and of the pain associated with the disease is a matter of considerable interest. Llewellyn finds the sensory changes to correspond with segmental areas, and points to certain abnormalities of superficial and deep reflexes as bearing out the suggestion. I must admit that I have been unable to demonstrate in my own cases any clearly defined segmental distribution. On the whole, the distribution of sensory changes has seemed to me to follow that of peripheral nerve branches rather than of spinal segments, but in this connexion we must remember the possibility, suggested by Dr. James MacKenzie, that intrinsic lesions of the joints may themselves give rise to referred pains of segmental distribution.

The whole subject of the motor and sensory phenomena associated with rheumatoid arthritis is one of much interest, and affords a large field for further investigation. Unfortunately the few recorded *post-mortem* examinations throw little if any light on the question, and as, in the nature of things, we are likely to get little help from this source in eliciting the character of the earlier stages of the disease, accurate clinical observation becomes doubly necessary.

The above mentioned nervous and vasomotor phenomena, together with the anaemia, debility, and symmetrical joint lesions, point to the conclusion that rheumatoid arthritis is essentially a widespread systematic intoxication, and the question remains whether it is a toxaemia from without due to bacterial invasion, or a disorder from within due to qualitative or quantitative changes disturbing the balance of the various internal secretions.

From the time when Drs. Bannatyne and Wohlmann first demonstrated organisms in the synovial fluid till the present, numerous investigations have been carried out, both in this country and abroad, with a view to the isolation of a specific organism, either from the joints or blood. Many observers have failed to demonstrate organisms at all, while in the cases where they have been found there is no uniformity of results. Instances of improvement following a course of vaccine-therapy have been recorded, but their number is not sufficiently great to enable us to say whether the administration of vaccine, generally speaking, is likely to prove more efficacious than other methods of treatment. Though there is a good deal of clinical evidence, and a certain amount of experimental evidence to support it, the hypothesis of the bacterial origin of the disease must still be considered *sub judice*.

Efforts have been made to correlate the disorder with the presence of different local foci of infection, and pyorrhoea alveolaris, rhinitis, otorrhoea, sinusitis, endometritis, and inflammatory conditions of the gastro-intestinal tract have been severally considered responsible for the condition. Here, again, the evidence is inconclusive. The very multiplicity of the affections named, and the variety of organisms responsible for them, suggest that whatever influence they may have as predisposing factors, we must look elsewhere for the determining cause. Further, such conditions as pyorrhoea, uterine discharges, and septic conditions generally are so extremely common that if they were direct causes of rheumatoid arthritis we should expect the latter to be far more frequent than it is.

In a large proportion of cases of rheumatoid arthritis there is no demonstrable site of infection. In these the supporters of the chronic infective theory are forced to postulate some cryptic source of infection in the gastro-intestinal tract, and we cannot dismiss the possibility that chronic intestinal toxaemia may stand in a more direct relationship to the disease. Patients frequently complain of chronic dyspeptic symptoms as an antecedent to the joint troubles. Strangeways states that 39 per cent. give a history of antecedent gastric disorders, but unfortunately the cases from which the statistics are derived included forms of arthritis other than rheumatoid. In my own cases symptoms of gastric ulcer, latent or otherwise, have occurred sufficiently often to be very suggestive of some association between the two diseases, but the number of cases has not been great enough to render statistics on the point of any value. The removal of decayed teeth and treatment of pyorrhoea alveolaris are frequently followed by striking improvement in rheumatoid symptoms, but this is probably to be explained by the marked improvement in general health and vitality which results from the removal of digestive disorders. Intestinal antiseptics certainly have an influence for good in the disease, and, as far as my experience goes, small repeated doses of grey powder seem to have done more good in the treatment of the more acute types than any other remedy, though salol, β-naphthol, and other antiseptic drugs no doubt possess similar properties in varying degrees.

Thus the theory of gastro-intestinal toxaemia is sufficiently plausible, and borne out to a certain extent by therapeutic tests, but further investigations are required as to any bacterial or chemical features of the gastro-intestinal tract, peculiar to the disease, before we can unreservedly accept it.

Whatever views we may hold as to the infective origin of rheumatoid arthritis, there can be no doubt but that the personal element is an important factor in the genesis of the disease. The fact that about 80 per cent. of the cases occur in women, nearly all between puberty and the menopause, is in itself suggestive. Again, many of the sufferers come of a distinctly arthritic stock. Garrod quotes over 40 per cent. as having a family history of gout or "rheumatism," and it is no uncommon thing to find two or more members of a family suffering from the disease. I have notes of one case in which no less than seven members of one family, in two generations, suffered from the same, or at least a similar, disease at the same time—namely, father, mother, three sisters, and two female first cousins.

Consider, again, the age and sex relationship of rheumatoid arthritis to gout. Whereas nearly 90 per cent. of cases of rheumatoid arthritis occurring in women fall between the age of 15 and 45, arthritic gout in the female sex is extremely uncommon between these ages. Thus it would appear that there is some powerful agency at work in women during the reproductive age which is as conducive to rheumatoid arthritis as it is antagonistic to gout.

On the other hand, the vast majority of cases of Graves's disease correspond in sex and age limits to those of rheumatoid arthritis, and the general relationship of the two diseases suggests the existence of some important factor common to both. Numerous cases have been recorded by McAlister, Llewellyn, Sprigg, and others in which definite Graves's disease and rheumatoid arthritis have existed simultaneously in the same patient, and symptoms of hyperthyroidism, in the form of tremor, soft rapid pulse, moist skin, and tendency to pigmentation, are amongst the most constant features in the more severe cases of rheumatoid arthritis.

Whether the profound constitutional changes found in both diseases are due to microbic infection is at present uncertain, but this question does not affect the conviction to which we are by circumstances forced, that in both rheumatoid arthritis and Graves's disease there exists a strong personal predisposing factor, which is enormously enhanced in the female sex, especially during the period of reproductive activity. In both diseases there appears to be some deep-seated metabolic error, involving important changes in internal secretions, and the personal factor predisposing to either may consist in a congenital or

acquired instability of the normal relationships which govern secretory activities.

However this may be, there is a strong family resemblance between Raynaud's disease, rheumatoid arthritis, and exophthalmic goitre. Whether there is any etiological or pathogenic factor common to those diseases remains to be seen. At the present time the pathology of all three is equally secure, and the nature of any relationship between them is entirely conjectural.

Whatever its relationship to other diseases, rheumatoid arthritis presents in itself many points of interest and many features of obscurity. I have attempted to indicate briefly certain problems in connexion with it which require to be elucidated before we can claim to have a sound knowledge of its pathology. On the clinical side a wide field of investigation is afforded in the systematic and careful consideration of family history and individual peculiarities in so far as they indicate a personal factor predisposing to the disease, together with precise investigations as to the nature and significance of the so-called accessory symptoms as they affect the nervous and vascular systems respectively. On the pathological side we require to know what relationship, if any, exists between the various foci of infection which frequently precede the disease and the subsequent phenomena, and more especially the importance of gastric and intestinal toxaemia as an etiological factor. It is possible that expert bacteriological examination of the flora of the gastro-intestinal tract in a series of cases might throw considerable light on this aspect of the question, and such investigations are urgently required.

Systematic chemical and bacteriological examination of the urine, to determine not only the presence or absence of disease of the urinary tract, but more particularly the standard of renal efficiency and the presence of any peculiar features of excretory activity, are also required to throw further light on any metabolic peculiarities incidental to the disease.

THE OCCURRENCE OF ACUTE PNEUMONIA DURING TREATMENT WITH ARSENIC.*

BY

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In a few cases I have observed the sudden occurrence of pneumonia in children whilst they were undergoing arsenical therapy on account of lymphadenoma or some other disease, and it has appeared to me that the association was no chance one, but that the pneumonia was in some way dependent on the taking of arsenic, as is arsenical herpes zoster. Two of the patients likewise had attacks of arsenical herpes zoster. The rapid recovery from the lung disease was another striking feature.

CASE I.

Sophie T., aged 15, under my care at the German Hospital in 1902 for lymphadenoma, was a thin anaemic girl. The lymphatic glands on the right side of the neck and the spleen were greatly enlarged. Enlarged cervical glands had been present as early as 1898. In June, 1902, whilst under arsenical treatment, she had a short acute attack of pneumonia at the base of the left lung, accompanied by very little fever. It may be noted that about a year previously (1901) whilst taking arsenic she had had a mild attack of herpes zoster (doubtless arsenical herpes zoster) on the left side of the chest, though in regard to her general condition the arsenic seemed to have done her good. The herpes zoster apparently caused her no pain or inconvenience.

She died in December, 1902, and the necropsy showed the presence of considerable (partly miliary) tuberculosis in addition to old lymphadenoma. The spleen was enlarged to about five times the normal size and contained whitish masses. Microscopically the spleen, and the liver also, were found to contain minute tubercles. A hard, fibrous mass situated at the back of the upper part of the abdomen and displacing the stomach and liver forwards, had microscopically the appearance of chronic hard lymphadenoma.

CASE II.

A boy, Roger S., aged 8 years, suffered from typical Hodgkin's disease (lymphadenoma), which involved the cervical lymphatic glands and the spleen. In 1902 he was under the care of my colleague Dr. Karl Fürth, who has kindly allowed me to refer to the case. The disease, which was supposed to have commenced about three years earlier, was apparently diminishing under arsenical treatment, when in December, 1902, he developed signs of pneumonia (dullness and bronchial breathing at the base of the left lung) accompanied by only slight fever. The arsenic was discontinued. The boy had likewise typical herpes zoster on the right side of the chest and a generalized eruption of minute vesicles on the trunk, possibly due to arsenic. This was followed by a good deal of desquamation, especially on the palms of the hands (? arsenical).

The boy seemed fairly well when he left the hospital in January, 1903. But he did not live long.

CASE III.

A boy, Freddy J., aged 7½ years, was admitted under my care in June, 1905, for chorea minor. The case had a special interest of its own, inasmuch as the patient was left-handed and the right half of his head was distinctly bigger than the left half. The choreic trouble, which was specially marked in the left upper extremity, was temporarily associated with loss of speech ("choreic aphasia"). Auscultation of the heart showed a slight mitral systolic murmur, when he left the hospital in September, 1905.

In the following year he was readmitted for slight chorea, and whilst under arsenical treatment, on March 6th, 1906, he developed pneumonia of the lower part of the left lung (impairment of resonance and crepitation) with considerable fever. There was no fever after March 13th, but crepitation could be heard over the affected lung for some days more. The pneumonia seemed to be of a mild type. There was very little cough and no pain.

CASE IV.

A little girl, Anna G., aged 4 years, when being treated, during 1910, with liquor arsenicalis for a lichen-like affection, developed acute pneumonia (with dullness and bronchial breathing) at the base of both lungs. There was considerable fever, but the pneumonic signs cleared up very well. There was for a time in this case a diffuse cutaneous erythema, which may have been of arsenical origin, and was followed by slight general desquamation and brownish pigmentation.

CASE V.

A girl, Theresa E., aged 14 years, who was undergoing radium treatment and was taking arsenic and iron for an acute and malignant type of Hodgkin's disease (lymphadenoma). A lymphatic glandular swelling had been first noticed on the left side of the neck in January, 1912, and, after operative removal of this in May, 1912, a fresh glandular tumour had rapidly formed on the same side of the neck. Radium treatment was tried in August, and was followed by great diminution of the swelling in the neck, but soon afterwards a striking enlargement of the spleen, and probably of intra-abdominal lymphatic glands also, occurred. She was losing ground in spite of treatment by arsenic and iron and the radium therapy, when, on December 5th, 1912, I saw her with Dr. Smulian for acute lobar pneumonia of the lower part of the left lung (dullness, bronchial breathing, and some crepitation) with moderate fever. The respirations were 46 a minute, and the pulse 120. The pneumonia had apparently commenced with general convulsions three days previously, and it seemed (considering the patient's bad general condition) to have come as a "terminal" infection. However, on the next day the patient was already recovering from the pneumonia, and in a few days she was able to leave her room and go out for drives. The lymphadenomatous disease nevertheless rapidly progressed, and she soon died.

In the foregoing cases the patients were all young, and the recovery from the pneumonia was excellent, even when the general condition, as in the last case, was extremely bad. There was little in the way of distressing cough or pain. It seems to me that arsenic may possibly predispose some persons to an attack of (? pneumococcal) pneumonia, just as it is acknowledged to predispose some individuals to an attack of herpes zoster, which is perhaps, like pneumonia, a disease of infectious (microbic) origin. On the other hand, my cases are too few in number to draw any certain conclusions from, and I do not know that any similar cases have been described in the literature on the effects of arsenic, or in that on pneumonia. It must not, however, be forgotten that it is only comparatively recently that herpes zoster has been acknowledged to be in some cases a consequence of the ingestion of arsenic, as a medicine or otherwise—as, for instance, as a contamination of beer in the English epidemic of arsenical poisoning in 1900.

I think it highly probable that cases of pneumonia similar to those which I have recorded will soon be observed by others amongst children and young persons undergoing arsenical treatment. If other cases should be found to confirm my suggestions, I would be tempted to think that the arsenic, whilst predisposing towards pneumonia, must also exert a favourable effect on the reaction of the body towards the disease—that is to say, that when pneumococcal pneumonia occurs in patients who are being treated with arsenic the pneumococcal infection is quickly

* A paper read at the Medical Section of the Royal Society of Medicine on January 28th.

and successfully resisted. Perhaps later on some arsenical drug like salvarsan or neo-salvarsan will be found to have a beneficial effect in pneumococcal pneumonia or other pneumococcal infections, and it might be worth while to undertake experiments with mice or rabbits in this connexion—that is to say, one might try the effect of arsenical preparations, in regard to experimental pneumococcal pneumonia, in those animals.

THREE CASES IN MIDWIFERY PRACTICE.

BY

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THE following unusual midwifery experiences occurred in my practice within four weeks, from the middle of March to the middle of April, 1912, and I think that as the material results are so good, and as one child born with asphyxia pallida recovered, it is worth while to publish the cases.

CASE I.—*Rupture of Uterus with Extrusion of Intestines.*

This case I saw with my colleague Dr. Meade, of Ballymartle. The patient, who had had two difficult instrumental labours and two miscarriages, had been in bed for a couple of days, and for the last twenty-four hours was passing matter from the vagina. She had also some abdominal pain. As she was but six months pregnant she did not suspect labour. Getting out of bed one morning at 10 o'clock to pass urine, the baby was expelled into the vessel. She got back into bed. On Dr. Meade's arrival he found three coils of intestines hanging out of the vagina, as well as the cord. Having disinfected his hands and arm and the intestine, he returned the gut and at the same time turned out the placenta, which had been retained in the uterus. At this time the patient was collapsed and was given hypodermic injections of strychnine. I saw her next afternoon, when she was vomiting severely and had well marked peritonitis. The pulse and temperature were high, and the tenderness over the abdomen extreme. The prognosis was most grave. On the third day a small piece of placenta was expelled. On the fifth day, when I saw her again, her condition was easier. After five days she began to improve, and in three weeks was well on the road to recovery.

Her magnificent recovery was due to her own splendid constitution and the care taken of her by Dr. Meade, who had so carefully put back the intestines, and had adopted a semi-Fowler position, as well as gentle douching twice daily. She had hypodermic injections of strychnine twice a day, quinine and digitalis in pills thrice daily, and magnesium sulphate every third day. With the exception of the most gentle douching, no examination or manipulation of the genital passage was attempted, as we considered perfect rest of the parts gave her the best chance. What the condition was which allowed the intestines to protrude is difficult to tell. Probably she had an abscess in the posterior wall of the womb, low down, or else some collection of pus in Douglas's pouch, and the labour pains driving down the head of the child broke the walls of the sac, and so the intestines protruded. Of course, the child (which was under six months) died shortly after birth.

CASE II.—*Myelocele and Meningo-encephalocele.*

This was a case of breech presentation, seen with Dr. Hennessy of Bandon. Chloroform was administered and the breech was extracted in the usual manner with extreme difficulty, owing to contracted pelvis. The arms were next extracted, but it was wellnigh impossible to remove the head. We noticed on the centre of the back a myelocele, and it was our intention to cut across the neck with a scalpel and introduce a catheter into the cranium, as we considered it might be a case of hydrocephalus. Whilst considering the advisability of doing this, and yet wishing, if possible, to extract a living child (as the only other one was stillborn), the head came away with a strong pull, and to our surprise showed an enormous ruptured meningo-encephalocele. Here was an example of both a myelocele and a meningo-encephalocele. The uterus was thoroughly douched out with hot creolin solution, and the woman recovered in the usual time without any abnormality of temperature or pulse. I have arranged with her if she becomes pregnant again to have Cæsarean section performed.

CASE III.—*Asphyxia Pallida.*

A primipara was seen by me after she had been in labour for thirty-six hours. I found membranes ruptured, head presentation and prolapse of cord. I found afterwards a marginal insertion of an ordinary length of cord, and also that there was a history of curettage and wearing of a pessary for retroflexion, and a condition of sterility that had lasted for some years, so that there was probably some laxity of uterine muscle. The cord was pulsating and the fetal heart fairly strong. As the membranes were ruptured I considered the best chance for the child was rapid delivery, having warned the father that the child would undoubtedly be dead. With considerable difficulty I extracted by the aid of axis traction forceps, a male child, of normal size, in a condition of absolute asphyxia pallida. It was white and flaccid, and showed no attempt at respiration. I cleared the mouth of mucus, rubbed it with brandy, and tried artificial respiration by Schultze's method, and plunged it into hot and cold water. Finding these methods useless, I sterilized a plated oval female catheter, slightly curved, having five holes on either side, and hooking my left forefinger round the epiglottis, I gently passed the catheter into the child's trachea, and inflated the lungs, ten or twelve times a minute as near as I could judge. After fifteen minutes I could see the child's heart beating, and there was an occasional gasp; then the gasps became more frequent, and after three-quarters of an hour it was breathing well and quietly, but exceedingly weak in its cry. He is now a fine healthy boy, to the great joy of his father and mother.

In Holt's *Diseases of Infancy* (p. 71) it is stated that inflation of the lungs is not usually of much general value, but is sometimes successful, and he recommends a soft catheter or the laryngeal tube of Ribemont. I venture to think, however, that a sterilized metal catheter such as I have described, if inserted gently, will meet the conditions.

Some months previous to this case I used similar treatment in another case of asphyxia pallida, but without success. I could see the heart beating vigorously, and the child would give some gasps, then the heart got weaker, and finally, after keeping the heart going with the help of my assistant for an hour and a half, it gradually weakened, the gasps ceased, and death ensued.

As the cases of these two children seemed to me to be interesting from a physiological point of view, I wrote to Professor Halliburton (to whom my sincerest thanks are due) as to why one child died and the other recovered. Since increasing venosity stimulates the respiratory centre we had here an excess of CO_2; why, then, did my expired air, containing a large amount of CO_2, produce a stimulation of the respiratory centre? Professor Halliburton's reply is as follows:

> Your cases of asphyxia pallida are very interesting. I imagine that in your second case the child was practically dead from deprivation of oxygen before you began the blowing in of air. The respiratory centre is very sensitive, and I would imagine that the few gasps you got were due to the oxygen supplied by your own expired air, and not to the CO_2 in your expired air. The child would already, owing to lack of oxygen, be loaded with CO_2, and beyond a certain stage this gas is a poison. The pallor would be due to stoppage of the circulation and constricted blood vessels; hence no blueness. But I suspect the blood was very venous nevertheless, and I cannot therefore think that any acapnia was present. In the first case the recovery due to oxygen supply was accomplished because the child to start with was only say 75 per cent. and not 99 per cent. dead.

The explanation given by Professor Halliburton is a great help, and it is a great incentive to know the reason why one is doing a certain action, and shows that by keeping up the treatment for a considerable time valuable infant lives might be saved. No stillborn child should ever be condemned to its grave without this method being effectually carried out, for assuredly success will many times follow

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THE report presented to the annual meeting of the Royal Bath Hospital and Rawson Convalescent Home, Harrogate, on January 30th, announced the resignation of Dr. Charles Gibson, who for twenty-one years had been an honorary medical officer to the hospital, and during that period had rendered it incalculable services. In moving the adoption of the report Major Dent, the chairman, observed among other things that it would be seen that very few subscriptions had been withdrawn owing to the National Insurance Act, and he hoped in connexion with institutions like that there would be no falling off. Whatever happened in other institutions the Insurance Act did not affect an institution like theirs, and it was essential that charitably disposed people and workpeople should continue liberally to support it. Certain alterations were made in the rules, and Dr. Hobson and Dr. Gibson were appointed honorary consulting physicians, Dr. Hinsley Walker and Dr. Johns were appointed honorary medical officers, and Dr. G. L. Kerr Pringle and Dr. David Brown were added to the honorary medical staff.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

LARGE BROAD LIGAMENT CYST WITH OVARIAN DERMOID ON THE OPPOSITE SIDE.

A woman aged 35, married thirteen years, was sent to see me by Dr. Ford, of Forest Gate. She had never been pregnant. She had menstruated regularly—on the last occasion three weeks before I saw her; during the previous six months the loss had been rather more than usual, and she had complained of a feeling of fullness about the abdomen, with pain occasionally in the cardiac region. The abdomen, which was markedly enlarged, was occupied by a swelling which was located more especially in the left abdomen, and extended from the pelvis to the level of the lowest rib. Fluctuation was easily elicited. The tumour was ovoid in shape. The cervix uteri was very high, almost on a level with the upper border of the pubic bone. The body of the uterus could not be clearly defined. The vaginal roof anteriorly and to the left of the cervix was slightly depressed by a portion of the abdominal swelling. Through the right fornix was felt a small firm swelling, which was the right ovary enlarged to nearly four times its natural size.

The abdominal cyst was tapped and thereafter enucleated from the broad ligament. It contained typical parovarian fluid. There was no trace of the left ovary. The right ovary was also removed. It was of the size of a small Tangerine orange, and was a dermoid cyst containing bone, hair, and sebaceous material.

London, W.C. James Oliver, M.D., F.R.S.Edin.

THE ASSOCIATION OF BAD TEETH WITH LEAD POISONING.

In lead works one comes across many men who are pale and badly nourished, some of them languid and disinclined to work. Occasionally they complain of epigastric pain and irregularity of the bowels. Finding them with a blue line generally surrounding carious teeth, many medical men notify these cases as instances of plumbism.

During the last year I have ordered such men to have the teeth extracted, with the result that all the signs and symptoms disappeared, and instead I found them with a healthy colour on the cheek, their nutrition improved, and their capacity and desire for work everything that could be desired.

It is important to lay stress on the recognition of this connexion. It is important to the men who are prejudiced for other work, to the employers who have to pay compensation, and to the neighbourhood, should the industry be affected financially in consequence of an erroneous diagnosis.

This connexion of carious teeth and plumbism is important, because with such ever-present pyogenic foci pouring poison into the stomach, its mucous membrane becomes inflamed, and thereby offers a greater absorbing surface to the lead, especially if it be converted into lead iodide by the internal administration of calcium or potassium iodide.

Iodides are strictly contraindicated in the treatment of plumbism, and should never be given. The best treatment is by mean of calcium permanganate, which cures the gastric inflammation.

The pyogenic infection is vastly more dangerous than the inhalation of lead dust.

Swansea. G. Arbour Stephens, M.D.

THE APPLICATION OF TAXIS.

The following plan I find useful: The last case I tried it in was an elderly male with a small, tight femoral hernia. I sit close to the bed, place the patient's knee on the side affected over my corresponding shoulder, and get some one to steady the foot. One hand passes between the thighs, the other is on the outside of the thigh. I then tilt my shoulder up, raising the patient's pelvis, and apply taxis in the usual way. The method is very comfortable for the practitioner.

Bamburgh, S.O. James G. Macaskie.

Reports

on

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

CENTRAL LONDON SICK ASYLUM, HENDON.

SPONTANEOUS FRACTURES; PLATING; NON-UNION; SALVARSAN TREATMENT; SECOND PLATING; RECOVERY.

(By Brian Metcalfe, M.R.C.S., L.R.C.P., Assistant Medical Officer.)

The patient in the following case, a man aged 40, was stepping off a stationary tramcar on December 22nd, 1911, when he felt something give way in his right arm. There was no pain, but the arm immediately became powerless. He went straight to a hospital, and was admitted at once. He remained an in-patient for five weeks, the arm being placed on an internal angular splint, which was only removed for the purposes of *x*-ray examination. At the end of five weeks he was discharged to attend as an out-patient.

State on Examination.

He then entered the Central London Sick Asylum, the arm being still on the splint, and his condition: Fusiform swelling about the lower third of the right humerus. Crepitus easily obtained, the fragments being extremely mobile, movements caused no pain, *x*-ray examination showed an almost transverse fracture of the lower third of the humerus, no overlapping, no comminution; a good deal of callus was present. The patient gave a definite history of syphilis, for which he had received only spasmodic treatment. There was a healed scar on the corona, and four years previously he had been treated in Hendon Sick Asylum for gummatous periostitis of the left clavicle and left parietal bone; in both situations there were now present soundly healed and depressed adherent scars.

Treatment.

The arm was placed in plaster-of-Paris for six weeks, and iodide and mercury given internally, and at the end of this period there was still no union.

On March 29th, 1912, the fracture was exposed by an incision on the outer side of the arm—a false joint with a thick capsule, and great excess of callus were found. The joint was excised and the fragments united by one plate and four screws placed on the external surface of the bone; an internal angular splint was applied. The wound healed by first intention; the splint was removed at the end of a month; there was still no union. A skiagram showed good apposition, some callus, and the plate holding well.

The patient was now put on thyroid extract, 5 grains twice daily. The iodide was increased to a 100 grains per diem; Bier's bandage was applied for three hours twice a day, there was also daily massage. After two weeks of this treatment the patient took his own discharge, there being still no signs of union.

On May 29th, 1912, he returned to the Hendon Sick Asylum, meanwhile having attended a hospital as an out-patient. During the whole of this time the arm was kept on an internal angular splint, but there was still no union. The screws were firm in the upper fragment, but loose in the lower one. On the right buttock there was a typical syphilitic rupia.

Primary Union after Salvarsan Treatment.

On June 6th, 1912, the patient was given 0.6 gram of salvarsan intravenously, the median basilic vein being deliberately exposed and opened. I have used this method on fifty-eight occasions, and prefer it to attempting to directly plunge a hollow needle into the vein. By June 13th, the rupia having healed, the old incision was reopened, and the former plate and screws removed; another false joint was found to have formed, very little callus was present, the ends of the fragments were excised and two plates inserted, one anteriorly and one externally. The arm was put up on an internal angular splint; primary union took place, and bony union was firm and complete at the end of four weeks.

Remarks.

I heard from the patient on November 15th, five months after the second plating, saying that his arm was strong and well, and that he had never felt better in his life.

It was intended to give the patient two further doses of salvarsan, but as he felt so well he was averse to receiving another injection. There can be little doubt that this was a case of spontaneous fracture due to a gumma, and I think that it shows the important part that salvarsan took in the ultimate cure of this fracture, as the patient throughout was treated by potassium iodide in increasing doses with no effect. I am indebted to Mr. Hopkins, F.R.C.S., Medical Superintendent, for permission to publish the above notes.

Reports of Societies.

ROYAL SOCIETY.

Thursday, February 6th, 1913.

Sir Archibald Geikie, K.C.B., President, in the Chair.

Resilience of the Arterial Wall.

In a paper on the influence of the resilience of the arterial wall on blood pressure and on the pulse curve, Drs. S. R. Wells and Leonard Hill, F.R.S., stated that the form of the pulse curve and the systolic and diastolic pressure (measured by the sphygmomanometer in the case of man) were modified very greatly by the conduction of the pulse along any particular artery. The conduction varied with the resilience of the arterial wall. An artery which was contracted, and therefore more rigid, conducted the systolic crest almost with undiminished amplitude from the heart to the peripheral vessels, and there was in such an artery a wide difference between the systolic and diastolic pressure. In a relaxed, resilient artery, on the other hand, the systolic wave expanded the wall of the artery, and part of its energy was stored up as potential energy in the wall. As this came into play during diastole and the systolic wave reached the peripheral vessels in diminished form, the height of the diastolic wave was approximated to that of the systolic. The arteries were controlled so as to bring about one or other of these conditions at the periphery—a hammer-like pulse with big difference between systole and diastole, or a pulse with small difference and a more uniform mean pressure. The evidence for these conclusions had been drawn both from the investigation of thin-walled rubber tubes (specially made) and of arteries.

Ganglion in the Human Temporal Bone.

Mr. A. A. Gray reported the occurrence of a ganglion hitherto undescribed in the human temporal bone, below and in front of the stapedius muscle. In the specimen in which it was discovered the ganglion was comparatively large, but it was thought probable that considerable variations in this respect occurred in individuals. As far as present investigations show the ganglion was associated with two nerves—the facial nerve and Arnold's nerve—but it was possible that fibres from other nerves might enter it. It was irregular in shape, finger-like processes projecting from it into channels in the surrounding bone. It contained on the whole a rather large proportion of fibres relative to the number of nerve cells. The majority of the nerve cells were multipolar, but occasional bipolar cells were found.

The Action of Adrenin on Veins.

Messrs. J. A. Gunn and F. B. Chavasse reported the results of a research on this subject. They found: (1) That the action of adrenin upon ring preparations of veins remote from the heart was to diminish their calibre as in the case of arteries; the veins, therefore, probably contained veno-constrictor nerve fibres from the thoracico-lumbar sympathetic system. (2) That the action of adrenin on quiescent rings from the superior vena cava near the heart was to cause them to beat rhythmically and powerfully. (3) That (*a*) the accelerator-augmentor nerve supply of the heart and (*b*) the rhythmically contractile tissue extended up the superior vena cava for at least 6 to 8 mm. from the veno-auricular junction in the heart of the sheep. (4) That the induction by adrenin of rhythmic contraction in the quiescent superior vena cava seemed, on the whole, in accordance with the myogenic theory of mammalian heart rhythmicity.

Treatment of Trypanosomiasis and Yaws by Antimony.

Captain H. S. Ranken, R.A.M.C., in a preliminary report on the treatment of human trypanosomiasis and yaws with metallic antimony, stated that intravenous injection of metallic antimony in a fine state of division was a therapeutic measure applicable on a large scale to the treatment of human trypanosomiasis. A considerable number of cases had been so treated, and in a further series combined treatment was employed, salvarsan or atoxyl being given in addition to the antimony. As a routine dose, 1 grain of antimony was given in 4 oz. to 6 oz. of physiological salt solution. In the great majority of cases treatment brought about considerable improvement, as evidenced by disappearance of trypanosomes from the blood and lymphatic glands, improvement in nutrition, mental state, etc. It was not yet possible to determine the ultimate results of treatment. The symptoms following treatment were described, and it was stated that in certain individuals hypersusceptibility existed. Reference was made to the exceedingly rapid trypanocidal action of antimony and to its effect on the leucocytes. The preparation was also used in ten cases of yaws, and all were cured. The usual course of treatment was three or four doses.

Extrusion of Granules by Trypanosomes.

Major W. B. Fry and Captain H. S. Ranken described some further researches on the extrusion of granules by trypanosomes and on their further development. Two classes of granules were mentioned: (*a*) Those representing probably stored food material; and (*b*) those of nuclear origin and character, but the paper dealt with the latter only. The mechanism of extrusion as observed in human and animal varieties was described, and the influence of drugs and other effects discussed. A description of the free granule and its after-development and fate was given. Many of the observations were made on the parasite in the living state, but the paper also contained notes on fixed and stained specimens, and Mr. H. G. Plimmer, F.R.S., added a note on a new method of blood fixation.

MEDICAL SOCIETY OF LONDON.

Monday, February 10th, 1913.

Sir W. Watson Cheyne, President, in the Chair.

Early Operation in Appendicitis.

Mr. Edmund Owen opened a discussion on early operation in appendicitis. His remarks are published in full in this issue of the Journal (p. 321).

Mr. W. H. Battle did not think that any one with experience of appendicitis in its acute form could deny that operation including removal of the appendix at the commencement of the attack was advisable, and that it constituted the only plan of treatment that could be regarded as certain to yield adequate results in a large series of cases. To advise a patient to submit to operation was the counsel of perfection. If the operation were deferred, the patient lost very much and gained little by his refusal to submit to operation in the first instance. Early operation was not only life-saving, but also the period of illness was shortened, and if done quite early the wound could be closed without drainage, and danger of subsequent hernia was obviated. He said that he was not an advocate for indiscriminate operation. One should always endeavour to diagnose the state of the appendix, but the correct clinical estimation of the case was of greater value. Indiscriminate operation in every case and at any period in an acute attack would be found almost as disastrous as no operation at all.

Mr. C. P. Childe said that he was a warm advocate of operation in appendicitis at the earliest available moment, and he considered that any counsel of delay or any attempt to discriminate between cases that should be operated upon and those which might be left to an interval operation was a putting back of the clock in the treatment of the disease. His reasons were based on 700 operations. The more extensive one's acquaintance with appendicitis became, the more one became convinced of the unreliability of any symptoms as guides to the immediate or future safety of the patient. He considered he would be acting with an assumption of knowledge he did not possess if he tendered a patient suffering from appendicitis advice that he might safely await the removal of his appendix until a subsequent date.

Mr. G. Grey Turner also spoke strongly in favour of early operation. His results of a total of 681 operations bore out his contention. Of these the total mortality was 35, or 5.13 per cent. In 43 cases of acute appendicitis without peritonitis no deaths had occurred. In 130 of acute appendicitis with localized peritonitis only 3, or 2.3 per cent.

Mr. GEO. R. TURNER said that the results of operation for appendicitis at St. George's Hospital had shown considerable improvement during the last four years. This he ascribed to the cases being sent earlier. In his last 100 consecutive cases he had had only 1 death, and had had 62 consecutive cases without a death. He could see no use in waiting. He advised operation at every stage so long as the patient was not moribund. There was practically no risk whatever in the early stage.

Mr. CRAWFORD RENTON regarded the paper as epoch-making. Early operation was the only proper treatment in acute cases. He had always operated at once for many years. The mortality of immediate operation was about 2 per cent.; if deferred, 20 to 40 per cent.

Major HULL, R.A.M.C., said that it would be admitted generally that all early cases should be operated upon before pus formation took place. If this were done the mortality would be practically *nil*. He regarded those cases due to a pure *Bacillus coli communis* infection as less serious, and as accounting for the majority of the cases where recovery without operation occurred.

Mr. W. H. CLAYTON-GREENE said he had read a paper on the subject ten years ago, and considered that the high mortality was due to delay. His opinion of the value of early operation in limiting the mortality and preventing complications was confirmed by the attitude of many physicians, who had become more surgical even than the surgeons.

Mr. A. H. BURGESS also spoke in favour of early operation.

Mr. EDMUND OWEN briefly replied.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, February 5th, 1913.

Mr. J. M. COTTERILL, President, in the Chair.

The Relation of the Radiographer to the Physician and Surgeon.

DR. A. MCKENDRICK read a communication on this subject. He said that two alternatives offered themselves in a discussion of this question: (1) Where the radiographer merely occupied the position of an *x*-ray photographer; and (2) where he was regarded as a consultant in the same sense as the pathologist and the ophthalmologist. The status of the radiographer in various Continental hospitals was generally that of the latter alternative, and in certain British hospitals only a written report was sent out, the plates being retained, classified, and stored in the *x*-ray department. The question was not new, having been discussed at several Continental congresses, and it was still unsettled. Mr. WALLACE said that a report alone by the radiographer who was not acquainted with the case would often be of little value. Further, it sometimes happened that the best radiograms were produced by men without any medical education. At the same time he was always glad to have the assistance of the radiographer in the interpretation of a plate. Dr. CHALMERS WATSON said that unsatisfactory plates were often due to inadequate instructions given by the physician and surgeon. Mr. STRUTHERS said the primary duty of the radiographer was to take a good plate. If he were to assume the position of a consultant, he would require to be equipped not merely with technical skill, but with a thorough knowledge of the other means of diagnosis. Dr. MCKENDRICK replied.

Joint Tuberculosis.

Mr. JOHN FRASER said that into the anatomy of a joint there entered the articular ends of the opposing bones covered by articular cartilage, in the child usually built up of epiphysis, epiphysial cartilage, and metaphysis. The synovial membrane was composed of a connective tissue lined with flattened cells. A number of blood vessels ramified in its deeper parts, and were specially abundant at the joint reflection, where they formed the circulus vasculosus. According to the attachment of the joint ligaments, the circulus vasculosus lay in relation to the epiphysis or the metaphysis; for instance, in the elbow-joint it lay in relation to the metaphysis, in the knee-joint in relation to the epiphysis. From the circulus vasculosus vessels entered the underlying bone. Perivascular lymphatics accompanied the circulus vasculosus, and also entered the bone. When tubercle attacked a joint, changes became evident in the synovial membrane, the articular cartilage, the blood vessels, and the neighbouring bones. Mr. Fraser described these changes at full length with the aid of lantern slides. Professor CAIRD, in discussion, said that he had often been struck by the determining influence of the position of the circulus vasculosus in the site of tubercle in a joint. The appearance of the endarteritis was very like that in syphilitic vessels. Mr. STILES alluded to the difficulty of the treatment of bone and joint tuberculosis in hospitals owing to lack of space, and defended the use of radical operation. In the apportioning of public funds to the problem of tuberculosis, he made a strong plea for a fair share for surgical tuberculosis. Dr. J. MILLER said that in a recent series of 60 cases of tuberculosis not a single bovine strain had been isolated. Endarteritis of the kind described was also seen in pulmonary tuberculosis, and in the large arteries near tuberculous joints. Mr. DOWDEN spoke of the prevalence of surgical tuberculosis in China and Labrador, where cow's milk was not used. He would be curious to learn the strain of bacillus present in the virulent senile tuberculosis of bones and joints. Dr. MCKENDRICK pointed out the similar *x*-ray appearances of bones in rheumatoid arthritis and tuberculosis. Dr. CHALMERS WATSON alluded to the marked endarterial changes in rheumatoid arthritis—a chronic toxaemia due to the pathological action of bacteria normally resident in man. Dr. C. GUTHRIE spoke of the importance of environment in predisposing to or protecting from tuberculosis. The PRESIDENT pointed out the great need of a convalescent home on a large scale for cases of surgical tuberculosis. Mr. FRASER replied.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, January 30th, 1913.

Dr. LLOYD ROBERTS, Vice-President, in the Chair.

Specimens.

AT the fourth pathological meeting of the session the following specimens were shown and described:—Mr. ARTHUR EVANS: *Adenoma of the thyroid.* Mr. KEITH MONSARRAT: (1) *Hydatid cyst of the kidney* which had ruptured into the renal pelvis; (2) *Alveolar cyst;* (3) *Goitre with cystic and myxomatous degeneration*—there were in this case some clinical symptoms of myxoedema; (4) *Carcinoma of the pylorus;* (5) *Carcinoma of the colon* (two cases); (6) *Chondrosarcoma of the breast*, which was described as probably peritheliomatous in nature. Mr. THELWALL THOMAS: (1) *Carcinoma of the caecum;* (2) *Oesophageal pouch;* (3) *Epithelioma of the scrotum;* (4) *Chondroma of the nasal septum;* (5) *Epithelioma of the tongue;* (6) *Epithelioma of the forearm.* Dr. NATHAN RAW: (1) *Secondary sarcoma of the dura mater;* the primary growth was in the choroid of the eye; (2) Two uteri with *Carcinoma of the cervix* which had been removed after Caesarean section. Mr. THOMAS, Dr. NATHAN RAW, Dr. R. E. HARCOURT, and Dr. WILLETT took part in the discussion.

Fulminating Pneumonia.

Professor ERNEST GLYNN read a note on fulminating pneumonia. He gave notes of 15 cases with 4 deaths from a public institution; 2 died in seven hours, 2 in thirty hours. All the cases occurred in children. In the most rapid cases there was no lung consolidation; pneumococci were demonstrated by inoculating mice, and by microscopical sections. Photomicrographs illustrating the lesions in the lungs and kidneys were shown, the latter being due to the virulence of the toxaemia. Professor BEATTIE, Dr. RUNDLE, and Dr. STALLYBRASS discussed the note, and Professor GLYNN replied.

Some Studies in Anaphylaxis.

Dr. MURRAY BLIGH read a paper on this subject, based on experimental work carried out with Dr. Blair Bell. He drew a comparison between anaphylaxis and serum sickness; and reference was made to heredity, to passive anaphylaxis, and to anaphylaxis *in vitro*. On the principle of the reaction of passive anaphylaxis, an attempt was made to devise a method of determining whether a given individual were sensitive already which would be applicable to the diagnosis of cancer and other diseases. The inquiry was commenced by sensitizing a group of animals, according to orthodox methods, with the object

of observing the development of the symptoms and sequelae so graphically described by others. Anaphylaxis was not obtained. Several varieties of antigen, in varying doses, repeated at the end of varying incubation periods, were injected into rabbits and guinea-pigs, Eighty-six consecutive experiments were performed without the development of a symptom that could be attributed to anaphylaxis. The fact of anaphylaxis was not disputed, but the conclusion was drawn that it was a phenomenon more difficult to obtain than to avoid. Dr. Wakelin Barratt thought that the author of the paper was well advised in publishing the results obtained; and it was much to be desired that the conditions of the production of experimental anaphylaxis should in all cases be accurately recorded. Dr. Gelaire said that the phenomena which seemed to be sufficient to explain that anaphylaxis formed an albumin—anti-albumin—reaction were, to his mind, not yet definitely determined. If it were true all anaphylactogens ought to be of an albuminous character, such as animal or vegetable albumin, or the albumin of bacteria, etc. But since they knew that anaphylaxis could be brought about by the combined action of antigen-antibodies-complement, they should bear in mind that antigen and antibodies were not all pure albuminous substances. That they were lipoids was shown in the syphilis reaction, in echinococcus disease, and in the alcoholic extracts of tubercle bacilli, etc. Anaphylaxis could be produced by glycogen, peptone, trypsin, saponin, sodium oleate, etc. As regards the quantity of serum injected, he said that bigger quantities had been used by those who were able to produce anaphylaxis than had been employed by Dr. Bligh and himself. He thought that those observers who had obtained positive results with very small quantities of serum had probably been using for the second injection serum from the same animal as that from which the serum for the first injection had been taken. The freshness of the serum was of importance, as the amount of fibrin ferment varied with the time the serum had been kept. The susceptibility of an animal to anaphylaxis depended both on the species of the animal and the kind of serum used. Pigs, for instance, could not be made anaphylactic with horse serum, and the results with rabbits were not constant. On the other hand, there seemed to be something in the serum which prevented anaphylaxis altogether. Extracts of organs produced anaphylaxis, but on adding fresh serum of the same species anaphylaxis could be prevented. Dr. Gelaire then related some of his own experiments, and explained his conclusions. Since the serum of animals rendered anaphylactic contained much less complement than before the injection, he thought research as to the cause of anaphylaxis should be directed to the investigation of the serum of the injected animal. Dr. T. R. Bradshaw thanked Dr. Bligh for his interesting paper, which dealt with a subject which appeared to be of great practical importance at a time when serum-therapy was largely employed, and dwelt on certain points in connexion with the subject which were difficult to comprehend.

ROYAL SOCIETY OF MEDICINE.

Section of Ophthalmology.

Wednesday, February 5th, 1913.

Sir Anderson Critchett, President, in the Chair.

Specimens.

Mr. G. Coates showed a case of *Congenital mesoblastic strand* adhering to and penetrating the cornea. Mr. A. Rugg Gunn showed a case of *Persistent hyaloid artery* with massive white formation obscuring the optic disc. Mr. A. S. Cobbledick showed a case of *Congenital deformity of the inner canthus*. Mr. J. B. Lawford exhibited a case of *Disease in the region of the pituitary body*. The patient showed no definite evidence of acromegaly. The President showed a case of *Kerato-iritis* in which he had performed peritomy; the whole of the vascular conjunctiva, which had been very much thickened, had greatly improved.

Resumed Discussion on the Physiology of Intraocular Pressure.

Mr. Martin Flack, in resuming the debate, criticized the scheme submitted to the last meeting by Professor Starling, as it did not take account of any capillary bed and the resistance due to it; thus the conditions obtaining in the eyeball were not adequately represented. Moreover, to hypothecate for the vessels rubber, and for the fluid, water, did not establish a parallelism with actual conditions. He proceeded to elaborate the argument which Dr. Leonard Hill submitted in his opening, and said that Dr. Hill's work on the circulation of the brain had never yet been proved to be wrong, although it was published a number of years ago. Admittedly the eye was not quite rigid, but it was sufficiently so for physiological purposes. When a skull was trephined, and the rigidity of the skull thereby modified, it did not interfere with the cerebral circulation. In Dr. Hill's and his own view, the tissue fluid was maintained not by any filtration pressure due to the *vis a tergo*, but to the pulsatile expansion and shrinkage of organs, and the expressive action of both intrinsic and extrinsic muscles, as well as by changes in posture, gravity, etc. Mr. Thomson Henderson (Nottingham) declared that his views on the physiology of intraocular pressure were entirely dominated by the splendid work of Dr. Leonard Hill on the intracranial pressure. He (the speaker) maintained that the intraocular pressure was not a question of volume, but that it stood and varied with the intraocular venous pressure. Some of the views disregarded the fact that the vessels were embedded in a loose tissue stroma, which was in open communication with the angle of the anterior chamber. Therefore the ciliary epithelium could not act as a mere passive filtering membrane, because the pressure on both sides of it was the same, and if fluid did escape from the vessels it would make its way direct into the angle of the anterior chamber. He exhibited sections of eyes of different animals, and submitted that the anatomical conditions about the angle of the anterior chamber were such as to absolutely preclude any idea of filtration of aqueous. He had now a collection of 13,000 sections of eyes, mounted serially. Mr. Herbert Parsons said he could not understand the antipathy to the filtration idea by Dr. Hill and his colleagues, who seemed to introduce a very difficult method of physico-chemical influence to account for processes which were explicable on simpler grounds. He could not see anything in the present discussion, so far, to cause him to modify, except in questions of terminology, the views he expressed in his work on the pathology of eye conditions. He proceeded to comment on weak points in Dr. Hill's experiments, and to argue that, the walls of the globe not being rigid, unless the animal were curarized in the experiments, there was enormous pressure exerted by the extrinsic muscles. He was the first to show that the increased pressure produced on stimulating the peripheral end of the cervical sympathetic was due to retraction of the unstriped muscle in the orbit. He did not think the consideration of the mode of production of accommodation was germane to the present discussion. Mr. Rayner Batten demonstrated his views on intraocular pressure by a series of ordinary rubber child's balloons. Mr. Greeves pointed out that Coster found, in his experiments, that there was a definite increase of volume when the intraocular pressure was raised, and he had himself done a similar experiment with fresh pig's eyes. Professor Starling and Dr. Leonard Hill then replied in detail on the whole debate, and were heartily thanked by the Section.

Section of Anaesthetics.

Friday, February 7th, 1913.

Dr. J. Blumfeld, President, in the Chair.

Nitrous Oxide in Major Surgery.

Mr. H. M. Page noted, at the beginning of this paper, that a revival in recent years of the interest taken in anaesthesia was attributed to Dr. Crile's work on shock. Mr. Page desired to suggest further investigation of this agent on this side of the Atlantic. The difficulties of the administration, if the surgeon was not to be hindered in his work, the strain on the anaesthetist, the cumbrous apparatus and the expense were pointed out. Against these drawbacks was placed the non-toxicity of nitrous oxide, the few after-effects and the good condition of the patient at the end of the operation, a condition which was observed in a proportionally modified degree, even when ether had been added throughout the administration,

Regulated rebreathing was strongly advocated, as the author found that it facilitated the administration without prejudice to the patient. The work of the physiologists on the subject of the loss of CO_2 and acapnia was mentioned, and especially the recent work of Yandell Henderson, and it was maintained that account must be taken of it and rebreathing carefully used, even if all Henderson's conclusions could not be accepted without reserve. Ninety-four major operations were brought forward, out of which 51 were intraperitoneal. The ages of the patients varied from 5 to 81 years. Out of the 51 intraperitoneal cases, 7 died, but none immediately after the operation, and in all the operation was severe. The special indications for the use of nitrous oxide in major surgery were: (1) Desperate cases from toxaemia or traumatism or haemorrhage, if spinal anaesthesia be not used; (2) operations on diabetics, where nitrous oxide was preferable to any general anaesthetic and to spinal anaesthesia; (3) certain genito-urinary operations. Mr. Page then turned to the details of this method. A previous injection of a narcotic with atropin was recommended, and, failing this, atropin alone. Induction should always be practised with the addition of ether. Afterwards the addition of ether should be resumed, to attain the required depth of anaesthesia rather than to push the N_2O by increasing pressure. It was stated that a tendency to cessation of respiration without toxicity, possibly due to loss of CO_2, and in other cases a true toxicity, might be met with. The most important contraindications were advanced degenerations of the heart and vessels, a marked degree of emphysema and dyspnoea or obstruction to the airway. Deaths said to be due to the anaesthetic had been reported. The author's opinion was that these dangers and deaths could be avoided by the unremitting attention of a skilled anaesthetist who has seen his case beforehand and deliberately chosen this method, and that N_2O+O_2, with or without the addition of ether, would then give the patient in certain cases an additional chance of recovery. Mr. PAGE then gave a demonstration of Dr. Teter's apparatus, recommending that a bag should be added close to the facepiece, and also showed a simple arrangement he had devised which answered fairly well and was portable. It was stated that all apparatus must allow of the employment of rebreathing. The PRESIDENT considered that Mr. Page had made out a good case for the use of gas and oxygen, and for rebreathing—at least, in very dangerous cases. He had himself in a few instances used gas and oxygen where it was essential to avoid any toxic effects, and his experience agreed with that of Mr. Page. It was difficult to reconcile the avoidance of the asphyxial element with the view that no diminution must be allowed in the CO_2 content of the blood. Mr. BELLAMY GARDNER said that in 1897 he brought forward the use of gas and oxygen for minor operations—namely, those not involving abdominal section—and in the following year Mr. Herbert Paterson used that anaesthetic in an operation lasting an hour and fifty-five minutes. Later he (Mr. Gardner) related his experiences with it for larger operations, exclusive of abdominal sections. It was many times more expensive than the older general anaesthetics, but was particularly indicated for diabetics, in which cases it was the most valuable anaesthetic available. Dr. DES VOEUX testified to the rapid recovery of consciousness and the lack of unpleasant after-effects in patients whose condition demanded extreme caution. Mr. H. E. G. BOYLE found that when gas and oxygen was the anaesthetic, and no other narcotic was given beforehand and no ether added to the gas and oxygen, it was difficult to effect relaxation of the abdominal muscles, but it was much easier to effect it with the aid of the narcotic and the ether. He had given this anaesthetic in three diabetic cases, where amputation at or about the knee was performed, and in all with success. In rectal operations it was inadvisable, as it set up spasm and opisthotonos. Dr. C. S. LOOSELY had used Dr. Teter's apparatus in 6 cases, all children, with success, but he had to use a little ether in one instance to keep up the relaxation of the muscles. Mr. ASLETT BALDWIN had the highest opinion of this anaesthesia for major surgery, especially in diabetic and septic subjects. In order to avoid opisthotonos in rectal work, he placed the patient on his side and trussed him up with a jack towel. Mr. A. L. FLEMMING (Bristol) exhibited a simplified apparatus of his own design and manufacture for giving gas and oxygen, which allowed of rebreathing. Mr. PAGE replied.

SECTION FOR THE STUDY OF CHILDREN'S DISEASES.

AT the meeting on Friday, January 24th, Mr. A. H. TUBBY, M.B., F.R.C.S., President, in the chair, there was an exhibition of clinical cases and pathological specimens. Among the exhibits were the following:—Miss A. L. KANN (for Mr. D. C. L. Fitzwilliams): (1) A case of (?) *Fibrolipoma* in a boy aged 2 years and 8 months. There were four small swellings on the back of the arm and in the axilla, that in the axilla being as large as an orange, bulging the pectoral muscles forwards. They were not fixed and felt fibrous. (2) A case of *Lymphangioma*, resembling a hernia of the lung, above the right clavicle, of a boy aged 6. It probably continued into the thorax. Dr. R. C. JEWESBURY: *Two similar unusual heart conditions in sisters.* The lesions were probably congenital. Mr. R. C. ELMSLIE: Three cases of an unusual form of *Disease of the hip-joints.* Two of these corresponded to Calvé's pseudo-coxalgia. The third was of more doubtful resemblance. By the aid of skiagrams it was shown that the epiphyses of the heads of the femora were a little flattened, their surfaces uneven, and their upper edges proportionately thicker than normal. The necks of the femora were shorter and thicker. Dr. J. WALTER CARR: *Congenital syphilis with enlargement of the liver and spleen* in a girl aged 12. He inquired as to the advisability of using salvarsan in such a case. Also a case of *Hirschsprung's disease* (congenital hypertrophic dilatation of the colon) in a boy aged 9. Dr. C. W. CHAPMAN: A case of *Arterio-sclerosis with absence of radial pulses* in a girl aged 15. The Wassermann reaction was negative. A trace of albumen was found in the urine. Mr. SYDNEY STEPHENSON: *Interstitial keratitis* and osteoperiostitis in the tibiae in a boy aged 6, in whom the Wassermann reaction was positive. Neo-salvarsan had produced considerable improvement.

SECTION OF BALNEOLOGY AND CLIMATOLOGY.

Thursday, January 30th, 1913.

Dr. PERCY G. LEWIS, President, in the Chair.

Fibrositis.

DR. LLEWELLYN (Bath), in opening the discussion, intimated his intention of confining his remarks to muscular fibrositis. He emphasized the importance of gout as an etiological factor, 28.8 per cent. of all cases in his experience displaying objective stigmata, tophi, etc., whilst only 8 per cent. gave a previous history of acute articular rheumatism. The abrupt onset of acute cases was apparent not real, the causal process having developed insidiously. The muscular effort impeached was not so much the cause of the malady as the occasion of its disappearance. As regarded constitutional symptoms, he laid stress on the frequency of pyrexia even in milder cases, and also considered not uncommon the incidence of endocardial symptoms. Pain was the chief subjective symptom in acute cases, aching and stiffness in chronic types; the objective changes in the former cases were swelling, increased local heat, and, most important of all, increase in muscular tone or hypertonus, as shown by palpation. Hypertonus outlasted subjective symptoms, formed the link between exacerbations or relapses, and was responsible for disorders of movement whether volitional, passive, or synergic, and also for disorders of circulation. The rhythmic movement and relaxation of exercise being replaced by a state of tonic spasm, the circulation through affected muscle was impeded, and venous stasis resulted. This venous stagnation was a strong contributory factor in the production of nodules or infiltrations; in other words, the result of congestive induration.

Professor STOCKMAN (Glasgow), in dealing with the pathology of fibrositis, said that the pathological condition of fibrous tissues varied from an oedematous and rapidly proliferating tissue, showing many fibroblasts and very few leucocytes, to a dense and compact nodule or patch, according to the site of the mischief. A very significant feature distinguishing pathological from normal fibrous tissue was the presence of marked periarteritis and endarteritis in the blood vessels of the affected area, strongly

supporting the idea that the condition was the product of reaction to an irritant conveyed in the blood. The sensitiveness of the subjects of chronic rheumatism to variations of temperature, humidity, etc., was probably due to excessive exudation of lymph from the diseased vessels under such conditions and their imperfect absorption. Some degree of interstitial neuritis was commonly found in the nerves of the affected areas, which explained the very painful nature of the disease.

Mr. Kenneth Goadby opened the discussion on the bacteriological side, giving a summary of animal experiments in which various bacteria isolated from the mouth, posterior nares, tonsil, faeces, and urine had been tested on animals. Certain of the organisms, *Streptobacillus malae*, *Streptococcus longus*, and *Bacillus macrodentalis*, had been isolated from the urine and faeces of cases suffering from fibrosis. Autogenous vaccines of these organisms had produced first well-defined exacerbation, and, finally, after a continued dosage, amelioration and improvement in the symptoms. Two cases were described in which no organisms were found in the urine until after heavy massage of the affected parts, followed by the application of Bier's bandage. On the following morning organisms were demonstrated in the urine.

Dr. James Mackenzie drew attention to certain forms of heart disease which occurred associated with muscular rheumatism. Among the various evidences of cardiac disturbances, he was able to demonstrate that heart-block occurred. As the presence of this heart-block implied a limited lesion affecting the auriculo-ventricular bundle, he suggested that, in all probability, the cardiac affection in these cases was due to an invasion of the heart muscle by the same process which Professor Stockman had shown to be present in the skeletal muscles.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

At a meeting on Thursday, February 6th, the President (Dr. Stanley Riseley) in the chair, Mr. Ernest Finch, in a paper on *Internal derangements of the knee-joint*, gave statistics of the results of treatment in 59 out of over 100 cases which had been treated in the Royal Infirmary, Sheffield, during the five years 1907–11. After a few preliminary remarks on the anatomy of the joint, illustrated by lantern slides, he considered its mechanism. Theoretically a sudden extension from a flexed or semi-flexed position would cause injury to the internal semilunar cartilage. This was confirmed by a definite history of a sudden extension in 44 of the 59 cases. In 7, however, the patient declared that the joint was fully flexed, and in 8 the position could not be ascertained. He briefly considered the symptoms and signs, pointing out that the diagnosis when the patient came to hospital was usually based on the history of the accident and the subsequent history of the patient as regards locking of the joint, etc. Twenty-five of the cases were miners who had been injured in the pit; twenty of these had the joint injured by a sudden extension movement. The treatment recommended was operative, and by that he meant removal of as much of the cartilage as possible. In 3 cases where the cartilage had simply been stitched down it had to be removed subsequently. In the after-treatment the patient should be allowed to walk as soon as possible with no retentive apparatus on the limb whatever. The cases in which there was any ankylosis had all worn hinge splints subsequent to operation. Of the cases, 56 had injury to the internal cartilage and 3 to the external; 2 cases had both cartilages removed from the same joint. The ages ranged from 11 to 56 years. The average duration in hospital was twenty-two days, the least seven days, and the longest thirty-seven days. The length of time elapsing after the operation before work was resumed was from nine days to five years; 5 had not resumed work, and of these 1 had marked fibrous ankylosis. In the other 4, no satisfactory cause could be found for the alleged incapacity. In 10 cases, nine months or more elapsed before work was resumed. In the remaining 44 cases, the average time was four weeks. In the great majority of the cases creaking was felt in the joint on movement, but in no way interfered with their work. There had been no suppuration. The technique he left for discussion by the members of the society. Mr. Finch also showed a specimen of *Osteomyelitis and periostitis of the right tibia* removed by amputation from a youth of 16. The specimen showed an involucrum containing sequestra and cloacae. The supposed cause was a "twist of the ankle," six weeks before admission to the infirmary. Mr. Graham Simpson, in a paper on *Stone in the kidney*, made an analysis of 30 operations for calculus, 16 in the kidney, 4 in the ureter; 1 operation was in a case of calculous hydronephrosis, and 9 were operations for calculous pyonephrosis. Albuminuria was present in 24 of the cases, obvious haematuria in 10 only. Skiagraphy was positive in 20 out of 21 cases, and cystoscopy was useful in confirming the site of the lesion in 15 out of 19 cases. Pyelotomy was recommended for removing stones, as there was no haematuria after that operation. No case of urinary fistula occurred in this series. Of the ureterotomies, 2 were done by the extraperitoneal route, 1 by the transvesical route, and 1 by the intraperitoneal route. The latter he regarded as an excellent operation. Nephrectomy was performed nine times, once for a small contracted kidney full of stones, and eight times for pyonephrosis. Only 1 case died. In this man a nephrotomy was done for multiple stones, and the patient died suddenly on the seventh day, apparently of a pulmonary embolism.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

A meeting of this society was held on January 31st, the President (Mr. Freeland Fergus) being in the chair. Mr. A. Ernest Maylard showed several cases of *Cancer of the colon treated by operation* to illustrate abdominal incisions and methods of intestinal anastomosis. The incisions recommended were: (*a*) For exploration, the seat of obstruction in the colon being uncertain—a mid, subumbilical, vertical incision; (*b*) for caecum and lower ascending colon—an oblique incision in the right iliac region; (*c*) for hepatic flexure and upper ascending colon—a transverse incision carried outwards from a point situated above and to the right of the umbilicus; (*d*) for transverse colon—an incision carried across the abdomen 1 to 2 in. above the umbilicus; (*e*) for splenic flexure and upper descending colon—a transverse incision carried outwards from a point situated above and to the left of the umbilicus; incisions (*c*) and (*e*) gave access also to kidney tumours; (*f*) for lower descending, iliac, and pelvic colon—an oblique incision in the left iliac region. The methods of intestinal anastomosis illustrated were: (1) By lateral approximation, (2) by lateral implantation or side-to-side union, and (3) by invagination—that is, pulling a short length of the proximal segment through a longitudinal opening in the wall of the distal. The method to be adopted in any case was determined by the amount of free gut available after removal of the involved segment. Where this was limited, the first, where less limited, the second or preferably the third method was recommended. This last lessened the tendency to leakage in the event of distension of the bowel, and diminished the grave risk of infection at the mesenteric attachment. To prevent distension after operation it was advised that the sphincter ani be paralysed and a rubber tube of large calibre inserted, encircled with iodoform gauze soaked in glycerine. Through this tube gas could escape freely, and any discharges which might result from the irritative effects of the bowel wound. Dr. Crawford Renton read a short paper on *Obstruction of the bowels*. He referred to the various causes of obstruction, and recommended the sigmoidoscope as an aid to the diagnosis of tumours in the rectum and sigmoid. In very acute obstruction Paul's or Moynihan's tube was advised, to drain the bowel previous to a radical operation. The adoption of this procedure had greatly reduced the mortality. Where caecostomy had to be done, the method recommended by Kader for the stomach had been found useful. For paralysis of the bowel, eserine salicylate and pituitary gland were strongly recommended. In the last 33 cases on which Dr. Renton had operated on there were but 3 deaths, which was encouraging; and if the operations were carried out early in every case the mortality ought to be less. Dr. William Watson read a paper on *Adulteration of foodstuffs and its influence on digestion*. The 1901 report of the Local Government Board upon the use of

preservatives and colouring matters in the preservation and colouring of food showed that the substances most commonly used were boracic acid, borax, salicylic acid, formalin, and sulphites, while a large number of other substances were in less common use. One or other of these were found in 39 per cent. of all samples of food examined, including samples of milk, cream, butter, margarine, sausage, bacon, brawn, potted meat, potted fish, meat extracts, meat juices, and temperance drinks. All these substances were germicides, all were gastro-intestinal irritants, and all had a more or less inhibitory action on the digestive ferments.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

A CLINICAL meeting was held on February 4th, the PRESIDENT (Dr. Constance Long) in the chair. Dr. FLORENCE STONEY showed a woman, aged 59, suffering from *Scirrhous carcinoma of the left breast*. When first seen, seventeen months ago, the case was considered inoperable. *X*-ray treatment had been administered about once a fortnight since then. The case had remained stationary for fifteen months, except that a large ulcerated area had rapidly healed over. During the last two months several new nodules had appeared, and the patient had lost weight. The PRESIDENT showed a woman who had for twenty years suffered from *Morphoea of both legs*. A firm, slightly depressed vascular patch, about 6 in. long, was seen on each shin, and other symmetrical patches were present on the thighs. Dr. AGNES SAVILL said that the condition was rare in showing a telangiectatic condition of atrophy after twenty years. In most cases of morphoea fibrous tissue gradually developed, cutting off the superficial blood supply, and leaving the typical white lardaceous areas inlaid in the skin. Dr. OCTAVIA LEWIN showed a case of *Tertiary syphilitic ulceration of the right knee*, which had responded in a marvellous way to two injections of salvarsan given a year previously at intervals of fourteen days. Other antisyphilitic remedies had been tried without effect for seventeen years, and during this time the knee had been riddled with deep sloughing ulcers; four months after the injections of salvarsan it had entirely healed. Dr. L. GARRETT-ANDERSON showed: (1) A case of *Raynaud's disease* which was improving under treatment by massage, calcium lactate, and thyroid extract; (2) a woman having a *Swelling in the groin*, probably due to venous enlargement, though simulating a femoral hernia.

THE ninety-fourth anniversary dinner of the Hunterian Society took place on Tuesday, February 4th, at de Keyser's Royal Hotel. The President, Mr. A. H. Tubby, F.R.C.S., who was in the chair, gave the loyal toasts, and Dr. Hyslop then entertained his audience with a witty speech in proposing prosperity to the Hunterian Society. In his reply, Mr. Tubby traced its foundation back to 1819, and recalled a long list of illustrious presidents, including Bright, Lavington, and Sir Thomas Curwen. In speaking of the Hunterian lecturers, he mentioned Dr. Frederick Taylor, who had dealt with sleepiness, and Professor A. Keith, who had discoursed on the anatomical and pathological characteristics of Napoleon's remains, and cited a discussion which had taken place on anaesthesia. Before concluding the President made reference to the fact that the society had recently been turned out of its old home, the London Institute, and was now temporarily receiving the hospitality of St. Bartholomew's Hospital. He feared that it might turn out that in the future its home would be in the West End, but he preferred a City address, as he considered this advantageous to the society. The toast of the "Guests and Sister Societies" was ably proposed by Dr. W. Langdon Brown, who twitted the previous speaker for claiming that the society was the second oldest of the learned societies. He mentioned that the Abernethian Society had a prior claim. Sir W. Watson Cheyne, Bart., replied for the Medical Society of London, and Sir Francis Champneys, Bart., for the Royal Society of Medicine. Dr. Latham, who also replied, referred to the work of the Astor Committee and foreshadowed great things from the grant for medical research. The toast, "The Orator and Officers," was given by Dr. W. M. Ettles and responded to by Dr. Goodall. Dr. F. J. Smith gave the health of the President, and Mr. Tubby replied briefly.

Reviews.

ACHONDROPLASIA.

IN the title of his book—*Achondroplasia, its Nature and its Cause: A Study of the Stunting of Growth in Embryonic Cell Groups caused by Amnion-pressure in the Different Stages of the Skeleton*,[1] Dr. MURK JANSEN, Lecturer on Orthopaedic Surgery in the University of Leyden, explains succinctly enough the purposes which he has set before him. The monograph is divided into two parts; the first, which studies the nature of achondroplasia, is chiefly clinical, and the second, which discusses the cause of achondroplasia, and concludes that it lies within the province of teratology.

In the first part the author furnishes us with a minute description and accurate measurements of the abnormalities met with in the several degrees of achondroplasiac dwarfism, and he demonstrates with the utmost clearness that the amount of retardation of growth in the various skeletal structures varies directly, not with their distance from the head or centre of the body, not with the time of their ossification, not with the time of their change into cartilage, but accurately with the time of their primary formation as sclero-blastema. Influences prejudicial to development acting upon the primitive cell groups at this early period are sufficient to retard permanently the growth of the structures, and this retardation is most marked in those parts of the skeleton which are latest formed and most immature at the time of injury.

Secondly, the author is able to demonstrate equally clearly that with achondroplasia are constantly found certain other deformities not characterized by the stunting of growth, and these he describes under the heading of "Mechanical Malformations." Among these are a marked shortening of the basis cranii from before backwards, compensatory enlargement of the skull from side to side, depression of the bridge of the nose, backward displacement of the hard palate and tilting upwards of its hinder end, arcuate kyphosis of the spine, and bending forward of the sacrum and coccyx between the legs. The author endeavours—and we think successfully—to show that these mechanical malformations which, inasmuch as they are much less conspicuous than the phenomena of dwarfism, have for the most part hitherto passed unnoticed, are occasioned by the unfolding of the embryo, and by an exaggeration of the head and neck curves of the embryo as it lies within the uterus. He concludes that the period of excessive infolding characteristic of achondroplasia coincides with the scleroblastema stage of the skeleton, and that it is limited on the one hand by the "physiological curving" of the third, and on the other by the "physiological stretching" of the sixth week of embryonic life. The excessive infolding is in turn the result of excessive amnion pressure. In the last part of his book he discusses the relation of other occasional and less characteristic symptoms of achondroplasia to excessive amnion pressure and excessive infolding of the embryo. Among such occasional symptoms are hare-lip, micrognathy, agnathy, myxoedema, hydrocephalus, gas bubbles in internal organs, subcutaneous fatty masses, and excess of sexual appetite. This last symptom, according to the author, finds explanation in the disturbance in the development of the pituitary body, which undoubtedly exists in the severer cases.

We confess that we are not entirely satisfied with the evidence that exaggeration of sexual function is common or usual in achondroplasia. The references to the literature quoted are explicable if we remember that a normal sexual activity and a normal development of the sexual organs is likely to excite remark when contrasted with the apparent immaturity of the rest of the body. Be that as it may, we believe that the views expressed in this work will profoundly influence our conception of the nature and cause, not only of achondroplasia, but of many other developmental abnormalities. We have nothing but admiration for the remarkable powers of

[1] *Achondroplasia, its Nature and its Cause: A Study of the Stunting of Growth in Embryonic Cell Groups caused by Amnion-pressure in the Different Stages of the Development of the Skeleton* (anencephaly, achondroplasia, kakomelia). By Dr. Murk Jansen, Lecturer on Orthopaedic Surgery, University of Leyden, Holland. Leyden: E. J. Brill, Ltd. London: Baillière, Tindall, and Cox. 1912. (Demy 4to. pp. 98, figs. 50.)

observation, reasoning, and imagination of which the author shows himself possessed. His work may well be the starting point of much fruitful investigation in the domain of teratology and congenital abnormality.

PUERPERAL INFECTION.

DR. HAMM'S monograph on puerperal infection[2] is an interesting summary of the present position of the various scientific questions that group themselves under this title, and loses none of its interest from the fact that it purports to give the finishing stroke to the doctrine of sapraemia. The author, who has himself worked through most of the relative investigations in the laboratory, adopts a classification based on that of Aschoff for the possibilities of infection, and then passes to the detailed discussion of the evidence relating to individual micro-organisms. This discussion occupies almost half of the whole number of pages, and is followed by considerations of puerperal predisposition to infection and of virulence, of which not haemolytic power but rapidity of growth and presence in pure culture are the best criteria. He then passes to more clinical questions in the consideration of the forms of puerperal fever. In the course of this he indicates that there is no essential difference in the various lymphangitic types, save in the rapidity of spread, and states that bacterial multiplication in the blood itself is merely a premortal phenomenon. This section concludes with the statement that since in cases of rise of temperature on the evening of delivery he always found numerous micro-organisms in the vaginal secretion, often in pure culture, these cases must be looked upon as the expression of an endogenous infection of a slight kind.

On the therapeutic side we find a strengthening of various recognized positions, such as the sparing, but not always conservative, treatment of abortions, even when haemolytic organisms are present, the reinforcement of uterine contraction by ergot, the leaving of retained membranes which are not removed immediately on delivery, and the douching of the vagina with hydrogen peroxide. The uterine douche may be used once when it can remove matter that would serve as pabulum for organismal multiplication. Dr. Hamm is sceptical of the efficacy of the various methods of bacterial therapy that so far have been employed.

OPERATIVE SURGERY.

THE new edition of BINNIE'S *Manual of Operative Surgery*[3] is published in one volume instead of two. This, as the author points out in the preface, is a reversion to the original form of the book. The work is a complete departure from the average type—the old-fashioned type—of textbook on operative surgery, in which predominance was given to amputations, excisions, and ligature of vessels. These for the most part were nothing more or less than surgical exercises, and were seldom or never required to be performed on the living subject. The manual of operative surgery of to-day must contain descriptions of all the newest operative procedures, and a diligent search in this work has found no omissions. Indeed, it is possible that a severer discretion might have been exercised with advantage, and reference to some operations not in the least likely to stand the test of even a very short time might have been profitably omitted. The author has preserved the balance of the various sections in a satisfactory way, and the regions have each a due proportion of space. There is no waste of words in describing the different steps of operations, but rather is there a tendency for descriptions to lose in lucidity what they gain in brevity. The method adopted is to describe step 1, step 2, and so on, and under each step different modes of performing it are detailed. References to the original sources are given in every case. A notable feature is the large number of illustrations; these are rather unequal, but the inequality is explained by the fact that almost all are reproductions of the originals which range through the whole gamut, from the simple sketch illustrating Lister's operation for old-standing ununited fracture of patella with explanatory notes in his own handwriting to the elaborately detailed fine lines of the Mayo stomach pictures. The proof reading seems to have been hurriedly done; we find blunders on pages 314, 516, 539, 853, amongst others. The merits of the work are undoubtedly great, and its already well-recognized position will be more firmly established than before. Surgeons will find it a thoroughly cosmopolitan book, in which the whole range of the very newest of modern surgery as well as of surgery of remoter date is concentrated.

The fourth edition of Mr. H. J. WARING'S *Manual of Operative Surgery*[4] has followed quickly upon its predecessor. The whole work has been revised and the high standard has been thoroughly maintained. Descriptions of some new operations, for example, those connected with blood vessel surgery, have been introduced and those of some old ones omitted. Such a constant regenerating process is necessary. Operations on the limbs are much fewer than even a few years ago, and those on the abdomen, head, and thorax are much increased in number. Some more operations might well have been omitted from Mr. Waring's list. Many of the operations for ligation of arteries are merely dissecting-room exercises seldom or never performed on the living subject. Similarly, some of the amputations might have been cut out. The employment of skiagraphs of the hand and foot in illustrating the lines of incision in certain amputations is to be heartily commended; the relation of the incision in the skin to the line of section through the bone is made strikingly clear. In the preface the author says that the question of anatomical terminology has been carefully considered and that he has adopted the international terminology throughout. This is certainly a little confusing, but the student has at hand in the beginning of the volume a glossary of this terminology. In spite of this it is sometimes difficult to find the new equivalent of certain terms in the old terminology. Changes of this sort are not popular at first, but any change which makes for the unification of scientific language and description ought to be accepted as graciously as possible. No alteration in the arrangement of the work has been made. After two very complete introductory chapters on general surgical technique brought thoroughly up to date the student is plunged at once into the intricacies of gastric surgery. We remember that in a former edition Mr. Waring explained this apparent departure from a gradual leading on from simple operations to more and more difficult ones. After all, the book is intended to reach a wide circle of readers, and the student must turn to the index to find what he wants. This manual is a safe guide in operative work, as absolutely sound in its teaching, and one well fitted for every-day use by the practitioner. It is hardly necessary to add that as one of the Oxford Medical Publications the publishers' part of the work is well done. The illustrations are apt and not too numerous. We have discovered so far two clerical errors: on p. 167, fifth line from bottom of page, and on p. 361, where the word "facial" has been maltreated.

The temptation to write a textbook on operative surgery seems difficult to resist. Probably many of them have in a manner grown very much as Topsy "growed." The teacher begins with a few loose leaves of notes for the use of his pupils, then these are printed and extended, then the students ask if they cannot buy these notes, and so very soon a book is launched into the world. Perhaps Professor VICTOR SCHMIEDEN'S book[5] did not grow up in

[2] *Die puerperale Wundinfektion.* Von Dr. Albert Hamm, Oberarzt an der Universitäts Frauenklinik in Strassburg, I.E. Berlin: Julius Springer. 1912. (Roy. 8vo, pp. 167. Mk.6.)

[3] *Manual of Operative Surgery.* By John Fairbairn Binnie, A.M., C.M.Aberd., Surgeon to the General Hospital, Kansas City, Mo., Fellow of the American Surgical Association. Fifth edition, revised and enlarged. London: H. K. Lewis. 1912. (Roy. 8vo, pp. 1165; figs. 1365. 30s. net.)

[4] *Manual of Operative Surgery.* By H. J. Waring, M.S., M.B., B.Sc.Lond., F.R.C.S., Surgeon to and Joint Lecturer in Surgery at St. Bartholomew's Hospital, Consulting Surgeon to the Metropolitan Hospital. Fourth edition. London: Henry Frowde, and Hodder and Stoughton. 1912. (Cr. 8vo, pp. 828, figs. 541. 12s. 6d. net.)

[5] *Der chirurgische Operationskursus.* Ein Handbuch für Aerzte und Studierende. Von Professor Dr. Victor Schmieden, Privatdozent der Chirurgie an der Universität, Berlin; Assistant der Kgl. chirurgischen Universitätsklinik. Zweite, erweiterte und verbesserte Auflage. Mit 435 Abbildungen im Text und einem Vorwort von Professor Dr. A. Bier. Leipzig: Johann Ambrosius Barth. 1912. (Royal 8vo, pp. 480. Mk. 14.50.) And *The Course of Operative Surgery.* By Professor Dr. Victor Schmieden. Translated and edited by Arthur Turnbull, M.B.Glasg., M.A., B.Sc., Demonstrator of Anatomy in the University of Glasgow. London: Baillière, Tindall, and Cox. 1912. (Roy. 8vo, pp. 365, figs. 435. 12s. 6d.)

this way, though its appeal appears to be more or less local and limited. It is local in so far as it is the practice of Professor Bier's clinic which has been closely followed, and it is limited in that the book is avowedly concerned more with operations on the dead subject than on the living. But in spite of these limitations the volume will be found very useful. It is convenient in size; the descriptions of operations are concise without loss of clearness; the numerous illustrations are of a very high standard of artistic merit, and yet they are anatomically and surgically accurate. The practitioner who seeks for guidance will find the principles of the surgical art well set forth; for details he must go elsewhere. The student will find the book excellent and readable, and he will be relieved to see that the text is not overburdened with names of operators and suggestors of operations, and that simple methods have been everywhere preferred to complicated ones. There are some points to which attention should be drawn. In the description of the mastoid operation we find no mention of the dental burr, an instrument which makes the exposure of the sigmoid sinus and the mastoid cells a much safer and easier business than the employment of chisels throughout. The operation is by no means clearly described. The author says that "Syme's amputation is not often employed in practice," and prefers Pirogoff's, but we believe that Syme's is the commoner operation, in this country at least. No description is given of nephrectomy by the abdominal route. Simultaneously with the second German edition appears the first edition in English. The translation is by Dr. ARTHUR TURNBULL of the Anatomy Department, Glasgow University. Dr. Turnbull adheres absolutely to the text, adding only a few notes here and there, and a name or two on some illustrations. The English of the translation is not always unimpeachable; for example, on page 256 we find "very grave risk of the transverse colon *going* gangrenous," and throughout the translation there is a too manifest tendency to adhere to German idiom and phraseology. The translator perhaps flatters himself and the author when he expresses the belief that the book will become the "student's handbook in every college where English is the medium of surgical instruction." We are patriotic enough to hope that quite as good books are written by English authors for English-speaking students. We observe that the proof reader has passed at least two errors: on page 181, second line from foot of page, and on page 203 in the descriptive lettering of the illustration.

Professor PELS-LEUSDEN'S work on *Surgical Operations*[6] is on the whole a good average book. In the preface he disclaims any attempt to range over the whole field of operative surgery, but his effort to be brief without omitting anything important has not been very successful, for the book has 726 pages, of large size. We do not think that anything important has been omitted, but we do think that there are things in it which might well have been omitted, and others which might have been done a great deal better. We cannot think that any good purpose is served by the description of Momburg's method of constriction to control the abdominal aorta, and the omission of other methods much less dangerous. And we venture to think that the translator errs when he says in a footnote that Momburg's method has "gained an honourable position in obstetrical and surgical practice." As to the things which might have been done better we take the description of suprapubic prostatectomy. Freyer's method is supposed to be adopted; but the description differs widely and in many details from the Freyer operation as we understand it. In the chapter on nephrectomy we find the two routes sufficiently well described, with, perhaps, too sanguine an estimate of the ease of the transperitoneal method. The author takes the tuberculous kidney as his type, and it is difficult to accept the opinion expressed that it does not greatly matter although some portions of diseased renal tissue are left behind, as permanent cure results. The most likely thing to happen is the persistence of a permanent and troublesome sinus—and that is not cure. The author recommends that the thickened ureter should be followed down as far as possible, ligated, and stitched to the lower extremity of the external wound, where it may later receive proper irrigation treatment. The practice in this country is to sterilize the cut end of the ureter and drop it back into the wound, where, as experience shows, it is harmless. In the chapter on bone and suture of bone there is no reference to Lane's plates; indeed, there is a notable absence throughout the volume of reference to the work of other than German and French surgeons. The chief merit of Professor Pels-Leusden's book, indeed, consists in this—that it is representative of German surgery. The translation is by Dr. FAXTON E. GARDNER, but we cannot conscientiously congratulate him on the result.

[6] *Surgical Operations: A Handbook for Students and Practitioners.* By Professor Friedrich Pels-Leusden, Chief Surgeon to the University Surgical Clinic and Chief of the University Polyclinic in the Royal Charity Hospital of Berlin. Only authorized English translation, by Faxton E. Gardner, M.D., New York. London: Rebman, Limited. 1912. (Sup. roy. 8vo, pp. 756; figs. 668. 30s. net.)

NEUROLOGICAL SURGERY.

PROFESSOR KRAUSE'S monograph on the surgery of the brain and spinal cord,[7] the translation of which by Professor HAUBOLD of New York is now completed in three handsome volumes, is an elaborately illustrated and completely documented work. But it is more than that: it is a storehouse of information simply and carefully recorded by a surgeon of almost unrivalled experience in this field; it is a work of reference to which every other surgeon will certainly be indebted. In our preliminary notice of the first volume we praised the coloured plates, but did them less than justice; a fuller acquaintance with the work of the portrait painter Max Landsberg convinces us that the pictures do indeed illustrate the technical and pathological conditions disclosed at actual operations; certainly they form a valuable addition to the instruction in the text. The first volume is largely concerned with general principles and technique. Krause employs an osteoplastic method exclusively on the skull; he uses no electrical instruments, but relies on burrs and Dahlgren forceps, avoiding even Gigli's saws. He pays great attention to preliminary and permanent haemostasis. The two-stage method, except for abscess, is his choice, with an average interval of six days. The precise directions given for dealing with leptomeningitis, cysts, tumours, cortical excisions, abscesses, as regards bone, dura, drainage, dressings, and other details, are valuable. His methods of approach to the Gasserian ganglion and pituitary body are already well known. It is interesting to find that he does not agree with Cushing as to the best site and method of decompression. In the closure of large defects he favours an osteoplastic method, but employs also free transplantation of bone. For topography he relies upon Krönlein, finding Kocher's method inaccurate. His experiences of temporary and permanent drainage of the ventricles are not very satisfactory. It may be noted that he does not use morphine as a preliminary to anaesthesia in brain operations; neither does he wear gloves when exploring the cranial contents; there is no doubt that gloves do eliminate the fine shades of tactile sensation which may be essential for delimiting some brain tumours. It is, however, when we reach the second and third volumes that we realize the wealth of the author's clinical experience, and the assiduity with which the full benefit of every individual observation has been extracted. It is only by reading *in extenso* the clinical histories incorporated in the text that the brief introductory paragraphs on each section of the subject, and each branch of it, are wholly appreciated. This involves, of course, great expenditure of time, but the time is well spent; and cumbersome though the method is, it is probably unavoidable where there are such enormous differences even between analogous cases, as there often are with cerebral and spinal disorders. More than two hundred pages are devoted to "Epilepsy," including Jacksonian; to those the result of infantile palsy, birth injuries, tumours, intoxications, reflex irritation, and to those without anatomical lesion; genuine general epilepsy; traumatic and reflex epilepsy. Some of his results are very remarkable; many are disappointing; and this applies both to cases in which a definite lesion is discovered and to those in which cortical excisions were made at the initiating centre.

[7] *Surgery of the Brain and Spinal Cord.* By Professor Fedor Krause. Translated by Professor H. A. Haubold, M.D. Three volumes. Numerous coloured plates and figures in text. London: A. K. Lewis. 1910-12. (Imp. 8vo, pp. 1201 30s. net each volume.)

When he comes to the consideration of neoplasms, Krause's regional differentiation of focal symptomatology is of great importance. No better indication of its value could, perhaps, be offered than the written diagnoses attached to the cases when sent to the author for operation by his colleague, Oppenheim; they are models of precision. In Volume III the question of prognosis is discussed; it is, of course, melancholy, but far less so than it used to be. The mortality in different regions varies from 25 to 66 per cent.; the cures are, however, in many cases permanent and practically complete. Of 81 neoplasms only 9 were solitary tubercle; the gliomata numbered 21, sarcomata 15, and fibrosarcomata 11. Of 24 patients with tumours of the cerebello-pontine angle only 4 were cured. Intracranial suppuration, wounds, and injuries are dealt with a little briefly by comparison. The spinal cord is treated with just the same thoroughness as the brain, both as to diagnosis, prognosis, and operative technique; the case-histories and pictures should afford a parallel for almost any problem a surgeon may have in hand. In the face of a pathetic appeal in his preface it would be unfair to criticize the translator; but it is difficult to excuse a carelessness that renders "Vorderbein," in an important passage, by "forebone."

Dr. L. N. DENSLOW has obtained such encouraging results by the surgical treatment of tabes dorsalis that he has laid them before the medical profession in a small book.[8] He finds in every male case of this disease, without exception, an abnormal condition of the urethra; and that by suitable treatment of this condition many of the signs and symptoms may be cured, alleviated, or held in check. Syphilis, he holds, is not enough to cause locomotor ataxy; the most prominent additional factor in the male is urethral irritation, and the preponderance of male over female cases may be accounted for by the greater extent of the urethral surface in men. Dr. Denslow first examines his patients most carefully with the urethroscope or the Otis urethrometer, to find erosions, granulations, or strictures. Care must be taken not to irritate a hypersensitive urethra; the lesions, when found, are given the appropriate local treatment. At the same time care must be taken to avoid constipation (which is the rule in tabes) and gastric disturbances. He believes that urethral irritation, using the term in a very wide sense, is the cause of all sorts of disturbances of health in many cases, instancing *inter alia* epilepsy, melancholia, partial paralysis, syncope, general alopecia, acne, functional eye troubles, anaemia, cystitis, and uraemia. Dr. Denslow carries out his local treatment for long periods, usually three months, in one case quoted for seven. His book may be commended to the attention of specialists in diseases of the genito-urinary system and to neurologists.

SYPHILIS.

As the author states in the preface of the second edition of *Syphilology and Venereal Disease*,[9] great changes have lately taken place in our outlook on this whole subject. Mr. MARSHALL published the first edition of this book in 1906, and he was able to include therein some mention of Schaudinn's great discovery of the *Spirochaeta pallida*, which has since been so fully confirmed and amplified; but the Wassermann reaction had not then been invented, nor had diamidoarsenobenzol been synthetized. There is, however, yet another change which marks a still greater advance, slowly affecting the whole of syphilology, and that is the increasing recognition of the importance of venereal disease as an influence on public health. The recognition of this factor is now illustrated (at the expense of the medical profession) by the provision which is made in the Insurance Act that the treatment of venereal disease should form part of the medical benefit provided by that measure. But it is undoubtedly a great sign of progress that the public authorities should realize the importance of early and efficient treatment of venereal disease, and discard their old policy of merely ignoring its existence, and Mr. Marshall might have given more attention to this aspect of his subject. He has an interesting chapter on syphilis in relation to life assurance, and the book would have been increased in value by the addition of one on venereal disease in relation to public health. Important work has been done on this subject in Australia and Denmark within recent years. On the clinical side the book is strong. Primary syphilis, secondary syphilis, tertiary syphilis, quaternary or parasyphilis are all fully dealt with—as fully as is possible within the limits of a comparatively small book, and gonorrhoea and its scarcely less important complications also receive their due meed of attention. Discussion of the modern developments of syphilology is deferred to the last chapters of the volume. Mr. Marshall holds that the chief use of the Wassermann reaction is in the diagnosis of nervous affections. Whether others agree with such a limitation of its utility or not, and most observers, we fancy, would testify to the information they have derived from it in many other obscure cases, there can be no doubt that he is right when he says that clinical evidence should never be supplanted by laboratory tests. As regards the treatment of syphilis with salvarsan Mr. Marshall is well known to hold very conservative views, but in his chapter on the subject he gives a very fair summary of the case for and against the use of that remedy—in fact, the conclusions at which he arrives are far more favourable to salvarsan than one would expect, after reading the sarcastic comments on the subject which he has frequently published in letters to the medical press. In conclusion, it may be said that the book forms a very useful guide to the study of venereal disease. Its value is enhanced by the inclusion of a large number of references at the end of each chapter, but it might with advantage have been more fully illustrated.

Dr. MARCHILDON'S book on the *Wassermann Reaction*[10] is another addition to the many works dealing with this subject, and, like most of its kind, attaches rather undue importance to the diagnostic and therapeutic values of the reaction. Without in any way wishing to belittle the value of the work done by laboratory workers, it would almost seem necessary to remind some of them that syphilis was not infrequently diagnosed and successfully treated prior to Wassermann's discovery. The technical part of the book is clear and concise, but as regards the interpretation of results we find several contradictory statements. For instance, on page 73 the author states that many eruptions can be readily distinguished from syphilis by the Wassermann reaction, while on the same page he says that a positive reaction only means that the patient is syphilitic, not that the lesion is necessarily syphilitic. Again, on page 92 he says that he has never obtained a complete negative reaction after potassium iodide alone, while on page 95 he remarks that the reaction may entirely disappear under this drug. Another apparent contradiction concerns the nature of the antigen; for, after stating that the value of the antigen does not depend on the quantity of spirochaetes contained in the tissue, he says that the ideal antigen would be a pure culture of the *S. pallida*. Again, the author's conclusion that in some early cases of chancre after prompt energetic treatment the reaction "remains negative throughout life" is somewhat premature, considering that the reaction was only discovered in 1906.

A PUBLIC MEDICAL SERVICE PHARMACOPOEIA.

THE advanced condition of the organization of the Leicester Public Medical Service is shown by the fact that the board of management has now published a pharmacopoeia for use in the district in the work of all branches of the service. It contains some eighty formulae; in some cases these are similar in essentials to official formulae and can be used in place of them, as in the case of compound decoction of aloes, in which the expensive saffron is omitted and ginger takes the place of compound tincture of cardamom. The greater number of the formulae, however, are for mixtures, pills, lotions, gargles, etc., frequently in use, but for which no formulae

[8] *A Surgical Treatment of Locomotor Ataxia.* By L. N. Denslow, M.D. London: Baillière, Tindall, and Cox. 1912. (Cr. 8vo, pp. 128. 3s. 6d. net.)

[9] *Syphilology and Venereal Disease.* By C. F. Marshall, M.D., M.Sc., F.R.C.S. Second edition. London: Baillière, Tindall and Cox. 1912. (Cr. 8vo, pp. 572; 5 plates. 10s. 6d.)

[10] *The Wassermann Reaction.* By T. W. Marchildon. London: Henry Kimpton. 1912. (Cr. 8vo, pp. 114, with 11 illustrations and coloured frontispiece. 6s. 6d. net.)

are included in the *British Pharmacopoeia*. The prescriptions are excellent and the compounds are inexpensive; it is, of course, important, for the purposes for which this pharmacopoeia is compiled, that money should not be wasted on useless ingredients or on expensive articles when cheaper ones are equally efficient; thus the use of "sweet oil" in place of olive oil is authorized, and another note states that "non-alcoholic tinctures may be used in the preparation of these formulae where pharmacological action will not be impaired." By arrangement with the chemists of the district, medicines prepared in accordance with this pharmacopoeia are kept ready for use, as well as the ordinary medicines of the *British Pharmacopoeia*; and these formulae will also be recognized for insured persons, except where preparations not in the tariff or the *British Pharmacopoeia* are included. In these cases equivalents will be substituted in accordance with a list issued by the Chemists' Association, the titles of the formulae remaining the same. Formulae are given both in imperial and metric weights and measures. The book is thin, of convenient dimensions for the pocket, and interleaved with plain pages, and it would not be surprising to find it adopted in other districts as well as that in which it has been produced. The office of the Leicester Public Medical Service is at East Bond Street, Leicester.

NOTES ON BOOKS.

A VAST number of writers have taken advantage of the crusade against tuberculosis to express their views as to prophylaxis and treatment. For the most part they merely repeat an oft-told tale. The writer of this little book, a practitioner of forty-seven years' standing—*Notes on the Treatment of Tuberculosis*[1]—being convinced of the virtues of a certain prescription containing some little used drugs, is anxious that others should benefit by his experience. As a strong believer in the need for calcium salts as a protective, especially in childhood, and in the value of cod-liver oil, he sets forth his opinions with much argumentative skill, backed by quotation from writers of varying degree of authority; but the arguments all lead up to the prescription and the calcium salts at last. A compact little book, well printed and set up, containing many sound observations and much good advice within a limited range.

The eleventh number of the Clinical Series of the *Archives of the Middlesex Hospital* includes a paper by Sir Pearce Gould on some unusual cases of mammary growths; a review of one hundred cases of chorea treated by chloretone, by Dr. Essex Wynter; some notes on thrombosis, by Mr. Somerville Hastings; a paper on the significance of rheumatic rashes, by Dr. E. A. Cockayne; an interesting report on an unusual case of carcinoma of the pelvic colon, by Mr. Alfred E. Johnson and Mr. Lakin. Mr. Alfred E. Johnson contributes an interesting short note on the substitution of the application of tincture of iodine for dressings. After reading Mr. Reginald Alcock's paper on iodine as the sole dressing for operation wounds, in the BRITISH MEDICAL JOURNAL of February 3rd, 1912, Mr. Johnson used tincture of iodine and discarded dressings in cases where the wound was closely sutured. In this way he treated over fifty cases of operation, including 12 operations for the radical cure of hernia, 12 for appendicitis, 4 coeliotomies, 2 nephropexies, 2 for undescended testis, and 6 for removal of superficial tumours. In a few cases where dressings were considered necessary at first—for example, in amputation of the breast until the drainage tube was removed, and in excision of varicose veins to support the limb for forty-eight hours—they were given up as soon as possible, and iodine solution applied. The results, he states, were most gratifying; the comfort of the patients was increased, and the wounds healed even better than with dressings; in no case did the slightest inflammatory reaction occur. This number of the *Archives* contains also a communication on methods in mental therapeutics, by Dr. H. Campbell Thomson; a report by Dr. Comyns Berkeley on two cases of chorion-epithelioma; a note by Mr. Sampson Handley on two fatal cases in which acute appendicitis lighted up an old tuberculous lesion; and a case of rupture of the vagina during coitus, by Dr. Victor Bonney.

[1] *Notes on the Treatment of Tuberculosis* By John Laird, L.R.C.S. and P.I. Bristol: John Wright and Sons, Limited. London: Simpkin, Marshall, and Co. 1912. (Cr. 8vo, pp. 85. 2s. 6d. net.)

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY REMEDIES.

WITH the end of the Parliamentary Session the authority of the Select Committee appointed to inquire into the sale and advertisement of proprietary medicines lapses, but at the meeting of the Committee on February 6th the Chairman (Sir Henry Norman) announced that as the investigations had not been concluded a report would be presented to the House of Commons recommending that the Committee be reconstituted next Session.

WOODWARD'S GRIPE WATER.

The first witness called was Mr. William Woodward, managing director of Woodward Limited, of Nottingham, proprietors of Woodward's Gripe Water. The witness stated that the preparation was based on the prescription of a family physician; in Nottingham it was recommended by members of the medical profession, and two of them, to his knowledge, purchased considerable quantities for dispensing. He complained that the formula published in *Secret Remedies* with regard to the preparation was inaccurate, seriously incomplete, and misleading. One active ingredient of considerable medicinal value was omitted. Dealing with the general question, the witness expressed strong objections to the publication of formulae. He claimed that the prime cost of the ingredients of proprietary medicines bore a larger proportion to the sale price than in the cost of ingredients of most medicines dispensed by doctors.

In reply to Dr. Chapple, the witness agreed that it might be a good thing if the exaggeration that prevailed in advertisements of proprietary medicines could be suppressed, but he did not think legislation was necessary to that end.

STEEDMAN'S SOOTHING POWDERS.

Mr. J. A. South, manager of the firm of Steedman and Co., 272, Walworth Road, S.E., manufacturers of Steedman's Soothing Powders and other preparations, said that the soothing powder had been on the market since 1820. The medicines sold by the firm were compounded by a pharmaceutical chemist, and the formulas were known only to the firm and to Mr. Hake, who would appear.

The Chairman called the attention of the witness to a statement on the label of the packets of soothing powders to the effect that "to prevent substitution His Majesty's Honourable Commissioners of Excise had ordered the name of John Steedman to be printed on the Government stamp."

The witness replied that this statement had been withdrawn.

Mr. Lawson: It rather implies that the Government is at your back?

The Chairman: It does not imply it; it states that to be the case.

The witness was questioned with regard to a pamphlet issued by his firm, bearing on its title-page the words—"Hints to Mothers on the Treatment of their Children. By M.D. of London." He said that the services of the doctor in writing this pamphlet were obtained through an agent. He did not know the name of the writer, as it was made a special condition that this should not be revealed.

The Chairman: You must realize that that is a very unsatisfactory statement from our point of view. Here is an advertisement of a proprietary medicine written by a man with the highest medical qualification in the world. Did he write the parts relating to Steedman's Powders?

The Witness: If not, they were submitted to him.

Have you his authority for saying that everything was submitted to him, and he approves of it?—Certainly.

Pressed to give the Committee the name of the doctor either publicly or privately, the witness retorted that Dr. Cox said if he knew of a medical man doing such a thing as this he would report his conduct as infamous in a professional respect. After that, how could he give the name to the Committee?

The Chairman: Then it amounts to this: that the medical man desires to have his name suppressed because he knew he was committing an act contrary to the etiquette of his profession.

In reply to further questions, the witness said the

medical man who wrote the pamphlet had no interest in the business. He could not say definitely whether he received payment; an agent made the arrangements.

Mr. Cawley: You are sure he was paid?

The Witness: I think it is very probable.

The Chairman: It is in our power to require you to produce the correspondence. The public interest, if the Committee so decided, would override your promise. It is a serious matter that an advertisement of a proprietary medicine should be circulated in the name of a medical man with a very high qualification. We should like to have asked him his views as to the therapeutic effect of the medicine.

Dr. Chapple pointed out that "M.D. of London" was not the orthodox way of describing a medical graduate of London University. A doctor reading "M.D. of London" would conclude that the person so described was not a holder of the London University degree, but perhaps resided in the metropolitan area.

The witness promised the Chairman that he would endeavour to obtain permission to disclose the doctor's name, either publicly or privately. As he expressed a desire to refer the Committee to Mr. Hake as to the therapeutic value of Steedman's Soothing Powders, no further questions were addressed to him.

Mr. Henry Wilson Hake, the next witness, said he was a member of the Institute of Chemistry, a Fellow of the Chemical Society, and lecturer on chemistry and toxicology at Westminster Hospital. He held the degree of Ph.D. of Giessen University.

The Chairman: You appear here in connexion with the manufacturers of Steedman's powders?

The Witness: I should not like to put it in that way; I come here to correct an erroneous statement in *Secret Remedies*. Continuing, the witness said the analysis given in that book was incomplete, and gave an entirely erroneous impression as to the composition of the powders.

The Chairman: You will naturally expect that we shall wish to recall Mr. Harrison and submit the preparation to the arbitration of the Government analyst?

The witness said he entirely agreed with that course being taken. As to the analysis in *Secret Remedies*, he said that one of the ingredients which had been entirely overlooked was discoverable by chemical analysis, and was an important constituent having a useful therapeutic effect. It was a simple and commonly prescribed drug. One of the drugs used contained a very minute preparation of an alkaloid; this was so minute as to be probably undiscoverable in a single powder. The statement in *Secret Remedies* as to the percentage of ash had no definite meaning, as the ash would be a mere product of the incineration of any vegetable matter present. The therapeutic effect of the formula given in *Secret Remedies* and the actual prescription used by the makers would be entirely different. He had carefully analysed a packet of twenty-four powders, and found that their composition agreed with the formula disclosed to him by the company. He also analysed the powders in 1904 and 1909 with practically identical results.

The Chairman: Does it surprise you that an analyst of presumably high standing should make a public statement regarding the contents of a medicine which gives an entirely erroneous impression?—It not only surprises me, but I think it is a very regrettable matter.

Is the analysis in this case difficult from an analyst's point of view?—It ought not to be difficult to a chemist who had a knowledge of drugs and was accustomed to handling them. I do not wish to say anything against Mr. Harrison, but I think if he had possibly taken a little more trouble, or consulted a brother chemist who possibly might know a little more in that particular direction, I think he would have made a better analysis.

Mr. Harrison made a great number of analyses?—Far too many, I imagine. These things take a very long time if one has no information as to the formulae.

But there is no special difficulty about this particular analysis?—The ordinary analytical chemist might find great difficulty in these matters.

Dr. Chapple: Why?

The Witness: Because it deals with chemicals not in the ordinary ken of the analytical chemist.

The Chairman next invited the witness to deal with the therapeutic effect of the powders, and particularly with the effect of calomel upon young children. The witness replied that he could quote some medical opinions; he was not a medical man but a chemist.

The Chairman: That places the Committee in a difficulty. Mr. South referred us to you on this point, so we refrained from asking him any questions.

In reply to Dr. Chapple, the witness said the analysis in *Secret Remedies* only omitted one ingredient; it was accurate in all other respects.

THE ASSOCIATION OF PUBLIC VACCINATORS OF ENGLAND AND WALES.

ANNUAL MEETING.

THE annual meeting of the Association of Public Vaccinators of England and Wales was held at the Hotel Cecil, London, on January 31st. The chair was occupied at the commencement by Dr. A. H. MARTIN (Evesham), the retiring President. The annual report and financial statement were approved and adopted. The TREASURER reported a satisfactory balance on the year's working. Drs. Major Greenwood (London), Sharman (London), Bateson (Bradford), and Rose Smith (Liverpool) were elected to fill four vacancies on the Council. Dr. Arthur Maude (Westerham) was elected President for the present year. The retiring President was heartily thanked for his services during the past year.

The PRESIDENT gave an interesting address based on a recent report by Professor Kirchner, issued by the German Government. Dr. Maude suggested that our Government would do well to issue a translation of the report. Interesting extracts were then read from a volume of biographical essays recently published in America. The eulogy of Jenner was the most warmly expressed of all.

Annual Dinner.

In the evening the annual dinner was held at the Hotel Cecil. In the absence of Dr. W. T. Williams (Manchester), Dr. HOLMES (Liverpool) proposed "The Guests," and Sir JAMES CRICHTON-BROWNE, who replied, said he came to that dinner with mingled feelings of pleasure and pain. It was a pleasure to meet a large body of professional brethren who were engaged in an eminently useful public work, and who were diligently and efficiently safeguarding the national health. It was a pain to reflect that those services were not more justly appreciated and fully utilized. The number of conscientious objectors who proved to the satisfaction of one stipendiary magistrate or two magistrates in petty sessions—a discrete or a confluent authority—that they believed that vaccination would be prejudicial to the health of their offspring was increasing largely, and it seemed to him to be just another illustration of the spirit of lawlessness and defiance of authority that was abroad and of the apathy of the public on questions vitally affecting its welfare. It was difficult in these days for the still small voice of scientific wisdom to make itself heard, but any turbulent and noisy coterie was allowed to influence the course of legislation. Sir James next paid a tribute to Dr. Monckton Copeman's scientific work in connexion with vaccination, and made an amusing reference to the possibility of a militant agitation against vaccination. As a patriotic Scotsman he sometimes thought that Jenner's investigations and experiments might have been stimulated by conversations he had with John Hunter, that illustrious surgeon and anatomist, and that thus Scotland had had a finger in the pie. As in the case of many other great and beneficent inventions and discoveries, vaccination was anticipated in popular belief before it assumed a scientific shape.

Surgeon-General G. J. H. EVATT, C.B., with whose name also the toast was coupled, expressed his pleasure at being associated with an organization of medical men charged with the important public duty of applying a scientific preventive remedy to the population against a very dreadful disease of which he had seen so many terrible example in his experience among unvaccinated people in India. Medical men knew the truth about these things, and it was their duty to educate the people.

The PRESIDENT (Dr. Maude) gave the toast of "The Association of Public Vaccinators of England and Wales." He contrasted the state of affairs in Germany with

England. In the former the Government issued concise and convincing literature to the public on vaccination. The association had for several years been doing a valuable educational work. It owed this largely to one man (Dr. Drury), who had been doing almost more than they could conceive it possible for one man to do. In this country the Government gave no help. The association was doing useful work, and must keep on doing it because the red terror was going to arrive. The President concluded with an appeal for increased membership of the association.

Dr. A. E. Cope, who responded, referred to the work of the Organizing Secretary (Mr. Charles Greenwood), and that of Dr. Drury, who seemed to him to be an instance of multiple personality. With Dr. Maude as President the association should have a bright and useful year.

A programme of songs and duets was provided, which contributed to a most enjoyable evening.

ONE HUNDRED YEARS AGO.

The Fasting Woman of Tutbury.

In February, 1813, the medical profession was beginning to unmask the imposture of the fasting woman of Tutbury, and our brethren of those days were reading Dr. Henderson's "Observations on the Case of Ann Moore" in the *Medical and Physical Journal*.[1] Ann Moore, by reason of her resolution and cunning and on account of the notoriety she attained to, has made her way into the pages of the *Dictionary of National Biography*;[2] and in the same work[3] is to be found a short account of the life of Dr. Alexander Henderson, who was instrumental in breaking up the fraud. The former gets 120 pages in the *Dictionary* and the latter 29!

Ann Moore was born at Rosliston in Derbyshire in 1761, and was the daughter of a day labourer named Pegg. She was a good-looking girl; she was married to a farm servant named James Moore when she was 27 years old, and was afterwards deserted by him. She had a large family; but, falling into poverty, she went to Tutbury in 1800 to try to find honest employment. At Tutbury, near Burton-on-Trent, made notable by its castle, which had served as one of the prisons of Mary Queen of Scots, Ann Moore spent the next thirteen or fourteen years of her life. She soon began to attract local attention by her long fasts, and in the years 1806–7 she was said to have lost all desire for food. It is noteworthy that she was then 45 years of age, and had, therefore, arrived at the climacteric. A steadily increasing stream of visitors came to see her and went away wondering; pamphlets began to be written about her; it was suggested that her appearance might possibly presage the coming of a famine, and finally a "watching" took place in 1808 and lasted for sixteen days. At the end Ann emerged triumphantly, having actually improved in health and spirits under the test; at least so it was given out. The crowds of visitors increased, and their sympathy must have been of a substantial nature, for in 1812 Mrs. Moore deposited £400 in the funds. In the summer of that year, however, Dr. Alexander Henderson, an Aberdonian (hard-headed we may imagine), a graduate of Edinburgh University (of 1803), and physician to the Westminster General Dispensary, paid a surprise visit to the "fasting woman of Tutbury."

He, with two friends, were in Staffordshire on other business, and it seemed a good opportunity to inquire into the story of the fasting woman. "We lost no time," wrote Dr. Henderson, "in proceeding to the dwelling of Ann Moore, whom we found sitting up in bed. . . . She did not seem in the least discomposed by our abrupt entrance, though, on reaching the house, some bustle was heard in the upper story, as if preparations had been making for our reception." Dr. Henderson noticed that Ann was rather thin, that her abdomen was not contracted, that the beating of the abdominal aorta was not more easily felt than usual, that the pulse was 94 (firm and regular), that the skin was moist, that there was no deficiency of saliva in the mouth, that her voice was strong, and that she could move her arms and fingers with considerable force. He also smelt an offensive urinous odour. Mrs. Moore told them that she had tasted no solid food for upwards of five years, and no drink for nearly four years, that she had passed no urine for three years and no faeces for five, that she had not slept nor laid down in bed for more than three years, that she took snuff, that she had fits, that she could not open her mouth, and that she had lost the power of the fingers of her left hand. We can imagine that Dr. Henderson pricked up his ears when he heard her state that she had passed no urine for three years, and that he made a mental note when he observed her move one of the fingers of her left hand.

In the article which Dr. Henderson contributed to the *Medical and Physical Journal* (loc. cit.) on his return to London, he enumerated fourteen circumstances which in his opinion invalidated Mrs. Moore's assertions. It would be wearisome to enumerate them all, but to some reference may be made. He pointed out the natural and healthy appearance of her face; the strength of her pulse, muscles, and voice; the moisture of her mouth, nostrils, eyes, and skin; and the entireness of her intellectual faculties. "If," he wrote, "the functions of the stomach were entirely suspended, it is not likely that the saliva would continue to be regularly supplied." He touched next upon her "notorious immoral character," upon the obvious interest which she and her attendants had in supporting the deception, and especially upon the imperfect manner in which she had been watched (of this there could be no question), along with her dread of a repetition of the watching, and indeed of all experiments whatever. There could be no doubt that she was passing urine; her statements varied and contradicted each other, and her actions were not consistent with her statements. Dr. Henderson gave instances of these inconsistencies. He believed that he had collected "a sufficient body of evidence to prove that there were no solid grounds for supposing that the order of Nature was subverted in the person of Ann Moore." He wrote his report at Golden Square, the date being November 25th, 1812, and Dr. Samuel Fothergill, one of the editors of the *Medical and Physical Journal*, published it in February, 1813.

This was the beginning of the end; a second watching was insisted upon and was begun on April 21st; only ministers of the Church of England, medical men, and magistrates were allowed to take part in the watching; for seven days Ann Moore took no food, but on the ninth day she was so weak as to be in danger of death, and a few hours later she made confession of the fraud that she had practised, admitting that she had received food in liquid form from her daughter when she kissed her night and morning. The Rev. Legh Richmond, Rector of Turvey, in Bedfordshire, one of the watchers, wrote a full account of these occurrences, and this was published in the same medical journal in June of the same year (1813).

It should be added, to give Dr. Henderson full credit for his share in detecting the fraud, that he had published a little book on the matter before the second watching took place, and that in it he pointed out the parallel which existed between the case of Ann Moore and that of Anna Maria Kinker, the notorious fasting woman of Osnabruck. Indeed, this was an age of fasting folks, for Chambers, in his entertaining *Book of Days*,[4] tells of Mary Waughton, of Wigginton (also in Staffordshire); of the French girl, Christina Michelot; of Ann Walsh, of Harrogate; of the fasting boy of Chateauroux; of Katherine M'Leod (Pennant's fasting woman of Ross-shire), and of the Swabian woman, Monica Mutcheteria; all these persons had lived in the second half of the eighteenth century.

This note on the fasting woman of 100 years ago may fitly close with the editorial comment in the *Medical and Physical Journal* for May, 1813:

> Our readers are now in possession of the facts which the industry and ingenuity of Dr. Henderson have enabled him to acquire upon a very curious subject. The public appears to take considerable interest in it; for, though honest John Bull is a very credulous animal, he is very angry when he discovers that a deception has been practised upon him.

[1] *Med. and Phys. Journ.*, xxix, pp. 109–118, February, 1813.
[2] *Dict. Nat. Biog.*, xxxviii, pp. 339, 340.
[3] *Dict. Nat. Biog.*, xxv, p. 395.
[4] Chambers, *Book of Days*, vol. i, p. 554.

Nova et Vetera.

A CLERICAL PIONEER OF VACCINATION.

The following unpublished letter of Edward Jenner, the discoverer of vaccination, to the Rev. William Finch of St. Helens, Lancashire, and some account of the experiments of the latter, may be of interest to your readers.

Sir,

Knowing that you have carried the vaccine inoculation to a considerable extent, I take the liberty to request the favor of you to give me the result of your practice. As it is probable that the subject may shortly undergo public discussion I wish to be prepared with Testimonies of the efficacy of the Cowpox as a preventive of the Smallpox from the most respectable authorities. I am no stranger to that mass of evidence you were so good as to publish in favor of the new practice in the Medical and Physical Journal; but on the present occasion written testimonies will have a greater weight.

I by no means wish you to go into detail; it will be sufficient if you will kindly state the numbers you have inoculated and then adduce your proofs that the Inoculation protects the Constitution from the contagion of the Smallpox. If you please you may add too your opinion of the utility of the discovery.

I remain Sir,
With great respect
Your obedt. humble servt.
E. Jenner.

London
Bond Street
136
Feb. 7th 1802.

P.S. Pray accept my thanks for the obliging manner in which you were good enough to mention my name in the Medical Journal.

The letter is addressed to "The Rev. W. Finch, Minister of St. Helens"; it bears several postmarks, having been mis-sent to St. Helens, Isle of Wight, and St. Helens (? Church), London. The London postmaster made the note "Try Lankeshire." There was 11s. 8d. postage to pay on it. It is now in the possession of Mrs. James Hesketh, late of Bolton, a great-niece of the Rev. W. Finch.

This clergyman, great-great-uncle of the present writer, was born at Wigan in 1753, and was educated at the Wigan Grammar School. He was chief usher of the school in 1775 when he received the living of St. Helens, which he held until his death in 1815. The living of St. Helens was a perpetual curacy, the great tithes going to King's College, Cambridge, and the small to the Vicar of Prescot, who, however, had no control over the parish, the appointment being in trustees. The title "Minister" arose from the incumbent in 1662 not having complied with the Act of Uniformity, and continued in use until 1868, when perpetual curacies were abolished, and all incumbents not rectors were made vicars.

The "mass of evidence" alluded to in the letter was published in the *Medical and Physical Journal*, which was continued after 1815 as the *London Medical and Physical Journal*.

The Rev. William Finch wrote under date of March 11th, 1800:

On the 17th of November last I inoculated a child of 8 months old with a lancet, armed the eighth day preceding with vaccine matter, and sent me by the Rev. R. Holt, Rector of Finmere, Oxfordsbire.

The identity of this child is shown by the following extract from the St. Helens Parish Church register kindly made for me by the Rev. Albert Baines, M.A., the present vicar:

1799. Daniel, son of David Scarborough, Clogger, of St. Helens, Born 4th March: Baptised 31st March. This child on the 17th November following was the first in these parts that was inoculated with Vaccine Matter, By me, W. Finch, Minr.

The article in the journal goes on to describe a normal case of vaccinia. Other children were inoculated from the first child and others from them, the total reaching 714. Three cases varying from the normal are described.

On February 25th and 26th he inoculated with variolous matter twenty children whom he had inoculated with vaccine matter in November and the beginning of December. To use his own words, "The result of the experiment is that they have all entirely resisted the infection." He then goes on to say: "Only two produced, each, on the place of insertion, a small POCK, if such it can be denominated, of about quarter of an inch in diameter."

The paper concludes as follows:

Such are the nature, process and effects of inoculation here with vaccine matter; and this may serve as an additional evidence to the testimony already given of its efficacious properties if you think it worthy of a place in your very useful and instructive journal. Upon contemplating its astonishing powers, I could not help falling into this reflection—If the observation of the naturalist be true "Wherever a poisonous plant grows its antidote is found," why may not the same observation hold good in this respect also? If it could be proved that the human constitution imbibes that virulent malady the smallpox from the milk or animal diet which the lowing herd furnishes, by parity of reasoning, then in the same quarter its counteracting principle subsists. Nature is uniform in all her laws. Everything she generates has its opposite. There is no evil without its corrective and here she produces an effectual remedy for that malignancy. It surely cannot be too highly prized. To show the discoverer of it every praise, every gratitude is due. The joy and delight it diffuses through every family here is inexpressible, and it may not be unbecoming to subjoin, it gives me the liveliest satisfaction and pleasure to hear the people exclaim—"Blessings on the head of him that first wrought such happiness for us!"

I am, Gentlemen,
Your most obedient humble servant,
W. Finch,
Minister of St. Helens.

March 11th, 1800.

Herbert Peck, M.D., D.P.H., etc.,
Barrister-at-Law.

Chesterfield.

LITERARY NOTES.

The annual report of the Library Committee of the College of Physicians of Philadelphia contains a short disquisition on the proper disposal of pamphlets and reprints—a serious difficulty for every medical librarian, and a source of no little perplexity to many private individuals who have been taught by experience that a very common consequence of "making a clearance" is the discovery a few days later that one of the dusty, dog-eared rejected has suddenly become for the moment worth its weight in gold. Formerly the College arranged its unbound pamphlets and reprints by classes on shelves like books. This, as was to be expected, proved an unsatisfactory arrangement. Now the pamphlets and reprints are arranged by subjects: the proper subject-heading is written on each, and the set then arranged alphabetically under the authors' names. When a sufficient number of pamphlets on one subject has accumulated they are bound in a volume, and the subject-title of the volume is entered in the general catalogue of the library. Each separate pamphlet or reprint is not entered in the catalogue, but the inquirer looks up his subject in the general catalogue, gets the volume or volumes of reprints and pamphlets on it, and then finds a collection of original articles arranged in the alphabetical order of authors' names, and all belonging more or less to the same period. Each volume should be dated on the back, and there should be bound in as a fly-leaf a list of its contents: these two points are not mentioned in the report from which we quote, but no doubt they have received attention. It may be added that the library of the College has an important collection of early printed books and manuscripts; it has a special fund for the purchase of such rarities, but it has also many individual benefactors, among whom, last year, Dr. George E. de Schweinitz seems to have been the most generous.

It is to Frascatorius, the philosopher-physician of Italy who lived in the sixteenth century, that we are indebted for the word "syphilis." He gave the title, "Syphilis,"[1] to a poem, which has been described by Osler as the most successful medical poem ever written. He does not appear to have assigned any reason for originating this word, and its etymology has been a matter of much speculation. By some authorities the Greek συς-φιλος—swine lover—has been accepted as the origin; others, again, argue that its derivation is from σιφλός—maimed or impotent. But, however this may be, the fact remains that the poet-physician of the sixteenth century described the disease so accurately in all its essentials that his account of it remained unsurpassed until well into the nineteenth century. Briefly, the poem of Frascatorius tells of Syphilis, a shepherd who kept watch over the flocks

[1] See a paper by A. T. Downing, M.D., in the *Boston Medical and Surgical Journal*.

of King Alcithous. Becoming incensed at a drought so extreme that the cattle perished for want of water. Syphilis blasphemed the Sun God, who, enraged, darted forth infection on earth, air, and stream, the unfortunate shepherd being himself the first victim of the disease.

> Syphilus ostendit turpes per corpus achores:
> Insomnes primus noctes, convulsaque membra
> Sensit, et a primo traxit cognomina morbus.

There is no description of the disease either in Hippocrates or Galen, and it was in 1494 that Europe was first startled by a great epidemic. It was not, however, until the lifetime of Frascatorius that men emerged from ignorance to a knowledge of the disease. There were many speculations at the time as to the origin of the malady. Some insisted that it was brought from America by the soldiers of Columbus; but Frascatorius did not share this view, on the ground that the spread of the disease was too rapid. It was traced by others to the French and Spanish campaign in Northern Italy in 1494. The army of Charles contained many mercenaries, and indulged in scenes of the wildest debauchery as it passed through Northern Italy; after the retreat and disbandment of the army the various units—Spanish, German, Swiss, and French—are presumed to have scattered, carrying with them to their respective countries the devastating contagion. Matters got so bad in Paris, indeed, that a decree was passed in 1496 requiring all infected persons to leave the city within twenty-four hours. This was, however, by no means the first appearance of the disease in the civilized world, for Celsus, living in the first century before Christ, speaks of certain affections of the genitals, including ulcers on the glans penis, and Aretaeus, three centuries later, refers to a disease which destroys the uvula to the bones of the palate. From the evidence of Martial we cannot but believe that the ancestors of the present day spirochaete were well developed in imperial Rome. Horace, too, pointed out to the Romans of his day that the age was prolific in sins, which polluted even their offspring. During the first year or two of the fifteenth-century epidemic the disease was practically untreated by the physicians of the time, and quacks and charlatans had the field to themselves. When at last the profession began to pay attention to the disease, the use of mercury, originally introduced in therapeutics by the Arabs, began. Frascatorius, after setting out rules as to diet, says in the poem already referred to:

> The greater part, and with success more sure
> By mercury perform the happy cure;
> A wondrous virtue in that mineral lies.

Lard was used as a vehicle mixed with larch gum and turpentine, and with this preparation the whole body was smeared with the exception of the head and breast. The patient was then sweated profusely under thick bed clothing; this was repeated for ten days. Mercury soon fell into disuse, however, and in turn infusion of guaiacum wood, sarsaparilla, and sassafras became the popular remedy. In 1538, however, mercurial inunction came back into favour, and the drug was administered internally in the form of the red precipitate. In 1821 tincture of iodine was first used locally in specific ulcers of the throat with good results, and to Dr. Wallace of Dublin belongs the honour of first using potassium iodide in syphilis. The mercurial treatment of syphilis by inunction is at the present day much as it was in the time of Frascatorius, and indeed, until Schaudinn demonstrated the *Spirochaeta pallida*, and Wassermann the reaction bearing his name, and finally, until Ehrlich gave salvarsan to the world, we have been content, for three hundred years, to follow in the footsteps of the old poet-physician of Italy whose inspiration first gave this disease the name it bears.

We have received a note from Mr. C. Strickland, M.A., travelling medical entomologist to the Royal Society, respecting the word employed in our notice of Professor Minchin's *Introduction to the Study of the Protozoa*, in the Journal for December 7th, p. 1612. He agrees that the use of the adjective "chromatinic" for "chromatic" is to be commended, and that Professor Minchin's substitution of "chromatinic" was well advised. Mr. Strickland is of opinion that "chromatic" is an absurd derivative from "chromatin," and he employed the newer and more correct word himself in his paper on *Herpetomonas luciliae* in *Parasitology*, 1911. "Chromatic," as we know, is an English word well accepted in general literature. In Murray's *New English Dictionary* it is defined as (1) "of, or belonging to colour or colours; consisting of or produced by colour (chiefly a scientific technical term)"; (2) "a term used in music." It is clear, therefore, that giving the word a third application is highly inadvisable; the more so as in the *Standard English Dictionary* "chromatic" is already recognized as a scientific technical term. Therefore its use in science in a quite different sense to that usually understood is to be avoided as liable to cause confusion.

A catalogue of second-hand books issued by Henry Sotheran and Co., 140, Strand, and 43, Piccadilly, contains a number of books from the remaining portion of the library of the late Lord Lister. There are nearly 4,000 volumes, and the books on medicine, Quakerism, Scotland, and theology are classified under those headings. The first two entries have a special personal interest; the one is a copy of Æschylus inscribed "Joseph Lister, 17.10.1845," and the other is a copy of the fourteenth edition of *Evenings at Home* in four volumes inscribed on the fly-leaf of the first, second, and fourth volumes, "Joseph Lister from his Papa. 17th of 4th Mo. 1833," when the child was six years old. The boy's progress may be traced in other entries, as in the inscription in Lindley's *School Botany*, "Joseph Lister, 4th month, 1844," and in Hutton's *Recreations in Mathematics and Natural Philosophy*, inscribed "Prize Copy 'to Mr. Joseph Lister, of Upton, Essex, from University College, London, as First Prize in the Experimental Class of Natural Philosophy.'" Some of the volumes in the list, it may be noted, were originally in the library of Professor Syme, Lord Lister's father-in-law.

SCIENCE NOTES.

The physiological functions of the ductless glands have been ascertained by the administration of their extracts on normal animals, by the results that follow on their removal, and by the train of morbid symptoms that ensue when they are the seat of gross lesions. But very little is known of the changes that ensue secondarily in them in diseased conditions of the body. The suprarenal gland and adrenalin, its chief but probably not its only secretion, have been most fully studied. Ribadeau-Dumas and Harvier have found various striking changes in the suprarenals in diphtheria, typhoid fever, pneumonia, and scarlatina. The changes were albuminoid and fatty degeneration, with oedema or with haemorrhage, in both cases leading to necrosis, and are probably to be attributed to the intoxication. In view of the adrenal insufficiency brought about by these diseases, we are led to conclude that the life of the individual is thereby compromised, and various observers consider that a rational treatment of fevers ought to include the administration of extract of the whole suprarenal and not of adrenalin alone. But observations on pathological conditions of the suprarenal should not too hastily determine the therapeutic procedure, for probably no organ, investigated *post mortem*, shows more frequent departures from what would be considered a typically normal condition. Even in Addison's disease, which is often associated with tuberculosis of the adrenals, not infrequently the glands are found in a condition that may seem identical with that of adrenals from other totally dissimilar diseases; and, on the other hand, gross lesions of these glands may exist without, so far as is known, any concomitant symptoms of a striking nature. We do, however, know the potency of adrenalin, and opotherapists can be forgiven for the administration of the extract over a wide variety of diseases, and perhaps credited with cures or ameliorations of diseased conditions less tractable to other medicaments. In a large number of cases of Addison's disease suprarenal extract is without effect, in others the clinical facts of decrease of asthenia and increase of arterial tension are noticeable, but such cases are rare. It has been used with apparently good effect occasionally in intractable vomiting of pregnancy and in osteomalacia, but the repeated administration necessary is not without grave danger, and greater success has been claimed for pituitary extract, which has very little toxic action, and which can be injected in larger doses repeatedly for a much longer time.

British Medical Journal.

SATURDAY, FEBRUARY 15TH, 1913.

THE METROPOLITAN WATER BOARD AS A HEALTH AUTHORITY.

On March 15th the King, accompanied by the Queen, is to open the new reservoir built for the Metropolitan Water Board at Chingford. The ceremony of cutting the first sod—the public commencement of the work—was performed nearly five years ago. Now the reservoir is nearly completed. When finished, it will have cost about £550,000, will be capable of containing three thousand million gallons, and the area covered by the water will be 416 acres. After storage for a sufficient period, the water will pass along a canal one and a quarter mile long to the filter beds at Lea Bridge, and will ultimately be distributed to 1,600,000 people as a good, wholesome, drinkable water.

The Londoner, accustomed to take everything in the complex whole of which he is a unit for granted, may have been tempted to ask why Their Majesties should be willing at a trying time of the year to undertake a somewhat tedious and dreary journey in order to open one more reservoir. Doubtless it is because the King rightly looks upon the completion of this large work as of vast importance to the health of the metropolis and the well-being of the people. This side—the health side—of the Water Board's work is the one which should be emphasized in connexion with the opening of this great undertaking.

For some time after the formation of the Metropolitan Water Board the main idea and controlling influence of its policy was the commercial aspect of so great an enterprise. The buying out of the eight water companies by the Board at the huge cost of £47,000,000, the great yearly income of £3,000,000, the gigantic task of supplying to each one of over seven million souls 34 gallons of water a day, distributing it in 6,300 miles of pipes over an area of 620 square miles, so impressed many interested in the work of the Board that the commercial idea was the only one they would entertain. Slowly, it may be, but surely, the health-idea has penetrated to the heart of the Board's work and to the minds of the people of London, so that both are now prepared to say, with Sir John Simon, "water is the power of life and death."

Evidence of the truth of this saying is unfortunately plentiful in the history of the metropolis, for if we look at the effect of two water-borne diseases, cholera and typhoid, we can see the ravages they used to make in London's population. In the various cholera epidemics—1832, 1849, 1854—the deaths from this disease were 31.4, 61.8, 42.9 per 10,000 people. Fortunately the lesson of such events has been taken to heart, and through the care of municipal authorities in safeguarding our water supply, aided by the alertness of the various port authorities, this country is kept cholera free. But enteric fever is still with us, and the outbreaks of this disease in Maidstone, Lincoln, and Swanage, confirm the finding of the Royal Commission on Rivers Pollution that "the admixture of even a small quantity of these infected discharges with a large volume of drinking water is sufficient for the propagation of those diseases amongst persons using the water," a conclusion supported by scientific experience throughout the world. London's record in this connexion is extremely interesting and instructive, for if we take the annual mortality from enteric fever per million persons living in London over a considerable period we find that in 1838–40 it was 1,339, in 1841–50 it was 979, and in 1861–70 it was 904. In 1871–80 it fell to 244, in 1891–1900 to 136, and in 1903 to 81. In 1904, when the water supply was transferred from the companies to the Water Board, the enteric fever rate was 63 per million, and by 1910 it had still further declined to 43 per million. It is not easy to estimate the commercial value of the difference in the mortality from enteric fever of 1,339 per million in 1840 compared with 43 per million in 1910; but if the difference be taken as, in round numbers, 1,300 per million, then by the last census population of 4,500,000 we get a saving of life of 5,850. Now, what is the money value of a life? Dr. Farr answered this question in the thirty-ninth annual report of the Registrar-General (1876). He calculated that an agricultural labourer at the age of 25 was worth £627, and that, taking the whole population, the value per head was £150. Since 1876 money has become cheaper and wages have gone up; but even at the low price of £150 per person London saves £877,500, which if it could be turned into hard cash and presented to the Water Board would be a godsend to the few "commercial members" of the Board who view with alarm the necessity of making a deficiency rate. This life-saving health-idea should also lead those who have to pay the rates imposed by the Water Board, which are here and there somewhat heavy, to look with a more kindly eye and speak with a less bitter tongue of the successful but costly undertakings made for their benefit.

London is not singular in making a huge expenditure to secure this necessary of life—a pure potable water supply. Manchester, Glasgow, Liverpool, and Birmingham have gone to Thirlmere or Loch Katrine, or to the mountains of Wales, and gigantic works are in progress to bring the superfluous waters of the moorlands of Derbyshire into the homes of the workers in the Midlands. But the problem has been more difficult for London. For whereas Liverpool or Birmingham could buy up a valley and convert it into a lake or a chain of lakes, having to take heed only that the pure water of the moorlands shall not be polluted by the scattered habitations of man and then to carry it across country, London has to start with sources of supply in thickly settled valleys where initial contamination cannot be prevented.

Undoubtedly the work necessary to supply the consumers in the Metropolitan Water Board's area with a plentiful supply of good water is a costly undertaking, for the reason mentioned. Over 74 per cent. of the water supplied comes from contaminated sources; 60 per cent. comes from the Thames and 24¼ per cent. from the Lee; and before it is safe to drink the water of these rivers it must undergo a costly process of purification.

The first step in the process of supplying London is to buy the water from the Thames and Lee Conservancies at an annual cost of £50,000. Then comes the erection of pumping stations and engines and of reservoirs for storage, active and passive—that

is to say, for quantity and quality. Next comes the making of filters, service reservoirs, and all the consequential expenditure for distribution connected with them. The total capital expenditure on these works since the Board became the water authority down to March, 1912, has been nearly three millions sterling. If we take the works completed since the Water Board took over the undertaking and compare them with the companies' figures, we find that the storage reservoirs for unfiltered water was under the companies 4,007 million gallons, and those added by the Water Board 5,758 million gallons, making a total storage of 9,835 million gallons, with all the other connected works in proportion. Moreover, a recent Act of Parliament gives the Board power to construct reservoirs at a cost of £4,100,000. Thus the Water Board has in the past done the necessary work for the supply of good water to its customers, and there is no indication that it will fail in its duty in the future.

To check the engineers in carrying out their duty in respect of the purifying process the Board has a water examination department, and an excellent staff in a well equipped laboratory takes samples from filters and wells, hydrants and taps, filtered and unfiltered sources, and subjects these samples to a drastic examination, chemical and bacteriological, day in, day out. During the year ending March 31st, 1912, nearly 15,000 samples of water were so examined. In this laboratory research work also is carried on and many valuable reports have been issued, such as those on the vitality of the typhoid bacillus; on the effect of storage on the bacterial content, and on the softening, purification, and sterilization of water. These reports have been found exceedingly useful not only to London, but to water authorities everywhere. So it comes about that the policy of the Water Board, the money of the ratepayers, and the devoted services of the officers, all conspire to carry out the great central notion that the health of the consumer is the thing that pays in a water supply.

THE ALLEGED DANGER OF THERAPEUTIC PROGRESS.

The racial aspect of medical progress, a subject which was forcibly discussed by Sir James Barr in his presidential address at the annual meeting of the British Medical Association at Liverpool, is not escaping the attention of transatlantic thinkers. In a contribution to *American Medicine*[1] Mr. Lawrence Irwell invites his readers to accept the conclusion that therapeutic discoveries are not necessarily the unmixed blessing which at first sight they might appear. He argues that it is by the elimination effected by fatal diseases that the strength of a community is maintained; and that whenever a malady, hitherto almost invariably fatal, is added to the list of curable ailments there arises a new danger of national deterioration. Individuals who owe their survival and chance of bringing children into the world, not to their own inherent soundness, but to medical knowledge and skill, are, he contends, racially parasitic individuals, and are the source of this danger. He gives as a familiar instance the saving of life effected by the modern operation for the removal of adenoid growths; many of the individuals thus enabled to survive no doubt become useful citizens, but what percentage of them, he asks, are desirable parents from the point of view of national physique? On the other hand, he refers to the fact that certain forms of constitutional stamina, in particular that which confers the power of resisting infective disease, are favoured by the herded conditions of civilized life. In matters of health, and in most others, things are not always what they seem; a pale and sickly clerk, on exposure to infection, may reveal an unsuspected power of resistance, while a splendid savage, belonging to a tribe which has never been submitted to the selecting power of the microbe in question, will almost inevitably succumb. Mr. Irwell believes that Jews, although liable to tuberculous infection, have by selection achieved a considerable immunity in respect of its fatal effects. "It is correct," he thinks, "to say that tubercular Jews usually continue to live, and death is, as a rule, due to some other cause." In cities where the coloured population predominates, the much greater mortality of tuberculosis among the coloured than the white members infected is in all probability due to the fact that the white man, having been for a much longer time subjected to urban conditions, has undergone selection by the tubercle bacillus. The same is true of the other great scourges of civilization—small-pox, alcohol, plague, and the venereal diseases—each of which, when introduced to a community affording virgin soil for its ravages displays a very high destructive power. Mr. Irwell, therefore, would seem to be numbered among the followers of Dr. Archdall Reid, and he goes on to maintain that, while the tendency is for the susceptibility of civilized communities to infective diseases and to alcoholism to decline, there are other forms of disease which appear to be steadily increasing. In the United States chronic nephritis and circulatory diseases in general are becoming distinctly more prevalent, a fact which Mr. Irwell attributes in part to excessive meat eating.

In estimating the validity of the assertion that therapeutic progress, in common with other improvements of the environment, constitutes a real danger to national stamina, the verdict will obviously depend in the main on the relative importance of the factors of nature and nurture. The late Sir Francis Galton arrived at the conclusion that the importance of the former altogether overweighed that of the latter. The impression produced on his mind, after a review of the available evidence, was "one of some wonder whether nurture can do anything at all beyond giving instruction and professional training."[2] But it should be observed that in Galton's investigations the differences of environment considered were by no means of an extreme kind. Dr. Neave has recently advanced evidence with regard to the physique of school children in different areas of Manchester tending to a contrary conclusion.[3]

That any amelioration of the environment favours the survival of weaklings is a self-evident proposition, but Weismann's contention that, natural selection being in abeyance, their defects will be generalized by panmixia, is open to question, for the paramountcy of natural selection as a condition of forward evolution is at the present moment one of the most controverted points of evolutionary doctrine. Natural selection is, after all, a negative principle; it is to the positive aspect of the problem that the main interest has now shifted—namely, to the conditions that determine favourable variations and the possibility of bringing these under prescient control.

[1] Disease as a Factor in the Evolution of the Human Family. By Lawrence Irwell, M.A., B.C.L., *American Medicine*, December, 1912.

[2] *Inquiries into Human Faculty.*

[3] Cf. *The Medical Officer*, January 25th, 1913.

THE ANTARCTIC DISASTER.

Of the four who were with Captain Scott at the South Pole on January 18th, 1912, Dr. E. A. Wilson was one, and he perished with his leader from exposure and want during a blizzard about March 29th, when the party was only eleven miles from a well-stocked dépôt, and had accomplished the longer part and, as far as the surface conditions went, the worst part of the return journey. There, short of food and of fuel, they were held by a prolonged blizzard, and died together in their tent. One of their party, Captain Oates, who had broken down in health, had disappeared into the storm some ten days earlier. The fifth member of the party, Petty Officer Evans of Rhosilly, near Swansea, died on February 17th. He had broken down, and his death was accelerated by concussion of the brain sustained on the Beardmore Glacier. Captain Scott's last note and appeal was written on March 25th, 1912: "We are weak, writing with difficulty." He acknowledged himself beaten by the elements. "We took risks—we knew we took them. Things have come out against us, and therefore we have no cause for complaint, but bow to the will of Providence, determined still to do our best to the last. . . . Had we lived I should have had a tale to tell of the hardihood, endurance, and courage of my companions which would have stirred the heart of every Englishman."

The last words of Captain Scott, and the story of the courage and determination shown by the men he led, have gone to the heart of every man and woman in the British Isles, and his appeal that those who depended on them shall be properly cared for will not go unheeded. The Prime Minister gave expression to the general sentiment when he said in the House of Commons on Tuesday that the last message of Captain Scott was one of the most moving and pathetic utterances in the annals of this country of a brave and enduring man face to face with a tragic and noble end of a career of self-devoting service, and would not fall on deaf ears. The Admiralty has already issued a notification that the circumstances in which Captain Scott and his comrades lost their lives prove the constancy and resolution with which they carried out the duty for which they volunteered, and that consequently the loss of Captain Scott and Petty Officer Evans is to be regarded as if they had been killed in action. The medical profession will likewise desire to do every honour to its member who died with Captain Scott.

Dr. E. A. Wilson, who was the son of Dr. E. T. Wilson, of Cheltenham, took a first class in the Natural Science Tripos, Cambridge, and before graduating M.B. in 1900 went through a medical course at St. George's Hospital, but he was by nature a naturalist. He early gave himself to studies of this kind, and utilized a very considerable artistic talent in depicting natural phenomena. He was a member of Captain Scott's first antarctic expedition in the *Discovery* in 1901, when he acted not only as medical officer but as vertebrate zoologist and artist. After that expedition returned in 1904 he was for some time field observer for the Grouse Commission, and eagerly accepted the post of Head of the Scientific Staff of the National Antarctic Expedition which left England in 1910. We hope to publish a fuller account of his career in a later issue.

The two medical officers of the expedition were Surgeon George M. Levick, R.N., and Surgeon Edward L. Atkinson, R.N. At an early stage two parties were formed, and of one of these—the Northern, under the command of Lieutenant Campbell—Surgeon Levick was a member. The other party was divided into two when Captain Scott's party of sixteen began the expedition to the South Pole on November 2nd, 1911, and Surgeon Atkinson was left with the remainder—or Western party. Members of the Southern, or polar, party were sent back at various stages in sections, and the final section which pushed on the last 150 miles to the Pole numbered five. They were expected back early in March, and Surgeon Atkinson organized a relief expedition under the leadership of Mr. Cherry Garrard, but was compelled himself to remain in charge of Commander Evans, who was suffering from scurvy. The relief party got to One Ton dépôt on March 3rd, but by the failure of the dogs' food and the bad weather were forced to return on March 10th, eleven days before Scott, Wilson, and Bowers established their last camp eleven miles to the south. Surgeon Atkinson with the only remaining man, Petty Officer Keohane, then made another attempt to relieve the Southern party, but in severe weather with inadequate resources they could do no more than establish another dépôt with provisions for a week. In April Surgeon Atkinson organized another expedition to relieve the Northern party under Lieutenant Campbell; it was stopped by open water, but the Northern party dug themselves into a snow drift, and lived through the winter with the help of a number of seals they were able to kill. A petty officer became seriously ill, but was taken on when the party moved away, after six and a half months, from their winter quarters, and quickly recovered after a food dépôt had fortunately been found. On October 30th, 1912, Surgeon Atkinson, who seems, throughout a most trying experience, to have shown admirable initiative, tenacity, and resource, organized another Southern search party in two sections—one under his own command; the other under that of Mr. Wright. One Ton dépôt was found in good order, and on November 12th Mr. Wright's section of the party came up to the tent containing the bodies of the three brave men—Scott, Wilson, and Bowers—who had died nearly eight months earlier.

The object of the Antarctic Expedition was scientific research, and a scheme had been carefully worked out which included the attainment of the South Pole, although that achievement was never regarded as a chief aim. That the scientific object of their work was uppermost in the minds of the small party that reached the South Pole is proved by the fact that in the tent with the bodies of the three last to survive were found every record of the journey, and geological specimens weighing 35 lb. which they had persevered in dragging with them to the end. These records and specimens are being brought home, and will undoubtedly prove of great scientific value.

It is not possible to form any trustworthy judgement on the causes which led to the catastrophe so near comparative safety. Clearly the immediate cause was the prolongation of the return journey, and this was in part due to unusually severe weather, but in part to the breakdown of one member of the party at an early stage of the return journey, and of another later on. Commander Evans, the second in command of the whole expedition, had suffered seriously from scurvy at an early stage, and it seems probable that the illness of the member of the Northern expedition which must have nearly brought it to disaster was due to the same disease. Such facts lend probability to the opinion expressed by Professor Nansen that the provisions may have been deficient in antiscorbutic properties, and that this

was the reason for the breakdown of two of its members, which seems to have been the determining cause of the destruction of the Polar party.

CLERICAL WORK UNDER MEDICAL BENEFIT.

In every quarter of the country complaints have been made concerning the unnecessary demands made on the time of doctors who have joined panels under the Insurance Act in consequence of the great and unnecessary amount of clerical work entailed upon them. These complaints have had reference especially to the cumbrous day-book, unnecessary in its dimensions and the amount of detail required, to the prescription forms, and to the certificates to be given to insured persons in order that they may claim sickness benefit. The replies of Mr. Masterman in the House of Commons have indicated a recognition of the justice of the complaints received, and on February 6th the Insurance Commissioners in England issued a letter to the secretaries of Local Medical Committees in a large number of counties and county boroughs stating that the Commissioners had given careful consideration to complaints as to the difficulties experienced in filling up the forms of record which practitioners attending insured persons are required to keep, and had come to the conclusion that the information it is necessary to obtain could be recorded in a manner entailing less clerical work. Before coming to any decision, the Commissioners decided to invite to a conference medical practitioners able to express to the Commissioners the views and experience of those actually engaged in the treatment of insured persons. This conference was held on February 11th, and was attended by about ninety representative doctors. The proceedings were conducted in private, but we understand that the medical men present expressed their views freely, that a record was made of all the suggestions, and that it was promised that all the points would receive the careful consideration of the Commission. We understand also that the Commissioners gave a very sympathetic hearing to the representations made, and that the conference separated with the impression that immediate modifications in the forms, so that they shall entail less clerical work, are contemplated.

ATTEMPTED SELF-ABORTION.

The attempt by the woman herself to produce abortion is unfortunately frequent in these days, and some midwives, it is said, go so far as to train their patients, teaching them the perilous art of self-introduction of the bougie. The contingent danger of perforation of the uterine walls is self-evident. Dr. John Douglas, of the Bellevue Hospital, New York, reports an instance in which this complication was followed by remarkable results.[1] A woman, aged 26, was admitted under his care last August on account of a tender, painful mass in the abdominal wall over the outer edge of the right rectus muscle, at the umbilical level. It had been present for a week, and was first ascribed to a fall against a chair. She had borne three children; a year before admission abortion was induced by a midwife, by the introduction of a Lisle thread bougie, which she afterwards gave to the patient to use should she become pregnant again. Ten weeks before admission, the period having been a fortnight overdue, the patient passed the bougie without causing herself much pain, and inserted a cotton tampon into the vagina. This tampon came out some hours later in the lavatory, and she thought that the bougie came away also, but she did not see it, though she remembered seeing the tampon. There was no further "history," beyond the appearance of the tender lump in the abdominal wall, no faintness, fever, or distension, even abortion, though she was really pregnant. Her temperature was 99.6°, pulse 104, and the leucocyte count was 14,800, with 78 per cent. of polynuclear cells. Dr. Douglas made an incision through the integuments over the swelling, opening an abscess cavity well walled off by adhesions and apparently just beneath the peritoneum. Two ounces of pus, giving evidence of colon bacillus infection, came away, and a Lisle thread bougie 11½ in. long, which lay curled up in the cavity, was removed. On the second day there was some bleeding from the vagina, and eleven days after the operation abdominal pain and free haemorrhage set in, a three months fetus coming away one day later. At the end of a week, after the application of the curette, the patient was discharged cured. Dr. Douglas discusses certain puzzling features about his case, which must strike every pathologist, surgeon, obstetrician, and gynaecologist. The point of perforation, and the question whether the peritoneum was perforated or the broad ligament opened up, the bougie entering the subserous connective tissue anterior to the parietal peritoneum, remains unsolved. The whereabouts of a bougie not properly accounted for, and the fact that it still in the patient's body it does not necessarily cause grave uterine haemorrhage, acute peritonitis, or even abortion, are matters which must not be overlooked.

[1] *Amer. Journ. Obstet.*, January, 1913, p. 25.

EPILEPSY.

L. W. Weber has recently[1] urged that the clinical definitions of epilepsy should be revised. He objects to the somewhat reckless manner in which persons of various types are dubbed epileptics, and maintains that the evidence in favour of the supposition that Julius Caesar, St. Paul, Mahomet, and Napoleon suffered from epilepsy is so slight that it cannot for one moment be accepted. It is, he says, necessary to form a clear idea of what constitutes epilepsy before we can hope to advance in its treatment. He therefore selects a type and describes it as "true epilepsy." This condition is characterized by the periodic occurrence of convulsive attacks, associated with loss of consciousness, the periodic occurrence of temporary psychic alterations, which he describes as "Dämmerzustände" (the literal translation of this is "twilight conditions"), and lastly, a chronic course which leads gradually to a permanent psychic alteration, taking the form of a peculiar character and a peculiar form of dementia. To bring a case within the definition, the convulsions must be periodic, and must be attended at times at least with unconsciousness. The second point does not justify the diagnosis of epilepsy alone; nor is it always easy to observe the conditions of temporary clouded cerebration. The third point is highly important, and he goes so far as to state that when periodic fits and conditions of clouded cerebration have continued for five to ten years, and are due to a true epilepsy, the epileptic character and the peculiar dementia will certainly be found. Should these psychical changes not appear the diagnosis is not justifiable. He points out that true epilepsy always begins early in life. It is most frequent from the 6th to the 20th years of life; less frequently it begins earlier, and only rarely does it first manifest itself after 20. An affection associated with fits which begins after thirty years is not true epilepsy. He discusses the etiology at some length, and traces some cases to acquired cerebral disturbances, chronic poisoning, metabolic disturbances, and so forth, and finds that some cases develop on the basis of an inherited predisposition. He emphasizes that epilepsy is never inherited as such, but merely a predisposition. Pathologically chronic diffuse changes in the neuroglia, vessels and fibres are found according to the length of time during which the affection has lasted. In quite fresh

[1] *Muench. med. Woch.*, Nos. 31 and 32, 1912.

cases in which death follows as the result of the status epilepticus fine changes may be found. Passing on to other forms, he recognizes a condition of reflex epilepsy which he admits to be a subgroup of true epilepsy. At times these cases can be controlled by the removal of the area which delivers the exciting peripheral stimulus. "Gastro-intestinal epilepsy" is a term which merely indicates the origin of the determining factor of a certain class of true epilepsy. In objecting to the term "hystero-epilepsy," he points out that the combination of epilepsy and hysteria does not justify the fusion of the two conditions. Since the epilepsy is the more serious affection of the two, it is better to classify these combined cases under the epilepsies. Cases in which the usual signs of epilepsy, but without the fits, are present are often termed "psychic epilepsy," but Weber objects to the hazarding of the diagnosis unless the characteristics of the true epilepsy are present. The second large group are called the "symptomatic epilepsies." Here the secondary conditions need not be present; it suffices for the diagnosis that fits occur periodically, and that they are associated with loss of consciousness. This form may occur later in life, and to it belong the traumatic epilepsies, the alcoholic and emotional epilepsies, and the so-called senile or cardio-vasal epilepsies. Jacksonian epilepsy is also a symptomatic epilepsy. He insists that they never lead to the condition which he speaks of as true epilepsy.

THE SURGICAL TREATMENT OF PULMONARY CAVITIES.

G. BAER states that the chances of spontaneous recovery in the case of large cavities of the lung are bad, for the patient runs a great risk from haemorrhage, mixed infection, retention of pus, and secondary aspiration pneumonia.[1] While considering artificial pneumothorax the ideal method of treating these cavities, he points out that it not infrequently fails because the cavity was not compressed by the air in the pleural cavity. In a number of cases the upper third of a lung was converted into a sac firmly adherent to the chest wall. Resection of ribs in these cases could not lead to a satisfactory result, and the opening of the cavity would only be useful when a free flow of the contents did not take place through the respiratory passages. Schlange got good results by separating the wall of the cavity from the thoracic wall and plugging the extrapleural cavity with gauze. By experiment on animals Baer found that it was possible to separate the wall from the lung without difficulty. He then applied the method in the case of a man who was under observation in the Schweizerhof Sanatorium in Davos with a large cavity in the left lung. The cavity gave rise to considerable trouble and did not show any tendency to heal. The chest wall was opened by means of a rib flap, and the costal pleura was separated without difficulty. The cavity thus produced was plugged with vioform gauze. At first it secreted an increased quantity of muco-purulent material. After a week the gauze was changed, some difficulty being experienced in removing the packing on account of adhesions. Up to this time tubercle bacilli were found in the sputum, but subsequently no further bacilli were found. An attempt was made at a later date to make the cavity collapse better by tighter packing of the extrapleural space. This led to a small patch of necrosis, and the lung cavity was therefore opened with the thermocautery. The general condition of the patient continuously improved, and Baer proposes to fill the cavity with a paraffin melting at 42° C., as soon as possible. He gives various details in regard to the extrapleural separation and compression, and makes a number of suggestions in regard to the filling of the pulmonary cavity with a mixture of paraffin, bismuth carbonate, and vioform (iodochloroxyquinoline). He is of opinion that the method will prove valuable in a number of cases of cavity in the lung.

[1] *Berl. klin. Woch.*, January 20th, 1913.

CANCER OF THE COLON.

THE large intestine is much more commonly the site of a malignant new growth than is the small intestine, and the warning signs and symptoms are often so obscure that until the patient is actually *in extremis* from acute intestinal obstruction a diagnosis of the condition is attended with great difficulty. As Mr. Cunning points out in the lecture published elsewhere in this issue, the condition of complete obstruction is unfortunately far too frequently the stage at which the surgeon is compelled to operate, and the high mortality attending operations which attempt a complete removal of the growth causing the obstruction is considerably lessened if, in such a condition, temporary measures for the relief of the obstruction be adopted and the major operation deferred to a more advantageous occasion. Mr. Cunning even goes so far as to say that beyond quickly relieving the obstruction no examination should be made in these acute cases for the site, nature, and extent of the obstructing lesion, and he lays stress on the friability of the bowel and the great danger of peritonitis. The symptoms that should excite suspicion in earlier stages are, it must be confessed, not sufficiently marked to enable a diagnosis to be made without exploratory laparotomy—for example, what may have been considered a case of chronic appendicitis may prove to be cancer of the caecum, and vice versa. The occurrence of diarrhoea, not yielding to ordinary medicinal treatment, especially if combined with the passage of blood and mucus, and the onset of colicky pains after hot foods or drinks, are symptoms suspicious of chronic obstruction. At a later stage, as the constriction of the growth increases, constipation becomes more marked, and the most important sign of visible peristalsis, due to obstruction, should be sufficient to determine laparotomy. It has to be borne in mind that wherever there is an ulcerated surface there is almost necessarily a localized peritonitis. The treatment of malignant stricture of the colon depends on the condition of the bowel as found at the time of operation. It must be a temporary relief followed by completer operation if the condition is acute. If the growth be removable, then a large portion of intestine (paying due regard to the arterial supply) together with the lymphatic area, should be resected in one piece. And if the growth be beyond radical extirpation, then a short-circuiting of intestine will render the patient's life free from sudden danger and give a more tranquil ending.

COCAINE SNUFFERS.

IN the issue of the BRITISH MEDICAL JOURNAL for January 25th mention was made by our Paris correspondent of a recent meeting of the French Society of Mental Medicine, at which a discussion arose on the alarming increase of the cocaine habit amongst a certain class of Parisian. Vice is almost as contagious as disease, and the spread of cocaine mania in the underworld of Montmartre has assumed such proportions during the last few years as to give rise to considerable anxiety on the part of the medical authorities of Paris. The investigations made by M. Marcel Briand, chief physician to the Paris Clinical Asylum, and M. Vinchon, in the Montmartrois cafés and night haunts, have yielded some curious particulars as to this form of narcomania, and prove, amongst other things, that one of the most common ways of taking cocaine is through the nose, as a snuff. *La Semaine Médicale* has given an interesting account of a meeting of the Clinical Society of Paris, to which MM. Briand and Vinchon brought four cocaine maniacs as living illustrations of the evils produced. All four patients were women from the same

part of Montmartre, and the symptoms were almost exactly similar in each case. Disturbance of general sensibility was the predominating symptom; there was more or less complete cutaneous anaesthesia, the numbness of the extremities producing a certain amount of clumsiness and want of co-ordination. In some cases there was marked anaesthesia of the pharynx, producing a sensation as of a foreign body. Hallucinations and illusions were present, but varied very much in character. The perversions of vision and hearing seemed to be rather intense evocations of definite memories which had left strong impressions upon the brain than real hallucinations—a point upon which the patients themselves laid stress. None of the four women showed any convulsive phenomena, but the hands and feet were tremulous, as were the lips, and the speech was jerky and explosive. In the majority of cases the symptoms of physical debility were in no long time followed by intellectual deterioration. There was no systematic delirium, but a succession of short-lived delirious ideas. The cocaine maniac usually became intensely irritable and quarrelsome, and as a rule learnt to indulge in alcohol to excess. The craving for cocaine, though less imperious than for morphine, usually showed itself sooner, and might even become established in a day or two. The will power was almost destroyed, so that the cocaine maniac obeyed automatically the sensations which prompted her to take a pinch. At times the longing took the form of a violent desire to snuff some powder, even though it did not contain the drug. Incessant nasal cocainism, it was said, sometimes resulted in perforation of the septum. The taking of cocaine as a snuff seems to be of comparatively recent growth. There were cocaine maniacs some thirty years ago, produced it is said by an attempt to treat morphinomania, but nowadays those who take cocaine by hypodermic injection are a very small minority. The extraordinary extension of the vice dates from two or three years ago, when a small number of *demi-mondaines* introduced the fashion of snuffing cocaine into the Montmartre quarter. Léon Daudet, in his novel, *La Lutte*, has shown how rapidly an entire community may be corrupted by the proximity of a handful of morphinomaniacs, and to-day more than 50 per cent. of the *femmes galantes* of Montmartre are said to be slaves of "la coco," as it is familiarly termed. The ease with which cocaine may be taken in this way has caused it to supplant ether, opium, and all other drugs in the affections of its votaries; and the connivance of the proprietors of night establishments and dancing saloons, in sales by attendants, and in the enterprise of itinerant vendors, has doubtless done much to encourage the fatal fashion. There are certain pharmacies at which the drug is openly sold, but a whole tribe of middlemen has sprung up who buy it in large quantities at one or other of these shops and resell it at night at exorbitant prices. Two of these intermediaries were brought to the same meeting of the Clinical Society by M. P. Beaussart, and seem to have been quite brazen in admitting the nature of their trade and describing their methods. Under the French law a pharmacist who sells cocaine without a prescription and without registering the name of the purchaser may be prosecuted, and one was recently sent to prison for a fortnight and fined several thousand francs. When he came out he resumed his trade and raised his prices so as to pay for his fine. The new poison law of 1908, designed primarily to regulate the sale of opium in France, is little better than a dead letter; so much so that within the last few months the Procurator of the Republic in Paris has called the attention of the police in the Department of the Seine to the fact that in certain quarters of the city it was possible to buy cocaine, opium, or morphine without any difficulty. He urged upon them a stricter exercise of their duty, but the police are handicapped by the fact that somebody must be found to lodge a complaint before the courts can act, and the victims of the habit are seldom disposed to help to set the law in motion. Thus, though some half-dozen pharmacists who connive at the trade are well known to the police, it is difficult to bring them into court. This is a dilemma very familiar to us in this country, and it will be interesting, and perhaps instructive, to us to see how our logical neighbours solve it. Apparently something will have to be done, as the habit seems to be spreading from the frequenters of the night cafés of Montmartre to those in different quarters patronized by another class.

THE ANTIQUITY OF MAN.

PROFESSOR GEIKIE began the second course of Munro Lectures in the University of Edinburgh on January 28th. The Munro Lectures on Anthropology and Prehistoric Archaeology were endowed by Dr. Robert Munro, who retired from medical practice in 1886 to devote his attention to archaeological and anthropological pursuits. Professor Geikie's lectures, ten in number, are being given on Tuesdays and Thursdays. Their subject is the antiquity of man in Europe. This antiquity, said the lecturer in his opening address, was very great, and, although the geologist could not fix a definite date, it was quite certain that the history of man could not be comprised within a few thousand years. The earliest human relics and remains belonged to the Pleistocene period, and therefore the lectures would deal with this geological epoch. Some of the Pleistocene mammals were extinct, but others were still living; and they could be divided into three groups—a Southern and Temperate, a Tundra or snow-loving, and a Steppe group. Three kinds of climatic conditions had prevailed during the Pleistocene period—a genial and equable kind, an extremely cold kind, and one which found its modern representative in that of the Steppes. These various climatic changes could not have followed each other quickly over a whole continent; yet man lived through them all; it must therefore be concluded that the human race was of great antiquity in Europe. This, of course, was only one of the geological proofs of man's antiquity. Professor Geikie, in his second and third lectures, dealt with the testimony of the caves, and in his fourth with that of the Pleistocene river drifts. It might, he said, be concluded that throughout Central Europe Tundra or arctic conditions had obtained for a long time, and had been followed by a steppe climate, and that palaeolithic man had lived in both these periods.

THE VENTILATION OF SLEEPING CARRIAGES.

THE all-steel sleeping car is an innovation on American railroads, and has been received with great favour. An exhaustive study of the ventilation of these cars has been made by Dr. Thomas R. Crowder, of Chicago,[1] following up a previous investigation on the standard Pullman sleeping car of wooden construction. From the hygienic point of view, the great advance in these new cars is said to be the abolition of the "deck sashes"—a row of small windows near the roof line on either side of the car—and the substitution of a ventilating system purely on the exhaust principle. In the old type of Pullman the deck sashes formed the only means of ventilation. Later an exhaust system was added in the form of a device known as the Garland ventilator, which removes air by a suction effect dependent on the train motion, and reverses the fresh-air currents in the car from a downward to an upward direction. Thus, instead of air being admitted at the top through special openings and allowed to find its own way out, it is removed at the top by artificial devices, and allowed to find its own way in through the crevices about doors and

[1] *Archives of Internal Medicine*, January, 1913.

windows which act as intakes. This exhaust device was found to increase the active ventilation of the old cars, and to regularize the flow of fresh air, but the existence of the deck sashes militated against the effective working of the system. The crevices of these loosely fitting clerestory windows were so near the outlets of the exhaust ventilators that the air on entrance was short-circuited and drawn out again without playing any part in the renewal of the breathing zone. In the new steel structures, with the deck sashes practically abolished, and the exhaust system made an integral part of the building instead of being an after-thought, there are few or no natural openings in the upper part of the car, and therefore the entering air must come through the crevices around the windows and doors on the lower levels. It is then drawn upwards to the outlets of the exhaust ventilators near the roof. In some formidable tables Dr. Crowder gives figures for the air supply under these conditions. His method is to determine the respiratory contamination of the air of the car, as represented by the amount of CO_2 produced by all its occupants, and with this as an index, to compute the hourly air supply. A large number of samples of air, taken from the aisles of 36 cars, showed an average carbon-dioxide content of 5.78 parts in 10,000. The average number of occupants was 16.2, and the average hourly air supply per car was estimated at 54,600 cub. ft. With the older type of car, equipped with the same ventilating device, but retaining the deck-sash construction, the air supply was 40,600 cub. ft., and with cars depending solely upon deck-sash ventilation, 28,300 cub. ft. The average hourly air supply per occupied berth (computed as the number of cubic feet which must be supplied to one person each hour in order to maintain the CO_2 at the average proportion found) was 2,170 in the case of the lower berths and 2,000 in the case of the upper. These figures, again, are considerably higher than those obtained with the older type of car, but the difference is not so marked as in the ventilation of the aisles. Although he makes these careful determinations of the quantitative air supply, Dr. Crowder proves himself a man after Dr. Leonard Hill's own heart by saying that the quantity of air is not a measure of the ventilation efficiency, and that the important principle in ventilation is to attend to the physical qualities of the air—namely, its temperature, humidity, and movement. The chemical purity of the air is of minor importance, and ventilation should be regarded as a process to be carried out in the interest of the heat economy of the body. The exhaust system is beneficial, because it furnishes a ready exit and a continuous upward movement and outflow of the air forced in by the wind, thus renewing constantly and equably the lower levels of the car. The air supply is always sufficient to prevent monotony, and the jets of incoming air are individually of such small volume and have such irregular and diffuse movement in the stiller body of air within that the system lacks nothing from the standpoint of comfort, and comfort in this case is a fair hygienic index. Comfort and air purity have little or nothing in common, but comfort has a direct reference to air temperature and motion. The judgement at which the sensory nerves arrive is fundamentally correct. The air is really bad or good just as they indicate, but it is bad or good in the physical and not in the chemical sense.

THE BIRTH OF THE ATOM.

WE referred last week briefly to a meeting of the Chemical Society held on February 6th. On the day following the reading of the papers by Sir William Ramsay, Professor Norman Collie, and Mr. H. Patterson, the *Morning Post* published a full account of the meeting. Despite the revolutionary character of the statements made, and of the views more or less tentatively put forward, the Chemical Society received them with enthusiasm, and Professor Arthur Smithells, who was in the chair, described them as possessing greater dramatic interest than any read hitherto in the history of the society, and in its name returned thanks to the authors for their momentous communication. In view of the controversy aroused, it may be well, pending the full publication of the papers, to summarize briefly the essential experiments. If a vacuum tube is taken and sufficient hydrogen admitted to conduct an electric discharge, helium makes its appearance after sparking has been in progress for some time. If this vacuum tube be surrounded by another containing a little oxygen, both neon and helium are found in the space between the two tubes, the formation of neon being apparently conditional on the presence of oxygen. The authors appear to contemplate three possible explanations: (1) the transmutation of one or more of the elements in the glass or electrodes into helium or neon; (2) the transmutation of hydrogen into helium and neon as a result of the electric discharge to which the hydrogen has been subjected; and (3) the conversion direct of the energy of the electric discharge into helium and neon. Of these hypotheses it is only necessary to say that the authors drew attention to the relations expressed by such an equation as helium (4) *plus* oxygen (16) = neon (20). Some preliminary discussions of the experiments by Sir J. J. Thomson, Professor Soddy, and Sir Oliver Lodge have been published, and the line of criticism is that the gases may be liberated from the glass and the electrodes in which they have been occluded. Professor Thomson goes further, and has stated that he had found the formation of the gases to stop after a similar experiment had been running for a few days, and for it to be resumed temporarily if the electrodes were charged. For the present the matter must rest there. The subject is one on which the opinion of any but experts is of little value. It may be stated, however, that the readers of the papers are maintaining their opinion in the face of the criticisms, and claim that the publication of their papers will show that they have eliminated the causes of possible error to which attention has been drawn.

THE NEGLECT OF VACCINATION.

WHEN the Royal Commissioners on Vaccination recommended such modification in the Vaccination Acts as would enable parents who had "conscientious" objection to vaccination to obtain exemption for their children, it was not supposed or contemplated that neglect of vaccination on an extensive scale would be the result. The Act of 1898 gave effect to the recommendation and imposed a certain amount of trouble and a small expenditure on those who sought exemption. That Act also instituted domiciliary vaccination and replaced arm-to-arm vaccination by the use of glycerinated calf lymph. These advantages resulted in a great increase of vaccination. The number of those who objected to vaccination was steadily decreasing throughout the country. Unfortunately some magistrates showed little discretion in dealing with applications for exemption. Their praiseworthy zeal for vaccination led them into misguided action. This gave occasion for an agitation by the anti-vaccinators who greatly disliked the Exemption Clause. The amending Act of 1907 reduced the Exemption Clause of 1898 to a farce, the exception being rendered obtainable by a simple "declaration" involving a minimum of trouble and no cost. The effects of this are now reflected in the vaccination returns, which show a large and increasing neglect of vaccination in the country, and the antivaccinators are rejoicing in the measure of their emancipation, and craving for total repeal. Many authorities do not disguise their anxiety; medical officers of health all over the country are issuing warning notes in their annual reports. Those who face the situation with equanimity may find themselves in a fool's paradise. In the matter of

vaccination, the country which gave to the world this boon is now the laughing-stock of other nations. In other countries the Governments advocate general vaccination as well as enforce it. In this country it may be said the Government does neither of these things. The public vaccinator performs his State duties under conditions of unexampled discouragement, except when small-pox is prevalent; then he is the idol of the district, with even his enemies at his feet. Subsequent results have demonstrated beyond all possible shadow of doubt that the Act of 1907 is responsible for the increasing neglect of vaccination. It is equally true that the wholesale manner in which exemptions are being issued, regardless altogether of any question of conscience, is to a large extent due to the indifference of the Government. The President of the Local Government Board has openly avowed his opposition to vaccination—a fact which must prejudice his attitude as the head of the department entrusted with the administration of vaccination. The Government, however, cannot dispense with vaccination as a first line of defence during the prevalence of small-pox. If the public were more definitely impressed with the fact that the Government knows vaccination to be indispensable at such times more confidence in vaccination would be fostered among the people, and with the risks practically eliminated many would realize the desirability of being wise in time who are now merely indifferent. The question of compulsion may be one of politics—even party politics—but the question of educating the masses in all that appertains to public health and preventive medicine is not a matter of politics, but a real duty devolving upon the State. After seven years of deliberation and the accumulation of an enormous mass of conclusive evidence the Royal Commissioners, with absolute unanimity, agreed that it was the duty of the State to provide vaccination for the people. The State has continued to "provide" vaccination, but has failed to recognize that its duty does not end there. In the face of unscrupulous opposition and the dissemination of misleading and often untruthful literature, no attempt has been made to justify the State or to defend the medical men who are employed by the State from the scurrilous attacks made upon them in the press and on public platforms. This is a poor recognition of services rendered, and is a matter which undoubtedly demands more serious consideration.

MEDICAL MISSIONARY CONFERENCE IN PEKING.

The *Peking Daily News* for January 17th and 18th, 1913, gives a very interesting account of the triennial China Medical Missionary Conference, held on this occasion in Peking itself. More than a hundred doctors, of whom twenty were women, attended. The delegates came for the first time to the place of meeting by railroad; they consisted not only of British and American physicians, but also of some of other nationalities, and the sessions were held in the Union Medical College. In the absence of the President (Dr. Philip Cousland, who is at present in Edinburgh owing to ill health), Dr. Logan of Hunan presided over the meetings. Chinese medical men and educational leaders in the new Government visited the Conference, and the President and some of the officials of the China Medical Association also attended and sought for co-operation with the Medical Missionary Association in the advancement of medical knowledge in China. In many respects the Conference was not unlike an annual meeting of the British Medical Association at home. Papers were read, which the *Peking Daily News* says were "of a very high order"; the gates of the West Park were thrown open, and the palace where Kwang Hsu was detained by the Empress Dowager in 1893 was visited by the delegates; visits were also paid to the Temple of Heaven, to the Temple of Agriculture, and to the Confucian Temple, the Hall of the Classics, and the Lamasary; receptions were given by the American Minister and Mrs. Calhoun, and by the Minister of Foreign Affairs and Mrs. Lu; but the crowning event was the reception given by the President of the China Republic on January 15th, when, as already announced, he received an address from the Medical Missionary Conference, and made in simple Mandarin the reply a translation of which was published in the Journal on January 25th (p. 189). The most important matter discussed at the Conference was medical education. There was a strong feeling that the missionary societies should not increase either the number of medical schools or the number of hospitals in China until those already in existence were fully manned and equipped; that the medical curriculum should be a five years one, and that the entrance requirements should be at least the completion of the middle school work as laid down in the Government curriculum. The *Peking Daily News*, in a leading article, said: "The doctors all seem to feel that at a not very distant date the Chinese will be able to care for their own medical schools and for the physical welfare of the people. The present object is to so establish the work being done in these lines by the missionary societies, that when the time comes for the completely turning over to the Chinese of this work, the spirit of Christ as well as that of scientific medicine may be deeply embedded in the hearts of the medical profession of the future China."

THE LONDON HOSPITAL QUINQUENNIAL APPEAL.

This year the London Hospital is issuing its quinquennial appeal to the British public for funds wherewith to carry on its enormous task among the East End poor. In making this appeal, Mr. Sydney Holland is asking for £100,000, in addition to the £110,000 required annually to keep up the institution. That this will be no easy matter, even for the "Prince of Beggars," in this, the first year of national insurance, is fully recognized. There are many who claim that Mr. Lloyd George's Act will relieve the hospitals very considerably of their financial burden by abolishing a large number of the out-patients. Though this may prove to be true to a certain extent, it seems already fairly clear that the relief will not be anything like as great as some have assumed. The out-patient staff still continue to see and treat a host of patients who are sent up to them by doctors for consultative advice, whilst the bulk of the women and all the children remain, as heretofore, uninsured. Mr. Holland reckons, from the statistics collected in the six months which elapsed between the passage of the Act and the application of the medical benefits therein provided, that out of 233,500 out-patients treated annually at the London Hospital only some 58,000 will be referred to the panel doctors. This may mean a decrease in expenditure of about £6,000—a mere teacup in the ocean of the total expenditure. The effect of the Act on the number of in-patients is practically *nil*. The London is the largest general hospital in the country, and, unlike one or two of its more fortunate brethren, has no permanent endowment fund to fall back upon. It is therefore bound from time to time to make a supplementary appeal to the charitable public for funds over and above the annual expenditure. If the public realized the manifold activities of an institution like the London Hospital, they would willingly put their hands in their pockets and quickly collect the sum necessary to defray all expenses and maintain the institution in a state of the highest efficiency. Some 700 persons daily apply to the hospital for treatment. The wards contain some 900 beds, which are occupied annually by 16,827 patients. The number of persons treated as out-patients has already been quoted. Of these 38,870 last year attended the various special departments, and the National Insurance scheme does not profess to provide special treatment. The true magnitude of the figures given is more vividly portrayed when we

realize that during the year over 10,000 patients attended one special department alone, that set apart for diseases of the throat, nose, and ear. The general public ought more fully to realize that the great hospitals have a far wider scope than simply treating the sick. They have an even higher duty to perform in investigating obscure points connected with disease; whilst last, but by no means least, it is their function to educate the coming generation of doctors. If the hospitals are to be starved because the new tax is resented by employers, then the public will suffer a threefold wrong; they will lack that attention which hitherto was accorded them by the hospitals and which can be obtained nowhere else, but an even greater misfortune will be the necessarily inferior standard of medical training which the Insurance Act may encourage unless scientific and clinical research can be continued and extended. If only the public will understand that the wonderful combination of departments directed by highly trained specialists, such as the bacteriological, chemical, *x*-ray, Finsen light, massage, and baths, can only exist together in institutions like the London Hospital, then we feel sure that Mr. Sydney Holland's appeal will not fall upon deaf ears.

THE COMMITTEE ON TUBERCULOSIS.

THE Departmental Committee on Tuberculosis appointed a year ago under the chairmanship of Mr. Waldorf Astor, M.P., to consider the general policy in respect of the problem of tuberculosis in the United Kingdom in its preventive, curative, and other aspects, has recently held a number of meetings. The Committee, it will be remembered, issued an interim report last May, which dealt mainly with administrative questions. Its final report, which, it is understood, will be issued at an early date, will, it may be assumed, deal among other matters with the organization of the research contemplated by the National Insurance Act, Section 16 (2). That subsection provided that a contribution of 1d. in respect of each insured person should be made to the sanatorium fund out of money provided by Parliament, and authorized the Insurance Commissioners to retain the whole or any part of the sum for the purpose of research. The Committee will in all probability recommend that the researches to be immediately undertaken shall have reference to tuberculosis, but it must be borne in mind that sanatorium benefit may be extended to other diseases, and the provision as to research would then apply to these other diseases. The importance, therefore, of putting the system on a good footing extends beyond the question of tuberculosis alone.

AT a meeting of the Royal Faculty of Physicians and Surgeons of Glasgow on February 3rd, Sir William Macewen, M.D., LL.D., F.R.S., D.Sc.Oxon., Professor of Surgery in the University of Glasgow, was, on the motion of the President and Council, unanimously elected an Honorary Fellow of the Faculty.

MR. G. JAMESON JOHNSTON, F.R.C.S.I., Professor of Surgery in the Royal College of Surgeons in Ireland, has been elected president of the Universal Esperanto Medical Association, in succession to the late Professor Dor of Lyons.

A COURSE of post-graduate lectures on recent views as to diseases of the liver, pancreas, and spleen will be given in the clinic of Professor Gilbert at the Hôtel-Dieu, in Paris. It will commence on March 17th and terminate on April 1st. Two sessions will be held on each week-day with an interval of three days at Easter. The fee for the course is 100 francs. Further particulars can be obtained on application to M. Deval, Chef de Laboratoire, Hôtel-Dieu, Paris. In September there will be another course on the clinical application of laboratory methods to diagnosis.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Royal Commission on University Education in London.—In reply to Sir Philip Magnus, the Home Secretary stated on February 6th, that the Royal Commission on University Education in London had nearly completed its final report, but it was not possible to say when it would be published.

Medical Referees and the Panel.—Mr. Masterman, in replying to Mr. Bird, on February 10th, stated that medical referees under the Workmen's Compensation Act were not debarred from going on the panels under the Insurance Act.

Tuberculosis Dispensaries in Ireland.—Mr. Birrell informed Captain O'Neill, on February 11th, that tuberculosis dispensaries had been established by the Dublin Corporation in Dublin and by the Down County Council at Banbridge and Newtownards, and negotiations for the acquisition of sites were pending in a number of other counties. Part I of the Tuberculosis Prevention (Ireland) Act, 1908, which dealt with compulsory notification of tuberculosis, had been adopted by twenty-two urban and twenty-eight rural sanitary authorities.

Vaccination.—Mr. Thomas asked the President of the Local Government Board, on February 11th, whether he was aware that in Derby, Leicester, and other towns for many years past less than 10 per cent. of the children born had been vaccinated; that the inhabitants had not suffered in any special degree from small-pox in consequence of this neglect of vaccination, but that concurrently with decreased vaccination both the general death-rate and the infantile mortality had materially declined; and whether he was now prepared to recommend the Government to bring in a bill for the repeal of the penal clauses of the Vaccination Acts.—Mr. Burns said he was aware that there had been a considerable increase in the number of exemptions from vaccination and that there had not been any corresponding increase in small-pox, but he could not undertake to recommend legislation of the kind suggested at the present time.

Inflammable Fabrics.—A Fabric (Misdescription) Bill was introduced on February 4th by Mr. T. C. Taylor. The object of the bill is to prohibit the sale of flannelette or any other textile fabric described as being non-inflammable or safe, unless it conforms to such standard of non-inflammability as may be prescribed by regulations to be made by the Secretary of State. The bill is supported by Dr. Addison, Mr. Boland, Colonel Brocklehurst, Sir Frederick Cawley, Sir Henry Craik, Mr. Ferens, Mr. Hills, Mr. Joynson-Hicks, Sir John McCallum, and Mr. Albert Smith.

Nurses' Registration Bill.—When questioned on February 5th with regard to the prospects of the Nurses' Registration Bill next session, the Prime Minister said he could make no promise for next session, but the claims of the Bill would be considered.

Trade Effluent and Sewage Disposal.—Mr. Burns said, on February 5th, that the recommendations of the Royal Commission relating to the disposal of trade effluents were receiving his attention, but he could not say when it would be possible to introduce legislation on the subject.

England and Wales.

FROM OUR SPECIAL CORRESPONDENT.

LONDON.

Election to the London Insurance Committee.

The following address to the medical practitioners in the London Insurance area has been issued by Mr. E. B. Turner and Dr. Evan Jones:

"Having been requested by a large number of practitioners to stand for election as representatives of the medical profession on the London Insurance Committee, we have consented to do so, and ask for your votes and support for the following reasons. We hold:

"1. That the two practitioners elected by the profession to serve on the Insurance Committee for the London area should be entirely independent of the control of that Committee.

"2. That the interests of the very large number of men who have declined to serve under the Insurance Act and Regulations should be safeguarded, as far as possible, on that Committee by the directly-elected representatives.

"The six other medical men nominated and appointed by the Commissioners and the County Council respectively will amply suffice to voice the wishes of those gentlemen who are now serving on the panels, but it is extremely unlikely that they will give any very active support to those who have declined to work under the Act.

"If elected, we shall consider that we represent the whole of the profession in London, and shall do our utmost to further the interest of every member of that profession, whether he be working under the Insurance Act or not.

"Evan Jones.
"E. B. Turner."

The Treatment of Tuberculosis.

In reply to a letter from the Local Government Board, suggesting that the London County Council should prepare a complete scheme for dealing with tuberculosis in London,[1] the Public Health Committee reported to the Council on February 11th in favour of accepting the suggestion, and outlining the general principles upon which it considered provision for treatment of tuberculosis should be made.

Temporary Arrangements.

The Committee pointed out that, although communications had been addressed by the Local Government Board to county councils throughout the country as early as May, 1912, no indication was given until December as to what authority was to be responsible for dealing with the disease in London. The Council, therefore, was in no way responsible for the delay that had occurred As soon as the Council was approached it decided to make temporary arrangements with the Metropolitan Asylums Board for the provision of a limited amount of accommodation. Authority to provide this was received on December 11th, 1912, and, although various alterations to buildings had been necessary, patients were received on February 10th, 1913.

It was difficult to estimate accurately the number of cases within the county of London, because the disease in all its forms had only just become compulsorily notifiable. There were, however, 33,444 cases of phthisis notified during 1912; of these, 12,366 were Poor Law cases, 12,214 were hospital cases, 500 were school cases, and the remainder (8,304) were notified by general practitioners. The medical officer estimated that there were in London 50,000 persons suffering from tuberculosis, and of these about 20,000 were insured persons. As regards school children, with the extension of medical reinspection and the increasing facilities for diagnosis likely to obtain in the near future it was probable that many more cases of early tuberculosis would be detected each year than had hitherto been the case. The existing provision was in the hands of the various public authorities and of the voluntary agencies comprising the general and special hospitals, the tuberculosis dispensaries, and various philanthropic and religious bodies.

[1] British Medical Journal, December 21st, 1912, p. 1727.

The Value of Existing Methods.

It was obvious that if the best results were to be obtained the work of these authorities and institutions must be co-ordinated. For instance, under the existing arrangements the provision of dispensaries was being dealt with by the borough councils. Although it was not suggested that this arrangement was undesirable, it was essential that there should be uniformity. Moreover, it was very important that the part played by the hospitals, general and special, should not be displaced by any newer dispensary provision. It was equally important that the valuable work of the practitioner should be assimilated in the new arrangements to be made. The dispensaries, if established as separate institutions, should fill up the gaps in the hospital provision. It would be a great misfortune if the hospitals, with their highly experienced staffs, elaborate equipment, and special organization, were not utilized. No new institutions with their limited staff and resources could possibly provide the skill and experience available in the large general and special hospitals. The hospitals had to a great extent evolved the forms of medical treatment now accepted as the best, and the progress of medicine was bound up with their keeping in intimate touch with the patients they had hitherto extensively treated. To conserve the work of these great institutions rather than replace it should be a definite aim in any reorganization of the measures for dealing with tuberculosis now undertaken.

If it was considered desirable to co-ordinate the dispensary arrangements throughout London, uniform agreements should be made between the County Council and the borough councils, and the co-operation of the general practitioner in cases not suitable for dispensary treatment should be secured to the fullest extent possible.

Central Control of the Organization.

The committee pointed out that any measures for the prevention of infection from tuberculosis could not be confined logically to one class. The treatment of the disease could not be regarded as other than a matter of public health administration, and the County Council, in its position of central public health authority, was best fitted to organize the arrangements, as it was important that there should be no departure in London from the well-founded principle of having one central health authority for the administration and co-ordination of all matters relating to public health. In this connexion the committee indicated the important functions already exercised by the Council in regard to tuberculosis. In its function of education authority, also, it had, to quote the Departmental Committee on Tuberculosis, "the opportunity of playing a very important and indeed essential part in the detection, prevention, and treatment of tuberculosis."

Conferences with Hospitals, etc.

The Committee recommended the Council to cause a detailed scheme for the treatment of tuberculosis to be prepared. It would be undesirable at this stage to enter into details, because so many authorities and institutions were concerned; but it was important that the action which the Council was to take with regard to the general situation should be decided as soon as possible. The local authorities, hospitals, and all concerned in the provision of treatment for tuberculous persons in London were experiencing considerable difficulty in deciding what arrangements they were to make for the future because of the absence of any co-ordinating scheme. The question of finance was, of course, of paramount importance as bearing upon the scope of any scheme which might be prepared, and the ideal public health measure must be subordinated to the practical.

Major Levita, the Chairman of the Public Health Committee, moved the adoption of the following recommendation attached to the report:

> That it be referred to the Public Health Committee to prepare forthwith and submit to the Council a scheme for dealing with tuberculosis throughout the administrative county of London; that the Local Government Board be informed of the action taken; and that, for the purpose of preparing a scheme, the Committee be authorized to confer with the

sanitary authorities, the Insurance Committee for London, and such other authorities, institutions, or persons as the Committee may deem necessary.

The recommendation of the Committee was adopted without debate.

The Relative Infectivity of Leprosy.

It was reported to the Metropolitan Asylums Board on February 8th that the Greenwich Borough Council, having made leprosy a notifiable disease in that borough, had asked the Asylums Board to provide hospital accommodation for the treatment of cases. The medical officer to the Board, Dr. H. E. Cuff, reporting on the suggestion, said the Greenwich Council assumed that there was a risk of the spread of infection. In this country, at any rate, the risk could hardly be said to exist. Though the Local Government Board had knowledge of quite a number of lepers, there was only one instance on record (in Ireland) of a previously healthy person developing the disease in these islands. In that case the grossest carelessness and indifference were shown, for the man who became infected had been in the habit of sleeping in the same bed with his brother, who was a leper, and when the latter died the survivor wore his clothes. There was no doubt that leprosy was contagious, but in a low degree, and that prolonged and intimate contact was necessary to permit of the spread of infection. It was known that a man might have the disease and live for years with his wife without giving it to her. In the public mind the idea that leprosy was dangerously infectious was maintained by accounts of the deaths from leprosy which occurred from time to time in the ranks of those who tended the sufferers from the disease. No account was taken of the very much larger number that escaped infection. For example, one sisterhood had had charge of a leper colony for fifty years, and during that time no sister had contracted the disease. Lepers who could be maintained in their own homes could safely be left there, and those who were living under grossly unhygienic conditions could be treated in the London hospitals or infirmaries without any risk to the other inmates. To take sufferers away from their friends and permanently place them in institutions would be an act of cruelty, for the disease was incurable, and the only medical and surgical treatment required was of a general character.

The Board decided to inform the Greenwich Council that it could not endorse the view that special hospital accommodation was necessary for cases of leprosy.

The Appointment of a Research Bacteriologist.

At the same meeting a letter was received from the Local Government Board stating, with reference to the proposal to appoint a research bacteriologist (British Medical Journal, December 7th, 1912, p. 1640), that it was of opinion that the officer should be designated pathologist, that his appointment should be annual in the first instance, and that the holder should not, at any rate in the beginning, be required to devote the whole of his time to the duties. Subject to these conditions the Board approved the appointment.

BIRMINGHAM.

Presentation to Sir Thomas Chavasse, F.R.C.S.

A presentation was made to Sir Thomas Chavasse at the General Hospital, Birmingham, on January 30th, on the occasion of his retirement from the office of honorary surgeon to the hospital, a post which he had held for over thirty years. The presentation took place in the board room of the hospital, the Lord Mayor of Birmingham (Lieutenant-Colonel E. Martineau, V.D.) presiding over a large company.

Sir Thomas Chavasse, owing to a recent accident in the hunting field, was unable to be present, but his son, Dr. Arthur Chavasse, accepted the presentation on his behalf.

A three-quarter length portrait in oils of Sir Thomas Chavasse, which had been executed by Mr. A. T. Nowell, was presented to the hospital to be hung in the board room. The portrait represents Sir Thomas wearing the gown of a Fellow of the Royal College of Surgeons, and is a most excellent likeness. A smaller portrait by the same artist was presented to Lady Chavasse, who in a most graceful speech said she was exceeding proud of the gift, which she regarded as a proof of the way her husband's work within those walls had been appreciated.

Mr. Gilbert Barling, senior surgeon to the hospital, asked the Lord Mayor to present an illuminated address saying that Sir Thomas had set a fine example of devotion in the way he attended to his hospital work. He was the first surgeon at the hospital who had been inspired by the principles of the late Lord Lister.

Sir Thomas Chavasse became assistant surgeon to the General Hospital, Birmingham, in 1877, and was elected to the full staff in 1881, so that he had been honorary surgeon for over thirty years. During that time his devotion to the hospital had been most marked, and it was chiefly through his influence that the new hospital had been built at the time it was. He had inspired that great benefactress to Birmingham, Miss Ryland, a near relative of Lady Chavasse, to bequeath £25,000 to the hospital. Sir Thomas Chavasse took the greatest interest in the building of the new hospital, and was also able to obtain other large donations towards its rebuilding, and had himself given £1,250 for the endowment of a bed.

Sir Thomas Chavasse has held many important medical posts in Birmingham, for he is ex-President of the Birmingham Branch of the British Medical Association, the Midland Medical Society, the Birmingham Medical Benevolent Society, the Queen's College Medical Society, and the Birmingham Medical Institute.

MANCHESTER AND DISTRICT.

The Manchester Royal Infirmary.

In the annual report of the Board of Management of the Manchester Royal Infirmary for the year 1911 some fear was expressed as to the possible effects of the National Insurance Act on voluntary hospitals, and the report for 1912 stated that to a certain extent the fears had been justified. The work of obtaining new subscriptions had been seriously interfered with, and a few old subscriptions have been discontinued. Though there has been during the past year a slight increase in the annual subscriptions, it is said that there is little doubt that the hospital would have gained a very substantial increase in its subscription list if the Insurance Act had not been passed. The board has had to contend with a widespread belief among the public that hospital treatment is included in the benefits under the Act which insured persons had a special right to claim. On the other hand, a statement has been made that the infirmary would refuse treatment to insured persons, and undoubtedly this had a damaging effect on the subscription list, several letters having appeared in the press distinctly threatening to withhold subscriptions and contributions to the hospital funds if insured persons were refused treatment. To meet this the Board of Management some time ago issued a public statement to the effect that prompt treatment of emergency and accident cases, whether major or minor, would be continued by the infirmary without regard to whether the patient were insured or uninsured; that poor persons, whether insured or not, would receive in-patient treatment on the same conditions as hitherto, and that special treatment for serious diseases of the eye, ear, nose, and throat, diseases of women, and every ailment needing x-ray, electricity, and massage treatment would also be continued as before. The only difference will be that insured persons applying for treatment at the out-patient department will be examined by one of the staff and will receive any necessary immediate treatment, but if it is considered that they are only suffering from some minor medical or surgical ailment, which can be properly treated by their own insurance doctor, they will be referred to him for subsequent treatment.

In the report for 1911 attention was drawn to the original appeal to the public for at least £12,000 additional annual subscriptions, which it was thought would be necessary after removal to the new infirmary if the institution was to pay its way. The response to that appeal had only been £3,783, and the increase during 1912 has been a further £241, making a total increase in annual subscriptions since the removal of just over £4,000 a year. This still leaves £8,000 a year to be provided, and, in

addition, a central branch for accidents in the centre of the city is necessary, which will require a sum of about £25,000 for building and equipment. The board asks that it should be enabled to inform Their Majesties the King and Queen, when they visit Manchester in July, that, as a memento of their visit, Manchester has built, free from debt, a central branch in the centre of the city for the treatment of accidents and out-patients.

WALES.

Workmen and their Doctors.

It is a curious but well-recognized fact that workmen who have had to fight most strenuously for freedom in connexion with their own working conditions are often the hardest taskmasters when they come to deal with persons who are working for them. Fresh confirmation of this anomaly has been brought to our notice by a dispute which is now in progress in the Eastern Valleys of Monmouthshire. Up to the coming into force of the Insurance Act the doctors in the Valley were paid by the workmen on a poundage system, that is to say, each workman paid 3d. per £1 of wages for medical attendance on himself and his dependants. As the wages average about 30s. a week, the yearly amount paid to the doctor for family medical attendance averaged 19s. 6d. When the Insurance Act came into force local doctors went on the panel and agreed to accept the insurance rate for the workers with the reduced poundage rate of 2d. for attendance on the dependants. This arrangement, it is estimated, would bring in the same yearly amount per family as before. The agreement involved the introduction of a system of free choice of doctor which had not hitherto obtained. It might naturally be thought that an agreement of this kind, involving no extra payment and giving to the workman a privilege he had not previously enjoyed, would have been accepted as a very satisfactory arrangement, but the workmen's leaders evidently thought there was a chance of getting a control over the profession which they had hitherto not had, and they proposed that the payment to the doctors should be made by the colliery and works owners through a committee of workmen, and also that the poundage rate should now include free attendance on all midwifery cases. As regards the latter we sincerely trust the doctors will not submit to a demand which is, we believe, unfair, and we hope unprecedented. In every medical contract arrangement within our knowledge the attendance on midwifery cases has been an extra, and we certainly do not think that the payment of 19s. 6d. a family per annum is likely to produce such a handsome remuneration for the doctor that he can afford to give freely what has hitherto been looked upon as an extra.

The other demand of the workmen seems to us to be of doubtful legality, while its unreasonableness is not at all doubtful. The payments received by the doctors from the works office are not payments in advance, but are in respect of work which has already been done, and it is extremely doubtful whether the owners of the works could pay the money except to the doctors who have earned it. They certainly could not do so without the consent of the doctors. But it is obvious that the desire to get the money into the hands of the committee is inspired by the wish to get control over the doctor, and probably also by a hope that some of the money may be retained for other purposes besides paying the doctors. But what more control do the workmen want now that they have got free choice of doctor? If they are not satisfied with the attendance they get they will change their doctor, and there the matter would end. The doctor who is unsatisfactory will be punished by loss of practice. The workmen should remember that the only control even a duke has over his doctor is the right of changing him if not satisfied, and such control is found to be perfectly sufficient and satisfactory in private practice. We believe that after calm consideration the workmen will recognize this, and the fact that they have not done so up to the present is no doubt due to the novelty of the situation. It would be unfortunate if the doctors in the Eastern Valleys, members of a profession the value of whose work largely depends upon the individuality which is put into it, should at one blow come under the control of two sets of committees, first the Local Insurance Committee for the purpose of the panel, and, secondly, a committee of workmen for the purposes of the dependants of the workmen. And the misfortune would be at least as great for the public in the Valleys as for the doctors. The right type of doctor simply will not submit to this pettifogging and unnecessary interference, and insistence on it will lead to a lowering of the type of practitioner who will accept service in the Valleys. We trust that the doctors of the Eastern Valleys will resist this unreasonable demand to the utmost, and we know that in doing so they will have the support of the Welsh Divisions and Branches of the Association which have so often proved themselves equal to similar emergencies. We would draw attention to the fact that the workmen are advertising for doctors in this district, and we trust that no member of the profession will be so foolish in his own personal interest and so lacking in *esprit de corps* as to apply for such an appointment—at any rate, before seeking the fullest information as to local conditions.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

The Royal Faculty of Physicians and Surgeons and the Housing Question.

The Town Council of Glasgow, at its meeting on February 6th, received a deputation from the Royal Faculty of Physicians and Surgeons on the subject of the housing problem and the treatment of consumptives on their return from sanatoriums. Dr. Adam, the President, said that the Faculty had existed for over 300 years, and one of its charter rights was that of watching the interest of the poor. It had been very much concerned lately regarding the question of tuberculosis, the question of better housing, and the question of clearing out slum properties. The deputation came in no carping spirit, but to try to support the corporation in the effort it was making to deal with a very difficult subject, and, if possible, to get those properties swept away at any cost, for he was sure, whatever the cost, it would repay them a hundredfold. Professor Glaister then said he had been charged to lay before the town council the two following resolutions passed by the Faculty:

1. That the Faculty have learned with satisfaction of the action already taken by the Corporation of Glasgow in closing houses and tenements in the slums of Glasgow, which are the breeding places of consumption, and, while appreciating the difficulties in achieving rapidly the end in view, would urge the Corporation to prosecute the same with vigour, in the best interests of the citizens of Glasgow; and also to provide for the housing of the displaced families.

They all knew that owing to the absence or deficiency of building regulations in the past the housing conditions of Glasgow gradually evolved themselves through different centuries, with the result that they had conditions existing in the city which were not consonant with the public health requirements of to-day. These conditions had been bequeathed to them, and they must be gradually removed before they brought the city up to the conditions they all desired.

2. The Faculty are also of opinion that the Corporation of Glasgow should provide suitable hospital accommodation for the more advanced and incurable cases of consumption, these probably being the most active sources of infection.

They knew from their medical experience that tuberculosis was spread among members of families by the imperfect housing conditions in which they lived. They therefore thought that when cases were so far advanced as to be incurable a home should be provided by the Corporation for the sufferers, with such provisions for the visitation of friends as the Corporation might arrange.

Dr. Duncan submitted the third recommendation, which was as follows:

3. That in view of the rapidly accumulating experience regarding the disheartening results which follow the return of sanatorium patients to their own surroundings when these are unsuitable, the Faculty would suggest that the Corporation should provide houses structurally adapted for the home treatment of consumption.

Those who had experience of sanatoriums knew that a large number of patients were sent out who seemed to have the disease arrested—they did not speak nowadays about cured—and if they were able to carry on for some time the treatment they had received from the sanatorium a very considerable number of them would no doubt become well.

Dr. Knox then thanked the council for receiving the deputation, and the council decided to discuss the resolutions at the next meeting of the Corporation.

Medicine and Literature.

On January 31st Dr. J. W. Ballantyne gave an address on Medicine and Literature to the members of the Edinburgh Women Students' Medical Society. He spoke of the medical men who after graduation, and in some instances after a few years of practice, had passed over from medicine into literature, and he cited Campion, Samuel Smiles, Goldsmith, James Hutchison Stirling, and Sir Arthur Conan Doyle. He spoke also of the men who had continued to practise medicine and had yet been ornaments to literature, naming Sir Thomas Browne and quoting from his works, and referring to Oliver Wendell Holmes, to Dr. John Brown, to Mark Akenside, and to some others who were still alive. Allusion was made likewise to the literary men who had been as it were "stickit" doctors, who had got so far as the dissecting room but no further; Southey and Herder, "the Coleridge of Germany," were touched upon. There were also doctors who had written on their own subject of medicine in works which were classics in literature as well as medical text-books; and the instance of Trousseau's *Clinical Medicine* was cited. So far Dr. Ballantyne had dealt only with one side of the subject, the literary aspects of medicine; but he then turned to another—the medical aspects of literature—and referred to the use of medical figures of speech in general literature; he gave instances of their appropriate employment from Shakespeare's Richard II and Hamlet, and of their scarcely so fitting use by some of the old divines, such as Sibbes. He spoke also of books which might be reckoned as medical which were nevertheless written by non-medical authors, instancing Wellesley's *Primitive Physic;* the *Anatomy of Melancholy*, by Robert Burton, "by profession a divine, by inclination a physician"; and Defoe's *Journal of the Plague Year*. Finally, he gave quotations illustrating the way in which some literary men, such as Henley, had written or sung of their doctors.

Scottish Miners and Medical Attendance.

A further meeting of the executive of the Scottish Miners' Federation (see Supplement, February 1st, p. 118) was held in Glasgow on February 4th, when the Secretary stated that no further communication had been received from the Secretary of the Colliery and Public Works Surgeons' Association, and that the executive were disposed to assume that the medical men in the mining districts had accepted the agreement arrived at between the doctors, the men's representatives and the coal-owners at the recent conference held in Glasgow. We are not in possession of full information with regard to the present position, but it would appear that the assumption is incorrect with regard to certain districts at least. At a recent meeting of miners in collieries at Newbattle and Arniston, in Midlothian, it was stated that medical men who had hitherto attended them and their families had refused to accept the arrangement suggested, and a committee was appointed to advertise, as we understand, for whole-time medical officers. The remarks made above under the heading of Wales appear to apply, *mutatis mutandis*, to the position in Midlothian, and any practitioner who may be approached with the object of accepting the appointment in Midlothian is advised in the first place to apply to Mr. J. Burne Mackie, Secretary of the Midlothian Medical Practitioners' Association, 25, George Street, Edinburgh.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Payment for Medical Certificates.

The Conjoint Committee of the British and Irish Medical Associations at a recent meeting passed a resolution to the effect that a minimum charge of 2s. 6d. should be made for every medical certificate of sickness given to an insured person, and, as stated last week, the Standing Committee of the Dublin Clinical Hospitals passed a similar resolution, provided it was found on inquiry that the patient was not liable for the fee. The Insurance Commissioners were asked if the fee for these certificates would be paid by the societies or the insured persons. They replied that it was optional with the societies whether they required a medical certificate or not. It therefore appeared that if a society decided to demand a medical certificate it must pay for it. Further, a special grant of £50,000 has now been allocated to Ireland for the purpose of paying for medical certificates, etc. The societies, however, are at present trying to obtain these certificates without paying for them, by telling the insured persons that if a fee is demanded it is a matter between the patient and doctor and does not concern them. Some insured persons are proceeding against the societies for the recovery of their sick benefit money which has been refused owing to the absence of a medical certificate of sickness. The societies probably all realize that in the end they will have to make arrangements for paying for any medical certificates they may require, and are only holding out at present in the hopes that the medical profession will reduce their charge to 1s. per certificate. As this is the only point on which the medical profession has now any claim on the friendly societies it behoves it to remain firm. It was suggested at the last meeting of the South Dublin Guardians that if the doctors persisted in this line of conduct the guardians could strike back by throwing out proposals to increase their salaries. Last week the Chairman of the Carrick-on-Suir Board of Guardians stated that he voted against granting the increases of the dispensary doctors' salaries because of the doctors' action in refusing to give Insurance Act certificates to poor people in the district. Many of the societies are dispensing with medical certificates and relying on lay inspectors, and already the Dublin hospitals are troubled by visitors calling at all hours to inquire for and see patients who are in the wards.

Maternity Benefit and Dispensary Tickets.

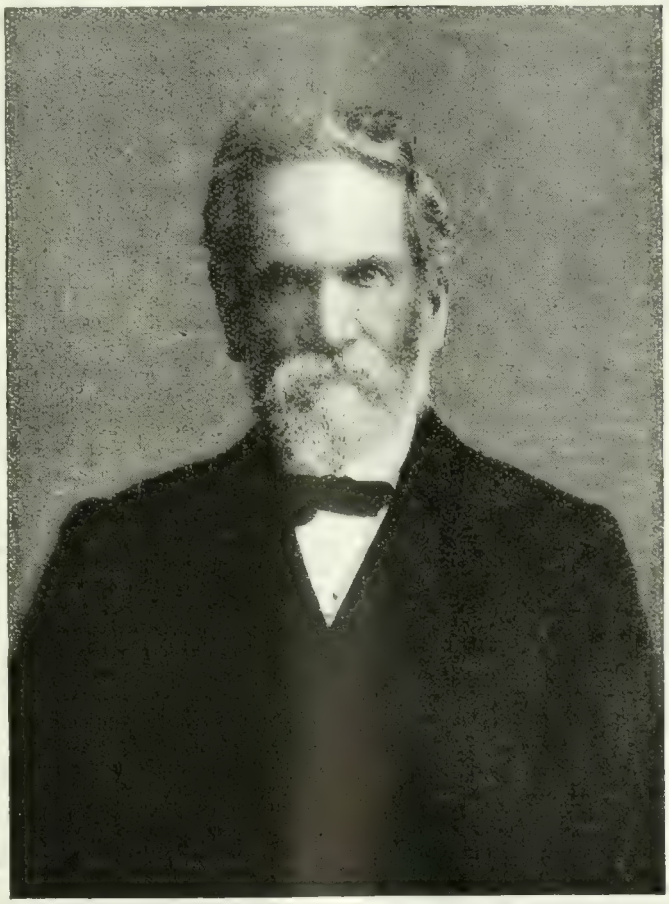
Last week a deputation from the Conjoint Committee of the Irish Medical Association and British Medical Association, consisting of Professor White, Dr. O'Connor (Celibridge), Dr. Walshe (Kilkenny), and Dr. Kidd (Enniskillen), waited on the Local Government Board to discuss the position of dispensary medical officers in regard to the treatment of patients receiving maternity benefit, and also with respect to other points arising under the Tuberculosis Act. The Board was asked whether persons receiving maternity benefit—that is, a sum of money for the special purpose of paying doctor and nurse in a case of confinement—were to be considered as poor persons within the meaning of the Act, and if the guardians were therefore justified in giving a red ticket for attendance for the purpose of confinement only. The deputation pointed out that if a red ticket was given the dispensary doctor must attend, and that therefore the patient had no free choice of doctor. Sir Henry Robinson, in reply, said that a doctor must attend on a red ticket, without receiving payment, until the ticket was cancelled. The question of whether the guardians should issue a red ticket for a person in receipt of maternity benefit must be left to be decided according to the special circumstances of each individual case. In view of the provisional regulations made by the Welsh Commissioners as to the fees of medical practitioners summoned under the rules made under the Midwifery Act, laying down that 15s. for the doctor during attendance for labour, and 5s. subsequently, should be paid and recovered from maternity benefit, and also, in view of the many applications for advice from boards of guardians throughout the country, Sir Henry said they had prepared a circular, which had been held over pending the interview. He then read the circular, and asked for the opinion of the deputation. Drs. O'Connor and Kidd and Professor White expressed the opinion that it met the case fairly and reasonably, but Dr. Walshe thought it left the matter very much as it was at present, as it would still be discretionary with the guardians to give tickets where maternity benefit was given.

Obituary.

WILLIAM CARTER, M.D., F.R.C.P.Lond.,

CONSULTING PHYSICIAN TO THE ROYAL SOUTHERN HOSPITAL, LIVERPOOL.

It is with great regret that we have to record the death of Dr. William Carter, which took place, in his 77th year, at Liverpool, on February 2nd, after a brief illness. For forty years during his residence in Liverpool he figured prominently in the life of the city. He was born in Newbury (Berks) in 1836, the son of Dr. Thomas Carter, who practised in that town. He came of an old Berkshire family, many generations of which had resided at Kingsclere, and on the walls of the old church there the tablets in memory of the family date back to the early part of the eighteenth century. Dr. Carter was educated at the Newbury Grammar School, and afterwards at Charing Cross and St. Thomas's Hospitals; his academic career was most distinguished, for he carried off, in addition to many other honours, two gold and several silver medals during the course of his studies. He obtained high degrees in medicine, and was also a graduate in law (LL.B., 1866) and science (B.Sc., 1864). Amongst other distinctions he was an ex-President of the Liverpool Medical Institution, Liverpool Literary and Philosophical Society; honorary member of the Société Française d'Hygiène; member of the Irish Medical Schools' and Graduates' Association; Professor of Materia Medica, Liverpool University; Honorary Physician to the Liverpool Royal Southern Hospital; Consulting Physician, Eye and Ear Infirmary; Professor of Botany, Zoology, and Physiology, Queen's College; Lecturer on Botany in the Liverpool Royal Infirmary School of Medicine, and on Chemistry and Natural Philosophy in Liverpool College; Honorary Medical Officer, North Dispensary; Lecturer on Science, Liverpool School of Science, and on Materia Medica and Botany, Liverpool School of Pharmacy; Assistant Demonstrator of Anatomy, Charing Cross Hospital; and President of the Liverpool Microscopical Society. He was a Crown Representative on the Council of the University of Wales. He took the degree of M.B.Lond. in 1864, and at first commenced practice in Dublin, but removed to Liverpool in 1867. He rapidly took a prominent place in the medical life of the city. His pen was facile and his contributions to medical literature numerous, dating back to 1868. He was always of a modest and retiring disposition and shrunk from any action or circumstance which might have been interpreted as holding possibilities of self-aggrandisement; but, in spite of this, his ability and conscientious work soon placed him in the forefront of his profession and commanded the confidence and esteem of his patients and professional brethren. His conscientious adherence to what he considered true principles and settled convictions of what was right and just, both in individual work and movements for the welfare of the people, made him an indomitable worker and combatant in many reforms.



DR. WILLIAM CARTER.

Photograph by] [Midgington's, Ltd., Liverpool

His academic work in Liverpool dated back to the very beginnings of the old Liverpool Medical School, from which sprang the University College, and, finally, the Liverpool University. He was an able instructor in materia medica and therapeutics, and in both subjects was deemed a master. For over thirty-six years Dr. Carter was a physician to the old Southern, afterwards the Royal Southern, Hospital, Liverpool. At the age of 60, when he offered to resign, the committee thought so highly of him and his work that his resignation was unanimously declined, and he remained loyally serving the hospital until the close of his professional career. Shortly after settling in Liverpool Dr. Carter succeeded the late Dr. Nevins as a lecturer on chemistry in the old Liverpool College, Shaw Street. Many of his students became his firm friends in later life, and among the most notable of these were Mr. Justice Pickford and Mr. Austin Taylor, formerly the members for East Toxteth Division. In the School of Science his teaching and enthusiasm gave rise to many personal friendships. One of the working-men students was a Scotsman named George Gordon, who afterwards became curator of the Fitzwilliam Museum, Cambridge, and subsequently assisted Lord Rayleigh in research work. A few years ago Mr. Gordon died, and on his deathbed expressed the desire that all his books and scientific instruments should go to his instructor as a token of his appreciation of the kindness he had received.

In his position as medical officer to the West Derby Union Dr. Carter gained much knowledge that was of service to him in his work as a social reformer. He took great interest in measures of sanitary improvement, and was frequently consulted by the Corporation on sanitary questions. He strove earnestly in the social purity crusade for the cause of social righteousness. The temperance cause had in him an ardent and powerful advocate. He was deeply interested in the higher education of women, and was a strong supporter of the registration of midwives and lived to see that embodied in the Midwives Act.

In conjunction with the late Dr. Nevins, Francis Newman, Mrs. Josephine Butler, Dr. Ginsberg, and the Hon. James Stuart, he opposed the Contagious Diseases Act which was in due course repealed in 1886. Dr. Carter also took a notable part in the establishment of the National Association for the Repeal of the Compulsory Notification Act. He was connected with the inauguration of the Liverpool School of Tropical Medicine, and devoted much time and energy to its successful development. He also held the office of Chairman of the Cancer Research Committee, the generous founder of the research fund selecting him as the medium of his benevolence.

As an instance of his firm adherence to principle, it may be said that, when the late King of the Belgians desired to confer upon him an important decoration in

connexion with the School of Tropical Medicine, Dr. Carter refused, owing to the King's attitude to the Congo question, Dr. Carter having been an early member of the Congo Reform Association. His possession of the Mary Kingsley Medal in connexion with the School of Tropical Medicine was, however, a distinction of which he was very proud.

Dr. Carter took the chair at the inaugural meeting of the Liverpool Royal Country Hospital in November, 1898, and was an early and strong supporter of that institution. He continued to act as chairman until the hospital was founded, and remained on the committee until his decease.

Dr. Carter's charitable works were more numerous than known; he always felt great sympathy with the poor, and its expression, though practical and real, was carried out without ostentation.

In 1863, while in Dublin, Dr. Carter married Miss Sarah B. J. Humphrys (second daughter of the late Dr. George Humphrys, of Harcourt Street, Dublin), who predeceased him by several years. The surviving members of the family are Mrs. Macalister (wife of Dr. C. Macalister of Liverpool) and Miss Carter.

In the early part of 1908 Dr. Carter gave up his professional practice, and went to live in retirement at Deganwy, North Wales; but he often visited Liverpool in connexion with his magisterial duties or the various charitable institutions in which he retained a warm and sympathetic interest.

Prior to private cremation, on February 6th, a service was held at Canning Street Presbyterian Church, and the esteem in which he had been held was expressed in the large attendance of professional colleagues, medical practitioners in the city, representatives of city institutions, educational and social, and a large number of citizens from all parts and in all stations in the city.

Mr. ROBERT JONES sends us the following appreciation of the work and character of his late colleague: Few men have won the admiration, love, and respect that the late Dr. Carter inspired in Liverpool during his long and honoured life in that city. His death on Sunday, February 2nd, at the age of 76, will come as a shock to many, for his name had become so intimately associated with all that was best in civic life that great numbers of people who never met him personally had learnt to regard him with affection and trust. Throughout his long life he laboured unceasingly in the cause of suffering humanity, and that not only in his profession but in many phases of social progress. He was active in combating disease and also in encouraging research work, in pressing the claims of sanitation, and in fighting the battles of all those who could not help themselves. He was above all a fighter; one could see that in his strong face, his deep-set steady eyes, his indomitable personality. And yet no man ever accused him of unfairness in argument. He was a fighter but the soul of chivalry. Time and again Dr. Carter would moderate whatever seemed afterwards even a shade over-emphatic, for he was unswervingly scrupulous in small things as in great. There are many who have been touched by the pain he appeared to suffer when he feared he had adopted too resolute an attitude. There are men to-day who treasure letters written to soften words that had caused no rancour, to defend with gentle apology an expression that from his lips could have offended no reasonable person.

He carried in his words, his bearing, his life, all the great sincerity of a prophet of righteousness. He was a puritan, a reformer, and a progressive; but he was a puritan without a breath of cant, a reformer with noble ideals, and a progressive lacking crudeness of conception. Reason ruled his life and steered his ship clear of all the rocks that await so many earnest men. He took a leading part in the social purity crusade, but no man, however spiteful, ever whispered that he was narrow-minded. An ardent advocate of temperance and himself a lifelong abstainer, he nevertheless prescribed alcohol in his professional capacity where he deemed it necessary. Oppression and injustice roused him to a white heat, but he was as simple-minded and gentle as a child. No cause need come abegging in vain to him. From the dumb appeal of animals in the Liverpool Abattoir to the unuttered claims of unborn infants (which resulted in the registration of midwives) his sympathy was flung wide.

It would seem unnecessary to add that such qualities as his were built strictly upon a rock of principle, and it is interesting to remember that when the late King of the Belgians expressed his wish to decorate Dr. Carter for his services to the School of Tropical Medicine (which he was the means of founding) he refused with indignation, for he was, as any one who knew him might have guessed, a staunch supporter of the Congo Reform Association.

As an instance of the puritan in Dr. Carter, it may be mentioned that it was said that he had never entered a theatre, and, as far as his inclinations were concerned, he never had. The following little incident will serve to show the warm kindliness of his disposition: He was called to a theatre in Liverpool one evening to attend an actress who was taken suddenly ill. Having treated her, Dr. Carter prepared to leave. She begged him to stay, however, and not only to do so, but to sit through the performance in a position where his presence would give her confidence. Rather than disappoint her and cause inconvenience to the audience, he took a seat before the stage, and so began and ended his connexion with the theatre.

His modesty, perhaps, impressed strangers most of all, and it is stated that as senior magistrate on the rota of those whose turn was to sit on the Bench he could never be induced to take the chair at the police-court, and on all occasions, despite his many public appearances, he was never one to "catch the speaker's eye."

In his professional and private life he made many friends and was intimate with distinguished men in all ranks of society. He attended Mr. Gladstone in his last illness, and was a friend of Francis Newman. He was often judged to be austere and grave, but he possessed an inexhaustible fund of kindly humour. He was full of interesting recollections of men and events, which delighted his friends. Liverpool has lost in Dr. Carter one of the sweetest and best of men.

HENRY EALES, M.R.C.S.Eng.,

SENIOR SURGEON BIRMINGHAM AND MIDLAND EYE HOSPITAL.

WE regret to hear of the death of Mr. Henry Eales, Senior Surgeon to the Birmingham and Midland Eye Hospital, which occurred, after a short illness, on February 8th. The son of the Vicar of Yealmpton in Devonshire, Mr. Eales was born at Newton Abbot in 1852, and began his medical career, as was customary in those days, by being apprenticed to the village doctor. During his apprenticeship there was a local epidemic of scarlet fever, and having to examine the urine of many patients for albuminuria, out of curiosity he examined his own, and found that it contained a large amount of albumen; as he had not had fever it is probable that it was merely the albuminuria of adolescence; but little was known on this subject at that time, and so serious was the view taken of his condition, that for about a year he was not allowed to continue his medical work. Ultimately, as his general health remained good, he was permitted to proceed, and entered as a student at University College, where he gained two silver medals in anatomy and one in materia medica. He took the Membership of the Royal College of Surgeons in 1873, and was shortly afterwards appointed House Surgeon to the Birmingham Eye Hospital. At the termination of this appointment he became demonstrator of anatomy and medical tutor at Queen's College, but a vacancy occurring on the staff of the Eye Hospital in 1878 he was elected one of its honorary surgeons.

For several years before his death he was senior surgeon to the hospital, and was also ophthalmic surgeon to the Guest Hospital, Dudley; to the Hammerwich Hospital, Cannock; to the Balsall Heath Dispensary, to the Edgbaston Royal Deaf and Dumb Institution, and medical referee for ophthalmic cases under the Workmen's Compensation Act. At the annual meeting of the British Medical Association in Birmingham in 1911 he presided over the Section of Ophthalmology; he held office as vice-president of the Ophthalmological Society, as chairman of the Pathological Section of the Birmingham Branch of the British Medical Association, as president of the Midland Medical Society, and treasurer of the Birmingham

and Midland Counties Ophthalmological Society. He delivered the Middlemore Lecture for 1897. At one time he contributed a good many papers to the medical journals, including a Report on the State of the Retina in a Hundred Cases of Granular Kidney (*Birmingham Medical Review*, 1880), Uniocular Retinitis Albuminuria and Toxic Amblyopia (*Trans. Ophth. Soc.*). He was particularly skilful in the use of the ophthalmoscope, his opinion of the appearances in doubtful cases being of the utmost value.

Mr. Eales had built up a large consulting practice, and his death will come as a painful surprise to a wide circle of practitioners and patients who relied upon his skill. The albuminuria which had shown itself during his apprenticeship entirely disappeared by the time he came to Birmingham, but he suffered at one time severely from migraine, which had become less frequent during recent years. Last Christmas most of his family were ill with influenza, but he appeared to escape. Soon afterwards he developed a slight attack of phlebitis in the calf of the left leg. This seemed to get better, but the pain and swelling returned about ten days ago, so that he was obliged to stay in bed. On February 5th he had an attack of vomiting with syncope, and this was followed by a rise of temperature in the evening; but these symptoms were gradually improving, and on the morning of the day he died he looked and expressed himself as feeling decidedly better. A few hours later he died in another attack of syncope.

He leaves a widow, two sons, and two daughters. The elder son is senior curate at Kenilworth, while the younger is the resident surgical officer at the Eye Hospital, and will probably follow his father's footsteps in his profession.

Mr. Eales was a man of singularly amiable character, and his death makes a gap which to his elder colleagues can never be filled. They were sincerely attached to him for his unfailing kindness of disposition, his high character, thorough loyalty, and devotion to his work.

LEONARD NOON, B.C.CANTAB., F.R.C.S.

THE all too small band of active research workers in bacteriology has suffered a severe loss by the death of Mr. Leonard Noon at the early age of 35. Mr. Noon's early training at Charterhouse was followed by a highly distinguished career at the University of Cambridge, which he entered in 1896. In 1898 he gained first-class honours in the Natural Science Tripos, in 1899 a major scholarship in Advanced Physiology at Trinity College, and in 1900 first-class honours in the Natural Science Tripos, Part II. He then entered St. Bartholomew's Hospital, gaining an open scholarship in Anatomy and Physiology. He subsequently held the posts of house-surgeon and ophthalmic house-surgeon in that hospital. He obtained the degree of B.C.Cantab. in 1903, the diplomas of M.R.C.S., L.R.C.P. in 1903, and that of F.R.C.S. in June, 1905. In September of that year he was appointed to a research scholarship at the Serum Department of the Lister Institute, Elstree, where Professor G. Dean was then Bacteriologist-in-Charge. During his tenure of this scholarship Mr. Noon carried out an important piece of research on the laws governing the neutralization of tetanus toxin by brain tissue. Later he was John Lucas Walker Student in Pathology at the University of Cambridge, and at the close of his tenure of this studentship became an assistant in the Inoculation Department of St. Mary's Hospital under Sir Almroth Wright. Here he remained till early in 1911, when owing to continued ill health he had to give up laboratory work entirely. His recent decease, therefore, did not come as a surprise to those who knew, but was none the less keenly felt by colleagues who had enjoyed his friendship in the past and who admired his enthusiasm for research and the critical insight which he always brought to bear on problems under investigation.

The following is a list of Mr. Noon's chief scientific publications: On the Occurrence of Toxic Compounds of Tetanus Toxin and Antitoxin, Tetanus Toxin and Brain Emulsions (*Journ. of Hyg.*, vol. vii, p. 101); Observations on the Evolution of Immunity in Disease (*Journ. of Hyg.*, vol. ix, p. 181); Histological Notes on the Origin of Rodent Ulcer (*Journ. of Path. and Bact.*, vol. xii, p. 5); Prophylactic Inoculation against Hay Fever (*Lancet*, 1911, vol. i, p. 1572); The Accuracy of Opsonic Estimations (*Lancet*, 1908, vol. i, p. 1203, with A. Fleming).

DR. WILLIAM LATHAM, one of the leading citizens of Ashton-in-Makerfield, Lancashire, died rather suddenly on January 28th, at the age of 51. He was a native of Ashton, and was apprenticed to Messrs. Fisher and Barnish, of Wigan, attending at the same time as a student the curriculum at the Liverpool Medical School. Subsequently he studied at Dublin University, and obtained the diploma of L.R.C.P.I. in 1876 and of M.R.C.S.Eng. in 1878; then, after holding resident appointments in the Liverpool Royal Infirmary, he set up in practice in his native town. He was a member of the British Medical Association, and took an active part in local affairs. He was for a time a member of the old local board, and was afterwards one of the district council representatives on the Ashton and District Education Committee; he took part also in the management of several local institutions. Mr. Latham was made a justice of the peace about four years ago. He was a keen sportsman, and greatly respected in his native town. Two years ago he retired from active practice, owing to failing health, in favour of his son, Mr. William Ewart Latham.

Universities and Colleges.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on January 22nd, under the chairmanship of the Vice-Chancellor, Dr. Herringham.

Resignation from Senate.

Dr. Thomas Buzzard has resigned his membership of the Senate as a co-opted member representing King's College.

Benefactions to University College.

The anonymous donor who a year ago presented £30,000 towards the erection of a new building at University College for architecture, sculpture, and applied statistics, including the Eugenics Laboratory, has now undertaken to bear under certain conditions almost the whole cost of the erection of the buildings in question, in the hope that at an early date it may be possible to complete the Gower Street frontage of the College.

D.Sc. Degree in Statistics.

The degree of D.Sc. in statistics was conferred on Dr. David Heron of University College, who had presented a thesis entitled "A Second Study of Extreme Alcoholism in Adults with Special Reference to the Home Office Inebriate Reformatory Data," and in addition several other contributions to the advancement of science.

Semon Lectures in Laryngology.

At the conclusion of the second Semon lecture given by Dr. McBride on January 24th, Sir Felix Semon, at the invitation of the chairman, Dr. Watson-Williams, Lecturer on Laryngology at the University of Bristol, formally presented to the lecturer the Semon memorial medal, and gave a short address expressing his gratification at the inauguration of the lectures.

Brown Animal Sanatory Institution.

Mr. F. W. Twort, M.R.C.S., L.R.C.P., superintendent of the institution, on February 6th completed his course of five lectures on the comparative study of tuberculosis and Johne's disease.

A LODGE meeting of medical Freemasons who are attending the International Medical Congress in London will be held on Monday, August 11th next, in the Grand Temple at Freemasons' Hall, Great Queen Street, W.C. The lodge will be opened at 5 p.m. and closed at 6 p.m. by the Most Worshipful the Pro Grand Master the Right Honourable Lord Ampthill, G.C.S.I., G.C.I.E., and a reception will be held at 4 p.m. in the Connaught Rooms, adjacent to Freemasons' Hall. It is hoped that all Colonial and foreign brethren who wish to be present will communicate with the Grand Secretary of their own jurisdiction as soon as possible in order that suitable arrangements may be made. Brethren in the British Isles should communicate with the Honorary Secretary of the Committee of Representatives of the Medical Lodges in London, Dr. R. J. Probyn-Williams, P.G.D., 13, Welbeck Street, Cavendish Square. Without doubt the medical members of the craft will give a most fraternally hearty reception to their brethren from the distant parts of the Empire and from foreign lands. It is doubtful if Freemasonry was ever since its ancient foundation so flourishing amongst doctors as it is at the present day.

Correspondence.

THE REPORT OF THE COMMITTEE ON FRACTURES.

SIR,—That the Committee on Treatment of Simple Fractures should have found that the results yielded by operation are somewhat better than those accruing from non-operative methods, can hardly be a matter for surprise. How could it conceivably be otherwise? Nevertheless, when we have arrived thus far, we shall find upon reflection that we have been brought no nearer to a final answer to the questions involved in the treatment of fractures. The real crux of the position is embodied in Section X of the Committee's conclusions, which reads as follows:

> It is necessary to insist that the operative treatment of fractures requires special skill and experience, and such facilities and surroundings as will ensure asepsis. It is, therefore, not a method to be undertaken except by those who have constant practice and experience in such surgical procedures.

In other words the general practitioner who has *not* "constant practice and experience in such surgical procedures" (but who has probably more fractures to treat than those who have) must adopt non-operative methods. But where and how is he to learn to do this, if in his hospital studentship he has been accustomed to see fractures operated on whenever a little difficulty is presented?

One great fact that emerges quite clearly from the whole discussion is that in the past the teaching in our schools has been inadequate and inefficient in respect of the treatment of fractures; but the present trend towards frequent operation must surely eventuate in such teaching ibecoming still more inadequate and inefficient in the hmmediate future. Put in another way, we find that we pave been giving practitioners too little teaching in the past, so we propose to remedy this by giving them ractically none at all in the future.

The skilful non-operative management of a fracture is a much more difficult and interesting surgical procedure than a skilfully performed operation upon it; it makes higher demands upon the surgeon's thoughtfulness and resource, upon his knowledge of physiological principles and his powers of clinical observation.

I cannot help wishing that Mr. Arbuthnot Lane had employed his great surgical ability in elaborating improved non-operative methods, which would have been of immeasurable value to multitudes of general practitioners and their patients. I am quite convinced that he would have obtained results very nearly as perfect as those yielded by his beautifully executed operations, and of infinitely greater value to scientific surgery and to the community.

My students understand why I refrain from adopting the easy course of operating upon fractures, except in rare instances. On the other hand, when a broken leg comes into the ward they receive quite as much and as careful teaching over it, and they learn quite as many valuable surgical principles and methods from it, as from a major abdominal operation. Personally, I have experienced great interest and learnt much that I deem of great value through habitually setting to work with my students over every case of fracture in the endeavour to devise some simple and effective plan of treatment that will be of value to them when they go out into practice; and this, if I may be absolved from arrogance, is in my opinion just what a hospital surgeon and teacher ought to do.

Briefly, it seems to me quite clear that, unless hospital surgeons and teachers are prepared to advocate that open operation on recent fractures shall be undertaken by all and sundry under all sorts of conditions, they must let it be seen that they themselves regard non-operative methods as of paramount value and importance; that they shrink from resorting to open operation in any but quite exceptional and rare instances; and that they frankly acknowledge that the necessity for treating a fracture by open operation carries with it in some measure, greater or less, an adverse reflection upon their own skill. Unless they do this, how can the general practitioner who goes forth from our medical schools be properly trained in this the most important branch of surgical work he will be called upon to undertake? Obviously he cannot.—I am, etc.,

R. HAMILTON RUSSELL,
Senior Surgeon to the Alfred Hospital.

Melbourne, Jan. 8th.

THE "CONTROLLED" THERAPEUTIC USE OF NEW TUBERCULIN.

SIR,—The article on "The Controlled Therapeutic Use of New Tuberculin," by Dr. Rigg, is an apt illustration of the danger of rushing to conclusions on very flimsy and wretchedly controlled observations.

An actuary who has no medical knowledge is hardly the person to suggest a practicable plan of controlling the therapeutic use of tuberculin, or to select and appraise the criteria for estimating improvement or the reverse, unless at least he has some knowledge of pulmonary tuberculosis and the different methods of applying tuberculin effectively. If the tuberculin is not used in a proper way in order to secure the best results, it hardly matters what the criteria are or what the controls. The general condition, as judged by the state of nutrition, including difficult analyses of the urine (Mitulescu's work), the character of the pulse, the tongue, digestion, and the temperature, and even the energy of the patient when he is up and about, cannot be jauntily relegated to a secondary place because Dr. Rigg deems it too fallacious. Even the state of the blood before and after treatment is not subjective but objective evidence (Arneth's work and the evidence of other clinicians show this clearly). Variations in weight may also help, provided the patient is not placed under unusual conditions. I admit that if these patients were kept in hospital for observation a new and disturbing factor was at once introduced, the effect of which would vary in individual cases. Further, the changes in the character of the sputum properly analysed is another criterion which helps greatly in measuring the degree of improvement, and the suggestion that "the extrusion of phlegm is so obviously under the control of the patient, and temporary absence of tubercle bacilli in the sputum of patients suffering from active pulmonary tuberculosis is not infrequent," is a gratuitous concession to want of care in the control of the observations.

Having, then, decided to set aside—perhaps at the behest of the actuary—the most obvious means of measuring the effect of subsequent treatment, Dr. Rigg, under the patronage of Dr. Batty Shaw, tells us that the only criterion is "alteration of the physical signs, and of these the greatest attention was paid to râles."

I cannot imagine a more untrustworthy way of judging the effects of treatment than by one or two chance observations upon, and descriptions of, râles in different parts of the lung. Râles are sounds varying infinitely in character at different times of the day, in different conditions of atmosphere, with the condition of rest, or otherwise, and also with conditions, not only in the large lungs, but sometimes outside them, but especially with the state of the bronchial tubes. Râles, too, are themselves modified very greatly by cough, breathing, and the condition of the tissue through which the sounds are conducted, and vary also with the distance of the tubes or tube in which the sound is produced from the surface point of observation. The degree of accuracy in the description of such râles depends largely upon the experience of the examiner and his personal, often inborn, aptitude for distinguishing the ever-changing variations that literally defy exact analysis and description. I admit that a man with a very fine musical ear, highly trained in observing these fine, almost elusive, differences, might be able to set down in technical language the character of the sounds he hears in different sections of a diseased lung, but I doubt whether even such an examiner could properly describe the minute details of these sounds with any approach to accuracy in any reasonable time. Accordingly, there is an uncontrolled personal equation in the proper valuation of these subjective impressions upon the ear which would render them far less trustworthy as criteria than the condition of pulse, of blood, of weight, of urine, of temperature, and of sputum, in which the personal equation of the observer is eliminated. Dr. Rigg eliminates the subjective impressions of the observed for the subjective impressions of the observer, and at the same

time he introduces as criteria subjective impressions which almost defy exact description. Without a doubt changes in the amount, character, and contents of the sputum would be a far safer guide in determining the improvement, or otherwise, of the lung under the influence of treatment than the criterion set up by Dr. Rigg.

The memory of râles, visualized by means of diagrams, cannot be trusted when compared with the auditory impressions upon the observer after an interval of three months. Such a comparison and description to be of any value must first be practised for a long time before it can be trusted as an art. Isolated impressions of this kind without such careful and close study would vitiate the results. The mere extension of the râles might be of trifling importance compared with changes in the râles indicating increased intensity of the process. Seeing, then, that râles undergo such extraordinary changes that might easily elude any but the most highly trained and acutely sensitive musical ear, one wonders that any one should suggest such a treacherous and elusive method of estimating changes in the lungs as an index of improvement or otherwise. It would be interesting to know how long these investigations upon the physical signs occupied, and whether Dr. Rigg has the ear to recognize and the skill to describe accurately his own auditory impressions.

But these objections to the selection of the criteria pale into insignificance when we come to consider the method of selecting the cases for treatment. The cases "presented all grades of involvement of the lungs, from very slight to extensive (one apex to five lobes,)" etc., and although the skilled physician is able with tolerable accuracy, not by means of râles but by means of physical signs generally, to classify tuberculous disease of the lungs in at least three recognized groups, this usual grouping of cases was ignored and the patients were chosen by lot. Was this also the idea of the actuary? I hardly think the actuary would have so decided if he had known that cases of lung disease can be classified more or less accurately into stages. This would have, at any rate, diminished the influence of pure chance. As it is, Heaven only knows what luck determined in this process of selection, because, when there was such a variety of forms of disease, how could the drawing of lots possibly bring it about that two similar series of cases were selected? I do not think that much attention will be paid to work of this sort, even though an actuary has had a hand in it; but we need not bother our heads about either the actuary or the methods of choice, because the method of treatment is unlike any method of using tuberculin in the treatment of tuberculosis of the lungs which has claimed success.

The largest dose used is described as 0.7 mg. of tuberculin T.R. What this means I do not know. T.R. is a liquid preparation, and strictly cannot be measured in milligrams. If 1 mg. means $_{T}\frac{1}{100}$ c.cm. of T.R., then 0.7 mg. is less than $_{T}\frac{1}{100}$ c.cm. of T.R. Those authorities whose opinions are most valued in this special method of treatment would expect no useful effect from such a dose as a maximum. If 0.7 mg. means 0.7 mg. of dead tubercle bacilli, I must tell Dr. Rigg that this is a very inaccurate and misleading method of describing dosage, because there is no proper ratio between the weight of dead tubercle bacilli to the bulk of the liquid preparation T.R. Thus, I should expect no appreciable effect from such a method of administration, nor any appreciable improvement in the patient, but I would not in any case dream of relying upon physical signs, especially râles, noted once, and again in three months' time, for assessing the value of tuberculin treatment.

I have already laid down in my book a reasonable plan for determining the efficacy of various methods of treating pulmonary tuberculosis: (1) A series of cases in various stages should be grouped. (2) No other method of treatment but the one under consideration should be adopted. (3) The results in all cases should be published, and, most important of all, an opinion should be formed of the relative merits of the rival systems, not in three months' time, by physical signs, but in three years' time, by all the recognized methods of estimating the effects of treatment.

The medical authorities at Brompton Hospital attempted to deal with pulmonary tuberculosis, its nature, its diagnosis, and its treatment in a course of lectures occupying a week. This was pretentious enough, but it would need a genius with superhuman powers to arrive at approximate accuracy concerning the value of tuberculin when all the recognized criteria are calmly set aside and a new criterion is introduced, full of pitfalls even for those best versed, not only in detecting and describing physical signs, but also in deducing therefrom the mixed and variable underlying conditions of tissue and environment upon which the physical signs depend.—I am, etc.,

W. CAMAC WILKINSON, M.D., F.R.C.P.

London, W., Feb. 6th.

THE SUPPORTS OF THE UTERUS.

SIR,—With all due respect to Dr. Fothergill, many of us who have studied anatomy, gynaecology, and obstetrics cannot feel so confident about the true supports of the pelvic viscera. Dr. Moritz may have "conclusively shown" that the so-called ligaments of Mackenrodt are perivascular tissue surrounding the vessels supplying the uterus and not separate ligaments, and very likely he is correct, yet others may be of a different opinion, and "show conclusively" that the ligaments should be interpreted in some other way. Let us turn to a subject apparently far less subtle—the musculature of the pelvic floor, a most important matter in respect to prolapses. The levator ani muscle has been known for centuries, and so has the coccygeus, yet eminent living anatomists like Peter Thompson and Paramore are apparently not agreed as to the precise interpretation, subdivisions, and functions of these structures, which need no aid from the microscope, and require little more, it would seem at first sight, than careful dissection and inspection of preparations in museums. Indeed, I had in mind the views of these authorities (as summed up in a leader in the JOURNAL, vol. ii, 1910, p. 392) when I stated in the course of my criticisms on Liepmann's fine *Atlas der Operations-Anatomie* that there remains much uncertainty about the supports of the uterus.—I am, etc.,

London, Feb. 8th. THE REVIEWER.

*** In Dr. Fothergill's letter there was a misprint. The title of Dr. Moritz's paper was, "On the nature of the so-called ligaments of Mackenrodt," and not as printed.

THE CONSTITUTION OF THE ASSOCIATION.

Local Medical Committees and the Divisions.

SIR,—Unless we are prepared to rise to the occasion, our Association, which has come rather badly out of the recent crisis, will never recover the proud position it has hitherto held. Eventually we must give up our present constitution, and, no matter at what cost, transform ourselves into a strong trades union. This, however, cannot be effected immediately, and for the next six months at all events we must make use of the organization we possess to protect ourselves against our two natural enemies—the Insurance Committees and the Approved Societies.

In the early stages of the fight we were told that the Local Medical Committees would be kept in touch with each other by the Branch Councils, who in turn would be co-ordinated by the Central Council.

So far is this from being the case, that in most instances even the committees in adjoining areas are not in touch, and instead of an ordered campaign, we find each unit fighting its own battle without support from its neighbours. This is largely due to the present constitution of the Divisions, and it must be altered before the provisional three months have expired. In peace or in war the true unit now is the local insurance area, and the Council should exercise their power under Article 13 to "determine, recognize, and declare by resolution" the reformation of the Divisions on the above plan. There is no doubt that if we do not carry this into effect somebody else will do it for us. Local Medical Committees, consisting of members and non-members, are, or shortly will be, constituted everywhere, and self-interest alone will force them to combine; surely it is wiser to recognize this in time, and to place our organization at their disposal. But for goodness sake do it at once—to-morrow it will be too late.—I am, etc.,

LACHLAN FRASER, M.D., M.S.,
President of the North of England Branch.

North Shields, Feb. 10th.

Medical News.

SIR WILLIAM COLLINS will lecture on an ambulance service for London, at the Polyclinic, 22, Chenies Street, Gower Street, on Monday, February 17th, at 5.15 p.m.

AT a meeting of the Royal Microscopical Society on Wednesday evening next, at 8 p.m., Dr. E. J. Spitta will make a report upon the lenses of the late Joseph Jackson Lister, father of Lord Lister.

WE are asked to state, for the information especially of medical men sending patients from a distance, that outpatients are now seen at the National Hospital for the Paralysed and Epileptic, Queen Square, W.C., on Monday, Tuesday, Thursday, and Friday in each week.

THE annual meeting of the After-Care Association will be held at the rooms of the Medical Society of London on February 25th, at 2.45 p.m., when Dr. Hubert Bond will open a discussion on after-care in cases of mental disorder and the desirability of extending its scope.

DR. E. H. STARLING, Professor of Physiology in University College, London, has been elected a member of the Athenaeum Club under the rule which permits the committee annually to elect three persons "of distinguished eminence in science, literature, the arts, or for public service."

AT a meeting of the Zoological Society of London on February 4th, Sir John Rose Bradford in the chair, Mr. H. G. Plimmer, F.R.S., Pathologist to the Society, presented his annual report on the deaths which had occurred in the gardens during the past year. An examination had been made of the blood of every animal that had died, with the result that parasites had been discovered in 140 cases, and in 80 of these for the first time.

THE next quarterly meeting of the Medico-Psychological Association of Great Britain and Ireland will be held, at the invitation of Dr. Rotherham, at the Darenth Industrial Colony, Dartford, Kent, on Thursday, February 20th. In the morning the members will inspect the colony, which comprises female and male workshops and wards for adult imbeciles, workshops and wards for the feeble-minded section, and a training school and wards for imbeciles under 16 years of age. In the afternoon, at a meeting under the chairmanship of the president, Dr. J. G. Soutar, papers will be read by Dr. J. Beveridge Spence on assistant medical officers in asylums, and by Dr. A. O. Spensley on the system of industrial training at the Darenth Colony.

A SOCIETY for the advancement of clinical study, recently organized in New York City, maintains a bureau to furnish information to resident and visiting physicians regarding the clinical facilities of the hospitals and laboratories of the greater city. It has installed a bulletin board at the Academy of Medicine, in charge of a special clerk, who will answer telephone inquiries. The bulletin board will consist of two sections. On one will be posted month by month the regular clinics, medical and surgical, and also laboratory demonstrations held at stated hours; on the other announcements of daily operations and demonstrations of cases, which, as far as possible, will be announced on the preceding day.

THE Home Secretary is about to appoint two additional inspectors under the Cruelty to Animals Act, 1876. The appointment will be for one year in the first instance, and afterwards probably for five years. The initial salary will be £500, together with the travelling allowances usual in the Civil Service; and if the appointment is continued will rise by annual increments of £20 to £600. The duties of the inspectors will be to pay frequent visits to all premises within their respective districts which are registered under the Act, in order to see that the provisions of the law and the conditions imposed by the Secretary of State are fully obeyed, and to carry out any other duties of inspecting, reporting, and advising with which they may be entrusted by the Secretary of State. They will be required to give their whole time to these duties. For the purposes of inspection England and Wales will be divided into two districts. The inspector for the Southern District will reside in London, and will also act as assistant to Dr. Thane, the Chief Inspector. The inspector for the Northern District will reside at a convenient centre within his district. The inspectors may as circumstances require be transferred from one district to the other or to Scotland. Candidates for these posts, who should be registered medical practitioners, should apply to the Private Secretary, Home Office, London, and their applications should be accompanied by any testimonials and evidence of their qualifications which they desire to submit.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

ANSWERS.

THE TITLE OF DOCTOR.

F. J. N.—Appended to the by-laws of the Royal College of Physicians of Ireland is the following resolution of the College:

> That, in the opinion of the President and Fellows, a Fellow, Member, or Licentiate of this College may by courtesy and usage call himself "Doctor," but he has no right to use the letters "M.D.," or call himself "Doctor of Medicine," unless he holds that degree from a university.

LETTERS, NOTES, ETC.

PROVERBIAL MEDICINE.

DR. WM. BRAMWELL (Liverpool) writes: I was greatly interested in the article on the above subject, but disappointed that so little was said about diet as mentioned in Homer. The following quotation, though not a proverb, is a wonderful touch of Nature, and would be a sweet morsel for a temperance lecturer. It is Hector's rebuke to his mother because she offered him wine when he made that short visit to his home in order to induce his mother Paris to return to the valley—

> Μή μοι οἶνον ἄειρε μελίφρονα, πότνια μῆτερ,
> Μή μ' ἀπονιώσῃς, μετεος δ' ἀλκῆς τε λάθωμαι.
> (*Il.*, vi, 264.)

(Do not raise wine, that cheers the heart, to me, revered mother, lest this unnerve me, and I forget my might and my vigour.)

This reminds me of a very amusing incident in the life of the late J. B. Gough, the great temperance advocate, who, when lecturing at one of the universities, was confronted by a stalwart young athlete who went on to the platform armed with that passage in 1 Tim. v, 23, where St. Paul bids Timothy to take a little wine for his stomach's sake. Gough took a long look at him amid the roars of the undergraduates, and then said: "Gentlemen, look at this young man! Look at him! Look at his muscles! Look at his biceps! He has the strength to fell an ox, and yet he says he wants a little wine for his stomach's sake!" Needless to say, the incident ended in the complete triumph of the lecturer.

TREATMENT OF CHRONIC BRONCHITIS AND EMPHYSEMA.

DR. T. REUELL ATKINSON (Chadwell Heath) writes: Noticing a letter in the JOURNAL for February 1st from Dr. Read, giving his experience of the benefit he has received from the use of heroin and menthol pastilles, may I say that for several winters in succession I have had a winter cough which I dub "bronchial catarrh"? We all know how common this form of catarrh is in our climate and how difficult it is to cure. It comes on in the late autumn, and has generally lasted with me far on into the following spring. I have tried all sorts of remedies, including heroin, menthol, terpin, etc., but with very little relief. This season, when it once more returned, it occurred to me to try the inhaler made by Squire and recommended for consumptives. On it I used drops containing carbolic acid, creosote, tr. iodi. sp. etheris, and sp. chlorof. For two or three successive nights I wore it in bed, and also wore it at home during the daytime before and after my rounds. It cured the cough in a very few days, and I have had no return of it this winter. Of course the weather has been exceptionally mild, and this mildness may account for the disappearance of the cough in Dr. Read's case and in my own. But I have had the cough in other mild winters, and I incline to the belief that the inhalation cured it. The treatment seems sensible. I shall certainly try it another year if the cough returns. Patients, however, to whom I have suggested this line of treatment, have said they would *prefer the cough.*

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

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Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

The Hunterian Oration

ON

HUNTER AND LISTER,

AND ON

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

DELIVERED BEFORE THE COLLEGE ON FEBRUARY 14TH, 1913,

BY SIR RICKMAN J. GODLEE, BART., M.S.LOND., F.R.C.S.ENG., HON. M.D.DUB.,
PRESIDENT OF THE COLLEGE, ETC.

GENTLEMEN,—The picture which on these occasions hangs over the head of the orator was, as is well known, painted under peculiar circumstances. John Hunter was urged to sit to Reynolds by his friends, and principally by Sharp the engraver, who, with strange prescience, foresaw that his engraving of the portrait would prove to be his *chef d'œuvre*. But Hunter objected; he thought it almost as great a waste of time as he did only four years later, "when he fairly wished Sir Joshua and his friends at the devil when called on to take part in the funeral of this eminent artist and delightful author." Besides, he would not allow them to pay for it, and he had always more than enough use for his own money. At last, however, when he was 60 years old, he yielded. It is easy to imagine him—and with much sympathy—fuming and fidgeting in that great armchair, with the description of his specimens (on which he set great value, but which was burnt after his death by Sir Everard Home) at his side. Time after time the master tried to catch his likeness, but without success, and he was almost giving up in despair, when suddenly on Hunter's face came this rapt expression, as, with his mind fixed on other things, he ceased to be worried with his surroundings. Quick as thought the canvas was turned upside down, and between the original legs appeared this face, which even in the present cracked and faded condition of the picture has been the admiration of succeeding generations. We have been blamed for having allowed it to become so ruined, but possibly the way in which it was painted may partly account for the disaster.

Look at the picture! I have gazed at it, in season and out of season, for half a lifetime trying to guess what was the thought that calmed and possessed his restless mind. And now, at last, I seem to know. For one thought occurs again and again in all his writings, and speaks to-day from his museum to him who grasps the idea of its arrangement: *What is Life?* That mystery which baffled the intellect of the ancients and which still, *pace* Professor Schäfer, is awaiting solution. What is Life? And then I recall his strange formula, which haunts the memory like a sort of wild refrain, "*Body, Blood, and Motion!*" When the motion of the blood stops the blood dies; and then the body dies, some parts of it sooner, some later; but it dies, although there is no difference in its constitution perceptible to the senses. Truly as he observes, "mere composition of matter does not give life; for the dead body has all the composition it ever had. *Life is a property we do not understand; we can only see the necessary leading steps towards it.*"

We all admire the picture. But what would we not give to see for a moment the failures which still exist under the paint at the lower part of it? That would be a likeness of the real man such as we can only gather from hearsay.

LONDON IN THE TIME OF HUNTER.

If he were to slip out of his frame into our midst it would give us a shock to see, instead of that inspired philosopher, a sturdy, thick-set man in a brown, eighteenth century full-skirted coat and breeches, a bull neck, an underhung jaw, thin white hair that had once been red, and such an eager manner and such a sparkling eye! He could not have stepped into this theatre, for the place where our College stands was occupied by residences, except one part in the rear, where there was an old theatre giving on Portugal Street. But I can imagine him crossing the open treeless square, with a pond in the middle, and making his way by Queen Street and Long Acre or the Strand to his house in Leicester Fields. He would hardly have ventured on a cross-cut through St. Giles's, for even in my young days it was a questionable district for respectable pedestrians. I think of the people he might have met; Dr. Johnson, blinking as he groped his way towards the Cock Tavern in Fleet Street; Fanny Burney, the novelist, bowing from her sedan chair to Edmund Burke or Wyndham; "Sir Roger" in his coach and four; Mrs. Siddons or Garrick stepping towards Drury Lane; the refined Percival Pott, his greatest rival, or Warren Hastings with his anxious face. And one might wonder that he is scarcely mentioned in the writings of Mrs. Montagu or Madame Piozzi, and that he does not seem to have mixed much with the distinguished intellectual circle whose names are still to us household words, if one did not think of the enormous amount of work which Hunter crowded into the forty-five years after he left Scotland at the age of 20, with no great reputation for diligence or application. I see the strange dress of the common people, and hear the noisy rumble of the huge wagons, and the "cries of London"—that little London of 500,000 or 600,000 inhabitants, which in 1740 did not extend beyond Old Street, Queen Square, and Portman Square on the north, "Tyburn Tree" and Westminster on the west, Mile End on the east, and was connected by two bridges only with the small borough of Southwark, enclosed by the upward loop of the river. It was like a great isolated country town, and from this square ten minutes' walk led to green fields and farms and streams and primroses and footpads. At Leicester Square his great yellow coach, which had crossed the drawbridge at the back of his house leading into Castle Street, would be waiting for him, and his coachman would drive off with his two bay stallions to his country house at Earl's Court. If Leicester Square was at all in the state I first remember it, it must have been a waste indeed. He would go down Coventry Street, looking much as it does now (though Regent Street did not exist), and along Piccadilly, then occupied only by the mansions of the great. Passing St. George's Hospital he would turn to the left down Bell Lane, now the Brompton Road, through fields with hedges and trees, till he reached his destination at Earl's Court, two miles from London.

Pictures of the house show it as a plain stuccoed villa, evidently built in stages, standing in grounds of moderate dimensions. It looks uninteresting, but we know that there were caves and dens of the earth, in which wild beasts were kept and from which they sometimes escaped; and coppers in which the skeleton of a giant could, if need arose, be quickly freed of its flesh. Other strange animals roamed about the park, and a stuffed crocodile hung, like a presiding saint, over the front door. Within were carried out all sorts of investigations; for it was to Earl's Court that he retired whenever he was able—too far from London for casual interrupters, but not far enough to miss calls of great importance or urgent necessity. There, no doubt, many of the preparations were made, if not mounted, which found their way into the Museum at Leicester Square.

HUNTER'S MUSEUM.

There is an engraving of No. 28 at the south-east corner of Leicester Square, and we can picture the front parlour and the study, and afternoon bedroom, and the print room, and the sedan chair standing in the hall. He bought the lease of this house and of one at the back in Castle Street, and between them he erected a building at a cost of over £3,000. On the ground floor were the great parlour for weekly meetings of his medical friends and a theatre for his lectures. Above it was the museum, lighted from the top, 52 ft. long and 28 ft. wide, with a gallery all round. The house in Castle Street was used for the different branches of human and comparative anatomy, for his printing press and publishing departments, and contained a sitting room for his students.

Let us try to think what this museum was like and why it was formed, for it seems strange for a busy surgeon to devote a large part of his house and a very large part of his life and nearly all his fortune to the formation of an enormous anatomical museum. One could not imagine

such a collection now in Harley Street or Cavendish Square.

In the first place, it must be borne in mind that Hunter was a man of phenomenal industry, whose mind was interested in everything to do with nature; to him the pursuit of natural history amounted to a passion—a passion that many of us can sympathize with, "for Nature never did betray the heart that loved her." But it must also be remembered that he possessed in an almost exaggerated degree the mania for collecting, which is also a vice not quite unknown amongst my audience, who sit on Chippendale or Empire chairs, speculating on the works of the Old Masters. Another vice he had which is shared by too many of our profession. He only thought of money as a means for gratifying his ruling passion, and so he crowded his house with works of art, and his museum not only with specimens which illustrated his novel views of physiology, but with others interesting only from their rarity or beauty. He thought no more of spending £500 for the skeleton of the Irish giant, or buying a picture by Zuccarelli, or Hogarth's prints, than is now thought of paying a thumping sum for a sixteenth century bronze; and though he took the keenest interest in his patients' diseases, he looked at the "damned guinea" only as the means for enriching his collection; and so it is no wonder that he left little to his heirs besides this incomparable Museum.

But it must not be thought that this was a mere *omnium gatherum* of everything that came in his way—very far from that. It only needs to examine the specimens now in the Museum, all religiously distinguished by their two black figures, to appreciate that either he never put up anything except the best—which is not likely—or that, like a true collector, he eliminated all except the best; for they are nearly all of superlative excellence, and illustrate in a striking way the particular object for which they have been preserved—that is, the physiological or pathological process, not the mere isolated anatomical fact.

It is almost inconceivable when looking through Hunter's posthumous papers that out of this apparent chaos such a definite plan could emerge as the groundwork of the Museum. One is lost amongst such subjects as the sociability of man and animals, the rising of animals, air in the bowels, the mind, fossils, or parts whose uses are not known. No one can attempt to summarize such a vast variety of material, but we may gather from Clift's catalogues, which were copied from Hunter's manuscript and from Owen's careful appreciation of them, the system on which the original museum was arranged. That, however, would be going over well-trodden ground, and I will therefore, though the prospect may seem dull enough, try to explain to what extent the arrangement of our present museum follows or departs from the plan of the master.

In an advancing science like ours too slavish a worship of the past could only lead to stagnation, and therefore some modifications have been made, although it has been the wise custom of the succeeding conservators to think twice or three times before such innovations were introduced.

If Hunter were really here to-day and asked how we had occupied our stewardship, in the first place I should be dreadfully alarmed, as being in the presence of a man endowed with many of the attributes I most admire without possessing, such as intense diligence, absolute exactitude, the power of abstraction and unlimited patience, and at the same time in that of a remorseless critic of the absence of those qualities in others. However, after invoking the support of our conservator and the two curators, who would admirably defend me, I should invite him to walk through our Museum. But first I should tell him that his collection waited in its original abode till 1800, when it was taken over by the College, and that during that time it was carefully watched over, kept clean, and dusted by his trusty assistant Clift.

The Conservators of the Museum.

Clift, it may be observed, was born in great poverty and was sent up from Devonshire by Hunter's sister, and was engaged by him on February 14th, 1792, a year and a half before his death, without fee, to write and make drawings and dissect and take part in the charge of the museum. Poor faithful Clift! He got 7s. a week for seven years from Matthew Baillie and Home, and kept patiently dusting and cataloguing. At last, when the Government gave £15,000 for the collection, and subsequently £12,500 in addition, and the College gave £21,000 for the building of the first museum, he was made the first conservator. He held this post till 1842, when he retired on account of ill health, with a pension of £400 a year.

And here I should slip in the piece of information that the College has spent not less than £500,000 upon its construction and maintenance up to this time.

Clift saw the incorporation of several other museums, such as those of Blizard, Astley Cooper, Heavyside, Brookes, Liston, Langstaff, South, Howship, and other famous surgeons. He had not brains enough to enlarge it himself, but he was sincerely devoted to the memory of his master—I had almost said he was an abject worshipper—and with the assistance of his son he got it into order for display and development by the more distinguished men who followed him.

The first of these was Richard Owen, a man of a different type, whose very aspect suggested cerebral hypertrophy. He was appointed assistant conservator in 1827, and full conservator in 1842. So he worked long with Clift, married his daughter, and was thoroughly imbued with his father-in-law's hero worship. He became a comparative anatomist and palaeontologist, and added many of those weird forms which now occupy the floor, glyptodons and megatheriums, and the giant elk, and fossils by the gross. But his great work was the publication of the memorable descriptive and illustrated catalogue of the physiological series of comparative anatomy, to which department he made important additions. Owen's was a stressful reign; for he could ill brook control, and the Museum committees were frequent and stormy. And so, great man though he was, he left, without a vote of thanks or regret, to take charge of the Natural History Department of the British Museum in Bloomsbury in 1856.

Then came Quekett, of the Quekett Club fame, who had been student dissector at the College and assistant curator since 1842. He was essentially a microscopist, one might say a born microscopist, for his father was one before him, and at the age of 16 he gave lectures on microscopical subjects, illustrated by a microscope he had made for himself out of a roasting jack, a parasol, and a few pieces of iron he had purchased at a neighbouring marine store. He added little to the Museum except a valuable microscopical collection, but he drew up a catalogue of the fossil organic remains of plants. He was, as his portrait indicates, a jovial man. He retired on account of ill health, and when he died at Pangbourne in 1861 he left a penniless and, alas, unpensioned widow.

And he was followed by Flower, a strong organizer and a born manager of men, whose graceful figure and handsome face many of us can remember. Under his peaceful rule dissensions ceased. He was, to begin with, assistant surgeon at the Middlesex Hospital, and served as surgeon in the Crimean war. He was appointed conservator in 1861 and stayed until 1884, when he succeeded Owen in charge of Waterhouse's terra-cotta palace at South Kensington. He developed into a pure comparative anatomist and specialized in bones, and especially human bones. He amplified and enlarged Hunter's osteological collection, and has left in it a memorial to his industry and skill to which I shall refer later.

A word of explanation with regard to the natural history collection must here be introduced.

There were no natural history museums in London before Hunter's time. But the British Museum in its earlier days began to make such a collection. In 1809 they wanted to get rid of these specimens, and sold them to us for £180, but in 1814 they found they had made a mistake, and so we sold them back again, but by good fortune retained the Evelyn plates of vessels and nerves, made in 1642 by a professor in Padua under Evelyn's direction, and given by him to the Royal Society, and by them to the British Museum. Dr. Keith has had them properly mounted, and they now have a prominent place allotted to them.

Hunter had a good many stuffed animals, but after obtaining a Royal Warrant, which is required before any of his specimens can be disposed of, they were sold or otherwise got rid of in 1829, 1834, 1843, and 1876;

including, alas! those collected by Captain Cook. It must be remembered that at one time we used to fit out exploring expeditions such as those of Captain Everard Home, Banks, Beechey, Franklin, Ross, Parry, and Darwin, with bottles and apparatus, and have now in our possession many of the specimens which they brought home.

When Flower left in 1884 he was succeeded by the amiable, retiring, laborious Stewart. Being a man of artistic temperament, he was attracted by such subjects as mimicry, symbiosis, and protective colouring. He was at first a teacher of physiology at St. Thomas's Hospital, but after his appointment here worked as a comparative anatomist. He extended Owen's rearrangement of the Physiological Series, which was not quite on Hunter's lines, as they both took rather the mechanical view as opposed to the physiological. A consummate draughtsman and a clear exponent, he made many discoveries which he was too indolent (may I say?) to publish, but they remain on the stands as silent but eloquent witnesses of his work.

And now I should tell Mr. Hunter that the mantle has fallen upon a thoroughbred compatriot of his own, and should feel confident that between them there would be illustrated the *action of the principle of universal sympathy*, except, perhaps, that there might be some incongruity between the northern accent of the one and that which used to be current in the neighbourhood of Long Calderwood. It would be necessary to add that under Dr. Keith's guidance, with the able assistance of the curators, Mr. Shattock and Mr. Byrne, we are trying our best to keep Hunter's spirit in view in all the changes which have been lately made and are still in prospect, and that "Body, Blood, and Motion," is our motto, and that to illustrate the processes of life is our leading idea.

These are the conservators, but it would be wrong not to mention some of the illustrious workers who, without holding that office, devoted much time and labour—often a labour of love—to the Museum. Pre-eminent amongst them is Sir James Paget, who examined and elucidated so thoroughly, and wrote so much of the descriptive part of the catalogue; and besides his there are the names of Stanley, of Goodhart, and Doran and Eve, and men like Elliot Smith, who have added complete chapters to its story.

Growth of the Museum.

Some idea of the way in which the Museum has grown may be gathered by remembering that no part of the original building remains. The room which was first erected in 1800 and completed in 1813, just a century ago, partly on the site of houses belonging to the College, partly on that of the old theatre in Portugal Street, occupied a position in the middle of the three existing galleries, and this was large enough to contain all the 13,682 of Hunter's specimens, including some which, as I said, have disappeared, as is shown by a very indifferent sketch, apparently of Clift's, in which the head of a giraffe, no doubt the one which in 1834 went with the other stuffed animals to the British Museum, appears looking out of the museum through the gallery into the Cabinet Room, whatever that may have been.

The Museum is now more than three times the original size, and contains 64,766 mounted specimens, and there are besides still unexplored stores to which constant additions are being made.

Some people may wonder why we try to keep adding to our invested funds. I say nothing about the uncertainty of riches, though that is perhaps more obvious now than when the phrase was coined. But I should like to point out that the Museum will continue to grow, and that we may some day wish to enlarge it, which would involve three things: Diminution in income from rents, loss of interest on capital expended, and increase in expenditure for upkeep.

The Museum now consists of three long rooms, two of which are parallel with one another, and the third at right angles to these, both the first and the third being divided into two parts. Roughly speaking, the last contains the Physiological Series, while the two others are devoted to Anatomy and Pathology; but there are other rooms to which reference will be made, and scattered throughout are curiosities which have to find places where they can. Here a huge skeleton of a whale floats, like Mahomet's coffin, in mid air, and elsewhere are such unlikely objects as the clothes of a man stripped off by lightning, leaving him intact, or the initials—perhaps of two lovers—found on splitting a beech tree, healed over and buried beneath many annual rings.

A Tour of the Museum.

But it is really time to proceed with the proposed formidable inspection, and I would suppose that we begin by conducting Hunter through the door opening out of the Conservator's office into the smaller part of the eastern room, in the cases round the walls of which is the commencement of the series of comparative osteology.

He would gaze with astonishment at the group of vast fossil skeletons, and might possibly ask us what they had to do with his Museum—a question which might at first seem hard to answer. But the great black statue of Owen in the corner would remind us that in 1855 he gave some lectures in this theatre on Hunter's published and posthumous papers on fossils, and that he showed by many quotations that Hunter began to hold almost modern ideas about geology and palaeontology as early as 1761, when he was serving with the army in Portugal. The story of Noah's deluge had not satisfied Leonardo da Vinci and Fracastoro in the fifteenth century, but it still hampered the thoughts of scientific men of the eighteenth century. It was therefore remarkable that Hunter was able to emancipate himself so completely and, to quote from Owen, to recognize "first, the effects of running water as in valleys and river courses; secondly, the deposition of the matters so transported to the sea, noting the different distances to which such transported matters would be spread over the sea bottom, according to their size and other physical characteristics; thirdly, the erosive action of the sea on coasts, as moved by tides, currents, and winds; fourthly, the power and mode of operation of a retiring sea on a rising land; fifthly, igneous expansive force and volcanic eruptions; and sixthly, deposits through animal or organic agency."

This includes almost every agency of geological dynamics recognized at the present day, except that of ice, and was arrived at "by supposing from the state of the earth as it is now what must have taken place formerly." From this standpoint Hunter seemed to have an inkling of the origin of species and the gradual evolution of life, and was able to contemplate in some measure the antiquity of man. Thus, it is fitting that (presided over by Owen) these horrid monsters should guard the portals of our Museum, and that Hunter's 2,773 fossils should be lodged, with his invertebrate specimens, in a special place of honour.

So we should turn to the left and tell him that the crowd of vertebrate skeletons in the next room, among which he would recognize many of his own favourite preparations, should really be in the cases along the walls, only unfortunately they are too large. These cases contain the continuation of the comparative osteology series. In passing we should point out Flower's magnificent preparations illustrating the evolution of the individual mammalian bones. On our way up to the galleries it would be explained that leading out of them are the new rooms added last year, containing a collection of surgical instruments, the embryo of a medico-legal collection, his own invertebrate collection, and the fossils to which I have just referred. And then in the galleries he would find his own physiological series amplified and enlarged. We should show them with confidence, tempered by the fear that he might impatiently resent certain modifications of order and arrangement, though he could not fail to recognize that the *idea* had been grasped. We should point out that the physiological series still illustrates processes rather than isolated facts, and is, therefore, drawn from the whole range of comparative anatomy. Thus, taking as an example the heading "Kidney," he would find specimens from 133 animals other than man, no less than 71 out of the total 144 being his own; and that the same thing is carried out under the other headings.

In order to grasp the plan on which the whole museum is arranged it would then be best to visit the ground floor of the eastern rooms. Beginning with the cases on the walls, we should find illustrations of normal (and, it must be owned, some abnormal) varieties of humanity, amongst

which Byrne, the Irish giant, would be a familiar object. There are skeletons of dwarfs, of average men and women, and of geniuses and of criminals; and then we should start on the splendid collection of skulls illustrating ancient and modern types and examples of those of all the races under the sun, present and extinct. This fills up both sections of the room and a considerable part of the middle room.

The floor of the eastern rooms is devoted to specimens illustrating human anatomy. First, the collection of disarticulated bones in progressive series, showing their development from early fetal life to maturity; and then dissections, which are said to be unequalled, mostly made by the skilful hands of Mr. Pearson, who has been prosector here for fifty-six years.

The Pathological Section.

And now there would be left only the pathological section, to which it would be my duty and my pleasure to especially invite the attention of my guest, as I now do that of my audience.

Hunter's catalogue of this part of his collection was left in considerable confusion, but it is clear that his idea was to divide it into two main groups, one illustrating processes of general pathology, the other the various morbid processes affecting particular organs. This has long been before the minds of those who have had charge of the Museum. But it is only during the last year that the Council has made arrangements for a full display of specimens illustrating general pathology.

The floor space of the central room has been cleared in a way it is needless to describe, and if it were only possible to find a better home for the suspended skeleton of the whale, uninterrupted daylight would illuminate groups of glass and gun-metal stands so arranged that they can be observed from all sides, labelled and supplied with handy card catalogues, and following one another group by group in the following order:

1. Hypertrophy.
2. Aplasia.
3. Hypoplasia.
4. Atrophy.
5. Degeneration.
6. Necrosis.
7. Repair and grafting.
8. Inflammation.
9. Infective diseases:
   Bacterial: Glanders, Acute Endocarditis, Diphtheria, Tubercle, Leprosy, Actinomycosis.
   Protozoal: Syphilis, Tropical Diseases, etc.
10. Cysts.
11. Tumours.
12. Foreign bodies.

I have placed upon the table a few Hunterian specimens in order to show that it has not only been possible but highly advantageous to use them for this purpose. You will observe what remarkably fine preparations they are.

1. A ringed stem to illustrate ...		Hypertrophy.
2. An edentulous jaw to illustrate ...		Atrophy.
3. Atheroma of the aorta to illustrate		Degeneration.
4. Experimental necrosis on the metatarsal bone of an ass to illustrate		Necrosis.
5. A hare-lip cured 6. A fractured clavicle	to illustrate	Repair.
7. A cock's spur implanted in the comb to illustrate		Grafting.
8. Myositis ossificans 9. Necrosis of skull following a scalp wound	to illustrate	Inflammation.
10. Tubercle in the lung of an ox 11. Specific necrosis of the skull	to illustrate	Infective diseases.
12. Gas cysts in a hog's gut to illustrate		Cysts.
13. Secondary sarcoma of rib to illustrate		Tumours.
14. Gunshot injury of humerus of swan to illustrate		Foreign bodies.

It would have been impossible in Hunter's time to make so complete a list as this because the great group of infective diseases would have been simple and unanalysed. If he had possessed a knowledge of bacteriology it would have saved him a vast amount of fruitless speculation, or at all events speculation which now seems to be disappointingly beside the mark. I think he would have lingered long over this department, for I hope it has been made clear that what has just been said is intended to be the kernel of my address: that this exhibition of illustrations of general pathology though a new departure, is Hunter's idea, and that it is not only new but good and, as far as I know, unique. I would, therefore, urge my hearers to visit and study it and judge for themselves of its utility and interest and of the skill of those who have brought it together.

The tour of the Museum would be completed by visiting the galleries of the central and eastern blocks, where the specimens are arranged according to the organs affected. In ascending to them it would be pointed out that a staircase descends to the basement in which is housed our unequalled odontological collection, where amongst the specimens which came to us from the Odontological Society are Hunter's own classical preparations.

And now I should bid my guest adieu, feeling, if not saying, that while in his writings there may be some things hard to be understood, here in our Museum is recorded in unmistakable language the record of thoughts and ideas that it is impossible to misapprehend.

SUGGESTED ANATOMICAL AND PATHOLOGICAL INSTITUTE.

Thus, in an imperfect way, I have tried to show what the Royal College of Surgeons has done, and hinted at the certainty that some day the Museum will have to be enlarged. Now let me put before you a vision of the future. Ought not this great city to have an Anatomical and Pathological Institute? Our university has again, by collision, passed into the nebulous state, and we know not in what form, nor, indeed, in what orbit or orbits it may finally revolve. It may be anticipated with confidence that it will emerge as a life-supporting globe or double star with a more equable temperature than at the present moment. Money is to be had for proper asking, and a site is generally obtainable when it is required. Can you not see such a noble institute close at hand, forming a part of a really living university, and also in close connexion with our College, attracting workers from all over the world, to utilize the vast material the Museum contains? It would strengthen the feeble bonds which at present unite us to the university, and supply a long-felt want of the medical faculty. It would offer opportunities for original research in human and comparative anatomy and in pathology; and in its theatre lectures on advanced subjects would be delivered *urbi et orbi*.

RECENTLY DECEASED MEMBERS OF THE COUNCIL.

The terms of the bequest under which these orations are given instruct the speaker that "such oration should be expressive of the merits in Comparative Anatomy, Physiology, and Surgery, not only of John Hunter, but also of all such persons, as should be from time to time deceased, whose labours have contributed to the improvement or extension of Surgical Science."

This would be an impossible task, for the whole world is apparently included in the purview; but according to custom, and by inclination, I must say a few words about two friends and colleagues on the Council whose vacant places we must deplore.

Clinton Thomas Dent, an all-round original and successful surgeon at Hunter's own hospital, was Vice-President at the time of his unexpected death last summer. He had no specialism in medicine, and he will rather be remembered by his numerous friends for his many-sided character, multifarious attainments, and sterling worth than for striking additions to surgical practice or literature, and yet his contributions to them were neither few nor unimportant.

Sir Henry Trentham Butlin, my immediate predecessor, on the other hand, was well known as a surgical pathologist, whose chief labours were devoted to the treatment of, and the elucidation of the cause of, cancer, a subject to which it may be said he devoted his last breath. Those who can recall this day four years ago, when his oration was delivered in perfect English and without a note, will agree that he was a finished orator. We on the Council knew him as an admirable man of business, who wisely conducted the affairs of this College, as a man of the highest integrity, a pleasant companion, and a faithful friend.

COMPARISON OF LISTER AND HUNTER.

But beyond and above all the other leaders, or men in the ranks, who have passed away during the last two years, is Lister, who by common consent is the greatest—that is, the most thoughtful and original—surgeon since Hunter's time, one who more than any of his predecessors

was influential in revolutionizing both the science and the art of surgery. It is not the occasion to enter upon a survey of Lister's work, but it may be interesting to consider the influence that Hunter had upon him, and briefly to compare the two men.

The first time I heard the name of John Hunter was in my youth during one of Lister's vacations, which he often spent at his father's house. The subject he was describing is forgotten, but the name impressed itself upon my young memory, and many a time in after-years have we, who were closely associated with him, heard this name recalled with reverence and admiration. Occupying a prominent place in his study was Sharp's engraving, bequeathed to him by Mr. Syme, and now my treasured possession, as is also the edition of Palmer's *Life*, which is marked in many places. These passages show that Lister was studying this book at the time he was making his early observations on coagulation of the blood. Indeed, a precise date may be fixed by a pencil note to the account of "a gentleman with violent inflammation in one of his eyes and whose blood was extremely sizy, though the coagulum was very loose." The note is, "No excess of fibrin in this buffed blood apparently. J. L. '58." Other remarks are opposite references to inflammatory fever; the principles of bleeding, and especially their possible dependence upon continuous sympathy; and local diseases cured by sympathy, as by the application of an irritating medicine applied to some other part which this diseased part sympathizes with. There are several in the lecture on aneurysm; indeed, there are exclamation marks opposite some references to hydrostatics. And similar annotations are met with in the lecture on fistula and elsewhere.

It might be wondered what were the points of attraction between men in many ways so different. Certainly Lister possessed none of Hunter's mania for collecting. He had, indeed, what he called his museum, one or two bread-pans containing specimens, no doubt of great value, and familiar to the succeeding generations of attenders at his lectures. But his shelves and cupboards were filled with more transitory things—flasks and test tubes, and the materials for experiment. Lister bought no costly works of art, and was content with early or late Victorian furniture; and though he often adopted Hunter's generous but confusing method of leaving the amount of the fee to the patient's decision, he did not spend the proceeds in the same reckless way.

The points in Hunter's methods which Lister seemed most to admire and adopt were, first, that he appears to have taken nothing for granted. No matter how revered the teacher, how sacred the tradition, Hunter and Lister both asked themselves whether the evidence was sufficient to support the theory or warrant the treatment. Perhaps they would not have liked to be called sceptics, but in scientific matters they were, and it is the only safe position for a scientific man to adopt, though it may not indicate the path of worldly wisdom to the practitioner.

Illustrations might be given in Hunter's operation for aneurysm, or his observations on fistula in ano, or in Lister's amputation of the thigh, his excision of the wrist, or his methods of treatment of varicose veins or hydrocele. But there is no need to multiply examples. The whole story of Lister's discoveries and of the modifications in ordinary surgical practice which he introduced testifies to the truth of this assertion.

But, secondly, the most striking resemblance between them is their habit of referring everything to experiment. Their lives were occupied in testing by means of experiment every problem that presented itself. They were, indeed, both of them, ideal inductive philosophers.

It seems in some quarters to be considered that an inductive philosopher is debarred from framing for himself hypotheses, but this I conceive is not the case. Did not Bacon himself say, "Vaga experimentia mera palpatio est"? Such an idea would seem to imply that the followers of that great thinker experiment at large, and only accept the results of those promiscuous excursions. The difference, however, between them and the deductive philosophers is that the latter found their creed on deduction from unverified postulates, whereas the former require proof of the correctness of the premisses before they complete the syllogism. No great Baconian can get on without hypotheses, but he is ready to reject those that are not supported by his experiments. Are not Pasteur and Darwin proofs of the truth of this statement?

There is an interesting appreciation of Hunter's character in Buckle's *History of Civilization in England*. Buckle is almost labouring the point that the trend of thought in Scotland in the eighteenth century was deductive and that in England inductive, and is arguing that Hunter was a sort of hybrid.

> When John Hunter arrived in London, in 1748, Newton had been dead more than twenty years, and the English people, absorbed in practical pursuits, and now beginning, for the first time, to enter into political life, had become more averse than ever to inquiries which aimed at truth without regard to utility, and had accustomed themselves to value science chiefly for the sake of the direct and tangible benefit which they might hope to derive from it.
>
> That Hunter must have been influenced by these circumstances will be obvious to whoever considers how impossible it is for any single mind to escape from the pressure of contemporary opinion. But, inasmuch as all his early associations had inclined him in another direction, we perceive that, during his long residence in England, he was acted on by two conflicting forces. The country of his birth made him deductive; the country of his adoption made him inductive. As a Scotchman, he preferred reasoning from general principles to particular facts; as an inhabitant of England, he became inured to the opposite plan of reasoning from particular facts to general principles.

It is rash to differ from so great an authority, but, as a matter of fact, did Hunter really get his mind down on methods of reasoning and such abstruse questions during his idle youth at Long Calderwood, when he cared much more for country sports than for books, or whilst helping his convivial brother-in-law, Buchanan, in his carpenter's or wheelwright's shop? Did he even acquire from his surroundings or by inheritance any method of ratiocination? I think not. And if Scottish influence had anything to do with the formation of his mind it must have come from his brother William. But, in reading much of his writings and in trying to assimilate the spirit in which the Museum was planned, I feel that Buckle has overstated his case, and that Hunter was essentially an inductive philosopher.

And so was Lister. His whole life was made up of experiments. Any time that could be filched from practice or unavoidable public and private duties was spent in his study, investigating for himself such subjects as the coagulability of the blood, the growth of micro-organisms, the properties of antiseptic substances, blood pressure, and so forth, and it is interesting to notice how he called in aid for the solution of his special problems a well-grounded knowledge of botany, zoology, chemistry, and physics, subjects of which it is becoming too much the habit nowadays to minimize the importance.

But there are fundamental differences between them, of which the most important (to speak with all respect) is that Hunter's work is the more diffuse. He seems to fly from one subject to another, as if he were unable to resist the temptation to investigate everything that came in his way. It is as though what has been referred to above as the spirit of the collector inspired his more serious work, and so he has left a record of an almost incredible number of problems either completely or partially elucidated.

Lister, on the other hand, did not yield to this temptation if he felt it. Starting on the narrow path upon which Providence had placed him, he followed it till it broadened and straightened out into the great highway that led him to his goal. Not that he denied himself the pleasure of occasional explorations of tempting by-paths, but what he gained from these excursions was always utilized to corroborate and support him upon his journey. And thus it comes about that Lister's fame rests chiefly upon the one great achievement of his life, whilst the lesser and more subsidiary ones are by many forgotten or ascribed to others; whereas it is difficult to mention one or even a few of Hunter's labours which stand out in glaring predominance above the rest.

Of less importance, but equally striking, are the differences between them in temperament, culture, and manners. Hunter was imperfectly grounded in general education, a small reader, abrupt, not to say rough, in his conversation, which was flavoured with a full share of the impetuous vocabulary of the eighteenth century. Though generous, he was impatient; though on the whole a good

friend, he was somewhat inconstant; and his mind was so fully occupied with his work that more solemn subjects had no chance of consideration.

Lister's mind was well stocked with classical and other learning, and his library was lined with carefully studied books. He was gentle and courteous, and though full of humour he could not abide even those relics of coarseness which survived in "polite conversation" in the nineteenth century. He was always ready to make allowance for the incompetence of those who did their best; he made no enemies, and his position as regards more serious matters was a very different one from that of his great predecessor.

Both, however, were fond of argument, and neither in the course of it could easily brook opposition. Verily it is a matter of thankfulness that they lived at different epochs. It is well that Lister was able to contemplate Hunter's many great qualities and his few obvious defects through the modifying mists of the intervening years.

Closing Remarks.

I have spent the last year in an atmosphere permeated by the spirit of John Hunter; I have had the privilege of passing the best years of my life in the closest intimacy with Lister, and I often ask myself in what way a genius surpasses the average man. After a day passed in the company of such a one, and after meditating on any particular thing that he did, the ordinary man might fancy that there was nothing in it he could not have done equally well himself; and yet the life's performance is so different! The individual touches of the brush might conceivably be made by anyone, but only the artist can produce the picture. That, of course, depends upon the master mind which co-ordinates the details, making them minister to the result. We cannot attain to that, and it is the consciousness of this superiority of the great that makes the position of ambitious mediocrity so painful. But though we cannot reach to the height of Lister or of Hunter we may make our lives more useful by imitating their extreme diligence, their accuracy, and their habit of finishing whatever they were engaged upon before turning to the next matter; by not shirking the long days of labour and nights devoid of ease, or spending too much of our time on pleasures and indulgences.

The problem of life to Hunter was the still unsolved riddle of its meaning and of its origin. Lister was content with the belief that at the present day there is no spontaneous generation. Had he doubted the truth of this doctrine he might possibly have had misgivings as to the truth of the gospel that he preached. Fortunately he did not doubt, for he was a man of firm convictions.

But after all, whether chemical changes are now and always converting dead inorganic substances into living protoplasm is, for practical men, no more important than the more abstruse question as to whether matter is composed of atoms or vibrations. Life for us has another meaning; whilst the blood is moving in our bodies, as John Hunter said, we have life, and the problem for us, taking him for an example, is not simply to keep alive, but to live well.

> Nicht dass man lebe, sondern wie,
> Ist Mannes würd'ges Streben:
> So lang mir Leben Gott verlieh,
> Will ich's lebendig leben.

The De Dion Bouton (1912) Company will send in response to applications addressed to 10, Great Marlborough Street, London, a pamphlet giving "owners' opinions" of their 14, 15, 18, 24, 25, 26, and 30-h.p. cars.

Vedder, in an interesting article on the etiology of beriberi (*The Philippine Journal of Tropical Medicine*, vol. vii, Sec. B, No. 4, 1912), states that the administration of large amounts of alcohol has not produced neuritis in fowls. Fowls develop polyneuritis when fed on a diet containing a sufficiency of all the alimentary principles, providing no one of the ingredients of this diet contains the neuritis-preventing substance. This neuritis-preventing substance is not volatile, but is destroyed by heat. It is not an inorganic salt, and probably not an alkaloid. Since it has been shown that this substance is not a fat, protein, inorganic salt, or alkaloid, it seems probable that it is an organic base, as claimed by Funk, but Vedder so far has been unable to confirm this.

ACHES AND PAINS CONNECTED WITH THE EYE AND NOSE.*

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In a society accustomed to listen to deeply scientific papers, some apology seems necessary for bringing forward such a commonplace subject as aches and pains. My excuse is that after twenty-five years of work at the eye, it is more profitable to give the result of experience, and leave original scientific theories to younger men. Besides, commonplace though my subject is, it is one of great importance, for such pains not only call aloud for relief, but in many cases their exact location and character may give us valuable help in diagnosis.

I do not know of any natural classification of pains, so shall first consider the more acute pains, and then the chronic aches, and especially headache.

1. *Pain in the eye itself*, increased by every movement and accompanied by redness and watering, is often due to a foreign body in the eye, even though the patient is not aware of having got such. The commonest place of lodgement is under the upper lid, which must be everted to see it, or on the cornea. If the particle is a small piece of grit in the cornea it may not be visible except by focussing a strong beam of light from a lamp or candle sideways on the eye with a lens.

2. *Sharp neuralgic pain*, coming on every night for weeks or months and hindering sleep, is not uncommon. It is not only in the eye, but around it, and shoots over the top of the head and down the side of the nose, and may affect one or both eyes. Such pain points to chronic iritis, and is important to recognize if vision is to be saved. It is often mistaken for neuralgia, but in the latter there are the typical tender points, while in iritis there is generally to be seen, on careful inspection, a slight pink blush in the sclerotic round the cornea—that is, ciliary injection, which points to deep-seated disease of the eye. In many cases the eye is tender on pressure over the closed lids. The pupil is fixed, and often partly blocked with lymph, and vision is more or less affected. Such cases often occur in apparently healthy young adults as the result of syphilitic infection.

3. *Acute Iritis.*—A somewhat similar, but often more severe pain, coming on with marked signs of irritation—injection, photophobia, and lacrymation—and a dull muddy look in the iris, with contracted pupil and little or no loss of vision, indicates acute iritis, commonest in young adults. It is easily mistaken for simple catarrhal conjunctivitis, in which there may be similar signs of irritation, but the diagnosis is made by observing that the pain is worse in iritis, and is not confined to the eyeball, and also in iritis the pupil is sluggish or immovable. Further, in conjunctivitis there soon appears a sticky secretion, which is absent in iritis.

4. *Acute Glaucoma.*—The same acute pain and irritation, coming on suddenly in a person over 50, with dilated pupil and great loss of vision, indicates acute glaucoma. In this case the pain is proportionate to the vascular disturbance, and may be agonizing and accompanied by vomiting. The loss of vision is far greater than in iritis; in very acute cases even perception of light may be lost in a few hours. The condition is not, properly speaking, an inflammatory one, but is congestive like strangulated hernia, and unless quickly relieved it leads to permanent loss of sight.

5. *Gout* in the eye is not common, but it is well to remember that it may occur, and be very alarming. It comes on suddenly at night with great pain in the eyeball, which is acutely congested and irritable; but the pupil is clear and moves freely, and vision is not affected. The pain may pass off in a few hours and the other symptoms soon go, but the attack may soon return, or may be succeeded by typical gout in the toe.

6. *Sphenoidal Sinusitis.*—A very severe bursting pain, generally described as in the middle of the head, but sometimes shooting up to the ears, with marked constitutional symptoms, is caused by suppuration in the sphenoidal sinus, and less severe but still marked neuralgic pains

* Read before the Ulster Branch of the British Medical Association.

arise from acute conditions in the other sinuses—probably accidental blocking of discharge in a chronic inflammation of the sinus, as they are often relieved by painting or spraying with adrenalin. Suspicion should be directed to the nasal sinuses by the fact that there is commonly a history of severe influenza recently, or of long-standing nasal trouble, with crusts of dried pus in the nostrils, and perhaps an offensive smell. Pus from the sphenoidal sinus finds its way into the pharynx and not into the nostrils, but it is seldom that one sinus alone is affected, and there is pretty sure to be suppuration in some of the other sinuses—ethmoidal, frontal or maxillary—discharging into the nostrils. Acute symptoms are, however, comparatively rare in these cases, and chronic headache, to be discussed presently, is far more frequent.

7. *Malignant Disease.*—Constant or frequently recurring pains, rather vaguely localized about the back of the nose and shooting up into one or both ears, especially if occurring in an elderly person, call for careful examination, as they may be due to malignant disease. In some such cases pain is an early and prominent symptom, but on the other hand it may be entirely absent. I have seen a case of carcinoma in the posterior wall of the naso-pharynx, spreading its roots, apparently, in the bodies of the cervical vertebrae, and running to a fatal termination, quite painless from first to last.

Headache.

Coming now to some forms of headache, there are two due to nasal disease which often escape detection for long periods.

8. Hypertrophy or cystic enlargement of the middle turbinated bones is, I believe, a fairly frequent cause of headache in young adults. This hypertrophy is different from the hypertrophy of the inferior turbinateds seen in children and young people associated with adenoids. The headache may be a dull frontal one, with a feeling of weight or tension about the bridge of the nose, and sometimes a little redness of the skin there also. It comes on in the afternoon, and is made worse by heat and damp. I have more than once heard from country patients sad complaints of their inability to enjoy the social attractions of a "swarry" owing to the headache brought on by the atmosphere of the hot and crowded room. In such cases, if one paints the inferior turbinated bones with a little cocaine and adrenalin to cause the mucous membrane to shrink, one will see the middle turbinated bones, large, rounded, and smooth, pressing against the septum.

9. Chronic suppuration in the accessory sinuses is, as mentioned above, a frequent cause of headache. In some at least of these cases the headache is not due to the direct local influence of the diseased tissue, but to the circulation of toxins in the blood. My reason for this belief is that in cases of chronic sinus disease which have run on for years without treatment, one sees that the skin is a very unhealthy colour—a dirty yellow. After a few weeks of treatment, during which the pus has been washed away instead of being swallowed, the change may be most striking; the skin becomes clear and rosy, and at the same time the headache disappears. Sinus disease most frequently arises from influenza, except in the maxillary sinus, where it often arises from the teeth. If the maxillary, frontal, or anterior ethmoidal sinuses are affected, the pus will appear in the nostrils, which will be filled with dirty yellow crusts very hard to get rid of; if the posterior ethmoidal or sphenoidal sinuses are affected the pus will drain into the naso-pharynx, where it is seen in sticky yellow strings or dry flakes.

10. The severe and continuous headache which is caused by tumours, gummata, etc., in the brain has no direct connexion with the eyes, except that the occurrence of such severe headache calls for careful examination of the optic discs. If the sharp outline of either disc is blurred and its vessels overfull, it is probably due to a beginning papillitis, and is strong evidence that the headache is due to a new growth. Papillitis occurs in about 90 per cent. of brain tumours, both it and the headache being due to increased intracranial pressure.

11. The last ache which I wish to notice is the headache arising from errors of refraction, especially from astigmatism; and this, in my experience, is far the commonest cause of headache. In 1,000 consecutive eye cases in my private practice, I find that 45 per cent. came on account of some inflammation, degeneration, or injury of the eye, while 55 per cent. came on account of errors of refraction, 40 per cent. astigmatism, 10 per cent. hypermetropia or presbyopia, and 5 per cent. myopia. This may seem a high percentage of astigmatism, but it is to be remembered that where the error is a simple spherical one it is often passably corrected by glasses picked up at an optician's, whereas astigmatism calls more loudly for thorough examination and treatment.

Astigmatism.

Almost every case of astigmatism suffers from headache, not generally very severe—and, indeed, it has been said that the more severe a headache is the less likely it is to be due to the eyes. But headache due to eyestrain is very constant and wearing, often coming on at the same hour daily for months without intermission, except perhaps on Sundays and holidays, when the strain is less; and such intermissions should always direct attention to the eyes. In other cases headache only comes on when something has affected the general health to some degree. As Dr. Berry of Edinburgh says, overexertion of the eyes when the nervous system is below par is far the commonest cause of ocular headache.

It is to be noted that it is specially the low and not the high degrees of astigmatism which give rise to headache; this is probably owing to an involuntary but very tiring effort of the ciliary muscle to correct the slight astigmatism by irregular contraction. Such low degrees of astigmatism are compatible with fairly good sight, so often pass undetected when vision is only roughly tested. One sign may be noted as hinting at astigmatism, and that is that the patient reads several of the smaller lines of test type incorrectly. With hypermetropia or myopia it is common to see a patient read down to a certain line, say $\frac{6}{12}$, correctly, then stick. But with a slight degree of astigmatism he may read $\frac{6}{9}$, $\frac{6}{6}$, and $\frac{6}{5}$ all incorrectly, making mistakes in every line. If asked about his sight he says it is excellent, and is quite surprised to find that it can be improved. Some years ago one of our champion golfers came to me saying that he thought he needed glasses for office work. He had slight astigmatism, but said that he had splendid sight for distance, and was very sceptical when told that glasses would help him even out of doors. However, he agreed to try them, and shortly afterwards told me that he could follow the flight of a golf-ball as he had never done in his life before.

Not every astigmatic person needs to wear glasses constantly, and often they are only necessary for reading, writing, and other near work. But where headache is troublesome it may be necessary to wear the glasses all the time; and this brings me to a point I wish specially to emphasize, which is that the correction of errors of refraction is not a mere mechanical affair, and should not be entrusted to the optician. The patient's age, occupation and state of health, and the difference between the two eyes, if any, have all to be considered. Last month, for instance, I saw a girl who is at a boarding-school in a country town in Ulster. Her sight was poor and she needed glasses, but on inquiry I found that she was working nine and a half hours daily, and that on very Spartan fare! It was necessary not only to attend to her eyes, but also to open her mother's eyes to a sense of the situation.

If time permitted I might discuss many other aches and pains, but I have discussed only the more frequent and important, in the hope that these notes will give a basis of discussion to the experienced, and possibly may be of some help to the beginner.

THE net personalty of the estate of the late Dr. C. Theodore Williams has been sworn at £118,798.

THE firm of E. Leitz (18, Bloomsbury Square, London) have recently issued a guide to photomicrography primarily prepared for users of apparatus made by the firm, but discussing also general principles. Among the subjects dealt with are the selection of a place for setting up the apparatus, the mode of photographing solid objects, and the method of obtaining stereoscopic photographs. Photographic details are well discussed, as are also the preparation of lantern slides and cinematograph pictures. The firm has also issued a pamphlet giving directions for the use of the large metallurgic microscope with camera for the study of metals.

TUMOURS OF THE ORBIT: A PLEA FOR OPERATION.

By SIR WILLIAM COLLINS, M.S., M.D., B.Sc.Lond., F.R.C.S.Eng.,
SENIOR SURGEON TO THE ROYAL EYE HOSPITAL, LONDON.

THE orbit is territory upon which the ophthalmologist and the general surgeon meet. Growths in that region may be held to fall within the sphere of activity of both, and are sometimes renounced by the one in favour of the other. Their pathology and classification are not thoroughly elucidated, and their treatment is often, I think, not too satisfactory. I am not alluding to simple tumours such as exostoses or dermoid cysts, which are not infrequent in this region, but to vascular and malignant growths, which, though relatively rare, are not so uncommon as some writers would have us believe; nor, in my experience, is the outlook, if treated by operation, so gloomy as the statistics vouchsafed by some authorities would seem to imply.

To illustrate my meaning I will cite the following cases on which I have operated, several of whom had been previously advised that the risks of the operation itself were so great or the liability to early recurrence so considerable that surgical intervention was discouraged, or even strongly discountenanced.

CASE I.

Mrs. B., aged 65, admitted to a private ward in the Royal Eye Hospital on September 26th, 1910. There is a small hard nodular swelling about as big as a filbert to be felt at the orbital margin of the left malar bone. It is firmly planted and feels as if it were continuous with further growth which the finger detects on firm pressure between the bone and the globe. The swelling was first noticed six months ago, and of late has been increasing in size. The eye is displaced upwards and inwards and there is diplopia, most marked when looking down and to the left. There is no pain. Breathing through each naris is normal, but the left antrum appears to be more opaque than the right on transillumination. The finger detects no swelling in the naso-pharynx and the maxilla does not seem distended or enlarged. Vision, right eye $\frac{6}{6}$, left eye $\frac{6}{9}$ c +1.75 D. Fundi normal except that the left optic disc is somewhat redder than the right. Pupils equal and react normally. There is some ulceration of the septum nasi on either side, but there has been no epistaxis. There is a systolic aortic bruit, and there is evidence of osteo-arthritis in the interphalangeal joints. Urine: Specific gravity 1018, acid, no albumen or sugar. Operation had been disadvised. On September 28th, in the presence of her medical attendant (Dr. Salt), the patient was placed under chloroform, and Sir William Collins made an incision through the lower eyelid exposing the tumour, which had the appearance of a periosteal sarcoma. The eye was excised, the growth freely removed by the elevator, scissors and forceps; and all the soft contents of the orbit were carefully cut away. The orbital plate of the superior maxillary bone and the orbital surface of the malar, whence the growth sprouted, were scraped clean. Zinc chloride and opium paste spread on strips of lint was then packed lightly into the orbit in apposition to the bony surfaces but not so as to come into contact with the eyelids, which were spared. The incision in the lower eyelid was sutured. The skin was smeared with eucalyptus vaseline. The patient bore the operation well, and convalescence was uninterrupted. The $ZnCl_2$ strips were removed on the evening of the second day leaving a desiccated bony surface all round. The patient left the hospital on October 10th.

P.S.—I had satisfactory reports of the patient during 1911 from Dr. Salt, and in June, 1912, I saw her. The orbit is perfectly healthy and there is not the slightest evidence of any recurrence. Some of the ethmoid cells are exposed at the upper and inner part of the orbit, but they give no trouble.

In June, 1912, I again saw this patient. She was in excellent health and perfectly free from any recurrence.

CASE II.

Mary M., aged 32, married, one child 3 months old. Father and mother alive and well, and four brothers and one sister also in good health. Patient has old hip disease, left, and wears a high boot. No history of phthisis.

Seven years ago she was a patient at the London Hospital for a tumour on the outer part of the right upper eyelid, which was removed. There has, however, always been some swelling in the same spot.

On July 27th, 1907, she was admitted into the London Temperance hospital under Sir William Collins with an irregular, prominent, tense, elastic, well defined, painless swelling at the upper and outer margin of the right orbit, as large as a walnut. It is firmly fixed to the bone, and the skin glides freely over it. The globe moves normally and is not displaced by the swelling. There is some ptosis. The vision of each eye is $\frac{6}{6}$ and J.1.

On July 29th, 1907, under $CHCl_3$, Sir William Collins cut down in lacrymal region, and with elevator prized out the tumour, which was cystic in places. It healed quickly, and the patient went out on August 10th. Microscopically there was lacrymal glandular tissue, but in parts there was the appearance of sarcoma.

On December 29th, 1908, the patient was readmitted with a small tumour in the site of the old scar, which had appeared two months ago; it is painful on touch. The patient volunteered the statement that when she peels onions the left eye waters but the right does not, though it becomes red and smarts.

The swelling complained of is of the size of a pea, and appears to grow from the periosteum just interior to the right external angular process.

On January 7th, 1909, under $CHCl_3$, Sir William Collins dissected out the small growth. A section showed it to be sarcomatous.

The patient was readmitted on November 15th, 1910. There is now a good deal of exophthalmos of the right eye, which has come on during the last two months, and the vision of the eye has rapidly failed. Sir William Collins advised enucleation of the eye and growth, which he did under $CHCl_3$ on November 17th. The growth was freely cut away as it extended widely, and, after removal of the soft structures in the orbit, the cavity was lightly packed with zinc chloride and opium paste on strips of lint.

The next day there was some epistaxis, but otherwise convalescence was rapid, and the patient was discharged on December 10th. The pathologist reported: "The growth appears to be round-celled sarcoma."

On June 30th, 1912, some pain in the orbit was complained of, and there was some swelling. The patient was readmitted, and under $CHCl_3$ Sir William Collins removed all the cicatricial soft tissues in the orbit. Portions of the frontal and maxillary bones were cut away, and $ZnCl_2$ reapplied.

The patient was seen in November, 1912. She had gained in weight and was free from any local or other recurrence.

CASE III.

Mrs. W., aged 42, had for fourteen years had some proptosis of the right eye. This had commenced after the birth of the second of her three children. Prominent tortuous veins made their appearance at the inner canthus; the eye became more and more prominent until, when seen in 1905, it had become most unsightly and repulsive. The right globe was projected out almost on to the cheek, and a huge plexus of worm-like veins clustered around the inner canthus. She had sought advice, but one ophthalmic surgeon had told her it was too dangerous to operate on. The eyelids could not close—a bruit could be heard with the stethoscope over the orbital swelling. The vision was reduced to J.20 in the right eye; the fundus shows some enlargement of the veins of the optic disc. She had a large varix in the right thigh, and had suffered from haemorrhoids. Sir William Collins, under chloroform, tied the right common carotid in November, 1905, but this produced no marked effect on the swelling or proptosis. In December, 1905, Sir William, under chloroform, slit the outer canthus, excised the eyeball, and, separating the mass with his finger from the bony walls of the orbit, clamped and tied the vessels far back, and cut away the venous bunch with very little haemorrhage. The orbit was lightly packed with iodoform gauze, and healing was rapid and uninterrupted.

The growth proved to be a venous cavernous angioma, and contained some phleboliths.

The patient was seen this year (1912), and is quite well.

CASE IV.

A man aged 48 was seen by Sir William Collins at the Royal Eye Hospital in March, 1893, with a swelling, of three months' duration, below and to the inner side of the left globe, elastic to the touch, and displacing the eyeball up and out. There was increasing epiphora. Vision was not much affected, $\frac{6}{9}$ and J.1 with + 2.50 D. No history of syphilis. Under A.C.E. mixture Sir William excised the eye, and with the elevator prized away the growth and periosteum from the orbital walls. All soft tissues were cleared away, and zinc chloride and opium paste applied. Portions of the bones came away as sequestra. The growth was a round-celled sarcoma. Convalescence was uninterrupted. The patient attended as an out-patient for some long while afterwards, and showed no evidence of recurrence.

CASE V.

A man, aged 42, was a patient at the London Temperance Hospital, sent up by Dr. Lightfoot of Newcastle, with a history of "polypi" in the left nostril, and of a small growth having been removed from the left orbit, which was reported to be sarcomatous. The left naris was blocked, and the finger encountered growth in the naso-pharynx; the left eye was diverted, apparently by some swelling at the inner part of the orbit. No enlarged glands could be felt. Under $CHCl_3$ Sir William Collins divided the upper lip, opened up the nose, removed the greater part of the left maxilla, and cleared out the orbit. No soft parts were left between the roof of the orbit and the hard palate, nor between the septum nasi and the left malar bone. The ethmoid and sphenoid sinuses were scraped out, and zinc chloride and opium paste was applied to suspicious places. Convalescence was uninterrupted, and, when complete, the right Eustachian tube could be seen on looking through the left orbital cavity. He was readmitted some months later for removal of infected glands and for touching infected spots. A silver plate and a glass eye attached to spectacle frames covered up the gap left remarkably well. The growth was a rich spindle-celled sarcoma, both in the orbital

tumour and in the cervical glands. Ten months after the first operation he was reported to be well, gaining in weight, and without local or other recurrence. The following year, however, there was further return in the glands, and the patient died from exhaustion.

HAEMATOMA OF THE LEFT ORBIT TREATED BY MODIFIED KRÖNLEIN'S OPERATION.

BY

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About four years ago A. M., now aged 38, a blacksmith, was fitting a shoe to the left forefoot of a horse when the animal, suddenly turning its head, struck him with it on the left temple. He felt somewhat dazed at the time, and experienced a sensation of fullness about the left brow and side of the head, but as there was no discoloration nor external bruise and his sight was unaffected, he thought little about it. Some months later he began to notice that when he stooped forward at his work, or bent down to tie a shoelace, his left eye tended to come forward. It returned to its proper position on raising his head again. He did not take any advice about it until he found that the condition was becoming more pronounced, especially when he turned his head to the left while bending. In that attitude his sight became dim. He at length consulted Dr. Tod of Leith, who examined his eye, but could find no obvious explanation for his complaint.

On January 2nd, 1909, he went of his own accord to the Royal Infirmary and was seen by Dr. J. V. Paterson, who also was at a loss to discover anything at fault until the patient had assumed a stooping attitude for a few minutes. The patient's statement that his left eye protruded so long as his head was low was then confirmed. Nothing was suggested as regards treatment at that time, and he returned to work.

In May, 1912, the patient got his left foot crushed by a horse stepping on it, and was off work for five weeks. When able to be about again he noted that his eye was becoming worse.

On the evening of June 19th he spent fully two hours reading the Insurance Act, and had no discomfort when he retired to bed. But on waking on the following morning he found that his left eye and lids were protruded, and that he could not move this eye in any direction. There was partial ptosis of the left upper lid and severe pain going from the left orbit to the back of his head. Dr. Tod advised him to go to the Royal Infirmary. When he came to the eye wards on June 22nd the ptosis, protrusion, and fixation were marked, but there was no definite tumour, solid or cystic, nor any nodulation to be felt in the orbit. There was no pulsation nor thrill detectable, nor could any bruit be heard over the eye or temporal region. He had almost full vision. There was nothing abnormal to be seen in the fundus. Examination of the nose, pharynx, and accessory sinuses was negative. Yet it was evident that there must be some mass about the apex of the orbit pushing the contents directly forward and interfering with the proper innervation of the ocular muscles. As it was obviously desirable to explore the condition of the orbit as far back as possible without in the first instance opening into the fascial sheath, the case appeared to Dr. George Mackay to be one well suited for Krönlein's operation. Mr. Cotterill now saw him in consultation, and concurred in the above opinion. The patient was therefore transferred to the general surgical wards on July 1st, and operated upon the same day.

Operation.

A horseshoe-shaped incision was made at the outer side of the orbit, with its base directed upwards and outwards, the lower limb of the incision being carried backwards along the zygoma. The periosteal capsule of the orbit was detached and pushed inwards with the eye. The orbital margin of the frontal, the malar bone, and the zygoma were divided with a fine saw and chisel, and the bone thrown upwards and outwards with the skin flap. No new growth was palpable, but just inside the periosteum at the back of the orbital cavity a mass was felt which proved to be a haematoma. About a tablespoonful of recent clot was carefully removed by scoop and finger; and as nothing more could be felt except some thickening due to the wall of the haematoma, the wound was closed with horsehair stitches, and a collodion dressing applied.

After-History.

Two days later the proptosis was much less obvious, and by July 10th the wound was completely healed, and the eye apparently normal.

On July 24th the patient was discharged, and his only complaint was of slight diplopia on looking to the left.

Examined on December 12th, 1912, he reported himself fit and well. The vision of each eye was equal to $\frac{6}{6}$. There was no protrusion in any direction. The movements of the left eye appeared to be perfectly performed, but he stated that he had slight diplopia on looking to his extreme left, and that he had occasionally slight pain and sensations of stretching about the left temple. He admitted, however, that these were quite trivial, and that he was practically cured.

THE INFLUENCE OF SEPTIC INFECTION IN THE CAUSATION OF EYE DISEASE.

By B. T. LANG, F.R.C.S.,

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It is known that inflammation is Nature's attempt to repair damage. It follows, therefore, that an inflamed eye must have been damaged, and that the inflammation occurs at or near the seat of the damage.

Suitable treatment of an inflamed eye implies finding the cause of its injury in order to prevent recurrence or continuance of its action. Where damage results from a perforating wound or ulcer the cause is obvious; but in the majority of cases of scleritis, keratitis, iritis, cyclitis, and choroiditis the cause is obscure. Cause there must be, and, since physical damage is excluded, we regard the chemical effects of bacteria or their toxins as that cause. Now bacteria cannot arise within the eye by a process of biogenesis; they or their toxins come from without, brought by the blood stream.

For many years kinship between recent gonorrhoea and iritis, between syphilis, iritis, and choroiditis, and between inherited syphilis and interstitial keratitis has been recognized. So much so that these lesions are known as "gonorrhoeal" iritis, "syphilitic" iritis, and "syphilitic" choroiditis; whereas other forms of iritis are termed "rheumatic," and choroiditis is designated "myopic," "diabetic," or "traumatic," and the like.

Many of these inflammatory lesions are infective and depend for their origin on some septic focus, from which the exciting substance must travel to the seat of the disease by the blood stream. Whether the causative agent is bacterial or toxic is uncertain. On the one hand, attempts to grow organisms from the fluid of the anterior chamber in cases of acute non-suppurative iritis always fail; on the other hand, the anterior chamber is very like a joint cavity, and gonococci can be seen in and cultivated from the joint fluid in cases of acute gonococcal arthritis. Histological demonstration of the bacteria in the inflamed tissues is out of the question, because no eye is ever excised during the onset of the acute stage.

Direct evidence is therefore unobtainable, and the views here expressed are based on the evidence that has been obtained by treating the supposed source of the infection. The eye itself has often been left severely alone, and at the most merely given physiological rest by the use of a mydriatic and bathed with hot water.

Septic foci occur in three situations:

1. Along the respirato-alimentary tract.
2. Along the genito-urinary tract.
3. On the skin or in a sinus leading from it.

The following cases are illustrative of the infective influence of chronic inflammation. The cases under review, with four exceptions, all occurred in my father's practice, and I am indebted to his notes for these abstracts. They

have all been seen during the last seventeen years, as this view of the septic influence on eye disease did not occur to him until 1895.

I. RESPIRATO-ALIMENTARY TRACT.

Chronically Inflamed Lacrymal Sac.

M. C., female, aged 45, had an inflamed eye with fine grey keratitis punctata and fine vitreous opacities. A chronically inflamed lacrymal sac was the only septic focus that could be found. The sac was removed and the eye rapidly recovered.

No case of intraocular inflammation traced to frontal or sphenoidal sinusitis has come under observation. One case of advanced choroiditis was met with, in which there was considerable ethmoidal disease—only slight improvement followed radical treatment of the nasal condition.

Empyema of the Antrum of Highmore.

Q. N., female, aged 34, suffered from defective vision associated with fine keratitis punctata. She had a chronic empyema of the antrum of Highmore, but as this did not worry her, she refused to have it treated. The keratitis punctata persisted for some months, and she then went abroad and has been lost sight of.

Chronic Suppurative Otitis.

M. L., female, aged 27, had an iritis with grey keratitis punctata and posterior synechiae. She had a chronic suppurative otitis. The ear was treated and the discharge cured, and the eye rapidly recovered.

Chronic Gingivitis and Pyorrhoea Alveolaris.

Chronic gingivitis is the commonest of all causes. It is not necessary for a tooth to be loose or for a socket to emit pus on pressure. Slight marginal inflammation around the necks of a few teeth is all that is required in a susceptible patient. Of the 176 cases under review, buccal sepsis was traced as the cause in 71.

CASE I.

E. C., female, aged 25, came for an opinion in December, 1909. Right eye quite normal; left eye vision = "hand movements." Glaucoma secondary to an iritis of three years before. The patient had pyorrhoea alveolaris.

Eight months later the patient returned on account of dimness of vision of the right eye, noticed a fortnight previously. V. = $\frac{6}{9}$, not improved by glasses. No keratitis punctata.

A fortnight later there were twelve large dots of keratitis punctata. Active treatment of the pyorrhoea was started, and the eye rapidly recovered.

Three months later right eye vision = $\frac{6}{5}$ and Sn. 0.25. No keratitis punctata present. She had completely recovered. She had had many teeth extracted, but had ten left, each surrounded by healthy gum.

Ten months later she returned with a mist in front of the right eye once more. V. = $\frac{6}{9}$ and fine vitreous opacities. Several of the remaining teeth found to be infected. Treatment of teeth started at once. A fortnight later, V. = $\frac{6}{6}$, two dots of keratitis punctata; and another fortnight later all teeth had been extracted.

There was absorption at the root tips and streptococci were cultivated from the roots. V. same, keratitis punctata still present.

Three months later, V. = $\frac{6}{5}$. Remains of keratitis punctata. Vitreous clear. Nine months later, patient quite well. Vision same.

CASE II.

M. Q., female, aged 38, realized in October, 1910, that she had had a mist in front of the left eye for a few weeks.

Right eye V. = $\frac{6}{6}$. Quite normal. Left eye V. = $\frac{6}{36}$. A few dots of keratitis punctata and a patch of superficial choroiditis in the yellow spot region. The treatment of the patient's pyorrhoea began next day.

Ten days later left eye V. = $\frac{6}{9}$ partly. Two dots of keratitis punctata.

A week later left eye V. = $\frac{6}{9}$ partly.

A fortnight later left eye V. = $\frac{6}{6}$ and Sn. 0.5. She could not see the whole of each letter at one time and reading was slow.

Four months later left eye V. = $\frac{6}{5}$ and Sn. 0.25. The patches of choroiditis were very faint.

CASE III.

W. U., female, aged 34, began to have an inflamed right eye in India in September, 1911. The patient's condition was regarded as syphilitic, and she was treated with mercury and potassium iodide; but the eye became worse. Five months later she came to England, when she was seen for the first time. Right eye V. = counts fingers at $\frac{1}{2}$ metre. Eye red, painful and tender. Much episcleritis, keratitis and iritis. No keratitis punctata.

Left eye V. = $\frac{6}{9}$. Quite normal. Many tooth stumps and much pyorrhoea alveolaris.

A month later eleven teeth or stumps had been removed. The eye got worse during the period of extraction, but rapidly improved after. Posterior synechiae had not broken down and the cornea was infiltrated in the centre.

A month later the eye was much better, and a fortnight after it was clear. There was no keratitis punctata. Three months later right eye V. = $\frac{6}{9}$. There was a large central nebula. The eye was quite quiet and there was no keratitis punctata.

Chronic Tonsillitis.

A chronically inflamed tonsil, particularly if any crypts are blocked with muco-pus, is a possible focus.

I. L. D., female, aged 43, had an iritis with posterior synechiae, and a chronically inflamed tonsil, which was removed. The iritis rapidly subsided.

A month later the eye was quite quiet.

In none of the cases under review was the cause traced to the naso-pharynx, larynx or trachea.

Lungs.

Tubercle of the eye is, of course, quite common; and in some cases the lungs also are infected. Whether the organisms are inhaled or ingested is unimportant so far as the treatment of the eye is concerned. In no case was the tuberculous focus in such a situation as would allow of the extirpation of the whole disease. Cases occurred of tubercle of the sclera, cornea, iris, ciliary body and choroid. The more recent have been treated with tuberculin injections.

Sepsis along the abdominal portion of the alimentary tract is not often demonstrably the cause of eye disease.

Chronic Gastritis.

Iritis occurred in four cases in which chronic indigestion was the only disorder of any kind that could be discovered.

Typhoid Fever.

In one case choroiditis was noticed after typhoid, which is indeed a recognized cause of choroiditis.

Chronic Appendicitis.

W. T., female, aged 28, in the beginning of November, 1911, noticed that there was a blur in front of the left eye. This gradually became more marked, and a fortnight later she came for an opinion. Right eye V. = $\frac{6}{5}$ quite normal. Left eye V. = less than $\frac{6}{60}$ Sn. 4.5. Large patch of central choroiditis. She was sent to a dentist, who treated a small amount of pyorrhoea. In spite of this the eye got steadily worse, and three weeks later she could not recognize the test type board across the room.

Three weeks later the right eye became similarly affected. V. = $\frac{6}{5}$ slowly, the vision being blurred just below the fixation point.

There were two small patches of choroiditis just above the yellow spot region. Two days later two more patches had appeared and the vision was $\frac{6}{18}$.

Two days later, right eye V. = $\frac{6}{12}$, patches larger. Left eye as before. Surgeon reported that the patient had chronic appendicitis. There was a history of two attacks some few years before.

Four days later appendicectomy was performed. The appendix was thickened and histologically showed signs of chronic inflammation.

A fortnight later the patches in the right eye had coalesced and it looked like the left. Twenty-seven days after the appendicectomy, right eye V. = $\frac{6}{9}$ and Sn. 0.5. Left eye V. = $\frac{6}{12}$ partly and Sn. 0.63. Discs normal. Diffuse pigmentary disturbance in both macular regions. Sclera not exposed.

Eight days later, right eye V. = $\frac{6}{9}$ and Sn. 0.5. Left eye V. = $\frac{6}{9}$ partly and Sn. 0.5. A fortnight later, right eye V. = $\frac{6}{9}$, 8 letters. Left eye V. = $\frac{6}{9}$. Blur, although still present, was less dense and was just over centre of fixation.

Five months later the vision was the same, the blur less pronounced.

This is the only case of choroiditis due to appendicular trouble, but E. F., male, aged 39, had several attacks of iritis; he had had seven attacks of appendicitis, and no other source of sepsis could be found.

There is no corresponding case due to chronic inflammation of a gall bladder.

Sprue.

In one case choroiditis occurred while a patient was suffering from sprue.

Chronic Colitis with Mucus.

This was apparently the cause in two cases, in neither of which could any other septic focus be found.

W. B., widow, aged 52, had severe colitis in June, 1907, which became chronic. Three months later an attack of iritis began in the right eye. A month later, when seen for the first time, there were two posterior synechiae and much keratitis punctata. The former were broken down in forty-eight hours by atropine, but the latter remained in spite of local treatment. Two months later iritis developed in the left eye.

A fortnight later she went abroad for her colitis; she returned four months later, by which time the colitis had subsided, and both eyes were quiet, and there was no keratitis punctata.

Dysentery.

One case of choroiditis occurred while the patient was suffering from dysentery in the tropics.

Chronic Constipation.

In 14 cases constipation was the only cause that could be found.

E. M., female, unmarried, aged 27, had an episcleritis. She was subject to periods of constipation, during which the eyes became red. When her bowels were freely open the eye quieted down. This occurred on several occasions.

II. GENITO-URINARY TRACT.

Bacterial Infection of the Urine.

R. M. M., male, aged 57, noticed at the end of November, 1911, that there was a blur in front of the left eye near the fixation point. V. = $\frac{6}{9}$, partly and slowly. There was a small patch of pigmentary disturbance near the yellow spot.

The patient was edentulous. His false teeth were quite clean. His urine was found to contain a streptococcus and a coliform bacillus in less than 0.001 c.cm. There was no albumen or pus. Vaccines were prepared and given over a period of three months. The blur gradually disappeared and the vision improved until four months later it was $\frac{6}{6}$. At this date there were no streptococci or coliform bacilli in the urine.

Urethritis.

The male urethra as the result of gonococcal infection is frequently the cause of eye trouble. The urethritis need not be recent. In iritis a definite history of gonorrhoea is sufficient to justify the administration of a gonococcal vaccine. These cases clear up rapidly if the vaccines are given in sufficiently large doses.

No case has come under observation where chronic inflammation of the Fallopian tube was the cause of any eye trouble.

Uterine Polypus.

L. D., aged 39, suffered from a recurrent iritis, with keratitis punctata. After the removal of a uterine polypus she had no further attack.

Utero-vaginal Discharge.

E. S., aged 26, suffered for four years from recurrent attacks of iritis. She had a chronic utero-vaginal infection with a Gram-positive anaërobic organism, which suddenly became acute. She was cured of it, and since that date she has had no return of her eye trouble.

III. THE SKIN OR A SINUS LEADING FROM IT.

Varicose Ulcer.

F. C., female, aged 55, was ill in bed with a varicose ulcer. Iritis with keratitis punctata developed in the left eye. No septic focus other than the ulcer could be found. Left eye, V. = $\frac{6}{9}$. The ulcer healed and the eye rapidly recovered. Two months later: Left eye, V. = $\frac{6}{6}$.

Chronic Purulent Discharge from the Navel.

E. M., female, aged 20, was suffering in May, 1903, from an iritis with posterior synechiae and keratitis punctata. Right eye, V. = $\frac{6}{9}$. The teeth were bad and were put in order. No other source of sepsis could be found. In spite of all treatment both eyes got rapidly worse.

Four months later: Right eye, V. = $\frac{6}{9}$ partly; left eye, V. = $\frac{6}{36}$. A physician found that she was suffering from a purulent discharge from the navel, which the patient admitted had existed for a year. When once this was treated and cured the patient's eyes made a rapid recovery. Three months later: Right eye, V. = $\frac{6}{6}$; left eye, V. = $\frac{6}{9}$ partly. A year later: Right eye, V. = $\frac{6}{4}$ partly; left eye, V. = $\frac{6}{9}$ partly.

It not infrequently happens that two causes are acting at the same time, such as pyorrhoea and tubercle or tubercle and syphilis.

E. G., female, aged 37, was suffering from a cyclitis. Many vitreous opacities were present, and no fundus details could be seen. As her gums were extremely bad, her teeth were extracted, and the vision rapidly rose from "counts fingers at 3 metre" to $\frac{6}{36}$. It was then possible to see the fundus. Diffuse choroiditis was present, and the suggestion of syphilis was borne out by a positive Wassermann reaction. The patient was inuncted with mercury and given a dose of salvarsan (0.6 gram), but the vision never improved beyond $\frac{6}{24}$.

Patients often suffer from some chronic inflammatory lesion for years without ill effect; then perhaps after some minor ailment which reduces vitality, such as exposure, trauma, or a "cold," the eye will suddenly become inflamed. That such minor ailments are only the exciting, and not the predisposing, cause, is shown by the fact that the eye remains inflamed long after they have ceased to act, while it recovers rapidly with the cleaning of the septic area. This is particularly noticeable after operations. Patients whose mouths are septic frequently take a long time to recover from such an operation as a cataract extraction. If, however, the septic focus is removed, the eye will often recover rapidly.

A. B., widow, aged 56, had a left extraction with iridectomy. On the fourth day there was a good anterior chamber, the cornea was bright, the pillars of the iris were free, but there was much scleral and circumcorneal injection. Six days later the eye was slightly worse. There was no keratitis punctata. Her teeth were found to be carious, and there was some pyorrhoea for which she was treated. A week later the eye was much better; a fortnight later the eye was white.

Susceptibility to the influence of chronic inflammation may be hereditary.

L. G., male, 54, had iritis. He explained that it was "gouty iritis." His father and his grandfather had had it before him, and he supposed that it must have been the port in the "good old days." He had a very septic mouth, which was put in order. He rapidly recovered from his iritis, and has not had another attack.

It may be worthy of note that the areas of septic inflammation which are found by analysis of these 176 cases to give rise most often to eye troubles are those that are subjected to frequent mechanical disturbance. For example, infection of the gums, which are massaged at each meal, or of the male urethra, which is continually disturbed during micturition, are each more productive of eye trouble than infection of the mucous membrane lining the frontal or any other sinus, or of the cervix uteri.

It may of course be argued that, whereas very many people have very septic mouths, very few have inflamed eyes, and that if there were any real connexion between septic teeth and inflamed eyes many more eyes ought to be inflamed. This seems to me to be an argument of little force, for whereas many men get gonorrhoea, very few get gonorrhoeal arthritis.

I would suggest that senility of itself and myopia of itself do not cause choroiditis. The senile arteritis and the stretching of the choroid in myopia each tend to reduce the resistance of the choroidal tissues. I suggest that these are really cases of septic choroiditis occurring in eyes that are in a weakened state. In support of this contention, I would like to point out how very much less choroiditis one sees in private patients with myopia than in hospital cases, and that senile central choroiditis is most frequently found in patients of the workhouse type.

CONCLUSION.

It is in no way desired to suggest that it is necessary in every case to find out and treat a septic focus to cure the patient. Many cases of iritis and the like recover under the influence of ordinary treatment and the action of drugs, but such cases frequently recur unless the septic focus is treated. In cases of choroiditis I believe it is necessary to treat the cause thoroughly early in the disease in order to obtain any great recovery of vision.

The object of this paper, and of the analysis of cases of which it chiefly consists, is to bring out the relationship of the patient's "general condition" to eye disease. Absolute proof that any one case recovered because one type of treatment was employed is impossible, and if my contention were based upon but two or three cases that had recovered as the result of treating (or removing) the supposed septic cause, I should base no argument upon it. It is the fact that no fewer than 176 cases have been subjected to careful analysis, which emboldens me to maintain the views here expressed. I hold that these eye conditions are often septic in origin and not due to anaemia, idiopathic tendencies, rheumatism, or the gouty diathesis.

THE Optimists (Lennox House, Norfolk Street, Strand, W.C.) are a group of business men whose object is to economize time and money in commerce. But among their list of fourteen specific aims there are two which will appeal to every one—they desire to save time wasted by irrelevance at public meetings and by unpunctuality at appointments.

RECURRING TORSION OF THE SPERMATIC CORD: OPERATION.

By J. W. DOWDEN, F.R.C.S.Edin.,
SURGEON, ROYAL INFIRMARY, EDINBURGH.

In the British Medical Journal of April 29th, 1905, there was published a paper by me on the subject of "Recurring torsion of the spermatic cord, with an account of five cases."

The second case detailed was that of a lad, aged 16, who had suffered for four years previously from recurring attacks of pain every two or three months, which affected the left testicle. The onset of these attacks was always sudden. The pain, sickening in character, shot up towards the left kidney and caused prostration. In about a quarter of an hour vomiting occurred, and later, some swelling in the scrotum, followed by gradual cessation of the pain and disappearance of the swelling. These attacks passed off completely in a matter of a couple of days.

Mr. C. W. Cathcart, in whose wards the patient was at that time, most kindly asked me to operate for the condition. At the operation there was found the characteristic appearances associated with recurring torsion—clear fluid in the tunica vaginalis, a testicle and cord hanging free in this, and a broad arrangement of the cord with separation of the vas deferens from the vessels. The parietal tunica vaginalis was removed, and a strip of the visceral investment was separated with difficulty from the free aspect of the testicle. Catgut sutures were inserted to unite the surface of the testicle and the scrotal wall.

Since this operation (some nine years ago now) the patient has had no symptoms whatsoever referable to the left testicle. Some three years ago, however, he began to suffer from similar symptoms on the right side. In fact, so strongly did these symptoms imitate his previous condition on the left side that he applied for treatment in February, 1911, having recognized that his condition was similar in character to that which had affected his left side, and for which he was operated on nine years previously. He knew of no cause which precipitated the attack. It might come on while walking, standing, or lying in bed.

State on Examination.—Nothing definite could be made out in any way, and the history of his symptoms had entirely to be relied on. He was anxious to have an operation done, and this was performed in Mr. Cathcart's ward, and I am again indebted to that surgeon for his kindness in permitting me to carry out the second operation.

Operation.—An oblique incision was made over the right external abdominal ring. The tunica vaginalis was found to be large, and contained about 2 drachms of clear yellowish fluid. The testicle and cord hung free in the tunica vaginalis, but did not show the breadth nor the definite demarcation between the vas deferens and vessels which characterized the condition of the left side. The parietal tunica vaginalis was removed and the testicle fixed by catgut sutures to the scrotum.

The subsequent history was that of complete cure.

Remarks.

The case is of interest on account of the diagnosed and successful treatment on the left side, now nine years since operation, but it is mainly of importance on account of the onset of symptoms affecting the right side, the recognition of the condition by the patient, and his request for operation. I have seen acute torsion of the spermatic cord in a man of 55 coming on for the first time and attributed to a slight injury.

The Central Public House Trust Association, 15, Dean's Yard, Westminster, S.W., has issued for the use of motorists, cyclists, and other tourists and travellers a list of hotels and inns under the management of the Public House Trusts and the People's Refreshment House Association. General catering is a special feature of these trust houses, and the managers receive a personal profit from the food and non-alcoholic trade. Excellent bedroom accommodation, it is stated, is to be found in the majority of the houses, but in some of the smaller village inns it is of the cottage type. The list is remarkable, inasmuch as it gives the names of inns in many small places in which the motorist or cyclist might not expect to find a comfortable and well-conducted house. The pamphlet is provided with an index.

SIX CASES OF HYDROCELE IN INFANTS TREATED BY OPERATION.

[With Special Plate.]

By JAS. H. NICOLL, M.B., C.M.Glasg.,
SURGEON, WESTERN INFIRMARY; EXTRA SURGEON, ROYAL HOSPITAL FOR SICK CHILDREN, GLASGOW.

In a paper on the surgery of infancy, read at the Meeting of the British Medical Association in Belfast in August, 1909,[1] and based on an experience of some 9,000 operations up till then performed on children treated as out-patients, I advocated the relegating to the out-patient operating theatre of a much larger number of the cases treated in our children's hospitals, and particularly pleaded that "in children under 2 years of age there are few operations indeed which cannot be as advantageously carried out in the out-patient department as in the wards," with great gain to the hospital's accommodation and efficiency. My views have not been left uncriticized. In particular, operations for hernia were singled out by certain critics as being unsuited for out-patient treatment. As a matter of fact, as our statistics show, operations for hernia in out-patient infants are amongst the safest and most efficient of all our operations. More recently the opinion has been expressed that the operative treatment of hydrocele is unsafe in the out-patient department.

The opinion is as ill-founded as that expressed regarding hernia. My experience has been that the operative treatment of hydrocele in children is as uniformly successful in the out-patient as in the in-patient department.

During November and December I have operated on the following six cases of hydrocele in the out-patient department of the Royal Hospital for Sick Children, Glasgow:

Name.	Age.	Date of Operation.	Result.
John S.	2 months.	Nov. 8th, 1912.	Primary healing.
John L, ...	2 weeks.	Nov. 8th, 1912.	Primary healing.
James M.	5 months.	Nov. 15th, 1912.	Primary healing.
John W.	4 months.	Nov. 22nd, 1912.	Primary healing.
John L.	3 months.	Dec. 3rd, 1912.	Primary healing.
Allan W.	18 months.	Dec. 27th, 1912.	Primary healing.

All were cases of hydrocele of the ordinary "acquired" type. No local preparation was done till the child was under anaesthetics on the table. The dressing was a small pad of sterile gauze fitted by a strip of adhesive plaster. The children were taken home by their mothers after operation, and brought back in a week for removal of dressing and sutures.

The operation performed in all six is indicated in the drawings made for me by Mr. A. Kirkpatrick Maxwell. A skin incision (1 to 1½ in.) was made just above the groin over the inguinal canal, and the spermatic cord exposed just below the ring. The testicle and hydrocele were pushed up into the wound, and the upper end of the hydrocele sac exposed by a few snips of the scissors (Fig. I). The exposed sac was then emptied by trocar and cannula (Fig. II). The collapsed sac with the testicle was then pulled out of the wound, and the sac dealt with—either by tearing out its internal serous lining, by complete excision, or by bisection and suture of its halves back to back behind the testicle. Replacement of the testicle in the scrotum, and suture of the wound in the groin completed the operation.

(In the comparatively small hydroceles of infancy no drainage is necessary. In operating by this method for large hydroceles in adults, it is advisable to use a drainage tube, reaching from the wound to the bottom of the scrotum, for forty-eight hours.)

[1] British Medical Journal, vol ii, p. 753, 1909.

At the recent examination held by the Sanitary Inspectors' Examination Board for inspectors under the Public Health (London) Act (1891), fifteen candidates passed, all but one of them women.

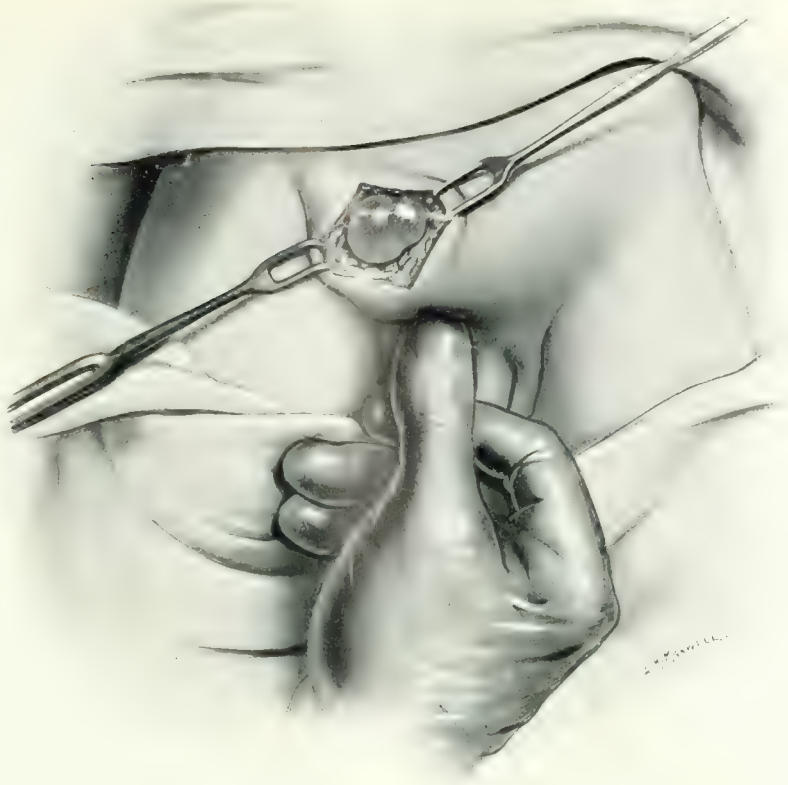


FIG. I.—Upper end of hydrocele sac pushed up to, and exposed in, the wound over the inguinal canal.



FIG. II.—Sac emptied by cannula through wound above groin.

OCCLUSION OF THE INFERIOR VENA CAVA, AS A RESULT OF INTERNAL TRAUMA (DISSECTING VARIX?)*

THE CASE OF THE LATE DR. W. RIVERS POLLOCK.

BY

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THE parts which form the subject of this communication were bequeathed to the Royal College of Surgeons, for dissection, by the late Dr. W. Rivers Pollock, at the time of his death (1909) Obstetric Physician to the Westminster Hospital; and this he did, by reason of the singular, if not unique, clinical history connected with his disease. I may first give the latter, then describe the specimen, and finally make a short comment on the case.

History.

In 1884, Pollock, when about 24 years of age, and in a condition of perfect health, won the 120 yards hurdle race in the Cambridge University sports—16½ seconds.

In the same year he ran successfully for Cambridge against Oxford, performing the same feat in 16 seconds. He held his breath during the whole time.

This record has since been equalled; and was broken in 1907 by K. Powell, of King's College, Cambridge.

Immediately after the race was over he lay on the grass, and within a few seconds complained of pain in the lumbar spinal region. He was put to bed, where he remained for six months.

Oedema of the legs, and to a lesser degree of the abdomen and scrotum, supervened at once, and persisted for the period mentioned. Whilst in bed, the superficial veins began within a few days to dilate, and this dilatation slowly progressed.

During the rest of life the distended veins were supported by the systematic use of carefully adjusted elastic pants reaching as high as the thorax.

Albuminuria appeared directly after the event, and persisted throughout life. Death occurred on October 5th, 1909—twenty-five years later.

Mr. Arthur Evans, who attended the patient during the last six years of his life, informs me that he was subject to attacks of phlebitis and thrombosis in the enlarged saphenous veins, these attacks being readily brought on—for example, by the pressure of a crease in the elastic pants.

On September 25th, 1909, the patient noticed some tenderness and discoloration behind the right internal malleolus: this extended to the dorsum of the foot: on the 29th the temperature was found to be 100° F., and he had a slight rigor. The next day his throat became sore, and on October 1st the signs of well-marked tonsillitis appeared, the lesion on the foot having vanished. The throat became more painful, and the temperature kept up. On October 4th, the right tonsil was freely incised under gas; not more than three or four drops of pus escaped. Death took place on the day following, and was attributed to tonsillitis and septicaemia.

Dr. J. N. Bernstein, who made the autopsy, tells me that, although carried out within six hours after death, there was such a degree of generalized emphysema as to render a satisfactory examination of the viscera impossible.

Description of the Specimen.

The preparation comprises the superior and inferior venae cavae, wanting their cardiac terminations. The right azygos vein is considerably dilated.

Except for its highest part, the whole of the portion of the inferior cava preserved is converted into a flat impervious ribbon, which is most contracted and thinnest for a distance of 6.5 cm. (2½ in.) opposite and below the renal veins. A portion has been cut away from the front of the vessel below the veins last named, showing that its lumen is completely occluded. The common iliac veins and the portions of the external and internal preserved are likewise flattened and obliterated, though somewhat less reduced in size, owing to the presence of internal adherent coagulum. The tributaries and trunk of the left renal vein are pervious, though, as tested with the probe, the entrance of the latter into the cava is closed. The same is true of the trunk of the right renal. The right spermatic vein, as far as its entrance to the cava, is likewise pervious. From the left side of the lower part of the cava there projects the occluded end of one of the lumbar veins of the same side. The upper divided end of the inferior cava is pervious, though reduced in size.

It was found during the dissection that the hepatic veins were unoccluded.

REMARKS.

Occlusion of the inferior vena cava as a result of infective thrombosis is a well-known condition, and not a few examples of it have been met with, the thrombus extending into the main trunk from some of its tributaries, either from the femoral and iliac veins below—for example, in typhoid infections—or from the hepatic veins above. Occlusions arising from the direct invasion of the wall by new growth, or by the extension of malignant tumours, of the kidney along the renal vein, are likewise well recognized, though rare occurrences in pathological anatomy. Any suggestion of such an infective origin in the case under notice, however, is excluded by the history. It is incredible that an infective disease should have been present in an athlete in such perfect condition as to have accomplished the feats recorded. Contrast it, for example, with the following, which lately came under the care of Dr. C. R. Box at St. Thomas's Hospital.

A man, aged 21, ten weeks before his admission to the hospital, felt out of health, and had a rigor, which he attributed to a bicycle ride. During the next five weeks the rigors recurred on two or three occasions; finally he fainted whilst at work. Swelling of the abdomen followed, and 5 pints of serum were removed. When admitted, on September 6th, 1912, he was suffering from ascites and enlargement of the liver; there was no evidence of nephritis. Paracentesis on September 10th was rapidly followed by reaccumulation; the abdomen was opened, but no cirrhosis or tuberculous disease of the peritoneum was found. There was no appreciable oedema of the legs.

Death occurred, with dyspnoea and cyanosis, on September 23rd. He had no rigors whilst in the hospital, but there was slight fever of remittent type; the urine contained a trace of albumen. *Post mortem*, there was an adherent thrombus, with softened centre in the inferior cava behind the liver; the cava below was filled with more recent non-adherent clot, which did not entirely occlude it. The clot did not reach into the iliac veins, but superiorly it extended for a short way into the right auricle. Organizing thrombi were found on microscopic examination in the hepatic veins throughout the liver. The portal vein and its tributaries were normal.

The liver, spleen, and kidneys were congested; the lower lobes of both lungs were the seats of pale infarcts. In Dr. Pollock's case the occlusion of the cava arose under such exceptional circumstances as to indicate some exceptional factor in its etiology. And the hypothesis which I venture to put forward is that in consequence of the extreme distension of the inferior cava, occasioned by the holding of the breath throughout the race, a localized rupture of the intima, or of this and the media, took place, which was followed by the forcible extravasation of blood into the walls of the vein—whilst, that is, the exertion was still in progress; that the lesion, in short, in its initial stage, was the counterpart of a dissecting aneurysm of the aorta. Since by classical usage the word "aneurysm" is confined to arterial dilatation (Galen), whilst swelling of the veins has from the time of Celsus been known as varix, the term "dissecting varix" would be that best suited to meet the condition supposed.

The initial lesion would be like that of a dissecting aneurysm, but the two would soon lose their resemblance. In the case of the aorta, the internal pressure is maintained, and the dissection may proceed to great distances, the blood in most cases finding its way again into the arterial system through a consecutive and

*Read before the Pathological Section of the Royal Society of Medicine.

more distant rupture of the intima; and the intramural channel, if death does not ensue, becoming lined with organized coagulum, and converted into an adventitious collateral.

In the case of the vein, on the relief of the abnormal internal pressure, further extravasation into the wall would cease—the normal intracaval pressure would be too low to prolong it. But, as a result of the intramural extravasation, the calibre of the vein would be so reduced, if not actually closed, that secondary thrombosis would take place, which would eventually occlude the channel. All the nucleated cells of the body are capable of furnishing thrombokinase. And after the partial rupture supposed, the ferment would be furnished by the injured tissues as well as by the leucocytes. From the intramural clot the coagulum would extend, at the site of the rent, into the diminished lumen of the vein, and so bring about its complete occlusion.

The intramural coagulum would subsequently undergo a transformation similar to that occupying the lumen, and in process of time become indistinguishable from the proper coats of the vessel.

The transverse rent of the intima and media that is so readily produced in the aorta or other artery by the application of a tight ligature, or by compressing the vessel transversely in a Spencer Wells's forceps, is not producible by the same violence in the cava or other vein. This difference is to be explained mainly by the direction of the muscle fibre. In the case of the artery the ligature sinks without much resistance into the media by displacing its circular fibres, the externa remaining intact; the intima is ruptured last. This can be shown by tying an aorta upon a test tube.

If the force used is not extreme, it will be found on slitting up the artery and examining the cut edge with a hand lens, after making gentle longitudinal traction, that the externa and intima are intact, whilst the media is cleanly ruptured. In the larger veins, like the cavae and iliacs, the longitudinal disposition of the chief part of the musculature, whether on the inner or outer side of the circular fibres, together with the admixture of white fibrous tissue with the muscle, prevents the ligature from penetrating in the same way. The inner coats of a vein can be ruptured, however, by internal tension.

If a pair of lithotomy forceps is introduced into the common iliac vein, or the cava, and slowly opened out until a rending sensation is felt, it will be found on slitting up the vessel that the inner and middle coats present one or more longitudinal ruptures, the external remaining intact.

This is the lesion that I presume occurred in Pollock's case.

This view will commend itself the more if one endeavours to picture what the condition of the inferior cava would be in the particular circumstances under which the accident occurred.

In the first place it is an old observation (known as Müller's) that if a prolonged inspiratory effort is made with the mouth and nostrils closed, the negative pressure, or *vis a fronte*, so induced within the thorax, results in such a filling of the intrathoracic veins, systemic and pulmonary, and of the two auricles (the lungs being unable to expand and aid in filling the potential space) that the auricles become overdistended, and rendered incapable of efficient contraction; and this to so high a degree that the pulse becomes imperceptible.

The embarrassment of the auricles is due not to excessive internal pressure, but rather to the fact that their musculature is too weak to enable it to cope with the negative pressure acting without; for the ventricles may continue to beat, though, as they are receiving little or no blood, none reaches the systemic arterial system.

The connexion of Müller's name with this observation is, as Dr. Augustus Waller has shown, one of the incongruities encountered from time to time in the history of science. The observation was originally made by Frey, and in recounting Frey's experiment Müller appends a brief footnote, in which he suggests that the cessation of the pulse is due to kinking of the subclavian arteries. The name of Müller has, therefore, in some inexplicable way, become transferred from this, his suggestion, to the actual experiment.

Secondly, in the converse observation (Valsalva's), a prolonged, forcible, expiratory effort, with a closed airway, will likewise stop the pulse by reason of the general compression of the thoracic viscera.

Professor A. Keith[1] has pointed out that the venae cavae, with the innominate, iliac, hepatic, and renal veins, being closed off below by the valves in the common femorals, and above by those in the subclavian and jugulars, constitute a cistern or reservoir, which may be filled from its tributaries, but which can only empty itself through the right auricle.

In Pollock's case, so far as the *vis a tergo* is concerned, it is clear that the influx into the cavae, or the venous cistern, would reach its highest mark, seeing that the active muscular contractions of the limbs and trunk would drive the blood through the peripheral tributaries into the reservoir without its being able to return. Some reflux through the hepatic veins by way of the capillaries of the liver into the main, and valveless trunks of the portal system might occur, though this would be limited by the comparatively short space of time the effort lasted, and by the general compression of the abdominal viscera maintained by the contracted state of the parietes. But the state of things within the thorax is not so easily determinable.

The chest, it is true, was in the expanded position, but dynamically the condition was one of forced expiration, prevented by the closure of the airway; in addition to this there would be the less important positive pressure exerted by the elasticity of the expanded lung itself.

Under these circumstances, although little diminution in the volume of the lungs (only that due to compression of their contained air) could take place, the intrathoracic vessels and the heart would be amenable to the effects of pressure, since the exit of blood forwards by the aorta would be free, and the outlet backwards from the right auricle into the cavae would still remain open. The tricuspid valve, which is never fully competent in the normal condition (as tested after death), would allow, again, of some reflux into the right auricle, and so into the venous cistern.

The point not so easy to determine, then, is whether the expiratory effort with a full chest and closed airway would compress the auricles and intrathoracic veins so as to empty them, as in Valsalva's experiment; or whether these would remain overdistended and embarrassed, as in Müller's. The first view is probably the correct one.

In either case an intrathoracic stasis would result; and as the forcible expulsion of blood from the veins of the limbs and trunk into the cavae proceeded, the pressure within the cistern would continue to rise until it led to rending of the internal coat at some spot in its most capacious segment, namely, the inferior cava; and below the entrance of the hepatic veins.

The cava, in fact, behind the liver is supported by the sides of the deep sulcus, or even canal, in which it lies; the second arrangement is well shown in Braune's fifteenth plate.

This would tend to make the stretch below, the seat of highest distension; and this is where the obliteration has taken place. That the trauma arose below the entrance of the hepatic veins is shown not only by the patency of the latter, found after death, but by the total absence of ascites from the clinical symptoms.

The safety of the auricles under overdistension in general may be, as Professor A. Keith[2] has suggested, due to the support the pericardium would furnish when its capacity of reserve was overdrawn.

The possibility of such an injury having arisen not from distension, but from mechanical strain acting *ab extra*, may be dismissed. The cava is nowhere tightly fixed to the spine, it is not included between the crura of the diaphragm; and as the diaphragm would be in some position of descent, no longitudinal stress arising from causes external to the vein can be assumed to have taken a part in producing the result.

Lastly, there arises a question whether in Pollock's case there was any predisposition to the occurrence of thrombosis—that is, an exalted coagulability which might occasion thrombosis under conditions that would not otherwise have availed.

This question is raised by the fact that one of the patient's brothers had previously died abroad with oedema of the lower part of the body, which had been attributed to the pressure of a supposed sarcoma upon the inferior vena cava, and that another brother had died from embolism of the pulmonary artery following thrombosis of the femoral vein.

That there may be a familial condition which is the converse of the haemophilic, one of exalted coagulability, is quite credible, but I cannot find that such has as yet been observed in healthy individuals—that is, a constant abnormal rapidity of coagulation in the shed blood as distinguished from the variations which occur under well-recognized conditions in the same individual.

References.
[1] Structures Concerned in the Production of the Jugular Pulse, *Journal of Anatomy*, vol. xlii, 1908. [2] Loc. cit.

VACCINE-THERAPY IN CHRONIC BRONCHITIS.

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It seems probable that a large proportion of cases of bronchitis are caused by an invasion of the bronchial mucosa by pathogenic organisms.

Ritchie[1] made a number of *post-mortem* examinations of children who died of acute bronchitis, and showed that the bronchitis was caused by micro-organisms, chiefly the *Diplococcocus pneumoniae*, streptococcus, *B. influenzae*, and *M. catarrhalis*. Berkart[2] believes that some forms of bronchial asthma are due to a specific inflammatory condition of the bronchial mucous membrane caused by microbic influences.

If the micro-organisms are responsible for causing attacks of bronchitis, we should expect that relief and cure would follow the injection of a suitable vaccine in suitable doses. Clinical experience has already borne this out. Latham[3] recorded 5 cases which he successfully treated by vaccines. H. R. Smith[4] recorded 3 cases treated by vaccines, with favourable results, the duration of these cases before treatment being sixteen years, eight years, and six years respectively. Shivdas[5] has recorded 39 cases, of which 21 were completely satisfactory.

I have treated bronchitis—both acute and chronic—by this method, but I propose to record here only the first 8 chronic cases in the order in which I attempted to benefit them. I used only autogenous vaccines with one exception. Stock vaccines may be sometimes effective, but a stock vaccine of similar morphology to the causal organism does not necessarily correspond to it in every respect. So that it seems safer to use only autogenous vaccines.

The sputum was collected as far as possible aseptically—boiled water was used for brushing the teeth and rinsing the mouth; a little was also gargled and swallowed. The next phlegm was expectorated into a bottle that had been boiled. Smears of the sputum were made and stained for tubercle bacilli and other micro-organisms. A little of the sputum was then washed and shaken up with sterile saline and one or two loopfuls sown on one or more of the following media: Agar, Pfeiffer's agar, and nasgar. From the growth of fifteen to thirty six hours the vaccine was made up. The dilution with sterile saline was made with a view to avoid the necessity of subculturing, as it has been said that subculturing reduces the efficiency of the vaccine. By this means it is impossible to obtain pure cultures, but it is easy to judge what is the important micro-organism, and to regulate the doses accordingly. The frequent accompanying forms of *M. catarrhalis* can do no harm, and possibly are often requisite to make the treatment successful.

There can be no doubt that a number of Gram-negative organisms are classed together under the term *M. catarrhalis*, and it is difficult at present to know which to exclude and which to include in the vaccine.

Case I.

Female, aged 75, had suffered with a cough for forty years, with occasional attacks of acute bronchitis. When she began this treatment in November, 1911, she had just recovered from an acute attack. The sputum was nummular; there were no tubercle bacilli, but smears showed that it was full of pneumococcus. By the dilution method I obtained a practically pure growth of pneumococcus. The vaccine was given about once a week in increasing doses, starting at 25 million. After three months' treatment she had lost her cough, had improved in general health, and gained 3 lb. in weight. Treatment was continued for five months altogether. There has been no recurrence of the cough up to the present.

Case II.

Female, aged 65, had had a bad attack of influenza seventeen years earlier. Ever since that attack she had had a chronic cough, bringing up about 2 oz. of phlegm daily. The vaccine of streptococcus and *Micrococcus catarrhalis* was given in doses of 1 to 20 million, beginning treatment on February 12th, 1912. She was at that time unable to lie down flat at night, but after four injections she was able to do so. The cough and sputum ceased at the end of five weeks, and her appetite and general condition improved. However, in July she began again to bring up a little sputum, but after three injections of a vaccine similar to the previous one the cough completely disappeared, and she has remained free from it since.

Case III.

Female, aged 35, had had bronchial "asthma" for fifteen months. In March, 1911, she was an in-patient at the Radcliffe Infirmary for two weeks, where she was treated for "bronchial asthma." She sometimes improved a little, but nothing seemed to give her permanent relief. She was able to get about, but was very short of breath and frequently had dyspnoeal attacks, particularly at night. She used to wake regularly at 2 a.m. and had very little sleep. She was cook in a family, and her mistress valued her and was anxious to keep her on if she could be cured. So I suggested we might try a vaccine. I gave the autogenous vaccine of streptococcus at intervals of about a week in increasing doses, beginning with an injection of 15 million on February 27th, 1912. She was soon able to lie down at night and to sleep through until the morning. Treatment was continued for four months. The amount of sputum at the beginning was 8 oz. daily; at the end of treatment it was scarcely half a drachm. She was better in every way; she could go upstairs without shortness of breath. She gained 9 lb. in weight. The cough and dyspnoeal attacks have entirely ceased and there has been no relapse.

Case IV.

Female, aged 65. Had suffered for eighteen months from bronchitis and dyspnoea. When I saw her first the cough was almost incessant, the breathing was laboured, and she could not lie down in bed. Her nights were very much disturbed. The daily amount of sputum was 1½ oz. The autogenous vaccine of pneumococcus and *Micrococcus catarrhalis* was given in increasing doses at intervals of about a week, beginning on March 25th, 1912, with an injection of 25 million. She soon began to improve, and within four weeks she was able to get downstairs, and was sleeping through the night instead of waking with the cough between 1 and 3 a.m. The expectoration was easier, and the daily amount of phlegm steadily diminished till at the end of nine weeks there was none at all. Treatment lasted three months. Sixteen injections were given altogether.

In this case there was recurrence in November, and she is at present having treatment with a fresh vaccine.

Case V.

Female, aged 32; five months before I saw her she had an "influenza" attack, with a "cold on the chest," and loss of voice. From that time she had been suffering from repeated colds and coughs. I examined smears of the sputum, and found the predominating organism was *Micrococcus catarrhalis*. In May, 1912, I gave her two injections of a stock vaccine with an interval of five days. The cough was considerably improved, but as she could not stay longer in Oxford the treatment was not continued. I heard recently that her cough is still troublesome.

Case VI.

Female, aged 42, had been subject for two winters to recurring attacks of bronchitis. She was generally "wheezy" on waking in the morning, and always got very short of breath on exertion. Treatment was commenced on May 9th, 1912, with the vaccine of pneumococcus and *Micrococcus catarrhalis*. She improved rapidly, and after three weeks' treatment she walked about five miles one day; she had not walked so far for several years.

At the end of two months she had completely lost her morning wheeziness and cough.

There was some recurrence in November, but it cleared up again after a few injections of the same vaccine.

Case VII.

Female, aged 45, had a "bronchial cold" for three months, which did not clear up with ordinary drug treatment.

The autogenous pneumococcus vaccine was given first on June 19th, 1912—dose 42 million. After this dose she was conscious of more stuffiness on her chest, and there was also more cough, though the phlegm was looser.

The second injection of 84 million was given nine days later; there followed the usual negative phase with more cough and phlegm, but this was soon followed by improvement. She felt much more energetic, and there was hardly any cough.

Ten days later the third injection of 84 million was given. After this the cough completely cleared up.

CASE VIII.

Female, aged 53, had suffered from recurring pharyngitis, laryngitis, and bronchitis. The present attack persisted for over a month in spite of treatment by drugs and inhalations. She complained of difficulty in getting her breath, hoarseness of voice, dryness of throat, and tired feeling. Smears from the sputum showed streptococci; an autogenous vaccine of streptococcus and *Micrococcus catarrhalis* was made up. Treatment by vaccine was begun on June 19th, 1912.

Three injections were given in the course of eleven days—doses of 50 up to 100 million. There was the usual negative phase after each injection, followed by an improvement in the symptoms. The voice was not so husky, the throat was moist, the tightness of the chest was relieved, and there was more energy and feeling of well-being. All the symptoms cleared up after the third injection.

In the foregoing eight cases no drug treatment was given while the vaccines were being administered, except in Case IV, who had an expectorant mixture for a few weeks.

Three of the eight cases recurred. Of these, Cases II and IV soon recovered again after a few injections, and Case IV is at present improving.

The injections were given without opsonic control; this method of control has of late been largely discontinued. The dosage was judged by the effect produced by the first and subsequent injections on the general symptoms as well as by the amount of local reaction at the site of injection. The first injection in each case was well within the recognized dosage. If there followed very little or no negative phase the next dose was often doubled. If the negative phase was marked, the same dose (or a smaller one) was given in about ten days' time. But usually I was able to increase each dose by about one-third to one-half of the former one, and my aim was to try and obtain a reaction during the following twenty-four hours.

It has been recognized that a course of small doses where reactions have not occurred may be ineffective in producing immunity.

CONCLUSIONS.

Where failure occurs in treatment by vaccine-therapy, the question should be considered whether the failure was due to the patient's feeble powers of response, or to the method of preparation and dosage of the vaccine. With this in view one would pay particular attention to the following points:

1. Make sure what micro-organism is the cause of the trouble and whether others are associated with it.

2. Use an autogenous vaccine in preference to heterogenous.

3. Make it up from *fresh* sputum; try different media for its preparation; grow the micro-organism for not more than twenty-four hours if you can get sufficient growth in that time: avoid subculturing as far as possible; sterilize by heating to 60° C. for a quarter of an hour instead of one hour, or in some cases merely by the addition of 0.5 per cent. carbolic.

4. Give doses large enough to produce a reaction but avoid a prolonged negative phase.

Though vaccine-therapy may be said to be still in its infancy, yet it has already achieved a great deal, both in the prevention and cure of various bacterial diseases. And now that serum-therapy can be combined with vaccine-therapy by giving sensitized vaccines, it seems probable that in the future it may accomplish still more, especially in acute cases such as pneumonia and septicaemia, and will eventually largely replace the treatment by drugs in those diseases which are caused by micro-organisms.

REFERENCES.

[1] *Journal of Pathology and Bacteriology*, vol. vii, No. 1. [2] Berkart, *Bronchial Asthma*. [3] *Practitioner*, December, 1910. [4] *Journal of Vaccine Therapy*, March, 1912. [5] Ibid., April, 1912.

LAST year the Royal Institute of Public Health held its annual congress in Berlin; this year it is to be held in Paris from May 14th to 18th, in response to an invitation from the Municipal Council. There will be five sections: (*a*) State Medicine, (*b*) Bacteriology and Comparative Pathology, (*c*) Eugenics and Child Study, (*d*) Naval, Military, and Colonial, (*e*) Industrial Hygiene. Facilities will also be afforded for visiting the various public health educational institutions in Paris in connexion with the Board of Health, municipality, universities, etc.

SUPRACLAVICULAR ANAESTHETIZATION OF THE BRACHIAL PLEXUS.

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THIS form of anaesthesia was first brought to notice by Hirschel[1] in 1911, and later in the same year an article was written by Kulenkampff[2] giving an account of 100 cases. Early in 1912 Borcher[3] published the results of 35 cases; since then it has been used extensively on the Continent.[4] It is convenient, appears to be free from danger, and by its use severe operations on the arm can be performed painlessly and without shock.

The technique of the injection is easy after a little experience. The brachial plexus is injected at a point which roughly corresponds to the middle of the clavicle. Here the plexus lies close under the skin, so that in many cases its position can be defined by pressure over the first rib. It emerges from under the scalenus anticus muscle, and lies in loose tissue which is easily infiltrated. The area into which the solution is injected is bounded internally by the subclavian artery, externally by the clavicle, and below by the first rib.

The patient sits with head turned slightly towards the opposite side. The position of the subclavian artery is defined by palpation, and the puncture made just external to the artery. The site of the puncture is usually just internal to the point at which the continuation of the external jugular vein joins the clavicle; but in some cases, in which the artery lies further out than usual, the puncture must be made external to this point. However, the artery is the chief guide to the position of the plexus, and after a little experience we find that it can be used as the sole landmark. A fine needle 4 to 5 cm. long should be slowly inserted in a direction backwards, downwards, and inwards towards the second or third dorsal spine, so as to strike the upper surface of the first rib. As the plexus lies about 1.5 to 3 cm. from the surface just superficial to the first rib, it should be encountered before the first rib is reached. If the plexus is not struck before the first rib is reached it generally means that in order to avoid the artery the needle has been inserted too far out. The needle must be partially withdrawn and altered in direction, usually towards the artery, until the plexus is struck. When the needle reaches the nerve cords paraesthesia is produced in the arm and hand; when the paraesthesia has been definitely obtained the syringe is carefully attached to the needle and 20 c.cm. of a 2 per cent. solution of novocain with adrenalin injected. No solution should be injected until paraesthesia is definitely obtained, and it is important to remember that when the point of the needle is on the first rib it is too deep for the plexus. Apart from the skin puncture the injection is not painful, the paraesthesia in the arm is not severe, and any necessary alteration in the position of the needle is not accompanied by pain. We do not consider it advisable to make a subcutaneous infiltration, as it tends to obscure the landmarks; besides, with the fine needle, very little pain is caused on puncturing the skin, and only one skin puncture should be necessary.

The anaesthesia comes on gradually, and is usually complete in from five to fifteen minutes, but may require as long as thirty minutes to fully develop. The onset is associated with sensations of heaviness and tingling in the arm, and is usually accompanied by paresis. The extent of the paresis is in direct relation to the depth of the anaesthesia. The anaesthesia does not always develop simultaneously over the whole arm, and one part, usually the back of the forearm, may retain slight sensation for a short time after the anaesthesia has become complete over the rest of the arm. The area of anaesthesia extends up the arm to about 2 or 3 fingerbreadths below the acromion process, but usually a small sensitive area is found on the inner side of the arm, corresponding to the distribution of the intercosto-humeral nerve.

The duration of the anaesthesia is usually from one and a half to three hours, depending on the depth of the anaesthesia; we find that at least one and a half hours of anaesthesia can be relied upon.

To obtain satisfactory anaesthesia the following points must be strictly adhered to:

1. Definite paraesthesia in the arm or hand must be obtained before any solution is injected.

2. The injection should consist of 20 c.cm. of a 2 per cent. solution of novocain. If these points are not adhered to the anaesthesia is likely to be light and patchy. Any solution injected near the plexus before paraesthesia is obtained may interfere with obtaining this paraesthesia, and so prevent localization of the plexus.

3. To allow sufficient time for anaesthesia to develop, usually five to fifteen minutes is sufficient, but as long as thirty minutes may be required.

This form of nerve blocking is free from danger, but the following objections have been raised against it:

1. The risk of injuring the subclavian artery. This should be avoided, as the artery can be distinctly felt. It has been proved that puncture of the artery by a fine needle produces no ill effects.[5]

2. The pleura may be injured, and the solution injected into the pleural cavity. This is avoided if the instructions are carried out and the needle inserted until it comes into contact with the first rib, but no deeper.

3. The possibility of paralysis of the nerve trunks of the arm arising as a result of the injection. There is only one case on record.[6] In this instance there was paresis of the musculo-spiral, median, and ulnar nerves, which lasted a few weeks. We have not met with any cases of paresis, and we consider its occurrence very unlikely.

Care should be taken not to inject the solution into a vein. To prevent this, the plexus should be sought for with the needle alone, when, if a vein is punctured, the blood will flow freely from the needle. Puncture of a vein produces no ill effect beyond a slight swelling in the neck.

As we have found novocain the safest and most satisfactory drug for local and regional anaesthesia we have used no other in our series. We have had no toxic effects in any of our cases from using 20 c.cm. of a 2 per cent. solution. And as will be seen from a study of the cases when a weaker solution was used the anaesthesia was not so complete and was slower in developing.

We use a fine platinum-iridium needle, 6 cm. in length. (These have been made for us by Messrs. Down Bros.) These needles stand sterilization better than, and are not so liable to break as, steel needles of the same calibre.

The cases below are the first forty tried at this hospital, and include all our failures:

No. of Cases.	Operations.	Remarks.
2	Amputation through forearm	One incomplete anaesthesia.
4	Amputation of fingers	One incomplete anaesthesia.
6	Reducing impacted Colles's fracture	Two failures.
6	Setting fractures of forearm	Complete anaesthesia.
11	Suturing tendons and lacerations of arm	Two failures and one incomplete anaesthesia.
4	Incising cellulitis of arm	Complete anaesthesia.
1	Sequestrotomy of humerus	,, ,,
1	Reducing dislocation of shoulder	,, ,,
1	Plating radius and ulna	,, ,,
1	Wiring olecranon	,, ,,
2	Moving stiff elbow	,,
1	Scraping necrosed metacarpal	Incomplete anaesthesia; only 20 c.cm. of 1 per cent. was used.

In 36 of the cases we injected a 2 per cent. solution of novocain, using 20 c.cm. for an adult and about 15 c.cm. for a patient under 16 years. In this series there were three failures (Cases 8, 24, and 32). In the two cases (Nos. 1 and 16) in which we used 1 per cent. solution, the anaesthesia was incomplete. It was also incomplete in Cases 3 and 15, in which we used 20 c.cm. of 1½ per cent. solution.

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CASES.

We give a brief account of the most instructive cases:

No. 1 was a girl requiring amputation through forearm. At the first attempt we only obtained patchy anaesthesia, but on a second attempt three days later the anaesthesia was good except that the ulnar nerve was slightly sensitive.

No. 3. In this case anaesthesia was light and patchy, paraesthesia not being definitely obtained before injection was made, the puncture being made too far out in order to avoid the artery. A general anaesthetic had to be given.

No. 4. Sequestrotomy of humerus: the anaesthesia was good, but as the incision extended almost to the acromion process a line of infiltration had to be made to cut off the fibres of the cervical and intercosto-humeral nerves.

No. 8. This man had a marked deformity of the clavicle following a fracture, and owing to the alteration in the relation of the clavicle to the plexus we were unable to strike the latter.

No. 15. In this case we used 1½ per cent. solution. There was anaesthesia of the whole arm, but it was not deep; however, it was sufficient for amputation of contracted fingers.

No. 16. Necrosis of metacarpal; 20 c.cm. of 1 per cent. was injected; anaesthesia of radial side was incomplete.

No. 18. Boy, aged 11. Compound fracture of both bones of forearm; 15 c.cm. of 2 per cent. solution was injected. This was the longest anaesthesia we obtained, being complete eight hours after the injection; in twelve hours sensation was beginning to return.

No. 19. In this case a vein was punctured, but no ill effect resulted beyond a slight swelling in the neck, which only lasted a short time.

No. 22. Male, aged 35. Malunited fracture of radius and ulna. As it was a very difficult fracture to plate, this is the severest test the anaesthesia has been put to by us. The anaesthesia was absolute.

No. 23. Female, aged 50. Dislocation of shoulder. This case is interesting, as it shows the extent of the field of anaesthesia. Before the injection was made the patient was complaining very much of the pain in her shoulder, but about three minutes after the injection she said her arm felt comfortable. On induction by Kocher's method she felt slight pain, which we considered to be intercostal.

No. 24. In this man the plexus was very deep, over 2 in., and we could not get satisfactory paraesthesia; we injected 20 c.cm. and waited thirty minutes, but the anaesthesia was incomplete. This case illustrates the anatomical difficulties likely to arise in some cases and to which the failure must be partially attributed, it also bears out the point that definite paraesthesia must be obtained.

No. 25. Male, aged 38. Wiring fracture of olecranon. The anaesthesia was fairly good, but he was a most unsatisfactory patient; just after the injection was made he had a "hysterical fit." As he was so noisy a whiff of ether had to be given to distract his attention. He said after the operation that he did not feel any pain.

No. 32. Male, aged 28. Reducing Colles's fracture. At first attempt we had difficulty in finding the plexus and anaesthesia was very slight. At a second attempt next day we found that the plexus was much deeper and further out than usual; the anaesthesia was perfect.

No. 35. Boy, aged 16. Colles's fracture. Only 14 c.cm. of 2 per cent. solution were injected. Felt slight pain when the fragments were manipulated.

In our 40 cases we had only four failures—Cases 3, 8, 24, and 32; in the first three of these a general anaesthetic had to be given, in the fourth case complete anaesthesia was obtained at the second attempt. In four other cases the anaesthesia was light or incomplete, but was sufficient to allow of the operation being performed; in these cases a weak solution was used. Thus in 80 per cent. of the cases the anaesthesia was complete, in 10 per cent. it was a failure, and in the other 10 per cent., although the anaesthesia was incomplete, it was sufficient for the operation.

We hope to show in our next series of cases that, with experience, the percentage of failures can be reduced by a considerable margin. However, we admit that a small percentage of failures is bound to arise in consequence of anatomical difficulties that will be met with occasionally.

We are indebted to Dr. Paley, assistant house-surgeon at this hospital, for his valuable suggestions for improvement of the technique, and for kindly permitting us to include in our series the cases done by him, particulars of which he left at our disposal.

REFERENCES.

[1] Hirschel, *Muench. med. Woch.*, 1911, No. 29. [2] Kulenkampff, *Zentralbl. f. Chir.*, 1912, xxxviii, 1337. [3] Borcher, *Zentralbl. f. Chir.*, 1912, xxxix, 873. [4] Bier's clinic. [5] Borcher, ibid. [6] Borcher, ibid.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

THE TREATMENT OF NEURASTHENIA.

AT the present time one finds that neurasthenia is being treated, on the one hand, by purely psychical means, and on the other by purely physical measures, and it does not appear that the advantage of combining the two classes of remedies in the treatment of this condition is sufficiently realized.

I consider that static electricity is best suited for the purpose in view, and it has been my practice for some time to make use of combined psycho-electrical treatment for treating neurasthenia in the following manner:

The patient is seated in a comfortable reclining chair on an insulated platform connected with the machine. He is requested to assume a position of relaxation and comfort, to close the eyes, and to rest quietly without speaking or making any movements throughout the treatment. The electricity is generated in the usual way, and its actual application may be varied according to particular requirements; but as a general rule the metallic tassel is so arranged as to give a mild head-breeze. Under such conditions the most restless patients will become tranquillized and soothed to an extent that is difficult to obtain by simple suggestion alone. The effect of the electricity is remarkably soothing, and patients find that in this method they are able to relax their muscles and to rest more quietly than without it. The mental state obtained is not one of sleep, neither is it, apparently, a hypnotic state. It is a "rest state" which very often corresponds to the hypnoidal state described by Boris Sidis.[1]

It is my experience that under such conditions the mental state obtained is one of marked suggestibility, and this fact is made use of either to give direct suggestions oneself or to get the patient to give himself such definite self-suggestions as may be advisable. At the same time there is the physical tonic effect of the electricity, which is notably beneficial in all neurasthenic states. In a word, this combined psycho-electrical method enables me to make use of three great principles of nerve treatment—namely, rest, electrotherapy, and suggestion.

I am of opinion that one of the great advantages of static electricity is that it beneficially affects the sympathetic nervous ganglia, with the result that increased peristalsis of stomach and intestines occurs and auto-intoxication is decreased. Where this last-named factor is plainly hindering recovery it is my custom to supplement the psycho-electrical treatment by abdominal massage with a specially designed vibration machine, whilst at the same time prescribing liquid paraffin in suitable doses.

But experience shows that the best results are not obtained unless one combats the morbid mental state also, and so one finds the direct suggestion an essential part of the treatment.

London, W. EDWIN L. ASH.

[1] *Psychotherapeutics*, a Symposium by Morton Prince, M.D., and others (p. 121).

IRON PERCHLORIDE IN RINGWORM OF THE SCALP.

DURING some months at the clinic for minor treatment of school children at Cheltenham I tried various applications for ringworm of the scalp, and found a successful remedy in plain liquor ferri perchloridi fortior (*B.P.*). The results obtained by the free use of this very strong and acid solution of perchloride of iron showed a marked superiority over those obtained with any other application, though several preparations were applied of such strength as to create considerable inflammatory reaction. A distinction must be made between liq. ferri perchlor. and liq. ferri perchlor. fort., as the same results are not obtained with the weaker preparation, which is that commonly prescribed.

The scalp can easily be freed from grease and scurf by the use of motor petrol applied on pledgets of common tow, and the head should have one good wash before the application of the perchloride of iron is begun. As this is very soluble and easily washed away with water, the head should not afterwards be often washed during the treatment.

The strong perchloride solution should be dabbed on the scalp with a camel-hair brush until the scalp is thoroughly stained with it. As the result upon the skin and hair is quite harmless and benign, an occasional prophylactic dressing can be given to the parts unaffected with ringworm. The patches affected should be treated every second day for three times, afterwards every third day for six times, when the cure will generally be effected although the disease has been very extensive. If the head be not then washed, the iron-stained scurf and epidermis will, in the course of some days, come away from the scalp, leaving a healthy skin beneath.

To obtain such rapid and good results as above indicated requires the attendance of the children at a place where the unfailing application of the remedy can be made. It does not appear to be necessary to prevent children going to school whilst undergoing such active treatment, as the cells of the parasite that have been touched with the iron are not likely to be capable of setting up the complaint in another child. By holding the hair aside, part by part, the very fluent liq. ferri perchlor. fort. can be made to stain the scalp thoroughly without cutting the hair, though, of course, it is well to cut the hair close over the affected patches.

J. H. GARRETT, M.D., D.P.H.,
Medical Officer of Health and School Medical Officer, Cheltenham.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

MOBILE EXTERNAL SEMILUNAR CARTILAGE.

(Under the care of Mr. HOWARD DENT, F.R.C.S.)

(Reported by T. D. M. STOUT, F.R.C.S., Resident Surgical Officer.)

THE patient, a young woman aged 22, gave a history of having for two years felt a loose body in the knee which caused a loud clicking sound when the knee was moved. No weakness was noticed in the knee until two weeks before admission, when it felt unstable on going up and down stairs. She had never had any pain, and no synovial fluid or thickening could be detected. On examination the knee was found to move well, and the clicking sound was readily heard and felt. A nodule the size of a cherry-stone was felt between the femur and tibia on the outer side of the knee midway between the patella and fibula. On flexion it disappeared into the joint, on extension it appeared outside joint. There was no tenderness, and the knee was quite stable.

A vertical incision was made over the loose body, and it was found to be the external cartilage compressed antero-posteriorly and only attached at its two extremities, no vestige of coronary ligament being present. The cartilage was removed entire, and perfect recovery took place.

THE Lord Mayor of London, accompanied by the Sheriffs, presided over the seventy-seventh annual meeting of St. Mark's Hospital for Cancer, Fistula, and Other Diseases of the Rectum, City Road, E.C., on February 13th. The report showed that 672 in-patients had been admitted, and 2,031 out-patients had received treatment during 1912, a larger number than previously recorded. The Lord Mayor, who is President of the hospital, said that the hospital admittedly laboured under certain disadvantages in its efforts to secure funds, but that generous help ought to be forthcoming when it was remembered how successfully it dealt with most painful and distressing forms of disease.

Reports of Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

Friday, January 31st, 1913.

Dr. J. O'Carroll, President, in the Chair.

A Case of Polycythaemia.

Dr. O'Carroll showed a man, aged 57, the subject of this disease. He was a scavenger, of middle height, distinctly stout, and alcoholic. He was admitted into hospital on November 28th very cyanotic, with dyspnoea and slight mental confusion; there had been oedema of the feet for a month, and there was cough and expectoration. Physical examination showed little except that the cyanosis was present over the body, that there was a trace of albumen in the urine, and that there was a moderate effusion in the right pleural cavity. But for his extraordinary assurance that he was quite well, he looked as if he had not an hour to live. About 40 oz. of clear fluid were withdrawn from the right pleura, and he was kept under almost continuous inhalation of oxygen. Next day no very marked alleviation in his appearance or symptoms having occurred, 10 oz. of blood were withdrawn from the basilic vein, and the administration of oxygen was continued. On his fourth day in hospital a blood count showed 7,500,000 red cells per cubic millimetre with haemoglobin 105 per cent. Ten ounces of hypertonic saline solution were injected into the pectoral region, and the oxygen was continued. He was again wandering in mind and unconscious of his surroundings. Two days later he was again bled to the amount of 10 oz., oxygen being continued. Next day a little over 40 oz. of clear fluid were taken from the right pleural cavity. An exploratory puncture of the abdomen gave no result. A blood count on December 5th gave 3,800,000 red and 7,000 white cells, and haemoglobin about normal. No abnormal forms were found. He was quite reasonable and apparently comfortable. On December 7th oxygen was discontinued. Thirty-six hours later a blood count gave about 7,000,000 red cells. Thirty-five ounces were withdrawn from right side of chest. He was again oxygenated for three days, and the red cells fell to 3,500,000. On December 13th 50 oz. were taken from the right pleura. On December 16th a blood count showed 7,450,000 red cells; on the 19th 9,250,000; on the 31st 6,250,000; on January 15th of this year 5,500,000 on January 22nd 6,500,000. One examination of the specific gravity of the blood showed that it was distinctly above normal. On January 16th an *x*-ray examination by Dr. Watson showed apparent dilatation of the aortic arch appreciable both to right and left of the sternum. There was no abnormality of the pupils, no aphonia, no tracheal tugging, no pain, no disparity in the radial pulses, and no sign of undue rigidity of the arteries. He has been up and about for the past month; shows no distress or dyspnoea, but looks as if he were again becoming unduly plethoric. Dr. Moorhead said he was struck with the variation in the number of red cells in proportion to want of oxygen. He did not regard polycythaemia as any explanation of the symptoms, but was inclined to look on it only as itself a symptom. Dr. O'Kelly and Dr. Crofton also spoke.

Early Tabes Dorsalis.

Dr. T. Gillman Moorhead exhibited a typical case of tabes dorsalis occurring in early life. The patient, a girl aged 23, recently came under his care with typical symptoms and signs of that disease. Wassermann's test was fully positive, and became negative after salvarsan had been administered without any improvement in the symptoms. There was some girdle pain since the injection. He invited suggestions as to the advisability of further injections of salvarsan. There was no history of acquired disease or congenital taint. Dr. O'Kelly had not seen any bad results from the repeated use of small doses of salvarsan in locomotor ataxy. Girdle pains frequently followed the administration of salvarsan, possibly because an inflammatory reaction was set up by the setting free of the spirochaete. Dr. Crofton referred to a case of keratitis in which spinal symptoms developed after the second dose of salvarsan, but cleared up after the third. He related a severe case of tabes where the symptoms almost disappeared after a course of sulphur baths. The President asked for experience of intervenous injections of mercury. He thought it would be worth trying in cases where there was any doubt about the use of salvarsan. There was no evidence that a large dose of mercury had very much effect on the nerve centres, and it might have a destructive effect on the spirochaete. Dr. Moorhead, in replying, said he did not think that repeated doses of salvarsan were of much use, and he had come to the conclusion that doses of 0.1 gram were entirely useless. He noticed that the tendency now with regard to the administration of salvarsan was towards larger doses. He was contemplating a further dose of 0.4 gram for this patient, and she was anxious to have it.

Foot and Mouth Disease in Man—Aphthous Fever.

Dr. C. M. O'Brien read a paper on this subject. A veterinary inspector, aged 35, was bitten last summer by a sheep on the forefinger of the left hand. He applied an antiseptic dressing to the wounded finger, and continued his daily examinations. Three weeks later an abscess developed, and was opened with every antiseptic precaution. No pus escaped, and the wound refused to heal. Over a month after the finger was bitten, redness and swelling appeared on both hands, accompanied by itching of the parts, with a few small, raised, white swellings like little lumps under the skin, especially in the clefts of the fingers. By night time there was slight itching of the upper part of both feet, with a prickly sensation in both soles, becoming worse on walking. The patient complained of malaise for a day or two previously. He then consulted Dr. O'Brien, who found that he had always enjoyed excellent health excepting for an attack of scarlet fever which he contracted at the age of 10. The fingers and dorsal aspect of both hands were markedly swollen and covered with a dull reddish, raised rash, extending to an inch above both wrists; it caused itching. Vesicles in process of formation were observable here and there over the surface of the rash, especially between the fingers and round the nails. The wound on the injured finger gaped, but no pus issued from it. There was no perceptible involvement of the lymphatic glands. A few vesicles were observable on the fauces, on the inside of the lips, on the gums, and the side of the tongue which was swollen and somewhat tender. Speech, deglutition, and mastication were painful, and the saliva was copious. The temperature never exceeded 100°. There was no evidence of any visceral complication. The next day all the symptoms increased and saliva trickled from the mouth. Ruptured vesicles on the fauces now formed small shallow ulcers, with dark red bases. The patient made an uninterrupted recovery, and resumed professional duty within two months. Dr. O'Brien in his paper dealt very fully with the literature of foot and mouth disease in man from the first recorded case in 1695 down to the present day. Professor Mettam said that the incidence of the disease was much greater on the Continent, especially in Russia and France, than in these islands. In one instance the disease was produced in a calf by inoculation with the pus taken from a vesicle on a boy. In 1880 there was a large outbreak amongst persons in Dover who had consumed the milk of cows suffering from foot and mouth disease, and at the time it was noticed that the incidence of the disease was greater amongst those who had used the cream. Diagnosis of this disease was difficult, as the germ was not known. A 300th part of a cubic centimetre of the pus taken from a vesicle was capable of setting up a lesion in cattle, in which there was little difficulty in diagnosis. Lesions often occurred in the mammary gland, and it was probably in this way that the infection was carried to the milk. In the case just reported the period of incubation seemed long, as in the lower animals it was generally from two to four days. As soon as the vesicles ruptured the temperature went down and the lesions rapidly healed. Within a week or so there was an epithelial covering to the corium, and as soon as this took place infection had passed.

ROYAL SOCIETY OF MEDICINE.

Pathological Section.

Tuesday, February 18th, 1913.

Professor R. T. Hewlett, President, in the Chair.

Differentiation of Streptococci.

Dr. H. W. Crowe read a paper in which he advocated the culture of streptococci on neutral red Dorset egg medium as a means of differentiation. In the case of some streptococci the colonies were yellow, in others red, in others plum-coloured. Their forms also varied, the three most characteristic being like a cottage loaf in miniature, or a clerical hat, or a draughtsman. The last-named form was a character of *Streptococcus pyogenes*, and that of the streptococcus of erysipelas was the same. In rare cases a streptococcus would indent the egg medium. Checking the diagnosis by means of the various sugar fermentations, the groups that were differentiated by the coloration and shape of their colonies corresponded with the groups made by Andrewes and Gordon—streptococci of the mouth, lung, intestine, connective tissue.

Obliterative Cholangitis with Duct Dilatation.

Dr. A. Hall recounted the case of a girl, aged 15, who since the age of 7 years had been subject to intermittent attacks of pain and jaundice, and who ultimately died of toxaemia accompanied with haemorrhages. After death the ductus communis was found extremely narrow and fibrosed; there was an adventitious duct opening into the gall bladder, apart from the cystic duct. The author was unable to explain the cause of the inflammatory obstruction, which had been followed by marked dilatation of the bile ducts in the hilus of the organ. The recurrent attacks of pain he thought due to intermittent obstruction.

Occlusion of the Inferior Vena Cava as a Result of Internal Trauma.

Mr. S. G. Shattock's communication upon this is given *in extenso* on page 385.

Section of Surgery.

Tuesday, February 11th, 1913.

G. H. Makins, C.B., F.R.C.S., President, in the Chair.

Gastro-enterostomy.

Dr. Arthur F. Hertz read a paper on the cause and treatment of certain unfavourable after-effects of this operation. The opening was sometimes made too large, so that the stomach contents passed at once into the jejunum and distended it. *X* rays showed that food only remained in the stomach for from a quarter of an hour to an hour instead of for three hours; indeed, the rate of outflow sometimes almost equalled that of the oesophagus. The stomach became small and hypotonic. The distended jejunum gave rise to sensations of fullness and discomfort after meals, which were referred to a lower area than those produced by the original condition. The unchanged food irritated the small intestine, causing diarrhoea. Contrary to what was observed in cases of gastro-jejunal ulcer, it was the quantity, not the quality, of the food that produced the symptoms. If the patient ate slowly, lay down after each meal, and took pancreatic ferment, belladonna, or cocaine half an hour later, the symptoms would not develop. If it were found necessary the stoma should be made smaller. The stoma should be placed at the most dependent part of the stomach, a point sometimes difficult to determine owing to the alteration in the situation of the great curvature of the stomach in the erect and supine positions. If the stoma were placed too high, it was a mechanical impossibility for the stomach to drain through the opening until the food collected and reached its level. The condition was relieved by lying down and by compression of the abdomen. Mr. Warren Low said that up till now the sense of fullness and diarrhoea after gastro-enterostomy had been ascribed to a slight recurrence of the original malady. The results obtained in cases of dilated stomachs and duodenal kinks were deplorable. Sir Frederic Eve thought that the results of the operation, when performed for duodenal ulcer with a patent pylorus, were bad. In gastroptosis he had obtained good results by stitching up the gastro-hepatic omentum and attaching the lesser curvature to the diaphragm. Dr. Russell was sure that the results from gastro-enterostomy were on the whole very satisfactory, as so few cases returned for treatment. Mr. Sidney Boyd advocated a vertical opening, as most likely to ensure permanent success. The President said that gastro-enterostomy was not a cure for gastric ulcer, and thought that the apparent good results obtained by operation in cases of duodenal ulcer were due to the long relief from symptoms often gained by a month's rest in bed. Dr. Hertz replied that the percentage of absolute success was small. The hypotonic stomach was the most favourable for this operation, but he did not advise gastro-enterostomy for gastroptosis. He had found that in those cases in which the stomach had been fastened up to the diaphragm recurrence took place in a very short time and the stomach got back to its old position.

Effects of Treatment on Gastric and Duodenal Ulcers.

Mr. Edred M. Corner read a paper on this subject. From his own 40 cases and the statistics of other observers he came to the conclusion that it was better to wait, and, if necessary, do a gastro-enterostomy later. In the majority of instances it was not required, though many cases of pyloric and duodenal ulcer were benefited by it. When the opening of a gastro-enterostomy was placed laterally very little of the food could be expected to drain through it. Owing to the friable condition of the tissues it was often difficult to close the opening directly. When this difficulty presented itself he used a portion of omentum to close the opening or packed the ulcer with gauze and drained it. This last method, he believed, would become more popular in the future, as it saved time.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

At a meeting on February 14th, at which the President (Professor E. W. Hope) was in the chair, Dr. J. W. Mason read a paper on *Duties imposed upon port sanitary authorities*. By the adoption of improved systems of administration based on enlightened principles of sanitary science, great changes in our national system had been brought about. Quarantine was now in oblivion, and the abandonment of its restrictions had been a most powerful stimulant in the cause of sanitation. The medical inspection and examination of the passengers and crews of all vessels arriving from infected or suspected ports, which had replaced quarantine, was of national importance, as only by this means could the importation of infectious and other diseases be prevented. Inquiries were made as to illness, removal to hospital, or death from infectious disease of any member of the crew, and as to the prevalence and mortality amongst rats, especially having regard to the measures to be taken to prevent the spread of the plague. Bills of health were also examined. It would be a great advantage if bills of health were made out in one universal language, such as Esperanto. The confidential lists recently issued by the Local Government Board at periodical intervals setting forth the existence of infectious disease at various foreign ports had proved to be invaluable to the medical officers of health to whom they were sent. A port sanitary authority could require the cleansing and disinfection of any ship or articles in it likely to retain infection. In Hull a ship's crew was often removed to the disinfecting station to undergo bathing and disinfection, their quarters and other parts of the ship meanwhile being disinfected. The clothing and effects of deceased seamen should be disinfected before being handed over to the Board of Trade. A very necessary precaution was the pumping-out of all bilge water and water ballast from an infected or suspected vessel before it entered dock, and samples of the water of all ships should be regularly examined both bacteriologically and chemically. The regulation of the examination of foodstuffs imported from foreign countries was an important duty cast upon port sanitary authorities, although a vast proportion of the food examined was sent inland—a sufficient reason for the payment by the Treasury of the expenditure involved, instead of out of the local rates, as at present is the case. The President agreed

that it would be a distinct advantage to have bills of health in one language, preferring French to Esperanto. He thought it was not sufficiently realized that the immunity the country had had from small-pox was due in great measure to the care taken by the port sanitary authorities, for the disease did not now often pass the ports as it did formerly. He regretted that agreements which had been come to at international conventions were not more rigidly adhered to, and stated that on occasion our own ships had been subjected to disabilities which were altogether unwarranted. Dr. HERBERT WILLIAMS was of opinion that bills of health should be in French. He thought that the information obtained from British consuls abroad was not of much value, and suggested that the Government should insist upon more efficient information being secured. He referred to the difficulties attending the destruction of rats, whose ingenuity enabled them to overcome almost any obstacles placed in their way in getting ashore. Recently the fumes from ship's funnels had been used for fumigating a rat-infested ship, but unfortunately they did not destroy the fleas. Mr. GEORGE BRIGGS, the Chairman of the Port of London Sanitary Committee, stated that the charges in connexion with the port sanitary authority of London amounting to £12,000 annually, were all paid for out of the private funds of the Corporation, and did not come out of the rates. Mr. HERBERT JONES, Dr. H. K. ROBINSON, and Dr. TUBB THOMAS also took part in the discussion.

UNITED SERVICES MEDICAL SOCIETY.

AT a meeting of this society, held at the Royal Army Medical College on Wednesday, February 12th, the President, Fleet Surgeon BASSETT SMITH, C.B., R.N., in the chair, a paper was read on *Regimental and field ambulance training* by Major J. OLDFIELD, R.A.M.C.(T.). Discussing the training of medical officers attached to combatant units in the Territorial Force, Major Oldfield drew a comparison between these officers and the medical officers of field ambulances, pointing out that the former, after completing their first training camp or course of instruction, might remain for years on the strength and yet never do a single duty for the battalion or come into contact with any of its officers or men. Even the maximum of a fortnight every two years in contact with their men and their work could not be considered at all sufficient to enable officers to keep in real touch with their duties. The case of the field ambulance officer was very different. He was obliged to attend camp at least once in three years, and this was emphatically laid down as the minimum. This matter was important, as an efficient camp training was the only real way in which a medical officer could be fitted for active service duties. A regimental medical officer was encouraged not to attend camp *more* often than once in every two years, whereas the obligation was laid upon the field ambulance officer to attend camp not *less* than once in three years. No doubt the intention was to lighten the duties of busy practitioners willing to join the Territorial Force by providing a regiment with two medical officers attending training in alternate years; but the event had proved that it was easier to get the same class of busy men to go into camp year after year for the full fortnight in field ambulance than to gain the full complement of regimental officers for camp duty every second year. The mere fact, therefore, of "making it easy" was not an inducement which attracted men to join the Territorial Force. What were the duties that a regimental medical officer was expected to perform? It was often most fallaciously supposed that a regimental doctor's only duties were to attend to the sick of his unit in times of peace and to look after the wounded during battle. The truth, however, was very different. It was intended that he should be the commanding officer's right hand man in all matters affecting the health of the troops or prevention of disease amongst them. He was responsible for the custody and use of medical and surgical stores, and for the training and duties of the R.A.M.C. men attached to the unit. He had to examine recruits in camp, see the sick, and be ready to deal with infectious cases and accidents, according to the routine laid down in regulations. He had also to familiarize himself with his duties in action and to train the bandsmen in bearer drill and first aid. All these duties were very important, and it was hard to imagine how they were to be thoroughly performed by an officer to whom no incentive was held out to put in more than the minimum of training laid down in regulations. Major Oldfield recounted his own experiences of both regimental and field ambulance work, and described the increased efficiency with which he performed regimental duty during a temporary return to it, after having served in a medical unit. He suggested (1) that the one portal of entry into the medical service of the Territorial Force should be the field ambulance. (2) That from the field ambulances officers should volunteer for regimental duty not earlier than the close of their first year's training and fifteen days' camp. (3) That a regimental medical officer should not be debarred from an annual camp, but rather encouraged to attend it. Where there were two medical officers in a battalion one should be attached to a field ambulance for his camp and the other trained with his regiment. (4) That every medical officer should train one year in three with a field ambulance in camp. (5) That the annual training as to drills, riding, etc., should apply to all R.A.M.C.(T.) officers. When they lived at a distance from drill halls, travelling expenses should be allowed. (6) That brevet rank should sometimes be conferred on officers showing zeal and ability, coupled with any special excellence, as an incentive to effort. The following officers took part in the discussion: Colonel HARPER, A.M.S.(T.), Lieutenant-Colonel SALISBURY SHARP, R.A.M.C.(T.), and Major WAGGETT, R.A.M.C.(T.), Lieutenant-Colonel BURTCHAELL, Major CUMMINS, Major IRVINE, and Captain GRANT of the R.A.M.C. Major OLDFIELD replied.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on February 6th, Mr. ROBERT JONES, President, in the chair, Mr. F. A. G. JEANS read a note on *One of the functions of the caecum*. He had removed the caecum in rabbits and found that fluid faeces were passed, instead of the usual hard motions. The practical application deduced was that rectal salines should be large in quantity, as relatively more fluid was absorbed from the right half of the colon than from the left. In bad cases of peritonitis fluid might be injected with advantage directly into the caecum or through the stump of the appendix. Mr. F. T. PAUL did not think the appendix could be used in cases where it had been found gangrenous, but tubes might be inserted directly into the large bowel. Mr. THELWALL THOMAS thought saline injections might be given through a rubber tube fixed in an appendix stump, and would so obviate one of the difficulties of rectal injection, which had the disadvantage of requiring the patient to be propped up. Mr. HUGH SHAW thought the appendix and caecum might, from the relative amount of lymphoid tissue they contained, have a protective function as well as absorptive. Mr. JEANS replied. Dr. STOOKES read a note on *Puerperal mortality in Liverpool*. It had for years been lower than the average of England and Wales, in spite of so large a poor population. In 1911 74 per cent. of all births in Liverpool were attended by women, and there was a mortality from sepsis of 0.59 per 1,000 births; whilst 26 per cent. of births were attended by doctors, and the mortality from sepsis was 1.8 per 1,000 births. In the past six years doctors' cases diminished steadily in number, and during that time their sepsis mortality was nearly twice as great as many cases attended by midwives. Liverpool had trained midwives for nearly fifty years, long before the Midwives Act. Dr. Stookes concluded that where midwives were well trained, worked under supervision, and could fall back on skilled help, they did the work on the whole better than a badly paid general medical practitioner who was busy with other cases, often septic in nature. Dr. MUSSEN (assistant medical officer of health for Liverpool) said the satisfactory state of the Liverpool puerperal mortality had been largely due to the Liverpool Ladies' Charity, which had trained midwives, so that while England and Wales had some 20 per cent. of the women trained and certificated, Liverpool had only 20 per cent. untrained. Practically all cases were now attended by women who possessed a

certificate. There had only been one outbreak of puerperal fever in Liverpool in the practice of any one midwife since the Health Department undertook their supervision. Cases occurred usually as single cases, a few in groups of two. Each midwife was interviewed on the notification of a septic case, and her methods inquired into. Dr. HARVEY and others who took part in the discussion reminded the meeting that practically all cases which doctors attended were instrumental. Dr. R. J. M. BUCHANAN read a paper on *Tumours of the spinal cord*, and described with lantern slides four cases where the tumour was psammoma, sarcoma, hydatid, and cancer secondary to carcinoma uteri which had been removed three years previously. Dr. Buchanan appealed for early operation in such cases, and showed how in his own cases the tumour was accurately located and easily removed, with satisfactory results. Mr. DOUGLAS-CRAWFORD described two successful cases, and agreed that operation should be done if only for the relief of root pain. Dr. WARRINGTON said that tumours causing no pain gave rise to difficulty. Mr. THELWALL THOMAS deprecated delay, as improvement could not be expected when the cord had been long compressed. He thought that there was no more danger in exploring the spinal canal than any other cavity of the body. Dr. BUCHANAN replied.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this society was held on February 14th, the PRESIDENT (Dr. Dobson) in the chair. Mr. H. COLLINSON read a paper on the *Importance of early diagnosis and treatment in acute perforating duodenal ulcer*. Mortality in operated cases was directly proportionate to the number of hours which had elapsed between the occurrence of perforation and operation. In 27 cases upon which he had operated during the last three years the mortality was 41 per cent. Of these, 10 were operated on within twelve hours, with a mortality of 10 per cent.: 10 cases operated on in the second twelve hours gave a mortality of 40 per cent.; and in 7 operated on after twenty four hours had elapsed the mortality rate was 86 per cent. Matters of operative detail were discussed, and it was shown that the performance of an immediate gastro-enterostomy was not necessary for the recovery of the patient, and consequently should be reserved for those cases in which operation was undertaken very soon after perforation had occurred. Dr. WARDROP GRIFFITH brought forward a case of *Disseminated sclerosis*. The first symptom, noticed last October, was squint with diplopia, due to paresis of the abducens nerve, but it had to a great extent passed off. Marked weakness of one arm, and then of the opposite leg, soon came on in succession, but considerably diminished. There was no intention tremor nor staccato speech, but, though there had been great improvement, the diagnosis was confidently affirmed on the great increase of the knee-jerk, on the Babinski phenomenon, on the presence of slight nystagmus on lateral movement, and on incipient atrophy of the optic nerve. Dr. VINING showed a case of *Pressure on the main bronchus of the left lung by a malignant growth*. The patient was a man aged 54, who had suffered with cough and breathlessness for two years, and who twice suffered from haemoptysis. The physical signs were, greatly diminished expansion with reduced air entry over the whole of the left chest. X rays showed no evidence of growth or aneurysm. There were no tubercle bacilli in the sputum. Cases were also shown by Mr. L. R. BRAITHWAITE, Dr. M. J. STEWART, Mr. E. W. BAIN, Mr. J. F. DOBSON, Dr. BRONNER, Mr. ROWDEN, Dr. OLDFIELD, Mr. LAWFORD KNAGGS, Mr. ALEXANDER SHARP, Dr. R. A. VEALE, and Dr. WATSON.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

AT the mid-session meeting, the PRESIDENT (Mr. W. G. Laws) in the chair, the mid-session address on *Some remediable defects in children of school age* was delivered by Miss MARY THORNE, M.D., F.R.C.S.I. Medical inspection, carried on in schools for ten years, had shown that healthy bodies and healthy minds could only come from healthy parents and healthy surroundings. In order to secure attention to the daily functions of the body, there should be sufficient and decent lavatory accommodation in every school, and children should be allowed to leave the class if necessary, for if these functions were neglected, constipation followed by anaemia, indigestion, and dysmenorrhoea inevitably occurred. Fortunately, there was a steady improvement in the lavatory accommodation. All girls should have plenty of active movement in the open air, but not in competitive games, which were harmful for them between the ages of 13 and 16 years. Curiously enough, town children had better playgrounds than village children. The lecturer spoke of posture curves, flat feet, desk accommodation, and the position of the windows in the class-room. The light should always come over the left shoulder. The teeth were too often neglected; all second dentition teeth should be stopped on the first signs of decay. The children should clean their teeth at least every night. The importance of clean heads was being instilled into the parents, because they found that the children were refused by the factory surgeons if their heads were verminous. A very large number of blind and deaf children owed their afflictions to the sins of their parents. Heredity was also the largest factor in the causation of mental deficiency. Thus it became the duty of doctors to impress upon parents, teachers, and clergy, etc., the great importance from a medical point of view of encouraging a moral life. Finally, the lecturer deplored the present system of class teaching as opposed to individual teaching; 5 per cent. of the children left school without being able to read and write sufficiently for any practical purposes. There should be a simpler code of instruction; little should be taught, but that little should be well taught.

THE annual dinner of the West London Medico-Chirurgical Society was held at the Hotel Great Central on February 6th, under the chairmanship of Dr. G. P. Shuter, president of the society. After the loyal toasts had been duly honoured, Mr. Richard Lake proposed "The Imperial Forces," and in the course of his remarks spoke of the necessity for universal service, and referred to the periodical instruction given to medical officers in order to keep them up to date with the latest improvements in their profession. Surgeon-General Sir Launcelot Gubbins, Director-General, A.M.S., in acknowledging the toast, mentioned the important part the Colonies were playing in the defence of the empire. He was glad to say that whenever any officers were required for special duty, either under the Foreign Office, Colonial Office, or the Red Cross Society, the medical service of the army was able to meet the demand. Officers had been sent out with the Red Cross Society to the seat of war; the reports received showed that the Servian medical service was the best of those of the armies engaged. Of the Territorial Force he said that if the remainder of the force was half as efficient as the medical section there would not be much to complain of. The Voluntary Aid Detachments, though started only about three years ago, contained 57,000 members, of whom about two-thirds were women. In proposing the toast of "The West London Medico-Chirurgical Society," the Chairman said that the society now contained over 580 members, 33 of whom were original members. The attendances at the ordinary meetings averaged 44. The next Cavendish lecture was to be delivered in June by Sir Berkeley Moynihan. He was afraid he saw trouble ahead for the society, since, owing to the introduction of the Insurance Act, there would be a division of the members into two classes—those who were on the panel and those who were not, similar to what had occurred in Germany through the German Insurance Act. The toast was responded to by Dr. S. D. Clippingdale, who referred to the foundation of the society in 1882 by Mr. C. R. B. Keetley. As a sign of growing interest in the work of the society he contrasted the first volume of its *Transactions*, which consisted of only 86 pages, with the last volume, which contained 356 pages. Dr. F. S. Palmer gave the toast of "Kindred Societies and Guests," which was acknowledged by Sir Francis H. Champneys, President of the Royal Society of Medicine. Mr. McAdam Eccles proposed the toast of "The Chairman," which was duly acknowledged. The toast of "The Officers of the Society," coupled with the names of Mr. Bishop Harman and Dr. Warren, proposed by the Chairman, and acknowledged by Mr. Harman, brought the function to a close.

Reviews.

COLOUR VISION AND COLOUR BLINDNESS.

Researches in Colour Vision,[1] by Sir WILLIAM DE W. ABNEY, is a large and attractive looking book which, the author states, has been written "to show that the trichromatic theory of colour vision does not yet require a funeral service over its remains." On seeing this statement the reader naturally imagines that proof of the theory will be adduced, and that full answers will be given to the criticisms which have been levelled against it by many workers. Much to our disappointment, however, we have been unable to find an answer to a single one of the objections which have carried conviction to many minds and have led many workers in other countries as well as in this to give it up as untenable, on the ground that it affords no explanation of the defect of hue perception, which is the characteristic of colour blindness. This is not the only remarkable feature in the book. Any one who has followed the controversy which has gone on for years about colour vision must be well aware of the work done by Edridge-Green and others who have followed his teaching to show that the trichromatic theory is untenable; yet in this book his name is never mentioned. Nevertheless, tests now recommended by Sir William Abney would seem to be identical in principle with those which Edridge-Green has for so long been advocating.

It is most interesting to compare the present book with those previously published by Sir William Abney. He seems entirely to have abandoned many of the methods he used to advocate and gradually to have evolved others which are not easy to distinguish from those which his opponent has for the last twenty-five years been struggling to get recognized. Dr. Edridge-Green has always stated that the naming of colours in a test is essential, that coloured lights should be used instead of coloured wools, and that matching alone was a most imperfect method of testing for colour blindness. We believe we are right in stating that all these propositions have been strenuously denied at one time or another by Sir William Abney, yet in the book under review many of the tests advocated depend upon the naming of colours. To the Holmgren test he has added two colours similar to those used in the Edridge-Green classification test, and he states that "after an examination has been made, if the examinee is asked to name some of the colours, the giving of a wrong name to any of them will confirm what has probably been found out by the matches." The significance of the word "probably" is very apparent to any one who has had much experience in testing for colour blindness, but a more thorough change of front could hardly have been made: how this has come about might have been explained. To pass over the reasons for the change can scarcely be considered adequate treatment. The author next describes a test by painting similar to that given by Edridge-Green, in which the examinee is asked to name the faint washes of colour. A test by coloured discs is given which has been shown to fail to detect the colour blind. The spectrum test seems for all practical purposes to be identical with the spectrometer of Edridge-Green; so also is the dot and lantern test. A test by simultaneous contrast is described, and unless the reader recognized it he would be unaware that the test described was used by the same worker long ago. The final test is a quantitative one based on the trichromatic theory. This test has been most severely criticized, as it has been found that many colour blind people tested by it appear to be normal, and many normal people colour blind.

It would certainly have been more generous if Sir William Abney had acknowledged the fact that he had given up much which he had previously advocated in his published works and had wheeled into line with what his chief opponent had advocated years ago.

TUMOURS.

DR. A. E. HERTZLER'S *Treatise on Tumours*[2] is not a record of the author's experience but merely an attempt to combine an account of the clinical aspect of tumours with a description of routine pathological diagnosis. It is by no means such a complete work as its title might suggest. The results obtained by the work of the experimental oncologists have been by design entirely omitted. There are no details of surgical technique apart from a few diagrams and brief indications as to the methods advised by the author.

The first section is devoted to a sketch on the general biology of tumours, whilst the second deals with the special pathology of tumours. Both give a clear account of the subject, but are rather elementary. The teaching is dogmatic, and therefore might be criticized in detail; but all short and dogmatic expositions of these subjects are open to this objection. Little space is devoted to the relation of tumours to embryological development. It is interesting to find that the author is opposed to the routine removal of small pieces of tumour for pathological diagnosis unless radical operation is to follow immediately, holding such practice to favour dissemination. There is no mention of chloroma or of arsenic cancer of the skin.

The third section of the book is devoted to a regional consideration of tumours. It is very unequal, and there is a great lack of proportion. The chapters dealing with the breast, stomach, intestine, and the ovary are satisfactory. The clinical discussion of intracranial tumours is very weak, as is that of intrathoracic tumours. As an illustration of the lack of proportion may be mentioned the fact that tumours of the thyroid are dismissed in one hundred and twelve lines, whilst tumours of the carotid body receive almost the same amount of letterpress. Again, carcinoma of the vulva is dismissed in five lines, whilst four pages are devoted to the rare condition of esthiomene. Twelve lines of letterpress serve for the discussion of developmental tumours of the back. Splenic tumours seem to have escaped mention.

Generally it may be said that the author's teaching is good; it shows plenty of common sense and an almost complete absence of fads. The book is well bound and printed. The illustrations are multiplied beyond the wants of any professional reader, be he practitioner or student. Who wants four illustrations of lipomata of the neck or eleven of rodent ulcer of the face? The histological illustrations are also plentiful, but are not very good. No details of magnification, source of the material, or different structures illustrated are given below the pictures. In fact, the superfluous illustrations have extended what would have made a good student's manual into an expensive monograph which is beyond the means of the average student.

TEXTBOOKS OF PATHOLOGY.

IN bringing out their *Textbook of Pathology for Students of Medicine*[3] Professor ADAMI and Dr. MCCRAE invite comparison with Professor Adami's larger work (*The Principles of Pathology*) which has been published in two volumes, the first appearing in 1909 and the second, written in collaboration with Professor Nicholls, in 1910. As these two bulky volumes cover more ground than the average medical student can be expected to master, this shorter treatise has been prepared to meet his needs. Like the larger work, the present volume lays main emphasis upon the study of underlying principles; it is not intended as a cram book, but as one which shall enable the student to think for himself. "It is not the number of unit bricks that is of importance so much as a knowledge of the principles of construction. To be brief, we have endeavoured first and foremost to make clear and intelligible what is known concerning the deeper meaning of morbid states, and have not hesitated to sacrifice lists of data and their names." With this view as to the proper method of teaching pathology we are to a large extent in agreement; and we particularly approve of the authors' method of constantly bringing the student back to physiology, and making him realize that processes of

[1] *Researches in Colour Vision and the Trichromatic Theory.* By Sir William de W. Abney, K.C.B., D.Sc., D.C.L., F.R.S. London: Longmans, Green and Co. 1913. (Med. 8vo, pp. 428; plates 5. 21s. net.)

[2] *A Treatise on Tumours.* By Arthur E. Hertzler, Professor of Surgery in the University of Kansas. London: J. and A. Churchill. 1912. (Imp. 8vo, pp. 736; figs. 538, plates 8. 30s. net.)

[3] *A Textbook of Pathology for Students of Medicine.* By J. George Adami, M.A., M.D., F.R.S., and John McCrae, M.D., M.R.C.P. London: Macmillan and Co. 1912. (Med. 8vo, pp. 759, with 304 engravings and 11 coloured plates. 25s. net.)

disease can only be understood when interpreted in the light of what is known about normal development and normal functions. At the same time attention should be called to a possible danger, doubtless foreseen by the authors, against which it is well to guard. Existing knowledge of pathology is built up by sound induction from accumulations of observed facts. The student must never be allowed to forget that the facts come before the theories, and it is an essential part of his scientific training that he should learn to observe facts accurately, irrespective of the particular theories or principles which may or may not serve to explain them. Just as in the wards he is taught to make a full clinical record of his cases before he attempts diagnosis, so in the pathological laboratory he must first be trained to see all that there is to be seen; not until he has acquired this power can he be trusted to sift essentials from unessentials and to co-ordinate his facts in the light of general principles. In emphasizing the importance of theory regard must be paid to differences in the temperaments of students; with some there is a danger that a habit of *a priori* generalization may be formed, and that this will conduce to slipshod observation. All students will welcome the authors' gifts of clear exposition, and will appreciate their happy knack of enlightening a difficult point by a homely phrase or an apt simile from everyday life. But they may consider that scant tribute to their intelligence is paid in the elementary platitudes which crop up occasionally. Here is an example from the chapter on the urinary system: "The bladder is specially concerned in regulating the function of urination. Were it not for the bladder, the urine would be continually escaping; but it acts as a reservoir and at the proper time a mechanism for evacuation." And again: "Incontinence of urine is the inability to retain it in the bladder." The candidate for a medical qualification who wrote wisdom such as this in his examination papers would not be likely to make a favourable impression upon his examiners. But these are only minor blemishes. If the writers would, as they easily might, cut out the platitudes, curb their desire to expatiate upon their own theories, and fill in the omissions with some of those "lists of data" which they "have not hesitated to sacrifice," their book would take the place it ought to occupy amongst the works best calculated to teach the student of pathology what he ought to know and how he ought to expand his knowledge with the experience which he will gain as a practitioner.

Professor HEWLETT'S *General and Special Pathology*[4] has now reached a third edition, in which the text has been completely revised, though the general arrangement of the book remains as before. Writing for medical students who have only a comparatively short time to devote to the study of pathology, the author does not attempt to treat his subject exhaustively, but he succeeds remarkably well in setting out a great deal of valuable matter in a concise and attractive form. There is no "padding" in his book; he comes straight to the facts of essential importance, and limits himself to these, but, though he writes concisely, he never lapses into the tedium of a cut and dried epitome. The section on the etiology of neoplasms may be selected as an example of Professor Hewlett's skill as a teacher. The clear outline of the older theories and the excellent summary of recent cancer research are just what the student needs in order to obtain a firm grasp of this highly complicated and controversial subject. The difficult subject of immunity is also very well handled, and in the brief but very instructive account of epidemic poliomyelitis we are glad to see that due importance is given to the experimental researches of Flexner and others. Here, as elsewhere, it is evident that the author has spared no pains to bring his work up to date.

MUSCULAR SPASM AND DEGENERATION AS AN EARLY INDICATION OF CONSUMPTION.

A FRESH stimulus has been given to the study of the early diagnosis of consumption during the last few years by the observations of Dr. F. M. POTTENGER in America and by other workers on the Continent with respect to the behaviour of the chest muscles which are in immediate relation with the apices of the lungs. The views of the former have now been published in this country in the form of a handsomely prepared volume,[5] well illustrated and not too long. Briefly stated, the thesis he maintains is that muscles or groups of muscles obtaining their nerve supply from the same segment of the cord which receives the afferent nerves coming from the affected part of the lung are themselves put into a state of irritation and varying degrees of spasm, and that a process of degeneration may affect such muscles thereafter, causing them to become flabby and wasted. It will be seen that this theory owes its existence to the observations of Dr. Henry Head upon sensory nerves in relation to visceral disease. If the sensory nerves are affected, why not also those supplying the muscles? The early impairment of movement of an acutely affected apex is a matter of common experience, as is the subsequent flattening and immobility when disease has progressed and set up gross lesions. But it is now claimed that the first manifestations of disease may be demonstrated by skilled palpation and trained inspection. Irritability of the muscles about the affected apex is to be detected long before the internal lesion has advanced far enough to produce coarser signs. Skill in the detection of minor variations by palpation and percussion is notoriously wanting in some individuals, while in others the erudite tact seems to be abnormally developed.

It must be assumed that Dr. Pottenger belongs to the latter class of clinical observers; at any rate, he is able to refer to an experience ranging over some thousands of cases during the past three years, and to affirm the existence of abnormal muscular spasm in acute cases and of degeneration, as shown by a wasted or flabby state of the muscles in chronic disease, and even of the coexistence of these conditions where one apex is acutely affected and the other showing signs of advanced tuberculosis. Although enthusiastic as to the practical value of his observations, Dr. Pottenger fully recognizes that they are open to other interpretations, and he discusses many of these very fully. He explains by means of diagrams and anatomical drawings the various actions of the neck muscles and the results that have been from time to time described as due to their over-action upon the upper ribs when fixed by ankylosis of their joints, but the arguments are ultimately summarized in favour of the explanation which he has undertaken to prove. The whole monograph is interesting both from the scientific and the purely clinical points of view, but it has yet to be ascertained whether the early changes which are described can be detected by the palpatory powers allotted to the average observer, or whether a special sense is needed which can, or cannot, be acquired.

OPOTHERAPY.

DR. NAAMÉ'S studies in endocrinology,[6] despite their slender bulk, contain a number of interesting and suggestive observations, more, indeed, than may sometimes be found in volumes of quite portly dimensions. Like most of us, the author is deeply impressed by the significance of recent discoveries with regard to the action of the various internal secretions; but, not content with a mere academic interest, he has thought out many of the problems arising out of these discoveries, and put his provisional solutions to the test of therapeutic experiment, with gratifyingly successful results. He is a strong believer in the future of opotherapy, and he certainly advances weighty evidence in support of the faith that is in him. Among the conditions whose pathogeny and treatment are briefly but concisely discussed are cholera, seasickness, the vomiting, diarrhœa, and night-sweats of tuberculosis, hysteria, epilepsy, the vomiting and cravings of pregnancy, and neurasthenia. Dr. Naamé regards the choleraic syndrome as the manifestation of an acute failure of the suprarenal bodies, due

[4] *Pathology, General and Special.* By R. Tanner Hewlett, M.D., F.R.C.P., D.P.H. Third edition. London: J. and A. Churchill. 1912. (Post 8vo, pp. 624; figs. 15, plates 32. 10s. 6d. net.)

[5] *Muscle Spasm and Degeneration in Intrathoracic Inflammation and Light-touch Palpation.* By Francis Marion Pottenger, A.M., M.D., LL.D., Medical Director of the Pottenger Sanatorium, Monrovia, California. London: Henry Kimpton. 1912. (Roy. 8vo, pp. 104; 16 illustrations. 9s. net.)

[6] *Etudes d'Endocrinologie.* Par Docteur Naamé. Paris: A. Maloine. 1913. (Cr. 8vo, pp. 72.)

to the action of bacillary toxins upon them; and his view is confirmed in the cures he has effected in grave cases of Asiatic cholera by the administration of adrenalin. Seasickness he attributes to a functional inhibition of the suprarenals by reflex impulses of abdominal source: this condition he also finds responsive to treatment by adrenalin. In the chapter dealing with the pathogeny and treatment of hysteria, the author suggests that cerebral stability is conditioned by the functional equilibrium of the thyroid and parathyroid glands, which he regards as antagonistic, the function of the first being trophic and excitant, that of the second antitoxic and inhibitory. On this hypothesis, the fundamental condition in hysteria is a functional insufficiency of the parathyroids, with secondary thyroid exhaustion. Dr. Naamé treats the malady with moderate doses of parathyroid, with one-tenth as much thyroid extract. He considers that the inhibition of the parathyroids is due to a reflex impulse, usually of ovarian origin. Epilepsy he regards as a somewhat similar condition—a toxaemia due to inhibition of the parathyroids, with suppression of their antitoxic function. The fact that epilepsy is particularly liable to supervene at or about puberty indicates a causal relation between the functional changes that then occur in the ovaries or testicles and the disease. The author suggests that these changes involve a severe demand upon the inhibitory function of the parathyroids, which, in epileptics, is not adequately met. The vomiting of pregnancy is attributed by Dr. Naamé to auto-intoxication consequent upon arrest of the internal secretion of the ovaries, aggravated, during those early months when the symptoms are often most acute, by thyroid insufficiency. He has obtained good results by the administration of the combined ovarian and thyroid extracts.

VESICAL CALCULUS.

In a book of some 600 pages Professor SCHIAVONI[7] discusses with great fullness the subject of stone in the bladder. There are 134 illustrations, which really help the text and are good in themselves, a good bibliography, and a full index of proper names quoted in the book. The first six chapters deal with the physical and chemical properties of vesical calculi. Two chapters are allotted to the etiology and pathogenesis of cysto-lithiasis; symptoms, diagnosis, and prognosis each take up a chapter, then follows a historical retrospect of the various modes of treatment, a good account of the anatomy of the perineal regions, and full and detailed chapters on the various modern methods—one chapter alone is given up to a careful comparison of the relative merits of perineal and hypogastric cystotomy. The author goes rather fully into the anatomical alterations which arise in the bladder as the result of the constant irritation of a stone, and how these set up various infective processes, from a mild cystitis up to definite malignant growths. Lithotripsy and litholapaxy are adequately described, and a comparison between these and cystotomy, with a final summing up as to the indications and contraindications for each method is given. A useful chapter at the end is devoted to certain considerations as to the general hygiene of these cases, whether operated upon or not. Looked at merely from the point of view of a compendium of recent and up-to-date knowledge about stone in the bladder, the work deserves high praise; it collects into one volume data as to analyses and syntheses which are scattered about in many different treatises, and large and wide as are the aspects of such a subject, it is hard to find a section that has escaped the notice of the author. The illustrations, which even in these days too often obscure rather than elucidate the text, are in this case conspicuously useful, relevant, and not redundant. Professor Roncali contributes a short commendatory preface.

[7] *Patologia e Terapie chirurgica dei Calcoli dell a Vesica Urinaria.* Del Professor M. Schiavoni. Turin: U. Tipografico. 1912. (Royal 8vo, pp. 615; plates 134.)

MAJOR R. J. BLACKHAM, R.A.M.C., who has been associated with Colonel Roberts, I.M.S., in the treatment of His Excellency the Viceroy of India since the outrage at Delhi on December 23rd, has been appointed Honorary Surgeon on His Excellency's personal staff.

NOTES ON BOOKS.

THE "*Wellcome*"[1] *Photographic Exposure Record and Diary*[1] is correctly described by its publishers as a photographic encyclopaedia in brief. It combines a reliable treatise on the modern methods of photography, with ample space for a complete record of exposures under varying conditions, and a diary sufficient to chronicle the work of each day in the year. The book is in the form of a pocket-book with wallet and pencil, and provides directions very useful to the tourist both at home and abroad. The directions and formulae given refer exclusively to Messrs. Burroughs, Wellcome, and Co.'s tabloid products, but it is sufficient to say that they are of high excellence. Those who use them will avoid the painful experience of seeing their negatives hopelessly stained and spoilt by employing impure and stale solutions. Negatives so stained—always, alas! the best—are periodically brought forth to be "doctored" by the latest process, only to be sadly returned to the cabinet as "incurables." The useful table of weights and measures contains only one mistake—the equivalent in grains of the decigram. The various methods of development, useful to the inexperienced, are fully described. The expert will probably still continue to watch and control the development of his plate as heretofore. The methods of control during development do not seem to have received the careful description that they deserve. The treatment of over-exposure recommended—namely, by development for strong contrast and subsequent reduction—will be rejected by most workers in favour of early fixation followed by intensification. With reference to the "exposure calculator" which is included in this handy little pocket-book, it may be pointed out that the whole secret of successful photography lies in accurate exposure, and no "calculator" which does not register the actually existing conditions of light can be satisfactory. It seems probable that an exposure meter, on the lines of the "chronoscope" recently introduced by Messrs. Lumière, will shortly be invented, applicable to colour photography also, both for out-of-door and interior work, and to that most difficult branch of the art, colour photomicrography. Directions are given for the treatment of autochrome plates by rytol. Of this we have no experience, but would prefer to use the developer and method recommended by the maker of the plate in an operation of such difficulty and delicacy. All the other departments of photographic work receive adequate attention in this excellent little treatise.

The Paris journal, *La Presse Médicale*, has published a handbook[2] to medical institutions in Paris and the facilities afforded for medical education. The greater part of the volume is concerned with the various classes and clinics, but the particulars given with regard to some of the hospitals will be of value to visitors, who will, however, probably turn first to the introduction, which deals more generally with the subject, and contains a paragraph on the Continental Anglo-American Medical Society.

In these days of civilian ambulance corps, rescue brigades, and voluntary aid detachments, books dealing with first aid and emergency treatment seem to be in demand. The essentials for such a book are that (1) it should explain this emergency treatment in simple, and as far as possible non-technical language; (2) it should not go beyond the legitimate sphere of first aid or emergency treatment; and (3) it should be issued at a price within the reach of all. The National Health Society, in their *Aid to the Injured and Sick*,[3] seem to have met these essentials, and the issue of the thirty-seventh edition since its first publication twenty-five years ago is ample proof of this. The new edition has been brought up to date, and a special chapter has been added on the methods of carrying injured persons. Schäfer's artificial respiration has also been substituted for Sylvester's.

In quite a different category from the foregoing must be placed *Prompt Aid to the Injured*,[4] now in its fifth edition. Although designed to be of practical value for home use

[1] *The "Wellcome" Photographic Exposure Record and Diary, 1913.* London: Burroughs, Wellcome, and Co. (1s.)

[2] *L'Enseignement Médical a Paris en 1912–1913.* Paris: Masson et Cie. 1913. (Demy 8vo, pp. 128. Fr. 0.50.)

[3] *Aid to the Injured and Sick.* By Henry W. Gell, M.A., M.B.Oxon., M.R.C.S. Thirty-seventh edition. London: The National Health Society. 1912. (Fcap. 8vo, pp. 40. Price 2d.)

[4] *Prompt Aid to the Injured.* By Alvah H. Doty, M.D. Fifth edition. New York: D. Appleton and Co. 1912. (Cr. 8vo, pp. 245; figs. 85. 6s. net.)

and among workmen, we find much of its information wholly outside the domain of legitimate first aid. We are told, for example, that normal bone struck with a probe gives a dull sound, but when the periosteum is removed it feels hard and rough, and gives a metallic sound; that a tampon should not be left in a wound longer than twelve hours; that poultices are employed to hasten the removal of a slough; that the alkaloid of a drug should be selected for hypodermic medication; and that the stomach may be emptied by siphonage, which is described. This information, as also the description of the spleen, the ligamenta subflava, the varieties of ligament, and granulation tissue, are all beyond that prompt aid in emergency by unskilled people which alone should be taught. We do not think any good purpose can be served by giving such anatomical, medical, and surgical details to miners and factory hands, the class for whom, according to the preface, this book is specially meant.

Nova et Vetera.

PROVERBIAL MEDICINE.

PROVERBS REGARDING ALCOHOL.

IN a previous article (p. 291) proverbs relating to diet in general were dealt with; now, some consideration must be given to those which are attached to special kinds of food. Indeed, some of the most interesting of medical or health maxims are connected with the meat and drink which satisfy or stimulate our appetite and nourish our frames.

First, some space may be given to the proverbs for and against alcohol. "And it came to pass . . . that they cried out and said O man of God, there is death in the pot";[1] and *mors in olla*[2] (death in the pot) has become a proverb. Now, notwithstanding the fact that the context of this passage makes it plain that gourds from a wild vine had been put in the pot, it has not been customary to think of this proverb as one that might be urged in support of total abstinence. Lean, however, in his *Collectanea*,[3] has this interesting note: "This, I take it, does not mean the stewpot, but the drinking vessel. . . . If so, it is the earliest authority for total abstainers." It is, of course, quite certain that "in his pots" used to mean in a state of intoxication, just as "in his cups" means so still.

Though we can perhaps hardly find in Lean's argument sufficient proof to warrant the placing of *mors in olla* among the teetotal maxims, there are some sayings which may be legitimately used to strengthen the cause of temperance, and they deserve passing notice. "He that can master his thirst is master of his health" is one proverb, and it has a French equivalent—*Qui est maître de sa soif est maître de sa santé*. The Scottish poet, Henryson[4] writing in the second half of the fifteenth century, gave the oft-quoted lines, "They drank the water clear, Instead of wine, but yet they made good cheer," expressing a sentiment encouraging to the temperance orator loath to admit that the cup cheers as well as inebriates. A series of sayings affirm that the mental output associated with alcohol is of poor quality. Longfellow, in his prose work *Hyperion* (Bk. IV, c. iii), wrote, "He who drinks beer thinks beer, and he who drinks wine thinks wine." Washington Irving, in that delightful part of *The Sketch Book* which is entitled "Stratford-on-Avon," tells the story of the drinking match at Bedford where Shakespeare, in spite of the proverb that "they who drink beer will think beer," was as true to his ale as Falstaff to his sack. Swift,[5] in one of his letters to Mrs. Johnson (Stella), was evidently referring to the same maxim when he wrote, "We were to do more business after dinner, but after dinner is after dinner—an old saying and a true, much drinking, little thinking"; but the authorship of the saying is uncertain, for, although it has been attributed to Warburton,[6] it is probably of earlier origin.

The teetotaler is not left wholly in triumph, for there is an antagonist's touch in the phrase, "They who drink water will think water." "Deep drinkers have ever shallow memories" expresses a result of alcoholism in an easily remembered form; and in almost every language there is a proverb for the idea that "where the wine goes in there the wit goes out." Thus we have Pliny's statement:[7] *In proverbiam cessit, sapientiam vino obumbrari* (It has become a proverb that wisdom is clouded by wine); there is the short and expressive German *voll, toll* (full, mad); there are two sayings in Italian containing the same notion, namely, *Vino dentro, senno fuora* and *Dove entra il bere, se n'esce il sapere*; and there is the Dutch *Als de wijn ingaat, gaat de wijsheid uit*. Another result of alcoholic excess is hinted at in the Italian proverb, *Dove entra il vino, esce la vergogna* (Where wine enters, shame departs); and in Terence's play[8] of *The Eunuch*, Chremes admits that the wine he has drunk has got the upper hand, finds that his female companion has become much more charming, and announces that it is a true saying that "Venus grows cold without Ceres and Bacchus" (*Sine Cerere et Libero friget Venus*).

The loss, under the influence of wine, of the intellectual powers and the domination of the mind by the lower desires are referred to in strong terms by the Pardoner in Chaucer's *Canterbury Tales*[9]; he is there made to say:

> For dronkenesse is verray sepulture
> Of mannes wit and his discrecioun,
> In whom that drynke hath dominacioun.
> He kan no conseil kepe, it is no drede;

and again, "A lecherous thyng is wyn." The loquacity born of alcohol is put in proverbial form in the Latin saying,[10] *Quod in corde sobrii, id in lingua ebrii* (What is kept in the heart of a man sober is found in the tongue of a man drunk); and Horace[11] asks (*Quid non ebrietas designat?* (What strange thing does not drink effect?) and answers, *Operta recludit* (It discloses secrets). Yet another maxim is "Wine neither keeps secrets nor fulfils promises."

A few proverbs are yet more condemnatory of the taking of alcohol. *Plures crapula quam gladius* (Drunkenness kills more than the sword) is a Latin saying, and "More men die of drink than of thirst" is an English equivalent; there are also two German ones. *Es trinken tausend sich den Tod, ehe einer stirbt vor Durstes Noth* (A thousand will drink themselves to death before one dies of thirst), and *Im Becher ersaufen mehr als im Meer* (More are drowned in the goblet than in the sea). The play upon words in the saying[12] "Beer fills many a bottle and bottle fills many a bier" has a smack of modernity about it.

Then there are the sayings which compare inebriety to insanity. There is, for instance, Sir Edward Coke's dictum,[13] "As for a drunkard, who is *voluntarius daemon*, he hath no privilege thereby, but what hurt or ill so ever he doeth, his drunkenness doth aggravate it"; and Coke's *voluntarius daemon* is foreshadowed in the Latin proverb, *Nil similius insano quam ebrius* (Nothing is more like a madman than a drunk person). Cassio[14] bitterly calls out, "O God, that men should put an enemy in their mouths to steal away their brains"; but Iago answers, "Come, come, good wine is a good familiar creature if it be well used; exclaim no more against it"; but Carlyle[15] is with Cassio, for he blazes forth in his denunciation of gin, "liquid madness sold at tenpence the quartern!"

The well-known effect of alcohol upon the continuous smoothness and regularity of locomotion is found expressed in the Latin quotation from Plautus,[16] who makes Pseudolus say, "*Magnum hoc vitium vino est, pedes captat primum, luctator dolosus est*," which may be rendered that "The great fault in wine is that it first trips up your feet; it is a cunning wrestler." Our own George Herbert,[17] too, has the same idea in his lines:

> . . . Poure the shame
> Which it would poure on thee, upon the floore.
> It is most just to throw that on the ground
> Which would throw me there if I keep the round.

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[1] *Bible*, II Kings, iv, 40.
[2] *Vulgate Version of Bible*, ibid.
[3] *Collectanea*, I, p. 509.
[4] Henryson, Robert, *Uponlandis Mous and the Burges Mous* (1430–1506).
[5] Swift, Jonathan, *Journal to Stella*, Letter XLII.
[6] Benham, *Book of Quotations*, p. 446.
[7] Pliny, *Natural History*, Bk. XXIII, c. 23; Bostock and Riley's *Translation*, vol. iv, p. 473.
[8] Terence, *Eunuch*, Act iv, sc. vi.
[9] Chaucer, *Canterbury Tales*, Pardoner's Tale, ll. 558–561.
[10] Benham, *Book of Quotations*, p. 659.
[11] Horace, *Epistles*, Bk. I, Ep. 5.
[12] Kaye, J. R., *Public Health*, xviii, p. 562, 1905–6.
[13] Coke, *Institutes*, a commentary upon Littleton, iii.
[14] Shakespeare, *Othello*, II, iii, line 290.
[15] Carlyle, *Miscellanies*, Chartism, c. IV.
[16] Plautus, *Pseudolus*, Act V, sc. i.
[17] Herbert, G., *The Temple*, The Church Porch, stanzas.

Herbert also refers to the disfigurement caused by alcoholic indulgence in the words:

> Stay at the third cup or forego the place,
> Wine above all things does God's stamp deface.

As one may quote, "The nose that is red cannot be hid."

"A morning sun, and a wine-bred child, and a Latin-bred woman seldom end well" comes from George Herbert's *Outlandish Proverbs;* and several sayings contain the idea that the child who is conceived in drunkenness seldom begins well. The ancient writers saw in Vulcan's deformity the result of Jupiter's inebriety. Burton,[18] in his famous work, quoting from Plutarch,[19] wrote, "*Ebrii gignunt ebrios*" (One drunkard begets another), and cited Lemnius, Alsarius Crutius, Macrobius, Avicenna, and Aristotle himself as of the same opinion. Plutarch[19] reported of Diogenes that one day seeing a youth out of his mind and crazy, he said, "Young man, your father was drunk when he begot you" (*Adolescens, pater te ebrius genuit*). Other sayings refer to the lesser penalty of a conception under alcohol—the birth of a female infant. Lean, in his *Collectanea*,[20] has gathered from the old dramatists a number of quotations illustrating this belief—for example, "I lay my life 'twill prove a girl, because 'twas got in drink"; and "Till drunk he went to bed, and in that fit He got the second birth, a female chit."

Other proverbs, without actually condemning alcohol, do so by imputation by reason of their strongly expressed approbation of temperance. There is, for instance, the saying, "Temperance is a bridle of gold," which is found in Burton's *Anatomy of Melancholy;* there is also, "Temperance is the nurse of chastity,"[21] and Pope's saying,[22] "Health consists with temperance alone." Cicero wrote long ago, *Potest exercitatio et temperantia etiam in senectute conservare aliquid pristini roboris* (Exercise and temperance can preserve something of our early strength even in old age); and Rousseau, in more recent times, added his testimony—*La tempérance et le travail sont les deux vrais médecins de l'homme.* "Drinking water neither makes a man ill nor his wife a widow" is one of Kaye's proverbs,[23] and one quoted by Lean[24] is "If you'd be healthy, happy, and stout, use nothing but water within and without."

The proverbs, maxims, and common sayings which have been taken notice of above may all be described as taking their stand on the temperance platform; but it can by no means be claimed that they are more numerous or more influential than those which gather themselves together on behalf of alcohol as a prime cause of well-being and conviviality. Indeed, proverbiology must be regarded as a dangerous two-edged weapon in the hand of an ardent temperance reformer; he cannot safely trust to it in his contest with the evils of alcoholism.

Some proverbs recognize the dangers of wine, but hint that the same risks exist apart altogether from its use. There is, for instance, the proverb in Ray's collection that reads, "Drink wine and have the gout, drink no wine and have it too," a saying which is wittily transformed by Sydenham into, "If you drink wine you will have the gout, and if you do not drink wine the gout will have you." Others admit the risks of imbibing, but regard them as inconsiderable if the practice be restricted to certain occasions. Ovid,[25] for instance, maintained that given at the proper time wine is good, but given at an unfitting time it is injurious (*Data tempore prosunt et data non apto tempore vina nocent*)[26]; and Porter, in his *Two Angry Women of Abingdon* (1599), affirmed that "he is a fool will take more than will do him good."

In addition to these sayings in favour of moderate or of well-timed recourse to the flowing bowl, there are the proverbs which boldly and firmly take their stand on the side of the drinker. Lean[27] has gathered together a number of these sayings, so convenient to repeat when the bottle is travelling round the table. Here are some: "Drink is the best physic"; "It is a good wind that blows a man to the wine"; "Wine makes good blood"; "Good wine makes good blood"; "Of all the meat in the world, drink goes the best down"; and "Good drinkers think none ill." Some of these are to be found in other languages: thus, in Spanish we find *El buen vino cuaja buena sangre*,[28] and in Italian, *Chi beve vino bene sangue e chi acqua cotta flemma* (Who drinks wine drinks blood, and who drinks water drinks phlegm); and in Latin there are *Nunc vino pellite curas*[29] (Dispel now your cares with wine), and *Vina parant animos, faciuntque coloribus aptos, cura fugit multo diluiturque mero*[30] (Wine stimulates the mind and makes it quick with heat, care flees and is dissolved in much drink). One of Allan Ramsay's paradoxical and humorous sayings is, "They that drink langest live langest," and in a certain sense this is unanswerable: another proverb[31] from the north of the Tweed is "A dreigh (long) drink is better than a dry sermon." The wine-lover carries the war into the teetotal physician's territory in the proverb,[32] *Es giebt mehr alte Weintrinker als alte Aerzte* (There are more old wine-bibbers than old doctors); and the same idea is found in the French of Rabelais.[33] *Il y a plus de vieulx ivrognes qu'il y a de vieulx médecins:* but George Herbert, in his *Outlandish Proverbs*, turns this statement round into "There are more physicians in health than drunkards." There are, of course fallacies in any such statement: for one thing, those who drink alcohol are more numerous as a class than are medical men; there are doctors who drink as well as doctors who abstain, and so on. Proverb or no proverb, the insurance companies look with mistrust upon the drinker and more especially upon the "soaker." "Often drunk and seldom sober falls like the leaves in October."

"The drunkard's argument," as it has been called, is set forth by T. Adams:[34] "He that drinks well sleeps well; he that sleeps well thinks no harm; he that thinks no harm is a good man; therefore he that drinks much is a good man." Lord John Russell brought home with him from Spain a version of this proverb which he had got from a priest there. It ran thus:

> Qui bene bibit, bene dormit;
> Qui dormit non peccat;
> Qui non peccat salvatus erit.

Another specious statement is, "That which doth an old man good can do a young man no harm," founded, we suppose, upon the aphorism that "Wine is old men's milk,"[35] which appears in Italian as *Il vino è la tetta di vecchi*, and in French, *Ainsi peut il estre des enfans qu'on a laict, le vin desquels est le laict, comme, au contraire, nous disons que le laict des vieux c'est le vin.* The Bible itself has been invoked on behalf of wine-drinking: "Wine that maketh glad the heart of man" (Psa. civ, 15; *Vinum bonum laetificet cor hominis* in the Vulgate), and "Be no longer a drinker of water, but use a little wine for thy stomach's sake and thine often infirmities" (1 Tim. v, 23, R.V.), have been many a time dragged into the argument, to be met, of course, by the countervailing texts: "Wine is a mocker, strong drink is raging" (Prov. xx, 1); "Who hath woe? . . . they that tarry long at the wine . . . Look not thou upon the wine when it is red . . . at the last it biteth like a serpent" (Prov. xxiii, 29–32); and "Woe unto them that are mighty to drink wine, and men of strength to mingle strong drink" (Isaiah v, 22).

Some proverbs give special approbation to ale: "Good ale is meat, drink, and cloth" is from Ray's *Compleat Collection*, whence also come the following lines:

> He that buys land buys many stones;
> He that buys flesh buys many bones;
> He that buys eggs buys many shells;
> But he that buys good ale buys nothing else.

It would seem that in the opinion of the proverbiologist ale, good ale at least, gives man what he needs without injurious or unnecessary ingredients or accompaniments;

[18] Burton, R., *Anatomy of Melancholy*, Pt. I, Sect. ii, mem. i, Subsect. vi.
[19] Plutarch, *On Education*, 33.
[20] Lean, *Collectanea*, ii, pp. 355, 356.
[21] Wycherley, *Love in a Wood*, Act III, sc. iii.
[22] Pope, *Essay on Man*, Ess. 4, line 79.
[23] Kaye, *Public Health*, loc. cit.
[24] Lean, *Collectanea*, i, p. 485.
[25] Ovid, *Remedia Amoris*, 132.
[26] King (*Classical Quotations*, p. 546) translates this, "A glass of port does good at proper times, but else does hurt."
[27] Lean, *Collectanea*, I, p. 482.
[28] Lean, *Collectanea*, I, p. 482.
[29] Horace, *Odes*, Bk. I, Ode vii, 31.
[30] Ovid, *Ars Amatoria*, Bk. I, line 237.
[31] A. Cunninghame, *Glossary to Burns*.
[32] Benham, *Book of Quotations*, p. 866.
[33] *Gargantua*, Bk. I, ch. 42.
[34] Adams, T., *Works*, 1629.
[35] Lean's *Collectanea*, iv, 197.

but Fergusson, in his *Scottish Proverbs*,[36] has a saying which gives a modified appreciation—namely, "Better good sale (health) nor (than) good ale."

One proverb is bold enough to recommend a drinking bout once a month, on the pretext, we may suppose, that there will be then an accumulation of evil humours which call for correction or expulsion; for a similar purpose periodical bleeding was once practised. The proverb[37] is: *Qu'il faut a chaque mois, Du moins s'enivrer une fois* (Every month one ought to get drunk at least once). Surely the boldest saying, however, is the Scottish one:[38] "God is kind to fou (drunken) folk and bairns"; or, as it is in French: *Dieu aide à trois sortes de personnes—aux fous, aux enfants, et aux ivrognes.* It is true that children and drunken men often fall without seriously injuring themselves, but it is hardly necessary to invoke a special providence for them, the more probable explanation being the fact that they fall without making violent efforts to save themselves. At any rate, "'Who can help sickness?' quo' the drunken wife when she fell into the gutter," as Thomas Fuller's proverbial witticism puts it (*Gnomologia*). Arguments in favour of the bottle, whether expressed in proverb form or not, are often ingenious, sometimes persuasive, but generally evasive. It is easy to find reasons for doing what one wishes to do; a sarcastic proverb says: "A bad excuse is better than none," and many things "prove an excuse for the glass."

So far as proverbs go, the battle over alcohol must be regarded as a drawn one; if there is any advantage at all, it is to be found on the side of the drinker rather than on that of the abstainer. But, if we look more particularly at the medical proverbs, it will be discovered that they give a stronger support to the latter; whilst the sayings which refer to conviviality and sprightliness and to a certain unbending of manners and flow of conversation go over in a body to the former. In this matter actuarial facts deserve more respect than proverbial wisdom. Indeed, many of the proverbs obviously are special pleaders, and some are brazen-facedly prejudiced. *In vino veritas* (ἐν οἴνῳ ἀλήθεια) may contain a truth, albeit an unwilling or involuntary one; but who shall say that *pro vino* arguments are unbiassed? By the way, and before we pass from this subject, it will be news to some that the maxim "You can't make people sober by Act of Parliament" did not, as at first employed, refer to non-indulgence in alcohol at all; the word *sober* in it had the significance of moral or virtuous. Of recent years it has not uncommonly been used by those who are opposed to temperance legislation. The opinion it expresses may turn out to be true, but the proverb in its inception did not contain the thought which had been put into it.

NEMATODES IN THE PRODUCTION OF CANCER.

In cancerous and other tumour formations there may sometimes be observed either in the growth itself or in its surroundings certain animal parasites, especially helminthes, and it may be assumed that these parasites stand in a causal relationship to the neoplasm, just as chronic irritants of other kinds. In bilharziosis there occur tumours which are not only identical with carcinoma and sarcoma histologically, but which have been shown to produce metastatic growths when the primary lesion is in the bladder. Scattered throughout the literature of cancer are various observations on the presence of nematodes in human cancers, but it has not been justifiable to conclude that the concurrence of tumours and parasites is more than accidental. Borrel has laid great stress on the occurrence of endemic cancer of mice, holding that certain parasites—Demodex, Nematodes, Cysticercus, and others—may carry an unknown virus capable of producing tumour formation, and he has not only demonstrated such parasites in the tumours of mice, but he has found the demodex in human cancers, in early epithelioma of the face and in carcinoma of the breast. As far as his published papers go, it cannot be said that he has established his hypothesis because he had no controls wherewith to judge the frequency with which these parasites existed in non-tumour conditions, and, as a matter of fact, Orth and Tsunoda proved the presence of the demodex in the nipples of women without cancer of the breast as well as with it. Haaland, when working in the laboratories of the Imperial Cancer Research Fund, found nematodes in the mammary glands of a large number of old mice, and there was undoubted evidence that they produced pathological changes, intense inflammation, and sclerosis of the connective tissue, often accompanied by hypertrophy of the mammary epithelium. He considered that these interstitial changes might be the eliciting stimulus of malignant epithelial growth in view of the great frequency of carcinoma in the mammary glands of mice. Whatever view be taken regarding the relationship of such parasites to new growth, causal or casual, the use of such ideas as a working hypothesis needs no justification.

[36] Fergusson, David, *Scottish Proverbs*, 1641.
[37] Benham, *Book of Quotations*, p. 728.
[38] Ibid., p. 784.

Gastric Tumours in the Rat.

In a communication appearing in the *Berliner klinische Wochenschrift* of February 17th, Professor Fibiger, of Copenhagen, has brought forward a very convincing proof that nematodes really have a pathogenetic significance. In 1907 he noticed, in performing autopsies on three rats which had been injected with tubercle bacilli and which had been kept in the same cage, that the stomachs were the seat of large papillomatous growths, the walls were much thickened, and the cavity of the stomach was almost obliterated. The growth was the same in all and was probably malignant in nature. The rest of the alimentary tract was normal; no other pathological changes except pneumonic patches in the lungs could be found; and there were no metastases in other organs. The tumour material was injected into a number of normal rats, subcutaneously or intraperitoneally, and four rats also were fed on tumour tissue, but in no case did a positive result follow. Microscopic examination of the tumours showed marked thickening of the stomach wall due to epithelial hyperplasia and papillomatous formation in the mucous membrane with a breaking through of the muscularis mucosa by the proliferating epithelium, and the formation of isolated cell-nests and islets of squamous epithelium in the submucosa. Here and there, extending through the muscular coat on to the serous covering, were cysts filled with cornified epithelium. There was considerable round-cell infiltration and irregular proliferation of the connective tissue. The pylorus in all cases was normal. It has to be borne in mind that the rat's stomach is separable into two parts—the fundus lined by squamous epithelium, and the pyloric part lined by cubical and columnar cells, and all these growths were of the nature of squamous epithelioma.

Nematode Eggs and Embryos in the Tumours.

On further investigation of the histological preparations Professor Fibiger found oval holes in the epithelium under the stratum corneum, while other similar spaces contained complex bodies suggestive of a parasite containing eggs. By serial sections he was able to reconstruct this parasite, apparently a nematode, measuring 1.6 cm. in length by 0.25 mm. in diameter. The eggs had a double contour, and contained coiled-up embryos. Such eggs were also found lying free between the upper layers of the epithelium. In later researches he succeeded in teasing out three complete nematodes from fixed tumour material. The nematode is of a hitherto undescribed species.

The Cockroach the Intermediate Host.

The interest of the investigation starts from this observation, and one cannot but admire the determined way in which Professor Fibiger set himself to discover whether the association of the parasites with the tumour formations was more than accidental. In order to obtain an idea of the frequency of cancer of the stomach of the rat and also of nematodes in the stomach of that animal—a very essential preliminary—he performed autopsies on 1,144 rats, and minutely examined the stomachs, with the result that he was able to pick out only 11 cases which showed, at most, very small ulcers or epithelial hyperplasias; nothing remotely resembling the condition of the cases above described could be found. In 12 of these rats the mucous membrane contained a nematode, and in 10 more another kind of nematode was found free in the cavity; in the former case the parasite belonged

to the trichosomes and in the latter to the ascarids, but in neither case did it resemble the parasites originally found in the three tumour rats. The series was therefore sterile as far as the tumours and parasites sought for. After much inquiry Fibiger managed to trace the three rats to Dorpat, in Russia. Presumably Danish mice were not affected with the disease. The problem was now to discover the life-cycle and habitats of the peculiar nematode, for it was possible that some intermediate host played a part in its development. In consequence of a communication by Galeb showing that the cockroach, *Periplaneta orientalis*, was the intermediate host of a filaria which in other stages was found in the stomachs of rats, attention was directed to this possibility, and a number of wild rats (*Mus decumanus*), in the stomachs of which could be found the *Periplaneta orientalis*, were obtained; but in none were nematodes or new growths discovered, and feeding experiments with these cockroaches were quite negative. Entirely different results accrued from the examination of a number of rats from a large sugar refinery, where the cockroaches belonged to the species *Periplaneta americana*. From the beginning of March till the end of December, 1911, 61 rats were caught in this locality; 25 of these were killed immediately and the rest were isolated in the laboratory and examined when they died spontaneously. In 21 of the whole number the fundus was normal and no parasites were found, but in the remaining 40 that part of the stomach showed nematodes, which in size, form, and the appearance of the eggs were identical with the long-sought-for nematodes. In 18 of the 40 rats the stomach showed striking pathological changes that might be considered as stages of definite tumour formation, and of these no less than 9 showed very advanced tumours of the same type as those originally found. The result, therefore, seemed to indicate that it was no accidental association, and that *Periplaneta americana* was the intermediate host of the parasite.

In order to establish more firmly this fact, 57 rats, bred and reared in the laboratory, were fed with *P. americana* from the sugar refinery. The feeding experiments lasted for five to twenty days, and the largest number of cockroaches given to any one animal was 94. These rats were isolated and examined only when they died. The result was that in 3 neither nematodes nor tumours were found; in 54 nematodes were discovered in the stomach; in 18 of these the fundus was normal, but in 36 the pathological changes of growth formation were obtained, being very marked in 7 and identical with the original type discovered. The nematodes also were identical in size, shape, and as regards the eggs. There was thus no doubt that the tumour formations were dependent on a particular nematode carried by *Periplaneta americana*. Free eggs were found in the excreta of animals infected with nematodes, but no embryos, nor did embryos develop from the eggs, even when the excreta were kept for six months. Further, it was impossible to infect rats with these eggs; the cockroach was necessary for the development of the embryo. Microscopic examination of *Periplaneta americana* did not reveal any parasite in the alimentary canal, but in the striated muscles of the extremities and in the prothorax, spiral, trichina-like bodies often surrounded by a fine capsule of connective tissue were easily discovered, and were unmistakably further stages of the eggs. In order to be quite certain that no other parasite existed, an endeavour was made to transfer the nematode to those cockroaches which already had been found not to harbour it naturally, namely, the *Periplaneta orientalis*, and it was easily accomplished in every case by allowing these latter cockroaches to feed on the eggs of the nematodes or on the excreta of the infected rats. When they were investigated forty-two to sixty days afterwards the same curled-up embryos were found in their muscles as were seen in *P. americana*. A new series of laboratory rats were now fed with the artificially infected *P. orientalis*. Out of 11 rats fed on cockroaches which had been infected from infected rat excreta, 7 showed nematodes in the stomach, and in 3 of these cases there was the marked hyperplasia of the mucous membrane as originally described; and in 12 more rats fed with cockroaches infected by the eggs parasites were found in 3 cases, in 1 of which marked tumour formation was evident. As control experiments 43 fresh laboratory rats were fed on non-infected cockroaches, each getting 11 to 50 (as compared with half of the prothorax of a single cockroach in the infected experiments), and in no case did pathological changes in the stomach ensue. It could always be told in from six to eight weeks by an examination of the excreta, after administration of infected cockroaches, whether the rats developed nematodes or not, for the eggs are easily distinguished.

The Life-History of the Nematode.

The life-history of the nematode is as follows. It lives in the squamous epithelium of the rat's stomach, occasionally also in the gullet, and sometimes in the tongue; in these situations it matures, and gives off eggs, which are thrown off with the epithelium and excreted with the faeces. The cockroach eats this, and the eggs develop into free embryos in the muscles of the extremities and prothorax, where they can be detected as trichina-like bodies in six to eight weeks after ingestion; if such cockroaches be now eaten by the rat, the embryos escape from their capsule, and migrate to the fundus of the stomach where the female after two months commences to deposit eggs. The size of the male nematode is ½ cm. to 1 cm. long by 0.1 mm. to 0.16 mm. in diameter, and of the female 4 cm. to 5 cm. long, by 0.2 mm. to 0.25 mm. in diameter. The eggs are oval and clear, and are surrounded by a double contoured membrane, which is thicker at the poles. They measure 0.06 mm. by 0.04 mm., and contain curled-up embryos with ringed cuticle. The nematode is of a kind not hitherto described, but it can be assigned to the genus spiroptera.

The Pathological Changes Produced by Nematodes.

Of the 118 rats investigated, 61 from the sugar refinery and 57 experimentally infected in the laboratory, 94 contained spiroptera in the fundus of the stomach; in 40 the presence of the parasite was the only abnormality, whilst in 54 there were distinct anatomical changes. The parasite was only found in that part of the stomach lined by squamous epithelium. It lay between the stratum corneum and the stratum granulosum, though in a few cases it was found deeper in the epithelium. The pathological changes found were divisible into three stages shading into one another. In the case of 15 rats the changes were slight, the mucous membrane being thickened locally or diffusely, and appearing less opaque than normally; in 23 cases the change was marked, the mucous membrane was much thicker and the thickening was more diffuse, the surface was uneven and raised in papillomatous folds; in 16 rats the condition was advanced, the mucous membrane being covered with small and large papillomatous growths occluding the lumen, whilst the wall of the stomach was often over a centimetre in thickness. In 4 cases the cavity was obliterated by papillomatous excrescences which closed up the opening of the oesophagus and extended to the pylorus. The external surface was corrugated with dense solid projections or with polypoid nodules. In 3 cases instead of this multiple papillomatous condition the growth took the form of a single hard mass, of the size of a walnut, reaching from the fundus to the pylorus. In only one case were the changes in the gullet markedly papillomatous. These growths caused marked destruction of the stomach wall, and there could be no doubt about their infiltrative nature, and in at least four of the series it was very extensive. Certainly in 2 cases, and probably in 3, metastases were found in the lungs and retroperitoneal lymph glands, but no parasites were discovered in these secondary growths. Professor Fibiger gives a detailed account of the histological characters of the growths, and it is beyond doubt that in the advanced cases at least he had to deal with true malignant tumours a condition to which the other formations might quite well have attained if the animals had not succumbed to intercurrent maladies.

Conclusion.

The association of a definite parasite with a definite tumour of a certain locality is not the most striking feature of these carefully planned investigations and successfully accomplished results, for the association of *Bilharzia haematobia* with vesical carcinomata, pointed

out by Professor Ferguson of Cairo, is perhaps as noteworthy, but one must accord to Fibiger the honour which is his due, as being the first definitely to produce experimentally new growths.

LITERARY NOTES.

In the interesting Life of Tolstoi written by his friend and admirer Mr. Aylmer Maude, there is an amusing account of a scene at which the author was present. The great moralist bitterly upbraided some philanthropic lady for her work amongst slum children, and declared that such establishments as crèches or day nurseries were both unnatural and unnecessary in a civilized country. This opinion is strongly characteristic of the sage, who, in matters of everyday life, was one of the least practical of men. Despite his objections, however, to the crèche as a substitute for the mother, these establishments still continue to increase and multiply; and many hundreds of working women at the present day have reason to bless an institution which enables them to earn bread for their families without being haunted by the fear that the children will come to harm in their absence. The February number of *The Child* contains an article by Dr. Bernard Myers, in which the important part which may be played by a well-managed day nursery in the slums of a great city is very clearly shown. It is not merely the child's bodily welfare that profits by his daily sojourn in the crèche. Besides being properly fed and cared for, he is preserved, during the daytime at least, from possible danger in his own home and from the certain contamination of the streets; and the hours spent in pure and wholesome surroundings can hardly fail to have as beneficial effect upon his moral as upon his physical growth. Moreover, many crèches include a school for mothers, where they may learn the "mother-craft" in which so many women of the working classes are lamentably deficient. Mother-craft is more or less a lost art with a large proportion of the present generation of women; and it is to remedy this defect in modern education that Dr. G. Finch (whose article on the feeding of infants appears in the February number of *The Child*) suggests that the training of every schoolgirl should include a certain amount of instruction in the care of young children. The same number also contains an interesting account by Dr. David J. Williamson, of the Kensal House open-air school for tuberculous children.

It is seldom indeed that a prophet receives from his own countrymen the honour which is his just due. The consumption of frozen meat, for instance, is far greater in England than in France; and yet it is to a Frenchman that we owe the foundation of the refrigerating system. The January number of *L'Hygiène* contains an interesting account by M. Henri Meurisse of Charles Tellier's discovery of this method of preserving meat, which hitherto has found more favour in other countries than in his native land. M. Meurisse does not share the common prejudice against frozen food. On the contrary, when it has been properly stored, he considers it to be almost as appetizing and nutritious as when fresh, and offers it to his readers as a satisfactory substitute for the expensive article sold by the Parisian butcher, and a convenient solution of the house-keeping problems brought about by the scarcity of good meat and its prohibitive price in France at the present moment. French meat, as a rule, is less palatable than English. The same number of our excellent contemporary contains a short account by Dr. Maurice de Fleury of neurasthenia in childhood; whilst Dr. V. Ch. Lefèvre writes on the heating of private houses by electricity, and Madame Augusta Moll-Weiss contributes another of her series of articles on the hygiene of the home.

The study of place-names is one of the by-ways of history which, if followed with care and discrimination, may lead to conclusions far more wide-reaching than might at first sight be anticipated. It demands a strict application of the scientific method, and an intimate acquaintance with the district, and with the changes in its population and topography which have occurred in historic times. These qualities are shown in a paper on Scotter and Scotton contributed to the *Antiquary* at the end of last year by Dr. T. B. F. Eminson, of the former place. Both villages are in West Lindsey, a part of Lincolnshire extending from the east bank of the river Trent to the foot of the Cliff Hills. There is probably no part of northern Europe which promises better results from the study of place-names than the eastern side of England, for the inquirer may hope to throw light on the history of the successive invasions, how far they were mere raids and how far colonizations, and on the lines of traffic and the social organization of the people in the early days of our history. "Scot" occurs in a good many place-names in Lincolnshire, more, Dr. Eminson says, than in any other midland, perhaps than in any northern county. The prefix has nothing to do with the Scots or Scotland. It is really "cott" or "cote" with a contracted prefix which, he argues, signifies south. "Cott" is an Anglian word denoting a habitation, temporary or permanent, for man or animals, and survives in "dovecote." It was applied to the cotes or cotts of outlying cottars, and hamlets; it seems to have been extended to villages, but the proper term for a village was "tun," and the word is, or was until recently, applied in East Yorkshire and Lincolnshire to the smallest village. Dr. Eminson is able to show that Scott was once (*temp.* Henry VIII) Secotton, and maintains that "Se" is a contraction for "South," being led thereto, apparently, by the situation of Scotton and Scotter in relation to the river. Scotter appears in Domesday Book as Scotere, which we gather is to be dissected as S-cote-re, meaning South-cote reach (of the river); in support of this interpretation the fact that the surname Scotrick occurs in Lincolnshire is mentioned. From these beginnings Dr. Eminson launches out into an interesting discussion of the meaning of other place-names in the neighbourhood which he thinks—and he supports his opinion with many ingenious arguments—throw light on the lines of traffic in Roman and early English times. The district lay between the waterway of the Trent and the roadway of Ermin Street. The river and its tributaries, then navigable to a much greater distance from the main stream than to-day, formed the link which connected Doncaster and southern Yorkshire with Ermin Street. The traveller would take boat on the west bank of the Trent at Butterwick—in Domesday Book, Butrewic, which is to be interpreted "boat reach village"—and pass east to somewhere near the foot of the Cliff Hills along which Ermin Street ran.

Messrs. J. and A. Churchill are about to publish a book entitled *The Difficulties and Emergencies of Obstetric Practice*, by Mr. Comyns Berkeley and Mr. Victor Bonney, Obstetric and Gynæcological Surgeons to the Middlesex Hospital. The book will contain a large number of original illustrations by an artist who is himself a medical man. The same publishers have just ready the sixth edition of *A Short Practice of Midwifery*, by Dr. Jellett, Master of the Rotunda Hospital, Dublin. The new edition is to be issued with a larger page; it has been revised throughout and contains many new illustrations. The popularity of the book is evident by the fact that 20,000 copies have been printed.

THE Permanent Committee of the International Congresses of Medicine gives notice that three prizes will be awarded during the International Medical Congress in London next August. The Moscow prize of 5,000 francs, instituted in commemoration of the twelfth congress, which was held in that city, is given for the best work done in medicine or hygiene or for distinguished services in the cause of suffering humanity. The Paris prize of 4,000 francs, founded at the thirteenth congress, will be awarded to the person judged to have made within the last ten years the most important original contributions to the advancement of medicine, surgery, obstetrics, or to anatomy or biology in their applications to medical science. The Hungary prize, which was established by the sixteenth congress at Budapest in 1909, is awarded for some work in medical science which has been published in the interval between one congress and the next. This prize is of the value of 3,000 crowns. The Permanent Committee is prepared to receive suggestions to guide it in the award of these prizes. Communications, which must reach it before June 1st next, should be addressed to the committee at 10, Hugo de Grootstraat, The Hague, Holland.

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THE REFORM OF THE HOSPITAL OUT-PATIENT DEPARTMENT.

The attention of the profession has been so entirely concentrated on the Insurance Act that other matters, even those in which in normal times it is most interested, have received scant notice. Thus it was that the Report on Hospital Out-patient Departments, issued in July last by the Committee of Enquiry appointed by King Edward's Hospital Fund, received comparatively little attention. It is, however, a most interesting and important document, especially to members of the British Medical Association, for it is a striking endorsement by the most important hospital authority in this country of the views arrived at by the Association after a good many years of patient and apparently hopeless work. We would urge those who are interested in this subject to read in the Supplement to this issue, first the Memorandum of evidence placed by the Association before the Committee, and afterwards the Report of the Committee.

The question of hospital abuse, which has always been largely a matter of abuse of the out-patient department, has occupied the attention of several generations of medical reformers, and after the reorganization of the Association in 1903 it became one of the chief items in its programme. Gradually, year by year, from 1905 onwards, the Representative Body built up its policy, partly by discussion in the Divisions, in Committees, and in the Representative Meeting, partly by conferences between the Association and representatives of the hospitals. The aim of the Association to elevate the out-patient department from its present position as a mere casual dumping ground for all kinds of complaints, from the most trivial to the most severe, to its proper place in the organized medical service of the nation, steadily gained acceptance amongst those whose opinion was best worth having. But individual hospitals, although they might be convinced, were afraid that if they took isolated action they would suffer in the competition which is such a marked feature of the hospital world. To cut down the numbers swarming into the hospitals was to abandon the most telling appeal to the charitable but unthinking public—no case ever refused, so many thousand more patients relieved than last year. A lead was required. When in January, 1911, the governors of the King Edward's Fund appointed their Committee the Association gladly took advantage of the opportunity of placing evidence before it, for, apart from the power of the purse which the Fund exercises over so many of the London hospitals, there is no doubt that any decision taken by the Fund as to the principles of hospital management will have far-reaching influence.

The Report of the Committee is almost entirely in consonance with the principles the Association has enunciated, often, indeed, the very words of the Association are used. The Report states plainly that the out-patient department is not a fitting place for the treatment of trivial complaints, and that these should be sent away untreated except where it is deemed necessary to give first aid. It declares that the most appropriate function of the hospitals is to act as specialist and consultative agencies. It acknowledges that the out-patient departments are at present competitors with general practitioners and provident medical institutions for the attendance on persons suffering from ordinary ailments and quite able to pay small fees. It declares that the out-patient department as at present conducted hinders the establishment of provident medical services and so discourages thrift, and that the overcrowded department tends to hurried diagnosis and superficial treatment. The Committee concurs in the recommendations of the Association that the use of subscribers' letters and the system of payment by patients should both be abolished.

The Association long ago formed the opinion that the out-patient department should be a centre at which the very best medical and surgical advice should be available for those cases which could not get it elsewhere, and that this advice should be given in co-operation with the outside medical attendant of the patient, not merely in the interests of the general practitioner, but in order that the medical service of the poorer classes should be improved, and some order evolved out of what is at present chaos. Every person should have an ordinary medical attendant, either his private doctor or one attached to the provident organization of which he is a member, or, if he is too poor for this, then the parish doctor. Practitioners should be encouraged to send up their difficult or obscure cases to the hospital, secure in the certainty that the case would either be referred back to them with the opinion of the hospital expert, or, if thought advisable by the two doctors concerned, retained at the hospital for some form of treatment not available outside. The acceptance of these ideals involved, in the opinion of the Association, the acceptance of the proposition that, with the exception of emergency cases, no patients should be received at the out-patient departments except those sent there on the recommendation of an outside practitioner.

While the Committee thoroughly endorses the view that the ideal system is that outlined by the Association, it is not convinced that the selection of patients for the department can be safely left to the general practitioner alone, and, while recognizing the necessity of encouraging his co-operation to the fullest extent, is of opinion that a large development of the almoner system is essential. It will be seen that the views of the Association and the Committee are by no means incompatible. They overlap, for while the Association would rely chiefly on the co-operation of the general practitioner and would employ the almoner as an auxiliary, the Committee in its scheme puts the almoner first, giving that official various important duties, one of which is the development of the co-operation with the general practitioner. We are not convinced that the almoner system will do all that the Committee hopes from it, and we believe that the full development of the efficient out-patient department depends much more on the help of the general practitioner than the Committee yet realizes, but only experience will show the relative usefulness of the two methods. We shall not quarrel over their comparative importance, and we would welcome a thorough trial of the recommendations of the Committee just as they stand. We heartily congratulate Lord Mersey and the Bishop

of Stepney on a sound piece of work, destined, if not pigeon-holed, to be of great public usefulness.

The next step rests with the King Edward's Hospital Fund. It is believed to be watching the new hospital developments which are taking place under the stimulus of the Insurance Act before taking action, and a certain amount of delay is justifiable, for the action of St. Bartholomew's Hospital, followed as it has been by many other hospitals, is doing much to exclude unsuitable cases from the out-patient department. But this action will only exclude unsuitable cases among insured persons, who are in a minority in most out-patient departments. We trust that King Edward's Fund will not follow the example of Parliament as regards too many of the reports which are presented to it by commissions and committees, but will shortly proceed to exercise its persuasive powers with the hospitals to which it gives grants. The Fund has a great responsibility in this matter, for in the eyes of the public it stands for co-ordination and economy with efficiency. If the waste of money through the misuse of the hospitals, their overlapping and competition, could only be brought home to the public, the difficulties of raising the large annual sum necessary for the upkeep of the London hospitals, already formidable, would become unmanageable. For the Association the report of the Committee, following as it does on the emphatic endorsement of the hospital policy of the Association by the majority of the Poor Law Commission, is a most encouraging recognition of its past work and of the soundness of the principles which it has evolved and adopted.

IMMEDIATE OPERATION IN APPENDICITIS.

"Is the best result in the treatment of appendicitis to be obtained in the greatest number of cases by immediate operation or by temporizing?" This was the question put by Mr. Edmund Owen to the Medical Society of London on February 10th. His answer and the answer of all who took part in the discussion, it will have been seen from the reports published last week, is in favour of immediate operation—that is, operation as soon as the diagnosis is made, within the first twelve hours of illness if possible.

The appendix region is the seat of many surgical surprises. A case may present almost typical symptoms of inflammation of the appendix, and yet the appendix may be found to be practically normal; on the other hand, a case may present an extraordinary absence of definite symptoms, sometimes absence of symptoms altogether, and yet at operation the appendix may be found on the verge of gangrene. It is on this account that waiting for the "quiet stage" is condemned. There is, in the pathological sense, essentially no such thing as the quiet stage, Mr. Owen thinks the term unfortunate, for though there are cases in which the clinical evidences appear to subside, no one can tell with certainty what is then really going on inside the abdomen. Unless we see, we cannot know whether the inflammation has subsided, whether the appendix is "walled off," or whether the pathological process is about to hurry on to enter a worse stage. Is there, then, danger in waiting? Is it better to take a little increased risk by waiting in some few cases rather than subject many patients to unnecessary operations? To that the reply made is that the surgeon who waits cannot measure or control the risk to which he is subjecting his patient. Delay of a few hours may be, and often is, harmless, but it may prove to be fatal. There is no need to rush the patient into an operating theatre for a simple right iliac colic, but let him be seen again in a short time—that is, in a few hours, repeatedly, if need be, and the diagnosis will usually become established. But if doubt still exists, a small exploratory incision can be made with almost perfect safety, and "that small incision is part of the scheme for arriving at a sure diagnosis." Mr. Owen does not think that it is a terrible calamity that an incision should be made to explore a suspected appendix and nothing found wrong. It is far better to make that kind of mistake and make certain of the patient's safety than to wait for signs and symptoms of such definite kind that, though the diagnosis is perfectly certain, the result of the operation is not. Mr. Owen would have us "Look and see" as early as possible. It must never be forgotten that there may be comparative absence of clinical evidences in the presence of advanced and perilous disease. The pulse and temperature may be normal yet the appendix may be gangrenous or perforated; there may be no fullness, even no rigidity in the right iliac fossa, there may be very little local tenderness, the patient may be actually cheerful and inclined to chaff the doctor. It is in these "stealthy cases" that the precious hours are so often lost.

Surgery will probably never become amenable to fixed rule. But fixed rules appeal to all men: we seek guidance, we hope for relief from responsibility. Here, then, is the rule for the treatment of appendicitis which Mr. Owen and every surgeon who took part in the discussion in the Medical Society have been driven by their own experience to adopt: Have the inflamed appendix removed as soon as you know it is inflamed; if your diagnosis is uncertain, see the patient frequently till it is certain; if you are still in doubt ask a surgeon's opinion, and even then if doubt exists let an exploratory incision be made rather than wait longer.

In the animated correspondence on "Appendicitis—and Quickness," in the Journal in the early part of last summer, and in the debate on appendicitis in the Surgical Section at Liverpool in July, the preponderating weight of opinion was in favour of operation as soon as the case was known to be indubitable appendicitis. So far as we remember, the only opinion in favour of temporizing was that of Sir George T. Beatson, an able and earnest controversialist. His views are crystallized in a paper in the November issue of the *Glasgow Medical Journal*. In discussing "Three Hundred Consecutive Cases of Appendicitis," he says that it is not sufficient to make a simple general diagnosis of appendicitis, but that with care and experience the type of attack may be recognized and the line of treatment suitable to it decided upon. He recognizes that cases of general suppurative peritonitis, whether developing quickly or spreading from a local focus, require immediate operation. But "all the other types of acute appendicitis are best dealt with by the expectant method of treatment—unless a collection of pus points externally when it is opened—and operated on when pulse, temperature, and blood count are normal—that is to say, when they are in the quiescent stage." He says further: "If the presence of a local abscess is indicated by a high blood count the operation is postponed till it becomes normal or sufficient time has elapsed to allow the pus to lose its virulence; clinical experience has shown that this comes about in three weeks." In his opinion the teaching that a localized intraperitoneal abscess should be at once dealt with is

wrong and responsible for many deaths; this localized abscess should be given time to form adhesions to the parietal peritoneum. These opinions, in which Sir George Beatson finds little support from other surgeons of experience, he supports by his statistics. Excluding interval cases and cases with general suppurative peritonitis, in 164 cases, 69 of which had localized abscess, the death-rate was only 2.4 per cent. But Mr. Grey Turner's statistics on the other side seem equally convincing. In 130 cases of acute appendicitis with localized peritonitis the mortality was 2.3 per cent. Sir George Beatson's success is due in great measure to the fact that his cases are kept under highly-trained observation and very carefully nursed. But it cannot be ignored that if his views were generally accepted practitioners in family practice would be tempted to keep the patients too long at home, and so often to court disaster. If we were all possessed of Sir George Beatson's experience and ability to tell the type of attack, we might trust ourselves to see the patients safely through the present illness, but the family practitioner's first duty is to see the appendix case safely into the hands of the surgeon at the earliest possible moment. Then, again, the factor of length of illness must be taken into account. In Sir George Beatson's cases operation may not have been performed until three weeks after admission; by that time most cases leave the hospital.

It seems to us that Mr. Stiles's convincing speech at the Surgical Section in Liverpool carried the truth with it when he said that we must give up our old fear of the peritoneum, that the incision should be big enough to make sure of finding the appendix, *fons et origo mali*, and that in ether as anaesthetic, the Fowler position, and the administration of saline solution in the after-treatment we possess agencies powerful enough to combat and conquer the risks of immediate operation.

A NEMATODE IN RAT CANCER.

There can be no doubt that the investigations reported to the Medical Society of Copenhagen on January 7th, by Dr. Johannes Fibiger, Professor of Pathological Anatomy in the University of Copenhagen, are a very notable contribution to our knowledge of the etiology of cancer. It has, therefore, seemed well to publish elsewhere in this issue (p. 400) a full account of the observations recorded in a paper he published in the *Berliner klinische Wochenschrift* for February 17th; a further and fuller report is to be published later in the *Zeitschrift für Krebsforschung*. Meanwhile, however, the paper already published is sufficiently detailed to show that Professor Fibiger, by a long series of most careful and painstaking researches, during the prosecution of which it is clear he has been fully alive to the many sources of fallacy by which the subject is beset, has been successful in showing that a certain nematode, a new species belonging to the genus Spiroptera, has an intimate connexion with gastric carcinoma of the rat and that the cockroach is the intermediate host of this parasite. In discussing the results of his researches he cautions his readers against applying to man conclusions which he has proved to be highly probable for rats, and he observes that while some evidence has been brought forward at various times tending to prove that helminths may play a part in the causation of human cancers, this part may be quite a minor one, and that, in spite of the work of Klopsch in 1863, and of Langenbeck, Linstow, Babés, Groth, and Strandgaard, we do not yet know what the relation is between trichinae and carcinoma.

Professor Fibiger tells his story in a quiet and unsensational manner. It goes back to 1907, when he came across three rats from the same cage with marked papillomatous changes in the stomach which proved to be fibro-epithelial tumours, and were thought to be probably malignant, though attempts to transplant these tumours into other rats failed. On microscopic examination of the stomach of the three original rats he noticed in the epithelium of the affected parts round or oval spaces close to the stratum corneum. Some of these spaces contained small bodies presenting a complicated structure which suggested sections of a parasite containing eggs. Every one must admire the skill and patience with which Fibiger set himself to, as it were, reconstruct those parts of the tumours from his serial sections so as to ascertain the nature of these bodies. Eventually he was able to satisfy himself that what he saw were sections of a nematode about 1.6 cm. (about $\frac{3}{4}$ in.) long and about 0.25 mm. in diameter. The nematode contained eggs, and in the eggs were band-shaped embryos rolled up into a coil. His next step was to determine whether this gastric lesion in rats was rare or common. Upwards of 1,144 rats were examined; but although other stomach lesions and other parasites were found, the peculiar form of tumour and this special nematode were not met with in a single instance. He concluded that this gastric carcinoma was rare in Danish rats, and he succeeded in ascertaining that the three rats in which he had originally found it came from Dorpat. He argued that if the nematode had a causal relation to the disease it must have an intermediate host. Galeb had stated in 1878 that the common host of *Filaria rhytipleurites*, which infests the stomach in rats, was a species of cockroach, *Periplaneta orientalis*, and Fibiger accordingly turned his attention to this common object of the town scullery. His first experiments yielded only negative results. From rats in a sugar refinery infested by another kind of cockroach, *P. americana*,* however, he got positive evidence; 61 rats were caught, and in the fundus of the stomach of 40 of them nematodes were found, corresponding to those seen in the three original rats. In 18 of these 40 rats there were changes in the stomach which might be interpreted as due to an early stage of tumour formation, and in 9 cases there were tumours identical with those found in the three original rats. This confirmed the opinion that the association of the nematode with tumour formation was not accidental. He thereupon selected 4 wild and 53 laboratory rats which had not been in contact with cockroaches, and fed them on the American cockroach for from five to twenty-five days. Only 3 rats were found after death to be free from the nematodes, and 36 of the 57 showed changes in the stomach, while 7 of them presented tumours identical in character with those in the original three. He next sought and found the nematode in the bodies of the cockroaches. He found also that the other species of cockroach—*P. orientalis*—was easily infected with the nematode by feeding on the ova or on the excreta of infected rats. The embryos were found in the striped muscles of the prothorax and extremities of the cockroach.

The nature of the stomach lesion was studied in 118 rats, 61 from the sugar refinery, and 57 experimental animals. Spiroptera were present in 94, and

* *P. orientalis* and *P. americana* are two of the three commonest species of cockroach.

in 54 there were anatomical changes the extent and nature of which varied, possibly in relation to the number of parasites and to the duration of infestation. At any rate in four rats, which lived from 214 to 275 days after feeding on the cockroaches, the tumours had a carcinomatous structure. In two of the four there was metastasis in the lungs and retroperitoneal glands; in a third there was a tumour in the bladder, which may or may not have been metastatic. Nematodes were not found in the secondary growths.

If, as seems inevitable, we accept the conclusion that the nematodes stand in causal relationship with the tumours, the question how the parasite produces this effect arises. Professor Fibiger discusses the hypotheses that the nematodes act as carriers of a bacterial infection, or merely as irritants, but arrives at the conclusion that the facts he has observed are in favour of the hypothesis that the nematodes have a specific effect. This, he suggests, may be due to a toxic action, such as is known to be produced by other nematodes; one piece of evidence in favour of this view is the appearance of eosinophile cells in excess. If further investigations should establish the theory of a specific connexion between nematode and cancer, then Professor Fibiger's prolonged, ingenious, and careful researches will prove to have even greater importance than they can at present with certainty be held to possess.

THE INQUIRY ADDRESSED TO REGISTERED MEDICAL PRACTITIONERS.

There are doubtless many reasons why members of the profession, after the long and strenuous fight against heavy odds for the amendment of the conditions of medical benefit under the Insurance Act, should feel disinclined to answer more questions, but it is very desirable that all should answer the list of questions sent out by the British Medical Association about ten days ago. It is, we fear, too true that the life of many medical practitioners has been made a burden by the recent excess of clerical work in the shape of signing "strawberry" cards, day-book entries, triple prescriptions, and all the other things demanded of the Act and regulations, and it is easy to appreciate the disinclination to incur further trouble. The regulations with regard to clerical work are now to be modified, and the amount will be reduced; and, in any case, this is not the time to give way to slackness, or to appear to encourage a policy of inactivity. It is above all things necessary that the profession at the present juncture should be alert, steady, and courageous, and do everything in its power to supply the information without which those who are watching over the interests of every member cannot act with the confidence which full information will afford. It is essential that the central organization of the British Medical Association should at an early date learn the views of those who are working the Act, and also the views of those who have not undertaken to do so. The necessary information can only be obtained if each man will do his duty in this respect, and every member can now help by sending in replies to the questions; they can be answered in a few minutes, and should be answered at once.

LOCAL MEDICAL COMMITTEES.

We desire to call special attention to the resolutions of the State Sickness Insurance Committee of the British Medical Association adopted on February 20th, and printed in full in the Supplement (p. 197). The Committee is anxious to obtain information with regard to the constitution and action of Medical Committees and the names of medical members of Local Insurance Committees, whether directly elected by medical practitioners in the locality or otherwise appointed. The Committee is anxious also to have information with regard to the action taken by Local Medical Committees, and reports of their proceedings will be published in the Supplement. If received not later than Tuesday in each week, it will as a rule be possible to publish a report in the issue of that week.

NAVAL MEDICAL OFFICERS AND CORONERS' INQUESTS.

Early in 1909 the attention of the British Medical Association was called to an Order of the Admiralty, issued in June, 1907, prohibiting naval surgeons from accepting fees from coroners for evidence given at inquests and for making *post-mortem* examinations, although the officers were left under the statutory obligation to give such evidence and make *post-mortem* examinations when so ordered by a coroner. In April, 1909, the Association submitted a memorandum upon the question to the Admiralty, pointing out the anomaly and injustice created by the Order and the fact that a similar disability was not imposed on officers of the Royal Army Medical Corps. The Admiralty, however, declined to depart from its previous decision. No further action was taken until March, 1912, when, evidence being forthcoming that the Order was the cause of considerable dissatisfaction in the service, a further memorandum was sent reiterating the previous arguments of the Association in favour of the abolition of the Order and informing the Admiralty that it was causing quite unnecessary irritation to the officers concerned. In August, 1912, a revised form of the Order was issued, which stated that a naval medical officer attached to a naval hospital could accept fees for giving evidence or making a *post-mortem* examination if the death did not occur in the hospital. The Council of the Association thereupon made further representations to the Admiralty, expressing its appreciation of the fact that the authorities had shown their readiness to reconsider the matter, pointing out that the new Order contained quite unnecessary limitations, and urging that naval surgeons should be placed on exactly the same footing as other members of the medical profession. The matter has now been reconsidered by the Admiralty, and a communication has been received by the Association to the effect that although the Lords of the Admiralty are advised that the Coroners Act, 1887, does not apply to naval medical officers serving on His Majesty's ships, in order to avoid further controversy on the subject they have decided to reissue the Order relating to this matter in the following form: "When called upon under the Coroners Act of 1887 to act at an inquest, a naval medical officer may accept the usual fees tendered to him by the coroner for his services." Thus a source of grievance to the naval medical service, which though small was irritating, has been removed, and we may congratulate all concerned—those naval officers who, feeling it to be their duty to try to get this anomaly removed, made representations to the Association, the Association for its persistency, and the Admiralty for its frank recognition that the old position was untenable.

THE INDIVIDUALIZATION OF THE INEBRIATE.

It has been urged by many who scarcely realize the nature of the material with which inebriate homes deal, that the results obtained by the homes are not commensurate with their cost. An American physician, Dr. Irwin H. Neff, in a paper[1] read at the International

[1] *The Problem of Drunkenness.* By Irwin H. Neff, M.D. *Boston Medical and Surgical Journal*, December 26th, 1912, p. 911.

Congress of Hygiene and Demography, held at Washington last September, maintained that the want of provision for segregating different types of inebriates explained the poor results. He describes the system adopted at the Massachusetts Hospital, with which he is connected. He regards drunkenness as a form of nervous weakness, not sufficient, however, to absolve the patient from working out his cure in co-operation with the physician. Each inebriate is a study: in each the personal equation is the dominant feature, and to throw inebriates together indiscriminately is to lose the opportunity for individual study. In Massachusetts the colony system is adopted. Cottages have been erected for "cottage grouping," and, with the exception of the receiving ward, the hospital and service buildings, or administration group, each building is detached and administered as a separate unit. Each patient having been studied in the receiving ward is drafted to the cottage group for which his temperament, social status, former mode of living, and the results desired from educational treatment fit him. Of those amenable to treatment not more than fifteen are grouped together. With a bigger group individual study and care has been found impracticable, although in the chronically incurable, the custodial group, twenty-five, are allowed. Dr. Neff claims that segregated colonies, though initially costly, are in the long run economical. It is cheaper to cure or care for an inebriate than to pay for recurring committals to prison; the sale of surplus farm produce secured by the labour of the inebriates provides revenue, and the greater part of constructional and repair work is undertaken by them. For twenty years Massachusetts has had an inebriates' hospital, and in 1911 land was secured sufficient for agricultural development, for industrial training and workshops, for segregation of diverse types, and for the treatment of both sexes. Dr. Neff's experience is that all of these objects are essential, and that the system is elastic, and permits of differentiation, segregation, and individualization. Moreover, committal to a hospital has none of the stigma of a prison sentence, whilst colonization and segregation of types facilitate the observation of contrasts in the cases, and supply what is most needed, opportunities for a scientific study of the problems of drunkenness. Dr. Neff's views are of considerable interest; his scheme is suggestive, and the profession, and especially those members of it who have to treat inebriates, will be interested to learn the results, and how they compare with those of other inebriate homes in helping to the solution of one of the most difficult of the problems which confront the general practitioner no less than the specialist.

GAUZE PAD IN PERITONEAL CAVITY.

THE somewhat lengthy annals of foreign bodies left in the peritoneal cavity are wholesome though melancholy reading to the surgeon, and Professor Doléris has reported[1] yet another instance of this unfortunate accident. The patient's first pregnancy had ended in November, 1909, in a miscarriage in the fourth month; then pelvic pains set in, and an operation was performed on November 16th, 1910. The left appendages were amputated, and the right ovary touched with the cautery. Lumbar pains continued to trouble the patient after convalescence. She became pregnant once more, and gestation went on without complication. Towards term the patient consulted M. Doléris. The head lay at the inlet, not engaged, and the fetus seemed very mobile, but the cervix was unaccountably high up behind the symphysis, and a tense, bulky mass filled Douglas's pouch. It was quite fixed, and simulated an adherent dermoid. On June 12th, 1912, pains set in, and on the following day Caesarean section was performed. The vertical incision through the uterine wall passed down along the placenta: the bleeding, however, was controlled, and a female infant, over 6 lb. in weight, delivered. The placenta was extracted and the uterine wound sutured. The uterus was then drawn forwards, and it was found that a sheet of false membrane united the back of the uterus to the colon, omentum, and loins. The surface was quite smooth, simulating normal peritoneum. The right appendages were small and healthy. On carefully opening the sheet by scissors after the liberation of some adherent bowel and omentum, a quantity of thick pus welled up, and a gauze pad was discovered, filling Douglas's pouch. When removed and laid out flat, it was found to measure nearly 6 in. in diameter. The inner surface of the sheet of false membrane, where it came in contact with the pad, was lined with fine granulations. Doléris, finding the conditions so different to what had been expected, removed the uterus and placed a drainage tube in Douglas's pouch. The patient's condition was bad for several days; a rash-like urticaria appeared on the second day, but disappeared within twenty-four hours. The right parotid gland became tender on the fourth day, but subsided; on the next day the fluid in the dressings was faecal, no doubt, Doléris admits, owing to damage of the rectal walls by the tube. A smaller drain was inserted into Douglas's pouch. On the ninth day, when the report was concluded for publication, the patient seemed to be doing well, but a little turbid fluid still issued from the drainage tract. It is remarkable that the forgotten pad gave rise to no symptoms until the end of the pregnancy. Many methods are practised by skilled operators for avoiding oversights of this kind. Wakefield of San Francisco suggests the employment of continuous fixed gauze sponges,[2] and has entirely discarded the use of loose sponges in abdominal surgery. He employs long folds of gauze each packed in a bag. One end is stitched to the bottom of the bag, the other is left free at the top; thus the fold forms a continuous sponge which is pulled out little by little as required. Two sizes are found to be quite sufficient. The sheet applied to the abdomen contains three pockets, one on either side at the upper border of the oval opening cut in the sheet for exposing the abdominal walls around the area of operation. Into this pocket is fastened the bag containing the broader sheet of gauze which is used for packing back the intestines or walling off local infective areas. In each side pocket is fastened one of the narrower strips which is used by the operator and his assistant for keeping the field clear of blood or doing any work where a sponge is needful. The pockets in the laparotomy sheet are much wider than the sponge bag, and the used-up part of the sponge is tucked away in the pocket, leaving a clean portion of the strip always under the operator's fingers ready for use.

[1] *Bulletin de la Soc. d'Obstét. et de Gyn. de Paris*, etc., 1912, p. 771.

HUMAN INFECTION BY DOG MANGE.

DR. A. WHITFIELD AND MR. F. HOBDAY, F.R.C.V.S., have contributed to the *Veterinary Journal* an interesting practical note on the transmission of the sarcoptic mange of the dog to man. It has long been known that this may happen, and the main point of the paper is to call practical attention to the fact that it occurs pretty frequently. The writers have seen seventeen cases, and Dr. Whitfield has met with five in ordinary private practice. All parts of the body may be attacked, the eruption produced being vesicular in type. The individual lesion is a very small and rather thin-walled vesicle, rather smaller than the ordinary eczema vesicle, and surrounded by a narrow zone of hyperaemia; the primary lesion, it is stated, is very like that of varicella, but of only about one-eighth the size. The lesions are scattered discretely over the surface, and in no case have groups or aggregations been seen. The scratching of the patient—for

[2] *Amer. Journ. of Obstet.*, October, 1912, p. 549.

the rash is intensely pruritic—leads to the decapitation of the little vesicles, and their original site then becomes covered with either a serous or a blood scab. No burrows are to be seen, and hence it is extremely difficult to find the actual parasite. Cats are subject to the same parasitic disease, and in a recent instance the transmitted disease in the human being was sufficiently characteristic to lead to a diagnosis in the cats, though the disease was not well marked in them; the diagnosis was confirmed by the demonstration of the acarus in a crust taken from one of the cats. The ordinary treatment for human scabies is quite efficient, and the disease shows less tendency to relapse, probably because the dog acarus does not form burrows. That there is considerable practical value in the observation is proved by the fact that in one of the five cases mentioned above as having been seen in private practice the patient had had the disease three times at short intervals. He had been treated for scabies, but inquiry showed that his dog had what was called eczema.

ARTERIO-VENOUS TRANSFUSION IN PUERPERAL HAEMORRHAGE.

SALINE transfusion has saved numerous lives without doubt, but it has its disadvantages, and is not prompt enough in its action when the patient is in a desperate condition from sudden loss of blood. Professor Oui, of Lille,[1] states that he has attended a large number of cases of flooding, and has often availed himself of intravenous saline injections. Yet they never in his experience produce the immediate change for the better in pulse and general condition which he has noted after arterio-venous transfusion. On that account he employed the latter in a recent case. A young woman who had borne five children to term, all delivered spontaneously, became pregnant once more, and symptoms of disease of the right kidney developed. Much pus came away in the urine. She was placed on the usual lacto-vegetarian diet and urotropin, and other antiseptic drugs were given, without any general benefit or improvement in the character of the urine, and anasarca of the lower extremities developed. The patient did not strictly carry out the prescribed dietary. Close on term a slight haemorrhage occurred, M. Oui, who was sent for, found the fetal head presenting; a quantity of blood and clot came away, and the membranes were ruptured. The head became well engaged in the pelvis, but the uterus grew bigger and harder. The head was delivered, but there was difficulty in disengaging the shoulders. At length the child, a big male, was delivered alive, but it soon died. Very copious flooding followed extraction; the placenta had become completely detached, and M. Oui emptied the uterus of clots, and threw a hot water injection into its cavity. The uterine walls immediately contracted; but the patient's condition was very bad. Ether, caffeine, and camphorated oil, and later 500 c.cm. of saline fluid, were injected. Only temporary improvement followed, and M. Oui determined to transfuse by the arterio-venous method. The patient was a lady living in a house over twelve miles from Lille. M. Oui telephoned for his colleague M. Lambret. While awaiting his arrival M. Oui administered alcohol freely, and injected camphorated oil and ether, but the patient became quite unconscious. When an hour and a half later Mr. Lambret arrived, the husband's right radial artery was anastomosed with the patient's right median cephalic vein. Local anaesthesia was employed for the husband. In about five minutes the patient's lips became coloured, the pulse was again perceptible, and the eyelids opened. The radial artery of the husband underwent spasmodic contraction occasionally, and the transfusion was continued for nearly an hour without any sign of syncope on the part of the giver. At the end of the administration of arterial blood the patient's condition had greatly improved. The pulse was 130. The anastomosed vein and artery were resected a little above the line of suture, and no contraction or coagulum could be detected. Convalescence was protracted. The symptoms of pyelonephritis continued, urotropine was given and albumen disappeared from the urine, but oedema of the lower extremities did not entirely subside. The patient went to the baths of Evian and returned free from oedema, and excreting perfectly clear urine. M. Oui states that his is the first case in which arterio-venous transfusion has been practised in France for *post-partum* haemorrhage. It should, he thinks, be performed unhesitatingly in very acute cases.

[1] *Annales de gynéc. et d'obstét.*, November, 1912, p. 617.

A BARBER-SURGEON OF TO-DAY.

THE association of shaving with surgery was not peculiar to the France and England of a few centuries ago, and it still persists here and there in semi-civilized countries. Thus Commandant G. Reynaud, in describing the way of life in Morocco to-day, says that the barber-surgeon flourishes there, in a humble way indeed, and on very modest fees. His tent is part of the picture of a Moroccan market. The nomad, from the nature of his mode of life, does not frequent shops, and a shop is an institution unknown to the ordinary Moroccan village of the more settled parts. Every household sends some of its number to market weekly, and the expedition seems to be the one distraction in the life of the women. Commandant Reynaud describes the market of Sok-el-had in the neighbourhood of Melilla. It draws the peasants from twelve miles round; the man rides the mule to market, the woman drives the laden ass. Some 2,500 families depend on this market, and its weekly turnover may amount to as much as £3,000. The market-place is not in a town, but in the open country, a bare patch some forty acres in extent, where the regular traders set up booths and tents for the day. Everything is sold, from mint tea to butcher's meat. Mint tea well sweetened, it seems, is a beverage in which the Moroccan is ready to indulge at any hour. In one part of the market are sheep for sale, and hard by sits a Jew in the classic kaftan and a black fez, with his collection of trinkets and brooches spread out before him; "a little further on the Moorish doctor squats in a small tent; he combines with his medical functions those of a barber, and shaves or bleeds indifferently. The fee for a consultation is one sou, but for blood-letting, which is a favourite remedy, four sous. Not far off is the temple of Themis, a wooden shed, where the Kaid sits to administer justice," and so on. In a recent lecture on the mysteries and crafts of Morocco, Mr. H. J. B. Ward, B.A., gave an account of the people illustrated by lantern slides, showing all the principal arts and crafts of the country, town architecture, markets, streets, and bazaars, with their sorcerers, snake charmers, and conjurors. He described the position of women, who are the playthings of the rich and the hard-worked servants of the poor, and concluded by a detailed account of the slave market at Marrakesh, one of the very few open slave-marts now left in the world. "Whether we agree or disagree with the general policy of the French in annexing the land of a people to whom they are totally antipathetic," he said, "every friend of humanity must rejoice at the inevitable sweeping away of such revolting spectacles as these."

SANITARY PROGRESS IN INDIA.

AN important blue book has recently been presented to both Houses of Parliament on the Progress of Sanitary Measures in India. It contains valuable information on the discussions and researches which have in recent years taken place in India, having in view the prevention of malarial and other destructive diseases, and the development of sanitary administration. It is impossible to

summarize within reasonable compass the 245 folio pages composing this volume, or to do otherwise than briefly indicate its contents. Most of the matters have, indeed, been noted in the JOURNAL from time to time. The first 97 pages are devoted to a full report of the "Imperial Malaria Conference" held in Bombay on October 12th to 18th, 1909, at which the subject was very ably and exhaustively treated in a series of papers and discussions, and resolutions regarding future action were formulated. The proceedings of a second meeting of the General Malaria Committee, held in Bombay on November 16th and 17th, 1911, are printed in succession, and indicate that the points mooted at the first meeting had received practical and useful attention. More extensive in scope were the transactions of the "All India Sanitary Conference" held in Bombay on the 13th and 14th of the same month. The subjects discussed at this conference were urban sanitation, congested areas and town planning, water supply, conservancy and drainage, rural sanitation, food supplies, adulteration of food and drugs, registration of vital statistics, water analysis, infantile mortality, plague and other epidemic diseases. This enumeration will suffice to show how wide an area of sanitary work these proceedings covered. Appended to the report of the conference are the reports and papers which constituted the foundation of the discussions. Finally, this Blue Book contains dispatches touching sanitary organization in India, the purport of which has been indicated in the JOURNAL at the time of their first publication. The contents of this volume by no means belie its title, and no better or more practical evidence of the sincerity and reality of the endeavours which the Indian Government is making in the matter of sanitation can be offered than the concluding sentence, which states that "during the preceding two years the imperial grants for sanitation have aggregated 181½ lakhs (£1,210,000), and for research work 15 lakhs (£100,000)." These grants were in addition to the very considerable sums expended by local governments, municipalities, and district boards.

THE BOARD OF TRADE AND SIGHT TESTING.

THE letter by Dr. F. W. Edridge-Green, published in the JOURNAL of February 8th, is well worthy of serious consideration. It will be remembered that a Departmental Committee was appointed in 1910 to inquire into the question of the sight tests as applied to seamen and engine drivers. Their findings were printed last year, and in commenting on them (August 17th, 1912, p. 390) the opinion was expressed that the report was not satisfactory, and that the measures recommended would fail to bring about any real improvement in the visual tests, especially those for colour blindness. Dr. Edridge-Green states that he has had the opportunity of examining the instruments which have been provided on the strength of the report. He finds that in the test for form vision the letters are "printed on canvas, to which a piece of wood is attached. In the normal position this rolls up at the bottom, and has to be held down by the examiner." Inasmuch as this can never really hang straight, it is bound to cause distortion, so that the possession of a certain amount of astigmatism by the candidate might be a positive advantage to him, and it would anyhow render the letters far more difficult to be read by a normal eye than if it were mounted on a stiff background. A distant test of this sort should be arranged so that each letter should form a known angle on the retina, but this would vary with the amount of concavity or convexity which must be present if such a sheet be kept rolled up when not in actual use. Any device more certain to give fallacious results would be difficult to imagine. The wool test, in spite of the modifications suggested, does not seem to have been improved, and as regards the lantern it is quite as bad as we predicted it would be when we saw its description in the report. There is no means of modifying the light, and the only lights it shows are white, red, and green, so that candidates would quickly get to know this, and a man must be very defective in colour vision to be detected by this means: further, the examiners are told to show the lights individually to the candidates before they are asked to name them; such a lantern used in this way could only bring this most useful test into disrepute. Evidently we cannot hope for any serious improvement at present in the results which the Board of Trade publishes of their vision testing.

THE HUNTERIAN FESTIVAL IN LONDON.

THE Hunterian Festival of the Royal College of Surgeons of England was celebrated on February 14th. In the afternoon the President, Sir Rickman J. Godlee, gave the Hunterian Oration, which is published in full elsewhere in this issue, and in the evening the President and Council entertained a large party of guests to dinner in the library. The guests, who were received by the President and by the Vice-Presidents (Mr. Edmund Owen and Mr. G. H. Makins), included the Presidents of the Royal College of Physicians of London, of the Royal Colleges of Surgeons in Edinburgh and in Ireland, and of the Royal Society, the Master of the Society of Apothecaries, the Presidents of the Royal Institute of British Architects and of the Institution of Civil Engineers, the Archdeacon of London, the Director of the Royal Botanic Gardens, Kew, the Directors-General of the Royal Navy and Army Medical Services, the President of the Law Society, the Treasurer of Gray's Inn and Lincoln's Inn, and the Masters of several of the City Companies. After the usual loyal toasts had been honoured and the memory of John Hunter had been drunk in silence, the toast of "The Visitors" was proposed by Mr. Makins, who, in a very happy speech, contrived to make reference to nearly every one of the distinguished persons present. The toast was acknowledged by Lord Justice Hamilton, who made the observation that the help of the medical profession to keep a man fit for his work was by many more highly esteemed than the success of its efforts to prolong life. Lord Reay, President of University College, in proposing the toast to Sir Rickman Godlee, said that the report of the Royal Commission on the University of London which was shortly to be issued would, he hoped, have the result of placing the higher education of London on a more satisfactory basis than it occupied at present. A brief response by the President brought the proceedings to an end.

ALIMENTARY TOXAEMIA.

ONE of the best marked tendencies of medical thought and observation during the last decade has been the disposition to attach increasing importance to the results of chronic infective processes in the alimentary canal. Efforts have been made to ascertain the etiological factors and to trace out the nature of the relation, if any, which the congeries of symptoms and disorders attributed to toxaemias originating from the alimentary organs actually bear to each other and to their assumed cause. Very many suggestions for treatment, ranging from intestinal antiseptics to more heroic methods, including some very drastic dietetic rules, have been made and put in practice. The subject certainly needs elucidation and is probably ripe for discussion; it will, we believe, therefore, generally be felt that the Royal Society of Medicine has done well to arrange a full-dress debate on it. It will commence on Monday, March 10th, at 5 p.m. On that day Dr. Hale White will open with a general survey. He will be followed by Dr. F. W. Andrewes, who will treat of the bacteriology of the alimentary canal, and by Dr. Vaughan Harley, who will

deal with the toxins of the alimentary canal: the consequences and treatment of alimentary toxaemia will be discussed by Professor Robert Saundby from the medical, by Mr. Arbuthnot Lane from the surgical, and by Mr. J. F. Colyer from the dental points of view respectively. The discussion will be resumed by Mr. J. B. Lawford on Monday, April 14th, at 5 p.m., and will be continued on succeeding Mondays.

We regret to record the death, on February 18th, of Sir Thomas Chavasse, consulting surgeon to the Birmingham General Hospital, and hope to be able to publish an obituary in a subsequent issue.

In memory of the late Sir William Allchin, Consulting Physician to Westminster Hospital and Physician Extraordinary to H.M. King George V. who died on February 8th, 1912, a brass tablet has been placed in the Hospital Chapel, and a replica of his portrait, painted by Sir Luke Fildes, R.A., and presented by Lady Allchin, has been hung in the Board Room, where it is believed many of his friends and former pupils will be glad of the opportunity of viewing it.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Vivisection.—On February 12th Mr. George Greenwood asked the Home Secretary a string of questions. The first referred to the memorandum signed by three of the Royal Commissioners on Vivisection in which they stated their opinion that the weight of evidence was opposed to the view that only administrative modifications were required in order to give effect to the changes which experience proved to be desirable in the law relating to experiments on living animals, and further expressed their doubt whether such modifications as were suggested in the report signed by all the Commissioners could be adequately carried out without legislation. Mr. Greenwood inquired whether legislation would be introduced in the next session of Parliament in order to give effect to such recommendations.—The Home Secretary said he had carefully considered the memorandum and the desirability of introducing legislation, and was satisfied that no legislation was necessary for the purpose of giving substantial effect to the recommendations of the Commission mentioned in the memorandum.

Mr. G. Greenwood next asked the Home Secretary whether, in view of the fact that the Cruelty to Animals Act, 1876, by statutory enactment divided the responsibility in regard to experiments on living animals, in the matter of the granting of licences and certificates to experimenters, between the Secretary of State and certain learned authorities, whereas the Royal Commissioners on Vivisection were unanimously of opinion that such responsibility should rest upon the Secretary of State alone, he would introduce legislation to amend the Act of 1876 in that respect.—Mr. McKenna replied that the majority of the Commission were of opinion that no change was necessary or desirable with regard to the present system of granting licences and certificates. He did not propose to introduce legislation on the matter. The Secretary of State had power to disallow or suspend any certificate, and the final responsibility, therefore, rested with him.

Mr. G. Greenwood also asked the Home Secretary whether his attention had been called to the recommendation made in the memorandum signed by three of the Royal Commissioners on Vivisection, and attached to the Report, that a provision should be inserted in the Act regulating experiments upon living animals, requiring all experimenters in every case in which obvious suffering of the animal had supervened forthwith painlessly to destroy such animal, and whether he would introduce legislation in order to give effect to such recommendation.—Mr. McKenna replied that the answer to the first part of the question was in the affirmative. The majority of the Commission were of opinion that the object in view could be sufficiently attained by means of the Secretary of State's power of attaching conditions to licences, and he was taking steps to carry out that recommendation. In the circumstances legislation appeared to be unnecessary.

Mr. G. Greenwood finally asked the Home Secretary whether, in the appointment of inspectors of places registered for the performance of experiments upon living animals, he would have regard to the recommendation made in the memorandum attached to the Report of the Royal Commission on Vivisection, and signed by Colonel Lockwood, Sir William Collins, and Dr. G. Wilson, to the effect that persons qualified in veterinary medicine and science ought not to be deemed ineligible for any of such inspectorships.—Mr. McKenna said that he considered that was a matter in which he ought to be generally guided by the advice of the majority of the Commission. He did not say that in no circumstances would he consider an application from a person qualified only in veterinary medicine and science, but he had invited applications from medical men, and he did not doubt that qualified candidates would be forthcoming.

Small-pox in Sussex. Mr. Snowden asked the President of the Local Government Board, on February 12th, whether he would state the number of small-pox cases and deaths that had been notified at Newhaven within the last six months and the condition as to vaccination and revaccination of each case; whether a medical inspector had visited the locality and presented a report: and, if so, what was the sanitary condition of the locality in which the cases occurred.—Mr. Burns said that in Newhaven Urban District 18 cases of small-pox had been notified, all within the last four weeks (also 2 in the borough of Lewes, and 1 in the borough of Rye), making a total of 21. The outbreak had been inquired into by a medical inspector of the Board, in collaboration with the local medical officers of health. The condition as to vaccination of the patients was as follows:

	Total.	Stated to have been Vaccinated in Infancy.	Unvaccinated.	Revaccinated.	Died.
Cases under 10 years of age	5	0	5	0	3
Cases over 10 years of age	16	15	1	2	1*

* Stated to have been vaccinated in infancy.

The inspector reported that the houses in which the Newhaven cases occurred were in a somewhat overcrowded condition. The history pointed to the infection having been introduced from abroad by a sailor.

End of the Session.—The session of the House of Commons came to an end when the House rose on February 14th. The new session is to begin on Thursday, March 6th.

DR. HERSCHEL HARRIS, radiographer to the Royal Prince Alfred Hospital, Sydney, in a recent paper in the *Australasian Medical Gazette*, states that it is generally easy to detect hydatid of the lung with the fluorescent screen, but that a skiagram should also be taken, as a collapsed cyst may otherwise escape detection. It has been possible to detect a cyst no larger than a hen's egg, and the more difficult cases are those in which the whole side of the thoracic cavity is involved. Dr. MacCormick, of Sydney, had made the important observation that if the cyst be ruptured and partly full, the shadow with the patient in the upright position resembles that of a Dutch cheese with the top cut off, the horizontal part being uppermost and this upper line remains horizontal, no matter at what angle the patient be tilted. Air is always present in the cyst. If the cyst be ruptured and empty, a crinkled shadow appears, due to the crumpled-up cyst wall. Sometimes considerable calcified areas are seen.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

WALES.

Gift for a New Physiological Laboratory in Cardiff.

At a meeting of the Council of University College, Cardiff, under the presidency of Lord Merthyr, on February 14th, the generous gift of £12,750 from Mr. W. J. Thomas, Ynishir, Glamorganshire, was accepted under the conditions which accompanied it. These were that a new physiological laboratory is to be built with the money in the Newport Road near the King Edward VII Hospital, and that the building is to commence within six months of the gift. The laboratory is, further, to be built by Colonel Bruce Vaughan, who was the architect of the King Edward VII Hospital. The Council of the College had met and considered the question previously, and had appointed an Accommodation Committee composed of those who were especially interested in the question of the new laboratory, and this committee had the advantage of the advice of Sir Isambard Owen, Vice-Chancellor of the University of Bristol. There were two currents of opinion with regard to the best site for the new laboratory. There were those who considered that it should be erected in Cathays Park with other buildings of the medical school near the university buildings. To this it was objected that the site was of insufficient extent, affording no room for future expansion, and that it would be a disadvantage to have the laboratory at a distance of about a mile from the hospital. Eventually, the opinion that it would be an advantage to have all the laboratories of the Cardiff Medical School close to the hospital prevailed, and in consequence, as has been said, the site in Newport Road had now been determined upon. Professor J. Berry Haycraft, who started an appeal for funds for the erection of a physiological laboratory less than two years ago, is to be congratulated on the success of his efforts. The munificent gift of Mr. W. J. Thomas will enable a beginning to be at once made and a laboratory to be erected which will meet the immediate needs of the Physiological Department of the Cardiff Medical School. No doubt in time extensions will be required, when it may be hoped that Mr. Thomas will find imitators.

LIVERPOOL.

The Royal Infirmary.

The committee of the Royal Infirmary has decided to appoint an additional assistant physician, as well as filling up the vacancy caused by the death of Dr. O. T. Williams.

Sanatorium Benefit.

The permanent scheme for the administration of sanatorium benefit in this area is now being formulated. It will make provision for all forms of treatment—domiciliary, dispensary, hospital, and sanatorium. Probably domiciliary treatment will be left in the hands of the general practitioner, who will have recourse to the tuberculosis dispensaries for consultation with specialists. These dispensaries will probably be formed in conjunction with the consumption hospital and the various general hospitals in the city. The hospitals will also undertake the indoor treatment of tuberculosis patients, and, if the provisional arrangements made with the consumption hospital may be taken as an indication, they will be paid 31s. 6d. a week for each person treated in the institution; of this sum 24s. will go for maintenance and the remaining 7s. 6d. to the medical staff of the institution. The available beds at the consumption hospital will be used for observation, the general hospitals for surgical tuberculosis, and the tuberculosis wards of the city infectious hospitals at Park Hill and Fazakerley for pulmonary phthisis.

Any scheme, however carefully drawn by the authorities, will require to be minutely studied by the profession if smoothness is to be attained in the working. It is hoped that the local Divisions of the British Medical Association as well as the Association of Hospital Physicians and Surgeons will have an opportunity of expressing their views on the scheme before it receives official sanction.

Tubercle Bacilli, Human and Bovine.

Somewhat divergent views are held locally as to the relative frequency of these two types of bacilli in the production of human tuberculosis. At the last meeting of the Liverpool Medical Institution Dr. Nathan Raw brought forward some statistics and foreshadowed others supporting the opinion which has recently gained ground that surgical tuberculosis is for the most part due to the bovine type of bacillus, and pulmonary phthisis to the human type. Professor Ernest Glynn and others controverted this view, and invoked statistics in support of their contention. Doubtless the discussion will be renewed on the publication of the further statistics from Edinburgh, which are promised at an early date.

MANCHESTER AND DISTRICT.

Manchester Royal Infirmary.

The annual meeting of the trustees of the Manchester Royal Infirmary was held on February 14th. A summary of the annual report was given in the JOURNAL last week, and in moving its adoption Sir William Cobbett, who presided, laid special emphasis on the references in the report to the financial position of the infirmary. With an annual deficit of about £8,000 it would, he said, be necessary to encroach on the capital. The endowment capital could not be touched, and if continual encroachments had to be made on the disposable capital, the position of the hospital would become one which he would prefer not to contemplate. He also made a special appeal for money to meet the cost of the new central branch for accidents and out-patients, which was estimated to be about £25,000. The report was adopted, and a vote of thanks to the honorary physicians and surgeons was passed, to which Dr. Brockbank replied on behalf of the honorary staff. The trustees then agreed to some revisions of the rules, the most important being a new rule providing for the addition to the medical staff of an honorary assistant aural surgeon, and the deletion of the old rule which provided for the payment by employers of domestic servants and apprentices of the sum of 10s. 6d. a week towards maintenance during treatment as in-patients. The meeting closed with a vote of thanks to Sir William Cobbett for his services as chairman of the board of management.

Manchester School for Mothers.

The School for Mothers was established primarily with the object of reducing the high infant mortality-rate, first, by giving instruction in the care, management, and feeding of infants and in general hygiene, and by providing meals at low charges for expectant and nursing mothers. There are at present four branches of the institution in Ancoats, Collyhurst, Openshaw, and Hulme, and at the fifth annual meeting, held on February 14th, it was stated that in the last year 2,057 persons had been members of the schools. The mothers attended regularly for the weighing of their infants, and the number weighed averaged 216 per week. The number of dinners served, at a charge of 2d. a head, was 10,216. The report of the Medical Subcommittee described the two special branches of the work carried on under its supervision. One is the ordinary work of the schools, which included medical consultations and investigations, and the other is the special investigation at Openshaw, where in two districts practically every infant is visited monthly during the first year of life with the object of observing the effects of expert advice on the infant mortality-rate. This inquiry will form the subject of a special report when sufficient figures are available. The feeling was expressed that it was important as soon as possible to establish additional branches, but the finances would not allow of this at present. It was estimated that the sum of £1 would rather more than provide for the care and supervision of one infant for a year. Dr. Niven, M.O.H. Manchester, said the schools were doing a most important work in assisting in lowering the infant mortality-rate, and the crowning part of their work had been the establishing of consultative centres where mothers could get the best medical advice.

LONDON.

LONDON COUNTY COUNCIL.

Ambulance Service for the Metropolis.

SOME discussion of the question of an ambulance service for the county of London took place at the meeting of the London County Council on February 18th, on a report that a coroner's jury, in an inquest on the body of a man taken ill at the Islington Empire music hall, had added the following rider to the verdict:

The jurors are of opinion that a more up-to-date ambulance system is required in London, similar to the electric motor ambulance system of the City of London.

Mr. E. Smallwood reminded the Council that since the passing in 1909 of the bill promoted by Sir William Collins it had possessed power to provide an ambulance service. Such cases as that which had been notified by the coroner's jury were a disgrace to the richest city in the world.

Mr. H. L. Jephson, alluding to the recent decision of the Council to seek parliamentary powers this year to co-ordinate and utilize existing ambulance services (BRITISH MEDICAL JOURNAL, November 16th, 1912, p. 1419), remarked that authorities which now maintained ambulance services had no power to use them for other purposes than those for which they were established, and doubtless they were fully occupied in meeting present demands upon them.

Mr. Edward Smith mentioned a case at Clapham in which an old lady of 90, who met with an accident in the street, had to lie on the pavement for half an hour before any conveyance could be found, and had to be taken half an hour's journey in a hand barrow to the Bolingbroke Hospital.

Mr. Hayes Fisher, M.P., expressed the hope that, if the Government did not place further burdens upon the ratepayers, London before many years were over would have an efficient ambulance service.

From this point the debate drifted into the question whether Liberal or Conservative Governments had placed the greater burdens upon the ratepayers.

The Rev. J. Scott Lidgett inquired whether any steps had been taken to ascertain the extent to which other authorities were willing to co-operate with the Council in this matter. The specific duties for which these services were established must take preference in any co-operative scheme, and he was afraid most of the existing appliances were antiquated.

Mr. Cyril Jackson said there was a very large ambulance service in London which ought to be co-ordinated. It would be ludicrous to propose a scheme, for instance, which left the police out of account.

Mr. H. J. Greenwood, Chairman of the General Purposes Committee, which has the question under consideration, declared there was no better way of improving the ambulance service than by co-operating with and extending the existing services. A conference with the various authorities concerned would be obtained when the parliamentary powers asked for had been granted.

Mr. J. D. Gilbert, a member of the General Purposes Committee, said that he was not aware that it had been definitely decided to seek parliamentary powers this year, and there was a danger that no authority of the kind asked for would be obtained until the end of 1914. The Council had made no use of the powers it had possessed since 1909.

On a division the report was received by 57 votes to 45.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

LISTER MEMORIAL, GLASGOW COMMITTEE.

AT a meeting held last week of the Executive Committee of the Glasgow Committee of the Lord Lister Memorial, the Honorary Secretary reported subscriptions amounting to upwards of £770. In some cases no intimation had been given as to what proportion of the contribution was to be assigned to the local and international funds respectively. The local fund was to take the form of a suitable monument in Glasgow and the provision of whatever endowment might be necessary for the equipment and maintenance of a Lister Museum at the Royal Infirmary, should that prove to be practicable. The International Memorial Fund was intended to endow an international award to be given from time to time for the most notable contribution to the advancement of surgery in any part of the world, and the establishment of a Lister Research Fund with fellowships, scholarships, or grants for promoting investigations likely to improve surgery. A subcommittee consisting of Mr. A. E. Maylard, Sir Hector Cameron, Professor Teacher, and Mr. Hedderwick, was appointed to deal with the question of the equipment and maintenance of a Lister Museum in the Royal Infirmary.

PRESENTATION OF PORTRAIT OF PRINCIPAL SIR WILLIAM TURNER.

On Thursday, February 13th, the portrait of Sir William Turner, K.C.B., painted by Sir James Guthrie, P.R.S.A., was presented to Edinburgh University. Sir William Turner's connexion with the university over which he now presides as Principal and Vice-Chancellor, from the days when he acted as Demonstrator in Anatomy under Professor Goodsir all through the long and fruitful years of his own holding of the Chair of Anatomy down to the more recent time of his occupancy of the Principalship, extends to nearly sixty years. Born in Lancaster, receiving his medical training in St. Bartholomew's Hospital, London, and spending the rest of his life in Edinburgh, the Principal was particularly well qualified to guide the destinies of a university which draws its medical undergraduates from England almost as much as from Scotland. Sir Robert Finlay, K.C., M.P. for the Universities of Edinburgh and St. Andrews, in making the presentation, referred to the fact that it was in the days of the Crimean War that the subject of the portrait first came to be connected with the university, and many of the spectators, looking at the Principal, hale and hearty at over four-score years, must have felt it difficult to realize that it was even so. The Chancellor, Mr. A. J. Balfour, M.P., in accepting the portrait for the university, said the picture would serve in the future to let those who came after know something of the appearance of the man who had done so much for their university; but, he continued, "round about us, not far from this building where I am speaking, are many monuments of Sir William's administrative greatness; there are buildings, additions to the university, conveniences for teaching, all the apparatus of the modern university, which he has done so much to create, and in one sense they are his greatest and truest memorial; yet, ladies and gentlemen, I think we could ill spare a living and perpetual image of the very man who did it." Lord Provost Inches, whose presence by the side of the Chancellor was a reminder, if any such were needed, of the long connexion which had existed between the university and the city, spoke of the high place Sir William held in the appreciation of the Corporation—an appreciation which had recently taken form in the conferment of the freedom of the city upon the Principal of the university. Sir William Turner, in well-chosen and kindly words, replied, saying that "little did he suppose when he came to Edinburgh that Edinburgh would become his home, and it never would have become his home unless he had felt, when he became associated with the university, that there was something in the spirit of teaching in the university that loudly appealed to him. That something was the combination of the spirit of science with practical ability. Might that spirit always endure." With a few words from Sir Ludovic Grant came the conclusion of a very memorable ceremony. Edinburgh University has had some distinguished Principals, including Sir David Brewster, whose statue stands in the old quadrangle, and Sir William Muir, whose life-work was in that Eastern land so many of whose sons now come to Edinburgh for learning, but Principal Sir William Turner need not dread comparison with any of them.

ROYAL INFIRMARY, GLASGOW.

The annual meeting of qualified subscribers of the infirmary was of special interest, as it was the first held after the Insurance Act had come into full operation. During the last two months of the year especially there was a slight falling off in the subscriptions, both of the

general public and of the workmen. This had naturally caused the directors anxiety as it occurred at a period when trade was unusually good. In moving the adoption of the report, the Lord Provost, who is also chairman of the Glasgow District Insurance Committee, made it quite clear to the subscribers that the need of hospitals for the treatment of serious accidents and diseases was still as great as before the Act, which only secured such treatment as the ordinary practitioners could give. There would, therefore, be little change in the working of the hospital except in the out-patient department. In seconding the report, Mr. Hedderwick expressed the opinion that this diminution in subscriptions, however slight it was, was one of the first-fruits of the Insurance Act. He trusted the falling-off would go no further, and that on consideration the public generally would see the great need of maintaining the hospitals. Especially for the working men it was important to maintain the voluntary hospitals with their resources unimpaired as something infinitely better than any possible substitute. The net result of last year's working was that it had been necessary to take £5,184 from stock account to meet the deficit. With the sum of £4,800 spent on reconstruction, over £10,000 had been withdrawn from the stock account. The new year had, however, opened well with a donation of £15,000 from the trustees of the late Mr. Edward Davies, and it was decided to commemorate the splendid gift by naming two wards after the testator. Speaking of the reconstruction scheme, he alluded to the dangerous conditions in which the oldest part of the building had been found. Some people had criticized the delay in beginning the reconstruction, but, as a matter of fact, it had been profitable to delay, as the operations were begun when building was very cheap, and the accumulated interest had provided £50,000. The long delay in completing the reconstruction had been caused chiefly by the necessity of carrying on the full daily work of the institution. Consequently it had been necessary to reconstruct in three main divisions, two of which were finished and occupied in 1908 and 1912 respectively, while the last would be completed in the autumn of next year. It was subsequently agreed that, to remove apprehension on the part of the workers regarding the position of the infirmary since the passing of the Insurance Act, the following statement should be issued:

1. The hospital will give insured persons everything it has given in the past which the Act does not give.
2. Regarding in-patients subject to the rules and statutes, all insured persons will be admitted as in-patients as heretofore.
3. Regarding out-patients, all insured persons requiring special treatment will be treated as heretofore.
4. All insured persons suffering from serious accidents will be treated as heretofore.
5. All insured persons attending the out-patient or casualty department will be examined and treated if necessary for the first time. Such as, in the opinion of a member of the medical staff, are suitable cases for home treatment will be referred to their panel doctor for further attention; but hospital treatment will be continued for such cases as, in the opinion of the member of the medical staff, cannot receive proper treatment at home, or which require to be under further observation.

Memorial to the late Dr. Sophia Jex-Blake.

After the ordinary business of the annual meeting of the Edinburgh Hospital and Dispensary for Women and Children, on February 17th, Lady Helen Munro Ferguson, Vice-President, in the chair, a tablet to the memory of the founder of the hospital, Dr. Sophia Jex-Blake, was unveiled by Miss S. E. S. Mair. The tablet, which is in the hall of the institution, is of cast bronze, with the letters ornamented in relief. A simple wreath forms a border, and within this at the top are crests of Dr. Jex-Blake's family. The bronze is mounted on a slightly-moulded slab of Verde antique marble. Miss Mair gave a brief survey of the part Dr. Jex-Blake played in the admission of women to the medical profession in the founding and development of the hospital. The tablet bears the following legend:

In affectionate remembrance of Sophia Jex-Blake, M.D., founder of this Hospital, to whose large courage, insight, and constancy the admission of women to the profession of medicine in this country is mainly due.

The Waldie Memorial.

The Waldie centenary memorial proposal, to erect a bronze mural tablet, suitably inscribed, on the house in Linlithgow, where Dr. David Waldie (who was associated in the discovery of the anaesthetic properties of chloroform) lived and practised as a surgeon and druggist, has now assumed definite shape, and the scheme is progressing satisfactorily, being supported by some of the leading men in the medical and chemical world; subscriptions have been received from New York, Calcutta, Aberdeen, London, Glasgow, Edinburgh, and Liverpool. Subscriptions, however small the sum, will be welcome, and should be sent as soon as possible to the Honorary Treasurer, Mr. John McWhirter, Union Bank House, Leslie, Fife, or to Mr. Alexander Spence, M.P.S., 43, High Street, Leslie, Fife.

Medicine and Literature.

In the report of Dr. J. W. Ballantyne's address on this subject which appeared in the Journal of February 15th, p. 366, a printer's error was, we regret, allowed to creep in. The name "Wellesley" in the sixth line from the end of the paragraph should, of course, be Wesley.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Friendly Societies and the Control of Doctors.

Mr. J. D. Nugent, President of the Dublin Benefit Societies' Union, gave a timely warning to the medical profession in Ireland as to the position they must expect to occupy if medical benefit is extended to Ireland. Speaking at a general meeting of the Societies' Union on February 9th, he said that two important points had to be settled before the societies would agree to the medical benefits being applied to Ireland. First, they must get the £197,068 grant that was at present given to Ireland under the Medical Relief Act for Dispensaries; and, secondly, the societies must have the right to nominate or strike off the doctors from the panels. The societies and not the County Insurance Committees should have the control of the doctors. The doctors' terms should be made known and settled, and must include attendance on the wife and dependants of every insured person. The first of these demands means presumably the abolition of the Poor Law Medical Service and the end of the salaries of the dispensary doctors; and the second and third demands mean that the societies are to have complete control of the medical attendance on the members of their society, and that the great majority of the doctors throughout the country are to be placed completely in the power of the friendly societies. Now that the members of the profession are clearly warned it will be their own fault if they acquiesce in such a condition being brought about, and their thanks are due to the president's timely, though probably unintentional, warning.

Maternity Benefit and Dispensary Tickets.

The circular regarding the giving of dispensary tickets to women in receipt of maternity benefit, referred to last week (p. 366), has now been sent by the Local Government Board to the boards of guardians throughout Ireland. In it the Board emphasizes the duty of the guardians and relieving officers, before issuing tickets for free medical attendance and medicine, to satisfy themselves by careful inquiries that the applicant could not otherwise obtain this aid. The Board points out that in a number of cases it will probably be found that the recipients of maternity benefit under the National Insurance Act would not in addition be entitled to relief from the rates under the Medical Charities Act; but, on the other hand, there will no doubt be many cases of exceptional poverty with regard to which this view could not be maintained. The Board therefore expresses the opinion that a relieving officer or board of guardians, on being satisfied as to the existence of these exceptional circumstances, would be justified in issuing tickets entitling insured persons to dispensary relief, notwithstanding the fact that they were in receipt of maternity benefit under the Insurance Act. It suggests that guardians should try to make arrangements regarding the amount of the fees of the medical officer and midwife, bearing in mind that the 30s. is intended for the provision of other comforts besides medical attendance.

At the last meeting of the County Dublin Insurance Committee the following resolution on the subject of maternity benefit was unanimously adopted, and the Secretary was directed to send a copy to the Irish Insurance Commission:

> That the County Dublin Insurance Committee begs to draw the attention of the Insurance Commission to the grave danger which may arise in maternity cases where a nurse attending a patient fails to call in medical assistance in serious complications in proper time, fearing that the doctor's fee may have to be paid out of the maternity grant. The Committee feels strongly that the medical fee should be disbursed from funds other than those allocated for maternity benefit.

Ulster Medical Society.

At the fourth meeting of the session, the President (Dr. R. W. Leslie) in the chair, Mr. T. S. Kirk read notes and showed lantern slides of developmental bands of the mesentery. Dr. J. Campbell, Mr. Fullerton, Mr. R. J. Johnstone, Mr. Hick, Mr. Irwin, and Mr. Crymble all joined in a vigorous and spirited debate, and Mr. Kirk replied. Dr. C. G. Lowry read a paper on puerperal septicaemia occurring twice in the one patient, which was ably criticized by Dr. John Campbell and Dr. T. Houston, and Dr. Lowry replied.

On the evening of January 24th the President (Dr. R. W. Leslie) entertained the Fellows, members, and some friends at a smoking concert in the Medical Institute. The chief lecture room was used for the purpose, and was barely sufficient to hold the large number that accepted the kind invitation. Tea, coffee, and light refreshment were served, and some excellent songs, recitations, and sleight-of-hand exhibitions combined to make the evening successful. Every one appreciated the kindness and hospitality of the President, and manifested their enjoyment by hearty congratulations to him and frequent applause of those who so artistically helped.

Correspondence.

IMMEDIATE OPERATION IN APPENDICITIS.

Sir,—I have read with the greatest interest Mr. Owen's excellent address. There is, however, one point of view Mr. Owen and nearly all other surgeons overlook in their teaching on this point.

Mr. Owen scoffs, and I think rightly, at the "illustrious" physician; only (may I add?) there are very few such as he describes, at all events in London, and also, what is important, that no practitioner should waste time in calling in a physician except at the express demand of the patient, and then only with the understanding that a surgeon shall be called in in case of disagreement.

Mr. Owen speaks from the surgeon's point of view, and gives advice which ought to be followed out—namely, "When in doubt look and see"—but when he comes to himself what a falling off there is! If he thinks his feelings over he will perhaps understand better the feelings of the patient in doubtful cases. He calls in his surgical friend, and if he says, "Yes, I think your appendix is at fault," he asks leave for another surgical opinion. Why? What if the second opinion differs? Is there to be a third? No. If the surgeon answers as above he ought to be asked to operate at once, if only to look and see. The second opinion should only be asked for if the surgical colleague is in doubt and advises delay.

The third point of view, which is so often overlooked, is the point of view of the patient, which must affect his medical attendant, and in which the surgeon can help. And here may I suggest that Mr. Owen is a little wrong in comparing appendicitis with strangulated hernia? Taking his figures, the perfect recovery in the former, when not operated on, is about 30 per cent., while the vast majority of the remaining 70 do not die. In unoperated strangulated hernia practically all die. This brings me to the point I am leading up to. What is to be done when the head of a house (or one of his family) who is in good position socially but not financially, who lives up to his small income and has saved nothing, gets a slight attack apparently of appendicitis? The doctor advises immediate operation. He is asked, "What will be the expense?" The answer must be, even with a moderate surgeon's fee, "Anything between £50 and £100." The next question is, "If operated on, when can I go back to work again?" A sanguine reply would be six to eight weeks, but the patient is seldom himself again for at least three months. The last question is, "What are the prospects if I am not operated on?" Mr. Owen's statistics give the answer. Is it a matter of surprise that the patient says, "Doctor, you know my position. Even if I can raise the money—which I can't—I cannot spare the time. I will run the risk. When the second attack you talk about comes on, my position may be improved, and I may be able to spare the time and raise the money."

Nothing can be done as far as lost time is concerned, and the doctor must let the patient or head of the family decide, but the surgeon can help in the direction of fees. Many surgeons, even juniors, think it derogatory to take low fees, and send the patient to a hospital, if there is one, much as the patient may dislike it. On the other hand, I hold that, if he can trust the practitioner, the surgeon should be ready to operate at a considerable reduction to his ordinary fee, and the junior surgeon at even a nominal fee, without any fear of being looked down upon by his colleagues. And what I have said about appendicitis is more—much more—true about special operations which are in the hands of a few.

May I close this somewhat lengthy communication with short notes of a case which brings out the importance of Mr. Owen's "Look and see"?

A lad of very good but a very poor family was playing football at Vincent Square on a Saturday afternoon in perfect health, except for habitual constipation. On Sunday morning he had "colic." His mother gave him castor oil, which made him sick. I was called in the same evening. His temperature was 98.4°, his pulse 60. The abdomen was somewhat hard, as in some forms of real colic, and there was generalized pain. There was no tenderness, except very slightly on deep pressure in the appendix region. Nothing else abnormal. I was bold enough to prophesy "appendicitis." Early the next morning he was, when I saw him, "much better." The temperature was 98.6°, pulse 72; pain had gone, the abdomen was soft, but the tenderness in the iliac fossa was more distinct—quite marked—and there was very slight overlying rigidity. I asked and obtained leave to have a surgeon to operate if I could get one at a really reduced fee. Fortunately, I knew of one I could ask, and the patient was operated on the same afternoon, when a very tense, inflamed, banana-looking appendix was found on the point of bursting. He returned to his office just under three months.—I am, etc.,

Upper Clapton, Feb. 16th. J. W. Hunt.

THE REPORT OF THE COMMITTEE ON FRACTURES.

Sir,—This report was presented and discussed at the Liverpool meeting of the Association in July, 1912, at the Section of Surgery, of which I had the honour to be President. That particular (extra) meeting of the Section was the only one from which I was absent; but if I had been able to attend I should probably have felt bound to state briefly the opinion I have always held on the question of non-operative or primary operative treatment in simple fractures, without prejudice to the ability displayed in that report and in the discussion upon it.

But it would be impossible for me, or any one, to state that opinion better than, if even as well as, it is stated in the single column of this Journal of February 15th, 1913, p. 370, in the letter of Mr. R. Hamilton Russell, of Melbourne.

My object in writing this is to express my admiration for the way in which the case is there put by him: the clearness of his exposition, the sound surgical and artistic principles underlying it, and his modest advocacy of the position.

If it can attract closer and more general attention to the whole of his letter, the quotation of the following paragraph will be justified:

> . . . Personally I have experienced great interest and learnt much that I deem of great value through habitually setting to work with my students over every case of fracture in the endeavour to

devise some simple and effective plan of treatment that will be of value to them when they go out into practice: and this, if I may be absolved from arroganee, is in my opinion just what a hospital surgeon and teacher ought to do. . . .

—I am, etc.,

RUSHTON PARKER,
Professor of Surgery in the University of Liverpool.

February 16th.

THE CONTROLLED THERAPEUTIC USE OF NEW TUBERCULIN.

SIR,—I am so pleased with the able paper On the "Controlled" Therapeutic use of New Tuberculin in the Treatment of Pulmonary Tuberculosis, which appears in the BRITISH MEDICAL JOURNAL for February 1st, that I cannot deny myself the pleasure of congratulating Dr. Rigg thereon, and expressing the hope that in future we may have reports of the results of tuberculin treatment cast on the same lines.

Any one with practical experience of the disease will admit that only limited—very limited—importance is to be attached to such statements as "patient feeling better," "patient looking better," "weight increased," and so on. With these improvements there may coexist stationary, or even advancing, lesions in the lungs. We are all sadly familiar with cases which improve in appearance and put on weight, and yet on stethoscopic examination are found to give evidence of pulmonary lesions *in statu quo*. And as these physical signs constitute the most reliable criterion as regards the progress of the cases- the most definite evidence on which a judgement may be founded—Dr. Batty Shaw and Dr. Rigg wisely selected them in measuring the results of tuberculin treatment.

Whilst signs of active disease in the lungs persist we cannot lull ourselves into the belief that all is well with the patient—however well he may look and feel—for an active lesion in the lung constitutes a breeding ground for the tubercle bacillus. No doubt, in such a case, when the temperature becomes normal and the weight increases and the patient feels better, we have some reason to congratulate ourselves in so far that we have evidence of the patient's powers of resistance having got the upper hand, and therefore we are justified in considering him *on the road* to recovery. But so long as there are physical signs of active disease in the lungs we know that the evil is still at work.

In ordinary sanatorium treatment, without tuberculin injections, it is a common experience to have cases rapidly improving in appearance, putting on weight, and in some cases showing improvement in the physical signs, or even leaving the institution with no signs of active disease.

We have reason, therefore, for being cautious in giving tuberculin credit for improvement in a patient's condition when that patient is at the same time having plenty of good food, rest, and fresh air. If tuberculin is a powerfully curative agent we may reasonably look for a marked improvement in the condition of the patient's lungs during its administration. Otherwise, to my mind, the verdict is "not proven."

I have used tuberculin—after Sahli's method (Beraneck's tuberculin)—but only in a very limited way, and therefore I have no personal opinion to express. I have a perfectly open mind with regard to the value of tuberculin injection. It may yet prove to be the most effectual means of controlling or arresting tuberculosis. But in the meantime medical opinion—even expert medical opinion—presents such a troubled sea of contradictory views, theories, and results that one welcomes a report such as that furnished by Dr. Rigg, founded on definite and measurable data.—I am, etc.,

JAMES W. ALLAN, M.B., C.M.

Bellefield Sanatorium, Lanark, Feb. 4th.

OPEN-AIR RIVER SCHOOLS.

SIR,—At the present time, when so much attention is being directed all over the country towards the prevention and cure of tuberculosis, especially at an early age, it must occur to those who are interested in the matter that, in the provision of open-air schools for children actually suffering from the disease, or who are daily exposed to the risk of acquiring it from tuberculous relatives, London lags far behind the provinces.

The great argument against such schools for the metropolis is the difficulty of providing the necessary open spaces in so large a city, and my object in writing is to offer the suggestion that that difficulty might be overcome by utilizing the river, mooring disused steamboats or converted barges in easily accessible reaches. Such a scheme could, I believe, be made a success not only from a health point of view, but also as an educational factor.—I am, etc.,

JAMES P. CULLEN, M.D.Lond., D.P.H.

Poplar Dispensary for the Prevention of Consumption, Feb. 12th.

THE SUPPORTS OF THE UTERUS.

SIR,—I must thank your reviewer for his kindly response to my submission that he is unduly agnostic on the subject of prolapse. But is it not possible to pay too much attention to the opinions of "authorities"? Some of them secure repute by bringing forward new work; others gain notoriety by defending views already hallowed by age. Their weight also varies.

Ballantyne says (*Essentials of Gynaecology*, page 2) that "Plato and the Arabians held curious views about the uterus wandering about in the body like a wild beast, and capable of being enticed into the vagina." But the modern uterus is tethered on either side by the parametric connective tissue. It has two broad, vascular, lateral pedicles. It forms the central portion of a sort of swing bridge which crosses the pelvis from side to side.

Gladly, then, let us turn, at the request of your reviewer, to the musculature of the pelvic floor; and let us ask if it really is, as authorities still maintain, "a most important matter in respect of prolapses."

If a bull is well tethered in a field which has a small gap in its hedge, you cannot let the bull out of the field by enlarging the hole in the hedge. You must loose the bull; then he will attend to the hedge.

Tearing the pelvic musculature does not loosen the connective tissue attachments of the uterus, and cannot bring about prolapse. But if the parametric swing bridge is relaxed, the loose uterus comes down and gradually dilates the vaginal orifice. If this has previously been enlarged by tearing, the loose uterus descends all the quicker.

If this is not sound pathology, how is it that we see women every day who have no prolapse, although their perineums have been torn into the rectum for years? The levatores ani have been stretched and thinned beyond recognition in other women who have no prolapse; and, in doing paravaginal section, we cut through the levator ani into the ischio-rectal fossa without loosening the uterus.

Though the nature and pathology of prolapse seem fairly clear, its cause certainly remains obscure. For who can say why one woman's uterus becomes loose after a single normal confinement, while that of another woman remains properly attached after a dozen?—I am, etc.,

Manchester, Feb. 17th. W. E. FOTHERGILL.

SIR,—Since my name has been mentioned in the discussion on this subject, may I say that the practical conclusions of my paper "On the Nature of the So-called Ligaments of Mackenrodt" are that it is impossible to differentiate without artificial means, namely, by removing piecemeal the superior portion of the parametrium, the lower border of this tissue, called by Mackenrodt the "ligamenta transversa cervicalis," and the remaining parametric tissue; in fact, his ligaments are artefacts? I agreed that the uterus was held in position by the parametric tissues. This fact was made little of by the reviewer, and he turns to the pelvic diaphragm. The attachments and relations of the uterus to the pelvic diaphragm are purely secondary, brought about through the intervention of the parametrium. The visceral aspects of the levatores ani muscles are covered entirely by parametrium. This consists of masses of smooth muscle, perivascular and perineural sheaths, together with blood sinuses and lymphatics. This tissue, originally undifferentiated mesoblast, runs in one continuous sheet round the uterus, bladder, and urethra. It undoubtedly forms the chief support of the pelvic viscera. As long as the parametrium is healthy, it is impossible for the uterus to come down.

I had the good fortune recently to perform a complete *post-mortem* examination on a female with procidentia. Fully two-thirds of the uterus, which was large, lay outside the body and the remaining third was in the vagina. The parametrium was stretched into two long ribbon-like folds; it was thin and scanty. The pelvic diaphragm was healthy and normal. Beyond an increase in the size of the vulval orifice, obviously mechanical in origin, no pathological changes existed. The musculature of the pelvic diaphragm *was well developed*. I have satisfied myself, and have specimens to demonstrate, that efficient colporrhaphies are successful only because they tighten up the parametrium, though some surgeons who practise these operations may not quite realize this.—I am, etc.,

MANFRED MORITZ.

The Anatomical Department, Manchester University, Feb. 17th.

THE NEGLECT OF VACCINATION.

SIR,—In the *Times* for February 1st a condensed report is published of the speeches at the annual dinner of the Association of Public Vaccinators,* from which it appears that the president (Dr. Arthur Maude) and the retiring president (Dr. A. H. Martin) made some strong remarks about the "red terror" which was some day going to overtake this country as a punishment for neglecting vaccination, and about the culpable responsibility of a Government which allowed such neglect to continue.

I write as a thorough believer in the efficacy of vaccination in protecting the individual (for a limited period), and I do not doubt the sincerity of Drs. Maude and Martin in their gloomy prophecies and denunciation. I venture to suggest, however, that these are, to say the least of it, rather ill timed at a period when, with steadily increasing neglect of vaccination, this country is showing a markedly increased success in dealing effectively with outbreaks of small-pox! One cannot help wondering whether these gentlemen, who talk so emphatically about the impossibility of dealing effectually with small-pox without recourse to infantile vaccination, have ever taken the trouble to make themselves familiar with the experience of Leicester, a town of 230,000 inhabitants, which has practically dispensed with infantile vaccination for the past thirty years, and which, in spite of all the positive predictions to the contrary, has dealt quite as successfully with small-pox as any other large industrial centre.

Have they considered, also, that infantile vaccination only protects (from attack) during the period of infancy and childhood, and that this period is the one least exposed (under modern conditions) to the danger of small-pox infection? Hence the remarkable fact, as yet hardly realized by pro-vaccinists, that in spite of increasing neglect of infantile vaccination, the relative incidence of small-pox mortality upon the age-period under 5 years, so far from increasing (as it ought to have done according to pro-vaccinist theories) has actually diminished!

One wonders, too, if these gentlemen have ever considered that our present system of infantile vaccination, which is not followed by revaccination, has one very serious drawback which (under modern conditions) probably goes far to neutralize, or even to more than neutralize, any benefit which might otherwise accrue from partial protection of the community? I refer to its undoubted effect in causing slight atypical forms of small-pox which are easily overlooked, and which thereby frequently lead to serious outbreaks of the disease, which outbreaks would not have occurred had the first cases been of the straightforward, easily recognized type which one usually finds in unvaccinated subjects. The serious outbreak in the East End of London in 1911—which was so successfully controlled by the prompt application of the same measures which have proved so effectual in Leicester—as also the serious outbreak last autumn in Kirkcaldy (the one causing over 60 cases with 8 deaths and the other over 40 cases with 13 deaths), originated in both instances in mild unrecognized cases in vaccinated subjects. I say advisedly that it is very probable neither of these outbreaks would have occurred, or at least would not have spread beyond the first few cases, had the persons first attacked in each case been unvaccinated. No doubt it would have been worse for those two individuals, but how much better for all those whose lives were sacrificed! These examples are very far from being exceptional.

If I may venture to give a word of friendly advice to Drs. Maude and Martin it is that they should bow to the inevitable and recognize, as many of us have now done for some time, that the occupation of the public vaccinator must be ranked as one of our dying industries. Happily for them the National Insurance Act has opened up fresh fields of useful and remunerative work. If, however, they have conscientious objections to "serving on a panel," let them enter the ranks of the Public Health Service, where I can assure them they will find ample scope for their undoubted abilities. If they still feel it their duty to prophesy evil and not good let them do so by all means, but let them point to sanitary reform, in its widest sense, rather than to the resuscitation of a system which, to all appearances, has had its day, as the proper course for the country to adopt if it really wishes to set its house in order. Of one thing I am confident, and that is that the future as regards small-pox prevention in this country lies with the medical officer of health rather than with the public vaccinator.

Personally, I am far from being satisfied that the "passing" of compulsory vaccination is a matter for serious alarm. If it leads to increased attention being paid to public health measures, as has been the case in Leicester, it may even prove a blessing in disguise.—I am, etc.,

C. KILLICK MILLARD, M.D., D.Sc.,
Medical Officer of Health.

Leicester, Feb. 11th.

* A report of the annual meeting and dinner of the Association of Public Vaccinators was published in the JOURNAL last week, p. 350.—Ed. B. M. J.

CHEWING GUM.

SIR,—A case having occurred recently in the North of England in which death was suspected to have been caused to some extent at least by the use of chewing gum, it appeared to me advisable to have samples of this article analysed. The following is the gist of the report received:

> The samples are free from poisonous metals and actively harmful ingredients. They are compounded of a vegetable gum, known as chicle gum, which is allied in its nature to gutta-percha, with sugar and flavouring essences. The gum present in these samples to the extent of 17 to 25 per cent. is not actively poisonous or harmful chemically, but is quite insoluble and indigestible. The use of these chewing gums by children especially, who are likely to swallow the whole, is much to be deprecated, and should be discouraged by all available means.

Before taking any further steps I feel that I should have some definite evidence to put forward.

If, therefore, any of your readers have had experience of actual cases in which harmful results accrued from the use of these substances, I should take it as a great favour if they would communicate the facts to me.—I am, etc.,

H. KERR,
Medical Officer of Health.

Newcastle-upon-Tyne, Feb. 12th.

THE CONSTITUTION OF THE ASSOCIATION.

SIR,—I am perfectly convinced that you and Dr. Davy and the leader writer in the *Times* are wrong in thinking that the "referendum" of the Association last December, and the consequent vote of the Representative Body on December 21st, was not in accordance with the real opinion of the profession as a whole at that time. To argue to the contrary is to deny that the majority went on the panels against their will. Besides the voting at our Divisional meeting I knew the opinions of a fair proportion of those who were unable to be present. Doubtless other Representatives can say the same.

The fact is that when it came to the point we found ourselves unable to refuse service, except with the help of the contracting-out clauses, because we are so closely bound to our patients, whether insured persons or employers, by professional and economic ties. They had submitted to the Act; we, being a profession and not a trade, could not refuse them the benefits for which they had paid. We have not changed our opinion of the Act, but we have been forced, in our patients' interests, to abandon an untenable position.

Similarly I hold that the Representatives do represent their Divisions and are generally the best men available.

I do not understand that there is great competition for these posts, or that Representatives find great difficulty in ascertaining the opinions of men in their Divisions. Therefore I cannot see much advantage in altering our constitution as to the mode of electing and instructing Representatives.

But our constitution does require alteration in two particulars. Every one who attended the last three Special Representative Meetings must feel shame and amazement at the way in which we conduct our business. On January 17th we disputed for a whole day, at a cost to the Association of £1,000, and did not even succeed in recording the votes we came pledged to give. The agenda ought to be drawn up by the Council, and include such resolutions as will allow of a debate and decision on every point at issue, and neither amendments nor riders by Divisions or individuals should be permitted. Each resolution should be moved by a member of Council, who should make its import clear. The solicitor's opinion upon the exact import and validity of each resolution should be taken before the meeting is held. All questions, not points of order, should be submitted in writing. For a body of 250 men, skilled indeed in medicine, but profoundly ignorant of law, to frame, alter and redraft in a few hours a resolution which, when passed without anything deserving the name of debate, is intended to bind the whole profession, can only be called legislation by nightmare.

The whole matter is too big to be discussed in a single letter. I hope others will take it up and thresh it out in time to tabulate the necessary alterations for the Annual Representative Meeting. Could not the Council appoint a small subcommittee *ad hoc?*

If the procedure of the Representative Body is not reformed I fear that a good many of the most valuable members will find that they cannot afford the time and trouble involved in representing their Divisions in future, and the Association will relapse into the unrepresentative state from which this war aroused it.

The Representative Body should confine itself to debate and decision on broad questions of policy.

Greater trust should be placed in the Council, which should have executive powers in all details of policy.—I am, etc.,

P. NAPIER JONES,
Representative Reading Division.

February 17th.

SIR,—In your issue of February 15th, Dr. Lachlan Fraser demands that we (the British Medical Association) should, "no matter at what cost, transform ourselves into a strong trades union." This, it appears, is in order that we may "protect ourselves against our two natural enemies—the Insurance Committees and the approved societies." If one may judge from his letter, Dr. Fraser is himself one of those unfortunate members of our profession who have been driven, against their own inclination, on to the panel, and it must be obvious to anybody that, having once placed their necks under the yoke, the insurance doctors will now have no option but to form some big central combine in order to defend their economic interests against the inevitable exactions of their new task-masters. But, in the name of all that is best in the traditions of medicine, I protest against Dr. Fraser's proposal that the British Medical Association should be commandeered for such purposes; that this body, whose one essential and primary object hitherto has been the advancement of the science and art of healing, should forthwith be converted into an organization for protecting the financial interests of a section of the profession. Doubtless the doctors on the panel need to combine for self-preservation, and, by all means, if they feel like it, let them form a union *ad hoc*. But I hope that all members of the profession, whether on or off the panel, will clearly recognize that this is not the purpose for which the British Medical Association exists, and that if its machinery should ever be diverted from its present high social function to subserve such purely particularist ends, this would not only inflict another heavy blow on the prestige of medicine in this country, but would inevitably lead to the withdrawal from the Association of all those who still retain some sort of sense of proportion.—I am, etc.,

ARTHUR J. BROCK.

Edinburgh, Feb. 16th.

THE LATE CHAIRMAN OF THE CENTRAL ETHICAL COMMITTEE.

SIR,—In your current issue (SUPPLEMENT, p. 145) you report a resolution of the Council of the British Medical Association referring to the action of Dr. Lauriston Shaw in presiding at the inaugural meeting of the National Insurance Practitioners' Association. His dignified reply will satisfy all fair-minded men in the profession, but inasmuch as we were responsible for asking Dr. Shaw to honour us by presiding at the meeting, we feel that some statement from us is necessary.

It was evident to us that a considerable section of the profession felt that the situation was entirely altered when the final terms and conditions were announced by the Chancellor of the Exchequer in December, 1912, and which considered that the new conditions should be accepted, at least for a provisional period. The section of the profession which held these views had hitherto had little opportunity of giving expression to them. In order to support those in favour of working the Act, the National Insurance Practitioners' Association came into being. The course of events has amply justified the action taken, and there can be no doubt that the movement which was inaugurated at the meeting referred to was not only necessary, but obviously fair. We have carefully scrutinized the circular letter to which, apparently, the resolution refers, but we can find no expression whatever which would justify the pontifical action of the Council. It must be remembered also that at the meeting in question speaker after speaker, including the chairman himself, declared that the new association was not in any way hostile to the British Medical Association. Indeed, if the British Medical Association had been wise, there would not have been need of a Representative Meeting in January to reverse the decision of December.—We are, etc.,

H. G. COWIE,
Honorary Secretary,
National Insurance Practitioners' Association.
H. H. MILLS,
Honorary Treasurer,
National Insurance Practitioners' Association.

London, Feb. 13th.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.D.—J. R. Bentley.
M.B.—D. N. Macleod.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on February 13th, Sir Rickman J. Godlee, Bart., President, in the chair.

Issue of Diplomas.

Diplomas of Membership were granted to ninety-eight candidates found qualified at the recent examination.

Diplomas of the Licence in Dental Surgery were granted to four candidates.

Diplomas in Public Health were granted, jointly with the College of Physicians, to twelve candidates.

Lister Memorial Fund.

The Council voted a sum of 50 guineas to the Lister Memorial Fund.

Primary Examination for the Fellowship.

The following recommendations of the Nomination Committee were adopted by the Council:

I. That Clause 7 of Section III of the Regulations relating to the Diploma of Fellow be altered from

"7. Of having attended a course of Practical Physiology during not less than six months at a recognized Medical School"

to the following:

7. Of having attended at a recognized Medical School
(*a*) A course of Experimental Physiology.
(*b*) A course of Chemical Physiology.
(*c*) A course of Histology.

II. That this alteration in the Regulations be made applicable to all candidates who are not Members of the College entering for the Examination in May, 1914, and for subsequent Examinations.

III. That two papers in Physiology, each containing four questions, of which the candidate must answer only two, be set, and that two hours be allotted to each paper.

IV. That the same arrangement be adopted for the written part of the Examination in Anatomy.

V. That these alterations with regard to the written papers be carried out at the next examination in May of this year.

Central Midwives Board.

Mr. Golding-Bird was re-elected as the representative of the College on the Central Midwives Board.

Bradshaw Lecturer.

Mr. G. H. Makins was chosen as the above lecturer for the ensuing collegiate year.

Gifts.

An offer was accepted, with thanks, from Lady Butlin, to present to the College a replica of the portrait of her late husband by the Hon. John Collier, which was exhibited in the Royal Academy a few years ago.

The Secretary reported that he had received from the executors of the widow of Mr. Caesar Henry Hawkins a portrait by Zoffany of Mr. Pennell Hawkins, Master of the Company of Surgeons in 1778, and great uncle of Mr. Caesar Henry Hawkins, the picture having been bequeathed by Mr. Caesar Hawkins to his wife for life, and after her death to the Royal College of Surgeons, with the direction that it should be placed near the picture painted by Hogarth of Sir Caesar Hawkins, Bart., brother of Mr. Pennell Hawkins.

Board of Examiners in Dental Surgery.

A vacancy occasioned by the expiration of Mr. W. A. Maggs's period of office on the above Board will be filled up at the quarterly Council in April, Mr. Maggs not being eligible for re-election.

CONJOINT BOARD IN ENGLAND.

AT a meeting of Comitia of the Royal College of Physicians on January 30th and of the Council of the Royal College of Surgeons on February 13th, diplomas of L.R.C.P. and M.R.C.S. were respectively conferred upon the following ninety-eight candidates, who have passed the Final Examination in Medicine, Surgery, and Midwifery of the Conjoint Examining Board and have complied with the necessary by-laws:

K. B. Aikman, C. H. P. Allen, G. S. Applegate, C. V. Aserappa, S. G. Askey, M. Avent, G. Bailey, J. H. Bennett, P. T. G. Bergouignan, A. C. L. O'S. Bilderbeck, W. F. Blandford, M. F. Bliss, E. C. Bowden, F. J. Y. Brash, R. T. Brotchie, H. H. Brown, S. A. Burn, A. C. Clifford, A. G. W. Compton, W. J. Cran, W. H. Dakin-Smith, A. B. Danby, F. E. Daunt, K. B. Dickson, P. G. Doyne, G. D. Eccles, E. A. C. Fazan, E. J. Foster, I. S. Gabe, N. Garrard, G. W. B. Garrett, H. C. Godding, E. M. Grace, B. Grellier, C. J. A. Griffin, F. A. Gunesekera, A. E. Hallinan, W. E. Hallinan, S. H. Hay, A. M. Henry, F. M. S. Hulke, F. C. Hunot, T. J. J. Jeppe, D. W. John, R. E. Johnston, M. K. Joshi, W. H. Kauntze, K. J. T. Keer, F. H. Kelly, Merlin Kingsley, H. A. Lake, H. W. Latham, H. V. Leigh, F. G. Lescher, A. R. MacMullen, K. C. Mandana, H. H. Mathias, A. W. Matthew, L. M. J. Menagé, C. C. Messiter, A. G. H. Moore, O. G. Morgan, D. E. Morley, L. Page, J. L. Perceval, O. Pitt, C. H. G. Pochin, Lao Htin Poh, H. M. Pope, S. B. Radley, S. O. Rashbrook, L. N. Reece, Minerva Ellen Reid, P. Roux, J. A. Ryle, W. H. P. Saunders, B. E. P. Sayers, W. Simpson, R. W. Spence, C. M. Stallard, R. Stansfeld, H. M. Stephenson, W. J. F. Symons, J. R. K. Thomson, M. L. Treston, H. de P. B. Veale, A. W. Venables, A. S. Wakely, H. F. W. Warden, H. A. Watermeyer, P. J. Watkin, C. A. Weller, E. W. Whiting, S. Wickenden, A. Wai-tak Woo, B. Woodhouse, W. W. Woods, L. D. Wright.

Diplomas in Public Health were conferred upon the following:

F. J. Ayre, H. Balme, Lieutenant Jamasp Cursetji Bharucha, I.M.S., Elsie Mary Chubb, W. E. Cooke, A. Ferguson, Captain C. A. Gill, I.M.S., H. Hilliard, Major J. E. Hodgson, R.A.M.C., Captain H. M. H. Melhuish, I.M.S., Captain A. L. Otway, R.A.M.C., P. Rose.

CONJOINT BOARD IN IRELAND.

THE following candidates have passed the examination indicated:

DIPLOMA IN PUBLIC HEALTH.—Captain T. C. Boyd, F.R.C.S.I., I.M.S., T. W. Conway, F.R.C.S.I., J. J. Cullen, L.R.C.P. and S.I., C. H. Denham, M.B. Dubl. Univ., Captain D. L. Harding, F.R.C.S.I., R.A.M.C., J. O'Regan, L.R.C.P. and S. Edin., T. E. Rice, L.S.A., R. F. Williams, M.B. Univ. Camb.

* Obtained honours.

Medico-Legal.

SANATORIUM BENEFIT.

Claim for Negligence.

AT the Lambeth County Court, before Judge Parry and a jury, an action was brought on February 17th against the Insurance Commissioners and Mr. J. A. Dawes, M.P., chairman of the Insurance Committee for the County of London, by the widow of an insured contributor who claimed £100 on the ground that she and her two children had suffered damage from the negligence of the defendants in wrongfully neglecting to provide sanatorium benefit for her deceased husband and a sum of 10s. a week for the maintenance of herself and her two children to which they were entitled under the Act. The Commissioners set up the defence that the administration of sanatorium benefit was entrusted to the Insurance Committee and not to them, and that no case was maintainable against them in respect of any act or default of the committee in relation to sanatorium benefit. It was also alleged that no action was maintainable by any insured person against the Insurance Committee in relation to anything done or omitted by the Committee under Part I of the Act, and also that by reason of Section 8 of the Act no sum was payable in respect of sickness benefit or disablement benefit to the plaintiff's husband, and that the Insurance Committee was not guilty of any negligence or default, and that death was not caused or accelerated by any act or default of the Insurance Committee.

The deceased had been first seen by Dr. Mackeith on August 18th, and his diagnosis of pulmonary tuberculosis was confirmed at the Brompton Hospital. On the advice of Dr. Mackeith the patient's wife made application to the Insurance Committee, and was given two forms to fill up. On September 23rd, having heard nothing more, she again applied, indicating that she was depending for nourishment for her husband upon gifts from friends. Dr. Mackeith, on September 29th, reported that the patient required rest in bed, fresh air, and suitable nourishment. It was contended on behalf of the widow that her husband had been entitled to be treated under the Insurance Act and provided with extra nourishment, and that if he had been so treated the chances were in favour of his life being saved.

Dr. Mackeith, giving evidence, said that he did not regard the case as one for removal to a sanatorium, but that it should have been treated at home; he believed that the man might have recovered and returned to work.

Mr. J. A. Dawes said that the London Insurance Committee received a report on October 10th; the matter had first come before him on September 26th. The Committee could not do anything until they got the report of the patient's doctor and the insurance card.

It was submitted on behalf of the Commissioners that there was no case against them, and the judge ruled in their favour.

The case then proceeded as against the Insurance Committee. Dr. Priestley, M.O.H. Lambeth, said that the notification he received from Dr. Mackeith did not show that the case was urgent, and he had waited for the next meeting of the local subcommittee. In reply to the judge, he stated that nothing had been done by the local subcommittee to give the deceased sanatorium treatment.

The judge left the following questions to the jury: (1) Was the Committee guilty of negligent default in not providing suitable nourishment to deceased between September 29th and October 14th? (2) Did this negligent default cause the death of the deceased? (3) What monetary loss had the widow sustained? They answered the first question in the affirmative, the second in the negative, and fixed the monetary loss at £150.

Mr. Mathew, counsel for the Insurance Committee, asked for judgement on these findings, the jury having found that the man's death was not caused by negligence.

His Honour entered judgement for defendants with costs, stating that the jury's answers left everything in order for the widow to appeal.

CERTIFICATES BY UNREGISTERED DENTISTS.

AT the Wimbledon Petty Sessions on January 29th, Henry Ramage, manager to "Wilson's Dental Surgery," 43, The Broadway, and W. G. Morris were summoned at the instance of the British Dental Association for offences under the Dentists' Act, s. 3. Mr. Turner appeared for the prosecution, Mr. P. Robinson defended.

It appeared that the Surrey County Council, when selecting boys for their technical colleges, required medical and dental certificates. A doctor, finding that a boy's teeth were not in order, would give him a printed notice to consult a dentist. This notice specified that the certificate must be signed by a duly qualified and registered dentist. It appears from the report in the *Wimbledon Borough News* that a lad named Stone, having been so served, went to 43, Broadway, and saw the defendant, Ramage, who said that he knew all about such notices. The documents supplied by Ramage were rejected, and the Dental Association was communicated with. It was not alleged that the work done for the boy was unsatisfactory.

It appeared that Ramage was not a registered dentist. He admitted that he had signed a certificate, which had been handed to him by his secretary without any statement that the certificate must show the boy had been passed by a qualified and registered dentist. He also swore that he had never seen the education authority's form and would not think of signing it. A second certificate was issued by his secretary. He denied that Mr. Stone showed him the form.

The Chairman announced that the Bench had decided to convict and would impose a penalty of £2 and costs. He added that the dental authorities were perfectly right in taking proceedings in such cases.

In Morris's case, the summonses were not contested, and he was fined £2, being also ordered to pay £1 1s. advocate's fee on each summons and 8s. 6d. costs.

ON the suggestion of the High Commissioner for Cyprus, the Secretary of State for the Colonies has arranged that a visit shall be paid to the island during March by Sir Ronald Ross, M.D., K.C.B., F.R.S., late Professor of Tropical Medicine in the University of Liverpool. The object of Sir Ronald Ross's visit is to investigate the cause of the prevalence of malarial fever in the island and to advise in regard to the best means of combating the disease.

Obituary.

EDWARD ADRIAN WILSON, B.A., M.B.CANTAB.,

HEAD OF SCIENTIFIC STAFF, NATIONAL ANTARCTIC EXPEDITION, 1910.

THE manner of the death of Edward Adrian Wilson will make his name to be remembered as long as his countrymen keep their love of quiet courage and of the spirit of adventure. No one can read unmoved Scott's story of that last month which began for them about a year ago. The physical suffering, the mental tension as they struggled on from one store of food and fuel to the next, the growing uncertainty, the falling hope, the noble death of their sick comrade, whose fate must have seemed a forecast of their own, cannot but have tried even their courage. It did not fail and they struggled on, for, indeed, with one fine day, or even a better store of food and fuel at their last camp, they could have won through. Wilson had chosen a life of adventure and research in the field, and in this last venture to the extreme south, for which he was proud to be chosen, since the choice was a proof of the confidence felt in his qualities of heart and mind, he knew—no one better—the risk to be taken. He took it and lost, and would have been the last to murmur because death in early manhood was the lot of the loser:—

I love
The name of honour more than I fear death.

He was a type of man of which any profession may be proud. Simple, unassuming, quietly efficient, he impressed every one as a comrade who could be trusted wholeheartedly, one who would not fail at a pinch. He was born in 1872, the son of Dr. E. T. Wilson, Consulting Physician to the Cheltenham General Hospital. He was at school at Cheltenham College, and went up to Cambridge with an exhibition at Caius College in 1891. The fact that in 1894 he took a first class in the Natural Science Tripos (Part I) is proof of the early bent of his mind and of his ability. He would probably have wished to go on with natural science as a career, but he was not a laboratory student, and a field naturalist must have leisure or some definite calling. He therefore, as have many like minded before him, turned to medicine, and went through the usual course at St. George's Hospital, where his simple, honourable, straightforward character, genial humour, and artistic talent won him many friends. During this period he worked at the Caius College Mission, and to this possibly was due the breakdown of his health, for in March, 1898, he developed pulmonary tuberculosis. The disease was well marked and the diagnosis certain. On Dr. Rolleston's advice he went to Davos in November, 1898. Though he recovered slowly, he was quite free from any signs of active disease when he started on his first Antarctic expedition. He graduated M.B. in 1900, but the peril he had gone through no doubt confirmed his natural inclination to the life of an open-air naturalist. He got his chance when in 1901 Captain Scott, trusting his own judgement of his recruit's character and capabilities, gave gave him a berth as surgeon and naturalist on the *Discovery*.

Professor J. STANLEY GARDINER, F.R.S., of Cambridge, has responded to our request for some contribution to this biography by the following tribute to Wilson's character and life-work, which may properly be introduced here:

E. A. Wilson came up to Gonville and Caius College as a freshman in October, 1891, the present writer coming up at the same time. He quickly became known to all his year on account of his extraordinary enthusiasm for everything which he took up. Rowing always claimed him, and he represented his College in his three undergraduate years in both the Lent and the May boats. He was an interesting figure in many ways, for we were a quarrelsome year, and he was always the mediator trusted by all sides. Although always in the midst of whatever fun was going, he yet kept curiously apart, for he had a peculiarly strong sense of duty of what he owed to his parents, to his College, and to himself. His rooms showed his tastes, much of his spare time being given to sketching, while there was always a litter of skulls, claws and odd bones of animals lying around. We always felt that we could refer to him in any question of bones. He might not know the use or comparative morphology of the part, but he always knew what existed and what it was like. Wilson had no scholarship, but he obtained a First Class in his Tripos, and many of us felt that he ought to have been placed on the Foundation of his College.

Wilson's hospital work was noted for great thoroughness, but the chief change that the writer noticed in him at that time was an entire change in attitude, continual thought and inquiry as to the functions of all organs of the body in animals, together with a still greater interest in the habits of living animals. He developed greatly in other ways, and became tenacious to an extraordinary degree, and thought over his every action as to whether it was right or whether it was wrong. He became a strong man, one to whom his fellows looked up in their difficulties. Many of his hospital contemporaries owe much to him. Few really knew him, but all liked and respected him. At that time he was threatened with phthisis, about which then relatively little was known. I remember being told that his case was a bad one, but he was always cheerful about it, and ultimately, as we all know, completely recovered.

Wilson's chance came on the *Discovery* Expedition, to which he was appointed after some considerable doubt. Captain Scott told the writer that he was the life and soul of the party—the organizer of all amusements, the always good tempered and cheerful one, the ingenious person who could get round all difficulties; he knew no fear. To his splendid qualities and kindliness all his comrades have borne testimony. He made the mammals and birds his own, publishing two large sections upon them in the reports of the expedition. They are not mere dull lists, but reports of enduring value, showing everywhere throughout the personal joyousness of their author. What could be more expressive than his drawings of the young chicks of the emperor penguin, or more maternal than that of the mother seal with her week-old baby? One feels what the strain must have been on such a man to have left his newly married wife to go on that expedition.

For some years subsequently Wilson was engaged in working up his results, and his very beautiful and artistic sketches of ice and snow, and life in the desolate Antarctic. He was also engaged in illustrating phases in bird life. Later, we find him investigating grouse disease, as zoologist to the recent inquiry. His mind, however, was set upon the South Pole. He was certain that Scott would arrange another expedition, that he would get there, and that he, Wilson, would be with him. He laughed at the danger, but at times he showed that he was quite alive to it. He thought, though, that it was his duty to go. For himself he sought no end. He wished to be there to help his friend, and to show what Englishmen could do and dare. How nobly he accomplished his ideal is apparent to all. May the memory of his heroic end and of that of his companions become an everlasting and cherished memory of our race.

We have also received the following contribution from one of Wilson's contemporaries at Caius and St. George's:

I knew Wilson intimately both at Caius and St. George's, and of all the men I have known he stands out by reason of the beauty of his character and the highness of his aims. He was a deeply religious man, and as an undergraduate he lived a life of ascetic purity; but he was quick to make friends and to see good in the wildest undergraduate, for his purity was of the quality of flame, which need fear no contamination. With even the lighter-minded undergraduates he was immensely popular, for he possessed that certain passport to the College's heart—a vein of delightful humour. When a medical student at St. George's, he lived in the poorest part of London, in order that he might give his service to the poor. He was a hard worker at his profession; indeed, I believe it was his prolonged work at the pathology of tuberculosis that brought about the infection that caused him to give up a medical career for that of a naturalist. As a naturalist I think his chief interest was in birds. I remember once walking through a wood with him in spring; from every note we heard he was able to tell me not only the species but the precise occupation at the moment of the bird that had

uttered it. Once, when on a walking tour in the Hartz Mountains, he found a hawk's nest in a pine tree. He climbed the tree, took one of the fledglings, carried it with him for the rest of the tour, brought it alive to England, reared it, and made a pet of it. His love of birds was as much that of an artist as of a naturalist. He would wait for hours until he had got a bird in a characteristic attitude in order that he might draw it. His artistic gifts were great, and would, I believe, have brought him name and fame had he devoted himself to art. Of his achievements I leave others to speak; I will only say that no one could meet him without being the better for it, and that it falls to few men's lot to be so deeply loved by his friends.

On his return from the Antarctic in 1904 he spent some time in working up his observations, and published reports on the scientific results of the *Discovery* expedition and on the distribution of Antarctic seals and birds. During the period before he left England with the second Antarctic expedition in 1910 he did field work for the Grouse Committee, and as to this we venture to quote the following tribute in the *Times*, signed "A. E. S.," initials which may be identified as those of Mr. A. E. Shipley, F.R.S., Master of Christ's College, Cambridge:

> Although I had known him as a pupil in Cambridge about the middle of the Nineties, it was not until the departmental inquiry into the diseases of grouse was established in 1905, under the chairmanship of Lord Lovat, that I really came to know him intimately. From the beginning of our working together I appreciated the fact that my colleague was a man of the very highest character. He was indefatigable in his work, absolutely unselfish, never thinking of his own reputation, but very keen to advance knowledge and achieve results, singularly modest, with a quiet sense of fun and humour; so that altogether he was an ideal man to work with.
>
> Dr. Wilson was a quite remarkable field naturalist. Little that went on in the open escaped his notice. He could not only see things which the ordinary eye passes by, but he could perpetuate them on paper. He was an artist of no mean merit. Those who are happy enough to possess any of his Antarctic sketches, with their vivid representations of the white waste and the blue skies, will recognize this. But his greater skill lay in depicting animal life. The present edition of Bell's *British Quadrupeds*, now in course of issue, owes much to his accurate and artistic pencil; and the report of the Grouse Disease Commission owes much of its interest to the fine plates which he prepared.
>
> Then, again, he excelled as a lecturer. I have never heard a more entertaining or a more informing discourse than one he gave on "Penguins" after his first visit to the Antarctic.
>
> Wilson was a man of indomitable courage, one who never spared himself—characters that were appreciated to the full by Captain Scott. He was very simple in all his habits and very direct in his thought and address, loyal to his friends, staunch to any cause he took up. He had, in fact, the characters of the finest type of an English gentleman.
>
> He leaves behind him a wife who has been awaiting in New Zealand his return for the last eighteen months.

Lord Lovat, the Chairman of the Committee, in his introduction to the report published in 1911, wrote:

> It is difficult to speak highly enough of Dr. Wilson's services, for not only was he an indefatigable worker in the field, but his ornithological knowledge, his scientific training, and his artistic skill, have been of the utmost value in every branch of the inquiry. Practically every grouse which was submitted to the Committee for examination was dissected and reported on by Dr. Wilson, and the results of these dissections, as shown in Appendix D, not only form a record of long and patient labour, but also provide an enormous mass of carefully arranged material which has been of great use to the Committee. Dr. Wilson has written or aided in writing ten out of the first fourteen chapters of the book, and has not only fully illustrated his own contributions, but has placed his artistic skill at the disposal of nearly all the other writers. In addition to his services as field observer and physiologist, Dr. Wilson conducted a series of experiments on live grouse at the Committee's Observation Area whereby the results obtained by Dr. Leiper, Dr. Shipley, and others were put to the test; these experiments entailed some years of hard and patient work, and required the closest co-operation with the other members of the scientific staff. Dr. Wilson's personal qualities secured for him the willing assistance alike of local correspondents and scientific staff, and went far to ensure whatever success the Committee has achieved.

The first paper contributed to the report by Dr. Wilson was on the change of plumage in the red grouse in health and disease. The frontispiece is a spirited drawing of the red grouse in summer with young chicks, and in twenty-one other drawings the variations in the plumage of the grouse of both sexes at various times of the year, and in the several varieties, are fully illustrated. Other papers in the volume by Dr. Wilson were on the food of grouse, based on an examination of crop contents, on the physiology and anatomy and the weight of grouse, and papers on the causes of mortality in the red grouse, and on grouse disease, written in conjunction with Lord Lovat and Mr. A. S. Leslie respectively. In the volume of appendices to the report Dr. Wilson wrote a full account of the experiments on hand-reared grouse carried out in the Observation Area, as well as the long report referred to above by Lord Lovat as Appendix D.

When the National Antarctic Expedition of 1910 was decided on, Wilson was appointed head of the scientific staff. The *Terra Nova* sailed from Cardiff on June 15th, and reached Simons Bay about two months later. Captain Scott joined at Cape Town, and the ship, after touching at Australian ports, went on to Lyttelton, New Zealand, where ponies, dogs, motor sledges, and some additional stores were picked up. She left New Zealand on November 29th, 1910, entered the pack ice on December 9th, and eventually reached McMurdo Sound towards the end of January, 1911. After some exploration work she returned to winter quarters at Lyttelton, and the expeditionary party were left to their own resources on the Antarctic Continent for the winter. Last year the *Terra Nova* went again to McMurdo Sound and brought news that the party on shore were, with the exception of Commander Evans, who was recovering from scurvy, in good health and spirits, and that Captain Scott and the southern party were remaining for another year to continue and complete the investigations which had been planned. In the work during 1911 Wilson took his full share. He brought to it many qualities which made him a valuable member of the expedition. He was a keen and accurate observer, and his skill as an artist enabled him at once to record his observations and impressions. He was an indefatigable collector also, and a good helpful, resourceful, cheery comrade. On the last expedition he would seem to have proposed, in addition to general work, to give special attention to three subjects: the development of the chick of the emperor penguin, the embryology of seals, and the identification of certain varieties of whales which he had reason to believe had not been recorded. With the first object in view he headed a sledge party which started for the penguin rookery at Cape Crozier in mid-winter (June), 1911; it was a fortnight on the outward journey, encountering temperatures of 70° below zero and even lower. On the slopes of Mount Terror the party spent three days in building a stone hut, which they roofed with canvas. Comparatively few birds were found in the rookery, but fortunately these had already begun to lay, and eggs at different stages of development were secured. The same night a violent gale commenced to blow, and a tent and other articles, though carefully secured, were blown away. The canvas roof of the hut, after straining for fourteen hours, was torn to ribbons, and for thirty hours or more the travellers were confined to their frozen sleeping-bags, half-buried in snow and fragments of rock. Only after forty-eight hours did the wind decrease so far as to enable them to get a meal. The party returned, after five weeks' absence, encased in ice and suffering from want of sleep, but otherwise well. When the darkness and the extreme temperatures experienced are remembered, this winter journey in the Antarctic will always remain a remarkable feat of endurance.

Wilson was one of the sixteen selected by Captain Scott for the South Polar party, which started on November 2nd, 1911, and was one of the four who accompanied their leader to the South Pole. His last letter to his father was written on January 3rd, just before the start on this final



M. M. McHARDY.

(From a bust to be placed in the Royal Eye Hospital, Southwark.)



E. A. WILSON.

(From a photograph taken by his father.)

stage of the expedition. "I am fit and strong," he wrote, "and am just glad for all your sakes that I am one of the party for the Pole. We shall be at the Pole in less than a fortnight and back at winter quarters in the middle of March." Though the object of the whole expedition was scientific, every one of the party hoped that the Union Jack would be the first national flag to be planted at the South Pole, and it must have been a disappointment to that hope when they found that Amundsen had anticipated them by a few weeks. The cause of the delay in the return journey was twofold—the unusually inclement weather, the breakdown first of one member of the party and then the illness of another. The final catastrophe seems to have been determined by the failure of food and fuel during a prolonged blizzard. The bodies of the three men—Scott, Wilson, and Bowers—were found in their tent by the Southern search party on November 12th, 1912. Surgeon Atkinson and his companions gathered the records and effects of the dead men, read the burial service over their bodies, and erected a cairn and cross to their memory over the inner tent in which they were buried. We may hope that they will be allowed to rest there, and that the idea of bringing the bodies home may be abandoned. "Surely," as one who has a special right to speak has said to us, "it would be better, a thousand times, to let them sleep on amid the eternal snows with their great achievement as their noblest monument."

Dr. Wilson married immediately before his first journey to the Antarctic, and for more than a year his wife has been waiting for him in New Zealand. He leaves no children, but to his widow, to his father, and other members of his family the sympathy of the whole country has gone out.

A memorial service to Dr. Wilson was held in the Parish Church at Cheltenham last Sunday afternoon, and on the same day the Principal of the College preached to the boys on the text "Be thou faithful unto death." There is to be a special memorial service in the College chapel next month, on a day near the anniversary of Wilson's death.

It is satisfactory to be assured that all the scientific records and specimens collected by the party are safe, and it may reasonably be hoped that among these records will be notes and sketches by Dr. Wilson.

MALCOLM MACDONALD McHARDY, F.R.C.S.Edin.,

LATE OPHTHALMIC SURGEON TO KING'S COLLEGE HOSPITAL.

It is with the greatest regret that we have to announce the death at Dumfries, on February 8th, of Mr. McHardy, late Ophthalmic Surgeon to King's College Hospital.

Malcolm Macdonald McHardy was born on March 15th, 1852, at Springfield, near Chelmsford, Essex; he was the sixth son of Admiral J. B. B. McHardy by Horatia, daughter of Admiral Pascoe, and grandson of Nelson's famous flag-lieutenant. He was educated at the Royal Naval School, then at New Cross, but subsequently removed to Eltham, in Kent; he left that institution at the age of 17, and was entered as a medical student at St. George's Hospital, and from that time forward entirely supported himself by his own earnings as an assistant, until he obtained the diploma of M.R.C.S.Eng., in 1873. He held several junior surgical appointments, being assistant house-surgeon to the Leicester Infirmary, house-surgeon to the Belgrave Hospital for Children, ophthalmic assistant and registrar to St. George's Hospital, surgical registrar to Charing Cross Hospital, and clinical assistant to the Royal Eye Hospital, Southwark. He thus obtained a practical and thorough all-round training before he specialized in ophthalmology.

He made a voyage or two in the ss. *Kongs Sverre*, and in 1877 was admitted a Fellow of the Royal College of Surgeons of Edinburgh. In 1878 he was appointed surgeon to the Royal Eye Hospital, Southwark. To his efforts was mainly due the rebuilding of that institution, which, by his devotion and untiring energy, was remodelled and raised to its present high level of efficiency. In 1880 he was elected Professor of Ophthalmology in King's College, London, and surgeon to King's College Hospital.

Among his many writings and lectures the following were the most noteworthy: "On the operative treatment of immature senile cataract and its artificial ripening by massage"; on "The application of the electro-magnet in the removal and diagnosis of iron and steel chips from within the eye"; "A new self-registering perimeter"; "A case of double black cataract"; "The treatment of primary glaucoma by iridectomy"; "On the prognosis of albuminuric retinitis"; and "On localized tuberculosis of the choroid"; he edited the fourth edition of *Wells on Diseases of the Eye*, with an original ophthalmoscopic atlas.

McHardy was a master of many handicrafts, his father originally intending to make him an engineer, and this mechanical bent helped to raise him to the position of distinction and usefulness that he subsequently occupied in eye surgery. He was practical to his finger-tips, and his originality and resource were of that cool and calculating nature mostly to be found in engineers.

For thirty years McHardy was to be seen at the Royal Eye Hospital, treating the poor with as much devotion and consideration as he would his most valued patient in private, twice a week, and for six and seven hours at a stretch, and often until nine o'clock at night, with that light-hearted, genial, breezy manner of his that endeared him to his patients. It was said of McHardy's patients that they would wait hours to see him, without grumbling at the waiting. This was true, and largely due, not only to his sympathetic, kindly way of treating their ailments, but because he also had a good knowledge of most trades and occupations, so that he was able to converse with them on the ins-and-outs of their work, which greatly pleased them.

He was very thorough in examining his patients, and made most careful and complete notes of his cases. The two hospitals at which he worked contain piles of his valuable notes and comments, and he thus built up that storehouse of facts which, with his natural aptitude for the work, made him a thorough ophthalmic diagnostician.

McHardy was a most beautiful operator. All who ever studied under him, whether English or foreign, bestowed the highest praise upon his consummate skill and dexterity. His ability to ripen an immature lens by trituration, without causing iritis, etc., was very great, and somewhat unusual, since the operation is not in general use.

He was, it is said, the first operator systematically to draw up into, and leave in, the angle of the wound a strand of iris stroma, free from pigment, during the operation for primary chronic glaucoma, with the avowed object of obtaining a filtration cicatrix. This he was doing in the early nineties of the last century, with considerable success.

The self-registering perimeter which he invented in 1882 has held its position for thirty years. It is a masterpiece of mechanical construction, and was as ingeniously thought out as it was well made.

A man of fine physique and a good athlete, McHardy was a striking personality. He spoke in a brusque and forcible fashion, and needed to be studied to be understood. Beneath the rugged surface there was a large and kindly heart. Whoever needed a lift got the helping hand of McHardy freely extended to him, and his home at Margate was always at the disposal of any poor student at King's who might need a change of air. He was very generous to the poor of Southwark, and his hand was for ever in his pocket. He served on several philanthropic bodies, amongst which was the Society for the Promotion of the Welfare of the Blind. In worldly possessions he had little and wanted less; for he was self sufficient, and easily satisfied with few personal belongings. Patients flocked to him in private as they did at the hospitals. He made money, but did not keep it. His house at Margate was a curiosity—the rooms were more like the cabins of a sailing ship, with little furniture except the bare necessities of daily life, and "no superfluities to cumber the place." His was an individuality of that clear, defined, strong type that to attempt to model would have been to attempt to spoil; and although all could not acquiesce in all of him, yet a few more fearless expositions to the world of a personality true to itself, unmasked by the cloak of convention or deceit, such as was his, would be all to the benefit of humanity.

The funeral took place at Dumfries on February 11th, and amongst those present at the graveside were representatives of the staffs of King's College Hospital and the Royal Eye Hospital. A memorial service

was held at the same time in the chapel of King's College, London, at which many of his former colleagues and students were present.

ALFRED BAYNARD DUFFIN, M.D.Edin., F.R.C.P., F.R.C.S.,

CONSULTING PHYSICIAN TO KING'S COLLEGE HOSPITAL, AND EMERITUS PROFESSOR OF MEDICINE, KING'S COLLEGE MEDICAL SCHOOL.

We regret to announce the death of Dr. A. B. Duffin, which occurred on February 10th at his residence in Wallington, Surrey, at the age of 79.

Alfred Baynard Duffin was the son of a general practitioner in London, and was educated at King's College, London, and at the universities of Edinburgh and Berlin. In Berlin he came under the influence of Professor Virchow, and acquired the interest in pathology which was later to colour all his clinical and teaching work. He became M.R.C.S.Eng. in 1855, and graduated M.D.Edin. in 1857. In 1858 he was House-Physician at King's College Hospital under Dr. George Budd, Dr. Todd, and Dr. George Johnson, and often spoke of his experiences in the old building which preceded the present King's College Hospital, which itself is about to be abandoned for new premises in the south of London. He became Assistant Physician to the hospital in 1860, at the same time as Dr. Edward Liveing and the late Dr. E. Symes Thompson. He did not become Physician to In-patients until 1874, and during the latter part of this long service in the out-patient room he gave up one afternoon a week in seeing out-patients with skin diseases; his teaching in this subject was much appreciated by the students. In 1876 he succeeded Dr. Lionel Beale as Professor of Pathological Anatomy, and in 1893 he was elected to the Chair of the Principles and Practice of Medicine. After working alone for a few years, he shared the duties of the Professorship with Dr. Burney Yeo, who succeeded him when he became Professor of Clinical Medicine. He was an active member for many years of the Committee of Management of King's College Hospital, and on retiring in 1898 from active service on the staff of the hospital he was made Consulting Physician and Emeritus Professor of Medicine. He was also an Honorary Fellow of King's College, London.



DR. A. B. DUFFIN.

(From a photograph taken by and published with the permission of Mr. C. B. Tahourdin.)

He was elected a Fellow of the Royal College of Physicians in 1873, was a member of the Council from 1894 to 1896, and was an examiner in medicine from 1889 to 1902. He was also an examiner in medicine at the University of Edinburgh. He took the Fellowship of the Royal College of Surgeons of England in 1859, and somewhat prided himself on being one of the few physicians practising medicine who possessed this distinction. For many years he was physician to the Church Missionary Society, and he was also examiner for various insurance societies. He was at one time a pretty regular attendant at the meetings of the Pathological Society and of the Clinical Society of London, and although he never published any of his lectures in book form, he contributed several articles to the *Transactions* of these societies, to the *King's College Hospital Reports*, and to the medical press. We are indebted for the above particulars to a former student and colleague, who adds the following tribute to his memory:

As a teacher Dr. Duffin's pupils remember him mainly for the readiness with which he imparted the fruit of his large store of experience and reading. A random question from a student in the wards often led to an informal lecture of considerable length, delivered with great fluency and rapidity. He was one of the most kindly of colleagues, ever ready to take broad views on matters under discussion, and very tolerant of differences of opinion. Owing possibly to his somewhat retiring disposition, he scarcely attained the professional recognition which his energy and work appeared to merit, but he made many firm friends, and was always ready to advise those who wished for guidance in professional difficulties.

Dr. Duffin never married, but devoted his life to the companionship and care of an invalid relative. During the time that he lived in Devonshire Street he was a constant attendant at Holy Trinity Church, Marylebone, being a man of strong religious convictions.

Dr. Frederick Wright, J.P., of Stamford Bridge, Yorks., died on Saturday, January 25th, in his seventy-seventh year, after a long and painful illness. Mr. Wright had long been recognized in Yorkshire as a leading authority in all matters pertaining to agriculture. He was the son of Dr. John Wright, and was born in Stamford Bridge in October, 1836. He was educated at Knaresborough Grammar School and Edinburgh University, and joined his father in practice after completing his professional education. "T'owd doctor," as he was affectionately called by his friends and neighbours, always enjoyed, like his father before him, the complete confidence of the farmers. He devoted all his spare time to the cause of agriculture, beginning by the establishment of the Derwent District Agricultural Club, the forerunner of several similar institutions in the same part of Yorkshire. He predicted only a few years since that the young farmer who is content with rule-of-thumb methods will not find landlords ready to accept him as tenant, for this is the day of scientific tilling. Mr. Frederick Wright worked hard till a few months ago, when his health failed, and towards the end of January his condition became hopeless. He leaves a son, Dr. Cyril Wright, of Towcester, Northants. According to the deceased doctor's own desire, his remains were incinerated at the Lawnswood Crematorium, Leeds, and afterwards the ashes were interred at Catton Church, near Stamford Bridge; several agricultural clubs sent representatives, and the attendance was very large notwithstanding the inclemency of the weather.

It is with regret that we announce the death of Mr. Henry Sutcliffe, which occurred on January 29th at Bournemouth, where he had resided since his retirement from general practice. He was born at Heptonstall, in Yorkshire, and commenced his medical career, when 18 years old, by being apprenticed to the house-surgeon at the Huddersfield Infirmary. He afterwards studied at University College, London, and obtained the diploma of M.R.C.S.Eng. in 1861, and that of L.S.A.Lond. in 1862. Shortly afterwards he was elected house-surgeon to the Bradford Infirmary. In 1864 he commenced general practice in West Bromwich, and was appointed district medical officer to the West Bromwich Union. When the West Bromwich District Hospital was opened he was one of the three surgeons first elected. He took great interest in the business part of the institution, and was elected on the board of management. He was a careful and successful operator, and when he resigned was appointed on the honorary consulting staff. He was a member of the British Medical Association. As a town councillor of West Bromwich he did useful work, and for some years was chairman of the Sanitary Committee. As a justice of the peace for the borough he was regular in his attendances on the Bench until failing health caused his retirement. His decisions were marked by justice tempered with mercy. His death, which happened rather suddenly from heart failure, will be deplored by his old patients, his medical friends, and the inhabitants of the town where he had practised for so long a period.

The death is announced of Geheimrat Dr. Julius Baumgärtner of Baden-Baden. He expired on February 11th, at the age of 76. He was born in 1837 in Freiburg in Breisgau, and he received his medical education in the university of his native city: he distinguished himself in valuable work in the field of physiology. He then went to Paris and studied in the cliniques of Chassaignac, Nélaton, and Maisonneuf, and in 1862 came to England, where he attended the hospital practice of Baker Brown and Spencer Wells, and afterwards passed on to Dublin and Edinburgh. In 1863 he settled in Baden-Baden, and during the Franco-German war took charge of a hospital for French prisoners in Rastatt, for which he was, after the peace, rewarded by the Société de Secours aux Blessés at Paris, which bestowed on him its Croix d'Honneur. In 1879 Dr. Baumgärtner held the office of General Manager of the fifty-second meeting of German Naturalists and Doctors at Baden-Baden. He became one of the best known medical authorities at Baden-Baden, acquired friendships with numerous foreign visitors, and founded an excellent sanatorium in 1891. He died greatly loved and respected, and his funeral service was largely attended. It was held at the Friedhof Kapelle, well known to English visitors and residents.

Medical News.

The annual meeting of the County of London Branch of the British Red Cross Society will be held at Grosvenor House on Friday, February 28th, when Viscount Esher will take the chair at 4 p.m.

At a meeting of the Hunterian Society at St. Bartholomew's Hospital on February 12th the President, Mr. A. H. Tubby, being in the chair, the annual oration was delivered by Dr. Edward W. Goodall on serum sickness.

A memorial to the late Dr. C. J. Allan of Lasswade, subscribed by the inhabitants of the district, was unveiled in Lasswade churchyard on February 8th. The memorial takes the form of a Celtic cross in granite. The Rev. R. Montgomerie Harris, who presided, made reference to Dr. Allan's valued work for nearly half a century, both professionally and as a member of various boards and institutions.

The county-court judge stated the other day at the Newcastle County Court that he had recently received at the Gateshead Court a medical certificate, printed and initialled, stating that the man was unable to follow his employment owing to the death of a friend. The judge told the applicant he was addressing that a certificate presented to the court must be properly signed and not printed. That it should be properly signed is obvious, but that it should not be printed is an *obiter dictum* which could probably not be sustained if it were shown that a doctor kept a series of printed certificates to meet different conditions frequently recurring.

The first of a course of six lectures on "National Eugenics" was delivered by Professor Karl Pearson on Tuesday evening, February 11th, in the Botanical Theatre of University College, the subject chosen being the effect of heredity, environment, and parental habits upon the welfare of the child. Despite all that had been written and said to the contrary, Professor Pearson reiterated the opinion that feeding and environment were of comparatively small importance, for the healthiest races were by no means necessarily those who lived under the best hygienic conditions. Statistical evidence proved that in the manufacturing towns of the north the most reproductive classes were not those of good health and good habits, but that the race was being carried on to a far greater extent by men and women of bad health and bad habits. The problem before the nation at the present moment was, therefore, how to encourage the right kind of potential parent to marry and bring up children. In his opinion, the money which was now being spent on insurance and old-age pensions would be better employed to give a differential advantage to those who possessed good health and practised good habits, and who were thus endowed with the qualifications necessary to carry on the race.

The annual meeting of the Association of Certified Dispensers was held in the Court Room of the Apothecaries Hall, Blackfriars, E.C., on February, 6th. The financial statement showed a satisfactory balance to the credit of the association. The annual report stated that the association had continued its work on behalf of the members in general, but the question of the long looked for by-law was still unsettled, and the proposed bill on behalf of dispensers still waited a suitable opportunity to be put before Parliament. Mr. Howell, who had recently qualified as a pharmacist, then gave in his resignation of the post of honorary secretary, and on behalf of the members was presented with a gold watch by the chairman, Mr. Montagu Smith, who said that the success of the association was due to Mr. Howell's untiring efforts. Mr. Howell was elected an honorary member for life. Mr. A. Mowbray Upton, Clerk to the Society of Apothecaries, also referred to the services of Mr. Howell to the association and to the correct attitude which had been maintained between the association and the society. Mr. Montagu G. Smith and Mr. A. L. Anderson were unanimously re-elected chairman and treasurer respectively, and Mr. F. E. Trayner (Hackney Infirmary), of 13, Carlton Road, Manor Park, E., was appointed honorary secretary.

The first Conference of the Eugenics Education Society is to be held in the Large Hall of the University of London on Saturday, March 1st, when over five hundred head masters and mistresses will meet to discuss the question of introducing into the usual school curriculum a certain amount of judicious instruction on the subject of racial responsibility. There is to be a morning and an afternoon session. The former will be opened by the president of the society, Major L. Darwin, with a paper on "The Eugenic Ideal." This paper will be followed by others dealing with the difficulties of introducing eugenics into elementary schools, and the best means of overcoming the obstacles presented by ignorance and prejudice; and the session will close with a discussion on this subject opened by Miss Faithful, the Head Mistress of Cheltenham Ladies' College. In the afternoon the Head Master of Eton will read a paper on "Racial Responsibility as a Factor in the Formation of Character," and Professor J. Arthur Thomson, of the University of Aberdeen, will open a discussion on the ways and means of introducing the eugenic ideal into schools. It is proposed, should the general feeling of the audience at the close of the meeting appear to be in accordance with the suggestion, to pass a resolution requesting the President of the Board of Education to receive a deputation to ask that an inquiry should be held "as to the advisability of encouraging the presentation of the idea of racial responsibility to students in training and children at school." The papers read at the conference, together with a summary of the discussions, will be published in *The Eugenics Review* of April 15th.

A. Ulrich (*Mucnch. med. Woch.*, Nos. 36 and 37, 1912) points out that much difficulty has been experienced since the idea of limiting the chlorides in the diet of epileptics, and substituting bromides, was introduced owing to the fact that the treatment must be continuous, and must therefore be of a kind that the patient will take with appetite, and that will not tax the ordinary kitchen. If the diet is rendered too poor in chlorides, the patient may become highly susceptible to them, and any increase in quantity may induce fresh epileptic attacks. Ulrich starts by withdrawing all salt from the soup, which he states means a reduction of from 10 to 20 grams daily. If this is well tolerated the salt used in cooking other food is gradually reduced until a further 5 to 12 grams is got rid of. As soup without salt is unpalatable he uses tablets consisting of 1.1 gram of sodium bromide, 0.1 gram of sodium chloride with extractives of vegetable albumen, fats, and spices. One tablet, weighing 2 grams, with 1 to 2 decilitre of boiling water makes, he says, an excellent soup. All his patients liked it, and appetite had been well maintained. He calls the tablets "sedo-tablets," and they can be obtained from Hoffmann-La Roche and Co. Other flavourings can be added to the soup provided they contain no common salt. He maintains further that when given in this way the bromide acts more powerfully than when administered in the ordinary fashion. The dose given was 1 or 2 tablets a day, increased to 3, and for severe cases to 4 or 5. If bromism occurred he waited to see if the symptoms diminished without altering the medication; if they got worse he lowered the dose, but found it necessary to stop the bromine altogether for a few days in rare cases only. In some cases it was found expedient to continue the bromides and to give at the same time from 1 to 5 grams of chloride extra for a few days. Hans W. Maier (*Mucnch. med. Woch.*, September 3rd, 1912) has tested the method in the psychiatric clinic of the University of Zürich in 20 cases for four months, and expresses himself distinctly in favour of it. He found that it did not disturb digestion. The result in his cases was good, and no case of bromism was observed.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated,*

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisments, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, Westrand, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, Westrand, London.*

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2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

FAIRLANDS asks for suggestions for the relief of attacks of rectal pain which have occurred during the last two years in a man, aged 62, suffering from tabes; morphine gives only temporary relief.

R. (West Indies) asks for advice in the treatment of a patient, aged about 21, of European parentage, who has been suffering from granular pharyngitis and post-nasal catarrh for about a year. The mucous membrane of the middle third of the roof of his mouth is pale and wrinkled at the sides, and sensation is lessened.

DR. WILLIAM HARDMAN, of Bispham, near Blackpool, who has been struck by Dr. Laing's statement (p. 280) that the patient in the case there described suffered a sensation of stomach dropping as a result of the heavy blows received as a prize-fighter, asks what is the state of professional boxers who have followed that occupation for some years.

ANSWERS.

SARTORIUS.—We believe that it is not customary to put an assistant's brass plate up alongside that of the principal; such a proceeding might be interpreted as implying that the assistant was in fact a partner.

LETTERS, NOTES, ETC.

PROVERBIAL MEDICINE.

DR. WM. BRAMWELL (Liverpool) writes: With reference to my note in last week's issue; in consequence of my not having received a proof for correction, which was the printer's fault, and my being a somewhat illegible writer, which is my own fault, there were misprints in the passages relating to my quotation from Homer, which should have read as follows:

"It is Hector's rebuke to his mother because she offered him wine when he made that short visit to his home in order to induce his brother Paris to return to the battle—

Μήτι μοι οἶνον ἄειρε μελίφρονα, πότνια μῆτερ,
Μή με ἀπογυιώσῃς, μένεος δ' ἀλκῆς τε λαθώμαι.

(Do not raise wine, that cheers the heart, to me, revered mother, lest thou unnerve me, and I forget my might and my vigour.)"

With reference to my illegibility of handwriting, which I am anxious should be an excuse for the printer, it may interest him to know that it has got me into trouble on more than one occasion. But in one instance at least I have reason to believe it proved of great service to me; for in the physiology paper at T.C.D., it turned out, to the astonishment of my friends, that I had gained the highest marks of my year. The secret, however, was divulged at the viva voce examination when the examiner informed me that he had had great difficulty in reading my writing. Whilst another examiner on another occasion paid me the high compliment of saying that I was the most abominable writer he had ever had the misfortune to examine. So that how much credit I have had for what I have never known I dare not think.

THE TREATMENT OF SCURVY.

DR. REGINALD A. YELD (Whiteman's Creek, Okanagan Lake, B.C.) writes: In a book entitled *Builders of Canada*, edited by T. G. Marquis, I find a reference (on p. 14) to a treatment for scurvy which may perhaps be new to your readers. It is related there how the French sailor, Jacques Cartier, with his band of 110 men, were attacked by scurvy, while wintering at Stadacona, on the St. Lawrence, in 1536, to such an extent that only three or four healthy men were left to wait upon the sick. Twenty-six of his men died before April. Fortunately a young Indian guide named Doregaya, "who had himself been a sufferer from the scurvy, and had recovered, told Cartier of the remedy which had cured him—a decoction from an evergreen called Ameda, supposed to have been the spruce fir. The sick men eagerly tried it and drank it in such quantities that in six days they had boiled down a tree as large as a French oak; and very soon all the invalids were restored to health, courage, and hope."

SALVARSAN.

DR. THEO. M. KENDALL (London, E.C.) writes: When any remedy which has been brought out with a view to abort or cure a special disease becomes a cure-all, then one begins to doubt its efficacy. When salvarsan was first introduced to the profession certain claims were made as regards its efficacy in the treatment of syphilis, and every one was prepared to give the remedy a trial. Unfortunately, certain risks in the using were not at first understood, and at times one was confronted with seeming disaster. Further, the administration of the remedy was costly, and the unfortunate patient was put to some inconvenience at the time of administration. It cannot be said in all strict truth that this remedy has been a distinct success, nor can it be said that it has proved a certain cure. It certainly has lulled sufferers into a state of fictitious safety, but unfortunately this state has been succeeded by many relapses of the disease. Up to the present we have had no cogent reasons presented to us for abandoning the old tried method of mercurial treatment of syphilis, which if persisted in will effectually abolish the disease, and we have no justification in testing this so-called remedy at the expense of the patient. Now that it has become a cure-all there is less reason why we should put any faith in it. My experience of twenty-six years has taught me to be very cautious before abandoning a tried treatment for one so chimerical as salvarsan, and the many relapses I have seen after its use confirm me more surely in this conviction.

THE PURCHASING POWER OF THE SOVEREIGN.

FOR the information of the Select Committee inquiring into the conditions of employment in the Postal Service, Mr. G. S. Barnes, C.B., of the Labour Department of the Board of Trade, has prepared the following table showing the fluctuations in value of a sovereign during the last eighteen years, measured by its capacity to purchase quantities of twenty-three selected articles of food:

Year.	s.	d.	Year.	s.	d.
1895	20	0	1904	18	0
1896	20	0	1905	17	11
1897	19	3	1906	18	0
1898	18	6	1907	17	7
1899	19	4	1908	17	2
1900	18	5	1909	17	3
1901	18	4	1910	16	11
1902	18	3	1911	17	0
1903	17	11	1912	16	3

ADVERTISEMENTS IN RELIGIOUS PAPERS.

THE parish magazine of Holy Trinity, Darwen (of which the Rev. Louis Savatard is vicar) for February 1st has a very outspoken article, entitled "Disgraceful Advertisements in Religious Papers." Several types are quoted, and in commenting upon them it is said that "in the lowest class of publications such advertisements are dishonest; in a religious paper they are a scandal."

SMELLING THE BABY.

W. sends the following conversation between two children overheard just before an operation was to take place in a private house.

Betty, aged 8: "I think, Rachel, we shall have a new baby to-day; I can smell it."

Rachel, aged 7, was the victim, and the nursery was being turned into an operating theatre.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	3
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

The Goulstonian Lectures

ON

DEATH BY ELECTRIC CURRENTS AND BY LIGHTNING.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

BY A. J. JEX-BLAKE, M.A., M.B., B.CH.OXON., F.R.C.P.LOND.,

ASSISTANT PHYSICIAN TO ST. GEORGE'S HOSPITAL AND TO THE HOSPITAL FOR CONSUMPTION, BROMPTON.

LECTURE I.—DEATH BY ELECTRIC CURRENTS.

IN these lectures I propose to consider, first, the subject of death by electric currents, and next, death by lightning. I do this because a good deal is known for certain as to the way in which industrial and domestic electric currents bring about death in man, and much valuable experimental work has been done illustrating the effects of such currents upon the lower animals. In the case of lightning, however, although plenty of observations upon its victims have been made, the nature of lightning itself has always prevented the making of experimental observations of its effects upon living creatures. It is true that in the middle of the eighteenth century a few desultory experiments were made with the electric discharges brought down from heaven during thunderstorms by kites and lightning conductors of various kinds. But all experimentation of this kind came to an abrupt end when, in 1763, Professor Richmann of St. Petersburg was killed outright in his own laboratory by a miniature lightning stroke a foot long, while investigating the nature of the discharges collected by a lightning-rod set up on his roof above and brought down into his room (Arago).

Death by Electric Currents.

I believe that no loss of human life from industrial currents of electricity occurred before 1879, though currents strong enough to have caused death were employed in lighting the operatic stage in Paris (at the first performance of Meyerbeer's *Le Prophète*) as long ago as 1849, and in lighthouses on and off the coast of England in 1857. In 1879 a stage carpenter was killed at Lyon by the alternating current of a Siemens dynamo that was giving a voltage of about 250 volts at the time. The man became insensible at once and died in twenty minutes; artificial respiration was not applied. The first death in this country took place at a theatre in Aston, outside Birmingham, in 1880, where a bandsman short-circuited a powerful electric battery, became insensible, and died in forty minutes. Since that date the annual number of deaths from electric shock has steadily increased, particularly during this century, in which the industrial employment of electricity has extended so widely, and is now quite large. In the ten years 1901–10 the Registrar-General's returns show a total of 183 such deaths in England and Wales, the population having risen from 32½ to 36 million during that period. In the three years 1901 to 1903 there were 25 such deaths; in 1908, 25; in 1909, 29; in 1910, 26. Only 2 of these 183 victims were females, because women are so much less exposed to contact with dangerous electric currents than are men. Many deaths by electricity occur annually on the Continent, though I can only bring forward a few scattered figures to prove it. In Germany, 33 were killed in 1908, 52 in 1909, 46 in 1911. In Austria, 11 were killed by electricity in 1907, 10 in 1910, 10 in 1911. In Switzerland, 21 were killed in 1905, 19 in 1906. I think it probable that about 200 persons are killed by electricity annually over the whole of Europe. As regards the United States of America, where electricity is so very extensively employed, I have not been able to find any statistical records. As long ago as 1888 Brown estimated that during the past five years some 200 people had been killed by handling live electric wires. One must remember that in America life is held very cheap, and that safeguards and protective legislation tend to be regarded as undue restrictions upon industry and commerce. I imagine that not less than 200 persons are accidentally killed by electric currents every year in America.

As a rule, only a single person is killed by electricity in any single accident; but in an accident occurring in 1909 at Olginate, a village in Lombardy, 10 people were killed outright by a three-phase current at 3,000 volts. One was saved by artificial respiration, and about a dozen more were severely injured (Hoest).

It is necessary before going further to explain the meaning of certain technical terms that cannot be avoided when electric currents are under discussion. Any given electric current is maintained by an electromotive force or pressure that for practical purposes is measured in volts; to give a hydraulic analogy, the pressure or voltage, or, as it is still sometimes confusingly called, tension, that drives the current through an electric lamp corresponds to the head of water, or pressure measured in pounds per square inch, that causes water to run out of a turned-on tap. The rate at which a current of electricity flows, or the quantity (measured in coulombs) flowing in unit time, is measured in amperes; to give the hydraulic analogy, an electric current of so many amperes may be compared to a stream of water or so many gallons per second. The resistance met with by a current as it flows through a circuit or any part of it is measured in ohms; electric resistance is analogous to the frictional resistance met with by water flowing through pipes or in partially choked channels. An electric current that flows steadily in one direction is called "direct" or "continuous." For technical reasons it is often found more convenient to use currents that frequently and regularly reverse, flowing first in one direction round the circuit and then round in the opposite direction, say from 50 to 150 times a second; these are called "alternate" or "alternating" currents of electricity. An alternating current that reverses the direction of its flow 100 times a second is described as an alternating current of fifty periods or cycles a second, or as having a frequency or periodicity of fifty cycles; the frequency of an alternating current is of great importance in considering its dangerousness to life. Electric energy, or the power of doing work, is measured in joules; one joule represents the energy expended in one second by one ampere in one ohm.

Post-mortem Evidence as to the Cause of Death.

The interest of men of science, of physicians and pathologists, in deaths due to industrial electric currents was first shown in France. In 1882 the celebrated French medico-legal expert and pathologist, Brouardel, made a careful *post-mortem* examination of a man killed in Paris at the Tuileries by a 250-volt alternating current, and he decided that death was fulminating, due to the electric discharge, and directly caused by arrest of the heart. Bourrot at the same time examined a second and similar case *post mortem*, and came to the conclusion that death was due to violent excitation of the vagus nerve and consequent arrest of the heart, with the result that the heart could not resume its functions, and death by asphyxia followed. In 1885 a man killed instantaneously by electric shock at the Health Exhibition in London was examined forty hours after death by Sheild and Delépine. Rigor mortis was marked; extreme fluidity of the blood was observed, even the right heart being free from clots. The authors came to the conclusion that "No doubt the vital spots at the base of the brain are in such cases markedly implicated." As the result of a *post-mortem* examination made by Pla in 1891, he concluded that death by electric shock was due to an instantaneous suppression of all the organic functions. The brain and its membranes were hyperaemic in this case; the blood was fluid, but showed no microscopical change. The victim had died twenty minutes after receiving the fatal shock. In 1892 Buchanan described the case of a man who came in contact with a 2,400-volt alternating current, and fell back insensible with one cry for help. Ten minutes later he was found to be livid, with dilated pupils and blood-stained mucus coming from the nares. Artificial respiration was performed; the man inspired slightly three times and then died, becoming quite rigid in about four minutes. The *post-mortem* examination was made thirty-one hours later; rigor mortis was still marked, the blood was liquid and tarry, the brain was congested, the spinal cord was

congested but healthy. Buchanan remarked that the cause of death was evidently asphyxia. In the same year Crossland recorded the case of a youth of 17, who was killed by a current at a pressure of 115 volts. *Post mortem* the blood was found to be "fluid-inky," but no other lesion could be discovered.

It is well to say something at this point as to the infliction in America of the death penalty on criminals by means of electricity, which had been widely discussed in the lay press and the medical papers of America and this country since 1889, and was first put into practice in the State of New York in August, 1890. Various suggestions had been made as to the strength and nature of the current to be used, and the methods and sites of its application to the body of the criminal. The upshot was that alternating currents of high electromotive force—1,200 to 1,700 volts, while Carleton recommended 3,000 volts—were used, with large electrodes fixed to the head, neck, arms, legs, and elsewhere; the current was turned on several times in each case, and for periods lasting up to 70 seconds or more. Each execution, or "electrocution" as it was first called in 1892, lasted from 3½ to 8 minutes. Enormous quantities of electricity were employed in these executions. To quote one example, an alternating current of 7 amperes was maintained for 70 seconds through the body of one criminal, at a pressure of 1,500 volts; assuming that the man weighed 10 st., here was enough energy expended to raise the temperature of his whole body through more than 5° F., quite apart from any heat generated by the prolonged contraction of the electrically-stimulated muscles. Spitzka states that within twenty minutes of an electrocution the temperature of the body rises to 120° or 129.5° F. in many cases, and that coagulation of the myosin of the muscles takes place. The whole muscular system was thrown into complete tonic rigidity, we are told, when the current was turned on, and this was maintained until it was turned off. The *post-mortem* examinations of persons thus electrocuted showed, among other things, extensive capillary haemorrhages in the brain and in the floor of the fourth ventricle, and it was assumed that death was due to injury to the brain. No doubt these haemorrhages were caused by the rupture of small vessels following on the great rise in the blood pressure produced by the prolonged tonic spasm of t muscles; they are not a common feature after death by electric shock. But I think it is obvious that the *post-mortem* changes observed in such electrocutions as these are not of much use in explaining the mode of death by electric shock in industrial accidents, in which the voltage of the current is often much less, the quantity of current passing through the body of the victim is very much less (probably rarely approaching 7 amperes), and the duration of the contact is not often more than a few seconds. The conditions in which electrocutions have been performed and the electrical quantities involved in them are so very different from those ordinarily obtaining in death by accidental electric shocks, that as a matter of fact electrocutions have thrown no light at all on the mode in which deaths by misadventure with electric currents as they commonly occur are brought about. The objects of the responsible authorities were to produce instant insensibility, in the first place, and in the second place death, and both of these objects were attained by the method of electrocution adopted. It was generally supposed that death in electrocution was due to asphyxia or injury to the brain; although, and to my mind quite unjustifiably, it was also argued that it was the subsequent *post-mortem* examination, and not the electrocution, that was the real cause of death, a view that was upheld again and again from time to time in the public press of America until at any rate as late as the year 1905.

During the last twenty years a great many *post-mortem* examinations have been made in cases of sudden death by electric shock, but I do not think that any useful purpose would be served by going through them in detail, as they do not in general throw light on the exact way in which death has been brought about. Stress may, however, be laid on a few points commonly observed. In the first place, burns of greater or less superficial extent are generally seen at the points where the electric current has entered and left the body. They have been carefully studied by Sheild and Delépine, and by Mally, and are due to the relatively great resistance offered by the skin to the passage of the electric current, which is transformed into heat in proportion to the amount of resistance it meets and to the square of the current. If the current is at a low voltage and the contact is brief, the resulting burns may be so slight as easily to escape notice. But if contact with the electric conductor is prolonged, the burning may be very extensive and deep—in extreme cases it has even been found necessary to send for the fire brigade to extinguish the burning victim, who is kept alight by the transformation into heat of the electric energy being poured into him. In the second place, abnormal fluidity of the blood has often been found *post mortem;* in this, those cases of sudden death by electric shock resemble cases of sudden death by asphyxia. In the third place, no pathological changes are regularly found in the heart muscle, although there are good reasons for believing that in most instances death is directly due to paralysis of the heart. In the fourth place, the central nervous system often shows neither macroscopical nor microscopical changes of importance, except in the cases where relatively large quantities of electricity have passed through the body for long periods of time; when this happened, capillary haemorrhages have often been found in the brain and cord, with chromatolysis or destruction of the Nissl bodies in the nerve cells. In a word, the *post-mortem* evidence as to the cause of death by electric currents in industrial accidents is generally negative, but may suggest asphyxia in some cases, in others organic vascular and nervous lesions in the brain and cord.

Evidence from Anatomical and Electrical Considerations.

When one comes to look into a number of both fatal and non-fatal instances of accidental shock by industrial electric currents, it becomes apparent that the part of the body through which the current flows is extremely important in determining the result of the shock. Practically speaking, there is not the smallest danger of sudden death if the current enters one foot or leg and leaves it by the other or by the lower part of the trunk, however high the voltage and however great the current thus forced through the lower part of the body and the legs. But there is a danger, even with electric currents of as low a voltage as 65 volts, when the current travels through the thorax, and so has the chance to pass through the substance of the heart. The degree of danger here depends upon two factors—first, the resistance presented to the flow of electricity by the skin at the points at which the current enters and leaves the body, and, secondly, upon the voltage of the current. The resistance of the skin varies very widely in any given case, being high when the skin is greasy or dry, or when the area of contact with the electric conductor is small, and relatively low when the skin is wet or the area over which it comes into contact with the conductor is great. To give a single example illustrating my meaning, one may handle a bare wire carrying, say, an electric lighting current at a pressure of several hundred volts with complete impunity, so long as the hands by which the current enters or the feet or boots by which it leaves the body are dry, because in these circumstances the amount of current flowing through the body is too small to be dangerous. But if the hands and feet are damp or wet, the electrical resistance of the skin at the points of entry and exit of the current may be so much lowered that a relatively strong current will flow from the hands through the body to the feet; and if the proportion of this current that passes through the heart is strong enough to paralyse it, then sudden death will occur.

Hence the cardiac region in the thorax is the chief danger area of the body in cases of dangerous or fatal electric shock. Experimental evidence obtained from animals makes it certain that the central nervous system constitutes another area of danger; but for practical purposes the number of industrial accidents recorded in which the current entered by the head and left the body without traversing the region of the heart would seem to be small—at any rate, I have not been able to find any.

The direction in which an electric current flows through the body, whether from right to left or left to right, or whether from the head to the feet or the feet to the head, has no influence on the effects it produces. As a matter of convenience one always speaks of a current as

"entering" at the point where the body comes into contact with the uninsulated electric conductor carrying the current, and "leaving" at the place where it is in contact with some indifferent but conducting substance—with the earth in the case of a person who is standing—by means of which the current after passage through the body is conveyed back to the source whence it came. But it must be understood that these words "entering" and "leaving" are used without prejudice to the actual direction in which the current flows through the body in any given case.

Experimental Evidence.

It is upon the evidence obtained by the experimental electrocution of animals that most of our knowledge as to the modes of death by electric shock rests. No electrical apparatus capable of producing currents strong enough to kill animals was invented before about the middle of the eighteenth century. At that time electricity suddenly developed into a popular and spectacular science in France and Germany, just as in the middle of the nineteenth century table turning, spiritualism, and clairvoyance were popularly taken up all over England and America with the greatest energy. In neither case was much real scientific progress made by this arousal of popular interest; birds, beetles, and other living creatures were electrocuted by frictional electricity by Gordon (1745), Gralath (1746), Nollet (1749), and many others (Benjamin). It was noted that the birds exhibited ecchymoses where the electric sparks struck them, much like the ecchymoses seen on persons killed by lightning (Nollet). Priestley in 1767 killed kittens and dogs with the discharges of condensers, and tried without success to resuscitate a kitten by artificial respiration, distending the lungs by blowing with a quill into the trachea. Abildgaard (1775), using condensers and Leyden jars, tried without success to electrocute a 3-months-old foal; he succeeded in killing cocks and hens by electric discharges sent through the head, and made the important observation that fowls treated in this way and to all appearances dead could be brought back to life by electric shocks sent through the body from breast to back, but remained dead if not treated in this manner. Thus, a cock received the discharge of a Leyden jar through its head, and fell down apparently dead at once, blood coming from its nose and throat, no doubt in consequence of the rupture of some superficial vessels by the mechanical violence of the spark; but when a second Leyden jar was discharged into its breast the cock leaped up and flew away with alacrity, upsetting and breaking the Leyden jar. Abildgaard concluded that when death took place in the fowls it was due to syncope brought on by nervous shock.

Brodie (1828), in some experiments made to explain the mode in which death is produced by lightning, was led to suppose that electric shocks caused death by destroying the functions of the brain. He speaks of restoring to life the guinea-pigs apparently killed by electric discharges by means of perseveringly inflating their lungs by bellows. Brown-Séquard (1850) expressed the opinion that animals killed by electric discharges died by asphyxia, tetanus being set up and preventing respiration till death ensued. It must be remarked, however, that this explanation does not account for the many instances in which death occurs without the establishment of tetanus, but with simple failure of the heart or respiration.

Some important experiments on the electrocution of animals by sparks from the large induction coil belonging to the Polytechnic were made in 1869 by Richardson. They led him to believe that death could take place in two ways—either by failure of the respiration or by failure of the heart; in each case as a consequence of injury to the nervous centres. The heart was the last organ to be brought to rest. In the case of a pigeon anaesthetized with methylene bichloride and killed by a six-inch spark from the induction coil, and apparently killed outright, all four chambers of the heart went on beating for an hour and a quarter after death. Discussing the *post-mortem* observations he made, Richardson was finally led to a number of conclusions that are certainly erroneous. "Death," he said, is due "in all cases where it is instantaneous to the sudden expansion of the gaseous part or atmosphere of the blood, combined in extreme degrees of shock with a sudden conversion of animal fluid from the fluid into the gaseous condition." He had found that the vessels of the brain were distended, the arteries contracted, and that sometimes there were slight serous or haemorrhagic effusions beneath the arachnoid; "often, on lifting up the brain and medulla, there is a free escape of bubbles of gas," but he does not say whence this gas came. I cannot find that any other observer (except Corrado in a couple of instances) has observed gas in the blood vessels as the result of electrocution, either in animals or man. The large Apps induction coil Richardson used gave sparks up to 29 inches in length, and even with 29-inch sparks could produce no fatal effects unless reinforced by the use of Leyden jars; the currents he obtained would have been very small, presumably a few milliamperes at most, though the voltage would have been very great—tens or hundreds of thousands of volts; and these facts explain to some extent the inconclusive character of Richardson's results.

The fact is that electricity is a science in which beyond all others science is measurement. For all practical purposes accurate measurements of the strengths of currents, of electromotive forces and of resistances, were luxuries at the command of a few physical laboratories only until the end of the Seventies of last century. Until after the year 1880 the men of science who investigated the subject of electrocution never even thought of giving any precise figures whereby one could calculate the electrical dimensions of the currents they employed. Their statements are qualitative and not quantitative, and so are of historical rather than practical interest in any discussion about the cause of death by electricity.

One of the first experimenters to give accurate measurements of the voltages and currents he used was Grange (1884). He failed to kill guinea-pigs by continuous currents at 31 and 48 volts, and rats with currents of 62 volts; with an alternating current at 825 volts he failed to kill a dog weighing 17 lb., but some of his other attempts at electrocution were more successful. His failures were due to the want of skill with which he affixed the electrodes to the dogs, for he found the resistance of his dogs to be as much as from 50,000 to 80,000 ohms, while later experimenters have observed resistances of only a few hundred ohms when the electrodes were rationally applied to the animals. Grange found capillary haemorrhages in the central nervous systems of the animals he killed, and concluded that these haemorrhages were the cause of death. The fact that later experiments have shown that alternating currents at voltages as low as 10 or 15 volts suffice to kill dogs if electrodes are used so as to reduce the resistance of the animals to a minimum, proves what care is necessary in drawing definite deductions as to the possibilities of death by electric shocks; for here we have Grange failing to electrocute dogs with alternating currents of no less than 825 volts electromotive force.

In 1885 Mann made some interesting experiments on the effects of electricity on the action of the human heart. He applied the electrodes to the praecordia and back, and found that a slowly alternating current of from 15 to 30 milliamperes did not prejudice the heart's action. His method of experimentation was admirable, and failed to give more positive results only because the voltage he employed between the two electrodes was not large enough to drive stronger currents through the thorax, fortunately for the person on whom the experiments were made. It would be of the greatest interest to know how high a voltage can be used, and how large a fraction of an ampere can be passed with impunity through the human heart, from front to back through the thorax, with electrodes applied to the best advantage; because it is the strength of the current passing through the heart that is the main factor in determining death in the large majority of industrial accidents as they actually occur, and it is a quantity that has never yet been measured. Experiments to determine these points, however, in human beings would be far too dangerous to be justifiable—unless, indeed, some American criminal condemned to death were to offer to take on the task and were allowed to do so.

In 1885, and further in 1887, d'Arsonval made some interesting remarks on deaths caused by industrial electric currents, advancing the views as to their mode of

production that he has continued to hold faithfully ever since. These deaths, he said, were brought about in one of two ways:

(1) By direct action, the mechanical effect or disruptive action of the electric current on the tissues; or
(2) By indirect or reflex action on the nervous centres.

In the first case death is final; in the second it is often apparent only, so that the victim may recover if treated by artificial respiration immediately after receiving the shock. Most of the victims of industrial electric accidents had died of asphyxia, he believed.

In 1889 Doulin published some details of ten autopsies made on electrocuted criminals in America, and advanced the view that death was due to action of the electric current (conducted by the blood) upon the ganglia of the heart, causing a spasm of the heart muscle: in other cases it was produced by disorganization of the blood and interference with the circulation. I cannot find that these two theories ever had much vogue, or that the spasm of the heart muscle and disorganization of the blood have ever been observed experimentally, either before or after Doulin's elaboration of these views. An editorial in the *Lancet* (1890) brought forward the explanation that electrocuted persons died "by concussion of the brain and explosion within the closed cavity of the skull"; here, again, we have a theory of the cause of death that lacks any experimental evidence in its favour or even rational support. As a contrast may be quoted the excellent experiments made in 1890 by Tatum, upon dogs for the most part. He found no *post-mortem* lesions unless he used current densities many times in excess of those needed to produce death; weak currents might produce death by arresting respiration, strong currents by a permanent arrest of the heart without influencing respiration, while currents of intermediate strength might kill by arresting both the heart and the respiration simultaneously. Tatum appears to me to have been the first to give due prominence to the fact that death by electricity is generally due to paralysis of the heart, and depends on injury of the heart muscle rather than of the nerves of the heart. He also showed that section of the vagi and the use of atropine or curare gave no protection against the fatal result in these electrocutions—observations that are hard to explain on the theory that death by electric currents is due to nervous inhibition. Tatum also showed that a given current would be most fatal when the two electrodes were placed in the neighbourhood of the heart.

One may say that from the year 1890 onwards three main theories of the cause of death by electricity have held sway. The first was d'Arsonval's theory, that it was due to nervous inhibition of the heart and respiration. The second, as advanced by Tatum, attributed death to direct paralysis of the cardiac muscle by the passage of the electric current through it. The third, based mainly on the *post-mortem* examinations of electrocuted criminals in America, put death down to the gross lesions—haemorrhages—found in the brain and bulb of the victims, and produced by the vast quantities of electrical energy employed to procure an easy death.

In France the first theory was, naturally enough, generally adopted, and it was supported by many others besides the French (Biraud, Jenks, Haukel, Cunningham, Witz, Hedley, Durand, Verhoogen, Gardé, Jones, Dürck). The second theory was supported by a number of authors, some of whom held that both were true in given instances (Witz, Gardé, Hedley (1895), Dürck, Kratter, Oliver and Bolam, Cunningham, Bordier and Lecomte, Lebrun). The third met with comparatively little support outside America (MacDonald, Goelet, O'Neill, Corrado), but was reiterated with some elaboration in a modified form by Jellinek (1903). But the subject has always had great attraction for the abstract philosopher, and so it is not surprising to find that the industrious production of what may not unfairly be called "freak theories" of death by electricity has continued. Thus, Shettle (1895) attributed such deaths to the fact that the electric current deprives the arterial blood of its active magnetic properties, and prevents the corpuscles from constantly inducing magneto-electric currents in the nerves. Bennett (1897) put them down to a violent, rapid, and excessive disturbance of the normal atomic electrical equilibrium of the body, to such an extent as to cause complete and instantaneous disease and death. Coulter (1899) quotes the view that the whole volume of the blood seems to be suddenly forced to the head in the electrocution of criminals; "this alone in each and every case would explain the cause of death." I quote these views to show that the old principle of explaining *obscurum per obscurius* dies very hard.

Towards the end of the nineteenth century it became apparent that more extended experiments on animals were required to settle the mechanism of death by electric shock. In 1898 Oliver and Bolam published some investigations made upon etherized dogs and rabbits with an alternating current at 100 volts. They came to the conclusion that the deaths produced by currents of such voltages were by a primary cessation of the heart's beat as a rule, while currents at higher voltages might paralyse both heart and respiration together. Under no circumstances did these authors produce a primary failure of the respiration, and they note that it had been frequently recorded by bystanders that the persons killed by accidental shocks from industrial electric currents had breathed a few times after receiving the shock, although to all appearances dead.

Fibrillation of the Heart Muscle.

It had long been known (Ludwig and Hoffa, 1850) that one effect of electric currents on the mammalian heart might be to paralyse the ventricles by throwing them into a state of fibrillation, also known as *Herzdelirium*, fibrillary contraction or tremulation, consisting in a fine and rapid but inco-ordinate twitching of the separate muscular bundles. Kronecker and Schmey (1884) had produced fibrillation in the dog's heart by the mechanical stimulation—a pin-prick—of a certain point on the anterior aspect of the ventricle, also by ligature of the coronary arteries and by electrical stimulation. They attributed it to the destruction or paralysis of a nervous co-ordinating centre located in this particular part of the heart's muscle. McWilliam (1887) made further investigations into cardiac fibrillation, and denied that it was in any way a nervous phenomenon. He believed that it depended on physical or chemical changes in the substance of the heart muscle itself. The subject was very carefully examined again by Prevost in 1898, and it demands further consideration here because there is little doubt that cardiac fibrillation is the immediate cause of death in the majority of cases of death by electric shock in man. Prevost found, as McWilliam had found before him, that cardiac fibrillation was produced with much greater ease in certain varieties of animals and birds than in others: that in some—the dog or pigeon, for example—it was generally fatal and irremediable, while in others it tended to cease spontaneously after a longer or shorter period, the heart beginning to beat normally again; and that in the young of any given species cardiac fibrillation was more readily recovered from than in the adult. Thus, guinea-pigs weighing 1 lb. would often recover from cardiac fibrillation spontaneously; while with heavier animals weighing 2 lb. the heart would fail to begin again to beat normally, the guinea-pig dying of asphyxia with great dilatation of the heart, though long massage of the heart might enable it to recover. As to the exact mechanism whereby cardiac fibrillation was produced, Prevost expressed himself as uncertain; he did not think it due either to stimulation of an intracardiac nervous centre or to anaemia of the muscle substance, as Kronecker at one time believed. It is explained by Boruttau as due to the different excitability of the different muscular bundles composing the heart wall and the various length of their refractory periods; all the bundles are strongly stimulated by the electric current, and so contract with their maximum frequency, but as these maxima are unequal the contractions are not synchronous. Why these small and rapid local contractions are not propagated in such a way as to make the heart beat as a whole remains unknown. They may be excited by the local ionic dissociations caused by the passage of the electric current, Professor Gotch tells me, as is also the case in the analogous Porret's phenomenon observed in the frog's sartorius muscle, and may fail to be transmitted to the adjoining bundles because, although excitability remains, the power of propagating the stimulus to contract may be lowered. Fibrillation is also to be seen in

the auricles of the heart, but does not seem to be of any great importance here.

Later Experimental Evidence.

An illuminating and most extensive series of experiments on the electrocution of animals was published by Prevost and Battelli in 1899. The great merit of these authors was that they varied the electrical conditions of their experiments far more widely than any of their predecessors, and gave measurements not only of the voltages they employed but also of the amperages of the currents they passed through the various animals; they also registered the arterial blood pressure and the respiratory movements. Perusal of the published works of the vast majority of the other writers on this subject is apt to leave one with the impression that their authors were not particularly skilled physiologists or physicians in some instances, in others that they were not electrical experts or men of science. The work of Prevost and Battelli is both sound and brilliant, and shows a degree of competence in both physiological and electrical matters that inspires great confidence in their conclusions. They employed both alternating and continuous currents, and took great pains to ensure adequate electrical contacts between the terminals of their electric apparatus and the animal under experiment. In many cases one electrode was placed in the mouth, the other in the rectum; the resistance in different dogs with this arrangement varied between 250 and 400 ohms. Electrical contact was made for a few seconds or for a fraction of a second in different cases. An alternating current at five volts was painful to dogs when passed thus between mouth and rectum, but did not affect the respiration or the action of the heart. The current at a pressure of 10 volts in two seconds caused almost certain death, the ventricles of the heart being irremediably thrown into a state of fibrillation while the auricles continued to beat normally. Respiration stopped, owing to general muscular tetanus, during the passage of the current, beginning once more when it was cut off, but soon dying away again for want of irrigation of the respiratory centre in the bulb with blood, for after the current was turned on the blood pressure fell steadily away to nothing in about 15 seconds. Using metal electrodes covered with wetted cotton, suitably shaped and applied to the shaved chest-wall, they found the resistance of three dogs from one side of the chest to the other was about 300 ohms in each case, and these dogs were killed by alternating currents at 10 to 15 volts pressure. Fibrillary contractions of the heart muscle was found to be almost invariably fatal in dogs; life could be preserved for a time by massage of the heart and artificial respiration, but death ensued when these manipulations ceased, as the heart could not be induced to begin to beat spontaneously again. In the guinea-pig of medium size, however, massage of the fibrillating heart through the chest wall would sometimes restore the animal to life, the heart beginning its normal action again; the resistance of the guinea-pigs as arranged for electrocution was from 700 to 900 ohms, and pressures of from 20 to 120 volts were found to be fatal by heart failure, as a rule. It was noted that in the case of the rabbit cardiac fibrillation tended to spontaneous recovery in most cases, and in the rat always. Hence alternating currents up to a pressure of 120 volts were not often fatal to rabbits, under the conditions of experimentation employed by Prevost and Battelli, and were never fatal to rats, as the fibrillation of the heart would cease spontaneously, and the respiration would begin again soon after the current was turned off in both these animals. But death could be procured by the use of these relatively low voltages if the contact was prolonged and the current kept on until asphyxia from prolonged arrest of the respiration occurred.

Using alternate currents at higher voltages—120 to 4,800 volts—Prevost and Battelli found that the effects produced were quite different, so far as life was concerned, and that death, when it occurred, might be caused in a different way. Thus, with the dog, alternating currents sent from the head to the legs at pressures of from 240 to 600 volts caused arrest of the heart (with ventricular fibrillation) and arrest of the respiration also, the animal inevitably dying. At higher voltages, however, 1,200 to 4,800 volts, the ventricles of the heart continued to beat vigorously, though the auricles were paralysed in diastole, and respiration ceased; hence at these high voltages death was due to asphyxia from failure of the respiration, and not, as at low voltages, from heart failure, or, as at intermediate voltages, by failure of both heart and respiration together. The very important observation was made that a dog killed by the ventricular fibrillation caused by a current at 40 volts could be brought to life again if a current at a much higher pressure—4,800 volts in the present example, or 240 volts in other instances quoted later—was sent through its body so as to pass by way of the heart. Very similar results were obtained with rabbits; alternating currents at 240 volts killed by throwing the heart into a state of ventricular fibrillation, but at pressures from 600 to 4,800 volts the heart was not paralysed, but went on beating with rising arterial blood pressure, though respiration was brought to a standstill. Death in these conditions was due to asphyxia from failure of the respiration, and prolonged artificial respiration was needed to bring the rabbit back to life, and was not always successful. Analogous results were obtained in the experiments on guinea-pigs and rats. It was noted that, using these high voltages, phenomena were produced in all these animals indicating that the nervous system received injuries; general convulsions might be produced, or the respiratory movements might be upset for half an hour or more with loss of sensation and the reflexes, and the severity of the nervous symptoms was more or less in proportion to the voltage and the length of time for which the current was applied. No such phenomena depending on injury to the central nervous system were seen in the experiments at voltages up to 120 volts.

Prevost and Battelli also experimented in much the same way with the continuous electric currents of dynamos and of primary batteries. They found that continuous currents at pressures below 50 volts were not fatal to dogs even in five seconds, whereas with alternating currents pressures of 10 to 15 volts were fatal in two seconds. Between 50 and 550 volts the continuous current was uniformly fatal to dogs, causing irremediable ventricular fibrillation; artificial respiration was useless. No continuous current at voltages higher than 550 volts was available; but if it had been the authors thought that at some higher voltage it would have had the effect of stopping the cardiac fibrillation and restoring the normal action of the heart, just as was the case with the alternating current. In the case of guinea-pigs, the direct current was fatal by ventricular fibrillation at pressures of from 100 to 350 volts; but higher pressures, 400 to 550 volts, were not thus fatal, because although the heart fibrillated during the passage of the current, the extra shock of turning it off suddenly (the "extra-current at break," which d'Arsonval thought so important and fatal) restored its normal action to the heart. With rabbits, as with dogs, direct currents at pressures from 50 to 550 volts threw the heart into ventricular fibrillation, from which the rabbit might or might not recover spontaneously. With rats, the heart was thrown into ventricular fibrillation by currents at from 200 to 550 volts, but only for so long as the current was passing; when it was turned off the ventricles resumed their normal mode of beating, but the auricles were paralysed in diastole for perhaps two or three minutes before they set to work again.

It is clear, then, from these experiments that direct electric currents are much less dangerous, *cæteris paribus*, than alternating currents, for dogs, rabbits, guinea-pigs, and rats. The experiments also show clearly the importance of reducing as far as possible the resistance offered to the passage of the current through the animal, and of placing the electrodes on it in the most favourable position for producing a fatal result—in other words, of placing them so that the current passes as much as possible through the substance of the heart, when the minimum fatal voltage is to be determined.

A further series of experiments was made in 1899 by Prevost and Battelli to determine the mode of death in animals by electric shocks from induction coils and condensers. These shocks were mostly at voltages varying from 1,500 to 33,000 volts, and the electric energy available was up to 1,000 joules per shock. The duration of each shock was no doubt exceedingly brief—at a guess, perhaps a thousandth of a second. One may summarize their results by saying that the fatal effect of these

electrical discharges were in proportion neither to their voltage nor to the quantity of electricity (in microcoulombs) they contained, but to their electric energy measured in joules, taking the presence of thoracic respiration as evidence of life or death. It is worth noting that no such connexion between the amount of electric energy employed and the occurrence or not of a fatal result can be worked out in the case of animals exposed to shocks from the ordinary electric currents used industrially, or in the numerous experiments on animals already described. Young animals were generally more easily killed than old, weight for weight; the direction in which the shock passed made no difference to the result. Death was generally due to asphyxia, from central inhibition of the respiration without inhibition of the heart's action. A curious *post-mortem* lesion was sometimes found, especially in young guinea-pigs—namely, a loss of the elasticity and retractility of the lungs, which rendered recovery by the performance of artificial respiration impossible. It occasionally happened in the guinea-pig that the heart was thrown into a transient state of ventricular fibrillation; the amount of electrical energy available was not large enough to kill dogs.

In 1899 Cunningham independently made some experiments on the electrocution of etherized dogs, somewhat similar to those described a few minutes ago, and, so far as they went, with similar results. Using a continuous current at 115 volts, he found great differences in the strength of current that could be passed with impunity through different dogs; thus a large Newfoundland was killed by 300 milliamperes, while a small shaggy terrier survived 700 milliamperes, and currents smaller than 200 milliamperes were never fatal. Other experimenters have found direct currents of 200 to 300 milliamperes to be fatal to dogs; very possibly the discrepancy here may have been due to the occasional use by Cunningham of larger electrodes that did not serve to concentrate the current and make a sufficiently large proportion of it pass through the heart—a supposition confirmed by the fact that the recorded resistance (77 ohms) of one of his dogs from side to side of the chest was only a quarter of the resistance commonly found in their own experiments by Prevost and Battelli and by Weiss. Such deaths he attributed to the immediate and permanent cessation of the co-ordinated contraction of the heart caused by the electric current. He then went on to investigate the effect of electric currents applied directly to the central nervous system of the etherized dogs. He found that strong currents (1.6 amperes) through the brain caused a deep inspiration, and cessation of respiration while the current flowed; the heart kept on beating and the blood pressure rose steadily to two or three times its original value, returning again to the normal when the current was cut off and respiration began once more. But if the current was kept on for as long as four or five minutes, the heart gradually stopped. He therefore argued that death by the action of electric currents on the brain and medulla was due to asphyxia, and not to heart failure. The strength of the ordinary electric currents that may be sent through the dog's head without causing rapid death is surprising; Houston found that even 6 amperes were not necessarily fatal.

A few more recent investigations remain to be mentioned. Battelli, in 1902, electrocuted dogs, rabbits, guinea-pigs, and rats with discharges from large Ruhmkorff induction coils giving sparks up to 15 and 45 cm. in length. He was able to kill the smaller animals either by arrest of the respiration, or, using a condenser as well, by throwing the heart into fibrillary contraction. With the larger animals, however, death could only be produced by asphyxia after prolonged electrification, the available current—measured in milliamperes—being too small to cause the heart muscle to fibrillate. Battelli stated that no human being had ever yet been killed by the discharge of an induction coil, and estimated that the larger of his two coils would have required a minimum time of two minutes to kill a man, when death, had the experiment been successful, would have been by asphyxia and not by heart failure.

The fact that d'Arsonval believes death by electricity to be due to inhibition, or paralysis of the central nervous system, has been mentioned already. In 1910 he recorded a further experiment that appeared to him to prove that death by electricity, if not due to material lesions of the nervous centres and the heart, was due to Brown-Séquard's inhibition or the action of electric shock on consciousness and the psychical functions. A dog is anaesthetized with chloroform and the cerebral cortex is exposed; stimulation of the cortex with the current from a single Daniell cell (1.1 volts) is found to produce movements of the limbs. If the dog is now killed by a current at 110 volts the heart is thrown into fibrillary contractions, the respiration stops, and the cortex ceases to be excitable by the Daniell cell. At the end of a few minutes respiration begins again, and then the cortex again becomes excitable, and, lastly, in some cases the heart begins to beat spontaneously once more. This experiment d'Arsonval takes to prove that all the vital functions are affected at the same time by an electric shock, so that in his view it is superfluous to inquire whether death is due to a paralysis of the heart or not. He admits that the recovery or death of an animal from a shock that may or may not be fatal depends entirely on the question whether the cardiac fibrillation is transient or is followed by permanent loss of the ability of the heart to beat spontaneously; and as it has been found that section of the vagi has no influence on the occurrence of this cardiac fibrillation, it is, in my opinion, impossible to agree with d'Arsonval when he attributes great importance to nervous inhibition in the large majority of the fatal accidents brought about by industrial electric currents.

NOTE.—The references to the literature will be given at the end of the third lecture.

THE USE OF PHYSICAL CONSTANTS IN TOXICOLOGY.

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IN the course of toxicological examinations it is frequently necessary to identify various organic compounds, and the increasing use of synthetic remedies renders it imperative that toxicologists should have at their disposal methods by which such drugs can be recognized with the greatest possible certainty. In cases where reasonable amounts of the substance can be obtained there is usually no great difficulty, since quantitative analyses may be made of both the original substance and its derivatives.

It sometimes happens, however, that, after a compound has been separated from some food substance or excretion, the amount available for examination is exceedingly small, and becomes still smaller after it has undergone purification. In such cases, unless some definite chemical or physiological reaction can be applied, colour tests and other purely empirical methods are adopted, and consequently, although the investigator might be satisfied with the results he had obtained, such results might not carry, and very often do not carry, such weight with others.

It is, therefore, desirable to ascertain if any physical methods are available for a more satisfactory elucidation of such problems.

One constant—the melting point—stands out pre-eminently, since it can be obtained with a very small amount of material. During recent years a modification of the usual method of identifying a substance by taking its melting point has been largely used by organic chemists.* This method may be called that of "mixed melting points."

Speaking broadly, a pure organic substance that is fusible within ordinary limits will melt sharply—that is, at one particular temperature it will be a definite solid, and when the temperature is raised gradually it will assume the liquid phase within 1° C., or possibly 2° C. Now the admixture of foreign substances with the material under examination will totally upset this state of things, and instead of fusion taking place at a definite temperature characteristic of the pure substance, it will commence at an entirely different temperature. This is

* The mixed melting point method was apparently first used by Kipping and Pope (*Trans. Chem. Soc.*, 1893, 63, 558).

due to the fact that one constituent of the mixture is acting as a solvent of the other, and solution is only gradual. A series of compounds has been investigated to illustrate this point, and in each case two substances have been chosen whose melting points are fairly close together. The usual type of apparatus was employed in which the bath was sulphuric acid.

A tube containing one pure substance was attached to the left side of the thermometer, the second pure substance to the right side, and a third tube in the middle contained an intimate mixture of equal parts by weight of each substance. The temperature was gradually raised, and the three tubes closely inspected during the process by the aid of a lens. The pure substances retained their original appearance to within about 1° C. of the final fusion point, which in each case was complete within a range of 3° C. The mixture of the two substances taken commenced to soften at a much lower temperature, and fusion extended over a considerable range in each case.

It is clear from the following table that a pair of substances may have similar melting points, but a totally different one when mixed.

Table of Melting Points of Pure and Mixed Substances.

Substance.	Melting Point.	Melting Point of Mixture.
Antipyrin	110°–115°	57°–74°
Antifebrin	110°–113°	
Anisic acid	181°–183°	145°–172°
Succinic acid	187°–188°	
Aconitine	190°–193°	160°–175°
Veronal	190°	
Thymol	50°–51°	18°–30°
p. Toluidine	45°	
Cocaine	96°–98°	65°–95°
p. Chlor-formanilide	100°–103°	
Codein	150°–152°	75°–135°
p. Acet-toluide	150°–152°	
Cinnamic acid	133°–135°	95°–115°
Phenacetin	133°–135°	
Sulphonal	126°–127°	70°–90°
β Naphthol	122°–123°	
Cocaine	96°–98°	60°–85°
Betol	95°	
Strychnine	270°	230°–240°
Cinchonidine	260°	

During the past three years I have had on two occasions to examine specimens of urine for small quantities of abnormal constituents, and in each case succeeded in extracting about 0.1 gram of a crystalline substance closely resembling veronal.*

In both instances the compound was first carefully purified, but the amount of pure material obtained was much too small to be investigated by any known method other than that described. The agreement between the melting points of veronal, the material suspected to be this compound, and a mixture of both, left no doubt as to the identity of the drug.

It is hoped that this application of a simple physical constant may prove of great value to toxicologists.

* The veronal was extracted from the urine with ether after preliminary treatment with lead acetate, etc., according to method described by Fischer and Hoppe (*Muench. med. Woch.*, No. 28, 1909).

THE recently issued report of the Sceptre Life Association, an insurance company which caters for abstainers and non-abstainers and keeps the results attained in each section separate, again shows the effect of total abstinence on the longevity of its policy holders. In 1912, of 132 deaths expected among non-abstainers 92 occurred, whilst there were only 53 out of 139 expected deaths of total abstainers. The percentage of actual to expected deaths among the non-abstaining insured (69.70) was more than double that of the abstaining policy holders, who come out with the low percentage of 38.13. For the twenty-nine years 1884 to 1912 the percentage of actual to expected deaths has been, for non-abstainers, 79.33; for abstainers, 51.68. Seeing that at the time of acceptance each class of policy holders was examined as rigidly as the others and all the lame ducks cast out, the results recorded must be regarded as evidence that the use of alcoholic liquors shortens the duration of even picked lives.

THE INTRAMURAL SPREAD OF RECTAL CARCINOMA.

[WITH SPECIAL PLATE.]

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OPERATIVE measures for the eradication of cancer must be planned according to the pathological findings. That widely divergent views are held as to the particular operative treatment applicable to cancer of the rectum and pelvic colon is sufficiently evidenced by recent papers on the subject by Harrison Cripps, Paul, Miles, and Sampson Handley. It may reasonably be assumed that corresponding differences of opinion exist as to the pathological conditions which obtain; and, indeed, such assumption is amply confirmed by the perusal of these papers, as well as by the remarks made by speakers during the discussion on rectal cancer at the Royal Society of Medicine in 1910.

A convenient classification—adopted by Miles—of the pathological factors which must be considered in planning any radical operation for cancer of the rectum is as follows: (1) The spread of the disease in the bowel wall—intramural; and (2) that which occurs in surrounding or distant tissues—extramural.

This communication is concerned with the first factor, and an attempt has been made to determine its extent and significance.

Material.

This comprises 20 cases, in 18 of which the bowel investigated was removed by operation. Two *post-mortem* cases are included because they exhibit important features. The majority of these cases were operated on by surgeons at the Cancer Hospital, but for three I am indebted to Mr. Barker of University College Hospital, and for two to Mr. Gordon Taylor of the Middlesex Hospital. The operation in 13 cases was the radical abdomino-perineal, as described by Miles. In 3 cases the malignant disease was situated above the pelvic colon. The length of bowel removed in these 16 cases was from 9 in. to 23 in. In 2 cases a local resection was practised.

Technique.

The bowel was slit up immediately after operation, stretched by nailing to a piece of board, and placed in a fixative solution consisting either of formalin in normal saline or acid mercury perchloride. After fixation a strip the whole length of the bowel was taken and cut into inches. Each inch of tissue was embedded in paraffin, sectioned, and stained with muci-carmine according to the method which I have elsewhere detailed. In some cases two strips were taken.

Nature of Growth.

The growth in every case was an adeno-carcinoma. In 18 cases the appearance presented was that of a typical carcinomatous ulcer, in 1 there was a tendency to mass formation approximating to the papilliferous form, while 1 exhibited a diffuse colloid infiltration. The last specimen was obtained *post mortem* from a male patient, aged 18, who rapidly succumbed, and illustrates the extreme malignancy of this form of growth.

The ulcers presented the usual features. Their edges were irregular, rolled, and everted. The long axis of the ulcer was transverse in every case, showing a tendency to involve the bowel circularly rather than longitudinally. Another point noted with regard to these ulcers was the frequency with which a narrow tract of mucous membrane was found to be involved in cases where clinical examination suggested that the ulcer had completely encircled the bowel. This narrow tract of apparently normal mucous membrane was always situated in the mid-line posteriorly. Examination of other specimens, preserved in the museum of the Cancer Hospital, indicates that this condition is so common as to be almost characteristic. The favourite site of origin of cancer of the rectum would appear to be on the anterior or lateral wall. From this point the growth spreads round the bowel, a partial

indication of its progress being afforded by ulceration, which begins to occur at a very early stage.

Spread and Ulceration.

Microscopical examination throws some light on this process of ulceration.

It is assumed that carcinoma commences as a down-growth of glandular epithelium which pierces the muscularis mucosa and invades the submucous coat. The initial carcinomatous focus will be covered by unbroken epithelium, and surface ulceration may thereafter take place, as the growth spreads, by two possible methods.

The growth of carcinoma in the submucous and deeper layers of the bowel wall may undermine the glandular epithelium, cut off its blood supply, and so induce necrosis, thereby exposing the subjacent carcinoma as the base of the ulcer.

On the other hand, successive portions of mucous membrane may be undermined as the growth progresses, and the overlying mucous membrane may be directly involved by upgrowths of carcinoma into and replacing it. The latter process appears to be that which obtains, and the phenomenon is exhibited in Fig. 1.

It will be gathered that the carcinoma spreads more widely in the submucous coat than is indicated by the surface ulceration. The muscular coat is invaded to an equal, and frequently to a greater, extent.

The relative invasion of the various layers of the bowel wall in a typical case may be represented diagrammatically as in Fig. 2.

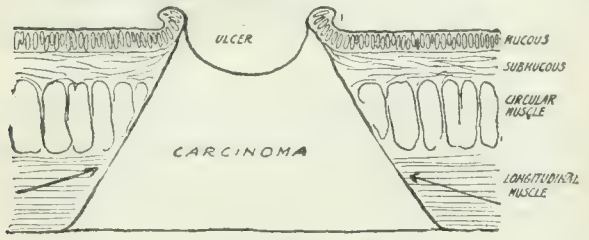


Fig. 2.

The tendency of the stroma of the growth is to progressive contraction, and the pull thereby communicated to the deeper layers of the adjacent, but uninvolved, bowel wall produces that eversion of the margins of the ulcer which is such a marked feature of these growths. Eversion of the edges of malignant ulcers in other situations may equally be a surface indication of subjacent infiltration greater in extent than the area of ulceration. Puckering of the peritoneum is another phenomenon due to the contraction of the stroma, and it is possible that the first stage of invagination may be brought about by the same means.

Invagination is frequently observed in those cases in which the greater part of the circumference of the bowel is involved and causes the growth to assume the form, when examined per rectum, of a cervix-like mass protruding downward into the lumen of the bowel. The contracting stroma of a carcinoma will exert a pull equally on the bowel above and below. The pull will, however, only be effective on the upper and more movable section, which will therefore tend to be dragged down, and this invaginating process, once commenced, will be continued and increased by peristalsis.

The tendency displayed by carcinomatous growth to encircle the bowel has been already noted. This mode of progress has been rather vaguely ascribed to the circular disposition of the vessels. The main lymphatic networks of the large bowel are: (1) The submucous; (2) the subserous; (3) an intermuscular plexus situated between the muscular layers; and two subsidiary intramuscular networks constituting (4) the plexus of the circular coat, and (5) the plexus of the longitudinal coat.

The lymph from the intramuscular networks drains for the most part into the intermuscular plexus, though communication no doubt exists between the lymph vessels of the longitudinal coat and those of the subserous plexus.

The vessels of the circular muscle coat are disposed radially, running out from the submucous coat to the intermuscular plexus like the spokes of a wheel. This arrangement is illustrated in Fig. 3, drawn from a case of lymphosarcoma. The vessels of the longitudinal coat have generally a longitudinal direction.

Examination of sections reveals the presence of an important vascular area situated between the two muscular tunics. The vessels of this intermuscular plexus have generally a circular disposition. The importance of this plexus becomes increasingly great as the bowel is traced down until, below the peritoneal reflection, it shares with the submucous plexus the task of transferring the lymph from the bowel wall to the collecting trunks.

Deposits of carcinoma in this intermuscular lymphatic plexus are depicted in Fig. 4, and it is suggested that this plexus is largely responsible for the circular distribution of carcinomatous growths.

Collecting trunks are formed on the posterior aspect of the bowel, those from the rectum draining either into the ano-rectal glands situated within the fascia propria or into the mesocolic glands lying between the layers of the mesocolon.

It is suggestive that the area of uninvolved mucous membrane, previously noted, should occur also on the posterior aspect of the gut at the site where the collecting trunks are in process of formation.

The lymphatic distribution below the peritoneal reflection is diagrammatically represented in Fig. 5.

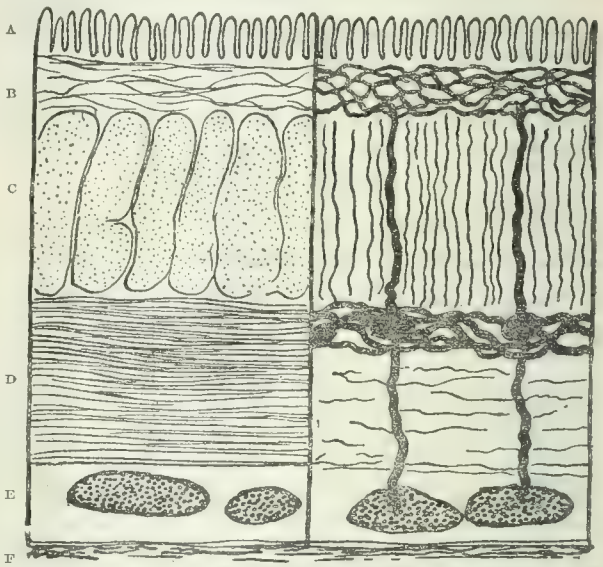


Fig. 5.—A, Mucous layer; B, submucous layer; C, circular muscle; D, longitudinal muscle; E, ano rectal gland; F, fascia propria.

One *post-mortem* specimen included in this series is preserved in the museum of the Cancer Hospital. It exhibits a small malignant ulcer the size of a sixpence situated in the mid-line on the posterior aspect of the bowel. Microscopical examination shows that the growth has spread through the whole thickness of the bowel wall, and has freely invaded the connective tissue and glands of the mesocolon. The specimen conclusively illustrates that the size of the ulcer is no measure of the intramural invasion or extramural spread.

The observations hitherto have been concerned solely with the purely local phenomena of intramural growth. In 19 cases no evidence of permeation could be detected beyond the microscopical edge of the growth.

In the remaining case—that of the patient with rapidly growing colloid carcinoma—extensive intramural spread was noted. Every part of the growth stained brilliantly with muci-carmine, so that the condition of the various layers could be easily ascertained (Fig. 6). Sections taken from the bowel wall 14 in. above the growth exhibit much the same appearance. The spread seems to have taken place primarily by means of the subserous lymphatic plexus, involving the longitudinal muscle coat, invading the intermuscular lymphatic plexus, and thence radiating towards the lumen of the bowel. The mucous membrane, though atrophied, shows no evidence of permeation or infiltration, and, although occasional deposits are present in the submucous coat, these only occur in the lower sections.

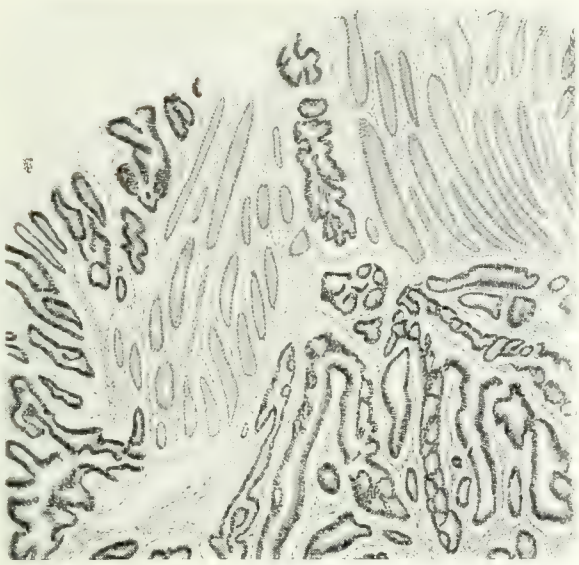


Fig. 1.—Direct invasion of mucous membrane by upgrowths from the submucous and deeper layers of the bowel wall.

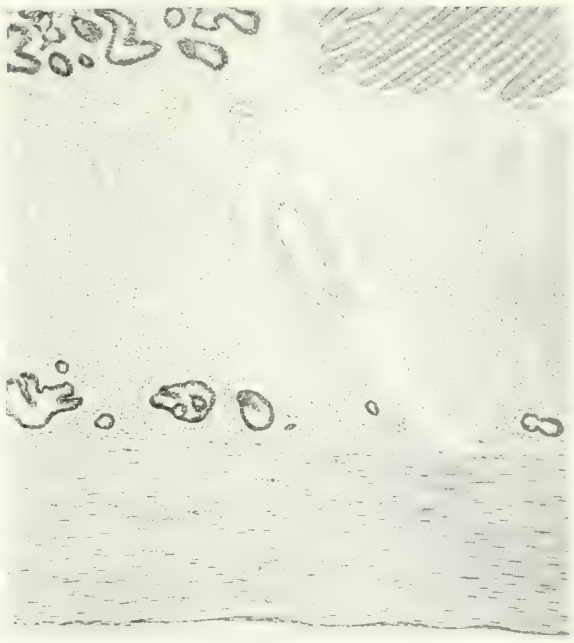


Fig. 4.—Intramural spread along the intermuscular lymphatic plexus.

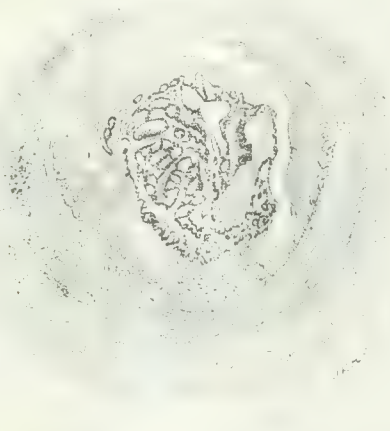


Fig. 7.—Deposit of carcinoma in the connective tissue in close proximity to the bowel wall, at a point three inches above the upper limit of the growth.

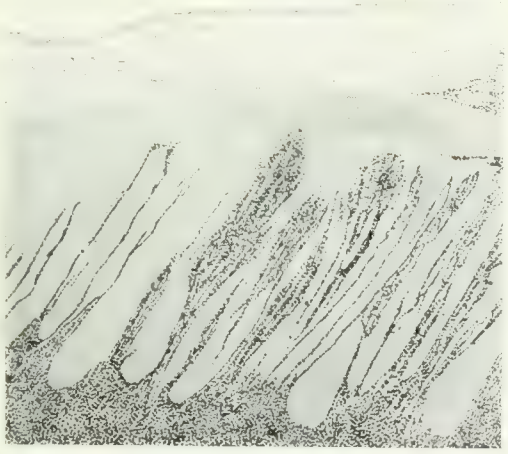


Fig. 3.—Growth is seen spreading along the radial lymphatics of the circular muscle coat.



Fig. 6.—Intramural spread along the subperitoneal and intermuscular lymphatic plexuses. The growth is spreading along the radial lymphatics of the circular coat towards the submucous coat. The mucous membrane is atrophic.

MR. ARCHIBALD YOUNG: DISLOCATION OF THE METATARSUS.



Fig. 1.—Case I: Showing complete outward dislocation of metatarsus. Note prominence on inner side of foot caused by internal cuneiform.



Fig. 2.—Case II: Showing outward dislocation of metatarsus.



Fig. 3.—Case II: Showing slight dorsal displacement of proximal end of metatarsus.



Fig. 4.—Case III: Before reduction of dislocation. Note prominence on inner side of foot caused by proximal end of first metatarsal.



Fig. 5.—Case III: After reduction of dislocation.

It has been suggested that local recurrence after local excision is strong evidence in favour of the presence of intramural permeation, even though such be undemonstrable.

That a typical carcinomatous ulcer may be formed as a result of invasion of the bowel wall from without is demonstrated by a case in this series.

On opening the abdomen, it was noted that the pelvic colon was densely adherent to the anterior and left lateral surface of the rectum at the bottom of Douglas's pouch. Separation from the uterus was regarded as an unsafe procedure, so this organ was also removed. On examination of the 12 in. of excised bowel the presence of two growths was revealed, though only one had been diagnosed. These were located on the bowel walls at the site of adhesion. The upper growth, in the pelvic colon, was of the whipcord type, and had completely encircled and constricted the bowel wall, giving rise to the symptoms of obstruction for which the patient was admitted to hospital. The lower growth, in the rectum, presented itself as a carcinomatous ulcer involving the anterior and left lateral walls of the bowel. It is difficult to escape the conclusion that the upper was the older growth and that the lower one had arisen as a result of contact.

In Fig. 7 is depicted a carcinomatous deposit in the pericolic connective tissue 3 in. above the upper margin of a growth. If in such a case a local excision had been practised with the removal of 1 in. of normal bowel above and below the growth, this deposit must necessarily have been left in close proximity to the intestinal junction. Local recurrence in such a case is readily explained. Clinical and *post-mortem* evidence also favours the view that recurrence is an extramural phenomenon.

Finally, it may be stated that in every case in the series the growth had spread to the tissues outside the bowel wall.

BIBLIOGRAPHY.

Cole: The Muci-Carmine Staining Method, *Trans. Roy. Soc. Med.* (Path. Sec.), vol. v, 1911.

Cripps, Harrison: The Surgical Treatment of Rectal Cancer, BRITISH MEDICAL JOURNAL, October 5th, 1912.

Handley, Sampson: Recent Advances in the Surgical Treatment of Some Forms of Cancer, *Universal Medical Record*, 1912 (v).

Miles: The Treatment of Carcinoma of the Rectum and Pelvic Colon, *Glasgow Medical Journal*, February, 1912.

Paul: Address in Surgery, BRITISH MEDICAL JOURNAL, July 27th, 1912.

DISLOCATION OF THE METATARSUS, WITH AN ACCOUNT OF THREE CASES.

[WITH SPECIAL PLATE.]

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FREQUENCY OF THE CONDITION.

DISLOCATION at the Lisfranc (tarsal-metatarsal) joint is an unusual form of injury, but it is probably much less rare than would be suggested by a consideration of the meagre literature on the subject. The comparative dearth of references in surgical literature may be realized when the figures given by Stimson in his treatise on fractures and dislocations are quoted:[1] "Malgaigne collected 21 cases of the various dislocations, Hitzig 29, Bayer 68, and Fischer 18 of the first metatarsal." Panse, quoted by Nasse and Borchardt, in the *Handbuch der praktischen Chirurgie* (Bergmann, Bruns, and Mikulicz),[2] "was able to collect, in the year 1897, 22 complete and 23 partial dislocations."

Considering the exposure of the foot to violence, these figures are undoubtedly small, and give almost certainly a false idea of the actual frequency of such a type of injury.

DEARTH OF RECORDS.

The relative dearth of records may in part be explained by the fact that minor degrees of displacement have been overlooked. The development of radiography in recent years ought to act now as an effective preventive of this type of error. Part explanation may also be found in the fact that the existence of these dislocations might readily be overlooked when they form mere incidents in a more severe injury to the foot and ankle, perhaps calling for immediate amputation.

Indeed, another aspect of this possibility is suggested by the fact that several writers of repute have put it on record that these dislocations, when they do occur, are usually the result of crushing force of such severity as to destroy the vitality of the soft parts to a degree which renders amputation necessary.

Thus Griffith[3] says they are usually "complicated by destruction of the soft parts, and frequently require amputation"; Wharton[4] says, "These dislocations usually result from crushing forces which destroy the vitality of the soft parts so completely that amputation is required"; and even Erichsen[5] states, "The question of amputation will always present itself in these cases, and must be determined on general principles, by the age of the patient, and by the extent of injury to the soft parts."

It is probable that such dislocations are neither so uncommon, nor, as regards the prognosis, of so grave a nature as the records and opinions referred to above would imply.

The varieties of dislocation are as follows:

1. Dislocations of single metatarsal bones.
2. Dislocations of several metatarsal bones simultaneously.
3. Dislocations of the whole metatarsus *en bloc*.

Any of these forms may be, and the second and third usually are, complicated by other injury, such as fracture, accompanying damage to the cuneiform bones or cuboid, with or without displacement, or damage to soft parts.

In Group 1 the first metatarsal seems to be by far the most commonly dislocated. In the cases reported it was almost always displaced upwards. As already quoted, Fischer[6] was able to collect records of 18 cases of this injury. The recorded cases of isolated dislocation of the other metatarsals are very few in number.

In Group 2 cases have been recorded of quite a number of different combinations. In groups of two at a time there are records of the first and second being displaced together; also the third and fourth, and the fourth and fifth. The direction of displacement varied in each—sometimes upwards and inwards, at other times upwards and backwards. In groups of three at a time, there are records of 2 cases of dislocation of the first, second, and third metatarsals, these being displaced together upon the dorsum; in 1 case the displacement was downwards into the sole. The second, third, and fourth have been, in one or two cases, displaced together upon the dorsum.

Of dislocations of four metatarsals at a time, 4 cases are mentioned by Stimson, all having been dislocations of the first four metatarsals. In two of these the affected bones were displaced bodily upwards. In 1 case (reported by Malgaigne) the first three were displaced downward, and the fourth upward. In one (reported by Ely[7]) the first metatarsal was displaced inwards, the others upwards and outwards. This case of Ely's, it will be seen later on, seems to have been very similar to one of the three cases which I have to report in this paper.

Group 3 comprises those cases in which all the metatarsal bones have been displaced bodily at the tarsal-metatarsal joint.

Four forms have been described, according as the displacement was upward, outward, downward, or inward. Only one example of each of the two last-mentioned forms has been reported, and one, the inward form, is not free from doubt as to its correct description. The case of downward displacement was reported by Smyly.[8] The injury was caused by the fall of a wagon which pressed the heel forward, while the toes were fixed.

Even the upward and outward displacements have not been met with, or recognized, with any degree of frequency. Hitzig, quoted by Stimson, gives the number of cases of upward dislocation he was able to collect as 11, the most usual cause being direct violence, but in 2 cases muscular violence was the agent, the patients sustaining the injury in making violent effort "to avoid falling, after having slipped while carrying heavy bundles."[9]

This form of dislocation may be complete or incomplete, and it may be complicated by a part or the whole of one or more of the cuneiforms being displaced along with the metatarsals. Examination has shown in those cases examined *post mortem*, or where the injury was compound, just such damage—in the way of rupture of dorsal and plantar ligaments and of muscles, in the fracture or separation of cuboid and cuneiform bones, and in the fracture of one or more of the displaced metatarsals, or

their separation from each other in a lateral direction—as one might expect such an injury would readily produce or imply. The resultant clinical picture has varied a good deal in the different cases, the normal axis of tarsus and metatarsus being in some cases preserved, in others the metatarsus being displaced laterally *en bloc*, so leading to an angular deformity, in addition to the foreshortening of the foot. The proximal ends of the metatarsals bulge on the dorsum, forming a ridge corresponding roughly to the line of the joints, or proximal to this on the dorsum of the tarsus. In some of the recorded cases reduction was successfully accomplished. Even in the cases where it failed fairly good function was obtained in time. In only one of the cases was amputation done as a primary expedient.

Of the outward dislocation, Stimson states that 10 cases have been reported, by Langier and Lacombe, Tutschek, Mignot-Danton,[10] Després,[11] and Bayer. It is pointed out by Stimson, as also it has been indicated by others, that in virtue of the manner in which the proximal end of the second metatarsal is locked between the first and third cuneiforms, such a lateral dislocation can hardly occur uncomplicated by fracture unless it be preceded by an upward or downward displacement. The proximal end of the second metatarsal has usually been broken, though in two cases it was the third that was fractured. In four of the ten cases quoted by Stimson reduction was effected.

Preponderance of Outward Dislocations.

The reasons for the preponderance of outward dislocation are worthy of brief reference. They are almost solely anatomical. Notice has already been taken of the fact that lateral displacement is possible only as a sequel to upward or downward displacement, or when associated with fracture. It is hardly necessary to point out further that where lateral displacement eventuates upon the vertical dislocation the latter is almost always dorsal in direction. The explanation of the preponderance of the outward displacement is not far to seek when regard is had to the anatomical relations of the cuneiform-metatarsal joint. The notch between the first and third cuneiforms into which the second metatarsal fits is not similar on its two sides. Its internal angle is about 90 degrees, while its outer is almost 120 degrees. This admits all the more readily of primary slipping of the in-fitting metatarsal towards the outer side. Further, the inner wall, formed by the first or internal cuneiform, is fully 1 cm. in height; while the outer wall, formed by the third or external cuneiform, is at most 0.5 cm. in height, so that here again is a condition which predisposes to the outward displacement.

Associated with the dislocation of the metatarsals, as has already been said, there may be fracture of the bases of the second or third metatarsals or of both. Also, there may be any degree of damage to, or comminution of, cuneiforms, and even of the cuboid. The degree of injury to, sprain, or rupture of dorsal and plantar ligaments, also of interosseous ligaments and muscles, will vary in different cases, but must always be considerable.

Causes and Method of Production of the Injury.

As regards the *actual forces causing* the metatarsal dislocation, the following facts are ascertainable from the records.

Falls of different kinds have caused the injury. For example, in several recorded cases, the first metatarsal has been dislocated by a fall from a horse, the actual displacement being determined by the pressure of the stirrup. A fall from a height—the patient alighting on the anterior part of the foot—has led to the upward displacement of the whole, or part, of the metatarsus, especially when the metatarsus has been forcibly plantar-flexed. Falls of heavy weights upon the upper part of the instep, driving the tarsus violently downwards, have led to the upward displacement of individual bones or groups of bones of the metatarsus.

Theoretically, any form of violence which is applied in the direction of abduction of the anterior part of the foot, the heel (or tarsus) being fixed, or which tends to produce forcible adduction of the heel (or tarsus) while the anterior part of the foot is fixed, may produce outward dislocation of the metatarsus. Two of the cases which I have to report are examples of the second mentioned type. Conversely, it may be surmised that, did anatomical conditions permit, or encourage, the inward dislocation, it might be produced by violence tending to produce forcible adduction of the anterior part of the foot, the heel (or tarsus) being fixed; or violent abduction of the heel (or tarsus) the front of the foot being fixed.

Forces of complex character, and applied in irregular fashion, will have to be assumed in many cases where, as for example in my third case, one metatarsal is driven in one direction and the others in the opposite direction. It is possible that the tarsus may have acted as a wedge, driving the metatarsals apart; or some direct violence of a specially localized type, applied immediately to the sole, or to the dorsal surface of the foot, may have caused the bones to be driven in opposite directions. The comparative capacities of particular ligaments for resisting special strain, and the varying force of intrinsic muscles, as applied in special circumstances, may also require to be taken into consideration.

Diagnosis.

The diagnosis of metatarsal dislocations should not be, nor is it, so far as my experience enables me to judge, difficult. More especially is this the case now that we are able to command the aid of the *x* rays to supplement what can be learnt from a careful consideration of the clinical pictures which such injuries present. Certainly, so far as the complete dislocations are concerned, there are no special difficulties.

Henry Morris[12] writing, in 1883, of the dislocations upwards and downwards, says that these "are readily diagnosed by the shortening of the foot, without a corresponding elongation of the heel, and by the projection and depression on the instep." Gould and Warren[13] corroborate thus: "When backward dislocation occurs, the foot is shortened, and a prominence, with a groove either before or behind it, is seen in the plantar and dorsal displacements. The foot is usually somewhat adducted, and the hollow of the sole is flattened." Nasse and Borchardt[14] speak of the symptoms of dorsal complete dislocation as being very characteristic (Smyly's case of plantar dislocation being the sole authentic recorded example of the other type), thus: "The whole foot seems shortened, being in the position of moderate talipes equinus, while the toes are held in the position of dorsal flexion by the tense extensor tendons. The arch of the dorsum of the foot is exaggerated; right across it there extends a tumour-like prominence, formed by the bases of the metatarsal bones."

Smith[15] called particular attention to the peculiar alteration in the form of the sole of the foot in the upward dislocation. Instead of presenting the usual concavity, this becomes convex, both in its antero-posterior and in its transverse diameters.

As regards the diagnostic features of the lateral dislocations, Morris[12] refers to the projection at the inner or the outer border of the foot; Gould and Warren[13] point out that there is not necessarily in these any shortening of the foot, but that there is "some adduction or abduction, according as the displacement is inward or outward." Nasse and Borchardt[14] are more explicit. They say: "The lateral dislocations at the Lisfranc joint are easy to recognize. In the outward dislocation the point of the foot is mostly always abducted; on the inner edge the first cuneiform, and on the outer margin the base of the fifth metatarsal project markedly. In the inward dislocation the first metatarsal forms, on the inner margin of the foot, a definite projection; correspondingly, on the outer side there is a depression, behind which the cuboid projects.

These descriptions are quite in keeping with the findings in the cases which have come under my observation. It is, in the normal foot, so easy to make out prominent bony landmarks at the tarsal-metatarsal region, that any considerable departure from the normal regularity ought to be readily appreciated, provided that a careful inspection and manual examination be made; especially if comparison be made with the other (the uninjured) foot, and provided that the examination is not delayed long enough for swelling of the soft parts to so mask contours as to preclude accurate recognition of bony outlines. Parenthetically, it may be said, that in such gross displacements as we have to deal with in cases of complete dislocation the swelling of the soft parts must be very considerable to

completely obliterate and conceal such gross changes of bony relations. Practically, indeed, this is not, in my opinion, a substantial difficulty.

X RAYS IN DIAGNOSIS AND IN TREATMENT.

Further, as has been already said, we have now the all-important *x*-ray aid to an accurate diagnosis, and this aid ought never to be neglected where there is no insuperable obstacle to its use. Even if the diagnosis seems quite clear enough without its use, it will almost certainly determine a more accurate appreciation of the exact physical condition, and not improbably lay bare some detail which would otherwise be overlooked. It is, besides, a very real, if not absolutely essential, aid to estimation of the completeness or incompleteness of reduction of the displacement once this has been undertaken, and it may be laid down quite definitely that, whatever its value, in an individual case, from the point of view of diagnosis, as a guide or check regarding the efficiency of reduction, it ought never to be neglected. Both at the time of reduction, and at some period subsequent to this (say two or three weeks), the efficiency of the treatment should be confirmed by *x*-ray plates, taken both in the vertical and in the horizontal planes.

REDUCTION OF DISPLACEMENT.

Reduction of these dislocations should not present any insuperable difficulties, though the records of some of the earlier reported cases would seem to suggest that reduction might prove a formidable, and even an impossible, undertaking. Indeed, there are on record at least two cases in which death occurred as the result, so it would appear, of the attempts at reduction.[16]

In most cases, and certainly where any difficulty is encountered, an anaesthetic should be given—ether or chloroform. Under its influence there ought not to be much difficulty in manœuvring the displaced bones into their proper position. In the case of dislocation of single bones, traction upon the displaced bone, combined with or followed by direct pressure on the projecting or displaced end, should in most instances readily effect reduction, and much the same may be said of dislocations of several bones together. If replacement prove difficult, open operation, under simple aseptic precautions, may quite readily be resorted to, and the bone or bones can be directly levered into position, or any part which cannot be fully reduced may be resected.

As for the complete dislocations, traction on the anterior end of the foot, combined with direct pressure on the dislocated bones, will generally prove effective. For the vertical dislocations this is certainly all that is ever likely to be necessary. In the case of the lateral dislocations the tarsus is first of all fixed, then traction on the anterior part of the foot is applied in such a manner as to exaggerate the pathological position. Simultaneously with this exaggeration of the malposition lateral pressure in the direction of adduction or of abduction will complete the reduction—adduction where the dislocation is outward, abduction in the case of the inward form (which, as already stated, is probably very rare).

In the three cases which I have to report reduction proved comparatively easy. In all three, chloroform anaesthesia was employed, and the actual reduction was accomplished by a combination of traction on the anterior part of the foot, adduction and abduction movements, plantar flexion followed by dorsal flexion, and direct pressure on projecting bones. In all three cases the general correctness of the replacement was at once verified by fluorescent screen and subsequently by *x*-ray plates. As stated earlier, it is probably wise to follow this course of immediate and later *x*-ray confirmation wherever possible.

TREATMENT AFTER REDUCTION.

As regards further treatment, it may be said that, once correctly reduced, these dislocations do not tend readily to redisplacement, but it is well to provide artificial fixation, by means of a plaster-of-Paris case, for several weeks. In the case of the upward displacements a period of two or three weeks ought to be ample, but where any strain is likely to be put on the foot this period may be prolonged somewhat with advantage.

In the case of lateral dislocations fixation should be maintained for a longer period, and this for two reasons: (1) on account of the greater damage to ligaments and soft tissues; (2) on account of the frequent coexistent fracture of metatarsals or cuneiforms. A period of six to eight weeks in plaster is regarded by most writers as essential, and it is generally advised that thereafter, and for some considerable time, an artificial support should be employed for the arch of the foot—such, for example, as a Whitman's brace.

In the less frequent cases, where time, care, and perhaps expense are of less importance, all forms of fixation may perhaps be dispensed with, and provided reduction has been effectively accomplished, reliance may be placed entirely on rest for a prolonged period, combined with gentle and systematic massage.

In two of the cases which follow, fixation by plaster was employed for three weeks, and no subsequent support was found necessary or advisable. In the third, the plaster case was kept on for four weeks, and was not thereafter reapplied.

It is obvious that early massage, so long as it is gently carried out, as also early active movements of the foot so as to prevent the stiffening and immobilization of the intertarsal and tarsal-metatarsal joints—so long as such movements stop short of strain on the injury-weakened ligaments—will be the most valuable and important factors in determining ultimate complete restoration of function.

In cases which have been recorded, quite tolerable functional capacity has in time been developed, even where replacement could not be at all, or at any rate completely, effected. Thus, in one case, recorded by Cock,[17] of complete upward dislocation, combined with fracture of the first cuneiform and scaphoid, reduction was not accomplished, and yet the patient was back at his work—as a railway porter—within eight months of receiving his injury.

CASE I.

R. J., aged 30, male, admitted to the Broadstone Jubilee Hospital, Port Glasgow, on November 2nd, 1909, suffering from an injury just received. A heavy bale of yarn fell upon him from some height, causing, in addition to sundry abrasions and some injury to the chest, a somewhat severe injury to his left foot. The mechanism of production of the injury to the foot seems to have been as follows: The man got just sufficient warning of the falling weight to permit him to brace himself for the shock, but insufficient to allow of his evading it. When struck by the bale he had his feet widely separated, his back and shoulders somewhat bent, and his muscles tensely strung to resist the impact. He was struck in the upper dorsal region, and it may be supposed that the impact of the force was transmitted down the trunk and both lower limbs in such a way as to exert itself in maximum intensity at the tarsal-metatarsal regions of both feet. It may also be supposed that one foot got a larger share of the violence than the other. In any case, only one foot suffered to any extent. By reason of the wide separation of the feet, and the tense state of the limb muscles, the anterior parts of the feet, and especially of the foot which suffered, may be supposed to have been fixed—jammed firmly against the ground. The downward acting force would tend, therefore, to carry the whole tarsus and heel portion of the foot inwards—as actually happened. That this had indeed happened was at once obvious on examination—even on a quite superficial examination—of the foot. The internal cuneiform could be seen and felt bulging prominently on the inner side of the foot; the fifth metatarsal could be recognized projecting abnormally on the outer side. There was considerable swelling of the soft tissues and much pain. Crepitus was felt, suggesting some comminution of bone either at proximal ends of second and third metatarsals, or of cuneiforms, or of both. Examination by fluorescent screen, and subsequently by *x*-ray plate, confirmed the diagnosis of dislocation and determined the extent of displacement as well as of the accompanying fracture.

Considering the violence necessary to produce the dislocation, the amount of actual damage to bone seems small. In the accompanying reproduction (Fig. 1) of the radiographic picture the displacement is well shown, but the exact damage to bone is not quite definite. That there is some bone fracture is obvious, but whether this has been of the proximal end of the second metatarsal or of the projecting extremity of the third cuneiform is not clear.

As the man suffered great pain the dislocation was reduced without delay under chloroform anaesthesia. The reduction was easily accomplished by traction on the anterior part of the foot, followed by plantar flexion and forcible adduction. The correctness of the reduction was at once verified by fluorescent screen and confirmed by an actual plate exposure. The corrected foot was at once fixed in a plaster-of-Paris case, with the ankle at right angles, and the foot in a position of moderate inversion.

The plaster support was retained for three weeks. The patient had no pain to speak of, once the reduction had been

accomplished, and swelling quickly subsided; so much so that the plaster case was probably not of very great value after the first few days. At the end of three weeks it was removed and massage was instituted. After a week of this the patient was allowed to get about, but was advised not to put his full weight on the foot for a week or two more. The arch of the foot was well restored, and there was not then—nor did there appear later—any tendency to recurrence of displacement. Completely satisfactory function was restored in about ten weeks. No artificial support was employed subsequent to the removal of the plaster.

CASE II.

W. P., aged 46. Admitted to the Broadstone Hospital, Port Glasgow, on February 28th, 1911. The patient, a man, was injured in a shipyard by a falling plate, which slid down the front of the right leg, and pinned the anterior part of the booted foot, so that it had to be extricated subsequently by the man's comrades. Immediately the foot was thus caught by the fallen plate as in a vice the man fell over to the right, so that the heel portion of the foot was violently adducted, the anterior part of the foot being meantime firmly fixed. Probably there was also at the same time some degree of torsion violence, applied at the tarsal-metatarsal articulation. The mechanism of production of the injury was, thus, not very dissimilar from that in Case I, though in the latter the fixation of the anterior part of the foot was not produced in the same direct way.

The resulting lesion was quite obvious on admission and was recognized as a dislocation of the metatarsus by Dr. Alex. Butler, one of the surgeons to the hospital. The anterior part of the foot was markedly abducted and somewhat everted. The internal cuneiform was prominent at the inner side, the fifth metatarsal at the outer side. The base of the first metatarsal bulged slightly on the dorsum of the foot. There was considerable tension of the skin and soft tissues. No crepitus was felt. Pain was considerable, and to relieve this temporarily the foot was fomented till the following day, when, in ordinary course, I visited the hospital. I had no hesitation in coinciding with the diagnosis made by Dr. Butler. Skiagrams were obtained, which confirmed our joint diagnosis (see Figs. 2 and 3). One was taken from above downwards, the other with the foot in profile. The former, though quite a good picture, cannot be said to give much support to the idea of there being any accompanying fracture, either of metatarsal base or of cuneiform. The latter shows the slight dorsal displacement of the proximal end of the inner metatarsals.

Under chloroform anaesthesia the dislocation was reduced. What seemed to be quite definite crepitus was felt during reduction, but the exact site of the crepitus was not clearly established, though it was thought to be at the site of the in-setting proximal end of the second metatarsal. Once the reduction was complete crepitus could not again be elicited, and, in view of the fact that no crepitus was felt before reduction, and that the skiagram gives no definite indication of fracture, the suggestion may with some justification be made that in this case the added torsion element mentioned in describing the mechanism of production of the dislocation, may have had the effect of producing first of all a dorsal displacement such as would permit of the second metatarsal slipping over or past the third cuneiform without fracture. Fig. 3 in any case makes it clear that some dorsal dislocation had occurred. In this case there was rather more difficulty encountered in accomplishing reduction than there was in Case I.

After reduction the foot was encased in plaster in slightly over-corrected and somewhat inverted position. Ten days later the patient was dismissed with his foot still in plaster.

Three weeks after the date of reduction the plaster was removed. There was slight thickening about the inner side of the tarsal-metatarsal articulation, but the position of parts was all that could be desired. The plaster was not reapplied, but firm bandaging with flannel was continued for some time and massage was instituted. The patient was encouraged also to begin carefully to use the foot actively. Function was well restored after three months.

CASE III.

T. H., aged 24, male, admitted to the Broadstone Hospital, Port Glasgow, on August 28th, 1911. Injured by falling a considerable distance in a shipyard. His right foot was seriously damaged by the fall, but this was the only injury of consequence he received. Exactly how the foot was injured neither he nor his mates could definitely say, and so the actual mechanism of production of the lesion sustained could not be established. The only statement made—for what is worth—was to the effect that the man did not alight on the injured foot. In view of the nature of the damage produced this may perhaps be open to some doubt, for, as I have already suggested in the general statement which has gone before, the resultant displacement of the metatarsals certainly somewhat suggests that the cuneiforms were impacted violently against the metatarsus, driving the first metatarsal inwards and the second, third, and fourth outwards. In any case, on admission to hospital, the nature of the injury was quite evident. I saw, and dealt with, the case on the day the injury was received. The complete inward dislocation of the proximal end of the first metatarsal was quite obvious; it could be felt, and indeed seen, projecting on the inner side of the foot. The next three metatarsals could be seen and felt projecting outwards and on the dorsal aspect of the outermost cuneiform and cuboid, the skin being stretched tightly over them. It was easily determined, on examination, that the second and third metatarsals were fractured close to their proximal ends, and part at least of the dorsal prominence was caused by the special projection of the sharp proximal ends of the distal fragments of these bones. The small proximal fragments were, however, also dislocated upwards. There was much bruising of the tissues of the dorsum of the foot, much effusion of blood into the tissues, and at one place the skin was almost torn through. Had reduction not been at once effected it is almost certain that the skin would have given way and sloughed.

The diagnosis was confirmed by means of the *x* rays. Fig. 4 shows quite clearly that the facts made out by ordinary methods of physical examination conformed with actuality.

Reduction was carried out without much difficulty on the same day, chloroform anaesthesia being employed, Dr. Butler anaesthetizing, and Dr. James Walker assisting me. The displacement of the first metatarsal was first corrected, and thereafter, by a reversal of the lateral pressure and adduction, the outer bones were readily replaced.

Plaster-of-Paris support was employed for four weeks; thereafter bathing, rubbing, and regulated passive and active movements being instituted. The result was in every way satisfactory, though stiffness persisted longer than in the other two cases.

Fig. 5 shows the complete correction of the displacement: it is a reproduction of a skiagram obtained about five weeks after the injury.

The publication of this paper has been delayed with a view to the searching of the records of the large Glasgow hospitals for cases of such injury. Only one case has been found in the last ten years' records of the Western Infirmary, which was at least labelled "Dislocation of metatarsus." The index title was all that one could obtain; access could not be had to any details, so that even this one case can hardly be counted. In neither of the other two hospitals could information be got from those likely to be aware of the occurrence of such an injury; in both, the radiographic experts could call to mind no example of such a condition as I have drawn attention to in this report.

This seems to make all the more remarkable the fact that, in a comparatively small hospital such as that at Port Glasgow, we should have had in so short a time, comparatively, three examples of a relatively infrequent lesion.

REFERENCES.

1 Stimson: *A Treatise on Fractures and Dislocations*, 1908, p. 839.
2 Nasse and Borchardt: *Handbuch der prakt. Chirurgie*, vol. iv, Part 2, p. 514. Pouse: Laterale Luxation sui Lisfranc, *Munch. med. Woch.*, 1897, Nos. 21–22.
3 Griffith: *A Handbook of Surgery*, 1904, p. 251.
4 Wharton: *Minor and Operative Surgery, including Bandaging*, 1905, p. 446.
5 Erichsen: *The Science and Art of Surgery*, tenth edition, vol. i, p. 714.
6 Fischer: *Deutsche Zeitschrift für Chirurgie*, vol. lxxiv, p. 55.
7 Ely: *Annals of Surgery*, August, 1906.
8 Smyly: *Dublin Quarterly Journal of the Medical Sciences*, 1854, vol. xvii, p. 317.
9 Stimson: *A Treatise on Fractures and Dislocations*, 1908, p. 841.
10 Mignot Danton: *Arch. gén. de méd.*, 1868, vol. ii, p. 405.
11 Després: *Bull. de la Soc. Anatomique*, 1878.
12 Morris: *A System of Surgery* (Holmes and Hulke), 1833, vol. i, p. 1103.
13 Gould and Warren: *Internat. Textbook of Surgery*, vol. i, p. 649.
14 Nasse and Borchardt: *Handbuch der prakt. Chirurgie*, vol. iv, Part 2, p. 515.
15 Smith: *Proceedings of the Pathological Society of Dublin*, vol. ii, N.S., p. 226.
16 Hitzig: *Berl. klin. Woch.*, vol. ii, pp. 39–42, 1865.
17 *Guy's Hospital Reports*, 1855, p. 280.

CAPTAIN W. S. PATTON, I.M.S., in No. 50 of the New Series of *Scientific Memoirs by Officers of the Medical and Sanitary Department of the Government of India*, gives a description of the work done by himself in the etiology of Oriental sore in Cambay during June, 1910. His researches were chiefly concerned with the carrier of the parasite, the *Leishmania tropica*, from person to person, and he believes that he has made out a case against the bug. A *Stegomyia* of unknown species and a *Phlebotomus*, probably *Cubu* (Annandale), as well as ordinary house flies and lice, were all studied, but with negative results. In bugs, however (*Cimex rotundatus*), the parasites were found to flagellate in the stomach if the temperature was below 25° C., and this happened also in the nymphs. Complete development apparently did not take place in the adult bug, as flagellates were never seen in them beyond the tenth day, but in the nymphs Patton believes this does take place. In addition to these facts he brings forward epidemiological observations and clinical cases of people who were bitten by bugs and afterwards developed sores. Though all this is very interesting and suggestive, it does not absolutely prove that the bug is the regular intermediate host. It may be so in Cambay, but it seems just as clear that in other parts of the world—Bagdad, for example—it is not. It is evident that more work on the subject is required.

THE APPLICATION OF FUNGI AS STYPTICS.

BY

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SEVERAL species of fungus were largely used in former times as applications for arresting haemorrhage, both by surgeons and the common people.

Dioscorides[1] mentions agaric (*ἀγαρικον*) as a fungus springing from the trunks of rotting trees, and states that three obols of it taken with water stays spitting of blood. The fungus was so-called because it was found at Agaria, in Sarmatia. Linnaeus in his classification of plants adopted the Latin term *Agaricus* for a large genus of fungi. But in pharmacy now the name "agaric" is usually given to various corky species of *Polyporus* growing on trees—as the *P. officinalis*, chiefly found on the larch, the *P. fomentarius* on the oak and birch, and the *P. ignarius* on the willow, plum, and cherry. During the eighteenth century the agaric of oak was often laid on bleeding wounds by French surgeons. Audouillet applied pieces to the mouths of bleeding vessels after several capital amputations with good results. It was also used successfully for checking bleeding by James Ford, a Bristol surgeon. Some differences of opinion were expressed as to how it acted.

Ford took the view that its effect was more due to its soft porous texture than to any specific styptic action, and then employed in its place a fungus, very similar to it in substance, that grows abundantly on casks in wine vaults. Afterwards he wrote an account of the success of agaric and the *Fungus vinosus* in amputations. Oak agaric was so much used in surgery as to be called "surgeons' agaric." It was gathered in autumn, and, the outer rind being removed, the yellow-brown substance within was cut into slices, which were beaten with a hammer to make them soft and pliable. No precautions seem to have been taken to render them aseptic, although fungi, it is well known, are often infested with the larvae of insects.

Agaric was highly commended in 1788 by Buchan,[2] in his *Domestic Medicine*, as a styptic; he went so far as to say that, being easily obtainable, it ought to be kept by every family in case of accidents. As 80,000 copies of this work were sold in Great Britain during the author's lifetime and it was translated into all the principal European languages,[3] it is not unlikely that his recommendation helped much to make agaric a popular remedy for bleeding with our forefathers. No work of the kind had been published before in this country. Cobbett[4] thought it tended to make its readers hypochondriacal, and in his *Advice to Young Men* he wrote: "Read the *Domestic Medicine*, and by the time that you have done you will imagine that you have all the diseases of which it treats." But the fungus prepared as described was useful for domestic purposes in another way. After being boiled in nitre, it made good tinder when fires were lighted with flint and steel, and, being extensively manufactured on the Continent, was termed "amadon" and "German tinder." Of late years agaric has received little notice in surgical works as a dressing for large bleeding wounds, but there is mention occasionally of amadon as a plaster for stopping bleeding from small blood vessels.

A fungus that has had a far more lasting reputation as a styptic is the giant puff ball, *Lycoperdon giganteum*, formerly known as *Crepitus lupi*, which it is said the Greeks called *κραϊον*, on account of its resemblance, when full grown, to a human skull. It is of a globular shape, and commonly found growing in pastures during the autumn. At an early stage of its growth the outer covering, or peridium, is like white kid, and the pulp inside, or capillitium, firm and fleshy, but afterwards dry, spongy, and powdery. The powder, which consists of spores, among which are many fine filaments, has been used by the peasantry for centuries to stop haemorrhages. Recently an old countrywoman in Kent said she remembered when she was a girl and bled from the nose her mother would take her to an orchard, and, making her lie down on the grass, gather a puff-ball and apply the powder to her nose with good effect. As regards the use of the giant puff-ball in surgery, there is good evidence that it has been applied frequently to stop bleeding with excellent results. In 1560 it was recommended as a styptic by F. Wurtz, a German surgeon. Afterwards, in 1706, Helvetius wrote in a letter[5] concerning the fungus:

> But of all haemostatics, *Crepitus lupi*, commonly called "vesse-de-loup," a fungus of the family of Lycoperdons is the best, which stops bleeding in a surprising manner, without causing either pain or an eschar as vitriols do. The largest and most powdery of the Lycoperdons should be chosen; it is cut in slices and applied to the arteries or open veins. To remove these they are bathed with a little warm water, for it forms a kind of glue when mixed with the blood that is very adhesive.

This was written after seeing an operation for cancer during which the fungus was applied as a dressing. Adrien Helvetius[6] was born in Holland in 1661, his father being physician to the Prince of Orange. He went to Paris to vend certain drugs, and was so successful in treating many cases of dysentery with ipecacuanha, then a drug almost unknown, that he was awarded a handsome sum by the French Government for revealing the secret of his cures. Among his patients was the Duchess of Chaulnes, and this led to his being recommended by Colbert to the Dauphin. Thus he gained much renown as a physician.

The next observation on the styptic properties of the fungus seems to be a memoir presented to the Royal Academy of Sciences at Paris by Le Fosse, who was farrier to the King of France. In this he asserts, according to a translation which appeared in the *Gentleman's Magazine* in 1755:

> 1stly. That by applying the powder or dust of the *lycoperdon* or bullist, to very considerable divided arteries in horses, the blood was stopped in a few minutes and the arteries cicatrized by this means alone without any succeeding haemorrhage.
>
> 2dly. That about 24 hours after the application of this remedy, a membrane or rather a pellicule was observed to cover the extremity of the divided artery with a small grume, which perfectly closed the orifice.
>
> 3dly. That the pulsation of the artery was very distinctly perceived there.
>
> 4thly. That the grume was conically shaped, the base closing the orifice, and the point turning inward.

Special commissioners having been appointed by the Academy to determine the truth of these statements, Le Fosse applied the powder of the fungus to several large arteries which had been divided in a mare.

> "The blood spurted," the Commissioner's report states, "with great force from four arteries; he applied the *lycoperdon* powder to the stump, with only a cap of hog's bladder, and took off his dressing in a quarter of an hour, when three of the arteries were staunched, but the fourth bled fast; however, by applying a pinch of the powder to the bleeding artery, which he kept to it only with his finger, that also was staunched in six minutes." More of such evidence being given the report ends: "From what has been laid down it may be concluded that M. le Fosse has advanced nothing but the truth; however, we agree that the use of this powder for stopping of blood was not wholly unknown; but it is not certain that the blood of the most considerable divided arteries was ever attempted to be stopped by this remedy before." (Signed) Bernardde, Jussieu, and Bouvart.[7]

Within the last fifty years some practitioners in Ireland have pointed out the value of puff-ball as an application for controlling violent and constant haemorrhages. Sir William Whitla,[8] for example, remarks concerning this fungus:

> The writer has seen it used in formidable haemorrhages, dusted over the bleeding surface, and plugged into deep and tortuous wounds where the open vessels could not be reached with a ligature, and the rapid and effective manner in which it arrested bleeding was most surprising. He has seen it immediately arrest copious haemorrhages which he believes could not have been controlled by any other haemostatic. How it acts is unknown.
>
> The writer, in bleeding haemorrhoids or fissures, has had great satisfaction with the remedy which he uses plugged into large hollow suppositories and inserted into the rectum. He has been able to satisfy himself that he has saved life in this way, in a case in which the shock of an operation would have been fatal. He finds it to be an excellent remedy for epistaxis, and he plugs the nostrils with the fungus, leaving it *in situ* for several days, and always finds it act most satisfactorily in stopping the bleeding.

A poor woman in Ireland who had suffered from an open cancer of the breast for a long period, and had tried almost every form of dressing without allaying her sufferings or the constant haemorrhages, eventually sought the aid of a

country quack, who suggested the application of a puff-ball. The surgeon who attended her states:

From the day the patient commenced the use of this substance her sufferings were greatly mitigated, and she improved in health and strength. The frequent bleedings ceased, and the foul odour from the sore was greatly diminished; indeed, so admirably did the puff-ball act, that the poor woman lived in comparative comfort for seventeen years after the first appearance of the cancerous ulceration.

"Mr. Fagan of Belfast," he mentions, in giving further evidence of the value of puff-ball, told him "that when removing a large tumour from the neighbourhood of the orbit, he encountered the most violent haemorrhage from large arteries in the bone, which of course he could not tie, and which even pegging with pieces of wool failed to control, yet a small piece of puff-ball at once restrained all bleeding."[9]

In a case of alarming haemorrhage after miscarriage Dr. Duncan[10] of Tyrone introduced half of a puff-ball into the vagina and arrested the bleeding, when ergot and plugging the vagina in another way had failed.

Two cases of profuse bleeding from the nose were treated successfully in America with pieces of puff-ball inserted as plugs in the nostrils by Dr. Hall,[11] who wrote:

As a haemostatic for controlling the severer forms of epistaxis, I believe it has no equal. I have such confidence in it for this purpose that I am now never without it. I believe that no valid objections can be raised against its use on the ground that it is not sufficiently aseptic, while, on the contrary, it is to be preferred to many haemostatics on account of its non-irritating qualities.

If we compare these observations with those made before in the eighteenth century we find them much alike in their favourable estimate of the fungus as a styptic. I have seen troublesome bleeding after the extraction of a tooth readily stopped by a bit of puff-ball thrust into the empty socket when other styptics had been applied with no good result. If the plug is swallowed accidentally it can do no harm, as the fungus is quite innocuous when eaten. Heating the puff-ball in an oven to render the dressing aseptic does not appear to impair its haemostatic properties. One objection may be raised to its application to wounds of the face—that an ugly brownish stain is often left, but this usually soon disappears.

In times when more often than not excessive haemorrhage was checked with burning irons, boiling oil and tar, and powerful escharotics, the application in their place of soft non-irritating fungi must have been greatly appreciated by patients who were wont to suffer much under the hands of surgeons.

References.

[1] Dioscorides, *Materia Medica* (Sprengel's edition), Liber iii, cap. 1. [2] Buchan, *Domestic Medicine*, 1788, p. 638. [3] *Dictionary of National Biography*, vol vii, p. 181. [4] Cobbett, *Advice to Young Men* (1829), 1892, p. 198. [5] *La France Médicale*, 1911, No. 22, Variétés, p. xliii. [6] *Encyclopædia Britannica*, 1880, vol. xi, p. 612. [7] *Gentleman's Magazine*, 1755, vol. xxv, p. 124. [8] Whitla, *The Elements of Pharmacy, Materia Medica, and Therapeutics*, seventh edition. [9] Thompson, A New Haemostatic and Surgical Dressing, *Lancet*, July 29th, 1882, p. 156. [10] Duncan, Puff-Balls in Uterine Haemorrhage, British Medical Journal, November, 8th, 1884, p. 907. [11] Hall, The Haemostatic Properties of Puff-Ball *New York Medical Record*, July 29th, 1893, p. 143.

AFTER-HISTORY OF GASTRO-ENTEROSTOMY FOR PEPTIC ULCER.

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The present paper is a study of the after-history of 67 cases upon which the operation of gastro-enterostomy had been performed for ulcer of the stomach or duodenum. The operations have been done by many different surgeons, and for almost every clinical type of ulcer. They were performed at St. Mary's Hospital during a period beginning in 1904 and ending in April, 1910. In the most recent cases there was an interval of at least eighteen months between the operations and the inquiry as to the present condition of the patients, while in the older cases more than five years had elapsed.

The results here reported have been based upon the patient's freedom or otherwise from those symptoms which troubled him before the operation, or which still indicate active ulceration. Thus, when a patient, having been operated upon, reports himself entirely free from pain, sickness, and vomiting of blood, while he can enjoy ordinary food, and has perhaps gained in weight, his result is marked as "excellent" (E).

Supposing, however, that a patient states that he is little better, and that his pain, vomiting, etc., have not improved or that the improvement be only very slight, his result is recorded as "bad" (B).

It is remarkable that the great majority of all cases are easily classified into one or other of the above categories. If any improvement has taken place, it is in most cases complete. There have, however, been some in which the recovery has been only partial, and these are classified respectively as "good" and "fair" (G), (F).

Where results are recorded as excellent there is no possible doubt that this is a true description of the case, for, as a rule, the patients themselves are most enthusiastic when referring to their condition. Similarly, there has been no hesitation in stamping any case as failure when the patient is still troubled with symptoms; for, even though pain, vomiting, etc., may have been slightly reduced, if the patient is still conscious of disease in the stomach or duodenum he has not been cured by the operation.

The Mortality of the Operation.

Out of 92 cases there were 7 deaths immediately following the operation (7.6 per cent.). All these deaths occurred amongst the first 39 cases; throughout the last 53 cases there was no death.

The causes of death were as follows:

1 general peritonitis due to perforation of the ulcer just after the operation.
1 general peritonitis from leakage of the anastomosis.
1 septic bronchopneumonia.
2 collapse.
2 causes unknown.

The death of the first case was almost unavoidable; it could, perhaps, have been prevented by invaginating the ulcer at the time of the operation, but, as the liability of the ulcer to perforate can scarcely be ascertained during the operation, invagination is rarely performed. This case was an unfortunate accident. The second case—due to leakage—was the result of faulty technique. This was one of the earliest cases of the series. Where the ordinary method of suture is employed leakage at the site of anastomosis is very rare. In one case, in 1904, Murphy's button was used; the patient died soon after the operation, from melaena. The third patient died from bronchopneumonia, quite independently of the special nature of the operation. This patient would probably have died whatever operation had been performed.

Two patients died of collapse during the first week. The collapse may have been due to the gravity and duration of a serious operation performed upon a patient probably exhausted by a succession of haemorrhages, and a long period of semi-starvation from continued vomiting. Another cause of the collapse may have been haematemesis or melaena following operation. This is not an infrequent cause of death. In neither of these cases, probably, did the operation contribute to the speedy death of the patient, for in the first instance—death due to collapse from exhaustion and low vitality—the patient would have died if not operated upon; and in the second—death from haemorrhage—the operation probably had no part in starting the bleeding.

Thus of the 5 cases of death the causes of which are known, 2 died owing to unfortunate accidents, 2 died in spite of the operation, and in 1 only was death due directly to the operation—the case in which the anastomosis leaked. So much has the technique improved during the last few years that this cause has been practically eliminated.

After-History of 68 Patients.

Of the 92 cases of the series 68 have been traced; of these 3 have died in the interval (4.4 per cent.) Probably others of the 92 cases not traced have died, and this would account for the failure to trace them. From the accounts furnished by their friends, it appears that 1 died of perforation, 1 from "a recurrence of the malady" (? haematemesis), and 1 from a cause unknown. Thus the total mortality of the operation, *plus* that of the uncured ulcer after operation, is 10.9 per cent. These figures should be compared with the mortality of the disease when treated

by medical means. Apparently the statistics here collected would show that the immediate danger of gastro-enterostomy is serious (7.6 per cent.), but under present conditions it is exceedingly slight; there has, for instance, been no death in the last 53 cases, that is, since 1908.

The general results of the series can be stated in 67 cases.

Classification of Results in 67 Cases.

Result.	No. of Cases.	Percentage.
E.	29	43.2
B.	26	38.8
G.	6	8.9
F.	6	8.9

Thus nearly half the cases were in no way ameliorated. Reckoning E and G together, and B and F, we have approximately 52 per cent. cured and 48 per cent. not improved. Ample proof is thus afforded that gastro-enterostomy is not indicated promiscuously for all kinds of peptic ulcer. At the same time, it is an important conclusion that the results are very sharply defined, inasmuch as 55 of the cases are either completely cured, or in no way improved, while only 12 cases are partially relieved. Supposing, on the one hand, the bulk of the cases were partly cured and only a small proportion showed a decisive result of good or bad, then the results would not be so significant, but as the effect of operation is so markedly successful in 43 per cent. and so hopelessly bad in 38 per cent. it is clear that there must be some very real difference in the etiology of the disease, or the pathology, or the exact performance of the operation which renders surgical treatment thoroughly successful or absolutely useless.

Age and Sex.

If the age of the patients and its effect on the prognosis be examined, it will be seen that, generally speaking, the older the patient the better the outlook. Thus:

Table of Ages.

Age.	No. of Cases.	Result.	
		Excellent.	Bad.
Below 20...	1	0	100 %
20 to 30	13	23 %	77 %
30 to 40	14	28 %	72 %
40 to 50	20	65 %	35 %
50 to 60	14	72 %	28 %

The age limits were 19 and 61, and the average age was 40.

From this table it would seem that the age of the patient is an important factor, but this is probably only apparent, for the type of ulcer varies with the age.

Again, the question of sex seems to influence the prognosis. Of 63 cases, there were 35 males and 28 females, and approximately one-third of the females and two-thirds of the males were cured. There were 23 males and 11 females over the age of 40; of the 23 males 20 were cured, and of the 11 females only 4 were cured.

Duration of Symptoms.

The duration of the symptoms is some indication of the chronicity of the disease; but on examining the series it has been found that no relation exists between the chronicity and the result of operation. Some of the patients had suffered for less than one year, while others had had symptoms for more than fifteen years; but the number of "cures" is distributed equally. It has been suggested that gastro-enterostomy is suitable for the chronic ulcers, and not for the acute variety; but these cases afford no evidence to support this.

Character of the Pain.

The character of the pain, however, is of great importance, for the figures show that the result of operation depends very largely upon the time after food at which the pain occurs. This varies from immediately after a meal to one and a half hours, and, in proportion as this interval is long, so is the prognosis good. Clinically, the ulcer is frequently diagnosed as gastric or duodenal by a consideration of this feature of the pain, and it will be seen from the table below that cases of duodenal ulcer, as a rule, do much better after this operation than cases of gastric ulcer. Physiologically, duodenal and pyloric ulcers may be considered together, both forms tending to cause stenosis.

Position of the Ulcer in 64 Cases.

Position.	No. of Cases.	Result.	
		Excellent and Good.	Bad and Fair.
Gastric	24	38 %	62 %
Duodenal and pyloric	37	70 %	30 %
Not stated	7	—	—

Mode of Action of Gastro-enterostomy.

The question whether the ulcer is gastric or duodenal is of far greater importance than either age or sex. The pathological effects of the two forms of ulcer are usually quite different. The important pathological effect of duodenal and pyloric ulcer is pyloric stenosis, and it is probably in the relief of this condition that gastro-enterostomy has its greatest usefulness. The anastomotic opening provides a means of drainage, and this is probably the secret of the success of the operation in so many cases of this kind. For example, cases of pyloric carcinoma owe their relief after this operation to simple drainage. Therefore, whether the actual ulcer be healed or no, the stenosis and its attendant train of symptoms is certainly cured, and the first effect of this is to maintain the stomach at rest and relieve it of a volume of fluid continually in contact with the ulcer. Now just as drainage of any other hollow viscus, such as the bladder, promotes its recovery from a septic state, so drainage of the stomach probably has a most important bearing upon its recovery from an ulcer which is in a septic and progressive condition.

Gastric drainage may also be accomplished by means of lavage, though not so perfectly as by gastro-enterostomy, for, in the case of lavage the fermenting fluid is removed at intervals only, whereas by anastomosing the stomach with the jejunum a continuous drainage is maintained and a retention of irritating fluid never occurs. One of the cases was *x*-rayed after a bismuth meal, and the fluid was seen to pass very quickly out of the stomach, so that there was scarcely time to obtain good photographs.

Though the patient owes much of his distress to dilatation caused by stenosis, and its relief from this condition is easy to understand, undoubtedly a true healing of the ulcer with cicatrization is promoted in those cases where there has been frequent bleeding, for haematemesis and melaena are often completely arrested. Some claim that the healing of the ulcer is due simply and solely to the drainage effected by the operation, which prevents its constant contact with septic fluid, but, while drainage clearly relieves stenosis, some other factor is probably concerned in the healing of the ulcer.

Of the pathogenic factors associated with peptic ulcer, one of the most important is hyperchlorhydria. Of those cases in which a test meal analysis was performed, it was found that the vast majority suffered from a hyperacidity; in fact, one of the surest aids to the diagnosis of simple ulcer is the presence of this excess of acidity. Indeed, it has been shown that experimental gastric ulcer can only be produced or maintained when the acidity of the stomach is above the normal (Bolton). Hence it follows that the relief of this condition should be one of the first aims in the treatment of peptic ulcer.

The administration of sodium bicarbonate destroys the acidity; but in gastro-enterostomy we have a more efficient method, for by this operation the acid fluid is not allowed to accumulate.

The effect of the operation on hyperchlorhydria can be determined by the analysis of test meals by the usual method; and from tables of such cases, published by

Dr. W. H. Willcox, it can be seen that the total amount of acid is materially diminished.

From a study of the analysis before operation some idea can be formed of the probable success of the operation, for the results bear some relation to the amount of acidity. Thus, reckoning the total acidity in terms of hydrochloric acid, we have:

Acidity before Operation.

Total Acidity.	Result.	
	Excellent.	Bad.
Between 0.12 per cent. and 0.13 per cent. ...	5	3
Between 0.22 per cent. and 0.3 per cent. ...	13	3

Reckoning 0.15 per cent. as the normal, we gather that those cases with a definite hyperchlorhydria from 0.2 per cent. to 0.3 per cent. show better results than those cases not associated with hyperacidity; and it is in accordance with theoretical considerations that this should be so.

At first sight it might be imagined that the diminution of acidity after gastro-enterostomy is due to regurgitation of the alkaline juice of the duodenum into the stomach. This cannot be the case to any great extent, however, for the amount of bile in test meals drawn off is, as a rule, so slight that not sufficient alkali can have regurgitated to have neutralized the excess of acid. In some cases no bile at all is found: in others, only the slightest trace, showing that the amount of regurgitation is inappreciable. But it is easy to understand how the acidity is corrected when we remember the part played by the anastomosis in the drainage of the stomach. By these means accumulation of the gastric contents is prevented, and although there may be a hypersecretion of acid, the rapid drainage into the jejunum prevents it from raising the percentage of acid in the gastric juice.

Thus does gastro-enterostomy, by drainage of the stomach, bring about the two essential conditions for the cure of ulcer—namely, rest and normal acidity. Rest is so important for recovery from disease of any other part of the body that it is only to be expected that it should be imperatively necessary for the stomach and duodenum. The degree of rest secured by this operation for the duodenum is almost absolute, for the first part of the duodenum—where the ulcer usually occurs—is thrown into a state of complete physiological inactivity. This may partly account for the better results in the case of the duodenum.

The Operation and After-Treatment.

I.

From what has been stated above, it is clear that a cure of the disease depends upon permanence of the anastomotic opening, for as soon as the drainage becomes ineffective the former conditions recur, and fresh ulceration is likely. In some cases of cicatricial pyloric stenosis it is impossible for the opening to close, for any fistula will remain open as long as there is obstruction below. This may be an additional reason why the operation is so successful in cases of pyloric stenosis. But when the ulcer does not cause an obstruction of the pylorus, closure of the artificial opening is possible, and perhaps probable.

In only two cases has it been possible to determine the size of the opening, and in each case it was still patent.

CASE I.—J. C. Duodenal ulcer, and slight degree of hour-glass contraction of the stomach. Gastro-enterostomy had been done near the cardiac end. April, 1910: Laparotomy, stomach opened, and anastomosis admitted three fingers. The pylorus admitted one finger, and was artificially stenosed.

CASE II.—H. S. Gastric ulcer. Gastro-enterostomy in January, 1909. Readmitted August, 1910, for melaena, etc., and laparotomy was performed in December, 1910. The opening admitted three fingers, and the pylorus was artificially stenosed. Three months after the patient was quite well.

When, however, the stenosis is due to pyloric spasm associated with an ulcer in its vicinity, free drainage of the stomach will lead to a relaxation of the spasm, as in other parts of the body. The function of the pylorus will then be restored and the gastro-enterostomy opening will fall into disuse, as all such fistulae do, when the obstruction to the *viae naturales* is relieved. In this way the ulcer may be healed and the patient permanently cured. But, on the other hand, the old condition of affairs may be reproduced when the anastomosis closes, and it is possible that a further ulcer will be formed, thus accounting for some of the many relapses. If this be the case, a measure perhaps indicated is artificial closure of the pylorus so as to reproduce most nearly that type of case—permanent pyloric stenosis—which does best after gastro-enterostomy. In two recurrent cases of this series this was done, but not sufficient time has yet elapsed to judge of the results.

In those cases in which the pylorus is quite patent and no obstruction exists it is difficult to see how gastro-enterostomy can be of much benefit, for one of the two important morbid conditions—retention of septic fermenting fluid—cannot exist, and the other—hyperacidity—can be little relieved by the operation, for there is already sufficient drainage through the pylorus. Such cases are those of gastric ulcer situated well away from the pylorus, with little scar contraction and atonic dilatation of the stomach. It is probable that this is the type which reacts so unfavourably to surgical treatment. Artificial closure of a healthy functional pylorus is, however, a serious measure, and one hardly likely to be of any use in such cases.

II.

In earlier days a much debated question was whether the anastomosis should be made on the anterior or posterior wall of the stomach. Latterly, however, it has been decided that what is known as posterior gastro-enterostomy is the operation of choice, and unless there be some strong contraindication, such as the presence of adhesions, the anterior operation is never performed. Throughout this series only one or two anterior operations have been done, and then only because the posterior was not possible. We cannot, from these few cases, judge the relative merits of the two operations, but it may be accepted that the reasons set forth in favour of abandoning the anterior operation are very cogent, and that the result of the operation as practised to-day must be correspondingly better.

III.

A further point of discussion has been the position of the anastomosis on the posterior wall—that is, whether it should be placed near the cardia or pyloric antrum. Unfortunately, it has been impossible to obtain the records of the exact position of the opening, and no statistical conclusions can be drawn from this series. This point, however, is probably of some importance, for the question ultimately resolves itself into this, Which position will make for the best drainage?—drainage being the aim of gastro-enterostomy. Bismuth meals show that, immediately after eating, the food occupies the fundus of the stomach for a short time, while the pyloric antrum remains comparatively empty and contracted. Later the antrum dilates, receives a portion from the cardia, and a series of churning movements commence, the semi-digested mass being finally ejected through the pylorus. As the motor activities of the two halves of the stomach differ, so do their secretory functions. The fundal cells furnish the acid, and probably the pepsin also. Drainage of the fundus will relieve it of its distension by preventing its acting as a receptacle, and the fundus will discharge its contents immediately, so that gastric digestion will scarcely take place, and no accumulation of hydrochloric acid, which is secreted by the fundal glands, will occur.

But when the anastomosis unites the pyloric antrum with the jejunum drainage will not occur immediately, but only when the antrum receives its portion of the meal from the fundus. The normal churning movements of the antrum will immediately drain the contents into the jejunum, and the fundus will consequently discharge itself into the antrum more quickly than normal. Thus the difference is chiefly in the rapidity of drainage. When the opening is near the fundus, drainage is more rapid than when near the antrum, and acid will scarcely be present.

From these considerations it is seen that the result of operations will be better in cases of hyperchlorhydria when the opening is near the fundus, whereas for pyloric stenosis the anastomosis should be made with the pyloric antrum. This question gives rise to many more reflections, which, however, cannot be considered here.

Other differences in methods of operating are the formation, or not, of a loop of jejunum, and the size of the opening. The "no loop" operation is almost invariably performed at present, and the size of the opening should err rather on the side of capacity, in order to obviate premature closing. As in the previous cases, the notes of this series do not yield sufficiently full details, and no conclusion can be drawn.

POSSIBLE CAUSES OF THE FAILURES.

1. *Recurrence of the Original Ulcer, or Its Failure to Heal.*

(*a*) Closure of the anastomosis. The causes of this have already been considered.

(*b*) Persistence of those conditions which either gave rise to the ulcer or prevented it from healing.

The causes of gastric and duodenal ulceration have been discussed freely of late, and some light has been thrown thereon by Dr. Bolton; but it is not yet known definitely what gives rise to the ulcer. However, there are some suspected causes, such as oral sepsis. This condition should certainly be corrected some days before operation, and the mouth be kept in good condition.

The second and most important question is that of diet. The patient, and often his doctor, regard the operation of gastro-enterostomy as the complete and final means of cure, instead of realizing that it is no more than an excellent means of helping the stomach to cure itself. He forgets that careful dieting over a long period, together with frequent administrations of alkali, are almost as necessary and important as the operation. Many cases of gastric ulcer are cured by these means alone; therefore, will it not add greatly to the chances of complete and permanent cure if operative treatment is supplemented by careful medical treatment? Gastro-enterostomy is usually employed in cases which have failed to react to medical treatment, though in nearly every case under such a régime there is improvement, relapse occurring when the patient resumes his former dietetic life. The carelessness of the patient with respect to his diet is probably the commonest cause of relapse in this series—made up of hospital patients who, unfortunately, are often unable to select their food. But where gastro-enterostomy is followed by carefully regulated medical treatment, not necessarily strict, but reasonably moderate, the best results can be obtained.

2. *Formation of Jejunal or Gastro-jejunal Ulcer.*

Several cases have been reported, some being discovered at the operation for perforation. With Dr. Bolton's work in view, we may attribute such ulceration to hyperchlorhydria. There may be other causes, the nature of which we do not know, but so long as we remember that an experimental ulcer can be produced only in the presence of hyperacidity, we have at least one means of prevention in the administration of alkali and judicious dieting referred to above.

3. *Apparent Relapses.*

In these cases the ulcers are probably healed after gastro-enterostomy, but notwithstanding, the symptoms of pain and perhaps of vomiting and haematemesis persist, or return at a varying interval.

1. *The Pain of Adhesions.*—Simple ulcers of the stomach and duodenum give rise to adhesions between these organs and the neighbouring serous surfaces. In the majority of these cases the patient suffers no pain, but when adhesion exists between the anterior wall of the stomach and the abdominal wall, pain is probably a persistent symptom, for the parietal peritoneum is known to be very sensitive. Each time the stomach moves relatively to the abdominal wall, as it does after meals, there will be a drag on these adhesions, and consequently a pull on the parietal peritoneum. In such cases the pain will be very obstinate, entirely unrelieved by simple gastric sedatives, such as sodium bicarbonate, hydrocyanic acid, etc. In those cases in which the ulcer was noted to be on the anterior wall of the stomach at operation and the patient shows no permanent improvement, adhesions may be suspected as the cause of failure.

2. *Carcinomatous Change.*—It is known that about 60 per cent. of cancers of the stomach arise on the sites of old simple ulcers. Chronic and unhealed peptic ulcers are specially liable to this form of degeneration, but it is possible that carcinoma may originate on the scarred site of an old ulcer healed by gastro-enterostomy. If this be the case there will be a relapse of the symptoms, with the other signs usually attendant on cancer of the stomach.

GENERAL CONCLUSIONS.

Reviewing the results of this series broadly, we see that as a general rule gastro-enterostomy is excellent for men of middle age who suffer from duodenal ulcer, especially if associated with some pyloric stenosis, whereas failure generally follows operation in cases of young women suffering from gastric ulcer.

Thus, of 12 females under 35—all subjects of gastric ulcer—10 cases were complete failures, and 2 only were successful. Some of these cases were in young and anaemic women, and on opening the abdomen no ulcer was found. There were 4 cases in which no ulcer was discovered, and of these 3 did badly. Probably in these 4 cases no ulcer existed, and it is clear that operative treatment could have been of no avail.

A more exact knowledge of the symptomatology and morbid anatomy of the ulcer might enable us to predict, with even more confidence, the result of gastro-enterostomy.

SUMMARY.

1. The results of treatment by gastro-enterostomy are generally either excellent cures, or complete failures.
2. The immediate mortality of 92 cases is 7.6 per cent., but of the last 53 cases it is 0.
3. The general results are: 43 per cent. excellent; 38 per cent. bad.
4. Prognosis is much better when the patient is over 40.
5. According to sex, 69 per cent. of males are cured; 28 per cent. of females are not improved.
6. The duration of symptoms is of no assistance in forecasting the result of operation.
7. The length of time elapsing between the meal and the onset of the pain is of great importance; the longer it is the better the outlook.
8. Duodenal ulcers yield very much better results than gastric ulcers; the gastric give 38 per cent. of cures, duodenal 70 per cent. of cures.
9. Cases of pyloric stenosis yield the best results.
10. The degree of hyperchlorhydria is of importance, cases showing a total acidity of over 0.2 per cent. reacting well, cases with a normal acidity doing badly.
11. The improvement effected by the operation is probably due to the relief of dilatation, pyloric spasm, and hyperacidity by the drainage of the stomach.
12. Failures may follow the closing of the anastomosis.
13. The position of the anastomotic opening on the posterior wall of the stomach may be of great importance.
14. Failures may be due to:
    - (*a*) Recurrence, or failure to heal of the original ulcer.
    - (*b*) Formation of jejunal ulcer.

    Apparent relapses:
    - (*a*) Adhesions—causing pain, vomiting, etc.
    - (*b*) Carcinomatous degeneration.

15. Cases where an ulcer is not found at operation do badly.

In conclusion, I would like to express my thanks to Mr. J. Ernest Lane, F.R.C.S., and the other members of the surgical staff of St. Mary's Hospital, who have kindly given me permission to use their cases.

THE Illuminating Engineering Society (32, Victoria Street, London, S.W.) has done good service in following a recent American precedent and reprinting from its official organ for general circulation a pamphlet with the title *Light and Illumination: their Use and Misuse.* It gives a few simple recommendations on this subject. The reader is told concisely what kind of illumination to avoid, how to obviate the evil of glare and dazzle, how to concentrate the light where required, and how to secure its effective distribution. He is also assisted in the choice of globes, shades, and reflectors, and instructed in the part which walls and ceilings play in the lighting of home, shop, office or factory. To do all this within the compass of a threepenny pamphlet, and to do it without treading upon any commercial corns, or showing any preference for this or that illuminant, is a useful achievement. The instructions are helped out with several illustrations which show even more clearly than the text what kind of lighting is deficient and prejudicial to the sight.

A METHOD OF PERFORMING GASTRO-JEJUNOSTOMY.*

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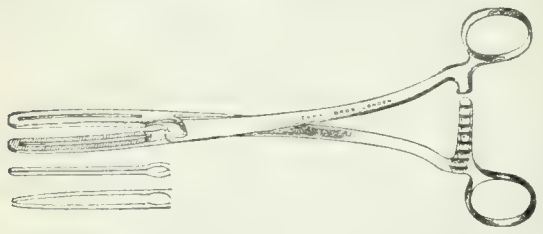
I SHALL endeavour to explain a method, slightly different from the ordinary one, of performing the operation of gastro-jejunostomy—a method adopted in 26 consecutive operations for the following lesions:

	Operations.
Gastric ulcer, with or without adhesions ...	11
Pyloric stenosis and gastric dilatation the result of simple ulceration	6
Gastric dilatation associated with enteroptosis	1
Severe haematemesis from simple ulceration ...	1
Duodenal ulcer	1
Carcinoma of the stomach	1
Carcinoma of pylorus	5
	26

Of these operations two only had fatal results. In one case (of very advanced carcinoma of the pylorus) the patient died from exhaustion, two days after the operation; and in the other (of duodenal ulcer) the patient, who had previously undergone an operation for some pelvic disease, died, three weeks after an apparently successful gastro-jejunostomy operation, from the effects of an abdominal abscess, the cause whereof was not ascertained, but which, it is believed, was unconnected with the gastro-jejunostomy operation.

Method of Operating.

After the abdomen had been opened in the usual way, and the diseased area examined, the stomach, transverse colon, and great omentum were turned over on to the abdominal wall, so that the posterior wall of the stomach lay uppermost. The transverse mesocolon was then cut through and the stomach drawn through the opening



made in it. Two short-bladed forceps were then applied, one to each end of the portion of stomach selected for junction with the jejunum. This portion of stomach—that is, the portion lying between the two forceps—was not "clamped" with a forceps, but was left "free." The omission to check, by clamping it, haemorrhage and gastric contents, was a special feature of the modified method of operating which I am attempting to describe. The edges of the cut in the transverse mesocolon were fastened, with a few stitches, to the stomach wall—an important step as a provision against the possibility of the small intestine subsequently passing through the opening and becoming strangulated.

The next step was to select a portion of the jejunum for junction with the stomach. Each end of the selected portion was grasped with a short-bladed clamp forceps of the same kind as had been previously applied to the stomach. Thus there were four clamp forceps in use, two grasping a portion of the stomach and two grasping a portion of the jejunum. By means of these two pairs of forceps the portions of stomach and jejunum which were to be connected were brought close together and held side by side. Sponge cloths were then packed round the exposed portions of stomach and jejunum.

With a Lembert suture the outer coats of the stomach and jejunum were then stitched together for a length of about 4½ in. Openings of the requisite length (3½ in. to 4 in.) were made in both the stomach and the jejunum. When the stomach was opened its larger vessels were secured and ligatured. This was a special feature of the operation, the objects being to check haemorrhage during the operation and to prevent post-operative haemorrhage.

The next step was by stitching to join the opening in the stomach to that in the jejunum. There were four rows of stitching. The first row, already mentioned, was simply peritoneal stitching. The second row, just in front of the first row, joined one side of the opening in the stomach to the corresponding side of the opening in the jejunum; this row of stitches secured the whole thickness of the stomach wall to the jejunum. And, similarly, the third row, joining the other side of the opening in the stomach to the other side of the opening in the jejunum, extended to the whole thickness of the walls of the stomach and jejunum. This third row closed the openings in and completed the junction of the stomach and jejunum. The fourth row of stitches, similar to the first row and corresponding to it, on the other side of the openings, was simply a Lembert peritoneal continuous suture. In doing this stitching a straight non-cutting needle was used, and, with the object of facilitating the work of the operator's assistant, care was taken that all the stitching should be "towards" the operator.

The sponge cloths were then removed and the stomach turned down and replaced in the abdominal cavity, which was then closed in the usual way.

Advantages.

The essential difference between this method of operating and that usually described and practised is that in the latter, with the object of checking haemorrhage and stomach contents, the portion of the stomach selected for the opening is clamped throughout its entire length with the blades of a long-bladed forceps, whereas in the former only the two ends are grasped with forceps, and the portion of stomach lying between these two forceps is not clamped at all.

The method described by me seems to have the following advantages:

1. In the ordinary method reliance has to be placed solely on the tightness of the stitching for the prevention of post-operative haemorrhage into the stomach, which not infrequently occurs and has even proved fatal. In the method described by me, on the other hand, it is possible, when opening the stomach, readily to see and ligature the larger vessels in the stomach wall; this overcomes the risk of post-operative haemorrhage.

2. When long-bladed forceps are used it is in practice by no means easy in some cases to get the stomach "nicely" between the blades. On the other hand, the short-bladed forceps can be applied quickly and with ease. Also, when the long-bladed forceps are used, there is more danger of damaging the stomach walls unless rubber tubing is used to cover the blades.

3. When long-bladed forceps are used it is difficult in practice, owing to the thickness of the stomach walls, to clutch hold of and clamp a sufficient length of the stomach; hence the length of the opening which can be made in the stomach is limited, for obviously the opening cannot be greater than the length of stomach clamped by the forceps. But in practice, even the whole of this length, limited though it is, is not available for the opening, because the "tension" at each end of the clamped portion of the stomach is found to be so considerable as to prevent ease of stitching, and obviously the opening cannot be given a greater length than that which can be stitched up with accuracy. On the other hand, in the modified method of operating described above, an opening 3½ to 4½ in. long can be made with ease. The operation of gastro-jejunostomy has more satisfactory results, and the risk of regurgitant vomiting is obviated if the opening is a large one.

It is easier, and takes less time, to perform gastro-jejunostomy in the way described above than in the way more commonly adopted.

It may be urged that the modified method described by me has some drawbacks. Let us consider them.

1. The flow of blood during the operation may interfere with accuracy of stitching. This is true only to a limited extent, for bleeding from the cut is mostly checked, as already mentioned, by ligaturing the larger vessels in the stomach wall, and the oozing from the smaller vessels is dealt with by the operator's assistant, who wipes away the blood as each stitch is inserted.

2. There is a risk of the patient straining when the stomach is open and forcing out some of its contents. This also is true only to a limited extent, for the stomach

* Read before the Nottingham Medico-Chirurgical Society.

ought to be washed out thoroughly before the operation; and even if anything does trickle out during the operation, it can easily be wiped away. In practice I have never found any harm result. It is suggested that the advantages of the method described by me more than counterbalance its drawbacks.

The short-bladed forceps used were made by Messrs. Down Bros.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

SUBACUTE OSTEITIS OF THE EPIPHYSIS OF THE OS CALCIS.

RECENTLY attention has been drawn to the changes that take place at the epiphyses, as the result of an injury, which at the time may appear trivial, but which if neglected may be followed by more serious consequences. In all doubtful cases it is wise to have an *x*-ray examination made, since the most careful clinical examination often fails to detect an abnormality, which at once becomes revealed when the part is radiographed.

Within the last year I have had two cases, both of which occurred in boys of the age of 13 years, and in both cases the symptoms and signs were similar.

A healthy, well-developed schoolboy was brought to me with a request that I would photograph his foot, which was painful and caused him to limp.

The history was that in June, 1911, he went to London to see the Coronation, and did a great deal of walking and standing. He then noticed a pain in his heel. The pain has persisted off and on up to the present time, was worse after he had been walking, or when his heel was subjected to the slightest blow. It was particularly noticeable whilst he would be in the act of drawing off his boot. From time to time there had been slight swelling of the heel, but he had never noticed any bruising. In consequence of his disability he was unable to take his proper share in the games.

There was some tenderness over the back of the heel, with slight swelling on either side of the insertion of the tendo Achillis. Contraction of the muscles of the calf of the leg caused slight pain. There was no wasting of the muscles, and the movements at the ankle joint were unimpaired. His gait was what one would expect in this condition. To save his heel from impact with the ground he walked on the forepart of the foot, with the heel raised, and the knee slightly flexed.

Radiographic Examination.

The radiographic plates that were taken showed the following condition: The shape and structure of the bones were normal with the exception of the epiphysis of the os calcis. This was seen to be very irregularly ossified, and there was an abnormal gap between the epiphysis and the body of the os calcis. The epiphyseal plate appeared to be displaced upwards and backwards, and there were calcareous deposits in the lower part of the tendo Achillis.

I take it that this condition had originated as a subacute osteitis in the neighbourhood of the epiphysis, due to strain or to excessive walking on hard pavement in one not accustomed to it, and that this osteitis had led to weakness of union between the epiphysis and body, with subsequent partial displacement.

A very similar condition affecting the tubercle of the tibia is now well recognized, being known as "Osgood Schlatter's disease of the tibial tuberosity," and it is reasonable to assume that a similar condition may be met with at the epiphysis of the os calcis, which, though to a great extent protected by its dense fibrous covering, is, from its position, liable to injury.

The treatment recommended is to supply support to the heel. This can be done by means of strapping shaped similar to a jaw bandage. The central part is placed over the heel; the ends are then carried forward round the ankle joint and crossed. The patient should also be instructed to wear a soft pad inside the boot.

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IODINE IN CORNEAL ULCER.

WITH reference to the case of corneal ulcer treated by iodine, reported in the BRITISH MEDICAL JOURNAL of January 25th, p. 169, by Fleet Surgeon C. T. Bishop, I wish to mention that for the past sixteen months I have treated all cases of ulcers and ulcerations of the cornea, irrespective of cause, that have come to my surgery, and also those occurring in my private practice, with daily applications of tr. iodi. In all cases so treated I have had, to quote Fleet Surgeon Bishop's own words, "very striking results."

I am of opinion that this is one of the most satisfactory methods of treatment for nearly all cases of ulcer of the cornea, due attention being paid at the same time to the treatment of the cause, whether local or constitutional or both.

The method I employ is the following—namely: The eye having been previously anaesthetized with a few drops of 4 per cent. solution of cocaine, the end of an ordinary wooden applicator is sharpened to a pin's point and a little cotton-wool firmly wound round it. The point is dipped in the tincture of iodine and the surface of the ulcer gently touched with it. The conjunctival sac is next thoroughly irrigated with distilled water.

May I call Fleet Surgeon Bishop's attention to May and Worth's *Diseases of the Eye* (second edition, p. 120), where the above method of treatment is described?

G. CANILLA, L.& L.M.R.C.P.I.&S.I.,
Consulting Medical Officer to the Calamon Mining Company and to the Cordoba Copper Company.
Cordoba, Spain.

INTERNAL TRAUMATIC VAGINAL HAEMORRHAGE.

THE following case of internal traumatic vaginal haemorrhage resulted in the formation of a perivaginal haematoma after a normal labour.

On January 23rd, at 10 a.m., I was called to see a multipara in labour. On examination I found a left occipito-anterior presentation, the membranes not ruptured, the os partially dilated, and an old perineal laceration. The pains were of normal strength and duration. I left the patient and returned at noon. The head was now on the perineum and was carefully conducted out of the vagina, the patient being under light chloroform anaesthesia. The placenta was expressed in due time by Credé's method, and I left the patient quite comfortable to the midwife in attendance.

At 2 p.m. a message came that the patient complained of pain, which I took to be ordinary after-pains, and sent two 1-grain opium pills with instructions. At 6 p.m. I was again called to see the patient on account of pain and faintness. At this time she seemed to be suffering considerably, was pale and cold with a quick pulse. On examination in the cross-bed position the vulva gaped widely; the mucous membrane of the post-vaginal wall was very congested and everted, presenting the appearance of an inverted placenta at the vulvar orifice; the whole posterior triangle of the anatomical perineum was very tense and bulging, and the vaginal canal practically occluded; the cervix uteri could not be reached by the finger. The fundus uteri was globular, firmly contracted, and raised above the level of the umbilicus. Rectal examination disclosed to the left and behind a tense well-defined swelling about the size of a large orange. A hypodermic injection of morphine and ergotinin was administered.

At 9 p.m. the rectal swelling had increased considerably; the pulse became faster, and the patient more collapsed, so I decided to have her removed to the Doncaster Infirmary, where I again saw her at 2 a.m. on January 24th, with Dr. Henry Clarke. At this time there was a well-marked ecchymosis extending from the anus laterally on both sides to the outer limit of the ischio-rectal fossae. Dr. Clarke, in attempting to reach the cervix uteri, caused a rush of blood from the vagina, and consequent disappearance of the vaginal obstruction and of the tumour to be felt from the rectum. Then, with careful examination under the altered circumstances, we found, high up in the vagina on the left side, a tear which, owing to the congested condition, looked like a punctured wound of sufficient size to admit the tip of the little finger. This was stitched in the usual way, and the patient has gone on well.

The foregoing notes I consider interesting and instructive. Interesting because, according to Jellett, "internal traumatic vaginal haemorrhage" sufficient in amount to require treatment is a very rare condition; there were only 10 cases in 20,000 deliveries at the Rotunda Hospital.

Again, the labour was not unduly prolonged; the child was delivered naturally—in fact, the case was normal in every respect. It is instructive in its warning not to regard all pains after labour as trifling after-pains.

Carcroft, Doncaster. C. SHEAHAN, L.R.C.P. & S.I.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

TONGSHAN HOSPITAL, NORTH CHINA.

A CASE OF SUBPERIOSTEAL LIPOMA OF THE FEMUR.

(By H. B. KENT, M.B., B.S.Lond., Medical Officer to the Kailan Mining Administration and to the Chinese Government Railways, North China.)

THE following case is of pathological interest, and shows to what extent the philosophy of a Chinaman will permit him to put up with a considerable burden for several years. The patient, a man aged 41, walked into my out-patient room, and said he came to know whether he could have removed the swelling visible in the annexed illustration. It was fixed deeply into the tissues of the thigh, being attached by a deep root extending the whole length of the fascia lata. This root is well marked by the horizontal veins seen in the picture. In one part (which may be identified in the photograph by the white area) fluctuation undoubtedly existed, but elsewhere it was, in my opinion, solid. But this solidity was not very striking, for two other European medical men thought they obtained a doubtful thrill. The man's aspect did not suggest that the growth had had any serious effect on his general health.

History.

His history was that seven years ago a swelling appeared in the front of his thigh extending the whole length of the bone. This swelling had gradually increased in size until it reached its present dimensions. It was quite painless, and his health had been otherwise good. Five years ago a medical man attached to Indian troops (stationed here after the Boxer trouble in 1900) tapped the swelling, which was then comparatively small. The patient stated that only blood came out, so that even at this date the solidity of the tumour was questioned. Quite recently the tumour had been again tapped in Tientsin, with the same result. In view of these circumstances I advised the man to take the risk of an operation, and have the tumour removed.



Operation.

An incision was made over the summit of the swelling and gradually enlarged so that it extended the whole length of the tumour. Bleeding was fairly free from the large veins, but was easily controlled. The deep fascia was divided, and it was then plain that the tumour was deep in respect of the muscles of the thigh. It was interesting to note that the tumour had so displaced the extensor muscles that the patella was at right angles to the joint, the articular surface facing upwards and slightly forwards instead of horizontally backwards. The task of displacing the muscles to either side of the tumour was a tedious one, but was ultimately achieved with the actual division only of the sartorius muscles.

Unfortunately the patient, who had been anaesthetized with chloroform, showed signs that his heart was failing. His colour and pulse became very bad. Open ether was given by Dr. Cooper, and the patient rallied to some extent. The operation was continued as quickly as possible.

Having stripped off the muscles it was obvious that the tumour was an enormous lipoma, attached to the femur in four-fifths of its length. Its lower pole was free. The femoral vessels were displaced inwards and were much stretched. Starting from the lower pole the tumour was with difficulty freed from its fibrous attachments. This was a long operation, and the patient's condition became very grave. Cardiac stimulants and saline infusion were given during the last part of the operation. When the whole of the tumour had been removed it was found that the whole length of the femur was laid bare, being stripped of its periosteum.

The enormously stretched muscles were rolled up longitudinally, and a few stitches put in to hold them. The skin was brought together. It was thought that if the man rallied a secondary plastic operation could be done later.

The patient was exceedingly ill. His pulse was hardly perceptible and his colour very bad. Every method of cardiac stimulation was tried, but without much beneficial result. The unfortunate man died an hour and a half after getting back to bed.

Examination of the Tumour.

The tumour was found to be a lobulated lipoma. One portion (which had been tapped previously) had undergone degeneration, and there was some fluid in this part. Beyond this small portion the tumour was quite solid. The dimensions of the tumour were:

Circumference (around the tumour and thigh), 4ft.
Length from upper to lower pole, 2 ft. 9 in.
Weight after removal, 60 lb.

REMARKS.

I see that Sir John Bland-Sutton, in his book *Tumours, Innocent and Malignant*, quotes two English cases of periosteal lipomas of the femur. Details are not given, but in civilized countries I doubt whether any one would allow a growth to become so large as that in the case now recorded before seeking surgical aid.

It was unfortunate that the patient died, but I think the cardiac muscle must have had for several years a severe strain put upon it. There were no bruits audible before operation. The bleeding at no time was excessive. We must conclude that the operation was greater than his cardiac muscle could stand. I do not believe the fact that we started with chloroform had any bearing on the ultimate result, *Post-mortem* examinations being illegal in China, no subsequent investigation as to condition of heart and other organs could be made.

In conclusion I must express my thanks to Dr. J. G. Gibb, M.D.Lond., F.R.C.S.Eng., of the Union Medical College, Peking, for his great assistance at the operation: and to Lieutenant Alexander Cooper, of the United States Army Medical Corps, for his help in giving the anaesthetic and supervising the saline infusion.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

A CLINICAL meeting of the Branch was held at the Newport and County Hospital on Thursday, February 6th, at 3 p.m. Mr. R. J. COULTER showed: (1) A case of marked unilateral proptosis with enlarged thyroid. (2) A specimen of sarcoma of the choroid, demonstrating the tumour very clearly. Mr. GREER showed: (1) A number of radiographs taken before and after operation for recent fractures of the tibia and fibula; the patients, who had been treated with plates and screws, were in attendance. (2) An ununited fracture of the tibia and fibula in an infant, which had been produced by a bone-setter's treatment of a bow-leg; the radiographs showed a bone graft taken from the child's rib in position and the absorption of the rib and development of callus. The patient was shown. (3) A series of thyroid glands removed by hemithyroidectomy, with photomicrographs exhibiting the histological structure found in Graves's disease and other pathological conditions. Dr. J. McGINN exhibited: (1) An apparatus for ionization, a number of patients treated, and photographs of the morbid conditions at various stages. (2) Keating-Hart's apparatus for use with a high frequency machine in fulguration. (3) Photographs and patients suffering from lupus erythematosus. The cases and exhibits were discussed and examined by the members present.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, February 24th, 1913.

Sir W. WATSON CHEYNE, President, in the Chair.

Unilateral Renal Lesions.

MR. RALPH THOMPSON read a communication based upon 13,505 autopsies, 8,218 on males, and 5,287 on females, at three London hospitals. All the autopsies were read through, no reliance being placed on indexes. The term "solitary kidney" was limited to cases where one kidney had either never developed, or had apparently undergone complete atrophy before birth. From the 13,500 *post-mortem* examinations he had collected 23 cases of solitary kidney, or 1 in 587 autopsies. Of the 23 cases, 14 were in males, 8 in females, and 1 in a case where the sex was not stated. Disease or mechanical lesion of the solitary kidney was only found in two cases. Some of the cases of supposed solitary kidney were really instances of double kidney. Dr. J. D. Rolleston recently stated that double ureter occurred in 1 per cent. of cases, but Mr. Dunn, Mr. Steward, and Mr. Rowlands stated that during an operation they had not come across a case of double ureter. Dr. H. M. Turnbull found this condition in only 1 in 150 of all autopsies recorded at the London Hospital; 8 were on the left side, 7 on the right Mr. Thompson showed an instructive specimen exhibiting aberrant vessels, and then passed to the consideration of injuries to the kidneys. He had found records of injury to the left kidney in 19, and to the right kidney in 22. There were notes of only 3 cases in which both kidneys were injured. Of ascending inflammation of the kidney he brought forward 14 cases in which that occurred in the left kidney, 12 affecting the right. In 3 the side was not stated. The total number of bilateral ascending inflammations was 135, and of unilateral 38. The next aspect dealt with was hydronephrosis and growth, and he said that the incidence of unilateral hydronephrosis was as follows: The left side only was affected in 52 cases, the right side only in 44. The number of cases of unilateral hydronephrosis occurring with an unknown cause included a much larger number of males than females. Out of the cases of hydronephrosis associated with granular kidney 3 were bilateral, and 7 on the left side, but none on the right. A series of cases were related in which there was evidence of tuberculous peritonitis and abdominal lymphadenitis, leading to pressure on the ureters. Sufficient attention had not been paid to constriction of the ureters by fibrous bands formed as a result of tuberculous peritonitis. A man complained of right renal colic, and suffered from haematuria. Catheterization showed that the function of the right kidney was very imperfect, but that of the left was unimpaired. Mr. Thompson operated, and found the right kidney septic, and a fibrous band was stretched tightly over the ureter about 2 in. below the pelvis. The band was divided, and then a well-marked stenosis of the right ureter was discovered. The kidney was excised, but the patient died six weeks later from tuberculous meningitis. The excised kidney showed no signs of malignant peritonitis. With regard to renal calculus, Mr. G. W. King had collected for the author 100 clinical records of successive cases at Guy's Hospital, which showed 57 in which the calculus was on the right side, 41 on the left; 2 were bilateral. Mr. Thompson's own collection showed 27 left, 39 right, 14 bilateral. Adding those from London Hospital gave 210 cases, of which 81 were left, 102 right, 22 bilateral; 5 not stated. Among 19 cases in children there were 11 right and 8 left. In the *Lancet*, early last year, an authority stated that *post-mortem* records taught that surgeons should be careful about undertaking nephrectomy for tuberculous disease, as the other kidney was frequently affected. Mr. Thompson's researches at three hospitals, however, revealed the following facts: (1) The unilateral cases of *post-mortem* renal tuberculosis were as 37 to 74 bilateral. (2) In the unilateral cases the right was affected in the proportion of 13 to 5 on the left. Pyelonephritis and bacilluria were admittedly more common on the right than on the left side. In regard to the reason why the right kidney should be more often affected than the left by inflammatory conditions, there seemed to be anatomical evidence that blood infection was more likely to reach the right kidney. That infection could reach the kidney from the alimentary canal was proved by reference to certain cases of carcinoma. The points upon which the author invited discussion were: (1) That the incidence of solitary kidney was much nearer the higher percentages recorded by some observers than the lower figures by others. (2) That the incidence of double ureters was more frequent than textbooks on surgery indicated. (3) That ascending inflammation might affect only one kidney in about 20 per cent. of all cases, and was more common on the left side, owing to pelvic causes. (4) That hydronephrosis was frequently unilateral, and was more common on the left side, chiefly owing to pelvic trouble. (5) That infarcts and miliary tubercles represented blood infection, and bacilluria represented lymphatic infection. Local tuberculosis and renal calculus, as well as infarcts, miliary tubercle, and bacilluria, were more common on the right side. The explanation was apparently to be found in the anatomical conditions, namely: (1) The arrangement of the blood vessels; (2) the anatomy of the colon; (3) the normal anatomical obstruction which might be present to the flow of urine along the ureter, before it reached the limits of the bony pelvis.

MR. THOMSON WALKER considered that Mr. Ralph Thompson had given the society some very interesting and important facts concerning diseases of the kidney. Unilateral renal disease lay at the root of the treatment of a large number of diseases of the kidney. Renal tuberculosis, carcinoma of the kidney, advanced cases of stone, pyelonephrosis, and some other diseases, all called for nephrectomy, and that operation could not be undertaken as a curative measure unless the disease were unilateral. There was a pathological and a clinical aspect. Mr. Thompson had shed a much more cheerful light on the former than pathologists were accustomed to impart. The pathologist had the advantage of being able to study and report on the specimen at leisure, but he also laboured under the grave disadvantage that he looked at the disease—and that was especially so in the case of a vital organ like the kidney—from the point of view only of its final stage. Mr. Walker proposed to confine his remarks practically to tuberculosis. On that question the view of the pathologist was very pessimistic, as far as unilateral and bilateral distribution was concerned. Professor Adami said it was usual at autopsies to find both kidneys affected, but the disease was more advanced in one than in the other. But the surgeon was, said Mr. Thomson Walker, more concerned with the *ante-mortem* pathology, the prime fact of which was that it was the early stage which was the surgically important one. Mr. Thompson's *post-mortem* statistics had confirmed those of several Continental observers. But, however important and pessimistic might be the *post-mortem* figures, they could not get over the mass of clinical and surgical evidence which had now accumulated that renal tuberculosis was, in its early stage, a unilateral disease. Miliary tuberculosis did not loom surgically into the field; it was too generalized. Having recognized the disease early, then by performing nephrectomy in the early (unilateral) stage one could cure renal tuberculosis in the large majority of cases. Israel found, clinically, that unilateral cases numbered 88 per cent., Krönlein, 92 per cent. In the clinical diagnosis of renal tuberculosis very little help was derived by the ordinary physical diagnosis. Pain, for instance, might be entirely absent during the whole course of the disease; or there might be pain in one kidney only, and it was still a problem whether the fellow kidney was healthy. It might be that one kidney had been destroyed by tuberculosis without pain, and that the second had become infected and was painful. The same might be true of tenderness and enlargement of the organ. One kidney might have been destroyed by tuberculosis without having been enlarged or tender, or palpable; but when the second became involved it might be both large and tender. Mr. Walker referred to an instance where a patient's enlarged and tender kidney, unlike its fellow, still functioned; thus, its removal would have resulted in fatal uraemia. This type of complication explained many cases where anuria came on after operation for renal tuberculosis in the statistics of the older surgeons. The use of the ureteric catheter for diagnosis was dwelt upon, and sources of fallacy indicated by Mr. Walker. When

the bladder was much involved tuberculin should be given, then the vesical complication underwent improvement until at length catheterization could be carried out for the determination of the diseased kidney. In many cases that failed, and then the question of opening the bladder and catheterizing the ureters arose. That was not easy, as the bladder was extensively ulcerated and contracted, and bled very readily. Another suggestion was to put a temporary ligature on it and collect the urine from the other side, but that did not appeal to him, and he had had no experience of it. Should not one, in such a case, open the supposed healthy kidney and find whether it was tuberculous? That had been his practice in most cases of that kind. He believed that in most cases tuberculosis of the kidney commenced at the apices of the pyramids, and passed outwards to produce the cavernous type. Tubercle bacilli were sure to be in the urine, therefore he relied upon the ureteric catheter. An objection to nephrotomy was that it involved destruction of some part of the kidney—a very important matter, seeing that it would probably be the patient's only working kidney. Unilateral urinary tuberculosis was usually secondary to a lesion elsewhere, such as in the spine or in a joint; therefore if one kidney were removed by operation, what proof was there that the primary focus elsewhere would not destroy the other kidney? That could only be answered by a study of the effect of nephrectomy in those cases; but the second kidney, when it was involved, seemed in most instances to have been infected from the first, not from the distant disease area. Israel collected 1,023 records of nephrectomy for unilateral tuberculosis, with a "near mortality" (that is, up to six months) of 12.9 per cent., and a late mortality (after six months) of 10.15 per cent.; in other words, 75 per cent. of cases were looked upon as cured. Pulmonary tuberculosis accounted for 45 per cent. of the late deaths.

Urinary Secretion of Potassium Iodide.

Dr. O. KAUFFMANN read a contribution entitled, Some experiments on the urinary excretion of potassium iodide and their clinical significance. He sought to test whether, by means of the time required by the kidneys to excrete a fixed dose of potassium iodide, a measure could be found of renal efficiency in certain directions in which neither the volume and degree of concentration of the urine nor the quantity of urea formed a reliable measure. In persons whose general state was satisfactory—with no renal disease, endocarditis, or cardiac failure—iodine was found in the urine an hour and a half after the administration, and the excretion usually ceased nine to twelve hours after the giving of the dose. Subjects with Bright's disease, cardiac failure, or arterial degeneration showed a delay until the third hour, and ceased sooner than in the case of the healthy. In health or when lying in bed, whether on a pure milk diet or a mixed diet, 10 to 20 mg. of iodine appeared in the urine. In the same person the quantity of iodine excreted did not necessarily vary with the quantity of urea passed in the same time, nor with the amount of urinary water. Pyrexia was associated with a diminished excretion of iodine. The administration of iron was followed by a decrease of urinary iodine, but the exhibition of potassium citrate had the contrary effect. The power of the kidneys to excrete potassium iodide was a measure of one kind of renal efficiency which could not be gauged by either the quantity of water or the quantity of urea passed, and for which the chlorides, seeing that their mass depended essentially upon food ingestion, could not be used as a measure. In interstitial nephritis Dr. Kauffmann regarded the potassium iodide efficiency as a valuable diagnostic aid.

ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

Friday, February 14th, 1913.

Sir WILLIAM OSLER, President, in the Chair.

Discussion on Cervical Rib.

Dr. F. WOOD JONES opened a discussion on cervical rib from the anatomical point of view. There was an antagonism between the development of a limb plexus and the development of ribs extending over that area from which the limb had originated. A limb bud might arise nearer to the head or nearer to the tail than normally, and its limb plexus might be of the pre-fixed or post-fixed type. With either variation costal anomalies might result. Both might proceed so far that the plexus readjusted itself with the development of the seventh cervical rib or abortion of the first thoracic rib, as the case might be; or there might be disharmony between nerve movement and rib development and brachial neuritis might be caused by abnormal pressure. This antagonism also accounted for the vascular symptoms, for the sympathetic vascular nerves ran for the most part in the lowest cord of the brachial plexus, and symptoms might be produced by cervical ribs or by first thoracic ribs, depending on the constitution of that plexus. By radiography a definite diagnosis as to the nature of the offending costal element could be made only by a count of the vertebra elements lying cephalic to the costal process. Mr. W. THORBURN said he analysed the results of twenty surgical operations which he had performed. There were no serious difficulties. A transient paralysis of the brachial plexus and suprascapular nerve were met with in three cases, and the pleura was twice wounded without after ill-effects. He had removed the first dorsal rib in error, but with perfect functional result. All the cases had improved, and complete cures were obtained in more than one half. He preferred a long vertical incision at the back of the posterior triangle of the neck with dissection forward. Mr. PERCY SARGENT had operated upon 29 cases, 26 of whom were female. Asepsis and gentleness of manipulation were essential, but it was not always necessary to remove the rib, division of the continuing band being often sufficient. In only one case was pain unrelieved. Dr. S. A. K. WILSON laid stress on the dissociation of the muscles of the hand with regard to their wasting, particularly as a means of distinguishing the condition from progressive muscular atrophy. He showed several photographs to illustrate the point. Dr. FARQUHAR BUZZARD spoke of a similar dissociation of wasting. The pain might be of any degree or distribution. He had met with many instances of acroparaesthesia. The question of occupation was important, and several had obtained relief by giving up some particular form of work. He doubted whether there were any characteristic sensory symptoms in "cervical rib." Twelve cases were shown, all in women. Of these, 10 had been operated upon. 9 with good effect; in one case the result had been unsatisfactory. Of the remaining two, one had improved without operation, and the other remained *in statu quo ante*.

SECTION OF LARYNGOLOGY.

Friday, February 7th, 1913.

Mr. T. MARK HOVELL, Vice-President, in the Chair.

Exhibition of Cases.

Mr. C. W. M. HOPE exhibited two cases of *Malignant disease of the larynx* treated by injections of seleniol, an electrolytic colloid of selenium. A man, aged 25, had mixed cell sarcoma of the tonsil and deep glands removed at separate operations; in spite of the infiltrating character of the secondary growth seleniol had given local and general improvement. The second patient, a man aged 53, had extensive fungating growth of the larynx, causing obstruction, and a secondary growth; 3 c.cm. of seleniol had been injected three times a week into the tissues, close to the thyroid cartilage. General improvement followed; the fungating growth gave place to a clean ulcer, and the dyspnoea was relieved. Mr. DE SANTI doubted the efficacy of seleniol, but considered that operation offered the only hope. He would have advised clearing out the glands of the neck at the first operation, or shortly after; in 8 similar cases of his own recurrence had followed in three to six months. Mr. BETHAM ROBINSON pointed out that lympho-sarcomata, and some other sarcomata of the tonsil did well after operation, but the class of growth with much infiltration and little definition was hopeless. Dr. ADOLPH BRONNER asked if antimeristine had been used by any member. Dr. DOUGLAS HARMER had employed antimeristine in a case of extrinsic carcinoma of the larynx, with material obtained by Dr. Schmidt in the method prescribed. After each of the ten doses the temperature was raised, the tumour increased, and

ultimately fungated. Dr. KELSON showed a case of *Pedunculated tumour attached to the inferior turbinal* of a man aged 72. Dr. P. HEMINGTON PEGLER believed it to be an instance of mucous hypertrophy. Mr. T. B. LAYTON exhibited a case of *Syphilitic stenosis of the larynx* with calcification of the fascia of the neck, previously shown by Mr. Charters Symonds and Mr. F. J. Steward in 1899. The palate was extensively scarred, and evidence of interstitial keratitis and choroiditis had appeared in the interval. There was some dyspnoea. Wassermann's reaction was positive. Mr. BETHAM ROBINSON had proposed tracheotomy. The extreme hardness round the hyoid bone was much the same as when the case was first shown, but the larynx was freer. Dr. W. HILL doubted, as on the previous occasion, the appropriateness of the word "calcification"; he considered "keloidal" as more suitable. Mr. HAROLD BARWELL indicated that an *x*-ray examination would clear up this point. Dr. H. J. DAVIS compared the hardness with Dupuytren's cicatricial contraction. Mr. J. F. O'MALLEY exhibited a case of *Webbing of the vocal cords* in the anterior commissure due to a shot wound, in a boy aged 11. The pellets of an "Eley 14" cartridge had ricochetted from a wall. The *x*-ray plate showed four pellets on the right side and one on the left. The damage was done by the one shot. Posterior to the webbing the cords moved well; the voice was hoarse. Mr. H. BARWELL recommended that nothing should be done, as the breathing space was sufficient. Mr. E. B. WAGGETT advised laryngotomy. In a case of webbed cords under Dr. WILLIAM HILL the voice was recovered after operation. Dr. FITZGERALD POWELL suggested waiting till the boy's voice changed. Dr. H. J. DAVIS would prefer laryngoscopy treatment and subsequent dilatation; he feared the voice might become worse after an operation. Dr. W. MILLIGAN preferred immediate operation, for two or three years' postponement would result in atrophy of the muscles. Dr. LAMBERT LACK considered that operation on the larynx of the child usually ended in failure. Operation might lead to stricture as well as loss of voice. He would defer operation till the boy had grown up. The CHAIRMAN was in favour of postponing interference. Dr. J. DONELAN's case of *Adhesion of the uvula to the posterior pharyngeal wall* gave rise to some discussion. Dr. DAN MCKENZIE had seen a good result after Dr. Dundas Grant had removed part of the bony palate and attached stitches passed through the soft palate to the incisor teeth; he had also experience of the method of passing rubber tubes through the nares and out through the mouth; the projecting tubes were tied together. Mr. DE SANTI related how Mr. W. G. Spencer detached the adhesion with the scissors and raspatory. The soft parts were then rolled together and transfixed with a silver wire suture, which was passed through the muco-periosteum of the hard palate. Reconstraction was very apt to follow. Mr. BETHAM ROBINSON had passed a lead plate round the separated palate. Silks passed through the plate were led out through the nostrils and mouth and tied together; the result was good. Dr. MILLIGAN did not consider any method gave really good results. Dr. FITZGERALD POWELL recommended the rubber tube method; the tube should be cleaned and replaced for a month. The CHAIRMAN had stitched preputial mucosa to the raw surface, and the case, six years later, had a good voice and excellent nasal breathing. Dr. DONELAN exhibited a new tonsillotome which could be used as a tonsillectome. Dr. WATSON WILLIAMS demonstrated an instrument in which the power was applied by the grip. Dr. H. J. DAVIS brought Sluder's own tonsil guillotines, and showed how Sluder employed them. Dr. WILLIAM HILL referred to the improvements Mr. J. F. O'Malley had made in Ballenger's instrument; personally he was impressed with the effectiveness of the reinforced Mackenzie. Dr. DAN MCKENZIE had seen severe cicatrices after the use of the blunt tonsillectome; he preferred a sharp Mackenzie guillotine. Dr. W. MILLIGAN thought the Sluder operation too forcible; he had seen the mucous membrane dissected off and the snare applied with great skill and finish. Mr. E. B. WAGGETT also approved of the snare. Dr. DUNDAS GRANT mentioned that a rectangular knife with a blunt point was useful in dissecting out the upper pole of the tonsil; this pole was readily enucleated by the guillotine. Dr. W. H. KELSON considered many tonsils were easily detachable; the present requirement was a suitable method of dealing with the more difficult cases. The CHAIRMAN pinned his faith to the Mackenzie guillotine. With reference to Dr. H. J. Davis's case of cyst of the upper jaw, Mr. BETHAM ROBINSON had found elasticity on pressing the palate, and from the irregularity of the teeth deduced a dentigerous cyst. The antrum was probably small and unaffected. Dr. H. J. DAVIS reported that this side of the face was dark on transillumination; the cyst had increased in size; a similar case had developed osteo-myelitis after an out-patient operation. Mr. T. JEFFERSON FAULDER exhibited a man, aged 24, with a *Bony enlargement of the left side of the face* for three years; epiphora had been present during that time. Mr. BETHAM ROBINSON considered the condition as chronic osteitis of the character of leontiasis ossea; he advised potassium iodide. Dr. DONELAN regarded the condition as inflammatory, following rhinitis; he recommended operation. Mr. DE SANTI agreed with Mr. Betham Robinson's view, and was against operation. Dr. HEMINGTON PEGLER said the bilateral character pointed to a mild form of leontiasis. Dr. DAN MCKENZIE suggested the opening of the nasal duct into the nose above the inferior turbinal; he would show a case in which this had been done. Dr. E. A. PETERS showed a case of *Chronic pemphigus* in a man aged 49. It began after a small operation on polypi; small vesicles first appeared on the pharynx and palate, and eventually large vesicles developed on the face, wrists, and lips. A bacteriological examination showed a few contaminating staphylococci. Arsenic, rest, and small doses of opium were acting well. Dr. R. E. SCHOLEFIELD related a case with similar symptoms where iodide of potassium and antipyrin had been taken previously. Dr. H. J. DAVIS had found orthoform of great service. Mr. DOUGLAS HARMER exhibited specimens illustrating a case of *Suppuration of the antrum due to Aspergillus fumigatus*. The patient, a lady, had suffered for years from hay fever, and caught a severe cold when motoring. A persistent one-sided discharge followed, with a "wet blotting-paper" cast on the pharyngeal wall. The right antrum was dull and the right nasal mucous membrane extremely swollen. The antrum was opened intra-nasally and irrigated twice a day, when membrane and gritty fragments came away with difficulty. Various applications were made, but finally sodium iodide internally and local applications of five-volume hydrogen peroxide were effective. The antrum became suddenly clear. Only three cases were mentioned in literature. The fungus was common in chronic lung cavities and the ear. Dr. H. J. DAVIS mentioned a case where the antrum was filled with polypi and small yellow bodies which exhibited a mycelium. Dr. ADOLPH BRONNER had found the fungus in cases which resembled chronic eczema of the external auditory meatus. Dr. DOUGLAS HARMER exhibited two specimens of the brine shrimp (*Artemia salina*) which had been recovered from the nose, where they caused a sensation of movement and intense irritation. The patient had been using a saline lotion prepared from patent sea salt. Dr. S. F. HARMER reported that *Artemia salina* lived in basins of concentrated sea water. The eggs present in sea-salt hatched out under favourable conditions; probably in this instance they had developed in an old solution which had been left unused. Dr. HAROLD BARWELL exhibited a boy, aged 13, with extensive *Ulceration* of pharynx, larynx, and naso-pharynx. Wassermann's reaction was positive, and so determined the nature of the ulceration. Dr. H. J. DAVIS showed (1) case of *Rodent ulcer* opening into the nose; (2) a *Suppurating dental cyst*; (3) *Lupus of the tongue, face, anterior nares, and palate*. Dr. E. A. PETERS remarked on the three clinical forms of lupus present as determined by the character of the local tissue, namely, (*a*) hypertrophic growth on the moist palate; (*b*) dry or atrophic in the dry anterior nares; (*c*) warty lupus on the friction surface of the tongue.

SECTION OF OBSTETRICS AND GYNAECOLOGY.

Thursday, February 6th, 1913.

Dr. AMAND ROUTH, President, in the Chair.

Red Degeneration of Uterine Fibromyomata.

A COMMUNICATION on this subject was read by Professor LORRAIN SMITH (Edinburgh) and Dr. FLETCHER SHAW (Manchester). The authors based their conclusions upon

the examination of 24 specimens, all characterized by their red colour; in other respects there were differences, and they therefore divided them into two groups, one in which thrombosis was the principal change (thrombotic group), and another in which there was no thrombosis, but a marked increase in blood vessels so numerous as to warrant this non-thrombotic group being regarded as angiomatous degeneration. The thrombotic group contained 15 out of the 24 specimens described; they were all associated with definite clinical symptoms, they were coloured a deep red, and showed no free blood on their cut surface. In a few specimens all the vessels appeared to be filled with thrombi, but in the majority only a portion of the vessels were thrombosed. Most of the specimens showed the red coloration throughout: in some it was partial, and in a few it was limited to the neighbourhood of the thrombosed vessels. The clinical symptoms included abdominal pain and tenderness of the tumour, rapid increase in size, fever and quick pulse. Microorganisms were only found in a few cases, in all of which clinical symptoms of some severity were present. All the tumours were found to contain fat in the tissues, and, following Leith Murray, the authors believed the red coloration to be due to the haemolytic action of lipoid bodies. Of the 15 specimens in this group 6 were clinically associated with pregnancy or the puerperium. The non-thrombotic group (angiomatous degeneration) included 9 specimens. These tumours were of a bright red colour and showed free blood on their cut surface. All showed the presence of large numbers of thin-walled vessels of microscopic size filled with blood, the red colour being due to the presence of these vessels. In only one specimen was much fat found, and this was of a dark red colour, as in the thrombotic group. None of the patients showed definite clinical symptoms other than haemorrhage and pressure.

The Cause of Internal Rotation of the Fetal Head.

DR. JAMES YOUNG (Edinburgh) read a paper on internal rotation, and illustrated it by models and by an epidiascope demonstration. The author formulated the view that a firm cylindrical body, closely fitting a curved cylindrical canal, when forced along that canal continually changes its position; the lower end, in contact with the posterior wall of the canal, is carried continually forward as the body descends. The application of this view to the descent of the head in occipito-anterior and occipito-posterior positions was discussed and illustrated by the original models constructed by the author.

SECTION OF OTOLOGY.

Friday, February 21st, 1913.

DR. DUNDAS GRANT, President, in the Chair.

The Temporal Bones.

MR. ARTHUR CHEATLE gave a detailed description of both temporal bones from 120 persons, showing that in 82 there was symmetry and in 38 asymmetry. The diploetic or infantile type was present in 44, on both sides in 24, and one side in 20.

Otitic Abscess of Pterygoid Region.

DR. DAN MCKENZIE showed and described a case where an abscess of this type was drained through the external auditory meatus, the patient recovering. The abscesses followed suppurative labyrinthitis with facial paralysis, developing in the course of suppuration of the middle ear of eighteen years' duration, attributed to scarlet fever. The discharge had increased during the last two weeks, and facial paralysis suddenly occurred five days before admission: there had never been any vertigo, nausea, or vomiting. Dr. McKenzie performed the radical mastoid operation and labyrinthotomy. The bone disease was found chiefly in the region of the Fallopian aqueduct. A fistula had developed in connexion with the external semicircular canal, and was enlarged; inferior vestibulotomy was performed through the wall of the promontory. The patient, however, did not make good progress; pain was complained of in the ear and the corresponding side of the head, and the discharge did not cease. Lumbar puncture was performed later on, 20 c.cm. of clear fluid being drawn off. The headache then subsided. Marked oedema of the left side of the face, chiefly of the temple and zygomatic region, left cheek, and orbit, developed. The patient could not masticate his food on account of the pain caused by movements of the lower jaw, which was found to be fixed in a half-open position. All attempts to open the mouth wider or to close it caused much suffering. Dr. McKenzie therefore opened up again and evacuated a pterygoid abscess. Intermittent fever continued for a week after the operation, then the temperature fell to normal. Facial paralysis, however, remained. As a complication of purulent otitis, otitic pterygoid abscess was rare, as only fifteen instances had been recorded.

Deafness after Epidemic Cerebro-spinal Meningitis.

DR. H. J. DAVIS showed this case; the patient was a boy, aged 6, and the deafness was progressive and bilateral. The child was in danger of becoming a deaf-mute, and Dr. Davis commented on the more systematic and adequate way in which these cases were taken in hand and educated in America and on the Continent as compared with this country.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, February 12th, 1913.

DR. HAIG FERGUSON, President, in the Chair.

Uterine Haemorrhage of Ovarian Origin.

DR. JAMES YOUNG described two cases of this type. The first patient was 40 years old, and a 7-para. Menstruation had always been copious, but was regular till the last three years. During that space of time it appeared fortnightly, frequently lasting ten days, and it was associated with ovarian pain. Curettage revealed glandular endometritis, but proved of no benefit. Ultimately supravaginal hysterectomy was performed, and the right ovary was removed. The endometrium showed glandular hyperplasia, as before. The ovary contained a corpus luteum with a large blood space. The luteal cells were ploughed up by haemorrhage, and the surrounding ovarian stroma was oedematous and haemorrhagic. The second patient was 28 years old, a unipara. Menstruation had been regular till May, 1912, when it lasted three weeks and was attended with severe abdominal pain. A pelvic tumour developed and was removed; it was then found to be an enlarged ovary containing a luteal haematoma. Microscopically it showed similarity to the other case. The haemorrhage corresponded to a prolonged period and was associated with excessive bleeding in the ovary, the region where the menstruation-producing substance was elaborated. Hence the haemorrhage must have been due to an excessive ovarian activity, probably frequent as a cause of menorrhagia and metrorrhagia where there was no definite uterine tumour, etc. The glandular endometritis found in these cases on curettage corresponded to an excess of the glandular hyperplasia present in the menstrual mucosa.

Eclampsia with Symmetrical Necrosis of Renal Cortex and Suppression of Urine.

Professor ROBERT JARDINE and DR. A. M. KENNEDY (Glasgow) described three cases clinically suggesting eclampsia, in which similar pathological changes involved the kidneys. In the first a 9-gravida aged 34 had concealed accidental haemorrhage in the seventh month of pregnancy. There was absolute anuria for four and a half days. The patient was delivered three hours after admission and died four days later. There were no fits. The second patient was a 2-gravida aged 38, who was delivered of twins the day after admission. The urine, on admission, was loaded with albumen. There was anuria for two and a half days ending in death, preceded by one convulsion. The third patient was a 1-gravida aged 23, four and a half months pregnant, admitted comatose after several fits. The urine was loaded with albumen, and she died after one and a half to two days' suppression. Dr. Kennedy found in all these cases symmetrical necrosis of the kidney cortex, more or less limited to the outer two-thirds and varying in degree with the duration of the suppression. In the two older cases the necrosis was more or less uniform and was separated from the living inner third by a haemorrhagic zone. The cortical vessels were thrombosed in the necrotic zone only. In the earliest case the necrosis was in patches, which were surrounded by intense congestion. There was little thrombosis, and it was limited to the capillaries.

The questions arose, Was the thrombosis primary and the cell degeneration secondary, or was this latter change primary? or, finally, were both due to the same cause? Dr. Kennedy believed that the kidney necrosis was similar to the focal liver necrosis present in eclampsia, and that it was the primary factor. Professor Teacher had previously described two similar cases with Professor Jardine, and believed, on the other hand, that the condition was due to spasm of the smaller renal arteries. This explanation was based upon the presence of Raynaud's disease in the one instance, upon the symmetrical nature of the necrosis, and upon the thrombosis being frequently in the arteries just beyond the arterial arches. In the five cases, however, Raynaud's condition was present in one only, and the symmetrical necrosis was quite consistent with a general toxaemia. From this, and the starting of the thrombosis in the capillaries in the earliest case, the authors believed that the necrosis was primary. In the liver also it might be present without thrombosis. The authors, in conclusion, ascribed the necrotic change to the eclamptic toxin, whatever this might be.

LIVERPOOL MEDICAL INSTITUTION.

Thursday, February 13th, 1913.

Mr. R. W. MURRAY in the Chair.

THE fifth pathological meeting of the session was devoted to the consideration of tuberculous disease.

Specimens.

The following specimens were shown and described:—Mr. NEWBOLT and Dr. S. W. MCLELLAN: (1) Tuberculous sac of hernia. (2) Tuberculous mastitis. Mr. ARMOUR and Dr. S. W. MCLELLAN: Alveolar sarcoma of Billroth, tumour of the face. Mr. THELWALL THOMAS and Dr. REES: (1) Tuberculous breast. (2) Tuberculous synovitis. Mr. MONSARRAT: Tuberculous adenitis of the mesentery. Dr. NATHAN RAW: (1) Healed tuberculosis of apex, with thickened pleura. (2) Tuberculosis of the appendix. (3) Tuberculosis in a fish. (4) Pure cultures of human, bovine, and avian bacilli. (5) Suprarenal glands and kidneys showing tuberculous infection. (6) Uteri and Fallopian tubes with acute tuberculous disease. Mr. F. JEANS and Mr. THURSTAN HOLLAND: Large calcified tuberculous gland from omentum. Dr. STOPFORD TAYLOR and Dr. R. W. MACKENNA: Wax casts of tuberculous affections of the skin. Professor ERNEST GLYNN: Tuberculosis in a fish. Dr. BUSHBY showed a card specimen. Dr. BLAIR BELL: Tuberculous salpingitis (two cases). Dr. BARENDT, Mr. MONSARRAT, Mr. THURSTAN HOLLAND, and Professor ERNEST GLYNN discussed the specimens.

Pathology and Bacteriology of Tuberculosis.

Dr. NATHAN RAW, in a paper on this subject, discussed the variations in type of the tubercle bacillus and their cultural appearances. The methods of entry of the organism and the manner of extension were next described. Dr. Raw quoted the work of Dr. J. Fraser in support of his own view, that bone and joint tuberculous affections in children were due to the bovine bacillus. The effect of vaccination on the cow was mentioned; it had been shown that the animal might have large quantities of the tubercle bacillus in the milk for long afterwards. Mr. JEANS thought that the virulence of the bacilli varied in different districts. Dr. LOGAN discussed the frequency of tuberculosis in children and in people late in life. He thought the disease was frequently mistaken for chronic bronchitis in the old. Mr. ADAIR DIGHTON thought that infection of the tonsils and cervical glands was caused by infection from the sputum. Professor ERNEST GLYNN was surprised at Dr. Raw's opinion that acute miliary tuberculosis, tuberculosis of lymph glands (other than mesenteric), of bones and joints and of the meninges was usually caused by bacilli of bovine type. This opinion was diametrically opposed to the published observations of the Royal Commission and to the still larger number of observations by other investigators, collected by Park and Krumweide. Professor Ernest Glynn asked Dr. Raw to state the reasons and to detail the experiments which made him advance such an opinion. Dr. Raw placed all cases of pulmonary tuberculosis, with or without secondary enteritis and laryngitis, in a "human ward" for treatment with bovine tuberculin, and all other cases in a "bovine ward" for treatment with human tuberculin. If the figures of the Royal Commission or Park and Krumweide were to be relied upon, by far the larger proportion of Dr. Raw's cases were in the wrong ward. Dr. MURRAY BLIGH asked if Dr. Nathan Raw would state if he could distinguish the two kinds of bacilli microscopically. Dr. CRACE-CALVERT also spoke. In his reply, Dr. NATHAN RAW said he had arrived at his conclusions by clinical observation. But he said his experimental work had shown that the lesions specified in children were of the bovine type, and were caused through milk. In answer to Dr. Bligh, Dr. Raw stated that he knew of no certain means of distinguishing between the two organisms microscopically.

MANCHESTER MEDICAL SOCIETY.

Wednesdays, February 5th and 19th, 1913.

Dr. J. J. COX in the Chair.

Treatment of Syphilis by Neo-salvarsan with Wassermann Control.

Mr. SAVATARD said that since Mr. McDonagh's paper on "A Rational Method of Treating Syphilis" was read last July he had treated some 25 cases and given about 100 injections with excellent results. In 5 cases he had administered the drug intramuscularly, but all the patients had suffered pain afterwards. The remainder had all been treated intravenously. The greatest care had been taken in the preparation of the patient and of the apparatus. McDonagh's syringe was used. The neo-salvarsan was dissolved in freshly redistilled water (heated to 100° C. and then cooled to 25° C). The dosage varied from 0.6 gram to 0.9 gram. All the cases thus treated had, apart from their syphilitic affection, been otherwise healthy. No bad symptoms had resulted and in no instance had there been any rise of temperature. The injections had been given in some cases weekly, in others fortnightly, and in others every three weeks. When a cure was aimed at, the injections were continued till the Wassermann reaction was negative both before and after the last injection. To produce this result in "secondary" cases at least seven injections had been found necessary. Mercury had been administered afterwards. The earlier the treatment the sooner was the cure effected. Among the "secondary" cases previously untreated were macular, papular, pustular and framboesiform syphilides. A case of syphilitic leucoderma in a man was also mentioned in which a single injection had effected a symptomatic cure. The "tertiary" cases shown had previously resisted prolonged treatment with mercury and potassium iodide, and among these were patients with extensive lesions of the buccal cavity and a malignant syphilide. The speaker commended the use of the provocative injection in cases of latent syphilis.

Dr. ARNOLD RENSHAW dealt with the pathological aspect of the question. The evolution of the Wassermann reaction was traced from the time when Pfeiffer demonstrated the phenomenon of bacteriolysis. Discussing the nature of the "antibodies" which cause a positive reaction, the speaker considered that they could not be true antibodies, similar, say, to those present in streptococcal infections, since, so far as he knew, no spirochaetes had been demonstrated as being ingested by leucocytes. Subsequently he had maintained that a positive Wassermann reaction was an expression of the amount of liberated endotoxin obtained by the destruction of spirochaetes and its subsequent action upon the cells. Whether that reaction was due to the actual disorganization of the cells, brought about in some special chemical manner (possibly a catalytic reaction) by the particular endotoxin set free by the dead spirochaetes, had yet to be determined. Dr. Renshaw then discussed McDonagh's review of the life-cycle of the organism of syphilis, and observed in conclusion that stomatitis cases usually gave a very strongly positive reaction; and, where a mouth lesion of any magnitude was present with only a slightly positive reaction, it should be suspected that the disease had had some other infective process—for example, tuberculosis—superadded, or that the condition had progressed to the stage of carcinoma.

X Rays in Pulmonary Tuberculosis.

In a memoir on the early diagnosis of pulmonary tuberculosis in young children, with especial reference to the value of *x* rays, Dr. LAPAGE drew attention to the

frequency of pulmonary tuberculosis in children, and to the evidence which showed that the disease was so often at the roots of the lungs. He described the conditions which gave most difficulty in diagnosis: (1) Active open disease at the roots; (2) active disease limited to the bronchial glands; (3) healed disease in the lungs, with some superadded condition, causing general symptoms resembling those of tuberculosis. Having noted the fact that with ordinary clinical methods it was often impossible to make a definite diagnosis, owing to the absence of physical signs, the value of the *x* rays in clinching a diagnosis based on suspicious symptoms only was demonstrated. The results of the examination of 150 cases, mostly chosen for suspicious clinical conditions, was given in tabular form. The table showed the relation between the clinical and the *x*-ray examination as made independently by clinician and radiographer. Dr. Lapage upheld the great value of the *x* rays in these early cases as a supplement to the clinical examination, and pointed out the importance of establishing the normal screen picture of the thorax.

Dr. W. J. S. Bythell first dealt with the nature of the evidence afforded by an *x*-ray examination, directing attention specially to the importance of thoroughly examining the appearance of the roots of the lungs. In his opinion the normal streaky markings visible in all lungs might be increased by bronchitis, and he regarded shadows due to enlargement of the bronchial glands or to pulmonary consolidation as the only reliable signs of tuberculous infection. As the result of the 300 or 400 examinations he had made he concluded that the majority of children living in large towns present evidences of this tuberculous infection after the age of 6 to 8 years. In most cases the glands were able to overcome the bacilli, but should they caseate and break down the infection extended directly to the adjacent lung tissue and led to a tuberculous broncho-pneumonia, originating at the hilus of the lung. In any case, he was strongly of opinion that pulmonary tuberculosis in children commenced in the vast majority of cases, if not invariably, at the root of the lung. In the earliest stages of this root disease definite indication of the lesion might often be discovered by means of the rays when there were no physical signs to be detected.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

A meeting of this society was held on January 29th, the President, Dr. Lindsay, in the chair. The following specimens were exhibited:—Dr. Balfour Marshall: (1) *Intramural uterine fibroid;* (2) *Uterus with fibroids*, the tumours had burrowed into both broad ligaments; (3) *Fibroid from left broad ligament;* (4) *Ovarian cystoma;* (5) *Fibroid with double salpingo-oöphoritis;* (6) *Bilateral salpingo-oöphoritis;* (7) *Parovarian cyst* with torsion of pedicle. Dr. Munro Kerr: (1) Specimen of *Extrauterine pregnancy*, showing process of tubal abortion; (2) *Bilateral malignant ovarian tumour;* (3) *Adenocarcinoma of uterus.* Dr. A. W. Russell: (1) *Multilocular ovarian cyst of left ovary*—the right ovary had been removed for a similar condition eight months previously; (2) *Oedematous fibroma of ovary*—the tumour had been present two years without pain. Dr. W. D. Macfarlane: (1) *Melanotic carcinoma of vulva*—excision of growth and glands had been carried out; (2) *Double ovarian dermoids* (Dr. Ritchie's case); (3) *Multiple fibroids in pregnant uterus.* Dr. Shannon: (1) *Ovarian cyst;* (2) *Cancer of right ovary*, with peritonitis. Dr. McIlroy: A *Bilobed placenta* with velamentous attachment of cord and area of infarction. Dr. Balfour Marshall recorded a case of *Maldevelopment* showing a dystopic (pelvic) left kidney, absence of vagina, and presence of Müller's ducts, the right in part represented by a cornuate small uterus. Both ovaries and a right Fallopian tube were present. The menstrual molimen had not been experienced, and the patient sought medical advice on account of amenorrhoea and a swelling in the pelvis. The tumour, exposed by incision, lay in the left side of the pelvis; the left iliac artery passed above the upper pole of the kidney and the pelvic colon covered it; the rectum lay close to the inner border. Large renal vessels were seen passing under the sigmoid mesocolon. The kidney was immovable, and covered by vascular peritoneum. The ureter was short. The ovaries lay along the edge of the psoas muscle, half an inch from the deep abdominal ring. The genito-inguinal ligament was seen passing from the anterior pole of the left ovary into the inguinal canal. A crescentic band ran across the pelvis evidently representing Müller's duct, and on the right side a thickened, spindle-shaped swelling 1½ in. long was present; it was a rudimentary uterine horn. The right Fallopian tube bore its fimbriated extremity, which projected normally into the peritoneal cavity. A well-marked *fimbria ovarica* was present. Dr. Marshall then read a paper on *Artificial vagina*, and reviewed various operative procedures for correcting atresia vaginae without subsequent contraction. In some cases the uterus was present; thus the atresia was not necessarily developmental, being not rarely due to inflammatory processes in early infancy; and atresia in adults sometimes followed traumatism at childbirth. In others there was true congenital atresia with absence of the uterus. Pregnancy might follow the formation of an artificial vagina. Operators differed as to the justifiability of operations undertaken to give a coitional vagina when the uterus was absent. Simple splitting of the recto-vesical septum was so fatal that several leading French surgeons in the last century advised against its performance. Plastic operations dated from Heppner, 1872, (*a*) transplanting of skin flaps or epithelial growths; (*b*) transplantation of vaginal flaps taken from cases operated on for prolapse; (*c*) implantation of pieces of peritoneum; (*d*) implanting bowel mucosa. Martin advocated suture of uterine cervix to vulvar orifice after opening of the septum. In the combined abdomino-vaginal operation of Pfannenstiel the cervix was freed by laparotomy after partly opening of the recto-vesical septum from below. The abdomen was then closed, and the cervix pulled down and attached to the vulvar orifice or mucosa of vaginal rudiment. More recently an artificial vagina had been made out of a segment of resected bowel. Snegureff first recorded in 1904 three cases operated on by his method of transplanting the rectum. The method is objectionable because a sacral anus is left. Baldwin transplanted a segment of ileum. Twelve cases of this method have been reported, and four of Mori's, which differs from Baldwin's in that a single stretch of bowel is implanted instead of a double loop. Dr. Munro Kerr, in discussion, spoke of a case of atresia where he had operated after Baldwin's method. Dr. Alex. MacLennan read a paper on a method of *Radical removal of the carcinomatous uterus.* Preliminary curettage was done three days before the main operation, when the bifurcation of the iliac artery was identified, the peritoneum in that region incised, and the ovarian and anterior divisions of the internal iliac arteries tied. The ureter was traced into the pelvis, and if it passed into diseased tissue was divided and implanted into the bladder. The peritoneum was incised parallel with the ureter and across the front of the uterus to the opposite side. Then the broad ligaments were separated, and the lateral aspect of the pelvis cleared. The peritoneum behind the broad ligaments was stripped from Douglas's pouch, and the pelvic contents were detached by a digging process and pressed downwards. The uterus was then separated from the bladder and vagina, and the whole mass packed into the pelvis. The loose peritoneum and sigmoid were stitched so as to shut off the peritoneal cavity. The patient was then placed in the lithotomy position and the parts removed from below. The cavity was packed with gauze, which was afterwards gradually removed. The paper was discussed by Dr. Balfour Marshall and Mr. Duff.

In commenting on February 15th on the *Pharmacopoeia* prepared for the use of medical men belonging to the Leicester Public Medical Service, we observed that as the prescriptions were excellent and the compounds inexpensive, it would not be surprising to find the volume adopted in other districts as well as in that for which it was produced. As will be seen by an announcement in our advertisement columns, the book, which is of convenient size for the pocket, has been placed on sale, and specimens can be obtained, price 1s., from the Leicester Public Medical Service, East Bond Street, Leicester. Special terms will be made for quantities, and a special title-page and lettering on the cover will be arranged for orders of 50 and upwards.

Reviews.

GLYCOSURIA AND ALLIED CONDITIONS.

DR. CAMMIDGE is well known for his contributions to the chemistry of the urine, and his book on *Glycosuria and Allied Conditions*[1] is based upon the material submitted to him during the last fourteen or fifteen years. He approaches the subject from the chemical side, and, indeed, claims that it is "essentially a chemical problem." If we hesitate to accept this statement, it is not because we deny the importance of the chemical side of the problem, but because the physiological questions involved are at least as essential, while both chemistry and physiology are only aids to the solution of an obscure clinical problem. If the disease were better understood and its relations to chemistry and physiology definitely settled, a modicum of either would suffice, but, as the surroundings are dark, we grope for light in every direction and accept each scrap of chemical or physiological information in the hope that it may prove of use. The writer on diabetes is obliged to bear this burden, although much of it will doubtless prove to be irrelevant, but at the present time he cannot tell what part may be safely discarded or in what direction to look for the true light.

Out of the 400 and odd pages of which this book is composed, considerably more than half is devoted to the description of the chemistry and physiology of glycosuria. The author finds fault with clinicians for not studying the other carbohydrates which are at times present in the urine, and for using the term "glycosuria" to include all carbohydrates. The answer to the first charge is that these conditions are so rare that the opportunity is wanting. One who has been engaged, like the author of this book, in examining urines containing unusual carbohydrates sent to him from all parts of the country, may get the false impression that these cases are less rare than they really are, even in the practice of hospital and consulting physicians who give special attention to diabetes. The second charge can hardly be true, for no one knowingly speaks of pentosuria as glycosuria, although it is quite possible that any one who was not on the look-out for its occurrence might miss it. As to laevulosuria it is doubtful whether laevulose occurs in the urine by itself, although it is not uncommon in association with dextrose, and any physician who is sufficiently familiar with the problem to be able to detect this would not be likely to fall into the error of terminology involved by speaking of it as glycosuria. As a routine qualitative test for sugar the author prefers Benedict's modification of Fehling's solution, and gives a formula for its preparation.

The first three chapters are devoted to the chemistry of sugars and other reducing substances and of the acetone bodies; the fourth chapter to experimental glycosuria; the fifth to alimentary, transitory, and intermittent glycosurias. It is quite probable that temporary or intermittent glycosuria is due to inhibition of the glycogen-forming function of the liver, and it may be in this way that a dose of alcohol causes glycosuria in persons who are not actually diabetic. We doubt whether the opinions of Loeb on hereditary diabetes are well founded, especially when he asserts that the hereditary form is seldom met with in youth, nor do we believe that it can be usefully differentiated as a separate form of the disease.

In Chapters VI, VII, VIII, and IX the author deals with persistent glycosuria or diabetes, and describes its symptoms, diagnosis, pathology, and treatment. He states clearly and concisely the various and conflicting theories that are now current, and inclines to the view which von Noorden has of late adopted. It would be unfair to expect Dr. Cammidge to do more than this, and we recognize fully the ability with which he has placed before his readers a faithful exposition of the various problems as they appear at the time of writing; the numerous additions made to this literature render the picture as shifting as that of a kaleidoscope, and the more carefully a writer follows the most recent investigations the more likely he is to find that his picture needs constant alteration. Chapter IX deals with the dietetic treatment of diabetes, and contains tables which are carefully worked out so as to show the weight of each particular article of food and its contents in protein, fat, carbohydrates, and caloric value. Why margarine takes the place of butter is not explained in the text; if it is because margarine is less likely to form oxybutyric acid, this rather theoretical objection should not be allowed to deprive diabetics of this article of diet where there is no evidence of acidosis.

In connexion with the diagnosis of pancreatic diabetes, the author refers to his "pancreatic reaction," and gives a modification of his original plan, which he recommends as preferable to that he originally described. It has the further advantage of being quantitative, but for his description the reader must be referred to the work itself. He mentions adrenalin mydriasis as a means of recognizing an affection of the pancreas, but quotes no personal experience to add to that of those who appear to have found it a more or less reliable test.

In the description of von Noorden's oatmeal cure he conveys the impression that von Noorden would keep a patient upon this diet for several weeks with only intervening days of green vegetables. Von Noorden's own practice as described in his most recent book is that after a course of one or two days of vegetarian diet or a single day's fast, he gives two days of oatmeal diet, then one or two days of vegetarian diet, after which the patient returns for some days to a mixed restricted diet suitable to his case, and this alternation may be repeated as often as seems desirable. On page 304 Dr. Cammidge makes the statement that "more than a hundred years ago Prout pointed out the great advantage of limiting the quantity of food in diabetes"; but Prout only took his degree in 1811, and the first mention of the desirability of limiting the quantity of food is in the second edition of his book published in 1825. On page 320 he refers to the danger of diabetic patients being allowed to take an unlimited quantity of saccharine; as no serious ill effects from the ordinary use of this substance have been observed in the thirty years during which it has been widely in use the warning is hardly needed. A more serious mistake is the recommendation to push codeine. We have seen the opium habit developed in not a few cases of diabetes by the unwise pushing of opiates without the smallest benefit to the disease and to the incurable ruin of the patient. When a case of diabetes comes under treatment it may be proper to prescribe a nightly dose of opium for a few nights; but when the glycosuria has been controlled it is better to stop it, as it increases constipation and checks secretion without causing further reduction of sugar excretion. In the doses which Dr. Pavy recommended codeine it is only a *placebo*, while in larger doses it is an expensive substitute for morphine.

[1] *Glycosuria and Allied Conditions.* By P. J. Cammidge, M.D.Lond. London: Edward Arnold. 1913. (Med. 8vo, pp. 470. 16s. net.)

THE MAYBRICK CASE.

THE most recent addition to the series of "Notable English Trials" comes from the versatile pen of Mr. H. B. IRVING, author and actor too. It deals with the ever-green story of the *Trial of Mrs. Maybrick*[2] at Liverpool in 1889 for the murder of her husband by arsenical poisoning. In his introduction Mr. Irving gives a masterly summing-up of the case and the events subsequent; next follows a table of important dates in the history of the case, a list of counsel, all of whom attained eminence in their profession; then we have a full and detailed report of the speeches, evidence, and summing-up, which occupied together seven days, after which the jury, having deliberated some thirty-five minutes, returned a verdict of "Guilty," and Mr. Justice Stephen, without comment, sentenced the prisoner to death. The verdict was received by the public at large with considerable astonishment. The *Times* of the following day wrote: "It is useless to disguise the fact that the public are not thoroughly convinced of the prisoner's guilt. It has been noticed by them that the doctors differed beyond all hope of agreement as to the cause of death." Petitions for reprieve poured into the Home Office from all parts of the country, the signatures

[2] *Trial of Mrs. Maybrick.* Edited by H. B. Irving, M.A.Oxon., author of *The Life of Judge Jeffreys*, *French Criminals of the Nineteenth Century*, etc. Edinburgh and London: William Hodge and Company. 1913. (Demy 8vo, pp. 410, with 5 illustrations. 5s.)

amounting to nearly half a million, including a petition from the medical men of Liverpool, where the trial had been held. These gentlemen based their protest on the ground that the symptoms of arsenical poisoning during life and after death were insufficient, that only the discovery of arsenic in the viscera suggested such a cause of death, and that the quantity of arsenic found in the viscera was less than in any previous case. The *Lancet* published a long article highly unfavourable to Mrs. Maybrick. The BRITISH MEDICAL JOURNAL was hardly less unfavourable; it published letters from seven professors of medical jurisprudence in different parts of the country; of these, four supported and three dissented from the verdict. The gallows had already been erected in Walton Jail, within hearing of Mrs. Maybrick, when on August 22nd the Home Secretary's decision was announced and the punishment commuted to penal servitude for life, "inasmuch as, although the evidence leads clearly to the conclusion that the prisoner administered and attempted to administer arsenic to her husband with intent to murder, yet it does not wholly exclude a reasonable doubt whether his death was *in fact* caused by the administration of arsenic."

Mrs. Maybrick, having served fifteen years' imprisonment, was released in January, 1904, and left England. The vital question of this trial was whether or no arsenic was the cause of death. A number of competent medical authorities who gave evidence all agreed that the cause of death was gastro-enteritis. Those called for the prosecution declared that the symptoms definitely indicated arsenic as the irritant poison which had set up gastro-enteritis; the witnesses for the defence were equally confident that the inflammation of the stomach might have been caused by sausages, cheese, lobster, or some irritant substance other than arsenic. The learned judge in his summing-up of the evidence on this point told the jury:

> These parts may be passed over as really more fit for medical jurisprudence than for a jury actually engaged upon the administration of criminal law; you probably are men engaged in different ranks of life, and I should think it probable that a very small number of you have any other knowledge of medicine than that which we all pick up in the course of our lives and in the course of our general experience. This would be a kind of guide, and you must infallibly rely upon it to a greater or less extent.

The jury, advised to rely infallibly upon the knowledge they "had picked up in the course of their general experience" of the causes of gastro-enteritis and the symptoms of arsenical poisoning, was composed of three plumbers, one painter, two farmers, a wood-turner, a provision dealer, a grocer, a baker, an ironmonger, and a milliner. The judge, in expressing great diffidence in his own powers of digestion of the medical evidence, added:

> I would not for the world say anything disrespectful of a science to which we all owe so very much; but it is a science based more or less upon conjecture, and good sense and good fortune in making guesses. A celebrated physician in olden times said that he spent his time in putting drugs of which he knows little into a body of which he knows less. This is one of those pointed sayings which are convenient, but there is a degree of truth at the bottom of it. Persons who are employed for the time being in the tremendous functions confided to us ought to be very modest in their conclusions. That modesty cuts, on an occasion like this, all ways. It cuts to a certain extent against the prosecution, and it cuts against the defence, and it diminishes and lowers the degree of assurance with which we receive medical evidence of all kinds.

It was unfortunate that the court should have displayed so much modesty about the only essential issue of the trial, for unless the jury were satisfied beyond a doubt that the cause of death was arsenical poisoning the charge of murder must absolutely fail.

But other features of the case indicating motive and opportunity for the commission of the crime were handled with less modesty. Maybrick, 24 years older than his wife, was at 50 years of age a confirmed hypochondriac with an unhealthy appetite for drugs, chiefly of a stimulating nature. On May 8th Mrs. Maybrick wrote a fatal letter to a man, Brierley, with whom she had relations. Mr. Irving gives a facsimile of this letter, which was intercepted by a servant; it contained this passage:

> Since my return I have been nursing M. day and night. *He is sick unto death.* The doctors held a consultation yesterday, *and now all depends upon how long his strength will hold out.* But, my darling, relieve your mind from all fear of discovery now or in the future. He has been delirious since Sunday.

The learned judge said, "Now that was not true, as she knew, having been with him all the time, and so far from being sick unto death, for some days after that the doctor expected a favourable result." On May 9th a nurse swore that she saw Mrs. Maybrick dealing surreptitiously with a bottle of meat-juice which was afterwards found to contain arsenic. On May 11th Maybrick died; two days later the *post-mortem* examination was made, and traces of arsenic were found in his viscera.

The house was searched at the time of the death and there was found in various bottles and other articles, including a handkerchief and the pocket of a dressing gown belonging to Mrs. Maybrick, sufficient arsenic to poison many people, assuming 2 grains to be a fatal dose. We have not space to give the evidence in fuller detail. Sir Charles Russell, afterwards Lord Chief Justice of England, who defended Mrs. Maybrick, spared no pains during the rest of his life in repeated efforts to secure her release, declaring that though the means of poisoning her husband were undoubtedly within reach of Mrs. Maybrick, there was no direct evidence of her having administered arsenic to him, that the symptoms were agreed by all to be those of gastro-enteritis, but that while some witnesses attributed the disease to arsenical poisoning, there was a strong body of evidence to the contrary. And at this we must leave a case of deep interest, with a recommendation to read Mr. Irving's excellent work, one of the most interesting features of which is a letter, which we never remember to have seen before, written to her mother by Mrs. Maybrick on June 28th, whilst in prison awaiting her trial:

> I sincerely hope my solicitors will arrange for my trial to take place in London. [This, of course, could be arranged upon the application of the prisoner for a writ of *certiorari*.] I shall receive an impartial verdict there, which I cannot expect from a jury in Liverpool, whose minds have come to a moral conviction *en attendant*, which must influence their decision to a certain extent. The tittle-tattle of servants, the public, friends and enemies, and from a thousand by-currents, besides their personal feeling for Jim, must leave their traces and prejudice their minds no matter what the defence is.

Her advisers, however, decided it was the stronger and wiser course to face a trial in Liverpool.

To the many theories that have been advanced with regard to the Maybrick case may the writer of these notes add one of his own—namely, that if the prisoner had had her own way and gone for trial to London she would have enjoyed a far better chance? This view is confirmed by some conclusions embodied in a document drafted on her behalf in 1892: (1) That the judge in summing-up placed himself in a position where his mind was open to the influence of public discussion and prejudice, to which was probably attributable the evident change in his attitude between the first and second days; and he also assumed facts against the prisoner which were not proved; (2) that the jury were allowed to separate and frequent places of public resort and entertainment during such day. This latter was, of course, grossly improper, and could not have happened in London. But there was no Court of Criminal Appeal in those days; neither was the witness-box open to the accused as to-day. According to the verdict of the Lancashire jury of 1889, Mrs. Maybrick is fortunate in having lived so long. According to the commentator of to-day, she is unfortunate in having lived too soon. That is to say, before the creation of the Court of Criminal Appeal.

CLINICAL DIAGNOSIS.

Clinical Diagnosis[8] by Dr. J. C. TODD, is a laboratory manual which can be thoroughly recommended. It keeps pretty well to the conventional lines, but it is a distinct improvement on many of its predecessors of similar scope, not only in its illustrations, which for the most part are excellent, and its up-to-dateness, but also in its general

[8] *Clinical Diagnosis: A Manual of Laboratory Methods.* By James Campbell Todd, Ph.B., M.D. Second edition. Philadelphia and London: W. B. Saunders Company. 1912. (Pp. 469; with 12 coloured plates. 10s. 6d. net.)

lucid method of treatment. It deals with all the examinations which the clinician may have to undertake in the course of his work, and it includes special chapters on animal parasites, vaccines, and bacteriological methods. The book is of convenient size, and it is printed in a manner which invites perusal and ensures ease of reference.

The little book on *Systematic Case-taking*,[4] by Dr. H. L. McKISACK of Belfast, adds another to the rather numerous list of similar manuals. As it makes no pretensions to be comprehensive, there may be good reason for omissions and for the summary fashion in which certain subjects are discussed, since it is intended as a guide to students in case-taking, and elaborate discussion of methods of diagnosis which practitioners would demand do not come within its scope. The book has the merits of being well written, and of describing clearly that which the author desires to lay before his readers, but it continues the terminology of the physical signs in the chest which has confused many generations of students. Thus, on p. 49 the tympanitic note is said to be of a drum-like character, and on the next page emphysema is described as giving rise to a form of resonance which is also "drum-like." The descriptions of vocal resonance and pectoriloquy are not quite clear. Unless these sounds are defined and the student is referred to something with which he can always refresh his ear there is danger that he will never really know what is meant by the terms; where words used are not English it would be well to explain them, otherwise students may continue to use words all their lives which they do not understand. In the section on the sputum the usual classification of the naked-eye appearances might have been given. In describing inflation of the stomach, the quantities of tartaric acid and sodium bicarbonate to be used should surely be stated, and in saying that splashing sounds are evidence of dilatation of the stomach the author should point out what means there are, if any, of distinguishing between splashing sounds produced in the stomach from those produced in the adjacent bowel. The radiography of the stomach is too important to be dismissed in less than two lines, while in the description of Ewald's test breakfast "a couple of slices of bread with one or two cupfuls of tea" is not an adequate statement, and is likely to lead to inaccurate results. Further, when the test for lactic acid is spoken of it should be stated that this acid may be present in bread, and that for this test the meal should consist of gruel. Should not the student be taught to look for traces of blood in the faeces by chemical examination, and, on the other hand, to look for blood in the urine with the microscope and not by chemical tests? The taking of alcohol might have been mentioned as one of the causes of the temporary appearance of sugar in the urine. The modification of Doremus's ureometer is by Heintz, not by "Hind." The volume concludes with a table for the differentiation of painful throat affections and brief descriptions of methods of staining micro-organisms, of Widal's and Wassermann's reactions, of the estimation of free hydrochloric acid and total acidity of stomach contents, of the mode of employing the diazo reaction and Russo's methylene blue reaction, a very short and hardly adequate account of electrical examination occupying little more than a page. There are tables of states of unconsciousness, of the various forms of paralysis, and of the clinical tests for tuberculosis. It will be seen, therefore, that it is a comprehensive manual for students.

ELECTRO-THERAPEUTICS AND RADIOLOGY.

DR. MARTIN'S work on *Practical Electro-therapeutics and X-ray Therapy*[5] differs little in intention and arrangement from a number of others issued on both sides of the Atlantic during recent years. It is, however, an interesting compendium from an American pen, and is not too heavily freighted with snippets from other people's observations. The well-illustrated section on the *x*-ray in fractures, dislocations, and bone diseases should be of considerable value as a means of reference. There is also a chapter on forensic radiography, and here the author tells a story from his experience. He was called as an *x*-ray expert in a suit for damage, when the learned counsel, having gathered apparently from an examination of cameras that lenses have a wide range, launched the abrupt and it-settles-the-question imperative, "Now tell the court with what kind of lens you made these pictures"! And this happened "only a short time ago."

Any one who sets out, at the present day, to write a textbook of *x*-ray diagnosis and treatment, undertakes a very formidable task. Bones and joints alone would fill a full-sized textbook, and the same is true of diseases of the chest, and equally true of alimentary disorders. Large books have been written on genito-urinary radiography, and still larger books on *x*-ray therapeutics. *X*-ray apparatus and technique offer material for an entire book. Messrs. BYTHELL and BARCLAY'S book[6] deals with all these topics in a space of 140 pages. The authors state specifically that their book is not intended to be a complete textbook of the subject, but rather a general outline, their object being to enable medical men to learn enough about the subject to render them capable of selecting from their patients such cases as are suitable for *x*-ray diagnosis or treatment. The authors point out that most books on radiography are written for the *x*-ray specialist, and contain much technical detail that is of no interest to the medical practitioner. In the present book such details are placed in a short introductory chapter and a short appendix. In each chapter a selection of subjects has been made for discussion, and a further selection for illustration. Naturally many subjects appear to have received too scant notice, but the text, as far as it goes, is full of practical common sense, and the authors have done wisely in confining their descriptions to conditions they have actually seen. The illustrations, also, are taken from their own cases, and are excellently reproduced in the form of full-page plates on art paper.

At this late day in electro-therapeutics it seems scarcely possible for a practical summary of the whole subject, including *x* rays and heat and light radiations, to be brought within the limits of rather less than 70,000 words. Yet a concise pen on the other side of the Channel has accomplished as much, and in Dr. G. GEIGER'S compendium of medical electricity[7] the ordinary worker who follows French will find, if not all that he requires to know, at least a useful guide for workroom and hospital reference. A novel feature which we do not remember to have seen attempted in the many similar works coming from the British and American press in recent years is a table of radiographic exposures, calculated for twenty or thirty different parts of the body under the various conditions of instrumentation. The length of exposure depends upon so many factors that it must have been difficult to present it in tabular form, and, having done so, the advantage remains a little questionable. At the end of the book indications are given for the *x*-ray and other treatment of a number of conditions, which are arranged alphabetically, but it is one of several drawbacks of the kind in a foreign manual that the *x*-ray quantities are expressed in units which are not very familiar to the British radiologist.

NOTES ON BOOKS.

WHEN Cowper wrote his well known lines in praise of "the cups that cheer but not inebriate," he had probably little or no knowledge of the complicated process by means of which his favourite beverage had been brought from its home in an Eastern tea-garden to his fireside at Olney. Even at the present day there are doubtless many tea

[4] *Systematic Case-taking.* By Henry Lawrence McKisack, M.D., M.R.C.P.Lond. London: Baillière, Tindall, and Cox. 1912. (Post 8vo, pp. 176. 3s. 6d. net.)

[5] *Practical Electro-therapeutics and X-ray Therapy.* By J. M. Martin, M.D. London: George Keener and Company. 1912. (Med. 8vo. pp. 446; 219 illustrations. 18s. net.)

[6] *X-Ray Diagnosis and Treatment: A Textbook for General Practitioners and Students.* By W. J. S. Bythell, B.A.Cantab., M.D.Vict., and A. E. Barclay, M.D.Cantab., M.R.C.S., L.R.C.P. Oxford Medical Publications. London: Henry Frowde, and Hodder and Stoughton. 1912. (Med. 8vo, pp. 160; figs. 118. 15s. net.)

[7] *Précis pratique d'électricité médicale.* By G. Geiger. Paris: Jules Rousset. 1913. (Crown 8vo, pp. 409; figs. 122. Fr. 6.)

drinkers who are in much the same plight, and to them, as well as to the children for whom it is primarily intended, Miss EDITH A. BROWNE'S attractive little book on *Tea* (which forms the third volume of the excellent "Peeps at Industries" series),[8] should prove a source both of interest and instruction. Miss Browne is well fitted to play the part of guide to her readers in their tour through the tea-producing countries of the world. Her book, she tells us, is "the result of experience, observation, information, and pictures harvested on the spot"; and whilst her mastery of the subject shows itself in almost every page, she never allows her knowledge to become unduly obtrusive. The history of tea, that "sober, sage, and venerable liquid," from the plantation to the tea table, is told in simple yet graphic language; and the author has contrived to invest the most prosaic details of the tea trade with something of the glamour of the East. The book is rendered doubly interesting by the many excellent photographs which serve as illustrations to the text.

A directory that contains full particulars of the members of any given profession must always be a useful addition to the library of a member of that profession; but nowhere is the need for such a book of reference felt more keenly than in the educational world. Hitherto the *Schoolmasters' Yearbook* has provided all necessary information with regard to the male members of the teaching profession; and now the repeated applications of women teachers to be included in the *Yearbook* have resulted in the compilation of a companion volume called *The Directory of Women Teachers*.[9] This directory has been arranged on the same lines as the *Yearbook*, and contains, in addition to the names, addresses, and short biographies of women engaged in the higher and in secondary education, a list of the secondary schools, training colleges, universities, and other kinds of educational establishment for girls in every part of the kingdom, together with a quantity of miscellaneous information likely to be of use to those engaged in tuition. The arrangement of this unwieldy mass of material leaves nothing to be desired; each entry is clear and concise, and great care has been taken to avoid overlapping or repetition. The annual publication of a similar volume should be of the greatest service, not only to the teachers themselves, but to parents who are in need of advice and guidance as to where and how to bring up their daughters.

In a paper on alcoholism and degeneracy[10] contributed to the first International Eugenics Congress MM. MAGNAN and FILLASSIER have collected some interesting statistics dealing with the experience of the City of Paris and the Department of the Seine in respect of insane persons admitted to asylums. The figures illustrate the frequent association of alcoholism with stigmata of degeneracy, and the authors direct attention to the burden on society which this large army of incompetents represents. From 1887 to 1911 there were 89,728 admissions: of these, 27,315 were alcoholics. Naturally figures of this sort do not throw much light upon the questions as to whether alcohol is a *vera causa* of insanity or whether alcoholism is merely a stigma of degeneracy, but they are additional evidence of the magnitude of a problem which has yet to be faced in its entirety by statesmen of all countries.

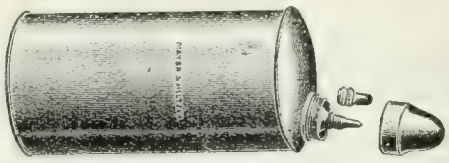
We have received a copy of the *Minutes of the General Medical Council and of its Various Committees for the Year 1912*,[11] being the forty-ninth volume of the series. Rather less than one-half of the volume, which contains 461 pages, is occupied by the minutes of the Council itself: the rest contains the minutes of the Executive Committee and of the Branch Councils, and twelve reports of committees to which matters were referred by the Council. The *General Index to the General Medical Council*,[12] vols. xl to xlix, which has also been received, contains 153 octavo pages. The issue annually of a revised edition of an index to the minutes of the Council greatly facilitates reference to matters dealt with by that body in previous years.

[8] *Peeps at Industries: Tea.* By Edith A. Browne. Containing 24 pages of illustrations from photographs. London: Adam and Charles Black. 1912. (Post 8vo, pp. 96. Price 1s. 6d. net.)
[9] *The Directory of Women Teachers, and other Women engaged in Higher and Secondary Education.* London: The Yearbook Press. 1913. (Cr. 8vo, 1 p. 135. 5s. net.)
[10] *Alcoolisme et Dégénérescence.* Par MM. Magnan et A. Fillassier. Charles Knight and Co. (Pp. 15.)
[11] London: Spottiswoode and Co. 1913. (12s.)
[12] London: Spottiswoode and Co. 1913. (2s. 6d.)

MEDICAL AND SURGICAL APPLIANCES.

A Simple Ether Can.

DR. W. J. MCCARDIE (Birmingham) writes: The free use of ether by the open method and the fear of the result of breakage of a glass bottle have caused me to have made a simple metal can of large capacity (11 oz.). It is made of thin metal, which quickly takes up heat from the hand, is inexpensive and unbreakable. It has no neck, and therefore there is no waste of neck space, which is a drawback to glass bottles. The nozzle is simple in form and covered with two screw caps. Being ether-tight the can may be carried in any position in the surgeon's bag. Any form of dropper can be easily fitted. The can has been made for me by Messrs. Mayer and Meltzer.



THE MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

THE quarterly meeting of the Association was held at the Darenth Industrial Colony, Dartford, on February 20th, under the presidency of Dr. J. G. SOUTAR.

Mental Deficients.

During the morning members inspected the various centres of activity in the Colony, including the female and male workshops and wards for adult imbeciles, for the feeble-minded section, and for imbeciles under 16 years of age—three separate classifications of cases. At the luncheon which followed, the PRESIDENT thanked, on behalf of the Association, Mr. Helby, the Chairman of the Council Committee, and Dr. Rotherham, Medical Superintendent, for the interesting evidences of good training so abundant in the institution, and surprising even to those who knew something of such work. He thought that if members of the Cabinet, and others in the House, could visit the institution, the Mental Deficiency Bill would rapidly be passed through all its stages, since it would be realized that it would confer upon thousands of neglected persons the boons received by the inmates of Darenth Colony. Dr. ROTHERHAM, in a brief reply to the President's remarks, praised highly the capacity and efforts of the instructional staff, who were all skilled in their work before they took up the posts. Mr. HELBY said that the success of the institution was due to the continuous and harmonious efforts of the medical and instruction staff, and quoted the following passage from the last report of the Commissioners in Lunacy, issued a few weeks ago:

> We cannot conclude without expressing our pleasure and satisfaction with all we saw and learnt during our visit of inspection, and we desire to record our impression that the work of the institution is being carried out on well-planned lines, and with much skill and thoughtfulness in organization, and that the object in view, namely, the adequate training and occupation of the imbecile class, is being attained in a most satisfactory and gratifying manner.

Criminal Lunatics.

The meeting passed the following resolution on the subject of the detention of criminal lunatics in county and borough asylums, and appointed a deputation on the subject:

> That the Parliamentary Committee consider it is most undesirable that criminal lunatics be sent to county and borough asylums, and recommend to the Council that the Association be asked to express this opinion to the Home Secretary.

Assistant Medical Officers in Asylums.

Dr. J. BEVERIDGE SPENCE, in a paper on this subject, referred to the recent discussion in the BRITISH MEDICAL JOURNAL, and said that he had been for some time of the opinion that something should be done to improve the position of these officers; he had been in full accord with the work of a committee of the Medico-Psychological Association, which had issued an interim report, advocating a more advanced education for applicants for these posts. On the question of the facilities to continue the study of

psychological science at some centre—leave being granted for that purpose—the money factor had to be considered. It would, perhaps, be really necessary to increase the rate of remuneration in order to attract to the speciality the right kind of man, especially now that in other branches of the profession young men were advertised for at salaries of £400 and £500, with greater individual liberties than those known to assistant medical officers of asylums. In order to collect information on the subject he had sent out forms to the superintendents of 94 asylums, and he gratefully acknowledged the courteous response of 92 of those gentlemen. Of these 17 asylums had only one assistant medical officer. The average minimum salary of the senior assistant medical officer was £224, and the average maximum £309, exclusive of emoluments; the lowest was £150 rising to £200, and the highest £330 with a maximum of £430. The salaries of medical officers junior to the first seemed to vary from an average minimum of £160 to an average maximum of £208, the highest being £185 rising to £330, and the lowest £130 rising to £150. The emoluments he found difficult to tabulate. In nearly every instance the medical superintendents approved of their senior assistant being married. Only eight regarded the idea unfavourably, while a few thought permission might be granted if accommodation were provided. There seemed, however, to be a feeling against this permission being granted to the second assistant. There were now married assistant medical officers in twenty-three asylums, while in sixty-three institutions these officers were not married. Dr. Spence then proceeded to consider the question of accommodation for married assistant medical officers under three heads: (1) Those who had rooms in the asylum main building; (2) those occupying a house on the asylum estate; (3) those who rented a house outside the asylum grounds. He made a comparison of the conditions and salaries of assistant medical officers of asylums with those of somewhat similar officers in prisons, to the advantage of the latter. He counselled the association to continue its efforts to better the lot of the former, and said that personally he was in favour of an advance in the average salaries of assistant medical officers of asylums.

Industrial Training at Darenth.

Dr. F. O. SPENSLEY, Senior Assistant Medical Officer (Darenth), said that forty years ago, at Hampstead Asylum, under the Metropolitan Asylums Board, an attempt was made to give the patients under 16 years of age some instruction in music, singing, and simple work in schools. So successful was this that the Board suggested the building of a schoolroom and shoemakers' and tailors' shops. In 1874 the Board purchased a site for the separate treatment of imbecile children; meantime it used the London Orphan Asylum at Clapton for the purpose, and Dr. Fletcher Beach was its first medical superintendent. In 1876 Darenth Training School was built. In the first year the patients' labour realized £66 5s. 7d. In order that the training might not be thrown away, it was decided to build, adjacent to the schools, two blocks for 120 males and 120 females, adults, the Local Government Board insisting, however, on the elimination of the hopelessly "incurable," a term which the subcommittee altered to "unimprovable." Subsequently these two wards grew into the adult asylum, with 1,052 beds. The author traced the growth of the institution to its present dimensions and many-sided activity, including mat-making, brush-making by wire-drawing, pan work, envelope and paper bag making, tin-smith work, carpentry, book-binding, and printing. Patients of both sexes were drilled, to the obvious improvement of their physique and deportment; 835 out of the total of 1,064 adult imbeciles were now undergoing industrial training. At present a wide and clearly-marked line was drawn between the inhabitants of the pavilions and those of the remainder of the institution. They were admitted classified as feeble-minded, and were to be kept quite apart from the certified patients. It would, he submitted, be difficult to find a better illustration of the impossibility of determining an arbitrary line of demarcation between an imbecile and a feeble-minded person. Among the so-called feeble-minded in the institution were many patients whose mental state was far below that of many of the certified imbeciles. He sketched a different classification, and described the methods pursued to encourage each patient to do his best, and therefore improve as far as possible. Last year the industries realized £12,367, an increase of £8,000 in five years.

Dr. SHUTTLEWORTH, in discussing the paper, alluded to the transfer from Darenth to Rochester House, Ealing, of "improvable" cases in 1900 to 1904 for the purposes of industrial training. He agreed that there was very little difference between the high-grade imbecile and the ordinary feeble-minded person.

The discussion was continued by Drs. POWELL, LANGDON-DOWN, CORNER, and FLETCHER BEACH (the first superintendent of the institution), and Dr. SPENSLEY replied.

ONE HUNDRED YEARS AGO.

THE KNOWLEDGE OF TROPICAL DISEASES IN 1813.

THE first quarterly part of the *Edinburgh Medical and Surgical Journal* for 1813 would nowadays probably be described as a "tropical diseases number"; for out of twelve original communications which it contained five were written by medical men abroad, and dealt with maladies met with in India and the Leeward Islands. It may not be uninteresting—it may even be profitable—to spend a few minutes in the consideration of what was known about these diseases a hundred years ago as revealed in the accredited medical journals of the time.

The first article was by Mr. George Playfair, who is described as Assistant-Surgeon, Bengal; its subject was the good effect of treatment by a combination of ipecacuan and laudanum in dysentery; and it came in the form of a letter from Calcutta, bearing the date April 11th, 1812. The first paragraph is more of the nature of a covering letter, and would hardly be printed as part of the paper by the editor of to-day. Here it is:

> Should the following trivial remarks, on a very simple method of curing dysentery, have anything new, interesting, or useful, you may make what use of them you please; and should you consider them of any importance, you may give the result publicly through the medium of your journal.

This mode of commencement is not unfamiliar to the editors of to-day, whatever it may have been in 1813.

Mr. Playfair deserves praise for the prompt and brief manner in which he states the chief conclusion of his article; it is that ipecacuan given in doses from 30 to 60 grains, with an equal proportion of laudanum acts well in cases of dysentery. Further, he is to be commended for the frank way in which he disclaims all originality: "I recollected to have seen in, I think, a Medical Review, that ipecacuan and opium had been tried in large doses with effect." He tells how he tried the plan of combining the two drugs in one large dose when he was surgeon of an Indiaman in the years 1803–4, and was losing a number of his dysentery patients; after giving the ipecacuan and laudanum (from half a drachm to a drachm of the former and from thirty to sixty drachms of the latter), he confined the man for some hours to a horizontal position to counteract the tendency to vomiting; but even if the first dose was brought up the second was commonly retained. He narrates four illustrative cases, stating, as was common in those days, the names of his patients—namely, D. Morison, W. Troy, Garragin, and Dawson; and he says he could have given other instances. The good effect was immediate, seldom was more than one dose required to cure, but the treatment had to be employed at the beginning of the attack, for if the disease had become chronic the stomach was too irritable to retain the medicine. One of the patients was a seaman, and the others were privates "of his Majesty's 65th regiment." He gave in one case some rhubarb, calomel, and magnesia, in addition to the laudanum and ipecacuan, but not until the dysentery had stopped. "I claim not," he writes, "the honour of having been the inventor of this simple formula"; but he evidently believes it has only to be made widely known in order to save many lives.

Events have shown that Mr. Playfair was not deceived in the reliance he placed on this combination of ipecacuan and laudanum, for throughout the course of the nineteenth century medical men in various parts of the world continued to report well of these drugs in dysentery. There were groups of cases in which failure had to be recorded,

but on the whole the verdict has been favourable. Mr. Playfair wrote his article in 1812, and he was in Calcutta when he did so. It is, therefore, something of a coincidence that in 1912 Major Leonard Rogers, Professor of Pathology in Calcutta, should have been writing in praise of ipecacuanha in dysentery. His papers, published in this JOURNAL[1] have done much to justify a belief not only in the good effects of ipecacuan in dysentery, but also in its specific action on the amoebae which are recognized as the cause of amoebic dysentery and hepatitis. Professor Rogers encountered the same difficulty which met Mr. Playfair in giving ipecacuanha, namely, the tendency the stomach showed to reject the large doses which were necessary to produce a curative effect; but he has surmounted it in a different way, namely, by giving a soluble salt of emetine (the principal alkaloid of ipecacuanha) by hypodermic injection. Further, he has found that emetine so given serves as a means of distinguishing between amoebic dysentery and bacillary dysentery, and the other non-amoebic causes of blood and mucus in the stools. If given in sufficient doses it does good in the amoebic form, whilst it has no effect on the other diseases. Perhaps this may serve to explain some of the failures of ipecacuan in dysentery which have from time to time been reported. Such modifications have a hundred years effected in the use of ipecacuan in dysentery.

Mr. Playfair's article is followed by one on "Cases of Hydrophobia, treated, one of them successfully, by Mr. F. Tymon, Assistant Surgeon, H.M. 22nd Light Dragoons; with Observations by Dr. A. Berry, of the Madras Establishment, Proceedings of the Medical Board, and Resolutions of the Honourable Governor in Council, in reference thereto." This article, or rather this little sheaf of papers—for which, writes the editor in a footnote, "we are indebted to Mr. James Kellie, Assistant Surgeon at Bangalore, and to Dr. Shoolbred, Surgeon to the Presidency at Calcutta"—is in its turn succeeded by one by Dr. John Shoolbred himself on a "Case of Hydrophobia successfully treated." The successful treatment in these cases was bleeding. In Mr. Tymon's first patient the bleeding was only to 15 oz., and it produced no good effect, but in the second the bleeding was at once carried out, until "scarcely a pulsation was to be felt in either arm," and the result was recovery. Dr. Andrew Berry, in his observations on the case, regarded it as a real cure of hydrophobia, and he laid stress on the necessity for the abstraction of a large amount of blood. He noted that Dr. Fothergill, as far back as 1774, had published a case in which the patient had been blooded, but only to the extent of 6 oz.; it was insufficient to produce a cure. The Medical Board, in commenting on these cases, strongly pressed the importance of bleeding early in hydrophobia, and to such an extent as to produce fainting; and Dr. Shoolbred, in connexion with his successful case, also emphasized the necessity of opening the vein by a large orifice, of allowing the blood to flow quickly, and up to fainting ("ad animi deliquium"). The Medical Board pointed out that a previous successful case had been reported by Drs. Burton and Rush of Philadelphia in 1805. This was doubtless the case recorded by R. Burton in the *Medical Repository* of New York (vol. viii, p. 15, 1805). Dr. Shoolbred's patient was a native, named Ameir, a "Muselman Bhestie (water-carrier)," and there seems to have been no doubt that he was suffering from rabies. A most graphic account is given of his symptoms; indeed, Dr. Shoolbred's paper is admirable both in its descriptions and in its survey of the knowledge then current regarding hydrophobia. He is rather hard put to it to explain why previous cases in which massive bleedings had been performed had yet proved fatal. There was, for instance, the patient who was bled by Dr. Rutherford of Edinburgh to the extent of 66 oz., but who nevertheless died; the untoward issue is ascribed by Dr. Shoolbred to the fact that the 66 oz. had been taken away *gradually*—not a very convincing explanation, one thinks.

The use of bleeding in hydrophobia is now only of historical interest, for Pasteur's method of prevention by inoculation in the incubation period has replaced all other plans; and a disease which, when established, is incurable can now in the great majority of instances be prevented, if dealt with promptly. Still, Mr. Tymon's observation made no little stir at the time. Mr. Bampfield, writing on bleeding in hydrophobia in the *Medical and Physical Journal* for December, 1812, had heard of the Indian case, curiously enough through a short summary in the pages of the *Kilkenny Chronicle*, but did not know the authority on which it stood; and, in Germany, Vogelsang referred in 1815 to Tymon's method of treatment.[2] In that year (1815) Albers and Bellingham each reported an unsuccessful case, the one in the *Edinburgh Medical and Surgical Journal* and the other in the *London Medical and Physical Journal*; thereafter the subject was allowed to drop, although Edmonston was still writing about it in 1816.[3] Yet Dr. Shoolbred's paper is worthy of being read in 1913, if only for its realistic description of an attack of hydrophobia.

A few words must suffice for the remaining two papers on tropical diseases in this old journal. They both dealt with yellow fever, or, as it was then sometimes called, tropical or Caribbean fever, and especially with the depletory method of treating it—namely, by means of bleeding, free purgation, and the cold affusion; and they both referred back to earlier contributions on the same disease in the preceding volume of this journal. They are interesting instances of the way in which naval surgeons and physicians were at that time building up a knowledge of tropical medicine. They remind us also that British ships were cruising much in West Indian waters in these years (1812–13), for this country was at war with America, and had also to keep watch against French privateers in the Caribbean Sea. The papers were written from Guadeloupe (not finally ceded to France till 1816) and from the Leeward Island station.

The study of tropical diseases was obviously in its infancy in 1813; but there were indications that British medical men in India and in the West Indies were beginning to turn their attention to it, being forced to it indeed by the mortality from such maladies which was making itself felt in the troops stationed abroad and among the sailors manning the Indiamen and the fighting frigates of the time. There were no schools of tropical medicine in those days such as are to be seen now; but there was already a clear indication of the necessity which was to be laid upon Great Britain of the later nineteenth and of the earlier twentieth centuries to send forth of the best of her medical sons to discover the cause of Malta fever, to unravel the problem of sleeping sickness, and to learn to stay many another scourge existing in these tropical countries over which she has been placed as ruler, and for which she has already paid a price in blood.

[1] BRITISH MEDICAL JOURNAL, June 22nd, 1912, p. 1424; August 24th, 1912, p. 405; September 28th, 1912, p. 828.

[2] *Journ. d. pract. Heilk.*, xli, p. 8, 1815.

[3] *Lond. Med. Reposit.*, v, p. 466, 1816.

ROYAL MEDICAL BENEVOLENT FUND.

AT the February meeting of the Committee twenty-three cases were considered and grants amounting to £222 voted to twenty of the applicants. The following are abstracts of the cases relieved:

1. Widow, aged 63, of M.R.C.S. No income, and supplements slight assistance from children by taking boarders. Relieved twice, £22. Voted £12.

2. Widow, aged 43, of M.R.C.S. Three children, aged 13 to 7, and practically dependent on her earnings by letting lodgings. Relieved three times, £34. Voted £10.

3. M.D.Edin., aged 52. Met with a severe bicycle accident a year ago, and has since been incapacitated and dependent on a widowed sister who can ill afford to help. Voted £12.

4. Widow, aged 56, of L.R.C.P., L.R.C.S.I. Unprovided for at husband's recent death, and hopes to support herself by receiving boarders. Children only able to give very slight help. Voted £10.

5. Daughter, aged 51, of L.R.C.P.I. Has always been in feeble health, and is now incapacitated by a chronic complaint for which she has been promised admission to a hospital. Voted £5 now and £5 on leaving the hospital.

6. Daughter, aged 67, of late M.D.Edin. Used to have a small income, but was obliged to mortgage the property from which it was derived, and now receives nothing owing to foreclosure by the mortgagee. Voted £12.

7. Daughter, aged 65, of late M.R.C.S. Was comfortably provided for by her father, but lost everything through the dishonesty of her trustee, and is now dependent on a small pension from another society. Relieved twice, £36. Voted £12.

8. Daughter, aged 62, of late M.R.C.S. Has had a school for several years, but now, owing to competition, finds it very difficult to meet her expenses, and is obliged to maintain two mentally afflicted sisters. Relieved once, £10. Voted £12.

9. Deserted wife, aged 46. Since husband's disappearance a few years ago has supported herself in different ways, but is now in difficulties, which she quite hopes will be temporary. Relieved once, £10. Voted £10.

10. Widow, aged 70, of M.R.C.S. Since husband's death thirty years ago has kept a lodging-house, but now, owing to failing sight and chronic rheumatism, finds it very difficult to do the necessary work. Only income a few shillings a week from savings which have been invested. Relieved once, £12. Voted £5, and to be advised to apply for an old age pension.

11. Daughters, aged 60 and 55, of late M.R.C.S. Entirely dependent on letting lodgings, and both in feeble health. Relieved eight times, £95. Voted 12.

12. Daughter, aged 66, of late M.R.C.S. Was fairly provided for at father's death, but made most unfortunate investments which now yield only about 5s. a week. Relieved twice, £36. Voted £12.

13. Daughter, aged 44, of late F.R.C.S. No income, and health so indifferent that it is impossible to keep any post even when obtained. Relieved fourteen times, £117. Voted £12.

14. Widow, aged 63, of M.R.C.S. Quite unprovided for at husband's death several years ago, and owing to a deformity has never been able to obtain regular work. Slight help from children. Relieved nine times, £106. Voted £12.

15. Daughter, aged 61, of late M.R.C.S. Has suffered for many years from a chronic complaint, and been obliged to spend her capital both for treatment and maintenance. Relieved twice, £24. Voted £12.

16. Daughter, aged 56, of late M.R.C.S. Health too feeble for anything but light work, and has to help support two sisters, who are unfitted for any occupation. Relieved four times, £72. Voted £18.

17. Widow, aged 64, of M.D.Lond. After husband's death, about ten years ago, started a boarding house at a seaside place but lost all her capital, and is now unable to obtain suitable employment. Relieved twice, £24. Voted £12.

18. Widow, aged 57, of L.R.C.P.Edin. Slight help from children and lets lodgings. Relieved three times, £32. Voted £2 and case to be reconsidered.

19. Widow, aged 44, of M.B., C.M.Glasg. Quite unprovided for at husband's death a year ago, after a long illness, and obliged to endeavour to keep a home together because of her three youngest children, aged 10 to 4; slight help from elder children. Relieved once, £12. Voted £20.

20. Daughter, aged 35, of L.S.A. Has been offered a situation abroad, but requires a little help for unavoidable expenses. Relieved once, £10. Voted £5.

Contributions may be sent to the honorary treasurer, Dr. Samuel West, 15, Wimpole Street, W.

SCIENCE NOTES.

THE large number of investigations that have been made into the etiology of canine distemper and the diversity of organisms found by the different investigators are proof of the fact that until quite recently, at any rate, the real causal agent has not been definitely determined. Apart from the veterinary and economic aspect of distemper, it offers the bacteriologist an opportunity of studying a contagious disease of the respiratory tract. The list of investigators since the time of Pasteur includes the names of many medical men. It is highly probable that the question of the specific organism is on the road to settlement. Dr. J. P. McGowan, in 1910, was the first to describe a particular coccobacillus found in pure culture in the trachea and lungs of dogs which succumbed to typical distemper in the laboratories of the Royal College of Physicians of Edinburgh. The contagion spread to other laboratory animals not usually considered susceptible to the disease. He also obtained the same organism from kennels in various parts of Scotland where distemper was raging. The finding of this organism in pure culture in the trachea of dogs dying of distemper was corroborated by Dr. Leitch, of Dundee. In 1901 Dr. Monckton Copeman had described before the Royal Society a somewhat similar, but not identical, organism. Dr. McGowan claimed to have produced typical distemper by introducing into the nostrils of dogs cultures of his bacillus. Quite independently, Ferry, working in the laboratories of Messrs. Parke, Davis and Co. in Detroit, obtained an organism identical with McGowan's, to which he gave the name *Bacillus bronchicanis*. The scrupulous precautions he took against natural conveyance of the disease to the animals under experiment added greatly to the strength of his conclusions. Two workers in the Department of Experimental Pathology of Cornell University—Torrey and Rahe—have gone into the whole subject very carefully and fully, without preconceived notions or predilection for any particular microbe, and their results, which are given at length in the *Journal of Medical Research* (January, 1913), prove apparently beyond a doubt that the organism described by McGowan is the specific cause of canine distemper.

Goldberger (*Folia Serologica*, 1911), in an investigation on the haemolytic action of various acids and the protective or antihaemolytic properties of different serums in combination with them, found that, in comparison with normal serum, the power of cancer serum to protect red corpuscles against the action of oleic and lactic acids was very high. He tested the serum in various other diseases, such as gastric ulcer, tuberculosis, pneumonia, nephritis, cardiac disease, and exophthalmic goitre, but in none was the antihaemolytic power above that of normal serum. The importance of these observations, and especially the possibilities thereby opened up for serological diagnosis, inevitably led to a critical repetition of the experiments by others. Sweek and Fleischer, as the result of an investigation of the serum of 12 normal and 18 cancer cases, have found that in no case was there marked increase in the inhibitory power of the serum of cancerous patients, and that the method can be of no diagnostic value, as the antihaemolytic property of the serum in normal individuals varies within very wide limits.

The second of the Galton Laboratory Lectures on National Eugenics was delivered at University College, London, on February 18th, when Professor Karl Pearson discussed the heredity of albinism and piebaldism in man. With regard to albinism, he laid stress on the fact that it could not be defined as a definite property. Although the condition, with pink eyes, white hair, and white skin, was perfectly well known, pure albinism was comparatively rare, and in the circumstances it was hardly possible to follow the Mendelians and describe albinism as a unit character. He argued that if the Mendelian theory was to be applied it would be necessary to assume that both parents had latent albinism to account for the offspring being albinos, so that in every instance in which the child of a normal person and an albino exhibited albinism the normal parent must have contained latent albinism, but this was inconsistent with the fact that albinism was very rare in England, only one family in 25,000 being so affected. Consideration of the occurrence of albinism in the coloured races suggested that this phenomenon was a considerable step towards the evolution of a white from a coloured people. It was, he thought, possible that in the course of evolution the white man had been evolved from the coloured, and that if the pedigrees of those present could be traced far enough back a dark-skinned progenitor would eventually be discovered. Professor Pearson went on to observe that the Mendelian regarded piebaldism as distinct from albinism. He cited cases, however, in which piebaldism in certain families had, in the course of generations, developed into albinism. The cases of albinism and piebaldism were too complex to be reduced to any theory of units. The character of piebaldism, for instance, varied from individual to individual and from family to family. He knew of no theory to account for the facts, nor was the time ripe for such a theory. There was a danger in collecting facts in the light of a certain theory, and much of the work of to-day would have to be done over again. The Mendelian school was trying to force the facts into Mendelism, but men, like dogs and mice, still refused to fit into Mendelian categories.

The skull of the new type of fossil man (*Eoanthropus dawsoni*) discovered at Piltdown, in the valley of the Sussex Ouse, an account of which was published in the JOURNAL of December 21st (p. 1719) and December 28th (p. 1763), has been presented to the British Museum by the discoverer, Mr. Charles Dawson, F.S.A., F.G.S., and Mr. G. M. Maryon-Wilson, the owner of the gravel pit where it was found. Mr. Dawson gave a short description of the skull, the associated objects, and the restorations to the meeting of the trustees on February 22nd. The specimens will shortly be placed in the large hall of the Natural History Museum at South Kensington.

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SATURDAY, MARCH 1st, 1913.

INSURED PERSONS MAKING THEIR OWN ARRANGEMENTS.

The Memorandum 143/I.C. issued by the Commissioners to assist Insurance Committees in dealing with applications from insured persons who wish to make their own arrangements is printed in the Supplement (page 212), and should be read by every practitioner interested in the working of the Insurance Act. While it makes the intentions of the Commissioners quite clear, it does not appear to settle the vexed questions that have arisen around Section 15 (3) of the Act, questions, indeed, which probably can only be settled by an action in the courts.

The Insurance Act by this Section authorizes an Insurance Committee to allow *any* other persons (that is, other than those excluded by an income limit from participation in the panel arrangements) to make their own arrangements for medical treatment, and, subject to regulations, to contribute from its funds towards the cost of that treatment sums not exceeding in the aggregate the amounts which the Committee would otherwise have expended in providing medical treatment for such persons. By Regulation 14 (7) the Committee may allow *any* insured persons, whether individually or collectively, to make their own arrangements. There is nothing here about "exceptional circumstances," simply a plain statement that an Insurance Committee may if it thinks fit allow *any* insured persons to make their own arrangements. Alarmed by the use which has been made of this proviso by practitioners who do not wish to go on the panel, and by insured persons who prefer to have the services of such practitioners—a much larger number in each case than apparently was ever contemplated by the Commissioners—it has been found convenient to read into the Act ideas which may have been in the minds of the framers, but which we certainly cannot find stated in that document.

The Memorandum states (par. 2) that the Act "does not contemplate" arrangements under Section 15 (3) as an alternative to the normal panel system, but only as a provision to meet the "exceptional cases" for which special arrangements are more suitable than the arrangements made by the Insurance Committee. It is probable that nobody at the time this section was drafted foresaw the possibility of an extensive use being made of it in the way of "contracting out," but we must take the plain words of the Act, and these seem to give an Insurance Committee power to allow any persons it pleases to make their own arrangements. It is very doubtful, to say the least of it, whether the Commissioners have the right to suggest restrictions which will have the effect of practically nullifying a privilege granted to insured persons by Parliament.

The Memorandum contains in its third paragraph a reminder that an Insurance Committee must consider each case on its merits. This is rather an unkind cut, for it is well known that many of the Committees have been rejecting applications in a wholesale manner, and we know of no reason why they should have taken this line except that they had good cause for the belief that such was the wish of the Commissioners. However, we may now expect that each case will receive due consideration, in order to ascertain whether it falls into one of the classes which the Commissioners agree may well be allowed to make their own arrangements—namely, those whose occupation compels them to travel about; those, such as nurses and members of hospital and asylum staffs, who have special advantages in the way of medical treatment, and those who wish to have a particular system of treatment not undertaken by doctors on the panel. The justice and convenience of allowing the two former classes to make their own arrangements is obvious. The last class is probably intended to include Christian Scientists and others with heterodox ideas as to medical treatment.

When we come to the case of those persons who desire to make their own arrangements because they wish to employ some doctor who is not on the panel, one thing is made quite clear—namely, that no arrangement will be allowed, so far as the Commissioners can prevent it, which would give any advantage to the doctor off the panel as compared with the panel doctor. The doctor off the panel must satisfy the Committee that the treatment given by him is equal to that provided by the panel doctor; he must keep and furnish the same records and certificates; he must give if required domiciliary attendance for such of his patients as are recommended for sanatorium benefit; and he must agree to give reasonable facilities in order that the Committee or the Commissioners shall be satisfied that the above conditions are fulfilled. He must also state the quarterly sum he proposes to charge the insured person or the scale of fees on which his charges will be calculated, and if these fees exceed those fixed by the Committee, the insured person will have to pay the excess. If a doctor is prepared to attend any substantial number of insured persons he is told that his proper course is to go on the panel, and in view of the restrictions placed upon him by the present circular, it is difficult to perceive any advantage to be gained by such a practitioner refusing to do so, even if his patients are allowed to make their own arrangements. If he wishes only to take a limited number he may be allowed to go on the panel for that number provided that the doctors on the panel agree to the arrangement. It would appear that the Commissioners are within the four corners of the Act in making these stipulations, which will certainly deter many practitioners from accepting insured persons, as such, as patients. Under Clause 15 (3) the Committee may contribute towards the expenses of those allowed to make their own arrangements, but only subject to the Regulations. Regulation 14 (8) lays on the Committee the duty of satisfying itself that the arrangements made are satisfactory, "that is to say, such as to secure treatment . . . not inferior in nature, quality, or extent to that provided under the arrangements made by the Committee and to comply in other respects with any conditions which by reason of any scheme for the distribution of Parliamentary grant must be complied with in the case of treatment provided otherwise."

As we have said, it is probable that some of the questions involved in the much-discussed Clause 15 (3) will have to be settled by a court of law, but it seems clear, first, that the Insurance Committee, and the Committee alone, can decide whether a person is or is not to be allowed to "make his own arrangements"; secondly, that the Commissioners have no warrant in

the Act or Regulations for laying down elaborate statements as to "exceptional cases"; thirdly, that the intention of the Act would be fulfilled if the Committee allowed all persons who desired it to make their own arrangements so long as it is made clear to them that they could only expect a specified contribution towards their doctors' bills, and would be responsible themselves for the payment of any difference; and, fourthly, that the Commissioners are within their powers in demanding that certain stipulations shall be complied with by those practitioners attending insured persons allowed to make their own arrangements and in respect of whom a contribution is made by the Insurance Committee. On the other hand, the elaborate safe-safeguards to secure that the treatment obtained by those who "contract out" is satisfactory are unnecessary so far as the patient is concerned; he may well be assumed to know whether he is properly treated. If the person chiefly concerned is satisfied, the Insurance Committee need trouble itself no further. If he is not satisfied, he may be relied upon to seek the services of some other doctor, probably this time on the panel, especially as he is liable for any difference between the amount allowed him and his doctor's bill, and cannot in any case make anything out of the transaction.

There is another side to this question which must not be overlooked by the profession. We understand that in Wales bodies of insured persons have already asked to be allowed to make their own arrangements collectively under Clause 15 (3) of the Act with a view of employing one or more whole-time doctors or of obtaining concessions with regard to dependants. Similar action may be taken by other bodies of insured persons. Such attempts to place doctors under a form of lay control to which the strongest objection has always been taken by the profession will be resisted to the utmost. It is not only repugnant to the medical profession, but is against the best interests of the public, who will be far better served by a system of free choice of doctor and the fair competition involved in such a system.

It is evident that the question of the restrictions which should be put on the right to "contract out" is one which needs serious consideration from all points of view.

THE NEW MYSTICISM.

THE headmaster of Eton has recently made known his opinion[1] of an addition to the already numerous methods of spiritual healing with which America, that land of many inventions, has endowed a suffering world. This is the New Mysticism, and its prophet would appear to be a Miss Curtis, of whom we have to confess we have never heard, although there seems something familiar in the doctrine of "the disassimilation of old ideas by the understanding of the purpose of the hypogastric plexus," a structure which appears to have a curious attraction for the modern mystic, and may perhaps have been the real objective of the fakir who spent fifty years in the contemplation of his own navel. We are told that the essence of the teaching is silence, which is supposed to be employed in meditation, and many will start with a certain prejudice in favour of a system which sets out to still the tongue of the valetudinarian and neurasthenic. Mr. Lyttelton tells us that "its votaries can point not only to many lives relieved of terrible bodily ailments, but to many souls uplifted and mental horizons enlarged. . . . It would not," he continues, "be too much to say that its power of healing character is quite as remarkable as that of healing bodily tissues." We are, indeed, quite prepared to believe that it is greater. Mr. Lyttelton appears to have accepted the statements, doubtless made in all good faith on behalf of the New Mysticism, without question, although he is obviously puzzled by a good deal of the teaching, for he says that when "the healing power is sincerely exercised and preached with conviction human beings will put up with the most singular and chaotic exposition of principles that can be imagined." The new doctrine seems to have in it something of Christian Science and something of orthodox Christianity. The theological or philosophical part of the doctrine, to quote Mr. Lyttelton again, appears to seek "to find a new set of phrases in which to designate our relation with the infinite," and he seems to accept the opinion that the subconscious mind, as distinct from self-consciousness, is the source of our true communion with the infinite. This is a favourite doctrine just now with writers of various kinds, from novelists to philosophers, or those who so dub themselves. But is there a tittle of support for it in philosophy? The history of mankind is all the other way.

We gather that the teaching of the New Mysticism as regards healing resembles that of Christian Science, and Mr. Lyttelton anticipates that the same shafts of ridicule and scorn which have often been shot at the elder of the two creeds will be sharpened afresh. "In particular," he writes, "it will be asked if 'these people' think they can mend a broken leg. A large number of critics seem willing to allow that all kinds of spiritual healing of 'nervous disorders' or mental trouble are reasonable and possible. Others, perhaps not so many, are prepared to admit that tissues actually change in quality and to some extent in position, when spiritual influences are brought to bear on them. A few would concede the possibility of a dislocated joint being cured, but, if any claim to heal a broken joint is advanced or even hinted at, the whole movement is suspected of fraud, and the supposition gains ground that nothing happens beyond what is now well recognized as 'suggestion.'" This is the kind of passage that, coming from a man of high education like Mr. Lyttelton, makes us almost despair that sound notions as to the nature of disease and injury can ever be made to penetrate the public mind. No one has ever asked if any one thinks he can mend a broken leg unless it were some one grossly ignorant of the subject. The surgeon does not mend the broken leg; he only puts it in the posture and the conditions which enable nature to mend it in the best position and to the greatest advantage of its future usefulness. If Mr. Lyttelton wishes to see what sort of job nature by her own efforts wrongly persisted in can make of a broken bone, he should pay a visit to the museum of the Seamen's Hospital, where he will see fragments welded together in every conceivable kind of malposition. Nature has done her work quite efficiently so far as the strength of the mend goes, but owing to the want of surgical direction some very undesirable results have been produced. Then, again, it is quaint to think of people who see nothing very wonderful in a dislocation replacing itself, but who are doubtful as to the repair of a broken joint. Here again Mr. Lyttelton, and we may add the New Mystics, might

[1] *Contemporary Review*, January.

be enlightened by the study of a few *x*-ray photographs of dislocated joints. When Mr. Lyttelton tells us that a faith healer who, he says, has undoubtedly performed some very striking cures, has by prayer nearly achieved the adjustment of a badly dislocated hip-joint, the bone being much nearer to being settled in the socket than it was, one can only wonder why a faith that has done so much has failed to reduce the dislocation entirely. A profane person might hint a doubt as to the diagnosis.

Mr. Lyttelton, for whom we have the highest respect, would seem to be imperfectly equipped for the discussion of questions of healing; he makes the assumption that the successful management of a broken bone is a question of mere mechanics, and rather scoffs at theists who ascribe omnipotence to God, and then "confidently and scornfully draw the line limiting His beneficent power to certain phenomena which they think they can safely classify as 'nervous.'" He asks why those who see no difficulty in allowing an action by the Deity—or by suggestion—through the mind on nerves should laugh at the theory that bones may be acted on in similar ways. He takes physicians to task for drawing the line at what they conceive to be nervous complaints as the limit of the power of suggestion. We agree that "it is a question of evidence how far suggestion has been operative in the past"; and it is just this evidence that we have called for again and again from Christian Scientists and other mind healers, and which up to the present we have failed to get. "But who," asks Mr. Lyttelton, "in such a mysterious region can say that suggestion may not be more powerful in the future? All healers," he goes on to say, "postulate a certain condition of receptivity or of co-operative energy of faith in the patient's mind. But supposing that condition is greatly effected by the condition of other minds in the locality or house or family—and what is more probable?—a healer is quite justified in asserting that his success would be far greater if some knowledge of the power of mind over matter were distributed over a wider area." "To the secularist or sceptic, who cannot help admitting the evidence as to suggestion," he says, "it may be urged that the good done by suggestion might be enormously extended if it were not for the cynical refusal of thousands of educated people to credit it with any power whatever except when they are forced to admit the evidence; thus making an atmosphere in which suggestion becomes increasingly inoperative." This, if it means anything, means that these cynical people can by mere negation or doubt counteract the beneficent influence of a force or faculty inherent in the sick person. We seem to have come very near Mrs. Eddy's malicious animal magnetism. It is not desirable that the number of suggestionable people should be largely increased, for suggestion can be applied, and is applied, in many other spheres than medicine, and the number of subjects suitable for its operation would only increase the number of false prophets in politics, religion, commerce, and, in fact, in every department of human life. Miss Curtis, quoted by Mr. Lyttelton, dealing with pain, says: "An essential feature of this way of healing—essential, that is, to its success—is that the healer must hold his imagination as already accomplished. . . . Another way of psychical healing is by denial and affirmation. The condition which has been brought about by unintelligent belief, that is, by habitually receiving the negative interpretation of the senses, has to be denied as untrue to Principle, untrue to the *Substantial* nature of the patient, and the right state of mind, with all its motor consequences for the body, has to be steadily affirmed in its place." Again, Miss Curtis says: "It is best not to deny facts, conditions, and effects in the objective plane. It is waste of time to deny the illness—that can look after itself: deny its root, its subjective and psychical correspondence. Do not deny the headache . . . but get at the mental state which brought about the headache and root that out by affirming the quality of Principle which knows no such thing." This may, perhaps, do for some headaches in neurotic people, but how about a stomach-ache in a child brought about by eating too much Christmas pudding? How are we to get at the mental state which brought this about? and root it out by affirming the quality of Principle which knows no such thing? We are to get at it by the repetition of some word or words, such as Wisdom, Eternal, Love, Truth. If, for instance, we want to give up the habit of afternoon tea, but have not the strength of will to break it at once, we are, while lifting the cup to the lips, to repeat the word Wisdom. Hence we are to learn that if the mind is fixed steadily on "Eternal Principle," the diseased tissues can take care of themselves. This is rather a wide conclusion, and the works of these apostles of new healing cults lead to the conviction that they have never seen real, everyday disease. They have to deal largely with *maladies imaginaires*, and their method of treatment may not unjustly be described as cure by the scientific use of the patient's imagination.

The new mysticism seems in Mr. Lyttelton's exposition, with its rhapsodies about the subconscious mind and the hypogastric plexus, to be not only nebulous, as he admits, but grossly materialistic; and while we have, of course, no wish to enter on a discussion of rival creeds, we think a level-headed man would of the two prefer the old-fashioned Christianity, which with its appeal to the higher faculties of mind and spirit, has the qualities of being intelligible to the average man, woman, and child, and fairly adapted to the needs of our poor human life.

STREET PERILS AND AMBULANCE PROVISION.

A BELATED return of the Board of Trade for 1911 shows that the number of accidents in the streets of London is larger than ever, and that the percentage of accidents is increasing in a higher ratio than is the population.

In the last year for which precise figures are available, 20,589 accidents were returned in streets within the City and the area of the Metropolitan Police: 435 terminated fatally. This alarming increase in street accidents in London is attributed to increasing congestion of traffic, and to the indiscriminate mingling of vehicles proceeding at various and varying speeds. The motor omnibus appears to be responsible for more fatalities than the trams, and to the increased use of mechanically propelled vehicles may be largely attributed the enormous rise in the total accidents during recent years. The other day, in a police-court case, the prosecuting counsel, speaking on behalf of the City Commissioner, commented on the large proportion of cases in which those who had been prosecuted for reckless driving had been acquitted by juries, and emphasized the difficulty in which the police were often placed in

their endeavours to protect the public and punish the offenders.

Another aspect of this question, and one to which we have repeatedly directed attention, is that of the lack of adequate provision for dealing promptly with, and with the avoidance of needless suffering to, the victims of these daily accidents in London streets. A jury recently investigated the death of a man in St. Bartholomew's Hospital who had been conveyed from Islington in a wheel-litter, the journey occupying thirty-five minutes. A rider was attached to the verdict urging the London County Council to adopt a more up-to-date ambulance system in the area under its jurisdiction, and similar to that which works so well within the City of London. In the enlightening debate to which this occurrence gave rise in the Council, on February 18th, the apologists for the present state of neglect vouchsafed the information that "before many years were over," and when fresh parliamentary powers had been obtained, and after a conference with the various ambulance agencies in London had taken place, an efficient service might be brought into existence!

The real truth is that the London County Council has for three years, thanks to the Metropolitan Ambulance Acts, 1909, had all the powers necessary for running a service in the County of London similar to, and as efficient as, the City's ambulance service. Indeed, the so-called City scheme was elaborated by the London County Council itself in 1902. The report made to the Council by their General Purposes Committee in November, 1912, was the quintessence of futility and procrastination. It revived a discredited scheme which was propounded before the Home Office Committee in 1907, whereby the one-horse cabs possessed by boards of guardians, together with Asylums Board ambulances, etc., should be utilized for street accidents, without any organizing authority or uniform system. That scheme was admittedly impossible then because, as the Local Government Board had pointed out, it was altogether illegal. Since then Parliament, instead of removing the statutory bar to the adoption of any such scheme, has definitely committed the duty of providing ambulances for street accidents and other casualties in public places to the County Council. The spokesmen of the Government, alike in the Lords and the Commons, regarded it as hopeless and impossible to entrust such municipal powers to the Poor Law authorities.

Our contemporary the *Hospital* has recently published, opportunely but unkindly, the pledges given by county councillors, when elected in 1910, to put in force the powers conferred by the Ambulance Act of 1909. If those pledges had been redeemed, we should have seen the county ambulance service performing its beneficent work to-day as efficiently as the City service. We earnestly plead for the prompt prevention of needless suffering occasioned by the present gravely defective means of transport of the injured.

Liverpool was a pioneer city in making improved arrangements for dealing with street accidents, and in providing rapid ambulances. The influence of its example has been felt on the other side of the Atlantic, where most of the great American cities have highly organized and efficient services, either hospital or municipal; but, as has been said, the London County Council has not far to go for a model, since one exists immediately over its borders—in fact, topographically, in the midst of the area for which it is responsible.

COUNTY COUNCILS AND THE TREATMENT OF TUBERCULOSIS.

AT the annual meeting of the County Councils Association on February 25th, Mr. Henry Hobhouse, Chairman of the Insurance Act Committee, asked the meeting to consider whether it could recommend county councils to proceed with the provision of institutes for (1) insured persons, (2) for their dependants, and (3) for the rest of the community requiring institutional treatment. He urged that it would be undesirable for the county councils to surrender so important a branch of health administration to the district councils or the Insurance Committees, and expressed the opinion that a council might, without adding a serious burden to the rates, undertake the institutional treatment of insured persons if the Insurance Committee would transfer the 8d. a head or other residue of the money provided for sanatorium benefit. He recognized that public opinion would almost certainly demand the inclusion of dependants, but thought the question of treating other non-insured persons was less pressing, although their treatment must be contemplated in any scheme which was to have the approval by the Local Government Board, and that Board would probably insist on the necessary number of beds being provided. He concluded by urging that the buildings erected for the purpose should be inexpensive. The subject was fully discussed, and eventually the following resolution was adopted: "That this association recommends the county councils to undertake the duty of providing institutional treatment for insured persons suffering from tuberculosis, and for such of their dependants as the funds of the Insurance Committees by arrangement will allow; but that, inasmuch as the association has not been successful in its efforts to obtain a guarantee of the contribution from the Exchequer towards the annual cost to complete the schemes which was asked for, it is not, as an association, prepared to express any opinion with regard to the establishment of such schemes, and considers that each county council should decide upon its own course of action in the matter."

FUTURE STAGES OF THE TUBERCULOSIS CAMPAIGN.

THE Lady Priestley Memorial Lecture, delivered by Professor Metchnikoff in November last, has been translated by Sir Ray Lankester, and published by the National Health Society at the price of a shilling. It may fairly be regarded as the standard account of present knowledge and as the most enlightened indication for future research that is now available for reference. Much has been established, but more remains to be proved, which is yet only in the stage of probability. No point in the whole lecture is more striking than the evidence that is brought forward to show that races of mankind hitherto uninfected are especially susceptible when exposed to the poison, while Europeans, living in the same country and under similar conditions, exhibit little or no tendency to acquire the disease. It must be assumed that they have somehow acquired immunity owing to the unsuspected presence within them of tubercle in some other form. But this lessened susceptibility requires further investigation and study. The apparent immunity conferred by antecedent scrofula has often been noted as a clinical phenomenon, but it has not always been accepted as a factor in prognosis. Many a sufferer from tuberculous glands in the neck has been erroneously regarded as "consumptive," and has been allowed to rest under the ban of an unnecessarily gloomy prognosis. Experiment, so far as it has gone at present, would seem to prove that the organism producing the so-called scrofulous lesion is an attenuated form of the tubercle bacillus, and that many degrees of attenuation may be naturally produced. More light is needed to

distinguish between the virulent and the non-virulent types, the one causing active disease and the other conferring comparative immunity. Is it the bovine form which plays the latter part? The old tradition, still persisting in some country districts, that the air of the cowhouse is good for the consumptive, may have a germ of truth in it. The evidence afforded by the cutaneous reaction devised by von Pirquet tends to prove that a very large proportion of the individuals forming civilized communities are already the hosts of some form of tubercle, and that in very many cases no other indication of its presence is forthcoming during life. Hence the justifiable conclusion that natural vaccination is a factor of vast importance, not only in respect of tuberculosis, but also as against other infectious diseases which are at all times prevalent in the community, but only affect isolated individuals. The further study of the whole subject and its particular application to tuberculosis will doubtless be greatly stimulated, both in the laboratories and in the course of practice, by the indications which Professor Metchnikoff has laid down.

CHEST HOSPITALS AND TUBERCULOSIS SCHEMES.

IT has been announced that the Committee of the Mount Vernon Hospital for Consumption and Diseases of the Chest will recommend the governors, at a meeting to be held on March 12th, to sell the hospital at Hampstead, and to devote the funds to the maintenance and extension of the Northwood Sanatorium. The institution consists of a chest hospital at Hampstead, a sanatorium for consumption at Northwood, Middlesex, and an out-patient department and offices in Fitzroy Square. Soon after the National Insurance Bill was introduced the committee became apprehensive that if passed into law the bill would have the effect of seriously affecting the income of the charity derived from voluntary subscriptions, and that if this anticipation were fulfilled it might become necessary to accept money from the State for the hospital treatment of insured persons, with the inevitable consequence of State control, resulting eventually in the absorption of the hospital by the State. The Committee considered that such a result would be deplorable in respect of the building at Hampstead, and that in respect of the country branch at Northwood it would be directly contrary to the wishes of the donor, who had contributed nearly a quarter of a million for its establishment. A subcommittee reported in November, 1911, that it was unanimously of opinion that the Insurance Act would seriously affect the financial welfare of the hospital. It advised that the future work of the institution lay in the direction of using it for the benefit of patients able to pay 30s. a week for treatment in the sanatorium, and did not consider that it would be possible to retain a free hospital at Hampstead while converting the sanatorium at Northwood into a paying institution. It recommended that the Hampstead property should be sold, and that from the proceeds of this sale and from invested funds the Northwood institution should be enlarged. In this way it was thought that 200 or 250 beds could be maintained, and accommodation provided in the one building for an equal or greater number of patients than are now treated in the two hospitals. The medical staff, in December, 1911, drew up a memorandum giving reasons against this proposal. It pointed out that the Mount Vernon Hospital had been founded fifty years ago for the treatment of persons suffering from all kinds of diseases of the chest, including, in addition to consumption, bronchitis, pleurisy, asthma, and diseases of the heart, and that the establishment at Northwood was a sanatorium designed for early cases of phthisis. They expressed the opinion that it would be impracticable to conduct a chest hospital in the proper sense of the term at Northwood, and that the sale of the Hampstead buildings would almost completely sacrifice the educational value of the hospital, which had been recognized by the University of London as one of the institutions at which candidates for its higher degrees in medicine and surgery might pursue their studies. As an alternative, the medical staff suggested the separation of the two institutions, allowing each to continue under distinct management, Northwood as a sanatorium and Hampstead with the buildings in Fitzroy Square as a chest hospital. Later on the medical staff were informed that the committee of management proposed to ask the governors to approve of such modifications in trusts and by-laws as might be necessary to constitute the establishments at Hampstead and Northwood separate institutions. The medical staff consented to this proposal on certain conditions, the chief of which was that the essential constitution of the Mount Vernon Hospital should remain the same as at present—namely, a hospital for consumption and other diseases of the chest. This plan was approved by the governors at their meeting in March, 1912, and there seems to have been no reason to suppose that it would not be carried into effect until, at a meeting of the committee of management on February 19th, the chairman proposed a resolution to ask the governors at the meeting on March 12th next to instruct the committee of management to sell the Hampstead hospital. At a conference between the medical staff and the committee of management held shortly before this meeting the former had expressed their continued opposition to the sale of the Hampstead hospital. The resolution proposed by the chairman was, however, carried at the committee of management, and it will apparently be submitted to the meeting of governors. The proposal raises certain general questions of importance. As it stands, it would involve the diversion of funds originally provided for a hospital for diseases of the chest of all kinds to the extension and maintenance of a sanatorium for paying patients suffering from consumption. The matter is no doubt complicated by the fact that the State has undertaken to provide treatment, domiciliary, dispensary, and institutional, for insured persons, and proposes to extend the system to the dependants of insured persons, and finally to the whole community. It does not seem probable that the county councils, the bodies to be made financially responsible, will be ready or willing to undertake the treatment of all tuberculous persons unless Parliament makes a special grant, which at present seems improbable. Meanwhile, provision is required for two classes of persons—the poorer uninsured and the middle class of limited means. The policy of restricting the advantages of Northwood sanatorium to persons able to pay 30s. a week is therefore open to criticism. But a more serious objection attaches to the proposal to close the hospital for diseases of the chest at Hampstead. It was not founded for the reception of consumptives alone, and has, we believe, always treated other diseases of the lungs, and also diseases of the heart. Very important additions to our knowledge of the nature and treatment of diseases of the heart have recently been made, some of the most important by members of the staff of the Mount Vernon Hospital. The hospital at Hampstead offers special opportunities for still further advances in methods of diagnosis and treatment, and it may well be hoped that the governors will continue to afford this by maintaining the hospital in its present state of efficiency.

A NEW PHASE OF THE OPIUM QUESTION.

SINCE the commencement of the new year fresh light has come from various sources in regard to the present position of what is known as "the opium question." In a recent debate in the House of Commons it was stated, on behalf of the Government, that a great improvement was taking

place in China in regard to opium smoking and the cultivation of the poppy. The chaos in the outlying provinces which had followed the overthrow of the Manchu dynasty was giving place to energetic suppression of the opium vice by the Republican Government and the uprooting of the poppy. Measures of Draconian severity, ill suited to humanitarian reforms as we conduct them in the West, appear to have been invoked as evidence of the sincerity of the Young China party. Moreover, the Under Secretary for Foreign Affairs stated that "Great Britain was under no obligation to force any definite or indefinite amount of Indian opium into China. The opium trade must have been known by the persons engaged in it to be highly speculative, and they could not expect that this or any other country should secure for them good and profitable bargains." He added, however, that he could make no promise that the Government would release China from her treaty obligations in regard to growing and importing opium. The weak spot in our arrangements with China, made in 1907 and renewed in 1911, is that while we undertake not to send Indian opium into any province which has ceased to produce it, we claim, somewhat paradoxically, that so long as provinces in China continue to grow the poppy themselves so long shall we require them to import opium from India. This policy appears to offend the growing sense of China's autonomy and independence, while the native farmers fail to see why their country should not, at considerable profit to themselves, "support home industries." Again, there has been recently published as a parliamentary paper [Cd. 6605] the "Instructions" which were issued to the British plenipotentiaries at The Hague Opium Conference, held last winter. We now learn that the British Government forbade their delegates to enter into any discussion at the Conference in regard to the arrangements made by His Majesty's Government with China, or as to restudying the treaty obligations regulating the Indo-Chinese opium traffic. It, nevertheless, attached especial importance to the Conference "thoroughly and completely dealing with the restriction of the manufacture, sale, and distribution of morphine and cocaine." We daily read of the spread of the morphine and cocaine habit, and we are glad to see the stress laid upon this aspect of the question, even though it appears from the reports of the Conference that the German Government prevented the articles of the Convention being drawn as strictly as they otherwise might have been in this regard. We cannot help feeling, however, that sooner or later the British Government will have to review their opium agreements with China, and cease to press the obnoxious drug, raised under Government monopoly in India, upon China, whether China grows the poppy herself or not. While this is a matter mainly affecting the two countries concerned there is no reason why the International Convention of 1912 should not be forthwith ratified and put in force. In addition to the twelve Powers which participated in the Conference, eighteen others have since signed the Convention, three have declined to do so, and a few others have not as yet replied. We understand that it is the intention of the Netherlands Government, in accordance with the provisions of the Convention, shortly to invite the Powers which are ready to act to send representatives to The Hague in order that, without further delay, ratification of the Convention and legislation in accordance with its articles may be put in hand, and an international control of opium and the allied drugs be thereby established. In such international action Great Britain would find her hands strengthened and her advice more readily accepted if even at some sacrifice, she could announce to the world that the Indo-Chinese traffic, twice denounced unanimously by the House of Commons to be morally indefensible, were no more.

INTRAMURAL SPREAD OF CANCER OF THE RECTUM.

THERE has been very considerable difference of opinion amongst surgeons regarding the paths of spread of cancer starting in the rectum. The opinions held are not merely academic, since in practice the extent of the operations undertaken for its eradication must be governed by them. It is contended by Harrison Cripps, for example, that the spread in the rectal wall is of no great extent, and that extramural dissemination is a late phenomenon. Sampson Handley made a rather startling contribution to the discussion by demonstrating by means of muci-carmine staining what he considered to be cancer cells in the mucous lymphatics of the rectum for several inches above and below the margins of the malignant growth. So far no adequate support or criticism of these appearances has been brought forward; the observation seemed to be accepted with the reservation that it was a rarity, or the exclusive selection of mucin-secreting cells by muci-carmine was doubted. Miles, in planning his extensive operation for cancer of the rectum, was guided largely by the sites of recurrence following more restricted measures, and, though not definitely disputing the spread of cancer along lymphatics in the rectal wall, laid most stress on its rapid conveyance to the extrarectal glands. The practical outcome is that, in conformity with the ideas of very restricted intramural spread, surgeons of one type remove the growth together with comparatively little free edge on either side of it, and content themselves with a restoration of the bowel by end-to-end anastomosis wherever possible; another type, impressed with the idea of extensive intramural dissemination, would remove a considerable portion of bowel; whilst the third type, in accordance with the observations on rapid extramural involvement, will remove the tissues containing the lymphatic glands and vessels as the primary danger zones—an operative procedure that entails removing also that part of the bowel with which these lymphatic glands and tracts are in intimate relation. In order to get at the real facts of the case too much dependence must not be placed on opinions derived from clinical observations merely nor on *post-mortem* material where the picture is blurred by the advanced changes and the secondary inflammatory processes that ensue thereon. It is only in the case of fairly early conditions, where a large amount of bowel with its surroundings has been removed, that the pathologist can trace the spread of the disease. Mr. Percival Cole has been fortunate in such material. In his paper on intramural spread of rectal carcinoma, published at page 431, he has confined himself to one part of the problem; but we may surmise that the same material can to some extent yield further information regarding extramural dissemination, which he regards as being of greater importance. He concludes, after a thorough histological examination of twenty cases, that the mucous and submucous spread of rectal cancer is very restricted and need not be seriously considered from a practical point of view. The cancer cells spread by the lymphatic vessels radially through the circular muscular coat to deeper plexuses, where they may travel for some distance beyond the superficial extent of the growth. Conveyance of cells in the rectal wall is more extensive in these deep plexuses than in the submucous coat. In one case of colloid cancer with extensive intramural dissemination he was able to demonstrate the fact that the submucous coat was involved secondarily by upgrowths of cells from the deep plexus by way of the radial intramuscular channels. This observation throws doubt on the continuity of the channels of the submucous plexus, and it may quite well be that this plexus is merely the interlacing arborescence of the radial offshoots from the deep plexus. No support is given to Handley's theory of mucous and submucous permeation, and it is thought

improbable that the discrete, well-formed cells which that keen observer described—cells which have no histological resemblance to the columnar cells of the rectal epithelium—were disseminated cancer cells. Mr. Cole's conclusion is that intramural spread is of comparatively little clinical importance, and that the finding of post-operative recurrences apparently in the bowel wall is explicable by contact transference or retrograde infiltration of the bowel wall from extramural involvement.

THE STERILIZATION OF DRINKING WATER BY ULTRA-VIOLET RADIATION.

IT is generally known that ultra-violet radiation has bactericidal properties, and already it is being applied industrially to the sterilization of urban drinking supplies. Since it was brought forward in its experimental stage at the Competitive Exhibition of Sterilizing Apparatus held at Marseilles in 1910, the system has been adopted by some French towns and has been introduced into India. The results up to date were given by M. de Recklinghausen at a recent meeting of the Société de Medécine Publique et de Génie Sanitaire.[1] In one important respect the procedure has been modified since the first experiments. Formerly the quartz mercury-vapour lamp, which is the source of the ultra-violet radiation, was completely immersed in the water. Such a method may seem very simple and efficacious, but it has been found that the chilling effect of immersion in running water makes it impossible to maintain the very high temperature necessary if the lamp is to emit a large proportion of ultra-violet radiation. In recent installations the lamp has been placed in close proximity to the water, but is allowed to burn entirely in air; it is stated that a lamp working at 660 watts, burning in air, emits almost ten times as much ultra-violet radiation as a lamp of even slightly greater energy immersed in water. Apparatus has been constructed, therefore, which provides that the water, while passing as close as possible to the lamp, shall be separated from it by an air-space. Another necessary condition is that the water, in the course of its passage round the lamp, shall be violently agitated by means of bafflers, so that the bactericidal radiations may be more effective. It is on these principles that the first apparatus of large capacity has been constructed and installed at Marseilles, in series with the Puech and Chabal system of roughing filters and prefilters. One form or other of previous filtration, preferably something simple and rapid, is evidently necessary, especially in dealing with the water of rivers, if the best results are to be obtained; it does not greatly reduce the microbian contents of the water, but it gets rid of suspended matter. If this be not done, the bactericidal radiations cannot penetrate properly, for the unfiltered particles form a kind of screen, and under this cover whole colonies of micro-organisms may escape. Another urban installation, capable of sterilizing 500 cubic metres (110,000 gallons) in twenty-four hours, has been at work for the past two years at Maromme-les-Rouen, and bacteriological examinations have shown the constancy of its action, even after the lamps have been burning for several thousands of hours. Some of the water at Maromme is bottled, and in spite of this extra risk of contamination its sterility has been maintained. Another waterworks on this principle has been constructed at Isle-sur-Sorgues, near Avignon, and an installation of 600 cubic metres capacity has been set up in India. A similar but quite small apparatus for hospital and domestic use is also described by de Recklinghausen. This is constructed to sterilize 600 litres (more than 130 gallons) an hour, providing that the water has previously been freed from matter in suspension. No description of this apparatus is given, but from a diagram reproduced with the paper it appears that the prefiltered water is admitted by an automatic valve carried to the sterilizing apparatus, and made to circulate on three sides of the lamp casing. It is then sent into the reservoir as sterilized drinking supply. One apparatus of this kind, sent out to a regiment in Africa, is reported to be working satisfactorily. In the case of water which is strongly coloured a more powerful sterilizing installation is necessary. De Recklinghausen states that he and his colleagues have constructed for this purpose special lamps of 3 ampères 500 volts, and that with these the output of ultra-violet is greatly increased. They have also made an apparatus with two of these lamps as a single unit. Together their consumption is 3 kilowatts, and the luminous capacity of the tubes of mercury vapour, which are placed end to end, is about 16,000 candles. The ultra-violet radiation with these 500-volt lamps is estimated to be eleven times greater than that obtainable with the 220-volt lamps hitherto used, although the former necessitate only about double the electrical expenditure. This two-power apparatus, with a capacity to sterilize from 1,600 to 2,000 cubic metres a day, has been used for the water of rivers which, though already filtered, was markedly yellow in colour. Before the passage through the apparatus the microbian content of the water averaged something like 200 bacteria per cubic centimetre; this was reduced to 2.5 after irradiation. The colon bacillus, which was frequently found in the water before its subjection to the sterilizing agent, was eliminated altogether. There remains the question of the cost of sterilization. M. Louis Marmier,[2] in a paper which is chiefly concerned with the engineering side of the alternative and older system of sterilization by ozone, has compared the two procedures in this respect. According to his figures, the total consumption of electrical energy in the sterilization of 1,000 cubic metres (220,000 gallons) per hour by the ultra-violet method is 69 kilowatt hours, a kilowatt hour being the Board of Trade unit. This includes the energy required for prefiltration and for regulating the water supply, and is based upon experiments with lamps which were not immersed in the water. In order to obtain the same result with immersed lamps, more than 200 kilowatt hours would be necessary. To these figures has to be added the cost of replacing the lamps, for it has been stated that some lamps have lost their bactericidal properties in less than 2,000 hours. This is probably an over-estimate, and later experiments appear to show that the lamps will last very much longer than this before requiring renewal—perhaps five times as long. The other method, that of sterilization by ozone, involves a somewhat large expenditure on plant, and M. Marmier's figures, worked out for several ozone-sterilizing systems, show the cost to be generally greater than that of the mercury-vapour lamp. With the ozone method, also, the water requires some form of preliminary purification, if not the more or less thorough filtration which is necessary in the other case. There are, however, fewer supplementary expenses with ozone, and, taking this into account, the ultimate difference in cost may not be considerable. This is an advantage, as it clears the way for tests based solely on comparative efficiency. Ozone, which for sterilizing purposes is used in concentrations of at least one gram per cubic metre of air, has the drawback of imparting a disagreeable taste, which disappears only after the water has been standing for some time.

[1] *Revue d'Hygiène*, December, 1912.

SPIROCHAETES IN THE BRAIN IN GENERAL PARALYSIS.

A PAPER published in the *Journal of Experimental Medicine* (February, 1913) makes the striking announcement that Dr. H. Noguchi has succeeded in demonstrating the *Treponema (spirochaeta) pallidum* in the brain of 12 out of 70 cases of general paralysis observed in the

[2] Ibid., January, 1913.

pathological department of the Central Islip State Hospital, New York. His results have been confirmed by Dr. J. W. Moore, who is associated with him in the composition of the paper, as well as by Dr. Flexner, the Director of the Rockefeller Institute for Medical Research, where the microscopical investigations have been carried on. It is proposed to continue the inquiry, in order to ascertain whether by an improved technique *T. pallidum* may not be demonstrated in a higher percentage of cases. Noguchi and Moore point out that Ranke and others have demonstrated the spirochaete in the pia and sheaths of the vessels in the brain in congenital syphilis, and that Dunlap, working in the New York State Psychiatric Institute, had shown the organism in a case of cerebral syphilis. Noguchi and Moore state that in the 12 cases in which they found the organism in the brain the *post-mortem* appearances were definitely those of general paralysis. Ten of the patients were men and 2 were women; 7 were of the cerebral type, and 5 of the tabetic. In 7 cases the date of onset could be satisfactorily ascertained; the longest duration of life was thirty months, and the shortest five months; the average was seventeen months. The majority were therefore much below the average duration, which has been estimated by various authors as from twenty-four to thirty-two months. The ages of the patients varied from 33 to 60 years, the average being 44. The authors consider the question whether their cases may not have been cerebral syphilis in the narrower sense. In reply to this they state that the clinical course showed a diffuse progressive deterioration which agreed with the diagnosis of general paralysis, and that there were no cranial symptoms or other focal manifestations. They consider that the diagnosis must finally depend upon the *post-mortem* appearances, which they hold to be conclusive. The specimens in most of the cases were taken from the first right frontal gyrus, in some from the left hemisphere or gyrus rectus, and were stained by the Levaditi silver method modified to produce an elective stain for *T. pallidum*. The spirochaetes were found in all layers of the cortex with the exception of the outer, or neuroglia layer. A few were found subcortically; none were found in the pia. In all instances they seemed to have wandered into the nerve tissue; they were not found in the sheaths of the vessels, and seldom in close proximity to the larger vessels. There seemed to be no ratio between the number of spirochaetes and the severity of the paresis, though in the case in which they were most numerous the paretic changes were very marked. The relatively short duration of the disease in the cases in which the organism was found leads them to suggest that it may be easier to find it in those which run a fairly rapid course.

THE INDIA OFFICE MEDICAL BOARD.

SIR ARTHUR BRANFOOT, K.C.I.E., President of the India Office Medical Board, hands over charge of that office to the second member, Sir Richard Havelock Charles, G.C.V.O., on February 28th. Lieutenant-Colonel John Anderson, C.I.E., late Civil Surgeon of Lucknow, joins the Board as junior member. In its present form this Board has existed for nearly half a century, but in a somewhat different shape for nearly a century longer. In 1773 the Court of Directors appointed a board in London to examine candidates for their service. The names of the members do not seem to have survived. The *Gentleman's Magazine* for July, 1793, records the death in London, at the age of 77, of George Marten, of Limehouse, for many years examining surgeon of the East India Company. Drs. Lorimer and Hunter were appointed in his place. Dr. Lorimer seems to have died soon afterwards. John Hunter served alone till his death on January 29th, 1809. Though completely overshadowed by his much greater contemporary and namesake, Hunter was a man of some note in his day. In early life (1781–3) he had served in the Army Medical Department in the West Indies. Hunter's successor was William Dick, who had served in the Bengal Medical Service from 1781 to 1802, most of that time as Superintendent and owner of the Calcutta Lunatic Asylum. Dick resigned in 1818, and died in Scotland on January 16th, 1821. In 1815 William Frederick Chambers was appointed Assistant to Dick, and succeeded him in 1818. Chambers was Physician to St. George's Hospital. He resigned in 1835, under the pressure of excess of work, as one of the leading consulting physicians in London. In 1836 he was appointed Physician-in-Ordinary to the King, William IV; he was appointed in the same capacity to Queen Victoria on her accession in 1837, and in the same year received the Knighthood of Hanover. He died at Lymington, aged 69, on December 17th, 1855. Chambers was succeeded by another ex-army medical officer, John Robert Hume, who had served in the Peninsula, and settled in practice in London after peace was declared in 1815. He was Physician to the Duke of Wellington, and a Commissioner in Lunacy. He resigned in 1845, and died in London on March 1st, 1857. On Hume's retirement two of the most distinguished officers on the retired list of the I.M.S., Sir James Annesley and Dr. (afterwards Sir) James Ranald Martin, were candidates for the appointment. The Chairman of the Court, by a small majority, carried the appointment of Dr. John Scott, his own medical attendant, a medical man practising at Barnes, who had served in early life as surgeon of the Indiaman *Farquharson*. Scott saw out the company; he held office till his death, from angina, on January 18th, 1859. On Scott's death Sir James Ranald Martin was appointed "Physician to the Secretary of State for India in Council." The Medical Board was established on October 31st, 1864, Martin being given the rank of Inspector-General as its President. He resigned on November 17th, 1874, and died ten days later. Martin was succeeded by Sir Joseph Fayrer, who had been junior member of the Board for the two preceding years. Fayrer held office for just twenty years, vacating on January 12th, 1895. Sir William Hooper succeeded Fayrer, and was in turn succeeded towards the end of 1903 by Sir Arthur Branfoot. The Board, as constituted in 1864, consisted of three members, the third being an officer of the A.M.D. This third member was dropped in 1873. The place of second member was usually filled by an I.M.S. officer on furlough, up to about 1889, since that time by one on the retired list. Many of the most distinguished officers of the I.M.S. have, from time to time, filled the post of second member. The first was J. W. Mudge (1864–6); others are W. Thom, S. B. Partridge, J. Ewart, H. Cayley, K. McLeod, E. F. Drake-Brockman, A. Crombie, and A. J. Willcocks. The A.M.D. officers who successively acted as third member were D. R. Mackinnon, W. K. Swettenham, and T. G. FitzGerald.

THE Paris Academy of Medicine, at a recent meeting, elected Dr. A. Carrel, of the Rockefeller Institute for Medical Research in New York, formerly of Lyons, and M. Arnozan, Professor of Clinical Medicine, to be corresponding members.

THE Morison Lectures before the Royal College of Physicians of Edinburgh will be given by Dr. G. M. Robertson, physician-superintendent of the Royal Asylum, Morningside, and lecturer on mental diseases in the University of Edinburgh, on March 10th, 12th, and 14th at 5 p.m. on each day. The lectures will discuss recent observations relating to general paralysis of the insane. The first lecture will deal with the new reactions and signs, the second with early diagnosis, and the third with etiology, prophylaxis, and treatment.

Scotland.

[From our special correspondents.]

ROYAL EDINBURGH ASYLUM.

The Hundredth Annual Report.

The hundredth annual report (that for the year 1912) was read by Dr. George M. Robertson, the Physician Superintendent, at the statutory annual meeting on February 24th, 1913, when the Right Hon. the Lord Provost was in the chair.

General Statistics.

On January 1st there were 753 patients on the register, on December 31st the number was 784. The total number of inmates had been stationary for the previous four years, and as low as 743 at the end of the year 1907. The admissions in 1912 numbered 222, the discharges 129, and the deaths 62. The admissions were 43 more than in the previous year. Both Craig House and the West House shared in this increase, and the number of admissions to the former has only once been exceeded during the last ten years.

Melancholia.

Of the forms of insanity admitted, melancholia, as usual, was the most prevalent, and accounted for a quarter of the admissions. Its symptoms resembled and were a caricature of those of natural anxiety or despondency, the direct result of depressing causes, such as loss of friends or reverses of fortune. It differed from natural melancholy in not being a reaction to any external cause affecting the feelings, but the result of internal disorder of the brain. Mania and melancholia—or morbid elation and depression—were alternative manifestations of the same disease process, and were often associated.

Alcoholic Insanity.

Among the exciting causes of insanity, alcoholic excess, as in former years, headed the list, but the proportion of alcoholic insanity was less than usual, being only 11.2 per cent. of the total. During 1908, 1909, and 1910 the proportion of alcoholic insanity among women appeared to be steadily increasing. During the last two years the figures showed a decrease, but as the major amount of this insanity was preventable the doctrine of temperance still required to be preached.

General Paralysis.

The number of patients admitted with general paralysis of the insane was 24, of whom only one was a woman; the diagnosis in every case was confirmed by the Wassermann reaction and the other laboratory tests. As there were 107 admissions of men, 21.5 per cent., or over 1 in 5, of the male cases suffered from this disease. The average admission-rate for the last five years was over 19 per cent., as compared with 16.4 per cent. for the whole of England, and it must be remembered that nearly a third of the cases were not sent to institutions. A great deal of attention was directed annually to alcoholic insanity, which amounted to only 17.6 per cent. of the admissions, and was therefore less frequent in the male sex in the district than was general paralysis. While alcoholic insanity was usually recovered from on the removal of the cause, the cure of general paralysis had baffled all efforts, and the disease was fatal in two or three years' time. Of the 31 men who died during 1912 the cause in 14, or 45 per cent., was general paralysis; the average rate for the last five years was 40 per cent. Dr. Robertson concluded this part of his report with the following observations:

> These statistics reveal a state of affairs that calls urgently for public attention, and only because the subject has certain aspects that require delicate handling has reference to it been avoided in the past. I, however, feel it a duty incumbent on me to do so now, not only from my position, which enables me to see the extent of the evil, but also because the incidence of this disease in this area is probably not exceeded elsewhere in Scotland. It is also a disease which there is good reason for believing is now within the power of medical science to avert, if it is not able to cure it. Large numbers of soldiers used in the past to fall victims to it, but medical treatment in the army has become so thorough and scientific that, after twelve or fifteen years, this profession will probably cease to supply its proportion of cases. Can something of the same kind not be done for men in the civil population? They would no doubt require to be educated to a sense of their dangers, and the value of early treatment, by short addresses or printed warnings in their workships. The insurance or some other public authority would require to make provision for treatment, which would not be difficult or expensive owing to the short time now required, and the medical profession should be given the power of exercising more pressure than at present for insisting upon treatment till a cure be obtained. If these measures were successful, in fifteen years not only general paralysis, but a host of serious maladies, would decrease enormously in number. The old policy of merely ignoring the existence of these ills is now inexcusable and something must be done.

Discharges.

Fifty-eight patients were discharged as recovered and 71 as unrecovered. The recovery-rate during 1912 was 26 per cent. of the total number of admissions. The lowness of the rate was partly accounted for by the large number of senile cases, no fewer than 18 being over 70 years of age. The average age of the admissions during the last four years was 43 years, whereas in 1912 it rose to 45.

Deaths.

The total number of deaths was 62 (8.2 per cent. of the average number resident). This was the lowest death-rate recorded for over twenty years with the exception of 1910; the general health of the population has been very satisfactory. Sixteen of the deaths were due to general paralysis, and 16 were of persons over 70 years of age; these two groups thus accounted for 32 out of a total of 62 deaths. Among the deaths were those of two nonagenarians who had both been many years in the institution.

Tuberculosis.

There were only 6 deaths (5 women) due to pulmonary phthisis; 3 of the cases were diagnosed on admission and 1 died within a fortnight. Of the other 3, 1 was known to have been affected for five years; a second was probably infected by her father, and the third was a female drunkard; alcoholism, by lowering the bodily health and weakening the powers of defence, was an important factor in the development of phthisis. The statistics showed a very satisfactory state of affairs as regards this disease, which was so prevalent at one time.

Artificial or Tube Feeding.

Under this head, Dr. Robertson's report contained the following passages:

New Attitude of Public.

> It is a new experience for us to find the proper treatment of our patients hampered by political questions, as we do now, with regard to the artificial feeding of patients who refuse their food. During the course of the last eighteen months I have on several occasions found the friends of patients, as a result of what had appeared in the press on the subject, manifestly offering resistance to this most necessary and humane procedure, and they have had to be won over by persuasion and argument. I have met relatives prepared to allow the patient to starve, and probably die, rather than to be fed, although this feeding might not be necessary for a few days. I have known of cases where the patients were not fed, and have died.

Asylum Physicians Perplexed and Astonished.

> It has been a source of perplexity and astonishment to all engaged in the treatment of the insane to learn that artificial feeding by means of a tube should be regarded as torture or dangerous. It is true it is unpleasant, and causes a tendency to retch, with transient sensations of choking, and on the first two or three occasions it may be accompanied by feelings of alarm, but it is certainly not painful in the ordinary sense. With regard to danger, it cannot be said to be entirely free from it, but neither can, for that matter, the everyday act of swallowing food in the weak. If the operation is done with the exercise of ordinary care and skill upon a person not suffering from an alarming degree of weakness, there is no practical danger. I have probably performed the operation, as

an assistant medical officer chiefly, over 2,000 times, and I have never seen evil results in any of these cases, but the reverse. Patients have been fed in mental hospitals in this way for years at a time without ill health, but special attention has to be paid to the ingredients of the food in these prolonged cases. It must include, beside the staple articles of milk and eggs, the juice of vegetables and of fruit such as oranges, and it is usual, too, to add, if desirable, stimulants and medicines.

Why do Suffragettes Suffer?

During 1912 more than a fourth (66 out of 240) of the suffrage prisoners in England were liberated for reasons of ill health, which, with few exceptions, was due, wholly or in part, to their refusal to take food. I concluded at one time that the process of artificial feeding must have been resorted to in these cases much too late, when the strength had already failed from want of nourishment, for I find this is the mistake the inexperienced most commonly fall into in treating the insane, and I warn my students of this danger.

Is Feeding Adopted Too Late?

We are all more inclined to defer feeding too long than to begin too soon, but it is safer to err the other way. I now understand that what differentiates "the hunger-striker" from the insane person who refuses food, and is an important factor in the injury to health she occasionally sustains, is the purposeful and violent way she resists and struggles until utterly exhausted. After she is fed, she voluntarily ejects the meal. The patient, on the other hand, is frequently confused and even apathetic, and may be a mere passive resister, or else is intelligent enough to realize that whatever he may do, he will be fed in the end. He is also aware that no unnecessary inconvenience or indignity will be offered to him in the process to which he quickly becomes accustomed. It is probably not so much the feeding as the struggling that injures "the hunger-striker," and if she struggled to the same extent on an empty stomach in having her face washed, or her clothes put on, the consequences might be similar.

Persuasion and Tact.

No patient is ever fed without being first offered his food in the ordinary way, and until every form of persuasion has been tried in vain. He is sometimes left alone in a room with his food, or it is offered to him by some one he is friendly with, or he is coaxed by a member of the opposite sex. Lately one of our intelligent patients as a protest actually went on hunger strike in the most approved manner. As he was in good health he was allowed to starve himself for a couple of days, then the nurse of the ward arranged with the attendant, under whose constant personal supervision he was, to turn his back on him for a moment. She induced another patient to seize this opportunity of slipping a slice of bread, as if surreptitiously, under the bed-clothes of the hunger-striker. This pantomime was repeated daily, and he sustained himself on this simple menu for several days longer, till it dawned upon him, from the indifference of the officials, that they knew more about his secret supplies than he had imagined. Realizing at length that he had been circumvented, he began to eat his meals. A gentleman at Craig House last December, obeying the commands of imaginary voices, also refused his food, and had to be fed for nearly a week. On the morning of the 25th he was still obdurate; but at dinner time a slice of roast turkey, a glass of champagne, and the sight of every one else enjoying Christmas fare, supplied just the stimulus that was needed, and he himself set to with right good will, and he has continued to take his food ever since. Human nature is much the same in a mental hospital as out of it, and he who understands it best makes the most successful physician or nurse. It is hoped that these simple statements and illustrations will enable all reasonable people to see in its true light what I have already called a most necessary and a humane procedure under certain conditions, and how we meet difficulties as they arise.

PELLAGRA.

Dr. Robertson related the following case, which he said did not actually take place last year, but reflected credit on the accuracy of the medical work:

A young woman from Shetland was admitted to the West House, suffering from delusions and indefinite bodily symptoms, which were suggestive of general paralysis of the insane. Because of the incomplete picture she presented of this disease, the case was very minutely studied in every way, but its exact nature remained an unsolved problem. In this state of doubt we invited a specialist in skin diseases to report upon the symmetrical brownish-red inflammation of the back of the hands and face resembling sunburn that she suffered from. Dr. Low had the good fortune to have previously seen some casts illustrating pellagra, and he was of opinion that the eruption on this woman's hands resembled it. All the other symptoms were confirmatory of this opinion, and on reviewing the case in the light of this suggestion there was no doubt whatever that it was a typical one of pellagrous insanity, from which the patient died.

This case was the only example of undoubted pellagra then known to have occurred in this country during a period of forty-five years. Only one other undoubted case had been reported; this was described in 1866 by the late Dr. Howden, of the Montrose Royal Asylum. Since, however, Dr. Dods Brown and Dr. Cranston Low published a record of this case and attracted attention to the disease, other cases had been found.

THE CENTENARY OF THE OPENING.

The institution was opened for the reception of patients on July 9th, 1813. The proposal for its establishment was originally made twenty-one years previously by the President of the Royal College of Physicians, and its object was to provide for the care by members of the Royal Colleges of Physicians and Surgeons of insane persons who were still in a recoverable state. The rich were to be charged, and the poor were to be maintained gratuitously. The Lord Provost of the city and others holding high official positions agreed, at the suggestion of the Royal College of Physicians, to form themselves into a body of trustees to carry this scheme into operation, and regulations for the management of the institution were subsequently adopted after they had been submitted to every member of the College of Physicians and Surgeons for suggestions. The institution was thus launched under the most favourable auspices, both medical and lay, and from the beginning it aimed at being national in character.

THE MEDICAL STAFF.

The University of Edinburgh last year created a Diploma of Psychiatry open to graduates, and facilities were therefore given to the assistant physicians in the institution to attend the necessary courses of instruction; Dr. Dods Brown was one of the first to obtain this diploma, the possession of which Dr. Robertson expected would in course of time be essential for all applicants for the medical posts. In connexion with this diploma a post-graduate clinical lecture was given every Thursday forenoon at the West House. This was conducted by Dr. Robertson with the assistance of the medical officers, Dr. Donald Ross and Dr. Maxwell Ross. The well-equipped laboratory also, under the immediate charge of Dr. Muirhead, was a stimulus to scientific study, as well as of great practical assistance in the clinical examinations and treatment of patients. In addition to this routine clinical work, original researches were carried on. One of these, done conjointly by Dr. Henderson and Dr. Muirhead, on the different forms of cells found in the cerebro spinal fluid in disease, would have obtained on its merits the bronze medal granted by the Medico-Psychological Association but for a technicality.

Dr. D. K. Henderson resigned his appointment here on being appointed chief of the Psychiatric Clinic (Phipps Institute) of Johns Hopkins Hospital, Baltimore, and was succeeded by Dr. Maxwell Ross, who had just served a term as Resident Physician in that hospital and in the Royal Edinburgh Infirmary.

Various points connected with the nursing staff were referred to—the Insurance Act, one day of rest in seven, the training of nurses, the hospital features of the Scottish asylums, and certain pension anomalies in Scotland.

DINNER OF THE ROYAL MEDICAL SOCIETY.

The annual dinner of the Royal Medical Society of Edinburgh took place on February 11th, in the hall of the society in Melbourne Place. The guest of the evening was Mr. W. Arbuthnot Lane, F.R.C.S., of London, and there was a distinguished company, including the

Moderator of the General Assembly of the Church of Scotland, the President of the Royal College of Surgeons, the Master of the Merchant Company, the President of the Royal College of Physicians, the Deans of the Faculties of Divinity, Arts, and Law, the superintendent of the Royal Infirmary, and the President of the Royal Faculty of Physicians and Surgeons of Glasgow. The Senior President of the Society (Dr. Murray Lyon) was in the chair, and in proposing the health of "The Guest" spoke of Mr. Arbuthnot Lane's many and varied contributions to literature. Mr. Lane replied, and in proposing "The Royal Medical Society," said that the society was as good as it was old; he then touched upon medical education, saying that no men got a better medical education than they in Great Britain, but they must not stop there, they must go on. He had been visiting America, and he thought the Americans were leaving us behind, simply because they put their money into what they called travel, and went and saw the best men operate and practise.

Indian Medical Service Dinner.

We are requested to intimate that the Edinburgh Indian Medical Service dinner will be held in the United Service Club there on Friday, May 30th. Sir Alexander Christison, Bart., will preside. Any further information can be obtained from Colonel James Arnott, I.M.S. (ret.), 8, Rothesay Place, Edinburgh.

Edinburgh New Town Dispensary.

At the annual meeting of the managers and subscribers of the New Town Dispensary—the N.T.D. as it has been called for many years—which was held on February 19th, it was shown that there was an increase in the number of patients over the number in previous years, and that the subscriptions had been rather smaller. Sympathetic reference was made to the death of Dr. George A. Gibson, who had been consulting physician for the past two years. In reply to a question as to the effect of the Insurance Act upon the attendance of patients, it was stated that in the first month there had been a diminution in the ordinary attendances of about 30 per cent., whilst the applications for attendance at confinement had increased in about the same proportion.

Hygiene of the Abattoir.

The hygiene of the abattoir is not yet all that it might be, and it is admitted that the methods of slaughtering are far from perfect. The poleaxe, for instance, in the hands of a weak or nervous person may be the cause of much needless suffering. There was therefore a good deal of interest taken in the demonstration given at the Gorgie abattoir on February 20th, when the Royal Society for the Prevention of Cruelty to Animals invited members of the Town Council of Edinburgh and of the Meat Trade Association to witness the use of the compressed-air killer and the captive bolt pistol in slaughtering. The experiments were made on oxen, sheep, and pigs; and, whilst the new means of killing the animals were at any rate as speedy as the knife in the case of the sheep and pigs, they could hardly (from the tests made) be regarded as so satisfactory as the poleaxe in the case of the bullocks; in fact, in two out of four bullocks experimented upon the poleaxe was needed to kill after the animals had been shot.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Prevention of Infantile Mortality.

The report presented to the annual meeting of the Dublin Committee for the Prevention of Infantile Mortality stated that 200 ladies were working as voluntary health visitors, under the auspices of the committee, and that during the year 22,500 visits had been paid by those visitors to mothers and their children. As there were no paid officials, all the money subscribed was spent on the poor. The Chairman said that the majority of the lady members of the society did not belong to what was known as the leisured class. They were workers who had only a few leisure hours in the evening, which they might justly claim for themselves, but which they gave up to save the lives of children.

Treatment of Tuberculosis.

At a special meeting of the Sligo County Council it was decided to adopt Part I of the sanatorium benefits under the Insurance Act, and to appoint a tuberculosis officer at a salary of £450 a year, with an additional allowance of £50 a year travelling expenses. Several members were against taking advantage of the beds offered by the Women's National Health Association, and it was decided to postpone further consideration of this part of the scheme, the secretary being instructed to obtain particulars from the Galway County Council as to the beds available under their scheme.

At a special meeting of the Queen's County County Council a letter was received from the Local Government Board approving of the site of the late sanatorium, which was burnt, in the grounds of the Queen's County Infirmary, as the site for a new sanatorium to be erected for the treatment of tuberculosis in the county, provided the council proceeded without delay to appoint an architect and instruct him to prepare plans and specifications for a tuberculosis dispensary and sanatorium suitable for the requirements of the county.

South Charitable Infirmary and County Hospital, Cork.

The annual report of the South Infirmary states that 594 patients were treated in the medical wards during the year 1912, being 16 more than in the year 1911. A large number of these cases were of a very serious character, and hence entailed considerable care and responsibility in both the medical and nursing staffs. Into the surgical wards 769 cases were admitted, being an increase of 82 over 1911. The majority of these being serious cases of surgical disease or accident, necessitated the large number of 423 major operations, an increase of nearly 100 operations over the previous year. The daily average of intern patients was 83.9, being an increase of 3.7 on the previous year. In the extern departments there were 3,759 cases (an increase of 78), and a total number of attendances of 14,186. The new extern medical department, it is considered, has been of great service to the hospital. The dental department has steadily increased in its usefulness, and further developments are looked forward to in that department. Reference was made in the Treasurer's report to the arrangements to be made for the reception of patients under the Insurance Act. The City and County Insurance Committees had applied for terms for the treatment of surgical tuberculous cases, and it had been decided to fix the rate weekly at 17s. 6d. a patient, including maintenance and surgical treatment, but this has not been acted upon yet, owing to the desire of the Cork Medical Committee to deal directly with the Insurance Commissioners. Pending a settlement of terms, patients are receiving the surgical benefit of the infirmary as heretofore.

A Housing Scheme.

The Council of the Urban District of Pembroke, near Dublin, has applied for a loan of £66,950, under the Housing of the Working Classes Acts, for the purpose of erecting working-class lodging-houses. At an inquiry now being held into the matter by the Local Government Board, Dr. Denham, who up to last year was M.O.H. for the district, said in his evidence that he had condemned 220 houses, and that many of these were over 200 years old and very insanitary. Another witness stated that 22 persons were occupying a four-roomed house, and another corner house accommodated 38 persons. Seven, eight, nine, and even ten families occupied houses with small, low, dirty rooms, unfit for more than two or three people. Dr. Cremen, the present M.O.H., stated that some houses were most insanitary, and consumption as a consequence was prevalent. In one house there were three persons suffering from consumption, including the father, and with three healthy members occupied one room day and night; the only window was small, with a northern aspect, and the result was that there was no ventilation and no sunshine. In another house in the same locality the mother was dying from consumption, and there were six children who had to occupy the same room. Dr. Burke, M.O.H. Donnybrook No. 2 District, mentioned one locality where, out of eighteen houses, all but one were beyond repair. Closing orders had been refused, for there were no other places for them to

occupy. From this and other evidence given it would appear that there is an urgent need for the erection of the proposed new cottages, and that there would be no difficulty in finding tenants even at somewhat higher rents than are paid at present.

OUTBREAK OF TYPHOID FEVER IN NEWRY.

For the last fortnight there has been a serious epidemic of typhoid fever in Newry, and several cases have been admitted to the infirmary, some of which have had a fatal termination. The urban council has therefore decided to appoint Professor Wilson of Belfast to inquire into the cause of this outbreak and to inspect the sources of the town water supply at Camlough Lake, including the surroundings of the lake, as well as the pipe line to the town.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

MANCHESTER AND DISTRICT.

TREATMENT OF TUBERCULOSIS IN MANCHESTER.

THE scheme of the Manchester Sanitary Committee for the treatment and prevention of tuberculosis, which has already been described in the JOURNAL, was laid before the City Council on February 19th for final consideration. The deputy chairman of the Sanitary Committee showed how the scheme was really an attempt to co-ordinate existing agencies and institutions. Fever cases were to be transferred from Baguley to Monsall, the former institution being reserved entirely for cases of tuberculosis, and when the extensions proposed were carried out there would be accommodation at Baguley for 300 beds. These would be mainly for advanced cases, though early cases might also be accommodated. The provision for early cases would be mainly at the Crossley Sanatorium, where 62 beds would be available, and at the Abergele Sanatorium, where 50 beds were provided. There would thus be a total of 412 beds available for early and advanced cases. It was estimated that the net charge on the rates would be about £4,300 a year, but against this cost to the city should be set the saving to the Poor Law authorities which was estimated at £15,574 a year. Several members of the council urged that the root of the evil was the poverty of the people and their inability to provide themselves with good habitations and healthful surroundings, and the chairman of the Education Committee hoped that the Government would do more to arrest consumption in children of school age. The scheme was then adopted finally by the council.

LONDON.

COUNTY COUNCIL ELECTION.

WE have received the following letter with reference to the general County Council election in London, which takes place on Thursday next, March 6th:

> Sir,—The London Medical Committee are anxious to assist in securing the return of certain candidates in each constituency at the approaching London County Council election. The present position of the profession is partly due to the slight value attached to the votes of medical men, which, even if unanimous, would seldom affect the result of an election. If, however, the profession enter with enthusiasm into the campaign outlined below, it would be difficult to overestimate the services it can render. The value of its support or opposition would become proportionally enhanced, and its power of determining the conditions of service laid down under any amending Act increased.
>
> It is suggested that every day during the contest, in such spare time as they may have, medical men should attend one of the Local Committee Rooms opened by candidates in the different districts of each constituency where their services will be gladly accepted, and on the day of the poll lend, if possible, a motor car, or other private conveyance, and that they should induce relatives, friends, and patients to give their services, and lend cars or carriages.
>
> The ultimate object is to secure (1) improved conditions of service, and (2) medical control; the first to render it possible, and the second to render it imperative, that every man shall do his duty to the State, his patient, and himself. It should appeal to all who have been compelled to go on the panel, and who have at heart the welfare of the poor and the honour of the profession.
>
> Yours faithfully,
>
> 521, Finchley Road, N.W. M. MACNAUGHTON-JONES, jun.

Special Correspondence.

BUDAPEST.

Politics and Antialcoholism.—Acetan for Household Use.—The "Single Child."—The Geographical Distribution of Lithiasis.

No propaganda has ever helped the case of antialcoholism in Hungary in such a measure as the present political conditions. Nominally the General Votes Bill did not meet in its present form with the approval of the Social Democratic party. They therefore resolved to respond with a general strike, but the working class could not be easily driven into a strike, as their condition is at present terribly hard, owing to scarcity of money and general trade depression. The leaders, therefore, had to find out another way of embarrassing the Government. The word went round, "Drink no alcohol. Let us weaken the Treasury, and through it the Government, by curtailing the income from spirits." A litre of pure spirit is sold here for about two crowns, or 1s. 10d., out of which one crown goes to the tax office. Against 16,597 grammar schools, only 12,336 of which are maintained by the State, there are 66,200 brandy shops in the country. The working class spends 18 per cent. of its earnings on spirits; but without doubt it has listened to its apostles and drinks considerably less spirits than formerly. Thus, whatever may be the motives of the Social Democratic leaders, the result of their tactics will be beneficial to the people by moderating the consumption of alcohol.

A Budapest druggist has found out a method by which formic acid can be distilled and refined so as to fit it for household use, in a greatly diluted form. The lay papers have expressed surprise, pointing out the poisonous nature of formic acid. The Royal Public Analyst, however, explained last week that the formic acid which is contained in the acetan, acts as acetic acid. If the latter is not detrimental, then acetan is not so; indeed, he declares acetan is used for household purposes much more greatly diluted than acetic acid, so that its poisonous effect is less. The same opinion was declared also by Professor Kétly.

The Hungarian Child Study Society has started a widespread movement for collecting data relating to the "single child" system. The collecting had mainly been done by Dr. László Nógrády, who lectured on this subject on February 10th. Until recently it had been thought that the system was a purely economical question. People did not want to distribute the lands between several children, but it had grown into a custom independent of land questions. It was quite clear that the "single-child" family did not get richer; on the contrary, it grew poorer. The "single-child" generation did not like to work; it tended to become idle and self-indulgent. Then, if landed proprietors, their farms were worked by others, to whom heavy wages must be paid with ruinous results. The single farmers already understood that the "single" system meant their ruin, and still they did not endeavour to reform because it had become a custom and the people were very conservative. The man who would alter this state by begetting several children was despised and cast out from his class. The other reason for the "single" system was female vanity. Women thought that they would remain young for a longer time and enjoy life. The spread of the system was aided by the assistance of midwives and quacks, and, unfortunately, of doctors as well. The spread of the system was further promoted by unconscientious agents who sold preventives, and by offensive advertisements in the press. The only child was spoilt by his parents, and too often enters early into a career of dissipation, the result being rapid physical and mental deterioration. Such a system must ultimately ruin the whole people.

Dr. Paul Steiner, Lecturer to the Kolozsvár University, seeks for statistics of vesical calculi in adults in different parts of the country. He has forwarded circulars to every practitioner asking them to report all cases under their observation. Similar statistical researches were made three years ago by Professor Bókay Tanos, paediatrist, who found that inhabitants of the more remote parts of the country—namely, the districts lying between the rivers Danube and Theiss—are more often attacked with vesical calculi than those in other parts of the country.

Correspondence.

IMMEDIATE OPERATION IN APPENDICITIS.

SIR,—We must all agree with what Dr. J. W. Hunt says in his interesting letter (p. 414), where he touches on a point of very great importance to general practitioners in suburbs which have for the past ten or fifteen years been deteriorating in the financial ability of their residents to pay large operating fees. It is true that some of the "coming" men are reluctant to accept, largely, no doubt, from a praiseworthy regard for the dignity of their position, smaller fees than the men who have "arrived"; but I have personally received from both classes so much consideration, which I hope I have not abused, that it is only common gratitude to say that I have never found any difficulty in obtaining the very best surgical assistance at nominal fees, or even at no fee at all, when circumstances justified such generosity. Dr. Hunt is confessedly in a similarly fortunate position, as those of us who hold him in affectionate respect can well believe. Others no doubt have had the same happy experience of capable surgeons, and immediate operation need not be foregone for want of asking a favour. After all, it is just possible that "what is lost on the swings is made up on the roundabouts."—I am, etc.,

London, N., Feb. 24th. WILLIAM WHITELAW.

SIR,—The unanimity in the surgical discussion on Mr. Edmund Owen's eloquent address speaks for itself. All are agreed that immediate operation is the only course "as soon as the diagnosis of an inflamed appendix has been made." Early diagnosis is the indispensable means to that desirable result. It did not come in for special consideration, but it remains the essentially debatable question, upon which it might be worth while holding a debate for the benefit and the participation of the larger section of medical practice. Two practical suggestions were impressed upon us: one of them, with an emphasis which it is not for me to challenge, "to avoid calling in a physician"; the other, with which there could not possibly be any disagreement, "to immediately call in one or two of our surgeons," for they are the best judges. We are proud of them, not only for the excellence of their technique so admirably taught at our schools, but for their diagnostic insight acquired by personal experience. That that feeling should not be reciprocated is an argument in favour of further study on the part of our physicians, as they are likely to be still wanted for a while in a teaching capacity in connexion with so eminently medical a department as that of the abdominal ailments. The variety of our "suspicious" symptoms is such as to justify a practical rule "to watch for appendicitis always, and to examine for it as a clinical routine," just as we test all our cases for any latent renal trouble. That duty should not be delegated, but specially cultivated by practitioners and physicians, lest our diagnostic skill should decay from too exclusive a reliance upon the surgeon's brilliant diagnosis at first sight, or upon his exploratory incision. Our individual efficiency would gain much, and some progress might eventually be made in the art of diagnosis, and in the thoroughness of clinical investigation in any direction open for improvement. This would also be the best means of promoting earliness of surgical examination and treatment, as the beginnings of appendicitis occur almost invariably within the medical sphere of observation.

The number of "suspected" cases being much larger than of those to be identified by the current methods, it is inevitable, as Mr. Edmund Owen does not hesitate to admit, that the immediate attendance of the surgeon should sometimes fail to bring the actual diagnosis, and that delay should have to be incurred for further indications. In any cases of that sort that delay might be saved if by more searching methods positive evidence were obtainable of the existence of some local trouble in the region of the appendix. The neglect of any genuine facilities available for that purpose could not be readily justified. On the other hand, immediate attendance will always bring due regard for the possibility that any vague initial symptoms might be due to appendicitis, and a suggestion that a surgical exploration is the only safeguard against the unknown risks. It is apparent, then, that the rule "to operate immediately for appendicitis" has a strong tendency to become a rule "to operate immediately for suspected appendicitis." It might be well to face that new situation squarely, and to give to the subject of "suspected appendicitis, its diagnosis and its operative indications," the exhaustive consideration which it deserves. Nothing but good could result from focussing the inquiry upon the point of genuine difficulty. The surgeon's plea for immediate action could then be established upon its most legitimate and inclusive basis.—I am, etc.,

London, W., Feb. 24th. WILLIAM EWART.

SIR,—I have just completed twenty years' experience in operating upon appendicitis, and am, like Dr. Binnie and many others in America, and Sir George Beatson, more especially, in this country, not in the present—perhaps passing—fashion.

I have not lost a single case where, in my judgement, it was necessary to try and get the patient out of his attack of appendicitis into a state of quiescence, or, to use a local phrase, which well expresses my meaning, "drydock him for repairs."

It seems to me that the policy "Look and see" is one to be deprecated, because it will inevitably lead to further carelessness in the correlation of the value of symptoms of the disease and of the general condition of the patient.

We are all agreed that definite appendicitis is a surgical disease for several hours after its onset, but later on, except where evidence of pus is present, it is, I think, a condition which requires the greatest vigilance, the strictest observance of proper non-surgical treatment, to bring it into a state whereby the offending appendix can be removed with no risk except that of the anaesthetic.—I am, etc.,

Cardiff, Feb. 25th. J. LYNN THOMAS, C.B., F.R.C.S.

OPERATIONS ON CHILDREN IN THE OUT-PATIENT DEPARTMENT.

SIR,—After a large experience of out-patient work in a children's hospital, I thoroughly endorse the views held by Mr. Nicoll on the above subject, as expressed in the BRITISH MEDICAL JOURNAL of February 22nd, and at the Belfast meeting of the British Medical Association in 1909. I happened to be one of the secretaries of the Section of Diseases of Children at that meeting, and I ventured to doubt the expediency of operating on hernia in the out-patient department, chiefly on the ground of one's position in case of any accident. So convinced was I, however, by Mr. Nicoll's results that I immediately began to add hernia and hydrocele to the list of my out-patient operations, and my colleagues followed the same course. Since then we have enormously extended our scope, and personally I have no hesitation in operating on hare-lip, some cases of cleft palate, knock-knee and bow-leg in children about 4 or 5 years of age, enlarged tonsils, which I often enucleate entirely, adenoids, naevi, tuberculous joints in the upper extremity, glands, tumours and cysts in the neck, and many other conditions requiring surgical interference. A few weeks ago I removed in the out-patient theatre an occipital meningocele in an infant a few days old with an entirely successful result. In this way numbers of children are relieved who could not otherwise have been properly treated on account of shortness of beds and lack of funds. The results have borne very favourable comparison with those obtained in the wards, and the utility of the hospital has been very greatly increased.

If a child can be carried to hospital, and if the operation wound can be so sealed or covered as to avoid accidental

contamination, I see no reason why most of the operations necessary in children should not be performed in the out-patient department. This practice also avoids the necessity of weaning children who are thriving at the breast and whose mothers may be loth to part with them at such an early age.

The results of this practice at the Belfast Hospital for Sick Children have been so successful that our Board of Management has recently provided us with a well-equipped up-to-date theatre in the out-patient department, and at the recent annual meeting of the hospital referred in very flattering terms to the work carried out in this department. Finally, the surgeon in charge of out-patients, instead of being a glorified house-surgeon or a finger-post to the wards, has now opportunities for practice and research hitherto denied him.—I am, etc.,

ANDREW FULLERTON, B.Ch., F.R.C.S.I.

Belfast, Feb. 23rd.

THE VARIETIES OF TUBERCULINS IN THE TREATMENT OF TUBERCULOSIS.

SIR,—I read with great interest Dr. Nathan Raw's article on the above subject in the JOURNAL of February 1st, page 212. On January 30th I read, before the Ulster Branch of the British Medical Association, a paper on Tuberculosis in General Practice, and in it I emphasized the fact that pulmonary tuberculosis did best when treated with bovine tuberculin, and that so-called surgical tuberculosis (though I objected to this term) did best on human tuberculin.

I reported two cases of an instructive nature on this point:

1. A case of laryngeal tuberculosis with very slight lung involvement which was so sensitive to human tuberculin that I had to desist. I then tried bovine tuberculin with the happiest results.

2. A case of erythema indurata that did well on human tuberculin, but when bovine tuberculin was tried, though in smaller doses, reacted in a marked and disastrous manner.

My experience, though only in general practice, and in a much more limited way, bears out what Dr. Raw says, and it is only for this reason that I record it now.—I am, etc.,

J. L. RENTOUL, M.B.

Lisburn, co. Antrim, Feb. 2nd.

THE NEGLECT OF VACCINATION.

SIR,—Dr. Killick Millard, the Medical Officer of Health for Leicester, has criticized me very strongly (page 416) because I have ventured to express an opinion that the unvaccinated state of this country constitutes a highly dangerous condition. I recognize as well as Dr. Millard does the fact that by immediate isolation the health authorities of any given area have in late years been able to suppress small outbreaks of small-pox, but experience has shown that there are limits to this power of control, and that there is a very grave danger of an outbreak running over the border of a sanitary cordon into an unvaccinated population. Dr. Millard suggests that I am biassed, but I appeal to your readers, who are capable of judging, whether an unbiassed opinion on such a point is likely to come from Leicester.

I appeal to an outside authority of undoubted position, Dr. Martin Kirchner, one of the medical staff of the Ministry of the Interior of the Prussian Government, who, in an official report in 1911, said:

> Although in England compulsory vaccination exists, the duty of vaccination is in reality abolished. The consequence will be, and we may live to see it, that in England, if once a serious outbreak is imported, an epidemic will be created which the English people will remember for a long time (*Schutzpockenimpfung und Impfgesetz*, Berlin, 1911.)

The complacency of Dr. Millard is not shared by all medical officers of health, though they are not always in a position to obtrude their views.

Dr. Millard proceeds to ask if I "have ever considered that infantile vaccination only protects during the period of infancy and childhood, and that this period is the least exposed to the danger of small-pox infection." I am, of course, quite aware of this, but I ask in return if Dr. Millard is aware of the elementary fact that small-pox is extremely fatal in infancy, and if he is aware of the danger which an infantile population still runs. For in the recent outbreak in Sussex out of twenty-one cases there were five under 10 years old, of which three died (all unvaccinated). This shows what will happen if an epidemic gets out of hand.

Dr. Millard asks further if I am aware that our present system of infantile vaccination, which is not followed by revaccination, has one serious drawback in causing slight atypical forms of small-pox which are easily overlooked, and so frequently leads to serious outbreaks of the disease. I reply that it is better to have a population which presents mild cases of small-pox, if the disease occurs, than severe ones; the resulting mortality is infinitely lower, and the possible damage to the patient's eyes is avoided. I am tempted to wonder how Dr. Millard's antivaccinist supporters in Leicester will receive his admission that infantile vaccination does lead to a "slight atypical form" of small-pox.

Dr. Millard concludes with some "friendly advice" (which appears to me in extremely bad taste) to the effect that as the occupation of the public vaccinator is a dying industry I should "go on the panel" or enter the public health service. I beg to assure Dr. Millard that I am in no grave need of either branch of practice for a livelihood, that public vaccination has never been anything but a small item in my work, and it would not concern me at all if I abandoned the emoluments; further, that I do undertake work under the Insurance Act to the small extent to which I care to do so, and as I was in active practice before Dr. Millard was even a medical student I can hardly expect to enter the public health service at my time of life.—I am, etc.,

ARTHUR MAUDE,
President, Association of Public Vaccinators.

Westerham, Feb. 22nd.

THE CONSTITUTION OF THE ASSOCIATION.

SIR,—I should like to support Dr. Napier Jones in his contention that something must be done to prevent such waste of time and money as we have incurred in recent meetings of the Representative Body. Of late these meetings have resolved themselves into a hopeless endeavour to cope with a chaotic mass of resolutions and amendments, ending in a despairing surrender to the inevitable when about half the work has been somehow scrambled through. The *reductio ad absurdum* was, as Dr. Napier Jones indicates, reached at the Special Meeting of January last, the first day of which was entirely wasted. I do not think many of us have any delusions as to the quarter in which responsibility belongs for this fiasco; certainly the holding up of the meeting and the staving-off of the real issue were a masterly performance in their way. Perhaps I feel somewhat strongly on this matter, inasmuch as, when the final adjournment came, several resolutions entrusted to me by my Division were the very next items on the agenda. But of what use to invite Divisions to send up resolutions, when 50 per cent. of them will receive no attention? It is a waste of time and money for us to go to London as mere voting machines.

The remedy proposed by Dr. Napier Jones is that all the main issues should be clearly formulated by the Council, and discussion limited to these. For myself, I think it a good suggestion, if only the Council can be empowered and induced to carry it out. Many of us in the past have, however, noticed a regrettable timidity and ambiguity in the framing of such resolutions as the Council has formulated for submission to the Divisions.

Then, again, there is the difficulty that Dr. Napier Jones's proposal involves an increase in the power and authority of the Council. I say the difficulty—not the objection—because of the notorious fact that the Divisions and even the Representative Body are jealous of any such increase of the Council's present powers. Recent events have not tended to allay this mistrust; they have produced in many minds the conviction that the Council may be captured by any resolute faction and exploited for its partisan ends.

The fact remains that to rely upon Divisional and individual initiative for the supply of the subject-matter of debate has proved a failure; the main issues are flooded in a mass of irrelevant proposals, counter proposals, amendments, and riders, with the result that we have seen. The agenda committees have done their best to evolve order

out of chaos, but no committee can render it possible to adjudicate within a couple of days upon a subject-matter whose adequate debate would occupy a busy month. Something, then, must, it seems, be done; and if not what Dr. Napier Jones advises, what is the alternative?—I am, etc.,

CHARLES J. WHITBY,
Representative, Bath Division.

Bath, February 22nd.

SIR,—Humiliating though the defeat of the profession has been, degrading though our servitude is, there is yet some hope of retrieving our position and regaining our freedom if only we dare to look facts squarely in the face and learn from them our lesson.

It is easy to be personal; cheap to bandy about such epithets as "traitors" and "blacklegs." It is far more difficult to bring ourselves to acknowledge that the true cause of defeat lies with ourselves: that we have been living in a fool's paradise; that we have been so utterly and incomprehensibly foolish as to pit our own obsolete weapons, our undisciplined forces, and our slender purses against the modern machinery, the perfect organization, and the inexhaustible funds of the British Government. Yet this is the fact, and the sooner we acknowledge it the better it will be for us and for the future of our profession, for the continuation of the present conditions, even for a short period, means inevitably the future damnation of the profession.

Enthusiasm; pledges and undertakings, whose binding strength is ethical, not legal; a voluntary defence fund, depending upon the popularity of the policy or of the *personnel* of its trustees, and upon the power and pertinacity with which it is advocated. These have been our chief weapons. These weapons have failed us at the crucial moment. They were, indeed, the best that could be devised, fighting, as we were, under the aegis of the British Medical Association.

The Association is a learned society, with the legal powers of a learned society, and none other. It has not the power to impose upon its members a legally binding pledge, nor to inflict a compulsory levy, nor to use its funds for the protection of its members. Our only other power was that strong ethical force which has grown up round the Association, and upon which too much reliance was placed, for that force was strong enough to make the given word a binding pledge right up to the eve of battle, but weak enough to melt away when faced with ruin and starvation. Failure was inevitable from the beginning. Failure is still inevitable if we again attempt to organize on similar lines.

To re-establish ourselves we must reconstitute ourselves. The lines of reconstitution must be such that the organization will be legally able to enforce a pledge, to impose and recover a levy, and to administer its own funds for the protection of its members.

At the meeting at the Caxton Hall twelve months ago, convened by the Medical Federation, Sir Victor Horsley took exception to my statement that the only course open to the Association, in order to attain the necessary powers, was to amalgamate or closely co-operate with the Medical Federation or some similar body. He expressed the opinion that, in addition to the course we proposed, there were two others—one by means of the new company, the other by converting the Association into a trade union.

At the annual meeting in Liverpool the new company movement was acknowledged to be a failure, and the trade union idea received its quietus when, in response to a singularly enthusiastic demand for trades unionism, we were told by the legal expert that it would be impossible to convert the Association into a trade union and at the same time preserve the entity of the Association. It would thus seem that it is practically impossible to convert the Association into an efficient organization for the protection of its members.

The third course, proposed by Bristol two years ago, is for the Association closely to ally itself to and co-operate with, even to the extent of taking over and governing, some outside organization possessing the necessary powers. This course still remains open, and, in my opinion, is the only possible means of saving the Association.

With regard to the precise form of organization required for the purpose much might be said as to the relative claims of a trade union and a limited company. The actual strength, however, of a trade union is but little greater than that already possessed by the Association in so far as pledges are concerned, for a member can resign his membership whenever he chooses, being kept loyal by his comradeship and by "peaceful picketing." The latter being an impossible weapon with us, we should again have to rely upon the weapon which has already failed us—the ethical unity of our members. On the other hand, a limited company with strong constitutional powers can impose a legally binding pledge and a compulsory levy, being able to enforce both by means of its power to sue in a court of law. A limited company has, therefore, far stronger powers of the kind we require that a trade union. It has many times been argued that, so far as the medical profession is concerned, a legal bond will not prove more binding than ethical and moral bonds; that the members of the profession who will break the latter will also break the former. Other trades have found it necessary to bind the members together with legal bonds, and have found them efficient. At all events we have proved the ethical and moral bonds alone to be utterly inefficient, and it is our duty to make the next attempt on other and, as many think, on stronger lines.

I am not in any way specially pleading on behalf of the Medical Federation. All I wish to emphasize is that the Association is *per se* powerless to protect us and our interests, and that it must perforce ally itself to some organization with stronger legal powers if it wishes to carry out any successful campaign in the future.

I, personally, am so convinced of the futility of the Association organizing any great campaign while relying on its present constitution alone that I shall decline to take part in any such campaign, either general or local. For me to do so would be dishonest, for I know it to be merely the building up again of the ruins of a house whose foundations are upon the sand.—I am, etc.,

H. F. DEVIS.

Bristol, Feb. 21st.

SIR,—At the present time, when there would appear to be a strong element in favour of making the British Medical Association a trade union, the letter in your issue of February 22nd by Dr. Arthur J. Brock is most opportune. Medical men by training and inclination are as a body unfitted for commercial pursuits, and though it cannot be denied that the British Medical Association, by its recent incursion into such regions, has gained a shilling or two a year for each insured person for those of its members who have become insurance doctors, it has on the whole been a miserable failure. By all means let all who wish for protection join together for this purpose, but every member of the Association must wish it to retain the high position it has held as a body for the advancement of medical science and healing, and this can only be by retaining in its ranks those members of the profession who have made this their only object; and can it be thought for a moment that these men will continue members of an Association that is hopelessly trying to mix up science and trade unionism in one body? If the Association persists in its present policy, it is foredoomed to failure: but by returning to its legitimate position of a scientific body, it can regain the respect, not only of its members, but also of the public. There is doubtless a considerable number of members of the British Medical Association at the present time who wish for a trade union, and if a society is formed independent of the Association, with picked officials at its head, there will be a far better chance of gaining such protection as these members consider they need in the future practice of their profession.—I am, etc.,

F. L. NICHOLLS.

Fulbourn, Feb. 22nd.

SHIP SURGEONS.

SIR,—There is at present a movement on foot to raise the scale of pay of ship's officers all round. It is well known that up to the present the remuneration of the ship's officer has been very poor, but as it is, not even so poor as that of the ship's surgeon, who also ranks as an officer, though non-executive. A meeting of the Ship Owners' Association was held in Liverpool on February 24th, and it was decided to help on the consideration of an increase in the officers' salary. Surely now is the time

for a master stroke from the medical profession as regards its sea-going members. Why not make a representation to the Ship Owners' Association that an increase in salary for ship surgeons is essential, and also that a minimum wage must be established. If some effort is not made now we shall find that ship's officers will get their desires fulfilled, and that at the same time the silent medical officer will remain on his miserable pittance, and a large bulk of our profession will still continually be afloat on the meanest possible remuneration. Some response to a call for union, and some opinions from those who know the life of the ship's surgeon, would be certainly a step in the right direction.—I am, etc.,

Manchester, Feb. 25th. SHIP'S SURGEON.

Obituary.

SIR THOMAS FREDERICK CHAVASSE, M.D., C.M.EDIN., F.R.C.S.ED., F.R.C.S.ENG. (HON. CAUSA).

CONSULTING SURGEON, BIRMINGHAM GENERAL HOSPITAL.

We announced briefly last week the death of Sir Thomas Chavasse, which occurred at Linthurst Hill, Barnt Green, Worcestershire, on February 17th, after an illness following an accident in the hunting field. He was the sixth son of Thomas Chavasse, F.R.C.S.Eng., a successful family practitioner of Birmingham, and was born at Wylde Green House, Wylde Green, where his father resided during the latter part of his life. Mr. Pye Chavasse, the author of *Advice to a Mother* and other well known books, was his father's cousin, and Mr. Sam. Chavasse, another cousin, was also in good medical practice in Birmingham, so that the medical and social family connexions were very strong.

The early part of Chavasse's medical education was obtained in the Birmingham Medical School, but in 1873 he went to Edinburgh, where he graduated M.B. and C.M. in 1876 (M.D. 1878), afterwards holding the post of resident surgeon to the late Professor Spence in the Royal Infirmary. After his term of office in the infirmary he visited Berlin and Vienna, but was called home in the autumn of 1877 to become a candidate for one of two newly created assistant surgeoncies at the General Hospital. The other candidates were Mr. W. G. Archer (who retired from practice after a few years and died young), and Mr. Bennett May, afterwards the well-known surgeon to the Queen's Hospital and Professor of Surgery in the University of Birmingham. The result of the contest was the election of Archer and Chavasse, but, as the holders of the office had to be Fellows of one of the Royal Colleges of Surgeons or to obtain the Fellowship within a year, an objection was lodged against Chavasse's election on the ground that as he was only 23 years of age he could not comply with the law. This objection was over-ruled as being anticipatory, and the College of Surgeons of Edinburgh suspended its by-law and elected him a Fellow (there was no examination then) in spite of his age.

At that time there were five surgeons to the General Hospital, but the new laws had reduced the senior posts to four, so that two vacancies were required before an assistant surgeon could be promoted, and their prospects seemed dim; yet in 1880 Mr. Goodall became ill and resigned, and the following year Mr. Baker, the senior surgeon, retired. In the contest that followed Chavasse was again successful, becoming full surgeon to the hospital in December, 1881, when he was only 27; by the retirement in due course of Mr. Oliver Pemberton and the premature deaths of Mr. Bartleet and Mr. Jolly, he found himself senior surgeon to the hospital in 1894, a position he retained until his resignation early last year. In 1899 he was elected F.R.C.S.Eng. (*honoris causâ*), and in 1905 he received the honour of knighthood.

At the Birmingham meeting of the British Medical Association in 1911 he presided over the Section of Surgery; he was an ex-President of the Birmingham Branch of the Midland Medical Society and the Medical Benevolent Society.

He leaves a widow, a son who is studying medicine, and three daughters of whom the eldest is married to a son of Sir John C. Holder, Bart.

Sir Thomas Chavasse was a skilful surgeon, and a popular and kind-hearted man who will be much missed. When he resigned the hospital he gave up practice, and looked forward to many years of quiet enjoyment of his leisure, "hunting four days a week," as he said when asked what he should do with himself. An excellent portrait painted by Mr. Nowell, subscribed for by the staff and governors, hangs in the board room of the General Hospital, and will preserve his memory in that institution.

A COLLEAGUE writes: Sir Thomas Chavasse had by his early training prepared himself for the practice of surgery. An initiation into the methods of Lister and a firm belief in their efficiency enabled him to keep abreast of the rapid advances that were taking place about the time of his appointment to the full staff. Study in Vienna and Berlin widened his outlook and stimulated him to increased efforts. He was a progressive surgeon, always ready to give a fair trial to new methods, though reserving to himself the right to reject them if they did not answer the purpose for which they were advocated. His clinical instinct enabled him to come quickly to a conclusion as to the nature of a case, and, having made up his mind what line of treatment to adopt, he acted boldly, and was prepared to deal with any difficulties that arose. His influence was that of a strong man whose opinion was founded on wide experience, sound judgement, and a knowledge of men and affairs. A close association with him in the wards of the hospital for many years has been a great privilege, for, apart from his charming personality, there was always the consciousness of being able to obtain his counsel and advice under all circumstances which presented difficulties, either from a surgical or an administrative point of view.

SURGEON-GENERAL GEORGE BIDIE, C.I.E.,

INDIAN MEDICAL SERVICE (RETIRED).

SURGEON-GENERAL GEORGE BIDIE, Madras Medical Service, retired, died at Bridge of Allan, Scotland, on February 19th. He was born on April 3rd, 1830, the son of W. Bidie, of Buckies, Banffshire; was educated at Edinburgh and Aberdeen, and took the M.D. degree, Marischal College, Aberdeen, and the L.R.C.S.Edin. in 1853. He entered the I.M.S. as Assistant Surgeon on February 20th, 1856, became Surgeon on February 20th, 1868, Surgeon-Major on July 1st, 1873, Brigade Surgeon on February 28th, 1883, Deputy Surgeon-General on October 11th, 1884, and Surgeon-General on October 9th, 1886. He retired on May 29th, 1890. In 1882 he was decorated with the Order of the Crown of Italy, was made a C.I.E. on January 1st, 1883, received a Good Service Pension on February 10th, 1889, and was appointed Honorary Surgeon to the Queen on February 16th, 1898. He had thus served as Honorary Surgeon to three sovereigns, Queen Victoria, King Edward VII, and King George V; his last service in this capacity being when he attended on His Majesty's Staff at the review held at Windsor Castle in June, 1912.

Soon after entering the service, he served with the Haidarabad contingent in the Mutiny in 1857–58, receiving the medal. In 1859 he was posted as Civil Surgeon of Guntur. In 1867–68 he was placed on special duty in the coffee districts of Mysore and Coorg, and reported on the ravages of the borer insect on coffee plants. From 1870 to 1872 he was Secretary to the Surgeon-General, and held that post again from 1880 to 1885. From 1872 to 1884 he was Superintendent of the Madras Museum, served on the Cinchona Commission in 1873, and became a Fellow of Madras University in 1879. In 1885 he became Sanitary Commissioner of the Madras Presidency, and in 1886 Surgeon-General with the Government of Madras. After his retirement, he acted as delegate from Madras at the International Congress on Hygiene and Demography in 1891. He was the author of numerous works, chiefly on natural history, economic products, and coinage, all subjects connected with his work as Superintendent of the Museum.

In 1854 he married Isabella, daughter of the late Alexander Wiseman, of Banchory, Aberdeenshire. One of his sons, Lieutenant-Colonel George Bidie, has followed in his father's footsteps in the Madras Medical Service.

ERNEST MAYNARD PAIN, B.A., M.B., CH.M.SYDNEY.

NEWS has been received by the Church Missionary Society of the circumstances of the death of Dr. E. Maynard Pain, which took place at Old Cairo on February 12th, and was then reported by telegram. It appears that Dr. Pain had been attending cases of cerebro-spinal meningitis which had been admitted to the mission hospital. One of the patients is said to have coughed in his face, and within thirty hours he was taken gravely ill and died after an illness of only about twenty-four hours, though all that was possible was done to save his life.

This event, occurring within twelve months of the deaths of Drs. Pennell and Barnett on the North-West Frontier of India from septic poisoning, is a reminder of the risks to which medical practitioners are exposed who are working in lands where disease is met with in a specially virulent form, and particularly medical missionaries who for various reasons must face difficulties of an unusual kind. This is not the first time that Dr. Pain has been attacked by serious illness as a result of his professional responsibilities, but he never flinched from the path of duty.

Dr. Pain was the first medical graduate from Australia to join the ranks of the medical missionaries of the Church Missionary Society, which he did in the year 1902. He was born on July 23rd, 1873, at Cobbitty, New South Wales, and was the son of the Bishop of Gippsland. He was educated at Sydney Grammar School and University, and had a successful career as a student. Before going abroad he held the posts of resident medical officer, and later on of medical superintendent of the Prince Alfred Hospital, where he gained useful experience. He was, therefore, a most valuable addition to the medical staff of the mission hospital at Old Cairo, and he proved to be a capable surgeon. He was greatly respected, not only by his missionary colleagues but by the authorities of the Cairo Medical School, for which he was an examiner.

He was an enthusiastic missionary, and helped in no small measure to bring the Old Cairo Hospital to the remarkable standard of efficiency to which it has attained.

Such men are an honour to the profession to which they belong. In entering upon the calling of a medical missionary they have closed the door against those positions of eminence and worldly prosperity which might have been open to them. Yet as we think of their lives we realize that they have chosen in many ways the better part, and not only is the world the better, but the profession is the richer for the memory of a noble life. May it lead others "to follow in their train."

Dr. Pain was twice married, and leaves a widow and children.

THE announcement of the death on February 15th, after a short and sudden illness, of Dr. CAMPBELL BOYD will have been received with regret by a large circle of friends. Genial and kindly, generous and sympathetic, he was much loved and esteemed, and his death during his term of office as President of the Chelsea Clinical Society will be much felt by its members. He was a son of the surveyor for the county of Wicklow, who bore the same name. He was born 55 years ago, and received his medical education at the Carmichael College, Dublin, and Charing Cross Hospital Medical School; he obtained the diplomas of L.R.C.P.I. in 1883 and L.R.C.S.I. in 1885. He settled first in practice at Denmark Hill; after some years he removed to Surbiton, and later on settled in Chelsea. He was a member of the Obstetrical and Gynaecological Section of the Royal Society of Medicine, and of the British Medical Association. He was an active member of the Irish Medical Schools' and Graduates' Association, was a member of its Council for some years, and for the last few years filled the post of metropolitan secretary of that association. He joined the Chelsea Clinical Society in 1906; two years later he was elected a member of its council, and in 1910 became vice-president, an office which he retained until elected president in October last. At council and other official meetings his high sense of duty made him a frequent attendant, and he was always ready to give of his best to help on this society, in which he took so keen an interest. Dr. Boyd contributed to this JOURNAL a note upon a six-fingered family, and also on strophanthus as a cardiac tonic in acute heart failure. He was interested in engravings, and had a good collection of mezzotints. He has left a widow, to whom the sad calamity has come as a crushing blow, in which she will have the sympathy of all who knew her husband.

DR. PHILIP HAIR, who died after a short illness on February 9th, had been in failing health for some time, but had continued his ordinary work until about a fortnight before his death, and even had seen two old patients on February 8th. He was the son of the late Mr. James Hair of Carlisle. He became a student at the University of Edinburgh, where he had a distinguished career, and obtained the degrees of M.B. and C.M. in 1866; in 1868 he graduated M.D. and received the gold medal for his thesis on the muscular fibres of the alligator, subsequently published in the *Journal of Anatomy and Physiology*. For a short time he remained in Edinburgh as assistant demonstrator of anatomy to Professor Goodsir and Professor (now Sir) William Turner. He afterwards spent some months in attending the hospitals in Paris and acquired fluency in French. When, some ten or twelve years ago, Dr. Blanc and Dr. Forrestier of Aix-les-Bains attended a meeting of the local medical profession Dr. Hair gratified all present by returning the thanks of the meeting to them in a very eloquent speech in their own language. After his visit to Paris Dr. Hair returned to his native city, and was elected surgeon to the Carlisle Dispensary in 1873. In 1898 he became one of the physicians to the dispensary, an appointment which he held up to the time of his death; in fact, he took a great interest in the work of that institution throughout the forty years he worked in Carlisle. Dr. Hair, who was 71 years of age, is survived by his wife and daughter.

The Services.

MUTINY VETERANS.

The Indian Medical Service.

THE article in the BRITISH MEDICAL JOURNAL of February 8th (p. 312) on the introduction into the *Monthly Army List* of the letters ℭ and 𝔐 to distinguish officers on the active and retired lists who served in the Crimea and the Indian Mutiny respectively, stated that the names of thirty-six medical officers (including one quartermaster) had been so distinguished, and that among them were the names of thirteen officers of the Indian Medical Service who served in the Mutiny, and one of them in the Crimea also. The actual number of survivors is, however, considerably larger.

The *Indian Army List* of January, 1913, gives the names of at least twelve other officers on the retired list of the Indian Medical Service who served in the Mutiny, one of them also in the Crimea. The war services of these officers were once recorded in the *Army List*, but have now dropped out. Three—Beaman, Harris, and McLeod—were Madras men; the other nine belonged to the Bengal Service.

Their names and war services are as follows:

Beaman, A. H. Mutiny, in N.W. Province.
Caldwell, W. S. Mutiny, with Rohilkand Field Force.
Carter, F. Mutiny, with Punjab Movable Column, medal.
Christison, Sir Alexander. Mutiny, action of Sasia, near Agra, July 5th, 1857; and Central India, medal with clasp. Also Burma, 1852-53, medal, and clasp for Pegu.
De Renzy, Sir Annesley. Mutiny, siege of Lucknow, medal. Also Burma, 1852-54, medal with clasp; and Naga Hills, 1879-80, medal, and C.B. (K.C.B., June 26th, 1902.)
Grant, N. J. Mutiny, dangerously wounded at Rohni, June, 1857.
Harris, W. H. Crimea, siege and fall of Sebastopol, attack on Redan, and battle of Tchernaya, medal with clasp, and Turkish medal. Mutiny, capture of Lucknow, medal.
Hayes, W. H. Mutiny, Kol rising, wounded near Chaibasa, January 14th, 1858.
McLeod, A. C. Mutiny.
MacTier, W. F. Mutiny, siege of Delhi, twice mentioned in dispatches, medal with clasp. Also Sutlej campaign, 1845-6, actions of Mudki, Aliwal, and Sobraon, medal with two clasps; and Punjab campaign, 1848-9, actions of Ramnagar, Sadullapur, and Chilianwala, medal with clasp.
Paske, C. T. Mutiny, operations near Azamgarh, medal. Also Burma, 1853, medal; and Bhutan, 1865-6, clasp.
Sutherland, P. W. Mutiny, with Murray's Jat Horse, medal.

At least twenty-two other officers of the Indian Medical Service are still living who were in the service at the time of the Mutiny, but do not appear to have seen active service in the campaigns.

We understand that corrections will be made in future lists, and that communications have already been addressed by certain officers to the Military Secretary at the India Office, and to the Secretary at the War Office.

Vixere fortes ante Agamemnona — other wars, as fiercely contested and perhaps as important as the Crimean war and the Mutiny, had been fought in India in the previous decade; the Sutlej campaign or the first Sikh war of 1845–46, and the Punjab campaign or second Sikh war of 1848–49. Two officers of the Indian Medical Service who served in both these wars still survive. Surgeon-Major Mactier's war services are given above. The other is Surgeon-Major Henry Benjamin Hinton, who was born on March 7th, 1813, three months before the battle of Waterloo, and entered the Bengal Service on January 14th, 1839, over seventy-four years ago. He retired on March 7th, 1868. His war services comprise: Gwalior, 1843–44; Sutlej, 1845–46; actions at Badiwal, Aliwal, and Sobraon, medal with clasp; Punjab, 1848–49; and China, 1858–60. Though serving in India at the time, he does not appear to hold the Mutiny medal. If he is still alive—he was certainly living in December, 1912—he is now within one week of completing his century.

Does any officer still survive who took part in the first Afghan war, 1839–1842? Hinton was serving in India at the time, but his regiment, the 65th Bengal Infantry, did not take part in the campaign, but was then stationed at Dinapur and in Arakan.

THE TERRITORIAL FORCE.

FIRST LONDON DIVISION.

MAJOR-GENERAL W. FRY, C.V.O., C.B., Commanding the First London Division (T.F.), will this day (Saturday, March 1st) open the new headquarters of the Royal Army Medical Corps of this division which are situated at the Duke of York's Headquarters, Chelsea, S.W. The proceedings will be terminated with a smoking concert for which an excellent programme has been arranged. The chair will be taken by Colonel F. Harper, A.D.M.S., 1st London Division.

ROYAL NAVY MEDICAL SERVICE.

THE GILBERT BLANE MEDAL.

THE Gold Medal founded by the late Sir Gilbert Blane, Bart., to be given biennially, has been awarded by the Director-General of the Medical Department of the Navy and the Presidents of the Royal College of Physicians and the Royal College of Surgeons to Fleet Surgeon Richard C. Munday for his Journal of H.M.S. *Hyacinth* for the year 1910, and to Fleet Surgeon Edward Sutton for his Journal of H.M.S. *Highflyer*, February 21st to December 31st, 1911.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.D.—*R. P. Cockin, R. M. Ranking.
M.B., B.C.—F. S. Adams, R. S. Kennedy.
* Admitted by proxy.

UNIVERSITY OF BRISTOL.

THE following candidates have been approved at the examinations indicated:

FINAL M.B., CH.B.—Kathleen M. Cole, B. C. Eskell, A. G. Hieber.
D.P.H.—W. Bainbridge, W. Pomeroy, Sheo Nan Don Tiwary.
Part II. Completing Examination: A. H. Finch. *Part I*: P. Moxey.

UNIVERSITY OF EDINBURGH.

UNIVERSITY COURT.

Appointments.

AT a meeting of the University Court on Monday, February 19th, among other appointments made were those of Mr. R. Chapman Davie, M.A., B.Sc., as Lecturer on Botany, and of Dr. W. G. Sym, as Lecturer on Diseases of the Eye; of Mr. David G. Hogarth, M.A., Fellow of Magdalen College, Oxford, and Keeper of the Ashmolean Museum, as Munro Lecturer on Anthropology and Pre-historic Archaeology for 1914; of Dr. Alexander Lauder (Edinburgh), as additional Examiner in Chemistry, and of Dr. N. T. Brewis, as additional Examiner in Gynaecology. The draft ordinance by the University Court (foundation of the Mouncrieff Arnott Chair of Clinical Medicine) was submitted and finally approved.

Medical News.

SIR RICHARD DOUGLAS POWELL, Bart., K.C.V.O., will deliver two Emeritus Lectures on the climatic treatment of pulmonary diseases on Fridays, March 7th and 14th, at 3 p.m., in the Middlesex Hospital Medical School.

SIR RICKMAN J. GODLEE, President of the Royal College of Surgeons, will on Thursday, March 13th, at 9 p.m., give the Foundation Oration before the University College Union Society on "Lister and his Work."

A DISCUSSION on the Milk and Dairies Bill will be opened by Dr. Herbert Jones, M.O.H. Hereford Combined Districts, at a meeting of the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W., at 7.30 p.m. on March 11th.

AT a meeting of the Institute of Chemistry to be held at King's College, London, on March 12th, a lecture on the function and scope of the chemist in a pharmaceutical works will be delivered by Mr. Charles H. Hill, B.Sc., F.I.C.

SOME time ago it was announced that the Radium Development Syndicate would probably undertake the management of the baths of Bath. It is now stated that should negotiations to this end come to nothing, the Corporation will itself carry out a development scheme.

THE fourth lecture to be given by Dr. James Kerr Love under the auspices of the National Bureau for Promoting the General Welfare of the Deaf will be delivered at the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W., on Tuesday, March 4th, at 6 p.m. The subject will be true hereditary deafness.

A COURSE in advanced clinical ophthalmology will be given at the clinique of Professor de Lapersonne at the Hôtel-Dieu, Paris, commencing on April 1st. It will continue for two months, and foreign doctors will be admitted to it. The fee for the course, which will include a special series of demonstrations on refraction by Professor Weiss, is 100 francs.

THE late Lord Ilkeston by his will left a sum of £800 to the University of Durham upon trust, to apply the income in memory of his late daughter by the foundation of a Winifred Foster scholarship for a woman student who requires help to maintain herself at the university. The net personalty was proved at £18,784, and he left certain American property to his son and successor in the title.

IN the article on "The Metropolitan Water Board as a Health Authority" published on February 15th, reference was made to the epidemics of typhoid fever at Maidstone, Lincoln, and Swanage. We have received a letter from a correspondent contending that it was unfair to mention Swanage alongside of Maidstone and Lincoln, inasmuch as at the last-named place there were only 23 cases all told, counting those that developed elsewhere, among a population with visitors of 6,000 persons. All the causes of the trouble in Swanage have now been put right.

MR. WILFRED TROTTER'S two Hunterian lectures on the principles and technique of the operative treatment of malignant disease of the mouth and pharynx will be delivered at the Royal College of Surgeons on Monday and Wednesday next at 5 p.m. on each day; the first lecture will discuss principles and the second technique. The Arris and Gale lecture by Dr. Charles G. Seligmann, lecturer on ethnology in the University of London, will be given on March 7th, at 5 p.m.: the subject is the Hamitic element in the population of the Anglo-Egyptian Sudan. There are two great branches of the Hamites, the northern and the eastern: the lecture will deal only with the latter, and the mixed peoples to which they have given rise.

LIEUTENANT NINNIS, of the Royal Fusiliers, a member of Dr. Mawson's Antarctic Expedition, who lost his life by falling into a crevasse while sledging, was the son of Inspector-General Ninnis, R.N.(ret.), who was himself a member of the British expedition of 1875–6, under Sir George Nares. The expedition under the direction of Mr. Douglas Mawson, D.Sc., Lecturer in Geology in the University of Adelaide, was organized in Australasia, and the fund to defray its cost was for the most part raised there. Inspector-General Ninnis, it may be interesting to recall, was naturalist to the expedition which surveyed the northern territory of South Australia in 1864–6. Lieutenant Ninnis was an officer of high promise, and much sympathy will be felt with his father.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisments, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Attiology, Westrand, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, Westrand, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

C. asks what cynic described poetry as a "disorder of the intestines."

W. W. N. would be glad of details and results of the method of skin-grafting by blistering and then grafting on the layer of epidermis raised by blister.

ANSWERS.

THALASSA, who wishes to begin the study of ecclesiastical architecture, will find *English Gothic Architecture*, by P. H. Ditchfield, M.A., F.S.A. (London: J. M. Dent and Sons, 1s.), a good elementary book in which technical terms are explained. A standard work is Parker's *Concise Glossary of Gothic Architecture* (Oxford: Parker and Co., 5s.) Mr. T. Francis Bumpus has written two books on *The Cathedrals of England and Wales* (in three volumes, 6s. each), and *The Cathedrals of Northern France* (6s.) respectively (London: T. Werner Laurie). The study of Gothic architecture is, perhaps, best begun in Northern France, passing from the ruins of Jumièges to Chartres. Within the bounds of London our correspondent may study Westminster Abbey and Southwark Cathedral, and by looking at St. Paul's and the other Wren churches, and the new Roman Catholic Cathedral at Westminster will be able to grasp something of the two main tendencies in architecture designed to subserve the needs of the rites of the Christian churches.

TABES.

PORTCULLIS writes that "Fairlands" would probably find the treatment of the urethra suggested by Dr. L. N. Denslow in *A Surgical Treatment of Locomotor Ataxia* (London, Baillière, Tindall, and Cox, 1912) would meet his patient's case. The volume was reviewed in the BRITISH MEDICAL JOURNAL of February 15th, 1913, p. 348.

SPHYGMOMANOMETERS.

A. J.—We believe that beyond the estimation of the systolic pressure little advance has been made in the solution of the problem of variations in blood pressure, and instruments praised for some peculiarity are not generally of more value than the ordinary types.

CHEWING GUM.

DR. A. W. GILCHRIST (Nice) writes: Is it not rather in America, where the practice is so general, that Dr. Kerr should seek the information he refers to in your issue of February 22nd? I would be surprised if he succeeded in obtaining evidence of much harm arising from the indulgence in question. Indeed, I have often asked myself, in admiring the finely developed contour and firmness of the American jaw, and the superiority in general of their teeth as compared with those of our own people, whether the process of constant mastication involved in the use of gum (a kind of rumination, in fact) is not of marked developmental advantage.

LETTERS, NOTES, ETC.

PUBLIC-HOUSE REFORM.

UNDER this suggestive title, the People's Refreshment House Association has issued an attractive booklet (*Public House Reform.* The People's Refreshment House Association, Limited. Westminster. Pp. 55 + iv; 27 plates and map. Price 6d.) giving an account of its work. The object of the association is to change public-houses from being mere drinking dens to places where food and non-alcoholic refreshments are to be as easily obtained as drink. It aims to make each landlord a licensed victualler in the true sense of the word—a purveyor of victuals. The managers of the houses controlled by the association have a substantial interest in the sale of food and non-intoxicants, but none in the sale of intoxicants. It is, therefore, to the manager's interest to push the sale of food, and hence the houses are real refreshment houses. Each house has a tea-room distinct from the rooms where alcoholics are sold, and many have tea-gardens. The association controls 113 public-houses in all parts of the country, and those illustrated suggest the inviting comfort of the picturesque country inn. The spread of temperance has created a demand for non-alcoholic refreshment. The tea shops which dot the streets of our cities testify to this need, whilst the cycle and the motor car have accentuated the want upon the country highways. And if extreme teetotalers cannot say with Chaucer, in the lines quoted by the association,

> In everything I wot there lies measúre:
> For, though a man forbid all drunkenness,
> He biddeth not that every crëature
> Be drinkless altogether, as I guess,

moderate men will watch with interest this growing effort to grapple with intemperance by giving to the word refreshments its original common-sense meaning, and not restricting it to liquors consumed under conditions which make excess dangerously easy.

RHEUMATOID ARTHRITIS.

DR. W. J. MIDELTON (Bournemouth) writes: I was much interested in Dr. F. G. Thomson's article on rheumatoid arthritis which appeared in the BRITISH MEDICAL JOURNAL of February 15th, 1913. Several years ago Dr. Jones Llewelyn kindly talked at length with me, calling my attention to many symptoms common to certain cases of arthritis, Graves's disease, tetany, myxoedema, etc.; also to the long train of symptoms showing definite impairment of the nervous system in rheumatoid arthritis. As the result of observation of a large number of cases, I find I can cordially support him. However deficient, in the minds of some, the evidence may be that infection plays a large part in most of the cases, I personally find, the more I think of infection and impairment of the nervous system, the more successful I am in relieving or curing rheumatoid arthritis and chronic arthritis generally. There is one point that seems very generally overlooked by authors on this subject—namely, lingering infection. I hold that the measles, scarlatina, etc., of childhood may linger in the system and contribute to a development of arthritis many years after. I find that persistent treatment by means of continuous counter-irritation, for years if necessary, will keep patients improving instead of going from bad to worse.

WAS NAPOLEON EMBALMED?

DR. R. HENSLOWE WELLINGTON (Temple, E.C.) writes: Members of the Association must have been deeply interested in all that has appeared lately in the columns of our JOURNAL concerning Napoleon and the autopsy upon his body. I have watched for some mention as to whether it was embalmed or not. On p. 1444, June 22nd, 1912, of the JOURNAL is an article on "The Remains of Napoleon," in which it says that "owing to the lack of necessary materials it had been impossible to embalm the body after death," but that at the exhumation of the body in 1840 "the remains were found in an almost perfect state of preservation," and that Dr. Max Billard, who is quoted, attributes the preservation to hermetic closure of the (four) coffins in which they were enclosed preventing the access of micro-organisms. Against this Rose, in his *Life of Napoleon*, vol. ii, p. 572, says, "After being embalmed the body was laid out in state." He is not the only biographer who says this. It would therefore be interesting to know which or who is correct, and as to whether saponification took place.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

An Address

ON

RECENT ADVANCES IN THE DIAGNOSIS, PROGNOSIS, AND TREATMENT OF HEART DISEASE: THE POLYGRAPH.

GIVEN AT THE OPENING MEETING OF THE SESSION OF THE TORONTO ACADEMY OF MEDICINE.

BY

FREDERICK W. PRICE, M.D., M.R.C.P.,

LECTURER IN DISEASES OF THE HEART AT THE MEDICAL GRADUATES' COLLEGE AND POLYCLINIC; PHYSICIAN TO THE GREAT NORTHERN AND MOUNT VERNON HOSPITALS.

MR. PRESIDENT AND GENTLEMEN,—Will you allow me, in the first place, to thank you most warmly for the privilege of addressing you this evening on a subject at which I have been working, in association with Dr. James Mackenzie, for the last few years, and which, in my view, is of the greatest practical importance to the clinician?

Complaint is sometimes made of the slowness of the advance of knowledge which is being made in medicine, and it is sometimes asserted that in recent years, taken as a whole, the advance of medicine has not kept pace with that of surgery. While not fully accepting this view, it must be admitted that there is something to be said in its favour. And, if it be true, it seems to me that the cause lies in the fact that the physician, instead of adopting the methods of exact analysis, is too often satisfied with the most general inquiries and observations in his investigations of the many problems which confront him. In my opinion, what is lacking is an endeavour to bring practical medicine more nearly to the higher state of cultivation which has been reached by experimental science. Perhaps this is more particularly true in regard to the realm of therapeutics. Let me give you a small example of this. It has been believed for generations, both among experimental pharmacologists and practical therapeutists, that the internal administration of aconite directly diminishes the pulse-rate. You will find this belief expressed in the textbooks; but, if you search for real evidence upon which the belief rests, you will be disappointed. A year or two ago I conducted an investigation in regard to this matter. The cases chosen were 3 cases of mitral disease, 1 case of aortic and mitral disease, 1 case of malignant endocarditis with a high temperature, 4 cases of pulmonary tuberculosis, and 7 cases of scarlet fever. All the patients were kept in bed. The pulse was counted nine times a day, at exactly the same times each day, for some days before the administration of the drug, for some days during its administration, and for some days after its administration. First of all, samples of tincture of aconite obtained from several firms of chemists were employed. On being tested at the University College Pharmacological Laboratory each of these samples was found to be quite inert. Afterwards specimens of aconitina prepared in the laboratory were used, commencing with very small and gradually increasing to full doses. On comparing the records of the times when the patients were taking the drug with those when they were not taking it, in no case was there any reduction in the pulse-rate.

Now if it be true that the scientific method of investigation has not been sufficiently adopted in medicine as a whole, it is refreshing to turn to a branch of medicine in which its adoption has been rewarded with results which are nothing short of brilliant, and of tremendous practical importance. The work which has been done in recent years in the domain of heart disease has gone far to solve many of the most fundamental problems which have perplexed clinicians for generations. I venture to put forward the opinion that in few, if any, of the branches of medicine or surgery has there been in recent years a greater advance than has taken place in the realm of knowledge of cardiac disorders. This progress is essentially of such a practical nature and of such great value in regard to the diagnosis, prognosis, and treatment of heart affections, that it is the duty of every practitioner to be acquainted with its nature and scope, and this evening I want to lay before you some of the main points in the advance, dealing with the subject only from a practical point of view, with the hope that what I have to say will be of use to you in your daily practice.

Let me first of all try and show you how great was the need for new light on this subject. I think I cannot do better than touch upon two problems which have notoriously been sources of difficulty and perplexity to the clinician. The first is the question of cardiac irregularity in patients who may or may not exhibit evidences of valvular disease; the second is the extraordinary difference in the results of the administration of digitalis and its allies in persons who are suffering from identically the same lesions, and complaining of precisely the same symptoms.

Let us take the first question—namely, that of cardiac irregularity. A common experience of the practitioner is this: A patient comes to him complaining of some symptom or other, and in the process of physical examination he finds that there is a very definite irregularity of the pulse. There may or may not be evidences of valvular disease. What significance is he to attach to this irregularity? He is probably aware that cardiac irregularity may signify serious impairment or disease of the heart on the one hand, or, on the other hand, it may be of little or no importance. Indeed, on the one hand, it may be the only sign detected by the ordinary methods of examining the heart in cases in which there is serious involvement of the cardiac mechanism, while, on the other hand, certain irregularities are quite compatible with healthy hearts.

Now the second question—that of digitalis. As long as the drug has been in use for cardiac affections it has been known that the results of its administration are astonishingly various. Suppose you take three patients with precisely the same degree of cardiac failure and exactly identical lesions, and employ the same dosage of digitalis in each case. In one, perhaps, the results are extraordinarily good, the drug seems to act like a charm; in the second the results, though beneficial, are only moderate or slight; while in the third absolutely no good result at all can be detected. What is the cause of this variability? Is the drug capricious in its action or uncertain in its strength? It has been thought so. Or is it due to some particular preparation being active while another preparation is inert? This has been thought by some; and for this reason special preparations have been prepared and advertised as being more uniformly certain in their action. I hope to show you this evening that both opinions are wrong. My object is to try and answer these two questions, to try and clear up these two difficulties. And it is of vital importance to you in your general practice that these two problems should be solved.

Now, the enormous advance within recent years in our knowledge of cardiac disorders has been almost entirely due to the introduction of what are called graphic methods in examining the mechanism of the heart. For by these methods we can analyse the heart's action in a way which was never possible before. By means of an instrument called the clinical polygraph we can take a simultaneous tracing on the same recording surface of the radial artery on the one hand and of the jugular vein on the other. You can readily understand what an advance this is on the older method of merely taking a tracing of the radial artery. For the arterial pulse and apex beat afford information regarding the movements and condition of the left side of the heart alone, and only during the time that the aortic valves are open. The venous pulse, on the other hand, affords information regarding the movements and condition of the right side of the heart. It gives far more valuable information of what is actually going on inside the chambers of the heart than does the arterial pulse. Therefore, by taking simultaneous tracings of both arterial and venous pulses, we can get information regarding the movements and conditions of both sides of the heart, and it is by comparing these that we are able to obtain a precise and an accurate opinion of the cardiac mechanism.

Now, if a tracing of the jugular pulse taken from a normal individual be studied, in each cardiac cycle three main waves are seen. They indicate a rise of pressure in the vein. The first wave in point of time is due to the contraction of the auricle, and is called the "*a*" wave. The second wave coincides with the

commencement of the contraction of the ventricle, and is synchronous with the carotid beat at the same level of the neck, and is called the "*c*" wave. The third wave occurs towards the end of ventricular systole, and is called the "*v*" wave.

Now, under normal circumstances the stimulus for contraction of the heart arises at the remains of the sinus venosus. From this point the stimulus passes through the auricle to the auriculo-ventricular node and along the auriculo-ventricular bundle to the ventricle. The stimulus is conveyed from fibre to fibre by means of a function of the heart muscle which is called "conductivity." We can estimate the degree of conductivity. It can be done in the following way: As I have indicated, the beginning of the wave *a* corresponds with the commencement of auricular contraction. The beginning of the wave *c* practically corresponds with the commencement of the contraction of the ventricle.

You might say that there is an interval of time between the opening of the aortic valves and the carotid pulse. That is true. But the time is so short (it is only about

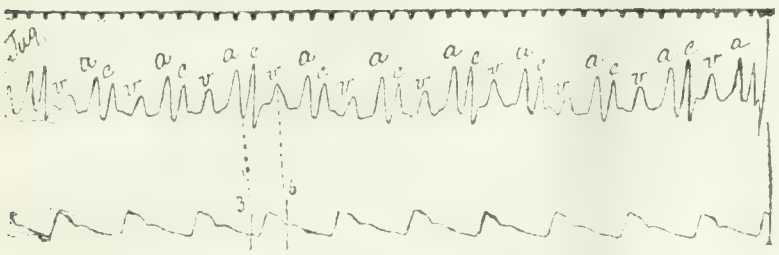


Fig. 1.—Normal or auricular form of venous pulse.

one-fiftieth of a second) that it need not be taken into account. Therefore the time distance between the beginning of the wave *a* and the commencement of the wave *c* is a measure of the function of conductivity of the heart. It is called the *a–c* interval. In normally acting hearts this interval is almost constant. It does not measure more than one-fifth of a second. If it does, we know that there is a delay in the conduction of the stimulus, and this means that the function of conductivity is depressed, We call it depressed conductivity. This probably indicates some affection of the auriculo-ventricular bundle.

Let me repeat. A normal venous pulse shows three principal waves and in the following order—*a*, *c*, and *v*, and the *a–c* interval is not more than one-fifth of a second. When in a venous pulse the *a* wave is present the form of pulse is called *the auricular form of venous pulse*. The presence of the *a* wave tells us that the auricle is contracting normally. Under what circumstances do we get the auricular form of venous pulse? It is present in two classes—(1) in all normal individuals, and (2) in a large proportion of cases of heart disease. Please remember that it is present in a considerable percentage of cases of heart disease. When in a venous curve there is no sign of the presence of the wave *a* the type of pulse is called *the ventricular form of venous pulse*, in contradistinction to the auricular form

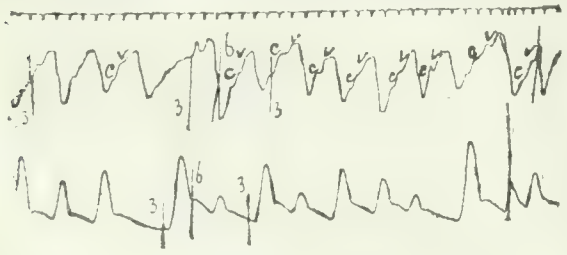


Fig. 2.—Ventricular form of venous pulse.

of pulse. By the ventricular form of venous pulse we simply mean that there is an absence of an *a* wave. What does the ventricular form of venous pulse indicate? It signifies that the auricle is not contracting in a normal manner. Under what conditions do we get it? We never meet with it in normal individuals, but it is met with in many cases of heart disease. Therefore, if we take all cases of heart disease, whether mitral, aortic, or myocardial, and whether cardiac failure is present or not, we can divide them into two groups—(1) those cases in which the auricular form of venous pulse is present, and (2) those cases in which the ventricular form of venous pulse is present.

And now let us see how these facts are related to the subject in which we are interested this evening; and, keeping to the same order, we will take, first, the question of cardiac irregularity. I have already dwelt upon the confusion in regard to its significance. This confusion was perfectly natural, because it was found that some cases of irregularity lived to the normal span of life, and did not develop symptoms of cardiac failure; while others died from cardiac failure, perhaps soon or perhaps only after the lapse of some years. The point is, there were no means of determining the significance of the irregularity in any given case, because there were no means of differentiating the types of irregularity, or what any particular variety signified. Now this is all changed. We are able to classify the vast majority of cases of irregularity into types, and we know what each type signifies, and therefore we have rational and certain grounds for making a diagnosis and prognosis, and, as I shall show you later, in regard to treatment also. So that when a patient comes to us we can with confidence form a tolerably accurate opinion regarding his case.

Now all cases of irregularity, apart from comparatively rare exceptions, fall into one of five groups. I will enumerate them. They are: (1) What is called sinus irregularity, (2) irregularity due to what are called extra-systoles, (3) irregularity due to depressed conductivity, (4) irregularity due to the pulsus alternans, and (5) what may be called complete irregularity.

Sinus irregularity is characterized by a variation in the length of the diastolic period of the different cardiac

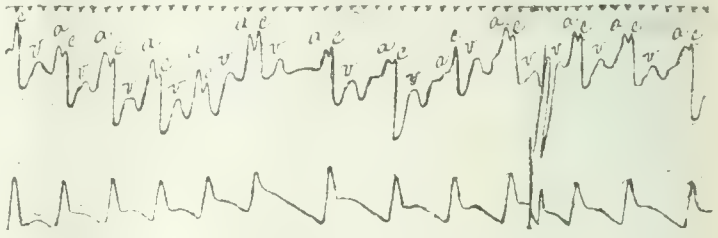


Fig. 3. Sinus irregularity.

cycles, the systolic period remaining constant. The irregularity diminishes or disappears with increase of pulse-rate, while it is apt to increase or return with a slowing of the heart.

There is frequently a definite relationship to respiration; the irregularity is found best during slow respiration, and may only be present on deep breathing. We may be pretty sure that an irregularity is of the sinus type when there is a definite relationship to respiration. On auscultation, the interval between the first and second sound is constant, while the varying difference in the diastolic period can be made out. A certain diagnosis can be made by taking a polygraphic tracing, and usually a tracing of the radial artery is sufficient. In the case of the latter it will be found that there is no irregularity in regard to the size of the pulse waves, but the intervals between the beats vary, although there are comparatively few sizes of intervals.

Sinus irregularity is much more frequent in the young, but it may occur at all ages. It may occur during the administration of digitalis. The act of swallowing may produce it.

If any subjective symptoms are present, they are almost always merely incidental. What is the significance of this type of irregularity? Suppose that in a given case of irregularity of the heart we can be quite sure that the irregularity is of this type, what prognosis may we give?

The answer is, that the irregularity can be entirely disregarded; it is of no practical importance. No treatment is required.

Extra-systoles.—The second form of irregularity is due to what are called extra-systoles or premature contractions. By an extra-systole is meant a premature contraction of the auricle, or of the ventricle, or of both auricle and ventricle together, while the fundamental or sinus rhythm is maintained.

It is of very great importance to be able to recognize the presence of extra-systoles, because they constitute one of the most frequent causes of irregularity of the pulse, and they may be accompanied by subjective phenomena which cause the patient much distress and alarm.

When extra-systoles are present, the normal rhythm of the heart is interrupted either frequently or occasionally by a premature beat. The pause which follows the premature contraction is abnormally long. This is called the compensatory pause. When this prolonged diastole and the preceding shortened diastole together equal in time two normal cardiac cycles, then the compensatory pause is said to be complete. Since during the prolonged pause the ventricle has had an unusually long

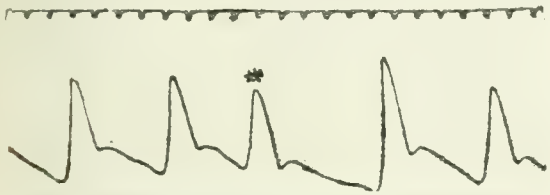


Fig. 1.—Extra-systole marked *. Large amplitude of pulse following extra-systole seen.

period in which to recuperate, the beat of the heart immediately following a compensatory pause often has a greater amplitude than the others. When a premature contraction is interpolated between two normal beats, the form of the extra-systoles is called "interpolated."

On auscultation, in the vast majority of cases two sounds are heard synchronous with each extra-systole. When the premature contraction is so feeble as to fail to open the aortic valves only one sound is heard. Very rarely the extra-systole is so feeble as not to produce any cardiac sounds at all. Auscultatory phenomena are important, because, as I shall show you later, they serve to distinguish extra-systoles from some grades of heart-block.

If an extra-systole recurs regularly after each normal beat, so that every normal beat is followed by a single

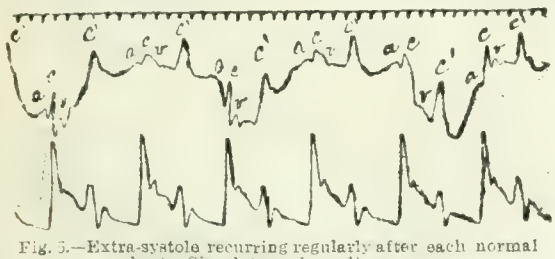


Fig. 5.—Extra-systole recurring regularly after each normal beat. Simulates pulsus alternans.

extra-systole and compensatory pause, then the pulse beats occur in pairs. The condition is pulsus bigeminus. I may as well mention here that another cause of the

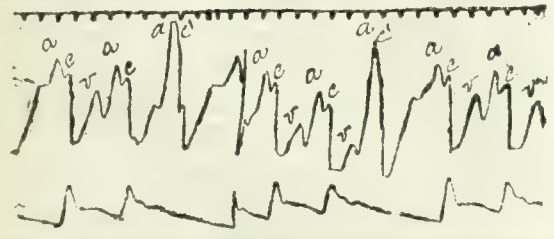


Fig. 6.—Extra-systole so feeble that no wave is palpable at wrist.

pulse beats occurring in pairs is when a patient with auricular fibrillation is getting too large a dose of digitalis.

An extra-systole may be so feeble that no wave is felt at the wrist, so that there is simply a long pause. This gives rise to what is called a "dropped beat" or an "intermittent" pulse. (Fig. 6.) The commonest cause of an intermittent pulse is an extra-systole which fails to reach the wrist. The next most common cause is partial heart-block, to which I shall refer later, and I shall tell you how to distinguish between the two conditions.

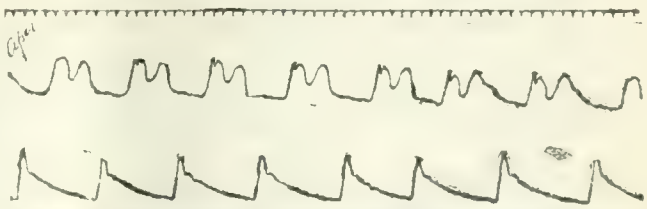


Fig. 7.—A tracing of the apex beat and radial pulse. Shows extra-systole occurring after each normal beat which fails to reach the wrist.

If an extra-systole occurs after each normal beat, and the extra-systole fails to reach the wrist on each occasion, there is halving of the rate of the arterial pulse. (Fig. 7.) This also is apt to be mistaken for partial heart-block, but, as I shall show you later, a differential diagnosis can readily be made.

Extra-systoles may be met with at any age, but they are much more frequent in the middle-aged and elderly than in the young. Indeed, in the elderly they are quite common. They are commoner in men than in women. They are more common in people who are the subjects of heart disease than in those who are not, and are more frequent in cases of cardio-sclerosis than in cases of valvular disease. But it should be remembered that there is a large group of cases in whom extra-systoles are present without any other cardiac abnormality. They may be present in people with a history of rheumatic infection, in excessive tobacco smoking, digestive disturbances, supernormal blood pressure, neurasthenia, and as a result of administration of certain poisons, especially digitalis, aconitine, muscarine, physostygmine, and adrenalin. In a considerable proportion of cases they occur without association with any of these conditions.

An individual with extra-systoles may be quite unconscious of their presence. On the other hand, he may experience sensations, and these may cause worry and anxiety, particularly if they occur after the patient has retired to bed. It is for this reason that it is very important that the nature of the complaint should be recognized. The patient may experience a sensation of fluttering in the chest when a premature beat occurs, or he may be conscious of the long pause and complain that "the heart stops," or the contraction of the heart following the pause may be accompanied by the consciousness of a thud or shock to the chest wall in the region of the heart. This thud may be followed by a feeling of exhaustion. The patient may complain of a sensation of gripping in the throat. Rarely, during a prolonged pause, faintness, sweating, and actual syncope may take place, and the anxiety of the patient may be profound. Even Adams-Stokes syndrome may be simulated.

What is the prognosis of extra-systoles? Unfortunately the public have come to attach a serious significance to them. This is absolutely without foundation. When extra-systoles are considered by themselves—that is, without reference to the conditions with which they may be associated—there is no evidence for supposing that extra-systoles can be taken as an indication of an impaired heart or add to the gravity of an already diseased heart. It is of the utmost importance that you should understand this. You may with absolute confidence reassure your patient.

In regard to treatment, your first duty is to remove any alarm in the mind of the patient. Any associated condition, such as dyspepsia or supernormal blood pressure, should be treated. Some hold the opinion that small doses of digitalis are of value for the irregularity itself. I have used the drug in many cases, and have never seen beneficial results to follow. The bromides are sometimes of value in masking or modifying the symptoms, especially in nervous subjects.

The third form of irregularity is that which may occur when the function of conductivity is depressed. I have

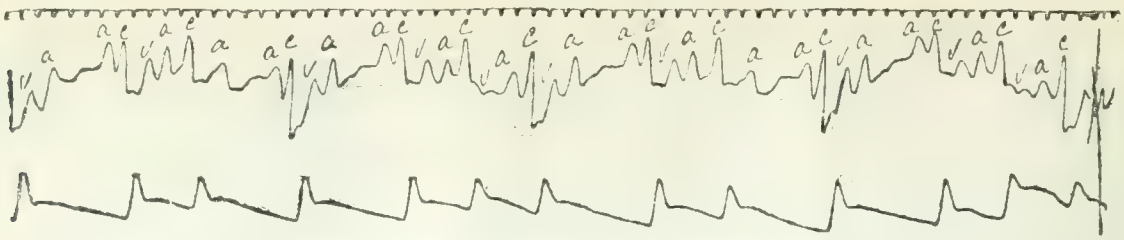


Fig. 8.—Occasional dropped beats due to partial heart-block.

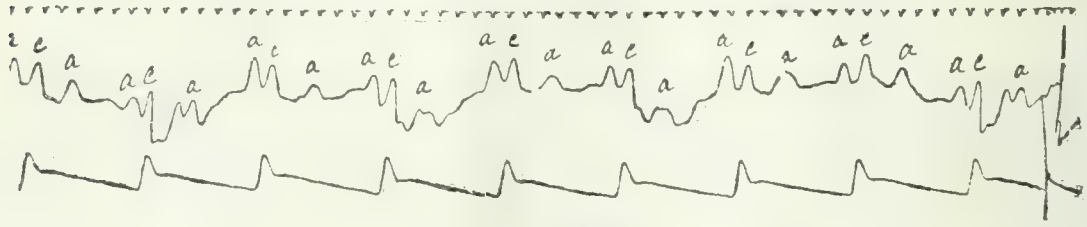


Fig. 9.—2 : 1 heart-block.

shown you that the stimulus passes from auricle to ventricle along the auriculo-ventricular bundle by means of a property called conductivity, and that the stimulus travels at a certain rate. The facility with which impulses pass along this tract may be impaired. There are three grades of impairment: (1) The stimulus from auricle to ventricle is merely delayed—that is, there is merely a prolongation of the interval which separates the commencements of contraction of the auricle and contraction of the ventricle. (2) The stimulus does not at times cross over; in other words, the ventricle does not at times respond to the stimulus from the auricle (this is called "partial heart-block"). And (3) no impulses at all reach the ventricle from the auricle, so that the auricles and ventricles beat quite independently of each other, the ventricles at an approximate rate of 30 per minute (this is called "complete heart-block").

In regard to the first grade, unfortunately it is only recognized with certainty by means of the polygraph. The *a–c* interval is more than a fifth of a second. There may be considerable variations in the *a–c* intervals, and this causes irregularity of the pulse. In regard to this grade of depressed conductivity, it is important to remember that as a rule digitalis is contraindicated.

In the second grade of heart-block "dropped beats" occur. These may only be occasional, or they may be more frequent; each third or fourth impulse may fail to reach the ventricle; or every other impulse may fail to reach the ventricle, which gives rise to halving of the ventricular rate, the condition being spoken of as a 2 : 1 rhythm; or only each third or fourth auricular impulse may be transmitted to the ventricle, and we have 3 : 1 or 4 : 1 heart-block. In some cases of heart-block certain ratios may alternate. (Figs. 8 and 9.)

How may we distinguish between dropped beats which are due to extra-systoles failing to reach the wrist and dropped beats which are due to partial heart-block? Of course, we can do so readily by means of the polygraph. But in the great majority of cases there is a much easier way than this. All that it is necessary to do is to auscultate. In the case of extra-systoles which are not palpable at the wrist, heart sounds are heard during the pause, because the ventricle did contract; but in the case of partial heart-block no heart sounds are heard during the pause, because the ventricle failed to contract.

In the third grade of heart-block, the auricles and ventricles beat quite independently of each other. As you know, the normal auricular rate is between 70 and 80 per minute. The normal ventricular rate is about 30 per minute; that is why the pulse is slow in complete heart-block. (Fig. 10.)

It is not my intention to go fully into the recognition of the various grades of heart-block. It can readily be understood that this is easily possible by the employment of the polygraph, since this instrument affords separate records of the upper and lower chambers of the heart. It is pretty safe to diagnose complete heart-block when the pulse is 36 or under.

In the severe grades of partial heart-block, and in complete heart-block, owing to the excessive slowing of the ventricular rate causing temporary anaemia of the brain, there may be attacks of faintness, giddiness, or temporary loss of consciousness. Adams-Stokes syndrome may be present.

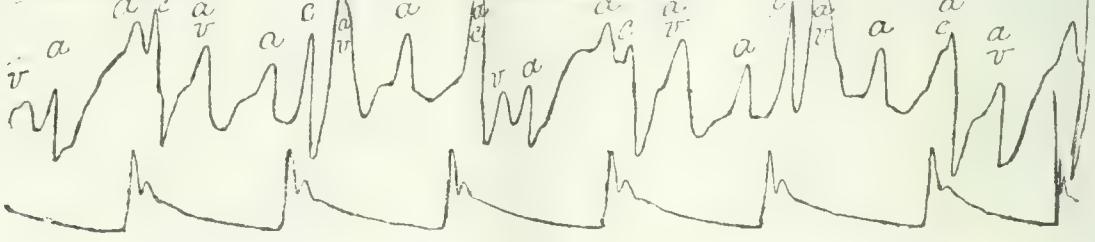


Fig. 10.—Complete heart-block.

I shall not deal fully with the etiology and prognosis of the various grades of heart-block, as they are dealt with pretty fully in the textbooks. The only point I should like to mention is that heart-block of mild degree, giving rise to "dropped beats," sometimes occurs during the course of infective diseases, and is then frequently the only sign of myocardial damage. When present it increases the gravity of the primary disease. As a rule, however, it is temporary.

The fourth form of irregularity is that which is due to the presence of pulsus alternans. By pulsus alternans is meant a condition of the pulse in which the rhythm is perfectly regular, but each alternate beat is large and each alternate beat is small. The condition may be continuous, or it may only be observed by something which increases the pulse-rate—as, for example, exercise—or only during a few cycles immediately following an extra-systole. (Figs. 11 and 12.)

It is very unfortunate, but undoubtedly true, that in the vast majority of cases it is necessary to take a tracing of the radial artery in order to recognize it. Very rarely in cases in which it affects the pulse continuously it is perceptible by the finger. As the sign is of very great importance, we should always be on the look-out for it. On very rare occasions the small beats of pulsus alternans entirely disappear, and the pulse-rate is halved.

What is the significance of pulsus alternans? Well, its mere presence, that is apart from whether it is associated with other signs or not, is of very great importance. It is an indication of very great exhaustion of the heart

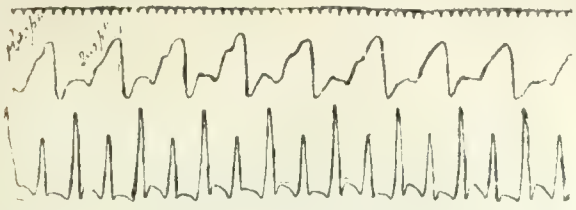


Fig. 11.—Continuous pulsus alternans.



Fig. 12.—Pulsus alternans following extra-systole at *x*.

muscle. When the alternans lasts only for a few cycles, the exhaustion may be only temporary. But even in these cases the prognosis must be very guarded. When the condition is continuous, in other words when it persists for many cycles, death usually follows within a few months, or at most in a few years, and sudden death is not uncommon.

In regard to treatment, absolute and prolonged rest, both physical and mental, is urgently needed.

The last form of irregularity to which I want to draw your attention can be described in one word: the irregularity is *complete*. It is an irregularly irregular pulse.

Rarely or never do two beats of the same character or length follow each other. The irregularity is more pronounced when the pulse is fast. With the slower rates we may have to adopt careful measurements of the tracings, as the variations in the length of pause are only small. The pauses between the beats show no relationship to each other, and there is seldom any relation between the strength of a beat and the length of the pause which preceded it—that is, a strong beat may succeed a short pause, and a weak beat may follow a long pause. The pulse is generally more rapid than normal; it may be very rapid. Many beats of the ventricle may not reach the wrist, especially when the ventricle is beating rapidly. Therefore, the ventricular rate should be counted at the

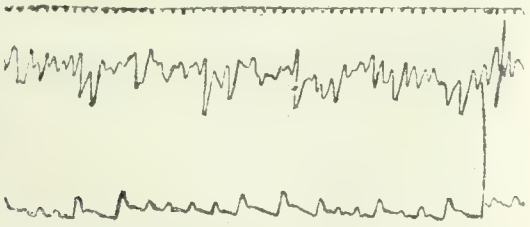


Fig. 13.—Complete irregularity of auricular fibrillation with a fast pulse.

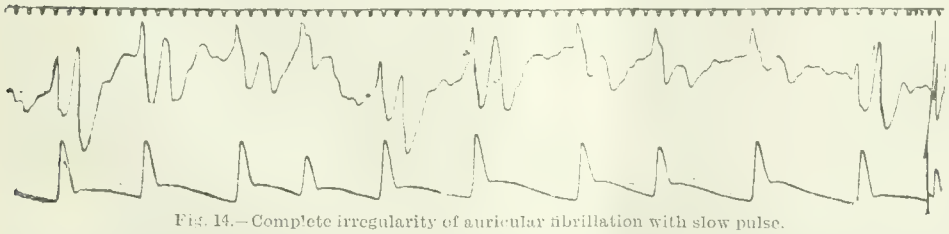


Fig. 14.—Complete irregularity of auricular fibrillation with slow pulse.

apex, either by palpation or auscultation. All the beats may be of small amplitude, but most commonly there is an irregular intermingling of large and small beats.

What may we infer when this type of irregularity is present? We may infer that fibrillation of the auricle is present. Now, gentlemen, the discovery of auricular fibrillation is one of the greatest discoveries in regard to heart affections which has ever been made. It is of tremendous practical importance that the condition should be recognized in regard to the diagnosis, prognosis, and treatment of cardiac disorders. It is a specific clinical condition, and fortunately its recognition is unattended with much difficulty, and can be made with certainty.

What is meant by auricular fibrillation? By it is meant a condition in which co-ordinate contraction in the auricle is replaced by inco-ordinate contraction. Instead of contracting in an orderly and simultaneous manner during systole, the individual fibres contract rapidly and independently of each other. The result is that systole, either partial or complete, of the chamber as a whole never takes place.

What is the effect of auricular fibrillation on the heart? Instead of the ventricle receiving stimuli from the auricle at regular intervals, it receives them at completely irregular intervals, and thus the ventricle is embarrassed in its work. Also, the impulses which escape are numerous, and if the conducting tissues are able to transmit them, the ventricular rate rises. Thus an irregular, and in the vast majority of cases a far too frequent, pulse is produced; the pulse rate may be as high as 140 or even 180 beats per minute. Very rarely the pulse is very slow. Such a profound change in the action of the ventricle as a rule produces a marked effect on the heart's efficiency.

When auricular fibrillation has once set in, in the majority of cases it persists for the patient's life. But, instead of this, it may appear for a few hours and afterwards never appear, or it may occur at infrequent intervals for weeks or months and then disappear. Many cases of paroxysmal tachycardia are due to auricular fibrillation, and may last for a few seconds, hours, days, weeks, or months. The tendency to occurrence increases, however, until finally the condition becomes permanent. The onset of auricular fibrillation is sudden. As a rule the onset of the symptoms is gradual, but it may be very rapid and cause the patient to become very ill within a few hours. Similarly, if the condition is intermittent, its cessation may be accompanied by an equally rapid and marked improvement in the patient's condition.

What are the symptoms of auricular fibrillation? They are the same as those of cardiac failure from other causes, such as exhaustion, shortness of breath, cyanosis, and dropsy. Patients may also complain of fluttering in the chest and neck or of irregular action of the heart. Apparently, however, they never suffer from angina pectoris. Occasionally there is an absence of symptoms of cardiac failure in auricular fibrillation, and, needless to say, they may be present in heart disease without auricular fibrillation. When the ventricular rate is over 90 per minute as a rule there are symptoms of cardiac failure.

Under what conditions may auricular fibrillation occur? It is found to arise under a variety of conditions. The majority of cases fall within two groups: (1) Those with a history of rheumatism, and (2) patients suffering from cardio-sclerosis. Those with a history of rheumatism frequently have valvular disease, *more often mitral than aortic disease, and especially mitral stenosis.* The condition has been seen in pneumonia, diphtheria, infective endocarditis, and in people dying of exhausting diseases, such as cancer. Digitalis may induce it in predisposed cases. In other words, auricular fibrillation may be present in any organic disease of the heart (mitral, aortic, and myocardial). On the other hand, any organic disease may be present without auricular fibrillation. Therefore, we can divide all organic disease of the heart into two great groups: (1) Those cases with auricular fibrillation, and (2) those cases without it.

Are we able to recognize auricular fibrillation? Yes, with certainty and fairly easily, by the following: (1) The pulse is completely irregular. When the pulse is slow, as, for example, when the patient is under the influence of digitalis, it may be necessary to take a tracing of the

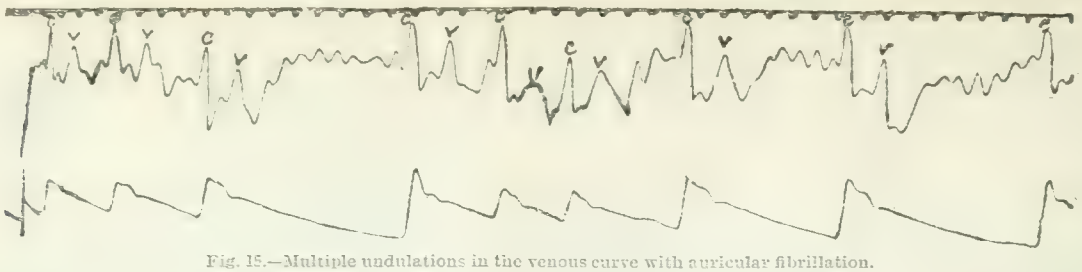


Fig. 15.—Multiple undulations in the venous curve with auricular fibrillation.

radial artery. (2) In mitral stenosis, and if a presystolic bruit, *due to auricular systole*, was present, it disappears with the onset of auricular fibrillation. If a diastolic bruit was present, it persists. A word of warning is necessary here. A murmur filling the whole space between the second and first sounds may be present in cases of rapid heart action, and the latter part of the murmur is not infrequently mistaken for a presystolic murmur due to the systole of the auricle. This mistake need not and should not arise. The murmur is not crescendo in type. On auscultating during one of the long pauses, or when the heart's rate becomes slow, a silence will be detected between the termination of the murmur and the first sound. (3) In a tracing of the jugular vein there is an absence of the normal *a* wave; in other words, there is the ventricular form of venous pulse. The normal *a* wave cannot be present because the auricle does not contract. Instead of the *a* wave, there may be multiple undulations. (Fig. 15.)

In regard to the prognosis of auricular fibrillation, the condition is indicative of some myocardial affection, and, furthermore, it is a specific clinical entity which necessarily has a profound influence on the action of the heart. The prognosis depends upon whether the heart is able to carry on its work under the new rhythm, and this, in turn, depends upon the integrity of the heart muscle. If this be good, for years there may be little or no indication of cardiac failure. In the great majority of cases, however, this is not the case, so that a considerable degree of cardiac failure results. This is especially the case when the pulse is very rapid and there is considerable dilatation of the organ. A persistent pulse-rate of 120 or over is serious. Two points of great importance in trying to form a prognosis of auricular fibrillation are (1) how far is the patient able to modify his life so as to bring it within the limit of the heart's strength, and (2) how does the heart respond to treatment? The latter point will be dealt with more fully later on.

We have now come to the end of what I have to say in regard to the subject of irregularity of the heart. I hope I have shown you that any given case must, apart from rare exceptions, fall into one of five groups, according to its type, and as we know what each type signifies we have certain and rational grounds in regard to diagnosis and prognosis, and, as I shall show you in a few minutes, we have information in regard to treatment also.

And now let us pass on to the problem of digitalis. Why is there such an extraordinary difference in the results of administration of the drug or of its allies in persons who are suffering from identically the same lesion and complaining of precisely the same symptoms? Put briefly, the answer is that the response to digitalis differs according to the condition of the heart and character of the rhythm; those cases of cardiac failure which show wonderfully good results are, in the vast majority of instances, cases of auricular fibrillation. Let me go into the matter in some detail. For the last few years I have been associated with Dr. James Mackenzie and Professor Cushny in conducting at the Mount Vernon Hospital a series of investigations dealing with the action of digitalis, and some of its allies, on the human heart.

Our plan of investigation has been as follows: With the exception of those cases where the symptoms required immediate treatment, all the patients were first given a course of rest before any drug was administered. The rule was not to commence with any drug until the pulse-rate, which had diminished as the result of rest and other causes, had remained stationary for at least some days. This allowed us to study the effect of rest, and it prevented any drug being credited with results which were in reality due to adventitious circumstances.

Each case was daily observed, examined, analysed, and recorded with scrupulous care, attention being paid to the minutest detail. Graphic records were taken by means of the ink polygraph, and sometimes tracings were taken continuously for long periods, even up to an hour or two.

In regard to dosage, our practice has been to give, as a rule, 1 drachm of the tincture per day; or, if the case was urgent, as much as 1½ drachms, or even 2 drachms a day. These doses were continued until some definite reaction was obtained; usually a reaction was obtained within a week, sometimes in a few days. Rarely was any distinct change to be seen before the fourth day of treatment. The drug was then stopped. If afterwards the heart relapsed to its former condition—which happened in a considerable proportion of cases, and usually in about a week—we endeavoured to find the dose which maintained the improved condition without producing any toxic symptoms. After a thorough trial with digitalis, we often tried strophanthus, squills, or one of the other drugs, and then, perhaps, went back to digitalis. We were thus able to find out the relative usefulness of these drugs, and to estimate the comparative dosage.

The first series of cases examined were 21 cases of mitral disease, 11 cases of aortic and mitral disease (in some of these the only evidence of mitral disease was the presence of a mitral systolic murmur), 1 case with aortic systolic murmur, 3 cases of cardio-sclerosis without evidence of valvular disease, 1 case of paroxysmal tachycardia, 1 case of tachycardia of obscure form, 1 case of complete heart-block, 1 case of emphysema with a mitral systolic bruit, and 3 cases of pulmonary tuberculosis with pyrexia. Of the mitral cases, 10 were cases of auricular fibrillation, while 11 were not. Of the aortic and mitral cases, 3 were cases of auricular fibrillation, and 8 were not. The aortic systolic case was not a case of auricular fibrillation. The 3 cases of cardio-sclerosis were cases of auricular fibrillation. Thus, of the 36 cases of valvular disease or cardio-sclerosis, 16 were cases of auricular fibrillation, and 20 were not. The case of emphysema and the 3 cases of pulmonary tuberculosis were not cases of auricular fibrillation.

Carefully analysing the results of these cases, the following facts were elicited: Of the cases of auricular fibrillation, all excepting 2 showed a marked slowing of the pulse and great improvement in the general condition. The two exceptions were one case in which there was pyrexia present, and another case, a man of 67 years of age, in which, while there were no evidences of valvular disease, there were indications of advanced cardio-sclerosis. The best results were obtained in those cases with a rheumatic history. In regard to the cases without auricular fibrillation, in 2 cases auricular fibrillation developed during the administration of the drug, and these cases responded to digitalis in the same manner as did most of the other cases of auricular fibrillation. Apart from these rare exceptions, in no case was there a marked slowing of the pulse or marked improvement in the general condition; in a few there was a moderate or slight degree of improvement; while in most the administration of digitalis or of its allies appeared to have no beneficial effect at all. Where improvement did take place it was comparatively slow, and it was often difficult to be sure how far the improvement was due to the rest in bed and other measures adopted and how far it could be ascribed to the drug. In general the improvement in these cases was accompanied by no definite decrease in the pulse-rate, but in a few auriculo-ventricular block or very marked slowing of both auricle and ventricle

occurred. The slowing in most cases arose from inhibitory action, but in a few cases it arose from direct action on the muscle.

In regard to dosage: as a rule improvement could be started after a time by small doses of 5 minims of the tincture three times a day, but they always required a much longer period to do so than large doses, which produced their full effects rapidly; and sometimes the small doses produced no effect in cases which responded well to the full doses. The inference is, therefore, that it is better to commence with full doses and to go on with these doses until the patient is completely under the influence of the drug, and then, if required, to continue the administration, but to diminish the dose until it is discovered what dose will keep the patient in the best condition. The indications for stopping the drug were the following: (1) Nausea or vomiting, (2) severe headache, (3) diarrhoea, (4) an unduly slow pulse, (5) coupling of the beats in cases of auricular fibrillation, and (6) partial heart-block in cases without auricular fibrillation. With the cessation of the drug, the stomach symptoms passed away.

In cases of auricular fibrillation there was a majority of cases who relapsed to the former condition in about a week after the drug was stopped. Renewed treatment restored the improvement. After a more prolonged course a relapse was often much less severe, and ultimately the improvement could be maintained with comparatively small quantities or with larger amounts taken at intervals of several days. The maintenance of the improvement was one of the most difficult matters to understand. Only great perseverance in each case enabled us to discover what particular dose kept the patient in the best condition. We found a great difference in the amount required. In one case it was as small as 1 drachm per week, while in another it was as large as 45 minims per day. As I have said, we endeavoured to find the dose which maintained the improved condition without producing any toxic symptoms, and in this respect patients were usually able to say what quantity acted best. Having discovered the best dose to maintain the improvement, patients were discharged, and were usually able to resume work while taking the drug. I should like very briefly to describe to you one case of auricular fibrillation to illustrate the kind of experience we had:

A gardener, aged 24, admitted to the Mount Vernon Hospital February 8th, 1910, complaining of weakness, palpitation, and shortness of breath.

History.—Two attacks of rheumatic fever at 12 years of age, and a subsequent attack at 18. Has been indisposed off and on ever since last attack, suffering from giddiness and shortness of breath. During the last year has been unable to work on account of shortness of breath, palpitation, pain in praecordia, swelling of abdomen, and swelling of legs. Has been in St. George's Hospital during the last four months.

State on Admission.—Orthopnoea. Pulse completely irregular, and the rate varies much from time to time, being at one time 117 and at another 88 per minute. There is a large area of cardiac pulsation in the third, fourth, fifth, and sixth interspaces. Transverse diameter of heart 7½ in. At the apex a loud systolic and a soft, short, diastolic bruit audible. The liver is felt pulsating for several inches below the costal margin. Oedema of the legs and hydrothorax are present.

Progress of the Case.—The patient was treated only by rest for ten days, and made a slight improvement, though he at once became worse when he walked a few yards. On February 19th he was put on to 15 minims of tincture of digitalis four times a day. Under the influence of the drug the pulse became slower in a few days, and the patient's condition rapidly improved. After eleven days there was a good deal of nausea, and the drug was stopped. The pulse had come down from 99 to 40. It remained under 50 for six days, when it began to rise and the dyspnoea and palpitation returned. As these phenomena continued, on April 4th digitalis was recommenced. The symptoms steadily improved, and the pulse-rate steadily came down, so that by April 11th, that is after he had taken 10 drachms, the pulse was 44. The drug was then stopped because of vomiting. We then tried him on smaller doses, and after much perseverance we found that his condition was best when he was taking about 100 minims per week. He was discharged on May 29th, feeling well, and has continued at his work, which involves severe physical exertion, ever since.

In cases without auricular fibrillation, in which there had been improvement, the improvement was usually obtained without continuing the drug. This would suggest that rest may have been a more important factor than the drug.

Comparing the different drugs, strophanthus and squills are still supposed to differ somewhat from digitalis in their effects. We found no essential variation in the action of the three drugs on the heart. It required nearly twice the dose of tinctures of strophanthus and of squills as of tincture of digitalis, but the former two showed considerable variation in regard to dosage. In some cases they seemed to have less tendency to cause headache and gastric disturbances than digitalis, but this was not constant. On the other hand, they appeared to have a greater tendency to produce diarrhoea. In no case in which digitalis failed did any of the other members of that group of drugs succeed. On the whole, digitalis appeared to be more certain in its effects than either strophanthus or squills, but some patients seemed to tolerate the last two more easily than digitalis. Therefore they should be regarded as substitutes for digitalis. As I have already stated, aconite had no effect upon the pulse-rate. In no case in which the tincture of digitalis failed did any of the other preparations of that drug succeed. Samples of tincture of digitalis supplied by firms of chemists of repute proved wonderfully constant in strength.

It was found that the active principles of digitalis, strophanthus, and squills readily underwent decomposition when the tincture was diluted with water, and this was especially so in the case of strophanthus. For this reason the tinctures should be dispensed as such or diluted only with alcoholic preparations, with directions to the patients to take them in water, if necessary.

In a paper which I read at the annual meeting of the British Medical Association at Liverpool, and which was published in the BRITISH MEDICAL JOURNAL in September, 1912, I showed from investigations that, judged by the methods in use for observing the blood pressure clinically, the internal administration of digitalis does not raise the blood pressure in man by constricting the peripheral vessels. If that be so, there is no risk in administering the drug in cases of degeneration of the walls of the blood vessels or of supernormal blood pressure.

How does digitalis act in cases of auricular fibrillation? It was supposed that the slowing was inhibitory in origin. This has been found not to be so, for it remains after large doses of atropine. It must arise, therefore, from some direct action on the muscle of the heart. As the auricle continues to fibrillate as before, it may be presumed that the digitalis acts either in the bundle of His or in the ventricle itself. Either fewer impulses reach the ventricle from lessened conductivity in the auriculo-ventricular bundle or the ventricle becomes more refractory; in either case the ventricular rate is reduced.

Now, the practical points which I want you to carry away with you in regard to these and other cases which we have investigated, and from the investigations of other workers, are: Digitalis should not be administered as a mere rule of thumb in all cases of cardiac failure. In any given case, whether there is mitral disease, aortic disease, or disease of the myocardium, you should determine by the means which I have explained to you whether auricular fibrillation is present or not. If fibrillation is present, and it is accompanied by a very rapid pulse, you know that, whatever the lesion, in most cases, and especially in those patients with a history of rheumatism or chorea, you have a therapeutic agency of wonderful potency, and that it is possible to establish and maintain control of the heart-rate. The administration of the drug is followed by a rapid fall in the pulse-rate and a concomitant improvement in the general symptoms. Certainly two exceptions are: (1) Cases of cardio-sclerosis in which the degenerative change is so widespread that little healthy muscle remains; (2) cases in which there is pyrexia. When pyrexia is present, apparently the response to digitalis is as a rule very slight, if at all, whether auricular fibrillation is present or not. It is well to begin with a drachm of the tincture per day, or in urgent cases with even 1½ or 2 drachms per day, and continue until there is nausea or vomiting, diarrhoea, headache, an unduly slow pulse, or what is called "coupling of the beats." Coupling of the beats is a danger signal. We should either stop the drug for a few days or diminish the dose. Usually a reaction is obtained within a week, sometimes in a few days. Then the drug should be stopped until the symptoms have passed away. As a rule the patient relapses. The indication then is to find out what dose suits him best—that is, the dose sufficient to control the heart without producing toxic symptoms. It may require

weeks or even months of careful observation to find this optimum, and much perseverance will generally be required. In this respect help may frequently be obtained from the patient himself, who is often able to say what quantity suits him best; in other words, his own sensations are often a good guide. Having discovered this dose, in the great majority of cases it will be necessary for the patient to continue taking the drug for the remainder of his life. Apparently the cumulative action is not nearly of such serious account as has been supposed. Still the pulse ought to be watched day by day. By this mode of treatment you will save many lives and also bring comparative comfort to people who would otherwise be the subjects of much misery. When auricular fibrillation is not accompanied by a rapid pulse, no marked result follows the administration of digitalis; the result is scarcely greater than in cases without auricular fibrillation. The improvement is slow, and it is often difficult to be certain how far the improvement may be due to the rest in bed and other measures adopted, or to the drug.

If the case is not one of auricular fibrillation you will know that—apart from those exceptional cases in which auricular fibrillation occurs during a course of administration of the drug—as a rule, though, I am glad to say, not in all cases, the beneficial results will be only moderate or slight, or none at all. If improvement does occur, it can usually be maintained without continuing the drug. And, lastly, in regard to the administration of digitalis, it is possible to do harm in cases of diminished conduction.

Apparently, no preparations of the digitalis series of drugs are superior to the tincture of digitalis for ordinary treatment. Strophanthus and squills should be regarded as substitutes for digitalis. They may be tried when a patient is found to be peculiarly intolerant to digitalis.

In regard to the so-called alleged active principles of digitalis, it cannot be too strongly insisted that there is no pharmacological or clinical evidence that they are either pure substances or that different samples of them are uniform in potency. And therefore there is no reason to believe that they are more reliable than, and possibly they are not so reliable as, different samples of the tincture.

In the most acute cases of cardiac failure, when it may be desirable to elicit a more rapid effect than is possible by the administration of tincture of digitalis or one of its allies by the mouth, strophanthin may be administered intravenously, either two or three doses of $\frac{1}{250}$ of a grain at an interval of two hours, or a single dose of $\frac{1}{100}$ of a grain. Marked improvement sometimes follows in from four to eight hours. The action is in every way similar to that obtained by tincture of digitalis by the mouth, except that the same result follows in from four to eight hours instead of in about a week. Whenever necessary, we can continue the administration of tincture of digitalis by the mouth.

I have come to the end of the time at my disposal. My remarks have, on account of time, necessarily been incomplete. But I have tried to solve in some measure the problem of the significance of cardiac irregularity and the problem of the difference in the results following the administration of digitalis.

Many problems still remain to be attacked and solved. But, in conclusion, I venture to reassert the belief that the introduction of graphic methods in the study of heart disorders has been attended with brilliant results, and will compare favourably with any in medicine or surgery which have been introduced in recent years for the benefit of suffering humanity.

Mr. P. H. Adams, B.M., F.R.C.S., has been elected to the Margaret Ogilvie Readership in Ophthalmology at the University of Oxford.

The Metropolitan Asylums Board has arranged, for the benefit of candidates for the Diploma in Public Health, a three months' course of lectures and demonstrations in hospital administration—at the Eastern Hospital, Homerton, by Dr. E. W. Goodall, at 2.30 p.m. on Tuesdays and Fridays, beginning April 4th; at the North-Western Hospital, Hampstead, by Dr. J. MacCombie, at 5 p.m. on Mondays and Thursdays, beginning April 7th; and at the Grove Hospital, Tooting, by Dr. J. Beggs, at 5 p.m. on Wednesdays and Fridays, beginning on April 25th. The fee for the course is three guineas.

An Address

ON

CERTAIN PHYSICAL SIGNS OF MYOCARDIAL INVOLVEMENT.

Delivered at the Opening of the North-East London Post-Graduate College,

BY

THOMAS LEWIS, M.D., D.Sc., M.R.C.P.,

Lecturer in Cardiac Pathology; Assistant Physician, University College Hospital.

Ladies and Gentlemen,—In my address to you to-day I am going to speak chiefly of acute and subacute affections of the heart. This, as you are well aware, is a wide subject, and involves many problems of complexity, and some which will long remain unsolved.

But in one direction the veil of obscurity is rising a little, and it is to the new facts which have been laid bare and their possible significance that I wish to direct your attention at the present time. I have no doubt that it has been repeatedly impressed upon your minds that, in acute and subacute affections of the heart, the damage is not limited to the membranes which cover the organ both within and without. It is needless to remind you that the myocardium also suffers. Yet in practice our attention tends to direct itself especially to that organ or that portion of an organ which is responsible for evident physical signs. Our conception of a given patient's condition is profoundly affected by the appearance of a pericardial friction rub or endocardial murmur. It is but natural, perhaps, under the circumstances, that our thoughts should focus upon pericardium or heart valve, as the case may be. We are impressed by what we hear through the stethoscope, and our diagnosis, "acute pericarditis" or "acute endocarditis," clearly reveals the trend of these thoughts. It is imperative that the myocardium should not be lost sight of; this warning has been repeatedly uttered. The valve and the pericardial sac are relatively but trivial appendages; the simple loss of one or other, though it may increase the burden of work to be borne by the organ as a whole, is not irremediable. Neither valve nor sac is indispensable; efficient or tolerably efficient work can be undertaken and continued for long, if not normal, periods of time by a heart deprived of one of these structures. That fact is taught quite clearly by clinical experience.

The myocardium is the vital part of the heart; its condition should be now, and in the future inevitably will be, the first consideration in all patients in whom the working power of the heart is to be estimated or aided.

The importance of the myocardium, be it in acute or chronic heart affections, is paramount, whenever we regard our patient from the purely cardiac standpoint. And when I speak of the myocardium, I am thinking not only of the contractile tissue of the ventricle, but also of that of the auricles.

These preliminary remarks bring me to my main topic. It is of great importance that any physical sign which speaks of events which are happening in the muscle of the heart should receive the closest scrutiny, and that we should endeavour to ascertain its exact significance. Certain of these signs it is my purpose to discuss.

The greater part of the myocardium may be termed *silent*, in precisely the same sense that certain of the areas of the brain are so termed. Conspicuous lesions of the ventricular wall may be present and give rise to neither sign nor symptom. Large areas of muscle may be degenerate, and the symptoms and signs may be few and obscure. But as there are certain tracts in the central nervous system which, when affected, produce manifest disturbances, so, as recent work has shown us, there are tracts in the heart which display their injuries in a conspicuous manner. The auriculo-ventricular bundle, as you are aware, is a fine neuro-muscular strand which connects to the musculature of the auricle; in its downward course it divides into two main branches, the right and left divisions of the bundle, each of which is connected to the ventricle by an intricate arborization. This system

formed by the main bundle, the two main divisions and their terminal arborizations, is concerned in maintaining the co-ordinate beating of the cardiac chambers. When the auricle contracts an impulse travels through the main conducting tract, passes into its two chief divisions, and is distributed in the two ventricles. The impulse awakens a ventricular response. The impulse occupies time in passing from auricle to ventricle, and, as an indication of the time taken, we use the interval which elapses between the onsets of contraction of these two chambers (*As–Vs* interval). The *As–Vs* interval, as it is termed, thus becomes an index of the functional integrity of the tract as a whole. It may be estimated clinically with considerable exactitude, for we have means of recording the contraction in auricle and ventricle. The two methods of obtaining an index are the polygraphic and the electro-cardiographic. The *As–Vs* interval as expressed by these two methods varies normally within certain limits. In polygraphic curves the *a–c* interval (representing, *a* the contraction of the auricle, and *c* the impulse in the arteries of the neck) varies from one-tenth to one-fifth of a second. In electro-cardiographic curves the *P–R* interval (representing, *P* the first auricular electric effect, *R* the first ventricular electric effect) varies from 0.12 to, at the most, 0.20 second. Increase in the *As–Vs* interval or a failure of the ventricle to respond to the auricular impulse tells us clinically of deficient action of the auriculo-ventricular tract. These phenomena are spoken of collectively as "heart-block."

Now, chronic heart-block has received much study, and is at the present time one of the most fully understood subjects of modern medicine. Acute and subacute heart-block, though much more frequent, has received far less attention. My remarks will be confined to these last types, and I shall illustrate them freely by brief reports of actual cases.

Acute and Subacute Heart-block in Rheumatic Cases.

We may commence by studying infections of rheumatic origin, for they are of the greatest importance and throw considerable light upon the pathology of chronic rheumatic heart disease. I will cite a characteristic case.

A young girl, who had enjoyed fair health, was admitted under my care at the City of London Hospital, giving a history of palpitation, shortness of breath, and pain in the chest and knees of five weeks' duration. She was very seriously ill, having evident signs of pericarditis and cardiac embarrassment accompanied by commencing signs of oedema of the lungs.

I need not detail the physical signs, but, as a *post-mortem* examination subsequently proved, she was suffering from inflammatory lesions of the pericardium and of all the valves, with the exception of the pulmonary, and that these lesions were clearly of rheumatic origin. Four days after admission irregularity of the heart was observed, and this was proved to be due to heart-block (prolonged *a–c* interval and dropped beats); the heart-block continued until death supervened a fortnight later. A microscopic examination of the heart, undertaken by Dr. Butterfield, revealed perivascular inflammatory lesions of rheumatic type in the myocardium, which, while diffusely scattered in auricle and ventricle, were conspicuous in the region of the central fibrous body, where they had invaded the auriculo-ventricular bundle.

This case, which has been fully described, with the curves,[2] may be taken as our starting point. It represents one of the most severe forms of acute rheumatic heart disease, invading all the layers of that organ and quickly terminating the life of the patient.

It serves as an extreme type of the cases which I shall present to your notice. The appearance of heart-block at an early period of observation was the most emphatic sign which we obtained of myocardial involvement. I do not say it was the only sign, for in this particular instance we should have been led to suspect it from the profoundness of the symptoms, the prostration, the extreme breathlessness and restlessness of our patient. But it is an important case, because we had the rare opportunity of correlating our physical findings, including the graphic records, with a very complete examination of the heart.

A case, which was not dissimilar in many respects, has been reported by Gerhardt.[3] It was a case of acute rheumatic heart affection in which all layers of the organ were involved. But there was this important difference: whereas our case died of the rheumatic affection, Gerhardt's case succumbed, while recovering, from a superadded infection—namely, typhoid. In Gerhardt's case perivascular inflammatory lesions were also found, but while the ventricular muscle did not escape, the bundle showed the chief inflammatory lesion. In this case, too, heart-block was the most positive sign of the myocardial mischief.

My purpose in citing these two cases will be clear. It is to impress the simple fact that the development of heart-block during the course of an acute rheumatic illness is an evidence of myocardial involvement, not necessarily limited to the auriculo-ventricular bundle, but almost certainly spreading to a greater or lesser extent beyond it. The sensitive tract, when implicated, is responsible for signs which, relative to the extent of the lesion, are far more conspicuous than those yielded by implication of the general mass of the ventricular muscle; and I am obliged to cite examples of severe trouble because they alone come to autopsy. The majority of the rheumatic illnesses end in recovery, and this is one of the chief difficulties in studying them. We have largely to judge of the events which have occurred in milder attacks from our findings in those which are severe.

I have notes of another patient, a lad of 14 years, who, having suffered on three occasions from rheumatic fever, was admitted to hospital with frank signs of acute pericarditis. He was for the time being very seriously ill. A large effusion developed which subsided but slowly. Within a few days of admission heart-block was noticed (prolonged *a–c* interval and dropped beats), and this was maintained for a number of days (Fig. 1). Eventually,

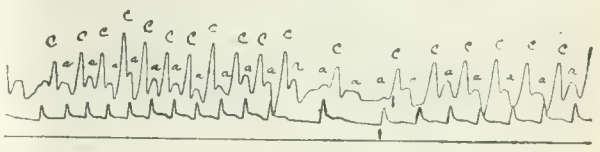


Fig. 1.—Polygraphic curves taken from a boy suffering from pericarditis of rheumatic origin. It shows partial heart-block; prolongation of the *a–c* interval and two dropped beats are present.

and as he recovered, the irregularity disappeared, and the *a–c* interval became normal. His heart permanently crippled, he left hospital.

We should stop to ponder the extent of the damage which the myocardium suffers in these severe cases which recover. That it is implicated is certain, that there is partial recovery is equally certain, but that a permanent legacy remains few can doubt.

We have not the opportunities of following the development of a chronic rheumatic heart fully through all its stages in one case. We can but sample our cases here and there, following the disease as a whole in different patients and piecing the history together. Ever and anon a patient succumbs: it may be at an early, it may be at a later period in the history of the affection. We seek what we can find in his remains, but often the morbid process has advanced too far for our needs.

We know the chronic malady to be slow in its completion. Is its progression uniform or does it come in successive and well-defined stages? I believe that we must accept the last view, from the evidence which we possess, and that, while we must recognize that the steps are neither equal in extent nor uniform in their incidence, it is by oft-repeated damage that those incurable rheumatic heart diseases are produced, the unfortunate sufferers from which swell the ranks of our out-patient departments and wards.

We must look for the steps, and the observation of transient heart-block will, I believe, often help us to discover them. This brings us to considerations which I am anxious to emphasize, for the cases already described are those in which none could overlook the signs of infection of the heart. In a very large percentage of the cases of gross heart affection, which from their nature and antecedents may be classed as rheumatic heart disease, no history of grave illness can be obtained. How many young girls come to us with advanced mitral stenosis and degenerate heart muscle and relate the story of a single and mild attack of chorea or rheumatic fever! Yet mitral stenosis does not develop during an attack of either; the advanced lesion is one which has evidently taken a long while in the making. So also has the degenerate muscle

which so often accompanies the valve lesion. The process occurs insidiously, and it is often most difficult to trace its cause.

Now heart-block is not an uncommon accompaniment of acute or subacute rheumatism, and, as in the cases of Cowan, McLeod and Paterson[9] and of Magnus Alsleben,[10] it may be practically the only sign of invasion of the heart. It is generally transient; it is mild in degree, consisting often of a simple prolongation of the *As–Vs* interval. Such simple prolongation of the interval will only become manifest when sought deliberately; it is probably a relatively common event in rheumatic cases, being as a rule overlooked.

But it is seen not only during the actual course of the joint invasion, but also from time to time in rheumatic subjects, apart from such disturbance. I may instance a patient who illustrates this contention.

A young woman of 21 was admitted to hospital for an operation in relief of exophthalmic goitre. The eyes had been prominent for two years; palpitation and the enlarged thyroid had appeared six months previous to admission. She was a rheumatic subject, having had an illness, in which several joints were painful and swollen, at the age of 16, and having suffered from frequent attacks of joint pain in the interval. Her heart exhibited the excited action common in her disease; the ventricular rate was 135 per minute on admission; a little enlargement to the left and a systolic murmur were noted. The greater part of the thyroid was removed at the operation, and the progress of the patient was uninterrupted for the space of six days; on the seventh day the heart became slow (40 to 50 per minute), and occasionally irregular, and this proved to be the result of partial heart-block. There was no fever at the time or subsequently. The further course is important. On the first day of the appearance of the irregularity nearly every second auricular impulse failed to reach the ventricle; on the second day the alternate impulses failed to yield response in the majority of instances (Fig. 2); on the third day the failure of response was much less frequent; on the fourth day the failure of response was not seen, but the *As–Vs* interval, as portrayed in both polygraphic curves and electro-cardiograms, was unduly prolonged (*a–c* and *P–R* intervals from 0.28 to 0.30 second). On the seventh day the interval was still prolonged (Fig. 3), but on the eighth day the prolongation had vanished, and was not again seen, though the patient was repeatedly re-examined.

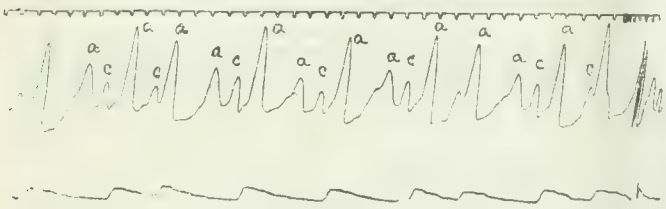


Fig. 2.

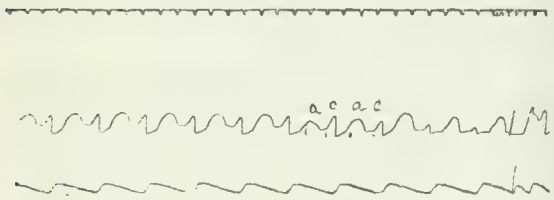


Fig. 3.

Figs. 2 and 3.—Polygraphic curves from a case of exophthalmic goitre. The first curve was taken near the beginning and the second curve near the end of a transient attack of partial heart-block. The patient was a rheumatic subject. Fig. 2 shows very frequent dropped beats. Fig. 3 shows simple prolongation of the *a–c* interval.

The events which were passing in this heart can be readily interpreted; we can imagine the origin of an inflammatory process, situated in the myocardium and involving the junctional fibres; an exudation of leucocytes attended by engorgement of the vessels and tumefaction; later its subsidence, the absorption of the fluids, and the relief of the bundle tension. But what we cannot estimate in this patient is the degree of permanent damage left in the bundle and in the muscle of the heart. That in this or similar cases there is permanent damage most, I think, will agree; and what I suggest to you is that it is precisely in attacks such as these that the foundation of gross rheumatic heart disease is laid. I am inclined to regard an attack of this sort as one of a number of steps which, if they succeed each other, lead to permanent crippling of the heart as a working organ. In the patient in question the step would be an early one, and would not necessarily be repeated. I use it as an illustration from this standpoint, and also because had the attack occurred while the patient was at home it would almost certainly have escaped detection; it occurred without symptoms, and its course was afebrile. How often the susceptible experience such attacks is, of course, unknown at the present time; observation of them is often accidental, and their study demands very numerous fruitless examinations. They are certainly far more common than we have had reason to suppose. I might instance a very similar attack, also afebrile, in a girl of 13 years, who had rheumatic fever a year before I saw her. She sought advice for pains in the neck. The heart was normal in size, but there were early signs of mitral stenosis. The heart-block (Fig. 4) lasted for approximately four weeks, and then subsided entirely.

We may pass to later chapters in the same story. If chronic myocardial disease comes in the manner suggested we may expect to see evidences of the same process in cases in which the heart mischief is already far advanced. These cases are under more constant supervision, and our observations are consequently more numerous. I may cite the essential features of two illustrative cases.

A man of 47 years was admitted to hospital with signs of cardiac failure. He had been the subject of rheumatic fever at the age of 30, and was laid up with pleurisy at the age of 40. For twelve months prior to admission he had noticed shortness of breath and palpitation, following exertion and meals especially. For six weeks there had been pain and swelling in the upper abdomen, and the breathlessness had increased; a little dropsy had been present in the legs for a fortnight. Upon examination he was found to be breathless and cyanosed. The heart's impulse was diffuse; the limits of dullness were increased, lying 1½ and 5 inches to right and left of the mid-sternal line. A faint systolic murmur was audible at the apex. The remaining sounds were natural. The pulse was rather feeble, but it beat regularly at 96 per minute. The liver edge was readily felt two fingerbreadths below the costal margin; the legs pitted considerably with pressure, and so also did the sacrum. The urine contained albumen.

During his stay in hospital he developed a febrile attack of approximately five days' duration, the temperature varying, rising in the evenings to 100° or 101.5°, and falling halfway, or actually to normal, in the early hours of the mornings. With the appearance of the fever, heart-block presented itself in the form of "dropped beats" and prolongation of the *As–Vs* interval. The heart-block was maintained over the febrile period, though it gradually diminished in degree. When the temperature resumed and maintained its normal level, the heart-block subsided and was not again noted (see chart and Figs. 5 and 6). During the attack the remaining physical signs of the heart remained unchanged. The patient left hospital with but little improvement in general condition.

The next case is of interest from several points of view.

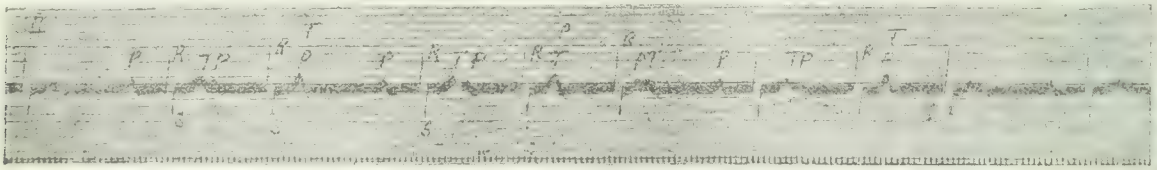
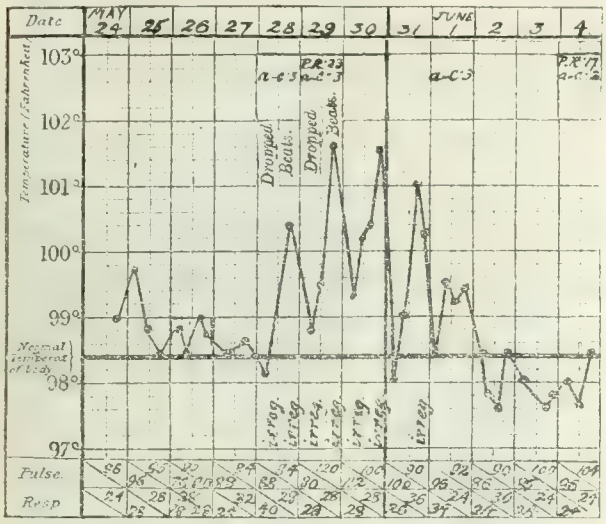


Fig. 4.—An electro-cardiogram from a young girl who had early mitral steno-is of rheumatic origin. Prolongation of the *P R* interval and frequent dropped beats are seen. The heart-block was temporary.

In the first place the heart-block consisted of a simple and temporary prolongation of the *As–Vs* interval; there were no "dropped beats." In the second place, there were other signs of myocardial involvement.



A chart showing a transient attack of fever in a patient suffering from cardiac failure. The chart shows also the days upon which the heart-block was found, and the relation of this disturbance to the febrile attack.

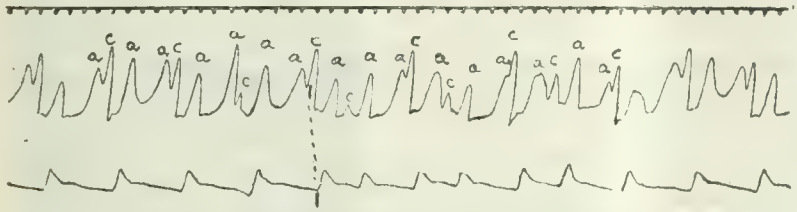


Fig. 5.—A polygraphic curve taken from a case of cardiac failure of rheumatic origin during a febrile attack. It shows frequent dropped beats.

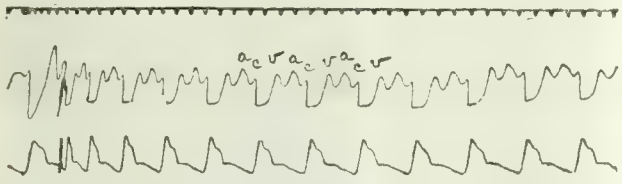


Fig. 6.—A curve showing the recovery. The pulse is now regular, and the *a–c* interval is $\frac{1}{5}$ second in duration.

A girl of 13 years was admitted to hospital on July 31st, 1911, complaining of breathlessness on exertion, anaemia, and palpitation, which had been noticed since an attack of rheumatic fever a year before. She had obvious signs of mitral stenosis but there was not much cardiac enlargement. The limits of cardiac dullness lay 1 and 4½ inches to right and left of the mid-sternal line. There were no signs of venous or liver engorgement and no dropsy, but the temperature was raised to 101°. During the next three days the fever subsided. For twelve days it remained normal, and during this period the *As–Vs* interval was found to be normal on three occasions (Fig. 7). Then for a period of five weeks the temperature fluctuated, rising frequently to 99°, 100°, or 101°, sometimes falling to the base line and resting there for a few days, or at the longest a week. Coincidentally the pulse-rate rose, and the child was restive and more breathless. The heart increased in size, until at the end of the febrile period the limits of dullness lay 1½ and 7 inches to right and left of the mid-line. Early in the attack the *As–Vs* interval became slightly but distinctly prolonged (Fig. 8). The course was towards recovery; heart-block was present for a fortnight after the fall of temperature, but eventually cleared up entirely; the cardiac dullness decreased a little in area, but the original area was not regained. The remaining physical signs were not materially affected. The child showed no improvement in general health from first to last, but left the hospital rather worse than better for her stay.

Thus although the heart-block may be transient, as is customarily the case in these patients where its onset is observed, yet the myocardium may, as this case fully illustrates, suffer permanent injury.

It may be asked why the heart-block is so often transient; it is usually temporary because the injury in the acute or subacute stage exceeds that of the period of recovery which follows;* the inflammatory products are absorbed. That damage to the bundle should be permanently manifested

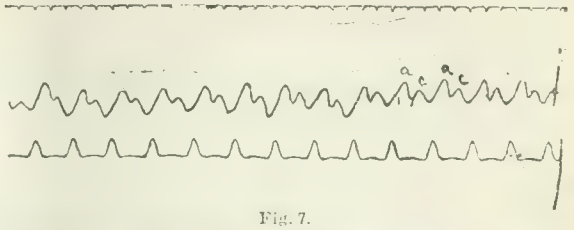


Fig. 7.

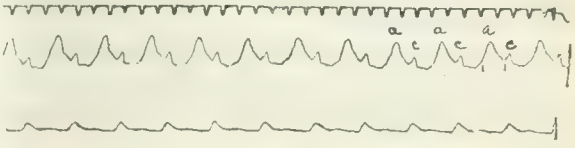


Fig. 8.

Figs. 7 and 8.—Two polygraphic curves from a child who suffered from rheumatic heart disease, including mitral stenosis. Fig. 7 was taken before and Fig. 8 during a period of pyrexia. Fig. 7 shows a normal *a–c* interval. Fig. 8 shows prolongation of this interval. There was subsequent recovery from the heart-block.

in some instances naturally suggests itself. I can call to mind no case in which the onset of heart-block has been witnessed and in which it has remained, but that the bundle is frequently and permanently damaged by rheumatism is fully evidenced by the now well-known fact that permanent increase of the *As–Vs* interval or higher grades of block are by no means infrequent in chronic rheumatic heart disease.

I will leave the case for my contention that heart-block is a valuable sign of myocardial invasion in rheumatic heart disease at this point. I could cite or quote more instances of a similar nature to those which I have related briefly to you, but little could be gained by so doing at present. We require more necropsics than we have at present in confirmation of our clinical conclusions. We require, especially, autopsies in cases from which graphic records have been taken. The field of work is not unpromising, and in this connexion I may quote the words of a pure pathologist who has given special attention to the microscopic lesions of rheumatic heart disease. Aschoff[9] writes: "We do find not infrequently, especially in cases of rheumatic myocarditis, actual destruction of the smaller and larger branches of the conducting system, the already described specific rheumatic nodular structures having a special tendency to develop beneath the endocardium and occasionally right in the connective tissue sheaths of the system."

Heart-block in other Acute Infections.

Amongst the first cases of clinical heart-block which were recorded is the instance reported by Mackenzie.[10] It occurred as a sequel to a severe febrile attack of influenzal origin. Wenckebach[11] has recorded a similar case; the heart-block was noted during the stage of recovery. In rheumatic infections it appears coincidently with the pyrexia, where this is present, as we have seen. Heart-block has also been recorded in pneumonia; in Magnus-Alsleben's case[11] it first appeared while the temperature was falling. I have seen a similar case.

The patient was a carman, aged 27, and the pneumonia was severe. The temperature on admission was 104°; the pulse 160. Respirations were very frequent (55 per minute). The lower lobe of the right lung was involved primarily, and the patient was cyanosed and delirious. On the eighth day there were signs of fresh consolidation in the left lung, and the crisis did not come till the tenth day. The delirium continued for three days

* When the patient is going to die the heart-block remains: I have a good deal of evidence which suggests that many of the patients who enter hospital for what is termed "broken compensation" are in reality suffering from a new, and perhaps fatal, invasion of the myocardium.

after the crisis. Heart-block (frequent dropped beats and a long *a–c* interval) appeared two days after the crisis, and persisted, though subsiding gradually, for ten days (Fig. 9). In this case and in Magnus-Alsleben's, both of which recovered, the question of the myocardial infection was complicated, because the patients were upon small doses of digitalis; but

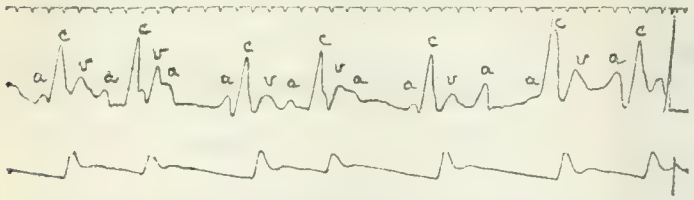


Fig. 9.—A curve showing frequent dropped beats. It was taken from a patient admitted for acute pneumonia, and represents the mechanism of the heart shortly after the crisis.

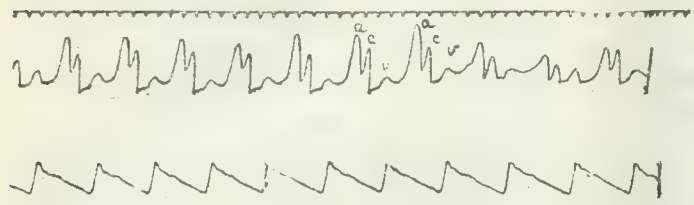


Fig. 10.—From the same case a fortnight later. At this time the heart-block had disappeared. The patient was upon the same doses of digitalis when the two curves were taken.

that the heart-block in my own case was not attributable to this source seemed clear, as the drug (digalen m v, t.d.s.) was withdrawn on the day when the block appeared, and its re-administration as soon as the heart-block subsided failed to reinduce it (Fig. 10).

I have also seen heart-block (dropped beats and long *As–Vs* interval) of a few days' duration as the sole sign of myocardial involvement in a case of infection of the bladder by a coliform organism (Fig. 11); and a case in which there was a mixed invasion of the endocardium by pneumococci and coli has been reported by Cowan, Fleming and Kennedy.[4] The last-mentioned case came to autopsy; while the muscle of the ventricle showed both recent interstitial change and patchy degeneration of the fibres, the heart-block which had been present was accounted for by an inflammatory lesion of the bundle.

A significant instance of acute heart-block as a sign of myocardial disease is found in diphtheria. Three cases (Magnus-Alsleben,[11] Fleming and Kennedy,[6] and Dunn[5]) of the disordered mechanism have been reported in diphtheria; in each the illness terminated the life of the patient. In a fourth but less certain instance (Price and Mackenzie[12]) the issue was the same. The microscopic examination was undertaken in three cases. In Magnus-Alsleben's case the bundle showed parenchymatous degeneration, and is alone described. In Fleming and Kennedy's case a conspicuous inflammatory invasion of the auricular and ventricular muscle which involved the bundle was seen. In Price and Mackenzie's case the lymphatic infiltration of the myocardium was extreme and the bundle itself was free of it.

While heart-block is necessarily, first and foremost, a sign of bundle involvement, it does not signify that demonstrable lesions are always to be found, though in the majority of cases they can be; to us as clinicians the demonstration of functional disability is of equal if not greater import. But, as I have attempted to show, we are justified in utilizing it as a sign upon a broader basis in acute infections. The bundle belongs to the myocardium, and an invasion of the bundle, especially when, as is usual, it happens through vascular channels, can hardly occur without the exposure of the remaining muscle. It may be that under some circumstances the last-named is less susceptible, but the fact remains that the damage is rarely confined to the special tissues. In a measure, therefore, they serve as a gauge for the rest of the myocardium.[a] Heart-block in acute conditions may not be an infallible sign of general myocardial disease; few signs are infallible, but it is certain that it often speaks of invasion when other signs are absent.

Damage of a Bundle Branch as a Temporary Phenomenon.

I have described to you a number of cases, rheumatic and otherwise, in which heart-block appeared as a transient physical sign, and have sought to convince you of its value as an evidence of myocardial invasion. Now, heart-block is the result of functional deficiency of the auriculo-ventricular junctional system where it exists as a single strand of tissue. You will remember that before this system connects to the ventricle it breaks into two main branches. Functional impairment, though complete, in one of these branches, does not hinder the passage of the auricular impulse to the ventricle, for it is able to pass along the other. Damage to a bundle branch does not originate heart-block. Nevertheless, a lesion of this character, though it does not disturb the rate or regularity of the ventricular beating, can be detected by modern means. The branches of the bundle can no longer be classed with what I have termed the silent mass of myocardium. The physical sign has been but recently described, and it is electro-cardiographic. A lesion of a bundle branch produces conspicuous distortion of the electric curves, distortion of a definite and known type which can be recognized clinically. The physical sign has been repeatedly found in human hearts since its discovery, but in all the cases in which it has been recognized (my own series includes 15 cases) it has been a permanent feature of the curves. I may briefly describe a case which has recently come under my observation, and in which it was transient:

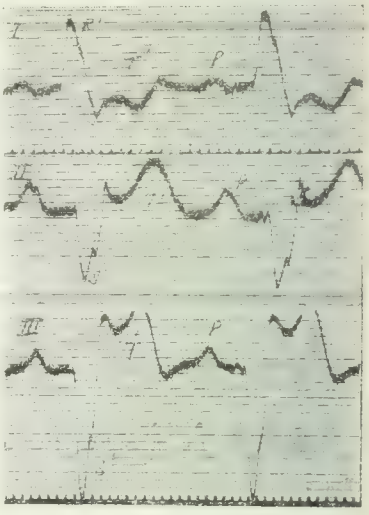


Fig. 12.—Electro-cardiograms from a case of aortic disease, taken on August 18th, 1912, and shortly after the admission of the patient in a slight febrile attack. The heart was beating regularly. Each auricular contraction *P* was succeeded by a ventricular contraction *R'*, *S'*, *T'*, of anomalous form. The type of ventricular curve in the three leads is one which indicates functional impairment of the right branch of the auriculo-ventricular bundle.

A bookbinder, aged 32, who had enjoyed good health until six years previous to his admission to hospital, complained of shortness of breath while walking. This had been present for six years; for several months precordial pain of an aching character was experienced. These were his chief symptoms. He had been

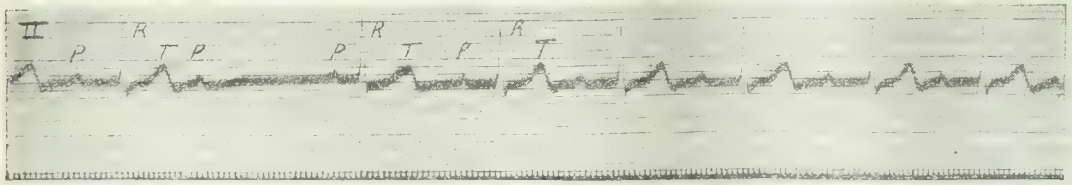


Fig. 11.—An electro-cardiogram from a boy who was admitted to hospital for subacute cystitis, due to a coliform organism. Prolongation of the *P–R* interval and a single dropped beat are seen. The heart-block was transient.

[a] The case reported by James,[8] in which a deep ulcer invaded the bundle, and that reported by Jellinek and Cooper,[9] in which a localized area of anaemic necrosis, presumably of gonorrhoeal origin, affected the upper part of the ventricular septum, do not materially affect the argument.

feeling more seedy than usual for some days, sought advice, and was admitted. He was found to have considerable enlargement of the heart, and free aortic regurgitation was present. The pulse beat perfectly regularly at 64 per minute. There were no signs of venous stasis or of dropsy at his admission, but his temperature was 99°. On the second day it had risen to 100.5°, from which point it gradually fell to normal during the next few days. From this time it remained normal. Electro-cardiograms were taken for the first time on the third day during the pyrexial period; they were of very abnormal type (Fig. 12), and of the form which we now recognize as being characteristic of damage to the right bundle branch. On the succeeding day I had occasion to examine him again, and was surprised to find a complete alteration of the electro-cardiographic pictures. They had reverted to the physiological type (Fig. 13), and this type was maintained during his stay in hospital.

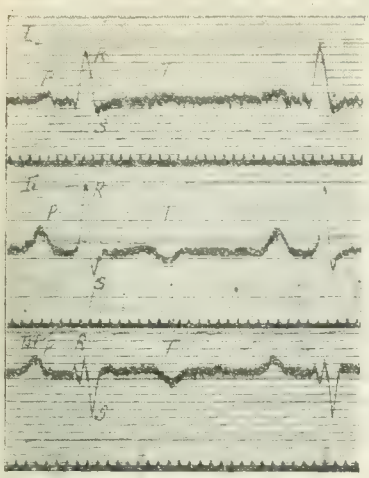


Fig. 13.—Electro-cardiograms from the same case taken on the following day. The heart was beating regularly as before, but the auricular contractions *P*, which themselves remain unaltered in form, are now followed by the physiological type of ventricular curve, indicating in this case the subsidence of the conduction defect in the right branch of the bundle.

The change may be interpreted in precisely the same manner that we have interpreted transient heart-block. It is probable that in this case, too, an invasion of the myocardium—which, from the temperature chart, we should be inclined to regard as infective—happened some little while before admission. The damage of the bundle branch was the sole sign detected, and this sign, like the heart-block of our other cases, was transient. It vanished, and the subsidence of the fever was not long delayed.

This is an isolated instance. I have little doubt that the observation will be often repeated, but as to the actual frequency of the phenomena I have but little knowledge. I have described the sign to you, although its value in general practice is negligible, for it serves to impress the lesson that important events occur in the hearts of our patients which we cannot detect by ordinary means; in the investigation of disease the sign is certainly of importance.

In conclusion, let me remind you that in a very large percentage of chronic heart cases we are unable to trace the cause of the disease: chronic heart disease is not always referable to definite illness from which our patients are known to have suffered; oftentimes the reverse is the case and the disease develops silently. If we can discover any indications which help us to recognize the presence of active processes in these patients from time to time—and such I believe are the physical signs which I have described—our knowledge of the disease moves forward by a distinct step.

REFERENCES.

1 Aschoff: BRITISH MEDICAL JOURNAL, 1906, ii, p. 1103.
2 Butterfield: *Heart*, 1911-12, iii, p. 203.
3 Cowan, McLeod, and Paterson: *Quart. Journ. of Med.*, 1910, iii, p. 115.
4 Cowan, Fleming, and Kennedy: *Lancet*, February 3rd, 1912.
5 Dunn: *Journ. Amer. Med. Assoc.*, 1908, i, p. 1985.
6 Fleming and Kennedy: *Heart*, 1910-11, ii, p. 71.
7 Gerhardt: *Deut. Archiv f. klin. Med.*, 1908, xciii, p. 485.
8 James: *Amer. Journ. Med. Sci.*, 1908, cxxxvi, p. 469.
9 Jellinek and Cooper: BRITISH MEDICAL JOURNAL, 1908, i, p. 796.
10 Mackenzie: BRITISH MEDICAL JOURNAL, 1902, ii, p. 1411.
11 Magnus-Alsleben: *Zeit. f. klin. Med.*, 1910, lxix, p. 82.
12 Price and Mackenzie: *Heart*, 1911-12, iii, p. 233.
13 Wenckebach: *Arrhythmia of the Heart*, London, 1904, p. 78.

OWING to the greater demands made upon the British Fire Prevention Committee for testing facilities, it has been decided to enlarge the testing station and to add to the plant. The main building is being rearranged so that the principal rooms will be available for the committee's technical and historical collections. It is anticipated that the alterations will be completed early in April, when the testing operations of the new session will be commenced with several tests on fire-resisting doors, various forms of glazing, and some new extinguishers; certain further tests with concrete floors, etc., and with partitioning materials, will also be carried out.

MANIFESTATIONS OF A HEALTHY HEART.

BY

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LONDON.

THE novel thesis set forth in Dr. James Mackenzie's article published in your issue of December 21st last, to the effect that irregularities of pulse frequency and functional murmurs are manifestations of a healthy heart, is one which demands careful consideration. I, for my part, beg to submit that those phenomena are partial expressions of a syndrome of which the fundamental conditions have to be sought elsewhere than in the heart. They are, in fact, signs of a consequential impairment of the heart muscle and of the arterial tunica media. They occur in association with a dicrotic pulse characterized by feeble development, or complete absence, of the predicrotic and post-dicrotic waves. The arteries, in fact, do not receive their normal fill of blood, and are practically empty during an undue proportion of the cardiac cycle. Such phenomena point to two defects: an inactive tunica media and consequent deficiency of recoil and of conductivity, and an actual defect of myocardial energy the importance of which is relatively aggravated by the fact of the central organ being called on to perform a considerable part of the work which should be carried out by the arterial heart. Under some circumstances, such as moderate exertion, or even menstruation during a period of invalid repose, the impoverished tunica media seems to pass temporarily out of action. It is easy to understand how great is the danger of heart strain if any effort be persevered in while that condition lasts. The syndrome in question is one of atony of the whole cardio-vascular system.

An almost universal symptom of that condition is an undue degree of postural tachycardia. The pulse is abnormally accelerated by the act of rising from the recumbent or sitting posture, and that acceleration will, in some cases, be indefinitely maintained until a position of repose is resumed.

The murmurs, also, which are so often to be heard in these cases, are so largely influenced by posture that in many instances they subside on the erect position being assumed, and are, in any case, loudest while the patient is in the recumbent position—that is, as Dr. Foxwell pointed out some years ago, while a distended right auricular appendix is pressing on the root of the pulmonary artery. It is difficult to determine whether the systolic apex murmur, which is sometimes to be heard, should be attributed to papillary weakness, to asthenic dilatation of the auriculo-ventricular ring, or to conduction. Dilatation of the pupil is a common feature of these cases, especially in the young. Irregularity of the pulse, if not actually present, is liable to be induced by any additional call on myocardial energy, or by vaso-dilatation however induced; though in the less severe cases the balance may sometimes be redressed by the stimulus of moderate exercise. In some, as has been stated by Dr. Mackenzie, the irregularity follows the respiratory rhythm: that is, the pulse falters synchronously with the descent of the diaphragm. In the majority of cases there is some degree of extension of the area of cardiac dullness. In childhood and adolescence the blood pressure is low.

As regards the etiology of these cases, careful investigation, especially when it can be carried back to the early stage of life, lights on some form of autotoxis. The most common is that of gastro-intestinal origin. In other subjects a rheumatic or gouty taint seems to bear a causative relation to the syndrome. Not a few subjects bear the rachitic stamp in the form of beaded ribs, retraction of the lower part of the sternum, or a tendency to pigeon-breast. But whatever the cause the result is a general impairment of power and efficiency, and a consequently diminished ability to bear strain, whether mental or physical. Such are the children and adolescents who become the subjects of the strain usually attributed to athleticism. Sound and healthy lads do not strain their hearts in ordinary and legitimate forms of game and sport, but those under consideration, short of wind, subject to palpitation and tumultuous action on exertion, and lacking in staying power, albeit full of pluck and will-energy, may meet misfortune in a football match, a paper-chase, a boat-race, or a game of rackets—I quote cases within

my knowledge. Even if they escape some form of breakdown, they plod on with something less than normal energy which may suffice to meet the requirements of a routine life; but they live on a lower plane than is their due. In manhood some are invalided because they are unable to bear the strain of an active life at home or abroad, especially under the influences of a subtropical and humid climate. Others fail in route marching or break down in manœuvres, having persevered, in opposition to their instincts and judgement, under the influence of assurances that there is nothing organically wrong with them, and that their monitory symptoms and their misgivings are "all nerves." As they enter on or pass beyond middle life, the atrophied tunica media and the weakened myocardium being unable to accomplish the treble task of emptying the chambers of the heart, filling the aorta, and then driving the blood through the peripheral vessels, these subjects begin to experience the troubles and disabilities generally referred to as indicative of arteriosclerosis, but, as I would prefer to call it, atrophic dilatation as opposed to the hypertrophy to which the late Dr. Savill gave the name of "arterial hypermyotrophy."

The treatment to be adopted consists primarily in the correction of autotoxis, whether gastro-intestinal, rheumatic, gouty, or due to some pyogenic process. The greatest attention should be paid to diet and general hygiene, exercise being regulated in accordance with the response which may be expected from the circulatory mechanism. Baths and exercises administered according to the Schott-Nauheim method are of great value. Among pharmaceutic remedies, iron is not indicated; digitalis is sometimes useful, but adrenalin, administered by the mouth in doses of from 5 to 10 minims of the hydrochloride solution, stands pre-eminent. Its special office is to bring the tunica media into action, and, it would seem, to restore it to functional efficiency. I have employed it for years, and in every case made frequent manometric observations, which enable me to give unqualified denial to the prevailing suspicion that, thus administered, it raises blood pressure.

It is necessary to add that, during the period of growth and development, progress in the more marked cases is generally slow, and relapse the not uncommon penalty of undue and especially of sustained exertion.

Such in brief are the reasons why I should regard it as a misfortune were it accepted that functional murmurs and irregularities of pulse frequency are manifestations of a healthy heart, and as such to be regarded with complacent acquiescence.

By way of illustration I append the following sphygmograms. Fig. 1 is taken from a youth of 18 who had a functional murmur at the apex from ages 4 to 10. He broke down after a game of rackets at a public school in 1911. The tracing is typical of cardio-vascular atony.

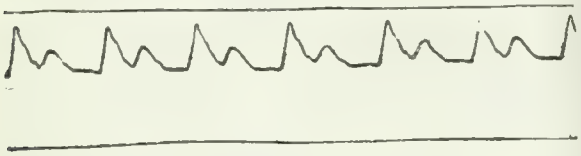


Fig. 1.

Fig. 2 illustrates a severer form of the syndrome, and is taken from a lad of 13, who, after breaking down at school, developed loud apical and basic murmurs in conjunction with dyspnœa, palpitation on exertion, and some cyanosis. After a year's limitation of activity he recovered his health

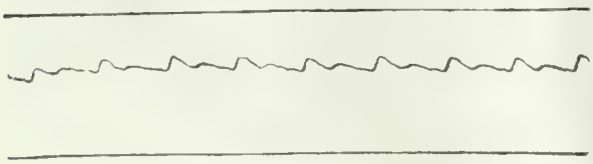


Fig. 2.

to a great extent and the murmurs disappeared. He was then assured by a specialist that he might return to school and join, without restriction, in the usual games. The result was a relapse and a return of the murmurs.

The following illustrate the effects of treatment. Civil engineer, aged 30, treated for cardio-vascular atony in 1909. Health failed in India at the end of 1911. Figs. 3 and 4 were taken on the first day of treatment (February

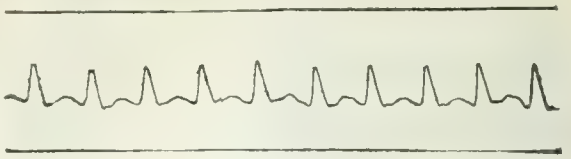


Fig. 3.—Before bath.

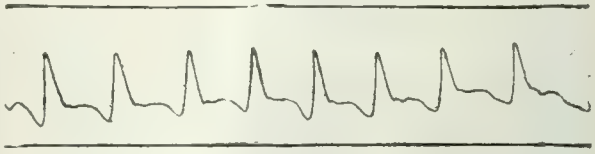


Fig. 4.—After bath.

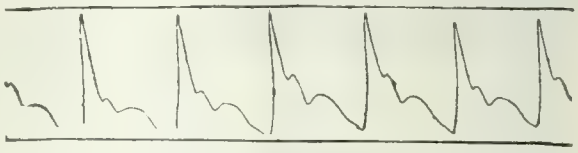


Fig. 5.—Before eff. bath.

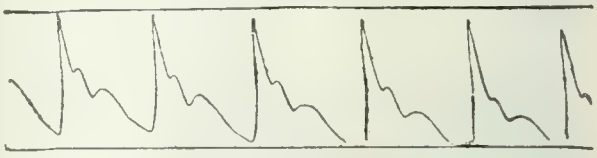


Fig. 6.—After eff. bath.

2nd, 1912); Figs. 5 and 6 on completion (March 7th, 1912). Nauheim baths, adrenalin, gastro-intestinal correctives.

Army officer, aged 39. Nutritional and digestive troubles from childhood. Always "slack." Resigned his commission because he could not spend a day in the saddle nor

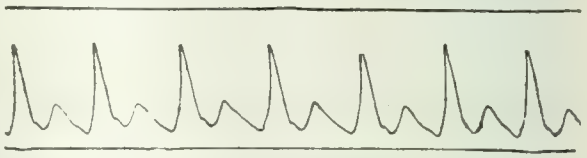


Fig. 7.—Before bath.

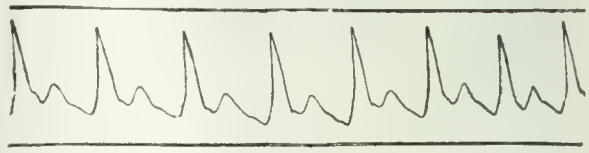


Fig. 8.—After bath.



Fig. 9.—Before eff. bath.

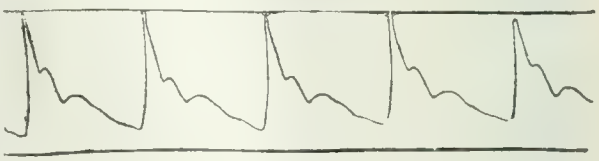


Fig. 10.—After eff. bath.

stand the strain of manœuvres. Figs. 7 and 8 taken on the first day of treatment (August 7th, 1911); Figs. 9 and 10 on completion (September 12th, 1911). Nauheim baths, adrenalin, gastro-intestinal correctives.

THE VENTRICULAR RATE IN COMPLETE HEART-BLOCK.

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IN the great majority of cases published so far, when complete heart-block was present, the spontaneous ventricular rhythm has been between 30 and 40 per minute; most commonly in the neighbourhood of 32. Windle[1] has published a case in which the rate was usually 50, and at times rose to over 60 per minute. Lewis[2] has put on record a case in which, while the auricles were fibrillating, the ventricles beat regularly at about 90 for a few days, and Mackenzie[3] mentions a similar case with a ventricular rate of 70; presumably complete heart-block was temporarily present in these two instances. In spite of these 3 cases it is very generally held that the idio-ventricular rate in man is a very constant one, varying but little from 32 per minute.

During the past year I have come across 2 cases in which the rate was not infrequently over 50 per minute, and another one in which the rate was as low as 17. I subjoin a short record of the two former, since it may well turn out that a comparatively rapid idio-ventricular rate is less uncommon than usually supposed, cases remaining undetected owing to there being no remarkably slow pulse-rate to call attention to the condition. As a matter of fact, one of the two had been for some time under the observation of a medical man without special attention having been drawn to his heart.

Erlanger and Blackman,[4] having succeeded in producing chronic heart-block in 5 dogs, found that even under normal conditions there was a considerable difference between the lowest and highest ventricular rate. In 1 dog there was a variation of 40 beats per minute (maximum 74, minimum 34), and the average variation for the 5 dogs was nearly 25 beats per minute. Under abnormal conditions—for example, nervous states, running exercise, ether, etc.—the maximum rate was usually much higher. Individual dogs also varied from one another, the lowest under normal conditions averaging 35 beats per minute and the highest 50.

The first case, which I have reported more fully elsewhere,[5] came under observation on April 26th, 1912, and from then up to June 10th showed complete heart-block with the exception of five days in May, when the rhythm was 2 : 1. During these six weeks the ventricular rate varied from 32 to 52 per minute. The slower rate was only seen after a shower of extra-systoles, which were usually produced by exercise. When resting the rate was most usually about 48, but was sometimes approximately 52 for considerable periods.

In the short stretch of tracing seen in Fig. 1 the average ventricular rate is 50 per minute. It will be seen that the rhythm of the ventricles is not perfectly regular, and in other parts of the tracing the irregularity was even more marked. In Dr. Windle's case irregularity was also noted.

In the second case, a man aged 66, who has shown complete heart-block for the past three months, the ventricular rate has varied between 38 and 54, being most frequently between 40 and 50. Fig. 2 shows the ventricles beating at approximately 52, and the auricles at nearly 65 per minute, a very low auriculo-ventricular ratio.

Apart from the possibility of such cases being overlooked altogether, the faster ventricular rate is more likely to give to a simulation of partial block. With the ventricles beating at 32 per minute the auricles have to beat as slow as 64 or as fast as 96 before there can be an appearance of partial block, and these are both rather unusual for the auricles under ordinary conditions. With the ventricles, on the other hand, beating in the neighbourhood of 40 per minute, it is obvious that a partial block must be much more frequently simulated, since the human heart commonly varies between 70 and 90 under conditions of rest or mild exercise. Wardrop Griffith has recorded 2 cases in which the difficulty of distinguishing between complete and partial block was considerable. Erlanger,[6] in his classical experiments, sometimes found the same difficulty. He says: "Occasionally the ventricular rate in complete block may be an aliquot part of the auricular rate over long intervals of time, and in such instances the ventricular beats may so follow the auricular beats as to appear to be caused by them."

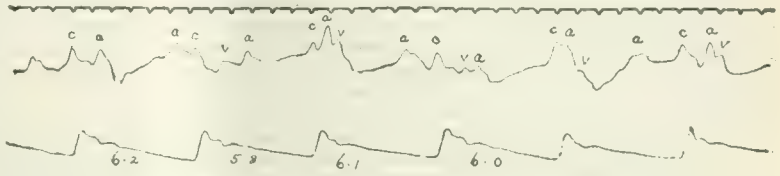


Fig. 1.

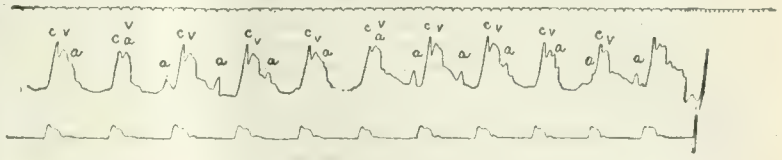


Fig. 2.

REFERENCES.
[1] *Heart*, ii, p. 102. [2] *Heart*, iii, p. 279. [3] BRITISH MEDICAL JOURNAL, 1911, ii, p. 872. [4] *Heart*, i, p. 177. [5] *Quart. Journ. Med.*, vi, p. 196. [6] *Amer. Journ. Phys.*, xvi, p. 160.

THE AURICLE IN MITRAL STENOSIS.

BY
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MENTONE.

THE somewhat complex series of murmurs audible during the course of a case of mitral stenosis seem to me to find an easy and natural explanation if it be granted that the contraction of the auricle may not cease when that of the ventricle commences, but may continue for a longer or shorter period to overlap it.

Such an assumption is by no means unreasonable.

The late Professor Potain always maintained, basing his conclusions on repeated observations, that the contraction of the auricle continued normally till the time of opening of the aortic valves.[1] Dr. Barclay wrote: "The two cavities (auricle and ventricle) do not contract and dilate alternately, but the contraction of the one overlaps to some extent that of the other."[2] Roy and Adami gave a series of simultaneous curves, showing the relation in time of the principal elements which united constitute the heart-beat. Those curves show the contraction of the auricle maintained in full force into the time of the outflow of blood from the ventricle into the aorta.[3] Dr. Galabin, commenting on his heart curves, and on those of Professor Marey, wrote: "From a comparison with Marey's tracings we have come to the conclusion that the beginning of the ventricular rise coincides with the first increase of the intraventricular pressure, whereas the auriculo-ventricular valves appear in general to close when the half or the third of the ventricular rise is accomplished."[4]

I am, therefore, not astonished that Dr. James Mackenzie says: "The curves of auricular pressure by different physiologists are very perplexing, some getting a rise of varying duration during ventricular systole."[5]

Now in mitral stenosis a tendency for the auricle to prolong its contraction still further is to be expected, as it would take longer to expel its contents through a stenosed than through a widely open orifice, and considerable evidence has accumulated to indicate that this is so.

If, then, the auricle in mitral stenosis can prolong its

contraction into ventriculo-systolic time, the following results would occur:

1. The presystolic murmur would go up to and into the first sound.

It would not necessarily stop with the advent of the first sound, for, as I showed in my article in the BRITISH MEDICAL JOURNAL of January 11th, 1913, the pressure on its contents which a contracting auricle can exert varies, roughly, inversely as the cube of its diameter.

The auricle having expelled most of its contents into the ventricle before the contraction of the latter commences, it could contract on the residue of its contents with far greater effect, and exert a far greater pressure, than the ventricle could on the full total of its contents. An auricle when small is more than a match for a ventricle when large; the auricle, in fact, is in somewhat the same position as the small piston of a Bramah press, which can overcome and force up the larger in virtue of its being the smaller. Blood would therefore flow from the contracted auricle into the large contracting ventricle, and the murmur, like the blood, would go into ventriculo-systolic time. The murmur would be crescendo in character, in harmony with the increasing pressure under which, as it contracts, the auricle can expel its residual contents into the ventricle. (In my communication "On the Genesis of the Venous Pulse"[7] I pointed out why regurgitation from the auricle, in the absence of valves at the great veins, could not occur.)

2. A systolic murmur might be absent for years, though the auriculo-ventricular valve was incompetent.

Patients with mitral stenosis often live for long periods without any signs of regurgitation occurring, yet the auriculo-ventricular valve suggests from its appearance after death that it has been incompetent through, perhaps, most of the time. Why has this incompetent valve not leaked? or why has it leaked only towards the end of the illness? The rounded, hypertrophied auricle one often finds in these cases[8] has for a long period prevented regurgitation by prolonging its contraction into ventriculo-systolic time. It has nearly emptied itself and become small—say, half its initial diameter—by the time the ventricle starts contracting, and it continues to try and drive its residual contents into the ventricle. It could now exert greater pressure on its contents, urging them forwards, than the ventricle could oppose to them, for the ventricle can never raise a pressure greater than that in the aorta without its contents escaping into it.

The auricle, therefore, would allow no regurgitation from the ventricle so long as the auricular contraction continued, and consequently the incompetent stenosed mitral valve would not leak. In fact, any leak would, so to speak, take place forwards from the auricle to the ventricle during the early part of ventricular contraction in cases of mitral stenosis accompanied with an auriculo-systolic murmur.

Incidentally it is interesting, as showing what auricles may do, to recall the case observed by Allan Burns where the ventricles were calcified, and the auricles had accomplished for a long time the whole work of the circulation.[9]

3. A systolic regurgitant murmur would replace the presystolic crescendo murmur when the auricle failed to contract to a sufficiently small chamber before the oncome of the ventricular systole.

If the auricle does not get small in time, because of the difficulty of expelling its contents quickly enough into the ventricle, the oncome of the ventricular systole would catch it before it had the physical advantage of being small enough to exert sufficient pressure on its residual contents to match or master the ventricle. Regurgitation into the auricle would then occur, a systolic murmur appear, the auricle would speedily dilate, and cardiac breakdown take place.

Rest or bleeding might temporarily give the auricle a chance of recovering its function, and becoming small in time to oppose the ventricular contraction. In that case the systolic murmur would again disappear, and be replaced by the presystolic. In time the breakdown would occur again in the same way, and probably be permanent, the auricle remaining dilated, and allowing regurgitation from the ventricle.

As soon as it is recognized that the auricle may be to the ventricle what David was to Goliath, simply because it starts first, the auricle will "come into its own" and be respected as it deserves. Not recognizing this has misled and wronged many a good observer. Dr. Barclay wrote: "The more powerful contraction of the ventricle must overcome that of the auricle if there exists anything like antagonism between them." This false conclusion must have made it very difficult for him to accept the evidence of his own senses and affirm so correctly that "the essential character of this (presystolic) murmur is that it continues up to the first sound, *during* which it ceases."[9]

Dr. Dickinson, on the other hand, because the auriculo-systolic murmur was heard by him during the apex beat (as also it was by Professor Potain) concluded that it must be ventriculo-systolic in origin and regurgitant.[10] He was forced to a false interpretation of a true observation through imagining relative muscle was everything and relative size was nothing in any struggle between the auricle and ventricle.

REFERENCES.

[1] Dr. Potain, *Clinique médicale de la charité*. [2] Dr. Barclay, *Lancet*, March 16th, 1872. [3] Professors Roy and Adami, *Practitioner*, vol. xliv, p. 251. [4] Dr. A. L. Galabin, On the Interpretation of Cardiographic Tracings, *Guy's Hospital Reports*, vol. xx, 1875. [5] Dr. James Mackenzie, *Diseases of the Heart*, second edition, p. 109. [6] D. W. Samways, Mitral Stenosis: A Statistical Inquiry, BRITISH MEDICAL JOURNAL, February 5th, 1898. [7] BRITISH MEDICAL JOURNAL, April 13th, 1912. [8] Cited by Dr. A. Gérard, Sur l'oreillette gauche dans le rétrecissement mitral, *Thèse de Paris*, 1894. [9] Dr. Barclay, *Lancet*, March 16th, 1872. [10] Dr. Dickinson, *Lancet*, 1887.

The Goulstonian Lectures

ON

DEATH BY ELECTRIC CURRENTS AND BY LIGHTNING.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

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LECTURE II.—DEATH BY ELECTRIC CURRENTS (*concluded*).

SOME excellent experiments further illustrating the importance, so far as life is concerned, of the quantity of current traversing the thorax in electric accidents were published in 1911 by Weiss and by Zacon. These were made on dogs anaesthetized with chloral; the electrodes were placed either in the mouth and rectum or on the head and leg, and the amperage, voltage, and the duration of the current received by the animal in each case were noted. Tracings of the femoral blood pressure and the respiratory movements are given. These authors concluded that the resistance of the dog's tissues to alternating currents (12 to 75 periods per second) was the same as to continuous currents, and that chloral anaesthesia gave no protection against electric shocks. With alternating currents given for a few seconds, death would occur when about 70 to 100 milliamperes traversed the thorax with the heart *en route*; with continuous currents, death was not caused unless the current was as large as 300 milliamperes, roughly speaking. If, however, smaller electric currents were administered for long periods, it was found possible to produce death by tetanus and asphyxia: thus currents of 35 to 45 millamperes were too small to produce cardiac fibrillation, but after about ten minutes' application caused death by continued inability to breathe, and slow asphyxiation. It was observed that large currents—400 milliamperes or more—could be passed through the head with comparative impunity, the heart continuing to beat though rather irregularly, and the respiration stopping only for so long (35 and 58 seconds in two instances) as the current passed. With still large currents, however, thus passed through the head and central nervous system, respiration might fail to begin again when the current was turned off, and death from asphyxia would then occur. The resistance of the animals generally diminished about 10 per cent. during the passage of the current.

Death by Alternating Currents of High Frequency.

It is necessary to go back a little at this point and consider more carefully the frequency of the alternating currents that have been used to produce death. Hitherto I have considered only the ordinary alternating currents that are so widely used domestically and industrially, in which the direction of the current is changed perhaps from 50 to 300 times in a second. Such currents are, as we have just seen, three or four times as dangerous to the life of animals, *cæteris paribus*, as continuous currents. The question arises: How far does the rate per second of these alternations affect the dangerousness of these currents? The answering is extremely surprising and interesting. In 1891 Tesla, in America, experimented with alternating currents in which the number of alternations per second was very great indeed, and found that very large quantities of electricity could be passed with impunity through the human body when at these very high rates of alternation. Thus, d'Arsonval (1892), using currents alternating from 400,000 to 1,000,000 times a second, found he could pass as much as 1 ampere through his body with impunity, and later (1893) took currents up to 3 amperes. These currents were twenty or thirty times as large as those required, under similar conditions, to cause death in the case of the ordinary alternating currents at much lower frequencies and pressures. Yet he felt no painful sensation while they traversed his body; there was no burning of the tissues at the points where these large currents entered and left him, and his muscles were not thrown into tetanus. Various explanations of these observations were offered. Jones (1893) assumed that, as a matter of fact, the currents passing through the body were to be measured in milliamperes rather than in amperes, its effective resistance being immensely increased by the high rate of frequency of the alternations: similar explanations were offered by Hedley and by Swinton. Others assumed that such high-frequency currents travelled by the surface of the body only, and did not penetrate to the deeper tissues owing to the very brief duration of each alternation. Sutherland quoted the view that one alternation might not have passed fully through the body before it was wholly or partly neutralized by the succeeding current of opposite sign, a view that is quite unimaginable to an electrician. The most reasonable and, no doubt, the correct explanation was furnished by d'Arsonval, who assumed that human muscle and nerve are so constituted as to be insensitive to alternating currents of very high frequency. The same explanation was given by Thomson (1894), who found that, using currents of over 10,000 alternations a second and very high voltage (100,000 to 200,000 volts), he could take a current, equal in heating effect to over 1 ampere of ordinary current, from one hand to the other, without pain and with only a moderate sensation of warmth at the points where the current entered and left the skin. Using electrodes with a surface of 6 sq. in., he found the virtual resistance of the human body from hand to hand to be about 700 ohms; using his two hands and wrists immersed in saline solution as electrodes, he could take a current of 1.5 amperes, the body absorbing power at the rate of 800 watts, without appearing to be in any way injured by it. In other words, alternating currents at these high frequencies were at least twenty or thirty times less dangerous to human life than alternating currents of the ordinary frequencies—25 to 150 cycles a second—used industrially. That animals can be killed by these alternating currents of very high frequency was shown by Bordier and Lecomte, among others; a couple of rabbits after receiving currents of 300 and 400 milliamperes for a minute became paraplegic, and died in twelve and fourteen days, and a third rabbit died in general tetanus from failure of the respiration two minutes after having a current of 500 milliamperes passed through it for thirteen minutes. Similar results were obtained with guinea-pigs and rats. Kennelly and Alexanderson have recently made further experiments with high-frequency currents of various frequencies. The experimenter's hands were placed in vessels full of saline solution, and the current was sent across from one hand to the other. At the slow rate of 60 alternations a second, only 8 milliamperes (at 5 or 6 volts) could be borne; at 11,000 alternations (12 to 20 volts) 30 milliamperes could be taken, and at 100,000 alternations (200 to 360 volts) no less than 800 milliamperes. If high-frequency currents are passed through animals for long periods they may succumb to the heating effects of the currents, as d'Arsonval has shown (Bordier and Lecomte).

Some admirable investigations into the influence of the alternations on the morbidity, so to speak, of alternating currents were made in 1900 by Prevost and Battelli. Using dogs as the subject for experiment, they found that the optimum or most fatal frequence was about 150 alternations per second. Thus, using a continuous current, and with the electrodes in the mouth and rectum, different dogs required pressures of from 50 to 80 volts to produce death by cardiac fibrillation. When the continuous current was replaced by an alternating one, it was found that with alternations up to 150 a second currents at only from 15 to 25 volts were needed to produce death; at 200 alternations a second 40 volts were necessary; at 300 alternations, 50 volts. An alternating current of 350 alternations a second was about as fatal as the continuous current; at 500 alternations 150 volts were needed to produce death, and at 1,720 alternations a second no less than 400 volts. In other words, the cardiac muscle of the dog, and in all probability that of man too, is least tolerant of alternating currents at a frequency of 150 alternations a second; it is about three times as tolerant of continuous currents, and about twenty times as tolerant of alternating currents of the relatively high frequency of 1,720 alternations a second. There is no doubt that this must rest on some physiological property of the heart muscle; one may compare the fact, noted by d'Arsonval and by Thomson, that high-frequency currents taken by the hands are painless, even at a strength of 2 or 3 amperes, whereas even so little as 20 or 30 milliamperes of an ordinary low-frequency alternating current taken in the same way give rise to tetanus and very severe pain indeed; Trotter found the pain of a 35 milliampere continuous current taken for three seconds through an area of four or five square inches of his hand almost insupportable. Deaths by electricity would be very much fewer than they are now if high-frequency currents could be used in place of the ordinary alternating and continuous currents universally employed. Hence it is a thousand pities that the economical production of high-frequency currents on the commercial scale is not possible for mechanical reasons, and that the electrical properties of such currents unfit them for industrial usage.

Summary of the Experimental Results.

The chief experimental results obtained in the electrocution of animals by both alternating and continuous currents have now been placed before you, and they may conveniently be summarized here under a number of different heads.

I. Living animals of different species are killed by electricity with very different degrees of facility. For example, many experimenters have endeavoured to electrocute frogs, but all, I believe, without success, whatever the current used and however it may have been applied. The frog survives electric shocks and the prolonged passage of electric currents at all sorts of voltages—10, 100, 1,000 volts and more—and shocks from induction coils and charged Leyden jars. The only inconveniences it suffers appear to be transient pareses or paralyses, and, in the case of strong currents passed for many seconds or minutes, the formation of burns. The frog is thus immune because its heart always begins to beat again regularly and normally after the passage of the electric current, and because its respiration does the same; and also, as Priestley pointed out in 1767, because "its constitution enables it to subsist a long time without breathing." At the other extreme of the scale comes the dog, which can be killed with certainty by an alternating current of perhaps 15 volts or 60 milliamperes applied so as to pass largely through the heart muscle for a couple of seconds only. The dog is very easily killed by electricity because its heart muscle is thrown into a state of fibrillary contraction by comparatively weak currents, and very rarely (except in the puppy) can recover from the fibrillation and beat normally again. In addition, there is the fact that currents that are too strong to throw the dog's heart into a state of fibrillation are yet able to kill the animal by respiratory paralysis and asphyxia, so that a current that may not be fatal to the dog by its action on the heart

may yet kill it by action on its central nervous system. Birds and other living creatures—such as apes, horses, cats, rabbits, guinea-pigs, rats, mice, and so forth—appear to come between the frog and the dog in the scale of liability to death by electricity at relatively low voltages, the rat's heart always recovering spontaneously from the state of fibrillation into which it is thrown during the passage of the current, the rabbit's heart often recovering spontaneously, the guinea-pig's rarely, the adult dog's never. It is generally found that young animals are less easily killed by electricity, other things being equal, than adults of the same species; thus Battelli found that cardiac fibrillation would cease spontaneously in electrocuted newly-born puppies, though not in adult dogs, and Kronecker[1] has produced transient cardiac fibrillation by electrization of the heart of a newly-born child with ectopia cordis, though there is no reason to suppose that this fibrillation is ever recovered from by adult human beings in whom it has been induced—a point, however, about which we have no certain knowledge. In the case of discharges from Leyden jars and condensers, the young animal is killed by relatively smaller quantities of electrical energy than the adult. It should be added that different animals of the same species often show different degrees of susceptibility to electric currents that can only be explained by idiosyncrasy.

II. The sudden or rapid death of animals killed by the application of electric currents may be brought about experimentally in several different ways, of which the following are the most important:

(*a*) By asphyxia due to prolonged muscular tetanus and inability to perform the movements necessary for respiration, when the current is passed and the tetanus maintained for as many minutes as are necessary to complete asphyxia. The heart in these circumstances goes on beating to the end. A dog may take ten minutes to succumb in this way (Weiss); presumably living and breathing creatures of any kind could be killed by this method.

(*b*) By primary heart failure. In a typical case, the heart muscle is thrown into a state of fibrillary contraction, and the heart ceases to beat as soon as the current is turned on, while respiration continues. When this happens the blood pressure in the femoral artery falls steadily, reaching zero in ten or fifteen seconds in the case of the dog; should the heart for any reason begin to beat again, the animal will probably recover—the rat always recovers thus, the dog hardly ever.

(*c*) By primary failure of the respiration, due to the action of the electric current on the central nervous system, or Brown-Séquard's inhibition. Animals apparently killed in this way will often recover if artificial respiration is perseveringly carried out. This mode of death occurs when large currents at high voltages are sent through the body.

(*d*) By simultaneous failure of both heart and respiration; seen, for example, in dogs receiving an alternating current at from 240 to 600 volts for two seconds, from mouth to rectum.

(*e*) Death may occur after the lapse of hours or days, as the result of the injuries to the tissues caused by the passage of strong currents.

III. After being exposed to currents of high voltage, say 600 volts and over, animals tend to show a number of signs that indicate grave involvement of the central nervous system. This is more marked in small animals than in large, other things being equal, as the current density will be greater in the smaller animal. Such signs are arrest of respiration and its resumption in an irregular manner; the occurrence of clonic spasms (such as are not seen in man); loss of sensation and the reflexes; great prostration and slow recovery. All these phenomena are absent when one is dealing with electric currents of low electromotive force. They may be taken as evidence of nervous shock or Brown-Séquard's inhibition.

Special mention may be made at this point of the "electric sleep" produced by Robinovitch in animals by the use of interrupted continuous-currents (the so-called "Leduc currents") at from 5 to 10 volts and about 1 milliampere. The cathode is applied to the head, the anode to the trunk, of the animal. This electric sleep may be kept up for eight hours or more; it is associated with a rise in the arterial blood pressure, and is said by Robinovitch to be due to central inhibition.

IV. The particular electrical details and considerations that determine whether a certain electric current will be fatal or not to an animal in any given instance are very complicated. Hence it is not possible to say off-hand that a current of such-and-such a voltage or character or strength will cause death; there are at least six factors that must be considered separately here, although when one comes to work out their influence in any particular instance they must be considered together.

(*a*) *The Voltage of the Current.*—Given the optimum conditions, continuous currents are not fatal to dogs at voltages below about 60 volts. An ordinary alternating current at 15 volts will kill a dog, and a similar current at any voltage up to about 600 volts will be equally effective, by causing the dog's heart to fibrillate. But the alternating currents passing at pressures of from 1,200 to 4,800 volts, administered under the same optimum conditions, are not necessarily fatal, because they are too large to cause the dog's heart muscle to fibrillate; although if continued long enough they may cause death by permanent paralysis of the respiratory centre.

(*b*) *The Amperage of the Current.*—Given the optimum conditions for causing death—that is to say, such an arrangement of the electrodes as will cause the current to traverse that part of the thorax in which the heart lies—the dog will be killed by an alternating current of as little as 70 milliamperes or a continuous current three or four times as great. But the very much larger currents forced through the thorax by much higher voltages—1,000 to 5,000 volts—are not fatal, because they do not throw the heart into a state of fibrillation; thus Weiss passed an alternating current of 7 amperes (at 4,600 volts) through a dog weighing 22 lb. for three seconds without killing it. These large currents may prove rapidly fatal by respiratory paralysis, or, after the lapse of days, by the burns and other injuries they may have inflicted on the tissues at the electrodes.

(*c*) *The Duration of the Current.*—The time during which the animal is exposed to the current is of great importance. As has been mentioned already, quite small currents at low voltages, that have no apparent influence on the action of the heart or on the central nervous system, but are strong enough to tetanize the muscles, may cause death by asphyxia if kept on for long enough—over ten minutes in the case of the dog. With the stronger currents at higher voltages, that kill by cardiac fibrillation, Battelli found that contacts up to one second in duration were often not fatal to the dog, though contacts of from one to three seconds invariably were fatal. Weiss showed that alternating currents as small as 70 milliamperes passing through the thorax required not less than four or five seconds to produce a fatal result. Again, with very high voltages (several thousand volts) and alternating currents of several amperes, with which death when it occurs is due to injury of the central nervous system, the passage of the current for several seconds may be survived by a large animal, though one second may be fatal to a small animal of the same species. Crile and Macleod found alternating currents at 2,300 volts fatal to anaesthetized dogs in twenty seconds, but not necessarily fatal in one, five, or ten seconds. The same thing is seen with continuous currents. Some of the differences seen here between different animals of the same species must be set down to idiosyncrasy.

(*d*) *The Character of the Current, Continuous or Alternating.* — Continuous currents, whether from a dynamo or a battery, are much less dangerous at comparatively low voltages than the ordinary alternating currents used industrially. Thus a continuous current applied for a few seconds will not be fatal to a dog below pressures of 60 or 70 volts, while an alternating current with from 25 to 150 periods a second will be fatal at a pressure of 10, 15, or 20 volts. But at higher pressures, where death, when it occurs, is due to failure of the respiration by nervous inhibition, the continuous current may be the more dangerous of the two, because its passage is the more injurious to the central nervous system. Thus an alternating current at 600 volts passed from the head to the feet of a rabbit for three seconds may do it little injury, while a continuous current of 550 volts electromotive force may be fatal to it in one second in similar circumstances. Again, with alternating currents, the number of alternations per second

is of the greatest importance in determining the dangerousness of the current. Ordinary alternating currents and the very similar polyphase currents so widely employed commercially alternate from, say, 25 to 300 times a second, and, other things being equal, are three or four times as dangerous to life as direct or continuous currents. But increase in the frequency of the alternations per second brings about a great diminution in the dangerousness of such currents, because it lessens their tendency to produce fibrillation of the muscle of the heart. Thus, at 350 alternations per second, alternating currents are no more dangerous than continuous currents, and at 1,720 alternations are about six times less dangerous, in the case of dogs. When the alternations are increased to tens or hundreds of thousands per second, as is the case in the so-called Tesla or high-frequency currents, the danger to life is still further reduced.

(*e*) *The position of the electrodes* with regard to the heart and the central nervous system. The importance of this factor is enormous, and was perhaps never widely appreciated until it was emphasized by the work of Prevost and Battelli. Even now it seems to be neglected by d'Arsonval and by many other writers upon the subject of death by electricity. It may be illustrated by a single experiment. If the two electrodes are applied to the two hind legs of a dog, alternating currents of about 4 amperes at 1,200 volts are not fatal to the animal, because with this arrangement the amount of current passing through the heart is not enough to cause it to fibrillate. If the two electrodes are now shifted to the two fore-legs, alternating currents up to 270 milliamperes and below about 80 volts are not fatal, for the same reason. But if the electrodes are placed on either side of the thorax, so as to concentrate the current on the heart, death is produced by alternating currents at only 15 volts pressure and a strength of about 50 milliamperes. Yet the resistance between the two electrodes is much the same—about 300 ohms—in each of the three cases. To me it does not seem possible to imagine a better demonstration than this of the importance of the current-density through the heart, or, to put the matter more definitely, the number of milliamperes per square centimetre of cross-section through the heart at right angles to the direction in which the current flows, in determining the danger to life incurred by exposure to electric currents. One cannot believe that the shock to the dog's nervous system, to which alone d'Arsonval attributes such a death by electricity, was greater at 15 volts than at 80, or at 80 than 1,200 volts, in the three variations of the experiment described above.

(*f*) *The Resistance at the Electrodes.*—This extremely important factor is very variable in amount unless great care is taken. It is obvious that it should be reduced to the lowest practicable value in any experiments designed to bring out the dangers of industrial electric currents to life, and to ascertain the lowest voltages that may be fatal. To quote an example, Grange in 1884 failed to kill dogs by alternating currents at 825 volts pressure, simply because his electrodes were so ill applied that the dogs' resistances were about 80,000 ohms, so that only 10 milliamperes of current can have flowed through the animals, a quantity much below the lethal dose. Later experimenters have found that the more careful and rational application of the electrodes makes the dog's resistance, in circumstances otherwise similar, only 300 ohms or thereabouts. Cunningham cut this resistance down still further to about 77 ohms in one instance—an error in the opposite direction. His electrodes must have been so large as not to concentrate the current satisfactorily on the sensitive spot, the heart. The result was that continuous currents of 700 milliamperes or more, sent through the thorax from one side to the other, were not necessarily fatal to the dogs he employed, while Zacon and Prevost and Battelli found 200 or 300 milliamperes of continuous current to be fatal to the dog if suitable electrodes were applied. Crile and Macleod observed resistances of about 1,000 ohms in their experiments on dogs.

Death by Electric Currents in Man.

We are now in a position to summarize what is known and what may be inferred as regards the killing of human beings by electric currents. This may conveniently be done on lines similar to those adopted above in the case of animals. I must ask to be allowed some repetition here, in the hope of making an obscure business clearer; for the literature of the subject makes it plain that the various factors controlling the results of electric accidents in man are by no means generally appreciated at their proper value or understood.

I. It is often assumed that different persons are differently vulnerable by electricity, and that in identical circumstances shocks that would be fatal to some would not be fatal to others. This is certainly true of the lower animals—for example, Battelli found an alternating current of ten volts fatal to one dog, but not to two others which were killed at 15 volts. It is probably true of man, but experiments to prove the point are naturally lacking, and it is not possible to prove or disprove it by the evidence of fatal or non-fatal electric accidents, because there are so many variable factors that determine the result in these besides that of idiosyncrasy. In other words, one is not justified in concluding that it is idiosyncrasy that has protected a person "A" from death by electric shock that has proved fatal in apparently similar conditions to another person "B," unless one is able to prove that all the other conditions really were identical; and that, practically speaking, can never be done. There are three other factors that have been emphasized as important in determining the result in electric accidents, and these are *fright*, *general anaesthesia*, and *sleep*. Much stress is laid on *fright* by d'Arsonval, who says that sudden physical surprise often has disastrous results for the vital functions, so that a shock that is unexpected may be fatal, but not fatal if it is expected. H even attributes the comparative failure of the methods employed in the electrocution of criminals in America to the fact that surprise at the moment of shock is lacking in this operation. Jellinek has recorded a case in which a man died of fright alone, having come into contact with a conductor which he believed to be carrying a current at high potential, but actually was not electrified at all. Great importance is attached by d'Arsonval to the *status somaticus et psychicus*, the state of body and mind, of anybody exposed to and receiving an electric shock; Aspinall supposes that persons of weak intellect can stand stronger currents than normal persons. This, again, is a matter that can only be determined by experiments made in definitely known conditions, and none such have been made; there is no evidence that fright increases the liability of the lower animals to death by electric currents. It is said that persons under the influence of *general anaesthetics* are able to survive exposure to currents that would be fatal were they conscious; several experimenters have found that general anaesthetics do not afford protection in this way to the lower animals, though Jellinek says that they do—much probably depends upon the depth of the anaesthesia obtained. As regards *sleep*, this also is generally believed to protect life against electric currents that would be fatal during waking hours; in modern literature one often sees quoted the case of a man who was severely burnt but not killed by contact during sleep with a conductor carrying a current at 5,000 volts, recorded by Aspinall. Here again there is need of further evidence. The analogous idea that sleep protects against death by lightning stroke is at least as widely spread, and dates from the time of Seneca.

In the vast majority of cases death by electric currents is due to accident; but in Italy both suicide and murder by electricity have been attempted, the former with success (Jellinek).

II. The death of human beings may be brought about by electric currents in several different ways.

(*a*) There is no doubt that it might be due to prolonged tetanus of the muscles, which could prevent the performance of respiratory movements, and so lead to death by asphyxia after some minutes. But I am not able to find that it ever has come about in this way as a matter of fact, the victim always being able either to break the contact and interrupt the passage of the current for himself, or to call for help and get the contact broken by somebody else before asphyxia has occurred in this way.

(*b*) In man primary heart failure is undoubtedly the commonest mode of death by electric currents. The experiments on animals already detailed show that such deaths are due to fibrillation of the ventricles of the heart. This fibrillation has been seen occurring in the hearts of two criminals electrocuted in America and examined immediately after death (Schumacher): a few minutes later the left ventricle was firmly contracted and empty, while the right ventricle and the auricles were relaxed in diastole and full of blood. It is probable that in the adult man, as in the dog, horse, and ape, fibrillation of the heart, once it is established, is irremediable, practically speaking.

(*c*) and (*d*). Death by failure of the respiration while the heart continues to beat, brought about by nervous inhibition, or by failure of both heart and respiration together, is probably not so common in man. There is a great want of evidence on this point: naturally enough, as the people who are present at deaths by electric shock are generally workmen who do not busy themselves with observations of the pulse and the respiration of the victim. A good many cases have been recorded in which death did not occur until ten, twenty, or forty minutes after the shock had been received, and was then apparently due to failure of the respiration to re-establish itself. The experiments upon animals would lead one to believe that such deaths are really due to failure of the respiratory centre in the central nervous system. The *post-mortem* evidence in such cases should suggest death by asphyxia, and such evidence has sometimes been found after death by electric shock.

(*e*) Brief reference may be made to the fact that a good many cases have been recorded in which the victim of an electric accident has died after a few days or weeks from complications (shock, gangrene, suppuration, exhaustion following extensive amputations) arising out of the injuries caused by the electric current. Mills and Weisenburg have recorded fatal cases of bulbar and bulbo-spinal paralysis, apparently due to electric shock.

III. Severe nervous shock, with or without some more definite lesion such as the paralysis of a limb or a paraplegia, is not rare in industrial electric accidents, and makes permanent invalids of a number of persons who survive the shock. Brief loss of consciousness is common in non-fatal cases of electric shock, and may be followed by an appearance of intoxication or even by mania—a fact that finds no parallel in the experiments done on the lower animals; just as in the lower animals attacks of convulsions are often determined by non-fatal shocks, but do not seem to occur in man (Battelli, Robinovitch).

Opinions as to the importance of nervous shock in fatal electric accidents are divided into two groups. On the one hand, Battelli and a number of writers believe that it is a transient affair, functional in nature, not important. On the other hand, d'Arsonval holds that it is by nervous shock alone that electric currents produce sudden or rapid death, by a sudden affection of all the vital functions. Jellinek goes further, and is more definite, setting down sudden death by electricity to a local trauma of the cells in the central nervous system, caused by what he calls a dynamogenic working of the electric current that may be compared to the local trauma of the nerve cells met with in the commotio cerebri of direct or indirect violence. He brings forward the elaborate details of his histological researches to prove that these minute lesions of the nerve cells and other tissues are to be met with in men and animals killed or injured by electric currents; but, as Schumacher points out, the cell changes and small haemorrhages found by Jellinek are in no way specially characteristic of death by electricity. It must be remembered that, as a rule, large amounts of electric energy and long periods of exposure to the passage of the current have been employed in cases in which marked changes have been found in the central nervous system after death; whereas in the majority of fatal accidents by electric shock as they actually occur, only a small current has passed through the victim and only for a short time, while none of it has had occasion to travel by way of the central nervous system.

IV. All the electrical and physical details of the circumstances in which electric currents pass through the body are of the greatest importance in determining whether the result will be fatal to a human being or not. For the sake of clearness they are best discussed under six heads.

(*a*) *Voltage of the Current.*—With alternating currents, death has occurred from shocks at voltages as low as 65 volts, and a good many instances of death at such pressures as 100 to 120 volts have been recorded. It is only in very exceptional circumstances that these low voltages can cause death; unless the patient's skin is wet and he makes a good contact not only with the electric conductor, but also through wet boots or clothes (according as he is standing or sitting) with the ground or some other conductor, there is not the smallest chance of death by currents at such low voltages. As the voltage rises so does the ease with which a fatal amount of current may be forced through the victim increase, and so it is that the large majority of deaths by electric currents are brought about by the alternating currents at much higher pressures—say 500 to 5,000 volts—that are in common industrial use. But here comes in a paradox. It would appear that *if good contact is made* currents at very high voltages become less dangerous to man, just as we have seen that they do to animals, and probably for the same reason—that large currents passing through the body do not happen to throw the heart into irremediable fibrillary contractions. Thus a number of instances have been recorded in which men have received industrial currents at 10,000 volts without being killed at once, although making good and prolonged contacts in such a way that large currents, too large to be fatal, one may say, must have streamed through the chest and heart. A very good example of this was recorded by Mr. Clement Lucas; others have been reported in France and Monte Carlo.[55] But if the victim makes a bad contact, or a contact of high resistance, either with the conductor at high voltage or with the ground, then the amount of current diverted through him may be small enough to kill him by cardiac fibrillation.

One often hears the question asked: What voltage is dangerous to life? No simple answer can be given to this question; the degree of danger depends on so many factors besides that of the voltage of the current from which danger is apprehended. As regards continuous currents of electricity, I have not found records of many fatal accidents at voltages below 220 volts, but in one case a direct current at only 95 volts caused death, in another a current at 110 volts.[56]

(*b*) *The Amperage of the Current.*—All the industrial electric currents met with in daily life, the currents used for lighting, heating, cooking, driving machinery of all sorts, have ample intensity (measured in amperes) to cause death if applied to the human body under favourable conditions. The only sources of electricity that might be expected to kill, but fail to do so for want of sufficient amperage, or rather milliamperage, are the induction coils used by *x*-ray specialists and others.

As regards the minimum number of milliamperes required to kill a human being under conditions favourable for killing there is no certain knowledge. Weiss calculates that from 70 to 90 milliamperes of an ordinary alternating current would be enough if the current went through the chest and heart; d'Arsonval states that much less than 100 milliamperes suffice to kill. One can make a rough calculation in some of the fatal accidents that have occurred; a number of persons have been killed by alternating currents at about 110 volts, passing from one hand to the other or from the hands to the feet, and experiments show that the resistance of the human body from hand to hand or from the hands to the feet may be from about 1,000 to 1,500 ohms, when the skin of both hands and feet is wet, so that one may guess the fatal current to have been from about 70 to 110 milliamperes in these instances. The experiments of Dixon Mann showed that alternating currents of from 15 to 30 milliamperes sent through the chest do not upset the heart's action; and Trotter found that continuous currents up to 35 milliamperes, though almost insupportably painful, were not fatal when passing from the hands to the feet.

When very large industrial currents are forced through the body by high voltages, we meet again with the paradox that, while small currents may kill instantaneously, large currents are much less fatal. For example, the American electrocutions have shown that currents of 5 or 8 amperes may pass for many seconds through the body without causing permanent arrest of the heart or respiration. In the non-fatal cases of shock by currents at 10,000 volts, of which I spoke a few minutes ago, it is true that no measurements of the amperes passing through the victims were made, but it is reasonable to suppose that they may have amounted to several amperes. It is plain, then, that currents of a fraction of an ampere may cause sudden death by throwing the ventricles of the heart into fibrillary contraction, though much larger currents of several amperes do not act thus and so are not fatal. But I do not know of any examples or experiments to show at what point or amperage the transition from small dangerous to large non-dangerous currents takes place.

(c) *Duration of the Current.*—The animals experiments showed that this is a factor of great importance in determining death or survival. And so, probably, it is in human beings; but its importance could only be determined by a series of comparative experiments under known conditions, and these are for obvious reasons not likely to be made. The fact that electric currents produce muscular tetanus, and often cause the victim to grip firmly any conductor from which he may be receiving a current of electricity, tends to make contacts of long duration; for example, Mr. Clement Lucas's patient clutched his 10,000 volt cable for thirty seconds before he was rescued.

(d) *Industrial alternating currents* are, other things being equal, more dangerous than *continuous currents*. So far as one can guess, in the absence of any experimental proof, it seems that a continuous current must be two or three times as strong as an alternating current, to kill a human being. In cases that are not immediately fatal it seems that the after-effects are more serious with continuous currents, no doubt because these electrolyse the tissues through which they pass, and thus leave behind them chemical and physical traces of their passage; whereas alternating currents naturally effect little permanent electrolysis or polarization in the tissues through which they travel.

(e) *The position of the electrodes*, or the points at which the current enters and leaves the body, are of great importance, as has been emphasized by Aspinall among others. For all practical purposes the heart is the danger point in persons making accidental contacts with conductors carrying electric currents. For it rarely happens that contact is made by the head, so that current has the opportunity to pass through the central nervous system (cases recorded by Zwaluwenberg, Zacon), and even then it is more than probable that death, if it does occur, is due to cardiac paralysis, and not to inhibition or action on the consciousness or psychical functions. Hence it is safe to say that, so far as sudden death is concerned, electric currents are dangerous to man in proportion to the degree to which they tend to pass through the heart. Thus a current travelling from one hand or arm to the other, or from a hand to the feet, or from the neck or the top of the trunk to the feet (as in a case recently described to me by Dr. R. S. Trevor) is highly dangerous; similarly, currents going through the left side of the body are commonly supposed by electricians to be more dangerous to life than those on the right side. But currents entering by one foot or leg and leaving by the other are, practically speaking, free from the danger of sudden death, because the strength (in milliamperes) of the current that flows through the heart under these conditions is necessarily far below the lethal minimum, however strong the current passing through the lower part of the body may be. For this reason, if one has to rescue the victim of an electric accident while he is still exposed to the current, it is advisable to try and draw or push him away with one's feet rather than with one's hands, unless one can be sure that one's hands are well insulated from the victim by dry clothes, etc. The desire to protect the cardiac region against the passage of electric currents has led to several brilliant but not practical suggestions that persons exposed to accidental electric shocks should wear garments woven of copper wire. Such a copper undergarment, closely applied to the skin of the upper and lower parts of the trunk, but insulated by a belt of indiarubber from the middle zone in which lies the heart, would divert the bulk of any current from that region, it is said,[41] and so save life.

(f) *The resistance at the electrodes*, at the points where the current enters and leaves the body, is a factor of the very greatest importance. This is best illustrated by a few actual examples:

A man in a factory stood barefooted in a mixture of sugar and potash, and with his hand touched a bare conductor carrying a continuous current at 95 volts, and was killed on the spot (Jellinek); the resistance between his hand and his feet, between the ground and the conductor, that is to say, cannot have been more than perhaps a few hundred ohms in these conditions. Had his hand or his feet been dry he could have handled the conductor with impunity, even without discomfort.

Zwaluwenberg details the case of a carpenter at work in an attic 4 ft. high at a temperature of about 100° F.; he was in a state of extreme perspiration, and kneeling on a well-earthed gaspipe, when his head came into contact with a cable carrying a 50-cycle alternating current at 100 to 110 volts, at a point where the insulation was worn away. The man made an outcry, was rescued in a few minutes, was seen to gasp several times, but died at once in spite of artificial respiration and traction of the tongue. In this case also the skin at the points of contact, the head and knees, was soaking wet, and so the resistance at the electrodes was reduced to so low a point as to permit the passage of a current strong enough to throw the heart into a state of fibrillary contraction and cause death. Had the man's skin been dry, or had he not been kneeling on a good conductor, he would not have lost his life.

Many other instances might be quoted to show the great danger of wetness to the skin or of the feet and boots, conditions that are inevitable among operatives and labourers of all sorts when there is risk of contact with conductors carrying electric currents at even these low voltages. There have been fatal accidents in domestic and in public bath-rooms even, when persons in baths or standing barefoot on wet floors have laid wet hands on electric lamps or bare wires that chanced to be directly connected with electric light mains carrying currents at a couple of hundred volts or so.

But with these electrodes, the hands and feet, in their more normal condition of dryness, the case is quite different; the danger to life is *nil*. The resistance of the human skin to the passage of electric currents is relatively great, and the skin is by far the most resistant of the tissues of the human body. Thus, Trotter quotes many experiences with himself and other people, showing that when the hands and feet are dry, conductors carrying continuous currents at 500 volts may be handled freely with impunity, for the normal resistance of the dry skin at the electrodes (the hands and feet) and of the boots is so great as to permit only a few milliamperes to pass through the body to the ground. When he was wearing old boots worn into holes and thoroughly wetted by walking in muddy streets and grasped the 500-volt conductor for three seconds, only 35 milliamperes of current passed through him; his resistance from boot to boot was reduced to 13,000 ohms, in place of the normal 45,000 to 200,000 ohms with ordinary boots that were not wet. One often reads accounts of people who have touched live conductors with high voltages without suffering material injury; in the great majority of such cases their immunity has been due to the high resistance presented to the current at the points where it had to enter and leave the body. The effect of the resistance at the electrodes and in the body in determining the result of electric accidents is shown schematically in the following table, in which it

Total Resistance of Body assumed to be:	Result of Brief Exposure to Passage of Alternating Current at a Pressure of:		
	100 volts.	1,000 volts.	10,000 volts.
Very low, with good contacts, 1,000 ohms	Certain death, slight burns	Probably death, marked burns	Survival, burns and other sequelae very severe.
Higher, about 10,000 ohms	Painful shock, but no injury	Certain death, burns probably slight	Probably death, severe burns.
High, with bad contacts, 100,000 ohms	Scarcely felt	Painful shock, but no severe injury	Certain death, burns slight if resistance remains high.

is assumed that the current traverses the thorax on its way through the body.

Prognosis.

The prognosis in cases of severe electric shock has been very variously estimated. Cunningham (1899), for example, speaks of artificial respiration as "the only and almost invariably futile, method in vogue in electrical accidents at the present day," for the resuscitation of persons apparently killed by electric shock. The opposite view is held by Lauffer (1912), who says "there are few cases of electrical accident where the victim cannot be restored from the electrical shock, if appropriate immediate efforts at resuscitation are instituted" by performing artificial respiration with only a few seconds' delay. Jellinek (1905) is almost equally encouraging, stating that death by electric shock is in most cases only apparent death, and advocating immediate artificial respiration. This holds for cases of sudden death by electric currents; in the instances where death occurs many hours or days after the shock, it is caused by the burns or thromboses or other lesions due to the intensity of the current. There may be excellent general health after very extensive and severe electrical injuries: Weiss quotes the case of a man who was so badly burned by electricity that both legs and both forearms had to be amputated, yet he subsequently enjoyed good general health.

Treatment.

In spite of all the experimental work that has been done on the electrocution of the lower animals, the treatment of persons apparently killed by electric currents remains much where Priestley left it in 1767. He tried artificial respiration, and artificial respiration is still the most successful treatment available. It is best carried out by the prone pressure method of Schäfer, because it is the simplest and the least dangerous in the hands of the inexpert: by some authorities Sylvester's method, in which the victim is placed on his back and not on his stomach, is preferred (Brauchbar). The French generally recommend that rhythmical traction of the tongue should be performed at the same time, as was first recommended by Laborde (1894). This, however, could not be done easily with the patient in the prone position. Gibbons recommends the use of a special form of bellows. Atropine, recommended by Eggleston, has not proved of much service. The importance of getting to work with the artificial respiration without a moment's delay has often been emphasized by those who have had much experience of electrical accidents. No less important is the necessity for continuing artificial respiration until *it is certain* that death has occurred; nothing less than cooling of the body or the onset of rigor mortis should be considered to be evidence of death here.

Recovery after two hours of apparent death is mentioned by d'Arsonval (1910), who gives a first-rate account of the steps that should be taken in rescuing and resuscitating the victims of electric shocks. It must be remembered that the great majority of electrical accidents take place in workshops and other places where immediate skilled assistance is very rarely available, so that any but the simplest of treatments could not, practically speaking, be employed.

It is worth while to mention two other possible methods of treatment. It has been seen that in most cases death by electric shock is due to cardiac failure, the heart being thrown into fibrillary contraction. Prevost and Battelli, and others after them, have shown that the fibrillating hearts of the lower animals can be made to beat regularly and rhythmically once more by passing strong electric currents through them within a given time—a few minutes; so that the apparently dead animal is brought to life again. It is more than probable that the same treatment—a hair of the dog that bit them—could be applied with success to human beings apparently killed by electric currents, but there are two practical difficulties here. In the first place there is no experimental evidence, in the case of man, to show what voltage and what strength of current should best be employed in this method of resuscitation. In the second place, there would usually be great difficulty in providing the current at the required voltage for use on the spot and within a few minutes. Still, this method is well worth further investigation and trial. The second mode of treatment I wish to mention is that tried, though without success, by Stanton and Krida. These authors started out from the work of Crile and Dolly on the resuscitation of animals killed by chloroform and by asphyxia, which showed that recovery after apparent death was possible if the pressure in the coronary arteries could be raised sufficiently, by the arterial injection of salt-solution and adrenalin, to restore some sort of circulation through the substance of the heart. If this was done mechanical stimulation of the heart through the chest wall would then cause it to beat vigorously again, and the animal seemingly killed by chloroform or asphyxia, as the case might be, would be brought back to life. Stanton and Krida tried this method of resuscitation on dogs subjected to the ventricular fibrillation caused by electric currents of low voltage, but it did not prove successful.

NOTE.—A list of references to the literature will be given at the end of the third lecture.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

SODIUM CARBONATE IN RINGWORM.

THE following method was shown me by a conscientious but rather ignorant woman who has had charge for many years of a home for waifs and strays. She said that she had never known more than two applications necessary. Take a piece of sodium carbonate (the household washing soda) about the size of a walnut, and hold it against red hot iron (I use the poker heated in the consulting room fire); then rub the melted end freely into the ringworm, and particularly thoroughly if it is in the scalp, which must have had the hair round cut short. One application is sufficient on the body, but on the scalp it may be necessary to repeat it six or seven days later. Usually no dressing is necessary, though if sore boric acid ointment may be used. This apparently heroic treatment is practically painless, leaves no permanent mark, and, so far, has not failed me.

Penkridge, Staffs. W. W. NOCK, M.R.C.S., L.R.C.P.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

COUNTESS OF DUFFERIN HOSPITAL, BARODA.

CONGENITAL ABSENCE OF RECTUM AND LARGE INTESTINE.

(By CLIFFORD MAYER, M.D., B.S.Lond., Chief Medical Officer, Baroda State.)

B. D., a Hindu female infant aged 3 days, was admitted on November 23rd, 1912, for intestinal obstruction. The history was that the child, soon after birth, had passed some meconium, and since then only a little mucus and blood. Castor oil had been given and glycerine enemata tried by a local practitioner with no effect. There had been vomiting since the day before.

On admission, the temperature was subnormal and the pulse hardly perceptible. The anal canal admitted the tip of the little finger. The abdomen was very distended, and on palpation a doughy, sausage like mass on the right side was imperfectly made out. Intussusception was diagnosed. The child was infused. The pulse improved, and two hours after admission the abdomen was opened by an incision in the right rectus close to the middle line. On incising the peritoneum a blind end of much distended gut projected for about six inches. The bowel was relieved of its contents, a Paul's tube tied in, and the gut securely fixed to the abdominal opening.

The operation was well borne, and for the first four days progress was very satisfactory, the child taking its feeds very well. On the fourth day the Paul's tube came out, and on the fifth day a pemphigoid rash broke out on the

buttocks, and the stools became greenish. Ointment and hydrarg. c creta were prescribed. On the ninth day the bowel prolapsed during the night, and was replaced under chloroform by the house-surgeon. On the twelfth day there was again a slight prolapse of bowel, and the skin of the abdomen round the wound was raw. On the eighteenth day the stools had improved, the rash and soreness of the abdomen were much better, and the appetite good, but the child was much wasted. It never picked up again, began to vomit its feeds on the twenty-third day, and died on the twenty-fourth day.

On *post-mortem* examination it was found that the anal canal was patent for about an inch, but the rectum and the large intestine were represented by a white, thin, cord-like band in the whole of their course. There were a meso-sigmoid and transverse mesocolon, and a minute appendix near the caecal end. The blind end of the gut, which had been opened at the time of the operation, was quite free from mesenteric attachment for about 6 in., and belonged to the ileum.

It was evident that no meconium could possibly have been passed soon after birth as stated in the history, which with the passage of blood and mucus and the doughy feeling caused by the free sausage-like end of the blind ileum, had misled me, perhaps pardonably, into a diagnosis of intussusception.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

EDINBURGH BRANCH.

CLINICAL MEETING.

THE winter clinical meeting of this Branch was held in the Royal Infirmary, Edinburgh, on Friday, February 21st, and was attended by about 100 members.

Museum.

The museum was exhibited in Ward 4, where a large number of specimens were shown from the surgical, gynaecological, and pathological departments of the university, as well as by individual members of the profession. Those who exhibited were Drs. Cranston Low, Comrie, Ford Robertson, Barbour, Spence, Edmund Price, and Eason, and Messrs. Caird, Stiles, Dowden, Beasly, Wilkie, Wade, Struthers, and Carmichael.

Demonstrations.

Demonstrations were given in the Lock department by Mr. SCOT-SKIRVING, in the skin department by Dr. NORMAN WALKER, and in the eye wards by Dr. GEORGE MACKAY. The therapeutic uses of radium were shown by Dr. DAWSON TURNER, and the modern methods of hydro-electro-therapeutics by Dr. WEBSTER.

Clinical Cases.

The clinical meeting was held in the large surgical theatre. Dr. JAMES CARMICHAEL, President, was in the chair, and a large number of cases of medical and surgical interest were shown by the members of the staffs of Chalmers Hospital, the Royal Hospital for Sick Children, and the Royal Infirmary.

Dinner.

An enjoyable dinner was attended by about thirty members in the Carlton Hotel. It was presided over by Dr. JAMES CARMICHAEL. The guests included Dr. Munro Moir (Inverness), Dr. Haig (Crieff), Dr. Crerar (Maryport), while amongst those present were Professor Alexis Thomson, Mr. Cathcart, Dr. George Mackay, Dr. Luke, Dr. Carlyle Johnston, and Dr. Hamilton (Hawick).

After the loyal toast had been responded to, the CHAIRMAN gave the toast of "The British Medical Association," and Dr. HAMILTON (member of Council) replied in a vigorous and rousing speech. The sentiment of prosperity to the Association was enthusiastically received. Mr. CATHCART proposed the toast of "The Guests," and welcomed those present. Dr. CRERAR (Maryport) and Dr. HAIG (Crieff) replied. Dr. HAMILTON made an innovation on the toast list in proposing the health of "The Senior Secretary," and in a complimentary speech alluded to and thanked him for his services during the past ten years on behalf of the Association. Dr. DEWAR replied. "The health of the President" was proposed by Mr. STRUTHERS; and that of "The Secretaries" by Dr. HAIG, to which the JUNIOR SECRETARY replied.

BURMA BRANCH.

A MEETING of the Burma Branch was held in the Civil Hospital, Maymyo, on January 24th. Colonel HEHIR, I.M.S., was in the chair, and there was a large attendance. The following cases were shown by Major HAMMOND, I.M.S.:

CASE I.—A case of tuberculous dactylitis cured after operation in which a Pott's curvature was developing. The curvature was very acute, and there was a posterior abscess.

CASE II.—A case showing a good result after a complete mastoid operation.

CASE III.—A case of unilateral exophthalmos. The eye was bulging forwards without pain, paralysis, loss of sight, or other symptoms. The cause and treatment were discussed.

CASE IV.—Recurrent epithelioma in the groin after excision of the penis and glands.

CASE V.—A case of puncture of the eyeball by a sewing needle. The puncture had healed, but the sight was lost, and the question of sympathetic ophthalmitis was discussed.

Colonel HEHIR, I.M.S., then commenced a paper on undiscovered points in malaria, which will be concluded at the next meeting.

Reports of Societies.

ROYAL SOCIETY.

Thursday, February 20th, 1913.

Sir ARCHIBALD GEIKIE, K.C.B., President, in the Chair.

Rhythm arising from Rivalry between Antagonistic Reflexes.

PROFESSOR C. S. SHERRINGTON, F.R.S., read a paper on reflex stepping as the outcome of double reciprocal innervation, in continuation of work on the reciprocal innervation of symmetrical muscles recently communicated to the society. The observations were almost wholly upon the decerebrate preparation. The symmetrical muscles used in the experiments were the extensors of the right and left knee. Taking an afferent nerve which produced steady reflex excitation of the muscle, and another which produced steady reflex inhibition of the muscle, it was found possible by stimulating both nerves concurrently to obtain regularly rhythmic contractions and relaxations of the two muscles, the rhythm being about 2 per second. To do this required certain somewhat narrowly adjusted proportions of strength of the two paired stimuli. The stimuli were both of them continuous, in the sense that they were faradic, and of a frequency (about 40 per second) much above and bearing no causal relation to the rhythmic reflex produced. In the rhythmic reflex the right and left muscles each contracted and relaxed alternately and moved reciprocally, the contracting phase of the right muscle being synchronous with the relaxing phase of the left, and conversely. This rhythmic reflex was shown clearly to be reflex stepping. In short, under the equipoise of the two opposed and, so to say, equiposed continuous stimulations, the limbs exhibited reflex walking. With certain other paired intensities of stimulation of the two antagonistic afferent nerves, it could be arranged that only one muscle of the pair stepped—the left muscle if the right nerve stimulus were the stronger, and conversely. In this unilateral walking or running the other leg was kept steadily flexed by the reflex, that is, the extensor muscles were kept steadily inhibited.

The Synthesis of Protoplasm.

DRS. W. CRAMER and J. LOCHHEAD, in a continuation of previous contributions to the biochemistry of growth, showed that glycogen disappeared more rapidly from the liver of tumour-bearing rats than from the liver of a normal rat. Since observations on the gaseous metabolism showed that there was no increased oxidation of carbohydrate material in tumour-bearing animals, the results confirmed the conclusion arrived at previously from observations on pregnant animals, that in growth carbohydrate material is used for the synthesis of protoplasm.

ROYAL SOCIETY OF MEDICINE.

MEDICAL SECTION.

Tuesday, February 25th, 1913.

Dr. FREDERICK TAYLOR, President, in the Chair.

The Prognostic Significance of Secondary Polycythaemia in Cardio-pulmonary Cases.

DR. F. PARKES WEBER, in a paper on this subject, said the frequent occurrence of polycythaemia in those cases of congenital heart disease, especially congenital pulmonary stenosis, which were associated with some cyanosis, was well known. A few such patients reached adult life, as in two cases which he had exhibited, whose blood changes he had investigated. They seemed to support the modern doctrine that the excess in the number of red corpuscles was of a conservative or compensatory nature, an attempt on the part of the bone marrow to make up for imperfect oxygenation of the blood and tissues of the body by a numerical increase of the red cells. But the figures obtained by blood counts might lead to an underestimation of the total numerical excess of erythrocytes in the body, because the total volume of blood in the body was likewise excessive. In one case the same conclusion was indicated by an estimation of the total haemoglobin and the total blood volume in the body by Haldane and Lorrain Smith's carbon monoxide method. The secondary polycythaemia in cases of congenital heart disease was seldom rivalled in degree by the secondary polycythaemia which sometimes occurred in chronic valvular affections and in cases where there was adherent pericardium. It was more nearly approached by the secondary polycythaemia sometimes found in the late stages of pulmonary emphysema, chronic bronchitis, asthma, old bilateral pleuritic adhesion, chronic interstitial pneumonia, and pulmonary fibrosis. In the cardio-pulmonary cases he regarded the outlook as very grave at the stage when cyanosis and a great degree of polycythaemia became striking clinically. Dr. Weber proceeded to describe a typical attack, during which the red blood cells were 7 millions or more. With increasing cyanosis and chronic carbonic acid poisoning there was often marked somnolence, which might proceed to actual coma, and death might be directly due to carbonic acid poisoning or to intercurrent bronchopneumonia. An important etiological factor seemed to have been the abuse of alcoholic drinks. Some of the cases improved, at all events temporarily, under prolonged rest in bed, small doses of potassium iodide, cardiac stimulants, diuretics and expectorants, oxygen inhalation, and perhaps also moderate blood-letting. The bone marrow was examined in one case, and showed a decided erythroblastic reaction. Dr. Weber concluded by relating eleven illustrative cases.

Some Cases of Polycythaemia.

Dr. GORDON R. WARD said it was customary to divide these cases into (*a*) relative, (*b*) absolute. The first included those in which there was a concentration of the blood due to excessive loss of fluid from the body, as in cholera, the rapid formation of pleural or other effusions, excessive perspiration, etc. But the absolute form was distinguished by the presence of an actual increase of red cells above the normal number for the whole body. This class included erythremia, the polycythaemia so frequently associated with congenital heart disease, and that of acquired lung disease. The absolute class would show signs of increased formation of red cells, such signs including increase of red marrow, dilatation of vessels due to the compensatory hydraemia following increased viscosity of the blood, the presence in the circulation of immature red cells, and the otherwise inexplicable hypertrophy of the left ventricle. Yet it was not always easy to differentiate the two classes. For example, one man had acute heart failure; when first seen, his red cell count was 7 millions, but in four days they had fallen to just half that quantity as the cardiac condition improved. This would appear to be a simple case of concentration, yet here was irrefutable evidence of rapid new red cell formation in the shape of a blood crisis. If the case had not recovered from the heart failure, there would have arisen a compensatory polycythaemia in addition, and this would have been permanent—in fact, an absolute polycythaemia. He found it quite impossible to group into absolute and relative the 24 cases he was narrating in this paper; therefore he had recourse to a classification which was partly etiological and in part purely clinical. The first group he called congenital polycythaemia, and all the cases in it were associated with cyanosis, and probably all had clubbing of the fingers. It was a congenital abnormality presumably in the nature of deficient development. Next came the first idiopathic group—cases of possible erythremia, and one case was probably unique in that it was hereditary. The second idiopathic group consisted of cases which showed sparseness of subcutaneous fat, a polycythaemia reaching 7 millions, and a brick-red complexion and dry skin. Blood pressure was much above the normal. The cases in the third idiopathic group all had polycythaemia with excess of subcutaneous tissue, and a generally fat and unhealthy appearance. His fifth group he called the compensatory, and the sixth the reactive. The compensatory polycythaemia followed a stimulus to which the only true reaction was true polycythaemia; but reactive polycythaemia was met with in cases in which there was no discoverable need for polycythaemia, though there was need for repair of a previously impoverished blood. It was, in other words, an excess when all that was really demanded was a return to the normal. Dr. Ward's new group was therapeutic polycythaemia, and these cases resembled the last, except that there was reason to suppose the nature of the stimulus causing the polycythaemia was known. Group eight were the mixed cases, and group nine those of doubtful causation.

The papers were briefly discussed by the PRESIDENT, Dr. R. HUTCHISON, Dr. BATTY SHAW, Dr. ELLIOTT, and Dr. PARKINSON; and the authors replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Friday, February 7th, 1913.

Mr. A. J. HORNE, F.R.C.P.I., President, in the Chair.

Two Cases of Rupture of the Uterus.

DR. MADILL read notes of these cases. In the first the patient was a 5-para, aged 34. After being in labour for seven hours a severe pain occurred, and no more ensued. Two hours later she was admitted into hospital. The fetus could easily be defined on palpation of the abdominal walls. Supravaginal hysterectomy was performed; all the fetus, except its head, lay free in the abdominal cavity, the rest lay on the left side of the uterus, in which organ the placenta lay loose. There was much free blood in the peritoneal cavity. The patient recovered. The abdomen was very pendulous. The second patient, a 6-para, aged 32, had intermittent pains for a fortnight; the forceps was applied without success, and then she was sent moribund into hospital. Abdominal section was performed; a hydrocephalic fetus, weighing 9½ lb., lay with the placenta free in the peritoneal cavity; there was an extensive laceration on the right side of the uterus, and the bladder was badly torn. Hysterectomy was performed, but the patient succumbed almost directly afterwards. Dr. JELLETT congratulated Dr. Madill on the success of his first operation; he himself had reported another, last session, which also succeeded. Dr. SOLOMONS related an instance of rupture of the uterus from neglected brow presentation; the body of the child escaped into the peritoneal cavity, but delivery was effected by forceps, the placenta removed manually, and the rent plugged with iodoform gauze. The patient recovered. Dr. PUREFOY, who had assisted at both Dr. Madill's operations, said that no hard and fast rules for diagnosis and treatment could be laid down. Rupture occurred sometimes without any of the usual signs.

Wertheim's Hysterectomy.

Dr. E. H. TWEEDY exhibited a cancerous uterus removed from a woman aged 38. There had been haemorrhages, one causing syncope, and she believed herself to be a bleeder; she was plugged, and then sent into hospital. The entire lip of the cervix was involved, but the uterus was mobile, and there was no cachexia. When the uterus was removed, a small myoma was discovered in its cavity.

surrounded by clot; had it not caused the haemorrhage, the patient would not have applied for relief till later. As it was, glands were discovered far from the original growth. Dr. PUREFOY questioned whether a uterus the seat of a fibromyoma was specially liable to become cancerous. Malignant disease of the cervix soon extended to distant glands.

Surgical Treatment of Septic Pelvic Thrombosis.

Dr. JELLETT, in a communication on pelvic thrombosis, referred to a case of pyaemia in the Rotunda Hospital, with thrombosis of the ovarian vein, as detected at the necropsy, and he decided, in considering that case, to operate in future. He recorded three cases, in all of which the first symptoms were recurrent rigors, high temperature, and rapid pulse. He preferred abdominal section in the first case, removing with perfect success a large thrombosed and suppurating vein. In the second, where he operated much later—namely, on the thirty-ninth day—he removed a thrombosed ovarian artery and vein; a few rigors followed, yet the patient recovered. The third was similar to the first, but the whole of the ovarian vein contained pus and there were two abscesses in its vicinity. The patient improved for a few days, then grew worse, and on the thirtieth day after labour a second operation was undertaken in order to tie the internal iliac vein, which he suspected to be thrombosed. It was not plugged, however, but there was apparently thrombosis and suppuration of the uterine vessels. Hysterectomy was performed, but the patient died on the thirty-fourth day with symptoms of pulmonary sepsis. In all three subjects thrombosis developed on the right side and primarily in the ovarian vein, favourably placed for operation. Early surgical interference was always advisable. The early symptoms and the thickening or swelling of the broad ligaments, with relatively little pain or tenderness, were diagnostic. Professor SMITH noted that the opinion among operators experienced in the surgery of pelvic thrombosis seemed to lay more stress on conditions detected bimanually than on high temperature and relatively slow pulse. If infection spread from the placental site it was possibly carried through the ovarian vein. Professor Smith agreed with Taylor of Birmingham as to choice of operation by the vaginal route in suitable cases. Dr. SHEILL suggested that the relative frequency of infection on the right side was attributable to the fact that most doctors were right-handed, the examining finger being passed along the right side of the genital tract. Possibly ulceration of the cervix might supply the infection. Mr. PEARSON held that the subject was suited for the Section of Surgery. With regard to the technique, before proceeding to follow up the veins, the ovarian vein should be exposed where it entered the vena cava or left renal vein, and divided. It was important to start as far away as possible from the focus of infection, as there was a great danger of embolism if the general circulation were not cut off before the septic parts were dealt with. Cases in which thrombosis existed were apparently more favourable than those where there was no clot in the vein. Vaccines were of little use in cases of acute infection, and it seemed irrational to give a vaccine in acute sepsis, but Mr. Pearson had seen benefit from serum in several cases. After-treatment was as important as operation. The patient should be saturated with as much liquid as possible to aid the kidneys in eliminating the toxins. Dr. ROWLETTE dwelt on the unsatisfactory results of vaccines in thrombosis in the United Kingdom, whilst in America the cases of sepsis where there was thrombosis did best. In nearly every case of thrombosis in this country there was mixed infection—hence, perhaps, the unsatisfactory results of vaccines. Dr. Rowlette had successfully employed vaccine in two cases. In the first there was acute puerperal melancholia with pyaemia, and an autogenous *Staphylococcus aureus* vaccine was administered. In the second there was not only thrombosis, but also infarcts in the lungs, and the patient was very ill. It was thought that she could not bear an anaesthetic, still less an operation. A growth of streptococci was obtained from the venous blood and a vaccine prepared. The temperature and pulse came down step by step and the general condition improved. In a week the patient was convalescent, and, though an attack of pleurisy supervened, she recovered completely. It was one of the worst cases of puerperal sepsis he had ever seen. Dr. PUREFOY considered that Dr. Jellett was correct in stating that 60 to 70 per cent. of septic thrombosis cases did not recover. Dr. JELLETT, in replying to the remarks, said he did not mean to suggest that no cases of pyaemia recovered, but when there was thrombosis of veins with suppuration the mortality must be something near 100 per cent. In cellulitis an infection first passed into the connective tissue—say, from a torn cervix. This started the cellulitis, and thrombosis in the veins might or might not follow. In septic thrombosis, on the other hand, the infection passed straight into the open veins from the placental site. It had been questioned whether it were better to attack the thrombosed ovarian vein from below or from above. In the majority of cases the transperitoneal operation was the better. He was indebted to Mr. Pearson for his remarks about the ligature on the upper part of the ovarian vein. Dr. Sheill's suggestion might account for infection of the vaginal mucous membrane, but not for infection of the placental site. He recognized that the question of operation in these cases was still a very grave matter, but that in cases such as those he brought forward it was positively indicated.

SECTION OF ANATOMY AND PHYSIOLOGY.

Friday, January 24th, 1913.

Dr. B. J. COLLINGWOOD, President, in the Chair.

The Adequate Stimuli of the Respiratory Centre.

Professor T. H. MILROY described the methods of studying the influence of nervous factors in the production of apnoea, and also the effects of various gas mixtures on the quiescent centre. The following conclusions were tabulated: (1) Alterations in the rate or degree of distension of the pulmonary alveoli when the amount of ventilation is constant do not affect the duration of the apnoeic pause in any constant direction, but a repetition of ventilation periods tends to prolong the pause. (2) Removal of the vagal control does not interfere with the production of the apnoeic pause. (3) Any rise in the CO_2 content of the air used for ventilation shortens the apnoeic pause, and any increase in the carbonic acid content of the gas mixture used to distend the lung after pulmonary ventilation with air shortens the period. With increased CO_2 content of these gas mixtures irrespective of the amount of oxygen, the apnoeic pause proportionately decreases. (4) Injection of small quantities of acid solutions directly into the carotid during the pause leads to respiratory movements of an exaggerated type, as does also injection into the central end of the carotid and into the external jugular vein to a lesser degree. (5) With the excitation of such respirations during the pause there is associated an increased passage of carbonic acid from pulmonary blood to air. (6) These effects are produced after removal of the vagal control, but the excitability of the centre under such conditions seems to be diminished. (7) The passage of CO_2 from alveolar gas mixtures to blood, or from blood to alveoli, seems to depend entirely upon the difference of the pressure of that gas in the blood and air in the alveoli. (8) It seems most probable that the effective stimulus of the respiratory centre rendered quiescent by over-ventilation is a rise in the carbonic acid concentration in that centre, whether brought about by the normal rise in carbonic acid formation during the pause, with its associated rise in the CH_1, or primarily to a rise in the CH_1 from the formation of acid products of incomplete oxidation giving rise secondarily to an increase of the free CO_2 tension. Professor W. H. THOMPSON, Dr. O'CONNOR, and the PRESIDENT spoke; and Professor MILROY replied.

Thrombin and Antithrombin.

Mr. M. T. M'MAHON gave a demonstration of the action of thrombin and antithrombin. The PRESIDENT pointed out that this preparation of thrombin acted equally well in purpura haemorrhagica and in haemophilia. Mr. SHERIDAN had used this preparation with success for persistent bleeding after extraction of teeth.

Creatinin and Urea.

Professor W. H. THOMPSON described some new standard solutions for the estimation of creatinin by Folin's method, and also described a modification of Benedict's method for estimating urea. The PRESIDENT and Professor MILROY spoke, and Professor THOMPSON replied.

OXFORD MEDICAL SOCIETY.

A MEETING was held in the Radcliffe Infirmary on Friday, February 14th, the President (Dr. W. DUIGAN) in the chair. Mr. A. P. DODDS-PARKER showed the following series of cases of fracture treated by modern methods: (1) Fracture of upper end of humerus in a young man, treated by a Lane's plate; perfect union. (2) Fracture of olecranon in a woman, treated by wiring; very good result. (3) Fracture of olecranon in a man, treated by wiring; very good result. (4) Fractured femur in a boy, treated by a Hodgen's splint; perfect union, no shortening. (5) Fractured tibia in a man, treated by a Lane plate; there was delayed union and much callus, but a good result. (6) Fractured humerus of the middle third in a man, treated by a Lane plate with a good result. (7) Fractured tibia and fibula in a man, treated by a Lane plate for non-union; good result. (8) Fractured patella in a man, treated by a wire and a Lane plate; good position of the patella and walks well. (9) Fractured ulna and radius in a man, treated by a Lane plate with a good result. All the cases were illustrated by *x*-ray photographs before and after, taken and demonstrated by Mr. R. H. SANKEY. Dr. W. TURRELL then showed a case of *Lupus of the cheek* in a woman who had had no treatment for twelve years, whom he was in process of treating by diathermy. Five applications had been given, and the effects of various intensities of the treatment were demonstrated in a piece of fresh liver tissue. Dr. W. COLLIER related the histories of two unusual cases of *Diphtheria*, the first in a woman, aged 28, who was admitted into the Radcliffe Infirmary for chorea of pregnancy. The patient became maniacal, and as the child was viable labour was induced. A parotid abscess developed in which staphylococci were found. Later, six weeks after her entry into hospital, her voice became husky, there was respiratory stridor, and she died. At the *post-mortem* examination a diphtheritic membrane, in which *B. diphtheriae* was found, extended from the vocal cords to below the bifurcation of the trachea. The second instance was that of a nurse who had been in attendance on a very bad case of septicaemia of doubtful nature. The nurse subsequent to leaving her patient developed a high temperature, great cyanosis, and rapid failure of strength. There were a few râles in the chest, and *B. diphtheriae* with numerous cocci were found in the sputum, but none of the ordinary clinical signs of diphtheria were present. Antidiphtheritic serum had no effect. At the *post-mortem* examination diphtheria bacilli were detected in the mucus of the trachea and smaller bronchioles. The lungs were oedematous and partly solid, but did not sink in water, and no other lesions were discovered.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on February 12th, Dr. WALTER SWAYNE, President, in the chair, a discussion was held on the *Treatment of chronic constipation*. It was opened by Dr. F. H. EDGEWORTH, who said that constipation might exist, although the bowels were opened daily. Delay in passage of the intestinal contents over the normal forty hours could be easily shown by the administration of charcoal biscuits to colour the faeces. Salines were particularly efficient in patients with high blood pressure. In order to retain its effects, cascara must be given in increasing doses, but with aloes the dose need not be increased. In cases combined with neuroses bromides were efficient, and when the chief difficulty was the emptying of the lower bowel enemata had to be given, glycerine being unsuitable for constant use owing to its injurious action on the mucous membrane. Mr. CARWARDINE had been able to cure several cases by the division of adhesions in the ileo-caecal region, but he was doubtful as to the advisability of performing such extensive operations as removal of the colon. Mr. F. G. BERGIN pointed out that by locating the situation in which delay occured a bismuth *x*-ray examination was of great help towards correct treatment. Dr. BERTRAM ROGERS regarded constipation in children and infants as the result of bad habits combined with a deficiency of fats in the food, and particularly of water. Dr. MICHELL CLARKE regarded neglect in children as the most frequent cause, and insisted on a routine rectal examination in cases of constipation. Mr. LANSDOWN had once been asked to remove the colon to cure a case of constipation, but had given relief by removal of enlarged ovaries impacted in the pelvis. Mr. FIRTH had treated a chronic case by appendicostomy and lavage, but had been compelled later to remove the colon.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on February 20th, Mr. ROBERT JONES, President, in the chair, Mr. T. R. W. ARMOUR read a note on two cases of *Recurring dislocation of the shoulder* in which "Clermont's" operation had been performed by Mr. Robert Jones. The first patient had had his right shoulder dislocated seventy-six times and his left twenty-eight times. Capsulorrhaphy had been performed on both joints without success. The operation consisted in bringing a long flap of the posterior margin of the deltoid through the quadilateral space in front of the capsule of the joint and stitching its end in front under the coracoid process. This deepened the socket and tightened the capsule. Care was needed to avoid injury to the nerve and arterial supply of the muscle. In the first case the operation, performed in June, 1912, had not been a success. The second, done last November, had been so far quite satisfactory. The first had failed from faulty technique. The deltoid flap had not been long enough and the tunnel not wide enough to allow easy manipulation; nor had the fixation of the flap been sufficient to prevent it from returning to its original place. In the second case care had been taken in these points, and so far with good result. The operation was only on its trial. Mr. THURSTAN HOLLAND read a paper on *X-ray examination of the stomach*. Half to three-quarters of a pint of bread and milk, of the consistence of bread sauce, mixed with three or more ounces of bismuth carbonate, or barium sulphate, which was much less expensive, was given to a fasting patient. The stomach was then seen to be much longer and narrower than was depicted even in contemporary anatomical works. The lower end came to the level of the iliac crest, and the whole organ was to the left of the middle line. The movements were rhythmical at the rate of one in twenty seconds, and did not pass along to the duodenum. The food did not lie at the lowest part of the stomach, but was distributed through the length when full. The normal stomach emptied in about three and a half hours after this test meal. Mr. Holland showed lantern photographs of the normal stomach and its variations and contractions; also of three cases of transposed viscera; of cases where gastric enterostomy had been done; and of cases of gastroptosis. He demonstrated a photograph of dilated stomach where the lower end lay quite in the pelvis; also photographs of malignant disease and of hour-glass contractions of the organ. Dr. T. R. BRADSHAW said that Mr. Holland was recognized as an expert authority. The *x*-ray method afforded invaluable assistance in the diagnosis of very many cases. Dr. HILL ABRAM said that the physician would still be obliged, especially in places remote from elaborate equipment, to rely on the older methods of diagnosis. Dr. BRADLEY-HUGHES and Dr. R. J. M. BUCHANAN also spoke; and Mr. THURSTAN HOLLAND replied. Dr. EDGAR STEVENSON read a paper on *Some points in modern eye practice*. Cocaine hydrochlorate appeared to be the most useful of all local anaesthetics. A weak mydriatic, such as homatropine, was safer than the stronger preparations. Among silver preparations, the nitrate was the most useful. Subconjunctival injections of mercury oxychloride had been found of value in septic cases. Aspirin in trauma and in iritis cases, and sodium salicylate in large doses in sympathetic ophthalmia, were of service as internal remedies. Dr. Stevenson's experience of salvarsan, of vaccines, and serums had not been very favourable. Of physical remedies, Dr. Stevenson condemned

cold applications as dangerous, and found heat more useful. Depletion by leeches was highly beneficial. Two preparations illustrating Tote's operation for dacryocystitis were exhibited. Mr. T. H. BICKERTON objected to the use of silver nitrate in gonorrhoeal ophthalmia. For sixteen years he had never used that salt. He applied iced compresses, and had never lost an eye. Dr. W. T. CLEGG called attention to the omission of urotropin, which he had found useful in wounds of the eye. He did not think subconjunctival injections were better than ordinary subcutaneous injections. In the treatment of dacryocystitis he was satisfied with the older methods of treatment, and thought excision of the sac should be of very limited application. Mr. NIMMO WALKER agreed with Dr. Stevenson in the condemnation of the use of ice-pads in gonorrhoeal ophthalmia, and was convinced that warm moist applications were the best in the acute stage. He had not tried blood-letting in glaucoma. In routine examinations of the blood pressure in cases of chronic glaucoma he had failed to find any definite relationship between changes in circulatory and ocular tensions. In dacryocystitis slitting the canaliculi and probing were worse than useless. The new operation described by Dr. Stevenson was well worth trying. Mr. MALCOLM STOCKDALE agreed that the old-established drugs, such as cocaine, atropine, and boric acid, still retained their place in eye work. The use of silver nitrate solutions, he thought, should always be very limited. In gonorrhoeal ophthalmia the infection, being at first on the surface, could be washed away by a mild lotion, such as boric acid. In advanced lacrymal disease he had found excision of the sac to yield satisfactory results. Dr. HARCOURT and Dr. LOGAN also spoke; and Dr. STEVENSON replied.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

A MEETING of the society was held on February 28th, the President (Dr. DOBSON) in the chair. Dr. W. CUTHBERT MORTON read a paper on *The present crisis in anatomical nomenclature*. The Basel Nomenclature, which was promulgated by the German-speaking anatomists in 1895, had made such progress in America and the colonies, and even in the United Kingdom, that the Anatomical Society had been forced to discuss its adoption, not merely as an international code, but for ordinary use. There were grave objections to the new nomenclature, which did not claim to be more than a list of names, acceptable to German-speaking anatomists, submitted to anatomists speaking other languages. In spite of much that was excellent, the principles on which it was based were not scientific, and it did not sufficiently regard the needs of medicine and surgery. Moreover, in some respects it was not up to date. Dr. Morton therefore pleaded for a commission of British anatomists and teachers of final subjects to prepare a complete British nomenclature as far as possible in harmony with the Basel Nomenclature. An international conference might then be called to evolve a truly international nomenclature. He rapidly reviewed the principles upon which such a nomenclature should be based, and sketched out the manner in which these principles might be applied to the abdominal cavity and its contents. Mr. J. STEWART showed specimens from six recent *Abdominal operations*, illustrating difficulties in diagnosis. Mr. ALEXANDER SHARP showed a specimen of *Squamous-celled carcinoma of the larynx*. Mr. CONSTABLE HAYES showed a specimen (with photograph) of a large *Osteoma*, which caused secondary mastoid disease in a case of suppurative otitis media. Mr. WALTER THOMPSON exhibited a large *Malignant tumour of the bladder*, which had been successfully removed by a wide operation. Recurrence of the growth had, however, taken place after an interval. Dr. C. W. VINING showed a case of *Hysterical stupor*, which was improving under treatment. Mr. LITTLEWOOD showed a specimen of *Tuberculous mesenteric glands* which he had removed by operation. There had been a sinus communicating with the surface, and he had removed the sinus, glands, mesentery, and associated loop of bowel, performing an end-to-end anastomosis. The patient had made a good recovery. Cases and specimens were also shown by Dr. HELLIER, Mr. L. A. ROWDEN, Mr. E. W. BAIN, and Dr. M. J. STEWART.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting held on February 20th, the President, Dr. STANLEY RISELEY, in the chair, Mr. ARTHUR CONNELL, in a paper on the *Importance of careful treatment in injuries and infections of the fingers*, dealt specially with the infective conditions and their treatment by fomentations, etc. He referred to the great importance of making incisions so as to avoid infecting healthy tissues. When suppurative conditions developed about the nail it should be removed immediately. When an interphalangeal joint became infected amputation was preferable to excision. Mr. J. B. FERGUSON WILSON showed a specimen of *Torsion of the spermatic cord*. There was great enlargement of the testicle due to extravasation of blood into the epididymis and body. The condition began with a sudden onset five days before removal. There had been no injury and the testicle was fully descended. Dr. A. G. YATES showed two cases of *Exophthalmic goitre in men*. One patient had been taking thyroid extract for several months, but the result appeared to be wholly unsatisfactory. The desirability of operative treatment in these cases was discussed. Dr. R. G. ABERCROMBIE showed three forms of *Apparatus for treating injuries of the hands*: (1) A contrivance for exercising the grasp muscles, in which the principles of the lever were utilized so that at the beginning of the act of grasping, when the muscles were weak, the resistance was small; at the middle of the grasp, when the muscles were strongest, the resistance was at its maximum; and at the end of the grasp when the muscles were again weak, the resistance was again small. (2) A steel wristlet, provided with finger-stalls and straps, designed to overcome loss of flexion of the fingers caused by stiffness. The straps were to be gradually tightened, thus bringing the fingers into the position of flexion. (3) A grooved wooden wedge, intended to obviate the tendency, after a disarticulation of the finger at the metacarpo-phalangeal joint, of the two adjoining fingers to fall together, thus weakening the hand. The wedge was to be worn at night. Mr. GRAHAM SIMPSON showed a *Loose cartilaginous body* removed from the elbow-joint. It was about the size and shape of a bean and showed no fractured surface.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

AT the general meeting of the society, held on February 18th, a discussion on *Puerperal eclampsia* was introduced by Dr. E. W. SHARP. The "fit" was a common symptom, not the whole disease, which was a toxaemia where certain well-marked pre-eclamptic manifestations, notably headache, disturbance of vision, swelling of the face and extremities, and diminution in amount of urine, were commonly observed. The condition was quite distinct from uraemia and albuminura, and the toxin was not microbic, but akin to certain venoms, since it contained the same five elements—thrombotic, haemolytic, haemagglutinative, endotheliolytic, and neurotoxic. Although apt to recur in subsequent pregnancies, eclampsia did not result in permanent nephritis. It occurred not only in normal but also in sterile molar pregnancies. It had been ascribed to imperfect balance of the internal secretions, those of the suprarenal and pituitary being increased, as evidenced by high blood pressure—a prominent feature of the disease—whilst the secretion of the thyroid diminished. Prophylaxis was of high importance in preventing the eclamptic attacks. When premonitory symptoms set in, rest, a strict milk and vegetarian diet, and a daily action of the bowels, were essential. When the attacks occurred Tweedy's methods were to be followed. The avoidance of external stimuli, the use of morphine, and the elimination of toxins by lavage of stomach and colon, were important measures. A concentrated solution of magnesium sulphate should be left in the stomach, and a pint of sodium bicarbonate in the rectum. Attempts should be made to lower the blood pressure; in many cases venesection was valuable, as was veratrum viride or nitroglycerine. Where intravenous infusion became necessary sodium bicarbonate was better than normal saline fluid. If swallowing were possible frequent draughts of water should be given, but no food. Diaphoresis was not recommended, and lumbar puncture was useless. Dr. Sharp was not in favour of inducing labour. When it occurred it should be assisted.

but not forced, natural delivery being preferable to artificial methods. *Accouchement forcé* was not good practice. When the os would not dilate, and pains were strong, Caesarean section was greatly to be preferred.

NORTH OF ENGLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

AT a meeting held on February 21st, Dr. W. E. FOTHERGILL (Manchester), President, in the chair, Dr. GEMMELL (Liverpool) showed a specimen of *Adhesion of the vermiform appendix to the right Fallopian tube*. The left tube and ovary were the seat of a tubo-ovarian abscess. The history showed that the primary mischief was probably appendicular. Dr. GRIMSDALE (Liverpool) brought forward a specimen of *Carcinoma of the body of the uterus* from a patient whose ovaries were removed three years previously, and showed suspicious appearances suggesting malignancy. Dr. GEMMELL exhibited two cases of *Ectopic gestation:* (1) A secondary abdominal pregnancy with seven months fetus and with a very clearly defined history; (2) an isthmial pregnancy in the left tube of six weeks' duration, the source of very severe intraperitoneal haemorrhage. The abdominal ostium was free from any sign of haemorrhage and no laceration of the tubal wall or sac could be detected. Dr. FLETCHER SHAW (Manchester) showed a *Fibromyoma of the uterus complicated by an abscess in the right broad ligament* from which a pure culture of streptococci was obtained. Eight years previously abortion and septic infection had occurred, but from that time until the sudden onset of the pelvic inflammation the patient's health had been good. Dr. BLAIR BELL (Liverpool) showed a case of *Superinvolution of the uterus with exophthalmic goitre* in a woman aged 25. Her health had been good until the birth of her first child, eleven months previously. Lactation failed within a few weeks and the thyroid enlarged, all the symptoms of exophthalmic goitre developing in a short time. The uterus was very small, the cavity being reduced to 2 in. in length. The case was of great interest owing to the fact that superinvolution appeared more likely to follow deficient thyroid secretion than the reverse. Dr. CATHERINE CHISHOLM (Manchester) read a paper on *The nature and extent of menstrual molimina during adolescence*, based upon the menstrual history of 500 girls attending school between the ages of 10 and 20. The majority, 58.6 per cent., experienced no discomfort. In 33.6 the pain was slight and often only occasional; those suffering discomfort experienced rather local symptoms than general disturbance such as headache or general lassitude. The tendency to disturbance did not appear affected by the age of onset. Severe cases of pain, so far as there was opportunity for examination, were associated with local abnormalities. The largest number of cases with discomfort and pain occurred among anaemic girls with profuse loss. The best physically-developed girls showed over 70 per cent. without any disturbance and with no cases of pain which incapacitated them from work. Hard mental and physical work under healthy conditions did not appear to affect the freedom from menstrual disturbance.

HARVEIAN SOCIETY.

AT a meeting held on February 20th, a discussion on the *Diagnosis of acute abdominal conditions in children* was opened by Dr. EDMUND CAUTLEY. The diagnosis of acute abdominal conditions necessitated a mental inventory of all the affections which might give rise to the observed symptoms. For accurate diagnosis an exploratory operation might be indispensable. Cases could be quoted illustrative of the difficulty in diagnosing severe intestinal colic from organic disease; others in which exploration had been done unnecessarily; and lastly, others in which such treatment would have saved the life of the patient. The question essentially turned on diagnosis. It was admitted that the "look and see" method of diagnosis was sometimes justifiable, but it was a moot point whether the surgeon was always the right person to decide if there were sufficient evidence to warrant exploration. The modern physician was not ever averse to operative measures; indeed, he was often more surgical in his opinion than the surgeon. Many acute abdominal conditions might be mistaken for affections amenable to surgical treatment. Pleurisy, pneumonia, Henoch's purpura, haemorrhagic colitis, and the onset of coma in diabetes, had all been explored on account of intestinal symptoms suggestive of abdominal disease. The main symptoms and physical signs on which a differential diagnosis could be based were vomiting, abdominal pain, constipation, the condition of the abdomen, the abdominal facies, collapse, toxaemia, pulse-rate, respiration and body temperature. These were considered in relation to the chief diseases, notably appendicitis, intussusception, intestinal obstruction, peritonitis, and simple colic. Special attention was paid to Henoch's purpura, because it might be mistaken for intussusception, a complication which might occur during its course. Many diseases could be excluded in the case of children mainly on account of their rarity, still it was necessary to bear in mind as possibilities—gastric crises in tabes dorsalis, perforation of simple gastric or duodenal ulcer, acute pancreatitis, cholecystitis and gall stones, renal colic, embolism or thrombosis of the mesenteric artery, and lead colic. Tuberculous peritonitis might give rise to misleading symptoms of obstruction due to bands or adhesions, the vomiting and constipation being really signs of the onset of meningitis. Of the utmost importance in inflammatory affections was the absence of abdominal movement and the presence of abdominal rigidity and tenderness. The rigidity might be the chief sign indicative of danger during the temporary improvement due to the relief of tension in a case of appendicitis. In all cases of colic a dietetic cause must be sought for, but the presence of such a factor was not always the explanation. Many cases of appendicitis in the early stage were ascribed by parents, and even doctors, to unsuitable food. A rise of temperature in such cases was of considerable assistance. Probably in all doubtful cases it was to the advantage of the patient that both a physician and surgeon should be called in consultation before deciding that exploration was essential. Mr. EDRED CORNER pointed out the probable cause of acute abdominal conditions depended greatly on the age of the individual. Sir JAMES GOODHART related a number of interesting cases, and Mr. LOW, Sir JOHN BROADBENT, Mr. FITZWILLIAMS, Dr. CLAYE SHAW, and the PRESIDENT all took part in the discussion.

HUNTERIAN SOCIETY.

A CLINICAL afternoon was held at the London Hospital on February 26th, the President (Mr. A. H. TUBBY) in the chair. Dr. PANTON demonstrated cases and blood films illustrating the various types of the *Non-granular leukaemias*—acute myeloid leukaemia; chloroma, with the blood changes of acute myeloid leukaemia; the myeloblastic stage of chronic myeloid leukaemia; acute lymphoid leukaemia; and also 5 cases of chronic lymphoid leukaemia. Dr. S. GILBERT SCOTT exhibited radiograms of *Bone diseases*, innocent and malignant, and of *Pituitary tumour*, etc. Dr. LEWIS SMITH brought forward a case of *Polycythaemia* associated with congential morbus cordis in a boy. Dr. J. H. SEQUIERA showed a remarkable instance of *Multiple lupus*. Dr. HUTCHISON showed: (1) A photograph of a girl, aged 3 years, the subject of *Acute myeloid leukaemia* with infiltration of both parotids and swelling of all the lymphatic glands. (2) A case of probable early *Acromegaly* in a man of 42. Mr. HUGH LETT demonstrated a case of *Cervical ribs* in a woman, aged 27. There had been pain along the inner side of the right arm and forearm for two years. The corresponding hand grew tired more easily than the left, and was very susceptible to cold weather; it showed marked wasting of the interossei and the muscles of the thenar and hyperthenar eminences. There was some loss of sensation on the inner side of the forearm and hand. The pulse in the right radial artery was relatively small. No bony tumour could be felt in the neck, but a skiagram showed two bony projections, apparently 1½ in. long, extending downwards and outwards from the transverse processes of the seventh cervical vertebra. Mr L. J. AUSTIN, Surgical Registrar, showed: (1) A case of *Pancreatic cyst*, under Mr. Furnivall. This patient, aged 52, presented a large tense glandular swelling in the upper part of the abdomen, which had developed nine months after a severe

blow with the pole of a cart. (2) A case of *Osteitis deformans*, under Dr. F. J. Smith. The characteristic changes in the skull, spine, and tibiae were marked; some satisfactory *x*-ray plates were also exhibited. (3) A specimen of *Chronic gastric and duodenal ulcers*, from a case under Mr. Sherren, which had ended fatally by haemorrhage, and a series of 7 cases of *Duodenal ulcers*, showing the results of surgical treatment.

LONDON DERMATOLOGICAL SOCIETY.

AT a meeting held on February 18th, Dr. MORGAN DOCKRELL in the chair, Dr. J. L. BUNCH showed a man, aged 50, with a marked hereditary and symmetrical *Dupuytren's contraction of the fingers*. This malady had existed in the patient's family for the past 300 years, commencing about the age of 25 and reaching the maximum at about 40. The father, grandfather, and so on, had had exactly the same lesions, and so his two sons both had it, the contraction just beginning in one of them, a man aged 26. Dr. Bunch also showed a woman, aged 64, with some *Scarring* on the nose and a small *Tumour* on back of neck. The former was either tuberculous or syphilitic, whilst the latter was a cyst. The PRESIDENT, Drs. VINRACE, PROSSER WHITE, GRIFFITH, SIBLEY, WELLS, and PHIBBS discussed the cases. The PRESIDENT exhibited a man, aged 35, with some old-standing *Specific scars* and depressions on the scalp, the severity of which was associated with a tuberculous soil. Dr. GRIFFITH showed a man who presented a *Diffuse area of livid red skin*, involving the whole of the bathing drawers area. The Wassermann reaction was negative, and histologically it presented the condition of parakeratosis, and he considered it one of erythrodermia. Dr. KNOWSLEY SIBLEY showed a case of advanced *Leucoderma* in a girl, aged 18. The treatment consisted in increasing the pigment in the pale areas by local hyperaemia, and removing it from the pigmented ones by lotions of mercury perchloride, applied by ionization. Dr. Sibley also showed a case of extensive *Scrofuloderma* in a girl, aged 9; some of the lupous lesions he was treating with ether carbon dioxide, and others with ionization of zinc sulphate solution. Dr. PROSSER WHITE of Wigan read a paper on the *Sociological aspect of syphilis*, in which the point was emphasized that the first thing to enable a disease to be controlled was to know its extent. In Scandinavian countries compulsory notification of syphilis was enforced, its seriousness being only too well recognized, and rational attempts were made to check it. Venereal disease was probably more disastrous to the health of a country than either tubercle or alcohol, yet the public showed apathy towards the former, as compared with the interest it took in the two latter questions. Again, syphilis was much more easily controlled by treatment than either the other conditions. Modern intensive treatment by healing up the early and secondary lesions of syphilis proved valuable, especially as a prophylactic measure. The Continent, America, and the colonies were demanding free treatment by experts. How long must we delay? The PRESIDENT, Drs. SIBLEY, VINRACE, GRIFFITH, and REEVE joined in the discussion.

THE report presented to the annual meeting of the County of London Branch of the British Red Cross Society, held at Grosvenor House on February 28th, showed that during the year one men's and nine women's detachments had been raised, while one women's detachment had been disbanded, leaving the total number in existence at the end of 1912 at four men's and forty-eight women's detachments. Sir Launcelot Gubbins, Director-General of the Army Medical Service, in moving the adoption of the report, said that the Red Cross now had 1,959 detachments, with a strength of nearly 60,000, of which about 20,000 were men. It was very desirable that voluntary aid bodies should keep themselves up to the mark of efficiency for any duties that might fall upon them in time of emergency. Sanction had been given to the formation of cadres, to consist of three officers and five of other rank, to help in co-ordinating and training in peace time the voluntary aid detachments, and also on mobilization to take some of the burdens off the shoulders of the county director.

Reviews.

THE HOUSE OF LIFE.

THERE are few severer tests of mastery than the writing of a short and simple book upon a great and difficult subject. Professor KEITH, in his contribution to the "Home University Library" of a short account of the development, structure, and leading functions of *The Human Body*,[1] has produced a work which, while in the main it will prove intelligible to the general reader, is also full of interest for the professional student. The author has wisely refrained from the impossible task of compressing within some 250 brief pages a comprehensive account of human anatomy and physiology, contenting himself with a successful effort to indicate the broad features of our present knowledge, the central problems that still confront us, and the methods by which our surest results have been attained in the past and may be enhanced in the future. Thus, in the chapter dealing with the brain, an interesting account of Charles Bell's great discovery of the distinction between sensory and motor nerves at once serves to illustrate the nature of scientific induction and to impress upon the reader's mind a fact of fundamental importance. In the third chapter we are given a brief survey of the considerations determining the assignment of man to one of the three families included among the higher primates. Of these three families the central position is occupied by the great anthropoids, while the gibbon, on the one side, has adhered to the ancestral form, and man, on the other, has aberrantly evolved to his present position. The existence of the great anthropoids is, Professor Keith thinks, menaced by the extension of civilization. The big forms of primates (gorilla, chimpanzee, orang, and man) form a group of approximately uniform size; and since fossil remains of big anthropoids, belonging presumably to the same ancestral stock, have been found in Miocene strata, the size of our bodies may be regarded as an inheritance which has come down to us unchanged through millions of years. The human form of foot, associated with the erect posture, is also a very ancient character, very much more so, for example, than the large brain.

One of the most valuable features of the book is its wealth of confirmatory evidence of the general evolutionary position. Among these may be mentioned the transition, during the later months of embryonic development, from the pronograde to the orthograde type of mesenteric attachment; the occasional presence in man of the levator claviculae, used by pronograde monkeys to advance the shoulder in running; the vestigial survival of the plantaris longus and the psoas minor muscles; the human liability to hernia, resulting from that weakening of the abdominal wall which has been produced by the adoption of the upright posture; the occasional persistence of the urogenital cloaca, and the occurrence of supernumerary nipples. Such facts are explicable only on the supposition that man has been evolved from the lowest forms of animal life. The fact that the ancestral stages of man's development are but imperfectly recapitulated by those of intrauterine life, is attributed by the author to a modification of the latter process evoked by the special conditions under which it takes place.

In the chapter dealing with sexual traits Professor Keith explains the predominantly thoracic respiration of women by the necessity of minimizing the pressure to which the fetus is subjected during pregnancy. Tracing the sexual differences found in man and the anthropoids to that common primate stock which appeared in an early stage of the Miocene period, he concludes that, since these differences have remained stable for many millions of years, there is no foundation for the view held by certain feminists and others that civilization will in the near future produce a structural or functional equality of the two sexes. An interesting point in connexion with the human hand is the fact that the flexion lines on the palm, which most people would agree to regard as acquired characters, appear on the fetal hand before its movements have actually begun. In view of this fact, Professor

[1] *The Human Body*. By Arthur Keith, M.D., LL.D. Home University Library of Modern Knowledge. New York: H. Holt and Co. London: Williams and Norgate. 1913. (Fcap. 8vo, pp. 256. 1s. net.)

Keith inclines to the belief that use-characters may under some circumstances be inherited. The author adduces reasons for his opinion that retrograde changes are at work on the faces and jaws of highly civilized peoples, probably due to the adoption of a diet which makes an insufficient demand upon the functional potentialities of these parts. To the same cause he attributes that retrogression of the appendix and the colic system which has led Metchnikoff to condemn these structures as useless and dangerous encumbrances of the human organism—a condemnation which, however, the author declines to endorse. In the same chapter he sounds a much-needed note of warning as to the mischievous effects produced by excessive and faulty muscular training upon the lungs and heart.

The concluding chapter deals with the question of the antiquity of man. His traces can be followed back to the end of the Pliocene period; that of the primates leads up from the Eocene to the middle of the Miocene. Somewhere between these two lies the point at which man emerged from this ancestral stock.

We have indicated but a few of the interesting features which make Professor Keith's little book a source of interest and delight. It only remains to express our appreciation of the charming style in which its wealth of information is conveyed.

SPECIFIC FEVERS.

THE book on scarlet fever[2] by the late Professor ESCHERICH and Dr. BÉLA SCHICK belongs to the series of Nothnagel's *Spezielle Pathologie und Therapie*, now edited by Professor von Frankl-Hochwart. It well maintains the high standard of the earlier volumes. Owing to the lamented death of Professor Escherich after the completion of the chapters on the history, epidemiology, and pathogenesis of scarlet fever, the later sections are entirely written by Dr. Béla Schick, who claims faithfully to have presented his teacher's views. The book is written in a scientific spirit, and embodies the latest researches. As was to be expected of a work for which the well-known Viennese professor was chiefly responsible, it is by no means a mere compilation. Popischill's observations on 2,372 scarlet fever patients, half of whom were given meat and half an exclusively milk diet, seem to show that the prophylactic value of milk as regards scarlatinal nephritis is illusory. The authors hold that the results warrant a relaxation of strictness, if milk becomes repugnant. They recommend that even the mildest cases should be kept in bed for four weeks, for, though the patient may appear to be in perfect health, the disposition to relapse and to post-scarlatinal diseases increases during the third and fourth week. This may be due to the formation of reaction-bodies towards the end of the second week, which usher in a period of specific hypersensitiveness. Probably these anaphylactic bodies are at first formed more rapidly than the antitoxic reaction-bodies. Professor Escherich was an enthusiastic believer in the efficacy of Moser's immunizing serum, and the section dealing with this method of treatment is of great interest. As the dose is no less than 200 c.cm., serum sickness is common after its administration. Hence it should be used only in cases in which the prognosis is obviously bad. The best results are obtained in toxic scarlet fever, in which the danger arises from the severity of the specific infection. In severe septic cases—that is, cases with suppurative and necrotic complications in the throat, nose, ear, and cervical glands due to secondary infection—it is useless, unless given at the first onset of dangerous symptoms. The book should prove valuable both to the specialist and general practitioner.

In the preface of Dr. CLAUDE B. KER'S little book, *A Manual of Fevers*,[3] it is stated that the object with which it was written is "to give in a compact form the information likely to be required to supplement the practical work" of the demonstrations in the wards of a fever hospital. For such a purpose the book is eminently adapted. The clinical teacher in the fever hospital has to make use of opportunities as they present themselves, and he is seldom in a position to demonstrate the events of disease in their complete sequence. But the student, if he is to get the full value of the demonstrations, should possess a general knowledge of these events, and to obtain this knowledge he will find this book exceedingly useful. It is one to be read just before attendance on a course of instruction at a fever hospital. Clinical details will be pointed out at the hospital, and details on other subjects —epidemiological, pathological, etc.—can be looked up, as occasion demands, in one of the large textbooks, of which there are now several. For the general practitioner this manual is hardly full enough. On one or two points we differ from the opinion of the author. Is 20 lb. to the square inch really necessary for satisfactory penetration of the steam in a disinfecting machine provided with a vacuum producer? Are the prodromal rashes of measles rare? In London they occur in about 40 per cent. of the cases. Is the scarlatina patient more likely to suffer from a relapse than is the convalescent from any other eruptive fever? Dr. Ker must for the moment have forgotten enteric fever when he wrote this statement. In the discussion on the diagnosis of small-pox the student should be warned against mistaking the haemorrhagic form for purpura haemorrhagica. We have more than once known this error to be made with disastrous results. Omissions such as this are, however, very few, and we hope that the speedy appearance of a new edition will enable them to be supplied. We may add that the book is provided with several excellent black-and-white reproductions of photographs of typical eruptions.

We are very glad that Dr. WOOLLACOTT'S book, *The Nursing of Infectious Diseases*,[4] has reached a second edition. We have had occasion to remark when noticing other books on this subject, that they appeared to be designed rather for junior practitioners than for nurses, in that questions of treatment were discussed which were really no concern of the latter. This work is quite free from that blemish. The nurse who has carefully studied it, what time she has been going through a course of fever training, should be well fitted to undertake the nursing of infectious cases. The facts which it is essential she should know are stated in simple and clear language, and we have not detected any serious omission. We hope the book will continue to be widely read. We can strongly recommend it to those nurses who intend to present themselves for the examinations of the Fever Nurses' Association or other like tests. We suggest to the author that in the next edition he should enter into a little more detail on the subjects of intubation, and of barrier, cubicle and separate room nursing; and add a short chapter on erysipelas, cerebro-spinal fever, and puerperal fever.

DISEASES OF THE SKIN.

ALTHOUGH many books have been written during recent years upon *x* rays, *The X-ray Treatment of Skin Diseases*,[5] by Dr. FRANK SCHULTZ, is the first work which we remember to have seen dealing exclusively with the *x*-ray treatment of skin disease. The author divides his subject into three parts—a physical part, a section on general *x*-ray therapeutics, and lastly a section on special therapeutics. In the last section every skin disease which is susceptible to *x*-ray treatment is mentioned separately, and the result which may be expected from the prescribed method of treatment is indicated. The physical section is very clear and well put, but does not contain anything very new or striking. There is a very good account of the apparatus required for the production of *x* rays, including various devices for reducing reverse current, for measuring the hardness of the rays and the quantity of radiation. In this section are also to be found the various methods of measuring the dose of *x* rays administered. Dr. Schultz

[2] *Scharlach*. By the late Professor Dr. Theodore Escherich and Dr. Béla Schick. Vienna and Leipzig: Alfred Holder. 1912. (Roy. 8vo, pp. 263; 59 charts, 3 plates. Mk. 7 60.)

[3] *A Manual of Fevers*. By Claude Buchanan Ker, M.D., F.R.C.P. Edin. London: Henry Frowde and Hodder and Stoughton. 1911. (Post 8vo, pp. 328; 6 plates, 44 charts. 7s. 6d. net.

[4] *Lectures upon the Nursing of Infectious Diseases*. By F. J. Woollacott, M.A., M.D., B.Ch.Oxon., D.P.H., Senior Assistant Medical Officer, Grove Hospital, Metropolitan Asylums Board. Second edition. London: The Scientific Press, Ltd. 1912. (Crown 8vo, pp. 158. 2s. 6d. net.)

[5] *The X-ray Treatment of Skin Diseases*. By Dr. Frank Schultz, Physician-in-Chief of the Light Department at the Royal University Polyclinic for Skin Diseases, Berlin. Translated by James Burnet, M.A., M.D., M.R.C.P.Edin. London: Rebman, Limited. 1912. (Roy. 8vo, pp. 174; figs. 81. 12s. 6d.)

employs the Sabouraud-Noiré pastille in combination with a milliampere and parallel spark-gap whereby the constancy of the tube is controlled. In the section on general therapeutics several interesting questions are discussed. Dr. Schultz holds the generally accepted opinion that there is no such thing as a hypersensibility of normal skin to x rays, but he gives an example of limited hypersensibility occurring in disease—the case of a woman who had neurodermatitis of the face, which after a very mild radiation gave a reaction of the second degree. As regards the explanation of the selective action of x rays on different kinds of tissue, Dr. Schultz refuses to accept the theory that embryonic and young cells are particularly sensitive. He lays stress on the specific sensibility of each kind of cell, but he holds that this specific sensibility is not connected with a special variety of cell recognizable histologically. As it is well known that the physical property of every material which conditions its power of absorption of x rays is its specific weight, the author holds that the specific weight of the various tissues exerts a great (although not the only) influence in determining their sensitiveness to the rays. Another new feature of some interest is the author's employment in certain cases of extremely soft tubes. It has long been known that a Sabouraud pastille dose from a very soft tube will cause a marked reaction, although the same dose delivered from a harder tube will not cause any reaction at all. Advantage has been taken of this fact to use very soft tubes (2.5 Wehnelt) for treating, apparently with excellent results, superficial naevi and also certain rodent ulcers which have proved refractory to harder rays. At the same time a warning is given that only very superficial malignant growths should be treated with these very soft rays because they have very little penetrating power. It therefore follows that any malignant tissue at a greater depth than about 3 mm. will receive not a killing but an irritative dose, and thereby will be encouraged to proliferate. The section on special therapeutics shows well what a wonderful power for good x rays can exert in skilled hands, but Dr. Schultz does not hesitate to warn us against their use in unsuitable cases. This section—and, in fact, the whole book—is written in a praiseworthy spirit of impartiality and with strict regard for scientific accuracy. It should be read by all dermatologists and radiologists, but preferably in German, for the translation is very far from good, and sometimes fails clearly to convey the meaning of the original.

In his treatise on diseases of the skin, Dr. WILLMOTT EVANS[6] has written a very useful book. This work is among the first volumes issued by the new University of London Press, and it may not be out of place here to remark that the general style and get-up is neat and attractive. Dr. Evans has, he tells us in the preface, been struck with the advanced character of most books on dermatology, which often can only properly be appreciated by those who are of considerable experience in the subject. He has, therefore, written the present work in as simple a style as is consistent with correctness and accuracy of description. Furthermore, the reader is aided in his perusal by clear headings to the chapters and paragraphs. The classification of skin diseases is a notoriously difficult subject, and it is always interesting to observe how an author approaches it. In the present instance a mixed classification is adopted; where possible, diseases of a definite and similar etiology are grouped together; where this has not been possible a pathological scheme has been followed, and, finally, diseases of the sweat glands, sebaceous glands, hair follicles, and nails have received separate attention. Such a classification, which, as Dr. Evans admits, is not strictly scientific, is justified on grounds of convenience. Although he has written a comparatively short book, he has produced a very complete treatise, for practically every pathological condition of the skin receives its meed of attention—in fact, perhaps, the usefulness of the volume to beginners in dermatology, for whom especially it is intended, would be enhanced, were some of the very rare conditions omitted, or at least the space devoted to them reduced, and the more important diseases of the skin discussed more fully instead. For example, only a page and a half is given to rodent ulcer, while six pages are taken up by leprosy: for this country, at all events, the proportions ought to be reversed. In some cases the directions for treatment are rather vague. For example, it would be impossible for any one who knew nothing about the intramuscular administration of mercury in syphilis to learn from reading this book how to give mercury in that way; nor, although salvarsan is mentioned, are any directions given for its administration by any method whatever. Apart, however, from a few omissions such as this, the student will be able to gain a very sound knowledge of diseases of the skin from the study of Dr. Evans's work. The illustrations, which are almost all original, are suitable, good, and well reproduced. The typography is very correct; in fact, we have detected only one misprint—on page 113, Tinia for "Tinea."

In reading Dr. KNOWSLEY SIBLEY'S little book on the *Treatment of Skin Diseases*[7] it is easy to see that he is an enthusiast for the application to dermatology of Bier's methods of producing hyperaemia; the longest section of the work is devoted to this subject. There is no doubt that these methods are worthy of more attention than has been paid to them by most dermatologists. The whole book consists of three parts. The first is devoted to the description of special methods of treatment, among which the production of hyperaemia is most conspicuous; the second consists of a list of skin diseases in alphabetical order, with the appropriate methods of treatment indicated in each case; and the third of a large number of prescriptions of rather unequal value. An experienced dermatologist would be able to pick up valuable hints in some cases, but for other readers the directions given are not always precise enough to be of much help. Long lists of drugs and local applications are given which are said to be useful in various diseases, but no definite plan of campaign is laid down. The book suffers from a want of attention to literary style.

The first edition of Dr. SCHAMBERG'S *Diseases of the Skin and the Eruptive Fevers*[8] was favourably reviewed in these columns some years ago. In preparing the second edition the original has undergone complete revision, and new chapters have been added. As is well known, the subject of pellagra has been claiming much attention in the United States, numerous cases having come to light there. The details on this disease have been amplified, and should prove useful, especially at the present moment, when the distribution of pellagra has been shown by Drs. Sambon and Chalmers to include Great Britain. Grain-itch has been added. Dr. Schamberg and Dr. Goldberger have had special opportunities of studying this affection in Philadelphia, where a number of cases came under their observation. Fresh chapters, too, are those on sporotrichosis, vaccine-therapy, and CO_2 snow treatment. The rashes of the acute exanthemata and of various infectious diseases are included, and form a useful addition to a good account of diseases of the skin. The illustrations are uniformly good.

LAW FOR MEDICAL MEN.

DR. FRED. J. SMITH, Physician to the London Hospital and editor of that standard work *Taylor's Medical Jurisprudence*, supplies a most valuable addition to the library of the practitioner in *Law for Medical Men*,[9] a volume well worth the half-guinea which is its price.

Dr. Smith points out that the National Insurance Act, 1911, which has disturbed and shaken the medical profession through and through, may be regarded as the

[6] *Diseases of the Skin.* By Willmott Evans, M.D., B.Sc., F.R.C.S. London Medical Publications. London: University of London Press. 1913. (Demy 8vo, pp. 386, with 1 coloured plate and 31 other illustrations. 10s. 6d. net.)

[7] *The Treatment of Diseases of the Skin.* By W. Knowsley Sibley, M.D., M.R.C.P. London: Edward Arnold. 1912. (Cr. 8vo, pp. 286, 7 photographs. 5s. net.)

[8] *Diseases of the Skin and the Eruptive Fevers.* By Jay Frank Schamberg, A.B., M.D., of Philadelphia. Second edition. Philadelphia and London: W. B. Saunders Company. 1911. (Med. 8vo, pp. 573; 235 figs. 13s. net.)

[9] *Law for Medical Men.* A Book for Practitioners containing Extracts from Acts of Parliament interesting to Medical Men. By Fred. J. Smith, M.D., F.R.C.P., Physician to the London Hospital, editor of *Taylor's Medical Jurisprudence*, Referee under the Workmen's Compensation Act., etc. London: J. and A. Churchill. 1913. (Demy 8vo, pp. 414. 10s. 6d net.)

conversion of the medical profession into a branch of the Civil Service of the State—an uncovenanted service it may be added. Legislation during the last hundred years, and especially the frenzied legislation of the last ten, compels medical men to a knowledge of Acts of Parliament which are now becoming so numerous and intricate that it is impossible to master the full details of them all, and extremely difficult for officials to be certain whether they may exercise final authority under a given Act or whether they may not find themselves struggling against a superior authority under another amending Act.

Hence the value of this work, which deals very clearly with a very large number of Acts so far as they affect medical men, who, by reference to the complete index, can readily find the information they require. The author's notes are valuable, and we quote a reasonable suggestion of his with regard to the proof of drunkenness which may be of interest to divisional surgeons—and others.

The events of a recent railway strike in the North of England will be fresh in the minds of our readers. An engine-driver was convicted of drunkenness when off duty by a local bench of magistrates, and consequently was dismissed by his board of directors. Other railway servants, resenting this, went on strike by way of insisting upon the reinstatement of the engine-driver. After much hardship and suffering, honour was eventually satisfied, and peace and hilarity restored by the visit of a London stipendiary magistrate, who held an inquiry into the circumstances of the case, and found that the engine-driver, on the occasion of his conviction, had not been "drunk in the police-court sense." On this point Dr. Smith is very interesting in his comments upon Section 1 of the Inebriates Act, 1898. His definition of drunkenness is: "Drunkenness is the [not an] effect of alcohol [and certain other substances] upon a person." He suggests:

> If the Court is satisfied from the evidence that the offence was committed under the influence of drink—and my contention is that a medical man (or a policeman or other witness for that matter) is, or should rather, not be called upon to say whether a man was or was not drunk (in the common acceptance of the word) but simply to prove the fact (usually very easy) that he had drunk some intoxicating liquor—this in my definition is "drunk," and then it is for the Court to decide, after hearing all the evidence as to his manner, etc., whether the offender would have done what he did do if he had not taken the liquor; if "No, he would not," then he was drunk within the meaning of the Act; if "Yes, he would," then the Court decides that he was not drunk within the meaning of the Act. This at any rate would throw the onus on the Court, and would do away with the mass of conflicting evidence, always given, as to whether he was drunk or not in the ordinary acceptance of the term, which on the above words of the section is quite irrelevant; for the Court has to decide whether the act was done under the "influence" of drink quite irrespective of the degree of that influence.

There seems to be much sense in this, as indeed there is in most of the comments of the author of this excellent work of reference.

TROPICAL MEDICINE FOR LAYMEN.

The Prevention and Treatment of Disease in the Tropics[10] is the title of a useful little handbook by Dr. EDWARD S. CRISPIN, Assistant Director of the Sudan Medical Department. It has been compiled chiefly to meet the needs of officials in the Sudan, for, as the author states in his preface, any officer may be called upon to act medically in the tropics, and it is as well that the layman should have some handbook such as this to guide him. It is divided into two parts, dealing with prevention and treatment respectively. The first part includes an account of methods of destroying the various disease-carrying insects, and for protecting man from their attacks. Personal hygiene, including clothing, food and drink, are next considered. Under the head of treatment most of the common tropical complaints are dealt with; and two appendices deal with antiseptics, diets, weights and measures, dosage, and lists of drugs, appliances, etc. The handbook is purely meant for the layman, and as such can be recommended. It would be as well to mention under blackwater fever that the patient must on no account be allowed to get out of bed, that the quantity of urine should be accurately measured, and that the temperature should be carefully taken at least every four hours. Blackwater fever is a disease for which careful nursing will do far more than any drug. Still, a handbook is a handbook, and too much detail cannot perhaps be incorporated in it. It is in this that handbooks often fail—too many pages but not enough in them. The layman will find a fund of information contained within the pages of the little book, however, and, as already stated, it can be thoroughly recommended to him.

Some Factors Influencing Health in Tropical and Subtropical Countries is the title of a little handbook[11] by Dr. GARRY that will be found useful by the laity. It contains much useful information, and is for the most part accurate and to the point. It is not, of course, correct, when talking of insects acting as intermediary hosts, to say that the *bacilli* multiply and develop and finally originate a variety of diseases, such as malaria, trypanosomiasis, etc. The layman of the present day is not quite so ignorant as that, or, even if he is, there is no reason why he should remain so. It is better to avoid such loose statements and to stick accurately to facts when writing handbooks for the public of the present day. One chapter of special interest is that on the type of man suited for service in the tropics; this very important question ought to be thoroughly inquired into. The unfit and physically unsound are certainly much better out of the tropics, and the mentally unstable should be added to the frivolous woman type specially commented on by the author. In the chapter on the prevention of disease a serious charge is laid against the humble ant; Dr. Garry states that he has satisfied himself by some recent preliminary investigations that these creatures are largely responsible for the wide prevalence of diseases due to animal parasites, and that in bilharzia they act at least as one of the principal modes of infection. It would have been interesting and instructive if Dr. Garry had stated how. Though some of the scientific facts are somewhat loosely stated, the other matter is quite good, and may with safety be read and digested by the would-be sojourner in the tropics.

NOTES ON BOOKS.

AMONG the more special of the papers in the thirty-ninth volume of the *St. Thomas's Hospital Reports*[12] is that by Mr. C. M. Page on the results of the operation of suprapubic prostatectomy, 1906–10. In 1910, out of 13 radical operations for enlarged prostate, 11 recovered and 2 died; out of 15 similar operations in 1911, 13 recovered and 2 died. Prostatectomy in general hospital practice shows a distinct inferiority when compared with the figures of individual operators, but hospital patients are often in a very bad general condition. From the St. Thomas's Hospital figures, taken from the tables of cases of enlarged prostate under every kind of treatment, Mr. Page finds that the death-rate for cases treated by simple catherization or suprapubic drainage is practically the same as for cases in which the complete operation has been performed. Here, again, as Mr. Page points out, many of the cases entering hospital have been long neglected, and secondary kidney changes are therefore common. Dr. Atholl Ross contributes the important Salter Research Report, 1910, a General Survey and Analysis of Cases treated by Bacterial Vaccines at St. Thomas's Hospital. There are besides several other instructive clinical, surgical, and laboratory work.

We have received the *Official Year Book of the Scientific and Learned Societies of Great Britain and Ireland* (London, Griffin and Co), twenty-ninth annual issue, being, as the title page informs us, a record of the work done in science, literature, and art during the session 1911–12. It is a useful publication, largely on account of the lists of names of papers read before various societies, as, for instance, at the annual meeting of the Association, and before the now numerous sections of the Royal Society of Medicine.

[10] *The Prevention and Treatment of Disease in the Tropics; a Handbook for Officials and Travellers.* By Edward S. Crispin, M.R.C.S., L.R.C.P. London: Charles Griffin and Co., Ltd. 1912. (Fcap. 8vo, pp. 95. 1s. net.)

[11] *Some Factors Influencing Health in Tropical and Subtropical Countries.* By T. Gerald Garry, M.D. London: John Bale, Sons, and Danielsson, Ltd. 1911. (Cr 8vo, pp. 106. 2s. 6d. net.)

[12] *St. Thomas's Hospital Reports: New Series.* Edited by Dr. J. J. Perkins and Mr. C. A. Ballance. Vol. xxxix. London: J. and A. Churchill. 1912. (Demy 8vo, pp. 250. 8s. 6d. net.)

Thus it will save many of us great trouble involved in hunting up the now numerous archives of our societies in which so many hundreds of carefully prepared papers rest unworthily forgotten or overlooked.

The multiplicity of learned and other societies is staggering and yearly becomes worse. Amalgamation is one remedy for this evil, and we have witnessed it in the well-known instance of the Royal Society of Medicine. A central office for intercommunication is another agent for avoiding intellectual waste. Dr. EIJKMAN explains his views on the maintenance of such an office in *L'Internationalisme Scientifique*.[13] His exposition fills 108 pages of the text, and the remainder of the volume is taken up by notices of the names and objects of 614 societies. The Hague is the seat of pacificism, and already Dr. Eijkman has compiled another work, *L'Internationalisme Médical*, similar to but, as its name implies, more specialized than the book now under notice. The explanation of his system is based by Dr. Eijkman on the principles to which we have referred above. We all feel when we read the words "scientific" and "international" together that great as is the wastage of good work in any one country it must be far greater in the case of all good work imbedded in the archives of foreign lands. The notes show that Dr. Eijkman has the broadest views about science, or, rather, he not only desires science to be international but he also aims at making internationalism a science, so that associations for the diffusion of Esperanto, for Zionism, anti-Zionism, Theosophy, pure literature, and so forth, are included in his notes. The Salvation Army, which is hardly scientific but decidedly international, is to be found amidst rubber testing committees, Catholic, Protestant, and Liberal Christian associations and societies for the promotion of the rights of women. Dr. Eijkman groups all these divergent bodies under their proper classes. He concludes that the development of international organizations has made great strides, even within his own experience. The main aim, after all, he openly avows, is pacificism: the international organization of science aids men in nearing, if not attaining, that noble object. The author does not seek to make the Dutch official metropolis into a scientific Rome, but the Permanent Committee of International Medical Congresses, already in working order, has shown how such a general bureau may be worked. Dr. Eijkman seeks to establish such a bureau, and offers suggestions as to how his object may be effected. Of necessity it is held advisable that all associations of the types included in the author's wide programme should communicate with him.

The volumes of the work edited by Professor SOMMER on the clinical aspects of psychic and nervous diseases,[14] which are before us, contain some excellent articles and some material which is less good. It is a disadvantage to publish such a series as this, for the appearance of the several parts is so irregular that the interest is frequently lost before the volume is completed. We cannot discuss the merits of each article separately, partly because their number is large and partly because they form only a fraction of a whole, the remainder being still in the press. The end of the fourth volume contains *inter alia* some trite deliverances on dipsomania and psychic epilepsy by Römer. In the first part of the fifth volume is a good article by Becker on the methods of testing intelligence, an interesting description of the transactions of the Psychiatric Section of the last International Medical Congress by the editor, and several other articles. The fourth part of the same volume is valuable on account of an article by Professor Sommer on the theories in connexion with marriage between relatives and the consequent limitation of ancestors in human beings and animals. The first part of the sixth volume deals chiefly with the associations in maniacs, etc., and the most prominent author is Killian. The second part of this volume contains some good articles, including one by Margulies on hystero-epilepsy. In the third part are articles on the methods of psychological examination by Sommer, on the methods of testing the intelligence by Mikulski, and on the psychological profile by Rossolimo.

[13] *L'Internationalisme Scientifique (Sciences pures et lettres)*. Par P. H. Eijkman, Médecin à la Haye. Avec un avant-propos du Professor P. S. Reinsch. Publication du Bureau Préliminaire de la Fondation pour l'Internationalisme. The Hague: Van Stockum and Son. 1911. (Roy. 8vo, pp. 120. Fr. 3.)

[14] *Klinik für psychische und nervöse Krankheiten*. Edited by Professor Dr. Robert Sommer. Halle: Carl Marhold. Vol. iv, part 4, 1909; vol. v, parts 1 and 4, 1910; vol. vi, parts 1, 2, and 3, 1911. (Mk. 3 each vol.)

Nova et Vetera.

IN PRAISE OF THE PHYSICIAN.

IN an earlier article[1] an attempt was made to set forth proverbial medicine in dispraise of the doctor, and no difficulty was met with in finding troops of adages in which the medical man was made to appear in a bad light. He was an atheist in two cases out of three; when his treatment was successful, it was to Nature and not to the doctor that the credit was due; diet and quiet were of more worth than he; nay, there was more danger from the doctor than from the disease; he was a fool; he suffered sometimes from the very maladies which he professed to cure; and, worst of all, in the end he died just like other people, perhaps a little earlier too.

When, however, search is made for proverbs in praise or in appreciation of the medical man, the searcher meets with a most humiliating disappointment—humiliating, that is, if he be himself a doctor or the friend of the doctors; for apparently there are no such proverbs. Iceland, in common with Ireland, enjoys the privilege of being free from serpents, and medicine in common with law seems to suffer under the discommendation of having no proverbs of commendation, far less of acclamation, laudation, or of benison. In proverbdom there is no territory, not even the smallest plot of ground, set aside for the cultivation of those delightful plants and flowers of common speech, the appreciative adage and the complimentary saying.

The absence, or at any rate the extraordinary paucity, of proverbs in praise of the doctor is somewhat disconcerting. The profession may hold its head haughtily in the air and agree to disregard this tiny note in the general concert of appreciation which pleasingly fills its ears. But no, this will not do; like the leader of the orchestra in which the piccolo player from modesty or fancied unimportance was silent, the medical man at once feels the lack of the delicate flute-like tones. Or the physician may say of those who failed to bring him the little attention of a eulogistic proverb what James Boswell affirmed of the "cold-blooded and morose mortals who disliked his book" (on Dr. Johnson), that he would not for a thousand pounds have their temper.

Whether, however, it be treated with disregard or with silent contempt, this lack of laudative proverbs is a sore thorn in the side of the self-esteem of the profession, pricking and jagging in a really most irritating manner and calling aloud for some lenitive to mitigate the hurt that pride has had. One wonders if there be no means of collective investigation whereby some pleasing proverbs could not be found in some out-of-the way place or little-known book? Might not one do, as it is said Sir Walter Scott did when he wished to have appropriate quotations for the headings of his chapters, write them himself, and say they came from "old plays"? One might easily construct a few fairly satisfactory ones, such as "Who is so dear as the doctor?" "As the doctor goes out through the door the drugs may depart through the window"; "A doctor in time may save you from crime"; "Dop to the doctor and give him good e'en," or "As sure as a surgeon."

Apart, however, from the pleasantries of the preceding paragraph, the question does seem to demand some sort of answer. Why are there no commendatory proverbs about doctors? To attempt to find a solution of this problem is really to go to the very roots of proverbiology. It suggests other questions: Why, for instance, are there proverbs on one set of circumstances rather than on another, why on one class of people more than on another, and why on the less commendable qualities rather than on the praiseworthy? A partial answer has been given already in the article dealing with proverbs in dispraise of the doctor, where it was shown that the unpleasant aspects of an illness are apt to impress themselves more permanently on the patient's mind and memory than the pleasant, which are also the scarcer. The doctor suffers the damage due to his association with a trying or painful experience in the patient's life, and the latter is content to forget all about it after it is well over, and to try to re-establish the belief in the innate healthiness and

[1] BRITISH MEDICAL JOURNAL, December 2nd, 1911.

strength of his own constitution which he had held before his attack by disease. So the patient lays that flattering unction to his soul that it was his own recuperative powers that saved him, and that perhaps the medical man after all did very little for him. There is also another and a simpler reason, and that is the child's one that the doctor's coming is associated with the taking of nauseous drugs, with restricted liberty, and with preparatory threats.

Whilst, however, proverbs in praise of the doctor are wanting, or so few as to be almost undiscoverable, some appreciative phrases are not altogether lacking, and literature, both ancient and modern, abounds in eloquent expressions of the gratitude and regard felt by authors towards their medical attendants. There is, for instance, that high compliment paid to the profession when a member of it was called *Manus Dei*. Here is a passage from Burton's *Anatomy of Melancholy* bearing and illustrating this phrase. "Next therefore to God in all our extremities (*for of the Most High cometh healing*, Ecclus. xxxviii. 2) we must seek to, and rely upon, the Physician, who is *Manus Dei* [the Hand of God], saith Hierophilus, and to whom He hath given knowledge, that He might be glorified in His wondrous works. With such doth He heal men, and taketh away their pains" (Ecclus. xxxviii, 6, 7). Continuing to quote from Ecclesiasticus, Burton says: "When thou hast need of him, let him not go from thee. The hour may come that their enterprises may have good success" (verse 13). Burton, however, knows about quacks: "It is not therefore to be doubted that, if we seek a Physician as we ought, we may be eased of our infirmities, such a one I mean as is sufficient, and worthily so called; for there be many Mountebanks, Quacksalvers, Empiricks, in every street almost, and in every village, that take upon them this name, make this noble and profitable Art to be evil spoken of, and contemned, by reason of these base and illiterate artificers; but such a Physician I speak of as is approved, learned, skilful, honest."

To Burton, then, we are indebted for this fine phrase (*Manus Dei*) dug up out of Hierophilus, but he could not leave the profession with nothing but praise, and he went on to speak of "the hungry Chirurgeon who often produces and wire-draws his cure, so long as there is any hope of pay," and of the physicians, who, to get a fee, "will give physic to every one who comes, when there is no cause, and who do so *irritare silentem morbum* (as Heurnius complains) stir up a silent disease." Nevertheless, we thank Robert Burton for his definition of physicians as "God's intermediate ministers."

Leaving the Apocrypha, Hierophilus, and Burton, we turn to the greatest man of the first century of the Christian era and to his age-defying description of his doctor. Surely never was there a more laconic appreciation of a medical man's services than St. Paul's four words about Luke: and yet the phrase is so warm, so fitting, so touching, so true, that it has established its place for all time as the highest meed of praise which a patient can confer upon his physician. We can be sure that not without emotion were these words written, falling like a glittering tear on Paul's parchment as he penned his signature to the epistle to the Colossians. Λουκᾶς, ὁ ἰατρὸς ὁ ἀγαπητὸς (Luke, the physician, the beloved!). Our English Authorized Version worthily rendered the phrase, "Luke, the beloved physician," and the Revised Version could not improve upon it; but, as a matter of fact, the translation might very well have been "dear," "dearly beloved," or "well beloved," for in all these ways is the Greek word ἀγαπητὸς rendered in our New Testament. Long ago Luther, in his *Table Talk* (428), said: "St. Paul was very rich and flowing in words: one of his words contains three of Cicero's orations, or the whole of Isaiah or Jeremiah"; and Luther's estimate, although carrying the impress of the less carefully guarded language of easy conversation, is admirably exemplified in the instance to which reference has just been made. Not only in Greek and in English, but in other European tongues also, the phrase is striking, and lends itself readily to translation without losing its warmth and appropriateness. In German it becomes *Lucas, der Arzt, der Geliebte* (which is very close to the Greek); in Dutch it is *Lukas, de medicijnmeester, de geliefde*; and in Danish *Lucas, Laegen, den Elskelige*. The Vulgate translates it briefly, *Lucas medicus charissimus*, and the French amplifies it a little, giving *Luc, le médecin, qui m'est très-cher*. The Spanish is somewhat bald, *Lucas, el médico amado*: whilst the Portuguese is warmer, *Lucas Medico, nosso carissimo irmao*. In all these linguistic garbs the words have still an abundant vitality and arrest the reader's attention. To Paul, the lonely man, getting lonelier as he became Paul the aged, Luke must often have brought not only light (as his name signified), but also healing, comfort, and literary sympathy and appreciation; and the great Apostle has drawn out of an overflowing heart the four burning words in which he spoke (so far as they could be spoken) his gratitude and affection.

In modern times there have been many appreciations of the physician both in verse and prose. Everyone, for instance, knows Henley's lines on Lord Lister when he was in the Edinburgh Royal Infirmary; but Crabbe's verses in *The Village* may be less familiar, whilst they are no less appreciative and indeed contain phrases which possess almost proverbic force. To the profession he sings:

> Glorious your aim,—to ease the labouring heart,
> To war with death, and stop his flying dart;
> To trace the source whence the fierce contest grew,
> And life's short lease on easier terms renew;
> To calm the frenzy of the burning brain,
> And heal the tortures of imploring pain;
> Or, when more powerful ills all efforts brave,
> To ease the victim no device can save,
> And smooth the stormy passage to the grave.

From the other side of the Atlantic, too, the beautiful lines come over to us in which Whittier calls upon his young medical friend and upon all of us who are of like spirit with him:

> Beside the unveiled mysteries
> Of life and death go stand,
> With guarded lips and reverent eyes,
> And pure of heart and hand.

For,

> The holiest task by Heaven decreed,
> An errand all divine,
> The burden of our common need
> To render less is thine.

In prose there are many appreciations of the profession, but from two authors alone will our space permit us to quote, from Carlyle and from Stevenson. The reader does not approach the writings of Thomas Carlyle, "the truest Diogenes of these times" as George Gilfillan called him, with any very hopeful anticipations of finding smooth sayings about doctors in them. Sarcasm, biting and caustic, he expects; denunciations, fulminations, bitter pleasantries perhaps, but scarcely smooth sayings. What is his amazement, then, to find two such passages as the following, the one a measured tribute to the profession of medicine at its best, and the other a warm appreciation of a man who truly practised it at that high level. The first of the two passages begins in grumbles and ends in growls, low mutterings of a coming storm, but in the heart of it are some sentences of quiet eulogy, very precious to the physician who is setting the highest ideal before himself:

> Medicine, guarded too by preliminary impediments, and frightful medusa-heads of quackery, which deter many generous souls from entering, is one of the half-articulate professions, and does not much invite the ardent kinds of ambition. The intellect required for medicine might be wholly human, and indeed should by all rules be,—the profession of the Human Healer being radically a sacred one and connected with the highest priesthood, or rather being itself the outcome and acme of all priesthoods, and divinest conquests of intellect here below. As will appear one day, when men take off their old monastic and ecclesiastic spectacles, and look with eyes again! In essence the Physician's task is always heroic, eminently human; but in practice most unluckily at present we find it too become in good part *beaverish*; yielding a money-result alone. And what of it if it is not beaverish,—does not that too go mainly to ingenious talking, publishing of yourself; ingratiating of yourself; a partly human exercise or waste of intellect, and alas a partly vulpine ditto;—making the once sacred Ἰατρὸς or Human Healer more impossible for us than ever!

So with high appreciation of the best in medicine, but with no kind word for the worst in it, for the pride and love of money that are in it, did the great "slayer of shams" deal with our profession in one of his *Latter-day*

Pamphlets, date, May 1st, 1850.[2] But the medical man is more grateful for another passage, written some seven years earlier,[3] where Carlyle with his heart burning within him denounces the iniquities of the Poor Law, and quotes Dr. Alison's evidence on the state of things in Edinburgh, although he himself must have known not a little at first hand of what Alison reported on:

So many hundred thousands sit in workhouses: and other hundred thousands have not yet got even workhouses; and in thrifty Scotland itself, in Glasgow or Edinburgh City, in their dark lanes, hidden from all but the eye of God, and of rare benevolence the minister of God, there are scenes of woe and destitution and desolation, such as, one may hope, the Sun never saw before in the most barbarous regions where men dwelt. Competent witnesses, the brave and humane Dr. Alison, who speaks what he knows, whose noble Healing Art in his charitable hands becomes once more a truly sacred one, report these things for us: these things are not of this year, or of last year, have no reference to our present state of commercial stagnation, but only to the common state.

Then, as if his thoughts were being directed by his allusion to this famous physician, Carlyle continues in a sentence, full of medical similes, to criticize the proposed remedy:

Not in sharp fever fits, but in chronic gangrene of this kind is Scotland suffering. A Poor-law, any and every Poor-law, it may be observed, is but a temporary measure; an anodyne, not a remedy.

Dr. William Pulteney Alison, to give him his full name, was, it is interesting to recollect, a writer of books as well as a professor of physiology and a medical man; and we remember his name with warm affection, and are grateful that he was the cause of Carlyle's so generous and kindly recognition of our profession and its true practitioners. Nor can we afford to neglect the fact that Thomas Carlyle had a favourite younger brother, John Aitkin Carlyle, who was a medical man, and also, by reason of his prose translation of Dante's *Inferno*, a literary one. In his close association with his brother Thomas in Edinburgh, John Aitkin Carlyle must have had many opportunities of speaking to him of Professor Alison, for the last named was elected to the chair of physiology in 1822, the year in which Thomas Carlyle was enabled through his appointment as tutor to a wealthy gentleman's sons to invite John to come to study medicine in the Scottish capital and to share his rooms with him. Thomas Carlyle never wrote a more generous or a more affectionate letter than that which he sent off to John in January, 1822, bidding him come to Edinburgh, for the necessary money for fees was forthcoming. "Where is the risk then, my boy Jack?" he cheerily asked. But of the close companionship thus begun, and of its influence on both the brothers, we have not time now to speak; let us gratefully take note of the fact that Carlyle paid so hearty a compliment to the medical profession and to William Pulteney Alison, his brother John's teacher.

A much more delicately and deftly expressed compliment was offered by Robert Louis Stevenson in his dedication of *Underwoods*: and it is not without quiet humour, daintily set forth:

There are men and classes of men that stand above the common herd: the soldier, the sailor, and the shepherd not unfrequently; the artist rarely; rarelier still the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with, and only remembered to be marvelled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practise an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important, Heraclean cheerfulness and courage. So it is that he brings air and cheer into the sick room, and often enough, though not so often as he wishes, brings healing.

Then, in a paragraph in which humour and pathos are twined round the sentences and peep out from between the semicolons, Stevenson charmingly returns thanks to his doctors:

Gratitude is but a lame sentiment; thanks, when they are expressed, are often more embarrassing than welcome; and yet I must set forth mine to a few out of many doctors who have brought me comfort and help; to Dr. Willey of San Francisco, whose kindness to a stranger it must be as grateful to him, as it is touching to me, to remember; to Dr. Karl Ruedi of Davos, the good genius of the English in his frosty mountains; to Dr. Herbert of Paris, whom I knew only for a week, and to Dr. Caissot of Montpellier, whom I knew only for ten days, and who have yet written their names deeply in my memory; to Dr. Brandt of Royat; to Dr. Wakefield of Nice; to Dr. Chepmell, whose visits make it a pleasure to be ill; to Dr. Horace Dobell, so wise in counsel; to Sir Andrew Clark, so unwearied in kindness; and to that wise youth, my uncle, Dr. Balfour.

With exquisite grace, Stevenson adds: "I forget as many as I remember; and I ask both to pardon me, these for silence, those for inadequate speech"; and he brings his dedication to a close with a special expression of gratitude to Thomas Bodley Scott of Bournemouth:

Will he accept this, although shared among so many, for a dedication to himself? And when next my ill-fortune (which has thus its pleasant side) brings him hurrying to me when he would fain sit down to meat or lie down to rest, will he care to remember that he takes this trouble for one who is not fool enough to be ungrateful?

Stevenson's dedication is, indeed, a radiant gem of praise in a matchless literary setting; it would be hard to find its equal among the many other kindly sayings respecting the profession and the men who practise medicine, although Ruskin has sentences almost as fine and warm, and in fiction Anthony Trollope's proudly-humble Dr. Thorne of Greshamsbury and Ian Maclaren's doctors hold up their heads among the throng. But enough has been said to prove that if the profession has been left without the added glory of complimentary proverbs passed down to it from the past, it is not poor in appreciations coming from the highest literary sources. It can never forget that in its ranks stood Luke, the beloved physician, and that the humblest practitioner may be, if he will, *Manus Dei*.

[2] *Latter-day Pamphlets*, No. V, Stump-orator
[3] *Past and Present*, Bk. I, c, 1, Midas.

GASWORKS PITCH INDUSTRIES AND CANCER.

In the BRITISH MEDICAL JOURNAL of January 4th some account was given of the investigations made by H. C. Ross and J. W. Cropper into the nature of the relation between gasworks pitch and cancer. These two investigators have continued their researches in the laboratories of the John Howard McFadden Researches, and have made the additional observation contained in the following report, which is ready to be presented at the Home Office Inquiry on the subject which is to meet next week:

AN INVESTIGATION OF THE AUXETICS AND KINETICS IN COALS FROM VARIOUS SEAMS.

Chimney-sweep's cancer in the workmen employed at the briquette (patent fuel) manufactories seems only to supervene when the predisposing conditions of swarthy skin, warts, and ulceration have been going on for some time. These predisposing conditions are caused by the pitch which is a constituent (from 5 to 10 per cent.) of the briquettes. It is ground up, and the men's skins become covered with the dust either from the air or from actual handling. But it is only one class of pitch in which this action has been observed. Coal-tar pitch is generally dangerous; blast-furnace pitch is harmless.

In the present paper we propose to describe a continuation of our experiments in this subject, and in particular those made with a view to elicit the reason for this difference between the two forms of pitch.

In the BRITISH MEDICAL JOURNAL of January 4th, 1913, a leading article described the incidence of swarthy skins, warts, and epithelioma occurring in the workmen engaged in tar distilleries and briquette manufactories. Some remarks on the subject which we have already published[1] were also mentioned. We believe that the skin conditions are due to the presence of substances—auxetics and kinetics—which have been detected in gasworks tar

[1] *The Problem of the Gasworks Pitch Industries and Cancer* (London: John Murray, 1912.)

and pitch. Blast-furnace tar and pitch, on the other hand, only contain a trace of auxetic and no kinetic at all. Both gasworks tar and pitch give rise to the pathological lesions; neither blast-furnace tar nor pitch have this action. The question arises, therefore, as to why the gasworks tar and pitch should contain large quantities of auxetics and kinetics, when the blast-furnace tar and pitch do not.

Pitch is the residue of the distillation of tar; tar is a product of the dry distillation of coal. Any substances which are not volatile below the temperature of 300° C. will be found more concentrated in pitch than in tar. In the tar they are found in a more concentrated state than in coal. Briquettes do not contain tar, but are composed of a mixture of pitch and coals, and the briquette makers suffer a great deal (about 90 per cent. have swarthy skins, which apparently is an early stage of the other conditions); tar distillers only continuously handle the tar and the pitch more or less intermittently, and they suffer less; coal miners apparently are not liable to the skin lesions at all, although a few isolated cases of chimney sweep's cancer (hitherto not attributed to the coal dust) have occurred amongst them. Therefore pitch is more dangerous than tar, and tar is more dangerous than coal. But outstanding beyond these facts is the indisputable evidence that those who work with either pitch or tar derived from the blast furnace do not suffer in any way. It is the tar derived from the gasworks and the pitch made from it which are the dangerous commodities, and probably that also from the coke ovens.

Although the auxetics and kinetics in tar and pitch have not yet been actually isolated chemically,[2] we know by experiment that they are not volatile below a temperature of 320° C., which will explain why they are more concentrated in pitch than in tar. But both forms of pitch are the residue from a similar process of distillation, yet one form is dangerous and the other is not.

There are two explanations to offer for this difference. One is that, although both forms of pitch are made in a similar way, the tar derived from the blast-furnace comes over at a lower temperature[3] than gasworks tar, and it has been suggested that the auxetics and kinetics may be produced in the latter owing to some chemical process occurring at the higher temperature of distillation. Another explanation is that nearly all the blast-furnace tar is made from a different type of coal (Scottish splint coal) than gasworks tar, which is a product of the distillation of ordinary bituminous coal. Scottish splint coal does not soften when heated. Ordinary bituminous coal cannot be used in the blast furnaces because it softens and cakes into masses at the bottom of the furnaces. Scottish coal does not cake into masses but retains its form in the furnace.

The first explanation that the auxetics are high temperature products is rebutted by the fact that coal tar produced at a comparatively low temperature of carbonization contains auxetics, whereas blast-furnace tar (which is also a low-temperature product) is comparatively free from auxetics. The second explanation, when these former experiments were done, seemed more reasonable, because auxetics had been detected in ordinary house coal and in petroleum.

Therefore the investigation of coal has been continued. Coals from various seams have been tested, and there seems to be no doubt that the auxetics and kinetics in tar and pitch are not manufactured during the process of distillation, but are derived from the original coal from which those substances are made. These results are tabulated below, and they also show that the difference between blast-furnace tar and pitch and gasworks tar and pitch is probably due to the different varieties of coal employed in their manufacture and not to the temperature of distillation of the coal.

The method of testing has already been described in detail. Various quantities of watery "extracts" of pitch, tar, or coal, as the case may be, are mixed up with "coefficient jelly," and white blood cells are placed on the jelly film. If after ten minutes' incubation at 37° C. the majority of the lymphocytes show division figures, the extract is labelled as containing auxetic. If at room temperature they show exaggerated amœboid amounts, the extract is labelled as containing kinetic. It is noteworthy, however, that when testing pitch or tar it is only necessary to employ 1 per cent. extracts, but when testing coals 10 per cent. extracts are required, which shows how much more concentrated the auxetics are in tar and pitch than they are in coal.

[2] An attempt to isolate them is now being carried out at the Lister Institute.

[3] Although a higher temperature is reached in the blast furnaces the tar comes over at a lower temperature than does gasworks tar.

Samples of Coal.

No.	Source.	Auxetic.	Kinetic.
1	Dunfermline splint seam (Fife) ...	Yes	Yes.
2	Splint seam (Haddington)	No	Yes (feeble).
3	Diamond seam (Edinburgh)	Yes (poor)	No.
4	Splint seam (Edinburgh)	Yes	Yes.
5	Little splint seam (Fife)	No	No.
1	Anthracite	Yes	No.
2	Second-rate anthracite	Yes	No.
3	Dry steam coal	No	No.
4	Best steam coal	Yes (poor)	Yes.
5	Highly bituminous coal	Yes	Yes.
6	Curly shale	No	No.
7	Dunnet shale	No (suspicious)	No.
8	Fells shale	No	No (suspicious).
9	Dunnet shale	No	No.
10	Grey shale	No (suspicious)	No.
11	Broxburn shale	No	No.
12	Upper grey shale	No	No.
13	Main coal from Durham	Yes	Yes.
14	Best hard coal from Top Hard Seam, Notts	Yes	No.
15	Thick coal of South Staffordshire ...	No	Yes.
16	Coal from seam in Gloucestershire ...	Yes	Yes.
17	Cannel	No	No.
18	Bottom softs	Yes	Yes.
19	Hards	No	No.
20	Top softs	Yes	No.

Samples of oil shale from the various seams worked at the mines, Linlithgow.

Samples from one colliery, Yorkshire. Nos. 13, 19, 20 are from one seam.

Remarks.—We have omitted the names of the actual collieries. As regards auxetic, No. 5 (second series) appears to be the more effective, then come Nos. 1 and 18 in that order. As regards kinetic, No. 16 is the most effective, then No. 5. Therefore No. 5 seems to be the most dangerous of all.

Mr. Poole, of the Mines Department at the Home Office, comments as follows:

In addition to No. 5, Nos. 13, 16, 18, and 20 (second series) would be bituminous coals, and No. 4 (best steam coal) would be semi-bituminous. From No. 16, briquettes used to be made some ten to fifteen years ago. No. 5 of the Scotch samples (little splint seam) is from a different bed of coal from No. 1, in which there was both auxetic and kinetic. No. 17, in which there was neither auxetic nor kinetic, is, at the mine from which it was obtained, of an oily shale nature corresponding somewhat to samples 6 to 12, in none of which also is auxetic or kinetic found.

At our request, all the coals were sent to us (from the Mines Department Home Office, through Dr. Legge, His Majesty's Medical Inspector of Factories) each merely distinguished by a number, so that even if we were biassed in favour of one form of coal, we were not in a position to know which that coal was until we had compared the results of our experiments with the key to the numbers, which was kept by Dr. Legge.

It will be seen, therefore, that, judging by the presence of both auxetic and kinetic, the soft or bituminous coals are the ones which give rise to the dangerous tar and pitch. And this result is borne out by the incidence of the pathological lesions amongst the workmen. Scottish splint coals and sometimes many hard ones produce harmless commodities. Cannel is a coal of recent origin; shale is the mineral from which oil is distilled in Scotland. There have been a few isolated cases amongst the men at the shale-oil works. The difference between various portions of the same seam in the one colliery is interesting, but is apparently quite consistent with the results here expressed.

An important point suggested by this investigation is whether it would be feasible for gasworks which now carbonize only highly bituminous caking coals to mix with the latter a percentage of harder and less highly bituminous coals. Such a procedure would in all probability reduce the incidence of the pathological conditions amongst the workmen at the briquette works and tar distilleries. But, in addition to a difference in the quality of gas and coke, the question of extra freights

comes in, especially in those large gasworks which use seaborne soft coal. The importation of other coal might be a serious matter to them. We may state that at a recent deputation of tar distillers to the Chief Inspector of Factories at the Home Office the distillers were very adverse to our proposal of washing the auxetics and kinetics out of the tar. They said that such a process would cause great difficulty and expense in separating the water from the tar. Therefore we now publish this suggestion of trying the mixture of a certain percentage of hard coals at the gasworks. Of course, it would not be so useful as elimination of auxetics, but it might be considered as an alternative for experiment, provided suitable hard coals can be found for gas-producing purposes.

In the meantime we hope that medical men practising in the colliery districts will report cases of swarthy skins, warts, or ulceration occurring in the miners. Should any occur, it is of importance to know by which seams the cases are caused.

In conclusion, the question as to why hard coals, especially Scottish splint coals, should have less auxetic and kinetic than the bituminous ones is really a problem for the geologist and chemist. We are also interested in the matter in connexion with our own working hypothesis, about which there is some strong evidence.[4] We believe that cell reproduction is caused by auxetics, which are specific agents set free by cell death. These agents occur after cytolysis, both in the animal and vegetable kingdoms. Coal, in a way, is also a product of cytolysis; and it is interesting to think that these products, after having lain buried for centuries, are dug up, subjected to an elaborate process of artificial distillation, are converted into briquettes, and then give rise to cell reproduction in the shape of swarthy skins and warts, leading to epithelioma in the workmen employed at the factories.

Our acknowledgements are due to Mr. W. J. Butterfield, M.A., F.I.C., Assoc. Inst. of Civil Engineers, to Dr. Legge (His Majesty's Medical Inspector of Factories), and to Mr. Poole (His Majesty's Inspector of Mines), for advice, and for assistance in obtaining the samples of coal.

THE AFTER-CARE ASSOCIATION.

THE annual meeting of this association, formed in 1879 by the late Rev. Henry Hawkins, for many years chaplain of the Sussex County and Colney Hatch Asylums, for the purpose of facilitating the readmission into ordinary social life of poor persons discharged recovered from asylums and hospitals for the insane, was held on February 25th at the house of the Medical Society of London. Sir JAMES MOODY, Medical Superintendent of Cane Hill Asylum, presided over a large gathering, which included many ladies.

The adoption of the report was moved by Sir GEORGE SAVAGE, who pointed out how relapses were prevented by the benevolent operations of the society.

The BISHOP OF CROYDON, who seconded, remarked on the practical Christian character of the assistance the society gave to poor and often helpless convalescents from mental disease in rehabilitating them for work.

The election of vice-presidents, council, and officers was moved by Dr. THOMAS (A.M.O. at Hellingly Asylum), and seconded by Dr. NEEDHAM, who spoke of the great value placed upon the work of the society by the Lunacy Commission.

Dr. C. HUBERT BOND then read a paper on After-care in Cases of Mental Disorder, and the Need for Extending its Scope to the Case of Patients leaving the Asylums "on Trial" as to Recovery. He pointed out that while all the persons discharged from asylums in England and Wales (about 7,000 a year) must of necessity benefit by suitable after-care, for nearly a quarter of them it was urgently required. Not only was that after-care demanded on humanitarian grounds, but, by reason of its preventive power in respect of relapses, it might be fairly regarded as being economically worthy of generous support. To be effective, after-care must be organized, and its organization should aim at branches of the association, which should at least be as many as there were local authorities, either acting alone or in combination for lunacy purposes. It would, he said, facilitate the work of the association if its rules could be so modified as to permit its executive to commence, in certain cases, such work during a period while the patients were away from the asylum "on trial," and to further permit such patients being received while "on trial" into one of the association's cottage homes. He also advocated that the Visiting Committee of Asylums should be urged more frequently to take advantage of the provision in the Lunacy Act whereby patients who appeared to have recovered might, instead of being at once fully discharged, be allowed out "on trial," and might during such period be granted an allowance not exceeding the cost of their maintenance in the asylum. That practice, which was habitually adopted by certain committees, was of the utmost value to the patients, and by its adoption early relapses were materially prevented. It would enable a weekly sum to be paid that association, which would rather more than half meet its expenditure on patients temporarily boarded at its cottage homes.

Sir JAMES MOODY raised the point whether it would be legal for asylums to make payments towards the society for the care of patients "on trial"; but Mr. A. H. TREVOR (a legal Commissioner in Lunacy) replied that under the circumstances mentioned by Dr. Bond such payments would not be illegal.

Drs. HELEN BOYLE, LORD, BOWER, PERCY SMITH, RAYNER, and the BISHOP OF CROYDON and Mr. ROXBY took part in the discussion, the last speaker strongly advocating the extension of the society's operation to cases "on trial."

THE BRADFORD ANTHRAX INVESTIGATION BOARD.

SUMMARY OF INVESTIGATIONS.

THE Anthrax Investigation Board for Bradford and District issued its seventh annual report for the year ending October 31st, 1912. The objects of the Board are: (1) The investigation of anthrax generally, (2) to determine more precisely the classes of wool and hair in connexion with which the danger of anthrax arises, and (3) the discovery of further means of prevention. The area of its operations has been confined to the worsted and woollen industries of the West Riding of Yorkshire. The value of the present report is increased by the inclusion in it of an analysis of the observations in the 88 cases of anthrax notified to the Board since 1905 as arising from the use of textile material in the district. The analysis had been made with a view to determining as far as possible the relative danger of infection.

During the year, 1,258 samples of wool, mohair, etc., were tested for the presence of anthrax spores. Of these, 1,038 were blood stained (190 only slightly). Anthrax spores were discovered in 84 samples, and of these 24 were not blood stained. The hope expressed in a previous report that it might prove possible to say, "No blood, no anthrax," must therefore be given up; nevertheless, the presence of blood should always be regarded as a danger signal. Of alpaca, 206 samples were taken (196 blood stained), and in no case could anthrax bacilli be cultivated. From 268 samples of skin van mohair (205 blood stained) 35 separate cultivations were obtained; 8 samples contained no blood, and only in rare instances could the amount of blood be called a clot. The fellmongering process used was the "wet" process; by it the blood clots would be partially dissolved and the anthrax spores disseminated among the previously non-infected material. "Skin" wool and "skin" mohair may be classed under three heads: (1) That which has been "clipped" from the skin of the sheep or goat; (2) that which has been "pulled" in the usual (wet) fellmongering lime process; (3) that which has been "pulled" in the chemical or dry process, or has been "pulled" dry from the rotten or rotting pelt. That contamination can take place in the "wet" process is obviously possible; to what extent, if at all, it takes place in either of the dry processes is not yet known, but the blood clots found after "the clipping" and the "dry" pulling process were more numerous and heavier than those found after the "wet" pulling process, with consequently more concentration of the danger if the anthrax spore were present. In any case, the anthrax spore of contamination can be killed more readily than the spore imbedded in the blood clot. With regard to East Indian wools, anthrax was found seventeen times in 132 samples. Excepting in one

[4] For example, see article by Mr. Drew on Induced cell reproduction in the protozoa, *Nature*, February 20th, 1913.

instance, all the cultivations from materials without trace of blood were isolated colonies, showing apparently that the material had been contaminated. This contamination would seemingly take place when the wool or hair is subjected to some "wet" process, such as washing or lime fellmongering. It is very doubtful if contamination takes place in the dry state. If the washing be done in running water or a lake, infection is evidently less likely to take place than if the material be "tub washed." In the latter process the releasing and spreading of the anthrax spore in such a restricted space seems calculated to ensure contamination. It would be interesting to know to what extent "tub washing" of wools is in vogue in India. Anthrax was cultivated twenty-four times in 545 samples of Persian, and six times in 84 samples of mohair other than "van"; in both these classes the spores were only found in blood-stained samples.

A satisfactory germicide, capable of killing the anthrax spore without injury to the fibre, has not yet been discovered. Steaming of blood clots will kill anthrax spores in about fifteen minutes when the wool is in a loose state, but the difficulties in the way of disinfecting wool in bulk by steam make the method impracticable for ordinary use. Of chemical methods, experiments made with Schattenfroh's and Seymour-Jones's processes have been disappointing; the hydrochloric acid in the one process and the formic acid in the other being neutralized by alkalis in the wool and tap water. Blood clots can in most instances be softened by bacterial action in twelve to eighteen hours at 37° C. Bacteria possessing this property are contained in the wool itself. It would seem that clots so softened are but slowly hardened by the subsequent addition of germicides, such as formaldehyde or the higher phenols.

An analysis has been made of the 88 cases of anthrax notified to the Board since 1905 with a view to determine the relative danger of infection. It appears that mohair and Persian have been the most frequent carriers of anthrax. Russian camel hair is probably the other scheduled material the most likely to have been a carrier. Some suspicion attaches to East Indian goat (possibly all "goat") and to East Indian wool. Alpaca has probably been harmless. In many cases the source of infection was doubtful, and some cases are inexplicable. Cases arising from the shorter sorts occurred more frequently in the processes of manufacture than in the handling of the raw material; in the longer sorts the reverse was the case.

The greater number of cases occur, as was to be expected, amongst the Commission combers handling the lowest and the more dangerous sorts, but cases occur in factories where combing and the subsequent processes are carried on. Some factories, though continuously using some scheduled materials, have never had a case of anthrax, and in others cases are rare. No instance is on record in this district of the early diagnosis of the internal form, and the application of remedies for the external form is often delayed. The use of Sclavo's serum, injected intravenously and in sufficiently strong doses, has proved beneficial.

In view of these results the present regulations for wool sorting and wool combing are considered to require revision. When they were drawn up, dust was thought to be the means whereby anthrax was spread, but now that the source of danger is known to lie in the blood clot, regulations should be based upon the underlying principle of eradicating this source, and of preventing danger of infection after sorting and washing processes. But no regulations will prove satisfactory that do not provide for some adequate disinfecting process for those sorts most likely to contain the anthrax germ. Every inducement should be given to workers of scheduled materials to throw out all blood-stained material, not only for their own safety, but more especially for the safety of workers in subsequent processes; but, until further progress has been made in the effort to find satisfactory disinfectants and a satisfactory disinfecting process, the Board deprecate any attempt to recast the present rules.

Seventeen cases have occurred during 1912; 2 were females and 15 males: 3 were internal cases, 14 external. The deaths numbered 5, 3 of the internal, 2 of the external type, 1 of these being probably unique as to the point of entry of the virus, namely, between the left tonsil and the larynx. Four of the cases which got well were severe, and probably owed their recovery to the use of Sclavo's serum. With one exception all the cases had come into contact with either mohair or Persian, and it is quite possible that these sorts were responsible for all the 16 cases.

Little or no improvement is yet visible either in the number of cases recorded or in the percentage of the death-rate, although there is distinct encouragement in the number of severe attacks which have yielded to modern treatment.

SCIENCE NOTES.

In a lecture at the Royal Institution, not yet published, and in a letter to *Nature* of February 13th, Sir J. J. Thomson has described some experiments which are interesting intrinsically, and also as affording another explanation of the observations of Professor Norman Collie and Mr. Patterson (BRITISH MEDICAL JOURNAL, February 8th, p. 304, and February 15th, p. 360). They, it will be remembered, found that in a vacuum tube containing sufficient hydrogen to conduct an electric discharge helium made its appearance after sparking for some time, and that in another tube containing a little oxygen, with which the first tube was surrounded, neon and helium appeared, the formation of neon being apparently conditional on the presence of oxygen. They suggested three possible explanations: (1) The transmutation of one or more of the elements in the glass or electrodes into helium or neon; (2) the transmutation of hydrogen into helium and neon by the electric discharge; or (3) the conversion of the energy of the electric discharge into these two gases. Collie and Patterson, who were supported by Sir William Ramsay, appeared to be in favour of the second of these hypotheses. Sir J. J. Thomson's evidence is in favour of a hypothesis allied to, but not quite identical with, the first of Collie and Patterson. Using the method of positive rays, which is more sensitive than spectrum analysis, and furnishes more definite information, he has during the last two years found evidence of the existence of a gas with the atomic weight 3. This gas was frequently accompanied by another gas with atomic weight 20, which is the atomic weight of neon. There seemed to be no obvious connexion between the appearance of either and the nature of the gas that, at very low pressure, was used to fill the tube in which the discharge took place. Experiments were then directed to discovering the circumstances which favoured the production of the gas with atomic weight 3, called provisionally X_3, and to ascertain whether it was triatomic hydrogen produced by the discharge, or a new element. The second question does not seem to have been definitely answered. The conditions which led to a considerable production of X_3 generally gave rise to the appearance of helium and neon. The amount of the two latter might be very small, and mere traces might be accompanied by large quantities of X_3. In most of the experiments this gas was produced by bombarding platinum with kathode rays. The kathode was curved, and thus focussed the rays on to a table on which the platinum was placed. After bombardment on one day, the gases were drawn off into a testing tube; the line due to X_3 was very strong, and those due to helium and neon conspicuous. The gases after a second day's bombardment were the same, and there was no appreciable diminution. After a third day the X_3 had diminished considerably, the other two perceptibly. After a fourth day's bombardment the lines of X_3 and helium were barely visible, and that due to neon was not perceptible. When old lead was bombarded X_3 appeared in considerable quantities until the sixth day, when the experiment was stopped, while helium ceased to be perceptible after the second day. Sir J. J. Thomson believes that the X_3 is expelled from the metal by the bombardment, and that more came off from the lead than from the platinum, because the lead was melted, so that fresh portions were continually being exposed, whereas the platinum did not melt. In another experiment performed in a different way—by an arc discharge between iron wires in hydrogen at a comparatively high pressure—X_3, helium, and neon were found on two successive days. On the third day, using oxygen, a trace of X_3 was detected, but no helium or neon. On the fourth day, still using oxygen, no one of the

three gases was detected. This looked as though the gases had been produced by the arc passing through hydrogen, but when the oxygen was completely replaced by hydrogen, the arc gave no one of the three gases. When the old iron wires were replaced by new and the arc passed, the three reappeared. This experiment gave strong support to the conclusion that the gases were in the terminals to begin with, were removed from them by the long continued sparking, and were not produced *de novo* by the arc. This explanation, though less revolutionary than the hypotheses of transmutation of matter or its origin from the energy of the electric discharge, presents difficulties of its own. One is how the gases get into the metals. Thomson found none in lead just precipitated, and says that X_3 "does not appear to occur to any appreciable extent in the atmosphere." Another is that, if the gases pre-exist in the metals, having somehow made their way into them, they must be held there with extraordinary tenacity. That they cannot be expelled by heating appears to be shown by an experiment in which Thomson kept lead in a quartz tube boiling in a vacuum for three or four hours until all but a quarter of the lead had boiled away; in the gases given off neither X nor helium could be detected. The hypothesis he suggests in a tentative way is that they may "represent the partially abortive attempts of ordinary metals to imitate the behaviour of radio-active substances," but that, "whereas in these substances the alpha particles and the like are emitted with such velocity that they get clear away from the atom, in ordinary metals they have not sufficient energy to get clear, but cling to the outer parts of the atom, and have to be helped by the kathode rays to escape."

LITERARY NOTES.

GERMANY is the land of *Rundschaus* and similar useful serial compendiums of scientific work. A new *Zentralblatt* series has just appeared, published by Mr. Julius Springer of Berlin, and edited on similar lines to its well-known namesakes. We have received the *Zentralblatt für die gesamte Gynaekologie und Geburtshilfe sowie deren Grenzgebiete* and the *Zentralblatt für die gesamte Chirurgie und ihre Grenzgebiete*. The first number of both appeared on February 25th, 1913. The surgical *Zentralblatt* is edited by Bier (Berlin), Frh. von Eiselsberg (Vienna), Hildebrand (Berlin), Köhler (Berlin), Küster (Berlin), de Quervain (Bâle), and Schmieden (Berlin), directed by C. Franz of Berlin. The gynaecological and obstetrical *Zentralblatt* is edited by Beuttner (Geneva), Döderlein (Munich), Ph. Jung (Göttingen), Krönig (Freiburg), Menge (Heidelberg), Pankow (Dusseldorf), Wertheim (Vienna), and Zangemeister (Marburg), under the direction of Runge (Berlin) and Zangemeister. This new *Rundschau* promises to be an excellent work of reference, and the first numbers, to which we referred above, include full notice of foreign as well as German works and papers.

We have to apologize for the failure to notice much earlier *A Shakespeare Glossary*,[1] by C. T. Onions, but the first impression was not altogether favourable, and we were loth to express an unfavourable opinion of any lexicon issued by the Oxford University Press, especially when the author was one of the staff of the *Oxford English Dictionary*. Greater familiarity has tended to increase the appreciation of the good qualities of the glossary, and to make its defects seem smaller. They are mainly in the direction of redundance. In the preface we are told that the aim has been "to supply definitions and illustrations of words or senses of words now obsolete or surviving only in provincial or archaic use, together with explanations of others involving allusions not generally familiar, and of proper names carrying with them some connotative signification, or offering special interest or difficulty in the passages in which they occur." The author admits, also in the preface, that he has gone very much further than this, and that many "who glance over" the pages will express the opinion that more is taken in than is necessary for the guidance of a reader of average literary knowledge, but he thinks that "a careful examination made with a view to ascertaining what proportion of the vocabulary . . . can be truly described as present-day English will prove such a criticism ill founded." This is a good defence up to a certain point, but not all the way. For instance, the whole entry under *modest* seems superfluous, as the secondary meaning of the word, which is that illustrated, is quite common in present-day English. In the opposite direction, the definition of *pigeon-livered* as "meek, gentle" is disappointing. Other examples in both directions might be quoted. Nevertheless, the book is a thoroughly sound piece of work, and we believe that the more it is used, the higher will be the respect inspired for it. For the industry which has gone to the making of its nearly ten thousand articles, to the ingenuity with which so much labour and learning has, partly by the use of conventional signs and contractions, been condensed into so little space, and for the care with which the whole has been edited, there can be nothing but unstinted praise.

The injunction to verify references is an axiom of literature and science, but to obey it ceases to be possible when the reference is to some spoken epigram which may have been variously recorded by the hearers, or when the same thought has been expressed by different speakers on different occasions and perhaps in different languages. An instance is afforded by a recent curious correspondence in the *Times*. In a leading article our contemporary had stated that it was said of some philosopher who was jesting with his disciples that he suddenly changed his manner and said, "Here comes a fool. Now we must be serious." The *Times* had prudently attributed the remark to "some philosopher," but a correspondent with more boldness assigned it to Archdeacon Paley. Yet another found the same remark in Boswell's dedication of his *Life of Johnson*, where it is attributed to Dr. Clarke, the fool in this instance being Beau Nash. Even this does not seem quite conclusive, for, as the same correspondent points out, in the *Dictionary of National Biography* the story is given on the authority of Thomas Bott, who once found the divine "swimming on a table" and on the approach of a solemn coxcomb on some such occasion heard him say, "Boys, be wise, here comes a fool." Shakespeare with his extraordinary visual memory hits off the type in one of those vivid pictures he flashes on the mental eye like a bright landscape seen momentarily from a darkened room:

> There are a sort of men, whose visages
> Do cream and mantle like a standing pond.

Or rather there are two flashlight pictures, for just before Gratiano has asked—

> Why should a man, whose blood is warm within,
> Sit like his grandsire cut in alabaster?

An illustration of the uncertainty of verification in sayings is afforded by the Latin lines quoted, in the article on proverbs regarding alcohol in the JOURNAL of February 22nd, p. 399, on the authority of Lord John Russell. Dr. Stennett Redmond sends us the following version which he says was used by Archbishop Whately as an example of a false syllogism:

> Qui large bibit, bene dormit;
> Qui bene dormit non cogitat malum
> Qui non cogitat malum, non peccat,
> *Ergo* Qui large bibit, non peccat.

With reference to the same article, we have received the following note from Dr. R. W. Leftwich, who prudently guards himself by stating that he quotes from memory. He says: "Those who like myself appreciated very highly the articles on Proverbial Medicine, especially that in relation to the use of alcohol, may be interested in the following anecdote of Goethe. The poet had been twitted by a party of students for mixing water with his wine, and replied with the following impromptu verse:

> Wer trinkt nur Wasser wird stumm
> Das zeigen im Teich die Fische:
> Wer trinkt nur Wein wird dumm
> Das zeigen die Herrn am Tische:
> Wer will gesund und geistreich sein
> Mischt immer Wasser mit seinem Wein.

I write from my recollection of a conversation held many years ago, for I have not seen this in print, and confess that my memory of the fifth line is so vague that I must accept the responsibility for it."

[1] *A Shakespeare Glossary*. By C. T. Onions, M.A. Oxford: The Clarendon Press. (8vo, pp. 271. 2s. 6d. net; India paper, 3s. 6d. net.)

British Medical Journal.

SATURDAY, MARCH 8TH, 1913.

THE NATIONAL INSURANCE ACT AT WORK.

We have received from the National Committee for the Prevention of Destitution, a body which was instituted for the dissemination of the views contained in the Minority Report of the Poor Law Commission, the final number of their organ, *The Crusade*, which is now to give place to a more ambitious project, a new weekly review called *The New Statesman*. The number of *The Crusade* is accompanied by a supplement written by Mr. Sidney Webb, and entitled, "The National Insurance Act at Work, what it is Effecting and where it Needs Amending," and a most interesting document we have found it.* It contains information as to the working of the Act which we have not found elsewhere, and its collection is another evidence of that passion for information for which Mr. Webb is famous. It contains also some of the most penetrating criticism of the Insurance Act which we have seen. The author, while naturally sympathetic to many of the objects of the Act, has a keen eye and an unsparing pen for its defects.

We can recommend all our readers who wish to get a bird's-eye view of the working of the Insurance Act, with all its possibilities and disappointments, to secure a copy of this supplement. It is quite easy to disagree with Mr. Webb, but no one can fail to be interested and informed by him.

When he deals with the medical benefit we find, as was to be expected, that he is dissatisfied because the provision of medical benefit is not on the lines recommended in the Minority Report. He contrasts the "fearful and wonderful network" of medical benefit with the simplicity of the public health service, very much to the advantage of the latter, and urges that it would be better to assume that as regards medical attendance all insurable persons are insured in one great national society and are in benefit, that all changes of residence should be ignored, and every person treated wherever he happened to fall sick when he presents his card to any doctor on the national panel. Under Mr. Webb's scheme every doctor who cared to accept service would be a servant of the State, either on whole or part-time salary, with, of course, the usual hierarchy of administrative officials. Mr. Webb is good enough to tell us that in the recent fight the doctors were badly organized and badly led, and displayed "quite a curious incapacity to explain their own case either to the Government or to the public perhaps because they only dimly realized what it was." It would have been kinder, perhaps, if Mr. Webb had interfered at an earlier stage and had offered to state the doctors' case for them, as no doubt he could have done much better than those personally interested. It is just probable, however, that if Mr. Webb had done so he would have been considerably surprised at the remarkable unanimity with which the profession would have rejected his proposals for its salvation. From our knowledge of the profession we make bold to say that, whatever its uncertainty as to what it wants, it is particularly clear that it does not want to be a whole or part time Government service. It is because of its strong objection to such a development that the profession accepted the panel system, which, with all its drawbacks, allows comparatively free choice of doctor by patient, and of patient by doctor, and continues that healthy emulation among doctors which is inconsistent with Mr. Webb's ideal. It may be that the profession is very misguided in taking this line, but we can assure Mr. Webb that, on the whole, the profession believes that the change from the panel system to his Government service would be from the frying-pan into the fire. Mr. Webb and his followers fail to realize that the medical profession is, on the whole, the most individualistic profession in the world. Every member of it is constantly dealing with elementary human nature, and is thrown at nearly every moment of the day on his own resources to an extent unknown probably to any other calling, and, as a result, there has been developed in the medical profession a profound mistrust of the regulations and restrictions inseparable from whole or part time service, so far as general medical practice is concerned.

Mr. Webb is of opinion that there are only two methods of payment of medical attendance which are free from the "insidious degradation that attends all contract practice"—either so much for each attendance or so much per annum. Mr. Webb remarks that the doctors would have liked the former, but "neither they nor the Chancellor of the Exchequer could find any way of protecting public funds against the unscrupulous and often collusive 'jobbing' of cases, which would have caused an unlimited drain on the Insurance funds." That method is therefore put out of court. He thinks that the friendly societies and the officials would have preferred a salaried service of whole or part timers, but the doctors, "short-sightedly enough," were up in arms against a salaried service. It is true that certain officials were in favour of a whole-time service, but there is not the slightest evidence to show that the rank and file had any leanings that way. The official mind naturally prefers this solution. It is "so simple." Whether it is "short-sighted" is another matter. With the choice limited to the panel system or the whole-time system the profession and the great bulk of the public would, we believe, prefer the former, because it leaves greater freedom to both patients and doctors, and on the whole gives greater confidence to the public. The profession as a body has spoken as strongly against the degradation of contract practice as even Mr. Webb could desire; but it is not at all clear that contract practice, when cleared of certain outstanding and non-essential evils, is more open to objection than the acceptance of a salary. In both cases the employed person accepts a fixed sum for more or less indefinite work. If contract practice is divested of the two things which have made it a byword in the profession in the past, namely, unsatisfactory remuneration and monopoly—that is, the denial of free choice on both sides—there is nothing more derogatory about it than there is in the acceptance of a fee for each visit or an annual salary. Some of the best work in the world has been done on contract, and it is taking a very superficial view to denounce the whole system uncritically, as is so often done and is

* Published by the National Committee for the Prevention of Destitution, 37, Norfolk Street, Strand, W.C., and to be obtained through any bookseller, price 2d., or direct from the Committee, post free 3d.

done in this essay. Mr. Webb is quite as emphatic as the Government was about the impossibility of an income limit. That was to be expected from him. We have always realized the difficulties in the way, which are not altogether unconnected with the necessity for securing or retaining votes. But we are just as convinced as ever that, apart from political exigencies, there is ample justification for an income limit, and cannot help thinking that if Mr. Webb and his friends were really in earnest in their denunciation of contract practice, and had thought out all that is therein implied, they would welcome a method which would go far to restrict it within necessary limits. Mr. Webb prophesies that there will be a great increase of work under the panel system, and in this, judging from the reports which have come to our notice, we are inclined to agree with him, though it is yet too soon to say to what extent this increase will be permanent. At present, owing partly to the novelty of the arrangement, people are flocking to the surgeries of the doctors with quite trivial ailments for which in the past they would have taken some domestic remedy. The result of the wide circulation of the model rules of the approved societies regulating the times at which insured persons may see their doctors and send their messages, together with the representations of the Local Medical Committees, will doubtless have a considerable effect on the situation. Up to the present these rules seem hardly to be known to the insured persons, and the Committees have not yet got into their stride. When Mr. Webb estimates that the amount of medical attendance per head of the insured population is going to be perhaps three or four times as much as that given under the old club practice, we are inclined to offer the old advice, "Never prophesy unless you know." At the present moment it is impossible either for him or for any one else to judge on this subject with anything like certainty.

Mr. Webb sees that many minor adjustments will be required to be made before the panel service can be worked with anything like satisfaction. He notes the difficulties of securing attendance for those whom none of the panel doctors will accept. Here again we think that, except in some rural areas, there will be little difficulty, though when it does arise it will be a particularly awkward one, needing all the tact and forbearance of the practitioners concerned. In the urban areas it is possible that the younger men who have yet to gain a footing in practice will be glad to take any reasonable number of patients, and they will at any rate have the satisfaction, denied to them in the past, that for all attendances on insured persons they will get some payment, even if it be inadequate. We have no doubt that during the next few months many prophecies concerning the Act will be proved to have been badly founded. Difficulties and grievances will arise which have not been foreseen, and some of the points on which most stress has been laid may prove in practice to be much less formidable than was anticipated.

Mr. Webb makes a powerful attack on what he terms the illegal limitation of medical treatment. He protests strongly that the Commissioners in limiting medical treatment as they have are exceeding their powers. He believes that such a restriction is a violation of the law and that the Courts at the first opportunity will say so. He is anxious that for the insured person the very best medical treatment should be provided and should include every emergency likely to arise. This is, of course, the ideal, and towards the fulfilment of that ideal we believe the Commissioners will be gradually forced by public opinion. It is simply a question of money. For the remuneration at present offered the medical profession cannot give unlimited medical and surgical treatment. The Government has recognized this and has said that with the money at present available it can only offer a certain amount of medical treatment. Anything outside this must be provided either by the patient himself or by resort to a medical charity. It is an unsatisfactory position and one which the British Medical Association did its best to bring home to the Government; and the profession will watch future developments with interest.

In conclusion, we freely admit the force of many of Mr. Webb's criticisms, and appreciate his sympathy with many of the difficulties of the medical profession, but it is as well that he should understand that his suggested remedy—namely, that of a whole or part time service, which, as far as we have been able to see, is incompatible with anything approaching free choice of doctor—is regarded by the profession, and we believe by the majority of the public, as an evil to be escaped. Private medical practice may have its drawbacks, but it accords best with professional traditions and preference. If the ideal of universal private practice cannot be attained, so that every patient shall be free to call in his own doctor and able to pay him the ordinary fees prevalent in the district, then we say with conviction that the profession as a whole vastly prefers the panel system to Mr. Webb's State service.

A PHILOSOPHER AND HIS DOUBLE.

A striking example has recently been added to the number of those curious intellectual coincidences of which the almost simultaneous formulation by Darwin and Russell Wallace of the principle of natural selection is among the most familiar. This time it is Professor Bergson who is revealed as the possessor of a spiritual double, in the person of Mr. Henry Mills Alden, "dean of the American editorial world, for forty-three years editor of *Harper's Magazine*, and the monthly penman of the 'Editor's Study' in that publication." In an article entitled, 'The Bergson Method Confirmed,'[1] Mr. J. W. T. Mason calls attention to the extraordinary resemblance of the views set forth by Mr. Alden, in a book entitled *A Study of Death*, to those already familiar to all readers of the distinguished French philosopher. Yet Alden's book was published twelve years before Bergson rote *Creative Evolution*; in fact, there is not the least doubt that the two authors arrived quite independently at practically identical conclusions. The parallelism of ideas is all the more striking on account of the fact that the two thinkers concerned have reached these conclusions by contrary routes, the one by a train of thought originated by meditation upon death, the other by self-identification with life in its fullness and essence. And whereas one—the American—speaks primarily as a *littérateur* and a critic, the other has at his disposal the equipment of a professional philosopher, a student of science, and a learned psychologist. But from points of view so distinct and dissimilar both have arrived at the same world-conception of an eternal creative process, a vital flux whose substance is real time or duration; at the primary nature of the differentiation between reason and instinct, and the concurrent loss and gain involved by our sacrifice of the latter to the former mode of consciousness; at the continuity of

[1] *North American Review*, January, 1913, pp. 90-104.

the real, and the falsification resulting from its being broken up into the isolated "facts" of conceptual knowledge; and at the anticipation of an "ultimate mysticism" defined by Mr. Alden as "one with native intuition, but including a perspective commensurate with the visible universe."

Nor is the consensus of these two minds confined to fundamental conclusions; it extends even to such comparatively external matters as the choice of illustrative metaphors. Readers of *Creative Evolution* will recall a famous passage in which, contrasting the negative or descending movement of matter with the positive or ascending movement of life, Bergson compares the latter with "the fiery path torn by the last rocket of a firework display through the black cinders of the spent rockets that are falling dead." Mr. Alden concludes a sentence referring to the transition from the incandescent nebula to the cooled and contracted earth crust as of the nature of a descent, by the remark that "we cannot but regard the progression of cell life as an ascension, as if from the cinders of extinguished fires some new flame had arisen, more nearly imaging the flame of the spirit." The following quotation from *A Life after Death* might also be mistaken for a translation from any of Bergson's works: "Generally the terms of science are unvital. . . . Science is confined to a formal conception of existence, and is concerned with quantity . . . rather than quality." Mr. Mason gives a number of such excerpts, but we must refer those interested in the matter to the original article. The writer claims, not without some justice, that the occurrence of so remarkable a coincidence, under circumstances precluding the possibility even of unconscious plagiarism, constitutes a vindication of the Bergsonian method and of the truth and objectivity of its results. "The conclusion," he says, "therefore becomes inevitable that at least this one fact of the intuitional method is proven: *it works*." It suggests also that the succession of those constantly varying modes of conceiving reality of which philosophic systems are the formal expression is not arbitrary, but governed by economic and other conditions, in such manner as to exhibit a quasi-logical sequence and to summarize the spirit of the times. "In philosophy," says Hegel, "the latest birth of time is the result of all the systems that have preceded it, and must include their principles; and so, if on other grounds it deserve the title of philosophy, will be the fullest, most comprehensive, and most adequate system of all."[1]

MEDICAL PROVERBIOLOGY.

THE series of articles which have been appearing in the JOURNAL[2] recently must have discovered to many a reader an altogether unsuspected richness in the field of medical proverbiology. Every medical man is now and again meeting with proverbs in his daily experience; sometimes his patients cautiously produce them in order to get their own way or to criticize their doctor's management of their illness; sometimes he himself employs a wise saw to enforce a necessary but irksome kind of treatment or a prolonged degree of rest in bed; sometimes the midwife cheers her fainting parturient primipara with the phrase, "Sick labour, quick labour," whilst the obstetrician who dreads the forceps says sententiously, "Meddlesome midwifery is bad"; and sometimes (too often perhaps) the ungrateful patient, in presence of his doctor's little bill, falls back with relief upon the many saws which declare that to Nature, who really worked the cure, and not to the physician, the fee ought to go (Nature, conveniently enough, having no bank account into which cheques can be paid). But, even allowing that proverbs play their part in medical practice, who would have thought that there were so many wise sayings about such matters as prognosis, diet, symptomatology, alcohol, and the doctor himself as have been set forth in the series of articles referred to? The subject, indeed, has not been exhausted, and there may yet appear a second series dealing with proverbial sayings about special drugs and methods of treatment, about midwifery practice, and about children's diseases.

The study of medical proverbs raises two sets of questions: the first set contains the problems which are common to all proverbs, medical or lay; the second set deals with those which are special to medicine. Let a glance be cast at one or two in each class.

First, then, what is the part played by proverbs in daily life; what do they do for us that they should be so long-lived and, generally speaking, so much respected? To this question there are several answers possible; but, in the first place, proverbial sayings throw the note of emphasis upon important things in life. They serve to indicate the red-letter matters in experience; they are as sublineations or italics are to the printed page; they are the asterisks of popular thought. Perhaps the writer of the articles throws too heavy an emphasis when he calls every proverb "a precious stone of experience laboriously cut and polished until every facet of it flashes forth the bright light of wisdom"; but he can claim that proverbs do indeed receive very generally an amount of respect bordering upon worship from many people who are not deficient in worldly wisdom. Many a time an orator has brightened a dull part of his speech or strengthened an infirm section of his argument by the opportune employment of a pithy and appropriate piece of proverbial wisdom; the weak controversialist has sometimes snatched a victory out of the hands of a strong reasoner by a wise saw of three or four words, very much as Byron, we are told, "vanquished Berkeley with a grin." Again, proverbs have been used as guides to conduct in circumstances where decision was difficult; but it is to be remembered that they do not of themselves constitute a body of wisdom, for, whilst "Solomon made a book of proverbs, a book of proverbs cannot make a Solomon." Indeed, the adage as an arbiter of conduct is a dangerous guide, although the danger is lessened by the common experience that there are generally opposed proverbs, which, coming together, destroy one another, and leave the person who is trying to direct his steps by them to seek another and a surer pilot. These two aspects of proverbs—that they underline the *notabilia* or *memorabilia* of life, and that they have been used as guides in ethics—are evident not only in the general affairs of existence, but also in the special circumstances of medical practice. Thus the saying, "Joy, temperance, and repose slam the door on the doctor's nose," if somewhat unkindly worded, yet emphasizes the great value of prevention by other things than medicine, and Dr. Diet and Dr. Quiet are, beyond all doubt, formidable rivals to the general practitioner. There are doctors, too, whose canons of practice are not unlike those of the people who try to steer the barque of conduct by the rudder of popular proverbs; they prescribe by rule of thumb

[1] *The Logic of Hegel*. Translated by W. Wallace. Page 23.
[2] BRITISH MEDICAL JOURNAL, ii for 1911, p. 1481; i for 1913, pp. 178, 291, 398, and 509.

and work by empiricism, and so sometimes they come perilously near the confines of quackery.

There are aspects of medical proverbiology which are special thereto. Why, for instance, should there be crowds of proverbs in dispraise of the doctor, and hardly a single one in his praise? A prophet is not without honour save in his own country and in his own house; but the doctor seems (so far as proverbs go) to lack honour both at home and abroad. In the articles several possible causes of the unpopularity of medical men with the makers of proverbs are suggested, and some of them are in keeping with experience. Perhaps most weight should be given to the fact that few wish or try to remember unpleasant or distasteful times in life, such as illnesses, which come to check gaiety and suggest gloomy reflections, and that since the doctor is inevitably associated with these times he shares the general reprobation. Stevenson, it is true, said of one of his doctors that "his visits made it a pleasure to be ill"; but it is not every doctor who has his Stevenson, and indeed it is not every doctor who deserves to have him. We are touching fundamentals here when we wonder what it was in Stevenson's doctor which made his visits pleasant. It can hardly be believed that it was simply on account of the prescriptions he left or the medicines he sent for the relief of pain or distress; it may have been, it is very likely that it was, because the medical man had a mind large enough to find room for other matters than the business of his profession; indeed it may be hazarded that he had a fine taste for the beautiful in literature. Is there not here subject for thought? Is the medical man of the future to be worried out of the humanities and forced to be no more than the prescriber of pills and the writer of sickness certificates? Are his visits to be no more highly valued than the matutinal calls of the milkman? We have wandered somewhat far away from medical proverbs, but there may be a closer connexion between the paucity of adages in praise of the doctor and the commercialization of practice than is immediately apparent.

To one other special question a word may be given. Why should the proverbs on alcohol be so divided? Here again fundamentals are being dealt with; when it is known what is the factor or factors which determine the genesis of a proverb, what it is which decides the sayings that are to survive and those that are to pass stillborn away, then perhaps it may be discovered why proverbial medicine is a divided house on the subject of alcoholism.

THE BUILDING OR EXTENSION OF SANATORIUMS.

THE Local Government Board has issued a memorandum, prepared by its architect and medical officer, on the planning and construction of inexpensive buildings for the treatment of cases of tuberculosis. The Board states that it is necessary to adopt forms of construction as economical as is compatible with efficiency, and we may add that, on other grounds than that of immediate financial exigencies, it is undesirable to erect costly buildings in a manner insusceptible of modification and improvement in the future. While advising that the additional accommodation, which in many areas is immediately necessary, may, as a rule, be more expeditiously provided at, or in connexion with, existing hospitals and sanatoriums where provision for administration already exists, the Board states that complete institutions may be built in a comparatively short time if the suggestions contained in the memorandum are followed. The advice is repeated that a sanatorium for the treatment of early cases of tuberculosis should, where practicable, contain at least 100 beds, but if the population of an area does not justify provision on this scale, and it has not been found feasible to arrange for a combination of areas, the Board will be willing to consider proposals for providing institutions with fewer beds. The memorandum contains two sketch plans, one for a suggested pavilion for 50 patients, showing one ward for 12 beds, six for 2 beds each, and one for 1 bed in each wing, with a verandah in front of the seven smaller wards. The two wings are shown separated by a dining hall used by both sexes, and a site for kitchen and offices. The administration block and the laundry and boiler-house would be detached buildings at a short distance. The other plan shows a pavilion for 20 patients of one sex; it is again in two wings, each containing five bedrooms with 2 beds each. Those responsible for erecting new buildings or additions to existing buildings may be glad to be reminded of the full report by the late Dr. Bulstrode on *Sanatoria for Consumption and certain other Aspects of the Tuberculosis Question*,[1] issued in 1908 as a supplement to the report of the medical officer of the Local Government Board, 1905–6. The memorandum now issued by the Local Government Board concludes by an admonition to the councils of counties and county boroughs in England as to the importance of organizing without delay an efficient system of dispensaries, on the ground that a large proportion of cases suffering from tuberculosis at any one time can be properly treated at an efficient dispensary, and that the selection of suitable cases for treatment in residential institutions will be more satisfactorily effected where a dispensary system is in operation.

RECENT OBSERVATIONS ON ATHEROMA OF SEPTIC ORIGIN.

IT has long been recognized that arterio-sclerosis may be set up in the later stages of infectious disease, and positive results have been obtained after experimental inoculation with the typhoid bacillus, staphylococcus, and an organism obtained from a case of ulcerative endocarditis. These experiments, however, have been somewhat limited in scope, and hence a series of observations conducted on a larger scale in Professor Metchnikoff's laboratory, by Dr. Y. Manouélian, deserve special attention.[2] Full particulars are given as to the strains of staphylococcus used and as to the elaborate methods of staining the sections of the affected vessels, the results of which are shown in some excellent plates. Rabbits and a few monkeys were the animals employed. Aortic changes are not uncommon in the adult rabbit, and have been said to occur in from 4 to 19 per cent. of the cases observed. This fact has to be borne in mind when assessing the value of the results following artificial introduction of the staphylococcus, but as it is recorded that no less than 84 per cent. of the observations gave positive results, there can be no doubt as to their significance. In the case of the monkey the positive results were even more striking, as 5 out of 6 were positive. It may be noted that the most marked effects were produced by repeated injections of the weaker strains of coccus, the effects of the stronger strains were often too rapidly fatal. In appearance the atheromatous patches presented the familiar superficial aspect, and almost all were situated about the arch, and not in the course of the vessel. In a few instances the arterial disease was found to be advanced and tending to aneurysm, the walls containing calcareous or cartilaginous material. Microscopically, the changes were found to be mainly due to degeneration of the elastic tissue and of the muscle fibres, but the calcification is stated to have arisen from the elastic tissue only. The effect produced upon

[1] London: Eyre and Spottiswoode. 5s.
[2] *Annales de l'Institut Pasteur*, January, 1913.

the aortic wall was not always the same. In some cases marked thickening was seen, and in others the reverse. In the thickened cases the main change was found in the middle coat, while in the plaques of long standing no trace of elastic tissue could be discovered. Many of the experiments extended over a considerable period of time, and details are wanting as to the symptoms shown by the animals during their long course of acute and subacute septicæmia. No positive microscopic evidence is given as to the direct relation of the staphylococcus with the aortic lesion. So high a percentage of local disease produced by the artificial induction of chronic poisoning must be regarded as throwing considerable light upon the possible causation of the aortic atheroma so commonly met with, after middle age, in man.

NON-ABSORPTION OF DRUGS ON INTRAMUSCULAR INJECTION.

A RADIOGRAPHIC curiosity of very great interest was recently described by Spéder.[1] In skiagrams of the hips of a patient the image of the bone was obscured by a number of abnormal and at first unaccountable shadows, arranged in radiating lines, their direction corresponding exactly to the form of the muscular fibres. Normally, as we all know, the muscles give little or no radiographic image. The hypothesis of osteomata was eliminated by the localization and general form of the shadows, and pathological calcifications fail to give this appearance with the *x* rays. There remained the hypothesis of a modification in the transparency of the tissues, owing to the introduction of foreign bodies, and this was confirmed by the history of the patient. He was aged 39 years and had suffered at various times from acute rheumatism, ultimately affecting the hips. In 1909 chronic arthritis of the coxo-femoral articulations was diagnosed, but a radiograph made at the time, and again at the beginning of 1911, showed nothing abnormal beyond the osseous and articular lesions. More important evidence was, however, obtained. The patient, it was elicited, had contracted syphilis, and had received a large number of intramuscular injections of mercurial salts. Three series of such injections were made from 1907 to 1911. In the latter year one medical man, connecting the lesions of the coxo-femoral articulations with the syphilitic infection, submitted the patient to a series of intramuscular injections with a different solution, which was probably iodipin (that is, iodine combined with oil of sesame), and thirty such injections were made in the muscular masses at the hip. The skiagrams revealing the curious opacities just described were made twelve months after these injections, and as those made previous to the injections showed nothing abnormal, it seemed reasonable to attribute the appearances to the non-absorbed drug. It is well known that a number of preparations used in medicine, including the iodine group, are somewhat opaque to the *x* rays, and all radiographers agree as to the persistence of shadows due to injections of iodoform paste in fistulous tracts and osseous cavities. But medicaments which might be expected to be easily absorbed usually disappear rapidly. Among patients submitted to a series of injections of mercury biniodide, Spéder sought in vain for any traces of the medicaments persisting after some days. In another patient iodipin was absorbed within nineteen days after injection. The state of the muscles, apparently, is of importance, and it was thought probable that in the patient who showed the strange opacities, a year after injection, there had occurred a fibrous proliferation, due to the many previous injections of mercurial salts in the muscular masses at the hip, thus rendering the muscle less capable of absorbing such a salt as iodipin. From the radiating arrangement of the shadows, the opaque bodies appeared to be localized in the interfascicular cellular tissue. The interest of the observation from the therapeutic point of view lies in the fact that the radiograph may indicate whether or not the absorption of the drug has taken place in a normal manner.

[1] *Arch. d'électr. méd.*, September 25th, 1912.

THE MNEMIC THEORY.

PROFESSOR JAMES WARD, in his choice of *Heredity and Memory*[1] as the subject of the Henry Sidgwick Memorial Lecture for 1912, has earned the thanks of all who are interested in the important and highly controversial problems which the topic inevitably suggests. The lecture was without question a serious and weighty contribution to the growing volume of dissentient criticism of Weismann's conception of heredity. No doubt, in a sense—and many will be glad to have the full text, which has recently been published by the Cambridge University Press—Weismann's conception may still be said to occupy the central position: it is to-day the orthodox view. But the attacks upon it are growing daily stronger and more confident; many biologists are already convinced of its inadequacy; still more, we venture to think, have at least their secret misgivings upon the point. So long ago as 1895 Delage succinctly stated the Weismannian dilemma, though he had been preceded by Professor Hartog of Cork in 1891. "Without the inheritance of acquired characters there can be no new ancestral plasms, and without ancestral plasms more complicated than those of the protozoa there can be none of the superior animal." To extend the range of natural selection from the environment to the intragerminal constituents does not advance matters, for by no possible shuffling of protozoan unit-characters can such variations as will avail to produce metazoan progeny be brought about. To account for that, some new factor must be hypothecated; whether that be the inheritance of acquired characters or some other and unknown potentiality, matters little; in either case the absolute continuity of the germ plasm, which is the base principle of Weismannism, has to be given up. Professor Ward does not, of course, advocate the revival of the Lamarckian contention that all acquired characters are heritable; as we understand him, he would limit the possibility to those which have been so thoroughly mechanized by habit, perhaps in the lives of several successive generations, as to become, in Hartley's phrase, "secondarily automatic." Regarding the germ cell as a definite psychic unity and its nucleus as the functional analogue of a central nervous system, he attributes its recapitulation in palingenesis of the main events of racial history to the momentum of organic memory. "We may," he says, "compare it (the germ cell) to a company of actors awaiting behind the scenes the call to begin their play. Each one knows his part by heart and also knows his cue. The routine or orderly rhythm of the performance is thus ensured, and the play, though continually condensed at one end and extended at the other, has been so often repeated as to be acted without a hitch or hesitation, save, perhaps, in the case of its latest amendments."

[1] *Heredity and Memory.* By James Ward, Sc.D. Cambridge: At the University Press. 1913. (Cr. 8vo, pp. 56. 1s. 6d. net.)

THE "INDEX CATALOGUE."[2]

IT is hardly a year since the sixteenth volume of the second series of the *Index Catalogue* of the Surgeon-General's Library at Washington was noticed in the JOURNAL (vol. i, 1912, p. 799), and now the seventeenth is ready for use. With the appearance of each new volume the impression of the vast extent of modern medical literature is strengthened. We may take as an instance the subject of syphilis, which occupies 200 closely printed

[2] *Index Catalogue of the Library of the Surgeon-General's Office, United States Army.* Second series, vol. xvii. Suaheli-Testut. Washington, 1912.

pages in this volume; these pages contain nothing more than the titles of the various books and articles which have been written on the various aspects of this disease since the publication of the corresponding volume of the first series in the year 1893. If eighty or ninety references to articles or books be the tale for each page, and roughly speaking it may be put at eighty, we have the enormous total of 16,000 papers on syphilis in twenty years! If a student of the subject had been reading some fifteen or sixteen of these articles a week all these years he would only just have kept himself abreast with the literature pouring from the world's press on this one subject. Then when we come to analyse the subheadings under which the subject is catalogued the wonder grows; there are about 220 of them. If one of these be taken—say congenital syphilis—it is found to be treated under the following heads: Blood in congenital syphilis, cases and statistics, causes and pathology, complications and sequelae, contagiousness, death and sudden death, diagnosis, effect upon descendants, eye in congenital syphilis, haemorrhage in, manifestations of congenital syphilis, cutaneous, late, and pseudo-rheumatic manifestations, prevention and treatment, with salvarsan (606), prognosis, reinfection, serodiagnosis, teeth, treponema, urine in syphilis; and these, let it not be forgotten, are only the subheads under a subhead (congenital syphilis). To turn, however, to some of the many other matters catalogued in this volume. There is symphysiotomy, with twelve pages and eight headings; there is syringomyelia, also with twelve pages; two pages sufficed for each of these subjects in the first series of the *Index Catalogue*. There are suprarenal bodies and extract with thirty-two pages; in the first series suprarenal bodies had four pages, and suprarenal extract did not appear. Then here are some of the new headings (omitting authors' names): Sychnuria, syggignoscism (with its cross reference to hypnotism), symbiogenesis, symmetroscope, sympathectomy, symphorol, symphytum officinale, synaesthesia, synchytrium, syncytiolysis, syncytioma, syncytium, syndrome, synechotomy, synergia, synkinesis, synophthalmia, synovectomy, synoviotomy, syringobulbia, syringocystoma, and sysoma. Perhaps, nay, certainly, the most interesting pages are those in which the treasures of the Washington Library in the department of texts illustrating the history of medicine are set forth in order, beginning with pre-Hippocratic medicine, and running on through Greek and Graeco-Roman, Mohammedan, and Jewish, Mediaeval, Renaissance, seventeenth century, and so down to the modern period. It may be safely predicted that many a medical bibliophile's mouth will water as he reads over the list of texts and incunabula gathered together in this library, and many a worker in the subject of medical history will wish he lived near Washington. But why are these treasures entered under the heading "Surgeon-General's Office, Library of the."? Who will think of looking for them under that rubric? Doubtless they will be cross referenced, however, under "Texts" or "History of Medicine."

SLEEPING SICKNESS AND BIG GAME.

AT a recent meeting of the Society of Tropical Medicine and Hygiene a paper by Dr. A. G. Bagshawe detailing recent advances in knowledge of sleeping sickness was read. A very full and detailed account of the large amount of work that has been done on the subject during the last year was given, and an animated discussion afterwards took place. Dr. Yorke, who had just returned from Africa where he had been serving on one of the sleeping sickness commissions, was able to relate experiences of the greatest value. A careful study of the epidemiology of the disease has brought him to the opinion that all game that is capable of being infected with trypanosomes of man and domestic stock should be destroyed; for practical purposes this would mean the destruction of all the African fauna in inhabited regions. The game he believes stands in the way of the progress of civilization. Dr. Moffat, and other speakers competent to judge on the subject, were also, though with regret, of the same opinion. Dr. Moffat went so far as to suggest that the Chartered Company should destroy all game south of the Zambesi, an experiment which would show whether the disease would spread south into a gameless tract. His belief is that man cannot live and farm by the side of big game, as the latter brings trypanosomiasis: and he suggests that zoological interests might be conciliated by making large reserves in the districts to the north. Many other speakers pointed out the difficulty, amounting almost to impossibility, of exterminating game. There is no doubt that the subject is one of immense importance, and a decision sooner or later must be made. Sir David Bruce is now working at the question, and the results of his labours will be anxiously awaited by everyone, be he scientist, hunter, colonist, or Government official.

RACIAL RESPONSIBILITY.

A CONFERENCE organized by the Eugenics Education Society, and held at the University of London on March 1st, was largely attended by schoolmasters and schoolmistresses of the elementary and secondary schools and training colleges. Major Darwin, the president of the society, who was in the chair, explained that the conference was convened as an indirect consequence of the growing interest in eugenics. No one could deny that the world would be greatly the better if it contained fewer of the insane, the feeble-minded, the drunken, the diseased, and the unemployable, and as many individuals as possible of high character and good ability and physique. For the present energy might well be concentrated on an attempt to eliminate all the types which were unquestionably bad, whilst encouraging the appearance of those which were unquestionably good. Any marked success in such an effort would mean that our descendants would come very near to the attainment of the eugenic ideal. Mr. W. A. Nicholls (ex-President of the National Union of Teachers), in referring to the difficulty of introducing eugenics into the public elementary schools, said that the subject required such cautious handling, and must be so carefully and gradually led up to, that in view of the little spare time left to the teacher in an already crowded time table, he could see no prospect of its being incorporated in the school curriculum. In the present condition of public opinion the only persons who could do it with safety were the parents, and every parent, at all events at present, should be left to judge for himself in the matter. Mr. J. H. Badley (Head Master of Bedales School, Petersfield) said that, as with all social problems, the subject must be attacked from two sides—from without by the moulding force of the environment, and from within by such personal influence as could be brought to bear upon the individual child. The surroundings and conditions of the child's school life should be such as would foster wholesome habits and a wholesome attitude of mind: and good sense and good feeling should be appealed to, not by moral lectures or inquisition, nor by books or pamphlets, but by quiet, friendly talk. The Head Master of Eton said that some misgiving existed as to the ideals of eugenics being in some sense divergent from those of religion. But all might agree that the aim of both was correctly described as the implanting of truth in growing minds, or, better still, the training of young minds into truth. The religious aim would be primarily a bringing of the human into touch with the Divine mind; the eugenic aim would not conflict with this, but would emphasize the indispensable character of training in science, the fostering of the scientific spirit, so that the

action of heredity and environment might be discerned and the claim of posterity on the present generation clearly recognized. Probably it was correct to say that eugenics hoped to supplement the religious ideal with something of a more intellectual kind, for many who belonged to the new movement found that the older school of thought lacked the scientific spirit, especially in matters of race training, where the English disposition to ignore the connexion between cause and effect had told, and was still telling, with disastrous results to the racial development at the present day. At the close of the meeting Major Darwin proposed: "That the Minister of Education be asked to receive a deputation requesting an inquiry as to the advisability of encouraging the presentation of the idea of racial responsibility to students in training and children at school." This resolution, which was seconded by Mr. Mortimer, the delegate of the National Association of Head Teachers, was carried unanimously.

BINOCULAR VISION AND FATIGUE.

PROFESSOR DUFOUR of Nancy, in a paper read before the Biological Congress, which met in that town at the end of last year, pointed out that fatigue might under certain conditions render binocular vision very difficult. In general, when we look at a luminous point, the images perceived by the two eyes are fused without conscious effort. The visual apparatus is so constructed that binocular vision is almost mechanically produced. But if the natural desire for fusion be abolished by using a prism or a Maddox rod the two images do not invariably fall together. The streak of light formed by the glass rods does not always pass through the image of the source of light seen with the other eye. To fuse the two the natural position of repose and equilibrium should be found when the axes of the eyes are parallel. This is by no means always the case. In cases where they diverge or converge single vision is only obtained by an effort, conscious or unconscious. It is attained by the aid of the retinal reflex or the reflex of Parinaud. This reflex is always called into action by those whose optical axes are not parallel, those, in other words, who do not possess orthophoria. If the axes diverge we speak of exophoria, if they converge, of esophoria. This reflex is more difficult to excite when the subject is fatigued, and the difficulty may pass into impossibility. Such an individual will complain that when he has read for a certain time he sees double. The constant use of Parinaud's reflex may be in itself a cause of fatigue. Sensitive persons, especially those with a tendency to neurasthenia, may experience chronic headache, usually referred to the occiput, which is solely due to this heterophoria, and this can often be relieved by the use of appropriate prisms. Dufour alluded only to a tendency to diverge; but a convergence in the resting position may be equally effective in causing headache and other symptoms of eye-strain. Still more must we regard hypophoria—a tendency of one eye to turn up or down—as a cause of asthenopia. These errors of muscle balance are never overlooked by the careful ophthalmic surgeon, who always tests his patients for heterophoria with the Maddox rod and other phorometers, and in many cases achieves success with suitable prisms. When the error is great operative treatment may be called for; but it is rarely thought necessary, at any rate on this side of the Atlantic. In America Stevens and others carry out partial tenotomies, and claim many brilliant cures.

THE TREATMENT OF PLACENTA PRAEVIA.

PROFESSOR G. ZINKE of Cincinnati[1] urges that a better form of treatment for placenta praevia is required than those now in general use. He reviews present-day methods of treatment, and as to rest in bed, with a bag of ice on the abdomen, he says that it does not save many women. With regard to plugging, he admits that at times a mother, and rarely even a child, may thus be saved; but he thinks it doubtful whether this method can be regarded as satisfactory. He discusses next the Braxton-Hicks or similar methods, in which uterine contractions are stimulated either by bringing down a leg or by perforating the membranes; this method is freely used, but something approaching 10 to 20 per cent. of the mothers and 65 to 75 per cent. of the fetuses are lost. The fourth method is by dilating bags, such as those of Barnes, Champetier de Ribes, Braun, and Vorhees, or the metal dilators; but he commits Bossi's murderous instrument to collections of relics of a barbarous time. Lastly, he speaks of vaginal and abdominal Caesarean section. Now, the strange thing about Professor Zinke's attitude is that, while he claims that he was the originator of this treatment for placenta praevia, and although he discusses at some length its life-saving possibilities, he admits with frankness that he has never yet treated this condition by opening the uterus. Others have done so, and Pankow has succeeded in delivering eight mothers by this method with the loss of only one fetus. All the mothers recovered. Others have followed this example, but Professor Zinke does not attempt to give anything approaching collected statistics. On theoretical grounds, it would seem that the risks to both mother and child could be reduced to a minimum by such a procedure. But, even if it is, the country practitioner will be hard put to it if he be required to perform a major abdominal or vaginal operation in every case of placenta praevia. It seems, therefore, that there is still room for the discovery of a method of treating which shall be at once simple and efficient.

[1] *Deut. med. Woch.*, November 21st, 1912.

THE SPIROCHAETES OF RELAPSING FEVER.

FOUR different kinds of spirochaetes have been found in different types of relapsing fever. The European fever is due to Obermeier's spirochaete; the African fever to a parasite discovered by Ross, Milne, Dutton, and Todd, and named after Dutton; a second African variety to a spirochaete discovered by Koch; and the American variety to a spirochaete called *S. novyi*, after Novy and Knapp, who discovered it. The Obermeier organism does not lend itself readily to cultivation by passage through rats and mice, but monkeys can be infected with it. The other three can be grown in the bodies of rats, mice, and monkeys. H. Noguchi[1] states that all attempts to cultivate these spirochaetes outside the animal body have failed up to the present. His success in respect to the spirochaete of syphilis and *S. pertenuis* incited him to employ the same method with the parasites of relapsing fever. He collected the blood from infected rats or mice two or three days after infection. The blood was withdrawn from the heart by a sterile glass pipette, and was kept fluid by the addition of sodium citrate solution. The mixture was well shaken until a satisfactory suspension was obtained. A portion of rabbit's kidney, removed with aseptic precautions and immersed in sterile ascitic fluid, which must not be too old, forms the culture medium. About 10 drops of the blood suspension is added to the medium, and 15 c.cm. of the ascitic fluid introduced, and sterile paraffin oil is added to one of each pair of tubes. The tubes are then incubated at 37° C. The growth is controlled by examination with the dark field microscope. With *S. obermeieri* and *S. novyi* the maximum increase is usually attained about the eighth day, with *S. duttoni* and *S. kochii* about the ninth day. Shortly after having reached the maximum the parasites show a change, in that the individuals become less active, and may lose their power of motion altogether. Within the course of a few days many degeneration forms are seen. A

[1] *Münch. med. Woch.*,

temporary regeneration can be attained by the addition of fresh ascitic fluid. Noguchi has succeeded in subculturing these spirochaetes through four and more generations, inoculating the new culture medium with 0.5 to 1 c.cm. of the old culture, and using as far as possible the same ascitic fluid, provided that the growth has been satisfactory. Koch's spirochaete is the most easily cultivated, and Noguchi has succeeded in keeping one strain going for six months through twenty-nine generations.

INTERNATIONAL COURTESIES.

THE welcome usually accorded to leaders of scientific thought by nations other than their own is one of the pleasant features of modern life, and an agreeable contrast to the feelings engendered by perpetual reference to the ever-increasing preparations for international strife. Whether they be pioneers of modern advance or heroes of bygone scientific triumphs, their names invariably attract an enthusiastic audience when they elect to appear on a foreign stage. We have lately been privileged to hear from his own lips the latest developments of Professor Metchnikoff's labours, but it is not often that a leading position is accorded to a British writer in an important foreign journal. Hence it is with particular pleasure that we note the publication in a recent number of the *Berliner klinische Wochenschrift* of a long article on functional diseases of the arteries from the pen of Sir Lauder Brunton. The subject is one which has engaged his thoughts for many years, but it has not, perhaps, received the amount of general attention its importance would justify. The superficial phenomena of abnormal pulsation in a great artery, the various degrees of morbid flushing of smaller vessels, the vascular disturbance manifest in Graves's disease, and the no less evident contractions resulting in pallor and gangrene, are well known examples of functional disorder, but there remain a large number of conditions which may reasonably be attributed to functional derangement, although not so easily demonstrated. Foremost among these is migraine, a disease by no means uncommon in the medical profession, and one of which Sir Lauder Brunton is able to speak from personal experience, as did Professor Emil Du Bois-Reymond in his turn. A considerable portion of the article which appears in our Berlin contemporary is devoted to the probable causation of the pain and the ocular symptoms which so frequently accompany an acute attack. Spasmodic contraction of the temporal artery was discovered in their own persons by both of the distinguished sufferers, and the almost instant relief afforded when the spasm was overcome by mechanical or medical means was noted in each case. The tendency for the disease to subside as years advance corresponds also to the lessened liability of the arteries to functional disturbance of all kinds. Sir Lauder Brunton's paper covers the whole subject, and may be described as a summary of his long experience, as a physiologist and a physician, of a study to which he has devoted some of the best years of a long life.

AGED AND INFIRM MEMBERS OF APPROVED SOCIETIES.

WE have on several occasions recently called attention to the history of the arrangement which was entered into between the representatives of the British Medical Association and of the friendly societies at the conference held at the Treasury in October, 1911, with regard to attendance on aged and infirm members of those societies. On behalf of the Association it was agreed that the old and disabled members should not be charged any more than insured persons for their medical attendance, although, from a merely business point of view, it is evident that they might well be charged at a much higher rate. It appears, however, that the friendly societies are now trying to evade this obligation, and as this attempt was countenanced by Mr. Masterman in the speech he made in the House of Commons just before the adjournment (SUPPLEMENT to the BRITISH MEDICAL JOURNAL, February 22nd, p. 199), the British Medical Association has thought well to send a reasoned letter to the National Insurance (Joint) Committee, of which Mr. Masterman is chairman, setting out the facts. This letter will be found in the SUPPLEMENT for this week, p. 238.

HOLIDAY MAKERS AND CONVALESCENTS.

A CONFERENCE on the provision of medical attendance for insured persons temporarily absent from the area in which they usually reside was held at the office of the Insurance Commission for England on March 5th. Mr. J. Smith Whitaker presided, and with him was Mr. Schuster and other members of the Commission. In the invitation to attend the meeting it was indicated that though it was recognized that the question is one which affects doctors working under the Insurance Act, more or less, in every area, it was of special difficulty in its effect on those doctors who practised in holiday resorts and those who practised in the large centres from which the holiday makers are drawn. The medical men present were drawn for the most part from these two areas. After various aspects of the question had been put forward by medical men attending the conference, Mr. Schuster made a statement, in the course of which he said that it was not within the scope of the conference to consider the establishment of a fund to meet such cases from any other source than the general fund now allotted for medical attendance. It seemed to be generally agreed that it would be difficult to devise any method to meet the case which did not provide for the payment of medical men in holiday and health resorts for attendances in accordance with a tariff. It was pointed out that a deduction fixed in relation to the length of absence of holiday makers or convalescents from home might operate very much to the disadvantage of the doctors who were working the Insurance Act in the area in which the insured persons commonly resided and earned their living. It was also pointed out that the position of the holiday maker and the convalescent differed materially, and that not only was more consideration due to the latter, but also to his medical attendant. The Commissioners undertook to consider the views expressed, but the net result of the conference would seem to be that the matter, so far as health and holiday resorts on the one hand, and industrial centres on the other are concerned, could only be settled by a financial adjustment between the two groups.

A CENTENARIAN VETERAN.

BY a slip it was said in the article on "Mutiny Veterans," published last week, p. 474-5, that Surgeon-Major Hinton was born three months, instead of two years and three months, before the battle of Waterloo. By a coincidence our correspondent in Adelaide tells us in a private note received this week that Dr. Hinton's friends in South Australia, where he resides, were looking forward to congratulating him on attaining his hundredth year of life this week. We hope that this expectation may have been fulfilled. If so, Dr. Hinton is probably the oldest living member of the British profession, and it may be doubted whether the profession in any other nation can boast a centenarian.

THE Council of the Royal Society has recommended fifteen persons for election as Fellows. Among them are Dr. William Bulloch, Professor of Bacteriology in the University of London, and Bacteriologist to the London Hospital; Dr. T. R. Elliott, Lecturer on Practical Medicine at University College, London; and Professor Arthur Keith, Conservator of the Museum of the Royal College of Surgeons of England.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

RESIGNATION OF MEDICAL STAFF OF NEWCASTLE SANATORIUM.

A VERY unfortunate condition of affairs has arisen at the Royal National Hospital for Consumption for Ireland, which was established near Newcastle, co. Wicklow, in 1896, for the treatment of poor patients suffering from pulmonary consumption in its incipient or early stage. The number of beds has been gradually increased from 24 to over 100. The number of patients treated in 1911 was over 400. The honorary medical staff consists of seven consulting physicians representing the clinical hospitals in Dublin and two visiting physicians who are also physicians to Dublin clinical hospitals; there are in addition two resident medical officers.

In April, 1911, the two visiting physicians were asked to attend a meeting of the board to express their opinion on a proposal to invite an outside medical man to try a special treatment of tuberculosis at the hospital and to place two wards at his disposal for this purpose. The two visiting physicians and one of the consulting physicians, the only medical member of the board present, expressed disapproval of the project, and it was dropped. Six weeks later the board invited the consulting and visiting staff and the resident medical staff to consider whether it was desirable to adopt any special treatment at the hospital, including that referred to at the previous meeting. The whole staff expressed the unanimous opinion that medical treatment was a matter solely for the medical staff, and that in any case it was undesirable, in the interests of the hospital, that methods unproved by scientific research should be adopted.

No further action was taken by the board at the time, but last December the visiting physicians received a letter informing them that the medical man above referred to had been appointed as an additional physician. The visiting physicians brought the letter before a meeting of the honorary medical staff, and the consulting and visiting staff thereupon addressed a letter to the board recapitulating the above facts and resigning their position on the staff. They felt that a slight had been put upon them by the appointment of the additional visiting physician without consultation with the medical staff, and considered that the action of the board made it plain that it was resolved, whenever it pleased, to dictate the medical treatment in the hospital. The staff consented, for the sake of the hospital, to withhold their resignations till the board had had a further opportunity of discussing the matter, and on the invitation of the board a friendly conference was held between four members of the board and four members of the medical staff. As a result, it appeared to be the unanimous opinion that the differences between the board and the staff could, and should, be removed on the following conditions: (*a*) A return to the *status quo ante* December, 1912; (*b*) that the medical staff should for the future be represented on the board by at least two members to be chosen annually by the staff. It was also suggested by the representatives of the board at the conference that in the event of the board assenting to these conditions the medical staff would be prepared to accept the medical man who had been appointed an additional visiting physician as pathologist to the hospital. The medical staff subsequently wrote to the board approving the conditions (*a*) and (*b*), and accepting the suggestion with regard to the change in the nature of the appointment of the additional physician.

On February 21st, however, the medical staff received a letter informing them that the board would not retreat from the position it had taken up in its letter of December, 1912, and that it would not carry out the conditions which had seemed to have the approval of the conference. Accordingly the whole honorary medical staff have finally resigned their connexion with the hospital. The following are the names of the honorary medical staff:

Consulting Physicians.—Wallace Beatty, M.D., F.R.C.P.I., Physician to the Adelaide Hospital; Michael F. Cox, F.C., M.D., F.R.C.P.I., Physician to St. Vincent's Hospital; J. Magee Finny, M.D.Dubl., ex-President Royal College of Physicians, Ireland, Consulting Physician to Sir Patrick Dun's Hospital; John W. Moore, M.D., ex-President Royal College of Physicians, Ireland, Physician to H.M. the King in Ireland, Senior Physician to the Meath Hospital; Joseph O'Carroll, M.D., F.R.C.P.I., Physician to the Richmond Hospital; William J. Thompson, M.D., F.R.C.P.I., Registrar-General for Ireland.

Consulting Surgeon.—William Ireland De Courcy Wheeler, M.D., F.R.C.S.I., Surgeon to Mercer's Hospital.

Visiting Physicians.—Alfred R. Parsons, M.D., F.R.C.P.I., Physician to the Royal City of Dublin Hospital; James B. Coleman, M.D., F.R.C.P.I., Physician to the Richmond Hospital.

CERTIFICATION OF DEATH AND PREMATURE BURIAL.

A meeting was held recently in a committee room of the Royal College of Physicians, Dublin, in order to consider the present system of death certification. The chair was taken by Sir David Harrel, and several Fellows of the Royal College of Physicians and Surgeons were present. Mr. B. R. T. Balfour, D.L., drew attention to a bill which had been introduced in the House of Commons under the name of the Deaths and Burials Bill, and read the memorandum explaining the objects of the bill, which were to provide greater precautions against (1) secret crime, and (2) premature burial. He quoted from the last report of the Registrar-General of Ireland, showing that 22 per cent. of the deaths during the previous three months had not been certified. It was resolved that Mr. Balfour be requested to send a copy of the bill to the Royal College of Physicians and the Royal College of Surgeons, asking the opinion of the Royal Colleges on it.

THE BRAIN OF PRIMITIVE MAN.

On February 28th Professor G. Elliot Smith, in a lecture to the Royal Dublin Society on "The Brain of Primitive Man," said that in discussing the subject of the primitive characteristics of the earliest forms of the human brain thoughts would naturally turn to the great loss which investigators of that class had suffered during the last few years by the death of the man who laid the foundations upon which future investigators would build their knowledge of this subject. He referred, of course, to Professor Cunningham, who was for so many years the Professor of Anatomy in Trinity College, Dublin. The great difficulty in this study was to obtain material. He exhibited a number of slides showing details of the brain development of various types of the human race. After illustrating the difference between the primitive human brain and the highest simian type, he traced the development of the monkey brain from the most elementary mammalian forms. The brain developed under the stress of circumstances, which had made it necessary to use arms, and that led incidentally to the perfect erect attitude and to the adoption of speech. These things did not come first, but followed the expansion of the brain.

ST. PATRICK'S NURSES' HOME.

At the annual public meeting in connexion with St. Patrick's Nurses' Home, Dublin, the Dean of St. Patrick's presided, and the Countess of Aberdeen was present. According to the report, the number of visits paid during the year had increased and amounted to 58,545, and 2,986 new cases had been undertaken, which, with the cases remaining on the books at the end of the previous year, made a total of 3,388. Up to the present, the National Insurance Act had been a source of loss of income to the home, but it was hoped that an arrangement could be made with the societies by which they might employ the nurses so that the home might gain some pecuniary benefit from the nursing of insured persons. Dr. Ninian Falkiner spoke from experience of the benefit to the poor of the district nursing system. It was established in 1877, and in 1889 the dispensary doctors began to send cases to the nurses. The statistics of the Dublin death-rate showed that the district nurses had something to do with the greater reduction of the rate during the period from 1889 to 1912 than during the preceding period. Another speaker pointed out that there were three points in favour of the institution: first, the nurses taught sanitation to the poor whom they visited; secondly, the system prevented the homes of the poor from being broken up; and, thirdly, the sick poor had in their homes some of the care and attention that they received in hospitals.

TYPHUS FEVER IN DUBLIN.

Early last week a notice appeared in the daily press that there was an outbreak of typhus fever in the north side of Dublin. But since then Dr. Russell, assistant medical superintendent officer of health, stated that there was no need for alarm or fear of an epidemic. There had been no case, he said, since January 25th, when there were 5 cases in a poor slum quarter at Summerhill. There had been no death, and the precautions then taken were so effective that no case had occurred there since. Three typhus patients in the North Dublin Union had been removed to the Hardwicke Hospital.

OVERCROWDING AND ENTERIC FEVER IN AN ASYLUM.

The resident medical superintendent of the Ballinasloe Asylum informed the Committee of Management at its last meeting that the institution was overcrowded to the extent of 247 patients. There were, he said, three ways by which a remedy might be found—to take over a workhouse as an auxiliary asylum: to board out a certain number of the lunatics in a workhouse and pay a certain sum for them; to erect new buildings. The committee decided to make inquiries as to any local workhouse that might be available. At the same meeting the medical superintendent reported that there had been 15 cases of enteric fever in the institution, and that 1 death had occurred during the month. In such circumstances it would seem that the overcrowding calls for immediate remedy.

MEDICAL CERTIFICATES.

At a special meeting of the doctors of North Tipperary, held in Roscrea to consider the question of medical certificates in connexion with the working of the Insurance Act, the following resolutions were passed unanimously:

1. That we, the North Tipperary Medical Committee, comprising every medical man practising in the county, seeing that the health societies are seeking to obtain certificates of illness from clergymen, magistrates, and others, in order to save the expense of medical certificates, for which provision in money has been made by Parliament, hereby direct our Honorary Secretary to send notice to all health societies having existence in North Tipperary that we will withdraw our offer of granting medical certificates at the small charge of 2s. 6d. per certificate (payable by the societies, not by the insured persons), unless medical certificates are required in all cases of illness attended by medical men, and will in future charge a full fee of £1 1s. if only called on to certify where the present methods of the societies break down.
2. That we tender our thanks to the clergy and magistrates generally of the county who, with so few exceptions, have refused to interfere with our patients or to sign certificates for them in medical matters.

At a meeting of the medical practitioners of co. Wexford, held recently at Enniscorthy, the following resolution was passed:

That we give notice to the various societies that the medical men of co. Wexford will not give any certificates under the National Insurance Act pending the arrangement of a reasonable fee with the Insurance Commission.

ROYAL HOSPITAL FOR INCURABLES, DUBLIN.

The Royal Hospital for Incurables in Dublin has been in existence since 1743. It is non-sectarian and non-political, and is supported by voluntary contributions. The patients, who come from all parts of Ireland, pay nothing. There were 209 patients in the hospital at the commencement of the year. During the year 158 candidates applied for admission, all duly certified as incurable and in poor and necessitous circumstances. Of these only 47 were successful in obtaining admission, and the Managing Committee has decided to erect two new wings, increasing the number of beds from 213 to 248. It is to be hoped that the charitable public will respond in such a manner as to allow this much-needed extension to be carried into effect without delay.

WORK DONE BY NURSES IN IRELAND.

Some idea of the amount of work done by nurses for the poor in Ireland may be gained from recent reports. A report read at the annual meeting of the Sligo District Nursing Association showed that 720 cases had been attended by the nurse during the year, and 5,696 visits paid. The total number of hours she was on duty during the year was 1,937. At the last monthly meeting of the St. Patrick's Nurses' Home it was reported that 531 cases were nursed, 233 new cases undertaken, and 4,531 visits paid during the month.

PRESENTION TO DR. GEORGE SIGERSON.

Last week, in the rooms of the National Literary Society, Dublin, Dr. George Sigerson was presented with a portrait of himself painted by Mr. Joseph Lavery. Dr. Sigerson has been President of the National Literary Society since its foundation twenty years ago. The Right Hon. M. F. Cox, M.D., performed the ceremony of unveiling the portrait, and made a suitable reference to Dr. Sigerson's work and career in Dublin.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

MEDICAL INSPECTION IN SCHOOLS IN SCOTLAND.

ON March 1st appeared the first report on the medical inspection of school children in Scotland: it contains about a hundred pages, and has been drawn up by Dr. Leslie Mackenzie, medical member of the Local Government Board. The report is founded largely on the information furnished by the school medical officers for the year 1911. There are a number of matters which make Dr. Mackenzie's report most interesting. For instance, it is now proved beyond a doubt that the gloomy forecast based on the investigations made by the Royal Commission on Physical Training (Scotland) was no exaggerated alarmist statement, but sober inference from facts. Medical inspection has not only revealed actual disease, but has also shown that in thousands of cases diseased conditions have been permitted to develop which, if taken in hand at earlier stages, could have been prevented. Thus, through inspection, the opportunities of prevention have clearly been pointed out: and in many cases the revelation of the facts has been followed by treatment, although much still remains to be done. The service of nurses which has been set up in some places should be extended, the following up of cases should be more complete, and the necessity for school clinics has become still more evident. Meanwhile, the teaching of hygiene goes on, and has already done much good. It can hardly be doubted that in a few years school boards will be doing much more than educating the children in the ordinary sense of the word; they will also be playing a powerful part in securing the health and strength of the future generation of citizens.

INDIAN STUDENTS AT EDINBURGH UNIVERSITY.

On February 25th the rooms of the Edinburgh Indian Association at 11, George Square, were formally opened by Principal Sir William Turner. The association was founded as far back as 1883, and in 1902 efforts began to be made to establish a club for Indian students. Some money was obtained, and the amount was increased by the Indian fair held in 1907 and in other ways until a total of over £5,000 was reached. About three years ago the present house, adjacent to the medical buildings, was got at a reduced rent from Dr. Barbour. There are three stories and a basement, with reading, writing, smoking, and billiard rooms, and a bedroom for any new-comer who has not found lodgings. Sir William Turner referred to the fact that there are more than two hundred Indian students attending the university, and to the need which existed, therefore, for some such building as that which he was declaring open. The Indian students formed a family in the university; they were also citizens of a metropolis. The Principal was then honoured by being garlanded in Indian fashion by the president of the association, Mr. B. P. B. Naidu.

ROYAL PHYSICAL SOCIETY.

At a meeting of the Royal Physical Society on February 24th Dr. W. E. Agar brought forward facts bearing upon the transmission of environmental effects. If one of the *Cladocera*, a group of crustacea including the water-fleas, was placed under certain abnormal conditions changes took place in its structural features, and if it were removed again to normal conditions its offspring exhibited the same

peculiarities as it had acquired, and even the offspring's offspring showed them, although in a much slighter degree. The next generation, however, showed a marked reaction in the opposite direction. It was suggested that the apparent "inheritance" of the acquired character was due really to the passive transference of a toxin-like body and the later production of an antitoxin. Principal J. Yule Mackay, of Dundee, at the same meeting exhibited some ancient Peruvian skulls showing curious deformities which he judged to be due to the use of the portable cradle by the aboriginal tribes.

ROYAL VICTORIA HOSPITAL FOR CONSUMPTION.

The report presented to the annual meeting of the Royal Victoria Hospital for Consumption, Edinburgh, when the President (Sir Alexander Christison) was in the chair, pointed out that

It would be a great mistake to suppose that, because of the provisions of the Insurance Act, everything has been accomplished in relation to the prevention and treatment of the disease, and that the need for voluntary effort has ceased. Contrariwise, the claims of the consumptive poor are only beginning to be realized and understood. The treatment of insured persons affected by tuberculosis—even if we include the treatment of their dependants—covers a small portion of the field only. This is little more than the fringe of the subject. The problem of prevention before the nation is immensely wider. The effective solution will only be achieved by a close and harmonious co-operation between all the agencies, official and voluntary, which can be pressed into a concerted, intelligent service.

Up to date, 2,085 resident patients had been under treatment in the hospital. To this number must be added 329 patients who had attended the hospital daily as "visitants." The farm colony was proving successful from an economical point of view, and since the date of opening to the end of the period dealt with in the report, 50 patients had been transferred from the hospital to the colony. Up to March 31st, 1912, 23,118 individual cases had received treatment at the dispensary. Sir Robert W. Philip stated, in reply to a question, that the hospital was in communication with the Public Health Committee of the city and with the Insurance Committee, and a conference would probably take place at an early date.

WOMEN'S FIRST AID CORPS INSPECTION.

The annual inspection of the Scottish Women's First Aid Corps took place on February 26th, in the hall of the 6th Royal Scots, Edinburgh. Several members of the medical profession were present, including Colonel Arnott, Dr. Boyd Jamieson, Dr. Morrison McIntosh, Dr. Cattanach, and others. About eighty members of the corps were on parade; stretcher drill, semaphore signalling with flags, and the first aid to wounded soldiers (impersonated by boy scouts and other schoolboys) were tested. The inspecting officer, Sir Joseph Fayrer, Bart., M.D., K.C.S.I. (honorary surgeon of the corps), expressed his satisfaction with the inspection and congratulated the corps and its commandant (Mrs. Maxtone Graham). He said that in first-aid work simplicity and common sense must go together. A little knowledge was a dangerous thing, it had been stated; but in first-aid work a little knowledge simply applied with common sense might be, and often had been, the means of saving valuable lives.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

TUBERCULOSIS TREATMENT IN MIDDLESEX.

THE Local Government Board has signified its approval of a scheme prepared by the Middlesex County Council for the treatment of tuberculosis. The Public Health Committee reported to the Council on February 27th that, the sum available for general tuberculosis treatment having been reduced in consequence of the decision of the Government to earmark 6d. per insured person in respect of remuneration to general practitioners for domiciliary treatment, only 350 instead of 450 beds could be provided in hospitals and sanatoriums. The Council should let it be clearly understood that no further beds would be provided until an increased grant from the Exchequer was assured.

The Council approved this report, and authorized the Public Health Committee to appoint five tuberculosis officers at a salary of £500 a year each, and two assistant tuberculosis officers at £300 a year each, and to make arrangements for obtaining premises in various parts of the county suitable for dispensaries.

LONDON COUNTY COUNCIL.

Further Provision for Tuberculosis Treatment.

The London Insurance Committee having asked that accommodation may be found for 200 tuberculous cases, in addition to the 300 already provided for at the Downs Sanatorium, the Public Health Committtee reported to the London County Council on March 4th that arrangements had been made with the Metropolitan Asylums Board for the reception of 100 women patients and 100 observation and educational cases at the Northern Hospital, Winchmore Hill. The first patients were received there on March 3rd.

Lunacy Statistics.

The Asylums Committee reported that a summary of the returns furnished by the clerks to the London boards of guardians showed that on January 1st, 1913, the total number of lunatics under certificate in London county asylums, or in other public asylums under contract with the boards of guardians, and of lunatics in workhouses or with relatives or friends was 28,638. This figure, compared with a total of 28,011 on January 1st, 1912, gave an increase of 627, the largest recorded since 1909. The last previous increase which exceeded this figure was 767 on January 1st, 1905. The average annual increase for the last twenty-three years had been 533. Of the total of 28,638, the number of lunatics for whom the county of London was responsible to find accommodation was 20,931. This gave an increase of 502 over the corresponding figure for the previous year, and was the largest increase since 1905.

Effects of Changes in Poor Law Administration.

The census of homeless persons taken every year in London, on a night in February, this year showed a total of 649, which was fewer by 554 than that for 1912, and the lowest recorded. This was accompanied by a fall of 973 in the number of inmates of common lodging houses. The Public Health Committee, reporting to the London County Council on the matter on March 4th, expressed the opinion that this remarkable result pointed to the fact that, in addition to changes in the administration of the Poor Law, there were other unrecognized forces exercising a determining influence on those sections of the community. The committee noted that although the Metropolitan Casual Paupers Order, 1911, had brought about a considerable reduction in the number of persons resorting to casual wards in London, there had not been any increase in the number of vagrants in casual wards in areas adjoining the county of London.

BIRMINGHAM.

THE BIRMINGHAM HEALTH INSURANCE PHARMACOPOEIA.

A SERIOUS item in the large amount of clerical work which must be done by medical practitioners under the Insurance Act is the writing of a prescription on every occasion when medicine is ordered, even if only a repetition of what has been taken before, so that the insured person may be free to obtain the medicine from any pharmacist on the panel. Obviously, this work can be much lightened by greatly increasing the number of preparations of various sorts that can be ordered by a single name instead of by writing the full formula, and for this a comprehensive formulary analogous to the pharmacopoeias of the various hospitals is required. Since the amount of public money available for drugs under the Act is very limited, another useful object to be served by such formularies is the substitution of less expensive for more expensive preparations wherever the therapeutical effect is not sacrificed by so doing, and the reduction to a minimum of expensive ingredients, like alcohol, when only used as solvents.

The formulary of the *British Pharmaceutical Codex* contains a large number of prescriptions for mixtures, etc., but it was compiled before the passing of the Act, and evidently without any special regard to cost of ingredients. At present, therefore, we see the production of various local formularies which may perhaps some day be merged in a national one. We have recently received from Dr. E. Osborne, Honorary Secretary of the Birmingham Medical Committee, a copy of the *Birmingham Health Insurance Pharmacopœia*, 1913 (price 2s. 6d.), which has been compiled by the Medical Committee with the co-operation of the Midland Pharmaceutical Committee. It contains about a hundred and twenty formulæ for mixtures, pills, lotions, etc., representing all the most frequently required combinations; some of these are *Codex* formulæ, and are not given in full but indicated by the letters *B.P.C.*; other formulæ are given fully. With a view to further reducing the clerical work in prescribing every formula is numbered, so that it may be ordered by number instead of by name if desired. The reduction of cost does not appear to have been closely studied in some cases, spirit of chloroform being frequently ordered where the equivalent of chloroform water might be used, and tinctures being rather much in evidence. A note at the beginning invites suggestions for alterations and additions for the next edition; it is, of course, inevitable that a first issue of such a formulary should be in some degree tentative, but there is no doubt that the Birmingham Medical Committee has produced a very useful little book.

Infants' Health Society.

The fifth annual report of the Birmingham Infants' Health Society and School of Mothercraft states that 429 women with infants attended the consultations. During 1912 there were 2,373 attendances, as against 2,249 in 1911, 1,296 in 1910, 1,021 in 1909, and 850 in 1908. The average attendance at each consultation in 1912 was over 50. Of the 554 infants registered 22 were lost sight of and 13 died before reaching the age of 12 months. Of the 342 newly-registered in 1912, 240 (or 70.1 per cent.) were being wholly fed on the breast at the time of registration. In 1908 the percentage was 63.3, in 1909 it was 68.8, in 1910 it was 66.8, and in 1911 it was 63.1. In 1912 the average weight of the breast-fed infants at 12 months old was 19 lb., and of the bottle-fed infants only 17 lb. 14 oz. The average weight of all infants, irrespective of feeding, was 18 lb. 11¼ oz. This weight is a marked advance on that of preceding years, and it is probable that the boom in work and wages in the past twelve months has been reacting on the infants. Probably the somewhat higher percentage of breast-feeding during the past year, and the efforts of the society to produce a greater care in feeding and a higher standard of motherhood, have had some substantial share in bringing about the result.

BRISTOL.

The Royal Infirmary.

The annual meeting of the subscribers to the Royal Infirmary was held on February 25th, under the presidency of Sir George White, who said that the past year had been very memorable for the institution because of the great increase in the scope of work and the addition of the new wing and alteration to the nurses' home, and, further, by a royal visit. In respect to financial matters the year had been most gratifying, for the list of subscribers had increased to 3,587, and subscriptions by nearly £300. The only item that showed a decrease was the contributions from the employees, which had diminished by about £100, at which he expressed surprise. To provide for the new buildings and the increased accommodation for nurses very large sums had been drawn from investments, and he hoped that the public would respond to the appeal for funds. The total ordinary expenditure exceeded the ordinary income by a sum of from £4,000 to £5,000. The committee in conference with the honorary staff decided not to follow the example of those hospitals which had framed new rules with regard to insured persons, and the doors of the institution would be open as before to all. During the past year the number of in-patients was 5,049, and out-patients 53,923. The usual votes of thanks were passed. Mr. J. Paul Bush, C.M.G., having retired from the active staff after thirty-seven years' service, was elected an honorary consulting surgeon.

On February 24th Mr. Bush was entertained by his old dressers and residents at St. Stephen's Restaurant at dinner, and presented with a handsome piece of plate.

Special Correspondence.

PARIS.

Causes of Arterio-sclerosis.—Arsenic and Treatment of Chorea.—Radium as a Therapeutic Agent.

At a recent meeting of the Hospitals Medical Society Dr. Pissavy discussed the etiology of arterio-sclerosis in the light of the history of 400 cases. Only 5 per cent. of the total cases occurred between the ages of 20 and 40. The disorder was more frequent in men than in women—in the ratio of 6 men to 1 woman. Among the etiological factors he cited syphilis, alcoholism, plumbism, malaria, and tobacco poisoning; together they accounted for 89 per cent. of all cases of arterio-sclerosis. Syphilis accounts for only 13 per cent., and Dr. Pissavy believed that the importance of syphilis as the prime causal factor of arterio-sclerosis had been greatly over-estimated.

At the same meeting Dr. Triboulet discussed the use of arsenic in the treatment of chorea in children. He believed that it was an empirical remedy, and reported 350 cases of chorea, 335 of which had been treated successfully by hygiene and rest without the administration of any drug. Arsenic, even in small doses, might give rise to toxic symptoms, and thus tend rather to delay than to hasten the cure. In Triboulet's opinion chorea was best treated without arsenic, as patients usually recovered without the aid of drugs.

Professor Dominici, in a recent communication to the Academy of Medicine on the therapeutic value of radium in various tumours, thought that it was most useful as a curative agent in deep-seated angiomata and in superficial cancer. He had noted complete clinical cure of some deep-seated cancers of the parotid, neck, and uterus maintained after three to four years.

Correspondence.

DIVISIONS AND INSURANCE AREAS.

SIR,—In last week's SUPPLEMENT (p. 219) you published a letter of mine in which I referred to the necessity for a rearrangement of our Divisions and Branches, and I suggested that the only practicable plan was to make them coterminous with the areas of the Insurance Committees. Our existing Branches grew up around the towns where corporate medical life was most active; as medico-political work became more necessary, it was found that the constitution of the Association was not adapted to the work, and among other reforms the Branches were broken up into Divisions; these were planned largely with a view to convenience of meeting, but of late years our political work has brought us more and more into contact or conflict with those local authorities that in one way or another deal with affairs of public health, and these authorities represent the counties or county boroughs. It has been evident for some time that our Divisions are not convenient for this work, and to meet the difficulty joint committees of Divisions have often had to be formed.

The advent of the Insurance Act made it imperative to form Provisional Medical Committees for the areas of the Insurance Committees, and local medical unions were in many instances formed for these districts, but the machinery of the Association was not easily adapted to this arrangement, and in many instances the recognized Divisions and Branches have, as far as the Insurance Act is concerned, done practically nothing. In considering any scheme we must remember that convenience of meeting is very different from what it was even thirteen years ago—in the country districts motor cars have made medical

men to a large extent independent of train services, and the latter, too, are much improved of late years.

As to the work of the Divisions, it is important that the members of any one Division should have a common interest in it, and the conditions of practice and the requirements of medical men in the large towns are so different from those of men living in the country areas that, apart from other considerations, it seems at once evident that the natural divisions for political work should be counties and county boroughs; a short experience has shown that these are the most useful, and that the corresponding medical unions are the most effective organizations. It is, for obvious reasons, most essential that all these local organizations should be worked together under the British Medical Association, and I would suggest that our Divisions and Branches be rearranged, without any consideration of existing Divisions, so as to correspond to the insurance districts. Some of these districts will naturally form complete Branches, but in the great majority of cases insurance areas may conveniently be the areas for Divisions, and the county borough Divisions could combine with their respective county Divisions to form Branches, so that they would not be divorced from one another. This is important, on account of the scientific work, for the best conduct of which it is almost essential that country and town should co-operate—in fact, in some districts, in order that scientific work might be advanced or, at any rate, not interfered with, it might be necessary for special arrangements to be made, but there need be no difficulty about this.

The exact grouping of Divisions can only be considered by the appropriate committee and in committee, but whatever is done I hope it will be begun soon and in earnest. With a better organization, a more convenient arrangement of our working units, I believe that our strength and usefulness would be greatly increased, and if the various local medical unions which would practically constitute our Divisions so desired they could form themselves into trade unions, and so, if it should be generally desired, bring about by an easy process the change that many consider to be so essential to our constitution.—I am, etc.,

Bradford-on-Avon, March 2nd. CHARLES FLEMMING.

THE ETIOLOGY OF PUERPERAL FEVER.

SIR,—I was much gratified to read your impartial criticism of my book, *Statistics of Puerperal Fever and Allied Diseases*, which appeared on December 14th, 1912. Your reviewer evidently studied carefully my figures, and treated them on their merits, and his criticisms prove him to be master of his subject, and show his appreciation of the difficulties involved in any attempt to obtain reliable data upon which to base conclusions liable to be affected by many conflicting conditions. His criticism was chiefly directed against my deductions from the effect of the coal strike last March upon the statistics of puerperal notifications for that month, and I welcome his criticism, since it gives me an opportunity of stating the exact figures upon which my summary was based, figures withheld lest I might overburden the text with details, although a detailed analysis accentuates their significance, a significance I am anxious that your readers should have an opportunity of appreciating.

In brief, I contend (*a*) that puerperal fever is caused generally by septic material conveyed through the medium of those conducting the labour. (*b*) That this septic material is as often conveyed by medical practitioners as by midwives. (*c*) That the source of the septic material is septic wounds, which general practitioners in industrial districts are called upon to dress almost every day. The most common cause of septic wounds is accidental wounds, and it follows therefore that where accidents abound there also will be found septic wounds in abundance, and therefore puerperal fever.

I venture to think most impartial critics will admit that my statistics go far to prove my thesis, and I must refer them to the book for confirmation of this assertion.

Meantime let us confine ourselves to the point raised by your reviewer—namely, the significance of the figures in reference to the coal strike. He writes:

> Thus he finds that, whereas the average number of cases of puerperal fever notified in the month of March for over a period of ten years was 4, only 2 such cases were notified in that month of the present year. This is a result Dr. Geddes is disposed to attribute to the diminution of accidents consequent upon the coal strike. The attribution may be correct, but if in a series of ten months 40 cases of disease occur, and if the distribution in months of the series be a random one, the chance is about 1 in 5 that we shall find 2 or less cases in a month.

Let me say at once that if this was the only significant factor brought out by the figures for the month of March your reviewer's criticism would be fatal to my thesis. But it constitutes only an insignificant straw which indicates the direction in which the wind blows. The significance of the whole wind current will be appreciated from the following table, which calls for explanation. After reading your review and referring to the original documents upon which my summary was based, I thought they were capable of being misconstrued, and appealed to Dr. Sergeant for enlightenment, and discovered that the figures for March only included cases notified, while those for April included cases notified and also cases that had died although not notified. This discovery explains the figures shown in brackets, and they represent the corrected figures after including fatal cases not notified, the existence of which was only ascertained by reference to the records of the registrars of deaths. My insistence on this ugly feature of puerperal notification shocked one of my reviewers. A perusal of the table fully justifies my censure.

I refer the reader to columns 11 and 12. Notice that the figures for 1912 in mining districts are the only figures below the average for the ten years. In all the other districts the figures in column 12 are equal to or above the average. This peculiarity is even more apparent in column 14, where the total for the two months of 1912 are compared with the figures for the same two months for the previous ten years. The total figures for all the districts reach the average for the ten years, and the figures for mining districts are the only figures below the average. I need not labour the point.

Now, what theory other than the one advanced by me will explain this coincidence? If my critics will not admit my deductions, I may reasonably challenge them to suggest an alternative explanation that will explain the facts. Your reviewer suggests that "the age constitution of the married population may vary considerably, and it is not impossible that the age of a parturient is

Cases of Puerperal Fever Notified or Reported.

Columns	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Years	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1902–1911	1912	Total cases of puerperal fever for March and April. 1902–1911	1912
Mining districts	4	10 (11)	3	3	2	3	2 (3)	4	3	3	40 (42)	2 (3)	84	6
Manufacturing districts ...	4 (5)	4	7	5 (6)	9 (10)	4	5	11	6	6	61 (64)	6	108	10
Mixed districts	4	1	1 (2)	1	3	2	3	3	2	5	25 (26)	3	47	4
Residential districts ...	1	1 (2)	1	1	0	0	1 (2)	0	0	0	5 (7)	2	16	3
Rural districts	0	1 (2)	0	1	0	1 (2)	1	1	0	1	6 (8)	1	21	4
Totals	13 (14)	17 (20)	15 (16)	11 (12)	14 (15)	10 (11)	12 (14)	19	11	15	137 (147)	14 (15)	276	27

a factor of some importance in relation to the etiology of puerperal fever." I have been unable to find any authority who suggests age as a factor in the causation of puerperal sepsis. If your reviewer will indicate at what age a parturient is liable to become infected I will gladly investigate the point. I intend to pursue my research, and will welcome the co-operation of any one interested in the subject. Being a general practitioner myself, I am in a position to appreciate the difficulties under which we labour, and I am convinced we must be held responsible for the deplorable and avoidable mortality from this disease.

I chose Lancashire as my field, being familiar with the county, and I have embodied in the appendix the results of my labours in the classification of registration districts and corresponding sanitary areas, which will enable the merest tyro to test the accuracy of my figures for each district.

My book was written as an appeal to my fellow-practitioners, who I confidently hope will respond, each in the county or district with which he is familiar, and I feel sure he will be amply rewarded.

No single individual could do justice to the statistics of every district in every county of Great Britain in the same manner as I arranged Lancashire, but from the knowledge gained by a cursory examination of the districts outside Lancashire, including several Scottish and Welsh counties and boroughs, I feel certain they could all show similar results to those obtained by a classification of the districts arranged in the same classes as those in Lancashire. Derbyshire, for example, should prove a fertile field for research, and I shall be delighted to proffer any assistance in my power to any one inclined to undertake the task.

I would refer the reader to your advertisement columns, page 6, for information as to the scope of the book and the press notices.—I am, etc.,

Heywood, Lancs., Feb. 24th. GEORGE GEDDES, M.D.

THE TEMPERATURE IN CHILDREN OF SCHOOL AGE.

SIR,—In the report, for 1911, of the Chief Medical Officer to the Board of Education, on p. 58, a reference occurs to an investigation of mine into the temperatures of school children. Sir George Newman expresses the hope that other investigations will be made on the same lines. He quotes my statement that "the maximum percentage is that of children exhibiting a temperature of 100°, . . . and 55.5 per cent. have temperatures not under 99.6°."

In your issue for February 8th Mr. E. C. Hort[1] states that "whenever continued fever occurs we may be almost certain that an infective process is at work." The fever I described is a condition which I am now showing persists over years.[2] Hence it would appear that Sir George Newman is outlining medical investigations of considerable importance.

But in order that the results of such investigations may be comparable, and accurate, care must be taken in the technique, and the methods used must be identical. One investigation has already been made on dissimilar lines, with dissimilar results.

The popular idea that the "half-minute" thermometer will record, in two or three minutes, the body temperature, when placed in the mouth, is a delusion. If the mouth has not been kept shut, the temperature of the interior of the mouth is not the temperature of the body, but less. If the room is cold, and the child's cheeks thin, there is so much heat lost through the cheeks that even keeping the thermometer *in situ* for fifteen minutes may not give a correct result.

I much hope that other school inspectors will follow Sir George Newman's suggestion, and I therefore venture to give the lines on which we have worked:

1. The temperature of the room in which the temperatures are taken must be not less than 56° F., preferably about 60° F.

2. The thermometer should be placed in the mouth, with the bulb under the tongue, as far back in the mouth as possible. The end of the thermometer which is not in the mouth should point upwards.

3. The thermometer should remain in position at least ten minutes.

4. The children should be watched to see that they keep the lips closed.

5. The observations should be made between the hours of 10 a.m. and 4 p.m., and should not be within half an hour after a meal, nor immediately after exercise.

6. The thermometer must be Kew-certified.—I am, etc.,

Colwall, Malvern, Feb. 13th. MARY HAMILTON WILLIAMS.

[1] Vaccines and Fever.

[2] Details and mathematical proofs will shortly appear in an Eugenics Laboratory memoir.

ACUTE PNEUMONIA DURING TREATMENT WITH ARSENIC.

SIR,—Dr. Parkes Weber's paper is very valuable in that it draws attention to the effect of arsenic on the respiratory tract.

For some years I have made it a rule to stop arsenical treatment as soon as there is evidence of respiratory catarrh. Sooner or later, generally the former, a patient under treatment with arsenic begins to cough, and expectorates a gelatinous mucus.

I believe this symptom, in the majority of cases, precedes neuritis and herpes. It is a warning signal. And whether arsenic is being used as a diagnostic aid in lymphadenoma, or for the treatment of any of the unravelled diseases, I am at present persuaded that the onset of respiratory catarrh is the time to stop the administration of arsenic. The good to be derived from it has by this time been obtained, and persistence in its use, without a pause, is to court danger.

I have found no special mention in textbooks of the effect of arsenic on the deeper parts of the respiratory tract—the bronchial tubes and possibly the alveoli—(I may not have read wide enough) and Dr. Parkes Weber has done a service in reading out to us a disregarded page of the book of clinical medicine.—I am, etc.,

S. M. HEBBLETHWAITE, M.D.Lond., M.R.C.P.

Cheltenham, Feb. 18th.

THE AFTER-EFFECTS OF GASTRO-ENTEROSTOMY.

SIR,—The report of the discussion on the after-effects of gastro-enterostomy, at the Surgical Section of the Royal Society of Medicine, in your issue of February 22nd, p. 392, and the paper by Mr. A. W. Bourne in that of March 1st, p. 438, give cause for serious inquiry into this subject.

These communications tend to shake the confidence of the average surgeon and the profession generally in the efficacy of the operation of gastro-enterostomy, and I do not think they should be allowed to pass without comment.

During the past fortnight I have communicated with all patients on whom gastro-enterostomy was performed during the year 1909 and during the past twelve months, with the exception of malignant cases and, of course, of those who died immediately after operation. Previous to 1909 I consider that my operative procedure in these cases was imperfect, hence I think it would serve no good purpose to go back further than that year, but the cases done in 1909 may reasonably enough be looked upon as providing "late" results, while those of the last twelve months provide "immediate" effects. Mr. Bourne's statistics must, of course, be judged from the same standpoint, but at the same time it does not appear from his paper that the technique pursued at St. Mary's Hospital has been altered since 1910. I communicated with 61 patients and received replies from 53. Six of the remaining 8 had, in the language of the Post Office, "gone and left no address." Of the 53 remaining, 50 declared themselves to be absolutely free from symptoms which had existed previous to operation, and, further, that none of the symptoms detailed by Dr. Hertz, who introduced the discussion at the Royal Society of Medicine, were present. Of the 3 cases who had complaints, the operation in 1 was done in 1909. This patient states that, while she is relieved of her stomach symptoms, she has a discharge from the bowel and a swelling in the left iliac region. She is known to be an alcoholic. So far as I can make out her symptoms are due to meso-sigmoid adhesions and accompanying colitis. Of the 2 cases in 1912, 1 complains of occasional "bilious attacks," but is otherwise well, and the other, who had possibly carcinomatous ulcer which could not be excised, states abruptly that he is not improved and suffers from "pain in the stomach, swelling, cough"!

This gives 5.7 per cent. which are not entirely relieved. Such after-results can surely be due only to the technique of the operative procedure adopted!

In a paper published in the *Lancet* (December 3rd, 1910, p. 1610) I drew attention to the principles on which I considered a proper operative procedure should be based, and the only modification of that procedure which I now adopt is the excision of every ulcer, when practicable. To recapitulate shortly, I consider that the following are the most important points to attend to: (*a*) The position; and (*b*) direction of the opening in the stomach (as near the pylorus as possible without causing angulation of the small intestine proximal or distal to the stoma); (*c*) the size of the opening (I make the opening in the stomach from the lesser to the greater curvature); and (*d*) the treatment of any extragastric abnormality which might possibly have a deleterious reflex action on gastric function. It will be seen that rapid drainage of the stomach is less aimed at than an attempt to make the post-operative conditions conform to normal function. As indicated in my paper referred to, even in so-called atonic stomachs the tone can be restored by appropriate after-treatment, while I find, further, that cases of normal acidity do as well as those with hyperacidity, and cases where no evidence of present or previous ulcer is found do as well as cases where such conditions are present.

I believe still what I have previously said, that the motor and secretory functions of the cardiac and pyloric parts of the stomach are distinct in action, there being a saccular cardiac portion and a tubular pyloric portion during digestion, which are more distinctly marked the more normal the stomach. The commencement of the pyloric tubular portion is indicated by what I have termed, for the sake of brevity, the "middle sphincter." One should appreciate, in the performance of gastro-enterostomy, the effects of the tonicity of the pyloric tube and place the stoma somewhere in it.

Dr. A. F. Hertz gives details of "certain unfavourable after-effects" in "many patients" subjected to gastro-enterostomy and afterwards investigated by him. Dr. Hertz (*Lancet*, December, 1910) criticized very adversely my interpretation of the motor and secretory functions of the stomach on which I base my operative procedures. The results I now publish appear to confirm strongly my interpretation, and should, I think, lead Dr. Hertz to modify the adverse views he then put forward.—I am, etc.,

Aberdeen, March 3rd. H. M. W. GRAY.

P.S.—Since writing the above, three more replies have arrived. All the patients express themselves as entirely relieved by the operation. This gives approximately 95.5 per cent. of my series who are entirely relieved.

IMMEDIATE OPERATION IN APPENDICITIS.

SIR,—I should not have ventured to communicate with you further in this matter had it not been that you mentioned some figures of mine in a leading article on February 22nd.

As a matter of fact, your quotation was not quite accurate, for I have operated on 173 cases of acute appendicitis with limited infection, with a mortality of 2.3 per cent. There are, however, other figures available which abundantly prove, at all events, the comparative safety of operating in the early stages of appendicitis, and if we take those published by my friend and colleague Mr. Richardson,[1] and my friend Mr. Burgess,[2] and add them to my own, we obtain a total of 464 cases with 6 deaths, or a mortality of only 1.3 per cent. Since his last communication to your journal, Mr. Burgess has operated on a further series of cases, and he tells me that he has now brought his mortality down for cases operated upon in this early stage to 0.55 per cent.

You state in your article that some of Sir George Beatson's patients were suffering from localized abscesses, whereas the figures that I have just quoted refer to cases in a much earlier stage. I have operated upon 184 cases of primary localized appendix abscess with 6 deaths, or a mortality of 3.26 per cent. If these are added to the series with limited but not localized infection we have 357 with 9 deaths, or a mortality of 2.5 per cent.

[1] BRITISH MEDICAL JOURNAL, September 28th, 1912.
[2] Ibid., February 24th, 1912.

The object of my present communication is to suggest that the time has arrived when we should find out the true mortality of *all* cases of appendicitis whatever the stage, and if those who countenance the delayed operation can then show a lesser mortality than those of us who believe in operating in practically every case we may have some grounds for altering our practice. The figures published as yet, with which I am familiar, are all in favour of the earliest possible operation.

Up to the end of last year I had operated on 681 cases of appendicitis of all varieties, with a mortality of 5.13 per cent., and during last year I operated in all on 118 cases with a mortality of 1.7 per cent.

I should feel that an apology were necessary for quoting all these figures were it not that the public, I am afraid sometimes guided by the profession, are only too ready to seize on any excuse for delaying operation, and we have found in this district that the views from time to time expressed in favour of a delayed operation have tended to do considerable harm. It is encouraging to note that the general tendency is in the opposite direction, for I find that cases come to hospital earlier and earlier each year and that the mortality from appendicitis is steadily diminishing—in my own series from 12.5 per cent. to 1.7 per cent.—and the figures of our infirmary show that the mortality has been exactly halved during the last ten years.—I am, etc.,

Newcastle-on-Tyne, Feb. 26th. G. GREY TURNER.

SIR,—I cordially agree with Mr. Edmund Owen's plea for immediate operation. To diagnose appendicitis is easy; to allocate the exact position of the appendix is generally possible, but neither skill nor experience infallibly indicate the subsiding appendix.

The difficulty lies in the fact that the same train of symptoms indicate a healing lesion or mask a gangrenous perforation; in many cases it is not possible to decide, even after a considerable experience, between these diverging alternatives.

The prognosis and the course of the disease is largely influenced by the anatomical position of the organ and the virulence of the organisms which attack it. If the appendix lies behind the caecum, the most devastating changes may go on without much outward and visible sign; but, in the case of an organ lying free among the intestines, the course is more rapid, the symptoms are more intense, and the need for treatment is more urgent.

The risk of operating on an acute appendix is very slight, but that of watching it is hardly so.—I am, etc.,

Birmingham, March 4th. E. MUSGRAVE WOODMAN.

OPERATIONS ON CHILDREN IN THE OUT-PATIENT DEPARTMENT.

SIR,—I was interested in Mr. Nicoll's paper and Mr. Andrew Fullerton's letter. I was for several years in charge of a large out-patient department of a dispensary. As we had no beds, only two courses were open to me: either to operate on the children myself, and send them home, or else send the case direct to the hospital. I chose the former, gradually increasing the scope of my operations from adenoids and tonsils, naevi, dermoid cysts, harelip, etc., to hydrocele, hernia, torticollis, tenotomy, etc. I operated on one boy 6 years old, who had a large psoas abscess, by emptying the abscess cavity and then filling it with bismuth emulsion; skiagraphs taken at intervals of twenty-four hours showed that the bismuth eventually reached the eleventh dorsal vertebra. This boy did very well, and in six weeks was running about. In this way the hospital was relieved of a large amount of work. The surgical out-patient department of every large hospital can be utilized as a nursery for young surgeons waiting to take their places on the senior staff.

The same applies to operations in private practice. Many cases can be undertaken at the surgeon's consulting rooms if he has a small theatre fitted up, and the patients then sent home to be under the care of their own medical man. I have found that many parents are willing and able to pay a reasonable fee for an operation; what they dread, because they are unable to afford it, is the cost of the nursing home, and many cases are sent to a hospital solely on this account.—I am, etc.,

Lincoln, March 4th. STANLEY GREEN.

THE NEGLECT OF VACCINATION.

SIR,—Will Dr. C. Killick Millard explain how "the future as regards small-pox prevention in this country lies with the medical officer of health rather than with the public vaccinator"? Do the Leicester authorities, in the event of small-pox, advocate or omit the vaccination of medical attendants and nurses, and contacts? If they omit it, how do they check the spread of infection? Will "sanitary reform in its widest sense," and "increased attention being paid to public health measures," diminish the susceptibility of the community to small-pox infection? The outbreaks of small-pox in the East End of London in 1911, and in Kirkcaldy last autumn, were due, one would think, not only to having "originated in mild unrecognized cases in vaccinated persons," but also to the victims being unprotected or imperfectly protected by vaccination; seed cannot grow without suitable soil. In Germany, with universal vaccination and revaccination, what few cases of small-pox occur are sometimes admitted to a medical ward of a general hospital without fear of other patients becoming infected; is there any hospital in England where this could be done?—I am, etc.,

Brent Knoll, Feb. 25th. J. W. PAPILLON, M.R.C.S.

SIR,—The annual meeting of the Association of Public Vaccinators has, as usual, temporarily directed attention to the vaccination question, but only temporarily; in a couple of weeks it will all have been forgotten, until the next annual meeting of the official vaccinators again directs an ephemeral interest towards it.

Sir James Crichton-Browne hit the nail on the head when he said: "It was difficult in these days for the still, small voice of scientific wisdom to make itself heard, but any turbulent and noisy coterie was allowed to influence the course of legislation." The reason is that the "noisy coterie" can influence votes and is organized for this purpose, whereas the "still, small voice of scientific wisdom" is crying in the wilderness, as far as votes are concerned; and we must remember that we now have what will probably be a series of Parliaments moved solely by votes and not by wisdom or reason. Sir James Crichton-Browne also said: "The number of conscientious objectors who proved to the satisfaction of one stipendiary magistrate, or two magistrates in petty sessions, that they believed that vaccination would be prejudicial to the health of their offspring was increasing largely." All this is perfectly true as regards the main conclusions, but inaccurate in a minor detail. Objectors have not to *prove* their objection "to the satisfaction" of the sitting magistrates. They have merely to assert it on oath, and the magistrates cannot then refuse the relief asked. Magistrates have to administer the law, not to make it; and even as regards interpretation of the law they are entirely in the hands of their official legal adviser, the clerk to the justices. Magistrates, most of them, hate signing these exemption certificates, and personally I never sign them if I can help it, passing on the duty—for duty it is—to non-medical colleagues whose qualms cannot be as urgent as mine.

Every one of these certificates of exemption is nothing but a licence for some poor defenceless little infant to have small-pox; if a girl, not improbably to the ruin of any good looks Nature may have intended her to have; and we, who ought to be the guardians and protectors of these innocent, helpless little ones against the dangers of ignorance, prejudice, and superstition—we are made the instruments for carrying into effect this legislation.

I have had over twenty years' experience as a county magistrate, and have also sat on a county borough bench as long as this has been in existence.

Surgeon-General Evatt made some very appropriate and vigorous remarks about "the public duty of applying a scientific preventive remedy to the population against a very dreadful disease of which he had seen so many terrible examples among unvaccinated people in India." He also said: "Medical men knew the truth about these things, and it was their duty to educate the people." Have we not been trying to educate the people with all our might for several generations? What is the result? There is less vaccination than ever, nearly 50 per cent. of the population being now unvaccinated. What have we as a profession got by our disinterested efforts? Nothing but abuse and offensive suggestions that it is vaccination fees we are after.

It is time we gave up this utopian dream of our "duty to educate the people." We get no thanks for our foolish philanthropic self-sacrifice. Let us do as other sections of the community are doing so effectively—look after ourselves. Leave the education of the people to the Government which takes our money for the purpose.—I am, etc.,

Blackpool, Feb. 20th. WM. HARDMAN.

SIR,—I hasten to express my sincere regret to Dr. Maude if my letter—in your issue of February 22nd—appeared to him at all offensive. I can assure him that my criticism was not intended to refer to him in any personal sense, but only in his capacity as representing the Association of Public Vaccinators.

Dr. Maude asks me if I am "aware of the elementary fact that small-pox is extremely fatal in infancy, and if I am aware of the dangers which an infantile population still runs." This is a part of the orthodox case in favour of compulsory vaccination which I feel bound, after my experience as medical officer of health for a largely unvaccinated population, to take exception to. I believe this particular provaccinist argument has lost much of its weight. I admit that the *fatality* of small-pox in infancy is high, and in bygone days, when small-pox cases were not isolated, and modern methods of small-pox prevention as now practised were virtually unknown, no doubt the *mortality* in infancy was also high, and unvaccinated infants ran a very serious risk. No doubt, too, in places where modern methods are not efficiently practised, the risk still exists. But I contend that since the introduction of modern methods the position is entirely changed, and in support of this I can adduce the experience of Leicester.

During the past twenty-five years 142,000 children have been born in Leicester, of whom, on an average, less than 10 per cent. have been vaccinated. Now, as to the small-pox figures, I will confine myself to the twelve years* that I have been medical officer of health. During this period I have had to deal with over 700 cases of small-pox. How many deaths does Dr. Maude imagine have been caused by the disease in infants under 12 months old? Only three! Strange, and contrary to expectation, but none the less true. Had Dr. Maude, or any other strongly provaccinist medical man, had a similar experience I venture to think that his views, like mine, might have undergone considerable modification as to the "danger which an (unvaccinated) infantile population still runs." Perhaps Dr. Maude may reply that we have been very fortunate in that, on the whole, the type of small-pox which has chiefly prevailed in Leicester has been very mild. Granted; but as the total number of infants under 12 months old who have been attacked was only 12, the mortality could not have been very high even if half the cases had proved fatal. It is the low attack-rate rather than the low fatality which is the really remarkable thing.

The explanation of this surprising immunity seems to me to be this: The danger of infection, under modern conditions of small-pox prevention, does not now lie so much in the home, where the infant chiefly resides, as in the crowded haunts of men, where the highly modified vaccinated case stalks undetected.

Or, take the period of childhood: The child population of Leicester is, of course, equally unprotected, yet never have I thought it necessary to close a public elementary school on account of small-pox.

Incidentally, I may remind Dr. Maude that, whilst the fatality of small-pox in infancy is above the average, during childhood—that is, after the first year or two—it is comparatively low. I am speaking, of course, of the unvaccinated. The fatality of small-pox in childhood in vaccinated subjects is, I am quite aware, practically *nil*.

Dr. Maude also says that it is "better to have a population which presents mild cases of small-pox . . . than severe ones." This sounds a truism, but I venture to suggest that, from the point of view of prevention, the conclusion is not so obvious as it appears. Moreover, the

*The small-pox figures for the twenty-five years 1888-1912 are: Total cases, 1,120; cases under 1 year of age, 20; deaths under 1 year, 5.

terms "mild" and "trifling" usually applied to the highly modified and abortive form of the disease which so frequently occurs in vaccinated subjects are most unfortunate and misleading. These cases are only "mild" and "trifling" so far as the particular individuals attacked are concerned; but from the vastly more important point of view of the community they are most dangerous, and frequently spread the disease to unprotected persons in its most virulent and fatal form. In this respect they present a marked contrast with the behaviour of small-pox in the natural and unmodified form usually seen in unvaccinated subjects. If severe, or moderately severe, the cases are then (with the one exception of the very rare haemorrhagic type) easily recognizable, so that the necessary steps for the prevention of the disease can at once be taken; or, if very mild, such as might escape detection (and such cases do occasionally occur even in the unvaccinated), then they are, in my experience, really mild and spread a mild type of the disease. To put it in another way, infantile vaccination only masks the disease without affecting the type. The virulence is there all the same; and under modern conditions I suggest it is conceivable that infantile vaccination is hindering our efforts at stamping out the disease quite as much as it is helping us.

Lastly, let me assure Dr. Maude that I give place to no one as regards my belief in and advocacy of vaccination used as it is used in Leicester—that is, when it is really needed. I think I may claim without boasting that I have made as many converts to vaccination as any medical man in Leicester. Certainly I think I have persuaded more antivaccinists to submit to vaccination. I know their side of the case well, and I can sympathize with it; but a photograph of my wife and young family (recently vaccinated) sitting in the Leicester Small-pox Hospital at the bedside of a bad confluent case of the disease is a powerful pictorial argument which has given me a great advantage.—I am, etc.,

C. KILLICK MILLARD, M.D., D.Sc.,
Medical Officer of Health.

Leicester, March 1st.

SHIP SURGEONS.

SIR,—As a former ship surgeon the letter on that subject (p. 472) was indeed welcome. Surely now is the time for the British Medical Association to take up the cause of the ship surgeon, for unless the subject is taken up by the whole profession it is useless for individuals to strive for higher pay.

The difficulty lies in the differences of ships and in the class of the passengers. For example, I was three months with one line which paid me £12 a month, yet I was far better off with another which only paid me £8, owing to the fact that now and then I got some good private fees from the passengers.

My chief object in this letter is to draw attention to the conditions under which ship surgeons have to work on emigrant ships. Last December I took a boat from Glasgow to Canada, and for the paltry pay of £8 a month I had to look after about 300 passengers. As the majority were travelling steerage I had to examine each one for vaccination marks and, if necessary, vaccinate them. As the weather was very bad almost everybody was either seasick or had a bad cold; the result was I was working almost all day. On the return trip scabies, pediculi pubis, etc., broke out among the passengers and crew, and so added to my work. Another objectionable part of my duties was visiting the firemen in their cabin when ill, or supposed to be ill. They all lived and ate in a small dirty unventilated cabin where the air was thick with tobacco smoke, and a heavy foul odour seemed to overcome me when I entered.

As I have only crossed the Atlantic once, other ships may not be so bad, but I am sure if all the members of our profession and the ship owners themselves knew the conditions under which medical men at sea have to work, they would soon raise the pay. Hoping that some former ship surgeons who now, perhaps, are high up in the profession will take the matter up, and let the true facts of the case be widely known.—I am, etc.,

ARTHUR D. CLANCHY.

Liverpool, March 2nd.

NATIONAL MEDICAL UNION.

SIR,—It has come to the knowledge of the Executive Committee of the National Medical Union that misleading statements as to the methods and objects of this association have appeared in many newspapers during the last few weeks throughout the country. These statements must have been founded on a mistake, the authors having confused the aim of two separate societies, the names of which are somewhat similar.

The National Medical Union has been in existence for nearly fifteen months, and is well known. The National Medical Guild is a new body which has been lately originated in London, and which is now making application for recognition as a trades union.

The National Medical Union as constituted at present is a society composed exclusively of medical men who do not intend to take service of any kind under the National Insurance Act as it now stands after April 14th, 1913. The Union exists primarily for the interests of these men. It has no intention of working on trades union lines. It aims at uniting "non-panel" men all over the country, at furthering their interests, and at defending their rights; it seeks to preserve the honour, independence, and efficiency of the profession, and it hopes to form a "rallying ground" for doctors who, having accepted service on panels and found out the impossibility of doing sound work thereon, are desirous of retiring therefrom.

The Union will work for the provision of adequate medical attendance for the industrial classes at reasonable remuneration on the lines of general practice, and it will seek for such amendment of the National Insurance Act as will secure this and safeguard the interests of both patients and doctor.

The National Medical Union, whilst sympathizing with the general attitude of the National Medical Guild, is not at the present time in favour of the promotion of their common aims by trades union methods.—We are, etc.,

G. A. WRIGHT,
President.
WILLIAM COATES,
Chairman.
J. WEBSTER WATTS,
Secretary.
E. M. FLOYD,
J. SKARDON PROWSE,
Honorary Secretaries.

Manchester, Feb. 27th.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degree has been conferred:

M.D.—W. R. Honeyburne.

UNIVERSITY OF SHEFFIELD.

THE Council at its last meeting appointed Miss Sophia M. V. Witts, M.D.Lond., to the newly instituted post of Lady Tutor in Anatomy.

UNIVERSITY OF GLASGOW.

Students' Council.

AT a special meeting of the Glasgow University Students' Representative Council called to consider the motions from the Inter-Universities Conference recently held at Aberdeen, the following among other resolutions were passed:

That the President of the Students' Representative Council attend Senate meetings when Students' Representative Council motions are under discussion.

That an inter-university committee, composed of members of the Senatus of the different Faculties of the four Scottish universities, be appointed to obtain information with regard to vacancies in Government and other services, and to publish a list of any such vacancies at the four universities for the benefit of students.

That this conference approves of the action of the Scottish universities in resisting the application of the inclusive fee in the Faculty of Medicine, and particularly desires that the extra-mural schools be not injured.

That there be three final professional examinations per annum in the Faculty of Medicine.

That the University Courts be urged to give a grant to the athletic club of each university, the sum, if necessary, to be obtained from an increase in the matriculation fee.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

SURGERY.—*W. H. Broughton, *G. M. Cordingley, *H. Cox, *W. H. Edmunds, *A. M. L. Greaves, E. M. Morris.

MEDICINE.—*†W. H. Edmunds, *T. H. W. Idris, †C. W. Jenner, *†A. Lowndes, †E. M. Morris, *S. Zarchi.
FORENSIC MEDICINE.—W. H. Edmunds, J. T. E. Evans, A. Lowndes.
MIDWIFERY.—J. T. E. Evans, H. C. C. Hackney, J. W. Harrison, A. Lowndes.

*Section I. †Section II.

The diploma of the Society has been granted to G. M. Cordingley, H. Cox, A. M. L. Greaves, J. W. Harrison, and C. W. Jenner.

Public Health AND POOR LAW MEDICAL SERVICES.

"POOR LAW DOCTORS' STRIKE."

UNDER this heading the *Burnley Express and Advertiser* publishes a report of a recent meeting of the Burnley Guardians. Some months ago all the district medical officers of the Burnley Union resigned their offices on account of the inadequacy of the remuneration, after repeatedly endeavouring to get redress from the guardians; and in so doing acted on the advice of the Burnley Division of the British Medical Association. The local profession has loyally supported the Poor Law medical officers, and the guardians, fearing there would be little chance of locally filling up their posts, have promoted various schemes of redistribution of the area of the respective districts, all more or less unsatisfactory in the opinion of the local profession. The following letter of protest to the Local Government Board from the Poor Law Medical Officers' Association of England and Wales, a copy of which was sent to the Burnley Guardians, shows pretty clearly the matter in dispute:

Right Hon. John Burns, M.P.

Sir,

I am directed by my Council to bring to the notice of your honourable Board the faulty arrangements for medical relief in the Burnley Union. For a long time past the district medical officers have been paid at a rate much below the average in adjoining unions, and after repeatedly petitioning the guardians for redress to no purpose, have, as a last resort, resigned their offices. The matter has attracted the notice of the Burnley Division of the British Medical Association, and that body has also approached the guardians on behalf of the medical officers of the union. The sympathy of the local profession is altogether with the medical officers, and it is likely the guardians will have considerable difficulty in filling up the vacant posts. In the meantime the guardians have decided to divide the union into twelve districts, paying £40 a year for the medical work in each, and making each medical officer public vaccinator in his own district.

My Council specially desire me to draw your attention to the following points:

1. Although by this arrangement the sum paid by the guardians for medical attendance on the sick poor of the union will be some increase as compared with the present scale of payment, it will still remain far behind the average of that paid in adjoining unions, where the same local conditions obtain as in Burnley.

2. The alteration in the vaccination districts is specially to be deplored. It has always been the policy of your honourable Board to encourage the formation of vaccination districts distinct from Poor Law districts, and to forbid the use of fees for public vaccination to eke out the payments of Poor Law medical officers. My Council is of opinion that the object of the Burnley Guardians in making each district medical officer a public vaccinator is to induce the applicants to undertake the Poor Law work at a lower salary than such work might fairly demand. They consider that such an arrangement does not tend to efficiency of public vaccination generally, and is detrimental to the welfare of the Poor Law medical service and the sick poor in their care.

I am, yours truly,
MAJOR GREENWOOD, Hon. Sec.

The comments of the guardians on this letter do not appear to have much cogency. They admit that they pay their medical officers less than adjoining unions, but are of opinion the latter should take a lesson from them, and similarly underpay their medical officers. They complain that no mention was made of some increases in the salaries of their medical officers last June. This only brings into prominence the terribly low rate of payment previous to last June. The suggestion that some of the resignations were brought about by professional pressure outside is an old story. Wherever united action is taken by the profession, those who consider themselves aggrieved invariably raise the cry of coercion. The figure £40 a year is also challenged as being incorrect, as also the proposal that the medical officer should be appointed public vaccinator. It is to be hoped that both these statements are incorrect, but they were taken from reports of meetings of the Burnley Guardians, published in the local press. A special committee has been appointed to consider the whole matter again, and it is to be hoped wiser counsels will prevail, and that the Burnley Guardians will come to an agreement with the local profession. In the meanwhile the profession at Burnley is to be congratulated on its united action, and we trust no practitioners from outside will be so wanting in professional spirit as to undersell their brethren at Burnley.

UNUSUAL ILLNESS AMONG WEAVERS OF COTTON CLOTH.*

MUCH interest attaches to the investigation of the causation of illnesses in industrial centres contracted by employed persons in the course of their employment and arising directly therefrom. In 1910, 1911, and 1912 an unusual illness was prevalent among weavers of cotton cloth at Colne and Burnley. The symptoms were constriction of the chest beneath the sternum followed by rapid breathing and a persistent irritating cough, expectoration of a thick yellow or yellowish green sputum, and a sweetish taste in the mouth. Later the symptoms assumed an asthma-like form, preventing sleep. Food might be rejected, and epistaxis was observed. There was general malaise, aching limbs and back, severe headache (usually frontal), and the temperature might rise to 102° in the evening. There was loss of weight, and in pronounced cases other symptoms were observed, such as herpetic eruptions, palpitation, smarting and running of the eyes.

In one instance at Burnley the weavers suffered so severely that the shed had eventually to be closed. Dr. Edgar L. Collis, H.M. Inspector of Factories, has issued a report on the subject, in which he traces the cause to mildew developing on the cotton threads following the process technically known as "taping" or "tape-sizing" with a preparation principally composed of flour (derived from wheat, sago, or potatoes), tallow, China clay, and water. In the class of manufacture on which the stricken weavers were engaged it appears antiseptics are omitted, as the dyers specify that no chlorides shall be present in the goods they buy. The practical result of Dr. Collis's observations is to confirm the advantage of the use of formaldehyde, which had already been suggested as an antiseptic where chlorides were forbidden.

The report is by no means conclusive. Visible moulds which are bluish-grey in colour are frequently observed on warp threads, and no such illness has been associated with their presence. Dr. Collis mentions that no "visible" signs of mildew were present in the warps at Colne and Burnley. He suggests that "possibly some unusual mildew, of which the growth is similar in colour to the cotton threads, was present on these warps and was the cause of the illness." Such growth could have been demonstrated by microscopic examination if it had been possible for the suspected material to be examined in this way. No such examination is mentioned in the report. Various forms of mildew were found (in the flour used) by the experts called in. Dr. Collis suggests that one of these moulds may have been pathogenic and caused the symptoms, although Dr. Markham at Burnley failed to find any unusual mildew present in the sputum examined. The unusual illness described is fortunately of rare occurrence. As the occupation is exceedingly common, obviously the cause is some obscure variation the exact nature of which is still in doubt.

POOR LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

A COUNCIL meeting of this association was held at 34, Copthall Avenue, E.C., on February 13th, when Dr. D. B. Balding, J.P., was in the chair.

What Constitutes a Legal Order?

A communication was read from a country member asking what constituted a legal order. He had received from his relieving officer a portion of a postcard on which was written a name and an address, with the word "lunatic" inscribed below and the initials of the officer. He visited this case, and payment was offered him. Could he properly have accepted it? The honorary secretary had written that if the case had been referred to him by his relieving officer, any attendance on it must be reckoned as forming part of his official duties, and no payment could be taken. This was approved by the Council, and the unanimous opinion was that a Poor Law medical officer

*Reports of Unusual Illness among Weavers of Cotton Cloth. By Edgar L. Collis, H.M. Medical Inspector of Factories. Printed for His Majesty's Stationery Office by Darling and Son, Ltd., Bacon Street, London, E. 1913.

could not be too careful in guarding himself against the charge of accepting payment for attendance on any cases that came within the scope of his official duties.

Refraction.

The question whether the testing of errors of refraction with a view to ordering glasses formed part of the duties of a Poor Law medical officer, referred to the Council by the Medical Defence Union, was discussed. The unanimous opinion was expressed that such a duty had never hitherto been imposed, and that, generally speaking, Poor Law medical officers were not competent to undertake such work. The necessary apparatus was not possessed by one Poor Law medical officer in a hundred, and even if it were supplied, as it would have to be, by the guardians, until the officer had gained experience in its use the results were likely to be far from satisfactory. In the case of dentistry, the General Orders specially laid down that the duties of a Poor Law medical officer went no further than the extraction of teeth. It was unreasonable to think, therefore, that duties such as in ordinary medical practice were universally referred to a specialist should be expected from a Poor Law medical officer. In the interests of the elementary school children of the country it was necessary to oppose such an imposition. School medical officers who were required to deal with this subject had always to produce credentials of competence in this branch of medicine. If the association admitted that work regarded universally as properly belonging to the province of a specialist should be held to be one of the ordinary duties of a medical practitioner, the interests of a large portion of the medical profession might be seriously affected. The Regulations under the National Insurance Act defined what work was to be considered to come within the scope of an ordinary practitioner. They were by no means clearly set out, but if it were admitted that dealing with errors of refraction formed part of the duties of Poor Law medical officers, it would be difficult to exclude them in the case of practitioners on the panel. The Honorary Secretary was instructed to take the earliest opportunity of bringing this matter before the Local Government Board and pressing upon it the views of the association.

Officers of Boards of Guardians.

A letter was read from the Manchester and District Assistant Clerks' Association, asking for support to a petition it was proposed to send to the Local Government Board praying that sanction should not be given to the appointment of inexperienced persons to the respective offices of clerk and first assistant clerk to boards of guardians. The petition was approved by the Council and the Honorary Secretary instructed to state that the Poor Law Medical Officers' Association would give any assistance in their power.

Resignations of Medical Officers at Burnley.

The Honorary Secretary reported that he had written, as instructed, to the Local Government Board, pointing out the way in which medical relief was being administered in the Burnley Union: that the Burnley Guardians, to whom the letter had been sent for comment, had contented themselves with questioning the accuracy of some of the statements in the letter, and had made no reply to the more important criticism therein. With regard to the inaccuracies, if any, they were culled from the reports of meetings of the Burnley Guardians published in the local press, copies of which had been sent with the letter to the Local Government Board. In the meanwhile a special form of order was in use in the Burnley Union, which might be taken to any practitioner, but, as a matter of fact, by agreement among the local profession, was referred to the late district medical officers. For attendance under this order the guardians guaranteed payment at the usual private rates current in the district. Such an arrangement would be far more expensive than the old, and the ratepayers suffered, because the guardians refused to treat their medical officers with equity. Up to the present no sanction had been given by the Local Government Board to any scheme of the Burnley Guardians, and the local profession were loyally assisting their Poor Law brethren. The Council did not think it desirable to take any further action until an answer to their letter had been received from the Local Government Board.

Annual Meeting.

It was decided that the date of the annual meeting, which is to be held in London, should be either during the last week of June or at the beginning of July. It was thought advisable that there should be two papers read dealing with Poor Law subjects, one from a Poor Law medical officer, and the other, if possible, from a non-medical Poor Law official. It was also resolved that the usual dinner should be held in the evening.

Insurance Act.

It was pointed out that many cases were being referred by panel doctors to relieving officers with a view to their admission into Poor Law infirmaries. Where institutional treatment was necessary there was no objection, but some of the cases could not be placed in that category, and if medical attendance were given by the Poor Law, it would have to be by the district medical officer at the patient's home.

The Council was unanimously of opinion that in no circumstance should an insured person entitled to the service of a panel doctor be treated by a Poor Law medical officer except in the wards of a Poor Law institution. It might happen that under the Poor Law Orders a district medical officer was compelled to visit an insured person in receipt of Poor Law relief, to give the necessary certificate; but the treatment of these cases should be left entirely in the hands of the panel doctor.

With regard to the maternity benefit, it was pointed out that the dependants of insured persons not infrequently went into the infirmary to be confined. The guardians could make no claim on this benefit, which was received by the husband with no deduction. It was to his interest, therefore, that his wife should be attended in the infirmary, but the main object of the benefit in question was to meet expenses incident to the confinement. It was possible for the guardians to make demand on the husband for a contribution towards the cost of his wife's attendance in the infirmary; but this was seldom done, and the husband's position apart from the maternity benefit might not warrant any demand being made.

The Council was of opinion that the framers of the Act had hardly contemplated the employment of maternity benefit in this manner; nor was it fair that provision should be made out of the rates in respect of services for which Parliament had already made a grant. Overlapping was the curse of the Poor Law, and it seemed not unlikely that one of the effects of the Insurance Act would be considerably to increase this evil.

Obituary.

SIR COLVIN COLVIN-SMITH, K.C.B.,

SURGEON-GENERAL, INDIAN MEDICAL SERVICE.

Surgeon-General Sir Colvin Colvin-Smith, K.C.B., Madras Medical Service, retired, died at his residence, 5, Cresswell Gardens, South Kensington, on March 1st, 1913. He was the son of the late Rev. Robert Smith, D.D., of Aberdeen, and was born on August 4th, 1829, and educated at King's College, Aberdeen, where he took the M.D. in 1851, as well as the L.R.C.S. at Edinburgh in 1850. He entered the Indian Medical Service as Surgeon on November 3rd, 1851; became Surgeon on December 14th, 1864; Surgeon-Major on November 3rd, 1871: and Deputy Surgeon-General on August 5th, 1879, retiring with an honorary step of rank on September 29th, 1884.

He had a long list of war service, beginning immediately after his arrival in India with the second Burmese war of 1852–53, when he served in the operations before Rangoon in April, 1852, at the capture of the White House stockade and of the Shwe Dagon pagoda, and the occupation of Prome, and received the medal with a clasp. In the Indian Mutiny he was in the field for two years, 1857–59, serving with the Kampti movable column and with the Sagar Field Division; he was present in the affairs at Khoni Pass, Narampur, Nimkaira, Budgam, and other minor skirmishes on the Great Dekkan road; also in operations in the Palamau district, and in the march to Jabalpur. He received the Mutiny medal with a clasp. In 1881 he was appointed Deputy Surgeon-General of the Haidarabad Subsidiary Force and Haidarabad Contingent, and while holding that post was chosen as Principal Medical Officer of the force dispatched from India to the Egyptian war of 1882. There he took part in the battle of Tel-el-Kebir, and in the forced march to and occupation of Zagazig, was mentioned in dispatches in the *London Gazette* of November 17th, 1882, and received the Egyptian medal with a clasp, the Khedive's bronze star, the third class of the Osmanieh, and the C.B. After retirement, he was appointed an Honorary Surgeon to the Queen on July 5th, 1899, thus holding that honour in three reigns; received a Good Service Pension on January 18th, 1903, and was promoted to K.C.B. on June 26th, 1903.

In 1864 he married Marian, daughter of the Rev. Henry Phillips, of Great Welnetham, but lost his wife in 1908. A memorial service was held at St. Columba's Church, Pont Street, on March 4th; the interment took place at Kingston cemetery on the same day.

We regret to have to announce the death of Dr. Alfred Augustus Beeks, of New Silksworth, Sunderland, which took place at the Fever Hospital, Sunderland, as a consequence of an attack of scarlet fever. He was taken ill on February 14th, and was removed on February 17th to the hospital, where he died on February 21st. His sudden illness and death has been a great shock to his many friends. It is to be feared that the hard harassing work in connexion with the conditions imposed by the Insurance Act greatly debilitated his system, and he doubtless contracted his fatal illness while attending his duties in this

depressed state of health, which had been further lowered by a severe cold. He was educated at Dollar Academy, and was a student at the School of the Royal College of Surgeons of Edinburgh. He obtained the diplomas of L.R.C.P. and L.R.C.S.Edin., and L.F.P.S.Glas., in 1901. In February, 1902, he became assistant to Dr. Bernard, of Silksworth, and shortly afterwards joined him in partnership. Dr. Beeks joined the Territorial Force and attained the rank of Captain, R.A.M.C.(T.F.). He was attached to the Northumbrian (County of Durham) Brigade, and in this capacity and as honorary surgeon to the St. John Ambulance Brigade he won the respect and friendship of all with whom he served. He was a member of the British Medical Association and took a keen interest in its work. He was buried with military honours, and the funeral was very largely attended by residents in Silksworth and by representatives of the profession in the district.

The Services.

MEDICAL BENEFIT FOR CIVILIAN SUBORDINATES.

INSTRUCTIONS relative to the administration of medical benefit to civilian subordinates (including pensioners) who are insured under the Insurance Act are published in Scottish Command orders: All insured civilian subordinates are entitled to receive medical benefit under the Act. Medical attendance will therefore no longer be given to insured pensioners who do not reside within the precincts of barracks (including schools, colleges, hospitals, magazines, Government quarters, etc.). They will be attended by the panel doctors. In the case of insured civilian subordinates living in barracks, etc., for whom medical treatment has hitherto been provided by medical officers of the War Department (military medical officers or civil medical practitioners under agreement), it is desirable, both on grounds of general convenience and in the interests of discipline, and with a view to the avoidance of all possible sources of friction, that the present practice should be continued, medical attendance, drugs, etc., being provided from army funds in return for capitation fees to be paid by the Local Insurance Committees and credited to Army Appropriations in Aid.

TERRITORIAL NURSING SERVICE.

THE annual meeting of the 1st Southern General Hospital Territorial Nursing Service was held in the Council House, Birmingham, on February 24th, Lady Fairfax Lucy presiding. The principal matron of the hospital, Miss M. A. Buckingham, reported that the nursing staff consisted of 10 matrons of hospitals, 11 district nurses, 46 hospital ward sisters, 48 private nurses, and 5 trained nurses of no occupation at present, a total strength of 120. Miss F. Clarke, one of the matrons of the hospital, took a course of training in August last at Shorncliffe Military Hospital, at the same time as the R.A.M.C.(T.) of the 1st Southern General Hospital were doing their annual training.

NEW HEAD QUARTERS OF THE FIRST LONDON DIVISION R.A.M.C.(T.F.).

THE new head quarters of the First London Division (Territorial Force) Royal Army Medical Corps, in the Duke of York's School, Chelsea, were opened by Major-General W. Fry, C.B., C.V.O., commanding the First London Division (Territorial Force), on March 1st. Major-General Fry said that some people had objected that so many units should be brought together in the Duke of York's School, but he did not share those fears, and had always found the medical corps very popular. One reason was that in the medical unit there was a close bond between the officer and the man. Where the officer was the instructor of the man the discipline was miles ahead of that of corps in which the actual technical instructors were the only people to teach the rank and file.

As was mentioned last week, the Committee of Management of the Mount Vernon Hospital for Consumption and Diseases of the Chest at Hampstead and Northwood will ask the governors at the annual meeting on Wednesday next to sanction the sale of the hospital at Hampstead. At this meeting the Chairman of the Medical Board (Dr. F. W. Tunnicliffe) will move the following amendment: "Considering that the entire medical and surgical staff has expressed the considered opinion that on medical grounds it is not practicable to conduct a chest hospital in the true sense of the term at Northwood, this meeting directs that the further consideration of the Chairman's resolution be deferred until March, 1914, and that the Committee of Management be called upon to exercise, if necessary, the powers conferred upon them at the last meeting of governors to separate the two institutions, with a view to a further and better perpetuation of the hospitals at Hampstead and Northwood."

Medical News.

THE annual general meeting of the Medical Graduates' College and Polyclinic will be held at 22, Chenies Street, W.C., on March 14th, when Sir William J. Collins will take the chair at 5.15 p.m.

THE late Dr. William Howship Dickinson bequeathed £1,000 in memory of his son to the Samaritan Fund of St. George's Hospital, to be known as the Lee-Dickinson Memorial Fund. The total estate was £39,790 gross.

THE Arris and Gale Lectures before the Royal College of Surgeons of England by Dr. Blair Bell, on the genital functions of the ductless glands, will be given on Monday and Wednesday next, at 5 p.m. on each day. The lectures will be illustrated by lantern slides.

DR. S. N. GALBRAITH, D.P.H., acting resident medical officer at Brompton Hospital, has been appointed assistant tuberculosis officer under the Lambeth Borough Council, at a commencing salary of £300 a year. There were fifteen applications for the appointment.

SIR FREDERIC EVE commenced a course of two lectures on malignant tumours of the long bones, their pathology, symptoms, and treatment, at the London Hospital on Tuesday last. The second lecture will be given next Tuesday at 1 p.m. The attendance of members of the profession and students is invited.

THE International Congress of Physical Education, which has been organized by the Faculty of Medicine of Paris, with Professor Gilbert as President, is placed under the patronage of no less than three Presidents of the French Republic—M. Fallières, M. Loubet, and M. Poincaré. It is to be held in Paris from March 17th to 20th. As many as twenty-five nations are sending representatives to take part in this congress, at which the methods of physical education now in vogue in different countries will be discussed and criticized, in the hope that the free interchange of opinions and experiences will make it possible to place the present system of physical culture on a more rational and scientific basis. There will be two sections. The first section will comprise discussions on the whole range of athletics, from military gymnastics to feminine sports; whilst the second will consist of a series of demonstrations by expert gymnasts from almost every country in Europe. An interesting exhibition of physical education and sports has been organized by Dr. Albert Weill in connexion with the congress, and is to be on view from March 17th to 26th. Reduced fares have been granted by the French railway companies to all members travelling to Paris, and a fee of 20 francs (in the case of members' relatives, 10 francs) will admit each member to the various fêtes and demonstrations, besides entitling him to all publications issued by the congress. Subscriptions and inquiries should be addressed to the Secretary, Dr. Henri Dausset, 41, Avenue Montaigne, or to the Treasurer, Dr. Lagarde, 9, rue de Bassano, Paris.

LAST year the King conferred on the British Medical Benevolent Fund the title of Royal, and to celebrate the first year of the Royal Medical Benevolent Fund a dinner of those interested in the fund and its guild, both ladies and gentlemen, will be held under the chairmanship of H.R.H. Prince Arthur of Connaught on Wednesday, April 30th, at the Hotel Cecil, London. A large number of members of the profession have already consented to act as stewards, among whom are Sir Clifford Allbutt, K.C.B., Mr. Gilbert Barling, Sir Thomas Barlow, Adeline, Duchess of Bedford, Sir J. Rose Bradford, the Dowager Lady Broadbent, Lady Willoughby de Broke, Dr. H. Langley Browne, Dr. J. Mitchell Bruce, Sir Lauder Brunton, Dr. C. Buttar, Dr. Wm. Collier, Sir Anderson Critchett, Sir Dyce Duckworth, Mr. J. Swinford Edwards, Mr. E. Hurry Fenwick, Sir David Ferrier, Sir J. Kingston Fowler, Sir Alfred Fripp, Sir Rickman Godlee, Sir James Goodhart, Sir Alfred Pearce Gould, Dr. Walter Griffith, Dr. de Havilland Hall, Mr. Arbuthnot Lane, Sir Trevor Lawrence, Mr. C. B. Lockwood, Sir Donald MacAlister, K.C.B., Mr. G. H. Makins, Professor Howard Marsh, Mr. J. H. Morgan, Sir Malcolm Morris, Dr. F. Needham, Lady Northcote, Dr. J. A. Ormerod, Sir Wm. Osler, Mr. Herbert Page, Sir R. Douglas Powell, Sir James Reid, Dr. H. D. Rolleston, Sir Ronald Ross, Sir George Savage, Mrs. Scharlieb, Lady Shaftesbury, Sir R. M. Simon, Mr. H. J. Stiles, Mr. Charters Symonds, Sir StClair Thomson, Dr. W. Thorburn, Dr. Nestor Tirard, Dr. D. F. Todd, Sir William Turner, Sir John Tweedy, Dr. J. C. Uhthoff, Katherine, Duchess of Westminster, Dr. Hale White, Sir John Williams, Dr. I. Burney Yeo, and Mr. Parker Young. Communications relating to the dinner may be addressed to Mr. G. Bethell, 11, Chandos Street, Cavendish Square, W.

and subscriptions sent to the Treasurer, Dr. Samuel West, 15, Wimpole Street, London, W.

THE third of the series of Galton laboratory lectures on "National Eugenics," delivered by Miss Ethel Elderton at University College, London, dealt with the relation of fertility in man to "social value" in the parent, the term being used to designate fitness of one human being to become the parent of another. Her own observations amongst the working classes in the North tended to prove that the greater the social value the less the fertility; and the truth of this statement was confirmed by statistics dealing with the decline in the birth-rate amongst the population north of the Humber between the years 1851 and 1906. This fall, which had taken place throughout the whole of the North, was most marked in the residential and industrial districts, particularly those engaged in the textile industries. Miss Elderton contended that though the Malthusian school had shown that limitation of the family was possible, their views would not have spread unless the wish to have children had diminished owing to some social or economic factor. It had been suggested that the restriction of child labour, possibly combined since 1891 with the restrictions on the mother's labour after childbirth, had caused the fall in the birth-rate in the textile districts. Unfortunately it was the thrifty, hard-working section of the community who limited their families, and this could not fail to have a disastrous effect upon future generations. In considering suggestions that the half-time system should be abolished, that the age of school attendance should be raised to 16, and that the mother's work should be curtailed, it should be borne in mind that many parents would find it impossible to keep their children during these additional years, and some of them, in consequence, would be obliged to restrict their families still further. Such a change would have little effect upon the thriftless and careless; but it might make a considerable difference to the intelligent and careful, unless it could be accompanied by some endowment of healthy, thrifty, and intelligent parents. Legislation on these points would have to proceed with caution, for in striving to better the condition of the individual it might only be adding another burden to the class whose children were one of the most valuable assets of the State.

A MEETING in support of the Women's Guild of the Royal Medical Benevolent Fund was held on February 25th at 49, Upper Brook Street, by permission of Mr. and Mrs. Makins. Dr. Acland, who presided, said that the object of the Guild was not only to seek out cases of distress amongst the families of medical men and report them to the Fund, but to see that they obtained the relief they deserved. A short account of the foundation of the Guild was then given by Mrs. Scharlieb, who reminded her audience that it had begun in a very small way, but, thanks to the energy of Lady Tweedy, had since been able to establish branches in most of the large towns in the kingdom. These provincial branches had soon outstripped London; and the latter, in consequence, had been divided into districts, which at the present moment were in a very flourishing condition. The Guild had a special fund for the orphan children of doctors. The children were sent to good schools and afterwards were put in the way of earning their own living, and these were the cases that constituted the best investments of the Guild. The whole of England had been thrilled by the heroism of Captain Scott and his companions, but it should not be forgotten that there were other heroes in our midst who faced death daily just as bravely as those who died amidst the Antarctic snows, and oftentimes with the knowledge that they were leaving those dependent on them totally unprovided for. Sir Ronald Ross, in commending the work of the Guild, said he could imagine no more terrible plight than that of a widow left with a young and helpless family, and unfortunately this was too often the case when a doctor died suddenly. He instanced the case of one of the greatest medical heroes of modern times—Dr. Walter Reed—who, with his helpers, found out how yellow fever, the pest of Central America, was carried. Shortly after making this important discovery, Reed broke down and died, leaving a widow and some little children. It was only with the greatest difficulty that the scientific and medical men of America were able to persuade the Government of that rich country to give a pension to the widow of the man who had conferred so great a benefit upon humanity. He was quite certain that there were many cases of a similar nature in this country; they had the strongest possible claim upon the help and sympathy of the whole profession. A short speech by Dr. Ettie Sayer followed, and the meeting closed with a vote of thanks to Mr. and Mrs. Makins.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

HAMPSHIRE PHYSICIAN will be glad to hear of a desirable holiday resort in the North of France; country preferred, or small town or suburb.

ALOPECIA UNIVERSALIS.

J. A. R. asks for advice in the treatment of a middle-aged man who, four months after a severe mental and physical strain, began to lose his hair; after a few weeks not a hair was left on his body. Treatment with nerve tonics has been tried without success.

WHEN WAS POTASSIUM IODIDE FIRST USED?

DR. J. F. KEENAN (Ballinalee, Edgeworthstown) writes: In the Literary Notes in the JOURNAL of February 15th, p. 353, it is said that "to Dr. Wallace of Dublin belongs the honour of first using potassium iodide in syphilis." In the JOURNAL of January 26th, 1907, Dr. J. McNamara wrote that "the introduction of iodide of potassium in the treatment of tertiary syphilis . . . was due to a humble Irish practitioner named Welch." What was the true form of the name of our humble Irish predecessor, who conferred such a boon on Britain and civilization? Dr. McNamara went on to say that "the name of Dr. Welch, instead of being forgotten, as it is, should stand high on the roll of fame." Alas! it seems that we do not even know how to spell it. Was Welch Wallace, or Wallace Welch, or both of them Walshe?

ANSWERS.

W. C. S.—We have no knowledge of an "International Congress on Nose and Throat to be held in London next August." In connexion with the Seventeenth International Congress of Medicine, to be held in London on August 6th to 12th of this year, Section XV will be devoted to rhinology and laryngology. Possibly our correspondent refers to this. If so, the better way would be for him to communicate with the General Secretary, at the Central Office, 13, Hinde Street, London, W.

TESTS FOR DEATH.

L. A. P.—(1) Icard's test for death is performed by injecting under the skin a solution of fluorescin and sodium bicarbonate. Life is proved by the rapid development of a greenish-yellow discoloration of the general surface of the body and mucous membranes (Hawthorne, *For. Med.*, p. 42). We are unable to express any opinion as to its reliability, but there seems no inherent improbability: whether it could ever be of use is another matter. (2) We have no information as to Icard's lead acetate test.

LETTERS, NOTES, ETC.

THE LATIN FOR "BEER."

DR. R. CARMICHAEL WORSLEY (Coventry) sends us the following, which he seems to wish us to believe a true story. "New Casualty Dresser (referring to entry in register): "Porter, what does this entry mean—C_2H_6O?" Porter (with superior smile): "That, sir, is the Latin for beer, sir."

A DISCLAIMER.

WE have received the following:

Sir,

We regret that our names have appeared in an article on the treatment of consumption which was published in the *Daily Telegraph* on the 1st inst., and wish to state that the article in question was written and published without our knowledge and consent.

Yours truly,

J. CAMPBELL MCCLURE.
F. MEHNARTO.
J. HORNE WILSON.
KENNETH ECKENSTEIN.
R. TANNER HEWLETT.

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NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

ALIMENTARY TOXAEMIA.

PAPERS READ AT THE OPENING OF A DISCUSSION AT THE ROYAL SOCIETY OF MEDICINE.

GENERAL INTRODUCTION.

BY W. HALE WHITE, M.D.LOND. AND DUBL.,
PHYSICIAN TO GUY'S HOSPITAL.

THE term "alimentary toxaemia" at once shows our ignorance, for it is unscientific to group cases of poisoning according to the point of entrance of the poison; they should be grouped according to the variety of the poison; it is a minor matter whether our murderer comes in at the window or the door. Further, the term is too wide; an illness due to any poison absorbed anywhere from the mouth to the anus is strictly an alimentary toxaemia, but the phrase would hardly cover a case of opium poisoning. The user of it probably wishes to suggest that an illness is due to poisons made by micro-organisms resident in the alimentary canal, although, with our present knowledge, he can never name the poisons, nor is he certain of the offending micro-organisms; still we are equally ignorant of the poison in uraemia and diabetic coma. But it is not clear that it may not be used when micro-organisms from the alimentary tract—for example, *Bacillus coli*—pass into the blood and so cause illness, and it is somewhat confusing that if infected food causes poisoning we talk of food poisoning, not food toxaemia; on the other hand, when the food is not infected by pathogenic micro-organisms but makes the person who eats it ill, he is by some said to be suffering from alimentary toxaemia—for example, as in a person who has urticaria after eating strawberries.

The simplest alimentary toxaemia is that due to pyorrhoea alveolaris. This local trouble in the mouth leads to imperfect mastication, hence large pieces of food are swallowed which cannot be digested, and if they contain micro-organisms which, if the mass were properly masticated, would be set free in the stomach and destroyed there, they may indirectly lead to the production of poisons in the intestine. Further, the micro-organisms discharged in the pus from the gums may be swallowed, and it is possible that the gastric secretions, being abnormal or deficient, may not kill them, or that if the stomach is well filled with solid food and the micro-organisms are then washed down with a draught of water, they, suspended in the water, will be rapidly passed through the stomach on the top of the solid food, and hence reach the intestine and cause intestinal toxaemia. It may be that in some diseases micro-organisms found in the intestine have been excreted from the blood, and that such organisms may when in the intestine manufacture poisons. Micro-organisms taken into the blood from the diseased gums may perhaps cause intestinal toxaemia in this way. Lastly, the micro-organisms in the gums may pass into the blood, and cause septicaemia varying from mild to severe. I have met with several fatal cases, and very many persons owe general ill-health or chronic indigestion to pyorrhoea. It is surprising how often this is overlooked. When seeing a patient for the first time, it is as important to examine the teeth as to feel the pulse. Although most common among poor, ill-educated people, pyorrhoea is often to be found in those who presumably clean their teeth properly and frequently; sufferers from it are unaware that they have anything amiss with their teeth. Its presence does not prevent the patient from having other illnesses; sometimes these are wrongly attributed to pyorrhoea. It is dangerous to remove too many affected teeth at once, for a rapid absorption of micro-organisms may take place by the damaged vessels. The value of vaccines will be discussed later by others. My own practice is to give them, for I have never known them do harm in this condition, and I think I have seen them do good.

When we consider bacterial poisons formed in the gastro-intestinal tract, the difficulties are so great that we may almost despair of understanding the subject. External temperature is said to play a part, for although in temperate and tropical climates the lower intestines of animals which have been weaned swarm with micro-organisms—a human being excretes daily 128 billions, 99 per cent. of which are dead, in the faeces—yet the intestinal contents of arctic animals are by some observers stated to be sterile, or almost so, suggesting that it would be a good thing to establish at Spitzbergen a health resort for those thought to be suffering from alimentary toxaemia. Ill understood alterations in the gastro-intestinal contents must influence their bacteriology; thus, *Bacillus coli* is usually confined to the large intestine, but I know a woman suffering from severe dyspepsia and in whom lavage always shows the contents of the stomach to be swarming with *Bacillus coli*. Then the presence of one micro-organism affects others; for example, one of the chief functions of the *Bacillus coli* is to smother others, either by making bodies poisonous to them or by withdrawing their nourishment; it thus kills typhoid bacilli—a fact of interest when we remember that *Bacillus coli* may often be found in the urine of those afflicted with typhoid fever. On the other hand, the *Bacillus coli* may itself be killed by invaders—for example, Morgan's bacillus, *B. suipestifer*, *B. enteritidis*. Then the same micro-organism may act differently in different hosts—for example, one person's strain of colon bacillus often differs from another's. Again, alterations at one part of the intestine will affect processes going on lower down; for instance, colon bacilli have no effect on proteins, but they decompose (putrefy) peptones. If, therefore, there is complete absorption in the small intestine no peptones will reach the large, and so there will be no putrefaction, nor will there be if only unaltered proteins reach the large intestine, but any peptones will putrefy. We hope to hear from the bacteriologists which are the micro-organisms causing alimentary toxaemia. Herter taught us that there are probably three groups of cases:

(*a*) The indolic, in which the probable fault was that the colon bacillus invaded the lower part of the small intestine, and the patient was unable to digest carbohydrates, and usually passed abundance of indican.

(*b*) The saccharo-butyric, in which the organism mostly concerned is the *B. acrogenes capsulatus*; the abnormal changes here occur in the large intestine.

(*c*) A group combined of *a* and *b*.

We must, when thinking of alimentary toxaemia, bear in mind that the culture medium itself is as important as the bacteria, and therefore alterations of diet may influence the production of intestinal poisons as completely as bacteria themselves. A good instance of this is the improvement that follows the withdrawal of carbohydrates in cases of carbohydrate dyspepsia.

Those who ascribe most to alimentary toxaemia are unable to tell us what the poisons are. Much work has been done on the excretion of indican and ethereal sulphates in the urine, and there is no doubt that an excess of indican is often associated with serious intestinal disturbance, but many persons pass large amounts of indican for many years and remain in good health; on the other hand, indican is not passed in many instances in which the patient might be thought to have alimentary toxaemia. It is generally allowed that the poison is not indol, indican, or ethereal sulphates. Indeed, just as we do not know what the poison is in uraemia or diabetic coma, so we do not know what it is in the illnesses ascribed to intestinal toxaemia, nor do we know for certain which are, in any case, the offending micro-organisms, nor do we understand the circumstances favouring their appearance and development, and, unfortunately, the circumstances cannot be exactly reproduced in the laboratory. Further, it would not necessarily follow that if, say, by subcutaneous injection certain symptoms were produced, the same would follow when the poison was absorbed from the intestine; mercury inhaled causes tremors, but not when taken by the mouth. Surely all this being so, statements should be made cautiously, yet one reads that indol-forming organisms must be harmful because they are prominent, and many equally foolish arguments. Nevertheless, some very suggestive work has been recently done by Mellanby and Twort and others, who have isolated creatin-destroying micro-organisms from the alimentary canal, and their experiments show that in the intestines of animals another bacillus forms β imidazolethylamine, which is a powerful poison, from histidine, but the process cannot take place in an acid medium. This poison is probably destroyed in the liver,

and it is suggested may be a cause of cyclic vomiting. It would be very interesting to see if it is present in a piece of gut excised at an operation on the human subject. Bertrand and Berthelot have called the micro-organism *B. aminophilus intestinalis*.

But even if we knew all about the formation of the toxin, and had identified it in the intestine, our difficulties would not be at an end, for before it reached the general circulation it might be altered in its passage through the intestinal wall or in the liver. Indeed, it is possible that sometimes alimentary toxaemia may be a hepatic disease, in which substances absorbed from the intestine in all human beings are so altered in the liver of some that they become poisonous, or abnormal bodies arriving at the liver may so alter it that it produces poisons. Anyhow, there is strong evidence that an important function of the liver is to protect us from poisons absorbed from the intestines, and that its efficient performance of this function depends upon carbohydrates. The difficulty is well illustrated by cirrhosis of the liver, which was formerly always ascribed to alcohol; but now we know that it occurs in some who do not take alcohol, it does not occur in some who do, nor in animals poisoned by alcohol, and it is a part of some diseases in which alcohol plays no part—clearly some other substances than alcohol can set up the cirrhotic process; and probably, under circumstances of which we know nothing, alcohol can accelerate the formation of these substances, which may well come from the intestine, and, if so, cirrhosis of the liver may be a form of alimentary toxaemia.

I am afraid our knowledge is not sufficient for us to argue that because certain processes go on in the intestine there must be a clinical condition to which the term "intestinal toxaemia" may be applied; but it does not follow that there are not assemblages of symptoms of which an alimentary toxaemia is such a likely cause that we may with reason assign them to this cause until some other cause is shown to exist. The best example of such an assemblage is that known as carbohydrate dyspepsia. An infant afflicted with this has pyrexia; it loses flesh, but its tissues gain in water; its abdomen is distended by the accumulation of gas in the bowel; it is pale, fretful, and sleeps badly; it is often sick and has diarrhoea. The stools contain green colouring matter and an excess of fatty acids; they irritate the skin round the anus, leading to dermatitis. These symptoms may be produced in a previously healthy child if an excess of carbohydrate is given, and will pass away if that excess is withheld. I would suggest that these are the cases of intestinal toxaemia that should be first studied, for in them we see the problem at its simplest, the illness being induced by a single simple article of food. As this is carbohydrate and the intestines are distended with gas, there is every probability that excessive fermentation accompanies the formation of some poison which is capable of causing pyrexia; indeed, much older children often suffer from attacks of pyrexia which may be prevented by abstention from carbohydrates. Enterogenous cyanosis is a form of intestinal toxaemia from which we might learn much if it were commoner, for we know that in the methaemoglobinaemia variety there is a nitrite in the blood probably derived from some abnormal intestinal process, and that in the sulph-haemoglobinaemia variety hydrogen sulphide is concerned with the production of the disorder, and as the cyanosis has disappeared when the accompanying constipation has been overcome there is every probability that the complaint is really an example of alimentary toxaemia. As nitrites and hydrogen sulphide are simple chemical bodies, it is particularly disappointing that we can discover nothing about the abnormal intestinal processes at the bottom of enterogenous cyanosis, and this should make us particularly careful of dogmatizing when we do not even know what the poisons are. Certainly sufferers from enterogenous cyanosis have not the symptoms which it is the fashion now to assign to alimentary toxaemia.

Lately it has been urged with much insistence that many suffer from ill health due to absorption of poisons from the bowel which are formed there because the bowel is imperfectly emptied; or, in the modern terminology, these patients are said to have intestinal toxaemia due to intestinal stasis. That such is the case is very likely. Most people feel miserable if their bowels are not open for some time. Advertisements of medicines designed to keep the bowels open assail us all over the world, many health resorts flourish exceedingly because their natural waters are aperient, colossal fortunes have been made out of the sale of purgatives, the *Pharmacopoeia* contains more examples of the aperient than of any other class of drugs, and the improvement in health that follows keeping the bowels properly open is often so striking that, from the clinical point of view, there is strong evidence that we may suppose such an alimentary toxaemia secondary to intestinal stasis, although we are unable to indicate the poison or to say how it is formed. But it must never be forgotten that individuals vary exceedingly about their bowels; some are perfectly well if the bowels are only open once a week. Presumably, if intestinal stasis is an important factor in causing alimentary toxaemia, these persons do not readily form poisons, or, if they do, they are immune to them. It has, however, been stated recently that the results of chronic alimentary toxaemia are much more numerous than was previously thought, and that the cause of the failure to empty the bowel is frequently mechanical and has been often overlooked.

To take the last point first. It is not necessary for the production of alimentary toxaemia that there should be any mechanical obstruction to the passage of the contents of the bowel. If the poisons are bacterial the quantity of them produced will depend upon the number of micro-organisms and the suitability of the medium for their growth, which, for example, might be so favourable that toxaemia would result without any stasis; therefore, toxaemia is not proof of stasis. Those who attach great importance to mechanical stasis differ much among themselves as to its cause. Some attribute it to excessively large valves of Houston, some to pericolitis, some to dropping of the colon, some to adhesions around the ascending colon, some to spur formations at the hepatic and splenic flexures, some to abnormal mobility of the caecum, although others say that the mobility of the caecum thought to be abnormal is normal, and some to the development of various bands and abnormal mesenteries that drag the bowel and kink it; but the reasons given for thinking that these bands are evolutionary are by no means convincing, most observers regard them as inflammatory. We have no sufficiently large number of cases proving that any of these conditions are more common in those supposed to be suffering from intestinal toxaemia than in those who are not, and it is strange that when the bowels are by chronic peritonitis matted into one mass, so that there must be many abnormal kinks and great interference to peristalsis must exist, yet the symptoms said to be indicative of alimentary toxaemia are not constantly present, and even intestinal obstruction is rare. Although it may be that some of these mechanical causes lead to alimentary toxaemia, the matter cannot be regarded as proved, and it must be remembered that the coexistence of two phenomena does not prove that they stand in the relation of cause and effect; they may have a common cause—indeed, it is possible that the abnormal bands and the toxaemia are induced by the same cause. Much investigation with *x* rays has been performed upon those thought to be suffering from alimentary toxaemia, and there is no doubt that the *x* rays have added and will add enormously to our knowledge of intestinal movements, both normal and abnormal, but we must bear in mind that although *x* rays may show a kink, they cannot show the cause of the kink; that if large amounts of such a heavy substance as bismuth are used, the bowels can hardly be said to be acting normally; that we ought to be provided with dozens of *x*-ray pictures of dozens of healthy people taking the same amount of bismuth; that when we look upon a screen we only see a plane picture. All inferences from *x*-ray examinations as to whether the duodenum or any other part of the bowel is dilated must be received with caution, for the rays from the *x*-ray tubes are divergent; we are dealing with a plane picture, and usually the statement is made that the duodenum, for example, is dilated without stating its size or that of the normal duodenum.

We may now turn to the symptoms which these sufferers from alimentary toxaemia are said to show. There is no need to detail them, for they have been recently described over and over again in the medical press. I am one of those who think it probable that they

are due to alimentary toxaemia, but the poison has never been found, the symptoms have never been produced experimentally, few observers have up to the present even given an opinion on the matter, and in their extreme degree these symptoms are in my experience decidedly rare, yet we find it definitely stated, time after time, that these symptoms are due to alimentary toxaemia, but I submit that the evidence does not amount to proof, although it renders the suggestion probable. If we are not careful we shall, before we know where we are, be invoking the aid of alimentary toxaemia in the same reprehensibly loose way as gout, uric acid diathesis, and congestion of the liver have been called in to explain various vague symptoms which we do not understand.

So many conditions which cannot be called symptoms have been ascribed to intestinal stasis and consequent alimentary toxaemia, that they cannot all be examined now, but every one of them needs more careful scrutiny than it has received. Cystic disease of the breast, cancer of many parts, and duodenal ulcer, for example, have been set down to intestinal stasis, but it has not been shown that, among a large number of sufferers from any one of these, intestinal stasis is more common than among those in whom these conditions are not present. Then, intestinal stasis is commoner in women, duodenal ulcer in men, yet the first is said to cause the second. This casts so much doubt on the correctness of this suggested etiology that if there are special circumstances which can dispel the doubt they ought to be so convincingly stated that their adequacy is accepted by all. Nor have any of these conditions been induced in animals by artificially induced intestinal stasis. Then, again, we read that the "so-called Bright's disease is merely a product of intestinal stasis." There are many varieties of Bright's disease—which is meant? That being settled, let it be shown that a considerable proportion of those suffering from that variety of Bright's disease have alimentary toxaemia. This has not yet been done. Again, I see it suggested that curing alimentary toxaemia cured a case of exophthalmic goitre; no such conclusion can be drawn from a single case, for exophthalmic goitre is a disease which tends to get well, especially if the patient rests, and this patient rested in bed during her operation for intestinal stasis. A woman suffering from exophthalmic goitre was admitted under me with typhoid fever; when she was discharged her exophthalmic goitre was cured. This does not show any relationship between typhoid fever and exophthalmic goitre, which was probably cured by the rest in bed.

If it is allowed that ill health is due to alimentary toxaemia caused by bacterial changes, the best treatment would be to stop the ingestion of the offending bacteria, but as we do not know what they are we cannot do this; or to give intestinal antiseptics, which experience has shown to be of limited use, although I think their uselessness has been exaggerated, for occasionally cyllin seems to do good; or to alter the medium in which the bacteria grow, which is successful when we cure children by diminishing their carbohydrates; or to give other micro-organisms which will render difficult the growth of the offending micro-organism, this is the principle of the sour milk cure, from which much was hoped but which has been disappointing; or if there is delay in emptying the intestine, to overcome this.

The last is the commonest mode of treatment, and thousands of people keep themselves in good health by natural aperient waters or some other simple aperient—either food or drug. Abdominal exercises and massage will, if properly carried out, cure many a case of constipation which has resisted all other methods, and the same may be said of a visit to a hydropathic institution or a spa which lays itself out for the treatment of this disorder. Lately some surgeons have been trying to limit the formation of poisons in the intestines by preventing delay by performing an ileo-sigmoidostomy either with or without excision of the colon. When these cases are reported we are always assured that all medical means had been adopted without benefit, but we are never told what the medical means were. It would add greatly to our knowledge if our surgical friends would give precise details of the medical treatment, the patient's statements being corroborated by the various doctors who treated her. A suspicion comes into one's mind sometimes that perhaps some surgeons do not know all the means the physician has at his command for the treatment of delayed action of the bowels.

Some have opened the appendix and washed the bowel through from the appendix to the anus; if the stasis is in the small intestine this operation will not be of much use, but the success which may follow it when performed for colitis is so brilliant that when the stasis is in the large bowel much benefit might be expected. One thing is certain—namely, that if surgical interference is ever necessary the patient for whom it is necessary is a reproach to her doctors if she has consulted any in the early periods of her illness, for the condition never ought to be allowed to advance to the stage which requires surgery, and, although no other operations may be feasible, yet short-circuiting and opening the appendix are only makeshifts, for neither removes the cause of the intestinal stasis.

It is too early to speak definitely as to the results of these short-circuiting operations. Occasionally the operation itself is fatal. I, like some others, have seen some women who are not in the least better for having had it done; on the other hand, many successes have been reported, but sometimes more than one operation has been required, and sometimes aperients are still necessary after operation. It would be a good thing if some of these cases were more fully reported; photographs before and a year after the operation would be useful, and the patients who had been operated on, whether successfully or not, might be shown before this society; and it is desirable to have the after-history of every case that has ever undergone operation, for it may be that any improvement that ensues is not permanent; this is especially important, as many of the subjects of operation are neurotic women, and we all know that the immediate effects of operation on them may be extraordinary. Further, it is unfortunate that the most frequent symptom—namely, pain—is subjective.

In this brief survey I have tried to indicate the direction which future work should take. I hope I have not been too critical; if any think so, I would beg them to remember that friendly criticism can do no harm. Our interest in alimentary toxaemia has been awakened by the fascinating suggestions of Metchnikoff and by the bold extension of them by Mr. Arbuthnot Lane, but it is an approved principle of science that the results of one worker cannot be accepted until confirmed by others. We ought, therefore, to withhold our verdict on many points until we see whether confirmation is forthcoming. In the year 600 A.D. Isidorus Hispalensis, Bishop of Seville, wrote: "For a medical man should know the *ars rhetorica* that he may be able to support with sound arguments the matters which he deals with; and also the *ars dialectica*, so that by the exercise of reason he may investigate the causes of sickness for the purposes of cure." That is true now as then.

THE BACTERIOLOGY OF THE ALIMENTARY CANAL.

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The interests of this discussion will, I think, best be served if I devote my allotted time first to a general review of the bacterial flora of the alimentary canal and then to a consideration of the part played by bacteria in the production of alimentary toxaemia. I must leave to others the more contentious details of this large subject.

The Conditions for Bacterial Growth offered by the Alimentary Canal.

These conditions are for the most part ideal. Bacteria find there an equable temperature, and the moisture they require, while the supply of foodstuffs is ample and varied. Free oxygen is largely absent in the intestine, except perhaps in certain diarrhoeal conditions; we therefore find that the habitual tenants of the gut are facultative anaërobes, and that even strict anaërobes can grow there

freely. It is well known that anaërobic conditions favour profound chemical cleavages in the medium in which bacteria are growing.

While the reaction of the greater part of the alimentary canal is alkaline, and thus favourable for bacterial growth, the local acidity presented by the gastric contents is not merely unfavourable but actually destructive to the more sensitive bacteria ingested. The pneumococcus, common in the mouth, does not seem as a rule to reach the intestine, and it is believed that normal gastric acidity is a safeguard against cholera.

There is a lack of repose in the contents of the alimentary canal; its tenants are liable to daily expulsion. Too much stress must not be laid on this, for a bacterium can multiply a thousand-millionfold during the average time occupied by its transit from mouth to anus, and vast numbers must remain in the various recesses of the canal or adherent to its mucosa. Nevertheless, stasis is a fertile adjuvant to bacterial multiplication, and hence to alimentary toxaemia, whether in a dilated stomach or under the commoner form of constipation.

The Biological Characters of the Normal Flora of the Canal.

If we knew as much about the protozoan inhabitants of the alimentary canal as we do about its bacteria, we should probably find much the same laws governing both, but we know little on this subject, and I must pass the fauna by.

Of the flora of the canal we can safely affirm that it is *sui generis*. Certain groups of bacteria have specifically adapted themselves to life under the conditions just outlined, and have practically abandoned other modes of existence. Such are the bacilli of the colon group, the majority of the streptococci, and certain anaërobes. So characteristic are these of the alimentary canal of man and animals that by the universal consent of bacteriologists they are taken as indices of the faecal pollution of water, milk, earth, and other substances. They constitute the enormous majority of the normal tenants of the canal. Their biological properties have been moulded by their environment; they grow best at body temperature, they are potential anaërobes, and they show a high capacity for splitting up various foodstuffs, primarily for their own use, but incidentally to the occasional detriment of their host. Moreover, they can withstand considerable periods of desiccation, for, owing to their wholesale expulsion with the faeces, their chance of reaching a new host is thus increased.

The Numbers of Bacteria in the Alimentary Canal and their Variation in Character at Different Levels.

Our knowledge on this point is limited to the bacterial species which can grow on our ordinary culture media. It is likely that agar cultures give us an imperfect idea of the total flora, but we can control our observations by stained films, and in the case of the faeces it would appear that agar cultures, aërobic and anaërobic, yield a moderately true picture of the real state of affairs. In the crypts of the fauces and in dental cavities, on the other hand, there would seem to be many organisms which we cannot cultivate. In the following remarks I can only pretend to deal with the organisms which can readily be cultivated.

In the secretions of the healthy *buccal cavity* bacteria are present, according to Gordon, to the number of 10 to 100 millions per cubic centimetre. The most striking feature of this buccal flora is the overwhelming preponderance of streptococci, which form at least nine-tenths of the total.

In the *stomach* and *duodenum*, on the contrary, bacteria are extremely few. For in health, when the stomach empties itself properly after each meal, it is well scoured, and a large proportion of the bacteria swallowed perish during digestion.

In the *small intestine* bacterial multiplication recommences, but so long as the contents are fluid and pass rapidly along the gut, the numbers are not very high, though they increase in passing downwards. The influence of the bile, which is supposed to check intestinal putrefaction, is of a selective character, for certain of the most typical intestinal bacteria have so acclimatized themselves to it that their powers of growth are in no way impaired. Bacteriologists commonly add bile or sodium taurocholate to their culture media when studying intestinal bacteria, in order to take advantage of this selective action. We have thus learned that bacilli of the colon group can all grow well in presence of bile, and that certain of the hardier streptococci can do the same. On the contrary, the more delicate streptococci and the pneumococcus will not grow in its presence, while such organisms as *B. proteus* are much restricted in growth.

In the *caecum and colon* the conditions for bacterial multiplication become more favourable than anywhere in the alimentary tract. The intestinal contents are here mechanically delayed in order that the last remnants of nutriment may be absorbed, and the numbers of bacteria found in the faeces surpass even those of the buccal cavity. According to Houston the number per gram of normal faeces ranges between 100 and 1,000 million. Supremacy in numbers is divided between the streptococci and members of the *B. coli* group, sometimes the one and sometimes the other predominating. I have usually found *B. coli* the more numerous. In the colon, too, anaërobic bacilli begin, in lesser degree, to assume prominence, while *B. proteus* and sometimes *B. pyocyaneus* are not uncommon.

The Named Bacterial Species of the Flora of the Alimentary Canal.

This subject is one of much difficulty. At any time one is beset with doubts as to the criteria to be employed in deciding specific differences amongst bacteria; it is possible that they scarcely exist in the sense to which we are accustomed amongst higher plants and animals. And nowhere is the difficulty so great as amongst the coliform bacilli and the streptococci, which present infinite gradations in their biological characters. I cannot attempt to deal with this subject here, but must content myself with a few general statements.

The members of the *B. coli* group are roughly classified according to their fermentative reactions with certain sugars and alcohols, and in a more refined manner by their agglutination reactions. The commonest variety is that now recognized as the classical *B. coli communis*, which ferments lactose and dulcite but not saccharose. Hardly less common is its saccharose fermenting variety, whilst the various types known as *B. lactis aerogenes*, *B. acidi lactici*, etc., are frequently met with. Less common are *B. faecalis alkaligenes* and members of the Gaertner group.

As regards the *streptococci*, terminology is even more difficult. The attempts to assign provisional names to the more frequently occurring types, by Horder and myself amongst others, have met with a good deal of adverse criticism, because the sugar reactions, introduced by Gordon, upon which we chiefly relied, have been considered by others to be too variable for the purpose. This is not the place to discuss this very controversial subject, but it will be admitted that the common streptococci of the mouth and intestine are of a relatively harmless nature as compared with *Streptococcus pyogenes*. Personally I believe that a legitimate distinction may be drawn between the streptococcus most abundant in the mouth and upper air passages and a form which is common in the faeces, though it must be admitted that intermediate forms occur, so that one is probably not entitled to regard them as species. These are the types which Horder and I described as *S. salivarius* and *S. faecalis*. Even if all sugar reactions were discarded, it would still, I think, be possible to distinguish the much greater hardiness, vigour of growth, and metabolic activity of the faecal form from the feebleness of the salivary one. I have never been able to find *S. faecalis* in the buccal cavity, though the salivary type is common in the faeces.

Our knowledge of the *anaërobic bacilli* of the alimentary canal is very imperfect. The most abundant appears to be the organism which has been variously termed *B. aerogenes capsulatus*, *B. welchii*, and *B. enteritidis sporogenes*, but, with this, the ordinary putrefying anaërobe, which Klein terms *B. cadaveris sporogenes*, but which has also been described under other names, appears frequently present. In the colon, at all events, free oxygen is so far absent that these organisms, and probably other less well-known anaërobes, can flourish, and it is clear that their activity in breaking down proteins is of a very high order.

While members of the three foregoing groups of bacteria constitute the great mass of the intestinal flora, every plate culture shows that other organisms are also present in small numbers—staphylococci and sarcinae, *B. proteus*, in more than one form, and *B. pyocyaneus*. The last named organism is one with which I have repeatedly met in the intestine, and it is of interest as one which forms soluble metabolic products. As regards *B. proteus*, it would appear that its powers of decomposing protein have been a good deal exaggerated.

The Effects upon the Healthy Body of the Normal Alimentary Flora.

It is sometimes supposed that the intestinal flora performs certain "functions" in the economy of its host. Attempts have been made by more than one observer to rear mammals or birds under germ-free conditions from birth. In many cases the creatures thus treated have not survived for many weeks, but the experiments teach little, for it is at least as likely that premature decease was due to the wholly unnatural conditions under which it was needful to keep the animals as to the absence of bacteria from the alimentary canal. I do not know of any good evidence that it is of benefit to have our intestines swarming with bacteria, many of the products of which seem harmful to us. Bacteria are not actuated by any sentiments of altruism. They take advantage of the favourable conditions offered by the alimentary canal purely for their own good; and if they do us little harm, it is because the whole race of higher animals has been evolved under these necessary conditions, perpetually present from the beginning, so that there has been ample time for the evolution of such protective mechanisms as are needful to neutralize the habitual effects of bacterial commensalism. I refer not merely to defence against bacterial invasion, but to a neutralization of their toxic products. It is conjectured that such injurious substances, absorbed from the alimentary canal, as may escape the alchemy of the liver are neutralized by the secretions of certain of the ductless glands—for example, the thyroid. There can, however, be no doubt that the intestinal flora is not without influence upon the body, even in health, for the more actively metabolic bacteria carry out protein splitting to a point beyond that which can be exercised by the ordinary digestive ferments, and of the soluble products some are known to be toxic.

The Influence of Pathological Conditions upon the Flora of the Alimentary Canal.

Owing to the extreme rapidity with which bacteria can multiply, rapid changes can readily occur in the flora of any part of the alimentary tract, as may be seen in infective conditions. Further, any part of the tract in which retention of the contents is brought about is apt to show an abnormal bacterial flora.

In the mouth and naso-pharynx infective changes are extremely common, and an invading microbe, such as the pneumococcus, *Micrococcus catarrhalis*, or *Streptococcus pyogenes*, may speedily predominate in the local flora. In chronic conditions of oral sepsis, such as dental caries or pyorrhoea alveolaris, there may be an excessive abundance of streptococci of lesser virulence.

Gastric dilatation and incompetence afford an instance of a radical change in the normal flora. The natural acidity of the gastric contents is disturbed, and in the absence of proper emptying and scouring of the viscus, yeasts, sarcinae, and other unnatural tenants come to multiply in the stagnant contents, and may form a conspicuous microscopic feature in the vomit.

Nor, in considering the bacteriology of the alimentary canal, must we forget the gall bladder, which is not rarely the seat of chronic bacterial infection. Usually such infection is by some normal inhabitant of the canal, such as *B. coli*, whereby no great change is brought about. But the infecting agent may be a foreign organism, such as the typhoid bacillus, and when this condition is persistent, as in a typhoid carrier, a more or less permanent addition is made to the flora of the intestine.

The bacterial contents of the small intestine may be profoundly modified in disease. In the rapid peristalsis of acute diarrhoeal conditions the normal inhabitants of the gut are quickly swept away and a new flora may be substituted. Thus, in Asiatic cholera, the contents of the ileum may yield almost a pure culture of the cholera vibrio.

In the colon diarrhoeal conditions may produce a similar effect, so that the liquid dejections may show a predominance of whatever microbe is at the root of the trouble, be it cholera, dysentery, or Gaertner poisoning. But from the point of view of intestinal toxaemia, constipation plays a much more important part than diarrhoea, and its effects must form an essential element in this discussion. Retention of the intestinal contents affords a fruitful field for the multiplication of the normal bacterial flora, and for the full exercise of their fermentative activities, and at the same time it gives opportunity for the absorption of whatever toxic products may be formed.

The Part Played by Bacteria in the Causation of Alimentary Toxaemia.

Having thus shortly considered the nature and properties of the bacteria of the alimentary canal, I must address myself to the second and more difficult part of my task, that of attempting to assess the share which is borne by bacteria in the causation of poisoning from the intestines. If, in this attempt, I trespass in any way on the branches of the subject allotted to others, I must ask pardon.

In the first place I think it necessary, if this discussion is to be of any value, that we should endeavour to reach clear conceptions as to what we mean by "alimentary toxaemia." There are few terms more loosely employed, because we have so little accurate knowledge on the subject. The very terms "toxin" and "toxaemia," though they drop so easily from our lips and soothe our minds with the feeling that at least we have a name for these things even if we know nothing about them, are in truth but confessions of ignorance. The word "toxin" is a convenient one for chemical poisons of which we do not know the composition, but it might be better for clear thinking and the advance of knowledge if we were less ready to cloak our ignorance by the too common use of the term. Our hope of salvation rests with the chemists. The word "toxaemia" is equally vague, and in danger of loose usage, but it is a legitimate word if we employ it to mean the circulation in the blood of chemical poisons whereby they are enabled to attack the cells or tissues for which they have the requisite chemical affinity. By "alimentary toxaemia," therefore, I understand the absorption from the alimentary canal of chemical poisons, of known or unknown composition, in sufficient amount to cause clinical symptoms, the blood having served as the channel of distribution to the tissues which are poisoned.

This definition would exclude all those cases in which actual bacterial invasion of the blood occurs from the alimentary canal, though not those in which there is absorption of the toxic products of bacteria concerned in purely local infection of the canal. I would lay some stress on this because I think it is hardly realized how commonly slight invasions of the blood stream take place; evidence is gradually accumulating to show that the normal intestinal bacteria are constantly gaining access to the blood in trivial numbers, and as constantly destroyed by the various protective mechanisms which the body has been compelled to evolve in order to avert the danger. Only when these mechanisms are in default does serious trouble arise, but it is possible that some of the cases of local disease attributed to toxaemia are really of infective nature.

There are certain alimentary toxaemias which are clearly not of bacterial origin. We subsist on foreign proteins, hydrocarbons and carbohydrates, and of these there is abundant evidence that alien proteins may be toxic and sometimes highly so. The normal processes of digestion break down the foreign protein into somewhat simpler, though still complex, atom groups, which, after absorption, are carried to the liver, whose business it is to reconstitute the protein in a form adapted for human needs. One of the primary functions of the liver is to act as a shield against the toxicity of foreign proteins, and we have evidence that when, by the formation of an Eck's fistula, this function is eliminated, serious toxic results occur. It follows that grave hepatic disease may be the cause of a toxaemia, partly, at least, alimentary in origin, and instances of this, in acute yellow atrophy and some puerperal eclampsias, will at once occur to the mind.

The bacteria in the alimentary canal, in virtue of the high fermentative activity which many of them possess, carry out protein cleavage to a point beyond that which the body demands for its own nutritional needs, and certain of the products which thus arise are actually harmful to the host. But this has always been so, ever since bacteria took up their residence in the alimentary canal of animals, and it has been necessary for animals to evolve some means of chemical antagonism to neutralize this harmful effect. We are still in comparative ignorance of the precise chemical mechanism by which this permanent menace is met in health, but that it is so met is certain, for in health we remain untouched. It is conjectured that one of the functions of the thyroid gland is to deal with this matter. A number of observations by different workers have shown that the activity of this gland is excited by the presence of bacterial toxins, and it has been asserted by certain observers that thyroidectomized animals are abnormally susceptible to infective processes. It is possible that the antitoxic functions of the thyroid extend to chemical poisons other than bacterial toxins. Be this as it may, it is clear that the body in some way compensates the ordinary activities of bacteria in the intestinal tract, so that no harm results. Only when such bacterial decompositions are excessive, and when faecal retention affords unusual opportunities for the absorption of the products, are symptoms manifested.

Thanks to the labours of chemists, our knowledge of the protein decomposition products is fairly extensive, though our knowledge as to their toxicity is incomplete. Most of them appear to be of feeble toxic powers, but it must not too hastily be assumed from animal experiment that such substances as, for example, indol are so harmless as they would appear. I am very far from agreeing with the recent hypothesis suggested by Metchnikoff as to the rôle of indol and allied substances in the causation of arterial degeneration, for the evidence put forward seems to be wholly insufficient. But we can to some extent measure the absorption of indol by the excretion of indican in the urine and correlate its excess with clinical phenomena. The excessive indicanuria in conditions of mental depression and melancholia, for a knowledge of which I have to thank Mr. Mackenzie Wallis, may be of great pathological significance, and may outweigh any negative evidence derived from animal experiment.

There is also a possibility, for the suggestion of which I again owe my thanks to Mr. Wallis, that excessive bacterial activity in the intestine may have its negative as well as its positive influence. Thus, still to take indol as an instance, it is known that this substance is derived from the tryptophane element in proteins. If tryptophane is an important element in tissue nutrition, it may be that excessive splitting up of this substance in the intestine by bacteria may lead to tissue starvation in an important detail. An element in a supposed alimentary toxaemia may possibly be due not so much to the positively toxic action of the derivative as to the absence of the needful substance from which it has been derived. I must leave such considerations to those who follow in this discussion.

Bacteria, however, may do more than provoke merely fermentative changes in the medium in which they are growing. They produce, in virtue of their own intrinsic metabolism, substances of unknown chemical composition which are deleterious to their hosts, and which we must be content to term "toxins" in the absence of more exact knowledge. It is established that a very few—bacteria produce soluble toxins which pass out into the surrounding medium without any disintegration of the bacterial body. These are the pre-eminently "toxic" bacteria, of which the diphtheria and tetanus bacilli are the commonest examples, and they lie outside our present subject. Indeed, almost the only essentially toxic bacterium which could be dragged into the discussion is van Ermengem's *B. botulinus*, present in certain ham poisonings, though *B. pyocyaneus* might perhaps also be included. But the great majority of pathogenic bacteria, and practically all those which are normally saprophytic in the alimentary canal, form no soluble toxins; so far as they possess toxic properties, these reside in the bacterial protoplasm itself and are liberated only on its dissolution—so-called "endotoxins."

Bacteria are, of course, constantly undergoing dissolution in the alimentary canal, and one cannot dispute the possibility of harmful effects from such endotoxins on absorption. But we are in almost complete ignorance of the extent to which alimentary toxaemia rests on such a basis. So far as concerns the normal intestinal flora, I should be disposed to believe that poisoning by bacterial endotoxins plays a comparatively negligible part in the process. As soon as evidence is brought forward showing this to be the case I shall be ready to accept it, but so far there is none, and it is probable that the endotoxins of most of the normal inhabitants of the alimentary canal are of very feeble virulence, though those of the colon bacillus may perhaps prove of some importance. This does not, of course, apply to cases of infective enteritis, in which the absorption of bacterial toxins plays a large part in the production of the constitutional symptoms.

To sum up what I have said as to the part played by bacteria in alimentary toxaemia, it seems to me reasonable to lay down the following propositions:

1. In an important group of cases the poisoning is by foreign proteins, as such, the defect lying in the liver, which ought to shield the body from their effects. With this bacteria have, as a rule, nothing to do.
2. The main effect of bacterial activity in the production of alimentary toxaemia lies in their ability to carry out protein cleavages beyond the capacity of the ordinary digestive ferments, with the formation of products which, when in excess, the body is unable to neutralize.
3. There is at present little evidence that true toxins, derived from the ordinary flora of the gut, soluble or intracellular, play much part in alimentary toxaemia.

ALIMENTARY TOXAEMIA: ITS SYMPTOMS AND TREATMENT.

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The doctrine of intestinal autointoxication was originated by Bouchard, and has formed the foundation for far-reaching speculations. There is little evidence that the normal products of intestinal fermentation and putrefaction are capable of producing disease, and if acetic and butyric acids, indol, skatol, and the like are harmful their effects must not be exaggerated. Sulphuretted hydrogen is only present normally in traces, and much larger quantities may be injected into the rectum without hurt, although admittedly this gas is more harmful when formed in the small intestine or the stomach. Ammonia is converted into harmless urea, while volatile fatty acids and acetic and butyric acids only produce local stimulation, even when present in quantity. Acetone, diacetic acid, and beta-oxybutyric acid are present in the urine, together with various symptoms of disturbed digestion, but this does not prove that the symptoms are due to them. The first two are found in the urine of starving animals with no digestive disturbances, and merely indicate the breaking down of tissue protein. Ptomaines may be present in excess in intestinal contents without any toxaemic results, as, for example, in cystinuria. On the other hand, there is a widespread belief, not without evidence in its favour, that many diseases depend upon the absorption of poisons from the intestine, either introduced with food or formed from it by the fermentative or putrefactive processes in the alimentary tract.

Food Poisons.

In former days food poisoning referred to the accidents that result from the ingestion of substances rendered harmful by the poisons contained in them, but modern research has added to these the effects of microbes and the toxins due to their activity. These last are exclusively produced from animal food; the danger of vegetable food depends solely upon its natural poisons or its accidental contamination by microbes in the water with which it has been washed or in the dust lying on its surface.

Vegetable Food Poisons.

Among the best known poisons from vegetables are those contained in many kinds of mushrooms, and the poisonous effect varies not only with each kind, but with season and place, some being poisonous at one time of the year and not at others, some dangerous in warm countries but harmless in colder climates; some of these poisons are destroyed by boiling, the water in which the mushrooms are cooked becoming highly poisonous.

Phalline, the poison of *Amanita phalloides*, determines destruction of the blood cells and causes choleriform symptoms, with vertigo, delirium and somnolence that may pass into coma, convulsions, and death; or final fatal icterus may occur after a remission of the symptoms has taken place, while should the patient recover, convalescence is slow and the myocardium and kidneys may remain damaged.

Muscarine, the poison of *Amanita muscaria*, causes nervous symptoms resembling alcoholic intoxication with cramps, convulsions, contracted pupils, rapid small pulse, and death in collapse, or recovery may follow a prolonged sleep.

Flour is sometimes poisonous by the accidental admixture of the seeds of tares, cow-wheat, smut, ergotized rye or vetch with the meal of wheat, maize or rye. Adulteration from tares and cow-wheat gives rise to nausea, vomiting, colic, disturbed vision, vertigo, somnolence, and lassitude, which disappear in a few hours. Cow-wheat may also produce convulsions. Smut contains a poison called "githagin," which may determine intense colic with diarrhoea and haemorrhage from the bowels. Ergotized rye causes nausea, vomiting, lassitude, with constipation or diarrhoea, and subsequently local symptoms such as cramps of certain muscles or gangrene of the fingers and toes; vetch poisoning induces spasmodic paraplegia with disorders of sensation and tremors.

Potatoes sometimes produce poisonous symptoms from the presence of solanine, causing slight vertigo, headache, vomiting, dilated pupils, and rapid action of the heart.

Animal Food Poisons.

The putrefaction of animal food leads to the production of (1) ptomaines and (2) leucomaines. The first are formed by putrefaction, the second by the excessive destruction of protein.

Certain poisons are developed spontaneously and apart from microbial infection—for example, oxybetaine from meat and putrefying bones, choline from herring pickle, muscarine from decayed fish, methylgadinine from putrid horseflesh, and ptomatropine from salted sturgeon.

On the other hand, the *Bacillus botulinus* and other microbes of the type Aertryck and the type Gaertner cause a poison, botulin, in putrid ham. Other poisons are formed by the paratyphoid bacillus, by enterococcus and proteus, while the *Bacillus coli* may under certain circumstances enter the blood and make the meat poisonous—as, for example, in hunted animals. Meat preserved in various ways, especially in cold storage, seems to be liable to undergo poisonous decomposition. This is also true of gelatine, cream, and Rouennaise ducks; these last are killed without loss of blood by puncturing the medulla, and are then beaten so as to effect the diffusion through their tissues of anything absorbed from the intestine. Certain fish, the herring and the conger, and certain roes are at times poisonous; mussels contain a poison which has been called mytilotoxine (Virchow and Brieger) and mytilocongestine (Richet), while oysters sometimes contain similar poisons. It is not known how these poisons are produced; by some (Thesen) it is thought that they are formed in sea water. Young veal is highly poisonous when the cow has suffered from septic fever or puerperal metritis. The meat of animals suffering from septic diseases, metritis, pneumonia, and typhus is undoubtedly poisonous. Hunted game is sometimes also poisonous from the intestinal microbes entering the blood.

Preserved meat, potted meat, sausages and the like, may be infected before being packed or during preparation, and in hot weather the microbes develop and produce poisons. Eggs may be contaminated in the oviduct, and when used in confectionery—especially when mixed with such favourable media for the cultivation of microbes as sugar, milk, and gelatine—may develop poisons. Cheese is also occasionally the seat of poisonous putrefaction.

There is little doubt that certain foods become poisonous from the absence of some principles normally present, but which have been removed or disappear when the food has been kept too long. Of these beri-beri, although only known to Western medicine in recent years, is the example in which this relation has been most clearly established. The belief that it depended upon some dietetic defect was maintained as long ago as 1878 by Wernich, supported later by Van Leent, and the practical value of the doctrine was demonstrated by Takaki, who, by the reform of the diet of the Japanese navy, wholly eradicated the disease from that service. But it was Braddon who was the first to show the connexion between the consumption of white rice and the prevalence of the disease, and the conclusive proof has been worked out by Fletcher, Stanton, and Fraser, who have shown that rice completely denuded of its pericarp, if used as an exclusive diet, causes beri-beri, while the disease may be prevented by mixing a proportion of the "cleanings" with the diet, and conversely that the disease does not arise when imperfectly husked rice is consumed.

Although the position of pellagra as a food disease is disputed, the belief is general in the United States, where its incidence has extended widely during the last few years, that this spread is due to the fact that maize, which was formerly consumed where it was grown, is now transported long distances and stored for use. The cases that have been observed in Scotland are also thought by some to be due to an analogous change in oatmeal.

Scurvy or scorbutus has been long recognized as related to insufficient diet, and should be included among diseases due to dietetic error or defect, for the suggestion that it is caused by a poison formed in tainted meat receives small support from the experience of those who have seen most of the disease. This view impressed itself upon the mind of Captain Robert Scott, as in the second year of his former Antarctic expedition, when he had plenty of fresh seal meat, the disease disappeared; but fresh meat contains the necessary principle. There is strong evidence of the value of varied diet, of fresh or preserved vegetables, and lime juice; the use of the last article coincided with the practical disappearance of the disease from the British navy.

Barlow's disease is another result of dietetic defect, as, like scurvy, it depends upon the want of some principle usually present in fresh milk but absent in patent and preserved foods. Cases have been alleged to occur in children who were fed on breast milk; but the breast milk may have been defective owing to the impaired health of the mother.

Speaking generally, the results of food poisons may be classified into slight, medium, and severe: (1) In slight cases there may be only some digestive trouble, nausea, vomiting, colic, headache, pain in the back, with recovery in two or three days, or there may be urticaria without digestive trouble, or simply diarrhoea. (2) In medium cases, in addition to the symptoms already described, there may be a persistently dirty tongue, slow convalescence, a disposition to relapse, accompanied by constipation and enfeebled digestion lasting for weeks. (3) Severe cases may present (*a*) the typhoid state, with high temperature, epistaxis, diarrhoea, gurgling in the right iliac fossa with enlarged spleen, such cases often giving rise to considerable difficulty in diagnosis; (*b*) the choleriform type, with violent vomiting and purging, pains, cramps, dyspnoea, thready pulse, sweating, purpuric and scariatiniform eruptions, low temperature, collapse and perhaps death, or a reaction with return of diarrhoea and vomiting, followed by gradual improvement, slow convalescence, and prolonged weakness; (*c*) the icteric type, characterized by jaundice which may be malignant in form and results especially if the kidneys are diseased. Many doubtful cases of disease are due to these toxic infections.

Botulism is a special form in which, after two or three days of colicky pain, vomiting and diarrhoea set in with dryness of the skin and mucous membrane. There may be constipation. External and internal ophthalmoplegia may occur. There is no fever, but there is difficulty in deglutition owing to the dryness of the pharynx. These symptoms may gradually disappear and slow convalescence follow, or death may result from cachexia,

bronchopneumonia, or asphyxia from food sticking in the pharynx.

In Captain Ejnar Mikkelsen's book, *Lost in the Arctic*, which describes his adventures and hardships during his expedition to Greenland, he tells how, when hard pressed by hunger, he and his companion were driven to eat the liver of freshly-killed dogs, and suffered in consequence. Their symptoms were peculiar, as they consisted of an uncontrollable desire to sleep, their sleep lasting ten or twelve hours; when they awoke they suffered from a splitting headache; some days later the skin peeled, and Mikkelsen says his companion Iversen had "big sores all over his body." In an earlier part of the book it is stated that a dog was made ill by eating dog's liver, but somnolence was not a symptom. The livers, when eaten by Mikkelsen and his companion, were cut in slices and "fried in water," so that the meat was imperfectly boiled. The poison was probably toxic albumose, which was all the more active as the meat was freshly killed and only partially cooked.

Sir Lauder Brunton, Dr. A. C. Farquharson, and others have drawn attention to the symptoms produced by food poisons which in many cases resemble the action of a paralysing narcotic, but Farquharson attributes this effect, not to a direct soporific poison, but to dilatation of the gastro-intestinal blood vessels with consequent anaemia of the brain.

Many skin eruptions are attributed to the absorption of intestinal poisons—for example, erythematous rashes, urticaria, pemphigus or pemphigoid eruptions, and pruritus. The effects of fish, shellfish, and certain fruit in causing erythematous eruptions are well known. Coffee may cause pruritus and sweating of the palms of the hands and soles of the feet. A hospital patient had many recurrent attacks of herpes iris, with large bullae in the mouth and pharynx and over the elbows and knees, which invariably followed a bout of beer drinking.

Cyclic or periodic vomiting, or food fever, is a condition which occurs in childhood, from the second or third year onward up to puberty, and is attributed by most writers who have concerned themselves about it to disturbances of digestion, especially the digestion of carbohydrates. It does not always cease at puberty or at the age at which puberty generally occurs. A case of this kind, under my care a few years ago, was a lad of 18, as undeveloped as a boy of 12; he weighed only 4 st. 9 lb.; his attacks of vomiting occurred every few weeks, and were accompanied by severe headaches; he was quite unable to earn his living. At the urgent request of his father his abdomen was opened and gastro-enterostomy was performed, without any definite condition being discovered or any improvement resulting. Acetonuria has been observed in this affection, but there is little likelihood that the cause is acetone poisoning.

It is doubtful whether there is any sound foundation for Nothnagel's view that certain cases of infantile marasmus, cachexia, and pernicious anaemia result from atrophy of the intestinal mucous membrane. It is possible that pernicious anaemia may result from the absorption of poisons from some part of the alimentary tract which destroy the blood, but the atrophy of the stomach or intestinal mucous membrane is probably associated or secondary (Knud Faber). The relation of pernicious anaemia to intestinal intoxication, although possible, has by no means been proved, and Schmidt says he has not met with sufficiently severe fermentation or putrefaction to support this theory. Chlorosis and leukaemia have also been attributed to intestinal intoxication, but without any adequate proof, and there are now few persons who would support Sir Andrew Clark's view that chlorosis is due to intestinal poisons, and may be cured more efficiently by purgatives than by iron.

Certain affections of muscles may result from severe digestive disorder, as in the cases of polymyositis acuta described by Senator and Albu.

Oxaluria or oxalaemia may be fairly reckoned to be of alimentary origin, for oxalic acid is introduced preformed in the food, or is the product of carbohydrate fermentation in the stomach which may occur when the hydrochloric acid is deficient; hence the old Edinburgh treatment by nitro-hydrochloric acid is well founded.

Arterio-sclerosis is one of the conditions attributed to auto-intoxication, but the argument seems to be that, as only a small percentage of cases give a Wassermann reaction, they are not all due to syphilis; and if not to syphilis they must be due to auto-intoxication (Aufrecht), which only shows how comprehensive this doctrine may become. Indeed, Combe makes it play the same universal part that others assign to uric acid, while Tissier, in an equally wide generalization, maintains that the decomposition of animal protein in the intestine prepares a favourable soil for the growth of all pathogenic bacteria, and is therefore the source of most diseases.

It is sufficient comment on these theories to say that, however plausible, they do not rest upon a solid foundation.

Poisoning by Faecal Stasis.

It is tolerably certain that there is little evidence in favour of the popular notion that mere faecal retention favours the production in the bowel of fermentative or putrefactive changes giving rise to poisons which are absorbed into the blood and cause various pathological symptoms.

Simple constipation does not lead to any increase of decomposition in the faeces, and infrequent evacuation of the bowels is consistent with perfectly good health and longevity. But it is a not uncommon cause of chronic intestinal catarrh which may go on to ulceration and even perforation, and it is to these inflammatory consequences that must be attributed the various symptoms which are associated with constipation. Faecal retention is not inconsistent with a daily action of the bowels, as in a case reported by Mannaberg of a public official who asserted most positively that he had always made a point of getting a daily evacuation, but who died of perforative peritonitis caused by a large number of enormous faecal masses nearly as hard as stones.

While, therefore, we may be reasonably sceptical about "copraemia," "faecal fever," and other alleged results of faecal fermentation or putrefaction, nothing is more certain than that many symptoms may result from constipation where alterations in the wall of the bowel have taken place. Nor is it inconsistent with this view that thorough emptying of the bowel should be followed by temporary relief to these symptoms, but at the same time we should expect that the simple evacuation of the pelvic colon would not effect a cure.

Without inflammatory changes the natural protective agencies existing in the alimentary canal can keep us safely from such toxins as are formed in the bowel; so long as the several organs concerned are structurally healthy the intestinal contents are practically outside the body and are powerless to injure us.

Protective Agencies.

Against the long catalogue of supposed evil influences of intestinal microbes and toxins must be set the very real protective agencies by which under physiological conditions their entrance into the circulation is prevented. The general harmlessness of pathogenic microbes and their toxins in the digestive tract is supported by strong evidence. The healthy mucous membrane presents such a barrier by its relative impermeability that their diffusion takes place slowly, and time is allowed for the action of the digestive secretions which destroy the microbes and neutralize the toxins. This action is effected most efficiently in the stomach and small intestine, less so in the large intestine and rectum; but dogs and rabbits can withstand the rectal injection of cultures of diphtheria and tetanus, of which a fractional dose would be fatal if injected under the skin or into the circulation. Mere quantitative variations in the amount of the digestive secretions do not appear to interfere with this protective action, but in *achylia* infective microbes and toxins are not destroyed in the stomach, and pass rapidly into the duodenum. Even here they have to run the gauntlet of the pancreatic and intestinal digestion, which possesses almost equal destructive and neutralizing properties.

The bile has a much weaker action, its antitoxic effect being apparently due to its saponifying power as an artificial solution of soda palmitate possesses the same antitoxic coefficient. Roger attributes the antitoxic action of the bile to its power of modifying pathogenic bacteria so

that they no longer secrete toxins; but he maintains that so far from neutralizing toxins already formed, it actually increases their toxicity. Should these poisons enter the portal circulation, in spite of the destructive neutralizing or attenuating effects of the digestive secretions and the barrier of the mucous membrane, the liver itself possesses the power of arresting poisons or of converting them into harmless or less poisonous substances. Further, the intestinal mucus which coats the lining of the bowel delays absorption and prolonged contact with the mucous membrane neutralizes toxins.

Finally, the ordinary intestinal microbes are able to neutralize the toxins secreted by allied species and can inhibit the putrefactive power of others, while they can also neutralize toxins although to a much less extent than the digestive juices.

Inflammation of the mucous membrane of the bowel favours the absorption of toxins and its permeability seems to be normally greater in infants and young animals as shown by experiment. It is claimed that diphtheria antitoxin may be administered successfully to infants by rectal injection (Chantemesse) and that other antitoxins and vaccines may be so employed.

Further, it is found that various vegetable toxalbumens are not completely destroyed by the digestive juices but diffuse through the intestinal wall into the blood, and it is said that tuberculin differs in this respect from the other microbial toxins, behaving like these toxalbumens.

TREATMENT.

The treatment of these conditions cannot be discussed in detail, but the principles may be laid down.

In the first place, it is essential that food should be wholesome, that articles of doubtful nature should be avoided, that preserved foods, especially animal foods, should not be eaten when fresh can be obtained, and that as far as possible all food should be prepared by submitting it to cooking at a temperature of not less than that of boiling water. The eating of all uncooked food is attended by a certain amount of risk, and although we all run this risk at times it is unwise to eat such food when we know little about its origin or handling. For example, many English travellers suffer from eating fruit and salads in hotter countries, and even at home oysters are justly shunned unless we know their source.

In the second place, all food should be eaten slowly, properly masticated, and mixed with saliva. Defective teeth should be repaired or replaced, and the mouth kept in a healthy condition.

Provided these conditions are all fulfilled the stomach, if healthy, may be trusted to perform its share, but no doubt Trousseau's traveller was right who concluded each meal in strange places by taking a few drops of hydrochloric acid to reinforce the action of the gastric juice.

By all means let the diet be a mixed one of carbohydrate, protein, and fat, and consist of such things as are suited to the individual, avoiding excess and remembering that while every stomach can digest small quantities of most things no stomach can digest large quantities of everything. In youth amounts of food can be assimilated with advantage that in middle age tend to obesity and gout, and in later life to disordered digestion and many evil consequences. Moreover, mode of life must be allowed to regulate the quantity of our food, and as we become less active we should eat less.

Alcohol should be regarded with doubt and suspicion, for, while capable of conferring a certain amount of pleasure and at times of promoting appetite and even digestion, its general effect is to slow the digestive process and in large quantities to check it and to inhibit those protective agencies upon which our safety depends.

While due time must be given to meals and resting afterwards assists digestion, daily exercise favours absorption, maintains the circulation of the blood and lymph, prevents constipation and promotes elimination by the lungs and skin.

When alimentary toxins have been absorbed and passed into the circulation, the most rational treatment would be the administration of an antidote if we possessed one; failing that, we should try to prevent the further formation of poisons, and to favour their elimination.

Nature endeavours to get rid of the poison by setting up diarrhoea, vomiting and sweating, more rarely by diuresis, all of which may be imitated, guided, or controlled.

The means by which we may endeavour to provoke the prevention of the further formation of poisons and the destruction and elimination of those already present may be by (A) cutting off the supply of material; (B) reinforcing the digestive juices; (C) bacterial action; (D) drugs; (E) hydrotherapeutics.

A.

We seek to cut off the supply of further material for the formation of poisons by simplifying the diet. In acute conditions, after washing out the stomach, we may give nothing but hot water, or the same with the addition of a little milk or milk diluted with lime water, soda water, or barley water; in subacute and chronic conditions it is best to rely on lacto-farinaceous diet. As a general rule eggs, milk, and cheese are allowed, but some forbid even these, and give only vegetable protein, carbohydrates, and fat (Tissier). In all cases it is better that the food should be varied, well cooked, and moderate in quantity.

Fasting is a perfectly sound method of diminishing toxins if combined with copious draughts of water or mineral water (Guelpa).

Fruit "cures"—such as the strawberry cure that enabled Linnaeus to get rid of his gout, the grape cure and the like—probably act partly as fasting cures, partly by supplying a non-toxic and moderately purgative diet. The advice of Albu to take the juice of two or three fresh lemons three times a day, and to abstain from milk and fatty food, is based on similar principles.

The so-called Salisbury diet, which consists of three small meals of finely minced lean meat, each followed at an interval of two hours by half a pint to a pint of hot water, is a starvation diet, and acts probably very much like fasting, while the hot water promotes elimination.

Schroth's dry diet is also a cure by inanition, but the rational basis of the plan in all its details is not apparent, as after four or five days' abstinence from all drink and all food except five or six small dry rolls, the patient is encouraged to take a litre or a litre and a half of light wine, which, as might be expected, often causes intoxication; but the results of the Lindewiese cure, as reported by a recent observer (F. Sandoz), are on the whole not unfavourable.

B.

Physiology teaches us how to stimulate the secretion of the various digestive juices as the whole series depends for its efficient working on the proper initial start. Careful mastication not only divides the food mechanically and mixes it with the saliva, but stimulates the salivary glands to secrete and the saliva in turn provokes the flow of gastric juice and this the other secretions. Therefore the habit of hasty eating and imperfect mastication from any cause may impair the whole process of digestion, while conversely due attention at this stage is calculated to ensure the complete carrying out of the entire function. As we have seen that these digestive agencies are the most powerful means we possess for destroying or neutralizing alimentary toxins, the importance of this point can hardly be exaggerated, although to chew food until it is tasteless and remove the residue from the mouth, as recommended by Mr. Fletcher, goes beyond what is reasonably necessary.

C.

We have seen that the ordinary intestinal bacteria afford a protective agency which, although weaker than the digestive juices, checks the action of putrefactive and pathogenic bacteria and neutralizes the toxins formed by them. Of the ordinary bacteria which play this useful part the best known is the lactic acid bacillus—a normal inhabitant of the intestine which has been made famous by Metchnikoff, but the value of butter-milk in remedying the results of a debauch has long been known in the North of Ireland. Bulgarian sour milk or Yoghourt when properly prepared is a pleasant article of food which promotes the normal action of the bowel, and the use of this or of butter-milk should be encouraged.

D.

As the stomach is the place where the food first rests and remains longest, it possesses the most efficacious antitoxic properties. The healthy stomach is sterile, and all food during its stay within its cavity is sterilized as a result of peptic digestion, and this is carried out in the presence of sufficient hydrochloric acid and pepsin. Pepsin is deficient in only the rarest instances, but the supply of hydrochloric acid may be defective or altogether absent. Under these circumstances the administration of hydrochloric or nitro-hydrochloric acid is indicated, but should be in larger doses than those commonly administered. Ten or fifteen drops of hydrochloric acid (*B.P.*) may be added to half a pint of sweetened water, and this quantity used as a drink during or after each meal. Mercurials, especially blue pill or calomel, act as antiseptics in the stomach and duodenum, but most of the so-called intestinal antiseptics have not justified the claims made for them, and it is doubtful whether any antiseptic drug in practicable doses can preserve its bactericidal capacity after passing a short distance down the intestine.

Purgatives unquestionably eliminate toxins, and are among the most powerful means we possess, but many act only on the pelvic colon and rectum, and do not clear the whole length of the large intestine. Senna possesses this valuable property, and one of the best aperients for chronic faecal stasis is an infusion of senna pods taken every night at bedtime.

E.

The practice of drinking large quantities of water, especially of the milder mineral waters, has much in its favour. Unmineralized water is apt to stay in the stomach and so to cause discomfort, but this does not seem to be true of hot water, which many people take on rising and again at bedtime. Small quantities of salines, especially magnesium chloride or sodium phosphate or sulphate, may be added to the water with advantage. This helps elimination by preventing the drying of the faeces in the colon, and stimulates peristalsis. To ensure complete evacuation of the large bowel irrigations or ascending douches are among the most efficient means, but there is a risk of inducing atony of the bowel when their quantity is excessive or their use is continued too long. The "entero-cleaner" of Anton Brosch is the most elaborate of ascending douches, the chief advantage claimed for it being that, as it is administered under water, the external pressure supports the bowel and prevents over-distension. When the above described methods have had a fair trial, and there is reason to believe in serious pathological changes in the colon permitting the continued absorption of toxins, its exclusion or removal should be considered.

Conclusions.

1. Under physiological conditions the natural protective agencies in the alimentary system are sufficient to shield the body from the dangers of poisons formed therein or of those introduced with the food, provided that these are not in overwhelming amount.

2. Infrequent or incomplete evacuation of the colon is not in itself a cause of disease.

3. Such morbid symptoms as arise result from a breakdown in the protective machinery, in consequence of functional defects or pathological changes in the organs concerned.

4. Wholesome food in reasonable quantities may consist of animal or vegetable protein, carbohydrates, and fat in due proportion, and the evidence does not justify the entire exclusion of animal protein, as being directly or indirectly the cause of toxaemia.

5. When toxaemia is present treatment should be based on the principles of eliminating the poison already present, preventing any further introduction and reinforcing the natural protective agencies.

6. Where there is extensive disease of the wall of the colon the exclusion or removal of this organ is a justifiable proceeding after a reasonable trial has been given to medical methods.

CONSEQUENCES AND TREATMENT FROM A SURGICAL POINT OF VIEW.

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I will endeavour to give a brief summary of the surgical treatment of the autointoxication and other effects which result from chronic intestinal stasis. The causation of stasis and the consequent infection of the gastro-intestinal contents are due to improper feeding in early life, and subsequently to the prolonged assumption of the erect posture of the trunk.

The changes that result in the drainage scheme are evolutionary in nature, and simply mechanical in origin. To meet the tendency to downward displacement of the viscera which results from an accumulation of faecal matter, at first in the large intestine, and later in the small intestine and stomach, membranes or mesenteries develop. These bands represent the crystallization of resistances. They form, in the first instance, as thickenings on the peritoneum, and later as distinct membranes or mesenteries, which support the viscera and tend to obviate their prolapse. Some observers regard these new developments as being congenital in origin, while others consider that they are inflammatory products. Against both these hypotheses are the facts that they do not exist at birth, that they can be seen in every stage of development during the lifetime of the individual, that they vary distinctly with occupations, that they commence at that point in the mesentery which is most distant from the bowel, and are obviously developed for the purpose of securing that particular portion of the intestine more closely to the abdominal wall, that they appear only on one surface of the mesentery, and that surface is the one along which the greater amount of strain is exerted, and that they correspond exactly in situation and direction to the lines of force. Besides this, they occur in the layers of peritoneum in which the main lymphatic trunks do not run, while they do not develop on such peritoneal surfaces as are chiefly in relation with the lymphatic glands and vessels.

At their commencement they serve a useful purpose. Later they tend to impair the function of the part and consequently to shorten life. This is a common characteristic of such evolutionary changes as develop during the lifetime of the individual.

While the effluent through any portion of the intestine may be controlled by some mechanical means applied externally, as, for instance, by a band, membrane, or appendix, the contents of the intestine may also be dammed back merely by the accumulation of material in the bowel beyond. This is illustrated by the puddling and obstruction in the much elongated pelvic colon seen so frequently in tuberculosis and rheumatoid arthritis in young people, and again in the delay of the contents of the ileum, and their consequent infection when material is accumulated in a large dilated caecum occupying the true pelvis, or occasionally when the caecum is fixed immovably in the iliac fossa. In any case the result is the same—namely, stagnation of the intestinal contents and the changes consequent on such delay.

The result of this stasis of the intestinal contents manifests itself in two distinct ways, which may or may not be obviously associated clinically. The mechanical results of such delay in the small intestine are interference with the effluent from the duodenum and consequent distension changes in the duodenum, more especially in its first part. This obstruction produces engorgement of, and later inflammatory changes in, the mucous membrane of the bowel, and may finally cause ulceration and perforation, or cicatrization and stenosis of the first part of the duodenum. Spasm of the pylorus follows on distension of the duodenum, and this brings about dilatation of the stomach with hypertrophy of its walls. Because of the strain exerted by the heavy contents of the stomach, often increased by the weight of an habitually loaded transverse colon, engorgement, inflammation, ulceration, and finally cancerous infection of the mucous membrane may develop along the lesser curvature at the site of greatest strain. This area of excessive tension approximates to the

pyloric end but varies with the position of the liver. Spasm of the lower end of the oesophagus occasionally complicates this condition and material may accumulate in the oesophagus. The term "cardio-spasm" has been applied to this condition, which exists in very varying degrees of severity and intermittency. Its symptoms and treatment have been fully described by Dr. Plummer. The alteration that takes place in the contents of the stomach and small intestine, due to their infection by organisms and consequent chemical changes, produces a quantity of gas, etc., and this determines the symptoms which are grouped under the comprehensive term "indigestion."

The ducts of the pancreas become infected by the direct extension of organisms along them, and induration, inflammation, and cancer of that organ may result. Similarly in the case of the liver, gall stones are developed with all the troublesome sequelae of their presence, the last of which is too frequently cancer. The infection of the ducts may extend up into the liver and inflammation of that organ may result.

Besides the mechanical changes in the gastro-intestinal tract and in the ducts which open into it, the chief trouble consequent on the stasis is the autointoxication produced by the absorption from the gastro-intestinal tract, and especially from the small intestine, of a greater quantity of toxic material than the liver and kidneys can deal with. This autointoxication produces a degeneration of every tissue in the body. It is particularly manifest in the organ which converts the poisons, in the heart and vessels which convey them, and in the kidneys which excrete them. The effect of the poisoning is shown especially by a loss of fat and by a degeneration of all the muscular tissues of the body. These factors are of especial importance in the female, whose function of accommodating and transmitting a fetus renders her more liable to change in consequence. The outline of her body is lost because of the dropping of the breasts and abdomen and the wasting of the buttocks. The uterus becomes soft and heavy and bends about. It drops backwards in most cases, so that the gorged heavy fundus rests on and tends to obstruct the rectum. The kidneys, being no longer cushioned in fat, prolapse, as do all the other viscera of the abdomen. In this manner a vicious circle is set up, by which the stasis and consequent autointoxication are still further exaggerated. Thus a condition of premature senility is brought about. The skin becomes thin and stained and its secretion frequently offensive.

The breasts undergo degenerative changes, manifested in the first instance as induration, to be followed by inflammatory and cystic degeneration, and possibly, lastly, by cancerous infection. The thyroid may enlarge, form tumours, and symptoms of exophthalmic goitre may not infrequently develop. The circulation is much affected. In some cases the blood pressure is abnormally high when it is associated with pretty obvious changes in the heart and aorta, while in others it is subnormal. The general body temperature is subnormal, whereas that of the extremities is always so, sometimes in such a marked degree as to suggest Raynaud's disease.

Microbic cyanosis may also be present.

The cerebro-spinal system is affected in a very marked manner by the poison. The patient is always depressed, feels stupid and unfit for physical or mental exertion, and suffers from headache which varies in character and intensity. Neuralgia or neuritis are frequently complained of. The sufferer sleeps badly, tends to fall asleep at all times of the day, dreams greatly, and awakes from sleep without feeling refreshed. These and other symptoms may exist in any degree of severity. In some cases the individual is mentally so dull as to appear imbecile, while in others the misery is so great that the patient willingly resorts to drugs, drink, or suicide as the only available means of alleviation or freedom from suffering. The eyes are definitely affected in many ways from the autointoxication. The condition of the conjunctiva is characteristic of its presence and degenerative changes in the tissues of the eyes are brought about. The sense of hearing also becomes defective in some cases, probably on account of degeneration in the nerve tissue or of infection in the spaces in connexion with the middle ear. The resisting power of the tissues to the entry of organisms is lowered. The effect of this is seen, perhaps, most commonly in the sockets of the teeth, and especially around the lower incisors. Organisms establish a foothold in the gum about the fang, and produce a condition of inflammation which may sooner or later destroy the teeth. The products of suppuration from the infected gums being swallowed increase the infection of the upper portion of the gastro-intestinal tract, and seem to aggravate the general depression. A similar infection may occur in the sinuses and lymphatic tissues about the nose and throat. The genito-urinary tract of the woman is particularly liable to infection, and innumerable troubles affect her in consequence and interfere with the satisfactory performance of her functions. These patients readily develop tubercle or rheumatoid arthritis. I do not believe that these diseases can exist except in the presence of autointoxication. The evidence in favour of this statement is that these cases invariably show very definite clinical and *x*-ray evidence of stasis, and that the symptoms disappear and the patients recover sometimes with startling rapidity when the condition of stasis has been effectually dealt with. I would remind you of the remarkable confirmation of the extreme importance of effective drainage which Carrel's experiments afford. He has shown that tissue is immortal provided that it is properly drained, and that it obtains sufficient food. The difficulty that has to be met by us does not lie in the supply of sufficient nutrition, but in dealing with the defective state of our drainage apparatus. Carrel's observations are of the greatest possible service at the present moment, since they afford us the same confidence in our methods of treatment that *x* rays did in the case of operation for simple fractures, when the opposition to that form of treatment was intense and to a great extent unscrupulous in its methods. If we wish to deal with primary causes and not merely with effects, it is our business in all cases of autointoxication resulting from intestinal stasis to improve the drainage of our bodies so that material is no longer allowed to stagnate, decompose, and poison our patients. We cannot now pursue obsolete methods and be satisfied with the treatment of end results. We must deal with the defective condition of the intestines, the prime factor in the development of disease and death. Whether this can be effected sufficiently by the use of lubricants, abdominal pressure and diet, or whether some operative treatment is required, must depend on the nature of the stasis and the condition of the patient. Here again *x* rays afford us very great assistance, since they indicate not only the rate of passage of the contents through the several portions of the tract, but they often demonstrate the exact nature of the obstruction. Besides this, they show many of the changes in the heart and aorta, which are often serious complications of autointoxication.

In the vast majority of cases the ileal effluent is at fault. Sometimes this can be met by the removal of an appendix controlling the passage of the ileal contents into the caecum, or by the division of a membrane or a ligament reducing the lumen of the last two or three inches of the ileum, while at other times the best result is obtained by fixing the divided ileum into the pelvic colon, and by exaggerating the last kink by means of a suture, so as to avoid the ascent of faecal matter into the iliac colon. This last method of treatment is by far the most efficient, and results in immediate benefit in the vast majority of cases. Within a few hours of the operation the patient asserts that she is quite different, and that she has lost that feeling of intense misery and depression from which she had suffered for years. The feel of her hands, etc., is altered, and she looks a greatly improved woman. In a certain proportion of cases it is advisable to remove the large bowel at the same time or subsequently. This is particularly called for when the condition has existed for a long time and there is much change in the large intestine. The only risk of these operations is that common to all abdominal operations—namely, the formation of adhesions, which may anchor or obstruct the lumen of pieces of small bowel. This can be best prevented by rigid asepsis, and by avoiding exposure and manipulation of the intestines, and by approximating the edges of peritoneal surfaces as accurately as possible. It is now too late for mere quibbling, and for the negation of facts that are perfectly obvious and capable of demonstration in the clearest manner possible. This condition of defective

drainage has already been dealt with by surgeons all over the world, as well as by myself, and those who have had a large experience in the operative treatment of these cases are arriving at definite conclusions as to the best mode of dealing with them. Chronic intestinal stasis is a subject that is growing very rapidly in importance, and it cannot be decided merely by conjecture or on previous experience, but by the light of hard facts as afforded by the results of operative interference.

The Goulstonian Lectures

ON

DEATH BY ELECTRIC CURRENTS AND BY LIGHTNING.

Delivered before the Royal College of Physicians of London.

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Lecture III.—DEATH BY LIGHTNING.

Having discussed the subject of death by industrial electric currents very thoroughly in the last two lectures, I am in a position to approach the obscure subject of death by lightning-stroke with the more confidence. This form of death is much commoner in most countries than it is in ours. In England and Wales the Registrar-General reported 124 fatal instances of lightning-stroke, 108 in men and 16 in women, during the ten years 1901–1910, a yearly average of only 12.4 deaths, or 0.36 per million living. In the twenty-nine years 1852–1880 there were 546 such deaths, the yearly average for that period being 18.8, or 0.88 per annum per million living. The number of these deaths varied widely in different years; three people were killed by lightning in 1863, 46 in 1872. The annual death-rate from lightning also varies widely in different parts of England. In the North Midlands from 1852 to 1880 it was 1.8 annually per million living; in the metropolitan district only 0.13 (Lawson)—a figure that should be of comfort for anybody who is in London during a thunderstorm. On the Continent much higher yearly death-rates are found. In Hungary the annual death-rate from lightning is said to be sixteen per million living (Millham); in Styria and Carinthia about ten per million, in Prussia 4.4, in France and in Sweden three, in Belgium two, so far as the imperfect statistics available go (McAdie and Henry). In the United States of America the annual death-rate per million is high, about ten, in consequence of the frequency of thunderstorms on the one hand and of the large percentage of the inhabitants engaged in outdoor labour on the other; about 700 or 800 deaths from lightning were estimated to occur in the United States every year by Henry in 1900, in a population of 76 millions.

Many more people are struck by lightning than are killed. For example, Jack records an instance in which a church was struck; 300 people were in it, 100 were injured and mostly made unconscious, 30 had to take to their beds, but only 6 were killed. Weber gives an account of 92 people struck in Schleswig-Holstein; 10 were killed, 20 paralysed, 55 stupefied, and 7 only slightly affected. In 1905 a tent with 250 people in it was struck, and 60 were left on the ground in various states of insensibility; one was killed outright, another breathed for some minutes before dying, the rest recovered.[44] As many as eleven [81] and eighteen [87] persons have been killed by a single stroke of lightning. Vincent mentions a stroke that threw down 1,200 and killed 556 out of a flock of 1,800 sheep. Dechambre believes that children are perhaps less liable to be struck than adults; but statements such as these are really not capable of proof or disproof.

The Nature of Lightning.

Nothing was known or even, apparently, guessed as to the true nature of lightning and its connexion with electricity till 1708, when Wall drew attention to the similarity between it and electric sparks obtained by rubbing a piece of amber. The identity in kind of electric sparks and lightning was proved in 1752, when the experiment suggested by Franklin in 1750 was carried out in France by D'Alibard, and ordinary electric sparks were obtained, during the passage of a thunderstorm, from an insulated iron rod forty feet high set up in a garden at Marly-la-Ville. A few months later Franklin proved the same thing by his celebrated experiment of flying a kite up into a thunder-cloud during a rain-storm, and drawing sparks from the wet cord that held the kite. In this way it was proved that a flash of lightning is no more than a particularly large and powerful electric spark.

When electric sparks and their methods of production are examined, it is found possible to determine a large number of physical data about them—the voltage that is required to produce a spark of a given length, for example, the duration of a spark, the direction of its flow, the quantity of electricity (measured in coulombs) it contains, the rate of flow in amperes of the current that produces it, the amount of energy (measured in joules) expended in its production, and the rate and number of the oscillations composing it—for in a great many cases an apparently simple and single electric spark is really a complex built up of a rapid succession of sparks of diminishing intensity, first in one direction, and then back again in the opposite. All these measurements can be made with some accuracy, and many of them are of importance in determining the lethal or non-lethal effects of electric sparks upon animals.

But with lightning flashes the dangers of such investigations as these are obvious, and not one of the measurements just described above has ever been made as yet with any approach to accuracy in the case of lightning. One only has a number of vague suppositions and a few somewhat sketchy experimental facts to go upon. Still, such as they are, these are worthy of consideration.

1. *Voltage.*—This has never been measured, but has always been assumed to be very high. Lodge calculated that the production of a flash a mile long might require a difference of potential of five thousand million volts, and reckons the difference of potential concerned in an ordinary flash at millions or hundreds of millions of volts. Most authors content themselves with saying that the voltage of a flash must be millions or many millions of volts. Trowbridge found that his battery of twenty thousand small secondary batteries joined up in series gave him initial sparks 3.5 to 4 cm. in length, at a voltage of about 40,000 volts; but, when the two sparking terminals were quickly drawn apart, he could get a flaming discharge 60 cm. in length. He also found that the apparent resistance of the air was much diminished, and the sparking distance at any given voltage was increased, when large quantities of electricity were employed and transmitted in the spark.

2. *The quantity of electricity in a flash*, in coulombs, never has been measured. Faraday believed that it was quite small, not enough to decompose a drop of water into oxygen and hydrogen, and later writers have agreed with this estimate. Lodge, for example, mentions seventy coulombs as the quantity in a certain flash, enough to decompose only one-tenth of a grain of water.

3. *The amperage*, or rate of flow of the electricity, has always been assumed to be large. Here, at last, we meet with a quantity that has been measured, though not by a method capable of very accurate results. Pockels has described some experiments made with the lightning flashes that struck lightning rods on an observatory in the Apennines; and from the amount of permanent (remanent) magnetism induced in some small basalt prisms by the current flowing down the lightning conductor when it was struck, he has calculated that in these particular lightning flashes the current was from 11,000 to 20,000 amperes. Trowbridge's view that with sparks of large amperage the resistance of the air seems to be reduced has been mentioned already.

4. *The duration* of lightning flashes has not yet been investigated as carefully as it ought to be; it is a matter for the meteorologists to settle by actual observations. Schmidt's experiments showed that the duration of many flashes was under $\frac{1}{2000}$ second, while others were multiple or oscillatory in character, and lasted for $\frac{1}{1000}$ – $\frac{1}{200}$ second, and yet others lasted for longer than $\frac{1}{200}$ second.

Flashes passing from one cloud to another high in the air may last for as long as one second, according to Hann. Lodge, on the other hand, assumes that a single flash lasts for "some extremely small fraction of a second, say $\frac{1}{100000}$ or thereabouts," and so does Sylvanus Thompson.

5. *Direction and Course.*—A clearly-seen flash of lightning gives one the impression that the flash starts at one end and runs rapidly to the other end of its course. There is no reason to suppose, however, that what one sees here has any relation to the reality. A lightning flash is generally over in so small a fraction of a second that the retina has no time to form any accurate judgement as to which end of the flash began first; such impressions really depend upon the unequal sensitiveness of different parts of the retina to light. Meteorologists calculate that two-thirds of the flashes first run, as a matter of fact, from the earth to the clouds (Mache and von Schweidler). One's eye is equally deceived as to the course taken by the flash in a great number of cases, as is shown by the many published photographs of lightning. These photographs prove that most flashes are multiple, meandering, and branched, and quite unlike what the eye sees. The tendency of lightning to send off branches or side-flashes at points where it changes its course has been illustrated and reproduced in the laboratory experiments of Trowbridge; who also draws attention to the explosive force that seems to be exerted at the points where either lightning flashes or electric sparks of large amperage change their direction.

6. *Oscillatory Character.*—Lodge has brought forward theoretical reasons for supposing that a lightning flash is an oscillatory discharge like that of a Leyden jar, and not a single rush of electricity; in other words, an alternating and not a continuous current of very brief duration. His view seems to be generally accepted, though not universally (Mache and von Schweidler). These oscillations would have an enormous frequency, possibly millions a second, according to Lodge; Emde has made elaborate calculations to prove that the frequency may be much less than this, and that the number of alternations may be only from 2,000 to 8,000 per second. Many of the photographs of lightning taken with a moving camera prove that what appears to the eye a single flash is built up, in reality, of a succession of flashes, travelling along the same path or closely similar paths (Milham).

7. *The Energy in a Flash.*—This has never been measured; but judging by the very violent disruptive or explosive effects of some flashes on such things as rocks and trees, it must be very great. Lodge calculates that the discharge from as little as an area of ten yards square of a cloud fully charged with electricity at a height of a mile would give a flash of over 2,000 foot-tons energy, or 101.000 joules—enough to convert about 40 grams of water at 18° C. into steam at atmospheric pressure. The energy in a great many lightning flashes must be very much larger than this.

Particular attention must be drawn to one feature of lightning flashes that distinguishes them from the ordinary industrial currents of electricity. Given a choice of several alternative paths to travel along, ordinary industrial currents travel along them all in quantities directly proportional to their conductances, or, as it is more usually put, inversely as their resistances. But the very brief alternating current got by discharging a charged Leyden jar behaves quite differently; for it will leave a good conductor such as a coiled up thick copper rod in order to spark across an extremely badly conducting air-space, preferring a path of low self-inductance (or low impedance) to one of low resistance. The same is true of lightning, as was first emphasized by Lodge; it explains the tendency of lightning to send side-flashes out of good conductors like lightning-rods into any objects near by, and the frequent failure of such rods to protect the buildings on which they are fixed from damage by lightning.

Classification of Lightning Flashes.

Seneca (died 65 A.D.) distinguished three varieties of lightning—the penetrating, the shattering, and the burning. His classification persisted more or less until Arago offered a new system, and wrote of the forked, sheet, and ball lightning, with which we are all familiar. But for scientific and practical purposes[76] lightning flashes are now divided into two varieties—the A flashes and the B flashes of Lodge. The A flashes are the less sudden and less violent variety, and protection against them can be afforded by lightning-rods; they correspond to the "cold lightning" of the Germans. The B flashes are more sudden and violent, very destructive in their effects, and they contain a far greater amount of energy to be dissipated than the other variety; they correspond to the German "burning lightning," and often cause disastrous fires. No system of lightning-conductors will protect against them. Both varieties may be fatal to man. In all probability ball lightning is the result of a B flash striking the ground; it is a rare and very striking form of lightning. For some reason that I have not been able to fathom, medical writers who deal with lightning devote a great deal of attention to the "return strokes" of Mahon (1780) and Tyndall.[169] These have been rehabilitated by Lodge, who explains them as oscillations and overflows of electricity induced by the original flash; he describes them as electrical echoes, so to speak, due not to a statical disturbance of equilibrium as was at first supposed, but to induction and electro-magnetic inertia. Such induced flashes might be fatal to man, but there is no evidence to show that as a matter of fact they often are thus fatal; they are described by Vincent as "lateral flashes."

Theories of Death by Lightning.

This has long attracted the attention of the human kind. Lightning is represented by weapons of destruction in the oldest records of it that we have—the seals, cylinders, and bas-reliefs (dating from perhaps three or four thousand years B.C.) found in the ruined cities about the Tigris and Euphrates,[90] a country where thunderstorms are common. The Greeks in the classical times took an optimistic view of death by lightning, arguing that Justice or Piety profited, though the victim, who might be buried with divine honours, perished; a non-fatal stroke was regarded as a sign of the favour of the gods. The Romans, contrariwise, took a gloomier view—considered death by lightning a punishment, and buried the victim without his just funeral obsequies; thunderstorms counted for a good deal in their science of augury, which seems to have been of great political service to the Romans. In literature and art the symbols representing lightning were borrowed from Zeus by Alexander the Great, as tokens of his own royal and divine power, and have been extensively so used since by other sovereigns; and one of them—the trident[53]—has now figured as such, on the reverse of our own bronze coinage, in Britannia's right hand, since the year 1797.

The ancients believed lightning to be generated in the clouds, either from the cosmic fire or from heat coming from the sun and the planets. Theories as to the way in which it caused death had no interest for them, and do not seem to have been formulated until much later. To quote a few early examples out of many, Janichius, writing in 1606, says that lightning kills man by very rapidly penetrating the pores and viscera of the whole body and changing all its parts very quickly, imbuing its fount of life—the heart—with a poisonous quality, and suffocating it with a sulphurous malice; or it may rupture the chambers of the heart by suddenly distending them with spirit and heat through fear. Kisling, in 1673, sets death by lightning down to the fire it contains; the fire rarefies the blood by its dilatatory force, dispels the nervous spirits, and stops the heart. Both these authors, it may be observed, arrive at the truth that death by lightning is often due to paralysis of the heart; but they get there through such a maze of erroneous reasoning and misstatement of fact that it is hard to give them much credit for the discovery on which they thus happened.

Very similar essays on death by lightning continued to be produced for, at any rate, the first two-thirds of the eighteenth century, and new modes in which such deaths might take place were elaborated by the impossible method of deduction. Thus Hoffmann, in 1703, asserted that persons killed by lightning died from want of air suitable for breathing, being asphyxiated by the quantity of sulphurous exhalations emitted by the flash. Röser (1704) attributed some of the deaths to a supernatural cause, the just judgement of God; others to such natural causes as the explosion of sulphurous and nitrous particles within the body caused by the flash, or to suffocation, or to injuries of the animal faculty or sense. Münnich (1732)

concluded that lightning killed either by expanding the air in and around the body and so preventing respiration, or else by causing a vacuum which made the blood give up its gases and tear the weaker blood vessels, particularly those of the brain or medulla, leading to the extravasation of blood and death. He supposed, in fact, that the proximate cause of death by lightning was deprivation of external air. Stock (1734) enumerated three possible causes of death by lightning – first, terror; secondly, suffocation by inhalation of the nitro-sulphureous particles left in the track of the lightning; thirdly, the sudden expansion of the aërial particles in the spirits and humours of the body, whereby the spirits were dissipated and the humours rarefied to such a degree that vital movement and respiration could no longer be carried on. Rasbach (1737) stated that death by lightning was brought about by the narcotic effects of the sulphurous effluvia of the lightning, which penetrated the lungs and intercepted life by abolishing their vital functions. Vollmar (1765) attributed it to suffocation and the consequent symptomatic apoplexy, or to fear, or to the vacuum produced by lightning, or the expansion of the air inside the body, or, finally, to the reduction of the body to ashes. Hoffmann (1766), in a very elaborate and carefully written thesis, concluded that the main cause of sudden death by lightning-stroke was some lesion of the nerves and brain, inaccessible to the senses and too delicate to be demonstrable. He went on to enumerate six ways in which the brain and nerves might be fatally affected by lightning, all of them speculative and fanciful, none of them actually observed. Marherr (1766) ascribed death by lightning-stroke to tearing open of the blood vessels in the lungs, comparing it to the deaths caused by the wind of cannon balls on fields of battle, when the victim is not actually touched by the cannon ball but is killed suddenly by the vacuum caused by its passage near him.

It was perfectly natural that all these new theories as to the cause of death by lightning should arise in the seventeenth and in the first half of the eighteenth century. Great advances were then being made in physical science on all sides, and it was only to be expected that van Helmont's discovery of the existence of different gases in 1610, that the wholesale introduction of chemical ideas into the art of medicine by de la Boë (Sylvius) in 1650, and that von Guericke's discovery of the air pump and methods of producing vacuums in 1652, should lead to well meant, if crude, attempts to explain death by lightning-stroke in the terms of the advancing sciences of chemistry, physics, or physiology.

But there was little hope of any real progress in the matter until some explanation of the nature of lightning itself should be furnished, and this was done by Franklin. A fairly efficient frictional machine had been invented by von Guericke in 1662, and had been much improved since; the Leyden jar for storing electrical energy was discovered in 1745 by von Kleist, and now that the identity in kind of frictional electricity and lightning had been proved, it became possible, and natural, after a time, to utilize experiments with frictional electric machines and Leyden jars to throw light on the mode of death by lightning-stroke.[2]

Andrew Gordon, a Scottish Benedictine monk teaching at Erfurt, seems to have been the first to try the effect of electricity on the lower animals with fatal results. His cylinder electric machine gave currents strong enough to kill chaffinches. In the next year, 1746, Gralath similarly killed beetles, worms, and birds; Nollet noted that on dissection these birds showed ecchymoses similar to those seen on persons killed by lightning. Similar experiments were made by a number of people in the various countries of Europe, particularly in France, Germany, England, and Holland, where much general interest was excited by the recent progress of electricity; for at this time and for many years to come the science of electricity, such as it was, formed an ideal field for the activity of the practical joker. The results of these experiments narrowed the field of causes of death by lightning, and it came to be recognized that several of the current views were untenable. Thus Bidermann, in 1768, discussed them all under five different heads, rejecting many of them—for example, suffocation by concussion or compression or rarefaction of the air, combustion, apoplexy, congelation of the animal spirits. He concluded that lightning kills by a sudden injury to the nerves of the brain, caused by the rapid movement of the electric material, which abolishes their function; he believed that the nervous fluid was identical with or very nearly related to the electrical fluid. Abildgaard three years later proved that this was correct, and that shock to the nervous system was at any rate one way in which electricity, and therefore presumably lightning, might bring about death. He also made the very important observation that fowls killed by electric sparks remained dead if left alone; but that they could be recalled to life by the passage of another electric discharge through them from breast to back.

Brodie, in 1828, expressed the view that in most instances lightning killed by destroying the functions of the brain, and advised that the persons struck should be kept moderately warm, and have their lungs inflated by bellows so as to imitate natural respiration; similarly Auzouy (1858) and Dillner (1865) both laid great stress on respiratory paralysis in certain cases of death by lightning-stroke. In contrast to these interesting experiments of Brodie's may be quoted the gloomy and also erroneous views of two anonymous writers in the *Lancet* of 1830 and 1831. One says that speculating upon the mode in which lightning operates in producing death would be a vain and useless discussion; the intensity of the electric action instantly annihilates all connexion between soul and body, hence all means of resuscitation are vain. The other states that when the body is struck by lightning, complete death ensues; in asphyxia of this kind no vitality exists on which to act, for organic and animal life are both extinct. Oesterlen, in 1881, ascribed such deaths largely to an uninvestigated change in the blood, perhaps in the juices of the body in general also. Boellmann, in 1888, put death by lightning down to mechanical violence in the form of what he called cephalo-rachidian shock applied to the central nervous system through the cerebro-spinal fluid; he supposed the fluids in the lymphatic sheaths round the vessels to undergo a sudden increase in tension, thereby producing anaemia of the nervous centres and abolition of the function of the nerves. The part played by the heart and the continuance or stoppage of its action after a lightning-stroke does not seem to have attracted much further attention till many years later, though they are undoubtedly very important. Dillner (1865) laid great stress on it, assuming that the heart went on beating after apparent death in all persons who had been struck by lightning and yet were capable of being brought to life again. Should the heart cease beating for more than a short time, recovery would be, he considered, impossible. B. W. Richardson, in 1869, as a result of his experiments with a large Apps induction coil and Leyden jars, similarly attached great importance to the heart's action here, and stated that recovery was impossible if the heart was paralysed; and that in all cases where it was instantaneous, death by electric shocks was due to the sudden expansion of the gaseous part or atmosphere of the blood, combined in extreme degrees of shock with a sudden conversion of animal fluid from the fluid into the gaseous condition. He gives no detailed record, however, of the discovery of any such liberation of gas in the vessels of animals killed by electric sparks, though his papers are full of detail on other points. Here again we have a theory evolved from the imagination of its author, and lacking experimental proof of any kind. Dürck, in 1895, writing at a time when a good deal more had been found out as to the modes of death by electricity, came to the conclusion that death by lightning was due to permanent paralysis of the cardiac or the respiratory nervous centres, caused by the passage of the discharge; and Pélissié's conclusion was very similar.

Post-mortem Lesions after Death by Lightning.

The lesions produced by lightning in fatal cases of lightning-stroke are of the most varied extent and description imaginable. One may begin a brief account of them by saying, *hibernicé*, that in a large number of cases no lesion whatever, either external or internal, may be found *post mortem*. Such cases are not at all rare, and have been recorded both in man and in domestic animals. Sestier, for example, found no external injuries in 19 out of 119 cases of death by lightning. The great

majority of victims show superficial burns and scorchings of various depth and extent. Most commonly the burns are of the first or second degree, in the form of streaks that are taken to show the paths followed by the lightning, or in the form of isolated spots or areas. Singeing of the hair growing on these burns is highly characteristic of lightning-strokes, and may take place either with or without any singeing of the clothes in contact with the burnt skin, and also without any burning of the skin itself. Usually the burns are in the shape of bands or ribbons of hardened, discoloured, parchment-like skin, running down the trunk or legs. A very exceptional case is recorded by Cipriano, in which there were burns of the second degree on the neck, chest, and leg, while practically the whole of the rest of the body showed a burn of the first degree; the patient made a slow and difficult recovery. Vincent quotes the case of a woman who was struck and received burns of the first to the third degree from head to foot, and died from exhaustion after six months' suppuration. Less often the burns go deeper, and may even char the underlying bones or the tongue (Clark and Brigham) or the abdominal viscera. In many cases the deeper burns heal readily, if the victim survives; but in others slow healing with much pain and suppuration have been recorded. Patches of hair and of skin may be quite torn off. Persons struck or killed by lightning are said to exhale a peculiar or characteristic odour, oftenest described as resembling the smell of burning sulphur or of ozone; other writers compare the odour to such various smells as those of nitrous fumes, gunpowder accidents, acid, dilute sulphuric acid, sulphuretted hydrogen, nitrous acid, ammonia, electric sparks, and lighting matches, and it has also been described as *sui generis*.

Very characteristic, or even diagnostic, of lightning-stroke are the so-called "lightning-figures" often seen on the skin in both fatal and non-fatal cases. These consist of reddish, brown, or purple discolorations of the skin, described in different instances as resembling such things as coral, fronds of ferns, branches of fir-trees, trees, palms, pieces of outdoor scenery, or even "in outline a perfect map of North America, all of the important features being outlined with remarkable clearness."[171] In the eighteenth and the earlier part of the nineteenth century there was a great tendency to regard these lightning-figures as due to the direct transfer of particles from the neighbouring objects represented (trees, etc.) to the skin of the person struck, by some mysterious action of the lightning, which was even supposed to take the place of a photographic lens in some way. They are now thought with more reason to be analogous to the electric dust-figures, described by Lichtenberg, that indicate the distribution of electricity at a very high voltage on bad conductors. But it must be added that microscopic examinations of sections of skin showing these lightning-figures have not yet succeeded in demonstrating either their exact situation in the epidermis or cutis vera, or their mode of production. They may be the result of vasomotor paralysis. They do not seem to be generally due to haemorrhage (Haberda, Heusner, Schmitz), or to have any relation to the pressure of the clothes. They do not follow the course of the underlying bones, vessels, or nerves, as has been variously alleged on the strength of different isolated instances (Becher, Sonrier, Fischer). Mangin has suggested that they may be ideoplastic impressions, akin to hysterical stigmata in their method of production.

Considerably less common are lacerations of the soft tissues or the blood vessels, but when they do occur they are often very bizarre and striking. Lacerations of the scalp exposing the pericranium or bone are not rare, and in an unusual case recorded by Knaggs there was a lacerated wound of the right ear, which was almost torn off upwards. The formation of a haematoma in the neck, that might easily have been mistaken for an extensive bruise produced by mechanical violence, has been recorded (Macintosh, Niederheitmann); haemorrhages on either side of the dura mater are not rare, and bleeding from the external auditory meatus, with or without fracture of the bones of the skull, is fairly common. Lane described laceration of the membrana tympani. Very curious lacerations of the abdominal walls and thighs have been described by Dutt and others. In Dutt's case there was a lacerated wound five inches long two inches below the umbilicus; a penetrating wound of the abdominal wall two and a half inches long above and parallel to the left Poupart's ligament, had four feet of dark red, singed, and contracted small intestine protruding from it; and there was a four-inch lacerated wound in the left thigh below and parallel to Poupart's ligament. One might hazard the supposition that the victim in this case was struck while sitting or squatting on his hunkers. Wheeler described an instance in which lightning appeared to blow a cavity measuring three inches by one inch, and three-quarters of an inch deep, in the thigh; Vincent records an example in which six pounds' weight of flesh were lost from the thigh of a person struck by lightning.

To find a laceration in the heel or the sole, with or without comminution of the os calcis, is not very rare in persons struck when standing up or sitting out of doors, and may be taken as evidence that the electric discharge has changed its direction or met with increased resistance to its passage at this point. Penfold describes an instance in which the dense integuments of each heel "were cut as if with a sharp knife, and were torn open sufficiently to admit one's index finger easily, while the calcanea were comminuted into many pieces." The cut on the left heel was stellate, that on the right heel straight and in an antero-posterior direction. Similar cases have been recorded by Wilks, Daxenberger, Phayre, Davies, and others.

Lacerations of structures inside the body are not common, and when they do occur are not easily explained. Schneider has described rupture of the diaphragm, possibly by some sudden and violent change in the intrathoracic air pressure, in a soldier struck and killed while standing under a chestnut tree. Banham has met with a similar lesion in a horse, and quotes an example in which laceration and rupture of the heart was observed in three out of four horses struck and killed. I have been able to find only one instance of rupture of the heart by lightning in man—that recorded by Liman, who observed a hole two centimetres in diameter at the apex of the heart, with irregular walls and opening into both ventricles, which contained clots. Liman does not make any statement about the presence of blood in the pericardium in this case. A very curious instance has been reported in detail by Ouvrard, in which, although there was no external lesion of the thorax, the lower lobe of the right lung exhibited four wounds like those caused by small shot, and there was a haemothorax; the diaphragm below this was perforated, there was a slight tear in the liver, ecchymoses were seen on the gastro-hepatic omentum, there was a small round hole with bruised edges in the splenic region of the stomach, the left suprarenal and kidney showed ecchymoses, and the spleen itself was stripped of its capsule, which could not be found. The victim in this extraordinary case was seen to be struck, and cried out as she fell and died; the *post-mortem* examination was made within twenty-four hours. A small pulmonary apoplexy was found in Phayre's case. Another very unusual case was described by Claes. A sailor was struck on his ship, and showed characteristic ribbon-like burns and excoriations, due to the passage of the lightning down his trunk and limbs. He died in about twenty-four hours, after alternate periods of stupor and agitation, and towards the end with distended tender abdomen and stercoraceous vomiting. *Post mortem*, Claes found three pints of blood-stained serum in the abdominal cavity, with faecal matter, and exudative peritonitis on the intestines; there were six large black (and presumably necrotic) patches on the jejunum and ileum, in situations corresponding to the marks left by the lightning on the abdomen. It would appear, therefore, that the lightning in this case burnt the small intestine and allowed microbes to pass through its wall and set up a fatal peritonitis. Cases in which a fetus was killed *in utero* by lightning, while the mother was only rendered senseless for a few minutes and recovered, have been recorded by Franque and by Carpi; Harting describes the converse. In at least two instances women carrying children in their arms have been killed, the children being uninjured.

Injury to the tissues of the brain has often been assumed to be the cause of death by lightning, but the number of recorded instances in which it has actually

been seen is small. Phayre described a case in which there was reason to believe that the lightning had entered the left side of the head; he found the left hemisphere to be wholly disorganized, an almost homogeneous liquid of deeply greyish colour, only a small part of the corpus striatum looking normal. Somewhat similar changes were noted by Johnston and by Dürck; Bauer found the brain very soft and anaemic in his case, and the cord had apparently deliquesced to a grey fluid substance. A doubtful case has also been recorded by Barnes; Dunscombe-Honeyball found the brain in parts almost diffluent in one of his fatal instances of lightning-stroke.

Fracture of bones by lightning appears to be common in animals, and is not rare in man. Extensive fractures of the skull were noted in Knaggs's case, extending from the left parietal eminence across the right parietal bone, in which fine fissures radiated from the main crack and down to the base across the middle fossa, the orbital plate of the frontal bone (as in Heffernan's case), and the cribriform plate of the ethmoid. Dunscombe-Honeyball describes two cases in which extensive fractures of the skull were found. An excellent diagram of the elaborate fissures of the skull in a case he describes is given by Schottin; in this instance two ribs were also fractured, but without injury to the underlying tissues. Gem has recorded fracture of the humerus and the spinal column. Fractures of the tibia, or of both the tibia and fibula, by lightning-stroke have been recorded by Roy, Wilks, and Penfold; in the last case the victim was sitting down at the moment when he was struck, and there was no contusion at the seats of fracture, so that one seems able to exclude the possibility that the fracture was due to falling or to the application of external violence in any way. To illustrate the extensive fractures of bones sometimes exhibited by animals I may quote Free, who describes the case of a man who was struck by lightning and rendered unconscious, and then developed acute Bright's disease. A horse that was with the man was struck at the same time as the man and was killed. Free says that "the dead horse was as soft as a jelly, partly owing to the fact that every large bone in its body was comminuted." The exact mechanism by means of which lightning fractures bones is obscure. In cases where the heel is lacerated and the os calcis comminuted, one may perhaps imagine that an extra development of heat and steam has taken place here, with the result that the electric discharge has, so to speak, blown its way out of the body. The example described by Clark and Brigham proves that enough heat may be developed in so deeply situated a bone as the orbital plate of the frontal bone to char it, so that it is not unreasonable to suppose that small steam explosions may result if the lightning develops a less degree of heat in a moist tissue. But it is not quite easy to imagine how the tibia and fibula could be broken, without showing any external injury, as in Penfold's case, if the fractures were caused by small steam explosions taking place inside these bones. Yet there is no alternative explanation to offer. For I do not think it is imaginable that any known forces of electric attraction or repulsion [37] could exert enough violence to break bones. At any rate, the physicists appear to know nothing of electric forces of the magnitude that would be required here.

In a few well recorded instances which are extraordinary almost to the point of being incredible, strokes of lightning have effected amputations. Sycyanko quotes a case occurring in Russia, in which a boy of 12, who had had a flexed and ankylosed right knee for some years, was struck when riding on horseback. He was thrown to the ground and rendered insensible. At the same time the lightning amputated his right leg just below the knee-joint, leaving the patella and the cartilaginous upper end of the tibia intact. The boy made a good recovery; the amputated limb was afterwards found near the spot where he was struck. Vincent refers to a case in which an arm was amputated by lightning, but he did not see it himself. Dunscombe-Honeyball records the fact that he has known lightning to amputate a man's fingers. There seems no reason to doubt that such amputations might be the results of local developments of heat by the passage of the lightning through the tissues, with the sudden production of steam or other hot gases in sufficient quantity to blow the limb off. The alternative explanations that these amputations are due to "electro-caustic action," or to violent electric repulsion, appear to me unsatisfactory.

Rapid putrefaction of the bodies of persons killed by lightning has occasionally been recorded, but is not of common occurrence. Rigor mortis, on the other hand, partial or of the whole body, may appear in a few minutes, and seminal emissions are not rare.

Evidence Derived from Deaths Produced by Sudden Electric Shocks.

It seems likely *a priori* that electrocution by the sudden and violent discharges of Leyden jars, condensers, and induction coils—that is to say, by discharges of high voltage and very brief duration—is more likely than electrocution by industrial electric currents to resemble death by lightning-stroke. The experiments on death by these sudden discharges have already been laid before you; it is not necessary to do more than summarize them here, and to say that such deaths may be due either to primary arrest of the respiration, or to primary arrest of the heart's action by ventricular fibrillation. These discharges seem to produce a profound degree of nervous shock.

(To be continued.)

THE NECESSITY OF RECOGNIZING MIDWIFERY AS A BRANCH OF SURGERY.*

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THE object of this paper is to urge the importance of definitely and finally recognizing midwifery as a branch of surgery.

Obstetrics and its offspring gynaecology have in the past been considered as appanages to medicine, and regarded as provinces of the physician.

The operative triumphs of the latter, however, have of late years become so insistent that its inclusion amongst the branches of recognized surgery is now nearly complete.

It is otherwise with obstetrics, whose status still remains indeterminate. I had the curiosity to look up the official titles of the staffs of the obstetric departments of the great general hospitals and of the chief lying-in hospitals of England and Scotland. In twenty-five of these the title is that of "physician"; in twelve an indifferent denomination, such as "accoucheur"; while in ten only is the style of "surgeon" used. I further noted that in the official list of the Council of the Obstetrical Section of the Royal Society of Medicine the medical qualifications, and not the surgical, are appended to every name.

Founded on the art of the female midwife, midwifery was, in fact, the first special department of our profession. But unlike the other special departments, it arose, not as an offshoot or branch, the result of the exuberant growth of medical knowledge, but as a more or less independent subject which has in process of time become grafted on to the main stem. That that process is not yet complete is shown by the fact that medical art is still commonly divided into three primary divisions—medicine, surgery, and midwifery—some examining bodies even granting a separate diploma in the last-named subject.

The isolated position of obstetrics is early brought to the notice of the medical student. His textbooks of physiology do not deal with the phenomena of normal labour; the diseases and disasters of childbearing find no mention in the lectures on general pathology; the curriculum is divorced from either medicine or surgery, as though the morbid processes with which it concerns itself were fundamentally of a different nature to the rest of disease. He finds a separate physiology, a separate pathology, a separate clinical teaching, a separate examination.

He sees in most institutions its exponents, though styled "physicians," practising their calling almost

* Read before the Harveian Society of London.

entirely by mechanical or operative means. In the theatre attached to the lying-in wards he witnesses labour conducted with all the circumstances of modern surgery, whilst in the extern department he finds the same procedures carried out under conditions which would make any of the operations of recognized surgery unjustifiable.

What wonder, then, if, in the face of all these anomalies and contradictions, the conception of obstetrics as a separate art to which the tenets of surgery only partially apply, grows up within the student, from him is passed on to the practitioner, and finally reaches the public.

As a result of the affiliation of midwifery to medicine in the past, the analogy between reproduction and other natural processes has been too much insisted on. Child-bearing is, of course, a physiological process, but it stands alone amongst such, in that while the rest of them are exercised for the good of the individual, reproduction is exercised for the benefit of the race at the cost of the individual. The toll reproduction exacts from womankind is very definite and is levied on civilized and aboriginal alike; animals, whether domesticated or wild, do not escape it. At no other time in the life of a healthy woman is ill health so imminent as during the periods of childbearing. Pregnancy is normally associated with altered metabolic processes, closely verging on auto-intoxication; labour is an example of Nature's rough surgery, puerpery a time of healing of self-inflicted wounds.

Midwifery is an almost purely surgical art. Therapeutic treatment finds less place in it than perhaps any other department of our profession. The means it employs are almost entirely mechanical. Its operations, as compared with those of other branches of surgery, are to the full as difficult, and require, from the circumstances under which they are usually carried out, a far greater average degree of care, skill, and fortitude. Further, the liability for infection to follow them is much greater, because asepsis of the operation area is much less under the control of the operator.

Attendance on the puerperium resolves itself into the care and treatment of wounds of the genital canal—wounds naturally produced, indeed, but of the character of lacerations or abrasions, often associated with much bruising, and situated, as regards the placental site, in a position unfavourable for drainage, and as regards perineal tears in one impossible to render aseptic.

It follows, therefore, that the obstetrician stands more in need of modern surgical surroundings, accessories, and assistance than any other class of surgeon if he is to carry out his work in keeping with the present-day standards of aseptic surgery.

These statements are truisms, I venture to think, to all who give to the subject any degree of thought, yet the layman has a very imperfect understanding of them.

The unqualified reiteration of the "naturalness" of childbirth, the false conception derived from the profession itself, that midwifery is dissociated from the rest of medical science, has led the public to belittle the medical importance of labour, which, in the lower orders at least, tends to be regarded as analogous on a larger scale to defaecation or micturition. Hence has arisen, and is maintained by custom, a want of comprehension of the necessity for making proper provision and prearrangement against the time of labour, and a disinclination to expend on the event the amount of money commensurate with its importance.

It is a fact to ponder upon that amongst the working classes much more money is outlaid on a funeral than on a birth. The Jewish community, I believe, spend more on weddings than on burials; herein the members of that remarkable race show a better appreciation of the relative importance of the events, because the significance of marriage lies in the procreation which it legitimizes. But Christian and Jew alike fail to recognize that it is the ceremony of birth which should have first claim on the pocket of the community. Would that we could see some of the money now devoted to funeral and child-death insurance diverted to childbirth insurance. The Insurance Act in this respect has made a step in the right direction, but the amount paid is meagre in comparison with what the ideal conduct of labour demands.

There are in all great cities numbers of houses unfit for the habitation of human beings; thousands of tenements stinking and verminous. The patient is filthy, the bed-clothes are filthy, the supply of water limited to one small kettle, the utensils to a single bowl or basin, the room choked with lumber, dusty furniture, and frowsy garments. In such surroundings it is the custom, against which no vigorous voice is raised, to perform difficult surgical operations peculiarly fraught, under any circumstances, with the risk of post-operative sepsis.

Who is not familiar with the general surgeon who relates with pride that he successfully operated for, say, a strangulated hernia, in a dirty cottage by the light of a single candle and the assistance of only one other medical man and a nurse. But what of the obstetric surgeon who, alone and unaided, amidst similar surroundings, acts the part of anasthetist, operator, and nurse in his single person?

The absence of the conception of the "surgicalness" of midwifery, however, is not limited to the lower classes.

Consider the average lying-in room in the average middle-class house. A double bed is the first object that strikes the eye, unwieldy and inconvenient. In one corner is the baby's cradle and a pile of baby clothes; in another the washhand stand, and on it toothbrushes, bottles of hand and hair lotion, the husband's shaving materials, and various other objects. The dressing-table absorbs much of the floor of the room and most of the light from the window. It is littered with the implements of the toilet—brushes, combs, hairpins, trays, boxes, vases, photograph frames, and other rubbish. In another corner stands the cast-clothes basket. A large wardrobe obtrudes itself on the already limited space, and a chest of drawers, piled with books, knick-knacks and various odds and ends, takes up much of the remainder. Add to these several chairs and a commode, and the picture is complete.

In this room lies a woman threatened with the possibility of surgical intervention. Were its nature any other than obstetrical, the room would not be left in that state. It would be cleared and converted, as far as possible, into an impromptu operating theatre.

From time to time articles appear in the medical press dealing with the causes of mortality and morbidity in childbirth. One such, by Dr. Haig Ferguson,[1] I have lately read. It formed the presidential address to the Edinburgh Obstetrical Society and was well worthy of the occasion. In it he gives the following striking figures:

In England and Wales puerperal fever and the accidents of pregnancy and childbirth caused the death, during the ten years 1897–1906, of 1 mother to every 228 births.

In 1907	...	1 mother to every 261 births.
In 1908	...	1 mother to every 280 births.
In 1909	...	1 mother in every 270 births.

Puerperal sepsis alone caused the death of:

In 1907	...	1 mother to every 602 births.
In 1908	...	1 mother to every 684 births.
In 1909	...	1 mother to every 609 births.*

The morbidity-rates due to this cause, could they be estimated, would obviously be very much greater.

All papers dealing with puerperal morbidity and mortality deplore the continued prevalence of puerperal fever after home-conducted labour, and variously indicate where the fault lies. Thus the doctor is blamed for not carrying out Listerian principles, or the midwife is arraigned for carelessness and uncleanliness.

But not one of them that I have read goes to the root of the matter—namely the utter want of surgical environment under which labour ordinarily takes place, a custom, I maintain due to the fact that the "surgical idea" as applied to midwifery is only partially recognized by the profession and not at all by the public. So long as these unsatisfactory conditions remain, the mortality and morbidity of childbirth will continue unduly high. The transgression against the canons of modern surgical asepsis is too great to be washed away with a bowl of antiseptic lotion however diligently used.

If we consider the results of surgical operations other than obstetrical, when carried out in hospitals and private houses respectively, it will be found that those performed in private are, on the whole, the most successful. Compare this with the results of obstetric work carried out in

* Modified from Dr. Haig Ferguson's paper.

hospitals and private houses respectively. The contrast is striking. In lying-in hospitals puerperal sepsis in its graver forms is almost abolished; in private houses it is responsible for the wastage of life and health to which Haig Ferguson and others have so forcibly directed attention.

It may be objected that the comparison is not fair, because the operations of surgery other than obstetrical are not customarily carried out in private houses unless the means of the patient permit of the surgical environment being created in the house.

But that is just the point I want to push home. In all other surgical work the medical man postulates surgical circumstances and surroundings as a necessity for the successful performance of his duties, and without them, except under great emergency, he refuses to undertake the case. Further, the public, educated as regards recognized surgery, supplies his requirements without demur, or, being unable to do so, appreciates at once the necessity of having the patient transferred to a hospital or home.

But in obstetrics a vicious circle obtains. The imperfect conception of the position of the art by the profession results in the public underrating its importance and belittling the gravity of labour. Hence has been established a custom by which childbirth takes place under conditions that outrage all the requirements of modern aseptic technique, yet in no other branch of our profession does success obtain so little praise or failure so much obloquy.

This attitude of the public in turn reacts on the medical man. He finds, when he enters practice, that it is customary to conduct labour under the faulty conditions to which I have drawn attention, and in the face of long usage he hesitates to deal with labour as with any other surgical problem. The conversion of the lying-in room into some semblance of an operating theatre, relatively aseptic surroundings, efficient assistance, and an independent anaesthetist, are looked upon as academic ideals not to be pressed for in everyday work.

The carrying out of an operation without sufficient assistance is as disadvantageous to its performance in midwifery as it is in any other branch of surgery. The thought of a surgeon curetting the uterus or ligaturing piles without an anaesthetic brings a smile to the lips, yet in obstetric work the practitioner is frequently diffident of asking for such assistance, because, by general conception, custom, and habit of thought, the public expects him to combine the offices of surgeon and anaesthetist.

The slight demands made by the obstetrician on behalf of his art results in the public habitually underpaying him. I have made inquiries amongst a number of my friends engaged in general practice for the purpose of comparing the relative amounts of the fees paid for a confinement with those received for the performance of such operations as they themselves frequently carry out.

Thus I learn that, assuming the patient's position to be such that a fee of 5 guineas is charged for the labour, then the charges for the following operations would roughly be:

For removal of tonsils and adenoids ...	3 to 5 guineas and anaesthetist's fee.
For curetting...	7 to 10 guineas and anaesthetist's fee.
For ligation of haemorrhoids	7 to 10 guineas and anaesthetist's fee.

Now the outfit, skill, and care required of the obstetrician are at least as great as those demanded for the performance of these operations—they may, indeed, be much greater—while the time, trouble, and general wear and tear that attendance on a confinement involves is out of all proportion greater. Many men, indeed, have told me that midwifery does not pay, except in so far as it acts as an introduction to other forms of practice—a wrong principle, for underpaid work can never be the best work.

This low rate of remuneration is an expression on the part of the public of the small regard in which they hold obstetric art as compared with recognized surgery. In fact, obstetricians are taken at their own valuation, for they have up to now made no claim to be considered surgeons—nay, more, they have strengthened the popular belief in the trivialness of their calling by legalizing attendance on labour by a less educated class of practitioner—the midwife.

That the trained product of a maternity school is an enormous advance on the foul beldam who used to preside over childbirth goes without saying. Since the passing of the Midwives Act a marked fall has taken place in the annual number of cases of puerperal fever. Thus I find, on referring to the report of the Registrar-General for 1910, that the death-rate from this cause has decreased to 1 to every 727 births in that year.

But in so far as the Act tends to the employment of midwives *instead* of doctors, I believe it to be a step in the wrong direction. The aim should be not to cheapen the cost of labour, but to increase it; to make the public understand the importance of the event, and to teach that its proper conduct requires the environment of surgery, for the provision of which the layman must co-operate with the obstetric surgeon by prearrangement and adequate payment.

That great difficulties lie in the way of attainment to the ideal is obvious. Many of them will require years of education and social reform to overcome. Insurance against childbirth on a much extended scale, the establishment of municipal lying-in institutions where women could be attended by their own medical men under circumstances of true surgical asepsis—these are shadows cast on present thought by, let us hope, events coming somewhere in the future. But we must begin by setting our own house in order and definitely and finally recognizing midwifery as a special branch of surgery.

REFERENCE.

[1] Some Twentieth Century Problems in relation to Marriage and Childbirth, *Journal of Obstetrics and Gynaecology of the British Empire*, December, 1912.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

INJURY TO THE ELBOW INVOLVING THE ANTERIOR INTEROSSEUS NERVE.

A GIRL, aged 7 years, fell and struck the inner side of the right elbow. She was treated by a "bone-setter" until it was found that the elbow could not be flexed beyond a right angle.

She was brought to me six weeks after the accident, when extension at the elbow, pronation, and supination were complete, but flexion could be obtained only to a right angle. There was fullness about the lower end of the humerus, just above the joint, especially about the internal condyle, and some wasting of the flexor muscles covering the forearm and of the pronator quadratus. Flexion of the distal phalanx of the thumb and of the index finger was very deficient, but not entirely absent, while flexion of the distal phalanx of the middle finger was good. A skiagram did not reveal the exact nature of the injury.

From these signs it would appear that the anterior interosseous nerve was injured by the accident or involved in the callus produced after fracture at the lower end of the humerus. In the latter case the origin of the nerve from the median must have been higher than usual. The escape of the deep flexor of the middle finger, which in normal cases receives its nerve supply from the anterior interosseous, is also peculiar.

The case is perhaps sufficiently rare to warrant its being recorded.

H. M. JOSEPH, M.A., M.B.Cantab.,
B.Sc.Lond., etc.
Guernsey, August 6th.

TREATMENT OF MORTON'S METATARSALGIA BY FORCIBLE MOVEMENTS.

THOSE of us who have the opportunity of seeing a fair number of cases of Morton's disease during the year know not only the misery which this condition entails, but also the unsatisfactory results of treatment, and therefore I make no excuse for publishing a method which I have adopted lately in a few cases with uniform success.

The method consists of grasping the foot with both hands, one on either side, and forcibly moving the metatarsal bones upon each other, and also forcibly flexing and

extending the foot and toes. This method is more easily shown than described, and was adopted on the presumption that possibly some small adhesion was the cause of the pain. At all events, whatever the explanation may be, the few cases which I have treated in this way were at once permanently relieved of all symptoms. One case occurred in a man of 60 years of age, who had had the condition for ten years, but he was easily cured in the manner I have described. Possibly this method may have been tried by some orthopaedic surgeons, but if it has I have not yet succeeded in finding any record of it, and therefore I have no hesitation in publishing it for what it is worth.

T. PAGAN LOWE,
Surgeon to the Mineral Water Hospital, Bath.

Reports of Societies.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Wednesday, March 5th, 1913.

Mr. J. M. COTTERILL, President, in the Chair.

Carcinoma of Rectum.

PROFESSOR CAIRD gave an analysis of 43 cases occurring between 1900 and 1910. Rectal cancer was more frequent in males. The ages in most were between 40 and 60. The duration of symptoms from their onset to diagnosis of the cancer was on an average six months—an unfortunate and quite remediable state of affairs, as diagnosis per rectum was easy. As to symptoms, bleeding was present in every case, and was often the only symptom. Pain was only present in those cancers close to the anus, and was absent in those higher up in the rectum (about half the cases); there were often irregularities in the bowel action, constipation alternating with diarrhoea, tenesmus, passage of mucus, and in only one case the passage of pipe-stem stools. A more uncommon symptom was reflex dysuria and frequency of micturition. The tumour was palpable per rectum in every case but one, where there was a peculiar fixation and kinking of the bowel. A tumour which appeared fixed on rectal examination was not seldom found mobile on bimanual examination. An extensive operation was not advisable over the age of 60 or when there was glandular involvement or fixation of the tumour. As to choice of operations, the disadvantages of the Kraske were the frequent recurrence in the lower segment, the infrequent healing by first intention ending sometimes in stricture. A modified Lisfranc was the better operation—that is, a perineal excision, aided, if need be, by a parasacral or an abdominal incision. In a lantern demonstration the macroscopic appearances of many of the tumours *in situ* were shown, and some of the difficulties and sequelae of the operation were shown in specimens obtained from fatal cases.

The PRESIDENT agreed as to the superiority of the perineal operation. The abdomino-perineal operation was seldom required. Mr. WALLACE said that the question of technique was all-important. A functioning anus in the perineum was seldom obtainable and should not be aimed at. Where the case was not too far advanced the first step should be an inguinal colostomy, followed by thorough removal by the abdomino-perineal operation. Where patients came too late for removal of the tumour, an inguinal colostomy should alone be performed, when a considerable degree of comfort and control was often obtained. Mr. STILES said that in tumours high up in the rectum the knee-elbow position was of value, combined with straining efforts on the part of the patient, when the finger received the sensation of ballottement from the tumour. With regard to operation, he advised a preliminary colostomy. This was followed by great improvement in the digestion and general health. In the subsequent removal of the tumour, points of importance were the freeing of the pelvic colon, closure of the colon, packing and drainage of the cavity. By these means the risks of sepsis were reduced and a short convalescence secured. The abdomino-perineal operation was seldom required. An inguinal anus, in his experience, gave better control than one in the perineum. Mr. ALEXIS THOMSON agreed as to the superiority of the inguinal anus. He described the conditions present in a large series of Continental cases which he had seen where sacral anuses had been left and where the control was generally inefficient. Dr. DARLING described a case which had been the subject of a Kraske operation, living for twelve years and dying of another condition. Professor CAIRD replied.

ROYAL SOCIETY OF MEDICINE.

DISCUSSION ON ALIMENTARY TOXAEMIA.

Monday, March 10th, 1913.

Sir FRANCIS CHAMPNEYS, Bart., M.D., President, in the Chair.

A DISCUSSION on alimentary toxaemia, its sources, consequences, and treatment, was opened by Dr. HALE WHITE who gave a general survey, and Dr. W. F. ANDREWES, who dealt with the bacteriology of the alimentary canal. These papers are published elsewhere in this issue.

The Toxins of the Alimentary Canal.

Dr. VAUGHAN HARLEY said considerable difficulties occurred in the study of toxins of the alimentary canal, since pure toxin, like pure enzyme, had not yet been isolated, even from bacterial culture. Yet more difficulty confronted one in dealing with those toxins which might be formed in the alimentary tract, since an examination of the faeces would only yield the toxins which had not been absorbed. The more easily absorbed toxins would not be recovered in the stools. The occurrence of erythema and urticaria, in common with some digestive derangements after taking pure food, could only be explained by the formation of toxins in the alimentary canal. He had noted urticaria and erythema after even simple rectal lavage with normal saline solution when there was considerable constipation. Halliburton and McKendrick tried to recover the toxin in the retained stomach contents from a case of dilated stomach, in which the patient had suffered from tetany, but without success. He proceeded to mention the products occurring in the alimentary canal which might be more or less poisonous. These might be derived from the protein, fat, or carbohydrates taken in the food, or from the secretions into, or excretions from, the alimentary tract, either in health or disease, during ordinary digestion, or from putrefaction and fermentation in the canal. The secretions of the tract could undergo some putrefaction during starvation, the urine of fasting individuals containing aromatic substances. In an experiment on a man during a fast the indican in the urine decreased day by day, while phenol progressively increased, so that by the ninth day it was from three to seven times as much as in the ordinary man. The substances derived from carbohydrates and fats had little toxicity. Protein during ordinary digestion, even without the action of bacteria present in the intestine, might yield toxic products. The proteoses and simpler products, when injected directly into the circulation, could be rapidly eliminated by the kidneys, but were apparently toxic; they inhibited blood coagulation, had a lymphagogic effect, caused a fall of arterial pressure, and a febrile reaction, while large doses in animals caused death. In children and people of advanced age the epithelial cells of the alimentary canal were apparently thin, and perhaps this explained the greater frequency in them of toxic attacks. Healthy digestive processes were accompanied by an enormous amount of bacterial action; one-third of the total faeces in man consisted of bacteria, and this proportion was increased in diarrhoea. The decomposition products of protein putrefaction were practically the same whether formed by the action of bacteria or by the enzymes in ordinary digestion. If not present in too great quantity, bacteria in the intestine might be useful to the organism, and might assist in breaking down such substances as cellulose in the food. Indol, skatol, phenol, and cresol were aromatic substances formed by the breaking down of protein by various bacteria in the alimentary tract. These substances were fixed in the living cells. Indol was more easily detected in the faeces, and indican in the urine, and consequently had been more studied than had skatol, phenol, and cresol. Jaffé found that ligature of the small intestine, but not of the

large, was followed by a considerable increase of indican in the urine. The indican appeared to be derived in the bowels from the protein product tryptophan. In adults, even in health, the bacteria of the bowel produced indol as well as skatol, phenol, and cresol, while in breast-fed children these substances were not formed. Delay in the intestines led to a marked increase of aromatic substances in the bowel, which were eliminated as aromatic sulphates. But the quantity of these sulphates found in the urine did not always indicate the true condition occurring in the bowel. The quantity of fluid in the alimentary canal also influenced the putrefaction, putrid substances being formed in larger quantity where there was a decreased water absorption in the bowel. Indol was not readily absorbed by the lower part of the colon. In atony or dilatation of the caecum there was marked increase of indican in the urine. The condition of the stomach had apparently an influence on the intestinal putrefaction. Where there was delayed motility of the stomach, especially with decreased hydrochloric acid secretion, the protein putrefaction might commence in the stomach itself, hence there was an increased formation of aromatic substances in the alimentary canal. In the most advanced forms faecal vomiting occurred. Anaemia was present in all cases where the indican in the urine was increased; in some instances this anaemia seemed to be due to the increased intestinal putrefaction. In cases of pancreatic obstruction there was a marked increase of intestinal putrefaction, the increased protein remaining in the bowel being due to decreased fat absorption and the absence of trypsin, so that the protein was not properly digested in the small intestine. Experiments by Richards and Howland showed that reduced oxidation in the tissues might explain the more marked toxicity of indol in some persons. The persistence of an increased quantity of indican and aromatic sulphates in the urine was significant, and was apt to occur in middle-aged people who were in the habit of taking too much protein in their diet. In children increased protein putrefaction had a greater significance than in adults or aged people, and there was often marked retardation of growth, with mental irritability and anaemia and muscular fatigue. Adults with increased indicanuria had a muddy complexion, with lassitude and headache. In some cases there were arthritic and muscular pains. He believed a true neurasthenia could be caused by the continual absorption of indol, skatol, phenol, and cresol from the bowel. Premature senile decay with early arterio-sclerosis was apt to occur in people who had an increase of indol and urobilin in their stools. In contradistinction to putrefaction, he said it was as well to use the term "fermentation" for the breaking down of the fats and carbohydrates. Probably one never found a pure case of increased fermentation unaccompanied by putrefaction in a man after middle life. The ether extract of the stools had been shown by several observers to have a haemolytic action on the blood corpuscles. The acids when not broken down in the blood stream might contribute to acidosis by fixing some of the alkali of the blood, and this might be a serious factor in children. Gerhardt had demonstrated that in a case of obstruction of the bile duct no urobilin was present in either faeces or urine, but on the administration of bile by the mouth urobilin appeared in the stools and in the urine. The increased quantity of bile pigment present in the alimentary canal was converted by the bacteria into urobilin, some of which was absorbed and eliminated in the urine. Under ordinary conditions the bile pigment could be traced in the ileum as far aa the ileo-caecal valve.

Treatment: Medical and Surgical.

The papers on the consequences and treatment from a medical and surgical point of view respectively were read by Professor Saundby and Mr. Arbuthnot Lane. These papers are published elsewhere.

Consequences and Treatment from the Dental Point of View.

Mr. J. F. Colyer said that he entered into the debate because there seemed to be some misconception on the part of his medical friends as to the amount of dental disease prevalent. There were two main causes of oral sepsis—(1) caries; (2) gingival disease leading to periodontal disease. Caries consisted of the progressive destruction of the tooth substance, eventually leading to the opening of the pulp cavity. A septic inflammation was set up in the pulp, and in time led to a similar condition in the periodontal membrane about the apex of the tooth. The amount of oral sepsis arising directly from caries of the tooth was small compared with the sepsis from the conditions started by their presence. The effect of carious teeth was to render the teeth in the neighbourhood functionless, so that stagnation areas were formed, and from these and the collections of food marginal gingivitis ensued. Gingival disease, leading to periodontal disease, was by far the most fruitful source of oral sepsis. The gums might appear to the untrained eye almost healthy, yet the tooth socket might in places be destroyed almost to the apex of the tooth, and pus might be present in the pocket around the tooth. The progress of the disease was slow, especially in the early stages. Its extent could only be accurately gauged by examining each individual tooth with a fine probe so as to ascertain the depth of the pockets. The disease was more intractable and more serious in its results in mouth-breathers. He considered that the relationship of nasal obstruction to dental disease had not received the attention it deserved. Mouth-breathing in the child led to persistent marginal gingivitis, most marked around the lower incisors, and this eventually led to periodontal disease. Children the subjects of marked oral sepsis were below the normal weight. In adults the condition might lead to other pathological processes in two ways: (1) by direct absorption of the organisms and their toxins; (2) by the swallowing of the septic matter, leading to the setting up of gastritis. He did not claim that oral sepsis was as important as intestinal sepsis, but it was a prolific source of ill health. Where the teeth of children were bad he did not hesitate to render them edentulous; removal of ten, twelve, or fourteen teeth in a child under 5 was not at all uncommon. The supposed narrowing of the dental arch owing to this was not a serious matter, and the small extent to which this took place could be remedied by proper means; this would prevent crowding of the oncoming permanent teeth. It should always be remembered that chewing could be well carried out even where gingival disease was present; and when such children had their teeth removed they always gained in weight. He knew no means of curing periodontal disease except by free extraction.

The debate will be continued on April 14th.

Section of the History of Medicine.

A meeting of this Section was held on Wednesday, March 5th, Sir William Osler, Bart., F.R.S., President, in the chair. Dr. W. K. Sibley was elected an ordinary member of the Section, and the following gentlemen were elected Corresponding Honorary Members under the rule which allows of the election of such persons for distinguished services rendered to the history of medicine: Professor Barduzzi, Dr. Iwan Bloch, Dr. Chauffard, Professor E. F. Cordell, Dr. Fielding H. Garrison, Professor Holländer, Professor Kavvadias, Professor van Leersum, Professor Letulle, Dr. V. Maar, Lieutenant-Colonel Walter D. McCaw, Professor Karl Sudhof, and Dr. W. H. Welch.

Circumcision under the Romans.

Mr. Joseph Offord, member of the Associazione Archeological Romana and of the Egypt Exploration Fund, read an essay treating of the Roman Imperial regulations with regard to circumcision. In association with the Jews much was already familiar to Latin scholars, but new evidence was brought forward respecting circumcision of Egyptian priestly youths devoted to the cult of the ancient deities in Egyptian temples. This information had been supplied by a few manuscripts found among the many thousands of papyri of Roman times that had recently been obtained from Egypt and were now undergoing preparation for speedy publication by specialist editors. Circumcision was an old sacerdotal and, indeed, almost universal custom in ancient Egypt, and therefore, to retain the good opinion of the priests, the Roman Imperial legislators, with certain reservations, permitted the practice in the province that was so valuable a granary, and, until exhausted, a mine of taxable wealth. The importance of the papyri

consisted in their being actual documents properly engrossed in the correct phraseology for obtaining the permission to circumcise and the administrative replies granting the request. Altogether eight such manuscripts were referred to and abstracts of the contents of several of them were given, and from these a good idea of the formalities required, and therefore of the legislation governing the matter, was obtained.

A New Egyptian Medical Papyrus.

Mr. Joseph Offord also read notes on a newly discovered Egyptian medical papyrus, a much older treasure than the documents on circumcision, dating as it did from some 2000 years B.C. Its contents, concerning the list of remedies prescribed and diseases enumerated, was very similar to that of the famous Ebers papyrus published some thirty years ago, and the comparison of the two manuscripts proved that both were to a large extent made up of copies of one or more earlier collections of medical and magical texts or formulae. The contents of this new papyrus and of the Ebers and four or five more medical papyri known indicated that they were not derived from the celebrated "divine" medical, Hermetic, books, which, according to the classics, the Egyptians treasured up in certain temple libraries, but that all were textbooks used in daily work by the medical practitioners of that period. Some of the recipes were ascribed to the gods, and others to a foreign origin, but the new papyrus came from the ruins of a house in a small provincial town, and was probably an inexpensive copy, carelessly written, intended for a country doctor. The new papyrus did not advance our respect for the ancient Egyptian medicine; indeed, it depended more upon magic for cures than did the Ebers treatise. In none of the works did any conception of the fact of contagion appear; and many worse than useless remedies were recommended. Whilst it was regrettable that the new papyrus was so similar in contents to the Ebers sample, and so did not provide fresh material for the study of Egyptian medical learning, yet, as the manuscripts in many cases mutually explained each other, scholars would now be enabled to translate them both, and then medical historians would be able to scrutinize their value with greater precision than before.

Lady Sedley's Receipt Book.

Dr. LEONARD GUTHRIE read a paper on the Lady Sedley's Receipt Book, 1686, and other seventeenth century receipt books. Lady Sedley was the wife of Sir Charles Sedley, wit, poet, and boon companion of Charles II. Their only child was the notorious Catherine Sedley, mistress of James II, created by him Countess of Dorchester in 1686, the year when the receipt book was written. Dr. Guthrie gave instances of prescriptions for a variety of ailments, some serious, others trivial. Many of the receipts were written by such eminent physicians as Sydenham, Lower, and King. Attention was also drawn to other manuscripts and to some printed receipt books.

Drug Pots.

Mr. J. D. MARSHALL, of Messrs. Bell and Croyden, showed a fine collection of early drug pots. He stated that no fragment of pottery connected with pharmacy had yet been found dating from palaeolithic times. The Egyptian tombs contained small pots made of unglazed terra cotta, and pharmacy pots were often found in excavations at Pompeii and Herculaneum. The pharmacy jars of mediaeval times were divisible into Maiolica and Faience, Maiolica being a pottery formed of calcareous clay gently fired and then covered with an opaque enamel composed of lead, tin, and sand, the biscuit being generally a light yellow tint or colour disappearing under the opacity of the enamel. It was manufactured chiefly in Spain and Italy, whilst Faience, which was generally of a later date than Maiolica was principally Dutch and English. The earliest examples of Maiolica were Hispano-Moresque lustreware, made by the Moors when they occupied Spain. The vessels were copied from Oriental designs; they were decorated and were painted with metallic colours. The Italian Alberelli were much superior in design and finish to the Spanish examples. The shape was an elaboration of the joint of the bamboo in which drugs were packed and imported from the East. They were usually decorated in a single colour, the design being a combination of horizontal bands and discs, usually with some small ornament, such as a trefoil or slight wavy line. These, the earliest examples, were said to be in "camaieu," but as the art of the potter advanced the decorations became more beautiful and were executed in polychrome. Allusion was made to the vases dated 1500, which were in the Musée de Cluny, and to the set of pharmacy jars made for his domestic pharmacy by order of the Duke Gui d'Urbino in the latter part of the fifteenth century. They were probably the most costly in the world, and they were still preserved at Loreto. Many examples of very beautiful Faience ware were made in France, and the Strassburg ware was well known. The productions of the Belgian, German, and Swedish potteries were generally of a poorer quality. Delft began to be made about 1600, and was an attempt by the Dutch potteries to imitate as closely as possible the blue and white Chinese porcelain that was being imported into Holland and Italy. The manufacture of Delft was begun in England by Dutch potters, the first pottery being started at Lambeth about 1671 by John Ariene Van Hamme. The industry prospered, and there were soon twenty potteries at work in Lambeth alone. Bristol and Liverpool quickly became great centres for the manufacture of pharmacy jars. Richard Frank and Thomas Flower were well known makers in 1697, whilst Zachariah Barnes made pharmacy jars a speciality at Liverpool. The Delft of Dutch origin and that made at Lambeth, Bristol, and Liverpool, was similar in shape, but Mr. Marshall showed by examples that it was not very difficult to discriminate between them. The English body was harder, coarser, and less resonant, whilst the decoration was decidedly inferior to the Dutch workmanship. Attention was then drawn to dispensing pots, and Mr. Marshall brought forward examples to show that they had been made in England from a very early date, and that the English forms had developed certain peculiarities by which they could be distinguished from the Alberelli of Italy. The paper was illustrated by lantern slides, some of which reproduced the original colours with remarkable fidelity.

English Herbals.

Mr. H. M. BARLOW read notes on English herbals published between the years 1525 and 1640. The earliest work of this class printed in England was a small quarto volume published anonymously by Richard Banckes in 1525. Its various editions were extremely rare, but three were known to Pulteney in 1790, and these are the only editions referred to by Meyer in his standard history of botany in 1856. Despite its variety, this work was the most popular of all the English herbals, as is shown by the seventeen editions which Mr. Barlow has been able to trace, nine or ten of which are not recorded by Ames. Some appeared with different titles, and have been regarded by bibliographers as original works by Walter Lang, William Copland, Anthony Ascham, and Macer. Besides assigning approximate dates to some of the undated editions, Mr. Barlow showed that not one of these writers had anything to do with the authorship of the work. *The Grete Herball*, printed by Treveris in 1526, was a translation from the French work *Le Grant Herbier*, the origin of which was thought by many writers to be derived from the German *Herbarius* or *Hortus Sanitatis*, but Professor Camus proved it to be in part a translation of the popular Latin work on simple medicines erroneously attributed to Matthew Platerius, a Salernitan physician of the twelfth century. *The Grete Herball* was superseded by the learned and more original work of William Turner, the complete edition of which was printed in Cologne in 1568. Next appeared the Latin work of Pena and Lobel, printed at London in 1570–71, followed by Lyte's popular translation of Dodoens's herbal in 1578. The celebrated herbal of Gerard was published in 1597, but its history was not creditable to the writer. It was really a translation of the *Pemptades* of Dodoens made by Dr. Robert Preest, a Fellow of the College of Physicians. On the death of the translator, the work fell into the hands of Gerard, who altered the arrangement and published it as a work of his own. The last of the old British herbalists was John Parkinson, whose great work, *Theatrum Botanicum*, contained descriptions of 3,800 plants

—nearly double the number in Gerard. The works of Morison, Ray, Grew, and others did not come within the scope of the title "Old English Herbals." By the time they were published the science of botany had grown up to an independent position, and was no longer a branch of medicine. The writers, moreover, were botanists in the modern sense rather than herbalists. Nor do the works of Culpepper and Cole, the ardent supporters of astrological botany and the doctrine of signatures, come under this heading. Besides their scientific value, Mr. Barlow showed that these old herbals had an artistic interest, the woodcut figures of plants being of great importance in the history of wood engraving. The paper was illustrated by a number of old herbals kindly lent by Mr. Bernard Quaritch.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN.

Friday, February 28th, 1913.

Mr. A. H. TUBBY, President, in the Chair.

Exhibition of Clinical Cases.

AMONG the cases shown were the following:—Dr. F. PARKES WEBER: Slight *Congenital deformity of the hands* in a child. It consisted of partial flexion of the fingers at the metacarpo-phalangeal joints. The PRESIDENT, in the discussion which followed, thought the deformity was due to congenital tightness of the palmar fascia. Also a case of *Infantilism due to mitral stenosis*. The patient, a girl aged 15, had the development of a girl aged 10. Dr. F. G. CROOKSHANK: A case of a *Mongoloid boy* in whom ethnic characters of racial Mongolism occurred. The child was not a typical example of Mongolism, but had a yellow skin, dark hair, and Chinese profile. The canine teeth were long and tusk-like. The pelvis was "high." There was considerable hypotonia of muscles. Mr. J. E. ADAMS: Two children of the same family with *Congenital fusion of the radius with the ulna* a short distance below its head. The condition was very rare. A specimen of the deformity was shown and a similar case quoted. Mr. DOUGLAS DREW: *Lymphangioma of the axilla* in a baby aged 9 months. The tumour had occupied the whole axilla, and needed removal of the pectoralis minor and an extensive dissection to excise it. Also a case of *Separated epiphysis of the femur treated by plating*. The child was shown because the plate had not been removed. It caused no inconvenience, and did not hinder growth or movement. Mr. EDRED M. CORNER: *Costo-transversectomy* for spinal caries and mediastinal abscess. The operation had allowed the abscess to be opened and drained at the level of the eighth dorsal vertebra. Also a case of *Congenital absence of fibula, deformity of tarsus, and absence of the fifth toe*. One centre of ossification represented both the astragalus and calcaneum, and the fifth metatarsal bone was also absent. Dr. EDMUND CAUTLEY: *Chronic albuminuria, with hepatic enlargement*, in a girl aged 8 years and 2 months. The urine contained white blood cells, granular, hyaline, and epithelial casts. Von Pirquet's reaction was negative, and there was no evidence of syphilis. The Wassermann reaction had not been done.

Summer Diarrhœa and Summer Heat.

Dr. H. C. CAMERON read a paper on this subject. He emphasized the importance of environment and temperature as direct causes of summer diarrhœa, in contradistinction to their more remote effects in producing infection.

MEDICAL SOCIETY OF LONDON.

Monday, March 10th, 1913.

Sir W. WATSON CHEYNE, President, in the Chair.

Rapid Section of Tissues for Microscopical Diagnosis.

Dr. E. H. SHAW gave a demonstration of his method of rapid section of tissues for this purpose. He said that the method had proved to be of value in the diagnosis of obscure tumours over and over again. There were two factors to be taken into account: First, the manual dexterity required to cut a frozen section; and, secondly, the knowledge and experience of the pathologist in interpreting the section so obtained. He showed lantern slides made from actual fresh sections. The stain used in all cases was methylene blue, and the sections were mounted in the watery solution of the stain without previous fixation or clearing. There was a group of cases in which an accurate knowledge of their malignant or innocent nature was not possible without a microscopic view of the section. It was in these that a rapidly prepared section was of the greatest value. The organ which presented more problems for clinical diagnosis than any other was the breast. His experience of this work extended over nearly fourteen years, and he was convinced more than ever that it was a most useful method and one that should be used more frequently.

Celluloid Splints.

Mr. H. J. GAUVAIN read a paper, illustrated by numerous lantern slides and models, on the use of celluloid in the mechanical treatment of tuberculous disease of the spine.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Friday, February 21st, 1913.

Mr. R. D. PUREFOY, President, in the Chair.

Nephrectomy.

Mr. C. ARTHUR BALL pointed out that nephrectomy had not been discussed much of late. The mortality was high; improved methods of diagnosis had greatly reduced this mortality, but there still remained a risk attached to nephrectomy which was probably greater than that of any other major operation—namely, the danger of haemorrhage. Enough attention was not attached to this danger in the teaching of the subject. The kidney could be more readily reached from the front by an iliac extraperitoneal incision extended upwards and backwards in the direction of the external oblique fibres if more room were needed. This was the incision Mr. Ball always employed; the vessels of the pedicle could be readily exposed, and any abnormal vessels easily seen and dealt with. Lumbar nephrectomy should be classed with lumbar colotomy and given up. The PRESIDENT related a case which showed that a renal affection might very closely simulate an ovarian cyst. Mr. MAUNSELL asked for precise information about the position in which the patient ought to be placed. The large incision was more desirable when the diagnosis had been formed and a nephrectomy undertaken. It seemed a little severe to make this incision where the operator was going to expose the kidney and possibly save the organ. He had seen deaths from haemorrhage, but never in his own practice, and this he attributed to the fact that where he found a kidney very adherent and matted from chronic disease he adopted subcapsular nephrectomy. When the kidney was very adherent he thought it was useless to try and get it out by any other method. He had used the incision advocated by Mr. Ball when he was searching for a stone low down in the ureter, before the present *x*-ray appliances were available. In another instance he used the incision for a large multicystic kidney in a young child, and it worked very satisfactorily. Lastly, the ordinary lumbar incision made slightly longer, and an incision cut at right angles up along the external oblique, gave plenty of room for operative manœuvres. Sir JOHN LENTAIGNE said he agreed with the last speaker. He considered that the efficiency of the other kidney was the point most important to ascertain. In tuberculosis there was real danger, as in a late stage of the disease it spread down the ureter to the bladder, and then almost at once an ascending tuberculosis started which would surely attack the other kidney. The cystoscope alone would not tell at once whether the other kidney was working, nor would segregation of the urine settle the point. It was once thought that by diverting the urine from each ureter into separate channels the surgeon could tell whether the other kidney was functioning or not. Ureter catheterization was the only reliable test, but unfortunately this was a procedure which could not always be easily carried out. Even the most expert men had found it impossible to use the ureteral catheter in every case. In about 30 per cent. of cases this method was unavailable. He found a

double incision very efficient. By cutting down on both kidneys and palpating, it was possible to tell whether the kidney and ureter on opposite sides were sound, and the patient appeared to be nothing the worse. He did not consider the danger of haemorrhage quite as great as Mr. Ball asserted. In cases of perinephric inflammation he had found the subcapsular method the best. Mr. KENNEDY was also at a loss to know how far the incision was carried upwards. He considered that it began rather too low down, as the ureter itself could be explored through an incision not extended far downwards. By combining the incision at right angles with the lumbar incision the largest kidney could be taken out. In a case of very slow-growing tumour of the kidney, lasting over eleven years, where he operated over a year ago, he carried out the incision spoken of by Mr. Maunsell and found no trouble, although the kidney was greatly enlarged. He referred to the use of a clamp for removing haemorrhage. If the pedicle of the kidney was taken up and clamped before isolation of the vessels they could afterwards be tied individually and haemorrhage would be averted. It was, he said, astonishing the amount of room provided by the freeing of the last rib. Mr. PEARSON considered that the incision described was the ideal procedure. The ease with which the operator could see what he was doing was very remarkable. It was really lateral, it was not too long, and was better than the lumbar one. The application of the clamp to the pedicle in a fat subject was not easy. The instrument might not be got round all the vessels: some might easily escape, and there was considerable danger of the pedicle being cut so close to the clamp that other vessels might slip out of it. Mr. H. STOKES said that the practice of a surgeon who had performed forty nephrectomies without a single death was not to tie himself to any particular incision. It was best to plan the incision according to the type of case that was being dealt with. Mr. C. A. BALL, in speaking of the position of the patient, said he generally started by laying the patient on the back, inclining the body a little to one side. He usually started with a small incision of about four or five inches, and if there was not room enough he extended it higher up. It was astonishing what a small incision would do with a thin patient. No one now hesitated to open the abdomen for an exploratory operation, and he therefore saw no reason why this incision might not be made. He also recommended the incision for removing calculi, as he had seen kidneys very seriously damaged by the lumbar wound. He had only once seen the subcapsular operation, and had never performed it; but in cases of tumour of the kidneys it was an operation that could not be used. His object was not so much to try and convert those who had performed lumbar nephrectomy satisfactorily as to show that if students were taught that this anterior incision was a much safer method it would be an advantage. There was no reason to ask those who had found the lumbar incision satisfactory to change their technique. He considered the T-shaped incision more damaging to the muscles. Referring to Sir John Lentaigne's remarks, he said that, of course, the efficiency of the other kidney should be defined beforehand, and the kidney could easily be palpated, if desirable, by this incision. He had made use of this incision, opening the peritoneum for exploratory purposes, and the opposite kidney could be palpated in this way much easier than by the double incision of both kidneys. Mr. MAUNSELL explained that the slight opposition shown by him towards the operation described was founded on a misconception, as he did not understand from the original explanation that the incision was a short one. He thought Mr. Ball meant cutting the patient right down to Poupart's ligament.

The Location of Pus in the Hand.

Mr. A. A. MCCONNELL read a paper on the above subject illustrated by specimens and lantern slides. There were definite spaces in the hand independent of the tendon sheaths in which pus might collect; the diagnosis of pus in these situations could be made, and special incisions were required for adequate treatment. He adopted the nomenclature introduced by Kanavel, of Chicago, and in the main advocated the treatment employed by the latter. Clinical cases were cited, however, which went to prove that adequate drainage of the middle palmar space could be carried out by placing an incision behind the web of one or more of the fingers, and introducing a drainage tube. This incision avoided the digital vessels and nerves, and proved as effective as Kanavel's palmar incision. He demonstrated specimens and lantern slides illustrative of his remarks, to show that the majority of anatomical and surgical textbooks gave an inadequate account of the anatomy of the hand and the treatment of its affections. The PRESIDENT said that the fact that these injuries to the hand were so frequent, and might have such disastrous results if not well treated, invested the subject with the greatest importance. DR. KEEGAN observed that very little was said about this subject, yet surgeons could not pass a week without seeing many cases. There was no doubt that the anatomical lines which should be followed for the correct treatment of cases of the kind were clearly pointed out, and Mr. McConnell's diagrams demonstrated the many reasons why failure was met with in the early convalescence of such cases. Professor DIXON had enjoyed an opportunity of seeing the excellent preparations which Mr. McConnell had made, and they were even more convincing than his diagrams. The arrangements of the septum which he had described were very easily shown even without injections. Mr. H. STOKES said that he had come across the subject about a year and a half ago in the *Journal of Obstetrics and Surgery*, but Mr. McConnell had put the matter yet more clearly. Dr. ADRIAN STOKES asked if the pus had progressed farther than it should have done would the incision suggested be still sufficient to drain the palm of the hand, or did Mr. McConnell suggest that the other incision spoken of would give better drainage. Mr. GUNN had felt for a long time that in hospital practice septic fingers and hands were left very much to the residents and house-surgeons, and that very disastrous results were often experienced where incisions were made in wrong positions. There were few subjects of more importance than this, and he thought it deserved a great deal more attention. Mr. CRAWFORD thought it important to note that this method of making an incision of the web of the finger was new, and had only been performed by Mr. McConnell himself. He had had only one case of the kind since he had learnt the method from Mr. McConnell, and in that instance, although the whole hand was oedematous, he determined to try drainage through incision of the web of the little finger, and the result was very good, all the symptoms having subsided in three or four days. Mr. A. A. MCCONNELL, replying to the remarks, said that the only question he had to answer was with regard to the extension of the pus upwards into the forearm. He demonstrated by means of a slide the best way to allow of efficient drainage when pus was extending upwards into the forearm. Two incisions were advisable whenever there was pus in the forearm.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT a meeting held on March 6th at the Royal Infirmary, the President, Dr. STANLEY RISELEY, in the chair, the following cases were shown:—Mr. SINCLAIR WHITE: (1) Cases illustrating the operative treatment of fractures; (2) two cases to illustrate the necessity for after-treatment after operations for talipes; (3) operations for resection of the colon in three stages; (4) papilloma of lip with early epitheliomatous changes; (5) enclosed bilateral branchial cysts in the neck. Mr. ARTHUR CONNELL: (1) Double cervical rib with pressure symptoms in arms; (2) hypernephroma of kidney, excision, recurrence, disappearance under Coley's fluid; (3) congenital ossification of intertransverse ligament of lumbar vertebrae; (4) union of fracture of shaft of femur by Lane's plates in a patient, aged 72, under intraspinous stovaine. Mr. ARCHIBALD CUFF: (1) Cases to illustrate after-effects of gastro-enterostomy performed for gastric and duodenal ulcers; (2) congenital syphilitic disease of knee-joint in a child. Mr. ERNEST FINCH: (1) Cases of infective arthritis of knee and wrist; (2) recurrent carcinoma after removal of both breasts, with extensive secondary growths on chest, neck, and in liver. Mr. W. S. KERR: (1) Epithelioma of middle-ear cleft in a man aged 50; the cleft was eroded by vascular grey granulation tissue, the facial nerve being exposed for the whole of its vertical length; the patient

had persistent pain in the right side of the head; there were exuberant granulations which bled easily; there was a history of middle-ear disease since childhood. (2) Extradural abscess with mural thrombosis of sigmoid sinus; ligature of internal jugular. (3) ? Tuberculous disease of maxillary sinus in a woman aged 58: Caldwell-Luc operation for infraorbital pain and swelling of cheek and dullness on transillumination; mucous membrane found thickened in places. On section typical tubercle giant-cell systems were seen. No tubercle were detected elsewhere. (4) Recurrent sarcoma of ethmoid after a year, treated by free removal (temporary ligature on carotid) and cauterization with Paquelin's cautery. The upper jaw was removed at the primary operation. The cavity was now almost completely epithelialized. (5) Sequestrum, removed by operation from static portion of labyrinth, showing one canal nearly complete and part of another. The patient had symptoms of cerebellar abscess, but exploration was negative. Mr. G. H. Pooley: (1) A case of interstitial keratitis treated by mercury and salvarsan. (2) A case illustrating the different varieties of cataract and injuries. (3) A middle-aged man with ulcers on each cornea, the result of a ganister accident. The patient had glycosuria, and the only beneficial treatment for the ulcers had been by zinc ionization. (4) A girl, aged 22, with proptosis of the left eye. The eye could not be moved in any direction. Wassermann's reaction was negative. After exploration of the orbit, which was negative, immense swelling of the lids took place, which had persisted for many weeks. (5) A case of pituitary tumour in a middle-aged woman; bitemporal hemianopsia. The patient was treated for a time by thyroid and pituitary extracts. The right eye became completely blind. Cases were also shown by Dr. W. S. Porter, Dr. A. G. Yates, Mr. Herbert Emmerson, and Dr. Percival Hay. Dr. Rupert Hallam showed a series of skin cases and gave *x*-ray demonstrations.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

A meeting of this society was held on February 7th, Mr. Freeland Fergus, President, being in the chair. Mr. J. Hogarth Pringle showed two patients operated on for *Aneurysm*: (*a*) Subclavian, (*b*) popliteal. Mr. Pringle and Professor W. K. Hunter showed a patient operated on for *Acromegaly*. Dr. J. Goodwin Tomkinson showed cases of *Coccogenic sycosis* under treatment.

The next meeting of the society was held on February 21st in the new clinical laboratory of the Western Infirmary, where a pathological demonstration was given on work carried out in connexion with the laboratory. Dr. J. Kerr Love, discussing *Syphilis and congenital deafness*, distinguished (1) post-natal deafness due to congenital syphilis, coming on during the school period, accompanied by keratitis, and characterized almost always by a positive Wassermann reaction; (2) congenital deafness due to congenital syphilis, indicating an extinct or nearly extinct blood infection, and often characterized by a negative reaction; (3) hereditary deafness complicated by congenital syphilis, a type of deafness probably Mendelian in incidence, and one whose family history was not long disturbed by the introduction of syphilis. These three types were illustrated by numerous family trees. Dr. C. H. Browning discussed the significance of the Wassermann reaction and some clinical applications. Dr. W. Hyslop Manson dealt with the reaction in ophthalmology. Dr. H. Ferguson Watson stated some results he had obtained from reactions done in 1,700 cases of children's diseases. Children suffering from true congenital heart disease all gave a positive Wassermann reaction, a proof of the syphilitic origin of the valvular lesions, while those exhibiting heart disease of the infantile type and of rheumatic origin all yielded negative reactions. Positive reactions were also obtained in all of 15 cases examined of meningitis with hydrocephalus, and in all of 85 cases, some apparently healthy, the children of tinkers, gipsies, and tramps. Dr. T. J. Mackie demonstrated and discussed the occurrence of Gram-negative bacilli in pyogenic infections of the urinary tract. Dr. W. Kiep gave an account of the treatment of 4 cases of typhus fever by intravenous injections of salvarsan. In two of these (one severe and one mild) the course of the disease appeared to be aborted by a single injection, but in the other cases (one severe and one moderately mild) the pyrexia resumed its ordinary course within eighteen hours of the injection, and subsequent injections, given after an interval of one or two days, produced similar results. Dr. G. A. Allan showed microscopic preparations from the liver, spleen, and cerebrospinal fluid of a child who had died, aged 12 weeks, of tuberculous meningitis. The tubercle bacilli found presented on culture the characters of the human type, but by inoculation into a rabbit reacted like the bovine type. Dr. J. Cruickshank discussed, with demonstration, the detection of tubercle bacilli in sputum, urine, etc., by microscopic examination and culture, and their differentiation from other acid-fast organisms. Dr. W. J. Logie discussed the urea: ammonia nitrogen ratio of the urine, and its significance in cases with glycosuria.

UNITED SERVICES MEDICAL SOCIETY.

Portsmouth Branch.

A meeting of this society was held at the Alexandra Hospital, Cosham, on Tuesday, March 4th, Colonel S. Westcott, C.M.G., R.A.M.C., President, in the chair. Fleet Surgeon F. H. A. Clayton, R.N., read a paper entitled *Three unusual medical cases*, and exhibited specimens. In an interesting paper on the treatment of *Diffuse septic peritonitis due to appendicitis*, Major G. J. Stoney Archer, R.A.M.C., emphasized the following points: Operate as soon as possible; do not irrigate or swab out the peritoneal cavity; remove the appendix; use glass drainage tubes; use iodized formalin catgut for sewing up the wound; keep the patient's thorax raised during the operation and nurse him in Fowler's semi-sitting position. Commence proctoclysis at once and continue this till the patient is able to drink freely without vomiting. The paper was illustrated by four recent and consecutive cases, which were seen afterwards in the wards. In the discussion which followed, the President, Fleet Surgeon Moon, R.N., and Major Adye-Curran, R.A.M.C., took part. Captain J. B. Grogan, R.A.M.C., read a paper on three cases of *Malarial fever contracted in England*. In all of these benign tertian parasites were demonstrated in the blood. The President, Fleet Surgeon F. H. A. Clayton, R.N., and Fleet Surgeon G. A. Waters, R.N., took part in the discussion, and several interesting hypotheses as to the possible methods of infection were advanced.

Sir Gilbert Wills, M.P., and his family have contributed the sum of £5,000 to the Royal Victoria and West Hants Hospital, Bournemouth, towards the building of an administrative block at the Boscombe branch, in memory of the late Sir Frederick Wills, who was at one time President of the Royal Boscombe and West Hants Hospital before its amalgamation with the Royal Victoria Hospital, Bournemouth.

Dr. W. M. Graham, Director of the Medical Research Institute, Lagos, in a report on blackwater fever in Southern Nigeria, 1899–1911 (London: Waterlow and Sons. 1912) expresses the belief that if it be a specific disease it must be originally and most frequently acquired from the native. Analogy with malaria, he states, would suggest that a native population which at the age of puberty had acquired practical immunity to malaria would also have acquired concurrently a similar immunity to blackwater fever, which in a protected population of adults would present itself under a modified and less acute form, and might even run its whole course without the occurrence of haemoglobinuria. If this were so the diagnosis in the native might easily be missed. In support of this contention, he draws attention to a series of sudden deaths in the Lagos Hospital, but he does not produce evidence that these were in fact cases of blackwater fever. Infection from the native, he thinks, might either be indirect or direct, and he suggests that whichever hypothesis be accepted, either the malarial or specific origin, the presence of native women, and their corollary, native children, in a European household is undesirable. He seems to suggest that sexual intercourse with native women may produce the disease; but here again he brings forward no evidence in support of his theory.

Reviews.

SPIRITISM AND INSANITY.

Of the long series of volumes of the *Bibliothèque de Psychologie Expérimentale et de Métapsychie*, edited by Dr. RAYMOND MEUNIER, many of which have been reviewed from time to time in our columns, that entitled *Spiritism and Insanity*,[1] for some not very obvious reason, was apparently the first to be translated into English.

Perhaps it should be said here that the term "metapsychism" was suggested by M. Charles Richet to the Congress of Psychology, held at Rome in 1906, "to define the *ensemble* of those phenomena concerning which the psychological sciences have not yet furnished conclusive results." The volumes of this series are of very unequal value, and, owing, perhaps, to invincible ignorance on our part, those of a "metapsychic" order appear the least satisfactory. Dr. VIOLLET'S volume belongs to this class. It is not easy to discover his position with regard to the claims of spiritualism. Apparently his attitude is one of hopeful expectancy. In any case, he is not a dogmatic sceptic, for, after showing the analogies between hallucination and the visions of spiritists and between delusions and the beliefs of these people, he says:

> But, I affirm it here, the incredulous man of whom I speak, and who wishes to believe that the spiritistic doctrine is delirium, is not myself. Philosophically, I would not dare to do so, persuaded as I am of the frailty of human knowledge, all things being probably equal in "vanity" in the eyes of Infinite Wisdom. Equally as a physician for the insane, I would not say so, because the origin of delirium, in all things arbitrary, differentiates it from that doctrine which takes its point of departure, at least, from the human "finite," and which proceeds, not at all arbitrarily, but with the judiciously eclectic concourse of anterior knowledge and of anterior religious and philosophical doctrines.

It is evident that such a chain of reasoning, which, on account of the belief that all things are probably equal in vanity in the eyes of Infinite Wisdom, would accept as of equal value deductions from ascertained fact and the superstitious beliefs of, say, the aborigines of Australia, must lead to a practical negation of the results of every branch of positive science. Looking at these matters, however, from the detached point of view of superhumanity, Dr. Viollet discusses in interesting enough fashion the various types of spiritist devotees, and in particular the mentally disordered who may be attracted by séances, and the types of spiritistic insanities. Notwithstanding much cloudy rhetoric, there is not a little of interest in the book, and the author concludes by giving excellent advice to the neuropath: "Do not complicate your life with all these mysteries and with all these miracles; avoid curiosity and live simply and quietly," and to the savants—the Crookeses, Wallaces, and Oliver Lodges—"establish a sanitary customs house at the entrance to your séance rooms." Probably, however, if this latter injunction were carried out and the mentally disordered were excluded, the "séance rooms" would be empty—deserted even by the savants with no material to investigate.

The publishers would have been well advised to have had the proofs revised by a medical man. Delirium is hardly the exact rendering of *délire*, and the need for staphylorrhaphy in a syphilitic subject "by the perforation of the palate consequent on the growth of a gum" would then not have puzzled the reader.

TROPICAL MEDICINE.

Sprue: its Diagnosis and Treatment,[2] is a book worthy of careful study. Its author, Dr. BEGG, is the advocate of a form of treatment for sprue by yellow santonin which in his hands would seem to have worked in an almost magical manner. The volume deals with the geographical distribution, morbid anatomy, pathology, diagnosis, and treatment of the disease, and a series of cases showing the results of treatment is appended. Greatest stress perhaps is laid on the treatment, and especially on the treatment by yellow santonin. Students of tropical medicine will remember an interesting and instructive paper on this drug, read by Dr. Preston Maxwell at a meeting of the Society of Tropical Medicine and Hygiene on March 17th, 1911, a paper which gave rise to a very animated discussion, in which Dr. Begg himself joined. Several of the cases treated by Dr. Maxwell had undoubtedly done well, but though this was so the consensus of opinion amongst the experts present was against Dr. Begg's line of treatment. When such a state of affairs as this exists—when, that is, one man is using a drug with success whilst another has no success—the simplest explanation would seem to be that one term is being applied to diseases of different pathogeny; there is no doubt that many chronic diarrhoeas or post-dysenteric conditions are often classed as sprue though they are not really examples of this disease. Be this as it may, the fact remains that many cases of sprue treated both at home and abroad with yellow santonin have not benefited in the least, and those who have had this experience are entitled to be sceptical. On the other hand, cases of diarrhoea and other bowel troubles of unknown etiology have often been benefited and sometimes cured by this same line of treatment; and it is therefore not one to be lightly cast aside. In view of Dr. Begg's successes, it would seem that it should be given a trial in all cases of sprue, or at least in those that are not doing well under the ordinary methods of treatment. We have one quarrel with Dr. Begg. On page 109 he states that he has not always noted the ages of his cases, but that this is the least important of the particulars. With all due deference to Dr. Begg, however, we venture to suggest that this is a most important point, since the prognosis becomes correspondingly grave with the advance of years. In other words, the older the patient the less chance of cure, and this is due, no doubt, to the general principle that the recuperative powers diminish with age. There are other points in the book, such as the treatment of chronic cases, which are open to criticism; but space will not admit of this here. The book is clearly written and the matter simply put. There is no gainsaying the fact that Dr. Begg pleads his cause with ability, and by so doing may well win converts to his belief.

The third and final part of Dr. C. W. DANIELS'S book on *Tropical Medicine and Hygiene*[3] deals with diseases due to bacteria and other vegetable parasites, to dietetic errors, and with diseases of unknown causation. Part I, it may be remembered, dealt with the diseases due to the protozoa, Part II with the diseases due to the metazoa. That three volumes should have been required demonstrates how tropical medicine as a distinct subject has grown in the last twelve years. The author believes that the attempt to group tropical diseases according to their causations and not according to symptomatology is practicable and simplifies the conception both of the diseases and of the prophylactic measures required. Some very important tropical and subtropical diseases come into this volume, notably plague, undulant fever, cholera, enteric fever, dysentery, leprosy, beri-beri, and pellagra. All those subjects are well dealt with and the reader is thus enabled to form a clear conception of the disease and everything connected with it. The material included is generally orthodox and the information accurate. A few errors do creep in, however, such as the statement that the occurrence of undulant fever in West Africa is doubtful, for positive cases have been definitely reported from there. These are small points, however, in a book covering so much ground. The book forms a fitting sequel to the other two volumes, and should take its place amongst the standard works on tropical medicine.

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[1] *Spiritism and Insanity*. By Dr. Marcel Viollet. Translated from the French. London: Swan, Sonnenschein, and Co., Ltd. 1910. (Cr. 8vo, 1 p 147. 2s. 6d.)

[2] *Sprue: its Diagnosis and Treatment*. By Charles Begg, M.B., C.M.Edin., formerly Medical Officer Chinese Imperial Maritime Customs and H.B.M. Medical Officer, Hankow, China. Bristol: John Wright and Sons, Ltd. London: Simpkin Marshall and Co., Ltd. 1912. (Demy 8vo, pp. 130; plates 8. 6s. net.)

[3] *Tropical Medicine and Hygiene*. By C. W. Daniels, M.B., M.R.C.P. In three parts, with coloured and other illustrations. Part III: Diseases due to Bacteria and other Vegetable Parasites, to Dietetic Errors, and of Unknown Causation. London: John Bale, Sons, and Danielsson, Limited. 1912. (Demy 8vo, pp. 258. 7s. 6d. net.)

A useful little manual on *The Care and Treatment of European Children in the Tropics*,[4] by Dr. Montagu Harston of Hong Kong, should prove of value to tropical practitioners. Though many books have now been written on tropical medicine, there was room for one dealing with these diseases as seen in children, for a practitioner accustomed to ordinary tropical practice among adults might fail to diagnose malaria or helminthiasis in an infant or child, and would not know the doses suitable, or the precautions which it would be necessary to take, or how to allay the anxieties of the mother and other relatives. Dr. Harston's book will teach him all these things and many others. It is easy to see that it is written by one with considerable experience of his subject, and first-hand knowledge of this kind is always the most valuable. An introductory chapter is followed by four on "The climatic factors influencing European children in the tropics"; "The incidence of disease in European children in the tropics"; "Certain considerations of hygiene and the general welfare of European children in the tropics," and "The care of European infants in the tropics." Then the several diseases are discussed, and a chapter on repatriation closes the book. Interspersed through the text are 47 figures, and there is one coloured plate. A copy of this interesting work should be in the hands of all practising in tropical and subtropical countries.

The fact that a second edition of Professor Gabbi's manual of tropical diseases of Southern Italy and Sicily[5] has been called for within less than two years of the first shows that it has fulfilled a real want. Knowledge of tropical diseases progresses at such a rate and the number of people interested in the subject, whether as patients, workers, or observers, increases so rapidly that it is not surprising that there should be a strong demand for books dealing therewith. When we recall the mixture of acute observation, and complete ignorance as to the real cause of these diseases, which filled the textbooks of only a few years ago and contrast this with the result of modern research, it is no wonder there should be a need for standard books on the subject. Amongst such books Professor Gabbi's deserves a favourable place. The greater part of the book is devoted to Malta fever and to various forms of what the author calls Leishmaniosis (kala-azar, oriental sore, etc.), and one of the features of this edition is the exposition of the later views with regard to the Leishman parasites and an attempt to group the various forms of disease which they cause. In order to help the man who cannot avail himself of the decisive (when positive) tests of the bacteriological laboratory, and also in those cases where these tests are negative, the author goes rather carefully into the differential diagnosis from the clinical point of view. Other sections of the book are given up to "three-day fever," dengue, and bubo. There are some good chromolithographs of the blood and associated parasites; the book is of a size handy and convenient either for reading or for carrying in the pocket.

Dr. F. O. Stohr has published in French a book on sleeping sickness in Katanga.[6] The material contained in it is the result of his two years' work in that region. The most important part is undoubtedly that bearing on the prophylaxis of the disease and the measures required to prevent its further spread. He goes into these in great detail, and on the whole his suggestions seem sound, though some of them would appear to be difficult of execution. It is to be hoped, however, that the Belgian Government will see its way to act upon them where possible, for, as Stohr says, it is a subject of the very greatest importance, both from the point of view of commerce and of prestige to that nation.

[4] *The Care and Treatment of European Children in the Tropics.* By G. Montagu Harston, M.D.Lond., Ophthalmic Surgeon to the Tung Wa Hospital, Hong Kong; Examiner in Materia Medica and Therapeutics, Hong Kong College of Medicine, etc. With Introduction by Sir Patrick Manson, G.C.M.G., M.D., LL.D. London: Baillière, Tindall, and Cox. 1912. (Cr. 8vo, pp. 248, plates 17. 7s. 6d. net.)

[5] *Malattie Tropicali dell' Italia Meridionale e della Sicilia.* Del Professor W. Gabbi. Messina: Giuseppe Principato. 1912. (Cr. 8vo, pp. 250. L. 3.50.)

[6] *La maladie du sommeil au Katanga.* By F. O. Stohr, M.B., B.Ch.Oxon. London: Constable and Company, Ltd. 1912. (Roy. 8vo, pp. 83; Tfn. 6, figs. 103. 4s. net.)

DEVELOPMENTAL PERITONEAL ADHESIONS.

Anatomists have always been careful to educate us thoroughly—sometimes to weariness in our student days—in the various normal complicated folds and layers of the peritoneum, and they have not been slow to point out aberrations and irregularities in its arrangement. But of late years the attention of surgeons has been attracted to some dispositions of peritoneal layers with pathological consequences of great moment. Mr. Arbuthnot Lane was the first to classify the symptoms associated with intestinal stasis and to maintain that it was a clinical entity of distinctive and not uncommon type; the existence of the "ileal kink" described by him is now recognized as one cause of stasis. Then, Dr. Jackson in America described a diaphanous membrane which he had observed stretching over the ascending colon from the hepatic flexure to 3 in. above the caput and enveloping the colon. This membrane gave rise to a kink at the hepatic flexure with obstructive symptoms. Next, Professor Payr in Germany described a splenic kink brought about by a short tense phreno-colic ligament with secondary adhesions of transverse and descending colon; and at the same time it was found that there were adhesions or bands of similar nature fixing the meso-sigmoid to the left iliac fossa.

The origin of these structures found at the four angles of the colonic square has been a matter of some discussion, and it is thought they are much more common than we have hitherto believed. That, at least, is the opinion of Mr. H. M. W. Gray and Mr. Anderson, of Aberdeen, who have published a most interesting pamphlet on *Developmental Adhesions Affecting the Lower End of the Ileum and the Colon.*[7] Mr. Gray is in complete agreement with other writers as to the chain of symptoms due to intestinal stasis, but he regards the stasis as the effect and not the cause of the adhesive peritoneal bands found in the lower end of the ileum and in the colon. He quite frankly says that he does "not believe that in the first instance any of these adhesions are due to crystallization of the lines of strain," which is Mr. Lane's explanation. Nor can he accept the theory that Jackson's membrane is due to pericolic inflammation. Equally summary is his dismissal of C. H. Mayo's explanation that Jackson's membrane is of congenital origin formed as a result of the burrowing of the caecum behind the posterior parietal peritoneum, as there is no evidence that such a mode of descent ever takes place. Mr. Gray believes that all these forms of adhesion are due to "excess of physiological fusion." If they do not manifest themselves till adult life the congenital origin is not discounted any more than the late appearance of an inguinal hernia is evidence against the congenital origin of the sac. He explains the formation of Lane's membrane as the product of developmental changes. Towards the end of fetal life the lower end of the ileum enters the caecum from behind or even from the outer side; the peritoneum covering the under surface of this part of the ileum and its mesentery may become fixed to the dorsal parietal peritoneum of the iliac fossa. In the subsequent development and distension of the ileum and caecum the peritoneum reflected from the iliac fossa to the bowel is partly pulled out (that is, by ileum) and partly pushed out (by caecum) in the form of a roughly quadrilateral or triangular membrane. Similarly, Jackson's membrane is to be regarded as simply the right margin of the great omentum (which ordinarily reaches as far as the hepatic flexure) thinned out and fatless. Excess of physiological fusion more easily explains the adhesive bands at the splenic and sigmoid corners.

The writers of the essay before us believe that these congenital peritoneal deformities have much to do with the production of visceroptosis, and they call attention to the relation frequently seen between visceroptosis, narrow build or physique, and the finding of developmental adhesions. As to this last factor in the relationship, their experience is that "Lane's membrane was found in 10 per cent. of all cases in which thorough examination of the right iliac region was possible." This seems a high percentage, but it may easily be checked by observations in *post-mortem* examinations in various parts

[7] *Developmental Adhesions Affecting the Lower End of the Ileum and the Colon.* By H. M. W. Gray, M.B., F.R.C.S.Edin., Surgeon and Lecturer on Clinical Surgery, Royal Infirmary, Aberdeen; and William Anderson, M.B., Ch.B. Aberdeen University Press. 1912. (1s.)

of the country, for this disease may vary in different parts of these islands. The essay may be commended to the notice of the profession, for the subject is one requiring more numerous observations and a keener outlook for cases of the kind.

FIELD SANITATION FOR TERRITORIAL OFFICERS.

LIEUTENANT-COLONEL AVERILL'S *Field Sanitation*[8] should be welcomed by all officers of the Territorial Force, but especially by the regimental medical officers, who are usually busy men and have little leisure for studying books of regulations or textbooks on military hygiene. On the other hand, if they go into camp without any definite notions of their duties, beyond that of prescribing for the minor ailments of the daily sick, they are not likely to acquire much useful information during their training or to give to the commanding officer the assistance desired in maintaining the health of the battalion. A short study of this little manual will show them how much there is to be done and how to do it.

The book begins with a short sketch of the organization by which the health of the territorial army is to be maintained in time of war. Next comes some very practical advice on the hygienic precautions to be observed on the march and in camp; the sanitation of camps is well explained, and the book concludes with a summary of the medical officer's duties in camp.

Under "Purification of Water" we may perhaps be permitted to make one or two minor criticisms. A blanket is very little use as a rough filter after the addition of alum; its texture being coarse, the precipitated particles are not caught in its meshes. To get the best value out of alum and wood ashes, the latter should be well rubbed into a wet sheet nailed on to a wooden frame, so as to form a trough; the water, with the added alum, should then be gently poured into this. On page 14 sodium sulphate is mentioned as a chemical for the purification of water; presumably the acid sulphate is intended.

This is an excellent little book, which may confidently be recommended to all medical and combatant officers of the Territorial Force.

NOTES ON BOOKS.

DR. C. CLARK BURMAN, of Alnwick, Northumberland, has issued a short pamphlet dealing with *The Responsibilities, Rights, Duties, and Privileges of Insured Persons and Medical Men under the Insurance Act, particularly in Rural Districts*.[9] The object is to place before insured persons those particular points in which medical service under the Insurance Act differs from private practice, meaning by this the position of doctors and patients under a capitation system. The writer complains that one great imperfection of the Act is its omission to provide for the extra expenses which country practitioners have to meet in carrying out their share of the work. He appeals to insured persons to exercise a sympathetic consideration for the doctor in respect to the demands made on his services, especially referring to night visits and calls out of hours; stress is laid also on the duty of patients to go to the doctor instead of expecting him to visit them whenever possible. The duties of doctors are considered under four heads—first, to give treatment such as can properly be given by a general practitioner of ordinary professional competence and skill; secondly, to visit patients at their homes only when the patient cannot go to the doctor's surgery; thirdly, to attend at places specified at fixed hours, which both doctor and patient should strictly observe; and fourthly, to attend personally when possible or when precluded from personal attendance to provide another practitioner as deputy. Some danger is seen in the fact that popular medical men may choose for their list only patients likely to need little attention, leaving cases that seem likely to be troublesome to other practitioners, who may thus get an undue share of work while only receiving the same capitation fee. The author considers that "some obligation rests on the profession to view with a charitable reserve deficiencies and imperfections which are incidental to the setting into motion of such a massive piece of legislation," and thinks that the experience gained during the first three months' provisional service will provide data on which a system on a more equitable and less irksome basis may be established.

[8] *Field Sanitation for Territorial Officers*. By Lieutenant-Colonel C. Averill, V.D., M.D., D.P.H., R.A.M.C.(T.F.), Sanitary Officer, Welsh Division, Territorial Force. Aldershot: Gale and Polden. 1913. (Demy 8vo, pp. 34. 1s. net.)

[9] Pp. 15. Published at the *Guardian* Office, Alnwick.

Dr. Desfosses, *La Presse Médicale*, 120, Boulevard Saint Germain, Paris, asks us to state that a copy of the handbook to medical institutions in Paris noticed in the BRITISH MEDICAL JOURNAL of February 22nd, p. 397, will be sent free to any British medical man who applies to him.

MEDICAL AND SURGICAL APPLIANCES.

Celluloid Splints and Appliances.

FOR a good many years celluloid has been used, chiefly abroad, for spinal supports, splints, and other apparatus, and, indeed, for nearly all purposes for which stiff leather is used. In this country, however, it has been very little employed, and for two reasons: First, because its application involves a rather troublesome technique with which surgeons themselves have not cared to grapple, while the instrument makers have not laid themselves out for this kind of work; secondly, because of the inflammable nature of the material, which constituted a very real danger to the patient. Both these objections have lately been removed, for a method of preparing celluloid splints has been patented under the name of Pexuloid, for which it is claimed that there is no danger of fire. This claim, as far as our experience goes, is certainly justified. We have held a strip of one of these splints in the full blast of a gas blowpipe, and find that it slowly chars, with the evolution of a very little flame. As soon, however, as the strip is removed from the blast it ceases to smoulder and quickly cools, thus showing that at any ordinary temperature the material is incapable of combustion. Nevertheless, it retains all the useful qualities of celluloid: strength, lightness, and impermeability. Surgeons need no longer undertake the tedious and troublesome processes involved in making these splints, for they are placed on the market and made for all sorts of deformities and defects by Mr. W. Longmate, of 56, Weymouth Street, Portland Place, W.

MEDICINAL AND DIETETIC PREPARATIONS.

Pure Olive Oil for Medicinal Use.

OLIVE oil has long been employed in medicine, but principally in various preparations for external use. More recently its internal employment, usually as a laxative, has increased considerably, large doses being given both by the mouth and by the rectum. For such purposes it is obviously desirable that a pure oil of fine quality should be employed. We have recently received from Messrs. Cosenza and Co. (28A, Clarges Street, London, W.), a sample of an olive oil which they have put on the market particularly for medicinal use. Our determinations of the constants of this oil gave the following results: Specific gravity, 0.9163; refractive index (at 20° C.), 1.4685; saponification value, 190.1; iodine value, 83.9; melting point of fatty acids, 25° C. These figures are all typical of a pure olive oil, and special tests for arachis, sesame, and cotton-seed oils showed them to be absent. The acid value was found to be 2.1, representing about 1 per cent. of free oleic acid, and the flavour of the oil was excellent.

THE Hunterian Society's Annual Medal will be awarded to A. Graham Stewart, M.B., Ch.B.Aberd., for his essay on "Raised Arterial Pressure and Arterio-sclerosis" at the annual meeting of the society on April 23rd, when Dr. Stewart will read a paper founded upon the essay.

AMONG recent leaflets issued by the Board of Agriculture is one (263) on the mustard beetles. *Phaedon betulae*, about one-eighth of an inch long, prefers the mustard plant, but will feed also on the cabbage, turnip, swede, cress, and charlock. In the spring the beetles, which have lived through the winter in crevices or the hollow stems of wild plants, come out and lay their yellow eggs on the under side of the leaves. The beetles and larvae can be shaken off into receptacles containing paraffin or tar, but a badly-infested crop should be dug in. The turnip, mustard, and cabbage flower-beetle (*Meligethes aeneus*), only one-twelfth of an inch long, may also be very destructive; it lays its eggs in the opening buds. Another *Phaedon*, which lives on cow-parsnip and hogweed, may attack celery and parsley. Other leaflets deal with the cultivation of onions (264) and utility rabbit-breeding for smallholders (265).

DAVID LIVINGSTONE.

BORN MARCH 19TH, 1813.

ON March 19th, 1813, David Livingstone was born in a house in Shuttle Row, in the village of Blantyre, on the banks of the Clyde, in north-west Lanarkshire, Scotland; he died on May 1st, 1873, in a hastily built hut, in Chitambo's village, in the country of Ilala, to the south of Lake Bangweolo, Central Africa; and in these sixty years he had literally, and without any exaggeration, opened up the Dark Continent to the light of medicine, of civilization, and of Christianity. He was great as an explorer and geographer, for he travelled twenty-nine thousand miles and explored a million square miles of territory; he had great visions of the future and indomitable courage, for he foresaw the linking up of the Cape with Cairo, the carrying of education and of Christianity to the teeming millions of Africa's children, and he never faltered in his belief that the slave trade would ultimately be crushed out; but he was also a medical man, and it would ill become the profession of which he was a member to allow the centenary of his birth to pass without notice. Medical men may well delight to honour the memory of the man who has been called the "Columbus of Africa," although the comparison with the discoverer of America is not altogether a happy one. Of Livingstone it has been said that it would not be out of place to designate the whole interior of the African continent a memorial to his genius for exploration and to his heroic sacrifices and achievements.[1]

This is not the place for an appreciation of Livingstone's work as a missionary or as an explorer; but some attention may quite suitably be given to the medical aspects of his early life in this country, of his later life in Africa, and to the medical developments which have taken origin in the enthusiasm which sprang up when the full significance of his life's work and of his lonely death began to be recognized.

Young David Livingstone became a doctor that he might be a missionary. One of his boyhood's heroes was Dr. Gutzlaff, the medical missionary to China, and he at first looked to China also. At the age of 10 he had gone into a cotton mill in his native Blantyre as a "piecer," his duty being to tie together the broken ends of any threads which might chance to break in the spinning; and here he made a beginning for getting a qualification in medicine by studying Latin in his spare minutes. The story is that he propped up Ruddiman's Latin *Rudiments* on the top of the spinning frame, and got by heart his declensions and the like whilst walking to and fro in front of it. This was during the day from 6 a.m. to 8 p.m., and at night he worked at his books at home. One of the books which he delighted in at this time was Culpepper's *Herbal*, in which it may well be imagined he found information as strange as any he was afterwards to obtain in the wilds of Africa. This was his first medical reading. He saved enough money by his work to enable him to take out medical and divinity classes in Glasgow, for he had become a spinner in the mill, and so able to draw better wages. There was no Carnegie Trust in Scotland in these days to give financial aid to young lads with brains enough to pass the examinations for the learned professions; but the London Missionary Society came to Livingstone's assistance, and, after some time spent at Chipping Ongar in 1838, and later in the London hospitals, he was admitted (in 1840) a Licentiate of the Faculty of Physicians and Surgeons of Glasgow. Meantime he had met Dr. Moffat, with whom he was to be more closely related erelong, and had had his thoughts turned somewhat from China, to which he had felt strongly attracted, and directed to Africa instead. Moffat said to him one day that if he would push on beyond his old station in South Africa he would come to a vast unoccupied district, where on a clear morning he (Dr. Moffat) had seen the smoke of a thousand villages, and no missionary had ever been. So at the close of 1840 Dr. Livingstone set sail for Algoa Bay, and it is characteristic of him that he learnt how to use the quadrant from the captain on the voyage.

It is noteworthy that in his gaining of a medical qualification Livingstone showed that same determination to achieve his purpose of which his life in Africa gave so many evidences. It is told of him that as a boy he not only climbed to a higher point in the ruins of Bothwell Castle than any other, but also carved his name up there. He had some stiff climbing to do in Africa, and he left his name cut out there too.

During all the many years he spent in the heart of the Dark Continent, making the discovery of the lakes Ngami, Shirwa, Nyassa, and Bangweolo, and of much else, he never forgot that he was a doctor as well as a missionary. His writings are full of his medical experiences, and one must admire the extraordinary accuracy and insight of many of his observations. Even in the twentieth century his name is constantly cropping up in books on Africa. In an article, for instance, on "Some Tribal Customs in relation to Medicine and Morals of the Nyam-nyam and Gour People,"[2] published in 1911, Livingstone is quoted eight or nine times. "I have an immense practice," he wrote once; "patients walk 130 miles for my advice; this is the country for a medical man, but he must leave fees out of the question."

It is very interesting, too, to take notice of how often medical phraseology tinges Livingstone's ordinary conversation and gives point to his utterances. Take that most memorable message of his to the *New York Herald*, in which he spoke of the slave trade these piercing words: "All I can say in my loneliness is, May Heaven's rich blessing come down on every one—American, Englishman, Turk—who will help to heal this open sore of the world." Take, again, this reflection, written in his Journal under the date June 24th, 1872: "The medical education has led me to a continual tendency to suspend the judgement. What a state of blessedness it would have been had I possessed the dead certainty of the homœopathists, and as soon as I found Lakes Bangweolo, Moero, and Kamalondo pouring their waters down the great central valley, bellowed out, 'Hurrah! Eureka!' and got home in firm and honest belief that I had settled it [the source of the Nile] and no mistake. Instead of that I am even now not cocksure that I have not been following down what may after all be the Congo."

But medicine did more than tinge Livingstone's language and thought. Dr. A. G. Miller[3] has found evidence in the great explorer's *Missionary Travels in South Africa*, published, let it be remembered, in 1857, that he was a pioneer and discoverer in medical science as well as in other things. The time referred to was 1852, and Livingstone wrote:

> On the 30th of May I was seized with fever for the first time. . . . The temperature in the axilla, over the heart, and region of the stomach was in my case 100 deg., but 103 deg. at the nape of the neck and throughout the course of the spine. There were pains along the latter, and frontal headache. . . . Anxious to ascertain whether the natives possessed any remedy of which we were ignorant, I requested the assistance of one of Sekeletu's doctors. . . . After being stewed in their vapour baths, and smoked like a red herring over green twigs, I concluded that I could cure the fever more quickly than they can. The native treatment is, however, of service if employed in conjunction with a wet sheet, and a mild aperient in combination with quinine. . . . There is a good deal in not "giving in" to this disease.

Dr. Miller remarks:

> This experience of Dr. Livingstone's was in 1852, when clinical thermometers and the wet pack were practically unknown in the treatment of fevers. The administration of quinine along with a laxative is a method which I have found most useful in my own practice. The laxative seems to increase the activity of the quinine and prevents unpleasant symptoms, even when the quinine is administered in large doses. Dr. Livingstone's concluding remark is quite up to date. His testing the native doctor's powers on himself was very characteristic of the man.

Space, however, fails to refer to more than these medical incidents and reflections in Livingstone's books and journals; but it may be said in passing that medical men who have not read the various works he published and the letters and records he wrote have, even from the purely professional point of view, a treat in store. No sadder story may be found than that of the weary, disease-stricken explorer's death in the swamps to the south of

[1] Dennis, J. S.: *Christian Missions and Social Progress*. iii, 424, 1906.

[2] Anderson, R. G.: *Fourth Report of the Wellcome Tropical Research Laboratories at the Gordon Memorial College, Khartoum*, vol. B, pp. 239-277. 1911.

[3] *Edinburgh Med. Missionary Soc. Quarterly*, xiii, p. 124. 1913.

Bangweolo, brightened as it is to some degree by the marvellous fidelity and resource of his native servants, who, after doing a rough and ready *post-mortem* examination and after burying his heart under a tree in Chitambo's village, faced extraordinary difficulties and dangers in carrying his body to Zanzibar. An account of the necropsy performed in London by Sir William Fergusson is given in the pages of this Journal,[4] and it is touching to read that the body was identified with absolute certainty by the condition of the left arm bone, which showed the results of the bite of the lion received thirty years previously. Recently the question has been raised by Dr. Sander of Berlin as to what was the exact nature of the disease from which Dr. Livingstone died[5]; and not a little evidence is led, from a perusal of Livingstone's *Last Journals* and our present knowledge of the symptomatology of tropical maladies, that he was suffering from trypanosomiasis. If this be so, then the greatest medical problem of the Central Africa of the present time is linked pathetically with the death of the man who did so much for the welfare, bodily and moral and spiritual, of that wonderful continent.

Livingstone's death was not an end, it was rather a new beginning of Africa's enlightenment. We have not here to do with the political and religious results which may truly be said to have had their origin in the life work of the intrepid and heroic medical missionary; but their greatness is confessed by all. His work also has not been left without memorial, for Livingstone is the new Rhodesian capital near the Victoria Falls, the "sounding smoke" which so fascinated and puzzled David Livingstone, till he saw with his eyes these wonderful falls on the Zambesi, twice as large as Niagara. But a few sentences must be written here regarding the medical memorials of his work as a physician and a missionary which have sprung up both in Africa and at home.

In addition to the mission to Central Africa established during Livingstone's lifetime by the universities of Oxford and Cambridge, and in response to his appeal, the Church of Scotland gave the name of his birthplace (Blantyre) to its industrial mission in the Shiré highlands, about the year 1875. The Livingstonia Central Africa Trading Company, better known as the African Lakes Corporation, put steamers on Lake Nyassa soon after the explorer's death; the Stevenson Road, too, was another result of his pioneering work. The United Free Church of Scotland's work in Livingstonia is another memorial to Livingstone, and as it has a strong medical work going on under the veteran physician, Dr. Laws, a few words may be given to it.

Whilst Dr. Livingstone was still alive he had a great admirer and helper in another medical man, James Stewart, afterwards to be known all over the world as Dr. Stewart of Lovedale. When Livingstone died, Dr. Stewart was one of those who helped to bury him in Westminster Abbey, and from there he went direct to the General Assembly of the Free Church of Scotland in Edinburgh, and made an appeal which ended with the following words:

> I would humbly suggest, as the truest memorial of Livingstone, the establishment by this Church, or several churches together, of an institution at once industrial and educational, to teach the truths of the gospel and the arts of civilized life to the natives of the country, and which shall be placed on a carefully selected and commanding spot in Central Africa, where from its position and capabilities it might grow into a town, and afterwards into a city, and become a great centre of commerce, civilization, and Christianity, and this I would call Livingstonia.

This was in 1874 (May), and soon thereafter the necessary funds were forthcoming. Dr. Robert Laws was found and others with him, and, just twelve months after Stewart made his appeal, the Livingstonia party sailed from London, taking with them the little steamer, the *Ilala*, to be built up and set afloat on the lake. Now, after thirty-six years,[6] there are in Livingstonia over seven hundred preaching stations, a church of over eight thousand communicants with eight thousand candidates for baptism, over seven hundred schools with thirteen hundred teachers and nearly fifty thousand scholars, and over it all presides Dr. Laws. With him are some thirty-five missionaries, of whom seven are medical missionaries from Scotland. Indeed, the medical work has always been a strong element in the success of Livingstonia, and the Livingstonia doctors have done no small service to tropical medicine in many of its departments, their word carrying weight in connexion with sleeping sickness and all such matters.

There are other memorials to Livingstone in the land which he so dearly loved, but some reference must now be made to memorials at home. In a recent article in the *Cornhill Magazine*,[7] Sir Harry Johnston sympathetically and appreciatively deals with Dr. Livingstone's life and work; but he brings his article to a close with the following sentences, which may well excite surprise:

> So far as I am aware, no notable statue, or a statue of any merit or publicity, has ever been erected to commemorate this great man in a public place in England or Scotland. The British South Africa Company has put up a memorial to him at the Victoria Falls, but Great Britain and British South Africa have still to acquit themselves in some way for the immense debt that they owe to David Livingstone.

Now South Africa, with its Livingstonia, Blantyre, Lovedale, and other missions and centres of commerce and education, may be looked to for an answer to this surprising statement, but something requires, perhaps, to be said from the home side.

First, as to statues. No traveller arriving in Edinburgh by the North British Railway can leave the Waverley Station without passing within a few yards of the bronze statue of Livingstone which stands in the East Princes Street Gardens. It was inaugurated in 1876, and came from the hands of Mrs. D. O. Hill, the sister of Sir Noel Paton. There may be two questions whether it worthily commemorates the great explorer—indeed it may safely be said that Livingstone was not thinking of statues when he made his appeal to close the open sore of Africa—and the statue itself is rather overshadowed by the great and imposing mass of the adjacent Scott Monument; but there it undoubtedly stands and can be seen of all men.

There is, however, a better memorial of Livingstone in Edinburgh, one more after that man's own heart. It is the Livingstone Dispensary and Institute of the Edinburgh Medical Missionary Society in the Cowgate. Soon after Livingstone's death the directors of this society, with the full approval of Livingstone's family, resolved to rebuild the entire dispensary and mission premises in order that they might better serve for the training of young men who desired to go out as medical missionaries. A bazaar, under the patronage of H.R.H. the Princess Louise, was held, and money came in other ways, so that in 1877 the venerable Robert Moffat, Livingstone's father-in-law, was able to lay the memorial stone, and in the following year the premises were opened. The Livingstone Dispensary was in 1903 again rebuilt and extended to cope with the increasing work, and in it during all these thirty-five years medical students, men and women, training as missionaries, and attending the medical classes of the Edinburgh University and Extramural School, have learnt how to deal with the sick and poor, and have carried the knowledge so gained to the ends of the earth. At the present time no fewer than a hundred fully qualified medical men and women, who received their practical training in 39, Cowgate, are serving under various missionary societies in all parts of the world. Dr. Livingstone was not a man whose religion could be made to fit into the groove of any sect, and in this respect the dispensary which carries his name would fully have earned his approval, for in it have been trained students belonging to practically all the Protestant churches of Great Britain, and applicants have not been refused from the Protestant churches of Germany, Denmark, America, and other lands. Its old students are now at work abroad under the C.M.S., the L.M.S., the B.M.S., the S.P.G., the Church of Scotland, the United Free Church of Scotland, the English Presbyterian Church, the Danish Missionary Society, the Wesleyan Missionary Society, the Presbyterian Church of Victoria, the China Inland Mission, the Salvation Army, the Sudan Pioneer Mission, and some twenty other bodies; so that it is widely enough represented to be truly called interdenominational

[4] BRITISH MEDICAL JOURNAL, i for 1874, pp. 523, 527.
[5] Sander: *Arch. f. Schiffs- und Tropen-Hygiene*, viii, p. 481, 1903.
[6] *The Livingstonia Mission of the U. F. Church of Scotland, Annual Report for 1911.*
[7] *The Cornhill Magazine*, March, 1913, pp. 321–332.

and unsectarian. A further memorial has been raised in it to Livingstone within the past few months. About this time last year the directors appealed for £1,000 to be called the Livingstone Centenary Fund, the interest of which was to be used to pay the class fees of a "Livingstone Student" of the Edinburgh Medical Missionary Society. At the time of writing all the money required has been received, so that this additional memorial to David Livingstone has been assured.

Near London also (at Leyton) there exists a medical memorial to Livingstone in the Livingstone College, with Dr. Charles F. Harford as Principal and Secretary. This college, which was established twenty years ago, does a work which has also earned the approval of Livingstone's friends and relatives. It gives a carefully arranged course of elementary medical training for missionaries going to lonely places; its students do not become medical missionaries, and they sign a declaration that they will not take that name, but they gain knowledge concerning the prevention of disease, and the use of simple treatment, which is of great service to them abroad. This college also is endeavouring to raise a Livingstone Centenary Fund of £10,000 to establish itself more fully and securely.

In London itself there is a scheme on foot to raise a memorial to David Livingstone, and the form which it is to take is the freeing of Charing Cross Hospital (at which the explorer was for some time a student) from the burden of debt which keeps some of its wards closed. For this purpose a Centenary Million Shilling Fund is being formed.

In Glasgow, too, a Livingstone Centenary Memorial Fund is to be collected for the promotion of medical missionary work in Central Africa, for the foundation of a Livingstone scholarship in Anderson's College Medical School, and for the promotion of the scientific study of geography in the University of Glasgow, and the endowment of a Livingstone lectureship or professorship. An appeal, too, is being made for funds to build a Livingstone Memorial Training College on the shores of Lake Nyassa, where already there is a David Gordon Memorial Hospital.

A proposal to endow, improve, and extend the Cottage Hospital at Blantyre as a fitting means of celebrating the centenary of Dr. Livingstone has been set on foot by the County Council of Lanarkshire. As the hospital is in the parish of Livingstone's birth, it is thought that no more appropriate place could be selected for a monument, and that no more worthy purpose could be chosen. The institution will be known as the "Livingstone Memorial Hospital," and an appeal is being made for funds to carry out the proposed scheme.

Surely there are not a few memorials in being or about to be; and the life and work of David Livingstone are not likely to be forgotten for lack of medical, educational, religious, and even plastic monuments.

During the next few days memorial meetings and services are to be held in many places in this country and in South Africa, and no doubt the medical aspects of Livingstone's life will not be forgotten in any of them; but here in this Journal, as was, of course, fit and right, attention has been mainly directed to the explorer as a physician and to his missionary work in its medical aspects. At the same time, no one can read or think about him without at once recognizing that the true and only centre of his life was the Cross; all else was adjuvant and auxiliary and subordinate to that.

The concluding stanza of the lines which appeared in *Punch* on April 25th, 1874, is equal to any of that journal's best utterances:

> He needs no epitaph to guard a name
> Which men shall prize while worthy work is known;
> He lived and died for good—be that his fame.
> Let marble crumble: this is Living-stone.

This year the medical pilgrimage organized by the central German committee for medical educational tours will visit the British Isles. It will start from Hamburg in a Hamburg-American liner on August 3rd, and will land its passengers to attend the International Medical Congress in London from August 6th to 12th. It will then go on to Scarborough, Leith (for Edinburgh and the Scottish lakes), Aberdeen, the Hebrides, Glasgow, Belfast, Dublin, the Channel Islands, and Rotterdam, reaching Hamburg again on August 28th. The address of the committee is Berlin, W., 9, Potsdamstrasse, 134 b.

VERONAL POISONING.

Veronal, or di-ethyl barbituric acid, has been very extensively used as a hypnotic during the past few years. It was placed on the market as a harmless hypnotic by the German chemists who introduced it, and it is only as the result of numerous fatalities following its use that the dangerous properties of the drug have become recognized.

Cases of veronal poisoning are becoming increasingly frequent in this country, and there must be few medical men in practice who have not seen most alarming if not even fatal symptoms as the result of taking this potent drug.

Very many medical men have come to look upon the drug as a dangerous hypnotic, and on this account a large number of practitioners have wisely discontinued its use. It is, however, of urgent importance that the public should be protected against themselves, since veronal and drugs of this character can be freely bought from pharmacists and, indeed, from any one who chooses to sell them. The drugs need not be labelled poisonous and there is nothing to warn the purchaser of the danger from taking an excessive dose.

Organic chemistry has made such rapid strides during the last few years that as soon as a drug like veronal is placed on the market numerous derivatives and homologues are manufactured, and these in like manner are introduced, some special virtue being usually ascribed to the modification of the parent drug.

In the case of veronal a considerable number of derivatives have already been introduced, which may have a similar dangerous effect on the human body. Among derivatives are—medinal (the sodium compound of veronal), proponal (di-propyl barbituric acid), luminal (phenyl ethyl barbituric acid), luminal sodium, etc., while adalin and bromural are related to veronal in composition.

It is a matter of most urgent public importance that not only veronal but the allied drugs should forthwith be placed upon the poisons schedule.

In the case of veronal and the allied drugs there is to be considered not only the risk of fatal consequences following the use of these compounds, but, what is of equal importance, the great danger resulting from the acquisition of the drug habit.

Veronal is a drug which if taken regularly produces grave disorder of the nervous system, such symptoms as ataxy, hallucinations, and tremor being very marked. In addition a deterioration of the moral sense occurs, just as in the case of the morphine and cocaine habits. It thus follows that in those who have acquired the veronal habit a recklessness in the use of the drug may result, so that dangerous poisoning, often the result of a deliberate overdose self-administered, is the consequence.

In the recent inquiry at Hove in the case of Hugh Eric Trevanion, deceased, it was determined that about thirty-two hours before death a dose of approximately 150 grains of veronal was taken. The jury in this case showed a very intelligent appreciation of the dangers to which the public were exposed by the valuable riders appended to their verdict as follows:

1. That veronal, its derivatives, and allied substances should forthwith be placed on the poisons schedule.
2. That it be illegal to supply any hypnotic drug without the prescription of a medical man.

This case was of considerable value, since it called attention to many of the important toxicological features relating to veronal poisoning. Veronal is only slightly soluble in cold water, so that a large fatal dose would require a considerable quantity of liquid for its administration, about 2½ pints of cold aqueous liquid being required to dissolve 150 grains. In the case of hot water about three-quarters of a pint of liquid would be required to dissolve this amount, supposing it to be drunk in hot solution.

Medinal, the sodium compound of veronal, is very soluble in water, and 150 grains would dissolve in 2½ oz. of cold water. In the case of veronal and medinal, the solutions of the drugs have a bitter, nauseous taste, which would be easily recognized.

It is thus seen that veronal cannot be easily administered with homicidal intent without the person taking the drug being aware of the fact that a nauseous substance is

being given him, which in a normal person would give rise to suspicion. No doubt a large dose of veronal might be purposely given to a veronal taker instead of a moderate dose without his being aware of the fact at the time.

The determination of the fatal dose of veronal in a case of fatal poisoning is a matter of some difficulty, because death does not, as a rule, occur within twenty-four hours, and during the period intervening before death a considerable quantity of the drug would be excreted in the urine. Probably only about one half of the dose taken would be present in the body at the time of death.

Veronal when absorbed appears to be evenly distributed over the various organs of the body. There is not that special selection of absorption by particular organs which is characteristic of many poisons. Hence in calculating the amount present in the body at the time of death the total weight of the soft tissues must be estimated, and the total poison in the body is calculated from the proportionate amount found in a given weight of the organs examined.

Veronal being an acid is extracted by ether from the acid solution obtained by the Stas process of extraction for alkaloids. The poison is recognized by its characteristic crystalline appearance and physical properties, and also by special chemical tests.

The Council of the Pharmaceutical Society, at its meeting on March 5th, acting under the Pharmacy Acts, 1868 and 1908, adopted the following resolution:

> That diethyl-barbituric acid and other alkyl, aryl, or metallic derivatives of barbituric acid, whether described as veronal, proponal, medinal, or by any other trade name, mark or designation; and all poisonous urethanes and ureides ought to be deemed poisons within the meaning of the Pharmacy Act, 1868, as amended by the Poisons and Pharmacy Act, 1908, and ought to be deemed poisons in the Second Part of the "Schedule of Poisons" to that Act.

FINAL REPORT OF THE COMMITTEE ON TUBERCULOSIS.

THE Departmental Committee on Tuberculosis, of which Mr. Waldorf Astor, M.P., was Chairman, has issued its final report.[1]

THE PRESENT POSITION.

It is pointed out that since the interim report was presented in April, 1912, two important changes affecting the funds available for the campaign against tuberculosis have been made; the first was the announcement in the letter of the Chancellor of the Exchequer of July 31st, to Mr. Henry Hobhouse, Chairman of the County Councils Association, that the Treasury would meet approximately half the estimated cost of treating non-insured persons as well as the dependants of insured persons. The Committee holds strongly that no campaign against tuberculosis could have had a reasonable prospect of success if provision were made for the treatment of a section only of the population. The second change referred to is the allocation for domiciliary treatment of 6d. per insured person out of the 1s. 3d. provided by Section 16 of the Insurance Act.

THE PURPOSE OF THE PRESENT REPORT.

The final report now presented deals mainly with the measures which in the opinion of the Committee should be taken for the prevention of tuberculosis in general, with special reference to the questions relating to bovine tuberculosis and tuberculosis in children, and to a scheme for dealing with the annual sum of money available in the hands of the Insurance Commissioners under Section 16 (2) of the National Insurance Act for the purposes of research.

PREVENTION.

Prevention of the Entrance of Tubercle Bacilli.

The Committee believes that by means of treatment and education the risk of infection, even from persons in the more acute and advanced stage of the disease who live in intimate contact with others, may be largely diminished. Infection is frequently disseminated by persons suffering from advanced pulmonary tuberculosis who are in the habit of entering and leaving Poor Law institutions, having regard merely to their own convenience, and not to the interests of their family or of the community in which they live.

The Committee recommends the compulsory isolation of certain cases in a state of high infectivity, particularly when the patient's surroundings are such as to increase the risk of other persons becoming infected. It recognizes that such isolation should be carried out with all possible regard to the feelings of the patients and their families and friends.

The systematic and thorough disinfection of premises which harbour tubercle bacilli is mentioned, and stress is laid on the importance of early diagnosis of the disease.

Prevention of Development of Active Disease in Persons Infected.

The Committee believes that material prosperity of the community as a whole will be reflected in a decreased incidence of tuberculosis, and makes special reference to the necessity for the improvement of housing conditions, and the value of schemes for town planning and garden cities.

BOVINE TUBERCULOSIS.

The Committee is of opinion that the ultimate eradication of animal tuberculosis is not impossible of achievement, but is likely to be a slow process, and must depend upon co-ordinated and continuous effort. No single or purely local effort will suffice. The Committee, while welcoming the proposed legislation dealing with the question of the milk supplies, expresses the opinion that it should include the whole country, and should contain provisions conferring special powers upon local authorities, the central authority having the right of enforcement in the event of default by local authorities. It recommends that in the preparation of any scheme for the eradication of bovine tuberculosis the following points should be provided for:

1. County councils and county borough councils should have powers and be required to inspect herds, dairies, and farm buildings and to administer all enactments relating thereto, their work being subject to adequate supervision by a central authority. As regards the local inspecting authorities, this recommendation may require some modification in Scotland where local government is somewhat differently organized.
2. Only guaranteed tuberculin should be used, and facilities should be given, subject to such conditions as may be thought desirable, for the free testing of cows by qualified and authorized persons.
3. Certain cows should be slaughtered, both in the interest of the public and of the dairy industry, the premises thoroughly disinfected, and no tuberculous animals added to the herd.
4. Measures should be uniform in character and the same principles should be applied to the whole country.
5. The public should be educated so as to appreciate the greater value of pure tubercle-free milk and milk products.
6. Farmers should be taught that tuberculosis in cattle is infectious and not hereditary.

CHILDREN.

The Committee considers the evidence that children are infected through tuberculous milk, as well as from other sources, convincing, and makes the following general observations:

The Committee are of opinion that additional provision is required for the treatment of children suffering from the disease, including cases of pulmonary tuberculosis, tuberculosis in the bones and joints, and glandular and other forms of tuberculosis.

In addition to the provision of treatment at sanatoriums and hospitals for tuberculous children mentioned in the Interim Report, there is urgent need for a wide application of the principle of open-air treatment and education by means of open air schools (day and residential), open-air classes, etc. Such institutions should deal not only with tuberculous children, but also with the large number of children who are suffering from ailments which, if neglected, would be likely to increase their susceptibility to tuberculosis. It is also desirable that these institutions should be utilized, as far as possible, to teach the advisability of the adoption of a practically open-air life in the homes of the children.

It is of opinion, further, that the school medical officer should be closely in touch with the family medical attendant, and that the tuberculosis dispensary should as far as possible provide the same service for children as for adults, and continues as follows:

There should not only be a correlation between the dispensary and the various institutions for children, but the institutions

[1] Final Report of the Departmental Committee on Tuberculosis. Vol. I (Cd. 6641). Price 2½d. Vol. II, Appendix containing memorandum on sanatoriums prepared by a subcommittee, and various memorandums by witnesses. (Cd. 6654.) Price 1s. 7½d. To be obtained through any bookseller.

for children, such as the school clinic, the open-air school, and the sanatorium, should be correlated one with another in order to ensure the easy transference of children from one institution to another.

All appropriate cases should be referred to the tuberculosis dispensary as a clearing house for the confirmation of diagnosis in doubtful cases, for the purpose of clinical record and for treatment where required. Children of school age fit, or likely to become fit, to receive education, even in modified form, should be referred to the school medical officer for education in open-air schools, sanatorium schools, or other special schools, or in ordinary public elementary schools under special care and supervision. The arrangements should be such as to secure the co-operation of the general practitioner.

IRELAND.

The Committee expresses its regret that power to make tuberculosis compulsorily notifiable has not been conferred on the Local Government Board for Ireland, and the hope that the matter will receive the serious consideration of the Government, since compulsory notification is essential to any satisfactory scheme for dealing with the disease.

RESEARCH.

The Committee estimates that under Section 16 (2) of the Insurance Act, which enacts that the sum of 1d. per insured person, payable out of moneys provided by Parliament, may be retained by the Insurance Commissioners, in whole or in part, to be applied for the purpose of research, the sum available at present will be £57,000 a year, and that there may be a small increase in future years. The Committee recommends the establishment of an advisory council and an executive committee, and says:

> The duties of the Advisory Council should be to advise, make suggestions, and submit the Executive Committee's budget to the Government, and to advise, criticise, and make suggestions to the Executive Committee.
>
> The duties of the Executive Committee should be to frame a budget which should be discussed and considered with the Advisory Council before being submitted by the Council to the Government; to determine, after consultation with the Advisory Council, the scheme of research work; to make periodic reports to be transmitted by the Advisory Council to the Government; and generally to organize and supervise the research work wherever carried on.
>
> It is evident that when first organizing the scheme both bodies will have to meet frequently, but that when the scheme is in operation there will be less demand on their time.

The Committee considers that the Executive Committee should have as a permanent whole-time secretary an expert of high standing in research, possessing administrative capacity and receiving a salary of £1,200 to £1,500 a year, and that he should, if practicable, act as secretary of the Advisory Council.

The inquiries contemplated by the Committee would include those of a clinical, pathological, experimental, statistical, and sociological character, and it recommends that every sanatorium, dispensary, and other institution for the treatment of tuberculosis and other diseases should have access to laboratory facilities for carrying out routine work and for the collection of data, adding that many of these institutions should have complete laboratories of their own, but that central organization and direction mean economy of time and money.

The Committee received evidence indicating that the funds available for research might be expended on a central bureau, on special institutes, in grants to approved institutions, in grants to individuals, in making special inquiries, and in scholarships and fellowships, and points out that the methods are not mutually exclusive. It recommends that the work should be instituted on the following, amongst other, lines:

(*a*) A central bureau should be established and should be the head quarters of the Advisory Council and Executive Committee. The central bureau should have a statistical and sociological department, in the work of which should be included the co-ordination and correlation of results. With regard to statistical investigations, every effort should be made to utilize, where possible, and co-operate with the statistical departments of the different Government departments. Statistics should be so collected and framed as to be comparable with the existing statistics of mortality.

There should also be a library and publishing department. The Central bureau should be under the immediate control of the Executive Committee.

(*b*) Clinical, pathological, bacteriological, chemical, and other scientific researches should be carried out by competent investigators employed by the Executive Committee in institutions approved by them.

(*c*) When the Government, on the recommendation of the Executive Committee, and after consulting the Advisory Council, deem such arrangements desirable, researches of the same nature as those referred to in the preceding paragraph should be carried out in an institution or institutions (including laboratories and hospital wards) which should be under the immediate control of the Executive Committee to the extent and for the purpose in question.

(*d*) Money should be available in order that special inquiries—for example, of a statistical and sociological nature—should be carried out by the Executive Committee, if necessary, independently of any particular institution.

(*e*) The question whether a sum of money, not exceeding £1,000 per annum, should be available as a prize or prizes for the best original research work done should be considered. The money should only be awarded if the discovery is of sufficient importance and utility.

The Committee recommends that some workers of proved ability should be enabled to devote their whole time to research work, should be given a definite adequate salary and be entitled to a pension, and that efforts should be made to retain young and talented investigators for such work. The Committee goes on to express the opinion that the success of the scheme of research recommended will not be fully secured unless it is accompanied by a general extension throughout the United Kingdom of clinical laboratories for the better diagnosis and treatment of the disease, provided out of funds other than those available under Section 16 (2) of the National Insurance Act.

MEDICAL EDUCATION.

The Committee is of opinion that additional facilities should be afforded to medical students and practitioners to acquire familiarity with the methods of diagnosis of tuberculosis, more especially in its earlier manifestations, and with the methods of treatment, and makes the following recommendations:

1. Medical students and practitioners should be afforded facilities to attend the practice at tuberculosis dispensaries, sanatoriums, and other institutions.
2. It is advisable that tuberculosis dispensaries should, where possible, be directly associated with schools of medicine.

The recommendations in regard to research are further discussed in a leading article at page 571.

FREE CHOICE OF DOCTOR.

FEW experiences are more interesting than that of watching the birth, growth, and full fruition of an idea. To see it taking shape in word, on paper, and in deed is interesting in itself, and this interest is increased when comparison is made with the many ideas which only see the light to die, or having looked upon the sun are blighted and come to an untimely end.

It is with this feeling of deep interest that the medical profession has watched the birth and the ups and downs of the great idea of free choice of doctor. Had it remained in medical hands it would have been to-day a fine, full-grown, clean-limbed embodiment of a great idea, but, unfortunately, the politicians laid rude hands upon it and knocked it about to suit their own purposes, so that now it issues from the political arena so unlike what was expected from its promising inception, that its parents are disposed to disown their child.

Let us follow the progress and fate of this idea. Free choice of doctor—the freedom of the patient to choose his own doctor and the right of the doctor to choose his own patient—was not mentioned by the Chancellor of the Exchequer when, nearly two years ago, he introduced the National Insurance Bill. Two reasons may be assigned for this important omission: First, that he had determined to compel the doctors to accept his own terms; and, secondly, that he was obsessed by the fear that the British working man would ruin the insurance fund by malingering. This latter is, we believe, so far as the vast majority of insured persons are concerned, an unfounded fear, and comes badly from one who is never tired of shouting the battle-cry, "Trust the people." But although

the Chancellor of the Exchequer said no word about free choice of doctor in his speech introducing the bill, the subject was brought up (during the debate on the introduction) by Lord Alexander Thynne, who said:

> You must either give a free choice to the patient to choose any doctor he likes in the district, or you must give him a choice of what I may term "a panel of doctors."

On the second reading debate Dr. Addison contended that

> There should be provision for enabling patients to choose their own doctor. . . .

And the Chancellor said:

> There is nothing (in the bill) to prevent the free choice of doctor.

Evidently, then, both sides of the House were agreed that there should be free choice of doctor. The profession's approval was voiced when the British Medical Association, through a deputation to the Chancellor of the Exchequer on May 30th, 1911, submitted:

> That it should be open to every medical practitioner in the district, who is willing to act, to be on the list from which insured persons might make choice, provided that such practitioner had not been guilty of misconduct justifying his exclusion from the list.

Here we note that the service must be a willing service —"every practitioner . . . who is willing to act"—the underlying hope being that the terms and conditions offered to the doctors would be so reasonable that they would willingly and sympathetically do everything in their power to make the Act a success. Two days after, at the Special Representative Meeting, the Chancellor of the Exchequer, speaking of the free choice of doctor, said:

> Personally I am strongly in favour of it. . . . I think one of the essentials of curing is that the patient should have faith in his doctor, and you cannot have faith in your doctor if you have doctors thrust upon you whom you have not chosen. . . . Therefore I am myself strongly in favour of the system . . . of setting up a panel on which all qualified medical practitioners will be able to serve—not compelled to serve, no doctor will be obliged to take this work. . . . I should be delighted to see a free panel of doctors set up under the care of the local doctors themselves.

This in plain and unmistakable language is a declaration in favour of freedom for the doctor who will not be compelled to serve and for the patient who will not have doctors thrust upon him. Words, words, words! By the Act and Regulations the faith of the patient in his own doctor and the willing service of the doctor have been both thrust aside with ruthless hands, and in the name of liberty a Liberal Government

> "plays such fantastic pranks before high heaven
> As make the angels weep."

Again, in October, 1911, Mr. Lloyd George made a speech at Whitefield's Tabernacle, in which he said, among many other things:

> The first thing that happens is that he (the insured person) can have free medical attendance. . . . Under this bill he can have the doctor of his choice. . . . So we say to him, Go to the doctor you believe in. . . . That is the first thing that happens; he can go to the doctor whom he believes in, and every doctor who chooses can go on the panel. So there is not only free choice for the patient, there is free choice for the doctor as well. We are going to make this really a free country.

But as time went on the Chancellor of the Exchequer began to see that the conditions and terms of service were not acceptable to the doctors, and that he had more difficulty in bringing them to heel than he expected. So he began to hint that a Local Insurance Committee might be free to organize a service in some other way, and that there must be a limit to free choice of doctor. Hence we are not astonished that when the revised form of the paragraph dealing with this matter came up for debate in the House he went a step further. Mr. Ramsay Macdonald had said:

> I cannot see what objection, what sound and serious objection, there really is to allowing each insured person to have his own doctor.

Mr. Lloyd George replied:

> There is nothing in the bill to prevent free choice of doctors. On the contrary, I am all for free choice of doctor, *within limits*. If you give an *unlimited free choice of doctors*, you are taking the direct road to promote malingering. . . . We have so framed our measure that free choice of doctors is allowed. [The italics are ours.]

It is easy for him after this to say, "If he (the working man) gets a good doctor, I do not think he cares whether it is Dr. Smith or Dr. Brown." From this to

> No insured person is allowed to make any bargain outside the panel unless it is allowed by the Local Insurance Committee; let that be perfectly clear.

is an easy step in the descent.

Yet another step on the downward course. The insured person was to have not his own doctor truly, but a good doctor, and with that he must be satisfied; the Chancellor of the Exchequer hath said it. In his last speech, however, he gives up the "good doctor," and we reach the bottom of the incline in this utterance: "We cannot guarantee the quality of any doctor. There are good and bad doctors, and some in between . . . but we cannot guarantee them."

MOTOR CARS FOR MEDICAL MEN.

CHEAPER FUEL.

THE British Motor Cab Company has made successful experiments with a mixture of paraffin and petrol, in which the latter forms less than one-half. The objection to paraffin has been that it was useless for the purpose of starting. This difficulty appears to have been overcome by an apparatus supplied with pure petrol from a small independent tank, used only for the purpose of starting. Mr. Worby Beaumont has reported to the Royal Automobile Club that the apparatus is simple, effective, and not liable either to derangement, or to be the cause of danger, and that it is applicable to any kind of petrol engine used in motor vehicles.

CHEAP MOTORING FOR MEDICAL MEN.

Dr. A. Mackenzie (Leeds) writes in praise of the Scott motor bicycle with side-car attachment, which he considers is, even apart from the question of expense, as useful to a medical man as a car. He likes its appearance, and finds that it is not necessary to wear overalls, that it is silent, handy in traffic, and easily started. He adds that it is, in his judgement, an excellent machine for a middle-aged man. He has ridden his own machine over 4,000 miles and has used it every day since he got it, and it has not required any repairs.

NAPIER MOTORS, LIMITED.

The firm of Messrs. D. Napier and Sons, Limited, which began business in 1808, has acquired the business of S. F. Edge, Limited, and the business will in future be known as Napier Motors Limited. The Napier works, which are situated in London, make a large variety of vehicles, ranging from the small four-cylinder, 15-h.p., to the large six-cylinder, and in business vehicles from 12 cwt. to 2 tons.

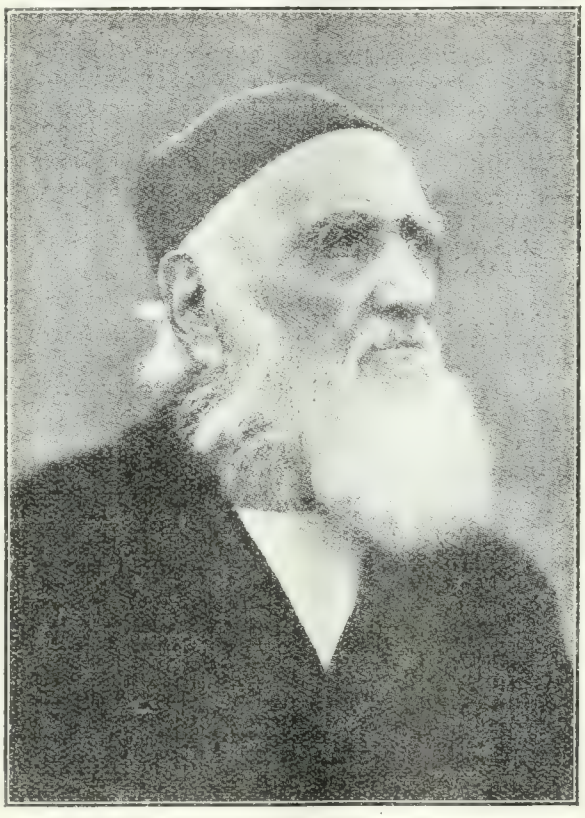
A NESTOR OF THE PROFESSION.

[BY OUR SOUTH AUSTRALIAN CORRESPONDENT.]

FOR considerably more than a generation Surgeon-Major Hinton has been one of the personalities of Adelaide and of South Australia generally, and yet he has been but little known outside his own family, except to myself, and to the librarians of the various public libraries. Short and somewhat rotund (not in the least military looking), with an ample white beard, a quaint figure in a sola topee and a tight-buttoned cotton suit reminiscent of India, till about a year ago Dr. Hinton might be seen doing a constitutional of some six or eight miles every day. He had no very fixed place of abode; it is said that at various hotels his demeanour towards the domestics was too suggestive of "India's coral strand," and that it was resented by the democratic instincts of the Australian "help"; landladies, indeed, had sometimes to suggest a change to pastures new. Some year and a half ago he had the misfortune to trip and sustain an intracapsular fracture of the left hip, and since this accident he has come to anchor in a rest home in North Adelaide, generally devoted to the worship of Lucina. Here he devours the latest books and current magazines, reading them without glasses, in possession of all his faculties with the exception that he is deaf. He seems to be enjoying the late autumn of his life, and he affords an illustration of the well-known longevity of pensioners, for he attained to the centenary of his birth on March 7th, 1913. A small eater, a non-smoker, and

almost a total abstainer, he thinks with Metchnikoff that life may be indefinitely prolonged. When a sprightly young nonogenarian he was startled one day to read in the paper that Surgeon Hinton of the Indian Army had died a centenarian and the oldest member of the profession in Great Britain; this namesake he had never met, nor even heard of; now he seems to have succeeded to the vacancy, unless there be living still men who "qualified" before March 25th, 1835.

Henry Benjamin Hinton came of a long-lived family; both his parents lived to be over 80, and two sisters were nonogenarians. He was born at Southsea, his father, who belonged to the Baptist Church, being the cashier of a local bank. He was at school at Portsmouth till the age of 15, when he began life with a cousin, Isaac Hinton, a publisher, in Warwick Square; the reading of Sir Walter Scott's *Chronicles of the Canongate* first inspired him with interest in India, and he resolved, with his father's permission, to become a surgeon. He was apprenticed for five years to a Mr. S. Cumming of Limehouse, whose wife was alleged to be a descendant of James II. He suffered from headaches due to myopia, and had to wear glasses till he was 50, when a beneficent presbyopia came to his aid. In October, 1832, he commenced work at the London Hospital, attending the systematic lectures delivered by Dr. Pereira. In October, 1834, he entered at Westminster Hospital under Guthrie, the Peninsular and Waterloo veteran, who had seven years earlier published his book *On Gunshot Wounds*, by which and as the founder of the Westminster Ophthalmic Hospital his name is still remembered; the lecturer on medicine was Dr. Ryan, on botany Dr. Epps, and on surgery Dr. McDermott. The most distinguished of his fellow students in after-life was Joseph Toynbee, the aurist, who was the father of the founder of Toynbee Hall; James Hinton, also a well-known aurist in his day, was his cousin. Mr. Hinton's own examination for the M.R.C.S. appears to have been wholly viva voce, and to have been over in one evening; Sir William Blizzard was one of his examiners.



SURGEON-MAJOR HINTON.

No sooner had he received his diploma than he obtained the surgeoncy to an East Indiaman, the *Broxholme*, of 800 tons, and in her he made three annual voyages to Calcutta, a passage taking then about five months; the captain of his ship used his influence with the East India Company to obtain for him a nomination as assistant surgeon in the Bengal Army, and on his return to India he was gazetted on May 28th, 1839, to the 21st Fusiliers at Chinsurah, where his first important duty seems to have been attendance at the flogging of a soldier for some trivial offence. In December, 1839, he volunteered for service in Arracan, and had charge of a native regiment; with it he returned to Bengal in 1841, but in the same year went again to Arracan in a civil capacity. Remittent fever caused his transfer on sick leave to Bengal again, and in 1843 he rejoined his regiment (the 65th N. I.) at Dinapur. In December of that year he was ordered to join the army of Gwalior, but travelling in those days was slow, and when he arrived at Agra he learnt that he was too late to take part in the battle of Maharajpore, in which Sir Hugh Gough routed the Mahrattas; however, he assisted to attend to the wounded, and only failed to receive the Bronze Star awarded for that campaign on account of professional differences with a superior officer. And here I may remark, if one may rely upon the perusal of Surgeon-Major Hinton's autobiography, that he seems not infrequently to have fallen foul of his superior officers with the usual inevitable result. The defeated enemy was strangely enough converted into the Gwalior Contingent, and to the 4th Infantry Regiment thereof Mr. Hinton was gazetted, and subsequently to the 7th Infantry.

In January, 1846, the banks of the Sutlej were the theatre of war, and Surgeon Hinton served through the greater part of the First Sikh Campaign, though he missed the disasters of Moodkee and Ferozeshah. He served under Sir Harry Smith at Aliwal in January, 1845, and fought under him again at Sabraon next month. After this campaign he was sent in charge of invalids to Meerut. Incompatibility of temperament with a senior officer led to his transfer to the 51st N.I. in Ferozepur in 1846. Then he obtained a garrison appointment at Delhi in January, 1847, where he saw the aged and feeble emperor (Bahadur Shah) in a bath chair.

The Sikhs were defeated, but not vanquished, and it fell to Dr. Hinton's lot once more to serve under Lord Gough in 1848 to 1849, and take part in the crowning mercy of Goojerat with the 32nd N.I. He was afterwards stationed at Wuzeerabad, where his medical duties appear to have been combined with the oversight of the post-office, and here again he succeeded in falling foul of the leading officials. Amongst other unpardonable offences he seems to have attended a church parade in a white jacket instead of a red. February, 1854, found him in Goruckpore, and in 1856 he was stationed at Bowsee, where next year they experienced a foretaste of the mutiny, and later on the reality. The 32nd N.I. was marched to Raneegunge to be disarmed, and only by the miscarriage of a native's letter did its officers escape being massacred on the road. This was all Surgeon Hinton saw of the mutiny, but it was touch and go. In November, 1857, one of the disarmed native regiments (the 70th), to show their loyalty, volunteered for service in China, and Surgeon-Major Hinton changed into it shortly after, landing at Canton in April, 1858, where he served for two years. After the China war seven more years were served in India, but these were comparatively uneventful; thus closed a strenuous life of twenty-nine years in India, during which much history was being made, and many geographical boundaries were altered. For some forty-five years he has drawn his pension; long may he continue to do so in comfort!

THE mental hygiene exhibit prepared for the International Congress of Hygiene in Philadelphia includes charts, photographs, and models illustrating past and present methods of treating the insane.

ACCORDING to the *Boston Medical and Surgical Journal*, the New York Supreme Court has upheld on appeal the conviction of a driver of a milk wagon for having in his possession unwashed milk bottles. The employer contended that the statute which made this an offence was unreasonable and drastic, but the court said "the danger to be apprehended from the use of unclean receptacles for milk intended for human food is so well known that drastic measures to prevent the possibility of such use are reasonable and justifiable."

British Medical Journal.

SATURDAY, MARCH 15TH, 1913.

THE INSURANCE ACT AND RESEARCH.

AMIDST the turmoil of controversy regarding the Insurance Act, the fact has almost been lost sight of that it provides the first great contribution from the State towards research in scientific medicine. By Section 16 (2), one penny per insured person, payable out of the moneys provided by Parliament, may be retained by the Insurance Commissioners to be applied for the purposes of research, and the total sum thus available will at present amount to about £57,000 per annum. While the main concern of this part of the Act is to combat tuberculosis, the Commissioners have been advised that the money may properly be applied to research in connexion with any disease which may affect insured persons.

A year ago a Treasury Committee was appointed to advise the Government and local bodies on the problem of tuberculosis in the United Kingdom in its preventive, curative, and other aspects, and an interim report was issued last April dealing with the practical measures to be adopted in combating the disease. The recommendations therein contained regarding the establishment of dispensaries, sanatoriums, and hospitals, seem to have found very general acceptance, and are being widely followed by local authorities in carrying out the Act. In a final report just presented to the Treasury, the whole ground of the reference is covered and a scheme for the administration of the research fund promulgated. The Committee did not include any representatives of those actively engaged in scientific work in human pathology. Thus, although heads of various laboratories in the kingdom were invited to give evidence, most of the members of the Committee in dealing with the question of research must have found themselves on very unfamiliar ground and have been in the position of a criminal lawyer called on to sift the evidence in a complicated patent case. The recommendations of the Committee must thus be looked on as of a preliminary and tentative character, but they may form a foundation upon which a successful scheme can be established.

In looking at the scheme of the Committee certain general considerations must be kept in view. The attack on tuberculosis is, next to that on cancer, probably the most complex task which scientific medicine has ever had to face, as is evidenced by the slowness with which practical results have been obtained, notwithstanding the immense amount of work already done. The disease has its own peculiar problems, such as those relating to the channels by which infection occurs and to the existence or non-existence of immunity towards it. From the standpoint of pathology in its practical application to the problem tuberculosis must be regarded as one member of the group of infections, and facts gleaned from work on different members of the group have led to the emergence of the principle that certain great general processes are common to all infections. These have to do with such matters as the factors by which the causal organisms are enabled to multiply in the body, to the essential pathological changes underlying fever, and to the phenomena of recovery. Many facts support the view that once any of these common processes is elucidated for one disease, the explanation will be very generally applicable in other affections. It is to be noted that tuberculosis is in many ways a disease unsuitable to afford opportunity for the solution of the common problems of infection, chiefly because when a question is put the slow development of morbid lesions delays the answer. This opinion finds support in the fact that in institutes largely devoted to general investigations on infection, such as the Rockefeller, and even the Pasteur Institute, comparatively little work has hitherto been done on tuberculosis. Such considerations as these are important in their bearing on the present scheme, for it follows from them that every research which advances knowledge of infection, *ipso facto* throws light on tuberculosis. The Committee anticipates that for the present the moneys available will be applied to research in connexion with tuberculosis and allied problems. It is, however, of the highest importance to realize that, as has been stated, the money can be devoted to diseases of insured persons other than tuberculosis, and we trust that the broader investigation of infection as a whole which is thereby rendered possible will from the outset be brought into the programme of research.

The principle laid down by the Committee, that in any scheme the aim should be to stimulate and to co-operate with existing voluntary agencies for research, is thoroughly sound, as also is the practical application that "clinical, pathological, bacteriological, chemical, and other scientific researches should be carried out by competent investigators employed by the Executive Committee in institutions approved by them." The way is thus at once opened for the organization of the work in the medical schools of the country. These schools must in any case provide the corps of workers required, and it is well to recognize that the existing resources will require augmentation. Putting clinicians aside, there are at present probably not more than 150 men engaged in research work in medicine in the country. One reason for the fewness of the labourers is that many men who have a leaning to research must perforce enter practice to gain a livelihood. The research scheme, with the future development of permanent appointments to which it will inevitably lead, will direct the best talent into channels where it will be best utilized. The working of the scheme through existing laboratories will further place at the command of the Government the wide experience of research possessed by the heads of these institutions, and will facilitate the organization of co-operative effort by different branches of science all over the kingdom. Again, the whole clinical material of the country will be available for investigation, and the routine work of local administrative bodies, such as that relating to the supply of tubercle-free milk, will be co-ordinated with higher scientific work. The distribution of work will also have another far-reaching effect which is not immediately obvious. It is important that the practitioners who are in charge of the insured should recognize the value of, and be inspired by the results of, research. Such a spirit can only be developed if the teachers of medicine and pathology with whom medical students come in contact are active participants in the work which is going forward.

Certain points in connexion with the machinery of administration call for comment. While no objection can be taken to the setting up of two bodies, one,

the Advisory Council—representing general interests, governmental, educational, and scientific, and the other, the Executive Committee, composed chiefly of experts, the proposed relations of these two bodies to one another are unusual. Both are to be appointed by the Government, but apparently the Advisory Council has no control over the Executive beyond offering advice and criticism and transmitting its proposals to the Government. In fact, it would appear to be intended by the Committee that in the particular event of the Executive wishing to arrange for research under its own control, it should have the power of approaching the Government direct. Thus, in case of a difference between the two bodies, an unfortunate Minister might be called on himself to settle whether some line of research should or should not be pursued. It seems obvious that even if the Committee's suggestions were adopted in their present form, no differentiation should be made between the various proposals of the Executive so far as the channel of approach to the Government is concerned. The Committee's plan for defining the functions of the two administrative bodies should be considerably modified. The committee of experts (which might either be an independent body or a subcommittee of the larger body) should submit its proposals for any year to the larger body (constituted as recommended in the Report) for consideration and, possibly, for amendment. A matured scheme would thus go to the Government with the weight attaching to its recommendation by a board on which all views on the subject were represented, and any subsequent discussion regarding it should take place between the Government and the larger body. When finally adjusted, the scheme could come back to the experts to be carried out. Another proposal, to which exception may be taken, is that the Executive should have as secretary a highly-paid expert of high standing in research. Why, with a wealth of expert opinion on the Executive, an individual of this kind should be asked to spend his time in performing administrative duties is not at all apparent. On the other hand, the recommendation of the Report that statistical and sociological inquiries should be directly under the control of the Executive and should be carried on in a central bureau will probably meet with general approval. Such inquiries constitute almost the only department of work relating to tuberculosis where centralization is necessary to efficiency.

While we are of opinion that the recommendations of the Tuberculosis Committee as a whole furnish a basis on which a successful edifice can be built, we cannot conceal from ourselves the fact that the next steps to be taken are of the most critical nature. Unless they are tentative, and unless the unknown resources of the country are most carefully investigated, this great movement may end in disastrous failure. The mere offer of such a large sum of money is in itself a temptation to useless and ill-considered prodigality, and we doubt whether, in saying that the whole of the moneys could usefully be spent in research on tuberculosis, the Committee has fully realized the magnitude of the question it was asked to advise upon.

We hope to return to the subject in an early issue, and to point out what we consider to be some of the dangers underlying the research scheme, and some of the opportunities which a wise statesmanship will find in it. Meantime we would strongly urge the appointment of a body having the constitution of what the Committee describes as the Advisory Council. This body will necessarily include representatives of those actually engaged in research and could consider the whole situation before an executive is appointed or any definite plans as to actual research are framed.

ADRENALIN MYDRIASIS IN DIAGNOSIS.

DR. CORDS of Bonn has recently collected[1] all that is known of the dilating action of adrenalin upon the eye of man and the lower animals, and has added to a masterly summary of the work of others an account of his investigations.

In 1898 Radziejewski was the first to test the action of a 10 per cent. extract of the adrenal bodies when instilled into the human conjunctival sac: in no one of 500 persons did he detect any effect upon the size of the pupils or upon accommodation. Lewadowski showed in 1898 that when adrenalin was injected into the veins of cats the effects produced—mydriasis, slight exophthalmos, and slight widening of the palpebral slit—were the same as those which follow stimulation of the cervical sympathetic. These changes were not neutralized by eserine. Other observers showed that subconjunctival injection of adrenalin caused mydriasis in man, and instillation dilated the pupil if the cornea were ulcerated or otherwise rendered more permeable. In other words, the physiological effect was dependent on the amount of adrenalin which reached the iris: the normal cornea was not sufficiently permeable, but a wounded cornea allowed enough to transfuse. Subsequently, Wessley found that the repeated instillation of a strong solution dilated the pupil even with a normal cornea. Meltzer and Clara Meltzer Auer showed that the action was greater after extirpation of the superior cervical ganglion than after subganglionic division of the nerve or than in a normal animal. It has since been discovered that this increased sensibility soon disappears, and that some days later no difference can be detected between the side with and without the ganglion. The seat of action is probably, as Langley has suggested, in the receptive substance of the dilator muscle. The mydriasis is most certainly not due to vasomotor action. The eye of the frog is so sensitive to adrenalin that it may be used to detect the presence of minimal amounts of the substance.

Cords understands by adrenalin mydriasis a dilatation produced with intact cornea by a single or repeated instillation of a 1 in 1,000 solution of the drug. In using the test it is best to make three instillations in five minutes and then close the eyes for ten minutes. It is well to make the observations in a subdued light. The cornea must be carefully examined for small defects or a source of error may be overlooked. Adrenalin mydriasis is observed in all conditions which are associated with increased excitability of the sympathetic system. All states of the body in which the equilibrium of the internal secretions (hormones) are disturbed in the sense of an excess of the chromaffine system are associated with an increased sensibility to adrenalin. Such conditions are—functional disturbance of the pancreas, overaction of the thyroid gland, diabetes mellitus, and perhaps exophthalmic goitre. These facts were pointed out by Loewi, and the effect is known as "Loewi's sign." It is probable that in all these states the adrenalin content of the blood is increased

[1] *Die Adrenalin mydriasis und ihre diagnostische Bedeutung.* Von Richard Cords in Bonn a. Rh. Wiesbaden: J. F. Bergmann. Glasgow: F. Bauermeister. 1911. (Sup. roy. 8vo, pp. 62. Price unbound, Mk.1.60.)

Unfortunately the sign is very inconstant. Some cases of diabetes show it, others do not, nor has the severity of the disease any effect upon the reaction. It may be given by mild cases of diabetes, may be absent in severe, and the reverse is equally true. In abdominal lesions such as peritonitis and injuries to the intestines the sign is sometimes obtained and is probably due to an increased amount of adrenalin in the blood.

The fact that prompt mydriasis follows the instillation of adrenalin into the eyes of animals whose superior cervical ganglion has been recently removed is of especial interest. The operation causes an enormously increased excitability of the receptive substance (Langley) in the dilator muscle cells. The same phenomenon has often been observed in man. Preganglionic division of the sympathetic nerve has no such action.

The reaction may help in the exact localization of the seat of the lesion, causing paralysis of the fifth nerve. The sympathetic joins this only a few millimetres on the distal side of the ganglion, and the sympathetic enters the orbit combined with the first division of the fifth nerve. If complete paralysis is caused by a lesion distal to the junction of the two nerves, the sympathetic is generally paralysed as well and adrenalin mydriasis is present. If the lesion is proximal to the junction—as in most cases of fifth nerve paralysis caused by cerebral syphilis at the base of the brain—no dilatation of the pupil follows the use of adrenalin. Cords failed to obtain the reaction in such a case of complete paralysis of all the divisions of both trigeminal nerves. The sign is, however, inconstant. Six cases of paralysis of the fifth nerve are cited associated with sympathetic paralysis, in which no adrenalin mydriasis was obtained. It would appear that a post-ganglionic lesion of the sympathetic frees the dilator from the inhibitory action of the superior cervical ganglion, and so enables adrenalin mydriasis to occur.

In adrenalin, therefore, we possess a diagnostic aid which, though uncertain and inconstant, may yet be of great help in a difficult case. The positive action of the drug is of much more value than failure in action.

ALIMENTARY TOXAEMIA.

DR. JOHN BROWN, in his lay sermons on health to working people, told a story of an odd old man at Greenock who left at his death a number of sealed packets to his friends; on opening them they found a Bible, £50, and a box of pills with the words, "Fear God, and keep your bowels open." It is a never ending source of astonishment to the medical profession that this apparently simple function can be so grossly neglected. Corporate bodies and municipal councils and communities will spend any amount of time and money in elaborating the drainage system of their town, yet the individual members may be, and often are, guilty of the grossest sins of omission in the care of their own drainage system. Some of these sins of the public may possibly be laid at the door of the medical profession, which has sometimes been apt to deal with the poisonous conditions which arise as the result of constipation in a too haphazard fashion; scientific study of the matter is only in recent years finding its true place. Bacteriology, and surgery also, thanks largely to Mr. Arbuthnot Lane, have shown that the range of troubles which may be attributed to this auto-intoxication is much wider than used to be generally recognized.

The discussion on alimentary toxaemia, opened at the Royal Society of Medicine last Monday, has been very happily timed; Dr. Hale White's introductory paper is full of suggestions and points the way along which inquiry must go. He assails at once the term "alimentary toxaemia." It is a term which shows our ignorance, since it simply indicates the route of entry of the poison. It implies that the illness is due to poisons manufactured by micro-organisms resident in the alimentary canal, but we cannot name these poisons nor are we certain of the offending organisms. Pyorrhoea alveolaris is a common cause of alimentary toxaemia, and the patient is commonly much surprised when the damage it does is pointed out. Farther on in the gastro-intestinal tract the difficulties in the consideration of the bacterial poisons are enormous. We have to consider many things: the influence of external temperature on the vitality of organisms; and the effect of one organism upon another—for example, the *Bacillus coli*, a normal inhabitant of the great bowel may have for its function the destruction of other organisms, such as the typhoid bacilli, while it may itself be the victim of other invaders. There is the well-known fact that the strain of an organism differs in different individuals, and the further fact that alteration in the culture medium may effect a change in the life of the organism. A case in point is the withdrawal of carbohydrates in carbohydrate dyspepsia, probably the simplest form of alimentary toxaemia, and one which Dr. Hale White recommends for more earnest study.

The nature and composition of the poisons in alimentary toxaemia is still unknown, but that is equally true of uraemia and diabetic coma. Dr. Vaughan Harley's contribution to the discussion, which dealt with the toxins of the alimentary canal from the chemical point of view (p. 555), shows the extreme complexity of the subject. Among other points he brought out was that the decomposition products were practically the same whether formed by the action of bacteria or by the enzymes in ordinary digestion, but he had to admit that hitherto pure toxin had not been isolated even from bacterial cultures. In adults in health the bacteria of the bowel produced indol as well as skatol, phenol, and cresol, and he believed that the continual absorption of these substances could produce true neurasthenia, while premature senile decay, with early arterio-sclerosis, was apt to accompany an increase of indol and urobilin in the stools.

Dr. Hale White has much to say of the twentieth century doctrine of intestinal stasis. He considers that the theory of mechanical obstruction as a cause of alimentary toxaemia is by no means proved; its advocates differ much as to what precisely the mechanical agent is, let it be enlarged Houston's valves, pericolitis, various developmental adhesions of the peritoneum, the formation of bands and abnormal mesenteries; indeed, the abnormal bands and the toxaemia, it is said, may be induced by the same cause. There is reason to fear that in trying to explain the symptoms of intestinal stasis we may "invoke the aid of alimentary toxaemia in the same reprehensibly loose way as gout, uric acid diathesis, and congestion of the liver have been called in to explain various vague symptoms we do not understand."

Dr. F. W. Andrewes, in discussing the bacteriology of the alimentary canal, considered the nature and properties of the bacteria and the part they play in

producing the poisoning. He appreciates Dr. Hale White's difficulty in defining the term. The words "toxin" and "toxaemia" convey certain notions to our minds, but they, after all, are only names for things we know very little about. He regards "alimentary toxaemia" as the "absorption from the alimentary canal of chemical poisons of known or unknown composition in sufficient amount to cause clinical symptoms, the blood having served as the channel of distribution." Now, it is difficult to specify the source of these chemical poisons. Bacteria are constantly undergoing disintegration in the intestinal tract, and there is possibility of harmful results from absorption of the endotoxins, but to what extent the toxaemia depends upon these we cannot tell. Probably it depends very little, so far as the normal flora are concerned. Dr. Andrewes lays down three propositions beyond which he cannot go, first, that poisoning is in some cases by foreign proteins, the liver being at fault; secondly, that the main effect of bacterial activity in the production of alimentary toxaemia lies in the ability to carry out protein cleavages beyond the capacity of the ordinary digestive ferments, and that this is attended by the formation of products which the body is unable to neutralize when in excess; and, lastly, that there is at present little evidence that true toxins derived from the ordinary flora play much part in the alimentary toxaemia.

Professor Saundby's contribution is worthy of diligent reading. It deals mostly with foods and food poisons. In regard to poisoning by faecal stasis his view is that "there is little evidence in favour of the popular notion that faecal retention favours the production in the bowel of putrefactive changes giving rise to poisons which are absorbed into the blood and cause various pathological changes." Without inflammatory changes the natural protection afforded by uninjured intestinal structures is sufficient. When toxaemia is present treatment should be based on the principles of eliminating the poisons already present, preventing their further introduction, and reinforcing the natural protective agencies; surgical intervention may become necessary when medical treatment, long continued, has failed and where there is distinct evidence of disease in the colon wall.

Mr. Arbuthnot Lane summarized his well-known views on the consequences of intestinal stasis and its surgical treatment. These are once again presented in forceful, emphatic style, and need no recapitulation here. Suffice it to say that a clear, definite, clinical picture is presented. Whether the author proves his contention that these patients readily develop tubercle or rheumatoid arthritis, or whether his belief will be generally accepted that these diseases cannot exist except in the presence of autointoxication, it remains for the future to decide. The great variety of symptoms and diseases which are swept into the net of intestinal stasis makes it necessary that many series of cases shall be published from all parts of the country and by many observers, with ample notes, photographs, statistics, and all the paraphernalia of a scientific investigation, before the theory announced and the practice adopted by Mr. Arbuthnot Lane can be presented as textbook surgery.

This discussion has already done something to light up the dark ways of the alimentary canal, and further light may be expected before it is concluded. The subject comes within the daily experience of every practitioner, and it is in just such a subject that the special opportunities of the general practitioner will prove really helpful.

MEMORIAL TO LORD LISTER.

AT a meeting held at the Examination Schools, Oxford, on March 8th, under the presidency of the Vice-Chancellor, it was resolved to form a representative committee from Oxford and the district to assist in raising the memorial proposed by the Royal Society to commemorate Lord Lister's services to humanity. Sir W. Watson Cheyne said that it was hoped to establish a real living monument in the form of a fund for the advancement of surgery. It was desired, in the first place, to establish some valuable prize for work done, not so much for the advancement of work in the early days of a man's life, but as a recognition of good work well completed—in fact, of the nature of the Nobel prize. Sir William Osler said that Lister's work had saved more lives directly than probably that of any individual man. The nineteenth century had witnessed four advances of the first importance — preventive medicine, initiated by Jenner, which had really been one of the great glories of British medicine; the discovery and confirmation of the germ theory of disease, initiated by Pasteur and carried on by Koch; anaesthesia, which humanity owed to America; and, finally, the great system of treatment devised by Lister. This last work was remarkable for three things—its universality, its life-saving and health-giving features, and the enormous saving of pain which had been effected through it.

TREATMENT OF AMOEBIC DYSENTERY AND HEPATIC ABSCESS.

AT the meeting of the Académie de Médecine on February 25th, M. Chauffard, Professor of Clinical Medicine in the University of Paris, related a remarkable case of hepatic abscess opening into the bronchi, which, after lasting five months, was cured in five days by the hypodermic injection of emetine in the manner described by Professor Leonard Rogers of Calcutta in our pages on June 22nd, August 24th, and September 28th (p. 828), 1912. Professor Chauffard's patient suffered from irregular fever, and was expectorating daily on an average nearly a pint of the characteristic crushed strawberry material. On the second day of the treatment the temperature fell to normal and the amount of expectoration was much reduced. On the fifth day it ceased, the leucocytosis had greatly diminished, and the patient began rapidly to gain in weight. The physical signs in the thorax disappeared, and ulceration of the rectum, which had been seen before the treatment was begun, rapidly healed. The drug produced no unpleasant effects, and by the second day the patient declared himself distinctly better. Professor Chauffard is, of course, unable to say that no relapse will occur, but clearly he saw no reason to fear such an occurrence, and cited two cases recorded by Rogers in which, after death from accident not long after the treatment had been concluded, intestinal ulceration was found completely cicatrized. He pointed out the extremely interesting fact, from the purely scientific point of view, that the effect of emetine explained the good results obtained in some cases of dysentery by the administration of ipecacuanha, and absolved that traditional mode of treatment from the unexplained factor which made it rather unsatisfying to the medical mind. "It marks," he said, "one more stage on the road from empiricism to rational therapeutics." The almost instantaneous cure of a dysenteric abscess in which the amoebic process must have been active since the pus was haemorrhagic, can only be understood if we recognize "that the emetine directly attacked and killed the intrahepatic amoebae, and that the method thus attained the *therapia sterilans*, the ideal too seldom reached, of anti-infectious therapeutics. We have here, then, a notable fact in the history of dysenteries and of amoebic abscess of the liver." He went on to point out that as the two chief types of dysentery differ in their pathogeny, so their duality is shown also in the field of therapeutics;

each is curable by a different specific treatment, the bacillary dysenteries by sero-therapy, the amoebic by emetine. The facts, he says, compel the conclusion that in this instance we have to do with a specific amoebotropism, "comparable to the most specific tropisms known, such as the action of quinine in malaria or of salvarsan or mercury in syphilis." And then in a few sentences of real eloquence which won the applause of the Academy, Professor Chauffard said that he could not but hope that the method would prove to be one more magnificent victory for therapeutics. "What benefits will not Rogers's method bring with it if it renders it possible to cure amoebic dysentery, and to prevent or arrest amoebic abscesses of the liver which are so often fatal? How many human lives would be saved, and we, conquerors of Morocco, colonisers of Madagascar, of Indo-China, and of West and Equatorial Africa, what a debt of gratitude we should owe for so priceless a discovery!" The debt of Britain would be even greater.

THE CARE OF THE DEFECTIVE IN AMERICA.

MISS WINIFRED MUIRHEAD, L.R.C.P.Edin., Pathologist at the Royal Edinburgh Asylum, has given (in the January issue of the *Journal of Mental Science*) an interesting and instructive account of a recent visit to institutions for the care of the defective in three of the American States—namely, Massachusetts, Pennsylvania, and New Jersey. In Massachusetts the laws for the control and care of the defective of all classes are administered by the State Board of Insanity, much as is contemplated will be the case with the "Board of Control" in this country if the Mental Deficiency Bill becomes law in the form in which it left the Committee stage last session. Miss Muirhead points out the advantage of unity of control by one central body and the facilities resulting for the transference of patients from one type of institution to another as may prove desirable. She then describes in some detail the admirable organization, under the direction of Dr. Fernald, of the associated School for the Feeble-minded at Waverly and its large farm colony at Templeton, accommodating an aggregate of 1,500 patients; 250 adult males are employed on the farm, which extends to about 2,000 acres, and is distant 61 miles from the parent institution. Both establishments consist of "scattered" cottage units; those at the school each accommodate about 100, and at the farm from 50 to 60. The structural cost works out at about £75 a bed for the school and £40 for the farm, the maintenance, etc., at 15s. 6d. a head. All the farm produce is consumed by the inmates of the two establishments, and bread, clothing, etc., made by Waverly labour, are supplied to the farm. Miss Muirhead was impressed with the practical character of the instruction given even to young and low-grade children at Waverly, where time is not wasted by trying to impart mere scholastic knowledge to those found incapable of such attainments, but manual occupations are early entered upon so as to train for industrial usefulness in after-life. It is found that a large percentage of the boys who show no aptitude for school subjects become good workers at the farm, where only 25 per cent. have successfully gone through scholastic education. It will be remembered that our Royal Commission reported in highly commendatory terms of Dr. Fernald's labours, and it is to be hoped that his establishment will form a model for the new institutions which will arise in this country. Visits to the State institutions for feeble-minded at Elwyn (Penn.) and Vineland (New Jersey) are also recorded, and it is remarked that in these States the absence of power of permanent detention of adult cases is a drawback to the complete success of the work. The subject of sterilization is referred to somewhat doubtfully in the absence of a sufficient body of reliable statistics. The Monson State Hospital for Epileptics (Massachusetts) is briefly described, and seems to afford admirable accommodation for this class in groups of cottage homes extending over an estate of 1,000 acres. Miss Muirhead concludes that "the small Commonwealth of Massachusetts has progressed further than we have in the care and segregation of the defective, and that it is alert to the necessity of progressing still further . . . in order to combat the evils . . . which sap the vitality of the race."

CONFECTIONER'S PARONYCHIA.

CONFECTIONER'S paronychia, which is fairly common in preserved fruit factories in the South of France, is not, in the opinion of Strauss,[1] confined to workers in sugar, for, of three patients recently examined by him, one was a cook, another was a scullerymaid, and the third, who was a confectioner, had very little to do with the preparation of fruit. The disease ranges from simple chronic inflammation of the borders of the nails to purulent inflammation of the nail-bed. Its two most characteristic features are a chronic course and relative painlessness. A certain amount of itching and burning may be experienced, but they are seldom severe enough to send the patient early to a doctor. Several fingers are usually involved, either simultaneously or consecutively. An early feature is the presence of small erosions at the borders of the nails; here corrosives, sugar and fermenting dirt accumulate, and the mischief extends thence to the surrounding structures, causing redness and swelling around the nail. Gradually the nails are loosened piecemeal from their lateral attachments, and become dull, brittle, and black. In spite of these changes, the patient frequently continues his work till small indolent, subungual abscesses form, and granulations grow from the borders of the nails near the matrix. The exudation of serous or sero-purulent fluid from these granulations finally forces the patient to seek medical aid. When spontaneous recovery occurs, the gradual detachment of the nail is followed by the fusion of the underlying granulations into a single hump, which gives a club shape to the terminal phalanx. But spontaneous recovery does not readily occur, and, left to itself, the disease tends to become chronic, lasting for several years with remissions. The conditions apt to be confused with confectioner's paronychia include ordinary infectious paronychia, or whitlow, and eczema of the nail. The former is distinguished by its acute and painful character, and by the rapid formation of pus. The nail also falls off in one piece, and no granulations are formed. In the latter the edge of the nail is indented, its substance is stratified, vesicles appear in the matrix, and there is excessive secretion. When psoriasis attacks the nail the periungual tissues are unaffected, while the nail itself becomes thickened and elevated above the surrounding structures. Syphilitic disease of the nail, on the other hand, chiefly affects the periungual tissues, which become red and swollen, while the nail itself becomes dull and brittle. Other manifestations of syphilis, such as paronychia of the toes, should prevent a mistaken diagnosis. In scrofulous paronychia, which may easily be taken for confectioner's disease, several nails are involved, the bed of the nail is livid, the skin swells around the nail, and there is a brownish-red secretion. Characteristic features of this condition are its painfulness, its occurrence in children and young adults, its chronic course, and the failure of the nail to regain its former healthy condition. Great caution should be shown in making the prognosis in confectioner's paronychia. Scrupulous cleanliness is the best treatment. When the disease is treated early, cure may result if the employment is given up for a few months. A healthy condition may then be maintained by frequent washing with soap and warm water, followed by rubbing in glycerine and careful drying. Strauss is not in favour of the antiseptic solutions and ointments commonly

[1] *Deut. med. Woch.*, 1912.

recommended. In the advanced stages of the disease a clean sweep of all the structures involved is necessary if a relapse is to be avoided. When the old nail and the surrounding structures have been removed the new nail is at first thickened and brittle.

A CUTANEOUS DYSTROPHY.

THREE cases of family dystrophy of the hair and nails have been reported recently by Eisenstaedt.[1] The condition was observed in three brothers—the third, fifth, and ninth children in a family of nine, eight of whom are living and in good health, while one child, a girl, unaffected, died in infancy. The family thus consisted of six boys and three girls, the affected subjects being all males. The father, a German, is unaffected, and there is no history of the anomaly in his ancestry. The mother, who is dead, was of French-Canadian extraction; she exhibited the condition, and it has been traced in her family through five generations (inclusive of the three children). The relation of the affected ancestors to the children are great-great-grandmother, great-grandmother, grandfather, mother. The author remarks that White's case[2] was also of French-Canadian extraction. The principal points in the description are: The hairs grow very slowly and there seems to be some anomaly in their implantation, but nothing abnormal in structure was revealed by microscopic examination. The eyebrows are very poorly developed. The hands are normal in contour, save for the distal phalanges, which are noticeably increased in volume. The skin on the distal phalanges shows a moderate increase in thickness. The nails on the hands are all affected to about the same degree, and show an enormous hypertrophy of the nail-bed. The nails are kept short because, if allowed to grow beyond a certain length, they become brittle and crack at the very slightest trauma. The nails of all toes of both feet are affected in a similar manner but to a less degree. There is absolutely no sign of hereditary syphilis in any of the children. No paronychiae were found, and the ages of the children (14, 9, 1) did not allow of any definite conclusion as to their grade of intelligence, although the eldest boy seemed normal for his age. The author refers to the possible relationship between this abnormality and acanthosis nigricans, a condition which is characterized by dystrophic changes in the dermal appendages; one of these children exhibited papillary hypertrophy similar to that noticed in acanthosis nigricans. Another suggestive fact is that the mother, who was also affected, died of some malignant abdominal growth. Nicolle and Hallipré state that the thyroid was absent in their case; Eisenstaedt states that the thyroid was present in the oldest of his three cases, but in the second its existence could not be determined.

ACTIVE AND PASSIVE HYPERSENSITIVENESS TO TUBERCLE BACILLI.

A GREAT number of very competent observers have occupied themselves of late years in the attempt to elucidate the problems of the varying degrees of sensitiveness to the attacks of the tubercle bacillus, as shown by experiment on animals, and incidentally to prove their relation to the tuberculin reaction in man. Results have hitherto been somewhat inconclusive, and a further series of observations carried out by Drs. Thiele and Embleton in the Bacteriological Laboratory, University College, has recently been published.[3] Beginning with the production of hypersensitiveness in the guinea-pig by the inoculation of a sterilized emulsion of tubercle bacilli and afterwards by the introduction of isogenous and heterogenous tissues they have tested their animals in every case for the anaphylactic shock, the temperature reaction, and for any cutaneous changes that might be expected to occur, on further inoculation with active B.E. These changes, as regards general symptoms and pathological appearances, were sufficiently uniform to permit of a typical standard being set up. The temperature variations, although following a more or less constant course, were sometimes irregular. The inoculations of B.E. were made systematically into a vein or into the peritoneum or upon the skin. The results in the latter case appear to have been for the most part negative. The symptoms exhibited on inoculation after sensitization were convulsions, cyanosis, respiratory spasm, loss of corneal reflex, and rapid death. The principal *post-mortem* findings were marked emphysema and expansion of lungs, slow coagulation of the blood, and long-continued pulsation of the heart. These experiments are held to prove that hypersensitiveness to tubercle can be produced in the guinea-pig by injection of finely divided bacilli or by the inoculation of blood from an acutely hypersensitive guinea-pig or highly sensitive human patient. Tuberculous tissues when inoculated produced similar symptoms, but many such tissues contained antibodies as well as bacilli. It is further claimed that the reacting antibody which calls forth fever, etc., with tuberculin in the tuberculous patient, is identical with that which causes anaphylaxis and temperature changes in guinea-pigs which have been rendered hypersensitive. Hypersensitiveness to tubercle in the human subject has been generally regarded, when produced artificially, as being due to the use of too large a dose, but it has been assumed that the injection of tuberculin is powerless to produce sensitiveness in animals. The observations referred to above would seem to show that this assumption is not fully justified.

THE ETHICAL BEARING OF HEREDITY.

ONE of the most serious difficulties in the scientific interpretation of Nature is the reconciliation of a view which seems to bind all facts together by a chain of mere mechanical necessity with any rational theory of human freedom and responsibility. Many worthy persons are deterred from yielding allegiance to the findings of science because it seems to them that by so doing they would be committing themselves to a fatalist philosophy. In a presidential address delivered to the American Society of Naturalists[1] Professor E. G. Conklin has dealt with one important aspect of this problem in a reassuring manner and with a lucidity deserving high praise. He points out that while it is true that our main characteristics, mental, moral and physical, are unalterably fixed by heredity, it does not follow that all the possibilities of good or evil that may be latent in a given personality are bound to develop, or that education and other environmental influences are of no avail. It is our possible, not our actual personalities that are predetermined in the germ cells; as to which of these possibilities shall and which shall not be realized, much must depend upon the circumstances under which growth and development proceed. Growth being a function of the interaction of intrinsic and extrinsic activities, there can be no predetermination of the organism unless that of the environment is also assumed. Faculties of a desirable kind may be strengthened by use until their due response to the familiar stimulus has become a habit; conversely, by denial of the opportunity of response, undesirable tendencies may be starved and eradicated. Professor Conklin defines responsibility as the power on the part of the individual of responding to rational, social, and ethical stimuli or impulses, and of inhibiting stimuli of an opposite nature; and the corresponding expectation on the part of others that the

[1] *Journal of American Medical Association*, 1913, lx, p. 27.
[2] C. J. White, *Journ. Cutaneous Diseases*, 1896, p. 220.
[3] *Zeitschrift f Immunitätsforschung und Exp. Ther.*

[1] Heredity and Responsibility, by Professor Edwin G. Conklin, *Science*, January 10th, 1913.

individual will so respond. This implies on the part of society a duty of safeguarding those who, from immaturity or other causes, may be incapable of choosing their own environment against extrinsic stimuli of a dangerous or otherwise unfavourable kind. It implies, further, the positive obligation of providing such environmental influences as are calculated to develop the best possibilities of a given inheritance. Professor Conklin quotes Darwin and William James in support of his own belief that most men possess reserve powers which they never exercise, and that individuals differ far more in zeal and determination than in actual capacity. The most urgent problem is, he considers, not so much the improvement of human inheritance as the fuller utilization of existing talents. He therefore deprecates the undue coddling prevalent in the homes of the rich and in many schools and colleges, pointing out the power of hard necessity "to rouse the sleeping giant within us" as evidence of the preferability of a more virile method of training. Professor Conklin disclaims any intention to depreciate the possibilities of eugenics as a means of improving the race, but considers that in the present state of knowledge we cannot safely do more than attempt to prevent the reproduction of the obviously unfit. "Could any one," he asks, "have predicted Abraham Lincoln from a study of his ancestry?" He adduces the fact that national emergencies are wont to lead to the discovery of great men whose powers appear to be specially appropriate to the needs of their time, in favour of his belief that the potentiality of greatness is far commoner than is generally supposed, but in the majority of cases is not fully evoked. Leaving, therefore, the as yet insoluble question whether all the phenomena of life and mind can be explained on a mechanistic basis, he reminds us of the energizing effect of a belief in our freedom and responsibility, and of the debilitating results of the contrary conviction that since all is predetermined our aspirations and efforts are of no avail.

TRAUMA IN THE PRODUCTION OF MAMMARY CANCER.

In those delightfully colloquial lectures which Dr. John B. Murphy of Chicago addresses directly to those who attend his cliniques, or indirectly through the volumes of his *Surgical Clinics* to a wider audience of practitioners, he compresses in short compass much shrewd and pithy information that is applicable not only to the particular cases under discussion, but also serves in place of more abstract papers on the subjects in general. His clinical methods of teaching are models of what clinical lectures ought to be. In the latest bi-monthly number (December, 1912), for example, he discusses an ordinary cancer of the breast, prefacing his operation by remarks on the general pathology, and accompanying it by explanatory remarks on the *rationale* of each step. There is much for agreement and not a little for disagreement in what he says. He considers that the relation of trauma to carcinoma of the breast is peculiar. He adheres to the belief that carcinoma in other situations is the sequence of repeated mild irritations, whereas sarcoma follows one moderately severe irritation or trauma, never a superlative trauma. Thus, carcinoma of the lip does not result from a severe blow to it, but occurs on account of a continuous mild irritation from a tooth. Sarcoma never occurs in a bone as a result of an injury severe enough to fracture the bone, but follows a trauma severe enough to cause pain. The case of the breast, on the other hand, is exceptional, for one single trauma of moderate severity produces a carcinoma after the lapse of six to thirty months. Few surgeons would be prepared to accept such wide generalizations; and though Leaf in this country obtained in 32 per cent. of cases a definite history of injury to the breast affected, yet the probability is that, since the mammae are so very liable to accidental blows in the ordinary course of events, female patients, noticing a lump in the glands, are apt to cast back their minds to some particular trauma that otherwise would have been forgotten. Murphy, too, performs a rather conservative operation on mammary cancer. He contents himself with removing the fascia over the pectoralis major, leaving the muscles intact, as a rule, basing his procedure on the original report of Bryant, who had seen only one case of recurrent carcinoma in the pectoral muscles in an experience extending over forty years. Many a pathologist who had experience of *post-mortem* examinations of cases dying from recurrent breast cancer when such operative procedure was usual would not be prepared to agree with this, nor with the statement that the sites of metastases are the femur, the bodies of the vertebrae, the liver, and the brain in order of frequency. If operative measures were based on Bryant's statement, the rather gloomy outlook to which Murphy candidly confesses might be more justifiable. The whole lecture teems with points forcibly and arrestingly put by the author, and productive, it may be, of thought and criticism in others, but certainly far from mere sterile platitudes.

SPORT, FAME AND UTILITY.

WHY is the sportsman of distinction, so popular a figure among his contemporaries, forgotten so soon after death has removed him from the scene of his triumphs? This question has recently been raised by Dr. T. Claye Shaw, and in the same article[1] he submits various answers, none of which, we think, he himself would be prepared to guarantee as adequate. He points out the affinity which, although seldom recognized, undoubtedly exists between sport on the one hand and on the other those ideal avocations—aesthetic, literary or scientific—whose pursuit is largely its own reward. He claims on behalf of the genuine sportsman that the qualities—physical, mental and moral—which confer eminence in his own vocation are worthy of a degree of commemoration which in fact they seldom attain. The explanation Dr. Shaw favours most is that the speedy oblivion which befalls the sportsman is due to the fact that his aims are purely personal and even selfish: "he is of no use to the race." We do not question that there is much truth in this explanation; on the other hand, it is impossible to admit that utility, in the commonly accepted meaning of the term, is the principle upon which permanent fame is allotted. It would, for example, be difficult, we think, to demonstrate the utility in any material sense of a picture by Raphael, a nocturne by Chopin, or a sonnet by Keats. We may and most of us do feel that the world would be a poorer place without such things, but to call them useful and to allege that their creators are immortal on that account are assertions which at once succeed and fall short of the truth. In science, as in art, the criterion of mere utility fails; the highest awards of honour fall to those whose achievements are upon the super-utilitarian plane. The demonstration by Semmelweis of the cause and mode of preventing puerperal fever resulted in an enormous and immediate saving of life. It is true that Semmelweis is commemorated by a monument at Budapest, but is he famous in the sense or degree that Galileo, Newton, Harvey, and Darwin are famous? The note of those kinds of greatness which achieve true fame is, we suggest, not utility, but universality of import; and since the exploits of the sportsman result almost exclusively in the demonstration of his personal prowess, interest in them is naturally confined in the main to those who actually witness or hope to surpass them. Yet, since the maintenance of a high standard of virility is a matter of racial interest, we agree that there

[1] Some Facts in the Psychology of Sport. By Dr. T. Claye Shaw. *Baily's Magazine*, February, 1913.

is much to be said for Dr. Shaw's claim on behalf of the notable huntsman or cricketer to at least a memorial tablet.

MODERN MEDICINE AND THE LAYMAN.

It has often been said that at the age of 40 we are all of us either fools or physicians. This somewhat sententious judgement presses a little hard on the layman, who has often, for one good cause or another, had little opportunity of acquiring medical knowledge during the first two score years of his life. The daily press, of course, has done what it can for several years to make up for the possible medical deficiencies of the layman, giving him frequent doses of diluted medical knowledge in forms that may be supposed to suit his untrained powers of scientific assimilation. Experience shows, however, that such snippets of medicine as may be picked up in this way do little more than illustrate the dangers of a little knowledge. The lay reader is apt to accept them as gospel truth, to distort them by prolonged rumination, to reproduce them entirely *mal à propos* when consulting his medical attendant. Dr. F. S. Lee, of Columbia University in the City of New York, has made a very successful effort to remedy this state of affairs by writing a compact book,[1] in which he gives the layman a well-written and fairly comprehensive guide to the aims and attainments of the scientific medicine of to-day. The volume represents eight lectures delivered in the author's university. In these lectures Dr. Lee gave a popular account of the structure and working of the human body, followed by a description of disease, its causes and treatment. The problem of cancer was discussed, and at the end the aims of modern surgery and of modern experimental medicine were outlined. Quackery is a weed of even more vigorous growth in America than in England, and it is to books such as Dr. Lee's that one must look for the most rational check to its growth. Dr. Lee writes with clearness and moderation; he is a pragmatist and an empiric so far as the philosophy of medicine is concerned; and there is little or nothing in his pages that should not be intelligible and interesting to laymen of average education.

MEDICAL EDUCATION IN CHINA.

At the triennial Conference of the China Medical Missionary Association, which took place at Peking in January, the subject of medical education in China was, as has already been stated, the principal matter for discussion. For some time past the association has been engaged in an endeavour to co-ordinate the medical training which has been carried on for many years in different mission hospitals in China. It is now felt that the time has come when no training school should profess to send forth qualified practitioners unless it is able to attain a certain standard of efficiency. Certain resolutions have been passed arranging for a curriculum modelled on the British plan, and with a somewhat similar standard of educational efficiency for those entering a medical school. The most important point, however, is in the matter of the staff, and the association has formulated the principle that no school should be regarded as efficient which has not a staff of at least ten qualified teachers, European or Chinese, with some means of providing for furlough vacancies. The association strongly recommends the use of Chinese as the medium for teaching, though it recognizes that students should know at least one foreign language, which would give access to suitable medical literature. Whether this should be English or German may, perhaps, be determined by the Chinese education authorities, and it is thought that the German language may be selected by them. This might prove a serious difficulty for the medical schools contemplated by the association, and it is greatly to be hoped that English will at least be allowed as an alternative language. The centres selected by the China Medical Missionary Association as most suitable for medical schools under mission auspices are Moukden, Peking, Chinanfu, Nanking-Hanchow, Hankow, Chengtu, Canton, and Foo-chow. It is understood in each case that the school would be a union school, in which representatives of different missionary societies would combine at each centre to provide a proper staff and equipment, and it is felt that only in this way can adequate teaching be provided. It is not yet at all certain that all of these schools can be efficiently maintained, and there is the possibility of some of them becoming schools for the training of medical workers of a class similar to the hospital assistants in India. But, in any case, it should be understood that several of these schools are only in process of formation, and that the programme set out by the China Medical Missionary Association may require modification.

[1] *Scientific Features of Modern Medicine.* By F. S. Lee. New York: Columbia University Press. 1911. (Demy 8vo, pp. 192. 6s. 6d. net.)

The Oliver Sharpey Lectures, to be delivered by Professor A. D. Waller, F.R.S., before the Royal College of Physicians of London on April 8th and 10th, will deal with the electrical action of the human heart.

Medical Notes in Parliament.

The King's Speech, delivered at the opening of Parliament on March 10th, contained the following paragraph: "You will be invited to give renewed consideration to proposals for the better care and control of the feeble-minded and for the further restriction of the industrial employment of children." The speech also stated that proposals would be submitted for the development of a national system of education. Lord Crewe afterwards said that it was not the intention of the Government to force through Parliament this session a vast measure dealing with national education, but only to place the country in possession during the coming session of the general lines of the intentions of the Government. One object would be to ensure that the education given in the primary and secondary schools and colleges respectively merged the one into the other. Attention would also have to be given to the physical needs of the children. No mention was made in the speech of legislation with regard to National Insurance, but it will of course be necessary to introduce a bill to authorize the allocation of the sum of £1,825,000 to carry out the promises of the Chancellor of the Exchequer made at the conference of the Advisory Committee held on October 23rd. It seems probable also that an amending Act may be introduced to deal with various matters, among others with casual labour and the aged members of friendly societies. Further, if, as seems probable, the Committee which has recently been taking evidence in Ireland recommends the extension of medical benefit to that island, an amending bill or clauses in such a bill will be necessary. The Government appears also to be under an obligation to give legislative effect to the recommendations made by Sir John Dewar's Committee on Medical Aid in the Highlands and Islands, a matter which is regarded as urgent by all acquainted with existing conditions.

Scottish Universities and the Treasury Grant.—Mr. Masterman, in replying to a question by Sir Henry Craik, on March 6th, said he could make no statement at present on the subject, except that he was in communication with the university authorities; he had not yet received their answer.

Milk and Dairies Bill.—Mr. Asquith informed Mr. Bathurst, on March 12th, that the Government hoped it might be possible to carry this bill this session.

Tuberculosis Prevention (Ireland) Act, 1913.—This measure has received the Royal assent.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

THE MEDICAL SOCIETY OF LONDON.

THE ancient, but still extremely active, Medical Society of London must not, as Dr. Leonard Guthrie said, be judged by years, for in spite of its 140 winters no trace of senility or decay can be traced in its works. Ample testimony to the success of the society, both from the scientific and the social aspect, was borne by the speakers at the anniversary dinner, which was held at the Hotel Metropole on March 5th. Sir Watson Cheyne, Bart., the President of the society, occupied the chair, and over 100 members and their friends were present.

Sir Francis Champneys, President of the Royal Society of Medicine, proposed the toast of the Medical Society. Though it had refused to be swallowed up in his own society, a feeling of cordial friendship, he said, existed between the two societies. Sir Watson Cheyne, in reply, discussed in some detail the beginnings of the Royal Society of Medicine and its mother society, the Royal Medical and Chirurgical Society, and observed that during the past year the majority of the communications made to the Medical Society were on surgical subjects.

Mr. C. J. Symonds, in proposing the health of the guests and the kindred societies, spoke highly of the excellence of the Army Medical School. Sir Rickman Godlee, in his reply, delighted his audience with a bright sketch of the Quaker beginnings of the Medical Society. Dr. Leonard Guthrie replied for the other societies. Dr. Macnaughton Jones proposed the toast of the "President," who concluded a brief reply by proposing the health of the secretaries, Mr. Corner and Dr. Young, and the registrar, Mr. Bethell, all three of whom responded.

PROPOSED REGULATION OF FRIED FISH VENDORS.

The Public Health Committee of the London County Council on March 13th submitted to the Council for approval a series of by-laws for regulating the conduct of the businesses of fried fish vendor, fish curer, and rag and bone merchant. After the proposed regulations have been considered by the metropolitan borough councils, the Local Government Board will be asked to confirm them. The by-laws with regard to a vendor of fried fish are intended to ensure precautions to prevent effluvium arising from the operation of preparing the fish, and that garbage, etc., shall be speedily removed.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

LIVINGSTONE CENTENARY CELEBRATION IN EDINBURGH.

TO-MORROW, Sunday, March 16th, is to be observed as Livingstone Sunday in the churches. On Monday the Lord Provost and Council hold a civic reception in the Royal Scottish Museum (where also a special Livingstone exhibition will shortly be opened); and on Wednesday, the 19th, which is the actual birthday of David Livingstone, a memorial service will be held in St. Giles's Cathedral at noon, and a public demonstration in the evening in the Synod Hall. There will also be meetings on March 20th and various children's demonstrations.

THE LIVINGSTONE MEMORIAL DISPENSARY.

One of the most interesting parts of the premises occupied by the Livingstone Memorial Dispensary at 39, Cowgate, is the Chapel of St. Mary Magdalene. Since the dispensary was built in 1874 in memory of David Livingstone, the chapel has been used by the Edinburgh Medical Missionary Society in connexion with its work of training students for the foreign field; this is with the permission of the Protestant Institute of Scotland whose property the chapel is. This building was visited on Saturday, March 8th, by the Scottish Ecclesiological Society, whose members were much interested in the fact that it contains the only ancient (pre-Reformation) stained glass in Scotland of a coherent design and still in its original position. In this chapel the General Assembly of the Church of Scotland met in 1578, and it was here also, a little more than a hundred years later (1685), that the body of the Earl of Argyle was temporarily placed after his execution. In a few days services in commemoration of the Livingstone Centenary will be held here, and every week crowds of patients gather within the walls of this interesting bit of old Edinburgh, which was originally founded by one Michael Macquhcen, "being greatly affected by a grievous distemper and oppressed with age."

LAURISTON PLACE HOME FOR MATERNITY RESCUE WORK.

This home for maternity rescue work plays a useful part in the prevention of abnormal labours and the diseases of pregnancy, as well as serving as a means of rescuing young girls illegitimately pregnant for the first time. The young expectant mothers are under medical supervision whilst in the home, and thus deviations from the normal healthy state of pregnancy can be at once detected and often cured; in more serious cases the woman can be transferred to the prematernity ward in the Royal Maternity Hospital, which is situated within a stone's throw on the opposite side of the street. If all goes well the patient enters the hospital when labour pains come on. At the annual meeting of subscribers, held on March 6th, it was reported that in 1912 seventy-one unmarried girls about to become mothers had passed through the home. Some of them were no more than children; one was 13 years old, and there were three of 15, two of 16, and three of 17 years.

THE CHILDREN IN THE STREETS.

Dr. John Thomson, in a touching letter to the *Scotsman* newspaper for March 4th, makes a strong appeal for the Play Centres Society, whose object is to draw poor children off the streets and out of the gutters where they spend their play time in winter and gather them into warm rooms, where they can play at games or practise scrap-painting, wood-carving, etc., under kindly supervision. There are at present six play centres in operation, but there should be many more. The value of such means in the prevention of children's maladies, and it may be of lifelong bad health, is obvious.

NEW PHTHISIS BUILDINGS AT THE EDINBURGH CITY HOSPITAL.

In the Colinton Mains Hospital it has been customary for some years past to accommodate advanced cases of phthisis; but, in order to meet requirements consequent upon the arrangement made between the Town Council and the Insurance Committee of Edinburgh for dealing with this class of patient, new buildings must now be provided, and the Town Council has approved plans for new buildings forming an instalment of a scheme to provide ultimately 112 beds; 63 beds (36 for females and 27 for males) will be at once provided, and already a number of revolving shelters, each containing 2 beds, have been erected. The new buildings, placed about 300 yards apart, are situated to the south of the permanent hospital buildings. The permanent administrative buildings will be utilized in connexion with the new ward. The new buildings will be of timber secured to a concrete foundation. A combined dining and recreation room forms the centre of the south-west range, while nurses' rooms are placed at the angles. Sanitary annexes, with dressing rooms, will be provided at the north end of each set of shelters, and along the south side of the buildings verandahs will be erected. The city architect, Mr. Williamson, in collaboration with the medical officer of health, Dr. Maxwell Williamson, has prepared the plans, and, though purposely devised to be constructed in the most economical manner, the building is regarded as likely to completely fulfil all the requirements necessary for the special object in view.

GLASGOW'S WATER SUPPLY.

The prospect of a still further extension of the Glasgow water supply is already being considered. The present aqueducts are capable of bringing 110 million gallons of water daily from Loch Katrine into the city. The average yield, on the basis of the three driest years since the

inauguration of the Loch Katrine scheme, is 75 million gallons a day. In addition, the old Gorbals Waterworks give a daily supply of 5 million gallons. Glasgow's present demand is about 66 million gallons daily, but the rate of consumption is increasing yearly by 10 million gallons a day, so that in about ten years the present sources of supply will be insufficient, and the extension of the catchment area will have to be considered. The Loch Arklet extension staved off for the time a bigger work, but in the not very distant future a new source will in all likelihood have to be added. Loch Vennacher is stated to be out of the question, and there are engineering difficulties in the way of the Strathyre watershed. Perth is credited with having designs on Loch Lubnaig, and Glasgow may have to tap the lochs on the Braes o' Balquhidder. The Loch Katrine undertaking, inaugurated fifty-two years ago, was considered a gigantic scheme, as indeed it was, and was then thought to be an inexhaustible source. Whether the Government scheme in connexion with the nation's water supply, indicated recently by Mr. John Burns, will have any bearing on this matter, or, indeed, will affect Scotland at all, remains to be seen. If, as thought probable, the Government deal with rivers, then Scotland will not benefit much, as rivers are not looked upon with favour in the North as sources for water supply.

Bellefield Sanatorium, Lanark.

The annual report submitted to the Glasgow and District Branch of the National Association for the Prevention of Consumption by the Medical Officer at Bellefield Sanatorium shows that for the year ending September last 165 cases were admitted and 151 dismissed. On the whole the results were satisfactory, but, as on a former occasion, the medical officer expressed regret that many patients on leaving the sanatorium returned to unhealthy environments and undesirable occupations.

The patients at Bellefield continued to engage in graduated labour with beneficial results. The work done included (heaviest class of labour) cutting down trees and putting in fencing, removing soil to sand pits, repairing cinder path, delving round in grazing field, assisting gardener and cutting grass; (intermediate) weeding croquet green, trimming walks, weeding about the grounds; and (lightest labour) cleaning brasses, picking up litter, and keeping the verandah platforms in order. There was no doubt about the benefit derived from regulated work in the open air, provided the cases were suitable. The temperature was taken as an indication in regulating graduated labour.

At the out-patient department in Glasgow there were 296 applicants for treatment during the year. The physician there reports that neither the notification of phthisis nor the greater interest now taken in the disease by the public has made any difference in the percentage of early cases. An analysis of the 157 cases selected as medically suitable for treatment at Bellefield showed that in 2 cases the diagnosis was doubtful; 10 cases were in the very earliest stage; 45 were early cases; 78 were in Class II, or intermediate cases; and 22 cases of advanced disease were selected, generally on account of their condition and physique being good in comparison with the extent of the disease in their lungs, and the probability that they had acquired a resistance to the disease. Most of these cases did very well, some making considerable improvement, but the risk of an active development of the disease at any time was much greater in this class of case than those in an earlier stage of the disease.

Reconstruction of Dumfries Infirmary.

At the annual meeting of the governors of the Dumfries and Galloway Infirmary, it was stated that a sum of £7,000 was still required to complete the reconstruction scheme in connexion with the institution which was started a year ago. It was agreed that, if necessary, £5,000 should be drawn from the reserve funds to complete the scheme. It was reported that there was a deficit of £1,200 on the year's working of the institution. The chairman (the Rev. J. Montgomery Campbell) dealt with the position of voluntary hospitals under the Insurance Act, and stated that those institutions were now even more necessary than at any other time. The 10s. of aliment paid to insured persons did not provide for the treatment of cases requiring special nursing. He deprecated the idea of putting infirmaries under State control, and said that if ever that came about it would be a bad day for the sick poor. Mr. H. S. Gordon was appointed chairman of the directors for the ensuing year, and Sir Mark J. MacTaggart Stewart, Bart., was elected honorary vice-president.

New Infirmary at Perth.

The work of erecting the new infirmary has proceeded expeditiously, and the entire buildings, with the exception of the children's block, are now roofed in. It is expected that the main block will be completed by October next.

The directors have now been able to proceed with the erection of a children's ward on a larger scale than before, because of the sum of £1,187 11s. 10d. which had been handed over to them by the King Edward VII Memorial Fund Committee. To this has been added a donation of £750 from the trustees of the late Mr. Charles Anderson of Fettykil. Later, Mr. Peter Whyte, M.Inst.C.E., of Edinburgh, announced that he and his brother, Mr. William Whyte, desired to provide a sum of £1,500 for the erection of a second children's ward, to be dedicated to the memory of their father, the late Mr. John Whyte (Muirhead).

The total amount required to complete the entire building, on the assumption that a sum of £10,000 will be received for the old infirmary buildings, is £2,638 9s. 6d.

Aberdeen Dental Clinic.

The dental clinic scheme of the Aberdeen School Board was started on February 18th at the clinic rooms, 40, Union Terrace. There are three rooms, efficiently fitted up and furnished, and the dentists' equipment is specially adapted for children. The clinic is in charge of Dr. Campbell, a graduate of Aberdeen University and a dentist. He is assisted by a whole-time nurse, who was previously on the medical inspection staff of the board. Those who will receive treatment are necessitous children in their seventh year.

School Medical Inspection.

In the third annual report on the medical inspection of school children in the counties of Midlothian and Peebles it is stated that the number of children examined during the year amounted to 7,459. Of these, 2,310 were in their first year at school, 2,578 were in their last year, and 917 were specially presented by the teachers. Of children found defective at a previous examination, 1,654 were re-examined. The School Medical Officer, Dr. Robb, states that medical inspection has proved an incentive to parents to keep their children clean and tidy and to take other measures to maintain them in good health. "The amount of work involved in visiting schools and homes to make these re-examinations is increasing rapidly. It is one of the most important parts of school medical inspection, but it is at present carried out with difficulty, owing to the necessity for overtaking the routine work. It is evident, therefore, that further assistance will soon be required if the best results are to be obtained."

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Resignation of Medical Staff of Newcastle Sanatorium.

The Board of the Royal Hospital for Consumption in Ireland held a meeting on March 6th to consider the resignation of the extern medical staff. In a long letter published in the daily press on March 8th the Board states that it had for some time felt that the management of the hospital might be open to criticism in two respects. First, the large increase in the number of beds, from 24 when the hospital was opened in 1896 to over 100 in 1910, forced the conviction that the visiting staff (two in number), although adequate for 24 patients in 1896, was inadequate for 100 patients. The second was that there was not sufficient employment of treatment except of the simplest character, that is, "open-air treatment." When the medical staff said that the medical treatment of the

patients was a question solely for the medical staff, the Board unanimously adopted the following resolution:

> Having read the letter from Dr. Crowe, informing the Board of the resolution unanimously adopted at the meeting of the Medical Committee on May 26th, 1911, the Board are of opinion that they cannot accept the position that the medical treatment adopted at the hospital is a matter solely for the medical staff, as they believe that they should from time to time inform themselves, as a Board, as to the system or systems of the treatment in use at the hospital.

The letter concludes with the gratuitous suggestion that the medical staff resigned their positions and made public their reasons, calculating, if not intending, to deter any other professional brother from giving his services to the institution, no matter what the effect might be upon the institution and however seriously the crippling of its usefulness might affect a suffering class of the community. "Happily," it is said, "the medical arrangements at the hospital preclude the possibility of such an unfortunate result." This is understood to refer to the two resident medical officers at the institution, who are not affected by the resignation or change of the extern staff, and to the appointment by the Board of a new visiting physician.

The real crux of the matter is that a lay board should claim to dictate to the medical staff on what is essentially a professional rather than an administrative matter. The question is considered of such importance that the Presidents of the Royal College of Physicians and Royal College of Surgeons have summoned a joint meeting of the colleges to consider the action of the Board of the hospital, and it is sincerely to be hoped that some reasonable adjustment of the difficulty may be reached, and that the Board will see the necessity of receding from an untenable position by which it is endangering the welfare of the institution for which it is responsible.

Special Correspondence.

BUDAPEST.

Post-Graduate Study in Hungary.—The New Building of the Workmen's Insurance Office.—One and a Half Hours on a Flywheel.—Town Sanatoriums.

THE Central Committee of Medical Post-Graduate Study held its annual meeting on Sunday, February 23rd. Post-graduate study has developed into a powerful organization from a very modest origin. In the past year the Budapest courses were attended by 147 doctors, and the provincial courses by 79, making a total of 226. Sixty-eight of these courses have enjoyed State support. The committee has distributed 6,000 kronen and the municipalities 8,500 kronen in aiding provincial doctors to attend these post-graduate studies. The Ministry of Public Instruction covers all the expenses involved by the administration and lecturers' fees. In the programme for 1913 certain new types of courses have been introduced. Besides the four weeks' courses, which served for more thorough study of a single subject, one-week courses will be held on syphilology, industrial diseases and accidents, and modern therapeutics. Professor Emile Grosz, the chairman of the committee, expressed hopes that this year the number attending would be doubled.

The new central building of the Workmen's Insurance Office, the most expensive building built here in recent years, cost 8½ million kronen (£350,000). It will occupy 10,873 square metres of ground, and will comprise not only a colossal building for the official department, but also extensive out-patient rooms, a large pavilion for experimental therapeutics, and an *x*-ray institute, all, however, for the exclusive use of insured members.

An overseer at a timber mill in Lagos, while recently going his rounds, attempted to replace the belt which had slipped off a flywheel 12 ft. in diameter. The wheel caught his coat-tails, lifted him off the ground, and revolved him for an hour and a half. Although there were several hundred workmen on duty, the accident was not known till the machinery stopped. The unfortunate man was then unconscious, and though terribly injured lived for three hours, regaining consciousness before his death, and declaring that he alone was responsible for his fatal accident.

The absence of sanatoriums for the middle classes has long been felt in Hungary. There have been for long public hospitals, maintained by the State or the municipalities, and private sanatoriums where high prices are charged, so that only the wealthiest people seek admission. The public hospitals have two or three wards for so-called "private paying patients," but the number of these wards is limited, eight being the maximum number, even when the hospital has 600 beds. Thus a majority of middle-class patients have the choice of entering wards among people of the lowest class or becoming bankrupt. The first middle-class sanatorium, equipped on the most modern lines but without superfluous luxury, will shortly be established by the authorities of the city of Budapest. It is estimated that the price for a room, medical attendance, foods, etc., included, will not be higher than 10 to 12 crowns (9s. to 10s.) a day. Medical expenses will be defrayed by the city. The new sanatorium will have accommodation for 150 to 180 patients. If this should prove a success, other sanatoriums will be established by other large municipalities.

Correspondence.

TRADES UNIONISM AND MEDICINE.

SIR,—Some members of the profession are very earnestly endeavouring to form the practitioners of this country into a trades union, believing that in this way a solid body may be established and a united front presented to any enemy that may seek to attack it. I venture to express a hope that before such a body be formed very serious consideration be given to the question of its disabilities and powers. The chief advantages which a trades union has over its members are these: The authority to issue orders for a general or partial strike; the "putting down" of tools; and the prevention by actual "peaceable picketing" (with its attendant use of force) of the entrance of "blacklegs" upon the scenes of the strike. Without these powers trades unionism would be a very feeble weapon and absolutely useless to effect the desired end. Can it be possibly contended for one moment that either of these powers could be used by educated professional men exercising the healing art and carrying on medical practice? Can the wildest imagination conceive an order emanating from the central office of the medical trades union ordering all members, irrespective of rank or position, to cease at a given time the care of and attendance upon patients suffering from all forms of disease and sickness? Can any sensible person imagine that such an order would or could be obeyed in any civilized country in the world? Or take the question of "peaceable picketing." Would such a thing be possible amongst medical men? The idea is monstrous; but without these foundations the whole superstructure of trades unionism falls to the ground at once. Union, of course, is strength; but trades unionism on its present lines can never be accepted by members of the medical profession, in my humble opinion. To effect the purpose of trades unionism it would be absolutely necessary to carry it out to its logical conclusion, and that we can never do. We cannot accept its "principles" without its "practice"; and I trust the day is far distant before we descend as doctors to the level of dockers. If our members cannot be united in a common bond of humanity, and keep their ethical and professional pledges without recourse to the basest principles of coercion by force, we must be content to be disunited. Any unity founded upon trades union lines would be degrading and derogatory to professional men in the extreme, and I hope that the suggestion will be scouted and dismissed as utterly untenable.

I am writing as a mere member of the profession, and not as an official of any organization.—I am, etc,

London, W.C., March 12th. A. GEORGE BATEMAN.

IMMEDIATE OPERATION IN APPENDICITIS.

Sir,—In his letter in the Journal of February 22nd, Dr. Hunt pleasantly finds fault with me for wanting a *second* surgeon to confirm the diagnosis of appendicitis in the event of my becoming attacked with that disease. The reason for my suggesting another opinion was that, as there might possibly be some uncertainty in the making of a very early diagnosis (such as I would desire), some other friend might come in to help (for I should not try to be surgeon as well as patient), and in deciding in favour of an "immediate" operation, I think it right that always *two* medical men should be in agreement. Judging from the manner and purport of his letter, I would deem myself fortunate if the person so called in were Dr. Hunt.

I did not wish to draw too close a comparison between appendicitis and strangulated hernia, but I wanted to insist on the fact that "immediate" operation in the latter condition, instead of the use of "taxis" and hot baths (as in times not long past), had greatly reduced the mortality. And I pleaded for equal dispatch and improvement in appendicitis.

In the Journal of March 1st letters appeared from a general practitioner from Scotland (Dr. Whitelaw), a Welsh surgeon (Mr. Lynn Thomas), and an English physician (Dr. William Ewart). The first-named deals with a matter of real importance in connexion with appendix operations, but he will not mind, I am sure, if I do not discuss it with him in these columns.

Mr. Thomas remarks that after twenty years' experience in operating upon appendicitis he is "not in the present—perhaps passing—fashion," and he writes:

> "I have not lost a single case where, in my judgement, it was necessary to try and get the patient out of his attack of appendicitis into a state of quiescence, or, to use a local phrase, which well expresses my meaning, 'drydock him for repairs.'"

He then goes on to say that appendicitis is a "surgical disease" for several hours, "but" that, later on, it

> "requires the greatest vigilance, the strictest observance of proper non-surgical treatment, to bring it into a state whereby the offending appendix can be removed with no risk except that of the anaesthetic."

(Surely those early hours were the very time in which the removal could be effected with the greatest safety.)

But he is silent about the early "surgical" cases which, in utter disregard of a distant prospect of "dry dock," spitefully hurry on to disaster. Yet all of them could have been at once rescued by an "immediate" operation. And as it is on this principle alone that one can be *sure* of saving them, its adoption must prove something better than a "passing fashion."

Let me suggest that Mr. Thomas is called early one morning in consultation on a boy who had been seized in the night with acute abdominal pains, that he finds a tenderness in the iliac fossa and rigid muscles over it, the temperature and pulse being at about a hundred. If he would urge immediate operation for this boy, I fail to see why he should claim to stand outside what he calls the "present—perhaps passing—fashion." But if he replies that he would leave him for "vigilance" and for the "strictest observance of proper non-surgical treatment," I say, and I say it with regret, that his teaching may have the effect of putting back the hands of the clock. It is only in the first twelve hours or so that the surgeon can claim to be master of the situation; he is unable to govern or guide the course of an inflammation of the appendix, and it is only by immediate operation that he can hope to do his share in the task of bringing down the alarmingly high death-rate in this disease.

If it so be that the surgeon is in suspense, Mr. Thomas declines to allow him to "look and see," "because," as he somewhat unhappily puts it, "it will inevitably lead to further carelessness."

In Dr. Ewart's broad-minded letter attention is called to the urgent need of making an early diagnosis so that operation may not be delayed. And, with this in view, he advises general practitioners and physicians "to watch for appendicitis always, and to examine for it as a clinical routine," just as they are accustomed to test all cases for a possibly latent renal trouble. Dr. Ewart's views upon "suspected appendicitis" I cordially accept, as, indeed, I do those of the whole of his letter.

I wish that I could fully agree with the statement of Mr. Musgrave Woodman, in the Journal of March 8th, that "to diagnose appendicitis is easy." It is generally so; but the appendix has as its close neighbours the caecum, colon, ileum, ureter, and ovary, each of which is liable to its own troubles, and it is because of difficulty in making up one's mind in certain rare cases that, in the cause of safety, I would urge the surgeon to "Look and see." The truth of Mr. Woodman's remark that the risk of operating on an acute appendix is very slight, whilst that of sitting by and watching is full of danger, is becoming every day more apparent, and the expediency of immediate operation more fully recognized.

I think that I cannot do better than bring my reply to a close by a quotation from an excellent paper by Mr. Richardson, of Newcastle-on-Tyne, which appeared in the Journal of September 28th of last year:

> "Most of the writing, both in textbooks and in periodicals, has reference to the treatment of the complications of appendicitis, rather than to appendicitis itself, so that, in the minds of many, these complications are regarded as though they were actual symptoms of the disease."

—I am, etc.,

London, W., March 10th. Edmund Owen.

Sir,—From the point of view of the public it is regrettable that there should be still any difference of opinion as to the advisability of immediate operation in acute appendicitis.

Without doubt a very large proportion of the deaths which occur every year is due directly to procrastination, and until public opinion be educated by the profession to regard immediate operation as the only safe method of treatment, this sacrifice of life will continue. In America the question has been settled long ago. To Americans, whether doctors or laymen, the position of those who advocate delay is incomprehensible. Last year a well-known American surgeon, on a visit to this country, expressed to me his surprise on reading the discussion which at that time was being carried on in the Journal. "I do not understand," said he "why at the present day it is necessary to state the case for immediate operation." Further comment is needless.—I am, etc.,

London, W., March 10th. Herbert J. Paterson.

Sir,—In response to the suggestion of my friend, Mr. G. Grey Turner, of Newcastle, I have had all cases of appendicitis operated on in the years 1910, 1911, and 1912 in my practice analysed. Although a proportion of the cases has been done by my assistants, Mr. F. K. Smith (Royal Infirmary) and Mr. A. Mitchell (Sick Children's Hospital), yet one can state that the technique adopted by them is practically the same as my own. Including both private and institutional cases, there have been 697 operations done primarily for disease of the appendix during those three years. (This series does not include cases in which the appendix was removed in the course of operations primarily designed for other conditions.)

There were 106 acute cases "with limited infection" with no deaths, 32 of them being in children; 208 cases with more or less advanced infection of other parts (peritoneal and otherwise) with 25 deaths, or a mortality of 12.7 per cent.; interval and chronic cases, 383, with 1 death from sudden cardiac failure several days after operation. The mortality for all cases was therefore 3.7 per cent.

Of the 25 deaths in the acute series, 4 occurred out of 46 private patients—11 out of 61 cases in the Sick Children's Hospital, and 10 out of 101 in the Royal Infirmary. The adult mortality-rate in the advanced acute cases was 9.5 per cent., while that in children was 18 per cent.

These figures surely prove the advantage and necessity of operation at the earliest possible moment, *especially in children*.—I am, etc.,

Aberdeen, March 10th. H. M. W. Gray.

THE AFTER-EFFECTS OF GASTRO-ENTEROSTOMY.

SIR,—The conclusions which Mr. A. W. Bourne draws, in the paper published in your issue of March 1st, from a series of cases of gastro-enterostomy are interesting and instructive to those who are familiar with the present position of gastric surgery, but are bound to convey an entirely erroneous impression to those members of the profession who are unable to interpret them at their true value.

To form any true estimate of the value of gastro-enterostomy for peptic ulcer of the stomach or duodenum one must take as a basis a series of cases in which one has details of:

1. The operative technique.
2. The character of the ulcer.
3. The exact position of the ulcer.

Mr. Bourne furnishes the most meagre information under all three heads. In a series of cases occurring in the practice of a number of different surgeons the operative technique will probably vary within wide limits, and of no operation can it be said with greater truth that an attention to technical details is of the utmost importance to the securing of a successful result. With the exception of the statement that in two cases an anterior gastro-enterostomy was performed, Mr. Bourne gives us no details as to the position or method of anastomosis or the presence or absence of a jejunal loop.

He tells us nothing as to the character of the ulcer; in four cases he states that no ulcer was visible, and one cannot help suspecting that in more than these four cases no demonstrable ulcer existed. It has been repeatedly pointed out that gastro-enterostomy is contraindicated in the young chlorotic woman with pain after food, vomiting, and occasional haematemesis, symptoms usually supposed to be due to gastric ulceration. In such cases the external coats of the stomach afford no evidence of the existence of an ulcer, and gastro-enterostomy is worse than useless. Unless the ulcer can be demonstrated both visually and by palpation, no surgical interference with the stomach is justifiable.

Gastro-enterostomy for symptoms alone is the acme of bad surgery, for a careful surgical differential diagnosis at the time of operation is as important as a medical differential diagnosis beforehand. To perform the operation for atonic dilatation, gastroptosis, chronic appendicitis, or tuberculous disease of the lower ileum is only to court disaster, and can do nothing but bring a most valuable operation into disrepute.

Finally we are given few details as to the position of the ulcer. From those Mr. Bourne supplies it is evident that the results were markedly better in duodenal ulcers and those gastric ulcers situated at or near the pylorus. Of the other cases classed as gastric we have no details; possibly they include some in which "no ulcer was found."

Surgeons with an extensive experience in gastric surgery are now in agreement that for ulcers situated on the lesser curvature at a distance from the pylorus, and those upon the posterior aspect of the stomach, the proper treatment is excision, either with or without gastro-enterostomy; gastro-enterostomy alone is productive of no relief. There is no doubt that the operation has been performed in a large number of unsuitable cases, and those who have been the pioneers in the field—Robson, Moynihan, and the Mayos—have been the first to point this out, and it is by a study of their writings and results that a true estimate of the indications for and results of operation in the different varieties of peptic ulcer can be formed.

My inquiries into the end results of Sir Berkeley Moynihan's cases of duodenal ulcer (*Duodenal Ulcer*, 1912 Appendix) show that in a series of 302 cases, extending over a period of eleven years, the mortality is 1.65 per cent., and the cases of complete cure calculated upon the whole number of patients, and not upon those who can be traced only, is 82.7 per cent. This series includes certain cases in which the operation should not have been done, and in the earlier cases the operative technique was imperfect; in the later cases the percentage of complete cures is over 90 per cent.

Similar results are published by W. J. Mayo (*Annals of Surgery*, September, 1911) in a series of 1,000 cases.

Duodenal and pyloric ulcers treated by gastro-enterostomy with infolding or excision of the ulcer, cured or greatly improved, 98 per cent.

Ulcers of body of stomach treated by excision with or without gastro-enterostomy, cured or greatly improved, 85 per cent.

Mortality well under 2 per cent.

Mr. Bourne's paper and the conclusions which he draws in it are calculated merely to obscure the issue, and to those who cannot read between the lines are positively misleading. It is not the operation itself which is to blame, but the employment of it in unsuitable cases. He appears to have entirely overlooked the main point; the success of operative treatment does not depend on the age or sex of the patient or the presence or absence of excessive free hydrochloric acid, but upon the presence and situation of a demonstrable ulcer.

The removal of the ovaries for abdominal pain has fortunately been relegated to the limbo of obsolete operations, and one had hoped that the performance of gastro-enterostomy for symptoms alone had followed the same fate, but apparently it is not so.

When surgeons realize that they must be prepared to reconsider their diagnosis when the abdomen is opened, we shall hear less criticism of the results of gastric surgery, and an operation which in the right cases is, perhaps, the most successful in the whole realm of surgery will be appreciated at its true value.—I am, etc.,

Leeds, March 10th. HAROLD COLLINSON.

SIR,—In a letter to the JOURNAL of March 8th, Mr. H. M. W. Gray records the after-history of the 61 patients who survived the operation of gastro-enterostomy performed by him in 1909 and 1912 for non-malignant diseases. Because 95.5 per cent. of the series are at present entirely relieved he asks me to reconsider the adverse criticism of his theory of the anatomy and physiology of the stomach which I published in a letter to the *Lancet* two years ago. I am, however, unable to do so, as increased experience has only confirmed the views I then expressed. These were repeated at the annual meeting of the Association in Liverpool last year, in the opening address on the anatomy of the normal stomach, which I delivered before the combined Sections of Anatomy and Electro-Therapeutics and Radiology, and were received by anatomists, radiographers, and surgeons with practically unanimous agreement. If Mr. Gray will examine a series of normal individuals after a meal consisting of porridge containing 1 or 2 oz. of a bismuth salt or of barium sulphate, or, better still, of an ordinary breakfast with the same addition, I am sure that he, too, will be convinced that no such structure as a "middle sphincter" exists in the stomach.

Mr. Gray has certainly every reason to be pleased with the results of his operation, but I do not think that they are any better than those of most competent surgeons, including those who had operated upon the patients referred to in the paper on the after-effects of gastro-enterostomy, which was read by me before the Surgical Section of the Royal Society of Medicine, and was briefly reported in your issue of February 22nd. I did not suggest that the ill effects I described occurred in a large percentage of cases; my cases represented the somewhat considerable sum of a very small percentage of cases operated upon by many different surgeons. Two of Mr. Gray's incompletely successful cases are probably of the same nature, although the details are insufficient for a definite opinion, and I can quite imagine that the number of cases in which the particular conditions I described occur does not represent a larger proportion than 5 per cent. of all cases. My object in writing the paper was to show how some incompletely successful cases could be rendered completely successful—how, for example, the percentage of Mr. Gray's complete successes could, perhaps, be raised from 95.5 to 98.5.

Lastly, I do not think that Mr. Gray is justified in regarding cases operated upon in 1909 as "providing late results." Only this week a surgical friend has told me of two cases of gastro-jejunal ulcer, one of which formed a jejuno-colic fistula and the other perforated, the first

untoward symptoms having occurred respectively five and ten years after the original operation, so that they would have been included among Mr. Gray's completely successful late results.—I am, etc.,

London, W., March 12th. ARTHUR F. HERTZ.

OPERATIONS ON CHILDREN IN THE OUT-PATIENT DEPARTMENT.

SIR,—I am indebted to Mr. Andrew Fullerton and Mr. Stanley Green for their letters published on March 1st and 8th, and for the support which their experience enables them to give to my position. At present Glasgow is engaged in building a new and enlarged children's hospital, and the arrangements in contemplation for its working come very near the ideal. If the scope of the out-patient department is made sufficiently wide a children's hospital should be capable of giving a much larger return of work done per guinea charitably subscribed than a general hospital.

The ideal children's hospital on its surgical side should consist of:

(*a*) The wards and theatres;

(*b*) A hostel for nursing mothers and sucklings (a cook, a housekeeper, and possibly one maid as staff—the mothers, as in my own little place, doing part of the work gladly);

(*c*) A well-equipped out-patient department and operating theatre, with a staff of visiting nurses and, possibly, *one* emergency bed for each surgeon, the term of residence of any patient being strictly limited to forty-eight hours.

There is a reference in the letters of both Mr. Fullerton and Mr. Green to the out-patient department as a training field for junior surgeons. With that idea I am in agreement. No better training in thoroughness can be had. A carelessly tied ligature in even a triviality like a circumcision in the wards may mean a night-call for the house-surgeon from his adjacent room. In an out-patient it may cause alarm and mean serious danger miles away from hospital. The point I wish to draw attention to is, however, that the training of the junior in the out-patient department must be under guidance, as in the wards. In the Glasgow Children's Hospital there are out-patient surgeons and *assistant* out-patient surgeons, and I am sure my junior colleagues, to whose loyal co-operation I have been much indebted, will bear me out that the arrangement under which they learnt their work, relying on the support and advice of a senior colleague, is a good one for them, as it certainly is for the patients.—I am, etc.,

Glasgow, March 8th. JAMES H. NICOLL.

THE DISSEMINATION OF RECTAL CANCER.

SIR,—In your issue of March 1st last there appears an editorial paragraph headed "Intramural Spread of Cancer of the Rectum," a review of a paper by Mr. Percival Cole in the same issue. With your permission I propose to offer a few remarks upon this paragraph, which in some respects misrepresents my views upon dissemination in rectal cancer.

In a series of about 12 cases of cancer of the rectum I have twice demonstrated appearances which appear to indicate permeation of the mucous lymphatic plexus in apparently healthy bowel near a rectal carcinoma. In a series of 20 cases Mr. Percival Cole has been unable to find any similar appearances. Clearly, therefore, the process of mucous permeation is an exceptional one. Your reviewer says, quite truly: "No support is given to Handley's theory of mucous and submucous permeation" by Mr. Cole's paper. I have not formed any theory on the subject, but have simply stated my observations in 2 cases. It should have been added that neither is any argument adduced by Mr. Cole to show that my observations are incorrect. It is worth noting that upon the strength of a single case in his series of 20, Mr. Cole has himself described permeation of the intramuscular plexus as a mode of spread of rectal cancer. This he is well justified in doing, nor am I entitled to deny the correctness of his observations simply because no similar case happened to be included in my own series. My series has no bearing on this particular question, nor has his series of cases any value whatever as evidence against the correctness of my observations on mucous permeation as an exceptional process. Your reviewer goes on to say in reference to my work: "It is thought improbable that the discrete well-formed cells which that keen observer described—cells which have no histological resemblance to the columnar cells of the rectal epithelium—were disseminated cancer cells." A careful perusal of Mr. Cole's paper finds in it no basis for this *ex cathedra* statement, which usurps authority from its position in your editorial columns. At this point the limelight is withdrawn, and your reviewer entirely withholds the inside knowledge which he evidently possesses as to the nature of the cells in dispute. I have it on his authority that they are not cancer cells; may I hear on the same authority what they are? I feel, Sir, that in such a debatable question unsupported assertions on either side are not entitled to the advantages of anonymity and authority which your editorial columns give.

May I, in conclusion, express the genuine pleasure which Mr. Percival Cole's valuable work, containing so much that is new, has given me. It has justified the hopes I entertained of the mucicarmine method of staining when I first suggested its use as an instrument for the study of cancer. Incidentally I may add that it has confirmed my main conclusion that "effective dissemination probably, as a rule, occurs through the mesorectum or perirectal tissue opposite the primary growth," a conclusion which may well come as a surprise to those whose knowledge of my views is derived from your reviewer's paragraph.—I am, etc.,

London, W., March 11th. W. SAMPSON HANDLEY.

*** The above letter has been read by the writer of the annotation, who replies as follows: Mr. Handley, in his original paper published in the BRITISH MEDICAL JOURNAL on April 16th, 1910, recorded the observation that in sections of one particular rectum which happened to contain a carcinoma there were certain cells in the mucous layer that were stained red by mucicarmine. Now another case has been added which also happens to be from a cancer of the rectum. The difference of opinion is not about the observation itself, but as to the theory of very extensive spread of cancer by the mucous layer which Mr. Handley founded upon it. This theory, emanating from such a brilliant investigator, even though it rested on slender grounds, might well convince the ordinary surgeon of the hopelessness of surgical intervention. The onus, however, of proving, in contradistinction to assuming, that the red-stained cells are *cancer* cells rests entirely on the originator of the theory, and cannot be established by dialectics.

PHYSICAL SIGNS OF MYOCARDIAL INVOLVEMENT.

SIR,—Dr. Thomas Lewis's valuable paper published in your issue of March 8th is of particular interest to students of cardiac rheumatism because of his allusions to the occurrence of heart-block in some cases of that disease. It is nowadays generally recognized that in all cases of active rheumatic carditis the cardiac musculature is besprinkled with inflammatory foci; and, indeed, this disease being so common, it seems probable that of all the localized injuries to which the myocardium is prone, that which is inflicted by the *Streptococcus rheumaticus* is the most frequent. Since this is so, it is not surprising that Dr. Lewis should expect to find in cases of cardiac rheumatism numerous illustrations of those principles of cardiac localization for the discovery and enunciation of which we are so deeply in his debt.

Dr. Lewis says that "heart-block is not an uncommon accompaniment of acute or subacute rheumatism," and there are several remarks to this same effect in the course of his paper. If the point were not one of some little importance, I would not venture even to question the accuracy of so authoritative a statement; but since there is reason to believe that disturbances of conductivity were comparatively rare in cardiac rheumatism, I think the grounds for this belief may be placed before your readers for criticism.

First, the total number of recorded instances of rheumatic or post-rheumatic heart-block of the medium or higher grades is very limited; I believe I am right in

saying that it does not exceed forty. Now cardiac rheumatism is one of the commonest of visceral diseases; many thousands of cases are admitted annually to the hospitals of Britain alone, and since in almost every medical school there is at least one cardiographic enthusiast, it might be expected that if the incidence of heart-block amounted to 1 per cent. of all cases of cardiac rheumatism, we should have heard of a much larger number of examples. My own experience, indeed, can only furnish two instances; and neither of these occurred in routine practice, but both were brought to my notice by colleagues.

Secondly, the occasional dropping of beats—a manifestation of heart-block which does not escape the ordinary observer, though unarmed with apparatus for its graphic registration—is, in my experience, an exceedingly rare phenomenon in active rheumatic carditis; and I find that this is the opinion of others who have studied the disease from a general standpoint. If heart-block were at all common in cardiac rheumatism, surely dropped beats would be encountered in a fair proportion of cases.

Thirdly, I have for some time past been taking polygraphic records from cases of cardiac rheumatism in both the acute and the residual phases, cases of every grade of severity and of every variety, without selection. The number of cases at present investigated lies between 100 and 200. I do not regard this research as complete without application of the more delicate electro-cardiographic test, on which Dr. Lewis has taught us to rely; but so far as it goes, it seems to show that rheumatic invasion of the heart does not often lengthen the *a–c* interval.

I said at the beginning of this brief argument that the point is not unimportant. Its significance lies in this: rheumatic myocarditis is a compound of interstitial foci of inflammation with regressive changes within the muscle cells, and thus affords an excellent opportunity for testing the relative susceptibility of the myocardium to focal interstitial and to diffuse intracellular lesions. My own investigations have led me to agree with what Dr. A. M. Gossage argued in a paper published in the *Lancet*, August 21st, 1909, that the direct effect of the inflammatory spots on the myocardial functions is probably small. The comparative rarity of heart-block is a striking illustration, especially if we compare it with the fact (which Dr. Lewis quotes from Professor Aschoff) that the conducting system of the heart is more often a seat of these foci than some other parts of the cardiac wall.

It is probable that Dr. Lewis sees an unusually large proportion of cases of rheumatic heart-block, because they gravitate naturally towards so conspicuous a luminary of the cardiological constellation; and it is therefore all the more necessary that the experiences of those who see the average as well as the special cases should be recorded.

I should like, in conclusion, to express complete agreement with Dr. Lewis's concept of the rheumatic process. Undoubtedly the heart is reinvaded from without by new batches of micro-organisms, which, while dwelling securely in some part of the body—for example, the tonsil—enter the circulation from time to time, each instalment inflicting fresh damage on an already injured heart. The transient nature of the rheumatic heart-block, to which he alludes, is perhaps partly explained by the fact that the inflammatory spot of cardiac rheumatism is in the beginning a vasular occlusion, so that to its pressure effects it adds that of a hinderer of nutrition, and recovery is in part dependent on the successful re-establishment of nutritive supply.—I am, etc.,

Clifton, Bristol, March 10th. CAREY COOMBS.

RECENT ADVANCES IN THE DIAGNOSIS, PROGNOSIS, AND TREATMENT OF HEART DISEASE.

SIR,—It was with strong feeling that I read in the BRITISH MEDICAL JOURNAL of March 8th the address delivered by Dr. F. W. Price to the Academy of Medicine in Toronto.

The expounding of the views of new writers, and the reiteration of facts which they have recorded, is certainly permissible in the columns of a general medical journal—nay, more, it is necessary if our profession is to be acquainted with the progress in medicine. Nevertheless, common courtesy and common custom demand that the statement of view or of fact should be made with specific reference to its source, except where such view or fact has long been known and is generally accepted.

In the spring of last year I published a small handbook on *Clinical Disorders of the Heart Beat*, an epitome of some five years' steady work, and containing much original matter. Within a few months of its appearance Dr. Price delivered the autumn address at Toronto, which is now printed in the columns of your JOURNAL. Without any attempt at acknowledgement, and with never a hint that the basis of his statements—for examples, *vide infra*—was not his own original work, Dr. Price would appear to have transferred to this address much of the substance of my writings, paragraphs therein being, with but slight verbal differences, practically identical in point of language. The teaching of a book which has hardly had time to enter circulation is utilized and scattered broadcast in the thousands of copies of your JOURNAL. I could not but protest in the interests of my publishers. Dr. Price has described auricular fibrillation in the manner of an observer at first hand. It would be of interest to hear from him what, if any, new facts he has added to our knowledge of this subject. The matters to which I direct attention are best appreciated by a comparison of the address and my books in their entirety; but I append a list of parallel paragraphs in illustration of my complaint. The paragraphs which I have selected are those which bear the closest resemblance in point of diction. It would be easy to quote other paragraphs or to lengthen those which I have chosen.

THE ADDRESS.	"CLINICAL DISORDERS" AND "MECHANISM OF THE HEART BEAT."
Premature Beats or Extrasystoles.	
(p. 479)* "They may be present in people with a history of rheumatic infection, in *excessive tobacco smoking, digestive disturbances*, supernormal blood pressure, neurasthenia, and as a result of administration of certain poisons, especially *digitalis, aconitine, muscarine, physostygmine, and adrenalin.*" [The italics in this and other instances are my own.]	(p. 44)* . . . "A history of rheumatic infection is certainly common. . . . In young adults, *excessive tobacco smoking* is recognized as an exciting cause of their temporary appearance. *Digitalis* and its allies are not uncommonly responsible, . . . There are also clinical associations between premature contractions, raised arterial pressure and *digestive disturbances*," For the full list of drugs see *Mechanism of the Heart Beat*, 1911, p. 126, my first book. "They [i.e., premature contractions ‡ are also seen as a result of the injection of certain poisons, and notably *digitalis, adrenalin, aconitine, muscarine, and physostygmine.*" [As a matter of fact, this statement applies to experimental work and not to clinical cases. It has not been shown that the last four drugs act in this manner clinically. Even the unusual spelling of "physostygmine" is rendered.]
After *two* lines, the address continues:	
"An individual with extrasystoles may be quite unconscious of their presence. On the other hand, he may experience sensations, and these may cause *worry and anxiety*, particularly if they occur after the patient has *retired to bed.* (Nine lines omitted.) The patient may complain of a *sensation of gripping in the throat.*"	(p. 51) "In a very large number of those affected, the disturbances of heart rhythm pass unnoticed. On the other hand premature beats are not an uncommon cause of what patients term 'palpitation.' . . . When numerous, they sometimes occasion actual distress; by calling attention to the heart, they often induce *worry and anxiety.* . . . They are often more noticed after the patient *retires for the night.* . . . consciousness of shock to the chest wall and frequently by *a feeling of gripping in the throat.*"
And a little later:	
(p. 479) "*The bromides* are sometimes of value in *masking or modifying* the symptoms, especially in nervous subjects."	(p. 54) "The symptoms are usually *masked or* considerably *modified* by *the bromides* . . . and these drugs are especially useful in tiding a nervous or excitable patient over a period of disturbance."

* Except where the reference is named, the page numbers refer to your JOURNAL and to the book *Clinical Disorders*.

‡ This interpolation is not in the original.

Heart-block.

(p. 480) "The only point I should like to mention is that *heart-block of mild degree*, giving rise to 'dropped beats,' sometimes occurs during the course of infective diseases, and is then frequently the *only sign of myocardial damage*. When present it increases the gravity of the primary disease. As a rule, however, it is temporary."

(p. 35) "But temporary *heart-block of mild grade* is not uncommon during the febrile attacks to which rheumatic patients are liable; it occurs also in pneumonia and typhoid. The appearance of this abnormal mechanism is of great importance, for it is often the *sole sign which indicates that the myocardium has been damaged*. Whenever it complicates an acute infection it consequently increases the gravity of the prognosis; at the same time it should be understood that the normal mechanism is usually recovered."

Pulsus Alternans.

(p. 480) "*It is very unfortunate, but undoubtedly true, that in the vast majority of cases* it is necessary to take a tracing of the radial artery in order to recognize it. Very rarely in cases *in which it affects the pulse continuously it is perceptible by the finger.*"

(p. 94) "*It is an unfortunate fact, but nevertheless true, that most instances of* pulsus alternans cannot be recognized by other than instrumental means. There are patients *in whom it affects the pulse continuously*, and in whom alteration in the force of alternate pulse beats *is perceptible to the finger;* but such cases are rare."

Auricular Fibrillation.

(p. 481) "*Rarely or never do two beats of the same character or length follow each other.* The irregularity is more pronounced when the pulse is fast. *With the slower rates* we may have to adopt *careful measurements of the tracings*, as the variations in the length of pause are only small. *The pauses between the beats show no relationship to each other*, and there is seldom any *relation between the strength of a beat and the length of the pause which preceded it*—that is, *a strong beat may succeed a short pause, and a weak beat may follow a long pause.*

(*Mechanism of the Heart Beat*, p. 196) The heart action is never regular, and *seldom or never do two beats of the same character or length succeed each other.* . . ."

(Ibid., p. 196) "It is usually at these fast rates that the disorderly character of the pulsation is so prominent. *With the slower rates* the irregularity is less marked; nevertheless, it is always present, a fact which can be determined by *careful measurement of the tracings.* . . . The second criterion consists in the absence of a definite and continued *relationship between the strength of a beat and the length of the pause which precedes it.*"

(Ibid., p. 196) "*The pauses betwixt the beats bear no relationship to one another.*"

(*Clinical Disorders*, p. 79) "Proportion between the force of an arterial pulse and the pause preceding it is often lost (Figs. 39 and 40); *a strong beat succeeds a brief pause and a weak beat succeeds a long one.*"

(p. 481) "What is meant by auricular fibrillation? By it is meant a condition in which *co-ordinate contraction in the auricle is replaced* by incoordinate contraction. Instead of contracting in an orderly and simultaneous manner during systole, the individual fibres contract rapidly and independently of each other. The result is that *systole, either partial or complete*, of the chamber as a whole *never takes place.*"

(p. 71) *Definition of Auricular Fibrillation.*

"*Co-ordinate contraction in the auricle is lost*," etc.

(p. 72) "The fibres of the auricles do not contract coordinately or together, but the tissue is broken up into a number of independently active areas."

(p. 481) "Patients may also complain of *fluttering in the chest and neck* or *of irregular action of the heart.* Apparently, however, they never suffer from *angina pectoris.*"

(p. 71) "the muscular walls are maintained in a position of diastole; *systole, either complete or partial, is never accomplished.*"

(p. 82) ". . . Patients, who possess the persistent disorder, often experience occasional *fluttering in the chest and neck* and may be conscious *of irregular heart action.*"

(Footnote, same page) "On the other hand they seem peculiarly exempt from *angina.*"

(p. 484) "In the most acute cases of cardiac failure, when it may be desirable to elicit a more rapid effect, . . . strophanthin may be administered intravenously, either *two or three doses of* $\frac{1}{250}$ *of a grain at an interval of two hours*," etc.

(p. 89) "When a patient who has fibrillation is first seen and the heart beats persistently at 170-200 per minute, the condition is urgent. . . . The intravenous injection of strophanthin is also valuable at such times. *Two or three doses of* $\frac{1}{250}$ *of a grain . . . are given at an interval of two hours.*"

—I am, etc.,

London, W., March 8th. THOMAS LEWIS.

THE NEGLECT OF VACCINATION.

SIR,—I accept with pleasure the apology so frankly given by Dr. Millard, who invites me to further consideration of the question whether it is safe for this nation to abandon the practice of vaccination, and to rely entirely on isolation of small-pox cases as they occur, for that is the real issue between us.

Dr. Millard endeavours to prove that small-pox is not peculiarly fatal to unvaccinated infants, as is usually believed, because only three infants died during the Leicester epidemic, being 25 per cent. of cases under 12 months old. But Dr. Millard himself allows that this epidemic was of a very mild character; and this opinion was confirmed by Dr. Allan Warren, then resident medical officer of the Isolation Hospital in Leicester, in a paper contributed to the *Practitioner* in 1904. Moreover, an outbreak of only 700 cases is too small for the foundation of new generalizations on small-pox. I prefer to continue to believe that small-pox is very fatal in early infancy.

Dr. Millard admits the efficacy of vaccination as a protection, and states that he yields to no one in his advocacy of it, used as it is used in Leicester—that is, when epidemic small-pox is present and the population are so alarmed that they all rush to be vaccinated, as they do. All of us who have had experience of such periods of alarm know what a difficulty it is to make the existing machinery of public vaccination equal to the strain placed upon it, especially in rural districts. If this machinery is scrapped it will be impossible to get a sudden efficient vaccination of the population, even in a small area, within the necessary period.

Dr. Millard writes and doubtless believes that the whole of the kingdom enjoys a highly organized and well-staffed public health service such as most of our large boroughs possess. But this is not the case universally, and small-pox is not dealt with "according to modern methods," to use Dr. Millard's phrase. We shall unite in regretting that this is the case, but until such methods are universal I maintain that the large percentage of unvaccinated persons in the country is a grave danger—a danger increasing not by arithmetical but by geometrical progression.—I am, etc.,

Westerham, March 9th. ARTHUR MAUDE.

SIR,—After an experience of seven outbreaks of small-pox, like Dr. Killick Millard, I am a believer in the efficacy of, but not in the universal necessity for, vaccination.

To my mind an outbreak of small-pox can be well likened to an outbreak of fire, and our public health departments to the fire brigade. In both we have "notification" and, as far as possible, "isolation." Vaccination we might compare to the water used. All contacts should be vaccinated. Water should be poured upon all adjacent combustible material. I have seen vaccination, done in the early stage of small-pox, modify an attack. Water used early may suppress a fire.

We might, of course, so soak all buildings and their contents with water that they could not take fire; but I am inclined to think that the inmates would get as tired of it as the general public has of vaccination. With a fire next door we should have no difficulty in getting permission to pour water on a house and, with small-pox next door, we should have no difficulty in getting people to submit to vaccination.—I am, etc.,

Bideford, March 11th. GEORGE RICE, M.D.

ASSISTANT MEDICAL OFFICERS IN ASYLUMS.

SIR,—The report in your issue of March 1st (p. 454) of Dr. J. Beveridge Spence's paper, at the meeting of the Medico-Psychological Association, is very interesting. He very rightly appeals for candidates for these posts who have some knowledge of psychiatry or a desire to acquire it. There is, however, a certain feeling amongst men in the service at present that Dr. Spence's ambition and many medical superintendent's requirements are at considerable variance. The administration of lunatic asylums is watched, both centrally and locally, with a very critical eye, and in case of any irregularity, whether it has a strict medical bearing or not, the question arises

how it was dealt with by the superintendent. He for his part has no desire to crib, cabin, and confine himself to the asylum premises all the time, so it is naturally convenient for him to be able to say that, although absent himself, he left two or more experienced men to act in his place. The more men he leaves the better it looks. The rest is easy to follow. A docile type of assistant is required, who has some common sense, little initiative, and attenuated ambition, content to plod along with routine duties, occupying his far too abundant leisure with cricket, tennis, etc., all about the doors of the institution, who can be relied on not to do anything important in his patron's absence. Such a career would hardly appeal to many of the men Dr. Spence desires to see enter the service. In justice, of course, it must be admitted that many superintendents encourage research, but, when all is said and done, scientific research, irksome if simple duties, and indifferent cricket with patients do not constitute a very complete life for the majority. Let the county councils step out and treat their asylum physicians as they do their other medical employees, relieve them of their schoolboy dependence, let them have full opportunities for ordinary social intercourse, marry after a certain approved service if they feel so inclined, and generally give them the status of a citizen. By doing so they will get picked men, capable of sharing and being held responsible for many of the superintendent's now too many responsibilities, to the great benefit of the patients, the superintendent, and themselves.—I am, etc..

March 3rd. MORE FREEDOM.

MEDICAL INCUNABULA.

SIR,—In connexion with the German Commission for a General Catalogue of Incunabula, the Bibliographical Society is collecting information upon the incunabula in the libraries and elsewhere in this country. To this I should like to call the attention of those interested. It is easy to get the necessary information from the libraries of the Royal Colleges, but I would like particularly to know of:

1. Any fifteenth century medical works in the libraries of the hospitals and medical societies.
2. Medical incunabula in private collections.

—I am, etc.,

WILLIAM OSLER,

Oxford, March 8th. President of the Bibliographical Society.

THE IMPORTANCE OF CHEST HOSPITALS.

Professor Koch's Opinion.

SIR,—In regard to the proposed sale of the Mount Vernon Consumption Hospital, the following extract from the late *Professor Koch's address* at the first International Congress on Tuberculosis, held in London in July, 1901, is of great interest. Speaking of the part played by special hospitals in the prevention of tuberculosis, Professor Koch uses the following words:

> The only country that possesses a considerable number of special hospitals for tuberculous patients is England, and there can be no doubt that the diminution of tuberculosis in England, which is much greater than in any other country, is greatly due to this circumstance. I should point to the founding of special hospitals for consumptives and the better utilization of the already existing hospitals for consumptives as the most important measure in the combating of tuberculosis, and its execution opens a wide field of activity to the State, to municipalities, and to private benevolence.

Such words indicate the seriousness of taking such a step as has been contemplated by the Mount Vernon Hospital authorities, contrary to the expressed wishes of the medical staff.—I am, etc.,

London, W., March 12th. R. MURRAY LESLIE.

A GERMAN Congress on alcohol in youth will be held in Berlin during Easter week, and on Tuesday Professor Aschaffenberg of Cologne, in the course of a discussion on the scientific study of alcoholism, will read a paper on the physiological action of alcohol.

Public Health AND POOR LAW MEDICAL SERVICES.

REDISTRIBUTION OF POOR LAW MEDICAL DISTRICTS IN THE BURNLEY UNION.

IN commenting on the difficulty that has arisen between the Burnley Guardians and the local profession with regard to the treatment of their district medical officers (BRITISH MEDICAL JOURNAL, March 8th, p. 533), the hope was expressed that at a final meeting of a special committee of the guardians appointed to consider the matter some means would be found to settle the dispute on an equitable basis. This hope has not been fulfilled, for the committee recommended that the union should be divided into fifteen districts, that the present public vaccinators be given twenty-eight days' notice, and that each of the newly appointed medical officers be made public vaccinator for his own district. These recommendations were carried at the next board meeting by a large majority. This rearrangement of the medical districts is strongly opposed by the local profession. The Burnley Division of the British Medical Association has approached the Local Government Board, asking that its consent be not given to the scheme. It is urged that the new districts have been made in a very arbitrary manner, and would result in much inconvenience both to the doctor and the Poor Law patient, and that in some which have no poor residents nearly the same salary is allotted as in other districts where there is a considerable settlement of the poor. The Colne and Brierfield District Councils have also protested against the arrangement, so that it does not appear satisfactory to any but the present guardians of the union. It is further alleged that the latter have hurried on the matter in order to establish the proposed scheme before the approaching election of a fresh board. It is to be hoped that the Local Government Board will review the matter very carefully before giving official sanction. We feel sure that the local profession will maintain without wavering its strenuous opposition to a scheme which it regards as harmful to the sick poor and to the profession.

It would appear that the Burnley guardians have already given notice to the present public vaccinators to determine their appointments. This has been done without waiting for the sanction of the Local Government Board, which has invariably refused to permit public vaccination to be utilized for Poor Law purposes, as it has always rightly considered that the duties of a public vaccinator are quite distinct from those of a Poor Law medical officer; and, further, that it is not for the good of the public, nor does it tend to efficient public vaccination to mix it up with the Poor Law. A similar attempt was made some years ago by a metropolitan board of guardians, but permission was refused by the Local Government Board, and we trust that the latter will not hesitate to maintain the same policy in this matter that it has wisely adopted in the past.

LOCAL GOVERNMENT BOARD REPORTS.

Ringwood Rural District (New series, No. 74).—The extensive outbreak of typhoid fever in the town of Ringwood, in Hampshire, in the autumn of last year is the subject of an important report to the Local Government Board by Dr. Hugh A. Macewen, one of the Board's medical inspectors. The outbreak involved seventy-seven persons living in forty-nine houses, and five cases terminated fatally. The population of Ringwood town is about 3,000. In the course of inquiries as to the cause of the outbreak, well-grounded suspicion fell upon a supply of ice cream, but after investigating the circumstances in some detail Dr. Macewen came to the conclusion that it was not an essential factor common to all the cases reported. The water supply of the town is obtained from shallow wells or from the Cockstone stream which courses through a part of the populated part of the town. Although it was not shown conclusively that all those who were attacked had drunk water from this stream, it is certain that the majority of them had. The opportunities for the pollution of the stream were so great through middens, drains, slop water cast directly into it, and other filth found in proximity, that suspicion must be attached to it. A regrettable feature of the report is an account of the attitude of the rural district council in whose administrative area the town is situated in dealing with the epidemic. No provision had been made for isolating any cases of infectious disease, and it was not until a week or two after the commencement of the epidemic, and when forty-eight cases had occurred, that a temporary hospital was established at a disused farmhouse. Still more unsatisfactory is Dr. Macewen's statement that from interviews he had with certain members of the district council, and from

accounts of their meetings, they appeared to be slow and even reluctant to realize the gravity of the outbreak, and he doubted whether, even at its termination, they had fully appreciated the importance of applying the lessons to be learnt from it so as to prevent any similar recurrence.

Obituary.

R. W. PARKER, M.R.C.S.,

CONSULTING SURGEON, EAST LONDON HOSPITAL FOR CHILDREN, AND TO THE GERMAN HOSPITAL, LONDON.

THE announcement of the death, on March 4th, at Freiburg, Baden, of Mr. R. W. Parker, has been received with great regret by those who remember him as a very active worker in the elucidation of disease in children.

Robert William Parker received his medical education at the medical schools of St. Thomas's and of the London Hospital, and after obtaining the diploma of M.R.C.S.Eng. in 1869, was resident medical officer to the Children's Hospital, Great Ormond Street. He also studied at Paris, Munich, and Berlin, and was an excellent German scholar. At the outbreak of the Franco-German war in 1870 he joined the Anglo-American ambulance of the British National Aid Society. For his services at this time he received the decorations of Knight of the Military Order for Merit, Bavaria, and of the Albert Commemoration Order, Saxony. He was appointed assistant surgeon to the Shadwell Hospital for Children in 1876, and, when he resigned in 1902, had been senior surgeon to the institution for some fifteen or sixteen years; he was also surgeon to the German Hospital at Dalston, and at the time of his death was consulting surgeon to both hospitals. He was at one time surgeon also to the Grosvenor Hospital for Women and Children.

We have recently had occasion to refer to the very large part which certain medical societies—especially the Royal Medical and Chirurgical, the Pathological, and the Clinical Societies—played in the medical life of London during the seventies and eighties. Mr. Parker took a prominent part in the work of these societies and contributed a number of papers to their *Transactions*, especially to those of the Clinical Society. The actual list of his papers, however, gives an incomplete impression of the large share he took in the discussion of the many problems presented by disease in children, and especially rickets. He was the author of a book on *Tracheotomy and its After-treatment*. It was an excellent work in its day, and the tracheotomy tube he designed is still by many considered the best. The book reached a second edition, and tracheotomy was the subject of one of the articles which he contributed to Heath's *Dictionary of Surgery*. Among the others were those on surgical affections in childhood, on rickets, and on diseases and injuries of the epiphyses; on these subjects he was an acknowledged authority. He took a very special interest in the Shadwell Children's Hospital; upon his work there we are able to publish the following note from Dr. EUSTACE SMITH, the Senior Physician to the hospital:

"I was for many years a colleague of Mr. R. W. Parker at the East London Hospital for Children, Shadwell, and often had the advantage of his help in the surgical treatment of cases in my wards. His experience in his own department was very large and his opinion in consequence was held in high esteem by the visiting staff. Even the keen critics of the resident staff were often pleased to express their appreciation of his abilities and practical skill, and I never heard that his house-surgeons, who knew his work best, had ever ventured upon a word of unfavourable criticism. Mr. Parker was for a number of years surgeon to the German Hospital at Dalston, and was exceptionally qualified for this position by his experience in the Franco-German war. I remember his telling me once that nothing was so much valued in the commissariat during that campaign as common table salt. Anything else in the way of food or small luxuries the officers and men would willingly share with each other, but common salt every man who was fortunate enough to possess kept religiously for himself. They carried it about in their pockets corked up in hollow goosequills. Mr. Parker had much hard-headed, sound common sense, and although disposed, perhaps, to confine his attention too exclusively to one aspect of a question, was a most helpful colleague and thoroughly alive to the best interests of the hospital. He thought strongly, and expressed his views at times with bluntness, but his honesty of purpose was too evident for a hasty expression to excite ill feeling amongst those from whom he happened temporarily to differ. He was much liked and respected by all, and I shall never cease to look back with pleasure upon the old times when our work together at the hospital brought us into such intimate association."

On his retirement from the Shadwell Hospital in 1902 Mr. Parker went to live at West Grinstead; later on he moved to Bedford for the education of his two sons. He had married rather late in life, and his widow survives him. About four years ago he went to live on the Continent, and, as has been said, death overtook him at Freiburg.

FREDERICK POYNTON WEAVER, M.D.LOND., M.R.C.P., J.P.,

FORMERLY OF FRODSHAM.

THE death of Dr. Weaver, on February 27th, at the age of 79, removes one who to the last was engaged in active work, though he had for many years retired from ordinary practice. He came of a family who lived in or near Chester for generations, his father being surgeon to the Chester Infirmary. He was educated at Queen's College, Belfast, and at Guy's Hospital. He obtained the diplomas of M.R.C.S.Eng. and L.S.A. in 1858, and took the M.B.Lond. with honours in 1860 and the degree of M.D. in the following year; in 1893 he became M.R.C.P.Lond. He held the post of House-Surgeon at the Liverpool Northern Infirmary, and afterwards for thirty years was in general practice at Frodsham, near Chester, where the remembrance of him is still vivid. On retiring from practice in 1892, he took a house at Hampstead—Cedar Lawn, near the top of the Heath—and, instead of seeking a life of ease, at once devoted himself to the various kinds of missionary interest in which he had been interested previously. He became a member of the committee of the Church Missionary Society, and of the Medical Committee, which is responsible for the society's medical missions; since 1898 he had been a member of the Medical Board, which is concerned with health questions affecting the society's missionaries, and on the night of his death he retired to bed early in order to attend the Medical Board on the following day. He was also a member of the Committee of the British and Foreign Bible Society and of various philanthropic institutions, and was an active organizer and worker in the Kentish Town Medical Mission. For several years he was churchwarden of Christ Church, Hampstead; he was a Justice of the Peace for the County of London and for several years Chairman of the Hampstead Bench. He married, in 1866, Mary Berry, daughter of Mr. E. Abbot Wright, of Oldham and Castle Park, Frodsham, who died in 1909, and leaves three sons and four daughters. Dr. and Mrs. Weaver were the centre of a large circle of friends who exercised a very far-reaching influence, and his loss is mourned by those who knew him, and not least by those were engaged with him in work in connexion with the societies referred to, who feel that they have lost a wise counsellor as well as an affectionate friend.

A GREAT many members of the medical profession in Edinburgh remember Sir JAMES GRAHAM, former Mayor of Sydney, whose death was announced on March 8th. He was born in Edinburgh in 1856, and, but for a burgh bursary, would hardly have been able to enter the university. He graduated M.A. in 1879, and M.B., C.M. in 1882, and thereafter for a short time he practised medicine in Leith. During his student career he formed a friendship, which greatly influenced his after-life, with T. P. Anderson Stuart, the Ettles Scholar of 1880, who afterwards became a professor in Sydney. Dr. Graham sailed for Sydney in 1884, having been appointed surgeon on one of the Loch Lyne vessels; he practised and gained a knowledge of hydatid disease in its clinical aspects which enabled him to win a gold medal for his M.D. thesis at Edinburgh University in 1889. He studied in Berlin, Vienna, and Paris, and then returned to Sydney and became associated with his old friend, Professor Anderson Stuart; he held many posts, including those of Lecturer

in Midwifery, Sydney University, and of Honorary Medical Officer of the Lying-in Hospital there. Through his interest in public health he was drawn into the vortex of politics, and this led on to his being made Mayor of Sydney. He received the honour of knighthood when King George V, then Duke of York, visited Australia. He paid several visits to his native city, but it was in Sydney that his death took place at the comparatively early age of 57.

WE regret to have to record the death of one of the oldest medical practitioners in the North of Scotland—DR. SCLANDERS of Nairn. He was born at Fowes eighty years ago, and received his early education in that town. He took the M.A. degree at Aberdeen University in 1856, and afterwards went to Edinburgh for his medical course, taking his M.D. in 1859. Dr. Sclanders became House-Surgeon to the Edinburgh Infirmary, and soon afterwards was appointed assistant to Professor Simpson, in which capacity he served for three years. He commenced practice in Nairn over fifty years ago, and soon acquired a large practice. He was appointed Medical Officer for the burgh over fifty years ago, and performed his duties with ability and success. All along he took a keen and active interest in the welfare of the town and County Hospital, of which institution he was for many years one of the most active medical officers. His hobby was gardening, and he had a rare and delightful collection of flowers and plants. Dr. Sclanders was twice married, and is survived by Mrs. Sclanders and six sons.

DR. THOMAS H. MEIKLE, the managing director of Strathearn Hydropathic, died on March 3rd. Dr. Meikle was a native of Roxburghshire, where his father held the appointment of factor on the estate of Colonel Sprot, of Riddell. He studied at the University of Aberdeen, and after taking the degree of M.D. succeeded his brother in practice in Aberdeen. Afterwards he took up the active management of Lochhead Hydropathic, near Aberdeen, and later on established the Strathearn Hydropathic. He was one of the county Justices of the Peace, and was warmly interested in the temperance cause. When the Royal Hotel of Crieff was put into the market over a year ago he purchased the buildings at a cost of nearly £4,000, and gave them to the community to be carried on as an institute on temperance lines. Dr. Meikle, who was in his 79th year, had been ailing for some months, and had not lately taken much part in public life, but for several years he was a member of Crieff Town Council, and was one of the honorary presidents of Crieff Unionist Association. He was twice married, and is survived by his widow, and by one son and four daughters by his first marriage.

MANY of his old patients, and visitors to Venice, will be grieved to hear of the recent death of Dr. E. H. VAN SOMEREN, at the early age of 41 years. He was a son of the late Surgeon-General W. J. Van Someren, I.M.S., and was born in 1871, and educated at Mill Hill School and University College, London. He studied at Guy's Hospital, and after taking the diplomas of M.R.C.S. and L.R.C.P. in 1895, held an appointment in the Manchester Children's Hospital. He settled in Venice in 1896, and continued in practice there up to his death. In 1903 he opened a clinic for the reception of private patients. He became specially interested in the study of nutrition, and tried many experiments on himself with the view of ascertaining on how low a protein supply the physiological equilibrium can be sustained. His results were condensed in an article entitled "Was Luigi Cornaro right?" (BRITISH MEDICAL JOURNAL, October 12th, 1901, p. 1082). Van Someren was reluctant to make generalizations, but he kept copious notes at various times for many years of experiments in fasting, low and high protein régimes, and peculiar diets. He read a paper on the water supply of Venice at the Annual Meeting of the British Medical Association in Edinburgh in 1898. About two years ago he discovered that he had diabetes, but in spite of progressive exhaustion and loss of flesh he remained bravely at his work. Last summer he spent a few weeks at Carlsbad and at Mendel in the Austrian Tirol, but derived no real benefit from the treatment. Early in January he went to Syracuse, in Sicily, feeling the need of change and warmth. Towards the end of January he became comatose, and passed away on February 3rd. He was buried at Syracuse. Van Someren will long be remembered by his friends. A man of strong religious convictions, he was conspicuous for his unselfish character and gentle demeanour. He did much good work among the very poor in Venice. He is survived by his widow, who is a daughter of Mr. Horace Fletcher, and four young children, two boys and two girls.

DEPUTY INSPECTOR-GENERAL EDWARD H. EVANS, who died on February 24th, aged 83, received his medical education at Guy's Hospital, and took the diplomas of M.R.C.S.Eng. and L.S.A. in 1851. He entered the service in 1853, became Staff Surgeon in 1862, Fleet Surgeon in 1876, and Deputy Inspector-General of Hospitals in 1884; he retired in 1888. He served as Assistant Surgeon of H.M.S. *Diamond* during the Crimean war of 1854–5, and with the naval brigade at the fall of Sebastopol.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degree has been conferred:

M.B.—G. Hoffmann.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on February 19th.

Royal Naval Medical School.

The Naval Medical School of the Royal Naval College, Greenwich, has been admitted as a school of the University in the Faculty of Medicine for the officers of the Royal Naval Medical Service.

Examiners in Physiology.

The following have, together with the external examiners, been appointed examiners for the final examination in physiology for internal students: W. D. Halliburton, Chairman (King's College), E. H. Starling (University College), J. S. Edkins (Bedford College and St. Bartholomew's Hospital Medical School), J. Mellanby (St. Thomas's Hospital Medical School), M. S. Pembrey (Guy's Hospital Medical School).

D.Sc. Degree in Physiology (Internal).

The degree of D.Sc. in Physiology was conferred on Mr. Charles A. L. Evans, an internal student of University College who had presented a thesis on the gaseous metabolism of the heart and lungs, and submitted in addition several further contributions to the advancement of science published independently or conjointly.

Regulations for M.D. and M.S. Degrees for Internal and External Students.

It was resolved:

That the regulations for the M.D. Examination for internal and external students be amended by the substitution for the words "the result of independent research" of the following—"the result of his own independent research," and that the regulations for the M.S. Examination be similarly amended.

Publication of Pass Lists.

It was resolved:

That the date of the announcement of the results of the First Examination for Medical Degrees, of the Preliminary Examination in Veterinary Science, and of the Intermediate Examination in Veterinary Science, Part I, for internal and external students to be held in December, 1913, be the Wednesday in the fourth week following that in which the examinations close, and that in subsequent years the date of commencement of these examinations be the first Monday following December 7th, instead of as at present, the first Monday following December 10th.

Appointment of Representatives.

Dr. F. Taylor was reappointed to represent the University on the General Medical Council, and Dr. F. R. Walters was nominated for reappointment to represent the University on the governing body of the Farnham Girls' Grammar School.

Chairman of Professoriate Committee.

The Vice-Chancellor (Dr. Herringham) has been elected Chairman of the Professoriate Committee.

Staff Examiners for 1913–14.

The following are among those appointed staff examiners for 1913–14:

Anatomy.—Alexander Macphail, M.B., C.M., and Professor A. M. Paterson, M.D., F.R.C.S.

Forensic Medicine and Hygiene.—William A. Brend, M.A., M.B., B.Sc., and E. P. Manby, B.A., M.D., D.P.H.
Medicine.—Norman Dalton, M.D., Sidney P. Phillips, M.D., F.R.C.P., H. D. Rolleston, M.A., M.D., F.R.C.P., and W. B. Warrington, M.D., Ch.B., F.R.C.P.
Mental Diseases and Psychology.—Maurice Craig, M.D., F.R.C.P., and William McDougall, M.B.
Obstetric Medicine.—H. R. Andrews, M.D., B.S., and George H. D. Robinson, M.D., F.R.C.P.
Pathology.—Professor R. T. Hewlett, M.D., F.R.C.P., and Professor R. Muir, M.D., F.R.C.P.
Pharmacology.—Professor A. R. Cushny, M.D., F.R.S., and James A. Gunn, M.D., D.Sc. (for 1912-13 also).
Physiology.—Joseph Barcroft, B.Sc., M.A., F.R.S., Professor E. H. Starling, M.D., F.R.S.
Sociology.—W. H. R. Rivers, M.D., F.R.S., and Professor E. J. Urwick, M.A.
State Medicine.—John W. H. Eyre, M.D., D.P.H., and T. Morison Legge, M.D., D.P.H.
Surgery.—Frédéric F. Burghard, M.D., M.S., F.R.C.S., William F. Haslam, M.B., Ch.B., Raymond Johnson, M.B., B.S., F.R.C.S., and H. Betham Robinson, M.D., M.S., F.R.C.S.
Tropical Medicine.—C. W. Daniels, M.B., and Professor F. M. Sandwith, M.D.
Veterinary Pathology.—Sir John McFadyean, M.B., B.Sc., and Professor A. E. Mettam, B.Sc., M.R.C.V.S.
Veterinary Physiology.—Professor G. A. Buckmaster, M.D., B.Ch., and W. Legge Symes, M.R.C.S., L.S.A.

Bureau of Information for the Universities of Empire.

A meeting of the elected members of the "Formative Committee," appointed for the purpose of establishing a bureau of information for the universities of the empire was held on January 23rd, when certain steps were decided upon for the collection of information, and the offer of Dr. Alex Hill to act as honorary secretary to the bureau until its work became sufficiently extended to require the appointment of a paid official was accepted.

Proposed University of London Club.

At a second general meeting of graduates, teachers, and officers of the University held on February 17th, the committee appointed on November 28th, 1912, was reappointed and authorized to establish and organize a University of London Club in or near Bedford Square. It was stated that it was hoped to open the club not earlier than May 1st and not later than October 1st, 1913.

Lectures on Advanced Medical Subjects.

The following are the remainder of a series of free lectures addressed to advanced students of the university and others interested in the subjects dealt with.

Middlesex Hospital Medical School.—March 18th, 5 p.m., Dr. W. J. Penfold: Bacterial variation.
St. Bartholomew's Hospital Medical School.—May 1st, 5 p.m., Dr. M. H. Gordon: Sensitized vaccines.
University College Hospital Medical School.—May 5th, 5 p.m., Dr. T. R. Elliott: Disease and the suprarenal glands.
St. Bartholomew's Hospital Medical School.—May 8th, 5 p.m., Dr. H. Williamson: Some factors of importance in determining the significance of albuminuria in pregnancy.
London Hospital Medical College.—May 19th, 21st, and 23rd, at 4.30 p.m., Dr. H. M. Turnbull: Physiological and pathological changes in the structure of arteries and arterio-sclerosis.
Brompton Hospital.—May 28th, 4.30 p.m., Dr. C. H. Miller: The site of tuberculous lesions at different ages.

Chadwick Lectures in Hygiene.

A course of three lectures on infant welfare—(*a*) the mother as source, (*b*) the father as source, and (*c*) environmental influence, will be given by Professor Karl Pearson, F.R.S., probably during May, under the Chadwick trust. A further course of Chadwick lectures will be given by Sir George Newman, M.D., during the session 1912-13.

University Studentship in Physiology.

A university studentship of the value of £50 for one year will be awarded to a student qualified to undertake research in physiology. Candidates must be matriculated students or graduates of the university. Applications to be sent to the Principal, from whom further particulars can be obtained by May 31st.

Rogers Prize, 1914.

The subject of the essay or dissertation for the Rogers Prize for 1914 will be "The Nature of Pyrexia and its Relation to Micro-organisms." Copies of the regulations for the award of the prize can be obtained on application to the Academic Registrar.

KING'S COLLEGE.

The following appointments have been made in the Department of Public Health:

Lecturer in Sanitary Law and Administration.—Dr. E. W. Routley.
Lecturer in Applied Hygiene in the Tropics.—Colonel W. C. King, C.I.E., M.D.
Lecturer on School Hygiene for Medical Officers.—Dr. W. F. Roach.

The laboratories of the College occupy part of the premises of the Charing Cross Hospital Medical School, 62, Chandos Street, W.C.

UNIVERSITY OF ABERDEEN.

Honorary Degrees.

AMONG those upon whom the honorary degree of LL.D. was conferred on February 25th were Dr. D. W. Finlay and Dr. William Stephenson, Emeritus Professors of Medicine and Midwifery respectively. The same distinction was conferred on Dr. Ronald Campbell Macfie, who is the author of the *Romance of Medicine* and of many poems, including an ode written for the opening of the new buildings at Marischal College, Aberdeen. Dr. Macfie, we may note, has this month received the prize offered through the *Poetry Review* for the best poem submitted; the subject of his composition is John Davidson, the poet and philosopher.

CONJOINT BOARD IN IRELAND.

THE following candidates have passed the recent examination for the Diploma in Public Health:

Captain T. C. Boyd, F.R.C.S.I., I.M.S., T. W. Conway, F.R.C.S.I., J. J. Cullen, L.R.C.P. and S.I., C. H. Denham, M.B. Dub. Univ., Captain D. L. Harding, F.R.C.S.I., R.A.M.C., J. O'Regan, L.R.C.P. and S. Edin., T. E. Rice, L.S.A., *R. F. Williams, M.B. Univ. Camb.

* With Honours.

The Services.

PARKES MEMORIAL PRIZE.

THE prize of seventy-five guineas and the bronze medal of the Parkes Memorial Fund have been awarded for 1913 to Major S. Lyle Cummins, R.A.M.C., for his essay on The Causation and Prevention of Enteric Fever in Military Service, with special reference to the importance of "carriers." The subject for the next competition is Heat-stroke: its Causes, Prevention, and Treatment. (The essay should bear evidence of the personal observations and experience of the writer.) Essays bearing a motto and accompanied by a sealed envelope similarly superscribed, containing the author's name, must reach the Secretary of the Prizes Committee, Royal Army Medical College, on or before December 31st, 1915. The competition is open to medical officers of the Royal Navy, Army and Indian services, of executive rank on full pay, with the exception of professors and assistant professors of the Royal Naval Medical College, Greenwich, and the Royal Army Medical College, London, during their term of office.

INOCULATION AGAINST ENTERIC FEVER.

IT is intimated in the Scottish Command orders that in order to encourage soldiers voluntarily to undergo inoculation against enteric fever lectures will be given at stated intervals by medical officers, showing the advantages conferred by this method of protection. The men should be advised to undergo the operation as soon as they attain the age or service that renders them liable for service abroad, and it is suggested that a quarterly inoculation of men volunteering might take place in each garrison. In the event of the numbers wishing to attend at first being very large, the inoculation might take place at monthly intervals instead of quarterly. The men should not be inoculated until they have completed their recruits' course, and the soldier's training should not be interfered with.

Medical News.

COLONEL W. C. GORGAS, of the Isthmian Canal Commission, Panama, has accepted the task of organizing a sanitary system for the port of Guayaquil, Ecuador, which has been known hitherto as the pest-hole of the Pacific.

THE festival dinner of the National Hospital for the Paralysed and Epileptic, Queen Square, W.C., will take place at the Hotel Metropole on April 16th under the chairmanship of Lord Strathcona and Mount Royal, who will be supported by H.R.H. Prince Alexander of Teck.

THE issue of *Nature* for last week, the first number of the ninety-first volume, contains an admirable portrait of Sir J. J. Thomson, with an appreciation of his immensely important contributions to physics by Augusto Righi, Professor of Experimental Physics in the University of Bologna.

ON the recommendation of the Lord Lieutenant, the Lord Chancellor has appointed the following gentlemen to the Commission of the Peace for the County of Aberdeen: Alexander Hendry, M.D., Surgeon Apothecary to H.M. Household at Balmoral, Ballater; James Middleton, M.B., C.M., Peterhead.

AT a meeting to which all British practitioners of otology, rhinology, and laryngology were invited, held at the Medical Society's Rooms, Chandos Street, London, W., on March 12th, it was decided to form a new society for the study of diseases of the ear, nose, and throat.

THE Provost, Magistrates, and Town Council of the Royal Burgh of Linlithgow have resolved to take part in the movement which has been initiated by Mr. Alexander Spence, M.P.S., chemist, Leslie, Fife, to celebrate this year the centenary of the birth of Dr. David Waldie, the Linlithgow chemist and doctor who was instrumental in bringing under the notice of Sir J. Y. Simpson the anæsthetic properties of chloroform. Further donations, however small, should be sent to the honorary treasurer, Mr. John McWhirter, J.P., Union Bank House, Leslie, Fife.

THE annual meeting of the Royal Portsmouth Hospital was held in the Town Hall on February 28th. It was stated that the effect of the Insurance Act on the admission of patients had been slight; only a small percentage were insured persons, and the hospital was as much needed as ever. The Nurses' Home (the local memorial to King Edward VII) which had cost, including furnishing, about £3,000, had been completed and paid for, thanks largely to an anonymous gift of £2,000. There was a slight increase in the amount of annual subscriptions received in 1912, and it was hoped that the day was far distant when the municipalization of the hospital would have to be seriously considered.

THE Society of Carlsbad Physicians announces a prize to be given for the best essay on the treatment of diabetes mellitus, with special reference to balneotherapy. The jury will be: Hofrat Professor Dr. Ritter von Jaksch of Prague, Professor Dr. Luethje of Kiel, Professor Dr. Ortner of Vienna, Professor Dr. Schmidt of Innsbruck, and Dr. Edgar Ganz, President of the Society of Carlsbad Physicians. Either one prize of 5,000 kronen, or two prizes of 3,500 kronen and 1,500 kronen, or three prizes of 2,500 kronen, 1,500 kronen, and 1,000 kronen, may be awarded. The competition is open to physicians of all countries, and any language may be used. Competing essays must be received before December 31st, 1913. Any further information may be obtained from the Society of Carlsbad Physicians in Carlsbad.

THE second International Congress on Life-Saving and Prevention of Accidents will be held in Vienna from September 9th to 13th next. Its business will be conducted in ten divisions; the first two will deal with first aid, professional and lay, in accidents; the third, fourth, and fifth with ambulance work in town and country, on the railway, and at sea: the sixth and seventh with life-saving work in mines and among firemen; the eighth and ninth with life-saving in the mountains and in connexion with sports; and the tenth with the prevention of accidents generally, and with special reference to workmen and public traffic. A British committee has been formed to make arrangements for the congress with the Earl of Londesborough as president and Mr. S. Osborn, F.R.C.S., as secretary. Other members of the committee are Sir J. R. Andrew Clark, C.B., Sir George T. Beatson, K.C.B., Mr. James Cantlie, Mr. Lynn Thomas, C.B., and Dr. F. M. Sandwith.

THE fifth annual report of the Army and Navy Male Nurses' Co-operation shows it to be in a flourishing condition. During the year 1911–12 as many as 381 cases were nursed by members of the co-operation, whilst the average number of nurses employed throughout that year was forty-two. Three of these men, one of whom unfortunately succumbed to an attack of enteric fever contracted whilst on duty, were chosen for service in Tripoli, under the auspices of the British Red Crescent Society. The annual income of the society during 1911–12 showed an increase of £368 14s. 8d., the receipts for the nursing service having amounted to £3,719 16s. 9d. The committee have thus been enabled to acquire a lease of 11A, Welbeck Street, where offices and a residential home for the nurses have been established. Mr. Edward P. Furber has become honorary medical adviser to the society, which has sustained a severe loss through the retirement of its President, Sir Frederick Treves, and the death of its Vice-President Sir William Allchin, who did so much to assist the Co-operation in its early days. The places thus left vacant have been filled by Admiral Sir John Durnford, K.C.B., D.S.O., and Sir Dyce Duckworth.

CHRISTOPHERS (*Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India (New Series) No. 56, Malaria*, Calcutta, 1912, 1s. 4d.) concludes that the chief carrier of malaria in the Andamans is the *Nysomyzomyia ludlowi*, a species which breeds in and about salt swamps and is not found at a greater distance from salt or brackish water than half a mile. Whether any part is played in the transmission of malaria by the other common species, *Nsm. rossi* and *My. barbirostris*, he believes is doubtful. In any case the latter could only be an important carrier within the forest, and the mere clearing of land has made it unimportant even in regard to numbers. Owing to the distribution of *Nsm. ludlowi*, malaria in the Settlement is confined to a belt around the margins of the harbour, and is absent, or nearly so, from villages more than half a mile from the sea coast, or the salt swamps associated with this. This freedom from the disease is found even in inland villages situated on the margins of swamps, amidst rice fields and near jungle. The predominating type of parasite among the children in the villages was simple tertian, while amongst convicts admitted to hospital and amongst the convalescent gang quartan infections formed 50 per cent. or over. Though infection with malignant tertian was very little in evidence during the time of Christophers's visit, yet the only two infected *Anopheles* encountered were infected with this type of parasite.

SHAKESPEARE has truly said that "he that is stricken blind, cannot forget the precious treasure of his eyesight lost," and there can be no doubt that for most people blindness would prove the most intolerable of all misfortunes. Moreover, apart from actual loss of sight, perhaps no greater calamity can befall a child than to begin life handicapped by defective vision; yet it is only of recent years that any definite prophylactic measures have been adopted. Dr. A. S. Cobbledick, whose excellent article on The Wearing of Spectacles by Children appeared in the March number of *The Child*, remarks that it is only during the last twenty years that spectacles have been systematically ordered in cases of refractive errors of vision in young children, and that so far the results have been extremely satisfactory. According to Dr. Cobbledick, excessive nervousness and irritability is often a sign of eyestrain in children, and these symptoms disappear as soon as the trouble is relieved by proper glasses. It should be borne in mind, however, that the latter condition frequently exists along with post-nasal growths, whose removal is imperative if a radical cure is to be obtained. Another and very common cause of suffering in children is bad teeth, and the same number of *The Child* contains an interesting description by Dr. Ernest T. Roberts of the excellent dental clinics recently established by the Glasgow School Board, where the children attending the municipal schools receive free treatment from competent dentists. The number also includes an article on the practice of surgery during childhood by Mr. Edred M. Corner, and an interesting account by Mr. W. Kersley Holmes of the free Kindergarten, founded by Miss Lileen Hardy for the children of the Edinburgh slums.

IN the fourth Galton Laboratory Lecture on "National Eugenics," Dr. David Heron said that it was not generally recognized that, even under present conditions, the great majority of the feeble-minded came under State control; and that although such cases were a source of continual expense, the control of the State was exercised in such a way that practically nothing was done to check their multiplication. Though there could be no doubt that mental defect was hereditary, any attempt to discover precise laws of inheritance encountered many difficulties, owing to the fact that the term "mental defect" covered a multitude of conditions, each of which existed in almost an indefinite number of grades of severity. In some recent attempts to apply Mendelism to such cases the evidence cited told strongly against the theory, and Dr. Heron repudiated the advice that the mentally defective and the insane should intermarry with the normal, and pointed out that on the basis of the Mendelian theory normal individuals could carry the latent possibility of defect for many generations. Such advice, he continued, could only bring the whole eugenic movement into disrepute. What was specially required at the present time was more information. Efforts ought to be made to follow up the children who were passing through the special schools for the mentally defective, and also to trace back the school histories of those who were now mentally defective criminals and paupers. Much yet remained to be discovered regarding the inheritance of mental deficiency; but on the basis of present knowledge it was justifiable to assert that a substantial reduction in the numbers of the mentally defective could be obtained by preventing the feeble-minded from reproducing their kind. The cardinal principle of national eugenics was the distinction between the right to live and the right to parenthood. National eugenics denied to no one the right to live, but it taught that there were certain classes to which the right to parenthood must be denied; and in the case of the feeble-minded it declared without hesitation that their children were better not born.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

A. E. has a patient, aged 70, who suffers from dyspepsia and irritability of the bowels, following severe gastric influenza; these symptoms are accompanied by bacilluria. He has been treated with urotropine, helmitol, and salol, which increases the irritability of the bowel. Dilution with large quantities of water has been tried, and "A. E." asks what can be done to mask the irritant effect.

ANSWERS.

Tabes.

W. writes, in answer to "Fairlands," to suggest that the rectal pain in his case of tabes is probably due to intestinal stasis, and that the remedy is to secure the daily action of the bowels. "W." suggests the following: An hour before bedtime three or four teaspoonfuls of agar-agar (cut small) in a small cup of hot milk with a capsule containing ℥ss of the liquid extract of cascara sagrada; a saline (as apenta) in a tumbler of hot water one hour before breakfast, and a simple normal saline enema to clear out the rectum at the time the bowels act. If these are not sufficient a 2-grain tablet of cascara with ʒj or ʒij of white vaseline may be taken before teatime.

Leuconychia.

Unguis.—Our correspondent's son apparently suffers from leuconychia totalis, a well-known but rare abnormality of the nails. The appearance is due, according to Unna and most other dermatologists who have had the opportunity of studying the disease, to the presence of air spaces in the nail. Such air spaces are caused by an irregular keratinization of the cells which form the substance of the nail. These shrink unduly and leave spaces which are filled with air. The etiology of the condition is obscure. In Unna's patient, a young man of 26, it was congenital, but in most of the cases published the leuconychia seems to have been established after a local depression of the circulation with consequent coldness of the extremities. Even in Unna's case the patient had cold, somewhat cyanotic, hands. Some observers lay stress on the effects of slight traumatism in causing this curious change in the nails, but there must be in addition some predisposing factor. Leuconychia does not appear to have any special significance. As regards treatment, no satisfactory treatment is known, but, as the pathology of the condition appears to be similar to parakeratosis of the skin, it is just possible that *x* rays cautiously applied might be of some value.

Chewing Gum.

Dr. S. B. Walsh (School Medical Officer, Gillingham, Kent) writes: I agree with Dr. Gilchrist (p. 476) as to the probable beneficial effects of gum-chewing on the development of teeth and jaws. It is a practice in which I must plead occasional indulgence, and my experience satisfies me that it goes a long way towards supplying the cleansing and masticatory deficiencies of modern food. We are told that the food of to-day is too soft and pappy; that it lacks detergent properties: that it fails to encourage the proper secretion of saliva; that it leaves a residue round the teeth to ferment and corrode; and that the present lamentable condition of the national dental apparatus is the net result of the foregoing. Now, the oft-repeated mastication involved in gum-chewing has the following certain effects. It develops the masseters and increases the blood supply of the dental arch and teeth; it flushes the mouth with acid-neutralizing saliva; it acts as an efficient cleansing agent, for the softened gum penetrates the smallest interstices between the teeth; it is mildly antiseptic and markedly deodorant; and, lastly, it is a fine antidote to excessive smoking. I am, of course, well aware that it is a habit which is calculated to irritate somewhat one's aesthetic sensibilities. On the other hand, anything that creates health must be accounted directly or derivatively beautiful, or nearly so—certainly much nearer so than carious malformed teeth. It is worthy of note that a monk who accompanied the Spanish conquerors to Mexico commented on the uniformly regular and beautiful teeth of the Aztec women, which he attributed to the habit, universal among them, of chewing "chicle," the basis of the present-day article. I have often thought that if gum could be popularized among children so as to replace a proportion of the sweets at present consumed, it would result in a noticeable benefit to the teeth of the subsequent adult generation.

Treatment of Taenia.

A. W.—Our correspondent should consult Sir Kingston Fowler's remarks on the treatment of taenia in the Journal, vol. i, 1905, p. 841. The patient should be kept in bed under close observation; then male-fern will prove the most satisfactory remedy. Private and out-patient cases do not do so well as in-patients simply because they cannot be so thoroughly watched unless they have a private nurse. For two, three, or four days the following diet must be given: Two pints of beef-tea, one tin of Mason's essence, two rusks, and 4 oz. of port wine, whilst the patient takes 2 grains of extract of cascara sagrada three times daily. On the fourth day he should take, about 5 a.m., 1 oz. of haustus sennae co.; at 9 a.m., 15 minims of the extract of male-fern in a capsule, the dose to be repeated at 9.15, 9.30, and 9.45. At 11 a.m. the haustus sennae must be repeated. If by 1 p.m. the worm has not been passed and the head found, a second course of treatment with male-fern at intervals of a quarter of an hour must be carried out, to be followed in an hour by a purgative draught. If the head be not then found a third course of this treatment must be undertaken. As the worm generally breaks at a distance of about 1½ in. from the head, and as the fragment which remains is an exceedingly slender filament, the most careful scrutiny is absolutely needed. The pan in which the motion is passed should be covered with black crape, to throw out in relief the fine white filament terminating in the head.

Death of the Emperor Napoleon.

M. D.—The officer acting as orderly officer at Longwood during the closing days of Napoleon's illness was Captain Crockatt of the 20th Regiment, who was appointed to that position on April 14th, 1821. Captain Crockatt was entrusted with the official dispatches announcing the death of Napoleon, and on his arrival in England received his majority and a present of £500. He became General Crockatt and died in 1879, at the advanced age of 87. So far as is known, he did not leave any papers relating to his connexion with Napoleon. Crockatt succeeded Captain Englebert Lutyens of the same regiment, who resigned his position of orderly officer on account of his treatment by Lowe and the commanding officer of the 20th Regiment. Napoleon had presented to Dr. Arnott a copy of Marlborough's *Campaigns* for the library of the 20th Regiment, and Lutyens was commissioned to send them to the regiment. But unfortunately the book was inscribed on the title page with the Imperial "N." and the words "L'Empereur Napoléon." For this reason, and the fact that Lowe thought such a gift might seduce the allegiance of the 20th Foot, the book was sent home to the Duke of York, Commander-in-Chief, for his decision. The Duke of York at once allowed the 20th Regiment to retain the book, saying that "Such a gift from Napoleon to a British regiment was most gratifying to him, and that the safe detention of Napoleon was sufficient testimony that the regiment had done its duty." The book is now in the archives of the 20th Regiment. (See *History of 20th Regiment*, by B. Smythe, M.V.O.)

Acute Pneumonia during Treatment with Arsenic.

Dr. George Pernet (London, W.) writes, in reply to Dr. S. M. Hebblethwaite's letter in the Journal of March 8th, p. 529, that a reference to the matter will be found in Kobert's exhaustive *Lehrbuch der Intoxicationen*, vol. ii, p. 263 (Stuttgart: Enke. 1906).

LETTERS, NOTES, ETC.

In Praise of the Physician.

A Yorkshire G.P., who, for reasons of modesty, does not sign his name, writes: Apropos of your article "In Praise of the Physician," the following complimentary and touching sentence, addressed to me by an old Yorkshire farmer on his deathbed, may be of interest as an example of personal esteem to be continued even after death: "I've allus respeckit ye iver sin' I've knawn ye, an' I'll allus respec' ye efter I'm deid!"

Poetry a Disorder of the Intestines.

C. writes: Two weeks ago I inserted in the Journal a query as to the origin of the above statement. My learned friend, Mr. C. W. F. Goss, of the Bishopsgate Institute, has kindly furnished me with what appears to be the solution. He points out that Carlyle in his *Signs of the Times* quotes from Pierre Jean Cabanis (1757-1808), physician to Mirabeau, as follows: "As the liver secrets bile so does the brain secret thought, but poetry and religion are a product of the smaller intestines."

Correction.

In the article on The Knowledge of Tropical Diseases in 1813, published in the Journal of March 1st, p. 455, there was an unfortunate misprint: the dose of laudanum used by Mr. Playfair in combination with half a drachm or a drachm of ipecacuanha was 30 to 60 drops.

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A Lecture
ON
GLYCOSURIA.

DELIVERED AT THE LONDON SCHOOL OF CLINICAL MEDICINE
BY

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ALTHOUGH the main objective features of diabetes—thirst, emaciation, and polyuria—were recognized as early as the beginning of the Christian era, it was not until the seventeenth century that Willis noted the fact that in the majority of such cases the urine had a remarkably sweet taste, "like a solution of honey or sugar," nor until the nineteenth century that various chemical tests were introduced by Trommer, Moore, and Fehling which proved the sweet taste observed by Willis to be actually due to the presence of glucose.

Nowadays it is acknowledged that the ancient clinical syndrome applies to more than one condition of disturbed health, and that in order to justify its classification as a true diabetes the urine must be proved to contain sugar. Glycosuria is, in short, the essential foundation for a diagnosis of diabetes and, in many cases, it is for a long time the only morbid manifestation. A mild degree of intermittent, or even of persistent, glycosuria may last over a long series of years without producing the evidence of general constitutional disturbance which justifies its being called, in the true clinical sense, diabetes, but its existence establishes the fact of a tissue instability which is, in every instance, the potential herald of that grave disorder.

Glycosuria is met with in all conditions of life and in every part of the world, but it is curiously rare in the negro races and conspicuously prevalent among the Jews. Though most common in the fifth decade of life, no age is exempt, but its prognostic significance is much more serious in youthful than in elderly patients. Heredity plays an important part in its incidence, and a record of obesity and gout carries with it an increased liability to a mild type of the disorder after middle life.

DIAGNOSIS.

In 1849 Claude Bernard discovered that the liver stored carbohydrates in the form of glycogen which he believed was converted into sugar under the influence of a diastatic ferment and carried by the hepatic vein into the general circulation according to the needs of the economy. Hyperglycaemia, or the excess of sugar in the blood, might therefore either arise from (*a*) defective glycogenic activity or excessive carbohydrate intake on the one hand, or from (*b*) excessive glycogenic activity or defective destruction in the tissues on the other.

In opposing this view Pavy contended that in health the carbohydrates are synthetically assimilated into proteins by the lymphocytes and converted into fat by the epithelial cells of the intestinal villi, whatever portion escapes the villi being converted into glycogen in the liver. Failure of these processes, according to him, results in hyperglycaemia from sugar entering directly into the blood instead of being converted into protein, fat, and glycogen. He showed that sugar may be derived not only from the food carbohydrates, but also from the food and tissue proteins, since in some cases sugar is excreted even when no carbohydrate is ingested.

Until these important discoveries no one dreamed that a protein molecule in the process of breaking up into urea, carbonic acid, and water, could split off a carbohydrate molecule from which sugar was formed, but this is now recognized as an everyday occurrence in the physiological activity of both plants and animals.

Lancereaux described changes in the pancreas which he believed to be constantly associated with diabetes, but in many instances the pancreas after death appears to be quite normal, so that this theory is not universally applicable.

The glycosuria which is produced by the administration of phloridzine is believed to be due to the effect of that drug on the renal epithelium, which, under its power, is prevented from holding back sugar. The influence of the internal secretions is not yet unravelled, but it will probably be proved ultimately that the part they play is important.

It seems likely that no single cause is responsible for all cases, but physiological investigation suggests that an error in normal glycogenesis, however produced, is an integral part of the pathological process.

By some observers the presence of sugar in the urine is justification enough to classify the illness as diabetes. But though it may be true that every case of glycosuria is potentially a case of diabetes, it is convenient for clinical purposes to separate the one variety of the disorder from the other, especially when it is remembered that the sequence of events is essentially different in the two conditions. Diabetes should, in my opinion, be used as a descriptive title for those cases only which are acute in their progress and are characterized by polyuria, thirst, hunger, and rapid emaciation, together with the presence of a considerable amount of sugar in the urine. Glycosuria, on the other hand, should be reserved as a suitable designation for those cases that are chronic in their course, occur mostly in persons at or past middle life, are not attended with excessive thirst or serious disturbance of the general health, and contain sugar in the urine either intermittently or in comparatively small constant amount. The term "diabetes" always conveys to the patient an alarming impression of the seriousness of his condition, whereas "glycosuria," probably because the word is not generally understood, has a much less formidable significance. This fact alone should be enough to guide us in our choice of a descriptive designation.

I desire now to consider only the chronic condition of glycosuria—a condition which, though capable of assuming acute proportions, is, in the majority of instances, a chronic process from beginning to end, lasting over many years, and, with due precautions, not interfering seriously with general health or with the average expectation of life.

In true diabetes the attention of the patient is drawn sooner or later to his condition by the occurrence of one or other of the principal results which ensue: Either his notice is attracted by the constant thirst which possesses him, or he becomes concerned about his rapid loss in weight, or he gets suspicious that something is wrong because of the large amount of water which he secretes daily. The glycosuric, on the other hand, may continue over a long period without any doubt arising in his mind that he is not quite well. He may pass somewhat more water than usual or he may become a little thinner than formerly, but neither event, if it happens, is sufficiently pronounced to send him to his doctor. He sleeps, eats, and drinks well, and in a large proportion of cases the existence of sugar in his urine is discovered accidentally in the course of an investigation into his state of health for some reason entirely unconnected with the urinary organs. It is surprising how many people, sick from one or another minor ailment, remain under the care and treatment of a medical man without the formality of a urinary examination ever being considered necessary. We are all familiar with cases of prolonged disturbance of health treated in this casual way on which a flood of illumination is thrown and a guide to treatment immediately afforded by the discovery of sugar in the urine. This happens so much more frequently than most of us believe that the tests for sugar—and albumen as well—ought to enter into the routine examination of every patient seen for the first time as habitually as the common formulary of looking at his tongue or counting his pulse.

It is quite unnecessary to enumerate the many tests which are recommended for the discovery of sugar. To most of us who are busy and practical men Fehling's test is the one which we almost invariably employ. But it is well to bear in mind that there are fallacies connected with it which may from time to time betray us into error, because the urine may contain other substances capable of throwing down the yellow suboxide of copper besides sugar. This may happen under the influence in the urine of excessive quantities of glycuronic acid, uric acid, or lactose. It may also occur in the urine of persons who are under treatment by salicylic acid or its salts. It is

therefore always of importance to employ a second test, especially when the Fehling reaction is slow or indefinite. The most convenient, and perhaps the best confirmatory evidence we can have, is that afforded by fermentation. The addition of yeast to urine containing glucose causes fermentative changes which result in a diminution of the specific gravity of the urine. The amount of sugar may be calculated either by collecting the carbonic acid which is given off in the process of fermentation (one molecule of sugar giving approximately two molecules of carbonic acid), or by comparing the densities of the urine before and after the fermentative process, each degree of density lost being reckoned as equivalent to one grain of sugar per ounce. Another confirmatory test of value depends upon the influence of glucose upon polarized light, which it deflects to the right. In a urine which feebly or doubtfully reduces Fehling's solution, dextro-rotation of the polarized ray would confirm the suspicion of glucose being the cause.

The estimation of the amount of sugar is always troublesome. It involves an expenditure of time which can ill be spared, and yet the progress of any case in which sugar is present in the urine can only be satisfactorily gauged by quantitative analyses repeated again and again. To those of you who may be unacquainted with it I strongly recommend the simple method introduced by Dr. Walker of Peterborough. By its means only a few minutes are required to ascertain the percentage of sugar with sufficient accuracy for all practical purposes. A full description of this method of estimation is given by Dr. Walker in the *Lancet* of 1909.

Etiology.

Glycosuria occurs under a bewildering variety of conditions, and in the present state of our knowledge no complete system of classification seems possible. We know that it is met with on recovery from chloroform or ether anaesthesia; in poisoning from coal gas; after the administration of thyroid extract and of various drugs; after sudden immersion in cold water; in the later months of pregnancy; as the result of mental shock, etc. It happens as an incidence in many diseases of the nervous system; may be a sequel of the acute infective fevers; and is met with in organic disturbance of the liver, pancreas, and intestinal tube, and also in disease of the thyroid gland or of the pituitary body. Every case of glycosuria requires to be investigated on its own account, and an attempt made to establish the cause upon which it depends, and, where possible, the organic fault to which its continuance is due. For example, an attack of gout may be the primary cause upon which a temporary glycosuria ensues, but repeated attacks of gout may ultimately produce such organic changes in liver, pancreas, and kidneys as to make what was at first a mere transient appearance of sugar in the urine a permanently established evidence of persistent metabolic inadequacy. In illustration I may mention the following case:

A man of gouty antecedents who lived freely came under my observation more than twenty years ago. He was then 52 years of age, and had in his previous life suffered from no serious illness, though subject for about eight years to occasional attacks of typical gout. I first saw him in one of his ordinary attacks, from which he made the usual uneventful recovery. At the end, so far as I remember, of about two years, I discovered, during an unusually acute attack of gout, that he had about 2 per cent. of sugar in his urine. With the disappearance of the inflammation in his toe, the sugar also vanished, but it recurred with each succeeding gouty illness, and after a further period of about eighteen months the glycosuria became permanent and lasted to the end of his life at the age of 74. For the last ten years before he died the glycosuria was accompanied by albuminuria, the one see-sawing with the other very much according to the care he took in regard to his dietary. It was impossible to persuade him to be sufficiently careful about what he ate and drank, but he never emaciated, and, despite his persistent glycosuria, he lived a fairly active life, free from serious inconvenience of any kind, and exceeded the Psalmist's allotted span before he was gathered to his fathers.

In every case of glycosuria the first point to determine is whether and to what extent it is influenced by the quality and character of the daily food. The limit of toleration for sugar varies with different individuals, but the average person can stand a dose of about 150 grams of glucose without any appearance of sugar in the urine. Under certain morbid conditions this tolerance is lessened, whereas in others it is increased. This is conspicuously notable in exophthalmic goitre in the one instance, and in myxoedema in the other. In alimentary cases the glycosuria may be dependent upon either sugar or starch in the daily regimen. No amount of starch alone will produce glycosuria in a perfectly healthy person. If, therefore, sugar being entirely withheld, a meal of starchy food results in the appearance of sugar in the urine, we must regard the fact as a distinctive morbid phenomenon, and one which indicates a future possibility of true diabetes. A lowered tolerance of starch is frequently met with in men of about 50 years of age, who are hard workers and of gouty type. It may be temporary only, as in the case of a gentleman I see from time to time. He is a full-blooded man, who works very hard at the Bar, and who comes to me periodically suffering from what he calls a "liver attack." Every time I have seen him on account of such an attack I have elicited the fact that recently he has been hard pressed with work, curtailed in the amount of his sleep, worried by the exigencies of extra mental strain, and careless as to his eating and drinking. As a matter of usual routine he takes no sugar and only a moderate amount of starchy food. On each such occasion the urine has contained sugar in amounts varying from 2 to 4 per cent. There has been no polyuria and no excessive thirst, but the pulse-tension has been high, the liver moderately enlarged and tender, the tongue coated, and the nervous system unstable and irritable. A few days' complete rest, the withdrawal of starch from his diet, together with repeated small doses of calomel and a simple alkaline mixture has always, so far, succeeded in restoring his health, and in banishing completely every trace of sugar from his urine. How long his power of recuperation may last there is no knowing, but as he becomes older, it is tolerably certain that his glycosuria will become a fixed condition unless he consents permanently to "cut his cloth to his measure."

A striking form of alimentary glycosuria is that met with in pregnant women, in many of whom there is a markedly lowered carbohydrate tolerance. The reducing agent in the urine of a pregnant woman or of one who has been recently delivered may be either lactose or glucose. The former is associated with the establishment of the function of lactation, and is of no great importance. The latter may prove to be a mere temporary disturbance dependent upon the pregnant state, or it may be the initial stage of a true diabetes. In some cases sugar is found in the urine during each succeeding pregnancy, but disappears entirely after parturition. In others the tolerance to carbohydrates seems to become hopelessly diminished, and, even under conditions of the most careful dieting, there is an abiding glycosuria. Here is a typical example:

A lady of 43 years of age, the mother of three children, became glycosuric during each of her three pregnancies. Between the first and second, and again between the second and third, the urine became and remained normal, but after the third pregnancy sugar became a continuous element in the urine, and was responsible for a troublesome pruritus vulvae, which caused constant discomfort. She has now suffered from glycosuria for upwards of sixteen years, the sugar varying in amount from 2 to 5 per cent., but during all that time the pruritus has been the only inconvenient symptom of which she has complained. Strict limitation of her diet reduces the amount of sugar, but never causes it to disappear. She is active and well, has no polyuria, and is only a few pounds lighter than the highest weight record she has ever attained.

It is of some interest to remember that during pregnancy enlargement of the thyroid gland is well known to occur, and that the pituitary body has been shown to undergo a series of changes. In exophthalmic goitre where the thyroid gland is disturbed, and in acromegaly, which is dependent upon pituitary hypertrophy, it is not unusual to find that the patient passes sugar in the urine. This suggests the possibility of the pregnant condition having a disturbing influence upon at least two of the glands whose internal secretory function is known to influence metabolism.

Closely allied to the question of dietetic glycosuria is that of hereditary tendency. There are undoubtedly families in which a predisposition to glycosuria runs through several generations.

I have, within recent experience, knowledge of a young man of 32 years of age, of apparently robust health, and without any record of serious illness, who presented himself for exami-

nation for life insurance with the full conviction that he was perfectly well, and was declined because his urine was found, to his surprise, to contain a trace of sugar. His family history justified the insurance company in looking upon this trace of sugar as a serious factor in the candidate's expectation of life, because, on careful inquiry into his antecedents, it was found that his grandfather and father had both suffered from persistent glycosuria, two paternal uncles had admittedly been victims of the same condition in an intermittent form, and an elder brother had died of acute diabetes at 18 years of age.

Of the many instances in which glycosuria occurs as a result of organic disease time will not permit me to recount many examples. It is, however, of such peculiar interest in organic disease of the liver and of the pancreas that I may be allowed to recall two cases in illustration:

The first is that of a gentleman who has all his life indulged freely in alcohol, and who, in consequence, developed cirrhotic changes in his liver of sufficient importance to produce several minor attacks of jaundice and, on at least two occasions, haematemesis and melaena. After some years of careless living he remodelled his life, and subsequently enjoyed a much better level of general health, but he paid tribute to his previous habits by a glycosuria which, though never extreme, became persistent and continues to the present day. It does not seem to impair seriously his general health nor to limit his activities, and though he has now reached 60 years of age and has, in addition to sugar, occasional traces of albumen in his urine, he gets about the ordinary affairs of everyday life apparently as well as his neighbours.

The other is that of a man of 57 who was operated upon six years ago under the belief that, because of deep jaundice and evidences of cholecystitis, he was suffering from the presence of a gall stone in the common duct. No calculus was found, but the pancreas was swollen and inflamed, and the contents of the gall bladder were almost purulent. His condition at the time of operation was so serious that prolonged investigation was impossible, and it was not deemed advisable to do more than drain the gall bladder. He made a remarkable and almost unexpected recovery, and has remained ever since well enough to carry on the duties of a strenuous life satisfactorily and without present evidence of serious health impairment. His urine was frequently examined, both before and after the operation, and had never been found to contain glucose, though it was significant that glycuronic acid had been noted on several occasions. Three years after the operation sugar appeared, at first intermittently, but latterly it has become a constant element, and one that is steadily but surely increasing in amount. His nutrition is not impaired, but the inference in his case is that the cause is a pancreatic fibrosis, which is probably progressive and spells trouble in the future.

Before leaving this large question of etiology there is one other cause of glycosuria, namely, mental shock, to which I must refer, because it illustrates what a large influence the nervous system obviously has on the occurrence of the condition.

A lady, aged 56, who had previously enjoyed excellent health, lost her husband, to whom she was deeply attached, under circumstances of tragic suddenness. She was overwhelmed with grief, and found herself suddenly plunged into a series of financial worries and family troubles which were enough to upset the mental balance of even the most strong-minded. Within a month of her husband's death she developed thirst, hunger, polyuria, and rapid wasting, all of which were accounted for by the presence in her urine of sugar varying from 3 to 5 per cent. Under careful management this acute phase of things gradually became modified, but she is left with a permanent glycosuria, and now, after three years, though the secretion of urine is diminished to a daily average of about 80 oz., and her weight remains steady, there is never less than 2 per cent. of sugar, this level being only maintained by a rigid dietary and a watchful avoidance of over-fatigue and mental annoyance.

Apart from its causative effect, the control of the nervous system over the glycosuric output is well manifested by the aggravating influence of mental overwork, or emotional shock. The share taken by the various organs of the body in the causation of glycosuria is impossible to assess accurately, but the internal secretions are in some as yet undetermined way closely associated with its occurrence; and it is safe to assume that these secretions are regulated by a nervous mechanism.

Since Minkowski proved that complete removal of the pancreas in a dog was rapidly followed by acute diabetes, it has been generally accepted that disturbance of pancreatic activity is closely connected with the excretion of sugar. In malignant disease of the pancreas or in acute inflammatory or haemorrhagic conditions of the gland glycosuria is the exception rather than the rule, but it has been frequently met with in association with pancreatic calculi and under other conditions in which a chronic fibrotic process might be surmised. Fibrosis of the pancreas may be caused by extension from the biliary ducts, as in cases of gall stones, or by extension of infective processes up the duct from the alimentary canal, or in association with fibrotic changes in the liver, kidneys, and arteries. The prevailing opinion at present is that probably the islands of Langerhans are responsible for the production of the internal secretion of the pancreas, and if this view be correct it is understandable how a chronic process which gradually invades their territory must impair or destroy their activity. The difficulty arises in determining whether the impairment or suppression of this internal secretion is alone responsible for glycosuria, or whether its disturbance is merely an element, either etiological or sequential, which so interrupts the balance of other internal secretions as to disturb their hormonic influence upon the normal processes of metabolism. In cases associated with acromegaly, or psychic disturbance, or cranial injury, the internal secretion of the pituitary gland is probably primarily disturbed, whereas in those occurring in association with acute exophthalmic goitre there is an equal likelihood that the originating fault is in the internal secretion of the thyroid gland.

In reviewing our experience of glycosuria we must all confess that though we have cognizance of cases in which it seemed incontestable that either the nervous system, the liver, the pancreas, the thyroid gland, the pituitary gland, the intestinal canal, or the cardio-vascular system was the prime offender, there remains a residuum of patients in whom we have been unable to locate any organ as being fundamentally responsible for the first departure from tissue integrity. Some primordial morbid cause is almost certainly the true explanation. When this is discovered the existing confusion as to causation will be dissipated, and from our present gropings in the dark we shall emerge to a clear conception of these profound changes in the chemical processes of digestion and assimilation.

TREATMENT.

Until this true knowledge of the pathology of glycosuria has been achieved the question of treatment must remain very much a matter of experiment. We know nowadays that, so far as experience teaches us, the fundamental management is dietetic and depends upon an abstention from sugar and a rigid limitation of starches, both as regards kind and amount, so as, without entire exclusion, to bring them within the digestive tolerance of the patient. But it is not sufficiently realized that a sudden change in diet from what has been the daily custom of years necessarily involves a marked alteration in the patient's physiological chemistry. On an ordinary mixed diet it is calculated that quite 60 per cent. of the physical energy of the body is derived from foods of a carbohydrate nature, so that when these are wholly withdrawn an equivalent amount must be provided from fats and proteins if nutritional injury is to be avoided. If the fault in carbohydrate metabolism were the only one to consider the treatment of glycosuria would be comparatively simple, but there are other secondary but equally important disturbances to be borne in mind when searching for a dietetic scheme to meet the requirements of each case as it crops up.

In his recent illuminating Harveian Oration Sir James Goodhart has, in reminding us of Pavy's work, recalled the important part played by proteins in the production of sugar. He says:

It has always seemed obvious, when one considers how greatly the output of sugar varies even under the most rigid system of dieting, that the excreted sugar could not be a mere output of what has been taken in; that the human kiln has, in fact, the power of in some way coining sugar out of its own constituent elements; and I believe that Pavy's ultimate credit for a real step onward in this still intricate disease will rest upon his observation that the protein molecule is in some way split up, and that a carbohydrate molecule emerges therefrom.

The haphazard method of immediately cutting off carbohydrates from the diet is both unscientific and unsatisfactory; indeed, its too rigorous application may be absolutely harmful. Here is a case in point:

A man of 58 years of age, who had suffered frequently during several years from attacks of hepatic insufficiency, induced apparently by the stress of excessive work, was sent to Carlsbad for "the cure," and while there it was discovered, for the first time, that his urine contained close upon 2 per cent. of sugar.

He was put upon a very rigid dietary, and in a fortnight's time the sugar entirely disappeared from his urine, but he lost 16 lb. in weight. His general health suffered considerably from the rigid restrictions to which he was subjected, and he has never regained the weight then lost. The sugar, which at first disappeared, soon returned, and now remains constantly present in small amount. He lives carefully as regards his diet, but has not relaxed his assiduous devotion to the duties of an active life. He takes a periodical holiday, and during his periods of vacation he allows himself to indulge moderately in the ordinary mixed diet of the hotels or country houses at which he resides. The result so far has always been to bring about a marked improvement upon his general health without materially influencing the amount of sugar he excretes or the quantity of water he passes. During his last autumn holiday he was even more regardless than usual in regard to his food. He consumed daily a certain amount of carbohydrate, and did not altogether abstain from sugar. On his return his friends were unanimous in their verdict of the marked improvement in his appearance, and the scales recorded an increase in his weight of a little over six pounds. No doubt the relief to his nervous system of idleness and pleasant change of surroundings was responsible for much of the improvement he experienced, but it is surely significant that his carbohydrate tolerance proved equal to the task not only of dealing with a mixed and generous diet, but also of increasing the assimilative power of his tissues to the extent of a quite remarkable increase in his weight.

While it is true that carbohydrates ought to be limited in all cases of glycosuria, it is no less certain that in most instances patients do best with a moderate carbohydrate element in their diet, and in every case the problem to settle is how far starch, in one form or another, may be given without increasing the urinary sugar. For this purpose the first point to determine is the extent to which the glycosuria depends upon carbohydrate intake. If the patient be put for a week on a diet from which all sugar and starch is rigidly excluded, we will by a quantitative examination of the urine ascertain the minimum to which the sugar may be reduced by carbohydrate starvation. During the following week, he may have added to his daily menu one baked potato and a small quantity of gluten or other so-called non-starchy bread. And, in passing, it may be mentioned that most of the biscuits and breads advertised as being practically starchless are found to contain carbohydrate in a definite and often considerable amount. The foodstuffs prepared by Callard, von Abbott, and Blatchley are among the most reliable to be obtained in this country, but there are many others which, though they contain a greater amount of starch, are more palatable, and are preferable to, because they contain less starch than, ordinary bread. Almond flour, cocoanut flour, and gluten flour may all be used for the preparation of cakes and biscuits to replace ordinary bread. At the end of a week the urine should again be tested and the starchy element increased or diminished according to the effect upon the sugar output which is found to have occurred. In some instances oatmeal is better tolerated than any of the other cereals, and its influence ought to be ascertained whenever the addition of potato is proved to produce no bad effect. The diminution or annihilation of glucose in the urine is not the only, nor always the safest, criterion of improvement. It is therefore always imperative to keep an observant eye upon the general nutrition. Whatever restriction in the diet be adopted, it is only justified if its modifying effect on the sugar excretion is accompanied by a maintenance of the general health. Continued polyuria and thirst, together with a progressive loss in weight, are evidences that all is not going well, and care must be taken that as the result of too severe dietetic restrictions the diminished amount of sugar is not too dearly paid for. The presence of acetone or diacetic acid ought in all cases to be looked for, and when found should be regarded as an urgent indication for a readjustment of the diet-plan, and probably for an increase in the carbohydrate allowance.

In the matter of dietetic treatment there is one plan which has not received so much attention as it deserves, namely, the effect to be derived from repeated short periods of absolute starvation. In the public mind it is a rooted conviction that complete abstinence from food even for a limited period must inevitably lead to such failure of strength and vigour as to make it a dangerous experiment. Experience proves, however, that this is not the case, and when we reflect how in all acute diseases and in some that are chronic, Nature withdraws all ordinary appetite for food, and leaves the patient to live for a time wholly upon himself, there is little cause for surprise that popular opinion has arrived at erroneous conclusions. Guelpa, of Paris, has devoted very considerable attention to the value of starvation methods in several disorders of metabolism, and though his enthusiasm may have carried him to generalizations that are too sweeping to be altogether justified by the evidence, there is ample proof that the effect of such a plan is often surprisingly successful in re-establishing a better metabolic balance. I have recently devoted some attention to temporary starvation in cases of glycosuria, and the results have justified me in believing that though it may not be a means of cure it has a striking effect in producing amelioration of the symptoms. The explanation is probably to be found in the fact that during the starvation period the various internal secretions are afforded a chance of re-establishing that proper balance among themselves upon which metabolic integrity seems to depend. At any rate it is certain that in cases of glycosuria complete abstention from food over a period of two or three days has a definite influence not only upon the amount of urine excreted, and of the sugar it contains, but also upon the subjective discomforts that sometimes accompany this condition.

I could quote many cases in illustration of the fact, and I venture to remind you of two patients during this session in whom I have been able to demonstrate to you the value of the method.

The one, a man of florid complexion, stout build and distinctively gouty tendencies, who may have suffered from glycosuria for a considerable time, was discovered to have sugar in his urine when admitted to the hospital on account of a surgical affection about five months ago. He had no marked polyuria, no excessive thirst, and no loss of weight, but his urine contained 2.5 per cent. of sugar. After a first starvation period of two days the sugar disappeared; after a second such period a week later it again disappeared, but returned to the extent of ½ per cent. when he resumed food; after a third period of two days' abstention during the following week, it disappeared once more, and when he left the hospital eleven days later the urine remained permanently free from sugar on an ordinary diet, from which, of course, sugar was excluded, but carbohydrates in the form of potatoes and torrified bread were allowed in moderate amount.

The other case was an example of true diabetes, in which the man had emaciated to the extent of nearly 3 st., was pursued by unquenchable thirst and continuous hunger, and passed an average of 165 oz. of urine daily, containing from 4 to 5 per cent. of sugar with constant traces of acetone. This man was so hungry that the prospect of starvation at first alarmed him, but being persuaded to screw his courage up to make the attempt, he found to his surprise that after the first day's abstention his thirst and hunger disappeared and the quantity of water he excreted diminished to half that to which he had been accustomed for months. This man has undergone four starvation periods—two of three and two of two days' duration—and, though his diabetes is not cured, the net result is that to-day his sugar is reduced to about 3 per cent., the amount of urine is never more in the day than from 70 to 80 oz., and he has lost entirely any excessive appetite for food or drink.

To these cases let me add two others from my private case-books:

A man aged 58, who had suffered from mild glycosuria for at least five years, had the following experience: Before a first starvation period of seventy-two hours his urine contained 21 grains of sugar per ounce, and the density was 1028; at its termination the sugar was reduced to 0.7 grain per ounce and the density to 1010. After a month, during which the sugar returned in diminished amount, he underwent another starvation period of sixty hours, before entering upon which sugar was present to the extent of 10 grains to the ounce. At its termination the sugar had entirely disappeared, and there was no recurrence for four days after a return to a moderately restricted diet. After another month, starvation was again practised, this time for twenty-four hours. Before fasting the urine contained 7 grains of sugar, but this again vanished at the end of twenty-four hours. Two days after resuming his usual careful dietary, Fehling's solution was moderately reduced, and gradually sugar reaccumulated to the extent of 3 grains in the ounce. A fourth period of twenty-four hours' fasting, after the expiry of a month, was submitted to, and the sugar, which beforehand measured 5 grains per ounce, again disappeared after the first twenty-four hours' starvation. It did not reappear until a week later, and then only to the extent of 1 grain per ounce. This patient is well nourished and of the gouty type. He has no polyuria, and no subjective symptoms to make him aware that his health is, in any way, seriously disturbed.

A lady, aged 54, the mother of eleven children, also of the florid, gouty type, was apparently quite well, except that within the last eighteen months she had lost about 1½ st. in weight. She had no organic disease, but was passing an average of 80 oz. of urine a day, containing 15 grains of sugar in each ounce. A first period of seventy-two hours' starvation reduced the sugar to 2 grains; a second period of forty-eight hours' starvation caused its temporary disappearance for

several days; and a third similar starvation period, after another fortnight, again resulted in the complete disappearance of sugar, with only a very moderate recurrence a week later. This patient has experienced a decided improvement in her nutrition, and has put on 5 lb. in weight.

During the time of abstention from food in all these cases the patients were allowed a breakfastcupful of tea morning and evening, and a large tumblerful of aërated water once or twice during the day. Every night at bedtime a pill containing 1 grain of calomel and 3 grains of extract of colocynth was administered with—the following morning—a dose of magnesium sulphate sufficient to produce one or two copious watery alvine evacuations.

Too much must not, of course, be attributed to this plan of treatment, but it may be at least claimed that three important results are established—first, that an immediate, even if temporary, diminution in the sugar output is achieved; secondly, that the sugar, when it reasserts itself, recurs in diminished amount; and thirdly, that the patient, far from experiencing any serious inconvenience from the complete withdrawal of food, rapidly loses all sense of hunger or thirst, and invariably finds a subsequent improvement in general health and in the sense of well-being. It has been suggested that such drastic measures may be fraught with the danger of increasing the risk of acidosis, but in the cases I have watched no such undesirable development has occurred.

Is the result due to a temporary disintoxication of the tissues whereby the normal equilibrium is afforded some chance of restoration? It is not an impossible explanation, and one which may be more readily accepted if it be conceded, as some observers have stated, that the pancreas is responsible not only for the completion of the digestive processes, but also, to some extent, for the scavenging work of the body.

The latest newcomer on the field of experimental therapeutics is radium, whose emanations are said to be able to cure a multitude of disorders, and among them diabetes. In regard to it, as to many others that have been equally loudly extolled, it will be wise to "wait and see."

In the choice of drugs, we are still driven to depend upon opium or its derivatives as our sheet anchor. In my own experience I find codeine the most valuable of all the opiate series, and in a large majority of cases the following combination affords me considerable help: Extract of valerian and pure carbolic acid, of each 2 grains; codeine, ½ to 1 grain; and extract or cascara, 1½ grains. The valerian steadies the nervous system, the carbolic acid disinfects the intestinal canal, the codeine controls the output of sugar, and the cascara provides for the daily evacuation of the bowel.

Salkowski and others have strongly advocated the administration of arsenic, but its only effect would seem to be a secondary result from its tonic influence on the nervous system. On the pancreatic theory of causation it is logical to endeavour to furnish the body artificially with the hormone provided under normal conditions by the islands of Langerhans. There are many preparations of pancreas on the market; but one of the best is issued by Fairchild Brothers, under the name of "Holadin." It is said to contain all the constituents of the gland, both digestive and internal secretory, and is put up in gelatine capsules, each containing 3 grains. I have used it repeatedly, and in some cases it has apparently been of value.

An annual sojourn at Vichy or Carlsbad and an equable, sunny, dry climate is of service to many patients, but so far as health resorts and climate are concerned, individual idiosyncrasy must be carefully considered as well as the indications otherwise which the general health of the individual suggests. One important point in the management of glycosurics, which is of universal application, should never be lost sight of, and that is the prejudicial effect upon all of them of excessive and prolonged strain, whether of mind or body. The more equable and uneventful the daily routine of life can be made, consistently with freedom from ennui and boredom, the more likely is the imperfect metabolism to succeed in maintaining the bodily processes in a condition consistent with a fair measure of good health. In those cases where, as a terminal event, coma threatens to supervene, we must depend upon salines in generous amount, given either by the mouth, or by the rectum, or intravenously, as the one and only slender chance on which we have to depend for saving the situation.

THE ACTION OF SALICYLIC ACID AND CHEMICALLY ALLIED BODIES IN RHEUMATIC FEVER.

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THE following account of the action and relative value of salicylic acid and chemically allied substances in the treatment of rheumatic fever has been drawn up as part of a scheme of work undertaken by members of the Therapeutical Subcommittee of the Association. It is based on results obtained by clinical observation supplemented by laboratory experiments. A number of the substances examined have proved to be inert, but I have included these results as they may have some value for future researches in the same field. Of late years numerous synthetic bodies have been introduced into practice as substitutes for the salicylates, but even a superficial survey of these so-called "new drugs" showed that the great majority of them are merely compounds which originally contain salicylic acid, or which form it in the body, and that they represent no new therapeutical idea or discovery. Their value, in short, can be estimated in most cases by the simple process of calculating their content of salicylic acid. Others of the remedies designated "antirheumatic" are merely analgesics and have no specific curative action. These considerations enabled me to limit very considerably the number of substances to be tested. The report as here presented is partly a critical estimate of the value of certain more or less well-known remedies in acute rheumatic infections, partly an examination of substances which seemed possible improvements on these, and partly a contribution to the relationship between chemical constitution and therapeutical action in these infections.

Unfortunately the bacteriology of acute rheumatism is still an undecided question. Using cultures of the *Micrococcus rheumaticus* (of Poynton and Paine, and Beattie), I have never been able to produce in animals any of the symptoms or lesions of rheumatic fever, and I have also been unable, by using a vaccine of the killed organisms, to obtain any curative effects or any constant reaction in patients suffering from rheumatism. The vaccines were mostly made from cultures obtained from Drs. Paine and Beattie, but some were bought from Messrs. Burroughs and Wellcome, and the doses given varied from half a million to 250 million organisms.

According to present views, the absence of any reaction to large doses of the dead bacteria tells against the specific pathogenic nature of the organism. Further, it is an organism difficult to grow satisfactorily and easily killed. For these reasons I used the yeast plant, a streptococcus, *Bacillus coli*, a hay infusion, or a fungus growth on gelatine, when I wished to test the relative antifermentative and germicidal strengths of any of the substances I was investigating. Their relative toxicity was determined when necessary on rabbits. The observations have extended over many years, but I have compressed the results obtained into as small a compass as possible, and, to avoid entering into details or side-issues, have given references to papers where these are discussed more or less fully.

PHENOL (C_6H_5OH).

The simplest of the aromatic compounds is benzol (C_6H_6), and, what may be regarded as one of its simplest derivatives, phenol, is wholly without any action in acute rheumatism, at least in such doses (2 grains every four hours) as can be conveniently given. Its action in stopping the fermentation of a solution of sugar by yeast is not a powerful one. I found that 1 in 200 completely prevented fermentation, while 1 in 300 delayed it, and weaker strengths had little effect.

BENZOIC ACID ($C_6H_5.COOH$).

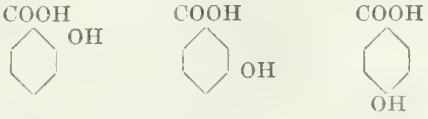
The introduction of the carboxyl group into the benzol ring brings about an important change, and confers a specific remedial action in acute rheumatism. When benzoic acid or sodium benzoate is given in doses of

15 to 20 grains hourly or two hourly, the action is unmistakable, but is very much weaker than that of sodium salicylate. Pain is diminished in two or three days, but it takes from four to seven days until the temperature and pulse-rate are satisfactorily reduced. No sweating nor any poisonous or depressing effects are noticed beyond sometimes slight buzzing in the ears. Yeast fermentation was prevented by benzoic acid in a strength of 1 in 500; 1 in 1,000 checked it, but fermentation still went on slowly for several days, and 1 in 2,000 had a slightly retarding effect only.

Oxybenzoic Acids.

Salicylic Acid (C_6H_4.COOH.OH).

There are three hydroxy-benzoic acids formed by introducing OH into benzoic acid. Salicylic acid is the ortho-acid, while the others are known as meta- and para-oxybenzoic acids. They differ in the relative position of the COOH and OH groups in the benzol ring, thus—



Ortho. Meta. Para.

and this slight difference in constitution exercises a profound effect on their pharmacological actions. In comparison with benzoic acid, salicylic acid is a much stronger antifermentative and antirheumatic, while the meta- and para-oxybenzoic acids have a very feeble action of any kind, and have lost the specific action possessed both by benzoic and salicylic acids in acute rheumatism.

Para-oxybenzoic Acid was given in 15-grain doses two-hourly, along with an equal amount of sodium bicarbonate, until about an ounce or more had been taken, and *Meta-oxybenzoic Acid* in the same way and dose. There was either no action or a very indefinite improvement, so slight as to make it doubtful whether the drug had had any influence. These two acids have a very feeble effect in preventing yeast fermentation. With both, 1 in 100 prevented it entirely, 1 in 200 delayed it, and weaker solutions had no action, while in the case of salicylic acid 1 in 2,000 inhibited fermentation entirely, and strengths up to 1 in 5,000 delayed it greatly. The relative action on a culture of *Bacillus coli* in bouillon was also marked. When the culture was kept in contact with a solution of 1 in 1,000 salicylic acid in water for three-quarters of an hour no further growth took place in plate cultures; with meta- and para-oxybenzoic acids a solution of 1 in 500 kept in contact for two hours was required.

The toxicity of the three acids to rabbits shows marked differences also. They were given by the mouth neutralized with sodium carbonate, and while in medium-sized rabbits 60 to 90 grains of salicylic acid usually proved fatal, with para-oxybenzoic acid 180 grains was required, and with meta-oxybenzoic acid up to 135 grains was given without any marked action.

Salicylic Acid in 15 and 20 grain doses every four hours has no superiority to sodium salicylate in effectively treating cases of acute rheumatism. It was given as a mixture suspended with mucilage, and did not cause any particular gastric irritation. Salicylic acid was the preparation originally used clinically, but was soon replaced by sodium salicylate, as the latter is more soluble, and also less irritating to the stomach.

Sodium Salicylate.

Sodium salicylate (C_6H_4.COONaOH) in sufficient doses (90 to 160 grains or more in twenty-four hours) acts very satisfactorily when the infection is recent, when the inflammation is confined to the joints, and when treatment is begun early.[1] It is quite otherwise when the fibrous tissues of the heart valves or of the muscles or body generally are deeply implicated. Then it does not act so rapidly or effectively. Such cases linger on for weeks or months in spite of treatment, and relapses are very apt to occur.[2] For this reason, and especially to avoid the occurrence of permanent damage to the heart, it is a matter of first-rate importance to discover a more active antirheumatic than the salicylates. In an uncomplicated case of acute rheumatism about 1 oz. of sodium salicylate spread over two to four days is usually sufficient to abolish symptoms, but this does not kill off the infective organisms, and hence relapses are apt to occur unless its administration is kept up in suitable doses for about three weeks or longer, when in most cases the infection has been overcome.

Mendl has advocated the intravenous administration of sodium salicylate,[3] and as given thus it very rapidly lessens pain, but it is not an effective method owing to the dose (5 grains) being too small, and to the practical impossibility of giving it often enough to keep the blood sufficiently saturated.

Very large doses[4] have also been advocated, with the idea of sterilizing the body—up to 400 and even 500 and 600 grains in twenty-four hours; but, apart from the risk of causing acidosis, it is doubtful if the body can be sterilized in this way, and it is not agreed that they are practically more efficient than smaller ones.

Sodium salicylate is a feeble germicide and antifermentative. It has almost no action on yeast or bacteria.

Saligenin.

Saligenin (C_6H_4.CH_2OH.OH) (o-hydroxybenzylalcohol) is chemically the alcohol of which salicylic acid is the corresponding acid, and in the body it is readily converted into the latter ($C_7H_8O_2+2O=C_7H_6O_3+H_2O$), 100 parts yielding 111 parts salicylic acid. It is a white powder without much taste, is readily soluble in warm water and in alkalis, and does not irritate the stomach if pure. I treated four cases with it, giving 10 grains every two hours. Its action was very rapid and satisfactory. In one case the pain ceased in twelve hours and the temperature was normal in thirty-six hours; in another the pain and swelling of the joints had gone in thirty-six hours; in a third after twenty-two hours; in the fourth the fibrous tissue was widely affected, and 1,340 grains were required. It causes a good deal of perspiration, and two of the cases suffered from deafness. Outside the body it has no antifermentative or antiseptic action. In rabbits when given per os its action was rather irregular, but 45 grains was usually a fatal dose.

Salicin.

Salicin ($C_6H_4.OCH_2OH.C_6H_{11}O_5$) is the glucoside of saligenin, and is hydrolyzed in the body into its two components, the saligenin being oxidized to salicylic acid. Scheffer[5] states that this takes place in the blood. It yields only 43 per cent. of its weight of salicylic acid, and therefore needs to be given in a dose twice as large as sodium salicylate (of which 13.3 per cent. is Na). It is quite soluble in warm water, has a bitter taste, and if well diluted does not irritate the stomach. It is excreted in human urine as salicylic and salicyluric acids, never as unchanged salicin. Given in 20-grain doses hourly, or 30 grains every two or three hours, its action in rheumatic fever is highly satisfactory. I have often given 60 grains, and repeated it in two hours without any ill effects. Its action in acute rheumatism depends on the development of salicylic acid in the blood, but both it and saligenin differ somewhat from salicylic acid or sodium salicylate in their general action. A solution of 1 in 250 does not prevent yeast fermentation, and it seems to have in itself little or no effect on low organisms.

Acetyl-salicylic Acid.

Acetyl-salicylic acid (C_6H_4.COOH.OC_2H_3O) is scarcely soluble in water, and the solution gives no purple colour on adding ferric chloride (no free salicylic acid). In the presence of alkalis the acetyl group splits off and leaves salicylic acid, a change which takes place in the duodenum, where at the same time sodium and other salicylates are formed. It is doubtful, however, whether the whole of it undergoes these changes, as it is a much more powerful analgesic than sodium salicylate, and this can only be accounted for by assuming that a part of it is absorbed unchanged and exercises this effect. A comparatively slight analgesic action such as acetyl-salicylic acid exerts cannot be satisfactorily studied in animals, but patients agree that even in non-rheumatic affections it lessens pain. This is true only to a very slight extent of salicin or salicylic acid.

In acute rheumatism doses of 15 grains three or four hourly act very satisfactorily. There is no reason to suppose that the action is other than that of sodium salicylate. I have found that it irritates the stomach in many people more than sodium salicylate does, and that it is equally liable to cause perspiration, deafness, and ringing in the ears. Serious drawbacks to its clinical use are that it is incompatible with sodium bicarbonate, that it cannot be pushed to large doses without causing sickness, and that it is insoluble in water and cannot be given as a mixture.

A solution of 1 in 250 does not stop yeast fermentation, so that any antifermentative or antibacterial action must only occur when its salicylic acid is split off and can act by itself.

Salol.

Salol (phenyl-salicylate) ($C_6H_4.COOC_6H_5.OH$) is split up in the small intestine into salicylic acid and phenol. The dose is limited by the poisonous action of phenol, and it is therefore quite impossible to give as much of it as will yield enough salicylic acid to treat efficiently a case of rheumatic fever.

Quinine Salicylate.

Roughly, one-third of this salt is salicylic acid and two-thirds quinine, and the dose is usually stated as 1 to 5 grains. The quinine part is inert in rheumatic fever, and the salicylic portion is quite insufficient in amount. Cases treated with 10 to 15 grains six-hourly showed practically no improvement. Deafness and ringing in the ears are brought on very readily by it.

Methyl Salicylate.

Methyl salicylate ($C_6H_4.COOCH_3.OH$) can be given internally, in 10 to 15 minim doses every three or four hours, in milk, or on sugar, or in emulsion, and it can be externally applied at the same time to the inflamed joints. Cases treated in this way improve very rapidly, and there can be no doubt about the efficiency of the method.[6] It is, however, very apt to cause nausea and sickness.

Baas says that 8 to 13 per cent. of it is excreted in the urine unchanged, and the remainder as ethereal salicyl-sulphate.

Glycosal.

Glycosal ($C_6H_4.COOC_3H_5(OH)_2.OH$) is a glycerin-ester of salicylic acid. Given in 90 to 120 grains per day its action was feeble and unsatisfactory, owing to the insufficient content of salicylic acid.

Salicyluric Acid.

Salicyluric acid ($C_6H_4.CO(NH.CH_2COOH).OH$) is the form in which salicylic acid is chiefly excreted in the urine, accompanied by a certain varying amount of salicylic acid always in very much smaller quantity. It is formed in the body by a combination with glycocoll (amido-acetic acid, $NH_2CH_2.COOH$). It has lost almost entirely the poisonous and antifermentative and antibacterial actions of salicylic acid, and it is quite inert in acute rheumatism.[7] The fact that salicylic acid is so rapidly and so largely converted into this inert substance in the body explains why it is necessary to give it in frequently repeated and large doses to maintain its effect.

Dimethyl-salicylic Acid.

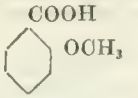
Dimethyl-salicylic acid, methylsalicylate of methyl ($C_6H_4COOCH_3.OCH_3$), is an oily volatile substance with a slight odour and an irritating aromatic taste. It gives no purple colour with ferric chloride. Four grams given per os to a rabbit had no action, but 8 grams was fatal after some hours. The urine gave no purple colour with ferric chloride. Doses of 20 minims four-hourly proved absolutely without action in rheumatic fever. It is not converted into salicylic acid in the body, and this accounts for its non-effect. A solution of 1 in 1,000 did not prevent yeast fermentation.

Toluic Acid, Salicylous Acid, etc.

Sodium Methylsalicylate ($C_6H_4.COOCH_3.ONa$), and *Salicylous Acid* (salicylic aldehyde) ($C_6H_4.COH.OH$), the three *Toluic Acids*[8] ($C_6H_4COOH.CH_3$) and *Disodium Salicylic Acid* ($C_6H_4.COONa.ONa$) are all too irritating to give internally.

Methoxybenzoic Acid.

Methoxybenzoic acid ($C_6H_4.COOH.OCH_3$), methylsalicylic acid—



is the ortho-acid, and *Anisic Acid* is the para-acid—



The latter has almost no action of any kind. The former has no perceptible action in acute rheumatism in 15-grain doses four-hourly. The urine gives a very faint purple colour with ferric chloride, but practically it is not converted in the body into salicylic acid, and it has little or no action of its own.

Eight grams neutralized with sodium carbonate and given to a rabbit per os had no action on it. A strength of 1 in 500 prevented yeast fermentation in a solution of sugar, but lesser quantities had little or no effect.

Populin.

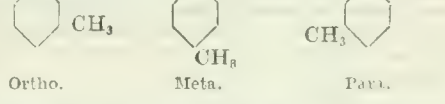
Populin ($C_{13}H_{17}(C_7H_5)O_7$) is benzoyl-salicin. It is in white crystals resembling salicin in appearance. Doses of 10 grains hourly and 20 grains three-hourly had no action. The urine sometimes gave a slight purple colour with ferric chloride and sometimes not. Four grams per os had no effect on a rabbit.

Tetra-benzoyl-salicin.

Tetra-benzoyl-salicin was equally without action. I had hoped that the introduction of the benzoyl molecule into salicin would greatly increase its efficiency, but it did not do so.

Cresotinic Acids.

Cresotinic acid ($C_6H_3.COOH.OH.CH_3$). Three of the cresotinic acids have the following formulae:



and all three, but especially the ortho- and meta-acids, have a powerful antirheumatic action. They have, however, no special advantages compared with salicylic acid, and as I have described their action in detail elsewhere[9] I need not go into the matter again here. In all three the COOH and OH groups have the same relationship as in salicylic acid.

Cinnamic Acid.

Cinnamic acid, $C_6H_5(CH.CH.COOH)$



is a combination of phenol with acrylic acid ($CH_2.CH.COOH$). Sodium cinnamate can be readily taken in 15 or 20 grain doses. In the body it is converted into benzoic acid, and although this exerts a mild but practically unimportant effect in acute rheumatism, in itself the cinnamate has no action. The acid is a fairly powerful antiseptic and antifermentative. A solution of 1 in 1,250 prevented yeast fermentation, 1 in 2,000 did not do so, and 60 grains given to a rabbit in emulsion per os had no apparent action.

Coumaric Acid.

Coumaric acid ($C_6H_4.CH.CH.COOH.OH$) has the same chemical relationship to salicylic acid that cinnamic has to benzoic acid.



Only the ortho-acid was used, neutralized with sodium bicarbonate. It proved to be without effect. Six grams did not affect a rabbit, nor did a solution of 1 in 1,000 do more than slightly hinder yeast fermentation.

Phthalic Acid.

Phthalic acid, $C_6H_4(COOH)_2$. The ortho-acid given in 20-grain doses four-hourly, neutralized with sodium bicarbonate, has a very slight antirheumatic action. In 8-gram doses it is not fatal to rabbits, and it is very feebly germicidal or antifermentative. *Iso-phthalic Acid*, the meta-acid, seemed to be a quite inert substance in doses of 120 grains daily.

Local Applications.

The application of certain salicylic compounds to acutely inflamed joints and muscles greatly eases rheumatic pain, but the number of those which can be absorbed through the skin is very limited.

Methyl Salicylate is the most used and is the most efficient. It is seldom irritating to the skin, and can be rubbed in or applied as a dressing either undiluted or as three parts to one of olive oil. *Ethyl Salicylate and Methyl Meta-cresotinate* have the same effect, but their odour is equally pungent.

Mesotan ($C_6H_4COOCH_2.OCH_3.OH$), a methoxymethyl ester of salicylic acid, is efficient in lessening pain, but has the important drawback of being apt to cause troublesome eruptions.

Spirosal and *Ulmarene* are oily salicylic ethers without much odour, but also without much action.

A 10 per cent. ointment of *Salicylic Acid* made up with lard and a little oil of turpentine, is absorbed through the skin and has a marked local anodyne action, both when rubbed in and used as a dressing; but it is, on the whole, not suitable for ordinary use, as it damages the epidermis.

I have also used largely *Sodium Salicylate*, 2 or 3 grains in 10 minims of water, injected locally by means of a hypodermic syringe. This lessens or abolishes pain at the spot almost at once, but the effect is very transient and lasts only for about half an hour to an hour. The amount which can be given locally by ionic medication is also too small to be satisfactory in its effect.

None of these substances can be absorbed through the skin in such amount as to influence materially the general infection, and hence their value is merely in lessening local pain.

It is said that decoction of willow bark has been long and successfully used by the Hottentots in Orange River Colony for acute rheumatism,[10] and that in the United States the wintergreen is similarly employed by country people, but as regards our present-day practice we may take it that salicin was first used in acute rheumatism by T. J. Maclagan[11] in 1874 and salicylic acid independently by Buss[12] in 1875. I think it is correct to say that the discovery of the specific antirheumatic action of both these substances was a matter of accident, and that in the thirty-nine years which have since elapsed no substantial improvement has been made on them and no new therapeutical path has been struck. So far as I am able to judge, the real efficiency of the numerous compounds which have been recommended by manufacturing chemists in rheumatic affections depends solely on the amount of salicylic acid which they contain or develop in the body. Little is known as to how chemical constitution influences the antirheumatic action of this group of substances. As I have previously pointed out, benzoic acid, formed by the introduction of COOH into benzol, shows this specific action, but when two molecules of COOH are introduced (phthalic acid) the antirheumatic effect is diminished almost to vanishing point.

When, however, OH is introduced into benzoic acid to form salicylic acid, the efficacy is enormously increased, and it looks as if this OH were the determining factor, yet the stereo-isomers of salicylic acid, m-oxybenzoic and p-oxybenzoic acids, have no action. When the OH of salicylic acid is altered into OCH_3, as in ortho-methoxy-benzoic acid, all antirheumatic effect disappears.

That the COOH molecule also has a dominating influence is shown by the fact that in cinnamic and coumaric acids, where it is disturbed, the specific antirheumatic action is completely lost.

Methyl salicylate develops salicylic acid in the body and retains the specific action, while dimethyl-salicylic acid, which does not do so, is inert, and the same holds true in the case of other salicylic compounds, such as salicin (which is active) and populin (which is inactive). The cresotinic acids are the only substances which are known to equal or even approach salicylic acid in efficacy. The prevention of heart lesions, valvular and myocardial, should be the great aim of our treatment, yet it is notorious that heart lesions occur very commonly even while large doses of salicylates are being administered. It is still an open question whether these lesions and rheumatic lesions generally are caused by colonies of microbes or by toxins, nor do we know definitely whether the salicylates act as antimicrobics or as antitoxins.[13] The most immediate explanation of their action is that they kill or injure a causal microbe, but it has also been maintained that the almost instantaneous although transient effect of a small dose given intravenously points to an antitoxic action, and that when given per os the rapid abatement of symptoms apart from the real cure, as shown by the tendency to relapse, points in the same direction.

It is not seriously held at the present day that any of our germicidal remedies can be given in sufficient amount to kill bacteria in the human body. The most we can hope for is that their vital activity and capacity to produce toxins may be abated, and that thereby the natural defensive agencies of the body will be enabled to deal with them more readily and effectively so that the infection is got rid of. Most probably this is what occurs in rheumatic fever under salicylic treatment, and it explains the tendency to relapse if the remedy be prematurely stopped or not given in sufficiently large doses.

But the most important of the many unsolved problems in the pathology and treatment of rheumatic infections is undoubtedly the discovery of a remedy powerful enough to abolish or greatly lessen the chances of injury to the muscle and valves of the heart. If this were successfully accomplished the incidence of serious heart disease would diminish to something like one-third of its present amount.

References.

[1] Stockman, British Medical Journal, 1906, ii, 1439. [2] Stockman, *Proc. Roy. Soc. Med.*, ii, 1908-9; *Med. Press and Circ.*, 1909; *Practitioner*, 1912, 61; Mantle, *Practitioner*, 1912, 190. [3] Mendl, *Therap. Monatshefte*, 1904. [4] Lee, British Medical Journal, 1909, i, 146. [5] Scheffer, Das Salicin, Inaug. Diss., Marburg, 1860. [6] Stockman, British Medical Journal, 1906, ii, 1439. [7] Stockman, *Edin. Med. Journ.*, 1906, ii. [8] May, British Medical Journal, 1909, ii, 791. [9] Stockman, *Journal of Pharmacology and Experimental Therapeutics*, iv, 97, 1912. [10] *Lancet*, 1876, i, 910. [11] Maclagan, *Lancet*, 1876, i, 342, 383. [12] Buss, Thesis, 1875, *Deutsch. Archiv. Klin. Med.*, xv. [13] Mendl, loc. cit.

The fifth of the Galton Laboratory lectures on national eugenics was delivered by Mr. W. Palin Elderton, Fellow of the Institute of Actuaries, at University College, London, on March 11th. Mr. Elderton, whose subject was the mortality of the phthisical under sanatorium and tuberculin treatments, said that it was difficult to obtain exact figures, owing to the confusion which existed concerning the stage the disease had reached when the patient began the treatment and the precise nature of so-called cures. It was true that in recent years the mortality amongst advanced cases under sanatorium treatment had decreased considerably, whilst the number of cures amongst incipient cases had greatly increased. This, however, might possibly be due to the fact that advanced and incurable cases were not received in sanatoriums so readily as formerly, whilst, on the other hand, a far larger number of incipient cases were admitted, increased knowledge and experience having rendered it possible to diagnose the presence of tuberculosis in its very earliest stages. At the present moment it was almost impossible to come to a decision as to the relative merits of sanatorium and tuberculin treatment. It was as yet too soon to say definitely which treatment was the more successful; but what was certain was that the mortality amongst consumptives both in and out of sanatoriums was still extremely high. The aim of the medical profession at the present moment was to reduce this heavy death-rate at all costs; and he was confident that the day would come when some means of effectually checking the progress of the disease would be discovered.

The Goulstonian Lectures

ON

DEATH BY ELECTRIC CURRENTS AND BY LIGHTNING.

DELIVERED BEFORE THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

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LECTURE III.—DEATH BY LIGHTNING (*continued*).

The Mode of Death by Lightning.

IT would seem as if sudden death by lightning might occur in at any rate three different ways—by failure of the heart, by failure of the respiration, and by failure of both together. In the vast majority of cases the senses are lost at once, and in most death takes place very rapidly if at all. The extreme suddenness with which it must have occurred, as proved by the natural position of the corpse and its placid expression, has often been noted. As is the case in non-fatal strokes, there is reason to suppose that the nervous system is profoundly affected, though no microscopic lesions may be demonstrable.

1. *Death by failure of the heart*, which may be supposed to be thrown into a state of fibrillation, is assumed to be the commonest mode of death by lightning; in man it is probably final and irremediable, although the respiration may continue for a short time. The face in these instances is pale, free from congestion.

2. *Death by failure of the respiration* from Brown-Séquard's inhibition, while the heart continues to beat until asphyxia stops it, would explain why so many of those killed by lightning present all the *post-mortem* appearances of death by asphyxia. Such deaths might be averted by artificial respiration, continued until the respiratory centre in the bulb has had time to recover from the injury inflicted on it by the stroke. In non-fatal cases it has been noted that the patients' symptoms were those of asphyxia or the breathing of irrespirable gases[44, 92]; Nick records an instance in which gradual failure of the respiration became complete in about four hours. Apparent death may last for three-quarters of an hour, yet be followed by recovery (Sahut). Kelly has described an instance where the heart was still beating ten or fifteen minutes after the stroke, though respiration had ceased; but in this instance artificial respiration did not restore life.

3. *Death by Failure of the Heart and Respiration together.*—It is probable that this form of death occurs after lightning-stroke, just as it may after the passage of industrial electric currents; but I do not know of any evidence to prove that it does.

4. In a very few cases, mentioned already, gross lesions of the brain have been found *post mortem*, and may well have been the cause of death in these instances. The older *post-mortem* examinations very generally failed to bring to light any pathological changes in the central nervous systems of the victims of lightning-strokes. It is possible that the more delicate modern methods of investigation would not give such negative results here.

Prognosis.

Unless sudden death follows, the probability that a person struck by lightning will recover is large; Dechambre collected 365 instances in which the immediate effects of the stroke were survived, and found that only 15 of these victims died subsequently from late effects of the lightning. It seems to be very generally assumed that immediate treatment would improve the prognosis considerably, and that many of the people killed by lightning are only apparently dead, and still capable of recovery if properly treated during the next few minutes. I do not know of any statistical evidence to prove this point.

Prophylaxis.

The ancient Greeks and Romans protected themselves against lightning by the use of incantations and amulets, and by wearing the skins of animals like the seal, hippopotamus, and hyaena (Fougères) that were supposed to be immune to lightning-stroke; they also had the good sense to take refuge in caves or cellars during thunderstorms. An Etruscan—Tages—protected his landed property by setting up an ass's head as tutelary deity, suitably enough. In the Middle Ages flight to England was advised, as that country was supposed to be free from lightning—a view sadly contradicted by Müller in 1690.

At the present day only general advice can be given, as the accumulated records have shown that no place is completely protected against lightning. It is certainly safer to be indoors than out, and a large house is much safer than a shanty. The windows and doors of the room in which one is should be shut, and one should keep away from the walls, and particularly from the fireplace, because, when a chimney-stack is struck, the contents of the chimney and the fireplace are often blown out into the room and cause bodily injuries. A great many people have been struck in sheds and barns, especially when they have been near doors or windows, or in currents of air. Turley recommended the centre of a railway carriage at a distance from the engine as the securest place of all; Schefčik, a feather bed. To take refuge in the cellars merely to avoid a thunderstorm is not necessary as a routine, though in exceptional cases it may be advisable.

The advice given by various authors to persons caught out of doors in a thunderstorm is contradictory. It is probably unwise to take shelter in a shed unless one can get out of the way of doors, windows, and draughts while one is in it. A shed containing domestic animals is certainly more dangerous than the open. If one has to remain in the open, there are certain things that should be avoided at any cost. The first of these is the proximity of wire fences, because when such a fence is struck the electric discharge may be carried along the wires and cause death at a distance from the place actually struck. The second is proximity to such things as hedges, ponds and streams, isolated trees, crowds of people and herds of domestic animals. Crowds of people or animals seem to have a mild attraction for lightning, very possibly by virtue of the warmth and dampness they impart to the atmosphere immediately round them. Certain varieties of trees are less dangerous than others; in similar conditions the beech is much less often struck than any other tree that is common in Europe, while the oak is very many (perhaps forty or fifty) times more liable than the beech to be struck and injured. This may be because the electric conductivity of beech trees is low at all times of the year, beech wood being always rich in fat and poor in starchy matter.[26] Hence, if one has to take shelter under a tree, that tree should be a beech,* and one should not be near its trunk. But to take cover in a forest or wood is quite safe, as trees *en masse* are rarely struck. If one is in quite open country, there is nothing to show whether it is better to be on high ground or in a valley; it seems to be agreed that to lie or sit down is safer than to stand up, that umbrellas should not be hoisted, and that riders and drivers should dismount and not stay near their horses or conveyances. It has often been said that to have had the clothes thoroughly wetted by rain and rendered conducting gives some protection to people who are struck by diverting the path and violence of the lightning from the body to the clothes. I have found seven well-recorded instances in which the effect of the stroke was to blow all, or practically all, the wetted clothes off the body, by the generation of steam, as I believe. There can be no doubt that a part of the energy of the lightning was expended on the clothes in these cases, but three of the seven victims were killed notwithstanding. So the protection of wet clothes cannot be considered at all complete.

Vincent makes an ingenious practical suggestion—perhaps too ingenious. It has long been known, he says, that animals are more liable to be struck than men; hence one should always take a dog out walking in order that if a thunderstorm comes on, the dog, already the friend of man, may also serve as his lightning conductor.

* Compare the German proverb:

Vor den Eichen sollst Du weichen,
Vor den Fichten sollst Du flüchten,
Doch die Buchen sollst Du suchen.

In these days, when vaccine therapy is so widely employed, it is not without interest to note that in South Africa both the Zulus and the Caffres inoculate themselves against lightning by rubbing into cuts the flesh of animals (bullocks) killed by lightning (Frazer).

Treatment.

Persons struck and apparently killed by lightning should at once be given plenty of fresh air, their clothes should be loosened, and artificial respiration by Schäfer's or Sylvester's method should be applied and should be continued until either recovery occurs or cooling of the body and *rigor mortis* show conclusively that death has taken place. In the medical writings of from fifty to two hundred years ago one often sees bleeding recommended, and this might well be of service in those cases of lightning stroke in which the heart goes on beating while the respiration stops. If it were immediately—within a few minutes—available, to give strong electric shocks to the praecordia would be well worth trying in desperate cases. As regards other remedies—such as stimulants in all forms, hot or cold applications, the inhalation of pungent vapours—very many have been recommended, but none seem to have met with any success.

In conclusion, I may say that it is very highly improbable that any one of us will be struck by lightning. But to the attention of those who are struck and survive may be recommended the French superstition that such people have for forty days the power of curing all kinds of disease by "touching." I may quote for their encouragement the case[18] of a girl of 8 who was struck at Douai, and afterwards "touched" over 600 persons in this way; and, as it is recorded that the parents did not refuse the modest offerings presented by the visitors, one may assume that the girl "touched" their pockets as well as their persons. As regards those who are fated to be killed by lightning, the only consoling thought I have been able to find for them is taken from the recently published diary of Queen Victoria. On June 1st, 1838, the Queen wrote:[102]

"I told Lord Melbourne I never could forgive him for having stood under a tree in that violent thunderstorm at Windsor last year; he said, 'It's a hundred to one you're not struck,' and then added, smiling, 'It's a sublime death.'"

LITERATURE.

1 Abildgaard, P. C.: *Soc. med. Havn. collectanea*, 1775, ii, 157.
2 Arago, F.: *Meteorological Essays*. London, 1855.
3 *Arch. de l'anthropologie crim.*, Lyon, 1900, xv, 116.
4 d'Arsonval, A.: *C. R. Acad. des Sciences*, Paris, 1885, c, 239.
5 Idem, *C. R. Soc. de Biol.*, Paris, 1887, 8me sér., iv, 95.
6 Idem, *C. R. Acad. des Sciences*, Paris, 1887, civ, 978.
7 Idem, *Bull. de l'Acad. de Méd.*, Paris, 1892, xxvii, 424.
8 Idem, *Arch. de physiol. norm. et path.*, Paris, 1893, 401.
9 Idem, *C. R. Acad. des Sci.*, Paris, 1894, cxviii, 1139.
10 Idem, *Bull. Soc. internat. des Élect.*, 1910, 355.
11 Aspinall, F. B.: *Lancet*, 1902, i, 660.
12 Auzouy: *Schmidt's Jahrbücher*, 1858, c, 78.
13 BRITISH MEDICAL JOURNAL, 1861, ii, 98.
14 Banham, G. A.: *Vet. Journ.*, 1881, 243, 297.
15 Barnes, G. R.: *Med. Times and Gaz.*, London, 1868, i, 671.
16 Battelli, F.: *Rev. méd. Suisse Rom.*, Geneva, 1899, xix, 605.
17 Idem, *Congrès Internat. d'Elec.*, Berne, 1902, 583.
18 Idem, *Richet's Dict. de Physiologie*, Paris, 1904, vi.
19 Becher: *Aerztl. Rundschau*, München, 1897, vii, 529.
20 Benjamin, P.: *The Intellectual Rise in Electr.* London, 1895.
21 Bennett, H. C.: *Amer. X-ray Journ.*, 1897, i, 127; 1898, ii, 141.
22 Bidermann, J. G.: *Caussas subitae mortis fulmine tactorum.* Lipsiae, 1768.
23 Biraud, F.: *Thèse de Lyon*, No. 780, 1892.
24 Bordier et Lecomte: *C. R. Acad. des Sciences*, 1901, 1295.
25 Boruttau: Nagel's *Handbuch der Physiologie*, 1909, i, 239.
26 Bourrot: Reported by Grange.
27 Branchbar, R.: *Über Unfälle durch hochgesp. elektr. Ströme.* Leipzig, 1901.
28 Brodie, B. C.: *London Med. Gazette*, 1828, i, 79.
29 Brouardel: Reported by Grange.
30 Brown, H. P.: *Med.-Legal Journ.*, New York, 1888-1889, vi, 276.
31 Brown-Séquard: *C. R. Soc. de Biol.*, Paris, 1850, i, 154.
32 Buchanan, W.: *Lancet*, 1892, i, 629.
33 Carpi, A.: *Lo Spallanzani*, Modena, 1874, xii, 551.
34 Cipriano, C.: *Il raccogl. med.*, Forlì, 1892, 5 s., xiv., 274.
35 Clacs, E.: *Journ. de Méd. Chir. Ph.*, Paris, 1856, xxiii, 340.
36 Clark, R. O., and Brigham, J. K.: *Lancet*, 1872, ii, 77.
37 Colladon, D.: *C. R. Acad. des Sci.*, Paris, 1887, civ, 1136.
38 Corrado, G.: *Arch. d'Electr. méd.*, Bordeaux, 1899, vii, 5.
39 Idem, *Atti della R. accad. med.-chir. di Napoli*, 1898, 242.
40 Coulter, F. E.: *Med. Herald*, St. Joseph, 1899, xviii, 483.
41 Crile and Macleod: *Amer. J. Med. Sci.*, 1905, 417.
42 Crossland, J. O.: *Columbus Med. Journ.*, 1892–1893, xi.
43 Cunningham, R. H.: *New York Med. Journ.*, 1899, lxx, 581, 615.
44 Darling, Frier, and Pedlow: BRIT. MED. JL., 1905, ii, 1522.
45 Davies, J.: *Lancet*, 1838-39, xxxvi, 681.
46 Daxenberger: *Aerztl. Rundsch.*, München, 1897, 289.
47 Dechambre, A.: *Dict. encycl. d. sci. méd.*, 1880, vi, 272.
48 Dillner, F.: *Ueber die Wirk. des Blitzes*, etc. Leipzig, 1865.
49 Donlin, P. E.: *Medico-Legal Journ.*, New York, 1889, vii, 470.
50 Dunscombe-Honeyball, O.: BRIT. MED. JL., 1900, i, 1153.
51 Durand, J. J.: *Thèse de Paris*, No. 232, 1894.
52 Dürck, H.: *Münch. med. Wchnschr.*, 1895, xlii, 716.
53 Durrbach, F.: *Daremberg and Saglio's Dict.*, IV, i.
54 Dutt, O. C.: *Indian Med. Gaz.*, Calcutta, 1867, ii, 152.
55 Eggleston, W. G.: *Med. Record*, New York, 1885, xxvii, 120.
56 *Elektrotechn. Ztschr.*, Berlin, 1911, xxxii, 354.
57 Emde, F.: *Electrotechn. Ztschr.*, Berlin, 1910, xxxi, 675.
58 Farkas, E.: *Ungar. Arch. f. Med.*, Wiesb., 1894–95, iii, 320.
59 Fischer: *Med. Ztg.*, Berlin, 1837, vi, 1.
60 Fischer, J. G.: *Disp. physica de fulmine.* Jenae, 1665.
61 Fougères, G.: *Daremberg and Saglio's Dict.*
62 Franque, J. von: *Memorabilien.* Heilbronn, 1866, xi, 33
63 Frazer, J. G.: *The Golden Bough*, Pt. V, vol. ii, 161. 1912.
64 Free, J. E.: *Med. and Surg. Reporter*, Phila., 1887, lvii, 102.
65 Gardé, P.: *Thèse de Paris*, No. 81, 1895.
66 *Gaz. des Hôp.*, Paris, 1911, lxxxiv, 1237, 2028.
67 Gem, W.: *Lancet*, 1909, i, 34.
68 Gibbons, P. J.: *New York Med. Journal*, 1895, lxi, 482.
69 Goelet, A. H.: *Atl. Med. Weekly*, Providence, 1895, iii, 241.
70 Grange, E.: *Thèse de Paris*, 1884, No. 383.
71 Idem, *Ann. d'Hyg. publ.*, 1885, 53, 303.
72 Haberda, A.: *Wiener klin. Wchnschr.*, 1891, iv, 588.
73 Hankel, E.: *Volkmann's Sammlung*, 1897-1900, No. 208.
74 Hann, J.: *Lehrb. d. Meteorologie*, 2te Aufl., Leipzig, 1906.
75 Harting: *Med. Ztg.*, Berlin, 1856, xxv, 249.
76 Hedges, K.: *Modern Lightning Conductors.* London, 1905.
77 Hedley, W. S.: *Lancet*, 1893, ii, 437; 1894, ii, 437, 655.
78 Idem, ibid., 1895, i, 281; 1895, ii, 281.
79 Idem, ibid., 1896, ii, 1630.
80 Heffernan: Reported in *Lancet*, 1877, ii, 266.
81 Henry, A. J.: *Loss of Life in the United States by Lightning.* Washington, 1901.
82 Heusner: *Arch. f. klin. Chir.*, Berlin, 1884–85, xxxi, 659.
83 Hoest, G. L': *Bull. Assoc. des Ingén. Elect.*, 1910, x, 9.
84 Hoffa u. Ludwig: *Ztschr. f. rat. Med.*, 850, 107.
85 Hoffmann, C. F.: *De morte in fulmine tactis.* Halae Magd., 1766.
86 Hoffmann, J. A.: *Quaest. phys.*, etc. Wittemberg, 1703.
87 Hofmann, G. von.: *Eulenburg's Real-Encyclop.*, 1894, iii, 522.
88 *Hospitalstidende*, Copenhagen, 1862, v, 61.
89 Jack: *Allgem. med. Central-Ztg.*, Berlin, 1857, xxvi, 418.
90 Jacobsthal, P.: *Der Blitz in der orient. u. griech. Kunst.* Berlin, 1906.
91 Janichius, P.: *De fulmine disp. physica.* Dantisci, 1606.
92 Jellinek, S.: *Elektropathologie*, Stuttgart, 1903 (Literature quoted); *Virchow's Archiv.* 1902, clxx, 56.
93 Idem, *Lancet*, 1903, i, 357; *Wien. k. Wch.*, 1905, 1139, 1184.
94 Idem, *Atlas der Elektropathologie.* Berlin u. Wien, 1909.
95 Jenks, W. J.: *New York. Med. Journ.*, 1892, lv, 542.
96 Jones, H. L.: BRITISH MEDICAL JOURNAL, 1893, i, 1318.
97 Idem, ibid., 1895, i, 468.
98 Johnston, J. W.: *Indian Med. Gaz.*, Calcutta, 1873, viii, 213.
99 *Journal of the Royal Agricult. Soc.*, London, 1900, 3. s., x. 608.
100 Kelly, B.: *Journ. Am. Med. Assoc.*, Chicago, 1903, xli, 1273.
101 Kennelly and Alexanderson: *L'Ind. élect.*, Paris, 1911, 79.
102 Kisling, J. J.: *De tactis fulmine.* Kiliae Holsatorum, 1673.
103 Knaggs, R. H. E.: *Lancet*, 1894, ii, 1216; BRITISH MEDICAL JOURNAL, 1894, ii, 1236.
104 Kratter, J.: *Wien. klin. Wchnschr.*, 1894, vii, 379.
105 Idem, *Der Tod durch Elektricität.* Leipzig, 1896.
106 Kronecker, H.: *Deutsche med. Wchnschr.*, 1884, x, 364.
107 Lane, J. R.: BRITISH MEDICAL JOURNAL, 1872, ii, 114.
108 Lauffer, C. A.: *Electrical Injuries.* New York, 1912.
109 Lawson, R.: *Quart. J. R. Meteorol. Soc.*, 1889, 140.
110 Liman: *Deutsche med. Wchnschr.*, 1885, xi, 529.
111 Lodge, O. J.: *Lightning Conductors and Lightning Guards.* London, 1892.
112 Lucas, C.: BRITISH MEDICAL JOURNAL, 1905, i, 134.
113 McAdie, A. G., and Henry, A. J.: *Lightning and the Electricity of the Air.* Washington, 1899.
114 MacDonald, C. F.: *New York Med. Journ.*, 1892, lv, 505, 535.
115 Macintosh, D.: *Lancet*, 1864, ii, 118.
116 McWilliam, J. A.: *Journal of Physiology*, 1887, viii, 296.
117 Mache, H., und von Schweidler, E.: *Die atmosphärische Elektrizität.* Braunschweig, 1909.
118 Mally: *Rev. de chir.*, Paris, 1900, xxi, 321.
118a Mangin, M.: *Ann. des sci. psych.*, Paris, 1897, vii, 213.
119 Mann, J. D.: *Med. Chronicle*, Manchester, 1885, ii, 1.
120 Marherr, P. A.: *Weiz's Neue Auszüge*, Leipzig, 1776, v, 22.
121 Milham, W. I.: *Meteorology.* New York, 1912.
122 Müller, A.: *De astrobolismo.* Francof. ad Viadrum, 1690.
123 Münnich, J. A.: *Gründl. Bericht*, etc. Halberstadt, 1732.
124 Nick: *Med. Corr.-Bl. des Württ. Aerztl. Ver.*, 1857, xxvii, 76.
125 Niederheitmann: *Bericht Rhein. Med. Coll.*, 1833, 125.
126 O'Neill, J. A.: *Atl. Med. Weekly*, Providence, 1898, x, 184.
127 Oesterlen, O.: In Maschka's *Handb. ger. Med.*, 1881, i, 795
128 Oliver, Sir T.: *Lancet*, 1911, i, 363.
129 Oliver, T., and Bolam, R. A.: BRIT. MED. JL., 1898, i, 132.
130 Ouvrard: *Nouv. Journ. de Méd. Chir. Ph.*, Paris, 1821, xii, 312.
131 Pélissié, J.: *Thèse de Lyon*, No. 59, 1896.
132 Penfold, O.: *Austral. Med. Journ.*, 1880, n.s., ii, 120.
133 Phayre, T.: *Dublin Med. Press*, 1842, viii, 22.

184 Pla, E. F.: *Consideraciones medico-legales acerca de la muerte por la electricidad industrial.* Habana, 1891.
185 Pockels, F.: *Meteorolog. Ztschr.*, Wien, 1901, xviii, 40.
186 Prevost, J. L.: *Rev. méd. Suisse Rom.*, 1898, xv, 545.
187 Prevost, J. L., et Battelli, F.: *Rev. méd. de la Suisse Romande*, Geneva, 1899, xix, 545.
188 Idem, *C. R. Acad. des Sci.*, Paris, 1899, cxxix, 651, 1267.
189 Idem, *Journ. Phys. et Path. gén.*, Paris, 1899, i, 1085, 1114.
140 Priestley, J.: *The History of Electricity.* London, 1767.
141 Rasbach, J. C.: *De eo quod medicum decet circa fulmine tactos.* Erfordiae, 1737.
142 Richardson, B. W.: *Med. Times and Gazette*, London, 1869, i, 511, 595; ii, 183, 373.
143 Robinovitch, L. G.: *Sommeil électrique.* Nantes, 1906.
144 Röser, C. J.: *Disp. phys.-med. de fulm.* Regiomonti, 1704.
145 Roy: *Rec. de mém. de méd. chir. pharm.*, 1864, xii, 231.
146 Sahut: *Soc. des Sci. Méd. de Gannat*, Moulins, 1874, 40.
147 Schefčik, J.: *Wiener med. Presse*, 1877, xviii, 814, 847.
148 Schmidt, K. E. F.: *Meteor. Ztschr.*, Wien, 1905, xxii, 362.
149 Schmitz, W.: *Deutsche Med.-Ztg.*, Berlin, 1887, viii, 821.
150 Schneider, S. A. J.: *Deutsche Ztschr. f. d. Staatsarznk.*, Erlangen, 1870, n. F., xxviii, i, 161.
151 Schottin, D.: *Med. Convbl.*, Hildburghausen, 1831, i, 1.
152 Schumacher, E. D.: *Unfälle d. elek. Starkströme.* 1908.
153 Sheild, M., and Delépine, S.: BRIT. MED. JL., 1885, i, 531.
154 Shettle, R. C.: *Lancet*, 1895, ii, 694, 809.
155 Sonrier: *Gaz. des Hôp.*, Paris, 1872, 833.
156 Stanton and Krida: *Med. Record*, 1910, 896.
157 Stock, J. C.: *De fulmine*, etc. Jenae, 1734.
158 Sutherland, W. G.: *Lancet*, 1893, ii, 1033.
159 Swinton, A. A. C.: *Lancet*, 1893, ii, 957.
160 Sycyanko: *Berl. klin. Wchnschr.*, 1868, v, 227.
161 Tatum, E.: *New York Med. Journ.*, 1890, li, 207.
162 *The Girlhood of Queen Victoria.* London, 1912, i, 337.
163 Thomson: *Trans. Amer. Electrotherap. Assoc.*, 1894, iv. 261.
164 Thys: *Ann. de la Soc. de Méd. Prat.*, Malines, 1851, ix, 389.
165 Trotter, A. P.: *J. Inst. Electr. Eng.*, 1902, xxxi, 762.
166 Trowbridge, J.: *Mem. Amer. Acad. of Arts and Sci.*, 1908, xiii, 185.
167 Turley, E. A.: *Med.-Chir. Review*, London, 1844, xl, 177.
168 Verhoogen, R.: *Journ. de méd. de chir. et de pharm.*, 1894, 729.
169 Vincent, F.: *Gaz. des Hôp.*, Paris, 1885, lviii, 724, 755, etc.
170 Idem, *Gaz. des Hôp.*, Paris, 1892, lxv, 928, 958, etc.
171 Vollmar, J. G.: *De fulmine tactis.* Argentorati, 1765.
172 Weber, L.: *Schr. d. Naturwiss. Schleswig-Holst.*, 1878, 99.
173 Weiss, G.: *Bull. Soc. Inter. des Électr.*, Paris, 1911, i, 417.
174 Wheeler, W. M.: *Med. Brief*, St. Louis, 1896, xxiv, 1177.
175 Wilks, G., *Lancet*, 1879, ii, 655.
176 Witz, A.: *Ann. de psych. et d'hypn.*, Paris, 1893, n.s., iii, 193.
177 Zacon: *Bull. Soc. Internat. des Électr.*, 1911, i, 437.
178 Zwaluwenberg: *Journ. Amer. Med. Assoc.*, 1903, 967.

IN his introductory remarks on the health of Colombo, Ceylon, for 1911, Dr. Philip, M.O.H., states that the mean temperature of the year was much the same as the average, but there was, for the ninth year in succession, a great shortage of rain recorded (24.06 in.). The birth-rate during 1911 was higher than the average, but, owing to the large number of children of Colombo parents who are born and registered in districts outside the town, the birth-rate as recorded—24.7 per 1,000 living—does not afford a true measure of the fertility of the population, which is undoubtedly great in the case of the Burghers and Cingalese. The general death-rate—33.8 per 1,000 living—was rather above the average, though there was a reduction in the mortality amongst Europeans. Amongst the principal causes of deaths, only pneumonia and enteric fever showed an increase; but, in the case of enteric, the apparent increase was more than counterbalanced by the decrease in the number of deaths ascribed to simple continued and remittent fever, both of which terms were being, to a large extent, abandoned by the medical profession. The mortality from phthisis had shown a noteworthy improvement during the last two years. The infant mortality, which had been improving steadily for a series of years, was higher than the record low rate of 1910, but was still 22 per 1,000 below the average, the death-rate per 1,000 recorded births being 316. There was a considerable increase in the number of infectious diseases notified and dealt with during 1911 compared with the previous year, which was in a large measure due to the notification of phthisis having been made compulsory, and to an improvement in the diagnosis and notification of enteric fever. Dr. Philip remarks, with regard to the food supply of Colombo, that proper food laws are much required, but that they could not be properly administered unless the council appointed a sufficient staff for the purpose. The housing problem has become very acute, both as regards the insufficiency of accommodation and the existence of unhealthy areas and unhealthy dwellings. A municipal bacteriological laboratory was instituted during the year, and Dr. Hirst assumed duty in July.

Remarks
ON
THE FOOD REQUIREMENTS OF CHILDREN.

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As a member of a subcommittee of the Edinburgh School Board, co-opted to advise as to the best means of supplying nutritious meals at small cost to the necessitous and other children fed by the Board, I was led to make the following investigations.

1. To ascertain by chemical analysis the amount of food consumed daily by apparently healthy children, about 5 years old, in good social circumstances.

2. To devise nutritious one-course meals at small cost, suitable for a large number of children (2,000 or more) fed by the school authorities.

The results of these investigations will be shortly stated:

Brief reference may first be made to the part played by proteins in the dietary. In early life proteins have special importance from the physiological point of view because they are the chief tissue builders; the proportion of protein in the dietary of children should therefore be relatively high. It is important to note, however, that the nature and source of the protein require quite as much consideration as the amount consumed. In later life proteins have special significance from the pathological point of view, because, being incompletely oxidized in the body, products of their incomplete combustion are liable to accumulate in the blood and tissues, and there give rise to various manifestations of so-called "autointoxication." The commonly accepted standard of daily food requirements in adults is that associated with the names of Atwater and Voit, namely:

Protein.	Fat.	Carbohydrates.	Caloric Value.
120 grams (4.2 oz.)	65 grams (2.2 oz.)	500 grams (17.6 oz.)	3,147

In recent years considerable doubt has been thrown on the accuracy of this teaching by the important researches of Chittenden, whose results led him to conclude that the standard hitherto accepted as correct is unduly high. In regard to protein in particular, Chittenden has laid down a standard of 80 grams or less of protein as the physiological intake for an adult under ordinary conditions. We are not here, however, concerned with the food requirements in adults, and the above figures are merely cited because of their bearing on what is to follow.

I. THE FOOD REQUIREMENTS OF CHILDREN.

So far as I have been able to learn from the study of textbooks on dietaries of children, authorities give little or no precise information on this subject. Details are given as to the kind of diet suitable for children of different ages, but nothing is said as to the total amount of protein, fat, and carbohydrates that should comprise the diet of a child, say, of 5 or 10 years. When we turn to textbooks of physiology and of dietetics, a definite statement is laid down as follows:

A child from 3 to 5 requires 0.4 the food a man at moderate work.

A child from 6 to 9 requires 0.5 the food a man at moderate work.

A child from 10 to 13 requires 0.6 the food a man at moderate work.

On looking into the subject, it would seem that this estimate has been arrived at empirically, the figures, once laid down, having been reproduced by all subsequent writers on the subject. If for the moment we accept the Atwater standard as a reliable guide for the food requirements of an adult, we find that the daily food requirements of a child of 5 years are as follows:

Protein.	Fat.	Carbohydrates.	Caloric Value.
48 grams	30 grams	200 grams	1,270

No attention is paid to the salts in the dietary, as these

are amply provided for in any dietary which will give the above supply of protein, fats, and carbohydrates. In order to ascertain the actual amount of protein, fat, and carbohydrates taken daily by children in good social circumstances, I have made an analysis of the diet of some apparently healthy children—one member of my own family, the others of children of my medical colleagues, who took an interest in the observations and took all possible precautions to furnish accurate data. The equivalent of an average day's diet was set aside, thoroughly mixed, dried to constant weight, weighed, and a known amount taken for estimation of the protein, fats, and carbohydrates. The proteins are calculated from the nitrogen estimation (Kjeldahl), the figures for N being multiplied by 6.1. The fat was estimated by extraction with Soxhlet apparatus, the figures for carbohydrates being arrived at by differences. The age, height, and weight of the children are recorded, and also any points of interest in the composition of the dietary.

TABLE I.—*Showing Nature and Composition of Diet in Eight Children Aged 4 to 7.*

Age.	Height.	Weight.	Total Dried Food.	Protein.	Fat.	Carbohydrates.	Details of Food.
	ft. in.	st. lb.	gms.	gms.	gms.	gms.	
4	3 2	2 12	220	44.0	41.5	134.4	Mixed diet.
4	3 9	3 2	338	52.8	104.1	181.0	Mixed diet, porridge.
4	3 5	3 2	260	64.5	39.9	175.4	Mixed diet, grape nuts, cream.
5	3 5	3 0	384	74.6	60.9	248.4	Mixed diet, grape nuts.
4	3 5	3 0	329	75.6	58.4	195.3	Lacto-vegetarian diet, fruit in abundance.
5	3 7	2 11	333	78.6	60.2	194.6	Mixed diet, no red meats.
7	4 0	4 1	398	79.1	70.9	248.2	Mixed diet, porridge twice daily.
4	3 5	3 2	435	108.0	117.0	210.0	Mixed diet + three pints milk.
Average of 1 to 8.				72.1	69.1	198.4	1,751 calories.

The protein intake ranged from 44 grams in No. 1, a fairly sturdy small boy, to 108 grams in No. 8, a boy of excellent physique and high physical energy. The diet of No. 8 included an extra supply of milk, this having been given for some months on account of an enlarged submaxillary gland, a sequel to tonsillitis, which was regarded as possibly of tuberculous origin.

The question then arises whether we should accept the forementioned Atwater standard of 48 grams protein and 30 grams fat as a reliable standard, or 72 grams protein and 69 grams fat, the average figures of this series. A knowledge of the physique, colour, and state of vigour of the children referred to inclines me to accept the latter as the more nearly correct standard. In comparing the figures for protein for the child with those of the adult it should not be lost sight of that much of the protein in the child's diet is in the form of milk, the protein of which is much more easily digested and absorbed than the protein entering largely into the diet of the adult. In the interpretation of the above data I would emphasize three points:

1. Too much importance must not be attached to the chemical composition of the food *per se*—for example, a child of 5 may be able to digest and absorb to advantage a quantity of protein and fat in the form of milk much in excess of what it can advantageously take in the form of meat foods.

2. In children of pronounced tuberculous or gouty tendency special rules apply. In the former the proportion of protein in the diet should be appreciably higher than the accepted standard, the protein being given in the form of extra milk, eggs, and red meats. In the case of child No. 8, for instance, I believe that the extra protein and fat in the dietary given over many months was a physiological one for the child in question. In gouty children, on the other hand, the amount of protein, and more especially in the form of rich animal food, should be judiciously restricted during the whole of the early growing period. I believe that the special advantages of an extra supply of protein in the one condition and restriction of it in the other are explained in great part by the specific effects of the diet on the thyroid gland as revealed by the results of my experimental investigations.[1]

3. The third point to which I wish to refer is the importance of pure food. It is probably no exaggeration to say that the medical profession, no less than the public, have a very inadequate idea as to the extent of minor or major adulteration of common foodstuffs. Bread is an important illustration. A large proportion of bread in daily use is now made from flour which has been artificially bleached by the passage of nitrous oxide fumes. These are produced by an electrical discharge, the process being described by the parties interested as "electrified air," and in ignorance accepted by millers and bakers as a process "free of chemicals." The researches of Professor Ladd, U.S.A., Professor Halliburton, and the author, among others, have shown that the digestibility of flour so treated is, *in vitro*, appreciably reduced, and as there are, unquestionably, no compensating advantages in the process from the physiological and dietetic point of view, it is advisable that all bread should be made from the natural product of the wheat. It is conceivable that a child would thrive better on a diet containing a smaller amount of food in a pure form than on a diet which is richer from the point of view of chemical composition, but with its nutritive value impaired by the addition of various preservatives.

4. A further point of importance is the use of "hard" food, adapted for promoting mastication, giving meat in a form which necessitates chewing, bread in baked form for similar reasons, and at the same time restricting indulgence in sugar and sweets, which promote fermentation in relation to the teeth, with resulting caries.

II. NUTRITIOUS MEALS AT SMALL COST.

The question of supplying diets which are both cheap and nourishing is very important. To a man and his wife with three or four children and an income of £1 a week or less the question of how best to expend the sum required for the necessary foodstuffs is, or ought to be, a very vital one. There is, unfortunately, no doubt that inadequate attention is paid to this point, with the result that not a little of the malnutrition seen in the children of the poorer classes at the present time is due to ignorance rather than to actual poverty. This is very clearly brought out in the report of Sir George Newman, chief medical officer of the Board of Education, for 1910. This report not only discloses the fact that a very large proportion of the children are suffering from diseased conditions of various kinds, all of which are calculated to interfere with the conduct of education, and many with the ultimate attainment of sound physical development, but it discloses the fact that a considerable percentage of children are also suffering from a greater or less degree of malnutrition. In plain English, they are half starved. The report leads to the conclusion that it is too widely diffused to be attributable to poverty in more than a small proportion of cases; a more probable explanation seems that afforded by the extraordinary ignorance of English women of the industrial classes concerning food values, cooking, and general economy of dietetics.

Further, additional interest and importance now attach to the subject of cheap and nutritious foods in view of the Provision of Meals Act, 1906, which empowers educational authorities to supply school children with meals, the cost of which is met out of the rates, or, in part, by voluntary subscription. Some idea of the extent to which this power has been exercised will be learnt from the fact that in 1909–10 the cost to the rates of the meals so provided by the educational authorities was £134,105. As the principles to be observed in the feeding of a family of six or seven, where the income is very small, are similar to those applicable when a large number of children have to be fed out of the rates, it is possible to gain information of value for the family from the results of the experience recorded in the past year or two by various educational authorities.

It may be assumed that the essentials to be laid down are the following:

1. The food must be nourishing and ample in amount.
2. The food must be as cheap as possible consistent with 1.
3. The food must be of a nature that can be readily cooked with the limited facilities available in a one or two roomed house.
4. In children, satisfactory rate of growth, increased vigour, and more efficient education must be the result.

Oatmeal, peas, beans, and lentils are, in virtue of the large amount of protein, fats, and carbohydrates present, highly nourishing foods, and have the merit of cheapness.

For example, a bowl of thick lentil soup containing ¼ lb. of lentils with a slice of bread, costing about ¾d., contains much more nourishment than ½ lb. of meat and a slice of bread, costing about 4d.

The most important meal of the day is dinner. In the case of very necessitous children it is possible to give, if necessary, at least half of the total daily food required at this meal. It may be given in the form of a two-course dinner or a one-course meal. An excellent series of cheap two-course dinners was published in 1907 by Dr. Ralf Crowley in conjunction with Miss Marion Cuff for the City of Bradford Education Committee. This report gives details of seventeen two-course dinners, of which about half contain meat, adapted for a family of seven, the cost of food materials (in 1907) ranging from 1.1d. to 2¼d. per head. The average food value of the dinners in protein and fat was 29 grams (1 oz.) and 18 grams (⅔ oz.).

The "Bradford" meals are perhaps better adapted for families with an income of 25s. weekly or upwards, as, in addition to the expense, the trouble involved in the cooking is in many instances beyond the facilities available in the restricted house and firing accommodation of the very poor.

When a two-course dinner of soup and pudding is relied on as an ample meal, especially for children, care must be taken to see that the proper amount of nourishing food is given in each course. Some time ago I analysed three two-course dinners which were supposed to be planned on the Bradford system, and found the composition in protein and fat as follows:

Protein.	Fat.
20.6 grams.	1.8 grams.

The deficiency was accounted for by the soup being too thin and the puddings also lacking in nutritive value.

The question of a good one-course dinner is important. In many of the houses of the poor the cooking facilities—one small open grate—are not well adapted to providing a two-course meal if such were otherwise available, and in connexion with the feeding of large numbers of school children there is certainly economy of time and labour, and possibly of expense, in a one-course as compared with a two-course meal. Experience has shown that a one-course meal at low cost can be made as nourishing and attractive to children as a two-course meal at similar outlay. It is of interest in this connexion to refer to the nutritive value and cost of a series of five one-course dinners recently supplied, on my recommendation, by the Edinburgh School Board. The nutritive value of the food was determined by analysing the total amount of food taken by the "average" child in a school in one of the poorer districts of Edinburgh. The amounts of food were in each case taken by myself in conjunction with the head master of the school. I am aware that in the strict sense there is no such thing as an "average" child, just as there can be no "average" family; but still it is possible to establish what may prove, at any rate, a useful standard which may be practically applied. Any such standard must, of course, be applied intelligently, due allowance being made for those conditions of the concrete problem which differ from those which were presupposed in fixing the standard. The meals in question were greatly enjoyed by the children: the smaller number of children fed on the porridge day is due to the fact that a certain number of children who get a more expensive two-course dinner do not take porridge. Analysis of the five meals gave the results shown in Table II, the composition of the meals and the figures for cost being kindly given by the officials of the board. The salts in the dietary are not estimated, because we know that any diet of the chemical composition given contains a sufficiency of mineral matter.

TABLE II.—*One-Course Dinners.*

	No. of Children.	Protein.	Carbohydrates.	Fat.	Cost.
					£ s. d.
Lentil soup	2,000	29.5	112.6	3.7	6 3 0
Meat, soup, and potatoes	„	18.5	67.2	9.4	11 15 4
Plum pudding ...	„	36.4	151.4	20.2	12 12 7
Scottish broth ...	„	28.2	71.0	8.1	8 4 3
Porridge and hard biscuit	1,820	24.5	105.3	4.1	5 13 5
Average ...		27.1	102.0	9.0	1.2d. per head

A study of the figures in the different columns is very instructive. The average amount of proteins 27.1 grams, fat 9.0 grams, and carbohydrates 102 grams, may be taken as a reliable standard for a highly nutritious meal, erring if anything in a deficiency in fat. If we compare the individual menus we find that—

No. 1 is a very nourishing dinner at small cost.

No. 2 is of considerably lower nutritive value, and is out of proportion expensive.

No. 3 is a rich highly nourishing meal and is proportionally dear; it is only advisable as an occasional meal.

No. 4 is a good dinner obtained at moderate cost.

No. 5 is also a good meal, a little below the average in nutritive value; this can be rectified by slightly increasing the amount of milk.

The experience of the head masters in the different schools under the Edinburgh School Board has shown that meals planned on these lines have been followed by satisfactory rate of growth, increased physical vigour and more efficient education of the children, these being the criteria for judging the correctness of any system of feeding.

A highly nutritious, cheap, and palatable day's menu may be summarized as follows. When calculated for a family of father, mother, and five children, the price works out at 16s. per week, which may be regarded as the minimum rate at which a family of that size can be adequately fed.

Menu for a Day.

	Protein.	Fat.	Cost not Exceeding—
Breakfast—Porridge and milk:			
Oatmeal ... ... 1 oz.			
Treacle ... ... 1 oz.			
Milk ... ... ½ oz.	19.5	20.0	1.2d.
Bread ... ... 2 oz.			
Margarine ... ... ¼ oz.			
Dinner—One course			
Framed from Table II with footnotes	30.0	10.0	1.4d.
Tea—Bread and milk:			
Bread ... ... ¼ lb.			
Margarine ... ... ½ oz.	21.5	13.0	1.2d.
Milk ... ... ½ pt.			

In the foregoing remarks I have directed attention mainly to the proteins in the dietary. I am well aware that there are many disorders in children which owe their origin to the excessive use of starchy foods, and which are corrected by substituting proteins. The consideration of these cases is beyond the scope of the present paper, but in this connexion it is of interest to note that the average amount of carbohydrates in the series of cases recorded is practically identical with the generally accepted Atwater standard.

REFERENCE.

[1] Appendix to *Food and Feeding in Health and Disease*, Oliver and Boyd, Edinburgh, second edition, 1913.

MESSRS. MAULL AND FOX, 187, Piccadilly, London, have issued a photogravure memorial portrait of Captain R. S. Scott, which is sold at the price of 5s. (post free, 5s. 2d. in the British Isles). The portrait is an excellent reproduction of the late Arctic explorer in his uniform. The publishers have undertaken to contribute an agreed portion of the profits to a branch of the National Fund.

CERTAIN allegations against the nursing arrangements and administration of the York County Hospital made in the issue of the *Hospital* for March 15th were considered at a meeting of the house committee and medical board of the institution on March 18th. The joint committee, while stating that it was satisfied that there was a complete answer to the imputations and charges, resolved that the most satisfactory way of dealing with the question was to obtain the appointment of a competent and independent authority to hold an inquiry. An application has been made to the President of the Royal College of Surgeons of England to appoint some person with a knowledge of hospital management and free from local influence to hold an impartial and independent inquiry.

CASES TREATED BY RADIUM IN THE ROYAL INFIRMARY, EDINBURGH, DURING 1912.

BY

DAWSON TURNER, M.D., F.R.C.P.EDIN., M.R.C.P.LOND., F.R.S.E.,

IN CHARGE OF RADIUM TREATMENT AT THE ROYAL INFIRMARY, EDINBURGH.

FORTY-ONE patients have attended for radium treatment during the past year. Twelve of these suffered from malignant disease, eleven from rodent ulcers, eleven from naevi, one from leucoplakia, one from lymphadenoma, one from spring catarrh, one from tuberculous glands, one from a tuberculous ulcer of the dorsum of the hand, one from a papilloma, and one from hypertrichosis.

Many of these patients received prolonged treatment or attended a considerable number of times; thus, in some of the malignant cases, whenever indeed it was possible, a tube of radium was inserted into the growth and maintained there for periods up to twelve days, while at the same time external treatment was employed so as to subject the growth to a cross fire of rays.

The treatment of port wine stains must also be very prolonged; as a cosmetic effect is desired, very small doses have to be given, and the result carefully observed, lest an atrophic condition of the skin be produced.

Radium treatment, as a rule, is conducted in the following manner: A dose large enough in the experience of the expert to produce the desired effect is administered, and the patient is sent away and told to report himself in two or three weeks, for the full effect of any dose is not manifested for three or more weeks. Another dose, if necessary, is then given, and the patient again sent away for a fortnight. I have not time here to refer to the question of dosage or of screens.

Naevus.

The cases which have been most benefited during the year have been those of naevus and rodent ulcer. Of eleven naevi—of which two were port wine stains—seven were cured, three are under treatment, and one (port wine stain) did not return.

Rodent Ulcer.

Rodent ulcers, if not affecting mucous membranes, cartilage, or bone, are also extraordinarily amenable to radium. The reasons why radium is so superior to carbonic snow or zinc ionization or excision are, first, because the rays penetrate deeply—in fact, right through the body (the gamma rays will penetrate 10 in. of lead), so that the very roots of the rodent are attacked; secondly, because the treatment is absolutely painless; and thirdly, because the cosmetic result leaves nothing to be desired. Of eleven rodent ulcers six were cured, one is under treatment, three did not return, and one was unsuitable for radium treatment. Of the cases that were cured, one affected the upper lip, and was on the point of penetrating it. Three were in the furrow between the nose and cheek; they had received unavailingly prolonged treatment with *x* rays. One, a case of Professor Caird's, was on the ala nasi; it measured ¾ in. by ½ in., and was on the point of penetrating; one dose of 65 milligram-hours sufficed to cause complete healing with a beautiful cosmetic result and no contraction. The disease has, however, recurred in this case a little distance off on the tip of the nose. An application of radium has accordingly been made to it, and I have no doubt of a successful issue. The sixth was above the right eye. In another case of Mr. Caird's—a male aged 61—the disease began many years ago as a pimple on the right side of the nose; eight years ago this was removed: on its return it affected the internal canthus, and Mr. Caird operated twice, in 1909 and 1912; on the latter occasion, recognizing that he had not removed all the growth, he recommended him to me for radium treatment. I placed two tubes of radium into the cavity, which was nearly 2 in. deep, and kept them there for thirty hours; no screen but a thin tube of aluminium was employed. This was on May 4th, 1912. In July the cavity had almost filled up, but for precaution's sake I gave a dose of 47 mg. of radium for thirty minutes. In December, 1912, he called, quite cured.

Two of the cases of rodent ulcer were treated by the insufflation of the radio-thorium emanation. One of these was a male, aged 49, recommended by Professor Caird; six years previously enucleation of the left eye had been performed by Dr. G. Mackay. The disease had recurred, and now formed a sloughy ulcer, about the size of half a crown, below the left orbital cavity, leading to extensive excavations beneath the cheek. As the disease was too extensive and too difficult of access for the limited amount of radium at my disposal, the idea occurred to me to treat it by blowing into it the radio-thorium emanation, which would be carried into the remotest corners of the excavations, and would coat the walls with a highly radio-active deposit. I did this some twenty times in the course of a few hours, and the immediate effect seemed to be to diminish the fetor; unfortunately the patient did not return for further treatment. The second case treated by the radio-thorium emanation was a male, aged 60, recommended by Mr. Wallace. The duration of the disease was fifteen years; he had been treated by *x* rays, and Mr. Wallace had performed enucleation of the left eye three years ago. A later operation had also been performed by Mr. Wallace. At the time the radium treatment was begun there was an ulcer with everted edges occupying the left superior border of the nose, and extending deeply into the orbital cavity. As he was an in-patient I instructed the nurse to insufflate the cavity with the emanation every half-hour during the day for one minute at a time. This was done for ten days, when it was thought advisable to supplement the emanation by the application of solid radium. After four days of the combined treatment he was sent home. He had had 176 insufflations of the emanation and 235 milligram-hours application of solid radium. A fortnight later he returned very much improved; the nasal ulcer was practically healed. When another fortnight had elapsed he was re-admitted and treated again by the combined method for three days. On his reporting himself a month later (January 8th, 1913) there was further improvement. The total dose was 208 insufflations of the radio-thorium emanation and 675 milligram-hours of solid radium. He has not reported himself since.

Malignant Disease.

Twelve cases of malignant disease attended the department during the year. With one exception they were all inoperable cases; with two exceptions they were either recurrences or secondary deposits. Of these twelve cases one was healed with a sound scar, as well as a recurrence in the neighbourhood; three were improved; one exhibited temporary improvement; one, a carcinoma of the pharynx, was unrelieved and died; of the remaining six, two are still under treatment, one did not return for treatment, one refused treatment, in one a prophylactic dose of radium was given after an operation for removal of a sarcomatous growth in the groin, and in one the growth was so extensive as to render a resort to treatment with a limited amount of radium hopeless.

With the exception of the sarcoma referred to above all the cases were of a carcinomatous nature, and in five of them the upper or lower jaw was the seat of the disease. Brief details of the cases are as follows:

1. A female, aged 49, with a recurrent epithelioma of the right ala nasi, recommended by Mr. Wallace. The patient had long suffered from an ulcer on the ala nasi; prolonged treatment with *x* rays and weak radium preparations, followed by excision. Condition on admission on June 25th, 1912: There is an ulcerating crack on the external surface of the right ala nasi. A single dose of 95 mg.-hours of radium bromide screened by glass and aluminium was administered. On July 9th there was a good reaction; the scab did not come away until the middle of September, when the ulcer was found to be completely healed over. On January 28th, 1913, the scar was still in a perfectly sound condition, but a small ulcer had appeared just within the nostril on the septum nasi. This was given a dose of 40 mg.-hours of radium bromide, screened as before by glass and thin aluminium, with a completely successful result.

2. A female, aged 70, recommended by Dr. Sym. Epithelioma of one year's duration affecting the upper lid and canthi of the left eye. Had twenty-four full doses of *x* rays. Condition on admission: There is an irregular ulcer eating away the lower margin of the upper lid and involving the canthi; the body of the lid is hard and swollen. Treatment commenced on January 20th, 1912, and continued at intervals to May, 1912. Great improvement followed. The ulcer healed and the swelling disappeared. On May 22nd, 1912, Dr. Sym examined her, and

* Read to the Edinburgh Medico-Chirurgical Society.

wrote: "There is very great improvement, very great indeed, but whether the cancer is all gone or not I can't be sure." On June 20th the patient returned with a hard lump external to the external canthus; this was given one good dose of radium and the patient sent home. On October 29th, 1912, she returned much worse, with the bone affected. Mr. Hodsdon excised the growth by an operation which opened into the frontal sinus. A prophylactic dose of 210 mg.-hours of radium was then administered.

3. A male, aged 44, recommended by Professor Caird. A rapidly-growing recurrent epithelioma of the right upper jaw, operated on twice within five months by Professor Caird. There is a large ulcer extending backwards on the mucous membrane of the buccal cavity on the right side; the skin outside is red and angry looking. On November 7th, 1911, external and internal applications of radium were commenced; the external applications were shielded by a sheet of silver half a millimetre in thickness, the internal by a thin sheet of aluminium. On December 4th, 1911, he was sent home after a total dose of 1,011 mg.-hours. The disease had ceased to extend and considerable improvement was manifest. On January 9th, 1912, he returned in a worse condition; there was a large external swelling, and Professor Caird thought that further treatment would be useless.

4. A female, aged 42, recommended by Mr. Hodsdon. An epithelioma following lupus; duration thirty years. The disease has been treated by both medical and surgical means; it has had courses of *x* rays extending over years; it has been scraped, cauterized, and partially excised. Present condition: Below the left nostril there is an irregular ulcer eating into the lip; it is 2 in. broad by 1 in. long, and it has raised margins, except where it is spreading on to the mucous membrane of the lip; there is a perforation below the left nostril. Treatment was begun on November 28th, 1912; 25 mg. of radium bromide (International standard), screened only by glass and aluminium, were applied to successive areas of the ulcer for a few hours daily during a week; the dose amounted to 1,620 mg.-hours. This was followed in three weeks' time by a strong reaction, and afterwards considerable improvement was manifest, healing was going on above, granulation tissue was present, and malignant characters were absent. The patient is to return for more treatment.

5. A male, aged 72, recommended by Dr. Elder. Malignant disease of the fauces and pharynx. Duration more than a year; difficulty in swallowing and speaking. An irregular swelling can be observed, involving the soft palate and uvula and causing great deformity. Left cervical glands enlarged. Both Professors Alexis Thomson and Caird considered the case quite inoperable. With the hope of relieving his symptoms, radium treatment was commenced. On September 19th, 1912, a capsule, containing 40 mg. of radium bromide, was attached to an aluminium rod and held by the patient against the affected part for one hour two or three times a week; only an aluminium screen was used. By November 28th, 1912, the patient had received a dose of 388 mg.-hours. The applications appeared to relieve his pressing symptoms, but he gradually sank and died on December 14th, 1912.

6. A male, aged 35, recommended by Professor Alexis Thomson. Diagnosis: Round-celled sarcoma situated in the groin. Duration twelve months; was admitted to the Royal Infirmary on January 11th, 1913, complaining of a lump the size of one and a half fists in the groin and of increasing weakness; the left leg was oedematous. On January 17th, 1913, Professor Thomson removed the growth, which proved to be a round-celled sarcoma. On January 30th, 1913, a tube of glass in an aluminium cover, containing 10 mg. (International standard of radium bromide, was inserted into the wound and kept there for twenty-four hours. This was intended to act as a prophylactic measure.

7. A female, aged 54, recommended by Mr. Miles. History: In September, 1911, the patient had been admitted to Chalmers Hospital, complaining of a hard, painful lump in the left axilla. Mr. Stiles removed the mass and the breast; both were found to be the seat of a medullary carcinoma. Readmitted May 28th, 1912, with a rapidly growing recurrence in the scar; this was excised on May 31st, 1912. Returned at the beginning of 1913 with a secondary growth affecting the sternum. The patient recommended to the Royal Infirmary; was admitted by Mr. Miles. Projecting from the sternum was a hemispherical growth, in area about the size of a teacup saucer and raised nearly an inch above the general surface. The skin over it was reddened. The patient complained of spasms of severe lancinating pain. Treatment: Two tubes of radium, each containing 5 mg. (International standard), were introduced by Mr. Miles into the growth, screened only by glass and aluminium, and were kept in for seven and for twelve days respectively, being moved occasionally so as to expose a fresh area to the radiation. At the same time applications of 25 mg. (International standard) screened by silver were made externally. The total internal dose was 2,400 mg.-hours; the total external dose was 800 mg.-hours. Under this treatment the tumour rapidly flattened down, and in six weeks' time had disappeared. Some pus was discharged from the incisions, and a good deal of reaction was manifest on the skin. The lancinating pain disappeared shortly after the applications. The patient expressed herself as very grateful. She is still under observation.

Of the remaining 5 cases 1 did not return for treatment, 2 are still under treatment, 1 refused treatment, and in 1 treatment was refused on account of the extensive nature of the growth.

Leucoplakia.

A male, aged 52, recommended by Professor Alexis Thomson, has attended since October, 1911, for radium treatment. He has a specific history. The duration of the disease was one year. On the surface and side of the left half of the tongue there were several whitish, hard patches somewhat raised above the surface. Ten mg. of radium bromide (International standard) were enclosed in an aluminium box and applied for an hour at a time twice a week to the patches. The effect of the treatment is to improve and check the development of the disease, because if it be intermitted, as in the holidays, the condition rapidly becomes worse. The patient refuses operation and he has had prolonged courses of internal treatment, also an injection of salvarsan. Stronger and more prolonged doses of radium would, I think, produce more decided benefit.

Lymphadenoma.

A male, aged 18, was recommended by Dr. Byrom Bramwell for radium treatment in November, 1911. There were growths round the neck and in the groin and axilla. The circumference of the neck measured 17½ in. The neck was treated by external applications screened by silver. No improvement resulted, and after a total dose of 1,933 mg.-hours given in one week treatment was suspended.

Spring Catarrh.

A male, aged 9, recommended by Dr. George Mackay, was an old case, whose right eye had already been cured by radium treatment, but whose left eye had not had sufficient treatment. He was given a dose of 5 mg.-hours by the application of a 10-mg. capsule to the eyelid for half an hour. This patient had first attended in March, 1910. Both upper lids were covered on their internal surface with the typical granulations and pavement-like blocks. The lids were much swollen. The right lid only was first treated, and in three months was practically well after a dose of 32.5 mg.-hours. Treatment of the left eye was then begun.

Tubercle.

Tuberculous Glands.—Only one patient, recommended by Dr. J. Burnet, suffering from enlarged cervical glands, attended the department, and he did not return.

Tuberculous Ulcer.—A boy, aged 3½ years, recommended by Dr. Railston Richardson, attended for radium treatment of tuberculous ulcer on the dorsum of the right hand. It had existed for two years and had been treated with iodine, caustics, etc. There were two patches close together, measuring nearly half an inch in diameter, dark red, and slightly elevated. Treatment was begun on December 3rd, 1912, and continued for a fortnight, by which time the dose amounted to 20 mg.-hours. Only a screen of aluminium was employed. In a month the patches were covered by a good scab, which fell off at the end of January. The patches had almost disappeared, but to aid in the cure a further dose of 13 mg.-hours has been administered. The patient is still under observation.

Papilloma.

A female, aged 51, recommended by Dr. Davidson of Kelso, was admitted on October 8th, 1912, with a papilloma on the left side of the nose. It was half an inch wide and raised a quarter of an inch above the surface, and it was composed principally of horny material. The duration had been about five years, but latterly it had been growing more rapidly. The patient had had a previous growth removed some years ago from a position a little higher up. A dose of 35 mg.-hours, screened by aluminium, was administered by a single application. In a fortnight the growth fell off; in seven weeks there was perfect healing, the site of the growth being covered by a beautiful supple skin.

Hypertrichosis.

A female, aged 25, recommended by Dr. Fleming, attended for a week during September, 1912, for the radium treatment of this condition. The patient had a thick, hairy growth round the lower border of the chin. After the patient had been made aware of the difficulties of the method of treatment, applications screened by aluminium of 5 mg.-hours were made over successive areas. These proved to be insufficient to produce epilation. The patient proposes to return later on.

ARGYLLS LIMITED (Alexandria, Dumbartonshire) have issued an illustrated catalogue of their 1913 cars. In addition to the specification for cars of various powers, there is an interesting note on the braking problem by Mr. G. H. Cutbush. It deals with the application of the diagonal system of braking—that is to say, the application of the brake to the rear wheel on one side and to the front wheel on the other. If the brakes are compensated, retardation is produced on each side, with the result, as it is claimed, that the tendency of the car to turn one way, owing to the loss of adhesion at the rear, is counteracted by the tendency to turn in the other direction, produced by the reduced adhesion at the front wheels. The catalogue also contains a full account of the Argyll single sleeve-valve engine, illustrated by diagrams which make its mode of action clear.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

UNILATERAL IRIDO-CYCLITIS (SEROUS IRITIS) TREATED BY SUBCONJUNCTIVAL INJECTIONS OF MERCURY CYANIDE.

MISS X., aged 26, saw me on February 3rd. During the last six years she had had four mild attacks of iritis. The left eye had been inflamed and painful for fourteen days, with increasing dimness of sight. Vision: fingers at 2 metres. The vision of the right eye was normal. The left pupil was widely dilated (under atropine). The anterior chamber was deep, the aqueous hazy, with many punctate opacities covering the whole of Descemet's membrane and the anterior lens capsule. Tension was normal; the fundus was not visible. Twelve minims of mercury cyanide, 1 in 5,000, were injected under the conjunctiva, partly far back and partly near the cornea.

The eye was very painful all night, in spite of hot fomentations, and on February 4th vision was $\frac{6}{36}$; there were still very many punctate opacities, but the aqueous was distinctly clearer. The fundus was only just visible. Syrup of iodide of iron and dionine drops were ordered. On February 6th the vision was $\frac{6}{9}$, and there were fewer punctate opacities. Another subconjunctival injection of 15 minims of mercury cyanide was made. On February 10th she reported that she had had much pain for two days. There was some oedema of the conjunctiva bulbi. Vision was $\frac{6}{24}$. There were a fair number of punctate opacities on Descemet's membrane. On February 13th there was no pain, and very few punctate opacities on Descemet's membrane. The fundus was distinctly visible. There were many small opacities of the vitreous, and some retinitis. Vision = $\frac{6}{12}$. On February 19th no punctate opacities were visible. The vitreous was clearer and the retina less inflamed. Vision = $\frac{6}{9}$. On February 24th the eye looked perfectly normal, with the exception of slight congestion of the retina. Vision with +0.5 D. = $\frac{6}{6}$.

There was no history of rheumatism or syphilis in the case, but the recurrent attacks of iritis and the excellent results of the subconjunctival injections of mercury certainly make the case look rather suspicious. I have used subconjunctival injections of mercury in many cases, with more or less success. In no case have the results been quite so good as in this case.

ADOLPH BRONNER, M.D.,
Senior Surgeon to the Bradford Royal Eye and Ear Hospital.

ACUTE EPIDIDYMITIS DUE TO MUSCULAR STRAIN.

I WAS much interested in Mr. J. W. Grant's article published in the BRITISH MEDICAL JOURNAL of July 6th, 1912, and in the view he takes of the doubtful effect of strain as the cause of acute epididymitis. The following case appears worthy of record in this connexion:

A. B., a fine, strong, healthy man aged 27, was present at a flying exhibition on Whit Monday. During the afternoon he felt a desire to urinate, but it was some time before he found the temporary urinal: he then had difficulty in passing water, and had to strain considerably. The following day he cycled ten miles on business, and on retiring to bed the same evening he felt some slight aching and shooting pains in the left groin and testicle, but took no notice of this. On the next (the third) day he noticed some swelling in the left groin, and that his left testicle was much larger than the right. He continued to work until the fifth day, when he came to me for treatment. I found the left testicle hard, tense, and much swollen, but not particularly tender at any spot. There was some thickening and swelling of the cord extending up into the left groin. The condition improved slowly under treatment.

The interesting points in the case are as follows:

1. The delayed onset of symptoms. One would have expected great pain and swelling with tenderness almost at once.

2. Although there was intense congestion, yet there was very little pain at any time.

3. The persistent nature of the symptoms. Usually in three weeks the condition has resolved. My patient was still under treatment five weeks after the injury or strain.

4. The question of secondary infection, in my opinion, may safely be banished, as the patient has been a clean-living, temperate man all his life, and has had no illness except measles as a child.

5. There was no sign of ecchymosis in the region of the groin.

In my opinion, the only conceivable cause was violent contraction of the abdominal muscles producing pressure on the veins, with possible rupture of some small vein.

GEO. A. WOLFENDALE, L.R.C.P., L.R.C.S.
Attleborough, Nuneaton.

COMPLETE INVERSION OF THE UTERUS WITH ADHERENT PLACENTA.

DR. J. B. HELLIER of Leeds recently recorded (August 10th, 1912, page 310) a case of acute inversion of the uterus following delivery in a young primipara.

On August 27th, 1911, I was summoned to a cottage about three and a half miles distant by a message from the nurse that the child was born and that the woman was bleeding profusely. I arrived at the house some two hours after the messenger had left. The nurse told me that after the child had been born the placenta was retained a considerable time, and that there was alarming haemorrhage. It was with much difficulty that she was able to express the placenta, and when she had done so she could not remove it. The bleeding ceased immediately after expression.

The patient, a 5-para, aged 35 years, gave a history of difficulty at the last confinement with the after-birth, which seems to have necessitated manual removal.

She was very pale, practically pulseless, and suffering from extreme shock.

The placenta was lying at the vulval orifice, and the labia were widely separated by the mass, which was about the size of a fetal head. By abdominal palpation the diagnosis was evident, the hand meeting with no resistance whatever in the pelvis.

The patient was given ether, m. 40, hypodermically, followed by strychnine sulphate, gr. $\frac{1}{30}$; she was then placed in the cross-bed position, the parts were well douched, and, with as strict asepsis as one could observe under the conditions, the placenta was stripped off from the uterus. Much difficulty was encountered, owing to strong fibrous bands running into the uterine substance from the placenta. After removal the uterus appeared to be about the size of a large cocoa-nut. There was no bleeding, and the organ was in a state of tonic contraction. The hand could be passed up alongside of the mass into the vaginal vault, which, along with the cervix, was somewhat inverted.

I tried to reduce the inversion by taxis. At first I could make no headway, but after about five minutes' manipulation the uterus was replaced in position, no difficulty being experienced once the process of reduction had commenced.

A hot intrauterine douche was given and the uterine cavity plugged with Dührssen's gauze. The general treatment of shock was then attended to.

Unfortunately, the patient only lived for seven hours, death undoubtedly being due to shock, as the haemorrhage was not sufficient to be fatal. There was no history of pulling on the cord.

It may be interesting to state that a very great number of acute inversions of the uterus which have been recorded have occurred in coloured races, such as Kaffirs, in whom parturition is effected in the squatting position, and are attended by women whose methods are rather forceful and primitive.

DUNCAN J. McAFEE, M.B., Ch.B.,
and L.M. (Rotunda).
West Kirby.

THE Home Office has published new editions of the lists of the names, addresses, and districts of Certifying and Appointed Factory Surgeons in England and Wales, and in Scotland, revised to December 31st, 1912. Copies, price 1s., can be obtained, either directly or through any bookseller, from Messrs. Wyman and Sons, Ltd., Fetter Lane, London, E.C., and H.M. Stationery Office (Scottish Branch), 23, Forth Street, Edinburgh.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

OLDHAM ROYAL INFIRMARY.

A CASE OF VOLVULUS OF THE CAECUM.

(By E. MAUDE MARSDEN, M.B., Ch.B.Vict., House-Surgeon.)

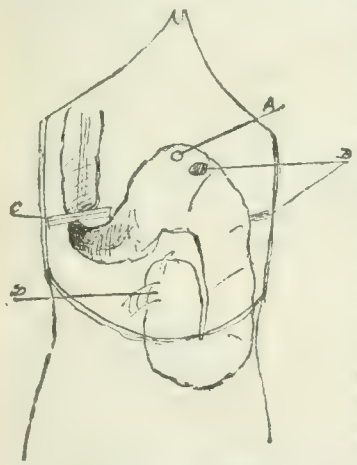
THE patient in the following case, a man aged 54 years, was brought to the infirmary at night on June 3rd, 1912, with a history of having been seized with sudden severe pain in the abdomen immediately after dinner the day before. The bowels had not been opened for three days; there had been some vomiting, but it was not faeculent. During the morning of June 3rd there had been a watery discharge from the lower bowel. There was a history suggestive of acute obstruction two years before and a definite story of intestinal obstruction in August, 1910; the condition then subsided, but the man said he had never been well since. For two months before admission he gave a history of attacks of pain in the right iliac region and some constipation.

Condition on Admission.

The man was obviously acutely ill. There was tenderness in the lower abdomen on both sides, but no true muscular rigidity. There was distension localized to the middle line below the umbilicus, rather more to the left than the right, suggesting an over-distended bladder; the abdomen as a whole was not distended. There was no dullness on percussion; the entire abdomen was tympanitic. A rectal examination revealed the fact that the pelvis was filled with a tense mass, which occupied more of the left than the right side of the pelvis. The temperature was 97° F., and the pulse-rate 72 per minute. Before he was removed to the theatre he began to pass flatus by the mouth.

Operation.

Dr. Radcliffe opened the abdomen by a vertical incision in the middle line, and a coil of distended large bowel was found occupying the whole of the left side of the abdomen, from the umbilical level down into the pelvis. It was adherent to the abdominal wall just to the left of the umbilicus, in the left flank, and also to the pelvic wall on the left hand side, as indicated in the accompanying diagram. These were old adhesions of some strength.



That part of the caecum which was to the right of the umbilicus was covered in front by small intestine. A, Umbilicus; B, adhesions to abdominal wall; C, broad band of adhesions; D, ileo-caecal valve.

To the right were coils of small intestine, moderately distended, and covering the junction between caecum and ascending colon. These were traced down, and the ileo-caecal junction was found on the anterior surface and right side of the distended portion of gut just above the level of the brim of the true pelvis. The appendix, which was perfectly healthy, was discovered emerging from behind the upper margin of the caecum, and pointing upwards.

It was evident that there was a volvulus of the caecum, which had existed for some time previous to the present attack. With difficulty the cause of the obstruction, a broad band of adhesion running on to the abdominal wall, was discovered across the ascending colon in the right iliac fossa. Just below this adhesion the gut was twisted. The band was divided, the volvulus untwisted, and the obstruction was instantly relieved. The condition of the bowel immediately under the adhesion band was good, and no resection was necessary.

Remarks.

The man made an uninterrupted recovery, and left hospital on June 22nd. The primary cause of obstruction was presumed to be the broad band in the iliac fossa, which had occluded, but not strangled, the ascending colon. The volvulus of the distended caecum was probably a secondary result, which persisted owing to the caecum having contracted adhesions to the abdominal wall. I am indebted to Dr. Radcliffe, under whose care the case was admitted, for permission to publish this report.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

SECTIONS OF OPHTHALMOLOGY AND NEUROLOGY.

Wednesday, March 5th, 1913.

Sir ANDERSON CRITCHETT, C.V.O., President, in the Chair.

Disease of the Pituitary Body.

PROFESSOR SCHÄFER opened a discussion on this subject with a very detailed exposition, aided by numerous slides, of the structure and functions of the pituitary body. It was present in all vertebrates which had been examined; its development occurred as an extension of Rathke's pouch, an invagination of the buccal ectoderm towards the brain. This was met by a hollow downgrowth from the thalamencephalon, and the combination of the two into one organ formed the pituitary body. The gland consisted of three parts—(1) pars anterior, (2) pars intermedia, (3) pars nervosa. It was usually separated into an anterior and a posterior lobe. Remarkable alterations occurred in the pituitary body as the result of thyroidectomy, and similar changes had been observed in association with atrophy of the thyroid. The alterations after thyroidectomy included (1) enlargement of the pituitary body, (2) the presence of a colloid substance in the vesicles of the pars anterior and a great increase in that of the pars intermedia, (3) a great increase in the number of hyaline bodies in the pars intermedia and the pars nervosa. It was not easy to explain these changes physiologically, because the functions of the two glands were not identical, though both were probably connected with sexual development, for in the case of removal of either there was a stunting of growth and sexual infantilism. Moreover, castration had been observed by most to be followed by hypophysial hypertrophy. The greatest enlargement of the pituitary body was found in giants and acromegalics; the skeleton of giants was characterized by a disproportionately large sella turcica. The physiology of the pituitary body had been investigated experimentally by methods of both removal and addition, the latter by administration of extracts of the gland and by implantation. The evidence following removal was conflicting. Young animals which survived extirpation had their growth retarded, and their sexual activity remained undeveloped. But some observers stated that total removal was not fatal, death—when it occurred—having been due to the complications of the operation. Mere injury to the pituitary might cause marked polyuria, but it disappeared after a few days. Possibly this was the explanation of the polyuria sometimes seen in association with fracture of the base of the skull. Feeding with fresh or dried gland substance was normally not attended with any obvious result, even in growing animals. There was certainly no retardation of growth, such as had been described. Attempts to graft the organ had usually been unsuccessful. Saline extracts of pituitary, injected intravenously, had a marked effect upon all involuntary muscles; they caused constriction of most of the blood vessels of the body, a powerful and usually slowed action of the heart, the tone of which was increased, contraction of bladder, uterus, and bowel, and the pupil of the excised eye in the frog was dilated. The substance producing these results was of a relatively

simple nature, was soluble in water, and dialysable, and was not destroyed by repeated boiling, nor by long keeping in a dried state or in a sterilized condition. It was insoluble in alcohol or ether. Intravenous injection of pituitary extract excited secretion in certain glands, such as the kidney, and in the mammary gland during lactation; there was dilatation of the renal arteries, though the effect on the general arteries of the body was constriction. The substance producing effects upon blood pressure, heart and kidney, was contained only in the posterior lobe, and it had been found in the cerebro-spinal fluid. According to the observations of Ott, Scott, and Mackenzie, the galactagogue hormone of the pituitary was also confined to the posterior lobe, and it was assumed to be identical with that which caused the other effects upon blood vessels, heart, and kidney. The anterior lobe seemed related to the general growth of the body, especially that of the skeleton; while the posterior, including the pars intermedia, probably promoted the contractility and increased the tone of plain muscular tissue.

Mr. J. HERBERT FISHER commented on the complexity of function of the two portions of the pituitary body, and the supreme importance of the gland to life, and its interactions with other ductless glands. Colloid material was also formed, as in the case of the pituitary, by rare tumours which sometimes developed in the remnants of the post-anal gut. He also remarked on the fact that castration and oöphorectomy caused some overgrowth of the pituitary body, while the hypophysis enlarged during pregnancy. Premature climacteric in women or impotence in men developing many months or even years before other symptoms suggested disorders localized to the hypophysis. Observations of gynaecologists might throw light on this question. Hypoplasia of the adrenals was also accompanied by retarded sexual development, while hyperplasia was accompanied with excessive development of secondary sexual characteristics. A case exhibited by Dr. Turney showed pituitary disorder with adiposity and abnormally raised blood pressure, undue pigmentation of skin, and liability to spontaneous bleeding. For diagnostic purposes the ophthalmic surgeon worked chiefly with his perimeter in recognizing and watching pituitary disease. The typical condition was one of bitemporal hemianopia, though that statement did not cover the question. Cases had been recorded in which a central scotoma resembling that seen in tobacco amblyopia existed, but in which the extension of the scotoma resulted in bitemporal hemianopia. It was not clear how pituitary tumours could press first at the anterior angle of the commissure; still, *x* rays were very serviceable for proving or negativing the existence of bone erosion. Dr. Doyne had shown that hemianopia of the colour sense might precede that of the form sense, and give a guide to prognosis, and with that Cushing agreed. In a proportion of cases of pituitary body enlargement, homonymous hemianopia was a symptom in the earlier development of the case, but there could be no doubt that an evenly-balanced loss of the temporal field in each eye of simultaneous onset was the exception. Direct pressure on the optic chiasma, so glibly invoked, was far from being a satisfactory explanation of most of the cases. Mr. Fisher asked whether neurologists held that the anosmia present in some pituitary cases could be attributed to involvement of the uncinate gyrus. He believed the visual phenomena were explicable by traction effects on the visual pathways as the tumour extended behind the chiasma and between the optic tracts in the interpeduncular space. For operation he favoured a route through the fronto-temporal opening of the cranium. If this method were pursued the free removal of the bone and opening of the dura mater on the opposite side allowed more freedom for elevation and displacement of brain, and thus gave more ready access to the pituitary region.

The debate was adjourned to March 12th.

CLINICAL SECTION.

Friday, March 14th, 1913.

Dr. A. E. GARROD, Vice-President, in the Chair.

Exhibition of Clinical Cases.

THE following cases were shown among others:—Dr. F. PARKES WEBER: "*Baggy*" *subcutaneous fat* simulating symmetrical oedema of the legs in a woman aged 40. In similar instances the swelling had been supposed to be due to a chronic oedematous degeneration of the subcutaneous fat cells. He thought it was in some way connected with a disorder of internal secretions, especially of the thyroid gland and ovaries. Also a case of *Hypoplasia of the right limbs of cerebral origin* in a woman aged 20. The right limbs had been weak from the time she had begun to walk, but there was no history as to its cause. Dr. W. ESSEX WYNTER: *Arthritis with Baker's cysts* in a man aged 58. Wassermann's reaction was positive. The lesions did not resemble those of Charcot's disease of the joints. Dr. A. F. HERTZ and Dr. W. JOHNSON: *Progressive muscular atrophy* associated with primary muscular dystrophy in the second generation. The father, aged 41, had pure progressive muscular atrophy of rapid onset. One son, aged 17, suffered from the pseudo-hypertrophic form of muscular dystrophy. Another son, aged 5, showed early signs of the same disease. A boy aged 3, a nephew of the first patient, was possibly affected also by muscular dystrophy. Mr. T. JEFFERSON FAULDER: *Case for diagnosis*, possibly a dermoid cyst in Burns's space, in a girl aged 17. Dr. FILIP SYLVAN: Three cases of *Pulmonary tuberculosis* illustrating the value of *Gymnastic treatment;* also a case of *Myelitis*, considerably benefited by similar treatment.

SECTION OF SURGERY.

Tuesday, March 11th, 1913.

Mr. G. H. MAKINS, C.B., F.R.C.S., President, in the Chair.

Ligature of the Renal Artery as a Substitute for Nephrectomy.

Mr. T. H. KELLOCK said that the first recorded operation was done for tubercle by an army surgeon. In his own case, a man aged 30 had undergone perineal lithotomy and several operations on his loin, and a discharging sinus remained. *X* rays revealed a calculus and a portion of rubber tube at the bottom of the sinus. The tube was removed, but copious haemorrhage occurred when the extraction of the calculus was attempted. The excess of inflammatory tissue made the renal vessels difficult to find, so the renal artery was tied through an abdominal incision. Seventeen days later the sinus was again explored; friable portions of the kidney came away without haemorrhage, and the sinus healed up. Since this operation he had tied the renal artery in three cadavers. The peritoneum was opened 3 in. above the umbilicus; much cellular tissue was found in front of the vessels. Ligature of the right artery was the harder owing to the duodenum and the pancreas. Abnormal arteries would, Mr. Kellock added, prove a difficulty. Mr. JOCELYN SWAN thought that the operation would be chiefly required in cases of persistent sinus, when a subcapsular nephrectomy was very difficult. The PRESIDENT, Mr. KIDD, Mr. SYMONDS, and Mr. THOMPSON took part in the discussion.

Three Unusual Cases of Renal Tumour.

Mr. J. SWIFT JOLY reported these cases. In the first instance there was renal pain with haematuria, and the left kidney was found to be displaced downwards. Cystoscopic examination revealed a red mass with black spots projecting ¼ in. from the ureter into the bladder. Ureteral catheterization and examination showed that less urine and urea came from the left kidney. Nephrectomy was performed, and a hypernephroma found replacing the upper pole of the kidney. The second case was an instance of painless haematuria; the right kidney was enlarged and irregular, the urine acid, and the cystoscope showed a worm-like clot in the right ureter. Attacks of retention had occurred for three months. During nephrectomy the peritoneum was torn, and the patient died during the same night. A hypernephroma was found in the lower pole of the kidney, with secondary deposits in the kidney and perirenal fat. The third case occurred in a male, aged 44, with pain over the left kidney and haematuria. The urine was clear and acid. A hard smooth mass was felt in the left hypochondrium and lumbar region: it did not fluctuate, and the left kidney could not be felt apart from the lump; there was a small varicocele. No urine was obtained by

catheterization of the left ureter. Nephrectomy was performed, and the patient gained 4 st. in weight, and there was no sign of recurrence at the end of eighteen months. The weight of the tumour with the perirenal fat was 3¾ lb. A central growth was found that cut off the substance of the kidney from the pelvis. The tumour proved to be a primary carcinoma with haemorrhagic changes. Early diagnosis and extensive operation was needed in all cases like the three he had brought forward. Partial or simple nephrectomy was contraindicated, and nephrectomy followed by dissection of the fatty capsule should not be done unless there had been an error of diagnosis. Not only the kidney with the perirenal fat but also the aortic glands should be removed. Diagnosis had to be made from a primary ureteral growth leading to a hydronephrosis. Unilateral haematuria from a large kidney with diminished secretion were useful diagnostic points. Renal tumours should first be examined and then explored, and, if possible, completely removed through a T-shaped incision. Mr. SWAN doubted, from the naked-eye appearance of the third specimen, whether it was a carcinoma. He had operated on eight cases of hypernephroma; seven of these had started with haematuria. He removed the fatty capsule, but not the aortic glands. In one case the tumour was not palpable, as it had grown upwards and pushed the liver down over it. He showed a specimen of cavernous angioma of the kidney which he had removed. Mr. KIDD thought that the cases should be cystoscoped whilst they were bleeding, as when the bleeding had ceased they were difficult to diagnose Hypernephromata grew to a large size before they led to secondary deposits; they should be removed through a T-shaped incision. Mr. JOLY, in reply, said that the microscopic examination of the third tumour showed it to be a *clear-celled* carcinoma. The cases should be cystoscoped both while they were and while they were not bleeding.

SECTION OF PSYCHIATRY.

Tuesday, March 11th, 1913.

Sir GEORGE SAVAGE, President, in the Chair.

Clinical and Laboratory Meeting.

THROUGH the courtesy of Dr. Robert Jones, Medical Superintendent, this meeting was held at the London County Asylum, Claybury. Dr. F. W. MOTT, F.R.S., illustrated and described some recent investigations on the *Biochemistry of the neurone*. He showed by means of the ultramicroscope the living nerve cell. It was a viscous homogeneous colloidal spongioplasm containing an enormous number of minute oval or round granules, which, on a dark ground, appeared highly refractile. The nucleus with nucleoli in the centre was less refractile. When the isotonic fluid was replaced by water, endosmosis occurred, and the refractile granules escaped. They remained discrete, and exhibited a Brownian movement, but did not coalesce. Probably each granule consisted of colloidal fluid substance surrounded by a delicate membrane. Dr. Mott also demonstrated *Spirochaeta pallida* (Noguchi) in culture living; likewise changes in the central nervous system in a case of myxoedema, cachexia strumipriva and insanity, in which the thyroid was of normal size, but the gland tissue was replaced by fibrous tissue. He also demonstrated changes in the central nervous system in an English and an Egyptian case of pellagra. The English patient had not been out of this country, and the Egyptian case came from a maize district where the grain was of very poor quality. Dr. ROBERT JONES exhibited two cases for diagnosis. The first was that of a single man, aged 35, of no occupation. He had threatened to commit suicide, and occasionally showed signs of violence towards others, for which he was certified. He had now congenital imbecility with depression. His articulation was jerky, and gait ataxic. During voluntary movement he showed a coarse tremor. There was neither paresis nor wasting, and his electrical reactions were normal; no nystagmus, and pupillary reactions were sluggish; discs normal, knee-jerks increased, flexor response. His father and brother were insane; mother and sister died of consumption. The second case was that of a man, aged 44, a blacksmith, who developed suicidal melancholia. He considered that he had general paralysis and was going to die, was greatly depressed and was irritable, and there was progressive mental weakness. There was slurring of speech, with increasing atony of voluntary muscles, fine tremor of tongue and facial muscles; no nystagmus or disc changes. Knee-jerks increased, Wassermann test and lymphocytosis negative. His mother and maternal aunt were insane. Dr. S. A. K. WILSON considered the first case was one of congenital cerebellar defect. Sir DAVID FERRIER agreed, and included the second case in the same group. Dr. C. T. EWART showed an interesting case of *Katatoniac stupor* in a girl, aged 22. She had rigidity and mild negativism, but no stereotypy, echopraxy, or echolalia. Her habits were clean, but she had not menstruated since admission. Her answers to questions were only monosyllabic. At school she was quick, cheerful, and industrious. Her mother drank to excess during the pregnancy. Efforts are now being directed, by Turkish baths, etc., to restore the menstrual function, and the prognosis was hopeful. Dr. Ewart also brought forward a woman, aged 32, who exhibited *Washing mania*. She had melancholia with suicidal tendencies, and any soiling of her linen gave her much worry; she had also financial and other distresses. There was no evidence of an insane heredity. Dr. Ewart said the washing was a motor response to a sensory experience, just as the music of a waltz impelled certain muscular movements in the hearer. He elaborated an interesting analysis of the motives which caused women to derive pleasure from the wearing of exquisite clothing, and showed that the beautiful and the desirable standards varied with the particular society in which the person dwelt. Dr. F. PAINE showed a case of *Osteitis deformans* in a man, aged 75, who also had aural hallucinations and delusions of persecution. Also a man, aged 46, with organic disease of the nervous system presenting somewhat similar features to those of general paralysis of the insane. Wassermann's reaction was negative, and there was no lymphocytosis. He had spastic paraplegia, and well marked aortic regurgitation. He also showed a case of cerebral tumour to illustrate the value of the operation of decompression.

SECTION OF ANAESTHETICS.

Friday, March 7th, 1913.

Dr. J. BLUMFELD, President, in the Chair.

A Brief Eulogy of Mr. Clover.

Mr. BUCKSTON BROWNE expressed his pleasure that the section had accepted his portrait of Mr. Clover, whom he claimed as a surgical genius. Mechanical invention in Mr. Clover's case was hereditary. Quite apart from his valuable pioneer work in anaesthesia, his principal contributions to the art of surgery were in themselves sufficient as a title to greatness. Clover's tubes and rubber evacuator, for use after the crushing of a vesical calculus by the lithotrite, had alone rendered the modern operation of lithotrity possible. While no single man could claim the modern lithotrite as his invention, Clover's evacuating apparatus, tubes, and bottle were just as practicable in 1913 as in 1866, when he first made his invention known, and the most modern apparatus was essentially and practically Clover's. British surgeons had led the van of the army of progress during the wonderful nineteenth century, and Clover was one of those leaders, for he had left an abiding mark upon the surgical practice of his generation and probably upon that of many yet to come. Dr. DUDLEY BUXTON followed with an eloquent tribute to Mr. Clover, whose outstanding quality was a great mastery of detail and patience in the pursuit and application of knowledge. Those who in the present day were in the enjoyment of the aftermath of such labours as Clover's did well to pause sometimes and appreciate the painstaking stages by means of which permanent advances had been attained. Clover was really the scientific adviser to the Royal Medico-Chirurgical Society Committee formed in 1864 to inquire into the administration of anaesthetics, and he showed how much he was imbued with the teaching of Snow. Clover was his own mechanic, and the apparatus which he placed before the profession represented numerous stages of trial and experiment carried out by himself. Dr. Buxton congratulated the section on doing homage to so great a man. Mr. BELLAMY GARDNER, in a short communication, pointed out that Clover appeared to

have been the first man in England to apply a facepiece for the administration of nitrous oxide gas, the original demonstration of that contrivance having taken place at the London Dental Hospital in March, 1868.

Technique in General Anaesthesia for Intranasal Operations.

Mr. H. BELLAMY GARDNER read this communication. In order to obtain the ideal conditions for such work three principles were necessary for agreement between the surgeon and anaesthetist: (1) That the nasal cavities should be cut off from the upper air passages by the insertion of a captive post-nasal sponge after anaesthesia had been established; (2) that adequate ischaemia was only attained by the insertion of pledgets of cotton-wool soaked in a solution containing 2½ per cent. of cocaine and 1 in 2,000 adrenalin one hour before the operation; or 3) that it was permissible and desirable that the patient should be anaesthetized in the sitting position with the feet horizontal from the first, either with the C.E. mixture or chloroform. Mr. Bellamy Gardner gave as reasons for the adoption of these principles—(1) that all danger of invasion of blood into the lungs could be thus avoided; (2) that the surgeon's work was much facilitated by the absence both of blood spraying over the operation area during expiration, and of semi-asphyxial turgescence of the mucous membranes due to irregularities in the respiratory rhythm. The surgeon gained the additional advantage of a view of the intranasal parts in their normal relations as clearly as in the consulting-room. (3) The reduction of the total loss of blood and also of shock by the obtruding influence of the local anaesthetic solution. Chloroform anaesthesia in the sitting position by a specialist was, in Mr. Bellamy Gardner's opinion, not so productive of depression as to move a patient when he had been lying down under chloroform. Dr. G. A. H. BARTON discussed a number of details concerning the anaesthetic and the posture of the patient. Surgeons did not usually prefer the upright position for some of the operations described, including turbinectomy. He favoured abstention from giving alkaloids in cases of operations on the frontal sinus when free haemorrhage was likely to occur. Dr. W. J. MCCARDIE said that the surgeons with whom he worked gave, before the general anaesthetic, an injection of six drops of adrenalin to which was added 5 per cent. solution of cocaine in 6 c.cm. of distilled water, and for intranasal operations the lying down posture was adopted. Mr. H. E. G. BOYLE said the technique adopted in his practice was quite different from that described by Mr. Bellamy Gardner. The surgeons with whom he worked preferred to have the patient lying on the side, the head being turned well over to the side and resting on a sandbag; then any escaping blood collected in the dependent cheek, from which it could be sponged away. Post-nasal sponges were not necessary when this position was adopted. The surgeon could sit down and perform the operation in comfort.

Scopolamine-Morphine-Atropine.

Mr. A. F. MORCOM read a communication on the use of a mixture of these compounds in inhalation anaesthesia. The dose should be: Hyoscine hydrobromide $\frac{1}{150}$ grain, morphine tartrate $\frac{1}{6}$ grain, and atropine sulphate $\frac{1}{150}$ grain. The mixture should be given three-quarters of an hour before operation. When this was done, the patient, in the majority of cases, became drowsy and fell into quiet sleep, so that the anaesthetic might be given without waking him. Thus he was spared the nerve-racking preliminaries of the operation. Less anaesthetic was required when this injection had been given, and after the operation the patient continued to sleep for some hours and woke without any feeling of discomfort. Post-anaesthetic vomiting, after this preliminary injection, was almost non-existent, or at the worst reduced to about 6 per cent. It had been said that it was difficult to obtain proper relaxation of the abdominal muscles when this injection was given, but in Mr. Morcom's experience this only applied when the upper half of the abdomen was being operated upon, and did not apply to operations below the level of the umbilicus. Mr. LIONEL E. G. NORBURY followed Mr. Morcom with a paper on the same compounds given as a general anaesthetic. His experience had been limited to 6 cases, but these had been sufficient to show that the mixture had great possibilities, especially for patients suffering from diabetes, phthisis, severe bronchitis, sepsis, and severe cardiac or arterial disease. The dose should be: Morphine tartrate, $\frac{1}{6}$ grain; hyoscine hydrobromide, $\frac{1}{75}$ grain; atropine sulphate, $\frac{1}{150}$ grain. This was administered two hours before operation, and was usually sufficient, but if not, a further injection of morphine tartrate $\frac{1}{4}$ grain was given fifteen minutes before operation. It appeared to be safer to do this than to give another injection of the mixture, which in some cases, however, was allowable. In three of the cases local infiltration of the skin with 1 per cent. solution of novocain was employed in addition. In one case it was necessary to give a little gas for the preliminary incision to be made, whilst the subsequent operative proceedings were carried out in comfort. There was no shock or pain after the operation, and the patients slept for some hours afterwards; in one case four hours after the operation the respirations dropped to eight per minute, and were "Cheyne-Stokes" in character, but the patient readily responded to a hypodermic injection of strychnine. Relaxation of the muscles was not easily obtained with the mixture alone. The injection appeared to be of most value in amputations on diabetic patients, since there was no shock and no danger of "acidosis" and coma. The PRESIDENT said that opinion was still divided as to the value of scopolamine in conjunction with a general anaesthetic. The dislike of it by some surgeons seemed to be based on the rigidity which it caused, and in certain instances in his experience a longer time was required to produce relaxation. He now used a mixture of $\frac{1}{3}$ grain omnopon, $\frac{1}{100}$ grain scopolamine, and $\frac{1}{150}$ grain atropine. The use of scopolamine certainly did not detract from the surgeon's and the anaesthetist's difficulties, but the patient was often grateful for its use. Dr. W. W. H. TATE did not consider that scopolamine impeded the surgeon's work, but sisters and patients were agreed that a much better period was spent after the operation in cases where it had been used. Dr. LLEWELLYN POWELL remarked that nurses were of opinion that when scopolamine had been given it was more difficult to know whether the patient was in danger some hours after the operation. Dr. W. J. MCCARDIE did not see the need for adding atropine to the mixture. The morphine, of course, damped down the respiration and made matters easier for the surgeon. After these alkaloids were used there seemed to be more oozing than without. When using ether he gave a fairly large dose of alkaloids. Dr. WILSON remarked on the excessive thirst of young patients who had had morphine before the general anaesthetic.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF PATHOLOGY.

AT a meeting held on February 14th, Professor A. H. WHITE, President, in the chair, Mr. WILLIAM PEARSON reported a case of *Congenital tumour of the gum*. He dwelt on the rarer varieties of tumours found in connexion with the buccal cavity (odontomata, dermoids, and teratomata) and on their embryological significance. This patient was a male infant born on October 1st, 1912. Labour occurred at full term, and the child was delivered naturally. Projecting from the mouth was a large, fleshy-looking mass which gave the child a most unsightly appearance, and prevented him taking any nourishment. Two smoothly-rounded, ovoid tumours projected from the mouth. The larger lay on the right side, and was of the size of a hen's egg, the smaller was as big as a damson plum. They were bright pink in colour like mucous membrane, but the larger was congested and in parts almost black. They had appreciably increased in size since birth, and felt firm and solid in consistence like uterine fibroids. They were attached by very short slender pedicles to the free border of the gum of the upper jaw, slightly to the left of the middle line. The pedicles were transfixed and ligatured, and the tumours cut away. It was then seen that immediately to the outer side of the pedicle of the smaller growth were two other small, rounded tumours, like little berries, sprouting from the gum, and these were also removed. Examination of the child on February 12th, 1913, showed the mucous membrane of the gum to be

smooth all round, so that no evidence of the former presence of these growths could be seen. The nasal cavities and pharynx appeared normal in every way. A description of the histology of the tumours was given by Professor A. C. O'Sullivan, who kindly made sections and photomicrographs. Mr. Pearson was inclined to regard them as teratoid in origin. In demonstrating the photomicrographs of the sections, Professor O'SULLIVAN pointed out that the growth was covered with compound squamous epithelium, without any horny layer, and without papillae, but otherwise normal. On the deeper parts the most striking feature was the appearance of a tissue suggestive of voluntary muscle, but without striation as far as he could see, and with nuclei contained *within* the fibres. These fibres were embedded in a tissue of whose character he could not be certain. He thought it had at first been largely of one type—namely, muscle—but the fibres had atrophied. This tissue otherwise looked like oedematous connective tissue. Professor MCWEENEY said that he was not inclined to reckon the new growth either a dermoid or a teratoma. This tumour was covered with epithelium, underneath which was a mass of tissue composed of cells which were much the same as were to be seen in rhabdomyoma, and, in addition, it had an element in it which he did not remember being referred to—very dilated spaces which were lined with endothelium, and appeared to him to be dilated lymphatics. This would appear to him to bring the condition into the class of lymphangeiomyoma. It might have occurred by the accidental misplacement of a portion of the jaw muscles on the analogy of the mixed tumour of the parotid. Professor SCOTT said he remembered seeing a slide made by Dr. Harvey which showed striation in the muscle fibres very clearly. The section was different from the sections shown that evening, and it then struck him that there was an astonishing resemblance to cardiac muscle. This was not surprising, seeing that cardiac muscle stood midway between the imperfectly differentiated smooth and the perfectly developed striated types. The differences between sarcomata beginning in very early life and the same tumours developing after years of latent potentiality were very slight. This new growth was possibly sarcomatous. There was a strong affinity between mixed tumours such as those of the parotid and sarcomata. Mr. PEARSON, in replying to the remarks, said that his first impression was that the tumour *was* of the nature of rhabdomyosarcoma, but that clinically it did not suggest a sarcoma. After some observations on teratoma and on the increase of the tumour being partly due to venous obstruction, he admitted that the nature of the tumour was still unsettled. Professor A. C. O'SULLIVAN, replying, said he was much interested in Professor Scott's remark that he had seen striation. Professor E. J. MCWEENEY showed a specimen of *Gumma of the heart*, from a man aged 36, who died suddenly without any preliminary symptom. At the autopsy (inquest case) the gumma was found to be the sole cause of death. It was of unusually large dimensions, occupying almost the entire base of the left ventricle, and completely infiltrating the posterior wall and septum with a white, fleshy mass resembling sarcoma, and consisting of confluent nodules, in the centre of which lay obliterated and necrotic areas. The new growth fungated through the septum into the right ventricle near to the attachment of one of the tricuspid segments. Microscopically, it consisted of lymphocytes, plasma cells (which were very numerous), epithelioid and fibroblastic elements, and giant cells. The latter were very numerous. Their mode of formation and differences from those of tubercle were discussed. Eosinophiles were common. Whilst the newly-formed granulation tissue was nourished by somewhat scanty capillaries, also of new formation, the pre-existing blood vessels were the seat of a most typical and intense endarteritis obliterans, as the result of which they themselves, with the surrounding tissue, became necrotic. This feature stamped the process as syphilitic, although efforts to demonstrate the treponema had not been successful. The sudden *exitus* in this case was doubtless due to interference with the conducting tracts of the heart. Dr. BOXWELL noted that he had already shown two specimens of gumma of the heart before the section. In both the condition had caused sudden death. In one the appearances were extremely like those in the heart now shown by Professor McWeeney, except that the plasma cells were less obvious, and the gumma suppurated and had become infected, and was discharging pus into the left ventricle. Dr. W. G. Harvey had shown a large solitary tubercle of the ventricle at the same meeting in the case of a child aged 12 years. Dr. O'FARRELL referred to a dictum of Professor McWeeney regarding tuberculous giant cells and tubercle bacilli, and suggested that the same inverse proportion might hold good in the case of syphilitic giant cells and treponemata. He thought the basophilic cytoplasm of the syphilitic giant cell was characteristic. Professor MCWEENEY, in replying, said, in reference to Dr. O'Farrell's remarks, that it struck him as extraordinary that there should be so much structural change in the practically complete absence of syphilitic organisms. It might be said that it was the products of the organism that were doing the mischief, but how could its products be there if the organism was not there itself? Here was an abnormal structural change and no spirochaetes, yet the process was undoubtedly syphilitic. He thought that the precise relationship of gummata and spirochaetes was only partially understood. Dr. MERVYN CROFTON read a paper on *The theory of immunity and therapeutic immunization*. It suggested: (1) That the toxins of the microbes were ferments by which the microbe broke down the living protoplasmic molecule, and that antitoxins were antiferments just as was antitrypsin. (2) That bacteriolysis brought about by immune body and complement was an exactly similar process to the lysis of carbohydrates, fats, and proteins by the tissue cells. (3) That opsonization of a microbe could be brought about in three ways—(*a*) by the attachment of heat-labile complement like opsonin; (*b*) by the interaction of immune body and complement; (*c*) by immune opsonin (probably antitoxin) by itself. (4) That Wright's technique for estimating the opsonic index did not take the last two methods into consideration, and was, therefore, an unreliable guide to the dose that must be attained in any given case. Dr. ROWLETTE said that in discussing the theory of immunization he understood Dr. Crofton to have attempted to identify the thermo-labile and thermo-stabile opsonins with the complements and immune body respectively. Dr. Crofton seemed to him to leave out of count altogether any of the other protective bodies formed in the process of immunization. He (Dr. Rowlette) did not see any reason for the opsonin body being picked out and identified with immune body. There might be an extremely high opsonic index while the patient was dying, as in the case of cerebro-spinal meningitis. He considered that Dr. Crofton should bring forward more convincing arguments before this view could be accepted. Referring to the practice, he agreed with him that to a very great extent one might be guided, as regards dose and the spacing of the dose, by the clinical signs without observing the opsonic index, but he considered the opsonic index as the greatest use in cases of mixed infection. His experience had shown him that there was the greatest difficulty to be met with in cases of mixed infection. Some years ago he was much impressed by a demonstration by Dr. Crofton with regard to increasing dosage, but in every case in which he (Dr. Rowlette) had tried to increase the dose he found the local reaction so marked that he considered it would be better to increase the dose very slowly. He thought if doses could be given which just escaped focal reaction as good results could be obtained. Dr. O'KELLY considered it very hard to know how much to attribute to vaccine treatment, as, in the case of bone disease, if the diseased substance was removed the condition might improve rapidly without any vaccine treatment, and the same might be said of pyorrhoea alveolaris. Dr. O'FARRELL could not agree that opsonin could be compared with complement. He was very much impressed by the size of the doses, and considered that the cases in which the vaccine failed it was often because it was not pushed far enough. He agreed that the opsonin Wright, as the dosage at present known, was entirely due to his work and also the intervals. He agreed that the opsonic index was unnecessary now in every case. The effect of the injection of streptococcus vaccine during high temperature was very remarkable. He had experience of one case in which vaccine was given when the temperature was high, and it came down, but as a general rule his practice was to give serum instead of vaccine in cases of high temperature.

Professor COLLINGWOOD asked Dr. Crofton whether he regarded the estimation of opsonin as an estimate of the "immune body" or of the "complement," as much depended on the answer to that question. The PRESIDENT considered that in most of the cases in which a large dose was given it came at the time when the patient was well, and of course enormous doses might be given to a person who was normal, and the same with cases well or almost so. Personally, he considered every case had its own therapeutic maximum dose, and when this was reached the maximum result was produced. A start might be made with a very small dose and increased gradually with very good results. Looking back during a period of seven or eight years over a very large number of cases of surgical tuberculosis he found that the dose that he was now giving was very much less than he was wont to give in the earlier times, and comparatively better results were produced. He considered that if suitable doses of tuberculin were given 90 per cent. of all surgical cases might be cured, and the same would hold good with other infections. In cases of furunculosis, if large doses were given the boils would get worse. Such a vast amount of facts had now been accumulated in connexion with vaccines that cases could generally be dealt with on clinical grounds. For instance, even with tuberculin inoculations a very small dose might be given, and the patient might exhibit some signs by which, with a certain amount of experience, one could tell if the dose had been too large, and these signs might fall far short of any actual rise of temperature. It might be nothing more than a sense of lassitude. Dr. CROFTON, replying to the remarks, said that there was no question that antibodies could be produced by repeated small doses; but unless all the microbes had been killed off there could be no guarantee against reinfection. He disagreed with those who said that a beginning should be made with a comparatively small dose. With regard to mixed infections, good results could not be obtained if only one vaccine was used. He agreed with the use of serum in acute cases. In answer to Professor Collingwood, he believed that when Wright's technique was used the estimation made was one of the feebly specific thermo-labile opsonin—in other words, of complement—and not of a true specific immune body.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

AT a meeting held on March 4th, Dr. CONSTANCE LONG President, in the chair, Dr. KATHLEEN O. VAUGHAN spoke of the *Position of medical women in India*. Dr. Vaughan first explained the position of medical men in India; they were appointed either under the I.M.S. or the R.A.M.C., or they were in charge of the mission hospitals, and a very few were in private practice. There was no prohibition against unqualified persons practising or accepting fees, and many of the so-called private practitioners, both male and female, were persons with no medical qualification whatever. Dr. Benson, at the Cama Hospital in Bombay, was the only medical woman in India acting directly under the Government, and her appointment had proved an unqualified success. The mission hospitals were also doing excellent work; they were well equipped and were entirely under the control of the fully qualified women appointed to reside there. Dr. Vaughan, after stating that the Dufferin Hospitals scheme was founded in 1884 by Lady Dufferin, with the idea of supplying fully qualified medical women to attend to the Indian women, referred to the disabilities under which medical women worked owing to the claim of the members of the Indian Medical Service always to have charge of the hospitals. There were about 150 million women in India, practically all of whom would attend either a woman doctor or no doctor at all. Although many names of women patients were found on the books of men's hospitals, hardly any of these women were actually seen by the men; they either remained closely veiled during the interview, or sent boy messengers to record their symptoms to the doctor. The sanitary officers were all men, who, on account of the purdah system, were not permitted to enter the homes, in which, of course, the diseases chiefly originate. Dr. Vaughan pleaded for: (1) The establishment of a large number of women's hospitals in India to be under the control of properly qualified women; (2) the appointment of female sanitary officers; (3) co-operation and help from England to aid in carrying out the schemes.

Reviews.

THE PROTEIN ELEMENT IN DIET.

MAJOR D. MCCAY, Professor of Physiology in the Medical College, Calcutta, has added to the series of *International Monographs* (Ed. Arnold) a very valuable volume on the *Protein Element in Nutrition*.[1] Since the publication of Chittenden's views on the protein requirements of the body controversy has been waged with unabated interest as to the level of nitrogenous interchange necessary for the maintenance of growth, health, and efficiency. Major McCay makes the following observations on this point:

> No one denies the feasibility of maintaining either man or animals in a condition of nitrogenous equilibrium on quantities of protein very much below the standards set up by the old masters in the science of nutrition. If we knew exactly how much and what particular nitrogen compounds the body requires in each specific state of nutrition, it is rational to expect that it would be possible to maintain the body in health, vigour, and efficiency on quantities of protein very much less than those hitherto considered necessary; but as we do not know what form of nitrogen combination nor how much of any particular unit is required in the different states of bodily nutrition, it is surely only rational that, in order to insure a sufficiency of those elements absolutely essential, a liberal standard of dietary should be recommended.

The researches on the production of beri-beri carried out by feeding both animals and prisoners on rice deprived of its outer layers, and similar researches which show that whole meal and not white flour, black bread and not white bread, suffice with water to maintain life, have led to the conception of "vitamines"—subtle principles in the foods absolutely necessary to life. It no longer suffices to fix a diet in terms of so much protein, carbohydrates, fat, and salts. The food must contain a minimum quantity of "vitamines," and care must be taken to see that modern methods of milling and sterilizing by heat do not rob the natural food of these principles, so small in quantity and yet vital in action.

From prolonged inquiries into the habits and physique of the tribes and races of India, Professor McCay brings forward a mass of evidence which proves that a high protein ratio is necessary in childhood to produce a virile and active race of men, and that an ample protein ratio is needed to secure efficiency of the body as a working mechanism.

> An absolutely dispassionate survey of the physical development and general capabilities of the races and people of India points undoubtedly to the conclusion that, other factors being eliminated, those who obtain a liberal supply of absorbable protein in their daily food are superior in every respect to those whose dietaries exhibit any marked degree of lowering of the average protein standard.

This conclusion is enforced by a series of excellent photographs which illustrate the physique of the different races and tribes investigated. The photographs are carefully selected as being as nearly as possible typical of the average development met with. Most striking is the contrast between the groups of Ooriza on page 86 with, say, the Degra or Punjab Mohammedan on page 194.

Rice is so poor in protein that in all fixed dietaries wherein it forms the main constituent the amount of it present ranges up to and over 26 oz. of the dried material. When rice is cooked it swells up to almost five times its dried bulk. The total capacity of a European stomach of ordinary size is about 1,200 grams, while the weight of a full food diet of rice exceeds 3,000 to 3,500 grams (7 or 8 lb.); the bulkiness of the diet leads to greatly increased waste of protein from non-absorption, the digestive juices fail to penetrate it, and peristalsis is enhanced. The final fate of much of this food is bacterial decomposition in the large bowel and windy evacuation.

The picture of the feebleness, laziness, lack of energy, and sleepiness of the working coolie could hardly be overdrawn.

[1] *The Protein Element in Nutrition.* By Major D. McCay, M.B., B.Ch., B.A.O., M.R.C.P., I.M.S. *International Medical Monographs.* London: Ed. Arnold. New York: Longmans, Green, and Co. 1912. (Demy 8vo, pp. 230; plates 8. 10s. 6d. net.)

We have seen three labourers, with, of course, a sirdar or overseer, take eight days to loosen the surface of a drive to the depth of 2 in.; the total surface of the drive was roughly 200 square yards. An ordinary European labourer would have finished the work in a few hours. In coal mining the physical conditions are altogether in favour of the Bengali, and the result is an out-turn barely 27 per cent. of that of the European. Between 15 and 35 years of age the expectation of life is from 36 to 38 per cent. less favourable in India for males, and from 34 to 48 per cent. for females. Eurasian students who as boys enter Calcutta colleges, and are fed on European standard of protein show development into strong, healthy men quite up to the average European standard in physique.

The lessened expectation of life, decreased resistance to disease and infection, earlier onset of the marked evidences of tissue degeneration and senility, are conditions that would be anticipated in a people who exhibit such slackness, want of vigour, tonelessness, general slowness of reaction, and other physiological attributes difficult to describe, detect, and measure, which form some of the distinguishing characteristics of the working population of Bengal. Self-absorption, introspection, want of interest in the incidents of everyday life, little power of attention, observation, and concentration of thought—these are some of the attributes of all but the better classes and better fed of the Bengalis.

"The Bengali," says Major McCay, "has never, so far as we are aware, in modern times been recruited for the fighting line," while other inhabitants of the great Gangetic Plain, stretching from the north-west in the Punjab to the sea in Bengal, exposed to and suffering from all the disabilities of climate, but on a superior dietary, are capable of exhibiting the firmest courage, determination, and endurance. Major McCay cites the observations of the Army Committee on the physiological effects of food, training, and clothing of the soldiers, and the conclusion reached that during a period of hard training 190 grams of protein a day appeared to be ample, whilst 140 grams was too low. On the other hand, the average amount of protein eaten by brain workers in the physiological laboratory at University College was found to be about 90 grams.

We must remember that a growing animal or child which receives only sufficient food to keep its body weight constant, or to allow a slight increase, is in a condition of severe starvation. The skeleton grows at the expense of the flesh, fat is consumed more or less entirely, and a great proportion of the body tissues is replaced by water; the caloric value of 1 gram of body weight taken at the extreme of such a process, may only be one-third of the normal value.

It is possible by supplying a suitable amount of food to maintain a dog for nearly one year in an emaciated condition, apparently in good health and at the weight of a puppy. If such an animal is then fed amply it fattens and rounds out, but is unable to make good the growth suspended by the long restriction of food. Hence we see the necessity of maintaining a high protein ratio in the food of the children. This is, perhaps, the most pressing of all claims on parents and educational authorities, for wise feeding is of the first importance, and this with sufficient rest may go far to ensure health in the worst kind of surroundings.

DISEASE IN CHILDHOOD.

THE translation into English of the fifth volume of the first edition of the system of children's diseases, edited by Professor PFAUNDLER of Munich and Professor SCHLOSSMANN of Dusseldorf, was completed last year. The English translation[2] has been edited by HENRY L. K. SHAW, M.D., and LINNAEUS LA FÉTRA, M.D. The present volume is somewhat in the nature of an appendix to the general work, which in four volumes traverses the whole ground of the medical disorders of infancy and childhood with a fullness and care that has not as yet been equalled in the textbooks of other countries. The fifth volume deals with the complaints of children which are more distinctly of a surgical nature, and they are treated not from the point of view of the operative surgeon, but from that of the physician. The book aims at giving a sufficient description of the main principles of treatment in orthopaedic surgery, whether manipulative or operative, and discusses at some length the indications for and against the various operative procedures which are especially designed for the relief of disorders in infancy and childhood. Unlike the earlier volumes, the whole of the present volume is the work of one writer, Dr. Hans Spitzy of Gratz. He opens with three essays of great value on the Child and Surgery, the Child and Operative Interference, and the Child and Anaesthesia respectively. The rest of the work is divided into six sections—congenital diseases, disturbances on post-fetal development (which deals especially with orthopaedics), surgical infectious diseases, injuries, affections of neurogenic origin, and, lastly, tumours. The book is of extreme interest throughout, and on the whole may be regarded as a very successful attempt to bridge over the very unnecessary and artificial barrier which conditions of practice have tended to erect between the practice of paediatrics and the work of the operating surgeon. The indications for surgical interference are on the whole fairly and wisely discussed. At times, perhaps, the conservative physician might object that operation is too lightly advised. For example, any one with a large experience of dyspepsia in infancy will demur to the statement that an operation is indicated when an umbilical hernia has been present for six weeks. Again, in the author's view, the opinion that strangulated hernia is rare in children is erroneous, and he uses this as an argument in favour of early routine operation. The likelihood that the hernia is merely due to the distension of the coils of intestine from dyspepsia and to increased peristalsis and colic is ignored. At times the directions as to treatment are very obscure, although whether this is the fault of the translator or of Dr. Spitzy we have not ascertained. Thus in the treatment of rickety deformities—a subject peculiarly likely to occupy the attention of the practising physician—we are told that "circular as well as lateral traction must be avoided. I employ garters at the back and inside. The front ones very often cause extensions." Such directions are hardly explicit enough. On the whole the volume should prove a valuable addition to a system of *Diseases of Children* which has already proved its worth. The illustrations are well chosen and well executed.

A second German edition of PFAUNDLER and SCHLOSSMANN'S book[3] is now in process of publication. It abounds in physiological data and doctrines, which make it interesting to those who have ample time for reading. The physiology of childhood is a recent subject of study; most of its doctrines are still open to controversy. To the student who is prepared to devote his life to the study of children's diseases the book can be confidently recommended. It teems with references to the multitudinous problems which are awaiting solution, for all the collaborators seem to take a delight in discussing theories. As an introduction to the problems of pediatrics, the work is probably unique. The present edition is certainly an improvement on the first. The editors acknowledge the aid of reviewers in their task of revision, and they have accepted some advice. For instance, the chapter on semiology was adversely criticized in the former review in these pages, and it has now completely disappeared to make way for more useful matter. English and French work, particularly the latter, has obtained more recognition than is common in German medical literature. The general sections on hygiene contain whole-hearted approval of English games and English infant clothing. In the chapter on metabolism during the first year of life, there is a rather remarkable omission of the recent work on fat metabolism in infancy. Camerer, the author of this chapter, is prepared to go to great lengths in order to obtain natural feeding for an infant, for he urges that if the supply of maternal milk be in abeyance, the child should be given nothing but a little water sweetened with saccharine, and that it be put to the breast regularly. He mentions a case where this was continued for fourteen days with ultimate success. The succeeding chapter on nutrition after the first year has been much extended. Perhaps the most remarkable sign of the times in this chapter is the insistence on the small amount of albumen actually necessary for the growing child; 2 grams of

[2] *The Diseases of Children.* A Work for the Practising Physician. Edited by Dr. M. Pfaundler and Dr. A. Schlossmann. Translated from the German by Henry L. K. Shaw, M.D., and Linnaeus La Fétra, M.D. In five volumes. Vol. v. Philadelphia and London: J. B. Lippincott Company. 1912. (Imp. 8vo, pp. 378; plates 90, figs. 775. 21s. net.)

[3] *Handbuch der Kinderheilkunde.* Edited by M. Pfaundler and A. Schlossmann. I and II Band. 2 Auflage. In 4 vols. Leipzig: Vogel. 1910. (Demy 4to, pp. 457 and 590. Mk. 12.50 each.)

albumen a day per kilo are stated to be sufficient. This article is fully illustrated by tables and diagrams, and will be very useful to the student. The chapter on blood diseases is less ambitious than most of the others, but is very good. In discussing rickets, Stoelzner gives a short exposition of his theory that rickets is due to a functional insufficiency of the suprarenals, due primarily to lack of exercise of the striated muscles of the body. He quotes Findlay's results and refers to the fulfilment of Hanseman's prophecy that when the Japanese began to inhabit European houses rickets would appear in Japan. Although he expresses his personal belief that adrenalin is a specific remedy for rickets, Stoelzner gives no details of its application. In the chapter on diabetes insipidus there is no reference to the pituitary body as a possible factor in etiology. Pfaundler is responsible for a new chapter on the lymphatic constitution, neuro-arthritism, and the exudative diathesis. All three conditions are regarded as being approximately the same. The impression gained from a careful study of this chapter is that a child of pasty, irritable, or plethoric habit who shows certain symptoms is a subject of the diathesis. The mere list of symptoms covers more than a page, and the individual symptoms range from fever "without cause" to dysmenorrhoea. The actual causes are stated to be heredity, overfeeding, and bad hygiene. There are already numerous theories to account for the pathogenesis of the condition, and we may note that they range from larval gout to the modern fashionable anaphylaxis. The diathesis is not in itself tuberculous, but the affected individual is more liable to tuberculous infection than others, and it tends to take the form of scrofula. The treatment advised is very sensible, being largely a return to nature. The diet should be mainly vegetarian, milk should be limited even in infancy, and, above all, the child should not be treated as an invalid. The condition has been recognized and treated for years in this country by most practitioners. Was it not an English physician who described this type of fever, and advised that the doctor should accidentally break the thermometer, and supply the mother with one which would on no account register more than 99°? The succeeding sections on the acute infections are excellent although not altogether orthodox. There is a new chapter on vaccination by von Pirquet, which contains a short but clear account of the phenomena observed and their significance in relation to his conception of allergy. Theoretical discussion here predominates, rather to the neglect of vaccinal injuries. The writer on the subject of typhoid fever does not seem to accept the modern teaching of the German school on the epidemiological importance of mild atypical cases in children. The article on syphilis has been brought up to date. Modern views as to hereditary transmission are fully discussed but there is no reference to salvarsan. The section on tuberculosis is by no means so good; it is very theoretical, and too much stress is placed upon tuberculin both for diagnostic and therapeutic purposes. There is a short appendix on serum disease by von Pirquet and Schick. It is a useful statement of the views of these authors upon the subject as well as a concise summary of the facts.

In his *Medical Diseases of Children*,[4] Dr. Whipham has endeavoured, within a small compass, to cover a large extent of ground. The book contains only about 400 pages, and space has had to be found for sixty-seven admirable photographs illustrating various abnormal states. Within such limits it is perhaps possible to crowd short descriptions of all the ailments to which children are prone, but it is impossible to do more. The author is debarred from introducing into the work that personal note the presence of which best justifies the repetition of descriptions which appear in many textbooks of similar scope and aim. Although the present volume can be recommended confidently as a short textbook to place in the hands of those who are starting the study of children's diseases, or who are reading for examinations in medicine, it is impossible to avoid the reflection that there already exist many works of which the same may be said. To the serious student of the diseases of children, or to the busy practitioner it has less to offer. Much of the restricted space is occupied by passing references to or descriptions of conditions which are so rare that a man may be in practice for many years and yet meet with no example. There is not room enough for a proportionate expansion of the space allotted to the diseases that are common and of everyday occurrence. Thus, while eight pages are all that can be spared for the consideration of derangements of nutrition, including inanition, malnutrition, and marasmus, five are devoted to an account of infantile scurvy. Again, actually more space is given to the description of hypertrophic pyloric stenosis than is accorded to the consideration of the devastations of infantile diarrhoea in hot weather. Such anomalies can hardly be avoided if an attempt is made to include all disorders in a small volume, but the student will be apt to feel that there is a sharp contrast between what he reads and his experience in the out-patient department or in practice. If in practice cases presented themselves in the frequency which obtains in an exhibition of interesting clinical cases in some paediatrical society, such books would be well enough, but their arrangement would better correspond with practical experience if a preponderating part of the space were devoted to the study of such common disorders as diarrhoea, bronchitis, rickets, rheumatism, and so forth. In the first chapter, entitled The Development of the Child, we notice some statements which seem to invite modification, as, for example, that "in the fourth or fifth month simple sounds, such as 'pa' and 'ma,' may be uttered, and the child shows some power of holding up its head"—a statement which might lead the student to suppose a very premature gift of speech and a very delayed power of controlling movements of the head. Surely, too, in well-managed nurseries, the results of training are manifested more early than would be suggested by the statement that "by the eighteenth month, if properly trained, the child should have acquired habits of cleanliness." At times the author appears too precise in his statements, as, for example, when he tells us shortly that "in the fifth year destructiveness becomes a marked feature, and in the seventh constructiveness begins." We welcome the appearance of a separate chapter entitled Pneumococcal Infection, dealing with its various manifestations in different parts of the body. The article on congenital syphilis is especially full and clear. Those who teach that enlargement of the epitrochlear glands is a characteristic symptom of congenital syphilis will not agree that glandular enlargement is rarely seen until after six years. Wasting, sallowness, and senility of aspect are not invariable symptoms of congenital syphilis, at any rate in breast-fed infants, as might, perhaps, be inferred from the statement on page 163. The book is well and clearly printed, and the illustrations are admirable in every way. There is a good and complete index.

Dr. Holt's *Diseases of Infancy and Childhood*[5] is so largely used both in this country and in the United States that a new edition in which the author has the assistance of his former assistant, Dr. John Howland, is sure to be welcomed. The book has been brought thoroughly up to date and a considerable amount of new material has been added. The article upon tuberculosis in childhood remains one of the best descriptions which we know in the English language. The chapters upon infant feeding are very full and clear. We should have preferred to find in the article on mixed feeding a clear statement of the danger of artificial feeding during the first weeks of life, when the breast milk is slow to appear. In such circumstances the giving of two or three bottle-feeds a day is recommended, but no mention is made of the likelihood that with diminished sucking the breast secretion will decline, even if the child does not refuse the breast entirely. The book remains upon the whole one of the best of the larger textbooks. It is well and profusely illustrated by photographs, diagrams, and plates, several of which are in colour. While nothing common or of everyday occurrence is omitted, room is found for numerous succinct descriptions of disorders which are of less frequent incidence. As an example of an accurate

[4] *The Medical Diseases of Children.* By T. Rowland C. Whipham, M.D., M.R.C.S. London: Hodder and Stoughton, and H. Frowde. 1912. (Demy 8vo, pp. 428, with 67 illustrations. 10s. 6d. net.)

[5] *The Diseases of Infancy and Childhood.* By L. E. Holt, M.D. Sixth edition. New York: London; D. Appleton and Co. 1911. (Sup. roy. 8vo, pp. 1150; 240 illus., including 8 coloured plates. 25s. net.)

description of a condition which escapes the attention which it merits in most textbooks, we may refer to the article on perinephritis.

Dr. J. McCaw's *Aids to the Treatment of Diseases of Children*[6] has now reached a fourth edition. We have copied the title upon the outer cover: on the title page it appears as aids to the *diagnosis* and treatment of diseases of children. This discrepancy is suggestive of the defects which this book as well as all others of its class must tend to show. It is impossible to write intelligently and wisely of treatment without referring at great length to questions of pathology and of diagnosis. Thus, if we turn the pages at random and select the article upon rickets, we find that while ten pages are devoted to this subject, only one and a half pages in reality deal with therapeutics. The book, in fact, differs little from the larger textbooks of children's diseases, save in its smaller size, in the absence of charts, diagrams, and illustrations, and in the briefness of its descriptions generally. The author in the small space at his disposal has contrived to pack a surprisingly large amount of information, and has even found room for not a few references to recent literature.

Dr. LOUIS FISCHER's textbook of *Diseases of Infancy and Childhood*[7] has now reached its fourth edition, and, since the first only appeared in 1907, we may congratulate the author and the publishers upon having produced a work for which a constant demand exists. Dr. Fischer's book does not differ very materially in plan or scope from a large number of other textbooks of diseases of children. Like many others, the book is rendered the more valuable because it is profusely illustrated by photographs of types of disease in childhood, as well as by numerous diagrams and charts. There are no fewer than thirty full-page half-tone and colour prints, several of which are of great excellence. Changes in the present edition are numerous. "Science," says Dr. Fischer, in his preface, "has again reversed many existing theories pertaining to gastric derangements. Clinical and microscopical observations have shown that casein, rather than being a disturbing element causing intestinal autointoxication, is really a valuable adjuvant in atrophic conditions, as it modifies intestinal putrefaction." Surely Dr. Fischer should have written not "putrefaction" but "fermentation"! The latest views upon the etiology of poliomyelitis are discussed at some length. Brudzinski's valuable sign in meningitis we find for the first time in a textbook written in English. In discussing the treatment of appendicitis the author advocates rest in bed, hot fomentations, leeches, the opening of the bowels—though whether by purgatives or enemata is not indicated—ice, and champagne for vomiting, and, lastly, codeine administered every hour until the pain is relieved. Only if the symptoms continue in spite of the above treatment is operation advised. This advice is not a little dangerous. In the paragraph with the attractive title "When shall we Operate?" the information given by a leucocyte count is alone discussed. The book, on the whole, gives an adequate account of the diseases of children. It is well printed and bound, and the illustrations are of extreme value.

Under the title of *Occasional Papers on the Prevention of Some Common Diseases in Childhood*,[8] Dr. J. SIM WALLACE has put together a number of essays and addresses produced during the last few years upon a variety of occasions. Their collection in a single volume has the drawback of involving a great deal of repetition, and many readers will probably experience some irritation owing to the frequent reiteration of the author's claim that by his writings and addresses he has achieved something of a revolution in the nature of our views as to dietetics in general and the cause of dental caries in particular. The main proposition for which Dr. Wallace earnestly contends is that the retention of fermenting carbohydrate foodstuffs is the cause of dental caries, and that this can be prevented by an intelligent regulation of diet, and by concluding the meal with foodstuffs which require mastication and therefore promote the flow of saliva to wash away offending particles. The important part played by faulty apposition of the teeth, whether due to mouth breathing from hypertrophy of tonsils and adenoids to rickets or to undue suction of the artificial teat is not here mentioned. It is true that the author has set aside a special chapter entitled, "Open Windows and Adenoids," to a consideration of the causation of adenoids. From certain observations which he has conducted, he believes that adenoids occur almost exclusively among children who sleep with open windows. Among 69 such cases 22 of adenoids were counted, while of 49 cases who slept with shut windows only 2 were affected. We cannot agree, despite the encouragement afforded by these figures, that a "simple investigation carried out upon these lines will prove to the medical world—as it has done to those who have already looked into the subject—that adenoids are easily preventable in nine cases out of ten." Dr. Sim Wallace is indeed a great believer in statistics. Statistics, he believes, will show that the woman who drinks milk habitually will have difficulty in nursing her infant at the breast, and again statistics will show "that the average milk-fed girl does not in womanhood develop such a womanly figure as the girl who has shown aversion to milk and a preference for more hygienic liquids throughout her life." Although we believe that the author's main contention that carbohydrate fermentation leads to dental caries is true and that the wisdom of some of the dietetic rules which he advocates is obvious, we cannot altogether share his expectation that with their universal adoption we should witness a truly stupendous decline in the incidence of disease of all sorts in childhood, any more than we agree with him that the problem of the hypertrophy of lymphoid tissue in children or of the increasing inability of women to suckle their infants hangs upon such simple issues as the shutting of windows or the drinking of milk.

SURGICAL AFTER-TREATMENT.

A SECOND edition of *Surgical After-Treatment*,[9] by Drs. CRANDON and EHRENFRIED, has been published. We noted in reviewing the former edition how the authors turned attention to certain details which common sense ought to allow no hospital staff to overlook, though they are sometimes neglected. Sufficient care is not always given to the treatment of the patient immediately after operation and his transference to the bed in his ward. Such occurrences as vomiting after anaesthesia are not "trifles," but routine duties are too apt to be treated as trifling, and distinctions between the essential and non-essential to be confused. The authors take care that their readers should never forget such matters. The early history of modern abdominal surgery, with its fixture of the patient in the supine position and the locking of the bowels for a week, is instructive when we remember that the surgeons who insisted on it—Spencer Wells, for instance—were the strongest advocates of what they held to be systematic, scientific, and practical after-treatment. To that treatment they ascribed their successes. They did not always understand that their failures were in part due to their treatment, and still less did they comprehend what is one of the last things the surgeon succeeds in defining, namely, how patients may recover in spite of treatment which is really faulty. Drs. Crandon and Ehrenfried are to be commended for their discussion of what may be termed the systematic, scientific and practical aspects of after-treatment. They never lose sight of any one of these aspects. In one matter of detail they may provoke criticism: in some of the illustrations the essential detail is not so clear as it should be. Thus in Fig. 19, showing the technique of hypodermic injection, the face of the nurse and the patient's arm come out much more

[6] *Aids to the Diagnosis and Treatment of Diseases in Children.* By J. McCaw, M.D. Fourth edition. London: Baillière, Tindall and Cox. 1912. (Fcp. 8vo, pp. 445. Paper, 3s. net; cloth, 4s. net.)

[7] *Diseases of Infancy and Childhood: Their Dietetic, Hygienic, and Medicinal Treatment.* By Louis Fischer, M.D. Fourth edition. Philadelphia: F. A. Davis Co.; London: Stanley Phillips. 1911. (Roy. 8vo, pp. 1005; figs. 308, plates 30. 27s 6d. net.)

[8] *Occasional Papers on the Prevention of Some Common Diseases in Childhood.* By J. Sim Wallace, D.Sc., M.D., L.D.S. London: Baillière, Tindall, and Cox. 1912. (Demy 8vo, pp. 110. 3s. 6d. net.)

[9] *Surgical After-Treatment: A Manual of the Conduct of Surgical Convalescence.* By L. R. G. Crandon, A.M., M.D., Assistant in Surgery at Harvard Medical School, etc.; and Albert Ehrenfried, A.B., M.D., Assistant in Anatomy at Harvard Medical School, etc. Second edition, thoroughly revised. Philadelphia and London: W. B. Saunders Company. 1912. (Royal 8vo, pp. 831; illustrations 265. 25s. net.)

clearly than the skin pinched up, the fingers that are pinching it, and the needle of the syringe. A good chapter on massage has been prepared for the new edition; it is short and elementary, as fitting a work for the use of the general surgeon. The treatment by massage of certain fractures and of injuries of joints are illustrated by aid of some instructive photographs. The book is no doubt good; its main defect is the fact that its bulk apparently detracts from its simplicity, but that deficiency is unreal. Each subject is treated simply, but there are so many subjects with which after-treatment is concerned that bulk is unavoidable. The paragraphs on general preparation of the patient are specially good on account of their simplicity. After-treatment may fail, not on account of the operation, but because of errors in preliminary treatment, such as reduced diet and excessive catharsis.

PHARMACOLOGY AND THERAPEUTICS.

DR. MAX KAHANE'S book[10] is an account of the newest drugs and their uses in practical medicine, compressed into a conveniently small, but not too small, bulk. The arrangement of the material is under such headings as anaesthetics, cardiac remedies, diuretics, blood tonics, organotherapy, gout remedies, antisyphilitics, serum-therapy, bacteriotherapy, and so on. Although this entails a certain amount of repetition, its convenience for clinical use is evident, as the book is primarily intended to serve as a help to the practitioner who is actually engaged in treating cases, and who is, therefore, chiefly concerned with therapeutics. In conformity with this idea the various drugs are described with special reference to taste, solubility, dosage, and the best methods of prescribing. In each section the remedies are arranged alphabetically; the list is in most cases preceded by a short but carefully written and highly interesting account of the general action of the group. These short essays lift the book out of the category of mere compilations. A general introduction reviews shortly the influence which the advances in manufacturing chemistry, physiology, and experimental pathology have exercised on therapeutics during the last twenty-five years. The volume as a whole can be highly recommended as a convenient epitome of recent efforts towards more efficient treatment by means of drugs.

Professor WOOD'S new volume on *Pharmacology and Therapeutics*[11] gives a good picture of the present state of the science of drugging, not overloaded with detail. It is founded on the requirements and prescriptions of the United States *Pharmacopoeia*, so that its usefulness in other countries is to some extent limited. After an introduction of twenty-five pages, the author gives chapters to the drugs used to affect secretion, the nervous system, the circulation, the alimentary tract, metabolism, and to the causes of disease. Two final chapters treat of "extraneous remedies," by which are meant those used externally and those whose virtue depends upon some simple chemical action modifying the secretions of the body, and a selection of drugs of minor importance. The various drugs are discussed clearly enough from the points of view of materia medica, physiological action, toxicology, and therapeutic use. A few slips are to be noted in the book: the polarimeter, for example, employs Nicol prisms made of Iceland spar, and not of feldspar (or felspar) as is stated on p. 61; one litre = 1.76 pints, and not 2.113 pints (p. 4). It would be well if the many misprints and false concords in the Latin terms and prescriptions throughout the book could be corrected by some one acquainted with the Latin tongue, unless, indeed, the butchery of a dead language is to be regarded as a matter of indifference to Professor Wood's readers.

PUBLIC HEALTH WORK IN THE TROPICS.

THE bacteriology of surface waters in the tropics is ably treated by Major W. W. CLEMESHA in a small volume,[12] which will be of the greatest value to sanitarians in other parts of the world as well as in India. The subject is one of enormous importance to India, and it is fitting that accurate scientific work should have been done upon it by a person with such attainments as the author. In 1909 Major Clemesha and his assistant published as an appendix to the annual report of the King Institute of Madras a study on the bacteriology of drinking-water supplies in Madras, and this, with studies since carried out, has now been brought up to date by the incorporation of experiences recently gained. The bacteriology of water in tropical climates is widely different from that in colder climates, therefore its special study is essential if such water is to be used for human consumption. The book deals in succession with the bacteriology of faeces; streptococci in water; the prevalence and significance of organisms which ferment glucose but not lactose in surface waters; the action of direct sunlight on common faecal organisms; the effect of sunlight on large natural lakes; the analysis of the water of lakes and rivers in India; the position of certain faecal organisms in nature, and the application of the foregoing researches to water analysis.

Aids to Tropical Hygiene[13] is a little handbook by Major R. J. BLACKHAM, D.P.H., R.A.M.C., which will be found of great value by all medical men practising in the tropics. It gives a very good account of this very important subject in a short and easily understood form, and the laity might quite well also study it with advantage. As Major Blackham says, the question of the colonization of the tropics is now being seriously discussed by physicians and statesmen in every quarter of the globe, and there can be no doubt that with improved sanitation many places previously unhealthy could be transformed into places where a white population could subsist, with a death-rate somewhere about the same as that found in Europe. Though Major Blackham's book is small, nevertheless it goes into the matter in detail, and all the subjects of importance are suitably treated. As to many of these, such as clothing, soils, houses, disposal of refuge, and disposal of the dead, procedure must necessarily vary with the country, but even so, a good knowledge of conditions required in India will be a great help in devising schemes for other parts of the world. The book, therefore, may be thoroughly recommended, as it is well written and contains much valuable information, put together by a man who understands what he is writing about.

[10] *Die Arzneitherapie der Gegenwart.* Von Dr. Max Kahane. Vienna: Urban and Schwarzenburg. 1910. (Post 8vo, pp. 611. Mk. 9.)

[11] *Pharmacology and Therapeutics for Students and Practitioners of Medicine.* By H. C. Wood, jun., M.D. Philadelphia and London: J. B. Lippincott Company. 1912. (Royal 8vo, pp. 440; figs. 28. 18s. net.)

[12] *The Bacteriology of Surface Waters in the Tropics.* By W. W. Clemesha, M.D.Vict., D.P.H., Major I.M.S., Sanitary Commissioner, Bengal; Professor of Hygiene, Medical College, Calcutta. Calcutta: Thacker, Spink and Co; London: E. and F. N. Spon. 1912. (Demy 8vo, pp. 168. Rs. 7-8.)

[13] *Aids to Tropical Hygiene.* By R. J. Blackham. London: Baillière, Tindall, and Cox. 1912. (Fcap. 8vo, pp. 197; tables 2. Cloth, 3s. net; paper, 2s. 6d. net.)

MEDICAL AND SURGICAL APPLIANCES.

A Lumbar Puncture Set.

DR. J. G. PORTER PHILLIPS (Bethlem Royal Hospital) writes: The lumbar puncture apparatus which is described below is the outcome of a demand for a compact and portable set of instruments. In view of the facts that lumbar puncture is being performed with increasing frequency for diagnosis and treatment both in hospital and private practice, and that no surgical instrument maker has heretofore had a comprehensive set to offer, I have devised one which can be carried very conveniently from case to case in a hospital ward and can be used with advantage at the bedside by the general practitioner. The apparatus comprises a small nickel-plated sterilizer into which are fitted 2 c.cm. and 10 c.cm. all glass syringes with the usual steel needles clipped on to a suitable platform, under which are fixed a pair of scissors, forceps, and two iridium-pointed platinum needles. These latter needles are somewhat longer and more strongly made than those one finds in general use, and accompanying them is a hollow stilette for the injection of serums, etc., into the cerebro-spinal canal. The sterilizer is provided with a rapid-heating spirit-lamp with a circular burner on the Bunsen principle which will raise cold water to boiling-point in five minutes. In this division of the case there are small spaces for six ampoules to contain local anaesthetic, serums, etc., the former being very useful in the case of nervous and sensitive patients who may fear and object to the operation on the ground of anticipated pain. In the other division is placed a nickel-plated rack carrying four centrifuge tubes and five stoppered bottles containing lysol, ether, alcoholic solution of iodine, biniodide solution.

and collodion. There are also two small metal boxes to hold squares of sterilized lint and gauze. Each piece of apparatus is removable and can be readily cleaned or sterilized. The entire set, enclosed in a black morocco case and lined with washable batiste, only measures only 13 in. by 5 in. by 5 in., and weighs a few pounds. This apparatus, which I have found very handy and useful, has been made for me by Messrs. Maw Son and Sons, of Aldersgate Street.

Nova et Vetera.

THOMAS DOVER,

PHYSICIAN AND CIRCUMNAVIGATOR.

THOMAS DOVER, M.B., the inventor of "Dover's powder," who in his day had a notable reputation for treating many diseases by large doses of mercury until he earned the title among less successful practitioners of the "Quicksilver doctor," has been well known since the days of *Robinson Crusoe* as the discoverer of Alexander Selkirk. Information as to his private life and family connexions has only recently been forthcoming.

He was the son of Captain John Dover (one of Prince Rupert's officers), and was born at Barton-on-the Heath, Warwickshire, in 1662. His grandfather was Robert Dover, an attorney of Barton-on-the-Heath, the son of John Dover of Norfolk. Thomas Dover matriculated at Magdalen Hall, Oxford, in 1680, at the age of 18, and migrated to Gonville and Caius College, Cambridge, in 1686. Later he became the pupil of Sydenham, by whom he was cured of small-pox. In 1696 Dover was practising medicine in Bristol, and offered his services gratuitously on behalf of the poor under the newly-appointed guardians of that city. Here, if he did not actually become a member of the memorable Society of Merchant Venturers, he certainly was closely concerned in their undertakings, and in 1708 joined with a group of members of this society in fitting out an expedition to the South Seas, which brought him and his partners much profit, and bore back to England the voluntarily exiled Alexander Selkirk. At the end of a long and prosperous career he retired to Stanway House, in the Cotswold Hills, where, with his friend Robert Tracy, he spent the closing years of his life.

In the Roll of the Royal College of Physicians it is said that Dr. Dover ended his days in London, although Munk acknowledged that this was a pure conjecture on his part. On the other hand the county historians of Gloucestershire, Rudder and Rudge, both stated that the famous Doctor Dover, who instituted the Cotswold Games, died at Stanway House in Gloucestershire, and was buried at his own request in the vault belonging to the Tracy family at Stanway. Dr. Thomas Dover, however, did not found the Cotswold Games; the real founder was his grandfather, Robert Dover, from whom Dover's Hill, near Campden, takes its name.

Local tradition in Stanway at the present day has lost all trace of the Christian name of the famous Dover who was buried there, and claims that the church contains the mortal remains of the Dover who founded the Cotswold Games and gave his name to the hill. But tradition errs, so too does the *Dictionary of National Biography* on this point. Robert Dover, the attorney of Barton-on-the-Heath, died and was buried there on July 24th, 1652, as the Barton register shows.

At Stanway the register proves the burial in April, 1742, of Thomas Dover, M.B. Stanway House, now the seat of Lord Elcho, was the residence in those times of that Robert Tracy to whom Dr. Dover dedicated *The Physician's Legacy*. It seems likely that the Tracy and Dover families were distantly related through a grandfather of Robert Tracy, who married Katherine, a daughter of Sir Anthony Keck, while Thomas Dover's maternal grandmother is described as "Joan, daughter and heiress of — Keck." The blank is regrettable; it may or may not stand for "Sir Anthony." One thing only is certain, that between Robert Tracy and Thomas Dover a firm friendship existed, which explains the death of the latter in the house of the former and his burial in the family vault of the Tracys.

In the church at Stanway no trace can now be seen of the vault, nor any memorial to any member of the Tracy family or Dr. Dover. The Tracy vault is beneath the chancel floor, where in a recent restoration the altar, which had formerly been raised on steps over the vault to an inconvenient height, was lowered to its present position. The superstructure of the vault, if any previously existed, has been completely destroyed, with the result that the altar is now said to stand almost upon the coffin lids.

Here underneath the altar Thomas Dover is buried, his only memorial a brief entry in the parish register. His wife Joanna (whose maiden name remains so far unknown) had predeceased him by some years, and was buried at Barton-on-the-Heath, April 27th, 1727. They had twin daughters, baptised at Barton in 1688, both of whom died young, a third daughter, Sibilla, who married John Hunt, leaving issue from whom many descendants survive, and a fourth daughter, Elizabeth, who married John Opie, and died childless.

The account given by Thomas Dover in Woodes-Rogers's *Voyage Round the World*, which redounds but little to the credit of the "Quicksilver doctor," is not corroborated by that other less well-known book dealing with the same expedition, and entitled *A Voyage to the South Sea and Round the World*, by Captain Edward Cooke, second captain of the *Dutchess*. Cooke's work was published in 1712, whereas Woodes-Rogers's book did not appear until fourteen years later, in 1726, the latter account being something in the nature of Woodes-Rogers's defence against the disagreeable figure he is made to cut in Cooke's version.

Woodes-Rogers disliked Dover, whose interest in the enterprise was commercial rather than medical, and complains of "want of sufficient medicines with which till now I thought we abounded, having a regular physician, an apothecary, and surgeons enough, with all sorts of medicines on board." Perhaps he resented the position Dover occupied as President of the Council in this expedition. Certainly they quarrelled, until Dover exchanged from the *Duke*, commanded by Rogers, to the more congenial company on board the *Dutchess*, which was commanded by Captain Courtney, with Cooke as second captain. Cooke had been a naval officer, and was twice taken prisoner by the French. His Journal of the voyage is the work of a better-educated and more widely-informed man than Woodes-Rogers. His historical account of South America is admirable, especially when it is borne in mind that Prescott's histories were not written until a century and more afterwards. He makes clear that the enterprise on which they were engaged was no buccaneering cruise when he describes the captains of the *Duke* and *Dutchess* as "the said Commanders having commissions from his Royal Highness Prince George of Denmark, then Lord High Admiral of Great Britain, Ireland, etc."

Both ships also had legal commissions from the same Prince "to cruise on the coasts of *Peru* and *Mexico*, in the *South Seas*, against her Majesty's enemies the *French* and *Spaniards*."

The expedition set sail with four other ships, including the *Hastings* man-of-war, under Captain Paul's orders. In the case of an engagement with the enemy the following was to be the line of battle:

Ships.	*Commanders.*	*Guns.*
Duke	Capt. Rogers	30
Elizabeth ...	,, Rochdale	24
Laurel	,, Bosher	18
Hastings	,, Paul	42
Scipio	,, Edwards	20
Dutchess	,, Courtney	26

The *Duke* to lead with the Starboard, and the *Dutchess* with the Larboard Tack.

In the quarrel which took place when Dover claimed to be placed in command of a prize, Captain Cooke took Dover's part, and supported his claim:

> At this Time we had several Differences and hot Disputes about appointing a Commander for the *Manila* ship, being a Prize of considerable Value. Capt. Dover, being an Owner, desired he might command aboard her. Capt. Rogers and several Officers of the Committee voted that myself or Capt. Fry should command her: but having a ship already, I voted against it, and proposed together with Capt. Courtney and several of our Officers that it would be for the Interest of the whole that Capt. Dover should command the said Ship.

Captain Rogers protested against this decision, which proved to be that of the majority, and appears to have intended ignoring the committee and refusing to sanction Dover's appointment. This, however, the committee, who were officers of ability and determination, strenuously opposed in a long resolution in which they state:

Now, whereas Capt. Woodes-Rogers, Commander of the Duke and several of his Officers, Members of this Committee, did refuse to sign to the agreement of the said Committee, (the like having never been refused by any before, when carried by the Majority of Voices), or to acknowledge the said Capt. Thomas Dover, Commander of the ship Batchelor Frigate: We do hereby, in Behalf of the Owners of the ships Duke and Dutchess, our selves and Company, protest against the unadvis'd Proceedings and Practice of the said Capt. Woodes-Rogers, and the rest of the Officers of the Committee, who refus'd to sign and agree to the same, it being contrary to the Owners Orders and Instructions, (Reference being had thereto) and the Union and Peace of the Ships Companies, (by them likewise recommended).

Eventually the majority of the committee appointed Dover to the command of the *Manila* prize (renamed the *Batchelor Frigate*) with the following limitations:

"It is agreed by a majority of this Council, that Capt. Robt. Fry, and Capt. Will. Stretton, shall both act in equal Post in the Sole Navigating, Sailing, and Engaging, if Occasion should be, under Capt. Tho. Dover, on board the Batchelor Frigate; and that the said Capt. Tho. Dover, shall not molest, hinder or contradict them in their business; and we do appoint Alexander Silkirk master," and so on.

This "Silkirk" was, of course, the famous Alexander Selkirk, whose lonely sojourn on the island of Juan Fernandez inspired Defoe's *Robinson Crusoe*.

The result of the firm stand taken by the majority of the committee was that Woodes-Rogers yielded, but took his revenge on Dover when he wrote his own book and suppressed entirely the account of any proceedings of the committee which were favourable to Dover. Cooke gives an account of Woodes-Rogers's character, which shows him to have been an even less amiable companion than we had hitherto considered Dover.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC.

Annual General Meeting.

At the annual general meeting of the Medical Graduates' College and Polyclinic on March 14th, Sir William Collins, who was in the chair, described the Polyclinic as an organization for the collection of the results of medical and surgical experience and their distribution among those who had got beyond the stage of the pupil. It was rather remarkable how relatively modern was clinical instruction. Dr. John Elliotson, who died in 1868, and was said to be the first physician to discard knee breeches, was also the first to give any decided impetus to the clinical lecture. Sir William mentioned that he possessed among his treasures a stethoscope which had been presented to his his father by Elliotson, who had received it from Laënnec himself. Another thing which he possessed, and which was interesting to recall at that moment, was an old volume of a medical journal containing the report of a lecture delivered by Sir Astley Cooper at St. Thomas's Hospital in 1823. The reporter prefaced his account of the proceedings with the remark that this medical audience "all appeared gentlemen with cultivated manners and of good education." They were all familiar with the *laudator temporis acti*, who would doubtless find it worthy of note that ninety years ago the profession was represented by gentlemen of such very pleasing disposition. In a reference to the comparative modernness of medical bibliography, Sir William said that Dr. Billings, whose death on March 11th had been announced, had said that although medical literature had been compared to the animal body there was one point at which the analogy failed, for in medical literature there were no means of getting rid of effete material. Dr. Billings had also expressed the fear that in time all those not engaged in writing medical works would be occupied in compiling medical bibliographies. The Polyclinic represented a return to the medical school unconnected with any particular hospital. It might be called a private venture, although, unlike some of its forerunners, it was certainly not run for private profit. In his own early days there was a St. Bartholomew's school of thought, as well as a Guy's, and a St. Thomas's, and if such a tendency still existed it was well that there should be as a corrective an institution like the Polyclinic where different kinds of studies were brought into the common lot and stock, and where they had what might be called, to adapt a phrase of Clerk Maxwell, the cross-fertilization of the medical schools.

Dr. C. O. Hawthorne, in moving the adoption of the report, referred with deep regret to the death of the President, Dr. C. Theodore Williams, and said that it was hoped to arrange for some form of permanent memorial in the institution. The year had not been one of undiluted success; this he attributed to the unsettling effect of the Insurance Act, and to the setting up in various hospitals of classes which might be regarded as rivals to their own, although at the Polyclinic they regarded this development in no grudging spirit.

Dr. Dundas Grant, the Treasurer, in his financial statement, referred to a certain decrease of subscriptions, and suggested that lecturers would do well to consider the special requirements for instruction which had arisen under the Insurance Act. A good start had been made with Sir John Collie's lectures on the diagnosis of malingering. A vote of thanks having been accorded to the Council, Mr. Lockhart Mummery, Dr. Purdie, and Mr. Thomson Walker were re-elected to that body, and new members were added in Dr. F. G. Crookshank and Dr. Dan McKenzie.

In moving a vote of thanks to the Chairman, Dr. Fletcher Little expressed the hope that some patriotic philanthropist might come forward to endow a post-graduate university in London.

Sir William Collins, after acknowledging the compliment, said that it would be one of the greatest calamities of the Insurance Act if it had the result of diminishing clinical study by the practitioner. The author of the Act had stated, he believed, that if the voluntary hospitals were likely to suffer, it would be the business of the State either to obviate the injury or to make it good. The same thing ought to apply to the Polyclinic. Perhaps it might be possible to establish a closer relationship between the Polyclinic and the University of London, and to arrange for the delivery at the former institution of some of the courses of lectures which the university subsidized.

The committee appointed by the Royal Horticultural Society, in co-operation with the Board of Agriculture, has decided to establish a diploma in horticulture, which will be available for men and women on equal terms.

The twenty-second annual report of the Nurses' Co-operation, 8, New Cavendish Street, W., contains a full account of the receipts and expenditure during 1912. The fees received by the nurses, which have once more considerably exceeded those earned by them in any one year since the foundation of the Co-operation in 1891, amounted during the past year to £51,081 13s. 8d.; of this amount £48,057 18s. 8d. was paid to the nurses. The income of the society derived from the commission on fees earned by the nurses was £3,023 15s., which, with the addition of £202 9s. 6d. received as interest on investments, makes a total income of £3,226 4s. 6d. The greater part of this income served to meet the expenses of the Co-operation and the nurses' home and flats; but a sum of £487 3s. 2d. still remains in excess of these charges. The money invested in the name of the society amounts at the present moment to £6,492 10s. 2d. During the past year the Co-operation has been faced with many difficult problems in connexion with the National Insurance Act, of which the most pressing was that which concerned the weekly contribution of 3d. payable by all employers under the Act. In the case of nurses, the employer, of course, is the patient; but since it was felt that to claim this sum might give rise to difficulties and might possibly place the Co-operation at a disadvantage, the nursing members have decided to pay the whole amount themselves. The insurance cards, therefore, are kept in the office and the stamps affixed there, an arrangement which is recognized by the Insurance Commissioners. The Co-operation consists at present of 455 fully trained nurses on the general staff, 34 asylum trained nurses for mental cases, and 11 nurses eligible for election who are working on probation for six months.

SCIENCE NOTES.

AN interesting addition to Professor Silvanus Thompson's recent investigations on the physiological effect of an alternating magnetic field[1] was made by Dr. H. Lewis Jones in a communication to the Roentgen Society on March 4th. Professor Thompson perceived a faint flickering illumination over the whole region of vision when the head was inserted between two coils round which an alternating current was passed. Other workers, however, experimenting along different lines, have had negative results, due, Dr. Jones believes, to the differences in duration of the induced currents set up in the various cases. The behaviour of the retina to electrical stimulation is peculiar. It is remarkably sensitive in some respects and most insensitive in others. In order to stimulate it, a current must have a considerable duration —quite a long duration as compared with what is necessary for the motor and sensory nerves. The current of a medical coil, even when sufficient to throw the muscles of the face into strong contraction, may not stimulate the retina at all. Dr. Jones said that, when experimenting with the mechanical interrupter of Leduc, he had noticed that the retinal effect varied greatly with the duration of the individual current waves. It was easy with such an apparatus to produce waves which did not stimulate the retina and to alter the duration so that they did stimulate it. He found that the retina was unable to respond to electrical impulses of a shorter duration than one two-hundred and fiftieth of a second, and that it responded much better to far slower waves than that, whereas the motor nerves responded to impulses of one twenty-five thousandth of a second. With an apparatus with everything unchanged except the duration of the individual impulses, it was possible so to regulate matters that the retinal effect could be seen to come and go. When the waves were long—say one-fiftieth of a second—a fluttering, ocular effect was produced, and when short this died out, although the muscular twitching and cutaneous sensations persisted. The retina, in fact, was very slow to respond to waves, and would not respond at all to short ones.

A startling claim was put forward by Rosenberger some time ago—namely, that he was able to demonstrate tubercle bacilli in the blood in every case of tuberculosis. At the time of his latest report he had examined some 300 cases of all kinds of tuberculosis, including lupus. It is obvious that if the claim were really well founded we would have to our hands a most valuable method of diagnosis, and the technique employed by Rosenberger was simple enough. The blood, after being shaken in citrate solution, was allowed to sediment in the refrigerator for twenty-four hours; the sedimented corpuscles were thinly spread on clean glass slides, dried at a low temperature, and laked by plunging them into a jar of distilled water. The almost colourless film so obtained was dried and fixed by passing it over the Bunsen flame, and then stained in carbol-fuchsin, and decolorized and counterstained by Pappenheim's stain. Several other observers failed to corroborate the findings of Rosenberger, but Forsyth found acid-fast bacilli in 10 out of 12 cases of tuberculosis, and Petty and Mendenhall examined 7 tuberculous cases and 3 non-tuberculous, and found the former all positive and the latter negative. Hewat and Sutherland (BRITISH MEDICAL JOURNAL) examined 20 cases of tuberculosis; in one case only did they obtain even two acid-fast bacilli; after prolonged search in the same case they were unable to find any more, and they concluded that it was probably an accident. Anderson, who examined 56 cases by Rosenberger's method, came to the conclusion that Pappenheim's stain was capable of producing artefacts, which often bore such a close resemblance to tubercle bacilli that other laboratory workers were misled; after discarding Pappenheim's stain he was unable in the same cases to detect acid-fast bacilli. McFarland, at the Henry Phipps Institute, after an examination of 50 cases, only found acid-fast bacilli on one occasion, and in that particular case there were no physical signs whatever of tuberculosis, nor were the bacilli morphologically identical with the tubercle bacillus. The real source of error would seem to be, as Brem has pointed out, the presence, in the water used as reagent, of organisms which appear to be acid-fast when the film is fixed by means of albumen, and though Rosenberger did not actually use albumen for this purpose, sufficient traces of it were bound to be present in his smears. The organisms, according to Brem, though bearing a certain morphological resemblance to tubercle bacilli, and being capable of resisting decolorization with a 25 per cent. aqueous solution of nitric acid, are, unlike the tubercle bacillus, quickly decolorized by a 25 per cent. alcoholic solution of nitric acid.

[1] BRITISH MEDICAL JOURNAL, March 16th, 1912, p. 620.

The generally accepted theory that cinematographic effect is due to persistence of vision was challenged in a lecture delivered before the Royal Photographic Society by Mr. Kasimir Proszynski, a Polish gentleman who has made a close study of cinematography for the past ten years. Helmholtz and others have stated that a visual impression will remain for one-seventh of a second after the extinction of the light, and Professor Boll that this persistence of vision is connected with the visual purple in the retinal rods, but Mr. Proszynski maintained that the apparent continuity should be classed as a psychological, not a physiological, phenomenon. The question has its immediate practical importance, for it is upon the basis of one or other theory that the attempt must be made to suppress flicker in cinematographs. This is due to failure of continuity, and Mr. Proszynski argued that the amount of visual persistence was insignificant, and that the part it plays in securing the effect of the moving picture may be disregarded. The effect, he thinks, is really due to the limitation of vision. Exactly in the same manner as sounds which are above a certain definite frequency become individually indistinguishable, and merge into one another, like the 435 vibrations per second to which the A string of the violin is tuned, so a succession of illuminations, interrupted at and for infinitesimal intervals, appears to the eye as a continuous illumination. The illuminations become indistinguishable separately when they are projected at the rate of about 40 per second. For the last two or three years, on Mr. Proszynski's suggestion, a simple shutter with three wings has been used for the cinematograph projector, and this, making about 15 revolutions a second, secures within that second 45 separate illuminations and 45 interruptions, thus reaching a frequency at which the eye can no longer detect the variations. In spite of the adoption of the shutter, however, the theory does not seem to have been understood, and shutters in which one necessary condition has been disregarded fail to suppress the flicker. This condition is that the three wings of the projecting shutter must be of exactly uniform size, and that the distances separating them must also be uniform. The wings may be larger or smaller than the spaces between them—this will only mean a decrease or an increase of the light thrown upon the screen—but each of the three wings must be equal to the others in size, and each of the three spaces must be equal to the other spaces. A further necessity is to employ continuous current, as the interruptions in the lamp itself with the alternating current disturb the equilibrium. By observing these conditions, as Mr. Proszynski sufficiently demonstrated, flicker is entirely suppressed.

AT the German Surgical Congress, which is to meet in Berlin under the presidency of Professor v. Angerer of Munich on Wednesday, Thursday, Friday, and Saturday in Easter week, the chief subject for discussion on the first day will be the treatment of bone and joint tuberculosis. A number of papers will also be read, including one by Professor Kocher of Berne on the arrest of haemorrhage in surgical operations, and a series on plastic surgery. On Thursday the chief subject of discussion will be duodenal ulcer, and papers will be read on thoracic and abdominal surgery. On Friday there will be a discussion on the surgery of the brain and spinal cord, and papers will be read on urinary surgery and on the thymus and thyroid. On Saturday a series of papers on military surgery will be read, and others on surgery of the oesophagus, liver, gall bladder, and pancreas. Wednesday afternoon will be given up to a series of demonstrations, including one by A. Fränkel on radio-diagnosis and the prognosis after operation, and another by Schmieden on the operative treatment of severe constipation.

British Medical Journal.

SATURDAY, MARCH 22ND, 1913.

THE INSURANCE ACT AND RESEARCH.

In dealing last week with the report of the Tuberculosis Committee we welcomed the pronouncement that in framing a scheme for the utilization of the research moneys available under the Insurance Act the object should be co-operation with existing voluntary agencies. It may now be useful to consider the lines which might be followed in materializing the recommendation that "the work of research should be carried on in places having the best facilities for the particular investigation contemplated without being limited by consideration of geographical situation, provided every part of the United Kingdom has the advantage of close association with the work of scientific investigation." While advance in knowledge is the main object of research, any scheme must obviously provide for the co-ordination of all the laboratory work required in the campaign against tuberculosis. Such work is of three kinds—first, the routine procedures required for diagnosis; next, that which requires the application of more complex methods, such as those involved in the testing of the success of a system of treatment or in studying the characters and distribution of various types of bacilli; lastly, there is research proper, whereby new ground is broken. It is important to note that at any time work in either on the two first lines may raise questions which demand the application of the most advanced methods. Simple work relating to clinical cases is best done in close proximity to the patient; but all complex questions, whether arising in connexion with clinical or administrative work, require access to a fully equipped laboratory: and here again proximity to the source is always an advantage and often a necessity. The problem is how these varied requirements are to be provided for.

The Committee recommends that the larger clinical institutions should have laboratories of their own, and that all the institutions concerned in treatment should have access to laboratories. It is in the possibility of linking up clinical with research work that the wisdom of the Committee's view of taking advantage of existing agencies becomes apparent. It will not, we believe, prove a difficult task to map out the country into areas each with a medical school in its centre. These schools at present possess adequately equipped laboratories of pathology and bacteriology. In these the higher research could be carried on, and the more difficult problems arising in subsidiary laboratories or in connexion with local administration could be dealt with, while routine work could be undertaken for institutions not themselves provided with laboratories. The heads of the departments would superintend the research and other work, and it would be with them that the Central Executive Committee would be in touch. At first the existing workers in the laboratories would be employed, but it would be, as in fact it is at present, the business of the heads of these laboratories to be on the look-out for the young men out of whom researchers are made. These would be tried, and if successful would ultimately be given more or less permanent appointments at such salaries as would retain their services for the campaign against infection. Under such a scheme all the scientific work of a district—whether elementary or advanced, whether arising from the clinical or administrative sides—would be co-ordinated. Not only so, but the co-operation of the local representatives of sciences other than pathology, and also of clinicians, could be arranged for.

Further, and this is not less important, provision could also be made for what the Committee insists on as a necessity, namely, the more formal instruction of the medical student in tuberculosis and the training of the band of specialists required for the clinical services of the dispensaries and sanatoriums of the country. A medical school possesses the whole armamentarium for the varied post-graduate instruction the latter class would require, and the linking of sanatoriums with the school would provide the clinical material. Seeing that most medical schools are situated in large centres of population the opportunity would also be afforded to those being trained to obtain an insight into the relationships between measures dealing with tuberculosis and ordinary administrative public health work. From the contact with research workers which would necessarily take place the members of the clinical service would go out to appointments with a knowledge of the latest scientific work and an appreciation of how the laboratory could be of use to them.

The outstanding advantage of a scheme whereby existing laboratories are utilized is its elasticity and adaptability. The heads of such departments must of necessity take broad views of research, and thus not only would sidelights on tuberculosis come from investigations into cognate subjects, but, as occasion arose, inquiry into other diseases of insured persons could be undertaken. Two questions might, however, be asked. First, have the heads of laboratories time to undertake the work? And, secondly, Would they be willing to co-operate? The answer is in each case easy. Practically all those occupying such positions in this country are at present directing research, most of them are actually engaged in research, and, further, it is a duty they owe to their schools to organize research whenever the means are available for doing so. It is a duty which they are anxious to perform, but hitherto they have been hampered by want of financial support. They are, we believe, as alive as their critics to the difficulty of carrying on research when the only resource is scholarships without better paid posts to which successful scholars can be promoted. The creation of such posts is at present, indeed, urgently called for. While, as we stated last week, the number of workers in the country is small, it is well to recognize that the recent development of pathological research has brought forward a number of young men who only wait the means and opportunity of bringing further credit to the schools in which they are working. It is from the ranks of these that the tuberculosis research service must at first be recruited.

We last week drew attention to a curious subsidiary recommendation of the Committee by which the Executive, if it desired to undertake research work under its own control, could approach the Government directly with such a scheme. The clause containing this proviso appears to be the only justification

a leading journal of public opinion has for relegating to a subsidiary place the view of the Committee as to the advisability of utilizing existing organizations and for reading into the report as a whole a recommendation that all the higher research should be conducted in a central institute. This appears to be contrary not only to the express words but to the whole spirit of the report, and to judge from the memorandums of the expert witnesses published in the appendix to the report, it is also contrary to the considered opinion of the majority of those at present responsible for organizing research in scientific medicine in Great Britain. The chief upholders of a central institute are Sir Almroth Wright and Dr. Simon Flexner, though their schemes differ widely in essence. The former advocates the establishment of a therapeutic research service on the lines of the R.A.M.C., the members of which would be trained in what would amount to a residential tuberculosis university situated in the country with a large staff of professors and lecturers and with an attached sanatorium. Altogether apart from the fact that the scheme would necessitate an amendment of the Insurance Act in order that local authorities should be compelled to select their officers exclusively from the new service, it is perhaps unfortunate that Sir Almroth Wright's memorandum is chiefly taken up with the training and duties of those who are actively to treat disease, and that little is said as to how the centralized research work is to be organized and manned. Though the original professoriate would of necessity be drawn from existing schools, it is recommended that the service when established should be closely guarded from "civilian" intrusion; its members would be nominated by the University Senatus, and recruited apparently chiefly on academic attainments. To many it will seem that this scheme would fail to secure that endowed research on tuberculosis should be confided to those who had had an opportunity of acquiring a broad outlook on scientific medicine.

Dr. Flexner's plan is more simple, and would aim at the establishment of an institute on the lines of the Rockefeller Institute in New York without any teaching service, and confined, we take it, to the investigation of tuberculosis. An initial objection to such a scheme is that it could not at present be established without depleting existing laboratories and making it impossible that every part of the kingdom should have the "advantage of close association with the work of scientific investigation" which the Committee considers to be of value. If the existence of a central institute meant a definite concentration of work, something might be said for it, but the actual result would be the confining of financial privileges to the research work of one centre, to the detriment of all other centres. It is easy to say that the central institute would act as an arbiter if external opinion were divergent, but the judgements of the staff would be as much open to criticism as those of any other workers, and the latter might often find themselves without resources for testing results whose validity they doubted. It is also easy to uphold concentration as a preventive of fruitless research. Frequent entrance into blind alleys is, however, an incident inseparable from research and is independent of the organization under which it is conducted. The fact is that beyond individual opinion we have little evidence in favour of centralization, and what little experience there is of special institutes devoted to tuberculosis is not encouraging. Furthermore, while we do not wish to appear unduly pessimistic, a central institute would not necessarily be free from failings. It is possible that its staff might not always be prepared to submit to a judicial inquiry into their results, a man of independent mind might sometimes be far from comfortable, and the workers might be committed to the views of a forceful chief.

But adverse arguments need not be pressed, for there is one piece of evidence the cogency of which cannot be gainsaid. There is one branch of scientific medicine—namely, physiology—in which England has been for many years eminent. This position has been attained by the work of the heads of the medical school laboratories, and of the pupils each has gathered round him. The progress of research has often been stimulated by the fact that the same subject has occupied the attention of different laboratories at the same time, and the frequent meetings of the Physiological Society have provided the opportunity for interchange of opinion and of criticism. This is the way in which a striking success has been achieved in Great Britain. It is by the adoption of similar means that the prospect of good results in research in tuberculosis being obtained will be most hopeful. The essential factor is the utilization of the medical schools. These are the bodies charged with medical education, in many cases they are supported in this duty by Government funds, the efforts they have already made in pathological research have been attended by success, and it is only right that their resources should be fully utilized in any scheme which is brought forward.

SURGERY IN THE BALKANS WAR.

THE French Academy of Medicine has had early opportunities of hearing the surgical experiences of its members in the war in the Balkans.[1] Professor Laurent of Brussels was in charge of a base hospital of three hundred beds at Philippopolis. Professor Monprofit of Angers, as director of the surgical organization at Salonika promoted by the Red Cross Society of Greece, enjoyed extensive facilities for personal observation in Athens, Salonika, Uskub and Belgrade, and kept in touch as well with many of his colleagues and friends in other centres.

Monprofit's story is a very human document; sympathetic with suffering, denouncing the murderous game of war, free from political partisanship. He finds that the conclusions arrived at and the knowledge of military surgery gained in the South African and Russo-Japanese wars are astonishingly confirmed in this war. Mortality from wounds is immensely lessened by three main factors: A thoroughly equipped hospital and field ambulance whose personnel is instructed precisely in its business; immediate use of the individual packet of aseptic dressing carried by every man—a more valuable content of the soldier's knapsack than a visionary field marshal's baton; and a rigid policy of non-interference and non-exploration of wounds except in the presence of a very evident call for intervention, such as a serious haemorrhage. The protection afforded by the immediate application of the individual first aid dressing on the battlefield was the means of saving an immense number of lives. Every man in the Greek and Servian armies carried this dressing, and it was applied by the man himself, only exceptionally by a surgeon or

[1] *Bulletin de l'Académie de Médecine.* Nos. 7 and 8 (February 25th, and March 4th). Paris: Masson et Cie. 1913.

comrade. A Servian surgeon reported to Monprofit that in an engagement near Bitolj (Monastir) he had received 800 wounded men who without exception had been dressed on the battlefield very shortly after being wounded. Tincture of iodine was universally employed with most excellent results, though we are not told definitely that it is a constituent of the packet of dressings. The first-aid dressing used in the Greek army was supplied from France, that in the Bulgarian and Servian armies from Holland.

Surgeons in the South African war were astonished to find how rapidly men recovered from bullet wounds penetrating the thorax, the abdomen, and even the head. These recoveries were credited at first to the healing qualities of the South African air. But very soon the explanation came that it was really the thin narrow bullet travelling at a high velocity which was making war more humane. In Manchuria the same experience was common. So in the Balkans the rifle bullet has done comparatively little damage. The Mannlicher bullet used by the Turks is long and narrow (6 mm. in diameter); it perforates cleanly, its track is aseptic, and the tissues close quickly and firmly. The bones, especially the expanded articular ends, were simply tunnelled. Wounds of the thorax with perforation of the lung healed generally without complication. And so complete abstention from exploration or other interference in rifle bullet wounds came to be the rule. The rule worked well too with much wider application, and M. Monprofit indulges in these *obiter dicta*: "Modern military surgery ought to be, above all, surgery of watchfulness and expectancy; '*Moins on fait, mieux on fait*'; All operations except a few of absolute urgency are contraindicated on the battlefield."

But the story is different when we consider the wounds made by shrapnel. Infantry fire is diminishing in seriousness, artillery fire is increasing. The wounds made by shrapnel were always severe; bones were pulverized, tissues torn, thorax and cranium crushed. Professor Monprofit and his colleagues are by no means hypersensitive, but they all speak of the effects of shrapnel fire as "murderous." So much harassed were the feelings of Professor Depage of Brussels, who was stationed at Constantinople, that he initiated a movement in Constantinople to induce the imperial Society of Surgery to protest against the use of the barbarous shrapnel. Monprofit gladly associates himself with Depage, but under no great illusion and with little hope of success. The artillery practice of the Allies seems to have been much more effective than that of the Turks. Professor Depage, being stationed at Constantinople, has been able to supply M. Monprofit with some statistics, which he interestingly compares with his own.

Amongst the Turks shrapnel wounds were 80 per cent. of the whole, rifle wounds 10 per cent., and bayonet and sword wounds 10 per cent.; whilst among the Allies the figures were—shrapnel wounds 15 per cent., rifle wounds 80 per cent., wounds by side arms 5 per cent. These figures show that the Turks must have had a much higher proportion of their men rendered absolutely *hors de combat* than the Balkan Allies.

Monprofit reminds us, too, of the kind of people he had to deal with. The wounded of the Balkan nations showed notable resistance to the ill effects of wounds, they tolerated operation well, they bore pain easily. Amongst his Greek mountaineers he found men who lived hardy, simple lives, vegetarians mostly, not big consumers of alcohol. His colleagues had the same reports to make of the Servians and Bulgarians; and he adds, with the spiritual sympathy of the true Frenchman: "And then they were conquerors!—a good condition for healing."

Professor Laurent's experiences were somewhat different. Cases did not come to him till about two or three weeks after the wounds were received, so that he was called upon to deal with secondary effects—aneurysms, division of nerves, paralysis after cord injuries, cerebral conditions. Since the last great wars, surgery of the arteries has passed through a period of evolution, and arterial suture is recognized to be a feasible proceeding. Professor Laurent ventures to think that, in military surgery, reconstruction of the calibre of an artery by suture is almost always impossible, and, as a rule, does not give results superior to those of ligature. Large aneurysms, especially in the neck, were a most characteristic feature of his experience at a base hospital. Operations for traumatic aneurysm were successful as late as three weeks after the arterial injury. Section of nerves is also a condition highly amenable to treatment at a late period. Laurent thinks there is more reasonable chance of success if the nerve is sutured in a quiescent stage after all infection has been recovered from. He achieved good results by ensheathing the sutured nerve in a flap of aponeurosis taken from the immediate neighbourhood or from the fascia lata.

Serious infective conditions were found much more commonly amongst the Turks than amongst their enemies. There seems to be no doubt that the Turkish soldiers were prone to surgical disorders from wound infection chiefly from neglect of the first aseptic dressing, which they did not generally possess or did not use, and also from the slowness of transport and imperfect hospital arrangements. Repeated defeat, coupled with a poorly equipped commissariat, must have had a demoralizing effect even on such stoical fighters as the Turks.

CHINGFORD—AND AFTER.

THREE hundred years ago the "sweet waters" of the New River entered the reservoir known as the New River Head at Clerkenwell. The chief figure in this great venture of bringing sweet water to London was Sir Hugh Myddleton, who with his twenty-eight co-adventurers carried out the beneficent work, assisted financially by King James I. Last Saturday the King and Queen graced the ceremony of the inauguration of the Chingford Reservoir. Immediately His Majesty applied the key which turned on the electrical current for the five Humphrey pumps, the water obeyed the summons, and joyously dashed down the broad flight of steps into the lake below. In a few seconds the cascade was a roaring flood, and the assembled multitude burst into a loud cheer as success thus crowned the labours of the Metropolitan Water Board. When in 1613 the Sluice was opened at the Clerkenwell Well Head, the poet sang:

> Now for the fruits then; Flow forth precious spring,
> So long and dearly sought for, and now bring
> Comfort to all that love thee; loudly sing
> And with thy crystal murmurs strook together
> Bid all thy true well-wishers welcome hither.

He sang what the spectators felt in 1913, and then, too, "the streams ran gallantly into the cisterne drummes and trumpets sounding in a triumphale manner."

The river Lee, whose course has been diverted to fill the great Chingford lake, passes through a country

rich in historical associations. Up the Lee the Danes sailed in A.D. 879, and destroyed the ancient town of Ware. Over the Lee the first stone road bridge in England was made by Queen Matilda, and was called, from the circular form of its arches, Bow Bridge. At great risk to themselves the watermen of the Lee conveyed provisions to the inhabitants of London during the great plague of 1665, for which services they received various privileges they still enjoy. These, among others, stand out from the page of history connecting the Lee with the life of London. In the days to come the ceremony of last Saturday will take its place as a great tribute to the efforts made by the Metropolitan Water Board to give to the people of London a plentiful supply of good water. In an article in the JOURNAL of February 15th attention was directed to the work of the Water Board as a health authority, and we rejoice to notice that the King, in his reply to the loyal address of the Board, and in the closing words of that reply, said, "We congratulate you warmly on the success of your labours, and we shall ever follow with interest the continued progress of this important undertaking, so vital to the health and well-being of the capital of my empire." This gracious acknowledgement of the arduous labours of the Board will be prized by the members, and we feel sure will stimulate them—Mr. Barnard, their chairman, and Mr. Bryan, the chief engineer, and the other officers of the Board—to renewed efforts on behalf of the population in the water area.

The task imposed upon the water boards of the kingdom is exceedingly heavy and difficult. The serious question of the future supply is one common to London and the large towns of the provinces, and, indeed, to the whole country. Within the next twenty or thirty-five years not only London and Glasgow, but Liverpool, Manchester, and other large towns will be face to face with need for new supplies, and will be driven to the great watersheds for them. For though London is now engaged in the preliminary work prior to the construction of two reservoirs in the Thames Valley, each bigger than the Chingford one and estimated to cost £1,600,000, and although the Board has power to construct two more reservoirs, one at Staines and another in the Lee Valley, yet it realizes that in some thirty years all the possible water from the Thames, Lee, New River and Kent wells, will be day by day absorbed by the increased population and the increased amount of water used by each individual of that population. The Balfour Commission made various calculations as to growth of population in the London water area, and the number of gallons per head of population. From these estimates, which were accepted by the Llandaff Commission, it emerges that to supply 35 gallons a head for an estimated population, in 1916, of just over 8 million persons a daily supply of 281 million gallons will be requisite, and that with an estimated population of 12 million in 1941 a daily supply of 420 million gallons would be necessary.[1]

Owing to the decrease in the birth-rate, the estimate of the Balfour Commission will be wrong as to the increase in the population, but it will also be found that its estimate of thirty-five gallons a head will be below the actual figures, and as a result the two errors will probably neutralize each other and the Balfourian estimate come near the truth. As to the daily supply a head, we find in the London area in 1911-12 the average was 36½ gallons. Moreover, the total daily consumption is already 244 million gallons, which is getting perilously near the quantity estimated for 1916. In view of these conditions the Water Board looked ahead, and in 1907 passed a resolution in which it declared: "That, as the increase of population will eventually render resort to some other source than the Thames watershed imperative, the Board views with great alarm the increasing tendency of authorities throughout the Kingdom to appropriate water-supplying areas for their particular use, and in these circumstances desire to urge upon Parliament the necessity for regulating the appropriation of water-supplying areas, so that the needs of the metropolis, as well as other populous places, may receive due consideration."

Although more than five years have passed, the Government has taken no notice of this earnest appeal on behalf of the water consumers of the whole country. But surely it is time that some steps were taken to conserve and allocate the water supplies of the country, not only in the interests of the large cities which will soon be scrambling for the unappropriated watersheds in Wales and Cumberland, but in the interests of the smaller towns and villages which have not money to spend on getting supplies from a distance, and may be outside the range of the Wolverhampton clause. The Royal Commission on Sewage Disposal, in one of its many interim reports, declared in favour of doing something to save the water supplies from pollution, and of collecting information as to the available supplies and the needs of various parts of the country. This Commission is still sitting and still reporting, and nothing is being done. The Joint Select Committee which considered the Water Supplies (Protection) Bill, 1910, backed up the Sewage Commission, and strongly recommended the establishment of a central administrative authority, and the collection of information as to supplies, control, and allocation of the water in the country. Yet nothing has been done. We venture to hope, however, that before the present Parliament dies, a non-contentious bill for the nationalization of the water supplies of the country may receive the Royal assent.

[1] The full figures are as follows:

Date.	Estimated Population.	Estimated Average Daily Supply in Gallons.
1916	8,031,000	281,000,000
1921	8,703,000	305,000,000
1931	10,221,000	358,000,000
1941	12,000,000	420,000,000

THE RIGHT TO HOSPITAL ATTENDANCE.

THE claim sometimes advanced by a subscriber to a hospital to attendance in return for his subscription is an old subject of discussion to which new vitality seems to have been given by the action taken by most hospitals in consequence of the National Insurance Act. It has been brought prominently before the London public by the publication in the *Westminster Gazette* of a correspondence between Mr. H. R. Stirling, the director of a printing company, and King's College Hospital. Mr. Stirling complained that one of the employees of the firm, on applying for treatment for an injured hand, was given a first dressing and told that he must then go to his panel doctor. Mr. Stirling said that the men employed by the firm contributed from £6 to £10 annually to the Hospital Saturday Fund, and were indignant at the idea that they were not welcome at the hospital when suffering from an accident. The secretary of the hospital

stated in reply that the hospital authorities had found it necessary to make arrangements to prevent overlapping under the Insurance Act; that every insured person was entitled to the services of his panel doctor in cases covered by medical benefit; and that no injury or injustice was done to the patient suffering from a complaint within the resources of the panel doctor by referring him to that doctor after the injury had received first treatment. This did not satisfy Mr. Stirling, who, in his next letter, laid down the proposition that the employees of his company, by subscribing regularly to the Hospital Saturday Fund, were entitled, when necessary, to hospital treatment "as a right for which they have paid," and threatened that if this view was not taken by the hospital committee the men would probably discontinue their subscriptions. He wished the committee to make it clear that, quite apart from the operations of the Insurance Act, they would be willing to treat patients who come from business houses which contribute regularly to the Hospital Saturday Fund. To this the secretary to the hospital sent a reply which admirably states the case from the hospital, and, in our opinion, from the common-sense point of view. He regretted that such a misconception should prevail as that subscriptions to the hospital, whether large or small, entitle to treatment as a right. He went on to point out that the Hospital Saturday Fund gives an opportunity to the working classes to contribute to the funds of hospitals at which so many of them obtain benefit; that the hospital is instituted to give assistance only to those who cannot otherwise obtain suitable medical treatment. He then showed that all insured persons are now entitled to obtain from outside practitioners "such treatment as is of a kind which can, consistently with the best interests of the patient, be properly undertaken by a general practitioner of ordinary professional competence and skill," and that it follows that insured persons no longer require to obtain treatment for ordinary illnesses at hospitals. The hospitals will admit all cases which are beyond the skill of an ordinary practitioner just as before the Act, and the need for hospitals will remain as great as ever. The secretary very rightly pointed out that it would be improper for the committee of the hospital to use the subscriptions entrusted to it for the benefit of patients for whose ordinary medical needs ample provision is otherwise made. It might have been expected that this last argument would at once have appealed to a business man, who would denounce, and rightly denounce, as wasteful any overlapping in his own business. Mr. Stirling, however, in sending the correspondence to the *Westminster Gazette*, says that in his opinion the hospitals are making a great mistake in the attitude disclosed in these letters. He makes no attempt to meet the arguments of the King's College Hospital, which are indeed unanswerable. If the hospitals continued to allow their out-patient departments to be used for the treatment of the trivial complaints of insured persons who are amply provided for elsewhere, they would prove themselves utterly lacking in business capacity and guilty of a waste of public money, and we imagine that, generally speaking, the heads of business houses which collect subscriptions for the hospitals would be the first to complain of this waste. Mr. Stirling's view, surprising as it is in a man in his position, is one commonly held by many of the small subscribers to the hospitals, who regard their subscriptions to a charity as contributions to a provident institution from which they have a right to expect treatment. This is to misunderstand the fundamental basis of the voluntary hospital, which is an institution to which the charitable give their donations, small and great, and the medical staff give their services in order to provide emergency and special treatment to those who are unable to provide it for themselves. Its doors are open freely for all suitable cases, but to regard the subscriptions as payments entitling the donors to treatment would be to change the whole basis of the institution. Not only would the small subscriber demand to be treated as a right, but so would the large subscriber. The inevitable result would be that the services of the hospitals would soon be confined to subscribers, and the charitable element would disappear. When that disappears the claim on the charitable services of the medical profession will disappear also. Those who claim that the hospitals should be open as a right to those who subscribe to them should clearly realize the logical consequences of their demand.

VIVISECTION ADVISORY COMMITTEE.

THE Royal Commission on Vivisection, in its Final Report published last year, recommended that the Home Secretary should have the assistance of an Advisory Committee. It recalled and endorsed the views of the Royal Commission of 1875, to the effect that the responsible Minister should be guided in the administration of the system generally by the opinion of advisers of competent knowledge and experience, but that it would be inexpedient to divide the responsibility of the Secretary of State with that of any other persons by statutory enactment; it recommended, therefore, that the advisers should be from time to time selected and nominated by himself. The Royal Commission which reported last year commended the practice, followed by various Home Secretaries for nearly thirty years, of obtaining professional advice as a guide in the exercise of their powers and the discharge of their responsibilities, but advised that the recommendations of the Com mission of 1875 should be strictly followed. The Commission of 1906, reporting in 1912, accordingly recommended the Home Secretary to appoint an Advisory Committee, the members of which should, as regards Great Britain, be selected by him from a list of names submitted to him by the Royal Society and the Royal Colleges of Physicians and Surgeons in London. It was added that no person so selected should be the holder of a licence, that their names as well as the names of the scientific authorities under the Act should be published and that the present practice of reference to the Association for the Advancement of Medicine by Research should be discontinued. It was further recommended that in Ireland the Chief Secretary should be advised by a body chosen on analogous lines. On February 5th last the Home Secretary stated in the House of Commons that he was about to appoint the advisory body recommended by the Royal Commission of 1906, and it is now announced that the following have been selected from names submitted to the Royal Society and the Royal Colleges of Physicians and Surgeons: Sir Anthony Bowlby, C.M.G., F.R.C.S., Sir John Rose Bradford, K.C.M.G., M.D., D.Sc., F.R.C.P., F.R.S., Sir Horatio Bryan Donkin, M.D., F.R.C.P., Mr. George Henry Makins, C.B., F.R.C.S., the Lord Moulton of Bank, Dr. Seymour J. Sharkey, F.R.C.P., and Mr. Charters J. Symonds, M.D., M.S., F.R.C.S.

UTERINE FIBROIDS AND MALIGNANCY.

FORTY years ago the surgery of uterine fibromyoma was imperfectly understood. When the growth was still small it was considered too early to operate, but when it grew large its extirpation, before aseptic principles were understood, involved very serious risks. Within the last fifteen years experience has indicated to the surgeon means by which a fibroid of moderate size can be removed with the uterus without much danger to life, and fibroid uteri of colossal size may be taken away with relatively little risk by an operator of fair experience in abdominal surgery. As for the conservative operation, myomectomy, there is much to be said in its favour; but it is not safe except in the hands of experts. The removal of a fibroid

uterus which is clearly growing larger or causing haemorrhages or pressure symptoms is now an established operation. Small, slow-growing fibroids may safely be watched, and prophylactic extirpation is questionable surgery. A question which remains undecided is whether malignant degeneration is frequent or very rare. Even when present it may be a coincidence, the development of cancer in some glandular tissue, or of sarcoma in the connective tissue associated with the fibromyoma. Dr. Willy Hertel of Munich has analysed clinical reports of 1,100 cases of fibromyoma, excluding all examples of distinct enlargement of the uterus in which the presence of the growth in question was not absolutely certain.[1] Out of 468 of these cases, in which an operation was performed, malignant degeneration of the endometrium was detected in 16, and cancerous elements amidst the muscular tissue in 13. This group does not include any of the 8 cases of coincident carcinoma of the cervix within the entire 1,100 cases of fibroid uterus. Coincidence of two diseases that are common is only to be expected, and Dr. Hertel could trace no connexion between them in these eight instances. With carcinoma of the body the case is different; it is masked, as a rule, by the presence of a fibromyoma, and it is hardly possible to deny or affirm that the latter is directly related to the former. Hertel inclines to believe in coincidence, as in the majority of cases of the combined fibroid and cancerous disease of the body the patients were of the age when the malignant growth is most frequent. In 13 cases of operation fibromyoma of the uterus was complicated by sarcoma. This degeneration of, or within, the fibroid tumour itself—for pure coincidence of a separate fibromyoma and a sarcoma is not included in this subgroup—is a subject deserving attention. In most of the 13 cases the fibromyoma was submucous, in none subserous—that is to say, malignancy of this type usually developed in the most exposed variety. The peritoneum is a good veil or cover, but the endometrium communicating with the surface of the body, and subject to catamenial and other more disturbing influences, may involve an adjacent growth in its own troubles. Unfortunately, Hertel cannot find anything like a rule for diagnosis. Rapid growth and haemorrhages always mean peril, and though Hertel admits that malignant degeneration is rare, according to his own statistics and those of others, nevertheless it has to be borne in mind, as fibroid uterus is a common disease. Hertel does not wish to teach "fibroid hunting," "*der Jagd auf Myome*," as he calls it, but he insists at the same time that the smallest fibroid uterus must always be kept under observation. Lastly, the *x*-ray treatment does not, he says, as yet render hysterectomy indispensable.

[1] *Monatsschr. f. Geburtsh. u. Gynäk.*, September, 1912, p. 325.

THE FUNCTIONS OF A CHEMIST IN A PHARMACEUTICAL WORKS.

ON March 12th a lecture was given by Mr. C. A. Hill, B.Sc., to members of the Institute of Chemistry on The Function and Scope of the Chemist in a Pharmaceutical Works. He said the term "works" was used rather than factory or laboratory, as a pharmaceutical manufacturing establishment included both these as well as the purely commercial department, and the chemist had to exercise his functions in all the departments. It was, he said, absolutely essential nowadays that there should be adequate chemical knowledge behind all the operations of, or connected with, pharmaceutical work. The work of the chemist could be dealt with under four heads—manufacturing, analytical, investigation, and commercial. The manufacturing chemist, who must, of course, keep the question of cost constantly before his eyes, found that the cost of a manufacturing process was affected by three chief factors—time, labour, and yield, the last-named being by far the most important. Purity was, of course, an all-important consideration, but in making pharmaceutical chemicals the relative importance of different impurities was not the same as in other cases; from a chemical standpoint, a minute trace of some given impurity might be quite negligible, but if the material was for medicinal use and the impurity toxic, even a minute trace must be removed. The same was true of some other substances, which though themselves harmless, led to changes of colour when the chemical was employed pharmaceutically; as an illustration the discoloration produced by traces of iron was mentioned. In dealing with the production or purification of chemicals on the large scale many difficulties were encountered which might not be met with when working on small quantities, and the works chemist must be able to deal with these. In making galenical preparations, processes of standardizing must be carried out in many cases; but preparations were, as a rule, standardized in regard to one constituent only; others which might also be of importance are left undetermined. The advantages of physiological standardization were, he thought, doubtful. Mr. Hill then described and illustrated by diagrams and photographs many of the pieces of apparatus in use in filtering, washing, and evaporating, in the extraction of drugs, the recovery of solvents, and in other operations of a pharmaceutical works. In the analytical laboratory all raw materials were tested to see that they corresponded to requirements as to purity and strength, and a control was exercised over the finished products from the factory. It was important that the analyst should see to the drawing of the samples as well as to the testing. It was often found that a commercial product differed greatly in purity in different parts of the bulk, and it was therefore necessary to take a sample from each cask or other container of a parcel, and even from different parts of the same container. The testing of oils, both fixed and essential, required much special knowledge; the latter in particular were adulterated with great skill, synthetic products such as glyceryl acetate or ethyl citrate being added to bring the analytical characters of an unsatisfactory sample up to the standard. The work in the investigation department of a pharmaceutical works included experiments for the improvement of manufacturing and analytical processes and the utilization of by-products; the examination of new drugs from abroad must often also be carried out, and other kinds of pure research. The principal concern of the chemist with the commercial side of the business was in the drawing up of specifications for contracts and in exercising some control in regard to the buying of materials.

MENTAL DISCIPLINE AND PRACTICAL LIFE.

AN interesting address on the value of education was delivered by Sir John Byers, M.D., at the distribution of prizes in connexion with the Y.M.C.A. Education Department at Belfast on March 11th. The Chairman said that the work done in this, the largest continuation school in Ireland, which also claimed to be the largest of its kind in the United Kingdom, was unique in many respects, and showed that an attempt was being made to remedy some of the defects of the Irish system of education. It was to such classes that students could turn for those higher branches of education which would enable young men to enter the Municipal Technical Institute, the Civil Service, the banks, or the university. Sir John Byers said the object of the continuation classes was not merely the acquisition of facts, but, what was a far higher form of education, the correct use of these facts and the development of the intellectual power of perceiving the due relation and proportion between them, a faculty which really constituted what was commonly termed judgement. The present age was a wonderful period of upheaval and transition; time and space had been largely annihilated by the telephone, wireless telegraphy, the motor car, and

the airship. In the science of medicine the practical application of the discoveries of Pasteur, Lister, and Koch had revolutionized their ideas not only as to the causes of diseases, but as to their prevention and treatment. So, in education, the special feature of the present day was the enormous expansion of the field of study. In former times mathematics and classics largely held the field; but now science in all its varied branches, the history and literature of their own and other countries, modern languages, philosophy, economics, and technical and commercial subjects (especially in large industrial centres) all rightly claimed a position. It was a remarkable sign of the times that Oxford, the most ancient and conservative of all English universities, was arranging a site for the future engineering laboratory. A most interesting discussion had recently taken place in London on "The University Man in Business," in which some of the most distinguished educational experts of the day had taken part. A man whose mind was thoroughly trained would acquire the technical knowledge necessary for a business or a profession more rapidly than one who had not the same advantage. For centuries Oxford had nobly contended that the main function of a university was the advancement of learning; but in modern times she had begun to realize that a university must also supply that special training which would enable students to enter upon various careers after they left college. So it happened that amongst the reforms initiated by Lord Curzon, as Chancellor of the University of Oxford, in 1909, was the recommendation that a diploma specially suitable for candidates contemplating a commercial career should be created. Sir John Byers expressed the hope that in time the present confused position of educational affairs and the overloading of all school curriculums would be rectified by the proper co-ordination of primary, secondary, technical, commercial, and university education, and by establishing their interrelationship on correct lines.

SIR GEORGE TURNER.

IT is not always that a prophet hath no honour in his own country. At the last meeting of the Portsmouth Town Council, held on the 11th instant, appreciative testimony was borne to the splendid services of Sir George Turner, who is a member of an old Portsmouth family, and was the first medical officer of health for that town. His administration was both distinguished and successful. He was the pioneer in urging the necessity of the establishment of an infectious diseases hospital. Firm and resolute in action, he did what he believed to be right, not caring what the public thought of his work. The ex-Mayor, Sir Scott Foster, proposed the following resolution: "That the members of this Council desire to place on record their great appreciation of the valuable services rendered to our country and to Portsmouth by Sir George Turner, a native of the borough and late medical officer of health; and that a copy of this resolution be sent to Dr. Turner, with an expression of the hope that he may be spared for many years to continue his researches for the benefit of humanity."

ADVANCE, AUSTRALIA!

AT its meeting last November the Council of the British Medical Association received an application from the Government of the Commonwealth of Australia for permission to reprint the two books *Secret Remedies*[1] and *More Secret Remedies*[2] as a parliamentary paper. The request was granted, but it would appear that statements had been made in Australia to the effect that the formulae in the books had been proved to be incorrect by Government inquiry, and that they were altered from time to time, for a further letter containing an inquiry on this head was received from the High Commissioner in London. In reply the High Commissioner's attention was directed to the proceedings before the Select Committee of the House of Commons on Proprietary Medicines, and it was indicated that the evidence had not established that the formulae were incorrect. It was pointed out that the formulae published in the books had not been altered, but that it was not unreasonable to suppose that the manufacturers might themselves alter the formulae. It appears that the position, in so far as the inquiry conducted by the Select Committee was concerned, was placed fully before the Government of the Commonwealth by the High Commissioner, and from a letter recently received it is learnt that the Commonwealth Government has resolved to publish the books in pursuance of the decision arrived at by the Parliament of the Commonwealth. The two books, we have good reason to believe, did much to educate public opinion on this side of the world, and it is to be anticipated that they will be not less useful in the Antipodes.

[1] *Secret Remedies: What they Cost and What they Contain.* London: British Medical Association. 1909. (Price 1s., post free 1s. 3d.)
[2] *More Secret Remedies: What they Cost and What they Contain.* London: British Medical Association. 1912. (Price 1s., post free 1s. 3d.)

OPHTHALMOLOGICAL CLASSES IN MANCHESTER.

THE facilities now afforded for obtaining a knowledge of the defects and diseases of the eye are vastly greater than existed five-and-twenty years ago. There were opportunities then for men who looked for them, but they were sought out mainly by those who intended to become specialists, and there was little or no organized teaching. It was at about this date, or a year or two earlier, that Dr. A. Hill Griffith began to hold classes at the Royal Eye Hospital, Manchester. They have been continued ever since, and on several occasions there have been as many as forty applicants, and it has been necessary to limit the number accepted. For some years classes have been held twice a year—in winter, on the use of the ophthalmoscope and the estimation of refraction, and in summer, on the diagnosis and treatment of the external diseases of the eye. Altogether some 600 practitioners have attended the classes, and the demand for them has continued to increase, owing, no doubt, largely to the requirements of education and other authorities. It has been arranged to extend the system, and all the members of the honorary staff of the hospital are now co-operating in a combined class. The classes are specially intended to meet the needs of general practitioners in the two divisions of the subject mentioned above, but arrangements will be made for advanced classes in operations and pathology if a demand is found to arise.

ON account of the increase of work entailed upon the Local Government Board for Scotland by the Insurance Act, the Treasury has sanctioned the appointment of an additional medical inspector. The salary offered is £500 rising to £800. The new officer will be required to have special experience in tuberculosis, but must also have a general experience of public health work. The Board is in course of considering applications for the appointment.

AT the annual general meeting of the Florence Nightingale Hospital for Gentlewomen, held at the Hospital, 19, Lisson Grove, N.W., Earl Waldegrave, who presided, in moving the adoption of the report, drew attention to the fact that 323 patients, the largest number on record, had been admitted during 1912; some had come from such widely distant places as Buenos Aires, India, Brussels, China, and South Africa. He expressed the warmest thanks to the very large number of physicians and surgeons for their generosity in attending patients gratuitously. Owing to the demand for beds, which far exceeds the accommodation, a new wing is being added, and an appeal is made for the sum of £2,500 so that the extension may be opened free of debt.

Medical Notes in Parliament.

The Ballot for private members' bills resulted in giving Mr. Ginnell the first place for a bill dealing with the housing of Irish labourers; the third place to Sir R. Baker for the Housing of the Working Classes Bill introduced last year by Sir A. Boscawen; and the eighth place to Mr. Pretyman for the Cottage Homes Bill. The second place was won by Mr. Sandys for a bill to provide for compulsory service in the Territorial Force. It is calculated that there are six Fridays between Easter and Whitsuntide on which private members' bills can be taken.

Medical Officers of Health (Superannuation) Bill. Sir Philip Magnus has introduced the Association's Bill for the Superannuation of Medical Officers of Health, and has obtained the support of Sir Henry Craik, Mr. Charles Bathurst, Mr. Godfrey Locker-Lampson, Mr. T. Lough, and Mr. W. S. Glyn-Jones. The bill was read for the first time on March 13th, and has been put down for second reading on April 18th. This bill was introduced into the House of Commons by the late Dr. Hillier on July 20th, 1911, but, owing to the congestion of parliamentary business, it never got any farther than the first reading. It includes all medical officers of health, whether part or whole time, and the scale of contributions varies from 2 to 3 per cent. of their salaries. The scale of pensions is the same as that of the Poor Law Superannuation Act of 1896. A weak point in that Act has been avoided by providing that the superannuation allowance shall be paid in proportionate parts by the several districts in which the medical officer of health has served, and not as in the Poor Law Act by the last district in which he has served. Where there is a local Superannuation Act this may remain in force as regards the medical officer of health, or the provisions of the bill may be put in force at the option of the local authority. It is estimated that the contributions of the medical officers of health will amount to about £8,000 a year, and the superannuation allowances possibly to £12,000 yearly, the differences being made up by the local authorities. Sir Philip Magnus, with his accustomed readiness to assist the medical profession, so many of whom are constituents of his own, has taken up the matter with great energy, and as the ballot has been not altogether unfavourable to him it is hoped that the bill will make good progress.

Westminster Hospital Bill. This bill, which empowers the authorities of Westminster Hospital to acquire lands for and to erect a new hospital, to authorize the sale and disposal of the present site, and for other purposes, was read a first time on March 12th and a second time on March 17th.

Hospital Ship. Mr. Burgoyne asked, on March 13th, whether the hospital ship sanctioned in the recent Estimates had yet been ordered. Mr. Churchill said that a suitable ship for this service had been purchased from the mercantile marine, and would be fitted out at one of His Majesty's dockyards.

Local Government (Scotland) Bill. This bill to amend the Local Government (Scotland) Act, 1894, was presented by Mr. Cathcart Wason on March 17th and directed to be read a second time on April 25th. It is supported by Mr. Ainsworth, Mr. Barnes, Sir John Dewar, Mr. Leicester Harmsworth, Mr. James Hogge, Mr. Lyell, Mr. Murray Macdonald, Mr. Macpherson, Mr. Morton, Mr. Munro, and Mr. Eugene Wason.

Care of the Feeble-minded in Scotland. Mr. McKinnon Wood stated, on March 13th, that he proposed to introduce a separate bill for the care and control of the feeble-minded in Scotland.

Medical Treatment of School Children in Scotland.—Mr. McKinnon Wood, in replying to Dr. Chapple on March 13th, said that he had received resolutions from various school boards in Scotland regarding the recent decision of the court declaring payment for medical treatment of school children to be illegal. The matter was receiving his consideration.

Births and Deaths in Scotland. Mr. McKinnon Wood stated on March 14th, in reply to Mr. Dundas White, that the number of births and deaths registered in Scotland during 1912 had been 122,715 and 72,333 respectively. The figures for the districts of Papa Stour and St. Kilda were not yet available. The provisional figures available showed that the number of passengers recorded as of British nationality who embarked at Scottish ports for countries out of Europe during 1912 was 51,408, while the number arriving at Scottish ports from countries out of Europe had been 15,883.

The Mastership in Surgery. In reply to Sir Philip Magnus, who addressed a question to the First Lord of the Admiralty, on March 13th, Dr. Macnamara said that instructions would be given that in future issues of the Navy List the letters "M.S." should be inserted after the names of medical officers of the Royal Naval Volunteer Reserve who held the degree of Master of Surgery.

Vaccination. In reply to Mr. William Harvey, the President of the Local Government Board said that one or two representations had been made to him to the effect that in rural districts difficulty was experienced by parents who wished to make a declaration of conscientious objection to vaccination, by reason of the fact that a magistrate or commissioner for oaths was not available without the applicant journeying many miles from his place of residence. He was not, however, prepared to propose legislation to include members of sanitary and Poor Law authorities as persons before whom such declarations might be made. In reply to Mr. James Parker, the President of the Local Government Board said that the number of declarations of conscientious objection to vaccination received by vaccination officers during the first six months of 1912 was 136,335. The approximate number for the whole year was 276,000. In reply to Mr. Pointer, Mr. Burns said that he could not undertake to recommend legislation at the present time to repeal the Vaccination Acts.

Small-pox. In reply to Mr. Peto, the President of the Local Government Board said that 43 cases of small-pox had been notified from sixteen sanitary districts in England and Wales during the last three months. In none of the districts was there any prevalence of small-pox calling for special action by the guardians, with the exception of Newhaven (where 22 out of the 43 cases occurred).

Medical Examination for the Special Reserve.—In reply to Mr. Bennett-Goldney, the Secretary of State for War said that at all dépôts the medical officer kept a register of all men medically examined for the regular army and of all men rejected on medical examination as physically unfit for the regular army: the register did not show the number of men belonging to the Special Reserve at each dépôt who had, on application to join the regular army, been rejected as unfit and who were serving at present in the Special Reserve battalions.

Registration of Nurses. A bill to regulate the qualifications of trained nurses and to provide for their registration was presented by Mr. Munro-Ferguson and read a first time on March 18th. In reply to Dr. Chapple, Mr. McKenna has expressed the opinion that registration of nurses would not prevent people from dressing as such unless this were made an offence.

The Select Committee on Patent and Proprietary Medicines has been reappointed: Mr. Norman Craig and Mr. O'Grady last session took the places of Mr. Marshall Hall and Mr. J. Hodge.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

BELFAST MEMORIAL TO THE LATE LORD LISTER.

THE Lord Mayor (R. J. McMordie, M.A., M.P.) summoned a public meeting in the City Hall, on February 19th, to consider the question of commemorating the priceless services of the late Lord Lister in the cause of science and the alleviation of human suffering. The requisition to the Lord Mayor was signed by the Chancellor and Vice-Chancellor of the Queen's University, the presidents of the local medical and other societies, the chairmen of the various local hospitals, and others. The following resolutions were unanimously passed:

Proposed by the Vice-Chancellor of the Queen's University of Belfast, and seconded by Professor Sinclair, M.D.:

That this meeting strongly approves of the proposal to commemorate, by a suitable memorial, the priceless services of the late Lord Lister to the cause of science and the alleviation of human suffering; that those present and those who signed the requisition, with power to add to their number, be appointed a committee to further the object.

Proposed by Sir Alexander Dempsey, M.D., and seconded by Dr. John Campbell:

That Sir William Crawford, Sir Alexander Dempsey, Professor Symington, and Professor Sinclair be appointed honorary secretaries, and that Mr. R. J. McMordie, M.P. (Lord Mayor), be appointed honorary treasurer.

NEWCASTLE SANATORIUM CRISIS.

On March 11th a largely attended meeting of the Royal Colleges of Physicians and Surgeons was held in the Royal College of Physicians, Dublin, to consider the action of the board of the Royal National Hospital for Consumption for Ireland in reference to the medical staff of that institution. The President of the Royal College of Physicians of Ireland (Dr. Charles E. Fitzgerald) was in the chair, and the full correspondence which had passed between the board of the hospital and the medical staff was read. The President of the Royal College of Surgeons (Mr. R. Dancer Purefoy) proposed the following resolution:

That we approve of the action of the consulting and visiting staff of the Royal National Hospital for Consumption for Ireland with reference to the question regarding the appointment of an additional visiting physician to the hospital.

This resolution was seconded by the President of the Royal Academy of Medicine in Ireland, Dr. Walter G. Smith, and carried unanimously.

The Regius Professor of Physic in the University of Dublin, Dr. J. Little, proposed:

That we deprecate interference on the part of the board consisting of laymen with questions connected with the medical treatment in the hospital.

This resolution was seconded by the Regius Professor of Surgery in the university, Sir Charles Ball, Bart., and was passed unanimously. The meeting then adjourned. The position at the hospital is still unchanged.

It is stated that the extra visiting physician was appointed to attend to the insured patients in the hospital. According to the arrangements made in Dublin, the medical attendant is to receive 5s. a week for each "sanatorium benefit" patient that he attends in hospital. The board defended this arrangement on the ground that as these were a new class of patients not, technically speaking, under the charge of either of the visiting physicians, there could be no objection to their being handed over to the newly-appointed officer. The board has since said that this matter could have been rearranged so that all the visiting staff could have participated in the fees.

ROYAL VETERINARY COLLEGE.

It is announced that, as the outcome of negotiations suggested by Mr. T. W. Russell, the Royal Veterinary College in Ireland will be transferred to the control of the Irish Department of Agriculture. The department proposes to take up about 100 acres of land, in the vicinity of Dublin, to be occupied by research laboratories for the department's own veterinary staff, where the diseases of all live stock, from cattle to fowls, will be investigated. The Royal Dublin Society and the authorities of the college have agreed to the transfer. The Development Commissioners have promised a grant of £2,500 a year, and Mr. Russell intends to ask his department to provide a similar sum, so that about £5,000 a year will be available for research. These changes will probably involve the appointment of Professor Mettam (at present Principal of the Veterinary College) to the post of the department's chief scientific officer.

DEPORTATION OF LUNATICS TO IRELAND.

At the last meeting of the Clonmel Asylum Committee, the resident medical superintendent, who was asked to explain the cause of the recent increase in the number of insane in the asylums, stated that it was partly due to the fact that insane people were being deported from America. It was also stated that the unions were troubled with paupers deported from England. In one case a patient who had been fifty years in America was deported and put in a train at Queenstown and left to find his own way. In another case a young man was landed at Queenstown, and a telegram was sent to his brother in Queen's County. In yet another case the parents went out in their yard in the morning to find their daughter, insane, back from America; they had had no notice of her coming. Two patients had been fourteen and twelve years respectively in American asylums, and were then deported. It was understood that agents accompany the patients back to Ireland and then turn them loose. It was decided to draw up a list of the cases and lay it before members of Parliament.

FULL CENSUS RETURNS.

According to the complete Census returns for Ireland, which were published last week, the total population was 4,390,219, compared with 4,458,775 in 1901. This decrease of 68,556 is the smallest recorded at any Census since 1841, being 1.54 per cent. of the population in 1901, as compared with a decrease of 5.23 per cent. in the preceding decennial period. The general figures show an increase in the town population, accompanied by a decrease in the rural. During the decade there has been an improvement in the housing of the poor town dwellers, as shown by a decline in the number of one-room tenements. Of the 1,531,821 males over 15 years of age, 55.52 per cent. were unmarried, whereas of the 1,557,759 females of corresponding ages 48.26 per cent. were unmarried. A striking feature of the present Census as compared with previous ones is the great increase in the number of people returned as being over 65 years of age. Since the last Census their number has increased from 284,506 to 440,898. The total number of people who were returned as able to speak Irish has again fallen: the proportion per cent. of the population in 1891 was 14.5, in 1901 14.4, and in 1911 13.3. In 1901 over 20,000 were returned as speaking Irish only, but in the last Census there were 4,000 fewer. There was an increase in the number of speakers of Irish under 18 years old, which was more than counteracted by the reduction in the number of Irish speakers over this age.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

THE WORK OF THE EDINBURGH ROYAL INFIRMARY.

MORE than ordinary interest attaches to the illustrated lecture on the work of the Edinburgh Royal Infirmary given on the evening of March 12th, in the Synod Hall, to a large audience, consisting mainly of industrial workers. Mr. W. B. Blaikie, one of the managers of the infirmary, presided, and in his opening remarks he said that he believed that there had arisen some misunderstanding as to the arrangements of the infirmary, owing to the National Insurance Act; consequently the managers had thought that the simplest plan to remove any such misunderstanding would be to take the citizens of

Edinburgh, and particularly those by whom the infirmary was chiefly used, into their confidence and show them exactly how matters stood. He touched upon the inception of the institution in 1725, and upon one or two events in its history.

Mr. Paton, the organizing secretary, then gave his lecture. Although the institution did not bear a national name, it was, he said, truly national in the sense that there was not a county and scarcely a parish in Scotland from which at one time or another patients had not come to the Edinburgh Royal Infirmary. It began in a hired house, with six beds, at the top of Robertson's Close, the first patient being a Caithness woman, and in its first year thirty-five patients were treated, of whom one died. Last year there were 12,600 in-patients, in addition to 39,500 who were treated in the out-patient department. The total expenditure, including that of the Convalescent House, was in round figures £60,000 per annum. In 1741, when the first part of the first permanent infirmary was opened, the managers resolved that the sick poor should be admitted from whatever place or country they came without restriction. It was open to all. Other interesting details were given, views illustrating the working of the various departments were shown, and the procedure adopted in respect of insured persons under the Act was explained. The managers are to be congratulated on the action they have so promptly taken in this matter, and on the success of the lecture: and it is not unlikely that the example they have set will be followed by the directors or managers of similar institutions. The invitations to the lecture were issued through the public works, the friendly societies, the trade unions, and other organizations of the same kind.

Odonto-Chirurgical Society of Scotland.

The annual meeting, followed by the annual dinner, of the Odonto-Chirurgical Society of Scotland was held on March 14th in Edinburgh. The office-bearers for the session 1913–14 were elected, Dr. G. J. Goldie being made President in place of Mr. Douglas Logan. A lecture on the influence of the buccal cavity on primary digestion was delivered by Dr. Francis Boyd, C.M.G., F.R.C.P.E., who also proposed the toast of the Society at the dinner. Dr. Boyd laid considerable emphasis on the fact that the successful progress of patients suffering from pneumonia or typhoid fever depended largely on the condition in which the mouth was kept.

Anthrax in Man.

The daily press takes notice of the fact that two men from the Haddington district, the one a butcher and the other a shepherd, are at present under treatment in the Edinburgh Royal Infirmary suffering from anthrax. The source of infection seems to have been a bullock.

Medical Arrangements at Craiglockhart and Craigleith Poorhouses.

At the Edinburgh Parish Council on March 17th some important changes in the medical arrangements at Craiglockhart and Craigleith Poorhouses were discussed and adopted. At the former it was decided to have in future a medical officer to assume entire charge and responsibility for the medical work; he is to devote his whole time to the duties, and he is to receive an initial salary of £350 per annum, with an allowance meantime at the rate of £50 per annum in lieu of house accommodation. At the latter (Craigleith) it was arranged to appoint a consulting physician, whose duties should be to visit and examine the sick inmates at least twice a week, and also when specially required to do so by the resident medical officer or the governors; the salary attaching to this post is to be at the rate of £105 per annum. The third suggestion, which was also adopted, was that for both poorhouses a consulting surgeon be appointed at an annual fee of £105, namely, 70 guineas for Craiglockhart and 30 guineas for Craigleith. The change here about to be effected shows how markedly the poorhouses are being hospitalized. At the same meeting Dr. A. Hill Buchan was appointed certifying medical officer, to attend daily at the inspector's office; the salary is £100 per annum.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LEEDS.

The General Infirmary.

The statistical tables for the year ending December 31st, 1912, which are included in the annual report for the corresponding period, show that 781 more patients were admitted to the wards than during 1911, the numbers being respectively 7,905 and 7,124. Adding the number of patients remaining under treatment at the end of the year 1911 at the main building as well as at the two semi-convalescent hospitals, the total number of patients dealt with in the in-patient department amounts to 8,346. Of the admissions, 1,430 were to the medical wards, 3,819 to the surgical wards, exclusive of 743 accident cases which for statistical purposes are separately classified; 1,078 were admitted to the eye wards, 431 to the department for ear and throat, and 404 to the wards devoted to diseases peculiar to women. The daily average number of in-patients at the infirmary was 398, the number of available beds being 432; at the two convalescent hospitals the daily average was 87, the total number of available beds being 88. There was therefore an average number of 485 patients in the wards of the infirmary and of its two semi-convalescent hospitals throughout the year. At the semi-convalescent hospitals it is to be expected that, as all the patients who are admitted there pass in the first instance through the wards of the main institution, the number of patients may closely approximate to the total available number of beds; but every one who is familiar, especially from practical experience, with the working of a large hospital will feel that a daily average of 485 patients, with a total available number of beds amounting to not more than 520, indicates a condition of high pressure, especially when it is considered that some of these beds may be regarded as emergency beds. On at least one occasion the total number of patients did, in fact, correspond with the total number of beds at the disposal of the three institutions, and the total number never fell below 423. Taking the main building, the average number of days each patient was resident was 17.6, and the average number of in-patients to each occupied bed was 20.7.

The number of deaths was 558, giving a percentage of 6.7. If the number of patients dying within forty-eight hours of admission are deducted, the percentage works out at 4.6. In the extern maternity department there were 410 confinements. The figures representing the work in the out-patient department, which will be watched with interest during the coming year in respect of the effect which it is believed the operation of the Insurance Act will have upon their number, showed an increase in the number of patients, but some decrease in the number of attendances. During the year 4,221 operations were performed on in-patients and 3,696 in the operating theatres of the out-patient department.

The board in the annual report make an earnest appeal for more generous financial support. The infirmary is efficiently but economically managed, but the annual expenditure is always markedly in excess of the regular income. In consequence it has for many years been the custom to use legacies almost entirely to meet current expenses, and during the year the board have thought it wise to dispose of £17,857 worth of stock to reduce the large overdraft on the treasurer's account. Reference is made to the work of the lady almoners which has gone on in association with the similar work of the Hospital for Women and Children and the Leeds Public Dispensary. As a further instalment of the improvements of the infirmary to be carried out under the King Edward VII memorial extension scheme, wards No. 1 and 2 have been renovated and the sanitary blocks attached to the wards reorganized.

During the year Dr. Barrs has joined the consulting staff at the end of his twenty years' service as full physician. Though the event does not fall within the period dealt with in the report, mention is made of the

impending departure from the infirmary of Miss Fisher, the Lady Superintendent of Nurses. Miss Fisher entered into the service of the infirmary some twenty-seven years ago as assistant to Miss Gordon. When Miss Gordon became head of the nursing department of St. Thomas's Hospital, Miss Fisher succeeded her, and for a period of about twenty-three years she has carried on the work with efficiency and with zeal, earning the confidence of the board as well as the respect and regard of all with whom she has come in relation. Miss Fisher is to be succeeded by Miss Innes, who was previously Assistant Superintendent and who was some time ago appointed matron of the Halifax Royal Infirmary.

In contemplation of the National Insurance Act coming into force in January, the weekly board, on the recommendation of the Faculty, agreed to the following regulations, which have been posted in the out-patient rooms and elsewhere as well as published in the local press.

On and after January 15th, 1913, all persons applying for treatment at the General Infirmary at Leeds will be required to state whether they are insured persons or not.

Insured persons who on examination are found to be suffering from *slight* ailments will be referred to their own doctor outside the infirmary.

Insured persons with *slight* accidents will receive immediate attention and must afterwards obtain treatment by a medical practitioner outside the infirmary.

These regulations have been in operation since the date mentioned and appear to have acted smoothly with all concerned.

The King Edward VII Memorial Fund now stands at £111,000, and it is hoped during the coming year to make a further appeal to the public to complete the minimum amount which was aimed at, namely, £150,000. The scheme, which involves the diversion of certain thoroughfares and the acquisition of some property by the Corporation, has been sanctioned by that body, and a bill is being promoted which it is hoped will be approved by Parliament during the present session.

Hospital Sunday.

The Hospital Sunday Fund is administered by a committee representative of the different charities of the city. A feeling has been prevalent for some time that the amounts obtained at the various congregational collections is smaller than it should be when regard is had to the magnitude of the work which it is intended to promote and to the size of the city. On the suggestion and invitation of the Lord Mayor of Leeds (Mr. A. W. Bain) a meeting of the clergy and ministers interested in the movement was held at the infirmary some time ago, the object being that those who wished it might be able to say something at first hand as to the character of the work carried on at the infirmary. It is gratifying to be able to record that this seems to have been attended with some benefit to the collections. The amount from 194 collections is £1,189 11s. 7d., as compared with £983 5s. 6d. from the same collections last year. From collections from areas outside the city the amount from the same number of offertories—namely, 128—was £348 17s. 6d., as compared with £256 7s. 9d.

LIVERPOOL.

Sir Alfred Jones's Bequests.

The Chancery Court of Lancaster has sanctioned a scheme prepared for carrying out the provisions of the will of the late Sir Alfred Jones, which disposed of £227,100 for charitable and educational purposes. The Liverpool School of Tropical Medicine will at once receive £40,000 to form a fund to be called the "Sir Alfred Lewis Jones Bequest." It is to be devoted: (*a*) To defraying the cost of a new wing or ward to the Liverpool Royal Infirmary for the reception of persons suffering from tropical diseases, to be called the "Sir Alfred Lewis Jones Tropical Ward"; (*b*) to the erection of new premises in Liverpool for the study of tropical medicine, to be permanently associated with the name of the testator; (*c*) to the erection and equipment of a laboratory in Sierra Leone, to be called the "Sir Alfred Lewis Jones Tropical Laboratory"; (*d*) the residue of the gift is to be used as a permanent endowment. Eventually, when certain annuities cease, the school will receive a further sum of £40,000. Further bequests are those of £1,000 to Liverpool University, £10,000 for a hospital at Garston, and £3,000 each to the Liverpool Hospital for Women and the Home for Epileptics at Maghull.

Eugenics.

Sir James Barr is the centre of activity in matters of eugenics in Liverpool. Under his chairmanship Major Darwin recently delivered a very outspoken address on the subject of large families and small. The lecture was attended by many members of the medical profession. The eugenical idea is making steady progress, and there is a strong body of medical opinion in favour of legislation to prevent reproduction in the most obvious cases of unfitness.

The Insurance Act.

The Local Medical Committee has been recognized, and has contributed its representatives to the Insurance Committee. Many matters have been referred to the Medical Committee for advice, and the relations between the lay and medical bodies promise to be harmonious as far as Liverpool is concerned. No decision has yet been reached as to the allocation of persons who have failed to place their name on a doctor's list—about 25,000 out of a total of 250,000 insured persons; it is expected that the allocation will eventually be made on a territorial basis. The Insurance Committee still continues hostile to contracting out in any shape.

LONDON.

Irish Medical Graduates' Dinner.

The annual festival of the Irish Medical Schools' and Graduates' Association passed off very successfully on St. Patrick's Day, with a dinner and social evening at the Trocadero Restaurant. The President, Dr. W. Douglas, was in the chair, and the guest of the evening was His Honour Judge Rentoul, K.C. As usual the guests included many ladies.

The loyal toasts having been proposed by the President, Dr. J. G. Fitzgerald, in a felicitous speech, submitted the toast of "Our Defenders," to which Captain Clarke, R.N., replied.

Dr. H. Macnaughton-Jones, in proposing "Our Guests," referred to the distinguished career of Judge Rentoul.

His Honour Judge Rentoul, in reply, humorously referred to his connexion with the medical profession. His only brother was a medical man; he had eight nephews, of whom four were medical men; of his five sisters, three were married to medical men; the fourth was married to a medical student, and the fifth was unmarried because no medical man had turned up. He was proud to be the guest of a profession that was the most humane and charitable of all the callings in the world.

Dr. Alfred Cox, who proposed "The Association and the President," mentioned that the Association could now claim thirty-six years of uninterrupted success. Dr. Douglas had rendered yeoman service to his fellow members, and was to be congratulated on having been elected President. This was not the only association for which Dr. Douglas had worked strenuously: he had done much valuable work for the British Medical Association.

Dr. Douglas, in responding, remarked that the Association watched over the interests of Irish medical men in this country, and endeavoured by social meetings to foster good fellowship amongst them.

The proceedings terminated with the singing of "Auld Lang Syne." During the evening an excellent programme of music was carried through.

Metropolitan Ear, Nose, and Throat Hospital.

At the annual general meeting of the Metropolitan Ear, Nose, and Throat Hospital it was reported that the more commodious premises the hospital now possessed at 2, Fitzroy Square, had been acquired, fitted, and furnished largely through the liberality and support of the president and chairman, the late Earl of Crawford, K.T. It was announced that his successor in the title had accepted the

office of president. It was also reported that the expenditure for the year 1912 amounted to £1,479, a sum which exceeded the income by £57. Eventually the hospital will benefit by a reversionary bequest.

PATIENTS' CONTRIBUTIONS TO VOLUNTARY HOSPITALS.

Mr. Richard Kershaw has published a short pamphlet, to which he has given the title *Provident Principles in Voluntary Hospitals*, which, as will be seen, is something of a misnomer. His object is to advocate the system adopted by some special hospitals of calling for contributions from patients during the time they are receiving medical treatment at the hospitals. He admits that "in some quarters an indefinable scant respect is meted out to some of those hospitals which have made this contributing system a part of their organization," and he complains that grants made by the Metropolitan Hospital Sunday Fund towards these hospitals are less than those made to other hospitals, which seems to him to be "a penalizing of sound, healthy, provident principles." He also quotes the report of the Committee of King Edward's Hospital Fund, which says: "On the whole we are of opinion that the system of payments might advantageously be abolished." He denies that hospital abuse exists to any noteworthy extent, but admits that the middle classes, feeling that they cannot obtain the highest medical skill which the rich can afford to provide for themselves and which is provided freely for the very poor, seek relief at the voluntary hospital and accept the services of the surgeons gratuitously, often against their inclinations. Some interesting figures are given from the analysis book of the Central London Throat and Ear Hospital, which show that in 1911 the in-patients numbered 826, of whom 42 per cent. gave a contribution, 28 per cent. were admitted free on subscribers' letters, and 30 per cent. were admitted free without letters. The total contributions amounted to £362, or an average of £1 0s. 9d., for an average of eleven days' residence in the wards. This is about 1s. 10½d. per day, or 9½d. if the whole number of in-patients be taken into account. As to the new out-patients, the number was 11,303, of whom 75 per cent. gave contributions on their first visit, 11 per cent. were free on subscribers' letters, and 16 per cent. free without letters or other passport except suitability for treatment. The aggregate contributions received from these new out-patients on their first visit was £504, or an average of 1s. 2d. per contributing patient. The subsequent attendances of these 11,303 new out-patients numbered 35,312, and 54 per cent. gave contributions, the total amounting to £1,584, which equals 1s. 4¾d. per contributing patient, these payments extending over periods varying from a week to a month.

To meet the objection that the wrong class of patients were admitted, it is shown that of the 826 in-patients, 520, or 63 per cent., were sent by their private medical attendant, 25 per cent. came of their own accord, and were admitted free as being too poor to pay for medical attendance of any kind, and 12 per cent. were urgent cases calling for immediate operative treatment, and admitted by the surgeons direct from the out-patient department. Of the out-patients, 40 per cent. were recommended by their private medical attendant, 5 per cent. were sent by other hospitals for special treatment, 11 per cent. came with subscribers' letters, 16 per cent. were obviously of the poorest class and were admitted free without letters, while 5 per cent. came because they evidently thought that they would secure the best advice, but their eligibility being doubted, they were referred to their own doctor to speak as to suitability, and only on the very rarest occasion has an unfavourable reply been received. It is noticeable that these figures only account for 97 per cent. of the total. It is understood that no distinction is made between free and contributing patients, and there are no private wards. Mr. Kershaw holds that there is a great difference between converting a charitable hospital into a commercial undertaking, which some fear this contributing system would lead to, and simply asking a patient to make some small contribution towards the expenses, and he claims that such a system as this is charity conducted on business-like lines, and ought to be more systematically adopted.

India.

[FROM OUR SPECIAL CORRESPONDENT.]

PHOSPHORUS LEGISLATION IN INDIA.

THE Member for Commerce had little difficulty at the last meeting of the Viceroy's Legislative Council in making out a strong case in favour of the white phosphorus matches bill. It was introduced in March, 1912, and the postponement has served the useful purpose of allowing fuller and more convincing proof of the need for the measure to be collected, and the fact that the American Congress has passed a law imposing prohibitory taxation on matches made with white phosphorus and forbidding their importation has been duly noted. Even in England before prohibition was enforced, difficulty was experienced in obtaining evidence of the occurrence of necrosis, and in India, among a floating and very ignorant factory population, this difficulty is enormously increased. Sir C. P. Lukis, Director-General of the Indian Medical Service, has pointed out that 8 cases of necrosis of the jaw had been discovered last year in districts in which match factories were working, though there was no evidence to connect these cases with the match industry, but the Indian labourer would not associate his disease with his occupation, and as the match industry is still in its infancy in this country, medical officers would be unlikely to make inquiries on this point. An additional argument is the fact that the present market in India for foreign phosphorus matches helps to bolster up the industry in other countries. As regards the inconvenience and loss to which the Indian villager would be subjected by being deprived of his favourite "strike-anywhere" match, it is sufficient to state that out of 271 brands of "strike-anywhere" matches tested at the English Customs Houses, only 11 were found to contain white phosphorus. The argument that white phosphorus matches are a practical necessity in damp climates is disproved by the fact that since 1890 their importation into Burma has been prohibited and no inconvenience has been felt in that province. It is also significant that in Calcutta, which serves such damp districts as Assam and Eastern Bengal, the proportion of white phosphorus matches imported is only 25 per cent., as against 75 per cent. at Madras, 60 per cent. at Bombay, and 50 per cent. at Karachi. There is little reason to doubt that as soon as the bill is passed a "strike-anywhere" match manufactured without white phosphorus will be placed on the Indian market, and will remove any temporary inconvenience to which the bill may lead.

FAMINE RELIEF IN BOMBAY PRESIDENCY.

The committee appointed recently in connexion with famine relief in the Ahmednagar district has issued an appeal for one lakh of rupees for special relief. This is the third year in succession in which the rainfall has been deficient, and the gravity of the situation in the famine area is greatly increased by the absence of drinking water. Ordinary relief works are rendered impossible on this account. Later reports are that the cattle that were taken out of the district for grazing elsewhere are returning, the plan of emigration having failed.

MINTO OPHTHALMIC HOSPITAL, BANGALORE.

Considerable progress is being made in the founding of hospitals in India. The Maharajah of Mysore takes very great interest in the development of these institutions, and in June, 1897, the Maharani-Regent, the mother of the present ruler, laid the foundation stone of the Victoria Hospital, and in December, 1910, the Maharajah laid the foundation stone of the Minto Ophthalmic Hospital. Much of the credit of this is due to the senior surgeon, Colonel Smyth, who used his influence to get a special hospital for treatment of diseases of the eye. Colonel Smyth had studied recent improvements in hospital arrangements in England, and reproduced many of these in the designs of the new hospital.

On January 31st, 1913, the new building, which was called the Minto Ophthalmic Hospital, was opened by His Highness the Maharajah of Mysore, G.C.S.I. It is a handsome building, which affords in-patient accommodation for 34 males, 34 females, and 12 children. There are two

operating theatres, and the building covers 20,190 sq. ft. To the regret of all, Colonel Smyth had left by this time, and Dr. Iyenjar is the superintendent. The Maharajah, after expressing his gratification that such an institution should have been built and the pleasure with which he declared it open, said that a third hospital was about to be constructed, and suggested that after that the turn of the Maternity Hospital might come. He impressed upon his hearers the medical needs of the outlying districts, especially in Malnad, where the steady decrease in the population was a matter of great concern to his Government. He expressed his confidence in the officers of his own medical service, many of whom possessed English and other European qualifications. He hoped the number of private medical practitioners in his State would quickly increase, as he was anxious that his people, both in matters sanitary and medical, should rely more and more on themselves. He trusted that those responsible for the management of the hospital would strive to make it a worthy memorial of Lord Minto's friendship to the State and of his eminent services to the people of India.

THE HINDU UNIVERSITY FOR ALL INDIA.

His Highness the Maharaja Sir Pratap Singh announces, on behalf of the Marwar Darbar, a donation of two lakhs in a lump sum and Rs.24,000 annually to found a chair bearing the name of the Viceroy, Lord Hardinge. The lump sum and the permanent annual donation capitalized amount to Rs.8,70,000. This is the largest individual contribution hitherto made to the funds of the university.

Malta.

REPORT ON PUBLIC HEALTH FOR 1911-12.

THE annual report of the Public Health Department of Malta states that the population at the census of 1912 showed an increase of 1,911 on the estimate for the previous year. The birth-rate was 33.49; in the previous year it was 36.12, and the average for the last twelve years was 37.97. The death-rate for the year was 24.42; in the previous year it was 21.42, and the increase is accounted for by the increased infant mortality due to a severe epidemic of measles. The percentage of deaths under 5 years to the total was 54.12, against 52.85 for the previous year. Infantile mortality is very high, the death-rate of children under 1 year to 1,000 births was 267.21, against 236.93 in the previous year. The deaths from infectious diseases numbered 495, against 269 in the previous year, measles and cholera being responsible for this increase. Dr. Scicluna states that the incidence of Mediterranean fever, gauged by the notifications in the year, was lower than in any one of the last ten years. In 1905-6 there were 822 cases with 117 deaths, while in 1911-12 there were 273 cases and 26 deaths. The examination of 221 herds affords evidence of infection in goats in 112 instances. Altogether, 15,341 goats and sheep were examined; of these, 386 were found infected and destroyed. Since the enforcement of these regulations the milk or blood from 30,188 goats and 5,571 sheep has been examined. As a result of observations made in connexion with these periodical examinations, the following conclusions have been arrived at:

(*a*) The incidence of Mediterranean fever infection is considerably more frequent in goats than in sheep. The proportion of goats giving a positive milk and blood reaction was 3.48 per cent., and the same proportion in sheep 0.71 per cent.

(*b*) When more than one happen to be infected in the same pen, they are generally found to be tethered one near the other.

(*c*) When on successive examination of the same herd one or more goats are found infected, the goats found infected in the last examination are often found to have been fastened on a spot where goats declared infected on previous examinations were tethered.

(*d*) Goats, of which the milk but not the blood reacts against *Micrococcus melitensis* on a given round, when examined later on during a successive round or rounds were found to give a positive reaction in both milk and blood.

(*e*) The organs in goats found to yield positive bacteriological evidence of infection—namely, the organs from which *Micrococcus melitensis* can be isolated—were in the majority of cases the mammary glands; if these are found infected, the organism may be recovered also from the inguinal glands, less frequently also from the mesenteric glands and exceptionally from the spleen and kidneys.

These *post-mortem* findings appear to be consistent with the theory that Mediterranean fever infection in the goat is at first purely local, the organ in which the specific organism effects initial settlement being the udder. It travels upwards to the lymphatics, and may finally give rise to a generalized infection. Though cholera had been prevalent in neighbouring countries for several years, the measures taken to prevent its introduction were so successful that until October, 1911, the islands were free from infection. In 1911, with the immigration of nearly 2,000 refugees from Tripoli and Cyrenaica, owing to hostilities between Turkey and Italy, cholera was introduced. Altogether 116 cases were reported, with eighty-five deaths. The outbreak was of short duration and limited extent; but the case mortality was 73.2 per cent.

The number of deaths from tubercle under 1 year and under 5 years is gradually decreasing, and a similar tendency is observed in the case of tuberculosis of all ages.

Compared with other Mediterranean countries the island is specially favoured, the death-rate from pulmonary tuberculosis for the year under consideration was the smallest since 1901-02, 0.72 in 1911-12. The meteorological returns show a mean temperature for the year of 63.2° F., with a rainfall of 24 in.

Special Correspondence.

PARIS.

Emetine Treatment of Amœbic Dysentery and Abscess.—Expectation of Life after Nephrectomy.

DRS. FLANDIN AND DUMAS have reported to the Hospital Medical Society a case of hepatic abscess treated by emetine, which affords a parallel to the remarkable case recorded by Professor Chauffard in the JOURNAL of March 15th, p. 574. In the second case the patient was a woman who began to suffer from what was taken to be phthisis in December, 1910; a diagnosis of amœbic abscess of the liver, opening into the lung, was made in July, 1912. In December, 1912, the emetine treatment was begun, and in an extremely short time the purulent discharge ceased and the patient was completely cured. Dr. Dopter mentioned a case which he had treated under very similar conditions with equally satisfactory results. Professor Chauffard has since communicated to the same society another serious case of abscess of the liver which recovered very rapidly. It was operated upon, and the patient was also given emetine. Professor Chauffard informs us that he has reason to hope that Rogers's method will be employed in the French army as well as in the French colonies.

M. Bazy, at a recent meeting of the Academy of Medicine, discussed the expectation of life after nephrectomy. The prognosis was in general so favourable that he was inclined to think that a man with one kidney had the same expectation of life as a man with two. He had followed up patients who, after removal of one kidney for tumour, were living after fourteen, eleven, eight, five, and three years, and appeared to be in perfect health. In tuberculosis of the kidney the prognosis, he thought, depended upon the state of the bladder; patients in whom it was healthy had an extremely good chance of escaping secondary complications in the other kidney. In cases of simple suppurating kidney the cure was complete; once the kidney was removed, the albumen entirely disappeared. He drew the conclusion that nephrectomy should be performed in all cases of suppuration in the kidney.

A SPECIAL commission which has been sitting in Paris has presented a report proposing certain alterations in the examination for the rank of *agrégé*, which is the stepping stone to the professorship. Its most important recommendation would tend to allow successful candidates to specialize with a view of improving the teaching in special subjects in the various faculties and schools of medicine. The commission has also made representations as to the need for more liberal contributions from the State to the maintenance of laboratories.

Correspondence.

TRADES UNIONISM AND MEDICINE.

SIR,—I have read Dr. Bateman's letter on this subject with considerable interest and some amazement. That men of Dr. Bateman's mental bias exist has been painfully shown in the events of the past eighteen months, but it is rare that they expose the workings of their minds in the press. I do not know Dr. Bateman personally, but I have met his type frequently at Divisional and Representative Meetings. He seems unable either to grasp facts as they are or intelligently to anticipate the logical outcome of such facts in the future.

Dr. Bateman commits his first error in attributing to trades unionism as essentials the actions of certain trades unionists, as men judge socialism by the actions of socialists. A society registered as a trades union is enabled *ipso facto*, as Mr. Verrall would say, to do acts which otherwise would be unlawful. That is all. The law of conspiracy had been invoked to prevent organization; legislation thus became necessary.

I suppose Dr. Bateman is aware that a certain enactment known as the National Insurance Act has interfered in a very autocratic way with the liberties which were enjoyed by the medical profession. He must also be aware that the excellent Association in whose JOURNAL this letter appears is *not* a trades union, and incidentally has failed in its fight on behalf of our common liberties. Primarily it has failed because it has not and never has had any effective control over its members, and also because of the large leaven of men of Dr. Bateman's stamp who confuse ethics with sentimentality and *esprit de corps* with politics.

A trades union, with its closer grip on its members and its more businesslike methods, is necessary, in order that future struggles—and they will be plenty—may result in victory and not defeat.

I suppose Dr. Bateman is serious when he prophesies a general order to down stethoscopes and thermometers and "boo" any practitioner seen entering a patient's house. Apart from the uselessness of such a procedure, I should have thought that by now he would have realized that our fight in the future is with a Government department and not with mankind in general. If France were to declare war on Germany, it is inconceivable that she would commence operations by an onslaught on England, America, and Portugal.

In theory the ideals of our profession are such that there should be no difficulty in restraining individuals from doing acts which are contrary to the expressed wishes of the majority. In practice we see that even in things that are not vital considerable variety of action inevitably results, while in matters which touch the bed rock of existence every man becomes a law unto himself. The old laws lacked sanction and were obeyed just so long as obedience was consonant with personal taste. We must have something new and strong, and for my own part I can see nothing for it but trades unionism.

I should like to remind Dr. Bateman that in certain areas where the co-operation of practitioners was completely assured the whole gamut of rampant trades unionism, including picketing, has been successfully gone through under the protection of the British Medical Association. All we want is a machine that will ensure that such action shall be general and not local: something that will give the Warning Notice and the action of divisional secretaries a real and potent force.—I am, etc.,

Salford, March 15th. STANLEY HODGSON.

SIR,—I have read with interest Dr. Bateman's letter published in the last issue of the JOURNAL. While in full agreement as to the impropriety of the trades union methods instanced by him for professional usage, I cannot help thinking he has missed the practical point in the controversy on this subject.

Very few members of the profession, if any, have seriously considered that under any circumstances such methods as "down tools" or "peaceful picketing" could be employed to further professional objects; and the proposal that came before the British Medical Association at Liverpool last year, and which is adjourned to the Brighton meeting this year, is that the Association should, if possible, become registered as a trades union. Such registration would not necessitate the use of all so-called trades union methods.

In my opinion, there is one object that can be thereby attained of such transcendent importance that it would be cheaply purchased, even if it cost considerable labour and expense, namely, the protection of the funds of the Association from claims arising from damages awarded against us in carrying out our professional policy. As in the future, if professional union is to be of any practical assistance, much highly controversial work will have to be done, the true merits of which it is not easy for the public to comprehend, it will not be difficult for skilled advocates to stir up the indignation of juries against our methods.

Nothing is easier, where funds are available, than to bring actions. Already the financial resources of the Association have been embarrassed by adverse verdicts in such actions, which are not likely to be less in the future, if an active policy is to be carried on. So that if by means of the Trades Disputes Act it is possible for us to safeguard our funds against so obvious a danger, it seems to me only wise and provident on our part to avail ourselves of that enactment.

I do not think there is any important section of the profession that is in favour of trades unionism, except on some such grounds as I have indicated, and Dr. Bateman's letter does not touch upon this side of the question. In conclusion, I cannot agree with his dictum as expressed in the following passage of his letter:

> Any unity founded upon trades union lines would be degrading and derogatory to professional men in the extreme, and I hope that the suggestion will be scouted and dismissed as utterly untenable.

The unity of trades unionism is precisely the same as ours and its object to promote the true welfare of the workers in the particular trade or profession it represents. Because some of the lines followed by trades unionism are "degrading and derogatory," it is not logical to assume that all trades union lines are such.—I am, etc.,

London, N.E., March 15th. MAJOR GREENWOOD.

SIR,—In your last issue you print a letter from Dr. Bateman anent trade unions for the medical profession. That letter is calculated to do harm to a movement in which I, amongst others, feel very interested. Perhaps I may be permitted to make a few remarks as to what we hope to gain by forming a trade union? In the first place, we hope to show the public that some, at least, of us realize that the welfare of the health of the nation is in the hands of the medical profession, and that it is in the nature of a trust which we have of late most scandalously betrayed. The man in the street knows well enough all about the betrayal, and some of the better educated are looking to see whether we shall fall back into our selfish but "dignified" attitude of aloofness from all public affairs, or whether we shall shoulder our increased responsibilities like men and recreate the dignity which we have lost.

Now, since politicians have publicly laughed at us and our assumption that we knew what sort of medicine was best for the people (whereon we trembled and fell down), it is obvious that we have fighting before us if we are not to be similarly scorned in the future. It is also obvious that, if we are not prepared to fight, fresh extensions of contract practice await us, fresh obstacles to medical progress will prevail against our "dignified" resolutions.

Then comes the question as to whether a trade union is or is not the best fighting body available. Here Dr. Bateman does us an injustice, for he omits to mention the chief advantages of trade unionism, but instead puts up certain untenable hypotheses, advanced by no one but himself, and then with righteous anger at the creatures of his own creation, knocks them down again. It may first be noted that a trade union is not some strange and barbarous weapon for the furtherance of antisocial interests, but the instrument of self-defence elaborated by the State after some hundreds of years of experience. Even in the days

of the barber-surgeons and other guilds it was realized that those who followed the same calling had some right to exist in a corporate capacity for the protection of their own interests and the prosecution of their legitimate aims. Since that time successive statutes modified and enlarged the rights and immunities of such corporations until, at the present time, we have as their lineal descendant the more or less modern trade union. The rights include the right to operate in restraint of trade (and we are undoubtedly a trade technically) without being subject to legal action, and the immunities include the all-important immunity of funds from attack under the conspiracy and libel laws. When it is remembered that perhaps half of the profession are at this moment under some form of contract with insurance, Poor Law, and other authorities, and that concerted interference with these contracts is probably conspiracy if done by any other body than a trade union, it is surely obvious that we must have a trade union as soon as possible. It may be noted that the State does not give these powers to such bodies as limited companies, so that it is futile to suppose that any existing body could acquire them if it was formed and collected subscriptions for scientific purposes and is registered as a company. It is obvious that in making these last remarks I have the British Medical Association in mind, and I may, in order to avoid misconception, say that I am quite aware that the British Medical Association has a special fighting fund not subscribed for scientific purposes. At the same time, if it were sought to put that fund on any safe basis it would have to cease to be managed by the present organization of the British Medical Association—that is, the whole-time officials, the Journal, the Branch Councils, etc.—for all of these are supported by funds subscribed for scientific purposes under the Articles of Association and cannot be alienated to other work until it has been made clear to each member for what fresh purpose he is subscribing. In other words, the Association would have first to cease as a company, except the Journal, which would be equally obliged to continue as a company or cease altogether, since a scientific journal is probably no legitimate activity for a fighting fund; the present assets—for example, 429, Strand, etc.—would presumably have to be given away or else left with the Journal, and then the members might form themselves into a fighting body with nothing of the old Association except the name. All these things were set forth by the Solicitor to the Association, and can be found in the British Medical Journal Supplement, 1912, ii, p. 138.

I have digressed thus far for a good purpose and in order to show that if the members of the British Medical Association are to acquire real fighting powers it must be through some independent association and that this latter must be a trade union. Now it would be the object of a trade union to provide such a body, and it should work in unison with the British Medical Association for the good of the profession at large. The British Medical Association as an organizer of social and medical meetings all over the country is unique; as a fighting body it lacks the proper fighting basis which can alone secure immunities for its funds, nor can it assume that basis.

In conclusion, may I state those strong activities of a trade union which Dr. Bateman omits?—namely, (1) it has over its members ties of interest as well as of honour, for it provides all sorts of insurance, and failure to comply with the policy of the union implies expulsion and loss of all premiums paid; but lest this should seem unduly harsh, it has (2) statutory powers of compensating those who suffer from adherence to the policy of the union; moreover, (3) it of course gives its members legal support whether as individuals or collectively, whether attacking or attacked; and (4) it can represent its members in Parliament or by any other political means—what a difference it would have made if we had had one or two real representatives of the profession in Parliament in recent years—and (5) it cannot fail to be a sign to the public that the profession has realized its responsibilities and is again worthy of the respect it used to have until it fell down before the words alone of a politician ignorant of the very essentials of the healing art.—I am, etc.,

London, W., March 17th. GORDON R. WARD.

SIR,—It is apparent from Dr. Bateman's views on the above subject in your issue of the 15th inst. that he has not outlived his earlier ideals—ideals which most of us started with, but which we have gradually shed in the course of our struggles as general practitioners.

When I qualified some twenty years ago I never expected that a Government, however socialistic, could bend a proud profession to its will as in the recent conflict through which we have emerged—vanquished. Twenty years ago the adoption of trades union methods would have been as repellent to me as it is now to Dr. Bateman. But times have changed; the working masses have gained the control of the country. Their cry is for more and yet more from the classes, and in the present Government they have a pliant tool to gratify their demands. Their chief, Mr. Lloyd George, has spared us no abuse, no indignity, to place us under the yoke. Our humiliation is complete. We have become not general practitioners, but general dispensers. Our leisure for professional self-improvement is given over to filling up returns as useful for purposes of vital statistics as the death certificates emanating from the old sixpenny dispensaries.

To take effective measures for mutual protection through trades unionism is as necessary for the profession now as for the honest man to protect himself from burglary by arming himself with the weapons of the burglar.—I am, etc.,

Hanley, March 16th. S. WESLEY WILSON.

SIR,—As one of the oldest members of the British Medical Association, in the good name of which I once was proud, I hope you will allow me to thank Dr. Bateman for his letter in the Journal of March 15th. His facts make his logic irresistible, and I hope there are many members who agree with him. This Association was formed in the interests of science, as well as in the honourable interests of the medical profession; but, since this unfortunate Insurance Act frightened the profession and made some fear financial disaster, its aim has been altered; and the sooner that aim, which is in the direction of trades unionism, is given up by the Association, the better it will be not only for the interests of science, but for the honour which is the highest interest of the medical profession.—I am, etc.,

Hawick, Scotland, March 15th. JOHN HADDON, M.D.

THE NEGLECT OF VACCINATION.

SIR,—I am obliged to Dr. Maude for his reply, but must confess it is rather disappointing. He evidently confuses the terms *fatality* and *mortality*; speaks as though I had only had experience of a single outbreak of small-pox in Leicester (as a matter of fact I have had to deal with some nineteen distinct outbreaks, including two major epidemics); suggests that 700 cases of small-pox are not enough to found new generalizations upon (ignoring the fact that the "Leicester experiment" had been going on long before I came to Leicester); and makes the old erroneous assumption that in Leicester, when an epidemic of small-pox occurs, "the population is so alarmed that they all rush to be vaccinated."

I quite agree with Dr. Maude that the country as a whole is not so well organized for dealing with small-pox by modern methods as it should be, but when we come to realize that we can no longer depend upon infantile vaccination, it is reasonable to hope that increased attention will be paid to strengthening the weak spots in what we shall then regard as our chief line of defence.

As regards Dr. Rice, I am very glad to find that others are beginning to feel the desirability of speaking out on this question. His analogy—to soaking buildings and their contents with water to prevent them taking fire—is excellent.

As regards Dr. J. W. Papillon's letter (in your issue of March 8th), he asks me to explain how the future of small-pox prevention in this country can lie with the medical officer of health rather than with the public vaccinator, seeing that even in Leicester we advocate the vaccination of medical attendants, nurses, and contacts.

The obvious answer is that the public vaccinator, in any case, has no part in the vaccination of medical attendants and nurses; whilst as regards the vaccination of contacts, although it is true that in Leicester hitherto it has

been thought expedient to utilize the services of the public vaccinator for this purpose (and I take this opportunity of publicly acknowledging the ready and willing co-operation which I have always received from the public vaccinators in Leicester), yet surely Dr. Papillon will not seriously suggest that it is necessary that the country should maintain an army of public vaccinators, vaccination officers, medical inspectors, and all the expensive machinery of public vaccination for the sake of vaccinating a few contacts in the rare event of an outbreak of small-pox! Even at present some medical officers of health prefer to vaccinate their own contacts, as being simpler and more expeditious. In my experience the chief trouble is to convince contacts of the need for vaccination, and this is already the work of the medical officer of health.

Dr. Papillon quotes Germany as a country where infantile vaccination followed by revaccination—and, I may add, by a second revaccination—has practically abolished small-pox. But how much better if we in this country can do the same without either infantile vaccination or revaccination! Be that as it may, Dr. Papillon must be aware that there is not the slightest prospect of any Government attempting to introduce a measure making revaccination compulsory, still less of their being able to enforce it if such a measure succeeded in getting on to the Statute Book. Therefore, as practical men, we may as well leave compulsory revaccination entirely out of our calculations, and confine our attention to the really important question of how far infantile vaccination is really helping us to-day in our efforts to prevent the spread of small-pox.

I would point out that small-pox is not now an endemic disease in this country. It is not now so much a question of reducing the mortality from small-pox, which has sunk to insignificant proportions, in spite of the increasing neglect of vaccination; the real question at the present day is *how to prevent the disease from spreading* when isolated cases are imported from abroad. If we could do this, then without doubt small-pox in this country would virtually become extinct. This is no Utopian dream; the indications all point to its being one day an accomplished fact.

As regards Dr. W. Hardman, I fear from the tone of his letter I must not expect much sympathy from him. I can only suggest to him that, as deep truths are sometimes hidden from the wise and prudent yet revealed unto babes, so perhaps time will show that the conscientious objector, ignorant and illiterate though he often may be, is not so very far wrong after all when he asserts that it is not necessary, in order to save from small-pox, to introduce "disease matter" into the body of his healthy child.

In conclusion, may I be allowed to submit a few ideas on this question which, for the sake of economizing space, I have endeavoured to crystallize out in the form of aphorisms, each of which I am quite prepared, if necessary, to justify and substantiate? They only apply, of course, to the problem as affecting our own country.

Vaccination Aphorisms.

1. It is the vaccinated persons whose vaccination has "lapsed," rather than the unvaccinated, who really spread small-pox.
2. Infantile vaccination alone, however efficiently enforced, will never save a country from small-pox.
3. Small-pox does *not* "spread like wildfire" in an unvaccinated community where modern methods of prevention are efficiently carried out.
4. There is no fact more firmly established in the whole field of science than that variola and vaccinia confer reciprocal immunity.
5. Modern methods of small-pox prevention are superseding infantile vaccination just as the latter superseded small-pox inoculation.
6. It seems probable that, in spite of increasing neglect of vaccination, small-pox (in this country) will ere long become virtually extinct.
7. A system of infantile vaccination which is not followed by revaccination is only a half-measure. Half-measures often do as much harm as good.
8. The effect of vaccination in masking small-pox, and thereby thwarting modern preventive measures, is a serious drawback, which has not yet been sufficiently considered.
9. As a *dernier ressort*, unvaccinated communities can always fall back upon universal vaccination, should the need for it ever really arise.
10. It is the hostility to vaccination (engendered by compulsion), rather than the neglect of it, which constitutes the real danger to unvaccinated communities.
11. The injuries to health caused by vaccination have not been so carefully recorded as they might have been. The debit side of the balance sheet has not always been filled in.
12. Vaccination, as a scientific operation for conferring complete but temporary immunity against small-pox, was never in a stronger position than it is in to-day. It is justly regarded as one of the most striking discoveries in the history of medicine.

Vaccination, as a State system for the compulsory inoculation of infants, is no longer really necessary; it is largely discredited with that section of the community which it is specially intended to serve, and it is becoming obsolete.—I am, etc.,

C. KILLICK MILLARD, M.D., D.Sc.,
Medical Officer of Health.

Leicester, March 17th.

THE DISSEMINATION OF RECTAL CANCER.

SIR,—In the JOURNAL of March 15th Mr. Sampson Handley takes exception to certain comments made by your reviewer in discussing a paper by me entitled "Intramural Spread of Cancer of the Rectum."

So far as I am concerned there is no question as to the accuracy of Mr. Handley's observations, but, in defending his theory of mucous permeation, he endeavours to fortify his own position by exposing what your readers may assume to be a weak point in mine. Mr. Handley maintains that, inasmuch as he is disinclined to discredit the existence of intermuscular permeation because he has not himself observed it, so is it unjustifiable to doubt the occurrence of mucous permeation because no evidence was found to support it in my series of cases. This argument would be valid if the case in favour of intermuscular permeation were strictly comparable to that in favour of mucous permeation. That they are not comparable may easily be shown by a consideration of the microscopical evidence only, and the position is briefly this: Mr. Handley has described and figured cells in the mucous layer of the bowel wall at a distance from the margin of the growth, but the nature of these cells is still open to question. On the other hand, I have demonstrated, in the intermuscular lymphatic plexus, cells the cancerous nature of which cannot be denied.—I am, etc.,

PERCIVAL P. COLE.

London, W., March 17th.

IMMEDIATE OPERATION IN APPENDICITIS.

SIR,—For some time prior to the discussion which Mr. Edmund Owen's article has reawakened, my partner, Dr. Ralph Norman, had been trying to convert me to his own conclusion, that immediate or very early operation is the only bridge across the chasm of all-too-frequent disaster in appendicitis. Every case I have encountered since my conversion (the completeness of which I cheerfully admit) has but strengthened our now joint conviction, and three object lessons especially that we have had within three months confirm all that Mr. Owen and his school maintain.

The first, a schoolboy of 12 at a local preparatory school, to whom I was called fifteen hours after nocturnal onset of pain, I found to be in but slight discomfort, wanting to get up. Pulse 100, temperature 99°, with moderate resistance over the lower right rectus. I had some difficulty in getting consent for operation, the parents being in India; but, fifteen hours later, the earliest possible time we could arrange, Mr. Sherren found a zone of commencing gangrene of the middle third of the appendix.

My second case, a little girl of 7, I operated on thirty-eight hours after onset, the symptoms having been of the mildest to within six hours previously. She had a "flaming" appendix 5 in. long, a fearsome spectacle of disaster impending a few hours later.

The third case occurred this evening. A young man of 21 walked into Dr. Norman's surgery at 7 o'clock saying that a pain for which he had sought relief yesterday was no better. There was well-marked resistance over the usual area, temperature 99°, pulse under 100. He consented to go into hospital at once, and at 9 o'clock I removed an appendix already the colour of a mulberry, with a stercolith at the extremity, and on the point of gangrene.

All three cases were caught before abscess formation, each—if left a few hours later—would have required extensive drainage, there being practically no "walling off" in any, and the sequel would have been at best a ventral

hernia or a weakened abdominal wall. Who would have dared prophesy no worse ending even than this had the "wait and watch" policy been adopted?—I am, etc.,

Westcliff-on-Sea, March 15th. CHARLES FORSYTH.

SIR,—It may be of interest to indicate the results of operative treatment of appendicitis by one who has been guided in dealing with these cases by one rule and one rule only—"operate immediately"—and who, moreover, cannot lay claim to any special experience or operative ability, in that he only commenced to operate independently on these cases just over two years ago. The cases, taken from hospital practice, were all acute cases of varying duration, and represented all stages of the disease. Operation was never refused even when the chance of recovery seemed almost hopeless. It must be common knowledge that in hospital practice such cases are of all too frequent occurrence.

I have in the past two years operated on 58 cases with 6 deaths. Analysing the deaths, it is found that 3 had general suppurative peritonitis at the time of operation, one such case being that of a female, aged 74, who, however, lived ten days. One patient had concurrent pneumonia which proved fatal. In one case, with an abdominal tumour, operation was delayed owing to the doubtful nature of the mass, but was rendered urgently necessary by a sudden rise of temperature and rapid increase in the size of the swelling. The sixth case, an early one, died from general peritonitis.

In many cases delay was responsible for conditions which seriously endangered the lives of the patients and rendered their recovery prolonged and anxious. It will be noted, however, that in 4 cases the patient's chance of recovery was practically hopeless, and the fatal result must be directly attributed to the fact that operation was performed too late.

If these 4 deaths be eliminated the mortality is 3.7 per cent., and it is thus seen that the adoption of the fatal policy of procrastination has raised the death-rate from this figure to 10 per cent., which represents the total mortality in this series.—I am, etc.,

London, W., March 15th. PERCIVAL P. COLE.

PHYSICAL SIGNS OF MYOCARDIAL INVOLVEMENT.

SIR,—The point which Dr. Carey Coombs raises in your last issue interests me very greatly. If I mistake not, Dr. Coombs does not disagree that the presence of heart-block is of value in the diagnosis of myocardial involvement; on the other hand, he questions whether heart-block is as frequent as my paper would infer. Dr. Coombs says the disturbance is comparatively rare; my own belief has been that it is not uncommon. Dr. Coombs's conception of its incidence may in the end prove the more justifiable; the personal observations, to which he makes reference in his letter, are evidently extensive, and in the light of this, his valuable experience, I am unwilling to emphasize my own view. Whether the cases which have come my way are or are not a fair sample, may be left for Dr. Coombs and other observers in the same field finally to decide: confining my remarks to the patients of a single hospital, I have certainly been impressed by the number of those in whom transient heart-block has been observed. I have also a strong conviction that many such cases pass unnoticed. They pass unnoticed, I believe, for several reasons. The heart-block may be very transient; it may produce no irregularity of the pulse, and when pulse irregularity is present (from missed responses) it may, on account of its partial correction, by changing *As-Vs* intervals, be slight enough to escape observation; and, finally, a little acceleration of heart-rate, such as is produced by examination, may abolish all actual irregularity. Dr. Coombs will not misunderstand me. These arguments are not premature criticisms of his own work, but I am sceptical of the usual bedside method of pulse examination in this connexion. Moreover, I am unwilling to take refuge behind so special a method as the electro-cardiographic: it seems to me that the polygraphic is in most cases quite sufficient for the purpose; and, as Dr. Coombs has utilized it, I look forward with interest to the report of his observations, and shall not hesitate to revise my view, should these newer observations prove adverse to it.

In conclusion, may I say that although when heart-block is present I regard it as a valuable sign of myocarditis, I am quite of Dr. Coombs's opinion that myocarditis is often present and the conducting structures are often involved in the process, while heart-block fails to appear? It is perfectly clear that a histological examination of the special junctional tissues often conveys but an imperfect notion of the manner in which these tissues have performed their chief function during life.—I am, etc.,

London, W., March 15th. THOMAS LEWIS.

RECENT ADVANCES IN THE DIAGNOSIS, PROGNOSIS, AND TREATMENT OF HEART DISEASE.

SIR,—It was with the utmost surprise that I read the contents of the extraordinary letter of Dr. Thomas Lewis in your issue of last week regarding the address on recent advances in the diagnosis, prognosis, and treatment of heart disease which I had the honour of giving at the opening meeting of the session of the Toronto Academy of Medicine.

The following are the facts: The whole of the passages quoted by Dr. Lewis, which he insinuates were copied bodily by me from his book, appeared verbatim and in the same order in an address which I gave before the Brighton and Sussex Medico-Chirurgical Society on October 5th, 1911, and repeated at the Folkestone Division of the British Medical Association on November 2nd, 1911, and again (as two lectures) at the Polyclinic in February, 1912.

Dr. Lewis states that his handbook on *Clinical Disorders of the Heart Beat* appeared in the spring of 1912.

I have never read Dr. Lewis's handbook on *Clinical Disorders of the Heart Beat*: it was never in my hands until late in the summer of 1912, when, owing to some of my pupils at the Polyclinic questioning me in regard to it, I glanced through it in order to see what were its nature and scope.

About April of 1911 I was asked by the council of the Medical Graduates' College and Polyclinic to start a practical class on the recent developments of cardiology. I accepted, and chose for the title, "Clinical Studies of the Heart by the Newer Methods, including the Polygraph." The first class was arranged for June. Unfortunately, owing to illness, I was reluctantly compelled to go away for a few weeks. Dr. Davenport Windle was appointed in my place. In order that he might see the ground which I had intended to cover, I handed some notes to him containing many of the very phrases which Dr. Lewis has quoted from my address, and Dr. Windle had them in his possession for some time. After my return I conducted classes in August and October of 1911, as well as others, before Dr. Lewis's book appeared.

Over three years ago Dr. James Mackenzie kindly asked me to become associated with him in his cardiac research work, and since then I have devoted most of my time to a close study of the subject. During this time I have seen scores of patients who have been the subjects of extra-systoles. Among the sensations of which they have complained to me are "gripping in the throat," "the heart stops," "a thud or shock" in the region of the heart following the pause, and "fluttering." When I was a smoker (long before Dr. Lewis's book appeared), I suffered from them myself, and they were certainly worse after I had gone to bed at night, and caused me "worry and anxiety," until I learnt what was their significance. Am I to be debarred from using these common expressions of common phenomena simply because Dr. Lewis may have used them or may at some future date use them? In what better way can I describe subjective phenomena than by using the patient's own words? Some patients with extra-systoles are quite unconscious of their presence. Am I not to be allowed to say so? Or may I not make use of such commonly used expressions as "worry and anxiety" without Dr. Lewis coming to the conclusion that my doing so is the result of my reading some of his writings? Has he never heard of bromides being used to "mask or modify symptoms, especially in nervous subjects"? Does he think he is the only physician who has proved the value of

bromides for the subjective symptoms of which patients the subjects of extra-systoles complain? (See Dr. Mackenzie's book published in 1910.) Am I not to be allowed to enumerate the conditions under which extra-systoles may occur—conditions which are well known to every student of the subject? In regard to the spelling of one of the drugs, I have always rendered it "physostygmine," and unless my attention had been drawn to the matter I should have continued to do so. Evidently I am not the only one who uses a "y" instead of an "i" in spelling the word.

In regard to the remarks on heart-block of mild degree, I hope Dr. Lewis and myself are not the only physicians who know that it may occur during the course of infective diseases and what its significance is. On page 186 of his book, Dr. Mackenzie states that in acute affections of the heart the presence of the irregularity due to the milder degree of depression of conductivity indicates that the muscle is being invaded by the disease. Again, on page 189 he states that the milder cases of heart-block warn us that myocardial changes are involved.

Again, in regard to pulsus alternans, I should have thought that every student of the subject knows that in the vast majority of cases it is necessary to take a tracing of the radial artery in order to recognize it, and that very rarely in cases in which it affects the pulse continuously it is perceptible by the finger. Apparently I should not be allowed to state these facts as I have done without Dr. Lewis's permission.

In regard to my remarks about the intravenous injection of strophanthin, in my address I stated, "Strophanthin may be administered intravenously, either two or three doses of $\frac{1}{250}$th of a grain at an interval of two hours, or a single dose of $\frac{1}{100}$th of a grain." Dr. Lewis in his book writes: "The intravenous injection of strophanthin is also valuable at such times. Two or three doses of $\frac{1}{250}$th of a grain, each in 40 to 60 minims of saline, are given at an interval of two hours." For about two years I was associated with Dr. James Mackenzie and Professor Cushny and other workers in conducting at the Mount Vernon Hospital a series of investigations regarding the efficacy of drugs in different affections of the heart. Some of the investigations were joint investigations. Others were conducted by individual workers, by myself for example on aconite, and by Drs. Marris and Linnell—I understand at the suggestion of Professor Cushny—on the intravenous injection of strophanthin, all of which I followed, and with the results of which I was thoroughly conversant before I gave my address at Brighton (on October 5th, 1911). The result of these researches went to show that $\frac{1}{250}$ grain of strophanthin is useful in the most acute cases of cardiac failure, and I mentioned this fact at the above meeting, and in the rough minute book this is stated and the above dose given. Until I read Dr. Lewis's letter I did not know that he had ever written a line or spoken a word on the subject. Am I to be precluded from stating facts which I have learnt from personal observation simply because Dr. Lewis may have at some date, or in the future will make mention of the same facts and in similar language?

In my future writings is it incumbent upon me to previously read everything Dr. Lewis has written in order to be quite sure that I do not employ similar language in describing common phenomena?

Owing to the limited phraseology of the subject every writer must of necessity use similar language in describing certain phenomena. If other people cared to look at the matter in the same spirit as, apparently, Dr. Lewis does, it would be easy to point to phrases used by him in his small handbook published in 1912 very similar to some employed by Dr. Mackenzie in his well-known work published in 1910 (see p. 66), when, referring to heart affections and a hypersensitive nervous system, the latter states that "by the judicious administration of the bromides patients can be *tided over* trying periods"; and the former, on p. 54, says: "The bromides . . . and these drugs are especially useful in *tiding* a nervous or excitable patient *over* a period of disturbances." (The italics are my own.) It is also very interesting to compare the phrases used by Dr. Mackenzie in describing auricular fibrillation, in his Oliver-Sharpey Lectures in April, 1911, with those used by Dr. Lewis in his various writings.

(Of course I am not suggesting that either quoted from any writings of the other.)

It is obvious to any one reading my address that I aimed at giving a simple, practical, comprehensive, and bird's-eye view of recent advances in cardiology. I submit that it is certainly not the custom, nor does courtesy require it, as Dr. Lewis apparently suggests, nor would it be practicable, to make specific reference to the sources of the innumerable points dealt with in a lecture like mine. In this respect I shall be quite content to be classed with Dr. Mackenzie, who, in the Oliver-Sharpey lectures on heart failure before the Royal College of Physicians, described auricular fibrillation in full without mentioning Dr. Lewis's name. (Of course, I am not for a moment suggesting that he should have done.) Also, other lectures of a similar nature have been published in the journals without reference to individual workers. But let us turn to Dr. Lewis himself. In a book—namely, his small handbook on *Clinical Disorders of the Heart Beat*—the classification and differentiation of cardiac irregularities are founded upon the magnificent work of Mackenzie, Wenckebach, and Cushny; but I cannot find a single reference made by him to these workers.—I am, etc.,

London, W., Mar. 17th. FREDERICK W. PRICE.

Medico-Legal.

IMPROPER USE OF A MEDICAL CERTIFICATE.

LATHAM *v.* STEVENS.

THE following report of this case, heard in the Chancery Division before Mr. Justice Sargant on March 14th, is quoted from the *Times* of the following day.

This action was brought by Dr. Arthur Latham, of 38, Portland Place, London, the well-known physician and authority on the subject of tuberculosis, against Mr. Charles H. Stevens and C. H. Stevens and Co., Limited.

The plaintiff now moved for an interlocutory injunction restraining the defendants from publishing, printing, circulating, divulging, or parting with, otherwise than to the plaintiff or by deposit in court, and from allowing to be printed, circulated, or published a document or certificate, dated January 1st, 1912, relating to one A. G. Hodgson, and signed by the plaintiff, or the effect thereof, or copies thereof, or extracts therefrom, and from representing, either by advertisement or otherwise, that the plaintiff had given any certificate in relation to or expressed approval of an alleged cure for consumption, the property of the defendants or one of them.

Mr. Mark Romer, K.C., and Mr. J. Fischer Williams were for the plaintiff; and Mr. T. J. C. Tomlin for the defendants.

THE PLAINTIFF'S CASE.

Mr. Romer, in opening the plaintiff's case, said that Mr. Stevens claimed to be the discoverer of a cure of consumption of which the defendant company were now the proprietors, Mr. Stevens being the managing director of the company. The certificate, which related to Hodgson, had been obtained from Dr. Latham by a fraudulent trick under the following circumstances: In December, 1911, Hodgson wrote to Dr. Latham stating that some time ago he had had a very bad cough, that a doctor had considered him consumptive, and that in consequence he had been somewhat shunned by his friends and business acquaintances; that the cough had left him for twelve months, but that his friends still held aloof; and that the writer thought that if Dr. Latham examined him and gave him a certificate which he could show to his friends it would remove the unpleasantness. The writer then made an appointment for his examination. Hodgson was examined by Dr. Latham, and after Hodgson's sputum had been examined the doctor had given him a certificate, which in its final form had been inserted in *Lloyd's Weekly News*, the *Weekly Dispatch*, and *Reynolds's Newspaper*, all of February 23rd, 1913, in advertisements relating to Mr. Stevens's alleged consumption cure.

The certificate in its final form was as follows:

38, Portland Place, W.,
January 1st, 1912.

I have recently examined Mr. A. G. Hodgson, and came to the conclusion that he is not now suffering from consumption, and is, therefore, not a source of danger to other people. In order to make quite certain I had his expectoration examined

on two occasions; on both occasions with complete absence, in spite of very careful examination, of tubercle bacilli, or, in other words, the seeds of consumption. I therefore have no hesitation in saying that Mr. Hodgson cannot infect other people, and that there is no danger to others who may happen to be in his company. (Signed) ARTHUR LATHAM, M.D., F.R.C.P., Physician to St. George's Hospital.

In his affidavit the plaintiff said that he saw Hodgson on December 20th, 1911. He then told the plaintiff that his age was 33, and that he was following the occupation of an ironmonger. He stated that he had been ill with consumption for eighteen months, that he was very anxious to know whether he was well, but more especially whether he was a source of infection to those with whom he was brought in contact. He did not tell the plaintiff anything about any particular form of treatment which he had undergone; in fact, he came to plaintiff, as he said, to obtain a certificate to enable him to have a more comfortable time with the people with whom he associated. Plaintiff instructed him to keep his temperature record for a week, and meantime had his expectoration carefully examined by the bacteriologist to His Majesty's Household. On December 28th, 1911, Hodgson sent the plaintiff particulars of his temperature enclosed in a second letter expressing an urgent hope for a certificate that he was free from consumption.

THE BACTERIOLOGIST'S REPORT.

It appeared, said the affidavit, that his temperature was normal, and the bacteriologist reported to plaintiff that no tubercle bacilli were present in the sputum. So far as the plaintiff's own examination went, he had found very slight evidence of fibrosis of the lungs, probably due to healed tubercle. Consequently, on December 29th he sent Hodgson a certificate to the effect that he was free from infection and not a source of danger to other people. On December 30th Hodgson wrote in answer thanking the plaintiff for the certificate, but suggesting for the reasons given in such letter that it might state more clearly that he was not now consumptive, and he set out in the fold of his letter a copy of plaintiff's certificate showing in brackets the words he wished to have added.

In answer to this appeal, on January 1st, 1912, the plaintiff sent him a new certificate altered slightly from the first certificate, and saying in so many words that he was not suffering from consumption. Plaintiff gave this for the particular purpose of allaying the fears of those with whom Hodgson was working, and in no way as any certificate for the benefit of or relating to any line of treatment which he might have had.

The affidavit then referred to the evidence given by Hodgson in an action for libel brought by Stevens against the British Medical Association, and tried in October, 1912, in the King's Bench Division. The learned counsel also read the letter from Hodgson to Dr. Latham, dated December 28th, 1911, in which the former said:

I beg to hand you herewith particulars of my temperature morning and evening for the past week as desired. The expectoration I forwarded to Dr. Spitta on Friday last. I trust the result will be favourable to me, and that you will be able to give me the certificate that I am free from consumption, or at any rate that there is no danger of infection through being in my company. To those who have not experienced it, it can hardly be possible to realize the feeling of being shunned and suspected, especially when feeling so well, and I look forward anxiously for your reply, and trust that if it is favourable to me you will so word your letter that upon my casually showing it my friends cannot fail to understand it.

The learned counsel said that the suggestion of the advertisements was that Hodgson had been cured by Stevens. The insertion of a medical man's certificate in such an advertisement was detrimental to him, and the British Medical Council would not regard such an advertisement in a favourable manner. There were ample grounds for the present application in the reported cases as to restraining the publication of private letters, and, alternatively, the case might be rested on the law of copyright, there being no necessity under the present law to register the copyright before suing in respect of it.

THE DEFENCE.

Mr. Tomlin, for the defendants, read an affidavit by Mr. Stevens, stating that he was the discoverer of the cure for consumption, the property of the defendant company. He also said that it was correct that he paid the fees for the consultation, certificate, and examination of the sputum of Hodgson, whom he had previously treated for consumption, and had cured.

Mr. Stevens, in his affidavit, further said that he had never intended by any advertisement to convey, and submitted that upon its fair construction no such advertisement was capable of being read so as to convey, to any reader the suggestion that Dr. Latham certified the condition of Hodgson as being the result of Stevens's treatment, or gave any certificate with reference to his cure, and he submitted that the use which he had made of the letter was not a breach of confidence; that none of the advertisements were intended to suggest or did in fact suggest that Dr. Latham had certified that the restoration to health of Hodgson had been effected by the use of Stevens's cure, and he denied that any of the advertisements were or could be damaging to the plaintiff's reputation. He further said that he had acted perfectly bona fide in the matter without any intention of doing anything more than showing that Hodgson was in fact free from consumption at the date when he was seen by the plaintiff.

After some discussion the learned counsel said that his clients could, he thought, submit to what was asked for in the notice of motion.

Mr. Justice Sargant said the defendants had very wisely submitted to the injunction, to treat the motion as the trial of the action, and to pay the costs.

Solicitors.—Hempsons; Barton and Pearman.

INSURANCE ACT.

Medical Certificates for Members of Approved Society: Validity of Rule requiring such to be given by Panel Doctor.

IN the case of Heard *v.* Pickthorne and others, heard in the King's Bench Division before Mr. Justice Bailhache, the plaintiff, a member of a Court of the Ancient Order of Foresters Friendly Society, sued for a declaration that a certain resolution passed by the society purporting to prevent the society from accepting as evidence of the incapacity of its members within the meaning of the National Insurance Act, 1911, certificates of medical practitioners other than those who were upon the list specified in the Act was illegal, *ultra vires*, and unenforceable. The action was dismissed with costs. The judge said that in his opinion the resolution passed by the society was not such an illegal act on the part of the Ancient Order of Foresters as would justify an action being brought in respect of it. The matter was one which in his judgement ought to be decided under Section 67 of the National Insurance Act, by arbitration between the plaintiff and the officers of the society, and ought not to come before the courts.

Universities and Colleges.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

A COMITIA was held on Monday, March 17th, Sir Thomas Barlow, Bart., K.C.V.O., the President, being in the chair.

President's Address.

The President delivered the annual address, in the course of which he reviewed the present condition of the College and the more important events which had occurred during the past year. He referred to the honours which had been conferred on Fellows, Members, and Licentiates of the College, and to the awards of medals and other distinctions. After drawing attention to the lectures which had been delivered during the year, he mentioned the various gifts which had been made, including the valuable collection of stethoscopes which had been presented by Mrs. Theodore Williams. The President reminded the College of the alteration in certain by-laws which had been effected, especially the alteration which now permits licentiates to assume the courtesy title of "doctor." After mentioning that the examination buildings had been completed, he gave a brief outline of the steps and recommendations made by the College in relation to the National Insurance Act.

The President then referred in appropriate terms to the eighteen Fellows who had died during the year: John Dixon Mann, William Ogle, Augustus Drake, Thomas Houghton Waters, William Murrell, Reginald Edward Thompson, John Ebenezer Rankin, Andrew Duncan, Frank Montague Pope, Frederic Bagshawe, Edward Alfred Birch, Charles Theodore Williams, James Lewis Siordet, James Barclay Montgomery, Lord Ilkeston, William Carter, Alfred Baynard Duffin, and William Howship Dickinson.

Sir William S. Church, on behalf of the College, thanked the President for his address, and for the way in which he had conducted the very arduous business of the College during the past year. The President expressed his thanks to the College and vacated the chair.

Election of President.

The election of President then took place, and Sir Thomas Barlow was re-elected by a large majority.

The Senior Censor (Dr. S. J. Sharkey) delivered the insignia of office to the President, who gave his faith to the College, and thanked the Fellows.

Thanks of the College.

The thanks of the College were returned to Mrs. Theodore Williams for the gift of stethoscopes mentioned in the President's address.

After further business the President dissolved the Comitia.

Obituary.

JOHN S. BILLINGS, M.D.,

FORMERLY LIBRARIAN OF THE SURGEON-GENERAL'S OFFICE, WASHINGTON, AND FOUNDER OF THE "INDEX MEDICUS."

WITH the death of Dr. John Billings on March 11th there has passed away a striking figure in the profession whose name will always be associated with three great achievements—the Surgeon-General's Library, Washington, the *Index Catalogue*, and the New York Public Library. Few men have had such a capacity for work, and he died, as he would have wished, in harness.

He was born in 1839, and graduated from the Medical College of Ohio in 1860; after a session as demonstrator of anatomy he joined the Northern army and served throughout the civil war, at the conclusion of which he was Medical Inspector of the army of the Potomac. He then became attached to the Surgeon-General's Office in Washington. After determining to utilize the enormous clinical and statistical material of the war, a serious difficulty arose in the absence of the necessary works of reference. Surgeon-General Hammond had already started a library in connexion with his office, and this formed the beginning of the now famous collection. Dr. Billings was put in charge of the few hundred volumes and given a free hand. With a large annual appropriation, Europe was ransacked for books and files of journals, and the library grew with extraordinary rapidity. In connexion with this work Dr. Billings paid several visits to this country and laid the foundation of his warm friendship with many distinguished members of the profession, particularly Sir Henry Acland, Dr. Ord, and Mr. Pridgin Teale. In this bibliographical work the late Dr. Windsor of Manchester acted as his friend and adviser. In the last report, October, 1912, the library is said to contain 178,741 bound volumes and 317,740 pamphlets. The collection is extraordinarily rich in old fifteenth and sixteenth century works, and particularly in the journal literature of the world. Owing to the liberality and freedom with which successive Surgeons-General have allowed its treasures to be utilized, the library has had an important influence upon the medical profession in the United States.



Sincerely Yours
J. S. Billings

In 1876, as the library began to grow, the question of a printed catalogue was discussed, and a specimen fasciculus was distributed for purposes of criticism. The work progressed slowly, but in 1880 Volume I of an *Index Catalogue* was printed, containing nearly a thousand pages. As subject and author catalogue it was immediately recognized that such a publication would be of the greatest help, but few at the time thought that a work on so vast a scale could be kept up. The literature of every subject was given with extraordinary fullness, though representing only the material available in the library; thus in Volume I, under Aneurysm, there were some 70 pages of references. Year by year the work progressed, and the first series of sixteen volumes was completed in 1895. Dr. Billings had a happy faculty for choosing able assistants, and he early had the good fortune to associate with him Dr. Robert Fletcher, whose death was noticed in the JOURNAL a couple of months ago. The first volume of the second series was published in 1896 and Volume XVII of Series II has just been issued. The remarkable growth of medical literature is well illustrated by comparing the references on Syphilis in Vol. XIV of the first series and in Vol. XVII of the second; in the one there were 109 pages, and in the other 207.

It was always a marvel to Dr. Billings's friends how year by year he kept up the publication of the *Index Catalogue*, but he used laughingly to say that it was only a matter of organization; he read every page of the proofs, and the singular accuracy which characterizes the work is due to Dr. Fletcher and himself. As an outgrowth of this library work the *Index Medicus* of current medical literature was started by Dr. Billings, and continued, after his retirement, by Dr. Fletcher.

Early in his career Dr. Billings became interested in public health and in hospital organization, and was in charge of the preparation of the vital statistics for both the tenth and eleventh census of the United States. Of the Johns Hopkins Hospital Trust Dr. Billings was appointed adviser, drew up the plans for the hospital, and was active in getting it organized. An important interview I had with him illustrates the man and his methods. Early in the spring of 1889 he came to my rooms, Walnut Street, Philadelphia. We had heard a great deal about the Johns Hopkins Hospital, and knowing that he was virtually in charge, it at once flashed across my mind that he had come in connexion with it. Without sitting down, he asked me abruptly, "Will you take charge of the Medical Department of the Johns Hopkins Hospital?" Without a moment's hesitation I answered, "Yes." "See Welch about the details; we are to open very soon. I am very busy to-day; good morning;" and he was off, having been in my room not more than a couple of minutes. In the early days of the hospital Dr. Billings's counsel was

always sought, and the growth of the school was a matter of pride to him. For years he lectured on the history of medicine. In 1891 he accepted the professorship of hygiene at the University of Pennsylvania, and became director of its new laboratory of hygiene. In 1896 he became director of the New York Public Library under the Astor, Lenox, and Tilden foundations, and the crowning work of his life has been to consolidate these collections, and to see them housed in the magnificent building that was opened two years ago. The extent of the library may be gathered from the fact that it has more than 2,000,000 volumes and upwards of fifty branch libraries, with a staff of 1,002 persons.

In the foundation of the Carnegie Institution in Washington Dr. Billings took an active share, and for years he was chairman of its board.

Dr. Billings was the author of many works on vital and social statistics, on bibliography and on hygiene. Honorary degrees were conferred on him by Edinburgh, Oxford, Dublin, Munich, Harvard, Yale, and other universities. His two strong qualities were a capacity for work and for organization. He worked easily, without fuss or effort, but incessantly. He had an equable temperament, and took the accidents and worries of life in a philosophic spirit. Of late years he was often in the hands of the surgeons, on several occasions for very serious operations, which he bore with his characteristic equanimity. He leaves a son, Dr. John S. Billings, whose work in connexion with the Public Health Department of the city of New York is well known; one of his daughters married Dr. W. W. Ord, of Salisbury.

WILLIAM OSLER.

[We are indebted to Dr. W. W. Ord for the opportunity of reproducing the portrait with which this biography is illustrated, and to Sir LAUDER BRUNTON for the following personal appreciation:]

It is only when one meets with a man like the late Dr. Billings that it is possible to realize the meaning of the phrase "Rare Ben Jonson," for a combination of good qualities such as that possessed by Billings is so rare indeed that one only meets with a few examples of it in a lifetime. He was a splendid specimen of what Oliver Wendell Holmes in *Elsie Venner* calls "the Brahmin caste of New England." As his name shows, he was of Scandinavian ancestry, and he retained the overpowering strength and energy by which his Berserker forefathers carried everything before them. But he concealed them under such a quiet, unassuming, courtly exterior that those who had only a casual acquaintance with him could hardly suspect the enormous latent energy he possessed. Though his learning was stupendous he never obtruded it, but, along with an easy flow of language and a quiet vein of humour, it made him an excellent speaker and an agreeable companion, while his strong nature, affectionate disposition, and kindly ways rendered him at the same time beloved and trusted by those whom he honoured with his friendship.

Although he was one of the greatest living authorities on hospital construction, yet it will be as a librarian that his name will go down to posterity. His formation of the *Index Catalogue* of the Surgeon-General's Library marks an epoch in medical literature. It was a herculean task which very few men would have dared to attempt, and fewer still would have had the power to carry through successfully. But he did it, and has earned the gratitude of every worker in medical science for all time to come. Not satisfied with the success of this gigantic work, he undertook, when past middle age, a task almost greater still—that of making for America a library which should rank with the British Museum, the Vatican, and others as one of the seven or eight great libraries of the world. This work he has got fairly under way, and, although much still remains to be done, he has had the satisfaction of seeing before his death that the great aims which he had set before him have been effectually carried out, and that his work will remain to a grateful posterity as an evidence of his energy and power. But, to those who knew him intimately as a friend, the blank left by his death will never be filled up, for his rare combination of qualities was such that we have good cause for saying that we shall never look upon his like again.

Mr. J. Y. W. MACALISTER, Secretary of the Royal Society of Medicine, has kindly responded to our request by writing the following personal tribute:

In Billings has passed away the kind of man who makes epochs. He was a *great* man in every sense of the word. Big in body, big in mind, and almost superman in his power of work, he impressed all with whom he came in contact with the conviction that, whatever walk in life he chose, he would be easily first. He undertook tasks, and carried them through, which ordinary men attempt only by means of committees, institutions, societies, "co-operations," and a vast amount of fuss and noise. His plan was simplicity itself. If the thing were worth doing, he simply did it. I saw him once "resting" in the evening after a long and arduous official day. He was lying on a couch, almost hidden by two mountains of medical periodicals in every language, one on either side of him. He was slowly, but without pause, steadily working through the mountain on his right, marking the items to be indexed, and transferring each journal, as finished, to the mountain on his left. This was when he was, almost single-handed, producing month by month the *Index Medicus*, and the still greater task of the *Surgeon-General's Catalogue*—two pieces of work without which the rapid advance of medicine in the last thirty years would have been impossible.

I remember his saying to me once when I said something in praise of what he was doing, "I'll let you into the secret—there's nothing really difficult if you only *begin*—some people contemplate a task until it looms so big, it seems impossible, but I *just begin* and it gets done somehow. There would be no coral islands if the first bug sat down and began to wonder how the job was to be done."

He had done a big life's work when he was called to plan and administer the great New York Public Library, and he tackled it on his own principle—without fuss or unnecessary publicity; he just "began," and each day's herculean "chore" saw him miles on his way to triumphant success.

He was quite simply and sincerely modest, although this did not prevent an amused but quite magnanimous contempt for mere talkers. As an illustration of his modesty and simplicity (at the risk of appearing vain) I recall that when he was planning the New York Public Library, he sent me a copy of the plans with a detailed memorandum on the specification with a request that I would "help him" (!) with criticisms or advice. I am prouder that *he* asked me this and prouder still that he thanked me for and adopted some humble suggestions than if I had been consulted by a Government.

His interests were as broad as his mind. One happy day I went with him and his lifelong friend, Justin Winsor, to Stratford-on-Avon. With us went Sam Timmins, the creator of the Memorial, and while Timmins did the honours of the place in his own inimitable way, Billings showed us—introduced us—to the *man*, Shakespeare. They might have been schoolmates, so vivid was the living imagination with which his slow, almost solemn periods discoursed of the living Shakespeare and his immortal creations.

Take him for all in all, Billings was a *man*, and *we* are not likely to look upon his like again.

JOHN BLIGH, M.D., M.CH.,

LIVERPOOL.

IT is with deep regret that we have to announce the death of Dr. John Bligh, J.P., of Liverpool, which took place at his residence, 109, Mount Pleasant, on Saturday, March 8th, after a brief but very acute attack of double pneumonia.

John Bligh was born at Castle Lackett, Ireland, in 1840. He was educated at Queen's College, Galway, where he had as fellow students Lord MacDonnell, Mr. T. P. O'Connor, M.P., Lord Atkinson, Sir Andrew Reed, Dr. John Conway, and the late Sir W. Thompson. He graduated M.D.R.U.I. in 1865, and was the first man in Ireland upon whom the degree of Master in Surgery was conferred. There was an interval in his college career when, in 1862, he went to Liverpool for one year as assistant to Dr. Parsons. This was when the old custom of medical apprenticeship was in vogue. In 1865

he took up his residence in Mount Pleasant, Liverpool where he remained until his death.

Dr. Bligh was married in 1876 to the daughter of the late Mr. Frederick Harris, of Liverpool, and his wife, a daughter, and two sons survive him.

Dr. Bligh was one of the best known and esteemed members of the medical profession in Liverpool. He had a very wide circle of friends, while among the poorer section of the community there will be many who will feel they have lost a true and generous friend. His generosity and sympathetic disposition were principal traits in his character. Many an Irish peasant stranded in Liverpool, many a poor Irish working man or woman who had fallen on evil days, and many a struggling priest, had good reasons to be grateful to Dr. Bligh for medical and other services freely rendered. He was, indeed, a Good Samaritan to a multitude of sufferers, but his work was unostentatious, and he never claimed credit for his beneficence. Allied to great professional skill was a bright and genial disposition; he was an optimist in his practice, and always influenced those whom he treated by his buoyancy of manner.



Dr. John Bligh.
(Photograph by Hoath and Fry.)

This was to have been his jubilee year of practice, and a movement was recently set on foot to take advantage of the occasion to make some recognition of his generosity to his less fortunate Roman Catholic co-religionists in Liverpool. It was intended to make him a presentation, but unfortunately he did not live to receive it. As a politician Dr. Bligh always felt a just pride in his Irish nationality, and was devoted to the interests of his native country and its people; he actively assisted in promoting the Irish cause in Liverpool from a very low ebb to the influential position it now holds. In this he was assisted by his brother, Dr. Alexander Bligh of Shaw Street, and by Dr. Andrew Commins, barrister. Whilst holding strong views on Irish affairs, he always respected the opinions of those who differed from him. His political recollections included much that was interesting as to Parnell, and the circumstance in which the Irish leader, while a guest of Dr. Bligh in Mount Pleasant, aided in prevailing upon Dr. Commins to become the Nationalist candidate for Roscommon, where he was elected in opposition to The O'Conor Don.

Dr. Bligh was a great lover of music, and many years ago was closely associated with the late Mr. Carl Rosa and the leading members of his renowned opera company, who were always his welcome guests. A strong friendship existed between Dr. Bligh and the late Mr. Eugene Goosens, the distinguished musical director of the Carl Rosa Company.

Dr. Bligh became a justice of the peace in 1892, but beyond attendance on the Bench he rarely took part in public life.

Dr. Bligh had a large practice, and for many years acted as medical adviser to the priests of the Roman Catholic Church in Liverpool, who about twenty years ago, to show their appreciation of his services, entertained him at a public dinner, when he was presented with an illuminated address. A fully attended meeting of all the branches of the Liverpool and District Committee of the United Irish League and all the National public representatives was held on March 10th, when Mr. Austin Harford, J.P., who presided, expressed the sense of loss that Irishmen and Catholics in Liverpool felt at the demise of Dr. Bligh; the poor had lost a true friend, the Catholic Church an exemplary member, and the Irish cause a patriot to the core.

The funeral took place on March 12th in the churchyard of SS. Peter and Paul, Crosby; prior to the interment Requiem Mass was sung at the Roman Catholic Pro-Cathedral, Copperas Hill, which was crowded to its utmost capacity. All classes of people had gathered to pay their last respects to the man who was so generally respected and to whom so many had had reason to be grateful. The panegyric was delivered by Father Coyle of Colwyn Bay, who paid a high tribute to the character of the departed doctor. "It was no matter of wonderment," he said, "that Dr. John Bligh had been not only esteemed but loved by many to whom the principal medicine he prescribed was compounded in the pharmacy of his simple and loving soul." Father O'Connell, administrator at the Pro-Cathedral, officiated at the graveside. Telegrams of sympathy and condolence were received from the following members of the House of Commons: John Redmond, P. O'Brien, T. P. O'Connor, John P. Hayden, Clancy, John O'Connor, from Colonel Seely, M.P., from Sir William and Lady Nelson, and many others.

J. G. E. COLBY, M.A., M.B., B.Ch.Oxon., F.R.C.S.Eng., MALTON, YORKS.

It is with deep regret we have to announce the death of Dr. J. G. E. Colby, at Colwyn Bay, after a long and trying illness.

He was born in 1861, and was educated at King Edward VI Grammar School at Old Malton. From there, in 1880, he went to Wadham College, Oxford, where he gained an Exhibition in Science. From Oxford he went to St. Bartholomew's Hospital, where he gained the Open Entrance Scholarship in Science and afterwards the Junior Scholarship in Anatomy and Physiology and the Brackenbury Scholarship in Surgery, and subsequently held the appointments of house-surgeon and ophthalmic house-surgeon.

He took the degrees of M.A., M.B., B.Ch. at Oxford in 1888 and the diploma of F.R.C.S.Eng. in 1890. In 1894 he took the D.P.H.Camb.

In 1890 he joined his father in practice at Malton, and soon acquired a wide reputation in the district as an able practitioner and skilful surgeon. The successful establishment of the Cottage Hospital at Malton was largely due to his initiative, and as surgeon to that institution his skill was much appreciated. He was appointed Medical Officer of Health to the Malton Union Sanitary Authority, in which capacity his work was characterized by his usual thoroughness.

He never spared himself, and his constitution, undermined by constant hard work, was unable to withstand the inroads of an attack of septicaemia, from which he suffered last August. After treatment at Leeds, his health seemed to improve for a time, and he was removed to Colwyn Bay, where he was seen by several well known members of the profession, but all their efforts proved unavailing.

He was the eldest surviving son of the late Dr. W. T. Colby, J.P.

In 1899 he married a daughter of the Rev. J. H. Mandell, vicar of Haydon Bridge, Northumberland, who survives him, together with a young family of two sons and three daughters.

Dr. CHARLES GEORGE LEE of Liverpool, who died a short time ago at the age of 61, was born in Chester on September 16th, 1852. He was educated at Wesley College, Sheffield, and pursued his medical studies at Guy's Hospital. He settled in Liverpool in 1877, and was appointed assistant surgeon to the Eye and Ear Infirmary in 1878. In 1885 he was appointed full surgeon to that institution and retained that position until 1911, when he was appointed consulting surgeon. He also held the positions of honorary ophthalmic and aural surgeon to the School for the Deaf and Dumb, to the Home for Epileptics, Maghull, and honorary aural surgeon to the Royal Southern

Hospital, Liverpool. He was a gentleman of kind, genial, and sympathetic disposition and upright character. He was greatly esteemed and respected by his colleagues, and enjoyed the confidence and admiration of his patients. He was regarded as an expert operator, and his work on cataract extraction was well known.

Medical News.

AT the meeting of the Hunterian Society of London, which will be held in the library of St. Bartholomew's Hospital on Wednesday next, at 9 p.m., Dr. Arthur Latham will open a discussion on the uses of tuberculin. It will be adjourned for a fortnight, when Dr. Nathan Raw will reopen it.

THE third International Congress of Neurology and Psychiatry will be held at Ghent on August 20th to 26th. The congress has the support of the Belgian Government as well as of the leading practitioners of neurology and psychiatry in the country. The secretary of the congress is Dr. F. D'Hollander, 110, boulevard Dolez, Mons, from whom further information may be obtained. The subscription to the congress is for members Fr. 20, for associates Fr. 10. The international exhibition will be open in Ghent at the period mentioned.

THE *Times* reports that at the North London Police Court a dairyman who pleaded guilty, and against whom several previous convictions were recorded, was fined the maximum penalty of £100 (with 5 guineas costs) for having sold by his servant milk containing 6 per cent. of added water. A man formerly in the employment of the defendant explained that separated milk was mixed with new milk, water coloured with annatto added, and the mixture sent out to the branches as new milk. The prosecution was instituted by the Islington Borough Council.

THE first meeting of the British Sectional Committee for the furtherance of the International First-Aid Congress to be held in Vienna from October 9th to 13th next, was held in London on March 11th, under the chairmanship of the Earl of Londesborough, President of the Committee. It was resolved to invite the contribution of papers to be read in Vienna, and it was arranged that the papers of authors unable to be present should be read for them and should subsequently appear in the *Transactions*. It was also arranged to invite firms dealing with first-aid appliances to send exhibits so that the space allotted to Great Britain might be worthily filled. The committee decided that Great Britain should not take part in the International Congress to be held at Ghent in August next, as that date was announced after the date of the Vienna congress had been fixed. The holding of a congress in Ghent so soon before that to be held in Vienna would, it was felt, tend to diminish the importance of the latter. The Secretary of the British Committee is Mr. Samuel Osborn, Constitutional Club, Charing Cross, London, W.C.

THE report presented to the annual meeting of the Governors of the Cancer Hospital, Brompton, stated that 690 patients had been admitted to the wards during the year; there were 1,033 new out-patient cases with a total attendance of 14,968. The number of operations performed was 535, with a mortality of 4.48 per cent. Lord Northbrook, the President, intimated that Sir David Salomons had kindly offered £500 worth of radium to the hospital to increase the amount already in its possession. The new Radiotherapeutic Department under Dr. Knox was now in complete working order and a separate report showed the great value that the hospital derived from it not only in the treatment of inoperable cases, some of which were brought within the sphere of successful operation, but also as a routine adjunct after surgical operations. In replying to the vote of thanks to the staff, Mr. Ryall, the senior surgeon, pointed out that there was much need of education of the public as to the nature of cancer if the best advantage was to be taken of modern operative treatment. In particular, he referred to two popular fallacies that stood in the way—first, that cancer was essentially a painful malady, and secondly, that operative measures only temporarily arrested the disease. He held that by the application of the knowledge derived from investigations in surgical pathology to operative treatment fully 40 per cent. of all cases were permanently cured, a percentage which would increase if earlier diagnosis were established. The series of lectures to practitioners that were recently started had been most successful and were well attended.

Letters, Notes, and Answers.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisments, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, Westrand, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, Westrand, London.*

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☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

ANSWERS.

DYSPEPSIA.

DR. H. J. THORP (Ipswich) writes to suggest that "A. E." should try gr. $\frac{1}{20}$ calomel three times a day.

LETTERS, NOTES, ETC.

IN PRAISE OF THE PHYSICIAN.

ANOTHER correspondent sends us the following, said by a Norfolk labourer on his death-bed: "The first thing I shall dew when I gets to heaven will be to tell God A'mighty how kind yew and Dr. A. hev bin to me."

FUNGI AS STYPTICS.

DR. J. R. HICKINBOTHAM (West Bergholt, Colchester) writes: The article by Dr. Edward Knight on "The Application of Fungi as Styptics," and especially the case he quotes of the woman with the open cancer of the breast, recalls to me the fact that puff-ball powder is used by some of the aborigines of North-West Australia in the treatment of venereal ulcers and soft chancres. In some cases of ulcerative granuloma of the pudendum, a very common malady in North-Western Australia, I have used it made into a paste with water and applied on lint. In cases in which the glans penis was studded with granulomatous nodules, the nodules disappeared after the puff-ball paste has been applied for twenty-four hours, and sharp-cut ulcers remain in their place. Thinking that the action was possibly due to some digestive ferment, I tried peptonizing powders in the same way, but the pain produced was so severe that I abandoned the experiment and went back to the puff-balls. I afterwards reverted to the sharp spoon, which was quicker. It has, moreover, struck me that the puff-ball powder can be used when the sharp spoon cannot, and certainly the sharp spoon is not a styptic. There is no doubt in my mind that the puff-ball powder I got in Western Australia was capable of destroying morbid tissue of low vitality while leaving the healthy tissues intact.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

A Lecture

ON

THE MUCOUS CHANNELS AND THE BLOOD STREAM AS ALTERNATIVE ROUTES OF INFECTION.*

[WITH SPECIAL PLATE.]

By CHARLES J. BOND, F.R.C.S.,

SENIOR SURGEON TO THE LEICESTER INFIRMARY.

LEAVING on one side wounds and the abraded skin, it is recognized on all hands that the mucous membranes provide the usual channels by which the micro-organisms of disease gain access to the human body.

The problem now before us, however, represents only a small part of this larger question of the route of infection. It relates to the manner in which organisms reach epithelial secreting and excreting organs through their mucous ducts, and the manner in which organisms, introduced into one portion of a mucous canal, like the intestine, find their way to other portions of the tube at a higher level. In other words, we propose to inquire whether the organisms which bring about infective diseases of the liver, the kidney, the gall bladder, the urinary bladder, the mammary, salivary, and other glands, reach these structures by the blood stream, or by the mucous canals through which these organs communicate with the surface of the body.

There are three recognized ways by which the disease organism gains access to the recesses of a secreting gland, apart from the agency of the blood and lymph channels: (1) It may, if a motile organism, transport itself by its own movements as the spermatozoon traverses the oviduct. (2) It may be passively transported by muscular or peristaltic movement, or by the ciliary action of the epithelium lining the canal, as the ovum is carried to the uterus. (3) It may spread over the surface of the mucous membrane by a process of continuous growth, as the diphtheria bacillus spreads over the fauces. But in addition to these three recognized methods there is a fourth, which in my opinion is more frequent than many pathologists and clinicians are inclined to think. In the Address in Surgery to the British Medical Association in 1905 I brought forward evidence to show that small particles of an inert substance like indigo, which is insoluble in the bodily secretions, may under certain circumstances be carried along mucous canals and gland ducts in a direction opposite to that taken by the normal secretion. If non-motile particles of indigo can travel in this manner along mucous surfaces, then it is reasonable to suppose that the organisms of disease can be also transported from the mucous orifices of the body up the intestinal canal and urinary canals to the recesses of organs like the kidney and gall bladder. I also stated, as the result of clinical and pathological observation, that three conditions were necessary for this transportation of foreign particles in a direction opposite to that of the flow of secretion:

1. There must be a reversed mucous current along the channel.

2. There must be some stasis of the normal secretion or excretion in the duct.

3. Or a fistulous communication must exist at the proximal end of the canal by which the contents can reach the surface of the body without passing down the duct.

Since that time further evidence has accumulated which goes to show that active absorption of contents at one part of a mucous tube or canal can play the part of the fistula at the upper end or the stricture at the lower end, and can bring about a backward flow of mucus to take the place of the mucus or secretion which is undergoing absorption or removal at the upper end.

Let us consider for a moment what occurs in the intestinal canal. Rapid absorption of the watery content of the fluid faecal material pouring through the ileo-caecal valve goes on in the caecum and along the whole length of the large bowel. It is probable that, though the muscular movements may vary in activity and possibly in direction at different levels, and at different times, absorption of fluid takes place along the whole canal. It is practically certain also that in diseased states of the bowel absorption may go on at one level and secretion of mucus at another. The occurrence of accelerated absorption in the caecal end and delayed absorption at the rectal end of the tube will provide the necessary conditions for a reversed mucous current along the canal without the necessity for a reverse peristalsis, or the existence of a fistulous opening.

We already know from experiment that indigo granules are present in the mucus which flows from a caecal fistula in twenty-four to forty-eight hours after they have been introduced into the rectum; this occurs independently of muscular contraction or the flow of faecal material; indeed, it takes place more quickly in an empty and contracted than in a loaded and distended bowel. A fistulous opening probably acts by removing the mucus or fluid at the upper end, and thus causes a flow of mucus along the tube to replace that which has escaped; the suggestion is, therefore, that unequal and rapid absorption in one portion of the tube will act in the same way as a fistula.

There are some points about these ascending mucous currents in the bowel which are of interest in connexion with the subject of malignant and other strictures. It has been pointed out by Messrs. Makins, Wallace, and Sargent,[1] and other observers, that the mucous membrane above and below a malignant ulcer of the lower bowel is often studded with mucous polypi. These may be situated at some distance from, or in close proximity to, the seat of cancer (Figs. 1 and 2). Histologically they are adenomata, generally of a benign type, and even when they grow close to the site of ulceration they often show no infiltration of the mucous or submucous tissues by epithelial cancer cells (Fig. 4). The relation of these benign growths to the primary cancer is one of much interest.

Besides these adenomatous overgrowths the epithelium for some distance above a malignant ulcer often shows a roughened whitish appearance, a leucoplakia visible to the naked eye. The numerous openings of the glands can be seen, and in some cases minute ulcers dot the surface of the mucous membrane. (Fig. 3.) The fact that these changes are generally more marked above than below the stricture no doubt depends upon the presence of some degree of obstruction or faecal stasis, even where no actual constriction of the lumen of the bowel exists. The upward mucous currents probably distribute the infective material or cancer cells over the surface of the mucous membrane. It is at any rate interesting to note the comparative infrequency of these changes below the ulcer, although the cancerous discharges pass through this portion of the bowel to reach the surface. The sharp division between large and small intestine at the ileo-colic valve probably prevents the flooding, under normal conditions, of the ileum by regurgitating faecal fluid; the mucous currents, however, are probably not wholly arrested at this point. Small foreign particles and organisms are thus carried up from the large to the small bowel without the necessity for any reversed peristalsis or regurgitation of faeces. Organisms may also be carried into the appendix by the same means.

The recent debate at the Medical Society of London included some important problems in regard to intestinal stasis.[2] The beneficial results of short-circuiting operations by Lane and other surgeons in many cases have now established the fact that an intimate association does exist between the delayed passage of intestinal contents and a condition of chronic poisoning, and the question arises as to the nature of the poisons, and the part of the intestinal tract in which absorption occurs.

Some observers, notably Daniel, regard the symptoms as the result of repeated infections and reinfections of the intestinal mucous membrane rather than as the result of absorption of the products of food decomposition. This is important in view of the fact that ascending mucous currents occur in the intestinal canal which are capable (apart from stagnation of contents and reversed peristalsis) of transporting organisms from one part of the tube in which they normally occur, to other parts in which they are not normally found.

* Revised since its delivery at the Medical Graduates' College and Polyclinic, London.

Although several speakers drew attention to the frequent association between intestinal stasis and urinary infection, very few facts were brought out which bear crucially on the question of the alternative routes of invasion, namely, the mucous channels or the blood stream. Dr. Eyre has found coliform organisms in considerable numbers in the contents of the small bowel in cases of intestinal stasis; this fact is important in view of the possible transference of organisms by ascending mucous currents in the absence of faecal regurgitation through the ileo-colic valve.

Stasis in the Small Intestine and Duodenal Ulceration.

These ascending mucous currents also have an important bearing on morbid conditions of the upper bowel. Moynihan, the Mayos, Paterson, and other surgeons have pointed out the frequent association between appendicitis and duodenal ulcer, and it has been suggested that haematemesis and other gastric and duodenal symptoms, when not associated with oral or naso-pharyngeal sepsis, are due to an ileo-colic sepsis, of which the primary focus is situated in the appendix, and from which organisms are carried to the gastric and duodenal mucous membrane by the blood stream. Dr. Wilkie[3] has recorded a number of cases which suggest that one important pathological factor predisposing to duodenal ulceration is faecal stasis in the colon or ileum. In some of his cases duodenal ulceration was associated with partial obstruction the result of pericolic adhesions, the appendix itself being normal. Arbuthnot Lane also speaks of the importance and frequent occurrence of absorption of toxins (the result of stasis) in the small intestine following obstruction in the colon.[4]

In view of the mucous currents now described, we must, I think, consider the possibility that these organisms reach the duodenum by way of the intestinal canal. We have already seen that there need not necessarily be any faecal regurgitation or reversed peristalsis in a distended canal. The currents will carry foreign particles and organisms up a contracted bowel provided that some stasis exists below, or that a fistula or some irregular reabsorption of contents causing mucus suction exists at some higher point in the channel. It will be objected that if the infecting material travels up the intestine it should leave its effects along the whole length of the small bowel. It may be that minute ulcerative foci do often exist, but, even if no pathological effects are produced, we know that organisms can travel along the urethra without causing urethritis, and only cause symptoms when they reach the bladder. Moreover, the gastric and duodenal epithelium may be less resistant than that of the ileum or jejunum to organisms whose usual habitat is in the caecum.[5]

Infections of the Gall Bladder and Biliary and Pancreatic Ducts.

From duodenal ulcer we pass naturally to a consideration of the etiology of gall stones and infections of the pancreatic and biliary ducts. Naunyn, Lartigau,[6] and others have suggested that gall stones arise in a deposition of biliary salts and cholesterin round a nucleus of attenuated bacteria. It is supposed that organisms gain an entrance into the blood or lymph stream through some abraded mucous or intestinal surface and thus reach the liver, that they are excreted by the liver cells in a state of reduced virulence in which they can set up chemical and physical changes in the bile, but are unable to produce acute infection in the mucous membrane of the gall bladder or the biliary ducts. No doubt organisms—for example, the *Bacillus typhosus* and bacteria of the *coli* group—do under certain conditions reach the liver by way of the portal circulation and are excreted by the liver cells, just as organisms brought to the kidney by the renal circulation are excreted in the urine. The immediate question is, however, whether the organisms around which gall stones are deposited reach the gall bladder from the liver above, or whether they reach it from the duodenum below, by passing along the common and cystic ducts.

Stress has been laid on the fact that infection of the gall bladder (but not gall stones) has been experimentally produced by the injection of organisms into the blood stream in animals in which the cystic duct has previously been tied. Of course it is possible that the epithelium of the gall bladder, like that of the kidney, may excrete pathogenic organisms brought to it by the blood (and if the ligature has been placed on the cystic and not the common duct this must have taken place); but, bearing in mind the rapidity with which infection passes through any constriction of a mucous canal, we can hardly regard this experiment as conclusive proof of the haematogenous origin of all gall bladder infections.

It is an undoubted fact, as shown by W. Mayo[7] and others, that the primary and probably exclusive seat of the formation of gall stones is the gall bladder, and even when they occur in the biliary ducts they occur primarily in the gall bladder. Neither are biliary salts usually deposited from the bile which remains stagnant in the biliary ducts in cases of obstructive jaundice.

Now the gall bladder is a hollow viscus of very slight muscular development; every surgeon must have noticed that when squeezed and partly emptied of its contents during life it remains flabby, and does not contract on the bile which it contains. It is, however, a somewhat elastic organ; it undergoes alternate emptyings and fillings, and this provides ideal conditions for the origination of to-and-fro mucous currents in the cystic duct.

Experiment shows that when, for surgical reasons, a fistula has been established between the fundus of the gall bladder and the surface of the body, indigo granules taken by the mouth can be recovered from the mucus and bile which flows from the fistulous opening.[8] The question is whether foreign particles, and presumably organisms, are ever carried to the gall bladder from the duodenum by way of the cystic duct when no fistula is present—whether, in fact, the alternate filling and emptying of the gall bladder does not act in the same way as the fistulous opening in producing a to-and-fro mucous current.

Even if we suppose that the organisms which produce gall stones, as well as others, reach the gall bladder after excretion by the liver cells the question still arises whether the more acute infections of the gall bladder are produced in the same way.

If they are so caused, it is difficult to understand why organisms which have passed through the blood stream and have been excreted by the liver without causing any violent reaction, retain sufficient activity and virulence to bring about acute infections of the gall bladder. This difficulty does not arise if we assume, as I think there are grounds for doing, that the virulent organisms, together with the mucus and other materials in which they are growing, reach the gall bladder from the duodenum. We must remember that when, as happens in cases of pyelophlebitis, virulent organisms *do* gain access to the portal circulation they produce very marked effects on the liver and cause multiple centres of suppuration. Now it is a significant fact that under such conditions the gall bladder is often free from any acute inflammation. On the other hand, acute infections of the gall bladder (either with or without gall stones) often occur without any other evidence of liver infection. Taken together the clinical facts suggest that organisms may reach the gall bladder by way of the portal circulation after excretion by the liver cells, but that under such circumstances they undergo a reduction in virulence, and while they may possibly serve as the starting point for gall stones they are not apparently able to set up acute infections of the gall bladder. On the other hand, organisms which cause acute cholangitis reach the gall bladder from the duodenum by way of the common and cystic ducts, and we have experimental evidence to show that they can be carried there by ascending mucous currents.

In view of the contradictory results of Doerr (negative) and Chirolanza (positive) with the intravenous injection of organisms after ligature of the cystic duct, the size of the indigo particles which are found in the bile flowing from the gall bladder fistula in the indigo experiments affords some evidence of the route by which these particles have reached the gall bladder. It is common to find large irregular-shaped indigo particles larger than leucocytes, and these retain their blue-black colour, while the much smaller granules which have been ingested by phagocytes are generally of a sky-blue colour. Further, it is important to remember that along with pathogenic organisms carried

up the cystic duct the mucus in which these organisms are growing is carried up with them.

The objection has been made that the contents of the duodenum are normally sterile, but we must remember that some degree of intestinal stasis and intestinal catarrh is present in most of these cases of gall bladder trouble, and the duodenal contents are probably not sterile under such conditions. Gall stones are more common in females than in males in the proportion of 3 to 1. Among married women 90 per cent. date their gall bladder trouble from some particular pregnancy (W. Mayo). Pregnancy predisposes to constipation, and constipation means intestinal stasis, and while intestinal stasis no doubt forms one of the conditions under which organisms are apt to pass through the intestinal epithelium into the blood stream, intestinal stasis, with irregular absorption in the upper reaches of the bowel, also favours the origin of to-and-fro mucous currents by which organisms which normally inhabit the lower bowel are carried to the upper.

There are grounds for thinking that if the condition of the whole intestinal tract were fully investigated in cases of gall stones and gall-bladder disease, not only would appendicular and ileo-colic complications be found in many cases, but in some the whole lining mucous membrane would show signs of widespread catarrh of infective origin.

Typhoid Carriers.

The facts concerning typhoid carriers are of interest in this connexion. Lentz, and later Forster, showed that the gall bladder is the hiding place and breeding ground of the typhoid bacillus in these persons. Moreover, as Schottmüller has shown,[9] typhoid carriers are nearly always of the female sex. In fact, there seems to be a greater chance of organisms (whether excreted by the liver and gall bladder epithelium, or carried up from the bowel) finding their way into the gall bladder in the female than the male. We do not know what the peculiar conditions are which cause this peculiarity, but it is difficult to explain it by differences in the blood stream of men and women. The typhoid bacillus from a typhoid carrier can produce a typical attack of typhoid fever in another susceptible person; it cannot, therefore, have undergone any reduction in virulence in the body of its host; hence the absence of symptoms in the carrier must be attributed to an acquired immunity in the carrier and not to any attenuation of the organism. This means that the typhoid organism is leading a sort of extra-corporeal existence in the gall bladder of the carrier. It lives in the superficial epithelium, and has become acclimatized to the mucus and bile just as it flourishes in the sewage of a contaminated water supply. This acclimatization to a mucus-secreting epithelium environment fits in better with a mucous channel route of entry into the gall bladder than with a haematogenous origin, together with liver or gall-bladder excretion.

The clearing up of two bacteriological points would probably add materially to our knowledge of typhoid fever and typhoid carriers. The first is whether typhoid bacilli in an active and virulent state are present in the vomit and therefore presumably in the duodenal contents of typhoid fever patients. And the second is whether typhoid bacilli from the urine of typhoid fever patients which have presumably been excreted by the renal epithelium after passage through the blood stream, are as virulent as the typhoid bacilli which are present in the stools of the same patients.

The difficulty of permanently getting rid of the typhoid bacillus from the gall bladder is well known: even cholecystotomy and drainage are not always successful. It is interesting to compare the behaviour of the *Bacillus typhosus* which has become adapted to a gall-bladder environment with the behaviour of the *Bacillus coli* which has become adapted to the environment of the urinary bladder or the pelvis of the kidney. In both cases the organism lives and multiplies among secretory epithelial cells, and in a secretion, and not in the deeper tissues of the body, and in both cases it successfully resists the bactericidal action of vaccines and drugs. The difficulty of getting rid of organisms which have become adapted to a secretory epithelial environment is well shown in the case of dysentery. Shiga's and Kruse's bacillus and Flexner's bacillus grow and multiply in the intestinal mucous membrane, and in the mucus and faecal contents of the large bowel; they are not found in the spleen or gall bladder or urine.[10] In dysentery the organism can be recovered from the stools in many cases for some time after the patient has recovered clinically, and in the case of dysentery carriers they may persist in the evacuations for years. The question arises, Why is not the *Bacillus dysentericus* found in the urine and in the gall bladder like the *Bacillus typhosus*, since the persistent diarrhoea gives frequent opportunities for infection of the urinary tract, especially in women, and we should expect, therefore, to encounter some cases of dysenteric pyelitis on the supposition of an ascending infection? The reason that this does not occur may be that the *Bacillus dysentericus*, unlike the *Bacillus typhosus* or the *Bacillus coli*, cannot adapt itself to a urinary or biliary environment. On the haematogenous theory of infection we must suppose that the organism cannot maintain its vitality after running the gauntlet of the blood stream and the renal or hepatic epithelium.

The Influence of Mucus on the Growth of Micro-organisms and the Part played by Mucus in the Protection of Epithelial Cells.

One, perhaps the most important, function of the gall bladder is to secrete mucus. It has been shown experimentally by Opie[11] and clinically by Halstead[12] that pure bile injected into the pancreatic duct produces acute pancreatitis, but Flexner has also shown[13] that bile, when previously mixed with mucus, does not cause this pancreatic change. We know that the presence of high percentages of bile in the blood supplied to the pancreas in jaundice does not set up acute pancreatitis. These facts suggest that *some* inflammatory affections of the pancreas are caused by a regurgitation of bile along the pancreatic duct rather than by organisms which reach the pancreas by way of the blood, and pancreatic calculi may be due to the same cause. Even where no massive regurgitation of bile takes place a reversed mucous current may occur, and organisms may thus reach the pancreas.

The influence of different kinds of mucus—that is, mucus secreted by different kinds of epithelium—on different kinds of pathogenic organisms is a subject which would well repay investigation. Observations carried out for me in the Leicester Infirmary in 1909 show that some samples of freshly obtained mucoid fluid from ovarian cysts form an excellent culture medium for the *Bacillus coli*, while other samples do not form a suitable medium. Observations on a sample of clear mucus obtained under strict aseptic precautions from a distended gall bladder seemed to show that this material exercised some inhibiting influence on the growth of bacilli of the colon group. It would be of interest to know whether organisms which normally inhabit the bowel and can grow in intestinal mucus grow equally well in mucus derived from the urinary tract, and whether the *Micrococcus ureae* will grow in mucus secreted by intestinal epithelium. The gonococcus grows well in urethral mucus, but we do not know—at any rate, observations have not been recorded—to what extent it will grow on rectal mucus; at all events, it does not tend usually to invade the rectum.

The influence of a layer of mucus in protecting the epithelial cells from mechanical and chemical irritation is probably very important. One part of the effect of repeated mechanical irritation in producing cancer may depend on the absence of mucus due to the removal of the mucus-secreting cells. Mucus also differs in its physical characters when secreted under different conditions. Thus the mucus which is poured out by the epithelium lining the bronchial tubes during an attack of acute bronchitis, is very viscid; it adheres to the sides of the vessel even when expectorated into water, while the mucus which is secreted during recovery consists of masses of phlegm which do not stick to each other or adhere to the sides of the vessel. The same is true of the mucus secreted by the bladder during the height and the decline of an attack of cystitis. It is quite possible to judge clinically of the progress of a patient with cystitis by observation of the muco-pus at the bottom of the vessel in which it has been collected. The difference in viscosity may depend on some difference in fibrin content, but the actual physical difference must itself have an important effect on the flow of mucus

currents and on the spread of the organism over the surface of the membrane by continuous growth.

If I may be allowed a digression in the field of comparative anatomy and physiology, I should like to draw attention to two very different kinds of mucus secreted by the salivary glands in some birds. The green woodpecker obtains its food by inserting its long, barbed, whip-like tongue into crevices in the bark of trees and into anthills, and withdrawing it with the insects adhering to it. Now it is interesting to find that in the green woodpecker the salivary glands are enormously developed (Fig. 5). Each is formed of two parts, a larger white portion having the appearance of a salivary gland and a thinner strip of red tissue, like lymph gland, lying alongside the first (Fig. 6). Each gland opens by a separate duct on the floor of the mouth. The secretion of the white gland is an extremely viscid mucus, and serves to stick the insects to the whip-like tongue just like bird-lime. The secretion of the red gland is ordinary non-viscid lubricating mucus; it no doubt helps to clear the tongue of the insects when withdrawn into the mouth, and also aids the passage of the food into the pharynx. Here we find two kinds of mucus secreted by the salivary glands of the same bird; one kind resembles the sticky mucus secreted during acute inflammation, and the other the lubricating mucus secreted during recovery.

These adhesive and lubricating properties seem to be present in varying degrees in all kinds of mucus. Where the contents of the mucous canal are solid or semisolid, as in the large bowel, one important function of mucus is to bind the faeces together (cohesion mucus of Nothnagel),[14] while another and even more important function is to lubricate and render easier the passage of faecal material over the surface of the mucous membrane. In the oviduct in birds it is necessary for the albuminous secretion to adhere to the ovum and not to adhere to the epithelial lining over which the whole mass must glide, and it is interesting to note that indigo granules inserted into the cloaca of the bowel have been found in the lining membrane of the egg laid by the same bird a few days later.



Fig. 8.—Ball-valve fibroid obstructing uterine canal. Secondary infection. A, Pyosalpinx. B, Intramural fibroid. C, Ball-valve fibroid.

INFECTION OF THE GENITO-URINARY TRACT.

In view of the frequent passage of the gonococcus along the genital canal to the fimbriated openings of the Fallopian tubes and the pelvic peritoneum in women, it may seem unnecessary to refer to the occurrence of ascending mucous currents in these organs. Owing, however, to the frequency of surgical operations on the genital canal in the female, it is important to remember that non-motile foreign particles, such as indigo granules, *can* be carried along the whole length of the canal from the os uteri to the pelvic peritoneum in less than forty-eight hours, even when no gross disease of the uterus is present. When we recall the very frequent occurrence of displacements, of tumours, of stenosis, and of other pathological conditions which tend to produce stasis in the contents of the uterus, we can realize the ease with which ascending infections of the genital organs take place in women (Figs. 7 and 8).

We do not know the conditions under which absorption takes place by the pelvic peritoneum, or to what extent absorption in this situation originates a retrograde flow of mucus along the Fallopian tubes, just as the presence of a fistulous opening in the pelvis of the kidney or in the gall bladder sets up a reversed mucous current in the ureter and the cystic duct. It is, however, clearly established that many of the infections of the genital canal in women are mucous and not blood infections, and this has an important bearing on the well-known fact that the female pelvic peritoneum is more tolerant of surgical interference and more capable of resisting infection than the male peritoneum. There is no reason to suppose that organisms pass more freely through the coats of the bowel into the blood stream in women than in men, hence the greater resisting power of the female pelvic peritoneum is probably due to an acquired immunity, the result of the repeated introduction of small doses of infection through the peritoneal openings of the Fallopian tubes.

In a paper on the occurrence of menstrual secretion in the Fallopian tubes in the human subject[15] I drew attention to the frequent occurrence of menstrual fluid in the lumen of healthy Fallopian tubes which had been removed for surgical reasons during the menstrual period (Figs. 12 and 13). At that time I was inclined to entertain the possibility of a true Fallopian tube menstruation; since, however, I ascertained the fact that reversed mucous currents do occur in the Fallopian tubes, I am inclined to regard the occurrence of blood-stained fluid in this situation during menstruation (apart from tubal conception) as the result of regurgitation from the uterine cavity (Figs. 9 and 11). Experiment shows that particles of indigo or carmine inserted within the os uteri reach the Fallopian tubes within twenty-four to forty-eight hours, and under certain conditions they are carried through the fimbriated openings and are deposited on the surface and in the superficial layers of the pelvic peritoneum (Fig. 10). Where non-motile inert particles are carried micro-organisms can be carried also. Sippel[16] and Wildbolz[17] both draw attention to the fairly frequent occurrence of infections of the bladder and urinary tract in newly-married women the result of coitus. It has been supposed by some that the organism gains an entrance into the blood or lymph stream through some wound of the hymen or abrasion of the mucous membrane of the vagina, but this does not explain the fact that the infection *starts* in many cases in the bladder and only reaches the kidney later, and it is especially liable to do so if pregnancy supervenes. The strong probability is, therefore, that the organism enters through the meatus urinarius and travels up the urinary tract, the pressure of the enlarging pregnant uterus in pregnant cases brings about that degree of urinary stasis, especially in the right ureter, which favours an ascending mucous current, and so provides for the transference of the organism to the pelvis of the kidney. Now if the *Bacillus coli* can be rubbed into the meatus during coitus it is difficult to suppose that it cannot be introduced by contact and in other ways in the case of patients who are wanting in personal cleanliness, or who are suffering from nervous and other diseases which predispose to contamination

Pneumococcal peritonitis is certainly commoner in female than in male children; some authorities place the ratio as 2 to 1. At the Toronto meeting of the British Medical Association[18] I pointed out that it is not necessary that evidence of metritis or salpingitis should be present in the cases of female children in whom the absence of any other focus makes it probable that the pneumococcus has reached the peritoneum through the vagina. In a case of this kind in a child of 3 we found the Gram-staining capsulated diplococcus lying on and between the columnar epithelial cells which line the Fallopian tubes, without any signs of invasion of the deeper layers or evidence of inflammation in the mucous membrane. Every surgeon must have operated on early cases of pneumococcal peritonitis in women in which the fibrinous and purulent exudation was confined to the pelvic peritoneum, and in which no other centre of invasion could be found. In such cases it is difficult to resist the conclusion that the organism gained access to the peritoneal cavity by way of the genital canal.

MR. C. J. BOND: MUCOUS CHANNELS AND BLOOD STREAM AS ROUTES OF INFECTION.

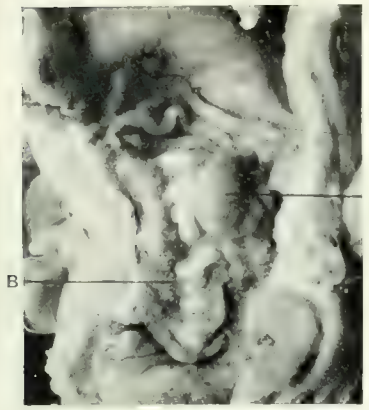


Fig. 1.—Mrs. H. Cancer of colon. A, Benign polypus. B, Malignant ulcer.



Fig. 2.—Mrs. E. Cancer of sigmoid. C, Adenoma. D, Epithelioma. Shows overgrowth of epithelium (leucoplakia). × 3 diam.

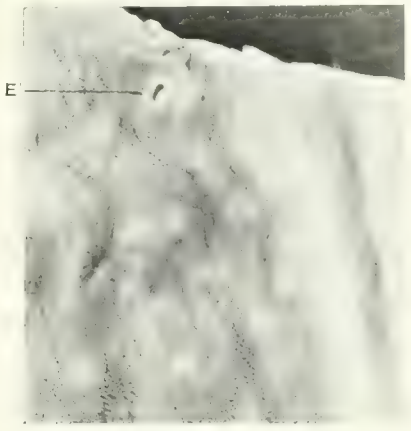


Fig. 3.—Mrs. G. Cancer of rectum. Mucous membrane above cancer. E, Multiple ulcers. × 3 diam.



Fig. 4.—Mrs. H. Section of benign polypus. × ⅓ obj. A.oc.



Fig. 5.—Green woodpecker. Dissection of right salivary gland. Shows white gland (large) and red gland (small stripe) lying on white paper.

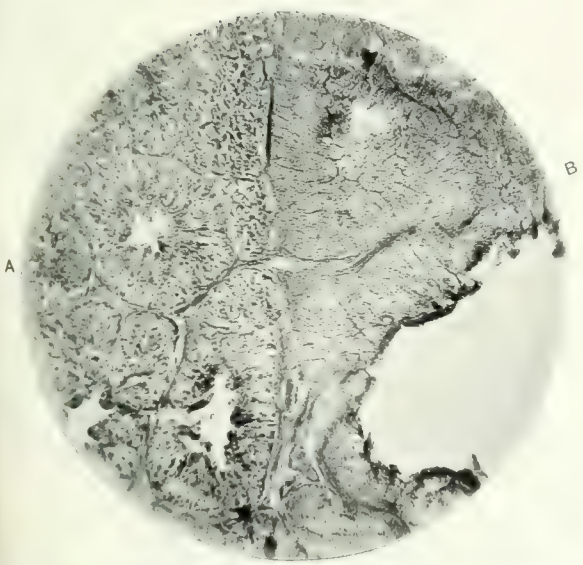


Fig. 6.—Salivary gland, green woodpecker. Transverse section through red and white glands. A, Red gland. B, White gland. ⅓ obj. A.oc.



Fig. 7.—M. B. Mucous polypus obstructing internal os uteri. Secondary endometritis.

ureter in the bowel wall. A case of my own reported in the BRITISH MEDICAL JOURNAL of May 19th, 1906,[27] is of interest in this connexion. A youth, aged 16, the subject of ectopia vesicae had both ureters transplanted into the rectum below the peritoneal fold. He lived two years and died eventually from kidney infection. At the necropsy it was found that the opening of the left ureter into the rectum had undergone some cicatricial contraction, the ureteral dilatation and pyelitis were much more marked on this side owing to the urinary stasis. On the right side a freely patent ureteral opening had prevented to a considerable extent the ascending infection (Fig. 14).

The position, then, seems to be that pathogenic organisms reach the urine by way of the blood stream *and* by way of the urinary tract, but local symptoms of urinary infection do not occur unless there be some temporary arrest of the normal flow of urine, and this occurs more quickly in the case of ascending than in descending infections. The real question is as to the relative frequency of these two routes of invasion, and whether it is possible to determine the actual route followed by the organisms in any particular case. It is, of course, obvious that when organisms like the pneumococcus or *Staphylococcus aureus* (which are not likely to cause urethral contamination) are being excreted in the urine in cases of generalized infection the route is probably the blood stream, but when the infection is due to the *Bacillus coli*, then the question of the route of the invasion becomes one of practical importance.

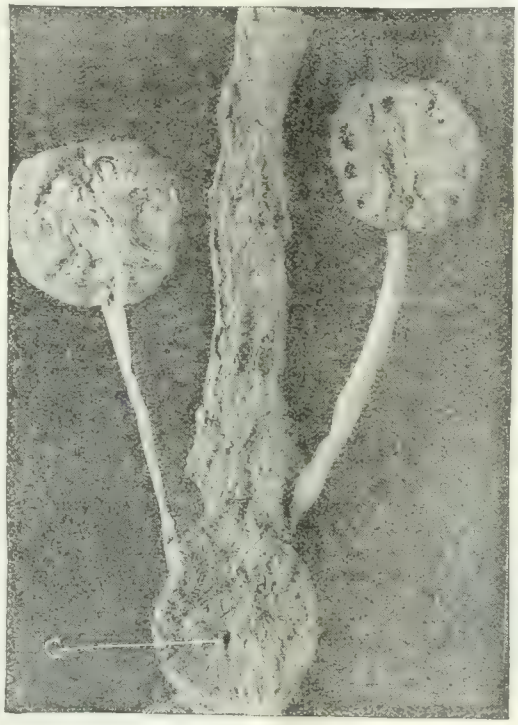


Fig. 14.—Rectum (laid open from behind). Kidneys and transplanted ureters from a case of extroverted bladder. Operation two years before. A, Right kidney healthy. B, Left kidney cystic; strictured opening of ureter. C, Patent opening of ureter.

It will, I think, be found that when organisms are found in the urine which have been excreted by the kidneys they produce symptoms and effects which differ from those produced by organisms which reach the renal pelvis by way of the urinary tract. In the former case urinary symptoms are often absent, and if the kidney is affected, it is affected, in common with other organs, as part of a blood change, of which some other evidence may often be found, or some other primary focus may be detected in some other part of the body; but in the latter case the local urinary symptoms afford the first indications in many cases of any departure from health. The effect of an autogenous vaccine is more marked in relieving symptoms than in removing the organism from the urine in ascending than in descending infections of the urinary tract. It is, for instance, well known that it is much easier to relieve the symptoms in a case of pyelitis of *coli* origin than to remove all the bacilli from the urine. If the *Bacillus coli* persists in the urine in spite of the influence of a vaccine, this must mean that the organism has become adapted to its environment, that it is able to multiply in the renal epithelium or in the urine or the mucus which fills the ureter and the pelvis of the kidney. The fact that the organism is able to grow and multiply outside the tissues of the body itself suggests a mucous rather than a haematogenous origin for the infection. If vaccine treatment rapidly and permanently removes any organism from the urine, this fact affords a presumption, but not a certainty, that some primary focus of infection exists in another mucous membrane, or in some other part of the body, and consequently that the organism is reaching the urine by way of the kidney and the blood stream. The clinical differences in the two cases depend on the fact that in ascending infections the organism is primarily adapted to a urinous environment, while in descending infections it is primarily adapted to a blood stream or a mucous environment of another kind. We do not know fully the extent to which the increased resistance acquired by the blood and tissues as the result of infection are handed over to the secretions, how far, that is to say, the mucus, the urine, or the milk of a patient suffering from typhoid fever contain the bactericidal and immunizing substances specific to that disease.

Dr. Eyre[28] states that the *Bacillus coli* in the urine undergoes changes in fermentation-producing capacity after a patient has been treated by vaccine. The extent of this adaptive capacity may prove to be greater in the case of bacilli which are living and multiplying in the urine than in bacilli which are being excreted by the kidney from the blood.

I have already alluded to the great importance of mucus as a secretion. The rôle played by mucus as a first line of defence against invasion of the body by micro-organisms has not, I think, been sufficiently recognized by pathologists. There are, as far as I am aware, no recorded observations showing to what extent, if any, the mucus secreted by the epithelium of the urinary tract of patients who have undergone a course of autogenous vaccination against *coli* infection is capable of inhibiting the growth of the *Bacillus coli* in various culture media. Neither do we know whether mucus secreted by intestinal epithelium is injurious to the epithelial cells which line the bladder, nor do we know whether salivary mucus (which, as we have seen, is of two kinds in some birds) has any cytolytic action on the epithelium which lines other cavities beside the mouth and gullet.

Before leaving the subject of genital urinary infection, we may draw attention to the fact that veterinary surgeons seem to attach considerable importance to the mucous channels as the chief route of infection in pyelitis in animals. The infectious disease known as pyelonephritis of horses and cattle is more frequent in female than in male animals; moreover the organism can apparently traverse the bladder without causing symptoms of cystitis (Moussu and Dolar).[29]

EPITHELIAL SECRETING ORGANS.

The Mammary Gland.

Infective diseases of the mammary gland are well known in animals and in the human subject. They are for the most part localized and affect one or more lobules of the same gland; this is the case in the infective disease of the udder in cows known as "Garget" and in the abscesses which accompany lactation in women. The probability is that these localized infections of the mammary glands are due to the passage of micro-organisms up the lacteal ducts. If we can show that foreign particles are conveyed from the orifices of the ducts which open on the nipple to the deeper recesses of the gland, a case is made out for the transference of pathogenic organisms along the same route. One such experiment on the cow's udder is of interest in this connexion. Some powdered indigo was inserted into the opening of the main lacteal ducts in the teat of a nulliparous heifer; a microscopical examination of the mammary gland, when the cow was killed a few days later, showed a few indigo granules in two or three acini and in one small lacteal duct. It is quite true that most of the ducts were clear of foreign particles and only a very few indigo granules were present in the whole

gland, but the resting quiescent gland is very different from the lactating gland; the conditions are far more favourable in the lactating gland for the establishment of to-and-fro secretion of mucous currents.

The two common diseases of milking cows—garget and milk fever—are both of interest from our present point of view. Both occur almost entirely in animals in which the udder is physiologically active; milk fever frequently occurs within a day or two of calving. Both are more common in the hot summer months. It is possible that besides infection from the hands of milkmen and dirty litter, flies may take some share in conveying to the orifices of the lacteal ducts the streptococcus which has been shown by Nocard and others to be the cause of contagious mammitis in cows. The first effect of infection of the udder by this organism is to bring about coagulation of the milk in the teats and larger ducts, milk stasis thus occurs, and the conditions arise which favour backward currents and the transference of the organism to the recesses of the gland.

Milk fever, or *post-partum* paralysis, or parturient apoplexy in cows is generally regarded (since Schmidt's work) as due to a toxaemia having its origin in the mammary gland. The fact that the local injection of solution of potassium iodide and air, or of oxygen alone, into the galactophorous ducts frequently produces rapid recovery affords some confirmation of this view, and it is quite possible that this serious disease of the dairy farm may eventually be traced to an infection which reaches the mammary gland through the mucous channels of the lacteal ducts.

In the human subject I have found indigo granules on a plug of white sterile gauze introduced into the cavity of a mammary abscess after the application of indigo to the nipple. In this case a fistula had resulted from the opening of the abscess, and thus a reversed mucous current up the lacteal duct had probably been established (Fig. 15).

The question arises whether reabsorption of milk occurs in the deeper recesses of the mammary gland during the quiescent periods between the flow of milk, and, if reabsorption does occur, whether it occurs through the medium of the epithelial cells or through the lymphatics of the gland. It seems probable that in cases of biliary obstruction the bile is reabsorbed into the blood through the biliary lymphatics and not through the epithelial liver cells.

If reabsorption of normal secretion does occur in glandular organs during the intervals between periods of activity, then such reabsorption taking place in the acini of the gland would act like a fistula and produce reversed currents along the ducts, and that transference of non-motile particles which we know from experiment does occur in cases in which no fistulous communication exists.

Supposing, however, that reabsorption of secretion does not usually or normally occur, there are many abnormal conditions apart from actual disease which bring about arrest of secretory activity in glands. The influence of strong emotion, and many chemical substances, foods, and drugs, will produce this result. The influence of these sudden arrests of secretion in causing stasis and back currents in the mucous canal system of any large secreting organ must have very considerable influence in favouring the entry of micro-organisms, and in bringing about infections which are hard to account for in any other way.

Before leaving the subject of the breast we may notice in passing the widespread habit in the young of many animals to stimulate the mammary secretion in the mother by mechanical means. Lambs and calves violently punch the udder with their noses, kittens knead the mammae with their paws, and infants knead the breast with their hands. No doubt the object of these movements is to stimulate or increase the flow of milk, but in addition to this their physiological effect they may also cause back eddies in the flow of secretion which may have some influence in bringing about infection. The facts about mucous currents and mucous infection which concern the mammary gland apply also to other epithelial secreting organs, such as the pancreas and the salivary glands, and, indeed, to any collection of glandular epithelial cells which communicate with the exterior by means of a mucous duct. It is a significant fact that apart from the specific form of parotitis or mumps, suppurative infections of the parotid seem to occur chiefly in such illnesses as are associated with partial or complete arrest of salivary secretion and with a dry and septic condition of the mouth.

Salivary stasis and the presence of pathogenic organisms in the vicinity of the buccal orifice of Stenson's duct provide the two conditions which favour the upward passage of infecting material along this mucous canal. I have recovered indigo granules from the orifice of a salivary fistula after previously placing some indigo powder in the mouth. It is difficult to understand why the parotid glands should suffer from infection more than the submaxillary if we suppose that the infection reaches the gland by way of the blood stream. If, however, the infection travels up the duct, then the fact that the parotid ducts open high up on the inside of the cheek and the submaxillary ducts low down on the floor of the mouth beneath the tongue may have something to do with the greater liability to infection of the parotid glands, for drying of the mucous membrane in the neighbourhood of the opening of the duct and blocking of secretion is more liable to occur in the former than in the latter. Other interesting questions also arise in the case of mumps. Is the orchitis which sometimes occurs as a sequela the result of a blood infection or is the specific organism excreted by the kidney, and does it reach the testis by way of the vas deferens? The body and not the epididymis is the part of the organ attacked, and this suggests that the infection travels by way of the blood stream, and the same may be true in those rarer cases in which the pancreas shares in the specific infection.

CONCLUSION.

In bringing to a close these remarks on the mucous channels and the blood stream as alternative routes of invasion, I wish to emphasize the fact that, apart from the importance of obtaining clinical and bacteriological information concerning the path traversed by pathogenic organisms when they infect the tissues of the body, certain problems in immunity are also intimately related to this question of the route of invasion.

I have given reasons for thinking that, when an organism like the *Bacillus coli* reaches the pelvis of the kidney by ascending the urinary tract, it produces symptoms and effects which differ from those produced by the same organism when it reaches the kidney by way of the blood stream. I have also suggested that these differences depend on the fact that the organism is undergoing adaptation to a mucous and urinary environment in the one case and a blood or lymphatic stream environment in the other.

In many ways, therefore, this subject of the route of invasion by disease organisms is one of considerable interest.

REFERENCES.

1 Makins, Wallace, and Sargent: *Lancet*, 1912.
2 Lane and others: Debate on Intestinal Stasis, Medical Society of London, *Lancet*, December, 1912.
3 Wilkie: BRITISH MEDICAL JOURNAL, November 9th, 1912.
4 Arbuthnot Lane: Congress of North American Surgeons, New York, November, 1912.
5 O. Williams: Excretory Function of Intestine, BRITISH MEDICAL JOURNAL, November 9th, 1912.
6 Lartigau: *Trans. N.Y. Acad. Med.*, 1902.
7 W. Mayo: St. Mary's Clinic Coll. Papers, 1911.
8 Bond: Address in Surgery, BRITISH MEDICAL JOURNAL, July, 1905.
9 Schottmüller: *Jahrskurse für ärztlich Fortbildung*, October, 1912.
10 Ledingham and Arkwright: *Carriers of Disease*, 1912.
11 Opie: *Diseases of the Pancreas*, 1903.
12 Halstead: *Bull. Johns Hopkins Hosp.*, 1901.
13 Flexner: Contributions dedicated to Welch, 1901.
14 Nothnagel: BRITISH MEDICAL JOURNAL, July 9th, 1910.
15 Bond: On Fallopian Menstruation, BRITISH MEDICAL JOURNAL, July, 1898.
16 Sippel: *Deut. med. Woch.*, June 13th, 1909.
17 Wildbolz: *Correspond.-Blatt. für schweizer Aerzte*, 1909.
18 Bond: Introduction to discussion on Septic Peritonitis, BRITISH MEDICAL JOURNAL, December 15th, 1906.
19 Rovsing: *Annals of Surgery*, 1912.
20 Hale White: *Lancet*, November 2nd, 1912.
21 Barnard: *Lancet*, October 27th, 1905.
22 Lenhartz: *Muench. med. Wooh.*, April 16th, 1907.
23 C. Box: On Certain Bacterial Infections of the Urinary Tract in Childhood, *Lancet*, January 11th, 1908.
24 Bond: BRITISH MEDICAL JOURNAL, December 7th, 1907.
25 Paton and Tidy: *Lancet*, November 30th, 1912.
26 Hale White: *Lancet*, November 2nd, 1912.
27 Bond: Extroversion of the Bladder, BRITISH MEDICAL JOURNAL, May 19th, 1906.
28 Eyre: *Lancet*, November 2nd, 1912.
29 Moussu and Dolar: *Diseases of Cattle*, p. 534.

The Arris and Gale Lectures

ON

THE GENITAL FUNCTIONS OF THE DUCTLESS GLANDS IN THE FEMALE.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS ON MARCH 10TH AND 12TH, 1913,

BY

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[*Abstract.*]

LECTURE I.

INTRODUCTION.

ANY attempt to describe the special correlated functions of the ductless glands, or, to be more exact, of the internal secretions, appears to be avoided by those who have worked most at the subject. Correlations are admitted; points in support of them are produced, and the matter is then dropped. In many ways this is much to be deplored, for, to some extent, it is accountable for the present disordered condition of our knowledge.

I do not wish it to be inferred from these remarks that I am in any way prepared to give in these lectures a complete explanation of the interactions of the ductless glands in regard to the genital functions. It would be impossible in the time at my disposal, even had I the knowledge, which I certainly have not. I do, however, wish to call attention to the fact that the genital functions in the female must be considered from a very wide standpoint in view of our accumulated knowledge concerning them. I shall deal most fully with those parts of the subject on which I have myself worked, and I shall bring forward experimental results to clear up some of the points at issue.

My endeavour will be to emphasize, if I can, the importance of all the internal secretions in the special economy of the female. So that those who are interested in gynaecology may come, if they have not already done so, to look upon all the ductless glands as genital glands—not, of course, exclusively so, nor all in the same way in a metabolic sense, but rather that each is absolutely indispensable to the harmony of the genital functions, which are, therefore, not solely dependent on the functional activity of the special genital gland.

Until recent years attention centred round the ovary, as if it were the only controlling factor in the genital processes. I shall, therefore, first consider the functions of this organ.

THE FUNCTIONS OF THE OVARY.

These are: To provide ova, and to produce an internal secretion or secretions. We need not consider further the liberation of the ova.

The internal secretion of the ovary has never been isolated. Indeed, it is still a matter of considerable dispute as to how and where it is produced. The only evidence that there is an internal secretion rests upon the results of extirpation and destruction experiments, and, to a lesser degree, on clinical observations. The resulting atrophy of the uterus is taken to indicate the loss of some secretion which normally activates this organ.

Some believe that there is more than one secretion, and various authorities have considered that different secretions are produced by the lutein cells of the corpus luteum, by the interstitial cells of the stroma of the ovary and by the membrana granulosa cells; but that they differ in the degree of importance to be ascribed to each.

Prénant, and later Born and Fränkel, were probably the first to call attention to the importance of the lutein cells; and the last named showed that destruction of these cells led to abortion in pregnant rabbits. Hick and I, and many others, invariably produced abortion by the removal of both ovaries in these animals.

It has been supposed that the corpus luteum provides a secretion which assists in maintaining the position of the embedded ovum intact. Experiments on animals seem to support this view; but cases in the human subject are on record in which both ovaries have been removed during the first few weeks of pregnancy for such discrete tumours as fibromata, without interrupting the course of gestation. And herein lies one of the great difficulties in the study of our subject; different orders of mammals have organs of internal secretion which are structurally and even functionally different, although perhaps in degree only. Individuals in the same species may vary, both in animals and in man. Consequently, some of the contradictory statements made by different experimenters may be explained on the ground of these variations.

The interstitial cells of the ovary also are believed to possess a special internal secretion. Limon first compared the ovaries of many species of mammals, and found an enormous difference in the preponderance of interstitial cells in the different ovaries.

Every one is familiar with the structure of the human ovary and the obvious scarcity of secretory cells—apart from those connected with the follicles. But if we examine the ovary of an adult rabbit, or any other rodent, we see a most remarkable structure. The whole organ is composed of a mass of cells which are epithelioid in character. And still more remarkable is the appearance of the corpora lutea, the cells of which can only be distinguished, if at all, from the cells of the stroma by their larger size. The Graafian follicles are crowded round the periphery of the ovary as though pushed outwards.

From very close observation of the corpora lutea in all the stages of development I have come to the conclusion that they do not undergo involution in rodents as in the higher mammals, but that they ultimately form the so-called interstitial stroma cells. Often one can see the cells of the corpus luteum merging into the similar cells in the stroma of the ovary.

If we examine the ovaries of rabbits a few weeks old, we find them composed entirely of primordial ova and a few follicles, separated by bundles of connective tissue. There is an entire absence of interstitial cells. This also indicates the probability of the origin of these cells from corpora lutea, although it is possible that in the human ovary, and in the ovaries of animals which contain very few interstitial cells, these arise from the capsular epithelium, or possibly from special stroma cells. Thirdly, there are the Graafian follicles with their linings of membrana granulosa cells to which some attribute an internal secretion. In favour of this view I shall adduce some evidence later.

The question now arises whether we are justified in assuming that there is only one type of secretory cell in the ovary. If we were to put aside the liquor folliculi as an internal secretion, I do not think we should be wrong in assuming that the interstitial cells and the corpus luteum have the same function, especially if we believe that they are derived from the same source. In experimental investigations of the ovarian functions we have no means of separating the various parts of the ovary, and can, therefore, only estimate the total function.

My own experiments have been carried out on dogs, cats, and rabbits. As already stated, the ovaries of the carnivora resemble in structure the human ovary more closely than is the case with the ovaries of rodents. The methods of investigation have consisted in noting the effects of oöphorectomy on the pregnant and non-pregnant uterus, on the other ductless glands, and on the general metabolism of the body.

Effects of Oöphorectomy on the Genital Functions.

Hick and I pointed out some years ago that the effect of oöphorectomy on the non-pregnant uterus was to produce, first of all, atrophy of the muscular coats.

We concluded that the normal muscular contractions were abolished and atrophy supervened in the manner usual to muscles that are not utilized. This has been confirmed and accepted by Marshall and others. The total ovarian secretion exercises a somewhat remarkable experimental effect on the uterus. Hick and I found that when injected intravenously it caused contractions in the oestrous uterus of the rabbit, but inhibited the

contractions of the pregnant uterus. We were, however, not always been able to produce the latter result.

Recently I have investigated the important question whether the metabolic conditions of the body are materially altered by oöphorectomy, or not.

Effects of Oöphorectomy on the General Metabolism.

In the early part of last year I removed the ovaries of six cats which were kept for periods ranging from 139 to 251 days. The urine was collected and fully examined at frequent intervals both before and after operation.

It was found that the specific gravity was higher after operation than before in half the cases. This, of course, would lead us to expect a larger proportion of solids in the latter period of observation, and this was more or less borne out except in the case of one cat. Since there was some irregularity in the individual results, and we had a sufficient number of animals, an average estimation of all six cases was worked out. From this we drew our conclusions.

The calcium excretion was diminished by one half. The chlorides were slightly diminished. The phosphorus excretion was much increased, as was the total nitrogen and urea percentages. The ammonia was slightly increased. There was no real change in the ammonia coefficient.

Knowing as we do the marked changes in the nitrogen metabolism which normal animals undergo, we cannot look upon the changes recorded in regard to the nitrogen as of much importance.

The increased phosphorus excretion was somewhat curious in view of the definite decrease in the excretion of calcium.

I may, perhaps, be allowed to recapitulate a few other facts which afford evidence contributory to the view that the ovaries are concerned in promoting calcium excretion. During pregnancy and lactation the function of the ovaries is in abeyance in regard to menstruation, and at these times first the fetus and then the breasts utilize all the available calcium—indeed, the mother's tissues are sometimes drawn upon to her detriment.

With regard to the mammary secretion, although it is so intimately connected with the genital functions, I look upon it as of subsidiary importance. That is to say, the secretion of milk is produced by a special arrangement of the general metabolism in response to various hormones connected with the necessities of the occasion. In women there is sometimes no response.

I do not propose to discuss lactation in these lectures, since it is one of the side issues, and the metabolic processes connected with the production of milk are comparable with those which provide for the building up of the fetus in the uterus. It is a process with which all the ductless glands are directly or indirectly concerned.

Osteomalacia, about which I shall have more to say in the next lecture, has often been cured by the removal of the ovaries, and this result indicates a condition of calcium retention in the tissues. My experiments are therefore supported by clinical observations.

We know quite well, of course, that from a casual inspection of animals which have undergone oöphorectomy we can detect no outward change, except some degree of adiposity, yet apparently there is a constant metabolic disturbance in regard to the calcium retention and increased phosphorus excretion as shown by the urinary analyses.

On the other hand, we know well from our clinical experience that outward changes of a marked character may occur in women in whom an artificial menopause has been induced by oöphorectomy. At the same time it has been a matter of very lively speculation why one woman should suffer all manner of evils when her ovaries are removed, and another suffer very little.

And this is another reason why experimentation on animals has to be very carefully considered. The metabolism of women is much more easily disturbed than is that of the lower animals; and psychoses and neuroses which are not observed after oöphorectomy in the latter are often the source of the greatest distress in women.

But we shall see that, in addition to certain constant and positive results which are always reliable in regard to the metabolism, experimentation provides us with other most useful information, and this information is just that which we cannot obtain in our clinical work, although it may be at the bottom of many obscure phenomena. I refer to the effects produced on the other ductless glands by removal of the ovaries. No doubt the differences in the effects of oöphorectomy in women, just alluded to, are largely dependent upon the individual variations that we know exist with regard to the adjustments of the internal secretions, and are evidenced by the outward characteristics of adiposity and thinness, lethargy and brightness, and many other physical and psychical attributes. So that it is clear that if one woman be better adjusted than another against the removal of the ovarian secretion, she will show less signs of the menopause. Animals do not vary in the same way. They all seem to have a remarkable power of readjustment. But with the higher psychical evolution of woman it is not surprising that removal of the ovaries often causes a severe alteration of temperament.

It has been supposed that the changes that occur in other members of the ductless gland system after removal of one of their number are in some cases compensatory, and consequently that disturbances in the body metabolism may thus be made good or prevented.

Effects of Oöphorectomy on the Thyroid.

If one were to select any other order of mammal than the rodent one would come to the conclusion that any alteration in the functional activity of the thyroid after oöphorectomy was of little or no importance in so far as histological evidence was concerned. For instance, in the cat I have been unable to detect any material difference after oöphorectomy in the thyroid itself or in the parathyroid.

But if one compares the thyroid of a normal female rabbit with the thyroid of the same animal after removal of the ovaries, one sees a very different picture. The thyroid of the normal non-oestrous and non-pregnant female rabbit is not a very active organ in so far as the production of colloid is concerned. But after removal of the ovaries there is great distension of the vesicles, which are filled with colloid. Further, the colloid is seen to be basophile in character, staining blue with haematoxylin instead of pink with eosin, whereas the normal thyroid colloid is, of course, acidophile and stains with eosin.

Before attempting any explanation of the changes in the thyroid after oöphorectomy we must not forget that this organ in the pregnant rabbit shows a relatively great increase in the amount of colloid, but that it is then eosinophile in character.

It may safely be asserted that there is a considerable increase in functional activity of the thyroid of rodents after oöphorectomy.

Why the colloid should be basophile instead of eosinophile we can only conjecture. I have carefully considered the question of an artefact, but I think this must be rejected for many reasons, into which I need not enter here. We are, however, assisted in our attempt to arrive at a conclusion by observations made on the pituitary body, some of which will be referred to more fully later.

The normal colloidal secretion of the anterior lobe and pars intermedia of the pituitary is basophile, but under conditions of increased activity it is eosinophile. Further, like the thyroid, in a condition of greater hypophysial activity no colloid is formed, but the secretion is abstracted directly from eosinophile cells. In conditions of the greatest activity of all, as I shall show later, the secretion is directly abstracted by the blood or lymph from faintly staining basophile cells, that is, from the so-called chromophobe cells. There is, in fact, a cycle of events to be demonstrated in the hypophysis according to the needs of the moment.

It is probable, then, that the basophile colloid found in the rabbit's thyroid after oöphorectomy represents a storage secretion, which is formed to meet the altered conditions of metabolism, but which is not of a great degree of activity in this order of mammals.

As I have previously suggested, the inactive thyroid which is found in rodents is probably related to the very marked development of the interstitial cells in the ovaries of these animals; and, as a consequence, a marked reaction is produced in the thyroid of rodents by

oöphorectomy, and not to the same degree in other mammals, such as the carnivora.

Effects of Oöphorectomy on the Thymus.

Calzolari first showed that castration produced hypertrophy of the thymus. His experiments were carried out on rabbits.

No work has been done in regard to women, but eunuchs have been found to possess thymuses which have not undergone involution. It has also been noted by Marrasini and by Gellin that castration, after genital activity has been established, gives rise to enlargement of the thymus.

In my experiments on cats we found the thymus much larger after oöphorectomy than in the normal adult animal, and on section it appeared to resemble the normal gland in the active stage before puberty.

Effects of Oöphorectomy on the Pineal Gland.

I have personally made no observations of the pineal gland after oöphorectomy; indeed, very little physiological work has been done in this connexion.

Biach and Hulles published a paper last year, in which they gave the results of castration of male and female kittens a few weeks old. The animals were kept from seven to eight months. These investigators arrived at the conclusion that atrophy of the pineal gland occurred in all cases. Other observers have been able to find no changes in this organ.

Later on I shall consider the effect of pathological changes in the pineal on the genital functions.

Effects of Oöphorectomy on the Suprarenals.

I have examined many suprarenals after oöphorectomy in rabbits and cats, and have found that there appears to be a definite increase in the reticulated portion of the cortex, at the expense of the zona fasciculata. What the interpretation of this is I cannot say.

Clinical Observations of the Effects produced on the Thyroid by Ovarian Insufficiency in Women.

No experimental finding in regard to the interrelationship of the internal secretions can be considered of real or practical value unless it be supported by clinical evidence.

Indeed, it may be considered that experimental evidence concerning the functions of the ductless glands, which, as I have already pointed out, are subject to individual variations, is most useful in giving us a lead in the interpretation of those difficult cases with which we may be confronted, but are now beginning to understand more fully. This understanding has been brought about by dovetailing our experimental results into our clinical experiences. A brilliant example of what may be accomplished along these lines is afforded by Harvey Cushing's recent work on the pituitary body.

What evidence have we, then, of a clinical nature concerning the correlation of the thyroid and ovary, in the circumstances under discussion—that is, with ovarian insufficiency?

I have many times alluded, as have other writers, to the well-known enlargement of the thyroid in pregnancy. It is probable that normally this enlargement corresponds with that found after oöphorectomy, for in certain respects the ovary is quiescent during pregnancy. We know that this enlargement normally does not produce the signs associated with exophthalmic goître, but is, as I have already shown, due to excess of colloid material. At the same time I have known more than one case of Graves's disease commence during pregnancy.

It is probable, also, that the enlargement of the thyroid seen in girls during menstruation about puberty is due to the incomplete state of development of the ovaries, and histologically is the same in character as that occurring during pregnancy. I am not aware, however, that such a thyroid has ever been examined microscopically, for obvious reasons.

In addition to this we have other evidence of a pathological nature. No doubt many gynaecologists have had experiences similar to mine.

In one case, Mrs. J., aged 46, I removed both ovaries for cystic adenomata; on histological examination adenocarcinoma was found in a portion of one of the cysts, as is frequently the case when the patient is over 40 years of age. All went well for two months; then the patient developed slight enlargement of the thyroid. The condition passed rapidly into one of acute exophthalmic goître, from which the patient actually died within a year of the operation.

I have recently seen a most remarkable case which I believe to be unique.

G. R., aged 25, was referred to me by one of my medical colleagues at the Liverpool Royal Infirmary. She had been married for three years, and had had one child eleven months before she came under observation. The delivery was difficult and was effected with forceps. She was able to nurse the baby for a few weeks only, owing to deficient secretion of milk.

The patient presented herself with typical symptoms of early exophthalmic goître, and her pulse-rate was 150 per minute. She had never menstruated since her confinement, but had always been regular before she became pregnant—three to four days per mensem.

I found she had the somewhat rare condition of superinvolution of the uterus. The length of the uterine cavity measured under 2 in. The left ovary was palpable and apparently not atrophied.

Now, the pathology of superinvolution is not completely understood, but I think that there must sometimes be an insufficiency of ovarian secretion, even if it be not possible to recognize histological changes in the ovary by our present methods of investigation. At the same time, as we shall see later, insufficiency of other ductless glands may lead to the same condition.

In view of the facts recorded, I think it is amply proved that ovarian insufficiency leads to changes in the thyroid, which may either be of the type seen after experimental oöphorectomy—namely, colloid accumulation—or, more rarely, that represented by exophthalmic goître.

Until we know a little more of the relation of colloid secretion to the excessive secretion without colloid formation that occurs in exophthalmic goître, we cannot go into details concerning the exact pathological reactions that occur in the general metabolism. My own view is that it is the regulation of the calcium metabolism that is concerned in these changes. We have seen that oöphorectomy diminishes the output: and we know that the excretion is much increased in Graves's disease, so that this condition may represent a counter-effect to ovarian insufficiency. This at least seems obvious, although I am fully aware that the changes in the thyroid may be merely the gross representation of a number of most intricate changes connected with growth, reproduction, and the life of the individual in which all the ductless glands are concerned.

Effects of Oöphorectomy on the Pituitary Body.

The close relationship between the pituitary body and the genital system has long been recognized, and I have made a number of observations of the effect of oöphorectomy on this intracranial organ.

The interpretation of these observations necessitates the formulation of definite ideas as to what the changes observed may mean. We read of "hyperplasia" or of "increased activity" of the anterior lobe, which can convey little meaning to any one until we have decided what are the appearances associated with increased activity and the reverse in the pituitary body. So far as I know, tentative views only have been put forward, and no very decided statements have been given concerning this complex and interesting organ.

As every one knows, the pituitary consists of three parts: the pars anterior, the pars intermedia, and the pars nervosa.

To each of these various portions, or perhaps more especially to the pars anterior and to the pars posterior—which consists of the pars intermedia and pars nervosa—have been assigned different functions. Authorities are still very much in disagreement concerning them.

Thus we find that Harvey Cushing arrived at the definite conclusion, as the result of his experiments, that the anterior portion was largely concerned in the well-being of the genital organs and in the metabolism of the carbohydrates and of the bony skeleton. As the result of some, if I may say so, rather insufficient clinical observations, he completely changed his opinion, and now asserts that it is the posterior lobe which is responsible for the integrity of the genitalia, and for carbohydrate metabolism. Bernhard Fischer had previously propounded this view.

After careful consideration and observation I have come to the conclusion that we must look upon the pituitary body as *one organ*, and not two. In this way only can we

reconcile all the facts of experimentation and clinical observation.

The secretion of the active chromophobe cells of the anterior lobe, such as are seen in pregnancy, is probably not different from that of the pars intermedia. And I believe that the secretion of the cells of the pars intermedia, which are developmentally the same as those of the pars anterior, may be regarded as pro-infundibulin, and that when it passes into the pars nervosa it becomes modified and acquires pressor qualities. In connexion with this passage of secretion into the pars nervosa there are many very important and interesting facts which are not actually concerned with our subject, so I refrain from discussing them here.

Next we must come to some definite conclusion concerning the interpretation to be placed upon the remarkable differences in staining properties possessed by the cells of the anterior lobe.

Although these variations in staining affinities are well known, I must recapitulate them in order to explain my views concerning their meaning. The cells, then, of the anterior portion are chromophobe or chromophile—they stain indifferently or well. The chromophile cells are either eosinophile (acidophile) or haematoxylinophile (basophile). With eosin they stain red, and with haematoxylin blue. The chromophobe cells stain lightly with haematoxylin.

There are two opinions held concerning this extraordinary grouping. The one, first put forward by Saint Rémy and Benda, finds expression in the belief that these appearances represent different phases of secretory activity. While the other opinion, propounded by Gemelli, represents the idea that each type of cell has a special secretion. My own view coincides with the first suggestion, and after careful investigation I have come to the following conclusions regarding the cycle of events.

First, the eosinophile cells represent the actively secreting cells, which ordinarily discharge their secretion into the blood vessels or lymphatics. If there be no great demand for the secretion the cells may become basophile and enlarge. They gradually become darker until finally they discharge basophile colloid among the neighbouring cells, which may form a vesicle-like wall around it.

After the discharge of colloid we see the small shrunken chromophobe cells all with large nuclei in which a network of chromatin fibres can be seen.

In certain circumstances, as in pregnancy or after removal of the thyroid, there is a great and immediate demand for secretion. Under these conditions the small chromophobe cells regenerate into large chromophobe cells, and eosinophilia—a more leisurely process—does not occur to the usual extent. These chromophobe cells have been called "pregnancy cells," owing to their constant appearance in the pars anterior during pregnancy.

Finally, it must be mentioned that the pars intermedia secretes colloid—normally basophile in reaction, but in some circumstances, to be mentioned directly, eosinophile. The colloid, which is formed in the pars anterior and pars intermedia, is probably a storage secretion, like the colloid seen in the thyroid.

The more active method of secretion in both parts of the pituitary is intracellular. In the pars intermedia the cells swell up and become fused, and the secretion is, I believe, taken up straight away by the blood or lymph. Some of the secretion of the pars intermedia, and even the actual cells, pass directly into the pars nervosa, whence absorption occurs; and it is in the pars nervosa, in my opinion, that the pressor qualities of infundibulin are acquired.

To return from this digression. Removal of the ovaries appears to exert a certain influence over the secretory functions of the pituitary body on the lines indicated. But in my experience the change is moderate and not quite constant. Thus, in one experiment—Cat No. 6 of my ovarian removal series—after an interval of 210 days, there was no divergence from the normal to be recognized histologically.

I believe the effect is more or less temporary, and in no way comparable to the genital lesions seen after partial extirpation of the pituitary. In most of my cats, however, definite changes were found as long as 245 days after oöphorectomy. There was a large preponderance of eosinophile cells in the anterior portion. This shows activity, but not the great activity seen after thyroidectomy. In the pars intermedia the cells are fused, and there are colloid vesicles, and sometimes colloid cysts. This colloid stains with eosin, in contradistinction to the normal condition of basophilia.

It is interesting to note that the changes which occur in the pituitary with ovarian insufficiency are not comparable with those found in pregnancy; so that the relation of the pituitary body to the genital glands differs in this respect at least from the ovarian-thyroid relationship in similar circumstances.

Fichera, however, believes that the "hyperplasia and hypertrophy" that follows oöphorectomy resembles that seen in pregnancy. Accordingly he believes that the change in the anterior lobe in pregnancy is due to ovarian insufficiency. As already stated, I have seen nothing to lead me to adopt this view.

Clinical Observations of the Effects produced on the Pituitary by Ovarian Insufficiency in Women.

There is extremely little evidence of any absolute value in regard to this, partly owing to the inaccessible position of the pituitary body and partly owing to the few attempts that have been made to investigate any possible changes present.

As we have seen, there is a peculiar and active state produced in the pars anterior and pars intermedia in pregnancy, but our evidence does not lead us to suppose that this is due to ovarian insufficiency. It is probably concerned with the fetal metabolism, for, unlike thyroid enlargement, it appears to become more pronounced late in pregnancy.

The hemianopia that is sometimes seen during gestation has been attributed to the pressure produced by the enlargement of the pars anterior. And, in the increased secretion of this portion of the pituitary some have sought to find an explanation of the enlargement of the hands and lower part of the face, also sometimes noticed during the period of pregnancy. But there is no evidence I know of that goes to show that the enlargement is skeletal. Indeed it is usually merely a temporary thickening of the soft tissues, such as may be seen after oöphorectomy.

Again, because atrophy of the genital organs is associated with lesions of the pituitary, especially in the condition known as dystrophia adiposo-genitalis (Fröhlich), some authorities (Tandler, Gross, and others) have endeavoured to attribute the primary cause of the pituitary affection to the atrophy of the genital glands. But this is hardly to be believed on the present evidence at our disposal, and it is much more likely that the genital atrophy is subsequent to the pituitary lesion.

The facts I have brought forward in this lecture illustrate the influence of the ovaries on the uterus, on the general metabolism, and on the rest of the principal organs of internal secretion.

With regard to the influence of the ovary on the uterus, we have seen that to some extent the implantation of the fertilized ovum is assisted, possibly by the secretion of the corpus luteum. Further, the activity of the uterus is maintained and regular contractions promoted, probably by the secretion of the interstitial cells.

In the general metabolism the total ovarian secretion appears to promote the excretion of calcium and the retention of phosphorus. And lastly, total ovarian insufficiency arouses increased activity in all the remaining ductless glands.

THE third biennial congress of the Far Eastern Association of Tropical Medicine will be held in Saigon from November 8th to 15th next, under the presidency of Dr. Clarac, inspector of the sanitary and medical services of Indo-China. Papers offered will be classified for reading by a scientific committee, and it is hoped to receive contributions on protozoology and helminthology, on cholera, plague, leprosy and tuberculosis, on malarial and other tropical fevers, on beri-beri and dysentery, on obstetrical surgery and infantile diseases, and on climate and sanitation. Dr. M. L. R. Montel, medical officer to the Saigon municipality, is acting as secretary to the congress; the official language will be English, but papers may be read also in French or German. The subscription is 10s. 6d. (6 dollars, Saigon currency).

THE AESTHETICS OF MEDICINE.*

By

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It is curious to note how short-lived the memory of some evil things may be. When we suffer bereavement, time softens our sorrows and we come to look back with equanimity upon the anguish which we suffered at the time of disease or disaster and death, and only the happy memories associated with life remain. In the case of nations which have been at war the tragedies and calamities and anxieties incidental to the period of hostility after a time become mere matters of talk. The sense of reality which surrounded them at the time of their occurrence is lost and they are looked back upon without emotion. As in the case of all friendships which have been seriously broken and patched up again, scars of mistrust and of enmity remain on either side, and it is doubtful whether they can be effaced, at all events in the lifetime of a generation. Fortunately, however, these scars are not necessarily transmitted to the descendants of the previously hostile races; just as the children of disfigured parents are born without blemish, the old animosities become smoothed away and, an *entente cordiale* being established, nations which were formerly enemies may become fast friends. It is common knowledge that the lessons of a war are soon forgotten, all the enthusiasm which existed at the time of the war about having territorial regiments up to strength disappears, and instead of having to reject men because there is no room for them—the young manhood of the country lapses into its old condition of indifference and carelessness, and all kinds of schemes and projects have to be formulated and employed to encourage recruiting and to impress the necessity for training and readiness in case of emergency. Just as in the case of a war, the memory of a scourge which, passing over a country, kills thousands of people, soon goes: a decade passes, and the remembrances of the sore experiences become softened, and people having resumed their normal cheerfulness and optimism, think, if they do not say, "Sufficient unto the day is the evil thereof." A generation passes, and the new one regards the story of woe as a matter of historic interest, worrying no doubt their ancestors, but why trouble about a set of people whom they only knew by hearsay, or about a disease which is little likely to become epidemic again in view of all the precautions which the health authorities undertake to keep it in check? A nation's gratitude is often periodically revived by the celebration of the anniversaries of great historic battles and military events—for instance, by the keeping of Trafalgar days and Ladysmith days, and by the decoration of the statues of heroes and of regimental memorials, but I wonder how many people ever dream of what they owe to medicine, to the great generals who have come out victorious in the battles against disease and against the scourges to which I have referred. We never hear of any national or international rejoicings to celebrate the victories of men like Jenner and Lister, or of the numerous lesser lights, who have done more for this country and for humanity in general, and have covered themselves with more glory and honour than could have been attained by the carrying out of any great military operations. The one type of glory is always associated with destruction of life and health and with misery, privation, and international jealousy; the other is inseparable from what is universally benign and from factors which have to do with the salvation of life and health, and they are also inseparable from those bearing upon the subject which more immediately interests me at the moment, namely, the preservation of physical good looks and beauty. Just as disease has a destroying effect upon beauty, so medicine has exerted its influences in the way of its preservation. Deformity, using the word in its broadest sense, is almost invariably the result of disease, and when a person is deformed, whether in mind, feature, body or limb, his or her chances in life are lessened, sometimes on grounds of diminished physical utility, but not infrequently simply because beauty is an important asset, the admiration and appreciation of the beautiful being an inborn attribute of humanity. Medicine has done a great deal in the past to preserve good looks. Nowadays, for instance, we regard with some curiosity the face of a man or woman which is pitted by small-pox, and we truthfully ascribe it to some careless or foolish neglect of vaccination. Some of us, however, remember the time when a large proportion of the older people whom we knew in the days of our childhood were more or less scarred by that disease—those who were children in the early vaccination or prevaccination days, and who had run the gauntlet of the small-pox in their childhood. Everybody had to run the risk of it then, just as the children of to-day almost invariably get measles. After the Vaccination Acts small-pox became rare among children, and the scarred faces were mainly seen among the adults who had had it in the prevaccination days. That generation having passed away, their protected children grew up and took their places with unblemished faces, and we, the great-grandchildren of that scarred and pitted ancestry, are hardly able to realize the state of affairs which existed in the former days. The whole human world owes much of its retained facial beauty to Jenner, and we little appreciate to-day the number of people whose features have been saved and their good looks preserved through vaccination.

Disease has always taken an important place in history, fiction, philosophy, and poetry, and it is not surprising that the small-pox which raged periodically in the country should have figured largely in these branches. It was a factor which entered into everybody's calculations, because it spared no class of society, and was an important cause of death as well as of deformity. It was sometimes spoken of as a murderous disease. You will recollect that Mary, the wife of William of Orange, succumbed to it, and its importance on account of its fatality may be estimated by the fact that in comparatively recent times nobody would have been accepted for life insurance who had not either had the small-pox or been vaccinated, and to-day every insurance inquiry form requires information on this point.

We have an example of its introduction into fiction in Esther's narrative in *Bleak House*, where Dickens so graphically describes Esther's recovery from small-pox—her gradual restoration to health and the returning sight and strength; then the pathetic recognition that the room had been changed; the looking-glass gone; how Charley, when Esther asked about it, "making as if she had forgotten something, went into the next room and was heard to sob there." Then the bravery of Esther when she realized that her beauty had gone for ever, and that the course of her life was thereby possibly changed for ever.

This change from beauty has been the almost invariable theme of the novelist and of the philosopher in connexion with small-pox; the latter, at all events, has made it the circumstance whereby some finer qualities of mind were eventually developed or brought out. This is exemplified in the "Consolation Offered to a Beauty Destroyed by the Small-pox," written by Steele in the *Spectator* dated Wednesday, February 20th, 1711—just over two hundred years ago. Parthenissa has written a letter in which she says "This face which (according to many epistles which I have by me) was the seat of all that was beautiful in woman, is now disfigured with scars." Steele first of all reproves her for having thought so much of her beauty, and then proceeds to comfort her by saying that beauties generally speaking are the most impertinent and disagreeable of women. He says:

> Ask any of the husbands of great beauties, and they will tell you that they hate their wives nine hours out of every day they pass together. . . . They pray at public devotions as they are beauties—they converse on ordinary occasions as they are beauties. Ask Belinda what it is o'clock, and she is at a stand whether so great a beauty should answer you. In a word, I think, instead of offering to administer consolation to Parthenissa, I should congratulate her on her metamorphosis; and, however she may think she was not the least insolent in the prosperity of her charms, she was enough so to find she may make herself a much more agreeable person in her present adversity. . . . Good nature will always supply the absence of beauty, but beauty cannot long supply the absence of good nature.

Steele's consolation was very well in its way for one

* Read at the Liverpool Medical Institution, May 2nd, 1912.

who, having possessed beauty, had lost it, but I am sure that all will agree that beauty and insolence are not so inseparable, and that good qualities are sufficiently often associated with goodly appearances to make their retention well worth while. I doubt very much whether loss of beauty would always have the effect of removing or abating disagreeable points in character; indeed, it is probable that it might sour the temper. It is proverbial, for instance, that the hunchback tends to be an ill-tempered and disagreeable type of person.

So much for the small-pox. Let us be thankful that it no longer disfigures us as a nation, and let us pray and hope that no foolhardy measures will ever make it optional whether our children be protected from it or not. There is no greater danger to the people than the anti-vaccination agitator, for we owe it to our children that their good looks as well as their lives be preserved, even if the law insists upon it.

Apart altogether from epidemic diseases such as the one just referred to, there are a large number of other conditions which affect the child and lead to lasting structural defects of one kind or another. These, if they do not give rise to actual physical deformity, occasion more or less chronic ill health which, in itself, detracts from what would have been normal physical and mental character. Beauty is a corollary of health, and health is the expression of physiological perfection and fitness. During the past thirty years public opinion has undergone a most extraordinary change with reference to the importance which is to be attached to the proper care of the child. The time was when the young and inexperienced doctor was thought to be good enough to look after the children of a household, and they were also sent to less expensive dentists than those employed for the grown-ups. By degrees it has become realized that many of the chronic troubles of men and women—indeed, one may say a great deal of their lack of capacity for undertaking the duties of life—have resulted from ignorance concerning the care which might have been accorded to them during their childhood. It was an appreciation of this fact among others which led to the establishment of the Royal Liverpool Country Hospital for Children, which has done and is doing so much to grapple with those troubles which give rise to permanent crippling and ill health, and the same principle has, no doubt, led to the establishment of all of those school clinics and medical inspections which are becoming an essential part of the administration of every child's life. Every one will agree that a person who is normally good looking, whether child or adult, loses his or her attractiveness when the normal curves and lines of beauty are disturbed by disease. I shall presently refer to some of the ways in which nutritional disturbances and the misuse or disuse of physiological function give rise to changes which detract from beauty; but, in addition to these, there are a large number of ailments more especially affecting children which not only immediately influence their appearances but give rise to lasting defects and deformities. Apart altogether from its aesthetic aspects, there are in this connexion few questions in social economics which are more worthy of attention than the care and treatment of the child. If taken early enough, its disease may be arrested before much damage has been effected; and, on the other hand, even if organic changes have taken place, by suitable treatment crippling and deformity may be minimized, and the less the amount of crippling the greater will be the wage-earning capacity of the future man or woman, and the less will he or she be likely to drift into the workhouse, or to become indigent and dependent upon charity. On this account, if for no other reason, the subject is important. At the moment, however, I cannot deal with this aspect of the question, my purpose being simply to speak of the influences which have to do with the preservation of beauty.

Civilization is a factor which is no doubt responsible for some of the defects and deformities to which I shall presently refer. In the lower animals instinct forms a guide which leads them to functionate naturally, but in our case instinct has been lost, and our methods of bringing up the child are so artificial that structural changes take place simply from want of proper regard for the carrying out of physiological principles. Nature, while resenting overwork, requires, nevertheless, the exercise of function for the maintenance of physiological soundness, and habitual desuetude engenders atrophy, and atrophy may in its turn lead to loss of vitality and consequent disease.

For many years I have been interested in the condition of the teeth of children, and there is no part of the body to which the above statements are more apposite, and since the teeth are so essential to goodly appearance and to the well-being of the individual, I propose to say a few words concerning them.

When visiting the museum of the Royal College of Surgeons in London a year ago, I was privileged to attend a demonstration by Professor Keith, who, among other things, showed us the celebrated Gibraltar skull, which is said to be 500,000 years old. One of the points which struck me concerning it was the regularity of the teeth and the straightness with which they were set up in the jaws. This is a characteristic which is noticeable in most of the skulls of primitive people whether they be those of children or of adults, and if we examine the teeth of the uncivilized races of to-day, those who live on more or less primitive lines, we find that the same principle holds good—namely, that they have good and regular teeth just as in the case of the lower animals whose teeth so comparatively seldom depart from the normal. They are squarely set in the jaws, the molars meeting crown to crown and articulating well when the jaws are closed. How does this compare with what we find in our modern civilization? Why, in nearly every child which has completed its second dentition we find that the molars, and especially the lower ones, have tumbled in towards the middle line, so that when the jaws are closed the outer edges of the crowns alone come in contact and the grinding surfaces never come near each other. It is not uncommon to find this deformity so excessive that the crowns of the upper teeth actually overlap and articulate with the outer surfaces of the lower ones, in which event decay is nearly always very marked.

I will guarantee that nine out of every ten children whom we examine present this deformity to a greater or less extent, and in many cases the incisors are similarly affected. Professor Keith has been kind enough to confirm what I have said as to the regularity and straightness of the teeth in the Gibraltar skull, and he has also informed me that this "edge to edge" or "overlapping bite . . . only became common some centuries after the arrival of the Anglo-Saxons." Associated with this deformity in the teeth is a loss of vitality in them and the consequent infective necrosis which so often begins in the six-year-old molar and then spreads to other teeth. When a person has a beautiful set of teeth free from decay, you will nearly always find that they are squarely set and with regularly opposing crowns. In old people who have retained their teeth this characteristic is almost invariably present; for instance, in an old lady of my acquaintance aged 94 who has never lost a tooth in her life, every upper molar articulates perfectly with its opposing fellow, and the axes of the teeth are quite perpendicular. Now, what is the meaning of this deformity? It is not due to rickets—of this I am satisfied because I have so often seen it in children who have never had a sign of that disease. It does not generally occur in the milk teeth, which are often quite good and regular as compared with the permanent ones which succeed them, and it would, therefore, seem to have something to do with the permanent ones or with the alveolar structures in which they grow during their period of development. Desuetude, atrophy, deformity, decay; that is the order of events, and why does it occur so commonly in the civilized child? Simply, I believe, because we do not give its grinders anything to do. Endless trouble is taken to educate mothers and those having the care of infants as to how babies should be fed. Our corporations introduce milk dispensaries, and there are other private philanthropics which take pains to teach mothers all about the feeding of their infants in such a way as not to violate physiological principles, and during the period of infancy, if these instructions are carried out, we get corresponding health, peace, and quietness. Then comes the period of early childhood, and we straightway forget that there are principles equally important to be observed then. A perverted instinct leads us in our mistaken kindness to forget the necessity for the exercise of physiological function, and we provide the child with every description

of softened starch, ground-up oatmeal, and other easily swallowed products (many of them even patented as being easily taken by a child) which go down with a gulp. We are under the impression, perhaps, that they are rendered more digestible by the softening process; the teeth are saved all trouble, no mastication is required of them, and correspondingly little salivation takes place, which incidentally accounts in a measure for the common amyloid dyspepsias of children. What wonder is there that the jaws atrophy and that the coming and developing teeth, which are no doubt influenced by the treatment accorded to their predecessors, as well as that to which they are themselves subjected, atrophy from desuetude, topple over, and become easy victims to caries? Thus it will be observed that I associate this dental deformity and subsequent decay, and the starch indigestions, too, which are so common during childhood, with lack of function, and would advocate for its prevention the use of starchy foods which require to be thoroughly chewed and masticated if we are to preserve the teeth in a condition of beauty and soundness. These observations are not based upon mere theoretical grounds, but upon lessons learnt in connexion with inspections of industrial and reformatory schools which I have carried out from time to time. It is a notable circumstance that on the school ships, where the boys are fed upon the traditional ship's biscuits, this type of deformity is not nearly so prevalent as it is among children of the shore schools who are fed on soft starches. For many years, at one of the latter institutions, by my advice, the boys have had these biscuits added to their rations, and there is not the slightest doubt that both the tooth troubles and the dyspepsias have diminished; and, furthermore, there seems to be some evidence that dental deformities which had already taken place have to some extent become corrected since the harder food has been given. I am quite enthusiastic as to this (in my opinion) essential factor in the feeding of children, if we are to preserve their teeth and their digestions.

This desuetude is not the only predisposing factor which has to do with the destruction of dental beauty, but it is one with which we are capable of dealing; and if people would only observe the necessity for exercising this common physiological function of the teeth, I feel convinced that not only the present health of the child would be preserved, but that many of those later troubles which are now known to result from dental caries, especially with reference to the digestive functions, might be prevented or mitigated.

Any nutritive disturbances in early childhood will interfere with the regular formation of the teeth, and will cause them to have a deficiency of enamel with thinning of the dentine. The bases of the teeth near to the gums may in such a case be thick and covered with enamel, whereas their bodies are thinned, discoloured, and deeply striated in a longitudinal direction with thickened transverse ridges, giving a very unwholesome and anything but beautiful appearance, more especially to the incisors. This type of trouble is often seen in cases of backward development or where there are congenital arrests of development, such as congenital heart disease, but they may also result from any prolonged illness, and even acute diseases such as pneumonia cause minor dental deformities. It is difficult to deal with this kind of trouble, but the possibility of an interference with the beauty of the teeth should act as an incentive to all parties concerned to shorten the course of chronic disease in early childhood with a view to the preservation of future good looks.

Endless trouble is taken by parents to avoid facial blemishes in their children, and medical men will adopt every measure to avoid operations on the face and neck which may leave ugly scars and marks; but we seldom regard constitutional disease in the young child from an aesthetic point of view, or think about the effects it may have upon its appearance in later life. In a disease like rickets, which causes immediate bony deformities of the limbs, the matter may be considered, but I doubt whether the remote effects are greatly thought about. Just think of the damage done to the features by this disease; how it deforms the brow and beaks the jaws, causing lasting changes in these visible parts, not to speak of the stunting of growth and other nutritional disturbances in the bones and muscles which it occasions. The lesson to be derived from all of these troubles is that not nearly enough attention is directed towards the education of mothers as to how their children should be fed and dealt with after as well as during the period of infancy. A war should be waged against rickets and against all the faults in hygiene to which I have referred, not only on account of their immediate effects, but also because they are destroyers of the beauty of our childhood and of that of the after manhood and womanhood.

While thus advocating a careful education concerning diet and hygiene with reference to their importance in maintaining normal structure, it is just a question whether in some respects we do not overdo the hunting out of congenital defects some of which might with advantage be left alone if we regard them from an aesthetic point of view. I was present at a meeting last winter at which a large number of girls from 8 to 17 years of age were present and took part in some drill and other kindred displays. I could not help wondering whether all of the large proportion of them which wore spectacles really required them. I confess that I dislike to see children in spectacles and would personally prefer that they should tolerate some of the minor degrees of ocular defect, providing they cause no inconvenience, rather than have their faces disfigured with glasses, and it is not only the face but the whole attitude of the child which becomes altered by them. It walks differently and it runs differently when it wears these correctors of visual defect. I imagine that some of the deformities of the eye may be something like those of the feet insomuch that every case may not need active attention. I regard with remorse the number of useful men and boys who are kept out of the services on account of flat feet, for instance, which is in many cases static and harmless, but which through being a technical flaw disqualifies the candidates. My experience of Volunteer and Territorial work has taught me this lesson, for one knows of plenty of men whose feet were flat as flat could be who have done long and trying marches without experiencing any inconvenience. So, with the eye, there are surely physiological or anatomical defects which cause little trouble and are compensated for by nature. I would go so far as to say that there are certain types of short-sightedness which rather add to the attractiveness of a girl, and if they cause no practical inconvenience or nervous disturbances, why interfere with them, and by mounting her in spectacles constitute a life-long disfigurement? On this account, I do hope that the enthusiasm of the school medical officers will not lead them to attempt to deal with every case which does not come up to a standard of visual perfection.

During a meeting of the workers of the Invalid Children's Association in Liverpool a number of the members visited the Royal Liverpool Country Hospital for Children at Heswall, an institution in which the patients are treated entirely in the open air. A lady whom I was taking round the wards exclaimed, "What handsome children you have in this part of the world!" and these children, although they are all of them suffering from diseases of one kind or another, certainly do look handsome, but this is not because they are more beautiful than other children; it is simply due to the fact that they are living in conditions which tend to bring out their good looks. The beauty of the child depends, like many other things appertaining to it, upon its environment. It fades when in unwholesome surroundings, where worry, improper feeding, unrest, and uncleanliness influence it on the one hand, and the unrefining influences of clamour, filth and degrading language, drunkenness and vice, exist on the other hand. I do not say that these conditions prevail in every case, but every sick child which is in poor circumstances is in an environment of unrest, using that term in a broad sense, which tells upon its nutrition and upon its nervous system, and the secret of the good looks of the children to which this lady referred is the fact that in the hospital these conditions of unrest are absent, and that the nutritional conditions are at their highest; the sunlight and the constant fresh air stimulate metabolism, with the result that they put on weight in an extraordinary way, the normal curves of beauty take the place of pinched and hard lines and of the bony prominences and angles which exist in any condition of wasting; the proportions which the various parts of the body normally bear to one another, so essential to grace

and perfection of conformity, become restored, with the result that many a child which appears to be plain when it comes to the hospital becomes positively good-looking in a very short time. Any painful disease or any condition of chronic disease alters the features perhaps permanently, and so do any conditions which cause irritability of temper, in itself a common enough symptom of disease, and the handsomeness of the children which was noted simply depended upon the fact that with improved health comes grace of posture and of action and of movement; beauty of expression and of colour; brightness of the eyes and alertness of mind—all characteristics of a well-conditioned and attractive child.

As I have already said, beauty is a corollary of health, and the restoration to health with the minimum amount of crippling or deformity—whether it be of lung, heart, abdominal organ, or of the limbs—involves an economy not only respecting the future wage-earning capacity of the individual, but it also enhances his chances of obtaining, as well as of retaining work. On this account, the early recognition and treatment of disease means not only a great advantage to the patients insomuch that they recover with less detriment to their appearances and capabilities, but also to the public, who provide the funds for maintaining the hospitals, and to the associations and institutions which undertake the care of invalid children, because, by getting the cases early the periods of treatment can often be shortened and the amount of expense in any given case is consequently lessened; last, but not least, it is an advantage to the taxpayer, who will certainly have to look after the child when it grows up if it is badly damaged. When the advanced cases present themselves, of course we have to look after them just as carefully, but they take longer to mend and the amount of deformity and of crippling which they sustain is likely to be correspondingly marked. Never, therefore, should we pass lightly over the case of a child which is showing early signs of invalidism, or because it does not appear to be seriously ill. If we could only get hold of these cases early and train such organizations as the Invalid Children's Associations to recognize them, and by bringing them under suitable treatment prevent the advance of their disorders, we might save an immense amount of suffering and of anxiety and of money, too, not to speak of the preservation of goodly appearance, which is such a valuable asset to the individual mainly concerned.

Much experience has now been gained by the treatment of diseased children in open-air wards, and there is not the slightest doubt that the processes of repair are greatly aided by the therapeutic influence of fresh air which is one of the most powerful allies of the doctor. It is remarkable that, like the processes of repair, those of growth are correspondingly stimulated by it. The cellular environment (which I have referred to in another paper) is improved, with the result that children who have been backward brighten up, and their mental activities improve *pari passu* with the restoration of their bodies. This fact indicates that it is not only the diseased child who should have this kind of treatment in the open air. There are thousands of children whose cellular environment is indifferent. The vitality of their cells is consequently lowered, and they are on the verge of disease. Advantage should be taken of these open-air methods of raising the cellular vitality and resistance for all of these. Every school should be a sanatorium, or, using the word in its proper sense, a preventorium, and with proper appliances such open-air class-rooms could be used both summer and winter with great advantage to the children both physically and mentally. At one of the industrial schools in Liverpool this system has, by my desire, been experimented with, and the teachers themselves have become convinced of the benefits which accrue from taking the children out of the closed schoolroom.

Do not let us regard the actually diseased child as the only one who is to reap the benefit of this beneficent measure. Liverpool has pioneered the method of treating diseased children in the splendid open-air hospital at Heswall, and it is earnestly to be hoped that other towns will follow her example, and that the principle of giving healthy children, and especially the indifferently healthy ones, the advantages of open-air education will become generally accepted. The results will manifest themselves not only in the improvement and maintenance of their healths and sharpening of their wits, but it will also be found that the spread of tuberculosis and of infectious diseases will be minimized, so that as a preventive measure it is to be recommended, if for no other reason.

The idea of open-air schools comes in very timely association with the improved sanitary conditions which have been carried out by our health authorities with reference to insanitary dwellings, and in connexion with it should come a vigorous educational campaign having for its object the teaching of the people that open air is as necessary for the child at home as it is elsewhere. The child is the most valuable possession of the nation. Much money is expended upon it, which is wasted if it becomes diseased or crippled, or if it dies, as so often happens just at the period when childhood terminates. Its educational birthright is recognized and provided for; but that equal claim which it has—to be brought up decently, to be protected from disease and deformity, and taught how to protect itself in the future, also needs to be regarded; and the factors which influence the cellular environment, of which fresh air is one of prime importance, must be remembered and duly utilized.

In conclusion, let me once more direct attention to the fact that beauty is a corollary of health, and just as the wiping out of small-pox has done so much to preserve the beauty of the race, in like manner attention to the treatment of those diseases which tend to promote permanent organic changes and deformities and cripplings, added to appropriate measures being taken for their prevention, will do much to further this aesthetic aspect of the work of the medical man, and of the work of those organizations which are doing such magnificent service in the way of helping suffering childhood.

HENOCH'S PURPURA WITH INTUSSUSCEPTION: LAPAROTOMY: RECOVERY.

BY

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THE occasional complication of a case of Henoch's purpura by the occurrence of an intussusception has been recognized for some years, yet the cases are of sufficient rarity to make the following worthy of record:

The patient, a boy aged 4, was brought to the out-patient department of the General Hospital by his mother; she stated that he had always been rather a delicate child with a poor appetite, and that for the last twelve months he had suffered from stomach-ache and frequent attacks of sickness. Three weeks before admission the attacks of abdominal pain and sickness became more noticeable, and were accompanied by a rash which appeared on the buttocks, and then spread to the limbs; the rash at first was definitely urticarial, the spots being raised above the surface and about the size of a shilling; these spots soon became haemorrhagic. On one occasion the mother noticed a small amount of blood in the motion. The rash faded, but fresh crops came out of a similar nature, the spots, however, being smaller. The child gradually improved, but at the end of three weeks, on the evening before admission, he had a sudden violent attack of abdominal pain, worse than anything he had ever experienced previously; he was sick, and almost immediately dark fluid blood was passed from the bowel. These symptoms of violent pain, sickness, and haemorrhage from the bowel continued intermittently throughout the night, but abated somewhat on the morning of admission. He was seen by his doctor six hours after the attack had started; examination of the abdomen, on the suspicion of an intussusception being present, failed to reveal a tumour.

On admission, twenty hours after the onset of pain, the child was pale and quiet, pulse 128, temperature normal; the belly was soft, and an irregular trilobed tumour could be felt lying somewhat transversely in the epigastrium, and apparently somewhat movable on respiration. Per rectum nothing could be felt; dark fluid blood, however, escaped on removing the finger from the bowel. The urine contained a light cloud of albumen, but gave no reaction to guaiacum. On the knees and ankles, and on the forearms, especially in the neighbourhood of the elbows, there was a slightly raised papular rash, some of the papules showing old haemorrhage.

Operation Immediately after Admission.

A median incision above the umbilicus revealed a large dark tumour lying more or less transversely across the abdomen; owing to the force with which the invaginated bowel had been thrust into the lumen of the colon, the latter had become bent on itself, giving the trilobed appearance which had been noticed on examination. The tumour was about 10 in. in length, and

the apex of the intussusception was in the upper part of the descending colon. The distal half of the swelling reduced quite easily; the proximal 4 in., however, required some twenty minutes' manipulation before the invaginated bowel could be freed, and in effecting this reduction the peritoneal coat of the ascending colon tore. This residual part of the tumour consisted of the ascending colon, containing the caput caeci, the appendix, and some 18 in. of the lower end of the ileum—these were expressed in turn. The appendix, caecum, and the ileum that had been involved in the intussusception showed extensive interstitial haemorrhage, and some inches of small bowel were black and apparently gangrenous. The part of the ileum above the obstructed portion was distended for some distance by dark blood-stained fluid lying in its lumen. The gangrenous portion of bowel, together with some inches on the proximal and distal sides of it, was excised, about 12 in. in all being removed, the open ends of the bowel crushed and turned in, and the continuity of the gut established by a lateral anastomosis between the ileum and the lower part of the ascending colon.

The patient suffered much from shock, and was very restless for the first forty-eight hours, but after that made satisfactory progress with the exception of some superficial suppuration in the wound.

The piece of bowel removed was the lowest 12 in. of the ileum; the portion next the ileo-caecal valve was gangrenous for some 4 or 5 in.; above this were two short segments, each about 2 in. long, with thickened walls, and separated by a portion of bowel quite normal in appearance. On section through the thickened segments it is seen that the bowel wall is infiltrated with blood, and measures nearly a quarter of an inch from the peritoneal to the mucous surface. Such interstitial haemorrhages are common in Henoch's purpura, and the lowest part of the ileum is a frequent site of election; it is probable that these localized haemorrhages are the usual cause of the intussusception that sometimes arises in the course of the disease.

Henoch[1] in 1874 collected a number of cases of purpura associated with vomiting, colic, and intestinal haemorrhage, and sometimes accompanied by effusion into and around the joints. Since his description this symptom group has been generally known by his name. Osler,[2] however, refers these cases into a larger class under the name of "erythema exudativum multiforme," including under this name cases presenting widely different manifestations in the skin, the viscera, and occasionally the joints. The skin lesions are polymorphic, and urticaria and purpura of all degrees of severity may be found. The visceral manifestations may take the form of gastro-intestinal crises, endocarditis, pericarditis, or acute nephritis; bleeding is common from the mucous surfaces of the nose, mouth, stomach, and bowel.

A feature of the disease is recurrence, and successive attacks may occur at intervals for many years. In these attacks one or other type of symptoms may predominate; thus, skin symptoms may be very slight or absent, with the presence of severe visceral manifestations. Such cases often present great diagnostic difficulties, until the onset of some skin or joint lesion or the history of their presence in previous attacks throws light on the deeper trouble.

Henoch's purpura presents a double problem to the surgeon. In the first place the attack often simulates an intussusception closely, and secondly, an intussusception may arise in the course of an attack of purpura.

The numerous operations that have been performed in cases of Henoch's purpura in the belief that an intussusception was present amply testify to the difficulties of a differential diagnosis. Such cases, for instance, are recorded by Burrows,[3] Sutherland,[4] and Fitzwilliams.[5]

The difficulty is especially likely to occur in those cases presenting little or no external manifestation of the purpuric condition. Such cases are by no means uncommon. In some a few purpuric spots may be found after careful search; in other cases, such as the one recorded by Theodore Fisher,[6] no skin lesion appeared from the beginning to the end of the case, which ended fatally.

Arthritis is frequently but not invariably found; it takes the form of an intra- or peri-articular effusion, and especially affects the tendon sheaths around the joints; the affected joint is swollen and tender, but may be but little painful on movement.

The symptoms of intermittent colicky pain—vomiting and blood per anum—are met with in both intussusception and Henoch's purpura, and there is really nothing distinctive about them which will help to differentiate the two conditions. The presence, however, of blood in the vomit is very suggestive, being very commonly present in Henoch's purpura, and never in my experience in intussusception.

The age of the patient may help to distinguish between the two conditions. Henoch's purpura may occur at all ages, but seems commonest in childhood; I can find no case recorded under the age of 3. Intussusception, on the other hand, in something like 70 per cent. of cases occurs in infants of under 12 months. In suspicious cases careful inquiry may elicit a past history of joint pains or swellings, of slight outbreaks of purpuric or urticarial eruption, the tendency to recurrence in one or other of its manifold forms being a most marked characteristic of Henoch's purpura.

An examination of the urine should not be omitted, and may show the presence of casts or a few red blood corpuscles in the purpuric cases. Out of eleven cases recorded by Osler, five showed evidence of nephritis of greater or less extent.

The local signs in the abdomen are of great importance in making a differential diagnosis. In intussusception during the first twenty-four hours the belly wall is commonly flaccid, mobile, and not tender in the intervals between the attacks of pain, becoming hard and fixed when the child writhes under an attack of colic. In Henoch's purpura the condition of the abdominal wall often presents exactly similar features; not infrequently, however, the belly is distended, tender, or rigid from the onset of the illness, a condition almost unknown in intussusception. Amongst the local signs of intussusception the presence of the characteristic sausage-shaped tumour, lying usually on the arc of a circle with its centre at the umbilicus, can generally be found. Cases in which an intussusception is suspected, but in which no tumour is felt, should always be examined with anaesthesia; under these circumstances, in my own experience, not more than one in twenty will fail to exhibit the typical tumour. A tumour may be present in Henoch's purpura, being caused by haemorrhage into the mesentery (Lett[7]), a coagulum lying in the lumen of the bowel (Fitzwilliams[5]), or a massive interstitial haemorrhage into the bowel wall (Grieg[8]); and though such tumours will usually lack the characteristic shape and feel of an intussusception tumour, yet it is evident that occasionally the similarity may be so great as to lead to laparotomy being performed, as in Grieg's case. To sum up: When purpuric manifestations in the skin or joints are absent, the most important points in making a differential diagnosis between the two conditions are a reliable history, a careful examination of the urine, and the presence or absence of the characteristic lump in the abdomen when examined, if necessary, under anaesthesia.

With regard to the second point, the onset of an intussusception in the course of an attack of Henoch's purpura such as occurred in the above case, several instances have been recorded, of which Lett's[7] is one of the most interesting. Here, after the successful reduction of one intussusception by operation, a second occurred four days later, leading to death of the patient. In numbers of cases haemorrhage has been demonstrated as present in the bowel wall in Henoch's purpura, usually in the lower end of the ileum. Whether this is always the cause of the intense colic is uncertain, but it seems probable. That it is the exciting cause of the intussusception in these cases there is little doubt—the tumour thus formed and the nodal interruption of the peristaltic wave that must be produced by the local paresis of the bowel wall would form just the conditions likely to produce an intussusception.

In the case I record above it is probable that the intussusception occurred with the onset of the violent pain twenty hours before operation; it is not likely that the bowel would have become so badly damaged in a shorter space of time, and although no lump was felt six hours after the onset of the pain I think it probable that invagination had already commenced, but the tumour could not be detected until it had reached a larger size. In this case the diagnosis was made easier, as the purpuric symptoms had subsided somewhat, so that the sudden access of pain followed by the presence of a lump when I saw the child, made diagnosis easy.

When, however, the acute colic of Henoch's purpura causes an intussusception to arise in the middle of an

attack, it is on the characteristic appearance of the tumour alone that a provisional diagnosis can be made, and Lett's dictum is that the appearance of this lump during an attack of Henoch's purpura resembling an intussusception justifies exploration. The discovery of an intussusception after death is a disaster, but it must not be forgotten, in considering the question of exploratory operation during an attack of purpura, that it is not without its especial risks: the wound may show a tendency to slough, or uncontrollable oozing may occur from it, and ultimately prove fatal, as in the case mentioned by Fitzwilliams.[5] The recognition of this liability to intussusception, the careful and frequent examination of the abdomen, and, if necessary, the administration of an anaesthetic if rigidity or distension of the abdomen make proper examination otherwise impossible, are the only means by which the condition will be recognized sufficiently early to render operation effectual.

I have to thank Mr. Gilbert Barling, into whose ward the patient was admitted, for permission to publish this case.

REFERENCES.
[1] Henoch, *Berl. klin. Woch.*, 1874. [2] Osler, *Amer. Journ. of Med. Sci.*, vol. cx, 1895. [3] Burrows, *Brit. Journ. of Child. Dis.*, p. 28, 1904. [4] Sutherland, *Brit. Journ. of Child. Dis.*, p. 25, 1904. [5] Fitzwilliams, Reports of the Society for the Study of Disease in Children, vol. viii, p. 320. [6] Fisher, *Brit. Journ. of Child. Dis.*, p. 97, 1904. [7] Lett, Reports of the Society for the Study of Disease in Children, vol. viii, p. 307. [8] Grieg, *Scot. Med. and Surg. Journ.*, April, 1908.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

HYSTERIA IN A LAD.

AT 11 a.m. one day a lad, aged 17, cut a piece of flesh (the size of a threepenny-piece) out of the inner side of the terminal phalanx of his left index finger when cutting off the leaves of a mangold with his pocket knife. The daughter of his employer washed the wound and dressed it with boracic ointment. He went on with his work, and appeared in his normal health during the afternoon. At 5 o'clock his employer found him leaning against the wall of his yard in a "fainting" condition. He helped him indoors and laid him on a couch.

I saw him at 7.30 p.m., and found him unconscious and very restless; the pulse was rapid and very weak; his extremities were cold. I could not get a clear history, and, thinking that he was suffering from loss of blood, I gave him a hypodermic injection of strychnine ($\frac{1}{60}$ grain) and applied hot bricks to his feet and axillae. His restlessness soon increased, and there began some violent clonic movements of his arms and legs, and twice he got into a position of slight opisthotonos. I then gave him a hypodermic injection of morphine ($\frac{1}{6}$ grain) and atropine ($\frac{1}{100}$ grain). The rigor-like movements continued, sometimes in one limb, sometimes in all. He would twist his body from one side to the other, so that he had to be prevented from falling off the couch. At no time did he have any tonic spasms. The pupils were rather dilated and reacted readily. Breathing was normal. He had not vomited, nor passed urine nor faeces, nor bitten his tongue. The temperature was 98.2°; the knee-jerks appeared normal. There was no mark nor contusion on his head nor was there any history of his having fallen down. The extremities soon became warm and the pulse full and strong.

At 11.30 p.m. he seemed much better and asked for a glass of milk, which he drank. In answer to inquiries, he said he felt quite well; his finger did not pain him, and he remembered nothing of his attack. At 2 a.m. he relapsed again and was, I am told, more violent in his movements. At 6 a.m. he became quite normal for twenty minutes, after which he relapsed again. At 10 a.m. he again became normal and walked across the room to the night-stool, where he passed about one pint of high coloured urine.

When I saw him at 11 a.m. he was again unconscious, with occasional clonic movements of the limbs and restless movements of the body. He often clutched his injured finger with the other hand. The lungs, heart, and abdomen appeared normal; the temperature was 98° F. and pulse 64. I dressed his finger again. It was looking very healthy.

For the next four days he was, for the most part, in this unconscious state, but woke up from time to time to ask for food. His bowels were open after castor oil, and he passed his urine only once a day. After the first day he could be partially roused if shouted at. The temperature varied from the first between 98° F. and 98.4° F., and the pulse never quickened above 80. Each attack grew less severe. On the fourth day of his illness, when his attendant was asleep in a chair, he got up and went into the next room to the night-stool. In his lucid moments he talked rationally, complained of nothing, and remembered nothing of his attacks. His finger healed rapidly, and on the sixth day he walked outside to a van and was driven home.

In appearance he was a healthy looking fellow. He had had no previous severe illness. His younger brother, however, I am told, is very nervous and faints if he cuts or scratches his finger. His parents are healthy, but quick tempered.

From the second day I considered his attacks to be functional and treated him by suggestion. I think the family history of nervous instability, the history of the case, and the absence of signs of any organic disease confirm my diagnosis.

RICHARD C. C. CLAY, M.R.C.S., L.R.C.P.
Fovant, Salisbury.

A CASE OF PETROL INTOXICATION.

THE minor effects of petrol fumes are well known—headache, sickness, giddiness, etc. These pass off quickly, and no bad result follows, but the following case nearly proved fatal.

P. S., aged 16, apprentice to a firm of electrical and motor engineers, was sent to clean out the pit of a private garage, the car being outside. He was called for to do something, and, not answering, was found crouched up in an angle of the pit. He was lifted out and laid in the open air, and shortly afterwards vomited violently, staggered up, seized the brush he had been using to sweep the pit, and was with difficulty prevented from continuing his work. He then became unconscious again, and was taken home (about two miles) in the car.

When I saw him, immediately on arrival, he was unconscious with shallow breathing, a weak, thready pulse, marked inward strabismus, and contracted pupils. No light reflex was present. His lips were a bright red and his cheeks flushed. He was cold and his teeth chattered, but there was no distinct rigor. The knee-jerks and other reactions were absent, nor had he any sensory reactions. His clothing smelt very strongly of petrol and his general condition was bad. The respirations, though shallow, were regular, and, as it was noticed that his pulse was slowly improving, artificial respiration was not used.

Three hours after being found he answered questions if aroused; he complained of intense headache and of a pain in his stomach. The reflexes were still absent, but the strabismus was not quite so marked. He also began to turn over and to adopt a sleepy expression and attitude. Throughout the night he slept well and quietly.

Next morning he could not remember much. He said something made him cough badly directly he stooped down in the pit. Then he thought he slipped and fell. He remembered being sick. I do not doubt that very little more of "the gas" would have been fatal. The time which elapsed between his going into the pit and being found cannot be accurately fixed, but, so far as can be judged, it was not more than about three minutes and a half at the outside.

Durham. SELBY W. PLUMMER.

THE late Dr. A. B. Duffin left net personalty £48,268.

MADAME DÉJERINE, Doctor of Medicine, has received the Cross of the Legion of Honour. This is, we understand, the first time the decoration has been given to a woman for distinction in science. Madame Déjerine is the wife of Professor Déjerine. She collaborated with her husband in the production of an important work on the anatomy of the nervous centres, and has pursued many independent researches in neurology.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

WEST SUFFOLK GENERAL HOSPITAL, BURY ST. EDMUNDS.

A CASE OF KAPOSI'S DISEASE.

(By J. R. HAYMAN, M.R.C.S., L.R.C.P., Resident Medical Officer.)

Kaposi's disease, or xeroderma pigmentosum, was first described by Kaposi in 1870. Since then about eighty cases have been recorded. The present instance of the disease was in a man, aged 27, who had worked as a farm labourer. His family history was good, and there was no consanguinity of his parents.

His brother, aged 30, suffered from freckles on the face for the last twenty years, but there was no tendency to ulceration.

The history given by the patient of his illness is as follows:

When 2 years old he had several fits, after which it was noticed that his skin became dark. Freckles then appeared on his face and the back of his hands. No further change took place until he was 10 years old, when he developed a cutaneous ulcer over the left lower eyelid and a second over the infraorbital region. He was taken to the West Suffolk General Hospital. The ulcers were curetted, and the one over the eyelid healed up completely but the other only slightly improved.

Since then he has been in this hospital on seven different occasions for periods varying from five weeks to three months. Ulceration occurred over the bridge of the nose, the right lower eyelid, the right tragus, and the depression between the angle of the jaw and right mastoid process and the lower lip. The treatment on each occasion was by curetting. In addition he was treated in 1907 with Finsen light and *x* rays. All the ulcers healed except one over the left maxilla, one over the right tragus, and one over the right half of the lower lip.

The patient was last admitted in October, 1912. Previous to this he had not been treated for five years. His condition on admission was as follows: There were freckles and deep pigmentation over the face, scalp, neck, back, the front of the legs, the outer side of the upper arms, the forearms, and the back of the hands. The freckles varied in colour from light brown to very dark. At places they were confluent. The skin over the back of the hands was warty and nodular, and that over the face gave a dry parchment-like sensation. A few scattered telangiectases were present in the pigmented area. There were three ulcers on the face, one over the left maxilla measuring 1⅝ by 1½ in. Part of this was raised and fungating, and part of it excavated; the edges were not everted. It was fixed to the maxilla, and could be felt on the inner side of the cheek. It had been present for twelve years. The second ulcer was situated on the right side of the lower lip, and had been present for nine years. It measured 1¼ by 1¼ in., and was excavated. The third ulcer was situated on the right tragus, and had been present for many years. It measured ¼ in. across, and was covered by a scab; it discharged a little clear serous fluid. None of the ulcers showed any tendency to bleed, and only the infraorbital wound gave rise to any pain. The ulcers appear to have commenced as small warts, which broke down and ulcerated. There was ectropion of the lower eyelids. The conjunctivae were deeply congested and adhesions were present between the ocular and palpebral portions at the lower fornices. Sight was not affected. The general health was good, and the patient took his food well. There was no evidence of any secondary infection. A simple blood count gave the following result: Erythrocytes 5,500,000, leucocytes 10,500, haemoglobin 95 per cent., haemoglobin index 1.1.

For the first two months after his last admission the patient was treated with *x* rays twice a week. Three minutes at each sitting was given to each of the three ulcers; a simple dressing was applied. Arsenic was given internally. The ulcer over the left maxilla decreased slightly, but neither of the other two were affected.

On December 14th, 1912, the patient was anaesthetized and the ulcers of the cheek and lip curetted. Three weeks later the ulcers had become much reduced in size, that on the cheek measuring ⅝ by ⅞ in. and that on the lip ⅞ by ⅜ in., but ulceration had commenced on the upper lip and was rapidly extending.

On February 9th, 1913, the patient was again operated on. The ulcers of the cheek, upper and lower lips, and on the tragus were thoroughly curetted. The ulcer on the tragus was found to extend ¼ in. deep and that of the lower lip to have perforated the cheek.

At the present time all the wounds have much improved. The ulcers of the tragus and of the upper lip have entirely healed. That over the left maxilla has become reduced in size to ⅜ by ¼ in., and that on the lower lip to ⅞ by ¼ in. Unfortunately a fresh ulcer has commenced on the right side of the upper lip, and this will be curetted later. At present there is every prospect of the ulcers healing, but the ultimate prognosis of the case is unfavourable.

I am indebted to Dr. Hinnell for kindly permitting me to report this case.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

SOUTHERN BRANCH: PORTSMOUTH DIVISION.

A CLINICAL meeting was held on March 5th, when Mr. BOSWORTH WRIGHT (Chairman) and twenty-one members were present.

Clinical Cases.

Dr. COLE-BAKER showed two cases of restoration of the nose by plastic operation, and also a case of dislocation of the scapula upwards and forwards, the origin of which was unknown. Dr. CRAWLEY showed a case of spastic nervous disease for diagnosis, a case of skin disease involving one side of the face, and a case of congenital total absence of the eyes, attributed by the mother to maternal impression. Dr. LEON showed a case of heart disease with multiple exostoses. Mr. RIDOUT showed three cases of frontal sinus empyema treated by a modification of Killian's operation.

Pathological Specimens.

Dr. BANKART showed hairs from a case of monilethrix, and read a communication on the pathology of the disease. Dr. KEY and Dr. LISTER WRIGHT showed specimens of salivary calculus. Mr. CHILDE showed a specimen of myeloid sarcoma of the left parietal bone, in which the gap in the dura mater left after removal of the tumour was filled by fascia lata taken from the thigh; he showed also a prostate removed from a patient aged 81 after thirty years of catheter life without aseptic precautions and without cystitis.

GLOUCESTERSHIRE BRANCH.

A GENERAL meeting of the Gloucestershire Branch was held at the Royal Infirmary, Gloucester, on March 20th, when the PRESIDENT was in the chair and sixteen members were present.

Cases.

Mr. FIRMIN CUTHBERT showed two cases after operation for talipes and acute osteomyelitis of the tibia respectively. Dr. FINLAY showed a case of progressive muscular dystrophy in a boy aged 9 years. Dr. GOSS gave the history of a case of malignant disease of the pancreas, and showed the specimen. Dr. WAYLAND ANCRUM read notes of the following cases: (1) Malignant disease of the ileo-caecal valve; (2) extreme dilatation of the caecum; (3) adhesion of bowel to the anterior abdominal wall, forming a false sac; it had caused periodic attacks of intestinal obstruction. Dr. KNIGHT showed a woman after partial removal of the lower jaw for osteo-sarcoma, and the growth removed.

Reports of Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Medicine.

Friday, February 28th, 1913.

Dr. J. O'Carroll, President, in the Chair.

An Unusual Nervous Case.

Dr. Purser showed a patient of Dr. O'Carroll for diagnosis, a male, 40, single, a harness-maker. He had suffered from gonorrhoea twenty years ago, but syphilis was denied, and Wassermann (blood) negative. Two years previously he had been attacked by sudden weakness and stiffness in the right thigh, recovering after hospital treatment. Six weeks later a similar condition occurred in the left thigh. Improvement was slow and incomplete. There was a gradual relapse to the weak condition of the right thigh. Now, he could only walk with the help of two sticks or a crutch. Five or six years ago he had pain, described as lumbago, lasting a few months. For two years or more he had pains in the legs, like the "lightning pains" of tabes. The cranial nerves were in all respects normal; no Argyll Robertson pupil; no optic atrophy. The upper extremities were normal: trunk showed zone of anaesthesia fifth to ninth dorsal segments, not absolutely complete; relative analgesia to pin-prick in a slightly wider band. Weakness and wasting in the muscles supplied by third and fourth lumbar roots were marked most especially in the right quadriceps, which two months ago appeared quite paralysed, but now showed some slight contraction. The muscular condition showed a tendency to improve. Besides the "lightning pains" referred to, there was slight anaesthesia to cotton-wool in both thighs and down inner aspect of legs. There was relative analgesia to pin-prick all over the lower extremities up to Poupart's ligament. Thermal sensation was normal, except in that "cold" was felt occasionally after stimulus had ceased. Muscle-pain sense was absolutely lost. Sense of position and of passive movement in toes and ankles less acute than normal. Compass test—4.5 cm. on soles. Knee-jerks and ankle-jerks were lost, but abdominal and plantar reflexes were normal. There was no sphincter trouble at any time. Lumbar puncture repeatedly failed (and further attempts were not allowed), on account of deformity in the spine. X ray showed that the fourth lumbar vertebra was rotated around a vertical axis, so that the spine looked rather towards the right, and it was rotated also, so that the lower articular process on the right was on the same level as the upper articular process on the left. The intervertebral discs between the third and fifth lumbar vertebrae were apparently gone. The body of the fourth lumbar vertebra was small. There was no evidence of traumatism or tuberculosis. Dr. Purser submitted that though most of the motor symptoms could be explained by the spinal lesion, that lesion, being apparently mechanical in its action on the nerve roots, could not explain the sensory disturbances in the legs nor the anaesthesia around the trunk. He suggested a diagnosis of tabes dorsalis with spinal lesion (giving rise to the motor trouble) analogous to Charcot's disease in other joints, but admitted that it was not convincing. Dr. Finny said it was very hard to grasp the whole case with sufficient accuracy to be able to recognize the importance of the different phenomena presented. It seemed to be very compound, beginning with the motor paralysis of one muscle, partial or complete recovery from which was followed on the left side by a repetition from which the recovery was imperfect. The area of anaesthesia and analgesia were peculiar. The anaesthesia seemed to be in areas other than those supplied by the third and fourth lumbar roots. The physical deformity from which the patient suffered in the absence of an accident was unusual. The small amount of loss of tone shown in the case was against the tabes dorsalis diagnosis. He also suggested that the patient had not got the typical gait of locomotor ataxy. Dr. Kirkpatrick referred to the fact that Dr. Purser explained the weakness in his patient's legs by a lesion in his anterior nerve roots (third and fourth), and attributed his sensory phenomena to another disease altogether, but it seemed to him (Dr. Kirkpatrick) difficult to understand that he should have a lesion of his anterior nerve roots and no lesion of his posterior nerve roots. He was not in a position, however, to offer any other diagnosis, but in the absence of a specific history and of Argyll Robertson pupil there appeared to be a great deal of difficulty in accepting the diagnosis of locomotor ataxy. As to whether any such condition of the spinal column was found similar to Charcot's disease he could not say, but he pointed out that in Charcot's disease there was always considerable destruction of the joint, and he thought if the patient suffered from any such condition in his spinal column within recent years there would be some more evidence of it than a mere pain like lumbago. The explanation of the condition he considered very ingenious, but there seemed to him to be very much, if not more, against the acceptance of it than there was for it. The President endeavoured to give an easy explanation of the case. The man had a spinal disease with neuritis of his motor nerves and possibly ascending degeneration in the posterior column—pseudo-tabes dorsalis. The other mischief would be sufficiently accounted for by the compression of the sensory nerves.

The Coeliac Affection.

Dr. Drury read a paper on a case of "the coeliac affection," the title under which Gee described the condition in 1888. A girl, aged 3½ years, had an apparently ordinary attack of diarrhoea, which, however, persisted and then three or four very bulky motions were passed in the twenty-four hours. These were like porridge, but white, sometimes frothy, and extremely fetid. There was no fever, but great lassitude, emaciation, and distension of the abdomen. No treatment was of any avail until the child was put on an almost pure meat diet, small pieces of thin, well-toasted bread being the only other food allowed her. Under this the stools soon became normal, and in a few weeks she began to regain her spirits and put on weight. The etiology of the condition was not known. Dr. Finny said that coeliac disease was so far free from all pathological definition, but the idea that it was a catarrh of the duodenum and upper ileum seemed to be the most likely. The condition was very rare, and in his long experience he had only a record of three cases. The first patient was a fine boy about 3 years old, said to be sweet-tempered, but more probably apathetic. His abdomen was doughy, his motions were as large as those of an adult, and he had several of them in the day. He would sit in whatever position he was put, and never ask to be removed, and he appeared to have difficulty in moving his lower limbs, but he was in no way paralysed. Smith's method of treatment was adopted, all milk was stopped, and a meat diet substituted. Recovery was very rapid, as it was only two or three months before the child got back to ordinary diet. Two other cases similarly treated also made satisfactory recoveries. He never met with a case in his hospital practice, and he wondered if the disease was peculiar to well-fed children. Dr. O'Kelly related the case of a fellow student. Whenever this young man took milk he invariably had a tendency to diarrhoea; the stools became white, and there was loss of flesh. When milk was discontinued the condition disappeared. Dr. Crofton said the case was one of much interest to him, as he had come across others where the stools were white, and the treatment he adopted was to make a vaccine for the catarrh, and this generally cured it. He suggested that all cases of indigestion were due to micro-organisms, and reacted well to vaccine treatment. He inquired if any micro-organisms were discovered in Dr. Drury's case. Dr. Cahill agreed with Dr. Crofton that a vaccine would have done some good. Dr. Nesbitt said that the character of the motions implied that the trouble was the defective digestion of the carbohydrates and fats, and treatment with pure protein would bear out this view. There might have been an absence of pancreatic secretions. Very full examination of the stools was absolutely essential, and not only would fat have to be looked for, but fatty acids. In regard to vaccine treatment he referred to the multiplicity of bacteria in the intestinal tract, and asked how the microbe that would cure this condition was going to be isolated. The President related an instance where a boy

aged 2½ years was not confined to bed, but presented a very curious picture, with a pink and white complexioned face, little thin legs supporting a huge, almost spherical body. At that age, and with a history of having been brought up on artificial food, he thought it was a case of rickets, but eventually the idea of getting a name for the condition was given up, and no information could be ascertained. The little patient was, however, put on a minced meat diet, much the same as that indicated by Dr. Finny, the meat being rubbed down and given on extremely thin toast and agreeably flavoured with currant jelly. On this treatment the child got well, but the treatment had to be renewed from time to time, as he took farinaceous food. He was afterwards called on to treat the child for tapeworm. This was the second case that he had seen of tapeworm following raw-meat treatment.

EDINBURGH OBSTETRICAL SOCIETY.

Wednesday, March 12th, 1913.

Dr. HAIG FERGUSON, President, in the Chair.

Intraperitoneal Haemorrhage from Ovary.

PROFESSOR KYNOCH (Dundee) read notes on an instance of this condition in a 5-para, aged 38. There had been irregular and painful menstruation ever since the birth of the last child, five and a half years ago, but amenorrhoea between September and December, 1912, then a show appeared for seven days, and a fortnight later a sanguineous discharge was noted; it lasted until January, 1913. There had been six attacks of abdominal pain, and when the patient was seen, symptoms of intraperitoneal haemorrhage were marked. The abdomen was opened and found full of blood which issued from a small ovarian blood cyst. There was no microscopic evidence of ovarian pregnancy. The patient recovered.

Subinvolution due to Persistent Corpus Luteum.

Dr. F. W. N. HAULTAIN showed an ovary with a large corpus luteum removed from a patient four months after labour. During pregnancy there had been severe pain on the corresponding side, and it continued after labour. Before the operation the uterus was markedly subinvoluted and the blood showed 5,800,000 red and 19,200 white cells. Within a week after operation the reds were 4,875,000 and the whites 16,000. A few months later the uterus was of normal size. It was suggested that the subinvolution was dependent upon a non-disappearance of the corpus luteum of pregnancy.

Rare Uterine New Growths.

Dr. HAULTAIN reported three cases. In the first, a patient of 59 had a child at 30 and ceased menstruating at 45. Two years later bleeding returned and reappeared at intervals of eight to ten weeks. It was never severe till recently, when after curettage the mucous membrane was found to show a simple papillomatous change. As the bleeding continued hysterectomy was performed, when a diffuse hypertrophy of the mucosa was found. There was no malignancy. The second patient, 35 years old, was unmarried and virginal. On examination the cervix was seen to be the seat of a swelling in colour and shape like a large bramble. Examination of a small piece showed tubercle, and the cervix was removed by amputation. The patient was well sixteen years later. The third patient, 21 years old, had severe dysmenorrhoea, and, after removal, the uterus was found to be beset by a large number of fibrous nodules towards the mucous aspect. The author has called this condition "diffuse nodular fibrosis."

Perithelioma and Necrobiosis in Fibroids.

Dr. BARBOUR recorded two cases of fibroid where degeneration caused difficulty in diagnosis. A patient 62 years old underwent removal of a large sloughing fibroid polypus at the age of 55. Five years later the abdomen began to swell, ultimately reaching the size of a seven months pregnancy. On removal the uterus was found transformed into a cyst, on the wall of which a mass was present. It was, as the microscope showed, a fibroid undergoing peritheliomatous degeneration. In the second patient, 51 years old, a rapidly growing fibroid the size of an eight months pregnancy was removed for severe pain. The patient was gravely ill at the operation and died six days after. The tumour was necrobiotic and showed advanced red degeneration.

ROYAL SOCIETY OF MEDICINE.

SECTIONS OF OPHTHALMOLOGY AND NEUROLOGY.

Wednesday, March 12th, 1913.

Sir ANDERSON CRITCHETT, C.V.O., President, in the Chair.

Resumed Discussion on Disease of the Pituitary Body.

Dr. TURNEY discussed a case which he had shown at the last meeting. The symptoms referred mainly to the posterior lobe. The patient was a lady, aged 25, who, until 1907, showed no abnormality. Menstruation, previously regular, then ceased entirely. Her friends noted her increasing stoutness, and during the last two years bruises readily appeared, especially on the legs. There was also pain in the back, starting from a kyphotic curve in the upper dorsal region and travelling round the ribs. Mentally she seemed unaffected, and her sight remained good, except for the slight error of refraction to which she had always been subject. Thyroid extract had been administered repeatedly, but was given up as it caused palpitation. In spite of the obesity now present, her weight was now less than formerly; her face had become fat and florid, but there was no puffiness about the eyes. The hair was dry and somewhat scanty, but the eyebrows were present. The expression was bright, and the manner alert. The skin was not pigmented; the pubic and axillary hair was scanty. The upper limbs were of normal size, whilst the lower limbs and buttocks were thin. The thyroid was normal in size and consistency. No evidence of enlarged thymus, lymphatic glands, or spleen could be detected. X-ray examination showed absorption of posterior clinoid processes. There had never been increased intracranial pressure or involvement of the nervous system. In July, 1912, Mr. J. H. Fisher reported that the white, blue, and red fields were not transposed, and there was no certain evidence pointing to the probable development of temporal hemianopia. On recent examination, surrounding four-fifths of the right disc there was now a subretinal exudation of glistening character and ill-defined limits; no blood there except two or three very fine spots on the white area: otherwise each fundus was normal. The blood pressure on admission was 200 mm. of mercury, and it had remained at about that level ever since. There was a tendency to polycythaemia, without other blood changes. At one examination the red cells reached 8 million. A spontaneous fracture of the sternum, between the manubrium and the gladiolus occurred. The urine was normal, and there was no polyuria. The sugar tolerance limit was normal at about 120 grams of laevulose. Professor Dixon had examined the urine, and found it to contain a pressor substance in considerable quantity: 10 c.cm. of the urine injected into a cat raised the blood pressure 70 or 80 mm., whereas a similar injection of normal urine would lower the blood pressure nearly to the base-line. Dr. Dixon added that this patient's urine contained one hundred times the pressor substance found in normal urine, and that it corresponded closely with the urines of cases he had examined of acromegaly. Extract of posterior lobe was given, at first subcutaneously, but this method had to be abandoned owing to the tendency to superficial necrosis. The patient showed no increased tolerance to carbohydrates. The presence of the pressor substance showed that the pituitary secretion was in excess. Dr. Turney discussed the case fully, his conclusion being that the patient had a pituitary-sexual-gland syndrome, the lesion being in the posterior lobe of the pituitary. A possible alternative was that there was a temporary failure of the element controlling carbohydrate metabolism. Professor DIXON reported his investigations in the case of a man subject to acromegaly for ten years. The patient had an enormous heart, without any rise of blood pressure. On injecting 1 c.cm. of the urine into the cat, the blood pressure went up, and the injection of 5 c.cm. caused it to rise to 80 mm. The active substance was urohypertinsin. The man died suddenly as a result of some extra exertion. The pituitary body was as large as a walnut, and the heart weighed about 3 lb. Dr. A. E. GARROD gave a description of a case in which myxoedema and acromegaly probably coexisted. The improvement under thyroid treatment left no doubt as to the thyroid defect. The evidence of acromegaly was less conclusive; a skiagram showed

enlargement of the sella turcica. Dr. WILLIAM HILL discussed the best route for operative treatment of pituitary tumour. He did not favour Cushing's method, preferring that used in submucous resection, followed by the short, though dangerous, further step. The chief danger was that of wounding the optic chiasma. Hirsch's operation was simpler than that of Cushing, and Dr. Hill, like Mr. Graham, found that it gave good access to the tumour. He gave a word of warning as to the dangers of the operation, especially without exhaustive preliminary study. Dr. LANGDON BROWN discussed the subject, and showed photographs of a case. Mr. RICHARDSON CROSS (Clifton) drew attention to the importance of the interrelation of the various glands of the body in the economy, particularly the ovaries, the testes, the pituitary, perineal, suprarenal, and thyroid bodies, and the thymus. He had found great benefit from the administration of thyroid and pituitary extracts. Dr. F. E. BATTEN and Dr. GRAINGER STEWART also took part in the debate.

SECTION OF LARYNGOLOGY.

AT the meeting on March 7th, the President (Mr. HERBERT TILLEY), who was in the chair, showed a larynx removed after death from *A patient aged 58, who had worn a tracheotomy tube for eighteen years.* The operation had been performed for dyspnoea due to the cords remaining in a position of adduction. Mr. T. W. P. LAWRENCE described the cricoid as congenitally deficient in the transverse diameter, and split by a gap filled in with a membrane continuous with that of the trachea. The rima was reduced by the consequent approach of the thyroid alae and the close apposition of the mesial surfaces of the arytenoids. The PRESIDENT considered that some inflammatory condition must have determined the late onset of dyspnoea at the age of 40. Sir FELIX SEMON read notes of a somewhat similar case. Mr. W. HOWARTH demonstrated *Killian's apparatus for suspension laryngoscopy*, with a thyroid depressor calculated to bring the anterior commissure into view. Mr. T. B. LAYTON suggested that it was more convenient to attach the "gallows" on the left side of the patient, as on one occasion he was compelled to perform tracheotomy during a "suspension" operation. Mr. E. B. WAGGETT commented on the fact that the important pyriform fossa came into excellent view by this method, which was also praised by Sir FELIX SEMON and the PRESIDENT in that both hands were freed from the irksome task of holding the laryngoscope in position. Dr. DAN MCKENZIE showed a man aged 56 in whom a *Laryngectomy had been performed fourteen days after tracheotomy.* The upper end of the trachea was closed with catgut sutures, and attached to the skin flaps. The transverse incision was left partly open and packed with gauze to absorb discharges. The tracheal sutures cut through in ten days; the patient now breathed through the gaping end of the trachea, which by this time was separated from the upper wound. All diseased teeth were previously extracted, and a feeding tube retained in the oesophagus for sixteen days. Sir STCLAIR THOMSON commended the excellent result, but advised laryngotomy as a prelude to laryngectomies. Dr. D. R. PATERSON considered that the above operation was excellent for patients with a short neck, as the trachea was thereby anchored to the skin before laryngectomy was performed. Dr. DAN MCKENZIE exhibited a case in which *West's operation for obstructed nasal duct*, consequent on a previous operation for ethmoiditis, had been performed. A flap of mucous membrane was turned back from the middle nasal fossa. The lacrymal canal was then opened by a gouge and a communication made so that the lacrymal probe passed through the sac into the middle fossa. Dr. D. R. PATERSON stated that after West's operation patients could not conveniently use a handkerchief without pressure on the lacrymal sac. Von Eicken had opened the naso-lacrymal canal into the antrum. He had found that excision of the sac gave better results. Mr. T. JEFFERSON FAULDER exhibited a man, aged 21, with *Recurrent loss of voice.* The interarytenoid space was occupied by a papillomatous mass, yet it was uncertain if adduction of the cords was prevented by the presence of this growth or infiltration. The trouble was probably tuberculous. Mr. H. BARWELL considered that the tuberculous tumour could be removed by angular forceps. Mr. FAULDER also showed a *Nasal quadrilateral cartilage with a circular hole.* There was no deficiency in the mucous membrane. With such a condition during a submucous resection, perforation of the mucous membrane had to be avoided. Dr. DAN MCKENZIE considered the pressure of a crust led to destruction of the mucous membrane and cartilage. Dr. WILLIAM HILL related how, in haematoma of the septum, a perforation of the cartilage was always present. Mr. E. B. WAGGETT alluded to the destruction of mucous membrane and cartilage described by Zuckerkandl as xanthosis of the mucous membrane. Mr. E. D. DAVIS exhibited a larynx removed *post mortem*, and a patient; in both cases the epiglottis had been amputated for *Dysphagia due to tuberculous ulceration.* Treatment in the first case had lasted over six months, and had included curetting of the arytenoids under suspension laryngoscopy. The ulceration healed, but a relapse occurred during tuberculin B.E. treatment. The pain of increased ulceration was abolished by injection of eucaine and alcohol into the internal laryngeal nerves. An exacerbation of lung trouble resulted in death, but the vigorous local treatment had relieved the pain and prolonged life. The second case, which was chronic, had derived benefit from amputation, and was receiving tuberculin B.E. Mr. H. BARWELL remarked that ulceration of the epiglottis usually indicated extensive tuberculous mischief, so that the ultimate fatal result detracted somewhat from the immediate relief of the operation. In a certain but limited number of cases, where the epiglottis only was effected, amputation gave the best results. Mr. H. L. WHALE exhibited a specimen which had been removed after laryngotomy. Dr. JOBSON HORNE some years previously had diagnosed prolapsed laryngeal ventricle. It had caused dyspnoea and dysphagia for five weeks. Part of the lumen had remained shut off and still retained ciliated columnar cells, but the everted lumen had become covered with metaplastic squames. Mr. HAROLD BARWELL exhibited a man, aged 80, with *Infiltration of both ventricular bands anteriorly.* The rest of the cords moved fairly well, and were normal. Movable cervical glands and a small carotid aneurysm were present. The sputum contained numerous pneumococci, but no tubercle bacilli. The PRESIDENT indicated that examination of one gland would determine the nature of the disease. Mr. HAROLD BARWELL also brought forward a case of *Suppurating mucocele of the frontal sinus* in a boy, aged 12. The anterior and orbital walls projected as a hard swelling, while pus appeared in the hiatus semilunaris. Dr. DAN MCKENZIE pointed out that one view regarded the sinus opening as occluded, but many of these cases were due to occlusion of a gland in the mucous membrane lining the wall of the sinus, and such appeared to be the condition in the present case, as pus was coming away. The PRESIDENT had examined cases of mucocele and found the infundibulum open. Dr. ADOLPH BRONNER had found injection of tincture of iodine of great help in chronic empyema of the frontal sinus. Mr. FRANK ROSE exhibited a child, aged 10 months, with a *Congenital tumour of the septum;* it was pale and smooth, and caused obstruction from the first. Microscopically, it appeared to be a glioma. Mr. NORMAN PIKE exhibited an encapsuled *Spindle-celled sarcoma removed from the tonsil.* Two small cervical glands had also been dissected out. Mr. J. F. O'MALLEY brought a man, aged 54, the subject of a *Malignant growth in the antrum*, and also a woman, aged 41, with *Bilateral purulent rhinitis* of three months' standing. There was no evidence of sinus disease. A microscopical examination of the anterior end of an inferior turbinal suggested lupus. Mr. T. B. LAYTON had seen similar cases where removal of septic stumps had resulted in cure. Dr. DONELAN's case of *Congenital syphilis with sinking in of the nasal bridge* and intranasal obstruction was discussed. Mr. JEFFERSON FAULDER suggested the subcutaneous insertion of a piece of cartilage along the track made by a tenotome in preference to paraffin. Dr. DONELAN's case of *Post-diphtheritic adhesion of the soft palate* and cicatrices about the mouth was next brought forward. The PRESIDENT considered it doubtful if diphtheria gave rise to such considerable ulceration. Dr. WILLIAM HILL brought a specimen of a large *Pituitary tumour* and brain from a patient who had died after operation by the nasal route for decompression. General

signs of acromegaly were present, and enlargement of the pituitary fossa was indicated by a skiagram. Bitemporal hemianopsia was a symptom. A Killian incision was used and a burr applied to the roof of the larger right sphenoidal sinus. The passage of the burr was followed by free haemorrhage, which recurred, and was stopped by plugging the sphenoidal sinus. Death from increased intracranial pressure resulted in eight hours. After death a large pituitary tumour was found containing a haematoma and distending the pituitary fossa. The haemorrhage was due to perforation of the intercavernous veins or bleeding into the substance of the tumour. Dr. WILLIAM HILL discussed the difficulty of dealing with haemorrhage in this operation, and recommended plugging the sphenoidal sinus as entailing less risk; he considered it was a matter of chance whether the intercavernous veins were damaged. As to the form of incision, he pointed out that Ollier's—by which the soft nose is turned down by an incision at the level of the nasal bones—placed the operator 1½ in. nearer the sphenoidal sinuses. Mr. C. I. GRAHAM brought the specimen removed after death from the patient shown at a previous meeting. Unluckily, the growth was a perithelioma growing from the third ventricle, and in spite of remarkable relief after the operation, the patient succumbed. He advocated splitting the skin over the inferior margin of the septum. At a second operation he had split the left nostril upwards, and obtained more room by removal of the middle turbinal; he had found hydrogen peroxide very uncertain in its action. Mr. E. B. WAGGETT remarked that infantilism, which follows removal of the pituitary body, should be taken into consideration when dealing with these cases. Mr. PIKE mentioned that Eisenberg operated with the head over the end of the table. Mr. O'MALLEY had noted that Hirsch used nibbling forceps. Dr. W. H. KELSON showed a section of the pedunculated growth removed from the inferior turbinal. It had the structure of a fibro-angioma, but it did not bleed. In discussing the matter with Dr. Hemington Pegler, he thought that the bleeding of these growths was a question of ulceration, to which the inferior turbinal was not exposed. The PRESIDENT, in discussing Mr. T. B. Layton's case of *Cyst of the tonsil*, advised enucleation; he considered such cysts were an explanation of certain abscesses of the tonsil. Mr. WALTER HOWARTH again brought his case of *Papilloma of the tonsil*, from which a fibroma had been removed. Mr. BARWELL and Dr. DAN MCKENZIE advised a microscopical examination in case the infiltration present denoted malignancy. Dr. LOGAN TURNER discussed the possibility of tubercle being present. Dr. BROWN KELLY related the details of a case of *Spreading papilloma*. Dr. DUNDAS GRANT brought a case of *Unilateral paralysis* affecting the palate and cord, probably due to suppuration at the apex of the petrous bone. Mr. W. M. MOLLISON exhibited a case of *Haematoma of the right side of the larynx*, consequent on a kick.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT a meeting on March 14th, at which the President (Professor E. W. HOPE) was in the chair, Dr. LOUIS C. PARKES read a paper on *Block dwellings for the working classes*. The necessity for accommodating the working classes in block dwellings arose from the heavy price which had to be paid for land in urban centres, for larger numbers in proportion to superficial area of land could be housed in these dwellings than in cottages or single houses, even if the latter were only provided with the minimum curtilage or open air space required by law. For many workmen engaged in regular industries it was no doubt preferable that they should reside in the purer air of the country or suburb, but there were still many for whom it was essential that they should live near to their work, and especially those who were mainly dependent on casual employment and who must be on the spot and near to the job likely to fall their way. There was no difficulty in housing men in regular employment and in making schemes remunerative, provided the tenants were not allowed to get into arrears with their rents, which should be collected in advance. During the eight years since their erection, in the Sir Thomas Nore Buildings, owned by the Chelsea Borough Council, on an average 98.4 per cent. of the gross rental had been collected. The average weekly earnings of the occupants were about 31s., while in the Grove Buildings, belonging to the Chelsea Council, no tenant was accepted who earned over 25s. weekly. Even in the latter the loss from empties and rents uncollectable was only 0.7 per cent. of the gross rental. It paid financially to house those in regular work in block dwellings of sufficient size, with good modern arrangements, and in a neighbourhood where there was a demand for such dwellings. For the casual worker it was extremely doubtful whether any kind of housing scheme could be made self-supporting, and industrial dwellings companies would not undertake such provision. Life in block dwellings did not run smoothly unless the tenants generally were prepared to obey the rules and regulations made largely for their convenience and comfort, unless they were cleanly and tidy in their homes, civil to their neighbours, and capable of developing a certain pride in the orderliness and good character of the dwellings. In block dwellings of modern type, occupied by what might be described as a selected working-class population, the vital statistics were usually excellent, and showed that working people who had regular incomes and were above the poverty line could lead the healthiest kind of lives. Dr. Parkes emphasized the importance of employing for block dwellings a really capable resident superintendent. A good-class man was required, who would maintain order and discipline, and yet, by the exhibition of tact and discretion, earn the respect and confidence of the tenants. The PRESIDENT considered that playgrounds in connexion with block dwellings were essential. In Liverpool large areas of slum property had been cleared, and provision had been made on them for the poorest classes. Mr. JOSEPH, the architect to the Lewis and Sutton Trusts, considered that the most economical height of block dwellings was five stories, and that the width between the blocks should be equal to their height. He was of opinion that common lodging houses for women would not pay. Sir SHIRLEY MURPHY agreed as to the difficulty in providing lodging houses for women. Professor KENWOOD maintained that habits counted more than environment, and instanced certain streets occupied by Jewish families, where the lowness of the mortality-rate was quite startling if compared with adjoining streets. Dr. CHARLES PORTER regretted that medical officers of health were not more frequently consulted in connexion with the erection of industrial dwellings. Dr. HERBERT JONES emphasized the importance of having a capable superintendent of block dwellings.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT a pathological meeting of the society, held on February 7th, the President (Dr. G. P. SHUTER) in the chair, the following specimens were exhibited and discussed:—Dr. ARTHUR SAUNDERS: *Congenital hypertrophic stenosis of the pylorus*. In addition to the usual hypertrophy, there was a sharp kink at the pyloric end of the stomach, almost sufficient in itself to obliterate the lumen of the canal. The patient was admitted to hospital at the age of 5 weeks for frequent and forcible vomiting. Visible peristalsis could be seen after feeding. The stomach was not dilated, and although it could be distinctly felt through the thin abdominal wall, no mass could be felt in the neighbourhood of the pylorus. As the symptoms improved somewhat under careful feeding, it was hoped that the child would improve sufficiently for a gastro-enterostomy to be performed, but in the ninth week of life an attack of diarrhoea occurred, to which it rapidly succumbed. Mr. ASLETT BALDWIN: (1) *Rodent ulcer of forearm* excised from a man aged 61. It started in a scar caused by lacerations from iron nails, and had been present for five years, sometimes showing signs of healing. (2) *Tumour of epididymis* from a patient aged 64. The epididymis was about four times the size of the testis, which presented no abnormality, and the central portion had broken down. Microscopically the tumour did not appear to be tuberculous or syphilitic, but merely inflammatory; various opinions, however, were given as to its nature. Hydrocele had been present for years, and a month before admission to hospital a severe pain and inflammation in the left side of the scrotum occurred. There had been no urethritis or injury. (3) *Hypernephroma*

of left kidney from a woman of 60, without urinary or other symptoms, except dragging pain in left side of abdomen. Removal about a year ago, and patient still well. Mr. W. McADAM ECCLES: (1) *Mucocele of gall bladder*, removed *post mortem*. Calculus impacted in cystic duct. (2) *Mucocele of gall bladder*, removed from a woman who had for many years symptoms of dyspepsia, but never jaundice. The cystic duct was tied, and she made a very good recovery. (3) *Tuberculous salpingitis*, removed from a woman aged 25. She recovered, and is now married, but has not been pregnant. There were tubercles over the parietal peritoneum of Douglas's pouch. In reply to some remarks, Mr. McAdam Eccles said that in serous tuberculous peritonitis laparotomy was generally followed by a cure. He believed that peritonitis of a tuberculous nature in the female was caused by infection from the Fallopian tubes, and it was best to remove the tubes whenever possible. In his experience this type of case hardly ever did well if the tubes were not removed. (4) Five *Calculi from the bladder* of a woman aged 29. Since the age of 17 up to date of operation she had passed no less than 278 calculi. The stones exhibited were passed spontaneously with great pain; they proved the wonderful dilatability of the female urethra. There was no subsequent incontinence of urine. (5) *Malignant teratoma of the testis* removed from a man aged 32. It was a mixed tumour containing elements showing its teratomatous nature, and it had also sarcomatous elements. The patient died six months after operation with secondary deposits. Dr. HAROLD PRITCHARD: Specimens from a case of *Banti's disease*, a late and terminal stage of splenic anaemia. Death had occurred at the age of 9 years, with all the signs of portal obstruction and marked ascites. The liver was small and contracted, with an irregular surface, and showed the changes found in typical multilobular cirrhosis. The spleen was large and tough, and contained some considerable amount of fibrous tissue. The peritoneum was thickened. Mr. T. JEFFERSON FAULDER: *Guillotined tonsils* shown to illustrate that practically any kind of tonsil can be removed complete in its capsule simply with a guillotine and a short anaesthetic. The series presented included all varieties of tonsil—the common bilobed type, the flat tonsil, all grades of embedded tonsil, and tonsils reduced to the condition of mere pyogenic membranes. Many of them had been operated on previously. In reply to questions by Mr. McADAM ECCLES, Mr. RICKARD LLOYD, and Mr. SHUTER, all details were explained, and Mr. FAULDER pointed out that the operation called "enucleation" was invented to meet the cases in which the guillotine, as used originally, had failed to cure, and the necessity for the invention of enucleation sufficiently showed that the clinical results obtained by slicing off a portion of the tonsil were often unsatisfactory. By the new method, introduced by Sluder, one could remove as much or as little of the tonsil as was thought desirable, and the operation was a much less formidable procedure than enucleation by the methods hitherto adopted. Dr. H. H. SANGUINETTI: *Acid-fast organisms from distilled water* closely resembling tubercle bacilli. It was important to bear in mind this possible source of contamination when investigating the presence of tubercle bacilli, especially by the antiformin method or by the inoscopic method of Jousset. Dr. Sanguinetti also exhibited (for Drs. Bernstein and Elworthy) the following specimens from the pathological department of the West London Hospital: (1) *Splenomedullary leucocythaemia* showing large basophil myelocytes stained by Wright's method. (2) *Spirochaeta pallida* from a primary sore on lip. (3) *Carcinoma of appendix*. Mr. McADAM ECCLES remarked on the interest of these cases, occurring so often in quite young subjects. This specimen was from a girl of 13, symptoms of chronic appendicitis were present, and when he removed the organ—a short, stumpy appendix—it showed microscopically a typical carcinoma. These cases generally recovered, and did not have any recurrence in glands or viscera. (4) *Tuberculous pneumonia*. (5) *Intussusception of ileum* into caecum discovered *post mortem* in a boy aged 1 year 10 months. There was no peritonitis. The child was brought to hospital without any definite history of abdominal symptoms, and while being examined died. The child was well developed, and in other respects healthy, and the abdomen when examined was flaccid. (6) *Interstitial nephritis*. (7) *Melanotic sarcoma* of spleen and liver. (8) *Shirt stud obstructing larynx*. Dr. H. J. F. SIMSON exhibited a *Fibroid tumour of the uterus undergoing red degeneration* and necessitating hysterectomy at about four and a half months, and several other specimens of tumours of the uterus and cervix. Mr. S. G. MACDONALD: *Closed renal tuberculosis*, showing the upper portion of kidney completely shut off from the ureter so that the urine was sterile and free from pus or tubercle bacilli. Dr. A. K. THOMSON took the opportunity afforded by this meeting of introducing Willard, "*The Man who Grows*." Willard claimed to be able to increase his height at will by 7½ in., to increase the length of his arms from 4 to 15 in., and to elongate the neck by 2 in. without any dislocation or separation of joints. He declared that he could never be quite sure how much he would accomplish at a given demonstration, and that the 7½ in. referred to above was his record. He then proceeded to demonstrate his power of elongating while in the standing position, and although he did not attain the figures quoted the exhibition was remarkable and interesting. On submitting himself to examination he appeared to possess, within physiological limits, an abnormal degree of spinal mobility and an unusual control over muscles rarely voluntarily exercised.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on March 6th, Mr. ROBERT JONES (President) in the chair, Professor SCHÄFER gave an address on the *Physiology of milk secretion*. The mammary glands gave a secretion in which the chief organic constituents were all formed in its cells, while the salts were formed in the blood. The flow of secretion was not determined by nerve excitation. The secreting cells did not break down to form part of the secretion, but their free ends broke so as to liberate the milk constituents formed within them. Transplantation of the gland and its subsequent enlargement during pregnancy and secretion after parturition proved that nerve influences were not necessary. The secretion resembled that of the kidneys, which depended on the amount and quality of the blood circulating through its vessels, being very sensitive to an excess of those substances which, among others, formed its chief normal constituents, namely, water, urea, and common salt. The posterior lobe of the pituitary body contained a hormone which stimulated the renal and also the mammary secretion. Professor Schäfer had investigated the effect of the pituitary and several other extracts, working with Dr. Mackenzie. Fine cannulae were inserted into the incised nipples of lactating cats, and the milk was allowed to fall upon an electrical recorder. Several of these graphic records were shown by lantern screen. The effect of the injection of pituitary extract was one of the most striking experiments in physiology. The milk at first poured from the gland in a continuous stream, the flow gradually diminished, ceasing after ten to fifteen minutes. To produce a second effect it was necessary to wait for some time. Each successive dose administered at thirty minutes' interval gave a secretion well marked but diminishing in amount. The hormone was present in the pituitary body of all vertebrates examined—birds, fishes, amphibians, and reptiles, as well as mammals. Extract of corpus luteum gave a well marked galactagogue action, differing from the action of pituitary extract in not being accompanied by a rise in blood pressure. Extracts of uterus after parturition were galactagogue. Extracts of placenta and of fetus produced an inhibitory action on milk secretion. The effect of the pituitary hormones was to empty the gland as though alveoli and ducts had undergone contraction, squeezing out the milk as from a contractile sponge, yet muscle fibres had not been observed in the walls of the alveoli. Professor Schäfer exhibited slides demonstrating the electrical changes which were only found during secretion. Experiments had failed to show that the quality of the milk secreted under the influence of hormone stimuli differed from the ordinary secretion. The total yield of milk had not been influenced by the administration of pituitary extract to cows, though marked stimulation had been noted immediately after its injection. In human beings, experiment had given a large temporary increase in the secretion, but the patient had to wait a longer period before again giving the breast. The general

conclusions arrived at were: (1) The flow of the mammary secretion is induced as the result of galactagogue hormones circulating in the blood. Such hormones are produced in largest quantity in the posterior lobe of the pituitary body, but are also yielded by the corpus luteum, by the involuting uterus, by the mammary gland substance itself and perhaps by other organs. (2) Hormones which are formed during pregnancy in the tissues of the fetus and in the placenta possess the property of inhibiting the activity of the galactagogue hormones. (3) There is no distinct evidence that the mammary secretion is directly influenced by the nervous system, for it is carried on in a normal manner after the severance of all the nerves passing to the organ. Since nervous influences do undoubtedly affect the milk, this can only be either by their action on the general nutrition or by their effect on the production and pouring out of galactagogue hormones. (4) Drugs such as pilocarpine and atropine, which probably influence the secretion of glands mainly if not entirely through nerve endings, have little or no direct influence on the secretion of the mammary gland. A cordial vote of thanks to Professor Schäfer was proposed by Professor A. M. PATERSON and seconded by Mr. F. T. PAUL. Professor DE BURGH BIRCH, Professor B. MOORE, and Dr. KENNETH MACKENZIE also spoke, and Professor SCHÄFER replied.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 7th, Mr. FREELAND FERGUS, President, in the chair, Dr. J. H. NICOLL, speaking of *The avoidance of unsightly scar deformities in the operative treatment of cervical adenitis*, referred to the growth of an opinion among surgeons that complete removal of all the glands from a given region of the neck was not attainable, that by even the most mutilating incisions and dissections only a number of the more obviously affected glands could be removed, and that the same results could be obtained by less disfiguring methods. These were: (1) Evacuation of the fluid contents of a "softened" gland by a cannula or aspirator thrust through the skin and subcutaneous tissue—not a good method. (2) Evacuation by means of a small Volkmann's spoon introduced through a puncture made in one of the natural folds of the neck by a fine knife. Both these methods aimed only at removal of the gland substance from within the capsule, and were limited to cases in which one or two small glands had softened. The aim of the following two methods was the removal of the capsules with the glands, and by them in some cases large masses of glands could be "tunnelled" out. (3) The method of Treves of Margate, in which the incision was placed in the first transverse crease above the clavicle (in girls an inch higher), a tunnel made between the incision and the mass of glands, and the mass separated by digital enucleation. (4) The method of Dollinger of Budapest, in which the incision was made along the lower margin of the scalp in a line downwards and backwards from the mastoid process, and the glands similarly "tunnelled" out. The last two methods were comparatively easy in young children, but in adults were often tedious and difficult. Dr. W. R. JACK reviewed recent literature on the subject of *Vaccine-therapy in the treatment of gonococcal vulvo-vaginitis*, and stated his experience of this method in the treatment of six cases among children. In two cases, one of which was treated by an autogenous and one by a heterogeneous vaccine, a clinical cure was reached after two and a half months' treatment. A third case, treated by autogenous vaccine, was free from symptoms after over three months. In the other three cases, two of which were treated by a polyvalent and one by an autogenous vaccine, the condition remained uncured after two months, five months, and over five months respectively. While these results did not appear very encouraging, it was to be noted that in all the cases a comparatively speedy improvement was attained, the irritation and discharge being much lessened, though in the unsuccessful cases it seemed to be impossible to get rid of this remainder whatever dose was used. Mr. GRANT ANDREW, speaking of *The operation for acute appendicitis—primary closure of the abdominal wound*, based his remarks on the records of 85 cases operated on by him between June, 1910, and February, 1913. In the greater proportion of the cases the appendix was gangrenous in whole or part and unprotected by adhesions, and in one-third of the cases it had perforated. In a smaller proportion a localized abscess was present, completely shut off and usually very foul smelling. In almost every case the appendix was removed and the stump dusted with iodoform or treated with iodine or iodoform emulsion, and in over half the cases *Bacillus coli* vaccine was given subcutaneously. In 80 cases the wound was primarily closed without drainage, and 57 of these healed primarily. In 27 there was some infection of the wound, and in 2 cases the wound was restitched. In no case was a drainage tube necessary for the wound alone. There were 7 deaths. The list included no simple, catarrhal, or "quiescent" case, otherwise the mortality would have been under 3 per cent. The results showed that, provided the cause were removed and the caecal opening thoroughly closed, drainage either by tube or packing could be dispensed with, and primary union obtained with less risk, even under the worst possible intra-abdominal conditions.

MIDLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

AT a meeting at Leicester, on March 4th, Dr. MALINS, President, in the chair, Mr. J. FURNEAUX JORDAN showed a uterus containing a *Myoma the seat of necrobiotic degeneration*. The tumour had complicated pregnancy, and he had performed hysterectomy a few weeks after labour. The PRESIDENT remarked upon the small size of the uterine body. Apparently involution must have been extremely rapid. Mr. CHRISTOPHER MARTIN asked for information as to the pathology of red degeneration in fibroids. Personally he had never seen the condition apart from pregnancy. In Mr. Jordan's case, it was remarkable that the tumour had not been the cause of obstructed labour. It showed how easily a large mass will slip up out of the pelvis. Dr. PURSLOW recalled the similar specimen that he had shown before the society, where the neoplasm was cervical in position. Dr. CLARE asked if pain had been a feature of Mr. Jordan's case. Mr. MARRIOTT agreed that red degeneration was usually associated with pregnancy, but he had removed a nulliparous uterus with a very degenerated fibroid of this nature. Mr. WHITEHOUSE believed, on his own experience, that many cases of red degeneration had no relation at all to pregnancy. Mr. FURNEAUX JORDAN, in reply, stated that pain was certainly a feature of his case. In fact, a few weeks before term discomfort was so marked that the patient thought that labour had commenced. The apparent extreme involution of the uterus was due to the preservatives employed. Dr. N. J. SPRIGGS showed a new *Ligaturing forceps for pelvic surgery*. He had designed it for the easy and quick application of ligatures in inaccessible situations. It was a combination of a haemostatic forceps, designed to carry a ligature loosely knotted, with a sliding arrangement for pushing off and tightening the knot. It was rather complicated, but not more so than a tonsil guillotine, and it readily took to pieces for cleaning purposes. It had not yet been manufactured wholesale, but inquiries should be addressed to Messrs. Weiss and Son, Oxford Street, London, W. The PRESIDENT remarked upon the ingenuity of the instrument, and thought that it might certainly be useful in applying ligatures in some difficult situations. Mr. BOND said that he always had some little diffidence in employing very complicated instruments. For ligaturing superficial vessels it would be easier to use the ordinary method, but as regards deep vessels Dr. Spriggs's instrument might be of value. Dr. H. J. HICKS read a short communication upon *Localizing septic peritonitis of puerperal origin*. In the treatment of this condition he thought that simple drainage through Douglas's pouch should always be adopted when the local area of infection was within reach. Any attempt at radical removal of a pyosalpinx or an infected ovary was certain to be followed by a severe general septic condition which might be quickly fatal. The parametrium was nearly always also infected, and although the broad ligaments might not contain pus, the lymphatics were in such a state that they would pick up bacteria readily, if opened in the course of removal of the tubes or ovaries. Where simple drainage was not possible it was best to wait. The patient must be watched carefully

for any signs of extension of the infection. The longer the surgeon waited, the less virulent would be the organisms, and, further, by waiting, the natural protection against a general invasion had time to develop. In all cases Fowler's position should be adopted. The complications to be feared, if a radical operation had been undertaken, were not the ordinary complications which were familiar to all surgeons engaged in abdominal work, but septicaemia in its worst form. The PRESIDENT expressed his surprise at one remark in Dr. Hicks's paper—namely, that the "streptococcus did not cause as much permanent damage to structures as did the gonococcus." He was of the opinion that gonococcal infections as a rule produced a less severe degree of inflammation than did the streptococcus. Mr. BECKWITH WHITEHOUSE was in entire agreement with the conclusions enunciated by the author, especially as to the importance of simple drainage from below, and the value of waiting until the acute symptoms had subsided. The observance of these two facts undoubtedly saved the lives of many patients who would be lost if more radical measures were employed. With regard to the virulence of the infection, the type of streptococcus probably had some influence in this direction. Mr. Furneaux Jordan had recently shown that the streptococcus which occurs in puerperal infections was frequently of a specific type, and he had named it the *Streptococcus puerperalis*. Mr. FURNEAUX JORDAN said that none of the cases brought forward by Dr. Hicks could conveniently be drained by the abdomen. Localized septic peritonitis may certainly be dealt with by the vaginal route, but if septic tubes and ovaries were to be treated, then he thought that an abdominal incision was preferable. As a rule a definite organism was present in these cases, and if possible an autogenous vaccine should be administered, but the progress of the symptoms was the index for treatment. Mr. CECIL MARRIOTT gave details of a case of *Pyosalpinx and abscess of the broad ligament* occurring twenty-one days after labour. He had attempted to reach the same extraperitoneally, but had found it necessary to perform laparotomy and drain through the abdomen. The patient recovered. Dr. PURSLOW asked what material Dr. Hicks used for ligatures and sutures in this type of case. Dr. HICKS, in reply, said that he always employed catgut sutures where the suspicion of sepsis was present. He was still firmly convinced that the best method of treating a puerperal pyosalpinx was that of simple drainage. The infected tube was frequently high up, but nevertheless the pus could be reached by this route and it was a far safer procedure than that of laparotomy and removal of the diseased appendage, at any rate during the acute stage. Mr. CECIL MARRIOTT read notes on cases of *Hysteropexy*. The operation that he preferred was a modified vaginal fixation, and this he had successfully employed for several years. Mr. CHRISTOPHER MARTIN had tried most of the various "new" operations that had been devised for the cure of retrodisplacements of the uterus, but had come to the conclusion that none were so efficient as the old "ventral fixation." If the sutures were placed below the level of insertion of the round ligament, then no fear need be entertained if pregnancy should occur. Abortion under these circumstances did not take place. In the case of complete uterine prolapse, he thought that there was no better treatment than by Simpson's "shelf pessary." Mr. BECKWITH WHITEHOUSE said that during the last two years the method of fixation that he had adopted had been the "sling" operation of Clarence Webster. It was necessary to use silk sutures and also to suture each round ligament to the uterine wall. Otherwise intestinal obstruction might occur from the passage of a coil of small intestine between the uterus and the loop formed by the round ligaments. Out of the last 30 cases treated by this operation there had been one recurrence. One patient was now three months pregnant and the pregnancy was pursuing a normal course. Dr. PURSLOW remarked, with regard to the "shelf" pessary advocated by Mr. Martin, that upon a certain occasion he had had great difficulty in removing one of these instruments from the vagina. It had, in fact, ulcerated completely through the vaginal wall and part was lying in the bladder. The PRESIDENT observed that the proper *use* and the *abuse* of a pessary were quite different things. Dr. Purslow's case was an example of gross abuse of a pessary on the part of a patient, and could not be used as an argument against the proper value of the instrument. Dr. N. J. SPRIGGS read a paper upon *Congenital intestinal occlusion*, being an account of 24 unpublished cases, with remarks based thereon and upon the literature of the subject. This paper will appear in the *Transactions*. The PRESIDENT observed that the amount of work entailed in Dr. Spriggs's investigation into this little known subject must have been immense, and he heartily thanked the author for bringing it forward. Mr. BOND referred to a patient that had come under his observation upon whom a colotomy had been performed thirty years previously for occlusion of the large bowel. The lumen of the gut below the colotomy was then no more than the size of a lead pencil.

HUNTERIAN SOCIETY.

AT a meeting on March 12th, Dr. ANDREW CURRIE, Vice-President, in the chair, Dr. H. LETHEBY TIDY read a communication on *Myeloblastic leukaemia*, illustrated by microscopic slides. Dr. F. HOWARD HUMPHRIS, in a paper on *Non-infective inflammation*, and modern electrotherapeutic measures in its treatment, pointed out that stasis in simple inflammation was a bar to complete restitution, and that the indication in almost any stage of inflammatory process was the resolution of the local condition of infiltration; and that when a suitable electric current is used infiltration is dissipated, circulation is restored, and a healthy physiological activity displaces the former pathological torpor. Dr. Humphris pointed out that that form of electricity which stood pre eminent in producing mechanical effects was static electricity. When administered it induced successive contractions and relaxations, expressing fluid and semi-fluid débris on the mass of tissue involved. Several diseases were instanced, such as prostatitis, synovitis, neuritis, lumbago, and other forms of fibrositis, and the argument was made from the pathology of these conditions, and the mechanical action of the current, that with the removal of the stasis comes the relief of the disease, of which the stasis was either the cause or complicating concomitant. Mr. E. ROCK CARLING read a paper on *Some injuries of the fingers*, showing illustrative radiograms.

UNITED SERVICES MEDICAL SOCIETY.

AT a meeting, held on March 12th, Fleet Surgeon P. W. BASSETT-SMITH, C.B., R.N., in the chair, a paper, entitled *Salvarsan in the navy*, was read by Fleet Surgeon LANCELOT KILROY, who described a rapid method which he used at the Royal Naval Hospital, Plymouth, of preparing and administering the drug. By means of tabulated statements, and also by drawings and photographs, Fleet Surgeon Kilroy produced evidence of the beneficial effect of salvarsan in a large number of cases of syphilis which had come under his care. Cases of syphilis in whom the Wassermann reaction was positive, though previously treated with salvarsan and free from all active symptoms, should receive yet more salvarsan treatment as the best means of avoiding a clinical relapse. According to his experience, cases once treated by salvarsan did not fail to respond favourably to the drug when employed on subsequent occasions. Fleet Surgeon Kilroy recommended three different schemes of treatment suited, in his opinion, to primary, secondary, and tertiary cases, all of these including the administration of salvarsan and mercury, and in the cases of tertiary disease, of potassium iodide also. These methods had, in his hands, been followed by many beneficial and by no ill results. In the subsequent discussion, Major W. L. HARRISON, R.A.M.C., Staff Surgeon SCOTT, R.N., and Dr. DAVIS (Dreadnought Hospital, Greenwich), all of whom had had considerable experience of salvarsan, took part. The meeting terminated with a unanimous vote of thanks to Fleet Surgeon Kilroy for an interesting and instructive paper.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 5th, the President, Mr. W. G. LAWS, in the chair, Dr. H. MICHIE read a memoir on *The treatment of prolapsus uteri*. He first considered the

anatomy and structure of the uterus, and explained that there were no true ligaments, but that the uterus was held up by folds of peritoneum and the round ligaments. Prolapse of the uterus was essentially a hernia, and occurred most frequently in advancing age, and after the menopause. Hard work, coughs, or strain were contributory factors. As a prophylactic, he advocated moderate exercise during pregnancy, patience during labour, and a not too early return to hard work after confinement. Hodge's pessaries or rubber rings sometimes were sufficient. Alexander-Adam's operation of ventral fixation generally cured the prolapse, but often complicated succeeding pregnancies; it was better suited for cases of retroflexion. Dr. Michie had lately devised the following operation: The abdomen was opened in the middle line by means of a small incision, the round ligaments on each side were isolated, and stout catgut was passed under the broad ligaments. These were drawn through the conjoint tendon and rectus muscle, and were stitched over the aponeurosis, just immediately below the skin. He had performed this operation twenty-five times, and all the patients had been relieved; there had been no complications in four cases of subsequent pregnancies; two patients who had incontinence of urine were relieved of this trouble.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT the annual pathological meeting, on March 14th, the President, Dr. DOBSON, in the chair, Dr. MYER COPLANS read a preliminary note on the *Properties of finely divided asbestos* with reference to the adsorption of bacterial toxins, antitoxins, snake poison, complement and amboceptor of a haemolytic system, specific agglutinin, diastase, and certain proteins and pigments, from watery solutions, and on the degelling phenomena exhibited towards watery agar, gelatine, and isinglass. The inhibitory action of watery agar when admixed with tetanotoxin was noted. A method of separating toxins from watery solutions by means of open gravity filtration through a layer of hydrate of alumina, its action being enhanced by the use of asbestos fibre as a binding substance, was shown. This latter experiment, when repeated with finely divided asbestos unsupported by hydrate, led to the discovery of the adsorbent properties of asbestos as detailed above. Asbestos dressings in surgical cases, especially in septic conditions, were advocated. Dr. MYER COPLANS and Mr. W. GIBBS LLOYD read a preliminary note on the *Adsorbent and catalytic properties of finely divided asbestos* as exhibited towards certain physiological substances—namely, starches, sugars, ferments, the various proteins, alkaloids, and hormones. Mr. W. C. LYONS read a paper on the various forms of "*Proteose-free*" *tuberculin*, with special reference to the enhanced diagnostic and therapeutic value of Koch's old tuberculin rendered proteose-free by treatment with ethyl alcohol—a process which was of special service in differentiating and isolating the specific from the non-specific toxins, as shown by a series of 262 cases of pulmonary and other forms of tuberculosis. The exhibits included:—Dr. COPLANS: (*a*) A portable apparatus for directly indicating electro-conductivity of body and other fluids; (*b*) a portable apparatus to be used in conjunction with the previous appliance for analysis of gases in air, carbon-dioxide being estimated by means of the *fall* in conductivity of a solution of baryta or lime water after absorption of the gas, carbon-monoxide, and the unsaturated olefines usually present in coal gas being estimated from the *increase* of conductivity of a solution of ammoniacal cuprous chloride following absorption of these gases. Dr. M. J. STEWART: (1) A *Fetus acardiacus amorphus*, the twin of a healthy male infant. It had neither head nor limbs, the umbilical cord was centrally situated on the ventral aspect, and a radiograph showed the presence of a spinal column, a rudimentary pelvis, and seven ribs on each side; a small triangular plate resembling a basi-sphenoid alone represented the cranium; the kidneys, ureters, testes, liver, and an inch of bowel were present, but the heart and lungs were absent; (2) *Teratoma of the testis* and *Cancer of the breast with squamous metaplasia*. Dr. J. KAY JAMIESON and Dr. J. C. BRASH demonstrated a dissection illustrating the distribution of the *Auriculo-ventricular bundle*.

Reviews.

RECTAL SURGERY.

SIX years have elapsed since the first edition of the late Sir FREDERICK WALLIS'S book on the *Surgery of the Rectum*[1] was published. The second edition has been brought quite up to date, and has been presented in a practical form likely to appeal to both surgeons and practitioners. The last proofs of this work were handed in by the author just before his death; the edition was then carried through the press by a friend. The book has been largely rewritten, the print is enlarged, and the number of pages has been increased from 165 to 351. Six new chapters have been added. In the first chapter an account of the anatomy of the sigmoid and rectum is given; in the second the method of examination of patients is described, and when and how the sigmoidoscope should be used is discussed. Chapters III, IV, and V deal with the acute, subacute, and ulcerative inflammations of the colon, sigmoid, and rectum. These chapters greatly increase the importance of the book and give it a wider scope. They contain a good account of the comparatively recent pathology and treatment of these conditions without entering into points of controversy. Special attention is drawn to the treatment of intractable ulcerations by means of cataphoresis from zinc ionization. Chapter VI is devoted to venereal diseases of the rectum and anus, and Chapter VII to diseases of the perianal region. The last chapter deals with the rectal diseases of children; it includes the common developmental defects, and gives a short account of the development of the rectum and anus. The other chapters have been considerably modified and brought up to date, especially as regards treatment, accounts of many cases have been added to them, and the ease with which the book may be read is thus increased. The illustrations have been improved, and with the additions made they now number 129; they are clear and instructive.

The author ascribes the cause of intractable pruritus ani in over 90 per cent. of cases to ulceration between the sphincters: possibly this is a high percentage. A practical account is given of the operations for excision of the rectum without going into too much detail. The book is well arranged and written, and should prove of great service to practitioners.

MALE DISEASES.

IN his *Male Diseases in General Practice*[2] Mr. CORNER discloses an ardour and enthusiasm which lead him not only to the description of no less than ten operations for imperfect descent of the testicle—many of them with names of portentous length, such as "orchidocoelioplasty"—but even to the elevation of his subject into the entity "andrology." At the same time, some of his words upon matters sexual can only be described as grandpaternal; but there is a hint in his preface that his book has been written in anticipation of a demand for such a work from women practitioners, and possibly this is the reason. It cannot explain the occurrence of such a sentence as this: "A 'pyoma' or pus tumour is an abscess"; or, again, "It is a very common assumption that just as we are born so do we remain throughout life. A minute's thought will show the fallacy of this"; nor is it quite clear from the text what is to be gained by teaching the sufferer from spermatorrhoea to make microscopic preparations of the discharges; but these are details. The best part of the book is that devoted to hydrocele, misplacement, and imperfect descent of the testicle, torsion of the testicle, and varicocele, of which the author has not only had an extensive experience but has also examined statistically large numbers of records, particularly as to late results of operations. He might perhaps have made it clearer that many so-called encysted hydroceles, though quite translucent, prove to contain spermatozoa when their clear contents are centrifuged. In expressing the opinion that

[1] *The Surgery of the Rectum for Practitioners.* By Sir Frederick Wallis, M.B., B.C.Cantab., F.R.C.S. Oxford Medical Publications. London: Henry Frowde, and Hodder and Stoughton. 1912. (Demy 8vo, pp. 370; figs. 129. 15s. net.)

[2] *Male Diseases in General Practice.* By E. M. Corner, M.A., M.C., F.R.C.S. Oxford Medical Publications. London: Frowde, and Hodder and Stoughton. 1912. (Demy 8vo, pp. 470; illustrations 162. 15s.)

many varicocele operations are unnecessary it would have been worth while to mention that varicoceles which have never given the slightest trouble in temperate climates sometimes do so when the patient goes to live in the tropics. There is a great deal of valuable information in the book, which has the not too common characteristic of seeming to owe very little to other textbooks and reflecting the real experience of the author.

The ninth edition of WHITE and MARTIN'S *Genito-Urinary Surgery and Venereal Diseases*[3] is a bulky volume of over eleven hundred pages. Obviously it is appreciated; and yet, in spite of the large number of reissues, it is not a satisfying book. With the proportions of a book of reference it does not fulfil the promise of its appearance. The whole of the male genital organs, the urinary system, kidney, ureter, bladder, male and female urethra, and venereal diseases of both sexes are very fully dealt with; there are descriptions of cystoscopes, cystoscopy, the Wassermann reaction, the detection of spirochaetes, the investigation of renal function, and so on, with very little reference to proprietary drugs, and a large number of prescriptions that date from the time when the use of sound pharmacopoeial preparations was better understood than it is to-day. There is, of course, a section devoted to sexual phenomena of the pathological order, but it will do no more harm than turning the curious to a perusal of Krafft-Ebing. There seem to be few errors in matters of fact; it is of small moment, for example, that the pyrexia which so often accompanies syphilis of the liver is not mentioned. It is more to the point that there are numerous tables for differential diagnosis, and that the information is made accessible by a fairly good index.

We have received for review Part XXX of the *Nouveau traité de chirurgie*,[4] published under the direction of MM. A. LE DENTU and PIERRE DELBET. It deals with the diseases of the bladder and the penis, and is written by LEGUEU and MICHON. The volume contains over 300 pages, and abounds in illustrations which adequately illuminate the text. How the publishers can publish such a volume at the price of 6 francs is difficult to understand. The text is admirably written, and sets forth methodically yet succinctly all that may be said to be known on the subject. The authors have wisely left on one side all debatable or hypothetical points and have confined themselves to facts. If we were to select one chapter beyond all others for praise we should choose Chapter VIII, on the functional disorders of the bladder, which is written in masterly fashion, and could have been written by none other than a Frenchman. The only criticism that we could offer on this work is that the references to the literature are chiefly to papers that appeared before 1900. Apart from this we can confidently recommend this work to every one interested in the subject.

BIOLOGY.

PROFESSOR ARTHUR DENDY'S *Outlines of Evolutionary Biology*[5] is a book which is likely to be welcomed by a large number of readers. It fills a gap which has long been waiting to be filled, and the author is to be congratulated upon the success he has achieved by this work. It is well and lucidly written. Being, as it is, free from all but the most imperative technicalities, it should prove of value to all who desire to obtain a clear conception of the current views of biological thought, and not merely to students of biology in the strict sense of the term. The scope of the book may, perhaps, be best indicated by enumerating the titles of the five parts under which the twenty-seven chapters are grouped. These titles are: The structure and functions of organisms, including the cell theory; Evolution of sex; Variation and heredity; Theory and evidence of evolution and adaptation; and Factors of organic evolution. With a programme of such magnitude it speaks well for the author's powers of concise expression when it is said that all these questions are adequately dealt with in the space of 427 pages. Though many of the subjects are still highly controversial, the author places the facts before the reader—with perhaps one or two exceptions—in a very fair and impartial manner. In discussing the phenomena of convergence, of which many interesting examples are cited, attention is rightly drawn to the pitfalls into which the observed phenomena may lead the unwary. As an instance of such, Professor Dendy refers to the fact that more than one observer has been led to "conclude that vertebrates are descended from arthropod ancestors, a conclusion which is by no means justified by the facts." A less debatable pitfall might have been cited as an example, for though the bulk of zoologists are opposed to such a theory, its supporters, though few, are by no means undistinguished, and are not all likely to have fallen into an obvious pitfall. The statement that the conclusion is "by no means" justified by the facts is, perhaps, unnecessarily strong.

Professor Dendy is clearly a believer in the inheritance of acquired characters. It is a problem of prime importance, particularly in the discussion of many of the pressing problems of eugenics. There has been a tendency for some years to regard the non-inheritance of acquired characters as proved, to accept Weismann's theory of the germ plasm as giving the final deathblow. The pendulum is beginning to swing backwards. It is to be hoped that before long some more definite conclusions may be reached upon this vexed question. A point which enhances the value of this book is the fact that the theories dealt with are applied to the vegetable as well as the animal world, and the examples given are almost as frequently botanical as zoological. There are many and good illustrations, and the index is reliable. The author is distinctly to be congratulated.

Professor TIMIRIAZEFF set before himself the very difficult task of giving a popular exposition of the physiology of plants, which has culminated in the publication of a volume entitled *The Life of the Plant*.[6] The subject matter was originally delivered as a course of lectures during the winter of 1876 in Moscow and in a lecture given in St. Petersburg in 1875. These lectures were published in book form which has now reached a seventh edition in Russia. It is this edition that has been translated into English by Miss ANNA CHÉRÉMÉTEFF. That Professor Timiriazeff has achieved his aim the fact that the book has run into so many editions is evidence. The difficulty of writing a really sound and yet popular account of any science is always great, but the difficulty is considerably greater when the science is young and very progressive, as is the case with vegetable physiology. In the *Life of the Plant* the reader will find a clear and accurate account of the present state of our knowledge of the metabolism of plants, the experimental evidence being described in a plain and simple manner. As far as it is possible to judge, the translation has been well done; at any rate the English version reads well.

HEREDITY AND SOCIETY.

THE general theme of Mr. and Mrs. WHETHAM'S book entitled *Heredity and Society*[7] is much the same as that which runs through their previous writings, notably *The Family and the Nation*. Indeed a certain proportion of the subject matter contained in the two books appears to be the same, though in a somewhat different guise. Nevertheless it makes interesting reading, and there is so much sound common sense in many of the conclusions that they bear repetition, and it will be well if the book is widely read.

It is, of course, written from the point of view of eugenics, and the first three chapters are consequently

[3] *Genito-Urinary Surgery and Venereal Diseases.* By J. William White, M.D., and Edward Martin, M.D. Ninth edition. Philadelphia and London: J. B. Lippincott Company. (Roy. 8vo, pp. 1116; illustrations 300; plates 14. 21s. net.)

[4] *Nouveau traité de chirurgie.* No. 30. Publié sous la direction de A. le Dentu et Pierre Delbet. Maladies de la Vessie et du Pénis. Par F. Legueu et E. Michon. Paris: J. B. Baillière et Fils. 1912. (Sup. roy. 8vo, pp. 324; figs. 90. Fr. 6.)

[5] *Outlines of Evolutionary Biology.* By Arthur Dendy, D.Sc., F.R.S., Professor of Zoology, King's College, University of London. London: Constable and Co., Ltd. 1912. (Med. 8vo. pp. 468; figs. 188. 12s. 6d. net.)

[6] *The Life of the Plant.* By C. A. Timiriazeff, Professor Emeritus, Moscow University. Translated from the revised and corrected seventh Russian edition by Miss Anna Chéréméteff. London: Longmans, Green and Co. 1912. (Med. 8vo. pp. 1-370; 85 figs. 7s. 6d. net.)

[7] *Heredity and Society.* By William Cecil Dampier Whetham, M.A., F.R.S., and Catherine Durning Whetham. London: Longmans, Green, and Co. 1912. (Roy. 8vo, pp. 198. 6s. net.)

devoted to a brief summary of the more recent work on heredity, particularly that by the Mendelian school. The value of this work when looked at from the sociological standpoint is very great. The knowledge gained of the inheritability of such conditions as deaf-mutism, amentia and dementia, and of those extremely interesting cases of sex-limited diseases such as night blindness, is of far-reaching importance. A chapter is devoted to "Birth-rate," and once more attention is drawn to the disproportionate rate of increase between the desirable and undesirable sections of the community, leading, as it inevitably must, to a marked lowering of the average efficiency of the race. It might be supposed that the conclusions to be drawn from such facts as Mr. and Mrs. Whetham and others have brought forward on this and previous occasions are so self-evident as to require no reiteration; but the attitude of opposition on the part of some to the recent bill dealing with the mentally defective, and indeed the very slender pretext upon which those in authority "shelved" that bill, proves how little real hold such conclusions have taken. Hence the necessity for constant repetition, in the hope that some day light may penetrate into those darkened recesses where callousness and indifference to the important problems of race betterment at present seem to reign supreme.

The two chapters on the past and present position of women are interesting, particularly at the present moment. With much that is written no doubt the more stalwart champions of women's suffrage will disagree. In the minds of some, to become a wife is sufficiently derogatory, to become a mother the greatest of calamities. This is not the view taken by the authors. Attention is very rightly drawn to the large proportion of the more highly-gifted women who are either unmarried or childless, and thus to the loss of a great national asset in the future. It is a problem of great moment to determine whether the mere fact of the greater strain on the nervous system involved by the so-called higher education of women is in itself the cause of the infertility, or whether it is due to the attitude of mind which encourages the belief that to be unmarried, or if married to be childless, are but degrees of evidence of emancipation and of sex equality.

A comparative study of the birth-rates in different sections of the community tends to the conclusion that there is some voluntary restriction of families, which, however, does not appear to occur in the cases of ministers of religion. This affords the text for an interesting chapter on the biological influence of religion. Education and politics are both dealt with in relation to heredity and to eugenics; and, lastly, there is a chapter entitled, "The Purpose of Life." In this, more philosophic and transcendental problems are touched upon. If creative evolution be intelligible, the conclusion is reached that this evolution has tended through countless æons "to the production of the largest numbers of mankind of the highest mental and physical types." Behind all, there remains the deeper problems of the very existence of life and matter. Two possibilities seem open: Either a "blind inchoate stream of rudimentary consciousness running through the structure of the universe"; or, "the existence of a more definite consciousness, pervading and yet transcending all things." On either view the development of human personalities becomes of transcendent importance. We cannot follow the authors' discussion of questions bearing on these and cognate matters, but it is quite one of the most interesting chapters in a book which is itself full of interest.

NOTES ON BOOKS.

Astonishing Anatomy[1] is very good fun. On the cover, which does not correspond with the title-page—in fact, nothing in the volume corresponds with anything serious—the illustrations are described as "wood cuts, abrasions, finger prints, and thumbnail sketches," but their genus is better indicated by the statement that they are in the same vein of humour as was first worked by the author of *Wisdom While You Wait* and other skits of the like nature. Perhaps the best of them is the "simple diagram" of the fetal circulation in many colours which when held another way is seen to be something more familiar to the average Londoner. But nothing in the book is what it seems, or, at any rate, what the author says it is. There is a *réclame* in the most approved style, of pills made, it is said, entirely by hand, for "see the finger mark on every pill," a chapter on free medical advice in the manner of the Sunday paper, and an interview explaining how to keep a hospital for a second, for which the author, very properly, apologizes. These chapters, it may be objected, have nothing to do with anatomy—nor have most of the others. The author, whose portrait we do not recognize, shows by his title-page that he has some acquaintance with German literature, and that, however eccentric his views on anatomy, he has some knowledge of the proceedings of the Anatomical Association of Great Britain, Ireland, "and especially Scotland."

The edition of *Truth Cautionary List*[2] for 1913 was issued recently. The list is a recapitulation of advice and information respecting individuals or combinations of individuals given from time to time in the columns of *Truth*. It is not designed to pillory persons as dangerous characters, but to inculcate caution in parting with money for purposes of one kind or another. That there is great need for such advice as is given cannot be doubted, and that the annual volume, which has now been issued for ten years, has proved of great use to the public is shown by the increasing demand for it. The information in the present issue is brought down to December, 1912. Notices are classified under various heads, such as religion and philanthropy, begging letter writers, medical quackery, bucket shops, and so on.

Under the title of *Coprostasis*,[3] Sir JAMES SAWYER has published a reprint of a few chapters taken from his book *Contributions to Practical Medicine*. Constipation is a frequent and troublesome accompaniment of many disorders of health, but it is best considered in its relationship to the condition upon which it depends, though in the minds of some who suffer from it it becomes of itself a serious disease. The author has done well to give his professional brethren the advantage of his experience, though we could wish he had chosen a subject offering a field of greater breadth of investigation, and one affording a wider scope for the exercise of the originality he is known to possess. Is he quite sure that if defaecation be put off, "the distended rectum empties itself, if it can, backwards into the sigmoid flexure, and the returned faeces are held up there if possible"? Among details of treatment suitable daily exercises are suggested, "such as, for example, running upstairs by taking two steps of the stair at each stride, which is an excellent exercise for giving a fillip to the sluggish parts." It is also recommended "to sleep for the former portion of the night upon the right side, and for the later portion upon the left side." These are counsels of perfection which may not have occurred to every practitioner of the art of medicine, but difficulties in their fulfilment, as well as doubts regarding their universal applicability, will occur to many readers. The hints on treatment are valuable, but there is little reference to the newer medicaments, some of which have proved so successful in assisting Nature to the satisfactory re-establishment of rhythmic regularity in a normal function of the economy.

By those who are preparing for one or other of the examinations for sanitary inspectors, Mr. COWDEROY'S *Pocket Notes and Remembrancer*[4] may be found useful as a reminder of what they have already learnt. The information given is for the most part reliable, and it is set out in a form that makes reference easy. The chapter on meat inspection, which forms nearly one-fourth of the whole book, is very well put together, and contains some practical hints which should be useful, especially to those inspectors who have not had much experience in such work. A knowledge of the contents of this chapter might save an inspector from many pitfalls.

[1] *Astonishing Anatomy*. By Tingle (the rest of the title-page is too complicated to copy). London: Sir Isaac Pitman. 1913. (Cr. 8vo, pp. 88. 1s. net.)

[2] *Truth Cautionary List, 1913*. London: Truth Publishing Company, Limited. 1913. (Cr. 8vo, pp. 130. 1s. net.)

[3] *Coprostasis: Its Causes, Prevention, and Treatment*. By Sir James Sawyer, F.R.C.P. Birmingham: Cornish Bros. 1912. (Demy 8vo, pp. 74. 2s. 6d. net.)

[4] *Pocket Notes and Remembrancer for Sanitary Inspectors and all engaged in Public Health Work*. By J. T. Cowderoy. Fourth edition. London: The Sanitary Publishing Company, Limited. 1912. (Pott 8vo, pp. 135. 2s. net.)

MILK-BORNE EPIDEMICS OF SORE THROAT.

IN the early weeks of 1912 an extensive epidemic of sore throat occurred in Baltimore, and was eventually shown to be associated with the milk supply of a single dairy.

Hamburger first called attention to this outbreak in March, 1912, and a more detailed account by the same writer appeared in the *Bulletin of the Johns Hopkins Hospital* for January, 1913, together with a summary of other similar epidemics.

EPIDEMIC AT BALTIMORE.

A sudden increase in the number of cases of sore throat was noticed in the second week of February, and the epidemic was practically over by the middle of March. In association with tonsillitis there was great enlargement of the lymphatic glands in the neck, which, however, usually subsided without suppuration. Hamburger records 92 cases of illness which occurred in 35 households. The attacks appear to have been about equally frequent in children and adults. Forty-five of the cases were in children from 4 months to 15 years of age, and 47 in persons aged from 16 to 65 years. Females were attacked twice as frequently as males in this series. There were 16 deaths, 11 in children and 5 in adults. Nine of the fatal cases ended as acute peritonitis and 1 as erysipelas. Among the other clinical complications noted were otitis media and multiple arthritis, resembling acute rheumatism.

Frost, who, after the epidemic was over, investigated all the available evidence, was able to collect notes of 600 cases of sore throat, but considered that at least 2,400 cases really occurred. He found records of 26 deaths certainly due to the epidemic disease.

The evidence inculpating a single dairy was very strong. Of 35 households investigated by Hamburger, which were all supplied by this dairy (Dairy XYZ), 33 were affected by the disease and afforded 90 cases of illness. Thirty-seven other households, which were supplied by other dairies, yielded only six cases of sore throat. Of 16 fatal cases, all but 2 had been supplied with milk from Dairy XYZ.

At this dairy the milk was usually pasteurized, though the "flash" method employed was not a satisfactory one, the milk being nominally heated to 160° F. for one to three minutes. The heating of the milk was moreover entirely omitted from January 28th till about February 5th. This period coincides with the probable dates of reception of the infection in the cases which occurred in the sudden outbreak. In the latter part of the epidemic the disease appears to have been communicated directly from one patient to another. No evidence could be obtained of any disease amongst the persons employed on the farms supplying the milk nor at the dairy, and the milch cows were stated to be healthy.

EPIDEMIC AT BOSTON.

Two similar epidemics occurred in 1911–12 in the United States—one in Boston and its neighbourhood and the other in Chicago. At Boston the main epidemic began suddenly and lasted from May 11th to 28th, 1911. The recorded cases numbered 1,043. Winslow, who reported this epidemic, found that of 304 cases of tonsillitis in Brookline 198, or 65 per cent., used milk from a certain dairy, and of the 48 fatal cases 29, or 60 per cent., had taken the same milk. No disease was found amongst the cows supplying this dairy, but attacks of sore throat like those occurring in Boston had been frequent for some time in the district from which the milk was derived. The milk was not pasteurized at this dairy. The general hygienic arrangements and the bacteriological quality of the milk were very good.

EPIDEMIC AT CHICAGO.

The number of persons who suffered in the Chicago epidemic was estimated by Capps at 10,000, and the fatal cases at 200 to 300. Inflammation of the fauces, high fever, and enlargement of the cervical lymphatic glands were the common symptoms, and skin eruptions, arthritis, nephritis, bronchopneumonia, endocarditis, and fatal peritonitis were among the complications observed. In one series of 173 cases 19 deaths occurred.

Capps and Miller investigated 622 cases in respect of their milk supply, and found that of these 539, or 87 per cent., had their milk from one dairy (Dairy X). Of 19 fatal cases investigated, 15, or 79 per cent., occurred in houses which took milk from Dairy X. The houses in three widely separated districts in Chicago were canvassed to ascertain the dairy from which they obtained their milk. It was found that the morbidity in houses served by Dairy X was fourteen times as great as that in houses served by other dairies. The cases of sore throat occurring amongst hospital nurses yielded valuable information since the nurses were under close supervision. Of 153 nurses in hospitals which used X milk, 80, or 53 per cent., were attacked, whilst of 721 nurses in other hospitals only 35, or 4.8 per cent., had similar illnesses. The experience of one children's hospital was particularly instructive, for whereas a large number of the nurses who took X milk fresh from the dairy were attacked, the occupants of the 70 children's beds, who took milk which had been pasteurized after delivery, all escaped.

Investigation showed that though the milk was nominally pasteurized at the dairy, the method in use was the inefficient "flash" method, and had moreover broken down. It was proved that the temperature to which the milk was exposed had fallen to 130° F. on several days. The days on which failure in this respect occurred were December 17th, 18th, 29th, and 30th, and January 7th and 11th. The epidemic began on December 21st, was at its height on the 25th, and attained a second maximum on January 1st. Allowing for the lapse of three to seven days from the pasteurization of the milk to cover the delay before it was consumed and the incubation of the disease, the dates of failure of pasteurization corresponded very well with the dates on which the greatest numbers of fresh cases of sore throat occurred.

An excessive prevalence of sore throat was found to have existed about this time in Batavia, the district in which the X dairy had its centre and pasteurizing station. On eleven of the farms which sent milk to the X dairy, 29 cases of sore throat were known to have occurred.

On nine of these farms cases of mastitis had occurred among the cows, and this disease was said to be unusually prevalent in the district about this time. In 84 herds, consisting of 1,848 cows, which sent milk to Dairy X, 85 cases of mastitis were known to have occurred during December, 1911, and January and February, 1912.

BACTERIOLOGICAL INVESTIGATIONS.

At Baltimore a streptococcus was isolated from the throats of patients, from the ear in cases of otitis media, and from the exudate in cases of fatal peritonitis. All the strains were of similar morphology, and gave uniform cultural reactions. The micro-organism appeared in the exudate as a diplococcus with a small capsule. On blood-agar plates a slight halo of haemolysis was formed. J. D. Davis studied forty-five strains of streptococcus which he isolated from cases of illness in Chicago, and compared them with strains from cases occurring in the Boston epidemic, and from a case of mastitis in a cow. He found that the human strains were indistinguishable, and closely resembled the bovine strain. These strains of steptococcus had the same characters as those isolated at Baltimore. Davis described an additional characteristic of his strains —namely, the production of multiple non-suppurative arthritis in rabbits when very small doses were injected intravenously. Larger doses caused the death of the animals.

E. C. Rosenow also made a careful investigation of the Chicago strains, and considered them closely related to the *Streptococcus pyogenes*, but possessing distinguishing characters. The imperfections of the methods available for the differentiation and classification of the streptococci unfortunately render the identification of members of this group of micro-organisms a matter of great difficulty and uncertainty.

EPIDEMICS IN EUROPE.

Epidemics of sore throat, in which the infection has been traced to the milk supply, have been recorded from time to time in this country. In 1912 Savage[1] was able to collect data of eighteen such epidemics in Great Britain,

[1] *Milk and Public Health*, 1912.

Nine of these assumed large proportions, the cases of illness numbering from 80 to 600, and in at least three of these outbreaks deaths occurred from septic complications. In twelve or thirteen of the epidemics the infection was clearly traced to a single dairy.

Disease of the dairy cows was established in connexion with eight out of the eighteen outbreaks. On four farms cows were found to be suffering from inflammation of the udder, and on four from ulceration of the teats.

Beside the outbreaks recorded in Great Britain a large epidemic of at least 548 cases of sore throat occurred in Christiania in 1907, and was recorded by Sömme. The milk from a certain farm was indicated as the source of infection by the distribution of the disease, and a cow with suppuration of the udder was found in the herd supplying this particular dairy.

Etiology and Prevention.

The clinical features of milk-borne epidemics of sore throat are of especial interest on account of the great resemblance of the symptoms to those occurring in scarlet fever, and also because of the frequency of arthritic complications resembling acute rheumatism.

The difficult question as to the ultimate source of infection in these and similar epidemics has been thoroughly discussed by Savage. The bacteriological and experimental evidence, as far as it goes, seems to point to the infection being derived from human cases of illness. That ordinary garget or mastitis of the cow can be a source of human infection is by no means established, and such direct experimental evidence as there is tends to discredit this idea. It is, however, possible that in some instances infection may be communicated to a cow by the hands of a milker, and that inflammation of the udder may be caused in this way. Streptococci which are virulent for man may then be passed on by means of the milk to the human consumers.

In any case the lesson taught by the experience gained in these epidemics in the United States and elsewhere is that emphasized by the writers named above—namely, that besides a careful inspection of cows, milkers, and dairies, efficient pasteurization or boiling of the milk is the only means of insuring against epidemics like those which have recently occurred in America.

DIET OF THE LABOURING CLASSES.

The Corporation of the City of Glasgow has just published an exceedingly interesting report upon the dietary conditions of the poor in the city.[1] The work was carried out in the Physiology Department of the University under the direction of Professor D. Noël Paton.

Such a report with the evidence which it contains gives much food for thought. Who is responsible for the conditions which lead to the state of poverty and bad nutrition disclosed by this report? Lies the fault with the poor themselves—is it because they are thriftless, because they lack training in cooking and in the economical spending of such income as they possess? Or is it that the actual wages which they can command are so low that it is impossible for them to purchase the actual necessities of life? Whatever the cause, the fact remains that from the evidence collected by Miss Lindsay there must be a large percentage of the people in Glasgow to-day who cannot obtain the bare minimum in the way of food.

Studies of the dietary conditions of various towns have frequently been published in America, and of York, Dublin, and Edinburgh in Britain, but so far no study of a large manufacturing city like Glasgow has been attempted in this country.

The report opens with an introduction by Professor Noël Paton who explains the reasons for undertaking the study. As he rightly points out, the significance of the truism that the prosperity of a city depends largely upon the health and vigour of its labouring classes is not always fully appreciated judging from the scant attention paid to the factors which influence the vigour of a community.

The question he asked was, "Do the working classes of this city get such a diet as will enable them to develop into strong, healthy, energetic men, and, as men, will enable them to do a strenuous day's work, or are the conditions of the labouring classes such that a suitable diet is not obtainable? Further, if a suitable diet is obtainable and is obtained, is it procured, or can it be procured, at a cost low enough to leave a margin sufficient to cover the other necessary expenses of the family life with something over for those pleasures and amenities without which the very continuance of life is of doubtful value?" He then goes on to point out how even a very small weekly contribution to insurance "for problematic benefits in future years" may so decrease the expenditure on the family diet as to give rise to imperfect physical development not only of those struggling to live but of those yet unborn. He also gives a very useful summary of the dietary requirements of a man doing hard work, and discusses briefly the nature and the composition of an ideal diet. In discussing the causes of the poor dietary conditions, he finds that ignorance of cooking and bad marketing, as well as penury, play their part.

Miss Lindsay investigated sixty families of the poorest districts in Glasgow (Cowcaddens, Anderston, Bridgeton, Gorbals, and Woodside.) These families lived in houses of one or two rooms, and had from three to ten children. The weekly wages varied between 13s. and 60s., and were in some instances regular and in others irregular. So far as could be determined the housing factor was approximately constant, so that any variations found were due to the diet.

The various families were classified in ten groups:

Income Regular.

Group A.—Children Earning, Average Wage, 39s.

This group, which consisted of seven families, was made up of decent, hard-working people. They showed, however, little foresight in their expenditure on food, and the marketing was bad. Out of the seven diets only one exceeded the standard laid down for hard work.

Group B.—Lodgers Kept, Average Wage, 43s.

In this group of eight families, one household had an income of 60s. a week. In some of the families the steadiest source of income was the lodgers' money. The value obtained for the expenditure was good on the whole. The most extravagant household in the series was found in this group, where 5 lb. of ham and seven dozen eggs were used in a single week.

Group C.—Average Wage, 27s. to 31s.

This group consisted of three families, all with a high standard of comfort. These families belonged to the artisan rather than to the labouring class. The food was good, although the expenditure was high.

Group D.—Average Wage, 20s. to 25s.

The ten families in this group belonged to the average poorer working classes. On the whole the houses were good and well cared for, and in this group the best housewife of the whole series was found. As an example of her marketing capacity the purchase of 4 lb. of halibut (in good condition) for 2d. is cited. The value obtained in the group for its expenditure was good.

Group E.—Average Wage below 20s.

In this group, which consisted of five families, the diet was poor and inadequate. The houses in which they lived were poor and dark, although they were not badly kept. Not a single diet in this group reached the minimum standard.

Income Irregular.

Group F.—Average Wage over 20s.

In the seven families of this group days of feeding and of starvation were found more or less to alternate. Although miserably poor, these families were found to take life as a rule more hopefully and easily than those with a regular income. No thrift was attempted in the majority of cases. In this group was found the best kept house of the whole sixty visited.

Group G.—Average Wage under 20s.

This group consisted of eight families where hand-to-mouth living was the rule. Naturally, in this group the

[1] Report upon the Study of the Diet of the Labouring Classes in the City of Glasgow carried out under the Auspices of the Corporation of the City. By Dorothy E. Lindsay, B.Sc., Carnegie Research Fellow, with an introduction by Professor D. Noël Paton, Physiology Laboratory, Glasgow University. (Issued by the Corporation of Glasgow.)

value of the diets showed great variation. In one, where oatmeal formed the staple, the value obtained was very good, and the children were strong and healthy. In this group, in a fourteen-day study, one household was investigated where the total income one week was 13s. and on the following between 10s. and 11s.

Group H.—Father a Drinker.

In the four families of this group the father in each case was a drinker. The diets were not excessively bad, although they were markedly deficient.

JEWISH.

The houses occupied by the five Jewish families forming Group K were larger and better furnished than the average house visited. The cost of living was in these families artificially heightened, as "kosher" meat is more expensive. Curiously enough, when compared with the preceding families, the value obtained for the expenditure was small. To a certain extent this was due to the fact that a chicken or a portion of one was a weekly purchase. Still, these families were far from extravagant, as in one case a family of two adults and ten children are reported as sitting down contentedly to a dinner where half a chicken was the chief item.

ITALIAN.

Group L consisted of three Italian families. The studies in these cases were difficult to carry out and required very careful supervision. Although these families did not live in the true Italian style, macaroni was freely used. The value obtained for their expenditure was not very good.

NATURE OF DIETS.

Viewing the various diets as a whole, it was found that they were characterized by a lack of variety. Bread, butter, sugar, tea, and beef were found in all without exception. Fish was little used by the British families. Cheese was only used in small amounts in forty-one families. Butter was always used in preference to margarine, as those who used the latter product were looked down upon by their neighbours. Oatmeal was used in forty-six families only, and the average amount per man per day was less than 1 oz.

WAGES AND FOOD.

In discussing the relation of wages to food, it is pointed out that 28.5 per cent. of the families whose weekly income is over 20s., and of those whose weekly income is under 20s., or irregular, 62.5 per cent. have a diet the energy value of which is less than 3,000 calories, a value which is too low for the purposes of ordinary hard work. Miss Lindsay concludes this section of her report by definitely stating that the figures which she has obtained "show conclusively that while the labouring classes with a regular income of over 20s. a week generally manage to secure a diet approaching the proper standard for active life, those with a smaller income and those with an irregular income entirely fail to get a supply of food sufficient for the proper development and growth of the body or for the maintenance of a capacity for active work."

GENERAL CONCLUSIONS.

In the second part of her report Miss Lindsay deals with certain individual problems arising out of her investigation.

1. *The Method in which the Income is Expended.*

She has examined the expenditure on rent and food and the surplus available for other expenses, and has compiled the following table:

	Percentage of Income Expended.		
	On Rent.	On Food.	Surplus.
A, B, C, regular, above 25s.	11.9	61.9	27.1
D, E, regular, under 25s.	15.3	67.3	17.4
F, G, irregular	16.0	75.5	8.5
H, irregular, drinkers...	17.9	86.9	−4.8

It is clear that even with a regular income the amount of money left over—some three or four shillings—for clothing, fuel, taxes, amusements, etc., cannot be said to err on the side of abundance.

2. *Comparison of Urban and Rural Diets.*

In this section she shows that the energy value obtained by the rural classes is distinctly higher than that obtained by the town dweller. She finds that the figures for Edinburgh and Glasgow agree very closely, and she compares with the two Scottish cities the figures obtained for New York and for York (England):

	New York.	York.	Edinburgh.	Glasgow.
Rent, percentage of income	15	18	13	13
Food ,, ,,	35	51	62	65
Other expenses ,,	50	31	25	22
Cost per man per diem ...	10.05	5.93	7.29	7.07

3. *Relation of the Physique of the Children to the Diet.*

This section of the report was carried out with the co-operation of Dr. Chalmers, Medical Officer of Health to the City of Glasgow, and Dr. Roberts, Chief Medical Officer to the Glasgow School Board.

Miss Lindsay finds that when the weight of the child at a given age is much below the average for that age it is found, almost without exception, that the diet is inadequate. An attempt was made also to determine the part which an inadequate diet played in the genesis of rickets, but the data obtained were not sufficient to enable her to draw any very satisfactory conclusions. One fact was determined, however, and that was in those families in which overcrowding took place rickets was found.

RECOMMENDATIONS.

In bringing her very interesting report to a conclusion Miss Lindsay states that in her opinion bad marketing is one of the main contributing factors to the poor dietary conditions, and advocates proper school training in cooking and marketing as the best corrective. She maintains that greater use should be made of cheese and the vegetable foods like oatmeal, peas, beans, etc., which are rich in protein. She admits that there is a difficulty in preparing these foods, but rightly states that "if the diet of the labouring classes is to be improved, without increasing the cost, time and labour must be expended on properly cooking these more nutritive vegetable foods."

ROYAL MEDICAL BENEVOLENT FUND.

AT the March meeting of the Committee, thirty cases were considered, and grants amounting to £264 made to twenty-five of the applicants. Appended is an abstract of the cases relieved.

1. Daughter, aged 69, of late M.R.C.S. Used to be a matron of a private asylum, but had a serious accident a few years ago, and is now practically dependent on her friends. Voted £10.

2. Daughter, aged 74, of late M.R.C.S. Maintained herself for many years as a governess, but is now incapacitated by chronic arthritis. Only income £11 a year. Voted £10.

3. Daughter, aged 66, of late M.R.C.S. Was formerly a governess or companion, but had to undergo two serious operations, and now finds regular occupation impossible. Voted £12.

4. M.R.C.S., aged 78. Has practised near London for many years, but had a serious accident six months ago, and has in consequence lost most of his patients. Voted £10.

5. Widow, aged 34, of M.R.C.S. Lost her husband a few weeks ago, and finds that when his affairs are settled there will be very little left out of the sum for which he was insured. Voted £5.

6. Daughter, aged 45, of late M.R.C.S. Kept house for her father for some years after old age compelled him to retire from practice, and at his death, when nearly 90, was quite unprovided for, as his savings had been unavoidably spent. Has been trying to support herself, but is at present in very bad health, and entirely dependent on her friends. Voted £10.

7. Widow, aged 47, of L.R.C.P., L.R.C.S.I. Since husband's death has supported herself as governess or companion, but at present has no post, and is in temporary difficulties. Voted £10.

8. Daughter, aged 61, of late M.R.C.S. No income, and maintains herself and an elder invalid sister by making blouses. Relieved twice, £24. Voted £12.

9. Daughter, aged 57, of late M.R.C.S. Has been a chronic invalid for many years, and is consequently entirely dependent on this fund and a sister who allows her 7s. 6d. a week. Relieved fifteen times, £173. Voted £12.

10. Daughter, aged 62, of late L.S.A. Has maintained herself for several years by letting lodgings, but is in ill health and finds increasing difficulty in doing the necessary house work. Relieved four times, £48. Voted £12.

11. Widow, aged 68, of M.D., C.M.Glasg. Is allowed £14 a year by the Working Ladies' Guild, and receives a little help from a son earning 25s. a week. Health very feeble for many years past. Relieved thirteen times, £148. Voted £12.

12. Widow, aged 68, of L.R.C.P.Edin. No income, and practically dependent on a daughter earning £1 a week as a cashier; health indifferent. Relieved eight times, £84. Voted £12.

13. Widow, aged 63, of M.R.C.S. Health feeble, and consequently finds the help given by her sons, who only earn small weekly wages, insufficient for unavoidable expenses. Relieved fourteen times, £159. Voted £12.

14. Widow, aged 39, of L.R.C.P., L.R.C.S.I. Lost her husband fifteen months ago from new growth, and endeavours to support herself by taking boarders. Two children, aged 8 and 7, the elder a candidate for an institution. Relieved once, £10. Voted £10.

15. Widow, aged 89, of M.R.C.S. Income about £32 a year. Children unable to help. Relieved eight times, £61. Voted £12.

16. Widow, aged 56, of M.R.C.S. No income and so crippled by rheumatism that self-maintenance is impossible. No children. Relieved ten times, £94. Voted £12.

17. Daughter, aged 64, of late M.R.C.S. Takes boarders and receives a little help from relations, but is unable to meet her unavoidable expenses without the assistance of this fund. Relieved six times, £72. Voted £12.

18. Widow, aged 72, of M.R.C.S. Left quite unprovided for at husband's death and supported herself for several years by massage, but is now dependent on an old age pension and a son-in-law, who can ill afford to help. Relieved three times, £30. Voted £10.

19. Widow, aged 55, of L.S.A. Endeavours to maintain herself by taking boarders; health indifferent. Relieved seven times, £76. Voted £12.

20. Daughter, aged 49, of late M.R.C.S. No income and finds great difficulty in obtaining suitable occupation. Relieved twice, £15. Voted £12.

21. Widow, aged 55, of L.R.C.P., L.R.C.S.Edin. No income; no children; health too feeble to allow regular occupation. Relieved nine times, £94. Voted £12.

22. Widow, aged 67, of M.D.Edin. Supplements help given by friends by taking a boarder, but at present is without one. Relieved three times, £18. Voted £6.

23. Daughter, aged 65, of late M.D.Edin. Maintained herself for several years, but is now dependent on friends. Relieved twice, £20. Voted £10.

24. Daughter, aged 54, of late M.R.C.S. Is obliged to live with and nurse an invalid mother, whose income is less than £15 a year. Relieved once, £12. Voted £12.

25. Widow, aged 72, of M.R.C.S. Only income, £21 a year, which is insufficient for expenses necessitated by applicant's age and infirmities. Relieved twice, £10. Voted £5.

Contributions may be sent to the honorary treasurer, Dr. Samuel West, 15, Wimpole Street, London, W.

LITERARY NOTES.

DIONIS, who was surgeon-in-chief to the Dauphiness of France in the early part of the eighteenth century, left an amusing account of some of the principal quacks who preyed on the Parisians of the day. In *Paris médical* M. René Le Roy gives a long extract from the *Neuvième démonstration du cours d'opérations de chirurgie de Dionis* (2e édition, 1714), from which we take a few particulars. The chief place in the fraternity of quacks is assigned to Caretto, an Italian who called himself a marquis. He sold a wonderful remedy of his own invention at the rate of two louis d'or a drop. He was taken up for a time by the court, but the death of the Marshal de Luxembourg under his hands brought his vogue to an end. Then there was an "apoticaire du Comtat d'Avignon," who advertised a pastille which no disease could resist. It was composed of sugar and arsenic, the poison being unequally distributed, so that there was only a small amount in some of the pastilles while others contained 2 grains or more. The alarming effects of the stronger one brought the panacea into discredit. Frère Ange, a Capuchin, had been servant to an apothecary, from whom he learnt to compound a few medicines. His own specific was a syrup which he called "mesenteric." This he gave to all who sought counsel of him, as he attributed to it a selective action whereby it purged the body of whatever might be the peccant humour. He also vaunted a "vegetable salt" of his own preparation as possessing greater virtues than all the drugs used by the doctors. With these two remedies he drove a thriving trade. His fame reached the Court, and he was called in to the Dauphiness. Dionis says he was an honest man, and readily disclosed the composition of his remedies to the physicians in attendance, who consented to their being tried. It would seem they had little choice in the matter, as the royal patient had made up her mind to take them. She did so for a fortnight, when finding they did her no good she dismissed the Capuchin. Another clerical quack in whose hands the same princess placed herself was the Abbé de Belzé, a Norman priest, who purged her twenty-two times within the space of two months. After four months of this treatment she was worse than when she began it. He in his turn was dismissed. Two of the Dauphiness's women, wishing to please their mistress, put themselves under his treatment, to the violent effects of which they both succumbed. A third quack who was recommended to the Dauphiness was one du Cerf, whose nostrum was an oil or essence of guaiacum; this, he boasted, would make those who used it, externally or internally, immortal, as it cured all diseases. This man was not admitted to the princess till the day of her death. After feeling her pulse and palpating her abdomen he declared that he could cure her with an enema containing his essence, which would clear the belly of all impurities. He went off to prepare the enema, but the poor lady escaped his ministrations by dying before he came back. Naturally he attributed her death to the fact that she had not had the benefit of his treatment. The reputation of his elixir of immortality received a mortal blow by his own death, which occurred soon afterwards. Later there came on the scene at Versailles one Bouret, who professed to cure every kind of disease by means of certain marvellous pills. He was presented to Louis XIV, who was sufficiently interested in the matter to suggest that the composition of the pills should be disclosed to his physician Fagon, on the understanding that a considerable sum should be paid for the secret if the remedy seemed likely to be useful. Bouret at first declined the offer, but, changing his mind, was intriguing to obtain a renewal of it when he was attacked by an inflammatory affection of the abdomen. He would take no remedy but his own pills, which, according to Dionis, so much aggravated the inflammation of his bowels that he died on the fourth day. These are only a few among the quacks who in the early years of the eighteenth century found ample scope for the exercise of their peculiar talents in Paris. Dionis, after warning the public against ignorant pretenders, gives an interesting view of the regular profession in Paris at the time he wrote. He says:

> The Paris Faculty of Medicine is composed of more than 100 doctors, all very skilful, while the company of Saint Côme consists of more than 200 Master surgeons who all have given proofs of their skill by a "master-piece" of twenty-five acts, both on the theory of their art and on the practice which they have had before their incorporation into that celebrated company. These two bodies, fertile in learned and experienced persons, have always surpassed all others in Europe, and all those who in a spirit of presumption have ventured to measure themselves against them have been forced to acknowledge their superiority.

Dionis evidently felt, and wished others to feel, that he was a citizen of no mean city.

In an article on David Livingstone, by the Rev. Dr. Norman Maclean, in the *Scotsman* newspaper for March 15th, it is pointed out that the Livingstones came originally from Ulva, one of the Argyllshire Hebrides, and were Gaelic speaking. Dr. Livingstone himself thought that his name in Gaelic was *Mac an leath*, "son of the grey-headed"; but Dr. Maclean says that it is *Mac an leigh*, "son of the physician," or, as we might say, Doctorson or Leechson. This question may be left to Gaelic-speaking medical men to decide, but any one can convince himself that *leigh* means a doctor, for the Gaelic Bible gives the well-known proverb "Physician heal thyself" as *A léigh leighis thu séin*. There is, however, a matter which suggests itself for inquiry at the present time when the Livingstone centenary is being celebrated: it is the question why on the tombstone to the great explorer in Westminster Abbey there is no word to indicate that he was a medical man. He is called "missionary, traveller, philanthropist," but not physician.

British Medical Journal.

SATURDAY, MARCH 29TH, 1913.

SUPERANNUATION FOR MEDICAL OFFICERS OF HEALTH.

IN our Parliamentary Notes last week it was mentioned that the bill of the British Medical Association for the superannuation of medical officers of health had been introduced into the House of Commons by Sir Philip Magnus, and had been put down for second reading on April 18th. This is not the first attempt the Association has made to secure for public health officers a much-needed reform. In the session of 1903 Sir Francis Sharp Powell introduced for the Association a bill with a like purpose, which was supported, as is Sir Philip Magnus's bill, by members of both political parties. Of those members who backed the earlier measure, Mr. Henry Hobhouse and Sir C. A. Cripps are still in the House of Commons. In the session of 1911 Dr. Hillier introduced a superannuation bill which was backed by Mr. Henry Forster, Sir Clement Hill, Colonel Hickman, Mr. John Robertson, and Mr. Barnes. It will be seen, therefore, that the principle of superannuation for medical officers of health is supported by a large number of prominent members of the present House of Commons, including two members of the Government. The principle was also strongly advocated by the Royal Sanitary Commission of 1869, of which Sir Charles Adderley was chairman. In a memorandum on duties of medical officers of public health, prepared by some members of that commission, it is stated that "to a provision for superannuation, or any other which might put public medical health officers on an equal footing with other branches of the Civil Service, we attach great importance."[1]

The present bill would enable fixed contributions to be made by medical officers of health towards a fund from which superannuation allowances would be drawn. As it is impossible to say whether these contributions will make the fund self-supporting, it is proposed to provide that any deficit shall be made up out of moneys provided by local authorities. In any case the deficiency cannot be very great, as the number of officials concerned is under 2,000, and any deficiency that did occur would be more apparent than real, for a newly appointed officer rarely receives at the beginning of his career as large a salary as his retiring predecessor, and the difference between the two salaries would in many instances more than compensate for any contribution that had to be made towards a superannuation allowance from local funds. The position taken up by some local authorities may be gathered from a report adopted by the County Councils Association on July 25th, 1911, in which it was pointed out that a superannuation scheme could not be regarded as solely for the benefit of the employees, for the question of retirement, upon which superannuation depended, was at least as important for the employer, and it might fairly be said that the primary object and effect of such a scheme was to secure efficient service even more than to benefit the employees.

Many other reasons might be adduced in favour of superannuation, including the increased flow of promotion, carrying with it greater popularity of the service among younger men, and the greater contentment among those already in the service through the removal of anxiety as to the future. These and other considerations no doubt largely account for the readiness with which many employers of labour deem it prudent to make provision for the superannuation of their employees, and for the recognition by successive Governments of the importance of establishing suitable superannuation schemes for State officials.

If it is asked why medical officers of health should be subject to superannuation more than other public officials, it may be replied that the majority of other officials can already claim superannuation. Medical officers connected directly with the civil service, Poor Law medical officers, and medical officers of asylums have all their superannuation schemes, some on a contributory basis, but all in the nature of deferred pay. One of the principal arguments in favour of the superannuation of asylum officials, which no doubt weighed with Parliament when the Asylums Officers' Superannuation Act, 1909, was under consideration, was that these officers held positions of great responsibility and were subjected in consequence to considerable mental strain. The same applies equally to medical officers of health, whose responsibilities are increasing year by year, and who are required to give advice which must be of the highest quality, for upon it may depend the well-being and indeed the very existence of their fellow men. A further important circumstance must also not be forgotten. It is that during the past few years an increasing number of medical officers of health have been appointed who are debarred from private practice, and whose incomes, as well as being non-elastic, are in many instances so meagre that it is impossible for them to make suitable provision for the time of their retirement. Unless they are compelled, as the bill seeks to compel them, to contribute to such provision, they will be obliged to cling to their posts long after, as they would be the first to admit, they ought to give place to younger men. The passing of the bill into law is thus eminently in the public interest, and we have every confidence that those members of Parliament who give to it serious consideration will support Sir Philip Magnus and his colleagues in seeking to pass into law a measure which, though primarily affecting only a few hundred public officials, in reality is of the greatest concern to the inhabitants of the whole country.

[1] Second Report of the Royal Sanitary Commission, vol. ii, p. 354. 1871. (C. -281. -1.)

BIOLOGICAL REACTIONS IN PREGNANCY.

IT is good for our modesty to realize that the improved recovery rates shown in reports on puerperal eclampsia have been reached by methods founded mainly on empirical grounds, and that on this field is being fought out the movement at present evident from more active measures towards conservative systems such as that associated on the Continent with the name of Stroganoff. A scientific basis for treatment is still in the crucible, and the keenness of controversy shows no signs of approaching solidification.

Opinions are not yet agreed as to whether normal pregnancy is to be deemed an exhibition of parasitism or a mutually advantageous symbiosis.

Possibly these should be taken as the terms of a continuous scale of association where the point of transition is not well marked, and where an associate—such, for example, as the *Bacillus coli*—may shift from the safety to the danger side. Possibly, too, we are misled by the nearness of our standpoint to consider pregnancy as a continuing condition, whereas it is biologically a transitory but recurrent one. It is certainly the rule that offspring is biologically a sacrifice to the race and not a source of profit to the parent.

The tools which in recent years the physiological chemist and the parasitologist have developed for the attainment of knowledge have been as yet but sparingly used for the investigation of pregnancy. Seven years ago[1] we gave a systematic account of the investigations that had been carried on with regard to metabolism during pregnancy, showing that, though there was some evidence of nitrogenous loss in the early months, there was evident nitrogen retention during the later months. Dr. Leith Murray of Liverpool has in a recent article[2] given a review of the work done during the last few years, especially on the parasitological side. As Dr. Murray points out, the work is very new and largely unconfirmed. As yet general conclusions cannot be drawn with safety, but some attempt may be made to indicate the direction in which the evidence is leading us.

The desire to explain the startling phenomena of eclampsia readily led to a consideration of the also startling condition of anaphylactic shock, and yet, as Dr. Murray insists, the two conditions are contrasted rather than analogous. The asthma, the depression of blood pressure, and the lowering of temperature seen in anaphylaxis are not characteristic of eclampsia. It is, however, practicable to produce experimental anaphylaxis to placental extract, and in the early part of pregnancy there seems to be already some sensitization to it. Eclampsia is typically an event of later pregnancy. The difference between early and late pregnancy shows itself again both in the complement fixation experiments, which give positive results only about the second and third months, and in the antitoxin reaction in Weichardt's diffusiometer, which is best marked towards the end of pregnancy. In the complement fixation experiments the antigen is prepared from the villi of early pregnancy. The result of some precipitin experiments with liquor amnii showed no evident difference between pregnant and non-pregnant serum.

Serological methods may be applied to the diagnosis of pregnancy, and in this connexion the power of the serum of pregnancy to break up placental albumen has given Abderhalden two reactions of value. A polarimetric reading gave correct results in 75 cases, and a reaction by dialysis, best marked in early pregnancy, had been detected as early as the second week. The serum of pregnancy shows, especially during the first half, an increased antitryptic power, as do fevers, carcinoma, and a few other conditions, and, except at the early part, there is an increase in the lipoid content and a definite cholesterin reaction.

There is some evidence that cases of eclampsia give transitorily a positive Wassermann reaction, but more interest is probably due to the comparison which Dr. Murray has already made in the Obstetrical Section of the Annual Meeting of the British Medical Association at Liverpool and elsewhere between eclampsia and cobra venom poisoning. Analysing the lesions of eclampsia Murray argues for haemolysis, haemoagglutination, fibrinous thrombosis and endotheliolysis, and adds on clinical evidence a neurotoxic element. We may recall how far Dienst made thrombosis go in explaining the phenomena of eclampsia.[3] In the lesions as well as in the clinical characters of cobra poisoning Murray finds analogies to eclampsia. He obtained a positive reaction to cobra venom in 80 per cent. of primiparous and 66 per cent. of multiparous normal pregnancies and only in 22.5 per cent. of non-pregnant persons. In his eclamptic cases a positive result was found in 28 per cent., and Murray argues that the reaction, though not essential, shows a difference in pregnant and non-pregnant persons and that this difference is lost in eclampsia.

The whole of the evidence as marshalled seems to show analogies between the processes of pregnancy and infection and though much work will be needed before we reach finality it seems as if we might be able to explain why the intoxication of the early period gives hyperemesis and that of the later period eclampsia.

[1] BRITISH MEDICAL JOURNAL, June 30th, 1906.
[2] The Immunology of Pregnancy, *Journal of Obstetrics and Gynaecology of the British Empire*, February, 1913.

MIND CURES.

THE article on mind cures from the scientific point of view in the current number of the *Quarterly Review*, though addressed primarily to the intelligent layman, is founded on a wealth of clinical experience which gives it a particular interest to members of the medical profession. The influence of the body on the mind is very well known to every man who is at all observant of human nature in himself and others, and every one admits, as a general proposition, that the mind has a great influence on the bodily functions. But Sir Thomas Clouston, from the nature of his life's occupation, has a more vivid impression of this influence, for good and evil, than most of us.

As a rule, when there is mention of the influence of mind on body, the implication is that the effect is for the benefit of the body—for the cure of disease. But the author of this very striking article reminds us that the effect is often—perhaps quite as often—in the opposite direction, and the aberration or decay of the mind, inextricably linked as it is with the derangement or decay of the brain, is attended by disorder of the bodily functions, evidenced by malnutrition; the brain has ceased to exercise its function of direction or sends out perverted influences. The lowering effect of mental depression on the nutrition of brain and body is well known. "I had a patient once," Sir Thomas Clouston says, "who, being intensely depressed, took the idea he would and should die, and was determined to die; and die he did, in spite of all that could be done for him. A mental cause undoubtedly killed him, but it was through the brain arresting his nutritive energy, for he got thinner and thinner in body until he was utterly emaciated, though he was taking plenty of food." To complete the picture the author adds: "I have had many other patients who fought against their morbid mental depression, and determined to recover and did so, chiefly through the strength of their wills acting through the brain." Every medical man knows in a general way that this is true, but it is well to be reminded of it, and it is useful when reflecting on the many modern systems of faith healing, of Christian Science, and of the New Mysticism, to

[3] BRITISH MEDICAL JOURNAL, 1912, ii, 650.

bear in mind this converse picture, since it will serve to impress the essential facts which underlie the successes which all these systems can with more or less justice claim. It is, we confess, a little irritating to find each exponent and critic of some new-old system of mind cure reproaching medicine with not paying sufficient attention to the influence of mind over body. As Sir Thomas Clouston very justly points out, medicine at the beginning, and in primitive races to-day, knew almost no other means of cure. The medicine man of the savage tribe, with his grotesque costume and horrid ceremonies, the priest-physicians of ancient Egypt and early Greece, with their ritual, reinforced no doubt by change of climate and diet, the charms and amulets of Roman and early Christian times, and the religious ceremonies and pilgrimages of the middle centuries which have been continued to modern times—all these curers and ways of curing acted through the mind and its organ, the brain, on the body. The aim of the application of scientific method to medicine has been to distinguish, to proceed from the general to the particular, and to adapt the means to the end.

The article contains an admirable analysis of the innate qualities of the mind of man which render possible the gigantic success of the obscurantist in medicine and the modern nostrum seller. They are seen to be the powerful fascination for the mysterious, the mystical, the miraculous, and the occult in medicine which still exists, though diminishing as civilization advances, and the tendency in "the undeveloped and semi-irrational mind of man" to believe any statement authoritatively made. Various systems of treatment, nowadays more or less popular, which invoke the mind to cure bodily ills, are reviewed. There thus come under notice hypnotism, Christian Science, theosophy, Professor Freud's system of psycho-analysis, the Emmanuel Movement, and the psychic treatment of Dr. Dubois of Berne. The list, with a digression on hysteria, is, it will be seen, comprehensive, including the regular and the irregular, the old and the very new, in a net whose only fault is that it is not sufficiently capacious to give the fisher full scope for his remarkable powers of popular but yet clear and adequate exposition. In some of them dogmatism, in some expectancy, plays the largest part; in others suggestion, though in most all three methods of influencing the mind, and so causing it to influence the body, are combined. Modern science, as he says, claims to study and explain the occurrence of so-called mind cures. It admits their existence, but calls in the brain as the direct agent through which they are brought about. For the present the parallelism of mind and brain action must be accepted as best fitting the facts. In the cure "the mind comes in by setting the brain to work." Science includes mind as well as life and matter in the scope of its investigations, and "emphatically repudiates the mystical, miraculous, and superstitious views of such mind cures as being unreasonable and often degrading."

Sir Thomas Clouston thinks—and the opinion is one which we have often ventured to express—that the medical profession is not free from blame for the present backwardness of rational views of medicine, nor even for the atmosphere of mystery that pervades physic in the public mind. But we are not sure that we can follow him all the way when he says that medicine has not been candid enough in explaining the general purpose of treatment to patients and to the public, in the hope that thus it may be put on a rational basis in the patient's mind. It may be retorted that we are not always very sure of the rational basis, and that this is particularly true of "mind cures," although Sir Thomas is ready to maintain that scientific and rational explanations can be given of most such cures. He does not deny their existence, but that they are due to occult, mystical, or unexplainable causes, and protests against their irrational misinterpretations. "We may be ignorant," he says; "we need not be credulous."

THE POLICY OF IMPORTATION.

It is asserted by its friends that the desire of the Government is now to pursue a policy of conciliation towards the medical profession in respect of the administration of medical benefit under the Insurance Act. If this information be correct, we venture to think that there is occasion for the exercise of the soothing influence of the central authority to mitigate the rather rough manners of local bodies at various points of the compass. In several districts criticisms by the medical profession of the schemes proposed for providing medical attendance have been met by attempts to introduce whole-time practitioners willing to accept such appointments in such circumstances. We may take Swansea and the surrounding district as an example; there the endeavour of the medical practitioners to secure more adequate remuneration for contract practice than has hitherto obtained has been met by an attempt to establish a medical aid association in the town. The local Division of the British Medical Association appealed to the honorary medical staff of the Swansea Hospital for its support, and at a meeting of that staff a resolution was adopted expressing surprise and indignation that the just and moderate demands of the medical profession had been met in this manner; the resolution concluded with the following declaration: "Recognizing that underpaid medical work is equally as bad for the patient as for the doctor, the hon. medical staff have decided that in the event of the establishment of any society or association having for its object the employment of medical men under conditions not approved of by the medical profession, they will under no circumstances meet in consultation or have any professional dealings with any medical man holding office under such society or association in connexion with a patient either privately or at the hospital, and, moreover, they will decline, except in cases of the gravest emergency, to treat in hospital any member of such society; also that the staff adopt the same attitude towards medical men undertaking contract work at terms below those decided upon by the medical profession of any district." At a special meeting of the board of management, Dr. Lancaster, the senior physician of the hospital, who is also chairman of the board, vacated the chair and presented the resolution in a very forcible speech. He was, he said, the mouthpiece of a unanimous and determined staff, loyal to itself, and loyal to its brethren in the town and district; they knew that the contract system was being more and more abused, and that doctors were underpaid and overworked in conditions which a working man would not tolerate. The wages of the working classes had increased by leaps and bounds, and the only thing which had not gone up was the remuneration of medical practitioners in contract practice, though the expenses had practically doubled in twenty-five years. In its attempt to put matters on a better footing, the profession had been met with discourtesy; it would not tolerate the formation of medical aid societies in the town, and the medical staff of the hospital would not allow itself to be used as a tool to crush their brethren outside. The Mayor, who had taken Dr. Lancaster's place in the chair, protested that he knew from experience that

no body of men appreciated the work of the hospital medical staff more than members of friendly societies, and eventually, on his suggestion, it was arranged that a conference should be held between six medical men, six trade unionists, and six representatives of friendly societies. In Gillingham, Kent, the difficulty to which we referred a few weeks ago has not been abated. The first plan of the Insurance Committee would seem to have been to bring eight men into a town which is already somewhat overdoctored. When the threat in this form failed to produce the expected panic, the committee is reported to have reduced the number to six. Advertisements were put out, and it was asserted that a whole flock of men were tumbling over one another to get an opening in the new El Dorado; it was announced with a flourish of trumpets that six men had been chosen. It was rumoured that three of these were to be dumped at once, and the other three held over as a sort of reserve force to be hurled into the breach in case the first three were overwhelmed by the amount of work. Those local practitioners who had joined the panel could not regard this with complete equanimity. Their lists, it was stated, were not full, and they probably felt apprehensive that they might be sacrificed to establish the imported men. Their anxiety may have been allayed by an announcement that one of the newcomers had not found the conditions of service sufficiently agreeable or promising to induce him to stay, and by the belief that only one of the three was as yet in residence. However this may be, there are some who ask the question, Who will be left in the lurch, if the promised 2,000 patients apiece be not forthcoming—the local men or the newcomers? What the insured are thinking about it all is also a subject of speculation. Gillingham appears to be one of the places where the threat to "close the panel" has been carried out. It is reported that the door is, in fact, so well banged, barred, and bolted that the committee has refused to readmit to the panel one repentant soul who, after entering, had passed out from it again; the legality of this proceeding is questioned. In Scotland, as will be seen by the report in the Supplement of the discussion at the meeting of the South-Eastern Division of the Edinburgh Branch last week, a protest is being made against the new form of agreement issued to medical practitioners by the Commissioners in that country. In Ireland matters appear to be at present in a good deal of confusion, to avoid the more picturesque terms commonly used by our correspondents in that island. Altogether, then, there seems to be a good deal of work in the way of co-ordination and conciliation for the Joint Committee of Insurance Commissioners to do.

THE PLEASANTER SIDE OF THE INSURANCE CAMPAIGN.

It is an agreeable duty to record two recent instances in which the enormous amount of voluntary work done by honorary officers of Divisions of the British Medical Association has received recognition at the hands of members. At a luncheon in the Guildhall, Winchester, on March 13th, attended by a large gathering both of members of the Winchester Division and of members of other Divisions of the Southern Branch, Mr. H. J. Godwin, M.B., F.R.C.S., Surgeon to the Royal Hampshire County Hospital, Winchester, was presented with a testimonial from the members of the Division and medical friends beyond its borders. The Chairman (Dr. H. Maturin of Winchfield), in making the presentation, said that the Division desired to honour Mr. Godwin for his very valuable services to the British Medical Association in Hampshire, and for the skill, tact, judgement, and common sense he had displayed during the momentous period of the insurance controversy. The energy he had expended on this labour of love and the nature of his vexatious and herculean task could only be realized by those who had been in touch with the secretarial work. The presentation consisted of a testimonial containing the signatures of all the subscribers, accompanied by a large silver tray bearing a suitable inscription, and a silver tea kettle. Dr. Fuller England (Winchester) then handed to Mr. Godwin for presentation to Mrs. Godwin a gold bracelet set in jewels. Mr. Godwin briefly acknowledged the presentation and accepted the gift for his wife, who, he confessed, was his right hand. A vote of thanks to Dr. Maturin was proposed by Dr. J. G. Frere, of Fleet, the Representative of the Division, and supported by Dr. J. F. Briscoe, of Alton, a past chairman. Dr. Maturin having briefly replied, the members present went on to the spring meeting of the Division. The number of subscribers to the testimonial was seventy-three, an evidence of the widespread respect and regard felt for Mr. Godwin. The second instance is afforded by a gathering of medical men on March 20th, at Dr. Laslett's house at Gillingham, to make a presentation to Dr. C. Courtenay Lord, Honorary Secretary of the Rochester and Chatham Division of the British Medical Association, in recognition of services rendered by him to the profession during the insurance campaign. Many members of the profession were present from all parts of the Division. Dr. Fairweather, in making the presentation, spoke very highly of Dr. Lord's work on behalf of the profession generally. Dr. Lord, in acknowledging the gift, thanked the subscribers very sincerely for the very tangible recognition they had made him. He also thanked members for the splendid support they had given him throughout the fight—a fact which had made his task much less arduous. The testimonial took the shape of a handsome silver cigar case containing a cheque of substantial proportions. The case bore the simple but eloquent legend, "The Campaign, 1912–1913."

A TRANSITION STAGE.

On March 14th Sir James Barr delivered to the Sunderland Division of the British Medical Association an address on rheumatoid arthritis, which it is hoped shortly to publish in full. The annual dinner of the Division took place on the same evening under the chairmanship of Mr. D. F. Todd, who took the opportunity of proposing the health of Sir James Barr. The Division, Mr. Todd said, had had three Irish chairmen in succession, and it was thought a fitting occasion to ask another Irishman to give an address to it. The profession had been going through strenuous times, but it had produced men to meet them, and in the struggle Sir James Barr had taken a prominent and a manly part. No President of the British Medical Association had given greater attention to the duties of that office, and every effort was indeed needed, for while it was true that the Association was great and strong, it had to take care that no Government should tread upon the profession as the present one had attempted. Sir James Barr, in reply, said that the great fault of Irishmen was that they thought too much of their own country. He had once heard of an Irishman who, when asked what he would have been if he had not been born an Irishman, replied that he would have been ashamed of himself. The medical profession was in a transitional state. He had anticipated something higher than the tendency he saw in the country at the present time. Instead of recommending young men to join the profession, he now advised them to stop out of it. Those who were in it, of course, had to make the best of it. The reason why he had looked forward to a better time for the medical profession was because he had looked forward to a better and healthier race. He had thought, and still had hopes, that surgical craft would be soon a thing of the past, and that there would be less surgical work necessary than there had been. He had always believed in individualism, for trade

unionism to his mind had always meant a levelling down and not a raising up of the standard. The more individualism was encouraged the better it would be for the nation. If medicine went on as it ought the nation would be as it ought to be—the greatest nation and the greatest people, with not so many decrepit people, lunatics, and mentally deficient, and a quarter of the population to be kept. If things went on as they were, the working man would have to support not a quarter of the people, but far more. But there was a good deal of vitality in the nation yet, and he hoped that the transition stage would soon be past. Medical men should make it their duty to see that they were properly respected and properly remunerated. Dr. Farquharson, in proposing the toast of "The Division," said that no words of his could express adequately the debt the Division, and indeed the whole medical profession, owed to Mr. D. F. Todd. Dr. Modlin, Honorary Secretary of the Division, said that it had already done its fair share of work for the profession, but still had much to do. Among other matters it was giving attention to the treatment generally of school children and to their dental treatment, but every man in the Division and in the Association must realize his own responsibilities.

CHOLIN IN INOPERABLE CANCER.

A REPORT of the address delivered by Professor Czerny of Heidelberg at the meeting of German Scientists and Physicians on the various non-operative methods of treating cancer was published in the JOURNAL of September 21st, 1912, p. 727. Professor E. Werner, who is also working at the Samariterhaus in Heidelberg, has recently in part gone over the same ground. After referring to radio-therapy he goes on to maintain that a chemical imitation of radio-activity is involved in the use of cholin. Of the cholin salts he has tried he prefers the borate, which he administers by intravenous injections, using at first 2 to 3 c.cm. of a 10 per cent. solution diluted to 20 c.cm. Later the dose is increased to 4 to 5 c.cm. For injection into the tumour or into the gluteal muscles he uses undiluted 10 per cent. solutions in doses of 2 to 5 c.cm. He usually gives 4 or 5 injections each week, but special precautions have to be taken to prevent a disturbing sensitization of the skin. He has treated 171 patients, including inoperable or recurrent cases of various kinds. All were advanced and apparently hopeless cases. Marked improvement was observed in 21 of the cases, including 1 carcinoma of the fauces, 1 rectal carcinoma, 1 round-cell sarcoma, 2 lymphosarcomata, 1 carcinoma of the parotid gland, 7 mammary carcinomata, 2 uterine carcinomata, 2 carcinomata of the stomach, 1 bladder cancer, and 1 carcinoma of the gall bladder. In 28 cases a considerable improvement and decrease in the tumour was observed, while the remaining 122 patients did not derive material advantage from the treatment. This may partly have been due, he thinks, to the fact that they did not remain under treatment for a sufficiently long period. In a series of 56 cases, in which thorium X and Roentgen rays were used as well as the cholin, he found that the dose of the latter was of importance. When between 3 and 5 grams of cholin in solution were used, only 1 out of 25 cases was materially improved, while in 20 the result was negative; when between 5 and 8 grams were used, 2 out of 18 were improved markedly, and in 10 the result was negative; while, when over 8 grams were injected, 7 out of 14 showed marked improvement, 5 showed considerable improvement, and only 2 did not respond to the treatment. He has gathered from other cases not included in the series, in which the treatment supplemented operation, that the tumours soften and become fluid under the influence of cholin, in a manner similar to the changes seen in mice cancers under chemo-therapeutic remedies. It is, he states, too early to speak of the best method of applying the treatment, since he has only used it for about a year. He gives some details of two apparently hopeless cases of stomach and gall-bladder cancer, in which the result was most striking. He, however, warns the reader that these non-operative means of treating cancer should only be applied in cases in which an operation cannot be carried out, or in order to prevent recurrence after an operation has been performed. In no instance has it been proved that cancer can be cured by these means.

STATISTICS OF NOTIFICATION.

A REPORT on the incidence of notifiable infectious diseases in England and Wales during 1912 has been presented to the Local Government Board by the medical officer, Dr. Newsholme, and is issued as a separate publication.[1] The report contains statistics showing the number of cases and the incidence in relation to population of each of the notifiable acute infectious diseases in every sanitary area of England and Wales and in certain grouped areas. The issue for the year 1911 was the first full record of the kind. The newly-issued report contains a brief history, by Dr. Bruce Low, of the occurrences of plague, cholera, and small-pox abroad during the year 1912. The information as to small-pox has been added in view of the increased importance which attaches to imported small-pox as the chief source of the disease in this country in recent years, and it is hoped that the information will be helpful in drawing attention to some of the likely sources of imported infection. The report also contains for the first time complete statistics of cases of pulmonary tuberculosis notified during the year. This has been rendered possible by the Board's general order which came into force on January 1st, 1912. In this issue the number of cases of pulmonary tuberculosis notified in each sanitary district is not shown, because it is felt that for several years comparisons, especially for small areas, will be liable to a number of errors, and because, speaking generally, such comparisons, if unchecked by corrected death-rates, are, it is rightly considered, to be deprecated. In the report for 1913, however, it is intended to give tables showing the number of cases of both pulmonary and non-pulmonary tuberculosis in certain large areas and the age and sex of the patient. In 1912 the total number of notifications was 110,706; the number notified in London was 33,392; in England, excluding London, 72,193; in Wales and Monmouthshire, 4,966; and in ports, 155. The notification of acute poliomyelitis only became compulsory on September 1st, 1912, and subsequently 421 cases were notified, but prior to the general order nearly 900 sanitary authorities had made the disease notifiable, and the total number recorded was 824. The same observations apply to the notification of cerebro-spinal fever; the number of cases notified after the order came into operation was 104, while the total number for the year was 272. The number of cases of small-pox notified in England and Wales in 1912 was 111, as compared with 265 in 1911; of typhus fever 31; of enteric fever 8,262, as compared with 13,730 in 1911; of erysipelas 22,865, as compared with 24,939; of diphtheria 44,687, as compared with 47,747; and of scarlet fever 107,477, as compared with 104,617. The total number of cases of puerperal fever was 2,184, as compared with 2,029 in 1911. The highest rates from puerperal fever occurred in Fulham and Manchester (0.19), Bermondsey and Warrington (0.17), Finsbury, Birkenhead, and Stoke-on-Trent (0.14), and Sheffield (0.12). The lowest rates in London were in St. Marylebone (0.03) and Woolwich (0.02), and in Holborn (none), and among the county boroughs in Gateshead and Halifax (0.01); in Canterbury, Derby, Eastbourne, Lincoln, and Norwich no cases were notified. The administrative counties showed a curious variation, the highest being 0.12 in Carmarthen,

[1] Reports to the Local Government Board on Public Health and Medical Subjects. New series, No. 78. London: Wyman (through any bookseller). 9d.

while in Merioneth, Radnor, Rutland, and Westmorland no cases were notified; the East and North Ridings of Yorkshire also showed well with a rate of 0.01.

EPIDEMIC INFANTILE PARALYSIS.

THE State Medical Institute of Sweden made a report of its investigations on epidemic infantile paralysis to the Fifteenth International Congress on Hygiene and Demography at Washington in 1912, and this is now published in English.[1] It contains six accounts of experimental and pathological investigations by Kling, Pettersson, Wernstedt, and Josefsen, and an epidemiological report of the great Swedish epidemic of 1911 by Wernstedt. Both interesting and valuable results were obtained by the investigators; they found that the virus of the disease is in all probability always present on the mucous membranes of the nose, mouth, pharynx, and intestine of the patients during the acute stage, and they also found it in abortive cases, and in healthy persons who might or might not have come in contact with patients severely or fatally affected. Cases that recovered might still be carrying a virulent form of the infection nearly seven months after the onset of the illness; the authors think that the success of their experiments in so many cases may have been due to the fact that they had to deal with a virus of exceptionally intense virulence. Josefsen found the virus in two handkerchiefs and some needlework handled for a week by children severely affected by acute infantile paralysis, but not in flies caught by the patients in the wards; nor could it be found in fleas taken from patients or monkeys similarly affected. In monkeys the mortality was high—96.6 per cent.; 44 out of 120 died within the first twenty-four hours of the onset, and four main paralytic types of the disease were distinguished in them—an upper, a lower, a mixed, and a type showing a general muscular weakness (the marasmic type of Leiner and von Wiesner). The great Swedish epidemic of 1911 began in the early spring; in July there were 179 cases, in August 893, in September 1,067, in October 433, in November 235, out of a total of 3,840 cases; and the epidemic had not ceased to spread early in 1912. Town and country were about equally affected; no common source of infection could be found, and Wernstedt believes that the origin of the epidemic of 1911 was intimately connected with and to be sought for in the previous epidemic of 1905 (over 1,000 cases). Topographical studies show that the local centres of the epidemics in 1905 and 1911 were generally immediately adjacent to one another, though only a few cases in 1911 occurred actually in the 1905 centres, and vice versa. Hence it is concluded that the epidemic of 1905 produced a general and widespread immunity to epidemic infantile paralysis in 1911. The papers forming this report contain a great deal of interesting and important matter; its illustrations are good, its English does great credit to its writers, and the whole should be in the hand of every neurologist.

POOR ECONOMIES.

THE guardians of the West Ham Union have decided to advertise for a whole-time district medical officer at a salary of £350 per annum, rising by annual increments of £20 to a maximum of £450. The terms of the advertisement, the publication of which in the BRITISH MEDICAL JOURNAL has been declined, should be carefully examined by any medical man who might be disposed to make application for the post. At first sight the salary might seem attractive to a newly qualified practitioner, but he should bear in mind that when in five years the maximum of £450 a year has been attained, any prospect of financial improvement is ended, and for the rest of his life, should he retain the post, that will be sum on which he must maintain his home and family and educate his children. He must also remember that he will be on duty twenty-four hours a day for seven days a week, with the probable or possible exception of a summer holiday. Should he give up the post at the end of five years he will lose the amount that he has paid towards his superannuation, probably about £40, and will have to make a fresh start. The scheme appears to involve a combination of three districts, now staffed by three medical officers, whose combined salaries would appear to have started at about £390 a year rising to £540. In addition the present holders of these separate appointments have time to devote to more remunerative private work; moreover, they can retain the payments made to them for extra services, which, according to the terms of the advertisement, the whole-time medical officer would, if appointed, have to pay over to the guardians. The advertisement is not explicit with regard to the amount of work, but states that the average number of persons in receipt of outdoor relief is 1,423. It does not state whether medical relief is meant, but the total probably refers to those persons who have been granted permanent relief tickets, and only includes the aged, those permanently sick, and widows and children. If this be so, the advertisement contains no mention of at least half the work. Nothing is said in it of those cases of illness among the poor treated under the medical orders issued by the relieving officer in each case as required. We believe that we are right in saying that the number of such orders issued annually in the three districts now proposed to be combined has been about 2,000 a year. If we make an allowance for the change which is being brought about by the Insurance Act, we shall still be well within the mark in saying that the number of such orders issued in future will be at least 1,000. This, again, on a very moderate estimate, will apply to a population of at least double that number—that is to say, of 2,000 persons—but probably to a considerably larger number. All these 2,000 persons must be reckoned among the potential patients of the whole-time district medical officer proposed to be appointed. Adding to these the 1,423 patients at present in receipt of outdoor relief, we get a population of 3,423 persons, any of whom he may be called upon to attend. This, as we have said, is a very moderate estimate. The latest State capitation rate for medical attendance is 7s. per annum, and presumably this rate is considered by the authorities to be neither too much nor too little. At this rate the medical list of the new district medical officer would give him a salary of about £1,200 per annum, but the West Ham guardians offer a salary of £350. Panel practice has many disadvantages, but within the last three weeks both an infirmary superintendent and a chief medical officer in East London have, it is reported, resigned their posts under their guardians to take on insurance work. This goes to show that even panel work is preferable to the Poor Law Medical Service as it is at present controlled and remunerated.

THE announcement that Dr. A. L. Galabin died on the evening of March 25th will be received with much regret by old Guy's men and by many who knew medical London twenty or thirty years ago. Dr. Galabin had been in Sicily from the beginning of the year until a few weeks ago. He returned to his residence at Bishopsteignton on March 19th, and was taken ill with lobar pneumonia on the following day. In spite of the attention of Dr. Morton Palmer of Teignmouth, who had the advantage of consultation with Sir James Goodhart, death ensued after five days' illness.

A BILL has been introduced into the Nebraska Legislature to provide that English shall be used in the writing of all prescriptions, and to forbid the use of any other language. A similar bill is now before the North Dakota Legislature.

[1] *Investigations on Epidemic Infantile Paralysis.* Stockholm: Nordiska Bokhandel. 1913. (Roy. 8vo, pp. 275, plates 3, maps 4.)

Medical Notes in Parliament.

Vivisection Advisory Committee.—In Supply, on Tuesday of last week, Colonel Lockwood criticized the appointment of Sir John Rose Bradford to be a member of the Advisory Committee appointed by the Home Secretary to advise him as to the administration of the Vivisection Act. Colonel Lockwood's criticism appeared to be based on the grounds that Sir J. Rose Bradford had at one time performed certain experiments on dogs, and that it was only by a narrow majority that the Royal Commission on Vivisection had failed to pass a recommendation in favour of excluding dogs altogether. Mr. George Greenwood, who supported the contention, said that although Sir J. Rose Bradford did not now hold a licence, he had held one not long ago, and he believed that the Commissioners intended that a man who had held a licence and who was well known as a vivisector should not be among the advisory body. While admitting that the appointment was technically right since Sir J. Rose Bradford no longer held a licence, he asked the Home Secretary to reconsider the matter. Mr. Butcher thought it was a strange thing to put on an Advisory Committee appointed for the purpose of seeing that the Vivisection Acts were properly administered a man who had made experiments on dogs. Sir Philip Magnus pointed out that the fact that Sir J. Rose Bradford had performed experiments of this nature really rendered him a very suitable person to be an adviser, since the advice of a person quite unacquainted with the nature of these experiments would not be useful. —Mr. McKenna, in his reply, said that the Royal Commission had recommended that the Royal Society and the Royal Colleges of Physicians and Surgeons should be invited to suggest names to the Home Secretary for appointment to the Advisory Committee, and that Sir J. Rose Bradford had been suggested by the Royal Society. He was aware that charges of cruelty had been made by certain witnesses, but the Commission had not given any countenance to them, and he thought that no one who read the evidence of the charges and Sir J. Rose Bradford's reply could doubt that he had completely vindicated himself; Sir J. Rose Bradford had not held a licence for nine years. In reply to a question on March 24th Mr. McKenna said that Sir A. A. Bowlby and Sir J. Rose Bradford were the only members of the Advisory Committee who had ever held licences to perform experiments on living animals, the former twenty-six years ago, and the latter nine years ago.

The Army Estimates seem to increase in bulk and detail year by year, so that every pound of the millions voted can easily be traced. In the estimates for medical services the money for officers and men is in separate votes. Vote I, "Regimental Pay, etc.," includes the warrant, non-commissioned officers and men of the Royal Army Medical Corps, numbering 3,797, at a charge of £112,500. In Vote II. "Medical Establishments, etc.," the estimate for 1913–14 is £440,000, an increase of £4,000 on 1912–13, entirely due to greater cost of medicines and appliances of all kinds, including medicines for the Special Reserve, for there is an actual decrease in the pay of medical officers owing to their smaller numbers. The establishment of medical officers for the year is 1,069, against 1,085 last year. The total is made up of 735 on the British and 334 on the Indian Establishment, the reduction being entirely in the former. There are 64 retired officers still employed. On the non-effective rate there are 538 medical officers, 49 quartermasters, and 26 lady nurses, but this list has not shown any tendency to increase in recent years; indeed, its highest point was reached about twenty years ago, when the retirement of the Crimean and Mutiny officers took effect. The great reform in the status and efficiency of the Army Medical Service in these last decades has undoubtedly repaid the State a hundredfold in the remarkable improvement in the health of the troops, to which the Secretary of State for War bore generous testimony when he said, on introducing these Estimates on March 20th: "We have reduced the number of men under (medical) treatment (since 1898) almost exactly by half. Of course this means a great increase in fighting strength. This wonderful change, due in great measure to the Royal Army Medical Corps, and on invaliding being lower than it has ever been before since statistics were taken, reflects credit on the Royal Army Medical Corps, and in great degree on the troops themselves."

Eyesight and Colour Blindness Tests. Mr. Lynch asked the President of the Board of Trade, on March 20th, whether, in regard to the mercantile marine tests for eyesight and colour blindness, they were carried out by non-medical men; and, if so, whether this practice prevailed in any other country.—Mr. Robertson said that the local examiners in form and colour vision were not medical men, but an ophthalmic surgeon had been added to the body of examiners to whom candidates who had failed locally could appeal. A return published in 1910 contained information with regard to the examiners who conducted the test in certain of the principal maritime countries. Mr. Lynch also asked what means, if any, were adopted to test the form vision and colour vision of the look-out men in the mercantile marine.—Mr. Robertson replied that the Board of Trade had provided facilities for any person serving or intending to serve at sea to undergo the same examination in vision as that prescribed for candidates for certificates of competency, but under the Merchant Shipping Acts there was no power to compel a man who was employed as a "look-out" on board ship to have passed the sight test. It rested with the owner or master of a ship to satisfy himself as to the competence of a seaman appointed to perform the duty, and the attention of owners had recently been called to the matter, by means of a notice.

Hospitals and Legacy Duty.—In reply to a question addressed by Sir John Barran to the Chancellor of the Exchequer on March 25th, Mr. Masterman stated that the appeal made on behalf of voluntary hospitals to remit the legacy duty had been carefully considered, but that the Chancellor of the Exchequer was unable to see his way to make the suggested alteration, even in view of the present and prospective difficulties and the responsibilities devolving on voluntary hospitals through the Insurance Act. The amount of duty involved was, he said, approximately £100,600 per annum. Attention was called to the fact that hospitals in Ireland were already exempt from this duty, but Mr. Masterman would not commit himself to defending this discrepancy further than to point out that it had existed for sixty years.

Calf Lymph. Mr. Keir Hardie asked the President of the Local Government Board, on March 25th, whether his attention had been called to a memorandum on the manufacture of glycerinated calf lymph, by Captain W. A. Justice, of the Indian Medical Service, in Progress of Sanitary Measures in India (Cd. 6538), describing visits to the vaccine institutes at Hong Kong, Tokio, and the dépôt at Hendon; whether he sanctioned for use as the best stock lymph that which was derivable by the cultivation of small-pox virus through four to five calves and continued without admixture; whether small-pox virus was now in use at the Hendon dépôt for the purpose of propagating lymph supplies or setting up any fresh strain of lymph required; and whether bull calves were preferred at Hendon because the lymph collected from the surface of the scrotum was of greater activity than other lymph.

Mr. Burns said he was aware of the memorandum referred to. As regards the source of lymph used at the Government lymph establishment, the usual method of renewing lymph was by vaccinating calves with vaccine lymph obtained from children, but in some instances the lymph had been obtained from abroad, and in such cases it would usually not be practicable to give its original sources. He might, however, state that in no case was lymph used at the establishment unless it had been passed through a series of calves. The answer to the last two parts of the question was in the negative.

The Mental Deficiency Bill was introduced by the Home Secretary on March 25th. It contains a new provision to the effect that the decision to treat a person as mentally defective should be revised at the end of the first and second years, at the end of every subsequent five years, and also when the person reached the age of 21 years.

Leprosy.—In reply to Colonel Yate, the President of the Local Government Board said that there were only a few cases of leprosy in this country, and, so far as he was aware, the disease was not spreading. He was advised that measures for the compulsory segregation of persons suffering from leprosy in this country would not be justified at present, but the whole question was under the careful consideration of the Local Government Board.

Mines Rescue and Aid Order, Scotland.—Mr. McKenna said, in reply to Mr. Duncan Millar, that the returns called for from the Scottish mine-owners, under the Mines (Rescue and Aid) Order, had been tabulated, and showed that in some counties the progress made was far from satisfactory. The Order had been in force for nearly a year, giving the owners ample time to make arrangements, and unless he received an assurance that energetic steps were being taken at once it would be necessary to take legal proceedings to enforce the Order.

Scottish Universities Additional Grants.—Mr. Masterman informed Mr. Munro-Ferguson, on March 20th, that the payment of the additional grants to the three Scottish Universities which had agreed to fulfil the necessary conditions would be made immediately.

Irish Milk Commission.—Mr. Birrell informed Mr. T. M. Healy, on March 20th, that the report of the Irish Milk Commission was in course of preparation, and would, it was expected, be ready in about six weeks.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

THE TUBERCULOSIS PROBLEM.

ON March 18th Dr. J. C. McVail, Deputy Chairman of the Scottish Insurance Commission, gave a lecture in the Synod Hall, Edinburgh, on the relation of the tuberculosis problem to the Insurance Act. Fifty years ago, he said, there was no tuberculosis problem, not because nobody died of the disease, but because no one supposed that it was preventable. Some far-sighted people, amongst whom was Professor Hughes Bennett, believed that by abundance of fresh air night and day it might be cured; but beyond this point medicine had not progressed. Now there were three lines along which the disease could be treated—the attack by the bacillus could be prevented, the individual powers of resistance could be fostered, and recovery from the attack could be aided. The Insurance Act helped in all these three directions. It provided the insured person unfit for work with 10s. weekly for six months, and 5s. weekly afterwards as long as he remained unfit. It provided him with medical attendance and medicine throughout his illness, even if he were not recommended for sanatorium benefit. It provided a fund (about £87,000 annually in Scotland) for the treatment of tuberculous insured persons recommended for sanatorium benefit. It allocated a capital sum of about £158,000 as Scotland's share in a parliamentary grant to aid the provision of institutions for tuberculous persons in the population generally, whether insured or not. Finally, it provided a sum of about £57,000 a year for the United Kingdom for the purpose of scientific research into all that relates to the spread and treatment and prevention of this and any other diseases which might seem to call for it. Further, the Imperial Treasury had recently promised to pay one half of all expenditure for the extension of sanatorium benefit to the dependants of the insured and to the uninsured. These things would make a vast difference to the public health of the community, and they would still do this even if there were no tuberculosis to fight against.

THE INCLUSIVE FEE IN MEDICINE.

The question of the inclusive fee in medicine in Edinburgh University is likely to prove a troublesome one to settle. At the meeting of the University Court on March 18th a letter was read from the Treasury asking whether any steps had been taken to surmount the difficulties. The Court, in its reply, submitted that as the adoption of the inclusive fee in the Faculties of Arts and Law and in Pure Science was to be regarded as tentative and provisional; it was of opinion that experience had not yet been gained to justify its adoption in the Faculty of Medicine and in Applied Science. The question, however, is being raised in extramural circles whether some light on a dark subject might not be gained by a full discussion of the matter by representatives of the university and of the school of medicine of the Royal Colleges. Admittedly the difficulties are great, but no statement has yet been made to show that they are insurmountable; further, when the problem of the adoption of the inclusive fee in medicine does come up for settlement it will be well to have prepared the way for arrangement between the two great teaching bodies inside and outside the university. Some steps have already been taken towards solving this problem as it presents itself in Glasgow, where there is also an extramural school. Further, on March 22nd there was a conference at Perth between delegates from the Business Committees of Edinburgh and Glasgow Universities' General Councils, to consider the question of the applicability of the inclusive fee to the faculties of Medicine in the Scottish Universities. Some progress was made, for it was remitted to a subcommittee to prepare a reasoned statement showing in detail the financial and administrative difficulties which have been urged against the adoption of the inclusive fee in medicine, the probable ultimate effect of such an inclusive fee on the extramural schools, and of the uniformity of the inclusive fee on the progress of the individual universities. The time, therefore, seems to have come for making a conjoint effort to settle this matter or to show good reasons for no longer attempting its settlement.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

TREATMENT OF TUBERCULOSIS.

A SCHEME has been suggested under which the Public Health Committee of the Corporation would be responsible for the treatment of tuberculosis patients in Dublin. The money, half of which will be supplied by the Treasury, is to be handed over to the Corporation, and the Public Health Committee agrees to provide treatment for all persons whose claims are sanctioned by the Insurance Committee. In the Crooksling Sanatorium and the Collier Dispensary the Corporation is, of course, equipped to meet immediate demands, and it is not unlikely that the Allan Ryan Home may eventually be included in the scheme. It is stated that a second special dispensary, with separate staff, will be provided for the south side of the city. Specially qualified practitioners, it is said, will be entrusted with the home treatment of patients, and it is believed that one of the orders of visiting sisters will co-operate in this phase of the work, while the Samaritan Committee will also continue its work. Wards for the treatment of suitable cases of tuberculosis will, by arrangement, be provided in many of the general hospitals. It is also hoped that after a time one or two hospices for the treatment of children may be established. At present the greatest need is for suitable places for advanced cases, and it would appear from inquiries that are being addressed by the county councils to the Dublin hospitals which have been recognized for "sanatorium treatment," that an attempt will be made to dump these hopeless cases in the Dublin hospitals. Included in the above outlined scheme is the appointment of a tuberculosis officer, but here a cheese-paring economy is shown, since the salary to be offered for a whole-time officer is £300 per annum, the smallest offered for such a post by any county council in Ireland; it is absurd to expect that a man who would inspire the medical profession in Dublin with confidence would accept such an arduous post for this remuneration. The scheme has still to be sanctioned by the borough Insurance Committee at a special meeting, and it is to be hoped that this defect will be rectified. At a meeting of the Tyrone County Council held last week, twenty applications for the appointment of tuberculosis medical officer for the county at a salary of £400, increasing to £500 per annum, with £100 travelling allowances, were considered. Dr. Arthur Lanigan O'Keeffe was elected.

NEWCASTLE SANATORIUM CRISIS.

The position at Newcastle Sanatorium remains unchanged. The daily press has been flooded with letters, and, as might have been expected, the primary question of lay control of the medical treatment of the patients has been largely pushed aside by the entirely secondary one of the merits of the particular treatment. Numerous letters have appeared from former patients of the doctor in question. The essential part of the treatment in question is stated to be the intravenous injection of iodoform in ether. The method has, we believe, been tried both on the Continent and in Great Britain, but does not seem to have become established. From inquiries made and from the examination of the published reports, it would appear that the results obtained at the Newcastle Sanatorium compare very favourably with those of other sanatoriums in the United Kingdom. The excuse offered by the board of governors that the appointment of another visiting physician was necessitated by the large increase in the number of patients—from 24 to over 100—falls to the ground when it is understood that this increase occurred so long ago as 1905, and that since then a second resident physician has been appointed. Numerous methods of treatment have been tried from time to time by the visiting staff, including tuberculin with opsonic control, garlic, and dioradin, but in every instance it appeared that the control cases, treated merely by the open-air method, did quite as well.

ANTIVACCINATION IN IRELAND.

In the seventeenth annual report of the National Antivaccination League, reference is made to Ireland, showing the serious state of affairs that has arisen. Though the Belfast and other boards of guardians have refused to stop prosecutions, over twenty unions, including both the North and South Dublin, have refused to enforce the Vaccination Act. The Local Government Board has done its best to persuade the various boards that it is their duty to enforce the law, but without avail. In Waterford the parents were fined 1d. for vaccination offences under the Public Health Act. The report indicates that attempts made to arouse the interest of Irish members of Parliament have not been very successful.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

MANCHESTER AND DISTRICT.

THE RECOMMEND SYSTEM AT THE MANCHESTER INFIRMARY.

The pressure on the available accommodation for indoor patients at the Manchester Royal Infirmary and the necessity that there should be a substantial increase in the donations and subscriptions if the institution is to meet its annual liabilities, led the Board of Management, at a meeting last week, to confirm a resolution submitted by the House Committee in the following terms:

> That persons resident elsewhere than in Manchester and Salford applying for admission as in-patients must lodge with the general superintendent a recommend signed by a trustee resident or carrying on business in the town or district within which the applicant resides, but the recommend may be dispensed with in exceptional cases with the consent of the general superintendent. This resolution shall not apply to cases of accident or emergency, which will be treated as heretofore.

The Chairman of the Board, Sir W. Cobbett, explained that the recommend system was formerly used as a means of ascertaining the opinion of the local medical men as to the physical state and the means of the applicants for admission as in-patients, but of late years it had been found better to rely on the examinations of the infirmary doctors and the investigations of the District Provident Society, and though the recommend system had not been entirely abandoned, it had practically been little used. But it was now found that a very considerable number of applicants for admission were coming from neighbouring or even distant towns, costing the infirmary a large amount for treatment, though in many cases little or nothing was contributed from those towns towards the cost. As an example, one neighbouring town sent patients whose treatment cost something like £400, though the total subscriptions from the town were only £14. In another case, 14 employees of a large firm in a distant town were received as in-patients last year, but the firm on being applied to for a subscription definitely refused. At the same time there were often as many as 160 to 200 persons waiting for admission, and the Board thought it was not right that the number of waiting persons in the home district should be increased while the beds were being occupied by people from distant places which contributed little or nothing to the infirmary. Owing to the ability of its medical and surgical staff, the infirmary had obtained a reputation which induced medical practitioners at a distance to send difficult cases for special treatment, and it was realized that exceptional cases would occur which ought to be met with proper consideration, but it was thought that these cases were sufficiently provided for in the resolution by giving the general superintendent discretion to dispense with recommends.

It has long been a matter of complaint that the beds at the infirmary were often occupied by patients from towns even as far as 100 miles away, while there were no vacancies for Manchester and Salford patients, and the introduction of the recommend system, against which there are so many objections on other grounds, appears to the Board to be the only practical method of meeting the difficulty. At the same time it must be acknowledged that it is a dangerous weapon to employ.

A UNIFIED HEALTH SERVICE.

At the third session of the Labour Elected Persons' Conference in Manchester on March 22nd, Dr. Alfred Salter, of Bermondsey, gave an address on a unified local public health service. There was, he said, a lamentable lack of co-ordination between the various agencies for the prevention and treatment of disease. As an illustration he quoted a case of a family afflicted with tuberculosis where the father, having been ill for some months, was not eligible to come under the Insurance Act, and was being treated as a pauper by the board of guardians; the wife, being at work, was being dealt with by the London Insurance Committee, and would soon be sent to a sanatorium; one of the children had been confined and had a baby, and the local health officer was attending at intervals to give advice as to the care of children; another child was being dealt with at a school clinic, another was attending for treatment at Guy's Hospital, and another was being dealt with at a local tuberculosis dispensary run by private charity. Such overlapping and inco-ordination, Dr. Salter thought, was wasteful and deplorable, and there ought to be some correlation between the various agencies for prevention and treatment. There were about 26,000 doctors occupied in private practice, but they were very unevenly distributed, being too numerous in some places and insufficient in others. In Bermondsey, for example, it would take four times as many doctors as there were at present to do the work satisfactorily without being overworked. On the other hand, in residential districts the doctors had not enough work to do. He suggested that the State should see that the local panel doctors had not too many patients, and that doctors should be called from districts where there were now too many and planted in industrial centres where they would be of use and better off financially. He called attention to the ease with which people who were generally considered to be outside the Insurance Act might enjoy its benefits. Dependants of the insured were not now entitled to medical treatment, but they could obtain it in a very simple way. For example, any working woman could take in a little sewing for a week, or do a little washing for a neighbour. She thereby became an employed person, could get a card from the post office, stick one stamp on it, and she was thereby entitled to free medical attendance for the rest of the year. He laid emphasis on the point that every insured person is entitled to adequate medical attendance and treatment, and he submitted that this meant that he was entitled to be sent to a hospital or operated on when necessary at his own home by an expert or sent to a convalescent home free of charge. Allusion was made to the falling off in the number of medical students and the shortage of doctors,

and to remedy this he suggested that labour-elected persons should use all their influence to get scholarships set apart for the clever sons of working people to enable them to become doctors. Above all, he pleaded for the linking up of the chain of medical service, with full correlation from top to bottom between all the curative and preventive services, which should all be brought under one authority. A short discussion followed the address, in which a number of delegates took part.

Bovine Tuberculosis.

Mr. J. W. Brittlebank, chief veterinary inspector of the Manchester Corporation, in an address to the Nantwich Farmers' Club last week on bovine tuberculosis, said that he found from the statistics of the Board of Agriculture that there were about 3,000,000 dairy cows in Great Britain, and it was an accepted fact that 33 per cent. of the cows were affected with tuberculosis in some form, not taking account of feeding cattle or cows of that class. Assuming that the depreciation in value of an affected cow amounted to £1 a year, he concluded that each year there was a loss of £1,000,000. Of the 33 per cent. of cows which reacted to the tuberculosis test the percentage of cows which had the disease in a dangerous form was from 2 to 7 per cent. He hoped that the dairying industry would bring pressure on the Government to compel an adequate advance and a liberal grant of money to enable them to check the disease.

Correspondence.

TRADE UNIONISM AND MEDICINE.

SIR,—The discussion aroused by Dr. Bateman's letter anent trade unionism and its advantages or disadvantages for the medical profession is one that, at all events, indicates the general sense of a need for some effective means of co-operation between the members of the medical profession, and at the same time seems to me to show how widespread are the differences of opinion as to what should constitute the objects of union in the profession.

Would it not be wiser—more scientific, in fact—if we first endeavoured to arrive at some guiding principle as to what the proposed union should be designed to do? Is it to deal with rates of pay only, and terms and conditions of medical labour, or is it to regulate the work and social relations of the profession with the public generally? If the former be the main objects of the proposed combination then certainly the trade union would at first glance seem to be the sort of thing we want. The functions of a trade union as exemplified in the industrial organizations are to obtain for its members fair pay—that is, such a rate as will enable a condition of reasonable comfort to be obtained, and also such hours and conditions of labour as will not undesirably strain the human organisms concerned. Its main weapons are the strike and the boycott. To a more limited extent so far it has also made use of political agitation, and the subsidy of representatives in the various governing bodies. To some extent the trade union has succeeded in attaining its objects, but the results of the recent general strikes seem, on dispassionate consideration, to be incommensurate with the amount of the effort and sacrifice entailed on its members. Also the strike is coming increasingly to be considered as an anti-social proceeding because of the suffering it entails on the mass of the community.

Now there is a real need in the medical profession for some sort of assurance of fair pay and still more of fair conditions of work, but in view of the fact that its members are conducting their work on the lines of individual and competing craftsmen rather than in the masses in which the members of existing trade unions are employed it is difficult to apply the methods which may be suitable for another class. The vast proportion of medical work is done by men who are ploughing a lonely furrow, and who in but the most infinitesimal part of that work ever come into relations of co-operation with any of their fellows.

On the face of things this would not appear to be the most likely method of attaining success as to results in such a highly specialized profession as that of medicine, yet from the views that have been expressed during the fight over the Insurance Act it would appear that this system of "free competition" is very dear to the majority of doctors. "Free choice of doctor" is the battle cry of this large and influential section of the profession, and must remain so as long as the commercialized form of practice at present existent continues. It follows, therefore, that our relations with the public are rather those of shopkeepers than of artisans; hence it is obvious that under present conditions any true union is exceedingly difficult of realization. In any case, as all Dr. Bateman's critics admit, the strike is a difficult weapon for us to wield. Its use by us corresponds to the declaring of a strike against the public by the purveyors of bread rather than to a strike by the working bakers against their employers.

Unless and until a combine of producing or distributing agencies virtually resulted in a practical amalgamation of their businesses it would have but little chance of success. That is to say that it could only succeed by the abolition of competition among its members. Moreover, it is probable that if successful it would, unless strictly moderate in its demands and highly efficient in its action, have to be taken over by the State.

Furthermore, as this individual method of working is much more marked in medical work among the less financially endowed members of the community, there is the further difficulty that it is impossible to raise the price of our labour to what it needs must be to allow of the practice of a really scientific form of medicine. And without State help it is difficult to see how co-operation in the poorer classes of practice is to be secured.

This may seem to be a digression from the main subject of trade unionism, but as there is a widespread feeling of irritation in the profession because of the recent incursion of the State into what we are pleased to consider as our preserves, it is reasonable to presume that many desire this proposed medical combination in order to keep the State from further "interference," and it is, I think, necessary to consider this point.

A closer study of political methods would, I am sure, result in a different conception of the effects of party politics on national control of the Government than seems to exist in the mind of one of your correspondents. The difficulty rather is that, by reason of the apathy of men of our own and similar professions, control is in the hands of a professional Government, let what party there may be in power. I think it probable, therefore, that reform of political methods would remove the objection to State help to medicine. Such a reform would unquestionably be greatly forwarded by the entry into political life of representatives of the medical profession, not as party politicians, but as independent representatives of a great medical union.

To return to the main purpose of this attempt of mine to deal with the question of professional union, I would suggest as the basis of such a union the following points:

1. The securing for the practitioners of medicine of such rates of remuneration and hours of labour as shall leave them time to keep abreast of progress.

2. The replacement of mere commercialized competition in the profession by a real professional and scientific competition, which, by encouraging mutual help and co-operation, will promote efficiency.

3. The advancement of medicine as a science. This, to my mind, embraces the other points.

To obtain these results something different from trade unionism is necessary. For, surely, the main recommendation of the medical provisions of the Insurance Act was that it provided some form of medical attendance, as a certainty, for the industrial classes at what was at all events a higher rate of remuneration than had been secured in the past by any medical organization. And the fact that the union in the medical profession that followed the introduction of the Insurance Bill was practically the first movement of the kind in its history, and was principally directed to a manifestation of opposition to outside interference, not unnaturally laid the profession open to a charge of being simply "out for fees." Had we put our house in order previously, and devised a union for purposes of mutual help in our work, and for giving adequate voice to the opinion of the profession on medical questions of public importance, we should have had a much greater degree of public sympathy.

Even at the risk of being accused of what one of your

correspondents is pleased to call "confusing ethics with sentimentality" I venture to say that the sort of union we want is one that will promote good-fellowship amongst us, not by coercive methods, but by organizing the work of the profession so as to secure to it more leisure through arrangements for taking emergency night and Sunday work in rotation, possibly also by a sickness and pension fund, etc. Time was when I thought coercive measures were the only useful ones, but a short personal experience of organizing work has taught me the superiority of more suave methods.

A union that will offer advantages to its members in times of peace will have a far greater influence with its members than one which pursues a policy of dragooning them into obedience.

When offensive action is necessary it will also take greater pains to secure that its policy is in accordance with its members' views and powers, and rely less on the rights of majorities to coerce minorities. As a consequence its fighting powers will be immeasurably enhanced.—I am, etc.,

Devonport, March 23rd. EDWARD MCCULLOCH.

SIR,—I am astonished at the inconsistent letter from Dr. A. G. Bateman, published in the BRITISH MEDICAL JOURNAL of March 15th. If any man in the medical profession should know the value of co-operation, surely it is the secretary of the Medical Defence Union. Those of us who advocate trade unionism do so, among other reasons, because Parliament has granted certain great privileges to trade unionists that we do not at present enjoy, and we are seeking to obtain these privileges, and at the same time to adopt all that is good, and reject all that experience has proved to be bad, in these organizations. If, in our conflict with the Government last year, we had been united in a strong trade union, with paid whole-time officials and ample reserve funds, we should have won easily without neglecting a single patient; in fact, in the case of a medical trade union, the threat to "down tools" would be out of the question and unnecessary.

Dr. Bateman hopes we shall never "descend to the level of dockers." Personally, after the *débâcle* of last year, I should be ashamed to talk to a docker on the subject of trade unionism. The docker, out of his 18s. a week, pays what is to him quite a large sum to his union, and when a strike occurs, whether he approves of it or not, he stands by his fellows as long as there is a penny in the war chest and as long as he has a garment or a piece of furniture to sell or pawn. We, on the other hand, pay the magnificent sum of 4d. a week to the British Medical Association, apart from the price of the JOURNAL, and when the Chancellor offered his bribe last autumn quite enough men deserted our ranks to enable him to coerce almost all the rest who were engaged in working class practice. Whatever one may think about those who accepted the bribe, one cannot blame those who were coerced. Having no union with adequate funds to fall back on, and no chance of ever regaining their work, how could they be expected to court certain ruin for themselves and their families? The British Medical Association, with its amateur leaders, did wonders with our 4d. a week till it came to close fighting, but

> We was rotten 'fore we started—we was never disciplined;
> We made it out a favour if an order was obeyed;
> Yes, every little drummer 'ad 'is rights an' wrongs to mind,
> So we had to pay for teachin'—an' we paid."

Again, the Medical Defence Union has done most excellent work for many years, although our subscription is only 2½d. a week; but I should imagine that Dr. Bateman would be the last to deny that with the subscription doubled or trebled we might calmly face any legal proceedings under its protection without the latent fear that even if we won our case we might still be heavy losers. Yet Dr. Bateman says that "unity founded on trades union lines would be degrading and derogatory to professional men," and Sir James Barr is reported to have said yesterday at Sunderland that, in his opinion, "trades unionism meant a levelling down and not a raising up of the standard, and the more they encouraged individualism the better for the country." I remember as a boy seeing large brass plates on imposing houses in some of the principal thoroughfares of London, and on these plates, beneath the doctor's name, was the following notice: "Advice gratis." Since then, in a fairly long experience, I have seen keen competition between individualistic medical men to give their advice and visits for nothing in order to sell their medicine for any sum between 2s. and 3d. a bottle. I have known well-qualified men competing eagerly for friendly society appointments where the annual payment per member was only 2s. 6d. Since this is the result of individualism it is high time we tried something else.

A trade union would fix a minimum fee for professional visits and advice, and there would no longer exist in our ranks the peripatetic pharmacist. No maximum charge would be fixed, and thus the man who valued his services at a higher rate might charge what he thought right. Men who felt secure by reason of private means or permanent appointments, and who had so little *esprit de corps* or so much false pride as to stand outside a union of their fellow workers need fear no peaceful picketing, but would certainly be "sent to Coventry" if they accepted a less fee than the trade union minimum. If the British Medical Association does not rise to the occasion we must make up our minds at once to form a proper trade union, though I hope we shall still retain our membership of the old Association, which will then revert to its original form as a scientific body.—I am, etc.,

North Shields, March 15th. F. C. MEARS.

SIR,—Dr. Bateman, in his letter on the subject of trade unionism and medicine, propounds a number of questions based on the assumed action of a medical trade union in a dispute, and supplies the answer, "The idea is monstrous." Every medical trade unionist will agree that any such action as he suggests would indeed be monstrous. But has the possibility of any such action every entered the minds of medical trade unionists? I have no hesitation in saying, Certainly not! The idea of a medical strike against the general public is inconceivable; it holds no place in practical medical politics. On a very different footing stands a strike against a public body, such as the Government. Has Dr. Bateman forgotten the methods by means of which we successfully extorted a large increase of remuneration and many other valuable concessions from the Government? Were not these concessions obtained by the threat that the profession would refuse to do the Government work under the conditions then offered? Had these concessions not been granted Dr. Bateman would have seen the profession "on strike" against the Government.

Dr. Bateman is confusing the aims of trade unionism with the methods employed by certain trade unions—methods which are eminently suitable to the class of men with which they have to deal, but entirely unsuited to the medical profession. Nobody expects that the mere fact of registration as a trade union will, *ipso facto*, mean the future safety of the medical profession. Admittedly, we must have the "unionism" first; having achieved that, we had far better take advantage of the protection and privileges granted by the Trade Union Acts than remain without such protection. I venture to think that only one thing can assure that much desired unity—namely, community of interest, which already exists and is already threatened with attack—I refer to our women and children patients. Already attempts are being made to bring them into the net of contract practice at a most unremunerative fee. The medical profession must see to it that it is not again found unprepared; that in the coming fight (which is nearer, perhaps, than many imagine) we have an organization the sole duty of which shall be to safeguard our professional interests, and the constitution of which shall be suited to the work which it will have to perform. If this organization takes advantage of the degree of protection afforded by registration as a trade union it will, at the least, be the more efficient by that protection than it would be without it.—I am, etc.,

London, E., March 25th. HENRY J. CARDALE, M.B.

SIR,—Dr. A. G. Bateman entirely misapprehends the aims and objects, as the means to an end, proposed by an increasing number of general practitioners who see no

possible way of uniting their fellows for the legitimate objects of mutual protection other than agitating for obtaining statutory powers to govern themselves and to compel minorities to submit to the desire of the majority for the common weal. The legal profession possesses such statutory "protection," to wit, the "Incorporated Law Society." Why, then, should we doctors be denied the similar right of an "Incorporated Medical Society," based on such similar lines as will pertain to the profession of medicine?

There are, no doubt, great difficulties in the way, but I decline to regard them as insurmountable; and if we will take to heart the lesson of our recent ignominious surrender it cannot fail to determine us to close up our broken ranks for the final and successful effort to obtain our professional rights.—I am, etc.,

C. STENNETT REDMOND,
Late Chairman, Manchester West Division.

London, N., March 17th.

SIR,—May I, as one of the originators of this discussion, be allowed a few words more? That the doctors who have had to go on the panels will now need to form some sort of trade union is, it seems to me, self-evident; the latter step is a natural corollary of the first. The only subject which we really need dispute about is whether the British Medical Association is, as I say, to be "commandeered" for this purpose. Now, even if the Articles of Association permitted of this—and it was made quite clear at last year's Liverpool meeting that they did not—we must surely all agree as to the desirability of there being in our midst some big national body whose primary *raison d'être* shall be the advancement of the science and art of medicine.

It is nonsense to suggest that this supreme aim will be brought about by "fighting" anybody. A trade union is certainly based on the assumption that "what is your gain is my loss," and, therefore, fighting is of its very essence; but trade union methods at the present time are only justified as a purely temporary expedient, to keep the profession from complete disintegration. I say boldly that but for our own shortcomings in the past the employment of such artifices would never have become necessary. The cynicism with which certain of our claims have recently been met comes from our so far having failed to impress the public with the fact that we, as a profession at least, are better qualified to heal their aches and pains than are certain other competing bodies. Further, they have grounds for thinking that some of us are moved more by a desire for pecuniary gain than by a pure love of our art. The reinstatement of the profession in the public esteem will certainly not be hastened by the most rigid methods of "organization," nor even by our arming ourselves, in the simile of Dr. S. Wesley Wilson, "with the weapons of the burglar." It can only be brought about by our throwing ourselves—each one of us individually—with more zeal into our work and proving to the people our indispensability, not by words, but by deeds. To attain this end we will be the better of having some common platform on which we can voluntarily meet for mutual encouragement, advice, and help. This platform has been afforded in the past by the British Medical Association, and it is very much to be desired that it will not, at this crisis in our affairs, renounce such a highly important function. Any temporarily necessary trade union activities will be very much better carried out by a body formed *ad hoc*. Two or three such organizations are already springing up in London and elsewhere.—I am, etc.,

Edinburgh, March 25rd. ARTHUR J. BROCK.

OPERATIONS ON CHILDREN IN THE OUT-PATIENT DEPARTMENT.

SIR,—The sphere of usefulness of a children's hospital can be very materially increased by performing major operations in the out-patient department.

The paper by Mr. Nicoll in the JOURNAL on February 22nd, and the subsequent letters of Mr. Andrew Fullerton and Mr. Stanley Green, show to what extent this can be carried out successfully. By so doing, not only is the waiting list kept within reasonable limits, but the wards can be reserved for those cases needing some more serious operation, or where prolonged investigation or rest in bed is required.

In addition, I have found that in the case of infants, admission to the wards may cause serious nutritional disturbance, especially to those who are being breast-fed. For these cases, where the operation is not urgent, one one must wait till they are weaned; or as a better alternative operate on them as out-patients.

During a recent week, in addition to the usual in-patient list, I operated on cases of hernia, hydrocele, depressed fracture of the skull, and meningo-myelocele as out-patients, and I have followed this custom for some time. Local anaesthesia also conduces to the success of this method, and all the above cases except the herniae were operated on under cocaine infiltration. The absence of a general anaesthetic still further diminishes any risk, while the children are able to take nourishment immediately the operation is competed.

The preparation of the skin by iodine and the sealing of wounds by collodion has greatly simplified this method of treatment.—I am, etc.,

Newcastle-upon-Tyne, March 11th. FREDERICK C. PYBUS.

THE AFTER-EFFECTS OF GASTRO-ENTEROSTOMY.

SIR,—Dr. A. F. Hertz has certain very definite opinions regarding the anatomy and motor functions of the stomach, and they differ greatly from mine. I regret that I was not present at last year's British Medical Association's Meeting to hear his "opening address on the anatomy of the normal stomach." On reading over again the report of the proceedings in the BRITISH MEDICAL JOURNAL of September 28th, 1912, I fail to appreciate that "practically unanimous agreement" was accorded to him by the subsequent speakers.

Many years ago I felt that the anatomy and motor functions of the stomach were not as had been described, and, on reading the late Professor D. J. Cunningham's treatise[1] on the subject, I was convinced that he had come very near the truth as far as the pure anatomy was concerned. I carried out *then*, as Dr. Hertz recommends me to do *now*, a series of observations on what I took to be normal stomachs, and, having consideration to Cunningham's work, came, shortly stated, to the following conclusions:

1. That the stomach shows a more or less dilated, saccular, feebly motile cardiac portion, and a more or less contracted, tubular, strongly motile pyloric portion.

2. That the pyloric portion begins at the incisura angularis of His; its commencement is marked on the greater curvature during, at least, the earlier part of gastric digestion, by a well-marked notch; and that this notch is caused by action of what, for the sake of brevity, I called the "middle sphincter."

3. That, as indicated by Cunningham, there exists along the lesser curvature of the cardiac portion well marked remains of the original alimentary tube, one side of which has "blown out" to form the fundus and large part of the cardiac portion of the stomach; that the action of this rudimentary tube carries food to the lower part of the cardiac portion of the stomach, and, in doing so, sometimes shows modified segmentation.

4. That the pylorus is situated just internal to the gall-bladder, well above and to the right of the umbilicus, and may practically be regarded as fixed.

5. That certain radiographers and others were, therefore, wrong in their ideas as to the position of the pylorus, and therefore in much of their interpretation of what occurred during digestion.

In the course of Dr. Hertz's criticism of my views, during December, 1910, he invited me to go to see Dr. A. C. Jordan's work at Guy's Hospital. This I have been unable to do, but I may refer to the *Archives of the Roentgen Ray* published in January, 1911 (Dr. Hertz collaborated then with the editor of that journal), in which, embellished by numerous illustrations, are two articles, which to my mind confirm my conclusions. What other explanation than that which I give in conclusion 3 can Dr. Hertz give of figures 15, 16, 17, 19, 20, 23, which

[1] *Transactions of the Royal Society of Edinburgh*, vol. xlv, Part 1, No. 2.

illustrate the paper of Dr. E. Ribas y Ribas, of Barcelona? In figure 1, illustrating Dr. A. C. Jordan's paper, the pylorus of what he states to be a normal stomach is "situated behind the umbilicus (marked by a metallic disc)," and the shadow of the metallic disc is well to the left of the middle line as shown by the shadow of the vertebral bodies. Such a position must mean that the first portion of the duodenum had been lengthened by at least 4 in., because there does not seem to be any displacement of the second (fixed) part of the duodenum. I wish that the plate of this excellent skiagram by Dr. A. C. Jordan could be published in the BRITISH MEDICAL JOURNAL, so that unbiassed opinions might be formed. Drs. Maclaren and Daugherty, in the *Annals of Surgery*, September, 1911, state that normally the pylorus is "practically a pelvic organ"! I cannot in the majority of cases, even in abnormal stomachs, displace the pylorus to the level and left of the umbilicus, much less into the pelvis. How many surgeons have found it possible to pull down the pylorus for examination in a mid-line incision which does not reach higher than the umbilicus?

In face of such diversity of view and discrepancy of interpretation on the part of the skilled skiagraphers, I fail to see how Dr. Hertz has arrived at such finality in the matter.

Dr. Hertz's recent paper might be far more convincing and valuable if it did not, as he admits, concern a collection of bad results from a conglomerate of surgeons, in the discussion of which no mention is made of the conditions for which the operation was done, the kind of operation done, or the complications which were present.

One *would* like to know the number of cases on which Dr. Hertz based his paper and formed his recommendations as regards surgical procedure, because, considering the results stated respectively by Messrs. Collinson and Bourne recently in the BRITISH MEDICAL JOURNAL, these recommendations can carry no weight unless backed by a full knowledge of the surgical procedure which preceded the failures which came under his notice.

In advocating drainage of the lowest part of the stomach and the making of a small stoma Dr. Hertz would have us go back to the early days of the operation. Like Dr. Hertz, I am not yet satisfied with my results, but I ascribe such good results as I do have greatly to the avoidance of these points which Dr. Hertz advocates.—I am, etc.,

Aberdeen, March 17th. H. M. W. GRAY.

IMMEDIATE OPERATION IN APPENDICITIS.

SIR,—Mr. Edmund Owen has been good enough, after quoting several extracts from my letter in the JOURNAL of March 1st, in which I deprecated the policy of "look and see," to put a pointed question as to what treatment I advocate in cases of early appendicitis. I thought that I had clearly indicated my views in general terms with regard to that matter in the following statement in my letter: "We are all agreed that definite appendicitis is a surgical disease for several hours after its onset," but now I feel that it is necessary to explain that by "surgical disease" in that phrase is meant "a disease to be treated by manual operations" and that by "we" is meant surgeons.

In other words I am, like every surgeon, an advocate of appendicectomy in early cases of appendicitis. Unfortunately for sufferers, the great majority of the medical profession in every country that I have so far visited for the purpose of learning surgery have not yet got into the habit of dealing with appendicitis as a surgical disease from my point of view. Consequently surgeons, when they are called in, have to decide whether an "immediate operation" should be performed upon the individual case of appendicitis from evidence of the existing conditions, the history of the past treatment, and the circumstances and surroundings under which such cases are found.

The vast majority of cases I see have been ill for some days. These have passed the period of the "surgical opportunity" during which an operation would have given the best chance of saving life.

I think the expression "immediate operation" in the interesting discussion Mr. Edmund Owen raised by its use in his valuable paper has led to confusion.

In one case the term seems to be applied in the sense that the expression "early operation" is used by American surgeons with regard to the onset of the disease, and in the other it bears relation to the time which elapses between the advent of the surgeon on the scene and the performance of the operation, irrespective of the duration or age of the disease.

With the above explanation I would add that I am a firm believer in "early operations," but not in "immediate operations" except when they are early.

The following case well illustrates the point I desire to make. Last year, on a Friday evening, Dr. G. R. Sparrow asked me to see a girl, aged 10 years, who was suffering from a virulent type of early appendicitis. She had vomiting, marked meteorism, pulse 156, temperature 102° F., and was gravely ill. She was the only child, and as her mother's uterus had been removed recently our responsibility was the greater.

Two trained nurses were immediately put in charge of the case, and "the greatest vigilance, the strictest observance of proper non-surgical treatment" were adopted—namely, Fowler position, rigid Ochsner's treatment, drop saline per rectum, morphine gr. ¼ hypodermically, the abdomen splinted, to report by telephone every two hours the condition of pulse and temperature, and instantly to call one if any new symptoms supervened. On the second day the pulse and temperature came below 100°, meteorism disappeared, and the patient was nearly ready for a safe operation. On the Sunday morning a fresh attack of acute perforative appendicitis suddenly set in about 10 a.m. I saw her midday and did appendicectomy within six hours of the recrudescence of disease. The patient got well and was up and about in a few days.

I learnt the value of early operation long ago, but I did not fully realize the many details involved in the life-saving value of "the strictest observance of proper non-surgical treatment" until I had the privilege of spending a few days in Chicago in 1906 and visiting Dr. A. J. Ochsner's surgical clinic.

The importance of this subject impels me to quote facts which speak for themselves. Dr. Ochsner operated upon one thousand (1,000) cases of appendicitis in thirty-three consecutive months, terminating on April 1st, 1904. Out of this enormous experience "fifty-five cases were of the acute perforative or gangrenous type without abscess. Five of them entered the hospital within *forty-eight* hours after the beginning of the attack and were operated at once. *Sixteen* of the remaining cases seemed in a condition making an immediate operation safe and were operated at once." The remaining thirty-four were piloted through the storm until they were placed in what I call dry dock for repairs. "This occurred in most cases within four days after admission, while in others the interval was longer." *These fifty-five cases were all cured.*

The mortality of the total (1,000) was 2.2 per cent., notwithstanding that it included "33 cases entering the Augustana Hospital with diffuse peritonitis resulting from perforative or gangrenous appendicitis," and "of this class *a number were in a dying condition.*"

I must ask to be excused trying to solve the riddle suggested by Mr. Owen in "the case of a boy seized in the night with acute abdominal pains, with tenderness in the iliac fossa and rigid muscles over it, the temperature and pulse being about a hundred," because it is only an assemblage of symptoms, and is not a complete picture of a case upon which I could give an answer without qualifications. If it were an undoubted case of appendicitis, I would not hesitate in certain circumstances to delay the performance of an "early operation" at the patient's home, and would advise his removal to a place where the necessary conditions for safe performance of operations existed. On the other hand, if a doubt existed about the nature of the disease, I would advocate the policy of "wait and see," under certain conditions, rather than adopt that of "look and see," as advocated by Mr. Edmund Owen.

By the adoption of the former policy in my practice very suspicious cases have turned out to be affections of other organs, such as the bile channels, psoas muscle, or right kidney, and the right Fallopian tube in females.

Let us hope that Mr. Edmund Owen's paper will be of use in diminishing the avoidable mortality which now exists through ignoring the fact that appendicitis is a surgical disease.—I am, etc.,

Cardiff, March 24th. J. LYNN THOMAS, C.B., F.R.C.S.

ALIMENTARY TOXAEMIA.

SIR,—I have been interested in the discussion at the Royal Society of Medicine on alimentary toxaemia, but, notwithstanding the number of workers, it will be obvious to every one that the field is yet quite unexplored. Intestinal stasis is a disease of civilization, and is seen at its worst in cities, where the mode of living is largely artificial. As doctors we meet the condition only in human beings, but it is equally common in house pets, such as dogs, cats, etc. It is already a chronic state when noticed by the sufferer, who tries all the advertised cures before he consults his physician. I do not doubt the latter's power to better the condition, but in many cases, owing to carelessness or forgetfulness on the part of the patient, the stasis is soon as bad as ever. But I can hardly follow Mr. Lane in attributing so many other diseases to intestinal toxaemia. Even were the connexion beyond what he calls quibbling, the cure would have to be safe and absolute, for it is an operation of convenience. The mortality would have to be as small as, say, "interval appendicectomy," and the after-results as satisfactory. Ileo-sigmoidostomy is fairly safe, but the after-results are not always satisfactory. Mr. Lane has had to do a colectomy later. Colectomy, as a primary operation, has too big an immediate death-rate, and Mr. Lane admits the usual after-effects of abdominal operations—adhesions, etc. These are often avoidable, unless the strain is too great for both patient and surgeon. At present that is the trouble. The surgeon cannot get the perfect closure of the peritoneum all round that is theoretically desirable. The size of the abdominal wound, and the lengthy exposure of the abdominal contents make an ideal operation impossible for the average surgeon. And it is the average surgeon who will supply the registrar with statistics, not the Lanes.

I am not quite convinced that intestinal stasis is due to Lane's kinks, Jackson's membranes, *et hoc genus omne* of recent discoverers, but there is a large consensus of opinion pointing to the ascending and transverse colon as the part in which stagnation mostly takes place, and from which toxins are absorbed. To remove this area is well within the power of the average surgeon who has experience in abdominal work. It is a safe proceeding, almost as safe as removing the appendix. My own method is to put the patient on the left side as for a nephrectomy. The incision goes from the tip of the twelfth rib to the rectus, midway between the umbilicus and pubis. The peritoneum is incised all along the outer border of the ascending colon, which is freed forward till it is quite outside the abdominal cavity from appendix to beyond the hepatic flexure. This point is easily recognized, as the whole transverse colon will then pull out. The bowel is crushed at the end of the ileum by a broad-bladed enterotome (a broad ligament clamp, with a tubing cover, does quite well), two ligatures are applied, one of thin, easily absorbed catgut on the side to be left, and the other of strong silk on the side to be removed. The same is done at the transverse colon at a point about its middle. Both crushed parts are now divided between the ligatures. The silk ends are brought together and covered up, while the catgut ends are sewn together with a fine gut suture. Two rows of continuous Lemberts invaginate the ileum into the transverse colon in a complete serous covering. The lumen, it will be observed, has never been open, so that the escape of intestinal contents is impossible; and it is this escape usually, and not errors of technique, that is the danger. The excluded portion is now removed, and the area opened up, as well as the end of the mesentery and transverse mesocolon, are brought together. There is left no hole for strangulation and no points for adhesions, and during the whole operation the abdominal contents have not been exposed for a moment, in fact need hardly be seen. Drainage is unnecessary. The catgut ligatures give way without any signs of obstruction, and before any real union has taken place; in fact, they serve the part of the Murphy button without its dangers. The kidney can be dealt with if desirable. I have done this operation on eight occasions—three for malignant disease and five for stasis. There has been no shock, no local trouble, and perfect movement of the bowels. There has been no need to wear a bib at the wrong end, as one of my ileo-sigmoidostomy patients suggested.—I am, etc.,

Dundee, March 16th. ALEX. DON.

PHYSICAL SIGNS OF MYOCARDIAL INVOLVEMENT.

SIR,—Although not attaching so much importance to cardiac graphology as some who contribute to your pages, I venture to make a few remarks on the interesting subject dealt with in your recent issues by Dr. Lewis and Dr. Coombs under the above heading.[1] In the first place, I am glad to note that Dr. Lewis now confidently regards the auriculo-ventricular bundle as a "neuro-muscular strand," a view which he probably would not have expressed with so much assurance not very long ago. I should have imagined it reasonable to suppose that such a conception of the nodal structures which invade the myocardium might have suggested the possibility of such irregularities of action as he describes being at times due to disturbances of cardiac innervation, more especially as it is acknowledged that such cases need present no evidence of anatomical lesions in the "sensitive tract," as Dr. Lewis terms it, while in yet others lesions may be present which have not been associated with dropped beats or delayed ventricular response during life. "The bundle belongs to the myocardium," Dr. Lewis remarks,[2] "and an invasion of the bundle, especially when, as is usual, it happens through vascular channels, can hardly occur without the exposure of the remaining muscle." It is remarkable, indeed, that it does not more frequently manifest the anatomical evidences of invasion, being so accessible to injury, as it apparently is, from its subendocardial situation in rheumatic endocarditis. This, however, is no more remarkable a fact than the comparative immunity from valvulitis and endocarditis of the right as compared with the left chambers of the heart in rheumatic infection. As Dr. Lewis's quotation from Professor Aschoff shows, however, invasion of the nodal system does occur not infrequently, although the graphological evidences of such are not always noticeable. This may, of course, be explained from the partial involvement of the structure, just as considerable portions of the larger mass of the myocardium—Dr. Lewis's silent area—may be affected by various conditions without disabling the heart as a whole.

But, while the bundle is a differentiation of mesoblast which originates in the embryo and penetrates the myocardium, as the nerves and blood vessels do, it no more "belongs to the myocardium" than do the latter structures. It is in as intimate relation to the nervous as it is to the muscular system of the heart, and, with all due respect to those who think otherwise—and I willingly concede they are in a majority at present—I hope I may without presumption be permitted to remark that I think its functions even now are not so clear as some would have us believe. As we are now quite certain that it is a "neuro-muscular strand," and were not in a position to be so comparatively recently, is it not just possible that we may in time modify our conceptions of the functions at present assigned to it? Not only do I believe this to be possible, but even probable, for even its anatomy requires further investigation.

Both Dr. Lewis and Dr. Coombs are disposed to regard chronic myocardial disease as due to a series of what our Teutonic brethren would term bacterial "insults." That is, that the heart, as Dr. Coombs puts it,[3] is "reinvaded from without by new batches of micro-organisms." As Dr. Lewis truly remarks:

> How many young girls come to us with advanced mitral stenosis and degenerate heart muscle, and relate the story of a single mild attack of chorea or rheumatic fever! Yet mitral stenosis does not develop during one attack of either; the advanced lesion is one which has evidently taken a long while making.

Does Dr. Lewis, then, suggest that repeated attacks of mitral valvulitis are necessary to the production of an ultimate stenosis? If this be his intention, I think it will be difficult for him to adduce proof to maintain his thesis. I should go even farther than he does, and state that both men and women appear before us in the condition he refers to, who have no knowledge of having ever suffered either from chorea or rheumatic fever. Nevertheless, since the date of such an attack "a long while" ago, and proved on necropsy to have occurred, the subject has lived, and the heart worked at some mechanical disadvantage, the products of a distant inflammatory lesion

[1] BRITISH MEDICAL JOURNAL, March 8th and 15th.
[2] BRITISH MEDICAL JOURNAL, March 8th, p. 488.
[3] BRITISH MEDICAL JOURNAL, March 15th, p. 535.

cicatrizing and muscular texture degenerating from altered nutrition and perpetual labour effected with a handicap. I do not require to be informed that such a view has not the sanction of a new "school" of thought in such matters, the views of which *should*, if they do not obtain permanent acceptance, when regard is had to its vigorous propagandism and ingenious advocacy by crisp and confident exponents.

By these remarks I in no way desire to rob the myocardium of its long acknowledged importance in the mechanism of the circulation, but I hope I do Dr. Lewis no injustice when I state that he appears to me unduly to depreciate the consequences of inflammatory disease and deformity both of the valves and pericardium. May not his admittedly transient "block" signs of myocardial involvement be neural interferences with conductivity which do not necessarily indicate myocardial lesion of even a fleeting nature? We know how difficult it is experimentally to induce heart-block without complete division of the common stem of the so-called auriculoventricular bundle, and how insistent some myogenists have been that undisturbed ventricular action, in the presence of disease of the bundle, merely indicates that the structure has not been completely involved. Under these circumstances it is difficult to accept a little congestion of the bundle, even in the presence of dropped beats and other clinical evidence of heart-block, as the essential cause of the phenomenon. The value, therefore, of such a sign in itself, as an indication of myocardial involvement in infectious disease, seems at least questionable.—I am, etc.,

London, W., March 24th. ALEXANDER MORISON.

RECENT ADVANCES IN THE DIAGNOSIS, PROGNOSIS, AND TREATMENT OF HEART DISEASE.

SIR,—In 1911, as Chairman for the year of the Folkestone Division of the British Medical Association and Folkestone Medical Society, I invited Dr. Price to give an address on cardiac disease to the members. He kindly came down on November 2nd of that year and gave us an address. I was in the chair on that occasion, and in his discourse Dr. Price enunciated the theory and practice of modern heart therapy and described very carefully and defined the extra-systole, etc. Dr. Price explained that he could not publish his lecture then as he was going to give it in other places.

This lecture is the only one I have heard, and Dr. Mackenzie's work on the heart is the only medical work I have read on modern heart theories. When I read Dr. Price's Toronto address[1] it was at once apparent to me that it was the same address he had delivered to us at Folkestone.

I remember quite well some of the phrases Dr. T. Lewis quotes out of this address. If I looked at these things in Dr. Lewis's way I should certainly have considered, had I read his book published in the spring of last year, that his information was derived from these two sources named. I cannot suggest that Dr. Price about a year and a half ago copied information from a book only published about twelve months ago.

It is sufficient for any one reading Dr. Mackenzie's works to judge how very many similar phrases occur in Dr. T. Lewis's book. I take it one must use correct definitions, symptoms, and terminology in describing the same set of ailments, and naturally the same things occur to all accurate observers and must be stated in similar terms. The affinity of great minds is proverbial.—I am, etc.,

Folkestone, March 22nd. LENNOX WAINWRIGHT.

SIR,—In his letter appearing in the last issue of your JOURNAL, Dr. Price mentions that so long ago as early in 1911 I was cognizant of the text of the address he delivered before the Toronto Academy of Medicine in October of last year. This statement I confirm.

I feel some explanation of the circumstances under which the paper came under my notice is called for from me. Some time about the end of May, 1911, I was asked by Dr. Hawthorne, the Chairman of the Polyclinic, to give a course of instruction there on modern methods in heart disease. I understood Dr. Mackenzie had mentioned me as one likely for the work. At the time I was not aware Dr. Price was the appointed lecturer for this course, but was unable to act because of illness.

Subsequently Dr. Price wrote to me on the matter, and forwarded for my guidance the typescript of the lectures he had purposed giving. I made no use of the paper, as I considered it better to adhere to the syllabus of my previous classes.

I read Dr. Price's paper carefully, and I can vouch that the subject was dealt with substantially in the same manner and order as in his recent address, but at greater length. I cannot, however, remember particular phrases, niceties of diction, or the order of words used in describing facts. The only paragraph of the paper I recall is that relating to pulsus alternans, in which I am greatly interested. I noticed that this pulse rhythm was described as being often difficult or impossible to detect by the finger, except at times when alternation was continuous.

I was under the impression that this was my copyright, and flattered myself Dr. Price had probably troubled to read a paper of mine in the *Lancet* incidentally dealing with this subject; but I found this was unlikely, and concluded that, perhaps after all, this and most other statements of fact in the paper were derived from the source from which all writers so far have had to draw so freely. No one has yet worked long enough to revise from his own experience all the observations in Dr. Mackenzie's classical writings.—I am, etc.,

Southall, W., March 21st. J. D. WINDLE.

SIR,—I am glad to confirm Dr. Price's letter of March 17th. I had the pleasure of listening to his lecture at Brighton in October, 1911, and when I read his Toronto address I was surprised to find nothing which I had not heard before. To refresh my memory, I have looked up the notes made by the honorary secretary of our society; they begin with a mention of aconite and finish with $\frac{1}{100}$ of a grain of strophanthin intravenously. It is more than probable that Dr. Lewis and Dr. Price have both unconsciously adopted the phraseology of Dr. Mackenzie, the one great master of modern cardiology.—I am, etc.,

Brighton, March 23rd. WALTER BROADBENT.

SIR,—I have read the correspondence in your JOURNAL concerning Dr. Price's address at Toronto last year. Dr. Lewis appears to think it was written after his book was published. I do not know the exact date of the publication of Dr. Lewis's work, but on reading Dr. Price's address in the JOURNAL of March 8th I at once recognized it as having been delivered at the Polyclinic on February 28th and 29th, 1912. More than twelve months having now elapsed, I cannot remember all the words and phrases to which Dr. Lewis has drawn attention. However, I distinctly remember some of the passages which Dr. Lewis has italicized—not every word, though very nearly so—and of course the meaning conveyed was identical.

It appears to me only right, under the circumstances, to state those facts.—I am, etc.,

London, W., March 22nd. JAMES CHUTE.

MEDICAL ILLUSTRATORS.

SIR,—I have nearly finished a volume on *Medical Men as Illustrators*, for I found that scanty credit had been given to many such either in the early folios or in the modern works—indeed, very often no mention was made at all.

I am giving a short life of each man, also his portrait and a specimen or two of his work. This was easy with regard to the earlier writers, as I have been a collector of first editions of medical works for the past thirty years, but I have some difficulty in getting portraits of such men as McClise, H. V. Carter, J. Howship, etc.

I would be most grateful for new names for my list, also sources where the human side of the man is given in biographical or autographical form. Curiously, near relations seem the least able to supply such details.—I am, etc.,

HOWARD A. KELLY, M.D.

Baltimore, Maryland, U.S.A., March 14th.

[1] BRITISH MEDICAL JOURNAL, March 8th, 1913, p. 477.

Obituary.

ARTHUR JOHN WALLACE, M.D.Edin.,

ASSISTANT LECTURER ON GYNAECOLOGY AND OBSTETRICS, UNIVERSITY COLLEGE, LIVERPOOL.

We regret to announce the death of Dr. Arthur J. Wallace, of Liverpool, which took place, after a short illness, at St. Annes-on-Sea on March 16th.

He was the eldest son of the late Professor John Wallace, and was born at Dalston in 1867. He was educated at the Liverpool Institute, and pursued his medical curriculum partly in Liverpool and partly in Edinburgh, at which latter University he graduated in 1889. He was then appointed on the resident staff of the Liverpool Royal Infirmary, and later to the Holt Scholarship in Anatomy and Surgery at University College, Liverpool. At the close of his term of office he proceeded to Paris and Berlin to study gynaecology in those cities. On his return he was appointed to the post of demonstrator, and later to that of assistant lecturer in gynaecology and obstetrics at University College, Liverpool.

For the last fifteen years he had held the post of honorary surgeon to the Hospital for Women in Shaw Street, Liverpool, and for the same period had served on the honorary staff of the Maternity Hospital in Brownlow Hill, Liverpool. He was one of the Honorary Secretaries of the Section of Gynaecology and Obstetrics at the annual meeting of the British Medical Association in Liverpool last year. He was a member of many learned societies, and in 1908 was elected president of the North of England Obstetrical and Gynaecological Society. A few weeks ago he was appointed honorary consulting gynaecologist to the Royal Southern Hospital.

He contributed several papers to the *Transactions* of that society, to the *Journal of Obstetrics and Gynaecology*, and to the *Lancet*. He was the author of an essay on the *Treatment of Pregnancy complicated by Operable Carcinoma Uteri*, and of a *Syllabus of Midwifery for Midwives*. He had a wide reputation in his speciality both in this country and on the Continent. His work was sound and scientific, his judgement and opinion of the highest, and, combined with his skill as an operator, gained for him a distinguished position in his profession.



ARTHUR JOHN WALLACE.

His unexpected decease in the prime of life and professional career came as a sad surprise to all who knew him. His loss will be keenly felt by a large circle of friends and professional brethren, to whom he had greatly endeared himself. Dr. Wallace leaves a widow but no family.

Prior to private cremation at Anfield, a service was held on March 20th at St. Mary's Chapel for the Blind, Hardman Street, conducted by the chaplain, the Rev. T. W. M. Lund. In addition to the chief mourners, there was a numerous assemblage, including representatives from many hospitals and societies, members of the medical profession, and other friends, which manifested the high esteem in which Dr. Wallace was held by all in the city.

J. J. KIRK DUNCANSON, M.D., F.R.C.P.E., F.R.S.E.,

LATE SURGEON, EYE, EAR, AND THROAT INFIRMARY, EDINBURGH.

By the death of Dr. Kirk Duncanson at Gullane, on March 12th, a familiar and much respected figure has been removed from the medical profession in Edinburgh.

He was born near Dunfermline, and educated at Dollar Academy and the Edinburgh Institution. He spent a short time at engineering after leaving school, but soon turned his attention to medicine, and his advent as a student was welcomed by former schoolfellows and friends. Among the latter, his most intimate associate was David Ferrier, now Sir David Ferrier, who had just returned from Heidelberg, whither he had gone with two double firsts in arts after a brilliant career at Aberdeen, and completed his medical curriculum in Edinburgh. The present writer was often in their company, and can recall many happy evenings spent in their society. Duncanson was an enthusiastic botanist and Ferrier was a keen physiologist, and even then, with deep philosophical knowledge, discussed with profound criticism Professor Hughes Bennett's views on localization of function in the brain. It is interesting to remember that Ferrier treated his first case of rheumatic fever with half-drachm doses of bicarbonate of potash—sound therapeutics even in these advanced days. Space forbids the writer to enlarge too much, but the temptation to picture Duncanson's environment as a student is irresistible: Balfour, Playfair and Allman, Hughes Bennett, Goodsir and Spence, Christison, Laycock, Simpson, Maclagan and Henderson in the university; Sanders, Begbie, Haldane, Crum Brown, Grainger Stewart, and Littlejohn, in the extra-mural school. Sir William Turner became Professor of Anatomy in 1867, the year before Duncanson graduated, but he had practical charge of the department for some time before that. Among the juniors, T. R. Fraser, Dyce Duckworth, W. Rutherford, Annandale, Joseph Bell, John Chiene, John Wyllie, and Lauder Brunton, were at the commencement of brilliant careers. Prominent men of his year were Ferrier, Russell, Halliday Croom, and Byrom Bramwell.

Duncanson graduated in 1868, and spent some time in Heidelberg studying gynaecology, and then went on to Vienna, where he made a special study of the ear. Returning to Edinburgh, he graduated M.D. in 1871 and became a Fellow of the Royal College of Physicians in 1874. He was also a Fellow of the Royal Society, Edinburgh. He acquired a good general practice, but afterwards devoted himself to diseases of the ear and throat, and after acting as Assistant Surgeon to the Eye and Ear Infirmary, under Mr. Benjamin and Dr. Joseph Bell, for some years, he became Surgeon to that institution. He did not make many contributions to medical literature.

Dr. Duncanson was a man of very retiring and unassuming habits. His hobbies were chiefly golf, long country walks, and botanical excursions. He was often to be met on the Queensferry Road or Ravelstone Dykes in the afternoons, with a Skye terrier and spaniel who were his faithful companions. He was a staunch friend, and did many kindnesses to his poor patients. He had been in bad health for several years before his death. He leaves a widow but no family. *Requiescat in pace.*

PHILIP FRANK, M.D.Berlin, F.R.C.P.Lond.,

FORMERLY OF CANNES.

THE death of Dr. Philip Frank in his 83rd year has not only terminated the career of one of the most distinguished physicians of the last generation, but has stirred very deep feelings of personal loss among countless friends in all walks of life. His experience of life was unusually varied, and, combined with very high ideals, served to enlarge its horizons in all directions. In his earlier experiences in Berlin, where he studied and graduated M.D. in 1853, he was intimately associated with the great spirits of the time who played the most important part in that renaissance of German medical and surgical science which has brought it to its present proud position. While assistant to B. v. Langenbeck at the Berlin University Klinik, he became intimately acquainted with Billroth, Volckmann, Gurlt, Virchow, and others of that galaxy of talent who banded together to reform the then deplorable conditions which obtained in medical and surgical practice, and who, reaching out in all directions for fresh inspirations, were at a later date among the first to recognize and acknowledge the great genius of our own Lister and what his teaching meant for humanity. He became a Member of the Royal College of Surgeons of England in 1856, and that year he entered the Army Medical Service. In it he still further enlarged his knowledge of men and disease in Malta, South Africa, and India, whence he was invalided home in 1859. In that year he became a Member of the Royal College of Physicians and was elected a Fellow in 1871. After 1859, he worked again in Berlin, and later was assistant to Professor Longmore in the Army Medical School. He then spent three winters in Madeira and two in Mentone as medical attendant on Lord Brownlow, and practised in the last place until the spring of 1868; then in Cannes. From August, 1870, to the spring of 1871 he served with the Anglo-American Ambulance in the Franco-German war and took a very active share in treating the sick and wounded in and around Sedan. From 1871 to 1898 Dr. Frank practised in Cannes, where he enjoyed a really great reputation and became the close and valued friend of many notable personages of all nationalities.

Throughout his career Dr. Frank was carried along by a wide sympathy and the realization of the necessity, not only of keeping himself abreast of the times in medical and surgical science, but also of studying men of all conditions and of every nationality. In all this he was aided by his linguistic powers, which were of a high order, and by an intelligence which he cultivated in every way. He was early influenced by the fresh impetus given to science by the men of the Continental schools among whom he worked, and seemed to experience a generous exultation in the achievements of every honest worker, no matter what his nationality. His broad and cultivated mind, with its tender reverence for all goodness, recognized the brotherhood of medical men even in lands sundered politically, and the respect that was due from each to all. This spirit was kept fresh up to the very last. After he retired from practice in 1898, and went to live in Kensington, he was a constant attendant on the medical and surgical practice of our hospitals, and year after year, until quite recently, was a most inspiring visitor in the wards and operating theatres to many of the younger teachers. Nothing could exceed the modesty of his quiet comments and inquiries, but they constantly opened up new lines of thought and stimulated increased effort.

Those of us who were privileged to know Dr. Frank intimately were favoured by the friendship of a most retiring and high-minded gentleman of wide culture and the largest sympathies, "who spoke no slander, nay, nor listened to it," who was generous by nature, generous of his acquired knowledge and experience, and also in more material ways, of which he would be the last to wish any one to speak. The keynote of his being was duty in its widest meaning, and his cheerful life and end seem to answer Coleridge's question very fully:

> What would'st thou have the good great man obtain?
> Riches or honour or a gilded name,
> Or throne of corpses which his sword hath slain?
> Hath he not always treasures, always friends?
> Three treasures—Love and Light
> And Calm Thoughts, regular as infant's breath:
> And three firm friends, more sure than day or night—
> Himself, his Maker, and the Angel Death.

For, indeed, Death was kind to Dr. Frank, and came swiftly and without pain to body or mind while he still thought clearly and felt warmly.

HENRY W. COLEMAN, M.R.C.S. L.R.C.P.Edin.,

LEEDS.

IT is with great regret that we have to record the death of Mr. Henry Coleman, which took place at his residence in Leeds on March 18th. Mr. Coleman was born at Pontefract, where his father was town clerk and registrar of the county court and where the position of town clerk was also held by his brother and by his grandfather. He was educated at the Pontefract Grammar School and at Cheltenham. He afterwards entered as a student of the Leeds Medical School, being a pupil of the late Mr. Wheelhouse, and took the diplomas of M.R.C.S.Eng. in 1870 and of L.R.C.P.Edin. in 1874. He became one of the residents at the General Infirmary, and was on the resident staff at the time that the work of the institution was being transferred from the old building in Infirmary Street to the present building, and the writer has often heard him refer to the fact that it fell to him to admit the first patient to the wards. He then became associated with the late Mr. Rickards, of Armley, whom he succeeded in practice in that part of the town. For many years there was no better known practitioner in Leeds than Mr. Coleman.

He was a strenuous worker, and a great favourite with his patients, among whom he was able to number many personal friends. Some years ago he retired from practice, and was succeeded by one of his former assistants, Dr. Alexander. At this time he gave up most of his public appointments, including those of Medical Officer of the Bramley Workhouse, and Medical Officer and Public Vaccinator for the Armley and Wortley District of the Bramley Union. The position of Certifying Factory Surgeon of the West Leeds District he retained till quite recently. A strong churchman and a keen politician, he took a great interest in public affairs, and was for some time chairman of the West Leeds Conservative Association. He was on the Commission of the Peace for the city of Leeds, and in this capacity was a very regular attendant on the Bench. By all who knew him Mr. Coleman will long be remembered as a man of great geniality and of true kindness of heart. He was always ready to help his juniors in the profession, and the writer can call to mind many acts of true kindness to himself and to others. He was full of amusing reminiscences of the older days of the infirmary and school, and his good-natured mimicry was a source of entertainment to the principals themselves and to those who knew them.

He was laid to rest at Pontefract, and the funeral was attended by a large number of those who were associated with him in his professional life, and who desired to pay the last tribute of respect to one who was regarded with affection by all. He was 66 years of age, and is survived by his widow and daughter.

SURGEON-GENERAL H. SKEY MUIR, C.B.

THE older officers of the Army Medical Service will realize with regret that they have lost another old friend in Surgeon-General H. Skey Muir, C.B., who died at his residence in London on March 6th in his 72nd year.

Henry Skey Muir, having first matriculated in 1859 at the London University, proceeded to Glasgow, where he passed two medical sessions. He entered Guy's Hospital in 1861, and these two schools therefore share the education of this distinguished medical officer. He took the M.D. degree at Glasgow in 1863, and later the diploma of M.R.C.S.Eng.

He entered the Army Medical School at Netley in 1864 shortly after the removal of that school from Fort Pitt, Chatham. On completion of the probationary period there he was posted to Nova Scotia, and subsequently was gazetted assistant surgeon to the 6th Foot (now the Royal Warwickshire Regiment), in which he served until 1877. Promotion to surgeon-major came in 1876, and the next year he proceeded to India. This tour of service included the second Afghan war, in which he served. One of his experiences in this campaign was the march of the Kandahar column under Sir Donald Stewart up to Kabul.

His services gained him the distinction of a mention in dispatches.

He passed afterwards a sufficiently varied career, during which he visited the West Indies and the Cape, performed a second tour of Indian service, holding charge of the important military hospitals at Lucknow and Aldershot and the appointments of Principal Medical Officer of the North-Western District and of a district in India during a third tour in that country. In 1897 he became Principal Medical Officer in Egypt, where, although he did not accompany Lord Kitchener's expedition up the Nile, he was responsible for the medical organization and arrangements of the British troops engaged. After thirty-four years of service he was selected for the appointment of Deputy Director-General of the Army Medical Service at the War Office. He held this post during the strenuous times of the late war in South Africa, and, although he reached the age limit on October 4th, 1901, he was retained in his appointment until the end of that year, when he was succeeded by Sir Alfred Keogh. At that time he was also a member of the Central British Red Cross Committee, which rendered such valuable aid to the sick and wounded in the Boer war. In 1900 he was created a C.B.

Besides his military services Surgeon-General Skey Muir devoted much of his spare time to the study of a branch of science other than his immediate profession, and became a Fellow of the Zoological Society. Like many of his brother officers, he found relaxation by diverting his mental activities into another channel.

Thus was passed a long career of usefulness, which, though it did not culminate in the highest office open to the army medical officer, yet illustrates the varied experiences and responsibilities successfully carried out by a highly capable, courteous gentleman.

On March 8th the death occurred of Dr. JOSEPH BRADLEY, Medical Officer of Gortin Dispensary District of Omagh Union. While out on a sick call a short time ago Dr. Bradley became suddenly ill, and was found to be suffering from appendicitis. He was removed to the Tyrone County Hospital in his motor car and an operation was performed, but unfortunately complications set in which proved fatal. He was much respected in the district, and only a few months ago, on the occasion of his marriage, was presented with an illuminated address by the people of Gortin and Greencastle.

It is with feelings of deep regret that we record the sudden death of Dr. F. G. GRAVES on March 2nd. Dr. Graves received his medical training at the London Hospital, where he held the post of resident medical officer. In 1857 he took the diploma of M.R.C.S., in 1858 that of L.S.A., and in 1859 the degree of M.D.St. Andrews. For over fifty years Dr. Graves had practised in Paddington, where he was a well-known figure, and by his genial and kindly manner, together with his professional skill, had endeared himself to all with whom he came in contact. His sudden death will be keenly felt by his many friends and patients. He leaves his eldest son to carry on his practice.

The late Dr. PETER ANDERSON, who died at Rose Villa, Stanley, Perthshire, on March 12th, was known amongst his friends as "Anderson of Formosa." He deserved the name, for he worked as a medical missionary for thirty-one years in that far-off island, for twenty-five years in the capital, Tainan, and for six in Takow. He was born more than sixty years ago in Perth. He began his medical studies in Edinburgh, under the aegis of the Edinburgh Medical Missionary Society, in 1874. He took the diploma of L.R.C.P. and L.R.C.S.Edin. in 1878, and sailed for Formosa as a missionary of the English Presbyterian Church in the same year. His chief work was done in Tainan before the Japanese occupation of the island; after that event Tainan so increased in size that, to use Dr. Anderson's own words (in a letter to a friend) he was glad when an opportunity came to exchange his responsibilities there for the smaller sphere at Takow. In 1906 Dr. Anderson brought his wife home to Scotland, but she was then suffering from a fatal affection, and died soon afterwards. He himself came home in 1910, and had lived since then in Stanley. He married a second time, and leaves a widow and several children. He was buried in Redgorton Churchyard on March 15th. Always a modest man about his own achievements, Dr. Anderson has left his mark upon the natives of Formosa, and the Japanese were among the first to acknowledge the beneficial effects of the medical missionary work accomplished by him in Tainan.

Universities and Colleges.

UNIVERSITY OF OXFORD.

Course for the Diploma in Ophthalmology.

THE annual course for the Diploma in Ophthalmology begins on April 21st. There will be a series of lectures on diseases of the eye and on medical ophthalmology, as well as clinical instruction at the Eye Hospital. Courses on bacteriology of the eye and pathology will also be held. Instruction in physiological optics is given at the Physiological Laboratory, and on the anatomy of the eye in the Anatomical Department at the Museum. For information apply to the Assistant Registrar, Oxford University, or to Mr. P. H. Adams, M.A., Margaret Ogilvie Reader in Ophthalmology, 53, Broad Street, Oxford.

UNIVERSITY OF GLASGOW.

INCLUSIVE FEES.

AT the meeting of the Glasgow University Court on March 13th, a report was submitted by the committee recommending that the inclusive fee for the specified courses of instruction for the M.B. and Ch.B. degrees be 90 guineas payable in four annual instalments of 20 guineas and one instalment of 10 guineas. The inclusive fee would admit to thirty of the specified graduating courses. A candidate who had paid one or more of the annual statements of the inclusive fee at one Scottish university, and completed his curriculum in another, would pay the remainder of the annual instalments to the latter university, and would be entitled to attend such further graduating courses therein as with those already attended in the former university would make up the stated number. It would be necessary that the amount of at least two annual instalments should be paid to the university in which he completed his curriculum, and that before he received his degree therein he should present evidence that he had paid in all an amount equal to the inclusive fee. A candidate whose attendance elsewhere than at a Scottish university on courses of instruction in all the subjects of the first division of the professional examination had been accepted by the Senatus as qualifying for graduation would be entitled to a deduction of 25 guineas from the inclusive fee; and a candidate whose attendance on courses of instruction in all the subjects of the first and second divisions of the professional examination had been so accepted would be entitled to a deduction of 50 guineas from the inclusive fee.

Principal Sir Donald MacAlister explained that, owing to the clinical courses being under the control of other bodies than the university, it was impossible meantime to suggest a uniform clinical inclusive fee. The present aggregate was one of 27½ courses for 90 guineas, so that by giving 30 courses for this sum the university gave a bonus of 2½ courses, and the student stood to gain this. The extramural students were as free as the intramural students to take advantage of the educational bonus, and therefore nothing was done to interfere with the present freedom.

After a discussion during which Sir David M'Vail objected to the principle of a medical inclusive fee, a motion was carried instructing the committee to confer with the authorities of the extramural schools in Glasgow on the scheme now laid before the court, and to report.

VICTORIA UNIVERSITY OF MANCHESTER.

THE following candidates have been approved at the examinations indicated:

FIRST M.B., CH.B. (*Part I, Inorganic Chemistry and Physics*).—F. H. Anderson, Mercy D. Barber, W. T. G. Boul, C. F. J. Carruthers, C. G. Carson, Ruth E. Conway, G. E. Hayward, N. Kletz, E. N. P. Martland, A. B. Platt, J. Shlosberg, H. Taylor, H. Tomlinson, F. White. (*Part II, Biology*).—J. H. Albinson, R. J. Allison, F. H. Anderson, Mercy D. Barber, W. T. G. Boul, C. F. J. Carruthers, C. G. Carson, B. W. Conway, Ruth E. Conway, G. E. Hayward, N. Kletz, E. N. P. Martland, F. H. Moor, R. S. Paterson, A. B. Platt, J. Shlosberg, D. M. Sutherland, H. Taylor, H. Tomlinson, F. White.

SECOND M.B., CH.B.—M. C. Paterson.

THIRD M.B., CH.B. (*General Pathology and Morbid Anatomy*).—W. S. Booth, J. E. Brooks, *F. Chadwick, F. S. Charnock, J. W. Craw, N. H. Davison, J. Fielding, W. Halliwell, E. A. Linell, *Clara A. Lomas.

* Passed with distinction.

D.P.H.—P. Benington, D. I. Connolly, W. G. Evans, N. Gebbie, G. Jessel, E. C. Hutchinson, R. Proudfoot.

Ashby Memorial Scholarship.

The Ashby Memorial research scholarship in the diseases of children has been awarded to Mr. John Morley, M.B., Ch.M., F.R.C.S., who will carry out researches with regard to certain congenital abnormalities and their clinical significance. Mr. Morley, who received a scholarship when he graduated in 1908,

afterwards held the Professor Tom Jones memorial surgical scholarship.

Appointments.

Dr. E. B. Leech has been appointed assistant lecturer and demonstrator in materia medica and therapeutics, and Mr. T. Graham Brown, M.B., B.S., a Carnegie Fellow who has recently been working under Professor Sherrington at the University of Liverpool, has been appointed lecturer in experimental physiology.

UNIVERSITY OF LIVERPOOL.

A CHAIR of Regional Surgery has been established, and Mr. W. Thelwall Thomas has been appointed professor.

UNIVERSITY OF BRISTOL.

THE following candidates have been approved at the examination indicated:

M.B., Ch.B. (*Second Examination*).—Hilda Kate Ewins, William George McKenzie, Cedric Norman Vaisey, Guy Richard Penny Wookey.

UNIVERSITY OF BIRMINGHAM.

DR. ALFRED H. CARTER has resigned his Professorship of Medicine after being connected with the Birmingham Medical School for about thirty-five years.

Dr. Henry Whitehead, M.D., D.P.H., Medical Superintendent of the City Hospital, Lodge Road, has been appointed Clinical Teacher in Fevers and in Hospital Administration.

Dr. John T. Hewetson, M.D., Ch.M., F.R.C.S., has been appointed Assistant to the Chair of Midwifery and Diseases of Women.

In connexion with the meeting of the British Association in Birmingham in September next, the council will hold a reception and degree congregation in the Great Hall of the Edgbaston buildings on Thursday, September 11th.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

SURGERY.—†E. C. Banks, *†A. C. Dickson, *†R. G. Maglione, †H. Rimington.
MEDICINE.—†E. C. Banks, †O. W. D. Steel, †S. Zarchi.
FORENSIC MEDICINE.—F. C. M. Gabites, G. F. Malden, C. E. Reckitt.
MIDWIFERY.—S. H. Andrews, L. B. Clarke, T. H. Cresswell, P. R. Cross, H. Dudley, T. B. Paul.

* Section I. † Section II.

The diploma of the Society has been granted to Messrs. E. C. Banks, R. G. Maglione, H. Rimington, and O. W. D. Steel.

Public Health AND POOR LAW MEDICAL SERVICES.

OUTBREAK OF TYPHOID FEVER AT RINGWOOD.

IN the BRITISH MEDICAL JOURNAL for March 15th reference was made to the report to the Local Government Board by Dr. Hugh A. Macewen, upon an outbreak of typhoid fever which occurred in the town of Ringwood in the autumn of last year, in which seventy-seven persons were attacked and five died. We have received a communication from Mr. Howard Tozer, vice-chairman of the Ringwood Rural District Council, in the area of which the town of Ringwood is situated, enclosing a long report from the medical officer of health, Dr. Charles E. Blackstone. In both of these documents certain statements made by Dr. Macewen are traversed, and objection is taken to the conclusions he has drawn. The main points at issue appear to be as to the cause of the outbreak, as to the attitude of the district council with regard to it, and as to the sanitary administration of the district generally. Dr. Macewen stated in his report that it was suggested that locally manufactured ice-cream might have been the infective agent, and that there was a certain amount of evidence to give colour to the suggestion. He seems to have made careful investigations into the possibility of this being the case, but eventually came to the conclusion that ice-cream was not so likely a cause as the drinking of water from the Cockstone stream which courses through the town. Dr. Blackstone, on the other hand, gives some very good reasons for concluding that a particular supply of ice-cream was the main factor in causing the outbreak. On the question of sanitary administration of the district, Dr. Macewen stated he had been informed on good authority that privy buckets had been washed by the district council's men in Cockstone stream on August 1st, and that the contents were on at least one occasion thrown into the stream instead of being taken to the cart and removed in a proper manner. He referred also to the absence of any hospital accommodation for infectious diseases, though Dr. Blackstone is able to show that a temporary hospital was opened in a disused farmhouse within a fortnight of the receipt by him of the first notification of any case. In this connexion, Mr. Tozer states that very considerable efforts had been made in the past by the district council to provide an isolation hospital. Plans had been drawn and a site selected, but the residents near the site protested so strongly that another site had to be sought, only with a like result. The council, he says, then undoubtedly weakened in its purpose because of local opposition, and allowed the matter to stand over for a time. We are glad to learn from Mr. Tozer that Dr. Macewen was mistaken in his impression that the members of the district council were reluctant to realize the gravity of the outbreak. He assures us that from the very first moment it was reported to the district council they took a serious view of it and neglected no step recommended by their advisers.

Medical News.

A MEETING of the newly-formed British Oto-Laryngological Society will be held at the rooms of the Medical Society of London, Chandos Street, W., on Thursday next, at 5 p.m.

THE Harveian Society of London has arranged for its annual Harveian lecture to be delivered on April 10th, at 8.30 p.m., by Dr. A. P. Luff, who will deal with the various forms of fibrositis and their treatment. All members of the medical profession interested in the subject are invited to be present. The society's home is at the Stafford Rooms, Titchborne Street, Edgware Road, W.

BY an Order in Council dated March 14th the term "sulphonal" in Part II of the Schedule to the Poisons and Pharmacy Act has been replaced by "sulphonal and its homologues whether described as trional, tetronal, or by any other trade name, mark, or designation." In the same order diethyl-barbituric acid and allied bodies whether described as veronal, proponal, medinal, or by any other trade name or designation, and all poisonous urethanes and ureides, are added to the schedule.

ON March 22nd Dr. Church, who has been in practice in Minchinhampton for nineteen years, and is shortly leaving for British Columbia, was presented with two silver entrée dishes bearing the inscription, "Presented to Dr. B. E. Church by the people of Minchinhampton, Gloucestershire, in remembrance of their affection for him, March 22nd, 1913." The gift was accompanied by an illuminated album containing the names of the subscribers.

THE sixth and last of the Galton Laboratory lectures on national eugenics was delivered by Professor Karl Pearson at University College, London, on March 18th. He gave an interesting account of some recent studies of heredity in dogs, which, he said, proved once more the fallacy of Mendelian theories. Experiments in breeding and interbreeding different types of dogs showed that no hard and fast rules could as yet be laid down to account for the laws of heredity. The fact was that the study of eugenics was still in its infancy; eugenists at present could only echo the words of the soothsayer in *Antony and Cleopatra*, "In Nature's infinite book of secrecy a little I can read."

MR. WILLIAM BROWN, M.A., D.Sc., lecturer on psychology in the King's College of the University of London, will during next term give a course of lectures on psychology for medical students and practitioners adapted to the syllabus of the examination for the Cambridge diploma on psychological medicine. The fee for the course, which includes twenty lectures each followed by practical work, is five guineas, and those who intend to join are requested to send their names to Dr. Brown or the Secretary at King's College. An introductory lecture will be given on Wednesday, April 23rd, at 4 p.m., to which admission will be free.

IT must be confessed that, of the thousands who die in the prime of life, most are roughly and prematurely wrenched from the tree of life, before coming, "like as a shock of corn cometh in his season," to that fruition when they would have been gathered full of years if not of honours. Doctors aim at prolonging life by entrenching mankind behind the defences of remedial measures during the fight with the arch destroyer, but also by spreading the principles of right living. The time to prepare for war is during peace. The time to ward off disease and death is during health. Every doctor is an evangelist of the gospel of preventive medicine. One of the latest is Dr. Lachlan Grant, who in a brightly written, optimistic contribution to the *Caledonian Medical Journal*, points out the conditions of health. Dr. Grant's suggestions on the subjects of sleep, food, work, exercise, recreation, social intercourse, and worry, will be endorsed by his fellow practitioners, although it is disconcerting to be told that tea and coffee as frequently made are "deadly poisons."

The advantages of gas as a domestic fuel have lately been made the subject of two Cantor lectures, delivered at the house of the Royal Society of Arts by Mr. F. W. Goodenough, who claimed that the undoubted diminution of fog in London was due to the fact that during the last twenty years the number of gas-heated cooking and hot-water appliances sold, hired, or loaned in the metropolis had increased from a few thousands to nearly a million and a half, with a consequent reduction in the number of kitchen fires. He also pointed to the physical and moral value of the gas-cooker to the working-classes. It had a physical value because it insured for the working man a well-cooked and nourishing breakfast, and prevented the necessity which often arose with a slow and refractory kitchen grate, of beginning hard work without hot food. It had a moral value, for it gave to the working man the certain prospect of a hot and punctual supper, and thus conduced to evening sobriety. Although houses were still erected on the supposition that gas was at best only a second string to the kitchen bow, yet this cleanly and ideal domestic fuel had established itself, Mr. Goodenough claimed, from end to end of the social scale—from Mayfair kitchens with their multiple ovens and special roasting chambers, to the single all-round stove of the artisan's scullery. As to its economy compared with coal, he thought that the answer was forthcoming from the 750,000 housewives in London who used gas-cookers although compelled to prudence by means so scanty that they had to buy gas a penny a time through automatic meters. The complaint of the wastefulness of gas in larger houses was rarely heard when the mistress of the house did her own cooking, and never when she had learnt how to use her stove. Some small prejudice still existed against gas-cooked food, but Mr. Goodenough maintained that the juices of the meat were retained, while the excess of fat was eliminated. It was proved that meat while being cooked in the gas-oven was emissive and not absorptive. Mr. Goodenough showed some forms of distillers and porous water sterilizers for purifying drinking water by a gas-heating arrangement. The purpose of the sterilizer was to bring the water just to the boiling point without entailing the insipidity which was characteristic of water boiled for a long time.

Princess Christian of Schleswig-Holstein presided over the ninth annual meeting of the Association for Promoting the Training and Supply of Midwives, which was held in Central Buildings, Westminster, on March 14th. The annual report for the year 1912 stated that twenty women had been entered for training, and the standard of general efficiency had been well maintained, so that the association might rest assured that its primary object of promoting the supply of midwives and furthering the purposes of the Midwives Act was being steadily carried out. This Act, however, was but feebly administered in some districts, and there was still a tendency in many places to ignore the fact that untrained women are at work, so that in this direction the association had still abundant work lying to its hand. The work at the East Ham Home continued to increase from year to year. The number of midwifery cases received there during the past year amounted to 843, and the monthly cases to 243, making a total of 1,086 confinements. The average number of deliveries by each pupil was 42, that is, 22 more than the minimum number required by the Act. The care exercised by the Committee in the selection of candidates for training at the Home could be judged from the fact that out of the 390 women who applied for training in 1912 only 18 were accepted. The balance sheet for 1912 showed a decrease in subscriptions, and a slight increase in donations. The raising of further funds would therefore soon be necessary if the work of the association was to be properly carried out. As it was, the future, even apart from money matters, was far from reassuring. The Insurance Act had created an entirely new and most difficult situation in the medical and midwifery world; and though the association was not an employing body, and had, therefore, no direct responsibility laid upon it by the Act, the position demanded the most careful thought and action if the future of the midwifery profession was to be assured. The report and balance sheet having been adopted, a short address was delivered by Dr. Christopher Addison, M.P., on "Midwifery and the Maternity Benefit," in the course of which he pointed out that a woman was entitled to the benefit even when attended only by a midwife and a pupil. At his suggestion it was unanimously decided that a deputation should be sent from the association to the Insurance Commissioners to point out the numerous difficulties which at present arise in connexion with the payment of the maternity benefit under the Act.

Letters, Notes, and Answers.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Major C. B. Lawson, R.A.M.C., asks for references to literature relating to the treatment of goitre by iodine cataphoresis.

South Walian asks to be recommended a suitable portable battery for cautery work in general practice. He has found a dry cell battery unsatisfactory, inasmuch as after being left unused for a couple of months, it failed to give a sufficient current. A wet battery is inconvenient, as it must be filled with fluid every time it is used, and may then not give a sufficient current.

H. E. J. would be glad to hear of comparative results obtained in the treatment of rheumatoid arthritis with (*a*) continuous counter-irritation, and (*b*) oral administration of radio-active drinking water.

*** With regard to the internal administration of radio-active (emanation) water, our correspondent might consult the report of the Radium Institute (British Medical Journal, January 25th, 1913).

Caries of the Milk Teeth.

A. M. W. writes: As a school inspector I find in the course of my examination of a very large number of children during the year that a high percentage are suffering from decayed teeth. In the district in which I work there is no dentist employed to attend to these children, and so all I can do is advise all parents to obtain treatment, and I usually advocate it on these grounds: (1) In order to prevent dyspepsia and other troubles connected with the digestive organs, and consequent malnutrition due to the swallowing of septic organisms from the bad teeth. (2) To avoid the absorption into the system by the lymphatics of the septic material in the cavities, and also the possible entrance of tubercle bacilli. (3) To prevent the imperfect development of the jaw caused by deficient mastication owing to the tenderness of the gums consequent on the inflamed condition of the sockets. One may also mention the occurrence of alveolar abscess and the loss of good looks later in life due to absence of teeth, etc.

In spite of my efforts I find that a great many parents will not take the trouble to have anything done; they usually do not realize the necessity, and sometimes cannot pay for treatment, but those who do take their children to a doctor or dentist are often told (and this is the point of my letter) that they had better leave the teeth alone, especially if they are first teeth. Now this is very unfortunate, and puts me in rather an awkward position with the parents, school teachers, and school nurses, and I cannot understand the reason, unless it be that doctors and dentists do not like the trouble of treating children's teeth, or else that they think by extracting a carious primary tooth they will interfere with the growth of a secondary one. There may be some ground for this latter opinion, and it is in order to find out if such be the case that I am writing to you.

ANSWERS.

Major R. McCarrison, I.M.S. (Kasauli, Panjab) writes: In answer to "Country Doctor," who asks for advice on the treatment of a case of goitre in a girl of 18 (British Medical Journal, February 8th, p. 320), I would suggest the use of a *coli* vaccine made from the patient's own strain of *coli* (from the faeces). Inoculations should be made at intervals of seven to ten days—an initial dose of 75 million gradually increased to 150 million. For particulars of this treatment "Country Doctor" might refer to my Milroy Lectures on the Etiology of Endemic Goitre for this year.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Eight lines and under	0	4	0
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An average line contains six words.

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Note.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

A Lecture
ON
CANCER OF THE TONGUE.

Delivered at the Cancer Hospital, Brompton, on February 12th, 1913.

BY
CHARLES RYALL, F.R.C.S.,
SENIOR SURGEON TO THE CANCER HOSPITAL; SURGEON TO THE LOCK HOSPITAL; SURGEON TO THE BOLINGBROKE HOSPITAL, ETC.

Laboratory research has so far failed to discover the immediate cause of cancer, though it is generally agreed that some form of irritation is an important factor in starting the changes that evolve in malignancy. These sources of irritation, often obscure, vary from case to case and from organ to organ. But in cancer of the tongue we have a definite group of mediate factors that arrest attention, and these consist primarily in syphilis, and secondarily in the superadded effects of minor irritants. Various figures are given by clinical observers regarding the frequency of syphilitic histories in cases of lingual cancer. To obtain a history or admission of syphilis is not always an easy matter, and the closest inquiry and most tactful cross-examination are often required. Too much reliance must not, therefore, be placed in the correctness of the routine hospital notes, for in many cases the patient has either forgotten the past trouble or has attached no importance to it, and one is apt to overlook the fact that not infrequently the primary sore and concurrent symptoms may disappear after a comparatively short course of treatment, and the disease may lie dormant only to break out in less tractable forms many years afterwards.

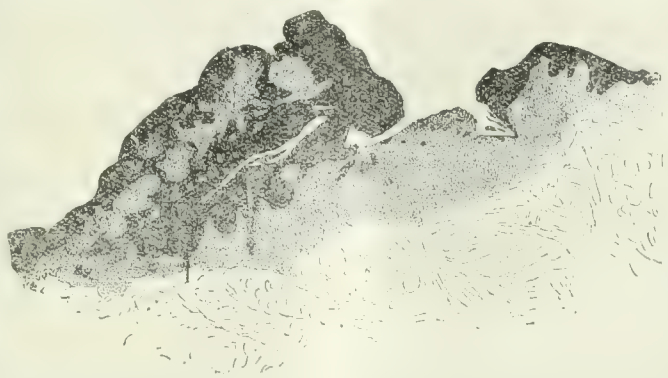


Fig 1.—Small ulcer of tongue, showing proliferation of epithelium down into fissure. Enormous round-cell infiltration. Islets of epithelium on base of ulcer.

Histories obtained from women, too, are often most unreliable, for they may have been unaware of the nature of the disease, although they have been treated for actual manifestations. Here the tale of repeated miscarriages may be the only suspicious information available. Some years ago I collected figures of the history of syphilis in cases of cancer of the tongue under my care. It worked out at over 80 per cent., and seems to be conclusive as to the intimate association of the two diseases. It was held by neurologists—an opinion that in view of recent investigations has almost become a certainty—that without syphilis there would be no tabes. I should not care to go so far as to say that without syphilis there would be no cancer of the tongue; but certainly if there were no syphilis the numbers of the latter would be vastly diminished. This opinion has been forced on me as the outcome of clinical observation on the cases I have seen during several years at the Cancer and the Lock Hospitals.

Lingual cancer is a common sequela of syphilis, more common than locomotor ataxia and much more selective than the latter of the male sex. Its frequency with regard to sex is as 8 to 1, whilst the incidence of syphilis alone, judging from our experience at the Lock Hospital, might roughly be considered as ten times more common in males than in females.

How is it that there is such a striking relationship between syphilis and cancer of the tongue? Syphilitic lesions of the tongue are of very frequent occurrence, and they lower the resisting power of the organ, rendering it vulnerable to irritation of all kinds. The primary sore may occasionally be found there, mucous plaques of the secondary stage are by no means uncommon, but it is specially to the later or tertiary lesions that dangerous sequelae ensue. These tertiary lesions occur not only in cases of neglected or insufficient treatment, but also where the most rigid mercurial treatment has been carried out. By no means do all cases of syphilis even obstinate or very chronic, exhibit tongue lesions, and women appear to be peculiarly exempt from them. Why should this be so? There must be some connecting link between the primary infection and such lesions, and that connecting link is long-continued irritation. Correlated with the high percentage of syphilis in the histories you will find that an equally large number have been smokers and very heavy smokers. To a person in normal health tobacco smoking is not a source of irritation of the tongue, and much as I should sympathize with a patient deprived of the solace of "my Lady Nicotine," I am convinced that were the use of tobacco discontinued from the onset of symptoms of syphilis until when, after thorough treatment, the Wassermann reaction is and remains negative, tertiary manifestations in the tongue would almost cease to exist, and cancer of the tongue would be amongst the rarities of our experience. Alcohol has come in for a good deal of abuse (and I use the word "abuse" in all its senses), and though when taken to excess it intensifies the evils of syphilis yet it is of little moment in determining these chronic lesions. Thus we have syphilis as the primary factor in producing vulnerability of the tongue, and tobacco further acting as an irritant on the abnormal organ, with the resulting production of chronic lesions that in themselves are to be regarded as, and indeed are generally nothing else than, precancerous conditions.

As the result of long-continued irritation there is first a thickening of the surface epithelium, perhaps in more places than one, producing the white patches that characterize "smoker's tongue." At first pearly grey in colour, they become denser and more pronounced as the result of further irritation. The cornification of the epithelium progresses. In the course of time it spreads over the tongue, the epithelium and papillae at some parts concurrently atrophying and giving rise to bald, smooth areas amidst the thickening epithelium. Deeper in the tongue other changes are going on. There is round-cell infiltration beneath the mucous membrane, and the accompanying or subsequent cicatrization interferes with the vascular supply, producing the bald areas, and leads to puckering and fissuring of the surface. We see the surface of the tongue irregularly broken up with these fissures. Débris collects here and ulceration ensues. Unlike the normal organ, such a tongue is very irritable—irritable to the roughness of tartar or the edge of a dental plate. Smoking, spirit drinking, and hot condiments add to the irritation. Such a tongue is a source of danger, but the patient, becoming accustomed to minor annoyances, grows callous on the onset of ulceration, ready to endure, as best he can, his unfortunate lot. When fresh trouble breaks out—trouble which may be very serious—he pays little attention to it at first. If it be cancer, as it may quite well be, the cancerous ulcer, for some considerable time after its onset, not infrequently produces less pain and inconvenience than an ulcerated fissure or some other non-malignant lesion associated with chronic syphilitic glossitis. It is the old tale—familiarity breeds contempt.

Growing into the fissures, the epithelium dips down into a tissue robbed of resisting power, where it may take on malignant proliferating character (Fig. 1). Cancer once started tends quickly to extend to the deeper parts of the tongue, spreading out as it penetrates, its surface extent hiding its wider prolongations beneath (Fig. 2). The lymphatic glands become early infected, and, owing to the free anastomosis of lymphatic channels in the substance of the tongue, the lymph glands on both sides

of the neck are apt to be involved. It often happens that enlarged glands are found on the side opposite to the primary lesion. As the lingual growth advances, the tongue becomes more and more fixed, the loss of mobility renders articulation painful and difficult, swallowing is a matter of great difficulty, and saliva dribbles from the mouth. The increase in the size of the tongue may interfere with mastication and even with the closing of the mouth. The foul cancerous mass cannot be kept clean and the teeth cannot be brushed. Usually there is very considerable pain and the necessity of taking nourishment becomes a penance. The condition of such a patient is harrowing; not only is he a pitiable object to his friends, but he is an offensive nuisance to those called upon to attend him.



Fig. 2.—Cross section through a cancer of tongue to show small superficial ulcer and deep-spreading involvement of the muscles.

Diagnosis.

An early diagnosis of all forms of malignant disease is important, and in no situation more so than in the tongue, because of the great rapidity with which it spreads. When any doubt exists as to a particular lesion, the part ought promptly to be excised and examined microscopically. Valuable time should not be wasted in attempting to solve the nature of the trouble by the Wassermann reaction or by therapeutic tests. A positive Wassermann reaction proves only the presence of the syphilitic taint, and does not exclude carcinoma; and as most cases of cancer of the tongue supervene on syphilis, we find, as a matter of fact, that where there is an indubitable cancer the reaction is very frequently positive. It is, therefore, valueless in this case. Unfortunately, too, antisyphilitic treatment is too often resorted to in order to settle the diagnosis. The practitioner coming across a suspicious lesion, and perhaps influenced by the admission of previous syphilis, is apt to conclude that it may, after all, be only a tertiary manifestation; and if it does show signs of improvement, his conclusion is fortified. He loses sight of the fact that both syphilis and carcinoma not infrequently coexist in the tongue. The patient may probably express the opinion that the treatment is improving the condition, and his medical attendant, noticing himself the unmistakable change for the better, is apt to conclude that with perseverance a cure is in sight. Alas for fond hopes! I have been led astray myself by seeing a large lesion of the tongue apparently clearing up under iodides, only to wake up to the fact that it was a case of epithelioma grafted on to a large syphilitic ulcer, and that while the latter was cicatrizing and healing the former had been growing apace. My experience is that practically all epitheliomas of the tongue become cleaner and appear to undergo a change for the better under iodides, and more especially so after an injection of salvarsan.

Whether we shall have a sero-diagnostic method for cancer is a question for the future, but until it arrives and proves to be reliable my advice is, waste not a day, but have a portion excised and submitted to a pathologist. It cannot be resorted to too early. If the suspicious lesion is small, it can be wholly excised, but where it is comparatively large a portion from the edge of the most suspicious part should be removed, but it must be of sufficient size and, above all, of a good depth. Shavings are useless to the pathologist.

Cancer of the tongue is generally developed after the age of 40. The most common situation is the margin of the tongue, sometimes the dorsum, and occasionally the tip. Most of the lesions are in the anterior two-thirds. Sometimes the frenum and floor of the mouth are the sites of the origin. Usually there is concurrent evidence of syphilitic glossitis. When epithelioma occurs on the dorsum it arises frequently in a breaking-down gumma.

Epithelioma commences in a variety of abnormal conditions, such as in a wart, a fissure, a chronic ulcer, nodule, etc., and it is obvious that under these conditions it has no definite characteristic feature. Only the microscope will reveal the malignant change. But when well established, there are two main forms in which it manifests itself, the ulcerating form and the pseudo-papillomatous form. The ulcer is an indurated infiltrating sore with raised and sometimes undermined edges and very hard base; in its early stages, when it occurs in a fissure, it has no peculiar characteristics beyond that of an ulcer that refuses to heal, with perhaps a slight suspicion of infiltration. The pseudo-papillomatous form is characterized by the appearance of a slight raised flat patch of crowded warts; and though in its early stages, at least, it may be less infiltrating than the ulcerating type, yet it is hard and indurated. The lesions that may cause difficulty in diagnosis are simple ulcers and breaking down gummata. In the case of the former there will be evidence of irritation from the sharp edge of a tooth or a stump, and the induration and infiltration that characterize a carcinoma will be absent. A breaking down gumma is generally found in the dorsum of the tongue, and is characterized by a very deep, almost punched out, ulcer with marked induration but with a septic, sloughing base. Great stress is laid on the tuberculous ulcer in the textbooks. It is, as a matter of fact, exceedingly rare, is generally far back on the tongue, and is invariably secondary to tuberculosis elsewhere.

Treatment.

(*a*) *Preventive.*—As I have already pointed out, tobacco is dangerous in all cases of syphilis, and its use ought to be prohibited, in my opinion, in every case of syphilis, and certainly on the slightest appearance of leucoplakia of the tongue. Syphilitic lesions of the tongue should have thorough treatment, and are most successfully dealt with by the combined administration of calomel and salvarsan injections. Treatment should be continued until the Wassermann reaction is negative and remains so after six months. Leucoplakia is not amenable to treatment, and is, perhaps, best left alone. All chronic tertiary lesions should be kept under observation and all sources of irritation should be removed. This entails the removal of carious stumps and rough edges of teeth, careful brushing of the teeth, and attention to the general hygiene of the mouth. The prolonged use of strong, stimulating applications is a mistake. The frequent application of some bland antiseptic is indicated, and boroglyceride is as good as anything else. It is advisable to excise any chronic ulcer or papilloma that refuses to yield to treatment. I should not hesitate to recommend excision of the tongue in the case of a very extensive chronic syphilitic lesion that remains unamenable to antisyphilitic remedies. It is important to keep cases under observation, as early malignant disease may thus be detected. I have watched several cases of syphilis in which malignancy has supervened and has been discovered at an early stage.

(*b*) *Radical.*—The spread of the disease is always more extensive than clinical examination would lead one to believe. The glands are early involved. The situation of the primary focus does not determine the particular chain of glands or even the particular side that may first be involved. Deviation of the tongue on protrusion or impaired mobility is a sign of the spread of the disease, though unimpaired mobility is no guide as to the extent. My last case, for example, had no impairment of mobility, yet the spread was very extensive. Enlargement of the glands in the neck always adds seriously to the outlook, but I do not regard the enlargement of the submental glands with the same amount of gravity as I do those of the carotid group. In all cases it is necessary to remove the lymphatics, fat, and fascia in the anterior triangle on both sides of the neck. The complete removal of the tongue, together with the dissection of the neck on both sides, entails a very serious operation, attended by shock, and we are compelled, much against our ideas, to do the operation at two sittings, removal of the tongue and dissection of one side of the neck being done on the first occasion, and the other side of the neck being cleared out at a subsequent operation. It is a matter of difficulty to obtain a patient's consent to a subsequent removal of glands from the side of the neck not apparently involved, but I have seen patients who refused the double operation return later with involved glands on the untouched side.

I always advise complete excision of the tongue. Where the lesion is very minute a very wide removal might suffice, but the larger operation even then would be more ideal. With an incision carried from behind the angle of the jaw along the anterior border of the sterno-mastoid to opposite the sterno-clavicular articulation, and

another from beneath the tip of the chin to meet this at right angles, the anterior triangle is first cleared of the fascia, fat, and lymphatic glands belonging to the submental, submaxillary, inferior parotid, and carotid groups, taking care to prevent tearing of these glands, as otherwise cancer implantation followed by recurrent nodules, or, more frequently, widespread and rapid malignant induration of the whole side of the neck, might result. Drainage tubes are inserted before closing this wound, to remove blood-stained exudation or secretion from any of the salivary glands, or in case a communication be accidentally made with the oral cavity. Thereafter the mucous membrane of the floor of the mouth and the fraenum is divided, allowing of the tongue being pulled forward and the lingual arteries ligatured. The tongue is divided transversely as far back as possible and the mucous membrane of the floor of the mouth sutured over the stump. Preliminary laryngotomy is quite unnecessary, and is not adopted by us. The modified Trendelenburg position in which the patient is put at operation prevents blood entering the trachea. The patient is propped up in bed as soon as is possible; mucus is removed by swabbing: and nourishment is given by means of a rubber tube placed on the spout of a feeding cup and passed well into the pharynx, where swallowing is entirely a reflex action. As the healing of the wound progresses the patient is able to drink out of a cup. He is supplied with a writing block, and is forbidden to make attempts at speech. Gradually the scar tissue disappears and mobility of the floor of the mouth and the stump becomes restored, so that after the lapse of a fortnight articulation is possible and improves with time, finally approaching so near the normal that the uninitiated might not detect the loss of the tongue. You will hear from one of the patients here to-day, whose tongue I removed for cancer fifteen years ago, how perfect is this articulation. For the first week after excision of the tongue, partly as a result of the operation and partly from the enforced silence, the patient is apt to become very depressed, and I always advise getting him out of bed as soon as possible to sit in an armchair, as this cheers him up.

(*c*) *Palliative.*—In those cases which are beyond the stage of operation, where their life becomes a burden to them and their sufferings grow more acute, can nothing be done? I strongly advise removal of the tongue where it is possible, even when there is no hope of cure owing to the widespread glandular involvement. In many cases it may be removed even when the disease is far advanced, and with the aid of the cautery any suspicious foci of recrudescence can be attacked and the condition rendered vastly more satisfactory than if the disease had been allowed to pursue its course unchecked. Unless something is done to alleviate the patient's condition terrible suffering has to be endured. For a considerable time I have been endeavouring to carry out some sort of starvation treatment of the growth by avascularizing the part. The fact that the tongue is a fairly well isolated organ with a definite blood supply coming from the two lingual arteries seemed to hold out the hope that by ligation of these vessels avascularization would result, but I found that, owing to the free anastomosis between the various branches of the external carotid arteries, such a proceeding was attended with but little success. Further attempts by tying the external carotids did not give any better results, and it is, in fact, impossible by mere ligation to cut off the blood supply anywhere in the carotid area. Dawban suggested the injection of the vessels with a paraffin preparation of a melting point somewhat higher than body temperature. This I have adopted on several occasions. The method indubitably accomplishes more complete avascularization than ordinary ligation. It causes shrinking of the part, the ulceration becomes less foul, contrary to what one would expect, but the great benefit derived from it is the marked alleviation of pain. In one case, where there was extensive recurrence in the stump of the tongue and the floor of the mouth and where the disease had spread to the anterior pillar of the fauces and the right side of the pharynx, the whole affected area cicatrized over and the disease seemed to have disappeared. It, however, recurred on the side of the pharynx a year afterwards. I cannot recommend paraffin injections as a routine method, as they appear to be not wholly free from risk.

C

Conclusions.

The lessons to be learnt are: Wide removal in definite epithelioma; microscopic examination of suspicious lesions; the avoidance of tobacco by those who have syphilitic lesions of the tongue; and radical treatment of all syphilitics till serologically they are pronounced free.

The thorough treatment of syphilis would wellnigh abolish cancer of the tongue.

ENUCLEATION OF TONSILS AND REMOVAL OF ADENOIDS UNDER GAS ANAESTHESIA.*

By JOHN F. O'MALLEY, F.R.C.S.,

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By enucleation of the tonsil I mean the complete removal of the circumscribed mass of lymphatic tissue lying between the anterior and posterior faucial pillars, together with its capsule.

The earlier operations on the tonsils were directed chiefly towards the removal of the redundant mass of tissue which projected beyond the pillars of the fauces, leaving the tonsillar base and capsule *in situ*. Such tonsils gave rise to some mechanical obstruction, associated with occasional inflammatory attacks, and these constituted the indications for their amputation.

With the evolution of the view, as to the part played by the tonsils as a path of entry for local and systemic infections, came more vigorous attempts at their removal as a whole, greater importance being attached to septicity than to size. These attempts were more or less successful, but no surgeon could state with any degree of tolerable certainty, when about to operate, that he would be able to remove the gland with its capsule completely, except in a limited number of medium-sized, compact, and firm tonsils, until the method of enucleation by dissection was introduced.

This method is a certain and efficient one, and in the hands of its advocates has been used frequently to enucleate the portion of the glands which the older method failed to remove, and with decided benefit to the patients.

Any operator with a fair degree of dexterity can soon master either or all of the various types of technique used in this method, but there are certain essentials of the operation which stand in the way of its popularity. This applies particularly to the depth of chloroform anaesthesia required, which is always a source of anxiety to surgeon and anaesthetist; and, indeed, many of the latter dislike pushing the anaesthetic to such a degree. Partly on account of this difficulty with the anaesthetic, and at the same time recognizing the value of complete removal, surgeons have latterly turned their attention to perfecting some method of enucleation by tonsillotomes.

To Greenfield Sluder of St. Louis belongs, I believe, the credit of having first originated the idea of applying the tonsillotome by its outer aspect to the tonsil, whilst laying special emphasis on the sliding of the tonsil on to the alveolar projection of the lower jaw, to facilitate pushing the gland through the ring of the instrument. Sluder's idea has been considerably modified by some surgeons in this country, notably Pybus and Whillis of Newcastle and Peters of London. The points which, in my opinion, are of most importance, and my reasons for specially emphasizing some of them, will probably be best conveyed by giving a description of the whole of the method and the technique which I adopt at the Evelina Hospital for Children, where an average of about thirty cases in a morning have to be operated on.

1. *Preparation of the Patient.*

If the patient has any decayed teeth the help of the dentist is sought to get the mouth into good condition. It is obviously bad surgery to operate in the presence of manifest sepsis, in the absence of urgency. The bowels are cleared out the day previous to operation, and on the

* Read before the Dartford Division of the British Medical Association.

morning of the operation no solid food is given—in fact, the usual preparation for a general anaesthetic. The following mixture is given one day before the operation and continued for six days after:

R	Sodae salicyl. Potass. bicarb. Potass. chlor.	...	...	āā gr. x
	Elixir aromat. (B.P.C.)	...	...	... m xx
	Aq. chlorof. ...	...	...	... ʒ jss

This is the strength of a stock mixture. The dose is as follows: Under 6 years of age, 1 drachm; from 6 to 12 years, 2 drachms. It is given for its local and general antiseptic action, and to counteract any septic absorption from the raw tonsillar bed and naso-pharynx. This treatment has arisen out of the view that acute rheumatism is a type of systemic infection of tonsillar origin. Potassium chlorate enjoys a wide reputation as an excellent drug in the treatment of unhealthy conditions of mucous membranes. When taken internally it is said to be excreted by the saliva, and in this way can exert its local action on the throat after operation. For the idea of this useful combination I am indebted to my friend Mr. Somerville Hastings.

2. *Position of the Operating Table.*

This is of considerable importance to ensure good light. I have tried the various forms of head lights, and discarded them one after the other as unsatisfactory, and only to be used in the absence of daylight. The table is placed lengthwise, parallel to the window, and the operator stands between the two. A good light and full view of both tonsils are absolutely essential to enable the surgeon to enucleate completely, and avoid injuring the uvula and faucial pillars. The table shown in Fig. 1 has two hinged

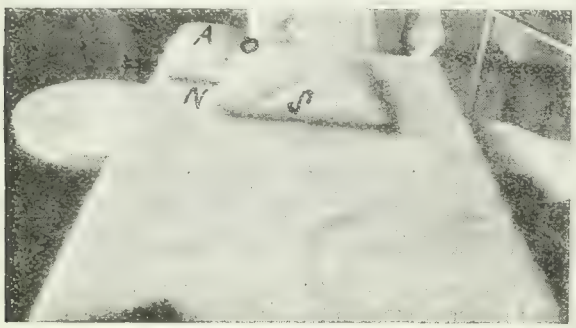


Fig. 1.

basins, fitted one on either side near the top, and when not in use they swing under the table. The basin next to the operator is for the purpose of receiving the blood. It also receives the water used in cleaning the patient's face. The basin on the opposite side contains ice-cold water and sponges to apply to the patient's face when the operation is completed.

This simple device limits the range of blood-splashing so common during these operations, and is far more effective and cleanly than a pail or tray of sawdust placed on the floor. The table should not be higher than the tip of the great trochanter of the surgeon, or he will find his movements restrained during the operation.

3. *Position of the Patient.*

The patient is placed on his back on the table with his right side to the window, and resting on the specially constructed sand pillow seen in Fig. 1. This pillow, though not an essential, as any pillow measuring about 12 to 14 in. square by 1½ in. thick will do quite well, enables the operation to be done with greater comfort and speed, as it guides the nurse who assists to the exact position in which to keep the patient. It is, therefore, especially useful when doing a large series of cases.

The shoulders rest on S, the occiput at O, and the right cheek against the process A, with the face partially turned to the window and the operator. When the tonsils are removed the patient is turned on to the right side for the removal of the adenoids. The right cheek now rests flat on the process A, and the right shoulder fits into the notch N. This gives fixity and stability to the position of the patient, and enables the operator to manipulate with a greater degree of precision when removing the adenoids. The nurse must hold the patient's arms well down along the sides to depress the shoulders below the level of the chin.

4. *Gag.*

I use a modified Doyen's gag, made for me by the Holborn Surgical Company; it answers the purpose well. Its flanges are applied to the lateral teeth and not to the incisors. This enables the operator to bring the adenoid curette out in an abrupt curve, and sweep the growths cleanly away. There is less risk of slipping down the naso-pharynx with the cutting edge, and consequently less danger of leaving tags or removing mucous membrane than if the blade of a gag is resting against the upper incisor teeth.

5. *Anaesthesia.*

At the Evelina Hospital I use nitrous oxide gas anaesthesia with air in all cases of enucleation of tonsils and removal of adenoids. When skilfully administered it gives ample time to complete the operation efficiently. The enucleation of each tonsil takes four to five seconds, and the removal of adenoids fifteen to twenty seconds—in all less than half a minute.

I do not propose to discuss the merits of the various anaesthetics in use for this operation, and therefore desire at this point to remove any impression which the title of this article may convey as to my being an advocate of gas anaesthesia exclusively. My purpose is merely to state that, in my opinion, with a properly modified tonsillotome and careful technique, tonsils can be enucleated as completely as it is possible by any other method, even under such short anaesthesia as gas affords.

I do, however, wish to add that, personally, I like a longer anaesthetic than gas, and particularly when doing isolated cases and working with strange assistants. A hypodermic injection of morphine and atropine given three-quarters of an hour to an hour before the operation adds considerably to the after comfort of the patient. In children $\frac{1}{60}$ grain of morphine and $\frac{1}{150}$ grain of atropine is sufficient to ensure a good night's rest following the removal of tonsils and adenoids. In private I find that it is an excellent addition to the general anaesthetic and can be used to advantage, but in a large out-patient department at a hospital it is difficult to carry out.

6. *Tonsillectome.*

As this instrument is used exclusively for enucleation, I propose in future to refer to it as the *tonsillectome*. The instrument which I find most satisfactory is a modification of one designed by Ballenger of Chicago for Sluder's method, made for me by the Holborn Surgical Company (Fig. 2). In the original instrument the handle was set at a very acute angle to the shaft and blade, and was chiefly intended for use on patients in the sitting position. Owing to this close proximity of the handle and shaft, it was almost impossible to enucleate tonsils with the patient lying down, hence the open angle in the present instrument. The shaft and blade are 1 in. longer than Ballenger's, and there are several other points of difference. The essential features are:

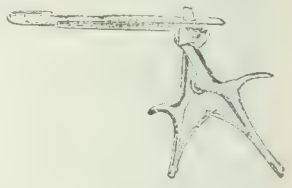


Fig. 2.

(*a*) A thin ring, not bevelled (like the usual type of tonsillotome), but square-edged around the margin of the opening.

(*b*) A small opening. The transverse diameter of the opening is eleven-sixteenths of an inch. The transverse diameter, including opening and ring, is fourteen-sixteenths of an inch. The antero-posterior diameter of the opening is ten-sixteenths of an inch. The two diameters of the opening can be increased up to thirteen-sixteenths of an inch with advantage, as this size will take any tonsil, and one instrument will suffice for all cases, but with the smaller opening the beginner can operate on the vast majority of cases with far less risk of including and damaging the faucial pillars, uvula, etc. It is therefore better to have the two sizes.

(*c*) Dull edged blade and long, stout shaft.

(*d*) No slot to receive the blade when the latter is driven home. The slot recess is filled with lead and the blade cuts on to this.

The thin ring, not bevelled, enables one to thread it on to any tonsil, no matter how flat, with very little risk of slipping when the gland is being raised forwards to the anterior pillar of the fauces. The small opening fits tightly around the base of the tonsil when the latter is squeezed through it and the capsule is inverted in this manœuvre. The thin ring and small opening have the further combined advantage of keeping the size of the instrument such that it will fit any fauces and remove any type of tonsil in one bite (if the larger opening is used). The stout shaft is necessary to prevent bending when pressure is exerted in raising the tonsil forwards. The shaft being long, the handle clears the patient's cheek and chin and facilitates movements. The dull-edged blade, entering between the anterior faucial pillar and the tonsil, strikes the anterior border of the capsule, and the leaded slot of the ring rests against the posterior border.

7. *Removal of the Tonsils.*

The patient's shoulders rest at s on the pillow shown in Fig. 1, the occiput at o, and the face looks towards the operator and the window. In this position the chin is thrown forwards from the chest and the head is partially extended. This position of the chin enables the operator to move the handle of his instrument freely from side to side, without any obstruction from the patient's chest or shoulders. When the facepiece of the gas apparatus is removed the fauces are full in the light of the window, as the mouth is already opened by the gag. Opening the mouth to its fullest extent is undesirable, as it tightens the faucial pillars and diminishes the mobility of the tonsils. Partial opening, just wide enough to give a good view and easy access to the tonsils when the tongue is depressed, is quite sufficient. Observance of this small point will obviate the dislocation of the lower jaw, which one hears of occasionally.

The right or lower tonsil is removed first. This enables the operator to seize the left or upper, and extract it before his view is obscured by blood from the lower. The right hand holds the instrument for both tonsils.

The tonsillectome is inserted with the outer aspect of the ring towards the tonsil to be removed, and the edge of the shaft is used as a tongue depressor, to bring the whole tonsil into view. The lower part of the ring is threaded under the lower pole of the tonsil, pressed firmly outwards, and the latter is then raised forwards as far as its mobility will allow. This movement is aided and slipping of the ring on the tonsil controlled by hooking the left thumb under the centre of the shaft.

The handle and outer end of the shaft are next carried to the opposite angle of the mouth, and a quarter turn given to the shaft, which is now lying obliquely across the oral cavity with its outer aspect upwards. This causes the tonsil to lie over the tonsillectome opening, bulging the anterior pillar, as it does when seized by a blunted conchotome in dissection enucleation. The handle is now slightly depressed, the ring still more firmly pressed up behind the tonsil, and the whole instrument withdrawn a little way. This movement has the effect of rolling the tonsil better into view, and its junction with the anterior pillar is more readily seen, for the insertion of the blade at the margin of the capsule. It also facilitates the inversion of the latter, when the left index finger is applied outside the border of the anterior pillar, on the prominence of the tonsil, to push it through the opening of the instrument. When the tonsil is slightly larger than the opening, and some pressure is required to squeeze it through, a peculiar sensation of "dislocation" is felt by the left index finger. This is due to the fact that the margins of the tonsillectome ring are firmly applied to the periphery of the tonsil, and offer resistance, so that when the latter is pushed through the opening the capsule is inverted, and gives a sensation of slipping, like that felt when a dislocated shoulder-joint slides into place on reduction.

The blade is now closed, and includes the whole periphery of the tonsil capsule between its dull edge and the leaded face of the ring. Both hands momentarily grasp the handle of the instrument and drive the blade more firmly home. Another half-turn is now given to the tonsillectome in the long axis of the shaft towards the uvula, and withdrawn, bearing the tonsil and capsule on the inner or under aspect of the instrument. In this way the capsule is stripped off its bed completely, and its vessels are first crushed and then torn across. For this reason the haemorrhage is far less than when a sharp blade cutting into a slot is used, as the latter type of instrument cuts through the margins of the capsule. All the tonsils removed are carefully examined, and in several long series done recently enucleation was quite as complete in every case as that by the dissection method. I have used this method exclusively for over twelve months—in nearly 1,000 cases—with very satisfactory results.

8. *Removal of Adenoids.*

After removal of the tonsils the patient is promptly turned on to the right side, and the anaesthetist empties the throat of blood by momentarily holding the face partly downwards over the side of the table and basin, and shaking the head. This obviates swabbing and much of the after-sickness due to swallowed blood or the risk of any of the latter entering the bronchi.

The patient's right cheek is now placed firmly on the process A of the pillow, with right shoulder in the notch N (Fig. 1). The curette which I find most useful is one which Krohne and Sesemann have made for me (Fig. 3).



Fig. 3.

It is practically the same size as Lake's No. 2, but shaped like the German-made modification of Gottstein's (a smaller size is used for children under 4 or 5 years of age). The cage somewhat resembles that in common use, but it is controlled by a spring which is exerting constant pressure on any mass of adenoids which enter it, and prevents their slipping out when the instrument is withdrawn. By using it as described below the main mass of adenoids is always withdrawn in the instrument, and where the mass is a compact growth it is removed so completely in one sweep as rarely to need any further curettage. This helps to obviate the risk of leaving a separated mass to be swallowed or inspired, or that of a hanging mass falling over the laryngeal opening and causing respiratory distress.

The operator's left hand is placed on the parietal and occipital region of the patient's head, to control the resistance to the pressure exerted by the curette, and to flex the head, as the instrument is being swept over the naso-pharynx. This flexion diminishes the prominence of the body of the axis, and makes the naso-pharyngeal curve more even. The curette is inserted in the middle line, using it as a tongue-depressor to enable the point to clear the uvula and avoid injuring it, and is pushed backwards until it strikes the pharynx. The point is then carried upwards, firmly pressed against the posterior wall, and still in the middle line, until it is stopped by the posterior border of the septum. It is now drawn forwards to pull on the soft palate to ensure its proper relationship to the latter before starting to cut. The point is again carried upwards along the septum and pushed backwards, downwards, and outwards, still in the middle line, with firm pressure and gradual, easy movement, whilst the patient's head is partially flexed and steadied by the operator's left hand. With a small uncaged Kirstein or Stubbs curette any remaining adenoid irregularities are removed by a series of short scrapes, and the forefinger is finally introduced to verify this.

9. *After-Treatment.*

The patients are placed in bed in an airy room for two days at least. It is always wise to keep them in bed for two days to recover from whatever degree of shock they may have suffered as a result of the operation. After this period they should be allowed to get up if they show a desire to do so. The diet should be cool liquids for the first two days, and then semisolids and solids.

The sodium salicylate mixture is continued for six days and then followed by syrup of the iodide of iron or syr. ferri phos. co. for a fortnight.

Breathing Exercises.

When healing is complete, a short, easy, daily course of breathing exercises, with the mouth shut, is insisted upon. This should be persisted in for at least six months.

Conclusion.

Let me enter a plea for raising the standard of this branch of surgery, by making it an operation of precision, and removing some of the reproach of doubtful value and inefficiency attached to it. In this connexion I should like to quote the following extracts from Dr. Still's excellent book on *Common Disorders of Childhood*:

"I would lay stress upon the importance of complete removal of adenoids and tonsils by whatever method is found to be most practicable." "I will venture to insist that the operation for removal of adenoids and tonsils is not so simple that anybody and everybody who happens to have a surgical qualification and a guillotine can do it as it ought to be done; it is one which, if done, ought to be done by the most expert skill attainable."

A CASE OF VAQUEZ'S DISEASE

(POLYCYTHAEMIA WITH PLETHORA, AND SPLENOMEGALY).

BY

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IT is now just over twenty years since Vaquez first described the syndrome of polycythaemia with true plethora, cyanosis, and splenomegaly, with which his name is associated. A full description of the condition, with the literature, was given by Parkes Weber[1] in 1908, and by myself[2] in 1911, while Senator's[3] monograph published in the latter year contains much of the most recent work on the subject. This observer then paid special attention to the condition of the gaseous exchange in the lungs. He found in several cases not only a greatly increased exchange of both oxygen and carbon dioxide, but also a great increase in the volume of air respired. Further observations are required with regard to these points. Since that date considerable additions have been made to the literature, and cases have been recorded by Hale White,[4] Emanuel,[5] Isaacs Coke,[6] and Parkinson[7] in this country, by Kuttner[8] in Germany, while Hamilton and Morse[9] have published a case in America with a full report of the *post-mortem* findings.

The fact that so many fresh cases have been published in so short a period shows that the condition is by no means so rare as was at one time believed. But while so much advance has been made in the recognition of the disease, it cannot be said that equal advance has been made in the elucidation of its etiology. The case which it is the purpose of the present paper to record merely confirms previous observations; it is, perhaps, of special interest because the bone-marrow was examined during life, a procedure which, so far as I am aware, has only been adopted before on one occasion, namely, in the case described by Gibson[10] and later published by myself.

A man aged 52, a gamekeeper, was admitted to the Royal Infirmary in August, 1912, under the care of the late Dr. G. A. Gibson. He complained of pain in the upper part of the abdomen. The family history is of little importance, his mother having reached the age of 92, while his father was the victim of an accident at the age of 54. He is married and has three children living, three others dying in infancy. With the exception of a slight attack of influenza fifteen years ago he has never had a day's illness. He is a non-smoker and practically a teetotaler, and from the nature of his occupation he leads a healthy open-air life. The pain of which he now complains first troubled him a month before admission. It is sharp and lancinating in character, is almost constantly present, and is felt in the left hypochondriac region. For some months his wife has told him that his face was becoming very florid. The patient states that he has had several attacks of epistaxis. He has lost fully a stone in weight during the last two or three years.

General Appearance.—His height is 5 ft. 8¼ in., and his weight is 9 st. 2½ lb. The face, lips, and ears show a striking degree of cyanosis. The tongue and mucous membranes are of a dark bluish-red tinge. The conjunctivae are markedly injected. He is thin, but not emaciated.

Alimentary System.—The tongue is clean and moist. The teeth in the upper jaw are artificial, the others having become loose and dropped out; those in the lower jaw are fairly good. He complains of some loss of appetite, and he also suffers to a slight extent from a sensation of distension and discomfort after meals. There is no sickness, thirst, or constipation. His breath is rather foul. The stomach is not dilated, and the vertical dullness of the liver is not greater than normal.

Abdomen.—The most striking feature of the examination of the abdomen is the presence of an enlarged spleen, which extends downwards and forwards three fingerbreadths beyond the left costal margin. It is firm, and very slightly tender to the touch. On auscultation distinct friction is heard over it.

Circulatory System.—The heart is not enlarged; the apex beat is in the fifth interspace, 3½ in. from mid-sternum. The sounds are closed and pure. The vessels are healthy and the systolic pressure 108 mm. Hg.

The examination of the respiratory system was negative.

Urine.—Acid; specific gravity 1016; deposit of urates and uric acid; no albumen or sugar. The centrifugalized deposit shows no tube-casts.

Nervous System.—The patient has occasionally slight headache. He states that he is unable to read for long at a time. The pupils react briskly to light and on convergence. The examination of the fundus oculi shows that the vessels are engorged with very dark blood.

The Blood.

Red blood corpuscles	8,420,000
Haemoglobin	100 % + (Tallqvist)
White blood corpuscles	39,000
Differential count of 400 leucocytes:	
Polymorphs	87 %
Lymphocytes	6 %
Large mononuclears	3 %
Eosinophiles	2.5 %
Mast cells	1.5 %

Further observations:

(1)	Red blood corpuscles	9,248,000
	Haemoglobin	100 % + (Tallqvist)
	White blood corpuscles	24,000
	Polymorphs	81 %
	Lymphocytes	8 %
	Large mononuclears	2 %
	Eosinophiles	4 %
	Mast cells	5 %
(2)	Red blood corpuscles	9,240,000
	Haemoglobin	110 % (Haldane)
	White blood corpuscles	28,200
	Polymorphs	77 %
	Lymphocytes	12 %
	Large mononuclears	1 %
	Eosinophiles	6 %
	Mast cells	4 %
(3)	Red blood corpuscles	9,760,000
	Haemoglobin	110 % (Haldane)
	White blood corpuscles	31,600
	Polymorphs	81 %
	Lymphocytes	9 %
	Large mononuclears	3 %
	Eosinophiles	5 %
	Mast cells	2 %

The specific gravity of the blood, estimated by Hammerschlag's method, was 1062. The viscosity, estimated by Denning and Watson's clinical viscosimeter, was 26.4, that is, 2½ times the normal.

The coagulation time, estimated by Wright's coagulometer, was slow, 6 min. 25 sec. This is in accordance with the observations of Bence[11] and Pethybridge.[12]

The red cells were unaltered in size and shape; abnormal cells were exceedingly scanty, for though a large number of films were examined only two megaloblasts, one neutrophilic myelocyte, and one eosinophilic myelocyte were seen.

On September 20th Mr. Alexis Thomson kindly trephined the right tibia, and from the bone marrow thus obtained films and sections were made. Two days after the operation there was considerable bleeding from the wound, necessitating frequent dressing, and a haematoma formed. In order to determine whether the haemorrhage had caused any marked change in the blood count, the following observations were made:

Red blood corpuscles	9,216,000
Haemoglobin	110 % (Haldane)
White blood corpuscles	40,000
Polymorphs	86 %
Lymphocytes	4 %
Large mononuclears	6 %
Eosinophiles	3 %
Mast cells	1 %

It was also noted that the spleen had become much smaller since the previous day, and now only just reached below the costal margin, a fact which tends to confirm the usual view that, while the spleen in this condition enlarges partly on account of increased functional activity, it also acts partly as a reservoir to compensate for the greatly increased total volume of the blood.

The bone marrow from the centre of the shaft of the tibia was deep red in colour. The microscopical appearances were not nearly so well marked as in the case published two years ago. There was marked congestion, a few small haemorrhages were present, and the blood vessels were crowded with non-nucleated erythrocytes. The films did not show any great departure from the normal, but the sections revealed distinct though slight evidence both of erythroblastic and leucoblastic reaction. The fatty tissue of the marrow was encroached upon only to a slight extent; but when one remembers that all the long bones share in the erythroblastic and leucoblastic reaction, although it is only slight in degree, there is no difficulty in explaining the high counts of the red and white corpuscles.

Judging from the appearances of the bone marrow, the case must be considered a fairly early one. The patient was also singularly free from many of the usual symptoms associated with the condition. Pain in the left hypo-

chrondrium due to perisplenitis (of which the patient complained) is, apart from cyanosis and splenomegaly, one of the commonest symptoms of the disease. Three years ago I investigated[18] the relative frequency of the signs and symptoms of erythraemia in 58 cases, and found pain in the left side present in 50 per cent. Albuminuria, which I found in 60.3 per cent. of cases, was never present in the patient under consideration. Vertigo and obstinate constipation are usually marked features, yet this patient was free from them.

The blood in this case was extremely typical. Notable features were the high degree of leucocytosis and the high percentage of mast cells. The absolute increase in the polynuclears and in the eosinophiles is, of course, present in nearly all cases. The great increase in the blood viscosity in the presence of what is, after all, when we consider the extremely high counts found in this condition, only a moderate polycythaemia, must be partly explained by the large number of white cells present. I have found in a case of myelogenous leukaemia with a red count of 3,300,000, and a leucocyte count of 388,000, a viscosity value which, if the leucocytes were normal in number, would be equivalent to about five and a half million erythrocytes. An analogous case is reported by Denning and Watson[14] which makes it clear that the leucocytes have relatively a greater effect on the viscosity than on the erythrocytes.

No factor could be ascertained in the case here described which seemed to throw any light on the etiology of the condition.

The occurrence of influenza (which Saundby[15] considers important) was, even if one accepts his views, too remote to have any bearing on the case. Symptoms referable to the intestinal tract were vague and ill-defined, and were only mentioned by the patient when leading questions were asked. It certainly cannot be said that there was any definite evidence of the absorption of toxins from the bowel, although this possibility cannot be ignored. From the experience gained in this case, it would appear that operation in order to obtain bone marrow ought not to be lightly undertaken. True, moderate haemorrhage may be actually beneficial; but it seems that, as occurred in this case, the healing of the wound may be greatly delayed, owing perhaps to the sluggish circulation in the peripheral vessels.

My best thanks are due to Dr. John Eason, who was at the time in temporary charge of the ward, for giving me every facility for examining the patient and for permission to publish the case.

REFERENCES.

[1] F. Parkes Weber, *Quart. Journ. Med.*, 1908, October, vol. ii, No. 5. [2] H. L. Watson-Wemyss, *Edin. Med. Journ.*, 1911, N.S., vol. vi, No. 2, 129. [3] H. Senator, *Polyzythämie und Plethora*, Berlin, 1911. [4] W. Hale White, *Lancet*, London, 1912, i, 7. [5] Emanuel, *Birm. Med. Rev.*, 1912, vol. xix, N.S., 39. [6] E. P. Isaacs Coke, *Lancet*, London, 1912, ii, 1373. [7] J. Parkinson, Ibid., 1425. [8] L. Kuttner, *Berl. klin. Woch.*, 1912, xlix, 150. [9] Hamilton and Morse, *Boston Med. and Surg. Journ.*, 1912, vol. clxvi, 963. [10] G. A. Gibson, BRITISH MEDICAL JOURNAL, 1908, vol. ii, 2155. [11] J. Bence, *Deut. med. Woch.*, Berlin, 1906, xxxii, 1451. [12] W. L. Pethybridge, BRITISH MEDICAL JOURNAL, 1907, ii, 20. [13] H. L. Watson-Wemyss, M.D. Thesis, Edinburgh, 1910. [14] Denning and Watson, *Proc. Roy. Soc. Lond.*, 1906, Series B., lxxviii, 328. [15] R. Saundby, BRITISH MEDICAL JOURNAL, 1907, i, 1165.

A LABORATORY for cancer research is to be erected at Columbia University. The endowment is provided by the George Croker research fund of about £300,000, the income of which must be used solely for research.

THE personal estate of the late Dr. Edward Henderson, who died at his residence in Kensington on February 27th, has been declared at a net value of £44,241. Dr. Henderson, who became M.D.Edin. in 1864, passed most of his life in China, where he was medical officer of health and Surgeon-General of the European Hospital, and held an appointment also in connexion with the British Consulate.

THE Internationale Komitee für das aerztliche Fortbildungswesen (International Committee for Post-Graduate Medical Education) desires it to be known that it has no connexion with the Association Internationale de Perfectionnement Scientifique et Médical. The next meeting of the Internationale Komitee für das aerztliche Fortbildungswesen will be held during the International Medical Congress in London in August next. The International Committee is composed of delegates appointed by national organizations or by the Governments of the participating countries, and its object is the furtherance of medical education and mutual instruction based on experience reaped in different countries.

TUBERCULOMA OF THE LARYNX.

BY

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TUBERCULOUS growths in the larynx were suspected as far back as the Sixties of last century by Tobold, and again in the Seventies by Ariza and E. F. Ingals. J. N. Mackenzie, however, claims to have been the first to demonstrate, in 1882, the existence of tuberculous disease as a definite tumour occurring in the windpipe. His two first cases were observed *post mortem*, and were proved to be tuberculous by histological examination. A number of cases have been collected and published since then by Avellis, and Payson Clark, and others.

Mackenzie classifies tuberculous outgrowths in this region in three groups: (1) Granular hyperplasiae in connexion with tuberculous ulcers; (2) papillomatous excrescences, vegetations, and tumours, probably papillomatous tissue infected with tubercle, and sometimes the only visible sign of tuberculosis for a considerable period; (3) true tuberculous tumours—extremely rare—composed of masses of closely aggregated miliary tuberculous nodules, and occurring independently of infiltration and ulceration of the mucous membrane. The majority of reported cases are considered to belong to the first two groups.

In an examination of recorded cases I find that true tuberculous tumours are situated as a rule in the larynx, the usual sites being the ventricular bands, vocal cords, and ventricles, but they may also be found on the arytenoids, aryepiglottic folds, epiglottis, and in the trachea.

An interesting case was shown a few years ago by P. H. Abercombie of tuberculoma of the naso-pharynx in a man, which resembled clinically an adenoid mass or lympho-adenoma. Microscopic examination demonstrated its real nature. As a rule, lung changes are present or show themselves sooner or later; but in this case, as also in some of those in which the larynx has been involved, there were no other apparent symptoms of tuberculous disease. The fact, however, that such symptoms are not discoverable during life does not negative the existence of tuberculous lesions in the lungs, such being frequently found in a quiescent or healed state *post mortem*. One is therefore chary in regarding these growths as primary, and particularly so when it is known that they are usually covered with intact mucous membrane. Apart from the fact that tuberculoma of the larynx is rare, the following case is of interest in that the site was unusual and the disease had developed in a man of advanced years.

S. C., aged 69, was first seen by Mr. Bark and myself in September, 1908. He complained of a feeling of chokiness, especially on lying down at night, and of difficulty in swallowing food. These symptoms had lasted for a period of over three years and were becoming more aggravated in spite of the treatment that he had already undergone. There was nothing to note in his own or his family history with regard to tubercle. He was well nourished, had led a healthy outdoor life, and only of late years had been treated by his medical attendant for some "heart weakness." There was occasional cough but no expectoration. Owing to irritability of the throat examination was not easy, but the laryngoscope showed a pale greyish growth with a broad base and irregular surface extending from the posterior surface of the right arytenoid cartilage downwards into the hypopharynx towards the oesophagus. The right vocal cord and the right arytenoid cartilage were somewhat impeded in their movements. There was no ulceration in the larynx and no enlarged glands were to be felt in the neck. A portion of the growth was removed. Microscopical examination of a section showed a considerable number of giant cells, epithelioid cells, and lymphocytes, and a diagnosis of tuberculoma was made. This was confirmed by an opinion from Sir Felix Semon and Mr. Shattock, who later examined both the patient and the tumour section. There were no signs of tubercle elsewhere.

Removal of the growth was attempted with the wire snare, but the manipulation caused so severe and distressing a cough with spasms of the glottis that a more rapidly-acting instrument had to be used—namely, laryngeal cutting forceps. With this as much of the growth was removed as possible. Several remaining fragments were punctured with the galvano-cautery and the raw surface rubbed with lactic acid. The patient was practically relieved from his dysphagia for five months (October, 1908, to March, 1909), when there was some recurrence and the punch was again used, but, owing to the severe spasmodic cough, with less effect than on the first occasion. So acute was the distress from coughing caused by the introduction of the forceps that the attempt had to be abandoned. Two months later the tumour had grown to its former size and dysphagia

was troublesome. The introduction of forceps again brought on symptoms as described above, so severe that the patient dreaded any further attempts at removal, but he was able to tolerate galvano-cautery puncture.

Repeated and frequent applications of the cautery brought about alleviation of the dysphagic symptoms for the next twelve months. Swallowing then became painful as well as difficult, and the patient died from exhaustion some three months later (September, 1910).

As stated above, a tuberculoma is generally covered with smooth intact mucous membrane of a pale grey to a dark red colour. The surface was irregular and scarred in this case when we saw it, but this may have been due to some attempts at removal that had already been made. The disease is usually found between the ages of 20 and 45, and, as in this case, is of slow growth. As is the case with other forms of laryngeal tubercle it is more frequent in males, and is generally associated with a primary focus in the lungs. The results of treatment in a few cases of true tuberculous intralaryngeal tumour in the absence of any demonstrable lung changes have been excellent; this was no doubt due to the fact that operative interference and topical applications could be followed by more or less complete rest of the parts. The latter factor is of the greatest value in tuberculous lesions of the larynx, and as an example of this the following case may be cited:

A young lady, aged 23, was seen twelve months ago for hoarseness: the right ventricular band was found to be swollen and infiltrated and to cover the right cord, the left ventricular band to a less extent, but two months later the left cord was also hidden from view, and the epiglottis was slightly affected. Clinically the appearances were tuberculous. Von Pirquet's test was negative, lung changes were absent, and there was no cough or expectoration. Tubercle bacilli were discovered some months later. Besides using an antiseptic spray and attending to her general bodily health the patient carried out the somewhat depressing treatment of absolute voice rest for ten months. The right cord was the first to appear, and was slightly ulcerated, but gradually the larynx assumed its normal state, a certain amount of paresis of the adductors remaining.

Complete rest was the main object of this long silence, and, as in ordinary tuberculous laryngeal lesions, so in other forms, rest is essential. This is obviously what could not be obtained in the case of tuberculoma I have described, as the situation of the growth on the posterior aspect of the arytenoid and cricoid cartilages rendered the prognosis as regards cure unfavourable on account of the irritation produced by the passage of food and saliva.

AN ACCOUNT OF A TERATOMA OF UNUSUAL SIZE AFFECTING THE TESTICLE OF A HORSE.

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THE following case appears to me to throw some light upon the nature of certain tumours of the testicle which occur in man, and to be worth recording on that account.

On September 22nd, 1910, there was removed *post-mortem* from the abdomen of a bay cart-colt 2½ years old a tumour of the left testicle, which was imperfectly descended; the tumour had caused no symptoms during life. The right testicle, normally descended, had been removed when the colt was a yearling, and the animal died during an operation performed with the object of removing the gland on the left side.

Description.

The specimen removed consisted of the testicle, epididymis, and part of the spermatic cord (Fig. 1).

The pampiniform plexus was very large and the epididymis widely separated from the tumour, which appeared at first sight to have originated in the body of the testicle; but careful inspection showed, at the point where the epididymis joined the tumour, a flattened structure of a reddish colour, and about ⅝ in. thick at its middle, spread out over an area of 6 in. by 4 in. Microscopic examination proved this to be the testicle; its deep surface was separated from the tumour by a well-marked capsule of fibrous tissue, but its superficial aspect was invested by a grey shining membrane absolutely continuous with that covering the surface of the tumour in its neighbourhood. I think it probable, therefore, that the tumour arose in the mediastinum testis, that is, within the tunica albuginea, but not in connexion with the seminiferous portion of the testicle.

The dimensions of the tumour were: Length, 16¾ in.; breadth, 10⅜ in.; thickness, 8¼ in. It weighed, in the fresh

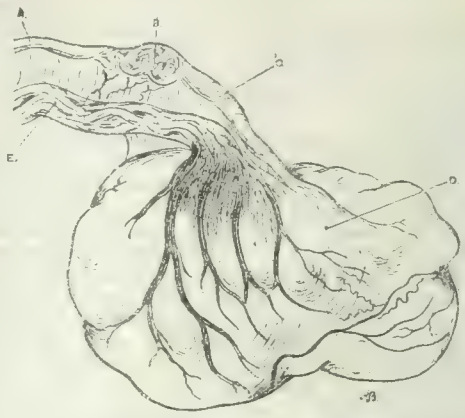


Fig. 1.—External appearance of tumour. A, Vas deferens; B, coiled portion of vas; C, epididymis; D, position of flattened testis proper; E, pampiniform plexus.

state, exactly 30 lb. The surface showed a division by a shallow groove into two approximately equal lobes, each of which was nodular, grey or pink in colour, with large veins running over it.

On section there was a much more obvious division into two lobes, separated from one another by a fibrous septum (Fig. 2). Each half consisted, for the most part, of a collection of cysts varying from a microscopic size to that of an orange. Most of the cysts were filled with a yellow mucinoid fluid, but some contained brown jelly; each cyst had a firm, shining lining membrane, and the walls of some of them contained tissue resembling cartilage; there were numerous intracystic growths which were themselves cystic.

Two of the smaller cysts, however, contained sebaceous material and numerous stiff, curly hairs (Fig. 2, A and B). In



Fig. 2.—Photograph of a section through the tumour. A and B, Cysts containing sebaceous material and hair; C, masses of solid vascular growth.

the cyst marked A the hairs were white; in that labelled B they were black. This point is of interest in view of the statement which is usually made, that the hair contained in a dermoid cyst is of the same colour as the hair of the individual bearing the cyst.

The *stroma* consisted largely of fat, with, in addition, fibrous tissue, numerous deposits of calcareous material, and a few small masses of cartilage. Scattered in this stroma were several circumscribed masses of soft, solid, vascular growth (Fig. 2, C).

The microscopic examination of the tumour revealed a structure even more complex than the naked-eye appearance had suggested.

The *cysts* were not all of the same nature. Those which contained sebaceous material and hair were lined by stratified squamous epithelium, and contained in their walls numerous sebaceous glands and hair follicles (Fig. 3); but others in addition were lined by stratified epithelium, with neither hair follicles nor sebaceous glands. The cysts which contained mucinoid fluid showed a lining of tall columnar cells, with very numerous goblet cells; these cysts were of very variable size, and all stages in the formation of the larger cysts from the smaller ones could easily be traced. Even in the large cysts the columnar epithelial lining was usually well marked (Fig. 4). A third variety of cyst, also numerous, contained granular

material, and possessed a lining of cubical cells, in some cases more than one layer in thickness; whatever their origin may have been, they cannot have resulted from cysts originally lined by columnar epithelium which became flattened as a result of the pressure of the cyst contents, for even very small cysts of this variety showed the same structure.

The *stroma* consisted, in addition to the masses of fat above mentioned, of connective tissue, in some parts densely fibrous

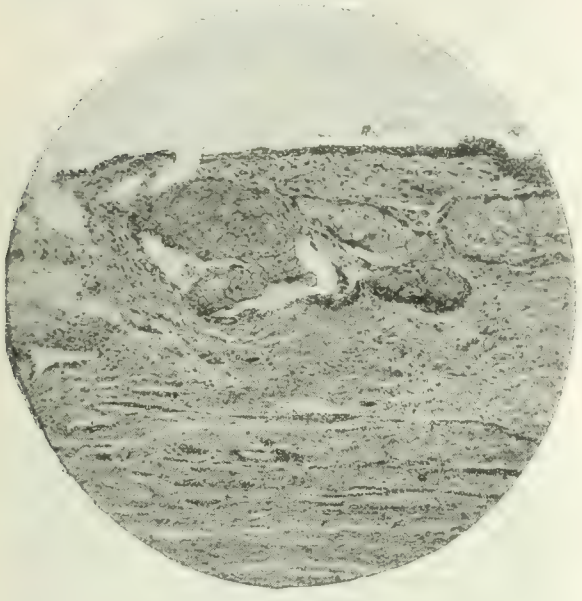


Fig. 3.—Section through the wall of one of the dermoid cysts labelled A and B in Fig. 2. Sebaceous glands are well seen lying beneath stratified squamous epithelium which forms the lining of the cyst. × 130.

with but few cells, in other cases myxomatous, and here and there densely infiltrated with small round cells. Nodules of well-developed cartilage were seen, the matrix of which showed evidence of calcification (Fig. 5). Calcification was also proceeding here and there in the fibrous stroma of the tumour. The masses of soft vascular growth shown at C in Fig. 2 consisted of a loose fibrous tissue basis, densely infiltrated with a columnar-celled growth, in some places forming regular

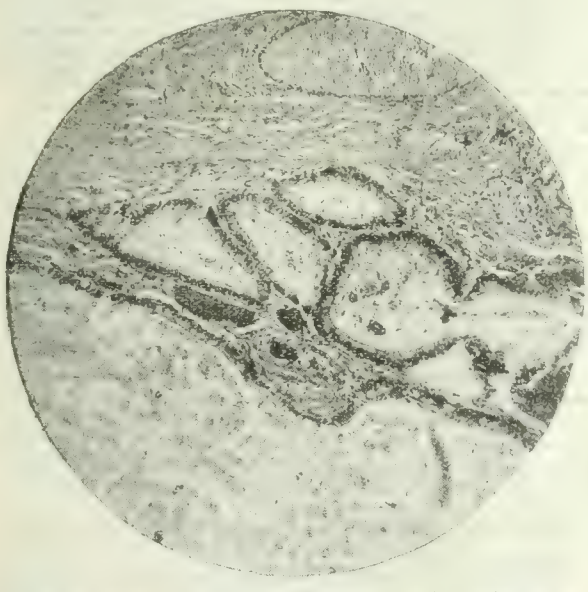


Fig. 4.—Section showing stages in the formation of the mucus-containing cysts. The cysts, both large and small, are lined by tall columnar epithelial cells, with many goblet cells. Calcification is proceeding in three spots in the stroma between the cysts. × 130.

acini which were grouped together into lobules, in other spots quite irregular and definitely carcinomatous (Fig. 6).

It is becoming generally recognized that the affection of the human testicle often known as "cystic disease" is in reality a teratoma, though the exact place and mode of origin of the growth is still a matter of dispute. In this case the teratomatous nature of the tumour is beyond doubt: the first section through the tumour showed a typical specimen of "cystic disease"; a further slice revealed the presence of the two hair-containing cysts, and microscopic examination showed clear evidence of tissues derived from all three embryonic layers, the ectoderm being represented by stratified squamous epithelium, hairs, and sebaceous glands; the entoderm by the cysts

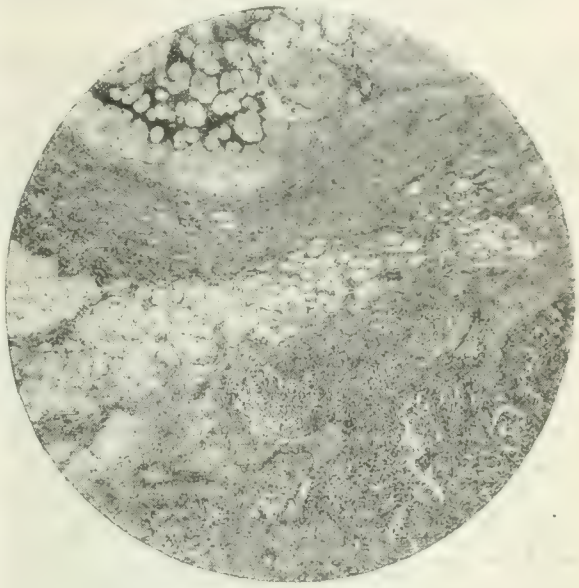


Fig. 5.—Section through part of the connective-tissue stroma of the tumour. The section shows a nodule of cartilage, the matrix of which has stained much more deeply in the central part of the nodule, owing to calcification having occurred. The dense round-celled infiltration of some parts of the stroma is also well seen. × 80.

lined with columnar epithelium, and the masses of columnar celled carcinoma; and the mesoderm by the stroma of the tumour and the masses of cartilage.

Dermoid cysts are not uncommon affections of the imperfectly descended equine testicle. In man such tumours are excessively rare. Microscopic examination of cases of

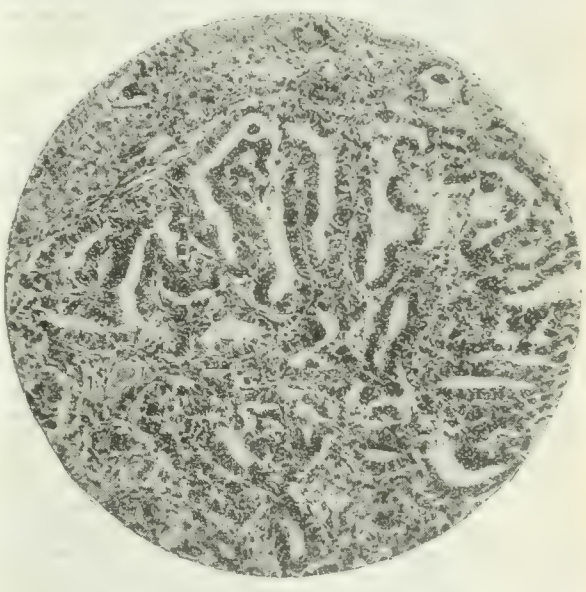


Fig. 6.—Section of some of the soft solid growth seen at C in Fig. 2. It shows the structure of columnar-celled carcinoma. × 130.

cystic disease of the human testis frequently reveals their teratomatous nature, but it is uncommon for the epiblastic part of the tumour to be represented by cysts, containing hair and sebaceous material, large enough to be evident to the naked eye.

The great size of the tumour is worthy of note. I am informed that even in the horse a testicle of such dimensions is very uncommonly met with.

DISTILLED WATER VERSUS SALVARSAN IN THE TREATMENT OF SYPHILIS.

BY

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THE simple treatment for syphilis herein recommended consists of the hypodermic injection of 6 to 10 c.cm. of distilled water every three days for two to four weeks.

I was induced to give this treatment a trial as the result of some research work I had done on surface tension, the results of which I published privately some fifteen months ago. I had previously published in the *Practitioner* an article on the Part Played by Colloids in Physiology and Pathology, in which I drew attention to the value of a consideration of surface tension. An experiment that I carried out to show the effect of the calcium salts on surface tension is rather interesting:

When pure hydrogen peroxide is added to pure mercury in a clean test tube, catalytic action occurs and oxygen is given off, the mercury remaining unaltered. This reaction is due to an extremely fine film that forms on the surface of the mercury, but, on account of the tension, breaks almost as soon as formed, the making and breaking being rhythmic. On adding a small quantity of a 10 per cent. solution of pure calcium chloride to the mercury, shaking well and draining it off, the mercury itself behaved peculiarly, its surface tension having been modified to such an extent that it could be induced to take up all sorts of shapes instead of the usual globular one. When the hydrogen peroxide was added the mercury was immediately changed into a grey colour and was then broken up into minute grey masses, many of which passed, as in the colloidal form, through filter paper; meanwhile the ebullition of oxygen was exceedingly great, and the heat generated sufficient to make the test tube very hot.

This experiment has been given at such length in order to show the marked effect of a slight alteration of surface tension.

The value of mercury in the colloidal form as an antiseptic is due to its possessing the powers of both classes of antiseptics—namely, the power of the heavy metals to combine with protein matter, and the power of chloroform, toluol, and the like to interfere with the surface tension of all living cells. It seemed to me, therefore, that it would be of interest to find out the surface tension of individual substances, and with that object I instituted some experiments.

In some of the experiments it was found that colloid mercury as well as mercury perchloride and carbolic acid have a tendency to reduce the surface tension existing between mercury and potassium chloride, and the fall is not complete at once, but is progressive. This fact is important, for with such a varying surface tension around a living cell the latter finds it very difficult to accommodate itself to its surroundings; in fact it fails, and its life ends.

The water soluble contents of coal-tar pitch, which no doubt are responsible for pitchworkers' cancer, have surface tensions that tend to drop considerably, whereas the soluble contents of blast furnace pitch have not this tendency, at least not to the same extent.

In the *Dublin Journal of Medical Science* for June, 1911, I gave the results of some experiments in which boiled yeast had been added to living yeast in a suitable growing medium, and I there showed that the effect of this addition was to stimulate the living yeast to marked activity, to a rapid life, and consequently to an early death. My experiments on the surface tension of boiled and unboiled yeast showed that whereas the surface tension of the latter was 70.62 dynes per centimetre, the surface tension of boiled yeast solution fell in twenty-four minutes from 70.96 dynes per centimetre, to 66.31, and in five hours to 61.02 dynes per centimetre.

I have previously shown that fertilizing with boiled bacteria stimulates the living ones to rapid growth and an early death. Boiled bacteria being vaccines, we can conclude that vaccines lower the surface tension, and by so doing produce their good results.

This lowering of surface tension is associated with a more rapid production of catalytic products in the cells, but the injection of vaccines is associated with the production of antibodies; therefore it seems but right to infer that the production of antibodies is closely associated with a lowering of the surface tension.

The addition of distilled water to blood corpuscles so affects the osmotic pressure as to cause a passage of water into the cell, which gets larger and eventually scatters its contents. In disease the rapid catalytic changes and the rapid production of antibodies are interdependent, and if one can induce these marked catalytic changes with or without a vaccine, one stands the chance of setting free a number of very useful and remedial antibodies.

In such a chronic disease as cancer it seemed to me that the process was allowed to continue owing to the absence of sufficient antibodies, or at least a sufficient number to act together at the same time, and if one could set free any catalytic antibodies in sufficient numbers one might get a good result.

Knowing of no vaccine to induce this antibody effect, it occurred to me that the injection of distilled water might so affect the surface tension as to bring about the osmotic effects, and with this object I determined to try the effect at the first opportunity, which I owe to Dr. Lloyd Edwards, Medical Officer of the Swansea Union, and to whom I desire to express my thanks.

CASE I.

A man (in the infirmary), aged 62, who was suffering from immensely enlarged glands of the neck, secondary to an epithelioma of the lip. The glands were suppurating profusely, and the smell was so bad that the room had to be fumigated continuously. I injected 8 c.cm. of distilled water into the skin of the back, having previously rubbed it with alcohol to remove the grease (for the introduction of grease has a marked effect on surface tension). I did this every other day, and after the third injection the smell had disappeared almost entirely and the fumigation was discontinued. The surface of the sore seemed to be much cleaner, and the suppuration became more profuse, but otherwise the disease was not checked.

CASE II.

A man who had previously been operated on for epithelioma of the lower jaw by Mr. Bilton Pollard, and soon after for clearing out the glands of the neck. This latter was an extensive operation, but the wound eventually healed up well and firmly. Within three weeks of his discharge from University College Hospital there was a return of the growth, and I thought that if injections of distilled water were started early enough one might be able to do some good. At this time the wounds were quite sound and firm, but after three injections, to my great surprise an abscess headed and burst about the middle of the scar. I continued the injections in the hope that this marked activity presaged a favourable catalytic change in the cells, but the growth increased rapidly and the suppuration came to a head in two other openings. Closely following the suppuration appeared a mass of granulation tissue arising out of the part where the wound had quite healed, which spread rapidly. During all this time the pus was inoffensive, and the nursing of the patient was never objectionable to the least extent.

The marked effect produced by the injections of distilled water made me feel certain that in any similar disease of less malignancy their effect ought to be still better, so with that object I undertook, with Dr. Lloyd Edwards's permission, the treatment of the syphilitic patients under his charge. Both he and his assistant, Dr. Dunbar, were rather inclined to treat my mission as somewhat harebrained, but at the end of a week's treatment of my first patient I was able to prove to their satisfaction that the effect was excellent. The Wassermann reaction is, in my opinion, nothing but a very roundabout way of determining the surface tension at which haemolysis occurs, and if this view is correct, the time ought not to be far distant when a simpler and more scientific method is introduced, and one that is not open to so many pitfalls.

It is easily understandable from the point of view of surface tension that in several diseases the haemolytic point may be the same although the antibodies may be different.

CASE I.

An alcoholic prostitute, aged 26, had been in the infirmary since June, 1912, suffering from ulcers on the face and a large ulcer on the left shin. She was first admitted in August, 1910, having been infected a few months previously.

The area covered by the inflammation and ulcers was wing-shaped, covering both cheeks, upper lip, and a good part of the nose, and over the whole of this area there was considerable thickening. The ulcer on the leg looked indolent and unhealthy. She had not menstruated for two years.

I started treatment on October 25th, and continued it every other day until November 4th, but discontinued it on November 6th, *as she had started to menstruate*. I restarted treatment on November 8th, and continued it every third day till November 23rd, when the ulcer on the leg had healed. By November 9th the ulceration on the face had cleared, although there was still some thickness, as well as dilated venules to be seen.

Her general health improved greatly, and she looked better and felt in better spirits than she had done for a long time.

The readiness with which the edges of the ulcer took on a healthy appearance was extraordinary, especially as she had ceased to respond to the ordinary methods of syphilitic treatment.

After each injection there was a marked reaction, the face becoming very flushed, and the temperature rising in a short time afterwards as indicated by the two-hourly chart. The four-hourly chart shows it still better.

Her general improvement was a matter of comment by all the others in the ward, and both Dr. Edwards and Dr. Dunbar were surprised.

CASE II.

T. A., aged 35, had been in the navy, but after leaving was employed at some works in the neighbourhood, where he received a blow on the arm, as the result of which there was a thickness which persisted longer than the usual bruise. With a history of syphilis, I naturally concluded that this was a syphilitic thickening of the periosteum, and gave him the injections of distilled water every other day. At the end of the fortnight the swelling and pain had disappeared, and he returned to work.

CASE III.

T. J., aged 46, was admitted to the infirmary on March 6th suffering from multiple ulcers of the left leg and foot. There was the brownish scar on the right shin, which confirmed the diagnosis of syphilis. The ulcers on the left leg and foot would nearly heal and then again break down, but never assumed a healthy appearance. I started injecting distilled water on October 31st, and continued the treatment every other day until November 16th, when I did it every third day. By the end of the first week the edges of the ulcers had taken on a very healthy appearance, and the pain from which the man suffered had practically disappeared.

There were ten ulcers altogether, and by November 23rd seven of them had healed over, and the two largest were two-thirds covered with new tissue. The man appeared healthier, and some colour had returned to his face. He said he felt much better, and looked forward to the time for each injection.

A reference to his temperature chart shows that there was a reaction after each injection, but the temperature did not rise nearly so high as in Case I.

CASE IV.

B. T., aged 24, had a hard chancre ½ in. in diameter on the dorsum penis, which appeared a fortnight before I saw him.

I started injecting him with distilled water on November 2nd, and injected him every third day, and by the 14th it had practically disappeared, as well as the enlargement of the glands in the groin. His general health improved rapidly, and he looked much better after a fortnight's treatment.

CASE V.

M. S., aged 20, single, was admitted in November, 1911, as she was pregnant and infected with syphilis. After confinement and some treatment she was discharged, to be readmitted on November 11th, 1912, suffering from tertiary ulcers in different parts of the body. There was a small sore on the right ear and one on the right eye, whilst one seemed to be forming on the forehead.

Treatment was started on November 12th, and by November 19th there was considerable improvement, the ear and eye being practically well, and the swelling on the forehead had subsided.

All the other ulcers had taken on a healthy appearance, so that by November 25th they were all covered over.

Her general health improved greatly, she seemed brighter, looked healthier, and had colour in her cheeks, whilst the appetite improved. She much appreciated the treatment, although she cried on the first occasion.

The temperature reactions in this case were very marked, as in Case I, rising a few hours after each injection to 100° F.

CASE VI.

W. E., aged 26, admitted October 10th for sores on the right leg. Was infected with syphilis in the army.

Treatment was started on November 10th, and, after injections every third day, the gummata on thigh and leg were all covered over by healthy tissue on November 25th. A sore inside the right cheek also subsided, whilst his general appearance became more healthy.

THE fourth International Congress of School Hygiene will be held at Buffalo, New York, in August next (25th to 30th), under the honorary presidency of Dr. Woodrow Wilson, President of the United States. The actual president is Dr. Charles W. Eliot, formerly president of Harvard University. The general secretary is Dr. Thomas A. Storey, Professor of Hygiene, College of the City of New York.

The Arris and Gale Lectures

ON

THE GENITAL FUNCTIONS OF THE DUCTLESS GLANDS IN THE FEMALE.

DELIVERED AT THE ROYAL COLLEGE OF SURGEONS ON MARCH 10TH AND 12TH, 1913,

BY

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[*Abstract.*]

LECTURE II.

IN the last lecture I endeavoured to estimate the direct and indirect influences of the ovaries in regard to the genital functions. In considering the indirect influences I discussed the effects of ovarian insufficiency, both in physiological and pathological circumstances, on what I may, perhaps, describe as the rest of the genital system of ductless glands; and I also demonstrated the effects produced on the general metabolism by this condition.

In this lecture I shall reverse the process and endeavour to trace as far as possible in the time at my disposal the influence of the rest of the ductless glands upon the ovaries and the reproductive functions generally.

THE RELATION OF THE THYROID TO THE GENITAL SYSTEM.

We shall, perhaps, be in a better position to consider the changes that occur in the rest of the genital system if we first discuss the effect on the general metabolism of removal of this organ.

Effects of Thyroidectomy on the General Metabolism.

Different mammals vary very much in their power of withstanding the disastrous results which may follow complete removal. I have never observed any grave effects supervene on the removal of the thyroid in rabbits. This has been explained on the ground that the parathyroids are relatively large, and lie well away from the thyroid itself, and consequently cannot be removed without a careful search—in other words, they escape removal during the operation of thyroidectomy.

Swale Vincent and Jolly have shown that after thyroidectomy the parathyroids actually secrete colloid, and, in fact, perform the functions of the thyroid, just as they resemble it in structure after this operation. But I do not believe that this question of the remaining parathyroids is the whole truth.

I think rodents have less need of the thyroid than other mammals, such as the carnivora. It may be because the diet is different, but also I feel sure it is due in some measure to the variations in the structure and function (or degrees of function) seen in the other ductless glands. I have already alluded to the differences in structure between the ovaries of rodents and the higher mammals. If we take cats and remove their thyroids many die in a few days, usually with convulsions. In these cases it is probable that the immediate result is due to the removal of the whole thyroid apparatus (thyro-parathyroid). Some, however, survive the operation for a long period of time. In all these cases one can demonstrate the removal of the whole thyroid together with the internal parathyroids, which are embedded in the two lobes of the thyroid. So that one gets in these animals the true effects of thyroid insufficiency. The number in which the metabolism was investigated fully was small, for, as already stated, many died too soon for the metabolism, as represented by the urinary excretion, to be estimated. The record of one non-pregnant cat, which was destroyed two and a half months after operation, has been selected as typical. Other cases were complicated by the cats having had kittens shortly before operation, and in consequence did not appear to be suitable for averaging.

In this animal acetone was present three times in twenty estimations after operation. The calcium excreted

after operation was the same in quantity as before operation. There was a drop in the phosphorus excretion, in spite of the increase in the post-operation specific gravity; and the total nitrogen and urea were increased out of proportion to this rise in the specific gravity. The ammonia coefficient also was slightly increased.

Before considering the effect of thyroidectomy on the rest of the ductless glands I will bring forward a rather important series of experiments in which thyroidectomy was performed on three pregnant cats, which survived the operation for some time. They were carried out in order to observe the influence of the thyroid on the metabolism during pregnancy, especially with reference to the possible production of the symptoms of eclampsia with marked alterations in the ammonia coefficient.

Acetone, albumen, and sugar were found a good many times after operation in one cat, and more frequently after parturition than before, without any real disturbance of the ammonia coefficient.

We found that so long as the cats remained pregnant the calcium excretion remained constant, but that after parturition it was increased to three times the quantity. The phosphates after the birth of kittens showed a remarkable increase, and there was a drop in the urea excreted. There was no real disturbance of the ammonia coefficient.

It does not appear probable, therefore, that the thyroid is in any way specifically connected with the production of eclampsia, as was originally suggested by Nicholson. It is true that two of our cats, which were in the first half of pregnancy, died with convulsions in a few days, but the manner of death was similar in every respect to that seen in non-pregnant animals in similar circumstances.

Effect of Thyroidectomy on the Ovaries and Uterus.

The normal ovary of the cat, with which we are concerned in these experiments, shows certain affinities for eosin in some of its elements. The zona pellucida, the liquor folliculi, the interstitial cells, and the cells of the corpora lutea, all stain faintly with eosin. After thyroidectomy all these elements show an increased avidity for this stain. This is especially true of zona pellucida and the liquor folliculi, and appears to be a matter of some importance.

It seems that removal of the thyroid calls for a response from the ovary, just as oöphorectomy did from the thyroid. And the nature of the response, if my observations be correct, is one of considerable interest, for it brings forward evidence that the granulosa cells of the Graafian follicle form an organ of internal secretion. But this secretion is not connected with the integrity of the uterus, for the effect of thyroidectomy on this organ is remarkable. The uterus of the thyroidectomized cat shows very considerable muscular atrophy, quite as much as occurs after oöphorectomy. But the same effect is obtained in the non-pregnant animal. The importance of this intense atrophy will be considered directly; for before drawing our final conclusions of these results it will be advisable to consider the clinical observations that have been made in regard to insufficiency of the thyroid.

Clinical Observations of the Effect of Thyroid Insufficiency on the Genital Functions in Women.

These are quite well known. We frequently see young girls with adiposity suffering from amenorrhœa, or we see the more marked insufficiency which produces myxœdema, and is also invariably associated with suppression of the menstrual function.

Now, both the minor and the major state of thyroid insufficiency are readily amenable to thyroid treatment, with one reservation: if the girl has suffered from thyroid insufficiency for some years past the period of puberty, and has never menstruated, then it may be impossible to relieve her genital condition, and the uterus may remain under-developed. If, on the other hand, the insufficiency has arisen later, after the subject has possessed full genital activity, then the uterus may, even after a long period of inactivity, resume its normal functions.

Further, the full and increased activity—if my interpretation of the staining properties be correct—of the secretion of the membrana granulosa cells, with inactivity of the uterus, puts out of court the hypothesis that the cyclic changes in the uterus are due to this secretion. On the other hand, it is possible that the secretion of the interstitial cells is rendered insufficient in the absence of thyroid secretion.

Effect of Thyroidectomy on the Suprarenals.

The normal suprarenal structure is well known, but I shall briefly refer to it in order better to illustrate the changes that occur—physiologically and pathologically—in the cat.

The suprarenal is divided into two parts, the cortex and the medulla. These have different physiological properties when examined experimentally. The medulla produces the well-known pressor effect of adrenin, while the cortex is inactive.

Now the changes that seem to indicate excessive activity of the suprarenals occur in the cortex. They may be seen normally in pregnancy and, so far as we know, in ordinary circumstances. The normal appearances differ, however, from those associated with the activity which follows thyroidectomy.

In three of my animals an actual calcareous deposit was found in the zona fasciculata subsequent to thyroidectomy. I have not seen this condition in a normal suprarenal gland.

Effect of Thyroidectomy on the Pituitary.

The changes that occur seem to be an increase in active eosinophile cells of the pars anterior at the expense of the large basophiles. And both in the pregnant and non-pregnant animal there is an increase of large active chromophobe cells, such as occurs normally in pregnancy. The latter are, of course, most pronounced in an animal in which thyroidectomy has been performed during pregnancy.

The condition was well seen in Cat X of my series. Forty-eight hours after operation two premature kittens were born. After a further interval of 120 days the animal was destroyed with chloroform. In this length of time all the chromophobe "pregnancy" cells would have disappeared in the ordinary course of events. But as the result of thyroidectomy they not only persisted but showed an increase in secretory activity. The secretion appeared to form vacuoles among the cells. In this case the pars nervosa showed no abnormal invasion of pars intermedia cells.

In the case of a non-pregnant cat (No. 9) killed 79 days after thyroidectomy again many active chromophobe cells were to be seen in the pars anterior, and an increase in active eosinophile cells at the expense of the basophiles.

We learn, then, from these observations that thyroidectomy causes an increase in the secretory activity of all parts of the pituitary body.

The Relation of the Pineal to the Genital System.

The pineal gland has never been successfully removed from mammals; and, owing to its inaccessible position in the brain, there seems to be little likelihood of experimental extirpation ever giving satisfactory results.

The effects of castration on the pineal have already been mentioned.

Clinical Effects of Pineal Disease on the Genital System.

Comparatively few observations have been made, but in most cases where a tumour has been observed it has been a teratoma, and somewhat remarkable symptoms have been seen. When the patient was a child, as was usually the case, there was a precocious development of the skeletal structures and also of the genital organs. According to L. Kidd, who has recently reviewed the literature of the pineal body, all the cases recorded occurred in boys. In a few instances obesity has been seen, but apparently unaccompanied by genital atrophy.

The Relation of the Pituitary to the Genital System.

Some of the normal physiological changes in the pituitary which occur are well known. But there is much need for a systematic investigation into the age changes in this organ. So far as I know, only a few isolated observations have been recorded.

There is reason to believe that the secretions of the pituitary determine many of the metabolic functions necessary for the establishment of puberty, or sexual maturity.

We fully recognize the remarkable enlargement and the histological changes that occur in this gland as the result of pregnancy. The eosinophilia disappears and a large majority of the cells of the pars anterior become chromophobe, and, as already mentioned, have been called "pregnancy" cells.

A few years ago Dale and also Hick and I showed that an extract of the posterior lobe produces powerful uterine contractions. This effect may be produced physiologically in labour by the infundibular extract.

Ott and Scott first showed that the same extract is a galactagogue. It is probable that there is an expressor effect. It would be interesting if it were a fact—of which we have no proof—that the pituitary normally promotes the secretion of milk. It is, however, certain, in my opinion, that after the birth of the child the stream of metabolic products directed to its maintenance and growth in the womb are diverted to the mammary secretion which is to supply its post-natal necessities.

Effects of Removal of the Pituitary (Partial or Complete).

Most of the early work on the extirpation of the pituitary was absolutely unreliable, and it was not until Paulesco improved the technique, which Harvey Cushing and Biedl subsequently adopted, that results worthy of consideration were obtained.

Cushing's conclusions may be summed up as follows: Complete extirpation caused death in a short time. The same effect was obtained by complete extirpation of the pars anterior. Partial removal of the anterior lobe led to the condition known as dystrophia adiposo-genitalis; that is to say, there was great obesity, with atrophy of the genital organs and undergrowth in young animals.

Biedl confirmed these findings, and also stated that the posterior lobe (pars intermedia and pars nervosa) might be removed without producing symptoms.

It is difficult to believe in the results of experiments in which the anterior or posterior lobe are said to have been removed separately. But there can be no doubt that partial removal of the anterior lobe is not difficult to accomplish; and the results following this procedure should be reliable.

Effects of Removal of the Pars Anterior.

On the Ovaries and Uterus.—There is no good description of the histological appearances found, but Cushing states that the Graafian follicles disappear while the interstitial cells persist. The uterus also undergoes atrophy. I have had no opportunity of examining ovaries after this operation, but, in view of the genital atrophy, would have expected the same changes as those which follow thyroidectomy—that is to say, the reverse of what has been found by Cushing.

On the Thyroid.—It has been noted by Cushing and others that there is a remarkable degree of hyperplasia in the thyroid after partial removal of the anterior lobe. This condition eventually subsides, and is superseded, it is said, by a considerable colloid formation, with apparent disappearance of epithelial activity.

On the Thymus.—This leads to hypertrophy of the thymus, just as the condition of hypopituitarism is often associated with thymus enlargement.

On the Suprarenals.—The operation, according to Cushing, is followed by hyperplasia and lipoid vacuolation of the cells of the zona fasciculata.

Clinical Observations of the Effect of Pituitary Insufficiency on the Genital Functions in Women.

These have been made chiefly in regard to acromegaly and the condition already described as dystrophia adiposo-genitalis. The former disease is supposed to be due to excess of secretion, and the latter to deficiency.

The relationship of these two conditions, however, is not quite so simple as the above statement would seem to imply. It is usual to find amenorrhœa both with acromegaly and with the condition which is supposed to represent the opposite in regard to secretory activity.

With acromegaly the excessive thickening of bones indicates calcium retention—a condition which appears associated with masculinity, as we shall see when dealing with the suprarenals.

In cases of dystrophia adiposo-genitalis genital atrophy is invariable, yet there is no doubt that, if the individual has had functional activity before the onset of the disease, this activity may return on relief of the condition by decompression or by administration of pituitary extract. I have observed this result follow injections of anterior lobe extract in dystrophia adiposo-genitalis. Similarly I have seen good results after the administration of this preparation in cases in which the patient was very obese and suffered from amenorrhœa, without showing the signs of intracranial pressure which are usual when the condition has reached the stage of dystrophia adiposo-genitalis.

Success is more likely when the patient has had some functional activity previously; but it is possible that delayed menstruation with obesity might be successfully treated if the patient has not long passed the usual age of puberty.

The Relation of the Thymus Gland to the Genital System.

The thymus has been shown to have a very important relation to the development of the individual and of her reproductive functions. It is probable that once the genital functions are established the thymus rapidly undergoes atrophy, and plays no further part in the metabolism of reproduction. We have already seen that the thymus undergoes hyperplasia after removal of the ovaries.

Effects of Thymectomy on the Ovaries and on the Calcium Metabolism.

Paton found that if the operation be performed before puberty there is a rapid development of the genital glands. It appears, therefore, as if the thymus either inhibits the development of the ovaries (Biedl), or that their development follows the withdrawal of the thymus secretion.

It is highly probable that the thymus is intimately connected with the calcium metabolism; but it can hardly be, as Biedl suggests, that the effect of its secretion is to cause calcium retention in the bones—although several investigators (Basch, Cozzolino, Tarulli, and Lo Monaco) have found that rickets follows thymectomy in young animals, an effect not confirmed by Paton—for the skeletal structures become much more heavily laden with calcium phosphate after puberty when the gland atrophies.

Effects of Thymectomy on the Other Ductless Glands.

No reliable work appears to have been done on these lines. It is urgently needed, in order to clear up many of the difficulties concerning the relation of the thymus to the general metabolism.

The Relation of the Suprarenals to the Genital System.

These glands may be studied in the same way that we have already adopted—that is, from a physiological and pathological standpoint.

In pregnancy certain changes occur normally in the suprarenals. So far as my own observations go these are confined to the cortex. The cells of the zona fasciculata appear swollen and cloudy.

Some observers (Guieysse and Gottschau) have found that in pregnancy the zona fasciculata increases in thickness at the expense of the zona reticularis and medulla. My own observations are in accord with this.

Effects of Removal of the Suprarenals.

In most mammals complete removal of the suprarenals causes death in from a few hours to a few days.

Many rats, owing to the fact that a large percentage of them have accessory interrenals, consisting of cortical substance, are said to be able to survive extirpation of the main organs. I have had no experience of extirpation experiments on these animals. My investigations have been carried out on rabbits and cats. Those from which both suprarenals were removed, either at one or at two sittings, died within forty-eight hours. I tried, therefore, the effect of the removal of one suprarenal in the hope of being able to produce insufficiency, since we know the other suprarenal hypertrophies in these circumstances, and shows a condition somewhat comparable with the hyperplasia of pregnancy. Two cats gave negative results in

regard to the metabolism; but with regard to two rabbits I obtained definite results. One of the animals was destroyed at the end of thirty days, as it was obviously dying. It was much emaciated, its weight having dropped from 2,000 to 1,400 grams.

The other rabbit died at the end of 127 days. It also was greatly emaciated, its weight having decreased from 1,710 to 1,020 grams. At first it gained weight after the operation, and then it steadily lost ground.

No cause for death was found in either case.

These results are apparently of some value, for, according to most recent authorities, unilateral extirpation in rabbits produces no symptoms.

With regard to the metabolism, we obtained very interesting results. In each case a considerable increase in the excretion of calcium was observed.

In one case the average quantity excreted after operation was seven times as much as that excreted before operation. In the other case it was sixteen times as much. The average for the two cases was, of course, between these figures. The excretion of phosphorus was not increased in proportion, as one might have expected.

The urea excretion was increased out of proportion to the differences between the specific gravities before and after operation.

Now this increase of the calcium excretion is of very considerable interest. It is well known that the view has been advanced that osteomalacia is due to insufficiency of suprarenal secretion, and Bossi first called attention to the beneficial results to be obtained by the injection of adrenin in these cases. Unfortunately I have not met with a case of osteomalacia in recent years. So I have had no experience of this treatment. But these experiments give very strong support to this view of Bossi, not only in the metabolism results, but in a most striking way in regard to the bones of one of these animals.

The bones of the forelegs—on which I presume a good deal of weight would fall—were found to be markedly bent. The bones of the back legs, which are thicker, were only slightly curved. But owing to the manner in which a rabbit sits very little weight would fall on these bones.

Effects of Suprarenal Removal upon the Pituitary Body.

The changes that occur seem to be much the same whether the insufficiency be acute or chronic; thus in cat No. 1 of my series of suprarenal removals, the glands from both sides were removed at the same time. There was an interval of thirty-six hours between operation and death.

The cells of the pars anterior show a marked degree of chromophobia with a moderate degree of faint eosinophilia. In many places the nuclei are very deeply stained with haematoxylin.

In the pars intermedia the cells are discrete—that is to say, they are not fused, and show no special activity; the nuclei stand out prominently.

The pars nervosa is freely invaded by the cells of the pars intermedia, but the nuclei only are prominent, as though they were left stranded after the disappearance of the cell cytoplasm.

We cannot, therefore, come to any conclusion other than that the anterior lobe shows increased activity. The pars intermedia is certainly not in an actively secreting condition, but the extensive invasion of the pars nervosa by pars intermedia cells, and the rapid disappearance of the cell cytoplasm, appear to indicate that an attempt is being made to counterbalance the loss of adrenin by the rapid production of infundibulin.

Effect of Removal of the Suprarenals upon the Thyroid.

I have been unable to trace any histological change either in acute or chronic suprarenal insufficiency.

Effects of Removal of Suprarenals on the Ovaries and Uterus.

There appears to be no histological change of importance in the ovary; but it is worthy of note that the normal cosinophilia of the zona pellucida is not decreased—rather, if anything, is it increased. After removal of one suprarenal, if insufficiency be produced, the uterus appears to undergo changes comparable with those that are seen after thyroidectomy, but the muscular atrophy appears to be less in extent; probably this is due to the state of incomplete insufficiency.

Clinical Observations of the Effect of Pathological Lesions of the Suprarenals on the Genital System.

We meet with conditions in the human subject which represent both an under-secretion and an over-secretion of the suprarenals. This is decided on clinical and histological evidence. At the same time, we are still in the dark as to the exact relationship of the cortex to the medulla.

In Addison's disease we have what are apparently the symptoms of insufficiency of medullary secretion, as is shown by the low blood pressure and general muscular weakness. But in this disease the cortex also is destroyed.

It is doubtful if sufficient pathological observations have been made with a view of observing changes in the ovary and uterus to enable us to give any definite statements regarding them.

Amenorrhoea is, I believe, usually associated with Addison's disease, but this may be due solely to the effects of a condition which produces general progressive enfeeblement. On the other hand, our experimental evidence indicates that atrophy of the uterus, and presumably insufficiency of the function of the interstitial cells, occurs in these circumstances.

The other pathological lesions which have been subjected to a good deal of attention lately are hyperplasia and tumour formation in the suprarenal cortex. For some years these lesions have been known to be associated with extraordinary changes in the primary and secondary sex characteristics. Attention was first called to these interesting phenomena by Woolley, Bulloch and Sequeira, and Neugebauer.

Last year my colleague, Professor Ernest Glynn, reviewed exhaustively the whole subject and added 5 fresh cases in children to those already collected by Bulloch. Out of 17 cases in children 14 were females. In these there was usually skeletal overgrowth, hair on the face and pubes, and sometimes hypertrophy of the clitoris. Further, Glynn collected 6 cases occurring in young adult females, in all of whom there was growth of hair on the face, shrinkage of the breasts, amenorrhoea, and sometimes a masculine voice.

Pathologically the suprarenal enlargement in the children and young adult females was unilateral and neoplastic in character, and directly or indirectly caused death. Metastases were sometimes found.

In a second group of cases there were 13 pseudohermaphrodites—12 being females—and in these the suprarenal enlargement was bilateral, hyperplasic in character, and there were no metastases.

Glynn suggested that in these cases hyperplasia of the suprarenal cortex occurred in fetal life before the differentiation of the genital ducts, and led to the persistence of the Wolffian derivatives, thus causing female pseudohermaphroditism.

No sex changes are associated with tumours of the suprarenal cortex when they occur in adult males or in women after the menopause.

The Correlation of the Internal Secretions in regard to their Genital Functions.

I have endeavoured to trace, for the most part from my own observations, the disjointed facts concerning the influences exerted by the different members of the ductless gland system upon one another and on the metabolism generally, in so far as the genital system is concerned. And in so doing I have sometimes shown clearly the nature of the associations between the different organs. But it is absolutely impossible at the present time to correlate *fully* all their functions, so that perhaps the less said now the less there will be to withdraw at some future date.

In view, however, of what I said at the commencement as to the necessity for a lead in this intricate matter, I cannot refrain from enunciating what I believe to be the general principles. I shall not have time further to analyze the details.

It appears, from the evidence at our disposal, that, in spite of great variations in the structure of the ductless

glands in different mammals, the *total functional result* is the same so far as the genital processes are concerned. The variations in function that depend on the differences of structure are probably related to differences in the food and habits of life.

In adapting our knowledge to the requirements of human physiology and pathology we must take into account *both* the essential functions I have already referred to—the individual metabolism of the mother and the metabolism of her reproductive functions—for they are completely interdependent.

We have seen as the result of our studies that the ovaries, on the one hand, have as their share of these dual functions the onus of ensuring the reproduction of the species, by furnishing the ova and by keeping active the rest of the genital structures and functions. And, further, the secretions of the ovary are concerned in keeping the other members of the ductless gland system in touch with the necessities of the reproductive situation. The latter function is of the deepest importance, and is one which explains much that would otherwise be obscure.

When the reproductive functions cease and the ovaries atrophy at the menopause the harmony that previously existed between the general and the genital metabolism is temporarily deranged, and various disturbances may ensue. And it is only by the careful investigation of each menopausal case that one can arrive at a determination of the manner in which the balance has been upset. It is impossible always to alleviate the symptoms, but the basis of treatment rests on the regulation of the existing disarrangement by the administration of the necessary secretions. Some patients react to thyroid extract, some to pituitary, others again to combinations, so great are the individual variations. In most cases a natural readjustment takes place in the course of time. So that, strictly speaking, the ovary is only concerned in the temporary function of reproducing the species, and, by its hormones or internal secretions, of bending the metabolism of the body to its purpose. As accessory to these functions the ovary has been supposed to be responsible for the beauty of the vessel by means of which its ends are to be attained. But to-day we are beginning to wonder how far the ovary does influence secondary sex characteristics, and whether full individual secondary characteristics can be obtained by the influence of the ovary alone.

We have evidence that hyperplasia of the suprarenal cortex can upset any influence the female genital gland may be supposed to possess, and can produce in a female some of the secondary characteristics of the male, and even partially change the genitalia to complete the picture.

I well remember seeing a case under the care of Dr. Russell Andrews. The subject possessed every female characteristic except for the absence of uterus, Fallopian tubes, and ovaries; instead there were testes within the abdominal cavity. This individual was a male pseudo-hermaphrodite with the pure secondary characteristics of a female, and a prepossessing one at that. Such a condition could not have existed with hyperplasia of the suprarenal cortex.

Any influence the ovary has over the general metabolism is, then, related to and dependent on its primary reproductive function. I do not believe that it influences the metabolism except in so far as this special function is concerned. Of course, removal of the ovaries may produce a temporary disturbance, but this has already been explained, and does not invalidate the view just mentioned.

On the other hand, the rest of the ductless gland system is related to the genital function in various ways.

First, some of the members—the thyroid, pituitary, and suprarenals—influence the development and subsequently preserve the integrity and activity of the genitalia, as I have already demonstrated. Others—the thymus and possibly the pineal—appear to prevent sexual precocity.

Secondly, all the ductless glands control the metabolism in response to the necessities of the genital functions; but, in addition, they adapt the whole organism to the possibility of the situation and regulate the secondary characteristics, both physical and psychical, to suit the needs of the individual. Once, however, the reproductive organs are removed or undergo atrophy, the primary genital functions of the rest of the ductless glands cease, and the rearrangement of the metabolism that follows produces what are known as the symptoms of the menopause. Contrariwise insufficiency of the thyroid, pituitary, or suprarenals causes the cessation of the genital functions with atrophy of the uterus.

As to the more particular parts played in the metabolism by each member of the ductless gland system, these have already been specified.

In spite, therefore, of the reluctance to correlate our knowledge shown by most investigators, the matter is not one of very great complexity if my views be correct in a general way, although there remains much detail to fill in.

As soon as possible we must come to a conclusion as to what are the facts. So much work that has been done is contradictory. There is therefore so much more the need for further efforts.

In concluding, I would again insist that in order to solve completely the problems surrounding the genital functions we must focus at one and the same time the two essential processes of life—the individual metabolism and the reproductive metabolism. They are absolutely interdependent. Indeed, the individual metabolism is the reproductive metabolism. It is the neglect of this point of view that has brought about much of the confusion that exists.

Weismann and Ray Lankester describe the relation between the reproductive cells and those of the soma in still more striking terms. The latter says: "Among the multicellular animals, certain cells are separated from the rest of the constituent units of the body, as egg cells and sperm cells; these conjugate and continue to live, whilst the remaining cells, the mere carriers as it were of the immortal reproductive cells, die and disintegrate. The bodies of the higher animals which die may from this point of view be regarded as something temporary and non-essential, destined merely to carry for a time, to nurse and to nourish the more important and deathless fission products of the unicellular egg."

Whatever views we may hold as to details, I question whether this philosophical statement is open to contradiction.

The function of reproduction in all its preparations and performances commences in the early stages of segmentation, and may be said to continue in man until the care of the offspring is completed.

In many insects, male and female, the act of reproduction is also the cause of death. Evolution and the pressing necessities of individual life have led men to look upon the function of reproduction as of vastly inferior importance to their own individual metabolism. No doubt women will soon come to think so too, for they seem to be changing. Whether this change be due to an increasing hyperplasia of the female suprarenal cortex I do not know. But just as we are beginning to think that our knowledge of their special functions is becoming well defined they invite us to follow their further evolution, which apparently they think will not involve them in the joys of motherhood.

Helmont said "Propter *solum uterum* mulier est quod est"; Chévau changed this to "Propter *ovarium solum* mulier est quod est."

Virchow reiterated this statement and, according to Biedl, added that "All the peculiarities of her body and mind . . . everything, in fact, which in the true woman we admire and revere as womanly, is dependent on the ovary."

In the light of our present knowledge I venture to think that the following aphorism more nearly describes the cause and effect:

Propter *secretiones internas totas* mulier est quod est.

The original work detailed in these lectures, which were illustrated with many photomicrographs and colour photomicrographs, was carried out in the Biochemical and Pathological Laboratories in the University of Liverpool; and I am much indebted to Professor Benjamin Moore and Professor Ernest Glynn for help in various directions, and especially for the facilities accorded to my assistants, and for the superintendence of their work.

The entire expenses were defrayed out of the J. Arthur Smith Research Fund.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

UNDEVELOPED LARGE INTESTINE.

DR. CLIFFORD MAYER reports (JOURNAL, March 8th, p. 498) a case of undeveloped large intestine in an infant. The following is another instance: I operated on a child last month as a last resource, explaining to the parents that it would most certainly die if left alone, and probably even if operated on. A soft catheter could be passed 4 in. up the rectum, and I diagnosed absence of part of the gut. I made an incision in the middle line, and rapidly stitched the caecum to a small opening in the right iliac region. The large intestine from the caecum to the sigmoid flexure was represented by a white thin, cord-like band, having about the appearance of a rather narrow white shoe-lace. The small intestine was greatly distended, and completely hid the large gut. The appendix was well developed, and the caecum was distended. The lack of patency in the large gut appeared to begin about 1 in. from the colic end of the caecum. The operation was undertaken later than I would have wished—about the third day after birth—and the child died shortly after. The mother stated that her first child had "no back passage."

A case I had last year, evidently of the same nature—lack of development of the large bowel—died without operation a week after birth. In this a bougie was passed about 4 in. up the rectum. The mother of this case also said that she had had an infant with "no back passage," which had died soon after birth.

Gillingham, Kent. IAN JEFFERISS.

HAEMORRHAGE FROM A CORPUS LUTEUM CYST.

ON May 15th, 1912, Mrs. F., aged 18, nullipara, was suffering from acute abdominal pain and vomiting and diarrhoea. She had been ill two days. The temperature was 102°. The abdomen was rigid, and there was tenderness in each iliac fossa, but particularly on the right side, the rectus on that side being on guard. She was expecting to menstruate at any time. On vaginal examination there was nothing palpable in either fornix, but there was tenderness on the right side. Menstruation began next day, May 16th; it lasted five days and was normal.

On May 22nd an operation was undertaken to remove the appendix. On opening the peritoneum the abdominal cavity was found to contain free blood. The appendix was inflamed and was removed. The right ovary and broad ligament were normal. As the left ovary and tube could not be reached through the appendicectomy incision, the patient was placed in the Trendelenburg position and an abdominal section made in the middle line. The left ovary, on being brought up into the wound, was found enlarged and cystic, and adhering to it was a small mass of dark clotted blood about the size of a filbert. When this was removed blood oozed freely from a small sharply cut puncture. The peritoneum contained about three pints of blood-stained fluid and clots. Microscopically, the cyst showed the characters of a corpus luteum and no sign of an ovarian pregnancy.

Dubbo, N.S.W. F. ADAMS, M.B.Sydney.

SCARLATINIFORM RASH DUE TO VENICE TURPENTINE.

A MAN of 22 was first seen on February 6th, having been sent by his medical man as a probable case of scarlet fever.

The history given was that he had felt warm and flushed on the previous afternoon, and by evening the skin all over the body was red. There had been no sickness, and no sore throat. A typical vivid scarlet punctate rash was found all over the body, and on the fauces there was marked redness and mottling. There was only a slight white coating on the tongue, but the temperature in the mouth was 99.2° F. I inquired whether the patient had been taking any unusual article of diet, or copaiba, or other drug, but the only suspicious circumstance was that he had taken a few doses of what he called "Veno's turps" for a cold. In view of the typical scarlatiniform rash, the appearance of the fauces, and the slight rise of temperature, it was decided to isolate the case for observation. The rash faded quickly, there were no further symptoms of illness, and no sign of desquamation after fourteen days.

As the case was so suggestive of a drug rash, I made inquiries, and found that the remedy the patient had been taking was really Venice turpentine, a thick resinous preparation, with a bitter acrid taste, not infrequently taken for pains in the back supposed to be due to the kidneys. The man had taken of this drug a piece the size of a pea twice on February 4th, and three times on the 5th, before I saw him on February 6th.

Venice turpentine is an oleo-resin obtained from the larch. In its composition, physical characters, and action on the body, it is very similar to copaiba, and the oil it contains is isomeric with oil of copaiba.

From these facts I think it highly probable that the rash in this case was due to the Venice turpentine, and that the rash invaded the fauces. The slight rise of temperature may have been due to the cold for which the patient had been treating himself.

I have been unable to find mentioned anywhere the possibility of a rash from this particular cause being mistaken for scarlatina, and in view of the importance and frequent difficulty of diagnosing scarlet fever, I think it may be of interest to record the case.

WILLIAM ANGUS, M.D., D.P.H.,
Assistant M.O.H., Ipswich.

FETAL GOITRE.

ON January 11th, 1913, I delivered a primipara, aged 31, at full term of a male stillborn fetus with a large goitre. Labour commenced at 9 p.m. on January 10th; at 5 a.m. on January 11th, when I was called by the midwife, the membranes had ruptured, the os was dilated, and the face presenting, the lower maxilla being anterior and slightly to the left about one inch from the perineum.

I administered chloroform and tried to apply Neville's axis traction forceps, but the upper blade would not lock with the lower. I then introduced my left hand to ascertain the cause of obstruction, and found that the head was greatly elongated, and that it was quite impossible to apply forceps. I turned the fetus and brought down the right leg; the patient then, with the help of traction with a towel around the foot, delivered herself. The occiput was greatly elongated, and extended to about the fourth dorsal vertebra. A goitre occupied about two-thirds of the left side of the neck. It measured 10½ in. at its greatest circumference. The mother has had a large goitre since she was 14. Her mother is free; her sister and her two brothers have goitre. The case, I believe, is rare. The elongation of the occiput on the right side is probably to be accounted for by the goitre being larger on the left side of the neck and so pushing the lower maxilla to the left of the symphysis pubis during delivery.

J. G. MCLANNAHAN, L.R.C.P. and S.I.,
Stonehouse, Gloucestershire. L.M. Rotunda Hospital.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

ROYAL NAVAL HOSPITAL, PLYMOUTH.

RUPTURE OF LIVER: RECOVERY WITHOUT OPERATION.

(By W. EAMES, Deputy Surgeon-General, R.N.)

A STOKER, aged 21, was admitted at 10 p.m. on December 10th, 1912, suffering from abdominal injury, caused by falling sideways from a ladder on his ship, a distance of 5 to 6 ft., and alighting across his epigastrum on the steel edge of the coaming of a hatchway beneath.

I found the patient blanched, and in an extreme state of collapse; the pulse was imperceptible at each wrist, the lower extremities cold, and respiration shallow and sighing. He was conscious, and complained of great abdominal pain.

On examination, the patient lying on his right side, the whole of the right half of the abdomen was found to be markedly dull and slightly bulging, with a marked sense

of fluctuation, evidently due to blood in the peritoneal cavity from ruptured liver; there was no vomiting. Prior to my arrival Surgeon Wilson had administered ether and strychnine hypodermically, and a rectal injection of saline solution (20 oz.). The patient was well packed round with hot water bottles, and no improvement having followed the before-mentioned treatment, I ordered a hypodermic solution of ergotinine citras $\frac{1}{100}$ gr. in the right flank; this was followed in a few minutes by an apparent improvement in the patient's pulse, which was just perceptible; a further injection of the same dose of ergotinine was given, followed after a brief interval by morphine hydrochlor. $\frac{1}{4}$ gr. hypodermically; the paroxysms of abdominal pain, which had been present since admission, now became less frequent; the pulse was only occasionally perceptible at the wrist, and the extremities remained cold. The patient was moved on the anaesthetic table on which he was lying to the operation ward, and placed in front of the ward stove.

Next day the pulse volume had improved, and there was no increase in the abdominal dullness; some retention of urine was relieved by catheter; the urine was clear; the tongue was inclined to dryness; there had been no vomiting, the abdominal pain was less, and the colour had improved. With the patient now lying on his back there was marked dullness in both flanks.

I administered morphine hydrochlor. $\frac{1}{4}$ gr. hypodermically, directed that no food should be given by the mouth, ordered nutrient enemata, and rectal injections of saline (6 oz.) every four hours. At 6 p.m. the patient was drowsy, and had occasional bouts of pain in the abdomen; retention of urine was relieved by catheter. He had retained rectal salines and the greater part of the nutrient enemata. He slept well, and urinated normally.

On December 12th the pulse was of fair volume, the pain in the abdomen slight, the dullness was less marked in the left flank, well marked in the right; rectal salines were given every two hours, and the nutrient enemata continued. At 6 p.m. it was reported that he passed two loose, dark-coloured stools. Morphine hydrochlor. $\frac{1}{4}$ gr. was given hypodermically.

On December 13th he was doing well; the abdominal dullness was confined to the right hypogastric and lumbar regions. Small quantities of fluid nourishment were allowed by the mouth. The volume of the pulse had improved. At 6 p.m. he was comfortable; an injection of morphine $\frac{1}{3}$ gr. was given at 9 p.m.

On December 14th his local and general condition much improved; but on December 15th, after transfer to a general ward, he was seized suddenly with considerable pain referred to the upper half of the abdomen. He became faint and somewhat blanched, and was evidently the subject of a secondary haemorrhage due to the breaking down of a portion of the already formed blood clot, caused by excessive body movement. Morphine $\frac{1}{2}$ gr. was immediately given hypodermically, followed shortly after by ergotinine citras $\frac{1}{100}$, and ice was applied to the abdomen. Next day he was markedly jaundiced, and there was some haemoglobinuria; the pulse was 50, and of good volume; there was no abdominal pain, but dullness in the right flank had somewhat increased. On December 17th the jaundice was very marked, as also the haemoglobinuria; there was no abdominal pain, and the pulse was 42, and of good volume. On December 18th the jaundice and haemoglobinuria were less marked, and his general state was otherwise good; the bowels were acting well; the pulse was 48, and its volume good.

From this date the patient, both locally and generally, steadily improved. On December 29th there was slight dullness in the right loin and hypogastric region, but he was taking full dietary without any distress or inconvenience, and his colour was quite good.

I think this case is interesting from the point of view of recovery from what appeared to be an impending fatal condition, which latter prevented one dealing with it operatively without producing an immediate fatal issue.

Under the will of the late Miss Mary Bone, of Lancing, the Worthing Hospital receives a bequest of £500, other sums of £300 and £200 respectively going to the Chichester Infirmary and the Sussex Eye Hospital.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

Section of Gynaecology and Obstetrics.

Ventrifixation.

At a meeting on March 6th, Dr. Amand Routh, President, in the chair, Dr. W. S. A. Griffith, in opening a discussion on ventrifixation of the uterus, said that the operation was adapted for the relief of certain cases of displacement of the uterus, where there was a failure on the part of the supports of the uterus to maintain that position necessary for the comfort of the patient, and to enable her to perform ordinary laborious duties. These cases fell into two classes: (1) Those in which the supports of the uterus were sufficient to maintain it at, or nearly at, its proper level in the pelvis, but in which retroversion or retroflexion of the body of the uterus and adjacent broad ligaments, leading to prolapse of the ovaries, was the cause of the serious discomfort. (2) The cases in which prolapse of the uterus, broad ligaments, and ovaries was considerable and associated with varying degrees and forms of vaginal, vesical, and rectal protrusion. Many cases in both these groups were sufficiently relieved by pessaries, though some women, for various reasons, preferred the relief to be obtained by operation to the prolonged use of pessaries and the medical attendance and frequent douchings which were the necessary alternative. The following appeared to be clear indications for the operation: Class 1: The uterus is retroverted and more or less fixed by adhesions. The uterus is pressed down in the position of retroversion by a tumour, commonly ovarian. After enucleation of a fibroid from a retroverted uterus. The retroversion is complicated by prolapse and enlargement of the ovaries, a constant source of pain, unrelieved, and in some cases increased, by the pressure of the pessary. The retroversion or retroflexion is not kept in position by a pessary owing to the small size of the vaginal cervix or the dilated condition of the vagina. Class 2: In the second class the operation was often needed, the prolapse of the uterus being accompanied by prolapse of the vagina, and in most cases great enlargement of the vaginal orifice. The large rings so frequently used did much harm by the greater dilatation of the vagina which they caused. The support which the operation gave to the uterus in this class was only a part of that needed for their complete relief, and the speaker usually performed it at the end of the vaginal operation—namely, after curetting, partial excision, or repair of the cervix, if these were needed, and after the repair of the posterior vaginal wall and perineum, with anterior colporrhaphy if the cystocele was considerable. An examination of the patients twelve months or longer after operation was essential for a correct opinion as to the result. Some surgeons were in the habit of performing this operation in cases of retroversion in women of poor general health, who had no local symptoms, with the idea that retroversion was a cause of the general feeble state of health. The condition of the uterus in these cases was merely a symptom, and in no sense a cause of the ill health, and it was undesirable to subject such patients to this operation.

The next speaker, Professor H. Briggs, discussing the technique of the operation, advocated a purely peritoneal direct ventral fixation over a limited and appropriately chosen area, that is, over a site immediately adjacent to the pelvic floor. As a low-level fixation by silk suture of the lower portion of the body of the uterus to the parietal peritoneum adjacent to the summit of the bladder, its peritoneal bands were harmlessly and effectively situate above the usual cervical site of the retroflexion. This method of ventral fixation further ensured complete freedom to the greater part of the body of the uterus during the child-bearing period of life when the operation was at its best. Only in a relatively small number of cases was ventrifixation alone adequate treatment.

Dr. A. E. Giles dealt with after-results, but premised that his remarks referred not to "ventrifixation" or "ventrosuspension" of the uterus, but to a specific operation to which the speaker restricted the term "hysteropexy." The

features of this operation were described. In his previous recorded after-results of abdominal operations down to July, 1909, there were 309 cases of hysteropexy, 248 of which were traced. From August, 1909, to July, 1912, 199 additional cases were done, making a total of 508 hysteropexy operations. An endeavour had been made to complete the after-histories of the additional cases; about 120 of them had been traced. An analysis of these cases confirmed the conclusions previously arrived at—namely, that the general health was improved and symptoms relieved in over 90 per cent.; that the position of the uterus remained permanently good in over 95 per cent.; that hysteropexy when followed by pregnancy caused no subsequent complications of labour; and that pregnancy following hysteropexy did not disturb the position of the uterus. Of the 199 additional cases, 92 were operated upon for retroversion, 40 for prolapse, and 67 for procidentia. To get the best results in the last two groups, it was usually necessary to combine plastic operations on the vagina and perineum with the hysteropexy. It was desirable that operators should record the results of a large number of cases of other operations for uterine displacements.

Dr. Herbert Spencer was surprised at the frequency with which other gynaecologists performed ventrifixation, as he himself had only done it twenty-seven times in 1,000 abdominal sections. The reason why he had performed so few of these operations was that it was an unscientific operation by no means free from danger. Giles had had 4 deaths in 220 cases, Zweifel 5 deaths in 336 cases, 4 of the latter being deaths from septic peritonitis. Another reason which influenced him was that he had seen so many cases in which the operation had failed to relieve the symptoms. He noticed in Dr. Giles's valuable investigation into the after-history of these cases that 42.2 per cent. of those inquired into had pain after the operation, although in 32.5 per cent. it was stated that the pain was less than before. In his opinion both ventrosuspension and ventrifixation, as ordinarily performed, were unscientific and dangerous operations, giving rise to peritoneal bands, which on many occasions had caused strangulation of intestine. For procidentia in women beyond the menopause he considered ventrifixation a useful adjunct to colporrhaphy and perineorrhaphy, but care should be taken completely to close the peritoneum over the bladder.

Dr. Archibald Donald remarked that Dr. Griffith had said that the operation should not be performed for retroversion when there were no local symptoms, but he did not state what he considered the symptoms of retroversion to be. The symptoms usually associated with retroversion were menorrhagia, metrorrhagia, and dysmenorrhoea, and many operations for retroversion were done in the hope of curing these symptoms, which were attributed to congestion induced by the displacement. There was, however, no reliable evidence that retroversion caused congestion, or that congestion could lead to changes in the endometrium causing menorrhagia, metrorrhagia, and leucorrhoea. The practice of stitching up the uterus for the cure of these symptoms was therefore unscientific. The speaker believed that in these cases there was an abnormal condition of the endometrium (endometritis), which was often the cause, but never the result, of the retroversion, and his own practice was to curette these cases and disregard the position of the uterus.

Dr. Macnaughton-Jones said he had never performed hysteropexy as advocated by Dr. Giles. Since 1905 the operation he had performed was as follows: A strong catgut suture, to last eighteen days, was passed on each side so as to include a loop of the round ligament, the parietal peritoneum, and the peritoneal fascia. The ligatures were then crossed so as to bring the ligature out at the opposite side: the ligatures were tied after closing the peritoneum. He did not think that *fixation* of the uterus should be practised during the child-bearing period of life.

Miss Ivens said that her operative experience was confined to 150 cases of Gilliam's operation. In the last 50 cases she had adopted Mayo's modification, the round ligament being drawn through the peritoneum at the internal inguinal ring, so that no abnormal slit was left, as in Gilliam's procedure. There had been one fatality, in a case complicated by chronic appendicitis. About 93 per cent. of the cases had been followed up, and the results were very satisfactory.

Dr. Handfield Jones did not consider that cases in which the ovaries and tubes were removed for disease and the uterus then stitched forwards should be regarded as cases of ventrifixation, as in the vast majority there was no need to suture the uterus at all. He had found the operation of most use in women of middle age, who found relief from wearing a pessary, but after a reasonable time were unable to do without this support. He had seen much distress caused by the uterus being fixed at too high a level, and in these cases he had given the patients immediate relief by setting the organ free again. The patient should be prepared for the operation by ten days' treatment in bed with hot douches and glycerine tampons.

Dr. Arnold Lea said he had done the operation seventy-five times in 500 abdominal sections; the greater number of the cases were for backward displacement. He was opposed to treating those cases with pessaries, as the pessaries rarely had any curative effect, except in cases of simple retroflexion following confinement.

Dr. Hubert Roberts believed that the greater number of cases of backward displacement did not require operative treatment. He considered that retroversion was often the first stage of prolapse, and if an operation was required at all it should be directed to repairing the pelvic floor. He had done the operation in a few cases, selecting Gilliam's operation in young women and ventrifixation in women who had passed the child-bearing period.

Mr. Blockwith Whitehouse expressed the opinion that in some centres there was a growing tendency to fix the uterus for inadequate causes. In his experience fixation often failed to relieve pain in the case of patients suffering from simple displacements, and care should be exercised in the choice of cases. He had seen a case of intestinal obstruction which was caused by a band of adhesions resulting from fixation of the uterus to the abdominal wall, and he did not regard this method with favour. His own preference was for the "sling" operation of Clarence Webster, in which a loop of the round ligament was drawn through the broad ligament on each side and stitched to the posterior uterine wall. He described in detail the technique he had himself been led to adopt.

Dr. J. S. Fairbairn said that with regard to cases of simple backward displacement he agreed with a previous speaker that the operation should only be done when absolutely necessary. The difficulty was to decide what made it necessary, and he considered that those who did these operations by the hundred were still living in the mid-Victorian period of gynaecology when displacements were regarded as of supreme importance.

Dr. Farquhar Murray reported some clinical observations made by Mr. Bryden Glendining and himself upon the capacity of the bladder before and after ventrifixation. In the result half the cases showed an increased and half a decreased capacity after the operation.

Dr. Walter Tate said that he had performed the operation of ventrifixation in 44 cases between the years 1900 and 1910 at St. Thomas's Hospital. In 25 the after-history had been followed, showing that seven had borne one or more children since the operation without any complication occurring during either pregnancy or labour. This good result he attributed to the fact that the fixing sutures were passed through the lower part of the uterus leaving the fundus free. In contradistinction to a previous speaker, he considered that the operation was specially called for in women in the prime of life who had to earn their living. But he only advised the operation in cases where pessaries and other methods of treatment had failed to relieve. He had also found the operation of use in some distressing cases of incontinence of urine from weakness of the bladder sphincter. By fixing the uterus the neck of the bladder was also supported, and in this way the relief of the trouble might be explained.

The President (Dr. Amand Routh) hoped that the speakers in their replies would more closely define the indications for those cases where ventrifixation was done for retroversion where the uterus was mobile. Accessory ventrifixation was in many cases a recognized and useful addition to a laparotomy performed for removal of appendages, etc., but he doubted if it was often a necessity apart from those cases. His primary ventrifixations did not amount to more than 3 per cent. of the abdominal sections, and they were almost entirely cases

where in addition to the retroversion one or both ovaries were also prolapsed. Here ventrifixation had its most useful application. Plastic operations, curettage, etc., had each their special indication in these cases of retroversion, and these minor operations often relieved the patient better than a ventrifixation. If these failed, then let ventrifixation be performed. It then became an operation of necessity. Drs. Griffith, Briggs, and Giles briefly replied.

Pathological Section.

At a meeting on March 18th, Dr. R. T. Hewlett, President, in the chair, Dr. H. H. Dale read a paper on *Anaphylactic reaction* in the guinea-pig and its modification by strong salt solution. In the investigation the reaction of the rabbit's uterus was utilized, the part being kept in a water bath whilst its contractions were graphically recorded. Dr. H. R. Dean recounted an *Attempt to preserve haemolytic complement in a permanent form.* It was only partially successful. One method already devised was to absorb it with filter paper and dry; another to salt the serum and keep it cold. The author's method was to cool fresh guinea-pig serum to 0° C., and add cooled absolute alcohol. The flocculent precipitate resulting was then dried; it was soluble in water or salt solution. The solution had but a slight haemolytic action on sensitized blood. It was the mid-piece of the complement factor only that was so obtained. It was not of use for haemolytic observation. Dr. J. A. Braxton Hicks described an *Unusual organism from a case of septicaemia* which he had isolated from the blood during life: it was a bacillus of the *proteus* group. The patient was suffering from septicaemia following the removal of a pelvic cyst. It was virulent to the guinea-pig. Mr. S. G. Shattock exhibited a histological lesion which he named *Pseudotuberculosis hyalina.*

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

At an ordinary meeting of the society, held on March 7th, Dr. G. P. Shuter, President, in the chair, Mr. Oswald L. Addison read a paper on *Syphilitic disease of bones and joints in children.* It seemed possible, and even probable, that many cases of syphilitic disease in children were acquired and not congenital. A confirmatory history of the disease in the parents could not be obtained in many cases, and the classical signs of congenital syphilis were conspicuous by their absence. This teaching of typical signs accounted for false diagnoses of a large number of cases, but within the last few years diagnosis, where there was suspicion, could be settled by a Wassermann reaction. The condition termed "syphilitic epiphysitis" appeared at first sight most marked about the joints, but in reality was most advanced at the ends of the diaphysis. It occurred at any time from birth up to the end of the first year—most frequently in the third month—and was seldom strictly monarticular. It was nearly always present in a syphilitic stillborn fetus, and, when observed in a living infant at birth, commonly affected all the long bones. In an older child it appeared at first in one joint only—most often the shoulder—but on careful examination more if not all the bones of the same or both arms were found affected. The lower limbs were much less frequently involved. A mother frequently stated that her baby was quite well until a few days previously, when it screamed on being washed or when the arm was moved. It was often quite healthy in appearance, except that one arm was limp and motionless—pseudo-paralysis. A further examination revealed some tenderness and slight swelling about the shoulder-joint, and not infrequently in a less marked degree about the arm, elbow, and forearm. Rapid recovery took place under suitable treatment—namely, complete rest of the affected limb for about a fortnight and with mercurial inunctions. The usual syphilitic bone affections seen in these children after the age of infancy were periostitis and osteomyelitis. The former led to the formation of nodes on the skull or long bones, and, if extensive, to a general thickening. Periostitis was uncommon under 4 or 5 years of age, but might occur up to 25, or even later. Although the subcutaneous bones, especially the tibiae, appeared to be affected most commonly, it seemed probable that this distribution was more apparent than real, for unsuspected nodes on the other long bones were frequently detected on *x*-ray examination. Tenderness and pain became severe in the later stages only. In the diffuse form affecting the tibia an apparent bending of the bone was produced from a deposit of new bone along the anterior border and on the subcutaneous surface. The diagnosis from new growth was not, as a rule, difficult, but from other chronic inflammations a correct diagnosis might be clinically impossible until a bacteriological culture or a Wassermann reaction had been obtained. Inunction and the administration of potassium iodide were necessary, but with great thickening and severe pain operative procedures gave the best relief. Osteomyelitis affected chiefly the long bones, and again the changes were most marked at the ends of the diaphysis. It was uncommon before the age of 9 or 10, and was often singularly painless, medical advice being sought on account of chronic sinuses or abscesses about the limb. As the most advanced disease was immediately beneath the epiphysial cartilage, interference with the growth of the bone was usual; sometimes overgrowth, but more often shortening resulted. Treatment by drugs was efficacious in the early stages, though where sinuses were present, vigorous operative treatment was necessary. Healing of the wounds was very slow on account of the secondary infection always present. The only two forms of syphilitic joint disease at all frequent in children were symmetrical serous synovitis (Clutton's joints) and gummatous synovitis. The former was not in his experience so common in children as the gummatous type, which was so often taken to be tuberculous. Gummatous synovitis, usually monarticular, sometimes multiple, mostly attacked one of the larger joints. The synovial membrane and periarticular tissues were swollen in a varying degree, there was no effusion into the joint, and muscular spasm and wasting were marked. In fact, all the signs associated with tuberculous disease were present. The *x*-ray appearances might be useful, but were not diagnostic. A rarefaction of the epiphysis was generally seen, and a superficial layer of new bone was often present at the end or ends of the adjacent diaphysis, while the focus of absorption frequently present in tuberculous disease was absent. This condition was not common under the age of 4, and, in the absence of the other signs of syphilis, a certain diagnosis could only be made by the Wassermann reaction. In the unusual event of several joints being affected, the diagnosis from rheumatoid arthritis had to be kept in mind. Under treatment perfect recovery of function was the rule, though overgrowth of the bones was not unusual. Symmetrical serous synovitis was commonly seen in the knee-joints. There was considerable effusion, with a varying amount of synovial thickening. The condition was always much more obvious in one joint than the other, and the symptoms were slight. X rays showed nothing characteristic, and the diagnosis was, as a rule, clear. Treatment was the same in both types of arthritis—namely, a splint, Scott's dressing, inunction, and iodide. Absorption of fluid and recovery of the synovial membrane were often slow, and relapses were apt to occur, but ultimately a normal joint was obtained. Dr. Sydney A. Owen, in discussing Mr. Addison's paper, urged the employment of the Wassermann test, and pointed out that treatment with mercury was of less avail in converting a positive into a negative reaction in congenital syphilis than in the acquired disease. In infants under 1 year of age an atypical case of infantile scurvy might cause confusion, but the condition usually occurred at a later date than the so-called epiphysitis of congenital syphilis. In children over 1 year the hyperaesthesia, subjective pains, and pseudoparesis of rickets had to be kept in mind. Acute poliomyelitis, prior to the onset of definite palsy and loss of deep reflexes, might cause doubt for a short time. In considering acute rheumatism in childhood, commencing with the involvement of a single large joint, the diagnosis might be difficult in the absence of coexisting endocarditis, nodules, etc. Gonorrhoeal arthritis in infants, with co-existing ophthalmia, did not present difficulties. Dr. Owen also referred to Still's disease, haemophilia, erythema nodosum, and a case he had seen of Charcot's joint in a patient aged 16 years. In

some cases of acute leukæmia tender œdematous swellings at the lower ends of the long bones, especially the tibiæ, occurred. Mr. McADAM ECCLES remarked that a syphilitic joint in child life was present more frequently than was generally suspected, hence errors in diagnosis and faulty treatment. As the joint lesion might be the only manifestation of syphilis the true origin of the synovitis was easily overlooked. A skiagram always revealed some diaphysial mischief, and this mischief was usually primary, the joint lesion being subsequent. Dr. HUGH THURSFIELD found that epiphysitis of syphilitic origin was rare in babies over 3 months of age, and usually accompanied by enlargement of the spleen. Laryngitis was another, not rare, complication, sometimes sufficiently marked to render the baby aphonic. This combination of laryngitis and epiphysitis seemed pathognomonic. Clutton's serous synovitis was a distinct and fairly common lesion accompanying interstitial keratitis after the age of the second dentition. Another manifestation in congenital syphilis was enlargement of the lymphatic glands. Mr. DUNCAN C. L. FITZWILLIAMS insisted that the cause of the disease was a spirochæte, always acquired, either before birth, at birth, shortly after birth, or in later life. In the mature subject the disease passed through certain stages known as secondary and tertiary, while in the immature state the two stages were inextricably mixed. The incidence of epiphysitis was not so rigidly limited as Dr. Thursfield appeared to believe. Infantile scurvy Mr. Fitzwilliams had never seen under the age of 6 months. Craniotabes and Parrot's nodes were sometimes well marked in children who did not suffer from syphilis. Syphilitic diseases of bone were rarely found associated with the textbook signs of congenital syphilis, and if only one bone happened to be affected and the condition advanced, it might be difficult to exclude sarcoma without the aid of the Wassermann test. Gummatous changes in bones were by far the commonest cause of spontaneous fracture in children. Many "bone cysts" were really areas of gummatous destruction. Of the joint conditions, the joints full of fluid were the most striking, and being so characteristic were easily diagnosed. They were painless, and gave rise to no symptoms, hence their frequency was difficult to gauge with certainty. In the gummatous joint the synovial membrane was very thickened, as in tubercle, from which it was most difficult to distinguish it before the Wassermann reaction was introduced, but the presence of fluid in the early stages was diagnostic of syphilis. These joints were among the most resistant to treatment of all syphilitic manifestations. Mercury in these cases was more satisfactory than salvarsan. The Wassermann reaction should be regarded much in the same light as Widal's in typhoid, for it was an indication that the system had been infected previously, and apart from symptoms it was no evidence of active disease. Mr. N. BISHOP HARMAN contributed some interesting statistics he had worked out on a large number of children between the ages of 5 and 16 years of age, who were more or less blind, owing to the inheriting of syphilis. The majority showed typical symptoms. Bone disease and joint affections of some kind or other were very frequent amongst them. In several the bone lesions appeared while the children were undergoing vigorous antisyphilitic treatment for relapsing eye symptoms. Mr. RICKARD W. LLOYD, referring to Dr. Thursfield's remarks on the association of synovitis with interstitial keratitis, said he had observed it often enough in connexion with the knee-joints to cause him to seek for it whenever a case of interstitial keratitis came under his notice. The synovitis was not so painful as in ordinary cases of that disease, and as it existed only during part of the course of the keratitis Mr. Bishop Harman's important statistics minimized the frequency of the association of these two symptoms. He had also observed the association of synovitis and corneal inflammation in the course of gonorrheal rheumatism sometimes. Mr. MAYNARD HEATH drew attention to the fact that in cases of syphilis where one of two parallel bones were obviously affected, an *x*-ray photograph generally showed some affection of the neighbouring bone, and he regarded this as strong evidence in favour of syphilis in doubtful cases. In conclusion, Mr. ADDISON replied to the various questions raised during the discussion.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

AT a meeting on March 7th the Chairman, Dr. H. JELLETT, exhibited specimens from two cases of *Genital tuberculosis*, one of them showing tuberculosis of the tubes associated with carcinoma of the ovaries. In connexion with these cases he invited opinion as to whether tuberculous disease of the tubes was commonly accompanied by tuberculous disease of the uterus and whether such cases got well after removal of the tubes. Some authors stated that this was usual, but he had never found tuberculous disease of the uterus that did not eventually lead to serious complications. Dr. TWEEDY said that, whether the uterus was or was not involved, he had known patients to get well after resection of the tubes. He instanced the case of a lady of good position who, after being six weeks married, was found to be suffering from very extensive tuberculous disease of the tubes, and to be exuding a thick, caseous material from the cervix, but whether the substance came from the tubes or the uterus he did not know. He removed the diseased tubes, and left the uterus and a small portion of the ovary, and for the last four years she had been in perfect health, and in no way suffered from tuberculous disease. Tuberculous disease of the tubes was frequently seen, but disease of the uterus was rarely met with. Dr. SHEILL said that he had seen a pretty considerable number of cases of disease of the tubes of tuberculous origin, but he had seen but one case of definite tuberculous disease of the uterus. Dr. JELLETT, in reply, thought that Dr. Tweedy's case did not throw any further light on the point raised, as it was not definitely known whether there was tuberculosis of the uterus in the case or not. He suggested, with a view to throwing further light on this important subject, that all operators should examine scrapings from the uterus in all cases of tuberculous salpinx. Dr. SHEILL having recorded two cases of *Uterine rupture*, Dr. GIBBON FITZGIBBON read a paper on six cases of *Gonorrhœal vaginitis treated by vaccine*, five with good results. The sixth appeared cured, but relapsed or else had been reinfected. He considered that vaccines, to be effective, should be made from cultures grown fresh from the human host, but that they need not be autogenous. Local treatment, in combination with vaccine, was advisable, and probably necessary, certainly in the chronic cases with mixed infection. Dr. SHEILL said he considered the paper of extreme importance from the point of view of treatment of gonorrhœal infection in young children, as in such cases they were confronted with many difficulties in local treatment, and therefore if there was another means of treatment it should be pushed. He did not think local treatment should be done away with, but he considered vaccines a very useful adjunct. Dr. TWEEDY considered Dr. FitzGibbon fortunate in having seen so much gonorrhœal vaginitis. He had always found it very hard to be sure of the infection. Dr. MADILL said he had seen a good deal of gonorrhœal infection at the extern department of the Rotunda Hospital, and he had tried many varieties of local treatment. He thought the best results were produced by protargol. He was struck with the chronicity and difficulty of diagnosis in these cases. He pointed out that Professor Bumm had described five kidney shaped intracellular diplococci, one of which was Gram positive and the other four negative to this stain, and the only difference he knew between these was by culture. He thought gonococcus was very difficult to grow. He went on to describe the methods adopted at Wertheim's clinic for making this vaccine, and said that the dosage given was rather smaller than that indicated by Dr. FitzGibbon, the dose being 5 million of a mixed vaccine every forty-eight hours, followed by autogenous gonorrhœal vaccine. In most cases good results were obtained, and in cases where the results did not materialize they were controlled by estimation of the opsonic index. No case was considered cured until the microscope failed to find anything of the nature of gonococcus in the secretions. Dr. ROWLETTE said that in the present state of our knowledge of vaccines it was of importance that full details should be given in all cases reported, and he therefore considered that Dr. FitzGibbon's paper was of great assistance as a guide to treatment. There was great difficulty in treating cases of gonorrhœa in the

female owing to the ease with which the infection became mixed. He did not think that the gonococcus disappeared for a considerable time, but it became crowded out by other organisms, and was not easily found. In some cases of gonorrhœa in the male that came under his notice it was found necessary to treat with staphylococcus after treating with gonococcus vaccine. A point of importance was that the vaccine should be made from a fresh culture. This he considered of more importance than that the vaccine itself should be fresh, although vaccine kept for a long time did lose in efficacy. He believed that the slide shown by Dr. FitzGibbon was undoubtedly one of gonococcal infection. Dr. O'KELLY said that in some cases it was very questionable whether the infection was really gonococcal. He never succeeded in getting gonococcus to grow. Dr. HENRY MOORE said that in the cases in which vaccine was most useful—namely, at the very beginning of an attack, or in old-standing cases of gleet—an autogenous vaccine was impossible. His method of obtaining serum was to get a vaccine once a month from a male case on the second day of the urethritis. If in doubt as to the cause of an old-standing discharge or the cure of a patient who has suffered from gonorrhœa, he gave from 15 million to 30 million, and examined the resulting discharge, if any, twenty-four hours after. In old-standing cases of posterior urethritis no local treatment was effective without vaccine, and the serum should not be more than four weeks old.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on March 13th, Mr. ROBERT JONES, President, in the chair, Professor ERNEST GLYNN, Dr. LISSANT COX, and Miss POWELL, in a paper on *Methods of standardizing vaccines*, summed up their conclusions as follows: (1) Wright's method frequently underestimates the strength of bacterial vaccines by 100 per cent. or more. This is undoubtedly mainly due to the unequal distribution of the bacteria and red blood corpuscles in different parts of the smear. (2) The plate culture method is cumbersome and underestimates the strength of bacterial emulsion by 100 per cent. or more when prepared from cultures twenty-four hours old, as many of the bacteria are dead; and also because it is impossible to obtain an absolutely homogeneous emulsion with every bacterium separated from its fellow. (3) The haemocytometer chamber method, using an oil-immersion lens and some weak stain, is the most satisfactory; and is more accurate than either Wright's or the plate culture method. (4) The ordinary coverslip used in microscopical preparations is inadmissible for the ordinary haemocytometer chamber, which is 0.1 mm. deep, as it is neither rigid nor optically plane. A reinforced coverslip, however, 0.13 mm. thick, would be both rigid and optically plane and suitable for all ordinary achromatic oil-immersion lenses when employed with chambers 0.1 mm. deep. (5) A counting chamber 0.04 or 0.02 mm. deep, however, is superior to the one usually employed, for three reasons: (*a*) The greater ease with which the bacteria adhering to the under surface of the coverslip may be counted; (*b*) the rapidity with which the bacteria settle; (*c*) the improved definition of the bacteria. (6) Weak carbol thionin is the cleanest and most satisfactory staining solution. The authors added that they were unable at present to express any opinion with regard to the value of the gravimetric method. Dr. BLAIR BELL gave a lantern demonstration of colour photomicrographs illustrating experimental work in which he had been engaged in connexion with the genital functions of the ductless glands. The specimens shown by various members included one of cirrhosis of the liver in a carthorse, by Professor GLYNN.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 14th, Dr. WALTER SWAYNE, President, in the chair, Dr. CAREY COOMBS, in a paper on *Adventitious pericardiac sounds*, pointed out the frequent occurrence in cases of cardiac valvular lesions of pulmonary crepitations over the third left interspace in front, particularly in cases of mitral stenosis. They were probably due to collapse of the lung margin, owing to pressure of the enlarged conus arteriosus, together with hyperæmia, and were of interest in that they not uncommonly led to a mistaken diagnosis of pulmonary tuberculosis. The stationary condition of the signs, together with the absence of tubercle bacilli in the sputum, were sufficient to negative the presence of tuberculosis. Dr. MICHELL CLARKE remarked that the limitation of these crepitations to the first deep inspiration during auscultation pointed to their being due to a condition of atelectasis. Dr. J. R. CHARLES said that, in an examination of some thousands of *post-mortem* records, he had found the coexistence of pulmonary tuberculosis and mitral stenosis to be a rare occurrence. Dr. CHARLES also, in a paper on the *Etiology of migraine*, propounded the theory that the symptoms of migraine were due to a transient swelling of the pituitary gland. Such swelling was known during pregnancy, and from the anatomical position of the gland it was conceivable that if swollen it might show effects on the optic nerves and those in the walls of the cavernous sinus. The vasomotor effects might be explained by an increased secretion from the posterior lobe. Mr. ELWIN HARRIS did not think that the theory could explain in his own case the occurrence of hemianopsia half an hour before the headache. Dr. CAREY COOMBS did not see how the association of migraine and epilepsy could be explained by this theory. The following were among the exhibits:—Dr. WATSON-WILLIAMS: (1) A specimen from a case of *Cerebro-spinal rhinorrhœa*, in which there was an opening found in the dura and bone of the anterior fossa *post mortem*, death occurring from meningitis from a complicating frontal sinusitis. During life the cerebro-spinal fluid had caused a fluctuating swelling at the inner orbital margin, thus simulating an ethmoidal mucocele. (2) A case in which an extensive *Epithelioma of the larynx* had been removed a year previously. There had been no recurrence, but there was some stridor from cicatricial contraction. Mr. HUBERT CHITTY: An infant aged six weeks, with *Congenital absence of the ulna*, of two digits and their metacarpals on the left side, while on the right one digit and its metacarpal were absent.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

AT a meeting in Sheffield on March 14th, Dr. FOTHERGILL (Manchester), President, in the chair, Dr. CATHERINE CHISHOLM (Manchester), in a paper on a comparison of *Menstrual disturbances in adolescence and adult life*, showed that more of the latter suffered discomfort during menstruation. Constipation, sedentary employment, lack of exercise, overwork, and great mental strain appeared to produce menstrual discomfort. In very few instances did the menstrual discomfort interfere with the working capacity. The appearance of pain indicated a pathological condition which ought to be investigated and treated as soon as it developed. Dr. ARNOLD W. W. LEA (Manchester) described three cases of *Kyphotic pelvis* which he had treated by Cæsarean section. Skiagrams of the three pelves were shown. All had very narrow outlets, 2 in. to 2½ in. All the patients and children recovered. A pelvimeter for measuring the outlet of the pelvis was also shown and described. The following were among the exhibits:—Dr. HELLIER (Leeds): (1) Two specimens of *Ruptured ectopic gestation*, one of them of the interstitial variety; (2) a specimen from a case of septic miscarriage infected by *B. aerogenes capsulatus*. Dr. BARFF (Sheffield): A case of *Torsion of the pedicle of a subperitoneal myoma*. Dr. ARNOLD W. W. LEA (Manchester) reported (1) a case of Cæsarean section for *Concealed accidental hæmorrhage*; the uterus was not removed and the patient made a good recovery. (2) A case of *Panhysterectomy for interligamentous myoma*. Mr. CURR (Sheffield) reported a case of *Severe melorrhagia* in a young woman. Mr. MILES H. PHILLIPS (Sheffield) showed a case of *Ruptured uterus* treated by vaginal hysterectomy. The vaginal route and clamps were used, as the uterus was infected and the patient collapsed. The patient made a good recovery and had no further rise of temperature.

ON March 5th a bill was submitted to the General Assembly of the State of New York providing that all artificial or patented infant foods shall be approved by the State Health Commissioner. It is further required that every certificate of death of an infant under 1 year of age shall be supplemented by a statement signed by the attending doctor as to the method of feeding employed.

Reviews.

FOOD AND DIETS.

This is a revolutionary age in which use and wont have lost their authority, long-standing custom and the experience of countless generations are set at naught, and the most extravagant doctrine gets an attentive hearing if it adopt the livery of the "new age" and professes to instruct the modern generation how to suck eggs in a better fashion than that known to its grandmothers. In his work, *Modern Theories of Diet*,[1] Dr. Alexander Bryce reviews these doctrines critically with good sense and in the light of recent science, writing in a style so plain and vigorous as to make the book not only a valuable source of information to medical practitioners, but useful, instructive, and intelligible to the public too apt to accept the guidance of lay persons whose qualifications for such a task exist solely in their own conceit. The author has been so wise as to seek and so fortunate as to obtain the assistance of experts in the presentment of the difficult and and ever-changing theories of metabolism, this portion of the book having been revised by Dr. Fraser Harris, Professor of Physiology in the University of Halifax, Nova Scotia, while Dr. E. P. Cathcart, Lecturer on Physiological Chemistry in the University of Glasgow, has looked over the whole manuscript, so that in these important respects the accuracy and soundness of the book is sufficiently guaranteed. Dr. Bryce has been for many years a student of dietetics and has personally investigated the dietetic theories of America, the birthplace of most of the heterodoxies which form his subject matter, so that he has a special claim to be heard. His first two chapters discuss theories of metabolism so clearly as to enable the educated reader to appreciate the subsequent argument. Chapters III and IV deal with vegetarianism and the low protein diet. In spite of his respect for Professor Chittenden, to whom he dedicates the book, and his acceptance of the conclusion that the Voit standard is unduly high, he uses Major McCay's observations to emphasize the dietetic importance of animal protein, and the danger to the race as well as to the individual of allowing sentimental or other arguments to prevail against experience. His conclusion here, as throughout the book, is in favour of moderation. While admitting individual differences, he leans on the whole to the opinion that in England and America a reduction in the quantity of flesh food tends towards better health and greater efficiency. He is, however, unsparing in his exposure of the fallacies and inconsistencies of the current vegetarian and lacto-vegetarian arguments, and disposes most effectively of the claim that flesh eaters are more prone to disease or possess diminished power of resistance to morbid influences than those who abstain. He states from personal observation of the vegetarians of Battle Creek that they are in nowise less prone to "colds" than are flesh eaters, but he expresses surprise that Americans, with their habit of three meat meals a day, can adapt themselves so easily to a vegetarian regimen. While recognizing the practical value of Haig's teaching, he rejects his theory. Hare's and Salisbury's diets are classed as partial starving cures, and the value of these under adequate medical supervision is allowed. He shows the same discrimination in considering the claims of "Fletcherism," while very properly emphasizing the extreme importance of mastication as the starting point of good digestion. A whole chapter is devoted to the "Fasting Cure," and its dangerous side is plainly exposed. The last chapter is written to expand and impress upon his readers the principle of moderation in dietetics as containing the whole root of the matter. Those who are engaged in family practice frequently encounter faddists primed with arguments derived from pamphlets or periodicals published for the purpose of propagating peculiar doctrines, and Dr. Bryce's book forms an arsenal from which suitable and overwhelming answers may be drawn. His attentive readers will acquire the knowledge upon which to found themselves; they will learn what should be admitted as true and what denounced as false in doctrine or dangerous in practice. While the healthy may err by eating too much, many of the ailing go further wrong in the opposite direction by eating too little.

We noticed Part I of Dr. Craik Taylor's *Diet Charts*[2] a few months ago (see Journal, December 28th, 1912, p. 1751), pointing out the absence of any adequate space for indicating quantity and the excessive recommendation of proprietary articles. This second part is open to the same criticism—for example, six kinds of patent bread are named, but ordinary bread is omitted; while other things are suggested that are unfamiliar, and in some instances are given undue prominence. The principles on which the author constructs his tables is not quite easy to understand. In the dietary for acute nephritis he says "that it is not good practice, nor is it suitable, to feed your patient on milk alone." We would not quarrel with this statement if the author meant to prefer milk diluted with barley water or soda water, or to give arrowroot or bread and milk, and the like, but he goes on to say: "Add cream, plasmon or sanatogen, one of the proprietary 'milk foods' or 'malted milk,'" thus introducing needlessly expensive specialities into the diet. His direction for making imperial drink does not agree with the classical formula, which is half an ounce instead of a teaspoonful of cream of tartar to a pint of water. The dietary for subacute and chronic nephritis might aim at excluding purins, but tea, coffee, oat flour, or oatmeal, meat, and fish are allowed. Alcohol is suggested, cheese is forbidden, and potatoes and eggs are omitted altogether. The medical attendant is told to regulate the amount of meat by the output of albumen, although in advanced contracting kidney this may be a mere haze, and nothing is said about the output of urea. Under diabetes, von Noorden's practice with regard to his oatmeal diet is to be followed by "two days of carbohydrate-free food" instead of by two vegetarian days. Why is chutney, which is often very sweet, allowed, and Burgundy and sherry, which always contain a good deal of sugar? Why omit codfish? Why allow grapes, which are full of sugar? Why exclude potatoes when agreeing that carbohydrates may be allowed? Why not mention cream with tea and coffee, as milk is omitted? And why exclude cheese? Why not point out that it is absolutely essential to fix the quantities? Finally, under the diet of school children, why recommend "sweet potatoes," which are not often seen in this country? We have said enough to show that in our opinion these tables require a good deal of revision before they can fulfil their purpose of guiding practitioners in the construction of dietaries.

Dr. W. Sternberg's book, *Diät und Küche*,[3] is a strange medley of ancient Grecian philosophy and metaphysics with the physiology of taste and cooking. The author disbelieves in the modern physiological researches which have demonstrated the worth of foodstuffs in terms of energy. He will have nothing to do with computations of diets in calories. Taste and mental effects of foods are for him the only side of the subject worth considering. It is true that the most recent researches have demonstrated that it does not suffice to measure a diet singly in calorie value and in the proportionate worth of carbohydrate, fat, protein, and salt. There must be considered in addition the vitamines, the subtle substances which exist in fresh food, outer layers of wheat and rice berries, milk, etc., destroyed by modern methods of milling and by the high sterilization temperatures often used in canning. Dr. Sternberg, however, does not deal with them—for him the psychic effect derived from good cooking is the factor of supreme importance. Flavour promotes digestion and appetite, but in modern civilized states it also often promotes over-eating and consequent ill health. But bad cooking also causes ill health and is moreover wasteful. So that the only wise course must be to make the psychic effort necessary to practise moderation.

[1] *Modern Theories of Diet and their Bearing upon Practical Dietetics.* By Alexander Bryce, M.D., D.P.H.Camb. London: Edward Arnold. 1912. (Demy 8vo, pp. 383. 7s. 6d. net.)

[2] *Diet Charts for the Use of Physicians.* Part II. By J. Craik Taylor, M.B. London: Suttley and Silverlock. 1913. (Post 8vo, 1s. net.)

[3] *Diät und Küche: Einführung in die angewandte Ernährungs-Therapie.* Von Dr. W. Sternberg. Würzburg: Curt Kabitzch. 1911. (Sup. roy. 8vo, pp. 200. Mk.5.)

DR. DONALD STEWART has written a little book in simple language concerning *The Essentials of Food*.[1] He intends it to be "a correct summary of present-day knowledge about food." He neither writes as a first-hand expert nor as one who has deeply read in his subject, but draws largely on the writings of the late Dr. Pavy and on Dr. Robert Hutchison's well-known book on food and dietetics. From the latter he has borrowed many tables representing the percentage composition of the foodstuffs. In the attempt which the author makes to deal with the chemical nature of foods he is not particularly happy. "An element in chemistry," he says, "is the first principle beyond which or lower than which it is not possible to go." "In recent years the elements arson (*sic*) and radium were discovered." "Fat is made up of carbon, hydrogen, and oxygen, and written thus in chemistry: CHO." In regard to the composition of water, H_2O, "the figure 2 under the H means not two atoms of the hydrogen, but two elements have to be taken with one of oxygen to form water." On page 25, he says, "gelatine contains about 84 per cent. of albumen." He frequently uses the word "salines" in place of "salts" in dealing with the composition of foods. He speaks of the production in the intestine "of the evil-smelling gases, skatole, indole, and phinol" (*sic*). We are told that proteid signifies "the highest value as a food; perhaps albumen comes next to proteid in value." He gives an antiquated classification of the nitrogenous substances in foodstuffs—"fibrine in the albumen in cereal seeds," etc.—and he says that protein is chemically regarded as the base and chief of them all. "Protein contains the elements C H NO, and sulphur, but not phosphorus." Dr. Stewart seems unaware of the fact that "protein" is the term now used in place of "proteid." On page 138 he writes: "Our object ought to be to apply such heat that the starch of the cereals shall be turned into gelatine." Again, the reader would be led to understand from the text that the 118 grams of protein of the Voit diet is contained in about 118 grams or 4 oz. of meat, in place of five times that amount. Apart from these errors, the little book is written in such a way as to inculcate the valuable doctrine of moderation in eating, plain living, and simple life—a doctrine much wanted nowadays when a large part of the wealthier people daily over-eat, while the very poor are badly nourished. The author cites from Dr. Pavy's writings the miller of Billericay, who in the eighteenth century lived for sixteen years on 16 oz. of flour per diem, made into a pudding with water, no other food or liquid being taken. This diet contained half of the protein, one-sixth of the fat, and two-thirds of the carbohydrate in Voit's diet. The miller could not have lived on white flour, for this lacks the essential active principles found in the germ and outer layers of the wheat-berry. Dr. Stewart does not mention these subtle active bodies, and implies that protein, carbohydrate, fat, and salts include everything necessary in a diet. The causation of beri-beri by a diet of polished rice, and its cure by extract of rice polishings, show that there is far more to be considered in food than he dreams of. The author supports Chittenden's conclusions, and wisely urges moderation in animal food, especially after youth is past. The most interesting tables in the book are those in which he contrasts the diets of the inmates and the attendants at the Aylesbury Union, Borough Asylum (Derby), and Bucks Asylum (Stone). At the Aylesbury Union the ordinary diet of the inmate is: Bread 18 oz., meat 4½ oz., vegetables 12 oz., milk 20 oz., gruel 1 pint, oatmeal 1½ oz., with a calculated value of protein 98 grams, fat 38 grams, carbohydrates 364 grams; while that of the attendant is; Bread 16 oz., flour 2½ oz., meat 16 oz., potatoes 16 oz., tea ½ oz., butter 1½ oz., sugar 2½ oz., cheese 1½ oz., beer 2 pints, giving protein 168 grams, fat 146 grams, and carbohydrates 536 grams. We have not the least doubt that the former diet would keep the attendants in better health than the latter—if it is really eaten—and that 16 oz. of meat as well as 1½ oz. of cheese is a most unnecessary and extravagant allowance. We believe that it would be found at all public institutions the attendants are over-fed. An allowance of beer nowadays is quite unnecessary. We know of the case of a most capable cook who lost her situation at an important institution from drunkenness. Her two kitchenmaids did not take their allowance of beer, and she had the six pints a day.

[1] *The Essentials of Food*. By Donald Stewart, M.D. London: Bale, Sons, and Danielsson. (Cr. 8vo, pp. 195. 3s. 6d. net.)

A SYSTEM OF SURGERY.

MR. C. C. CHOYCE promises a *System of Surgery*[2] in three volumes of moderate dimensions, and, if we may take the first and second volumes as an earnest of the whole, we have reason to congratulate ourselves that British teachers and writers are behind no other nation in the production of high-grade finished work. The contributors are carefully selected for well-tried qualities in teaching and in practice. The list contains the names of many of the younger generation of surgeons, metropolitan and provincial, who have established both local and general reputations.

Volume I is devoted chiefly to the consideration of general surgery and surgical pathology. The latter subject, in which Professor J. M. Beattie has collaborated as pathological editor with Mr. Choyce, is presented in the most thorough business-like manner, with no dreary over-elaboration of detail and no uncalled-for speculative wandering. Every subject is dealt with by authors "whose special knowledge and experience entitle them to write with authority." For example, the four articles on syphilis and venereal diseases are from the pens of Colonel Lambkin, Major Gibbard and Major Lawrence Harrison, Mr. J. E. R. McDonagh, and Mr. C. A. Leedham-Green; general anaesthesia is by Dr. J. Blumfeld; hydrophobia by Professor Calmette, of the Pasteur Institute, Lille.

We make no attempt to differentiate in merit where all is of the best, but the article on tumours, by Mr. Raymond Johnson and Mr. T. W. P. Lawrence, is among the most satisfying work in this department of surgery we have met with. The authors have preserved the only classification—the clinical—which appeals alike to surgeons and patients. Amongst benign tumours they have unhesitatingly placed myeloma or so-called giant-celled sarcoma. There can be now little doubt that these tumours do not conform to most of our ideas of malignancy, in particular in the absence of metastasis. Giant cells may be found in sarcomatous tumours of bone, and these are malignant enough, but the comparatively common medullary giant-celled sarcoma is properly removed from amongst the sarcomata. In their description we should have liked a little more discussion on the relation to osteitis fibrosa and "aneurysm" in bone, and also as to the possibility of the whole three being different stages of one pathological process, as suggested by Bloodgood.

The paper on *x*-ray examination is by Dr. W. Ironside Bruce. The series of skiagraphs reproduced is exceedingly neat and compact. A few representative pictures of the bismuth meal in the intestinal tract might usefully have been added. Dr. Bruce reminds his readers that *x*-ray examination must not displace the older and well-tried clinical methods of investigation, but must be regarded as supplementary.

In the paper on "Constitutional Disturbances associated with Trauma," Mr. Russell Howard makes no attempt to define shock, and for practical purposes will not distinguish shock and collapse. His paper is a study of the causes of shock and its clinical phenomena. It is a well-informed article, and follows closely the experimental work of Crile and other very recent writers.

The second volume of the *System* deals with regional surgery, and here again we find that the contributors are mostly all well-known surgeons who have high reputations as teachers in their own schools. It is a decided advantage that the authors should be widely distributed geographically, and the specimens lavishly and beautifully illustrated in the text are selected from so many museums. The breast and its surgery is in the able charge of Mr. Sampson Handley. Readers have, therefore, at first hand the theory of spread of cancer by permeation fully and lucidly stated. It is of interest to note how the permeation

[2] *A System of Surgery*. Edited by C. C. Choyce, B.Sc., M.D., F.R.C.S., Dean of and Teacher of Operative Surgery in the London School of Clinical Medicine; Assistant Surgeon to the Seamen's Hospital, Greenwich. Pathological Editor, J. Martin Beattie, M.A., M.D., C.M., Professor of Pathology and Bacteriology in the University of Sheffield. In three volumes. Volume i, Surgical Pathology, Tumours, General Surgery. Volume ii, Surgery of Regions. London and New York: Cassell and Company, Limited. 1912. Qtd. 8vo, vol. i, pp. 979, plates 84, figs. 250; vol. ii, pp. 1105, plates 20, figs. 375. 31s. net each volume.)

theory may explain much that has not been understood. For example, Paget's disease is to be regarded as an eczema following blocking and fibrosis of lymph vessels of the skin and areola, and is comparable to the sodden eczematous skin in varicose eczema and to the eczema of elephantiasis.

Mr. A. Miles writes the chapter on the intestine, hernia is by Mr. Lawrie McGavin, "The Upper and Lower Urinary Tract" by Mr. J. W. Thomson Walker, and "The Female Genital Tract" by Mr. Victor Bonney. In Mr. Cyril A. R. Nitch's paper on "Malformations of the Face, Lips, and Palate" too much space has perhaps been allotted to description of the Brophy and Lane operations for cleft palate, and correspondingly too little to the Langenbeck operation. This is the more noticeable that the writer's opinion is that the Langenbeck operation performed between two and three years gives the best result in the majority of cases. A thorough and minutely detailed description of the operation, noting all the little things which make for success, would have rounded off very nicely an otherwise good article. The admirable work of Mr. James Berry on this subject is not referred to.

The general appearance of these volumes is substantial but not heavy. Reading is greatly assisted by free use of bold type to indicate new paragraphs and subjects. The pictures are of uniform excellence; they are mostly original—the coloured plates in both volumes are worthy of special praise. We have found only two typographic errors, and these are in the illustrations: in Fig. 2 of plate opposite page 638, vol. i, "tarsus" should be "carpus," and on page 334, vol. i, the picture is inverted.

One sometimes feels that too many surgical books are being published, but there is room for an "All British" System of Surgery. Mr. Choyce's work will soon make a place for itself, not on patriotic grounds only, but because of its real merit.

DISEASES OF THE MENINGES.

THE French have always devoted much study to diseases of the meninges, particularly since Quincke's application of lumbar puncture in 1890 placed at their disposal a fluid well adapted for cytological examination. The latest discoveries and views are summarized in a recent volume[6] of Gilbert and Thoinot's new edition of Brouardel and Gilbert's well-known *Traité de médecine et de thérapeutique*. Acute meningitis, by Hutinel and Voisin, covers the first 273 pages, or more than two-thirds of the whole. It begins with a general account of the condition; then follow chapters dealing with tuberculous meningitis, epidemic cerebro-spinal meningitis, acute suppurative meningitis, serous meningitis and meningism, the etiology of meningitis (some two and twenty different bacteria are enumerated as being capable of causing it), and a general discussion of its diagnosis. Chronic meningitis is described in fifty pages by Klippel, with meningeal haemorrhage; and the last sections, by Claude and Lévy-Valensi, describe the disorders of the spinal meninges, including the rare syndrome of massive coagulation of the cerebro-spinal fluid first described in 1903 by Lépine. No mention of the meningitis seen in acute infantile paralysis seems to be made. The book is very readable, as French scientific works so generally are; it is fully up to date in its references to the French literature, and has a number of useful figures. A certain tendency to overstatement may be noted, as when, for example, we read that an inherited neuropathic tendency is the chief factor in predisposing children to die of tuberculous meningitis (p. 65), that the parents are often very intelligent and have used their brains to excess, that the children are often very wide awake, precocious, with large heads and highly developed cranial circulations but slender bodies, children whose intelligence has been too soon fatigued. Such paragraphs would come better from the pen of a speculative sentimentalist like Maeterlinck; they strike a false note in a scientific discussion of the etiology of tuberculous meningitis. No index is given and no list of figures; the book is well arranged, full of interesting facts and details, and should find a place in all medical libraries and on the bookshelves of neurologists.

[6] *Maladies des méninges.* Par Hutinel, Klippel, H. Claude, R. Voisin, et Lévy-Valensi. Fasc. xxxv. Du nouveau traité de médecine et de thérapeutique, de Gilbert et Thoinot. Paris: J. B. Baillière et Fils. 1913. (Roy. 8vo, pp. 384; 49 figs. Price 8 fr. paper, 9 fr. 50 bound.)

NOTES ON BOOKS.

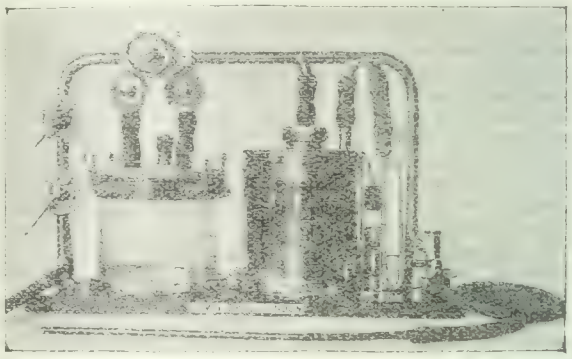
PROFESSOR DASTRE is the general editor of a series on *Questions biologiques actuelles*, published by A. Hermann et Fils, and the first volume which has come before our notice is one on the *Parathyroides*, by LEWIS MOREL.[7] The author concludes that the experimental removal of these glands causes an autointoxication, the most usual but by no means inevitable result of which is tetany, that acidosis is a constant and fatal condition of parathyreopriva, an acidosis characterized by excessive elimination of nitrogen, mineral salts, and organic acids, such as diacetic and lactic, an increase in the ammonia contents of the blood, and diminution in the power to use dextrose. The antitoxic functions of the liver are gravely disturbed by removal of the parathyroids. All this is rendered difficult of acceptance by the fact that removal of the parathyroids in some animals has no grave effect. We think the English reader will find the whole question treated in a clearer and more convincing manner by Professor Swale Vincent in his recent volume on the internal secretions.

[7] *Les Parathyroides.* By Dr. Lewis Morel. Paris: A. Hermann et Fils, 1912. (Roy. 8vo, pp. 344. Fr.10.)

MEDICAL AND SURGICAL APPLIANCES.

Portable Apparatus for the Intratracheal Administration of Ether.

DR. R. E. KELLY (Liverpool) writes: The principle of the intratracheal administration of ether is now well known. Warm, moist, and etherized air is supplied to the patient at the bifurcation of the trachea by means of a catheter passed through the glottis. The air is under pressure, and as the catheter is only half the size of the glottis, the excess of air escapes easily between the catheter and the glottis. It remains, however, under sufficient pressure to expand the lungs, and being constantly renewed suffices for respiration. Though primarily designed for the performance of surgical operations on the thorax, the apparatus here illustrated possesses further advantages in general surgery.



A B C D E

Fig. 1.—Etherization apparatus.

1. By its means thoracic surgery is rendered possible without resorting to the cumbersome and costly positive and negative cabinets.
2. In mouth, nose, and throat operations there is no danger of the inspiration of blood, mucus, or pus.
3. In goitre operations air is supplied below the tracheal obstruction.
4. In head and neck operations the anaesthetist is well out of the way of the surgeon.
5. It renders easy, from the slight respiratory movements, many operations on the upper part of the abdomen; and
6. It is a most efficient artificial respiratory apparatus.

The apparatus consists of two parts. The first part is for the production of the current of air. Where the electric current is available, this current of air is produced by a rotary blower actuated by an electric motor. The motor is $\frac{1}{8}$ h.p., and is made to run for the particular voltage obtainable. The blower runs at from 50 to 1,000 revolutions a minute, the usual rate being about 500. Both are enclosed in a box measuring 16 × 10½ × 10½ in. Where the electric current is not available, its place is taken by a foot bellows which will give the pressure of air required, with very little effort.

The second part of the apparatus is that which etherizes, warms, and moistens this current of air. It consists of, first, the ether chamber A—a glass jar with a metal lid screwed airtight over a leather washer. The

lid has two openings, the entry dipping into the chamber for about an inch and the exit flush with the lid. By a simple arrangement of taps gearing into one another, the current of air may entirely run over the surface of the ether or miss the ether altogether. When the taps are turned to any intermediate position, then a part only of the air is etherized. In this way a graduated dose of ether is obtained. This etherized air is now warmed by passing

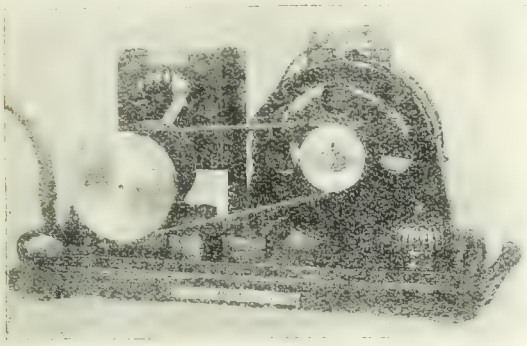


Fig. 2.

through a coil of piping immersed in hot water in the chamber B, after first passing over a moistened piece of gauze in a little container standing in it. Before the air reaches the manometer D, it has in its circuit a safety valve C. This merely consists of a bottle of mercury into which dips a glass tube in circuit. According to the depth to which the glass tube is immersed this safety valve will blow off at any pressure. Just before the air leaves the apparatus there is also inserted in its circuit a thermometer E. In the circuit are placed three taps. The first two are placed before the ether chamber. The first one is to reduce the pressure if it is too high, and the second is for the purpose of putting oxygen into the circuit should it be desired. Before the air passes to the patient there is a third tap which will reduce the pressure instantly to zero. This manœuvre is done every few seconds or so in order to allow the large veins in the thorax to fill. The whole of the second part of the apparatus consists of plated metal tubing with no constrictions, and with as few bends as possible; it is constructed on a board measuring 18 × 7 in. The apparatus is made by Messrs. Down Brothers, St. Thomas's Street, S.E.

Nova et Vetera.

THE WATER CURE OF HYDROPHOBIA.

For many centuries water applied externally and internally was regarded as a specific for hydrophobia. It is related that the poet Euripides, having been bitten by a mad dog, the Egyptian priests cured him by plunging him into the sea. The fear of water being a symptom of rabies, it was argued that the way to overcome this dread was the application of water or its introduction into the system. A surprise bath was recommended by Celsus, who says: "When the illness has reached this point (oncoming of the symptom hydrophobia) there is scarcely any hope. The only remedy that can be tried is suddenly to throw the patient when he does not expect it into a piscina, and let him go to the bottom if he cannot swim, so that he may drink. Then he should be taken out." Dr. Rosbem, in an article on the subject which appeared in a recent number of *Paris Médical*, says the Arab Jahiah-Ebn-Serapion, who lived at the beginning of the ninth century, devised several methods of introducing water into the patient's system. A favourite plan was to take a little block of honey hollowed out in the middle; this hollow was filled with water, and the opening closed with honey. This sweetmeat the patient swallowed without knowing that he was taking water. Intravenous injections of water were recommended even in the nineteeth century, and seem to be based on this theory of surprise. The bath was long fashionable. Sea baths are mentioned from the thirteenth century in almost all works which deal with hydrophobia. During the first six years of the seventeenth century there appears to have been an epidemic of hydrophobia in Paris. It was very severe at the beginning of May, 1604. At that time sea bathing was considered the best cure. Police orders against stray dogs were issued and they were killed without mercy. Dog owners had to keep their animals shut up, infraction of the law being punished by a heavy fine. Yet there were many cases of the disease, and Dieppe was the fashionable resort for the cure. In the early years of the seventeenth century Henry IV's dog Fanor, which was supposed to be suffering from rabies, was sent to Dieppe to be treated by sea bathing. The event was made the occasion of great festivities given by the Sieur de Sigogne as long as the dog was at Dieppe. It is a pity that history does not tell us whether the illustrious patient got well. In 1671 Madame de Sévigné wrote thus of certain ladies of the Court of Louis XIV:

> "For the rest, if you believe that the Queen's maids of honour are mad you will believe rightly. A week ago Madame de Ludres, Coëtlogmon, and the little Rouvroy were bitten by a little bitch belonging to Théobon. This little bitch died rabid, and so Ludres, Coëtlogmon, and Rouvroy started this morning for Dieppe to be thrown three times into the sea. The journey is sad. Beringhen was in despair about it. Théobon did not wish to go, though she had been slightly bitten. The Queen does not wish to have her about her until it is known what is going to happen. Don't you think, my dear, that Ludres resembles Andromeda? As for me, I see her tied to a rock and Fréville on a winged horse killing the monster. *Ah! Zeus, madame le Grignan, l'étrange zose d'être zelée toute nue tous la* ..."

Gui Patin, writing to Falconnet on September 17th, 1670, expressed disbelief in the water cure of hydrophobia, but he could do nothing against the fashion, which still prevailed in the middle of the following century. In the eighteenth century mention is made in the municipal archives of subventions to enable poor persons to go and bathe in the sea after they had been bitten. The surprise bath was applied either by throwing the patient into the sea or by giving him shower baths of the most primitive kind. Van Helmont once saw an old man dripping with water and fastened to the mast of a ship. He asked what crime he had committed, and was told that he was a hydrophobic patient who was being thrown into the sea from time to time. In Italy Morgagni prescribed three successive immersions. Boerhaave thought sea water had a specific action and neutralized the poison. According to him salt was the active ingredient. Acting on this idea, some doctors applied herrings to the wound.

According to Desault the following was the method adopted in the South of France in the eighteenth century. The patient, with nothing on but a shirt, was placed on his knees at the edge of the sea. When a wave came two strong men ducked his head, so that the wave went all over him. This was repeated up to nine times. He was then wiped dry and clothed. Then he was believed to be safe. In 1775 Sabatier, whose name is well known in medicine, took to Dieppe a non-commissioned officer and a soldier of the Invalides who had been bitten by a rabid animal. When they arrived there the mistress of the inn told him that immersion in the sea was very frequent, and that many patients came for the purpose. The treatment was then a monopoly of six persons, who obtained the privilege from the municipality. Some of these were accordingly summoned, and the patient was made to go into the sea entirely naked, being held firmly by the elbows and under the armpits. The bathers walked face outwards, the patient going backwards. When a wave came in the bathers suddenly threw their victim backwards, repeating this manœuvre five or six times.

The reputation of the treatment declined rapidly in the last years of the eighteenth century and in the nineteenth it was almost an extinct tradition, though, as late as 1864, there was at least one French doctor who believed in it. It is to be noted that many of those who claim cures by this method forget to mention that before having recourse to it they had at once cauterized the wound. This was done very often. Again, it has to be remembered that many of the dogs were unjustly accused. There was then no means of establishing that they were rabid. In genuine cases of hydrophobia the sea-water cure was useless; when people were the victims of a false alarm, suggestion had the largest share in the cure. In the seventeenth century, when it was most fashionable, there were notorious cases of failure, many people having died of the disease after they came back from the seaside.

THE NUTRITIONAL IMPORTANCE OF THE PRESENCE IN DIETARIES OF MINUTE AMOUNTS OF CERTAIN ACCESSORY SUBSTANCES.

The importance of minute amounts of substances as accessory factors in dietaries has recently received a good deal of attention. The most notable example of the effect of such substances is afforded by the numerous investigations into the causation of beri-beri. Other examples are afforded by the discoveries concerning the conditions that induce scurvy, and concerning the inability of certain dietaries to promote the growth of young animals, although they can maintain adults in weight and health. It is the more important results of the investigations of these three problems that will be briefly considered in this review.

Beri-beri is prevalent in rice-eating communities, and the conclusion that the disease resulted from the continuous consumption of a diet consisting too largely of polished rice was first reached by Eykman (1897), and afterwards by Braddon as the result of epidemiological investigations extending over ten years. Braddon's work brought out the further important point that natives consuming rice which had been parboiled before the removal of the pericarp did not contract the disease. As the result of the substitution of parboiled for polished rice based on his recommendations, the case mortality of beri-beri in the hospitals of the Malay States was greatly diminished.

Various theories have been held in regard to the causation of beri-beri. The epidemiology of the disease strongly simulates that of an infective malady, and numerous micro-organisms have been held responsible for it. Beri-beri has also been regarded as arising from the presence in the rice of a poison, formed either by a fungus, as in the case of ergotism, or by some fermentation change during storage. The disease has also been ascribed to a deficiency of proteins in the diet.

An important step in the investigation of beri-beri was the discovery by Eykman (1897) that birds, when fed on polished rice, developed an analogous disease with extensive polyneuritis, and that this disease was not induced by diets of unpolished rice. Eykman also showed (1906) that the aqueous extract of rice polishings cured polyneuritis and that the active constituent was dialysable and soluble in alcohol. These observations have been confirmed by many other workers (Schaumann, 1908–11; Fraser and Stanton, 1910–11; Terruchi, 1910; Chamberlain and Vedder, 1911).

Grijns (1901, 1909) showed that foodstuffs other than unpolished rice could prevent polyneuritis, but he found that their protective properties were destroyed by heating to 120° C. He put forward the view that beri-beri results from a deficiency in polished rice of a substance necessary for the metabolism of the nervous system. This view has been borne out by the results of subsequent investigations.

Fraser and Stanton (1911) ascertained that polished rice contained less phosphorus than unpolished rice, and that the content of phosphorus was a useful indication as to whether the rice was an adequate diet or not. These results supported Schaumann's theory (1908) that beri-beri was caused through a deficiency in the dietaries of organic phosphorus compounds. He found (1910), however, that many phosphorus-containing substances were ineffective in preventing and curing polyneuritis; and Chamberlain and Vedder (1911) subsequently showed that a curative extract of rice polishings contained only a minute proportion of the total content of phosphorus in the original polishings. Schaumann (1911) therefore modified his theory and suggested that the curative substance was an activator in metabolism, favouring the assimilation of certain nutrients, probably phosphorus compounds.

Braddon, and later Cooper and Funk (1911), found that exclusive diets of various pure carbohydrates induced polyneuritis in birds, thus disproving any intoxication hypothesis concerning the causation of beri-beri; and Cooper and Funk also showed that the curative substance was entirely precipitated by phosphotungstic acid from an aqueous solution of an alcoholic extract of rice polishings. The active fraction contained no phosphorus, protein, or carbohydrate.

Funk (1911–12) by a complex fractionation of the phosphotungstic precipitate, involving the use of the salts of heavy metals, succeeded in isolating a small amount of a substance melting at 233° C. Of this 0.02 to 0.04 gram cured neuritic pigeons. He ascribed to it the provisional formula $C_{17}H_{20}N_2O_7$. Subsequently he isolated curative substances melting at a similar temperature from ox brain, yeast, and milk. The active substance was precipitated by silver nitrate and mercuric acetate, but not by mercuric sulphate or nitrate; its aqueous solution was of neutral reaction, and did not react with acids. These properties suggested to Funk that the substance was probably a pyrimidine base, analogous to thymine and uracyl and a constituent of nucleic acid. He has in a recent paper (1911) shown furthermore that certain purin and pyrimidine substances exert a marked action on pigeons affected with polyneuritis, in some cases prolonging the lives of the birds, but in others actually ameliorating the symptoms. Cooper (1913) also found that strychnine prolonged the lives of neuritic pigeons.

B. Moore and his collaborators (1912) have also obtained from yeast a curative substance to which they ascribed the formula $C_7H_{17}N_2O_2$, and Suzuki, Shimamura, and Odaki (1912) have prepared an active substance containing nitrogen from rice-polishings by forming its picrate, but they have not published results of its analysis.

The difficulty encountered by all these workers is that the active substance seems to be largely destroyed during the chemical manipulations, so that it has not yet been possible to prepare sufficient to study its chemical constitution and properties. For some time the prevention of beri-beri must therefore depend upon the addition to the polished rice of foodstuffs known to contain the antineuritic substance, and accordingly Cooper (1913) has investigated the distribution of this substance amongst various foodstuffs by a series of dietetic experiments upon birds. The results indicated that while voluntary muscle was deficient in the antineuritic substance, heart muscle, egg yolk, lentils, and barley were very effective in preventing polyneuritis; of these lentils and barley will probably be the most suitable substances with which to supplement the polished rice diet.

It was also shown by Cooper that the loss in body weight resulting from the polished rice diet was not necessarily prevented by the addition of an amount of a foodstuff sufficient to prevent polyneuritis, and that brain was very effective in maintaining body weight, but was of relatively small antineuritic value. These results indicated that in polished rice there exists a secondary deficiency of substances essential for the maintenance of body weight, as was believed by Schaumann (1911).

The conclusion to be drawn from the numerous investigations is that beri-beri is caused by the deficiency in polished rice of a nitrogenous substance, small amounts of which are essential in the metabolism of the nervous system. The substance appears to be a pyrimidine base, but its exact nature is not yet discovered. Little is known concerning the part this substance plays in metabolism. It would appear not to be firmly combined with the lipoids of the nervous system, because it can be almost entirely removed from lipoids by simple treatment with acetone (Maclean, 1912) or water (Cooper, 1913). As has been already stated, Schaumann considers that the antineuritic substance behaves as an activator or catalyst in metabolism, thereby rendering possible the assimilation of certain nutrients, probably phosphorus compounds. The rapid curative action of the substance in small amount certainly suggests that by some stimulating effect it can quickly readjust the nutrition of the nerve cells to its normal state, but there is no evidence at present that it is especially related to phosphorus metabolism.

Ship beri-beri sometimes develops amongst crews of sailing ships during long voyages, and symptomatically somewhat resembles tropical beri-beri. The disease was rare on Norwegian ships before 1894, but since this date has been of frequent occurrence. Till 1894 the diet of the crews consisted of salt meat, peas, and biscuits made with rye flour, but subsequently, with the idea of improving the conditions of the sailors, shipowners were required by law to provide bread made from wheat flour, and at the same time the rations of salt meat and peas were reduced

and supplemented with tinned meat and fish which had been heated above 100° C. during preparation.

Holst (1907) found that birds fed on rye bread or peas remained healthy, but developed polyneuritis when fed on wheat bread, or on salt meat boiled for an hour at 100° C. Grijns (1901) had previously found that polyneuritis resulted from diets consisting of meat which had been heated above 100° C. These experimental results strongly suggested that ship beri-beri became prevalent in consequence of the replacement in the dietaries of white flour bread for rye bread and the reduction of the ration of peas, and not apparently in consequence of the substitution of tinned for salted meats.

During the last few years scurvy—another disease occasioned by the continuous consumption of diets which, although adequate as regards proteins, carbohydrates, and fats, are deficient in some unknown constituent minute quantities of which are essential—has been investigated principally by Holst and Fröhlich, Fürst, and Funk. Scurvy is particularly liable to result from diets of cereals and preserved foodstuffs, especially if they have been sterilized by heat. The disease can be prevented and cured by the addition of an adequate amount of lime juice, fresh vegetables and fruits to the diet, but, as has been pointed out by Jackson and Harley (1900), it has sometimes occurred in expeditions, notwithstanding the inclusion of these foodstuffs in the diets. Possibly the rations consumed were insufficient to supply the necessary amount of antiscorbutic substance.

Just as the investigation of beri-beri was facilitated by the experimental production in birds of a polyneuritis (Eykman), similarly our knowledge of the nature of scurvy has been greatly advanced by the discoveries of Holst and Fröhlich (1907–12) and Fürst (1909–12) that symptoms resembling those of scurvy could be induced in guinea-pigs and rabbits by exclusive diets of barley, oats, rice, and bread, and prevented by the addition to these diets of sufficient amounts of various antiscorbutic foodstuffs such as green vegetables, fruit, etc.

Fürst (1909) also made the interesting observations that yeast, which was very effective in preventing beri-beri, possessed no protective properties against scurvy, and that whereas grain was lacking in the essential principle, it developed an antiscorbutic substance during germination. He suggested that this substance is produced in the plant by the agency of enzymes.

No information has yet been obtained in regard to the nature of the active substance. It appears to be even more labile than the antineuritic substance, and the methods of fractionation adopted for the separation of the latter which involve the use of heat and alkali appear to be even more unsuitable for the isolation of the antiscorbutic agent. Holst and Fröhlich (1911, 1912), however, have found that the substance is soluble in acid, insoluble in petrol-ether, and dialysable; and Funk (1913; 2) has found that milk retains its antiscorbutic properties after the elimination of the proteins, and that the active constituent is carried out of solution by kaolin, but not by dialysed iron.

The fact that foodstuffs effective in preventing beri-beri are not necessarily antiscorbutic indicates that beri-beri and scurvy are caused by the deficiency of different substances in the diets. It was shown, however, by Holst (1911) that although a diet of polished rice induced polyneuritis in birds, it gave rise to both scorbutic and neuritic symptoms in pigs, and to scorbutic symptoms only in guinea-pigs. It has been concluded from these observations that a very close relationship exists between beri-beri and scurvy. The facts do not, however, necessitate this conclusion, and it is possible that the antineuritic and antiscorbutic substances participate in distinct metabolic processes, and that the relative amounts of the two agents required for the maintenance of health are not identical for different animals. If this be the case, then in animals placed on diets deficient in both the antiscorbutic and antineuritic substances the relative rate of utilization of the active substances stored in the tissues will be specific for each animal, and scorbutic or neuritic symptoms will therefore appear according as to which protective substance is consumed first. On the other hand, if the rates of consumption of the two substances are nearly identical, neuritic and scorbutic symptoms will develop simultaneously.

The conclusion, then, to which we are brought is that scurvy results from the deficiency in the diets of a specific accessory substance, and in this resembles beri-beri, but as yet no information has been obtained in regard to the nature of the antiscorbutic agent.

Infantile scurvy has been ascribed on clinical evidence by several investigators since Barlow (by Meyer in 1901, Neumann in 1902, Heubner in 1903, and Brachi and Carr in 1911) to the consumption of diets consisting of boiled milk with or without carbohydrate foodstuffs. The disease can be cured by raw milk, lime juice and grape juice. It resembles scurvy symptomatically and in being apparently caused by the deficiency in the diet of some necessary substance.

Fröhlich (1909, 1912) has shown that pasteurized milk (that is, milk heated to 70° C.) prevented the development of scorbutic symptoms in guinea-pigs fed on oats, while milk heated at 98° C. for ten minutes did not obviate the development of scurvy, because it may be assumed it did not contain enough of the essential substance. Exclusive diets of either raw or boiled milk, however, did not induce scurvy. This suggests that in boiled milk there is a sufficient amount of the antiscorbutic agent to supply the needs of the guinea-pig's organism when milk is the sole food, but when cereals are added to the diet, owing either to the increased requirements of the organism or to a reduction in the ration of milk, the supply of active substance is inadequate. Somewhat analogous results have been obtained by Cooper (1913), who found that birds fed on large rations of polished rice developed polyneuritis in a shorter time than underfed birds, the supply of the antineuritic substance stored in the tissues thus appearing to be more rapidly utilized in the former than in the latter. These facts are of fundamental importance to dietetics, and a further investigation of the question will be of value.

The clinical evidence obtained by Dr. Janet Lane-Claypon (1912–13) indicates that raising milk to the temperature of boiling water has no deleterious effect upon its nutritive value. It would appear that the amount of antiscorbutic substance normally present in an average sample of milk is such that, although some is destroyed by heating to the above extent, there is still sufficient left to supply the needs of the infant's organism. The fact that infantile scurvy does occasionally result from diets of boiled milk may be due to the particular milk being poor in the active substance, or to the requirements of the children being greater than usual, or possibly, as suggested by Fröhlich's researches, to the addition of starchy foodstuffs to the diet.

The particular importance of small amounts of substances of unknown composition in the metabolism of growing animals appears from the interesting researches of Osborne and Mendel (1911) and Hopkins (1912). These investigators have shown that when dietaries consisting of the requisite proteins, fats, carbohydrates, and salts capable of maintaining adult rats in weight and health were administered to young animals, although they might keep them healthy, they totally failed to promote their growth. When, however, very small amounts of milk from which the proteins had been eliminated were added to the diet, growth proceeded normally. The nature of the substances present in the protein-free milk so essential for growth is unknown.

Of the three substances respectively necessary for the prevention of beri-beri and of scurvy and the promotion of growth, we at present possess some knowledge of only one—namely, the antineuritic agent. These substances exist only in small amount in food materials, but they are so extremely active that minute quantities are sufficient to supply the needs of the organism. The presence of the substances in such low concentration, however, is the great obstacle to their isolation on a large scale, and this is accentuated by the considerable loss in active material incurred during the necessary chemical manipulations. Thus 0.001 gram a day of the anti-beri-beri substance seems adequate for the pigeon's organism, and this is contained in about 5 grams of barley (the daily amount required to prevent polyneuritis in pigeons fed on polished rice), so that to obtain a sufficient amount of the active substance for chemical and physiological experiments a large quantity of material must be utilized. A considerable amount of work must therefore be

carried out before these substances can be isolated and their chemical composition determined. Such discoveries, however, will be of great importance not only as a contribution to our knowledge of metabolism, but also on account of their practical value in the prevention of the respective types of malnutrition resulting from the deficiencies of the substances in diets.

The nutrition of an animal is thus seen to depend not only upon the supply of proteins, carbohydrates, fats, and inorganic material, but also upon the presence in the diet of certain accessory substances, small amounts of which are sufficient to supply the needs of the organism. As the active substances are distributed most irregularly amongst foodstuffs (this is true at any rate in the case of the anti-neuritic and antiscorbutic agents), the nutritive value of food material cannot be accurately expressed in terms of its composition and potential energy, unless the content of the accessory substances is taken into consideration. The experience of agriculturists that expectations based on the results of chemical analysis as to the nutritive and fattening values of food materials are frequently not justified in practice may find an explanation in facts of the order of those detailed in this article.

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REFERENCES.

Brachi and Carr, 1911: *Lancet*, p. 662.
Braddon, 1907: *The Cause and Prevention of Beri-beri*.
Chamberlain and Vedder, 1911: *Philippine Journ. of Science*, vol. vi, p. 251.
Cooper and Funk, 1911: *Lancet*, p. 1267.
Cooper, 1913: *Journ. of Hygiene*, vol. xii, 4, p. 436.
Eykman, 1897: *Virchow's Arch.*, vol. cxlviii, p. 523, and cxlix, p. 187. 1906: *Arch. f. Hyg.*, vol. lviii, p. 150.
Fraser and Stanton, 1910: *Lancet*, p. 1755. 1911: *Studies from the Institute for Med. Research F.M.S.*, No. 12.
Fröhlich, 1909: *Verh. des 6 Nord. Kongress f. Inn. Med.*, 1912: *Zeitschr. f. Hyg. u. Infektionskr.*, vol. lxxii, p. 155.
Funk, 1911-13: *Journ. of Physiol.*, vol. xliii, p. 395, 1911; vol. xlv, p. 75, 1912; vol. xlv, p. 489. 1913: *Biochem. Journ.*, vol. vii, p. 81, 1913 (2).
Fürst, 1909: *Verh. des 6 Nord. Kongress f. Inn. Med.*, p. 349. 1912: *Zeitschr. f. Hyg. u. Infekt.*, vol. lxxii, p. 121.
Grijns, 1901, 1909: *Geneesk. Tydschr. v. Ned. Ind.*, vol. xli, 1901; vol. xlix, 1909.
Huebner, 1905: *Deut. med. Woch.*, vol. xxix.; *Vereinsbeil.*, pp. 109-117.
Holst, 1907: *Journ. of Hygiene*, vol. vii, p. 619. 1911: *Trans. Soc. Trop. Med. and Hygiene*, vol. v.
Holst and Fröhlich, 1907: *Journ. of Hygiene*, vol. vii, p. 634. 1912: *Zeit. f. Hyg. u. Infekt.*, vol. lxxii, p. 1.
Hopkins, 1912: *Journ. of Physiol.* vol. xliv, p. 425.
Jackson and Harvey, 1900: *Proc. Roy. Soc.*, vol. lxvi, p. 250.
Lane-Claypon, 1912-13: Reports to the Local Government Board. New Series Nos. 63 and 76.
Maclean, 1912: *Biochem Journ.*, vol, vi, 4, p. 355.
Meyer, 1901: *Barlow's Disease*, Copenhagen.
Moore (and co-workers), 1912: *Biochem. Journ.*, vol. vi, p. 234.
Neumann, 1902: *Deut. med. Woch.*, vol. xxviii, pp. 628, 647.
Osborne and Mendel, 1911: Carnegie Inst., Washington. No. 156.
Schaumann, 1908: *Arch. f. Schiffs- u. Tropen Hygiene*, B. v, p. 37. 1910: Ibid., B. viii. 1911: *Trans. Soc. Trop. Med. and Hygiene*, vol. v.
Suzuki, Shimamura, and Odaki, 1912: *Biochem. Zeit.*, vol. xliii, p. 89.
Terruchi, 1910: *Saikingakuzashi*, Tokio, No. 79.

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

HAVING been reappointed this session, the Parliamentary Committee which is inquiring into the sale and advertisement of proprietary medicines resumed its sittings at the House of Commons on March 27th. Sir Henry Norman again presided.

THE ANALYSES IN "SECRET REMEDIES."

Evidence was given by Mr. Arthur E. Barclay, of Messrs. Barclay and Son, Limited, wholesale chemists, London. The witness endorsed the views expressed to the Committee on behalf of the Proprietary Articles Section of the London Chamber of Commerce. He mentioned that of the 235 preparations referred to in *Secret Remedies* and *More Secret Remedies*, his firm only knew of 120, about 113 being entirely unknown to them. The preparation known as "Mrs. Johnson's American Soothing Syrup" was the only article manufactured by his firm mentioned in the volumes. The analysis given stated that the preparation contained a considerable proportion of free hydrochloric acid, but, as a matter of fact, no hydrochloric acid was introduced in manufacture. Such a large proportion as the analysis mentioned could not be introduced accidentally, because it would amount to 1½ gallons of the quantity of 50 gallons made at one time. The analysis also omitted two important ingredients; the names of these the witness supplied to the Committee privately. The witness expressed himself in favour of the registration of proprietary articles in order that the manufacturers might be more easily identified. He said that Mrs. Johnson, whose name is associated with the soothing syrup manufactured by his firm, was a real person; the rights in the medicine were purchased in 1831 for £1,950.

Mr. Glyn Jones called the attention of the witness to an editorial in the BRITISH MEDICAL JOURNAL of March 23rd, 1912, alluding to the soothing syrup as a preparation consisting of hydrochloric acid, common salt, saffron, and honey, to be rubbed on the gums.

The witness said that possibly owing to the difficulty of analysis in this particular case, the citric acid, which the preparation did contain, had been wrongly described as hydrochloric acid.

Mr. Glyn Jones: When your firm saw this misdescription, as you say, in the BRITISH MEDICAL JOURNAL, why did you not take some action?

The Witness: One reason was that we thought if an action was brought we should have to disclose the formula, which we did not wish to do. In reply to a further question, the witness said that 160 pages of a catalogue issued by his firm were devoted to proprietary articles. There were 80 on a page, so that the number of articles referred to would be about 12,000. He did not think it was possible for a profitable business to be done in a proprietary medicine which had no real merit.

Mr. Glyn Jones: Is it your experience that articles obviously of a fraudulent character have to be put on the market at a comparatively high price?—Yes.

And the business is done by direct sale to the public?—The greater part of it is done by direct sale and by canvassing from place to place.

And they have to catch a fresh dupe every time?—Yes; they cannot rely on repeat orders. The witness added, in reply to another question, that his firm constantly received requests to place new proprietary preparations on the market, but he did not recollect ever having received such a request from a medical man. They came principally from members of the public.

Mr. Glyn Jones: How do the retail trade generally regard the business in proprietary medicines—favourably or not?—They regard it favourably, as one they can make a profit out of, but the competition is so great and the prices have been cut so much that a great many articles are sold without any profit at all.

The Chairman called the attention of the witness to the differences in the wording which appeared on the labels of the soothing syrup as sold in this country and Australia. He asked if the following statement did not suggest a Government guarantee of the preparation: "Mrs. Johnson having sold this preparation to them, Messrs. Barclay and Co. beg to refer purchasers to the Government stamp with their name thereon as a security to the public."

The witness said he did not read the phrase in the sense suggested by the Chairman. The reference was to the name of the firm, and not to the Government stamp.

The Chairman: Can you suggest that any ignorant person would not regard it as meaning that the Government stamp constituted a certain security, and was not this form of words devised to give that impression?

The Witness: I believe that form has been used ever since we sold the medicine.

The Chairman: If there is any offence in the form of words—I am not saying there is—the fact of using them for so many years would only make the offence greater. I notice that although the law permits that to be stated to the British public, the Australian law causes the statement to read: "Mrs. Johnson having disposed of the recipe to Messrs. Barclay and Co., they guarantee that the syrup is made of pure ingredients and beg to refer the public to their signature, without which the contents of the packet cannot be genuine."

The witness remarked that in Australia a Government stamp was not required, so that the wording could not be the same. He considered the effect of the two statements was practically identical.

The Chairman also called attention to variations in Australia and this country in the directions accompanying the packet. The British public were informed, "As soon

as the syrup is rubbed on the gums the child will recover, being as innocent as it is efficacious." The Australian authorities seemed to be a little more particular as to the grammar, for on the Australian labels the statement was merely, "The syrup is rubbed on the gums." Another statement made to the British public was that "by opening the pores at that early age no child will have fits." That statement was omitted from Australian labels. The witness admitted that this was a rather sweeping statement, but the firm adhered as much as possible to the old style of label used when they bought the remedy.

"Wincarnis."

Mr. W. Rudderham, general manager of Messrs. Coleman and Co., Limited, proprietors of Wincarnis, was the next witness. He dealt with the evidence given before the Committee by Dr. Mary Sturge, with reference to medicated wines. He denied that any one could take the preparation without knowing it was a wine. The ingredients were stated on the bottle, and consisted of a high class foreign wine, meat extract, and extract of malt. The quantity instructed to be taken would not have any intoxicating effects. Before intoxication could result a very unpleasant and nauseating feeling would be produced by the meat and malt extracts contained in the wine; these were calculated to prevent any misuse of the preparation. The witness said there was a substantial difficulty, in making a satisfactory mixture out of the ingredients he had mentioned, to secure a preparation which would be stable and clear in appearance. The method of doing this was an important trade secret, which it would be injurious to the company to be compelled to disclose. Wincarnis was not advertised as a cure for any specific disease, but as a restorative, and as being beneficial for various ailments. He could prove that the preparation had been recommended by 10,000 medical men. Since 1909 the company had received 4,700 testimonials and recommendations from doctors to send bottles to patients. Documents of this kind prior to that date were destroyed in the flood which overtook Norwich last August. The only adverse criticism of the preparation had come from extreme total abstainers.

ONE HUNDRED YEARS AGO.

An Encyclopaedia of Medicine in 1813.

In April, 1813, the subscribers to the *Dictionaire des sciences médicales* were reading or glancing over the contents of the fourth volume of that great work. The first volume had appeared in 1812, and the last (the sixtieth) did not come until 1822, so that for ten years at intervals of about two months the individual parts were being published in Paris and were making their way all over Europe. The publisher was C. L. F. Panckoucke, and how widely the work was being distributed may be learnt from the list of booksellers given on the page facing the title in each volume. Not only were there firms in Paris and in all the leading towns of France from whom the *Dictionaire* could be obtained, but also in various other countries there were booksellers ready to supply it. Thus there were agencies in Aix-la-Chapelle, Alexandria, Amsterdam, Brussels, Colmar, Florence, Ghent, Geneva, Hamburg, London, Leipzig, Lausanne, Madrid, Maestricht, Mannheim, Milan, Naples, Turin, Warsaw, and Venice; whilst the fact that in Moscow there was a bookshop from which the work could be got must not pass unnoted.

It was a gigantic undertaking. But France had been astonishing the world by several vast enterprises. To the amazement of Europe the troops of the Republic had withstood and got the better of the seasoned armies of Austria and Prussia. In 1812 fighting was still going on in many places; the French forces in the Peninsula were strong enough to hold Wellington at bay, and yet Napoleon was able to lead an army of nearly half a million men into Russia; there seemed to be nothing too great or too hard for the soldiers of either the Republic or the Empire to accomplish. Even the disastrous retreat from Moscow was a gigantic event; Bonaparte had nothing that was mediocre in his affairs; his victories were magnificent and his failures were stupendous.

Now whilst the troops of France were pouring in disorder and defeat across the frozen plains of Russia French medical men were launching an undertaking which, in its way, was also huge and impressive. They were beginning to invade Europe with their *Dictionaire des sciences médicales*. When the army of Napoleon was in retreat from Moscow the first volumes of the *Dictionaire* were being issued from the press in Paris, and, astonishing to relate, Messrs. Ricco and Saucet, the booksellers, were apparently receiving orders for the work near by the charred walls of the Kremlin. This medico-literary invasion had a happier result than any of the military achievements of the Emperor, and under the orders of "*une société de médecins et de chirurgiens*" the *Dictionaire* was destined to carry the evidence of the greatness of French medicine to the most remote corners of Europe. It is also no small honour to their country that the doctors made no retreat during all these tempestuous times, but continued to send forth, even during the Hundred Days before Waterloo, the bimestrial volumes of their *Dictionaire*.

They are not small books, these bi-monthly volumes. The one which was being read in April, 1813, contained 572 pages, and carried the alphabetical rubrics from *Can* to *Cha*; it was the fourth, and there were to be fifty-six more of that size before "Fin" could be printed. Neither were the writers small men, although there may be some justification for the criticism offered by the *Journal de bibliographie médicale* for April, 1813, that they were all of one school. Seventy-five names appear on the title-page, and amongst them are to be found Alibert, Bayle, Breschet, Cadet de Gassicourt, Chaussier, Cloquet, Coste, Cuvier, Dubois, Fournier, Gall, Geoffroy, Kergaradec, Laënnec, Larrey, Pelletan, Pinel, Royer-Collard, Spurzheim, and Tollard—all of them men who had made or were making a reputation.

Our English word "dictionary" does not at all convey the idea worked out in this set of sixty volumes. "Encyclopaedia" comes nearer to it, "encyclopaedia and dictionary" nearest of all, perhaps. There are long articles, such as one meets with in modern encyclopaedias; but between these, there are also short ones, which may be, and in many cases are, hardly more than definitions. There are illustrations, but they are not numerous: there are two in the fourth volume, there is one in the third, and four each in the first and second volumes. It need hardly be said that in the early part of the nineteenth century illustrations were much more expensive than now, and, for the time, one may call the work well supplied. The articles are all signed, and some of them are provided with good bibliographies.

Some idea may be gained of the matters dealt with in this work from a simple enumeration of the headings in the first fifty pages of the fourth volume. The first article is on *canelle* (cinnamon), with a short separate note on *canelle blanche*. Then follows a paragraph on *canepin* (lambskin), and an interesting note on *canicule et jours caniculaires* (Sirius and the dog days) in which Hippocrates and Aristotle are quoted. *Canin* (canine) is referred to in its various medical combinations, such as *faim canin* (canine hunger), "une faim tres-considerable et que rien ne peut apaiser"; *dents canines* (canine teeth): *fosse canine* (canine fossa), and *muscle canin* (commonly called "risorius muscle" by the anatomists of to-day). Then comes an article on *canitie* (canities or greyness) with curious observations of exceptional cases and some recommendations for the prevention of this sign of old age, for, says the writer, "although grey hair is no disgrace, and though a white head inspires respect, there are women and even men vain enough insistently to demand that grey hairs shall be caused to disappear," human nature being the same always. The headings *canne aromatique* and *canne à sucre* are mere cross references, but the article on cantharides covers twelve pages, and is provided with a long list of books and papers which have been written on that coleopteral product; "one could make a book out of the titles alone of the writings which have dealt with cantharides and their preparations," is the comment of Chaumeton, who is responsible for this article. Then there are papers on *canthus*, on *canule* (a canula), on *caout-chouc* (vulgairement gomme élastique), on *capeline* (a sort of bandage), on *capillaire* (in its botanical, physical, and anatomical

meanings), on *capillament* (the hair of the head and of other parts of the body), on *capillation* (a slight fracture of the cranium), on *capistration* (with its cross reference to phimosis), on *capistre* (a sort of trismus), on *capitale* (a sternutatory powder), on *capituluve* (a head bath), on *capreolaire* (an old descriptive term applied to the spermatic vessels), on *caprier* (the caper tree), on *caprisant* (uneven, as applied to the pulse), on *capsulaire* and *capsule* (with their anatomical, botanical, and chemical significations), on *capucine* (the *Tropœolum majus*, one of the Geraniaceae), on *caput mortuum* (the residue after destillation), and on *carabe* (one of the coleoptera). Articles on *caractére*, *caractéristique*, *caramel* ("c'est le nom qu'on donne au sucre qui a été soumis à l'action du feu"), and *carbonate* bring to an end the list of subjects dealt with in the first fifty pages of this volume.

Perhaps the most interesting, and certainly the most entertaining, article of this instalment of the *Dictionnaire* is that of more than 120 pages on *cas rares* by Fournier. It is a sort of scrapbook of all kinds of wonderful things—monstrosities, deformities, minor malformations, abstinence from food, catalepsy, slow pulse, spontaneous combustion, anomalies of conception, constipation, third dentition, rumination, voluntary vomiting, sweating blood, haemophilia, longevity, ventriloquism, etc.; and at the end the author writes: "The article will seem very long to persons who do no more than count its pages; those who will read it through will be of opinion that it falls far short of saying all that might be said on a subject so interesting as that of rare cases." We do not believe the readers of 1813 found it too long; those of 1913 may easily spend an interested half-hour in its perusal and not grudge the time.

Such was the *Dictionnaire* which Panckoucke was publishing in the second decade of the nineteenth century. It was not, of course, the first encyclopaedia to appear; there had been Chambers's *Cyclopaedia* in 1728, Diderot's *Encyclopédie* in twenty-eight volumes (1751–72), and the first edition of the *Encyclopaedia Britannica*, which was published in Edinburgh between 1768 and 1771; but it was the first medical encyclopaedia of considerable dimensions. *A Diccionario de medicina y cirugia*, in seven volumes, had been published at Madrid in 1805–7, but this was a small thing compared with the sixty volumes of Panckoucke's venture. It was soon followed by many others, and there has hardly been a pause since in the succession of encyclopaedias which have poured from the press of France, Germany, and our own land. There was the *Dictionnaire abrégé des sciences médicales* in fifteen volumes (1821–6), the *Encyclopädisches Wörterbuch der medicinischen Wissenschaften* in thirty-seven volumes (1828–49), the *Dictionnaire de médecine et de chirurgie pratiques* in fifteen volumes (1829–36), the *Dictionnaire de médecine ou répertoire général des sciences médicales* in thirty volumes (1832–45), Forbes's *Cyclopedia of Practical Medicine* in four volumes (1833), the *Encyclopédie des sciences médicales* in forty-one volumes (1834–46), Copland's *Dictionary of Practical Medicine* in three volumes (1834–59), the *Dictionnaire des dictionnaires de médecin française et étrangers* in eight volumes (1840–50), the *Encyklopädie der gesammten Medecin* in ten volumes (1841–5), the *Nouveau dictionnaire* in forty volumes (1864–86), and the huge *Dictionnaire encyclopédique des sciences médicales* in eighty-one volumes (1869–86), not to name many of more recent date, and not to refer at all to those which were truly dictionaries rather than encyclopaedias. Perhaps, however, a sentence should be found for the *Medicinal Dictionary* of Dr. Robert James, published in three volumes in 1743 and translated into French by Diderot and others in 1746; this was Samuel Johnson's Dr. James, also the Dr. James of James's powder. Boswell states that Dr. Johnson wrote parts of the dictionary himself, but what parts he leaves to medical men to discover.

THE personal estate of the late Dr. Peter Redfern, formerly Regius Professor of Anatomy and Physiology at Queen's College, Belfast, has been sworn at £96,279.

THE sixth Pan-American Medical Congress will be held in Lima, Peru, in August (3rd to 10th). In connexion with the congress there will be an international exposition of hygiene, which will be opened on November 2nd and closed on December 31st.

TRADE UNIONISM AND MEDICINE.

AT the Annual Representative Meeting at Liverpool last year an interesting discussion took place on the advantages which might accrue from the establishment of a medical union registered under the Trade Union Acts, and on the part which it might be possible and desirable for the British Medical Association to take in any such scheme. During that discussion the Solicitor made a statement as to the legal position of the Association and as to the legal difficulties which would attend action by it in this direction. He made it clear that the difficulties in the way of converting the British Medical Association into a body which came within the definition of a union capable of registration under the Trade Union Acts were very considerable, and the Representative Meeting adjourned the discussion to the annual meeting at Brighton next July.

UNIONS REGISTERED OR FORMED.

Meanwhile a medical union recently formed in Leicester has been recognized under the Trade Union Acts, and is in the enjoyment of such powers and immunities as the Acts confer; and another body called the National Medical Guild has been constituted, and has applied for registration under the Trade Union Acts. The fourteen members of its first council, who will hold office until October, 1914, are, with three exceptions, resident in London.

A brisk discussion on trade unionism and medicine has been occupying a considerable amount of space in our correspondence columns for some weeks, and it has seemed worth while to look carefully at the Trade Union Acts—the most recent only received the Royal assent a few weeks ago—in order to see what exactly are the powers and immunities enjoyed by a body registered under these Acts as compared with those possessed by a body such as the British Medical Association, which is registered under the Companies Acts (as a company not for profit).

OBJECTS OF A TRADE UNION.

The primary object of a trade union is to make the terms of service, including the remuneration of all the persons employed in the calling with which it is concerned, reasonably good, and so to maintain them. This implies either that the existing terms of service are not reasonably good, or that there is a risk of their becoming bad.

An ancillary object of a trade union is to assist its individual members to defend their rights as individuals, and to help them to make better provision by provident methods against the changes and chances of this mortal life. But as some common measure must be used, and as men are to be found to take practically any risk for money, with its promise of future luxury or ease, most disputes in which trade unions have engaged have turned on the question of pay, but not all, as recent railway difficulties may remind us.

The medical profession already has experience enough amply to prove that a medical union must be prepared to deal with both kinds of encroachment, unreasonable or improper demands unduly increasing its labours and responsibilities, and attempts to refuse just pecuniary remuneration. It must have power to defend its members individually, and it must have powers of collective defence. Defence in both cases comprises both the legal right to defend and the pecuniary resources for effective defence, including the compensation of members who suffer by reason of adhering to the union.

There is this difference: that collective defence means collective action, which can only come about through a solid unity which has some efficient sanction in professional sentiment and in common material interests, with, if possible, legal power of enforcement.

UNION AND TRADE UNIONS.

The fault found with the British Medical Association appears to be that its powers and resources for collective defence and for individual defence and support are inadequate, and that its influence and control over its members are insufficient to ensure effective collective action. Its most loyal members may admit all this—nay, they have been proclaiming it from the housetops—and have striven for years to bring about the changes in its constitution and the extension of its powers needed to effect this reform. But from this to the conclusion

that a Medical Union registrable under the Trade Union Acts should be formed, or the British Medical Association wound up and its assets used for the foundation of such a union, is a long step, and cool-headed members of the profession and of the Association will desire to be quite convinced that the step is not over a precipice into a quagmire.

The syllogism appears to be—"an effective union of the profession is desirable: a union registered under the Trade Union Acts is an effective union: therefore registration of a Medical Union under the Trade Union Acts is desirable." The syllogism would be watertight if the middle term were "a union registered under the Trade Union Acts is the only effective union." Put in either way, the crux is the definition of "effective union." The assumption seems to be that registration under the Trade Union Acts constitutes an effective union, while registration under the Companies Acts does not.

How is a trade union made effective, and what are its powers and immunities as compared with those which are possessed or may be acquired by an association registered under the Companies Act, or, as the British Medical Association has been advised would be the better alternative—a body possessed of a royal charter?

The Acts of Parliament making and amending the law relating to trade unions and trade disputes have to be read with and into one another, which is an obscure and perplexing process.

The Trade Union Act, 1871.

The Act of 1871, known as "The Trade Union Act," clearly indicates its objects in its opening sections.

> (2) The purposes of any trade union shall not by reason merely that they are in restraint of trade be deemed to be unlawful, so as to render any member of such trade union liable to criminal prosecution for conspiracy or otherwise.
>
> (3) The purposes of any trade union shall not, by reason merely that they are in restraint of trade, be unlawful so as to render void or voidable any agreement or trust.

Ever since the reign of Henry V it had been held that a contract in general restraint of trade was void. A learned judge, speaking of a trade union, said, "It appears to me that without the Act it is clearly an unlawful association; it is an association by which men are not only restrained in trade, but they are bound to do certain acts under a penalty."

Section 4 of this Act disclaims interference, and whilst taking away no jurisdiction it does not confer any. In fact, it leaves matters in this respect just where they were *in statu quo ante* the passing of this Act. This is not always realized, and many people who read about the funds and levies of trade unions believe that a trade union has extra legal powers to raise money from the members.

This section expressly states that there is no legal power. But, of course, the forces of coercion and picketing permitted by the Acts might be used for the purpose of enforcing the levies. The section is as follows:

> (4) Nothing in this Act shall enable any court to entertain any legal proceedings instituted with the object of directly enforcing or recovering damages for the breach of any of the following agreements, namely:
>
> 1. Any agreement between members of a trade union as such, concerning the conditions on which any members for the time being of such trade union shall or shall not sell their goods, transact business, employ or be employed.
>
> 2. Any agreement for the payment by any person of any subscription or penalty to a trade union.
>
> 3. Any agreement for the application of the funds of a trade union—
>
> (*a*) To provide benefits to members; or
>
> (*b*) To furnish contributions to any employer or workman not a member of such trade union, in consideration of such employer or workman acting in conformity with the rules or resolutions of such trade union; or
>
> (*c*) To discharge any fine imposed upon any person by sentence of a court of justice; or
>
> 4. Any agreement made between one trade union and another; or
>
> 5. Any bond to secure the performance of any of the above-mentioned agreements.
>
> But nothing in this section shall be deemed to constitute any of the above-mentioned agreements unlawful.

Therefore, if a member of a trade union refuses to pay his subscription or levies he cannot be sued; if he is willing to sacrifice what he has paid into the union and drop his membership he can do so.

Definition of Trade Union.

In the Trade Union Amendment Act, 1876, we get a definition:

> The term "trade union" means any combination whether temporary or permanent for regulating the relations between workmen and masters, or between workmen and workmen or between masters and masters, or for imposing restrictive conditions on the conduct of any trade or business, whether such combination would or would not, if the principal Act had not been passed, have been deemed to have been an unlawful combination by reason of some one or more of its purposes being in restraint of trade.

The words "any combination . . . for regulating relations . . . or for imposing restrictive conditions on the conduct of any trade or business" led the courts to hold that societies actually proposing to carry on trade cannot be registered as trade unions, and in a leading case the Board of Trade had refused to register a union as the proprietors of a newspaper. A learned judge has held that a union may carry on a newspaper in the interests of the members but not for profit or as a trading venture. In the present state of the law a trade union is in its legal aspects a negative combination for the purpose of imposing restrictive conditions and has no powers to carry on any trade or business of a positive nature.

Conspiracy and Protection of Property Act.

Four years after the passing of the Act of 1871 came the Conspiracy and Protection of Property Act, 1875, a most important section of which enacts:

> **7.** Every person who with a view to compel any other person to abstain from doing, or to do any act which such other person has a legal right to do or abstain from doing, wrongfully and without legal authority:
>
> 1. Uses violence to or intimidates such other person or his wife or children or injures his property; or
>
> 2. Persistently follows such other person about from place to place; or
>
> 3. Hides any tools, clothes, or other property owned or used by such other person, or deprives him of or hinders him in the use thereof; or
>
> 4. Watches or besets the house or other place where such other person resides or works or carries on business, or happens to be, or the approach to such house or place; or
>
> 5. Follows such other person with two or more other persons in a disorderly manner in or through any street or road
>
> shall on conviction thereof . . . be liable to pay a penalty not exceeding twenty pounds or be imprisoned for a term not exceeding three months with or without hard labour.

Trade Disputes Act, 1906.

The Trade Disputes Act, 1906, is to be read with the Conspiracy and Protection of Property Act. It deals with peaceful picketing as follows:

> **2.** (1) It shall be lawful for one or more persons acting on their own behalf or on behalf of a trade union or of an individual employer or firm in contemplation or furtherance of a trade dispute, to attend at or near a house or place where a person resides, or works, or carries on business or happens to be if they so attend merely for the purpose of peacefully obtaining or communicating information or of peacefully persuading any person to work or to abstain from working.

The Trade Disputes Act was framed to alter the law as laid down in a variety of judgements of recent years. There had been complaints of "judge-made laws."

The Act alters the law of conspiracy, practically abrogating it in the case of unions, actions for tort are limited, and the law of picketing relaxed. Section 1 deals with conspiracy. A paragraph is added as a new paragraph after the first paragraph of Section 3 of the Conspiracy and Protection of Property Act, 1875, which enacted:

> (*Conspiracy and Protection of Property Act.*)
>
> **3.** An agreement or combination by two or more persons to do or procure to be done any act in

contemplation or furtherance of a trade dispute . . . shall not be indictable as a conspiracy if such Act committed by one person would not be punishable as a crime.

Nothing in this section shall exempt from punishment any person guilty of a conspiracy for which a punishment is awarded by any Act of Parliament. . . . A crime for the purposes of this section means an offence punishable on indictment or on summary conviction punishable by imprisonment.

The additional paragraph reads:

(Trade Disputes Act.)

(1) An act done in pursuance of an agreement or combination by one or more persons shall, if done in contemplation or furtherance of a trade dispute, not be actionable unless the act, if done without any such agreement or combination, would be actionable.

The right of action against individuals who conspire survives in this addition, and a plaintiff may proceed against his opponents singly for a tort, or jointly for conspiracy to commit that tort.

But Section 4 of the Trade Disputes Act, 1906, protects unions from the charge by which before the passing of the Act they had often been brought down—that of conspiracy to injure.

4. (1) An action against a trade union, whether of workmen or masters, or against any members or officials thereof, on behalf of themselves and all other members of the trade union in respect of any tortious act alleged to have been committed by or on behalf of the trade union, shall not be entertained by any court.

(2) Nothing in this section shall affect the liability of the trustees of a trade union to be sued in the events provided for by the Trades Union Act, 1871, Section 9, except in respect of any tortious act committed by or on behalf of the union in contemplation or in furtherance of a trade dispute.

A tort may roughly be defined as an injury to a private individual for which the wrongdoer has to compensate the injured party.

Libel is a tort, and the trustees of a trade union cannot be sued for libel or slander published or uttered in contemplation or furtherance of a trade dispute.

TRADE UNION ACT, 1913.

The Trade Union Act, 1913, which became law on March 7th last, empowers a trade union to raise and manage a "Political Fund" for the purpose of promoting the election of a person to Parliament, or to any public office, and of his maintenance after such election. Any member may claim to be exempted from payment to the political fund, and must not on that account be excluded from any benefits of the union (Section 3).

Section 1 of the Act distinguishes between statutory objects and political objects:

1. (1) The fact that a combination has under its constitution objects and powers other than statutory objects within the meaning of the Act shall not prevent the combination being a trade union for the purposes of the Trade Union Acts, 1871 to 1906, so long as the combination is a trade union as defined by this Act, and, subject to the provisions of this Act as to the furtherance of political objects, any such trade union shall have power to apply the funds of the union for any lawful objects or purposes for the time being authorized under its constitution.

(2) For the purposes of this Act the expression "statutory objects" means the objects mentioned in section sixteen of the Trade Union Act Amendment Act, 1876, namely, the regulation of the relations between workmen and masters, or between workmen and workmen, or between masters and masters, or the imposing of restrictive conditions on the conduct of any trade or business, and also the provision of benefits to members.

2. (1) The expression "trade union" for the purpose of the Trade Union Acts, 1871 to 1906, and this Act, means any combination, whether temporary or permanent, the principal objects of which are under its constitution statutory objects: Provided that any combination which is for the time being registered as a trade union shall be deemed to be a trade union as defined by this Act so long as it continues to be so registered.

The right of a member to claim exemption from any contribution to the political fund of the union is defined in Sections 5 and 6.

5. (1) A member of a trade union may at any time give notice, in the form set out in the Schedule to this Act or in a form to the like effect, that he objects to contribute to the political fund of the union, and, on the adoption of a resolution of the union approving the furtherance of political objects as an object of the the union, notice shall be given to the members of the union acquainting them that each member has a right to be exempt from contributing to the political fund of the union, and that a form of exemption notice can be obtained by or on behalf of a member either by application at or by post from the head office or any branch office of the union or the office of the Registrar of Friendly Societies.

Any such notice to members of the union shall be given in accordance with rules of the union approved for the purpose by the Registrar of Friendly Societies, having regard in each case to the existing practice and to the character of the union.

(2) On giving notice in accordance with this Act of his objection to contribute, a member of the union shall be exempt, so long as his notice is not withdrawn, from contributing to the political fund of the union as from the first day of January next after the notice is given, or, in the case of a notice given within one month after the notice given to members under this section on the adoption of a resolution approving the furtherance of political objects, as from the date on which the member's notice is given.

6. Effect may be given to the exemption of members to contribute to the political fund of a union either by a separate levy of contributions to that fund from the members of the union who are not exempt, and in that case the rules shall provide that no moneys of the union other than the amount raised by such separate levy shall be carried to that fund, or by relieving any members who are exempt from the payment of the whole or any part of any periodical contributions required from the members of the union towards the expenses of the union, and in that case the rules shall provide that the relief shall be given as far as possible to all members who are exempt on the occasion of the same periodical payment, and for enabling each member of the union to know, as respects any such periodical contribution, what portion, if any, of the sum payable by him is a contribution to the political fund of the union.

THE LEICESTER UNION.

The first "Union of Medical Practitioners" has been registered at Leicester. Its objects are:

To regulate the relations and conduct of medical practitioners as between themselves, and between medical practitioners and their employers.

To regulate the rates of payment and conditions of service of club, friendly society, dispensary, and other forms of contributory contract practice, and the terms and conditions upon which medical service shall be given to persons of limited income.

To impose any other restrictive conditions which may be considered desirable on the conduct, by members of the union, of the trade or business of medical practitioners carried on by them.

In furtherance of these objects the union adopts the following methods and means:

(i) The establishment of a fund or funds.

(ii) The promotion of a system of medical service regulating medical attendance and provision of medicines for persons unable to pay ordinary medical charges (Public Medical Service).

(iii) The promotion of a system or systems of school clinics for the treatment of necessitous children.

(iv) The giving of legal assistance to members in connexion with the above objects.

(v) The promotion of legislation for the protection of the union and for the general and material welfare of its members or the support of or opposition to alterations.

(vi) The advising of members in ethical matters.

(vii) The watching over, protection, and promotion of the interests of members and medical practitioners generally.

(viii) The federation or amalgamation with other bodies having similar objects.

(ix) The establishment of branches, subdivisions or districts.

(x) "Any other lawful method which may be decided to be advisable in the general interests of the members as declared by a majority of two-thirds of those of the members present and voting at a general meeting."

There is an entrance fee of £1 1s., and an annual subscription not to exceed £1 1s.

The Central Committee has the power from time to time to make a levy of a sum not exceeding £5 per member, provided that an interval of not less than three months has elapsed since the laying of a previous levy.

The duties of members are as follows:

Rule 16. Duties of Members.

"*(b)* No member of the Union shall consult with or meet a medical practitioner who carries on any form of contract or contributory contract practice within the sphere of operations of the Union and who does not conform to the working rules for the time being in force regulating the Public Medical Service and the Bye-laws of the Sub-division within which any patient so treated by him resides.

(c) No member shall take or treat on contract or contributory contract terms any patient at a lower rate than that prescribed by the working rules for the time being in force regulating the Public Medical Service or any patient who is to his knowledge in receipt of an income exceeding the income limit laid down by such working rules or by the Bye-laws of the Sub-division in which such patient resides.

(d) No member shall act for an Insurance Committee, Friendly Society, or combination of lay persons for the provision of medical treatment or medicines which does not conform to the working rules, etc.

(e) No member shall canvass or advertise for patients or influence or attempt to influence any persons to do so on his behalf.

(f) If any member is found by the Central Committee to be guilty of any act forbidden by paragraphs *(b)*, *(c)*, *(d)*, or *(e)* of this Rule, his conduct shall be deemed to be detrimental to the honour and interests of the Union."

Rule 17.

The effect of this rule is that any member found guilty of conduct detrimental to the honour and interests of the Union as calculated to bring the business trade and profession of a medical practitioner into disrepute shall *ipso facto* cease to be a member of the Union.

The penalty for non-payment of subscription, levy, fine or other sum payable is expulsion by resolution of the Central Committee.

The National Medical Guild.

The objects of the National Medical Guild are generally similar to those of the Leicester Union, but the following are in addition set out:

> . . . to employ the funds of the Guild for the political objects defined in Section 3, subsection 2 of the Trade Union Act, 1912. . .
>
> . . . to provide for the insurance of Members, either directly or by arrangement with insurance companies against death, illness, third party liability and (or) damage caused to and by motor cars or other vehicles;
>
> to publish books, papers, and literature in furtherance of the ends of the Guild. . . .
>
> to acquire, lease or build premises for the purposes of the Guild.

These concrete instances of the powers to be obtained by way of registration under the Trade Union Acts may usefully be compared with the powers possessed or sought by the British Medical Association.

The Position of the British Medical Association.

In the draft charter submitted to the Privy Council (as amended by the Representative Meeting of 1909) the Association among other powers sought the following: To publish the British Medical Journal, or any other journal of a character specially adapted to the needs of the medical profession; to originate, support, promote, and oppose alterations in the law of the United Kingdom or any British colony or dependency affecting the public health or the medical profession, and to promote the candidature of any member of the Association for Parliament or for any British legislative assembly; to take or defend and assist persons in taking or defending legal proceedings, civil or criminal, including proceedings before the General Medical Council in which the honour or interests of the medical profession, or any member of the Association in his professional capacity or any question of professional principle should be involved, and for this purpose to establish, contribute to, organize, and manage a fund, or funds, for the purpose; to provide facilities for the sale or transfer of practices, and for the engagement of assistants or locumtenents; to establish, endow, contribute to, organize, and manage, provident, or benevolent funds, for the benefit of members of the Association; to manage any trusts, directly or indirectly conducive to the interests of the Association or of the profession, or any branch thereof; and to take such other means as might be incidental or conducive to the promotion or carrying on of these objects.

These points may be compared with paragraphs iv, v, vii, and x, of the methods and means of the Leicester Union. With regard to the methods ii and iii of the Leicester Union, the Association has already taken action by way of a central scheme, or schemes, administered locally. Many of the powers sought by the charter are already exercised by the Association. For example, it has always taken a part in the promotion of legislation and the amendment of the law; it has frequently defended or given legal assistance in cases of professional interest, that is, in cases of more than merely personal interest; it regularly takes cases before the General Medical Council; it has recently improved its organization for advising members on ethical matters; and it has set up trusts for purposes ancillary to those of the Association, it has, for example, established a Central Emergency Fund and the Central Insurance Defence Fund. It grew in its early days by amalgamation with other bodies having similar objects, and its organization is based on a system of Branches and Divisions.

The granting of the charter was opposed by certain medical corporations and by certain medical benevolent organizations, but the weight of the opposition undoubtedly lay in the objections advanced by certain branches and members of the Association who objected to certain of the ordinances and by-laws, but expressed their desire that, if the regulations were modified so as to meet these objections, the charter should be granted to the Association, giving it all the powers specified in the draft. The wish of the members, therefore, that the Association should possess the additional powers enumerated above would seem to be practically unanimous.

After the granting of the charter had been refused by the Privy Council, the Association sought to proceed by way of establishing a new association registered with extended powers under the Companies Act, which would take over the work of the British Medical Association as a going concern. It was ascertained that the Board of Trade would sanction the registration of a new company possessing the following powers not definitely included in the present articles of Association, though, as regards (1) and (2), already exercised by it:

> (1) Power to promote and oppose legislation affecting the public health or the profession.
>
> (2) Power to take part in certain legal proceedings affecting the profession.
>
> (3) Power to establish, endow, and manage benevolent funds (with the restriction that no grant may be made directly to a member of the Association; a member may, if indigent, be benefited indirectly by a grant to his relatives or dependants).
>
> (4) Power to borrow and mortgage.

And that, in addition, certain other matters which had been held to come within the scope of the objects of the existing Association, but are not clearly provided in the existing memorandum, would be clearly defined, namely:

> Power to provide libraries and places for social intercourse.
>
> Power to undertake trusts for the benefit of the profession.
>
> General powers of management of and dealing with property.

The Board of Trade, however, required that the following should be added to the draft memorandum:

> Provided that the Association shall not support with its funds or endeavour to impose on or procure to be observed by its members or others any regulation, restriction, or condition which, if an object of the Association, would make it a trade union.

On looking into the matter further it appeared that the powers which could be obtained in this way were all, with the exception of *(a)* the establishment of a medical benevolent fund, and *(b)* the borrowing of moneys, powers already exercised by the Association, and, in view of the considerable expenditure necessarily attending the transfer of the work and assets of the Association to a new company, the Council resolved to advise the Representative Meeting not at present to proceed further in this way, but to apply to the High Court for an extension of the

memorandum to include only the power of borrowing money on mortgage or otherwise—a power which would result in considerable economy.

Some Deductions and Conclusions.

To the question—What can a trade union do for medical men that a voluntary association cannot do? the answer is, from the legal point of view, not very conclusive.

It would appear that a medical union registered under the Trade Union Acts would have the power to defend its members in the courts. It would also have power to provide for them in sickness, in old age, in unemployment, or in pecuniary distress due to acts done in accordance with the policy of the union. But provision for these matters could be made by a voluntary association out of a trust fund raised for the purpose.

The union would be immune from action for injuries to private individuals if committed in contemplation or in furtherance of a trade dispute. It could also, it would appear, issue a libel in a publication published by it if such publication be issued *in the interests of the members*, but not as a trading adventure.

It would be exempt from the law of conspiracy (except in respect of a conspiracy for which a punishment is awarded by statute) in doing any act in furtherance of a trade dispute if such act committed by one person would not be punishable as a crime.

It would have the power to form a political fund, but not to compel its members to subscribe.

It would have the power to make levies, but would not have power to enforce them at law.

The real power of a trade union would seem to depend:

(1) On its being made to include so large a majority of the persons engaged in the calling that the minority, having regard to the procedure, for example a strike, proposed to be taken is negligible.
(2) On the constancy of its members in abiding by the decision of the majority, properly ascertained according to the regulations of the union.
(3) On the power, in the event of the union failing to come to an amicable arrangement with the employers, to induce its members to strike, that is, to refuse to work.

As to the first point (1), it seems clear *a priori*, and the history of trade unionism fully confirms the conclusion, that the power of a trade union is the same as that of any other voluntary association, such as an association registered under the Companies Acts—neither greater nor less.

As to the second point (2), the advantage which a trade union possesses over an organization such as the British Medical Association as at present constituted, resides in the benefits which it provides for members. A member who leaves his trade union at a pinch forfeits his right to benefits. This is a very real and tangible hold on members which ceases only when the reserve funds of the union have been eaten up by paying compensation to members who are unemployed owing to their loyalty in adhering to the decisions of the union (strike pay). This advantage is reinforced by the power to make a levy, of an amount assessed by the committee, but not exceeding an amount fixed by the rules of the union. Such a levy may be made in anticipation of a trade difficulty, during a strike, when it can, as a rule, only be made on those members who are continuing to work, or after it is over to reinstate the reserve funds of the union.

The power a trade union has in order to induce an individual member to strike (3), over and above a sense of loyalty to his fellows, is, in the first place, the fear of the loss of benefits to which he has become entitled by his contributions, should he, owing to failure to obey the decisions of the union, incur the penalty of expulsion; and, in the second, "peaceful picketing."

Those who have spoken or written in favour of the establishment of a medical union registered under the Trade Union Acts do not contemplate a strike—that is to say, they do not contemplate what manual labour calls the policy of "down tools." They realize, as every one realizes, that the Insurance Act will have the effect of increasing, rather than diminishing, the need for an effective system of professional defence against encroachments by the Government, by friendly societies, and other forms of contract practice, and by individuals, and they believe that while the old system lacked sanction and was obeyed just so long as obedience was consonant with personal taste, trade unionism would afford the desired sanction for rules and would ensure their observance.

We have endeavoured without prejudice to set out the effect of the law with regard to trade unions, and to indicate the powers and immunities which bodies registered under the Trade Union Acts possess, and we have avoided any reference to what may be called sentimental objections, but objections of this order would have to be taken into consideration if one of the propositions advanced above be correct, namely, that the first necessity for a successful trade union is that it shall include so large a majority of the persons engaged in the calling that the minority, having regard to the action proposed to be taken, is negligible.

THE MENTAL DEFICIENCY BILL.

It will be remembered that shortly after the opening of the autumn session last year the Government announced that it could not find time to press the Mental Deficiency Bill (1912) through all its stages. It decided to complete the consideration in Committee of those portions of the bill which had already been dealt with by the Standing Committee at great length and taking these clauses as a foundation to introduce a new measure this year. This decision had the immediate effect of relieving the Committee from the somewhat obstructive tactics of certain members of the Committee who were strongly opposed to certain aspects of the bill. Accordingly the Committee on December 2nd presented to the House of Commons the torso of a measure consisting of seven clauses dealing with (1) central and local authorities and (2) the method of dealing with mentally defective persons. The sacrifice of the bill called forth outcries of disapproval from those interested and pleas that some attenuated measure should be pressed through without delay.

In these columns the view was expressed that on the whole the delay involved in the withdrawal would be amply compensated by the opportunity afforded for redrafting it in view of the fundamental alterations that had been made, the fuller knowledge of the subject which had been gained as a result of the discussions in Committee, and not least in order to have the advantage of the expert assistance of the Commissioners in Lunacy in framing the machinery of such an Act.

The new bill was issued on March 31st, and it is clear, from even a cursory survey of its provisions, that the Government and its advisers have made good use of the time and opportunities thus put at their disposal.

In comparing the bill of 1913 with that of 1912 it must be borne in mind that the latter as amended differed essentially from the bill as originally introduced both in regard to the central authority, the categories of defectives subject to be dealt with, and the definition of defectives in general. In all these respects great improvements were made, and with certain subsidiary changes these improvements are retained in the present draft.

Apart from this, the principal points of importance in the present bill may be summarized under a few main heads.

1. *The General Attitude towards the Problem of the Mentally Deficient.*

In regard to this it may be said in general terms that the note now is more definitely and exclusively the interests and needs of the defective for his own welfare: this note was not wanting in last year's bill, but it was not made so dominating, and it was accompanied by the refrain of the interest of society.

We are fortunate in regard to this problem in that what is desirable in the interest of the individual tends also to be largely in the interest of society also, but it became evident during the debates on this matter last year that what Parliament would readily concede if satisfied that any restraints imposed are in the interest of the individual concerned, it would be less ready to sanction solely in the interest of society. This may not be a very far-seeing attitude, but it is one which has to be reckoned with, and it seems likely that the note struck in the present bill will help to facilitate its passage through the Legislature.

As an illustration of this attitude one may refer to the change in the full title of the bill; it is, To make further and better provision for the care of (instead of as before merely "with respect to") feeble-minded and other mentally defective persons, and to amend the Lunacy Acts. Incidentally attention may be called to these last six words which are new. They are clearly required in view of the amendments made last year, but they may be important as allowing an opportunity for further amendments which could hardly have been incorporated under the bill as previously entitled. Indications of the same spirit may be seen in Subclause 6 (3), where the judicial authority is empowered to make an order "if he thinks it desirable to do so in the interests of such person"; and, again, in the omission from the categories of defectives who may be dealt with under the Act those "in whose case such other circumstances exist as may be specified in any order made by the Secretary of State as being circumstances which make it desirable that they should be subject to be dealt with under this Act," although this appeared in the definition Clause 6 (1) *f* of the amended bill; and, further, the clause forbidding marriage with a defective no longer appears.

As regards "discharge"—a question which directly affects the liberty of the individual—the provisions are now specified in the Act, and not left to the regulations to be subsequently framed. A commissioner will have power to discharge at any time any person detained under this Act without certain exceptions.

A parent or guardian may withdraw a defective who has been placed by him in an institution or under guardianship, at any time on giving notice in writing for the purpose to the Board, unless the Board, after considering what means of care and supervision would be available if he were discharged, determine that the further detention of the defective in the institution or under guardianship is required in the interests of the defective.

It will be seen here once more that the interests of the defective are to be the determining consideration, and that the presumption is to be that he may be discharged by his friends unless it is held to be undesirable in his own interests, and not the other way.

2. *Matters nearly Affecting the Medical Profession.*

The constitution of the Board of Control is left as in the amended bill of last session. There are to be not more than fifteen commissioners, of whom not more than twelve shall be paid. Of the paid commissioners at least four shall be medical commissioners. Hitherto half of the paid commissioners have been medical practitioners; now the proportion may be as low as one-third, and there is no provision, as there well might be, that the paid woman commissioner should be a medical practitioner.

Provision is made to remedy a defect of the former bill and to secure that there must be a medical examination before an order is made under the Act.

The local authorities are not to be required to appoint a special medical officer to assist them in the performance of their powers and duties as in Clause 11 of the 1912 bill.

3. *The Idiots Act and the Institutions Registered under it.*

As promised, the Government, while repealing the Idiots Act, embodies clauses which largely re-enact the provisions of that Act under another form in such a way as to leave the procedure simple, as it was under that Act, and not cause hardship to the voluntary institutions.

This has involved a recasting of the definition clause. The definitions of the various classes of persons who are mentally defective which shall be deemed to be defective within the meaning of this Act are put into a clause by themselves. The addition of the words "who are mentally defective" makes it clear that the bill does not cover all classes of mental defect, and that the bill does not, as it were, purport to create and recognize as defective a condition which is not so recognized apart from the bill. This will deprive such criticisms as those of Sir Frederick Banbury of the slender ground and feeble humour which they may have possessed before.

Then in Clause 2 it is simply stated that a defective may be dealt with by being sent to an institution for defectives or placed under guardianship—

(*a*) At the instance of his parent or guardian, if he is an idiot or imbecile, or is under the age of 21; or

(*b*) If, in addition to being a defective he comes within certain categories which were defined in the amended bill of last year.

No order is required for the idiot or imbecile or for another type of defective when under 21 to be placed in an institution by a parent or guardian, but a single medical certificate as at present.

4. *Voluntary Boarders.*

This was a question to which we have previously called attention, for which no provision was made in the 1912 bill.

The present measure deals with it indirectly by establishing, in addition to State institutions, certified institutions, and certified houses, a new class of home termed "approved homes." These may be either charitable or semi-charitable institutions, or homes run for private profit. Apparently it will be open to such homes to receive defectives of all kinds defined by the Act without certificate, and without powers of detention, but it will not be open to them to receive or detain any person ordered to be sent to an institution by a judicial or other authority. Such persons may be sent to a certified house, and similarly, if powers of detention are required, a parent or guardian may place an idiot or imbecile, or a defective under 21, in a certified house under a medical certificate. It will be seen that this provides for a feeble-minded adult being cared for in an approved home on a voluntary boarder basis. It is doubtful how far this is applicable to idiots and imbeciles.

Under the bill it will be open to any one to undertake the care and control of one person who is defective without the consent of the Board, provided he gives notice to the local authority and the Board within forty-eight hours after the reception of such person. Presumably the Board will then require lunacy certificates in any case in which these seem to be applicable.

5. *Relation to Educational Authorities.*

The duty of ascertaining what children over the age of 5 and under the age of 16 are defective has been left to the local education authority and not to the local authority under this Act, which will have no duties as respects defective children, except as to those whose names and addresses have been notified to them by the Local Education Authority as:

1. Incapable of receiving benefit or further benefit in special schools or classes, or who cannot be instructed in a special school or class without detriment to the interests of the other children;

or

2. Who on or within three months of attaining the age of 16 are discharged from a special school or class and in whose case the Local Education Authority are of opinion that it would be to their benefit that they should be sent to an institution or placed under guardianship.

In the earlier bill power to deal with defective children under the Act was limited to those leaving special schools at 16.

Provision is made that the cases of defective children dealt with under the Act shall be specially reconsidered by the visitors on reaching the age of 21.

The general effect of this is to attempt an early and complete distinction between the cases suitable for treatment by the educational authorities from those more suitable to be dealt with under the Act. The former cases are reconsidered at 16, the latter at 21.

Conclusion.

Speaking generally, the arrangement of the Act is more logical and orderly, and there has been considerable simplification. Less has been consigned to regulations, and there is evidence throughout of the advice of persons accustomed to the working of machinery of this kind and of the many contingencies and special circumstances to be provided for. There is evidence all through of a conciliatory spirit and of an endeavour to meet the many suggestions and claims that must have come up for consideration from different persons or bodies likely to be affected. An illustration of this is the clause designed to meet the religious requirements of the defective. A general survey of the bill leads to the conclusion that the changes as have been made are calculated to meet many of the defects of the earlier bill and likely to disarm serious opposition.

LITERARY NOTES.

In Boswell's *Life of Johnson* we find an instance of a physician who was a strong believer in the influence of the mind on the body. He relates that Johnson and he dined with Dr. Butter, then practising at Derby, with whom Johnson, who was always fond of the society of doctors, had a good deal of medical conversation. Johnson said he had somewhere or other given an account of Dr. Nichols's discourse *De anima medica*. He said:

"Whatever a man's distemper was, Dr. Nichols would not attend him as a physician if his mind was not at ease, for he believed that no medicines would be of any influence. He once attended a man in trade upon whom he found none of the medicines he prescribed had any effect. He asked the man's wife privately whether his affairs were not in a bad way. She said 'No.' He continued his attendance for some time, still without success. At length the man's wife told him she had discovered that her husband's affairs were in a bad way."

It may be remembered that when Goldsmith was dying Dr. Turton said to him: "Your pulse is in greater disorder than it should be from the degree of fever which you have. Is your mind at ease?" Goldsmith answered, "No, it is not"—surely among the saddest of all recorded last words.

Dr. Benjamin Jowett, the late Master of Balliol, in his will expressed the desire that the proceeds from the sale of his works, the copyright in which he bequeathed to Balliol College, should be used to promote the study of Greek literature, especially by the publication of new translations and editions of Greek authors. The codicil contains the expression of his hope that the translation of Aristotle's works, begun by his own translation of the *Politics*, should be proceeded with as speedily as possible. The College resolved that the funds thus accruing to it should, in memory of his services to the College and to Greek letters, be applied to the subvention of a series of translations of the works of Aristotle. The series is published at the joint expense and risk of the College and the delegates of the University Press, under the superintendence of Mr. J. A. Smith, Fellow of Balliol College, and Mr. W. D. Ross, Fellow of Oriel College. The intention is that the translations shall aim at being such as a scholar might construct in preparation for a critical edition and commentary. The translation of *De Motu* and *De Incessu Animalium*,[1] by Mr. A. S. L. Farquharson, Fellow of University College, has recently been issued. He makes an acknowledgement to Dr. Gunther, Fellow of Magdalen College, for valuable criticisms from the naturalist's point of view, adding that it was difficult to resist the temptation to make the notes fuller in this connexion. He defends the genuineness of *De Motu Animalium*, and says that it certainly gives, except in one difficult passage, the exact doctrine of Aristotle, and states that his defence of the genuineness of Chapter X in particular, which deals with the formal and material cause of movement, the physiological changes necessary to it, and the physical characters of "spirit," was favourably received by the Oxford Philological Society. Mr. Farquharson's notes are numerous, but terse and to the point. A good many of them are concerned with textual criticisms, but as has been implied some of them deal with natural history, and in one of them, at least, he has a dig at the author; of the quotation from the *Iliad* in Chapter IV he says that it is "wrongly quoted *more* Aristotle in order and words."

A new edition of Messrs. Funk and Wagnall's great *Standard Encyclopaedic Dictionary* will shortly be issued. The task of revision has been carried out with such thoroughness by three hundred and sixty specialists that the dictionary is practically a new work. The British specialists include Lord Avebury (financial terms), Sir George C. M. Birdwood (Indian), Admiral Sir Cyprian Bridge (naval), Colonel Sir David Bruce (tropical diseases), Sir James Crichton-Browne (medical), Sir Harry Hamilton Johnston (African), Professor J. P. Mahaffy (classical), Sir Hiram Maxim (explosives), Earl Roberts (military), Archdeacon Sinclair (ecclesiastical), Baron Rudolf Carl Slatin Pasha (Sudanese), Sir Richard Solomon (South African), and Sir William Treloar (carpets and rugs). The prospectus states that the work comprises a vocabulary of 450,000 living terms, or 50,000 more than have ever before been defined in any one work of reference. A special feature is the number and excellence of the illustrations. All living animals are drawn to scale, and the 7,000 black and white general illustrations are supplemented by a series of colour plates. Among other useful features is the number of illustrative quotations, selected mostly from the more modern standard English and American authors, and accurately "located," the name of the author, the title of the work, the volume, chapter, page, name of publisher, and date of publication being given. It will be thus easy to trace any quotation to its source. Then there is a department of disputed pronunciation; in every such case the word has been referred to a committee of more than twenty-five leading educators and specialists, and their decision is said to form "a consensus of the best judgement of the entire English-speaking world." This department covers all general or common words regarding the pronunciation of which modern dictionaries differ. Another valuable feature is a list of synonyms in which the nicer distinctions of the meaning of words will be given: this should be useful to writers. The total expenditure on this new edition will amount, it is stated, to £300,000.

M. Lucas-Championnière recently presented to the Académie de Médecine, in the name of the authors, MM. Paul Gaffarel and de Duranty, a book entitled, *La Peste de 1720 à Marseille et en France*. It is a volume of considerable size, with figures and plans giving full details of that famous epidemic. The authors are not doctors, but all available documents are reviewed and minutely studied, not so much from the medical as from the historical, administrative, and picturesque points of view. These points of view, however, are very interesting, especially as in medical works they are often omitted, and without them the history of an epidemic is imperfect. The disturbance in the life of a city and a whole country by a great epidemic and the administrative needs created by the means of protection, of prophylaxis, and reparation, deserve every attention. It is a valuable work of erudition, which is likely to be serviceable. Even at the present day, when we hope that such scourges may not occur, it is useful to know their history, in order that we may take the means of protection that may become necessary.

In the quarterly *Bulletin of the Medical Library Association* (N.S., vol. ii., No. 3, January, 1913) Mr. Charles Perry Fisher, Librarian of the College of Physicians of Philadelphia, gives an account of the changes in medical periodical literature that have taken place since January 1st, 1909. He gives a list of the periodicals relating to the science of medicine that have made their first appearance since that date, of those that have ceased to appear, and of periodicals that have changed their titles during the same period. Great pains have been taken to ensure accuracy, and the list is believed to be fairly complete. The following is a summary according to languages:—*English* 104 new periodicals, 31 that have ceased to appear, and 32 that have changed their titles. *German*—44 new, 15 defunct, and 12 appearing with a changed title. *Italian*—22 new, 3 discontinued, and 4 changed title. *Spanish*—20 new. *Russian*—5 new, and 1 changed title. *Dutch*—5 new. *Swedish*—1 new; and *Czech*—1 new. The great numerical preponderance of periodicals in the English language is accounted for by the number issued in the United States. The following figures, made up principally from the list of current medical periodicals and allied serials issued by the New York Academy of Medicine, may be taken as approximately representing the existing number of medical periodicals: United States, 630; Great Britain and Colonies, 152, making a grand total of 782 periodicals in English; German, 461; French, 268; Italian, 75; Spanish, 29; Dutch, 13; other languages, 26; total, 1,645. Mr. Fisher says justly: "This is a mighty total for one branch of science. Even if we eliminate reports, proceedings, and transactions, which certainly have their proper place under periodical publications, we have a current list of what are technically called 'journals' of about 1,200 titles."

Messrs. W. B. Saunders Company will publish shortly a thoroughly revised edition of Dr. J. W. H. Eyre's *Elements of Bacteriological Technique*. The book has been rearranged and a new chapter dealing with the study of animals experimentally infected has been added.

[1] Oxford: At the Clarendon Press. 2s. net. It is stated that the series will be complete in five volumes, 12s. 6d. net.

British Medical Journal.

SATURDAY, APRIL 5TH, 1913.

TRADE UNIONISM AND MEDICINE.

In another part of this issue will be found an article dealing with the legal considerations which arise from the proposal to establish a medical union or unions with objects and regulations rendering registration under the Trade Union Acts possible. The article is a great deal longer than we could have wished, but it seemed necessary to set out the terms of the clauses in the Acts, and an attempt has been made towards its end to state impartially the conclusions which seem inevitably to flow from the premisses.

In the correspondence which has occupied so much space in the columns of the JOURNAL recently, the term "trade union" seems to have been used rather as a counter; its value has not been clearly defined. Yet, in approaching any new subject, the all-important first step is to define the terms used. For the want of this there has been, we venture to think, a disposition to attribute to trade unionism virtues and effects which are conferred upon it not by Acts of Parliament, but by the spirit and the methods which inspire it. Acts of Parliament have been passed to define the powers of trade unions. Each succeeding Act has swept away some previous limitation of common or statute law, but each has sought, perhaps with diminishing conviction, to safeguard the rights of the individual, whether a member of the union or of the general public.

It has been said, half seriously, that in the last resort the final argument of the trade unionist is brickbats. That there is a certain amount of truth in this jeer may be granted; but violence is no necessary part of trade unionism. It is, in fact, contrary to its fundamental principles, which are those of fellowship, and loyalty to each other, among men of the same calling. This may and should be recognized; but it is not a necessary conclusion that the only way for the profession of medicine to attain the same end is by way of registration under the Trade Union Acts. That may, as many now believe, be the right road, but we seem in some danger of mistaking a means for the end. The end is a united profession, strong in its unanimous determination to seek certain objects. A similar end has been the goal of trade unionism; but the successes of trade unionism have been attained through the solid union and hard-bitten determination of members of trade unions. Actuated by this solidarity and determination, they have devised means, and have induced Parliament to remove certain legal obstacles that stood in their way.

But first they have relied on their own grit and their own resources. They have put their hands in their pockets and paid heavy subscriptions and levies. Dr. Cox, in an address delivered as President of the North of England Branch in 1907, stated that inquiries he had then recently made showed that in the case of six trade unions as to which he had been able to obtain information, the amounts paid by the members for organization and protective purposes alone, quite apart from sick and benevolent benefits, varied from one-fiftieth to one-eightieth of the workman's total income, and we understand that subsequent information showed that in one instance the proportion reached a fortieth of the workman's total income. To take an instance, which is more recent, it appears that the members of the London Society of Compositors paid last year a subscription of 1s. 6d. a week and a levy of 1s., a total of 2s. 6d., or £6 10s. a year. The weekly subscription and levy was high because the members had determined to reimburse the funds of the society for the expenses incurred during a strike in the previous year. This object has been to a considerable extent attained, and the weekly subscription is now 1s. 3d., and the levy 6d., a total of 1s. 9d. a week, or £4 11s. a year. In the return he gets for this are included provident advantages, of which the most important are a superannuation allowance and weekly payments if unemployed, which together account for about ten-thirteenths of the total expenditure. The remaining expenditure is on trade union purposes of collective defence, and amounts probably to about 25s. out of the total of £4 11s. a year. This he is prepared to pay in quiet times, and willingly provides very much more—two or three times as much—in emergencies. Other workmen in employments in which wages are lower make a contribution as large in proportion to their earnings. No apologist for the profession can claim that doctors make altogether a good showing when compared with the above-mentioned and many other classes of workmen. This may seem a digression, but the point of it is that it is not the Trade Union Acts that count, but the spirit of the men who have caused them to be enacted, and who now make use of them. The question that arises for us is whether the same end may not better be attained without resorting to the same means, which are clearly in certain respects not well adapted to our purpose.

In this country it is not essential that a combination of persons to promote a common object should have legal sanction, but if it is to have any corporate existence in the eye of the law and enjoy a legal status it must obtain State recognition. In seeking this it appears to have three courses open to it—to obtain a charter from the Crown, to become registered under the Companies Acts, or to seek registration under the Trade Union Acts. The licensing corporations possess charters, some of them of respectable antiquity. The British Medical Association is registered under the provisions of the Companies Acts which permit recognition of an organization which does not trade for the profit of its individual members. It was brought into existence to supply the deficiencies of the chartered corporations, which, with real regret it must be admitted, have not risen to the height of their opportunities. Had they shown a higher sense of duty, greater wisdom, and more elasticity, the British Medical Association might never have been called into existence to take up the work they left aside. A few years ago the British Medical Association applied for a Charter from the Crown which would have greatly facilitated the work which the members of the profession, for the most part diplomates of the chartered corporations whose help had failed, had set it to do. The Association had to undergo the humiliation of the refusal of a State recognition often granted to bodies of far smaller membership and far less importance to the welfare of the State. It is useless now to seek to apportion the blame for this rebuff, but it was not all on one side.

The strength of trade unionism lies not in forms or laws, but in the union and solidarity it has bred. This solidarity it has brought about partly by encouraging the growth of a feeling of fellowship among men engaged in the same calling and partly by politicly making the growth of this feeling keep pace with the material interests of the individual members.

The proposal to form a medical union or unions registrable under the Trade Union Acts is one which needs to be threshed out, and, so far as the administration of the JOURNAL is concerned, the desire is to give full scope for the beating out of the grain from the chaff. While, therefore, inviting discussion, we venture to submit that the use of counters should be given up, and that we should deal with real values, distinguishing the essential from the accidental. Some of the discussion which has already taken place seems to have failed to make this distinction.

SYPHILIS AND CANCER OF THE TONGUE.

DESPITE the great amount of work that has been done in different parts of the world during recent years in the various problems of cancer, the immediate causative factor has so far eluded even partial solution; and the search for a cause would seem hitherto to be as fruitless as the mediaeval quest of the philosopher's stone. Only in a negative sense can we be said to have approached the difficulty. Many of the opinions and speculations of former days that clustered round and obscured the problem have been got rid of, but there are only contending theories still with which we may attempt to satisfy an insistent question. There will be those who will continue to advocate a germ or parasitic theory of cancer genesis; and, indeed, of the finding of parasites there is no end, but all have come, whatever may have been their temporary vogue, sooner or later to nothing. It is but natural, too, that the mind of man in constructing hypotheses on which to base a prospective investigation should choose the most easy generalization from sets of known phenomena. It is easy, for example, to comprehend a possible parasite, not perhaps demonstrable by known means of staining, cultivation, or isolation, which, becoming incorporated with the substance of a cell, causes division and propagates with it, and any one possessed of such a belief may easily spend his life in this quest, but it is no difficult task to argue, both *a priori* and from recent observations, against such an assumption. The problems, however, of that unceasing cell division which constitutes cancer are probably only soluble as parts of a greater biological problem. A recent writer has put the case as follows: "Those properties that pass from parent to offspring, shaping the growth of constituent parts, marvellously reproducing in minute pattern the structural characteristics of the ancestors as a species, or still more marvellously repeating the little details that give an individuality to a progenitor, have always been in the domain of mysterious fact, obtrusive to our eyes, but inscrutable to our minds. All the cellular components of the living body obey laws governing the limits of their reparative or reproductive activity. Why they should cease multiplying when they have fitted into or restored a predestined scheme is quite beyond our knowledge. Cancer is anarchistic to the economy. It is a multiplication of cells derived from parent tissue normal to the body; springing from it, it grows without heed to the order of things, lawless in its origin, lawless in its progress. Until we recognize that, ignorant of the laws that govern and limit normal growth one cannot hope by some chance observation to light upon the causes that operate at the inception of that cellular disloyalty, we cannot appreciate the profundity of the problem."[1]

Whatever be the immediate cause of malignant change, there are often predisposing or mediate factors that preside at its onset, and we may suppose that, were these mediate factors obviated, the cancerous process would not ensue. By piecing together the appearances found in precancerous and early cancerous lesions we can formulate a series of pictures of the events in their sequence. But it would be wrong to generalize from such observations, for the simple reason that in the great majority of cancers no history of definite preceding, nor histological evidence of accompanying, irritation can be obtained. The factor of irritation is, however, sometimes very definite. To the old classic example of the irritating clay pipe as a predisposing cause in the production of cancer of the lip may be added other striking examples, such as the kangri pot of Kashmir in association with the occurrence of squamous carcinoma of the skin of the abdomen, betel-nut chewing with the production of epithelioma of the cheek and tongue, lupus with skin cancer, bilharziosis with cancer of the bladder, nematode with cancer in the rat (Fibiger),[2] and the accidental production of epithelioma of the hands amongst *x*-ray workers. In other cases, again, an association of different definite irritants has a conspicuous part in bringing about malignant cellular proliferation.

In the lecture published in this issue Mr. Charles Ryall traces the various factors that, operating together, bring about cancer of the tongue. These he considers to be primarily syphilis, and secondarily smoking and other milder forms of irritation on a vulnerable organ. The points he puts forward in support of his thesis are the results of clinical observations extending over many years at the Lock and at the Cancer Hospitals. By keeping under observation cases of syphilis that showed lingual lesions he has noticed the onset of cancerous ulcers in the tongue, and by a careful interrogation of patients who presented epithelioma of the tongue he has found a history of syphilis in over 80 per cent. of cases. In further support of the association may be evidenced the frequency with which cases of lingual cancer give a positive Wassermann reaction of their serum. The mild irritation of tobacco smoking under normal circumstances may not affect the tongue, but when the patient is the subject of syphilis it would seem to determine the localization of tertiary lesions in that organ. A tertiary syphilitic lesion of the tongue may be, and probably often is, a precursor of lingual cancer. The vulnerable organ now responds to irritations which otherwise would be innocuous, and chief amongst these sources of irritation is tobacco. In syphilitic glossitis there are changes in the epithelium, proliferations here and denudations there, whilst beneath the papillae there are going on cellular changes, round-cell infiltration, lymph stasis, and fibrotic contraction, resulting in the production of superficial puckering and fissures. In these fissures débris collects and small ulcers are apt to form; continually irritated, the epithelium of the edges grows into these ulcerated fissures, into an abnormal non-resistant tissue, and malignant proliferation of epithelium may result. It may be that the mild

[1] Leitch: Fourth Report of Caird Cancer Research Laboratory.
[2] BRITISH MEDICAL JOURNAL, 1913, vol. i, p. 400.

irritation produces an exaggerated repair by epithelial cells, and that this reparative tissue itself, still subjected to irritation, goes on reproducing; but why, on passing beyond the confines of its focus of origin to where the irritation no longer obtains, it should not be arrested, is a crucial fact for which no one has furnished a plausible explanation.

In the later stages of such an ulcer the diagnostic points are clear, but while it is still minute and productive of but little pain only microscopic examination of a portion removed can settle its nature, as the late Sir Henry Butlin so frankly and conclusively pointed out in this JOURNAL a few years ago. Mr. Ryall emphasizes the undesirability of attempting to solve the condition by the administration of antisyphilitic remedies, or by the result of the Wassermann reaction, seeing that such a large percentage of lingual cancers supervene on, or are associated with, syphilitic tongue lesions. An early diagnosis is essential, and under these circumstances operative measures bring hope of total eradication of the disease, and much can be done at any stage to mitigate, if not to cure, a most distressing condition: but, in view of the part that syphilis plays in the production of lingual cancer, it will be agreed that here, at any rate, thorough treatment of a predisposing condition that is so clear may succeed in preventing such a grave sequela.

MILK AND DAIRIES BILL.

ONCE more the President of the Local Government Board has brought in a Milk Bill. Every year that he has occupied the position he now so worthily holds the President has brought in, or intended to bring in, a Milk Bill. Some years circumstances were too strong for him, and the Milk Bill was crushed out by bills which were considered more important. Other years the Milk Bill saw the light of day, but after a brief existence was cast into that limbo for bills where they never become Acts. One died a few weeks ago when the last Parliament was prorogued. The new bill, phoenix-like, arises from its ashes. In the main it is very like its predecessor, and we sincerely hope that it may meet a better fate. The main objects of the bill are to provide for: The more effective registration of dairies and dairymen; the inspection of dairies, the examination of cows, and the examination of milk; the prohibition of the supply of milk from a dairy where such a supply has caused or would be likely to cause infectious diseases, including tuberculosis, and the prevention of the sale of tuberculous milk; the regulation of the importation of milk so as to prevent danger to public health arising therefrom; the issue of regulations for securing the supply of pure and wholesome milk, and the establishment by local authorities in populous places of milk dépôts for the sale of milk specially prepared for infants. The provisions as to the inspection of dairies and the prohibition of the supply of milk are based on the provisions of the Public Health (Scotland) Act, 1897, and the clause as to the prohibition of the sale of tuberculous milk is taken from the model milk clauses which have been incorporated in many local Acts, but the scope of the enactment is somewhat extended. Under the order of the Board of Agriculture, as to payment of compensation in cases of slaughter, which comes into force on May 1st the Treasury has agreed, subject to the assent of Parliament, to sanction the payment of one-half the net amount to be paid for compensation for the next five years.

In the bill there are two entirely new clauses, No. 16, which deals with the cost of structural alterations, and No. 24, dealing with procedure on appeals to courts of summary jurisdiction. Clause 14 deals with the appointment of veterinary inspectors, and says that the council of any county or sanitary authority shall, when required by the order of the Local Government Board, appoint not only veterinary inspectors, but also a bacteriologist. This is a step in the right direction. In Clause 27, which deals with the application to London, there is a very important omission. In the former bill the London County Council occupied a position of paramount importance. The paragraph in the clause giving them that power in the last bill has been deleted and the powers under the bill are given to the sanitary authorities, and only in case of default to the County Council. If this had been proposed during the period when the Progressives were in power in London, it would have met with determined opposition from that party. But the policy of the Municipal Reformers has been in favour of delegating powers to the borough councils, who are for London the sanitary authorities, and they may accept the clause as it stands and look upon the President of the Local Government Board as a good Moderate. On the whole, we are inclined to think that if in carrying out a Milk Bill the London County Council was given the right to shape the policy the work would be done more energetically, and the effect would be more harmonious than it would be if carried out by several authorities within the area of the county. In dealing with the question of a pure supply of milk, any bill on right lines should give power to see to the health and cleanliness of the cow, its environment, and the people who care for it. The bill, we think, gives this power. Under Clause 15 the Local Government Board asks for large powers to make such general or special orders as it thinks fit for the purpose of carrying out the Act, and among these powers are the care of the cow, the cowshed, the workers, and the vessels used for or containing the milk. Though it is not so clear that the bill under 15 (1) (*g*) gives the Local Government Board power to deal with the transit of the milk, yet such power may be obtained under this subsection, which reads: that an order may be made as to "the manner of conveyance of milk intended for sale for human consumption, and the identification of churns and vessels used for such conveyance." When the milk has arrived at the milk dealer in the town, under the interpretation of the Act the expression "dairy" includes not only any farm, farmhouse, or cowshed, but any milk store, milk shop, or other place from which milk is supplied, and with these places the bill gives the sanitary authority power to deal. The distribution of the milk from the shop by the milkman on his rounds gives great opportunity for tampering with the milk and the introduction of impurities. Power to deal with these evils does not seem to be specifically given in the bill, but that is a matter in which it can and should be strengthened during its passage through the House. The bill as it stands, though far from perfect, is a distinct step in the right direction, and if the friends of public health in the House of Commons are determined that the people of this country shall have pure milk to drink, and unite in amending the bill to achieve this purpose, we are hopeful that the bill, when it becomes an Act will accomplish the end they desire.

The Milk and Dairies Bill does not apply to Scotland

or Ireland, but as far as Scotland is concerned the gap has been filled by the Milk and Dairies (Scotland) Bill introduced by the Secretary for Scotland on April 1st. We are glad to note that by this Scottish bill it is intended to ensure the purity of milk supplies and to regulate dairies in Scotland, as the purity of the supply, which is of paramount importance, is thus given due prominence. Clause 3 of this bill deals with the appointment of veterinary inspectors, but differs from the English bill in that it makes no definite reference to the appointment of a bacteriologist—a defect which should be remedied. The Scottish bill is more definite in the question of the notification of employees suffering from illness, for it declares in Clause 12 that if any person resident at or employed in connexion with any dairy, or who resides in the same house as any person so employed, shows symptoms of any infectious disease the dairyman on becoming aware thereof shall forthwith report to the Medical Officer of Health for the district the existence of such illness; it would provide also that it shall not be lawful for any such person to milk cows or handle milk vessels or in any way to take part or assist in the conduct of the trade of a dairy. The veterinary inspector would have power, with the consent in writing of the owner, to apply to any cows in any dairy within the district the tuberculin or other reasonable test for the purpose of discovering whether such cow is suffering from tuberculosis. To the local authority power is given to enforce the provisions of the bill, but it may if it think fit delegate that power to a committee or committees. These are some of the differences between the English and the Scottish bills in so far as they more precisely touch the question of public health. It would be for the benefit of the community and the improvement of both these bills if their authors, old colleagues in the London County Council, would put their heads together and arrange that the deficiencies in one bill be supplied by the good points in the other, so that both countries might ultimately have the advantage of the best possible Milk and Dairies Act.

ACTIVATORS IN FOODS.

DURING the last five or six years many references have been made to observations and researches tending to show that certain common articles of diet contain minute quantities of substances which are of so much importance in nutrition that their absence may prevent the normal growth of young animals, or lead to actual disease in them or in adults. The steps by which the subject has been opened up have been recorded from time to time in the JOURNAL, but the matter possesses so much scientific interest, and has already attained so much practical importance, and is likely to increase so greatly in both respects, that the summary of present knowledge which has been prepared for us by Mr. E. A. Cooper, Beit Memorial Fellow at the Lister Institute, will be read with profit, and will be useful for reference in the future. The facts ascertained as to the etiology of beri-beri first put physiologists on the track.[1] The epidemiological observations of Eykman and Braddon showed that beri-beri was associated with a diet of polished rice, that is to say, rice from which the outer covering was completely removed. Braddon added the significant observation that the disease did not ensue if the rice was parboiled before polishing. The characteristic lesion of beri-beri is polyneuritis, and Eykman showed that birds fed on polished rice developed extensive polyneuritis, and further that this condition could be cured by giving the birds aqueous extract of rice-polishings. Later it was shown that exclusive diets of various pure carbohydrates induced polyneuritis in birds, and that foodstuffs other than unpolished rice could prevent it, but that their preventive properties were destroyed by heating to 120° C. An exclusive diet of polished rice causes a loss of body weight as well as polyneuritis, and it has been found that the addition to the polished rice diet of an amount of a foodstuff sufficient to prevent neuritis may fail to check the loss of weight. The general conclusion is that there is removed from rice during the process of polishing a nitrogenous substance which is essential to normal metabolism, especially of the nervous system. It is probably a pyrimidine base, but it exists in such minute quantities and is so easily destroyed during chemical manipulations that its exact nature has not yet been ascertained. The outbreaks of beri-beri which have occurred from time to time among the crews of sailing ships on long voyages have been an epidemiological puzzle. Their investigation in the light of the new knowledge as to tropical beri-beri seems to have proved that they are due to replacing rye bread and peas in the crews' dietary by white bread, and has suggested wider generalizations; *pari passu* the problem of scurvy has been attacked along the same lines. Here Mr. Cooper has to deal with very recent work, and what he has to say with regard to scurvy and infantile scurvy and their dependence on a deficiency of certain specific accessory substances in the diet will be read with particular interest in this country to-day. Of even greater immediate practical importance here and now are, perhaps, recent investigations showing that the abstraction or destruction of certain substances present in small amounts in normal or unmodified foods leads to a failure of growth. The composition of these substances has not yet been ascertained, but whatever their nature they appear to possess the power of so stimulating metabolism as to cause growth at the normal rate. It will be seen, therefore, that these observations on beri-beri, on scurvy, and on growth, have opened up a new field of inquiry in dietetics. They serve to show that some modern methods of preserving and preparing food have been running on wrong lines, that we have been disturbing the balance of nature, and that we must hark back to the original scent.

[1] There was a short discussion on the subject in the Section of Physiology at the annual meeting of the British Medical Association at Liverpool last year, opened by a paper by Funk (BRITISH MEDICAL JOURNAL, September 28th, 1912, p. 787).

VENTRIFIXATION OF THE UTERUS.

THE recent discussion on ventrifixation in the Obstetrical and Gynaecological Section of the Royal Society of Medicine clearly shows how much diversity of opinion still exists among representative gynaecologists upon fundamental points, such as the general usefulness of the operation, and the risks, immediate and remote, which attend it. The introducers of the discussion were all convinced advocates of the operation, two of them—Professor Henry Briggs and Dr. Arthur Giles—having between them performed it in over 1,100 cases, with results which gave them unqualified satisfaction. At the other extreme of opinion was Professor Herbert Spencer, who stated that he had only done the operation 27 times in 1,000 abdominal sections, and declared his conviction that, "as ordinarily performed," the operation was unscientific and dangerous. Other critics, less strenuous in their opposition, regarded with disapproval the frequency with which the operation was performed at the present time. Underlying these striking differences of opinion there was clearly an equal divergence upon the fundamental question as to the clinical importance of the so-called malposition of the uterus which ventrifixation is designed to correct. Little divergence of opinion emerged upon the importance of correcting prolapse and procidentia, and the value of

fixation of the uterus when combined with plastic repair of the pelvic floor seemed to be very generally accepted, though Dr. Archibald Donald declared that all cases of prolapse could be permanently cured by colpoperineorrhaphy alone when properly performed. With regard to backward displacements, however, great diversity of opinion clearly existed among gynaecologists of large experience, and to this difference is mainly attributable the striking want of unanimity displayed in regard to ventrifixation. By more than one speaker the introducers of the discussion were asked, "What are the symptoms of backward displacement?" Until gynaecologists have settled this fundamental question no discussion of the methods of treating this condition can reach conclusions likely to be accepted as authoritative by the profession. Two or three points of practical importance finally emerged from the discussion. When ventrifixation is properly performed—that is, in such a manner as to leave the fundus free—it may be accepted that there is practically no risk of complications should pregnancy subsequently occur. The cases of rupture of the (ventrifixed) parturient uterus which have been from time to time recorded have now been shown to be the result of faulty technique. Further, it may be accepted that in a very large proportion of cases—95 per cent. in Dr. Giles's series—the malposition can be permanently corrected by this operation. On the other hand, it must be borne in mind that the operation is not free from either operative or post-operative risks; fatalities have been recorded in the practice of gynaecologists of repute from peritonitis and from pulmonary embolism, and more remotely from intestinal obstruction due to strangulation of a coil of intestine by bands of peritonitic adhesion formed between the parietes and the uterine wall, or between the shortened round ligaments and the uterus. An operation so simple and easy of performance as ventrifixation is undoubtedly attractive to operators; but it is clear that it should not be recommended or undertaken without due consideration of the question which so often taxes the surgeon's judgement—namely, Is the malady of sufficient gravity to justify the risk to life involved in the proposed operation?

THE WELFARE OF THE DEAF.

In the penultimate of the series of lectures which he has been delivering under the auspices of the National Bureau for Promoting the General Welfare of the Deaf, Dr. Kerr Love showed that a great proportion of all cases of deafness observed during the first months of life are due to congenital syphilis, and put in a strong plea for the compulsory notification and treatment of all cases of syphilis in children.[1] In his concluding lecture he dealt mainly with congenital deafness of another type, that which is both congenital and hereditary. According to his investigations this form of deafness could not be held responsible for more than 15 per cent. at the outside of all instances of deaf-mutism. Previous discussions on the point had been vitiated, he suggested, by the frequent acceptance of deafness in several children of one family, or of cases of partial deafness or hardness of hearing in an earlier generation as proofs of inheritance. Deafness was a symptom which might not only be due to a very large number of totally different causes, but was present to a greater or less extent in the vast majority of all individuals at some time or other of their existence. He agreed that members of some families showed a special tendency to develop oto-sclerosis, and that this might possibly be a form of hereditary deafness; but little was known as to its true etiology, and meantime it was safer to admit to the rank of hereditary deafness only cases in which the patient was not the subject of congenital syphilis, but was born deaf, and was a member of a family in previous generations of which like cases were known to have occurred. Though precise Mendelian ratios could hardly be expected among the deaf, a large collection of family trees the lecturer exhibited supported the conclusion that true hereditary deafness conformed to the Mendelian theory. The condition was transmitted either wholly or not at all. Its subjects were hardly ever merely just hard of hearing, or, conversely, totally deaf, their degree of perception of sound was a fairly constant quantity. The feature was recessive, and was most commonly transmitted through hearing people. Assuming that hereditary deafness was Mendelian, Dr. Kerr Love proceeded to show that consanguinity in the parents produced the maximum chance of hereditary deafness occurring in the offspring. Taking his estimate of the total number of hereditary deaf people in Great Britain—namely, 3,600—and those of their forbears whom he assumed to be deafness-carriers, though possessed of hearing themselves, he pointed out that there must be over 10,000 people in the country whose marriage was likely to be followed by the propagation of deaf-mute but otherwise healthy children, and that repressive measures, if they were to be successful, must apply to the whole of these 10,000, and not only to those who were themselves the subject of deafness. He showed himself, however, by no means in favour of direct interference with the marriage wishes of the deaf. The right step to take was to put an end to conditions originally established by well-meaning persons in the interests of the deaf themselves, but which in the long run tended to increase the number of deaf persons. Communication between deaf persons being easy, and a bond of union between them already existing, it was natural that the deaf should tend to associate with the deaf, and hence that they should intermarry. This tendency was greatly promoted by the present custom of segregating deaf-mutes during the educational period of their life, and the remedy lay in the spread of the day-school system, so that the deaf out of school hours should not associate with one another. Furthermore, speech and lip reading should be made the ordinary means of communication between teacher and scholar and between the deaf and their hearing friends. Finally, all the deaf during the last year of their school life should be warned against the danger of intermarriage.

[1] British Medical Journal, vol. ii, 1912, p. 1682.

INTERMEDIATE HOMES FOR INCURABLES.

"The Christianity of the future," said George Tyrrell near the end of his life, as we have been reminded by the article in the Literary Supplement of the *Times* which made some stir a fortnight ago, showing once more, if there were need, that man doth not live by bread alone—"the Christianity of the future will be mysticism and charity." The saying runs counter to some current doctrines reflected in current legislation. But charity rests on an impulse of human nature which helps most to distinguish man from the brute. The feeling of pity for misfortune is deep-rooted in at least the higher races of man, and will not easily be bred out. Charity suffereth long and is kind, and nowhere is there greater scope for the exercise of this long-suffering virtue than in caring for those incapacitated from taking their due share in the work of the world by incurable disease or deformity, and of such none can make a stronger appeal than the young. Our attention has recently been called to the fact that there was a chasm in this field of charity across which certain charitable persons have built a slender bridge. The Home for Incurable Children at "Northcourt," Hampstead, is well known to many, and the larger homes for incurables, such as those at Streatham and Putney, still better, but at Northcourt girls are not kept after the age of 16, nor are women admitted into the Streatham or Putney homes until they are 30 or 35. It is, therefore, often a problem where to send them during the intervening years. They are frequently homeless, or, if their

parents are living, they are not able to afford to give them the care and attention necessary to maintain the benefit derived from previous treatment. In order to meet this want, the first "Intermediate Home for Girls" was opened at Upper Hale, near Farnham, about three years ago. It is known as The Mary Yolland Home, and is primarily intended for cases from Northcourt, who pay 7s. a week; when there are vacancies, however, others are admitted for a small extra payment (usually 8s. a week). These payments do not cover the cost of upkeep, so that subscriptions and donations are gratefully received by the Honorary Treasurer at 14, St. Stephen's Square, London, W. Applications for admission must be made on printed forms, to be obtained from the Honorary Secretary, 5, Kensington Square, W., and must be approved by the medical officer and committee. No person who is epileptic, mentally afflicted, or phthisical is eligible for admission. There are ten beds, and there is a vacancy now, owing probably to the fact that two girls have become well enough to earn their own living, and are leaving the home. The President is the Bishop of Winchester, and there is a strong representative local committee, in addition to a committee of management in London. Dr. Coad of Farnham is the Honorary Medical Officer and Dr. Rice-Oxley the Honorary Consulting Physician. The home is excellently situated on high ground, and has a pleasant, well-stocked garden. Dr. Coad is able to report that under the matron's judicious care the inmates have been encouraged to help themselves more and more, so that they are doing things for themselves which six months ago both they and others thought it impossible for them to do. The girls are taught and encouraged to do needle-work, and won gold stars at the Home Arts Exhibition at the Albert Hall in May, 1911. They are glad of orders, and receive 15 per cent. on the price of all articles sold. Any one caring to visit the home will be welcomed by the matron.

IN MEMORIAM—EDWARD ADRIAN WILSON.

On March 27th a memorial service for Dr. Adrian Wilson was held in the chapel of Cheltenham College, the day being specially selected as the probable anniversary of the death of Wilson and his fellow explorers in the Antarctic expedition. Cheltenham College has always shown itself very jealous in caring for the memory of its old boys who have distinguished themselves, and in honouring Dr. Wilson it links up the past with the present, and so exerts a profound influence in making them feel that their future will be appraised, when the time comes, by those who, whether now their masters, schoolfellows, or mere onlookers, will then be their critics. Ceremonies of this kind are no rare occurrences at Cheltenham College, for it has become a great training school for the army, and it is owing to this partial specialization that the very beautiful chapel contains so many mementoes of men who have died in the military service of their country. At the east end is a stone reredos of rare beauty, raised to the memory of fifty-four Old Cheltonians who were killed in the last Boer war, and scattered over the walls and placed beneath the canopies of the stalls are brass tablets to the memory of those who distinguished themselves in their various careers. Among these tablets is one to Dr. Wilson's uncle, Sir Charles W. Wilson, K.C.B., F.R.S., who surveyed Jerusalem, Palestine, and Sinai, and went up the Nile to open communication with Gordon at Khartoum. Among the statues in the reredos are three of especial note at this moment—one to Livingstone, whose centenary has just been celebrated; one to Sir John Franklin, who discovered the North-West Passage; and one to Dr. Edward Jenner, who lived in Cheltenham, and made some of his vaccine investigations there. Truly is Wilson honoured beneath the shadow of the effigies of departed heroes and benefactors. Perhaps the most striking monument in this chapel is the memorial to the late Frederic W. H. Myers; it consists of a bronze medallion portrait and a remarkable emblematic wood carving of the Tree of Life interspersed with birds and animals, the whole leading up to a fresco by Eadie Reid portraying the commencement of the Resurrection. The legend on the tablet—"Striving to win his own soul and his comrades' homeward way"—seems especially applicable to Wilson and his companions, whose gallant attempt to win their "homeward way" failed by only eleven miles! The exact nature of the memorial to Wilson has not yet been determined. That it will be worthy of him and fitting may surely be anticipated, because the whole atmosphere of the school is one of beauty, of duty, and of reverence, and the spirit of the man who was the subject of the day's reunion in this Pantheon of distinguished Old Cheltonians will arouse corresponding high ideals in the minds of those who came under the spell of his courage and devotion and who have the responsibility of perpetuating his admirable qualities. At the service there was a crowded attendance—the 600 boys of the school; the father, mother, and other relatives of the deceased, and many respectful sympathizers and admirers. The choral service was intoned by the Rev. P. Hattersley-Smith, well known to all Old Cheltonians, and a very eloquent and human address was given by the Principal, Canon R. Waterfield. In recording the names of Wilson and his deceased comrades the whole congregation stood up, and a great impression was produced when the Principal declared that it was Dr. Wilson's intention, had he returned safely, to have taken orders. Canon Waterfield also read a letter from the late Captain Scott, in which he said that "Wilson was the finest character I ever met. Practical, loyal and unselfish, humorous and tactful—the most popular member of the party." When the memorial has been placed in the chapel, Cheltenham School, the Principal said, will have done its best for one of its most distinguished sons. It trained him for five years in his youth, and it will preserve his noble example and courage by a permanent mark which shall keep him ever present to the young minds whose best appreciation will be shown by their efforts to emulate him.

DOCTORS IN DISPRAISE OF MEDICINE.

It is remarkable that some of the bitterest things said in dispraise of medicine have come from the mouths of doctors. In 1748 François Quesnay, whose reputation as a physician is overshadowed by his fame as a pioneer in social economics, published an essay on the great quarrel between the physicians and surgeons in France. He begins by saying that the first point to be decided is whether these professions are useful or injurious to society and whether they should be abolished or allowed to continue to exist. It may be gathered that he was sceptical as to the utility of drugs, for he points out that among the poor treatment is very simple, consisting in bleeding and the administration of *tisanes*, a few purgatives, and very little else. This, he says, is "perhaps the best" that can be done. It is related that when Lieutaud, first physician to Louis XVI, was near his end in 1780, his confessor, wishing to assure himself that he was in a right frame of mind, plied him with questions as to his belief in all the mysteries of religion. At last the dying man, wearied by these interrogatories, declared that he believed in everything except medicine. James Gregory, President of the Royal College of Physicians, Professor of the Practice of Medicine in the University of Edinburgh, and First Physician to His Majesty in Scotland, in his *Memorial to the Managers of the Royal Infirmary* (second edition, 1803, p. 137), says: "Of the many bitter sarcasms which I have heard of on my own profession and professional brethren, one of the severest, I think, was that of

Dr. Garth on his deathbed; when one of his friends who thought he had repeatedly owed his life to the care and skill of the doctor came to see him, sorry to lose his friend and physician, yet anxious to ask him what physician he would advise him to send for if he should again be taken ill, 'Send for the nearest,' said Dr. Garth." These utterances need not be taken too seriously. They are indications of the state of mind expressed by Du Maurier many years ago in a drawing showing an anxious wife trying to induce her sick husband to send for one of his colleagues and being met with a refusal because "we all go in for thinking each other quacks now." Doctors as a class are perhaps, in Bowen's famous phrase, too conscious of each other's unworthiness, and are apt in their haste to extend this feeling to the art which they practise.

INDIAN REVENUE AND THE OPIUM TRADE.

The financial statement recently laid before the Viceroy's Legislative Council by Sir Guy Fleetwood Wilson shows the Indian revenue to be in a highly satisfactory position. A surplus of some seven millions has been realized on the year 1912–13, derived for the most part from railways and opium. In regard to the latter, it appears that, owing to high prices obtained from sales by the Government of certified opium in the earlier months of the financial year, the actual revenue derived from this source alone is likely to be £5,063,000, as against £3,600,000 which was budgeted for. Sir Guy Fleetwood Wilson, in his annual review of the Indian finances, dwelt upon the novel and exceptional aspect of the opium question with which the Indian Government is now confronted in respect of the trade with China as governed by the agreement of May 8th, 1911. The period of revolution, which was marked by a recrudescence of opium consumption and cultivation, has been followed by repressive action on the part of the Republican Government, which outbids the severity of the former Imperial régime. The result is that in Shanghai and Hong Kong, the great markets of the Indo-Chinese traffic, the trade is at a standstill. The Indian Government claims that its own policy has been throughout correct and simple, and dictated by a sincere desire to help China towards a great moral reform. Sales of Indian opium are suspended; the amount to be sold for non-Chinese consumption in 1913 has been reduced so as to minimize smuggling into China, and the Government has purchased from the native States an amount of Malwa opium which would otherwise have been exported by them to China during the current year. It would appear to follow almost of necessity that a reduction will soon have to be made in the poppy cultivation at present carried on as a monopoly by the Indian Government. Any attempt to enforce the sale of the drug upon China would be resisted here as well as there, and the time is surely fast approaching when the much criticized and oft condemned Indo-Chinese opium trade will be no more.

SANITARY ADMINISTRATION IN ILFORD.

The population of Ilford, Essex, in 1891 was about 10,000, and in 1911 it was 78,000. This large increase has of necessity involved additional responsibilities in connexion with the sanitary administration of the district, and the urban district council was well advised in 1909 to appoint Dr. C. F. Stovin as a whole-time medical officer of health, he having been a part-time officer during the previous eleven years. Dr. Stovin prefaces his annual report for 1912 with an account of what he conceives should be the relation of a medical officer of health to the district council and to the other officers of the council. The views he expresses would be readily endorsed by other medical officers of health, and are quite in accordance with the recognized policy of the Local Government Board, which is that the medical officer of health must be the head of the Public Health Department. In the course of inspections of houses made by members of his staff, Dr. Stovin appears to have been startled at the large number of drains to comparatively new houses which were found to be defective. Dr. Stovin states in his report that among 277 houses inspected in three years because a drainage nuisance was believed to exist there was not one where the drains were not defective. This serious condition is said to be due to the fact that the by-law of the district council requiring concrete to be laid under every drain laid to a new house has not been sufficiently enforced. It might be supposed with these facts before them that the members of the urban district council would give all the support possible to the medical officer of health in his endeavours to improve the sanitary condition of the town. Instead of this, however, they are alleged to have placed obstacles in his way and hampered him in carrying out his duties. Dr. Stovin suggests that the only way out of the deadlock which has arisen is to ask for an inquiry into the circumstances from some expert authority; the Public Health Committee of the British Medical Association has expressed the opinion that the proper body to make such an inquiry would be the Local Government Board. What objection there can be to carrying out this suggestion it is difficult to understand, and in the interests of good government the district council will do wisely to give effect to it promptly and wholeheartedly.

SECRET REMEDIES AT THE ANTIPODES.

We referred recently to the fact that the Government of the Commonwealth of Australia had obtained the permission of the British Medical Association to reprint as a parliamentary paper the two volumes, *Secret Remedies*[1] and *More Secret Remedies*,[2] issued by it in 1909 and 1912 respectively. The two volumes are printed together, and form a folio document of 245 pages. The single index given with the second volume, *More Secret Remedies*, is reproduced, and serves as an index to the whole. So far as we have observed the two volumes are reprinted in the Commonwealth Blue Book without alteration or curtailment. No introductory letter or report appears in the print, and apparently the Commonwealth Government is of opinion that the matter speaks for itself, and requires no introduction or recommendation to ensure adequate attention from the public and from the members of the Commonwealth Parliament. It will be seen from a report published at page 724 that the Select Committee on Patent and Proprietary Medicines has resumed its sittings in London, and that further evidence is being tendered on behalf of the proprietors of proprietary preparations. The two volumes, *Secret Remedies* and *More Secret Remedies*, are on sale in this country as published by the British Medical Association, and can be obtained through any bookseller. There can be no doubt that their effect has been to educate public opinion and incidentally to call the attention of proprietors of newspapers to the use which is made of their advertisement columns to commend to the public preparations often sold at most extravagant prices, and for which extravagant claims are almost invariably made.

THE APPOINTMENT OF TUBERCULOSIS OFFICERS.

We are afraid from information we have received that some of the county councils have not gone about the appointment of tuberculosis officers in a manner most calculated to make this service the most efficient available. It is, of course, quite right and proper for county councils to have the benefit of the advice of the medical officer of the county as a professional man in sorting out and settling points of distinction between various candidates in respect of their special suitability for such a post,

[1] *Secret Remedies: What They Cost and What They Contain.* London: British Medical Association. 1909. (Price 1s., post free 1s. 3d.)
[2] *More Secret Remedies: What They Cost and What They Contain.* London: British Medical Association. 1912. (Price 1s., post free 1s. 3d.)

but it cannot be necessary that candidates for these appointments should, in addition to their special knowledge of tuberculosis, have had special training in public health, a qualification which we believe has been made a requirement for several of these appointments. A competent knowledge of bacteriology is all that ought to be expected in addition to the candidate's special qualifications for the work. There seems to be a disposition in some quarters to make the tuberculosis officer a member of the staff of the Public Health Service, in subordinate charge of a subdepartment. There must be co-operation, but subordination is unnecessary and undesirable. In matters of administration, in the wider meaning of the term, the medical officer should be in command, but in his clinical work the tuberculosis officer should be unhampered. The importance of the clinical work makes it always desirable that he should have some knowledge of general practice, and this experience is far more valuable than the possession of the D.P.H. Medical officers of health would be well advised to give attention to this aspect of the subject, and to take care that they are not biassed in favour of candidates who may have shown a disposition to specialize in public health administration.

AMENDMENT OF THE INSURANCE ACT AND REGULATIONS.

THE State Sickness Insurance Committee at its meeting on Thursday, March 27th, spent the greater part of its session in considering a report on the amendments desired in the Insurance Act and the Regulations made under it. The result of its deliberations will be found in the report published in the SUPPLEMENT, page 304. The attention of readers is particularly directed to these important recommendations, which will be reported to the Council at its meeting on April 23rd, and we would venture to suggest that any observations upon them which members may feel disposed to make should be addressed to the Medical Secretary for the consideration of the Committee, which will meet again on Thursday April 10th.

MR. C. J. BOND, F.R.C.S., senior surgeon to the Leicester Royal Infirmary, has resigned that position. The board has accepted his resignation with regret, and will propose to the governors to elect him honorary consulting surgeon and vice-president. Mr. Bond has been elected deputy chairman of the board in succession to Sir Arthur G. Hazlerigg; in this way he will retain an active interest in the work of a hospital to which, as the board stated in a special minute, he has by his ability and high character rendered great services.

Medical Notes in Parliament.

Mental Deficiency Bill.

THE print of Mr. McKenna's revised Mental Deficiency Bill was issued on Tuesday last. It embodies most of the points agreed upon as a result of the discussions in Committee on the bill of last year, and accordingly differs in some important respects from the original form of that proposal.

The power and manner of dealing with defectives becomes Part I of the present bill instead of Part II in the former one. Part II relates to the central and local authorities for dealing with the mentally defective; Part III is concerned with the certification and provision of institutions, and Part IV with general matters, such as offences, penalties, legal proceedings, etc.

PART I.

Clause 1 is devoted to the definitions of mental defect within the meaning of the Act, which are as follows:

(*a*) *Idiots;* that is to say, persons so deeply defective in mind from birth or from an early age as to be unable to guard themselves against common physical dangers.

(*b*) *Imbeciles;* that is to say, persons in whose case there exists from birth or from an early age mental defectiveness not amounting to idiocy, yet so pronounced that they are incapable of managing themselves or their affairs, or, in the case of children, of being taught to do so.

(*c*) *Feeble-minded persons;* that is to say, persons in whose case there exists from birth or from an early age mental defectiveness not amounting to imbecility, yet so pronounced that they require care, supervision, and control for their own protection or for the protection of others, or, in the case of children, are incapable of receiving proper benefit from the instruction in ordinary schools.

(*d*) *Moral imbeciles;* that is to say, persons who from an early age display some permanent mental defect coupled with strong vicious or criminal propensities on which punishment has little or no deterrent effect.

The definition of imbeciles has been altered from the form proposed in the first bill in which they were described as those who are capable of guarding themselves against any physical dangers but who are incapable of earning their own living by reason of mental defect existing from birth or from an early age. The definition of the feeble-minded differs materially from that which was proposed in the first bill and which gave rise to considerable criticism. It defined them as those who, whilst capable of earning their own living under favourable circumstances, were incapable through mental defect existing from birth or from an early age either of (1) competing on equal terms with their normal fellows, or (2) of managing themselves and their affairs with ordinary prudence. It will be seen that the new proposed definition as applied to children refers to those who are incapable of receiving proper benefit from the instruction in ordinary schools. It is not difficult to prophesy that controversy may arise over the word "ordinary." The definition of mentally infirm persons as proposed in the original bill is omitted. It will be remembered that it related to those who through mental infirmity arising from age or the decay of their faculties are incapable of managing themselves or their affairs.

The Second Clause of the present bill sets out the circumstances under which defectives may be dealt with. On comparing it with the corresponding portion, Clause 17 (1), of the former bill, it will be noticed that defectives "*may*" be dealt with by being sent to or placed in an institution or place under guardianship. In the former bill it was provided that the classes specified "and no other *shall*" be subject to be dealt with under this Act. The new clause provides that a defective may be dealt with under the Act at the instance of his parent or guardian if he is an idiot or imbecile or under the age of 21, or if "in addition to" being a defective person he is either found neglected, abandoned, or cruelly treated, found guilty of an offence or ordered, or liable, to be sent to a certified industrial school, or is undergoing imprisonment or penal servitude, except when in prison under civil process, or who is an habitual drunkard within the meaning of the Inebriates Act, or who is one whose case has been brought forward by the local education authority, or who is in receipt of Poor Law relief at the time of giving birth to an illegitimate child, or when pregnant of such a child. These provisions differ in some important respects from those in the former bill, the most notable alterations being the omission of those "in whose case it is desirable in the interest of the community that they should be deprived of the opportunity of procreating children," and in such other cases "as may be specified under regulations made by the Secretary of State." The provisions also are modified to accord with the new arrangements proposed for the local education authorities under the Elementary Education (Defective and Epileptic Children) Bill which is summarized elsewhere.

Clause 3 relates to the power to deal with defectives at the instance of a parent or guardian, and Clause 4 sets out the authorities at whose instance a defective may otherwise be dealt with. They are either (1) by the judicial authority as defined in the bill, (2) by an order of the court in the case of defectives found guilty of certain offences, or (3) by an order of the Secretary of State in the case of prisoners or defectives in lunatic asylums, reformatories, and industrial schools. The judicial authorities are defined in Clause 17 as being county court judges, police or stipendiary magistrates, or specially appointed justices, or judicial authorities for the purpose of the Lunacy Acts. Clause 5

relates to the presentation of the petitions which may be lodged by a relative or friend of the alleged defective, or by an officer of a local authority, but the petition must be accompanied by two medical certificates, or by a certificate that medical examination was impracticable. The petition must set out various circumstances as detailed in the clauses, and if it is not presented by a relative or by an officer of the local authority, it should contain a statement of the reasons as to why it is not. Clause 6 deals with the hearing of petitions, which may, if desired by the person to whom the petition relates, be conducted before the judicial authority in private, in which case no one shall be present except the petitioner, the person to whom the petition relates, any two other persons appointed for the purpose by the person to whom the petition relates, and those signing the medical certificates and the statutory declaration, except with the leave of the judicial authority. In the cases where the petition is accompanied by a statement that a medical examination was impracticable, the judicial authority, unless the petition is dismissed, shall order a medical examination. Clause 7 relates to variations of the order, and Clause 8 provides that where a person is convicted of an offence, but where the court is satisfied on medical evidence that he is a defective, they may postpone the passing of sentence with a view to procedure under the Act. Clauses 10, 11, and 12 relate to the effects of orders which, except as specified, expire at the end of one year. On renewal orders may be extended by the Board of Control to five years, provided that in the case of a defective under the age of 21, his case shall be reconsidered within three months of his attaining that age. Clauses 13 to 18 contain various provisions supplemental to the foregoing.

Part II.

The Board of Control for the purposes of the Act is dealt with in Clauses 19 to 24. It is to consist of fifteen commissioners, of whom not more than twelve shall be paid. One of the paid and one of the unpaid commissioners shall be a woman, four of the paid commissioners shall be legal commissioners, and four medical commissioners. Those who hold office at the commencement of the Act as commissioners in lunacy become as from the commencement of the Act paid commissioners of the Board of Control. The legal commissioners are to be appointed on the recommendation of the Lord Chancellor after consultation with the Secretary of State, and the other commissioners by the Secretary of State after consultation with the Lord Chancellor. The Secretary of State, also after consultation with the Lord Chancellor, shall appoint one of the commissioners to be chairman, and the Secretary of State may direct the board, subject to his regulation, to appoint an administrative committee. No commissioner other than the chairman shall receive a salary exceeding £1,500 a year. The chairman and the paid commissioners shall hold office during His Majesty's pleasure, and the unpaid commissioners for such a term as the Secretary of State may determine. The various disqualifications for the office of commissioner are contained in Clause 22, and their general duties in Clause 23. They may be said to embrace the supervision and control of the defectives, the co-ordination and supervision of the administration of the Act by the local authorities, and the inspection and certification of places for the reception of defectives. The board is to provide and maintain institutions for defectives with criminal or dangerous propensities, and is to administer the money grants made by Parliament for the purposes of the Act. Clauses 25 to 32, being the remainder of Part II, relate to the local authorities charged with duties in respect of defectives.

Except in the case of the local education authority, the local authority for the purposes of the Act is the council of a county or county borough. The authority is required to constitute a committee for the care of the mentally defective, which may contain persons other than members of the council, and all matters relating to the exercise of authority under the Act stand related to this committee, except the power of raising a rate or borrowing money. It is to be the duty of the local authority, subject to provisions of the Act and the regulations of the Secretary of State, to ascertain what persons in their area are defective, and to make provision for them, provided that they are not required to do so where the contribution out of the money provided by Parliament towards the maintenance of the defective is less than one-half of the cost to the authorities of his maintenance. Exception is made also of those who are under the charge of Poor Law authorities, and nothing under the Act is to affect the powers or authority of the lunacy commissioners or of the local education authority. The duty of ascertaining the defectives amongst the children is cast upon the local education authority, as well as the ascertainment of which of them are incapable by reason of their mental defect of receiving benefit from instruction in special schools or classes. Notice is to be given to the local authority of the names and addresses of defective children by the education authorities.

Parts III and IV of the bill, except as they are modified to suit the other alterations, do not materially differ from the arrangements proposed in the bill of last year.

Defective and Epileptic Children.—A short bill has been introduced by Mr. Pease, entitled the Elementary Education (Defective and Epileptic Children) Bill. It is introduced as carrying out part of the arrangement come to last year in Committee on the Feeble-minded Bill. To meet the general criticism that, in view of the fact that it is found that many children classed as backward, or as more or less defective, prove, as the result of training in special schools, to be educable and capable of being made self-supporting, it was agreed that a bill should be introduced this session to make the Defective and Epileptic Children Act, 1899, compulsory and avoid an unnecessary enlargement of the class of feeble-minded which, under the Home Secretary's bill, may become a charge on the community. The first and operative clause of this small bill introduces words into Subsection 1 of Section 2 of the Act of 1899 which alters its permissive character and makes it obligatory as respects children whose age exceeds 7 years. If amended as proposed by the italicized words, the subsection will read thus:

> When a school authority have ascertained that there are in their district defective children they may, *and in the case of mentally defective children whose age exceeds seven years shall*, make provision for the education of such children by all or any of the following means.

The various means referred to in the principal Act are the establishment of special classes in public elementary schools, the boarding-out of such children for instruction or the establishment of special schools for defective children. The local education authority also may establish special schools for epileptic children, or alone or in conjunction with another authority contribute to the support of existing approved schools or jointly assist in the provision and maintenance of new ones. In the bill now introduced it is provided that the Board of Education, without prejudice to other proceedings, may make a deduction from the grant otherwise due to any local authority who neglects to make the provision required for defective children in its district. It is also provided that a local education authority may obtain an order from a court of summary jurisdiction requiring the parent of a mentally defective child to send it to a suitable certified school failing other suitable provision for the child.

Food Adulteration.—In reply to Sir John Lonsdale and Mr. Peto, Mr. Burns announced that he had in preparation a bill dealing with the question of the purity of food and hoped to introduce it shortly.

London Water Supply.—In reply to Sir John Lonsdale, who inquired as to the reported contamination of part of the London water supply, Mr. Burns stated that the Metropolitan Water Board had found that the very unpleasant taste in the water was due to the decay of algae, and stated that it was not injurious to health. The source of the trouble having been discovered, steps, he said, had been taken to remove the ground of complaint.

School Clinics.—Mr. Pease has informed Mr. King that attendance at clinics for special examination are

allowed by the Board to be registered and counted for grant, provided that satisfactory arrangements are made for the registration.

Epizootic Abortion.—In reply to Mr. C. Bathurst, Mr. Runciman stated that the results of the experiments of the inoculation of cows and heifers as a preventive of contagious abortion had so far been encouraging; but that only the county of Devon up to the present had adopted an Order on the lines recommended by the Departmental Committee.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

A Dispensary and School Clinic.

The third annual report of the St. George's Dispensary and School Clinic, Surrey Row, Blackfriars Road, S.E., contains an analysis of cases which affords evidence of the extensive work carried on. Especially satisfactory are the figures from the dental clinic, which show that parents are gradually being trained to acquiesce in the treatment of the dental defects found in their children. A large part of the report is occupied by an article by Mr. A. G. Wells upon the work of the nose, throat, and ear clinic. Mr. Wells claims to have been singularly successful in the selection of cases of adenoid hypertrophy upon which to operate, so that although the operation was performed for a great variety of symptoms it was a successful measure in all but a trifling minority of the cases. He also makes some remarks on the connexion between adenoid overgrowth and the symptoms of what has been described as Mucous Disease by Dr. Eustace Smith. Mr. Wells attributes the great success achieved to attention to the following three points: great pains were taken to avoid frightening the children; the anaesthetic was always given by the same anaesthetist; and the children attended regularly after the operation to practise breathing exercises.

Medical Inspection of Children under School Age.

In our summary of the latest report of the medical officer to the Board of Education[1] it was noted that certain passages therein seemed to foreshadow an attempt to secure that children shall be subjected to medical inspection not only during school life, but from birth onwards. The possible advantages of such a measure were described in an annual report of the City of Westminster Health Society some two years ago, and in the latest report of that body is given an account of an actual attempt to secure them. It began in January last year, when this society, which has the advantage of the co-operation of Dr. F. J. Allan, M.O.H., opened in Soho a medical centre; this has carried on throughout the year the work commonly done in well-organized school areas, including the equivalent of entrant, intermediate, and "leaver" examinations, an inspection clinic, the process known as "following up," and the securing of treatment. Knowledge of the children was in the first instance obtained through the operation of the Notification of Births Act, the mothers being afterwards persuaded to bring the children at the desired intervals to the inspection centre, where the work was done under the supervision of Dr. David Forsyth. Altogether some 374 children were examined (including re-examinations). The more important defects stated to have been observed are set forth in the following table:

Age Period:	0-1 Year.	1 Year.	2 Years.	3 Years.	4 Years.
	per cent.	per cent.	per cent.	per cent.	per cent.
Teeth	—	2.6	18.1	34.0	65.6
Tonsils	—	7.8	16.9	24.0	26.9
Adenoids	1.5	10.4	22.9	38.0	33.3
Rickets	13.0	25.9	9.6	8.0	3.0
Diet modified	49.6	22.8	6.0	—	—

The numbers on which this table is based are small, but inasmuch as they represent, we believe, the first published statistics in regard to the physical deficiencies of the child population in each of the first five years of life, they possess a certain interest. The outstanding feature of the table is the rapid rise year by year in the proportion of disease, this being specially notable and continuous in the case of dental caries, a defect which is possibly responsible for more ill health among children than any other single cause. It is pointed out in the report that a large majority of the children at the age period 0 to 1 were found to be healthy, but that only a small minority reached the fifth year without developing at least one physical defect of some kind. It is added that the later the age the more extensive usually was the disease, except, of course, in regard to rickets. The inferences drawn are that large numbers of children healthy in every respect at birth at present become within five years the physically defective entrants whom the educational authorities are required to restore as far as possible to their original state of health. Since most of these defects are preventable, and can be remedied more speedily and more cheaply during infancy than school age, it is suggested that in large degree the problem of the defective child resolves itself into the problem of the under-school-age child. Finally, it should be noted that the children to whom the report relates came mainly from homes not of the poorest class, the fathers being chiefly tailors, cooks, waiters, policemen, and firemen. Hitherto the work has been confined to the more northerly half of the city of Westminster, but the society hopes to extend it. It regards it as of great educative value.

[1] BRITISH MEDICAL JOURNAL, January 11th, 1913, p. 79.

BIRMINGHAM.

Hospital Saturday Fund.

The Hospital Saturday Fund for last year, which was the fortieth annual collection, amounted to £22,842 3s. 4d., and is the largest amount ever collected in one year. At a meeting of the board of delegates £10,000 was voted for distribution among the medical institutions of the city. The total number of patients admitted into the convalescent homes supported by the Hospital Saturday Fund was 3,429, distributed as follows: At Tyn-y-Coed, Llanrhos, 1,245 men; at Marle Hall, Llanrhos, 1,446 women; at the Red House, Great Barr, 632 children and 106 women. Since the fund's first convalescent home was established twenty-one years ago, 44,770 patients have been received—19,304 men, 19,241 women, and 6,225 children. The home for consumptives—the Sir William Cook Memorial—on Romsley Hill, will be opened during the summer, and part of the building will be used before then for the treatment of male patients. The Insurance Act was a disturbing factor in the collections at certain works, but happily the great majority of contributing firms continued their subscriptions, and in nearly all cases in which they were suspended the collections have been commenced again. There is no valid reason why the contributions under the Act should interfere with the Hospital Saturday collections, as the benefits offered by the fund are distinct from those accruing under the Act. The hospitals of the city are still required for the wives and families of insured persons, and even for insured persons themselves for consultations and for special and institutional treatment, while the Hospital Saturday convalescent homes are needed just as before.

Birmingham Medical Institute.

In the annual report for 1912 the financial position of the institute is shown to have been considerably improved. The special fund for the improvement, which was started last year, has reached over £500, and there has been an increase of £25 in subscriptions. The library now contains 15,026 volumes; during the year 173 volumes were added; 67 periodicals—39 foreign and 28 British—were supplied to the reading room. The following officers have been elected for the ensuing year: *President*, Mr. Christopher Martin: *Vice-Presidents*, Dr. Douglas Stanley and Dr. Henton White; *Honorary Secretaries*, Dr. W. Clegg and Dr. Beckwith Whitehouse; *Honorary Librarians*, Dr. Branson and Dr. Sawyer; *Honorary Treasurer*, Mr. Frank Barnes.

Scotland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

Dr. Livingstone in 1857.

At the March meeting of the Directors of the Edinburgh Medical Missionary Society, Professor Crum Brown, President, in the chair, Dr. Sargood Fry read the minute of a breakfast meeting of the society which had been held on September 23rd, 1857, when Dr. Livingstone had been present as a guest. Professor J. Y. Simpson and Professor James Miller had commended the medical and missionary work of the great explorer; and Dr. Livingstone had given some notes of his surgical, medical, and obstetrical practice in Central Africa. The minute continues:

Dr. Livingstone mentioned that his operations had consisted almost entirely in the removal of tumours, which were invariably of a benign character, the only exception being one resembling melanosis; that he had never met with cancer or scrofula, calculous disorders, or consumption. He observed that the natives make capital patients, never calling out under the knife as used to be the case in other countries before the days of chloroform. Their treatment of fractures is on the whole very successful. They use the bark of a tree for splints, and, as union is generally rapid, few subsequent deformities are met with. More than once Dr. Livingstone had noticed cases of dislocation which had escaped being reduced. He had not found occasion to perform any of the so-called capital operations of surgery, but among other minor operations he had cured one native lady of squint. Dr. Livingstone alluded with quiet humour to his behaviour towards other practitioners, never condemning their practice before the patient, but taking them aside, when he generally found them very ready to acquiesce in his views of treatment. He also spoke of his fame as an obstetrician, in which branch he had no competitors, being decidedly at the top of the tree. He alluded to one case in which having cured a native lady of some complaint, he or his medicine got all the credit of a child which she bore fifteen months afterwards, so that the celebrity thus acquired was the source of no little inconvenience, as he was supposed to possess a specific.

Dr. Livingstone thinks that although the native prescriptions are often sufficiently absurd, there is reason to believe in the efficacy of some from their being widely known among various tribes, and over vast territories. He has no doubt that many medicines exist in these countries which may yet prove valuable additions to our materia medica. But in the management of febrile diseases the native doctors possess nothing equal to quinine. Dr. Livingstone was in the habit of combining it with an aperient in the form of a pill, which agreed so well with his patients, and became so famous, that had it been in this country it would have eclipsed even Morrison's pill.

This minute, which was doubtless from the pen of Mr. Benjamin Bell, F.R.C.S.E. (father of the late Dr. Joseph Bell), ends with a reflection (a somewhat uncommon thing in minutes) in the following words:

Although the meeting of which we have endeavoured to give a very meagre sketch was not a regular meeting of the Medical Missionary Society, demanding a formal minute, it was certainly a notable occasion in our history, bringing before us a *real* medical missionary, a *true man* raised up by Providence for a great purpose; one of those persons in regard to whom panegyric seems out of place, and who go straight forward to the accomplishment of their work quite independently of either praise or censure. May his short visit be instrumental in awakening all of us to greater earnestness in our several spheres, and to a more thorough sympathy for those families of our race who are still sitting in darkness, without God, and without hope!

Dr. Livingstone's Grandson and Granddaughter.

In connexion with the centenary of the birth of David Livingtone, it is interesting to note that on March 18th, the Livingstonia Committee of the United Free Church of Scotland appointed Dr. Hubert Francis Wilson and Miss Mary Ruth Wilson, grandson and granddaughter of the explorer, the one as a medical missionary and the other as a missionary to Livingstonia, to the station of Chitambo, the place where, it will be remembered, Dr. Livingstone died and where his heart is buried. Dr. Wilson received his medical education at Cambridge and Glasgow, and holds the degrees of B.C. and B.A.Camb.

Royal Edinburgh Hospital for Sick Children.

At the annual meeting of the above institution, the Chairman, Mr. James Clark, K.C., C.B., referred to the improved accommodation which had been secured for the nursing staff during the year, and to the opening of a special ward for the treatment of ear and throat patients. The annual subscriptions, however, still showed a tendency to fall off, there having been a drop of £200 in 1912; fortunately there had been enough coming in as legacies to meet the increased expenditure; but he thought it was a pity that they were not in a position to pay their way with their annual subscriptions. The Lord Provost referred to the fact that for fifty-four years the hospital had done splendid service in the city, and commended its claims to the liberality of not only the Edinburgh but the Scottish public. Dr. Graham Brown, the President of the Royal College of Physicians, said that it was no light thing that in 1912 over 9,000 children had for the most part benefited, and quite in an extraordinary way, from their treatment at the hospital. They were drawn to the hospital not only from Edinburgh itself but from all over Scotland by the magnetic force of the trained experts on the medical and surgical staff. Further, the hospital served also as a school for the training of medical men in the expert management and treatment of the diseases of childhood.

Edinburgh Royal Infirmary.

At their meeting on March 31st, the managers of the Edinburgh Royal Infirmary appointed John Dixon Comrie, M.A., B.Sc., M.D., F.R.C.P.E., an assistant physician to the institution for a period of five years. Dr. Comrie is Lecturer on the History of Medicine in the University of Edinburgh and honorary secretary to the Post-Graduate Courses in Medicine of the university and the Royal Colleges. There were four other candidates. At the same meeting the termination of Dr. George Mackay's term of service as one of the ophthalmic surgeons of the institution was intimated. The managers minuted their high appreciation of the value of Dr. Mackay's twenty-four years of work in the infirmary, and appointed him one of the consulting ophthalmic surgeons thereto.

Ireland.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

Tuberculosis Scheme for County Fermanagh.

The Fermanagh County Council has decided to appoint a whole-time tuberculosis officer, who will be debarred from other medical practice, and whose duties will be largely administrative. It has been suggested that a central tuberculosis dispensary should be established with four observation beds and four branch or district dispensaries. With regard to a sanatorium, the ideal scheme would be for the council to join with several other councils in erecting and administering one such institution; but the Women's National Health Association has bought Rossclare, is turning it into a sanatorium, and has suggested that it should be taken over by the county council. Rossclare stands on high ground on the shore of Lough Erne with no shelter of any kind; so exposed is it that the growth of the few trees around is clipped by the prevailing winds, and some sleeping boxes erected in the sheltered parts of the grounds in the lee of the main buildings were blown down. The soil is stated to be so heavy and impervious that it is impossible during six months of the year to walk about with comfort. There are no facilities for farm work or kitchen gardens. Some fourteen years ago this place was used as a sanatorium, but Dr. Kidd of Fermanagh and three other doctors formerly connected with the sanatorium have expressed the opinion that the site is unsuitable. It appears that there is at present a recommendation that the council should engage 20 beds from the Women's National Health Association at 25s., but it is being urged that it would do more wisely to build a joint sanatorium with some neighbouring county councils.

New South Wales.

[FROM OUR SPECIAL CORRESPONDENT.]

Public Health Administration.

The retirement of Dr. Ashburton Thompson from the position of Principal Government Medical Officer and President of the Board of Health after a long and successful official career is announced to take effect in March. Upon his retirement the Department of Health is to be considerably enlarged by the addition of other departments which should have been attached to it long ago. Dr. R. Paton, who at present occupies the position of Inspector of Hospitals and Charities, will be appointed as Dr. Thompson's successor, and this department will in future be attached to the Health Department. By these means the way will be opened up for some important developments. Dr. Paton is the President of the Tuberculosis Advisory Board, and he will thus have a large share in shaping the policy of the Government in regard to tuberculosis dispensaries, and possibly also public dispensaries for persons ineligible for membership of the friendly societies.

The Government and Public Health Questions.

According to an announcement by the State Premier (Mr. McGowan) public health questions will take a prominent position in the policy of the Government to be enunciated in view of the general elections to be held towards the end of this year. It is announced that provision for maternity cases will be an outstanding feature. Maternity hospitals are to be established in the crowded centres of population, and maternity annexes are to be provided at country hospitals. Where the patient cannot get or be brought to the hospital she is to be visited by a doctor and a nurse wherever practicable. A maternity allowance is also to be provided, but this is not to be a cash payment. The State will simply guarantee the doctor and the nurse certain payment. In every centre doctors and nurses will be available by arrangement with the Government at rates to be fixed. A patient may call in any doctor she pleases. His bill will be guaranteed up to the rate fixed by the department. If the medical man selected happens to be a specialist and demands a special fee the patient will have to pay the difference. The intention is that every case shall receive proper attention either in a well-conducted hospital or at home, and in either case at the expense of the State.

The antituberculosis dispensaries which it is proposed to establish are to be called "Hospitals for the Diseases of the Throat and Chest." The Waterfall Hospital for Consumptives is in future to be called the "Waterfall Sanatorium." Further matters to be taken up are the medical inspection of oversea consumptives, hygiene in schools and Government departments, milk supplies, and accommodation houses for patients who do not care to live in boarding houses. District nursing is also to receive attention. The idea is to use the existing machinery of the hospitals. The various hospital committees have been advised that hospital funds may be legally used in payment of services for nursing patients in their own homes. The hospitals will be paid subsidies on any money raised for the treatment of eligible cases in this way.

This policy has been approved by the Political Labour League which recently held its meetings in Sydney, but it is very doubtful whether the Government will be able to finance this extensive scheme. It shows, however, the general trend of opinion on medical matters, and it is generally believed that before long the profession will have to face the introduction of a national insurance scheme.

Tuberculosis Dispensaries.

The tuberculosis dispensary established by the New South Wales Branch of the National Association for the Prevention and Cure of Tuberculosis has been actively at work for the last three months. An important part of the work of the dispensary is the examination of contacts; it is stated that 50 per cent. of those in contact with the patients were found to be infected.

At the Royal Prince Alfred Hospital the question of dealing more adequately with the treatment of tuberculosis has engaged the attention of the medical staff and the board of directors. As a result of a series of conferences between the honorary medical staff and the medical members of the board of directors, it has now been decided to form a special tuberculosis dispensary in connexion with the out-patient department of the hospital. The following is a report of the conference:

The treatment of tuberculosis is no new departure at this hospital, but in the past the cases have been distributed over the various departments. This conference now recommends that a special antituberculosis dispensary be established without delay to deal with tuberculosis as efficiently as possible, on the lines of such dispensaries as the Victoria Dispensary in Edinburgh and the Paddington Dispensary in London. The conference would point out that the hospital has already organization in existence which only needs to be expanded to meet the new conditions of the new department. It also desires to point out that it would be in the best interests of the patients, the public, and the hospital as a teaching institution that such work should be carried out in connexion with a large general hospital. The conference makes the following recommendations:

1. That the aforementioned antituberculosis dispensary should be a part of the outdoor department of the hospital.
2. That if possible separate waiting and examination rooms should be provided.
3. That the department be open for the treatment of patients on two evenings and two afternoons a week, and that the evenings should be reserved exclusively for those who are unable to attend during the daytime, and that definite reasons be given for night attendance.
4. That the work of the department be carried out by a staff of four physicians, selected from the existing staff, assisted by an additional special resident medical officer, who should, if possible, be a senior officer.
5. That two nurses be attached to the department, one for males and one for females, to assist the visiting physicians, to visit the homes of patients, to advise them as to sleeping accommodation, isolation, preparation of food, disposal of sputa, care of utensils, etc., and to bring contacts to the department for examination. Nurses who have been specially trained in hygiene should be employed for this work.
6. That printed instructions be given to each patient as to the disposal of sputa, diet, value of open air and sunlight, the infectious nature of the disease from which they are suffering, etc.
7. That tuberculins and medicines be provided through the dispensary of the hospital.
8. That special observation wards be provided for diagnostic purposes and for temporarily housing patients prior to their removal to the various sanatoriums such as Waterfall, Rookwood, Wentworth Falls, and Thirlmere.

The Sanatorium Treatment of Tuberculosis in New South Wales.

The annual report of the Queen Victoria Homes for Consumptives shows that 93 patients were admitted to the sanatorium for men at King's Tableland during 1912, and 94 discharged. Fifty-one patients were in residence on December 31st, 1911, and 49 on December 31st, 1912. The average number of beds occupied daily was 49. Since the opening of the sanatorium in 1903 over 1,000 patients had been under treatment; 80 per cent. of the patients came from Sydney and suburbs and the remainder from the country. The age of the patients varied from 11 years to 58 years, the average being 30 years. Tubercle bacilli were found in 69 per cent. of the cases. A family history was given in 34 cases. Haemoptysis had occurred in 40 cases before admission, and a previous history of pleurisy in 32. Haemoptysis occurred in 17 patients while in the institution. The number of patients that improved amounted to 79.8 per cent. Five deaths occurred during the year.

During the same period 94 patients were admitted to the sanatorium for women at Thirlmere, and 91 discharged; 40 patients were in residence on December 31st, 1911; 43 on December 31st, 1912. Of 94 patients, 86 came from Sydney and surrounding suburbs within a radius of sixteen miles. The remaining 8 came from various country districts. A family history of consumption was admitted in 32 cases (equal to 35 per cent.), probable in 4 others, and denied in 55. Exposure to infection by contact with tuberculous patients, whether relatives or not, was known to have occurred in 46 cases (equal to 50 per cent.), and probable in 7 others. Four patients gave a history of consumption in the family without exposure to infection as well, while 17 cases with a family history free from tuberculosis gave a definite history of exposure to infection.

Sir Philip Sydney Jones, President of the Board and also of the National Association for the Prevention of

Consumption, in supporting the motion for the adoption of this report, said it was the desire of the Queen Victoria Homes for Consumptives to establish antituberculosis dispensaries, but they were anticipated by the National Association. Referring to the establishment of a dispensary in connexion with the Royal Prince Alfred Hospital, he said that there were many advantages to be gained by the association of a tuberculosis dispensary with a general hospital. The board of the Queen Victoria Homes for Consumptives hailed the establishment of dispensaries as a move in the right direction, for the dispensary was a valuable aid to the work of the sanatorium, as it was very difficult to secure patients in the early curable stages. The labourer would not give up work very often until he had reached a stage when his chances of recovery were almost *nil*. The work of the nurses attached to the dispensaries was most valuable in discovering cases of early infection among the contacts.

Correspondence.

THE FORM AND POSITION OF THE STOMACH.

Sir,—Most teachers of anatomy have come to the conclusion that the definite information concerning the true form and position of the living stomach which is afforded by radioscopic examination can no longer be ignored, and that such knowledge should be used to supplement what the student learns from the dead and distorted stomach in the dissecting-room. In many British schools these shadow pictures of the living stomach are regarded as an indispensable part of the student's instruction in anatomy; for I know that the magnificent series of skiagrams which Dr. A. E. Barclay kindly permitted me to make use of in my department is also being employed in several other medical schools in this country as well as in America.

Under these circumstances it is somewhat disconcerting to the mere anatomist, who imagined, when he introduced the results of radioscopic examinations of the stomach into his instruction, that he was doing his best for the students committed to his care to prepare them for clinical work, to find a distinguished surgeon like Dr. Gray, in the British Medical Journal of March 29th, practically advising him to shun radioscopy and to pin his faith to the old dissecting-room methods, and the belief in a "middle sphincter" and the immobility of the pylorus.

After the Liverpool meeting of the British Medical Association there was an informal discussion of the whole subject of the form and position of the stomach at a meeting of the Anatomical Society of Great Britain and Ireland, held at St. Mary's Hospital, London, last November, and the impression left upon my mind was the remarkable unanimity of opinion on the part of those anatomists who had seriously investigated this admittedly difficult problem.

The large series of radiograms taken by Dr. Barclay, which have been critically examined in this department by Professor Wingate Todd, seems to prove quite definitely that—

(1) The form and position of the stomach vary with posture.

(2) That in the erect posture the usual form of the normal stomach, when empty of food, is a J-shape, the medial edge of the large left limb (lesser curvature) of which is vertical, and the upper part of its right side is "blown out" to form a bladder (filled with gas above the level of the oesophageal opening) occupying the left cupola of the diaphragm.

(3) That the bend of the J lies as low as the umbilicus; and

(4) That the pyloric extremity is opposite the second lumbar vertebra (or the disc between it and the third), a full vertebra's depth lower than its position when the subject is in the prone position.

I do not think that Dr. Gray's statement of his belief in the presence of a "middle sphincter" is likely to carry conviction at the present time, even though he qualifies the term as being used "for the sake of brevity," and apparently only in reference to "the earlier part of gastric digestion."

The impartial study of a large series of radiograms showing the altered position of the stomach when the subjects are in the prone and erect attitudes respectively leaves no room for doubt that the pyloric extremity of the stomach sinks as much as the depth of a vertebra when the subject arises from the prone to the erect position; and I am told by some of my surgical colleagues that they have found this borne out in their experience of actual manipulation of the pylorus.

I have ventured to enumerate this series of widely admitted facts, because they are based upon the examination of a large number of radiograms of patients, some of whom I was privileged to see Dr. Barclay demonstrate to Dr. Gray some time ago.—I am, etc.,

G. Elliot Smith.

Department of Anatomy, University of Manchester, March 31st.

THE AFTER-EFFECTS OF GASTRO-ENTEROSTOMY.

Sir,—I am sorry that Mr. Gray fails to appreciate that "practically unanimous agreement" was accorded to my opening address on "The Anatomy of the Normal Stomach" at last year's meeting of the British Medical Association. It is true, none the less, that all the radiographers present agreed with me in every detail, and the opinion of anatomists may be judged from the fact that my drawing of the "normal stomach" is being reproduced in the new editions of two of the standard textbooks of anatomy.

Mr. Gray says that he carried out a series of observations on normal stomachs many years ago, and came to certain conclusions. That is the very reason why I recommended him to carry out another series *now*. When I first investigated the stomach with the x rays I was led, in common with Mr. Gray and many others, to erroneous results, owing to our methods being inaccurate. We have all changed our views since then, thanks to increased experience and better technique. Mr. Gray alone seems to be content to ignore recent advances in our knowledge.

Mr. Gray says he was unable to see Dr. A. C. Jordan's work at Guy's Hospital, as I recommended him to do. But did he not, at the suggestion of Mr. A. H. Burgess, of Manchester, recently visit Dr. A. E. Barclay, who, in the presence of Professor G. Elliot Smith, demonstrated to him the normal anatomy of the stomach with the x rays? Both Mr. Burgess and Dr. Barclay tell me that he expressed himself as convinced that Dr. Barclay's views on the subject, which are identical with mine, were correct. May I ask Mr. Gray what new facts have since come to light which have caused him to go back to his old theories of the anatomy and physiology of the stomach, the error of which Dr. Barclay was one of the first to point out?

It is, I fear, useless to explain again the object of my paper on some of the ill results which may follow gastro-enterostomy to one who attempts, like Mr. Gray, to criticize my paper before he has read it, as up to now only a short abstract has been published. I happened, in the course of the last three years, to be consulted by a number of patients for indigestion, which had returned at various intervals after gastro-enterostomy had been performed. I was able to separate from these a group of some 15 cases presenting very similar symptoms to each other; a posterior gastro-enterostomy had been performed upon them by various competent surgeons, in most instances, as I stated in my paper, for duodenal ulcer. As I was fortunate to find the cause of the symptoms, and consequently was able to relieve the patients more or less completely, I ventured to publish the result of my investigations. I really fail to see why this should make Mr. Gray so angry with me, even if he has not yet seen such cases in his own practice.

I also described one remarkable case in which the operation had been performed for pyloric obstruction. If Mr. Gray had waited for the appearance of my paper, he would have seen that here again it is incorrect to say that no mention was made of the condition for which the operation was done. In this case I discovered why little or no relief had followed the operation, and I was able to show how an unsuccessful case could be converted into a successful one. Surely it was worth while publishing it in order that others should be able to recognize and relieve the condition.

The fact that a very large proportion of Mr. Gray's patients are still free from symptoms after the very short interval which has elapsed since they were operated upon, is no reason for neglecting to discover why the unlucky minority are not free from symptoms and how they can be relieved.

Finally, Mr. Gray asks me whether I can offer any other explanation than his "Conclusion 3" for certain figures published in the *Archives of the Roentgen Ray*. As neither I nor any one to whom I have shown his letter have been able to understand the meaning of Conclusion 3, my answer must be in the negative.—I am, etc.,

London, W., March 31st. ARTHUR F. HERTZ.

IMMEDIATE OPERATION IN APPENDICITIS.

SIR,—The letters on immediate operation for appendicitis come from two main branches of the profession, hospital surgeons and general practitioners. As I happen to combine these two functions I can, perhaps, see more clearly the difficulties of each.

With few exceptions all surgeons advise early operation, and any other standpoint seems to me astounding. Very many general practitioners still remain to be persuaded, some because they lack experience of the results of early operation, others, like Dr. Hunt, because, while they approve in theory they hesitate in practice, as they think the difficulties in some cases are insurmountable. I hope to show that they are not, except in the most exceptional circumstances.

May I first give my comparatively small experience as a surgeon, and then speak from the standpoint of the general practitioner?

I have operated on about 150 cases of all sorts, from the very earliest to those with large abscesses or spreading peritonitis. I have not lost one case where the disease was localized to the appendix, and all these have run a quick, uncomplicated course to recovery. Of the remainder, two cases of spreading peritonitis and one with a large abscess died. The later cases, such as those with large abscesses, have always had a longer illness, two with such serious complications as empyema.

The mortality of early cases is *nil*, that of all cases is 2 per cent. Surely these figures support the plea for immediate operation? The price paid for this policy of immediate operation is that I have "looked and seen" a normal appendix five times, but with the compensation that the correct diagnosis was made without serious injury to the patient.

Now for the difficulties of the general practitioner. In my experience, especially in the early hours of the disease, when the general practitioner alone is responsible, the diagnosis may be extremely difficult. By the time the surgeon has been called it is often much easier, although possibly still very doubtful. Dr. Hunt puts forward two other difficulties—the expense and the time lost from business. My contention is that they are not as real as Dr. Hunt thinks. Many capable surgeons can be found to operate for small fees. Then as to the time required for recovery, may I quote my last four early cases operated on in private?

1. A soldier, who returned to his regiment feeling perfectly fit within a month.
2. A gentleman farmer, who began to walk about his farm and superintend on the fourteenth day, and was hunting, without permission, on the twenty-eighth.
3. A young lady, who comfortably walked two miles on the fourteenth day.
4. A schoolboy, who went home well within a fortnight.

All four were able to leave the nursing home in ten days or less.—I am, etc.,

Guildford, March 30th. ERIC W. SHEAF.

PHYSICAL SIGNS OF MYOCARDIAL INVOLVEMENT.

SIR,—I note with pleasure that Dr. Thomas Lewis accepts the *a–c* interval of the polygraph tracing as a satisfactory index of auriculo-ventricular conductivity. The observations to which he refers in such kindly terms have been chiefly directed to the measurement of this interval at various stages of cardiac rheumatism; whether when published they will be as convincing to others as they have been to myself remains to be seen, but the fact stands that it is only by such routine examinations that the precise state of conductivity in cardiac rheumatism can be determined.

Dr. Alexander Morison's interesting letter scarcely concerns me except where he says I impute chronic myocardial disease to a series of bacterial insults. My view of the course of cardiac rheumatism is not quite as he reads it. As I say in the letter which appeared in your issue of March 15th, I regard the direct effect of the inflammatory spots on the myocardial functions as probably small. The course of cardiac rheumatism is one of repeated acute invasions between the ages of 6 and 20 or thereabouts; each of these invasions causes direct but temporary injury to the cardiac muscle, and direct permanent injury to the valves and pericardium. At or soon after the patient has passed the age at which he is prone to these direct insults to his myocardium—supposing, that is to say, that his heart has survived these frontal attacks—the mechanical effects of the valvular and pericardial injuries begin to tell on the cardiac muscle, which at length breaks down. I gather from Dr. Morison's letter that this is in most respects his own view of the course of the disease.—I am, etc.,

Clifton, Bristol, March 31st. CAREY COOMBS.

BOVINE AND HUMAN TUBERCULOSIS.

SIR,—In the British Medical Journal for January 11th there is a letter by Dr. T. Readman in which he states that the "poorer classes in China do not suffer from tuberculosis."

Where this idea originated I do not know, but it is not a fact.

All forms of tuberculosis exist in South China, the commonest being tuberculosis of the lung, of the glands of the neck and of the joints and spine. The only form of tuberculous disease I have not yet met with is *lupus*, which is very rare. The disease in its various forms follows the same course as in England, and the only form of the bacillus I have seen is the "human" type.—I am, etc.,

J. PRESTON MAXWELL, M.D., F.R.C.S.

Yungchun, viâ Amoy, China, Feb. 21st.

ALIMENTARY TOXAEMIA.

SIR,—In Professor Saundby's recent contribution[1] to the discussion on alimentary toxaemia at the Royal Society of Medicine he writes, on p. 544, that "Oxaluria or oxalaemia may be fairly reckoned to be of alimentary origin, for oxalic acid is introduced preformed in the food, or is the product of carbohydrate fermentation in the stomach which may occur when the hydrochloric acid is deficient."

This statement is not only difficult to understand, it is almost as surprising as if it had been asserted that the uric acid responsible for gout were formed in the stomach. If oxalic acid, and therefore oxalates, are produced by gastric fermentation, how is it that crystals are never found when the elements resulting from an Ewald test meal, for instance, are subjected to microscopic examination? What biological chemist, indeed, ever thinks even of looking for them?

Mr. Mackenzie Wallis's observation on indicanuria in conditions of mental depression, referred to on p. 542 by Dr. Andrewes, is interesting, but can scarcely be said to be very new. To general practitioners who, like myself, have constant recourse to the French semeiological method of urinary analysis, where the specimen examined is compared to a standard urine, this fact has been familiar for many years. I may add that exophthalmic goitre is the pathological condition where perhaps the largest quantity of indican is present in the urine.—I am, etc.,

Nice, March 20th. A. W. GILCHRIST, M.D.

MIND CURES.

SIR,—Although your able leader under the above heading is by no means the first word spoken officially in this country in favour of rational psycho-therapy, it cannot be said that the medical profession is quick to respond to the advice of its leading organs in this particular. For some years our foremost medical journals have urged upon us the necessity of regarding seriously the phenomena that may be conveniently grouped under the heading of "mind

[1] British Medical Journal, March 15th.

cures," and of endeavouring to formulate a scientific system of practical treatment that will enable them to make use of the principles evidently at work in such examples of mental therapeutic action. But in spite of this we are faced with the lamentable circumstance that, at the present time, there is in London no systematized instruction for would-be students of psycho-therapeutics, no official demonstrations of treatment by suggestion, hypnotism, and allied processes, and no centre of research in this branch.

On the other hand, it appears that there are still many medical practitioners who refuse to accept either the reality of "mind cures" or the necessity of including the procedures of suggestive therapeutics in our approved schedule of remedial agents. Not infrequently there is open hostility to everything connected therewith. But where treatment by suggestion and its congeners is objected to, there must be definite grounds for objection; then, Sir, let us hear from individual objectors their reasons for antagonism, that they may be answered by those who are accustomed to "mind cures" as a routine part of their practical work.—I am, etc.,

London, W., March 31st. EDWIN L. ASH, M.D.

EARTH-EATING.

SIR,—The notes on geophagy in the JOURNAL of February 1st, p. 254, are very interesting. It is or has been a widespread custom. Humboldt relates that the Ottomacos have this pernicious habit. He saw at Banco, on the banks of the Magdalena, Indian women who were employed in pot-making, eating clay from time to time. Auguste de S. Hilaire observed earth-eaters in Brazil, near Fazenda de Macauba, and amongst the Machucalis; several of the latter died in consequence. In the south of the Province of Saint Catherine many men and women were victims to this habit, preferring the clay of which white ants made their dwelling. The taste for earth-eating was so strong that slaves who were muzzled rolled themselves in the dust in their endeavours to suck in particles of earth. The Prince of Wied-Neuwied observed earth-eaters on the coasts of Brazil. De Castelnau saw geophagy in Eastern Bolivia. The habit has also been noticed in the Antilles, in Jamaica, Hayti, Porto Rico, St. Thomas, St. Martin, Guadeloupe, Martinique, St. Domingo, in Guiana, Peru, Louisiana, Alabama, Georgia, Florida, and South Carolina. Hindu and Chinese women have been known to eat meerschaum, and pregnant women in all countries have been known sometimes to have resort to geophagy. In some countries "rock butter" (native alum) is eaten. Hermbstaedt saw quarrymen in Thuringia spread this rock butter on their bread. In some parts of Russia they used to eat gypsum with their bread.

Closely allied to this geophagy seems to me to be the imbibition of earthy particles (involuntarily, of course) in drinking waters, which in some cases may be the cause of endemic goitre. There is no doubt that the use of muddy waters is frequently associated with this disease. Siminon relates, for instance, that the waters of Rosières-aux-Salines and those of the goitrous localities of the valley of the Seille are often muddy. The same fact was noticed at Bussières-les-Belmont by Lacordaire, in the Jura by Ogérien, in Würtemberg by Dürr. The drinking water which flows down a mountain-side must necessarily contain a large amount of suspended earthy matter, and Mead, the celebrated English physician, attributed the enormous goitrous tumours amongst the inhabitants of the Alps to mineral particles in their drinking water.

Julius Caesar Scaliger wrote:

In eâ parte agri Taurini quae Valdocca (vallis anseris) appellatur, multis gula turgida fit, Penè omnes et amentes et inepti ad loquendum (cretinism and deaf-mutism).

Hoffmann was of the same opinion:

Struma oritur ex aquarum potu quae graves sunt et copiosam terram recondunt.

I am aware that goitre is now supposed to be due to an organism, but it is possible and probable that the nature of the waters may have something to do with the development of a specific organism.

Penrith, Feb. 3rd. LOUIS E. STEVENSON, F.G.S.

THE NEGLECT OF VACCINATION.

SIR,—Dr. Killick Millard's first letter, speaking of "the medical officer of health rather than the public vaccinator," "sanitary reform," "public health measures," seemed to imply methods of dealing with small-pox without recourse to vaccination. It is satisfactory to learn from his letter of March 17th that medical attendants and nurses and contacts in Leicester are vaccinated, and it is immaterial to the benefit of the community whether they are vaccinated by public vaccinators or by other practitioners. I hold to my conviction that "sanitary reform" and "public health measures" fail to diminish susceptibility to small-pox, and this is supported by the fact that Dr. Killick Millard has experienced in Leicester nineteen outbreaks of small-pox—a liberal, even generous, number for objectors to vaccination to inflict on themselves *and* their neighbours.

I advocate maintaining "an army of public vaccinators and vaccination officers and medical inspectors and all the expensive machinery of public vaccination," not "for the sake of vaccinating a few contacts in the rare event of an outbreak of small-pox," but in order to continue the present facilities for vaccination throughout the year, which are used by hundreds of thousands; the man in the street and his children have the same right as Dr. Killick Millard's family to vaccination, which he admits "as a scientific operation for conferring complete but temporary immunity against small-pox was never in a stronger position than it is in to-day"; if public vaccination were discontinued I fear the difficulties of controlling outbreaks of small-pox would increase until they became insuperable.

Public vaccination is not very expensive to the nation, public vaccinators and vaccination officers being usually paid by small fees for the cases with which they deal, not by salary, and medical inspection being a part of the work of the Local Government Board's medical officers and included in their salaries, the real burden and grievance is maintaining small-pox hospitals and their staffs—a natural sequel to allowing objectors to vaccination to practise free trade in small-pox.—I am, etc.,

Brent Knoll, March 22nd. J. W. PAPILLON, M.R.C.S.

The Services.

SANITARY TRAINING OF THE TERRITORIAL FORCE.

MAJOR FREEMAN has summarized in the *Journal of the Royal Army Medical Corps* the results of sanitary training in the Territorial Force, and the lessons to be learnt so far as sanitation is concerned from five years' experience of Territorial camps throughout the country. It is satisfactory to learn that, although still far from perfect, sanitation has made great strides during these past five years, and that the general standard is high. Two factors, he considers, handicap the training: the paucity of trained regimental medical officers, and the absence of an organized sanitary squad. The superior attraction of work with a field medical unit accounts mainly for the first factor, and the remedy suggested is the training of every medical officer with a field ambulance in his first year of service. With regard to the sanitary squad, men do not readily enlist for such duties as fall to its lot, and when the work has to be done by fatigue parties and defaulters a highly trained quartermaster who can properly supervise it is absolutely essential. Major Freeman would do away with the "water duty" men as such, and in a country where a good water supply is generally available there is something to be said for this. The men would be of much more service as hospital or sanitary orderlies, and in some such capacity they are generally employed. The sanitary company as at present arranged is "merely an expensive and wasteful luxury," and the suggestion is to transfer to it the medical duties of the Royal Engineers, so that it would have a great and useful future before it. The duties which it is suggested this reorganized sanitary company should deal with are:

1. Sanitary field engineering.
2. Water supply on a large scale.
3. Preservation and storage of food.
4. Epidemics and infectious outbreaks.
5. Disinfection on a large scale.
6. Sanitary disposal of dead animals and men.

And concrete examples are given of the work which it would perform in the mobilized Territorial Force. This reorganization would involve "all N.C.O.'s having a sanitary qualification, and, if possible, be sanitary inspectors in civil life; the officers must all be medical officers of health, some must hold specialist qualifications."

In this way a very valuable unit might be formed. For Territorials Major Freeman insists that "camp sanitation" is not of much value, as in a war such as they are organized for buildings will be used where possible and tents not at all.

The weakest spot in the organization is considered to be in connexion with the clearing hospital, which will be formed by voluntary aid detachments of the Red Cross Society, for the *personnel* cannot get the necessary training in sanitation. The suggested remedy is the formation of a nucleus for the clearing hospital from the R.A.M.C.T., each nucleus consisting of an officer and fifteen men.

The proposals put forward are worthy of careful consideration, coming from an officer of wide experience. Certainly, as he points out, the time is now ripe for some readjustment of the work between the R.E. and the R.A.M.C.; it is impossible that the existing system could stand the test of mobilization.

Universities and Colleges.

UNIVERSITY OF ABERDEEN.

Degree.

AT a meeting of the Senate on March 26th, the degree of LL.D. (*honoris causâ*) was conferred on William Stephenson, M.D., F.R.C.S.Edin., Emeritus Professor of Midwifery in the University.

The following received ordinary degrees and diplomas on the same occasion:

M.D.—*B. J. Alcock, *F. Macrae, *A. F. Wallace, W. Ainslie, J. Ritchie.

M.B., CH.B.—†L. W. Bain, †W. P. Mulligan, G. A. E. Argo, W. Baxter, R. M. Boyd, R. W. Brown, W. M. Fowler, A. R. Grant, F. M. Griffith, J. Humphrey, J. Jaffé, J. G. Johnstone, A. C. W. Knox, W. McCombie, A. J. McCreadie, A. G. McLean, J. R. MacNeill, F. C. Merrall, L. J. Moir, J. Proctor, A. L. Robb, B. T. Saunders, J. S. Stewart, F. G. Stuart, A. A. Turner, J. T. Watt, J. L. D. Yule.

D.P.H.—J. Chalmers, G. Leggat, P. M. Rennie, Captain, I.M.S., J. M. Taylor.

* Honours for thesis. † Second class honours.

UNIVERSITY OF DURHAM.

THE following candidates have been approved at the examinations indicated:

FIRST M.B.—*Elementary Anatomy and Biology, Chemistry, and Physics:* H. J. Dingle, H. A. Lake, W. I. F. Powell. *Elementary Anatomy and Biology:* P. V. Anderson, E. F. H. Bell, J. S. Clark, E. C. Dunlop, A. I. Humphreys, C. G. Irwin, T. Kirsopp, H. M. Leete, R. S. Millar. *Chemistry and Physics:* Stephanie P. L. H. Daniel, C. T. Helsham, D. Henegan, D. E. Hearn, P. Hickey, M. C. Joynt, C. D. Newman, H. Sterne-Howitt, I. Soliman. *Elementary Anatomy:* F. R. Sturridge.

SECOND M.B.—*Anatomy and Physiology:* R. N. Craig, J. A. Charles, L. B. Frere, H. K. Graham-Hodgson, G. Irving, *A. E. Raine, A. Smirthwaite, B. Sergeant, A. C. Taylor, R. Welch.

THIRD M.B.—*(All Six Subjects):* *C. H. Keay, P. A. Clements, A. C. Freeth, C. S. P. Hamilton, F. W. Harlow, W. Herbertson, Ah Chit Jap, C. W. Morris, G. D. Newton, H. A. P. Robertson, E. K. Ryan, D. C. Scott, C. G. Strachan, A. G. Taylor, E. J. Tyrrell. *(Four Subjects):* E. Bramley, A. G. Macfarlane, A. Patterson.

* Awarded second class honours.

QUEEN'S UNIVERSITY OF BELFAST.

THE following candidates have been approved at the examinations indicated:

FIRST M.B.—*Physics:* J. F. Ainley, G. V. Allen, D. D. Anderson, Annie E. E. Beattie, B. R. Clarke, Janie Clarke, Jane Copes, J. Craig, Margaret Crawford, Marion Crawford, W. Cupples, J. W. Gaston, W. Gilmore, C. Graham, F. Hopkins, T. F. Ingram, D. L. Ireland, S. M'C. Kirk, J. Lascelles, S. Lees, J. C. Loughridge, H. H. M'Clelland, J. M'Cormack, A. M'D. M'Mullan, P. Macarthur, J. P. O'Kane, J. E. Rea, M. H. Turnbull, H. W. Wild, C. J. A. Woodside. *Chemistry:* J. F. Ainley, D. D. Anderson, Annie E. E. Beattie, T. M. Boyd, J. C. Carson, B. R. Clarke, Janie Clarke, J. Craig, Margaret Crawford, W. Cupples, Dorothy I. Dobbin, J. Dunlop, J. W. Gaston, C. Graham, F. Hopkins, T. E. Ingram, D. L. Ireland, J. Lascelles, S. Lees, J. C. Loughridge, Olga R. I. Love, J. M'Cormack, A. M'D. M'Mullan, P. Macarthur, T. J. Marner, R. G. Meyer, J. P. O'Kane, Annie M. Orr, W. Saunderson, M. H. Turnbull, H. W. Wild, C. J. A. Woodside. *Zoology:* J. Adams, J. Boyd, J. H. Davison, C. A. W. Ramsay, T. Wallace. *Botany:* S. T. Alexander, C. Barton, J. Boyd, Marion Crawford, F. Ewart, J. G. M. Leyden, B. W. M'Kinney, M. O'Kane, C. A. W. Ramsay, J. Scott, T. Wallace.

SECOND M.B.—*Anatomy and Physiology:* Eileen M. Bell, D. Corry, C. F. Davey, Mary E. Henry, J. W. McKee, J. R. M. MacKenzie, F. P. Montgomery.

THIRD M.B.—*Pathology, Materia Medica, Medical Jurisprudence, and Hygiene:* H. T. Chatfield, T. P. McQuaid, S. A. D. Montgomery.

FINAL,—S. Acheson, S. R. Armstrong, E. S. Dixon, L. D. I. Graham, J. R. Henry, J. V. Holmes, F. Jefferson, B. C. Letts, H. H. C. Lynch, S. McComb, J. McFadden, E. McSorley, I. W. Magill, W. M. O'Farrell, J. Patrick, J. H. Porter, A. E. H. Reid, H. V. Walsh.

M.A.O.—H. B. Steen.

D.P.H.—*Both Parts:* T. Arnold.

IT is stated that a Pasteur Institute is to be established in St. Louis, under the direction of Dr. R. B. H. Gradwohl. It is to be conducted on the lines of the New York Pasteur Institute.

Obituary.

ALFRED LEWIS GALABIN, M.A., M.D., F.R.C.P.,

CONSULTING OBSTETRIC PHYSICIAN TO GUY'S HOSPITAL.

WITH the death of Dr. Galabin on March 25th there has passed away a prominent member of the medical profession whose name has been for many years intimately associated in the minds of all of us with that science and practice of midwifery which he has so ably expounded.

Alfred Lewis Galabin was born at Grove Lane, Camberwell, on January 10th, 1843, and was the last of an old Huguenot family directly descended from Jean Galabin, whose château was at Joncquières, near Orange in Provence. This Jean Galabin fled from his estates when the Edict of Nantes was revoked in 1685, and eventually settled at Greenwich under William III, whose princedom had been at Orange near Jean's birthplace. One of his descendants was bridgemaster to the City of London and had his official residence in Tooley Street near the hospital which his great-grandson was afterwards to enter. A. L. Galabin's father was a civil servant who lived at Camberwell and was married to Margaret Woods. Her father was descended from a Quaker family, and lived at Tapley, Bishopsteignton, the house to which his grandson eventually retired and in which he died, having taken the house fifty years after his grandfather left it.

After a few years spent at a private school in Camberwell, Galabin entered Marlborough in 1857, where he remained under the headmastership of Cotton, afterwards Bishop of Calcutta, and Bradley, the famous Dean of Westminster. In 1862 he went up to Trinity College, Cambridge, as a minor scholar, and had those rooms in Nevile's Court which were afterwards converted into guest chambers for Royalty and other distinguished visitors. He was one year junior at Trinity to Lord Alverstone and Lord Rayleigh. In 1864 he won a major scholarship on his College Foundation, and in 1866 achieved the great distinction of a "Double First," being placed twenty-first Wrangler in the Mathematical Tripos, and bracketed ninth in the First Class of the Classical Tripos. His college awarded him the Wrangham Medal for his first-classes in the two triposes and in every college examination. He soon started working at the elementary medical subjects, and in 1868 was elected Fellow of Trinity at the same time as Sir Frederick Pollock, the eminent jurist. He proceeded M.A. in the next year.

In 1869 he entered Guy's Hospital, a contemporary of Mr. W. H. A. Jacobson; having been at the university, he ranked as a third year's student, and so went straight into the wards, where he was under Cock and Cooper-Forster, Wilks, Pavy, and Moxon. He took the diploma of M.R.C.S. in May, 1872, and the degree of M.B.Camb. in June of the same year. In 1873 he held the appointments of house-physician and resident obstetric assistant, and took the degree of M.D. In this year he first began to write, and his mechanical bent and mathematical training showed in the subject which he chose. In the *Journal of Anatomy and Physiology* he discussed the dynamic causes of the secondary waves of the pulse, and he also published a pamphlet on the Connexion of Bright's Disease with Changes in the Vascular System. These were followed by many papers in the *Guy's Hospital Reports*, and other publications on the sphygmograph and its tracings, the value of which to the clinician he was one of the first to point out. He invented one form of the cardiograph, and demonstrated it before the Lord Mayor at a meeting at the Mansion House.

There is no doubt that at this period his intention was to practise as a physician and not as a gynaecologist, but fate ruled otherwise. He had been appointed assistant physician at Great Ormond Street, and had applied for a vacancy which had occurred among the physicians of the Middlesex Hospital, when he was, in February, 1874, offered the appointment of assistant obstetric physician at Guy's, vacant by the sudden death of Dr. J. J. Phillips, who had only been appointed assistant five years before. He accepted the post, and thus determined his career, though at that time nobody expected that the retiring and rather bookish young man would develop into the eminent surgeon and brilliant operator that he afterwards became.

He had no period of tedious waiting such as has often fallen to the lot of consultants; as soon as he had finished his resident appointments he was placed on the staff of this big London hospital, and was fully embarked on the career of a gynaecological specialist.

He was convinced that a gynaecologist should be trained as a surgeon and not as a physician, and lived to see his speciality removed from the domain of medicine into that of surgery.

In 1874 he married Harriett Mignon, daughter of the Rev. H. G. Baily, incumbent of Swindon from 1847 to 1900, who was descended from a Huguenot refugee settled at Plymouth in 1700. Thus both husband and wife were of Huguenot ancestry. They took up their residence at 14, St. Thomas's Street, which house they shared with Dr. le Gros Clark, one of the surgeons to St. Thomas's Hospital. In the same year Dr. Galabin became M.R.C.P.Lond. He continued publishing papers on his pulse tracings, but soon began to secure an extensive gynaecological practice, and his writings subsequently followed his speciality. In 1876 he published in the *Guy's Hospital Reports* his first report of the Guy's Hospital Lying-in Charity, in which he analysed with consummate skill a series of 23,591 consecutive cases of labour, a series which he so often quoted to such good purpose in his *Manual of Midwifery* written ten years later.

He was now placed on the Council of the Obstetrical Society, and in 1878 was elected Fellow of the Royal College of Physicians, as soon as he was eligible for election.

He resigned his assistant physicianship at Great Ormond Street, and in 1882 was appointed full obstetric physician at Guy's on the retirement of Braxton Hicks. In 1884, when practice was increasing, he moved to 49, Wimpole Street, where he lived for twenty-five busy years until his retirement from practice. He held all the offices in the Obstetrical Society—librarian, secretary, treasurer—and was president for 1889–90, a year for which he also held office as president of the Hunterian Society. He now had a very large practice, and became one of the leading English obstetricians. He was examiner in obstetrical medicine at Oxford, in midwifery at London, and in midwifery and diseases of women at Cambridge. He once examined at all three universities in the same year; he also examined at the Conjoint Board and for the University of New Zealand. He edited the *Obstetrical Journal* for some years.

In 1903 he retired from the staff of Guy's under the age limit, and was appointed consulting obstetric physician. He continued to practise until, in 1909, he finally left London and went to live at Tapley, Bishopsteignton, a house with a beautiful garden in South Devon, which he had leased as a week-end residence since 1898. Even here he occasionally saw patients, and was willing to assist in difficult cases at the local hospital.

He was a member of the British Medical Association, and was Vice-President of the Section of Obstetric Medicine of the annual meeting in 1837, when it met in Dublin, and President of the Section in 1892 at Nottingham.

As a consultant Dr. Galabin was very successful; he was most careful and thorough in his examinations, and soon won the confidence of all his patients. He was methodical and kept elaborate case-books. As an operator he was brilliant, and always kept abreast of the times in his technique. When he first began operating antisepsis has just been introduced, and he lived to see it superseded to a great extent by aseptic methods, which he adopted.

But it is by his books that he is known, and it is by his books that his name will be remembered. Galabin's *Midwifery* has been read by a multitude of medical students in England for the last twenty years—the combination of gynaecologist and mathematician enabled him to reduce midwifery almost to the domain of an exact science. His easy style and command of English enabled him to write a very readable book, in which the descriptions of all the various fetal movements during labour are mechanically sound. The book, which he modestly called a *Manual of Midwifery*, was first published in 1886; the seventh edition, in which he was assisted by Dr. George Blacker, was considerably enlarged, and was published under the title of *The Practice of Midwifery* in 1910. This work was widely read abroad, was translated into Italian and Greek (1895), and is still regarded as the standard textbook on the subject. His other most important book was *Diseases of Women*, first published in 1879, of which a sixth edition was issued in 1903. The late Matthews Duncan once said, "Everything Galabin says is worth listening to, everything Galabin writes is worth reading twice."

In manner he was very quiet and reserved, and, though he had read and thought deeply on most subjects, it was difficult to get him to talk thereon or to utter the opinions he had formed. He would often listen to a voluble talker for some time, and then utter a quiet remark—prefaced by a modest "I suppose"—which completely summed up the matter, and often put it in quite a new light. He was a staunch moderate Churchman; in politics he was originally an old-fashioned Liberal, but became a Unionist when that party split up. He never espoused Tariff Reform, and called himself latterly a keen Unionist Free Trader. He was very fond of music but no musician.

His health was never robust even in childhood, and his aunt's diaries still extant contain many entries of the poulticings and nursings of "little Lewis." In 1886 he had his first attack of tachycardia, and was then found to have valvular disease; the attacks were frequently repeated, but he was able to go through two necessary but severe operations, and for the last two years of his life his heart gave him hardly any trouble.

He was a very good chessplayer, and was a member of the Four-handed Chess Club from its foundation in 1885. He was very fond of travel, and went abroad nearly every year, at first with college friends, and later with wife and daughter. He was a devotee of the mountains, but had not the physical strength necessary for mountaineering. He was a good walker, and had walked over all the great Alpine road passes. He was a member of the Hellenic Travellers' Club. A camera and a botanist's vasculum were always carried on his walks, and, in fact, botany was his great hobby. He always loved a garden but never had any opportunity of enjoying one until he went to Tapley in 1893, and then his happiest days were spent in his garden planning new beds and restocking old ones. Fresh supplies were always brought back from his Continental tours, so that he had in profusion cyclamens from Monte Generoso, shrubs from the Dauphinée, and ranunculi from Cannes. As a neighbour (an old Guy's man) said: "If I show Galabin anything new in my garden, he scribbles it on his shirt cuff and the plant is soon flowering in his garden." He loved flowers, and this month, when he heard in Sicily that the flowers in England were much earlier than usual, he turned homewards sooner than he had intended, and hurried across Europe to see his daffodils at Tapley before they were over. He only went once round his garden; pneumonia set in, and he died after five days' illness, under the shadow of a spreading cedar that his grandfather had planted. He was buried at Bishopsteignton on March 29th in a grave lined with his own daffodils, and the service was read in the church in which his mother and father had been married. He was a man of noble simplicity and most straightforward character, but one of those quiet thinking men whose powers are perhaps never fully revealed to their associates, and of whom, therefore, no adequate appreciation can ever be recorded; but in this instance the power of the man can perhaps hardly be more forcibly shown than by saying that, while his bent seemed to be all in the direction of original physiological investigation of the diseases of the circulation, finding his way in medicine barred for the time, he accepted the opportunity offered to him of an obstetric appointment, and thenceforth devoted himself entirely to the special and very alien branch of work.

Few could have been bold enough at his outset to suppose that under his somewhat slender and delicate-looking frame there existed the nerve and determination sufficient for a successful surgical career. Yet it was so; and Galabin had the reputation of being a bold, a careful, and a very successful operator in all the major operations of obstetric surgery, while his kindly and gentle manner inspired confidence in his patients, and was greatly appreciated in a sick room.

Of his home life one need only say he was fond of

home, fond of seeing his friends, who soon found out that, although at first he might seem somewhat impenetrable, he was generally ready to say something worth listening to on most subjects that came up for discussion by the way. And by those who knew him well he will be remembered and regretted.

He leaves a widow and one daughter, who is married to Mr. Harold Michelmore, the well-known West Country tennis player.

ROBERT HUNT, M.R.C.S., L.R.C.P.,

CONSULTING SURGEON, BLACKBURN AND EAST LANCASHIRE INFIRMARY.

DR. ROBERT HUNT, one of the best known and most highly esteemed practitioners in Lancashire, died at his residence at Blackburn on Wednesday, March 19th. He had been in perfect health and was playing golf on the previous Saturday; next day pneumonia commenced and threatened from the very beginning to prove fatal. This fact was only known by those in immediate touch with him, so that his death was a shock as well as a cause of the deepest regret to the community.

Robert Hunt, a member of a well-known Lancashire family, was born at Preston in 1856, and after completing his general education at the Grammar School in the same town became a student at Owens College, Manchester. Subsequently he spent a year or two in London, and became M.R.C.S. in 1877, and L.R.C.P. in 1882. He held various resident appointments at the Manchester Royal Infirmary and the Monsall Fever Hospital, and finally settled down to practice in Blackburn. He was appointed to the honorary staff of the Blackburn and East Lancashire Infirmary, and remained an active worker on the surgical side until some three years ago, when he was appointed honorary consulting surgeon. He was also medical referee to the county court, a certifying surgeon under the Factories Act, and a public vaccinator. A man of exceptionally fine physique, Dr. Hunt was an all-round sportsman in the very best sense of the term. As a young man he was a renowned exponent of Rugby football. For several years in succession he was an International player; indeed, he and two of his brothers created a record in this connexion, for they were all three International players in the same year, Dr. Hunt being English three-quarters back and his brothers playing in the same team as forwards. In his later years he was an active member, and for a long time captain, of the Pleasington Golf Club, and up to a comparatively recent period had been a good shot. His other characteristics are well described in the following note from one of his colleagues:

"Bob," as he was affectionately spoken of by his friends, had one outstanding characteristic. This was a diffidence about his achievements as an athlete or as a surgeon. No one ever heard him speak of his days as a Rugby International, or of his prowess on the golf links and with the gun. As a surgeon he possessed in a marked degree good judgement, and his manipulative dexterity was the envy of his colleagues. He was specially good at plastic work, and took great pleasure in operating for harelip and ruptured perineum. As a golfer he was the most difficult man in the club to beat, as he never gave in while the faintest possibility of winning remained.

In ambulance work Dr. Hunt also took much interest; indeed, the local branch of the St. John Ambulance Association practically owed its origin many years ago to his energies. The parent body, the Order of St. John of Jerusalem, made acknowledgement of this by appointing him an honorary associate, and the post of examiner was one of those that he held at the time of his death. He was also a member of the Preston and Blackburn Division of the British Medical Association. His death leaves a blank both in the professional and social life of Blackburn which will prove difficult to fill. He was married, and is survived by his wife and by two sons.

WE have to record the death, on March 30th, at the age of 58, of Mr. ALFRED CHUNE FLETCHER, of the Charterhouse, where he was resident medical officer to Sutton's Hospital. He was the son of a journalist in Hereford, and received his early education at the Grammar School in that city. He became a student at St. Bartholomew's Hospital in 1877, obtained the diploma of M.R.C.S.Eng. in 1881, and was house-surgeon to the hospital. In addition to the appointment by which he was best known he was medical officer of the Merchant Taylors' School, and had earned the confidence and esteem of many patients and friends in all parts of the country. We have received from a lay correspondent a tribute to his memory, in which, after deprecating any desire to estimate his attainments as a medical practitioner, he writes: "Perhaps you will allow me to refer to what in my opinion constituted a greater merit than any professional skill, and that is the great hold which as a man and as a superior he had, by his gentleness, consideration, and scrupulous regard for the self-respect of others, managed to acquire upon the affections and regard of those subjected to his authority while resident medical officer at the Charterhouse. Remarkably kind as he was to the fairly considerable staff of attendants and nurses that worked under him, helping them with many a kind action, his merit showed forth most conspicuously in his conduct towards the pensioners, not a few of whom had previously lived in good positions. Not every one in authority would have been equally careful to avoid wounding their self-respect by harsh or haughty conduct. Dr. Fletcher never did so, and the result is, I find, a genuine, grateful regard retained for his memory, such as would have gratified him could he be made aware of it, and such as shows that kindness and consideration under circumstances such as his are not thrown away." A member of the profession who signs himself "A. E. P." adds that he had known Mr. Chune Fletcher for over twenty years, and could truthfully say, "We shall not see his like again."

WE regret to announce the death of Dr. MICHAEL AHERN, of Brosna, co Kerry, after an illness of some weeks. He had been in charge of the Brosna and Knocknagashel Dispensary Districts for more than a quarter of a century, and was one of the most popular medical men in Kerry.

SURGEON-GENERAL T. J. MURPHY, late A.M.D., who died on March 10th, aged 82, obtained the diploma of L.R.C.S.I. in 1852, entered the service in April, 1854, was promoted Surgeon in 1865, Surgeon-Major in March, 1873, Brigade Surgeon in November, 1879, and Deputy Surgeon-General in May, 1882. He retired with the honorary rank of Surgeon-General in September, 1884.

DEPUTY INSPECTOR-GENERAL G. SAUNDERS, C.B., died on March 6th at Tunbridge Wells, aged 89. He took the diploma of M.R.C.S.Eng. in 1845 and became M.D.Aberd. and M.R.C.P.Edin. in 1872. He joined the service in December, 1845, becoming Surgeon in 1854, Surgeon-Major in 1865, and retired in February, 1871, with the honorary rank of Deputy Inspector-General. He served in the Crimea, was present at the battles of Alma and Inkerman, the capture of Balaclava, and the siege of Sebastopol. He was mentioned in dispatches and was awarded the medal with three clasps and the Turkish medal. He was senior medical officer at Hong Kong during the fever epidemic in 1865 and was mentioned in dispatches and awarded the C.B.

Public Health.

POOR LAW MEDICAL RELIEF AT BURNLEY.

THE Burnley *Express* has published a report of a recent meeting of the Burnley guardians, when letters were read from the Burnley Division of the British Medical Association and the Poor Law Medical Officers' Association of England and Wales protesting to the Local Government Board against the proposed scheme for furnishing medical relief in the area of the union. The Local Government Board asked for the comments of the guardians. The letter from the Burnley Division was as follows:

I am instructed by the Committee of the Burnley Division of the British Medical Association to request the consideration of your honourable Board to the dispute of the district medical officers of the Burnley Union—a matter which was brought to your notice by a letter from me dated December 9th, 1912.

It will be within your knowledge that the whole of the nine district medical officers of the union resigned their positions, having failed to obtain what was considered by them and by the medical men in the district adequate remuneration, or remuneration which was equal to that paid in similar surrounding unions. An increase of stipend was offered to some of the district medical officers in June last, but even with this increase the amount was still inadequate. As a counter move the guardians have decided

to divide the union into fifteen medical areas instead of nine as heretofore, and have dismissed all the public vaccinators with the object of utilizing the fees for vaccination towards eking out the small salaries to be paid to the district medical officers. My Committee desires to inform you that in December last the Mayor of Burnley met the district medical officers and officers of the Burnley Division, and kindly offered, if agreeable to them, to approach the guardians with a view to a settlement of the dispute. This was gladly agreed to by the medical men but refused by the guardians.

Various points were then put forward, namely, that the present board of guardians would shortly vacate office; that no good reasons had been given for the proposed divisions and the dismissal of the public vaccinators; that even with the increase of payment proposed, the remuneration in the Burnley area would fall far short of that paid in adjoining unions; that the salaries proposed in the various new districts did not correspond with the work likely to be required; and that the making the district medical officer a public vaccinator in his own district greatly conduced to underpaid Poor Law work.

The letter of the Poor Law Medical Officers' Association pointed out that the comments by the Burnley Guardians on its last letter had in no wise answered the points raised by it against the proposed arrangements, and submitted further criticism, similar to that of the local profession. Special stress was laid on the undesirability of allotting the public vaccination of every Poor Law medical district to the district medical officer. In some cases it might be convenient and unobjectionable; but to divide a union like Burnley into fifteen distinct vaccination districts was a proceeding so unusual as to demand explanation. This, it was stated, had not been forthcoming.

The guardians resolved unanimously to make no comments on the above letters. This, no doubt, was the easiest course, but whether it will commend itself to the Local Government Board remains to be seen. That body by sending down the letters evidently considered that the former comments of the guardians on the previous letters were insufficient. In all the circumstances we cannot but agree with the Council of the Poor Law Medical Officers' Association, "that the *impasse* that has arisen imperatively calls for investigation of the conditions under which medical relief is being administered in the Burnley Union."

Medical News.

A MOVEMENT has been started to commemorate the visit of His Majesty King George to Aden by the erection of a female hospital, the want of which has long been felt.

DR. JAMES DEVON, Medical Officer to H.M. Prison, Glasgow, has been appointed a Prison Commissioner for Scotland, in the place of the late Mr. Thomas Robertson.

THE International Association of Medical Psychology and Psychotherapy will hold its annual meeting at Vienna on September 18th and 19th, immediately before the opening of the Congress of German doctors and scientists.

THE King has granted permission for Captain Robert G. Archibald, M.B., R.A.M.C., to accept the Imperial Ottoman Order of the Medjidieh of the Fourth Class conferred upon him by the Sultan of Turkey in recognition of valuable services rendered.

THE Lord Chancellor has added the names of fifty-seven gentlemen to the Commission of the Peace for the County of London. Among the names are those of the following members of the medical profession: Sir Thomas Boor Crosby, Dr. W. J. Frankish, Dr. Wheeler-O'Bryen, and Dr. T. Rushbrooke.

THE third tour organized by the Voyage d'Études Médicales will start on August 25th, and will include visits to watering places and climatic stations in the south-west of France, beginning with Arcachon, Dax, and Biarritz, and concluding with Bagnères-de-Luchon on September 6th. Further particulars can be obtained from Dr. Carron de la Carrière, 2, rue Lincoln, Paris.

ON the strength of a recent epidemic of ophthalmia at the Park School, Hanwell, the State Children's Aid Association has addressed to each member of the various boards of guardians concerned a letter urging that this "unnatural gathering" should be broken up. Had these children, it is suggested, been cared for in small groups on the family plan, the primary case or cases would have been more readily detected and much unnecessary suffering avoided.

THE competition in mothercraft, which we announced as in prospect some months ago, is to take place on the afternoon of Saturday, April 12th, at the Infant School in Charing Cross Road. This is the last day of the "health week" which has been organized by the National League for Physical Education and Improvement; the competition has been arranged through the affiliated Association of Infant Consultations and Schools for Mothers. The names of a hundred competitors have been entered from sixteen different centres, and the contest between them promises to be keen. Apart from individual prizes to competitors, a challenge shield will be awarded to the centre securing the highest aggregate number of marks. Admission to view the competition will be by ticket, price 1s. Early application should be made to the Secretary of the Association, at 4, Tavistock Square, since only a limited number are available.

A PLAN for the establishment of a sanatorium for tuberculosis in the province of Shantung, one of the most thickly populated parts of Central China, has been approved by the English and American missions which have united for purposes of medical education, and by the council of the Shantung Christian University. As far as is known, there is at present no public institution in China intended solely for the treatment of tuberculosis. The need for such a sanatorium is shown by the fact that 30 per cent. of the patients in some of the mission hospitals suffer from tuberculosis.

AN illustrated pamphlet descriptive of the tours to Norway and the northern capitals arranged for the coming summer by the Royal Mail Steam Packet Company can be obtained on application to the company's offices in Moorgate Street. The vessel set apart is the *Arcadian*, one of nearly 9,000 registered tonnage, equipped as a yacht, and supplied with various modern conveniences, such as bedsteads instead of berths, and a swimming bath and gymnasium. The cruises will vary in length from thirteen to twenty days, the rates ranging from £1 a day upwards.

A DEPUTATION from the Eugenic Education Conference recently held in London had an interview with Mr. Trevelyan, Parliamentary Secretary to the Board of Education, on April 2nd, asking that an inquiry should be held as to the advisability of encouraging the presentation of the idea of racial responsibility to students in training and children at school. The deputation, which was headed by Major L. Darwin, President of the Eugenics Education Society, and including the Head Master of Eton, Mr. Nicholls (ex-President of the National Union of Teachers), the Dean of St. Paul's, and Miss Tuke (Principal of Bedford College), stated that it was not desired that eugenics should be an extra subject in the curriculum, or that it should be required to be taught by unwilling teachers, but it urged that the training college curriculum should be adapted to include the biological and physiological knowledge on which a eugenic ideal could be based, and that the subject should be approached from the evolutionary standpoint. Mr. Trevelyan said that the board, while unable to make sex hygiene or eugenics a compulsory subject of instruction in elementary schools or training colleges, recognized the importance of the matter, and had no wish to discourage experiments in teaching on those lines.

LORD LONSDALE, in an appeal on behalf of Charing Cross Hospital, makes reference to the strenuous efforts of the managing body during the last eight years to place the institution on a sound financial basis. It is greatly to their credit that within that short space of time they have reduced the debt by £35,000; but—unhappily there is always a big But in such appeals—there remains a balance of £62,000 still to be paid. In addition to that sum money is required for further improvements, amongst which are the opening of a free children's ward, and the reopening of five closed wards as pay wards. At present young children have for lack of room to be placed in the adult wards, much to the discomfort of the other inmates, and also of the sufferers themselves. The pay wards are intended for persons who are unwilling to accept charity and yet unable to afford surgeons' fees and the expense of a nursing home. The charge is to be two guineas a week, payment which will cover whatever operative measures may be necessary. The privilege of admission to these wards will, it is stated, be strictly limited to persons of moderate incomes. To pay off the outstanding balance and to defray the cost of these contemplated improvements a total sum of £70,000 is required. Lord Lonsdale's appeal is addressed particularly to the theatrical and sporting community. Owing to its situation the hospital receives a large number of patients connected with theatres, and all patrons of the drama may therefore be expected to take a keen interest in the institution. The Charing Cross Hospital has behind it a fine record of excellent work for the benefit of the sick poor and for the advancement of medical science, and it is to be hoped in the interest of suffering humanity that the development of its field of usefulness will not be hampered by lack of means.

Letters, Notes, and Answers.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Intermittent Glycosuria.

Dr. J. L. Thomas (Brynmawr) writes: Mrs. X., aged 47, a multipara, and still regular in menstruation, complained of much pruritus pudendi, and the usual symptoms of glycosuria in women of that age. There was a history of extreme and habitual constipation, but of good health until the present symptoms began. As she was menstruating, and no sample of urine was then procurable, she was provisionally put on laudanum, alkalis, and full doses of nux vomica. The usual instructions with regard to diet were given. The first sample of urine—morning, fasting—had specific gravity 1010 and no sugar. It was pale and cloudy, and contained bacilli of the *coli* group. A sample for the afternoon of the next day was of specific gravity 1030, and contained much sugar. She has in three weeks much improved with treatment, but urine after fasting and after meals showed the same results, although the amount of sugar is much reduced. Is the glycosuria of chemical or bacterial origin?

Income Tax.

M.B. joined a partnership a year ago without buying any book debts. The income tax assessment for the year is £471, but the actual profits of the firm £290 only. He has borne his share (four ninths) of the tax on £471, and asks what his remedy is.

If our correspondent's income from all sources does not exceed £400 he can in any case claim repayment of tax on £160 by an application to the local surveyor of taxes. With regard to the amount of the assessment on the firm's profits, this is not excessive if the profits, including the year's outstanding book debts, amount to this sum. M.B.'s profits for the year cannot be calculated only by reference to the cash receipts in the first year, since he has become entitled also to his share of the book debts arising in the year. No adjustment of the gross assessment can be obtained unless the profits of the practice as a whole have been less than the assessment, owing to the change of partnership or some other specific cause; if they have been less than the assessment application should be made to the surveyor of taxes for adjustment on this ground.

Pathognomic.

We regret that by an oversight we have left the following letter from Dr. E. A. Constable (West Green, N.) unnoticed. Under date January 8th he wrote: May I ask which *English dictionary* is responsible for "pathognomic"? (British Medical Journal, January 4th, Epitome of Current Medical Literature, para. 6, "Ligueus Phlegmon"). The Spanish alone seems to uphold it. Gr., *παθογνωμονικος*; It., *patognomonico*; Sp., *patognomico*; Fr., *pathognomonique* (Worcester's Dictionary).

*** The form "Pathognomic" is given in the *New English Dictionary on Historical Principles* (Oxford, Clarendon Press). It is stated to be from the "late form" *pathognomic*, which is described as equivalent to "pathognomonic." The following examples of the use of "pathognomic" are given in that *Dictionary*:—*Bonet's Merc. Compit.*, VI, 185: "The Pathognomick Symptome of this Disease, and that which first invaded the Patient" (1665). Charles Darwin's *Emotions*, VIII, p. 205 (1872): "Constant tremulous agitation . . . pathognomic of the earlier stages of general paralysis." "Pathognomical" is used in the same sense by T. Goodwin in *Trial Counter's Counsels* (1643): "such symptomes are Pathognomicall and proper and peculiar to them." In the *Farnworth Parish Reg.* (Soc. Lancs. & Ches.) the phrase: "With the advance of power of pathognomical expression" occurs in a certain loss of grandeur." "Pathognomy" occurs in Good's *Study of Medicine*, fourth edition, I, p. 545 (1822-23). The form may be defended on the ground of convenience of pronunciation, and it has an analogue in "physiognomic," = physiognomonic, from the Greek *φυσιογνωμονικος*. There are other instances in medical terminology of shortening up words. We need only instance formic acid, which on strict etymological principles should be "formicic" acid (*formica*).

ANSWERS.

Thalatta.—Oleate of mercury was, we believe, introduced as a cleanly and efficient substitute for mercury ointment to produce mercurialization by inunction. The mercury oleate ointment, *B.P.* (1898), consists of mercury oleate 1 part, benzoated lard 3 parts. The *Extra Pharmacopœia*, fifteenth edition, p. 553, contains formulas for oleatum hydrargyri 10 per cent., oleatum hydrargyri 10 per cent., cum morphina (1 in 60) and oleatum hydrargyri liquidum. The first two contain 10 per cent. of yellow mercuric oxide, the last mentioned 5 per cent. The rubbings are usually weighed up in grease-proof paper of weight 10 to 30 grains, or the equivalent of the liquid preparation may be employed.

Underfeeding.

Dr. Binnie Dunlop (London, S.W.) writes: The report on the diet of the labouring classes which has just been issued by the Physiological Department of Glasgow University reveals, as you say, that "there must be a large percentage of the people in Glasgow to-day who cannot obtain the bare minimum in the way of food." Is this to be wondered at in view of the prevailing ignorance of parental prudence among the poor, and of Mr. Seebohm Rowntree's authoritative estimate that, if expended with the utmost scientific care, a weekly wage of 23s. 8d. would only provide the bare necessaries of life for a family of three children? It is surely time that, on humanitarian, eugenic, and political grounds, we recognized the fact that few urban wage earners can do justice to more than two children. Vital statistics show that falling birth-rates are accompanied by falling death-rates, and that they will continue to be so until the latter have reached the normal—about 10 per 1,000 per annum, as in New Zealand. At present, therefore, the principal aim of medical officers of health should be the abolition of underfeeding. So I beg to submit my opinion that there are only two genuine propositions, and but one practicable one, for the abolition of underfeeding—either (1) that every adult wage-earner should receive from the State an additional so many shillings a week for each child he may have; or (2) that the poor should be encouraged to beget no more children than they can themselves afford to maintain properly.

LETTERS, NOTES, ETC.

Brudzinski's Sign.

In the review of the fourth edition of Dr. Louis Fischer's *Diseases of Infancy and Childhood*, published in the British Medical Journal of March 22nd, p. 617, it was said that Brudzinski's sign in meningitis was there first mentioned in a textbook written in English. The fact that the sign was described in Dr. Cautley's *Diseases of Infants and Children*, published in 1910, was overlooked.

Sunshine in 1912.

Dr. Hy. Draper Bishop, States M.O.H. (Guernsey), writes: The past year (1912) seems to have been in the British Isles very gloomy, with but little sunshine. As has often happened before, Guernsey holds the record for 1912 with 1,704 hours of sunshine. The year was, however, the least sunny on record here, the average of past years having been 1,965 hours.

A Large Dose of Veronal.

Dr. A. Goldney Chitty (Highgate, N.) writes: On March 8th I was called to a man, aged about 40, who, presumably about 6.30 the previous evening, had swallowed 125 grains of veronal. It was not discovered till 10 a.m. the following morning, when his bedroom door was forced open. I saw him about 10.45, and I washed out the stomach thoroughly. As I was not quite sure that he had not had some opium as well, I washed it out with potassium permanganate in addition, finishing with the administration of hot coffee and a couple of beaten up eggs through the stomach tube. With six hourly injections of strychnine 1/30 grain, the constant inhalation of oxygen, and rectal feeding, I had the satisfaction of bringing him round, but he remained quite unconscious till the morning of March 11th. Now that the authorities have put veronal on the scheduled list of poisons, it seems a great pity they did not at the same time make it obligatory for no chemist to supply it without the prescription of a medical man.

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An Address
ON
RHEUMATOID ARTHRITIS.

DELIVERED AT A MEETING OF THE SUNDERLAND DIVISION OF THE BRITISH MEDICAL ASSOCIATION,

BY

SIR JAMES BARR, M.D., LL.D., F.R.S.E.,

PRESIDENT, BRITISH MEDICAL ASSOCIATION.

MR. CHAIRMAN AND GENTLEMEN,—When, at the request of my friend Dr. Todd, I consented to give an address to your Division on rheumatoid arthritis, I was told that this complaint is fairly common in this district, and he was specially solicitous that I should give you a few infallible tips on treatment; but I am too old to deal in infallibilities—it is only the young men in all ages who propound infallible cures, which as a rule are short-lived, and the patients become sadder, and the doctors perhaps wiser, men. If it had not been for these cocksure gentlemen, I feel confident that we would have known more about this disease than we do at present; there is a statement made by Karl Pearson in reference to another subject, which is very applicable to this one:

> It is a very uphill battle to contest one after another the various dogmatic statements made by a small section of the younger medical men on the basis of statistics which are hopelessly inadequate, if they are not misread or perverted.

There are few diseases in which greater confusion exists as to their nature and causation than those of the joints, and yet every writer seems to think that he, at least, knows all about the subject. I believe it was Robert Lowe who said that "it does not matter what you say so long as I understand what you mean," but herein lies our difficulty. If you read any textbook dealing with arthritis, you will be a clever man if you know what the author means; and, on the other hand, you may probably consider that the writer does not himself know. You will find a whole series of diseases inextricably mixed up under the same name, or different names applied to the same disease. You find such names as rheumatoid arthritis, infective arthritis, toxic arthritis, arthritis deformans, osteo-arthritis, chronic rheumatism, rheumatic gout, indiscriminately applied to a variety of affections of the joints and to different stages of the same affection.

Arthritis deformans is a common name for the disease with which we are dealing, but if you wait for deformity before correctly diagnosing the disease you may have to wait for years until the patient is becoming a hopeless cripple. Again, some call this affection an infective arthritis, and others call it a toxic arthritis without offering any proof in support of their contentions. As a rule, the less these gentlemen know about infections or toxins the more dogmatic their statements. Good bacteriologists do not talk in this manner, because they have been taught by Koch:

1. The organism in question must be present in the tissues, fluids, or organs of the animal affected with, or dead from, the disease.
2. The organism must be isolated and cultivated outside the body on suitable media for successive generations.
3. The isolated and cultivated organism on inoculation into a suitable animal should reproduce the disease.
4. In the inoculated animal the same organism must be found.

What author who boldly asserts that rheumatoid arthritis is an infective disease has conformed to those postulates, or what is the toxin that lights up this affection? This toxin is as vague and indeterminate as the imaginary "stimulus" which is supposed to initiate and maintain cardiac contraction.

Because certain cases of arthritis have been associated with pyorrhoea alveolaris or an ulcer in the rectum, and have been cured by a vaccine, it has been promptly assumed that all cases of rheumatoid arthritis are due to some germ or other, or to its toxin. But such evidence as this is no proof whatever that these easily remediable cases are similar or in any way allied to the chronic polyarticular inflammations of the synovial membranes and periarticular structures of the joints which we designate rheumatoid arthritis. No doubt many organisms, such as the tubercle bacillus, the gonococcus, the *Diplococcus intracellularis* of Weichselbaum, the pneumococcus, the influenza bacillus, the streptococcus and staphylococcus, not unfrequently set up a monarticular or a polyarticular arthritis, but such cases should be easily differentiated from rheumatoid arthritis. It is often marvellous how a case of gonorrhoeal rheumatism, especially if monarticular, can be rapidly cured by a few injections of a gonococcus vaccine. The worst case of suppuration of many joints which I have ever seen was due to the *Diplococcus intracellularis*.

Perhaps the most popular view of this affection in the present day is to look upon it as a toxic arthritis, due to one or more toxins produced by the intestinal flora, but no attempt has been made to show the nature of the toxin or its special affinity for the joints, or what the liver has been doing to allow it to pass its portals. The urine shows no evidence of intestinal putrefaction, and this vague hypothesis rests on no firmer foundation than the imagination of some writers. Such evidence is of no more value than that of the Irishman who, not wishing to reveal his ignorance, when hard-pressed on cross-examination acknowledged that he was perhaps putting a hypothetical case before his lordship and the jury, but when asked what is an hypothesis he replied that in faith he did not know, but he thought it was some part of a pig; so those gentlemen do not know what is the toxin, but they think it is some part of rheumatoid arthritis.

Osteo-arthritis is frequently used as a synonym for rheumatoid arthritis, but really the two conditions are diametrically opposed. The former usually occurs at a later age; the disease runs a very chronic course without any exacerbations. There is thickening of the synovial membranes, erosion of the cartilages, eburnation of the ends of the long bones and the formation of osteophytes. It usually affects many joints, but one hip-joint may be the only one involved. In this category must be included Heberden's nodes, and spondylitis deformans. It is true that the deposition of lime salts may take place in the final stages of rheumatoid arthritis, but this only occurs after the disease is over and the deformity left. It is Nature's clumsy method of effecting a cure.

RHEUMATOID ARTHRITIS.

By a process of elimination I am now in a position to define what I mean by rheumatoid arthritis. It is a low, chronic, polyarticular inflammation with frequent acute exacerbations. There is thickening of the synovial membranes and the periarticular fibrous tissue, with slight serous effusion into the joints. The muscles generally are wasted, irritable, and contracted; the deep reflexes are increased, and there is frequently neuritis, especially of the nerves supplying the joint structures. The joints are at first stiff, grating and painful on movement. In my experience the large joints, especially the knees, shoulders, and ankles, are first involved, and one joint only may be at first affected, especially if it had been previously injured. In this stage of the disease, if recognized and energetically treated, it rapidly disappears; but unfortunately the disease is not then usually diagnosed, but is called chronic or subacute rheumatism and treated accordingly; or if it be recognized, the patient is told that it will eventually cripple her, and nothing can be done except to try and delay its progress. If the disease be allowed to progress, as it practically always is, then you get the smaller joints affected, such as the wrist joints, carpus, metacarpo-phalangeal and first phalangeal joints, and the joints of the toes. You then get the characteristic fusiform swelling of the joints, and of course diagnosis can no longer be delayed. The further swelling of the joints is accompanied by increased effusion, erosion of the cartilages and rarefaction of the articular ends of the bones from absorption of the lime salts. From the disorganization of the joints and muscular contraction you get well-marked arthritis deformans. It is still possible to cure the disease, but not the deformity. If, however, you keep hunting after the germ and its toxin, the patient as well as her joints will become a hopeless wreck.

Etiology.

In dealing with the nomenclature I have to some extent referred to the etiology. As I believe with Newton that

we should admit no more causes of natural phenomena than such as are both true and sufficient to explain their appearance, I shall at once pass over the score of causes which have been set down in textbooks, and now state my own view as to the immediate cause of the disease, and afterwards lay bare the foundations of my belief. The proximate cause, in my opinion, is a mild chronic acidosis, which extracts the lime salts from the fibrous tissue, muscles, nerves, cartilages, and bones. I thus look upon this affection as a general disease, and the apparent localization in the joints is due to their structure and liability to injury. The extraction of the lime salts from the fibro- tissue causes it to swell and its vascularity increases; with the loss of the lime salts the muscles get into a condition of irritable weakness—they waste, readily contract, cramp frequently occurs, all the deep reflexes are exaggerated, and even a state of rhythmic tremor may be set up. There is not much lime in the nervous tissue, but its abstraction leads to a marked result; neuralgic pains readily occur, and even neuritis is easily established. The patients frequently complain that the pains are worse at night, and this is almost universally ascribed to the heat of the bedclothes, a regular *post hoc, propter hoc* argument, but when the patient is in bed in the daytime the pains subside, though "the heat of the bedclothes" remains the same. The condition really is that the blood is less alkaline at night; it is consequently capable of holding more lime, which is taken up from the tissues. The night pains can usually be obviated by a drachm of sodium bicarbonate and 15 grains of lime carbonate in a glass of milk at bedtime.

As more and more lime gets absorbed, you get swelling of the periarticular tissues and effusion into the joint; this serous effusion is often bloodstained, and inflammation in the joints soon attacks the cartilages, from which absorption of the lime salts takes place, followed by their erosion and thinning. The ends of the bones in the afflicted joints are attacked last, and absorption of the lime salts with rarefaction takes place; these parts of the bones are selected as they are easily damaged from use and become more vascular. The deposition of lime salts readily takes place in parts which are not functionating, and if you wish to cause absorption you must see that the function of the part is restored—for example, if you wish to decalcify rigid costal cartilages, you must not merely use decalcifying remedies, but you must also make the patient take respiratory exercises.

I frequently use decalcifying agents, but I am always quite alive to the danger of producing rheumatoid arthritis, and so such an untoward event has never occurred in my hands. Perhaps some of my followers will accomplish this, but it will not be without warning. If people were more careful in their diet they would not require so much physic.

Sex.

Women are much more liable to this disease than men. There is nothing in the constitution of a woman which should make her specially susceptible to this disease, but the very same conditions which make her less liable to arterio-sclerosis render her more prone than men to rheumatoid arthritis. In the poorer classes, where this disease abounds, she is badly nourished, lives on tea, bread-and-butter, and various carbohydrates, which readily undergo acid fermentation in the stomach; there is a poor supply of milk and other proteins. She gets very little lime and other alkalies, while she is liable to exhausting discharges, such as menorrhagia, leucorrhoea, excessive lactation, and mucous colitis, which rob the system of its lime. The leucorrhoea is usually due to the *Bacillus coli* or other organisms, but so far as the rheumatoid arthritis is concerned it is not the organisms, which are practically outside the body, but the loss of lime, which works the mischief. It most frequently occurs in women between the ages of 15 and 35, during their most active menstrual period. It does not usually start after the menopause, but if then already present other causes may maintain it in an active condition. The thyroid gland is more active in women than in men, and this leads to active calcium metabolism. It is essentially a disease of debility, and nutrition is readily affected by worry, anxiety, overwork, frequent childbearing, loss of blood, etc.

Among the associated conditions which to some extent stand in a causal relation must be specially mentioned an almost invariably dilated stomach with deficient motor action and obstinate constipation with occasional diarrhoea. For the maintenance of the motor function of the stomach and bowels a certain amount of calcium and potassium salts are necessary, while in these cases the supply of both is deficient. This leads to stagnation with acid fermentation, and the production especially of lactic and butyric acids; this tends to increase the excretion of lime rather than its absorption. The late Dr. O. T. Williams showed how the insoluble lime soaps damage the mucous membrane, setting up mucous colitis; but in this case they have the further deleterious effect of robbing the system of lime.

The amount of lime taken up from the intestinal tract when administered in the form of food or medicine is very variable. In many cases only a small fraction of that administered reaches the blood, while many individuals absorb it freely and excrete it as rapidly. Apart from individual peculiarities, this to a large extent depends on the form in which it is presented for absorption; the tribasic phosphate is a very fixed salt and almost entirely insoluble, yet I have heard a professor of therapeutics assert that this salt cures the toothache of pregnancy. Such child-like simplicity and therapeutic faith deserve a place in the Kingdom of Heaven if there be no retribution for culpable ignorance. The sulphate is rather insoluble but it is readily decomposed in the intestinal tract, and so presented to the mucous membrane in more assimilable forms; the same can be said for the carbonate. The chloride, the lactate, the glycerophosphate, and the iodide of calcium are all easily assimilable forms; the iodide is an especially active salt, but from its stimulating effect on the thyroid gland it is not always advisable in this disease. The oxalate of lime is very insoluble, though it may be decomposed in small amount by the hydrochloric acid of the stomach; the citrate of lime is fairly soluble, but the citric acid hastens elimination. Where sodium citrate is added to cow's milk it splits off the fixed lime from the casein, and thus lessens the density of the curd. When the stearin and palmitin of beef and mutton fats are decomposed by the lipase in the intestines, their saturated fatty acids readily form insoluble lime soaps; but, on the other hand, the oleate of calcium is easily assimilated.

Lime exists in two states in the blood—first, as a fixed albuminate of calcium, and, second, as free ionizable calcium; the amount in both states varies considerably, but especially in the latter. When the blood is very alkaline the fixed lime is fairly constant, but as the alkalinity increases the blood holds less free lime and part of the free ionizable calcium is thrown out into the tissues, or excreted by the bowels and kidneys.

The fixed lime in the form of large molecules of calcium albuminate increases the viscosity of the blood, lessens the capillary velocity, and diminishes transudation of albuminous fluids, hence where the blood is well charged with fixed lime you do not get any albuminuria; on the other hand, with diminished alkalinity and the presence of acid salts with an alkaline reaction the blood holds a considerable amount of lime, which is readily excreted by the bowels and kidneys, and leaves the blood ready to take up more lime from the tissues or alimentary tract. So long as the blood is more or less saturated with lime the fixed calcium remains constant, but where the acidosis is not completely saturated with lime or alkalis the fixed calcium may be split off from the albumen, and then you readily get transudation. Hence, in the early stages of rheumatoid arthritis the urine is usually free from albumen, but in the later stages or during acute exacerbations when the fixed lime is lessened you get albuminuria, and also effusion into the joints and tissues. Dr. Sydney Ringer made experiments on the swelling of laminaria when immersed in water, and he found that sodium and potassium chlorides retarded, but did not lessen, the amount of fluid taken up; on the other hand, even minute traces of the chloride or other soluble salt of calcium greatly and persistently restricted the swelling of laminaria. Among the causes of dropsy the presence of sodium chloride in excessive amount must be recognized; and in the treatment of this affection Widal and many others have recommended a salt-free diet; but I have shown that in many cases this is not enough; you

must to some extent replace the sodium salts in the tissues with calcium salts. In rheumatoid arthritis there is usually a deficient supply and excessive excretion, though, of course, the activity of the process is an ever-varying quantity.

Symptoms.

We have already referred to the dilatation of the stomach, deficient motor function, acid fermentation and intestinal stasis; when the latter is very marked and persistent you get pigmentation of the skin with dark lines round the eyes. The function of the liver and pancreas are impaired, and the patient is usually troubled with flatulence. There is anorexia, but very rarely vomiting. As was originally pointed out by Kent Spender, there is a moderate tachycardia, and this is associated with excessive function of the thyroid, which leads to excessive calcium metabolism, fibrillar tremor, myotatic irritability, and rather free action of the skin. There is general muscular wasting, muscular irritability and contraction, frequently spasm and cramp, and at later stages neuritis with atrophy of the interossei and muscles of the thumb with deformity of the hands. The neuritis and symmetry of this disease have led many to imagine that it is of nervous origin, but as Sir James Paget pointed out, the decay of a leaf is symmetrical without any nerves. The quadriceps extensor femoris and deltoid are frequently much wasted. The muscular wasting leads to weakness, fatigue, and weariness, but although there is usually general emaciation and malnutrition, the existence of the disease is quite consistent with the presence of a considerable amount of adipose tissue. There is a slight effusion into the joints, swelling of the periarticular tissue, and the joints become fusiform in shape, stiff, and tender. The skin over the joints becomes attenuated and glossy. All the deep reflexes are exaggerated except where the action is limited by the stiffness of the joints. There is often much general pain and tenderness from effusion into the sheaths of the muscles, and the presence of sarcolactic acid; these pains, as well as those of the joints, are worst at night. There are frequently acute exacerbations with intermittent pyrexia. At such times the affected parts feel hot, and there is rather profuse perspiration, increased muscular weakness, and general lassitude. At other times the extremities may be cold and somewhat livid, or the fingers may feel "dead and numb."

At a later stage a radiogram shows wasting of the cartilages and rarefaction of the articular ends of the bones; this leads to more or less irreparable deformity. The lungs are not affected; the muscle of the heart may be weak and irritable, and the blood pressure is low, but any valvular lesion which may be present is due to other causes, or may be induced in Nature's methods of cure. The brain is not involved, except so far as the irritability of the patient's temper may be considered evidence of such involvement. At any rate, the patient is never stupid nor mentally lethargic, though migraine is not uncommon; there is often slight anaemia. The urine is usually clear, amber, acid (except from the effects of treatment), deposits urates during febrile attacks, contains an excessive amount of lime and phosphates, occasionally a trace of indican, and a little albumen in the later stages.

Treatment.

The earlier the recognition of the disease the more successful the treatment. Our attention should be first directed to the *prima via*, the teeth should receive scrupulous attention and all sepsis should be eradicated; the acid fermentation in the stomach should be eliminated, and this is most readily accomplished by cutting off all saccharine and farinaceous articles of diet, and placing the patient for a few days on an abundance of red meat with plenty of hot water. Red meat produces ammonia, which neutralizes the sarcolactic acid in the muscles; then milk to which some sodium bicarbonate and chalk or lime water have been added, junket and cream. The sour milk craze in this disease has fizzled out. Afterwards green vegetables and farinaceous food, except oatmeal; a fair amount of fat should be given, especially olive oil or cod-liver oil; at least an ounce of one of these oils should be given every night at bedtime. Bacon gravy, fat bacon, cream, butter or margarine are valuable adjuncts, but beef and mutton fats had better be eschewed. The patient should take a liberal allowance of table salt with meals. All acids and acid fruits, rhubarb, tomatoes and asparagus should be avoided. When saccharoses are considered permissible, glucose and honey are better than cane sugar or jams, but perhaps a little marmalade may be occasionally allowed. When the patient is improving, grapes, bananas, nuts, stewed prunes and figs may be allowed; saccharine is better than sugar, more especially if the urine has become alkaline under treatment, and tends to deposit phosphates. Regarding drink, there is nothing better than pure water, especially when hot, weak tea, milk and soda water (containing about 30 grains of sodium bicarbonate to the pint), plain barley water, and raisin tea. Avoid all sweet and acid drinks, wine and malt liquors. Regarding alcohol, I think the patient is better without any, but if for any particular reason a little is ordered it should be in the form of whisky, gin, brandy, sloe gin, or liqueur cognac.

To correct the acid fermentation and improve the motor function of the stomach a good combination consists of 30 grains of sodium bicarbonate, 10 grains of potassium bicarbonate, and 15 or 30 grains of aromatic chalk in a glass of milk about half an hour before meals, and a double dose at bedtime; often smaller doses suffice. An excellent stomachic of calcium chloride, hydrochloric acid, and minute doses of the perchloride of iron is very useful after meals; a small cholagogue pill should be regularly administered to keep the bowels open; for this purpose an excellent mixture can be made with the sulphate, bicarbonate, and salicylate of sodium and liquorice. The pancreas is also usually at fault, and to improve its action I often prescribe a capsule of holadin and bile salts about two hours after meals. In these cases the thyroid gland is usually too active, and so all preparations of iodine and thyroid should be avoided. Possibly suprarenal gland and pituitary extract might do good, as Dr. Blair Bell has shown that these secretions tend to retain the lime in the system, whereas the thyroid increases its elimination, but personally I do not care to prescribe such powerful drugs when milder remedies may suffice. It is imperative to get lime into the tissues and to lessen its elimination, but herein lies our difficulty, as no matter how much is administered by the mouth it may be as rapidly excreted as it is absorbed, and so none may reach the tissues; but on the other hand the acidosis in the blood may be taking lime from the tissues as well as from the intestinal tract. In order to get the lime into the tissues there must be a liberal oral supply, and the blood must be kept very alkaline. For this I prescribe freely chloride of sodium and potassium, sodium bicarbonate, chalk, lactate of lime, and calcium glycerophosphate. If it be desired to get calcium rapidly into the tissues it may be given in a very dilute form subcutaneously, say a pint of sterile normal saline solution with 0.05 per cent. of calcium chloride, and 3 per cent. of syrup of glucose. If the calcium chloride be administered hypodermically in a concentrated form, it may readily produce gangrene of the skin and adjacent tissues. Iron is best administered in the form of underdone red meat, and yolk of eggs; arsenic, potassium iodide, guaiacol, and a host of remedies commonly prescribed are worse than useless.

Leucorrhœa should be treated with injections, and any infection of the urinary tract should receive attention. Here vaccines will often prove useful, and the same may be said for pyorrhœa alveolaris.

General massage and the Aix douche improve nutrition, and are highly beneficial; the hot air and electric light baths applied to affected joints often give much relief, but can scarcely be looked upon as curative agents. When you have cured your patient you can send her or him to Egypt, Timbuctoo, or any health resort. Encourage the patient to take a fair amount of exercise short of fatigue when the disease has subsided, and to live a godly, righteous, and sober life in this present world.

THE late Dr. William Carter, formerly Professor of Materia Medica and Therapeutics at Liverpool University, left estate valued at £35,591.

A BILL has been introduced into the North Carolina State Legislature making it unlawful for any medical practitioner or other person to prescribe or recommend any drug or preparation without knowing its true nature and composition. The bill would also require the prescriber to make known the nature of the composition to the patient if requested.

The Harveian Lecture

ON

THE VARIOUS FORMS OF FIBROSITIS AND THEIR TREATMENT.

DELIVERED BEFORE THE HARVEIAN SOCIETY OF LONDON ON APRIL 10TH, 1913,

BY ARTHUR P. LUFF, M.D., B.SC.LOND., F.R.C.P.LOND.,

PHYSICIAN TO ST. MARY'S HOSPITAL.

ALLOW me to express my gratitude to the President and Council of this society for the honour conferred in asking me to deliver this lecture. I feel that some excuse is perhaps necessary in selecting for my subject one of the minor maladies, but it is one that has a very appreciable influence on the comfort and enjoyment of life, is very prevalent, especially in this country, and, in my opinion, is well worthy of more attention than it has hitherto received at the hands of the medical profession.

It happens to be a disease in the treatment of which I have had considerable experience for many years, and I therefore thought that the present would be a fitting occasion to lay before you the results of that experience in the treatment of this common and painful malady.

The affections that I am dealing with in this lecture are the more or less chronic affections which are generally labelled "rheumatic," but which undoubtedly are not the sequelae of acute rheumatism, and which are in no sense connected with that disease. Whereas acute rheumatism is more common in the first half of life, the various forms of chronic rheumatism are much more common in the second.

PATHOLOGY.

In the great majority of the cases of so-called chronic rheumatism, the pathological change is in the white fibrous tissue in various parts of the body, and to this condition the term "fibrositis" has been very aptly applied.

The essential pathological change in fibrositis is an inflammatory hyperplasia of the white fibrous tissue in various parts of the body, associated with exudation and proliferation of the connective tissue elements leading to swelling and thickening of the affected fibrous tissues. This condition may undergo absorption and so completely disappear, or, if not suitably treated, it may pass on to organization with the formation of nodules and patches of thickening.

The articular structures proper—synovial membrane, cartilage, and bone—are not primarily affected, but the parts implicated are the fibrous tissues of the joints, muscles, and bones, especially the aponeuroses and insertions of the muscles, the muscle sheaths in which the muscle spindles lie, the bursae, fasciae, the fibrous ligaments and capsules of the joints, and the periosteum. Such affections cause pain and stiffness in these structures, are especially apt to recur, and are commonly referred to as rheumatic or even gouty in their origin. This inflammatory hyperplasia of the fibrous tissues occurs in patches, and is started by exposure to wet or cold, by injury, or by some irritant, microbic or toxic, conveyed in the blood. The inflamed and swollen fibrous tissue is tender, painful on pressure or on movement, and can frequently be felt on palpation, or is evident by the consequent elevation of the skin. Sudden movement of the affected muscles generally causes excruciating pain, while the local pain on pressure is one of the most diagnostic features of these cases.

The indurations may be widespread, but generally are well defined, and vary in size from an eighth of an inch to one inch in diameter. They may be situated in the subcutaneous tissue, the muscles, tendons, aponeuroses, the capsules and ligaments of the joints, the bursae, the sheaths of the nerves, and periosteum. The pain is especially aggravated by any sudden movement of the muscles which compresses or stretches the affected fibrous tissues and the sensory nerve filaments.

The microbic causation of fibrositis is probably a rare occurrence, but Ware[1] has been able to demonstrate the presence of gonococci in the inflamed muscles of the posterior axillary fold secondary to a gonococcal arthritis of the shoulder-joint. In the great majority of cases the inflammatory hyperplasia is due to a toxaemia, exposure to cold, strains, etc.

A. Schmidt[2] has endeavoured to explain the pathology of muscular rheumatism by the assumption of a neuralgia of the sensitive muscle nerves due to a lesion of the posterior spinal roots, but he admits that in the only case in which he had the opportunity of examining the spinal cord the minutest microscopical examination failed to reveal any anatomical changes in the roots. Moreover, it is obvious from his paper that he confuses cases of acute or subacute rheumatism with fibrositis.

ETIOLOGY.

Local fibrositis may result from several causes, of which the following are the commonest:

1. *Cold, Damp, and Wet.*—In a very large number of cases the only assignable cause of the fibrositis is a history of exposure to cold and wet. Sometimes the attack comes on acutely a few hours after the exposure, as in many cases of lumbago, stiff neck, intercostal "rheumatism," and other forms of so-called muscular "rheumatism." At other times stiffness gradually develops after the exposure, and passes on to the condition of chronic fibrositis. The exposure may be due to draughts, remaining in wet clothes, lying or sitting on damp ground or some cold substance, or the simple advent of damp or cold weather. Sleeping in basement rooms to which ground air gains access is a common cause, and is entirely obviated by the building of houses on beds of concrete. A very common cause of lumbago from exposure to a local draught is sitting on a draughty privy or water-closet; this, no doubt, accounts for the prevalence of that affection in rural districts, combined with the constant strain of the lumbar muscles amongst so many agricultural labourers. Many persons are readily affected by the approach of rain and by a lowering of the barometric pressure. Longstreth states that the painful symptoms do not correspond to rain but to the fall of barometric pressure, and Stockman suggests that possibly the atmospheric changes may increase or lessen the lymph pressure in the body, and so increase or lessen the tension in the affected fibrous tissues.

2. *Extremes of Heat and Cold.*—Sudden and considerable variations in temperature constitute by no means an uncommon cause of a generalized fibrositis, which takes the form of so-called "muscular rheumatism," following on the resulting chill.

3. *Local Injuries.*—These are responsible for a large number of cases of local fibrositis. Traumatic fibrositis is a definite form, and is induced by sudden and severe strain on tendinous and ligamentous structures. Such a form may persist for a lengthened period, for whereas the slighter forms of muscular fibrositis, such as "stiff-neck" and mild forms of lumbago, are usually of brief duration, that which affects the tendinous and ligamentous structures may persist for weeks and even months. Golf produces a number of such injuries, the fibrous tissues of the muscles and their attachments to the arms and back being specially affected in this game. "Tennis elbow" is another instance of traumatic fibrositis.

4. *Absorption of Irritating Toxins from the Alimentary Tract.*—It has long been recognized that disorders of the alimentary tract may give rise to "rheumatic" pains. Oral sepsis is undoubtedly responsible for the development of some forms of chronic rheumatism, as likewise are flatulent dyspepsia, chronic constipation, colitis, etc. The aching in the joints and the lumbar region that occasionally occurs the day after a lengthy dinner, especially if several wines have been indulged in, is due to irritation of the fibrous tissues by the toxins absorbed from the intestinal tract, and which have been produced there by abnormal fermentation. This pain, whether in the joints or the lumbar region, which follows excessive indulgence at the table, is generally attributed to gout, and, as a rule, the champagne, claret, or port is blamed for it. I am convinced, however, that this articular or muscular pain has, in the great majority of cases, no relation whatever to gout, and that it is due to a

self-generated systemic poison owing to the inability of the gastro-intestinal tract to deal properly with the various articles introduced into it.

5. *Tonsillitis and Pharyngitis.*—The aching pains that occur in various parts of the body in connexion with these affections are well known, and are doubtless due to toxic absorption and consequent irritation of the fibrous tissues.

6. *Influenza.*—Many individuals are personally acquainted with the aches and even severe pains in the muscles, joints, and bones which accompany this disease. These are in all probability due to the fibrositis set up by the specific microbe or its toxin. It is not uncommon to find fibrous nodules and thickenings left as sequelae of this disease.

7. *Febricula.*—A "feverish cold" is generally accompanied by aching pains in the muscles, joints, and bones. The attack, which is sometimes described as a "rheumatic cold" or an "influenzal cold," is microbic in its origin, and the pains are no doubt due to irritation of the fibrous tissues by the microbe or its toxin.

VARIOUS FORMS OF FIBROSITIS.

The white fibrous tissues in practically any part of the body may be affected, but the liability is greater in certain situations, which will now be dealt with.

Muscular Rheumatism.

This affection is always a fibrositis. Any of the muscles may be affected. Affection of the muscles of the lumbar region constitutes one of the forms of lumbago; affection of the muscles of the neck constitutes stiff-neck; affection of the deltoid muscle constitutes "deltoid rheumatism"; affection of the intercostal muscles constitutes "intercostal rheumatism." The abdominal muscles may be affected, and such nodular fibrositis in these muscles may cause either continuous pain, or severe paroxysmal pain. Undoubtedly such cases have been mistaken for appendicitis, renal or biliary colic, abdominal adhesions, gastric ulcer, etc., and this I believe is the explanation of many laparotomies that have been performed with a negative result. The so-called "growing pains" of children are, in my opinion, due to fibrositis, since the healthy growth of a child should not be painful.

Muscular fibrositis of the shoulder and upper arm muscles is at times a very distressing malady, and so severe is the pain in the affected muscles that any attempt at passive movement causes an involuntary contraction in them, which contraction in its turn considerably augments the pain. The result is that under such conditions the shoulder-joint appears to be fixed, and gives the impression of the presence of firm adhesions within the joint. In some of these cases of brachial fibrositis the interference with sleep on account of a difficulty of securing an easy posture in bed, as well as the pain produced by each movement of the arm, are extremely trying to the patient.

In severe cases of brachial fibrositis the inflammatory condition may spread to the adjacent nerve sheaths, and so cause a secondary brachial neuritis. It is not uncommon for the tendinous attachments of the muscles to be especially affected, and I have seen several cases in which the fibrositis has been limited to the insertion of the deltoid, so that the pain has been entirely confined to that locality.

Fibrositis of the occipital and pericranial aponeuroses is a common form of headache, and one which is frequently overlooked. The indurations are most apt to occur in the retrocolic muscles, especially the trapezius, and in the temporal and other cranial aponeuroses. The attacks of headache are always associated with painful stiffness in the affected muscles. This form of fibrositis is especially due to the exposure to draughts through lack of covering to which this part of the body is necessarily subjected. I am frequently meeting with such cases of headache and fibrositis among those motorists who persist in riding in an open car with the front wind screen up, so that the neck and back of the head get the powerful back draught. I always advise such that it is far preferable in an open car to have the upper part of the wind screen raised or open, so as to face the wind and avoid the exposure of so vulnerable a part as the back of the neck and head to draught.

Lumbago.

This is a very typical form of fibrositis. It may be an affection of the fibrous elements of the lumbar muscles, but more commonly it starts as a localized affection of the insertions of the muscles in the vicinity of one or both of the sacro-iliac joints, since the fibrous attachments of the muscles to the back of the sacrum are especially liable to overstrain. It spreads by continuity of the fibrous tissue, as is manifested by its affecting the tendinous attachments of the neighbouring muscles, by its affecting the sacro-iliac joint itself, and by its often spreading through the joint and reaching the sheath of the sciatic nerve. This explains the very frequent association of some degree of sciatica with an attack of lumbago. In many cases of lumbago the extension of the inflammation to the sacro-iliac joint causes that synchondrosis to become loose, and so to be acutely painful on movement. The production of the pain of lumbago is usually sudden, the patient frequently ascribing it to a sudden strain or wrick, especially on rising in the morning; but although the production of the pain is generally sudden, yet the condition on which it depends has been gradually developed. A violent strain on the spinal ligaments following railway accidents and other injuries may set up a fibrositis with long-continued susceptibility to pain on any tension, a condition which I think is not infrequently ascribed to malingering.

Dupuytren's Contraction.

This is a localized fibrositis caused by habitual postural use of the hand. It is frequently ascribed to gout, but, according to my experience, the condition has no connexion with that disease. Certainly, I have never seen any gouty deposits in the thickened tissues, nor is the affection commoner amongst gouty subjects.

Fibrositis of the Plantar Fascia.

A fairly common form of localized fibrositis is that which affects the plantar fascia. This causes pain in the sole of the foot when the weight of the body is on it, and if not arrested is liable to lead to the development of flat-foot. The fibrositis is sometimes localized to the attachment of the fascia to the inner tubercle of the os calcis, and then constitutes one of the commonest forms of painful heel. If the inflammation persists at this point it is liable to cause a local periostitis and osteitis, resulting in the formation of a bony spur, which, if not removed, constitutes a permanently painful heel.

Fibrositis of Bursae.

A chronic fibrositis of bursae is fairly common, and especially occurs in connexion with the subacromial bursa. This condition, which explains the frequency of stiff and painful shoulders, is very apt to be mistaken for arthritis or fibrous ankylosis of the shoulder-joint, or for brachial neuritis. Severe pain as regards abduction and rotation are the chief symptoms, and the pain may be so severe as to prevent restful sleep. The pain is often felt at the insertion of the deltoid, and I believe that many cases of so-called dislodgement of the biceps tendon from its groove are cases of subacromial bursitis. Küster[8] in 1902 gave the first clear explanation of the mechanical importance of this bursa, which is the same as the so-called subdeltoid bursa. The other bursae which exist about the shoulder-joint are relatively unimportant, as inflammation in them is of but little mechanical importance.

Fibrositis of Joints.

Chronic fibrositis of the joints is most frequently met with in the knuckle-joints and finger-joints of those engaged in hard manual labour, especially when associated with damp surroundings. Pads upon the finger-joints constitute a chronic form of localized fibrositis, and have been thoroughly described by A. E. Garrod. They form excrescences which are almost confined to the dorsal aspects of the interphalangeal joints of the proximal row, and are only very rarely seen upon the terminal joints of the fingers. They are usually present upon the fingers of both hands, and vary in size from that of a split pea to that of the half of a hazel nut. Sometimes they are quite painless, but more often pain of various degrees of severity is complained of, especially when the fingers are flexed or if the lumps are knocked.

Patients suffering from these pads generally seek medical advice under the apprehension that they are the precursors or accompaniments of rheumatoid arthritis, or that they are due to chronic gout. There does not, however, appear to be any connexion between these pads and either rheumatoid arthritis or gout. There is, however, an intimate connexion between these pads and Dupuytren's contraction of the palmar fascia, and it is fairly common to see the two conditions together.

Fibrositis of the Subcutaneous Tissue.

A form of fibrositis to which Ralph Stockman[4] has recently drawn attention is a chronic subcutaneous fibrosis, which when it occurs in people with a large amount of subcutaneous fat is identical with the disease known as "adiposis dolorosa" (Dercum's disease). It consists in an irregularly spread, patchy, chronic inflammation of the subcutaneous connective tissue which involves the small peripheral nerves, so that the affected parts are painful on pressure, and are also subject to aching or pain from exercise, weather changes, indigestion, etc. These pains are usually designated as "rheumatic," and the condition is, in fact, one of so-called "chronic rheumatism." In the subjects of subcutaneous fibrosis the fat tends to form in more or less lumpy masses round the hypertrophied fibrous tissue. It is an exaggeration of this condition which constitutes the disease known as "adiposis dolorosa." The abdomen, flanks, hips, thighs, shoulders, and upper arms are in general the parts most affected.

Chronic Villous Synovitis.

Although, according to the strict interpretation of the term, this is not a form of fibrositis, yet it may be conveniently referred to here, as its correct treatment is similar to that of other chronic rheumatic conditions. It is a purely local condition and not a manifestation of a general disease, and is frequently described as "arthritis sicca." It usually occurs in the knee and is characterized by crepitus or creaking on movement and by pain and tenderness on use. The crepitus during movement of the joint is frequently unpleasantly audible to the patient, and is especially caused by going up or down stairs. The capsule and the ligaments of the joint are more or less relaxed and the synovial membrane is passively congested and loose. The crepitation on movement is due to the folds of the flabby congested membrane rubbing together; in other words, it is a true creaking and not a bony grating. If further relaxation of the synovial membrane results, hernial-like projections of the synovial fringe may be produced which are apt to cause a catching or locking of the joint when it is moved. In this class of cases the fluid in the joint is generally quite normal, although, if there be great irritation, some excess of it may form. The condition is very frequently mistaken for rheumatoid arthritis, but there is no erosion of cartilage and no eburnation of the ends of the bones, consequently bony grating can never be produced in such joints.

A valuable aid to the recognition of this condition, and to its differentiation from rheumatoid arthritis, is the careful auscultation of the joint, to which A. E. Garrod[5] has drawn useful attention. I have for many years practised this method of auscultation, and am thoroughly convinced of its great utility as an aid to diagnosis. The knee-joint should be slowly flexed and extended during the examination, and in this way the peculiar crackle or crepitus that is produced by the thickened and flabby synovial membrane is easily distinguished from the scrunch or grating sound that occurs in cases of rheumatoid arthritis, and which is due to abrasion or erosion of the cartilages.

GENERAL TREATMENT.

A saline aperient should always be given at the onset of an attack of acute fibrositis, and repeated as necessary. If the attack is a severe one, confinement to bed may be necessary, and it is important to recognize the beneficial influence of rest in such cases. For severe attacks of lumbago and intercostal rheumatism firm strapping with the brown-holland strapping plaster secures the necessary local rest of the affected muscles. In all cases of brachial fibrositis the arm should be carried in a sling and should be moved as little as possible during dressing and undressing.

Drugs.

In the treatment of the different forms of fibrositis salicylates are of little curative value, as they do not exercise the same specific action as in acute rheumatism. Aspirin is of decided use for the relief of pain in severe cases, but it should only be given with that object. It acts better than sodium salicylate, owing to the fact that the introduction of the acetyl radicle increases the analgesic action of the salicylic acid. It probably also exercises a beneficial effect in cases of abnormal intestinal fermentation. Perhaps the best method of administering this drug for the relief of pain consists in giving 10 grains of aspirin with 6 grains of pyramidon in a cachet every four hours. Potassium iodide is, in my experience, the most valuable drug in the treatment of fibrositis. It seems to exercise a direct effect in removing the hyperplasia and serous exudation in the fibrous tissues. It should always, if possible, be given in full doses of 10 or 12 grains, and should be combined with tonics, such as nux vomica or the compound glycerophosphate syrup. If the iodide produces severe symptoms of iodism, one of the organic iodine compounds may be tried. Of these I have found iodipin, in the form of tablets, extremely useful.

Fibrolysin.

This is a chemical combination of thiosinamin and sodium salicylate, for which the claim has been put forward that it has a softening effect upon all forms of pathological fibrous tissue. In a former paper[6] I reported on the use of it in a somewhat limited number of cases of fibrositis, and I then gave a somewhat guarded favourable opinion as to its being of use in properly selected cases. I now propose to lay before you the results of an extended experience of the use of this drug, an experience which, I may at once state, does not support the somewhat favourable opinion that I formerly expressed. I have obtained the results of its use in 83 cases of various forms of fibrositis, some of which I treated throughout, but in the majority of which I am indebted to careful reports furnished me by the various medical men who, on my advice, carried out the treatment. They were all carefully selected as cases likely to be favourably influenced by the use of fibrolysin. In 18 out of the 83 cases the use of the drug had to be discontinued, owing to the injections causing rise of temperature, malaise, nausea, headache, and, in some cases, palpitation, vertigo, tendency to syncope, severe general pains, and a purpuric rash. This leaves 65 cases in which a full course of forty injections of fibrolysin, together with massage of the affected parts, was employed. No good whatever resulted in 46 of the cases; in 11 of the cases there was some improvement, which was permanent in 10 of the cases and transient in 1; in 8 of the cases there was permanent cure. So that the numbers converted into percentages are:

No benefit	71 per cent.
Some improvement	17 ,,
Cured	12 ,,

In every one of the cases of rheumatoid arthritis and other forms of infective arthritis in which, after complete arrest of the arthritis, a full course of fibrolysin was used in the endeavour to reduce or remove the fibrous thickenings around the joints no improvement whatever resulted. Similarly in all the cases of Dupuytren's contraction of the palmar fascia that were treated no benefit resulted. The 8 cases that were cured comprised 4 of diffused or localized fibrositis with nodules, 3 of fibrous thickenings and adhesions around a single shoulder-joint, and 1 of severe thrombosis of both femoral and external iliac veins with thickening of the walls of the veins. In this last case complete absorption of the thrombi and of the thickenings of the venous walls resulted, but massage was not resorted to until after complete disappearance of the thrombi.

From these results it appears to me that fibrolysin has a very limited use, and I cannot avoid the inference that the claims that have been put forward for this preparation must be considered extravagant.

LOCAL TREATMENT.

For the complete dispersal of the indurations in most cases of fibrositis, and certainly in the severer cases, local treatment must be adopted. This may best be considered

under the following headings: External Applications, Heat and Electrical Treatment, Massage and Exercises, Surgical Treatment.

External Applications.

In the early stages of an acute fibrositis hot fomentations are useful. Afterwards one of the best external applications in my experience is a mixture of equal parts of chloral hydrate, camphor, and menthol. These three substances form a liquid when well rubbed together. This liquid should be painted over the painful area, and then be gently rubbed in with the fingers. Some patients find the cold sensation produced by the menthol objectionable; in such cases the menthol may be omitted and equal parts of chloral hydrate and camphor employed, which also form a liquid when rubbed together. Another useful external application is to paint the painful area with tincture of iodine, and then to apply a hot linseed poultice or a very hot fomentation. The heat converts the iodine into vapour, which exercises an anodyne effect, and, probably by absorption, directly acts on the affected fibrous tissues. In the later stages the aconite, belladonna, and chloroform liniment applied on lint is frequently most beneficial. In cases of a very localized fibrositis counter-irritation is sometimes of great use, especially in the form of the thermo-cautery.

Heat and Electrical Treatment.

In localized forms of fibrositis, and especially where fibrous deposits occur—such as in lumbago, thickening of the ligamentous and fibrous structures surrounding or entering into the composition of joints, deposits in muscles, tendons, and tendon sheaths, and in chronic villous synovitis of the knees—the most effective form of local treatment that I am acquainted with is the employment of heat followed by ionization of the affected part. This treatment has a very remarkable effect in causing the absorption of thickened fibrous tissues. Heat increases the supply of arterial blood, and so causes a state of active congestion, stimulates leucocytosis and metabolism, lowers blood pressure, causes diaphoresis, relieves pain, and enhances the effect of the ionization that is to follow. If heat is to be applied to the entire body, the electric light cabinet bath is the most convenient form, but in the treatment of localized forms of fibrositis it is preferable to concentrate the heat on the affected part only, and I am confident that far better results are obtained from the employment of dry radiant heat than from the employment of heat alone. C. F. Bailey[7] considers that the ideal type of radiant heat should be as nearly as possible like sunlight, and should give a spectrum ranging from the ultra-red to the ultra-violet. This type of spectrum can apparently only be obtained from lamps of a very high candle power, such as the so-called leucodescent radiant heat apparatus, which consists of a single 500-candle power lamp in a funnel-shaped projector lined with a reflecting surface. The method of applying the heat is to sway the lamp slowly backwards and forwards over the affected part for about twenty minutes. It must be applied directly to the skin, and anything like a severe burning sensation should be obviated either by the temporary removal of the lamp or by brushing with the hand that part of the surface which is being treated. When the lamp is switched off, the part feels burning hot to the touch and the surface is red and mottled from vascular dilatation. If such radiant heat alone is used, it very definitely relieves pain, softens fibrous indurations, and causes improvement in joints and their surroundings as regards improved flexibility and reduction in size. These results are, however, considerably enhanced by subsequent ionization.

The exposure to heat should be immediately followed by ionization with iodine ions, which, in my experience, are more effective than other ions on account of their solvent action on fibrous thickenings and deposits. The iodine is introduced into the affected tissues from a 2 per cent. solution of lithium iodide to which sufficient liniment of iodine has been added to give the fluid a sherry colour and so ensure the presence of an excess of iodine. Pads of lint six-fold thick are soaked in the hot solution and applied to the part to be treated. A copper chain-mail electrode is then spread over the pad and bandaged on, leaving the connexion exposed, which is then attached to the negative pole. The positive pole is similarly connected to another pad soaked in a weak solution of common salt or of lithium carbonate. Another method, though not so efficacious, in my opinion, as the employment of lithium iodide, is to paint the skin of the affected part with iodine liniment and apply a pad soaked in a weak solution of lithium carbonate with the electrode connected with the negative pole, the positive being applied as before. The strength of the current that should be employed varies with individual patients, but should range from 15 to 40 milliampères. The ionization lasts for twenty minutes, and should be repeated daily if the skin will stand the treatment, otherwise it should be used on alternate days. Many cases improve very rapidly from the first, but in severe cases a course of daily applications for four weeks is required. While this ionization treatment is being carried out it is very important that the administration of potassium iodide by the mouth should be continued. As C. F. Bailey has pointed out, any iodine compounds lying in or circulating through the affected tissues are broken up by the current and locked up in the tissues temporarily, instead of being carried through the blood vessels and excreted. In addition nascent iodine ions are much more energetic than when they combine into soluble non-ionized salts; also the general migration of all kinds of ions, which takes place along the course of the current, may produce an effect of commotion in and stimulation of the tissues which is beneficial.

In cases of acute fibrositis, especially in acute lumbago and painful affections of the knees, shoulders, and elbows, it is advisable at the first two or three sittings to employ a 2 per cent. solution of sodium salicylate in place of the lithium iodide, in order to produce immediate relief of the severe pain. The salicyl ion is introduced into the painful region, and it is remarkable how rapidly it will relieve the pain, just as salicyl ionization rapidly relieves the pain of severe neuralgia and some forms of neuritis.

In cases of chronic villous synovitis of the knees this combined heat and ionization treatment is most effective, and in all cases gives the most satisfactory results.

Doubt has sometimes been expressed as to whether actual penetration of ions into the affected tissues occurs during ionization, but the experiments of N. S. Finzi[8] conclusively prove that certain ions penetrate into the tissues of joints and the subcutaneous tissues. In addition it has been shown that strychnine applied at the positive pole, or potassium cyanide at the negative, rapidly kill an animal under experiment with all the characteristic symptoms of the respective toxic substances. Moreover, it is quite easy to demonstrate the presence of iodine or lithium in the urine after respective ionization with those substances.

Some observers have stated that the chlorine ion is quite as efficacious as the iodine ion, and is less caustic, but my experience is that the iodine ion is more effective, and I have never met with any bad effects from its causticity.

It is a matter of common experience that the improvement started by a short course of heat and ionization treatment will continue to progress for some days after the treatment is left off. This is probably explained by the ions forming with the colloids of the animal tissues a sort of condenser, which is discharged by degrees. The ions therefore remain for a certain length of time at the place of their introduction, so that this region remains for several days as a kind of local medicated bath the therapeutic power of which is considerable. It may therefore be claimed that ionic medication is founded on a truly scientific basis, in that the ions exert a direct therapeutic effect, that they are for a time localized in the affected tissues, and that they are afterwards slowly and gradually liberated.

In cases of lumbago the static wave current may be substituted for ionization. F. H. Humphris[9] records excellent results with this form of treatment. It produces a local vibratory effect, and muscular contraction takes place, so that the wave current tends to remove the infiltration by squeezing out the serous exudation from the affected tissues, and thereby relieving the pain. From my experience of a number of cases that I have had successfully treated, I can thoroughly recommend the

employment of local heat followed by the use of the static wave current.

Massage and Exercises.

Massage is very useful in the later stages, but it should only be employed when it causes no pain. The manipulations should be very gentle at first, so as to promote removal of exudation and to relieve the tension. Afterwards more vigorous massage is most efficacious in dispersing the indurations and fibrous thickenings, and in removing the stiffness of the affected parts. General massage should not be employed, but the tender and affected areas should be carefully marked out for treatment. Massage should not be used to affected joints, but only around them, so as to improve the circulation in their neighbourhood. I have frequently seen the most disastrous results to joints from their over-zealous manipulation by masseurs and masseuses, as such treatment only increases the inflammation and bruises the synovial fringes. The same remarks apply with equal force to acute affections of the bursae and tendon sheaths, and to fibrositis of nerve sheaths until the acute affection has entirely subsided.

During the very painful stage of muscular rheumatism as complete rest as possible of the affected muscles must be enforced, but later on exercises of the muscles are of great benefit. Either light dumb-bells or Indian clubs, of from 1 lb. to 2 lb. in weight, should be employed, and such movements are to be performed as will bring the affected muscles into action. The exercises should be performed on rising in the morning, and should not occupy more than from ten to fifteen minutes. After the exercises a cold or tepid bath should be taken, and the skin be briskly rubbed with a rough towel.

In cases of chronic subcutaneous fibrosis in very fat people (adiposis dolorosa) massage is quite ineffective, and often unbearably painful. In such cases it is essential, first of all, to get rid of the superabundant fat by means of a strict diet, and by the administration of thyroid gland.

Surgical Treatment.

In a few cases, generally of long standing, where the fibrous nodules do not yield to the measures above mentioned, and where by implication of, or pressure upon, nerves they cause persistent pain, excision may be necessary.

Adhesions in the subacromial bursa have sometimes been treated by breaking them down under an anaesthetic, but the procedure is a dangerous one, as the normal joint structures are more easily torn than the dense adhesions in the bursa, and the brachial plexus and axillary vein are liable to be damaged. Another objection is that when the adhesions alone are ruptured there is a tendency for them to re-form.

Spa Treatment.

This is most useful in protracted cases of fibrositis, especially when the waters are strongly radio-active. Undoubtedly the radio-active emanations of such waters are powerful adjuncts in the dispersion of the thickenings and deposits.

Diet.

Unlike gout, no special dieting is required in these affections. Moderation should be the keynote of all prone to the various forms of fibrositis, and especially should they avoid foods which their experience has taught them to be apt to produce gastro-intestinal fermentation. It has become of late years a fashionable craze to attribute many of these forms of "chronic rheumatism" to uric acid, but I am firmly convinced that that harmless by-product of the human economy plays no part whatever in the development of the various forms of chronic rheumatism or fibrositis.

Underclothing.

With regard to the underclothing that should be worn by rheumatic individuals, I must confess that I am a convert to the view that porous linen underwear is the most suitable. It allows of the free evaporation of perspiration, and so prevents a more or less sodden garment from remaining in contact with the skin, which so frequently happens with those who wear woollen underclothing. I am convinced that in the latter case such sodden garments are a frequent cause of many of the forms of fibrositis. Some individuals find that in winter linen underwear is too cold, and in such cases a thin silk vest may be worn over the linen. This will be found to constitute a thoroughly warm, comfortable, and safe form of underwear.

Residence.

The most suitable soil is gravel, sandstone, or rock, at a fair elevation, and with good subsoil drainage. Houses should be built on a bed of concrete, so as to prevent entirely the entrance of ground air. Residence on a clay soil should be avoided if possible, but in my experience the worst soil of all is a shallow gravel soil in a cup or depression of clay, which allows the subsoil water to accumulate and frequently to reach close to the surface. Many of the gravel sites lauded by house agents are veritable traps for the development of fibrositis.

REFERENCES.

[1] Ware, *Amer. Journ. Med. Sci.*, July, 1901. [2] Schmidt, *Med. Klinik*, 1910, vi, pp. 731–735. [3] Küster, *Archiv f. klin. Chir.*, vol. lxvii, p. 1013, 1902. [4] Stockman, BRITISH MEDICAL JOURNAL, 1911, vol. i, pp. 352–355. [5] Garrod, *Proc. Roy. Soc. Med.*, January 24th, 1911. [6] Luff, *Lancet*, March 12th, 1910. [7] Bailey, BRITISH MEDICAL JOURNAL, 1910, pp. 518, 519. [8] Finzi, *Lancet*, March 13th, 1909, pp. 756–758. [9] Humphris, *Proc. Roy. Soc. Med.*, March, 1910.

A STUDY OF THE TYPES OF ORGANISM IN A SERIES OF BONE AND JOINT TUBERCULOSIS OF CHILDREN.

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THE British Royal Commission justified its existence when it showed, beyond all manner of doubt, that human tuberculosis was in a certain proportion of cases due to infection with the bovine bacillus. It has remained for individual observers to investigate local groups of tuberculosis, and to expose the relative types of bacilli present.

I wish to record some investigations of a study of 70 cases of bone and joint tubercle.

Technique.

The preliminary necessity was to obtain in pure culture the actual organism which produced the lesion of an individual case; as it is exceedingly difficult, and in the majority of cases impossible, to cultivate the tubercle bacillus directly from an active lesion, guinea-pigs were used as intermediaries. The diseased tissue, obtained in each case by operation, was inoculated into the animal subcutaneously or in bulk. For a period of six weeks the ainmal was permitted to live; at the end of that time the disease was extensive in the glands and the internal organs, and from them the organism was easily cultivated.

There are various suitable media, and of such Dorset's[3] egg medium is undoubtedly the best; it is a preparation of egg-yolk and water, sloped, and inspissated in tubes. Upon the surface of the medium portions of the diseased organs are rubbed, and it is of advantage sometimes to actually wound the surface of the medium. The inoculated tubes, sealed with paraffin to prevent evaporation and infection, are incubated. In fourteen days a growth is apparent.

With the growth of the organism the first step is completed. The second stage consists in identifying the organism, and this identification is at once proceeded with. There can be no doubt that it is possible to distinguish absolutely between the human and bovine types of the bacilli. Cultural and morphological tests are uncertain in their interpretation.

A bacillus which grows rapidly and profusely upon egg medium is in all probability human, yet there exists a margin of doubt, which deprives the test of any absolute value, and the same applies to morphological distinctions. A short, squat bacillus staining uniformly suggests a bovine origin, but occasionally human bacilli possess identical characters.

1. There are three tests which give trustworthy evidence of the type of bacilli. In 1905 Theobald Smith[9] formulated a test, which depended upon the changes produced in glycerine bouillon by the growth of the tubercle bacillus. The glycerine bouillon is rendered faintly acid, and the

acidity is carefully estimated by titration; 0.05 per cent. is a suitable degree. The tubercle grows as a pellicle upon the surface of the medium, and at intervals of ten days small quantities of the fluid are removed and the acidity estimated. In the case of the human bacillus the degree of acidity progressively increases; in the instance of the bovine bacillus the acidity diminishes and the medium may even become alkaline. The test is reliable, but it is difficult to perform, and mixed infection of the medium is very hard to prevent; should such occur the experiment is useless.

2. The second reliable test is based upon the fact that glycerine exerts a stimulating effect upon the growth of the human bacillus, while it has a distinctly retardative influence on the bovine bacillus (Cobbet).[2] The glycerine is incorporated with Dorset's egg medium (4 per cent.), and upon this medium the organism under investigation is grown. Control inoculations are made with fully identified human and bovine bacilli. By the rate and degree of growth of the bacillus its identity is established. The bovine organism grows scantily, if at all; the human bacillus spreads rapidly and profusely.

3. The simplest and yet the most reliable test is that usually termed the animal test. It is based upon the fact that the bovine bacillus is especially virulent for certain animals, more especially the calf and the rabbit. If a rabbit of an average weight of 2,000 grams is inoculated intravenously with a small amount (0.01 mg.) of the suspected organism, one of two results will follow. If the bacillus is human the animal will show little change, its weight will remain constant or increase, and if at the end of six months it is killed and examined the tuberculous disease will be found to be limited to a few chronic lesions in the internal organs. The result of inoculation of a bovine bacillus is very different. After inoculation the animal rapidly emaciates and loses weight; in six weeks it is usually dead, and a *post-mortem* examination shows an acute miliary tuberculosis. The test is absolutely reliable, and the smaller the quantity of bacilli introduced the greater the difference (Oehlecker).[6]

Investigation of Cases.

In each individual case a systematic plan was followed.* The diseased tissue was inoculated into a guinea-pig, and from the infected animal the organism was grown in the manner I have described. The identity of the organism was established by submitting it to a series of five tests, and observations were made upon (1) the cultural characters, (2) the morphological appearances, (3) the distinctive growth upon glycerine egg medium, (4) the reaction upon glycerine bouillon, (5) the result of rabbit inoculation. From the result of these tests a definite result was come to as regards the identity of the bacillus. Tests 1, 2, 3 and 5 were carried out in every case; Test 4 was performed only in eleven instances.

Results.

On every occasion the diseased material was obtained by operation. The proportion of bone and joint cases in the series was practically equal—39 were instances of joint disease, 31 of bone disease. The age incidence was absolutely limited to 12 years and under. The cases were patients of the Edinburgh Sick Children's Hospital, and therefore may be said to have been drawn from a comparatively localized area. For two reasons the series may be considered unique—the age limit and the localized sources from which the material was obtained.

Small groups of bone and joint tubercle have been investigated by different observers.

The British Royal Commission[9] examined 14 cases, with one exception adults; 13 of the series were due to the human bacillus; 1 case was found to contain both human and the bovine bacilli. Park and Krumweide[7] investigated a series of 17 cases; 6 of these were children under 5 years of age, 10 were children from 5 to 16 years old, and there was a single adult case. In every instance a human bacillus was the causative factor.

Kossel, Weber, and Heuss[5] published the results of an examination of 36 cases; 12 were obtained from adults, and each contained the human bacillus; 24 were cases of children, ages ranging from 1 to 16 years, and one of these contained the bovine bacillus. Henschen, Jundell and Svensson[4] investigated a small series of 3 cases; they were adults, and all owed their origin to the human bacillus. Burckhardt[1] has recently investigated a series of cases of surgical tuberculosis; the group included 29 cases of bone and joint tubercle. He found that 3 cases of joint tuberculosis contained the bovine bacillus. The respective ages were 11, 19, and 14 years.

I have to announce results which are very different from any of the above. Out of a total of 70 investigations, in 41 instances the bovine bacillus was present, in 26 cases the human bacillus occurred, and from the remaining 3 cases both human and bovine types were isolated.

These results are so striking that one naturally seeks for factors which may help to explain their uniqueness, and the factors which have most bearing are those of age, family history, and milk supply.

Age.

The age incidence has been absolutely limited to 12 years and under. This limitation is all-important, for in such an age group there are certain special distinctions.

1. The feeding is of a special type—milk, human or cow's, is the staple article of diet.

2. The lymphatic and absorptive arrangements of the abdomen are peculiar—a fact which is evidence of the high percentage of occurrences of abdominal tuberculosis (4 per cent., Thomson[10]).

Bearing these facts in mind, there is much to be learnt from a study of the age tables of the series. The facts are best illustrated by dividing the age period into groups: Group 1, to 3 years; Group 2, from 3 to 6 years; Group 3, from 6 to 12 years.

In the first group the questions of milk feeding and unusual lymphatic arrangements have their strongest bearings. Twenty-eight cases were included in the first series; twenty-three of them were bovine and five were human. In the second and third series the proportions were more equal. In group No. 2 ten were due to the human bacillus, nine to the bovine bacillus. In group No. 3 eleven were human, while nine were bovine.

TABLE I.—*Type of Bacillus in 67 Children in Relation to Age.*

Age Period.	Human Organism.	Bovine Organism.
To 3 years	5	23
From 3 to 6 years ...	10	9
From 6 to 12 years ...	11	9

Family History.

As a matter of routine, the family history was noted in each case investigated. In 21 instances there was a definite history of pulmonary tuberculosis having occurred in some member of the family in which the child lived, and in 50 per cent. of these cases the child was actually living in contact with a consumptive.

The practical bearing is more evident when it is stated that out of the 21 above mentioned cases 15, or 71 per cent., were due to the bacillus of human tuberculosis.

In 52 cases there was definitely stated to be no family history of tubercle; 43 of these were bovine in origin, while only 9, or 17 per cent., were human. The difference is very striking, and the figures of the first group are explained by direct infection of the child from the consumptive patient with whom it stayed.

TABLE II.—*Types of Bacillus in Relation to Family History.*

	Human Bacillus.	Bovine Bacillus.	Percentage of Human.
History of pulmonary tubercle in family	15	6	71
No history of tubercle in family	9	43	17

Milk Supply.

Practically speaking, the bovine bacillus is introduced into the body by a single route—that of infection from the

* For full details of experiments see the *Journal of Experimental Medicine*, vol. xvi, No. 4, 1912, p. 432.

alimentary tract, and the medium by which it is introduced is infected milk. As far as possible observations were noted of the source of milk supply in each of the above cases: 25 cases were nourished in infancy upon human milk, 41 were entirely fed upon cow's milk; in 3 instances the source of origin was doubtful.

Of the 25 cases brought up on human milk, in only 6 cases was the bovine bacillus found. The remaining 19 were infected with the human type. In the second group, those nourished upon cow's milk, out of a total of 41, no less than 37 were due to infection with the bovine bacillus. The remaining 4 were human. In the complete series there were 4 children less than 1 year old. All these children were nourished upon cow's milk, and in every case the bovine bacillus was the organism present.

TABLE III.—*Types of Organism in Relation to Milk.*

Source of Milk.	Human Bacillus.	Bovine Bacillus.
Human milk	19	6
Cow's milk	4	37

It is interesting to note that in no instance was any attempt made to sterilize or pasteurize the milk.

CONCLUSIONS.

1. It is possible by certain tests to distinguish between human and bovine types of tubercle bacilli.
2. A considerable proportion of bone and joint tubercle of children in Edinburgh is due to infection by the bovine bacillus.
3. The bovine bacillus is introduced into the body by the drinking of infected milk.
4. A considerable proportion of the cases of tubercle due to the human bacillus are the result of the direct infection of the child by a consumptive co-resident.

My thanks are due to Mr. Stiles and Dr. James Ritchie for materials and help. The McCunn and the Carnegie Trustees have provided financial assistance, and I wish to acknowledge my indebtedness to them.

REFERENCES.

[1] Burckhardt, H.: *Deut. Zeit. für Chirurg.*, Bd. cvi, 1910, S. 1.
[2] Cobbet, L.: Royal Commission Reports, Second Interim Report, 1911, Part I, 13.
[3] Dorset, M.: *American Medicine*, 1902, iii, p. 555.
[4] Henschen, G. E., Jundell, I., and Svensson, J.: *La lutte contre la Tuberculose en Suède*, 1905, p. 80.
[5] Kossel, H., Weber, A., and Heuss: *Tuberk. arb. a.d.k. Gesundheitsamte*, 1904, i, S. 1; 1905, iii, S. 1.
[6] Oehlecker, F.: *Tuberk. arb. a.d.k. Gesundheitsamte*, 1907, vi, S. 88.
[7] Park, W. H., and Krumweide, C.: *Studies from the Public Health Laboratories of New York*, 1910
[8] Royal Commission Report, Final Report, 1911, Part I, p. 13.
[9] Smith, T.: *Journal Exper. Medicine*, xiii, 1904-5, p. 405.
[10] Thomson, J.: *British Journal of Tuberculosis*, 1907, i, p. 250.

THE International Congress on the prevention of the deterioration and the adulteration of foodstuffs will be held at Ghent on August 1st, 2nd, and 3rd. M. Henry Carton de Wiart, Minister of Justice, is an honorary president, and the presidents are the Burgomasters of Brussels, Ghent, Antwerp, and Liége. The work of the congress will be divided into four sections: Chemistry; hygiene; consumption, education and popularization; legislation. Among the subjects on the programme of discussions are the following: Protection of food substances against dirt; Regulation of the production and of the trade in table waters (mineral, aërated, etc.), as well as of ice and water sold to consumers; Is it necessary to institute official methods for the analysis of foods? Regulation of the production and trade of milk and its by-products destined for human food; To what degree can the incorporation of antiseptics be tolerated in foodstuffs? The basis of organization of a service of inspection in the trade and in the manufacture of foodstuffs; The conditions of places of production (factories) of foodstuffs and retail shops. Rules for the washing of glasses in public-houses. Reports to be presented should be in the hands of the secretary before May 1st, 1913. In connexion with the congress there will be an exposition of foodstuffs and the methods by which they are prepared for consumption, and by which they are adulterated. The milk supply will occupy a prominent place in the exhibition, well-kept and badly-kept farms, and the right and wrong method of transport, and so forth, being shown. Communications should be addressed to M. Antony Neuckens, Secretary of the Congress and the Exhibition, Hôtel de Ville, Brussels.

CLINICAL DEMONSTRATION OF AN OPERATION FOR PROLAPSUS UTERI COMPLICATED BY HYPERTROPHY OF THE CERVIX.*

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WHEN prolapse is complicated by hypertrophy of the cervix, it is usual to begin the operation for its relief by amputating a suitable portion of the cervix, and suturing the resulting wound in the customary way. Then an anterior colporrhaphy is performed, a fresh incision being made separate from that required for the amputation of the cervix. If the anterior vaginal wall is removed at all freely the two incisions approach one another very closely, a poor and narrow bridge of sound tissue being left between them. Further, the amputation of the cervix tends to shorten the anterior vaginal wall; and thus, when the colporrhaphy has been completed, the cervix still points downwards and forwards, and the uterus is left in a

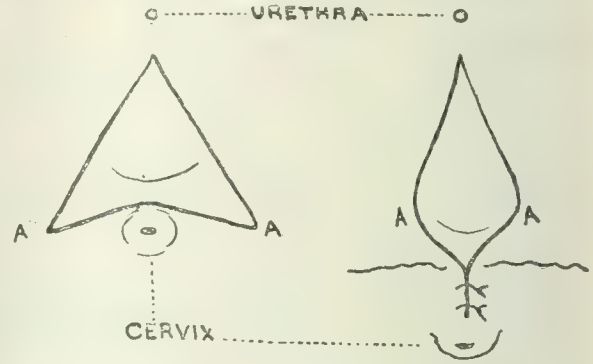


Fig. 1.—Colporrhaphy incision for prolapse.

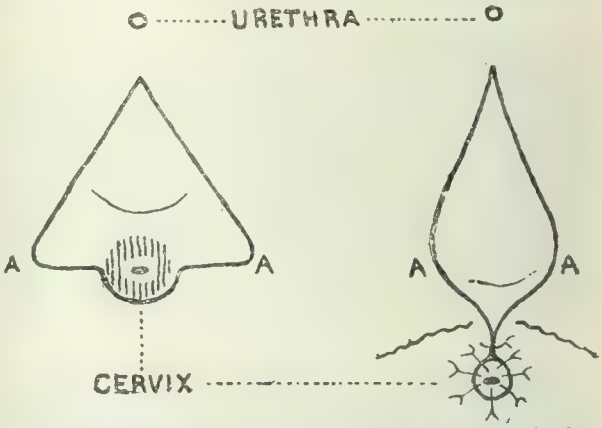


Fig. 2.—Incision for amputation of cervix with colporrhaphy in prolapse complicated by hypertrophy of cervix.

position of retroversion which is very favourable to the recurrence of prolapse.

For some time I have been using a single incision for both the amputation of the cervix and the anterior colporrhaphy, and have found the results more satisfactory than those obtained by doing the operations separately one after the other.

In order to make clear this little modification in technique it is necessary to explain once more how I treat ordinary cases of prolapse in which the cervix is not hypertrophied. The anterior colporrhaphy is done so that the wound is broad above and narrows to a point near the urethral orifice. The piece of vaginal wall removed is, roughly, an equilateral triangle with its base touching the cervix and its apex near the opening of the urethra. The easiest way of making the incision is to pull down the cervix with a vulsellum and then to pick up with forceps two points about 3 in. apart, one directly to the right, the other directly to the left of the

* Given in the Post-Graduate Course at the Manchester Royal Infirmary, March, 1913.

os uteri. The vaginal wall is put on the stretch and is cut through between the tips of the instruments. It is then easily separated from the bladder and parametria, and a triangular portion is cut away. This extension of the wound into the lateral vaginal fornices exposes the connective tissue on either side of the cervix—the right and left parametria. When the wound is closed from side to side, the tissues which previously lay at the sides of the cervix are united in the middle line in front of the cervix, which is thus pushed back towards the hollow of the sacrum. This manœuvre tilts the fundus forward, so that the uterus becomes anteverted. The suturing begins at the cervical end of the wound, for, as the stitches are tied one after another, this end of the incision, with the cervix behind it, disappears from sight; and, if the incision has been broad enough, cannot be seen again. The closing of the lower part of the wound corrects the cystocele, and thus anterior colporrhaphy, done as above described, remedies both the retroversion and the cystocele, whose combination is the characteristic feature of classical prolapse. Interrupted sutures are used, for if a continuous suture, or even a series of mattress sutures, be employed, the incision is shortened, and thus the cervix is pulled downwards and forwards. This spoils the operation, whose special aim is to push the cervix upwards and backwards. To complete the treatment the vaginal outlet is restored to its normal size by repairing the perineum, the upper part of the posterior vaginal wall being left alone.

The modification of this operation which I have been using in cases of prolapse complicated by considerable hypertrophy of the cervix is as follows: The cervical canal is dilated, and a circular incision is made round the cervix with a knife. The vaginal wall (also the bladder, if necessary) is then snipped free with scissors and is pushed back from the cervix, which is next deeply split into anterior and posterior lips. These lips are then amputated so as to leave the uterus about 3 in. long, and a few sutures are inserted in the stump of the cervix to control bleeding.

The vaginal wall is next incised for an inch or so on either side of the circular wound already made, the new cuts extending directly to the right and to the left. The anterior vaginal wall is now separated from the parametric tissues and from the bladder, and a triangular portion, with its apex near the urethral orifice, is cut away.

In closing the wound thus made the stump of the cervix is stitched into the posterior part of the incision. The first suture brings together the central point of the posterior margin of the vaginal incision and the mucosa lining the posterior wall of the cervical canal. The second and third sutures unite vaginal wall and vaginal mucosa right and left of the first; and so on, until the sides of the vaginal incision come together in front of the stump of the cervix. By this time the newly constructed *os* is beginning to disappear upwards and backwards. The lateral edges of the vaginal wound, with the subjacent connective tissue, are brought together in the middle line from behind forwards, and the line of suture disappears from view as the later sutures are tied and the urethral end of the incision is reached. Finally, the perineum is repaired as before.

This method of operating has been found convenient both when the elongation of the cervix is mainly supravaginal and also when the vaginal portion is chiefly involved. It is not necessary to discuss the various causes of hypertrophy of the cervix; but, before leaving this subject, I should like to express complete scepticism as to the existence of the so-called tensile elongation which was supposed to be produced by the dragging upon the cervix of prolapsed vaginal walls. Such a change might possibly occur after the uterus has been fixed to the abdominal wall by a ventrifixation. But if the uterus is not fixed above, how can it be lengthened by pulling on it below? The theory of tensile elongation seems to be a relic of the times when the uterus was thought to be held up by the broad and round ligaments. Now that the cervix is well known to be the most firmly attached portion of the organ, the theory of tensile elongation may surely be allowed to drop gently into oblivion. All the forms of cervical hypertrophy and elongation can easily be explained without its assistance.

A "SUPPURATING" BRANCHIAL CYST.

BY

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AND

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LEOMINSTER.

THE following case is, perhaps, sufficiently rare to be worth recording:

Mrs. B., a young married woman, was seen by my partner, Dr. C. A. Robinson, towards the end of 1911, when about five months advanced in her first pregnancy. She then had a small swelling on the left side of the neck, beneath the sterno-mastoid muscle, which was of recent appearance. Deciding that the swelling was neither malignant nor tuberculous, Dr. Robinson advised that it should be left alone for the time. It did not fluctuate, and was thought to be a small fibrous or fatty tumour. As pregnancy advanced it gradually increased in size.

The patient was confined early in April, 1912. Later in the month we saw her together. The swelling was then large, occupying the upper half of the neck, and extending well forwards into the anterior triangle and also backwards into the posterior triangle beneath the sterno-mastoid muscle. It fluctuated very distinctly and was not tender. The patient gave no history of enlarged glands or carious teeth, but there was a history of tuberculous disease in her family. With an exploring syringe thin turbid fluid was found. An attempt to drain the cavity at its lower end, by an incision under local anæsthesia at the posterior border of the sterno-mastoid, proved unsatisfactory.

On May 5th, 1912, under an anæsthetic, the former incision was enlarged, after another incision had been made along the posterior border of the sterno-mastoid, near its upper end; a large amount of thin turbid fluid was evacuated, and a good sized drainage tube passed through from one opening to the other. As the amount of discharge diminished the tube was gradually shortened, being left in at the lower end, as the upper incision soon healed. When, however, the tube was removed it was found that a reaccumulation of fluid occurred, and it was clear that the cavity had not been closing up inside to the extent supposed.

On June 2nd the patient was again anæsthetized; the old incisions were reopened and the intervening tissues slit up on a director along the posterior edge of the sterno-mastoid, thus laying the cavity completely open. On digital exploration the cavity was found to extend far forwards into the anterior triangle of the neck and upwards nearly to the mastoid process. Its lining wall was perfectly smooth, with no suggestion of granulation tissue. There was no sign of a connexion with the cervical spine (caries) nor any trace of broken-down gland tissue. The cavity was swabbed clean and packed with iodoform gauze. It was at this stage that we suspected the condition might be a suppurating cyst (possibly branchial), as the diagnosis of retro-pharyngeal abscess or abscess due to a breaking-down tuberculous gland found no support at this operation, and the smoothness of the wall of the cyst was suggestive. The wound was dressed daily for some time, but granulation tissue was not readily formed. With a view to destroying the lining membrane, iodized phenol was applied. This was successful as far as the anterior (and larger) portion of the cyst was concerned, as it gradually filled up completely.

The upper part of the cyst did not heal in like manner, in spite of careful packing with gauze, and thus a sinus was left, 3 in. long, passing upwards along the posterior border of the sterno-mastoid. This sinus was drained by a small tube and was repeatedly treated with iodized phenol, but did not heal; removal of the tube at once resulted in accumulation of thin purulent fluid.

The patient was loth to undergo another operation and went on in this state for several months. Finally she consented, and the third operation was done on February 4th, 1913. She was then about five months pregnant (a second time). A solution of methylene blue in hydrogen peroxide was first injected into the sinus, so as to stain the whole cavity and any side tracks which might otherwise have been overlooked. On slitting up the sinus it was found to lead into a small cavity, the wall of which consisted of dense fibrous tissue; the lining membrane was greyish and irregular with a granular surface. The wall of the cavity and sinus, with a good deal of surrounding scar tissue, was dissected out almost completely. Part of the fibrous wall which was closely adherent to the internal jugular vein was left. The cavity was packed with iodoform gauze, and the latter, soaked in iodoform and glycerine emulsion, was used for the subsequent dressings. The patient stood the operation well. The cavity filled up remarkably quickly. Two or three small portions of lining membrane which had been left behind had to be touched with iodized phenol, which destroyed them successfully.

Healing was complete one month after operation. A piece of the tissue removed was sent for microscopical examination to the Clinical Research Association, and the following is the report:

We agree that this specimen is a suppurating branchial cyst or dermoid. It is lined by epidermis, and shows much leucocytic infiltration beneath the lining membrane, and in the

surrounding tissues. There are the usual masses of lymphoid tissue associated with it. There is no evidence of tubercle or new growth.

Even if, at the second operation, we had definitely known the nature of the case, it would have been practically impossible to dissect out the wall of the cyst, owing to the size of the latter, and the fact that it extended forwards deeply into the anterior triangle, so as to be almost in contact with the pharynx. Therefore the treatment adopted was probably the best in the circumstances, even although a further operation was necessary to complete the cure.

There was no obvious cause why the cyst should suddenly enlarge and "suppurate" (the fluid was not true pus), unless the fact of pregnancy occurring had any bearing on the matter.

The report of the Clinical Research Association, together with our knowledge of the anatomical relations and the nature of its contents, confirm us in the view that this was a branchial and not a dermoid cyst.

TWO CASES OF PENETRATING WOUND OF THE HEART TREATED BY OPERATION.

BY

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IT has been my lot to have the opportunity of operating on a penetrating wound of the heart on two separate occasions within such a short space of time as three months; I am therefore happy to be able to place before my colleagues the details of such an uncommon experience in the hope that they may prove useful to some and interesting at any rate to others.

CASE I.—*Penetrating Wound of the Left Ventricle: Operation Two and a Half Hours after Injury: Complete Recovery.*

Whilst acting as Resident Surgeon at San Fernando Hospital, Trinidad, B.W.I., on October 19th, 1912, I was hurriedly summoned, about 3.15 p.m. to see a case just brought in and reported to be dying. I found the patient to be a well-nourished coloured boy, aged 14, suffering from severe shock and haemorrhage apparently caused by a small stab on the left side of the chest.

History.

The following history of the wound was obtained: About 1.30 p.m. on that day he was in the street just near his house playing at "rounders" with his friends, when, on stooping hurriedly to pick up the ball, the handle of an ice-picker (an instrument similar to the large blade of an ordinary penknife fitted on to a wooden handle about 4 or 5 in. long) which he had in his left coat pocket, pressed hard against the front of his left thigh, thus driving the blade into his chest. On rising he felt some sort of pain in his chest, and to his surprise saw the ice-picker securely stuck in his side. This he forcibly withdrew, and for a few minutes felt none the worse, but, as he was bleeding from the wound, he hurried to his house to remove his blood-stained clothing. The pain over his heart now became very severe, and he could breathe only with difficulty, and, as his condition seemed to be rapidly getting worse, he was put into a cab and quickly brought to the hospital, where he arrived as before mentioned in a moribund condition about one and three-quarter hours after the accident.

State on Examination.

He was cold and collapsed, with large beads of perspiration on his forehead, and the pulse could hardly be felt at the wrist. There was acute dyspnoea, and he was extremely restless, and insisted on lying on his left side, as he felt he would die if made to lie on his back. The stab was a small vertical penetrating wound about one-third of an inch long, situated between the fifth and sixth ribs on the left side of the chest, about one inch within the nipple line, and extended in an upward and backward direction, but with a probe no opening into the chest wall could be discovered. The area of cardiac dullness was definitely increased, but the heart sounds could be heard fairly distinctly. There was no haemorrhage from the wound.

Diagnosis.

The position and direction of the wound, the severe shock and signs of internal haemorrhage, the increased area of cardiac dullness, the intense dyspnoea, and the absence of haemoptysis and cough, all pointed to an injury of the heart. Hot water bottles were quickly procured, and a warm saline enema with 15 drops of adrenalin given, while strychnine gr. $\frac{1}{12}$ and adrenalin ♏vj were injected hypodermically, and the patient was put to lie on his left side, with his head low. I also gave instructions to get the operation theatre and all necessaries ready as quickly as possible in case there should be no improvement in his condition.

Operation.

About 3.50 p.m., as the patient showed no signs of improvement and was, in fact, fast sinking, I decided on operating at once. An intravenous infusion of normal saline with 10 drops of adrenalin was given, but the fluid flowed extremely slowly and only about ℥ ij could be infused altogether, this, no doubt, being due to the failing circulation. The area around the stab was infiltrated with about ℥ ij of a solution of cocaine and adrenalin in normal saline (cocaine gr. j, adrenalin ♏ x, normal saline ℥ iv) and the wound prolonged upwards and downwards. The opening into the thorax between the fourth and fifth ribs now became clearly evident, and a probe which was inserted was seen to move with the heart-beats, thus confirming the diagnosis. As the patient was now having great pain and seemed very distressed, Dr. Greaves, assistant surgeon to the hospital, administered some chloroform, but after a few minutes respiration ceased and the pulse could no longer be felt. Artificial respiration was immediately resorted to, a capsule of amyl nitrite given as an inhalation, and an injection of strychnine and digitalis given hypodermically. The case now seemed quite hopeless, but after about three minutes voluntary respiratory movements could again be detected. I therefore hurriedly continued the operation, and exposed the fourth and fifth ribs, and with a pair of rib scissors cut away their costal cartilages. At this stage the patient became very restless, and seemed to be in great pain, necessitating the administration of a little ether by the open method. The pleural cavity was rapidly exposed, and a quantity of clots of bright red blood escaped with every movement of respiration, and for a time neither the pericardium nor the lung could be seen. I quickly removed the clots and swabbed out the cavity as far as possible. The pale, collapsed left lung now came into view in the upper part of the wound, and was hurriedly examined, but no injury was found. I then pulled up the pericardium with a pair of Spencer Wells forceps, and at once saw a small hole, through which bright arterial blood was slowly pumping.

This opening was immediately enlarged sufficiently to allow of a thorough examination of the heart, large clots were removed from the pericardial cavity and the apex of the heart was seized with a pair of Spencer Wells forceps and pulled half out of the thorax, when a vertical penetrating wound of the left ventricle about ½ in. long was seen near the interventricular septum about half-way between the apex and the aorta—pumping bright arterial blood with every contraction of the left ventricle.

I hurriedly stitched this with some very fine silk by pulling the heart well out of the thorax with the forceps, thus steadying it sufficiently to allow the stitching, but on relaxing the heart once more the pumping was noticed to be still going on. The stitches had been too tightly inserted, and had cut through the muscle of the left ventricle, making the opening larger than before. I therefore removed these stitches and used rather thicker silk, pulling less tightly and taking great pains that the stitches should not enter the ventricular cavity for fear of thrombus formation. It was necessary to insert five interrupted sutures before the haemorrhage could be checked. During this procedure, which lasted quite twenty-five minutes, the anaesthetist noticed that the patient's pulse was very much stronger and he was taking the ether well. The removal of the blood from the pericardial cavity, and the stimulation of the heart by the forceps and stitching had evidently markedly improved the heart beats.

It is interesting to note here that whilst the heart was being pulled on to enable the stitches to be inserted, the beats gradually diminished and weakened, but immediately returned to the normal on being relaxed into the thorax.

As soon as I had satisfied myself that the wound was securely sutured and there was no more danger of haemorrhage, the pericardial cavity was thoroughly irrigated with normal saline and all clots removed, and the opening into the pericardium was stitched with catgut. The pleural cavity was then also thoroughly irrigated and all clots removed, and the pleura and pectoral muscles

stitched with silk across the gap formed by the removal of the fourth and fifth costal cartilages. The skin incision was then brought together with silkworm gut sutures (no drainage tube or gauze being left in), the dressing applied, and the patient hastily returned to his bed and laid flat on his back.

Progress.

The patient's condition had definitely improved after the operation, but the dyspnoea was still urgent and he was experiencing great pain over the heart, which had to be relieved by hypodermics of morphine at intervals. Saline ℥ x and adrenalin ♏ v were also given per rectum hourly for four hours and then two-hourly throughout the night, and he was able to take small quantities of warm milk and brandy at short intervals. The following are notes of the further progress of the case:

October 20th (the day following the operation). He was positively better; respirations 36, pulse 148 and regular. The dyspnoea was much lessened by propping with a head-rest, and the pain relieved with hypodermics of morphine and an icebag, which latter was kept over the heart continuously for the next five or six days.

October 22nd. There was distinct pericarditis of the dry type, which gradually spread over the whole cardiac area, the heart sounds being at no time muffled. The pneumothorax on the left side caused by the collapse of that lung at the time of operation persisted until about October 27th, after which there was some dullness behind, probably due to a small pleural effusion. Slight pleural friction could be heard for a few days after the operation.

October 26th. The skin stitches were removed and the wound had almost healed.

October 30th. The patient seemed altogether out of danger, and he was allowed to take a good meal. Temperature 98.4°, pulse 96, respirations 24. The heart sounds were perfectly clear and the pericarditis had quite disappeared. About 5 p.m. on this day he was suddenly seized with acute abdominal pain over the right side of the abdomen, nausea, vomiting, and collapse, and there was no pulse at the right wrist, the right hand feeling quite numbed. An icebag was kept over the abdomen and heart, and morphine, strychnine, and digitalis given hypodermically. About 9 p.m. the pulse was appreciable at the elbow and he was resting quietly.

October 31st. On this morning the pulse at the right wrist could not only be felt but was definitely stronger than that at the left wrist, and his condition was still serious. The nausea and vomiting continued throughout the day, and the pain seemed to become localized over the right kidney, and on November 1st the urine was found markedly albuminous, but no red blood corpuscles were found on microscopical examination.

November 3rd. On this day the pulses were about equal and the patient seemed comparatively well, but the albuminuria was still marked and continued for some weeks. Embolism of the right radial and renal arteries seems to be the only satisfactory explanation of the above symptoms, caused no doubt by the dislodging of emboli from a clot over the wound in the left ventricle probably brought about by a full stomach after the first heavy meal.

November 7th. His condition gradually improved, but by this date the temperature had become definitely septic, and the left base was explored; no fluid was found, but the pleura felt very much thickened.

November 10th. The patient complained for the first time of a swelling over the site of an intramuscular injection of quinine given on October 22nd, and on incision a fairly large abscess, deep down in the muscles of the thigh, was opened and drained.

Result.

By November 18th the abscess wound had healed and the patient was rapidly gaining strength, and on December 7th he was discharged from hospital as cured. I am much indebted to Dr. Turpin, resident surgeon of the hospital, who kindly supplied me with his notes of the case from November 12th (when I was transferred to Port of Spain Hospital) to the time of the patient's discharge from hospital.

I had an opportunity of seeing the patient on December 17th, and found his condition as follows: He was well nourished and showed no symptoms of cardiac trouble; there was no palpitation, pain, or dyspnoea, and he was able to walk about without any discomfort. (I had advised him not to attempt any running or violent exercise for a few months.) The scar had been replaced by a keloid; the apex beat was over the sixth rib in the nipple line and the space between the excised costal cartilages was not visible on inspection, the distance between the cut ends being only about ½ in. The mitral, aortic, and pulmonary sounds were quite clear and no murmur could be heard. On percussion the area of cardiac dullness was very little, if at all, increased. The lungs seemed normal, except for a slight impairment at the left base behind, probably due to some thickened pleura.

On March 3rd, 1913, the patient again came under my observation, and I am happy to be now able to report his "complete recovery." He looks well, and has obviously put on a considerable amount of weight since last I saw him. The apex beat is in the fifth interspace, well within the nipple line. The area of cardiac dullness seems quite normal, and the aortic, pulmonary, and mitral sounds are perfectly clear and distinct. The pulse is 92, regular, and of good tension. The urine still contains a trace of albumen.

He has been attending school since January, and assures me that he is now able to run at top speed, and walk up and down hill with very little discomfort, though he thinks he is not yet able to do quite as much as he could before the accident.

Case II.—*Penetrating Wound of Right Ventricle: Operation Five Days after Injury: Death.*

A. M., a well-developed coloured boy, aged 15, was admitted at 4.35 p.m. on January 1st, 1913, into the Colonial Hospital, Port of Spain, Trinidad, B.W.I., by Dr. Proctor, Assistant Surgeon to the Hospital. The history obtained was that he had stabbed himself with a knife during an altercation with his father about half an hour previously, since when he had been bleeding profusely from the wound. The patient remained during the next five days under the care of Dr. Proctor, who has been kind enough to supply me with the following notes.

State on Admission.

The patient was cold and collapsed, and sweating profusely, there being no pulse at the wrist. There was a small bleeding punctured wound over the third left costal cartilage near the sternum extending backwards and downwards and slightly inwards for about an inch. This was carefully probed, but no opening into the chest wall could be made out. The heart sounds were feeble, but there were no murmurs, and the area of cardiac dullness was not increased. The lungs were normal.

A mixture of ether, strychnine, and ammonia was administered at short intervals, and about 2 pints of normal saline with 10 minims of adrenalin given two hourly per rectum, and about 1 pint of normal saline infused under the breasts. The wound was dressed and firm pressure applied, but as the haemorrhage continued, the area around was infiltrated with a solution of cocaine and adrenalin, and the stab wound enlarged, but no bleeding point could be found; however, after tightly packing the cavity with gauze the haemorrhage was checked.

By 9 p.m. the patient's condition had slightly improved, and the pulse was now perceptible at the wrist. On the next day (January 2nd) he seemed much better, and had a fairly good pulse—there had been no further haemorrhage.

Progress.

On January 3rd and 4th the improvement continued and the patient seemed quite comfortable. The temperature had remained normal since after admission, but on the evening of the 4th it registered 100° F.

On January 5th there were a few crepitations at the left base and some indefinite signs over the left lung in front; the heart seemed normal. The patient now felt comparatively well and was found out of bed on several occasions, though persistently warned that he must on no account leave his bed.

On the morning of January 6th some secondary haemorrhage occurred from the wound, which had to be repacked with gauze wrung out of adrenalin, and for the first time since admission the area of cardiac dullness was noticed to be definitely increased. There was also acute pain over the pericardium, and the pulse had become weak and rapid. Normal saline and adrenalin were given per rectum two-hourly, and strychnine and digitalis injected hypodermically.

This day, about 1.30 p.m., he was reported as having got suddenly worse, and I was called to see him. I found him restless, cold, collapsed, and sweating, with a running pulse at the wrist, and suffering from acute dyspnoea of a panting nature. The area of cardiac dullness extended from the third to the eighth rib, and there was definite pleuro-pericardial friction near the wound on the left side. There were crepitations at both bases, but no signs of fluid. There was no external haemorrhage going on.

Diagnosis.

From the direction of the wound, the sudden increase of the area of cardiac dullness, and the restless collapsed condition of the patient, I concluded that there must have been a penetrating wound of the heart of a valvular nature which had closed down shortly after the injury owing to the feeble contractions of the heart brought about by the extreme loss of blood, most of which had drained out of the pericardial sac and through the external wound. As the patient recovered, however, and the cardiac contractions became more forcible, some secondary haemorrhage occurred from the stab wound in the heart (probably brought about by the patient's exertion in getting in and out of bed), but as the external wound was now closed, all the blood remained in the pericardial cavity, thus causing the symptoms which were now present. In the circumstances, and as the patient was rapidly growing worse, I decided on operating at once, with a view of stitching the wound in the heart and arresting the haemorrhage, this seeming to give the only possible chance of recovery.

Operation.

About 3 p.m. the patient was brought to the operating theatre in a wheel chair and placed on the table in a semi-recumbent position. The whole area around the wound had been thoroughly infiltrated with a solution of cocaine and adrenalin (½ per cent. of each) in normal saline solution, about twenty-five minutes previously.

An incision about 4½ in. long was now made, starting from the second left costal cartilage going through the stab wound in an outward and downward direction and ending about the sixth rib within the nipple line, thus exposing the third, fourth, and fifth costal cartilages and the intercostal muscles in connexion with them. A careful examination now revealed a punctured horizontal wound, about ¾ in. in breath, between the fourth and fifth left costal cartilages near the sternum, which, on probing, was found to pass in a backward, downward, and slightly inward direction for a distance of about 1½ in. to 2 in., the probe moving up and down with the heart beats, which could be distinctly felt. On removal of the probe, a great quantity of dark venous blood immediately welled up from below. The diagnosis of a punctured wound of the heart having been now definitely confirmed, the operation was continued.

The fourth and fifth left costal cartilages were completely exposed, the intercostal muscles attached to them above and below separated, the pleura freed from their under surfaces, and with a pair of rib shears the cartilages were cut away sufficiently to allow of a complete examination of the pericardium and heart. At this stage the patient became very anxious and restless, and insisted on having an anaesthetic. Ether (by the open method) was therefore administered, and after about four minutes the operation was proceeded with and the pleura incised. There was an immediate rush of air into the pleural cavity as the left lung collapsed into the upper part of the thorax, exposing an extremely distended pericardial sac occupying the greater part of the left side of the chest. The pericardium was found extremely thickened and inflamed, and was incised for about 3½ in., allowing a quantity of dark blood to escape from the pericardial cavity, which was quickly swabbed out, when some fairly rapid venous oozing was noticed to be going on. There was well-marked pericarditis over the visceral pericardium, and the heart muscle was felt to be much softer than normal, probably due to myocarditis.

The left ventricle was now thoroughly examined, but no wound could be discovered, and as the direction of the stab and the venous condition of the blood pointed to a wound of either the right ventricle or right auricle, it became necessary to make as complete an examination of these compartments as possible. The apex of the heart was, therefore, carefully seized with a pair of Spencer Wells forceps and an attempt made to pull the heart out sufficiently to allow of this examination, but this proved impossible, as the tissue was very soft and yielded to the slightest pressure or pull. A silk suture was then passed through the apex of the heart and a further attempt made to pull it out by this means, but this also proved unsuccessful, as the silk cut through the muscle very easily, setting up a fairly smart haemorrhage, which, however, was quickly controlled by means of three interrupted sutures. As the haemorrhage, however, still continued from the stab wound, some very hot saline was poured over the heart, but this too failed to have any effect. By this time the patient's condition was very grave, and all attempts at getting at the source of the haemorrhage had perforce to be abandoned. An intravenous saline infusion was at once started and the heart beats seemed to improve for a while, the pericardium and pleura being meanwhile stitched with catgut and the pectoral and skin incision brought together with interrupted silkworm-gut sutures. Before the stitching had been completed, however, the patient expired.

Post-mortem Examination.

On the next day a *post-mortem* examination was held, and, as anticipated, a punctured horizontal valvular wound, about ⅜ in. long, of the right ventricle about half-way between the apex and base of the heart was found penetrating into the ventricular cavity. The stab had gone through the chest wall directly into the pericardial sac without penetrating the pleura, and there was a fair amount of extravasated blood beneath the sternum along its whole length. The lungs showed some congestion of the bases and there were some old pleuritic adhesions on both sides. The other organs seemed normal.

Conclusions.

In the light of the experience gained from these two cases, I venture to put forward the following conclusions and suggestions:

1. A great many cases of penetrating wounds of the heart might easily escape recognition if too much reliance be placed on the failure of the probe to enter the thoracic cavity; but when it is borne in mind that a stab wound (made often with the *thin* blade of a knife) in that position usually has to traverse several layers of muscles, the fibres of which run in various directions, it can easily be conceived how difficult it would be to detect the opening into the chest by means of a probe. I think that all such wounds in the vicinity of the heart which give rise to symptoms of shock and collapse (even in the absence of other signs, such as an increase of the area of cardiac dullness, etc.) should be immediately enlarged and the thoracic walls sufficiently exposed for a thorough examination for a possible wound of entry, which, if found, would necessitate an immediate operation.

2. It is not usually known that the proportion of recoveries amongst the 124 cases recorded of operations of suture of the heart after injury is as high as 40 per cent. (vide Thomson and Miles, *Manual of Surgery*, 1909); there seems little doubt, therefore, that the proper treatment for all such cases rests with the surgeon and not with the physician, who up to now holds such strict monopoly of the chest and its contents.

3. The choice of suture—that is, catgut or silk—for the heart wound seems to me of paramount importance, and it is strange that such little attention is paid to it in the various textbooks. My former esteemed professor, Mr. Waring of St. Bartholomew's Hospital, for instance, recommends in his *Manual of Operative Surgery* interrupted sutures of catgut, whilst in the *Manual of Surgery*, by Thomson and Miles, 1909, "interrupted sutures of fine silk or catgut" are recommended. As to the use of ordinary catgut, I feel quite certain that it is unsafe, as it is too elastic and does not hold sufficiently long to ensure firm union between the edges of a muscle which is continually contracting and retracting. Iodized or chromic catgut, however, which lasts a great deal longer, may, I think, be used with safety, but I very much prefer, and can see no reasonable objection to, the use of thin silk applied not too tightly. Excellent results are obtained by the use of such silk in abdominal operations in which sepsis can certainly not be excluded, and I feel sure that the great power of absorption of septic matter possessed by the peritoneum is also possessed to the same degree by the pericardium. Should the wound be an obviously septic one, I would, of course, prefer chromicized or iodized catgut.

4. The selection of the ribs to be removed seems to me also an important consideration. Complete exposure of the pericardium and heart can easily be obtained by removing the fourth and fifth costal cartilages—instead of the fifth and sixth, or fourth, fifth, and sixth as recommended by some—thus leaving the sixth rib in position as a support to the heart when the patient is in the erect position.

5. I note that most writers lay much stress on the necessity of trying to avoid opening the pleural cavity—no doubt for fear of causing a pneumothorax. In both my cases the pleural cavity was opened and a pneumothorax caused, and I must confess that, in spite of their very grave condition at the time of operation, their symptoms were not aggravated by this procedure. My first case shows how quickly and completely such

a pneumothorax can be recovered from. On the other hand, there are two distinct advantages in opening the pleural cavity. In the first place, owing to the collapse of the lung in the upper part of the thorax, the pericardium and heart are more completely exposed, and the operation thereby much facilitated; and, secondly, it permits of a thorough examination and cleansing of the pleural cavity from all blood clots, which one can never exclude with certainty, the pleura being in most cases wounded at the same time as the pericardium.

6. As regards the after-treatment, in addition to the usual treatment for haemorrhage an icebag kept over the heart continuously and hypodermics of morphine are extremely useful adjuncts for allaying the distress and pain. Complete rest in bed for at least three weeks after the injury must be thoroughly enforced for fear of embolism.

7. With regard to the "incision," I note that the trap-door method first used and described by Parozzani in Italy is recommended by some. This consists in making a horizontal incision along the fourth interspace dividing the superficial structures and the pleura, and a second incision vertical to this, dividing also the fifth, sixth, seventh, eighth, and ninth ribs, thus forming a trap door the hinges of which are the rib cartilages. I can see no necessity for such a radical procedure. The ordinary straightforward incision gives ample room, which could be further increased if necessary by making transverse incisions at right angles to it as suggested by Waring.

In conclusion, I have to thank the Surgeon-General (Dr. H. L. Clare) for his kind permission for the publication of this report.

THE NASCENT IODINE TREATMENT OF LUPUS NASI.

By P. W. BEDFORD, M.B., Ch.B.,
formerly house-physician to the Salop Infirmary.

An article appeared in the British Medical Journal of March 23rd, 1912, describing Dr. Pfannenstill's method of treating lupus and laryngeal tuberculosis by means of nascent iodine. As the results obtained in those instances were so satisfactory as compared with other methods of treatment, it was thought that it might with advantage be employed in a case that had hitherto resisted treatment. The patient selected was a definitely tuberculous girl 12 years of age, who in addition to lupus nasi had tuberculous kyphosis and scoliosis of nine years' duration, and had also at one time suffered from a tuberculous ulcer on the wrist which had healed rapidly under tuberculin treatment. Further, she had reacted strongly to the von Pirquet and the subcutaneous tuberculin tests.

These details are recorded because when Dr. Pfannenstill's report was first published the point was raised whether the cases cured by him were actually tuberculous and not syphilitic.

In this case, then, there was no doubt as to the diagnosis, for though Wassermann's test was not applied, there was no evidence obtainable that the lesion was syphilitic.

When the nascent iodine treatment was first instituted, she had been under the influence of that form of tuberculin known as B.E. for a period of six months, having begun with a dose of $\frac{1}{10000}$ mg. hypodermically, and had attained to so large a dose as $\frac{1}{4}$ mg. without, however, its having exerted any appreciable effect upon the course of the disease. The technique employed in this instance was slightly modified, chiefly in the direction of simplification, as follows:

1. Instead of two solutions, only one was used; it consisted of 1 pint of a 3 per cent. solution of 10 volume hydrogen peroxide, to which had been added 1 oz. of acetic acid (*B.P.*).

2. The solution was applied hourly instead of every few minutes.

3. A spray was employed to make certain of attacking that portion of the disease that lay within the nasal cavity.

4. A "nosebag" of lint was extemporized to keep the gauze and gauze plugs in position.

5. Poultices were applied to remove the crusts before beginning the treatment, and were also resorted to at intervals during the course.

After treatment for a fortnight the patient was obviously much improved both in her local condition and in her general health. Up to this point the tuberculin injections were still being employed; these were now discontinued, and it was noted that during a period of one week the disease remained stationary. The injections were accordingly resumed, and benefit again began to accrue.

From this time onward the patient made steady progress until, eight weeks from the commencement of the treatment, the diseased surface had completely healed over with soft, smooth scar tissue, and the cure was complete.

It was thought advisable, however, to continue the administration of the sodium iodide and the tuberculin for a few days longer; but instead of the peroxide solution an application consisting of linimentum camphorae ammoniatum, with the addition of some tinctura capsici, was used locally as a counter-irritant. The peroxide was discontinued because it was considered probable that, the patch having healed, the solution was not being brought into actual contact with the disease should it be lying deeper. The sodium iodide, which was given in doses of 7½ grains by the mouth every four hours, did not produce any symptoms of iodism, nor was the latent phthisis aggravated by the treatment.

The patient, on being discharged, was instructed to report herself at once should the disease show any signs of fresh activity, but up to the present time—that is, two months later—this has not occurred.

The question that naturally suggests itself in this case is: Was the cure due to the nascent iodine treatment alone or to its use in conjunction with tuberculin?

On the one hand is the fact that six months' treatment by means of tuberculin alone had no effect upon the disease, which, on the contrary, continued to spread. And, on the other hand, when the tuberculin was discontinued, the disease remained stationary.

A reasonable explanation would be that the hydrogen peroxide merely acted as a counter-irritant, causing a local increase in amount of the antibodies produced by the tuberculin, whilst the iodide helped by exerting its usual beneficent influence on a strumous condition. In support of this contention may be cited the manner in which tuberculous glands often melt away under tuberculin injections combined with the local application of suction cups.

Whatever the explanation may be, the result was so eminently successful, both as regards cure and cosmetic effect, that the nascent iodine treatment of lupus calls for a wider publicity and a greater usage than it appears to have gained in this country.

I am indebted to Dr. H. Willoughby Gardner, Senior Physician of the Salop Infirmary, for his kind permission to publish the notes of this case.

The Berliner Auskunfts- und Fürsorgestellen (Organization for Inquiry and Care), under the direction of Geheimrat Pütter, of the Charité Hospital, is one of the most beneficent institutions for the poor sick inhabitants of Berlin. Aid is given to people suffering from lung diseases, cancer, and to inebriates. It is particularly difficult to assist the latter and their families, as the authorities have very little power in such cases. Legally a drunkard can only be taken to the workhouse if he is so much addicted to drink and loafing that he is neither able to support himself nor those dependent on him and if public charity has to be called upon. As long as a drunkard is doing some work, be he treating his family ever so ill, no legal proceedings can be taken against him, and even the police are powerless unless some actual mischance has occurred. In cases like this the organization exerts its influence. Only a small percentage are cured of their drinking habits and brought back to regular work, but in about 50 per cent. of all cases the efforts to improve the impoverished circumstances of the families have been successful. Of the 1,277 cases of drunkenness which in 1912 became known to the organization, 60 were under the age of 30, 497 between 30 and 50, and 275 over 50 years old. The age of 445 could not be ascertained. Only 3 out of 1,277 were women.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF PAROXYSMAL HAEMOGLOBINURIA.

A BOY aged 13 complained of feeling cold and shivering for several hours. On the next day there was headache and discoloration of the urine. On the third day he came under observation. He was well nourished, of high colour, and complained of slight headache. The pulse (90) was of normal volume and tension; the temperature was normal. The right kidney seemed slightly tender but not enlarged, the left could not be felt. He was passing a normal quantity of deep red-brown urine. He had had two previous attacks of a similar kind two years and three months earlier respectively. The urine on standing deposited much mucus, and became almost clear above and of a dull claret colour. The specific gravity was 1022; it was strongly acid and exhibited on boiling one-sixth albumen. The deposit on microscopical examination showed abundant uric acid crystals, but no red corpuscles or renal casts. Seven days after the onset the urine became normal in colour and entirely free from albumen.

Reading. E. W. SQUIRE, M.B., B.S.Lond.

ANTISTREPTOCOCCAL SERUM IN APPENDICITIS.

THE patient in the following case, a man aged 35, had complained for eighteen months of pain in the abdomen. It was aggravated by food, and pointed towards gastric or duodenal ulcer, for which the case had been treated by three previous medical attendants.

On January 5th, 1913, he was seized at 4.30 a.m. with violent pain in the abdomen and sickness. The abdomen was rigid, the liver dullness absent, and the patient's forehead covered with perspiration. There were also symptoms of collapse. In view of the previous history perforation of a gastric or duodenal ulcer suggested itself.

A surgeon was called in by me, and he thought it possible the mischief was above the umbilicus, and accordingly made his incision above the umbilicus. No trouble being found there, he extended his incision. The mischief was found in the appendix, which had perforated, and had quite a pint of pus lying in its neighbourhood.

The appendix was removed, the pus swabbed out, and drains put in the right flank and end of the incision. The temperature remained high, and reached 101.6° on January 19th. On January 27th fluid was noted in the right pleura. Thinking the fluid would probably become purulent, I arranged with the surgeon to come down and resect a rib. However, by February 1st the fluid had disappeared, but the temperature still remained up, being 101.2° on the evening of that day, and running up to 102.8 at 4 p.m. on February 2nd.

On February 4th his condition was very serious, and the surgeon was of opinion the man would die. On February 5th I gave 10 c.cm. of antistreptococcus serum, and repeated the injection next day. The effect was remarkable, the temperature falling to 97.2° and remaining below normal for fifteen days.

On February 20th the temperature again rose to 99.4°, running up, the next day, to 100.2°, and the chest was filling up with fluid. The serum was immediately used again, with the same favourable result—a gradual drop of the temperature. The patient has since made a complete recovery and has gone away for a change.

Pinner. H. J. HILDIGE, M.D.

AN antivivisection bill which was recently before the New York State Senate has been thrown out, the judiciary committee refusing to report on it.

THE Greenwich Borough Council has decided to purchase the freehold of the Manor House, Park Place, Greenwich, for £550 for the purpose of a tuberculosis dispensary, and has empowered the Public Health Committee to take steps for its adaptation and equipment.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

WOLVERHAMPTON GENERAL HOSPITAL.

HYPERTROPHIED SIGMOID IN A BOY TREATED BY EXCISION.

(By W. F. CHOLMELEY, F.R.C.S.Eng., Honorary Surgeon to the Institution.)

THE following case is of interest, on account of the enormous size of the sigmoid, the age of the patient, and the probable cause of the condition.

The patient, a boy aged 6 years, was admitted on November 13th, 1911, under the care of Dr. Codd, when the following notes were taken: A history to the effect that he had had an imperforate anus at birth, which was successfully operated on; ever since he had been very constipated, the bowels occasionally not being open for three weeks.

State on Admission.

The boy was very pasty in appearance. His abdomen moved well, but showed much distension and visible peristalsis. On pressure the abdomen pitted, and did not regain its normal shape for some time. The rectum was much distended, and full of soft faeces of a doughy consistence.

The boy was ordered a course of enemata, for the most part twice a day, and at the end of twelve days, the abdomen having become much smaller, he was transferred for surgical treatment.

Operation.

The case was looked upon as one of a large dilated colon, and on November 22nd I operated with a view to doing an ileo-colostomy.

The abdomen was opened in the left iliac region, and what appeared to be a thin-walled translucent cyst presented in the



wound as soon as the peritoneum was opened. This proved to be thinned and distended bladder, and was emptied by means of a catheter. The caecum and appendix next appeared in the wound, and had to be pushed on one side before the contents of the abdomen could be examined.

Before I could examine the abdomen at all thoroughly the patient became so collapsed that it was evidently too risky to do any more. The abdomen seemed to be almost entirely occupied by an enormously distended and hypertrophied sigmoid, which was full of soft faeces. The wound was rapidly closed and the boy taken back to bed. I decided, before making another attempt, to try to get the bowel more empty and the boy in better condition.

With these objects in view he had daily a simple enema, as well as a dose of castor oil and a mixture containing mag. sulph. It required all this to bring about a good daily action. Urine was passed only once a day. Under this treatment the child improved in health, the abdomen became softer and smaller, and no longer pitted on pressure.

Second Operation.

On January 10th, 1912, the abdomen was again opened, but this time in the middle line below the umbilicus.

The distended bladder again presented in the wound and was found to reach up to the spleen. A catheter was passed, and, after the bladder was empty, a careful examination of the abdominal contents was made and the following found: The sigmoid had pushed the intestines to the left side, including the

caecum and ascending colon, and occupied the whole of the right side. The sigmoid and rectum were very large, the walls hypertrophied, and were half filled with soft faeces. The pelvis was entirely occupied by the distended rectum; in fact, it was lined with it, the bladder being pushed up and the peritoneum ending at the brim of the pelvis.

The wound was enlarged to reach from the umbilicus to the pubes, and the dilated gut, which reached up to the liver, easily delivered from the abdomen.

No difficulty was experienced in separating the gut from the descending colon or from its mesentery. Only one vessel, the sigmoid, at its origin from the inferior mesenteric, required ligature.

The difficulty began at the lower end of the sigmoid, as here the gut was very large, the walls much thickened, and fixed all round to the pelvis. A curved clamp was applied as low down as possible, and the sigmoid removed. It was found possible to bring the divided end of the descending colon and to suture it to the divided end of gut in the pelvis, the method being the same as that used by Billroth when suturing the duodenum to the stomach after pylorectomy, except that the sutures were continuous. I used three layers of sutures, but not being confident that the bowel would heal well, as its vitality did not seem strong, I drained the abdomen by means of a small tube passed down to the line of sutures.

The rectum was found to be as much distended as the sigmoid, or as much as the size of the pelvis would allow, but was not excised, as I considered that it would be too severe an operation.

After-Progress.

The child stood this operation very well, and was very little collapsed. A catheter had to be passed for the first two days, and on the third day, as no urine was passed, and the bladder became very distended, a catheter was tied in, and kept there for a week.

Two days after the operation the drainage tube was removed, rather earlier than I had intended. The lower end had a rather suspicious smell, but I did not think it wise to try to replace it. On January 12th, while under an anaesthetic, to have a catheter passed, the anus was dilated and the rectum examined. This was found to be full of hard scybala.

Enemata of olive oil were given to soften the scybala, but without much result, so a few days later, as the lower abdomen was becoming distended, I cleared out the rectum under ether. A very large mass was got rid of, and the anus again dilated. The distension of the abdomen disappeared. The line of suture from the inside felt quite firm, but must have been strained, as on the 18th, while the daily enema was being given, a good deal of it came through the sinus left by the drainage tube. The rectum was washed out daily, the amount coming through the sinus getting less and less, until February 5th, when it ceased.

After February 7th no more enemata were given, the bowels opening naturally. Occasionally a little syrup of figs was given.

Result.

The boy improved rapidly, and on February 19th he went to a convalescent home. The bowels were acting every day without any purge or enema, and the abdominal wound was quite healed, with the exception of the sinus left by the drainage tube. When last seen the wound in the abdomen had healed after the intestinal sutures had come away, and there still was no difficulty with the bowels.

REMARKS.

The removed portion of bowel, which was about a third full of soft faeces, weighed 2 lb., and when emptied of its contents held 3½ pints of water.

The cause of the dilatation and hypertrophy of the bowel was, I have no doubt, the condition of the anus, and the neglect on the part of the child's parents in not seeing that the bowels acted daily. The operation for imperforate anus had been successful up to a certain extent, but left a tight stricture of the anus.

The dilatation of the sigmoid had gone on to such an extent that there seemed to be no power left in the muscular coat. This was shown by the amount of purgatives necessary to get a daily action of the bowels before the sigmoid was removed. After its removal no purge of any kind was needed.

THE late Dr. Richard Allanson Gaskell, J.P., V.D., of Glendavon, Huyton, Liverpool, left estate valued at £107,825 gross, with net personalty £81,309.

The nineteenth International Congress of Hydrology, Climatology, and Geology will be held at Madrid this year in October (15th to 22nd). It will devote itself specially to the study of the hydrology and climatology of Spain, with the special object of making known the wealth of that country in watering places and climatic health stations. In connexion with the congress there will be an exposition of plans, specimens, etc., relative to the subject with which the congress proposes to deal. All correspondence should be addressed to the General Secretary, Dr. Rosendo Castells, 10, Encarnacion, Madrid.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

SECTION OF DISEASES OF CHILDHOOD.

AT a meeting on March 28th, DR. J. WALTER CARR, Vice-President, in the chair, the following were among the exhibits:—DR. FREDERICK LANGMEAD: (1) *Tremor* in a girl aged 10. It was unassociated with any sign of organic disease, and was probably congenital. (2) "*Nervous cretinism.*" The case was so called after the description given by Major McCarrison, I.M.S., and was one of cretinism complicated by cerebral diplegia. It was shown to raise the question as to the relationship between cerebral diplegia and deficiency of the thyroid gland. McCarrison had found that about a third of the cases of cretinism endemic in some valleys in India is associated with cerebral diplegia. (3) A case of *Imperfect ossification* of the cranial vault in a boy aged 4. A small hole persisted at the posterior end of the sagittal suture, where cerebral pulsation could be seen and felt. DR. F. G. CROOKSHANK and MR. SIDNEY A. BOYD: *Congenital deformity* of the thorax in a boy aged 6½ years. A gap was present in the bony thorax on the right side, and through it bulged a considerable hernia of the lung. The upper arm fitted closely into the gap if apposed. MR. A. S. BLUNDELL BANKART: *Achondroplasia* in a girl aged 7 years. Great enlargement of the epiphyses existed, and shrinking of the diaphyses. The condition simulated rickets, but the head was neither rachitic nor achondroplastic. The joints were very lax, the wrists permitting movement through an angle of 180 degrees. Opinions were expressed in favour of rickets as the correct diagnosis. MR. LIONEL E. NORBURY: *Circumscribed serous meningitis* in a boy aged 13 months. There had been convulsions followed by right facial paralysis and tremor of the right hand and arm, right leg, right side of mouth, and also of the tongue and lower jaw. The left parietal bone had been trephined over the Rolandic area, and the pia arachnoid found swollen and oedematous. The tremor gradually disappeared; only slight facial paresis remained. DR. REGINALD MILLER and DR. LEONARD PARSONS expressed the opinion that the condition was one of polio-encephalitis. DR. R. C. JEWESBURY: *Acute poliomyelitis* which affected the muscles of both hands. DR. F. PARKES WEBER: *Congenital eversion of the great toes* and other abnormalities in an infant 7½ months old. DR. LEONARD PARSONS: (1) Sections from a case of *Progressive muscular atrophy* (Werdnig-Hoffmann type). The affected muscles showed fibrosis; some fibres were larger than normal, but the majority were smaller and contained an enormous number of nuclei. Many showed fatty degeneration. Only about a third of the usual number of cells were seen in the anterior cornu of the cord. (2) *Diffuse sarcomatosis* of the brain and spinal cord. The primary growth was in the cerebellum, and was a mix-celled sarcoma. Its method of spread was due to "infection" of the cerebro-spinal fluid. MR. SEYMOUR G. BARLING: *Hair-ball* removed from the stomach of a girl aged 7. It presented an exact cast of the stomach, and consisted of a felted mass of hair and string. DR. J. T. LEON: A lung showing *Acute tuberculosis* which had spread from its root. No generalized tuberculosis had occurred.

MANCHESTER MEDICAL SOCIETY.

THE presidential address, delivered by DR. J. J. COX on March 5th, dealt with *Multiple infective arthritis*, a subject which the speaker discussed in all its aspects, though paying special attention to the arthritis deformans type. The latter was most probably due to some as yet undiscovered organism or organisms most easily affecting individuals at certain stages of development and in certain conditions of health. The toxins produced might act in various directions: (1) By elimination through the joints, causing the articular and periarticular characteristic deformities and loss of proper function, especially seen in hands and fingers; (2) upon the nervous system, as shown by rapid pulse, sweating, loss of cutaneous sensibility, atrophy of muscle, at times preceding the joint changes, and a Babinski reflex fairly often met with; (3) upon

the blood-making functions, as shown by profound anaemia; (4) upon the lymphatic glands and spleen (Dr. Still's disease). The theory of the neural origin of arthritis deformans should probably be given up altogether. The theory of Poncet and Leriche, that many cases of infective arthritis were due to the effects of an attenuated virus of tubercle, meant that the joint changes in question stood towards tubercle as did the parasyphilides to infection with the *Spirochaeta pallida*. There was urgent need for thorough research on arthritis deformans, especially in regard to the bacteriology of the urine. In treatment few drugs were of much avail except guaiacol, arsenic, and potassium iodide, aided by iron and cod-liver oil. The patient's strength must be kept up well by proper and generous diet. Chronic intestinal stasis must be thoroughly dealt with by aperients, Plombières douches, and skilled massage. Every patient with chronic constipation was perilously near the risk of developing arthritis deformans, for a recent investigation at the Devonshire Hospital, Buxton, showed that 78 per cent. of the arthritis deformans patients had a history of chronic constipation. It would be well also to try the effect of giving in the early stages hydrochloric acid and glycero-pepsine, on the lines which Drs. Woodwark and Wallis, following up the work of Dr. Helen Baldwin in 1904, had recently advocated.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on March 27th, Mr. ROBERT JONES, President, in the chair, Mr. COLIN CAMPBELL, in a note on four cases of *Graves's disease* treated by fresh thyroidectomized goat's milk, supplied reasons for holding that the prevalence of the disease was increasing and that cases did not "tend to get well." Non-recovery was the rule, whilst deaths were more frequent than cures. His experience of the various serums had been unfortunate. The cases treated with fresh milk had improved comparatively quickly; one, he might say, was cured. Possibly much of the benefit derived from the use of goat's milk was due to its nutritive qualities rather than to its antithyroid action. Mr. THURSTAN HOLLAND said he had treated 50 cases of Graves's disease by *x* rays with satisfactory results, and thought that method much more reliable than any other. Dr. WARRINGTON thought that Dr. Holland had made out a case for *x*-ray treatment, but said that all remedies that had been tried and vaunted were ultimately found unsatisfactory. Mr. KEITH MONSARRAT said he had seen surgical treatment very successful in properly selected cases. Dr. G. C. E. SIMPSON, in a paper on *Appendicitis in children*, said that in the records of the Liverpool Infirmary for Children no case of appendicitis, perityphlitis, or pericolitis appeared from 1876 to 1891, and from 1884 to 1891 only 2 cases of abdominal abscess led to a fatal result among an annual average of 15,000 patients. In 1892 a case of iliac abscess was recorded, and from that time there had been a steady increase in the frequency of these cases; in the last five years there had been an average of 24 cases per annum, the figure rising to 34 in 1910-11. The average death-rate was high, being 23 in 160 cases, or nearly 15 per cent. The speaker had himself treated 34 cases, and urged that the disease was increasing in frequency and in severity, so that no opportunity should be lost of impressing on the public the importance of abdominal pain in a child. Dr. A. STOOKES said that while he had been Resident at the Infirmary for Children in 1884 a case of abscess of the brain and liver had been recorded which was secondary to a pin in the vermiform appendix. He was much struck by the frequency of the disease now as compared with its great rarity thirty years ago. He did not think these cases were missed by the practitioner of those days. In Dr. West's book on *Diseases of Children*, published in 1859, were recorded 4 cases, and the description of the disease showed that the author recognized its existence and its rarity. Mr. R. W. MURRAY said that in a paper fifteen years ago he had advocated treating these cases by hot fomentations and temporizing measures until the abscess pointed, and then opening and draining. He could not now repeat such a recommendation, for the poison had increased in virulence, possibly owing to food adulteration. Mr. F. T. PAUL said that in his early days he remembered only three cases of appendix disease in five years, during which every fatal case at the Liverpool Royal Infirmary was examined after death. He believed that there was always a foreign body in the appendix at the first attack. When the case was not seen at the very onset it was necessary to use judgement as to operation. In some cases he thought it wise to wait for an interval operation; no hard and fast rule could be laid down. Dr. MACALISTER thought investigation was needed as to the cause of intestinal diseases, and especially in regard to food habits. Appendicitis was closely related to the other intestinal disorders, such as colitis, and he thought the condition of the teeth had much influence in these diseases. Mr. ARTHUR EVANS drew attention to the fact that a right-sided basal pneumonia might be mistaken for appendicitis. Dr. W. B. WARRINGTON read a paper on *Meningitis serosa*, which he said was chiefly associated with otitis, but was also associated with other infective diseases, as tuberculosis. The term implied a condition in which there was a pathological collection of clear sterile fluid in the intracranial cavity. In the diagnosis from abscess of the brain the chief guiding marks appeared to be: (1) The sudden and acute onset of symptoms with an otitis; (2) the fluctuating course of the symptoms; (3) the absence of constitutional signs often associated with brain abscess; (4) a study of the localizing signs, which differ from those sometimes met with in abscess. Serous exudates into the intracranial cavity might occur in association with distant sites of suppuration—for example, after appendicitis and puerperal infection. He had also seen it follow a blow on the head and a mental shock. In one case serous apoplexy occurred in a young man, the result of starvation and exhaustion, and terminated in complete recovery.

GLASGOW SOUTHERN MEDICAL SOCIETY.

AT a meeting in the Faculty Hall on March 20th, Dr. J. A. AITKEN, President, in the chair, an address entitled *The passing of tuberculosis* was delivered by Sir R. W. PHILIP, the honorary President. Sir Robert said the optimism reflected in this term was justified by tangible evidence; a hopeful factor was that the medical profession and the public were now together handling the question of tuberculosis as one of the live problems of the hour. In dealing with the sites of invasion by the bacillus, he laid particular stress on the posterior nares, faucial and tonsillar regions, as being specially vulnerable. A fact of significance was that successful inoculation might be accompanied by little, if any, local change, especially in childhood, when the mucous surfaces were more absorbent and succulent. This explained the great frequency of infection with limited evidence of surface lesion. After infection the further course consisted for the most part in a gradual spread by way of the lymphatic system. First, one or two glands in the neighbourhood of the point of inoculation became enlarged, and then progressively others at a greater distance, the extent depending on the degree of resistance which the patient offered. There was evidence suggesting that the glands exerted a definite antagonist influence. In this respect he referred not to gross deformity of glands, but rather to progressive infiltration of chain after chain of glands so slight in degree that they were mostly overlooked. The determination of tuberculosis at the lymphatic stage would be a common event if such lymphatic tracts were scrupulously supervised in childhood and adolescence. It was at the lymphatic glands that tuberculosis ought to be opposed, and when thus opposed its further spread within the system was readily prevented. The tuberculous toxins seemed to act especially on neuro-muscular structures with progressive loss of sarcous substance and associated enfeeblement and irritability of muscle, and to this might be referred the early signs of motor weakness both of limbs and viscera—the feeling of tiredness, the disinclination for effort, the softening pulse, and the gastro-intestinal sluggishness. These were generally in evidence long before cough or expectoration, or other indication of local lesion. To wait for the appearance of tubercle bacilli in the discharges was to wait much too long. Many years ago he instituted at the tuberculosis dispensary a "march-past" of the infected households. This systematic examination led him to the conclusion that tuberculosis among children was far commoner than

had been supposed, indeed that at least 30 per cent. of children were affected. This had been entirely confirmed by bacteriological and pathological observations in different countries. If the principle of the "march-past" were universally carried out, not merely at the tuberculosis dispensaries, but in general practice, tuberculosis in its grosser forms would disappear.

GLASGOW OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

At a meeting on March 26th, Dr. Lindsay, President, in the chair, Professor Teacher gave a demonstration of gynaecological specimens illustrating various conditions, the most noteworthy being sections of the genital gland of a case of hermaphroditism showing both ovarian and testicular tissue elements, specimens of ovarian pregnancy, and a specimen of a uterus showing ectopic pregnancy in a rudimentary Fallopian tube. A lantern demonstration was also given on the embedding and development of the early human ovum. During its course Professor Teacher reviewed existing knowledge of the subject, more particularly in relation to the work of Professor Bryce and himself. He stated that the *Teacher-Bryce ovum* preparation still represented the earliest known stages of the human ovum, the only more recent specimen at all comparable in age being that of Young of Edinburgh. This was apparently intermediate in development between it and the ovum of Peters, but was probably abnormal. Several very valuable ova of about the age of Peters's had been found within the last five years, and the examination of these had confirmed and extended the discoveries due to that famous preparation.

HUNTERIAN SOCIETY.

At a meeting on March 26th Dr. Arthur Latham, in opening a discussion on the *Uses of tuberculin*, said the intensity of the von Pirquet reaction was of service in estimating the dosage and spacing of doses in a course of tuberculin. By the use of tuberculin at the King Edward VII Sanatorium the number of patients who lost their tubercle bacilli had been increased by 17 per cent. over what was obtained merely by sanatorium treatment. If the real nature of pleurisy in early adolescence were recognized and the case properly treated by sanatorium methods and tuberculin therapy, probably a considerable number of cases of pulmonary tuberculosis could be avoided. As to the particular form of tuberculin to be selected for use, results showed that this was of no great importance; the chief thing was for the observer to know the value and the limitations of the particular brands he used. In many chronic cases S.B.E. was preferable to the ordinary bacillary emulsion. He had never been convinced of the truth of the statement that bovine preparations should be used in lung infection and human in examples of "surgical" tuberculosis. A large proportion of surgical tuberculosis was due to infection from human sources, yet the upholders of cross-vaccination treated all cases of this form of the disease with human preparations. The fact that great improvement followed in many of these cases showed that cross-vaccination was not essential. Dr. Crace-Calvert agreed that pleurisy should never be neglected, as very often it was the precursor of definite lung disease. Sanatorium and tuberculin treatment were complementary, as one provided the stimulus to the production of antibodies, and the other the powers of response. Most patients were suitable for the use of tuberculin if they were carefully watched first, and if very small doses were used at the start. He used bacillary emulsion, as it resembled an ordinary vaccine, and was slowly absorbed, and therefore caused a more lasting production of antibodies. The intensive system of dosage increased the tolerance and decreased the sensitiveness. If the same site were always used for the injections it was sometimes difficult to inject, apparently owing to the inflammatory condition, and if so a general reaction was very likely to occur. Even if tuberculin aided in the production of cavities, it was often a good thing, as it was preferable to have simply a ring of scar tissue round an empty cavity rather than a mass of dead tissue containing bacilli, and this cavity formation did not make more liability to haemorrhage, as the focal reaction tended rather to the obliteration of vessels. Patients treated with tuberculin certainly lost the bacilli from their sputum more readily than those not treated, and so the tendency to relapse was greatly reduced.

LONDON DERMATOLOGICAL SOCIETY.

At a meeting on March 18th, Dr. Morgan Dockrell in the chair, Mr. E. H. Ross described certain *Intracellular protozoal parasites found in guinea-pigs*. They exhibited asexual, sexual, and conjugate stages, while the male elements developed into microgametes indistinguishable from spirochaetes. They led to much cell destruction and produced anaemia and lesions comparable to those of human syphilis. There was reason to believe that they were conveyed from animal to animal during coitus, and they could be found in the blood of the young of infected mothers. Similar intracellular parasites had been found in every case of untreated syphilis so far examined, and some had been seen to develop into spirochaetes. Rabbits and hares likewise suffered from a condition indistinguishable from syphilis, and in the lesions corresponding organisms could be found. Dr. Castellani, the speaker, and his brother, Dr. H. C. Ross, had found similar parasites in a fatal case, which was apparently one of anaemia, but might be one of sprue. The President spoke of the results of his observations on patients after giving salvarsan—namely, that they obtained a complete freedom from the parasites for a time, but that they returned before long, and that it was necessary to continue with mercury. Dr. W. Griffith considered that from a practical point of treatment it might be well to examine the blood of patients for these amoeboid bodies, and only give salvarsan when they and the spirochaetes were found free in the blood. Dr. Knowsley Sibley said the paper confirmed the views he had always maintained—namely, that the *Spirochaeta pallida* was not the essential virus of syphilis, and now they were told it was a spermatozoon. The fact that the same organism was found in earthworms suggested to his mind that the origin of the syphilitic virus was Mother Earth. Moreover, the fact that the male organ in some of the African tribes was much longer and more pendulous than in Europeans, and that these tribes spent much of their time squatting on the earth, might explain the contamination of the mucous membrane from the soil. The following were among the exhibits at the meeting:—The President: A woman, aged 35, who had had a peculiar lesion on the bridge of her nose for some two years, which he was inclined to consider was a *Rhinoscleroma*. Dr. Sibley: A case of *Lupus* in the inner canthus of the right eye in a man, aged 28, who had had it for four years; he had treated it with one application of carbon dioxide snow for two minutes, and had obtained a very good result. Dr. J. L. Bunch: A girl, 17 years of age, with an obvious *Dermatitis artefacta* lesion on the leg. Dr. Griffith: A case of *Mycosis fungoides* in an old man.

The estate of the late Dr. Campbell Boyd, recently president of the Chelsea Clinical Society and honorary secretary of the Irish Medical Schools' and Graduates' Association, has been sworn at the gross value of £14,637, the net personality being £12,867.

At a meeting of the British Oto-Laryngological Society held at the rooms of the Medical Society of London on April 3rd, it was decided that the society should have no president, but that a chairman should be elected at each meeting. The following gentlemen were appointed members of council:—Metropolitan: Dr. Fred. Spicer, Mr. Chas. Heath, Dr. Coubro Potter, Dr. L. Hemington Pegler. Provincial: Mr. Geo. Jackson (Plymouth), Dr. Barclay Baron (Bristol), Dr. Livingstone (Newcastle), Dr. Gogarty (Dublin), Dr. Walton Browne (Belfast), Dr. James Harper (Glasgow), Dr. Potts (Maidstone), Mr. Adair Dighton (Liverpool), Dr. Haring (Manchester), Dr. Little (Bradford). Dr. Percy Jakins was elected honorary treasurer, and Dr. Walker Wood, 30, Canfield Gardens, N.W., honorary secretary.

Reviews.

DUBLIN REMINISCENCES.

SIR CHARLES CAMERON, C.B., in his recently published *Reminiscences*,[1] has given his readers a number of incidents in the history of Dublin during the last sixty years, interesting both from a medical and social point of view. At the age of 14 the author appears to have been threatened with consumption, as he had a prolonged cold with a severe cough and occasional haemoptysis; he was therefore sent to Guernsey, where he spent nearly two years, and completely recovered his health and strength. From an early age he took a great interest in chemistry, and in 1852, when the Dublin Chemical Society was established, he was unanimously elected its Professor of Chemistry; he was then 22 years old and a medical student. He gives an amusing account of his first lecture; he began at 8 p.m. to an audience of about 70; he used no notes, but continued talking and making experiments till a card was quietly passed up with the words written on it, "Do you know it is past 10 o'clock?" In 1856 he became professor of chemistry and natural philosophy in the Dublin School of Medicine, and two years later chemical lecturer in the original School of Medicine, subsequently renamed the Ledwich School of Medicine. In 1862 he was appointed public analyst; he was the third person appointed to such an office, and is now the senior holder of it in the United Kingdom. In 1868 he became professor of chemistry and hygiene at the Royal College of Surgeons, and has been medical officer of health for Dublin for thirty-two years.

In some recollections of meetings with various famous actors and actresses, he describes how he was invited by Miss Olga Nethersole to a supper at the Shelbourne Hotel, and when asked by her if there was any dish he would particularly like, he said that if he was at home he would have a bowl of bread and milk. Miss Nethersole said that was exactly the kind of supper she usually had; so they each had their bowl of bread and milk, while the rest of the party had an elaborate champagne supper. An amusing story is told of Dr. Evory Kennedy, at one time Master of the Rotunda Hospital. In his early days a gentleman called to engage Kennedy's services for his wife, and inquired the fee. Dr. Kennedy said "ten guineas"; the gentleman observed, "I suppose that is ten pounds?" but the doctor repeated, "ten guineas." In due time the doctor was sent for, performed the required services, and, being winter, took up a position in front of the fire. The gentleman appeared and said, "Your fee is ten pounds, doctor?" "Oh, no; ten guineas, as I have already told you." The gentleman left the room, and on returning paid the doctor his fee. Dr. Kennedy took it, and putting his hands behind his back felt only ten coins wrapped in paper; he slipped the coins in his pocket and threw the paper in the fire. What was his disgust when he got home to find that the coins were shillings, and that they had been wrapped up in a £10 banknote which he had burnt.

For eleven years Sir Charles acted as expert for the Government in cases in which bloodstains had to be examined and human viscera analysed for the detection of crime. He tells some stories of cases of unusual interest, and describes how in one case he had to attend the court in the country every day for months and calculates that during the trial of this one case he travelled altogether 6,144 miles by train.

To Sir Charles Cameron is largely due the foundation in 1897 and subsequent success of the Corinthian Club in Dublin, which resembles the Savage Club in London. There are few men probably who have had a larger experience of public dinners and greater practice in speaking at them, and he tells us that sixty years' experience of dinner parties enables him to state that cases of inebriety at them are becoming rarer and rarer. The book ends with an account of how the Dublin poor live; of this he shows an intimate knowledge, gained during the thirty-two years that he has been chief health officer of Dublin. According to the census of 1911, 33.9 per cent. of the total families live in a single room. He gives instances of family incomes of 10s. a week and even less. He says a man's desire for matrimony appears to be inversely proportionate to his means for maintaining a family, and quotes a humorist who said that half the population of Dublin are clothed in the cast-off clothes of the other half.

The book is interesting, but it might have been easier to read had it been written in a more consecutive style.

[1] *Reminiscences of Sir Charles Cameron, C.B.* Illustrated. Dublin: Hodges, Figgis and Co., Ltd.; London: Simpkin, Marshall and Co. 1913. (Demy 8vo, pp. 181. 3s. 6d. net.)

DIABETES.

IT is the claim of the general editors of the series of International Medical Monographs that the books which appear under their auspices are not merely compilations but real contributions to medical science written by first hand authorities engaged in extending the confines of our knowledge. In the volume, *Diabetes, its Pathological Physiology*,[2] by Professor J. J. R. MACLEOD, this claim is amply justified, for the value of his original work is well known. It contains the subject matter of eight lectures delivered during the summer of 1912 in the Physiological Laboratory of the University of London, and the researches of the author and his collaborators form its basis. Often, indeed, such investigations cannot be directly applicable to the work of the practitioner, but they are the foundation of his progress, and although in the pathological physiology of diabetes the amount of research has been enormously disproportionate to the results which have accrued either to our knowledge of the disease or our means of treating it, yet there can be no doubt that in both these respects our grasp of the subject is deeper and wider in consequence of the work of the last thirty years. The special difficulty of the subject is well illustrated by the career of the late Dr. Pavy, who devoted himself with extraordinary persistency and great ability for fifty years to the elucidation of these questions, and yet could not claim to have arrived at more than provisional answers to any of them. The work of the laboratory, however illuminating, must, as Professor Macleod says, be supplemented by observations at the bedside; therefore it is most desirable that those who are interested in diabetes should make themselves acquainted with the work done by such physiologists as Professor Macleod and his co-workers. The recognition of minute traces of sugar in the urine is complicated by the presence of other reducing substances, such as creatinin and uric acid. Benedict's modification of the cupric-sulphate test and Hammersten's modification of Nylander's bismuth test are most serviceable; these two tests should be used in doubtful cases, and the urine fermented with yeast and the test repeated. If the detection of traces of sugar in the urine is difficult, its estimation in the blood presents obstacles even greater, because it is necessary first to remove the proteins, and in doing this much of the sugar goes too. However, these technical difficulties are now overcome by the method of precipitating with dialyzed iron (Rona and Michaelis) and extracting the precipitate with water. It is now believed that the effect of Claude Bernard's puncture is not directly on the liver, for it may be prevented by poisoning the sympathetic ganglia with nicotine or by removal of the adrenal glands; the conclusion is that glycogenesis is stimulated by excess of adrenalin and also by direct nervous impulses. That the pancreas forms a hormone which acts upon the liver is probable but not finally settled, nor is it known definitely what relation the islands of Langerhans bear to this secretion, although it seems clear that it is not solely derived from these structures. Removal of the pancreas affects the glycogenic power of the liver by first upsetting its glycolytic function, and this effect is not solely due to the unrestrained action of the adrenals. Professor Macleod believes that *post-mortem* glycogenesis is identical with that which occurs during life and that the increase is not due to an increase of ferment, but to changes in the environment in which the ferment acts. He discusses at some length the effects of different conditions such as the action of acids and alkalis, asphyxia, haemorrhage and

[2] *Diabetes, its Pathological Physiology.* By John J. R. Macleod, M.B., Ch.B., D.P.H. International Medical Monographs. London: Edward Arnold; New York: Longmans, Green and Co. 1913. (Demy 8vo, pp. 234, figs. 5. 10s. 6d. net.)

muscular exercise. On page 198 he blames the practice of insurance companies of refusing all applicants whose urine reduces Fehling's solution, yet on page 3 he appears to admit that such a person may be "a latent case of diabetes." We cannot speak for all insurance companies, but so far as we know if the urine reduces Fehling's solution, but there are no indications of diabetes, the case is reserved for further examination, and not rejected forthwith. We have only touched on a few of the points of interest, but hope that we have said enough to stimulate readers to go to the book itself.

Professor von Noorden's lectures on *New Aspects of Diabetes*[3] were delivered in the New York Post-graduate Medical School last October. The first three were devoted to a restatement of the pathogenesis of diabetes in the light of recent researches. The fourth is devoted to treatment, and contains little that Professor von Noorden has not told us before; but those who are not acquainted with his methods will find in it a detailed description. In addition to the four lectures there is a supplementary chapter on acetonuria, especially in its relation to the dietetic treatment of diabetes. He regards as the most important disturbance of metabolism in diabetes the inability of the hepatic cell to fix carbohydrates; this inability varies in different persons, and is often in the same case not constantly maintained at the same level. The inability is probably due not to a want of power to form glycogen, but to a tendency to decompose the just formed glycogen too rapidly. The sugar derived from albumen is formed, he thinks, during gastric digestion, but is absorbed and carried to the liver, where it acts like any other carbohydrate; he explains the comparative harmlessness of protein diet in diabetes by the time required for the digestion of the albumen, so that it reaches the liver gradually, but he sees reason to believe that there is a difference hitherto unexplained in the action of various proteins, that derived from muscle having a much greater exciting action on the liver than that derived from eggs or vegetables. For this reason he finds the commercial product "Glidine" of use in treatment of diabetes. Further, the flesh of fish, especially of large fish, induces a smaller output of sugar than the flesh of other animals. He believes the liver possesses the power of forming sugar from fat, and that not only the fat of the food but the deposits of fat in the tissues are drawn to the liver for this purpose. He does not believe that the formation of sugar from fat involves a stage of glycogen formation, for in animals fed upon fat no glycogen is found in the liver. He thinks that muscle has not the power of utilizing fat, but that fat must be first converted into sugar; he admits, however, that this doctrine is not yet established. He holds that the thyroid gland is the great promoter of oxidation in the body, but that under normal circumstances the pancreas exercises a restraining effect upon it; when, as in pancreatic diabetes, the function of the pancreas is diminished or destroyed the thyroid action is unrestrained. The liver is the seat of sugar formation, and is what he calls the "sugar factory," but it is only in severe and extensive disease of the liver substance that the formation of sugar is seriously disturbed. On the other hand, the sugar-forming function of the liver is easily stimulated. He holds that the pancreas in health exercises an inhibitory action upon the liver and favours the storage of glycogen; in pancreatic disease carbohydrate storage diminishes or ceases; the suprarenal bodies and the chromaffin system generally stimulate the production of sugar. A large dose of adrenalin causes the rapid disappearance of glycogen from the liver and produces glycosuria which may last for some hours, acting, in fact, precisely in the same way as Claude Bernard's diabetic puncture, for it is by its stimulating effect upon the adrenals that this experiment produces its well-known effect. Von Noorden does not consider that there is such a thing as a true neurogenous diabetes, the influence of the nervous system being confined to causing temporary glycosuria or aggravating an existing diabetes. Acetonuria, he thinks, is normally prevented by the special carbohydrate metabolism in the liver, and that in the absence of glycogen in the liver cells the formation of acetone bodies is favoured. As those kinds of diet which at first lead to acetonuria after a time cease to do so, and it is known that many animals, even man under certain conditions, live perfectly well on a diet of protein and fat without acetonuria resulting, he suggests that a state of tolerance may be created so that when the conditions have lasted for some time less acetone is formed. He uses this as an argument in favour of persevering with a strict diet in suitable cases of diabetes, in spite of moderate acetonuria at first. If we may summarize von Noorden's principles of treatment, they are the individualizing of the case, the recognition that excess of protein may do almost as much harm as excess of carbohydrate, and the desirability of interposing days of fasting or of a diet of vegetables and eggs in the treatment of all cases. He aims at the complete removal of sugar from the urine, and claims that this is not so difficult as is sometimes supposed. It is a pity that these lectures have not been more carefully edited, so as to remove awkward and obscure expressions which are perhaps due to the shorthand reporter, perhaps to the lecturer endeavouring to express himself in a foreign language. We find, on p. 40, "hyperplasia" for "hypoplasia"; pp. 71–2, "assured" should be "assumed"; on p. 73 we are told that the lectures have been published "shortly," meaning "recently," and "editor" is used where the English word is "publisher." We commend these lectures to our readers, and congratulate the New York Post-graduate Medical School on having arranged so interesting a course for its members.

[3] *New Aspects of Diabetes: Pathology and Treatment.* By Professor Dr. Carl von Noorden. Lectures delivered at the New York Post-graduate Medical School. Bristol: John Wright and Sons, Ltd.: London: Simpkin, Marshall, Hamilton, Kent and Co., Ltd. 1912. (Demy 8vo, pp. 160. 6s. net.)

HAEMATOLOGY.

Dr. Arthur Pappenheim has at last given to the profession a condensation of the bulky contributions which he has made to the subject of haematology.[4] Those of us who have followed much of what he has written have had to qualify appreciation with a very real desire that he would for once omit from his publications those frequent "asides" which render his writings severe mental gymnastics. It is always difficult to ascertain wherein he differs from other teachers. The perusal of the fifty odd pages of the book he has addressed to students and practitioners gives just that clarification which is needed.

The reader need fear no wide excursions into the domains of the physics and chemistry of the blood, but will find a clear account of those most cardinal examinations of the blood which have a real application at the bedside—the staining of blood films, the counting of the red and white corpuscles, and the estimation of the amount of haemoglobin. Side by side with the descriptions of what Dr. Pappenheim considers the one and only perfect method, the methods are given by which the blood changes met with in various clinical states may be correctly read. Generally we do not find much variation in his "constants" from those of other writers, and the object of the reviewer should be to point out wherein lies the special claim for the appreciation of this particular presentation of the subject. It will be found in the accounts given of the normal and pathological morphology of the leucocytes. In health the mononuclear lymphoid agranulocytes are composed of small lymphocytes and large monocytes; the polymorphonuclear true granular leucocytes include neutrophile ϵ-leucocytes, eosinophile a-leucocytes and mast cells. In disease "young" forms and "degenerated" forms of leucocytes occur, the former yielding subgroups according as they conform to agranulocytes or granulocytes, the latter the so-called "stimulation," or plasma cells. The reader will find the distinctions between all these types well set out in the letterpress, and should he desire some pictorial presentation of their distinctions we would recommend as almost necessary an appeal to the excellent atlas (British Medical Journal, October 13th, 1906, p. 955; ibid., August 13th, 1910, p. 378) by the same author, reference to which has already been made in reviews in this Journal.

[4] *Technik der klinischen Blutuntersuchung für Studierende und Aerzte.* By A. Pappenheim. Berlin: Julius Springer. 1911. (Demy 8vo, pp. 55. Mk. 2.)

Two quotations from the introduction of Dr. SCHILLING-TORGAU'S book[5] will give the reader an idea of what is to follow: "Apart from etiological factors (as malaria and other parasites) or a small number of exceptional diseases (leukaemia), an absolute determination of various diseases by means of the blood picture is impossible"; such a sentence shows breadth of view. "It should be the rule in every case of internal disorder to examine at least one blood preparation; by not carrying out a permanent blood control in suitable and doubtful cases we commit a scientific mistake." This speaks for thorough-going routine work which will not leave to chance the detection of the true state of affairs. The first part of the book, comprising twenty-two pages, is devoted to a very condensed account of the technique of blood examination, and closes with a model chart which will facilitate blood counts, and with a scheme of relationship between blood formation and blood pictures. In the fifty odd pages of the second part will be found a very concise account of the morphology of red and white corpuscles, of "stimulation" forms, and of "degeneration" forms of each variety of blood cell. Then follows, with a certain feeling of relief to the clinician, the third section, giving an interpretation of various blood pictures. The volume closes with short notes on the protozoa of the blood and a scheme for the full examination of the blood. The plates are excellent, and the second, especially, is useful because of its schematic representation of cells as they appear in the blood-forming organs, and as they appear in the blood.

FETAL MALFORMATIONS.

MALFORMATIONS of the fetus are of interest to a greater or less extent to most medical men, and we can thoroughly recommend to those who have not had an opportunity of reading it in the original, the English translation of Professor BIRNBAUM'S *Clinical Manual of the Malformations and Congenital Diseases of the Fetus*,[6] which has been recently completed by Dr. G. Blacker.

The practical interest of many malformations is primarily obstetrical, and the subject is dealt with mainly from an obstetric point of view; at the same time there is a great deal of information that must be of value to those who are engaged in other branches of surgery. There is nothing strikingly original about the work, but the author claims for it, and the claim is, we think, quite justified, that it is a genuine attempt to present within a reasonable scope the main facts gathered and condensed from the general literature of this subject. The result is a volume that has, as far as we are aware, no rival in the English language. The value of the work, especially from a student's point of view, has been enhanced by some careful explanatory notes added by the translator, and although these have considerably increased the size of the work their merit quite justifies their inclusion.

After briefly dealing with the theories as to the causation of malformations from a general point of view, the author proceeds on an anatomical basis to describe in sequence the deformities associated with the various regions of the body, and in each chapter the clinical aspect receives an appropriate consideration, and an outline of a suitable obstetric treatment is given. The discussion of each subject is concluded by a record of its literature and every opinion is duly recorded. Obstetrical injuries to the skull, besides forming a favourite topic for an inquisitive examiner, have a definite practical importance, and the chapter devoted to their consideration is full of valuable material.

Double monsters are, of course, clinical rarities, but they possess a very definite interest for the obstetrician, and the failure to diagnose the condition may be attended with the most serious results to the mother. The section assigned to their consideration is of a high order of merit, and the difficulties to be contended with in the diagnosis and treatment are carefully and lucidly dealt with. A classification that will satisfy all demands is not easy, and several are submitted for consideration. This chapter should certainly be read carefully by all students of gynaecology.

The book is completed by an all too brief dissertation on the legal rights of monsters. In future editions of the work we should very much like to see this particular subject dealt with at greater length.

The illustrations are excellent and are mainly from the Göttingen Clinic, which would seem to be particularly well equipped with this type of specimen. The translation of this laborious work has been in excellent hands, and English obstetricians should be greatly indebted to Dr. Blacker for a very valuable addition to their literature.

NEUROLOGY.

THE handbook by BRUNS, CRAMER, and ZIEHLEN on diseases of the nervous system in infancy[7] (not including psychoses) will be fully appreciated by neurologists and be welcomed by paediatrists. The authors have so arranged it that Cramer treats of the functional derangements, such as nervosity, hysteria, epilepsy, etc.; Bruns of the affections of the spinal cord and the peripheral nerves, including polymyositis, myositis ossificans multiplex progressiva, etc.; and Ziehlen of those of the brain and the meninges. Practically the book is a series of monographs. Each of the contributors has acquitted himself of his task in a manner worthy of his established reputation. It is no disparagement to the book to say that it contains nothing original, nothing that calls for special discussion, nothing that rouses controversy. What, however, may truly be added is that it gives an excellent account of facts and theories that ought to be known to those for whom it is more immediately intended, and that it is written with consummate skill partly from a rich personal experience, partly from an intimate acquaintance with the literature. The subject is introduced by a reminder of the differences in the anatomy and physiology of the young and growing and the fully developed organisms, in order to explain the differences in the clinical manifestations of disease at an early and a later period of life. The authors confirm the fact that most nervous affections of infancy are entirely or mainly of endogenous origin; and Cramer rightly insists on the great responsibility which parents and teachers incur by misguided dealings with children of neuropathic disposition. An otherwise arid description of the symptoms is relieved by illustrative cases as well as by photographs of the characteristic features which the various forms of the disease impress upon the patients. There are also illustrations of the macroscopic and microscopic appearances of the lesions, where such exist, of the parts chiefly affected. Diagnosis is fully discussed, and the various methods of examination which help to right conclusions are explicitly stated. The treatment which each author recommends is eminently practical and based partly upon his own experience, partly upon the critical examination of the writings of other trustworthy observers. Cramer reports cases of functional derangements which show what an accomplished physician can effect by judicious management, provided he meets with the willing co-operation of the parents. Bruns and Ziehlen, who deal with organic diseases, set out without prejudice the indications and contraindications for operative interference. Each chapter is also furnished with an exhaustive list of the literature, which will be very useful to future inquirers. The book deserves, and will, we hope, obtain, a wide circulation, not merely amongst specialists but also amongst general practitioners, under whose notice the nervous affections of children always come in the first instance. If our earnest hope in that respect should not be fulfilled, it will probably be because its bulk will prove somewat deterrent to the busy physician. We cannot refrain, however, from stating that there is a redundance of newly coined technical terms such as tachyochaemorrhysis, bradyochaemorrhysis, pleonaemia, pleocythaemia, etc., which seem to possess no advantage over others equally expressive and more generally familiar.

[5] *Das Blutbild und seine klinische Verwertung*, etc. [The Blood Picture and its Clinical Significance Including References to Tropical Diseases). Concise, technical, theoretical, and practical instruction in microscopical blood examination.] Von Dr. V. Schilling-Torgau, Oberarzt, Kommandiert zum Institut für Schiffs- und Tropenkrankheiten in Hamburg. Jena: Gustav Fischer. 1912. (Med. 8vo, pp. 100; 3 lithographic plates and 11 illustrations. Mk.4.50.)

[6] *A Clinical Manual of the Malformations and Congenital Diseases of the Fetus.* By Professor Dr. R. Birnbaum. Translated and annotated by G. Blacker, M.D., B.S., F.R.C.P., F.R.C.S. London: J. and A. Churchill. 1912. (Roy. 8vo, pp. 394; figs. 58; plates 8. 15s net.)

[7] *Handbuch der Nervenkrankheiten im Kindesalter.* Von Professor L. Bruns, Professor A. Cramer, and Professor Th. Ziehlen. Berlin: S. Karger. 1912. (Sup. roy. 8vo, pp. 992, Abbn. 189, Tfn. 3. Mk. 30.)

The monograph on the functions of the cerebellum written by Dr. ANDRÉ-THOMAS of Paris a few years ago has been translated by Dr. W. C. HERRING of New York, and the work has been well done. Since 1895 André-Thomas has published a long series of clinical and experimental works upon the functions of the cerebellum, and the lucidity and thoroughness with which he discusses this very complex problem leave nothing to be desired. In the translation, which has the title *Cerebellar Functions*,[8] the first 53 pages are given to the anatomy and histology of the cerebellum; then follow 47 pages on the results of experimental lesions of its structure, and 30 pages on the symptomatology of its various morbid affections. Then follow 75 pages dealing with the interpretation of the facts given in the preceding part of the book, and discussing the connexions between the cerebellum and the organic functions, sensibility, intelligence, and motility. The whole subject is notoriously complicated. Perusal of this volume leaves the impression that the results of destruction of the cerebellum are fairly well understood; disturbances of motility follow, particularly disturbances in the association of movements—the movements become ill-measured, discontinuous, and the tonic maintenance of equilibrium is lost. The cerebellar hemispheres act mainly each on its own side of the body; when one of them is destroyed its functions are in part taken on by the cerebral hemisphere and labyrinth of the opposite side, but with the characters of regularity, precision, tonicity, and ready equilibration replaced by irregularity, clonicity, and instability, as a result of the substitution of cerebral for cerebellar regulation of the movements. The book gives a clear and sound account of present knowledge of the subject.

NOTES ON BOOKS.

THE edition of *The Medical Annual*[9] for 1913, both in its arrangement of matter and in its style, conforms very faithfully to the model of its thirty predecessors, and its anonymous editor has once more managed to provide himself with a good staff of writers. For the most part these all bear names familiar to the medical public in connexion with one or other departments of medicine or surgery, and many of them are old contributors to this particular publication. The result is a volume which, written succinctly throughout, supplies an excellent summary of the progress of medical science during the previous year, together with a vast amount of information on most subjects connected with the practice of medicine. A perusal of one or two sections suggests that to a person with special knowledge of the subjects concerned it may sometimes seem that points have been overlooked, but there is no doubt that taken as a whole this book will fulfil the needs of general practitioners as amply as its predecessors. This year is supplied a short glossary of new terms which it is intended to extend year by year. Most of those in the present list relate to bacteriology, and are self-explanatory to persons conversant with this science; to others they must convey comparatively little information, even when their meaning is explained in dictionary form.

The latest issue of the *Transactions of the American Laryngological Association*[10] relates to the proceedings of that body at its thirty-fourth annual meeting, and contains some twenty-six papers, which, for the most part, cover fairly well trodden ground. The chief exception perhaps is one in which Dr. Clarence C. Rice asks, "When should singers having vocal disability be allowed to resume work?" The obvious answer would appear to be, When the vocal disability has disappeared, or in other words, when they can sing. This, too, would seem to be commonly the right answer, since the facts recorded in the paper or mentioned by subsequent speakers indicate that it is often exceedingly difficult to determine by an examination of the throat, even when supplemented by a voice trial, whether a given singer will get through an evening's work successfully and without subsequent harm. Some vocalists can sing to the perfect satisfaction of an audience and harmlessly to themselves when their throats are inflamed, and in no case, it is suggested, can a sound opinion be given except by a laryngologist who takes into consideration the personality of the singer as well as the state of his throat.

The favourable opinion which we formed of the *Handbook of Practical Hygiene*[11] when it was issued in 1909 has not been lessened by a perusal of the second edition. Lieutenant-Colonel BEVERIDGE and Major WANHILL have revised the volume in many particulars, have introduced descriptions of improved methods of analysis, and have added to the chapters on sewage and the analysis of foods much new matter, so that the student and public health officers may be certain of finding the most recent views upon these subjects. In the chapter on foods there is an account of the methods to be adopted in the examination of preserves and of ice cream, and the methods of examining other articles has been elaborated. An entirely new chapter on chemical disinfectants adds much to the value of the volume, for it includes several pages devoted to a description of the most recent processes adopted in the standardization of disinfectants. Apart from the question of standardization, the authors consider that a disinfectant should be non-poisonous when diluted to its working strength, and should, if for general use, not resemble any potable liquid in appearance or smell, that it should not attack metal or glass, and should not destroy or stain linen, etc. If intended to be used for the disinfection of the skin, it should not be irritating, and should not be absorbed to any appreciable extent from abrasions or wounds. If emulsified in working dilutions, it should not separate out to any appreciable extent in twenty-four hours in a long cylinder such as a mixing jar.

Any one interested in the fascinating group of plant organisms—the liverworts—will welcome Sir EDWARD FRY's little book, or "small essay," as the author would doubtless call it, on *The Liverworts, British and Foreign*.[12] It is a companion volume to that on British mosses by the same author, a second edition of which appeared in 1908. The liverworts are of more than ordinary interest from an evolutionary point of view, since they appear to be transitional forms between the algae and the true mosses. Moreover their great heterogeneity is in itself attractive, for, as the author says, they "present to one's mind the idea of a crowd of organisms which have not made up their minds in which line they shall go, and which are trying experiments in all directions to see which is best for them to take." Well written and easily understandable, it is not a mere popular account of the group but a serious contribution. To any one in search of a hobby we can thoroughly recommend the liverworts, and we can recommend this book to commence with, a very elementary previous knowledge of botany being required. The production of a book of this character and of its forerunner by one who has led such an active and busy life is in itself a fact of which the author may be proud; it is evidently a hobby which has become a "labour of love." A word of congratulation is also due to his daughter, Miss Agnes Fry, for the illustrations, and to her active co-operation the author bears testimony.

Among the papers contained in the latest issue of the *Transactions of the American Climatological Association*[13] tuberculosis bulks less largely than on some previous occasions. Several papers deal with pure climatological questions, notable among them being the address of the president, Dr. A. D. Blackader, on the advantages of residence in a cold, dry climate in the treatment of some forms of disease. Dr. J. M. Anders puts in a plea for inclusion of the subject of climatology in the curriculum of medical students in America, and Dr. H. L. Barnes deals with the occurrence of pneumonia in open-air sanatoriums. In a paper on tuberculosis dispensaries Dr. Cleave Floyd concludes that their work cannot be measured in terms of "cases cured," their usefulness being almost entirely along the lines of diagnosis, isolation, and prevention.

[8] *Cerebellar Functions*. By Dr. André-Thomas. Translated by W. Conyers Herring, M.D., N.Y. Nervous and Mental Disease Monograph Series, No. 12. New York: The Journal of Nervous and Mental Disease Publishing Company. 1912. (Roy. 8vo, pp. 223. Price $3.00.)

[9] *The Medical Annual*. Thirty-first Year. 1913. Bristol: John Wright and Sons, Limited. (Demy 8vo, pp. 702. Price 8s. 6d. net.)

[10] *The Transactions of the American Laryngological Association*. New York: Published by the Association. 1912. (Med. 8vo, pp. 358.)

[11] *The Sanitary Officer's Handbook of Practical Hygiene*. By W. W. O. Beveridge, D.S.O., Lieutenant-Colonel R.A.M.C., and C. F. Wanhill, Major R.A.M.C. Second edition. London: Edward Arnold. 1912. (Cr. 8vo., pp. 244, interleaved with blank pages for notes. 6s. net.)

[12] *The Liverworts, British and Foreign*. By the Right Hon. Sir Edward Fry, G.C.B., and Agnes Fry. London: Witherby and Co. 1911. (Cr. 8vo, pp. 82. 2s. 6d.)

[13] *Transactions of the American Climatological Association*. For the year 1912. Vol. xxviii. Philadelphia: Printed for the Association. 1912. (Med. 8vo, pp. 380.)

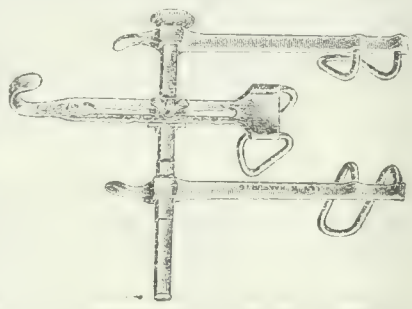
The somewhat belated issue of the *Proceedings of the Canal Zone Medical Association*[1] for the half-year ending September, 1911, contains some twenty-two papers. About ten belong to the field of tropical medicine, while the rest are of a miscellaneous order. Among the former is an excellent summary of existing knowledge on the subject of oriental sore by Dr. S. T. Darling. It would appear that only four cases in which diagnosis has been confirmed by microscopic examination have so far been recorded in the new world. A case was reported in Brazil, however, as early as 1895, and there is ground for believing that in the tropical regions of America it is a commoner condition than has hitherto been recognized.

[1] *Proceedings of the Canal Zone Medical Association.* For the half-year April to September, 1911. Vol. iv, part 1. I.C.C. Press: Quartermaster's Department, Mount Hope, Canal Zone. (Med. 8vo, pp. 238.)

MEDICAL AND SURGICAL APPLIANCES.

An Abdominal Retractor.

DR. LAURENCE C. PANTING, of Truro, has designed a retractor consisting of the well-known Gossett Retractor with the addition of a third blade, which, while securing retraction of the lower part of the wound when pulled upon by a piece of stout silk or rubber tubing, has the additional advantage of fixing the instrument firmly. This third blade can by slightly relaxing the screw shown in the illustration be moved backwards or forwards, or completely removed, while by tightening the screw it is firmly fixed in any desired position by bringing into apposition two corrugated surfaces. Lateral movement is not restrained, but the blade naturally tends to assume a position midway between the other two blades. Dr. Panting, who has had the instrument in frequent use for the last eighteen months, finds that it has entirely fulfilled his expectations. It has been made by Messrs. Allen and Hanburys.



A Vaginal Clamp for Wertheim's Hysterectomy.

Mr. J. BASIL HALL, F.R.C.S. (Bradford), writes: The accompanying illustration shows a clamp for the vagina in cases of Wertheim's hysterectomy which Messrs. Down Bros. have made for me. If any excuse is necessary for the introduction of such an instrument, it may be found in the fact that on a recent visit to London Mr. Down showed me some half-dozen experimental designs of instruments intended for that purpose. Moreover, every operator whom I have consulted has confessed that he has found much difficulty in the universal application of any of the clamps at present in use. My own personal experience of these instruments has been most unsatisfactory. The application of the clamp I have designed is very simple. When the uterus is isolated from all its attachments and the vagina is freely exposed, the jaws of the clamp are opened and passed over the fundus uteri. The uterus is then slipped through the fenestration of one of the jaws (preferably the anterior) and the clamp is pushed down until the transverse limbs of the jaws lie across the upper end of the vagina, when the clamp is closed. All septic discharge is thereby shut off from the operation field, and at the same time the instrument can be used as an efficient tractor, and slipping is impossible. The width of the jaws at the widest point is 3 in., which allows plenty of room for any manipulations in the pelvis. The instrument can be used for any case except one in which a large fibroid coexists with malignant disease, when the fibroid must first be enucleated. I have only used this instrument twice, but it acted admirably on both occasions. Dr. Oldfield of Leeds has also used it twice, and speaks most favourably of it. I am confident that it will prove of great value in the successful accomplishment of the operation for which it was designed.



THE LISTER MEMORIAL FUND.

IN addition to the committees which have been formed by the Universities of Oxford, Cambridge, and Durham in support of the Lister Memorial Fund, other universities are taking steps to promote the success of the memorial, and arrangements have been made for the formation of committees in the British Dominions beyond the seas and in foreign countries.

The proposal is that the memorial shall be of a threefold character, and consist of (1) a simple marble medallion bearing a sculptured portrait of Lord Lister to be placed in Westminster Abbey among the monuments of the nation's illustrious dead; (2) a larger and more conspicuous monument to be erected in some public place in London; and (3) the founding of an International Memorial Fund, from which either grants in aid of researches bearing on surgery or rewards in recognition of important contributions to surgical science will be made, irrespective of nationality. A considerable sum of money is required to carry out these proposals. Donations should be sent to the Treasurers of the Lister Memorial Fund at the Royal Society, Burlington House, London, W.

Among the subscriptions recently received are the following: Clothworkers' Company £100, Grocers' Company £52 10s., Ironmongers' Company £25, Mercers' Company £105, Merchant Taylors' Company £262 10s., Skinners' Company £105, Society of Apothecaries £52 10s., Corporation of the City of Glasgow £52 10s., Royal College of Physicians £21, Royal College of Surgeons £52 10s., Royal Dublin Society £50, Royal Horticultural Society £52 10s., the Royal Society £50, Pharmaceutical Society £10 10s., Physiological Society £10 10s., Royal Microscopical Society £5 5s., Royal Sanitary Institute £5 5s., the Manchester Co-operative Wholesale Society £21.

The following medical societies have subscribed the amounts stated:

	£	s.	d
Aldershot Medical Committee	1	12	6
Bedford Medical Committee	2	2	0
Bolton Medical Committee	2	2	0
Cardiff Medical Committee	5	5	0
Devon and Exeter Medico-Chirurgical Society	2	2	0
Eastbourne Medical Society	10	10	0
Folkestone Medical Society	1	1	0
Halifax Medical Society	2	2	0
Harveian Society (London)	10	10	0
Huddersfield Medical Society	5	5	0
Jersey Medical Society	5	5	0
Leicester Medical Society	3	3	0
Manchester Medical Society	3	3	0
Newcastle-on-Tyne Clinical Society ...	5	5	0
Reading Pathological Society	2	2	0
Rochdale Medical Society	1	1	0
Southampton Medical Society	2	2	0
Southport Medical Society	3	3	0
Torquay Medical Society	3	3	0
York Medical Society	2	2	0

Lord Strathcona has sent a donation of £100, and Professor Ehrlich, of Frankfort, a donation of 500 marks.

MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

THE thirtieth annual meeting of this society was held at the rooms of the Medical Society of London on April 3rd, under the presidency of Dr. F. J. ALLAN, Chairman of the Executive Committee.

CHAIRMAN'S ADDRESS.

The CHAIRMAN congratulated the members on another year of successful work. During the year the society had received 179 new proposals, 81 proposals for additional sickness benefit, and now numbered 3,112 members, a net increase of 74. In 1912 the society had paid away in sickness and accident benefit £17,339; the margin between that sum and the amount received for premiums was comparatively small. In the earlier days of the society, when most of the members were under 30 years of age, the amount of sickness experienced was naturally not so great as must be experienced when the members reached a more advanced age. From statistics prepared by Mr. Addiscott showing the amount of sickness experienced in

periods of five years it was seen that during the past five years the amount had very nearly reached the expected amount of sickness allowed for in the tables. He thought the society was nearing a time when the sickness expenditure might be fairly regular, but he considered it probable that it would be somewhat higher than it was at the present time in proportion to the premiums. In one of the last five years the sickness experienced had exceeded the expectations by 6 per cent. The society gave members greater value for their money than any other company could offer them. On looking through the prospectuses of a number of companies doing similar work he found that the sickness benefit ceased at 60 years of age instead of 65, and that the sick pay was for twenty-six weeks, instead of during the full period of incapacity, as provided by the society, and further that the contracts of the companies were terminable at the end of any year if the company desired it, whereas the contracts with the society could not be annulled so long as the member complied with the rules. Another point was that the premiums were not so moderate as those of the society. The society did not discard a man who became permanently ill, as was shown by the fact that there were at present not less than 49 chronic cases receiving very nearly £4,000 a year; 6 had been drawing sick pay for twelve years. In some instances the sick pay received by members was the sole source of income. Owing to the depreciation in stocks, the committee had thought it advisable to write down the securities by £6,830, thus bringing them to the market price at the close of the year; it was hoped, however, that the low price of stocks would not always continue. One of the reasons why the society could afford to offer the advantages it did at such low rates was that there were no shareholders for whom a profit had to be earned; another reason was that the management expenses were extremely low, as the committee, the treasurers, and trustees gave their services without remuneration. He regretted to inform the members that they were about to lose Dr. G. E. Herman and Dr. F. S. Palmer, who had acted as treasurers of the society for a considerable time; they had both been very zealous in carrying out their duties and in many other ways had been of very great assistance to the society. Certain changes in the staff had taken place during the past year. Mr. Addiscott had retired from the position of secretary, and had been succeeded by Mr Sutton; the committee, however, had been able to retain Mr. Addiscott's services as actuary. It appeared that some members were under the impression that a bonus was paid every five years, but he desired to state clearly that no such promise was ever made by the society. On some occasions bonuses had been paid; at the present time members reaching the age of 65 were granted bonuses, and in the case of members dying before the age limit the bonus was paid to the relative, but the society gave no guarantee that this state of affairs would continue. He hoped the members would bring the advantages offered by the society to the notice of their friends.

Dr. Vinrace said he had hoped that by some arrangement the society would have been able to continue to pay benefits to members as long as they lived, and not leave off at 65 as at present.

After answering certain other questions in connexion with the report the Chairman moved:

> That the report of the Committee and the audited accounts for the twelve months ending December 31st, 1912, be received.

The motion having been seconded by Dr. Pickett was carried.

Election of Officers.

The list of officers for the ensuing year submitted to the meeting by the Committee was approved.

Votes of Thanks.

On the motion of Dr. Brindley James, seconded by Dr. de Havilland Hall, a vote of thanks was accorded to Dr. Herman and Dr. Palmer for the services they had rendered to the society.

The Chairman proposed a vote of thanks to the British Medical Journal, the *Lancet* and the *Medical Press and Circular*, for publishing reports of the proceedings of the society, which was carried.

Dr. Vinrace proposed, and Dr. Brindley James seconded, a vote of thanks to the Chairman for the very able manner in which he had conducted the business of the society; this was carried, and the Chairman's response closed the proceedings.

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

Steedman's Soothing Powders.

On April 3rd further evidence was given with regard to a booklet entitled, "Hints to Mothers, by M.D. of London," issued by the proprietors of Steedman's Soothing Powders. Earlier evidence with regard to this matter was reported in the British Medical Journal of February 15th, 1913, p. 349.

Mr. Uredenburg, the literary representative of Messrs. Raphael Tuck and Co., gave evidence that he wrote the health hints contained in the book, obtaining his information from various encyclopaedias and popular medical works. He then submitted the matter to his own medical attendant, who, in returning the manuscript, wrote: "I have to congratulate you upon having written a very up-to-date little book. I really find nothing to object to in it from beginning to end, and indeed nothing of importance to add to it. . . . I presume it is not necessary for my name to be put on the book, as some of my professional brethren would object to that, and call it a form of advertisement. I, however, thoroughly approve of the book." The witness said he explained to the doctor that the book was written on behalf of an advertising firm. The matter was next sent to Messrs. Steedman, and the references to the soothing powders were inserted according to their instructions. The manuscript, as amended, was not, however, resubmitted to the doctor.

The Chairman intimated that having received the doctor's name from Messrs. Steedman, a communication had been sent and a letter had been received from him bearing out the evidence just given, and strongly protesting against his name being introduced in connexion with the booklet.

In reply to Mr. Glyn-Jones, the witness said that he did not tell his medical man precisely to what use the matter submitted to him was to be put, as he himself did not know at that time. He was certain the doctor did not see the matter after the references to Steedman's powders had been inserted, although Messrs. Steedman might have been under the impression that he did.

Mr. J. A. South, manager of Messrs. Steedman, Limited, was then recalled, and reminded by the Chairman of his previous statements with regard to the book purporting to be written by an M.D. of London, and that if the doctor did not write the whole of it, it was certainly submitted to him. The witness said he had since sent a letter to the Committee correcting that statement. He read correspondence from Messrs. Tuck to the effect that they had been successful in getting an M.D. to approve of the following words appearing on the title page of the book: "Compiled from the works of the highest medical authorities and revised by an M.D." The letters made it clear that the name of the medical man must not appear in the transaction. The witness added that when his firm asked for a proof that the doctor knew that their advertisements would appear in the book amongst the matter for which he made himself responsible, the letter read by the last witness was shown to them. He regarded the use of the word "advertisement" in that letter as implying that the doctor fully understood that the booklet was an advertising one, and as the date was subsequent to the insertion of references to the soothing powders he took it for granted that the manuscript had been resubmitted to the doctor.

Dr. Chapple remarked that the doctor's use of the word "advertisement" referred to the advertisement of his own name, and not to the advertising use of the booklet.

The Chairman: You know generally what are the relations of the medical profession and medicines of this kind. Is it possible that a medical man of good standing would lend his support to a book that was from beginning to end an advertisement of a proprietary medicine?

The Witness: You think medical etiquette would not allow him to do it?

The Chairman: Of course I do.

The Witness: I think there are higher motives. The doctor might think it would be for the benefit of humanity, having regard to the value of Steedman's powders.

The Chairman: Have you met any doctor who would do that for a proprietary medicine?—I do not know that I have.

In reply to a further question, the witness agreed that his only ground for believing that the doctor had seen the booklet in its complete form was the inference he drew from the last sentence of the letter. Directly Messrs. Steedman learnt that they were incorrect in the supposition that a medical man vouched for the complete work they withdrew the booklet from circulation; those in stock were being destroyed.

Dealing with the evidence given on the previous occasion as to the composition of Steedman's powders, the Chairman reminded the witness that Mr. Hake, on behalf of the company, stated that the analysis of the powders given in *Secret Remedies* was incorrect. Packets of the preparation had been submitted to the Government analyst, and the Chairman asked the witness whether he had any objection to the report being read.

Mr. South: I should certainly object to your reading it, and I should object to saying if it is right or not.

The Chairman: I will not read it at the moment, and the Committee will reserve its decision on the matter.

HEADACHE POWDERS.

Mr. John Lawson, manager of Daisy, Limited, Leeds, proprietors of the Daisy cure for headaches, gave evidence as to the use of acetanilide and phenacetin in headache and neuralgia powders. He said that nine headache and neuralgia powders were reported on in *Secret Remedies*, and of these six had little sale. Following the more stringent administration of the medicine stamp duty, his firm prepared, in addition to the headache cure, a head powder which could be sold by unlicensed shopkeepers. They had been reluctant to introduce this, and had suggested to the Board of Inland Revenue that the sale of head powders should be prohibited except by licensed vendors; competition, however, had compelled them to put the powder on the market. The Inland Revenue authorities stipulated that the ingredients of the head powder should be essentially different from those of the Daisy cure, and therefore phenacetin, instead of acetanilide, was used. The witness quoted a number of medical opinions in favour of the use of acetanilide and phenacetin for headache and neuralgia, in opposition to the evidence given by Professor Dixon that acetanilide ought never to be used under any circumstances and that no medical man would now prescribe it. He submitted that the Registrar-General's return for the last ten years did not support Professor Dixon's statement that many deaths had been due to the taking of this drug. The dose of acetanilide in each Daisy powder was 5 grains; this was the quantity their experience showed to be necessary to cure the pain in an adult. The *British Pharmacopoeia* dose was 3 grains, but in the previous edition it had been 10 grains. He did not think it would be in the public interest, when this drug and similar ones were present in a proprietary medicine, that the fact should be stated on the label. The public would learn that acetanilide was the usual remedy for headache and neuralgia, and persons of a saving disposition might buy it in large quantities and do their own dispensing, with the result that variable doses would be taken.

The Chairman: Your argument suggests that any drug recommended in a medical textbook as suitable to be prescribed by a doctor after diagnosis may properly be sold broadcast to the public under a fancy name for purposes of self-medication?

The Witness: I see no objection.

Mr. Harry Lawson asked if the witness had heard of any protests from the medical profession against the use of the headache powders. He replied that there had been general criticisms, and endorsed a remark by Mr. Lawson that the medical press advertised a similar preparation to the Daisy powder under another name. He added that under the Insurance Act doctors were prescribing phenacetin very widely, and to a less extent acetanilide.

A CASE OF MIRBANE POISONING.

DR. GRAHAM GRANT sends us the following note on a case of poisoning by mirbane or nitro-benzene which recently came under his observation:

Nitro-benzene, or mirbane, possesses a strong and pleasant odour of bitter almonds; its taste is not at all unpleasant; it is yellowish-brown in colour, and a statement that the liquid might be diluted and consumed as a beverage might not appear improbable to ignorant persons. It is being sold in the commercial world by the gallon and without restriction.

A. B. collects waste paper in city offices. He found while doing so four small bottles, which he carried into the street and showed to an inquisitive passer-by, who offered the opinion that the stuff was a good spirit for cleaning clothes. This view was accepted by several persons, and a boy obtained one of the bottles, which he gave to C. D., telling him it was "a good spirit," but, according to C. D., he did not add "for cleaning clothes." The latter took it home and placed it on the chest of drawers. Two days later he suggested to his wife, who had been ill for some time, that a little of the contents might do her good. He gave her some and took some himself; how much can only be surmised from the fact that it was a 2-oz. bottle; if it was full at the time, they must have drunk about ½ oz. between them, as there was 1½ oz. left. This took place at about 10.30 p.m., and I was called at 11.15 by the landlord. On my arrival I found the man of an ashy pale colour and much distressed; the pulse was weak, the pupils were somewhat dilated and equal; in mind he was rational. I instructed a constable to give him an emetic of salt and water while I turned my attention to the woman. She was comatose, deeply cyanosed, the pulse was almost imperceptible, and the breathing stertorous. The breath of both smelt strongly of bitter almonds. I washed out the woman's stomach with salt and water and injected strychnine subcutaneously, but she was clearly past aid and died at 11.45. The man had copious emesis and the vomit had the characteristic smell. I decided to send him to the infirmary on an ambulance, but as soon as we attempted to move him he collapsed and had to be carried downstairs.

By the coroner's order I made a *post-mortem* examination and found evidence of alcoholism, some atheroma of the aorta, chronic bronchitis, and nephritis, but these conditions were not sufficiently advanced to have had a material influence in bringing about the death. There were numerous points of congestion in the brain and an excess of fluid in the ventricles. The blood was of a magenta colour and coagulation absent; it seemed also to be greasy. The examination showed nothing more of interest.

At the inquest the man C. D. gave evidence, generally to the effect I have indicated, till he was asked "Was the taste unpleasant?" To this he was unable to give a definite answer, and to settle the point I tasted it myself. I did so by inverting the bottle on my finger tip, which took up probably about two drops (I am open to correction as to the amount). At first I was only able to say "It was a sweet burning taste, and not repellent." The coroner suggested that perhaps I had not taken enough; but I subsequently found he was wrong in that respect. In a few minutes I felt a numbness of the tongue—somewhat like that produced by cocaine; this was followed by salivation. I experienced slight swimming in the head—I thought for the moment the court was too warm—but this passed away while I was giving evidence, and may, perhaps, have been due to the smell rather than the taste. I tasted the mirbane at 11 a.m., the vertigo was transient; the salivation lasted about an hour, and the numbness of the tongue about three hours.

As the coroner remarked, "This is a case of great public importance, and the sooner mirbane is placed on the poisons list the better," with which opinion I think all will agree.

According to Thorpe's *Dictionary of Applied Chemistry*, 1912, mirbane, or *essence de myrbane*, was first manufactured in France by Collas. It was used to scent soap and as a bitter almond flavouring. It is chemically nitrobenzene, more commonly spoken of as nitro-benzol. Dr. J. C. Cain, the author of the article in Thorpe's *Dictionary*,

states as follows: "When the nitro-benzol is to be sold as 'mirbane' it is distilled under diminished pressure in order to obtain a perfectly clear and transparent liquid such as the users of myrbane demand. It is customary to use toluene imperfectly freed from benzene for this purpose, that article being cheaper and yielding a somewhat more fragrant myrbane than benzene alone." In *Poisons: their Effects and Detection*, by A. and M. Wynter Blyth, it is stated that 1 gram (15.4 grains) would probably be sufficient to kill an adult, and that spirituous liquids especially hasten and intensify the action of nitro-benzene, so that a drunken person, *caeteris paribus*, taking the poison with spirits would be more affected than taking it under other conditions. In one case which occurred in Vienna a woman who took about three and a half ounces, and was admitted into hospital in a highly cyanotic condition with small pulse and superficial respiration, eventually recovered. It is stated that the more characteristic pathological appearances seem to be dark brown or even black colour of the blood, which coagulates with difficulty, venous hyperaemia of the brain and its membranes, and general venous engorgement. The blood gives the spectrum of acid haematin; its power of carrying and imparting oxygen to the tissues is diminished, and its content of carbon dioxide increased. It is further stated that on drinking the poison there is a burning taste in the mouth shortly followed by very striking blue or purple appearance of the lips, tongue, skin, nails, and even the conjunctivae. Discoloration may precede vomiting by as long as an hour; the skin becomes cold, there is great depression, the pulse is small and weak, and the breathing slow and irregular; this is followed by the sudden development of unconsciousness, and the whole condition may closely resemble apoplectic coma. The shortest period mentioned in which nitro-benzene has caused death is four or five hours. Inhalation of the vapour of nitro-benzene produces symptoms similar to those of alcoholic intoxication deepening into a coma. "Benzene Collas" used to be, and perhaps still is, a very popular domestic application for taking grease spots out of cloth.

MOTOR CARS FOR MEDICAL MEN.

A FEW SIMPLE AND USEFUL CALCULATIONS FOR MOTORISTS.

By R. BRUCE FERGUSON, M.A., M.D.Cantab., D.P.H.

IN these days when so many motorists are their own chauffeurs, and even mechanics, it is always interesting and often useful to compare notes with one's friends regarding the expenses, actual performances, or potential possibilities of one's car. To enable one to do so satisfactorily figures are essential, and for this purpose a few simple examples are given below, in the hope they may prove of some slight assistance.

Horse Power and Insurance Premiums.

A few years ago a friend purchased a small car. The makers' rating was 8-h.p., and at this figure he insured it. He afterwards discovered that he might have exercised the option of selecting either the makers' rating or the R.A.C. (Treasury) rating, which is calculated according to the following formula:

$$\text{H.P.} = \frac{d^2 \times n}{2.5}$$

where d = diameter of cylinder in inches, and n = number of cylinders.

In his case the number of cylinders was 2, and their diameter 75 mm., and taking the usually-adopted computation of 25 mm. to the inch, he estimated the horse-power as $\frac{(3)^2 \times 2}{2.5} = 7.2$, and insured his car the next year as a 7-h.p., thus saving 8s. Before his next premium was due I pointed out to him that his inaccurate assumption of 25 mm. making an inch was costing him annually more than the price of his driver's licence, and that the correct figure was 1 mm. = 0.03937 inch. The formula thus becomes:

$$\frac{(0.03937 \times d)^2 \times n}{2.5}$$ where d = diameter in millimetres.

When simplified this will read: $\frac{d^2 \times n}{1613}$

The horse-power of his car is therefore $\frac{(75)^2 \times 2}{1613} = 6.98$.

Since the insurance company neglects fractions of a horse-power, he now insures it as a 6-h.p. car, and saves a further sum of 6s. every year.

Ton-miles per Gallon.

The comparison of the merits of two cars by the number of miles they will run on a gallon of petrol is not an entirely satisfactory method, since it fails to take into account the weight of the car, accessories, and passengers. It is better to estimate the number of ton-miles per gallon.

If P = weight in pounds of car, accessories, and passengers, M = the number of miles run, and G = the number of gallons of petrol used, then P × M = the number of pound-miles, and $\frac{P \times M}{2240}$ = the number of ton-miles obtained from G gallons, and $\frac{P \times M}{2240 \times G}$ = the number of ton-miles per gallon.

Volume Swept Out by the Pistons at Each Revolution.

This is simply the estimation of the cubic contents of that portion of the cylinder in which the piston moves.

If d = diameter of cylinder in millimetres, and s = length of piston-stroke in millimetres, then the sectional area of the cylinder will be $d^2 \times 0.7854$ square mm., and the cubic contents will be $d^2 \times 0.7854 \times s$ cubic mm., or

$$\frac{d^2 \times 0.7854 \times s}{1000}$$ cubic centimetres, or

$$\frac{d^2 \times 0.7854 \times s \times 0.061}{1000}$$ cubic inches.

The latter may also be expressed as $d^2 \times s \times 0.000048$ cubic inches.

To obtain the total volume, multiply finally by the number of cylinders.

A Problem in Tyre Sizes.

As the matter of tyre sizes is one which, to my knowledge, puzzles many a motorist, an example on the subject may not be deemed out of place.

One very hot summer's day I found a friend making heroic but ineffectual attempts to place upon a front wheel a tyre which he had just removed from a back one. It was then discovered that the tyre previously on the front was a 30 × 3 in., whilst the back tyre, which it was now wished to place on the front, was a 30 × 3½ in. It was argued that the latter should go on the front wheel easily, since it was the larger tyre; but therein lies the fallacy, for it is only larger in the sense that it will hold more air, the sectional areas of the two tyres varying as the squares of their diameters, namely;

As $(3)^2 : (3\frac{1}{2})^2$; or as 36 : 49.

The larger tyre thus holds 36 per cent. more air than the smaller. In other respects, however, the 3½ in. tyre is smaller than the 3 in., as can be easily demonstrated. A "30 inch tyre" means that when the tyre is on the wheel and fully inflated, a vertical line dropped from the highest point of the tyre to the ground measures 30 in. If the depth of the tyre be 3 in. at the top and 3 in. at the bottom, the diameter of the wheel itself (without the tyre) measured from rim to rim will be 30 − (2 × 3) = 24 in. If, however, the depth of the tyre be 3½ in., the wheel itself can only have a diameter of 30 − (2 × 3½) = 23 in., and on actual measurement this was shown to be the case, the back wheel being the smaller of the two. The failure of the effort was thus due to the attempt to place upon a 24-in. wheel a tyre which was made for a 23-in. wheel.

It will be readily seen that a 710 × 90 mm. tyre can replace a 700 × 85 mm., since in each case the rim-to-rim diameter will be 530 mm.

For example, 710 − (90 × 2) = 530 in the former, and 700 − (85 × 2) = 530 in the latter.

Similarly, 760 × 90 is interchangeable with 750 × 85, and also 810 × 90 with 800 × 85.

The fact that it is occasionally possible to stretch a tyre on to a wheel slightly too large for it does not in any way affect the accuracy of the explanation given above.

THE National Health Society, 53, Berners Street, has recently issued a kind of poster, price 1d., containing a series of hints in regard to keeping houses and their inhabitants healthy. Recollection of them is facilitated by their being given in rhymed verse, and with one single exception the statements made all seem undeniably sound; while, in respect both of rhythm and rhyme, the author, "F. L.," is fully entitled to hold up his head in the company of the minor poets of the age.

LITERARY NOTES.

Professor Saundby of Birmingham has in the press a new work on *Old Age: Its Care and Treatment in Health and Disease*. It will be published shortly by Mr. Edward Arnold.

Messrs. William Hodge and Company, Edinburgh and London, announce for early publication a new volume in their series of Notable English Trials. It is entitled *The Trial of Dr. Lamson*, and is edited by Hamilton Adam, who is the author of several well known works on criminology. Dr. Lamson was tried in the year 1882 for the murder of his nephew, Percy Malcolm John. This is one of the few cases recorded in which the poison used was aconitine. The trial took place before the late Mr. Justice Hawkins, and resulted in the condemnation of the prisoner. The volume will be illustrated with portraits of the prisoner and counsel engaged in the trial.

Mr. Alban Doran has contributed to the *Journal of Obstetrics*, under the title "Burton (Dr. Slop), his Forceps and his Foes," a very interesting account of the life and fortunes of Dr. John Burton of York, who was born in 1710 and died in 1771. Mr. Doran summarizes Burton's work, and gives many quotations from his *Essay on Midwifry*, his letter to Dr. Smellie, his *Treatise on the Non Naturals*, and his *British Liberty Endangered*, with the account of his persecution by the Whigs, Dr. Jaques Sterne and Laurence Sterne. The article contains also a full and interesting analysis of the passages on Dr. Slop in *Tristram Shandy*, and it is shown that the curse of Ernulphus was probably a parody on the letter to Smellie—both being curses all through. The so-called Burton's forceps figured in his *Essay on Midwifry*, and the forceps used by Burton himself are illustrated, and it is seen that they are not the same instrument—the latter is preserved in the library of the York Medical Society. We understand that Dr. Auden first recognized the fact that Burton apparently did not use the forceps which he invented.

In the article on the origin of the name Livingstone published on March 29th, p. 676, there is a misprint, *séin* should be *féin*. The correspondent who called attention to this misprint also expresses the opinion that the correct translation of *Mac an leigh* given by Dr. Maclean as "Son of the physician" should be "The son of the leech," or physician, or, as one might say, Leechson.

Shakespeare's Holofernes would have found his intellectual nose sorely offended at the present day, when the smell of false Latin rises thick from popular books and periodicals. Medicine is supposed to be a "learned" profession, but alas! our literature is full of awful examples of what it would be an insult to a noble animal to call dog Latin. The most recent we have come across occurs in the *St. Bartholomew's Hospital Journal* for January, where there is an allusion to the "hausti" of that venerable institution with which so many scholarly men have been associated. How much scratching of Priscian's head has the Latin fourth declension caused! It is only fair to say that there has of late years been considerable improvement in regard to this particular barbarism. *Meati*, which at one time used to be common, has almost ceased to vex those who have retained some faint recollection of the Latin grammar. The same may be said even more emphatically of *apparati*. We are not of those who insist on pedantic adherence to the classical plural in words such as "sanatorium" and "serum," which have acquired the freedom of the city in our English speech. But such monstrosities as "hausti" create new words which are neither Latin nor English, and are merely illiterate. These errors, unfortunately, do not stand alone. To quote only a few recently met with in medical journals: we not long ago found mention of a condition called *diverticula spuria intestinalis;* an Indian journal referred to an *apologium;* a French one described a book as written *in usum medicis;* while an English contemporary produced the following remarkable variant of a common phrase, "*Concilium vult decepi*, and *decepi* it will be"! From a casual inspection of American periodicals, we cull the following flowers of classical speech: *corpus cavernosus* and *angina pectorides;* while a leading journal of surgery contained a paper with the remarkable title. "A Resumé of the Treatment of *Infertilis Masculinus*"! But medical journals are not the only or the worst offenders. One of our great Radical dailies quite lately spoke of an *annus mirabile*, while, as if to balance the distribution of ignorance, a Conservative paper told us, after an unsuccessful election, that the voters of its own political complexion *militarunt non sine gloria*. Such a heading as *De res medici*, which appeared recently in the most important Liberal paper of Spain, may be dismissed with a shrug of the shoulders, but we confess we were shocked to come across such a phrase as *vulgum pecus* in that very superior paper *Le Temps*. This solecism, however, seems less surprising when we recall that it was in *Le Temps* that the amazing injunction *Reddate Caesaro quod est Caesari* appeared some years ago. A French writer has put into the mouth of Abelard the un-Horatian prophecy. *Non omnis moribor;* another, with a vague recollection of the Vulgate, declares that there is *nil novo sub soli*, while a third shows his knowledge of the same version of the Scripture by quoting a familiar text in the novel form, *regnum meum non est ex hoc saeculi*. A paraphrase of Wellington's advice to speakers, "Say what you have to say; *don't quote Latin;* and sit down," would be a useful guide to writers.

The depopulation of France, caused by the steady decline in the birth-rate of that country, has given rise to much anxiety amongst the thinking portion of the French nation. Numerous remedies have been proposed to check the growth of this grave social evil, but as yet none have produced any marked effect; and French politicians at the present moment are face to face with a danger they are apparently powerless to combat. M. Henri Mourisse, who has contributed an interesting article on the subject to the March number of *L'Hygiène*, quotes several of the foremost medical men in France, who are nearly all agreed that the decay of religion and the increased luxury and cost of living lie at the root of the trouble that is slowly draining France of her life-blood. In the country districts, where the peasants still cling to their ancient faith, large families are even yet the rule rather than the exception, but elsewhere they are almost unknown, thanks to the spirit of an age that places creature comforts before the joys of family life. Amongst the French working classes compulsory education, combined with military service, have also done much to lower the birth-rate, since both prevent the child supporting himself, and cause him to be a burden on his parents long past the age when an earlier generation was earning its own living in the workshop or the field. It is difficult to see how to grapple with a problem that is the inevitable result of a high degree of civilization, and which, it is hardly necessary to add, affects us almost as closely as our neighbours across the Channel. Legislation is powerless to cope with a situation brought about by the improvement of the individual at the expense of the race; and it needs something more than the endowment of parenthood to overcome the reluctance of the modern woman to face the risks of maternity and induce her husband to burden himself with the full responsibilities of married life. The same number of *L'Hygiène* also contains a charming description by M. André Maurel of the principal galleries and monuments of Florence, and a short article by M. Fabre-Domergue on the bedding of oysters.

The April number of *Bedrock*, among other articles, contains the following: Modern materialism, by W. McDougall, M.B.; mimicry, mutation, and Mendelism, by Professor E. B. Poulton; immunity and natural selection, by Dr. Archdall Reid; the suppression of venereal diseases, by Dr. James W. Barrett, who gives an interesting account of the measures taken to that end in Melbourne; and the milk problem, with special reference to supply, by Dr. Eric Pritchard. There is also a very pretty quarrel on telepathy as a fact of experience between Sir Oliver Lodge and Sir E. Ray Lankester, in which these doughty champions exchange many shrewd thrusts. While acknowledging the logical subtlety of Sir Oliver Lodge, our sympathies are with Sir E. Ray Lankester, who takes up the position that the existence of telepathy has still to be proved scientifically. Till the fact is established it seems futile to discuss its *a priori* possibility.

British Medical Journal.

SATURDAY, APRIL 12TH, 1913.

MEDICAL CERTIFICATES UNDER THE INSURANCE ACT.

In the Journal of March 22nd a note was given (p. 640) of a case heard in the King's Bench Division on March 8th, before Mr. Justice Bailhache, in which an insured person sued for a declaration that a resolution passed by his approved society preventing the society from accepting, as evidence of the incapacity of its members within the meaning of the National Insurance Act, 1911, certificates of medical practitioners not on the panel was illegal, *ultra vires*, and unenforceable. The action was dismissed with costs, the judge stating that the case was one which ought to be decided under Section 67 of the National Insurance Act by arbitration. The credit for bringing this important case before the courts is due to the London Committee, and we understand that it has entered an appeal.

This is a matter which deeply concerns not only the members of approved societies but the general public and the whole medical profession, and is a subject which ought immediately to have the serious attention of the medical corporations and the General Medical Council.

There is nothing in the National Insurance Act to support the contention that the medical certificates enabling insured persons to claim sickness and disablement benefit must necessarily be signed by a doctor who is on the panel, and it has been officially stated that the responsibility of deciding what kind of evidence approved societies will require before they pay sickness or disablement benefit to an insured person is a matter for the determination of the approved society alone. It is difficult to see on what grounds an approved society can hold that it is necessary that such certificates as it requires should be signed by a doctor on the panel. On a rough estimate the doctors on the panel comprise barely one half of the total profession in this country, and we have not heard it contended by the most ardent supporter of the Insurance Act that the doctors who are not serving under it are any less competent or any less likely to give a trustworthy certificate than those on the panel. The profession as a whole, quite irrespective of its views on the Insurance Act, will object strongly to a form of discrimination which by implication casts a reflection upon one section of the profession as compared with another. An approved society which is not satisfied with a certificate, whether given by a panel doctor or a doctor outside the panel, has its proper remedy. It can always claim to have the patient examined by a doctor of its own choice.

It is true that before the Act came into operation there were some clubs and friendly societies which insisted upon medical certificates coming from the doctor elected by the club. The situation is not now at all parallel. A doctor attending the insured person is not now employed by the club, and in some areas where a large majority of the doctors are on the panel it would seem that the approved societies will in fact be bound to accept the certificate of practically any medical practitioner. It seems clear that the fact that a medical practitioner is upon the *Medical Register*, and thus has the imprimatur of the State, should be a sufficient guarantee. If in the instance of any individual registered practitioner his actions prove that he cannot be trusted, there is a remedy which it is quite certain the General Medical Council will not be slow to enforce. If he comes under the censure of that body, he will either mend his ways or will cease to be competent to give a legal certificate. The discipline of the medical profession administered by the General Medical Council under the powers conferred upon it by Parliament is strict and strong enough to make it abundantly certain that the certificate of any registered practitioner may be taken for all the purposes of the National Insurance Act just as it is for the not less serious purposes of a court of law.

It may be anticipated that the licensing bodies will give early attention to this matter, which very nearly concerns the interests of a large number of their graduates, members, and licentiates, who will undoubtedly look to them to vindicate their rights. The claim now made by and on behalf of the approved societies seems to infringe the rights granted to these bodies by statute or charter. Time was when the chartered corporations were always ready to defend their privileges. For a generation they have been slow to move, owing probably to the defect in their constitution through which their numerous members and licentiates do not form part of the body corporate. Even the greatest sticklers for formality, however, admit that each college owes a duty to those admitted to the *Medical Register* on the evidence of its diploma, but they boggle at the next step, which is to take action with the other colleges when rights common to all diplomates are involved. We are quite prepared to be told that this is not a matter which can properly be raised through the press. So be it. But then let the diplomates of each corporation make representations each to his own college. That would be an entirely regular course, and such representations would not, we are certain, be ignored. If each college considered the matter and recorded its opinion, the General Medical Council will afford a common meeting place where combined action may be concerted.

The matter is one with which the General Medical Council cannot in any event fail to occupy itself, and we have no doubt that attention will be directed to it during the coming session. The Council has statutory powers, and has the duty of protecting the profession generally in the enjoyment of the rights and privileges, few as they are, conferred upon it by the Medical Acts. It would be very well if the representatives not only of the colleges, but of the universities also, came up to the May meeting in possession of the considered opinions of the bodies they severally represent.

THE INFECTIVE NATURE OF INFANTILE PARALYSIS.

Physicians who have studied the diseases of children have long assumed that infantile paralysis—or acute poliomyelitis, as it is better called—is an infectious disease. Until recently the grounds for this belief were the local and epidemic distribution of the cases, the frequency with which outbreaks occur at certain seasons—especially the early autumn—the

acute course of the febrile stage, and the inflammatory nature of the lesions revealed in the spinal cord by the microscope. In addition, the careful collection of the statistics of the epidemics and the study of the geographical distribution of the cases has helped to strengthen the evidence here. Dr. F. E. Batten has done much to bring home such knowledge to the members of the profession in this country. Yet, although various microbes had been associated with the disease by different observers, there was no unanimity of opinion as to the exact nature of the organism causing infantile paralysis until quite recently; and even now we are still in the dark as to many points connected with the life-history of the ultra-microscopic virus that is universally believed to be the infecting agent.

All the more recent work of the many bacteriologists on the Continent, in the United States, and in England who are engaged in this study may be said to be based on the researches of Landsteiner and Popper. In November, 1908, these authors produced in monkeys (a hamadryad and a macaque) a disease indistinguishable from infantile paralysis as we see it in children. The infecting agent they used was emulsion of the spinal cord taken from a boy of 9, who had succumbed in four days to an attack of acute anterior poliomyelitis, and infection was produced by injection of the emulsion into the peritoneal cavity of the monkeys. One of the animals fell ill on the sixth and died on the eighth day; paralysis of the legs was observed in the other on the seventeenth day, and it was killed two days later. In both the pia mater was found to be infiltrated *post mortem*, the grey matter of the cord was soft, circumvascular and diffuse infiltrations were marked, and the ganglion cells were badly damaged, particularly in the anterior horns. Analogous changes were also found in the cortex of the brain. Attempts to infect three other monkeys with this material proved abortive, but since that date it has been abundantly proved that the disease can be transmitted from one monkey to another. Studies of the virus have demonstrated further that it can pass through a porcelain filter and can be preserved for many months in glycerine. It is easily destroyed by many germicides, of which hydrogen peroxide is one, but is resistant to the vapour of formaldehyde and to carbolic acid in strengths below 0.5 per cent.

Armed with this knowledge, Kling, of Stockholm, assisted by Wernstedt and Pettersson, took advantage of the occurrence of a number of cases in that city in 1911 and 1912 to prosecute a research into the distribution of the infective material, using as a test the production of the disease in monkeys confirmed by an examination of their spinal cords. He found that washings from the mouth and intestines of a number of children acutely ill with poliomyelitis or killed by the disease, produced the disease in apes, as did similar washings obtained *post mortem* from the mouth, nose, trachea, and small intestine. By the same method the virus was shown to be present also in the mucous secretions of a number of persons in close relationship with the sick, and even in those of some whose relationship was less obvious. Not all of these suffered from symptoms, but some of them did, although their illness, not being followed by paralysis, would not in other circumstances have been ascribed to the same infection; these Kling identifies with the "abortive" cases which have been so often described in epidemics of poliomyelitis (by Wickman and others). He found the virus, for example, in members of four different families, some of whom had suffered from headaches, malaise, and other symptoms, and some had not, whilst in one member of each family paralysis had supervened. It appeared, therefore, that the adults were affected by the disease, though it did not chance to have produced in them the paralysis which so often follows in children. We do not know whether apparently healthy people whose secretions contain the infection are carriers of the germs—that is, are the infectors—or whether they are infected from the sick but are able to resist the virus, presumably by means of antibodies in the blood, and to prevent it from harming their own nervous systems. So far as investigation has gone it appears that carriers are more numerous than sick children in the proportion of at least four or five to one. The virus is resistant to digestion, since it passes through the stomach of a monkey without being destroyed, and may be readily recovered from the faeces of human patients or carriers of the disease. It is most virulent in the first fortnight of the illness; in animals inoculated with material obtained at a later stage both the symptoms induced and the microscopic changes in their spinal cords are less marked, but virulence is regained by the passage, since a second animal is severely affected. There is no evidence at present as to whether infection is conveyed directly, or indirectly as by parasites, but an attempt to recognize the virus in flies from an infected house was unsuccessful, and so were experiments made upon fleas. But the question cannot yet be regarded as settled; the recent epidemics in Sweden (there were 3,840 cases in 1911) showed a tendency to the production of many instances of infantile paralysis in large and densely inhabited dwelling places, and this may be dependent on some form of parasitic transmission.

For how long should the patients be quarantined as infectious to others? Kling examined washings from the mouth and the intestine repeatedly at various intervals of weeks and months in nine typical acute cases, and found that the virus was still present in both the washings six months after the attack in one patient. Four months after the attack it was present in the mouth-washings of two or three of the patients, and in the intestinal washings of two or three others. Hence he concludes that any theoretically adequate quarantine is a practical impossibility, but notes the fortunate fact that the virus thus carried lessens in virulence as time passes. The quarantine should be for at least a fortnight. Kling holds that the great majority of adults and many children may be infected with the virus without being a penny the worse for it; whether because the virus is weak or because the resistance of such individuals is high, he is uncertain, but he inclines to the latter view. Every acute case he believes to be surrounded by a number of abortive cases of infantile paralysis, and by a still larger number of perfectly healthy people, who are all carriers of the infection, and therefore potential sources of infection to others. All these persons appear to develop a relatively high degree of immunity to subsequent infections with the virus, a fact which may explain the comparative immunity of towns or villages visited by epidemics of infantile paralysis to further epidemics occurring during, at any rate, the next few years. The same phenomenon is met with, according to Kling, in successive epidemics of cholera and of typhus fever.

Quite recently Flexner and Noguchi[1] have succeeded where many others have failed, and have grown the virus of acute poliomyelitis outside the animal body, and demonstrated its presence in the media employed. The growths were made anaërobically under a layer

[1] *Journ. Amer. Med. Assoc.*, 1913, lx, No. 5.

of paraffin, in a solid agar medium containing sterile unfiltered ascitic fluid, or brain extract and sterile rabbit kidney. Minute colonies were obtained, composed of globular or globoid bodies averaging in young cultures 0.15 to 0.3 μ in size, arranged singly or in short chains or in masses. Cultures from human tissues in the third, and from monkey tissues in the fifth generation have caused typical experimental poliomyelitis in the monkey.

THE APPENDIX IN SURGERY AND GYNAECOLOGY.

THE appendix vermiformis hangs, so to speak, on the border line between abdominal surgery and gynaecology. Every one recognizes that the general surgeon must be prepared to deal with it in his sphere of work; but it is perhaps hardly so clearly recognized that the gynaecologist likewise must be ready to treat appendicular affections when he meets them, and he may meet them any time. The surgeon commonly handles the appendix, but the gynaecologist occasionally has to touch it. There is also another aspect of the subject: the business of the gynaecologist is to search out and put right (operatively or non-operatively as occasion demands) morbid states of the uterus and its adnexa (tubes and ovaries), and his mind and methods are directed thereto; but the surgeon has these structures less prominently in view, and yet they may at any time obtrude themselves upon him and call for his skill. The gynaecologist commonly handles the uterine adnexa, but the general surgeon now and again is forced to touch them.

There can be no doubt that it is so. The medical literature of the day has abundant evidence to prove it. Take the case of which Dr. Colin Faulkrod was speaking to the Obstetrical Society of Philadelphia the other month.[1] The abdomen was opened on the diagnosis of right-sided extrauterine pregnancy: a diseased appendix and a dermoid cyst of the right ovary were found. Or take Dr. F. C. Hammond's experience told to the same society.[2] He was asked to operate for suspected appendicitis, and there were all the symptoms of it; but he made the routine bimanual examination and found a round fluctuating mass on the right side of the pelvis; so he opened the abdomen, found and removed an ovarian tumour which had twisted its pedicle four and a half times, and, discovering that the appendix was healthy, left it alone. Again, cases are known, but not always reported, in which the surgeon opens the abdomen, removes an innocent appendix, and then passing his hand down into the pouch of Douglas, pulls into sight a pus-tube which bursts in his fingers.

Further, appendicitis and a pus-tube may coexist. Dr. George M. Boyd[3] made a vaginal examination before operating on a case which had been diagnosed as appendicitis, and found a swelling behind and to the left of the uterus; he opened the abdomen in the middle line and not by a lateral incision (as he had thought of doing), and removed both a pus-tube and an inflamed appendix vermiformis; had he not made the vaginal examination, he might have made his incision on the right side, have removed the diseased appendix, and never have discovered the pyosalpinx.

If, however, the surgeon or the gynaecologist have any lingering doubts about the way in which their two spheres overlap in the right lower quadrant of the abdomen, let them peruse Dr. Basso's monograph[4] of a hundred pages on the vermiform appendix in physiological and pathological states of the female generative organs. Traversing all the field of medical literature for his information and using the material of Professor Resinelli's clinic in Florence for his facts, Dr. Basso has discovered many things which it is well worth the while of both the surgeon and the gynaecologist to know and to consider. There is, for instance, the pelvic position of the appendix in from 13 to 40 per cent. of women; the fact that in recent statistics appendicitis appears to be almost as frequent in women as in men; the demonstration of the causal connexion between appendicitis and inflammation of the ovary, tube, and parts about these structures, and conversely between the inflammation of the uterine adnexa — adnexitis and periadnexitis — and appendicitis and periappendicitis; the coexistence of appendicitis and adnexitis of independent origin; and the occasional occurrence of appendicitis as a sequel to operations on the pelvic organs. Dr. Basso rightly insists upon the difficulty of distinguishing between gynaecological complaints and those due to appendicitis by means of symptomatology; for instance, some forms of dysmenorrhoea can hardly be separated from cases of pain due to chronic appendicitis. Even careful abdominal, vaginal, and rectal examination will not always serve to diagnose between surgical and gynaecological states. There is much else in Dr. Basso's article that is of importance; in that part of it, for instance, which shows the intimate relation which may exist between appendicitis and pregnancy, labour, and the puerperium; but enough has been quoted to establish his principal contention.

His principal contention is that the gynaecologist must have so exact a knowledge of the diagnosis and operative treatment of the abdominal organs as to be able to intervene in purely gynaecological cases with safety and security, and also to deal with the organs outside the genital sphere in cases of erroneous diagnosis, and when these organs have been accidentally injured by the separation of adhesions, etc. We must agree with him in this, for the pelvic cavity is not shut off as is the cranial; indeed, it is not even separated from the abdomen, as the thorax is, by a diaphragm, and on the imaginary boundary lies the appendix vermiformis. The gynaecologist, therefore, must know at the least enough abdominal surgery to be able to deal with intestinal, and especially with appendicial, conditions.

The surgeon also has his lesson to learn. He must not only think of the appendix when he has to do with trouble in the lower quadrant of the abdomen on the right side; he must also let the presence of the uterine adnexa in the near vicinity have its place in his mind. He must therefore be prepared to practise the diagnostic methods of the gynaecologist, and must not neglect the vaginal and the bimanual examinations; and lastly, he must have a sufficient knowledge of the technique of gynaecological surgery to enable him to cope with pyosalpinx, ectopic gestation, multiple adhesions of the ovaries, and ovarian cysts.

There are several unsolved problems connected with the appendix; there is, for example, the question of the performance of prophylactic appendicectomy on all the occasions on which the gynaecologist opens the abdomen, and this in its turn cannot be settled until we know whether the appendix has glands in it secreting a useful fluid, and acts as a protection against bacteria, or is a functionless rudimentary part which the human subject is best

[1] *Amer. Journ. Obstet.*, lxvii, p. 152, 1913.
[2] *Amer. Journ. Obstet.*, lxvii, p. 151, 1913.
[3] *Amer. Journ. Obstet.*, lxvii, p. 153, 1913.
[4] *Annali di ostetricia e ginecologia.* Ann. xxxiv, pp. 615-717, December 31st, 1912.

without; there are several such problems, and Mr. Corner's article in the JOURNAL of February 15th (p. 325) throws some light on this one; but it is certain that the gynaecologist as well as the surgeon must know what to do with the appendix when he finds it diseased, and the surgeon as well as the gynaecologist must be prepared to treat any of the morbid states of the genital organs which may be confused with or coexist with appendicitis.

HOLIDAY MAKERS AND CONVALESCENTS.

A KIND of interim pronouncement in regard to the vexed question of attendance on insured persons resident for the time being elsewhere than in the areas to which they habitually live has been made by the Insurance Commissioners to the Bournemouth Insurance Committee, and is reproduced in the SUPPLEMENT (page 318). It purports to be an explanatory letter, and, apart from the interest of its topic, possesses, as an exercise in style, a certain curious quality of its own. Not unto every man is it given to write sentences each containing an average of eighty words with no particular stops; few people, too, would have conceived the jest of explaining away a supposed misapprehension by a statement to which each and every reader is likely to attribute a different meaning—if he does not give up in despair the attempt to find any meaning at all; and certainly no writer could have avoided with a greater air of ingenuousness all attempt to tackle the real questions at issue. We will assume that the word "adequate" in the second paragraph should read "inadequate"; but even then considerable difficulty remains in putting any logical construction on the three paragraphs as a whole. The Commissioners indicate a belief that they will be able to overcome the administrative difficulties that have already arisen between various Local Insurance Committees in the matter of adjustment of their accounts, and the fair payment of the medical men employed by them. This belief may be justified if the term "removal" is limited to its ordinary significance. Should it, however, be meant, as would appear to be intended in the first paragraph by the use of the words "removing at very frequent intervals," to cover changes of residence for however short a time and however often repeated, it seems safe to prophesy failure for the Commissioners' plan, whatever it may be. No system primarily devised to meet the case of insured persons who definitely change their domicile could in practice be applied with equal success to the case of insured persons who are merely visitors to an area for a few days. Every year during week ends and for longer periods hundreds of thousands of members of the insured classes pay visits to pleasure and health resorts. So long as capitation payment for medical attendance is in vogue, it must pass the wit of man to devise a method which would apply equally well to the case of true removals and of such individuals. The whole contention in this paragraph of the letter rests on the assumption that an insured person in good health going for a holiday will have the foresight to notify the Insurance Committee of the area in which he is a permanent resident, and also, it would seem, the Insurance Committee of the area in which he proposes to spend a few days or weeks. The Insurance Commissioners were very clearly warned that this assumption was not sound at the conference which took place on March 5th. The insured persons who are leaving home because they are ill or convalescent will without doubt take this trouble—as will possibly also the careful mother of a young family—but common experience of healthy human nature is sufficient to convince any one that most other holiday makers will not. The misapprehension, then, does not seem to be on the side of the doctors. Probably, however, it may be deduced from the third and concluding paragraph of the letter that the Commissioners do not deceive themselves on this point, and already realize that only two alternatives are open. One is boldly to declare that they do not expect Local Insurance Committees to recognize, for the purposes of medical attendance, the casual presence within their area of an insured person, and intend to limit the right to such attendance to persons permanently resident within any given insurance area. This would seem to be rejected in the third paragraph of the letter. The other alternative is to put at the disposition of Local Insurance Committees, and out of some source other than those at present known to be available, a sufficient sum of money to pay an agreed visiting fee for any medical attendance which may be required by an insured person temporarily within the area of a committee. There is one point in this pronouncement, however, on which the Commissioners are apparently deceiving themselves. Whatever else is obscure therein, it is clear that the Commissioners are disposed to hold that a panel medical officer will have no cause for complaint if he receives payment for attendance on "a removal" at the same rate as that paid for persons permanently resident in the area. Possibly this is true if the meaning of the term "removal" is strictly limited, as indicated above, to mean permanent change of residence; but if it is made to cover the presence in a town or village of an insured person for only a week or a month, or any like period, very just cause for discontent will arise. In such cases the insured is only likely to be assigned to a medical man because he happens to be ill, and it is almost needless to point out that there is a very great difference between accepting, say, 6s. 6d. or 7s. a year for a person who may possibly not require any medical attendance at all throughout its duration, and receiving, say, one fifty-second part of 6s. 6d. a year, or 1½d., for a week's attendance on a person who is actually ill when placed on the practitioner's list. Nor is this the only rock in the path of the Commissioners. At present the majority of panel medical officers believe that for every person on their list they will receive a sum of not less than 6s. 6d.; indeed, they have received assurances to this effect on numerous occasions from Mr. Lloyd George and others. What will they say if they are invited to agree to a deduction from this sum being made whenever it is brought to the notice of their local Insurance Committee by the Insurance Committee of some other area that such person has chosen to absent himself for a longer or shorter period from the area in which he habitually resides and earns his living?

THE NATIONAL INSURANCE ACT IN BEING.

THE notes in this week's SUPPLEMENT on the proceedings of various Local Insurance and Medical Committees are well worthy not only of perusal but of careful study. Culled from many different parts of the country, they put before us in a living way things as they really are, not as they ought to be or may in future be according to the after-dinner optimism of Mr. Masterman. Insurance Committees, Local Medical Committees, and individuals all emphatically declare that things are in many respects far from right. The London Insurance Committee wants to know if the present system cannot be improved, and has instructed its Medical Benefit Subcommittee to consider and report on the subject. Last Tuesday a meeting of panel doctors was held in London. It was a regular field day; Dr. Richmond, one of the Honorary Secretaries, had to admit that the acting Local Medical Committee was not of a representative character, and a motion thanking the Committee for its services, and requesting it to continue them was defeated. Out of the 5,800 doctors in London 1,282 were on the panel on the day of the meeting, and 1,074 of these had signed renewal agreements. The Lindsey (Lincs) Insurance Committee has decided to import a whole-time medical man because no doctor has accepted service on the panel

in three of the districts. At Sheffield the Committee "does not at present contemplate any limit being placed on the number of persons accepted by practitioners"; at Middlesbrough a maximum of 1,750 patients to any individual doctor is fixed, and Newcastle thinks 1,500 is enough for a doctor to manage. In Bucks the Insurance Committee has no funds to pay for a consulting medical referee. The doctors in Bournemouth, in common with all medical men at seaside and other holiday resorts, are in trouble about the payment for visitors. In Berkshire also, as in many other rural counties in England and Wales, the same difficulty is acutely felt. The Medical Committee sent a report to the Bournemouth Insurance Committee on this matter, and it in turn appealed to the Commissioners for advice and help. The Commissioners' letter in reply is a tangle which we have tried to unravel above. Bournemouth, in common with other insurance areas, has difficulty also about an income limit. One of the medical representatives on the Insurance Committee proposed an income limit, but it was rejected by 18 votes to 5. In East Sussex only four members on the Insurance Committee voted for an income limit. At Newcastle-on-Tyne an effort to reopen this question with the Insurance Committee was without avail. In Blackpool the discussion was deferred for further consideration, but the fate of other similar applications in other parts of the country is not encouraging. In this matter the expected is being realized, and the local fight is becoming a defeat of the profession in detail. The knotty question of mileage is still unsolved. Of the Treasury grants, amounting to £60,000, Scotland gets £10,000 for the Highlands and Islands and £16,000 for the Lowlands, leaving £34,000 for England and Wales. Whether the sum allowed will be enough to recoup the expenditure involved remains to be seen; this much, however, should not be forgotten by those who participate in the grant—that they would never have fingered a penny of this £60,000 but for the determined fight made on their behalf by the British Medical Association. Places wide apart as Newcastle and the Isle of Wight enter protests against the notion that this is a smooth-working Act. Medical practitioners in the former signed the renewal agreements under protest, and it is expected that some will retire from the panel. They also seriously considered the necessity of raising a war fund, and ultimately decided to refer this very important matter to the Council of the British Medical Association. At a meeting at Ryde, the Isle of Wight Local Medical Committee joined in the general chorus of dissatisfaction and criticism. Compared to the fighting doctors the chemists have been amenable; but even they are not satisfied, if we are to judge them all by their Scottish brethren, who passed a resolution unanimously affirming that the existing drug tariff is not sufficiently remunerative to secure an efficient pharmacy service, and a second resolution, also adopted unanimously, protesting that the alteration of Regulation 30 (1) in favour of the doctors was inconsistent with the promises of the Chancellor of the Exchequer. The working of the Act, indeed, seems to satisfy no one but the Financial Secretary to the Treasury. When every allowance is made for the difficulty of getting so huge a piece of machinery to work, and admitting to the full its many imperfections, some of which the Government will seek to remedy by the promised amending Act, there remains the conviction, to which we have already given expression, that the Insurance Commissioners are failing to exercise the central co-ordinating influence the country expects them to exert. It will now have to discount the optimistic, we had almost written boastful, utterances of the Chairman of the Joint Committee, who appears to be wholly unaware of the width and depth of the dissatisfaction and the half-amused contempt with which such a piece of blundering obscurantism as the Bournemouth letter is read by practical men in touch with the actual facts.

THE OLD LEPER HOUSE AT PRESTWICK.

EXCAVATIONS are being carried out on the site of the old leper hospital of Saint Ninian at Prestwick, the Ayrshire watering place so well known to West of Scotland golfers. A short account of the excavations has been given by Mr. Kirkwood Hewat in the *Glasgow Herald*. The hospital is mentioned by Sir James Simpson in his article on leprosy and leper hospitals in Scotland and England. He says that at Kilcais or Kingcase on a bleak muir in the parish of Prestwick, about two miles from the town of Ayr, there stood for several centuries a hospital for lepers. The general tradition of the surrounding country is to the effect that this hospital was founded by King Robert the Bruce, but Simpson thought it probable that it existed before that monarch's day. Whether he was the founder of the hospital or not, he seems to have been a very liberal benefactor; in connexion with this it may be recalled that it is generally stated by historians that Bruce himself was a leper and died of the disease. The hospital at one time possessed extensive property in the parish of Dundonald and in Kyle Stewart, but as was so often the case the gifts of charity were gradually diverted to private uses. No records remain from which the original extent of the Kingcase Hospital can be estimated. The only remnants of the buildings left when Simpson wrote (1841) consisted of the massive side wall of a building 36 feet long and 17 wide, believed to be the ruins of the chapel of the hospital. From this it may be judged that before it was despoiled of its revenues and land the grounds were of considerable extent. During the later years of the institution the number of lepers maintained in the Kingcase Hospital was limited to eight, but in its more prosperous day the number was probably larger. The lepers lived in huts in the vicinity of the chapel. The hospital was under the direction of an official who had the title of prior. There are frequent references to it in the borough records, which go back to 1470. These records show that the regulations were very strict against lepers going into the town or having dealings with its inhabitants. For instance, under date November 13, 1481, we read: "Andro Sauer is fund in daili reperand to Kingcase . . . and is abill tillinfect the hale toune, and weris the seik folkis clathis and bonnettis." Fourteen years later we read: "The quhilk dai Mariam Miller, Elane Broune, and Aue Duncane ar ilk ane severale in amerciamentis for the selling of ale and intromettin of the folkis of Kingcase agane the statutis of the toune." And much later, in 1693, a very heavy penalty is imposed upon the "Lipper Folke" if they intrude "upon the priviledges only proper to the burges and fremen." Robert Gordon, in his description of Kyle in the time of Charles I, mentions the chapel of Kingcase Hospital, and states that the persons who shared in the charity were lodged in huts or cottages near it; and in the records of the Presbytery of Ayr a commission was intimated from the Lord Chancellor to "visit the Hospitals of Kingkesse, Air, and Maybole—all having interest in the hospitals to compeir." Already the remains of no fewer than twenty-four "Lipper Folke" have been exhumed, and traces or impressions made by many coffins have been seen. Nearly all the bodies lay at the eastern end of the church, more than half the length of which has been disinterred. The walls are from three to four feet thick. The chapel had coloured window lights, as is indicated by a fragment of a window that has been found. The window was of mica, not glass. The town council of Prestwick some time ago acquired the ground surrounding the well associated with the memory of Robert the Bruce. It has restored the well, and has placed in the new wall surrounding it a bronze tablet with a suitable inscription. The excavations, which have been in progress for some weeks, are still proceeding.

THE DEVELOPMENT OF THE FUNCTION OF VISION.

Dr. Moreau, of St. Etienne, has recently had the opportunity of studying the sense of vision in a person born blind in whom the obstruction to light falling on the retina was removed.[1] The subject was a boy, aged 8 years, who had suffered from complete congenital bilateral cataract accompanied by constant nystagmus; he had lived with his father, a poor peasant, and had received absolutely no education. The left eye was operated on first and a dense cataract removed; a bandage covering both eyes was applied and the patient left at rest in bed for a week. When the dressing was removed at 10 o'clock one morning the boy was seated on his bed in the ward exposed to the daylight; the cornea was found to have healed perfectly. When after a few minutes the hand was held about 12 in. from the boy's eye and he was asked what he saw, he seemed bewildered and made no reply; the dressing was replaced; two days later it was removed in the dark room and the ophthalmoscopic lamp was placed behind the patient so as to illuminate the hand shown to him; asked what it was, the child leant forward, stretched his neck and rotated his head, opening his eyes very wide, but finally said, "I don't know." When he was allowed to touch it he said at once, "the hand." He did not fix the hand with his eye, but groped for it like a blind person. In subsequent trials when shown any object he at first always said, "I don't know," but after a time he substituted a new answer, and to every object shown him said, "It shines." Dr. Moreau remarks that the visual impression received was evidently not of a contour but of a luminous object. Three weeks later the other lens was removed, and when in due time the vision of that eye was tested he recognized the hand at once, but Dr. Moreau believes that this was because he had become accustomed to have the hand shown to him, so that he rather guessed than saw what it was. Bilateral vision did not really improve his answers; in each case he had to touch the object before he could recognize it. Examination of the fundi showed the absence of any lesion, and the pupils moved quite freely. He soon learnt to recognize colours, and even slight difference of tint. It is well known that contrasted colours on the same plane may in certain circumstances appear to be on different planes—for example, in a red pattern on a blue ground the red may seem in front of the blue; this illusion is particularly marked in some old stained glass. Dr. Moreau tested his patient on this point, but the results were negative, as the boy could always tell which colour was the nearer to him. His first acquirement was the recognition of the degree of illumination of objects; next he distinguished their colours, and could say whether an object was red or yellow. It was not easy for him to recognize the relative size of objects, but this, Dr. Moreau points out, is a difficulty all children have to learn by experience to overcome. He could find his way about the ward with his hands tied, but in the courtyard of the hospital he lost his way unless he was allowed to feel; this was attributed to lack of any visual memory of the landmarks. He learnt to count very quickly, but he could not make out the numbers of dominoes very well, probably because nystagmus and strabismus prevented his fixing the dots clearly. Dr. Moreau divided the two internal recti, which improved both conditions, but did not cure them completely. One night he was taken on to a verandah on the first floor opening on a garden 60 or 80 metres long. The verandah was lighted by three arc lamps with round glass shades, which were at a lower level, one on the left and two on the right; the moon, which was very clear, helped to light the verandah. When the child arrived on the verandah he believed that it was covered with snow; he stooped to pick it up and was disappointed to find none; he took the moon for an arc lamp, and thought it was quite near to him. An attempt was made to teach him to read, and he succeeded in learning to read letters 1 cm. long, but at this stage he was taken away by his family, and his instruction ceased. Two years later Dr. Moreau went to see the boy, taking with him most of the objects which had served for education in hospital. He did not know Dr. Moreau nor could he recognize the cube which he had often seen at the hospital. He had lost the notions of square and round. He recognized the colours of playing cards but could not distinguish the suits as he had formerly been able to do. Dr. Moreau concludes that it is evidently wrong to believe that a person born blind can at once see the external world after a successful operation. Though the eyes have been rendered capable of perceiving, the utilization of this ability which constitutes the act of vision must be acquired; the operation merely prepares the way for education which is the principal factor; the occipital lobes can register and preserve visual impressions only as the result of apprenticeship and of methodical training. The education must be continued for a long time with untiring perseverance, for if it is interrupted the result is not merely to leave matters stationary but to allow those visual perceptions already acquired to be forgotten. The observations in this case are extremely interesting. They are strictly in accord with knowledge of the development of other functions. They may help to dissipate certain popular notions which have overlooked the fact that it is not solely the optical instrument but the visual centres which are essential for vision, and that for the recognition of external objects long training of these centres is necessary.

[1] *La Semaine Médicale* (No. 13, 1913), from the *Loire Médicale*, January and February, 1913.

SPINAL ANALGESIA.

Spinal analgesia is not yet so thoroughly established in favour as many of its advocates would like. As in many other novel procedures, enthusiasm in its use outran discretion, and accidents of varying severity forced many surgeons back on inhalation anaesthesia for routine work. But almost every one grants that there are many occasions when this method of abolishing pain appears to be the best, and spinal analgesia may be said to hold a definite and possibly an enduring place. The records of surgeons whose experience is extensive are therefore very valuable. Dr. William S. Bainbridge has published a brief summary of his personal experience in 1,065 cases.[1] He points out that three general classes of solutions have been evolved: (1) Those of specific weight lighter than cerebro-spinal fluid — Babcock's "diffusible" solution made with alcohol belongs to this class; (2) those of approximately equal weight—solutions in water or normal saline; (3) the "non-diffusible" solutions rendered heavier than cerebro-spinal fluid by the addition of glucose or other such substances. The solutions of the second class are those generally employed, and stovaine or tropacocaine is usually the analgesic agent. Among all these cases there were no accompanying or post-operative symptoms of permanent or serious moment save in seven cases. There were two deaths, one surmised to be due to status lymphaticus and the other not thought to be brought about by stovaine poisoning. The second death occurred unfortunately at a demonstration to the Clinical Congress of Surgeons of North America in New York in November, 1912, and apparently raised some questionings, as a coroner's inquiry followed. The jury found that the man did not die of stovaine poisoning, but that death was caused by "pathological conditions," some of which were known before operation—atheroma, chronic nephritis, hepatic enlargement, stenosis of the aortic valve, and emphysema. We have some difficulty in understanding why operation for "inguinal hernia at times irreducible causing great

[1] *Journal of the American Medical Association*, vol. lix, p. 1855.

suffering" was thought of at all in such a bad patient, even though he was insistent. In the remaining five failures temporary partial paralysis followed by complete recovery occurred in one, no cerebro-fluid could be found in one, in two cases there was considerable respiratory depression, and there was one case of idiosyncrasy in which repeated punctures failed to produce analgesia. In Dr. Bainbridge's view the real objections to the procedure are that the operator cannot recall the dose, he is committed to it, and that in prolonged operations the analgesic effect may pass off before the surgeon's work is finished.

DR. FRIEDMANN'S TREATMENT OF TUBERCULOSIS.

THE turtle serum vaccine for tuberculosis introduced by Dr. F. F. Friedmann, and described by him in a paper published in the *Berliner klinische Wochenschrift* of November 18th, of which an account was given in the BRITISH MEDICAL JOURNAL of December 7th, 1912, is being investigated in the United States, where Dr. Friedmann now is. We are informed that his colleague, Dr. Piorkowski is at present in London. We learn from the *New York Medical Journal* of March 29th that the following statement has been made by the United States Public Health Service regarding its investigation of the Friedmann treatment for tuberculosis. On March 8th the Secretary of the Treasury, on the recommendation of the Surgeon-General, caused a board of medical officers to be detailed to make a thorough investigation of Dr. Friedmann's alleged cure for tuberculosis. These officers proceeded immediately to New York, and arranged with Dr. Friedmann for demonstrations of his remedy upon persons suffering from tuberculosis. These demonstrations are being carried on in certain New York hospitals through the courtesy of their respective authorities, and will be continued until sufficient information has been obtained for the forming of an opinion as to the merits of the treatment. Dr. Friedmann has submitted to the board a culture of the bacteria which, he states, are used in his method of treatment. In addition to the observation of persons under treatment by Dr. Friedmann, the board of officers will make experiments to ascertain whether this culture is, as Dr. Friedmann asserts, harmless to warm-blooded animals. Considerable time will necessarily be required to carry out these investigations, and in the meantime the public is advised that tuberculous patients should not travel long distances in the hope of receiving the treatment. Those to whom it is administered for demonstration purposes are selected by the hospital authorities from among their patients, the number selected constituting only a small proportion of available volunteers. Certain statements purporting to be expressions of the opinion of the board of officers of the public health service carrying on the investigations have appeared in the newspapers. These officers have expressed no opinion, and will not be in a position to do so until the work has advanced sufficiently far to warrant some conclusion in regard to Dr. Friedmann's treatment.

SOUTH AFRICAN INSTITUTE FOR MEDICAL RESEARCH.

AN Institute for Medical Research in South Africa is being established at Johannesburg on the southern portion of the ground lying to the west of the general hospital and to the south of the fort. There has hitherto been no medical research institute in South Africa. A Veterinary Institute was erected and equipped by the Government some time ago at Dasbort, eight miles from Pretoria, but though the need for a medical research institute has been pressed by members of the medical profession, financial objections have prevented any forward movement. Recently, however, the Government and the leaders of the mining industry collaborated, with the result that generosity on both sides has provided not alone for the building and equipment but also its maintenance. The new institute at Johannesburg is to serve the whole of South Africa and will be called the South African Institute for Medical Research. The industrial diseases of the Transvaal will probably first call for consideration, owing to the mortality which they have occasioned, but the work will not be limited to these diseases, and it is hoped to attract skilled workers from Europe to aid the director in his researches; it is probable that research fellowships will be available for suitably qualified medical men desirous to carry out special lines of research. The proximity of the institute to the general hospital, which is the largest in South Africa, and the fact that it will be equipped with four wards, with twenty or thirty beds for the treatment of patients, will serve to associate the institute with medical work in Johannesburg. When the institute is in full working order, it is probable that courses in bacteriology and pathology will be arranged for medical students. Two appointments have already been made to the staff. The director of the institute is Dr. Watkins-Pitchford, and the statistician, Dr. G. D. Maynard. Dr. Watkins-Pitchford was formerly House-Physician to St. Thomas's Hospital, London; he studied plague in India, enteric fever in South Africa during the war, and small-pox in London. For the last ten years he has been Government Pathologist and Analyst for Natal, and last year was transferred by the Union Government to Johannesburg. Dr. Maynard was formerly M.O.H. for the suburbs of Pretoria, and subsequently Assistant Medical Officer to the Witwatersrand Association. It is expected that the building will be completed in about a year.

THE PATHOLOGICAL MUSEUM OF THE ANNUAL MEETINGS.

THE pathological museum is always a very interesting and instructive part of the annual meetings of the British Medical Association. Such a museum is being organized in connexion with the annual meeting in Brighton next July. The committee appointed for the purpose intends to arrange the material under four heads: (1) Exhibits bearing on discussions and papers in the various Sections, and in this respect invites the co-operation of secretaries of Sections; (2) specimens and illustrations relating to any recent research work; (3) instruments relating to clinical diagnosis and pathological investigation; (4) individual specimens of special interest, or a series illustrating some special subject. It is also proposed to bring together series of exhibits relating to neurology, and to heredity and mental and physical deterioration, and a series of *x*-ray and other photographs. While making this general plan the Committee is none the less anxious to receive specimens falling under Class 4 above. The museum will be established in a central position in the same building as that in which the Sections will meet, and will be easy of access. The honorary secretary of the Committee is Dr. H. Miller Galt, Pathologist to the Stephen Ralli Memorial Laboratory at the Royal Sussex County Hospital, Brighton.

DR. W. W. KEEN, of Philadelphia, has interested himself in the Lister Memorial Fund, and has already received subscriptions in response to an appeal to the medical profession in America.

SIR JAMES PORTER, K.C.B., who has been Director-General of the Medical Department, R.N., since 1903, will be succeeded on May 11th by Surgeon-General Arthur William May, R.N., who was Deputy Director-General from 1905 to 1909.

DR. A. J. CHALMERS, D.P.H., late of Ceylon, to whose work in connexion with the etiology of pellagra we have recently had opportunities of calling attention, has been appointed director of the Wellcome Research Laboratories at Khartoum, in succession to Dr. Andrew Balfour, who has been appointed director in chief of the Wellcome Bureau of Scientific Research, which has its head quarters in London.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Ventilation of the House of Commons.—On the vote for the House of Parliament Buildings and the Civil Service Estimates, on Thursday, April 3rd, a discussion took place on the ventilation of the House.

Mr. Mildmay complained especially of the air in the House of Commons itself, and objected to its being pumped up through the gratings in the floor and under the seats. He stated that during the Home Rule debates in the cold weather, he had been accustomed to bring in a rug so as to block up the holes near his feet, as it made his legs and feet cold.

Sir Frederick Banbury supported Mr. Mildmay in this complaint, and said that the effect of the ventilation, so far as the seat on which he was accustomed to sit was concerned, was to make the members' feet cold and their heads hot, which, he pointed out, was precisely opposite to what was desirable in the interests of debate.

Dr. Addison complained of the depressing effect of the air in the House, and passages, and libraries, and stated that sometimes members seemed to be surrounded with a sort of warm-air blanket. By the courtesy of the Speaker and the Commissioner of Works, Dr. Leonard Hill, F.R.S., had been permitted two days before, in company with the engineer, to make some observations on different parts of the House as to the rate of cooling. He had used a metre consisting of half a litre of water at the temperature of 104° surrounded by wet stockinette, kept wet by a wick leading from a graduated tube of water. Dr. Hill stated that in an ordinary comfortable room the fall of temperature from 100° to 97° F. in such an apparatus would take from three and a half to four minutes. The readings taken in the House were as follows:

Under the Gallery:
No. 1, 4.38 minutes; No. 2, 4.28 minutes.
Under Special Gallery:
No. 1, 4.50 minutes; No. 2, 4.30 minutes.
Library (centre table—window had been open at the bottom and there was a big fire):
No. 1, 4.35 minutes; No. 2, 4.15 minutes.
In the Lobby (beside the Telegraph Office):
No. 1, 4.30 minutes; No. 2, 4.10 minutes.

Dr. Addison pointed out that these observations yielded on an average of 4 min. 32 sec., which was an increase in time of nearly 20 per cent. on the average for a comfortable room. He expressed no opinion of his own as to the significance of these results, but hoped that a committee might be appointed to inquire into the whole subject.

Sir Philip Magnus supported the complaints against the ventilation and complained of the odours introduced into the House from the inlet-shaft at the river level when barges laden with offensive matters were passing along the front.

Captain Pirie condemned the ventilation in very vigorous terms, especially with respect to the dining-rooms.

Mr. Wedgwood Benn, in reply for the First Commissioner of Works, pointed out that some of the difficulty arose owing to different members having very different impressions as to what constituted comfort. He thought, however, that the air was not too stagnant. The Chamber itself was ventilated from the floor to the ceiling and the air within it was changed every few minutes by the exhaust fans in the ceiling; and he pointed out that if members insisted on opening the upper windows they would produce an air lock in the lower part of the Chamber. He explained the general system of filtering and warming the air, and reminded the House that his department had had the most careful guidance from Dr. Gordon in arranging these matters, and that the whole system had been improved at great expense. He stated, in conclusion, that the First Commissioner was quite willing, if members desired it, to appoint a committee to inquire into the subject.

Accommodation in Elementary Schools.—In reply to Mr. King, who stated that over 26 per cent. of the schools in the Birmingham areas were overcrowded, Mr. Pease said that the Board of Education had proposals before it involving the provision of 6,000 additional places. In reply to a further question from Mr. King, Mr. Pease stated that 5,680 additional places had been arranged for in Warrington, of which 1,260 had already been provided. He also stated that proposals were under consideration for the provision of additional places in Manchester.

Insanitary Houses.—In reply to Mr. Douglas Hall, who inquired whether legislation could not be introduced to alter the closing orders of the Housing and Town Planning Act, so that a demolition order need not compel an owner of condemned property to raze the dwelling to the ground without the option of being able to turn it into uses other than that of human habitation, Mr. Burns replied that the matter had been brought to his notice on several occasions, and that he hoped to have an opportuity of suggesting an amendment of the Act of 1909 to meet the difficulty.

Pharmacy Registrations.—In reply to Mr. Charles Bathurst, who said that the Pharmaceutical Society had not taken any steps to make by-laws under Section 4 (*b*) of the Poisons and Pharmacy Act, 1908, providing for the registration under the Acts of 1852 and 1868 of certified assistants to apothecaries under the Apothecaries Act of 1815, Mr. McKenna stated that the matter was receiving the attention of the Privy Council Office.

Small-Pox.

H.M.S. Conqueror.—In reply to Mr. Bentham, Dr. Macnamara stated that three men only out of a complement of over 700 had been infected with the modified form of small-pox, and he could not undertake to recommend any relaxation of the regulations with respect to the vaccination of men employed in the navy.

Small-pox Hospitals.—In reply to Mr. Wardle, Mr. McKinnon Wood stated that the Scottish Local Government Board was of opinion that the small-pox hospital at Kirkcaldy might be a source of infection, and that communications were taking place with a view to other arrangements being made for the reception of small-pox patient.

Town-planning Schemes.—In reply to Mr. Rowlands, Mr. Burns named four schemes which had been approved, and gave the names of boroughs or districts for which in thirty-three cases authority had been given to prepare schemes. In addition, eleven schemes were before the Board, and he was aware of 120 other cases in which the question of schemes was under consideration.

Suffrage Prisoners: Forcible Feeding.—In reply to Mr. Keir Hardie, Mr. McKenna said that during 1912 there were 240 suffrage prisoners, 57 of whom were forcibly fed, and 23 of these were released for reasons of health. Since the beginning of 1913 there had been 70 prisoners, 10 of whom were being and had been forcibly fed, and 3 of these had been released for reasons of health.

Cost of Pensions, Insurance, and Labour Exchanges.—In reply to Mr. Leach, the Chancellor of the Exchequer said that the amount on the Votes for these services for 1913–14 was £21,239,847.

Pure Food.—In reply to Sir John Lonsdale, Mr. Burns said that he was disposed to deal with bread when the Milk Bill was well on its way.

Milk Legislation.

There are three bills before Parliament which deal with milk or milk products, and it may be convenient to give a summary of each of them.

The English and Scottish bills deal generally with the

supply, distribution, and sale of milk, whilst the Irish bill is mainly limited to milk products as used for the manufacture of butter.

Milk and Dairies Bill (England).

Clause 1 provides that no person may carry on the trade of a dairyman in any dairy, unless he and the dairy are registered.

Definitions.

The expression "dairy" is defined in Clause 26 as including any farm, farmhouse, cowshed, milk store, milk shop, or other place from which milk is supplied, or in which, for the purposes of the sale or manufacture of butter or cheese, milk is kept or used. It does not include a shop in which milk is not supplied otherwise than in the closed receptacles in which it was delivered to the shop, or any shop in which the milk is sold for consumption on the premises only. The expression "dairyman" includes any occupier of a "dairy," any cow-keeper or purveyor of milk. Where the purveyor of milk does not occupy any premises for the sale of milk, Clause 1 provides that the place where he keeps the vessels he uses shall be deemed to be the dairy. The dairy and the dairyman are to be registered with the sanitary authority and the expression "sanitary authority" in London under Clauses 26 and 27 means the sanitary authority for the purposes of the Public Health Act, 1891, and elsewhere it means the District Council or the County Borough Council.

Powers of County Council.

It will be seen, therefore, that the authorities outside county boroughs are not the councils of the counties, although many responsibilities and duties are delegated to them and their officers. Under Clause 11, for example, the council of a county may exercise the powers and duties conferred under this Act in a rural district and "with the consent of the sanitary authority" in any other district. Under Clause 20, where a complaint has been made to the council of a county, either by any four inhabitant householders in the district, or by the parish council or parish meeting of any parish within it, or by the sanitary authority of any district within which milk is supplied from any dairy in the county district, or by the medical officer for the county himself, to the effect that the council of any county district has failed to carry out its duties under this Act, the County Council may order a public local inquiry and may resolve that the powers of the council of the district shall be transferred to the County Council.

It will therefore be seen that county councils may, in case of default, supersede such existing sanitary authority, and considerable responsibility in connexion therewith is thrown on the county medical officer.

Registration.

The second part of Clause 1 sets out the grounds on which a sanitary authority may remove a dairy from the register or refuse to register one, and the right of appeal to a court of summary jurisdiction against any refusal is secured to the dairyman, and, if required by him, the sanitary authority must state the grounds of its refusal.

Inspection.

Clause 2 deals with the inspection of dairies, and Subsection (2) gives power to an authority where the M.O.H. has reason to suspect that infectious disease is caused or likely to be caused by the consumption of milk supplied from an area which is outside his own district. In such a case notice is to be given to the medical officer of a county in the case of a rural district and in other cases to the M.O.H. of the sanitary authority, and such M.O.H. is required to inspect the dairy from which the milk is supplied and the persons employed therein; and also, if necessary, the cattle—in which case he is to be accompanied by a veterinary inspector or by some other properly qualified veterinary surgeon.

Special reference is also provided in this clause for the taking of samples of milk from suspected individual cows.

Clause 3 deals with the procedure in cases where the medical officer is of opinion that the infectious disease is caused or likely to be caused by the milk supplied from a dairy.

It will be noticed that this provision applies only to milk likely "to cause infectious disease," and the expression "infectious disease" is defined in Clause 26 as meaning any of various specific diseases there mentioned, and any other disease prescribed by an order made by the Local Government Board.

Unclean Milk.

It is not clear whether milk that is unclean without specific infection is included; but under Clause 15 the Local Government Board is given wide powers with respect to the issuing of orders, amongst them being orders which have reference to the prevention of impurities of milk intended for human consumption and the cleanliness of vessels used for or containing such milk, and for the protection of milk against infection or contamination.

Sale of Milk.

Clause 4 details the powers of sanitary authorities to make orders prohibiting the supply of milk from any dairy or dairyman.

Clause 5 requires that reports are to be furnished to the M.O.H. who gives the notice.

Penalties.

Clauses 6 to 9 deal with penalties. Under Clause 9 a dairyman is entitled to recover compensation in the case where a prohibiting order is made without due cause—disputes as to compensation being settled as provided in the Public Health Act, 1875—but Clause 25 provides that where a dairyman is charged with an offence, he shall be entitled to lay information against any other person whom he charges as the actual offender, and if he shows that he has exercised due diligence and that such person has committed the offence without his knowledge or connivance, proceedings may be taken and a conviction obtained against such other person.

In this connexion Clause 17 provides that a warranty or invoice supplied to a dairyman under the Sale of Food and Drugs Act shall not be a defence to any proceedings in respect of milk.

Tuberculous Milk.

Clause 12 relates to the sale of tuberculous milk and the imposition of penalties.

Taking of Samples.

Under Clause 13 an inspector of the Local Government Board or the M.O.H. of a county or sanitary district may take samples of milk for examination *at any time* before it is delivered to the consumer, provided that the powers of the medical officer of health or a person authorized by him shall be exercised only within the county or district for which he acts, except as otherwise may be directed by the Local Government Board.

Bacteriologist and Veterinary Inspector.

Clause 14 provides that the council or any county or sanitary authority or a combination of such authorities may and, when required by the Local Government Board, shall, appoint veterinary inspectors and employ a bacteriologist.

Powers of Local Government Board.

Clause 15 details the very wide and important powers which may be exercised by the Local Government Board in respect of the Act.

Where alterations or improvements are ordered to be undertaken in any premises, Clause 16 provides for the expenses incurred and the apportionment of them between the landlord and tenant under various conditions, the determination of disputes being settled by an arbitrator or by a court of summary jurisdiction.

Under Clause 18 the Local Government Board may make regulations with respect to imported milk intended for human consumption.

Milk for Infants.

Under Clause 19 the authority of any district, other than a rural district, with a population of 50,000 or upwards, is given power to maintain dépôts for the sale of milk specially prepared for consumption by infants under 2 years of age, the Local Government Board being empowered to make regulations for carrying the section into effect.

Other clauses deal with the holding of local inquiries, the serving of notices, the defrayment of expenses, and similar matters.

Milk and Dairies (Scotland) Bill.

This bill approaches the question in some respects from a point of view different from that of the English bill.

The definitions are approximately the same, and are contained in Clause 2.

Inspection.

Under Clause 3 every local authority may and, when required by the Local Government Board shall, appoint a member of the Royal College of Veterinary Surgeons to act as inspector under the Act, and he shall not engage in private practice in any district in which he holds office, save with the consent of the Board. Two or more authorities may combine in appointing such an inspector, and he shall not be removable from office except by and with the consent of the Board.

Clause 3 provides that it shall be the duty of the veterinary inspector at least once in every year to inspect the cattle in every dairy in the district and to report the result of such inspection, and, under Clause 19, he is at liberty to apply to any cow the tuberculin or any other reasonable test for the purpose of discovering if the cow is suffering from tuberculosis, but the test shall not be applied except with the previous consent in writing of the owner of the cow.

Under Clause 4 it is provided that it shall be the duty of the M.O.H., or the sanitary inspector, or any other duly authorized officer from time to time, and at least once a year, to inspect every dairy in the district and to report the result of the inspection. Subsection (3) of this clause also provides that the M.O.H., sanitary inspector, or veterinary inspector may inspect any dairy in *any district* from which milk is consigned to the district of the local authority.

Registration.

Clause 5 provides that no person shall carry on the trade of a dairyman unless the dairy is duly registered, and Subsection (6) of this clause gives the local authority power to refuse to grant a certificate of registration or to revoke such a certificate if not only the premises but "the *person* is or becomes unsuitable to carry on the trade of a dairyman."

In this connexion also Clauses 12, 13, 14, and 15 give very important powers to the medical officers of health and to other authorities in connexion with the supervision of persons employed in or about dairies.

Infectious Disease in Dairymen.

By Clause 12 a dairyman is required to acquaint the medical officer of health with the fact that any person either residing on the dairy or employed in connexion with it is suspected as suffering from any infectious disease, and, if such cases are discovered, the medical officer of health is required to inform the medical officer of health of the district to which the milk is consigned if it is outside his own area.

Clause 14 declares it unlawful for any person suffering from or showing symptoms of infectious disease, or suffering from any suppurating sore, or sore throat, or diarrhoea, to milk cows or to handle milk vessels, or to take any part in the conduct of the dairy, and it shall not be lawful for a dairyman to allow any such person to do so.

Clause 15 also empowers medical officers of health to examine the persons employed in or about dairies, where cases of infectious disease or any illness attributable to milk have been discovered; and Subsection (2) enables inquiries to be undertaken on the notice given by any medical officer of health to the medical officer of a district outside his own, from which suspected milk is supplied.

Provisions also are inserted for the decision of cases where a grievance is alleged on appeal in a summary manner to a sheriff having jurisdiction in the district and for providing compensation to dairymen where the claim is established.

By-laws.

Under Clause 6 it is the duty of the local authority to make by-laws for their district providing for the inspection of cattle in dairies, the structure, lighting, cleaning, etc., of dairies and their appliances, for the prevention of impurities in milk, and for securing the cleanliness and health of cows and the cleanliness of the persons attending to them, and for prescribing precautions to be taken by the dairy against the infection or contamination of milk. It will be noticed that here it is the local authority that makes the by-laws, and not the Local Government Board, as in England. Such by-laws, however, in respect of the structure, lighting, and other provisions of the dairy are not applicable to dairies where the dairyman only sells the milk in small quantities or for their own consumption or to persons in his employment or to neighbours.

By-laws of the local authorities must be confirmed by the Local Government Board after consultation with the Board of Agriculture.

In connexion, further, with the spread of infectious diseases, the dairyman may be required to furnish to the authority a complete list of the names and addresses of his customers.

Clause 17 gives the officers of the different authorities power to obtain samples of material for the purposes of bacteriological examination. As in the English bill, a local authority may appoint a committee to exercise its powers under the Act.

Powers of Local Government Board.

Under Clause 7 it is the duty of the local authority to carry out the provisions of the Act, and under Clause 8, in the case of a local authority failing to perform the duties imposed upon them, power is given to the Local Government Board by summary petition to obtain direction "to do therein and to dispose of the expenses of the proceedings as to the said division or Lord Ordinary shall appear to be just."

Similar action may be taken by the Board in Clause 9 on the request of a local authority which is receiving milk from the area of an authority stated to be neglecting its duty.

Clause 10 sets out the subjects upon which the Board itself will make regulations. They are mainly concerned with the cooling of milk, with the measures directed to protect it against infection, contamination, and adulteration, and the manner of its conveyance and identification.

Milk for Infants.

Similarly, as in the English bill, a local authority, without in this case any distinction of the population in its area, may establish and maintain dépôts for the supply of infants' milk.

The remainder of the clauses of the bill deal mainly with matters of machinery.

Irish Creameries and Dairy Produce Bill.

The purpose of this bill is to secure the registration of creameries and of cream-separating stations, and to secure better supervision of the manufacture and sale of Irish dairy produce.

Registration.

Premises are not required to be registered as creameries unless in the ordinary course of business the amount of butter manufactured in them on an average day exceeds 56 lb., nor is a cream-separating station required to be registered unless the quantity of cream separated on an average day is sufficient for the manufacture of at least 28 lb. of butter.

Clause 4 sets out the conditions with respect to cleanliness and freedom from contamination of materials and apparatus in registered creameries.

Clause 5 details the conditions under which the manufacture is to be carried on. The cream used in any station must either be separated on the premises by means of centrifugal force mechanically applied or have been supplied from some other registered creamery or separating station.

Clause 8 sets out the conditions under which premises may be removed from the register, and Clause 9 details the proceedings which may be taken on refusal of registration or on the removal of a creamery from the list.

Clean Milk.

Clause 12 contains important provisions directed to secure that the milk supplied shall be clean and in clean vessels, and Clause 18 relates to butter that is unclean.

Inspection: Penalties.

Clauses 14 to 17 relate to details of inspection, registration, and offences, and Clause 17 sets out the conditions under which a person carrying on business and charged with an offence becomes exempt from penalty if he shows that some other person is responsible for the fault without his knowledge or consent, and that he himself has exercised due diligence to secure the carrying out of the provisions of the Act.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

TUBERCULOSIS ADMINISTRATION IN EDINBURGH.

SIR THOMAS HUNTER, the town clerk of Edinburgh, has made an inquiry into the arrangements necessary to be made for the treatment of tuberculosis under the Insurance Act, and has drawn up a report which was considered at a meeting of the Public Health Committee of the Town Council on April 4th. The Committee agreed generally to the report. The new arrangements and appointments considered necessary are as follows. Since the Corporation has agreed to receive insured persons sent by the Insurance Committee for sanatorium treatment into Colinton Hospital, it will be requisite to make arrangements for their treatment there; it is recommended, therefore, that in addition to the permanent staff of nurses and others, the Corporation should continue the present arrangement under which Dr. Alexander James undertakes the medical treatment of the tuberculosis patients upon remuneration at the rate of £300 per annum, which would be in addition to any payment made to him for duties performed by him in connexion with the other work of the hospital. It is further recommended that the Corporation should appoint a thoroughly qualified assistant medical officer of health, to give his whole time to the duties of the office, that he should have special qualifications for dealing with tuberculosis, and that he should be remunerated by a salary of not less than £500 per annum. His services should be placed at the command of the Local Insurance Committee for the purposes connected with sanatorium or other treatment of tuberculosis. It would also be necessary to appoint an inquiry officer to the Public Health Department, at a salary commencing at £150, whose time would be mainly devoted to the work of the Insurance Committee and the applications to them for sanatorium benefit to insured persons. Then it was recommended that the arrangement at present subsisting between the Corporation and the Royal Victoria Dispensary, under which the Corporation contributes £450 per annum in respect of certain benefits received in connexion with the dispensary, should be amended to the effect that the dispensary authorities should undertake to give dispensary treatment to all persons, whether insured or uninsured, sent to the institution by the medical officer of health or the assistant medical officer of health, and that in respect of this the Corporation should pay to the dispensary authorities a sum of, say, £600 per annum, or such other sum as might be arranged. It was recommended, in the next place, that the Corporation should secure the services of a thoroughly qualified consultant—for example, Sir Robert William Philip, M.D.—and arrange with him to act as consulting officer to the Corporation and the Health Insurance Committee in connexion with the prevention or treatment of tuberculosis in all its forms, whether in the case of insured or uninsured persons. The remuneration of such consultant would depend upon the agreement with him; it would probably be not less than £500 per annum. Finally, it was proposed that the Insurance Committee should be asked to contribute to the new expenditure involved, and it was suggested that it should pay one half of the salary of the assistant medical officer of health, a proportion of the £600 payable to the dispensary, a portion of the salary of the inquiry officer, and half of the sum to be paid to the consultant. If these new arrangements were carried through, it would probably be no longer necessary for the Corporation to retain its call on ten beds in the Royal Victoria Hospital, for which it at present pays £500 per annum to the hospital. Obviously these are radical and far-reaching changes, involving considerable additional expense. The recommendations of the Public Health Committee were considered at the meeting of the town council on April 9th, and after discussion were recommitted to the Public Health Committee and Treasurers Committee.

In addition to the new salaries and honorariums (amounting to about £1,900) proposed in the town clerk's report to the town council of Edinburgh, it is pointed out by the Chairman of the Edinburgh Insurance Committee in a memorandum just issued that a large sum of money will be required. The cost of treatment in sanatoriums of, say, 200 patients (insured persons and their dependants) at 25s. a week will be £13,000 a year, the cost of dispensary treatment will be £200, and the cost of additional expenditure applicable to domiciliary treatment will be £800, making £14,000 in all. The sum of money at the disposal of the Insurance Committee for sanatorium and dispensary treatment may be put at £4,000, leaving a sum of estimated surplus expenditure over income of £10,000, whereof one half would have to be guaranteed by the Corporation of Edinburgh and the other half by the Treasury.

HOUSING AND TOWN PLANNING.

A memorandum has been issued by the Local Government Board for Scotland relative to the operation of the Housing, Town Planning, etc., Act, 1909. It states that the Board has during the past three years had every reason to be satisfied with the wide interest shown by local bodies and the public generally in connexion with the administration and execution of the Act.

The records of the work done by local authorities under Part I, dealing with the housing of the working classes, afford ample testimony that greater and better directed efforts are being made for the improvement of housing conditions in Scotland. The first step was to designate officers to perform the duties imposed by the regulations, and practically every local authority in Scotland had now designated an officer or officers. During the past year the annual reports of these officers on the work done during 1911 made it evident that at the date of compilation many local authorities were still engaged making their arrangements, and, wherever it was deemed advisable, the Board communicated with the local authorities and the officers, explaining what was required of them.

Town Planning.

Upon this question the memorandum states as follows:

While the Act has only been in force for three years, the Board has had ample opportunity of noting the deep and widespread interest that is being taken in the subject. Before the passing of the Act the interests of local authorities and landowners in this matter were frequently at variance, to the detriment of the public interest. The Act of 1909, however, endeavours to establish a new relationship between these parties. It contemplates and provides for co-operation between them for their mutual advantage. In fact, it may be said that no town-planning scheme can be entirely successful where it fails to fuse the interests of the local authorities and landowners. It is, indeed, the gratifying experience of the Board that in properly devised schemes landowners are found ready to co-operate. Even indirectly the Act has been instrumental in encouraging landlords to proceed on town-planning lines by adopting better methods of developing their estates without the formalities of town-planning schemes. In further evidence of the widespread interest that is being taken in this movement it is only necessary to refer to the public conferences that are being held at different centres from time to time. These conferences are largely attended by representatives of local authorities and landowners, and by engineers, architects, and surveyors from all parts of the country, and afford an excellent medium for the exposition of the provisions of the Act, and for the discussion of its problems. So far the Board has reason to be gratified at the action taken, and being taken, by local authorities. The progress made is the more remarkable when due allowance is made for the novel character of the Act and the natural reluctance of local authorities to enter upon schemes costing time and money for benefits that may not accrue for some considerable time. Further, the Board feels confident that when the advantages of the Act have been practically demonstrated by the pioneering local authorities others will be encouraged to avail themselves of its provisions.

Provisions for Compensation.

Section 58 provides for compensation being paid to persons whose property is injuriously affected by a scheme, provided that a claim is made within a prescribed time after notice of the approval of the scheme has been published. But a person is not entitled to compensation on account of any building erected on, or contract made, or other thing done with respect to land included in the scheme (1) after the time at which the application for authority to prepare the scheme was made, or (2) after such other time as the Local Government Board may fix for the purpose. It will be seen that under (2) the Board has power to fix an earlier date than that of application,

and in several instances it has done so at the request of the local authorities. The object and effect of the above limitations in the matter of compensation are to prevent undesirable development during the preparation of a scheme. But at the same time the Board recognizes that, until the provisions of any scheme are known, legitimate development is also arrested, and it is its endeavour to minimize that as far as possible. Accordingly, in fixing a date, it is careful to require the authority to make application within a prescribed period. Further, it does all in its power to facilitate and expedite the preparation and completion of schemes, so that as little hardship as possible may be imposed on private enterprise.

Proposals for Schemes.

Under Section 54 of the Act, the Board (1) may authorize a local authority to prepare a town-planning scheme with reference to any land within or in the neighbourhood of the area, if the authority satisfy the Board that there is a *prima facie* case for making such a scheme, or (2) may authorize a local authority to adopt, with or without any modifications, any such scheme proposed by all or any of the owners of any land with respect to which the local authority might itself have been authorised to prepare a scheme. The section also provides that a town-planning scheme prepared or adopted by a local authority shall not have effect unless it is approved by order of the Board. There are thus two distinct stages in connexion with a scheme: (1) Authority to prepare, and (2) approval after preparation. Town-planning schemes submitted (but not yet authorized) from burghal and landward local authorities at Dunfermline, Inverkeithing, Dundee, and Edinburgh comprise a total area of 6,420 acres.

Milk and Dairies Bill for Scotland.

A good many medical men in Edinburgh are scanning with interest the various clauses of the Milk and Dairies Bill (Scotland) which has just been introduced into the House of Commons. It is more than twenty years ago that Dr. Sims Woodhead gave his lecture in Edinburgh on what he had seen in Denmark of the inspection of dairies and the hygiene of cows; and it is felt to be no great credit to Scotland that it is only now approaching the standard which then existed in Copenhagen. Many children who are tuberculous to-day would in all probability be healthy had some such measure as that now proposed been passed years ago. It is to be hoped that before long we shall have something like the *goutte de lait* system of France for the safeguarding of the milk supply of young children and infants. A few dépôts for the supply of milk especially prepared for infants exist in Edinburgh and Leith, but their number is held to be insufficient. The bill will facilitate their institution.

The Victoria Infirmary, Glasgow.

The managers of the Victoria Infirmary have appointed Dr. Ivy Mackenzie to the medical wards left vacant by the retiral of Dr. Love. It is in many ways an interesting appointment. Dr. Mackenzie has in a short time made so great a reputation as a scientific investigator of disease that great things are hoped from his use of the clinical opportunities afforded him at such an early stage in his career.

Edinburgh Hospital for Women and Children.

At a recent meeting of the executive committee of the hospital the appointment of Dr. Janet Mowat as dispensary medical officer, in place of Mrs. Barnetson, M.B., Ch.B., resigned, was confirmed.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Irish Emigration for the Last Sixty Years.

The collection of emigration returns for Ireland began on May 1st, 1851. The total number of emigrants—natives of Ireland—who left Irish ports from that date to the end of December, 1912, amounted in the aggregate to 4,247,360—a figure which is within about 150,000 of the present population of Ireland. During 1912, 29,344 natives of Ireland left the country: this is equivalent to a rate of 6.7 per 1,000 of the population, and shows a decrease of 1,229 as compared with the year 1911. The largest number of emigrants for any year of the period 1852 to 1912 was 190,322 in the year 1852, representing a rate of 30.0 per 1,000 of the population; and the lowest number was 23,295 (or 5.3 per 1,000) in the year 1908. The importance of this emigration in draining the country of those in the prime of life is shown by the fact that 85.9 per cent. of the persons who left Ireland last year were between the ages of 15 to 35, and as far back as the records go the percentage of emigrants between these ages has always been over 80, and has been as high as 86.9. Of the 14,569 males aged 15 years and upwards 63.9 per cent. were returned as "labourers," and of the 12,946 females of 15 years and upwards 71.5 per cent. were returned as "servants." During the last few years there has been a slight reduction in the numbers going to America, and an increase in the numbers going to the Colonies.

Royal Victoria Hospital, Belfast.

At the one hundred and twentieth meeting of this institution, held on March 26th, the Marquis of Londonderry, K.G., President of the Hospital, occupied the chair, and there was a large attendance. Dr. McKisack (for Dr. R. J. Johnstone, Honorary Secretary) moved the adoption of the report of the medical and surgical staff, which stated that there had been a total of 3,547 intern patients; the medical patients had slightly decreased, the surgical had increased; the work had been done at full pressure, and on many occasions the number of beds was insufficient. The hope was expressed that the erection of the new "King Edward VII Memorial Block" would soon be proceeded with: the total amount of subscriptions to the building fund promised was now £17,599, and of this about £16,000 had been collected. The financial statement for the year showed an excess of expenditure over receipts of £22, a very small sum in an annual expenditure of over £16,000; subscriptions had fallen off both from the general subscribers and from employees, and the hospital was faced with the statement that subscriptions in future from both these sources would be reduced or withdrawn altogether.

Health of Belfast.

At the monthly meeting of the City Council on April 1st the Medical Officer of Health (Dr. Bailie) returned the death-rate as 23.9, which is higher than that of the preceding four weeks, and than that of the corresponding period of last year. Pulmonary complaints had been very prevalent. The chairman of the Public Health Committee (Dr. Thomson) said that a scheme for the treatment of tuberculosis applicable to the whole community had been prepared; the only thing that remained to be done in connexion with the scheme was to interview the Poor Law guardians as to taking over the Abbey Sanatorium, and to call a special meeting of the whole council to consider the proposals.

Outbreak of Diphtheria at Booterstown.

A serious outbreak of diphtheria has occurred at Booterstown, a few miles from Dublin. Some 15 or 16 cases have been notified, most of them in the Blackrock area, but some cases have also been reported from Stillorgan. At the last meeting of the Blackrock Urban Council the Town Clerk said that the outbreak was caused by the consumption of contaminated milk. The cases were entirely confined to those who consumed the milk, and as soon as that became known the sale or consumption of the milk had been stopped. The cause of the contamination had not been discovered, but the matter was being investigated by Dr. Browne, Medical Inspector of the Local Government Board, and Dr. J. W. Boyce, Medical Officer of Health for the district. Four deaths, certified as diphtheria, have occurred in the district up to the present time. Dr. Boyce stated that there had not been a fresh case for some days, the last case being one of contact, not a primary one. The diphtheria mortality-rate in Ireland is habitually highest in the March quarter. For the December quarter, 1912, the total deaths from diphtheria were considerably below the average.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

BIRMINGHAM.

PRESENTATION TO DR. LLOYD-OWEN.

At a meeting of the board of management of the General Hospital on April 4th an illuminated address was presented to Dr. Lloyd-Owen on his retirement from the post of honorary ophthalmic surgeon. The address, which was inscribed on specially prepared vellum in Florentine style of ornamentation, was as follows:

To David Charles Lloyd-Owen, M.D., F.R.C.S.I.,
Honorary Consulting Ophthalmic Surgeon to the
General Hospital, Birmingham, 1913.

At a meeting of the board of management of the General Hospital, Birmingham, held on Friday, January 3rd, 1913, Mr. J. B. Clarke in the chair, it was resolved unanimously:

That this board has received with much regret the resignation of Dr. David Charles Lloyd-Owen, and desires to record its high appreciation of the very able and courteous manner in which he has performed the duties of honorary ophthalmic surgeon since his election to that office on September 30th, 1898. That the resignation of Dr. D. C. Lloyd-Owen be accepted with regret, and that in consideration of the eminent services of Dr. D. C. Lloyd-Owen it be recommended to the next annual meeting of the governors that he be appointed honorary consulting ophthalmic surgeon to the hospital.

At the annual meeting of governors Dr. Lloyd-Owen was unanimously elected honorary consulting ophthalmic surgeon.

ST. JOHN AMBULANCE ASSOCIATION.

The St. John Ambulance Association is doing most excellent work in Birmingham, as is shown by the fact that there are between 11,000 and 12,000 certificate holders in the city. A difficulty in giving instruction has, it is reported, arisen owing to the increased amount of work which has fallen upon the doctors as the result of the Insurance Act.

India.

[FROM OUR SPECIAL CORRESPONDENT.]

LUCKNOW MEDICAL COLLEGE.

THE professorial appointments on the staff of King George's Medical College at Lucknow have been arranged so far as concerns present requirements. The staff of the college when it opens work in the autumn will be as follows: Principal and Professor of Surgery, Major Selby, F.R.C.S.; Professor of Medicine, Major Sprawson, M.D., M.R.C.P.; Professor of Obstetrics, Lieutenant-Colonel G. T. Birdwood, M.D.; Professor of Pathology, Major H. J. Walton, M.D., F.R.C.S.; Professor of Anatomy, Sahibzada Suiduzzuffer Khan, M.B., D.T.M.; Professor of Physiology, Captain A. E. J. Lister, M.D., F.R.C.S. Of these Major Selby and Major Sprawson have been already attached to the college for some time; the others will join in October.

STRETCHER DRILL AT AGRA MEDICAL SCHOOL.

On the occasion of the annual distribution of prizes at the Agra Medical School, Surgeon-General Sir C. Pardey Lukis, the Director-General of the Indian Medical Service, did not confine his address to the complimentary platitudes which are customary at ceremonies of this kind. It appears that students have been protesting anonymously against various details of college discipline. Even the military students have been infected by the spirit of insubordination, and have objected to stretcher drill as "coolies' work." Sir Pardey Lukis felt called upon publicly to reprove these errors. He pointed out that "the object of stretcher drill is to fit you for the training of stretcher bearers, which will be one of your most important duties when you join your regiments. Every officer of the Royal Army Medical Corps and Indian Medical Service undergoes similar training. Why should you object?" He reminded the grumblers, moreover, that "nothing which conduces to the well-being of his patient is degrading to the medical man." He might have given the axiom an even wider application; for surely nothing which conduces to the well-being of others is degrading to anybody, whatever his calling may be.

THE WHITE PHOSPHORUS BILL.

The Select Committee of the White Phosphorus Bill, in its report, made only one amendment of any importance. The powers given under Section 6 of forfeiting matches are to be exercised by Presidency magistrates, subdivisional magistrates, or magistrates of the first class. The Committee was opposed to postponing the date on which the bill should come into operation.

PLAGUE AT JHELUM.

The Deputy Commissioner and the Civil Surgeon have visited the deserted bazaars of the city of Jhelum, impressing on the people the benefits of disinfection and inoculation, but the exodus continues, and it has been suggested that a segregation camp outside the town would prove beneficial. A cordon of military guards is posted on the roads to prevent sepoys from visiting the city, which is being evacuated rapidly.

OPIUM AND DRUG LICENCES.

The Chief Commissioner of Delhi has issued notifications similar to those of the Punjab Government prohibiting the holders of licences for the vending of opium and hemp drugs from holding directly or indirectly any opium, drug, or spirit licences in a native State.

THE HEALTH OFFICER OF CALCUTTA.

Dr. Pearse, the health officer of the Corporation, has accepted the proposals of the Corporation rendered necessary on account of his ill health, and has resigned his position as from February 17th.

Correspondence.

THE LIMIT OF GROWTH.

SIR,—In your leader on cancer[1] you quote from Dr. Leitch, "All the cellular components of the living body obey laws governing the limits of their reparative or reproductive activity. Why they should cease multiplying when they have fitted into or restored a predestined scheme is quite beyond our knowledge."

This, of course, is true: but may I point out that it is not quite the whole truth? It may be supplemented by the further statement, that the laws which govern at any rate the reparative activities of cells are not quite uniform in different persons. Take the familiar case of the hair. The law which governs the reproduction of this tissue is in all the same to this extent—that there is a certain length, varying with the part of the body and the time of life, to which the hair will grow, and beyond which it cannot be made to grow. However much or little may be cut off any individual hair, that hair will grow to a certain length and no longer; and, however often the operation may be repeated, the result will be the same if time is allowed. It seems as if the root or follicle of the hair knows that the shaft of that hair has been shortened, and starts to make good the lost part of the length; and it seems, moreover, as if the root knows when the deficiency has been made good, and when to cease its reparative activity. How does it know? That it is not by the weight of the hair and its pull on the follicle is evident from the fact that the cut hair of women, which is supported, grows, in the same way as that of men, to a certain fixed limit. The fact I wish to emphasize is that this limit is not the same in men and in women, nor is it the same in all men nor in all women. The fact that the hair of some men grows longer than that of others, and of some women longer than that of others, shows that the "law of reparation or reproduction" is not the same in all. Some time ago a horse was exhibited whose mane was six feet and its tail, I think, eight feet long. Was not this a kind of cancer, or, rather, a link between normal growth and cancer? The hair follicles, it seems, were either ignorant that the hair had attained its normal length, or they forgot to stop, or refused to stop, when they received the signal. The same thing sometimes happens in scars.

[1] BRITISH MEDICAL JOURNAL, April 5th, 1913.

The reparative process goes too far and results in keloid, another half-way house to cancer. The main fact in cancer is that the cells do not cease to divide and proliferate when the normal limit is reached, and their activity should for the time come to an end. We see in the case of the hair and the keloid that what I may term the cessation point varies in different persons. Are not the cancerous those in whom the cessation point is naturally high, and is, perhaps in consequence, exceeded easily, and on small provocation? I may meet the objection that the cancerous are not necessarily long haired or subject to keloid by the fact, which is patent enough, that a high cessation point in one tissue does not necessarily mean a high cessation point in all. Long-haired people are not necessarily tall.—I am, etc.,

Parkstone, April 5th. CHARLES MERCIER.

DISTILLED WATER *VERSUS* SALVARSAN IN THE TREATMENT OF SYPHILIS.

SIR,—Dr. Arbour Stephens's article on the above subject in your last issue is of much interest. It occurred to me some time ago that the beneficial effect of salvarsan injections might be due in part, at any rate, to the quantity of water injected. The effect of water on intractable cases of syphilis was pointed out by Mr. A. H. Ward in 1904 in a small book he wrote on syphilis. He mentions the case of a woman with chronic syphilitic ulceration which recurred continually in spite of all kinds of treatment with mercury and iodides, but rapidly healed when three pints of hot water containing only 5 grains of iodide to the pint were given daily. Dr. Stephens recommends 6 to 10 c.cm. of distilled water given hypodermically. This is not far removed from the amount given in intramuscular injections of salvarsan, but is much less than that given for intravenous injections (about 200 c.cm.). Whether the hypodermic or intravenous injection of water is better than administration by the mouth is open to question, but taking all the evidence into consideration it would appear that large quantities of water are beneficial in chronic cases of syphilis. This probably has much to do with the effect of the old Litmann's decoction.—I am, etc.,

London, W., April 7th. C. F. MARSHALL.

SYPHILIS AND CANCER OF THE TONGUE.

SIR,—In your issue of April 5th, Mr. Ryall of the London Cancer Hospital states that cancer of the tongue is preceded by syphilis as an active agent in 80 per cent. of his cases. This statement is confirmed in your leader, in which you say that a positive Wassermann reaction is present in a large proportion of the cases.

For some time past I have had the opportunity of comparing the Wassermann reaction on cancer patients with all stages of syphilitics, and the conclusions I arrived at, stated recently before the Manchester Medical Society, are as follows:

Stomatitis cases of syphilitic origin give a strongly positive Wassermann reaction. In transition cases, with a mouth lesion of any magnitude, a slightly positive Wassermann reaction should be read in the light that either some other disease, such as tuberculosis, has been superadded, or that the disease has progressed to carcinoma.

I may say that very few mouth cases of a cancerous nature passing through the Christie Hospital have given a strongly positive Wassermann reaction. In cases of cancer of the tongue, although I am unable as yet to state absolute percentages, it has been the exception rather than the rule for a positive Wassermann reaction to be obtained. May I ask Mr. Ryall on how many cases the Wassermann reaction was performed, and what was the method employed? My method is one which was kindly shown to me by Mr. J. E. R. McDonagh; and in the malignant cases which have subsequently died, the Wassermann result has agreed with the *post-mortem* findings as carried out by the pathologist, Dr. C. Powell White.—I am, etc.,

ARNOLD RENSHAW,
Honorary Pathologist, Ancoats Hospital; Pathologist, Manchester and Salford Skin Hospital; Clinical Pathologist, Christie Hospital, Manchester.

Manchester, April 7th.

THE NEGLECT OF VACCINATION.

SIR,—Allow me in a short space to reply to Dr. J. W. Papillon's last letter. I have certainly no wish to deprive any one of the right of free vaccination, and when the Vaccination Acts are repealed and the machinery of public vaccination abolished, or at least very much modified, I would suggest that it should be open to any one desiring it to be vaccinated (or revaccinated) by his own medical attendant, who would be entitled to a fee (from the Government or local authority) for each certificate of successful vaccination sent in. Once it is recognized that infantile vaccination, no matter how efficiently it be carried out, cannot be relied upon to protect a community from small-pox, and that the chief value of vaccination is as an emergency operation supplementing other measures, the mere question of the *quality* of the vaccination becomes of so little importance that the medical inspection of vaccination could well be dispensed with. For emergency purposes one or two small marks are probably as good as four large marks, and would meet with less opposition.

This suggestion that the office of public vaccinator should be abolished, and that every medical practitioner should be paid by the State for vaccinating his own patients, was made by Dr. George Rice, I believe, many years ago, but received little attention. It is possible that in the near future it may have to be taken more seriously. Undoubtedly there is much to be said in its favour.

One other point. The 19 outbreaks of small-pox referred to in my last letter represent so many different importations occurring during a period of several years. Many of these outbreaks were confined to the first few cases. It is futile to suggest that the "objectors to vaccination inflicted these outbreaks upon themselves," or that the necessity for small-pox hospitals is the "natural sequel to allowing the objectors to vaccination to practise free trade in small-pox." Surely Dr. Papillon does not think that any large town, no matter how efficiently infantile vaccination be carried out, could safely dispense with its small-pox hospital, or that small-pox hospitals are only required for unvaccinated patients? Even in "unvaccinated" Leicester nearly half the small-pox cases which occur (45 per cent.) are in vaccinated subjects.

Lastly, the talk about the "burden and grievance of maintaining small-pox hospitals and their staffs" is a little overdone. The cost of maintaining empty small-pox hospitals is not a serious matter compared with the cost of universal vaccination. At Leicester the small-pox hospital costs little beyond a coat of paint every few years, and the occasional services of a charwoman.

In conclusion, let me say that if the antivaccinists were to cease from their impossible task of proving that vaccination is a myth and—abandoning a position which, scientifically, is untenable—were to concentrate on the demand for the repeal of the Vaccination Acts on the ground that they are obsolete, irritating and no longer necessary, they would undoubtedly be able to establish such a strong case that it is probable that victory would soon be theirs.

Personally, I should like to see the medical profession anticipating this move of the antivaccinists by itself occupying the ground indicated whilst it can still do so with dignity.—I am, etc.,

Leicester, April 7th. C. KILLICK MILLARD.

ALIMENTARY TOXAEMIA.

SIR,—In reply to Dr. A. W. Gilchrist in the JOURNAL of April 5th, who expresses surprise at my statement that oxalic acid may be produced by carbohydrate fermentation in the stomach, I must disclaim any pretension to being a biological chemist, but would refer him to the paper by Miss Helen Baldwin on Oxaluria, in the *Journal of Experimental Medicine*, 1905, and, further, to the discussion in Walker Hall's translation of von Noorden's *Metabolism*, vol. i, p. 149, and vol. iii, p. 1051. I agree that the question is not settled, but I would ask, What is not a matter of controversy in biological chemistry? May I suggest that the reason crystals of oxalate of lime are not found in the microscopical examination of Ewald test breakfasts in cases of achylia is that the contents

are removed at the end of one hour—an interval too short for the results of fermentation to be manifested?—I am, etc.,

Birmingham, April 7th. ROBERT SAUNDBY.

VENTRIFIXATION.

SIR,—In your annotation for the week on this subject in your issue of April 5th (p. 736) you refer to the diversity of opinion which exists among representative gynaecologists upon fundamental points. You then state that Professor Briggs and Dr. Arthur Giles have performed the operation in 1,100 cases "with results that gave them unqualified satisfaction," while Professor Herbert Spencer had only done the operation 27 times in 1,000 abdominal sections. From the statistical point of view you would have emphasized your point much more strongly if you had stated that Dr. Arthur Giles had performed this operation 309 times in 1,000 abdominal sections.[1]

With regard to your statement anent "unqualified satisfaction," is not the important point the unqualified satisfaction of the patient rather than of the operator, and can this be said to exist when 5 of Dr. Giles's 309 cases terminated fatally, and 42.2 per cent. of them had pain after the operation, even although 32.5 per cent. were stated to have less pain than before?—I am, etc.,

London, W., April 5th. HERBERT R. SPENCER.

IMMEDIATE OPERATION IN APPENDICITIS.

SIR,—The opinions of surgeons on this subject have without doubt interested the profession generally, and have caused a large number to think over past cases which might have been saved if an early operation had been undertaken.

I have not yet seen any distinction made between cases of slight and transient attacks of appendicular colic and definite inflammatory attacks of appendicitis, and I do not think it is prudent to group these two conditions together. I admit that it is difficult and often impossible to diagnose simple appendicular colic from a true appendicitis which may be of a fulminating nature requiring operative interference without the slightest delay.

But there are cases seen in private and admitted into our hospitals of slight pain in the right iliac fossa, with few constitutional symptoms and a history of many similar attacks. These are the cases which clear up and can be safely operated on at the so-called interval stage. At the time of operation they present an appendix lying free, with a distorted meso-appendix, a bulbous tip, a thickened, velvety lining of mucous membrane, and often one or more stercoliths. The mortality in this operation is practically *nil*.

Great assistance in the diagnosis between these simple cases of appendicular colic and true appendicitis may be obtained by a leucocyte count, which can be made within an hour, during which time certain arrangements and preliminaries may be got through. If the leucocytosis is over 10,000 delay is, in my opinion, unjustifiable—pus is there. In some cases—but not in all, and we cannot tell which—general peritonitis will be the condition to cope with if the case is left till the next day, and the patient's chance of recovery is lessened with every hour of delay.

If there is any doubt as regards the diagnosis between simple colic and a true appendicitis there is no risk in an exploratory operation, but there may be grave danger in delay. The profession owes a debt of gratitude to Mr. Edmund Owen and to those surgeons who have upheld his opinions, and I strongly believe that the discussion on Mr. Owen's paper will enable us to get in touch with this common and (from delay) often fatal disease at an earlier stage.—I am, etc.,

Plymouth, April 5th. GEORGE F. ALDOUS.

RECENT ADVANCES IN THE DIAGNOSIS, PROGNOSIS AND TREATMENT OF HEART DISEASE.

SIR,—The difficulty of explaining the remarkable resemblances between the parallel paragraphs which I cited from my books and Dr. Price's Toronto address, he meets by the statement that "The whole of the passages quoted by Dr. Lewis, which he insinuates were copied bodily by me from his book, appeared verbatim and in the same order in an address which I gave at the Brighton and Sussex Medico-Chirurgical Society on October 5th, 1911," that is to say some months before my second book *Clinical Disorders* was in circulation. On the other hand, Dr. Price admits that my book *Clinical Disorders* was in his hands late in the summer of 1912; the address at Toronto was delivered on October 8th, 1912 (published March 8th, 1913, in your columns).

The Brighton and Sussex address did not appear in print, and, as is not unnatural after an interval of twelve or eighteen months, none of Dr. Price's supporters, writing in your issue of March 29th, can satisfactorily confirm the identity of the printed paragraphs of the Toronto address with the oral passages of the Brighton and Sussex address. The available evidence is admittedly based upon memory of the language used at lectures delivered at least twelve months previously. Evidence as to the priority of phrases is only of value if it is based upon printed and published matter, because such printed matter is alone available to those concerned. The whole point is that separate quoted paragraphs of the Toronto address and of my writings show an unmistakable resemblance in phraseology and order. The only contemporary published evidence which considerably bears on the substance of Dr. Price's Brighton and Sussex address of October 5th, 1911, is an article of his in your columns of October 7th, 1911, which contains several sentences and paragraphs identical in language with those of the Toronto address, but no trace can be found of the passages to which I especially directed attention, and which appeared to me to have had an origin later than the Brighton and Sussex address.

Further, I would point out that four of my quoted passages were taken from *The Mechanism of the Heart Beat*, appearing, as my publishers tell me, in June, 1911, and several months before the Brighton and Sussex address was delivered. It is quite possible that the passages corresponding to these were delivered verbatim in the address, and that they were heard by Dr. Price's friends. In one of these passages I stated that premature beats may be produced by the injection of digitalis, adrenalin, aconitine, muscarine and physostygmine. These drugs appeared together and by themselves for the first time in my text so far as I can ascertain. They reappear in Dr. Price's text in a similar argument, and again by themselves, though in a slightly different order. I spelt physostigmine incorrectly, so does Dr. Price. My statement only referred to experimental observations on animals. Dr. Price extends it, surely by an oversight, to their administration to patients. These cardiac effects of administering physostigmine and muscarine to the human subject have never been recorded, and, on account of the extremely dangerous properties of the poisons, are unlikely to be recorded.

Any suggestion that the resemblance between Dr. Price's phrases and my own is due to our both having reproduced portions of Dr. Mackenzie's works does not hold good. As a writer on these subjects, I am deeply indebted to Dr. Mackenzie's work and inspiration, but much, however, of the substance of my quoted paragraphs is not to be found in Dr. Mackenzie's books,[1] and although we have both published a thousand pages of printed matter upon cardio-vascular questions, such resemblances in diction as I have pointed out between Dr. Price's writings and my own (and these all occur in a few pages) are nowhere to be found.—I am, etc.,

London, W., March 29th. THOMAS LEWIS.

THE PARISH DOCTOR AND HIS OPPORTUNITY.

SIR,—The time seems ripe and opportune for the long-suffering individual known as the parish doctor to assert himself and to improve his position.

[1] *Journ. Obst. and Gynaec. Brit. Emp.*, vol. xvii, p. 461.

[1] More than one of your correspondents has fallen into the curious error of imagining that I claim the whole of the facts in my quoted paragraphs as original discoveries. I make no such claim; certain of the statements of fact are original, but I chose those paragraphs especially which show to Dr. Price's "the closest resemblance in point of diction." There are over 400 named references in my first book, and in the preface of the second book I clearly state my obligations to other writers.

District medical officers are appointed in many districts in London at salaries of £85 a year—that is, little over 5s. a day for an hour's attendance at the dispensary with sundry visits thrown in. No allowance is made for a holiday or payment of locumtenent. The panel doctor receives this sum for 250 insured patients.

Only last month the St. Pancras Board of Guardians advertised for a district medical officer at the princely salary of £50 a year; needless to say there was no applicant.

The scarcity of medical men affords a good opportunity of forcing the hands of the guardians and compelling a decent salary. Why not take occasion by the forelock? A request supported by a bold alternative from the district medical officers of each union to their respective boards of guardians would be certain in the present interesting situation of eliciting a favourable response.—I am, etc.,

London, N., April 7th. J. MORLEY LYNCH.

MEDICAL OFFICERS OF HEALTH (SUPERANNUATION) BILL.

An Appeal to School Medical Inspectors and Tuberculosis Officers.

SIR,—In the House of Commons on April 18th there is set down for second reading the Medical Officers of Health (Superannuation) Bill. Medical officers of health, whether whole or part time, are included in the provisions of the bill, which is on a contributory basis. A memorandum on the bill is contained in the April number of *Public Health*, which sets out the strong claims for the superannuation of public health officers.

Medical officers of health are now generally recruited from the ranks of the junior branches of this service—namely, school medical inspectors and tuberculosis officers, of whom there are at least three times as many as of medical officers of health. This means that there will always be the larger proportion of officers remaining in these junior branches or the service, which are paid at a salary ranging from a half to a third of that paid to whole-time medical officers of health.

Since the Insurance Act came to the assistance of general practitioners school medical inspectors are the lowest paid members of the profession. All the arguments in the bill can be urged in the case of school medical inspectors and tuberculosis officers, and the argument contained in the following extract from the memorandum on the bill can be much more powerfully urged in their favour: "Moreover they (medical officers of health) can hardly be classed among highly-paid officials, and have thus little opportunity for saving sufficient from their incomes to enable them to retire when it might be distinctly in the public interest to do so."

My object in writing is to point out that the bill does not include school medical inspectors or tuberculosis officers, and, if possible, to have an amendment incorporated in the bill during the Committee stage to make the words "medical officers of health" include school medical inspectors and tuberculosis officers.

To this end may I ask all who are interested in this matter to write to me without delay saying whether they are in favour of such a course; and to write or interview their member of Parliament urging him to assist the passage of the bill through Parliament?—I am, etc.,

ALEXANDER GRAHAM,

London, E., April 9th. School Medical Inspector, West Ham.

*** The objects of the bill were stated and some of the arguments in favour of its principle were set out in an article published in the BRITISH MEDICAL JOURNAL on March 29th, p. 677, where the large part the British Medical Association has taken in promoting this legislation was indicated.

AN addition to its series of health cartoons has recently been made by our contemporary, the *Medical Officer*, which has now published a cartoon setting forth in graphic form the various stages of a fly's development, and the fashion in which it conveys filth to food, and thus disseminates disease. It is an authorized reproduction of one originally issued by the Department of Public Health for Queensland.

Universities and Colleges.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on March 19th, Dr. Herringham, the Vice-Chancellor, in the chair.

Recognition of Teachers.

The following have been recognized as teachers of the university in the subjects and at the schools indicated:

Guy's Hospital Medical School.—Dr. Thomas M. Lowry (chemistry).

Westminster Hospital Medical School.—Dr. Oliver K. Williamson (clinical medicine).

Study in Other Universities.

It was resolved to adopt a new regulation, to be numbered 7A, permitting a student, subject to certain conditions, to take subsequently to the passing of the Intermediate Examination, a course of study extending over not more than one year in another university approved for the purpose in lieu of an approved course of study taken in this university. The University of Paris was approved in connexion with the new section.

Bequest to University College.

The University College Committee reported that a legacy of £3,000 had been left to the college by the late Mrs. F. Magrath for the award of an annual scholarship, to be called the Magrath Clinical Scholarship for proficiency in reports of cases at the bedside, to be open to medical students of the college in their fourth year. A resolution was adopted approving the payment of the legacy to University College Hospital.

Professor Arthur Robinson.

Dr. Arthur Robinson, Professor of Anatomy in the University of Edinburgh, and formerly Professor of Anatomy at King's College, has been appointed a Fellow of King's College.

Appointment of Representatives.

Sir William Collins, M.D., M.S., F.R.C.S., has been appointed a governor of Christ's Hospital, Horsham; Mr. E. L. Gowland, M.B., a governor of the Wreight and Gibbs School, Faversham; and Mr. H. B. Wilmot, M.R.C.S., L.R.C.P., has been nominated for reappointment as governor of the Latymer Foundation, Edmonton.

Lectures in Advanced Medical Subjects.

The following lectures will be delivered at the time and place indicated:

St. Bartholomew's Hospital Medical School.—May 1st, 5 p.m., Dr. M. H. Gordon: Sensitized Vaccines. May 8th, 5 p.m., Dr. H. Williamson: Some Factors of Importance in Determining the Significance of Albuminuria in Pregnancy.

University College Hospital Medical School.—May 5th, 5 p.m., Dr. T. R. Elliott: Disease and the Suprarenal Glands.

London Hospital Medical College.—May 19th, 21st, 23rd, 4.30 p.m., Dr. H. M. Turnbull: Physiological and Pathological Changes in the Structure of Arteries and Arterio-sclerosis.

Brompton Hospital for Consumption and Diseases of the Chest.—May 28th, 4.30 p.m.: The Site of Tuberculous Lesions at Different Ages.

The lectures are free, and are addressed to advanced students of the university and others interested in the subjects dealt with.

Advanced Lectures in Physiology.

The following advanced lectures in physiology are to be given during the third term:

Professor A. B. Macallum, F.R.S., eight lectures on surface tension and physiological processes, at the university on Tuesdays at 5 p.m., beginning May 13th.

Dr. S. A. Kinnier Wilson, three lectures on the anatomy, physiology, and pathology of the corpus striatum, at the university.

Mr. F. F. Blackman, eight lectures on the physiology of photosynthesis and respiration in plants, at University College on Wednesdays at 5 p.m., beginning April 23rd.

Professor T. G. Brodie, F.R.S., four lectures on the physiology of absorption, at King's College on Wednesdays at 4.30 p.m., beginning May 21st.

Dr. J. S. Haldane, F.R.S., four lectures on the supposed physical basis of life and mind, at Guy's Hospital on Thursdays at 4 p.m., beginning May 8th.

Dr. H. E. Roaf, eight lectures on the factors concerned in the volume and form changes of cells (growth and movement), at St. Mary's Hospital Medical School on Mondays at 4 p.m., beginning May 5th.

Further information regarding the lectures can be obtained on application to the heads of the laboratories at which they will be delivered.

Gilchrist Studentship.

Miss Maud F. Forrester-Brown, M.B., B.S., of the London School of Medicine for Women, has been appointed to the Gilchrist studentship for women.

University Studentship in Physiology.

A university studentship of £50 for one year in physiology will be awarded to a student qualified to undertake research in physiology, and will be tenable in a physiological laboratory of the university or a school of the university.

Rogers Prize.

The subject of the essay for the Rogers prize for 1914 will be the nature of pyrexia and its relation to micro-organisms. Copies of the regulations can be obtained from the Academic Registrar, and competing essays must be received by April 30th, 1914.

Presentation Day.

The presentation of graduates will take place at the University at 3 p.m. on Wednesday, May 7th. The annual university service will be held in Westminster Abbey on the same day at 6 p.m. when the sermon will be preached by the Right Rev. Bishop Boyd Carpenter. The service is open to all members of the university, who can obtain tickets from Mr. J. Dudley Whyte, 88, Gower Street, W.C., on or before May 1st.

Pass List.

The following candidates have been approved at the examinations indicated:

SECOND M.B. (*Part I*).—J. A. M. Alcock, G. E. Archer, K. E. Attenborough, C. D. Banes, E. V. Beaumont, H. J. Bensted, J. A. Birrell, M. N. Bostock, *W. W. K. Brown, L. J. F. Bull, A. W. B. Carless, L. A. Celestin, C. C. Chesterman, *A. H. Clarke, Doris M. Collins, J. D. Constantin, M. C. Cooper, J. M. Courtney, R. Coyte, T. M. Cunnington, D. D. R. Dale, R. G. Dani, T. M. Davies, M. A. B. Demerdash, Hilda M. Denton, E. de Robillard, K. Dykes, T. G. Dykes, Florence M. Edwards, T. S. Evans, G. Fehrsen, E. F. Fernando, W. Fletcher-Barrett, J. L. R. Fortier, A. R. Fuller, W. B. Gabriel, A. Girgis, E. N. Glover, H. M. Gray, R. B. Hawes, N. N. Haysom, T. L. Heath, W. B. Heywood-Waddington, E. B. Hickson, F. G. E. Hill, Mary E. A. Holiday, P. Hughes, J. B. Hume, J. W. Hyatt, T. John-Thomas, V. J. F. Lack, E. H. Lake, H. W. Lewis, N. M. Lewis, R. T. Lewis, A. Lyell-Tayler, F. C. Mason, Cecily M. E. Maude, R. G. Mayer, Gladys M. Miall-Smith, M. W. H. Miles, G. G. Milne, L. C. Moore, G. Moulson, D. C. Norris, R. V. Norton, J. H. Oonvala, Margaret S. Palmer, J. W. G. Phillips, C. V. Pink, H. T. Prys-Jones, W. M. A. Rahman, Mariamne O. Ramsay, S. D. Rhind, H. N. D. Richards, J. A. W. Robinson, K. M. Ross, W. R. Rowlands, M. Schwartz, S. N. Scott, A. Selby-Green, A. Shafeek, C. E. A. Shepherd, R. G. Simpson, G. H. Sims, Lily D. Taylor, F. A. Unwin, R. N. Vakil, L. P. Waghorn, Lotty Weiherrmann, J. P. Williams, O. Williams, T. P. Williams, A. Williams-Walker, K. M. C. Woodruff, W. Yeoman.

* Awarded a mark of distinction.

SECOND M.B. (*Part II*).—A. W. Adams, Hannah K. Alton, *‡D. W. J. Andrews, E. B. Barnes, D. A. Blount, C. M. Brophy, F. W. Chamberlain, J. E. Clark, Mabel C. Clark, R. M. Dannatt, E. I. Davies, Ll. ap I. Davies, T. A. Davies, T. R. Davies, H. A. De Morgan, C. I. de Silva, J. R. Dingley, C. W. Ellison, †H. H. L. Ellison, I. Feldman, Susan A. Finch, Charlotte I. Fox, O. Gleeson, E. D. Granger, S. A. Hall, F. J. Hallinan, J. W. Heekes, Mary I. Hounsfield, P. Hudson, S. C. W. Iredale, S. W. Isaacs, *H. C. Jennings, R. B. John, C. O. H. Jones, J. G. Jones, R. O. H. Jones, S. B. King, F. A. Knott, L. G. Le Blanc, I. H. Lloyd-Williams, E. R. Lovell, H. M. C. Macaulay, O. S. Martin, Adeline M. Matland, R. G. Michelmore, S. Miller, *H. W. L. Molesworth, R. G. Morgan, A. H. Morley, Violet Newmarch, D. C. Ogilvie, B. C. W. Pasco, L. D. Phillips, Mary C. Poonen, C. L. G. Powell, A. E. Richmond, Eveleen B. G. Rivington, T. W. Robbins, G. W. R. Rudkin, J. E. Rusby, E. A. Scott, M. C. Stark, R. G. Sterling, D. C. Thomas, W. L. Thomas, H. Q. F. Thompson, J. E. A. Underwood, G. M. Vevers, H. J. Wallace, P. H. Wells, G. R. C. Wilson, W. C. S. Wood.

* Distinguished in Anatomy. † Distinguished in Physiology.
‡ Distinguished in Pharmacology.

VICTORIA UNIVERSITY OF MANCHESTER.

MR. J. S. B. STOPFORD, M.B., Ch.B. Manchester, Junior Demonstrator in Anatomy in the University, has been appointed Senior Demonstrator. Mr. Stopford graduated with honours in 1911, and was Dumville Surgical Prizeman for the same year.

UNIVERSITY OF DURHAM.

THE following degrees and diplomas were conferred at a meeting of Convocation on March 29th:

M.D.—L. F. Browne, J. G. Campbell, W. H. Edgar, I. Hodgkinson, J. C. Hoyle, H. G. G. Mackenzie, F. W. Melvin, W. R. E. Unthank.

M.D. (*for Practitioners of Fifteen Years' Standing*).—D. D. Brown, J. G. B. Coleman, W. L. T. Goodridge, A. Johnson, J. S. Robertson, W. B. Stanford, E. R. Thomas, W. S. Willmore.

M.S.—E. C. Braithwaite.

M.B., B.S.—J. S. Arkle, Theonie R. Burrell, W. L. Clements, H. G. Dodd, F. J. H. T. Frere, *C. J. Henderson, W. J. Hickey, C. H. Robson, S. Scott, R. V. Steele.

* M.B. only.

B.Hy.—P. A. Galpin, W. Hudson.
D.P.H.—P. A. Galpin, W. Hudson.

UNIVERSITY OF EDINBURGH.

Honorary Degrees.

AMONGST those to whom the Senatus Academicus of Edinburgh University has resolved to offer the honorary degree of LL.D. are Emeritus Professor W. S. Greenfield and Dr. W. Allan Jamieson, both of Edinburgh; Dr. John Stewart, of Nova Scotia; Professor J. Arthur Thomson, of Aberdeen; and Professor F. Strassmann, Director of the State Medicine Institute in the University of Berlin.

UNIVERSITY OF GLASGOW.

The Pollock Bequest.

BY the death of the last surviving life-renter the bequest of £10,000 left to the university by the late Dr. Robert Pollock has fallen due. By the terms of the bequest the income of this sum is to be allotted to the Materia Medica Department to found a lectureship.

Pass List.

The following candidates have been approved at the examinations indicated:

FINAL M.B., CH.B.—Cecilia S. T. Anderson, Janet R. Anderson, W. L. Anderson, *H. S. Banks, *R. A. Barlow, *J. S. K. Boyd, J. L. Brownlie, A. G. Buchanan, W. L. Cassells, J. Connell, R. Craig, *W. C. Davidson, W. E. Elliot, J. Fraser, W. Fraser, *W. Forsyth, A. Glen, J. L. Gregory, J. M'F. Grier, W. M. Howells, D. M. Hunter, Jane K. M'E. Hunter, J. F. Hutton, T. P. Inglis, C. J. Kirk, Mary A. Kirk, P. A. M'Callum, J. M'Ghie, Margaret H. M'Killop, M. H. MacLeod, J. H. Magoveny, W. E. Maitland, W. Montgomery, J. L. R. Philip, Sarah A. J. Rankine, F. M. Robertson, A. W. Russell, J. J. Sinclair, N. I. Sinclair, J. A. Smith, F. A Steven, G. Taylor, E. G. Y. Thom, A. Walker, J. C. Watt, J. Whiteside, A. M. Young.

FINAL M.B., C.M.—A. P. Aitken.

* Passed with distinction in one or more subjects of the examination.

LONDON SCHOOL OF TROPICAL MEDICINE.

THE following candidates were approved at the examination held at the end of the recently concluded forty-first session:

*†‡Captain C. A. Gill, *†Captain F. P. Connor, Miss C. L. Houlton, M. C. F. Easmon, ‡J. R. Boyd, ‡Miss E. M. Layman, F. W. O'Connor, Miss F. M. Harper, ‡F. C. Doble, Miss J. McDonald, ‡D. Birt, ‡W. T. P. Meade-King, ‡J. A. Hamilton, Miss S. O'Flynn, ‡G. P. G. Beckett, ‡Miss L. S. McLean, A. P. Watkins, ‡J. F. H. Morgan, ‡W. E. Lewis.

* Passed with distinction.
† Indian Medical Service.
‡ Colonial Medical Service.

Medico-Legal.

ACTIONS FOR SLANDER.

WE learn from the *Liverpool Daily Post* of April 5th that three actions for slander brought by Dr. Agnew of Blundellsands arising out of certain injurious statements affecting him professionally which had been circulated in the locality were settled at the Liverpool Assizes on April 4th, the defendants making a full retraction and apology in open court and agreeing to pay between them damages to the amount of £1,250 and indemnity costs in the form of an order for costs to be taxed as between solicitor and client. Judgement was entered in accordance with these agreed terms. In each action the plaintiff's case was conducted by Messrs. Hempson, acting for the Medical Defence Union.

ERROR IN DISPENSING.

IN a case heard at the Fenton police-court on April 2nd, before the Potteries stipendiary magistrate, in which the prosecutors were the Insurance Committee, the allegation was that pills supplied to an insured person were not in accordance with the prescription of the medical man. The prescription was for pil. ferri gr. 3, manganese peroxide gr. 1, arsenious acid gr. $\frac{1}{60}$. It was admitted on behalf of the defendants that a mistake had been made, but it was stated that this was due to an oversight. The magistrate imposed a fine of £3 and costs. The proceedings were taken under the Sale of Food and Drugs Act.

Public Health
AND
POOR LAW MEDICAL SERVICES.

POOR LAW MEDICAL RELIEF AT BURNLEY.

THE Local Government Board has addressed a letter to the Burnley Guardians stating that in view of the representations made to it the Board thinks it desirable that the question at issue with regard to the appointment of district medical officers should be deferred for consideration by the new board of guardians, and that in the meantime the temporary arrangements should be continued. The guardians decided to act in accordance with this intimation.

DR. W. B. ORME has been seconded from the Federated Malay States Service to act as Principal Medical Officer at British North Borneo for a period of three years.

TO give Germans living abroad every facility to fulfil their military duty at home, German medical men have been appointed to examine young men in the United States, Canada, Norway, Spain, Italy, and Russia, and others have recently been added in Sumatra and Manila.

THE firm of Meister, Lucius, and Brüning completed last January the fiftieth year of its existence, and in commemoration of that fact has published a handsome volume giving some account of its labours in the field of synthetical and other pharmacy during this long period. The great development undergone by the firm is demonstrated by ground plans and other illustrations of its factories at Hoechst-on-Main at early and recent dates.

Obituary.

JORDAN LLOYD, M.Sc., M.D., Ch.B.Birm., M.B., M.S.Durh., F.R.C.S.Eng.,

SENIOR SURGEON TO THE QUEEN'S HOSPITAL AND PROFESSOR OF SURGERY IN THE UNIVERSITY OF BIRMINGHAM.

By the death of Mr. Jordan Lloyd Birmingham loses one of its most eminent citizens and the Queen's Hospital and the University a most brilliant surgical teacher. Indeed, it is no exaggeration to say that the surgical world is poorer by his removal, and the gap he has left only time can fill. Although the unsatisfactory state of his health was known to himself and to his intimate friends, his death came with shocking suddenness, for with characteristic pluck and cheerfulness he continued to perform all his duties with unabated enthusiasm, and had sought in no degree to lighten the onerous burden of philanthropic duty which he had borne for so many years. On Friday, April 4th, he had done a hard morning's operating at the Queen's Hospital, and perhaps few outside the medical profession realize the physical strain that that implies. He complained of being tired and drove to his house in Edgbaston, but was then seized with a heart attack, which proved fatal before any medical assistance could be obtained.

Jordan Lloyd was the second son of the late Dr. John Lloyd of Small Heath, Birmingham, and was born in 1854. His father was a remarkable man who studied medicine late in life, and took the M.B.Lond. when this distinction was rare in Birmingham. He taught anatomy for many years in Queen's College; he was an amateur musician and artist, amiable but eccentric in many ways, and although much appreciated by numbers of poor people among whom he worked, he did not attain and was perhaps careless of worldly success. He was not anxious that his clever son should follow in his footsteps, so that the boy, after receiving a fair education at King Edward's School, entered the office of the *Birmingham Daily Post* as a proof reader. At the same time he lived with his father, assisting him in his practice, and ultimately gave up journalism for medicine. He began his medical studies at the age of 21. His college course was extraordinarily brilliant; he swept off every prize and exhibition it was possible for him to gain until his contemporaries ceased to compete with him. As soon as he was qualified he was appointed house-surgeon to the Queen's Hospital, and afterwards continued his studies in London and Newcastle-on-Tyne where he graduated M.B. and M.S. Durham, taking the first place in both examinations. Soon after returning to Birmingham he became a Fellow of the Royal College of Surgeons.

In 1881 he was elected casualty surgeon to the Queen's Hospital, and two years later honorary surgeon, a post he held up to his death. For many years he lectured on operative surgery in the Medical School, but in 1910, on the retirement of Mr. Bennett May, he was appointed to the joint Chair of Surgery with Mr. Gilbert Barling, and undertook the greater share of the work; he was an examiner in surgery to the University of Durham. His duties as surgeon to the Queen's Hospital were insufficient to satisfy his craving for work, so that he sought and obtained the post of visiting surgeon to the Poor Law Infirmary, which involved no inconsiderable number of operations. In 1889 he was acting surgeon to the 1st Warwickshire Volunteers, and on the formation of the Territorial Army he received a commission as Lieutenant-Colonel R.A.M.C.T., and was appointed officer commanding 1st South General Hospital South Midland Division. At one time he lectured on physiology at the Midland Institute; he was a St. John Ambulance lecturer and lecturer to the Birmingham Athletic Institute.

He held most of the offices in the Birmingham Branch of the British Medical Association, presiding over it in 1903–4, and was for a few years on the Central Council. All who were present at the Birmingham Meeting in 1911 will remember his brilliant Address in Surgery. He was an ex-President of the Midland Medical Society, and of Queen's College Medical Society. He gave the Ingleby Lectures in 1891. He was consulting surgeon to the Children's Hospital, the Dental Hospital, and the West Bromwich Hospital, and a Justice of Peace for the city.

It is to be regretted that he never found time to incorporate the fruits of his great experience in a book, but he postponed it to the time when he should have less to do—a time that never came. He would have retired from the Queen's Hospital next year under the age limit. His comparatively few contributions to surgical periodical literature were invariably striking and original. For two years (1886–88) he edited the *Birmingham Medical Review*, in conjunction with the late Dr. Foxwell.

This catalogue of his many activities may be incomplete, but shows how fully occupied was the life he led.

In 1887 he married the eldest daughter of the late Mr. Mercer H. Simpson, the proprietor of the Theatre Royal, and leaves a family of three daughters and a son.

Mr. Gilbert Barling, Vice-Chancellor of the University of Birmingham, writes: Mr. Jordan Lloyd was a very brilliant surgeon, especially as a manipulator—bold, quick, and very ready in any difficulties. He had, above all things, a most keen and vivid interest in his work. It was not merely a matter of earning an income or holding an office. The study of disease in itself and the opportunity to relieve it was to him a real gratification and an ever-present interest. He was a very fine teacher and lecturer, and the Address in Surgery which he gave at the Meeting of the British Medical Association in Birmingham in 1911 was a brilliant performance—quite a *tour de force*. In his earlier days, when of course he had more leisure, he made a number of interesting inquiries and researches into various forms of surgical disease, and the papers he wrote at that time are still quoted as authoritative on the conditions of which they treated. It had been a matter of great regret to his friends and colleagues during the last few years that his health had seemed to be rather strained, and that he was not always able to do himself full justice. He will be long and affectionately remembered as a brilliant son of the Birmingham School of Medicine.

Professor Saundby writes:

I have known Mr. Jordan Lloyd since he came to the General Hospital as resident surgical assistant in 1876. I was much impressed by the ability he displayed, and I had some conversation with him about his education, urging him to try for higher qualifications, as he had not entered for the first fellowship or the London M.B. He told me his father thought it was unnecessary, and as it was his intention to join his father's practice he should only try for the ordinary diplomas. However, his own, and probably his father's, views became modified by his wonderful success as a student, and he was undoubtedly encouraged greatly by his teachers, the late Mr. Sampson Gamgee, Mr. Furneaux Jordan (to both of whom he always expressed himself as owing much), and by Mr. Lawson Tait, who early appreciated his surgical talent. I watched his progress with sympathy, and, although others better qualified can express what was thought of his originality and skill as a surgeon, I saw enough to show me that he stood in the front rank as an operator—bold in resource, and marvellously capable of carrying out his carefully devised plans. His almost boyish enthusiasm for his work lasted throughout, and enabled him to overcome the disadvantages of a frame never robust, and of the ill health that weighed him down during recent years.

He was a charming speaker, with something to say that was always fresh, and no man enjoyed greater popularity as a teacher and consultant; in both these capacities he will be greatly missed. He was of a singularly affectionate disposition, and possessed a winning manner which gained him many friends and softened his relations with those who at times differed from him in policy. His domestic life was especially happy. His last words were highly characteristic of the man: "What shall I do? I shall have to give up my work!" He lived for his work; he could not take holidays; when he went away he fidgeted all the time, and wished himself back at work. He did not employ a secretary but wrote all his own correspondence, and would not accept assistance from his wife or daughters. Although he had been warned of the dangerous nature of his recent attacks he would not reduce his work. He did four or five operations on the Friday morning, and, unfortunately, one of the patients, a child, stopped breathing; he performed artificial respiration

himself, and had the satisfaction of seeing it recover, but it is only too probable that he gave his own life in exchange. He drove home in a cab, but on arrival collapsed and felt sick; he lay down on the hearthrug in front of the dining-room fire and had a terrible anginal attack, which was relieved by amyl nitrite; he described it as worse than anything he had gone through before. He sat on the sofa, but after a short interval began to retch again, complained of a return of the pain, drew two or three deep breaths, and died before any medical assistance had arrived. Two of his daughters were with him, but his wife, who had been out shopping, arrived before they had realized that he was dead.

Emeritus Professor BENNETT MAY writes:

Jordan Lloyd followed soon after me on the staff of Queen's Hospital, and at once it became apparent that we had acquired a man of the keenest powers of observation with a fresh and original mind, whose manual dexterity foretold what he soon became—an artist in his work, a master of surgical handicraft, and *facile princeps* as an expert operator. He rapidly gained the first place in the estimation of all at the hospital, and his prestige he retained until his untimely death. His professional life covered the great period of the surgical renaissance to which he has contributed in an important degree. It is perhaps difficult to single out any special subject with which to associate his name, for his range was wide and in most directions he excelled; to many he made valuable improvements and additions. Perhaps his work in kidney and gall-stone surgery may be especially mentioned, as these subjects then offered a fine field for his almost unrivalled powers of surgical diagnosis, which he carried into action with rare ability and success. His work in cranial surgery also was extremely good, both in diagnosis and execution. I do not think any one can have removed the Gasserian ganglion oftener or with more brilliant success; it was an operation he did in masterly style. Moreover, he possessed an instinctive and almost magical accuracy in the diagnosis of fractures. His emphatic but always genial and engaging manner gave force to his opinions, which he expressed with freedom but always naturally and unaffectedly, while his merit as an exponent of surgery is too well known to need comment. Like other wise and honest men he did not hesitate to condemn and to drop what he knew to be useless or believed to be wrong. We, his colleagues, knew that we were the better for him, and that it was good for us to know him and to work with him. Of success in practice and of wide and warm professional and public esteem he reaped ample measure, but, now that it is too late, I do wish that a man of such substantial and rare abilities, who did so much for humanity and finally died in its service, had received some form of public honour or recognition. It should have been.



Photograph by] JORDAN LLOYD. *[Lafayette, Manchester.*

Professor J. T. J. MORRISON writes:

The sudden sundering, after nearly thirty years, of a friendship ripening with time into close intimacy and affection, leaves a beclouded sense of loss which may be understood but cannot be expressed. Under this shadow to pen a fitting tribute to the memory of Jordan Lloyd within narrow limits of time and printed space is a hard task, and I can but offer a few inadequate sentences.

By the untimely passing of Jordan Lloyd a host of personal friends and the whole profession are made the poorer. At the Birmingham University and the Queen's Hospital it is no disparagement of the competent men who succeed him to say he cannot be replaced. For he was a man of genius, with the rare adjuncts of a sunny disposition and common sense. His personality was, indeed, chiefly notable inasmuch as he possessed in himself many fine qualities not often found so developed and assembled in one man. His clear intellect gave him distinction even among first-rate men. But in addition to being thus endowed, he was a man of strict integrity, dauntless courage, intense energy, and iron will. And all these elements of character were pervaded by the warmth of a genial soul, whose unfailing current of cheerfulness, and not seldom mirth, made him the most delightful of companions. By means of his many public and private activities he was one of the best known men in his native city of Birmingham, and he was also one of the best liked. His unaffected friendliness to high and low alike, which never diminished, was one of his winning charms. He had a large measure of that essential in the equipment of a surgeon — sympathy — and his sincere kindheartedness was instinctively felt by his patients, even the poorest. On occasion, actuated by a keen sense of justice, he could be a strenuous fighter — always by honourable methods, for, if he was a resolute antagonist, he was also one of the fairest. As a colleague he was loyal to the core. It is not too much to say that his influence in promoting comradeship will be no less missed than the stimulus of his surgical zeal.

He was a devoted husband and father, brimful of happiness in the home circle, which he entered from the "crowded city's jar" to find solace in the love of an affectionate family. On the deepest subject of all I know, from privileged converse, that his attitude was thoughtful and reverential.

In contemporary surgery Jordan Lloyd was one of the recognized masters. The range of his surgical knowledge was very extensive, and I have never met his superior as a diagnostician, nor his peer as a brilliant operator. Working as he did for years in three public institutions and with a large private practice, it may be doubted if any surgeon in this country has performed more major operations. The scene of many triumphs was the Queen's Hospital theatre, where his astonishing manual dexterity (aptly termed by a colleague "three-handedness") won the admiring envy of beholders. But there were other traits

—coolness, rapidity, boldness within safe bounds, precision, and ingenuity were all conspicuous, and the results were an unsurpassed success. Until recent years Jordan Lloyd was unfamiliar with other clinics. Trained in Birmingham on old-fashioned lines, his originality forsook outworn grooves, raising him at once to the front rank, and marking his work from first to last with an intensely individual stamp. He looked askance at what he deemed superfluous apparatus, holding that a surgeon must rely on his cultivated faculties to the utmost, and in keeping with this view the contents of his instrument bag were of unique simplicity. As a chief, he was unsparing of himself, and he obtained the unstinted service of his house-surgeons, whom he inspired with his own enthusiasm, many of them being now distinguished hospital surgeons. His rapid success in practice was a loss to surgical literature, for it left him little connected leisure for writing. His friends regretted this also for his own sake, for, great as was his reputation, his genius entitled him to a larger meed of fame and honour than he lived to receive. His articles on cysts in relation with the pancreas, renal surgery, and spermato-cystitis, and his address at the Annual Meeting of the Association in 1911, indicate his unquestioned ability to produce original work of permanent value.

As a teacher Jordan Lloyd's power of lucid exposition was remarkable, and he could draw from rich stores of knowledge garnered in the main from first-hand experience. Lectures were enlivened by vivid word pictures and the play of humorous fancy in a way that impressed his teaching indelibly. That he was the most popular teacher in the school was shown by the throng of successive generations of students crowding to his weekly out-patient clinic.

His force and skill were unabated to the end. A fortnight ago I heard him deliver an excellent speech from a public platform; and on the last morning he performed with masterly technique the day's quota of six operations while death was clutching at his heart.

The promised holiday was too distant, and Jordan Lloyd, tireless worker and lovable man, is gone, prematurely, because his spirit was too ardent for a fragile frame.

> . . . Quantum instar in ipso est!
> Sed nox atra caput tristi circumvolat umbra.

Mr. C. LEEDHAM-GREEN (Surgeon to the Queen's Hospital, Birmingham) writes:

By the sudden death of our colleague, Jordan Lloyd, English surgery has been deprived of one of its most gifted exponents. Endowed with quite exceptional ability, and unfavoured by any adventitious circumstances, through sheer talent he rapidly rose to a leading position in his profession. As an operator he had few equals, for, possessed of wonderful manipulative dexterity and fertility of resource, he was an expert craftsman in every sense of the word. The rapidity and precision with which he would carry out the most difficult of operations with the minimum of assistance at times almost bordered on the marvellous. Owing to this rapidity of execution and to the infliction of the least possible damage to the tissues, he dispensed, and successfully dispensed, with much of the elaborate detail of aseptic technique on which less gifted men have to rely. His popularity with the students was unbounded, for, in a genial and easy manner he would portray at the bedside the salient features of a case with an incomparable vividness and lucidity. All Jordan Lloyd wrote, all he said, and all he did, was stamped with an originality and illumined by a flash of genius, which raised it far above the commonplace. For his colleagues his death can never efface the inspiration of his life and work.



Photograph by] SAMSON GEMMELL. [*T. and R. Annan, Glasgow.*

SAMSON GEMMELL, M.A., F.F.P.S.GLASG.,

REGIUS PROFESSOR OF MEDICINE, GLASGOW UNIVERSITY; SENIOR PHYSICIAN TO THE WESTERN INFIRMARY, GLASGOW.

By the death of Dr. Samson Gemmell, Glasgow has lost one of her most distinguished medical men. Professor Gemmell seems to have been in his usual vigorous health, and, except for a trifling shortness of breath, had no indication that there was anything wrong. In the beginning of the week he had completed the final examination for the medical degrees by presiding at the meeting of examiners to determine the pass list. On April 1st he had paid his usual morning visit to the Western Infirmary, and thereafter, as was his custom, had walked over the hill up to the college, and so home to his house. During part of this, his last, walk he was accompanied by one of his university colleagues, with whom he had discoursed vigorously on university and political topics. Soon after reaching his house he was seized with illness, and before assistance could be obtained had almost breathed his last. It is believed that he succumbed to heart failure.

At the time of his death he was in his 66th year. He was born in the little Ayrshire village of Catrine, and received his early training there before proceeding to the University of Glasgow for his education. One of a large family, Gemmell was brought up in a strict fashion by his father, who was a rigid disciplinarian. At first destined for a Civil Service career, Gemmell spent the first three years of his college life in the arts side, but when it was found that, owing to a physical defect, he was debarred from entering the Civil Service, he commenced the study of medicine. His great industry and mental ability soon gained for him an honoured place among his contemporary students, and he crowned a distinguished undergraduate career by obtaining, in 1872, the medical degree with honours. Thereafter for some time he acted as houseman in the Royal Infirmary in the medical wards under the late Sir William Gairdner, and afterwards for a short time acted as a demonstrator of anatomy under Professor Allan Thomson. But his interests really lay in the clinical aspects of medicine, and he proceeded to develop his clinical knowledge by the study of fevers. Accordingly, for the next three years, from 1873 to 1876, he acted as resident physician at the City of Glasgow Fever Hospital, and came under

the influence of the late Dr. J. B. Russell. On giving up that appointment he commenced private practice, and was fortunate in being taken on by the late Sir William Gairdner as his university assistant. This post he held for eight years, and during the last four of them he also acted as clinical assistant to Sir William Gairdner.

The next important step in his career took place in 1880, when Gemmell was made Professor of Medicine in Anderson's Medical College, succeeding the late Matthew Charteris, who had been called to fill the chair of materia medica in the university. In the same year he joined the Faculty of Physicians and Surgeons. From the very beginning of his Andersonian career Gemmell proved a success. His class soon outnumbered the corresponding university class. His command of English and his power of expressing himself in flowing phrase impressed his hearers and stamped him an interesting and successful lecturer. Meantime he was increasing his clinical experience. In 1881, after the usual service as extra-dispensary physician, he became full physician to the Dispensary of the Western Infirmary. In 1886 he was appointed physician to the Hospital for Sick Children, and in 1887 he obtained wards in the Royal Infirmary. His success as a clinical teacher was almost as great as his success as a lecturer on medicine, and after five years' work in the Royal Infirmary he was transferred to the Western Infirmary to fill the vacancy caused by the retirement of Dr. Tennent in 1893. He retained his connexion with the Western till the last, and at the time of his death had been for several years senior physician.

After lecturing with great success in Anderson's College for ten years a vacancy in the Chair of Clinical Medicine was caused by the promotion of Professor McCall Anderson to the Regius Chair of Medicine. To the vacant Clinical Chair Dr. Gemmell was appointed, and thereafter for eight years filled it with distinction. On McCall Anderson's death, in 1908, Professor Gemmell was pressed by his colleagues to become Regius Professor of Medicine, but he had no personal desire or ambition to resume the arduous task of theoretical lecturing. Eventually, under severe pressure, and only on the plea that it was his duty to his Alma Mater, he unwillingly consented to the desire of his colleagues, and duly became Regius Professor of Medicine. His consent once given, he threw himself whole-heartedly into the work, and again his unrivalled powers of exposition repeated the old story of his Andersonian success. Though a busy consultant, whose services were in constant demand by the professional brethren, he allowed nothing to interfere with his university work, and ungrudgingly devoted his forenoons to his professorial duties. He had his reward in the loving esteem and respect in which he was held by his students.

Indeed, it is entirely as a teacher that Professor Gemmell will live. Trained under the late Sir William Gairdner, he was the chief exponent of Gairdnerian methods in the Western Infirmary. His continual insistence on the necessity of a sound knowledge of physical signs has had a beneficial effect on many generations of students. Few students who have ever passed through his wards are ever likely to forget how to write a good clinical report: not only must the facts be accurately observed, but the phraseology in which the report was made had to be in good, crisp, vigorous form. Dr. Gemmell was by no means antagonistic to the modern advances in the methods of diagnosing disease, but he was by nature of a sceptical disposition, and a long experience had taught him the lesson that "all that is new is not true, and all that is true is not new." His attitude to the newer development of medicine is perhaps more truly indicated by the fact that his clinical assistants were men actively engaged in developing these very new methods. As a clinical teacher Dr. Gemmell had a great power of eliminating the unessentials, and getting down to the essential features almost immediately. As a professor he struck the average student as being rather inaccessible, but those in trouble knew how kind he could be. He did not mix much with other men, and infinitely preferred the quiet of his study and the companionship of his beloved books to any social function.

It is a great pity that a man of Dr. Gemmell's powers of observation and description had not more frequently contributed to medical literature, but as a matter of fact his writings are singularly few. By far the best known are his articles in Finlayson's *Clinical Manual*, which makes it all the more to be deplored that his matured judgements have not received permanent record.

M.B.Glasg. writes:

We have lost Samson Gemmell. The inward meaning these words convey can only be conceived by graduates of my Alma Mater and by those whose proud privilege it was to reckon him as their friend.

It is only three short weeks ago that the writer walked through Kelvingrove Park with him, when Professor Gemmell discussed the life of a great man who had passed away, and finished his remarks by saying: " . . . and so you see, even though he had attained to a ripe age, his physical and mental faculties were as active and acute as they were twenty or thirty years ago, and there he was nipped off, in the midst of all his great powers of doing good, not only to his own nation, but to the whole world. It seems strange how these colossal minds with their wealth of intellectual lore are gathered in, and so many of the riff-raff that could well be spared—from our point of view—are left." How well his remarks on that occasion now apply to himself those who knew him will appreciate. No man was ever more fitted for his position in this life than Samson Gemmell, and that he was justly proud of it was shown when he wrote: "Fortune has favoured me by my appointment to the chair held by Cullen, Black, and Gairdner. . . . "

To his students Gemmell was a continual inspiration. In his wards every case was gone into with the thoroughness of the born clinician, and woe betide the man who showed evidence of slovenliness in his clerking! At these times he would assume a satirical manner, pointing out the errors in composition or physical examination in such a fashion as was engraven in the memory of the greatest sluggard for life. Afterwards, when walking home, he would place his arm affectionately round one's shoulder and say: "Oh, if you boys only knew how jealous I am of your futures, and that you may all do well, you would then know that it hurts me more to speak like that than it does you who are spoken to."

Men who were made of the proper stuff felt instinctively when in contact with Gemmell his absolute genuineness and thoroughness, and so he was affectionately known to them as "Sammy" Gemmell. Not only was he the true friend of his students, but in one or two minutes he had endeared himself to his patients in the wards. I used to marvel—when a student—at his seeming omniscience, for often when he sat down at a bedside he would inquire of the patient where he resided, and no matter what out-of-the-way hamlet he came from, Gemmell could almost always remind him of some landmark, or quote some passage on a stone in the local kirkyard, or know some local worthy which made the man first wonder, then become his ardent worshipper during the remainder of his residence in hospital. But as with slovenly students, so with the malingering or carping patient, there was no bond of sympathy there, all sign of friendship was non-existent, and though his remarks were few they were barbed.

Professor Gemmell felt his responsibilities keenly, and the time he devoted in his wards was given in the most magnanimous fashion for so busy a man, though I suppose he felt he was only carrying out his duty. He loved his wards, and writes: ". . . I yet hope to see you here, if it were for nothing but to show you my splendid wards in the 'Western'"; and there he was always to be found every morning at nine o'clock going his round, which was performed in no perfunctory fashion, but with the most assiduous attention to the last detail, a habit so essential to his nature.

His classes, clinical and systematic, were always the most sought after, and his systematic lectures were delivered with such an abundance of clinical detail that one saw clearly in his mind's eye the patient suffering from the disease he was for the time describing. In the wards of the Sick Children's Hospital, Gemmell's handling of a child was an object lesson for every man, for he loved children. I remember him telling me with great glee how he had shocked an old lady who was unaware that he was unmarried, and who had asked him how many children he had. He had replied that at the present moment he had some twenty-eight! He then nodded his head in the

direction of the Sick Children's Hospital, and with a smile said to me, "They're all up there, and I love every one of them."

It has always been a matter of keen regret to me that so great and grand a man in the profession was not more widely known. There are pigmies in intellect compared to him whose names are known throughout the length and breadth of the land by reason of their writings, but Samson Gemmell seemed to have an aversion to public writing. I remember telling him that I thought of publishing a case we had been discussing, and he remarked: "Be careful what you put in print, for in a few years you may have reason to regret it." I offer this as a possible reason why there is left on record so meagre an account of the magnitude of his life's work, though I do not wish to convey the impression that he was afraid of his convictions—far from that—for Gemmell was essentially a strong man. Nevertheless, it is a thousand pities, and the world is left so much the poorer.

THE LATE DR. CHUNE FLETCHER.

DR. BERNARD MYERS writes: The news of the untimely death of Dr. Chune Fletcher has come as a great shock to his large circle of friends, both lay and professional. It is indeed hard to realize that one so robust looking as was Dr. Fletcher has parted from us and joined the great majority. How deeply he will be regretted is comprehended when we reflect on the sterling manly qualities of one who was not only greatly gifted by Nature physically but who also embodied within himself a remarkable personality, being possessed of a fine intellect, a truly kind heart, and the very essence of courtesy and tact. His knowledge of medicine was thorough, whilst his untiring attention to his patients won for him their heartfelt gratitude and lasting affection. Those of his professional brethren who had the pleasure of his intimate acquaintance will bear me out when I state that Chune Fletcher was the ideal medical man. Dr. Chune Fletcher had done a good deal of most interesting work in medicine, but being of a retiring nature he preferred to use his knowledge quietly in the interest of his patients and for the benefit of his professional brethren. Indeed, I believe that nothing gave him greater pleasure than to lend a helping hand to another medico. Among other subjects that he worked at were the medical treatment of adiposity and also paralysis agitans. He certainly achieved some almost remarkable successes in these complaints. Dr. Fletcher was a born post-prandial speaker. Probably his faculty for saying the right thing at the right time, together with his other qualities, would have ensured him brilliant success at the bar. An old Bart.'s man, he retained his intense interest for his old hospital to the last. To go over Bart.'s with him was almost equivalent to being instructed by one of his delightful dissertations upon the whole history of Bart.'s, Smithfield, and the ancient tournaments.

DR. HENRY WATERS died at his residence, Stanley Road, Bootle, Liverpool, at the early age of 39, on March 29th. He received his medical education at the University of Edinburgh and graduated M.B., C.M. in 1899, and before settling in Bootle had been honorary physician and surgeon to the Berwick-on-Tweed Infirmary. For seven years Dr. Waters had been an active working member of the British Medical Association, and devoted much time and energy to the furtherance of its interests. He had filled the offices of chairman and secretary of the late Bootle Division, and from 1908 to 1911 was the Representative of the Division at Representative Meetings. He was also a member of the late Provisional Medical Committee of the Liverpool Division. It had been painfully evident to many of his colleagues that for some time his health was in an unsatisfactory state, but he persisted in keeping at work until compelled at length to yield late in December last; since then he had been confined to bed. The interment took place on Monday, March 31st, at Longmoor Lane Cemetery, and was attended by a number of the local members of the profession, by whom the late Dr. Waters was held in the highest esteem. He leaves a widow and two children to mourn the loss of husband and father.

DR. HENRY PRESCOTT ROBERTS, late of Ealing, died in a nursing home at Ladbroke Grove, London, on March 16th, aged 66. He was educated at Edinburgh, where he took the M.B. and the L.R.C.S. in 1868 and the M.D. in 1877 and entered the Bombay Medical Service as Assistant Surgeon on April 1st, 1869, becoming Surgeon on July 1st, 1873. His whole service in India was spent in military employment, chiefly in the 9th Bombay Infantry, and during it he served with the Malta-Cyprus contingent in 1878, and in the Afghan war. On December 11th, 1880, he resigned his commission and returned home, and soon after settled in practice in Ealing, where he remained about thirty years. He retired from practice and settled in Hythe about two years ago.

DEPUTY SURGEON GENERAL JOHN MILLS, Bombay Medical Service, retired, died at Yateley, Hants, on April 1st. He was born in 1831, and got his first commission as assistant surgeon on April 3rd, 1848, becoming surgeon on June 15th, 1864, and surgeon-major on April 3rd, 1868; he retired with a step of honorary rank on January 1st, 1876. In the days when he went to India almost every young medical officer of the Bombay Service had to begin with a tour of duty in the Indian Navy, and he spent his first few years of service afloat. In 1853–55 he was on furlough, and on his return served in the Persian war, being present at the battle of Khushab, and receiving the medal and clasp. After the war he was posted as Superintendent of Vaccination, Southern Division, became civil surgeon of Dharwar in 1861, and in 1862 of Kolhapur, a post which he held for five years, going on leave again in 1867. On his return to India he was appointed medical officer of the 21st Bombay Infantry, then the Marine Battalion, now the 121st Pioneers, and spent the rest of his service in that regiment.

BRIGADE SURGEON CHARLES FREDERICK OLDHAM, Bengal Medical Service, retired, died at Great Bealings, Suffolk, on March 25th, 1913. He was born on January 2nd, 1832, educated at St. George's Hospital, took the M.R.C.S. in 1858 and the L.R.C.P.Edin. in 1859, and entered the Indian Medical Service as Assistant Surgeon on July 27th, 1859. He became Surgeon on July 27th, 1871, Surgeon-Major on July 1st, 1873, Brigade Surgeon on October 24th, 1887, and retired on February 28th, 1890. After joining the service he served for some time in the Aligarh Levy, afterwards the 39th Bengal Native Infantry. In the Sixties he was for some years a civil surgeon in the Punjab, at Gurdaspur and Dalhousie, and afterwards medical officer of Bahawalpur State. In 1875 he was posted to the 1st Gurkhas, at Dharmsala, and spent the rest of his Indian service in that regiment. He took part in the Perak Expedition of 1875–76, gaining the medal and clasp, and in the Afghan war in 1878–79, with the Thal Chotiali Field Force, when he received another medal. In 1871 he published a work entitled, *What is Malaria, and why is it most Intense in Hot Climates?*

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Ascherson, the famous botanist of Berlin; Dr. Algernon T. Bristow of Brooklyn, professor and visiting surgeon at the Long Island College Hospital, and editor of the *New York State Journal of Medicine*, age 61; Dr. Luiz da Cunha Feijo, professor of obstetrics and gynaecology in the faculty of medicine, Rio de Janeiro; Dr. Howitz, sometime professor of gynaecology in the University of Copenhagen, aged 84; Dr. Huber of Memmingen, an authority on the history of medicine and author of numerous contributions to the literature of that subject, and also to that of helminthology in which he was a specialist; Dr. T. E. Moret, extraordinary professor of ophthalmology at Buenos Aires; Dr. Prince A. Morrow, a leading dermatologist of New York, aged 66; Dr. O. Pertik, professor of pathological anatomy at Pesth; Dr. Max Reiner, lecturer on surgery in the University of Vienna, aged 46; Professor Seeman, director of the Physiologico-Chemical Institute of the Academy of Practical Medicine, Cologne; Dr. Hugh A. Stewart, professor of pathology at Columbia University; and Dr. N. P. Tischutkin, lecturer on histology in the Military Medical Academy, St. Petersburg, aged 45.

The Services.

ROYAL NAVAL MEDICAL SERVICE.

PRIZE DISTRIBUTION AT HASLAR.

THE course for Acting Surgeons, Royal Navy, was brought to a close on March 28th at Haslar, when the prizes were delivered by Surgeon-General Howard Todd, C.B., K.H.S.

The Instructing Medical Officers reported that the young medical officers had been diligent, had shown interest in their work, and had taken advantage of the opportunities afforded them of acquiring the special knowledge necessary. Special commendation was given to Acting Surgeons Malone, Whelan, and Cory for the zeal and ability they had generally displayed.

The Gold Medal was gained by Acting Surgeon A. E. Malone, of Dublin University, who obtained the highest aggregate marks in the London, Greenwich, and Haslar examinations. The Silver Medal was gained by Acting Surgeon H. M. Whelan, of University College, Cardiff, and the London Hospital, who took second place. The group prize for the subjects in which instruction is given at Greenwich was awarded to Acting Surgeon A. E. Malone. The group prizes of the instruction given at Haslar were awarded as follows: Group I: Acting Surgeon H. M. Whelan. Group II: Acting Surgeon R. F. P. Cory (St. Thomas's Hospital).

The order of seniority as determined by the results of the examinations held at London, Greenwich, and Haslar is as follows:

	Marks.		Marks.
1. A. E. Malone, M.B. ...	3,664	6. J. T. D. Higgins, M.B. ...	2,872
2. H. M. Whelan	3,502	7. J. G. Boal, M.B.	2,860
3. R. F. P. Cory	3,467	8. F. S. B. Wickham ...	2,345
4. H. St. C. Colson	3,371	9. S. Punch	2,833
5. G. A. Finegan	3,069		

SANITARY TRAINING OF THE TERRITORIAL FORCE.

MAJOR E. C. FREEMAN, M.D., writes: I am very grateful for a kind and sympathetic review, in the JOURNAL of April 5th last, of an article of mine which has appeared recently in the *R.A.M.C. Journal* on sanitary training of the Territorial Force. Your reviewer has, however, misread my views on one important point, and I would ask your permission to make the necessary correction, as the matter is a vital one. Nothing was further from my mind than to suggest that "camp sanitation" was not of much value to Territorials. In war, although Territorials will have no tents, they will very frequently have to bivouac in the open; in the early stages of mobilization they will probably be under canvas, and every year during training they are in camp for a fortnight. Disease germs do not distinguish between peace and war or between camps and bivouacs. What I wished to convey was that the sanitary companies of the Territorial Force should not, as at present, confine their training to camp sanitation, but should go on and learn the working of town water supplies, sewage systems, and so forth, because in war the Territorial troops will be frequently quartered in towns, and arrangements will therefore have to be made for a great and sudden influx of population into these places—often after the municipal services have been broken down or seriously injured, and much more than a knowledge of camp sanitation will then be required to cope with these conditions and prevent epidemics. But the sanitary companies should be specialists, and it was about them I wrote. For the rank and file of the Territorial Force, or of any other troops, I would insist on the immense importance of a knowledge of camp sanitation, and for that we have worked in the East Anglian Division for the last five years.

THE total number of students in the universities of Austria in the winter session 1912–13 was 30,591. Of these 6,439 belonged to the faculties of medicine, of whom 420 were women. The total number of medical students matriculated in the medical faculty of Vienna during the past winter was 2,505, of whom 152 were women. In the University of Graz there were 572 students, including 12 women. At Innsbruck the number of medical students was 350, 3 of whom were women. In the German University of Prague there were 572 in the medical faculty, of whom 21 were women. At the Czech University of Prague there were 932 medical students, of whom 51 were women. In the University of Lemberg 629 belonged to the medical faculty, 106 of these being women. At the University of Cracow there were 600 students of medicine, of whom 62 were women. The number of medical students still shows an increase, this tendency being specially notable in the case of women.

Medical News.

THE State Sickness Insurance Committee, at its meeting on April 10th, referred to the Amendments Subcommittee a motion by Dr. Beaton to the effect that any Insurance Act Amendment Act should provide for (1) free choice of doctor whether on or off the panel, (2) a satisfactory income limit for all insured persons, (3) such increase in the number of doctors and representatives of employers on the Insurance Committees as shall prevent the insured persons having a permanent majority on these committees.

MR. JOHN JONES, of Wrexham, has left £50,000 to the Wrexham Infirmary, of which he was vice-president, and has also given for the use of the infirmary Rosecneath House and grounds, Wrexham, and the Claremont Hydropathic at Rhyl.

WE are asked to state that the offices of the National Medical Guild, to which reference was made last week (p. 729), are at 34, Villiers Street, Strand, London, W.C. The rules of the Guild will be supplied on application to the general secretary.

MESSRS. LEITZ, of Wetzlar and London, have recently celebrated a kind of jubilee by presenting to Professor Ehrlich the 150,000th compound microscope made by them. On an earlier like occasion, the completion of the 100,000th Leitz microscope, they presented the instrument to the late Professor Robert Koch.

AS announced in our advertisement columns, an examination for commissions in the Royal Army Medical Corps will be held on July 23rd next. Applications to compete should be sent in to the Secretary, War Office, by July 14th. Owing to the reduction of the garrison in South Africa it is improbable that more than five commissions will be available.

A CONFERENCE on the feeding of elementary school children, and of those in various philanthropic and other institutions maintained for children of like class, is to be held at the Guildhall on June 30th and July 1st this year. It has been organized by the National Food Reform Association on the same lines as those of the conference on diet and hygiene in public secondary and private schools in May, 1912.

THE spring course of museum demonstrations at the Royal College of Surgeons of England will begin on Monday next at 5 p.m., when Mr. Shattock will demonstrate specimens illustrating hypertrophy. On the two following Mondays he will show specimens illustrating atrophy and lipomata respectively. Professor Keith will give demonstrations on April 18th, 25th, and May 2nd, on acquired deformities of the foot and spine, and on the formation of peritoneal adhesions and bonds before and after birth. The demonstrations will be given at 5 p.m. on each day.

THE annual meeting of the Ophthalmological Society of the United Kingdom will be held on April 24th and 25th at the house of the Royal Society of Medicine, 1, Wimpole Street, W. There will be a morning and afternoon session on each day. The morning session on Friday, April 25th, will be given up to a discussion on vascular and other retinal changes in association with general disease, and the afternoon to a demonstration of cases at Moorfields. An exhibition of ophthalmic instruments, etc., will be held during the two days at the house of the Medical Society of London.

THE second list of stewards of the dinner of the Royal Medical Benevolent Fund and Guild, to be held on April 30th, under the chairmanship of H.R.H. Prince Arthur of Connaught, to celebrate the title "Royal" conferred by the King last year, has been issued. It includes the names of Dr. T. Dyke Acland, Professor D. W. Finlay, Lady Godlee, Director-General Sir William Gubbins, K.C.B., Sir Frederic and Lady Hewitt, the Hon. Mrs. Mark Hovell, Dr. H. Macnaughton-Jones, Director-General Sir James Porter, R.N., Dr. S. J. Sharkey, Sir Frederick Treves, Professor Sims Woodhead, and Mr. G. A. Wright.

THE Finsbury Medical Guild celebrated its inauguration at a supper which was held on April 3rd, at the Holborn Restaurant. Fifty members and medical friends were present, and Dr. F. J. Smith was the guest of the evening. Amongst those present as guests were Drs. E. B. Turner, Buttar, Gordon Ward, Gordon Lane, and Whitelaw. The President, Dr. Eber Chambers, was in the chair, and a presentation was made to Dr. W. F. Roe, which took the form of a substantial cheque, in recognition of his services

as honorary secretary to the City Division Provisional Medical Committee. The testimonial was subscribed to by the members of the profession in the City Division, many of whom were present. During the evening songs were contributed by several of the members.

At a special meeting of the Board of Governors of the Leicester Royal Infirmary last week, Mr. C. J. Bond, whose resignation of the office of senior honorary surgeon had been received with much regret, was unanimously elected vice-chairman of the board. In acknowledging the appointment, Mr. Bond said that looking back to 1875, when he became acquainted with the infirmary as a pupil, the points that chiefly struck him were the great growth in the size and work of the institution, and the enormous development of surgical and medical science. He looked forward with hope, although in the immediate future there might be stormy times. The country could not do without hospitals, and it was, therefore, essential that they should be thoroughly efficient and up to date.

We are requested to state that at a meeting of members of medical unions and other bodies in East and North-East London and the County of Essex held in the City on April 2nd, to "consider the best means of co-ordinating the work and policy of the said unions," a resolution to the following effect was carried with only one dissentient: "That in view of the coming representative meeting at Brighton, the British Medical Association be requested to summon a meeting of the chairmen and secretaries of all statutory and provisional Local Medical Committees and all other bodies interested in medical organization, as soon as possible, for the purpose of considering the national organization and consolidation of the entire medical profession."

The *Journal of the American Medical Association* has collected a number of facts as to deaths in the medical profession of the United States and Canada, and the results are published in the issue of January 4th. During 1912 the deaths of 2,120 American and Canadian doctors were noted in the journal. Estimating the number of doctors in the two countries at 150,000, this figure is equal to an annual death-rate of 14.13 per 1,000. For the ten previous years the death-rates were as follows: 1911, 15.32; 1910, 16.96; 1909, 12.26; 1908, 17.39; 1907, 16.01; 1906, 17.2; 1905, 16.36; 1904, 17.14; 1903, 13.73; 1902, 14.74. The average annual mortality for the period from 1902 to 1912 inclusive was, therefore, 15.93 per 1,000. The age at death varied from 22 to 99, with an average of 60 years and 23 days. The general average of death since 1904 is 59 years, 9 months, and 28 days. The number of years of practice varied from 1 to 76, the average being 33 years 2 months 14 days. The average for the past nine years is 32 years 4 months and 8 days. The following figures show the causes of death: 187 deaths were attributed to general diseases, 264 to diseases of the nervous system, 278 to diseases of the circulatory system, 176 to diseases of the respiratory system, 95 to diseases of the digestive system, 147 to diseases of the genito-urinary system, 334 to senility, 4 to diseases of bones, 36 to suicide, 90 to accident, 12 to homicide, and 4 to other causes. Among the principal assigned causes of death are senility, 334; cerebral haemorrhage, 219; "heart disease," 200; pneumonia, 153; external causes, 138; nephritis, 127; accident, 90; after-operations, 86; tuberculosis, 55; cancer, 38; suicide, 36; appendicitis, 29; angina pectoris, 25; typhoid and arterio-sclerosis, each 24; diabetes, 18; septicaemia, 17; gastritis, 12; anaemia and meningitis, each 11; myocarditis, 10; paresis, mental alienation, embolism, cholelithiasis, and cirrhosis of the liver, each 9; influenza and bronchitis, each 7; intestinal obstruction and peritonitis, each 5; hernia, 4; erysipelas, rheumatism, endocarditis, gastric ulcer, prostatitis, and furunculosis, each 3; malaria, dysentery, alcoholism, pleurisy, anaesthesia, and enteritis, each 2; and pellagra, uncinariasis, drug addiction, locomotor ataxia, mastoiditis, pulmonary oedema, and placenta praevia, each 1. The causes assigned for the 90 deaths from accident were poison, 16; falls, railways, automobiles and animals, each 10; drowning, 9 (4 doctors went down on the *Titanic*); asphyxia and firearms, each 5; burns and street cars, each 4; strangulation, crushing, and freezing, each 2; and sunstroke, 1. The 36 doctors who ended their lives by suicide selected the following methods: Poison and firearms, each 15; asphyxia, 4; strangulation and cutting instruments, each 1. Of the 12 homicides, 11 were due to firearms, and 1 to a crushing injury from a blunt instrument. Of these 5 occurred in feuds or affrays.

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Hypertrophied Prostate.

X. X. asks for suggestions for the treatment, short of enucleation, for enlarged prostate of only few months' duration. The patient is 59, strong, and of steady habits. He has had two very acute attacks presenting the usual symptoms. He is possibly gouty.

ANSWERS.

L.R.C.P.Lond. is referred to the announcement in the British Medical Journal of December 21st, 1912, p. 1734.

LETTERS, NOTES, ETC.

Total Abstinence—from Water.

Dr. John Haddon (Denholm, Hawick, Scotland) writes: I had not studied the physiological action of foods upon me long before I saw that I must also study the effect of drink as well, and I came to the conclusion that a man living rightly as to food should never drink any fluid. It is one thing to be convinced and quite another to act upon one's conviction, but a health conscience is being evolved, and when conscience is at work it sometimes gains the mastery. My efforts to follow the dictates of this new conscience have been sadly interfered with by my medical faith. In 1911 I determined to live as I think I should before going to the annual meeting of the British Medical Association, that I might show myself, living upon no more protein than fruits contain, but my weight was coming down so fast that my faith failed me and I did not succeed in carrying out my intention. Last year, however, I determined to try again, going from home before the date of the annual meeting of that Association, so that I might be away from my scales and pay no attention to my weight, but I could not help seeing the change in my features, which astonished me. The cheek bones became prominent and the skin seemed to have got thinner, but, skeleton-like as I looked, I felt even more fit than I had done at times when I looked stouter, and I persevered, and was able to show myself living on fruit alone. When I got home and found my weight had come down to little over 7 st., I began to relax the stringency of my diet, my medical faith suggesting that that was not heavy enough for a man who once weighed 11 st. 9 lb. Since then, however, I have continued my observations and experiments, and by watching a dog deprived of all food, with water beside it, I am confirmed in my conviction—that we can do without any drink, even when fasting. The subject of this experiment is a deerhound bitch, which had just finished suckling a pup. She gets very fat when suckling, and she had a sort of mange and was scratching herself and making her skin bleed. I had bathed her and failed to cure the irritation by local applications, when I determined to try what effect a fast would have. I tied her up where she could get no food and left a dish of water beside her. She drank water for two or three days, and then she stopped taking any. The skin rapidly improved, she ceased to scratch, and I kept her fasting until she was free from all superfluous fat, but she never touched the water again. The lower animals are guided by instinct, and I knew they fasted from food when ill, but I did not know that they would abstain from water when fasting, and that seems to me a most pregnant fact, which even our physiologists may not know, and which some of them will. I have no doubt, appreciate. I had come to the conclusion, through my observations on the physiological action of foods, that we were, as it were, being drowned through deficient elimination, and I was gratified to hear in the Physiological Section at the last meeting of the British Medical Association that it had been proved by microscopic examination of the brain that the nerve cells were being drowned. They were shown on slides through the lantern, burst, like a ripe gooseberry after a heavy rain, with the nucleus escaping from the cell. Thus, physiologists have confirmed me in my conviction that feeding as he ought a man should never drink, even water.

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An Address

ON

MALINGERING, VALETUDINARIANISM, AND THEIR PREVENTION.

Delivered before the Pathological Society of Manchester.

BY

BYROM BRAMWELL, M.D., F.R.C.P.E., LL.D.,

PHYSICIAN TO CHALMERS HOSPITAL, EDINBURGH; CONSULTING PHYSICIAN TO THE EDINBURGH ROYAL INFIRMARY.

The subject of malingering and valetudinarianism and their prevention is of very great practical importance at the present time: it is a large subject of great complexity, in which I have always been much interested. During my first year of practice I was engaged in a big "railway case"; since then I have had a large experience in that kind of practice; as medical officer to a large insurance company which deals with claims under the Workmen's Compensation Act, in the capacity of Medical Referee for Scotland, and as a hospital physician and private practitioner, I have seen many cases in which the question of malingering has presented itself.

Definition.

I would define a malingerer as one who feigns sickness or who deliberately (knowingly and wilfully) induces or protracts an illness, with the object of avoiding duty, claiming money compensation, exciting sympathy, or for any other reason.

You observe that I use the words "knowingly and wilfully." The term "unconscious malingering" is sometimes used; but it is an absolutely erroneous term; the term "unconscious malingering" is a contradiction in terms; the very essence of malingering is wilful and deliberate (conscious) deceit. It is essential to draw a distinction between *malingering*, conscious and deliberate simulation of disease or exaggeration of symptoms, and *valetudinarianism*, unconscious or subconscious simulation of disease or exaggeration of symptoms.

Until recently, malingering was chiefly found amongst: Soldiers; prisoners; schoolboys; conscripts (in those countries where there is universal military service—the reverse condition being not infrequently met with in this country amongst young fellows who have passed the Army examinations, but who have been rejected on their "medical"); hospital patients—"hospital birds" as they are termed; hysterical young women; club patients; persons injured or supposed to be injured in railway accidents; and persons who have been accused of some crime, such conditions as epilepsy or insanity being set up as a defence.

All of us who are engaged in hospital practice will, I am sure, allow that since the Workmen's Compensation Act was introduced* cases of malingering and valetudinarianism have become very much more common. In the last edition of my book on the *Diseases of the Spinal Cord*, published in the year 1895, I discussed in detail concussion of the spinal cord, and referred to the injuries which are so common in pitmen, as the result of falls of stone and coal on the back. I came to certain conclusions as to the nervous symptoms which these patients manifest. I need not read the whole, but my third and fourth conclusions were as follows:

3. That colliers who have suffered from concussion of the spinal cord (I mean, of course, concussion pure and simple) very rarely subsequently suffer from organic disease of the spinal cord or its membranes.

4. That they very rarely indeed manifest the train of nervous symptoms which so frequently occur after railway accidents and injuries.

I then went on to say:

The two last conclusions may in the future be of no small importance, quite irrespective of the subject of railway accidents and injuries with which we are at present immediately concerned. The tendency of modern legislation is to compensate employees who have been injured, provided that the accident is not the result of their own carelessness or error. Now I venture to predict that if the Legislature should enact that colliers are entitled to compensation for the injuries so received, nervous symptoms will in the future be found to result much more frequently from falls of coal and stone on the back than is at present the case.

This prediction has been abundantly verified: my experience during the last five years in the wards of the Edinburgh Royal Infirmary shows that colliers who have been injured in this way very frequently manifest the nervous symptoms characteristic of traumatic neurasthenia or traumatic hysteria. In colliers these nervous symptoms are very much more common than they were five years ago.

Dr. Dickson of Lochgelly, who has for twenty years had a large colliery practice in the county of Fife, stated at a recent meeting of the Edinburgh Medico-Chirurgical Society that traumatic neurasthenia is now a common topic of conversation in the villages of Fife, that the *morale* of the Fife miner, which before the passing of the Workmen's Compensation Act was high, has become much deteriorated, and that the duration of illness after accidents has become much prolonged; he stated that the average time for recovery from a fracture below the knee, which before the introduction of the Workmen's Compensation Act was three months, is now over six months.

It cannot be doubted that the Workmen's Compensation Act has tended to the production of malingering and valetudinarianism. It must, however, be remembered, as a set-off against this, that modern methods of clinical investigation and examination have made it easier than it used to be to detect fraud.

Now I venture to predict that, when the National Insurance Act comes into full operation, malingering and valetudinarianism will become very much more common in cases of ordinary sickness and illness (irrespective of accidents and injuries) than in the past, and the duration of ordinary (non-accidental) illness will be greatly increased, and consequently that there will be a great increase in the medical attendance required, and in the expenditure required for sick pay and allowances during ordinary illness.

Varieties and Degrees of Malingering and Valetudinarianism.

Various varieties or degrees of malingering may be described.

I.

There are cases in which perfectly healthy persons feign disease, induce disease, or claim that they have received an injury and profess to be suffering from symptoms due to that injury.

These cases, in which absolutely healthy persons claim to be suffering from the effects of injury or disease—pure malingering—are, in my experience, extremely rare. They are occasionally met with in club patients, in schoolboys, in hospital patients ("hospital birds"), in accused persons, and in persons who have been in a railway collision or other accident, but who have not been really injured; indeed, cases have occurred in which people who have not been in an accident at all have feigned symptoms, taken to bed, and claimed large damages from a railway company on account of an alleged injury. No case of that sort has come under my own notice, but I have seen several cases in which there has been gross exaggeration or malingering pure and simple.

Case I.

I remember one case in which a train ran into the buffers at a station: a gentleman who was seated facing the engine was thrown forwards into the arms of a buxom lady who was sitting opposite him; his hat was knocked off and was indented—it was a new silk hat—that was the only damage which he seemed to have sustained. A few days after the accident he began to suffer from the ordinary symptoms of "railway spine"; these symptoms gradually got worse: he brought a claim against the railway company, which was eventually settled out of court for £100.

* The Employers' Liability Act came into force on *January 1st, 1881*. Under it a claim was only sustainable in the event of there being a defect in the condition of the works, or of there being negligence on the part of the employer or those in his service.

The first Workmen's Compensation Act came into operation on *July 1st, 1898*, and was limited to certain classes of employees. An *amending Act* came into operation on *July 1st, 1901*, extending the earlier Act to employees engaged in agriculture.

The present Workmen's Compensation Act came into operation on July 1st, 1907, and practically all classes of employees came within its scope.

The following are brief details of three cases of pure malingering:

Case II.

In the *Times* (June 22nd and 29th, 1899) a case is reported in which a man claimed £500 damages and £33 18s. expenses from the London and North Western Railway Company for injuries received by falling into a hole, which it was alleged was improperly protected, on the platform at the Kensal Rise Station. The company proved that the man was an impostor of the worst possible class, and that no such accident as he alleged had occurred. The man was eventually tried at the Central Criminal Court for trying to obtain money by false pretences, and sentenced to six months' imprisonment.

Case III.

In the *Railway News* (October 29th, 1904) a case is reported in which a man sued the London and North Western Railway Company for £5,000 damages for injuries sustained during the shunting of a train. Out of 500 persons in the train—it was a Saturday afternoon and a very crowded train—the pursuer, who was bumped during the shunting, was the only person who complained of injury or made a claim against the company. From the moment the carriage in which this man was seated was bumped, he set himself to work up a false claim. He pretended to be stunned by the shock, but was sufficiently wide-awake to obtain the names and addresses of two of his fellow passengers, whom he produced as witnesses. After the alleged accident he went into a nursing home and became a cripple, deaf, half-blind, and unable to walk except with a stick, at such times as he thought exhibitions of suffering would help his case against the company.

The company found on inquiry that his record was a very bad one—"his whole business seems to have consisted in obtaining goods on credit under various aliases, selling them and pocketing the proceeds"—and had him watched by detectives. When he thought himself secure from observation, "he was a strong, active man, jumping on and off omnibuses and trains in motion, carrying his own portmanteau and rugs, making trips to Richmond and other places, playing with a football with his children in a park at Brighton, and otherwise making the best of a blighted existence."

After his cross-examination at the trial his counsel closed the case, and the jury found a verdict for the company without calling a single one of their witnesses.

The man was subsequently arrested, tried for perjury at the Central Criminal Court, convicted—the jury not finding it necessary to leave the box—and sentenced to nine months' imprisonment with hard labour

Case IV.

At a recent meeting of the Medico-Chirurgical Society of Edinburgh Sir Thomas Clouston mentioned the following case: A clergyman got into some sexual difficulty. The charge, if proved, would have involved the loss of his livelihood. He pleaded insanity, was certified by two medical men, one of them of very high standing in the university, and sent to an asylum. Sir Thomas Clouston was sent for to see the patient; the asylum attendant informed him that the man spent much time in attentively reading a green-bound book. This book was Sir Thomas Clouston's clinical lectures. In the chapter on delusional melancholia every one of the symptoms which this man manifested was underlined. It is hardly necessary to say that the plea of insanity was not sustained.

II.

There are cases in which, after an accident or injury, the results or remains of previous disease are said to be due to the injury.

These cases are more common than cases of pure malingering in persons who were previously perfectly healthy; fortunately they are not very common, for in some instances they are extremely difficult and perplexing. We all know how frequently functional symptoms are combined with organic disease, and how easy it is to mistake the results of old organic disease for those of recent disease, more particularly in cases in which one is unacquainted with the patient and the previous history, and especially in cases in which erroneous, misleading or false statements are made regarding the previous history and previous condition of the patient. I have met with cases in which a congenital club-foot, a very old-standing facial paralysis, an ear discharge recurring for many years, an old scar on the cornea, epilepsy, tabes and spastic paraplegia were said to be due to recent accidents.

Case V.

We had a case not very long ago in my insurance office in which a severe conjunctivitis was said to be due to dust getting into the eye during the patient's work, but in which it was proved that the patient was suffering from gonorrhoeal conjunctivitis. I do not say that this patient was malingering. I mention the case as an illustration of the difficulty there frequently is in excluding previous disease, and in proving that symptoms, which are said to be due to a recent accident or injury, are in reality the result of previous disease.

There is, of course, a strong tendency in the human mind to try and find a cause for any and every illness, and if a person has received an injury, even some time before the development of an illness, he not unnaturally perhaps attributes the illness to that injury. Poliomyelitis anterior acuta is a striking illustration in point. It is now known to be an infective condition, due to a germ poison; formerly it was often thought to be due to exposure to cold, a chill, or an injury; and in cases of poliomyelitis anterior acuta, occurring as these cases often do in robust, healthy children, nurses were often blamed for supposed injuries to the children in whom the disease developed.

In some cases included under this head the patient knows that the condition which he attributes to the accident was previously present—he is deliberately lying; but in others—as, for example, in cases of early tabes, of which I have seen more than one case—he may not know this; he is not deliberately and wilfully trying to deceive.

In cases of this kind a minute and careful inquiry into the previous history as to the exact nature of the accident—whether the degree and kind of injury was sufficient to account for the symptoms and conditions which are present—will in many cases enable one to arrive at a correct conclusion; but there is often great scope for differences of opinion. In some cases of this kind the difficult question arises as to the relationship of trauma to the causation of the particular diseased condition which is present, such as spinal lesions, cerebral tumour, aneurysm, cancer, and innumerable other conditions which are not infrequently said to be due to an accident.

Then, further, in some cases the question occurs—supposing the man is a diseased man when he gets the accident, is he entitled to receive compensation for the damage he has sustained? In my opinion, one is no more justified in injuring a diseased man than a sound man; but, of course, the amount of compensation which a diseased man should receive is, in many cases, very different from the amount of compensation which a sound man should receive. In cases of this kind the whole circumstances of the case have to be carefully considered and taken into account.

Case VI.

During the first year that I was in practice I met with an interesting case of this kind. A girl, who was carrying a young child subject to epileptic fits in her arms, was larking with a young man: in attempting to strike her, it was said in play, he hit the child; the child immediately had a fit and died in the fit. The young man was committed by the magistrate for manslaughter, and tried at the Newcastle Assizes. I was a witness in the case; I had made a *post-mortem* examination. Mr. Justice Brett, in summing up, laid it down that if the jury were satisfied that the child died from the fit, and that the fit was induced by the blow, they should bring in a verdict of manslaughter; but, he said, the degree of manslaughter was for him to judge, and not for the jury. The jury returned a verdict of manslaughter; the judge discharged the prisoner; he thought that as he had already been some time in prison while waiting for the trial, he had had sufficient punishment.

Cases every now and again occur in which persons who have been apparently perfectly healthy up to the time of an accident die apparently as the result of the accident, and in which it is found after death that they are and have for many years been the subject of grave organic disease. In India many cases have been recorded in which a slight blow has ruptured an enlarged spleen and caused death. The following are cases in point:

Case VII.

A stationmaster received a slight head injury; immediately after the accident he became ill and died a few weeks later, apparently as the result of the injury. Up to the time of the injury this man had never complained of illness; he had for many years performed his arduous duties without ever being off work; he was, however, the subject of advanced cirrhosis of the kidney and marked arterio-sclerosis.

Case VIII.

A labourer, aged 53, employed at the Peterhead harbour works, received an accident—injury to the back, left side, and left leg—by being struck by a skip of stones on August 13th, 1909. He resumed light duty on September 24th, 1909, and some time afterwards returned to full work. In June, 1910, he sustained another slight accident, a blow on the left side; he was off work for a week, and during that time complained of shortness of breath. He subsequently had to leave off work altogether, because of shortness of breath on the slightest exertion.

I examined him on behalf of the Government on August 16th, 1912. He then stated very definitely and positively that up to the time of the first accident he had been perfectly well, and that for the previous ten years he had been employed as a labourer in the Peterhead harbour works and had not been off work through illness for a single day. I found the heart decidedly enlarged and its action irregular, the blood-pressure markedly above the normal (180 mm. of mercury), and a small quantity of albumen in the urine; the pulse was 120. The man complained of pain in the left side and of shortness of breath on the slightest exertion. He seemed to be a straightforward, truthful man.

I gave it as my opinion that his physical condition unfitted him for the work of a labourer. I stated that it was impossible to say definitely whether the disease—the cirrhotic condition of the kidney, which seemed to be the fundamental lesion—was in existence or not prior to the receipt of the first accident; but, whether this was so or not, it seemed obvious that his illness had either been produced or seriously aggravated by the injuries which he had sustained. Consequently, I thought, from a purely medical point of view, that the man was reasonably entitled to adequate compensation.

I have seen many cases of this kind; in some of them it was difficult to determine how far the accident was responsible for the result.

III.

Cases in which patients who are suffering from the effects of an accident or injury or from ordinary illness not due to accident or injury, exaggerate their symptoms, or do not get well as they should be expected to do, but continue to suffer and go on claiming compensation.

These cases are very common—in fact, of every-day occurrence. They are the cases which will give rise to so much difficulty under the National Insurance Act.

In ordinary practice the aim of the patient—at all events, of the great majority of patients—is to get well as soon as possible, and he makes every effort to aid the doctor in getting him well. But if it pays a patient better to be ill than to be well, or if a patient is lazily inclined and is content to take a holiday on sick pay—it may be half-wages—there is no inducement to get well; in fact, there may be an inducement to remain ill—to prolong the illness indefinitely.

In some of the cases included under this head the patient deliberately exaggerates or wilfully prolongs the illness; that, of course, is malingering—partial malingering, I call it. But in many cases the patient simply does not get well and does not return to work, because he has no powerful inducement to get well and to return to work; he goes on complaining for weeks, or it may be months, from symptoms. In many of these cases there is no deliberate intention on the patient's part to deceive; he is not malingering; he is a valetudinarian, not a malingerer.

We all know how very important the influence of hope is in enabling our patients to get well, and how a cheery doctor who expresses a confident opinion that his patients will get well, and who inspires them with hope, does get them well much quicker than another man who takes a gloomy view of things, who shakes his head, and who does not inspire them with hope and confidence.

Any mental anxiety, such as impending litigation, the prospects of the ordeal of a trial, of being examined and cross-examined in the witness-box, retards the patient's recovery. Every one who has had much experience in railway cases knows that these patients never get well, or very rarely indeed get well, until the case is settled, until the litigation is ended; and that they then often get well with remarkable rapidity.

Now, I do not for a moment suggest that all of these patients are wilfully exaggerating or malingering, many of them are perfectly genuine sufferers; they are merely bad cases of valetudinarianism.

Case IX.

One of the most striking cases of this sort which has come under my notice was that of a man, aged 50, whom I examined on behalf of a railway company, some two years after an accident, in which he had been slightly injured. He was suffering from the most marked symptoms of traumatic neurasthenia that I have ever seen; in addition, there were some symptoms, which time does not permit me to describe in detail, suggestive of organic disease. I pointed out in my report that it was a case in which the patient would probably get heavy damages. He claimed £7,000; he got £3,500. I am informed that this man returned to work a few weeks after the settlement, and that he has apparently been perfectly well and doing his work regularly ever since. Now I saw no reason to doubt that he was an honest man; I did not think he was malingering; I thought, and I still think, notwithstanding the result, that it was a bad case of valetudinarianism and not a case of malingering. At all events, the case shows the important influence which settling the claim, especially if there is a very considerable amount in the way of damages, has in getting the patient well.

I have seen many cases of the same kind in which the symptoms were the result of ordinary accidents and injuries—miners and others who have been injured, and who do not get well until the claim is settled; after which they usually, in my experience, rapidly get well.

Most of us who have had much experience in railway and other compensation cases will, I think, agree that in some cases the lawyers have a good deal to do in fostering these claims and in preventing a settlement. The following anecdote expresses this. There was a bad railway smash in which a few persons were killed, several injured, and many apparently totally unhurt. One of the passengers who was unhurt, while walking down to his office a few days afterwards, was met by a friend, who said, "I was sorry to see you were in that terrible accident; I hope you were not hurt?" The man shook his head, and said, "I don't know, I have not yet seen my lawyer." But the lawyers are not only to blame. I have heard of a medical man who made it his business to hunt up persons who had been in a railway accident, and to coach them up in manufacturing false or exaggerated claims.

The subject of valetudinarianism is one of very great difficulty and of very great importance. In many cases it is quite impossible to differentiate with accuracy and certainty, on purely medical grounds, partial malingering and valetudinarianism, and the other grounds on which one has to make a differential diagnosis are often insufficient to enable us to give a positive and dogmatic opinion. In many cases we suspect malingering, but it is only in rare cases that we are justified in positively stating that a patient is malingering. In many cases, too, it is difficult to say whether a patient is a valetudinarian or not.

In many cases—for example, slight and static valvular lesions of the heart, bronchitis with emphysema, pain and stiffness in the back the result of back injuries, sciatica, or neurasthenia—it is difficult or impossible to say *when* the patient is sufficiently well to return to work. The patient may say, "I am not sufficiently well to work; I still feel shortness of breath on exertion; I still cough and spit; I still feel my leg stiff and painful; I still feel nervous and weak."

Formerly (before the introduction of the Workmen's Compensation Act and the National Insurance Act) many of these patients, especially men with wives and families depending on them, would make an effort to return to work at the earliest possible date. Nowadays there is not the same inducement to get well and to start work, and cases drag on for weeks or months. I repeat that many of these patients are not malingerers; they are merely valetudinarians. These are the cases in which there is likely to be so much difficulty in the future.

The following case is an illustration of the way in which these cases drag on, as the result of valetudinarianism and want of effort on the part of the patients to get well and to help the doctor in getting them well:

Case X.

A. L., aged 20, was severely burned while at work on May 22nd, 1909. I examined her on April 13th, 1910, and advised that she should go into the Edinburgh Royal Infirmary for treatment; systematic exercises, injection of fibrolysin, and passive movements were employed, and she was discharged on June 22nd, very much better. I again saw her on September 26th, 1910; extensive cicatrices the result of the burn were present on both arms; those on the right arm did not interfere with its usefulness, those on the left arm and hand made the fingers somewhat rigid. The patient at this date claimed to be totally and permanently unfit for work; I reported that she was fit for light work, and if she only made an effort to use the left hand she would in the course of time be fit to do ordinary work. The patient received compensation at the rate of 10s. a week from the date of the accident—May 22nd, 1909—till November 13th, 1910. The case was then settled, £55 being given in a lump sum in addition to 10s. a week which she had received in the way of compensation.

In connexion with this part of the subject, the question arises whether a patient who refuses an operation which has been advised for the cure of his disease is entitled to go on receiving compensation for his illness. It is a difficult question for the insurance companies, for if they

were to insist upon an operation, and if the patient should happen to die as a result of that operation, they would obviously incur a very grave additional responsibility. The following is a case in point:

CASE XI.

A quarryman, aged 30, received an injury to the right elbow (a cut), the result of a fall in the quarry, on July 9th, 1908. The ulnar nerve had evidently been divided. There was weakness and wasting in the small muscles of the right hand, and some loss of sensation in the area of distribution of the right ulnar nerve. I saw him on February 4th, 1909, and advised that he should go into hospital for observation and treatment. The question of operation—cutting down on the divided nerve and suturing the two ends—presented itself. The patient refused operation. Improvement gradually occurred under medical treatment. The claim was ultimately settled on September 24th, 1909, the man receiving £27 10s. as damages.

There are, of course, cases in which the Workmen's Compensation Act and the National Insurance Act are godsends. Over and over again I have seen patients—say, with organic heart disease—decent hard-working men with wives and families dependent on them, insist on being discharged from hospital before they were fit to return to work, with the laudable object of supporting their dependants. Those are the cases which one desires to see insured—and well insured—well compensated and well looked after, medically and otherwise. I know of no sadder case than that of a man who insists on being discharged from hospital in order to support his wife and family, when one knows that the hard laborious work and strain to which he must subject himself will, in the course of a short time, be certain to result in another breakdown. These cases will still, I fear, be too frequently most inadequately provided for.

The cases of malingering which most frequently occur in physicians' practice are nervous cases; they are by far the most common and by far the most difficult cases. Purely surgical cases are, comparatively speaking, rare; the ophthalmic surgeon sees a large number of cases; the aurist a few cases; the dermatologist some cases. I have seen several cases in which skin lesions have been deliberately produced by young women, some, but not all, of whom were hysterics.

DIAGNOSIS.

The diagnosis of malingering is often extremely difficult; it has to be based partly on medical and partly on collateral evidence.

It is, of course, a more difficult thing to recognize that an article is adulterated than to recognize the genuine article. It is unnecessary to say that the success of the malingerer depends upon the exactitude with which he is able to represent the medical picture. I could feign many diseased conditions, such as an epileptic fit, an attack of angina pectoris or insanity, so perfectly as to defy detection. Fortunately for diagnosis, malingerers are very rarely skilled and experienced in the conditions which they attempt to represent; they usually overdo their part.

It is very difficult to feign organic disease; it is the functional conditions which are easily simulated. Consequently, the first thing in making a diagnosis in a case of suspected malingering is to make a careful medical examination and to exclude organic disease.

In nervous cases the differential diagnosis of organic and functional disease, unless one is specially skilled and experienced in nervous disease, is often very difficult. One sees this in private practice in cases in which there is no question of compensation and no suspicion of malingering. One sees cases in which experienced hospital physicians and surgeons differ with regard to these cases, in which one man says that there is, and another there is not, organic disease. Many cases of this kind have come under my notice. Let me give you two striking illustrations:

CASE XII.

A female, aged 21, single, a domestic servant, was admitted to the Edinburgh Royal Infirmary on November 10th, 1911, suffering from great difficulty in walking, due to shortening and contracture of the left leg. The history was that two years previously she had fallen down a flight of stairs and received an injury to the hip and back. For some weeks after the injury she went on working, but with great difficulty. She then was admitted to a large hospital; the surgeon under whom she was admitted diagnosed the condition as organic disease of the left hip-joint; she was discharged five weeks later, a heavy boot with a big sole and high heel being prescribed. For eighteen months she remained in the same condition, complaining of her hip and walking with great difficulty. She was then sent to see my son, Dr. Edwin Bramwell, by Dr. Garnett Wright, who with Dr. Edwin thought the condition was functional.

On examination it was found that the left leg was 3 in. shorter than the right; there was very marked twisting of the pelvis and great deformity. The condition appeared to me to be purely functional; but I thought it well to have a surgical opinion. I asked Professor Alexis Thomson to see the case; he was unable to do so until the beginning of December; until this date, therefore, nothing was done in the way of treatment. At Professor Thomson's suggestion two *x*-ray photographs were taken; the first seemed to show that the neck of the right femur was very decidedly shortened; this appearance, however, was fictitious, due to foreshortening in the photograph; the second photograph showed that the left hip was absolutely normal. Professor Thomson agreed that the case was purely functional, the shortening being due to a functional contracture.

On December 7th, 1911, the patient was placed under chloroform; the two legs were found to be the same length and have remained the same length ever since. The patient was told she was now perfectly well and would be able to walk in the course of a short time. A week later she was running up and down the long ward and was completely restored to health. She has remained well ever since.

CASE XIII.

A female, aged 19, single, was admitted to the Edinburgh Royal Infirmary on June 3rd, 1911, suffering from inability to open the mouth. Two and a half years previously a molar tooth on the left side was extracted under cocaine; the patient fainted when the cocaine was injected; half an hour later the jaw became rigidly closed and had so remained ever since. A month after the contracture developed a dentist opened the jaw and kept it open with a gag for a short time; a fortnight later she went into a large hospital under the care of a distinguished surgeon; the jaw was, she says, scraped and a gag was placed in her mouth to keep the jaw open; this treatment was ineffectual.

On examination, nothing abnormal except the rigid contracture of the jaw muscles, was found. The condition was diagnosed as a functional contracture. The patient was told that there was no organic disease and that we would speedily cure her. She was isolated behind screens, and was given hypodermic injections of H_2O. On June 14th she could open her mouth as wide as she had ever been able to open it. She has since remained quite well.

These are two remarkable cases. Had they come into court it cannot be doubted that both patients would have received heavy damages, and that laymen would have jeered at the difference of medical opinion. The point I wish to make is that these differences of opinion are constantly occurring in private practice, and that the differences of opinion which so frequently occur in courts of law are in many cases honest differences, and due to the difficulty in diagnosis which many of these cases present. Let me give a striking case in point—a case in which the late Sir William Banks, who all of us who knew him will agree was as honest and reliable and truthful as he was experienced, made a grave diagnostic mistake.

CASE XIV.

A man, aged 30, fell from the mast of a ship in January, 1902, and sustained a severe injury to the lower part of the back. He was awarded £1 a week as compensation. In April, 1904, my insurance company—the Scottish Union and National—applied at the Liverpool County Court for the review and diminution of this weekly payment. It was stated that unless the case were reviewed this man, aged 32, might go on drawing this compensation of £52 a year for the next forty years, and the sum of £2,000 which would thereby be involved was very substantial compensation for an accident, the compensation for which, had the man been killed outright, would have been only £300.

Professor Paul and Sir James Barr were called on behalf of the insurance company. They stated that, in their opinion, the man's bent condition and general crippled appearance were due to a mental delusion on his part, and not to any organic change.

Sir William Banks was called on behalf of the man, who appeared to be a perfect cripple, and could only walk with the assistance of crutches. Sir William Banks had no reason to think that his condition was due merely to a mental delusion on his part; he thought that he was suffering from a chronic inflammation of the bones and joints at the bottom part of the spine, and that they had become so fixed that they would not properly unbend. He was of opinion that, in all probability, the patient would never be again fit for the kind of work he had hitherto followed, but he might, in time, sufficiently recover to do some light work. He did not think the man was shamming. In July, 1910, the claim was settled for £600; £571 had been previously paid in compensation and costs.

The patient continued to go about on crutches until June 13th, 1911. He was then cured "like the shot of a gun," to use his own words, by bathing in the holy well at the shrine of

St. Winifride. For eight years he had been hobbling about on crutches; when he got out of the water he was able to walk back to the hospice, leaving his crutches in the crypt of the well.

He was seen by an inspector of the insurance company on August 12th, 1911; he then looked the picture of health, was upright, was walking at a quick pace, and was able to walk several miles a day driving sheep.

Now, if experts differ in this way, it is impossible to expect the ordinary general practitioner to come to a correct conclusion as to the nature of many of these most difficult cases.

Then there are diseased conditions, some of them very serious, which the most expert and experienced physician is unable to detect—such, for example, as small, deep-seated thoracic aneurysms (which even the x rays may not disclose), and disease of the coronary arteries, with severe angina pectoris. I have seen cases of this sort in which it was impossible to detect any definite evidence of organic disease in which the patients have died from the condition soon after my examination.

In those cases of suspected malingering in which there are symptoms or signs of organic disease—I am speaking more especially of cases said to be due to accident or injury—one has to make sure, as I have previously stated, that the organic lesion was actually due to the accident or injury, and that it was not present before the receipt of the injury. A careful inquiry into the previous history will usually enable us to determine this point. In cases of partial malingering it is often impossible to say how far the symptoms are genuine and due to the results of injury or to the organic disease which is present, and how far to malingering and wilful exaggeration on the part of the patient.

Certain things show that there is organic disease—such, for example, as localized muscular atrophy, the reaction of degeneration, paralysis of the sphincters, acute bedsores, the Babinski sign and ankle clonus (if perfectly typical and persistent, and not merely temporary and evanescent), complete loss of the knee-jerks on reinforcement, optic neuritis and optic atrophy, definite changes in the cerebro-spinal fluid, "skew-deviation" of the eyes. It must, however, be admitted that apparent exceptions to some of these statements are sometimes met with. Paralysis of the sphincters, for example, which is usually a very definite sign of organic disease, was said to have been present for six weeks in the case of the man who got £3,500 damages, to whose case I have already referred—that was one of the things in the case that we thought positively indicative of organic disease.

Let me here say a word or two with regard to the value of electrical tests in cases of paralysis. Some people seem to think that one can differentiate paralysis and malingering by means of electrical tests. That, of course, is not the case. It is hardly necessary to say that in many cases of permanent paralysis the paralysed muscles respond actively to the faradic current. At the last meeting of the British Medical Association there was a discussion on the Medical Training for the Detection of Malingering,[1] and the gentleman who introduced the discussion is reported to have said:

Other numerous examples of the many varieties of malingering could be given—for instance, cases in which joints, though freely flexible to passive are apparently rigidly fixed to voluntary movement, and cases in which muscles, though apparently paralysed, readily respond to the faradic current, are so common as not to be worthy of discussion in detail.

In other words, that statement implies that if a paralysed muscle contracts to the faradic current it is not paralysed. There must be some error in the report, for I cannot conceive that the gentleman who introduced that discussion could possibly have made such a statement. In a recently published book on malingering, equally erroneous statements as to the effect of electricity in cases of paralysis and of the value of electrical tests in the diagnosis of malingering are made.

Then, again, it is sometimes concluded because a stiff joint or a contractured limb relaxes under chloroform and the joint is normal that the case is one of malingering. I have seen many cases, and published some of them, in which rigid contractures, due to functional nervous causes, have lasted for weeks and months and years, in which the contractures have been relaxed under anaesthetics, and the condition has been rapidly and completely cured by appropriate treatment (a confident opinion that there was no organic disease and that the patient would rapidly get well, together with isolation, the electric current, and hypodermic injections of H_2O). Cases XII and XIII are striking illustrations.

Modern methods of research, such as electricity, the x rays, the perimeter, are often, I need hardly say, of very great use in the differential diagnosis of obscure cases, in differentiating functional and organic disease, and as an aid to the detection of malingering. The following is a case in point:

CASE XV.

A girl, aged 13, complained of blindness. She appeared to be in robust health. Ophthalmoscopic examination showed that the fundus was perfectly normal; there was no headache and no vomiting; with the exception of the impairment of vision, there were no symptoms. Careful examination with the perimeter showed the presence of a central scotoma. Dr. George Mackay, who kindly examined the patient, diagnosed a retrobulbar neuritis, an exceedingly rare thing in an apparently healthy young girl aged 13.

Corroborative non-medical evidence is the second class of evidence which one has to trust to. If a nervous case presents unusual symptoms which one cannot explain by a syphilitic or other apparent cause, one suspects malingering, more especially if the patient has anything to gain by deception.

In cases of this kind one has to lay traps to detect the deceit. I have the records of some railway cases in which the patients have been watched by detectives, the malingering proved, and the supposed patients convicted either of perjury or of trying to obtain money by false pretences (see Cases II and III).

One of the ordinary tests which one employs in cases of nervous disease is Romberg's test; it is not of great value, because inability to balance the body steadily in the erect position may be due to psychical causes or to weakness as well as to inco-ordination, and because it is so easily simulated. In employing Romberg's test in cases in which one has reason to suspect deceit I take care to see that the patient does not know what I am testing. I tell the patient, for example, that I am going to see whether he can hold out his hand steadily, and then, when his eyes are shut and his feet close together, bring the tip of his forefinger accurately in contact with the tip of his nose—the finger-nose test. I show him what I wish him to do. I see at once whether he has Rombergism or not. He thinks I am testing his ability to touch his nose, whereas I am testing his ability to stand steadily in the erect position with his feet close together and his eyes shut. That is an example of the sort of trap one sets; an experienced observer gets into the habit of using many dodges and traps in cases of this kind. Everything that the patient does and how he does it, both during the examination and when he does not think that he is being observed and examined, should, of course, be noted.

CASE XVI.

At the Glasgow meeting of the British Medical Association the late Professor Grainger Stewart showed a most remarkable case—an old woman who had an epileptic fit whenever she went into the dark. Professor Grainger Stewart took her to Glasgow in a first class carriage, and he told the meeting that she had a fit in each of the tunnels. The case attracted much attention. Shortly after the meeting I one day followed this patient into the surgical entrance of the hospital; she went down the stairs, immediately inside the entrance, into a very dark corner, struck a match, and lighted her pipe. She was very indignant when I asked her why she had not had a fit.

Now, from what I have said it will be apparent that there are many cases in which one suspects malingering, but there are few cases in which one can definitely certify that a patient is a malingerer. As pointed out in an article in the *Times* of November 7th, 1912, the panel doctor who certifies that a patient is malingering assumes a grave responsibility, and if he makes a mistaken diagnosis runs a great risk of a complaint being made against him, and of getting into grievous trouble and of having his name struck off the panel. In giving certificates one should be very careful in the wording of the certificates; except in very clear cases, one should avoid definitely stating that the patient is a malingerer; in doubtful cases one should say that, "So far as my examination, knowledge, and experience enable me to judge, the patient is fit to return to work," or, "So far as I am able

to detect, there is no organic disease and the patient is able to return to work." The doctor who is asked to certify whether a patient is malingering ought to be perfectly independent of the result.

Repeated examinations are often necessary in order to determine whether a patient is suffering from functional or organic disease, and whether he is malingering or not. The German plan of obliging these doubtful cases to go into hospital, in order that they may be under skilled observation and repeated examination, is a good one.

THE PREVENTION OF MALINGERING.

In order to prevent malingering under the National Insurance Act I would suggest:

1. *An exhaustive medical examination by the panel doctor.* The only sure means of detecting malingering is careful medical examination and careful medical observation by a competent doctor. In cases of prolonged sickness and in cases of repeated sickness the patient's fellow workmen no doubt often become suspicious, but the malingering may have gone on for weeks or months before that suspicion is aroused. In most cases malingering can only be detected in its earlier stages by the medical attendant.

2. *In doubtful cases consultation with a specialist.* The panel doctor must be protected, and the only way to protect him is by giving him the opportunity of calling in an expert to decide upon the nature of the case and to give a certificate. The consultant must be a specialist in the particular department of medicine or surgery which is concerned in the particular case; a physician, for example, who has no special knowledge of nervous disease cannot give a reliable opinion on a difficult nervous case; a surgeon cannot be expected to give a reliable opinion on a difficult eye case or ear case.

The expert should be perfectly independent of the result, and these experts should, of course, be properly paid.

In the *Times* (November 9th, 1912) Dr. F. C. Mears suggests that "in every case where the evidence of disability rests solely on the word of the insured person, he should be compelled by law, at the expiration of a fortnight's sick benefit, to appear before a quorum of not less than half the doctors on the panel of his district, and if the decision of this tribunal is final and without appeal, malingering will die out in a very short time." In my opinion, a quorum of half the doctors on the district panel would be very unwieldy. A committee of three would be surely sufficient. But why should all this additional gratuitous work be put upon the already underpaid panel doctors? Further, the panel doctors are not experts, and it is the opinion of experts which in difficult cases is required.

3. *Observation and repeated examination in hospital in doubtful cases.*

4. *A time limit to the purely functional cases and in cases in which there is no obvious organic disease.* In cases of neurasthenia, for example, the patient ought not to be allowed to go on drawing pay indefinitely. A certain time limit should be laid down. The patient should be told that there is no organic disease; that, medically speaking, he is quite fit to work; that unless he goes back to work on a certain day the money payment will cease. This plan would no doubt entail a real hardship in some genuine cases of functional disease, such as neurasthenia—and there are many such—but I am afraid this hardship must be faced.

It would be exceedingly difficult to lay down a time limit in cases in which there is organic disease—in a case of organic heart disease, for example, in which, as I have already pointed out, it is often exceedingly difficult to decide whether the patient is fit for work or not. But in cases in which there is no obvious organic disease I would certainly suggest that there ought to be a time limit.

In some countries the patient who claims sick benefit has to make a direct money contribution towards such sick benefit; if such direct contribution is sufficient in amount, it will, of course, stop much malingering and much valetudinarianism. Unfortunately, under the National Insurance Act no money contribution is required except the weekly payments which all insured persons have to make.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, August 3rd, 1912, p. 222.

REMARKS ON MALINGERING.

BEING AN INTRODUCTION TO A DISCUSSION OF THE SUBJECT AT A MEETING OF THE LEICESTER DIVISION.

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INTRODUCTION.

WE may regard malingering as a fraudulent attempt to obtain pecuniary benefit or exemption from work or duty on the plea of some assumed, misrepresented, or exaggerated disability, illness, or injury. There is no doubt that during the last few years malingering has increased among industrial workers. It was formerly chiefly prevalent in the army, the navy, and the pauper class. Apart from the pecuniary loss to employers of labour and to insurance societies, and the demoralizing effect of successful malingering on the person who makes the fraudulent claim, malingering injures society as a whole, because unjust claims tend to increase the amount of the premium demanded by insurance societies against the risk of accident and illness.

It is necessary to remember that a claim may be false without being fraudulent. It may be founded on a genuine although mistaken impression concerning the presence of certain symptoms and disabilities without any intention to obtain benefit by fraud. Everything depends on the motive. We must bear the motive in mind when considering the undoubted increase in the number of persons who, since the commencement of the Insurance Act, have consulted doctors on the panel for slight ailments which, under ordinary circumstances and before the commencement of the Act, would have been disregarded. That the motive underlying this increased request for medical advice is not in many cases fraudulent is shown by the fact that the majority of the patients seeking advice do not cease work or claim sickness benefit. The novelty of the situation created by the Act and the desire to ascertain whether medical benefit under the Act is bona fide has no doubt operated in some cases.

Moreover, this early seeking of medical advice has its beneficial side from the public health point of view. Experience in Leicester and other towns already shows that in some cases the detection of serious illness which would have otherwise escaped recognition has been brought about by this means.

THE PSYCHOLOGY OF THE INDIVIDUAL IN RELATION TO MALINGERING.

It is important to remember that the fraudulent misrepresentation of symptoms and disabilities which constitutes malingering shades off into a genuine but exaggerated idea of the importance of slight symptoms.

The attitude of mind which underlies malingering is not confined to the working classes.

Owing to a false notion of the status of public bodies, and to a false idea of what should be the normal relationship of the individual to the State, it has come about that individuals, in all classes of society, take up an attitude, in regard to claims against public authorities or the Government, different from that which they would think it right to adopt towards a fellow citizen. This desire to get all that can be got when entering a claim against an insurance office or a railway company is partly the result of a predatory habit of mind natural to some persons, and partly the outcome of an evolutionary struggle between individual and group interests, and partly, no doubt, to the reluctance of some companies to grant even legitimate claims except under compulsion.

Nevertheless, it is important to realize that deception in regard to the payment of income tax or the exaggeration of a claim for compensation against a public company or the Government, may be just as much a form of malingering and just as fraudulent as an attempt on the part of a workman to obtain compensation or to avoid work by the exaggeration of the symptoms of a disease, or the effects of an injury contracted during employment.

It is probable that the effect of recent legislation (for example, the Workmen's Compensation Act, 1906, and the National Insurance Act, 1911) will be to increase malingering in England as like legislation has already increased it in Germany and France. Thus Ewald[1] states that the

large number of nervous workmen in Germany in whom the thought of compensation has become a fixed idea is giving anxiety to German legislators, while M. A. Brissaud in France describes a new disease "Psychical Accident" as the result of the French accident law of 1898.

CHECKS.

In view of these facts it is very important to check this growing tendency to malingering and the exaggeration of disabilities by:

1. Making the presentment of fraudulent claims difficult and unsuccessful, and in some cases a punishable offence.
2. The formation of a more enlightened public opinion concerning the right relationship of the individual to the community, and the education of all classes of society in the duties and responsibilities of citizenship.

LEGAL INFLUENCES WHICH PROMOTE MALINGERING.

Every medical man who has had any experience of accident and disease in connexion with industrial life must have realized that what we may call the fraudulent or predatory attitude on the part of some claimants for compensation is frequently strengthened if not manufactured by interested societies and unscrupulous persons. A bona fide wish to put in a reasonable claim grows and develops under the stimulating influence of a speculative action at law into an overpowering desire to obtain a victory even at the expense of justice, and when the obtaining of a verdict means the aggrandisement of needy and unscrupulous persons the danger of injustice is very considerable.

Other factors of a medical kind also play a part. The chances of legal success in any complicated case are undoubtedly increased by the gaps which still exist in medical and surgical knowledge, and by the contrary inferences which are drawn and the different opinions which may honestly be formed by different medical men about the same medical facts, all of which differences may be magnified and distorted by opposing legal parties.

It is at any rate probable that out of the 48,565 claims for compensation in 1911 under the Workmen's Compensation Act, a larger proportion would have been settled out of court were it not for the influences of a legal kind which were brought to bear upon needy and, in some cases, not too honest claimants.

It seems probable, therefore, that there is a need for the genuine, as contrasted with the speculative, poor man's lawyer.

THE POSITION OF THE DOCTOR IN REGARD TO MALINGERING.

Apart from the guardianship of his own interests, the medical man is in a position of a public servant whose duty it is to protect society against fraud in his special field of work. In carrying out this duty the less the medical man is penalized or affected by considerations of self interest the better for the community.

Thus, in regard to this question of the detection and suppression of malingering, the doctor tends to be influenced by:

1. The risk of offending his patient and his patient's family.
2. The method by which he receives remuneration for his services—that is, whether by capitation fee or by payment for services rendered.

The first difficulty can be best overcome by the appointment of medical referees (not on the panel) under the Insurance Act, whose duty it should be to examine and report upon cases of unusually prolonged illness and doubtful claims for benefit.

It is true that the Medical Service Subcommittee, with its equal number of medical men and representatives of insured persons, and its independent chairman, affords some machinery for the hearing of complaints between doctors on the panel and insured persons; it is not probable, however, that this body will be much used, or will be of any great value in checking malingering, in which the problem is not only the detection of the confirmed malingerer, but the bringing of considerable numbers of insured persons into more reasonable mental attitudes about symptoms to which they attach undue importance, and in regard to claims for sickness, disablement, and other benefits to which they erroneously think they are entitled.

The problem is how to bring this salutary influence to bear in an early stage, and in an authoritative way, before any definite complaint has been formulated on either side. This can be done most efficiently and with least friction by the appointment of medical referees (as suggested by Sir John Collie).[2] If overlapping is to be avoided and an authoritative tribunal is to be secured, these referees must be appointed either by the whole of the approved societies conjointly in any district, or by the Insurance Committees in conjunction with the societies, or by the Commissioners.

The second difficulty can be met by the adoption of the method of payment per caput, though this has other disadvantages. It certainly tends to increase the work thrown upon hospitals.

Every social, municipal, and legislative forward movement which tends to promote the preventive and public health side, as opposed to the commercial side, of medical practice reacts beneficially on the public conscience; it helps to discountenance that peculiar mental attitude which tends to magnify individual disabilities, which seeks to obtain immediate relief of symptoms by short cuts and patent medicines, and which exaggerates the importance of individual claims.

One of the strongest arguments in favour of gradually building up a unified, State-controlled public medical service is, that such a national health system would relieve those upon whom the burden of providing funds for hospital and institutional treatment now falls, of the fear of the loss of annual subscriptions. But it would do more than this—it would raise the status of the practitioner of medicine, it would make him a member of the Civil Service and place his interests and his work on a firmer basis. He would be able to give advice and treatment with the single object of promoting in his patient a physiological way of life, and he would be unhampered by any anxiety about possible resentment on the part of the patient towards himself and his advice.

ADDITIONAL SAFEGUARDS AGAINST MALINGERING.

1. The periodical oversight of insured persons in receipt of sickness and disablement benefit by visitors appointed by approved societies. (The term "visitor" may possibly include medical visitors and thus possibly provide for the appointment of medical referees.) This, although provided for in the model rules issued by the Commissioners, is permissive, and has not been adopted by all societies.

2. The issue of rules by all societies providing for the compulsory medical examination—and, if necessary, re-examination—of all cases of unusually prolonged illness and in cases in which it appears probable to the officials of the society (or to the medical men on the panel or to the Insurance Committee) that unfair claims for benefit are being made. In this way the working of the Insurance Act would be brought into harmony with the provisions of the Workmen's Compensation Act, which provides in Section 14 for the compulsory examination and re-examination of persons claiming compensation.

3. Some system of registration showing in any case the total amount of sick pay and pecuniary benefit received, and the proportion which this bears to the average wages when at work. In regard to this point, however, it is necessary to recognize the undoubted right of every workman, like every other citizen, to obtain pecuniary benefit and exemption from toil by thrift—that is, to insure up to any extent that he may think desirable so long as it is clearly understood that this extra insurance does not carry any peculiar right to sickness or disablement benefit by the misrepresentation of some disability, or to obtain idleness by the misuse of public funds.

4. Another difficulty relates to the rigidity of the rule which in many cases forbids partial employment and insists on total disablement during the receipt of benefit. Any attempt to test recovery by a return to partial work entails the loss of the right to further compensation or benefit. Benefit and compensation, in fact, do not, like illness, reach a maximum and gradually decline; they begin suddenly and end suddenly. Hence the reluctance on the part of the workman and his legal adviser, and in

some cases his medical adviser, to declare off the funds. No doubt the administrative difficulties in the way of granting partial sick benefit and allowing partial disablement under the Insurance Act are very great, but here also the appointment of medical referees with discretionary powers, subject to revision on appeal in certain cases, might possibly provide a partial solution of the difficulty.

5. Finally, much depends on the attitude of medical men themselves, and the extent to which they realize that the interests of the doctors on the panel in any area are corporate interests, and that if one practitioner is over-lenient and careless in the matter of prescribing and signing certificates, all his colleagues will be affected, not only by the extra drain on the funds available for medical benefit, but also by the false standard which is thereby set up in regard to demands by insured persons on the time and attention of other medical men.

Reference.
[1] *Traumatic Neuroses and the Accident Law.* [2] *Malingering.*

A PLEA FOR MEDICAL REFEREES VERSUS INSPECTORS.

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The following suggestions are based upon considerable experience of the practical working of the Workmen's Compensation Act, and are made with a view to minimizing abuse of the sickness and disablement benefit clauses of the National Health Act.

The attitude of the profession with regard to suggested "inspectors" under the Act is hostile, but judging from interviews I have had with medical friends who are working the Insurance Act I believe the profession would welcome the appointment of medical referees under the Act, whose duty it would be to assist the medical men on the panel to put down malingering, and thus to safeguard the funds available for sickness benefit.

I believe that in a short time from their appointment the assistance of such officials, whose functions I am about to suggest, would be largely in requisition in doubtful and difficult cases, provided it is made abundantly evident from the beginning that they are appointed not to report on the conduct of the medical men, but on the conduct of the assured, and that their *raison d'être* is solely to assist the medical men who are working the Act in dealing with cases of suspected malingering.

The approved societies might fairly be expected to pay towards the remuneration of these officers either an annual sum, or so much per consultation, and would find—as has already been found in Germany—the saving much greater than the cost.

The difficulty of deciding whether a patient is incapable of work is a very real one. It arises in two classes of cases:

1. Those who consider themselves incapable of work, but are in fact able to do it.
2. Those who are capable of work, know it, and yet are determined to remain on the sick list as long as they dare.

In practice it will be found that the funds of the approved societies will be depleted from both these sources, and probably to a much greater extent by the former.

The first class is the more difficult to deal with. Its size is scarcely yet appreciated by the friendly societies or by those who are responsible for the administration of the Act. It embraces many who are often erroneously called "malingerers"; it includes a large proportion of those who are known in the law courts as "traumatic neurasthenics," and not a few of those known in the out-patient departments of hospitals as suffering from "functional nerve disease." It embraces a great number of complaining people who have no special temptation to remain in idleness, and who, until the passing of the Act, were in receipt of no special sick benefits. It is certain that there will be a considerable increase of unnecessary medical attendance if these people are allowed indefinitely to take advantage of the sick benefits under the Act.

Experience of a small selected group of employees in the public service showed that strict supervision reduced the total number of those whose illnesses lasted more than twenty-eight days by 50 per cent.

In men the condition is usually associated with an obscure want of mental balance and an apparent loss of courage and feeling of manliness. I fear it will be found in even greater proportion amongst the female operatives who come under the benefits of the Act.

Generally speaking, medical practitioners treat these complaining folk sympathetically, and assume their genuineness, and, even when doubts arise, accept and treat them as cases of chronic illness. Yet the majority are curable. If they are not treated energetically at an *early* stage they tend to become chronic, and a proportion lapse into true malingerers. This class is peculiarly responsive to its environment and are very reflective of the mental attitude and personality of their medical attendant. I feel assured that medical referees, if appointed, would have a vast influence for good in a multitude of these cases which are bound to be exceedingly troublesome to doctors on the panel and very costly to the committees unless properly dealt with. The medical referee's influence, however, will entirely depend upon whether he works in co-operation with the doctor on the panel.

A single consultation will be found, as a rule, not sufficient. Patients of this type do not give up the fetish of ill health at the single bidding of any one. Two, three, or even more visits with the doctor in attendance may have to be made before the assured is successfully led out of his morbid mentality.

Subjective sensations in those predisposed to introspection have a peculiarly demoralizing effect on many of the working classes. Unless at an early stage in their history these unfortunate people are led out of themselves long periods of time are wasted in supposed helplessness, which, apart from the economic aspect of the loss of their labour, must have a debilitating effect upon the character not only of those concerned but of their associates.

The subjoined table is extracted from the 62 cases of functional disease which I recently sent to the Maida Vale Hospital for Nervous Diseases. All were settling down to chronic invalidism, and had they not been isolated from their sympathetic friends and environment, would have been pensioners for life. The cases represent a class which, unless it is recognized and grappled with, will entail an enormous amount of unnecessary medical attention, and will be a fruitful source of annoyance and irritation to hard-worked practitioners.

With regard to the second class—those who are capable of work, know it, and yet are determined to remain on the sick list as long as they dare: Out of 14 million insured persons, the aggregate number of malingerers is likely to be considerable.

The question is one of diagnosis. The natural antipathy that every practitioner has to accuse of fraud those who have trusted him will, at first at any rate, tend to influence the number of those who complain unnecessarily. Medical men as a rule are not on the outlook for simulation of disease. They are accustomed day by day to treat people who are genuinely ill, most of whom they have for years had good reason to trust, and often it is not until the case becomes wearisome and the fraud is irresistible that the idea of malingering is forced on the busy practitioner. When diagnosed, the question resolves itself not so much into a matter of treatment as a battle of wits. Under these circumstances most medical men will dislike the position in which they will find themselves. If, therefore, friendly societies, local committees, or the Government require this sort of work done, then special assistance should be put at the disposal of the practitioner, and medical referees, whose primary duty it is to look after the business part of the contract, should be appointed.

Experience teaches that a considerable proportion of insured persons who, after receiving compensation for accidents under the Workmen's Compensation Act, have been forced back to work either by the arbitration courts or threats of arbitration proceedings, will, after a few days' half-hearted work, again put themselves on the sick list. It is to be feared that in these cases, where

Occupation.	Nature of Illness.	Days of Disablement prior to Entering Hospital.	Days in Hospital.	Result of Hospital Treatment.
A. A., clerk	Neurasthenia; obsession of diabetes	163	58	Returned to work after fortnight in country.
A. B., seaman	Alleged injury to back	302	51	Resumed work.
A. C., surveyor ...	Neurasthenia complicated with alcohol	56	26	Returned to work.
A. D., carman	Typical traumatic neurasthenia; gave himself up to introspection	434	45	Resumed work.
A. E., stevedore ...	Alleged traumatic neurasthenia	6 years 8 months	42	Satisfied nothing the matter; discharged from hospital; weekly payments stopped; county court proceedings; judge and medical assessor decided fit for work.
A. F., seaman	Functional neurosis; back kept at almost right angle	612	45	Resumed work as a seaman.
A. G., tram driver ...	Treated for myelitis for 13 weeks, full pay most of time; ordered to hospital, where he had fits, blackening his face to give them realistic effect	426	70	Interview in hospital; plain speaking; walked to my house, distant 1 mile, the next day; resumed work within a week.
A. H., engine driver...	7 years previously off work whole year with strained back; now having been off work 9 months with back again said to be strained, was sent to me for examination with a view to superannuation; sent to hospital for observation	9 months	11	Told he would be reported as a malingerer and lose pension if he did not immediately resume work; left hospital next day, resumed light work, six weeks later resumed full work, and has been at it the last five and a half years.

compensation has been stopped, further attempts will freely be made to claim sick benefit under the National Health Act, by the simple process of attempting to give the alleged disability a medical instead of a surgical nomenclature. For instance, a workman who has had a not very serious injury, but who has suffered from concussion at the time of the accident and has been much shaken, eventually recovers; his wounds heal, and he has all the physical appearance of health; but he is still somewhat nervous, has lost the work habit, is introspective, and refuses even to attempt work of any kind. By threats of, or it may be by actual legal process, the employer shakes off his liability, and the workman, at last aroused to his responsibilities, obtains temporary light work for a few days. This under the circumstances is naturally distasteful. He is full of complaints, but has none of the usual stigmata of disease; he insists he is weak, declares he simply cannot work; his illness is now called "neurasthenia," "general debility," or, what is much more likely, he exalts some *symptom* such as neuralgia, indigestion, etc., is successful in getting a medical certificate of unfitness, and becomes a more or less chronic patient, and wastes the time of many a hard-worked practitioner for months, it may be for years.

Those accustomed to dealing with illegitimate prolongation of disabilities following accident will appreciate how, under certain circumstances, much ingenuity is likely to be spent in trying to persuade medical men to transfer an alleged illness from the category of *accident* to *disease*, and thus become a pensioner on the National Insurance Fund.

If such a scheme as I indicate were to work successfully, the advice of such experts as I advocate will not require to be forced on, but will be actually welcomed and applied for by the doctor in attendance.

I believe the appointment of medical referees cannot be long delayed. Assuming that the notice of a suspected case reaches a medical referee not from the doctor in attendance, but from either the Insurance Commissioners, the Insurance Committee, or an approved society, his first and invariable duty would be to put himself in communication with the doctor in attendance. If this is not done antagonism would at once be aroused, and very rightly a spirit of opposition fostered which would be fatal to the success of the scheme.

One difficulty likely to arise will be where large approved societies employ their own medical referee, who sees assured persons not at their own houses, but either at the society offices or at his own consulting room, and where a considerable number of cases are daily submitted to the medical officer, under some such rule as that adopted by the London County Council and the Metropolitan Water Board, whereby every such case is certified by the chief medical officer every twenty-eighth day. Under these circumstances it would be impracticable to ask or expect the practitioner in attendance to meet the medical referee. Yet this difficulty can be got over; the doctor in attendance in every instance would be communicated with prior to the medical referee seeing the case, and a clear statement made in writing that his patient is being interviewed solely for the purpose of the medical referee reporting progress to the Commissioners, the Insurance Committee, or the approved society, that no opinion will be expressed to the patient, and no suggestion of treatment will be made to the patient.

In the event of difficult points arising it should be the duty of the medical referee to call upon the doctor in attendance and discuss the matter.

With regard to the question of the selection of the medical referees. The personal qualities of sound judgement, absolute integrity, and fearless independence are of infinitely more value than academic distinction. Nor do I think that mature age is necessarily a qualification which should have undue influence in the selection of men to fill these posts—given the qualities above referred to, many comparatively young men are often well suited for work of this sort.

The difficulties are: That approved societies would probably be unwilling to pay sufficient remuneration to command the best men; that they might be found to be lacking in sufficient judgement to make a proper selection; and that local influences and prejudices might lead to the selection of members of the profession known to members of the elective body, but who are not the best candidates. The professional status of the medical referee is a matter of much moment, and he should, in my opinion, have the status and emoluments of a Government servant.

If it were decided to appoint whole-time officers, and these were made responsible to the Insurance Commissioners, some arrangement might be made whereby they were assigned wide areas, which would in many ways tend to maintain their independence. Small boards of referees would, with little difficulty, be constituted for difficult cases in large centres.

A difficulty which the Government is sure to have, and one with which a staff of trained medical referees could best grapple, is the question of "incapacity for work" as opposed to the suggestion—so often made—that because a man cannot work *at his work* therefore he is unfit for any work.

Further, the medical referee would be particularly useful in cases of disablement benefit. I think probably there is much reason to fear that a large number of frauds and semi-frauds will be perpetrated in this connexion. I speak from experience, for of the first 80 cases presented to me for examination when I acted as chief medical officer to a society, 40 returned to duty forthwith at my instigation, many of whom had been drawing sick pay for long periods.

Many pensioners could be saved entering upon chronic

invalidism if treated firmly at an early stage, but when weekly payments have been made for periods extending over months it will be considered an "injustice" to withdraw it: it will, therefore, be necessary at a very early stage to have these cases visited and reported upon, preferably by independent medical men. For this purpose a medical referee visiting staff would be particularly useful.

The practical experience of the working of the Asylum Officers' Superannuation Act, 1909, is of assistance in this connexion. It will be remembered that Clause 3 (subsection 1) of this Act provides for the re-examination of pensioners at intervals of a year. As medical officer appointed under the Act for the County of London, I can well appreciate the difficulty a medical man is in when asked to revise at intervals the advisability or otherwise of continuing a pension in which the pensioner considers he has a vested interest, merely because so many antecedent weekly or monthly payments have been made.

For these and other reasons which the exigencies of time and space prevent my setting out in further detail I have formed the opinion that medical referees should be appointed. Their coming is inevitable. Their advent will be welcomed. The sooner they are arranged for the better for those members of the profession who are about to wrestle with difficulties which I know well, for the special nature of my work compels me to encounter them daily.

STUDIES ON BERI-BERI.

FURTHER FACTS CONCERNING THE CHEMISTRY OF THE VITAMINE-FRACTION FROM YEAST.

By CASIMIR FUNK,

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[WITH SPECIAL PLATE.]

At the end of 1911[1] I described a method for the isolation of the vitamine-fraction from rice polishings. At this time only a single substance was detected, which was studied to some extent in its chemical properties and curative power. Early in 1912[2] I was able to show that the same method might be successfully used for the isolation of the vitamine-fraction from other foodstuffs, namely, milk, yeast, brain, and lime juice. Even at this time it was noticed that the isolated pure substance of the melting point 233° had a slightly diminished curative power as compared with the crude product. As a second substance at that time could not be isolated, there was no explanation of this fact available. Since then I have been able to show[3] that a number of purin and pyrimidin derivatives possess a slight curative effect—a very interesting fact, which, however, did not simplify the problem.

It was therefore conceivable that besides the substance of the melting point 233°, small quantities of other substances might be present in this fraction, the physiological effect of which therefore would be the resultant of the individual actions of these constituents.

A fractionation of the yeast extract was therefore carried out on a large scale and the results of this are shortly summarized in this preliminary communication.

The alcoholic extract of 100 kg. dried yeast was prepared, following the method already described in my earlier papers. The fractionation itself was carried out without any change of methods and only the silver and baryta fraction which represents the vitamine-fraction was carefully investigated. The total amount of substances obtained in this fraction from 100 kg. of dried yeast was 2.5 grams. This initial product was crystalline and melted at 210° (uncorrected).

A number of pigeons were treated with this product. Polyneuritis was induced in them by artificial feeding with an exclusive diet of polished rice. After a time, varying from ten to twenty-one days, they developed the characteristic symptoms of avian polyneuritis, as they are represented in the figures 1, 3, and 5. By a series of controls it was found[4] that the animals in this condition live rarely longer than six to twelve hours, twenty-four hours being perhaps the utmost limit. The product mentioned above was injected into the pectoral muscle in quantities varying from 4 to 8 mg. and in each case a complete recovery was obtained (Figs. 2, 4, 6). Before and after treatment the animals were kept on an unchanged diet of polished rice. In spite of that they lived after the recovery for four to six days without any symptoms of neuritis. As the food did not secure a new supply of vitamine, the birds developed neuritis again after the injected substance was apparently used up for metabolic processes. In one of these cases after a new supply of substance a second cure was effected.

CASE I.—Severe symptoms of polyneuritis; 4 mg. of the above-mentioned product were injected into the pectoral muscle. Three hours later a great improvement; next day a complete recovery; four days later shows again symptoms, and dies.

CASE II.—Severe symptoms (Fig. 1);* 8 mg. injected. Two hours later a complete recovery (Fig. 2); was able to fly away, and had to be photographed, therefore, in a cage; relapsed after six days, and was again cured by a new injection of the product.

CASE III.—Severe symptoms (Fig. 3); injected 4 mg. Recovery after three hours (Fig. 4); lived for four days.

CASE IV.—Polyneuritis (Fig. 5); injected 8 mg. After three hours a complete recovery (Fig. 6), which lasted for four days.

We see from these experiments that the initial vitamine-fraction possesses the undiminished curative power of the original yeast extract. As in some cases the change of diet alone (an addition of maize, for instance) is capable of improving very markedly the condition of the sick birds, the fact that an unchanged diet of polished rice was kept throughout the experiment cannot be too much emphasized.

By a further fractionation I was able to separate the crude fraction into at least three substances, each of which has been carefully purified (recrystallization till constant melting point) and analysed. The original product (2.5 grams) yielded the following substances:

Substance I.—1.6 grams, melting at 229° (corrected); needles and prisms nearly insoluble in cold water. When mixed with the substance previously obtained from yeast[2] it does not show any depression of melting point; the substances might therefore be regarded as identical.

Substance II.—0.4 gram, very soluble in cold water, and gives a difficultly soluble picrate. The substance melts at 235° (uncorrected).

Substance III.—0.3 gram, more soluble in water than the first substance; melts at 222° (uncorrected).

These observations have an interesting parallel with the case of pituitary extract, as recently recorded by Führer,[4] where also in the first instance a crystalline fraction was isolated, which showed the whole physiological action of the gland, but on further fractionation was found to consist of not less than four different substances. Each of these had a specific action, but the effect of the original product could only be obtained by the collective action of all the four substances. It will be interesting to see whether the same is the case with the vitamine-fraction, or whether a single substance plays a preponderating part in the process of cure.

For therapeutic purposes, therefore, the best results may at present be expected by a parenteral administration of the whole vitamine-fraction, especially in acute cases which have proceeded too far to be influenced by a change of diet—in such cases, for example, as have been described by Strong and Crowell[5] and Schüffner.[6] This fraction which is suggested to be employed contains the active constituents unimpaired of the original starting material, and is free from any harmful substances.

REFERENCES.

[1] Casimir Funk: *Trans. of the Soc. of Trop. Med. and Hyg.*, v, 86, 1911; *Journ. of Physiol.*, xliii, 395, 1911.

[2] Casimir Funk: *Journ. of Physiol.*, xlv, 75, 1912; BRITISH MEDICAL JOURNAL, 1912, p. 787.

[3] Casimir Funk: *Journ. of Physiol.*, xlv, 489, 1912.

[4] Führer: *Deut. med. Woch.*, March, 1913, p. 491.

[5] Strong and Crowell: *Philipp. Journ. of Sc.*, August, 1912.

[6] Schüffner: *Muench. med. Woch.*, 1913, p. 642.

* The photographs have been kindly made for me by Dr. A. B. Macallum, jun., to whom I would like here to express my thanks.

CASIMIR FUNK: BERI-BERI (POLYNEURITIS) IN PIGEONS.



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.



Fig. 6.

ALIMENTARY TOXAEMIA.

Papers Read at the Adjourned Discussion at the Royal Society of Medicine.

CUTANEOUS INDICATIONS OF ALIMENTARY TOXAEMIA.

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From the days when we were house-physicians, the occurrence of alimentary toxaemia, as the term is understood in this discussion, must have been familiar. Many of us may recollect the occasion when we were called to the casualty department late on a Saturday evening and found awaiting our services a vigorous looking young man, whose features were scarcely recognizable on account of an outburst of severe urticaria. We found on inquiry that his week-end dissipations had been stimulated by a diet of stout and winkles, and our judgement as to the cause of the urticaria was supported when we found that the best treatment in such cases was the administration of an emetic, followed by a copious black draught. No doubt remained in our minds that the urticaria was due to alimentary toxaemia, caused by poisons absorbed from his alimentary tract.

In such a case as this the relation in time between the disturbance of the alimentary tract and the visible indication of disease is so close that their causal relationship is admitted by all. But in the case of most other indications of intestinal and visceral disturbance the relationship between the probable cause and its manifestation cannot be so easily traced. Even with the knowledge now at our disposal as to the nature of the poisons derived from various fermentative processes, the chain between cause and effect cannot be distinctly demonstrated; mathematical methods of proof are not applicable, so that all we have to offer in support of our beliefs are the conclusions drawn from individual or collective clinical experience. Nevertheless, little doubt is left in the mind of the clinician that causal relationships do exist, and it may be well to point out at this time some of the more obvious external signs of disease of the alimentary tract.

The poisons capable of producing toxaemia resulting in these manifestations of disease seem to come from two sources: first, those contained in the food itself or arising from the food by the action of ferments in the alimentary tract—these ferments may be those normally produced by the various accessory glands or may have some abnormal origin owing to disease or other causes; secondly, those resulting from fermentative or putrefactive processes due to the action of organisms which may be normal denizens of the alimentary tract or interlopers. Most of the external manifestations seem to be more easily traceable to the first group of poisons rather than to the second, though this may very possibly be due to the fact that the noxious consequences of the action of many of these organisms, such as bacteria, are more difficult to appreciate and to trace to their original source.

The outward manifestations group themselves easily in four main categories:

1. Those resulting from disturbances of the blood vessels which disappear leaving no permanent trace. In this category may be grouped the varieties of urticaria, evanescent or of long duration, the types of erythema, including exudative and vesicating forms.

2. Morbid conditions in which an inflammatory lesion progresses to actual infiltration of the integuments with cellular elements and terminating in persisting deformity such as dilatation of blood vessels, atrophy, persistent dermatitis, ulceration, and scarring.

3. Purpura in its different forms—punctate, diffuse, and often associated with other haemorrhagic manifestations.

4. Pigmentation due to increase or abnormal distribution of pigments closely related to those of the normal type, such as melanin, or in other cases to pigments more recently derived from haemoglobin and due to haemolysis resulting from the circulating intestinal toxins.

Group I.

Of the first group, the various forms of simple or acute urticaria are by far the most common. The relationship between the ingestion of an unusual article of food such as shellfish or certain fruits, with the consequent outburst of urticaria, is so close as to leave no reasonable doubt that the poisonous material is contained in the ingested substance, or is very easily elaborated from it by the digestive ferments. A little more difficulty is felt when dealing with other varieties of the disease, such as the recurring type of urticaria, in which the lesions are usually not so severe or extensive as in the acute single attack, or the chronic variety, in which the lesions are usually diffusely scattered, though not large individually and leave indurated lesions, giving rise to the term "papular urticaria." These papules not infrequently develop long-standing pigmentation, and may even resemble the rare condition known as "urticaria pigmentosa," of which the exact morbid relationships are still unknown.

In reference to the causation of these less common types of urticaria, the connexion between ingested poisons and the production of the lesion is not so easily traceable, but information gathered from clinical investigation strongly indicates the existence of the connecting chain. For instance, in one case it may be discovered that some individual article of food little suspected to be the cause has by a process of elimination been at length excluded from the dietary. As soon as the sufferer denies himself this treasured delicacy, the troublesome and long-standing urticaria disappears. Also, although the treatment of the chronic and papular varieties of the disease is by no means satisfactory, and often very disappointing in its results, the largest amount of success follows treatment by careful selection of the diet—sometimes by restriction of proteins, at other time by refraining from carbohydrates, accompanied by treatment adapted to keep the alimentary canal in a healthy state.

The relation between the various forms of erythema and alimentary toxaemia is more obscure. That such a relation does exist is borne out by the clinical experience of the causation of some of the simpler forms of erythematous eruption.

Take, for example, the simpler types of non-exudative erythema. It is well known that such outbreaks are apt to occur after the disturbance of the lower bowel and its contents by the administration of injections, or as a consequence of lavage of the rectum and colon. The cause in this case is not likely to be due to absorption of the fluid used for purposes of washing out the bowel, but to substances pre-existing in the alimentary tract, or rapidly formed in consequence of the interference with its contents. The material absorbed into the body producing attacks of erythema in cases such as these may, with some degree of likelihood, be ascribed to the effects of bacterial decomposition. No doubt, at any rate, exists in our minds as to the causal relationship of the erythema and the administration of the injection. It is reasonable, therefore, to suspect that other conditions of the large intestine, such as those produced by disease of the mucous membrane, may manifest themselves by erythematous eruptions on the surface, and as a matter of observation simple erythematous eruptions are by no means infrequent in the course of the various forms of inflammation of the bowel. These outbreaks are very apt to be purpuric.

The types of erythema exudativum in which, in addition to dilatation of the capillaries, escape of the contents of the vessels occurs into the tissues—either the blood serum or the blood cells—are by far less common than the simple erythemas. We are less likely, therefore, to observe the association between eruptions of erythema exudativum and affections of the alimentary tract, but that the relationship does exist in many cases is more than probable. The close connexion between outbreaks of exudative erythema and diseases of internal organs has frequently been noted and emphasized by various writers, and the toxaemia producing these attacks may arise with greater probability from the alimentary canal than from other viscera. Instructive examples are quoted by Osler and other observers.

The general impression given by clinical observation of this group of external manifestations is that the urticarial type is more frequently produced by the direct absorption of noxious ingesta or as a consequence of the more simple

chemical changes in foods occurring in the upper portion of the alimentary tract from the action of the natural alimentary ferments; while eruptions of erythematous nature more frequently arise from affections of the intestines, especially the large intestine, in which the terminal processes of digestion take place, the poisonous materials involved being of a more subtle character, or perhaps due to the results of fermentations produced by bacteria or other organisms. The purpuric types of erythema seem especially to indicate that the changes occur in the colon or large intestine.

GROUP II.

The external lesions which we have been considering are those due to vascular phenomena, which leave no permanent trace behind. Closely allied to these lesions are certain others in which, in addition to the erythematous condition, tissue changes occur. Of these the criterion is the appearance of new cellular elements—neither red blood cells nor white blood cells, but newly formed cells, characteristic of various types of inflammatory infiltration. When these new cells are observed destructive tissue changes must occur in some degree, though it may be very slight, and as a result we may observe erythematous lesions with the same symmetrical disposition as some of the others we have discussed, but which do not vanish, leaving as their result atrophic, or even ulcerating, destruction of the surface. The type of this morbid state is the disease usually known as lupus erythematosus—a condition closely resembling in its distribution erythema multiforme, but terminating in some degree of destruction or atrophy. The etiology of this mysterious affection is by no means well understood, but its connexions with visceral disturbances should never be overlooked. A good deal of attention has been drawn to its peculiar relationship with certain forms of disease of the kidney. In other cases a poison arising from the alimentary tract may be suspected of being the cause. A characteristic example is as follows:

A woman of about 35 years of age came under observation with an acute outburst of lupus erythematosus affecting symmetrically not only the face but also the extremities and the trunk, accompanied by fever and much constitutional disturbance, resembling, therefore, the well-known type of the disease sometimes called "exanthematic lupus erythematosus." The duration of this case was about three years. The investigation into the possible causes of the disease were at first unfruitful, but soon it was noted that the patient was gradually developing the signs and symptoms of cirrhosis of the liver. It was not, however, till well on in the course of her malady that it became known that the patient, who in all other respects was exemplary in her social behaviour, secretly indulged in alcohol to an excessive degree.

Such cases occurring in the course of medical experience naturally give rise to the belief, and indicate with a good deal of certainty, that certain forms of alimentary toxaemia may result not only in such conditions as hepatic cirrhosis or fibrosis of the kidneys, but also in the outward and visible sign of a chronic inflammatory erythema, ending in induration or atrophy of the skin. In this relationship notice should be taken of numerous cases in which permanent dilatation of blood vessels results in the production of the different clinical types of telangiectases or even of angiomata. A good deal of attention has recently been given to the different forms of these permanent vascular lesions. Some of them seem to occur almost certainly as the result of circulating poisons affecting the blood vessels mainly. They are frequently seen in cases in which cirrhosis of the liver and kidneys have followed toxaemia arising in the first instance from the alimentary canal.

GROUP III.

The probability of alimentary toxaemia being the cause of certain cases of purpura has long been recognized clinically, for the connexion between the outburst of purpura and the disturbance of the alimentary canal is sometimes so close that it gives as clear evidence of their relationship as the outburst of urticaria following the eating of some unusual article of food. This relationship is well seen in some of the cases producing the type of the disease known as Henoch's purpura. Many purpuric lesions arise no doubt by a peculiar development or simply by intensification of the conditions already noted producing erythema. They form, however, on account of their aspect so characteristic a group that they claim special attention.

One of the most remarkable conditions in which the connexion between poisoning from the alimentary tract and the outburst of purpura is shown is in certain stages of hepatic cirrhosis. In these cases of cirrhosis, sometimes at an early period of the disease, a patient is attacked by a violent outbreak of purpura, the lesions occurring throughout the body affecting large areas and showing profuse extravasation of blood. These outbreaks are often associated with internal haemorrhages most commonly from the lower part of the bowel. Such attacks of purpura seem to occur in the early stages of obstruction to the portal circulation caused by the contracting of the newly formed connective tissue in the liver. As a result the portal blood containing the crude materials absorbed in the alimentary canal is forced to seek collateral channels to regain the general systemic circulation. Much of it returns directly by means of the vena cava, thus closely reproducing the conditions established by the well-known porta-caval fistula of Eck. The blood returning by these newly formed channels of circulation carries with it the products of intestinal digestion, or possibly abnormal noxious substances due to the impaired action of the alimentary canal. Under normal conditions the liver is the organ in which these materials are further elaborated, thereby being rendered innocuous, or are destroyed, but in the unusual conditions produced by portal obstruction the tissues, the blood vessels, and the blood itself are poisoned for the time being. It is under these circumstances that certain exceedingly violent attacks of purpura arise, and they strongly suggest the causation indicated. It is not surprising to find that haemorrhages from the bowel are associated with these purpuric outbreaks. New channels are being discovered by the returning blood, such as those uniting the superior and inferior haemorrhoidal vessels and the radicles of the internal iliac vein; extravasation is likely to occur under these circumstances from the dilated blood vessels quite apart from the noxious effects produced on the tissues by the abnormal constituents of the blood. In such a case the attack of purpura may be the first indication drawing attention to the visceral and intestinal disease. Complete recovery of the haemorrhagic symptoms may occur, the patient being even able to resume his usual work in life. The cirrhosis of the liver, of course, remains, or gradually progresses, but the gland apparently resumes its functions as the purifying organ of the portal blood to a sufficient extent to protect the body, or the tissues of the body succeed in protecting themselves in some other way against the action of the poisoned blood. It is likely that the poisonous materials producing these changes in the tissues and in the blood are the results of the ordinary digestive processes or the simpler forms of chemical decomposition rather than of bacterial fermentations.

Another variety of purpura presents small haemorrhagic areas of petechial or punctiform lesions. The relationship between this condition and alimentary toxaemia is very distinctly shown in the variety of disease to which the name of "Henoch's purpura" has been given. An instructive example occurred in the case of a young girl, who presented herself for treatment two or three years in succession with attacks of intestinal pain, melaena, haematuria, and numerous purpuric lesions. On every occasion the attack followed an autumn visit to the country, and the eating of unusual foods, such as berries and nuts.

The same type of purpura is very familiar in association with chronic inflammatory conditions of the colon, such as the varieties of colitis and dysentery. The attacks are especially prone to appear when other evidences of toxaemia or septicaemia become prominent.

There are grounds for associating the type of purpura characterized by large areas of cutaneous haemorrhage with absorption of poisons from the upper part of the alimentary tract. These poisons may arise from infected food materials or may be produced by the normal, or only slightly abnormal, processes of intestinal digestion. The petechial and punctiform types of purpura, on the other hand, appear to occur as the result of the terminal

digestive changes or abnormal fermentative processes occurring in the lower reaches of the bowel, possibly influenced by the micro-organisms present in the alimentary tract. This is the type of purpura most often seen in cases of severe septicaemia which seem to be traceable to the pyogenic inflammations of the mouth, gums, or naso-pharynx.

Group IV.

A fourth group of the visible manifestations of alimentary toxaemia includes the abnormalities of pigmentation. The unhealthy, dusky discoloration of the skin occurring in various forms of indigestion is a matter of ordinary observation. Much attention has been drawn in the course of this discussion to the discoloration occurring in the cases of disease to which the name of "intestinal stasis" has been applied. It is difficult to be quite sure of the exact nature of this pigmentation. It is partly due, no doubt, to disturbances of the circulation, producing unusual conditions of opacity or translucency of the skin, but in other cases, no doubt, it is due to a definite increase in the amount of the pigments, identical with, or nearly related to, the normal skin pigment. The cases, however, which are most striking are those in which the pigmentation is due to unusual or abnormal pigments.

The first to which reference should be made is the peculiar yellow tint, probably resulting from severe haemolysis, followed by liberation of haemoglobin in the blood serum, and the formation of pigments, of which urobilin is one. This haemolytic, or "urobilin jaundice," as it is sometimes called, is well seen in the severer forms of anaemia, many of which are associated with septic disorders of the alimentary tract: the poisoning in these cases, giving rise, as one of its consequences, to abnormal haemolysis, is probably of bacterial origin. It is very usual to find these haemolytic changes associated with obvious purpuric lesions.

The most striking of all the varieties of abnormal pigmentation is seen in the cases to which the name of "haemochromatosis" is given. The pigment in this condition is not so close a blood derivative as is urobilin, and probably more than one variety of pigment may be present. Of these a pigment still containing iron has been identified with some certainty, to which the name of "haemosiderin" has been given, while another pigment free of iron is known as "haemofuscin." The staining and discoloration of the tissues resulting from the formation and disposition of such pigments is often of a most remarkable character. In some cases it is of a pronounced slate-black colour, while in others the tint is a full mahogany brown. There can be no doubt also that the depth of the pigmentation may vary from time to time in the same case. The relationship between some of these cases of haemochromatosis with poisoning arising from the alimentary tract is very close. Cases are on record in which inflammatory conditions involving the abdomen and interfering with the action of the intestine have coincided with the development of the slate-black pigmentation already mentioned. The discoloration may show itself on the surface of the body in a degree which can scarcely be imagined unless the opportunity has arisen of seeing such a case. In one such case recovery from disease affecting the intestine following operation was accompanied by the gradual disappearance of discoloration of the most intense character. This patient was well, in vigorous occupation and health, several years after treatment.

On the other hand, the type of disease associated with enlargement of the spleen, progressive loss of health, with severe anaemia and frequently with repeated discharges of blood from the bowel, and in which cirrhosis of the liver occurs as a terminal feature, shows pigmentation of the red-brown tint. In a case presenting these features the pigmentation of the surface was of a pronounced mahogany-red colour.

In this category may also be included the cases of discoloration due to alterations in the haemoglobin to which the names of "methaemoglobinaemia" and "sulphaemoglobinaemia" have been applied.

In many of these abnormal pigmentations the relationship to alimentary toxaemia is a close one—probably that of cause and effect.

CHRONIC INTESTINAL STASIS.

BY

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As my contribution to this discussion I propose to examine the evidence on which a diagnosis of toxaemia due to chronic intestinal stasis can be made. It might be gathered from what some clinicians have said that it is possible to make a diagnosis from the symptoms alone. If, for example, we could accept the statement that chronic intestinal stasis is "a necessary antecedent factor" in the development of all forms of tuberculous disease, the discovery of tubercle bacilli in the sputum would logically lead to a diagnosis of chronic intestinal stasis. Few, however, will agree with a statement for which so little evidence has been brought forward. Even the symptoms, which are by common consent regarded as characteristic of chronic intestinal stasis, are by no means pathognomonic. The worst case I have ever seen of intestinal toxaemia, in which the classical symptoms of extreme emaciation, extensive pigmentation, evil-smelling sweat, and cold extremities were present, was due not to chronic intestinal stasis but to chronic diarrhoea, the result of some intestinal infection, contracted by a lady whilst big game hunting in West Africa.

It is not at all uncommon to be told by a patient, who is in the habit of taking large quantities of aperients for constipation, that the lassitude, headache, and abdominal discomfort from which he suffers are better if he forgets to take his aperient and his bowels are not opened. His symptoms appear to be due to the absorption of poisons from the abnormally fluid faeces in his colon, and are therefore a result of the diarrhoea produced by his aperient, and not a result of his constipation. It is important before examining such cases with the *x* rays that the patient should not take any aperient for some days. When this has been done, I have often been able to demonstrate the complete absence of intestinal stasis, although many of the patients were contemplating some operation for relief of their supposed constipation. The bismuth reached the rectum in the normal time, but the patients had become so convinced that their bowels would not act without help that they made no attempt to open them, as they did not feel the violent desire which resulted from the use of their aperients. When it was explained to them what the *x* rays had shown, and also that a finger inserted into the rectum proved that it was full of faeces only waiting to be expelled, they were persuaded to try to open their bowels, and succeeded in doing so. A gentleman, 38 years old, whom I saw in April, 1910, was convinced in this way, and he has had his bowels opened regularly ever since without treatment of any sort, although up to that time he was taking an enormous quantity of aperients, and was sent to see me for an opinion as to whether the colectomy which had been advised ought to be performed.

It is well known that the frequency of the stools gives no certain evidence as to the existence of intestinal stasis. Thus a condition analogous to retention of urine with overflow may occur in the bowel, the patient being exceedingly constipated, but passing numerous small stools every day. On the other hand, in the condition aptly described as "greedy colon" by Sir James Goodhart, the patient may only open his bowels once every three or four days, and yet be perfectly healthy; in such cases I have found with the *x* rays that the passage through the bowels is generally normal in rate, but the quantity of faeces formed is so small that several days may be required for sufficient to collect in the pelvic colon to give rise on entering the rectum to the call to defaecation.

By giving some charcoal with breakfast one morning, and watching for its appearance in the stools, the total time taken in its passage through the alimentary canal can be ascertained; but this method gives no indication as to the part of the bowel in which stasis occurs.

We are therefore driven to the conclusion that the only reliable means of determining whether a patient is suffering from chronic intestinal stasis and of ascertaining

exactly what parts of the alimentary canal are at fault is a series of examinations with the *x* rays. It is, however, first necessary to determine whether large doses of bismuth salts interfere with the normal activity of the bowel, for it has rightly been pointed out that they are among the best drugs for combating certain forms of diarrhoea. In order to test this point Mr. F. Cook and Mr. E. G. Schlesinger at my suggestion took charcoal on a number of occasions at different hours in the day, their bowels being regularly opened in the morning at about 9 a.m. By this means they found the shortest time required for the charcoal to appear in their faeces. On repeating their investigations with 2 oz. of bismuth oxychloride added to the charcoal they found that the time was unaltered. I have since been able to confirm these experiments in a number of constipated individuals. I believe that bismuth salts only influence those cases of diarrhoea in which excess of sulphuretted hydrogen has developed as a result of abnormal putrefaction; this gas is a powerful stimulant to the intestinal movements, but is rendered inert by combining with bismuth. In common with many others, I now use barium sulphate instead of bismuth oxychloride, as it does not combine with sulphuretted hydrogen, and under no conditions affects the motility of the stomach or intestines; it is equally non-poisonous, the shadow it throws is as dense as that of bismuth salts, and its cost is only one-twentieth.

In some unpublished investigations Dr. Rippmann and I found that the weight of the bismuth or barium mixed with the food produces a very slight degree of distortion of the stomach, which is greatly increased in cases of atonic dilatation; it also tends to drag the caecum and the end of the ileum downwards. It is therefore clear that the smaller the dose used the more accurate will be the results obtained by means of the *x* rays. Except in very fat individuals, 2 oz. of bismuth oxychloride or barium sulphate are ample for all practical purposes; the use of 6 oz. trebles the error.

Valuable as the *x* rays are in the investigation of the motor functions of the alimentary canal, they have led to many erroneous diagnoses, owing to a want of appreciation as to what constitutes the normal. In a recent discussion at another society cases were related by various speakers, in which a diagnosis of intestinal stasis was made, although the details given of the time at which different parts of the bowel were reached fell well within the normal limits. Thus one speaker concluded that the presence of bismuth between the hepatic flexure and the iliac colon thirteen hours after the meal in one of his cases suggested some mechanical difficulty in the left iliac fossa. It would be rare to find less evidence of "stasis" in a normal individual.

The first examination of a case of intestinal stasis by means of the *x* rays was made by me in 1907 after my fellow-workers and I had examined a considerable number of normal individuals. The figures which we published of the average time taken for bismuth to reach different parts of the bowel in normal individuals have since been regarded as the standard, and any case in which delay, when compared with this standard, has been observed, has too often been diagnosed as an example of intestinal stasis. The error of this is obvious when it is remembered that our figures represented the average of considerably divergent times, and more extended experience has convinced me that the normal limits are even wider than we originally supposed. Thus in fifty-eight normal individuals examined by Alan Newton seven hours after a bismuth meal, the furthest point reached by the bismuth was the caecum in four, the ascending colon or hepatic flexure in twelve, the transverse colon or splenic flexure in thirty-one, the descending or pelvic colon in eleven. Though the average furthest point is in the transverse colon, corresponding to what we described in 1907, it would clearly be incorrect to say that stasis was present in an individual in whom the bismuth had not reached beyond the hepatic flexure after seven hours.

Gastric Stasis.

A meal consisting of half a pint of porridge or bread and milk mixed with two ounces of bismuth oxychloride or barium sulphate is completely evacuated by the stomach in about four hours. If, therefore, any bismuth is still seen in the stomach six hours later, gastric stasis is certainly present. It is obvious that this rule only holds good if nothing is eaten or drunk between the bismuth meal and the last examination. Supposing, for example, the bismuth meal is eaten at 10 a.m. and lunch is taken at 1 p.m., the latter becomes thoroughly mixed with the small quantity of bismuth and food which is normally still present in the stomach. Instead of all the bismuth being evacuated by 2 p.m., some will still be present two or three hours later, when it will again be mixed with the food if tea is now taken. At 6 p.m., therefore, eight hours after the bismuth meal, a small shadow may still be seen, as I have found by actual experience in normal individuals, and if dinner is taken between 7 p.m. and 8 p.m. the last trace of bismuth will not be evacuated until midnight or later. I have repeatedly seen a diagnosis of gastric stasis made because a shadow was still present in the stomach six or more hours after a bismuth meal, although this was perfectly normal, as more food had been given in the interval, and a subsequent examination, in which this source of error was avoided, showed that the stomach emptied itself in the normal time.

The nearer a bismuth meal approaches a normal meal in taste and consistence, the more reliable will be the results obtained. For this reason the bismuth or barium salt should be mixed with bread and milk or well-made sweetened porridge, instead of with water and lactose, as the latter makes a most unpleasant mess, the nastiness of which inhibits the normal gastric movements and secretion. An example of this has been recorded by Dr. Ironside Bruce. More recently I found some bismuth still present in the stomach twelve hours after a lady had taken a mixture of this sort, which had made her feel extremely nauseated. The next day she took an equal quantity of the same salt of bismuth in porridge, which she liked, and every trace of it disappeared from the stomach within six hours.

When the precautions described are taken, it is found that no connexion of any sort exists between gastric and intestinal stasis. In organic pyloric stenosis, which always gives rise to gastric stasis, the chyme, which passes through the pylorus abnormally slowly, often traverses the intestines at the normal rate. The constipation, which is almost invariably present, is due solely to the small quantity of faeces formed owing to the deficiency of chyme reaching the intestine; too little faeces therefore reach the pelvic colon to give rise on entering the rectum to a daily call to defaecation. This view is confirmed by the fact that gastro-enterostomy at once relieves the constipation by allowing an adequate quantity of faeces to form.

Conclusion.—When precautions are taken to prevent errors in diagnosis, it is found that intestinal stasis never leads to gastric stasis.

The Duodenum in Intestinal Stasis.

Under normal conditions the bulbus duodeni or proximal portion of the first part of the duodenum is more or less constantly visible during gastric digestion. Peristalsis only occurs in it to a very limited extent, the chyme which has come to it from the stomach remaining in it sufficiently long for neutralization to occur by its admixture with the alkaline duodenal secretion, pancreatic juice, and bile. The pyloric sphincter then relaxes again, and the entry of a further quantity of chyme causes that already present to overflow into the distal portion of the first part of the duodenum, from which it is immediately conveyed by a rapid peristaltic wave. As the bismuth-containing chyme is greatly diluted in the bulbus duodeni by the digestive secretions, its shadow is less dense and defined as it passes through the rest of the duodenum, and its bulk is never sufficient to unfold and fill completely any part of it after the bulbus duodeni has been left. It generally stops for a short time somewhere in the distal part of the duodenum before being conveyed with equal rapidity into the jejunum. As it passes along the small intestine by frequent very rapid peristaltic waves, which carry it a few inches at a time, it becomes more and more difficult to recognize with the *x* rays, owing to the subdivision it undergoes at each stopping place as a result of segmentation, and to its admixture with further quantities of intestinal juice; finally it is completely lost to sight

until the chyme begins to collect in the last few inches of the ileum.

When the stomach empties itself with unusual rapidity, as it does in cases of duodenal ulcer and less frequently in certain other conditions, the duodenum at any given moment contains more chyme and bismuth than under normal circumstances; consequently, the whole duodenum, which in healthy individuals is never more than half full, even when the stomach is emptying itself most rapidly, becomes filled by the bismuth-containing chyme in its passage to the jejunum. Careful observation shows that there is no stasis; the bismuth passes rapidly into the jejunum, being replaced in the duodenum by a further quantity from the stomach. Owing to an error in the interpretation of the *x*-ray appearance, it has been thought that the duodenum was dilated in such cases, whereas it really is of normal size, but contains more chyme than usual, and therefore gives a denser and wider show. The so-called writhing of the duodenum, which has been described as occurring in cases of supposed intestinal stasis as a result of a duodenal kink, is nothing else than the normal peristalsis and segmentation rendered more clearly visible than usual by the great quantity of bismuth-containing chyme present. This "writhing" of the duodenum was recently demonstrated to me in the case of a woman suffering from gastric symptoms; a few days later Mr. Steward operated and found an organic hour-glass constriction of the stomach, but the duodenum was completely free from obstruction and dilatation. As the evacuation of the stomach is always accelerated by lying down on the right side, the duodenum is filled more rapidly, and may therefore be seen more readily, if the patient assumes this position before turning on his back for the examination. The skiagrams which have been published as examples of the dilated duodenum, which is stated to give rise to duodenal ulcer and to be due to obstruction by a duodenal kink, represent, I believe, a duodenum of normal size, which is exceptionally full as a result of posture, as we are told that before the skiagram is taken "it is necessary for the patient to lie on his right side for two or three minutes," whilst in cases of duodenal ulcer the rapid evacuation of the stomach is an additional factor. Moreover, the skiagram is taken in the horizontal position, although those who believe in the frequent occurrence of duodenal kinks state that they are only produced in the erect position and disappear on lying down. In over fifty cases of uncomplicated duodenal ulcer I have never yet seen a dilated duodenum or a duodenal kink, and it is a characteristic feature of the condition that the stomach is hypertonic and empties itself with unusual rapidity, the bismuth passing through the small intestine and reaching the colon with remarkable speed. These observations are in complete agreement with those of Dr. Barclay of Manchester, Mr. Rowden, who has investigated all of Sir Berkeley Moynihan's more recent cases at Leeds, Dr. Kreuzfuchs of Vienna, and many others, none of whom have ever seen the kink or dilatation, the radiographic evidence for which depends upon the unconfirmed investigations of a single observer.

The constipation, which is generally present in cases of duodenal ulcer, is not the cause of the ulceration, as in many cases it only develops after the symptoms of ulcer have appeared, and it almost invariably disappears as soon as the ulcer heals, whether as a result of medical treatment or of the performance of a gastro-enterostomy.

Conclusion.—Intestinal stasis does not lead to duodenal kinking, dilatation, or ulceration, and duodenal ulcers are associated with an unusually rapid passage of chyme out of the stomach and through the whole of the small intestine.

Iliac Kinks, Iliac Stasis, and the Ileo-caecal Sphincter.

In 1903 Keith demonstrated the existence of a strong ileo-caecal sphincter in man. It was thought by many that its function was to prevent the regurgitation of faeces from the caecum into the ileum when anti-peristaltic waves passed down the ascending colon. *X*-ray investigations have, however, shown that anti-peristalsis does not occur in man under normal conditions; moreover, the ileo-caecal sphincter does not prevent regurgitation into the ileum, as, in common with other observers, I have seen a bismuth suspension pass into the ileum when run into the colon through the rectum at as low a pressure as one foot of water. There can be no doubt that the function of the sphincter is, as Keith originally suggested, to prevent the contents of the ileum passing too rapidly into the caecum. Some recent observations made with Mr. Alan Newton of Melbourne have confirmed and amplified my earlier investigations on this subject. We have found that the bismuth-containing chyme reaches the end of the ileum an hour, or even longer, before any appreciable quantity passes into the caecum, and that the ileum is often still full four, five, or even more hours after the last traces of bismuth have left the stomach. Consequently an accumulation of chyme occurs in the last few inches of the ileum, where it remains and undergoes digestion actually for a longer period than in the stomach. During the whole of this period active segmentation, but very little peristalsis, can be seen. It is clear, therefore, that the function of the ileo-caecal sphincter is to prevent the passage of the contents of the ileum into the caecum until sufficient time has elapsed for digestion and absorption of foodstuffs to be complete, as the chyme which reaches the caecum contains only traces of nutrient material in solution. Iliac stasis is thus a normal physiological condition of the utmost importance for adequate digestion.

The ileo-caecal sphincter begins to relax at infrequent intervals some time after the arrival of chyme in the end of the ileum, but only when another meal is taken does peristalsis occur at all actively in the extreme end of the ileum in addition to segmentation; the sphincter apparently relaxes as each peristaltic wave reaches it, a great part of the contents of the end of the ileum being rapidly squirted into the caecum. In spite of this, if ordinary meals are taken after a bismuth meal, so that some bismuth remains in the stomach (in the manner already described) until the evening, the shadow at the end of the ileum may be visible in normal individuals until late at night.

The normal iliac stasis is increased in all conditions leading to spasm or to the inhibition of the normal relaxation of the ileo-caecal sphincter. In acute appendicitis, for example, the sounds which normally indicate the squirting of the contents of the ileum into the gas-containing caecum cease completely, owing probably to spasm of the sphincter, which Elliott has shown occurs in animals when the splanchnic nerve is stimulated or the neighbouring peritoneum is irritated. In chronic appendicitis similar but less marked delay often occurs. One of the most marked cases of iliac stasis I have ever seen was in such a case. Six hours after the bismuth meal the stomach was empty, but no bismuth was present in the caecum, all of it having collected in the end of the ileum, though in the average normal individual the shadow by this time would have reached the hepatic flexure. The last few inches of the ileum could be clearly defined, as they were distended with chyme. Palpation under the screen showed that there were no adhesions, the whole of the ileum being freely movable. Twenty-four hours later some bismuth was still present in the last inch and a half of the ileum and a little in the caecum and ascending colon, all the rest having passed to the rectum, from which some bismuth-containing faeces had just been evacuated. It was clear, therefore, that the only stasis in this patient's alimentary canal was in the end of the ileum. Mr. Rowlands operated and removed a diseased appendix, but found that the ileum was perfectly normal and was free from adhesions. The ileo-caecal junction was not abnormally narrow, so that it was clear that the stasis could have been due to nothing else than inhibition of relaxation or spasm of the ileo-caecal sphincter.

The end of the ileum, as it rises from the pelvis to join the caecum, bends in various directions; as the shadow on the screen is in one plane only, it is natural that it often appears as if it formed one or more acute angles or kinks; it is obvious, therefore, that no conclusion of any sort can be made from skiagrams alone as to the presence or absence of kinks. By palpating the abdomen during the examination it is easy to demonstrate that most of these "kinks" are only apparent. Sometimes the ileum appears

to be fixed where it crosses the pelvic brim, but by manipulation the whole loop can be raised out of the pelvis, and the apparent adhesions and kink disappear. Recently I saw what appeared to be a typical iliac kink, the ileum being fixed where it passed over the brim of the pelvis; no amount of manipulation had any effect upon it, but on inflating the bowel in carrying out Bastedo's test for appendicitis the distended pelvic colon lifted the last part of the ileum completely out of the pelvis, and palpation now showed that there were no adhesions and no kinks. I suggest, therefore, that before a diagnosis of an iliac kink be made with the *x* rays the colon should be inflated, if palpation has failed to separate the apparent adhesion.

Although there can, of course, be no doubt that abnormal bands may occur in connexion with the terminal portion of the ileum, even though their existence cannot be demonstrated with the *x* rays, I do not feel at all convinced that they are of any importance, except in quite exceptional cases, in which clear evidence of antecedent attacks of appendicitis can almost invariably be obtained. The obstruction offered by a genuine iliac kink is hardly ever as great as that normally offered by the ileo-caecal sphincter three inches farther on. Thus in the skiagrams published to illustrate the iliac kink the lumen is not even always narrowed. When it is narrowed, there is nothing to show that the narrowing does not represent a division produced by the segmentation, which normally occurs with great activity in the end of the ileum. Nothing short of almost complete stenosis could lead to stasis of any importance, as the contents of the ileum are always so fluid that they can pass through a very narrow passage without difficulty. A true iliac kink, if it ever really leads to iliac stasis, probably does not do so directly, but indirectly by inhibiting the relaxation of the ileo-caecal sphincter, just as gastric adhesions may upset the pyloric mechanism.

It has been suggested that iliac adhesions ought to be surgically treated at the same time as an operation is performed for a duodenal ulcer, for gall stones, and for appendicitis. But in my experience the removal of the gall stones and drainage of the gall bladder almost invariably leads to such complete and permanent relief of symptoms that any further operation done at the same time could not improve the results. In the same way gastro-enterostomy completely cures a duodenal ulcer in a considerable proportion of cases, and if the appendix is at the same time removed the chances of recurrence are exceedingly small. I can hardly imagine that the results would be any better if iliac kinks were also dealt with, and there can be no doubt that the division of bands and membranes in such cases may lead to peritonitis, as Mr. Lane pointed out in his opening address, for I have myself performed the *post-mortem* examination on a patient with duodenal ulcer, in whom death had resulted from post-operative infection in the right iliac fossa, when adhesions in this neighbourhood had been divided in addition to performing gastro-enterostomy. Again, the removal of the appendix in acute appendicitis, if it is done sufficiently early, is rarely followed by any symptoms which could be ascribed to iliac kinks. It is true that the removal of the appendix in the later stages of acute appendicitis and in chronic appendicitis is not infrequently followed by pain in the right iliac fossa and sometimes by other abdominal symptoms; but I have also seen this occur when an iliac kink had been simultaneously dealt with.

Conclusion.—Iliac stasis is a normal phenomenon and results from the action of the ileo-caecal sphincter. Iliac kinks are comparatively rare, and do not directly increase the normal iliac stasis. The normal iliac stasis may be increased by spasm or absence of relaxation of the ileo-caecal sphincter, as a result of disease in the neighbourhood of the caecum, including perhaps iliac kinks.

Kinks at the Hepatic and Splenic Flexures, Ptosis of the Colon, and Colonic Stasis.

In normal individuals examined with the *x* rays the hepatic and splenic flexures almost invariably appear to be acutely kinked. This, again, is the result of the shadow being cast in a single plane, as the limbs of the flexures belonging to the transverse colon are in front of those of the ascending and descending colon respectively, and therefore the flexures appear to be acute, although they form a wide angle when looked at from the side. It is almost always possible to determine when adhesions are present between the limbs of the hepatic and splenic flexures by seeing whether they can be separated by palpation during the *x*-ray examination. In my experience it is very uncommon to find that they cannot be separated sufficiently to make it obvious that no great mechanical hindrance to the passage of the faeces can be present.

A pelvic caecum and a dropped transverse colon are often referred to as if they were invariably associated with constipation. I believe, however, that in a large majority of cases they are quite independent conditions. I have certainly seen a pelvic caecum just as frequently in strong healthy individuals with perfect digestion and no constipation as in constipated patients. Moreover, I have never been able to convince myself, when a pelvic caecum was associated with constipation, that there was any causal relationship between the two conditions, as in the majority of cases dyschezia without delay in the caecum or in any other part of the colon was present. Ptosis of the transverse colon never leads to kinking at the hepatic flexure, which invariably drops with it, but a very movable right kidney may produce obstruction in such cases. A definite sharp kink is occasionally produced at the splenic flexure, as the phreno-colic ligament is stronger than any other of the intestinal attachments. In one case, to which I shall again refer, the kink was so marked that a short-circuiting operation was required, and the transverse colon, which was situated low down in the true pelvis, was anastomosed with the pelvic colon, with which it was already in contact. When constipation is associated with visceroptosis, the former is generally due to dyschezia, which results from inefficient defaecation owing to weakness of the abdominal and pelvic muscles, this weakness being also the cause of the visceroptosis.

Most cases of constipation are more or less cumulative, the bowels never being completely evacuated, so that more and more faeces are retained. In dyschezia, for example, the rectum is never emptied, and an accumulation of hard faeces forms successively in the pelvic colon, descending colon, and even the transverse colon. If, therefore, a bismuth meal is taken without first thoroughly evacuating the bowels, the bismuth travels with more or less ease as far as the beginning of the faecal accumulation, beyond which it passes with extreme slowness, corresponding with the rate of excretion of the most distal part. If, however, the colon is first thoroughly evacuated by means of enemata, it is found in such cases that the bismuth often reaches the rectum in the normal time but owing to difficulty in defaecation it is retained there. It is only possible to distinguish such cases of dyschezia from true colonic constipation, in which delay occurs in the colon itself, by emptying the bowels completely by enemata before the examination begins. Numerous mistakes in diagnosis have resulted from neglect of this precaution.

My investigations, both with the *x* rays and by other means, have led me to realize that in a large majority of instances only part of the colon is affected in constipation. Thus, in nearly half of the severe cases I have seen in consultation the rectum, or less commonly the pelvic colon, was affected alone, the condition which I have called dyschezia being present; this can generally be treated with success by re-educating the patient to defaecate by regular habits, exercises for the abdominal and pelvic muscles, and graduated enemata. In other cases the caecum and ascending colon are alone affected; as soon as the bismuth gets into the transverse colon its passage to the rectum is normal in rate. Such cases can generally be relieved by diet and drugs, with the aid of massage applied regularly for a prolonged period to the affected part. I have not myself seen a case in which I thought an operation was indicated, but if all medical treatment failed, it seems to me that an anastomosis between the ileum and the transverse colon, with or without the removal of the caecum and ascending colon, as successfully performed by Wilms and de Quervain, would be more rational and less dangerous treatment than ileo-sigmoidostomy combined with complete colectomy. In another group of cases the passage as far as the splenic flexure is normal in rate, but considerable difficulty is experienced in getting beyond this point. This is sometimes due, as I have already

pointed out, to severe ptosis of the transverse colon, the splenic flexure remaining fixed, and sometimes to unexplained muscular weakness of the distal part of the transverse colon. If such cases are examined by means of a barium enema it is generally found that the fluid run in from the rectum passes without difficulty into the transverse colon; moderately large enemata without the aid of drugs or other treatment, with the exception of an abdominal support if ptosis is present, are then often successful. In two of my cases, however, all medical treatment failed to give relief, and Mr. F. J. Steward effected an anastomosis between the lowest part of the transverse colon and the pelvic colon in one instance, and between the two limbs of the splenic flexure in the other, with satisfactory results.

The comparatively rare cases in which the whole of the bowel is involved are generally amenable to treatment by diet, massage, and drugs. I have up to now only seen a single case, out of the very large number I have examined with the *x* rays, in which the whole of the colon was involved and in which, in spite of every form of medical treatment I could devise, the patient became steadily more and more poisoned and suffered from more and more pain. Mr. Arbuthnot Lane was good enough to operate on this case for me in December, 1911, and the relief, which was almost instantaneous, has proved permanent and complete. I am therefore convinced that when the whole of the colon is involved, and when thorough and prolonged medical treatment has proved completely ineffective, the operation of ileo-sigmoidostomy is the only rational treatment.

Conclusion.—Ptosis of the intestines does not lead to stasis, except in rare instances at the splenic flexure, a pelvic caecum and a pelvic transverse colon being compatible with perfect health and normal intestinal action. In most cases of constipation a single part of the bowel, such as the rectum, pelvic colon, ascending colon, or splenic flexure, is alone involved, and treatment should therefore be directed to the affected part only. In those cases in which the whole of the colon is involved medical treatment almost invariably succeeds, but when it does not, ileo-sigmoidostomy, with or without colectomy, is indicated.

THE BACTERIOLOGICAL EVIDENCE OF INTESTINAL INTOXICATION.

BY

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My interest in the question of alimentary toxaemia is naturally confined to the bacteriological and biochemical evidence which has been advanced by the school of Metchnikoff in support of their master's thesis. That thesis, as has frequently been explained in previous contributions to this discussion, asserts that the poisons elaborated by the micro-organisms of the intestinal tract, and particularly those harboured by the large intestine, are the most potent factors in the production of a long array of symptom-complexes loosely grouped under the term "autointoxication," and further, that these same poisons are the essential causes of the sclerotic changes in the organs which accompany old age. The thesis, as you can understand, is, therefore, a perfectly straightforward one, and one which ought to admit of both observational and experimental bacteriological proof. In the absence of proof capable of satisfying the bacteriological critic the thesis must remain little more than a fascinating hypothesis. It will be my purpose, therefore, to discuss as briefly and succinctly as the time at my disposal permits the main bacteriological evidence which Metchnikoff and his pupils have brought forward during the past four years in support of the theory of intestinal intoxication. This evidence has been sought for in the following types of research:

1. An investigation of the flora of the large intestine or of the faeces, with a view to the classification and identification of the various bacterial groups and their biochemical properties.

2. Experiments on the toxic action of filtrates of special groups of these micro-organisms in animals.

3. Analogous experiments with substances of definite chemical composition, especially indol.

4. Alteration in the intestinal flora as the result of food changes, constipation, and operations undertaken for the removal of the large intestine.

In connexion with the first of these lines of research the main work has been done by Metchnikoff himself and his pupils, especially Distaso, who have built on the earlier work of Tissier, and I would here point out that French authors are too prone to the assertion that our knowledge of the intestinal flora has been in the main the outcome of French work. Such, of course, is by no means the case. In fact, the chief contributions to our knowledge of the coliform group have come from workers in this country and in America. It is, however, to the anaërobic flora particularly that Metchnikoff and his pupils have directed their attention, as it is these proteolytic anaërobes which they specially incriminate as playing the chief rôle in what they call "intestinal putrefaction." It would be out of place to enter into a description of these various anaërobes, as I am convinced that the question of the classification and identification of these groups is far from settled, and there are probably far more names than bacteria to correspond.

It is doubtful if much that is new on this subject has emerged from recent French work. The chief putrefactive organisms whose cultural and biochemical properties have been studied in connexion with intestinal putrefaction have been *B. perfringens*, *B. sporogenes*, and *B. putrificus*, but it cannot be said that we have yet accurate methods of differentiating anaërobes. One must also mention the acidophile or acetogenic organisms which by the French observers are regarded as highly beneficent organisms by virtue of the inhibitory effect exercised by their acid products on the growth and activity of the putrefactive types.

Of these acetogenic organisms which have the property of producing acid from lactose and of being able to grow in acid media the most important perhaps is the *B. bifidus* of Tissier. This author found that this organism is the chief representative of the flora of the breast-fed child, a statement which more recent work has confirmed. It may be noted that *B. bifidus* is a strict anaërobe, and is Gram-positive.

A very similar organism to which attention has been paid is the *B. acidophilus* of Moro. As the child passes on to more varied food there is a gradual change in the flora from the purely fermentative type represented by the acid formers above mentioned to a combined flora of the fermentative and putrefactive type, using the term "putrefactive" in the sense of ability to break down nitrogenous constituents to the stage of peptones and proteoses and mono and diamino acids. Further katabolism of these cleavage products is effected mainly by the representatives of the *coli* group, many of which have the power of producing indol from tryptophane, and some of producing phenol from tyrosin.

Now it is seen that in the adult normal human flora the Gram-positive acetogenic organisms, represented by *B. bifidus*, are rare, and never predominate as in the young child. The predominant group is that of the *B. coli*, and in addition there are the representatives of the putrefactive anaërobic group (*B. putrificus*, *B. perfringens*, *B. sporogenes*, etc.).

Indol is formed chiefly by coliforms, and only to a small extent by these putrefactive anaërobes. It is, therefore, all the more surprising that Metchnikoff and his school should have drawn so much attention to the anaërobes as the chief factors in intestinal putrefaction, while at the same time their energies should have been devoted to the investigation of the toxic action of indol, a product chiefly of coliform activity. How far the indican in the urine is an evidence or a measure of intestinal putrefaction by micro-organisms is not yet completely settled, but admitting for the sake of argument that it does come from the action of micro-organisms in the intestine, it is not at all clear why it should be regarded by Metchnikoff and his school as the chief toxic agent produced by their action. Indol, of course is a substance of definite chemical composition, while the known bacterial toxins are of unknown chemical composition. How far,

then, the Metchnikoff school is justified in taking a simple substance like indol as the toxic product *par excellence* of the action of putrefactive intestinal microbes is extremely doubtful. Recently the opinion has been revived by Emmerich that in cholera the symptoms of intoxication are not due to specific vibrio toxins but simply to the nitrites, which, as you know, the *V. cholerae* is capable of forming in the test tube.

Little support has been given to this view in the case of cholera, and it would therefore seem all the more gratuitous to regard indol as the main toxic product of putrefactive organisms the pathogenic action of which has been only very insufficiently studied.

Let us see, therefore, what has been the main result of the experimental work performed with these putrefactive anaerobes and with their presumed chief toxic product indol. In one of his earliest papers Metchnikoff tested the toxic action of filtrates of some of these anaërobes. Filtrates were tested intravenously on rabbits in doses of 7 to 8 c.cm. per kilo of body weight. These are very large doses. For an ordinary full-grown rabbit this would mean at least 20 to 25 c.cm., and it is not surprising that in some cases a fatal result ensued. Great variation, however, was apparent in the toxic power of these filtrates (*B. perfringens*). Nevertheless the result of these experiments led Metchnikoff to state that in the putrefactive organisms of the digestive tube we have a source of autointoxication. Further experiments on this line were performed by his pupil Korentschewsky, who tested filtrates of anaërobic organisms isolated from rabbits' faeces. Occasionally quite potent filtrates killing in 1.3 c.cm. per kilo were obtained, but in other cases doses of 20 c.cm. per kilo did no harm. The strongest filtrate was prepared from *B. perfringens*.

Experiments were also performed on rabbits by intrarectal injection of filtrates, and there was some very slight evidence that antibodies to these organisms appeared in the blood serum.

In the case of dogs fed daily with broth cultures of *B. perfringens* (in very large doses, 200 to 500 c.cm.), progressive loss of weight occurred with slight anaemia, and when the animals were killed some evidence of sclerotic changes in the kidneys were found. It is surprising that nothing worse happened after such heroic dosing!

It must not be supposed, however, that the putrefactive organisms are the only defaulters. The flora of the large intestine is, according to Metchnikoff, wholly bad, and therefore we have other series of experiments with preparations of staphylococci, *B. coli*, etc.

According to Manoukian, atheromatous plaques appeared in the aorta of a large proportion of rabbits inoculated repeatedly with staphylococci (in 73 out of 86), and also in monkeys. These plaques occurred at the level of the arch of the aorta. It must be noted, however, that Weinberg found spontaneous atheroma in 4 to 19 per cent. of rabbits. More recently Bertrand and Berthelot have isolated from the faeces of patients suffering from chronic autointoxication an organism which, when grown on a special medium containing histidine, yields a highly toxic product apparently identical with β-imid-azolethylamine, a base previously obtained by Ackermann in the putrefaction of histidine, and also by Barger and Dale in ergot. The organism which yielded this toxic product belonged to the coliform group, and, according to the authors, was closely related biochemically to the *B. lactis aerogenes*. The authors make the statement that this particular organism was never found in the faeces of normal healthy people. This is a very important statement, and confirmation must be awaited before it can be accepted.

I turn now to the animal experiments performed with definite chemical substances which are understood to arise from the action of micro-organisms in the intestinal tract. In these experiments by Metchnikoff, Dratschinski, and others, potassium phenylsulphate and indol have been the chief substances whose toxic action on animals has been investigated.

With potassium phenylsulphate atheromatous changes in the aorta of rabbits, guinea-pigs, and monkeys were produced, and small cell infiltrates in the liver and kidney. Rabbits received by the mouth 0.04 gram of paracresol during a period of one to four months, and 61 per cent. of the rabbits showed atheromatous plaques. Dratschinski gave similar doses of indol daily to guinea-pigs by the mouth, and obtained evidence of atheromatous degeneration of the wall of the aorta with chronic interstitial processes in the organs, such as the liver, kidney, and suprarenal capsules. These foci in the wall of the aorta invariably contained calcareous deposits, and the question to be decided was whether these foci met with in the animals intoxicated with indol were merely further stages in the development of the cartilaginous foci met with in similar situations in normal guinea-pigs, especially those of advanced age. Such foci were met with in 67.5 per cent. of normal guinea-pigs weighing 250 grams and over. The author was of opinion that hyaline and calcareous foci encountered in the intoxicated animals were distinct from the cartilaginous foci found in normal animals, and concluded that intoxication with indol was the exciting cause. It does not appear to me, however, at all proven that the indol, if it affected anything at all, did any more than hasten the calcareous transformation of these normal cartilaginous foci, and the question of the influence of indol in this connexion must still be considered as undecided.

I now come finally to discuss the changes which have been stated to occur in the composition of the intestinal flora in cases of intestinal stasis and in cases which have suffered resection of the large intestine. This question has recently been attacked by Distaso who had the advantage of obtaining material from Mr. Lane's cases.

Distaso roughly classifies the organisms of the intestinal tract according as they do or do not produce indol. In the normal adult man the faeces, as is well known, show a preponderance of indologenic organisms of the coliform group. In constipation, according to Distaso, there are practically no Gram-negative organisms, but there is a great abundance of spores, the indol-formers being now of the sporulating type. There is also an absolute diminution in the quantity of bacilli present. The conclusion drawn by Distaso that the flora of constipation is an index of intoxication is entirely unsupported by the evidence he adduces. In cases operated upon for removal of the large intestine it was observed that the flora showed not so much a qualitative change as a quantitative change with a consequent alteration in the functional activity of the organisms concerned. Before operation the flora was one typical of constipation, while after operation the indologenic organisms had largely given place to the acetogenic (that is, *B. bifidus* and *B. acetogenes*) which are regarded as highly beneficent. The effect of this change, according to the author, is that the acid produced by the latter organisms inhibits the activity of, or actually destroys, any putrefactive organisms present. The evidence on which this statement is based was the fact that, when the faeces were inoculated on a potato medium, marked acid formation took place, while growth on broth containing boiled white of egg only rarely was followed by proteolysis indicating an action on the part of the putrefactive organisms. It is very questionable how far it is legitimate to assume that the function of a flora in the body can be determined by an *in vitro* experiment of this rough order. To prove a change in flora of this character would require far more extensive bacteriological and biochemical research than has so far been devoted to the subject, and it is indeed remarkable that the author should make the astounding statement "that after this study the theory of chronic intoxication by the work of intestinal organisms cannot any longer be in doubt." As a matter of fact, it is not clear from the paper how often the faeces were examined in these cases, and whether samples were taken at operation from the bowel above the resection.

If, as stated, only two examinations of the faeces at a year's interval were made, the data so obtained would be of little value. Such cases would require to be examined repeatedly before and after operation, and under all conditions of diet.

Distaso further asserts that the intestinal flora of the normal adult is noxious, and yet he asks the reader to rejoice with him over the microscopical appearance of the faecal flora of one of these operated cases. This flora, of which a drawing is appended, is characterized as "*une des plus belles*," but certainly the flora of the constipated person—a drawing of which is placed alongside—seems far

the more attractive. With regard to the work done by the Metchnikoff school on the influence of food on the composition of the faecal flora, I would merely refer to certain experiments of Bertrand, who found that rabbits fed on potatoes always gave a marked indican reaction in the urine, while those fed on carrots gave no such reaction. When a carrot-fed rabbit was placed on potato diet indican appeared. The intestinal flora of the two groups did not differ qualitatively, but the potato-fed rabbits had more *B. coli* in the faeces. No quantitative data on this point are supplied. Bertrand's view was that in the potato-fed rabbit there was much less acid production from the fermentation of sugar than in the carrot-fed rabbit, and consequently there was nothing to inhibit the formation of indol by the coliforms present. Also it is stated that the flora of the potato-fed rabbit was very poor in amylolytic species, but data on this point are wanting. It cannot be said that work of this kind advances the subject far. One is tempted to ask why chemical examinations of the intestinal contents were not made at various levels, and accurate records kept of the organisms met with at these levels. In all the recent work on autointoxication and on sour milk therapy, it has to be remembered that the inhibition of intestinal putrefaction by milk and milk constituents, especially milk sugar, was known years before Metchnikoff popularized the administration of milk soured by lactic acid bacilli (see an excellent survey of this subject by Kendall, 1912, *Journal of Medical Research*, vol. xxv, p. 117), and, as pointed out by this author, the effect of such treatment may be due, not to acid produced by the bacilli supplied, but to that produced by *B. coli* acting on the sugar, which is generally increased in the diet. Protein is thus spared, and consequently protein decomposition products do not appear. A bacteriological basis for the view that the activity of lactic acid bacilli inhibits that of the putrefactive organisms in the intestine is still lacking.

In conclusion, I am of opinion that the investigation of the biochemical action of intestinal organisms yields a very large and promising field for future research, and may throw a flood of light on this question of autointoxication, but it does not seem to me that the results achieved in the types of researches so far published by the Metchnikoff school lend any very marked support to the thesis.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

LONG SURVIVAL AFTER REMOVAL OF MAMMARY CARCINOMA.

This record may be of interest. A lady had a scirrhus of the breast removed in 1898. A recurrence was more widely removed in December, 1899. She lived to November, 1910, when she died of extension to the lungs, aged 68.

During the greater part of the interval she enjoyed very fair health, was able to travel abroad, to see her daughter married, and grandchildren growing up.

Putney, S.W. John Gay.

AFTER-HISTORY OF A CASE OF MYELOID SARCOMA OF THE FEMUR TREATED BY SCRAPING.

In the Journal of February 26th, 1898, I reported the case of myeloid sarcoma of the femur operated upon in 1895. Since then the patient has remained in perfect health, and recently writes, "My health is very good; my knee is sometimes painful, but is fairly strong; I cannot bend it. I am able to attend to my work (a wheelwright's), and have walked ten to twelve miles in a day. There is still a slight discharge from the wound, which I dress about once a week." Obviously this is a better result than that obtained by amputation.

Professor Bloodgood of Baltimore, in a paper published in the *Transactions* of the American Surgical Association, 1910, had collected two cases besides this one, which had been similarly treated, and had both done well.

From the discussion at the Surgical Section of the Royal Society of Medicine in November last, at which no example of treating myeloma of the femur by scraping was mentioned, it must be inferred that the method is not practised at the London hospitals. In the hope that surgeons will give it a trial I venture to again draw attention to the case which has been under observation for eighteen years.

Frank Hinds, M.D.,
Honorary Surgeon, Worthing Hospital.

LARGE FIBROMYOMA OF THE URINARY BLADDER.

The following case is interesting from the fact that fibromyoma is exceptionally rarely found in the bladder.

Mrs. H., aged 44, was admitted to the Walsall Hospital on February 2nd, complaining of retention of urine, pain over the region of the bladder—both of three months' duration—and of haematuria of one week's duration. The usual points of differential diagnosis were considered, and in order to facilitate the examination she was anaesthetized. On vaginal examination, a large, hard tumour was felt over the anterior vaginal wall. The uterus was freely movable and normal in size. It was decided to explore the bladder, and for this purpose the urethra was dilated until it admitted the forefinger. By this means it was ascertained that the tumour was occupying practically the whole of the bladder and was firmly fixed in the region of the trigone. Subsequently the bladder was opened suprapubically and the growth, which was the size of a closed fist, removed after ligating the pedicle. She made an uninterrupted recovery.

Microscopically the tumour was composed of interlacing bundles of smooth muscle tissue, with a small amount of stroma and well formed blood vessels. There was no evidence of malignancy.

I am indebted to Mr. Caddick for permission to publish this very interesting and extremely rare case.

Walsall. J. D. Speid Sinclair, M.B., Ch.B.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

OXFORD AND READING BRANCH: MAIDENHEAD DIVISION.

Clinical Meeting.

At a well-attended meeting of the Maidenhead Division of the Association held at the Guildhall, Maidenhead, on March 27th, after Dr. G. E. Moore, who was in the chair, had entertained those present to tea, Mr. Angus MacNab, F.R.C.S., read a paper on *Recent operative procedure in glaucoma*. The inefficiency of iridectomy in the treatment of chronic glaucoma and the study of the pathological material available had combined to lead to the view that the criterion of success in the surgical treatment of this disease must be the establishment of a fistulous track between the anterior chamber and the subconjunctival lymph space. He described briefly and lucidly the methods of Professor Lagrange, Lieutenant-Colonels Herbert and Elliot, I.M.S., and paid a tribute to the skill of these surgeons. The detailed technique of Herbert and Elliot's operations was described, the speaker's preference being for Elliot's method by means of a special trephine. The important point in both these operations was that the aperture should be close up to the corneal margin. Mr. MacNab was heartily thanked for his interesting paper. Dr. J. J. Paterson, D.P.H., followed with an amusing paper on *Quacks and their methods*. He had a regular Odyssey of adventure to relate in his personal experiences with some well-known quacks; and although some of the narratives might not perhaps be quite appropriate for a lady's boudoir, the success of his crusade in exposing some of these gentry was heartily appreciated. The meeting then adjourned.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

Monday, April 14th, 1913.

Sir FRANCIS CHAMPNEYS, President, in the Chair.

Resumed Debate on Alimentary Toxaemia.

MR. J. B. LAWFORD, in reopening this discussion, said the relation of disorders of the alimentary tract to eye diseases was still largely a matter of hypothesis. In recent textbooks on ophthalmology there was an absence of dogmatism on the subject, or no reference at all to it. In Germany and America many papers on this branch of the subject had appeared during the last few years, revealing great difference of opinion. Five years ago de Schweinitz said there was no ocular disease known to be due to intestinal autointoxication. Recently, however, a number of observations had made it probable that alimentary toxaemia was a contributory factor. In any case, it was a good working hypothesis, which would help to explain the clinical manifestations better than any other. That toxaemia resulted from mouth sepsis, especially gingivitis and pyorrhoea alveolaris, could no longer be doubted. The association of the latter condition with chronic irido-cyclitis was well known to all ophthalmic surgeons, and one of the first to recognize this was Mr. William Lang. Yet most of the subjects of pyorrhoea did not have irido-cyclitis, and some patients with irido-cyclitis had sound and clean mouths. Recurrent and relapsing forms of scleritis, episcleritis, and sclero-keratitis, were met with in subjects of pyorrhoea, yet careful treatment of the mouth had often failed to benefit these ocular conditions, and vaccine treatment in most instances had been disappointing. Tonsillar disease had frequently been thought to cause ocular inflammation, and it was permissible to assume that the tonsils might generate a toxin capable of inducing ocular lesions. The same might be said of choroiditis; and the occurrence of infection of the choroid in puerperal septicaemia was well known. The choroidal inflammation which he considered to be freely associated with pyorrhoea was localized exudative choroiditis, though this certainly owned other causes as well. Asthenopia, of varying type, unrelieved by the correction of refractive errors, had been recorded in patients the subject of pyorrhoea, and had been said to disappear on the treatment of the oral disease, but he had not met with such a case. The relationship of ocular lesions to enterogenous toxaemia was a more difficult problem. The diseased conditions of the intestines were invisible and the tests for pathological processes were not yet absolutely reliable; consequently diagnosis had to be largely a matter of exclusion. Until recent years syphilis, rheumatism, gout, and gonococcal infection were the accredited causal agents of many of the inflammatory affections of the eye, but in a good proportion of cases of keratitis, episcleritis, sclero-keratitis, irido-cyclitis, and choroiditis all these causes could be excluded. Here intestinal toxaemia could reasonably be invoked. Maladies accompanied by an abundance of intestinal toxins, such as dysentery, were accompanied by ocular lesions, such as retinal haemorrhages, retinal phlebitis and choroiditis. Inflammatory lesions affecting the uveal tract occupied a foremost place in the category of ocular diseases ascribed to enterogenous toxaemia. In a case reported by Bacquis of relapsing choroiditis associated with stenosis of the intestine, the relapses coincided with the recurrent blockages of the gut. Elschnig considered that in all cases of iritis in which syphilis could be excluded as a cause examination of the intestinal condition should be made. The type of ocular disease was similar to that following oral sepsis. Choroiditis of varying type was met with in patients with marked indicanuria and other intestinal derangements, and in whom other likely causes of choroidal inflammation could be excluded. More than one writer had attributed cataract to intestinal toxaemia; cataract was a frequent sequel of any form of chronic uveitis. In episcleritis and sclero-keratitis, when tubercle as a cause could be excluded, their possible dependence upon toxaemia should be considered. He had seen relapsing sclero-keratitis in patients whose urine contained abundance of *Bacillus coli communis* and in whom there were other signs of toxaemia. The association of recurrent attacks of phlyctenular keratitis with gastro-intestinal disturbance in children was well known. Certainly treatment of the intestinal condition benefited the ocular. Some authorities, such as Uhthoff, doubted a causal connexion between gastro-intestinal auto-intoxication and lesions of optic nerve and retina; but there were cases calculated to modify that doubt. Many years ago Horner considered that the gastric derangement induced by tobacco and alcohol was partly responsible for the optic nerve lesions found in cases of poison by those drugs. Acute retro-ocular optic neuritis might be a result of auto-intoxication, and support was afforded by some recorded cases; also to the idea that the optic neuritis associated with chlorosis was due to intestinal toxaemia. He had not found records of cases of oculo-motor paralysis in which auto-intoxication was a probable cause. Recurrent haemorrhages of the retina and vitreous in young men, described by Eales, had been attributed to oral or intestinal sepsis, and obstinate constipation was nearly always present in these cases. The causal relation of toxaemia to infective processes in eyes on which operations had been performed was a matter of great importance. Ophthalmic surgeons were familiar with unexpected iritis and irido-cyclitis arising several days after an uncomplicated operation, such as for cataract, and it was conceivable that these were examples of toxaemic troubles, and that the altered conditions of life and the diminished tissue change inseparable from operations and confinement to bed might favour the development of toxins, and that they might become active in the part of the uveal tract which had been operated upon. There was much evidence in support of the contention that ocular and toxaemic conditions were often related, and there was encouragement to pursue investigations with the object of removing the present doubt on the subject.

Professor DIXON, F.R.S., said he regarded a toxin as a substance which, when injected into an animal, produced an antibody. Toxins administered by the mouth to healthy men and other animals were not absorbed. When digestion occurred under normal sterile conditions the products of such digestion were non-poisonous, but the case was different under the influence of certain putrefactive processes. Sulphuretted hydrogen might then be produced, which had been said to cause chlorosis. If the amount of ammonia in the portal vein was increased, definite pathological conditions of the liver might be produced, and the continuance of the procedure led to a type of hepatic cirrhosis. The important toxins produced in the alimentary canal of which anything was known were those produced from amino acids, which themselves were non-poisonous, but if acted on by certain micro-organisms occurring in the alimentary canal, they became poisonous by parting with one molecule of carbon dioxide. Tyrosin was non-poisonous, and if taken in even large quantities by the mouth would not only cause no harm, but would act as a food substance. But if tyrosin were grown in broth and inoculated into an animal with human faeces, it lost its molecule of CO_2 and became poisonous. Putrefaction in the alimentary canal was a normal process, and small quantities of these poisonous amines were being continually produced, and the micro-organisms in the intestinal tract probably exerted a beneficent influence; the body depended on these extraneous organisms for the effectiveness of digestion. The speaker then described and illustrated by the epidiascope some of the pressor substances which acted definitely on plain muscle. The chronic effects of toxic substances in the alimentary tract were felt on the kidneys and the arterioles. The kidneys were enlarged and the glomeruli and tubules greatly dilated, the former containing granular débris. The arterioles became degenerated.

Dr. LEDINGHAM then dealt with the bacteriological aspect of the question, in a paper which is published at p. 821. He was followed by Dr. GALLOWAY, whose paper will be found at p. 815.

Dr. MANTLE (Harrogate) said that large numbers of cases of functional disorders of the alimentary canal found their way to Harrogate, and in many of them apparently trivial lesions in the mucous membrane of the

nose and tonsils were the cause of lesions in joints. Too much stress could not be laid on pyorrhoea alveolaris and dental caries as a cause of early alimentary disturbances. There were thousands of constipated persons who had no bad symptoms, probably due to the cells of the mucosa forming such a strong barrier of defence, combined with the antitoxic function of the liver. Sometimes the toxin affected the respiratory mucous membrane, causing attacks of asthma; and it was well known that certain articles of food caused rashes to appear on the body. The alimentary toxins showed a special affinity for nerve centres; the lethargy associated with intestinal stasis was within the knowledge of all. Sir Lauder Brunton had stated that the *Bacillus coli* seemed to have a special power of producing fatigue toxins. In five cases, all females, the speaker had seen purpura associated with intestinal toxaemia, and in nearly all there was mucous colitis and pyorrhoea.

Mr. J. G. Turner was sure there was justification for the assertion that there was a toxaemia due to dental sepsis, the symptoms being due partly to local sepsis produced in the mouth, and partly to that manufactured in the alimentary tract lower down. Dental sepsis was due to four factors: dental caries, pyorrhoea, tartar, artefact conditions leading to sepsis; and they were all governed by the one root factor, stagnation—the stagnation of germs and of soft, sticky, starchy, sugary food; it might be termed germ carbohydrate stagnation. The mouths of fishes and of wild animals were free from dental sepsis. But when animals naturally wild were kept in captivity for exhibition and they were fed on bread and soft, pappy foods, their mouths became septic with pyorrhoea, tartar, and dental caries. Domestic dogs and cats afforded everyday examples of this. A considerable number of the monkeys at the London Zoological Gardens died from acute enteritis; long before this occurred pultaceous material could be squeezed from the gums. Marginal gingivitis was found in children of all ages, and it gradually merged into true pyorrhoea. He strongly advocated a return to whole-meal bread and the removal of all offending teeth. Man could live at all ages quite well without teeth. Everything in the mouth must have a smooth surface, and there should be no cavities or pockets for the accumulation of débris. Vaccines were likely to be unsatisfactory, as their effect was naturally evanescent.

Dr. A. F. Hertz then read the paper published at page 817.

Mr. Frank Coleman said toxaemia might be caused by the mouth in three ways: (1) Lesions of the buccal cavity, namely, of teeth and gums; (2) imperfect mastication, due to inefficient teeth or want of teeth; (3) mouth breathing. Lesions of the buccal cavity might allow of direct bacterial invasion of the blood, but some of the bacteria were also shed into the mouth and swallowed. The pulp of a tooth, so long as it was alive, could exert a defensive action against the invasion of micro-organisms; but when the pulp was involved by caries conservative dentistry was at best only a compromise. A pulpless tooth acted as an irritant, and the mucous membrane around such a tooth was rarely healthy. Carious cavities in teeth in which the pulp was not involved were a potential source of alimentary toxaemia. Caries being a gradual process, the patient was able to develop antibodies, which in some way neutralized the toxins absorbed from the teeth and gums. One might take the infective area as a square inch per affected tooth socket, hence the mouth might contain a very generous incubating chamber for harmful organisms. Gingivitis sometimes affected the mucous glands of the cheek, stippling it with greyish-white opaque nodules, which were firm and shotty to the touch. These glands had been found by Goadby to contain *Staphylococcus viscosus*. The scouring action of the tongue and lips was much diminished in defective mastication, and the deficient blood supply to teeth and gums during this defect also made the tissues less resistant. The only reliable treatment of sockets affected with pyorrhoea alveolaris was, he agreed with Mr. Colyer, the removal of their contained teeth.

Dr. Gustave Monod (Vichy) drew attention to the soil in the particular person as a special factor determining the manifestation of his disease. By hepatism, meaning inadequacy of the liver cells, a vicious circle was established, the toxins set free reacting in turn on the cells of the liver. The bowel then suffered a diminution of its tonicity, and there was a lowering of intraperitoneal pressure. Ptosis might then result, showing itself first on the hepatic flexure of the colon, then on the right kidney, and later on the stomach, left kidney, liver, and spleen. Glenard held that in most cases movable kidney was a sequel to toxaemia. One means of breaking the vicious circle was, he agreed with Dr. Mantle, by means of spa treatment.

The debate will be resumed on Monday, April 21st.

Clinical Section.

At a meeting on April 11th, Sir W. Watson Cheyne, Vice-President, in the chair, the following were among the exhibits:—Mr. E. M. Corner and Mr. P. H. Mitchener: *Chronic bone disease.* At first the condition was thought to be syphilitic, and later on to be enchondromata. Finally the disease was regarded as due to developmental error, possibly connected with a nervous lesion. Mr. Corner: *Ossification of the brachialis anticus* of a young man, presumably due to a partial rupture of the muscle. Mr. Corner and Mr. C. V. Anderson: *Recovery after severe electric burns.* During convalescence signs of paralysis of the left median nerve developed, but no burn or scar accounted for it. The case ultimately recovered. It was suggested that it might be due to the passage of an electric current from below upwards in the nerve or to some electrolytic change. Mr. C. H. Fagge: (1) *Myeloma* of the head of the tibia seven years after enucleation. (2) *Re-formation of the fibula after complete removal of the diaphysis* for acute infective periostitis. The patient was a boy, aged 11, and the infection was produced by the *Staphylococcus aureus.* The fibula had become almost completely osseous. Mr. Lionel E. C. Norbury: *Re-formation of the tibia after resection of the diaphysis* for chronic osteo-myelitis (?) syphilitic, in a boy aged 10. Dr. F. Parkes Weber: Two cases of *Atelciosis*; one of a man, aged 45, the other of a woman, aged 20, in whom was also a slight congenital malformation of the hands and feet. Both were imperfectly developed sexually, but mentally alert. Mr. P. Maynard Heath: (1) *Pseudo-hypertrophy of the breast* in a girl, aged 16. There was no tumour in the enlarged breast, but it was lumpy and appeared to be divided into more or less separate lobules. (2) *Congenital cyst in the parotid region* in a girl aged 16. The swelling could be made to disappear on pressure. Mr. Lawrie McGavin: (1) A man, aged 32, who had sustained a simple fracture of both bones of the right leg. The fibula had been plated. Considerable swelling persisted in the right knee. (2) A man, aged 38, in whom Bassini's operation for double hernia had been followed by thrombosis of the left internal saphenous vein. (3) A man, aged 63, with (?) a mixed tumour of the left submaxillary salivary gland. (4) A boy, aged 16, who had had a psoas abscess which was possibly not tuberculosis. Mr. Lockhart Mummery read a short paper on a case of *Ulcerative colitis* in a man aged 49, which terminated fatally. It was of interest for two reasons: First, because recovery failed to occur after appendicostomy; secondly, because the appearances produced in the colon closely imitated those of multiple polypi.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

At a meeting held on April 3rd, Dr. Stanley Riseley (President) in the chair, Dr. A. G. Yates, in a paper, *Some recent conceptions of hysteria*, discussed, first, the etiology of functional nervous disorders. This was obscure because as yet no pathological changes had been found to account for them. This failure had in recent years led to an elaborate attempt to define the neuroses and explain their causes in terms of psychology. Symptoms were thus explained, not on the basis of physical changes in the tissues, but on that of abnormal mental functions. Both Janet and Freud assumed the existence of subconscious mental processes, the former arguing that in the hysterical mind the portion concerned with conscious mental activity was quantitatively diminished, and unable to contain at one and the same time as many thoughts, feelings, or emotions as the normal mind. The expression "field of consciousness" was a convenient one, to include the whole

mass of ideas, sense impressions, etc., of which a person was at any one moment conscious. It might be represented diagrammatically by two circles, one within the other. The inner circle would represent the particular idea, object, or feeling towards which the mind was at that moment directing its attention. In the outer circle might be placed all the other mental processes of which the mind was at the same moment conscious, but less distinctly. This was the peripheral portion of the field. The diagram might be still further extended by adding a third circle outside, to represent the subconscious portion of the mind. By such diagrams the normal could be compared with the hysterical mind, simply by making the circles representing the conscious field larger in the former than in the latter. In other words, a number of mental processes which in the normal mind were retained within the conscious portion were, in the hysterical individual, transferred to the subconscious area. Present sense impressions were often unable to gain admission into the diminished conscious area, with the result that anaesthesia was produced. In the hysterical fit, the area of personal consciousness was not merely diminished, but, for the time being, obliterated, and the mind dominated by some idea, impression, or event of the past. This mechanism was sometimes quite apparent, but not always. It seemed probable, nevertheless, that this apparently meaningless paroxysm was the result of some idea or memory of the past, fixed within the subconscious sphere in a mind in which that sphere was abnormally active and large, but possessed of a diminished facility or outlet into the neighbouring sphere of consciousness. Such a fixed idea from time to time burst its barriers, flowing out with irresistible force and flooding the already diminished field of consciousness; it thus took complete command of the individual and spent itself in a display of long-pent-up emotion. All the other phenomena of hysteria, such as occur during the interparoxysmal period, were likewise explained on the assumption of some fixed subconscious idea finding an outlet by these varied manifestations. Freud looked upon the condition as the result of some mental shock. The corresponding painful emotions, instead of gaining a suitable outlet, were repressed or driven down into the subconscious area of the mind, so that they were no longer felt. They were still active, however, and some outlet must be provided. This was effected by the conversion of these submerged emotions into the physical and mental phenomena known as the symptoms of the disease. By a method of treatment known as "psycho-analysis," Freud had been able to trace the connexion between some original painful emotion and such hysterical phenomena. It was a long and tedious process, but Freud believed that by analysing the enormous mass of ideas and chains of thought which he obtained, he could discover the hidden cause of the symptoms, and claimed that its revelation to the patient would effect a cure. These two theories resembled one another in assuming that the causative factor was some mental impression buried in the subconscious mind. Two cases were shown illustrating the rhythmical tremor of hysteria. In one case the left forearm had been partially paralysed from birth. It had, however, given no trouble until six months ago, when it became painful. Subsequently the tremor developed in it, and within the last few days it had also affected the other arm. Mr. W. W. KING, in a paper on the *Toxaemias of pregnancy*, said that these toxaemias often manifested themselves as disturbances of metabolism, which could be recognized by urinary examination. The nature of the toxin was unknown, but it was probably composed of a number of different elements, as suggested by Leith Murray. Recent work also indicated that the internal secretions from the ductless glands were important factors in toxaemic pregnancy. The early vomiting of pregnancy was not "physiological," and any but the mildest cases required treatment. The symptoms of pre-eclamptic toxaemia should be explained to all primiparae. Glucose in the urine in pregnancy might be due (1) to diabetes; (2) to hypersecretion from the pituitary gland; (3) to inability of the liver to store up glycogen. The last type was of toxic origin, and often associated with headache, neuritis, or muscular twitchings. The glucose disappeared when the patient was placed upon a meat-free diet.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

AT the March meeting, Dr. EURICH in the chair, Dr. OLIVER, in a paper on *Loss of sight from loss of blood*, said that in 106 cases of which he had discovered records most of the patients were over 40. In 25 per cent. of the cases the disturbance of vision occurred either during or immediately after the haemorrhage, in 20 per cent. within the first twelve hours, and later than this in more than half the cases. There was no constant relation between the amount of blood lost and the severity of the eye affection. In half the cases there was no improvement of vision. In complete blindness the pupils were dilated and showed no light reaction. Treatment appeared to be of little use. In introducing a discussion on the heart from the physiological standpoint, Dr. CLOW remarked that in any irregularity of the heart three things had to be considered: (1) The inception of the stimulus for contraction; (2) the power of conduction of the auriculo-ventricular bundle; (3) the capacity of the heart-muscle to respond to the stimulus. In any given case of heart mischief it should be determined which of the following conditions was present: Was the nervous mechanism at fault? Did the fault lay in the condition of the heart muscle? If the muscle were good, was the load too heavy? In the first group—that is, the functional—there fell sinus irregularity, occurring chiefly in the young, and extra-systoles, occurring chiefly in elderly people. It was only since the introduction of the polygraph that these conditions had been understood. Drugs for the heart were unnecessary, but the exciting cause should be treated.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on March 19th, Mr. W. G. LAWS, President, in the chair, Mr. H. HERBERT, speaking of *Headache*, said that when headache was due to ocular causes it generally occurred fairly regularly after much use of the eyes; such headaches were not always cured by a visit to an oculist, because the patients sometimes omitted to wear glasses. In other cases, where manifest defects had been corrected, other defects became manifest later, and again, when patients were neurasthenic, they got into the habit of having headaches; sometimes the oculist was not allowed sufficient time to complete his examination of the eyes. Mr. H. B. TAWSE, discussing headache from a nasal point of view, said that it varied in intensity and character according to the locality of the condition originating it. In children adenoids frequently caused headache owing to the deficient oxygenation of the blood. Nasal polypi caused headache, but this was not constant. Other causes were the pressure of pus and hypertrophied tissue. The nose should be thoroughly examined in all cases of persistent headache.

At the meeting on April 2nd, Mr. R. G. HOGARTH, speaking of the production of *Local and spinal anaesthesia*, said that in using novocain it was not necessary to inject the solution into a nerve but only into the surrounding perineural tissue. When operating on small areas, it was sufficient to infiltrate the tissue for about two inches round the intended incision, with a 1 per cent. solution of novocain. In operating on such areas as the scalp or fingers it was sufficient to infiltrate at right angles to the sensory nerves supplying this area. For instance, the hand could be anaesthetized by infiltrating the median, ulna, and radial nerves. Brachial plexus anaesthesia could be produced by injecting 60 c.cm. of a 2 per cent. solution of novocain into the brachial plexus as it passed over the first rib. The three divisions of the fifth nerve could be anaesthetized as they passed out of the base of the brain. For goitre operations it was necessary to infiltrate underneath as well as all round the tumour. Empyemata could readily be opened by blocking the three intercostal nerves concerned. Mr. C. H. ALLEN, speaking of spinal anaesthesia, said that no very serious sequelae after its use had been recorded in this country. Headache and pyrexia very often followed, but the headache was generally relieved by phenacetin. The chief advantages of the method were absence of post-operative shock, complete muscular relaxation, no venous engorgements or respiratory movements, no starvation, and no post-operative sickness. As a disadvantage was

urged the uncertainty of the anaesthesia. The method was contraindicated in cases of advanced sepsis. It had been employed over 200 times at the Nottingham General Hospital without any fatality, and in very few cases was the anaesthesia imperfect.

LIVERPOOL MEDICAL INSTITUTION.

At a meeting on April 3rd, Mr. R. W. Murray in the chair, Mr. Arthur Evans described three cases of *Acute pancreatitis* on which he had operated during the past eighteen months. The disease was commonly difficult to recognize and was often missed even in the *post-mortem* room. His first case was a dock labourer, aged 35, who had been drinking heavily for ten days and vomiting incessantly for sixteen hours. He had intense paroxysmal epigastric pain, the abdomen was retracted and fixed, especially in the upper part; he was delirious, with a rapid thready pulse and subnormal temperature. On opening the abdomen the under surface of the omentum was studded with white areas; the pancreas was a large mass of necrotic tissue. The patient died in six hours. *Post mortem* no calculi were found. The second patient, a woman aged 51, was fat and of alcoholic habits, and had a history of bilious attacks. She had been vomiting for several days and had pain in the upper part of the abdomen. There was no jaundice, no abdominal distension, but fixation of the upper part of the recti. On opening the abdomen there were white glistening plaques of fat necrosis on the omentum. The gall bladder contained thick viscid bile and small calculi. This patient recovered. The third patient, a healthy man aged 52, with no biliary history, was suddenly seized with severe epigastric pain and frequent vomiting. He had obstinate constipation followed by diarrhoea with green offensive stools; there was sugar in his urine. A month after this attack he was again seized with a similar attack. When the abdomen was opened there were extensive adhesions and the peritoneum was red, but no fat necrosis was seen. An irregular mass was found behind the stomach. This was drained. The gall bladder and duodenum were apparently normal. There was marked improvement after the operation, the sugar disappeared from the urine, and on the seventh day after the operation he became delirious, and died three days later. No autopsy could be held. After describing these cases, the speaker pointed out the common association of pancreatitis with gall stones; in making a diagnosis he thought the agonizing pain in the epigastrium with vomiting and collapse, tenderness and fixation in the upper part of the abdomen were the important signs. Cases were often mistaken for intestinal obstruction. Drainage of the abdominal cavity and, if necessary, of the gall bladder seemed the only treatment available. Mr. F. T. Paul thought the intense pain in these cases was typical peritoneal pain and not due to the gland. Pancreatic cysts varied much in their results, some being easy to deal with, others discharging a secretion which was very injurious to the tissues. He had seen many obstructed bile ducts that did not cause acute pancreatitis; the causation of the latter condition was not clear. Mr. R. W. Murray thought the acute pain was due to the irritation of the parietal peritoneum. It was not clear how the pancreas became poisoned, and the mere blocking of the duct by gall stones might be doubted as the cause. He had seen a case in which these symptoms had come on suddenly after an operation on the knee-joint, and the patient died. Dr. Stookes had seen a case in a woman sent into the Maternity Hospital for intestinal obstruction at full time; in that case Caesarean section was done. The child was dead; the whole of the small intestine from the jejunum to within three inches of the ileo-caecal valve was empty and collapsed. The peritoneal surface was everywhere red, the colour of tinned salmon, and studded with fine yellow spots; the large intestine contained gas, but was not over-distended; the small intestine, four inches from the caput coli, formed a loop with which the caput coli and the vermiform appendix hung down into the pelvis behind the uterus, the mesocolon being there about 6 in. long. No mass was noticed in the upper part of the abdomen. Was it possible that obstruction due to the long mesocolon had caused pancreatic trouble with the fat necrosis of the peritoneum? There had been vomiting and probably reversed peristalsis for several days. In replying, Mr. Evans said that he thought that the acute pain and the extreme constipation might be due to the effect of the pancreatitis on the solar plexus.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

Section of Surgery.

At a meeting on March 28th, Mr. R. D. Purefoy, President, in the chair, Mr. H. de L. Crawford read a paper on the *Intratracheal insufflation of ether*, and demonstrated the apparatus used by him. It consisted essentially in forcing etherized, warmed, and filtered air into the trachea at a point one inch above the bifurcation through a catheter which was passed through the larynx from the mouth. The air then returned between the catheter and laryngeal wall. The chief advantages were that it permitted full oxygenation of the blood even if both pleurae were opened, that no blood, vomit, or mucus could get down through the glottis, and that the anaesthetist was quite out of the surgeon's way in operations on the heart and neck. It was therefore indicated in operations on the thorax, head, mouth, and neck. He had found the method quite free from danger and very satisfactory, but emphasized the necessity for using an automatic safety valve of mercury. Mr. R. H. Woods agreed with Mr. Crawford that this method of administering ether would probably be largely used in future in certain cases. The difficulty of bleeding about the throat during operations in the nose, mouth, and pharynx was a very real one, and up to the present the way in which it had to be got over was by performing a preliminary laryngotomy and administering the chloroform through a tube. This method answered very well, but it involved an extra operation—a disadvantage which the method thus described got over entirely. Sir John Lentaigne said that he had often felt the need for some means of producing positive pressure to do away with collapse of the lungs in operations on the chest wall, and the instrument shown would appear to do this. Dr. Kirkpatrick said the method described seemed to be one which would overcome some of the most serious difficulties which anaesthetists had to deal with. He did not know that the method spoken of by Mr. Woods was as safe as he had stated it to be, as the introduction of direct vapour by means of a tube without being heated previously was attended by a certain amount of risk, and he therefore considered that Dr. Crawford's method, since it got over this, was an improvement. The apparatus would be chiefly used for operations of the thorax, but he thought there was a considerable field of usefulness for it in upper air passage cases. He did not quite understand why it should have been specially useful for operations in the Trendelenburg position. As a sequence of the administration of an anaesthetic in this way was there any interference with the respiration? It was to be expected that after pressure had been kept up for some time there might be difficulty in re-establishing the respiration. Mr. A. A. McConnell said that he had seen the instrument at work, and considered it as good as any he had seen. The expense of negative pressure cabinets had up to the present almost prohibited their use. Frazer of Philadelphia used the instrument in all his head cases. He also used it in the cerebellar cases, because in the majority of these cases there appeared to be some respiratory difficulty, and the instrument acted as the most efficient artificial respirator which could be obtained. Dr. Nesbitt said that from the point of view of the physician he considered the apparatus a step in the right direction. He suggested that it was perhaps a trifle cumbersome, but had no doubt that this would be overcome. Mr. H. de L. Crawford, in replying, said that he did not think that the catheter offered any impediment in tongue cases. With regard to the use of the apparatus in the Trendelenburg position, what he should have said was that Frazer used the apparatus for operations in this position as the breathing appeared to be somewhat hampered, but it was not considered that any very great advantages attached to its use in that particular situation. Referring to Dr. Kirkpatrick's question as to the recovery of patients, he pointed out that the anaesthetic was not stopped until the pressure was beginning to be compensated. He considered that the instrument would be found much more portable than those previously in use.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

At a meeting on April 4th, Dr. G. P. Shuter, President, in the chair, the following were among the exhibits:—Dr. N. T. Whitehead (for Dr. Arthur Saunders): *Osteo-arthritis in a girl of 11 years.* A slight injury to the left hip occurred last October. Limitation of movement gradually set in, and recent investigation with *x* rays revealed lipping of the cartilage and the presence of osteophytes. No possible source of infection was found beyond the presence of two carious teeth. Dr. N. T. Whitehead (for Dr. J. M. Bernstein): *Stenosis of pulmonary artery.* The patient complained of great shortness of breath associated with pain over the cardiac area; the latter was only a recent symptom. There was some degree of cyanosis but no polycythæmia; the heart was dilated, especially to the right of the sternum. There were no dilated veins in the neck, and the liver did not pulsate. A systolic thrill could be felt over the pulmonary valve; a systolic murmur was audible over the whole of the cardiac area, but more especially over the pulmonary valve. Dr. Seymour Taylor said he would have expected in this case to have found evidence of the relief of the tension in the right ventricle along the line of least resistance—namely, through the tricuspid orifice—but he did not find any signs of this. He thought it possible the patient had aortic obstruction. Mr. Donald Armour: A boy who had received an *Injury to the ulnar nerve* by driving a splinter of glass into the palm of his hand. From the muscular wasting and paralysis it was clear that the deep branch of the ulnar nerve had been cut across just where it passed through the muscles of the hypothenar eminence in company with the deep branch of the ulnar artery. The superficial branch of the ulnar nerve had escaped, as shown by the fact that the inner side of the little and the adjacent side of the little and ring fingers were normal as regarded sensation. The muscles supplied by the deep branch of the ulnar—namely, the small muscles of the little finger, the inner two lumbricals, the interossei, and the two adductors of the thumb—were completely wasted. As suture was out of the question, Mr. Armour suggested excising the scar, in which no doubt the proximal end of the nerve was embedded, in order to give the nerve a better chance of regenerating. Mr. Tyrrell Gray mentioned a method, adopted in America, of scoring with a small tenotome the scar tissue in lines parallel with the nerve fibres with the object of opening up fresh paths for the regeneration of the divided fibres, but Mr. Armour did not think it applicable to this case. Mr. Sydney G. MacDonald: *Perineal testicle* in a man aged 28. The testicle was small and the scrotum on the same side imperfectly developed. The patient himself was well developed, cycled constantly, and suffered none of the usual inconveniences. Dr. T. C. Storey (for Dr. H. J. Davis): *Epithelioma of auricle* in a man aged 72. The growth commenced as a small lump on the outer border of the pinna, and finally broke and formed an ulcer. The auricle was removed and the considerable raw area resulting skinned over with remarkable rapidity. Mr. Oswald L. Addison: (1) *Genu valgum and dislocation of patella* in a stout middle-aged woman under treatment for osteo-arthritis, both legs being affected. The left patella lay on the front of the external condyle of the femur, the normal patellar surface of the femur being uncovered; on the right side the displacement was less extreme. The patient was unaware of the deformity, which had given rise to no trouble until the last few months, when she began to have severe pain in the left knee. (2) *Sporotrichosis* in the leg and thigh of a boy, aged 11 years. The condition did not come under observation until it had lasted a year, and was at first regarded as tuberculosis. Mr. N. Bishop Harman: (1) Exenteration of the orbit and partial excision of maxilla and ethmoid for *Rodent ulcer.* The patient, a woman of 54, first noticed a small pimple on the right cheek just under the eyelid seventeen years ago. It scabbed, and she treated it herself with various caustics whenever the lump reappeared. From 1905, *x* ray, zinc ions, and radium, each appeared to benefit her for a time. When seen by the exhibitor in 1911 with a view to operation she had lost the whole of the lower lid, and a rodent ulcer as big as a penny was fixed to the maxilla. An operation for removal of the growth was performed, and all seemed well until September, 1912, when there was recurrence in the orbit. A second extensive operation had then to be undertaken, with the result that the orbit, nose, and antrum, were opened into one. The great cavity left gradually sank in a remarkable way, leaving the passage of the nose exposed to view in a striking manner. There had been no lack of treatment, but an earlier appeal to surgery would have left the patient with a sound face and two good eyes. (2) *Two cases of excision of the lacrymal sac* in young women. The results in both cases were excellent.

UNITED SERVICES MEDICAL SOCIETY.

At a meeting on April 9th, Fleet Surgeon Bassett-Smith, R.N., President, in the chair, Major Howard Ensor, D.S.O., in a paper on the *Duties of an Officer of the R.A.M.C.* attached to an infantry battalion on active service against a civilised enemy, held that a camp should be regarded as "standing" when the troops had been in occupation of it for twenty-four hours and no orders had been issued for them to move. After the expiration of this time, in the absence of orders for the battalion to move on, the site of the camp should be regarded as an area likely to be occupied by the unit for some considerable time, and the necessarily primitive system of sanitation prevailing when a battalion is bivouacking for the night only should be changed for the more elaborate one suitable for a standing camp. This would prevent the serious error of postponing the institution of sound sanitary measures in expectation of orders arriving for the troops to move almost immediately; such a mistake frequently led to the men remaining under undesirable conditions for several days. The sanitary condition of a camp was, perhaps, the best criterion of the state of discipline of the troops occupying it. A matter of great importance was the cleansing of bivouac areas before starting on the march next day, as the same area was likely to be occupied by other troops at an early date. While advocating the early transfer of febrile cases to the field ambulance when troops were on the march, the speaker favoured retaining men suffering from a moderate degree of fever with their unit, when in standing camp, for forty-eight hours, isolating them, as far as possible, in tents or shelters until it was clear that they were not likely to prove able to continue at work. Cases sent to the ambulance tended to be evacuated to the lines of communication and were lost to their battalion. In regard to duties during action, he recommended a very thorough training of the regimental bearers in the application of the first field dressing, and that they should be employed for this purpose and the protection of casualties by the erection of temporary cover, rather than for the carrying of wounded to the aid-posts, during action. Battalion stretchers, instead of being carried behind the companies by the bearers at the beginning of an action, should be carried on a cart, under the care of one of the R.A.M.C. detachments, and only brought into use when darkness or a lull in the fighting permitted the safe clearing of the wounded from the area of operations.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

At a meeting on April 1st, Dr. Mary Murdoch (Provincial Vice-President) in the chair, Dr. Helen Boyle read a paper on *Early nervous and borderland cases*, including under this title cases in which nervous and mental symptoms predominated, but which were uncertifiable and had no outstanding organic disease. There was a class of emotional, highly-strung, nervous individuals very little likely to become insane, the expression of their emotions acting as a safety valve. It was often the emotionless being—who did not show distress, who was endowed with hyperstability, and was considered the prop of the household—who was liable to break down after the need for bearing up had passed, sometimes even after some months. Fat neurotic subjects were more difficult to treat than thin ones. There should be wards in general hospitals for the treatment of borderland cases. The patients would thus be freed from the stigma attending sojourn in a hospital or home for mental cases, while at

the same time the student would have the opportunity of studying this important branch of medicine. With regard to sedative drugs she advocated the use of paraldehyde, especially for senile cases, of bromides combined with arsenic, and of trinitrin in small doses; the latter by acting as a vaso-dilator often removed the necessity for a true sedative. She objected to the administration of sulphonal, recommended care with hyoscine, and said that nux vomica often excited nervous patients, and in some was inimical to sleep. Dr. DOBSON considered that dyspepsia and dilated stomach, so often found in melancholics, was frequently due to forcible feeding. Dr. CONSTANCE LONG pointed out that however much one might disagree with the universal application of Freud's views, he had unmasked the etiology of certain obscure cases of hysteria with absolute precision, and had indicated a line of treatment of inestimable value if skilfully applied. She agreed as to the value of wards for borderland cases in general hospitals. Such cases were to be found in numbers among the patients of the average general practitioner, who was launched into practice with little or no knowledge of morbid psychology. Other members having spoken, Dr. BOYLE, in reply, stated that in her experience operations for haemorrhoids had been more frequently followed by insanity than had any other operation.

Reviews.

MALINGERING.

A Greek I fear,
Though presents in his hand he bear.

THESE words came into our mind as we read the Dedication of Sir JOHN COLLIE'S book on *Malingering and Feigned Sickness*[1] "To my friend the British Workman, to whom I owe much." And we wondered in what spirit the British workman would regard it, and how he would receive the teaching of the book if he ever looked inside it. Certainly Sir John Collie is well qualified to speak with authority on malingering, as for many years he has been closely associated with insurance work, and with the consideration of questions of compensation for personal injuries received during employment. Indeed he has almost established himself as a specialist in the subject, and he suggests on the first page of the preface the point of view which he is inclined to occupy concerning it—"The cost of insuring against accidents to industrial workers is now far in excess of the actuarial estimates upon which the Compensation Acts were based; and a study of the statistics in relation to non-fatal accidents shows an increase in the number of those accidents since the advent of this legislation which cannot be accounted for even by the speeding up of machinery and the conditions of modern labour. Malingering and dishonesty must have had an influence in raising the figures to their present abnormal height." And in the opening of his book he again insists that the many provisions made by the Legislature in recent years for securing benefits to injured workpeople have undoubtedly given rise to a large number of cases of malingering. He says that the methods of the conscious deceiver are so ingenious, and the mental outlook of the unconscious exaggerator is so difficult to deal with, that the time has fully come for all medical men to look for the possibility of deceit or exaggeration in all persons claiming compensation for injuries.

We are not prepared to quarrel with this piece of advice. Every medical man should know not only something, but a good deal, upon this increasingly important subject, should be prepared at any time to make a thorough examination of such an applicant and to be ready to give in a Court of Law the reasons for his conclusions; and this he should be able to do in the simplest possible language and with the studious avoidance of needless technical expressions. We must confess to having heard members of our profession in the witness-box make use of words and language which can have had but the effect of puzzling the lawyers, bewildering the jury and increasing the obscurity of the problem before them. We claim that all medical men should be fully acquainted with the ways leading up to the court and with the correct manner of procedure when in it. And we should greatly regret to see these important questions of real or fictitious injury left in the hands of only a few, some of whom might be looked upon as professionally and habitually inclined to take the workman's view and others that of the employer. Such a state of things could not fail to place our profession in an unfavourable position before the public. We do not wish to labour this point, and will content ourselves with the expression of the opinion that cases of this sort ought in all cases to be settled by a Judge in conference with a permanent Board of Medical Referees. We think that if the Lord Chancellor, the Home Secretary, the Chancellor of the Exchequer and the President of the Local Government Board would consider the question and agree upon the appointment of such a Court, its early establishment would prove extremely acceptable to the public and agreeable to the medical profession. Indeed, common sense appears to demand it.

The short accounts which Sir John gives of the ways of malingerers are graphic and interesting. A first-class humbug was before the Judge complaining, amongst other things, of loss of sensation in the fingers of the left hand. He was told to close his eyes and hold up both hands and to say "Yes" or "No" when either of them was gently pricked by a pin. Unfortunately for the man he called out "No" each time the pin touched the hand in which he said there was no feeling! This report brings to mind a somewhat similar case in which the malingerer hopelessly "gave himself away" (to use a common expression): A soldier in a British regiment in India was, for reasons of his own, shamming deafness—absolute and complete. No one could do anything with him or make anything of him. At last he came up before the Principal Medical Officer, who, receiving no answers to his questions, turned to his brother officers and said in the man's hearing, "Yes, a sad case of incurable deafness." He then made signs to the man to pick up his clothes and leave the room. But just as he was opening the door the doctor tossed a coin on to the floor near him, and the man, hearing the jingle, instinctively turned to see if he had dropped anything! Confinement to barracks and extra work ensued.

The chapter on the psychology of the fradulent mind is excellent, and refers to the remarkable difference between the pain which a man has when he strains his back in his own garden or in the carriage of a rich railway company; and the problem arises as to whether, in the latter case, he is a wilful malingerer or the victim of psychical conditions consequent on the accident. But the author rightly reminds us that all malingering is not the outcome of deliberate wickedness, and that great allowance must be made for the personal equation. Certainly the uneducated workman who has met with an accident is, as a rule, unable to take a detached view of himself, or to make a stand against undesirable introspection. Pity is freely offered—and rightly so—to those medical men who have to look to club practice as the chief source of income, who have to seek for popularity from the members, and who, in consequence, are easily induced to write certificates for sick benefits. Such "kindness" is mistaken and harmful. It is surely the duty of every medical man to help the State to count amongst her citizens the maximum number of units capable of working. Professionally, it is, of course, very discreditable.

The medical examination of a patient who says that he has been injured at his work presents a problem not always easy to solve. In the ordinary way of practice an honest patient coming to his medical man is anxious to get well, and is helpful in the way in which he answers questions. But the other man is apt to keep things back, and to do his utmost to mislead. Probably every medical man is not aware of the fact that by the terms of the Workmen's Compensation Act a servant who is making a claim for personal injury is bound to submit himself to medical examination, and that if he obstructs the examination the half wages which he has been hitherto receiving will cease in accordance with the provisions of the Act (p. 34). It is within the knowledge of most of us that claimants are apt to make themselves extremely disagreeable, and

[1] *Malingering and Feigned Sickness.* By Sir John Collie, M.D., J.P., assisted by Arthur H. Spicer, M.B., B.S.Lond., D.P.H. London: Edward Arnold. 1913. (Med. 8vo, pp. 352; figs. 44. 10s. 6d. net.)

sometimes even obstructive, at an examination, and it is well that the Act has thus provided the medical man with some friendly assistance.

The keynote of the book is on page 35, where it is said that the examiner should be absolutely unbiassed and judicial in his attitude towards the case, and, whilst alive to the possibility of malingering, should equally be on the look-out for every indication of organic disease. That he should not be biassed in favour of the insurance company, nor should he minimize disabilities which do exist. It is indeed a counsel of perfection, but nothing less would be acceptable to the straightforward practitioner. During the medical examination it must be insisted that no third person should be in the room, as "allegations of unfair treatment and harshness are not unlikely to be made"; and even though they were groundless, if they were supported, they might lead to inconvenience. This is an important matter, and many a medical man may have been in doubt as to how he should answer the demand of a solicitor or some other third person who is not a medical man that he shall be present when the examination is made. The answer ought to be a polite "No," though, of course, the presence of the workman's own medical man is not only permissible but, as a rule, desirable. It is clearly pointed out that the medical man should keep far away from the legal aspect of the case; the question of liability is as nothing to him—he must mind his own business. And still more is it advisable that he should have nothing to do with the discussion of pecuniary compensation, though it is often advisable that he should have been informed as to the claim which a man is making so that he may understand in some measure the position which the man is occupying.

The two pages treating of *Neurasthenia* are perhaps inadequate. The term is an extremely popular one and a great favourite in a court of law, especially when it is qualified by the word *traumatic*. Voltaire regarded adjectives as mortal enemies of substantives, but he would have found it difficult to shut out this adjective from qualifying the shapeless word "neurasthenia" as used in the law courts. The two words are almost inseparable in the presentation of the case of the injured workman—especially in the absence of objective signs. It is not improbable that Sir John Collie's scant treatment of this part of the subject is due to an absence of sympathetic interest in it. Possibly even he has heard so much of it, and seen so little of it, that his belief in it is but half-hearted—or worse.

In the face of the encouragement which recent legislation has given to dishonest men to exaggerate or fraudulently to misrepresent the amount of damage which they may have met with in the course of their work, the thought naturally occurs as to what effect the Insurance Act will be likely to have in that direction. Sir John Collie speaks with authority on the subject, and says that (p. 61) for some years the accident laws have revealed to the unscrupulous the infinite possibilities of fraud, and he feels confident that, unless this fact is recognized by those who will have the responsibility of working the Insurance Act, "the moral currency" of the working classes will be much debased. Once more we turn to the beginning of this complete and valuable book on Malingering and, smilingly, try to catch the true inwardness of that Dedication.

Again (p. 100), in discussing the dishonest fostering of morbid sensations after an injury, he says that physically these men are perfectly able to work, provided they have sufficient stimulus, but that "the Workmen's Compensation Act deprives them of this stimulus." He has already (p. 9) told us of a man who was in receipt of 15s. a week (half wages) and at the same time was drawing 18s. a week from the Hearts of Oak, 10s. from a yard club and 10s. from a slate club, making in all £2 13s. whilst he was disabled, his wages being £1 10s. when he was hard at work. It was, indeed, a temptation to which many a workman might be inclined to yield! Consciously or unconsciously the injured man cannot exercise his will-power; the whole burden of his complaint lies in what he *feels*, and he becomes so "demoralized by idleness that he is determined he shall not work." It is a humbling kind of picture to paint of the British working man, and we feel sure that such a one would have no right to claim any share in that noble Dedication. As under the National Insurance Act some twelve millions of workpeople have just been compulsorily insured, "malingering must necessarily become more frequent." In Germany since the passing of their Insurance Act the amount of malingering has gone up by leaps and bounds. The prospect is not pleasant, and as sickness benefit is only payable from the fourth day of the illness there may be a strong temptation to prolong slight ailments. It seems that when the French Republic took over the railways a remarkable demonstration of the servants' "right to illness" was manifested, 54 per cent. of them becoming "ill" at one time or another in the year. "To men between 60 and 70 years of age there will be a strong temptation to defer the return to work. There is the danger, too, of attempts being made to tide over periods of unemployment by going on the sick list," and Sir John appears firmly to hold the opinion that his "friend the British workman" will fail to stand upright in the midst of the manifold and great temptations which henceforth surround him.

The question of returning to work after an accident is sometimes made more difficult by undesirable influences privately brought to bear on the man. In one case of a typical neurasthenic the County Court Judge hinted that it should be decided before the Court of Appeal whether an employer must continue to pay weekly wages to a man who only *thinks* himself unfit for work. The County Court Judge thought that the man had been only playing at work, and he was of opinion that if he had been rich and desired to get back to hunt or shoot he would have done it. The Master of the Rolls, before whom the case came in due course, said that he did not wish to use the word "malingering," but he could find no other word to express what was in his mind. He thought the County Court Judge meant that the workman had left his work under circumstances which threw suspicion on his conduct, and that it was impossible, upon their findings, to interfere with his decision; that there was no doubt that the result of payment of compensation took away all stimulus for work (p. 269). To men like this it is not a matter of shame, but one of delight, to eat the bread of idleness. As to how long a workman who has been undoubtedly injured may postpone his return to work after he has recovered from his original injury is an interesting question. Muscles accustomed to regular and steady exercise soon get out of condition, and this loss of condition frequently conduces to a postponement of the return to work. "A workman can, according to the Act, be compensated for what he is unable to earn, but cannot be compensated for what he declines to earn."

One of the commonest complaints in connexion with injury is pain in the back, which is sometimes, no doubt, the result of a rupture of muscular or ligamentous fibres, but which "in the days of Erichsen used to be called 'railway spine.'" "Concussion of the spine" (*spinal cord* was meant) is quite unlikely to happen, and organic nerve-changes, apart from an old syphilitic infection, need scarcely be discussed. But the dull pains of old rheumatoid disease of the spine are likely to attract much personal attention after an injury, and, "remembering the Workmen's Compensation Act, the workman puts himself on the sick list, keeps his back stiff, becomes introspective and then draws from clubs and insurance companies sick pay which might (as already shown) amount to more than the man's ordinary wages" (p. 135). This may read as a hard-hearted quotation, but there are many practitioners who could speak to its truth. The tender care which has lately been lavished on the British workman has submitted him to the risk of excessive "softness" and vulnerability, but we hope that when he finds that an important work on shamming and "skrimshanking" has been dedicated to him he will harden his heart and stiffen his back in the right way. Not only are workmen shown by our author to be sometimes deficient in honesty, but medical men are occasionally found not entirely free from blame in that they are ready to give certificates of "inability to work" without even making an examination of the patient, and to fall in with the request of the patient lest he should be regarded as wanting in sympathy, and so render himself unpopular with the other members of the benefit club. One malingerer said that he could get as many certificates as he wanted "in exchange for sixpences" (p. 16). For our own part, we will say that no medical man should give

a certificate without assuring himself on each occasion of the absolute correctness of the man's statements. Friendly but firm encouragement to return to work is in every way kinder to the man than a careless help towards his becoming a shirker—and this sound teaching runs like a golden thread all through Sir John Collie's writing.

The association of hernia and malingering is especially close, because it is open to any workman who has a hernia to make capital out of it, and there may be little to depend on but the man's statement. "Of the cases that claim compensation for damages for hernia as being caused by a sudden strain, probably not one in ten is genuine" (p. 189). And the question arises whether it would not be wise for all employers of labour to require a medical examination as regards the presence of rupture in all applicants for work. The Report of the Departmental Committee on Compensation for Industrial Diseases advised to the effect that hernia may, though very rarely, be due to a sudden strain, but that what usually happens is that some cough or particular strain brings down a little further a slowly developing hernia and so causes it to attract attention. This is probably the almost universal state of affairs; the funicular process of peritoneum, never having been obliterated, had been all along prepared for the reception of the piece of omentum or bowel. It is within our knowledge that a man who declared that he had never previously been ruptured claimed damages for the recent occurrence of a hernia in his work when careful examination showed the scar of an operation which had been done in his boyhood for the so-called "radical cure." The author rightly says that the question of how far a rupture can be called "accidental" is a thorny one. "We should hear much less of hernia in the law courts if working men who have been operated on would, six weeks from the operation, consult the surgeons who operated as to their fitness or otherwise for work, instead of going to lawyers and to the 'expert witnesses' who are associated with some of those gentlemen" (p. 199).

The position of the medical man with regard to his patient, and the advice which he should give to him, and the evidence which he must be prepared to supply in Court should, of course, be entirely clear of personal influence. Friendship with the patient ought in no way to be allowed to warp the judgement of the medical man, nor should the wish to see the claimant succeed in his suit deflect his statements a hair's-breadth from the line of truth. The medical practitioner must realize the fact that what he says should by no means be directed to secure a verdict but to help the Court in arriving at a just one. And as regard the so-called "medical expert," he should give his evidence as if it were being listened to by the Council of his College or the medical members of the Senate of his University. Certainly the giving of his testimony should be independent of what may prove to be the verdict of the Court. Yet "a medical expert told me that the usual terms upon which he and several of his friends contracted with running-down solicitors were: 'No damages, no fee; but the lost fee to be tacked on to the next case'" (p. 239). A line of conduct less worthy of a member of either the profession of Law or of Medicine can scarcely be imagined! Thus, "all chance of future employment by his patron, the solicitor (and even his fee), depend upon his grossly exaggerating when giving evidence on oath."

If this book (which we have read with great satisfaction and profit) says hard things of the British workman and of certain members of the medical profession, it does not let the lawyers off free, though the author speaks with due respect of the Judges, all of whom, by the by, appear to have regarded the claimants' attitude from the same point of view as did the author. Of the solicitors' touts who hang about the doors of the hospitals in the hope of finding work by stirring up litigation, nothing can be said bad enough. In a recent accident which occurred in London, on the following morning most of those who had been hurt had as many as four letters from different legal aid societies offering to take up their cases free of charge and recommending them to have nothing to do with persons responsible for the accident! It would be difficult to imagine members of the *medical* profession falling so low as this, and should a line of conduct of a similar degrading nature be adopted by any of them, we might depend upon the General Medical Council, if the facts were laid before it, taking immediate steps to vindicate professional honour. "The methods of some of these legal aid societies have at various times been commented upon from the Bench, but as yet nothing has been done" (p. 291). The movements of our sister profession are proverbially slow.

Sir John Collie's book is written in pleasant style, and though he is often dealing with abstruse questions he is never dull. There is often a suggestion of Sherlock Holmes in the way in which he has dealt with, sniffed out, and exposed deliberate instances of fraud, but although the author invariably comes out triumphant, the cases are not set out boastfully and they form excellent reading.

SMALL-POX AND VACCINATION.

THE volume, *Studies in Small-pox and Vaccination*,[2] by Dr. WILLIAM HANNA, is not a textbook on vaccination. It deals mainly with methods of measuring the efficiency of the vaccination in the case of the vaccinated and with the power of vaccine lymph to abort the variolous poison. It has long been recognized that the effect of vaccination varies considerably even when the operation has been perfectly done and fresh lymph only used. The protection it gives is not always uniform in what may be called "its length of life"—that is, the durability of the protection obtained. The recent epidemic in Liverpool bears the usual weighty evidence in support of the influence of vaccination. The mortality among 943 cases of vaccinated children was 2.9 per cent., while among the 420 unvaccinated children it was 27.2 per cent.; the ratio of deaths to attacks was thus nearly ten times as many in the unvaccinated as it was in the vaccinated. Dr. Hanna gives notes of many severe cases among the unprotected, where vaccination carried out promptly resulted in rapid pustulation and drying up of the rash. He suggests that probably the protection to adults by revaccination lasts much longer than the same operation in children. In discussing the interaction of concurrent variola and vaccinia, Dr. Hanna expresses the opinion that cowpox or vaccinia may be accepted as an attenuated descendant of small-pox, and that it would be desirable to vaccinate every one threatened with variola as early as possible in the illness. Dr. Hanna has done well to encourage the practice of using vaccination as a remedial measure at the earliest possible moment when variola is suspected as present.

FOOD AND DIETS.

IN the review of Dr. J. CRAIK TAYLOR'S *Diet Charts for the Use of Physicians*, Part II, published in the JOURNAL of April 5th, p. 718, certain errors were made which we desire to correct. The statement that ordinary bread was omitted is incorrect, and was due to an oversight, for which we express our great regret; ordinary—that is to say, non-proprietary—bread is mentioned in all the charts. The review stated that the diet charts were open to the criticism that they contained "excessive recommendation of proprietary articles"; Dr. Taylor calls attention to the following paragraph in the preface to the first edition of the *Diet Charts*, Part I:

> Many proprietary foods are included in these charts as the compiler and leading physicians to whom he has gone for advice on this point are of the opinion that no difference exists between the recommendation of such foods by practitioners many times each day, and presenting similar advice upon a printed slip to patients. Further, there is no bias in favour of any particular food, as many are included and none is given a more favourable position than another.

The criticism was directed not to the mention of proprietary articles but to their frequent mention, as is shown, we think, by the use of the word "excessive." There was no intention to impute unethical conduct to Dr. Craik Taylor, and we do not feel that the words used in the review, taken in their ordinary sense and in the context, bear such an interpretation, but we emphatically state that they were not in any remotest sense intended to bear this interpretation, and that we entirely exonerate the author from having in any way

[2] *Studies in Small-pox and Vaccination*. By William Hanna, M.A., M.D., D.P.H. Bristol: John Wright and Son, Ltd.; London: Simpkin, Marshall. 1913. (Cr. 4to, pp. 53; plates 25. 7s. 6d. net.)

violated an ethical rule of the profession in this respect. In the review objection was taken to the mention of sherry in the chart for diabetes on the ground that it contains a good deal of sugar. The author points out that only dry sherry is mentioned, and that three analyses quoted by Hutchison give 0.215, 1.03, and 0.65 as the percentages of sugar present in three classes of sherry. Taking the first figure (for Amontillado) as typical for dry sherry, the amount is very small, and the criticism in the review was therefore mistaken and is withdrawn. The reference to the "classical formula" for imperial drink was based on recollection, but reference to standard works shows that the ordinary formula in use is as stated in the charts—namely, one drachm or less to a pint of water. With regard to the observation in the review that the medical attendant is advised in subacute and chronic nephritis to regulate the amount of meat "by the output of albumen," Dr. Taylor calls attention to the words of the paragraph in the preface to the chart to which this has reference; they are: "In the chronic type the absolute deprivation of proteid is not now practised, but the quantity of proteid allowed should be small and carefully regulated according to the output of albumen." We regret that the word "meat" should have been used in the review instead of "proteid." Dr. Taylor considers that the amount of urea is not, so far as we at present can be certain, of so much importance as the output of albumen. This is, of course, a matter of opinion, and there are, no doubt, many authorities who will agree with him. The review asked why "sweet potatoes, which are not often seen in this country," are recommended in the chart for the feeding of school children. To this Dr. Craik Taylor replies, first, that when he was a lad in Ayrshire sweet potatoes were a regular dish for some weeks in every year—a dietetic custom of which we had not previously heard; and, secondly, that the charts are not meant for circulation in Great Britain alone, and that orders received by his publishers show that the charts will be used in the colonies. This we recognize as a sufficient answer to the question.

NOTES ON BOOKS.

A PAMPHLET, entitled *Bex-les-Bains*,[1] contains a description by Dr. E. DE LA HARPE of the small Swiss health resort, better known, perhaps, as Bex-Salines. It lies just inside the opening of the Rhone Valley, about twelve miles from the end of Lake Leman, and at an elevation of some 1,400 ft. Its summer climate is sedative, and it possesses a mineral water spring conspicuous for a high proportion of chlorides, chiefly sodium, together with traces of bromide and iodide of magnesium. Its bath establishment was brought up to date last year, and the claims of the place to consideration lose nothing through being described by a medical man who is a recognized lecturer of the University of Lausanne on the subject of balneology and possessed of long experience of practice during the season at the place in question.

India possesses a perennial charm for the great majority of English men and women, many of whom are bound to it by the ties of old association, and consequently there is always a large demand for books that treat of this particular portion of "the gorgeous East." But whilst the literary market is usually overstocked with novels dealing with the Anglo-Indian adult, few writers of fiction, with the exception of Kipling, have attempted to portray the life of that interesting product of imperialism, the Anglo-Indian child. Mrs. HOBART-HAMPDEN, therefore, has almost broken new ground in her pretty story, *Tota*,[2] in which she relates the adventures that befell the little daughter of an English official in an out-of-the-way corner of India when kidnapped by the servants of a neighbouring rajah to be the bride of his only son. The story of the child's rescue from the rajah's palace by her elder sister and her father's faithful bearer is exciting enough to satisfy the most exacting of its childish readers. Mrs. Hobart-Hampden has evidently an intimate knowledge of native life and customs. She has drawn a most lifelike picture of the squalid splendour of the Deoban court, and the character of Tota, the pampered little prince whose love for his English playmate inspires him with the longing to prove himself a man, is developed with real insight and sympathy. *Tota* should find a large circle of friends amongst the English children whom he admired so heartily, and who will doubtless hail with pleasure this new departure in nursery fiction. Their enjoyment of an excellent story will be much increased by the pleasing illustrations contributed by Miss Alice B. Woodward.

The sixth volume of *The Prescriber*[3] is a collection of the issues of the monthly publication of that name. In this Mr. THOMAS STEPHENSON supplies his readers with short editorial notes on current questions connected with therapeutics and treatment, together with one or two short original articles on the same subject, one or two prescriptions derived from various sources, a few reviews, and abstracts of papers of direct therapeutic interest which have recently appeared in British and foreign journals. The editorial comments are notably free from bias, and, as we indicated last year, the complete volume forms a useful kind of reference book to the progress of therapeutics and pharmacy during the year to which it relates.

The fifth edition of *A Manual of Personal Hygiene*[4] has, like the earlier issues, been edited by Dr. W. L. PYLE of Philadelphia, while the various articles are the work of ten American writers. The idea of the work would appear to be to supply information on any point connected with the care of the body and the maintenance of health, in which members of the general public, either through their own experience or statements made in newspapers or suggestions made to them, commonly take an interest. The opinion of the various authors as to these matters is set forth in plain terms, and the physiological and anatomical data on which the views are based are described in language free, so far as may be, from technical words. As a further help to the reader a glossary of such technical words as are used is supplied at the end of the volume. In most of the chapters the teaching is well expressed and seems sound, but there is a most unhappy falling off in the appendix, in which directions for the treatment of the apparently drowned are given.

The second edition of *Dental Anaesthetics*[5] constitutes, like its predecessor, a summary of the lectures which its author, Dr. W. E. ALDERSON, delivers at the School of Dentistry at Newcastle-on-Tyne. The statements made are usually succinct and clear, and the present edition contains new matter dealing with the prolonged administration of nitrous oxide and the simultaneous use of nitrous oxide and oxygen. An important contribution to the volume is supplied by Mr. John Bolam, who deals fully with local anaesthetics under the heading of analgesia, and shows clearly that none of them should be used without full recognition of the fact that in some degree both immediate and subsequent risks are involved.

The twenty-second series of *International Clinics*[6] consists, like its predecessors, of four volumes, issued nominally at three-monthly intervals. Also, like its predecessors, it has as editor Dr. H. W. CATTELL, of Philadelphia, who works in collaboration with some ten or twelve authorities resident in America, Great Britain, and on the Continent. The contributors are drawn from all parts of the world, and in this particular issue include a somewhat larger proportion than usual of other than American authors. All the four volumes are illustrated, and each contains two dozen or more papers written specially for this publication. Between them they represent practically all branches of medicine and surgery. Even the National Insurance Act is not overlooked, for a paper on this subject, by Dr. J. W. Ballantyne of Edinburgh, forms part of the second volume; wherein, too, the science and practice of eugenics, or race culture, are dealt with by Dr. Meyer Solomons of Washington. The same volume, among a number of articles on anaesthesia,

[1] *Bex-les-Bains.* Notice Médicale par le Dr. Eugène de la Harpe. Bex-les-Bains: Imprimerie E. Oppliger. 1913. (Demy 8vo, pp. 63.)

[2] *Tota.* By Mrs. Hobart-Hampden. Illustrated by Alice B. Woodward. Published by Macmillan and Co., Limited. 1912. (Pp. 259. Price 3s. 6d.)

[3] *The Prescriber.* Edited by Thomas Stephenson, Ph.C., F.R.S.E., F.C.S. Vol. vi. Jan. to Dec., 1912. Edinburgh: *The Prescriber* Offices. 1913. (Demy 8vo, pp. 334.)

[4] *A Manual of Personal Hygiene.* By Walter L. Pyle, A.M., M.D. Fifth edition, revised and enlarged. Philadelphia and London: W. B. Saunders and Co. 1912. (Post 8vo, pp 530; figs. 131. Price 6s. 6d. net.)

[5] *Dental Anaesthetics.* By W. E. Alderson, M.D.Durh., M.S., B.Hy., D.P.H. With a contribution on Analgesia by John Bolam, L.D.S.Edin. Second edition. Bristol: John Wright and Sons, Ltd. 1912. (Pott 8vo, pp. 115. Price 3s. net.)

[6] *International Clinics.* In four vols. Twenty-second series. 1912. Edited by Henry W. Cattell, A.M., M.D. Philadelphia and London: J. B. Lippincott Company 1912. (Medium 8vo, pp. 314, 324, 316, 308. Price, four vols., 35s. net.)

includes an outspoken protest by Mr. Lawrence Irwell in regard to the practice in America of employing nurses as anaesthetists. The third volume is made notable through a rendering by Dr. S. W. Carruthers, of Norwood, of the Latin pamphlet in which Professor Theophilus Ciesielski has set forth his experiments and views on the question of how it happens that the offspring of plants, animals, and man may sometimes be male, sometimes female. Also recorded in the same volume by Professor J. B. Roberts, of Philadelphia, are two cases in which the operative fixation of a fracture of the shaft of the femur was followed by death.

Dickens is generally believed to have drawn the noble character of Riah in *Our Mutual Friend* as a set-off to the loathsome figure of Fagin in *Oliver Twist*, which had justly offended the Jews. In the same way Mr. GEORGE TRELAWNEY would seem to have written his recent novel, *The Story of Harvey Sinclair*[1] as an atonement for his book *In a Cottage Hospital*, to the misleading and offensive character of which we felt compelled to call attention in the JOURNAL (March 23rd, 1912, p. 691, "The Man with the Muck-rake"). It is satisfactory to find that Mr. Trelawney's opinion of hospitals has apparently undergone a considerable change. His new book contains a glowing account of the care and consideration lavished by the whole personnel of a hospital upon the inmates of its wards, and even the much-maligned medical student comes in for his share of praise. This complete *volte-face* is the most interesting feature of the book. Harvey Sinclair's adventures in search of a woman willing to become the wife of a dying man do not make agreeable reading. It requires the genius of a Maupassant to paint man in all his coarseness and brutality without losing the dignity and restraint of the true artist; and Mr. Trelawney would do well to study the methods of the great masters of literature before venturing once more amongst the pitfalls that beset the path of a writer of realistic fiction.

[1] *The Story of Harvey Sinclair.* By George Trelawney, author of *In a Cottage Hospital.* London: T. Werner Laurie, Ltd. 1912. (Cr. 8vo, pp. 224. 2s. net.)

MEDICAL AND SURGICAL APPLIANCES.

Medicated Oxygen Bottle.

SIR LAUDER BRUNTON (London) writes: It is not infrequently desirable to administer amyl nitrite or ethyl iodide along with oxygen to patients suffering from anginal attacks or spasmodic asthma. This is usually done by putting the medicament upon a piece of blotting paper or cotton wool in the funnel or inhaler close to the patient's face. The inconvenience of this is that it is apt to move from its position, and there is no means of regulating the strength of the inhalation. To obviate these inconveniences a bottle has been made for me by Messrs. Allen and Hanburys with two metal tubes arranged similarly to an ordinary Wolfe's bottle. One of these, however, can be moved up and down and fastened by means of a screw, as shown in the drawing. The cotton wool or blotting paper, moistened with nitrite or iodide, is placed in the bottle. At first the movable tube is drawn well up, so that as the oxygen passes through it over the wool the vapour is dilute. As the nitrite evaporates the tube is pushed further down so as to go closer to the paper or wool, and thus a stronger vapour is obtained. When it is desired to give a diffusible stimulant ether may be employed in a similar way, or a quantity of rectified spirit, brandy, or whiskey may be poured into the lower part of the flask and oxygen allowed to bubble through it. The bottle may also be used simply to render the oxygen warm and moist. In this case the bottle is half filled with hot water and placed in a small basin of hot water or surrounded by hot wet flannels. In some cases of bronchitis it may be advisable to add to the hot water friar's balsam, terebene, or other terebinthinate preparations.



BURBERRYS recently had an interesting display of the outfit they have provided for the Canadian Arctic Expedition, which, early in June, will start under the command of Mr. V. Stefansson into the hitherto unexplored regions bounded by Behring Strait and the Pole, the western border of the Arctic archipelago, and the known open sea north of Siberia. The materials were specially woven and proofed.

THE INTERNATIONAL MEDICAL CONGRESS IN LONDON.

AUGUST 6TH TO 20TH, 1913.

THE Seventeenth International Congress of Medicine, which will be held in London next August under the patronage of H.M. the King, will be opened by H.R.H. Prince Arthur of Connaught as the representative of His Majesty at a meeting in the Albert Hall at 11 a.m. on Wednesday, August 6th.

The last meeting of the Congress in London took place in 1881, when Sir James Paget was President. This year the President is Sir Thomas Barlow, and the Treasurers are Sir Dyce Duckworth and Mr. Makins. Sir Alfred Pearce Gould is Chairman of the Executive Committee, Sir Henry Morris Chairman of the Finance Committee, and Sir Lauder Brunton Chairman of the Reception Committee. There is also a Ladies' Committee, of which Lady Duckworth is Chairman.

The Central Office of the Congress will be in the Albert Hall. The sectional meetings will be held in rooms in the University of London, the Imperial College, the Royal School of Science, the School of Art, and the Central Technical College. These bodies have generously placed their buildings, which are all close together in South Kensington, at the disposal of the Congress. The Royal College of Physicians, the Royal Society of Medicine, St. Thomas's Hospital, the Royal Army Medical College at Millbank, and the Royal Dental Hospital are also offering accommodation for sectional meetings. The Students' Union of the Imperial College will serve as the men's club, and the authorities of Alexandra House have kindly lent rooms for a ladies' club.

There are in all twenty-six Sections and Subsections. Their sessions will be held in the morning and in the afternoon. The morning sessions will be devoted to discussions on fixed subjects, which will be introduced by eminent medical men from every part of the world who have been invited for the purpose. The invitations have been very generally accepted, and there seems no doubt that the discussions will be of great interest and importance. The work which the several Sections purpose to do will be noticed in future issues.

Five general addresses have been arranged. These will be delivered by Professor Chauffard (Medicine), Professor Harvey Cushing (Surgery), Professor Ehrlich (Pathology), Mr. W. Bateson (Heredity), and the Right Hon. John Burns, M.P., President of the Local Government Board (Public Health). They will be delivered in the Albert Hall.

It is estimated that about 5,000 medical men and 2,000 ladies will attend the Congress.

The organization of the Congress has been going on for nearly three years. It will give some idea of the magnitude of the task to state that it has taken a complete year to arrange the personnel of the various committees, and another complete year to settle the programme of the discussions in the Sections. The latter was issued on September 30th last. There are several discussions for which two or more Sections are combined. At the present time the reports drawn up by those chosen to introduce the discussions are being received and set up in type. It is hoped that all these reports which will form the basis of the discussions will be printed and bound as a separate volume for each Section before the Congress opens. A second volume for each Section will be published subsequently containing the speeches delivered and the independent papers presented at the Congress itself.

A circular will be issued on April 30th giving information on travelling facilities, both to London and in London, on hotels and boarding houses, on the location of the various sections, and on other points likely to be useful to members. Early in June the final programme of the scientific business will be published, which will include the list of independent papers accepted by the Sections and the names of intending speakers.

The office of the Congress is at present at 13, Hinde Street, W., where information may be obtained by applying to the General Secretary.

Subscriptions to the General Fund of the Congress should be forwarded to the Treasurers of the Seventeenth

International Congress of Medicine at the same address. It should be borne in mind that the membership subscription of £1 only suffices to meet the expenses of producing the *Volume of Transactions* subsequently delivered to each member. The entire cost of organization and conduct of the meeting has therefore to be provided for by private subscriptions to the General Fund.

A list of the subscriptions already received will be published shortly.

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

Analytical Evidence on Behalf of Proprietary Preparations.

On April 10th evidence was given by Mr. Ernest John Parry, consulting and analytical chemist, practising in London, who had been retained for the purposes of the inquiry by the Proprietary Articles Section of the London Chamber of Commerce. In the absence of Sir Henry Norman, Mr. H. L. Lawson presided.

The British Pharmacopœia.

The witness said he proposed to deal with the scientific evidence already given, and, with great respect to the witnesses, to correct some important misstatements of fact. He would also deal specially with *Secret Remedies*, and endeavour to convince the Committee that there were such grave defects, mistakes, and inaccuracies in that work as to cause it to fall utterly short of what it claimed, namely, to disclose what such remedies contained and what they cost. The witness controverted the statement of Dr. Tirard that the *British Pharmacopœia* was authoritative in the courts of law until it was replaced by a new volume. Mr. Parry said that a divisional court had held that the *Pharmacopœia* was only a *prima facie* standard, and might be rebutted by expert evidence. The evidence of Dr. Tirard left the very definite impression that the *British Pharmacopœia* had only introduced official substitutes for proprietary medicines where they contained poisons. The witness took strong exception to this view, and gave a list of about twenty official drugs of the *British Pharmacopœia*, most of which were free from poisons, and all of which, he said, started life as proprietary and at one time secret medicines, achieved success as such, obtained recognition of their value from the medical profession, and were ultimately included in the *Pharmacopœia* in exactly the same manner that Dr. Tirard said the substitute for Dr. Collis Browne's chlorodyne had been included. The list included Murray's fluid magnesia, and the witness said this was one of the few proprietary medicines introduced by a medical man. It was run openly as a proprietary medicine by a medical man of high standing—Dr. James Murray, physician to the Lord Lieutenant of Ireland in 1859. The witness produced a newspaper dated September 15th, 1859, in which an advertisement of this remedy appeared over the signature of Dr. Murray.

The Chairman: In those days was there the same regulation with regard to acts of that kind as there is now?

The Witness: I should say not, for there are in this paper two other advertisements of their own proprietary medicines by medical men. Continuing, the witness said that in regard to remedies sold as cures for cancer, consumption, and certain other diseases, and as to remedies dealing with sexual diseases, he was in agreement with Dr. Cox, except that he considered the measures he suggested for dealing with these were not useful and should be replaced by the remedies proposed by the London Chamber of Commerce. The case of the British Medical Association seemed to be built up on the assumption that the ingredients of a large majority of proprietary medicines were relatively inactive. Apart from the cancer, consumption, etc., "cures," he declared this assumption to be erroneous and untrue. The better known proprietary medicines contained highly active useful ingredients. He knew this because, in his capacity as an expert in drugs, some of the principal manufacturers were in continual communication with him, and samples of the various drugs used by them were regularly submitted to him for analysis, in order to know that the highest degree of purity was being obtained.

Criticisms of the Suggestions of the British Medical Association.

The witness urged that publication of the formulae of proprietary medicines would lead to the marketing of numerous imitations. He regarded Dr. Cox's evidence as to the effect upon the sale of advertised medicines of the publication of *Secret Remedies* as an endorsement of this view; the public would still get an easy means of self-medication, and it could not be useful to injure the present proprietor for the sake of the imitator. The omission from the Sale of Food and Drugs Act of the exemption in favour of proprietary remedies, as suggested by the British Medical Association, would not effect the object desired, as, even assuming the label to be a warranty (as in fact it was), and even assuming the label to contain the formula, a prosecution would not lie unless the purchaser in buying the article recited the formula. An offence would be committed, but under the Merchandise Marks Act, of which he thought Dr. Cox had not appreciated the scope.

The witness said that from his knowledge of the medical profession and the wholesale drug trade he disputed Dr. Cox's evidence as to the attitude of doctors generally towards proprietary medicines. He knew that doctors ordered largely secret remedies of which they did not know the composition. One preparation, of which an incorrect analysis was given in *Secret Remedies*, had been asked for by 3,000 medical men since January 1st, 1913, in the form of samples, and 200 doctors had expressed in writing their approval of the remedy. In support of this statement the witness handed in for the private examination of the Committee a selection from the letters referred to.

Sir Philip Magnus: Their approval of the samples would not necessarily imply that the doctors ordered the preparation for their patients.

The Witness: There are many other secret remedies, most of which are in the two volumes issued by the British Medical Association, which from my own knowledge are prescribed regularly by the medical profession. It is quite a common practice for doctors to do so.

Sir Philip Magnus: Are the ingredients unknown to medical men?

The Witness: I am certain the average medical man could not give the slightest idea of what many of them contain.

So that when they prescribe these remedies their treatment is quite empirical?—I do not say that. The doctor gets results, and, therefore, he goes on using the preparation.

The Chairman: His knowledge is practical, not scientific?—Just so.

As to the insertion of advertisements in the British Medical Journal, the witness expressed the opinion that an announcement regarding a "diabetic whisky," conveying the impression that the amount of sugar in the whisky was reduced to the very least fraction, should not have been accepted for publication, because there was no sugar in whisky, and the quantity could not therefore be reduced.

The Analyses in "Secret Remedies."

As to the evidence of Mr. E. F. Harrison, the witness said he agreed with Mr. Harrison in his general condemnation of the extreme cases of some of the preparations dealt with in *Secret Remedies*, but he did not agree with the suggestion that "any case for new legislation must rest largely upon what was done in the worst cases and what it was possible to do." To take this attitude would be a great injustice to reputable manufacturers. He did not agree with Mr. Harrison that to compel the declaration on the label of all the principal ingredients would automatically kill out flagrant swindles. The proprietors of fraudulent remedies would have no difficulty in concocting formulae containing small quantities of substances whose names would not give any information to the purchaser, but, on the contrary, make the remedy appear to be of a highly important and complicated nature, though possibly quite valueless. Any such requirement would therefore hurt the honest useful remedies, while leaving the fraudulent ones more or less untouched.

As to the differences between Mr. Harrison's formulae and those claimed by the manufacturers, the witness denied that it was the case, as suggested recently in the British Medical Journal, that these differences were due to recent alterations in the formulae. Once a successful trade was established in any article, the proprietor did not alter the formula except in quite exceptional cases; it did not pay to do so. Differences were to be accounted for by the inherent difficulty of a proper analysis of the majority of proprietary preparations. An enormous number of these preparations were totally incapable of analysis at all; there was no analyst who could do it.

Mr. Glyn-Jones: Would you not rather say, "totally incapable of accurate, complete analysis?"

The Witness: A large number of mixed inorganic preparations, such as medical men's prescriptions, are totally incapable of being analysed, or any formula being arrived at by any known means at all.

The witness proceeded to criticize the books, *Secret Remedies* and *More Secret Remedies*, in detail. He said that Mr. Harrison had probably done his large amount of work with comparatively little error and in a very able way, but as large numbers of preparations could not be accurately analysed chemically it was unfair to publish specific formulae as if they were, in fact, complete and accurate, with merely some general admission in a preface that the formula might not be altogether complete. The editors of these books expressed their knowledge of the possibility of errors, and of the real impossibility of proper analysis in many cases, in such a way that the ordinary reader would believe, and was intended to believe, that the formulae given were correct and true ones, resulting from a chemical analysis. It was admitted that, in general, vegetable preparations could only be identified when they contained an alkaloid or a glucoside, and the statement was made that vegetable extracts containing no such principle were not identifiable, but were only used in pharmacy for their agreeable odour or bitter taste. The witness said that this statement was so hopelessly incorrect that much of the value of the analyses in the book fell to the ground with the inaccuracy of that suggestion. If the statement were true, the *British Pharmacopoeia* might go on the dust-heap, and medical men would have to admit that 90 per cent. of their prescriptions contained nothing save inert substances having either an agreeable odour or a bitter taste. He said with confidence that far more than half the vegetable preparations of the *British Pharmacopoeia*, when mixed, as they usually were, several at a time, in medicines or prescriptions, could not possibly be detected by any known means by any living analyst unless they were present to such a large extent as to be recognized by taste or smell. An enormous number—probably the majority—could not even be recognized by taste or smell if there were present some strongly tasting or smelling ingredient in such quantity as to mask the taste and smell of the other bodies. This applied with considerably greater force to the drugs not in the *British Pharmacopoeia*, but included in the standard works of reference. The witness concluded by giving a number of examples from *Secret Remedies* in which he affirmed that from his own knowledge the analyses were substantially inaccurate and incorrect. He was prepared to supply details, not for publication, with the understanding that they might be handed to the Government analyst for verification, so far as that was possible by analysis.

The cross-examination of the witness was postponed until the next meeting of the Committee.

The Medical Herbalists' Association.

Evidence was next given by Mr. Joseph Watmore, who said he represented the National Association of Medical Herbalists. There were 1,500 medical herbalists and botanists in this country. He claimed that with few exceptions this form of occupation was carried on carefully and honestly. The association for which he appeared desired that medical herbalists should be given the same privilege as pharmacists of being relieved from the stamp duties if they published formulae in trade journals, and did not claim the preparation to be a cure. The witness advocated the establishment of a proprietary medicines office, which should register the formulae of new preparations and take action if the public did not receive articles in accordance with the registered formulae.

THE SALE OF VERONAL AND ALLIED COMPOUNDS.

While the modern development of organic chemistry has furnished the physician with a considerable number of drugs of value, it has also been partly responsible for the putting before the public, without restriction, of many new drugs which experience has subsequently shown to be at least as dangerous as earlier known substances regarded by the law as poisons, and only obtainable under more or less adequate restrictions. Since the list of scheduled poisons to which such restrictions apply can be extended at any time by an Order in Council, it is possible for the law to be kept nearly abreast of knowledge of the properties of new substances; but if the machinery works with much friction, such extensions of the Schedule may be much delayed. The initiative in making additions rests with the Pharmaceutical Society; the Council of that society must pass a resolution setting forth that certain substances ought to be included in Part I or Part II of the Schedule, and when such resolution is sent to the Privy Council the latter authority issues—or does not issue, as it sees fit—the Order making such inclusion part of the law. The present restrictions on the sale of carbolic acid were advocated for years by the Council of the Pharmaceutical Society before its resolutions were acted on by the Privy Council, and resolutions in favour of the scheduling of acetanilide have not yet led to this substance being added.

The most recent Order in Council on the subject of poisons adds veronal, trional, and a number of allied compounds to the Schedule. A resolution in favour of this being done was passed by the Council of the Pharmaceutical Society in March, 1912; the terms of that resolution would have substituted for "sulphonal" in Part II of the Poisons Schedule "sulphonal and its derivatives and the poisonous derivatives of mercaptol," and would also have added, "di-ethyl barbituric acid and other derivatives of barbituric acid and all poisonous ureides and their derivatives"; but the Lords of the Council did not approve. Since then more cases of veronal poisoning have occurred, and one in particular has attracted much public attention; the importance of restricting the sale of this substance being thus again emphasized, the Council of the Pharmaceutical Society passed a new resolution in February of this year; it was of a far less inclusive character, and, in fact, limited to the one substance, di-ethyl barbituric acid, the substance sold as veronal and under other trade names. Again, however, the Lords of the Council found themselves unable to agree to what was proposed; but, as the result of a conference with the officials of the Privy Council and the chief Government chemist, a resolution was passed by the Pharmaceutical Council at its meeting in March, which has since been approved by the Lords of the Council, and on and from April 12th the substances mentioned therein are poisons in the eye of the law and must be treated as such. The resolution was as follows:

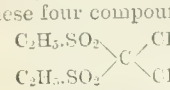
(*a*) That "Sulphonal" be removed from Part II of the Schedule to the Poisons and Pharmacy Act 1908, and that "Sulphonal and its homologues, whether described as trional, tetronal, or by any other trade name, mark, or designation," be substituted therefor.

(*b*) That Diethyl-Barbituric Acid and other alkyl, aryl, or metallic derivatives of Barbituric Acid, whether described as veronal, proponal, medinal, or by any other trade name, mark, or designation; and all poisonous Urethanes and Ureides ought to be deemed poisons within the meaning of the Pharmacy Act 1868, as amended by the Poisons and Pharmacy Act 1908 and ought to be deemed Poisons in the Second Part of the "Schedule of Poisons" to that Act.

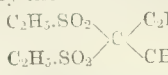
The restrictions applying to poisons in Part II of the Schedule are: (1) They can only be sold by retail or dispensed by a qualified pharmacist; and (2) when sold by retail they must be labelled with the name of the article, the word "poison," and the name and address of the seller.

The regulations as to the keeping of poisons in special containers or away from other drugs also apply.

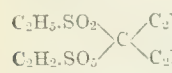
The number of substances thus added to the Schedule is considerable. It may prove to be the case that the first clause will be held to cover not only sulphonal, trional, and tetronal, but also "reversed sulphonal." The relationship of these four compounds is shown by their formulae:



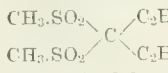
Sulphonal
(Diethylsulphon-dimethyl-methane)



Trional
(Diethylsulphon-methyl-ethyl-methane)



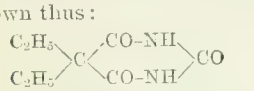
Tetronal
(Diethylsulphon-diethyl-methane)



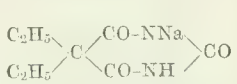
"Reversed sulphonal"
(Dimethylsulphon-diethyl-methane)

Thus the last-named is not strictly a homologue of sulphonal, but a metameride.

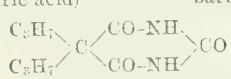
The second clause includes, in the first place, the substances specified by name, diethylbarbituric acid (veronal) and proponal, with medinal (veronal-sodium) and other metallic derivatives, the mutual relationships of which are shown thus:



Veronal, hypnogen, malonurea or malourea
(Diethylbarbituric acid)

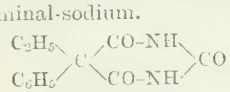


Veronal-sodium, medinal
(Sodium salt of diethyl-barbituric acid)



Proponal, homalonurea
(Dipropyl-barbituric acid)

The clause also includes, in the second place, other alkyl, aryl, or metallic derivatives of barbituric acid, such as luminal and luminal-sodium.



Luminal
(Phenylethyl-barbituric acid)

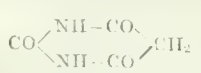
Thirdly, all poisonous urethanes.

Fourthly, all poisonous ureides.

The vagueness apparent here is, no doubt, necessary if there is to be no risk of the amendment of the law being defeated in effect by the introduction of new and perhaps equally dangerous compounds allied to those named; but there are obvious disadvantages in the use of the adjective "poisonous," leaving it to be decided in any given case whether a compound comes under this description or not. The simplest member of the urethane group is urethane itself, which is ethyl carbamate $NH_2CO.OC_2H_5$. This is described in the *British Pharmaceutical Codex* as "a safe drug, and no evil effects are to be anticipated even from 60 to 75 grs." A simple derivative of this is phenyl urethane, $C_6H_5NH.CO.OC_2H_5$, known as euphorine. Others used medicinally are methyl-propyl-carbinol urethane, known by the trade name hedonal, propyl-urethane, ethylidene-urethane, and chloral-urethane. It appears doubtful which of these are included, although it seems probable that the last named would be held to be included. The final group is the one which appears to leave the greatest uncertainty as to what it includes. A ureide is a compound of an acyl (or acidyl) radical with the residue of urea, just as an amide is a compound of an acyl radical with the residue of ammonia. Thus:

NH_3	$NH_2.CO.CH_3$	$NH_2.CO.NH_2$	$NH_2.CO.NH.CO.CH_3$
ammonia	amide of acetic acid	urea	ureide of acetic acid.

When the acyl radical is derived from a dibasic acid, one hydrogen atom of each NH_2 group may be replaced, as in barbituric acid:



Such compounds are usually distinguished as diureides or cyclic ureides; it has been suggested that only cyclic ureides should be regarded as covered by the wording of the resolution, but the justification for this view is not apparent. Adalin (diethyl-bromo-acetyl urea) and bromural (α-brom-isovaleryl-urea) are ureides, though not cyclic, and whether they are now within the Schedule or not depends on whether they are included by the adjective "poisonous"; other familiar ureides which must be judged on the same ground are caffeine and theobromine.

It is to be noted that while it is all *poisonous* urethanes and ureides which are included, *any* alkyl, aryl, or metallic derivative of barbituric acid, even if proved to be non-poisonous, is covered by the wording. Some knowledge of organic chemistry will evidently now be required in deciding what are the requirements of the law in regard to artificial hypnotics, and no doubt pharmacists will show themselves fully conversant with this side of the question. In regard to whether a given substance is or is not covered by the adjective "poisonous," it will probably be thought the wiser course to take the safe line and treat any doubtful article as requiring the same restrictions as sulphonal.

UNIVERSITY OF LONDON.

FINAL REPORT OF THE ROYAL COMMISSION.

[FIRST NOTICE.]

THE final report of the Royal Commission on University Education in London,* appointed in February, 1909, was issued on April 15th. It is signed by all the Commissioners, Viscount Haldane (Chairman), Viscount Milner, Sir R. Romer, Sir R. L. Morant—who, when the Commission was appointed, was Permanent Secretary to the Board of Education—Mr. Laurence Curric, M.A., banker, Sir W. S. M'Cormick, secretary to the Carnegie Institute for the Universities of Scotland, Mr. E. B. Sargant, M.A., to whom was entrusted the task of reorganizing the educational system of South Africa after the war, and Mrs. Creighton, widow of the late Bishop of London. It is a unanimous report, and its influence and authority will be greatly increased by this fortunate circumstance.

Prefixed to the report is an analysis which alone occupies 24 foolscap pages, and the report itself, together with an appendix containing the Commission's brief fourth report (December, 1911) recommending the early acquisition of a site in a central part of London, and an alphabetical index, fills 218 pages more.

It is thus a document formidable in bulk and in the multitude of its facts, opinions, and arguments. It has the outward form and seeming such a document commonly presents, and winds up with a long series of recommendations embodying a scheme for a new University of London to replace that which now exists, but created out of existing elements with financial and other reinforcements. On this point the Commissioners say:

115. *No compromise possible on the essential conditions of university organization.* So strongly, indeed, do we hold the view that the method of working we have described, and the conditions upon which alone such work can be done, are essential to the existence of a real University in London, and that such a University is a national and imperial as well as a merely local need, that it would be better not to interfere at all with the existing constitution than to attempt anything less fundamental. Any reconstruction worth the making must provide the University with at least a nucleus which may safely be trusted to grow and develop. The University will then avoid the gradual lowering of standards which has already brought it twice into a critical situation. We mean, of course, standards of teaching, not standards of examination.

The report, however, is a good deal more than a criticism of present arrangements and recommendations for the future. It includes a treatise on the aims of university education which will be of permanent value. In it general principles are worked out and afterwards applied to London.

The report consists of five parts, the fifth, a summary of recommendations, alone fills nineteen pages.

HISTORICAL.

Part I. which deals with the working of the present organization of the University, begins with an historical

* Cd. 6717. Price 2s.

retrospect, and then discusses the present relations of the internal and external sides of the University, and the consequences of the existing combination in the University of a large number of institutions differently related to it and of different educational standards and aims.

The Essentials of a University.

Part II, which contains 26 pages, discusses the essentials of a university in a great centre of population. It lays down the conditions of the nature and work of such a university, and discusses the essentials of university education. It is pointed out:

First, that students should work in constant association with fellow students of their own and other faculties and in close contact with their teachers, and should pursue their work when young and able to devote their whole time to it.

Secondly, that university work should differ in its nature and aim from that of a secondary school, or a technical or purely professional school. In the secondary school definite tasks are prescribed, knowledge is acquired while the mind is specially receptive, and pupils are mentally and morally trained by the orderly exercise of all their activities; in the technical or professional school theoretical teaching is limited and directed by the application of ascertained facts to practical purposes; in the university knowledge is pursued not only for the sake of information, but always with reference to the attainment of truth.

Thirdly, that there should be close association of undergraduate and post-graduate work. Proposals which tend to their separation are injurious to both. A hard and fast line between the two is disadvantageous to the undergraduate, and diminishes the number who go on to advanced work. The most distinguished teachers must take their part in undergraduate teaching, and their spirit should dominate it all. The main advantage to the student is the personal influence of men of original mind. The main advantage to the teachers is that they select their students for advanced work from a wider range, train them in their own methods, and are stimulated by association with them. Free intercourse with advanced students is inspiring and encouraging to undergraduates.

And finally, that the influence of the university as a whole upon teachers and students, and upon all departments of work within it, is lost if the higher work is separated from the lower.

At the same time, it is considered that special research institutes should not form part of the extra organization, and the opinion is expressed that no true analogy is offered by such institutes in Berlin, Leipzig, Paris, or Brussels for the establishment of research institutes in London under university control. On the other hand, a university press under full university control is held to be an essential function of the university.

Education for evening students, though not essential to the need of a city university, ought to be undertaken by it, and the education offered to its evening students should be as good as to the day students. The cost, though greater than for day instruction, should nevertheless be undertaken.

Technological instruction, which should be included among the functions of a university, ought not to be of a narrow utilitarian kind. The university department of technology, based upon a thorough grounding of pure science, is of the highest value and importance from the practical point of view of industrial progress. It is noted also that advanced instruction of a specialized kind must be provided for occasional students already engaged in a profession or calling.

It is also recommended that the university should be enabled to establish and maintain a special centre for work in conjunction with the Workers' Educational Association; it must, however, first provide satisfactorily for its own undergraduate and graduate students, and for its professoriate.

Degrees and Examinations.

It is pointed out that, though the granting of degrees is one of the chief characteristics of a university, it is not the real end of its existence. A degree should signify that the possessor has received a university education. Examinations are the main tests in English universities and the sole test on the external side, the lapse of time between the examination being the only condition for securing the student's education. The test is thus one of knowledge only, not of education or of the quality of the work. Any examination however conducted will be injurious if based upon a syllabus too wide to be covered in the time allotted to the education of which it is intended to be a test.

General Conditions Requisite.

The report then goes on to consider the conditions necessary for the realization of these ends. The first is said to be the provision of sound general education, the second homogeneity of university classes, the third a university quarter. By this it is meant that constituent colleges and university departments should be grouped as near together as possible; the creation of such a university quarter would lead to economy in administration, to increased co-operation between different departments of study in the interests of new lines of work, to greater intercourse between students and teachers, and probably to a better public understanding of the university and its work. The fourth condition is the establishment of university hostels and societies. The fifth is a university professoriate, that is to say, the university must provide its own teachers, appointing, paying, pensioning, and dismissing them. The sixth condition involves professorial control of teaching and examination, and the seventh financial control, by the university.

Constitution of the New University.

The general outline of the constitution recommended for the University may be stated as follows:

The Court, including the Deans of Faculties and other members to the number altogether of about 200. It would be the supreme governing body and its chief function would be legislative within the provisions of the first or original statutes which would define the constitution and powers of the other governing bodies of the University. The Court would delegate powers to the Senate or to any committee of its own body. The control of the Court for the internal management of the University would be exercised entirely by means of statutes and resolutions and would take effect only by altering or setting in motion the existing machinery for the government of the University.

The Senate would consist of the Chancellor, Vice-Chancellor, Chairman of Convocation, and twelve other persons, appointed—five by the Crown, two by the Court, two by the Academic Council, two by the London County Council, one by the Corporation of the City of London. The Senate would be the executive body, having financial control and power to recommend to the Court the admission of Constituent Colleges and University Departments, the recognition of Schools of the University, and the institution of new degrees, diplomas, and certificates.

The Academic Council would consist of the Vice-Chancellor, the Deans of the Faculties, one teacher representing each group of studies for which no Faculty had been formed, and eight members of the Faculties elected by the Faculties in common session. It would advise the Senate as to the general direction of the Faculties on matters concerning research, teaching, and examination, and generally as to any action having a direct educational bearing.

The Committee for Technology would have control of the annual income of the Imperial College and of the engineering department of University College and King's College. It would report to the Senate on appointments to professorships and readerships in the Faculty, and would receive reports from the Faculty of Technology.

Other Committees of the Senate.—The other committees of the Senate recommended are: (1) A committee to supervise the curricula and examinations of students in schools of the universities and other students not in constituent colleges or university departments; (2) a committee or committees to supervise the extension of university teaching; (3) a committee to supervise school examinations.

Convocation.—The powers of Convocation are saved, but it would include all university professors and readers, and all honorary associate professors and readers, and all persons holding an honorary or *ad eundem* degree.

A Students' Representative Council, consisting of and elected by registered undergraduate and graduate students. It would appoint two representatives to the Court and have right of access to the University authorities by petition.

The Faculties would consist either wholly or in the main of University professors (including honorary and associate professors) of the subjects comprised in the Faculty, of the University readers, and of such other teachers and officers appointed by the University as the Faculty might co-opt. It would have power to determine generally the conditions for the award of degrees, diplomas, and other distinctions within the purview of the Faculty and to determine generally the course of study. It would be responsible for the conduct of examinations in constituent colleges and university departments, and would advise the Senate as to the needs of the Faculty and as to the provision and organization of the teaching within it. The Faculties recommended are arts, science, technology, economics, medicine, laws, and theology.

Professors and Readers would be teachers in constituent colleges or university departments or schools. The University would choose them for their individual excellence from the widest possible field, and would give them such remuneration, including superannuation and conditions of tenure, as would free them from the pressure of material anxiety. It is recommended that in the Faculty of Medicine the minimum salary of a professor should be £1,000, and of a university reader £300. The head of each department of a constituent college would be responsible for its control, including that of its laboratories and libraries.

Examinations.—Students in the department would be examined by the head of such department, and, under his direction, by the other teachers in the department, but at the public examination one or two assessors appointed by the Faculty would be conjoined with him. The several heads of departments and other teachers in a Faculty attached to a constituent college, together with the assessors, would form the examining board for degrees.

Colleges and Departments.—The constituent colleges would be educational institutions either established by the University or strong enough in one or more faculties to comply with the conditions for the incorporation and transfer to the University of the financial and educational control of their work. University departments would be departments dealing with a single subject of study or with a group of studies of less range than a faculty whether established by the University or placed under its financial and educational control. Schools of the University would be public educational institutions or groups of departments in larger educational institutions not under the educational or financial control of the University, but complying with the necessary conditions which include: (1) That the University shall be represented on the governing body; (2) that the principal teachers shall form a board of advice and with power to make suggestions to the governing body on academic matters. In the case of a hospital medical school it is considered that it would be sufficient for the board of teachers to report to the committee in charge of the business of the school and to be represented on that committee. (3) The University must be represented on the appointing committee in the case of teachers not directly appointed by it; in the case of a hospital medical school this provision would apply only to those teachers not on the staff of a hospital. The twelve general medical schools in London, together with the Royal Army Medical College and the London School of Tropical Medicine, should, it is recommended, be recognized as schools of the University until such time as any of them qualify for admission as constituent colleges in the Faculty of Medicine.

THE FACULTY OF MEDICINE.

In the historical retrospect at the beginning of the report it is pointed out that the movement for the reform of university education in medicine arose from the dissatisfaction felt by the medical teachers in London at the small number of university degrees obtained by their students in proportion to their total number and to the opportunities of clinical teaching. This aspect of the subject is dealt with at considerable length, and the general trend of the conclusions reached may be gathered from the following extracts:

316. *The Grievances of the London Medical Students.* . . . We are convinced that the proper course for us to take is to consider what in this Faculty, as in others, is essential to a real university education, and to endeavour to make recommendations which will result in adequate provision being made in London for this education being open to all who are able to profit by it. The degree will follow in the ordinary course, and the grievance should naturally disappear. So far as entrance to the University is concerned, the average London student has undoubtedly been under a real disadvantage in the past, partly because the present Matriculation examination is not connected with a well-developed system of secondary education, and many of the schools from which medical students come have not prepared their pupils for that examination, while the University has in the past been loth to accept equivalent qualifications, and partly because the Conjoint Board and the General Medical Council accept lower standards of admission to the minimum medical curriculum, and the students do not realize till it is too late that they are excluded from the beginning of their course from taking a university degree. The fact is very significant in this connexion that the students of the London School of Medicine for Women, who until quite recently were not admitted to the examinations of the Conjoint Board, have not found any difficulty in taking the degree of London University, and have been able to do so on the average in a shorter time than the men.

317. *The School examination admitting to the University will ultimately remove the grievance.* It is in our opinion most regrettable that so large a proportion of the medical students in London do not graduate through its University. The whole difficulty resolves itself into one of defective education, and the true solution of it is to institute such a system of school examinations as we have recommended for entrance to the University. Every student qualified by his previous education for university studies will then be admitted as an undergraduate without any need for special preparation, or for a special acquaintance with the university regulations. When a student is once in his course will be systematic and educative. He will not be required to pass tests for which he has not had full opportunity of preparing, and he will fail only if he is unfit or has neglected the opportunities afforded him. If either of these is the case he ought not to succeed.

This chapter of the report occupies altogether forty-three pages and is followed by four more on dental education. The further consideration of the views expressed and recommendations made must be postponed. We can only now indicate that among the general conclusions to which the Commission has arrived is that university medical colleges, each with a general hospital, would be required, but the difficulties in estimating how many such hospitals would be necessary are admitted, although three seems to be contemplated. The Commissioners, however, are clear on the point that the standard of teachers in the clinical subjects of the medical curriculum in these colleges ought not to differ from that of university professors in other subjects, so that it will be necessary to appoint and pay professors of the various branches of clinical medicine and surgery to devote the greater part of their time to teaching and research. The Commission favours the adoption of the Hospital Unit, consisting of a professor with the control of wards; an out-patient department; assistants nominated by the professor with a view to complementing his own knowledge and affording him the special assistance he requires to carry on research in the direction in which he is interested; and, finally, laboratory accommodation in close proximity to the wards, not only for the service of the wards and the examinations and procedures connected with the diagnosis and treatment of the cases, but also for the purposes of research. Each university medical college would consist of three units for the three main clinical subjects—medicine, surgery, and gynaecology—with, if possible, facilities for instruction in special departments, although it is considered that in respect to some of them such instruction should eventually be provided in special clinics outside the general hospital of the medical college.

FINANCE.

The Commissioners estimate that for professorships and readerships and the maintenance of libraries and laboratories the University will require an additional income of £85,500, with a further sum of £13,500 to permit the reduction they recommend in the fees university students would be required to pay to £15 a year for arts, £20 a year

for science, and £30 a year for technology, making a total additional income of £99,000. The annual income required by a medical college in order to provide for the cost of the three clinical units recommended would be £12,000.

LITERARY NOTES.

In a thesis for the doctor's degree recently presented to the University of Paris, Dr. Paul R. Mersey discussed the heredity of mental disorders so marked in the Spanish branch of the Hapsburg family. He shows that these disturbances have often taken the special form of a morbid love of death. The most marked instance is that of the mad queen, Juana la Loca, who would seem to have initiated this heredity. In 1506 her husband, Philip the Fair, fell grievously ill. She remained with him throughout his illness, and although she was well advanced in pregnancy no remonstrances availed to make her leave his bedside for a single moment. When he died she "nor wept nor uttered cry," but mute and motionless she answered nothing to those who spoke to her except by a gesture commanding silence. She had her husband's body embalmed, and after the funeral obsequies it was deposited in the church of the Carthusians of Miraflores near Burgos. Some days later she went to that sanctuary in a religious habit and began to pray. All at once she ordered the coffin to be opened and the wrappings to be removed from the body. She threw herself upon it, kissing the hands and the feet, and uttering aloud most tender expressions. The Queen periodically returned to Miraflores, and at each visit she had the temporary tomb opened. Soon she had the body taken out of the tomb and carried to her own room, where she placed it on a bed of state clad in magnificent robes. She was as jealous of her husband when dead as she had been when he was alive. She did not allow her women to go near the bed, and those not belonging to her establishment were not suffered to enter the room. She even declined the ministrations of a midwife, although one of great age had been chosen purposely, and she was delivered of a daughter without any assistance but that of her servants. At last she was persuaded that she ought to deposit her husband's body in the vaults of Granada. She insisted on taking it there herself. After verifying the contents of the coffin for fear of deception, it was placed on a funeral car drawn by four horses. The convoy started on the night of December 20th, 1506, as the Queen declined to travel by day, saying that a widow who had lost the sun of her soul should never again show herself in the light of day. Accordingly, during the whole journey they stopped before the break of day in a church or in a monastery. At each stoppage on the way she insisted on the reopening of the coffin, and the service for the dead was gone through as if Philip had just died. The following year her father, King Ferdinand, who wished her to marry again, wrote to his physician that the Queen kept the body of her husband continually beside her. It is not known exactly how long she continued to do this, but in 1509 we find her insisting that the body should be deposited in a part of the monastery of Santa Clara, where she could see it from the windows of her apartment, and in 1518, when there was a question of moving into another dwelling, the car on which the coffin was carried was repaired, so that in case of need it could be used for its transport.

In A. Abram's valuable book, *English Life and Manners in the Later Middle Ages* (George Routledge and Sons, 1913, p. 117) there is an amusing claim by a medical man for costs incurred by him in connexion with what we should now call a breach of promise case. Although there was usually a regular contract of marriage with settlements and indentures by which those concerned bound themselves by obligations to perform the covenants, the "Early Chancery Proceedings" prove that often the marriages did not take place. Still more often the dowry was not paid. One of the cases preserved amongst these documents gives an idea of the claims sometimes brought against those who broke their promises. Walter Lemster, Doctor of Physic, demanded, on behalf of his daughter-in-law, Lucy Brampton, from Richard Narborough, Doctor of Civil Law, who had broken his promise to marry her, after an engagement of ten years:

For "hir Arayment, gownys," etc. ...	£20	0	0
For the "Arayment" of her servant ...	6	13	4
Expenses in time of sickness caused by his unkindness...	13	13	4
Expenses seeking him in London and other places to speak to him about the matter...	27	16	0
Expenses and charges in the Courts in London, tarrying in London to speak with him, at his special request ...	48	10	0
	£116	12	8

The claim in respect of what the late Mr. Kruger would have called "mental and moral damages" does not seem excessive considering the engagement had lasted ten years. One would like to know whether Dr. Lemster was successful in his suit.

SCIENCE NOTES.

At the sitting of the Anthropological Section of the Australasian Medical Association for the Advancement of Science in Melbourne, Mr. L. W. S. Buchner read a paper in which he set forth the results of an examination of what are practically the only remains of the Tasmanian aborigines. He said, according to a report published in the *Australasian Medical Gazette*, that there were now only three half-castes known to be alive. Of these, two were males living on Cape Barren Island, the other was a female living on Kangaroo Island. Of the families now remaining on Cape Barren Island, most were the direct descendants of the early seal fishers, military deserters, and escaped convicts, who carried off Tasmanian aboriginal women. In 1830, after the decline of the sealing trade, there were still over 30 white men and forty-one aboriginal women on the island. Nine families, comprising over 150 persons, were represented on the island. The result of the consequent close intermarrying was showing itself in the degenerate children who attended the Government school. The islanders, as a rule, were very listless and indolent and extremely improvident. Mr. Buchner said that an interesting Mendelian problem awaited investigation, especially in one family in which the Tasmanian characteristics, after skipping the second and third generation, have come out in the fourth.

Questions of priority of an observation are always thorny and seldom of engrossing interest save to the claimants. In these notes, in our issue of March 1st, we ascribed to McGowan of Edinburgh the priority of description of a cocco-bacillus which is probably the cause of canine distemper, and stated that Ferry, working in the laboratories of Messrs. Parke, Davis, and Co., in Detroit, independently discovered the same organism. Messrs. Parke, Davis, and Co. have courteously written to say that Ferry's first paper appeared in July, 1910, whilst McGowan's did not appear till 1911. Both statements are perfectly accurate, and the facts are, we believe, as follows: Dr. J. P. McGowan communicated the results of his work to the Pathological Society of Great Britain and Ireland at its meeting in the first week of January, 1910, and as this society includes practically all the pathologists of this country, the reading of a paper at its meetings may be held to be "publication." The first part of McGowan's complete paper did not actually appear in the pages of the *Journal of Pathology and Bacteriology* until January, 1911. The point to be noted is that the description of the organism and experiments was very complete. Dr. Ferry's first paper appearing in the *American Veterinary Review* in July, 1910, was a preliminary report, and did not therefore state any conclusive basis on which the etiological claims could be founded; in fact, we have found no mention of fever being produced on inoculation even in his later papers. There is no reasonable doubt that, in view of later investigations, Ferry first isolated the organism. Owing to its striking morphological similarity to other organisms, thought by their discoverers to be the causal agents of distemper, it is possible that the same bacillus was previously obtained in mixed culture—an explanation which probably applies to the observations of Monckton Copeman. Be that as it may, McGowan and Ferry quite independently discovered this particular organism, and in strict justice the honours should be divided.

British Medical Journal.

SATURDAY, APRIL 19TH, 1913.

MALINGERING.

TIME was, not so very long ago, when the subject of malingering possessed for civilian practitioners in this country a degree of importance small relatively to that which it had in countries where military conscription was in force. The importance of the subject had already begun to increase before the passage of the various Acts dealing with workmen's compensation. This legislation defined and extended rights already existing under the common law, and has, without doubt, greatly increased the temptation to feign or exaggerate disabilities due to injury or to certain diseases arising out of and in the course of employment. There is already evidence that the Insurance Act has still further increased the practical importance of the subject, and it cannot be doubted that that measure has multiplied enormously the opportunities for malingering, extending them to classes hitherto more or less completely immune from such temptations.

Dr. Byrom Bramwell, in the interesting and valuable address upon malingering delivered recently before the Pathological Society of Manchester, published at page 805 of this issue of the JOURNAL, gives a definition. A malingerer, he says, is one who feigns sickness or who deliberately (knowingly and wilfully) induces or protracts an illness, with the object of avoiding duty, claiming money compensation, exciting sympathy, or for any other reason. The words "knowingly and wilfully" in this definition will be noted. The term "unconscious malingering" sometimes used is, he says, absolutely erroneous and involves a contradiction in terms, since the very essence of malingering is wilful and deliberate (conscious) deceit. Dr. Bramwell affirms that there are instances in which the patient knows that the condition which he attributes to the accident was previously present; that is to say, he is deliberately lying. But in others—as, for example, in cases of early tabes—he may not know this, and then he is not deliberately and wilfully trying to deceive. Further on, almost using Sir John Collie's words, he says that if it pays a patient better to be ill than to be well, or if a patient is lazily inclined and is content to take a holiday on sick pay—it may be half wages—there is no inducement to get well; in fact, there may be an inducement to remain ill—to prolong the illness indefinitely.

We have taken occasion also in this issue to review the recent book on the subject by Sir John Collie, who as Medical Examiner to the London County Council and in other capacities has had a very wide experience. It will be seen that there is an agreement between practitioners north and south of the Tweed as regards the bad influence which excessive legislation has had upon the manliness of the British workman. Dr. Bramwell quotes the statement made at a recent meeting of the Edinburgh Medico-Chirurgical Society by Dr. Dickson of Lochgelly, who has for twenty years had a large colliery practice in the county of Fife, that traumatic neurasthenia is now a common topic of conversation in the villages of Fife, that the *morale* of the Fife miner, which before the passing of the Workmen's Compensation Act was high, has become much deteriorated, and that the duration of illness after accidents has become much prolonged.

The fears frequently expressed by the father of the Insurance Act that its financial stability might be endangered by malingering seem in the way of being fulfilled, at least in some areas and among certain classes of insured persons. Owing to the fact that the proportion of the total number of insured persons who have become insured through approved societies of one sort or another is far larger than was originally expected, the problem is one which concerns these societies far more than the Insurance Committees. The chief means so far taken by approved societies seems to be the requirement that the medical certificate which insured persons must produce in order to obtain sickness benefit shall specify the nature of the disease. To this it appears, from correspondence which has reached us, some members of the profession take serious exception, on the ground that the giving of such a certificate involves a violation of professional secrecy. The answer made to this is that it is the insured person who makes the application for the certificate, and that he must be assumed to be acquainted with the conditions which the society to which he belongs has laid down. This would seem to be the view taken by the State Sickness Insurance Committee, which, at its meeting on March 27th, expressed the opinion that the question is one affecting insured persons rather than the medical profession, and that it is for the insured persons to make representations to their approved societies if any change be considered necessary. At the same time, the Committee recommended that the position of the practitioner should be safeguarded by taking care that any certificate bearing the name of the disease should only be handed to the insured person concerned, or to his or her accredited representative. From information which has since reached the Committee, however, it is doubtful whether this precaution, in Scotland at any rate, would protect the practitioner in some cases against an action for libel. Correspondents have given us instances of recent cases in which the requirement bears very hardly on the insured person—cases in which a perfectly innocent person has suffered from accident or disease producing some condition which he, or more usually she, would much prefer should not be known to any other person than her medical adviser. It seems, however, that the only sound principle is that embodied in the pronouncement of the State Sickness Insurance Committee. The principle has been recognized in the past by the medical profession, which has never hesitated to give evidence in courts of law as to the physical conditions of patients if requested so to do by the patient. The profession has enough problems of its own without unduly burdening itself with difficulties which are not of its making and which, after all, are the primary concern of the insured person.

On the general question of malingering under the Insurance Act it must, we think, be recognized by medical men who have accepted service under it that they have thereby incurred a serious professional responsibility, and that it is their duty to discountenance malingering. At the same time it must be said that in the past many friendly societies, and especially perhaps the trade unions in their

administration of the sickness benefit they granted, have been exceedingly lax. It is a far simpler and easier course for the doctor to go on giving certificates too long than to run the risk of the annoyance to which he may be subjected if he declines to give them a little too soon or even exactly at the right moment. But the difficulties consequent on a strict attitude in regard to certificates under the Insurance Act are not so great as they were to a doctor holding an appointment to a club. In the latter case the withholding of a certificate to a prominent or troublesome member of the club might entail the loss of one or two hundred club members. The same action under the Act could at the worst only entail the loss at the end of the year of the particular patient and perhaps one or two of his immediate friends. The approved societies, therefore, have an obvious duty in this respect. We have already admitted that the medical profession also has a duty, but its discharge should not be rendered more difficult by giving credence to unworthy suspicions such as spring from the allegation, easily made, that the doctor wishes to escape from his liability to give medical attendance.

The suggestion that the difficulty might be met by the appointment of a consulting medical referee by each Insurance Committee appears to be finding favour. It has been commended by the State Sickness Insurance Committee (Supplement, April 5th, p. 305), and seems to have been approved at the recent conference of representatives of approved societies in Westminster. It will be necessary to define the duties of this official very carefully; and in Bristol, where a referee has already been appointed, medical practitioners are advised to refer to him all cases in which there is any doubt as to malingering or as to whether the insured person is capable of working without detriment to his health or convalescence. The State Sickness Insurance Committee was of opinion that such referees should in general be appointed by the Commissioners and not by the Insurance Committees. Such a method of appointment was thought to be likely to ensure more security of tenure and better status for the officer, and to tend to discourage the wire-pulling and petty intriguing which are too often apt to occur with regard to local appointments and lead to selection on political, social, or practically any other grounds rather than professional suitability; and Sir John Collie, in his plea for the appointment of medical referees, published at page 812, maintains that they should have the status and emoluments of Government servants and be responsible to the Insurance Commissioners. Whatever the method of appointment, it is most important that the referee should not be engaged in panel practice and that he should possess the confidence of the local profession, not only in his professional capacity but in his tact and judgement. It would seem, therefore, that in making these appointments the Commissioners would do well to ask for nominations from the Local Medical Committees.

That very serious evils have grown up in connexion with the Workmen's Compensation Act is recognized, and nobody has spoken more strongly than Dr. Byrom Bramwell in his address; in fact, he handles the members of two learned professions with equal severity when he tells us that most of us who have had experience in compensation cases will agree that in some cases the lawyers have a good deal to do in fostering claims and preventing settlement. He mentions a bad railway smash in which a few persons were killed, several injured, and many unhurt. One of the passengers who was unhurt, while walking down to his office, was met by a friend, who said, "I was sorry to see you were in that terrible accident; I hope you were not hurt?" The man shook his head, and said, "I don't know; I have not yet seen my lawyer." But it is not only the lawyers that are to blame. "I have known at least one case," Bramwell adds, "in which a medical man made it his business to hunt up persons who had been in a railway accident, and to coach them up in manufacturing false or exaggerated claims."

THE GRAVE VOMITING OF PREGNANCY.

It is not every case of grave vomiting of pregnancy that calls for the induction of abortion, for it is not every case that is caused by the biochemical changes which are the result of pregnancy. Even if every instance of hyperemesis gravidarum were toxic in its nature, it would not necessarily call for the termination of the pregnancy. There are other ways of dealing with this dangerous complication of gestation than by bringing the gestation to an end, a method of treatment which Fieux[1] characterizes, with reason, as "ultra radical," and speaks of, without exaggeration, as the "cruel necessity of therapeutic abortion." Fieux himself has succeeded in curing four cases of "uncontrollable vomiting" of pregnancy by means of serotherapy. In two instances he injected serum from a woman in the early months of a normal pregnancy; in another instance he used horse serum along with that from a normal pregnant patient, and in the fourth case he employed only horse serum. The explanation of the good result in three of these cases may very easily be ascribed to antibodies developed in the maternal blood serum in response to chorionic antigens; but the equal success when horse serum alone was used is puzzling. Still, the outstanding lesson to be learnt is that there is another way of treating even the toxic cases of hyperemesis; the "ultra-radical" plan of therapeutic abortion is not the only method which promises good success.

But, as has been said, all cases of incoercible vomiting in pregnancy are not toxaemic in their origin. Dr. A. Herrgott[2] of Nancy has recently reported a most instructive instance of the truly reflex variety of that alarming malady. The patient was a primipara who had never had a serious illness in her life, but admitted being of a very nervous temperament. Vomiting came on at the end of the second month of pregnancy, and rapidly became alarming in frequency and severity; and the woman was sent in a very low condition into the Nancy Maternity Hospital to have the induction of abortion performed. Dr. Herrgott made a vaginal examination, and discovered that the pregnant uterus was displaced backwards (retroversion); he replaced it without difficulty, and immediately there was marked improvement in the vomiting. To his disappointment, however, the amelioration of symptoms was only temporary; in fact, four days later the patient was as seriously ill as at first. Before proceeding to more severe measures he examined the patient once more, and found that the uterus was once more displaced, and that now it was retroflexed and almost incarcerated in the pelvis. By putting the woman in the genu-pectoral position he was able once more to replace the organ, but now he fixed it in its proper

[1] Fieux, G., *Ann. de gynéc. et d'obstét.*, 2 s., vol. ix, p. 718, December, 1912.

[2] Herrgott, A., *Ann. de gynéc. et d'obstét.*, 2 s., vol. x, pp. 65-69, February, 1913.

situation by means of a pessary. Nearly immediate improvement followed, and some three weeks later the patient was able to leave hospital quite well, her pregnancy progressing normally.

Several lessons are to be learnt from such a case as this. In the first place, in every case of vomiting in pregnancy, even if it be of the gravest type, the pelvis should be explored and the position of the uterus ascertained; if it be abnormal it should at once be corrected. In the second place, the obstetrician should satisfy himself that the replacement has been permanent, and should even fix the womb in its proper place by means of a pessary if there seem to be any risk of displacement recurring. But there is a third lesson which does not lie on the surface, and yet is of great importance. It is this. Even when there is a uterine displacement there may also be a toxic state; the retroversion or retroflexion may not be the cause—may not, at any rate, be the sole cause of the vomiting. Consequently, if the replacement of the womb be not at once followed by marked improvement, other means—for example, the induction of abortion—should be instituted, and these without delay. Time enough must be allowed if this "therapeutic of despair," as Herrgott calls it, is to succeed. If we do not do this, he says, we run the risk of being too late.

There still remains a difficulty in some instances of distinguishing between a hyperemesis which is purely nervous and one which is toxaemic in origin. Here Professor Whitridge Williams[a] comes to our aid. Believing that there are three types of excessive vomiting in pregnancy, that the neurotic is the most and the reflex the least frequent type, while the toxaemic is the most serious, Dr. Williams thinks that it is very necessary to separate the neurotic from the toxaemic as soon as possible. This can to a certain extent be done by ascertaining the ammonia coefficient of the urine. "I believe," he says, "that for clinical purposes we can consider a given case of vomiting as toxaemic in origin whenever a seriously ill patient, presenting a high ammonia coefficient (20 per cent. or more), fails to improve after a few days' complete rest in bed, combined with suggestive treatment, energetic rectal feeding, and the administration of large quantities of salt solution per rectum and underneath the skin." Those who have followed Professor Williams's researches on this subject will take note that the high ammonia coefficient test is not now regarded by him as so certain a sign of the toxaemic nature of the case as he at one time thought, yet it has a high value. Still, the great lesson to be learnt regarding hyperemesis gravidarum at the present time is that whether it be reflex, neurotic, or toxaemic in nature, the induction of abortion is not the only effective treatment available.

THE ORGANIZATION OF THE PROFESSION.

We make no excuse for returning to this perennial question, for that it is the question of all others with the profession at the present time is evidenced not only by our correspondence columns but by the recent attempts, some of which have actually materialized, to form new organizations. These attempts have all grown out of the battle in which the profession has been engaged with the Government over the National Insurance Act, combined with dissatisfaction on various grounds with the constitution and policy of the British Medical Association. They all of them seem to be founded on an imperfect knowledge of the evolution of the Association and of the needs and traditions—prejudices, if the term be preferred—of the profession, and seem therefore to demand close and persistent examination.

In the Nineties there was a strong recrudescence of a desire for medical reform and organization, stimulated no doubt by the example and the increasing demands of organized labour. It took the form of the establishment of a number of local medico-political societies, many of which in their day and generation, and so far as their limited opportunities went, did good work. They all failed when it came to dealing with the man who came from outside, and the setting up of any national organization and co-ordinating machinery was beyond their purview. But the demand for such wider organization steadily grew, and about 1900 it came to be a question either of the setting up of a union of these local societies or of the utilization and development of the British Medical Association, and the latter was the plan adopted at the famous Manchester Conference in 1900. As a direct result of that conference the Association was reorganized; the system of Branches having proved unwieldy, partly owing to the steady growth in the membership of the Association, smaller units of area were taken, and each such area or Division was empowered to select one or more Representatives to the Representative Body, which is the supreme governing body of the Association. The first Representative Meeting was accordingly held at Swansea in 1903.

Ever since that time the constitution of the Association has been in the melting-pot, and it is still there. One change necessitated another, and one step along the path of democratic organization opened the way to still further developments, until the Association is probably in conception, and by relatively minor changes could be made in practice, the most democratic organization of its kind in the world. Indeed, the charge most frequently brought against it of late is that it is too democratic, and that what the profession needs is more central guidance and a firmer hand. This is, of course, a matter for the members of the Association, though it must be pointed out that any general desire felt for a benevolent (or otherwise) autocracy has never been ostentatiously displayed, and any exhibition of a tendency on the part of any one to resort to that form of government would, we suspect, be strongly resented even by those who now, in an academic manner, trifle with the idea. But the Association has gradually become, beyond all question, the one representative organization of the British medical profession. That is a position not easily won and certainly not to be lightly thrown away. It is no more perfect than any other human institution. It is fettered by many legal restrictions which no expenditure of money, hard work, ingenuity, or perseverance has been able to overcome. Its best laid schemes occasionally break down, just, by the way, as trade unions which deal with the same material also frequently fail, because the material with which they both work and on which they both depend is that very imperfect thing human nature. Yet what impartial observer, taking a survey of the organization and position of the profession over the past twenty years, can fail to observe an enormous improvement? A chief symptom of this is the way in which the Association has been able to attach to itself the

[a] Williams, J. W., *Trans. Glasgow Obstet. and Gynaec. Soc.*, ix, pp. 91–117, 1913.

services of a very large number of active and devoted honorary workers who have made the Branches and Divisions of the Association a power to be reckoned with in every part of the empire.

To every reasoned demand for an improvement in its constitution or an extension of its powers and services the Association must always lend a willing ear. But when we find men, dissatisfied, not unnaturally, with the failures of the Association, seeking to encourage the setting up of separate societies to carry out work which they believe the Association either does badly or cannot do at all, we must enter our emphatic protest, not so much on behalf of the Association, for it is quite able to take care of itself, but on behalf of the interests of the profession at large. We distrust these "short cuts." They often prove to lead nowhere. We believe that the salvation of the profession lies in one organization, which shall steadily move to the fulfilment of the ideal of including in its ranks every member of the British profession. Already the Association contains two-thirds of the profession in this country, and can count on a large number of members wherever the British flag flies. The evolution of the ideal Association may be a slow progress, its course may be interrupted by bunkers, even by landslides, but it is not to be hastened by setting up one or a number of outside societies whose avowed object it is to occupy the whole or a part of the territory the Association has marked out for its own, namely, "the promotion of the medical and allied sciences, and the maintenance of the honour and interests of the medical profession."

We are told that these organizations are not rivals of the Association but supplementary to it. We do not question the good intentions of the promoters of these schemes. Some of them have well proved their desire and ability to further the welfare of the profession. But we believe they are mistaken. Those who have had most experience of local organization know too well the difficulties of getting practitioners to join any association formed for their welfare, and these difficulties will not be lessened by the introduction of several rival organizations with the same avowed objects if with different methods. The only possible excuses for the introduction of these rival societies would be either unreasoning complacency on the part of the Association—an assumption that its organization was improvement-proof—or a confession that the resources of statesmanship were exhausted, and that the constitution of the Association could not be modified to meet the new needs and aspirations of the profession. But there is no such attitude, no such confession of powerlessness. The Council is at this time through various committees giving earnest attention to the problems of the profession, and a way will undoubtedly be found. It would ill become a scientific profession to allow a passing mood of not incomprehensible pessimism and irritation to be the means of rushing it into premature adoption of methods—for example, registration under the Trade Union Acts—which have never yet been fully discussed by the profession, and which are repudiated in the strongest way by a large and important section of it. The hope of the profession in the future lies in the development of one strong organization—the British Medical Association. Its methods must be effective and well thought out, and they must not be such as will alienate any considerable section of the profession, for that would defeat the main object of such an organization, which is that the Association must stand for the profession and for every member of it—the panel doctor and the non-panel doctor, the practitioner whose income is chiefly derived from contract practice and the man whose circumstances are such that he need never touch that kind of work, the country practitioner and the city consultant. If the Association falls short of these ideals the responsibility will lie to a great extent at the doors of those earnest but misguided persons who fail to realize that "to conquer" we must not "divide"—ourselves.

EDUCATION AND MEDICAL EDUCATION.

The hints dropped a little time ago by Lord Haldane and other members of the Government indicating that it was proposed to give particular attention in the near future to the improvement of the national educational system and the removal of some of its defects have been given body and substance by some recent events. When the vote for the Board of Education came on in the House of Commons last week a very business-like discussion arose, in the course of which the President, Mr. Pease, gave an account of the principles actuating his department and a sketch of some of the reforms it is proposed immediately to introduce. The attention given by the Board to the medical inspection of children, to physical training, to open-air methods of instruction, and Mr. Pease's remarks in respect of nursery schools, would appear to indicate that further developments in these directions may be looked for in connexion with the forthcoming proposals of the Government. The first grant in aid of medical treatment was made last year and amounted to £60,000; of this, £50,374 has been spent. During the current year the amount available for grant is to be increased to £80,000, and it is understood that next year the amount is to be increased to £100,000. It may be noted also that the amount of the grant paid to the London County Council on account of the treatment of school children in London was £13,683. It is understood that the financial provision to be made to enable local educational authorities to establish and maintain schools under the Defective and Epileptic Children Act—which it is proposed to make compulsory this year—are to be in addition to the grants made for ordinary medical treatment. Another recent event at the opposite pole of the education system is the publication of the final report of the Royal Commission on University Education in London. The report was only published on Tuesday, and it is not yet possible to form an opinion on its many wide-reaching and complex proposals, but it can be seen that it is a blend of idealism and hard-headedness. There is idealism in its attempt to devise for London a university worthy of it, and hard-headedness in the careful counting of the cost, which, at a rough estimate, is put at an additional annual income of £99,000. We can see no source from which anything like this sum is likely to flow save the State, and we imagine there is no one less likely to dispute this than Lord Haldane, the Chairman of the Commission.

INSURANCE DIFFICULTIES AND THE WAY OUT.

At the risk of being accused of "damnable iteration" we would once more invite the Joint Committee of Insurance Commissioners to begin without further delay to use the powers of co-ordination with which they were endowed by the Insurance Act. The British people have an admirable faculty of governing themselves, and making good the mistakes of party politicians in the legislature. But it is the duty of a central authority, which ought to be above and outside of party, to watch very carefully over the first movements of a complicated piece of machinery, and constantly to stand by until the engine has found itself, always ready to ease her, and lubricate the unaccustomed valves and pistons and pinions. The Joint Committee and the English Commissioners may take

the lead given them by the Scottish Commissioners in the wise, straightforward, plainly-worded conciliatory memorandum recently issued to the medical profession in Scotland. It is, perhaps, not very difficult to divine whose mind guided the pen that wrote this temperate and reasoned explanation and appeal. The better position in Scotland shows what wise counsels and a sympathetic spirit may do. Such counsels and such a spirit would be very helpful at present in England. In Wales also—but of Wales we prefer not at present to write—Wales, where the engineers seem to be letting the machine run wild, in the hope that by pressing a full head of steam the engine may be made to work somehow at whatever cost to its ultimate efficiency. In Ireland the proceedings of the Insurance Commissioners have that touch of the wicked baron of comic opera which makes the politics of that enchanted island so bewilderingly entertaining to the dull Englishman. The position is stated with some fullness by our Dublin correspondent (SUPPLEMENT, p. 339). "The quarrel is a very pretty quarrel as it stands; we should only spoil it by trying to explain it." At least, that is the impression derived from a study of the efforts in this direction of the Irish Insurance Commissioners themselves. They seem, as Mrs. Malaprop would say, "as headstrong as an allegory on the banks of the Nile," and to have brought about a position as muddled as that good lady herself.

MEDICAL AID ASSOCIATIONS.

REFERENCE was made in the issue of March 29th, p. 679, to the position created at Swansea by the proposed establishment of medical aid associations in the town. As was then stated, the Division had appealed to the honorary medical staff of the Swansea Hospital, and the resolution which the staff had in consequence adopted was then fully set out. It was presented to the Board of Management in the forcible speech made by Dr. Lancaster, senior physician at the hospital, and the discussion at that meeting was brought to an end by an offer of the Mayor to convene a conference between six medical men, six trade unionists, and six representatives of friendly societies. This conference was held, but no solution of the difficulty was reached, and the conference was adjourned. Negotiations have since been broken off by mutual consent, and the adjourned meeting of the conference will not be held. We are informed that medical aid associations have been formed at Gorseinon, Neath, and Briton Ferry, and whole-time medical officers appointed. At a meeting of the honorary staff of the Swansea Hospital, held on April 14th, the course which the members should adopt to carry out the resolution declining to allow themselves to be used as a tool to crush their brethren outside was discussed. The staff of the Swansea Hospital will, we believe, have the sympathy of the staffs of all other voluntary hospitals throughout the country, who in similar circumstances would, we have no doubt, take the same course. The staff of the Swansea Hospital has resolved that in no circumstances will it meet in consultation or have any professional dealings with any medical men holding office under a society or association employing medical men under conditions not approved by the medical profession, and will decline, except in cases of gravest emergency, to treat in hospital any member of such society or association.

THE FUTURE OF THE WELSH MEDICAL SCHOOL.

ONE result of the commercial prosperity of South Wales has been an enormous increase of population and it was natural, therefore, when the aspirations of Wales for the organization of a system of university education for the principality were realized, that it should have been decided by consent that the medical school should have its home in South Wales and should be organized as a part of the University College of South Wales and Monmouthshire. An essential part of a medical school is a large clinical hospital and that Cardiff already possessed. There is now a very great opportunity of putting the system of clinical teaching on a sound basis consonant with the requirements of modern medicine and the highest ideals of university education. The school is still young and, on the clinical side especially, undeveloped. It is important that it should be put in the way of growing into a strong well-balanced body worthy of the national aspirations of Welshmen. Very opportune, therefore, is the publication of the final report of the Royal Commission on University Education in London, which discusses the general principles on which clinical teaching and investigation in the three chief departments —medicine, surgery, and gynaecology—should be organized. The conclusions expressed have been reached by the Commissioners, themselves all educational experts, after hearing the evidence of experts acquainted with university methods, not only in England and Scotland, but in other countries of Europe and in America. The particular application of the general principles to London, where, owing to the existence of many medical schools, the conditions are peculiarly difficult, is not now in question, but we venture to commend to those on whom the great responsibility of watching over the future of the Welsh medical school is committed the perusal of those passages of the report of Lord Haldane's Commission which deal with the later stages of medical education, those in which the student is brought into actual contact with disease and with sick and injured persons. The Commissioners have no hesitation in advising that an essential part of a university is a university medical college with a large general hospital in which clinical instruction is given. They recommend the adoption of the "unit system," the minimum number of units being three—for medicine, surgery, and gynaecology respectively. Each unit would have at its head a professor with the control of wards, an out-patient department, assistants to help in the general work of the department, and laboratory accommodation in proximity to the wards, where examinations and procedures connected with the diagnosis and treatment of the cases may be carried out and researches into the unsolved problems of disease prosecuted. Whether this particular system be adopted or not at Cardiff, it is clear that the responsibility of the newly appointed Election Committee is very great, and that what is now done will have its effect for a generation on the growth and development of the Welsh Medical School and the University of Wales. Those responsible, we have reason to believe, are anxious to make the best appointments possible, and will be guided, we make no doubt, solely by consideration of the merits and capabilities of the candidates as physicians and teachers.

CASANOVA'S IMPRESSIONS OF HALLER.

CASANOVA is the least edifying of authors. Of all men who have written so-called confessions, he is probably the frankest, as he is certainly the most shameless. Whoso looketh into his *Mémoires* let him bathe himself in some moral antiseptic and be unclean until the even of the seventh day. We should not think of mentioning him here but for an interesting account he gives of Albrecht von Haller, anatomist, physiologist, physician, botanist, and poet (1708–1777). Haller must have struck even the tainted mind of the Italian swindler and debauchee as hardly any one else did whom he came across in his constant wanderings from one country to another at the orders of the police. He met Haller at Lausanne, apparently in 1760, and describes him as a man gigantic in body as well as in mind. How Haller came to receive such a blackguard is not very clear,

but Casanova's impressions of him are so little like what one would expect from such a witness that it may be worth while to reproduce them. He says: "This learned man opened up to me all the treasures of his science, answering all my questions with precision and particularly with a rare modesty which seemed to me almost excessive, inasmuch as while he explained to me the most abstruse things, he did this with the air of a student seeking for instruction. On the other hand, when he put scientific questions to me, it was with such delicate art that, if I may say so, he forced me to find the exact answer." Haller, he says, called Morgagni his master, and showed Casanova a number of letters from Morgagni and Pontedera, the botanist; with regard to the latter, he complained that his letters were almost undecipherable and of very obscure Latinity. On the question of Latin as the international language of science, Haller's views are particularly interesting in these days of artificial tongues. Casanova was shown a letter from an academician of Berlin, who said that since the King of Prussia had read Haller's letter he had abandoned the idea of suppressing the Latin tongue. Haller had written to Frederick the Great that a sovereign who should succeed in the unhappy endeavour to proscribe from the republic of letters the language of Cicero and of Virgil, would raise an eternal monument to his own ignorance. If men of letters, he said, were to have a common language for exchanging their ideas, the most suitable among dead tongues was certainly Latin, as Greek and Arabic could not be adapted like it to the needs of modern peoples. Haller took an active part in politics and rendered great service to his country. It is amusing to find Casanova approving of Haller's morals; from a man who lived steeped to the lips in almost every form of sensual depravity, this testimony, had it been required, would have been valuable. Casanova quotes Haller as expressing the excellent sentiment that the only good way of giving precepts is to show them in operation by examples, and says that Haller, being a good citizen, was also an excellent father of a family, "for what surer means of proving his love for his country was there than to give it in his children capable and virtuous subjects, a thing which can only result from good education?" His wife, who was his second helpmate, was still young, and bore on her handsome face the impression of benevolence and goodness. Casanova proceeds: "He had a charming daughter of about eighteen, of modest appearance, who only opened her mouth at table to speak sometimes in a low voice to a young man who sat beside her. After dinner, finding myself alone with M. Haller, I asked him who the young man was. He said it was his daughter's tutor." To Casanova's remark that such a tutor and so pretty a pupil might easily become two lovers, Haller answered, "Please God it may be so!" Casanova says this answer made him feel how uncalled for his reflection had been. To cover his confusion—this is almost the only instance in which he acknowledges such a feeling—he took up an octavo volume of Haller's works, which was lying near. In it he found the sentence: *Utrum memoria post mortem dubito.* This moved him to say that it appeared from these words that Haller did not believe that memory is an essential part of the soul. Haller put him off with an evasive answer. Casanova asked Haller if Voltaire often went to see him. His reply was conveyed in the following apt quotation:

> Vetabo qui Cereris sacrum
> Vulgarit arcanum sub iisdem
> Sit trabibus.

Haller spoke much of Boerhaave, whose favourite pupil he had been; he was, he said, a born doctor, and when a boy cured himself of an obstinate ulcer, which had resisted the treatment of the best physicians, and which threatened his life. The reader may be interested to know that the cure was wrought by frequent rubbing with salt mingled with his own urine! Casanova stayed with Haller three days and discussed with him all manner of subjects, except religion, on which he could not induce the great man to say anything. Although attempts have recently been made to establish the accuracy of Casanova's narrative, it requires no great critical acumen to recognize from his own statements that he was a most unscrupulous liar. It is curious that a man of such austere character as Haller should have received such a notorious scoundrel as a guest and spoken freely to him. But there is nothing in Casanova's account of their intercourse which justifies doubt as to this particular story. He speaks in the highest terms of Haller, and seems, indeed, to have been overawed by the simple grandeur of the man's character—one of the most remarkable testimonies of vice to virtue in human history.

BOVINE AND HUMAN TUBERCULOSIS.

At a meeting of the Berliner medizinische Gesellschaft held shortly before Easter, Professor Orth, formerly a pupil of Virchow's and now his successor, opened a discussion on the etiology of tuberculosis in man. His views, not only in virtue of his position as a pathologist, but by reason of his being chairman of the society, had been eagerly awaited, and were listened to with the greatest interest by the members present. The address was on the importance of the bacillus of bovine tubercle in the production of tuberculosis in man, and in it he strongly emphasized his conviction that, although bovine tuberculosis does not commonly infect the adult, its power to produce tuberculosis in children and infants cannot be denied, and that in consequence a campaign of extermination of the disease in cattle must be our aim in the future. He thus departed from the thesis of Koch's famous pronouncement in London (1901), and maintained that not less than 10 per cent. of all fatal cases of infantile tuberculosis originate from a bovine source, while, according to the estimates of Koller and Wassermann, fully 40 per cent. of cervical gland tubercle and 49 per cent. of intra-abdominal cases are directly due to infected milk. Bendix states that in Germany alone 2,700 bottle-fed infants perish annually from tuberculosis, so that the term "race" disease would hardly be exaggerating the present position. The question of the convertibility of the one bacillus into the other was decided, he claimed, in the positive sense by von Eber, who in 1912, at a meeting of the Royal Institute of Public Health held in Berlin, announced that he had been able by one or more passages through cattle to produce from adults (36 per cent.) and children (53 per cent.) a virulent bovine bacillus. Professor Orth reminded his hearers that in 1906 he had experimentally shown that a primary local infection with inoculated bacilli could create a heightened, latent susceptibility to future infections, and that under such circumstances pulmonary phthisis was the most usual sequel. That a bovine infection contracted in infancy might play a similar part in the development of the disease in adult man was no unreasonable speculation. Professor Orth expressed the general trend and conclusion of his address in the words, "war against the human bacilli, but war also against the bovine." His views were criticized by Weber, a member of the Imperial Health Commission, which has only recently abandoned Koch's beliefs for views more nearly akin to those of Orth. Weber stated that *post-mortem* reports and experimental investigations had shown no recognizable parallelism in the incidence of the disease in man and cattle, nor were there any marked differences in the statistics of countries in which cow's milk was not the staple diet of bottle-fed infants and children. Of considerable importance to his argument was the fact that of 280 children who had demonstrably drunk the milk of tuberculous cows, only two, and both of these cases in

which the cervical glands were involved, had developed the disease subsequently. Moreover, seven years later, during which time they had been under the direct observation of the Board of Hygiene, not one of the 280 had died of tuberculosis.

PHTHISIS IN THE QUARRIES OF DERBYSHIRE.

THE fact has long been known that certain forms of so-called miners' phthisis are more prevalent and more fatal than others. The statistics presented by Dr. Peacock in 1860 are as eloquent at the present time as they were fifty years ago, but it is well that the question should be raised again, and no more interesting or instructive account could be given than has recently been presented by its medical officer, Dr. Sidney Barwise, to the Derbyshire County Council.[1] Within that county are well-defined areas in which three different forms of quarrying are carried on, and statistics of each of these areas are available for analysis with respect to the death-rate from pulmonary consumption. There is also a considerable agricultural area for comparison. Investigation of these statistics shows at once that the death-rate varies very strikingly in some of these areas. Comparison with a geological map indicates very clearly that it is in those districts where millstone grit is quarried and worked that the highest percentage of mortality appears. This stone contains 96 per cent. of silica, and is capable of extremely fine division into dust that may hang in the air like tobacco smoke. Unlike finely divided carbonate of lime, this silica dust is not soluble, and when inhaled into the lungs can only be removed in sputum. In all probability it is only so removed to a very small extent, most of the inhaled particles becoming imbedded in the mucous membrane of the larger tubes, sooner or later causing bronchial irritation and abraded surfaces which may form points of entry for tubercle bacilli. The statistical evidence goes to prove how frequently this course of events must ensue. In one district, where men live under similar home conditions, but with different occupations, the death-rate amongst the millstone grit workers is ten times as great as that prevailing amongst workers in limestone. It is twenty times greater than in the case of the agricultural dwellers in the same area, and seventeen times greater than in the case of workers in other occupations. The condition known as "grinders' rot," prevalent amongst metal grinders in large towns, is no doubt due essentially to the particles of gritstone from the wheel rather than from the metal which is being ground upon it. Dr. Barwise's report has a further interest in respect of the association of pulmonary tuberculosis with lime working and coal mining respectively. Notwithstanding the possible solution of lime particles within the living body, the death-rate amongst lime-quarrymen is higher than amongst coalworkers, who in their turn would seem to be no more liable to tuberculous infection than are the agricultural members of the same community. The excessively high rate amongst the gritstone workers is deserving of careful consideration and many suggestions for its amelioration are made in the report, but local customs and long-established methods are hard to overcome, and only by the steady progress of education is any material change likely to be effected. It is well, however, that all who have to run the risk of inhaling the fine dust of the gritstone should know of the undeniable danger that attends it.

[1] Report on the Prevalence of Phthisis among Quarry Workers and Miners. By Sidney Barwise, M.D., D.P.H., County Medical Officer, Derbyshire County Council. February, 1913.

SPA.

SPA was one of the most famous watering places in Europe, and so great was its renown that in England the name came to be synonymous with watering place. Besides attracting visitors from every part of Europe it did a considerable export trade; quite early in the seventeenth century from 30,000 to 40,000 bottles of the waters were sent out every year. Throughout the eighteenth century the sale was well over 100,000 bottles; in 1842 it was 150,000. This source of revenue has been allowed to decline, and only in recent years has Spa begun to regain its former prosperity as a watering place. In *Paris Médical* of April 5th Dr. R. Wybauw gives an account of Spa in old days. It was described as *Spa Vicus Amoenissimus et Salubberrimus* in an illustration of the town in Matthaeus Merian's *Topographic Westphalica*, published in 1842. Till 1792 the prince-bishopric of Liége was a small independent state. The success of Spa as a watering place was probably due to the fact that, while not far from the great European ways of communication, the little town in the Ardennes combined with the advantages of its waters that of offering a haven of tranquillity and comparative safety in the middle of the wars which had so frequently raged around it in previous centuries. The reputation of Spa seems to have arisen suddenly in the fifteenth century. It is mentioned by the chroniclers when describing the laying waste of the country by the soldiers of Charles le Téméraire. Less than a hundred years later, in 1559, Lymborh, a doctor practising at Spa, published a book on it in four languages—Latin, French, Italian, and Spanish. The town became more and more fashionable, and of all the watering places of French-speaking countries none was so universally celebrated. The visit of Peter the Great in 1717 put the pinnacle on its fame. Illustrious persons pressed around the chief spring (Pouhon), among them being Duke Cosmo de' Medici III, Queen Christina of Sweden, Gustavus III of Sweden, and Joseph II, Emperor of Austria, besides innumerable notable persons from most parts of Europe. During the four months of summer Spa was truly cosmopolitan. Such importance was attached to the waters that during the wars in the Low Countries princes and generals gave special protection to Spa to save it from the excesses of the soldiery. Among them were Marlborough and King Louis XV, and the Allies in 1814. Old medical books about Spa are numerous, but the indications given by them for the use of the waters, which are cold, ferruginous and rich in carbonic acid gas, were very vague. Spa had excellent physicians, such as Lymborh in the sixteenth, de Heers in the seventeenth, de Limbourg in the eighteenth century. In those days the waters were prescribed internally only, and in a purely empirical way; patients of all kinds were treated, from those suffering from "obstructions" to those with chronic inflammatory diseases and others afflicted with ailments dependent on "the acrimony of the humours." In reading the medical observations it can be seen that the most favourable cases were such as are still treated by the internal use of the waters—anaemia, neurasthenia, and so on. Many persons were sent to Spa for gravel and urinary diseases on account of the diuretic qualities of the waters, which were then more manifest as much larger quantities were given. Patients with venereal diseases and dropsy also went to Spa. External treatment by the gas baths dates only from the fifteenth century at Spa, and it was only at the end of the nineteenth that it was applied to circulatory affections. The patients were supposed to lead the simple life. The water was drunk in the morning fasting, sometimes also in the afternoon. Each patient carried a little ivory dial with a needle, which he moved on one division after every glass he drank. In the sixteenth century much attention was paid to diet, and recent researches on the nutritive exchanges have established a regimen similar to that laid down by Bruhezen in the sixteenth century. Spa was a lively place; the fashionable people who frequented it organized ballets, festivals, serenades, and picnics. Before the establishment in 1768 of an assembly room where games of chance, especially faro and trente et un, could be played, the garden of the Capuchins was

the principal place of meeting in the afternoon. The good fathers allowed the use of it to the nobility and gentry in exchange for a small offering. It was in the eighteenth century that gaming acquired a great importance at Spa. With the object of avoiding the multiplication of low gambling places the Prince Bishop gave the monopoly of play to one company, which naturally caused a great deal of quarrelling. The glory of Spa was destroyed by the wars of the Revolution in 1789, and those of the Empire. Its vogue, however, revived under the government of the Dutch, and at a ball on July 18th, 1821, three kings and sixteen princes were present. Soon, however, gaming came more and more to the fore, while the watering-place receded into the background. The town remained fashionable till the suppression of the gaming tables in 1873. For some years Spa has again been becoming an important health resort.

Mr. C. S. Tomes, F.R.S., has been reappointed by the King a member of the General Medical Council for five years from May 20th, 1913. Mr. Tomes is the senior Treasurer of the Council.

Mr. Claud Schuster, secretary and legal adviser to the National Health Insurance Commission (England), has been appointed a legal member of the Commission and of the National Insurance Joint Committee. He will be succeeded in the office of secretary to the Insurance Commission (England) by Mr. John Anderson. The appointments will take effect on May 13th.

At the parish church of St. Paul, Deptford, last Sunday, the rector, the Rev. R. P. Roseveare, unveiled a memorial to John Harrison, founder of the London Hospital. The memorial, which has been provided at the personal expense of the House Committee, is a marble tablet bearing the following inscription: "In Memory of John Harrison, Founder and First Surgeon of the London Hospital, who died in 1753 and was buried in this Churchyard. His body lies here. His work continues at the Hospital."

Medical Notes in Parliament.

[From our Lobby Correspondent.]

The Health of Children—Medical Treatment and Inspection.

In connexion with the vote for the Board of Education, an interesting debate occurred in the House of Commons on Thursday, April 10th.

Infants.

Nursery Schools.

The President of the Board of Education, after explaining the diminution of the number of the children under the age of 5 which were now in attendance in public elementary schools as compared with 1903, said: I am also satisfied, from the inquiries I have made, that experience is disclosing the fact that the education which was given in our infant departments in the past has not really been to the best interests of the small children who have attended. That is being more and more realized by the various local education authorities in the country. In 1908 one of my predecessors asked a Consultative Committee to report upon this question, and they reported that if a mother does her duty, if she takes care of her children, if she knows the best way in which to use her narrow means, if she keeps her home clean, if there is a suitable play place for the children, and if the homes are well ventilated and kept decent, there is no better place for these little dots between 3 and 5 than under their own mother's care; but that if, on the contrary, the conditions are not satisfactory at home—these children should not be sent to a school where there exists adaptation of discipline and tuition suitable to older children, and should not be subjected to mental pressure or physical discipline—they should be sent to what they call nursery schools, places which should be kept warm, well ventilated, where there would be plenty of freedom of movement for the children, constant change in their occupations and opportunities for sleep; and that the teacher should be very carefully selected to look after these children, and, in addition to the teachers, there should also be attendant nurses.

Schools for Mothers.

I am glad to say that parents in this country are getting to understand better than they did how to look after their infant children. At the present moment we have in the country 200 schools for mothers, we have a great number of medical officers who superintend the inspection of the babies, either by weekly or fortnightly visits, and we have a large number of most excellent workers, trained health visitors, who visit the homes of the people and give advice to the mothers and see that they follow the instruction which they receive at school as to the way in which the children ought to be cared for in their homes. The point in which the medical department has taken the most interest, and which is their greatest ambition, is to prevent and remedy the physical disability which hampers a child from taking proper advantage of the education which the State gives it.

Physical Education in Elementary Schools.

People are too apt to forget that education in connexion with younger children is primarily physical and not intellectual, and that if a child is to be developed into a really good citizen it is essential that every child should enjoy physical training and suitable exercises even during school hours. The object of the education given to the children is to enable them to be turned out from school in a sound physical condition, and to know, when he or she leaves school, how to look after his or her own health in the following years. I believe that under the system of medical inspection which now obtains in this country, and under the medical treatment which every day is being increased in volume, we are going to secure a much healthier race in the future, and that a great number of these infants who, when they reach the age of 16 will come under the insurance funds, will not make any claims upon those insurance funds, at any rate before they reach the age of 40, with very large increased benefits to the older people in consequence of the improvement in health.

Physical Defects in School Children.

I cannot exaggerate the importance I attach to the attention which is given to the health of the children during their school life. The conditions in this country are certainly not worse than those in other countries, but still they exhibit a great deal of neglect. As a result of inspection we are able to classify our figures, and the last figures show what a serious amount of illness and trouble there is among the children of this country at the present time when they first enter the schools. Ten per cent. have their eyesight impaired in some way or other, 5 per cent. their hearing, 3 per cent. suffer from ear disease, 5 per cent. from adenoids, 50 per cent. from serious decay of their teeth—in many cases it goes up to 80 or 90 per cent. of decay, more or less in degree—tuberculosis 2 per cent., heart disease 2 per cent., and malnutrition 10 per cent. I am glad to say that the authorities who have been comparing their statistics, one year with another, have already exhibited a real improvement in the condition of the children. The medical officer at Portsmouth informs the Board that the number of those who in 1908 came to school with dirty bodies was 13.8 per cent., last year it was only 3 per cent.; those who came to school in a verminous condition in 1908 were actually 43.3 per cent., while to-day it is 13 per cent. The medical officer informs me that as a result of the clinics which have just been established in Portsmouth he believes that the difficulty will be very greatly reduced during the current year. From the statistics we have been able to collect through this inspection it is shown that 1 per cent. of the children are regarded as mentally defective, 12½ per cent. of the children are considered backward, and 3 per cent. are considered to be gifted in an abnormal degree. In our schools we are now employing 700 nurses, and there are 21,000 schools; 943 medical

officers are at work in medical service in schools; there are 31 authorities which contribute to hospitals, 56 have already established school clinics, and there is expenditure on treatment by 229 authorities out of 317. The cost in connexion with treatment averages 2d. per child throughout the whole country, and the amount given in support of medical treatment during the financial year ending March 31st last was £50,374. Perhaps I may be allowed to pay a special tribute to the way in which this work has been taken up in London. It has been, perhaps, the most difficult place in which to organize medical treatment. The removals of the population are enormous in the confines of this great city, but, in spite of that, every effort has been made to follow up the children; arrangements have been carried out at 10 hospitals and 23 medical treatment centres, and very good work is being done. I have been rather better than my word in regard to the contribution which I gave to London, and we were able to give them a grant for the last year of £13,683. In addition to that, London receives a grant of £725 in connexion with the open-air schools which have been established by the London County Council, and which are materially beneficial to a certain section of the less robust portion of the school population.

After-School Occupations in London.

Mr. Hoare warmly supported the expenditure of money for promoting the health of the children, and said that he believed the expenditure of public money was much needed in this field. He instanced the case of consumptive children, of whom, he said, there were about 1,200 discovered annually in London schools, and he stated, on the basis of a calculation made by the medical officer of health, that in London alone no less than £1,000,000 has been spent during the last ten years on tuberculous children who had died during the years that they would have been compelled to attend school. He quoted some interesting figures of the results of an inquiry into the occupations of children after leaving school and into the districts from which they came. He said that of the 30,000 boys who leave the London schools every year only 28 per cent. find their work in the skilled trades and 67 per cent. drift into irregular employment. He calculated that each boy had cost the community £100. He also stated that in certain representative skilled trades 60 per cent. of the boys came from the country and 30 per cent. only were London boys. He said also that 70 per cent. of the casual dock labourers in London were London boys and that 90 per cent. of the inmates of our larger common lodging houses, Salvation and Church Army shelters, were London boys.

The Burden on the Rates.

Sir Henry Hibbert, the newly-elected member for Chorley, in a maiden speech which was listened to with great interest and attention, dealt chiefly with the financial side of education. He has been Chairman of the Lancashire Education Committee since its establishment. He welcomed the expenditure upon medical treatment and inspection; but complained that the grant was for treatment only as apart from inspection, and stated that in order to get the best results a grant should be made for the two together. In this opinion he appeared to be supported by the general sense of the House on all sides. He complained that the greatly increased cost of education during recent years had fallen on the ratepayers in very undue proportion. He stated that out of a total increased expenditure of his Board on elementary education of £921,508, the Board of Education had only contributed £100,225, and that in respect of higher education the proportions were about the same. Out of an increased expenditure of £451,901 the Imperial Exchequer had only granted £50,128.

Mr. Balfour on the Evils of the Examination System.

A very important contribution to the debate was made by Mr. Balfour, who heartily welcomed the increased expenditure upon medical inspection and treatment. He said: "Undoubtedly the cost of education has gone up in consequence of the action of this House, and undoubtedly the Government have by their recent legislation forced upon the local authorities increased expenditure, and I admit have forced it upon them in a very good cause. Take the case of medical inspection, which is one of the causes. My own sympathies are entirely in favour of medical inspection. I think many of my hon. friends agree with me that that is a great reform. I do not comment upon the details, but, broadly speaking, I call that a great reform, and I think it would lead us to an amount of knowledge connected with the health of the rising generation and the way to bring up successive generations which we do not possess at this moment. Therefore, my criticism upon the increased cost of education, so far as that branch of it is concerned, is not hostile except in so far as it bears out the statement that that charge was forced upon the local authorities by the Government and by this House, which is the statement I have already made. There are really only two questions that arise upon it. The first is, Can we in any way diminish this growing expenditure? Granting that there are lines of advance which are costly and necessary, is any of the cost which the Department and the House have imposed upon the local authorities unnecessary?"

Mr. Balfour supported the contention of Sir Henry Hibbert, and, with regard to the proportion of the cost contributed by the ratepayers and the taxpayers, he raised the general question whether we were really getting full value for the money we spent on education, and suggested that we had been led into pedantic and too narrow methods by wrong ideals, as an instance of which he criticized the examination system in the following terms:

Superstitions are very apt to grow around policies which may be adopted, but I should like to hear a really good commentary on our system of competitive examination. Ask any parent, from whatever class he may be drawn, who has a son at a secondary school or a university, what he most desires, and the answer will be, "Success in the examination." And so it goes on. I do not deny that in certain respects examinations, and even competitive examinations, are an absolute necessity. But I think we have got into the habit of talking of that which is an unhappy necessity as if it were an admirable institution. Examinations are really most soul-killing institutions. I believe they put the human mind absolutely in a wrong position with regard to knowledge. They are very bad for the teachers and very bad for the taught. You hear it said, "So-and-so's is a most admirable school, and he is the best teacher ever known." The question is asked, "On what ground?" And the reply is to the effect that a certain proportion of his scholars get such and such a number of exhibitions, or whatever it may be. That, and that alone, is the test by which we measure the merits of the system, the results upon the child or young man, and the benefit to the country. I believe it to be wholly and utterly wrong from beginning to end. I am quite aware that some of the praisers of the old system say that we got better men in the public service, and here and there, in the old times, when there was not this violent competition. I know they exaggerate greatly, but do not let the Committee believe there is no truth in what they say. There is some truth in it. We do know, and if we take the trouble we shall all know more of the manner in which you sap the vitality of the young and make them so admirably adapted to successfully pass examinations that, when they have passed them, they are successfully adapted to nothing else whatever.

Sir James Yoxall, Mr. Goldstone, Sir Philip Magnus, and other speakers joined in the debate, which was adjourned.

Medical Treatment of School Children.

In reply to Mr. Alden, Mr. Pease stated that the Board of Education was giving consideration to the question of allowing time spent on medical treatment to count for grant; but he stated that, under the grants now given, more money is received on account of the treatment than is lost through absences of children from school.

Schools for Tuberculous Children.—In reply to Mr. Hoare, who inquired as to how many schools, residential and day, there are for tuberculous children, and how many of them received grants from the Board of Education or local education authorities, Mr. Pease stated that there are seven residential hospitals or sanatoriums providing accommodation for 451 children, that are certified and receive grants from the Board of Education, and that

these hospitals are almost exclusively devoted to the treatment of children suffering from surgical tuberculosis. There are nine non-residential open-air schools certified and receiving grants which make provision for 810 children, of whom the majority are tuberculous. All the open-air schools and five out of the seven hospitals or sanatoriums are provided by local education authorities.

Small-Pox.—In reply to Mr. Crooks, Mr. Herbert Lewis stated that, according to information supplied by the medical officer of health to the Port of London Sanitary Authority, the four cases of small-pox recently landed from a liner had been vaccinated in infancy and that none of them had been successfully revaccinated. They had all suffered from a modified form of small-pox.

Sheep Disease.—In reply to Mr. Charles Bathurst, who asked whether the Board of Agriculture would publish information as to the use of turpentine in the treatment of sheep afflicted with strongylus contortus, at present very prevalent in the south-eastern counties, Mr. Runciman replied that the veterinary advisers of the Board were of opinion that the use of turpentine in sufficient doses to be of value would be dangerous, and that the Board at present, pending the results of investigations now in progress, was unable to advise a remedy for this disease.

Employment of Children Bill.—A bill has been presented by the Home Office to limit the employment of children and young persons in connexion with street trading and other matters. The first clause extends the age from 14 to 16 in respect of the by-laws which may be made under the Employment of Children Act, 1903, for regulating the employment of children and for prohibiting the employment of children in carrying or moving heavy weights and in injurious occupations.

Most of the remainder of the bill restricts the street trading of children and young persons. Clause 2 provides that a boy under the age of 17 or a girl under the age of 18 shall not be employed in or carry on street trading, except that a boy under that age who was lawfully engaged in street trading before the passing of the Act may continue his employment if he holds a licence granted under the Act. These provisions, however, do not apply to boroughs or districts having a population of less than 10,000 persons or to rural areas; but in any of these areas, it is to be lawful for any children over the age of 11 to be employed in or carry on street trading. The local authority is empowered to grant licences for street trading and may make arrangements with any committee constituted under the Education (Choice of Employment) Act, 1910, for giving advice and assistance to juvenile applicants. No licence shall be granted, however, to a boy for whom the authority is able to secure other and more beneficial employment suitable to his capacities and within a reasonable distance of his home; but a licence shall not be refused on the ground of poverty or of the character of the applicant, and not except on special grounds stated in writing by the authority. A condition may be imposed requiring attendance at continuation classes. An exception, however, with respect to street trading is made in favour of children over the age of 14 who are bona fide employed in assisting their parent or guardian in street trading in a proper manner and where the trade constitutes the principal means of support for the family. There are various provisions as to licensing, penalties, etc., and the definition of street trading does not include the sale in a market or fair of agricultural or horticultural produce by a person in the employment of the producer or the occasional sale in streets and public places by those engaged in delivering articles of a similar class from door to door to the customers of their employer.

Animals (Anaesthetics) Bill.—A bill has been presented by Mr. Walter Guinness, supported by Dr. Addison, Sir Frederick Banbury, Lord Henry Cavendish-Bentinck, Mr. Butcher, Mr. Courthope, Mr. Greene, Colonel Lockwood, Sir Charles Rose, and Mr. Snowden, for requiring the administration of an anaesthetic to horses and dogs in connexion with certain operations of veterinary surgery. The operations are specified in the schedules. In the case of horses it is required that the animal should be under the influence of some general anaesthetic sufficient to prevent the animal feeling pain in operations for radical operation for quittor, line firing, operation for stripping the sole, radical operation for poll evil, and radical operation for fistulous withers and, in the case of castration, of horses of more than 2 years of age. The operations mentioned for dogs are ovariotomy and castration, and the third schedule requires the administration of a local or general anaesthetic in horses for neurectomy or unnerving, enucleation of the eyeball, and trephining. A general anaesthetic is held to include, for the purposes of this Act, chloral hydrate and, in the case of a dog, morphine.

Veterinary Surgeons Act Amendment Bill.—A bill has been presented by Sir Frederick Low which provides for the registration of existing practitioners styling themselves veterinary surgeons, and enables the Royal College of Veterinary Surgeons to conduct examinations, prosecutions, and inquiries against unqualified persons, and to have jurisdiction over the *Register* of veterinary surgeons, and to secure the protection of registered veterinary surgeons from unqualified persons practising as such under the cover of registration under the Joint Stock Companies Act.

Bill to Abolish State Vaccination.—A bill has been presented by Mr. Black, supported by Sir John McCallum, Mr. James Parker, Mr. Kellaway, Mr. George Greenwood, Mr. Snowden, Mr. Chancellor, and Mr. Pointer, to repeal the Vaccination Acts. The bill would prohibit any public money being provided for the performance of vaccination, or for the supply of lymph, and it makes it unlawful to require vaccination as a condition of admission to public employment, and to make the absence of vaccination illegal as a ground for the rejection from employment in any public or parochial service, or public institution, charity, hospital, or school.

Admiralty and Board of Trade Sight Tests.—Mr. Robertson, in replying to Mr. Cathcart Wason on April 14th, said that the principal difference between the sight tests used by the Admiralty and those recommended by the Departmental Committee on Sight Tests was that, for testing colour vision, the former used the Edridge-Green lantern and a test with assorted coloured wools. The methods recommended by the Committee consisted of a lantern specially designed and constructed for them, and a somewhat different wool test, and these tests were described in the Committee's report. For testing form vision, Snellen's test types are used by both departments, but he understood that the standard of form vision required by the Admiralty was higher than that which the Board of Trade proposed to enforce on and after January 1st next. Mr. C. Wason: Is the hon. member aware that there is a very considerable amount of dissatisfaction among the mercantile officers over this question; that there has been a very serious diminution in the number of persons who have been tested recently at Liverpool, and that a very large number of candidates have been rejected? Mr. Robertson: The two lines of the questions run in opposite directions. Now the complaint is that the tests of the Board of Trade are too strict, whereas the questions previously put with regard to sight tests suggest that the tests were not strict enough. Mr. C. Wason: The mercantile marine prefer the Admiralty test to the Board of Trade test. Mr. Robertson: We have been told in the House that the Admiralty test is more strict than the Board of Trade test. Mr. Lynch: Has the hon. member considered the advisability of abolishing the wool test altogether as being unscientific? Mr. Robertson: The wool test in its revised form is not unscientific, and the Admiralty use that test.

During the last session of the New Zealand Parliament a bill to amend the Births and Deaths Registration Act was passed. Registration under the new Act came into force on March 1st. One of the most important of the new regulations provides for the notification and registration of stillbirths.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

TUBERCULOSIS ADMINISTRATION IN EDINBURGH.

As was stated briefly in our last week's issue (p. 791) the town council of Edinburgh considered the report of its Public Health Committee on the expenses involved in the new arrangements for tuberculosis administration, and referred the matter back to the Public Health Committee and to the Treasurer's Committee. Several speakers referred to the serious responsibilities the Council was taking upon itself and to the enormous expenses it was slipping into. On the other hand it was pointed out that it was impossible to go on treating tuberculosis under the present method, and that unless the Council was prepared to let the public health administration pass out of its hands, and set up the Insurance Committee as a sort of semi-independent authority, it must provide the administrative machinery. The medical officer of health had not time to give to the examination and determination of cases. It would be dangerous to allow a separate authority to be set up in the city, and it would be almost impossible to work through two authorities; further, before it could get a share of the Treasury grant from the two millions voted for tuberculosis the Council must formulate a scheme remitting the matter to the two committees for further report. It was agreed that a report should also be asked for on the estimates submitted by the Insurance Committee.

In connexion with the proposals for the erection of extensive new buildings for the treatment of tuberculosis, the *Scotsman* for April 11th prints a letter of protest from Dr. C. B. Gunn of Peebles. Dr. Gunn thinks "palatial sanatoriums" quite unnecessary. All that is wanted for the successful treatment of consumption is open-air shelters dotted over a hillside facing the south, and surrounding a central administration block. Dr. Gunn states that shelters can be erected by any country joiner at £8 each, and furnished for £4 more. Two hundred such shelters, therefore, would cost £2,400. The administration block with water supply and drainage need not cost more than £3,000; an additional sum of £1,000 would provide for 200 patients two large common rooms for the two sexes, to be used only during the daily cleaning of the shelters and in stormy weather. A male sick-room and a female sick-room with offices could be erected for an additional £1,000. The buildings would all be of wood and galvanized iron; and the total cost for 200 patients would be £7,400. Critics are inclined to ask what will be done when a hillside facing the south cannot be obtained.

TUBERCULOSIS ARRANGEMENTS IN LEITH.

At a meeting of the Leith Burgh Insurance Committee held on April 9th, Dr. William Robertson, the medical officer of health for Leith and medical adviser to the committee, stated that the number of cases of pulmonary tuberculosis notified in Leith during 1912 was 307. At present the local authority was treating twenty insured persons in the sanatorium approved by the Local Government Board, and if the committee had only to deal with insured persons these beds would suffice, and the cost would be £1,560 a year at the present charge of 30s. a week. Should, however, sanatorium benefit be extended to the dependants of insured persons, the local authority would be called upon to erect extra accommodation, capital charges would be increased, a larger staff would be needed, and buildings to house the supplemented staff; and altogether from forty to fifty patients would have to be accommodated all the year round for a few years at least until the incidence of the disease was reduced. The cost of treating fifty patients all the year round would be approximately £4,500 including, say, £600 for capital charges; in addition, say, £650 for dispensary treatment would have to be found, a total of £5,150. The Insurance Committee agreed to remit the report to a joint meeting of the Sanatorium and Finance Committees.

MEDICAL TREATMENT AND THE EDINBURGH SCHOOL BOARD.

The Public Health Committee of the Edinburgh School Board is faced with financial difficulties regarding the continuance of medical treatment. It was stated in March that the grant of £850 allocated to the board would be totally exhausted by the end of the month, and the Department had not yet made intimation of the sum to be assigned for the coming year. A continuance of the present scheme of treatment will involve an expenditure of £114 18s. 7d. a month, including an estimated fee to the Edinburgh Royal Infirmary for the *x*-ray treatment of skin diseases. Calculating the salaries of the dentists and oculists as for ten months a year, the sum will amount to about £1,238 per annum. The Scottish Education Department has since informed the Committee that for the purpose of medical treatment a sum similar to that of last year (£7,500) has been set aside in the Scottish Estimates, but that at present the Department cannot state what proportion of that sum will be allocated to the Edinburgh Board.

MEDICAL INSPECTION OF SCHOOL CHILDREN AT LEITH.

Dr. Arthur S. Walker, the medical officer to the Leith School Board, in his report on the inspection of the school children for the year ending June, 1912, states that in only ten instances did the parents object to the examination of their children taking place in school, and in three of these cases the objections were withdrawn later. There were probably at least fifty defective children who would derive benefit from a special school. The necessity for an open-air school was now greater than ever, for it was almost certain that under the Insurance Act the consumptive wards at Pilton would be filled with adult patients. The proportion of unvaccinated children was not large, but it was matter for regret that it was showing a gradual increase. In all 10,374 children were seen during the year. Nasal obstruction was detected in 395 cases, slight enlargement of the tonsils in 200, and great enlargement in 169; there were 50 children with marked deformity due to rickets. There was great need for medical inspection rooms, so that the work could be done with as little derangement as possible of the school routine. More satisfactory results could have been got in the skin cases had *x*-ray treatment been available. As there is no *x*-ray installation in Leith, Dr. Walker suggested that it might be possible for the school board to co-operate with the hospital directorate in the installation at the hospital of a suitable *x*-ray apparatus, utilizing for that purpose a part of any funds allocated to them by the Education Department for the medical treatment of school children.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

TREATMENT OF TUBERCULOSIS.

AT the last meeting of the Dublin County Council a resolution was adopted empowering the County Council Insurance Committee to make all necessary arrangements for sanatorium treatment suitable to cases of tuberculosis occurring amongst persons other than insured persons or their dependants, and to make suggestions as to the treatment of all cases dealt with under the Insurance Act.

THE DUMPING OF LUNATICS FROM AMERICA.

At a recent meeting of the Clonmel District Lunatic Asylum, the Resident Medical Superintendent, Dr. Harvey, referred again to the very serious aspect of the deportation of insane people from America. The number of persons sent back from asylums in America was large and increasing. One or two instances had occurred since the last meeting. In one the patient had been fifty years in America when he was sent home; on landing he had been put into the train in Dublin and left to find his own way. Another patient had been fourteen years in an asylum in America when sent back to Ireland. In another instance a young man was landed at Queenstown and a telegram sent to his brother in Queen's County. He was brought home and eventually taken into the asylum. The same difficulty has arisen in Cork District Asylum; patients are dumped in Queenstown and sent up to the Cork Asylum irrespective of whether they are of Cork extraction or not. Both Clonmel and Cork Asylums are already overburdened. Dr. Harvey undertook to make out a list of people deported during the last few years, and it is proposed to bring the grievance to the notice of members of Parliament.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

BIRMINGHAM.

The Insurance Act in Birmingham.

Nearly all the doctors in Birmingham are continuing their services under the National Insurance Act after their first three months' experience of the working of the Act. Some have a very large number of insured persons on their lists, 3,000 and even more, and they find that the percentage of these who require treatment is very much higher than they expected. Some of these people seem to delight in having a doctor of their own, and come to him for the most trivial causes and much more frequently than they need. This is shown very markedly by the way in which the state of the weather affects attendance. On a fine day a large crowd attends the surgeries, while on a wet day only a few patients make their appearance. It is found, however, that the doctor is rarely called unnecessarily to visit insured patients, and that, therefore, the home visiting is not appreciably increased. The most popular doctors are so overwhelmed with the number of patients who attend that thorough examination becomes difficult or impossible.

A few of the approved societies will not accept certificates for sick pay unless they are signed by a doctor on the panel, and this interferes with patients making their own arrangements for treatment with doctors who are not on the panel. The number of insured persons who have not put their names down to any doctor is nearly one-third of the total number. Difficulties will probably arise when these persons are allocated to the panel doctors, as those who have a large number already on their lists will refuse to accept any more.

The National Insurance Act has considerably increased the work of the doctors generally, and so interferes with other important aspects of the lives of medical men. The officers of the Royal Army Medical Corps (Territorial Force) in Birmingham find it very difficult now to attend drills and give lectures and other instructions. On Friday nights there used to be a mess dinner at the R.A.M.C.T. head quarters before the territorial work of the evening, but that has had to be abandoned. Some officers have resigned their commissions, and it seems almost impossible to get new officers. It would appear that the officers of the R.A.M.C.T. will in the future be drawn only from doctors not on the panels, from consultants and specialists, and from dentists with medical qualifications; these are not enough to supply the required number of officers. It is reported that the St. John Ambulance Association in Birmingham has encountered the same difficulty.

Insured patients are not treated in the Birmingham hospitals unless they require special hospital treatment which cannot be given by their panel doctors. The result is that the number of in-patients has remained about the same with a tendency to increase, but the number of out-patients has been diminished by nearly one-half. At the general hospitals the out-patients consist chiefly of women and children. Insured patients are frequently sent by their doctors for consultations at the hospitals, and the consultant writes his opinion to the doctors, but does not treat the patients unless the treatment cannot be carried out at home. A few patients who have entered their names on panel doctors' registers still attempt to get treatment from the hospitals rather than from those doctors. This is, however, gradually diminishing, for all the hospitals are working together in this matter, and refuse treatment to such applicants.

In Birmingham there is a Hospital Saturday Fund which has reached for many years now to over £20,000 per annum, the contributions being received from numerous firms all over the city; a tendency to a decrease in these subscriptions is now noted. As the hospitals are needed quite as much as ever for consultations, special treatment, in-patient treatment, and for dealing with accidents, the workpeople are beginning to realize that they must continue their subscriptions or the work of the hospitals must be greatly curtailed. At first it was thought that the hospitals would suffer greatly from loss of financial support, but the outlook is now brighter for many of the subscriptions which were withdrawn have been commenced again.

The treatment of pulmonary tuberculosis is a difficulty, as the health department seems disposed to take over completely the patients suffering from this disease. This is a serious matter for the clinical teaching in the hospitals, but it is hoped that the general hospitals will be recognized as institutions where pulmonary tuberculosis may be treated, and that the hospitals will receive some grant towards the expense of looking after this large class of patients.

LIVERPOOL.

Medical Inspection of School Children.

The education authority has established a clinic for the x-ray treatment of ringworm and has appointed Dr. W. C. Oram to the charge of it. The question of establishing a dental clinic is still under consideration. A dental clinic supported by voluntary contribution has been working by way of experiment, and it is possible that within the next few months the undertaking will be taken over and become a permanent establishment financed from the rates.

Treatment of Tuberculosis.

The scheme for the treatment of tuberculosis is being developed. Dr. S. McLelland, Assistant Tuberculosis Officer, with charge of the central dépôt, is to have the assistance of two other tuberculosis officers, one for the north and the other for the south end of the city. Park Hill Hospital will be altogether devoted to tuberculosis, and tuberculosis wards for 250 beds will be built at Fazackerley.

LONDON.

The Ambulance Service in the Metropolis.

At the meeting of the London County Council on April 15th, the General Purposes Committee reported that letters had been received from the Hammersmith borough council and the Westminster board of guardians supporting the proposal of the County Council to utilize for the purpose of an ambulance service in London the appliances and ambulances of the Metropolitan Asylums Board, the Port of London Authority, the metropolitan borough councils, and the boards of guardians (British Medical Journal, November 16th, 1912, p. 1419). Mr. H. L. Jephson, a former chairman of the Public Health Committe, in moving the reference back of the report suggested that information should be obtained as to attitude of the other borough councils and boards of guardians of London towards the Council's proposals. The last Council and the one before it had taken an utterly insincere view of the ambulance question, and he appealed to the members who had just been elected to approach the matter open-mindedly and without party bias. The Council, as the only body vested by Parliament with power to deal with this matter, was responsible for the deaths of large numbers of people whose lives might have been saved had an efficient ambulance service been available. Mr. F. Briant urged that the existing ambulances owned by boards of guardians and other bodies could not be made definitely available to the Council, so that the proposals of the General Purposes Committee were fallacious. In Lambeth, a borough stretching from Westminster Bridge to the Crystal Palace, there were three ambulances belonging to the board of guardians, but these were fully occupied. There was also an ambulance attached to a small-pox hospital, but this could hardly be regarded as a suitable vehicle for the conveyance of ambulance cases. The committee should bring up a definite statement of the number of ambulances actually available in each borough. Mr. H. J. Greenwood, Chairman of the General Purposes Committee, denied that there had been any desire to burke the question. The committee had taken every step it thought desirable to get information, and had come to the conclusion that, on the whole, a more efficient service would be provided by utilizing existing agencies than by putting the ratepayers to the enormous expense of establishing an entirely new organization. On a division the amendment was lost by a large majority, and the report was adopted.

WALES.

KING EDWARD VII HOSPITAL, CARDIFF.

AT the last meeting of the board of management of the King Edward VII Hospital, Cardiff, the resignation of Dr. Herbert Vachell, senior physician, due to his having reached the age limit, was accepted with regret, and he was appointed consulting physician. The chairman and Colonel Bruce Vaughan both paid tributes to Dr. Vachell's long and distinguished services. His association with the hospital had, Colonel Vaughan said, practically covered a period of thirty-six years, as he had been appointed house-surgeon in 1877, when the hospital had only one resident. He had been a member of the honorary medical staff for twenty-eight years, and for two years chairman of the medical board. Great advances had been made in the hospital during Dr. Vachell's period of service, and he would take with him into his retirement the gratitude of every member of the board, of all those who had worked with him, and of thousands of patients who had to thank him for his skill and devotion during their hour of sickness and trial in the hospital. At the same meeting twelve members of the board of management were elected to serve on the newly constructed election committee; the first duty of this committee will be to fill the vacancies created by Dr. Vachell's retirement and the death of the late Dr. Arthur Taylor.

Special Correspondence.

PARIS.

Congress on Physical Education.—Inauguration of New Hôpital de la Pitié.—Results of Operations on Ovaries.

THE recent Congress of Physical Education at the Faculty of Medicine in Paris under the presidency of Professor Landouzy was even more popular than usual, and received great attention both from the medical and the lay press. This was due no doubt to the present movement in France in favour of all forms of sport, physical exercise, and military training.

The new Hôpital de la Pitie was opened on March 20th by the President of the Republic. The hospital, which contains 958 beds, is constructed on modern lines. On entering the central avenue to the hospital, the administrative block is seen on the left, with out-patient dispensary and waiting rooms. The pavilions, of three stories, are disposed in the form of an H. Two blocks are assigned to the medical section, each block containing three services, one on each floor. One branch of the H is for males and one for females. A male ward contains forty beds and has three isolation rooms; a female ward thirty-two beds and eight isolation rooms. The surgical quarters are smaller. Each service is subdivided into two wards, one for clean cases and one for septic cases, and each ward has its operating theatre. The maternity section, containing eighty-five beds, is in a separate block situated far from either the medical or the surgical wards. The kitchen, laundry, disinfection, and sterilizing accommodation are well equipped.

At a recent meeting of the Academy of Medicine M. Walther read a paper on the after-history of cases in which ovariotomy, partial or complete, had been performed. Of the 139 patients on whom he had operated between 1901 and 1912 he had been able to follow up 98. The cure was complete in 68, in 12 some tenderness still existed on deep palpation, in 6 there was still some spontaneous pain, and in 8 no improvement had resulted. Cases of partial resection of both ovaries or total resection on one side and partial resection on the other numbered 73, and of these 18, or 24 per cent., gave birth to children after the operation. In 2 cases, complete resection of one ovary and almost complete removal of the other, the women afterwards bore children.

AMONG a good many books of interest in the 129th catalogue of second-hand medical and surgical works issued by Mr. Henry Kimpton, of 263, High Holborn, we note Sir Jonathan Hutchinson's copy of the report on leprosy drawn up by the College of Physicians in 1867. It was freely annotated by him on interleaved pages, and bound up with a variety of cuttings from journals, maps, and letters bearing on the etiology of leprosy, a subject to which, as is well known, he has devoted great attention.

Correspondence.

TRADE UNIONISM AND MEDICINE.

SIR,—The future organization of the profession is a matter of the greatest importance, and you have opened your columns lately to a discussion of the trade union aspect of the question. May I make a few further remarks on this head, prefacing them with the statement that I am a member of the National Medical Guild, and therefore somewhat enthusiastic on the point? That guild was formed with the idea that there were certain powers which the profession ought to have and which it could not obtain through any existing institution.

If this is the case it ought to be made plain, for our future organization can safely avail itself of almost anything but compromise; that will be fatal.

In the future almost all the profession will be under some sort of contract—some on panels, some Poor Law, asylum, public health (including the large number of part timers), or in other ways. The principles of state health insurance are sure to be extended, and even now there are contracts which are not exactly panel but are yet contracts.

I suggest that this state of affairs will make it necessary for the profession to have a fund to organize interference with these contracts in the form of a strike. It is not enough to compensate those who have struck or who have suffered: we must be in a position to organize striking.

I further suggest that if any body, not being a registered trade union, should organize a strike, it would be liable to attachment of funds on the grounds of conspiracy. Such holding up of the whole fighting fund might be caused by the action of a single obstinate member, perhaps prompted by some enemies of the profession, and we do not lack unscrupulous enemies.

I must confess that this seems to me a very dangerous position. I should like to know, without equivocation, whether the British Medical Association can—I believe it has been discussing the point—obtain immunity for its funds without becoming a trade union, and whether it can become a trade union.

I am a member of the British Medical Association, and shall continue a member, and I feel that I am entitled to ask this question. I have carefully studied the remarks of the solicitor to the Association, and it seems to me quite clear that the answer is in the negative. The British Medical Association can have a fund, held by the Council as a separate trust, and it can do some things with that fund, but it cannot do just the things which we shall need to do. It seems to me that if we compromise we shall be beaten in the next fight—and it is high time we thought about that next fight.

I have one more question: Can the British Medical Association undertake the return to Parliament of a member of the profession with the intention that he shall watch legislation in our interests and be the official parliamentary medium for our views? It would probably be better to have two members, one on each side, in order to avoid any party taint. I wrote to the Medical Secretary some two years ago on this subject, and he informed me it was being considered. As nothing has come of it, I suppose that the consideration was abortive. Again, it appears to me that it is of the first importance that we should have a definite official representative, and that the British Medical Association cannot provide one, owing to that action being quite outside any possible constitution that it could assume. This also, as the other, is a question allowing of a Yes or No answer; we have already tried treating the matter with a compromise.

May I in conclusion state that the National Medical Guild is advised that these two powers can only be obtained by registration under the Trade Union Acts, and that this body has been formed accordingly to obtain these powers, among others, for the profession. It is in no sense antagonistic to the British Medical Association, but supplementary.—I am, etc.,

London, W., April 12th. GORDON R. WARD.

THE FORM AND POSITION OF THE STOMACH.

SIR,—I have worked for the past three months at the Roentgeninstitut of the Allgemeine Poliklinik in Vienna, and I have been struck with the difference in opinion as

to the form and position of the stomach as expressed by your correspondents, and the teaching of Dr. Siegmund Kreuzfuchs at the Poliklinik.

I would like to give a brief account of his teaching. The patients are examined in the erect posture with the screen at 9 a.m.; no food has been taken after 8 p.m. on the previous evening.

The First Examination. — This is made before any barium is given. All that can be made out is the small round light area corresponding to the air bubble at the fundus of the stomach.

The Second Examination.—This is made after the patient has taken 6 oz. of barium water, and a view of the practically empty stomach is obtained. The air bubble is now seen to have a semicircular form, the base of the semicircle corresponding to the upper level of the fluid in the stomach. The shape of the stomach is not a J, but the pylorus is the lowest point. In normal stomachs the pylorus is in the middle line, or is on the left of the middle line, and it is directed towards the right side. It corresponds in level to the second or third lumbar vertebra.

The Third Examination.—This is made after a barium meal. The condition of the stomach now is not constant, and it may assume one of two types in the same individual.

Type A.—A well-contracted appearance of the stomach, which is filled with barium throughout, may be observed, with regular peristaltic waves, which begin at the middle of the greater curvature and pass to the pylorus. The shape of the stomach is tubular and forms a J with the pyloric part ascending, and with the pylorus looking upwards and to the right. At intervals some of the barium mass is seen to pass into the duodenum. The pylorus is always on the right of the middle line, and the greater the amount of the barium meal the more does the pylorus extend to the right. The pylorus may extend so far to the right that the masses which pass into the duodenum are directed from right to left until they reach the fixed vertical second part of the duodenum. In other cases the pyloric shadow entirely covers the first part of the duodenum, so that its barium content cannot be observed at all.

Type B.—After a varying interval the stomach shadow may gradually change in shape and Type B results. Instead of the well-contracted stomach, the badly or so-called hypotonic stomach is seen. The shadow is sac-shaped and the barium mass no longer fills the stomach, but sinks down to a certain degree. The greater curvature, which in Type A was in the upper abdomen, may now be seen in the lower abdomen. The pylorus is in the same position as in Type A, or it may even extend more to the right side. The stomach is quiet, no waves are seen, and no food passes into the duodenum. In cases in which the duodenum is not covered by the pars pylorica, we can see a light area between the pylorus and the duodenum—on the one side the shadow of the pylorus, which is convex, and on the other side the beginning of the duodenum, which appears concave and is applied to the convex pylorus. After an interval the shape changes again and Type A results. These two cycles alternate, and might be described as the systolic and diastolic phases of the stomach.

The changes are explained as being due to the reaction of the food mass in the duodenum. If the reaction in the duodenum is alkaline the shape A obtains, and the stomach contents are gradually passed in until a certain degree of acidity is present. Then the pylorus is closed, and the form B results. As the secretions from the adnexae of the duodenum cause alkalescence again the shape gradually changes to type A, and when this phase exists for a certain time we may get the form and position of the practically empty stomach again.

The Fourth Examination.—This is made four hours after the meal, and the practically empty stomach is again seen with the pylorus on the left of the middle line.

It is very interesting to observe that these *x*-ray appearances exactly correspond to the positions of the stomach found by His in the formalin hardened specimens, with the stomach filled to a greater or lesser extent with food, in fifteen persons whose death was due to violence. These he described in the *Archiv für Anatomie*, 1903.—I am, etc.,

HAROLD BLACK, M.B., D.P.H.,
Makay Wilson Travelling Medical Scholar,
Queen's University of Belfast.

Vienna, April 8th.

SIR,—To judge from Dr. Hertz's last letter, in which he quotes remarks of Mr. A. H. Burgess and Dr. A. E. Barclay, and also from Professor Elliot Smith's letter, there appears to be considerable misapprehension as to my position in the discussion on this subject.

In order to be able to restore an abnormal stomach to a condition as near the normal as possible, one must have a conception of what the normal stomach is with regard to its position, shape, and especially motor functions, hence the importance of this subject to surgeons. I published my conception of this in 1908 (epitomising it in my letter of March 29th last), and nothing that has been published since has, so far, led me to change my view. At the interview referred to by Dr. Hertz, who states that Dr. Barclay demonstrated to me "*the normal anatomy of the stomach with the x rays*," Dr. Barclay, as a matter of fact, regretted that he could not show me a normal case. He showed me several cases of probable duodenal ulcer, several of probable appendicular dyspepsia, one patient had marked gastroptosis, and another had possibly a gastric cancer.

While I stated my appreciation of Dr. Barclay's enthusiasm and courtesy, and the excellence of the *x*-ray work, it is impossible that I could have expressed myself as in any way convinced that my views of the normal stomach were wrong. I considered that, if anything, Dr. Barclay's demonstration supported my views. Dr. Barclay's ideas as to the position of the pylorus agreed with mine, and thereby differed from those of Dr. Jordan (whose work and results have received Dr. Hertz's approval). Dr. Jordan locates the pylorus of the normal stomach, shown in the *Archives of the Röntgen Ray* of January, 1911, as being opposite and to the left of the *fourth* lumbar vertebra, while Dr. Barclay places it at the level and to the right of the *second* lumbar vertebra, both the patients being in the erect posture. I regret that I used inadvertently, in my last letter, the word "practically" instead of *comparatively* with regard to the fixity of the pylorus. I agree that it may descend from opposite the first lumbar vertebra, which is its position when the patient is supine, to opposite the second lumbar, when the patient stands, but I deny that the pylorus of the normal stomach can be even pulled down, without damage, to opposite the fourth lumbar vertebra.

We have, therefore, two distinguished skiagraphists, both of whom are evidently relied upon by Dr. Hertz, giving widely divergent views. Does Dr. Hertz think that both views are correct? Dr. Hertz states that I alone seem to be "content to ignore recent advances in our knowledge." These recent advances in our knowledge of the form and position of the living stomach, according to Professor Elliot Smith as well as Dr. Hertz, are based upon radioscopic examination. The interpretations of Drs. Barclay, Jordan, Maclaren, and Daugherty (the latter two stating that normally the pylorus is practically a pelvic organ) in varying so widely show how far from being final some of the "recent advances" are! I fail to see how any one can be dogmatic, at present, if he is guided by *x*-ray work alone.

I should like now to discuss at greater length the question of the "middle sphincter," as I have called it for want of a better name. No one denies the presence of a sphincter at the pylorus, yet in some cases, as was many years ago pointed out by Dr. W. J. Mayo, the only way in which the pylorus can be located, when the abdomen is opened, is by finding the vertical vein which indicates the site of this sphincter. In such cases there may be no evidence of a sphincter, either on inspection or palpation, because it is completely relaxed. Still less will one expect to find evidence of the less definite middle sphincter, which after all only marks the beginning of the muscularly active pyloric part, especially when the muscle is relaxed under the influence of a general anaesthetic. It will be admitted, however, that the better the tone the better the action of the muscle, and the more suited will be the conditions for purposes of demonstration. In certain extragastric lesions which are causes of dyspepsia, such as duodenal ulcer or some forms of appendicitis, the stomach is in a condition of hypertonus. At least Drs. Barclay and Hertz say so, and I am perfectly in accord with them because one finds this frequently at operation. This fact has been drawn attention to repeatedly by other surgeons, for example, Sir Berkeley Moynihan.

At Dr. Barclay's demonstration to me in autumn, 1911, he admitted that in some of the cases a "check" occurred during the passage of food along the stomach at the point where I located the middle sphincter, and this even when the stronger pyloric sphincter was allowing food to pass, almost without delay. Dr. Barclay, after more recent research, writes in the *Medical Chronicle* of February, 1913, pp. 262 and 263, while discussing what he calls "duodenal irritation":

> The stomach is invariably J-shaped, and not a trace of atony is observed; in fact, hypertony is often so marked that it may require quite a large quantity of food to canalize the empty stomach. Such cases are at first suggestive of an hourglass contraction, and in two of them (Nos. 97 and 273) I actually suspected the presence of an organic lesion half way down the stomach, because of the way in which the contraction of the walls resisted the passage of the food.
>
> The action of gravity is an important factor in canalizing the empty stomach, and it frequently happens that at the lowest part of the organ there is a considerable pause in the progress of the food before it enters the pars pylorica. H. M. W. Gray, of Aberdeen, interpreted this sign as an indication that there is normally a sphincter at this point, probably indicated by the incisura of His, and on this theory laid it down that the stoma of a gastro-jejunostomy should be made beyond this point.

Dr. Barclay does not admit that this considerable pause is due to the action of a sphincter. It must be due to the action of a collection of circular fibres, and it occurs at the same part of the stomach in each case, "half way down"! Why, then, do Dr. Hertz and Professor Elliot Smith, as skilled impartial judges, object so strongly to the term "middle sphincter," a term used "for the sake of brevity" and "for want of a better name"? A study of Dr. Jordan's skiagram of the normal stomach shown in the *Archives of the Röntgen Ray*, January, 1911, will support my contention, published in the *Lancet* of December 3rd, 1910, that certain radiographers and others mistake this middle sphincter for the pylorus.

On a further perusal of Dr. Barclay's recent paper it is revealed that he has seen several cases where the spasm of this middle circular band of fibres is so intense, even after gastro-enterostomy has been done, that hourglass stomach was diagnosed, yet nothing was found at a subsequent operation "to account for the hourglass." This supports my statement, made in 1908, that the middle sphincter acts as well after as before gastro-enterostomy, and that one is able to obtain food from the cardiac end of the stomach, or see it there after a bismuth meal, even as long as 3½ hours after the food has been swallowed.

So much for hypertonic cases. With regard to normal stomachs, Dr. Barclay says (p. 261):

> In many apparently normal stomachs a certain degree of spasmodic contraction of the middle of the body was noted, but in most of them the application of massage to the abdomen relaxed the spasm at once, but in a small number, notably Nos. 369 and 398, the contraction was thought to be organic in origin as it could not be relaxed by massage or the administration of belladonna. In Case 398 this spasm persisted, and was so definite that at my instance the surgeon again explored, and found nothing whatever to account for it; while in Case 369 the simple manipulation of the stomach was sufficient to effect a perfect cure, and re-examination after the laparotomy showed no trace of the contraction previously noted.

In no paper which I have seen has there appeared any explanation of why food should be checked at this part with such regularity as that recorded by Dr. Barclay. If a better name can be suggested than "middle sphincter" for this collection of fibres which so readily undergoes "spasmodic" contraction, I shall be very pleased.

I may say here that a study of Dr. Barclay's paper confirms my conviction that any operative procedure which involves gastro-enterostomy should include investigation and also, when necessary and feasible at the same sitting, treatment of all parts, lesions of which may act reflexly and delcteriously on the stomach.

I am sorry that Dr. Hertz and his friends cannot understand the meaning of "Conclusion 3" in my letter of March 29th, because it seems quite clear to several medical men here in the north to whom I have shown the data on which it was founded and of which Dr. Hertz is cognizant. I have every hope that Dr. Hertz will understand the meaning of, even if he does not agree with, Conclusion 3, if he refreshes his memory by referring to my paper in the *Lancet* of December 3rd, 1910, and to that of Dr. Ribas, of Barcelona, in the *Archives of the Röntgen Ray*, January, 1911.

In connexion with this discussion I should like to ask Dr. Hertz the following questions: (1) Why, in certain cases after gastro-enterostomy, does a patient vomit bile for a few days and then stop as his strength increases? (2) Why, in certain of such cases, does the patient vomit bile-stained fluid which shows no trace of milk or other fluid which has been swallowed but a few minutes previously?

I have now read the report of Dr. Hertz's paper and the discussion on it as reported in the *Proceedings* of the Royal Society of Medicine, March, 1913. I am glad to find that the reports on which I based my criticisms did not omit or distort any detail which would have caused me to modify my objections to his views. I note that objections were raised also by several of the after speakers. I point out that I waited for a week before criticising Dr. Hertz's ideas as embodied in the reports of the BRITISH MEDICAL JOURNAL and *Lancet*. I thought he would be sure to correct at once any omission or statement which laid his views open to misconstruction.

I am sorry to hear that certain anatomists have gone so far as to accept for publication in their textbooks any *drawings* which are based on such conflicting data as skiagraphists have, so far, submitted. These observers, as I have shown, cannot agree about such a fundamental point as the position of the pylorus. It will be observed that Dr. Hertz has not made any references to these discrepancies.

In conclusion, I should like to point out that I prefer to base my conception of the normal stomach not only on skiagraphic findings but also on the work of anatomists such as Cunningham and Birmingham, and on what can be observed clinically and during operations, especially when the latter are conducted under local anaesthesia. The histological structure and pathological tendencies of the cardiac and pyloric portions would seem, further, to indicate that these parts of the stomach are naturally differentiated while performing their functions.—I am, etc.,

Aberdeen, April 14th. H. M. W. GRAY.

IMMEDIATE OPERATION IN APPENDICITIS.

SIR,—As so much interest has been excited by the publication of Mr. Edmund Owen's paper in the JOURNAL advocating immediate operation in acute cases of appendicitis, I think that the following results of operation for this disease at the Hull Royal Infirmary may be instructive.

Our custom is to admit these cases in the first instance under the care of the physician of the week; if he can see the case at once, he almost invariably transfers it to the surgeon for immediate operation. If the physician is not able to see the case at once the surgeon of the week is sent for. In this way every case is operated on as soon as possible after admission.

The following is a copy from the report of the results of operation on the cases admitted during the year 1912:

Appendicitis.	Cases.	Deaths.
Acute, with appendicectomy	56	0
Chronic, with appendicectomy	52	0
Abscess, with appendicectomy	10	0
With general peritonitis	4	0
Abscess, without appendicectomy	54	4

In this series of 176 cases the 4 deaths were those in which the appendix was not removed, all being almost moribund. Our custom is when abscess has formed to be content with the evacuation of the pus, unless the appendix can be removed without separation of adhesions, but our statistics seem to point to the removal of the *fons et origo mali* in every case. During the past week I have operated on 4 cases, 2 of which were within thirty-six hours of the onset, and yet were only just caught in time to obviate a perforation.

I have no hesitation in advocating operation at the earliest possible moment.—I am, etc.,

EDWARD HARRISON, F.R.C.S.,

April 10th. Honorary Surgeon, Hull Royal Infirmary.

ALIMENTARY TOXAEMIA.

SIR,—I am unfortunately unable to take part in the discussion on alimentary toxaemia, but feel I would like to add a fact of much value to the many that will doubtless be brought forward.

It concerns the case of a boy whose large bowel was removed by Mr. Arbuthnot Lane in Guy's Hospital in November, 1906. At that time the boy had intractable constipation, stasis, very marked toxaemic symptoms, and deep pigmentation, which rendered it impossible for him to follow his occupation and made his life unbearable. An interval of six years and four months have now elapsed, and he is a fine specimen of manhood; he is 5 ft. 11¾ in. in height, his weight is 11 st. 4 lb. as compared with 7 st. at the time of the operation; all the toxic symptoms have disappeared, the evacuations are formed, and he is enabled to follow a useful occupation, being now in perfect health.

I leave the facts of this interesting case to your consideration in view of the doubt which has been expressed by Dr. Hale White and others as to the subsequent history of these cases.—I am, etc.,

Wittersham, Kent, April 10th. C. FORTESCUE PRIDHAM.

THE ACTION OF SALICYLIC ACID AND CHEMICALLY ALLIED BODIES IN RHEUMATIC FEVER.

SIR,—I have just read, on my return from a holiday, Professor Stockman's very interesting paper in the JOURNAL of March 22nd on the above subject.

There are some statements in it which I feel should not pass unchallenged; I cannot, of course, question his statement that with the *Micrococcus rheumaticus* "I have never been able to produce in animals any of the symptoms or lesions of rheumatic fever," but, at the same time, I can only express my greatest surprise. In the absence of details of experiments it is not possible to give an opinion as to cause of the failure, but I, and several other workers, find no difficulty in producing recoverable arthritis, relapses, etc. I have now inoculated a considerable number of rabbits, and in at least 80 per cent. of the cases arthritis has been produced where the organisms from definite rheumatic cases have been employed. Relapses have occurred in a considerable number of cases and endocarditis in a few. Again, Professor Stockman says, and I presume he is speaking of the organism isolated by me: "It is an organism difficult to grow satisfactorily and easily killed." This statement is absolutely contrary to my experience, for the organism grows with the greatest ease on ordinary culture media, lives almost indefinitely (at least three years without subculture) and resists 60° C. for over an hour.

I do not object to criticism, however severe, nor to statements that the bacteriology of acute rheumatism is still an undecided question. Every one has a right to his own judgement on the facts, but I do feel it is only fair that scientific workers, especially those of the standing of my friend Professor Stockman, should fully study the literature on the subject they are criticizing, and thus avoid such errors as I have pointed out in this paper.

In regard to vaccine therapy, Professor Stockman does not tell us whether the cases he has been dealing with were acute or chronic. As the paper deals mainly with acute rheumatism, I presume they were of that type. If so, then failure to produce curative effects, or even a reaction, does not in my opinion in any way invalidate the conclusions that the streptococcus is a causal agent in acute rheumatism. Recently Dr. Yates and I have been working at vaccine therapy, and at present, though the work is still incomplete, our view is that vaccines may prove useful in preventing relapses if used during the apyrexial period of the disease, but we are not prepared to speak very definitely on this subject at present.—I am, etc.,

Liverpool, April 8th. J. M. BEATTIE.

RHEUMATOID ARTHRITIS.

SIR,—With reference to Sir James Barr's address on rheumatoid arthritis published in your last issue, I should like to ask him on what evidence he bases his opinion that the proximate cause of this disease is "a mild chronic acidosis, which extracts the lime salts from the fibrous tissue, muscles, nerves, cartilages, and bones." He further states that the extraction of the lime salts from the fibrous tissue causes it to swell, while the loss of the lime salts from the muscles causes them to waste—two apparently contradictory statements. Sir James Barr is very iconoclastic in his attitude towards former workers and writers on the subject, but without venturing to enter into this special domain of his, I wish to take strong exception to a portion of one statement in the concluding part of his address, namely, that "arsenic, potassium iodide, guaiacol, and a host of remedies commonly prescribed are worse than useless."

I have employed guaiacol carbonate and potassium iodide in some thousands of cases, and I am convinced that this combination is capable in the great majority of cases of arresting the disease, and so of preventing the frightful suffering connected with movements of the affected joints, a condition which is so common in cases of unrelieved rheumatoid arthritis.—I am, etc.,

London, W., April 14th. ARTHUR P. LUFF.

RECENT ADVANCES IN THE DIAGNOSIS, PROGNOSIS, AND TREATMENT OF HEART DISEASE.

SIR,—The letter from Dr. Thomas Lewis in your last issue does not call for comment, save that I consider the only course for Dr. Lewis to take after the appearance of the letters in the JOURNAL of March 22nd and 29th was to withdraw his insinuations and apologise. I very much regret that he has not done so. For the rest, I am satisfied to abide by the opinion of your readers who have followed the correspondence.—I am, etc.,

London, W., April 15th. FREDERICK W. PRICE.

TUBERCULOSIS OFFICERS, SCHOOL MEDICAL OFFICERS, AND THE MEDICAL OFFICERS OF HEALTH (SUPERANNUATION) BILL.

SIR,—I should like to thank Dr. Alexander Graham for his timely letter in the BRITISH MEDICAL JOURNAL of April 12th, and to support his appeal for the urgent need of an amendment to the Medical Officers of Health (Superannuation) Bill, so that under "medical officers of health" school medical officers and tuberculosis officers will be included. The ranks of the medical officers of health in the future must be recruited from school medical officers, superintendents of infectious hospitals, and tuberculosis officers, and most of these officers look forward to entering the main branch of the public health service. I wish specially to urge the inclusion of tuberculosis officers for the following reasons:

1. They are whole-time medical officers, and as such are unable to augment their income by doing other work. A part-time medical officer of health is included in the bill. He usually has a large and lucrative general practice, and is in a better financial position than the tuberculosis officer.

2. Better men will undoubtedly apply for these posts if there is an assured superannuation scheme attached to them. The advantage to the community is obvious.

3. If medical officers of health are singled out for the superannuation scheme, and tuberculosis officers excluded, the latter will feel under a grievance which cannot favourably affect the harmonious relations between them which are necessary in the public interest.

4. It should be easy and practical to include tuberculosis officers because all these appointments are quite new, and therefore payments can be made in every case from the commencement of the appointment.

I trust every tuberculosis officer will support Dr. Alexander Graham in this important matter.—I am, etc.,

G. LISSANT COX,
Tuberculosis Officer for the County Palatine of Lancaster.

Preston, April 12th.

SIR,—Dr. Alexander Graham deserves the thanks of his colleagues in the school medical service for bringing this matter forward. The need for a scheme of superannuation in the case of medical officers of health is generally admitted, but strong as their claim is, that of school medical officers appears equally, if not more, urgent. By reason probably of the fact that the school medical service was instituted at a time when the financial burdens imposed upon local authorities had reached high water mark, the salaries paid for appointments of school medical officers compares very badly with those of their

colleagues in the public health service, and I think it has never been seriously suggested that the latter are overpaid.

As your correspondent points out, precisely the same arguments in favour of the superannuation of medical officers of health apply therefore with equal or greater force to the appointments of school medical officer. It is possible that tuberculosis officers may make a similar claim, but, seeing that as a class they are relatively better paid, I do not personally think that their claim is a matter of equal urgency.

It is to be hoped that all school medical officers will follow your correspondent's suggestions and bestir themselves with the object of securing, if possible, the necessary amendment to the bill in its Committee stage.—I am, etc.,

W. SPENCER BADGER,
(Medical Officer Education).

Wolverhampton, April 14th.

PREFERENTIAL PAYMENTS IN BANKRUPTCY.

SIR,—There is at present before Standing Committee B of this House a measure, entitled "A Bill to Amend the Law with Respect to Bankruptcy and Deeds of Arrangement."

As the law now exists under the preferential payment in Bankruptcy Act of 1888, there shall be paid in priority to all other debts, certain rents, rates, salaries, or wages of clerks, servants, workmen, etc. To these classes entitled to priority I sought to add—without success—the fees due to professional nurses. I instanced cases where, after prolonged attendance on a patient, they were obliged to accept a compensation of 2s. in the pound, the same as an ordinary trade debtor. I am confident that it only requires public attention to be drawn to the gross injustice possible to a noble profession under the existing law to have it altered.

If those interested or sympathetic will only speak out between now and the report stage of the bill, I have no doubt the necessary amendment of the law would appeal to the sense of justice of all parties in the House.

In my opinion the medical profession have also a strong claim for an amendment in the existing law, under which, as it is at present, their fees only rank as ordinary creditors'. I think that for some considerable time before a receiving order is granted their fees should rank with those entitled to priority of treatment.—I am, etc.,

PATRICK WHITE.

House of Commons, April 15th.

The Services.

ROYAL NAVAL MEDICAL SERVICE.

EXAMINATION FOR APPOINTMENTS AS ACTING SURGEONS.

AT the examination for the Naval Medical Service held on April 7th, 8th, 9th, and 10th, fourteen candidates were successful, and obtained the following marks:

Name.	Marks.	Medical Schools.
Mr. A. M. Henry	1,785 ...	Guy's Hospital.
Mr. G. F. B. Page, M.B. ...	1,605 ...	Edinburgh University.
Mr. A. J. Patterson ...	1,563 ...	Royal College of Surgeons, Dublin.
Mr. D. G. Arthur	1,465 ...	St. Bartholomew's Hospital.
Mr. R. E. P. Sayers ...	1,457 ...	Middlesex Hospital.
Mr. W. A. S. Duck	1,455 ...	Middlesex Hospital.
Mr. P. B. Wallis	1,413 ...	Cambridge University and St. Bartholomew's Hospital.
Mr. M. Meehan	1,385 ...	University College, National University, Ireland, and Royal College of Surgeons, Ireland.
Mr. H. E. T. White, M.B. ...	1,373 ...	Edinburgh University.
Mr. A. Simpson, M.B. ...	1,343 ...	Edinburgh University.
Mr. F. C. Wright	1,318 ...	St. Bartholomew's Hospital.
Mr. I. S. Gabe	1,290 ...	London Hospital.
Mr. A. J. Tozer		St. Mary's Hospital.
Mr. D. P. H. Pearson ...	1,283 ...	University College, Cork.

The maximum number of marks obtainable is 2,400.

AN institute for the investigation of radium is now in working order at Heidelberg, and will be formally opened on May 1st. The director is Professor Ph. Lenard. There is a special medical department in connexion with the cancer institute and the medical clinic.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following candidates have been approved at the examination indicated:

D.P.H. (*Both Parts*).—W. W. Adamson, A. Brownlee, *G. R. Bruce, C. C. Cumming (Major, R.A.M.C.), A. da Gama, H. N. Featonby, R. D. Goldie, J. R. Haldane, A. B. Hamilton, W. Johnstone, M. J. Quirke (Captain, I.M.S.), T. Ruddock-West, W. Rutherford, F. V. G. Scholes, J. D. Smith, *W. Templeton, F. E. A. Webb, A. R. Wellington, L. S. Willox.

*Passed with distinction.

UNIVERSITY OF LONDON.

SCHOOL OF MEDICINE FOR WOMEN.

THE Council has appointed Mrs. Willey, M.D., M.S., as Lecturer in Midwifery to succeed Mrs. Scharlieb, M.D., M.S., resigned.

The Dr. Edith Pechey Phipson Post-Graduate Scholarship of the value of £40 for one, two, or three years, will be awarded in June. Applications should be sent by May 31st to the Secretary. Entrance scholarships of the value of £60 for three or five years, £20 for four years, and £30 will be awarded on the result of an examination to be held on July 22nd and following days. The Agnes Guthrie Bursary for Dental Students, of the value of £60, will be awarded in September. All particulars can be obtained from the Secretary, 8, Hunter Street, Brunswick Square, W.C.

UNIVERSITY OF LIVERPOOL.

THE following candidates have been approved at the examination indicated:

D.T.M.—J. G. Becker, C. Forsyth, M. C. R. Grahame, K. K. Grieve, A. R. Hargreaves, P. Hiranand, O. E. Jackson, M. MacKelvie, J. McP. MacKinnon, R. J. A. Macmillan, C. E. F. Monat-Biggs, E. Olubomi-Beckley, D. S. Puttanna, J. H. Reford, F. D. Walker, U. B. Yin, W. A. Young.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY Council was held on April 10th, Sir Rickman J. Godlee, Bart., President, in the chair.

Gifts.

A vote of thanks was passed to Dr. Charles Hose for the gift of skeletons of adult orangs and other specimens to the museum.

Prizes.

The Jacksonian Prize was awarded to Mr. F. W. Goyder, F.R.C.S., of Bradford, Yorks, for his dissertation on "The Embryology and Treatment of Cleft Palate."

The Triennial Prize, together with the John Hunter medal, was awarded to Dr. W. Blair Bell, M.R.C.S., of Liverpool, for his dissertation on "The Anatomy and Physiology of the Pituitary Body."

The subject selected for the Jacksonian Essay for 1914 is "The Pathology, Diagnosis, and Treatment of Trigeminal Neuralgia."

The subject selected for the Triennial Essay for 1913–1915 is "The Human and Comparative Anatomy and Physiology of the Cerebellum."

The Sir Gilbert Blane medals were awarded to Fleet Surgeon Richard Cleveland Munday, H.M.S. *Hyacinth*, 1910, and to Fleet Surgeon Edward Sutton, H.M.S. *Highflyer*, 1911, both members of the College.

Examiner in Dental Surgery.

Mr. F. Hopson, L.D.S.Eng., Guy's Hospital, was elected on to the Board of Examiners in Dental Surgery.

Central Midwives Board.

The thanks of the Council were given to Dr. Golding-Bird for his services as the representative of the College on the Central Midwives Board.

Disciplinary Action.

A member was removed in consequence of his advertisements and objectionable pamphlets in connexion with practices carried on in Sydney, New South Wales.

International Medical Congress.

A conversazione will be given on August 7th at the College to the members of the Seventeenth International Congress of Medicine.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

The Fellowship.

AT the meeting on April 4th the following candidates were elected to the Fellowship:

A. Croly; W. P. MacArthur, Captain, R.A.M.C.; R. J. Rowlette.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Appointments.

At a meeting on April 3rd Mr. J. S. Fegum and Mr. P. D. Sullivan were respectively appointed Senior and Second Assistant to the Professor of Anatomy.

CONJOINT BOARD IN ENGLAND.

The following candidates have been approved at the examinations indicated:

First College (*Part I Chemistry, and Part II Physics*).—N. J. Ainsworth, R. Aspinall-Stivala, *C. Bethencourt, F. Blake, †H. H. Castle, A. M. Clément, B. S. Collings, *G. W. Coombes, *Jane Crawford, †B. Crossley-Meates, *F. G. L. Dawson, S. G. Dunn, S. E. D. A. El Daab, †A. A. H. El Zeneiny, J. L. Goddard, J. P. J. J. Hagron, *W. R. G. Hearnden, A. G. Hewer, J. Hope, †J. R. Houghton, *Mabel M. Ingram, T. C. James, M. Kamil, *P. Lloyd-Williams, T. H. McLeod, H. Masters, *H. Morris-Jones. A. Peine, E. R. Peirce, W. E. Powell, *P. Randall, F. H. Stuttaford, *F. Tagger, *C. W. Tomkinson, *C. Vincent-Brown, R. A. Walker, E. M. Webster, *G. A. O. White, B. C. Woodroffe.

* Part I only. † Part II only.

First College (*Part III, Elementary Biology*).—R. Aspinall-Stivala, E. R. Batho, E. G. P. Bousfield, H. W. Breese, C. H. Carroll, N. Chona, B. S. Collings, A. R. Crane, F. G. L. Dawson, H. S. Drabble, K. M. K. Duff, S. G. Dunn, R. Erskine-Gray, R. B. Gibson, J. L. Goddard, E. G. Harris, T. C. Higgins, J. Hope, R. Hope, O. H. Hyman, W. A. Jackman, A. K. I. Jones, A. E. A. Khair, L. G. Lunnon, K. F. McAlpin, A. Magill, R. K. Marwood, A. M. G. Mishad, K. R. O'Brien, A. L. S. Payne, G. A. Pennant, W. E. Powell, D. S. Pracy, R. E. Rampling, F. N. Reynolds, A. H. Richardson, G. Looker, S. C. Shaw, C. Shelton, G. E. L. Simons, M. O. Simpson, B. L. Skeggs, H. L. Slaughter, R. M. Somerset, J. N. Terry, D. R. Thomas, H. B. Troup, D. L. Wilson, L. H. Woods.

Second College (*Anatomy and Physiology*).—A. W. C. Bennett, H. C. H. Bull, E. J. Coombe, G. L. Cutts, A. T. Dally, W. H. Dye, J. Fox-Russell, C. Gould, F. H. S. Greenish, F. E. Higgins, H. R. W. Husbands, R. W. Hodgson-Jones, H. L. Hughes, F. B. Jago, N. S. Jatar, J. Kyle, R. D. Langdale-Kelham, C. G. Learoyd, E. A. Leviseur, S. J. L. Lindeman, R. W. Little, E. M. Litchfield, G. S. B. Long, L. A. McAfee, J. E. C. Maguire, R. H. Maingot, N. S. Nairne, N. V. Navalkar, J. F. M. Payne, F. Porter-Smith, E. A. Prichard-Evans, I. I. A. Rahman, E. D. Richardson, G. Robinson, E. S. Rowbotham, J. C. Russell, R. Sinha, J. B. G. Skelton, D. M. Smith, A. H. Warde, B. Whitehead, A. G. Williams, W. E. Wilson.

CONJOINT BOARD IN SCOTLAND.

The following candidates have been approved at the examinations indicated:

First College.—F. J. D. Cass, F. E. Gillieron, Martha H. Hoahing, E. Butler, W. A. Mein, and E. A. Hamilton.

Second College.—J. J. Armistead, W. G. Bowie, *F. B. Macaskie, S. W. Hoyland, and J. V. R. Rohan.

Third College.—A. Craig, Q. Stewart, A. F. Readdie, M. McL. Bainbridge, and M. Seeraj.

Final.—S. Wright, J. G. Lessey, W. A. Reardon, B. S. Raj, Kathleen G. Wall, J. S. E. De Soysa, G. A. Hodges, A. C. Fleming, J. W. Craig, W. Brennan, E. B. Steele, J. A. Whitla, and S. Brennan.

* Passed with distinction.

CONJOINT BOARD IN IRELAND.

The following candidates have been approved at the examination indicated:

Final College.—Mary J. Abern, B. N. Blood, J. Barrett, D. W. Beamish, H. J. Burke, P. D. Daly, A. J. Faulkner, F. E. Fitzmaurice, J. J. Glynn, T. J. Kelly, A. P. Kennedy, J. Kirker, V. J. Lawless, F. J. McCarthy, T. Mulcahy, C. Petit, C. L. Sproule, T. J. Sinnott, G. Wilson, W. Waugh.

A quarterly court of the directors of the Society for the Relief of Widows and Orphans of Medical Men was held on April 9th, Sir Thomas Boor Crosby, President, in the chair. Fifteen directors were present. Four gentlemen were elected members of the society. The death of one of the widows in receipt of grants, who had been on the funds since 1872 and had received from the society the sum of £2,500, was reported. Her husband had paid in subscriptions 50 guineas. The Acting Treasurer, Dr. F. de Havilland Hall, reported that the society would shortly benefit to a very large extent under the will of the late Mr. James Brickwell, who was elected a member in 1833 and died in 1893. By his will he made the society his residuary legatee, subject to his son's life interest in the money. The total amount of the legacy will probably exceed £36,000. The invested funds of the society now amount to £101,600. The annual general meeting will be held on May 6th. Membership is open to any registered medical practitioner who at the time of his election is resident within a twenty-mile radius of Charing Cross. The annual subscription is two guineas, and there are special terms for life membership, which vary with the age of the candidate. Application forms for membership and further particulars may be obtained from the Secretary at the offices of the Society, 11, Chandos Street, Cavendish Square, W.

Public Health

AND

POOR LAW MEDICAL SERVICES.

TUBERCULOSIS IN MILK.

Order of the Board of Agriculture.

By the new Tuberculosis Order, issued recently by the Board of Agriculture to local authorities, which comes into operation on May 1st, the Treasury will refund to local authorities half the net amount payable by way of compensation for animals slaughtered during a period of five years from the coming into operation of the Order.

In a covering letter the Secretary of the Board of Agriculture states that it must be accepted as a fact that tuberculosis is transmissible by the agency of milk used for human consumption.

Any action which results in the reduction in the number of tuberculous bovine animals in the country must reduce the risk of the spread of tuberculosis amongst the community, and if it were possible to eradicate from this country the disease in animals, a material step forward would have been taken in the campaign against the disease in man. It is abundantly clear at the same time, the Board says, that any operations aiming at the diminution or eradication of tuberculosis in animals must be commenced with caution, and carried out with due regard to the extent to which the disease is believed to exist amongst cows, and to the importance of securing the continuance of an adequate milk supply, and of avoiding any disorganization of the important industry concerned. The Order aims at the destruction of every cow found to be suffering from tuberculosis of the udder or to be giving tuberculous milk, as well as of all bovine animals which are suffering from tuberculosis with emaciation. While confining the provisions of the present Order to those forms of tuberculosis only, the Board has not lost sight of the fact that it may be possible in the future to take further action, but believes that heroic measures taken at the present time would only defeat their own object. Every local authority is charged with the duty of investigating reports received under the Order, with the assistance of a veterinary inspector, with a view to causing the slaughter of any animal in its district shown to be suffering from one of these specified forms of tuberculosis, and the veterinary inspector may extend his examination to any bovine animal that has been associated with the suspected animal.

Under Article 5 the local authority is required to cause every animal found to be suffering from tuberculosis to be slaughtered, the animal to be valued in its condition at the time. The compensation payable by the local authority for an animal slaughtered in cases in which the *post-mortem* examination does not show tuberculosis is a sum equal to the full value of the animal, and a further sum of 20s. Where tuberculosis is found the proportion of the value of the animal payable by way of compensation to the owner is made to depend upon the extent of the disease present. If the certificate of the examination shows that the animal was suffering from tuberculosis (not being advanced tuberculosis) the compensation to be paid to the owner is a sum equal to three-fourths of the value of the animal after deducting one-half of the costs of valuation. If the certificate shows that the animal was suffering from advanced tuberculosis, the compensation will be a sum equal to one-fourth of the value of the animal, or a sum of 30s., whichever sum is greater, after deducting from such sum one-half of the costs of valuation and examination. The Order prescribes the precautions to be taken in respect of the milk of suspected animals and their detention and isolation whilst under suspicion.

The Royal Commission on Tuberculosis established that a considerable amount of the tuberculosis in children is of bovine origin. Recent investigations have shown that a very large proportion of the cases of surgical tuberculosis operated on in the Royal Edinburgh Hospital for Sick Children were of bovine origin. It was, therefore, the duty of the Government to realize their responsibilities in this matter. It has now recognized that this form of tuberculosis is preventable, and that the only way to prevent it was by a more thorough system of veterinary inspection of dairy cows, and the slaughter of all those with tuberculosis of the udder as well as those suffering from general tuberculosis. The work of the Royal Commission showed that the latter class of cows were also capable of giving tuberculous milk.

Medical News.

DR. C. W. DANIELS will give a lecture at the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W., on April 23rd, on insect-carried diseases and their prevention; the chair will be taken by Sir William J. Collins at 5 p.m.

COLONEL THE RIGHT HON. J. E. B. SEELY, D.S.O., T.D., Secretary of State for War, will present the prizes at the Royal Army Medical College, Grosvenor Road, on the conclusion of the 105th session, on April 29th inst., at 4 p.m.

THE President of the Royal Institute of Public Health and Countess Beauchamp will hold a reception at the house of the institute, 37, Russell Square, W.C., on Tuesday, May 6th, from 9 to 12 p.m., when academic dress will be worn.

A COURSE of post-graduate lectures at the Queen's Hospital for Children, Hackney Road, E., began on April 3rd, and will be continued until the middle of June. Further particulars can be obtained from the Honorary Secretary of the Medical Committee at the hospital.

AN Almoner, trained by the Hospital Almoners Council, Denison House, 296, Vauxhall Bridge Road, S.W., has been appointed to the out-patient department of the new South London Hospital for Women, which was opened on April 2nd. As the number of patients attending is not likely to be very large to begin with, the Almoner will, for the present, work half-time only.

A DINNER of the Brussels Medical Graduates' Association in connexion with the forthcoming congress in Paris of the Royal Institute of Public Health will be held under the Presidency of Dr. Harold S. Sington at the Trocadero, on April 22nd, at 7.30. All graduates of the University of Brussels are welcome, and members are invited to bring ladies. Tickets 5s. (not including wine) may be obtained from the honorary secretary, Dr. Arthur Haydon, 23, Henrietta Street, Cavendish Square, W.

MANIFOLDIA, Limited, of West Bromwich, have placed on the market fitted cabinets for the filing in proper order for convenient reference of medical register cards and daily statistics cards used by medical practitioners working under the Insurance Act. The cabinets are made in various sizes, which are illustrated in an advertisement in this issue. The advantages of the card index method of filing are well known, and these cabinets seem well designed to meet the particular purpose.

THE nursing conference which we stated to be in preparation some months ago is to commence next Tuesday and terminate on the following Friday evening, the meeting place being the Technical Institute of the London County Council in Vincent Square, Westminster. The work will be done in two sections—nursing and midwifery. The former section will hold two sessions daily, and in both sections, apart from discussions, addresses in the nature of post-graduate lectures will be delivered by medical men. One of these we note will be an epidiascopic demonstration by Mr. Bishop Harman on the subject of ophthalmia neonatorum. The majority of the sessions, however, will be occupied in discussions on socio-political rather than technical aspects of nursing work and midwifery: for example, the effect of the Insurance Act on nursing, the training of nurses for various special purposes, and the need of State registration and the formation among them of a national association.

THE Chadwick lecturer this year is Dr. J. T. C. Nash, County M.O.H. for Norfolk, who chose as the subject of his three addresses the evolution of epidemics. The first dealt with disease in the Middle Ages, it being maintained that bubonic plague was endemic in England for over 300 years before its final extinction after the great outbreak in 1666; it was also suggested that the theory put forward in the sixteenth century to the effect that bubonic plague was caused by a cadaveric poison fitted in with both Pettenkofer's theory of the influence of ground-water fluctuation on epidemic diseases and the most recent rat-infection theories. Incidentally it was also remarked that if the history of medical science were examined two diametrically opposite tendencies would be observed: one of these was to differentiate as distinct affections diseases which previously had been included under one common designation, and the other to determine a persistency of type running through a long series of disorders of various designations. The second lecture dealt with specificity and evolution, more especially in regard to the events of the nineteenth century; while in the concluding lecture will be considered the scientific evidence as to evolution of epidemic disease available at the present time. This lecture will be delivered on Monday, April 21st, being given, like the others, in the rooms of the Royal Society of Medicine.

THE good work accomplished by that branch of the National League for Physical Education and Improvement known as the Association of Infant Consultations and Schools for Mothers was manifested in a striking fashion by the competition in mothercraft held at the London County Council's Infants' Schools in Charing Cross Road on April 12th. The movement, started six years ago by Dr. Eric Pritchard, has for its object the instruction of working-class mothers in all that pertains to the care of their children, and the practical lessons of trained lady helpers who have undertaken this part of the work have produced the most gratifying results. The success of this attempt to improve the physique of the rising generation was amply demonstrated by the healthy happy babies who filled the rooms. The eighty-five mothers who took part in the contest represented the winners of competitions previously held at fifteen different London centres, and their efficiency and intelligence showed that the lessons they had received had borne good fruit. Each competitor was required to prove herself capable either of properly dressing, undressing, and tending her child, cutting-out and making or washing his garments, or preparing his food, and prizes and certificates of merit were awarded to the winner of the highest number of marks in each class. The prizes were distributed by Mrs. Boyd Carpenter, and at the close of the proceedings Bishop Boyd Carpenter expressed his appreciation of the work of the association.

IT has already been stated in the JOURNAL that Mr. Henry S. Wellcome has for some years been organizing a historical medical exhibition. It will be open at 54, Wigmore Street during the meeting of the International Medical Congress in London next August. Among the large variety of exhibits will be a number of personal relics of Edward Jenner, including the lancets and scarifiers he used in his first experiments on vaccination, his case books and account books, and a large collection of his autograph letters. There will also be exhibited portraits of Jenner and members of his family painted at different periods, and illuminated addresses and medals presented to him. A list of portraits and statues of Jenner, medals, diplomas, honours, addresses, and so forth presented to him, was published in the special Jenner Number of the BRITISH MEDICAL JOURNAL which appeared on May 23rd, 1896. Some interesting exhibits relate to the history of anaesthesia. Among these are relics of Sir James Simpson and some of the earliest forms of apparatus for administering chloroform and ether, and the original autograph journal and manuscripts of Mr. Henry Hill Hickman, a forgotten pioneer of anaesthesia, an account of whom was given in the JOURNAL of November 25th, 1911, p. 1434, and April 13th, 1912, p. 843. Persons possessing any objects illustrating the history of medicine and the allied sciences who may be willing to lend them for exhibition are requested to communicate with the Secretary, 54A, Wigmore Street, London, W., who will be pleased to forward a complete illustrated catalogue.

A MEETING of the Duty and Discipline Movement, whose object is to combat the ill effects of the lack of discipline in modern homes, was held at the Caxton Hall on April 11th, with Professor Robert Saundby in the chair. A discussion on "Self-development and National Health!" was opened by Dr. Eric Pritchard, who said that few people seemed to realize how largely the development of a child's character depended upon the formation of good habits at a very early age. The inculcation of such habits, however, must come from without, since the child would not develop them of his own accord, and hence the importance of bringing up children in an atmosphere favourable to the growth of such qualities as truthfulness, courage, and self-control. There was a tendency amongst parents to neglect their duty in this respect, and the training of future citizens was consequently left almost entirely in the hands of school teachers. In the course of his work as school inspector he had often been struck by the want of control of parents over their own children, who, though perfectly amenable to discipline during school hours, became absolutely uncontrollable directly they crossed the threshold of their homes. Mr. Alfred Tredgold said that the Duty and Discipline Movement was intended to counteract the deplorable results of the modern craving for ease and pleasure. Everything about the present age discouraged the fostering of such old-fashioned virtues as thrift and industry: and the breakdown of the Territorial scheme showed to what a pitch the love of comfort had risen amongst the youth of the country.

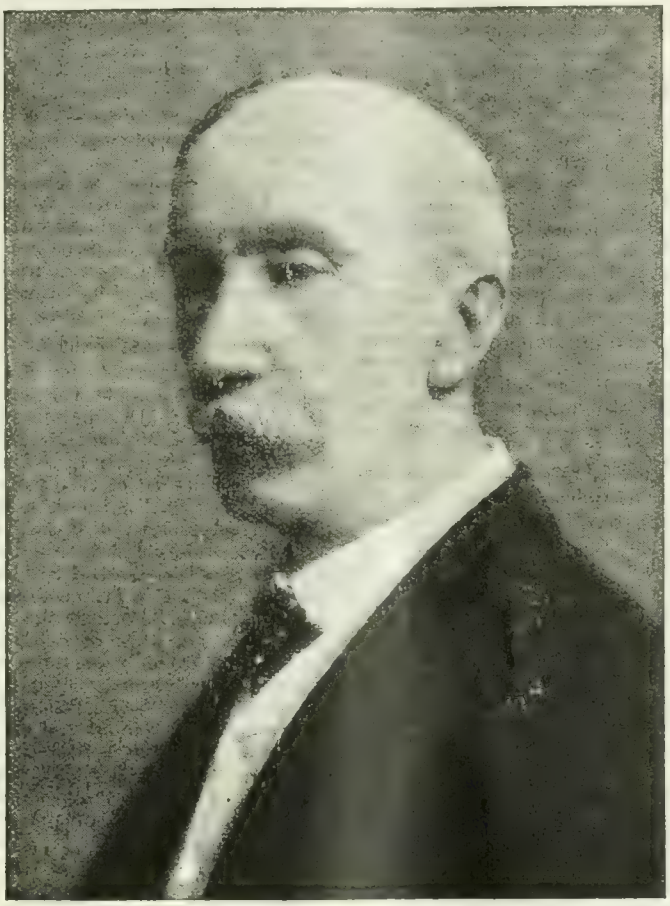
Obituary.

SIR HENRY R. SWANZY,

SURGEON TO THE ROYAL VICTORIA EYE AND EAR HOSPITAL, AND OPHTHALMIC SURGEON TO THE ADELAIDE HOSPITAL, DUBLIN.

We regret to announce that Sir Henry R. Swanzy died, after a brief illness, at his residence, in Dublin, on the evening of April 12th.

Henry Swanzy was a son of the late John Swanzy, a Freeman of Dublin, and was born in 1844. He was educated at Trinity College, Dublin, and graduated M.B. in 1865. He obtained the L.R.C.S. in the following year. He then went abroad and spent several years in study at the Universities of Berlin and Vienna, and was assistant to the late Professor von Graefe at his private ophthalmic hospital in Berlin. He acted as surgeon in the Prussian army during the campaign of 1866. He then returned to Dublin, and practised as a specialist in ophthalmology. In 1873 he became a Fellow of the Royal College of Surgeons in Ireland, and an M.A. of Dublin University. In 1888 he delivered the Bowman Lecturer before the Ophthalmological Society of the United Kingdom, taking as his subject the value of eye symptoms in the localization of cerebral disease. From 1897 to 1899 he was President of the society. From 1906 to 1908 he was President of the Royal College of Surgeons in Ireland. In 1905 he was granted the M.D. degree (honoris causâ) in the Dublin University. He was also an Honorary D.Sc. of the University of Sheffield. In 1911 he received the greatest honour that the ophthalmologists of the world could bestow, when he was selected for the post of President of the Ophthalmological Section of the International Congress of Medicine to be held in London next August. He was the author of a *Handbook of Diseases of the Eye and their Treatment*, which for many years was a standard textbook, and was recently published in an enlarged form under joint authorship. He also wrote the article on "Eye Diseases and Eye Symptoms in their Relation to Organic Disease of the Brain and Spinal Cord," in the *System of Diseases of the Eye*, published in 1900, and contributed numerous important articles to the *Transactions* of the Ophthalmological Society and to the medical journals.



Photograph by] SIR HENRY R. SWANZY. [*Lafayette and Fry, Ltd.*

Sir Henry Swanzy was surgeon to the Royal Victoria Eye and Ear Hospital, and to his exertions is largely due the erection of the present hospital, though he has not lived to see the original plans of the building completed. Sir Henry Swanzy as a man was respected by all, but his real character was only known to his intimate friends; behind a veil of modesty and shyness, which was apt to give the impression of brusqueness to those who did not know him well, was a rich sense of humour, a warm heart, and a great charity, always ready in private life to find excuses for those who failed.

The writer of this notice can vouch for the truth of the following story, which was typical of the man. A medical student who went to consult him about his eyes asked him his fee. Sir Henry said, "Nothing; dog don't eat dog." "Oh," said the student, "I'm not qualified yet; I am only a student." Sir Henry's reply was, "Neither does dog eat puppy." In public debate Sir Henry was unsparing and scathing to any whom he suspected of humbug and dishonesty of purpose, but with the honest striver, however inefficient, his patience was inexhaustible. His death will leave for long a blank, both in the profession and among his friends, that will be hard to fill.

Mr. Priestley Smith, Emeritus Professor of Ophthalmology in the University of Birmingham, writes:

The news of the death of Sir Henry Swanzy, which reached me this afternoon, fills me with a sense of heavy personal loss. For very many years he has been not only a leader among British ophthalmic surgeons, but, to those of us who knew him well, a highly valued friend. He belonged thoroughly to the present, but was a link with a distant past, for he had worked with von Graefe in Berlin. At the meeting of the British Medical Association in Cambridge in 1880, when Bowman and Donders received honorary degrees, Swanzy was there, I think, as a vice-president in our Section, already a man of grave and dignified appearance; and until quite lately he has been a frequent and active participator at meetings and congresses in this country and abroad. Time seemed to change him wonderfully little—always the same dignity with modesty, kindliness, and humour. He threw himself with boundless energy into all that he undertook. No one who was present will forget his earnest, yet humorous, appeal to the members of the Ophthalmological Society when a change in its constitution was under consideration. A busy man no longer young, he came from Dublin to speak and vote on a matter which was very near his heart, though of no importance to him personally, starting on his return journey a few minutes after having done so. I will not speak of his scientific eminence, of the great work which he did for his hospital, or of the high official positions which he had held and was still to hold. At this moment one thinks rather of his genial presence, of the delight of many meetings with him in the past, of his acts of friendship, and of the blank which his removal will leave among us.

Sir Anderson Critchett, Bart. (London), writes:

A fraternal friendship had existed between Sir Henry Swanzy and myself for nearly forty years, and I cannot yet realize to the full the extent of the heavy loss which I have sustained.

"The old order changeth, yielding place to new," and his death breaks one of the few remaining links which connect us with the days of Donders, Bowman, my father, and von Graefe. He acted for some months as

assistant to the last named in Berlin, and he greatly valued his association with that remarkable genius, whose memory he held in lasting and profound veneration.

It was impossible to know Swanzy without loving him, for, with the highest qualities of intellect and of character, he combined a warmth of heart and a store of genial wit which attracted and held fast all who came within the range of his friendship.

He published one of the most excellent handbooks extant on diseases of the eye: it passed through many editions and is still in deservedly high favour; and the "Bowman lecture" which he delivered in 1888 has always taken rank as one of the best in that brilliant series, for it combined originality of thought and expression with diligent and successful research. He was ever an eloquent and a convincing speaker. Sir Henry Swanzy achieved the highest professional honours to which an ophthalmic surgeon can aspire, for he had been President of the Ophthalmological Society of the United Kingdom, and he was President-elect of the Ophthalmic Section of the International Medical Congress which is to be held in London next August.

"After life's fitful fever he sleeps well"; but our warmest sympathy will go out to the surviving daughters who mourn their irreparable loss.

Mr. J. B. LAWFORD (London) writes:

The death of Sir Henry Swanzy removes a well-known and striking personality from the ranks of our profession. One of the *doyens* of British ophthalmology Swanzy was widely known and as widely respected, and many of his colleagues and pupils were attached to him by ties which were closer than those of mere friendship. A man of decided character and strong views, which he was well able to maintain, his courtesy and charming manner were obvious to all who came into contact with him: to those who knew him intimately Sir Henry exhibited all the warmth and cordiality of his Celtic nature. As a host he was altogether delightful, and as a guest no one could be more pleasant.

No words of mine are necessary to enhance his professional reputation, earned by many years of untiring diligence. I have had many opportunities of admiring the thoroughness with which, during his later years, he kept abreast of modern developments in ophthalmology. In this he was greatly helped by his knowledge of other tongues, and especially of German, in which language he was proficient.

Rather more than two years ago Sir Henry was chosen as President of the Section of Ophthalmology of the forthcoming International Medical Congress, a selection which was a source of much satisfaction to ophthalmologists abroad, to many of whom he was personally known, and not a few of whom counted him an intimate friend. He accepted this office with considerable reluctance, and told me he was doubtful if he was physically fit for the labour it would entail. Having accepted office, he devoted much time and energy to the arrangements for the Section over which he was to preside and in which he took a keen interest. Last August he visited Heidelberg during the meeting of the Ophthalmologische Gesellschaft, and addressed the assembly, extending to the members a hearty invitation to the Congress on behalf of himself and his colleagues in this country. This year he had made all arrangements to go to Paris in May during the meeting of the Société d'Ophtalmologie Française with a view of furthering the interests of the Congress. His death, occurring so near the date of the Congress, is an irreparable loss to the Section of Ophthalmology.

TWO MEDICAL MISSIONARIES TO CHINA.

CECIL FREDERICK ROBERTSON, M.B., B.S.Lond., F.R.C.S.Eng.

DR. CECIL ROBERTSON, whose death from typhus fever took place at Sian Fu, Shensi, North China, on March 16th, was one of the capable young medical men who have recently joined the ranks of the Baptist Missionary Society. He was a student at Middlesex Hospital, and took the degrees of M.B., B.S.Lond. in 1907, and in 1909 he became F.R.C.S.Eng. He held the posts of house-physician and house-surgeon at the Middlesex Hospital, the latter appointment under Sir Alfred Pearce Gould. In October, 1909, he went out to China as the colleague of Dr. Stanley Jenkins, and was stationed at Sian Fu, the capital of the province of Shensi, in North China.

When Dr. Jenkins came home on furlough in 1911 Dr. Robertson took charge of the hospital, and almost immediately after he was called to play a part in mitigating the horrors of the revolution, which in that part nearly resulted in the massacre of the missionaries, and did actually lead to terrible slaughter among the Manchus; some 15,000 were killed in Sian Fu on October 22nd and their heads were exposed on the city walls. The presence of Dr. Robertson in the city was one of the most important factors in the situation, for doctors were wanted, and Dr. Robertson was requested to go to the place where fighting was taking place and organize the ambulance department. Through scenes of the utmost horror Dr. Robertson worked with enthusiasm and skill, performing many operations when permitted to do so, though often the prejudices of the people hindered his work. After this he was called upon to operate on a brother medical missionary —Dr. Young—for appendicitis; the operation was successful.

All this work gained for him and his colleagues the gratitude of the Chinese authorities, which was shown by the presentation to him by the army of a tablet containing a laudatory address, and a red silk umbrella by the people.

A few days before his death he went a six days' ride to attend the sick child of a missionary; on his return he contracted typhus fever and died.

He was a manly Christian, and endeared himself not only to his fellow missionaries but the Chinese, and his funeral was attended by Chinese soldiers and officials.

HERBERT STANLEY JENKINS, M.D.Lond., F.R.C.S.Eng.

DR. STANLEY JENKINS died of typhus fever on April 6th, no doubt as a result of attending his junior colleague, Dr. Robertson. Dr. Jenkins was a distinguished student of the Bristol Medical School, where he won several prizes and scholarships, including a gold medal. He took the diplomas of M.R.C.S. and L.R.C.P. in 1898, the degrees of M.B., B.S.Lond. in 1901, and that of M.D.Lond. in 1903; he took the F.R.C.S.Eng. the same year.

He was not only well qualified as a medical man, but he was a leader in the Student Christian movement at Bristol; an appreciation appended from his friend, Dr. G. Basil Price, indicates the influence which he exerted. Like many another medical missionary, he exercised a great influence on boys amongst whom he worked.

For several years he held resident posts at Bristol and at St. Mark's Hospital, London. His most important work was done at the Mount Vernon Hospital, where he acted as registrar and pathologist. He wrote a report on Open-air Treatment of Consumption, published in 1901.

He went out to China under the Baptist Missionary Society in 1904 to Sian Fu in Shensi, North China. There he took charge of the medical mission work, and soon became its leader, and was greatly beloved by the Chinese.

He came home on furlough in 1911, and it was during his absence from China that the revolution occurred which has been described in the notes on Dr. Robertson's career. Whilst on furlough he did some post-graduate work in public health, but returned rather earlier than had been contemplated owing to the great strain which had come upon his colleagues. He reached China again at the end of 1912, only four months before his death.

Dr. Jenkins married the daughter of Mr. and Mrs. Thomas Loveridge of Llandaff, and his wife and children were at the coast when he was taken ill. She was able to take the two-weeks' journey to Sian Fu in time to assist in nursing him on his deathbed.

The loss of Dr. Jenkins is keenly felt not only by the Baptist Missionary Society, but by a wide circle of missionary friends. He was a thoughtful, cultured man of sterling character, unselfish to the core, and his place will be hard to fill.

Dr. G. BASIL PRICE writes:

I first knew him as a school friend and afterwards at University College, Bristol, and though our friendship has only at long intervals had opportunity of being renewed, owing to his sphere of work being in China, I have never

lost the sense of personal attraction and sincere regard which he ever evoked in those who knew him.

He was to my mind an ideal medical missionary—ever imbued with the thought that his medical acumen, skill, and qualifications must be a proof, if such were needed, of his Christian spirit and work; for that reason he would not volunteer for his work abroad until he had taken the M.D.Lond. and F.R.C.S.Eng., besides holding important resident appointments.

His scientific qualifications did not spoil the missionary, but were to him weapons for that spiritual warfare in China for which he laid down his life. It will be for others to write from more intimate knowledge of his great, though all too brief, work in the land of his adoption. What will ever remain with me to his memory is the thought of his gracious, sympathetic spirit which lay behind all he did and said, and that never allowed his great personal gifts to obtrude themselves. He was in the highest sense a Christian gentleman, with enthusiastic love for his fellow-men and for his Master. A student leader in his earlier days, he became a devoted worker and leader amongst the Chinese, and had, as we hoped, a long life of untold influence before him.

Stanley Jenkins was one whose name will long remain fragrant with those who knew him, and whose influence has contributed to mould the destiny of that ancient though now young nation. His life and his death was that of the soldier who sought the battlefield and was ever ready to lay down his life, if need be, for the people he loved. Equally true might it be said of him as was said of Dr. Jackson by the Chinese Viceroy: "In life you were brave, now you are an exalted spirit. Noble spirit, who sacrificed your life for us, help us still, and look in kindness upon us all." Our keen sympathy will be freely given to his stricken wife and large family circle.

JOHN ROBERTS, M.D.EDIN., M.R.C.S.ENG.,

FORMERLY PRESIDENT OF THE NORTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

WE regret to announce the death of Dr. John Roberts, of Menai Bridge, Anglesey, on March 16th. He was born at Crug, Carnarvonshire, in 1837, and studied at the University of Edinburgh, University College, London, and later in Paris. He took the diploma of M.R.C.S.Eng. in 1859 and the degree of M.D.Edinburgh in 1861. Shortly afterwards he was appointed house-surgeon at the Royal Maternity Hospital, Edinburgh. He started practice in Manchester, and was a contemporary of Dr. Thorburn, Dr. Cullingworth, Dr. Dreschfeld, and Mr. Tom Jones. He was consulting physician to the Southern Hospital for Diseases of Women and Children, president of the Manchester Ethical Association, and honorary secretary of the Manchester and Salford Sanitary Association. He remained in Manchester for some years, where he developed a very successful practice, and was strongly advised by Sir William Roberts to remove to London. The delicate health of his wife, however, decided him to retire to Menai Bridge, Anglesey, in 1865, where he practised chiefly as a consultant.

As a man of high professional repute, and one who realized to the utmost the ideals and responsibilities of his vocation, he became widely known in North Wales. If there were any need of evidence as to the great esteem and affection—we might say veneration—in which the late Dr. John Roberts of Menai Bridge was held, it was amply shown by the large attendance at his funeral on March 19th, when, at the service at the chapel he had for so many years been a regular attendant, all the public bodies on which he had served were represented, besides many friends from a distance, and the medical men of the county. All bore witness to the loss of a common friend, of a highly gifted and eminently upright man, who had devoted a long life unceasingly, energetically, and in the best spirit to the interest of the medical profession and his adopted county. He combined in a high degree the qualities of accuracy, precision, truthfulness, and conscientiousness. He added to these qualities a kindly and friendly disposition, which grew with advancing years, and a high, dignified bearing, which never deserted him. He was recognized to be an accomplished physician: conscientiously accurate in investigation, careful in diagnosis, shrewd in estimation of character, and judicious in treatment, leaving no detail uncared for. Decided, yet kind and considerate, he won the confidence of practitioners and patients. In general politics he was a Liberal, and during his lifetime served the county in various ways. He was one of the first aldermen elected by the County Council, was a magistrate since 1886, and a member of the Board of Guardians, the chairman of which, in proposing a vote of sympathy with the family, said that Dr. Roberts was a man of affairs, sound in judgement, kindly of heart, who was ever ready with his advice when sought.

He took great interest in the Nursing Association of the county, of which he was honorary treasurer for seventeen years.

Dr. Roberts's loss will be seriously felt throughout the county, for few men were more public-spirited and more honest and outspoken in the discharge of duty, and it may be truly said that those who knew him best loved him most.

He leaves four daughters (one of whom is a member of the medical profession) to mourn the loss of a kind and considerate father.

CECIL E. SHAW, M.A., M.D., M.CH.,

LECTURER ON OPHTHALMOLOGY IN THE QUEEN'S UNIVERSITY, BELFAST.

IT was with deep regret that the intimation of the death of Dr. Cecil Shaw, which took place on April 10th at his residence in Belfast, was received throughout Ulster. His health had been indifferent for some years, but after a visit to Kissingen in 1910 he improved considerably, and many of his numerous friends hoped that he was permanently restored to good health, but pernicious anaemia became evident, and he was compelled to go away again in 1911 and in 1912. Despite his weakness he stuck manfully to his duties, and gave his last lecture of the winter session some nine weeks before the end.

Dr. Shaw was the youngest son of the late Rev. George Shaw, Presbyterian minister of Belfast, and was in his 50th year. He received an excellent education in the Royal Academical Institution, Belfast, and then entered the Queen's College, Belfast, where he pursued the arts course, and obtained the B.A. degree with honours in experimental science in 1883, and the M.A. in 1885. As he had already entered the medical curriculum, he was enabled to obtain the degree of M.D. in 1887. He at once began to specialize in ophthalmic, throat, and aural work, and became clinical assistant in Moorfields Ophthalmic Hospital, and at Golden Square Throat Hospital; he also studied at Paris, Marburg, and Vienna. Settling in Belfast, he confined himself practically from the first to his specialities, in which he soon made a name, and had just reached his zenith when his tragic illness began to cross the path of success. Dr. Shaw held many appointments: he was ophthalmic surgeon, and subsequently consulting ophthalmic surgeon, to the Mater Infirmorum Hospital; assistant surgeon to the Belfast Ophthalmic Hospital, where he gave valuable aid to his senior, Dr. J. Walton Browne, in renovating the hospital and bringing it thoroughly up to date; ophthalmic surgeon, and subsequently consulting ophthalmic surgeon, to the Ulster Hospital for Children; consulting oculist to the County Antrim Infirmary and to the Ballymena Cottage Hospital; honorary laryngeal surgeon to the Forster Green Hospital for Consumption. In his earlier days he wrote a small textbook on external diseases of the eye, and from time to time made several contributions to the medical journals on his specialities; he joined in the discussions at the meetings of the British Medical Association, and at the meetings of the various special societies and congresses. He was a member of council of the Ophthalmic Society.

Dr. Shaw was a Fellow of the Ulster Medical Society, and took the greatest interest in its proceedings and in the British Medical Association; he was for many years on the Council of the former, and had held the office of vice-president. He was also one of the original trustees of the Medical Institute. But perhaps his chief interest lay in the British Medical Association. As he had numerous friends and connexions in England, he had a double pleasure in the visits to London necessitated by holding office. His untiring efforts as secretary during the visit of the Association to Belfast will long be remembered, and are still green in the grateful recollection

of his fellow members. The great amount of work he did for the British Medical Association may be gauged from the following list of the offices he held: Member of the council of the Ulster Branch 1901 to 1907; honorary secretary Ulster Branch 1905 to 1910; member of the Central Council 1904 to 1909; member of the Science Committee 1906 to 1910; vice-president of the Section of Laryngology and Otology at the annual meeting in Oxford in 1904, and of the Section of Ophthalmology at the annual meeting in London in 1910; secretary of the annual meeting of the Association at Belfast in 1909; representative of the Ulster Branch on the Irish Committee 1909 to 1911.

No notice of Dr. Shaw's life would be at all complete without mention of his numerous parerga. He was one of the best amateur photographers, and his early training in experimental science enabled him to bring to the art advanced scientific knowledge. A good camera was a constant companion on holiday, and not infrequently on professional journeys; and in the following winter a lecture, illustrated with his own slides, pleased and instructed those not so fortunate as himself in seeing the beautiful and interesting spots of the world; he also did some photomicrographic and colour photographic work. Books were an ever fresh source of pleasure, and to those whom he knew to share his tastes, his first question after the business of the interview not infrequently was, "Well, what have you been reading lately?" He read with intelligence and care, chiefly books connected with travel, but there were few subjects he could not talk on and illuminate with his knowledge; of poets he was a follower and student of Browning. He took a great interest in the Belfast Library and Society for Promoting Knowledge.

Dr. Shaw was married but had no family. The deepest sympathy is felt with his widow, who was the devoted companion in all his work and his holidays, and the untiring nurse in his long and trying illness, and also with his sisters.

GEORGE BRUCE MACDONALD, M.D., J.P., L.R.C.S.E.

WE regret to record the death, in his 72nd year, of Dr. George Bruce MacDonald, which occurred, after a short illness, at his residence at Shepperton-on-Thames, Middlesex, on April 8th. He was descended from the old historic family of The MacDonalds of the Isles, which numbered the famous Flora MacDonald amongst its members, and was educated at Glasgow University, where, after a successful course, he graduated M.D. with honours exactly half a century ago. He took the diploma of L.R.C.S.Edin. in the same year (1863).

After some little time spent as an assistant, he "came south," and settled at Southall Green, Middlesex, then a purely agricultural district, "ten miles from town," where he built up a large and widespread family practice. Here he was appointed district medical officer for Norwood parish, and in the course of time came to hold many other medical appointments, which he filled to the entire satisfaction of all concerned. Amongst them were: Divisional surgeon of Metropolitan Police, certifying factory surgeon, medical officer to the Brentford Gasworks and Great Western Railway works, and medical attendant St. Marylebone Schools, the Central London Schools, Southall, and St. Mary's Orphanage, North Hyde. On his well-earned retirement from active practice, some seven years ago, he was placed on the Commission of the Peace for Middlesex, and was a regular attendant on the local petty sessions bench at Brentford, as well as at Quarter Sessions, Westminster.

He went to reside at Shepperton, but his heart remained in Southall, and three years ago, such was the esteem in which he was held there, that he was unanimously requested to allow himself to be nominated for the electoral division of Southall-Norwood as its representative on the Middlesex County Council, an honour which was repeated as recently as a month ago. He was most assiduous in attending to his duties as a councillor, serving on the Public Health, Asylums, Reformatory Schools, and Education Committees. He was one of the two medical members elected to serve on the Insurance Committee, but, like his colleague, out of loyalty to his professional brethren, he declined to serve. On committees his views and opinions were always received with the deference due to his wide knowledge and long professional experience. He attended as a member of the Visiting Committee at the Middlesex County Asylum, Wandsworth, as recently as March 29th, in excellent health and spirits; so it may be said he died in harness, for a few days later he took cold, pneumonia supervened, and he passed away regretted by all.

A thoroughly practical and busy man, Dr. MacDonald had little leisure to record his manifold experiences, nor was he much of a talker, but it was always a pleasure to listen to him, as he gave advice, derived from his stores of knowledge, often illustrated by an apt quotation or appropriate story. A kindly, big-hearted Scot, he will be greatly missed in the western parts of Middlesex by rich and poor alike, amongst whom he laboured so long and so self-sacrificingly.

GEORGE TEMPLETON, M.B., C.M., F.R.C.S., LONDON.

IT was with feelings of consternation that the news of the disappearance of Mr. George Templeton during a skiing expedition in Norway on March 27th was received by his friends, and though for a day or two hope was entertained that his robust frame and determination of character would have enabled him to weather the storm in which he was overwhelmed, that hope was ultimately extinguished by the discovery of his body a week afterwards when the blizzard had moderated sufficiently to make systematic search possible. Mr. Templeton had been staying at Finse, between Bergen and Christiania, and had set out with five other men at about 11 a.m. to visit a hut about nine miles off, a journey which is usually accomplished in favourable circumstances on ski in about three hours. Owing, however, to the onset of a snowstorm and the severe cold, and also, no doubt, to the fact that several of the party were inexperienced in the use of ski, it was not until 4.15 that the hut was reached. At 5 p.m. the party started to return, with Mr. Templeton leading, and ordinarily two hours suffice for the journey. The others seem to have had some difficulty in keeping up the pace, but at the top of the first big hill a halt was made to allow of the arrival of the stragglers. Here Mr. Templeton and Mr. Warren moved ahead, and were never seen again, and it was not until 11 p.m. that the remaining four reached a signalman's hut five miles from Finse in a very exhausted condition. The telephone here revealed the fact that Mr. Templeton and his companion had not reached the hotel, and, though a search party was at once organized, their efforts were unavailing.

Mr. Templeton, who was born in Kilmarnock in 1869, graduated M.B., C.M. with honours at the University of Edinburgh in 1892, and took the diplomas of M.R.C.S. and L.R.C.P. in the same year. He took the diploma of F.R.C.S.Eng. in 1896. He was house-physician at the Royal Free Hospital, and subsequently became Surgical Registrar to the Hospital for Sick Children, Great Ormond Street—a post which he occupied for three years. For the next twelve years he was surgeon to the North-West London Hospital. As consulting surgeon to the Hostel of God, Clapham Common, and to Hornsey Hospital he did good work, but of late years it was chiefly in connexion with S. Barnabas's Home, Lloyd Street, that he found an outlet for his abilities.

Mr. Templeton was the embodiment of an energy which might almost be described as Titanic, and it was this which contributed to his undoing. "We did not start back until nearly 5. Dr. Templeton at once took the lead, and I kept near him to keep him in sight. I managed to keep him back a bit until about 6.30, but he got impatient at the slowness of the rest and went on, and Warren followed him. I refused to leave the others."

Such is part of the narrative of one of the survivors—Mr. Henry Green. Mr. Templeton possessed the faculty of getting at the heart of a thing rapidly and almost intuitively. In his work he was bold, original, dextrous, and successful, and his self-reliance was so great as to amount at times almost to a fault. His other interests were numerous and varied, and on all of them he brought to bear a concentration of purpose which made light of obstacles. In his private life he was courteous and kindly, and his untimely loss will long be felt by those who were privileged to be numbered among his friends.

THE LATE MR. JORDAN LLOYD.

Dr. Otto J. Kauffmann, Physician to the Queen's Hospital, Birmingham, who was absent from England at the time of Mr. Jordan Lloyd's death, has sent us the following personal appreciation, which will be read with interest by many of Mr. Jordan Lloyd's friends and former pupils:

I should take it as a favour to be allowed to say a few words in appreciation of Jordan Lloyd, reasons of which, the Editor is informed, have prevented my writing earlier.

For twenty years I have shared rooms with Lloyd, and we have met almost daily during that period and have exchanged opinions on matters of common interest. So one becomes well acquainted, and although in the case of most men such an intimacy would allow one to make a fair guess at their judgement on some matter of general interest, it was different with Lloyd, whose point of view of a subject was always original and uncommon, allowing him to see further than most of us can. The subject considered from his standpoint always presented a novel aspect, very usually convincing when it was made clear, and discussion with him was extraordinarily refreshing. Everything interested him, not only his professional work and speculations in pathology based on his observations, but life in whichever phase or form it came before him. Most particularly he was fascinated with the "pathology of the living," and on the phenomena which had come under his watchful attention in the operating theatre he would discourse with enthusiasm and from them would draw wonderfully correct and ingenious conclusions.

Of his great skill as an operator others have spoken. I would say a word on his judgement and reserve in holding his hand unless he was convinced that an operation would do good to the patient. For clinical judgement, especially concerning this last point, it was difficult to find his equal. Jordan Lloyd was a lovable man—strong, tender, and sympathetic, and free from all petty jealousy and envy. Scores of times we have discussed the acts of colleagues, or the attitude on some point of discussion, medical or general, of another member of the profession, and I was always impressed with the fact that he never belittled another's ability, and never questioned the fairness of his intentions; and invariably he had a good word to say for the honest effort, and an appreciation for the success, of another. A more generous-minded man it is impossible to conceive.

THE LATE DR. ROBERT FLETCHER.

We have received a reprint from the *Bristol Medico-Chirurgical Journal* of December, 1912, of an obituary notice by Sir William Osler of the late Dr. Robert Fletcher, whose name is well known in connexion with the *Index Catalogue of the Surgeon-General's Library* at Washington and the *Index Medicus*. As was stated in a brief notice of his life published last December, he was born in Bristol in 1823. He entered the medical school of that city in 1839, and passed the "College and Hall" in 1844. In 1847 he migrated to the United States and settled in Cincinnati, where he practised for some years; at the outbreak of the civil war he volunteered as a medical officer, and at the end of it was given the rank of Brevet Colonel for faithful and meritorious service. His connexion with the Surgeon-General's Library began in 1876, and ended only with his life. He was one of the principal editors of the *Index Catalogue*, and his services were handsomely acknowledged by Dr. Billings in the preface to the first volume published in 1880. Of the magnitude of that undertaking an idea may be formed from the following facts given by Sir William Osler:

> In the first series of sixteen volumes, completed in 1895, there were indexed of author titles 85,663 volumes and 151,504 pamphlets, and of subject titles 168,557 books and 511,112 journal articles. Of the second series sixteen volumes have already been issued, nearly finishing the letter "S." The thirty-two volumes so far published furnish a medical reference catalogue of colossal proportions—of 286,255 book titles and 1,006,355 journal articles. Each volume contains nearly a thousand pages, closely printed, with from fifty to seventy-five separate references on each.

With the *Index Medicus* Fletcher was associated as co-editor for twenty-one years and as editor-in-chief for nine. He also lectured for some years on medical jurisprudence at the Washington University. Afterwards he lectured on the same subject with much acceptance at the Johns Hopkins Hospital Medical School. Outside his bibliographical work he was specially interested in anthropology, and contributed largely to the two volumes of *Anthropometrical Statistics*, issued from the American War Department in 1875. He was a man of versatile mind, and his range of intellectual interests was unusually wide. Among his writings are a monograph on Prehistoric Trephining and Cranial Amulets (1882); Human Proportion in Art and Anthropometry, and Tattooing amongst Civilized Peoples (1883); Myths of the Robin Red-breast in Early English Poetry (1889); the New School of Criminal Anthropology (1891); Anatomy and Art (1895); and Scopelism (1897), the first paper on the subject in English. To the Johns Hopkins Historical Society he contributed a number of valuable papers, among them being essays on Medical Lore in the older English Dramatists and Poets (1895); the Witches' Pharmacopœia (1896); and A Tragedy of the Great Plague at Milan in 1630 (1895). The reprint includes an interesting paper by Fletcher on some diseases bearing names of saints. It shows abundant evidence of the painstaking research characteristic of him, but is disfigured by such an error as *feu sacrée* (St. Anthony's fire), which occurs about half a dozen times. He worked on in spite of illness to the end, reading proofs to within a few days of his death. He was a man of fine character, and his vast acquaintance with members of the medical profession, ranging from Astley Cooper to the leading men of the present day, made him an entertaining companion. He was very far from being the dryasdust one is apt to assume that men who spend their lives among books must be. A man of immense learning, he did not carry the dust of the library into social intercourse. Sir William Osler says:

> It was a rare treat to dine quietly with him at his club in Washington. "He knew his Brillat-Savarin well, and could order a dinner that would have made the mouth of Coelius Apicius to water."

The reprint has an excellent portrait of Fletcher as a frontispiece.

Dr. Charles Tozer Savory, who had reached the ripe age of 83, died on March 27th at his residence in Crouch End, where he had lived since his retirement from practice some eight years ago. The active portion of his life was spent in Stoke Newington and Canonbury, where he was in partnership with an old fellow student, the late Mr. William Pettifer. Dr. Savory, who became M.R.C.S., L.S.A. in 1862, and M.D.St. Andrews somewhat later on in the same year, was born in Monument Yard, in the City of London, in 1829, his father being William Henry Savory, a surgeon long resident in the parish of St. Mary-at-Hill. Charles Tozer Savory was thus a younger brother of the Savory who was destined to attain such fame as a surgeon, the late Sir William Scovell Savory. On completion of his general education at Ramsgate he entered on a commercial career, but at the age of 30 abandoned it in favour of medicine, and joined St. Bartholomew's Hospital as a student in 1859, the same year as that in which his brother received the honour of being appointed to succeed Sir James Paget as lecturer on general anatomy and physiology. It was a somewhat curious position, for in age the two brothers were only three years apart. Charles Tozer Savory, however, never had any cause to regret his late choice of medicine, for, though he never attained fame, he proved a successful general practitioner. In many respects he was by no means unlike his brother. He had the same handsome, dignified presence, and evidenced ability of the same order as that which gained for Sir William Savory almost as high a reputation on the platform and in the lecture-room as in the wards and operating theatre. A genial man, of wide reading and culture, Dr. Charles Tozer Savory's polished and witty conversation made him a very attractive host; in addition he was of charitable disposition, and entirely free from any tendency towards ostentation. Another marked characteristic in him was a great love of animals. Dr. Savory was twice married, and had a large family.

Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

ANSWERS.

HYPERTROPHIED PROSTATE.

DR. JOSEPH S. BOLTON (Nottingham) writes: For enlarged prostate high frequency currents applied by a rectal electrode have proved useful. Dr. M. M. SHARPE (London) writes to the same effect, but adds that a special form of condenser electrode is necessary.

COUNTRY MEMBER suggests that "X. X." should feed his patient on the prostate glands of bullocks. These should be lightly cooked by steaming, and the gland substance and gravy be taken with the principal meal of the day.

SCOPOLAMINE-MORPHINE IN EXOPHTHALMIC GOITRE.

SUSSEX.—The scopolamine and morphine combination is a most excellent hypnotic in cases of exophthalmic goitre, so much so that it is frequently used as a preliminary to general anaesthesia in patients suffering from this disease. It would certainly be safer than chloroform, which undoubtedly in these circumstances is dangerous. There is no evidence that pregnancy would lessen this risk. Should the degree of narcosis obtained by an average dose—say, morphine gr. $\frac{1}{3}$ and scopolamine gr. $\frac{1}{150}$—be insufficient, a little ether inhaled from a few thicknesses of gauze clipped into a wire frame would produce the required depth of analgesia without danger.

TREATMENT OF GOITRE BY IODINE ABSORPTION FROM THE SKIN.

DR. PETER TYTLER (Manchester) writes, with reference to the inquiry of Major Lawson in the BRITISH MEDICAL JOURNAL for March 29th, to state that for the last five years he has used the following method in the treatment of goitre: A piece of lint large enough to cover the growth and the skin for 3 in. or 4 in. beyond is soaked in a lotion consisting of 1 drachm of iodine tincture in 8 oz. of water and applied to the neck at bedtime and left on till morning. If a stronger solution is used it produces inflammatory reaction and prevents absorption. Dr. Tytler states that he has employed this plan in many cases but that only three have continued long enough to produce a satisfactory result. They were all young men, aged 18 years and upwards. Two were out-patients, and over two years elapsed before the swelling materially diminished. In the one private patient the swelling was reduced 2 in. in eight months. The difficulty, he finds, is to get patients to persevere with the treatment.

INTERMITTENT GLYCOSURIA.

DR. P. J. CAMMIDGE (London) writes: If Dr. Thomas will refer to my recently-published book on *Glycosuria and Allied Conditions* he will see that the condition met with in his patient is well recognized and is not uncommon in mild cases of glycosuria. In these "the sugar excretion increases after food, usually reaching a maximum two or three hours after a meal, and diminishes during fasting, so that the urine passed in the early morning, before breakfast, may be sugar free" (p. 180). In this particular instance the infection of the bladder with coliform organisms is probably a contributory factor in producing the sugar-free condition of the urine that has collected in the bladder over-night, for in the process of their growth they decompose the sugar, giving rise to various acids and gases. The former tend to set up cystitis, while the latter give rise to the condition known as pneumaturia (p. 259). It is the acids formed in a similar way in the urine adherent to the external genitals that cause the pruritis, etc., from which many diabetics, and especially women, suffer. Sugar in the urine always denotes a disturbance in the metabolism of the body, and is not formed locally in the bladder, etc., by bacterial or other means under any circumstances.

TREATMENT OF RHEUMATOID ARTHRITIS.

DR. W. J. MIDELTON (Bournemouth) writes: Your correspondent "H. E. J." (BRITISH MEDICAL JOURNAL, March 29th, 1913, p. 696) does not mention which form of continuous counter irritation he would like information on. I have during the past twelve years treated many cases of arthritis deformans by such means. I have used three methods: The blister followed by savin ointment, acupuncture and irritants, and the galvano-cautery. Either singly, any two, or all three may be employed on the same patient according to the needs of each case. I have notes of hundreds of cases treated by myself or friends, and the majority are as striking as those quoted in the the JOURNAL of January 25th, 1913, p. 162. I have selected three at random: (1) Female, aged 46. Mother died a cripple from "rheumatism." Patient had suffered over nine years herself, gradually increasing weakness. Knees chiefly affected, most other joints as well. In bed quite helpless when seen by me, in much pain generally. Treated vigorously by pyonex method. Within three months could walk three miles. (2) Female aged 55. All joints stiff, painful, and swollen. Travelled to Bournemouth with difficulty, accompanied by a nurse; just able to walk with crutches. Duration about five years. At the end of nine months left Bournemouth alone and walked easily without crutches. Pyonex method. (3) Female aged 55. All joints stiff, painful, and swollen. Duration over four years. Told by several doctors could be relieved only. Had become much worse as time went on in spite of much spa and other treatment. Had to be helped in and out of a bath and so on. At the end of six months could get in and out of a bath unaided and carry a baby upstairs with ease.

DR. WILLIAM ARMSTRONG (Buxton) writes, in reply to the inquiry in the JOURNAL of March 29th, to put forward the following points: Counter irritation by repeated blisters or electric cautery is of great value; it should be spinal in the neural form of arthritis, as well as local; in the gouty or rheumatic form, local to joints only. It cannot, of course, deal with the reflex sources of irritation, but does undoubtedly improve the nerve nutrition of the joints. Radio-active water drinking, on the other hand, considerably increases the output of the various body poisons, and therefore acts upon the source of the complaint. The dose should be strong, not less than 5,000 m.u. per litre to commence with, increased to 10,000, and later on to 20,000. The inhalation of radium emanation with oxygen is also valuable. The ideal treatment, in my experience, is a combination of the two methods. The best method of counter irritation is by means of the electric cautery, the pain of which is mitigated by a preliminary ionization with cocaine.

LETTERS, NOTES, ETC.

SCARLATINIFORM RASH DUE TO VENICE TURPENTINE.

DR. CYRIL BANKS (Birkenhead) writes: I should like to corroborate Dr. William Angus's statement on the above subject by quoting a case I saw eighteen months ago whilst in temporary charge of a practice in Sheffield. A girl aged 19 had a typical finely punctate scarlet rash on the trunk and limbs. The face was flushed but free from rash. She had taken Venice turpentine—or "Veno's turpentine," as she called it—two days before to ease menstrual pain. The temperature was 99° F., as in Dr. Angus's case, but the throat was normal in appearance. There was a history of scarlet fever in infancy. I am unable to say whether desquamation subsequently occurred or not.

GENITAL FUNCTIONS OF DUCTLESS GLANDS IN FEMALES.

DR. A. COWAN GUTHRIE (Edinburgh) writes: I was much interested in the able article of Dr. W. Blair Bell on the above subject, especially where he states that "insufficiency of suprarenal secretion is the probable cause of osteo-malacia." In an undoubted case of osteo-malacia, where every other form of treatment failed to give relief, adrenalin chloride proved quite successful in bringing about a complete restoration to health. A full report of the case appeared in *The Prescriber*, November, 1909.

WASSERMANN REACTION.

THE SECRETARY OF THE WASSERMANN INSTITUTE, Sutherland House, Lloyds Avenue, London, E.C., writes: Owing to several inquiries received recently, and at the request of Geh. Med.-Rat. Professor Dr. A. von Wassermann, we beg to make the following declaration: At the inception of the Wassermann Institute, this title was chosen to express the fact that all Wassermann reactions conducted in our laboratory are made strictly in accordance with the original method and with reagents exclusively prepared under the control of Geh. Med.-Rat. Professor Dr. A. von Wassermann. The expression "under the superdirection of Geh. Med.-Rat. Professor Dr. A. von Wassermann," therefore, does not imply that Professor Dr. A. von Wassermann personally supervises the institute, but simply refers to the reagents used, as stated above. The examinations are supervised by one of the best known specialists in venereal diseases in London, and we can, therefore, guarantee that any tests submitted to us will be carried out with the greatest care and in accordance with the original technique advocated by Professor Dr. A. von Wassermann and with reagents controlled by him.

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A Lecture
ON
THE ETIOLOGY AND TREATMENT OF PUERPERAL ECLAMPSIA.

Delivered at the Medical Graduates' College and Polyclinic.

By R. A. GIBBONS, M.D., F.R.C.S.E.,
physician to the grosvenor hospital for women, london.

As the majority of those attending this College are either in private practice or intend entering upon it sooner or later, it is essential that the latest views of any subject considered, especially one of such vital interest as this to any engaged in the practice of obstetrics, should be placed before you; but, as Zweifel has termed eclampsia "the disease of theories," I shall only mention what may be regarded as the more important with reference to the etiology of this disease—so terrible in its onset and course, and so terrifying to those around. It may appear as extraordinary that such an enormous amount of writing—in 1908 alone Eardley Holland states in an admirable review that there were over 100 scientific papers on the eclampsia problem[1]—has been devoted to this subject, but this is due to the fascination of the unknown. When the exact cause of a disease is demonstrable it ceases to be of such interest to the pathologist and to those who are searching for light. Until we know exactly the cause of onset of an affection it will be studied as carefully as heretofore, but with the help of modern methods of investigation the task becomes easier than formerly.

Puerperal eclampsia may be defined as a disease peculiar to the pregnant woman, and almost invariably manifesting its presence by convulsions of a tonic or clonic character, accompanied by unconsciousness and followed by coma or sleep. It may occur either during gestation, immediately before, during, or after confinement, and may be extremely slight in the manifest symptoms, or so terrible and grave as to kill immediately or within a few hours of the occurrence of the first convulsion. It is most usual to occur in the latter part of pregnancy, rarely before the fifth month, and very rarely before the fourth month; generally a short time before term, less frequently in labour, and least frequently after labour. Its frequency varies from 1 in 500 cases to 1 in 250, according to various tables. About 70 to 80 per cent. of all cases occur in primiparae. It is very difficult to estimate the incidence exactly, because most figures are taken from clinics to which patients are sent on account of the convulsions, whereas in ordinary private practice they would be treated at home. We know that 80 per cent., or between 75 and 80 per cent., according to various statistics, of those women attacked by the disease recover, and it is important to note that they recover under all kinds of treatment. Therefore there is a mortality of about 20 or 25 per cent.—a terrible mortality in any disease. I shall endeavour to see if there is any method of treatment which will diminish that mortality. In some tables the death-rate has been much higher—as much as 32 per cent. in Schroeder's clinic.

Diagnosis.

There is, as a rule, no difficulty about diagnosis, but it is possible that it may be confounded with:

1. Cholaemic eclampsia, which condition seems to have been established by Braun, Frerichs, and others, and is a rare disease. There are no signs of renal mischief, such as albuminuria, oedema, etc., and symptoms point to the liver, as epigastric tenderness, vomiting, and intense headache, and pain referred to the region of the liver. A state of nervous agitation develops and convulsions follow; the patient sooner or later becomes comatose. In the severe cases jaundice always develops, and the urine may contain biliary matter or remain normal. The condition of the blood favours thrombosis; embolism and haemorrhages and petechiae, as well as purpura, are common.

2. Epileptic convulsions, which may, of course, occur at any time during pregnancy in the epileptic. There may, however, be some doubt about a case seen for the first time in the "status epilepticus," when the patient passes from one convulsion to another, and which may terminate fatally, or when one sees the patient in the stupor or coma after an attack of epilepsy.

3. Uraemia may be the cause of some difficulty in making the diagnosis. It develops from a sudden suppression of urine, or when the kidney substance has been destroyed, and eclampsia develops in the same way when the pregnancy kidney has reached a certain stage of degeneration. But puerperal eclampsia may develop when the kidney is apparently normal, when the urine examination is consistent with health, and when there is no albumen present in the urine. Undoubtedly there are many points of resemblance between the two affections. It has been observed that the freezing-point depression (cryoscopic point) of the blood differs in the two conditions.[2] But, as in cholaemic convulsions, it may truly be said that only the *post-mortem* room can really decide when either occurs in the pregnant woman.

4. Coma, due to cerebral apoplexy, alcohol, or meningitis, which may come on during pregnancy, may be mentioned, as well as hysteria, acute poisoning from strychnine, phosphorus, or nitro-benzol,[3] but when the whole of the antecedents of each case are considered there is not likely to be much difficulty in making a diagnosis from puerperal eclampsia.

Prognosis.

This must always be serious, because the mortality of the mother is 20 to 25 per cent., and of the fetus 33 to 50 per cent. Stroganoff had a maternal mortality of 6.6 per cent. in a series of 400 cases, which is extraordinarily favourable and most unusual. But prognosis may be exceedingly difficult and uncertain, because where the convulsions may be slight and have ceased, where the secretion of urine has been re-established, and where the temperature is not high and the patient seems to be doing well, a convulsion occurs, ending in profound coma and death. Persistent high arterial tension is always unfavourable.

Speaking generally, if the temperature is not running up, the pulse is fairly good and not rapid or thready, the fits decreasing in frequency or have ceased, and the kidneys are acting well, all may go well. If convulsions commence after labour, the prognosis is, according to recent statistics, equally serious as in those cases where they commence before or during labour. According to Veit, the mortality is about 14 per cent. in primiparae and about 19 per cent. in multiparae. Olshausen considers that the mortality is about the same in both. According to Seitz, the prognosis is worse with each convulsion up to 20 or 30. The prognosis really seems to depend on the rapidity with which the attacks follow each other and the duration of the coma after the convulsion.

Pathology.

It may be briefly stated that all the organs of the body are in some manner affected, the main lesions being found in the liver, kidney, heart, and brain. In other words, it may be said that these organs are affected in puerperal eclampsia in the same manner as they are in many toxaemias. As I remarked under the head of diagnosis, the *post-mortem* room alone could decide in cases of cholaemic convulsions, with its more or less necrotic changes in the liver in its most marked degree, acute, yellow atrophy of the liver,[4] or puerperal eclampsia, for they are really the result of profound poisoning. It was usually thought that the kidneys were the main source of trouble, considering that renal changes are constantly present in eclampsia, but in 1888 Pelliet called attention to haemorrhagic lesions in the liver in eclampsia. Schmorl confirmed his observations and pointed out that eclampsia was distinguished by profound changes characteristic of no other disease, and that he had found in every case lesions of the liver which he considered were more characteristic than those observed in the kidneys. In 1893 he published the result of his examination of 73 fatal cases, and it may be interesting to mention more especially the changes in the kidney which took place in 99 per cent. of the cases, and which are of a degenerative nature. The macroscopic appearances are those of parenchymatous nephritis. Microscopically protoplasm of the epithelial cells of the convoluted tubes is found in various stages of degeneration, cloudy swelling, fatty degeneration,

and coagulative necrosis. Schmorl states, contrary to the opinion of Winter, that the glomeruli are not chiefly affected. In one case he found the kidneys healthy although the other organs had the usual changes. He found the liver affected in all but 27 of his cases, and says the condition consists of necrosis of cells, singly or in varying sized patches, which may be anaemic or haemorrhagic, and has met with fibrinous thrombi of the capillaries of the interlobular as well as the intralobular veins, and a fibrinous exudate between the liver cells. The macroscopical appearance of the liver shows minute haemorrhages under the capsule, as well as minute infarctions due to thrombosis of the smaller branches of the portal vein. The pathological conditions of the liver closely resemble those found in acute yellow atrophy, yellow fever, and phosphorus poisoning. There are metastatic thrombi of liver and placental cells, and fat emboli have been found in the lungs and glomeruli by Virchow and Winkel.[5]

In eclampsia there seems to be general thrombosis of capillaries. It is an affection of different organs at the same time which allows puerperal eclampsia to be diagnosed after death. It may be said of the blood that in the majority of cases the red corpuscles are greatly in excess, and that this is also true of the white corpuscles, which are much more numerous than in normal pregnancy.[6]

Dienst lays great stress on this excess of white corpuscles, as he considers that they are the origin of fibrinogen, which, according to him, is, by its increase, the actual cause of the disease, to which I shall presently refer.[7]

In the fetus minute haemorrhages have been found in the more important organs, as well as fatty degeneration or necrosis. This will show the severity of the poison, and as the changes are akin to those found in the mother, it is evident that the same kind of poison affects the circulation in both, leading to these pathological changes.

Etiology.

This part of the subject may be divided into (*a*) causes residing in the mother, (*b*) causes residing in the fetus.

Of the causes which reside in the mother, two great theories have been in vogue:

1. The pressure, or mechanical theory, due to increased intra-abdominal pressure, and the pressure of the enlarging uterus.

2. The toxaemic theory.

These, again, may be divided into predisposing and exciting causes. The predisposing causes may be said to include:

(*a*) Any disease of the kidney, or any condition which causes faulty elimination, because, of course, if elimination is interfered with, waste products must be retained in the circulation, and may damage the kidneys, as well as other organs.

(*b*) Pressure on the renal veins, or on the ureters, by an unusually large uterus, as in twin pregnancy, causing retention of urine.

(*c*) Abnormally large fetus or fetal head.

(*d*) Small pelvis.

Statistics show the occurrence of eclampsia in 11 per cent. of multiple pregnancy as compared with 1.1 per cent. of single pregnancy. Primiparae of extreme youth or extreme age are especially liable to eclampsia because of rigidity of muscles. The proportion of eclamptic primiparae to multiparae is as 3 to 1.[8]

The theory of pressure on the ureters or veins need not be discussed unless it can be shown that it in any way raises blood pressure. The secretion of urine is determined by pressure of blood in the glomeruli of the kidneys. Whatever causes contraction of the arterioles of the body generally raises pressure in the arteries, and will raise the pressure in the glomeruli also, leading to increased secretion. In certain circumstances the contraction of arterioles may be so great that the branches of the renal arteries are also constricted. Then, although the general pressure is so high, the pressure on the glomeruli falls so much that secretion of urine ceases and suppression of urine is established. This condition may explain the absence in some cases of changes in the kidney.

We know that abdominal tumours, even of enormous size, do not cause eclampsia. The exciting causes, supposing, of course, that the pathological factors are present, may be sudden suppression of urine, partial or complete, constipation, painful contractions of the uterus, rigid os in primiparae, exhausting expulsive efforts, and emotion. After the first convulsion, the slightest shock or irritation may cause another one.

In the light of modern research it may be said that puerperal eclampsia is caused by a toxaemia—some poison circulating in the blood—and that as the poison must be derived from some changes in the body itself, it must be autogenetic, or an autointoxication. The whole condition is, in fact, due to defective chemistry of the body, and I may briefly lay before you the more recent views as to the causation of that toxaemia.

There can be, as far as we know at present, no "eclamptic toxin," but there must be some poison or poisons to begin the changes in the cells which lead to disorganization of the organs as a rule most affected—the liver and kidneys. Zangemeister's investigations[9] have shown that the retention of nitrogenous substances is not to be regarded as a causal factor under any circumstances. I shall briefly relate the substance of most of the recent theories regarding the origin of the poison.

1. *The Circulation in the Mother's Blood of Fetal or Placental Elements.*

This was brought forward by Veit in 1902. It is founded on the knowledge that particles of fetal ectoderm, and even portions of chorionic villi, become separated from the placenta and gain access to the mother's blood. Veit believed that this gave rise to a poison termed syncytiotoxin, which is normally rendered harmless by an antibody syncytiolysin, which develops in the mother's serum. If the amount of poison is too great to be neutralized by the syncytiolysin, poisoning and eclampsia occur. He injected an emulsion of human placenta into the peritoneal cavities of rabbits, which led to albuminuria and sometimes death, but these results follow the injection of any animal matter. If an ovum gets into the peritoneal cavity by rupture of a tube, eclampsia does not develop. Dreyfuss says[10] that there is no definite proof of the placental origin of eclampsia. Lavarc has discovered a blood-coagulating ferment in the placenta, which is important when it is remembered how much thrombosis of the capillaries throughout the body takes place in eclampsia. Sievinski and others have shown that the fibrinogen content of the blood is raised in pregnancy, and is very high in eclampsia. It may be said, of course, that the cause of this disease lies in the failure of the so-called "organs of defence," including the thyroid, parathyroid, suprarenals, etc., to completely perform their functions, but we cannot speak positively concerning this point.

2. *Poisoning by Material Formed or Retained in the Placenta.*

Freund and others have attempted to prove that eclampsia is due to endotoxins contained in the chorionic villi, and particularly in the syncytium. Injections into animals of placental extracts were generally followed by death, and sometimes convulsions. The *post-mortem* examinations showed genuine thrombosis, with lesions of the liver and kidneys. Freund thought that the placenta contained poison made up of two constituents, one acting on the nervous system and the other causing thrombosis, but Lichtenstein in 1908 demonstrated that the results obtained could be produced by the injection of indifferent material.

3. *Derangement of the Metabolism of the Mother.*

With reference to this, it is important to briefly refer to the functions of the liver, and to remind you that, whilst it is the chief assimilative organ in the body, it is also the chief antitoxic and defensive organ. It must be remembered that it has to do with the disintegration of protein and the profound modification of the various products of protein metabolism (proteolytic functions). As the result of these combined processes, there occurs a remarkable degree of detoxication of the portal blood, which loses the highly toxic properties (for example, in respect of ammonia) it formerly possessed (detoxicating and defensive functions).[11] These processes are carried out largely by the aid of appropriate ferments (proteolytic, glycolytic) produced by the liver cells, and able to produce these effects even after death. Thus by a process of

self-digestion, or autolysis, the following products can be formed: Leucine, tyrosine, glycocoll, xanthine bases, ammonia, resembling those resulting from tryptic digestion. These ferment activities differ from those exercised by other digestive glands, inasmuch as the proteolysis and glycolysis they effect take place within the liver cell. This peculiarity exposes the liver cell in a special degree to disturbance, to the extent even, in the case of severe toxic influences, of contributing to its autolysis when it is left exposed to the action of its intracellular proteolytic enzymes, unchecked by the influences which normally control their activity. The conditions presented by the liver in acute yellow atrophy, chloroform and phosphorus poisoning, exemplify the powerful destructive actions of the proteolytic enzymes present in the liver cells. Thus the liver cell becomes exposed to the destructive action of its own proteolytic ferments. A process of self-digestion or autolysis may set in, either in the parts of the liver affected or in the whole liver, as in acute yellow atrophy, and results in the complete disintegration of the liver cell, with suppression of all its functions, not only the proteolytic and glycogenetic, but still more of its nutritive functions. The disturbances then brought about are amongst the most severe, violent, and fatal known to the body (cholaemia and hepatic toxaemias).

The influence of the nervous system must be considered in dealing with the functions of the liver. Belief in the possible effects of mental emotion on liver metabolism, based on clinical experience, receives some support from recent pathological observations regarding the part played by autolysis or self-digestion in liver disease. If the intracellular alkalinity in the liver cell fall to a low point as the result of acidosis, of inanition, or previous liver disease, the effect of severe mental depression or emotion accompanying liver disease may well be in particular cases to depress the functional activity of the liver cell beyond the point at which it can resist its own proteolytic ferments.[12]

Herman, Masson, and others found the relative amount of urea lessened in eclampsia, and Hélouin discovered that the relation of the amount of nitrogen contained in the urea to the total nitrogen was greatly altered. The normal ratio is reduced in pre-eclamptic toxaemia and eclampsia. Study of the "nitrogenous partition" by Zweifel, Ewing, Whitridge Williams, and others,[13] shows a marked increase in amino-acids, as well as uric acid, creatinin, and the xanthine bases. Zweifel demonstrated large quantities of sarcolactic acid in the urine, and this was also found in the cerebro-spinal fluid by Füth and Lockemann. But we have no proof, as yet, that lactic acid is the cause of eclampsia, because, as suggested by Whitridge Williams, it is probably only a result of the muscular work incident to the convulsions.

This theory of toxaemia has been much studied since Bouchard stated that our health depended on the even balance between the production and excretion of toxic substances. He considered that the urine would be a guide to the amount of toxin present. Much labour has been devoted to the analysis of the urine since then, in pregnant and non-pregnant women, with contradictory results. Tarnier and others considered the urine of the healthy pregnant woman less toxic than normal. Schumaker believed that the difference was due to the amount of concentration.[14] In the urine of eclampsia, with convulsions, different observers found the urotoxic dose vary, so that the results were quite contradictory, and it was found that the more precautions were taken in collecting urine, the method of preparation, etc., the less toxic it became, and Stewart, who took care to inject only pure urine, free from bacteria, declared it was innocuous.

Owing to the influence of the thyroid gland on metabolism, Nicholson considered that eclampsia must be due to insufficiency of iodothyrin, which is manufactured by the thyroid to aid the metabolism of nitrogenous substances.

Lange[15] found that in 133 women during the last twelve weeks of pregnancy the thyroid gland enlarged in a little over 81.2 per cent. If iodothyrin were administered, the thyroid became less in size, and enlarged when the drug was stopped. In 18.8 per cent. there was no enlargement, and of these 16 had albuminuria with casts, and 6 had eclampsia. If there is a deficient amount of iodothyrin, the metabolism of nitrogenous substances is not complete up to the stage of urea formation, and toxaemia follows. If the thyroid gland is completely removed, toxaemia may follow, causing convulsions.

Nicholson[16] considers that iodothyrin affects the kidneys—first, by exerting some specific action on them; secondly, if diminished, it allows the formation of toxins which damage the kidneys; thirdly, it prevents the formation of urea, and as urea is a powerful diuretic, it decreases this stimulus, for it is a marked vaso-dilator, and so maintains renal activity, since, if it is absent, it allows the secretion of the suprarenal, to which it is antagonistic, to come into action, leading to spasm of the renal arteries, which may arrest renal secretion.

The suppression of the thyroid function reduces the metabolism of cells in the same way as it does that of albumen, though the two processes do not proceed parallel with one another.[17] The theory advanced by Baumann, Oswald, and others is based on the assumption that the specific activity of the colloid present in the thyroid secretion is directed to the neutralization of toxic substances, and that this neutralization takes place within the blood stream. Attempts to obtain this toxin from the blood of thyroidless animals have, however, met with no success.

4. *Anaphylactic Reaction.*

By anaphylaxis—a term coined by Richet in 1902—is meant the hypersensitiveness of the organism to a foreign protein. In 1908 it was suggested by Rosenau and Anderson that eclampsia might represent an anaphylactic reaction. Lockemann and others believed that the mother was sensitized during pregnancy by minute quantities of fetal protein, and would develop anaphylactic shock if any amount of fetal blood were suddenly introduced into the circulation. They identified this condition with eclampsia. Others have failed to support them. Schenk, Veit, Heynemann, and Dienst have agreed in rejecting this theory.

Budin has shown that the poison absorbed from the intestinal tract has been in close relation to the toxaemias of pregnancy. Comyns Berkeley considers that eclampsia might be primarily due to renal toxaemia, hepatic, thyroid, or intestinal toxaemia—a failure of any of these organs to perform their functions properly resulting in the accumulation of the particular waste products they customarily deal with, and consequent general poisoning of the body, so that all the organs are more or less affected, and eclampsia results. Déloro and Rodet suggested the presence of bacteria in the blood, and Müller thought a bacillus of the uterus causing a general intoxication would account for eclampsia.

5. *Mammary Toxaemia.*

Sellheim[18] advanced the theory that the poison of eclampsia was manufactured in the breast. This originated from what he had learnt of the birth palsy, and the calf disease of the cow, which in one of its developments singularly resembles eclampsia of the woman, and is considered by many veterinary surgeons to be exactly the same disease. It has been found that by the injection into guinea-pigs of small quantities of colostrum obtained from cows suffering from vitullus, the animals die with lesions of the same character as those found in eclampsia. Therefore it is suggested that eclampsia may be due to poison manufactured in the mammae.

6. *The Theory of the Fetus as a Cause of Eclampsia.*

Those who support this theory have in their favour the facts that eclampsia is more frequent with twins, and still more frequent with triplets; that convulsions usually cease after delivery, and have been known to cease on the death of the child *in utero;* that sometimes infants born of eclamptic mothers have convulsions after birth, and *post-mortem* evidences the same as those found in the mothers. Usually cases of eclampsia occur after the fifth month, so that waste material has had considerable time to accumulate.

Again, Dr. Drennan[19] has advanced the hypothesis *that the abstraction of calcium salts from the mother* by the fetus is a cause of puerperal eclampsia. In that article it is stated: (1) That, although it is generally believed a certain amount of fatty infiltration of the liver cells around

the hepatic veins, the central zone of the lobule, is physiological in pregnancy and lactation, it is really pathological, and that it is due to the extraction of calcium salts from the mother's blood by the fetus, in such quantity as to deprive the mother of what should rightfully be hers, to unite with the fatty matter in her liver cells, to form lipoids—soluble fats—which would then be conveyed by her circulation, to be deposited in tissues normally the dépôts of free fat, and also as a source of fat to the fetus. (2) This fatty infiltration causes disturbed liver function, with the production of toxins from imperfect protein digestion. (3) Circulation of toxins causes fatty degeneration of liver cells, thereby increasing the liability of the liver to functionate, with resulting increased toxaemia. For those who believe in the theory of immunity, this means that the organism does not form a sufficient amount of antibodies to render harmless any excess of toxic material.

I have spent a considerable time in laying before you the more important theories of the causation of this disease because I believe that if we could ascertain the cause we should not only be able to treat the patient with more likelihood of success, but we should by prophylactic measures be made able to safeguard all pregnant women.

Sir Halliday Croom is of opinion that, as all *post-mortem* examinations show the liver and kidneys are primarily involved, an explanation may be furnished by the fact that these organs are at fault, and functionate badly. The fact that the kidneys are not perfectly sound would account for a sudden chill being the immediate cause of an attack, and a chill may be brought about in many ways, and in any weather. Nagel found, from the records of the Berlin Hospital,[20] that some periods of the year had practically no cases of eclampsia, and in other months they occurred in series. On referring to the Royal Meteorological Institute of Potsdam, he found that the months which were free, or almost free, from eclampsia, were those months of a high barometer and even temperature, a change bringing damp, wet, and raw weather, making existing nephritis worse, and as a consequence increasing the number of eclampsia cases. Against these views, however, it must be admitted that cases occur in which no changes in the kidney or urine are made out, although the kidneys are involved in about two-thirds of the cases of eclampsia, and albumen is found in the urine in about 84 per cent. of all cases.

TREATMENT.

It would be impossible for me here to discuss all the methods which have been advised or adopted by those who have had experience of this illness, but there are two points which ought to be borne in mind in approaching the study of treatment. First, that about 75 per cent. will recover, whatever may be done; and, secondly, the condition is so deceptive that, with reference to drugs, it is impossible to say that because a certain remedy has been successful in a few cases it will benefit all, or even the majority. Life is too short for any one man, however extensive his practice may be, to come across a sufficient number of cases in his own individual private work upon which to found rules applicable to all eclamptics. There are some practitioners who have attended many hundreds of confinements and yet have but rarely met with a case, and Croom mentions two[21] who have had between two and three thousand cases of labour and have never had a single case of puerperal eclampsia. Therefore it is easy to conceive of a practitioner, having had a few cases treated in a certain manner, being so impressed by them, if followed by success, as to feel strongly that his treatment saved the patient. We are therefore compelled, in dealing with treatment, to draw our particulars from hospitals and large clinics where the opportunity is afforded of admitting considerable numbers. It is natural that, in dealing with an anxious case, such as one of eclampsia, the medical attendant, if within reach of any maternity or hospital, should be glad to send the patient—if suitable as a hospital patient—there, so that he may be relieved of the responsibility of her treatment, and in the full knowledge that everything possible will be done for her. Hence the facility of dealing with large numbers, and of drawing conclusions therefrom, for, as the average number of cases varies from 1 in 500 to 1 in 250, according to where the statistics are compiled, it is evident that we must have a large number of confinements to give us data.

Prophylactic Treatment.

Although we do not know the exact cause of the disease, and therefore cannot prevent toxaemia, we do know that frequently there are signs and symptoms of pre-eclamptic toxaemia which occur, and which give us warning of the approaching storm. I shall therefore divide this subject into (*a*) preventive, and (*b*) curative treatment.

The most common signals of danger are headache, which may persist for some days without any other symptoms, or it may be accompanied or followed by nausea, epigastric pain, sickness, diarrhoea or constipation, increased arterial tension, rapid pulse, lessened excretion, dimness of vision, and disinclination to exertion, or sometimes restlessness and excitement, the urine, as a rule, containing albumen. These symptoms may or may not be accompanied by oedema of the extremities and face. In my own experience the most common symptom has been headache, which has been more or less persistent, and slight blurring of vision. Occasionally dimness of vision may come on quite suddenly, and may be marked in one or both eyes. I remember one patient at the seventh month who complained of headache in the morning, and next day had well-marked albuminuric retinitis, but no oedema of the face or extremities. In many cases, before any symptoms arise at all, if the urine should be examined, albumen may be found, and this is always a danger signal if present in any quantity. It must be said, however, that in some cases symptoms will develop and no albumen be present, and in others no symptoms appear until the first convulsion. In one case of a patient who appeared to be absolutely well about six weeks before the confinement was due, I found on examination of the urine about three-fourths of albumen. In spite of my strong opinion that premature labour should be immediately induced, six days were allowed to pass, and I was summoned to her in the country, to find her unconscious and in continued convulsions. A large amount of albumen is not, however, always followed or accompanied by eclampsia. I remember one patient whose extremities were oedematous, and whose urine was scanty and almost solid with albumen, who arrived in town, owing to unavoidable delay, only immediately before the expected date of her confinement, when she was seized with labour, through which she passed satisfactorily. Another, to whom I was summoned in the country, had a fair amount of albumen, with no pre-eclamptic symptoms, who went through labour well, and was seized with violent convulsions afterwards, from which she recovered perfectly.

When the foregoing symptoms occur, accompanied by a small amount of albumen, undoubtedly the best treatment is to put the patient to bed and feed her on milk, giving as much aperient saline medicine as may be necessary to keep up free relief. According to Nicholson, eclampsia is due to an insufficiency of iodothyrin. Milk diet does not require so much iodothyrin; but a meat diet yields too little iodothyrin, and also yields too little iodine for the manufacture of a fresh supply. Therefore the patient may get well on this simple milk diet. Should the albumen increase in amount in spite of this treatment it will generally be found that the output of urea decreases in relation to the rise of albumen. It has been pointed out by Herman that there is a great diminution in the amount of urea in puerperal eclampsia, although we know from experiments that urea is not the reason of eclampsia. If the amount of albumen is rising—a sure indication that the woman is being increasingly poisoned—we have either to allow her to take her chance of continued rest and milk causing amelioration, or induce premature labour. The latter, in my opinion, is far the better course, because, as the affection is a disease of pregnancy, when that condition is over the results of the disease will most likely pass away. As I have already pointed out under the head of etiology, painful contractions of the uterus may be sufficient to cause a convulsion. The woman is in a state of unstable equilibrium, and the least irritation may turn the balance, so that the necessary manipulation to induce labour may be the means of bringing about the one thing we wish to avoid. Yet I still say that it is more prudent to induce labour and take this risk, because if there be a risk of induction it is hardly likely that the state of

irritability will be less by the time labour spontaneously starts, even if the patient continues free from convulsions for so long.

With reference to the method of inducing labour I shall only mention that, in my opinion, the safest and simplest, provided there is no reason for hurrying, is by passing one or two sterilized bougies into the uterus with every aseptic and antiseptic precaution. I have done this on many occasions, and up to the present have not met with any difficulty or haemorrhage from the bougie passing between the uterine wall and the placenta. Even if bleeding did take place in the special case under consideration it would probably do more good than harm.

Of course, the time at which the albumen occurs or is discovered, and the amount, will influence one's opinion, for if it be before the seventh month it is natural to give the woman every chance of continuing the pregnancy sufficiently long to bring forth a living child. If, however, rest in bed, combined with a milk diet, does not seem to lessen the amount of albumen, or if other symptoms do not seem to be improving, it is far better, in the interests of the mother, not to delay terminating pregnancy, at whatever date from conception it may be.

Although the foregoing treatment is the best to prevent the actual onset of eclampsia when any symptoms or signs develop, yet we know there are cases which occur where there are no signs or symptoms whatever, and the first indication of anything being abnormal is the sudden onset of convulsions. We know also that albuminuria in large quantity may occur quite suddenly, and therefore it is important to examine the urine from time to time, although this may not always be practicable, for the patient may not be seen at all until shortly before confinement, or only when taken with symptoms of illness.

Curative Treatment.

As the etiology is still obscure, it is not possible to prescribe a causal therapeutics, but as we believe the disease to depend on some toxin, our endeavour must be to eliminate that toxin as quickly as possible, while we take care of the patient during the convulsive stage. The treatment may therefore be divided into (*a*) surgical, and (*b*) medical.

Although it will not be possible to discuss all under the first heading it will be of interest to enumerate the methods suggested.

Emptying the uterus: (*a*) Abdominal; (*b*) vaginal.
Total extirpation of the uterus.
Decapsulation of one or both kidneys.
Amputation of both mammae.
Trephining of the cranium.
Lumbar puncture.
Bleeding.
Intravenous injection of hirudin.
Injection of air into mammae.

Emptying the Uterus.

In discussing the subject of emptying the uterus, which means active interference with a patient who is in such a state that the least irritation may lead to a fresh convulsion with risk of death, it would be rather a pleasant reflection with which to console one's self that the patient would be better untouched by operative interference, because some statistics prove that emptying the uterus does not stop fits, and therefore that it does not influence the disease. But as this is a disease of pregnancy, we know that when the child is born, the woman, should she survive, is at least nearer the end of her troubles. In fact, in my opinion, puerperal eclampsia may be looked upon as a disease having a definite course to run, like typhoid fever; in this case, if the poison in the system be sufficient to kill, then the patient will not outlast the ordinary course of the disease, but if the powers of resistance, or her "defensive forces" are strong enough, she will continue to the end, and recover. Now we know that, as a rule, in eclampsia, it does not run its course until the confinement is over, and therefore it is clearly good treatment to help terminate the pregnancy, providing that can be done without adding a greater danger, either immediate or remote, to the patient, always remembering that she is in a desperate condition, because, although we know the average of recoveries, we can never tell that the next convulsion will not kill the patient in whom we are interested. Therefore it is absolutely essential that each case should be treated on its own merits.

I do not wish to burden you with statistics, but with reference to the rapid termination of pregnancy there are some I must refer to, and I would remind you that such is the interest in puerperal eclampsia that every year which passes helps us, on account of accumulating experience, to take a different view regarding figures which were collected some years ago. In an admirable paper in 1902 by Herman, who collected from the reports of different clinics 2,142 cases of puerperal eclampsia, he states that of these the fits ceased in 850 after delivery. He considers that the comparison of the cases in which the uterus was rapidly emptied with those in which it was not interfered with was to show that there was no benefit in emptying the uterus, the fits were not stopped, neither was the death-rate apparently smaller. It is only right, however, to point out, and Herman thinks the objection a fair one, that the figures showing a very high mortality among the patients delivered by operation are taken from pre-antiseptic times, and do not apply to operative delivery under conditions of the present day.

Of course, in dealing either with operative means or spontaneous delivery, the most important point for consideration is the amount of time elapsing from the moment of the first convulsion to the emptying of the uterus. There can be no doubt about the increasing mortality with the multiplicity of the fits. In 571 cases collected by Seitz from Schauta, Schlesinger, Duhrssen, and others, this is clearly shown, and Reuben Peterson[22] tabulated 615 cases showing the results of prompt delivery and the expectant plan of treatment of eclampsia, and the former give a mortality percentage of 15.9 as compared with 28.9, the mortality of Professor Bumm being 4.8 as compared with 31.1 by the expectant treatment. These figures are very striking as showing the advantages of prompt delivery. In this table Zweifel had a mortality of 32.6 by the expectant treatment, which fell to 15 per cent. when he changed to immediate delivery after the patients entered the clinic. This table is especially valuable, as it shows the reduction in mortality in the same clinic through a change in the methods of treatment, and I therefore hand it to you, with other tables, on a separate printed slip.

It is natural to inquire what effect prompt delivery has on the recurrence of convulsions. It was observed long ago that they were fewer in number and less severe after the birth of the child than before. It is evident that if convulsions continue after the termination of labour the patient is profoundly affected by the poison, and the danger to the kidneys, liver, etc., may be so great that the eliminative treatment is not of the least use, and the patient is fatally ill with the first convulsion.

In a table given by Peterson, modified from Seitz, out of 2,135, convulsions ceased in 52.7 per cent. after delivery, including operative and spontaneous, whereas in 453 cases of vaginal and Caesarean section the convulsions ceased in 62.6 per cent. In another table showing cases in which convulsions ceased after spontaneous delivery he gives 59.7 per cent. This is almost exactly the same percentage as that of 994 cases in which convulsions ceased after operative delivery.[23] Therefore, from the foregoing figures it may be said that convulsions cease after delivery in a little more than half of the cases, and that it seems to make but little difference as regards convulsions whether delivery be spontaneous or terminates by operation. Although convulsions cease after delivery, it is not certain that the patient will recover, for 18 per cent. die; but she will have a better chance, because where the convulsions continue after labour the mortality is 10 per cent. higher. An interesting table shows that the convulsions may be taken as an index to the extent of the poisoning of the mother, and that the fewer the number of convulsions before vaginal Caesarean section the better the percentage of safety to the mother. It varied from a mortality of 18.5 per cent. when the operation was performed after from one to five convulsions to 100 per cent. when undertaken after from sixty to sixty-four fits.

It is necessary to refer to the fetal mortality in general in eclampsia compared with that following vaginal Caesarean section. Peterson gives the fetal mortality after all kinds of treatment as 29.4 per cent., and after vaginal Caesarean section undertaken at varying periods after the first convulsion it is 21.2 per cent., which is

lower than in other series. Where only three convulsions occurred before the birth of the children by vaginal Caesarean section, the fetal mortality was only 11.8 per cent. Out of 139 cases of spontaneous delivery the mortality percentage of the fetus was 25.1. The fetal mortality is lower after spontaneous than after various operative means of delivery (25.1 and 30 per cent.), but it is not so low as after vaginal Caesarean section. The reason for this lower fetal mortality after Caesarean section is that the operation is quickly performed, and the child is subject to little traumatism, which is undoubtedly the cause of the death of many infants. In the anxiety to deliver quickly by the ordinary methods, the child is frequently apt to suffer. While eclampsia is nearly three and a half times more in primiparae than in multiparae, the mortality in the latter is higher (28.02 and 22 per cent.)

It is evident from the foregoing that prompt delivery gives the woman the best chance, and in seeing a case you will quickly have to decide upon the most expeditious manner of emptying the uterus. Much, of course, will depend upon the time when the first convulsion occurs, and whether the patient has actually begun labour. If she be a multipara, with a soft dilatable os, or a primipara where the cervix has been taken up and no difficulty offers against dilatation, then if this can be safely and fairly rapidly done, it is far better for the woman than anything else, provided there be no narrowing of the pelvis. The dilatation can be carried out with simple dilators—Bossi's dilators—or manually. On the occasions when I have used Bossi's dilators I have had no difficulty, but I am certain that it requires great care not to cause laceration of the cervix. When the cervix is fully dilated, and not before, the membranes can be ruptured, and version performed, or forceps applied. As a point of great practical importance, I am sure that thorough dilatation of the cervix is essential before version or the application of forceps if you are to feel safe in avoiding lacerations in delivering the child. Of course all this takes time, however favourable the condition of the cervix, but in spite of the comparative delay it is far more satisfactory to deliver in this manner than to perform Caesarean section. But supposing the cervix is rigid, and quite undilatable (a word which must only be used with reference to the time likely to be spent upon dilating a hard and rigid cervix), the fits are recurring, and you consider rapid delivery will give the best chance to the woman, you must decide between vaginal Caesarean section or abdominal Caesarean section, and remember that the woman will have a better chance from either operation if she has not been subjected to manipulation by other operative procedures prior to Caesarean section.

Supposing the surroundings and arrangements for the abdominal operation are satisfactory, and the patient is at term, or approaching that time, abdominal Caesarean section is easier, and provides a clear exit for the child, especially if there be the least contraction of the pelvis. In vaginal Caesarean section the difficulties which may be met with are principally connected with the injury to the bladder, the difficulty in drawing down the cervix and in suturing it, and in tearing the cervix. But out of 530 cases collected by Peterson there was no difficulty with the operation as originally recommended by Duhrssen in 1896 in 214 cases, and he concludes that the anterior incision ordinarily serves all purposes, and that the additional incision in the posterior cervical lip can be dispensed with. In using both incisions the percentage of tears of the uterus and soft parts was rather higher than when only one was used.

Taking into consideration that in Duhrssen's operation the parts operated on are high up, that often one must trust to touch, because everything is not in sight, that haemorrhage may also tend to obscure the field of operation, and that when finally version or forceps are used, with the knowledge that injury may be done to the bladder or uterus, I think that most will prefer the abdominal route. This is probably more true to-day than when Duhrssen's operation was originally introduced, because the field of Caesarean section has become more extended. The earlier methods of operation have been improved upon. There are modifications of the uterine incision, and, of course, the most important development is the extraperitoneal Caesarean section introduced by Frank, of Cologne, in 1907. In this operation the peritoneum can be stripped from the bladder and uterus, so that the risk of infection becomes lessened.

Freund states that the methods in use in the Charité in cases of eclampsia are early delivery in order to diminish the severity of labour, venesection, and isolation. In 551 cases which were delivered in the first hour the mortality was 0 per cent. The mortality rapidly deteriorated with the duration of the disease at time of operation.

Decapsulation of the Kidneys.

According to Kermauner,[24] decapsulation carried on before delivery is of no value. Unilateral decapsulation only is irrelevant, and has had to be given up. Bilateral decapsulation carried out some hours after delivery yielded, according to Balser's collection of cases, thirty-seven deaths out of a total of ninety-one—that is, 40 per cent. As it is possible that favourable rather than unfavourable cases are published, the results must be regarded as of small value.

Total Extirpation of the Uterus.

This has been carried out on the assumption that the poison, or part of the poison, causing eclampsia was manufactured in the uterus.

Amputation of the Mammary Gland.

Sellheim[25] records a severe case of *post-partum* eclampsia recovering after amputation of the mammae, and Martin, who has published a case of severe eclampsia recovering after the same operation, believed that the fall of blood pressure caused by the operation had a great deal to do with its success.

Lumbar Puncture.

Bataski[26] published cases treated by lumbar puncture. When the arterial tension denotes a permanent state of hypertension, he considers it more rational than venesection. He withdrew 20 to 35 c.cm. of cerebro-spinal fluid, which was followed by relief in each case.

Medical Treatment.

I may enumerate some of the many remedies suggested in this affection, and then indicate what seems to be the most satisfactory means of treatment. Anaesthetics, morphine, chloral, veratrum viride, adrenalin, thyroidin, parathyroidin, hirudin, nitroglycerine, to act on the peripheral system; erythrotetranitral, calcium chloride, potassium chloride, serum treatment, removal of colostrum, hot packs and hot-air bath, oxygen, the injection of air or oxygen and potassium iodide into the mammae, lumbar anaesthesia.

As the treatment should be eliminative, based on the knowledge of a toxaemia, our object is to get rid of the poison as quickly as possible, or dilute it. A good dose of magnesium sulphate or some other saline may be given at once, or some prefer croton or castor oil, so that rapid aperient action may be secured. If there are reasons against rapidly emptying the uterus, one of the best means of diminishing the poison is to bleed freely and to use saline injection, or transfusion directly into the circulation by a vein. Bleeding is one of the oldest remedies, and in former days very free bleeding was practised. Ramsbotham[27] used to take "from 40 to 60 oz. and even more in the course of a very few hours." Of course, each patient will not stand the same amount of loss, but about 500 c.cm. or 600 c.cm. may be withdrawn at first, or an amount until the pulse becomes affected or the patient turns pale. There is no better means of diluting the poison than by these two simple methods, for, if no transfusion apparatus is at hand, continuous proctoclysis can be kept up by a small catheter in the rectum with normal saline solution.

Theoretically, hot packs and hot-air baths, by drawing off perspiration and tending to increase the thickness of the blood, ought to be harmful, but practically they seem to do good in some cases. Little[28] has had great success with the use of hot-air baths.

Döderlein[29] and Leopold advised against sweating, but if the patient can drink plenty of fluid, and if the saline solution be flowing freely into the intestine, rectum, or vein, then dilution of the poison is taking place and no harm can come of it. You must, however, remember that

such treatment is of no good if the patient is already oedematous, and if the kidneys are not acting at all.

Some prefer to give at once a large dose of morphine or chloral hydrate. If the patient is very restless, I prefer chloral. Of course, if there is high blood pressure the morphine reduces it, for it is a powerful vaso-dilator, but, if possible, it is better to do without it, because it undoubtedly adds risk to the child, and it is not without danger to the mother, with kidneys insufficiently acting. If the tension is high, veratrum viride will certainly lower it, and has long enjoyed a reputation in this affection. If the uterus has been emptied, and the convulsions should continue, with high tension of the pulse, this drug is well worth trying, but it must be used with care, for it is very powerful.

The patient may be kept soothed with some anaesthetic; and although chloroform is certainly more convenient, yet, if it is to be administered for a considerable time, it must be remembered that chloroform poisoning produces changes in the liver which are practically the same as those caused by the disease. Ether may be substituted for it, for Mr. Bellamy Gardner informs me that it does not attack and disintegrate the cells of the liver as does chloroform. For the actual convulsions, the inhalation of oxygen may be used when the surface of the skin becomes dusky.

According to Zweifel,[80] between 1887 and 1892, when chloroform and sweating but no venesection were employed, the mortality amounted to 32 per cent. In the years 1892 to 1895, when operation was done without chloroform and morphine and without sweating, the mortality sank to 15 per cent. He advised against sweating, because it thickens the blood, and is in favour of artificial dilution of the blood, and the excess of acid in the blood to be combated by the administration of vegetable acids.

Lichtenstein[81] recommends venesection, usually withdrawing 500 c.cm. of blood, and states that his recoveries amounted to about 24½ per cent.

There are two methods of treatment which deserve to be mentioned, because in the hands of some they seem to have been efficacious. One is the therapeutic employment of normal serum from pregnant women, as carried out by Mayer (Tübingen) and the other is the use of large doses of thyroid gland. I have already said that I have no intention of mentioning nearly all the many remedies which have been suggested, but anything which is likely to act as a direct antidote to the poison is worthy of consideration, and thus may act in this manner. Nicholson[82] considers that thyroid extract is the ideal vaso-dilator in cases of eclampsia, but that it is necessary to use large doses; 30 or 40 grains are given at first, and a second dose of 20 or 30 grains in six or eight hours if there should be no improvement. He considers that the noteworthy points in relation to this treatment are the unusually early re-establishment of the renal functions and the rapid and complete disappearance of symptoms. He believes that normally thyroid secretion is the opposing influence which safeguards renal circulation from a dangerous over-action of the internal secretion of the suprarenals, which acts as a constrictor of the arteries and capillaries. Englemann has injected hirudin (leech extract) intravenously with the object of inhibiting the coagulation of the blood and preventing thrombosis, and recently Licht[83] has published cases of intramammary injections of air.

I need not weary you by detailing other remedies, but I feel sure that the best results will come to those who regard this, in the light of our present knowledge, as a poison in the blood acting on the nerve centres; and as our treatment of all poisons is by an antidote when the poison is known, and by elimination, and, failing this, dilution when the poison is unknown, so the simplest way of regarding a patient suffering from puerperal eclampsia is as one suddenly poisoned, and treat her accordingly. Therefore anything which will, in any degree whatever, strengthen the defensive forces of the body, will do good. My belief is that venesection, combined with the endeavour to eliminate the poison, and dilution with saline transfusion will be of most service.

There are many cases in which no treatment is of any avail, and which are mortally ill from the moment of the first convulsion. There are others, again, which are not so seriously affected, although this can never be known at first, and therefore they are the ones which may recover under any treatment whatever, and are the cases where one is apt to have an exaggerated idea of the importance of any special line of treatment if it happens to be successful.

If the temperature be steadily rising, the patient comatose, with a rapid pulse, tending to be more frequent and thready, a tepid bath may be given if this be possible. The patient may be put into a warm bath, which is gradually cooled down to 80° F. or lower, and allowed to remain in for twenty minutes. This doubtless acts in the same way as it does in serious cases of typhoid fever or acute rheumatism.

Conclusions.

From the foregoing it may be concluded:

First, that in spite of all the labour which has been spent upon investigation, we know of nothing which we can definitely state gives rise to the disease, although everything seems to point to poison circulating in the blood as being the cause.

Secondly, that without any doubt recent statistics show that the best treatment is that of rapidly emptying the uterus—by whatever means this may be most safely accomplished—after the first few convulsions; that is to say, without indefinite delay. The woman and the child are thereby given the best chance of life, and, as already stated, the maternal mortality has been lowered in the hands of some to under 5 per cent.

Thirdly, that the greater the delay in carrying out this treatment after the onset of the first convulsion, the greater will be the danger.

We must hope that the time is not far distant when, by continued research, the knowledge of the actual cause will provide us with a weapon to surely prevent the onset of this disease, and relieve the accoucheur of the future of one of the most terrible complications of the lying-in room.

References.

1 Critical Review, Eardley Holland, *Journ. of Obstet. and Gynaec. of the British Empire*, 1909.
2 *Practice of Obstetrics*, Edgar, 244.
3 *Obstetrics*, Whitridge Williams, 554, 1912.
4 Edgar, op. cit., p. 34.
5 *Virchow's Archiv*, 1898, clv, p. 185.
6 Eardley Holland, *Journ. of Obstet. and Gynaec. of the British Empire*, 1909.
7 Dienst, *Zentrbl. f. Gyn.*, 1905.
8 Schauta, *Archiv für Gynäk.*
9 Kermauner (Wiener), Eklampsiefragen, *Wien. med. Woch.*, 1912, LXII, pp. 1541–50.
10 Dreyfuss, *Biochem. Zeitschr.*, 1908.
11 Hunter, p. 20, Allbutt's *System of Medicine*.
12 Hunter, p. 26, Allbutt's *System of Medicine*.
13 *Obstetrics*, Whitridge Williams, p. 553.
14 Comyns Berkeley, *Journ. of Obstet. and Gynaec. of the British Empire*, 1904.
15 *Zeit. für Geburts. und Gynaekol.*, 1899, xl, p. 34.
16 *Medical and Surgical Journal*, June, 1901.
17 Biedl, *The Internal Secretions of Organs*, 1912, p. 71.
18 Die Mammare-Theorie über die Entstehung der Eklampsiegiftes, *Zent. f. Gynaek.*, 1910, M. 50, p. 1609.
19 *American Journal of Obstetrics*, 1911, p. 653.
20 *Edinburgh Obstetrical Transactions*.
21 *Edinburgh Obstetrical Transactions*, 1911.
22 *American Journal of Obstetrics*, 1911, p. 64.
23 Op. cit., p. 15.
24 Kermauner, Professor F. (Vienna), Eklampsiefragen, *Wien. med Woch.*, 1912, p. 62.
25 Die Mammare-Theorie über Entstehung der Eklampsiegiftes, Ed. Martin, *Zent. f. Gynaek.*, 1911, No. 2, p. 54.
26 De la fonction lombaire comme moyen curatif de l'éclampsie, *Annales de Gynécologie et de l'Obstétrique*, 1912, Sen. 9, p. 3740.
27 *Obstetrical Medicine and Surgery*, 1841.
28 *Journ. of Obstet. and Gynaec. of the British Empire*, September, 1909.
29 *Clinical Lectures*, 1908.
30 International Congress of Mid. and Gynaecology, Berlin, 1912.
31 Leipzig, op. cit., Int. Cong. of Mid. and Gynaecology, Berlin, 1912.
32 *Journ. of Obstet. and Gynaec. of the British Empire*, 1904.
33 *Ugeskrift for Laeger*, July, 1912.

From statistics of the number of women pursuing higher studies in Prussia which have recently been published it appears that in the last winter session the total number was 2,980, as against 2,892 in the previous year. Of these, 361 were students of medicine, as against 329 in the corresponding session of 1911–12.

A meeting of the committee of the German Society for the Repression of Quackery was held at Dresden on March 9th, when the following officers were chosen for the ensuing year: President, Professor Beythien; Vice-President, Professor Schmorl; Secretary, Dr. Neustatter; Assistant Secretaries, Drs. Decker and H. Weber; Treasurer, Dr. Eger.

THE USES AND ABUSES OF PROPRIETARY FOODS IN INFANT FEEDING.*

BY

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FOR the past year or more one subject has been interesting us particularly in the children's department at Guy's Hospital, where we come in contact with a very large number of infants suffering from all the disorders which are the common result of artificial feeding. We have examined all cases of infantile dyspepsia, among the artificially fed with the object of estimating the part played in the production of the disturbance by the proportion of sugar in the diet, and we have come to the conclusion that excess of sugar is by far the most common cause of dyspepsia, at any rate among the children from such a poor neighbourhood as Bermondsey and the river side. I believe that in the past far too little attention has been paid to this particular aspect of infant dietetics. Sugar, which is commonly added with so free a hand by the mothers, is looked upon by them merely as a flavouring agent, and not as the constituent of the food most vital for the growth of the child and for the development of animal heat. It is quite common to find that a heaped teaspoonful of cane sugar is added to each of ten feeds for an infant whose weight totals but 8 or 10 lb. This amount is equivalent, weight for weight, to the consumption by an adult weighing 10 st. of about 2 lb. of pure cane sugar in the course of the day. That all infants on receipt of such an amount do not immediately respond by developing diarrhoea is evidence of the enormous tolerance for sugar and the great demand for sugar which the growing child shows.

In contrast with this apparent neglect of the importance of carbohydrate excess as a factor in the production of dyspepsia, there is no doubt that in the past the difficulties of protein digestion have been much exaggerated. Cow's milk, as every one knows, contains a very high percentage of casein, and it is to this single peculiarity that in the history of infant feeding a vast deal of attention has been directed. A difficulty in digesting the casein of cow's milk has been regarded as the crux of the whole matter. When an infant fed on cow's milk is sick the vomit is apt to consist of a dense curd of casein, and it seemed natural to attribute this to a special difficulty in the digestion of a substance which is present in amounts so strikingly in excess of the proportions found in human milk. In order to prevent the formation of this clot a whole series of devices has been recommended from time to time—for example, the use of barley water, of lime water, of sodium bicarbonate, and more recently, of sodium citrate.

At one time confirmation of the belief in the indigestibility of casein was found in the appearance in the stools of milk-fed infants of certain white curd-like masses which were presumed to be formed of undigested casein. Such stools, indeed, are commonly described by nurses and mothers as "undigested." It is long since these white curds have been proved to consist not of casein at all but of soaps. I believe, too, that the vomiting of casein curds is not to be looked upon as implying an inherent difficulty in the digestion of casein, but is an accident due to the nature of the food. If an infant fed upon cow's milk happens to develop dyspepsia it has no option but to vomit a dense curd, because such curds are formed normally in the process of digestion. Any good which results from the use of lime water, sodium bicarbonate, or sodium citrate, is, I think, due not to the prevention of the clotting process, but to the effect upon the acid fermentative dyspepsia which is the actual cause and occasion of the vomiting.

Dyspepsia in infancy is nearly always of a nature to be benefited by the addition of alkalis. The fats, and especially the sugars, tend to undergo fermentative changes, with the result that a great excess of volatile fatty acids is formed. As a result the contents of the stomach become intensely acid, and even the breath may have a sour, rancid odour. When these acid gastric contents reach the intestine, they act as a powerful stimulus to peristalsis. In spite of the free flow of alkaline succus entericus which their presence provokes the reaction of the intestine is always acid. The stools are green, watery, and so sour that the anus and any part of the skin which comes in contact with them is apt to be irritated and excoriated. The stimulus to peristalsis may be so great that the tense coils of intestine may be visible through the abdominal wall, while the pain is such that the whole body of the child is thrown into restless movement.

On the other hand, an infant fed upon a diet so poor in sugar as unaltered cow's milk is not likely to suffer from these symptoms of diarrhoea and vomiting. Upon a pure milk diet the stools are formed, clay-coloured and alkaline, because the volatile fatty acids, as a result of the low content of sugar in the food, are all held bound as soaps by the alkaline salts of the succus entericus. A diet of whole cow's milk, therefore, often results in constipation because the natural stimulus to peristalsis is absent. The very great success which whole-milk feeding has achieved proves, I think, two things. It shows that infants are able to digest the large amounts of casein without disturbance, and that the great majority of infants, among the sugar-fed children of the poor at any rate, are for a time likely to benefit by a change to a diet in which the percentage of sugar is relatively low.

Although an infant fed on whole milk without addition of any sort is likely to be free from any very stormy attacks of diarrhoea and vomiting, it is not to be supposed that the results will invariably be entirely satisfactory. In such infants the want of sugar often leads to constipation, to want of growth, and to backward development generally. We can therefore draw a sharp contrast between the baby fed only on cow's milk—pale, undersized, backward in development, with subnormal temperature and cold blue feet and hands, with alkaline, formed, clay-coloured stools and a tendency to constipation—and the infant fed upon a diet rich in sugar, whether milk dilutions to which sugar has been freely added or one of the numerous proprietary foods, in nearly all of which the sugar is present in great excess, an infant perhaps larger and better grown but with a troublesome tendency at the least provocation to suffer from explosive attacks of diarrhoea and vomiting. With each attack the tolerance for sugar tends to be lowered, sometimes only temporarily, sometimes permanently, so that a second attack supervenes more readily than in the first instance. In bad cases the tolerance for sugar may fall so low that dyspepsia is produced upon an amount less than that necessary for the maintenance of the body weight. In such a case a condition of true marasmus is produced in which the usual paradoxical reaction to food is seen. By the paradoxical reaction is meant that the child loses weight slowly when almost starved and loses weight with terrible rapidity when an attempt is made to increase the amount of food, because of the dyspepsia which results.

I do not mean that all infants fed on cow's milk will develop the one set of symptoms or that all infants fed on mixtures rich in sugar the other set of symptoms as an invariable rule; but if unsatisfactory results do follow they will in most cases be of the type described. We have, indeed, always to remember how great is the tolerance of infants living under good hygienic surroundings for even the most unsuitable forms of diet, provided only that no sudden changes are introduced. If infants invariably responded to an excess of any one constituent by developing the appropriate and expected symptom we should have a much clearer idea of the results of excess than we have at present. Because one sturdy infant has successfully accustomed itself to thrive upon a diet consisting largely of starch and sugar we must not conclude that to adopt a similar diet will therefore bring salvation to a weakling already in difficulties with its digestion. Yet this is the procedure again and again adopted by mothers and nurses, and it is the argument constantly reiterated by proprietors of special foods.

Proprietary foods have a distinct field of utility among a community which is not skilled in the difficult art of cookery for young children. We find in them an easily available and perfectly successful means of combating the ill effects which I have tried to describe as resulting from an exclusive milk diet. If we remember that most of them are composed preponderatingly of carbohydrate of one or other

* An address delivered before the Camberwell Division of the British Medical Association.

sort and that therefore they have the drawback that they are liable, in those infants whose carbohydrate tolerance is small, to produce fermentative dyspepsia, diarrhoea, vomiting, colic, and excoriation of the buttocks, we shall be in a position to make use of them to attain good results without endangering the stability of digestion.

We may divide the foods into seven groups:

1. *Condensed Milk with a High Percentage of added Cane Sugar.*

Sweetened condensed milk is enormously popular among the poorer classes; it is cheap, it keeps for a long time, and it is easy to prepare. If one heaped teaspoonful is mixed with 3 oz. of water, a mixture containing approximately 1 per cent. fat, 1 per cent. protein, and 5 per cent. sugar results. During the first two months of life infants often show a marked intolerance for cow's milk, occasioned by their inability to digest the comparatively high percentage of fat, with the result that vomiting of curd is extremely common. On the other hand, upon a mixture with a low percentage of fat and a high percentage of sugar, such as sweetened condensed milk, they often thrive well. The danger lies in the increasing tendency which the child shows to develop fermentative dyspepsia as its growth calls for an increased concentration and larger amounts of food. I find, too, that mothers frequently add to the risk by adding still further amounts of cane sugar. In children over 6 months the extremely low fat content is very liable to produce rickets.

2. *Condensed Milk without added Sugar.*

This consists of milk condensed in a vacuum to a third of its bulk. By the addition of water a mixture of approximately the same composition as milk can be obtained. For some reason or other, probably because it does not keep so long as the sweetened variety, it has never been popular, and it is sometimes difficult to get shopkeepers to stock it. There may, however, be a further explanation for this unpopularity in that unsweetened condensed milk does not differ sufficiently in its composition from fresh milk to make its substitution haphazard a procedure likely to bring about improvement. The not infrequent good results achieved by the sweetened variety are, as I have said, due to the accident that in many young infants there is an idiosyncrasy against fat, while the power of digesting sugar remains good. Such infants are, therefore, well suited by the change from cow's milk to a sugar-rich diet such as sweetened condensed milk. Unsweetened condensed milk, on the other hand, is nearly as rich in fat as fresh milk, and contains no more sugar. It is very useful when a supply of pure milk cannot be obtained, as in times of great heat or when travelling.

3. *Dried Milks.*

These are prepared by spreading a very thin sheet of milk over a heated metal plate, so hot that the milk is rapidly dried and converted into a powder. The composition of these milks does not differ materially from fresh milk, and in consequence their prescription does not as a rule show very marked therapeutic effects. I do not believe that dried milk is possessed of advantages over fresh milk, except, of course, in its relatively low bacterial content. If good fresh milk can be obtained its use is always to be preferred. In proprietary foods we are not seeking for a permanent substitute for cow's milk, but are prescribing for the time being a change in the diet with a definite therapeutic object. From this point of view foods under the headings 2 and 3 are of little service.

4. *Dried Milks with added Malted Sugar.*

Such preparations are undoubtedly very valuable because of the high percentage of malted sugar which they contain. All sugars are not equally liable to undergo fermentative changes, and to give rise in consequence to diarrhoea and vomiting. Undoubtedly the least liable is maltose, just as cane sugar is at the other extreme and is the worst offender in this respect. While comparatively poor in fat, these foods have a high carbohydrate percentage, while at the same time they are free from added cane sugar. They are therefore often very useful in the dyspepsias produced in very young infants fed upon cow's milk with its relatively high percentage of fats. In older children they are too poor in fats unless used in a concentration which raises the percentage of sugar to a dangerous height. They have the further drawbacks of being relatively expensive and of permitting the development of scurvy.

5. *Pure Malted Sugar.*

If a child is convalescent from an attack of fermentative dyspepsia, or if it is known that its tolerance for sugar is permanently low, we should choose a malted sugar in preference to lactose or cane sugar.

6. *Foods consisting almost entirely of Unaltered Starch.*

Such preparations are specially useful for children over 7 months of age. In the later months of infancy it is often wise to make use of the growing power of the child to digest starch rather than to run the risk of producing diarrhoea by giving large amounts of saccharine matter. After 9 months of age a second form of carbohydrate in the form of starch should always be given. For young infants these foods are quite unsuitable.

7. *Foods consisting of Mixtures of Unaltered Starch and Malted Sugar.*

Many of these foods contain a ferment which is capable of converting starch into sugar, and the amount of this conversion to some extent depends on the length of time during which the milk mixture is allowed to simmer by the fireside. By diminishing this gradually we can attempt to train the infant's powers of starch digestion.

These are the classes of food at our disposal, and by an intelligent use of them much can be accomplished. Unfortunately mothers and nurses, relying on the extravagant claims of proprietors, are apt to prescribe them absolutely at random without the least appreciation of their composition or properties. Often each is tried in turn, in the hope, too often fallacious, that one will eventually be found to suit. Before this happy result is reached, if it ever be reached, very often an enormous amount of harm and suffering is caused. To give a young infant suffering from the effects of sugar excess a proprietary food in which this particular fault is accentuated, is often to cause a serious danger to life itself.

TREATMENT AND DIET.

The infant with green watery stools, vomiting, colic, ulceration of the buttocks, and a slightly raised irregular temperature benefits almost always by a change to a whole-milk diet. Such infants are commonly fed on proprietary foods containing a gross excess of sugar or starch, or upon a milk mixture to which large amounts of cane sugar have been added. One attack predisposes to another because the tolerance for sugar is lowered long after convalescence is established. In hot weather, because his food and drink are bound up in the same fluid, the child, rendered thirsty by diarrhoea, vomiting, and perspiration, is apt to take excessive amounts of his sugary diet.

Treatment should be instituted by a purge and by twenty-four hours' starvation. During this time boiled water sweetened by saccharine alone is allowed. In severe cases the stomach and bowel may be washed out with a weak solution of sodium bicarbonate. A few drops of hydrochloric acid—acidi hydrochlor. dil. mxxx–xl, mucilag. ʒss, syrup. simplicis ʒss, aquam ad ʒiv, two teaspoonfuls every four hours—are extremely useful in controlling the fermentative process in the stomach. In all these cases the absence of free hydrochloric acid from the stomach plays an important part in the production of the excessive fermentation. When the symptoms improve, feeding may be begun again by giving small amounts of boiled milk undiluted except in the case of the very youngest infants. One ounce of this may be given at first every four hours. If the infant, used to the taste of the much sweetened food, will not take the plain milk, it may be sweetened with saccharine. About $\frac{1}{6}$ grain of saccharine is equivalent in sweetening power to a teaspoonful of cane sugar. During these days of underfeeding the needs of the child for fluid must be met by the provision of a plentiful supply of

water, and care should be taken to see that he is kept very warm. Gradually the amount of milk taken may be increased, but any diminution in the interval between the feeds should be avoided for some time, because the treatment aims at allowing the stomach to empty itself completely between meals. Only in this way can the fermentation be controlled. In very severe cases the cream should be removed from the milk. Sometimes further amounts of proteid may be given by the addition of somatose or plasmon. The principle underlying all these prescriptions is that no acid fermentation is possible on a purely protein diet. After recovery from the attack of diarrhoea, the child may sometimes be kept for a long time upon this diet of whole milk and continue to thrive. In other cases the addition of some carbohydrate feeding becomes necessary.

The troubles which manifest themselves on a diet of pure cow's milk are of two sorts. In the first place, very many young infants manifest a complete inability to digest the fat of cow's milk, even in great dilution. Such babies suffer from profuse vomiting, often of curdled milk, and are either constipated or pass bulky white, greasy, foul-smelling stools. Upon a change to a fat-poor, sugar-rich diet the symptoms usually cease at once. A similar fat indigestion, with vomiting, colic, and constipation, is usual with very young infants nursed every two hours at a freely flowing breast, with abundance of rich milk. Less frequent nursing and the provision of a little sugar will usually cure the vomiting and constipation.

In the second place, many babies fed on cow's milk, although they are free from diarrhoea and vomiting, remain small and ill developed. I have seen infants who for months showed no gain in weight, although they were daily taking enormous amounts of milk of good quality. These children are pale, flabby, and constipated because the volatile acids present in such excess in the sugar-fed child, and which form the natural stimulus to peristalsis, are reduced to a minimum. The stools are large, bulky, and pale when the percentage of fat is high, or hard and pellet-like when the milk is poor in fat, and are always alkaline to litmus. In such cases the addition of carbohydrate produces immediate improvement. In young infants the use of a malted sugar or of a dried milk with added malt is indicated. At 6 months one or more feeds made with the addition of some starch-containing food may be advisable, and substituted for a similar number of pure milk feeds. After 6 months it is found over and over again that infants who immediately react to increase in the amount of sugar with diarrhoea will tolerate starchy forms of carbohydrate perfectly well. Finally, it may be said that extract of malt agrees well with the milk-fed baby, but aggravates the disturbances of sugar-fed children, while cod-liver oil has properties just the reverse.

The disorders of sugar over-feeding are much more common among the poor than among the well-to-do. There are few infants in the hospital class who do not at some time or other suffer in this way, and we have here, I think, the explanation of the undoubted success of whole-milk feeding among them. Among the upper classes fat over-feeding from the use of a milk rich in cream is more common, and there is a distinct tendency at present to adopt the principle of giving undiluted milk without diminishing the bulk of the feeds and increasing the intervals between meals proportionately. Among these children the substitution of a suitable form of carbohydrate for the large amounts of fat consumed is sure to produce benefit in more rapid growth and in the disappearance of constipation. In infants habitual constipation, like habitual diarrhoea, is seldom to be treated by drugs, but is often to be looked upon as a symptom indicating a faulty composition of the food calling for the prescription of a change in the diet upon the lines indicated. The use of large doses of castor oil and of opium in young infants is generally to be avoided because such drugs mask the very symptoms which should guide our prescriptions, and introduce factors disturbing to our observations.

THE first meeting of the Swiss Surgical Society, founded last year, was held at Berne on March 8th. Professor Kocher, of Berne, was elected president; Professor Girard, of Geneva, vice-president; Dr. Steinmann, of Berne, secretary.

PREVENTION VERSUS CURE IN MODERN PRACTICE.

BY CHARLES J. WHITBY, M.D.CANTAB.,
BATH.

THE President of the British Medical Association, in the address which he delivered at Liverpool on the occasion of the annual meeting, foretold the coming of a new era, in which the practice of medicine will be devoted largely and increasingly to the prevention rather than the cure of disease. I mention this in order to emphasize the fact that it is not necessary to be an admirer of the National Insurance Act—of which, indeed, Sir James Barr has been one of the most outspoken opponents—in order to realize the proximity and inevitableness of this new era. Still, it remains true, and is not without significance, that the Act does provide for the payment of medical men for attendance on a large section of the community upon what is intended to be a preventive basis. I confess to grave misgivings as to whether the intention will be fully realized, because it does not seem to me that the conditions of genuinely preventive practice are met by the provisions of the Act. But the intention is there, and may be taken for what it is worth as a sign of the times and, we will hope, of better things to come. It seems to me, therefore, a timely proceeding to consider what are, as a matter of fact, the main conditions of success in the translation of medical practice from the mainly curative to the mainly preventive sphere, and to what extent these conditions already are or are in a fair way to be met.

To begin with such conditions as affect the profession as a whole, not as mere individuals, it seems indispensable that it should be functionally organized throughout in such a way that its ultimate resources of science and art shall be available at need for each and every case that may arise. This, I need scarcely say, is at present very far from being so: and in so far as it is so, the credit belongs in the main not to the State or the community but to the profession itself. We have done our best to arrange that the wisdom and skill of our wisest and most skilful shall be at the free disposal of those who cannot afford to pay for them. But there is a limit to the possibilities of charity, and, since those whose need is the sorest must be conceded the first claim, it inevitably happens that the resources of general and special hospitals are exhausted in the task of patching up more or less hopelessly damaged organisms rather than in the detection and stamping out of the insidious beginnings of disease. So far as charity is concerned, all the time and knowledge and skill that we can afford to give away are fully occupied at present in the curative sphere; of the attempt at prevention it is as yet futile even to dream. Yet it is, at all events, a hopeful sign that during the past three years the organization of the profession has advanced by leaps and bounds. It is as yet merely an economic and defensive organization, analogous to that of the trade unions; but I do not believe that it will stop there. Functional organization is bound to follow, and, if we are wise, will proceed upon lines governed by the preventive ideal. By functional organization I mean an arrangement by which every malady shall be recognized in its incipient stage by the regular attendant, and, if it be of a nature whose treatment falls without his province, referred to the proper quarter, where State-aided or other provision shall be made for its needs. The germ of such an arrangement may be recognized in recent suggestions that the out-patient department of hospitals, as at present constituted, be abolished, and that only consultative work and special forms of treatment be undertaken in its place. But the subject is too large for detailed discussion in a short paper—it is a matter for collective investigation, and one which the Association itself will probably have to take seriously in hand before very long.

To come now a little more to close quarters with our subject, it is obvious that the transition from the mainly curative to the mainly preventive aim in medical practice involves not merely a shifting of the general and individual points of view, but also a new standard of values as regards the theoretic basis of our work. Physiology

and hygiene must be elevated to the seats of honour; pathology and therapeutics must be content with lower places in medical esteem. This may seem a hard saying, but it is beyond question the logical consequence of the admission that prevention is better than cure. It does not necessarily, I think, involve the paramountcy of the public health service. That is concerned mainly with such minimum requirements as good housing, pure water, an uncontaminated milk supply, the notification and isolation of infective diseases—all highly important matters, but matters upon which all enlightened minds are practically agreed. There can be no health without the conditions for whose maintenance the public health service is responsible; it does not follow, however, that there will be satisfactory health when its task is done.

A community is made up not of average or typical units but of infinitely diverse individuals with infinitely diverse requirements from the health point of view. The average citizen considered and legislated for by the framers of health laws is no less mythical than the "producer" and "consumer" of political economy. The physiology and hygiene upon which preventive practice will be based will have to take account of idiosyncrasy just as curative practice takes account of it now. Generalizations may be unavoidable, but they must not be rash or premature, and must be based on the natural history of genuine types. By anthropometrical methods, aided by psychological acumen, we shall probably arrive in time at some sort of a classification, which may have important practical effects from the sociological point of view. For instance, it would not surprise me greatly if research along these lines were to result in a scientific vindication of the ancient caste idea, leading possibly to its re-establishment in a suitably modified form. For I confess to the belief that individuals fall naturally into distinct groups or strata, differentiated by inborn temperaments and capacities; and that, from the health point of view—to say nothing of happiness—it is indispensable that such matters be very much more seriously taken into account in the choice of a given individual's vocation than is at present the case. Here, then, is one among many matters in relation to which the preventive practitioner of to-morrow may find ample scope for his erudition and insight, however great these may be. Wherever he finds a round peg in a square hole, it will be his duty to call the attention of the powers that be to the danger of disease and breakdown that such a predicament, at least in extreme cases, undoubtedly involves. The economy of life and ability is a matter of vital concern to every civilized commonwealth. Unfortunately this obvious truth is far from being realized to any adequate extent as yet; it is for us, therefore, to make it known.

But these remarks are a digression from the subject of the theoretical basis of preventive practice, to which I wish for a few moments to return. It is a curious example of the way in which, during transition periods, all things work together for a common revolutionary end that the boundary line severing physiology from pathology seems to be rapidly becoming invisible. It is impossible, or soon will be, to say where one ends and the other begins. The time has long passed when it was customary to think of disease as a something extra-natural—a visitation of the invisible—to be combated by amulets and spells. But the traces of this conception have lingered until quite recently in the minds of even the most enlightened. Now they are well-nigh obliterated; pathologist and physiologist, tunnelling in opposite directions, have met on common ground. We think of disease in terms of health, and of health in terms of disease. Health seems to be in the main conditioned by the functional equilibrium of various glands; and since now one, now another of these glands takes the lead and evokes the antagonism of the others as the rhythm of growth and development proceeds, it is hardly too much to say that, from the chemico-vital aspect, a series of autointoxications, followed by slowly acquired immunities—that is to say, of illnesses and recoveries—is the normal course of events. Dentition, puberty, adolescence, menstruation, sex life, the climacteric, afford, even in the healthiest individuals, common ground for the physiologist and the pathologist. There is a pathological factor in all health, and a physiological in all disease; the two conditions overlap, and merge into one another by imperceptible gradations.

So preventive and curative medicine meet when a disease due to functional inhibition of a given set of glands is treated by the administration of full doses of the missing internal secretion, thus affording immediate relief of symptoms as well as the interval of rest required by the damaged organs. Much of modern surgery belongs equally to the preventive and curative spheres. Metchnikoff has gone so far, I believe, as to advocate the systematic removal of the large intestine, which he regards as a retrograde, functionally useless structure, and a source of real danger to its possessor. Professor Keith declines to follow him all the way in this drastic proposal, so that I think we may not promise our surgeons this fine field of adventure in the near future. But obviously such common procedures as the removal of adenoids from the naso-pharynx, of a chronically inflamed appendix, even of an early malignant growth, are items of preventive practice. And the scope and possibilities of such preventive surgery are extending yearly.

A very important branch of preventive practice, in regard to which a satisfactory theoretical basis is, however, still mainly to seek, is the regulation of diet. We all have our notions about diet; we all accept, because we cannot do otherwise, the responsibility of forbidding this or that to our gouty, rheumatic, rheumatoid, pyrexial, or diabetic patients, and permitting other things. But how many of us are prepared to justify on scientific grounds either our sanctions or prohibitions? The voice of the food reformer is loud in our midst; his proposals become every year more iconoclastic. There is hardly a single article of common food, not excepting the "staff of life" itself, which has not been condemned as deleterious to health by one or another section of lay opinion. But so far as we as a profession are concerned, with the exception of one or two individuals like Dr. Haig and Dr. Campbell, there are no signs of any live interest in this very important and indeed urgent subject. Surely it is high time that an organized effort were made to grapple with some of the many problems connected with dietetics and to solve them satisfactorily. It seems to me pre-eminently a matter for collective investigation; and now that our Association is to some extent relieved from the uncongenial task of a quasi-political campaign, I hope that it will take up this kind of work in earnest. It is probable that, not merely for every kind of work, but also for every constitutional type, there is a diet conducive to maximum health and efficiency. Some kinds of food may be conducive to mere longevity, others to mental or muscular energy, others again to reproductive or combative power. Such generalizations, if they could be arrived at and justified, would be of the greatest possible aid to every practitioner, and of real national utility.

No paper dealing with the preventive aspect of medicine could omit mention of the all-important problems connoted by the term "Eugenics." For prevention begins too late if it begins only at birth; it must aim at the eradication and replacement of those morbid inborn tendencies of which actual disease is the issue. The term "Eugenics" is at present used to designate both the scientific study of heredity and the application of its principles to the improvement of a given stock. It would be better to apply the term "Genetics" to the purely scientific branch of such investigations. "Eugenics" is the name proposed by Galton for the systematic attempt at the betterment of the human stock. Genetics is a science; Eugenics is, or may become, an art based thereupon. And Eugenics may be subdivided into two forms, negative or positive, according as it aims merely at the prevention of unfit or the promotion of desirable births. Into the subject of Genetics it is impossible for me to enter here, but those interested therein will find an excellent account of some typical research work in a volume entitled *Heredity and Eugenics*, recently published by five investigators connected with the University of Chicago. It was reviewed in the British Medical Journal for November 30th, 1912. With regard to the eugenic ideal, the first desideratum, according to Sir James Barr, is the frank recognition of the need of a new racial morality and of the responsibility of medicine for the interests of the race, as well as and in precedence of those of the individual. Galton went even further, insisting that the task of

deliberately and systematically furthering human evolution should be regarded as a religious duty; and, in my opinion, rightly; for where the control and guidance of so powerful an instinct as that of reproduction is in question nothing short of an appeal to the deepest of all motives is likely to prove effectual. Morality is based upon religion; and the first cannot be changed unless and until the second has been modified. In the sphere of negative eugenics something may no doubt be done by legislation, by prohibiting reproduction in cases of sheer imbecility and idiocy. In fact this is already being attempted. But this is a rudimentary matter; on the other hand, the new racial morality advocated by Sir James Barr will, if I be not greatly mistaken, prove a much more formidable proposition. It will winnow the community, and in particular our profession, from top to bottom, severing the husk from the grain.

That the transition from the curative to the preventive aim in medicine will be a slow and gradual one goes without saying; so far, then, as the immediate future is concerned it admits of no laxity in regard to matters therapeutic, but, on the contrary, demands from the practitioner, in addition to all past requirements, a new alertness as to the possibilities of personal hygiene, mental and emotional as well as physical, an intelligent interest in sociology, and the cultivation of an evolutionary conscience, based on study of the conditions that will make or mar the future of the race. Preventive practice is not likely to prove easier than curative practice, nor less attractive to a high type of personality.

A CASE OF CHRONIC PLUMBISM IN WHICH MULTIPLE ANEURYSMS OCCURRED.

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The following notes of an interesting case that died in the Chesterfield and North Derbyshire Hospital bring out in a very remarkable way the close association between the occupation of painter, attacks of colic, chronic interstitial nephritis, atheroma, aneurysm, and the simulation of intestinal obstruction.

I am indebted to the house-surgeon, Mr. F. C. Pridam, for the following facts, which he obtained from the patient and his friends upon admission and subsequently, and also for making of the *post-mortem* examination, at which I was present.

The patient was a man 44 years old, whose occupation for thirty years had been that of a painter. He stated that he had had several attacks of lead colic, evidenced by severe headache, constipation, and abdominal pain of a colicky nature, relieved by pressure. He thought he was healthy except for the fact that micturition was frequent during night time.

On February 18th, 1912, he was attacked with severe pain in the head and abdomen. He vomited and became giddy. Two days later he had a slight attack of haematemesis, and later on melaena was present. The bowels had previously not acted since February 18th. This pain and constipation continued until his admission into hospital on February 25th as a case of subacute intestinal obstruction.

He was a pale, anaemic-looking man. He was apathetic, lying on his back listlessly, and appeared indisposed to answer questions, though he did answer when spoken to.

The apex beat was in the fifth space just external to the nipple line; it was forcible. The exact area of cardiac dullness was not noted. There was a loud systolic murmur at the apex traceable outwards towards the axilla, and a loud systolic murmur heard best at the aortic cartilage, but traceable down the sternum. Capillary pulsation was absent; there was no dullness over the second and third cartilage. There was evidence of emphysema, but no other pulmonary abnormality.

The pulse was high in tension and poor in volume. The walls were not felt to be thick. The tension of the left posterior tibial artery was thought to be greater than the tension in the right.

The abdomen was thin; the skin on its surface was easily picked up and lacking in elasticity. A tumour, which was thought to pulsate, was felt below and just to the right side of the umbilicus; marked pulsation could be felt above the umbilicus. Mr. Pridam was of opinion that both these pulsations were expansile. The intestinal coils were slightly distended; nothing abnormal could be detected on percussion; the liver and spleen were not felt. On auscultation a loud systolic murmur, traceable upwards and downwards on the abdominal wall, was heard over the tumour.

The nervous system, as far as it was examined, was normal; Argyll Robertson pupil was not present; the teeth were absent from the upper jaw, and there was pyorrhoea in the lower. There was no blue line. Urine: specific gravity 1015, acid, no sugar, no albumen, and no incontinence. There was no sign of specific disease nor any history thereof.

We had to decide whether the patient was suffering from some slow-growing neoplasm, causing abdominal pain for some time, and then producing more obstruction, leading to vomiting, blood in the motions, and afterwards to constipation, with distended small intestine. The lump in the region of the caecum, if not the neoplasm itself, might have been due to the secondary enlargement of glands, the pulsation of the right common iliac artery being transmitted through it.

If this diagnosis were accepted, immediate laparotomy would be called for. The alternative diagnosis was an aneurysm of the right common iliac artery. The man's occupation was one which predisposes to arterial degeneration; the aortic murmur suggested much atheroma of the aortic orifice, and he was, therefore, a likely subject for aneurysm. Mr. Pridam was quite certain the tumour was expansile, as an aneurysm would be, and though I could not myself be quite definite on this point, there was no mistaking the systolic bruit over it, nor the difference in the pulsations of the two posterior tibial arteries. Melaena may occur in patients with abdominal aneurysm, and hence this symptom did not necessarily weigh in favour of growth. As the bowels were moved twice as a result of two enemata soon after admission (the motions contained a little mucus) I decided on the diagnosis of aneurysm of the right common iliac artery.

He was kept at rest in bed and given potassium iodide gr. x three times a day. This produced a rash which cleared up when the dose was doubled, leaving a little erythema.

He lay in bed, taking very little interest in anything, until March 1st, when it became more difficult to induce him to answer questions. Next day he was still more drowsy and apathetic; he fainted on sitting up, and showed a tendency to mental wandering. The iodide was stopped.

On March 5th hiccough commenced and he was much more drowsy. The rate of the pulse was increased but its volume diminished. The abdominal tumour still felt and the amount of urine passed was scanty. On the next day the abdomen became tender and swollen. The pulse at times was scarcely perceptible. The heart sounds were as before except that the aortic systolic murmur was more difficult to hear. Urine 1015, acid; no reduction of lead salts with potassium iodide. The patient had had incontinence for several days.

On March 7th, at 3 a.m., after a feed the pulse disappeared and respiration, which had been slow, stopped. After about ten minutes the pulse started again for one or two beats, but death then ensued.

Post-mortem Examination.

The lungs were emphysematous. Pleura very adherent at bases and posteriorly. Apices free.

Heart.—Left ventricle thickened; muscle wall very hard. Right ventricle large and flabby. Very little blood in any part of heart. The aortic, tricuspid, and pulmonary valves were competent. Mitral regurgitation was present. The *aorta* was markedly atheromatous, and there was present a large dissecting aneurysm extending the whole length of the ascending arch, which was itself much elongated. Vessels were filled with old and new clot. There was an *aneurysm* of each common iliac artery filled with clot. The left external iliac artery was very much thickened and hard. The inferior vena cava contained recent blood clot past the renal veins to the common iliac veins.

The *liver* was large and fatty; the spleen was small.

Kidneys.—Soft capsule, stripping fairly easily; cortex diminished in size.

Intestine.—Bluish-black. The large intestine was distended up to the splenic flexure, where there were a few adhesions. There was no growth and no obstruction.

Specimens of intestine and kidney were sent to the Clinical Research Association, which reported on them as follows:

"A minute trace of lead was found present both in portion of kidney and of intestine. Histologically, the kidney shows a very marked condition of chronic interstitial nephritis. There is a great increase of intertubular fibrous tissue. The glomeruli show typical changes and some minute cysts are formed. These appearances are consistent with those seen in the kidney of those suffering from chronic plumbism."

This patient was therefore proved by *post-mortem* examination to have suffered from: Chronic plumbism, chronic interstitial nephritis, mitral regurgitation, marked atheroma of the aorta, dissecting aneurysm of the arch of the aorta containing old and new clot, two aneurysms of the common iliac artery, thrombosed inferior vena cava, fatty liver, and a trace of metallic lead in kidney and intestinal tissues.

The explanation of what happened whilst he was alive in hospital was, I think, that the complete rest in bed, possibly together with the iodide, promoted the formation of blood clot in the thoracic aneurysm. This would have the effect of making the lumen smaller and so decrease the blood supply to the rest of the body; urinary secretion would therefore be diminished with consequent early uraemic symptoms; apathy and drowsiness, inclination to easily faint, would correspond to a low blood pressure, consequently a diminished pressure of blood in his brain. Then suddenly a piece of the clot totally obliterated the aneurysm, stopping the passage of blood, with consequent arrest of the heart.

Abdominal aneurysm is rare, but a case in which two are present is rarer still. This rarity, together with the occurrence of thoracic aneurysm, as well as the numerous other morbid conditions, most, if not all of them, traceable to his occupation, is my reason for publishing these notes and observations.

UNUSUAL FERTILITY IN SYPHILITIC PARENTS, ASSOCIATED WITH ANOMALOUS INVOLVEMENT OF THE CHILDREN.

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It has been suggested by Wassermann[1] that the serum of every woman admitted to a lying-in hospital should be tested. Mott[2] suggests that a Wassermann reaction should be done on all infants born of parents who are syphilitic or who are suspect, whether the infants present symptoms or not. If these suggestions were adopted probably a large proportion of positive results would be obtained in cases which presented no other evidence of syphilis.

So far there are few records in which an examination of children who did not present syphilis has been carried out. We find, however, that Churchill[3] has investigated 102 cases of infants and children in an American children's hospital—cases in which syphilis was not suspected—and obtained a positive Wassermann reaction in 39 cases. Findlay and Watson have shown the importance of recurrent eczema oris in cases of congenital syphilis.[4]

Since the discovery of the reaction introduced by Wassermann, Neisser, and Bruck over five years ago, it has been shown that a positive result is practically specific for syphilitic infection. It is known, however, that positive results are obtained in framboesia and leprosy, and perhaps in malaria and trypanosomiasis. Such diseases are tropical, hence a positive result in this country is taken to mean infection with the *Treponema pallidum*. The value of the reaction cannot be overestimated in latent syphilis and in cases of paroxysmal haemoglobinuria.[5] In mild cases of congenital syphilis the disease soon passes into a latent stage, and for a time there may be no other evidence of syphilis; the symptoms have been regarded as "hives" by the mother and medical opinion has been passed over.

I have had the opportunity of examining a large number of children in which there were no stigmata of syphilis at the Royal Hospital for Sick Children, Glasgow, yet among such I have found a large number who gave a positive result. It has been the custom to examine, whenever possible, the parents and other members of the family, as the examination of such groups of related cases has been found to yield results of very great clinical interest. Where a positive result has occurred in a child it has rarely happened that every other member of the family was negative.

In all cases the family history and physical condition have been carefully investigated, and the Wassermann reaction has been carried out according to the method of Browning, Cruickshank, and Mackenzie.[6] In the investigation of the family history there are certain difficulties. Some mothers are not at all anxious to lay bare facts which happened before or even after marriage. Others have had such slight manifestations of disease that they did not regard them as of a venereal character. It is always important, in my opinion, to ascertain if the parent had any irregular habits before marriage. In the case of either parent a history of taking alcohol to excess before marriage suggests other irregular habits.[7] A neurotic condition is always suggestive, as I have found a large percentage of positive results in that class where there was nothing further to suggest syphilis.

At present I wish to put on record an investigation into the condition of a single family. There are various points of interest, and I shall give details of each member in turn. The family was that of a wandering gipsy found in the slums. The mother brought up one of her children for examination. The child had multiple dactylitis. Examination of the condition led to the conclusion that the child was suffering from syphilis, though there was no other evidence, the mother being apparently healthy and denying that she had ever had venereal disease. Each member of the family was then examined and the blood of each drawn off for a Wassermann reaction.

The mother, aged 21, a woman of average height, intelligent, well nourished, but very dirty, was born and brought up in Russia, but had been in this country since her marriage in 1910. She gave a negative history, stating that her health had always been good; she had never suffered from any eruption, loss of hair, or sore throat. On physical examination, her teeth seemed normal and in a good state of preservation. There were no scars on the body and the superficial glands were not palpable. On the right labium majus, however, there was a definite scar. Questioned about this, she said she thought there was a "pimple" there soon after marriage, but she did not associate it with venereal disease, and still was firm in her belief that she never had had venereal disease. Since her marriage in 1910 she has been thrice pregnant, and each time has given birth to twins. There have been no miscarriages. The first children were born seven months after her marriage; she stated spontaneously that their birth was two months premature. The second children were born eleven and a half months afterwards at the eighth month, while the youngest children were born ten months after the second pair, they also being born at the eighth month. The youngest children were born in Ireland on September 14th, 1912. Thus the mother has given birth to six children in twenty-two months—the first being born in November, 1910, and the last in September, 1912.

It is of interest to note that all the children, according to the mother's statement, which appeared to be accurate, were born prematurely. Owing to the fact that a multiple pregnancy frequently ends in premature expulsion, it is difficult to form an opinion as to whether syphilis had anything to do with premature labour; but, nevertheless, it will be observed that the first pregnancy resulted in expulsion of the twins at the seventh month, whereas her succeeding pregnancies ended one month later. On the other hand, it should be observed that the first twins were of normal size, while the other four children, born one month later, were small as compared with the first children.

The father, aged 29, was born in Russia, and, like his wife, lived there till his marriage. Since then he has been all over the British Isles. He makes tin cooking utensils. He denies ever having had venereal disease. He denied ever having had any eruption, any sore throat, or that his hair ever fell out. His general appearance caused one to doubt his truthfulness, and as he gave a history of alcoholic excess we subjected him to a most minute physical examination. His teeth were well preserved and appeared normal. All superficial glands were indurated and readily palpable, especially those in the groin. There was a small scar on the penis, but no scars in the groin. Questioned minutely about the scar on the corona glandis, he said it was not venereal, though he "skinned" the organ two years before marriage, and it "festered" and took some time to heal. However, he maintained that it was not a venereal sore. At that time also he had sore eyes, but never any headache. At the time of examination the pupils were small, equal but irregular in outline, and reacted sluggishly to light. Knee-jerks were in excess. Babinski's sign was negative. His speech was slow and hesitating. There was a tremor of the lips and he was easily excited. His ideas seemed slightly exaggerated. Indeed, though not certifiable, he seemed a case

of very early general paralysis of the insane. From the history it would appear that he was infected before marriage, and this we consider of importance in view of what will be found in the history of the first twins.

First Twins.—B. (girl) and S. (boy), aged 1 year and 11 months. Both children seem in perfect health, being well nourished and free from evidence of syphilitic stigmata. Both parents state that these children never had any eruptions after birth.

Second Twins.—W. and M., aged 11 months, both females. The former was the child brought to me with multiple dactylitis of phalanges of second right and third left fingers; third right and third and fourth left toes. There is no evidence of suppuration and no evidence of thickening of the metacarpals or metatarsals. The other child has thickening of both humeri and of the right femur and left fibula (it being thicker than the tibia of that side). The thickenings are more nodular than spindle-shaped and are multiple. The parents state that both these children had slight eruptions on the buttocks at six weeks, but no peeling of skin of palms or soles. The former had difficulty in breathing by the nose.

Third Twins.—A. and J., aged six weeks, both males. Both children have condylomata of anus, sore eyes, peeling of skin of hands and feet. The former has marked fissuring of the lips, an eczematous patch at the right side of the nose, and marked snuffles. The latter has a marked coppery eruption on the nates and the line of junction of mucous membrane and skin of lower lip is very irregular. He also has snuffles.

I examined the serum of the parents and children, and in each case obtained a very marked positive result.

TABLE SHOWING RESULT OF EXAMINATION OF SERUM OF PARENTS AND CHILDREN.

Date of Wassermann Reaction, October 30th, 1912.

	Doses of Complement.						
	3	4½	7	10	14	1¼	2½
	Lecithin and Cholesterin Emulsion.					Serum Controls.	
Father	0	0	0	v.f.tr.	v.f.tr.	m.	j.c.
Mother	0	0	0	0	d.	tr.	j.c.
(B.	0	0	0	f.tr.	d.	tr.	v.m.
(S.	0	0	0	0	0	tr.	v.m.
(W.	0	0	0	0	0	tr.	a.c.
(M.	0	0	0	0	0	tr.	a.c.
(A.	0	0	0	f.tr.	tr.	tr.	a.c.
(J.	0	0	0	0	0	d.	j.c.
Negative control	c.	c.	c.	c.	c.	v.m.	c.

0 = No lysis. tr. = Trace. f.tr. = Faint trace. v.f.tr. = Very faint trace. d = Distinct. m = Marked. v.m. = Very marked. a.c = Almost complete. j.c. = Just complete. c. = Complete.

From the public health point of view it is of importance that something should be done to control the movements of such wanderers, to prevent their making cooking utensils and selling them to rural people who do not always cleanse such dishes before use, to prevent gipsies begging food from farmers and using the dishes of the latter, lest this be a source of infection which hitherto has been overlooked. Let there be an examination of every child born in this country of every foreigner who arrives: make syphilis and gonorrhoea notifiable diseases, and not only will there be less of the parasyphilitic diseases, but there would soon be a marked reduction of syphilis itself.

SUMMARY.

There are various points of interest in these cases:

1. Both parents deny specific disease.
2. Both show evidence of syphilis which is only revealed on very minute physical examination.
3. Parents and children all give a positive Wassermann reaction.
4. Manifestations of syphilis appear to be more severe with successive pregnancies.
5. There have been no abortions.
6. Successive multiple pregnancies.
7. Six children born in twenty-two months.

REFERENCES.

[1] Dean: *Journal of Children's Diseases*, September, 1912, p. 395. [2] Mott: *Proceedings of the Royal Society of Medicine*, October, 1912, p. 84. [3] Churchill: *American Journal of Children's Diseases*, 1912, p. 363. [4] Findlay and Watson: *Lancet*, March 29th, 1913. [5] Browning and Watson: *Journal of Pathology and Bacteriology*, vol. xvii, 1912, p. 117. [6] Browning and Mackenzie: *Recent Methods in the Diagnosis and Treatment of Syphilis*, chapter iv, p. 37. [7] Morris: *Proceedings of the Royal Society of Medicine*, October, 1912, p. 118.

GONOCOCCAL URETHRITIS IN A BOY AGED SEVENTEEN MONTHS.

BY

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AND

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F. P., aged 17 months, the child of parents in comfortable circumstances, was first seen on December 5th, 1912. The complaint was that he could not pass urine. On examination there was some redness at the end of the foreskin, which could, however, be retracted completely. A hot bath soon relieved his disability, and he was ordered local boracic fomentations and a dusting powder.

Circumcision was suggested, and approved by the father but objected to by the mother, and for the time refused.

Ten days later similar trouble caused another summons to the child. The local condition was now much aggravated, a typical balanitis being present, and the foreskin would not retract. Circumcision was now insisted upon, and performed next morning. Four days later a discharge from the urethra was noticed. A specimen was taken for bacteriological examination, treatment being delayed until the report was received and until the circumcision wound was more nearly healed.

A verdict from the bacteriologist of colon bacillus or staphylococcus infection was anticipated, but a verdict of gonococcus was almost incredible. A report by Dr. C. S. McKee on the bacteriological findings is appended.

The subsequent history of the case was uneventful. At first a mild lotion of zinc sulphocarbolate was used, but after a few days, as very little improvement was manifest, 1 per cent. cargentos, a colloidal silver preparation recently put on the market, was substituted. After five days discharge ceased, and treatment was continued a further five days; eight days later a slight recurrence of the discharge took place and treatment was resumed. All discharge ceased again in four days, but treatment was continued for a further seven days, with complete cure and no complications.

The rarity of this case makes it worth recording. The difficulty was to trace the source of the infection. No one but the mother and nurse had had access to the child. The parents were certainly not infected. The nurse is a respectable woman, but is a widow of about three years' standing, her husband having died six months after marriage of "rheumatism." She admitted having taken the child into her own bed when restless. The remaining links in the chain of infection can only be surmised, but it would appear as though the source had been traced. Moreover, there seems no doubt that it was a case of gonorrhoea from the beginning, the balanitis being secondary to the gonorrhoea, and not of urethritis consequent upon balanitis—a possible but unusual sequence.

BACTERIOLOGICAL REPORT BY DR. McKEE.

On examination of a smear of pus from the above case stained by Gram's method, I expressed the opinion that it was gonorrhoeal. The picture was typical of that disease in grouping of the organisms in the pus cells, their shape and staining qualities.

Doubt of the correctness of this opinion by the attending surgeon made cultures necessary, and these were made on various media, including a rather rich ascitic fluid agar to

which haemoglobin had been added, a medium I use altogether for the isolation of the gonococcus.

No gonococcus-like organisms grew on any of the media except the latter, and on this there developed a number of characteristic colonies, which on staining showed the usual characters of this organism. Subcultures of the pure growth were made on the ascitic media, as well as on various others; only on the ascitic agar did any growth occur, and only a limited number of the colonies showed ability or desire to grow in subculture. Even those which did grow in subculture were very sensitive to their surroundings, and the one pure culture which I kept for stock, now in its sixty-fifth transfer, needs to be transferred every day or it will die. I have not been able to make it grow on any modification, even, of the original medium.

TETANY IN ACUTE SUPPURATIVE APPENDICITIS IN AN ADULT.

BY

BASIL HUGHES, M.A., M.B., B.C., B.Sc., F.R.C.S.,

BRADFORD.

The condition of tetany occurring in adults is not altogether common. Perhaps the commonest conditions with which it is associated are gastro-intestinal disorders (gastritis, dilatation of the stomach, and intestinal parasites), pregnancy, and operations upon the thyroid gland; sometimes it complicates the infectious fevers, notably typhoid. Less rarely still is it associated with certain poisons taken into the system, such poisons being lead, alcohol, and ergot. It is said to complicate cerebral and cerebellar tumour, but this must be extremely rare. Tetany associated with surgical operation upon the thyroid gland is a very rare condition, and I cannot recall a case out of a large number I have seen operated upon. It has been said that tetany occurring in this last named condition is due to removal of the parathyroid bodies, and experimental work seems to lend support to this statement. The following is a case of tetany associated with acute suppurative appendicitis.

A. C., aged 35, married, was admitted to the Bradford Royal Infirmary on December 19th, 1912, complaining of acute abdominal pain. The onset was very sudden, and she had vomited once a bile-stained fluid. She was admitted thirty-six hours after the onset of the pain.

History.

We found out that four years ago she had been seized suddenly with acute abdominal pain, not so severe as the present attack, but she gradually got better without operation. She was seen two years later by Dr. Manknell, of Bradford, and her symptoms resembled those of gastric ulcer. She had another attack between this last and her present one, and again her symptoms suggested a gastric origin. She had suffered pain after food, constipation, and lassitude, and she was never well for any length of time. She had never had haematemesis, jaundice, or malaena. The urine was dark, but contained no extraneous matter.

Condition on Admission.

The temperature was 100°, pulse 112 and regular, respirations 24. The abdomen moved only slightly on respiration, and this on the left side only. There was a rigidity and general tenderness all over the right upper and lower abdominal quadrants. Pain was noticed on deep pressure in the right loin. The right flank was dull, the liver dullness was normal. On rectal examination, thickening and tenderness was found high up on the right side. The condition of acute appendicitis was diagnosed.

Two hours after admission the patient developed marked and typical tetany in both hands, and the pulse rose to 120. Her general condition suddenly became grave, and an immediate laparotomy was performed. She had never had tetany before.

Operation.

By means of the right rectus incision the abdomen was opened, and an appendix abscess containing about 2 oz. of stinking pus was evacuated. The appendix was retrocaecal, and its tip was bound down to the lower pole of the right kidney. There was a perforation about 1 in. from the end, and a concretion had escaped. The appendix was removed with some difficulty, and a large drainage tube inserted.

After-History.

The patient made an uneventful recovery, and left the hospital on January 5th, 1913. She had no return of the tetany while in hospital, and I hear from Dr. Manknell that she is now very well, and has been bothered in no way since the operation.

This case is interesting, as it is the only one I have been able to find in which tetany was associated with acute appendicitis. When the tetany developed I was naturally prompted to reconsider the diagnosis and to think that after all it might be some gastric lesion. Unfortunately, owing to the nature of the operation, I was unable to look at the stomach; but seeing that this patient has had no gastric symptoms since, that she has very much improved on her condition prior to operation, and has put on weight and enjoyed and felt ready for food, it is possible that the stomach itself was never at any time at fault. In view of the excellent exposition of this truth by Sir Berkeley Moynihan, whose words on appendix dyspepsia we are all acquainted with, and which surgeons must by now have confirmed, I think it is quite reasonable to attribute the condition of tetany in this case to a diseased appendix. How the tetany was produced, whether it was toxic or reflex, I am not prepared to say.

This case may perchance shed some light on other cases of tetany which may have been attributed to dyspepsia, gastritis, or other gastro-intestinal conditions, and in such cases a careful inquiry into the history and an examination to exclude the presence of a diseased appendix should be thought about.

ADRENALIN IN CHLOROFORM ANAESTHESIA.

BY

H. T. DEPREE, M.B., B.C.Cantab.,

RESIDENT ANAESTHETIST, ST. MARY'S HOSPITAL, LONDON.

The following case seems to be worth publishing if only to emphasize a very real danger which is perhaps not as widely recognized as it should be.

The patient was a male aged 26, a well-developed and healthy man. The heart sounds were normal; the urine contained nothing abnormal. Operation for deflected nasal septum was decided upon.

Anaesthesia was induced by chloroform given upon a Skinner's mask, the induction taking about seven minutes and being unaccompanied by struggling. The patient was transferred to the operating table, and it was decided to inject some adrenalin into the nose subcutaneously. At the time of the injection anaesthesia was light (a brisk corneal reflex being obtainable), the pulse strong, and the patient's colour good. No more chloroform was given.

About one minute after the injection the pulse suddenly became very rapid and then imperceptible; at the same time the patient's colour became leaden grey and the pupils widely dilated. About three deep gasps were taken after the pulse had failed, and then respiration ceased.

The head was at once lowered, artificial respiration performed, and 1 c.cm. of pituitary extract injected hypodermically, and oxygen administered. Finally, an incision was made along the left costal margin and the heart was massaged through the diaphragm, but to no purpose; 5 minims of a 1 in 1,000 solution of adrenalin was used for the injection.

The nostrils had been plugged ten minutes before the induction of anaesthesia with a solution containing cocaine (10 per cent.) and adrenalin.

At the *post-mortem* examination nothing abnormal was found in any of the organs.

In the British Medical Journal (September 14th, 1912) Dr. A. Goodman Levy published the results of experiments he had made upon cats under chloroform anaesthesia with injections of adrenalin. He found that when the anaesthesia was light after the injection of small doses of adrenalin into a vein, a definite series of events followed: the heart first beat more rapidly and forcibly, but then inco-ordinately, and finally ceased, the effect of the injection being to bring about fibrillation of the ventricles. Under deep chloroform anaesthesia the effect was much less marked, and passed off after a few moments, the heart again beating regularly. Under ether anaesthesia no effect was produced. The case quoted above seems to correspond exactly clinically with Dr. Levy's experimental work.

In the *Proceedings of the Royal Society of Medicine* (February 3rd, 1911) Dr. J. Blumfeld describes a case of sudden collapse following the injection of 6 minims of a 1 in 4.000 solution of adrenalin in a patient anaesthetized with C.E. mixture. In this case, however, the patient recovered after the employment of remedial measures.

If an injection of adrenalin be made just before an anaesthetic is given, no bad results occur. It is difficult to understand the fact that when chloroform anaesthesia is deep the danger of injecting adrenalin is less than when light; unfortunately, in those operations in which adrenalin is most often used for haemostatic purposes—those about the nose and throat—it is a light anaesthesia that is desirable, and the anaesthetic chosen is usually chloroform.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

LONG INTERVAL BETWEEN BIRTH OF TWINS.

A somewhat unusual case of twins occurred in the practice of Dr. Macklin and myself, and seems of sufficient interest to record.

A multipara had a living male child on February 24th, the labour being quite straightforward. Another child could be felt with the vertex on the left and the child's back to the mother's left front. She had severe after-pains at half-hourly intervals for ten hours, and after that at longer intervals, until they ceased in twenty-four hours after the birth of the first child. The lochia was almost absent. She was allowed up at the end of a fortnight, and went about performing her household duties until April 4th, when labour pains came on again and she was delivered of a living female child. The first child weighed 6 lb. and the second 6½ lb., both being small but well nourished, and both are doing well now.

The point of interest is the long interval between the two births, nearly six weeks, and the fact that though the pains after the birth of the first child were strong and fairly frequent they failed to dislodge the second.

She has had four other children, single births, and one miscarriage.

Whalley. J. M. Postlethwaite.

STRANGULATED HERNIA IN AN INFANT.

The cases recorded last November by Dr. Nichols and Mr. Dent induce me to record a case that occurred in my own practice some two years ago.

The patient was an infant aged 6 weeks at the Jenny Lind Children's Hospital, and I was summoned to it late one evening because the hernia—one of the strangulated inguinal variety—had resisted all attempts at reduction.

Chloroform having been administered, I found that the gut could not be reduced by gentle taxis, and as previous attempts had been made, I operated at once. On opening the sac, about a teaspoonful of turbid serum escaped. The bowel was intensely injected and of a purple colour. The neck of the sac being divided, the gut was easily reduced, and the opportunity was taken to do a radical cure, two buried sutures being used. The child made a good recovery.

I had never previously seen a case of strangulation in so young an infant. During nearly twenty years' work on the staff of the Children's Hospital here I had never seen a case of strangulated hernia in so young an infant, nor did I while house-surgeon at the Manchester Children's Hospital under Professor G. A. Wright. The latter in his book *Diseases of Children* (Ashby and Wright) does, however, mention cases as young as 3 weeks (Halsewood) and 4 weeks (Maunder), and Mr. Rushton Parker, in the British Medical Journal of October 26th, 1912, quoting from Mr. Howard Marsh's article, gives cases as young as 8 days and upwards to 13 years.

I note that Mr. Parker, in his case of an infant 28 days old, used the original strict Listerian dressing, which I also adopted in my case, deeming it safer, but have latterly regularly used the "open" method of Mr. Stiles—that is, no dressings. I have never punctured the scrotal swelling, as Mr. Parker did, although I have on several occasions thought of doing so, the swelling having eventually subsided.

Henry C. Nance, F.R.C.S.Eng.,
Consulting Surgeon, Jenny Lind Hospital for Sick Children.

Norwich.

SUGGESTED OPERATION FOR RELIEF OF PROSTATIC HYPERTROPHY.

A correspondent (p. 804) has raised a point which has interested me much during the last few years, although I have not had the opportunity to put it to a practical test.

In 1900 I devised and practised an operation for the cure of cystocele in the female, which is mentioned in Dr. Inglis Parsons's book on the treatment of *Uterine Prolapse* (page 52). I have since performed the operation in many cases, and always with success.

The results have been so good that I have often wished to put to the test the effect of a similar operation in an early case of enlargement of the prostate gland. The conditions are very similar, for how much of the abnormal growth of the prostate may be due to the infiltration of its substance from the decomposing urine in the residual sac which lies behind and below it? Could an arrest be effected by the obliteration of this sac and its load of bacteria?

The operation for cystocele in the female is simple and safe. The recti are divided in the middle line until the distended bladder is exposed, as in the suprapubic operation for calculus. The finger is then gently swept round the upper surface of the bladder, and detaches it from its abdominal relations until the upper surface of the distended bladder is freed. The contents of the bladder are then allowed to escape, and the loose upper part is drawn down and puckered with a stitch which is lightly tied, the ends being left long. Each long end is threaded in a needle, and is passed through its corresponding rectus as near as possible to its insertion on the pubis, and is then made to serve in closing the lower end of the divided muscles. Other stitches close the upper part of the muscle and the skin wound. For some days afterwards the urine is drawn off by the catheter every three hours. At the end of a fortnight it will be found that the residual urine is almost *nil*. I distend the bladder with a boric acid solution, and give an assistant the charge of the meatus urinarius, which he controls with his finger until he is told to release it, after the upper portion of the bladder has been freed from its former site.

It would be more easy to control the escape of the fluid used to distend the bladder in the male.

Guernsey. J. Aikman, M.D., C.M.Glasg.

A BIMANUAL METHOD OF RECTIFYING A FACE PRESENTATION.

On March 11th I was called to a woman in labour with her fourth child. Previous labours had been difficult, the pelvis being small and the children rather large.

The face was presenting, the chin being left anterior. The membranes were ruptured and the os uteri partly dilated, but though the face had just engaged the brim, the head was not coming down into the pelvis. It seemed quite obviously a case for podalic version as recommended by the books. As, however, the nearest help was five miles away and I did not at all relish the prospect of failing to deliver an after-coming head, I decided first to make what effort I could to turn the presentation into a vertex.

The patient being in the left lateral position across the bed, I inserted the left hand into the uterus, grasped the head, and rotated the chin well to the right so as to bring the occiput to the left, in order to enable me to make use of both hands to advantage. The left thumb was then pressed upwards on the chin, and with the fingers hooked over the occiput I tried to draw it down; the palm steadied the head, whilst with the right fist pressure was made downwards on the occiput through the abdominal wall. The manœuvre proved quite successful, adequate flexion being quickly secured. The occiput was then rotated back again and round to the front, the blades of the forceps were accurately adjusted to the sides of the head, and delivery was effected after much pulling.

I am quite satisfied that I should have found very much greater difficulty if I had performed version, and I shall not hesitate to use this method of rectification again if and when occasion serves.

Harston, Cambridge. W. J. Young, M.R.C.S., L.R.C.P.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.

AN UNUSUAL CASE OF HENOCH'S PURPURA.

(Under the care of Mr. J. Lionel Stretton.)

[Reported by James R. Craig, M.B., Ch.B., House-Surgeon.]

Taken in conjunction with recently reported cases of Henoch's purpura, the following presents some unusual features:

A woman, aged 39, was admitted on January 18th with the diagnosis of acute "gastric ulcer." She had been seized during the night previous with epigastric pain and had vomited blood. For three months prior to this attack she had been suffering from severe paroxysmal crises of pain in the back and abdomen. The remissions were fairly complete. She lost flesh, became short of breath and very anaemic, so that she was quite unable to carry on her household duties. She had never previously vomited blood, but stated that once or twice when the pain had been very severe she had strained very much at stool and the motion had been very black. There was a family history of tuberculosis. On admission, the patient was blanched and weak, complained of pain in the stomach and between the shoulders. There was general tenderness over the abdomen, but no definitely painful spot and no rigidity. The temperature was normal, pulse soft and 130. For the first two weeks after admission her condition somewhat improved, she took milk well, had little pain, and complained of nothing but extreme weakness. There was no more vomiting, no albumen or blood in the urine, and none in the stools.

On February 5th the right knee and ankle became painful and swollen, mostly from periarticular oedema. In a few days the other leg became similarly affected, and continued so for about a week. Then the pain left the lower limbs, and she began to suffer from intense crises of pain across the back and the lower part of the abdomen. The pains were most severe, and necessitated the use of morphine. The abdomen was very tender to pressure, but no blood was passed per rectum. The liver was enlarged, reaching to 1½ in. below the costal margin, and tender on palpation. The spleen was enlarged and tender. The urine occasionally showed a trace of albumen, but no blood nor tube-casts.

On February 25th, that is about three weeks after the onset of the joint pains, there appeared a purpuric rash, first on the lower limbs and later upon the sides of the chest and abdomen. The spots came out in scanty crops generally where the pain had been most intense, and were heralded by a sharp stinging sensation, like the sting of a nettle. They were mostly of small size, but several about as large as half a crown were noted on the hips.

The general condition of the patient became gradually worse, and in spite of taking food fairly well and actually gaining in weight, she became progressively more anaemic and enfeebled. Her pallor was intense and the mucous membranes blanched. She continued to have the crises of pain, sometimes across the epigastrium, sometimes across the lower part of the abdomen, and at other times in the legs. On March 25th, after being sick for a day or two, she vomited copiously of "coffee-ground vomit," and died a few hours later.

Unfortunately, a *post-mortem* examination was refused.

The main points of interest in this case are:

1. The age and sex of the patient. The large proportion of recorded cases have been in boys under 10 years of age, where the abdominal crises are so apt to simulate intussusception.

2. The long time before the purpura developed. It was just over five weeks after admission before the first crops appeared.

3. The attacks of haematemesis, leading to the diagnosis of gastric ulcer, and ultimately to a fatal issue.

4. The marked enlargement of liver and spleen.

I am indebted to Mr. J. Lionel Stretton for permission to publish this case.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

STAFFORDSHIRE BRANCH.

The second general meeting of the session was held at Stafford on February 27th, under the chairmanship of Mr. E. C. Stack, F.R.C.S.I., President.

Exhibition of Living Cases.

Dr. Cookson showed: (1) The patient upon whom he had operated for cancer of the sigmoid colon, referred to in his paper which followed. (2) A boy who, on October 26th, 1912, put his arm through a glass door. Later trophic ulcers and other typical symptoms of section of the ulnar nerve appeared. After an operation to freshen and unite the ends of the divided nerve the ulcers at once began rapidly to heal and sensation to return.

Mouth Breathers and Deafness.

Mr. Priestley discussed the question of mouth breathing and enlarged tonsils in relation to deafness, and illustrated his statements by reference to the data brought to light at school medical inspections. If the deaf cases among children generally were enumerated, it would, he said, be found year after year that they were about 6 per cent.; but if those children who breathe through the mouth were investigated it would be found that 38 or 40 per cent. of them were deaf. If, however, the children with enlarged tonsils were taken and all those rejected who, in addition to having large tonsils, breathed through the mouth, the proportion of deaf cases among the remainder was again only about 6 per cent., the same as that of children generally. This showed that enlarged tonsils as such did not entail any danger of deafness. Moreover, as many, if not most, cases of enlarged tonsils had adenoid growths in the naso-pharynx also, it might further be inferred that even adenoid growths at the back of the nose, unless large enough to cause mouth breathing, did not entail any particular danger of deafness. It was mouth breathing which entailed the danger. Mr. Priestley's paper was discussed by Mr. Stack, Mr. Cholmeley, Mr. Dickson, and Drs. Codd and Ridley Bailey; and Mr. Priestley replied.

Specimens from Cases of Abdominal Section.

Dr. Nesfield Cookson read a paper on three pathological specimens recently removed by abdominal section. The specimens, which were shown with microscopical sections of the two carcinomata, were:

1. A uterus much enlarged; the cavity was opened by a central incision through the anterior and posterior walls, showing a large single submucous myoma about the size of two closed fists; about half its circumference projected into the cavity of the uterus. This was removed on January 3rd, 1913, from a woman 42 years of age, married, with no children. Progress was uneventful; she got up on January 17th, and on February 16th resumed her ordinary housework, including looking after four boarders. Though not in attendance, he had been personally acquainted with the clinical history of the patient for some seventeen years. Always pale, she required little medical attendance till some eight years ago, when she was treated for menorrhagia. Since then her appearances for treatment had been at gradually diminishing intervals, always with similar symptoms—great loss and increasingly severe pain. Menstruation began at 13 years of age; it was always excessive but regular and without pain until eight years ago. Since then the intervals grew less till the flow recurred every fourteen days, and the pain was increasingly severe, lasting twenty-four or more hours and preventing sleep. When seen in December, 1912, she was very markedly anaemic, with fairly general oedema. The enlarged uterus was felt, and removal recommended. Dr. Cookson said that the specimen and the history indicated that this myoma was in process of being extruded; he had met with two cases in which this had occurred. The first, a single woman with a large knobbly uterus to be felt in the abdomen, had a large fibroid polypus in the vagina. She had had continuous haemorrhage for eighteen

months, and carcinoma had been diagnosed. When seen she was in a condition of general anasarca, absolutely blanched, and could not turn over in bed without severe dyspnoea. As she was obviously too ill to be given an anaesthetic the mass was seized with two vulsella and twisted round and round in the vagina till free; a mass the size of a large fetal head was then delivered with midwifery forceps. The patient made a good recovery, and was still well with the other fibroids still *in situ*. The other, a half-witted single woman, a servant in an out-of-the-way farmhouse, presented no symptoms until, because of offensive odour and the dropping of blood on the floor, medical aid was sought for. A large gangrenous fibroid was found hanging between the legs, showing incisions where attempts to remove it with scissors had been made by the patient. Simple removal was followed by recovery without symptoms of importance.

2. Uterus and appendages removed by Wertheim's method, showing a fungating epithelioma of the cervix extending on to the vaginal wall. This was removed on January 6th, 1913, from a woman 28 years of age. In July, 1912, she gave birth to her third child. The confinement was non-instrumental. She noticed a discharge a month after, which gradually became more profuse and offensive. When seen on December 7th, 1912, there was a large fungating mass; the uterus was small and freely movable; there was a very offensive discharge. A piece removed for section was reported to be a squamous-celled carcinoma. The growth was curetted and regular douching employed to try and clean the vagina, but the discharge was still offensive when the operation was performed. Suppuration followed the operation in the pelvis, and although the edges of the wound were protected by rubber sheeting after five days, the skin looking quite normal, because of discharge from one part, the wound was opened to its full length and the deeper parts found to have a peculiar greenish sloughy appearance. Beyond requiring regular catheterization for seven or eight days very little bladder trouble followed. With peroxide fomentations and douching all septic sequelae cleared up, and she went home well on February 9th.

3. A portion of sigmoid flexure showing an annular carcinoma in the centre, with a colotomy opening in the part of bowel above the growth. The bowel was infiltrated by a malignant growth having the structure of a carcinoma, composed of irregular alveoli lined by cubical epithelium and infiltrating the muscle coats. This was removed on January 27th, 1913, from a woman 28 years of age. Dr. Cookson operated first on January 21st for intestinal obstruction. The woman was four months pregnant and complete obstruction had occurred for a week, though she passed flatus shortly before operation. A median incision was made, as the site of obstruction was not apparent, and a growth found in the centre of the sigmoid flexure, which had a long meso-sigmoid. The sigmoid, with the growth, was fixed at the upper end of the incision, outside the abdomen, opened, and a Paul's tube fixed in on January 23rd. The bowels were thoroughly cleared during the next few days, and on January 27th the wound opened up again and the sigmoid, with a V-shaped portion of meso-sigmoid, removed and end-to-end anastomosis done, using two continuous sutures, the first through the muscular and mucous coats, the second a continuous Lembert, and an interrupted Lembert outside. A drain was placed down to the bowel through a hole made in the side, and the median incision closed. She miscarried on the fifth day after, without pain; the placenta was removed manually; the bowels acted naturally the same day, and were thoroughly cleared with aperients on the ninth day. She never felt ill, and went home on February 19th feeling very well, the bowels acting regularly without aperients.

The main interest in these two cases was, Dr. Cookson said, the early age for the appearance of carcinoma and the question of prognosis. Dr. Cookson said he looked upon a fungating squamous carcinoma as a favourable form but had not met with one in so young a patient, nor had he seen a similar bowel growth to this at this age. A considerable portion of bowel having been removed, the permanency of the "cure" depended probably on the presence or absence of glandular infection, of which he did not see any signs. Dr. Cookson's paper was illustrated by sections shown under the microscope, and was discussed by Mr. STACK, and Drs. ELIZABETH MOFFETT and LOWE. Dr. COOKSON replied.

Exhibition of Pathological Specimens.

Mr. CHOLMELEY showed (1) a large stone from the bladder of a girl of 18, whose only complaint had been of profuse haematuria; (2) an aneurysmal varix of the internal saphenous vein of a man of 21—removed entire.

HONG KONG AND CHINA BRANCH.

A MEETING of the Hong Kong and China Branch was held on March 7th. Colonel J. M. IRWIN, President, was in the chair, and twenty other members were present.

Scarlet Fever.—Dr. MCKINNEY read notes of a case of scarlet fever, which had been under his care in the Tung Wah Hospital. The symptoms were typical, and albuminuria was present. The patient had resided in Hong Kong for the previous six months. Dr. McKinney referred to the rarity of scarlet fever in Hong Kong, and stated that the cases which had been reported had generally been imported. Dr. CLARK asked the President if he had any knowledge of cases of scarlet fever in Tientsin and North China; there was a virulent form in Shanghai some years ago. Dr. MARRIOTT asked if scarlet fever existed in the tropics otherwise than as imported cases. Colonel IRWIN replied that he had not seen or heard of cases in Tientsin.

Dry Gangrene.—Dr. MCKINNEY also related the case of a man, aged 55, admitted for enlargement of the liver and ascites who suddenly developed dry gangrene of fingers and toes. Fruitless inquiry was made as to what Chinese drugs he had taken.

Typhoid Fever.—Dr. MCKINNEY discussed the types of typhoid fever met with in Hong Kong. The rash, he said, was frequently absent; the pulse was accelerated, but rarely dicrotic. The pyrexia was either typical or of "septic type," or after starting typically fell to normal in the first five or seven days. The stools were rarely typical.

Fractures.—Captain HODGE read a paper dealing with the older and more recent methods of treatment of fractures. He said that the modern method of operation and fixation by plates, etc., presented great risks, and was only satisfactory in the hands of a few experts, and frequently left depressed cicatrices or damaged soft parts. He dealt with the importance of properly padded splints to avoid pressure, and dwelt on the necessity of using anaesthetics in the reduction of difficult cases of fracture. Greater importance should be attached to the study of clinical symptoms rather than to *x*-ray photographs; a single such photograph was useless unless followed by a second in a different plane. He also instanced numerous cases in which there had been free movement for some time after the occurrence of fracture. Fleet Surgeon STALKARTT disagreed with the sweeping condemnation of operative treatment of fractures, and thought that many operations were most successful and necessary for a good result. Dr. LOBB disagreed with the arguments against operation; it was neither very difficult nor dangerous, even in compound fractures. He instanced many cases in which infection had been escaped, even in very dirty cases.

Specimens.—Captain ARTHUR demonstrated a specimen, sent by Dr. GIBSON, of a case of sarcoma of the foot. Dr. MOORE showed a seven months fetus from a case of ectopic gestation; the viscera were extruded from the abdominal cavity and there was apparently only one orifice for the bowel and genito-urinary purposes.

ON April 1st the House of Representatives of the Minnesota State Legislature passed, by a vote of 61 to 45, a bill providing for the sterilization of defectives, habitual criminals, and degenerates.

AT the last meeting of the Royal Meteorological Society a report was presented on observations, chiefly made at the Meteorological Office, South Kensington, and Kew Observatory, which showed that the temperature fell nearly 3° during the solar eclipse of April 17th, 1912, the minimum occurring ten minutes after the maximum phase. At stations in the south of England the loss of recorded sunshine due to the eclipse varied from about twenty to twenty-five minutes.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

Section of Laryngology.

At a meeting on April 4th, Mr. Herbert Tilley, President, in the chair, the following were among the exhibits:—The President: A foreign body removed from the bronchus of a woman aged 42. It was a shawl pin, the point of which was directed towards the observer, and appeared only as a thread of mucus. Twice it slipped from the forceps, but was eventually drawn out with the bronchoscope. Morphine, atropin, and chloroform narcosis were employed, while the trachea and larynx were painted with 20 per cent. cocaine. Mr. G. N. Biggs: (1) An almost complete *Cast of the epithelial lining of the oesophagus*. It consisted of the epithelial lining and was vomited up three days after the patient had swallowed 1 oz. of chloroform. Rectal feeding was employed and bismuth lanolin and parolein given every four hours by the mouth. An oesophagoscopy three months later gave no indication of contraction. (2) A specimen of *Lympho-sarcoma* from the throat of a child aged 13. The glands of the neck and mediastinum were extensively involved. Dr. E. A. Peters: A case of *Cyst of the aryteno-epiglottidean fold*, which burst spontaneously with a rent in the upper surface. In such cases some of these cysts, he observed, disappeared rapidly on puncture, while others required removal of a considerable part of the wall. In this case the cyst appeared to be re-forming. The President said he had experienced redistension with some cysts and had found it necessary to remove a considerable part of the wall; he considered that a multilocular character explained this fact in some cases. Dr. Fitzgerald Powell recommended the opening of the cyst by the cautery and its subsequent application to the lining. Dr. William Hill advised puncture. Mr. E. B. Waggett would use suspension laryngoscopy and remove part of the cyst wall. Mr. G. W. Badgerow had noticed the frequent disappearance of these cysts on mere puncture. Dr. J. Donelan: A case of *Cyst on the epiglottis*, with symptoms suggestive of oesophageal stricture. The cyst was small and associated with a scarred condition, characteristic of healed syphilis or lupus. Dr. Fitzgerald Powell contended that the symptoms were due to a growth, and not to the small cyst. Dr. E. D. Davis exhibited a healthy looking man with *Tuberculous disease of the epiglottis* and tubercle bacilli in the sputum. It was found impossible to remove the whole of the disease with punch forceps, but with Killian's suspension laryngoscopy apparatus the epiglottis was readily trimmed with forceps and scissors. Mr. F. A. Muecke: A patient on whom *Tracheotomy* was performed six years ago for tertiary obstruction of the larynx, and who was still carrying a tracheotomy tube; there appeared to be a mass of granulations, though the patient could breathe through the larynx. Mr. Seccombe Hett exhibited a man who was able to speak after removal, two and a half years ago, of the whole of one cord and of the anterior part of the other for malignant disease. A discussion followed on the question of nasal feeding. Dr. William Hill was in favour of feeding *per os*. It was suggested that the nasal route was unsatisfactory when the nasal passages were either irritable or diminished by vasomotor rhinitis or other obstructions.

Section of Otology.

At a meeting on April 18th, Dr. Dundas Grant, President, in the chair, Mr. Mark Hovell, in introducing a discussion on *Functional and simulated affections of the auditory apparatus*, objected to the term "functional deafness," because the function of the ear was to hear, and deafness was, therefore, a loss of function. Deafness was frequently simulated from various motives, and there were also cases of apparent suppression of hearing power as the result of a violent emotional influence. There were others in which deafness was simulated without an apparent object, or in which deafness was due to a temporary want of the necessary nerve power, the latter being found among persons who masturbated. In dealing with a case of deafness which was said to be simulated, care should be taken not to be prejudiced by statements made by persons associated with the patient; and where there was no apparent motive for loss of hearing, it was desirable to remove the patient from uncongenial surroundings. The object of the examination should be the discovery of diseased conditions if present. In many cases of simulated deafness the onset was sudden, the modulations of the voice remained unaltered, and there was an absence of the quick movement of the eyes exhibited by most deaf persons to obtain the knowledge which normally they would derive by the sense of hearing. No tests should be employed which could harm the patient, such as firing a pistol close to the ear. Where there was no apparent reason for the simulation, recovery was sometimes hastened by the medical attendant behaving as though he considered the case genuine. In some cases, while making an examination of the patient and conversing with the friends, a simple request to the patient to put out his tongue would sometimes lead to his doing so, he having been thrown off his guard. The President showed a case of apparently functional deafness in an unmarried woman, aged 29, who complained of deafness, which was worse on the left side, and which came on suddenly after a fit three and a half weeks before, probably vertiginous in character, though he considered it had a hysterical element. The tuning-fork test showed Rinne positive on both sides. After a somewhat exhaustive examination she seemed to hear better than at the beginning. The voice-raising test was only slightly positive. The patient suffered from a cardiac condition, and was nervously weak, and her syncopal attack had no doubt frightened her. Dr. Grant proceeded to detail tests by placing the tuning-fork on the vertex to detect malingerers simulating caisson disease when working at the Blackwall tunnel, some of whom had obtained generous compensation. Some forms of functional deafness he attributed to self-hypnosis, and such cases were often considered to have been cured by some unorthodox and fanciful form of treatment. Dr. W. Milligan (Manchester) pointed to the vestibular reactions as important tests of hearing power or its absence; in hysteria they differed from those found in organic disease. This matter had been worked out very thoroughly by Dr. Dan McKenzie, and the point was that the vestibular reactions and the vertiginous symptoms in hysteria were all "up and down," and there was lack of uniformity in result on testing at different times. Dr. H. Macnaughton-Jones said that in testing soldiers in the south of Ireland he had met with a certain amount of malingering. He objected to the term "hysterical deafness," and did not believe he had ever come across a case which could rightly be thus described. Dr. Dan McKenzie pointed out that a form of functional deafness occurred in old cases of organic deafness; the nerve centres, not being exposed to the usual stimuli, fell asleep, and this factor intensified the degree of deafness. Mr. Hugh Jones (Liverpool) said he had often thought there was a functional element in the chronic deafness of a degenerate child, perhaps a functional or epithelial change comparable with that in the crystalline lens.

MEDICAL SOCIETY OF LONDON.

At a meeting on April 14th, Sir W. Watson Cheyne, President, in the chair, the following were among the exhibits: Dr. F. Parkes Weber: (1) *Primary tumour of bone* (? endothelioma). It was removed from a woman aged 54. The bones were very friable. The ribs could be broken like rotten twigs, and the laminae of the vertebrae cut through with scissors. The right lobe of the liver was also infiltrated with new growth. Mr. E. H. Shaw, in discussion, thought that the growth was primarily one of the liver, with secondary metastases in bones. (2) Large *Asymmetrical cervical ribs* in an old man without arm symptoms. The cervical ribs were jointed, the left one articulating with the first rib, that on the right probably with the second rib. Dr. J. L. Bunch: Two cases of *Hereditary Dupuytren's contracture*. The patients were father and son, and the condition was said to have affected the male members of the family for 300 years. Mr. E. H. Shaw: Two cases of *Carcinoma of the breast*: (1) A small irregular radiating growth with deeply retracted nipple, from a middle-aged woman. (2) An

ulcerating and fungating growth from a woman aged 50. Also *Carcinoma of the gall bladder, cystic ducts, and main bile ducts.* It was a columnar-celled growth, papillomatous for the most part, removed from a middle-aged woman. Also *Hydronephrosis* from a boy aged 6. It was produced by a sharp kink at the upper end of a very small ureter, probably congenital in origin. Dr. R. C. JEWESBURY: *Acromegaly* in a woman aged 36. The appearance was typical. The thyroid gland was definitely and uniformly enlarged; the *x* rays showed great expansion of the sella turcica. Also a case of *Pneumothorax* in a boy aged 5; it was of doubtful origin. The heart was displaced very much to the left, and *x* rays showed the whole of the thoracic spine bared from mediastinal structures. Mr. A. E. BARKER: *Remnant tumour of the umbilicus*, probably derived from the urachus or Vitelline duct. Mr. L. E. C. NORBURY: *Malformations.* The patient, aged 3 months, showed: (1) Accessory auricles; (2) macrostoma; (3) occlusion of the anterior fontanelle with excessive bone formation in this region; (4) deformity of the nose; (5) corneal opacity in the left eye.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on April 10th, Mr. ROBERT JONES, President, in the chair, Mr. R. W. MURRAY, speaking of undescended testicle, said that at least ten different methods of treating the condition had been described by various authorities; there was always much difficulty in keeping the organ in the scrotum. It was the practice now to open the canal and expose the testicle, hernial sac, and vas deferens at the level of the external ring; the sac was transfixed and cut across, but the lower part was left attached to the testicle. Then all the structures attaching the testicle were cut across between two ligatures, and the testicle and sac were placed in the scrotal bed. The immediate result was satisfactory, the testicle lived though its blood supply was cut off; it possibly supplied an internal secretion. Mr. F. T. PAUL said he had treated these cases by suturing the tissues in the canal across the cord to prevent it from being drawn up. He did not sacrifice the duct. Dr. SYDNEY WHITAKER showed a woman who had suffered from rheumatoid arthritis for fifteen years. All treatment proved useless except a fourteen-day fast, during which all pain left the joints. A coliform autogenous vaccine also produced slight benefit. As *x* rays showed intestinal stasis an ileo-colostomy was performed, with marked improvement in the joints and general condition. Dr. WALTER C. ORAM, in a paper on *X rays as therapeutic agents*, laid down three essentials: The rays must reach the tissue to be treated in sufficient quantity; they must be absorbed by the tissue; and the tissue must be susceptible to their action. The denser tissues of the body—the spleen, the thyroid, and the ovary—were far more susceptible to *x*-ray treatment than those of less density, such as the muscles, the kidney, and the brain. Even quite small variations in density caused considerable differences in the absorptive power for the rays. Tissues varied much in their susceptibility; thus *x*-ray exposures over the ovarian regions could bring about the suspension of activity of the ovaries, while the overlying skin, which had in the interval received a considerable dose, was not affected. Dr. F. H. BARENDT considered the *x* rays to be a valuable adjunct to treatment of skin diseases. In some cases of tuberculous disease good results were obtained, while in others the results were not satisfactory; the knowledge of the susceptibility of the tissues was wanting. Mr. THURSTAN HOLLAND thought the methods of measurement should be more accurate. In the treatment of malignant disease the method was of use if started early after a surgical removal; it then prevented recurrence, and secondary malignant nodules often disappeared. In menorrhagia the loss could be checked without risk. Pruritus was in many cases cured very rapidly. Dr. MACKENNA also spoke of the rapid action in cases of pruritus. He did not think the expectations with regard to malignant disease had been fulfilled. Sir JAMES BARR had used *x*-ray treatment in cases of leukaemia, and had had rapid and striking improvement. Unfortunately this had not been maintained, and when symptoms again appeared the *x* rays had no effect, and all his cases had died.

HUNTERIAN SOCIETY.

AT a meeting on April 9th, Mr. A. H. TUBBY, President, in the chair, Dr. NATHAN RAW resumed a discussion on *Tuberculin treatment*, commenced at the meeting on March 26th. Dr. Raw's experience in 1,056 cases of various forms of tuberculosis had left on him a favourable impression. Undoubtedly localized forms of tuberculosis responded more readily to tuberculin than cases of pulmonary tuberculosis with a general systemic infection. He invariably treated his cases by cross-vaccination. Pulmonary tuberculosis, being most frequently an infection by human tubercle bacilli, was best treated by a tuberculin prepared from bovine bacilli, and the localized forms of tuberculosis, being very frequently infections by bovine bacilli, were best treated and gave better results by treatment with human tuberculin. With regard to dosage, he was firmly of the opinion that immunity should be established very slowly, and with only moderate doses of tuberculin. Tuberculin was a remedy of the greatest value, especially in early cases, and where the deposit of tubercle was localized, as in one apex or a lymph gland or single joint, but where the tuberculosis was disseminated and complicated by secondary infections the use of it could not be expected to be of much avail. It certainly limited the spread of the disease in the body. Tuberculin was not going to revolutionize the treatment of tuberculosis, but it was a valuable aid to the other methods of treatment. He agreed that bovine tuberculin gave the best results in pulmonary tuberculosis, and vice versa. He had treated lupus by tuberculin, and had found the results of diagnosis by von Pirquet's reaction pretty good in this disease. He had had good results of treatment in early cases of pulmonary disease. Dr. HINGSTON FOX had found the results of oral administration to be uncertain. He submitted that the inoculation test, on account of its risks, should be used only in exceptional and obscure cases. Dr. R. A. O'BRIEN pointed out that the outcome of a severe reaction was really to desensitize. There were three great problems facing the clinician. First, could one immunize against tuberculosis? The answer was in the negative. The second question, whether one could diagnose the existence of tuberculous disease by specific tuberculin tests alone, must also be answered in the negative, for in comparatively insensitive animals, such as the horse or man, a reaction only meant that the subject had, or had had, tuberculosis. Finally came the question whether one could prevent or foretell the existence of hypersensitiveness in a patient under treatment; this, again, he feared was impossible. Dr. BUTLER HARRIS discussed the treatment of tuberculous joints by tuberculin. He believed that in an early case, if the joint be put at rest, the tuberculin treatment helped. Dr. LATHAM agreed that the method of dispensary treatment with intensive doses was overdone, but he thought that every method should be tried adequately, so that under the sanatorium benefit sufficient data could be obtained for the purposes of comparison. He was not convinced by Dr. Raw that human tuberculin should be used for infections with the bovine bacillus, and vice versa. Neither could he share Dr. Raw's view that tuberculin often diminished the length of time during which treatment was necessary, although in a few cases that appeared to be merely holding their own and marking time it certainly gave the necessary stimulus. He would again emphasize the fact that it was of no value in cases where autoinoculation was frequent, irregular, and uncontrollable. Mr. FRANK CURRY gave a demonstration illustrating the preparation of the various tuberculins and their characteristics. The PRESIDENT, after thanking those who had taken part in the debate, spoke of cases of tuberculous spine treated by tuberculin, pointing out that he now knew that the reason why this treatment was unsuccessful was that these cases were purulent and caseous from the very first.

MIDLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY.

AT a meeting at Birmingham on April 8th, Dr. MALINS, President, in the chair, Dr. PURSLOW showed a large *Cystic tumour of the kidney* removed by abdominal section from

a single woman aged 35, who presented a cystic swelling the size of a seven months gravid uterus. The tumour, which was lobulated, was freely movable, and extended across the middle line, and could be felt from the vagina and not from the loin; in fact, it showed all the characters of an ovarian cyst, and was diagnosed as such. As soon as the abdomen was opened the tumour was seen to be renal in origin; the outer layer of the ascending meso-colon was incised and the tumour removed, after tying off its attachments. The peritoneum of the meso-colon was closed with sutures and the abdominal wall closed without drainage. The patient made an uninterrupted recovery. Even after operation the most careful questioning failed to elicit anything in the previous history which would have given a clue to the condition. Dr. Walter Swayne observed that he had had precisely a similar experience to that recorded by Dr. Purslow. In his case it was quite impossible to say before operation from which side of the abdomen the tumour had arisen. Even when the abdomen was opened the organ was only diagnosed as being kidney by reason of the loose peritoneum over it. Dr. T. Clare recorded an instance of an enormously dilated kidney becoming manifest immediately after labour. In this case the condition had in no way interfered with pregnancy or labour. Dr. Thomas Wilson remarked that two or three years ago he had diagnosed a tumour as an axial rotation of an ovarian cyst complicating pregnancy, but it proved to be a suppurating hydronephrosis which had become infected from the ascending colon. Dr. Pardhy thought that in these difficult cases the diagnosis frequently depended upon whether a general surgeon or gynaecologist saw the patient. He had seen more than one instance where a tumour was diagnosed by a general surgeon as a movable or cystic kidney, which proved at operation to be a cyst of ovarian origin. Dr. Purslow, in reply, mentioned two diagnostic points which had been cited as useful by a general surgeon, namely, if pain were produced upon pushing the tumour down into the pelvis it was likely to be of renal origin; if the tumour projected markedly forwards it was probably connected with the ovary. Dr. Thomas Wilson showed the fetus and sac from a case of *Full-term intraligamentary gestation*. The patient had never shown any signs of pregnancy and was unaware of the nature of her condition. Menstruation had been quite regular throughout. The fetus had undergone "aseptic skeletonization." Dr. F. Edge remarked on the extreme difficulty that might arise in the diagnosis of a fetus enclosed in a sac even after the abdomen had been opened. Dr. Lewis Graham said that in a case of full-term ectopic gestation under the care of Dr. Copeland Savage the uterine sound could be passed for 9½ in. In this case fetal movements were quite evident. Dr. William Smith showed: (1) A uterus, the seat of *Multiple fibromyomata complicating a two and a half months gestation*. The patient had had no pressure symptoms, and was in good health. Hysterectomy was performed instead of awaiting events, because of the extraordinarily rapid development of the mass whilst under observation. The growths were both interstitial and subperitoneal. The patient made a good recovery. (2) The right uterine appendages from a case of *Tubal abortion with extensive pelvic haematocele*. The course of the case and other phenomena had led to a diagnosis first of pyosalpinx secondary to early uterine abortion, and then of ectopic gestation. Laparotomy was performed, and the patient made a good recovery. Dr. T. Clare having read a paper on the pathology and treatment of a case of *Dysmenorrhoea and sterility*, Dr. Thomas Wilson recalled the fact that at the annual meeting of the British Medical Association in 1911 he had read a short paper upon small fibroids at the level of the os internum as a cause of dysmenorrhoea; probably the underlying factor was disturbance in the polarity of the uterus. Dr. Walter Swayne said he had had a small experience in altering the position of the cervix as suggested by Dudley of Chicago, and had found that the operation relieved the sterility but not the dysmenorrhoea. Dr. K. M. Pardhy having shown some fibromyomata of the uterus from a patient who first recognized the tumour at the age of 20, Dr. Purslow said that 24 was the earliest age at which he had himself seen fibroids of the uterus develop.

Reviews.

SURGERY OF THE STOMACH.

Of all the modern exploits of surgery, perhaps there is no enterprise so attractive and fascinating as the bold invasion of the stomach region. The reasons are at least twofold. The manipulative dexterity demanded in the performance of all operations on the stomach and the mental exercise of planning the best procedure are a real intellectual delight to a skilful man, while the results frequently achieved are brilliant. Mr. Herbert Paterson has been prominent for some years as an authority on gastric surgery. His former works have won for him a well-merited place, and his most recent book, *The Surgery of the Stomach*,[1] establishes his position more soundly than ever. This work is concerned with the diagnosis and treatment of those affections of the stomach which are amenable to direct surgical interference. The advances in diagnosis of abdominal diseases have not kept pace with the researches in pathology and with the variety and boldness of operations. It would probably be well were test-meal investigations more freely undertaken by the family practitioner. Mr. Paterson thinks that the doctor would be amply repaid if he carried out ordinary qualitative tests and estimated the total acidity of the gastric contents even if he did nothing else. The cry of the operating surgeon in all cancers, and especially in stomach cancer, is for the cases to be sent early. The examination of test meals in every case of persistent dyspepsia which does not yield in a reasonable number of weeks to medical treatment would, Mr. Paterson urges, be the best means of making early diagnosis in gastric cancer. The chapters dealing with this department of stomach surgery are exceedingly thorough, and support admirably the author's earnest advocacy of the universal early adoption of methods of chemical investigation.

Gastro-jejunostomy is, of course, the favourite among the surgical operations on the stomach, and Mr. Paterson has much to say of it in all its phases, applications, results, and complications. We are interested and surprised to note that although the posterior operation is that usually performed, in his opinion "it is immaterial which method be adopted; either operation, in suitable cases, gives excellent results." The grounds upon which this opinion is founded might have been more fully stated, for we believe that owing to the appeal which the posterior operation makes to so many surgeons as anatomically sound, the performance of the anterior mode is exceptional. The technique described in the text is exceedingly clear and simple, and no small assistance is afforded by a very good series of photographs. We note that after the haemostatic suture encircling the stoma is completed, the edges of the gastric and jejunal mucosa are everted, and so are still visible; these edges are buried by the last suture, which is a single serous suture, and the anastomosis is complete. Many surgeons, we believe, hold that a stitch which inverts the edges of the two mucosae will be more secure. Such a stitch is adopted by the Mayos; it is a through-and-through stitch, which they call the "in and out and over"—that is, it passes from the serous side through the whole thickness of the bowel wall, emerges at a quarter of an inch distance parallel with the visceral incision, and then crosses over to repeat the manœuvre in the stomach wall, and so on. Mr. Paterson does not consider gastro-jejunostomy purely a drainage operation, but that it is physiological, in so far as its immediate consequence is diminution of hyperacidity with maintenance of motility. The discussion on jejunal and gastro-jejunal ulcers forms a very interesting chapter, as also does that on appendicular gastralgia, a subject which is already associated with Mr. Paterson's name.

This book is a most excellent and thorough and complete work, and Mr. Paterson deserves hearty congratulations on its production. It is a full statement of all the modern work, much of which has been done by the writer himself, and we feel assured that it will meet with a cordial reception from surgeons. We venture to suggest that the style

[1] *The Surgery of the Stomach: A Handbook of Diagnosis and Treatment*. By Herbert J. Paterson, M.A., M.C., M.B.Cantab., F.R.C.S.Edin. London: James Nisbet and Co., Limited. 1913. (Med. 8vo, pp. 326; figs. 74. 12s. 6d. net.)

of writing might well be more impersonal in some parts, and we think, too, that it is hardly fair to gird at some old-fashioned methods as "superstitions," for after all, these "superstitions" were stages in the journey towards the goal to which we all are striving.

TREATMENT OF SKIN DISEASES.

Dr. Bulkley has long been known as the apostle of the simple life in the treatment of skin disease, and he is particularly zealous in his advocacy of a vegetarian diet in psoriasis. He has embodied his ideas on these subjects in a series of lectures on *Diet and Hygiene in Diseases of the Skin*.[2] These were originally delivered as clinical lectures at the New York Skin and Cancer Hospital, and make very interesting reading, and although one may not be able to follow the author to the end of the path which he has elected to travel, deference must undoubtedly be paid to a physician of such great experience. The French and American dermatologists are inclined to lay more stress than their British brethren on the internal medication and the dietetics of skin disease, and it is possible that they underrate the powers of local treatment, aided only by the avoidance of obvious excesses in food and drink. The contrast between the two schools is especially brought out in the way in which they regard psoriasis and infantile eczema. In the former case few British writers do more than inculcate abstinence from alcohol, while in the latter it is customary merely to see that digestion is properly carried out. Dr. Bulkley, on the other hand, always finds in patients suffering from psoriasis, by means of minute volumetric analyses of the urine (of which, however, no details are given in the present volume), evidences of disordered metabolism, and he is very careful in prescribing an exact diet for the eczematous infant, usually including a special "wheat-jelly" of his own invention. Dr. Bulkley also claims excellent results with his system of giving in acute dermatoses a diet consisting only of boiled rice, white bread, and water for several days. He is fortified in his opinion by the fact that he himself is liable to attacks of acute erythema, accompanied by bullae, which he was unable easily to control until he adopted this system. Those who wish to make trial of Dr. Bulkley's methods—and they are undoubtedly worthy of consideration in many instances, if not in all those in which the author advocates them—will find the appendix very useful. Here are given numerous vegetarian dietaries, with indications for their employment, and in some cases directions for the preparation of the dishes recommended. Some, however, of the articles mentioned are peculiar to America. For these the English physician must find appropriate substitutes.

We have also received a copy of Dr. Bulkley's *Compendium of Diseases of the Skin*,[3] which is really the fifth edition of his manual of skin diseases. The number of editions is sufficient testimony of the success of the book. It is essentially based upon lectures delivered by the author, and, although the whole art of dermatology is compressed into fewer than 300 pages, it makes quite good reading. Very wisely most of the space is occupied with the consideration of the commoner diseases and their treatment. Here the author again lays great stress upon the importance of dietary measures. There is also a very good therapeutic formulary included. Almost alone among books upon skin disease, it has no illustrations.

HOSPITAL REPORTS.

St. Bartholomew's Hospital.

The steady increase in the development of scientific medicine and surgery is well exemplified in this forty-eighth volume of the *St. Bartholomew's Hospital Reports*,[4] if compared with the earlier volumes of the archives of that venerable institution. In the medical series of contributions is one by Dr. Woodwark on the line of treatment in mental and physical deficiency, based upon the therapeutic action of the internal secretions; in it there is mention of the pituitary gland, till lately held to be insignificant, yet of recent years wonderfully prominent in works on physiology, therapeutics, and scientific anatomy. We all know its relations to gigantism, ably demonstrated by Professor Arthur Keith in respect to O'Brian and other interesting but pathological sons of Anak. A distinct sign of the times in the volume under review is the truly scientific consideration given to venereal disease, till lately associated with empiricism and rule-of-thumb clinical and therapeutical routine work. For not only does Dr. A. W. D. Coventon contribute a paper on syphilis and parasyphilis of the nervous system in childhood, in which we hear much of the now familiar Wassermann's reaction, but there is also a highly interesting analysis of 131 cases of blood infection in gonorrhoea and an inquiry into the value of vaccines in their treatment by Mr. R. Foster Moore. The summaries of Dr. Coventon's and Mr. Moore's articles are in themselves worth study, the more so as the text is devoted to matter which only those who are more or less experts can judge correctly. As the result of scientific clinical investigation Dr. Coventon expresses the opinion that syphilitic and parasyphilitic disease of the nervous system is not very rare in childhood, and is liable to be overlooked; but the tests now at our disposal show that certain well-known nerve symptoms by no means prove that the child's malady is due to syphilis. Mr. Moore dwells on gonorrhoeal arthritis and iritis. Turning to the surgical department, Mr. Noon and Mr. Moreton's critical examination of six complete cases of acute pneumococcal peritonitis is a short but good and well tabulated article. The results of operative and expectant treatment shown in the tables will interest the surgeon. All the patients were female children except one, a man aged 57. Mr. Noon adds a further series of cases of general peritonitis of appendicular origin, with notes on the after-treatment, and in association with this contribution, Mr. Vick's investigation of 100 cases of appendicitis may be mentioned. Both Mr. Noon and Mr. Vick supply us with instructive tables. This volume of the *Reports* is decidedly superior in quality to quantity. For its original article department is limited to 166 pages, twenty less than those allowed to the "statistical tables," whilst the museum report takes up forty pages. Of the other original contributions, not mentioned above, there is a paper on the age incidence of intracerebral haemorrhage by Dr. Andrewes, a case of intermittent glycosuria by Mr. Mackenzie Wallis and Dr. F. A. Roper, and a good surgical report by Mr. Gask on a case of thrombosis of the axillary artery, in which an operation was undertaken for the removal of the clot and suture of the vessel; the author gives abstracts of 9 cases already published. Mr. E. Anslie contributes a paper on the diagnosis of endosteal tumour, Mr. Harold Wilson one on 2 cases of muscular paresis of the bladder, and Mr. C. D. Kerr an account of a case of lateral sinus thrombosis followed by hernia of the cerebellum in which recovery ensued. The reports are headed by a graceful obituary notice of Sir Henry Butlin with a portrait.

Guy's Hospital.

Dr. Spriggs contributes to the new volume of the *Guy's Hospital Reports*[5] a very substantial paper on congenital intestinal occlusion. He had two cases under his own observation a few years ago, and has studied numerous museum preparations. The table of references is most copious, old writers as well as current authorities being freely quoted. Congenital occlusion, it is shown, is generally single, and most often occurs in the lower ileum. The next most frequent site is in the duodenum near the biliary papilla. When occlusions are multiple they are usually situated in the jejuno-ileum. Such cases are very unfavourable for treatment, but early abdominal section, followed by dilatation of the contracted gut by water pressure and lateral anastomosis, may save the patient. Mr. Alan Todd, in a paper on the results of operation for glaucoma, gives an instructive account of the examination of nearly

[2] *Diet and Hygiene in Diseases of the Skin.* By L. Duncan Bulkley, A.M., M.D. New York: Paul B. Hoeber. 1913. (Med. 8vo, pp. 207. 2 dols.)

[3] *Compendium of Diseases of the Skin.* By L. Duncan Bulkley, A.M., M.D. New York: Paul Hoeber. 1913. (Med. 8vo, pp. 296. 2 dols.)

[4] *St. Bartholomew's Hospital Reports.* Edited by H. M. Fletcher, M.D., and W. McAdam Eccles, M.S., F.R.C.S. Vol. xlviii. London: Smith, Elder and Co. 1913. (Med. 8vo, pp. 216; illustrations 6.)

[5] *Guy's Hospital Reports.* Edited by F. J. Steward, M.S., and Herbert French, M.D. Vol. lxvi, being the fifty-first of the Third Series. London: J. and A. Churchill. 1912. (Med. 8vo, pp. 451.)

80 cases. Dr. Frederick Taylor's cases of poisoning by opium will interest the toxicologist and physician, especially those who have studied his writings on the faradic current as a therapeutic agent. The volume contains reports from the throat and aural department, and also a remarkable note, illustrated by a photograph and a drawing, on carcinoma of the left kidney, in which a continuous clot extended from the kidney along the left renal vein and up the inferior vena cava into the right auricle, producing an intercardiac polypoid mass, which led to tricuspid stenosis of the ball-and-socket type; the clot was infiltrated with carcinoma of the same type as that in the kidney itself. This communication is written by Dr. Herbert French, who also reports a case of adrenal hypernephroma in a girl 6 years of age. Signs of precocious puberty, as in cases previously recorded, were irregularly developed; pubic hair had been noted when the child was 8 months old, but there was no abnormal hair in the axillae or on the face. The clitoris had been hypertrophied since infancy. Dr. Arthur Hertz, who edits a series of "Neurological Studies," writes notes on cases of hereditary intention tremor, epilepsy with remarkable aura, and lead neuritis involving the circumflex nerves, and, in conjunction with Dr. W. Johnson, an analysis of fifty cases of disseminated sclerosis; Dr. Johnson himself contributes as a separate paper some observations on the influence of congenital syphilis on mental deficiency in children; and Mr. J. L. M. Symns a paper on the vibratory sense in peripheral neuritis. As there are altogether twenty-three original articles in this volume of the *Reports*, want of space precludes notice of all of them. The first paper is a good obituary notice of Dr. Pavy, written by Dr. Frederick Taylor.

HEPATIC DISEASE.

ALTHOUGH not so designated on the title page, Dr. ROLLESTON'S book on *Diseases of the Liver, Gall Bladder, and Bile Ducts*[6] is really a second edition of his work of the same name published in 1905 and noticed by us in that year (see BRITISH MEDICAL JOURNAL, April 15th, 1905, p. 827), and the author indeed prints a "preface to the second edition." In our former notice we wrote "this is the most considerable work on diseases of the liver which has appeared since the classical treatise of Murchison. It fully deserves to take a high place among modern text-books, and we heartily congratulate Dr. Rolleston on his success." There is, therefore, no need for us to add anything beyond an endorsement of the author's claim to have thoroughly revised his work, added much new matter, made many alterations, and carried out condensation so far as compatible with a full consideration of the subject. The present volume contains a few more pages than the earlier, but owing to the use of a lighter paper is not so heavy to hold in the hand.

DEGREES FOR LONDON STUDENTS.

DR. ELLIOT-BLAKE, who has already challenged opinion as an advocate of certain changes in the Royal Colleges of Physicians and Surgeons in London, has recently issued another volume on the same subject, with additional matter of more general appeal.[7] In the first place, he urges those responsible for the governance of the Royal Colleges to take steps, either by agreement with the university authorities, or, failing that, by an Act of Parliament, to convert their licences to degrees. And, as a natural consequence of this line of action, he desires the present courses of study for diplomates to be conformed to the university type. In order that present holders of the conjoint diplomas may not suffer by the change, he further advocates the granting to them of retrospective degrees, perhaps after the reading of a thesis. On behalf of these changes he argues that the present system, with its multiplication of medical class distinctions, is confusing to the public, unjust to a deserving body of practitioners, and provocative of bad blood. He claims that "every public report and medical leader who has examined the subject has declared that no practical difference exists between the pass diploma licence and a pass degree." And, in support of this contention, he calculates that candidates holding the London diplomas obtained in eighteen competitive examinations 69.1 per cent. of successes, as compared with 48.5 obtained by graduates of Scottish and Irish universities. The Senate of the University was, he states, enjoined by the Act of 1898 to ratify extensions of higher education, and to organize them within the London radius, while the Royal Colleges were singled out by specific reference as worthy of incorporation. He therefore considers that the representatives of the Colleges upon the Senate of the University have been remiss in failing to press for the reforms which he advocates. To the passive resistance of the Senate he attributes the failure of the collegiate representatives to avail themselves of Section 123 of the Statutes, which in his opinion entitle the Colleges to examine for degrees and to claim university ratification. The inclusion of a Royal Colleges Board in the University Faculty of Medicine in London would, he argues, be in accordance with traditional usage as exemplified in the development of other universities, for example, those of Paris and Bologna. He appeals for the financial aid of wealthy philanthropists, failing which, he is of opinion that some part of the huge sums at present devoted to the primary education of the masses would be more usefully employed in the endowment of a reformed system of medical teaching. For, as he justly pleads, the standard of efficiency demanded of the modern practitioner is constantly rising, and can only be generally attained by a method of teaching which is based upon a cultural rather than a merely utilitarian ideal. He considers the suggested "one portal" system objectionable in several ways. For one thing, it is based upon French and German models, and inapplicable, he thinks, to the English educational situation. In the second place, it would have the result of bolstering up "the bad old licensing system." And, thirdly, he objects, it would involve the addition of one more burden to the present examination incubus. For these and other reasons, into which space does not permit us to enter—all picturesquely phrased and forcibly expounded—Dr. Elliot-Blake maintains that it was incumbent upon the Royal Colleges to prepare and submit to the Royal Commissioners a definite scheme claiming on behalf of their students participation in the privileges of the University on condition of their passing a suitable arts examination and undergoing a curriculum modified in the direction of the university system. In an appendix dealing with the earlier reports of the Royal Commission on University Education in London, Dr. Elliot-Blake strongly supports the recommendation of Sir William Ramsay that the teachers' records of work done *in statu pupillari* should be taken account of in the granting or withholding of degrees. As his book was published before the final report of the Commission was issued, he was unable to note its recommendations on this and other subjects.

The second part of the book opens with a musical setting of Raleigh's reform song, "The Soule's Arrant," which we must resign to more competent criticism. Then follows an anthology of "reformed adages" and miscellaneous aphorisms, as to which we own to some apprehension that the bulk of them will prove caviare to the general. But they reveal a mind whose originality goes to atone for harshness and obscurity of expression.

NOTES ON BOOKS.

Every Man His Own Builder[8] is a most practical book addressed by a professional man to an amateur. It is not often that in a well settled country it can be worth a man's while to give his own time and labour to the actual work of building his own dwelling house; but Mr. G. GORDON SAMSON has an eye also for countries in the process of being opened up, and is at pains to discuss colonial conditions and to suggest means of meeting difficulties due to want of skilled labour and distance from sources of supply. But even in this country the information the book contains will be useful to most dwellers in rural districts, who, if they have not to build houses to

[6] *Diseases of the Liver, Gall Bladder, and Bile Ducts.* By Humphry Davy Rolleston, M.A., M.D.Cantab., F.R.C.P. London: Macmillan and Co., Ltd. 1912. (Roy. 8vo, pp. 826, figs. 108, plates 7. 25s. net.)

[7] *University Reform for the Royal Medical Colleges, and Reformed Adages.* By H. Elliot-Blake, M.R.C.S., L.R.C.P., etc. Free Path Series. Vol. ii. London: John Bale, Sons, and Danielsson, Ltd. (Fcap. 4to, pp. 198. 11s. net.)

[8] *Every Man His Own Builder.* By G. Gordon Samson, Architect. A book for every one who owns a piece of land. London: Crosby, Lockwood and Son. 1913. (Demy 8vo, pp. 360. 5s. net.)

dwell in, are constantly having to meet interminable demands for repairs and often wish to erect outhouses. There are a good many books which give plans and suggestions for plans, but Mr. Gordon Samson is concerned rather with the details of construction: how to lay out foundations, to make and lay concrete, to make mortar, to choose timber and adjust it, to build a wall, to make a ceiling, to lay a floor, to build flues, to fix grates, and so on to all the hundred and one details which have to be met in even quite small building operations. He even tells his reader how to make and burn bricks, and also how to thatch—a most difficult operation requiring much skill and practice. To the city householder also the book will be useful, for it will help him to understand the true significance of the mysterious terms in the builder's estimate for repairs. There is a glossary constructed on the simple principle of quoting the page on which the meaning of the technical term is explained; it might have been made much fuller with advantage. The volume has an index also and is very fully illustrated by diagrams and drawings of details. It has a plan for a small farmhouse and outhouses, and a chapter on drawing a plan and elevation.

A special feature of the *City of London Year Book*[9] is that, appearing as it does in the fourth month of each year, it contains information not to be found in any of its compeers. Thus in the edition for the present year, we find a list of members of the London County Council after its reconstitution at the recent election. Equally up to date is the information as to the membership of other large bodies closely connected with work in London, such as the committees of the Corporation of the City, Lloyds, and the Stock Exchange. Not less useful at times is the accurate information supplied as to miscellaneous points, such as the history of the City Guilds and the schools and charities supported by them.

The Far Eastern Association of Tropical Medicine appears to have obtained a very good grip on qualified medical men of all nationalities in Eastern Asia and its surroundings, and the second congress at Hong Kong in January, 1912, was very well attended. The papers then read and reports of the discussions on them have been brought together by Dr. FRANCIS CLARK, the general secretary of the association, and form a volume[10] which is especially strong on the subject of beri-beri and of general interest to all those at work in tropical areas. As already announced, the next congress will take place at Saigon on the invitation of the Government of French Indo-China.

Some of the wild blood of his Viking forbears must still flow in the veins of Dr. SVEN HEDIN, for the account of his wanderings *From Pole to Pole*,[11] of which an abridged translation has recently been published for the use of English-speaking children, is full of adventures such as would have delighted the hearts of those early explorers. Dr. Hedin has penetrated into places where a white man had never before set foot; and his story is a record of perilous journeys and hairbreadth escapes, which he relates with as little emotion as though he were describing a trip to Paris and back. The great Swedish explorer writes very modestly of those feats of daring that have made his name famous far beyond the confines of his own country. His chief aim seems to have been to describe what he has seen in the course of his travels rather than what he has endured; and his book is therefore more a vivid panoramic view of the different countries of the world than a record of his own personal experiences. The latter, needless to say, form the most interesting portion of a book in which there is not a single dull page. Dr. Hedin possesses a keen sense of humour and a wide sympathy with all sorts and conditions of men; and the child must be hard indeed to please who is not thrilled and fascinated by this simple manly narrative of one of the greatest of modern explorers. The interest of the book is increased by the numerous photographs and maps with which it is illustrated.

In *Poems of Filey and Other Verses*[12] the author shows us a mind in harmony with nature, keenly sensitive to all her moods—bright, or sombre, or mysterious. He has, for example, felt the sense of other-worldliness which may come over the wayfarer on a moor when a sea mist sweeps up to him and seems to wrap him away from his fellow men and all the worries and struggles of workaday life. Filey possesses a charm not quite easy to define; it resides, no doubt, primarily in the unsurpassed variety of the coast scenery and the ever-changing sea which beats about the Brigg even on the calmest day, but in it the well-marked characteristics of the race of fishermen, who combine daring with prudence, and shrewdness with simplicity to no common degree, have a share. To both influences "Carr Point"—a pen name which veils the identity of Dr. Herbert J. Robson of Leeds—gives graceful expression.

[9] *The City of London Year Book and Civic Directory, 1913.* London: W. H. and L. Collingridge, City Press. (Sup. roy. 8vo, pp. 382. 5s. net.)

[10] *The Transactions of the Second Biennial Congress of the Far Eastern Association of Tropical Medicine.* Edited by Francis Clark, M.D., M.R.C.P., D.P.H. Hong Kong: Noranka and Co. 1912. (Roy. 8vo, pp. 420. 10s. 6d.)

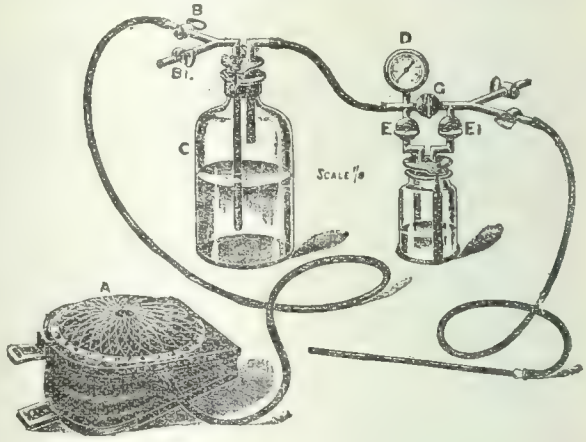
[11] *From Pole to Pole.* A Book for Young People. By Sven Hedin. London: Macmillan and Co., Limited. 1912. (Post 8vo, pp. 420; 26 illustrations. 7s. 6d. net.)

[12] *Poems of Filey and Other Verses.* By "Carr Point." London: Simpkin, Marshall, and Co. 1912. (Fcap. 8vo, pp. 110.)

MEDICAL AND SURGICAL APPLIANCES.

Intratracheal Insufflation of Ether.

MR. EDMUND BOYLE (Assistant Anaesthetist, St. Bartholomew's Hospital) writes: The accompanying illustration shows an apparatus that has been devised by Mr. G. E. Gask and myself for the intratracheal insufflation of ether. Air is driven from the bellows A through hot water in the bottle C (the tap B is for air, and B_1 is a reserve tap for oxygen if necessary). The air then passes through E over the surface of the ether in the smaller bottle, and so on to the gum-elastic catheter F. When it is desirable to give air without ether E E_1 are turned off and G is turned on. By regulating these taps it is quite easy to have either the whole or part of the air laden with ether vapour. The manometer D registers the pressure under which the air is driven into the trachea. The apparatus and the method of maintaining anaesthesia are mainly intended for intrathoracic operations, which in



the past were only possible with the aid of negative pressure cabinets. But now, thanks to the work of Meltzer, Auer, and Elsberg, these intrathoracic operations can be performed and anaesthesia maintained with safety by means of the intratracheal insufflation of ether. The method of administration is as follows: The patient is first anaesthetized, and then the catheter is passed through the vocal cords down to the bifurcation of the trachea. Air laden with ether vapour is then pumped in at varying pressures according to the necessities of the case. By this means it is possible to produce an excellent type of anaesthesia which has the great advantage of being quite safe, since by pumping in pure air we can easily and rapidly restore the patient to consciousness. Indeed it is held that when once the catheter is in position we have a perfect form of artificial respiration, for we are able to aërate the lungs at will. Although this method is mainly intended for use in intrathoracic operations where it may be necessary to allow the lungs to collapse during the operation, and then subsequently, at the end of the operation, to reinflate them when the pleura is being sewn up, I think that the method is quite likely to be of great service for the removal of goitres. My experience in this type of case is at present limited, but yet sufficient to lead me to think that the method is well worth an extensive trial. The apparatus can be obtained from Messrs. Mayer and Meltzer.

THE twenty-third Congress of Alienists and Neurologists of France and French-speaking countries will be held at Le Puy in August (1st to 6th).

THE CORONERS ACT AND THE NEED FOR ITS AMENDMENT.

As the law relating to coroners and coroners' inquests at present stands, many difficult questions present themselves for consideration—questions which directly affect the public welfare on the one hand, and which have also a bearing upon the good name, and to a lesser degree upon the material interests, of the medical profession upon the other. The general question has been considered both by a Select Committee of the House of Commons and also by a Departmental Committee. Both issued reports full of valuable recommendations, but, as is so often the case, these reports have so far been fruitless, and the question seems to have fallen completely into abeyance. It may therefore be of interest to review the position as it is at present with especial reference to some of the more important points involved. The British Medical Association has for a very long time realized the need for amendment of the law in this matter, and has devoted great consideration to the question, and as long ago as 1905 was prepared with a bill to amend the law relating to coroners, but owing to changes of Government, busy sessions, and the usual causes that so often prevail in such matters, it disappeared. The Association was very active in the matter in 1908, and a Departmental Committee was appointed by the Home Office to inquire into the whole question of coroners and their practice, an additional reference being made to the Committee as to deaths under anaesthetics, and the dangers arising from the use of flannelette. The Association was prepared to offer evidence to the Committee, and presented a carefully considered memorandum of its views and suggestions, receiving a promise from the Committee that the memorandum should be circulated to all its members, and that it should be printed as an appendix to the report when it was issued, but, owing to the sudden closing of the taking of evidence, the witnesses for the Association were not heard. The most important point advocated by the Association was the need for amendment of the present system of death certification and registration. As the law at present stands, a registrar can register a death only on receipt of certain kinds of information: (*a*) If a registered medical practitioner has been in attendance upon the deceased, upon the statement of a qualified informant (in accordance with Sections 10 and 11 of the Act), accompanied by a certificate from such practitioner; (*b*) if no registered practitioner has been in attendance, upon the statement of the qualified informant only; (*c*) on the certificate of a coroner that after inquiry he does not consider an inquest necessary; (*d*) if an inquest has been held, upon a certificate of the finding of a coroner's jury.

As the law at present stands, a medical practitioner who has been in attendance is required (under penalty) to give (without fee) a certificate as to the cause of death "to the best of his knowledge and ability." Forms for the purpose are issued by the Registrar-General, but there is no statutory or legal obligation upon the practitioner to give all the particulars indicated upon the form, or even to use the form at all. Under the Regulations, the registrar is directed in every case of violent or sudden death, or where the cause of death is suspicious or unknown, to report the same to the coroner before registering it, in order that the coroner may decide as to the necessity for an inquest. The coroner has, of course, other sources of information, such as the police, but, as was pointed out as long ago as 1893, the only official responsible for deciding whether or not there is a suspicious element in a case is the registrar, for the only statutory obligation upon the medical practitioner in this matter is that if he has been in attendance he shall give a certificate as to the cause of death to the best of his knowledge and belief. He is under no statutory obligation to use the form of certificate supplied and is not obliged to certify as to the fact of death, and the words "as I am informed" in the form safeguard the practitioner from being required to certify that the person in question is in fact dead, rendering it thus possible that the person whom he attended and to whom the certificate purports to relate may not be dead—this state of the law facilitates the substitution of one body for another.

The Select Committee in 1893 made a very strong pronouncement concerning deaths registered upon the information of a "qualified informant" (or, in other words, cases in which no medical practitioner has been in attendance), as the following extracts from the report show:

> The Registrar in such cases is instructed by the Regulations to register the death and to give the best information regarding its cause that he is able to obtain from the informant. He may, therefore, legally take information on this point from a person who has no real knowledge of the matter. He cannot, however, refuse to register the death, and it is no part of his duty to make any personal investigation of the facts of the case, and unless a case be reported to the coroner there is no authority for delaying registration in order that inquiries may be made. . . . There can be little doubt that much of the information obtained in these cases is far from trustworthy. In other cases, however, it is to be feared that the information given to the Registrar is not only untrue, but known to be so by the informant. There appears to be nothing in the existing procedure to prevent a fictitious cause of death being assigned in the case of a person got rid of by foul play, and for a certificate to be issued upon registration of such information. In short, the existing procedure plays into the hands of the criminal classes. It cannot be legitimately expected that a Registrar of Births and Deaths, whatever his education and intelligence may be, should be able to form a satisfactory opinion as to the trustworthiness of the information tendered to him by the informant of a death, and your Committee is convinced that a system which permits registration to take place upon information so obtained, cannot be other than dangerously defective. . . . Your Committee is much impressed with the serious possibilities implied in a system which permits death and burial to take place without the production of satisfactory medical evidence of the cause of death. . . . Your Committee, fortified with the weighty opinions of the witnesses who have appeared before them, has arrived at the conclusion that uncertified deaths should as a class cease to exist, and that means should be devised whereby a medical certificate should be obtained in every case not certified by a registered practitioner in attendance.

This impressive statement was made twenty years ago, and no advance has yet been made. The British Medical Association drafted a comprehensive bill, printed in 1904, designed to overcome the various weaknesses and anomalies of the existing law; the main points regarding this particular matter were as follows:

1. Every death, if possible, to be certified by a registered practitioner who has been in attendance.
2. The body to be viewed after death by a registered practitioner prior to certification. The certificate to be a confidential document subject to the discretion of the Registrar-General.
3. All deaths not certified by a registered practitioner to be referred to the coroner, or, in the case of Scotland, the Procurator-Fiscal.
4. That a special medical officer be appointed in every coroner's district to visit and examine the body and report to the coroner in all cases of death where no registered practitioner is able to give a certificate, such medical officer to be associated in his investigation with the usual medical attendant of the deceased, or any registered practitioner who may have been called in.

These various points were all included in the memorandum placed by the Association before the Departmental Committee in 1908, and it is interesting to note the report of the Committee, which takes the same serious view of this question as did the Select Committee of 1893. The report states:

> The general question of the certification of death is outside the scope of our inquiry, but we would venture earnestly to call attention to the report of the Select Committee of 1893, to the representations made by the London County Council, and to the evidence given by the Registrar-General. . . . It is no fault of the law if premature burial does not take place. The present law of death certification offers every opportunity for premature burial and every facility for the concealment of crime.

Although the Committee considered this question outside the scope of its reference it did not hesitate to express the above emphatic opinion, and what is more, to make two most important recommendations upon the matter—namely, that no certificate should be accepted from a practitioner unless it states that he has by personal inspection satisfied himself as to the fact of death, and that in every case in which no such certificate is forthcoming it should be made a statutory duty for the registrar to report the death to the coroner, who would then exercise his discretion, and, if the amendment of the law suggested by the Association were adopted, would be fortified in the exercise of that discretion by the skilled medical advice of competent persons appointed for his assistance.

The existing law makes cremation difficult in the case

of bodies brought from abroad, as at present no body so brought can be cremated unless the coroner considers himself justified in holding an inquest and giving a certificate in the prescribed form. Cremation is becoming more and more common; it is a practice much to be commended, and under proper safeguards no unnecessary obstacles should be placed in its way.

With regard to the fees payable to medical men several questions arise. One that is very constantly cropping up has reference to inquests held upon persons dying in public institutions; the medical officers of such institutions are not entitled to receive any fees from the coroner either for giving evidence at the inquest or for making a *post-mortem* examination when directed to do so. The legal anomaly which compels the coroner to withhold fees from those engaged in such work must continue until the law is altered, for Section 22 of the Coroners Act of 1887, which deals with the fees payable to medical men, especially excludes from participation in the fees enumerated the medical officers of public institutions, and proceeds at some length to specify such institutions. It is difficult to imagine the reasons that could have induced the Legislature to impose such a restriction, as the net result is that a penalty is imposed upon a very hard worked and by no means highly paid section of the medical profession, without any advantage accruing either to the public welfare or to the particular institution concerned. It seems difficult logically to justify the practice of paying fees to the medical officers when persons are brought dead to the institution, and of withholding them when they die within its walls.

The practice of withholding fees in such cases is in England almost universal with regard to hospitals, although some county councils do allow such fees to be paid to medical officers of workhouses, workhouse infirmaries, and cottage hospitals. In countries with modern legal enactments, such as the Commonwealth of Australia and New Zealand, the fees are payable in all cases. In this matter the medical profession has the sympathetic support of the coroners of the country, who fully recognize but have no power to remedy this curious anomaly. The Departmental Committee expressed the opinion that there could be no good reason for withholding fees in such cases, and that the restriction should be removed.

The Departmental Committee also recognized the necessity for the provision of adequate fees for the services of expert pathologists.

With regard to the employment of pathologists, the question as to the position of the ordinary medical attendant in such cases arises. The Association has long contended that in the elucidation of the cause of death it is in the public interest to make use of all available clinical evidence in addition to that of the pathologist, and that the practitioner who has been in attendance should be summoned to attend the *post-mortem* examination in order that his clinical knowledge of the case may be available for the assistance of the pathologist. It has never been contended that the practitioner who has been in attendance is necessarily the most suitable person to give evidence or to make the *post-mortem* examination, or that the coroner is legally bound to direct him to do so; but it has been contended, and rightly, that in cases in which he is not summoned he should be invited to be present both at the inquiry and the examination.

This point was accepted by the Departmental Committee, which, however, recognized that the coroner might be placed in a difficulty, inasmuch as on a strict interpretation of the existing law he is prevented from paying both the medical witness who gives clinical evidence and the pathologist who makes the examination. The Committee recommended that the coroner should be empowered to summon and pay such medical witnesses as might be necessary for the proper determination of the case.

The adoption of this recommendation would dispose of the vexed question of the unsatisfactory position occupied by medical practitioners with regard to furnishing coroners with information which may determine the necessity for an inquest. It has long been the custom for medical practitioners in this country to supply coroners (without fee) with any information that can assist in determining the necessity, or otherwise, for the holding of an inquest, with the result that what was originally an act of grace on the part of the profession has come to be regarded more or less as an obligation by certain coroners, who upon occasion have made unfair use of information so received and have held inquests without taking the medical evidence of which they have, so to speak, obtained private information from the practitioner concerned, or who have decided when placed in possession of such information that it is unnecessary to hold an inquest. In contingencies such as these it is quite exceptional for the practitioner concerned to receive any fee, although the course decided upon has been determined by the information obtained from him—information which he is under no statutory obligation to supply, although he has upon occasion been accused of neglect of duty when it has not been forthcoming.

A very large number of medical practitioners appear to be in ignorance of their true position in the matter, and to believe that they are bound to assist the coroner in this way; but it is quite clear that there is no legal obligation upon a medical practitioner to render any assistance to coroners in investigating the cause of death other than that of making a *post-mortem* examination, when so ordered in writing by the coroner, or to attend and give evidence at an inquest when duly summoned to do so.

It therefore seems to be very desirable that, if the preliminary inquiry made by a coroner is to be regarded as an integral portion of State procedure in the elucidation of the cause of death, and there is much to be said in favour of the adoption of such a course, it should be regularized by legislation which would definitely determine the obligations and duties of coroners, medical practitioners, and public, and which would in addition define the fees to be paid for services rendered by the various parties concerned.

The Committee pointed out that in Scotland the Procurator-Fiscal has a much freer hand, and recommended that certain features of the Scottish system might with advantage be adopted in England and Wales with the view of preventing the holding of unnecessary inquests. The report of the Committee states:

> There is great, and we think justifiable, dissatisfaction in the medical profession with the scale of fees in coroners' courts and the methods of their allocation. We think that the whole matter should be dealt with by regulations and not by the iron-bound provisions of an old statute.

Strong representations were made with regard to the holding of inquests upon persons dying under an anaesthetic. It was contended by the Association that a lay body could hardly be considered efficient to deal with such questions, and recommended that inquiry in such cases should in the first instance be privately made by a medical authority appointed by the Home Office. If it were then found that a public inquiry was desirable it should be held by a High Court tribunal with medical assessors. This point was also recognized to some extent by the Committee, which was of opinion that every death under an anaesthetic should be reported to the coroner, who should make inquiry, but that if he were satisfied that all due care and skill had been exercised, it was undesirable that an inquest should be held.

The coroner's officer of to-day occupies an important but anomalous position. He has no legal status, there are no necessary qualifications for the office, and any information given him is given purely as an act of grace by the informant. His duties are, notwithstanding, very important, as he, under direction of the coroner, makes those preliminary inquiries upon the result of which the coroner decides whether or not an inquest shall be held.

The Committee fully recognized this curious position, and expressed the emphatic opinion that he should always be an acting member of the police force, for the reason that the fees paid were inadequate to obtain the services of a good man who was dependent upon them for his livelihood, whereas if a police officer were appointed they would be paid to the police fund and not to the officer, and there would then be no temptation to make illegitimate profits.

With regard to coroners' juries, it was contended that they were of no real value for the purpose of investigating the cause of death. If twelve members of a jury agree, it

would appear that the coroner is bound to accept their verdict no matter how insensate it may be; if he alters it he may be guilty of forgery! Two verdicts were quoted before the Select Committee in 1893, and appear in the report:

1. The man died from stone in the kidney, which stone he swallowed while laying in a gravel path in a state of intoxication.
2. A child three months old found dead, but "no evidence to show whether born alive."

No suggestion was made by the Committee as to replacing the jury by some other machinery, but it was recommended that in cases of perverse or foolish verdicts the coroner should take the verdict, and that as the question of delay is one of great importance, he should be empowered to apply immediately to a judge in chambers, who would authorize him to summon a new jury. It was further recommended that any riders passed by the jury should be separate from the verdict and endorsed upon the back of the inquisition, and that the coroner should be at liberty to record his dissent and give his reason for so doing.

This, in the opinion of the Association, did not go far enough, for it would not prevent juries from reflecting upon the conduct of individuals who had not been afforded an opportunity of giving evidence on their own behalf, and this we know to be a far from unusual occurrence.

Recommendations were made by the Committee with regard to many other important points, and it is satisfactory to notice that these recommendations were largely in accord with the views put forward in the memorandum submitted by the British Medical Association, and it is much to be desired that they shall not be lost sight of. This comparative statement of some of the principal points that affect the profession and the public welfare clearly shows the need of reform, and it is a matter of importance that the question of reform should not be allowed to fall into abeyance for long. It is much to be hoped that, when the present crisis that has overtaken the profession has passed away, the Association will once more put its shoulder to the wheel in order to prevent the work it has done from being wasted, and will agitate until the whole subject is rescued from that limbo of forgotten things to which it seems to be at present consigned.

YELLOW FEVER COMMISSION (WEST AFRICA), 1913.

The Secretary of State for the Colonies has appointed a Commission to study the nature and the relative frequency of the fevers occurring amongst the Europeans, natives, and others in West Africa, especially with regard to yellow fever and its minor manifestations.

The funds for the investigation will be provided by the West African dependencies. The members of the Commission are:

Sir James Kingston Fowler, K.C.V.O., M.D., D.Sc., F.R.C.P. (Chairman), Major Sir Ronald Ross, K.C.B., F.R.S., M.D., F.R.C.S., D.P.H., I.M.S. (ret.), Colonel Sir William Leishman, F.R.S., M.B., K.H.P., R.A.M.C., Professor W. J. R. Simpson, C.M.G., M.D., F.R.C.P., D.P.H.

Secretary.—Mr. A. Fiddian, of the Colonial Office.

Assistant Secretary.—Mr. T. F. G. Mayer, M.R.C.S., L.R.C.P., West African Medical Staff.

In the absence of special reasons, the Commission will not proceed to West Africa, but local investigators will work under its direction at certain centres. As at present arranged, those centres will be Freetown in Sierra Leone, and Sekondi and Accra on the Gold Coast. The investigators will be:

Freetown.—Major J. C. B. Statham, R.A.M.C., Sanitary Officer of the Command, and Mr. G. G. Butler, B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., of the West African Medical Staff.

Sekondi.—Mr. H. S. Coghill, M.B., B.Ch.Edin., D.T.M.and H. Cantab., Assistant at the Medical Research Institute, Lagos, and Mr. H. M. Hänschell, M.R.C.S., L.R.C.P., D.T.M.and H. Cantab., Senior Demonstrator at the London School of Tropical Medicine.

Accra.—Mr. G. E. H. Le Fanu, M.B., C.M.Aberd., D.T.M. Liverpl., of the West African Medical Staff, and another.

The investigation will be set on foot towards the end of April or early in May. Endeavours have been made to enlist the co-operation of all medical men practising in the British dependencies in West Africa, whether as Government medical officers or otherwise.

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

The Medical Profession and Proprietary Preparations.

On April 17th the examination of Mr. E. J. Parry, analytical chemist retained for the purposes of the inquiry by the Proprietary Articles Section of the London Chamber of Commerce, was resumed.*

In reply to Mr. Glyn-Jones, the witness said that his main objection to the volumes, *Secret Remedies* and *More Secret Remedies*, was with regard to the inferences drawn from what was found by analysis. In certain instances he would expect any analyst to come to the same conclusions, but he objected to the inferences drawn.

Mr. Glyn-Jones: You put in, for the private information of the Committee, certain testimonials given by members of the medical profession in regard to a proprietary medicine. Can you explain in any way why medical men, apparently of high standing, should write testimonials for proprietary and secret medicines?

The Witness: This particular proprietary remedy contains a most valuable drug, recognized by the medical profession.

Is it within your knowledge that it is not an uncommon thing for the medical profession to write testimonials of this kind?—It is a very common thing indeed.

Can you offer any explanation? Are they paid for it?—Oh, no. That would be a grave breach of professional etiquette; I should say that would hardly ever be done.

You think medical men genuinely believe, though they do not know what the article contains, that it is a good thing?—I am confident of it.

In this particular case have you any knowledge whether the doctors when they wrote the testimonials knew of this special ingredient to which the article owes its merit?—I should say certainly not; they were speaking from the results of their own trials.

Mr. Newton: It seems difficult to believe that a doctor would give a testimonial to a medicine which promised to do practically everything.

The Witness: It is only rarely they promise that; in the majority of cases the claims are limited.

Asked by Mr. Newton how he proposed to deal with the cancer and consumption cures which he condemned, the witness said that since the remedy already at hand—an action at common law—was never set on foot, these preparations should be suppressed altogether. The diseases mentioned were known to every intelligent person to be incurable by mere drugs; it was a question of treatment rather than drugs. As this was an admitted fact it was not fair that the public should be defrauded by them.

In reply to Dr. Chapple, the witness said that a preparation claiming to do the impossible should be prohibited. In the case of the preparation as to which he had put in testimonials from medical men, the important constituent was a well-known drug in constant use under another name.

Dr. Chapple: Do you think it right that any one who likes can take a well-known drug, give it a new name, and advertise it as though it was something unknown to the profession?

The Witness: That is a question of ethics. In this case I should say "Yes." A really excellent remedy is to hand which a limited number of the profession know. In order to make it more widely known, and so to bring relief to a larger number of people, a large amount of money must be spent on advertising. You will not get a philanthropist to do that; you must give him some trade rights or it will never be done.

Are there not sufficient facilities in the medical profession for spreading this knowledge without the assistance of lay persons? Does the education of the profession depend on the proprietary medicine vendor?—I will say that the education of a very large number of practitioners depends on the firms who make or pack

* British Medical Journal, April 19th, 1913.

drugs, and not on the textbooks. The amount of money spent on travellers who call upon doctors to induce them to prescribe nothing but a given firm's remedies is enormous. The ingredients of compressed tablets, for instance, are known, but it requires the expenditure of an enormous amount of money to ensure that the medical man will add the initials that will secure that a particular firm's compressed tablets are used.

What is the inducement to use a particular drug when it does not differ from any one else's?—With the greatest respect to the medical profession, it is because they are exceedingly prejudiced with regard to drugs. There can be no reason why a doctor should prescribe a given brand except that doctors are susceptible to being talked over by travellers who can talk.

Is not the appeal to the medical man based on the ground that the maker has managed to combine the ingredients in such a way that they are simple, elegant, and easily dispensed?—Yes, but only in the same way that twenty other makers have done.

But you do not instruct the doctor in the therapeutic value of the drugs?—You persuade him that your substances, which are identical, are better than other people's.

But you would not presume to tell the doctor the value of the drugs?—I think you will find that that is just what you do tell doctors. In support of this remark the witness quoted an advertisement in the BRITISH MEDICAL JOURNAL in which the diseases that a given remedy was claimed to cure were mentioned.

Dr. Chapple: But these synthetic remedies are quite different from secret ones. Suppose some one comes to the doctor with a preparation called "Cureit," and asks him to try it for this and that disease?

The Witness: The doctor does it.

Upon no evidence except that a layman tells him these things?—They do.

Dr. Chapple: That is not my experience, and I am surprised that it should be yours.

In reply to Mr. Bathurst, the witness said he thought the practice under the Pharmacy Acts of putting the word "poison" on the bottle was preferable from the public point of view to the disclosure of the name of the poison that the preparation contained. As to making it an offence to advertise remedies for incurable diseases, Mr. Bathurst asked the witness whether he would advocate a public prosecution rather than a civil action in dealing with this.—The witness replied in the affirmative, and said he would make it a penal offence. He added that there should be sufficient power under the Indecent Advertisements Act to deal with remedies of an undesirable character in connexion with sexual diseases.

Mr. Bathurst: Various witnesses have suggested that a doctor's chemical knowledge is lacking?

The Witness: The curriculum is too short.

Dr. Chapple: Is it not carried on by the study of medical literature?

The Witness: Yes, but also by literature emanating from private firms.

Mr. Bathurst: Are you of the opinion that a sufficient education of the doctors in chemistry and therapeutics would put a stop to what, to my mind, is an undesirable way of educating the profession?

The Witness: No. The average doctor is a very busy man, and he will prescribe something that is easy to obtain.

Dr. Chapple: Do not these firms depend upon doctors for their information in the first instance?—I think not.

At the request of the Chairman (Sir Henry Norman), the witness made a general statement of what he regarded to be the possibilities of analysis. He said that in the case of purely organic drugs the difficulty of analysis increased enormously as the number of ingredients present increased. The vast majority of organic drugs—important ones—did not contain such identifiable principles as a glucoside or an alkali, and when they were alone, more certainly when they were in mixtures, the analyst had to rely on some other method than chemical means. In the case of a liquid the microscope was useless, and the analyst had to fall back on taste and smell. Broadly speaking, he could only get analytical results consistent with about twenty different formulae.

The Chairman put it to the witness that, according to his statement of the limits of analysis, any person, having made up a preparation of no real medicinal value, could protect himself by adding to the preparation six familiar drugs in very small quantities and then claim that the formula was totally undiscoverable by analysis.

The witness replied that the average vendor did not need to put in fictitious drugs for the purpose of "fogging" the analyst because the ordinary formulae of such remedies presented sufficient difficulties. He did not think such an action was at all usual, although it was possible. In analysing proprietary remedies, he had never found drugs which gave any evidence of having been included for such a purpose as the Chairman had indicated.

The witness said, in reply to other questions, that he had no suggestion to make as to the way in which exaggerated statements in proprietary medicine advertisements could be supervised. He thought the difficulty would be met in a great measure by prohibiting the advertisement of remedies for a specified list of diseases.

The Chairman: What is the ethical position of a doctor who prescribes remedies of whose composition he knows nothing, and who does so in the way you have described, at the suggestion of an advertising firm?

The Witness: I think he knows generally that when people spend money and time advertising a preparation there is reason to believe that the remedy may do good.

Would you be content with that?—That is the doctor's standpoint; he does it.

The Chairman: Do you realize that your series of criticisms of the medical profession, added together, really make a grave charge? You have told us that doctors are widely ignorant, that they do not know of the existence of a great many drugs, that they are very credulous, that they are easily talked over—I presume by glib salesmen—and that they are inadequately equipped from an educational point of view.

The witness objected that some of these expressions had been put in his mouth by questioners. He did say that the time at doctors' disposal was short for instruction in pharmacy, chemistry, and materia medica. That was acknowledged by every medical man.

The Chairman: You also said in effect that their education was incomplete until the proprietary medicine vendor had rounded it off.

The Witness: Words were put in my mouth to force me to that. I do say that their education in these matters is not adequate; there is not sufficient time. That is borne out by the fact that the General Medical Council is prolonging the curriculum by fifteen months. In support of his view that doctors prescribed proprietary medicines to a considerable extent, and also that they were ignorant of the composition of many of these preparations, the witness declared that medical men "rushed" for antikamnia, whereas under the name of Daisy Powder they condemned it. The ingredient of both, he said, was acetanilide. The medical profession to a limited extent prescribed medicines of which they knew nothing, and to an enormous extent those of which they had only a very little knowledge. In conclusion, the witness remarked that nearly every case of death from self medication had been due, not to a proprietary medicine but to poisonous drugs sold under their own names. More people had been killed in one year by veronal before it was put on the poisons list than had been killed in a hundred years by proprietary medicines.

In thanking the witness as he withdrew, the Chairman remarked, "I hope you will not get into trouble with any of your medical friends."

ASSOCIATION OF WHOLESALE DRUGGISTS.

Mr. R. C. WREN gave evidence as Secretary of the Association of Wholesale Druggists, which, he said, was composed of firms supplying packed medicines to the working classes through the channel of shopkeepers who were not registered chemists and druggists. The articles dealt in were mainly well-known drugs and medicines or simple compounds intended for use in minor and common ailments. The association asked that in any fresh legislation the right should be preserved of referring to the human body and its organs, and to the names of illnesses, on the labels of the preparations he had alluded to, without liability for stamp duty being incurred.

UNIVERSITY OF LONDON.

FINAL REPORT OF THE ROYAL COMMISSION.

[Second Notice.]*

No Medical Faculty.

The strict application of the principles laid down by the Commissioners with regard to what constitutes University education, or perhaps it would be better to say the strict terms in which those principles are defined, has led to at least one surprising result, which is that the new University of London as they conceive it would start, and it seems probable would long remain, without a Faculty of Medicine. This recommendation must seem to many so much of the nature of a step backward, that the arguments of the report and all its conclusions are at once laid under some suspicion; this suspicion will not be allayed when it is remembered that, though the commission had the advantage of hearing many competent medical witnesses, no member of it has had any practical experience of medical education, its methods or its needs.

Defects in Clinical Lectures.

The conclusion rests on what may seem a rather sandy foundation—an opinion that the clinical lecture or demonstration in London is insufficient and ill-prepared, because the clinical teacher is hampered by the demands of private practice, the want of an adequate staff of highly trained and skilled assistants, and time and laboratory facilities for research. To the London-trained practitioner of medicine who remembers the important part the clinical lecture or demonstration played in his own education the conclusion will, when first presented, probably seem wholly untenable. But a more careful consideration of the grounds upon which the conclusion is based may show that there is a good deal of truth in the assertion that, though the clinical lecture, founded on French models and greatly developed by some great teachers, was long one of the two chief means of clinical education, it has not in recent years undergone in London the development necessary to fulfil the more complicated requirements of modern medicine.

The Commissioners appreciate the high value of the British system of clerkships and dresserships by which the student is brought at an early stage into direct relation with patients, and indeed of the whole system of progression from clinical clerk to house-physician or house-surgeon by which his responsibilities are gradually increased. They would retain this system and combine it with the German professorial system of the hospital unit, as Sir William Osler retained and combined it at Johns Hopkins Hospital. There would be no difficulty about this; it would, in fact, be in the line of the natural evolution of medical education in this country. But the Commissioners have been so strongly impressed by the arguments of the advocates of the hospital unit system as to be induced to conclude that there is no hope for medical education in this country save through it.

It will not be disputed that the complete clinical study of many types of cases in the wards demands a much greater expenditure of time, a stronger body of assistants, and a much more complete armamentarium than thirty or forty years ago. The recognition of this fact is essential to progress, and the Commissioners are to be thanked for putting it so clearly before us; but to propose on that ground to refuse to the medical schools and medical teachers their place in the sun, and to seek to deprive them of their proper share in the direction and administration of the University, is to ride a hobby to death.

Medical Schools of the University.

As stated in the first notice of the report, the Commissioners propose that the existing medical schools in London should be recognized as University Schools in Medicine. The definition of "School" is that it is a public educational institution, or a group of departments in a larger educational institution, which is not under the educational and financial control of the University, but complies with certain conditions set out in the existing statutes of the University. Of these the most important are that in deciding on the claim of an institution to be admitted in whole or in part as a school of the university the Senate shall have regard to the following matters: (*a*) The general character and financial position of the institution; (*b*) the adequacy in number and qualifications of the teaching staff; (*c*) the University standard of the teaching; (*d*) the adequate provision of laboratories and other appliances necessary for giving instruction in the subjects in respect of which the institution seeks to be admitted; (*e*) the conditions as to age and attainments on which students are admitted; (*f*) the number of students proceeding or likely to proceed to degrees in the University; (*g*) the relation of the institution to any other University.

Board of Medical Studies.

The principal teachers in the Schools of the University would be grouped into Boards of Studies. Each such board, the Board of Medical Studies, for example, would prepare the curriculums and syllabuses of examinations for students in the Schools of the University, and would report these curriculums and syllabuses for approval to the Senate. The examinations would be conducted by boards of examiners consisting in the main, as at present, of teachers in the schools, together with at least one external examiner in each subject appointed by the Senate. The Commissioners, while prepared to recommend that candidates who have not studied in schools of the universities should be admitted to the general examinations in all cases in which exclusion might involve individual hardship or injustice, are of opinion that no such hardship could arise in the case of medicine and engineering. Upon this they make the following observations:

> The courses of study for these degrees are professional in their aim, they are of necessity very largely practical in character, and they are intended to fit their holders to follow occupations which closely affect the safety of the public. This combination of characteristics differentiates them from all other degrees awarded by the University. We are convinced that the University should grant its first degrees in medicine and in technology only to those who have undergone a course extending over at least three years, which is under the control of the University itself, and given either in a constituent College, a university department, or in a School of the University. The medical evidence we have received on this subject strongly supports this view. The Faculty of Medicine unanimously adopted the following resolution:
>
> > That the Medical Degrees of the University of London should be open only to those students who are students in the Schools of the University.
>
> Moreover, with the exception of the witnesses from St. Mary's Hospital Medical School, all the witnesses from the London medical schools who referred to this matter and a number of other witnesses, urged the abolition of the external degree in medicine. We admit the argument of several witnesses that it is an injustice to doctors who studied in London and obtained the London degree, that the same qualification should be open to students who have never had any connexion with the University beyond sitting in its examination halls. Every school of medicine in the kingdom is now connected with a university, and no hardship would be imposed by requiring that medical students should graduate in the university in which they have studied.
>
> Institutions which refuse, or cannot qualify themselves, to accept these conditions would still be allowed to present their students for general examinations for degrees, provided they comply with the conditions laid down for the recognition of Schools of the University, and their teachers would be members of a Board of Medical Studies (with power to appoint committees), which would advise the Senate through the faculties on the syllabuses and courses of study for the general examinations; but the institutions themselves cannot be included as constituent colleges or departments of the University into which they do not come, and their teachers cannot constitute the faculty of the University, which, so far as is consistent with the academic interests of the University as a whole, will have the direction and control of the medical education provided by the University. The question whether an institution does or does not form an integral part of the University, one with it in interest, in spirit, in educational standard and aims and ideals, is a question of fact, and there is no room for compromise. The financial and educational control, direction, and

* The first notice was published on April 19th, p. 836.

administration must belong to the University, otherwise it is impossible to establish within it the academic freedom and autonomy which we are convinced are essential to its existence and development.

POSSIBLE ORGANIZATION OF MEDICAL COLLEGES IN THE FUTURE.

When eventually, as it is hoped, the medical schools or some of them qualify to be admitted as Constituent Colleges of the University, it would be the medical school and not the hospital which would be incorporated, and arrangements would have to be made between the University and the governing body of the hospital with respect to the use of the hospital for the purposes of medical education and research, and with respect also to the appointment of those teachers in the medical school who from the nature of their work must also be members of the staff of the hospital. In further reference to this matter the Commissioners, after stating that Constituent Colleges, or University Departments, in the Medical Faculty of the future would have the same control over the University examination of their students as Constituent Colleges or Departments of other faculties, continue as follows:

The difficulty about the medical schools is that if they were all to agree to come into the University in the sense we have described, it would probably be found impossible, even on their present financial basis, to continue them all as institutions for the instruction of undergraduate students. The great defect of the present system in London is that it dissipates its strength upon unnecessary multiplication of undergraduate teaching on identical lines without providing opportunity for extensive study of particular subjects, while resources unrivalled in variety and extent are either neglected altogether, or are largely wasted for want of time and training on the part of those through whose hands the materials pass. In a great University Faculty of Medicine, developed in an indefinite number of directions, there would not only be a large increase of post-graduate work and research, but there ought to be a much wider range of undergraduate study than there is at present. This does not mean that undergraduate work would be separated from more advanced work by any hard and fast line. We think more freedom for the student is desirable than the English system provides. If his general education is good and his scientific training is what we hope to see, he ought not to be treated as under authority through his whole course to the same extent as at present. The matter is not free from difficulty and even danger. Regulations of the University would be necessary, but in proper cases the student ought to be able to arrest almost at any stage the general course of his necessary medical training in order to pursue further than is required of him any subject which fascinates his attention and appeals to his mind. There is no difficulty for such a man in returning to his regular course and completing it with increased power, greater self-confidence, and more of the initiative which should come from the side of the learner. There would be some risk of the unstable and the incompetent going astray, but there are methods of guidance by counsel and criticism well known to the teacher and very freely exercised by fellow students which should restrain him. In any case, we think it is a risk which must be run in the interest of the competent men of original mind. The university student is not a schoolboy, and the best results for the best men should not be made difficult or impossible.

But although in these and other ways there is ample scope for the development of medical education in London, the fact remains that it would be impossible for the University to absorb and continue the whole of the London Medical Schools to do their present work. They are kept alive partly by traditional loyalty and partly by the other causes to which we have already referred—the desire to maintain the status and efficiency of the hospitals, the desire to teach and do hospital work, and the professional advantages which usually accompany the holding of hospital appointments.

FIRST STEPS.

The Commissioners recommend that a Faculty of Medicine should be constituted when funds are available for the payment of the Professors and Readers they deem necessary, and when the University obtains financial and educational control of one or more medical schools attached to a general hospital.

They recommend that the proper course for the University would be to endeavour in the first instance to enter into an agreement with the executive authority of one or more of the London hospitals with regard to the future of the hospital medical school. As was stated in the first notice of this report the Commissioners have in mind the establishment of hospital units for medicine, surgery, and gynaecology respectively. Each unit would consist of

a professor with the control of wards; an out-patient department; assistants nominated by the professor with a view to complementing his own knowledge and affording him the special assistance he requires to carry on research in the direction in which he is interested; and, finally, laboratory accommodation in close proximity to the wards, not only for the service of the wards and the examinations and procedures connected with the diagnosis and treatment of the cases, but also for the purposes of research.

On this suggestion they make the following observation:

For scientific instruction in medicine the kind of teaching known as the clinical demonstration or lecture appears to us of great value, and we think in some form or other it ought to be systematically given. The time and knowledge required for this kind of teaching cannot be expected from the man in large practice. It needs a man who is devoting his life to the pursuit of science in his subject, and who is aided by a competent staff of assistants.

APPOINTMENT OF TEACHERS.

With reference to future appointments it is recommended that the appointment to the staff should be made by the governing body of the hospital, and to the teaching post by the University, both bodies being advised by a joint committee consisting of representatives of each. In connexion with the higher appointments the joint committee would ask for a report from a board of advisers and would eventually report to the Senate. It is believed that in this way the staff of the hospital and college would gradually be organized and co-ordinated in accordance with university ideals, and the whole course of the students' education from the time they enter the college rendered thoroughly scientific in principle. It is calculated that the complete organization of the hospital staff on university lines would thus be brought about in a period not exceeding twenty years at the most. When this result had been achieved the Faculty of Medicine would consist mainly of university professors and other teachers of standing in the university medical colleges, together with professors of subjects such as public health, forensic medicine, and mental diseases comprised in the Faculty but not necessarily taught within the medical colleges themselves, with perhaps, in addition, some eminent members of the medical profession who were not teachers of the University.

In entering into negotiation with a London hospital and its medical school the University would propose to appoint three professors—of medicine, surgery, and gynaecology respectively—in connexion with the hospital, together with the assistants above mentioned, and to undertake to pay both the professors and assistants, provided they were appointed to the staff of the hospital and had an adequate number of beds assigned to them. The Commissioners' suggestion of the way in which this proposal might be worked out in practice is as follows:

This would have to be arranged either by the retirement of some members of the existing staff, or by the transfer of beds from them all, or, in all probability, by a combination of both methods. It would certainly make things easier if the senior physician and surgeon on the staff whose terms of office would, in any event, be near completion, were to retire. For the present no other change would be necessary in the existing staff of the hospital. The professors would confine their instructions during the period of transition to the final year of the curriculum, and the present physicians and surgeons of the hospital would continue their teaching as before, and would be members of the Faculty of Medicine of the University. It is, of course, necessary that the University, together with the governing body of the hospital, should have a free hand in selecting and appointing the professors, but it is by no means impossible that in some cases the best man for the post would be found on the existing staff of the hospital, and would be willing to accept the appointment. It must be borne in mind that one important reason for proceeding slowly is that there would be a

difficulty in finding at present any large number of men fitted for the position of clinical professors, and willing to accept the chairs.

Finance.

As was stated in the previous notice, the estimate for the cost of the maintenance of a medical unit is £4,000, so that for the three units recommended each college would have to be provided with £12,000 a year, or for the three colleges deemed necessary, if all the London University and Oxford and Cambridge students are to be provided for, a total of £36,000 a year. This estimate proposes that the professors in the Faculty should receive not less than £1,000 a year, and a reader not less than £300. The professor would not be wholly debarred from private consulting practice, and it seems to be contemplated that an assistant, after serving in that capacity for seven years, should give up his university work and take to private practice, but remain eligible for promotion to the professoriate when a vacancy occurred.

(To be continued.)

LITERARY NOTES.

Professor James Stuart relates in his *Reminiscences* (1912) that at Cambridge he knew Professor Willis, whose death some eight years later led to his own appointment as a professor. Willis, he says, was a very interesting man, of extraordinary ability as a handicraftsman. He was a son, or grandson, of the Dr. Willis who attended George III when he was insane. Professor Stuart says he heard that George III had to affix a stamp for his signature to death warrants, because when allowed to sign with a pen he always wrote, "Hang Willis!" This is not unlikely, for Willis was said to have treated his royal patient with great harshness.

Another anecdote told by Professor Stuart shows Sir George Humphry's ingenuity in getting out of what to many doctors would have been a tight place. At a dinner at Cambridge, the conversation having turned on some medical matters, W. G. Clark, then public orator, said to him: "Take care now, Humphry, what you say, for I am going to tell you a story. Before you knew who I was I came to you, and said I was not feeling very well, and having described my symptoms you said, 'What do you take for your lunch?' and I said, 'A glass of sherry and a biscuit.' 'That is the cause,' you said, 'take a glass of beer and a mutton chop.' I did so, and after some time, the symptoms recurring, I came to you again. You had forgotten all about me, and when you heard them you said, 'What do you take for your lunch?' I said, 'A glass of beer and a mutton chop,' and you said, 'That is the cause of it; take a glass of sherry and a biscuit.'" To which Humphry replied, "I believe I was right in both cases. It was a change you wanted."

The phrase, "Who shall decide when doctors disagree?" which has become a part of the language, is constantly quoted as if it referred to doctors of medicine. It is held, indeed, to enshrine the proverbial tendency to disagreement among medical authorities. The reference is, however, to "doctors" or authorities in general. It is the opening line of the third of Pope's Moral Essays, which is addressed to Lord Bathurst, and deals with the abuse of riches. The poet asks:

> Who shall decide when Doctors disagree,
> And soundest Casuists doubt like you and me?

After summarizing his own views and those of the nobleman to whom the epistle was addressed, he says:

> Like Doctors then, when much dispute has past,
> We find our tenets just the same at last.

Doctors of medicine, as a matter of fact, probably disagree less than men of other professions. It may be said to be the business of lawyers to disagree, and from the warmth of theological controversy, even in these days of large tolerance, it is easy to understand how ready divines in days of more fervent faith were to use the stake as an argument against those who differed from them in opinion. The quarrels of literary men are proverbial; and, although a modern philologist would probably not say to a rival, like Dr. Cherubino in the *Golden Legend*:

> May he send your soul to eternal perdition
> For your treatise on the irregular verbs,

his unexpressed thought is doubtless often very much to the same purpose.

That Latin as written by many journalists and authors is a dead language is sufficiently shown by the corrupt fragments so freely strewn about certain kinds of current literature. A few specimens were given in the Journal of April 12th. Since then we have come across another sample which proves that, even when Latin was the common tongue of educated men, learned doctors sometimes used it as barbarously as the least classical of moderns. In a passage on the death of Gabrielle d'Estrées, quoted from the *Mémoires* of Pierre de l'Estoile by a writer in the *Chronique Médicale*, La Rivière, physician to Henry IV, is said to have left the king's mistress in her last agony with the edifying but ungrammatical exclamation, "*Hic est manus divinum!*" We hope that the blunder is that of the historian, not of the physician!

We have received a copy of the first number of the *Hungarian Spectator*, a periodical published under the auspices of the British American Literary Society in Hungary. It is hoped to convert it into a monthly devoted to spreading a knowledge of Hungary and its institutions and literature among English-speaking people, and to encourage the study of English literature in Hungary. The editor is Dr. Arthur B. Yolland, chairman of the society. The number before us contains articles on the mission of Hungary, by Count Albert Apponyi; interesting reminiscences of Hungary in Great Britain by Professor Arminius Vámbéry, and an essay on Shakespeare in Hungary—a brief review of Hungarian contributions to the world-wide literature that has gathered round the author of Hamlet. Mr. Desider Rozsa writes on the English psychological novel, taking the works of George Eliot, Meredith, and Thomas Hardy as his text. Other articles deal with modern Hungarian drama, and the conquest of Hungary. One object of the *Hungarian Spectator* is to bring prominently before British and American readers the health resorts and the wealth of healing and other natural springs for which Hungary is already famous. Our contemporary is very optimistic as to the future of Hungary as a place for visitors when its attractions come to be known, and goes so far as to say that Hungary will undoubtedly one day receive due appreciation as the El Dorado of tourists. Our new contemporary is excellently printed, without any of the distortions of our English speech that make English periodicals and books printed abroad so irritating. We wish its founders and promoters success in the object at which they aim.

Our American contemporary, *Surgery, Gynecology, and Obstetrics*, has added a new and very valuable feature to its contents. This is an *International Abstract of Surgery*, which is published in collaboration with the *Journal de Chirurgie* (Paris), the *Zentralblatt für die gesamte Chirurgie und ihre Grenzgebiete* (Berlin), and the *Zentralblatt für die gesamte Gynäkologie und Geburtschilfe sowie deren Grenzgebiete* (Berlin). The *International Abstract of Surgery* is intended to be: (1) A comprehensive index of surgical literature from all sources, arranged anatomically under departments, giving the author's name, subject of communication, and the name and date of the journal in which the article appeared; (2) an abstract of the surgical literature of all countries, prepared by the combined efforts of the German and French journals that have been mentioned, and a special staff for America and the British Empire. This will include abstracts and reviews of (*a*) original articles, (*b*) monographs, (*c*) books, and (*d*) clinics. It is stated by the managing editor, Dr. Franklin H. Martin of Chicago, to be the first journal in the English language "devoted exclusively and comprehensively to indexing and abstracting the surgery of the world." The *International Abstract of Surgery* is, in fact, a distinct journal supplementary to *Surgery, Gynecology, and Obstetrics*. It is excellently arranged and beautifully printed, and the illustrations are admirably reproduced. To specialists in the various provinces of practice which it covers it will be invaluable. The English editor is Sir Berkeley Moynihan.

M. Chacornac, of Paris, will publish a French translation of the complete works of Paracelsus. The first volume has already appeared, and there will be thirty in all. The translator is M. Grillot de Givry. The translation has been made from the Latin and collated with German editions of the works of Paracelsus.

British Medical Journal.

SATURDAY, APRIL 26TH, 1913.

HOUSING OF THE WORKING CLASSES.

THE time of the House of Commons on Friday, April 18th, was devoted to a second reading debate on the Housing of the Working Classes Bill, introduced by Sir Randolph Baker. It is commonly known as the Boscawen Bill, for it is practically identical with the bill introduced by Sir Arthur Griffith-Boscawen last year as it was amended in Committee. The bill secured a second reading by a majority of 140, the minority against it being only 41. As was the case last year, the bill had to encounter the opposition of the President of the Local Government Board; but he did not divide the House against it, and, as Mr. Burns failed to put forward any constructive proposals of his own to deal with what was recognized to be an urgent need, it was evident that his attitude of opposition met with little sympathy in any part of the House.

A private member, however, cannot secure the passing of legislation which involves a charge on the Exchequer unless the Government of the day brings forward a resolution in the House authorizing the Treasury to supply the money required. The Boscawen bill would require a Treasury grant of £1,000,000—that is to say, £500,000 in respect of rural housing, and £500,000 in respect of urban housing; and, if Mr. Burns adheres to his expressed intention not to submit such a resolution, it is evident that the operative part of the bill in respect of making grants to local authorities to aid them in building schemes cannot be passed into law. Other parts of the bill which would secure amendment of other Acts and additional provisions may perhaps secure passage through the House as a shorter bill.

Sir Randolph Baker introduced, and Sir A. Griffith-Boscawen seconded, the bill, which was opposed by Mr. Neilson and Mr. Dundas White. Colonel Kyffin-Taylor, Chairman of the Housing Committee of Liverpool, supported the bill, as did Mr. G. Roberts of the Labour Party, Lord Henry Cavendish Bentinck, and others. Mr. J. Samuel opposed it, mainly on the ground that it was inadequate to deal with the needs of the case. Mr. Walter Long, whilst severely critical of the measure, gave it his general support, stating that he had come to recognize that State help was essential if local authorities were to deal with the question in any adequate manner.

The bill is founded mainly upon the Housing of the Working Classes Act, 1890, which is cited as the principal Act. The main alterations proposed with a view to enforcing the existing Acts are the provision of a special Housing Department of the Local Government Board and the appointment of three Housing Commissioners, one of whom must possess the qualifications of a medical officer of health; another must have had large experience, in rural areas, of the practical development and administration of working-class dwellings, and another, similar experience in urban areas. The Commissioners would be required to ascertain the needs and conditions of various districts, to co-ordinate the work of the various officers of the Board already employed in this work, and to assist local authorities by advice and information. They would annually make a report to Parliament on housing matters.

If it were shown that a local authority was culpably neglecting its housing duties, the Local Government Board, after application to the court, would be empowered to deal with slums and to provide the housing accommodation itself in place of and at the cost of the local authority. The bill would provide (Clause 6) for the relaxation of certain existing by-laws as applied to the new buildings erected, but it would be necessary that they should be constructed in accordance with plans approved by the Local Government Board. It further (Clause 10) would seek to prevent a slum owner from deriving additional compensation because the property to be dealt with was overcrowded, and yielded extra rental on that account. The bill proposes also that the Local Government Board should have power to make grants to a local authority to meet the deficiency arising out of any housing scheme up to, but not exceeding, four-fifths of the deficiency.

Though the bill as a whole cannot become law unless the Government alters its attitude and undertakes to provide the necessary funds, and though in the other event the prospects of the bill, even in a truncated form, are not very bright, yet the debate has shown a current of opinion in favour of legislation on these lines so strong and general that no Government will desire to disregard it. The debate has therefore served a very useful purpose, and marks a distinct step forward.

FRANCIS BACON ON MEDICINE.

IN his *Treatise on the Advancement of Learning* Bacon has some remarks on the practice of medicine which are well worth attention even at the present day. He says the "variable composition of man's body hath made it as an instrument easy to distemper." The variability of the subject has, he goes on, made "the art by consequent more conjectural; and the art being conjectural hath made so much the more place to be left for imposture." He meets the gibes, so common even now, as to the fallibility of medicine with the following excellent argument: "The lawyer is judged by the virtue of his pleading and not by the issue of the cause. The master in the ship is judged by the directing his course aright and not by the fortune of the voyage." On the other hand, the physician, and perhaps the politician, has no particular acts demonstrative of his ability, but is judged most by the event, "which is ever but as it is taken; for who can tell if a patient die or recover, or if a state be preserved or ruined, whether it be art or accident?" By reason of this imposture often triumphs over knowledge. How little human nature has been changed by the greater enlightenment of which we are so ready to boast at the present day is shown by the following passage: "Nay, we see the weakness and credulity of men is such as they will often prefer a mountebank or a witch before a learned physician. . . . For in all times in the opinion of the multitude witches and old women and impostors have had a competition with physicians. And what followeth? Even this, that physicians say to themselves, as Solomon expresseth it upon a higher

occasion, 'if it befal to me as befalleth to the fools, why should I labour to be more wise?'"

Bacon noted in his day a feature of the medical character which is still conspicuous in many doctors—that is, versatility of mind and corresponding variety of interests. He says: "You shall have of them antiquaries, poets, humanists, statesmen, merchants, divines." Sir Henry Thompson, himself an artist of no mean skill, used to say that he had been struck by the number of collectors and connoisseurs in various lines that he met with among his professional brethren. We do not accept Bacon's further statement, that physicians are "in every of these better seen than in their profession, and no doubt upon this ground that they find that mediocrity and excellency in their art maketh no difference in profit or reputation towards their fortune; for the weakness of patients and sweetness of life and nature of hope maketh men depend upon physicians with all their defects." With all respect to the author of *The Advancement of Learning*, we venture to think that this is something more than paradox; it is perilously near nonsense. The public is a bad judge of a doctor's quality, and even when medicine was as conjectural an art as it was in Bacon's day a reputation for skill must have profited a practitioner, while a name for incompetence must have led patients to seek counsel elsewhere.

Among the "deficiences" of the medical profession he particularly mentions what we not long ago called the waste of medical experience. He condemns "the discontinuance of the ancient and serious diligence of Hippocrates, which used to set down a narrative of the special cases of his patients, and how they proceeded and how they were judged by recovery or death. . . . This continuance of Medicinal History I find deficient; which I understand neither to be so infinite as to extend to every common case nor so reserved as to admit none but wonders: for many things are new in the manner which are not new in the kind; and if men will intend to observe they shall find much worthy to observe."

With Celsus he reprobates the vivisection of human beings, but goes on: "Yet in regard of the great use of this observation the inquiry needed not by him so slightly to have been relinquished altogether or referred to the casual practices of surgery; but might have been well diverted upon the dissection of beasts alive which notwithstanding the dissimilitude of their parts may sufficiently satisfy this inquiry." On the strength of a passage in *Cymbeline*, in which experiments with poisons are denounced, Shakespeare is often cited by the antivivisectionists as sharing their views on the subject. The contradiction on this point between him and Bacon, when speaking in his own name, may supply a new argument to those who think it worth while to spend time in a foolish controversy. Bacon further insists on the necessity of a multitude of *post-mortem* examinations and on the contribution of each practitioner's experience to the general sum of knowledge, with exact references to the diseases and symptoms shown by the appearances seen in the bodies of the dead, "whereas now upon opening of bodies they are passed over slightly and in silence."

Under the heading *Inquisitio ulterior de Morbis insanabilibus*, Bacon reproaches doctors with declining to treat many diseases as in their nature incurable and others as past the period of cure. In this way, he says, they "do enact a law of neglect and exempt ignorance from discredit." There is perhaps still some ground for imputing this to doctors as a "deficience." There is a suggestive passage in Sir James Paget's *Clinical Essays*—we cannot give the reference as we have not the book at hand—in which he urges practitioners to continue the fight against death even when the disease is by all the rules of art incurable. Bacon held that in certain cases euthanasia was not only justifiable but a duty to the patient. He says that doctors "ought both to inquire the skill and to give the attendances for the facilitating and assuaging of the pains and agonies of death."

Another "deficience" which Bacon found in physicians was that they "have not partly out of their own practice, partly out of the constant probations reported in books, and partly out of the traditions of empirics, set down and delivered over certain experimental medicines for the cure of particular diseases besides their own conjectural and magistral descriptions. For as they were men of the best composition in the State of Rome which either being consuls inclined to the people or being tribunes inclined to the Senate; so in the matter we now handle they be the best physicians which being learned incline to the traditions of experience or being empirics incline to the methods of learning." He further complains that the "prescripts" in use are too compendious to attain their end. For he says, "it is a vain and flattering opinion to think any medicine can be so sovereign or so happy as that the receipt or use of it can work any great effect upon the body of man." In view of the amazing illustrations of polypharmacy presented by the prescriptions of the doctors of Bacon's own day and for some three centuries after his time, this complaint is not a little remarkable. One gathers that the doctors of his time very frequently changed their treatment, for he says: "And although a man would think by the daily visitations of the physicians that there were a pursuance in the cure; yet let a man look into their prescripts and ministrations and he shall find them but inconstancies and every day's devices without any settled providence or project. Not that every scrupulous or superstitious prescript is effectual, no more than every straight way is the way to Heaven; but the truth of the direction must precede severity of observance." Not a word is said of the horrible substances then in common use in therapeutics. It is curious also that there is no mention of surgery; Bacon had evidently not the faintest prevision that the art of healing would be so greatly advanced as it has been by the gradual reclamation by the surgeon's knife of the waste land which not long ago formed so large a part of the "conjectural art" of medicine.

THE ETIOLOGY OF MINER'S NYSTAGMUS.

Miner's nystagmus, according to Llewellyn, causes an annual loss to the State of over £100,000, as well as an immense amount of suffering to the afflicted miners. The number affected appears to be increasing rapidly, and constitutes a serious charge upon the colliery owners for compensation and loss of labour, and a large loss of wages to the miners. The time is, perhaps, ripe for the appointment of a Royal Commission to investigate the etiology and methods of prevention of the disease.

The exact cause still remains a matter of opinion. At the Oxford Ophthalmological Congress last July miner's nystagmus formed the topic of a formal

discussion which was opened by Mr. Harrison Butler, who expressed the opinion that the prime factor in the etiology was the defective illumination of mines. This view was supported by Drs. Court, Coulter, Cridland, Elworthy, Jameson Evans, Folker, Llewellyn, McMurray, Norman, Ridley, Riseley, and Tomlin, and at the end of the discussion the opinion was unanimously expressed that defective illumination was the prime factor in the causation of the disease. The congress also asked the Government to appoint a Royal Commission. It is obvious, therefore, that practically all the English medical men who have studied the subject are unanimously of the opinion that bad light causes the disease. The view was expressed that, were the use of an electric lamp made compulsory, miner's nystagmus would soon become a historical disease.

The facts which have led to this opinion are, briefly, that the disease is practically absent from candle mines, even in those in which the seams are as low as 18 in., and in which the coal getters have to work in exceedingly cramped positions; and that it is exceedingly prevalent in mines lighted by safety lamps, even in those with seams so high that the holers stand to their work, and do not labour in the cramped position which the late Mr. Simeon Snell believed to be the cause of the disease. These two facts seem to prove conclusively that illumination is the determining factor. They also logically exclude strain of the eye muscles as a prime cause, because the disease is common in mines where the colliers work standing up in comfortable and natural positions.

These views are not universally accepted upon the Continent. At the thirty-fourth Congress of the Belgian Ophthalmological Society, held last November, Dr. Dransart read a paper in which he strongly supported the theory that muscle fatigue was the prime factor, and he stated that all cases showed paresis of the external or internal rectus muscle, but generally, in fact almost always, of the internal. This has been pointed out by Ohm and others, and requires further investigation. In any case, paresis is the wrong word to employ; it would be better to speak of exophoria with Ohm, who has on three occasions advanced the internal recti with some measure of success. Coppez supported the same view, and stated that the graphic record of the nystagmus showed the same type of undulation as was obtained from a fatigued muscle with the myograph (incomplete tetanus). Benoit thought the disease was caused by the effect of the increased atmospheric pressure upon the labyrinth, causing hyperexcitability and labyrinthine nystagmus. Two vital objections can be offered to this hypothesis: the first is that miner's nystagmus gives an undulatory graph, *nystagmus à pendule*, whereas labyrinthine nystagmus is *à ressort*; and the second, that workers in deep metal or diamond mines never develop nystagmus. The question has often been asked, Why do some miners develop nystagmus whereas others escape? Dransart boldly says all the miners who develop the disease have exophoria—that is, insufficiency of the rectus internus. McMurray and many other English surgeons believe that a large number of nystagmic miners have errors of refraction. Some have gone so far as to say that all have some error of refraction. It appears to be a fact that an error of refraction is more frequently discovered among nystagmic miners than among non-nystagmics, but the investigations of Harrison Butler, Cridland, and others show that 100 per cent. is a very excessive estimate. A nervous temperament has been invoked to explain the question, and probably with a considerable degree of truth.

The conclusion would seem to be that the disease is primarily caused by defective illumination, and that errors of refraction and muscle balance, associated in some cases or in all with a neuropathic diathesis, are the determining factors in the incidence of the disease. When it is borne in mind that Llewellyn has shown that the effective illumination of the ordinary safety lamp under service conditions is only one-tenth of that given by the miner's candle with spread-out wick, the importance of illumination will be better appreciated. The probable reason why Dransart and so many of the Belgian ophthalmic surgeons still cling to the myopathic theory is that there are no candle mines in Belgium, so that they have no personal proof of the fact that no matter how confined the seams nystagmus does not arise spontaneously in candle mines.

Since Dransart's paper was published an opportunity has been taken to examine three cases of miner's nystagmus. Tested with the Maddox rod at 20 ft., one of them had 6° of esophoria, and two of them orthophoria. Not one of the three had the paresis of the internal recti which Dransart says is practically always present. It would be well if all surgeons who see these cases were to make a special investigation of the muscle balance.

CHANGES OF DOCTOR BY INSURANCE PATIENTS.

IT has been assumed by many practitioners that as the arrangements made between Insurance Committees and medical practitioners were for a provisional period of three months, insured persons at the end of that time would be allowed to make a fresh choice of doctor. In areas in which many doctors went on the panels before the abrogation of the pledge of the Association many insured persons, urged by the Local Insurance Committees, put their names down on the list of some doctor who had already joined the panel, although had there been time they would have preferred their own doctor whose name did not then appear there. These latter practitioners looked forward to an opportunity on April 15th to redress a grievance in which they have the entire sympathy of the Association. It appears, however, that the Insurance Committees are averse from approving any wholesale change, and, looked at from their point of view, and indeed from that of a large number of practitioners, the mere idea of what happened in the middle of January last coming over again even on a diminished scale would be most unwelcome. Some other means of redressing this grievance should be found, and we believe can be found.

Apart from the discomfort and extra work which it would entail, there is another reason why such a general reshuffle should not be lightly entertained by the medical profession. In many areas serious difficulties have arisen with regard to the treatment of uninsured persons, and various organizations have advertised for, and we are sorry to say, obtained, the services of practitioners who are willing to take the place of and undersell the practitioners of the area.

Attempts to introduce outsiders have in some areas failed because it was not possible to offer the imported practitioner the cards of a large number of insured persons who, if they had not already chosen their doctor, would, in their desire to defeat

the profession and get attendance for their dependants on cheaper terms, have been willing to select the imported practitioner as their insurance service doctor. In other districts where practitioners have been introduced, their financial position is rendered precarious by the difficulty just mentioned. It is probable that in such areas the profession would in self defence strongly object to a general fresh choice of doctor, and in considering the question this danger—a very real one in some districts—must be kept carefully in mind.

Wherever members of the profession in any area so desire it, however, it will not be difficult for them effectively to meet the case of those practitioners who declined to go on the panel until after the pledge was abrogated. This can be done by allowing them to place upon their lists at once all those patients who, had the delay been longer, would have placed their names there in the first instance. Regulation 26 (*a*) allows of a simple transference of any patient from one practitioner to another by mutual consent, and with no more trouble than the signing of a document by the patient and the two doctors concerned. This method has the merit of being entirely within the control of the profession itself, and for this reason it seems worthy of the serious consideration of the Local Medical Committees in every area when they have to deal with the position of members of the profession who, by their steadfastness and loyalty to the pledge of the Association, have suffered the loss from their lists of insured persons previously among their patients. This suggestion is made in full knowledge of the fact that the London Insurance Committee has thought fit to issue to persons who wish to be transferred from one practitioner to another a circular, in which it not only asks, as is provided by the regulation, for the written consent of the insured person and the two doctors concerned, but also that the insured person shall state his reasons for wishing to change. The natural inference from this demand is that the reason given must be approved by the Insurance Committee. There is nothing in Regulation 26 which gives an Insurance Committee a right to make any such demand. It looks almost as if the London Insurance Committee were trying to discourage changes in the medical list, and thus drive a coach and horses through the Act and Regulations. Not only is it illegal and unnecessary to impose on the insured person the obligation to state in a document of this kind the reasons for desiring a change, but it would be a most invidious proceeding for him, and he might quite conceivably fear that it might lead to difficulties not unconnected with the law of libel. The provision in Regulation 26 is a perfectly straightforward method of approximating the conditions of insurance practice so far as change of doctor is concerned to those of general practice, and it seems to be altogether improper for any Insurance Committee to seek to put unnecessary difficulties in the way. The State Sickness Insurance Committee so soon as the circular of the London Insurance Committee was brought to its notice decided to send a protest both to the Insurance Committee for the County of London and to the Insurance Commissioners. The terms of this protest are given in the report of the proceedings of the Committee published in the Supplement this week. It is to be hoped that the Commissioners will at once require the London Insurance Committee to withdraw a circular which is not only mischievous, but, as we submit, clearly *ultra vires*.

THE ROYAL MEDICAL BENEVOLENT FUND.

That life is extremely uncertain even in the case of the young and apparently healthy is a very trite saying; but few observations of the sort become trite unless they are in essence both true and useful. Of the truth of this particular observation there is constant evidence even in our own obituary columns. In this week's issue, indeed, there is a notable instance in point. It is also a trite saying that virtue is often its own and only reward, and this, too, is not seldom demonstrably true. It is, indeed, again a truth to which our obituary columns this week bear testimony, recording as they do the death of a man who lived a life of utility both to his colleagues and the general public, before he had had an opportunity of making adequate provision for his family. At first sight it would seem as if members of the medical profession least of all men needed reminding of facts of this kind. Practical experience, however, suggests that either familiarity with accidents and death, and financial and other calamities due to sickness and ill health, produce in them a certain contempt, or that the circumstances of their lives prevent them paying due heed to such matters. However this may be, it remains true that medical men habitually take risks about their health such as in their patients they would utterly condemn; and that while many medical men make nothing more than just enough to cover the daily outgoings of a family, practically all are so occupied in looking after other people as to have little time to devote to their own private affairs. The net result is that it is by no means rare for members of the medical profession either to die leaving behind them wives and children for whom they have been unable to make any adequate provision, if indeed any provision at all, or practically to complete their professional career without having been able to set aside anything for the time of age and natural infirmity. Instances of such events are by no means rare in our own columns, and occur with lamentable iteration in the lists of those whom the Royal Medical Benevolent Fund has been able to assist during the previous few weeks or months. The position which that fund has attained has been recognized by His Majesty the King, who has recently accorded it the right to substitute the present for its original title, the British Medical Benevolent Fund. Further testimony has also been forthcoming from Prince Arthur of Connaught, who has agreed to take the chair at a dinner in furtherance of the objects of the fund at the Hotel Cecil next Wednesday, April 30th. It is a fund which grants assistance, so far as circumstances permit, to all medical men who are in distress from age or illness, as also to the widows and children of deceased medical men. It is therefore fully entitled to the support of British medical men wherever they practise, and should receive it plentifully, since the annual reports leave no doubt whatever that it is admirably managed by its committee, and more especially its officers—the president, Sir John Tweedy; the treasurer, Dr. Samuel West, of 15, Wimpole Street; the chairman, Dr. Parker Young; and the honorary secretary, Mr. W. E. Sargant, of St. Bartholomew's Hospital. On the financial side there is conclusive evidence to this effect in the fact that, despite the number of private inquiries which have to be made before assistance is given, the working expenses barely exceed 5 per cent. of the gross income. Those conversant with the administration of charitable enterprises need scarcely be told that this is a somewhat notable record. In regard to income, the authorities of the fund look to the medical profession itself in the first instance; but they also consider that the fund has a claim upon the public, which can never pretend that it acquits its full debt to the medical profession by payment of the fees demanded by individual medical men. This is a point worth bearing in mind, for, besides assisting the fund by

donations and subscriptions, small or large, medical men can also attempt to assist it by mentioning its existence to their wealthier patients. Sundry items in the accounts furnished in the annual reports suffice to prove that when such attempts are made the members of the public approached often prove glad that a form of charity in which they can take a real interest has been brought to their notice. To recur once more to the dinner next Wednesday, it should be noted that, of the many ladies expected, some will be present in a kind of official capacity. This is due to the fact that the experience of the fund convinced it some three years ago that personal service by ladies would be of great advantage in its work. A guild was brought into existence, which now has branches scattered all over the United Kingdom, and conducts its highly successful work on a semi-independent basis. On its general council, which has as president the Dowager Lady Broadbent, are the wives of many well-known medical men; while its executive committee has as chairman Lady Tweedy, other officers being Mrs. H. D. Rolleston, Mrs. Liveing, and Mrs. Garrod. The honorary treasurer is Mrs. Scharlieb, and the visiting secretary Mrs. Fuller. The members of this guild, apart from collecting funds, make a regular practice of visiting and assisting in many practical ways those who are beneficiaries of the fund. They do such excellent work that the foundation of the Royal Medical Benevolent Fund Guild must be regarded as one of the happiest thoughts that have ever occurred to the authorities of the parent body.

THE TITLE OF DOCTOR.

By long use and wont the title of "doctor" has come to be almost universally applied by the public to all practitioners of the healing art whether their qualification to practise be derived from a university or a chartered corporation. The same custom exists in other countries, but nowhere else, perhaps, is the word so generally used, both in a collective and particular sense—both for the members of the profession as a body, and for individuals. The Royal College of Physicians of London, by the alteration recently made in its by-laws, has recognized this fact. Formerly it forbade a diplomate to make use of the title of "Doctor"—to call himself "Dr. ——" on a door-plate or visiting card—unless, of course, he possessed a doctor's degree from a university. Many Licentiates have been at a good deal of pains to carry out the spirit of the regulation by trying to induce the public not to apply the title to them. The effort has for the most part left the public puzzled and indifferent, and the use of the title by it has become more rather than less common. Under its amended regulation, the Royal College of Physicians will no longer require its diplomates to refrain from the use of the title of "Doctor," recognizing that it has acquired an occupational significance. It will, of course, not countenance the use of the letters "M.D." or of any locution, such as Doctor of Medicine, which has an academic or university signification, for it does not under its charters possess the right of conferring a degree. The by-law, as it was finally adopted at the meeting of the College on December 12th, 1912, was published in the JOURNAL of December 21st, p. 1734. The alteration is shown by the words in italics which have now been omitted: "No Fellow, Member, Extra-Licentiate, or Licentiate of the College shall *assume the title of Doctor*, or append to his name the title of Doctor of Medicine, or the letters M.D., or any other letters indicating that he is a graduate of a university, unless he has obtained a degree entitling him so to do."

TOWN PLANNING ACT AT WORK.

To those who are concerned with the improvement of the housing conditions of many of our towns it is provoking to reflect that many of their difficulties have been caused by the haphazard manner in which, within quite recent years, streets have been laid out and houses have been erected. Existing highways, whatever their width or however tortuous they may have been, have been built upon without any thought of the effect to be produced in the future. The result has been that whole streets have had to be widened and dangerous corners rounded off at very considerable cost. One of the objects of the Housing, Town Planning, etc., Act, 1909, was to prevent a repetition of the errors of past years, and by enabling local authorities to prepare anticipatory schemes with respect to "any land which is in course of development, or appears likely to be used for building purposes, to secure proper sanitary conditions, amenity, and convenience in connexion with the laying out and use of the land and of any neighbouring lands." When a local authority desires to carry out this provision of the Act, the first step is to obtain the consent of the Local Government Board to the preparation of a suitable scheme: and, the scheme having been prepared, it must receive the approval of the Board, who may either modify it, or impose such conditions with respect to it as may be considered desirable. Several local authorities have already been authorized to prepare schemes, including the corporations of Birmingham, Bournemouth, Chesterfield, and Rochdale, and the urban district councils of North Bromsgrove, Oldbury, and Ruislip-Northwood. The scheme of the last-named authority has, we believe, reached a more advanced stage than that of the others, and a local inquiry on behalf of the Local Government Board was opened on April 17th. The area concerned surrounds the Ruislip Manor estate, which is to be laid out on garden city lines by a company whose dividends are limited to 5 per cent.; any surplus profits, after making provision for proper reserves, must be devoted to the purchase, provision, and maintenance of parks, pleasure grounds, open spaces, and public buildings. The entire area to be covered by the two schemes is nearly ten square miles in extent. The district is served by no fewer than six railway stations, from which London may be reached in from eighteen to forty minutes, so that there is a good prospect of the development schemes being successful. The main features of the district council's scheme include new and improved lines of road connecting the estate with the railway stations, main roads, and other approaches to the neighbouring towns and villages and towards London; the allocation of certain areas for special purposes or different classes of buildings, such as shops, private dwelling houses, factories, etc., in order to protect the residential amenities; the provision of open spaces, both public and private, and the limitation over the whole district of the number of houses to be placed on a given area. It is anticipated that the maximum number of houses to the acre will be twenty, and that in many instances there will not be more than eight or ten. It is thought that while the indiscriminate mixing of large and small houses is not desirable, a judicious proportion of medium-sized houses may be distributed among the larger ones without depreciating the value of the latter, and that provision should be made in special areas for housing the working classes employed in connexion with the larger houses. The housing accommodation for the working classes at present existing is quite inadequate, and an effort at improvement is being made by the formation of the Ruislip Manor Cottage Society, which as a public utility society can obtain two-thirds of the cost of erecting houses from the Public Works Loan Commissioners. This society has already approved schemes for building 150 small houses, which can be let at rents varying from 6s. to 15s. a week. The tenants will be entitled to share in the surplus profits in addition to interest on any moneys they may invest in the society. Unlike many other similar profit-sharing schemes, there is provision for the acquirement of his house by a tenant, who will be required

to make an initial payment of from £25 to £100 and an annual payment equal to the rental.

THE PROFESSION OF THE FUTURE.

The philosopher Descartes said that if the human race is to be perfected it is in medicine that the means to that end are to be found. Diderot, who, though not a member of the profession, took a great interest in the science, and wrote much about it and physiology, was even more persuaded of the truth of Descartes's maxim than that philosopher himself. He found the means of perfection in disinterested medicine. Here we may be allowed to say that, although of course there have been rapacious doctors, the profession as a whole, especially in modern times, has shown the world the unique spectacle of a body of men actually working against their own interests. Sanitary science, whose aim is the protection of the health of the community and the steady diminution and ultimate abolition of infectious diseases, is the result of medical research. If doctors consulted only their own selfish interests, they would not strive so earnestly as they do to suppress diseases that are so abundant a source of profit. People of the intellectual calibre of Viscount Harberton, better known as the Hon. Ernest Pomeroy, call doctors "fee hunters" because they advocate vaccination. Has this ornament of our hereditary legislature attempted to estimate how much more medical practitioners would benefit financially if small-pox were as prevalent as it used to be in pre-Jennerian days? To return to Diderot, he was probably inspired by the great physician Bordeu. He said there were no books that he read more willingly than those treating of medicine, no men whose conversation was more interesting to him than that of doctors. He had grasped the importance of the experimental method and had by scientific second sight seen the shadows cast before by physiological discoveries which were to be made by that method long after his death. Mr. Stephen Paget in the *Letters and Memoirs* of his distinguished father relates that Sir James Paget one evening at Grillon's sat between Mr. Gladstone and Mr. Matthew Arnold. The talk turned on professions. Arnold said that he had been much impressed in America by the superiority of the doctors over the clergy and the lawyers. Mr. Gladstone said that the medical profession, steadily developing and improving, was the profession of the future. This is not the only time that Mr. Gladstone expressed his belief in the great destiny of the medical profession. At the opening of the Medical College of Guy's Hospital on March 26th, 1890, he said that now, both from social considerations and likewise from the immense and steady advance in knowledge of his great science, the doctor was from year to year, from generation to generation, becoming a more powerful and important person as a portion of the social machine. Nor was this a mere outburst of enthusiasm inspired by the occasion. Many years before, at the dinner held in connexion with the Annual Meeting of the British Medical Association in London in 1873, Mr. Gladstone spoke of the change that increase of knowledge had made in the medical profession. It was impossible, he said, even to an observer from without, not to see the doctor's greater and more sustained earnestness of purpose; the elevated sense of his professional dignity; the desire to make it subservient to the good of humanity; the general exaltation of his aims. He added that the course of affairs tended in every way to show that this process was continuous. The position of the profession had long been, and he thought must continue to be, one of constantly increasing influence and power. Mr. Gladstone's testimony to the growing importance of the profession is all the more striking in view of the fact that he never seems to have realized that the public health was any concern of the politician; even his intimate friend, Sir Henry Acland, could not arouse in the man whose intellectual curiosity was of the most encyclopaedic range any interest in a thing which should be among the first cares of a statesman. But, although his prophecy has not yet been fulfilled, we think that in his vision of the profession of the future Mr. Gladstone showed a surer appreciation of the truth than some of the politicians into whose hands the divine lyre of his oratory has degenerated.

SALVARSAN AND EPILEPTIFORM CONVULSIONS.

Last year there was an important discussion in the Berlin Dermatological Society[1] on a paper by Dr. Fritz Lesser entitled "Epileptiform Convulsions following the Administration of Salvarsan." A number of instructive points were raised by various speakers with regard to the complications, and in some instances the fatal results, following salvarsan, and the general trend of the discussion was critical. In his concluding remarks Lesser said that he had collected 18 cases of epileptiform convulsions which he had divided into two groups: 12 in which the attacks occurred from three to five days after the intravenous injections, and 6 in which the attacks were observed nine weeks or more after the injection. He has since reported that the cases in which acute attacks had followed salvarsan have doubled in number, and has expressed the opinion that they are more common than was thought. Some cases of this kind must pass unrecognized. In those instances in which the attacks occurred suddenly three to five days after the intravenous injection, and were similar in character, they could only be referred to a single toxic agent. He pointed out, too, that of the 18 cases mentioned in his paper recovery occurred in 2 only. Necropsies revealed mostly a lepto-meningitis, less commonly of a haemorrhagic nature. This may be compared with the experimental results of Marschalko, who observed meningeal haemorrhages after injecting salvarsan in animals. Nor did F. Lesser accept the Herxheimer reaction as an explanation of the convulsions. The fact that in half his cases the attacks only occurred after the second intravenous injection was greatly against such an explanation. How to avoid complications was, he considered, difficult to decide. If small doses were injected nervous symptoms might occur, and if the doses were too large epileptiform convulsions might result. Nor could he accept Ehrlich's view that in cases presenting malaise, headache, and so forth, small doses only of salvarsan should be injected, as such symptoms indicated the presence of spirochaetes in the brain. Lesser had shown, on the other hand, that epileptiform convulsions had occurred in patients who had not presented any such symptoms before the injection. In conclusion he pointed out that it was necessary not to be hasty in employing salvarsan. A complication or accident following the exhibition of salvarsan in the primary and early stages of syphilis might be justified by the fact that an attempt at a *therapia sterilisans magna* had been made. He insisted on the value of salvarsan when used in such circumstances, but it was quite another matter to employ the drug in other stages merely because the Wassermann reaction happened to be positive.

OFFENSIVE DRINKING WATER.

Recently in certain districts the water supplied by the Metropolitan Water Board has not been up to the usual high standard so far as taste and smell are concerned. About the middle of February isolated complaints were made as to the taste and smell of the water. These complaints would seem to have been dealt with effectively, and all went well for some three weeks, but then a large crop of complaints, much more widespread and serious, arose. All sorts of allegations were made about the water: it was said to taste oily, or like paraffin, or to

[1] *Verhandlungen der Berliner dermatologischen Gesellschaft* (1911-1912). Berlin: Karger. 1913.

smell fishy. No doubt there was just cause for complaint and some reason for fear lest the cause of the disagreeable odour and nasty taste might be injurious to health. There was a feeling of relief when the Water Board authorities were able publicly to state that the water, although disagreeable, was not dangerous to health. The Board's officers grappled with the question energetically and decisively, and soon the scare was over. For the last month the water has flowed as clear and sweet as of old. We understand that the source of all the trouble was the water from the Staines reservoir. This great reservoir, which has a site-area of 500 acres and a total capacity of 3,338 million gallons, was constructed by the water companies interested, and the inlets and outlets were placed in the same tower. The circulation of the water throughout the vast area was thus rendered physically impossible. Moreover, the water began to be taken in on May 16th, 1902, and was allowed to lie without being drawn until December, 1904. This stagnation gave the various forms of algae a splendid opportunity to grow, decay, and sow the seed of future trouble. Even public bodies learn by experience, and we believe that not only have steps been taken to ensure circulation of the water in the Staines reservoir, but in all the new reservoirs devised by the Water Board the utmost care is taken to have a full and free circulation throughout their whole extent. Staines under the circumstances afforded a habitat favourable to the growth of algae, and water from this reservoir carrying these plants found its way to the filters. There these organisms formed a skin on the surface of the sand, decomposed, and gave rise to the odour and taste complained of. The particular algae which have been detected are tabellaria and asterionella, the former being in larger number. Both of these growths produce taste and smell in water, and their presence would account for the condition of the water during the period of which we speak. In America these algae, flowerless plants of simple cellular structure, have given a great deal of trouble, and the scientists in that country have fought these insignificant but disagreeable organisms energetically and with considerable success. There can be no doubt that those who have the charge of caring for the quality of the water supplied to London, as well as those in a like position throughout the country, are quite up to date with the best methods of dealing successfully with these growths, so that we may hope that this somewhat exceptional experience will not recur. It is also a matter for thankfulness that, so far as we know, algae or their products do not give rise to disease; indeed, it is highly probable that if those who drank the water and justly complained of it had not been endowed with taste and smell, they would have drunk the water without being a penny the worse.

SCHOOL DENTAL CLINICS.

THE term "school dental clinic," though still comparatively novel, has been used so frequently in connexion with medical inspection of elementary schools during the last year or two that probably many people are under the impression that institutions of the class to which the phrase is now commonly applied came into existence for the first time as a consequence of the Elementary Education (Administrative Provisions) Act, 1907. This, however, is not really the case; there were school dental clinics in existence long before the passage of that Act. As far back as 1897 the Local Government Board issued a formal Order authorizing the appointment by boards of guardians of dental officers to attend to the teeth of the children in Poor Law schools, and laid down the main principles on which the work should be done. Over ninety boards of guardians in London and the provinces sooner or later took advantage of the permission granted, and still maintain the school dental clinics established by them. Even before this date the Local Government Board had agreed to sundry boards of guardians undertaking work of the same order on behalf of the children under their charge, and some of these have had dental clinics at work ever since 1892. Such clinics have also been maintained for a good many years at practically all the reformatory and industrial schools under the control of the Home Office. A complete list of these, as also a good deal of information on the whole subject, may be found in the second edition of a pamphlet[1] published by the School Dentists' Society. The latter, which came into existence some fourteen years ago and had as first president Mr. Sidney Spokes, was the offspring of a committee appointed by the British Dental Association in 1890 to investigate the dental condition of the elementary school population. This committee in its turn was largely indebted for its existence to the energies of Mr. W. MacPherson Fisher of Dundee, who, we believe, should be credited with being the first person publicly to recognize the importance of the whole question and to endeavour to direct attention to it. At the annual meeting of the British Dental Association in 1885 he read a paper contending that the teeth of a child required, and should receive, precisely the same degree of care as any other part of its body. Every child's mouth, he argued, should be examined and treated at the beginning of school life, and subsequently at least once a year, or oftener. At further annual meetings Mr. Fisher returned to the subject, and in 1888 secured the passage of a resolution by which the association agreed to make a grant for the purpose of providing case-books wherein any of its members willing to take the trouble could record their observations of the teeth of school children, and thus either corroborate or refute the statements made by Mr. Fisher in regard to the disastrous condition of the teeth of the children of the nation. The net outcome was the appointment in 1890 of the committee which has been mentioned.

NOGUCHI'S CUTANEOUS LUETIN REACTION.

WHEN Noguchi found that the *Spirochaeta pallida* could be grown in pure culture it was an easy step to develop a skin reaction for syphilis analogous to von Pirquet's test for tuberculosis. Noguchi's test emulsion is called luetin. It is an extract of the cultivated *Spirochaetae pallidae* killed by heat and carbolized with 0.5 per cent. phenol. The control emulsion is similar, but has not been inoculated. In the *Archives of Ophthalmology*, January, 1912, Dr. Cohen of New York describes the method of using luetin and the nature of the reaction. The emulsion is drawn into a syringe with a fine sharp needle, and one drop is injected not under, but into, the skin of the arm. A drop of control is injected into the opposite limb at a corresponding spot. In *non-syphilitic* cases the results are as follows: on both sides there is no inflammatory reaction, and all signs disappear in forty-eight hours. In *syphilitic* cases a characteristic series of changes occur at the site of the luetin injection. There first appears in from six to twenty-four hours, or even later, a papule surrounded by a bluish-red halo. The papule grows, and the halo vanishes. The papule, which is from 5 to 10 mm. in diameter, develops in the majority of cases a central area of suppuration which eventually ruptures. A sero-purulent fluid escapes, and there is denudation of the contiguous epidermis, and a hypertrophic condition of the skin supervenes, which may last for some months. Noguchi finds that this pus is uniformly sterile. The control injection generally causes no reaction, but in a small number of cases the appearances resemble the luetin reaction, except that no hypertrophy of the skin follows. Cohen, as the result of the application of the test to 60 cases, found that in 76.6 per cent. the luetin reaction corresponded either

[1] *The School Dentists' Society: Objects and Aims.* Second edition. 1913. Watford: Published for the Society by W. Michael and Son. (Crown 8vo. pp. 113. Price 1s. net.)

with clinical evidence or with the result of a Wassermann test, and in 23.5 per cent. it did not so correspond. The cases which did not correspond fall into two categories: in the one, despite the old infection of syphilis, the clinical and serological evidence could not be found at the time of making the luetin injection. These are latent cases of syphilis, and the detection of the disease is highly desirable and yet difficult. In the other group the activity of the disease is so strong that the patient is incapable of acquiring the anaphylactic condition necessary for the reaction. The test will probably be greatly improved, and may become a valuable aid to diagnosis. It has in 170 cases proved harmless.

TREATMENT OF THE TYPHOID CARRIER.

A case of chronic typhoid intestinal carrier cured by the administration of an autogenous vaccine is reported by Drs. Donald H. Currie and F. H. McKeon.[1] A somewhat similar case was reported in 1911 by Major R. W. Clements and Captain A. Dawson, R.A.M.C.[2] In this case the man had been inoculated against typhoid fever in April, 1909. In September, 1909, he was admitted for typhoid fever, which proved to be a mild attack, but left some pain over the region of the gall bladder. At the Enteric Convalescent Dépôt he was found to be a chronic "intestinal carrier." In February, 1910, an autogenous vaccine was prepared; six injections were given, beginning with a dose of 125 million, increased later to 600 million. The last injection apparently produced an acute attack of cholecystitis, which, including a relapse, lasted over a month, but afterwards the bacilli could not be isolated from the stools. Owing to the grave risk of carriers spreading disease among the troops a subcommittee of the Army Medical Advisory Board was appointed to investigate the treatment of typhoid carriers; but unfortunately, in spite of a great deal of work, no satisfactory solution was found. The Army Council has ordered that unless a "carrier" elects to remain in hospital for further treatment he is to be invalided out of the service after a period of three months' observation in England. The subcommittee classified carriers into four groups: (1) Pure intestinal carriers; typhoid bacilli are only excreted in the faeces. (2) Urinary cases; typhoid bacilli are only excreted in the urine. (3) Intestinal cases with symptoms of inflammation of the gall bladder; typhoid bacilli are excreted in the faeces, but obviously have a focus in the gall bladder. (4) Mixed intestinal and urinary cases; typhoid bacilli are excreted in both urine and faeces. Cases belonging to this last group are apparently exceptional. There is a good deal of evidence to show that the typhoid bacilli are discharged from some necrotic patch or abscess cavity which may be situated in the liver, gall bladder, intestine, kidney, or urinary passages. This explains the difficulty of effecting a cure, since any remedial agent introduced into the circulation is prevented from coming into contact with the growing typhoid bacilli by the surrounding mass of necrosed tissue. Various forms of treatment have been tried.[3] Two intestinal carriers were treated with cultures of the Bulgarian lactic acid bacillus grown in sterile diluted malt extract. The daily dose was at first only 25 c.cm., but in the course of three months it was raised to 300 c.cm. daily. In one case the effect was to reduce temporarily the number of typhoid bacilli excreted in the stools; in the other the typhoid bacilli disappeared, apparently permanently. Experiments *in vitro* showed that the resistance of the strain of typhoid bacilli excreted by the first man to lactic acid bacilli was much greater than of that excreted by the second man. In other cases antityphoid vaccine was used. The treatment was begun with the ordinary prophylactic vaccine, using a dose of 400 to 500 million, which was very soon increased to 1,000 million; the injections were given at intervals of a week to ten days. After some five to six injections, as there were no signs of improvement, an autogenous vaccine was prepared and used for each case. Unfortunately, this did not have any effect in reducing the excretion of typhoid bacilli. Antiseptic treatment has also been used. In one case a reduced diet was tried, together with the administration of urotropine and castor oil. It reduced the number of bacilli from 470 million per gram of faeces to 2 million in the course of a week, but the man's general health suffered, and he refused to continue the treatment. Two days after his return to ordinary diet the typhoid bacilli had increased to 212 million per gram of faeces. Capsules containing cyllin were tried, but did not influence the excretion of bacilli. Medical izal oil (six minims in two ounces of an emulsion four times a day) seemed to exert a favourable influence, but the patients objected strongly to the drug and refused to continue the treatment. In one instance, an intestinal carrier, the area of the gall bladder was *x*-rayed three times a week, ten exposures altogether being given. During the treatment and for three weeks after it no typhoid bacilli were found in the stools. The bacilli then appeared again; after a fourth course of *x* rays no more bacilli could be found. It must, however, be noted that this patient was an intermittent carrier, his stools having been on one occasion free from typhoid bacilli for six weeks. The application of *x* rays over the kidneys was tried in a urinary carrier, but without effecting any permanent benefit. It has been determined by experiment that the typhoid bacilli cannot grow in a medium the acidity of which is +50; an attempt was therefore made to increase the acidity of the urine of two urinary carriers artificially by administering benzoate and acid phosphate of soda. It was found impossible to maintain the high acidity of the urine. Urotropine also failed to influence the excretion of typhoid bacilli in a urinary carrier. Niepratsek[4] reported an instance in which a chronic urinary carrier was apparently cured by borovertin, 1 to 1.5 grams, six times a day. This drug is hexamethylenetetramine triborate, urotropine being hexamethylenetetramine. Irwin and Houston in a chronic female urinary carrier tried urinary antiseptics, and then autogenous vaccination; finally, under sodium lactate the urine became clear and the excretion of typhoid bacilli finally ceased.

[1] *Journal of the American Medical Association*, January 18th, 1913.
[2] *Journal of the Royal Army Medical Corps*, vol. xvi, p. 420.
[3] Fawcus, Kennedy, and Cummins: *Journal of the Royal Army Medical Corps*, vol. xiv, p. 351.

THE TROPICAL DISEASES RESEARCH FUND.

The report of the Advisory Committee for the Tropical Diseases Research Fund for the year 1912 has been issued. In noticing the report for 1911 we gave some account of the constitution, objects, and resources of this fund, and it will be sufficient now to recall that the income of the committee consists of grants from the Imperial Government, the Government of India, and from the governments of certain dominions and colonies. The total amounted last year to £3,245. The fund was expended in grants to the London and Liverpool Schools of Tropical Medicine and the Universities of London and Cambridge. The amount so expended exceeded receipts by £588, and the schools of tropical medicine are warned that the grants for this year must be reduced. The report has seven appendices. The first contains reports of antimalarial measures in the Crown colonies and protectorates; the second and third are reports from the Professor of Protozoology in the University of London, and from the Director of the Quick Laboratory, Cambridge; the fourth and fifth are reports from the London and Liverpool Schools of Tropical Medicine respectively; the sixth consists of reports of work done in the colonial laboratories, and the committee expresses regret that these are not so numerous nor so complete as in former years, but at the same time

[4] Ledingham and Arkwright: *The Carrier Problem in Infectious Diseases*. Arnold, 1912.

it is satisfied that excellent work is being carried out in these laboratories, and trusts that it may be found possible in future to increase the opportunities afforded for research work in the colonies. Among these reports are two on the work done at the Institute of Medical Research, Kuala Lumpur, Malay States, covering the period from October, 1911, to September, 1912, and dealing, among other matters, with the causation of beri-beri by polished rice. The importance of the matter to the States is shown by the statement of Dr. Fraser, the director of the laboratory, that in 1911 there were admitted into the Government hospitals of the Federated Malay States 5,340 cases of beri-beri, of whom 695 died. The patients were almost all Chinese, of whom there are 433,244 in the Straits Settlements. The deaths from this disease in 1911 numbered 2,056, as against 1,737 in the previous year. An alcoholic extract prepared from "polishings"—that is to say, material rejected in the process of polishing rice—was prepared, and it was found valuable both as a curative and prophylactic agent in fowls. The seventh appendix is a report by Captain Potter, R.A.M.C., on vomiting sickness in Jamaica. The general conclusion is that the term "vomiting sickness" should be abandoned, as the majority of deaths ascribed to it are due to yellow fever.

A HUMAN AQUARIUM.

AN interesting though somewhat nauseating account is given by Dr. W. Sternberg[1] of a French circus artiste named Norton, whose gastronomic feats were discussed by Dr. Paul Farez in the *Revue de Psychothérapie*. One of Norton's performances is the swallowing of 5 to 7 litres of water at one draught, and the expulsion of the fluid by the mouth, either in a fine jet or in a torrent, as the showman may direct. The performer experiences no discomfort or nausea while playing the part of an ornamental fountain, nor does he mind retaining the water for an indefinite period. This performance alone is worthy of our close attention and of the pennies of side-show patrons; though it is merely the starting-point for yet more wondrous feats. Having taken some water, Norton swallows five to ten living frogs, and reproduces them still alive after a short sojourn in his belly. The disappearance of a live frog down the artiste's gullet, and the reappearance of the frog's legs between his lips before it is finally removed in triumph from his mouth, produce those thrills and sensations among the spectators which it is the aim of the successful showman to evoke. Another successful "turn" is the swallowing of ten frogs, followed by as many goldfish, whose susceptibility to changes in their environment is well known. Yet, at the showman's command, they reappear none the worse for their pilgrimage. It is a curious fact that, though the frogs are swallowed first, they are also the first to reappear. The goldfish must consequently have passed them somewhere in the stomach. The fluid ejected at will is perfectly clear and contains no mucus. In this fluid the artiste washes the frogs before they and the goldfish start on their downward journey; and in it, too, he washes his hands at the end of a performance. By swallowing a couple of electric lamps he is able to display the frogs and goldfish swimming about in their unfamiliar lodgings; and, this, we take it, is the culmination of a performance evidently warranted to draw. Norton is a healthy, powerfully built man of 35, whose organs, apart from his stomach, are said to be normal. No dilatation of the œsophagus or stomach is demonstrable by the *x* rays, and except for its wonderful elasticity and capacity for voluntary contractions the stomach itself presents no abnormalities. Norton's father and grandfather could also drink large quantities of fluid and expel it at will; but only in the third generation does this heirloom appear to have been converted into a source of revenue.

[1] *Deut. med. Woch.*, February 20th, 1913.

MEDICAL OFFICERS OF HEALTH SUPERANNUATION BILL.

AT the sitting of the House on Friday, April 18th, the second reading of this bill was deferred, as the whole time of the House was occupied in discussion of the Housing Bill. Some of the promoters of this measure do not perhaps fully realize the procedure of the House in connexion with bills of this character. The supporters of the bill were unfortunately not successful in obtaining a place in the ballot which insures discussion of the measure on one of the available Fridays, and without this opportunity it is open to any member of the House, by simply saying "I object," to prevent the second reading of such a bill if Government time has not been allotted to it. The only way to secure a second reading for the bill is for its supporters regularly to note those who object and seek to remove the ground of their opposition by personal explanation and by a systematic campaign for its support amongst members. Unless this kind of thing is regularly done, private bills which are unfortunate at the ballot have very little chance of securing a second reading.

SOME HEATING AND VENTILATING PROBLEMS.

A NUMBER of leading questions were fired at hygienists and physiologists in the course of a paper which was read before the Institute of Sanitary Engineers on April 2nd. The purpose of the author, Mr. Arthur Barker, was to consider some neglected aspects of the twin problem of heating and ventilation. Although the paper seemed to be little more than a prolonged note of interrogation, it was something gained to have the engineer sitting at the feet of the physiologist and expressing himself able and ready to distribute air and heat to any specification if only he can have some physiological data. Two sets of factors are concerned in the problem—namely, the physical and the physiological; the latter question has a wider reach than the obvious adjustments of the body mechanism; it is concerned also with the subjective sensations. No engineer can wholly disregard the part played by the imagination in heating and ventilating rooms, and while the introduction into sanitary science of this indeterminable element of psychology adds to that science a greater interest and subtlety, it also makes it immeasurably more difficult to reduce it to the figures which the engineer demands. At the root of the whole heating and ventilating problem, however, is the question of the abstraction of heat from the human body, and the author expressed some surprise that this question had not received more analytical consideration. Looking on the human body as a radiator, he estimated that an individual weighing 10 st. had a store of heat within him at any moment equal to 4,000 British thermal units, a British thermal unit being the amount of heat necessary to raise 1 lb. of water 1° F. By radiation and contact of air alone, without taking account of loss by breath and evaporation, it was estimated that such a person might lose 300 British thermal units an hour. But the amount of heat actually lost from the body varied with the body's surface temperature and dampness, with the actual temperature and humidity of the immediately surrounding air, and also with what might be called the general radiant temperature. Physiologists were therefore asked whether it was merely the physical loss of heat which determined the degree of warmth or cold actually felt by a person, and, if so, what were the physical features in the condition of a room which determined the sensation. The thermometer alone could not interpret truly the heating of a room; it could only indicate its own temperature. The human being was more or less in the condition of a wet-bulb instrument maintained at 98°, and parting with heat to air and solid bodies at a lower temperature than its own; while the thermometer was

a dry-bulb instrument at 60°, emitting heat by radiation to bodies on the whole at a lower temperature, and receiving heat from air on the whole at a higher temperature. What, Mr. Barker asked, were the conditions which determined how much heat was abstracted from the body? Could it be accepted as a fact that the main function of ventilation was to control this loss of heat? He complained that engineers were working in the dark with regard to the hygienic composition of air, and its temperature, humidity, and movement. The causes of the ill effects of respired air were commonly given as excessive temperature, humidity, smell, or stagnation. Yet foul air might be cold, dry, and odourless, and there might be complaints of draughts and of bad air simultaneously. In a final question he took the case of slowly moving air which was neither excessively moist nor excessively hot, and which had no considerable smell and no abnormal amount of dust. Was any definite assurance forthcoming that such air was perfectly good to breathe, without any introduction of fresh air, no matter how many people had already breathed it? And if not, why not? After all, perhaps the matter is simpler than these questions suggest, and the modern doctrine that the sensation of comfort—or, rather, the absence of any sensation of discomfort—is a very fair standard of efficiency in both heating and ventilation may prove to be correct.

THE LEARNED PROVOST OF STONEHAVEN.

WHEN Emeritus-Professor J. G. McKendrick retired from the active duties of the Chair of Physiology at Glasgow he went to live at Stonehaven, Kincardineshire, where he had built himself a house. He entered the town council and was speedily elected to be chief magistrate, and held that office until the other day. When he recently announced that, owing to the state of his health, he would not seek re-election, the burgesses determined to give expression to their esteem for his eminent attainments as a man of science and his great services to the burgh of Stonehaven by presenting to him a chain of office carrying the burghal coat of arms on the pendant. The chain, the cost of which was defrayed by private subscription, was presented on April 21st, and accepted in a suitable speech by Provost McKendrick.

A MEMORIAL to Dr. Lalcaca, the Parsee physician who lost his life in the brave attempt to save Sir Curzon Wyllie from the assassin in the Jehanghir Hall of the Imperial Institute on July 1st, 1909, was inaugurated on April 18th. The memorial, which is the work of Mr. F. W. Doyle Jones, consists of a bust, in white Pentelic marble with pale green Cippolino plinth, standing upon a pedestal of dark green Tinos marble, and bearing a bronze panel with a suitable inscription; it has been placed in the vestibule of the Jehanghir Hall. Sir M. M. Bhownaggree made the presentation on behalf of the Bombay Committee of subscribers, and gave some particulars of the movement to do honour to the memory of Dr. Lalcaca in Bombay, in London, and in Shanghai, where he had practised for many years. The memorial was unveiled by Lord George Hamilton and accepted by Professor Wyndham Dunstan, Director of the Imperial Institute. A replica of the bust is being erected in Bombay.

AT a meeting of the Child Study Society, on April 10th, it was argued by Mr. Holman that not only should a medical man be regarded as an essential member of a school staff, but there should also be a psychologist on the staff unless the medical member were versed in psychology. One of the best things the Board of Education could do would be to set up a psychology side to its work. Why, he asked, should not those forming the National Union of Teachers start a psychological institute of their own as had their fellows at Leipzig?

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Tuberculosis (Advisory Committee).—In reply to Mr. O'Grady, who inquired whether it was the intention of the Treasury to establish the Advisory Council recommended by the Departmental Committee on Tuberculosis, and, if so, would provision be made for the inclusion of representatives of approved societies on such council, Mr. Robertson stated that the answer to the first part of the question was in the affirmative. With regard to the second part he referred to the answer given by the Prime Minister on April 3rd. The function of the Advisory Council was to advise with regard to the application of moneys devoted to research; these moneys were derived entirely from a special State contribution and not from the funds of approved societies as stated in the question.

Bovine Tuberculosis.—In reply to Sir Fortescue Flannery, Mr. Runciman said that he did not propose to extend to pigs the Tuberculosis Order relating to compensation for cattle slaughtered on account of tuberculosis.

Compensation for Tuberculous Cattle.—In reply to Mr. C. Bathurst, who inquired as to whether in the event of the local authority obtaining from the sale of a carcass of an animal slaughtered under the Tuberculosis Order a greater amount than the sum paid to the owner for compensation, would the excess be paid to the owner of the animal, Mr. Runciman said that, after allowing for reasonable expenses, that would be so, and instructions had been issued to that effect.

Infant Mortality.—Mr. King asked the President of the Board of Education whether he was aware that the figures of the recent census entirely disproved the contention that the declining birth-rate was not compensated by reduced infant mortality; and whether, in view of this fact, he would withdraw the present Estimates and propose others based on correct figures.—Mr. Pease said: I have seen no figures of the recent census which tend to show that I have underestimated the number of children in respect of whose attendance at public elementary schools grants will fall due in the financial year 1913-14; but, on the contrary, since those Estimates were framed I have received further returns, showing that the slight diminution in the number of children which was noticed last year has still continued. With regard to the relation between the decline in the birth-rate and in the death-rate as bearing upon the matter, I may point out that the schools feel the whole brunt of the fall in the birth-rate, but only experience a share in the counterbalancing gain arising from the fall in the death-rate.

School Children (Medical Treatment).—In reply to Mr. Wright, Mr. Pease stated that 229 local education authorities had shared in the grant of £50,374 16s. 7d. distributed last year, and that the amounts received by the different authorities varied from £2 8s. 3d. paid to Chelmsford to £13,683 13s. 10d. paid to London.

Sleeping Sickness.—In reply to Mr. Cathcart Wason and Dr. Chapple, Mr. Harcourt stated that in August last the illness of an official of the Native Department, who had been stationed in the Sebungwe district and who had since died, was diagnosed as trypanosomiasis. A small commission of inquiry was at once formed by the Administration of Southern Rhodesia, and eleven more cases were discovered among the natives, the source of infection being traced to the same or a neighbouring district. Further investigations were being made. The Administrator had informed the High Commissioner that he proposed to remove all natives from these areas to areas free from fly, and the High Commissioner had replied that he was prepared to approve an Order of removal.

Poor Law Officers' Appointments.—In reply to Mr. W. Thorne, who inquired whether the President of the Local Government Board would provide in his new Poor Law

Order that no medical or other Poor Law officer should hold office at the same time in any capacity connected with the administration of justice or the registration of deaths, Mr. Burns said that the matter was under the consideration of the Departmental Committee.

Forcible Feeding.—In reply to Mr. Keir Hardie and Mr. W. Thorne respecting the death of an inmate of the Stafford Asylum stated to have died as the result of forcible feeding, Mr. McKenna said that the patient died of disease of the heart after forcible feeding; that the patient's death was inevitable if he had been left without food, and that the medical authorities of the institution (which was a hospital and not an asylum) were therefore compelled to take the risk of feeding him artificially. This course was clearly necessary, and the jury so found.

Boracic Acid in Cream.—Mr. Charles Bathurst enquired whether the attention of the Local Government Board had been drawn to the action of the Westminster City Council in threatening proceedings against retail dealers in respect of the sale of preserved cream containing less than 26 grains of boracic acid to the pint, on the ground of injury to health, and whether, seeing that Dr. Hamill, the Medical Inspector of the Board, recommended in a recent report to the Board that a quantity up to 28 grains might be permitted in the summer months without injury to health, the Board would issue a circular advising local authorities that no proceedings ought to be taken, provided sales are made in compliance with the recently published regulations, and where the quantity of preservative does not exceed Dr. Hamill's recommendation. Mr. Burns replied that the statement with respect to the Westminster City Council was correct, but that he did not consider it necessary at present to issue such a circular as had been suggested.

Sheep Disease.—In reply to Mr. C. Bathurst, who enquired as to whether Mr. F. W. Twort, of the Brown Institution, had successfully cultivated the bacillus of scrapie in sheep, Mr. Runciman replied that he had ascertained that the statement made was incorrect, and that it had probably arisen from some confusion between scrapie and Johne's disease, which was really quite distinct.

Hop Substitutes.—In reply to Mr. Rowlands, who inquired whether it was the intention of the Board of Agriculture to introduce legislation to prohibit the employment of hop substitutes, as recommended by the Select Committee on the Hop Industry, 1908, Mr. Runciman said that the matter was engaging the attention of the Board, but he was not able as yet to make any definite statement.

Rural Housing.—In reply to Lord Henry Cavendish-Bentinck, who inquired whether the attention of the Local Government Board had been drawn to a statement in the report of Dr. Webb to the Kingsbridge (Devon) Rural District Council to the effect that one-eighth of the cottages in the district were unfit for human habitation and that there was nowhere for the people to go if these were condemned, Mr. Burns replied that the latest report in his possession did not indicate the existence of any such unsatisfactory conditions, but that the matter was being looked into. In reply to Lord Henry Cavendish-Bentinck, who called attention to the report of the Medical Officer of Health for the Sedgefield Rural District Council in respect to houses at Trimdon Grange and Trimdon Colliery, where he stated that after inspection he had only found six out of sixty-three houses fit for human habitation, and what action it was proposed to take in the matter, Mr. Burns replied that the council had applied in January last for permission to build twenty-five houses and for sanction to a loan for the purpose, but that it had not yet furnished the necessary particulars before the application could be further dealt with. In reply to Lord Henry Cavendish-Bentinck, who called attention to the special report of the Housing Committee appointed by the Ramsbury (Wilts) Rural District Council, where it was stated that out of fifty-two cottages in the village of Axford ten had one bedroom only, whilst only seven had three bedrooms, that five cottages were overcrowded, three unfit for habitation, seven are dilapidated, and twenty-six needed general repairs, and, while the Ramsbury Rural District Council admit the need for more cottages, they had decided to defer action in the matter, Mr. Burns stated that he had been in communication with the council for some time, and that the chairman had been interviewed by the Local Government Board, and that the matter was still receiving its attention. In reply to Lord Henry Cavendish-Bentinck, who directed attention to the report of the Medical Officer of Health for Cornwall, in which it was stated that the consumption prevalent was largely connected with the bad housing, and in which it was stated that there was a dearth of houses in eight out of the sixteen rural districts of the county—namely, Boscastle, Camelford, Liskeard, St. Colomb, St. Austell, Truro, East Kerrie, and West Penwith—whilst in the Bodmin district many houses should be condemned altogether, Mr. Burns stated that he was in communication with the authorities concerned, and hoped that the difficulties might be overcome.

Asylum Officers (Employment, Pensions, and Superannuation) Bill.

This bill has been introduced by Lord Wolmer, supported by representatives of all the parties. It is identical with the bill as amended by the Select Committee last year and represents a compromise to which the different parties have been able to give their consent.

It lays down the principle that excessive hours for attendants in asylums are injurious to the service and contrary to the public interest, and, whilst allowing for ordinary elasticity in administration and for emergencies, institutes a seventy-four hour week for asylum attendants.

The qualification for the superannuation of female established officers or servants of the first class is applied to those who have twenty-five years' service whatever their age, and a qualification of the former bill which applied to those who are not less than 55 years of age is omitted, the length of service being extended from twenty to twenty-five years regardless of age. Special provisions are made to enable the visiting committee to grant allowances to persons incapacitated by illness not due to their own fault and attributable to the nature of their duties, and in a similar way a visiting committee may grant gratuities to dependants. It may also grant gratuities to female officers or servants who retire after ten years' service, on the basis of a return of the contributions under the principal Act, together with a sum not exceeding one-fiftieth of the salary and wages or wages for each completed year of service.

The Visiting Committee is not allowed to delegate their power of dismissal to an individual officer.

Service in parochial asylums in Scotland is to be counted as service in respect of this Act, and provision is made for the sums which are provided under the principal Act to be distributed on the death of a pensioner dying intestate to be distributed in the case of those who are illegitimate by the Visiting Committee according to the directions of the Treasury.

Any established officer or servant may, within three months after the time of the passing of this Act, adopt the provisions of the principal Act as amended by this Act.

Finally, the powers of the Secretary of State under the principal Act are transferred by this Act to the Commissioners in Lunacy.

Mental Deficiency Bill.—In reply to Colonel Burn, Mr. Lloyd George stated that the Government intended to proceed with this bill, and to give time for its different stages, and hoped to pass it this session.

Bee Disease.—The effect of this bill, which has been introduced by Mr. Runciman, would be to give power to the Board of Agriculture and Fisheries to make orders prohibiting the introduction into England and Wales of any pest or disease affecting bees, and for this purpose to regulate or prohibit the introduction by post or otherwise of bees or any article or appliance used in bee-keeping whereby a pest or disease might be spread, and to make various orders for the administration by local authorities of the necessary preventive and remedial measures.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Post-Graduate Teaching in Edinburgh.

The development of post-graduate teaching in Edinburgh has shown steady progress of recent years, so that now the courses which are held every autumn form an integral and important part of the work of the medical school. The terms for undergraduates leave a long vacation of three months during July, August, and September, and this quarter of the year serves as a post-graduate session. During this period the whole teaching staff, with the clinical and laboratory resources of the school, are available for the post-graduates. The preliminary preparation for the present post-graduate movement began in the summer of 1905, and in 1906 a joint committee, appointed by the University and the school of medicine of the Royal Colleges, arranged for a course of three weeks, which was carried through in the month of September, and was attended by over seventy graduates. In 1907 the course was extended to occupy the whole of September, and was divided into two parts, so that graduates could attend for a fortnight or a month as suited their needs and convenience. A course of operative surgery was added in 1908; this has proved to be most popular, the twenty-five places to which it is limited having been taken up each year long before the beginning of the teaching. In 1909 a course upon methods of diagnosis employed in internal medicine was inaugurated for the month of August, and this, as well as the September courses, underwent further development in 1910. A course for specialists in diseases of the ear, nose, and throat was added in 1911; and in 1912 the time over which the courses had extended was augmented by holding a course upon diseases and defects of children during July. The history of the post-graduate movement in Edinburgh has thus been one of cautious but steady progress, and now every summer about 100 graduates (last year they numbered 99)-come from all parts of the world to take part in the different courses.

This year (1913) the various courses will be held as before, with the addition of some classes and the deletion or rearrangement of some others. In the second half of July the diseases of children will be considered mainly in the Royal Hospital for Sick Children. In August diagnostic methods in medicine will occupy the greater part of each day, and there will also, as in the past, be teaching in the diagnosis and treatment of morbid pregnancies in the prematernity ward of the Royal Maternity Hospital. The courses in July and August are limited to twenty-five members. September will be fully taken up by the general course on medicine, by various special classes on subjects of recent interest, by the course on the ear, nose, and throat, and by the course on operative surgery. In addition to these, the Executive Committee has decided that there shall be a class upon advanced surgery, dealing with a special region of the body, and for 1913 the region to be dealt with is the genito-urinary tract.

Last year sixty-nine teachers took part in the courses, and this year the number will not be less, for Edinburgh is fortunate in being able to draw upon a large number of extramural lecturers, as well as upon the staff of the university.

Presentation to Dr. A. M. Easterbrook.

Dr. Alexander Maitland Easterbrook, Gorebridge, is the Secretary of the Lothians Division of the British Medical Association, and has also acted as Chairman of the Colliery and Public Works Surgeons Committee for Scotland. His brethren in the Division recognize that Dr. Easterbrook has put in an enormous amount of real work on behalf of the profession in the Lothians both in connexion with the Insurance Act campaign and in the organization of the profession generally. It was therefore thought fitting to acknowledge his great endeavours, and a committee representative of all the three Lothians was formed for the purpose of entertaining Dr. Easterbrook to dinner, and of presenting him with a tangible token of the appreciation of his colleagues.

At the dinner, which took place on March 29th, Dr. John Keay of Bangour presided, and Dr. A. D. R. Thomson of Musselburgh acted as croupier. After the loyal toasts had been given by the Chair and acknowledged by Lieutenant-Colonel Kirk, V.D., R.A.M.C. (T.F.), and Major Cameron of Loanhead, R.A.M.C. (T.F.), Dr. Martine proposed the toast of "Our Guest" in a short and happy manner. Before closing he presented Dr. Easterbrook with a silver cigarette case with suitable inscription and a purse of sovereigns, and Dr. A. D. R. Thomson presented a gold bangle for Mrs. Easterbrook as a token of esteem and of the unselfish interest shown by her in her husband's labours. Dr. Easterbrook, in reply, expressed the pleasure it gave him to accept these tokens for himself and his wife. The toast of "The Committee" was proposed by Dr. Mitchell of Dalkeith in a racy speech, and Dr. Fowler replied. Dr. Ronaldson proposed "The Chairman," and Dr. Keay replied. The menu card, headed "List of Benefits," contained many humorous topical allusions.

Advisor for Indian Students in Edinburgh.

Some time ago reference was made to the opening of the rooms of the Edinburgh Indian Association at 11, George Square, and now there is another event to be recorded which again shows the new state of affairs that has arisen in connexion with the coming of Indian students in large numbers to the universities of this country. It has been considered desirable to appoint an advisor for such of these students as are under the guardianship of the Indian Office; and Dr. James Miller, Lecturer in Pathology at the New School of Medicine, has been selected to carry out the duties involved. The appointment is the outcome of the visit paid to Edinburgh some time ago by Mr. C. E. Mallet, Secretary for Indian Students, London.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Women's National Health Association.

The Countess of Aberdeen, in presenting the report to the sixth annual meeting of the Women's National Health Association, held in Dublin last week, said that there were approximately 19,000 members and 151 branches. During the year the association had been incorporated, and had received gratifying recognition, being entrusted with a Government grant for carrying out the work of providing sanatorium accommodation for patients recommended under the Insurance Act. From the reports of the various branches it appeared that in between eighty and ninety schools throughout the country school meals were being given. Towards the cost of the establishment of dental school clinics a Government grant covering half the expense of equipment and maintenance had been obtained. The following resolution was adopted and referred to a subcommittee to consider the steps to be taken to give effect to it:

> That the existing law dealing with the disinfection, and, in proper cases, the destruction, of infected dwellings requires amendment in the direction of making its operation more rapid and certain, and that the Women's National Health Association desire to impress on the Irish Government the necessity of amendment and extension of the present law dealing with this matter.

The following resolution was passed unanimously:

> That this Council of the Women's National Health Association, representing all parts of Ireland, gathered at our half-yearly meeting in Dublin, record our conviction that there is urgent need for the better housing of the working classes in the cities and towns of our country. The present conditions are a menace to the health of the people and a reproach to our civilization. They are the means of spreading consumption and other diseases, of reducing the vigour and vitality of our people, and of raising the death-rate to undue proportions. We are informed that a suitable sanitary house cannot now be built to let at an economic rent which an urban labourer can afford to pay, and that, therefore, private enterprise cannot solve the problem. As the public health is a matter of imperial as well as of local importance, we respectfully request the Government to provide such assistance for urban authorities as will enable them to build comfortable sanitary houses for the working classes, to be let at a rent within their means. We further record our conviction that every batch of such houses built should be provided with a playground of ample dimensions for the children.

On April 17th the Sláinte Restaurant, which has been established under the auspices of the association, was opened by the Countess of Aberdeen; it is situated at the Ormonde Market, and is intended to supply the poor—especially mothers and children—with good wholesome food. A sixpenny lunch was provided, the menu consisting of mutton broth, cold beef, ham, corned beef, potatoes, rice pudding, cheese, butter, and bread; this, it was stated, was a fair sample of what could be obtained on any day of the week in the place.

Typhoid Fever.

At the last meeting of the Limerick Corporation Public Health Committee a report was read from the urban superintendent of health, saying that since March 28th 17 cases of typhoid fever had occurred. The superintendent and a medical inspector of the Local Government Board had visited the Parks and Water Gates districts, and found them to be in an insanitary state. These two districts were responsible for 12 of the cases of typhoid.

Owing to an outbreak of typhoid fever in the town, the Newry Urban Council asked Professor W. J. Wilson, Queen's University, Belfast, to make an inspection of the water supply of the town and the Camlough Lake, the source of the supply. Professor Wilson reported that he had failed to discover the typhoid bacillus in the water; but from his inspection of the water and the gathering ground he considered that the supply was contaminated with sewage. He recommended the removal of the sources of pollution in the catchment area and the provision of a properly installed system of sand filters. The Council has appointed an engineer to report on the matter.

Diphtheria in Blackrock.

Dr. Browne, Local Government Board inspector, informed the Blackrock Urban Council last week that the number of cases of diphtheria was 33 in the Blackrock Urban District and 7 in the adjoining districts. The disease was of a severe type, and had terminated fatally in 6 or 7 of those affected. It was ascertained on March 26th that all the families affected had a common milk supply. Inquiry elicited the fact that three of the dairyman's family suffered from diphtheria; one of these, a child aged 10 years, was ill about March 17th, but was not medically attended until March 26th, when other members of the family became ill and were seen by a doctor, who pronounced them suffering from diphtheria. The child mentioned visited the dairy daily during her illness. Certain defects at the dairy and at the dairyman's house were being remedied, the cattle had been put on pasture, and the sheds would not be occupied for the next six months. The dairy cattle were all examined by a veterinary surgeon, who pronounced them healthy. "The supervision," he stated, "over the milk supply is not adequate. The visits paid by the dairy inspector were not frequent enough. Each dairy premises should be visited twice or three times in each week, and particularly when the cattle are being milked. It is important that the health of the dairy cattle should be inquired into, and for this purpose a veterinary inspector should be appointed and report result of examinations to the Council." It was unanimously decided to adopt the recommendations contained in the report.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

LONDON.

Metropolitan Asylums Board.

Treatment of Resident Staff under the Insurance Act.

The Metropolitan Asylums Board in January last (British Medical Journal, February 1st, p. 258) decided to arrange for a collective agreement with its employees for the provision of medical treatment, drugs, etc., under the Insurance Act, whereby the Board would receive the remuneration available for those services and the Board's medical officers would continue to treat the staff as heretofore. The Finance Committee on April 19th, however, reported to the Board that since January the circumstances had undergone a considerable change, and, after prolonged correspondence with the London Insurance Committee and the Commissioners, the Finance Committee was advised that the most effective arrangement would be for a representative medical officer of the Board—namely, the medical officer for general purposes—to enter into a formal agreement with the London Insurance Committee for the attendance and treatment of the insured staff resident in the London institutions only on a capitation basis, it being understood that the medical officer for general purposes would give such treatment by deputy through the medical superintendents and assistant medical officers, and would pay to the treasurer of the Board the fees for medical benefit when received from the Insurance Committee. The personal duties of the medical officer for general purposes would be merely nominal; the medical officers would continue to give medical attendance to the staff by the terms of their appointments; the additional work entailed upon them would be the keeping of certain records of sickness and the signing of such certificates as might be necessary. A proportion of the fees received from the Insurance Committee should be allocated to the assistant medical officers who would carry out these extra duties. The Committee proposed that similar arrangements be made for institutions outside the London area, at the same time remarking that modifications might be necessary in the case of institutions with a non-resident medical officer, who might or might not be already on the local panel.

The Board approved recommendations embodying these proposals.

Appointment of Research Pathologist.

The Hospitals Committee reported that, in regard to the proposed appointment of a research bacteriologist, it had considered the conditions which the Local Government Board attached to its approval—namely, that the officer should be designated "pathologist"; that the appointment should be annual in the first instance, and that at first the officer should not be required to devote his whole time to the Board's service (British Medical Journal, February 15th, p. 364). The Committee agreed with the Board as to making the appointment annual in the first instance; it thought, however, that the title of the officer should be "research pathologist," and it was strongly of opinion that a whole-time officer should be appointed. The Committee quoted in support the opinion of the Board's consultative bacteriological adviser, Professor G. Sims Woodhead, who wrote that the pathologist must be able to devote the whole of his time, thought, and energy to the solution of problems which had hitherto baffled many men giving their whole attention, though perhaps under less favourable conditions than those under which the proposed officer would work. It was decided to place these views before the Local Government Board.

The Special Hospitals for Children.

In view of representations that an unsuitable class of case was being admitted to Queen Mary's and the Park Hospitals for children, the Board, acting on a report by Dr. H. E. Cuff, medical officer for general purposes, decided to offer boards of guardians special inducements to send, in place of chronic cases, those coming under the following heads:

(*a*) Non-pulmonary tuberculosis in its various forms.
(*b*) Lateral curvature and other deformities, including patients requiring Swedish exercises.
(*c*) Paralysis.
(*d*) Diseases of bones and joints not due to tubercle.
(*e*) Those requiring any operation.

A Shortage of Nurses.

The announcement was made that owing to the difficulty of obtaining nurses there was a likelihood of the Board refusing to take any cases of measles and whooping-cough other than those from districts already included in the permissive Order recently issued by the Local Government Board.

Professor Pavlov has been appointed director of the Institute of Experimental Medicine at St. Petersburg, a post which in the first instance was offered to Professor Metchnikoff.

Correspondence.

MALINGERING AND MEDICAL REFEREES.

Sir,—An interesting feature of the Journal for April 19th is the inclusion within its pages of no fewer than three admirable articles dealing with the subject of malingering and its prevention. This question is of peculiar interest at the present time, for there is evidence that under the operation of the National Health Act the incidence of sickness, or rather the claims in respect of sickness, will prove to be considerably above the original estimates. It is well known that since the introduction of the Workmen's Compensation Acts the premiums of accident insurance companies have gradually increased to the extent of about 100 per cent., and it is only too probable that under the Insurance Act there will be a corresponding rise in the expenditure in respect of sickness claims.

In his convincing paper, Sir John Collie has made out a clear case for the employment of medical referees, and it is evident that the adoption of some plan such as that outlined by him will prove necessary at no distant date. The medical attendant is at an obvious disadvantage when suspecting the honesty of his patient, and he can hardly be expected to act upon his suspicions except in the clearest cases. It is not merely an advantage, but an absolute necessity, that he shall have access to some independent examiner, with whom to share the responsibility of dealing with this class of cases.

Financially, the employment of medical referees would, one may imagine, prove a good investment, for the expenditure involved would doubtless be a minor matter compared with the resulting saving of the funds.

It is to be hoped the articles to which I have referred, and the suggestions they contain, will receive the attention due to them.—I am, etc.,

London, S.W., April 21st. Edwin Smith.

Sir,—I wish to enter a protest against the line of reasoning and policy expressed in your article on malingering in the Journal for April 19th, in that portion of it dealing with certificates, commencing with the words "The fears frequently expressed" and finishing with "The profession has enough problems of its own without unduly burdening itself with difficulties which are not of its making, and which, after all, are the primary concern of the insured person."

The views there laid down are to my mind entirely erroneous, and their expression in an official way, with all the weight which such official expression carries, most unfortunate.

Curiously, in the same issue we have an article, very important and necessary at the present time, on "The Organization of the Profession," and it is there laid down that the policy of the Association is "the promotion of the medical and allied sciences, and the *maintenance* of the *honour* and interests of the medical profession." The whole of this article is an urgent appeal to the profession to stand firm together in the defence of these principles.

To return to our grievance. We are asked not to burden ourselves with difficulties not of our own making. This seems foolish. A man does not knowingly erect difficulties for himself and then proceed to demolish them, but all men have, whether they wish it or not, to contend with difficulties not of their own making. The medical profession in their daily round are doing very little else.

The National Insurance Act is not of our own making, but we most assuredly have to burden ourselves with the administration of the medical portion of it. It is not the policy of a young and what should be a virile organization to say, when faced with difficulties, "Never mind; let it go; we are not responsible for the difficulties." We are responsible for the "honour and interests" of our profession, and we must accept whatever may be the accompanying burdens of our responsibility.

The termination of the paragraph, "and which, after all, are the primary concern of the insured person," seems to suggest that this question of certification is in reality of very little concern to us. Medical men in some respects, perhaps, do not rise to the level of a similar class of cultured persons. Our lives are wide in human sympathies, but, obsessed by minutiae, we suffer from the defects of our own strength and are apt to be short-sighted and narrow, and in broad issues are continually stumbling over trivial details.

There has always been one quality, however, which has lifted the profession above the level of mediocrity—that is, our constant unswerving faithfulness to the needs and interests of our patients, and professional secrecy is an integral and very necessary part of the faithfulness.

There is a comparison between giving evidence in court and signing wholesale the conditions our patients are suffering from, which seems to reveal an extraordinary want of grasp of the principles of the question. It is held, and perhaps rightly, that where justice is in the balance it should take precedence over privilege.

But where can justice, either on behalf of our patients or the funds of the Act, require us to insert the nature of illness on our certificates? It can only demand it on the extraordinary assumption which the article in question seems almost to court—that the medical profession are not fit or able to determine when our patients are well enough to return to work, and that justice requires that we should hand over this prerogative to the approved societies, who, as the fit and proper bodies to determine this, would no doubt have tables of duration of incapacity from influenza, pneumonia, bronchitis, etc.

Even the conception of the Act, lacking in merit as it is, rises to greater heights than this. The idea of the Act is that persons shall receive early and continuous treatment until they are reasonably fit to follow their employment. And who can in justice ask to determine this? Without arrogance or conceit, but as a statement of bald fact, only the medical profession can decide, and it is only just to the insured, for whose benefit the funds are established, that we should decide. It is clear, therefore, that in withholding conditions on our certificates we are doing injustice to no one.

It is also stated in the article "that the insured makes application for the certificate, and that he must be assumed to be acquainted with conditions which the society to which he belongs has laid down." It is evident that the insured for their own sakes have had to go to some approved society, and not become deposit contributors, it is equally evident that in this wholesale herding they have not had time to consider, nor have they been asked or consulted as to their wishes with regard to rules. The implied assumption that the insured are willing and wishful to make a public display of their pathological conditions is absolutely and entirely disproved by practice. We have in this area very many cases where the approved societies have carried out their threat not to pay for four, five, and six weeks, and our patients have entirely agreed with our attitude. The only reason they have for asking the insertion of a condition is this threat of non-payment.

I have also resolutions from many organized trades in the district strongly supporting our action.

Ought not friendly and approved societies' rules to reflect the wishes of the majority of its members, and not only those of its management? The State guarantees for a certain payment certain benefits to the insured. It is a simple contract, and as binding on the insurer as on the insured. How can outside bodies, such as the approved societies who are neither the insurer nor the insured, but agents from one to the other, interpolate conditions which, if allowed, take away from the insured these benefits, he still having fulfilled his contract?

We have been asked in this area why we do not fill up the certificates? May I ask, on behalf of my colleagues and myself, why should we?

It was stated by the late Medical Secretary, amongst others, that the fight—shall I say, for the "honour and interest of our profession"?—would be keenest when the Act was in force. It is so, I think, because before we were only skirmishing, now we are in active conflict. Shall we not still justify ourselves by not shirking the burden of our responsibilities, and shall we not still ask the British Medical Association and its mouthpiece, the British Medical Journal, to act up to its tenets and belief?—I am, etc.,

G. H. Shaw,
Honorary Secretary, Leigh Division, and Local Medical Committee, Lancashire County Area 21.

April 21st.

TRADE UNIONISM AND MEDICINE.

SIR,—In your last issue you very kindly printed a letter from myself in which two specific questions were asked. The first was whether the British Medical Association could become a trade union, and the second whether it could maintain a member of Parliament.

I did not expect a definite reply, because that could only have been in the negative. I, however, looked for and found a reply in the leading article on the organization of the profession. I do not know exactly what authority attaches to the editorial "we," but if I assume too much you will no doubt correct me.

As regards the first question, I note that it (the British Medical Association) is "fettered by many legal restrictions," and also, "we distrust these short cuts." The latter remark should be read in conjunction, I take it, with your references to "earnest but misguided persons" and "recent attempts, some of which have actually materialized, to form new organizations." From this I deduce that the British Medical Association cannot form a trade union, and that the editorial "we" does not even desire to do so.

I have suggested that without a trade union, supplementary to the British Medical Association, the profession is devoid of certain powers which it ought to possess. Let us take a concrete example. In a certain district a medical aid association is set up, and a medical man accepts service under this association on terms which the rest of the profession indignantly repudiate. The staff of the local hospital, or the local Division of the British Medical Association, say that they are not going to be used to break down the resistance of their fellow practitioners, and in consequence publish a resolution that they will not meet the medical officer of this association, nor, except in case of grave urgency, treat any of his patients at the hospital.

Now take the possibilities one step further. The people who have formed the medical aid association say that they will not be beaten by the doctors, and encourage their own doctor to bring an action against the hospital staff, or the local Division of the British Medical Association, accusing them of conspiracy to prevent him from disposing of his labour on whatever terms seem good to him and claiming damages. Is there any doubt than an action would lie, and is there any power in the British Medical Association to resist such an action, or to pay the damages?

But a trade union cannot be attacked on these grounds; it is just one of the most important immunities of that particular form of organization. I suggest that where any members of the British Medical Association felt it necessary to take such action they could protect themselves by belonging to a trade union, and that the latter body would be a very desirable supplement to the powers of the British Medical Association.

My second question dealt with the maintenance of a member of Parliament. I had to look rather further for my answer, but I think I found it in the SUPPLEMENT in the form of a recommendation of the Metropolitan Branch which will be discussed at Brighton. I quote the whole reference because I presume we may consider the suggestions of that Branch in this matter as more or less inspired. Am I not right in supposing that the plans for reorganization of the British Medical Association which recent events have necessitated are herein enshrined? It reads as follows:

"To appoint a Parliamentary Committee, with power to co-opt additional members, to maintain and increase the influence of the Association in the Houses of Parliament, to keep in touch with all legislation, existing or proposed, that affects the medical profession, and to perform all such duties as at present are entrusted to the Parliamentary Subcommittee of the Medico-Political Committee."

Now, frankly, I can only regard this as one of those compromises which are unfortunate for the profession, but inherent in the British Medical Association, owing to the legal restrictions which you deplore.

I suppose that 99 per cent. of any new legislation is decided on in unofficial conferences between the members of the two sides or in Committees of the House sitting "upstairs" or on the floor of the House—please excuse technicalities. In none of these can the new British Medical Association Committee take any part. The most it can do is to negotiate with members of Parliament who may be in a position to take part in any of the various phases of law-making. These will probably not be medical men, judging from the number of lay members of Parliament who have been in correspondence or connexion with the British Medical Association during this year. As a consequence they cannot be ready to answer the sudden clever question or statement of possible difficulties which the opposite side can launch at any moment. They must run outside and consult the Parliamentary Committee, if they happen to be there, and meanwhile the point goes against them by default. This is compromise. Either we need a member in the House or we do not. Either we need acknowledged representation at every stage of every discussion or we do not. But a Parliamentary Committee as at present suggested is nothing but a makeshift.

Look, however, to the possibilities of a trade union as a supplement to the British Medical Association. It can have a member of Parliament and it can ensure representation of the profession in the House at every stage. It can hand on to that member anything that the British Medical Association may wish to say which has not already been said by the union.

The British Medical Association is a fine organization, and the profession owes much to it. Your leading article says in effect: "Let it grow and include all the profession, and then we shall be all-powerful to protect our professional interests." The position of the British Medical Association reminds me of that of Winchester Cathedral. Could any edifice have seemed more secure? But one day some one noticed that the edifice was cracking, and it was found that half of it was founded on water. It was slowly breaking its back. So may it be with the British Medical Association if it will not realize that its foundation is deficient. It is useless that it should grow; let it first look to the foundations on which it is based, and, if they are not wide enough, avail itself of the necessary reinforcement. I am not one of those who advocate knocking it all down and building on a new foundation, but I do think that, since the strengthening for its foundations is at hand, it would be folly to decline to make use of it.

Possibly I misunderstood the sense of "We distrust these short cuts" in your leading article, but, if that is not the case, I think some better reason should be given for this distrust than is yet forthcoming.

I must apologize for using so much space; may my "earnestness" be held responsible.—I am, etc.,

London, W., April 19th. GORDON R. WARD.

SIR,—I write in support of Mr. Gordon R. Ward's argument in the correspondence column of our JOURNAL for April 19th, 1913. I consider his contention a just one, and as a member of the British Medical Association I wish to emphasize his claim for recognition.

No one will deny that our Association has done yeoman service in the past, and we are now profiting by its action; but surely we must admit that our machinery is somewhat old-fashioned and not quite up to date. True, we are making heroic attempts to improve the defects, but quite on the old methods, which in these days are somewhat antediluvian.

Now, Sir, I venture to hazard the opinion that in the issue of our JOURNAL of above date we have arrived at quite a unique position. In the leading article the claims of our Association are advocated, and considerable care and thought are evinced in setting forth the plea for continuing under the old régime. How exasperating to the ordinary general practitioner that has proved, I, amongst others who have had to go through it, can freely bear testimony. On the other hand, the claims of the National Medical Guild are tabulated in plain and unmistakable language.

The former recommends us to walk round the two sides of the triangle, as has been our wont in times gone by; the latter to pursue a course along the base. It must still be fresh in the memory of most of us—for we have all been to schools of various sorts during our chequered careers—that the square on the base of an isosceles triangle is less than the square on the two sides. Who will allege the methods of the National Medical Guild are not unquestionably on the square? Let us take the shortest cut.

Therefore, I say, it is the duty of our Association, the parent of this guild, to bless its child, the fruit of its travail through the fight with the Government over the National Insurance Act. One would have thought to see more enterprise evinced, and that we should be found only too ready to claim parentage, to have given this offshoot a house-warming and wished it God-speed.

I sincerely hope that this view of the situation will receive the careful and considered attention of our members at the Annual Representative Meeting at Brighton on July 18th, that they will accord the National Medical Guild their cordial support, and recommend every general practitioner to join.—I am, etc.,

London, N.E., April 22nd. A. W. Miller.

RHEUMATOID ARTHRITIS.

Sir,—Dr. Luff asks for my evidence that the proximate cause of rheumatoid arthritis is "a mild chronic acidosis, which extracts the lime salts from the fibrous tissue, muscles, nerves, cartilages, and bones." This query, which I should have thought quite unnecessary, may seem natural to a man who does not deal in proximate causes, but has half a score of causes for a simple phenomenon. Those who want proof of this latter statement will find it in his diffuse and inconclusive article on fibrositis in the British Medical Journal of April 12th, 1913. If Dr. Luff doubts the extraction of some of the lime salts from, say, the ends of the bones involved in the affected joints in cases of rheumatoid arthritis, he had better inspect some skiagrams of this diease; there are plenty about. There is no suspicion that these salts are carried away by an all-devouring phagocyte. The lime salts in the bones are well fixed, and it is here no question of calcium metabolism; even the thyroid secretion, with all its power in this direction, does not and cannot extract these salts, otherwise it would be a bad look-out for those suffering from exophthalmic goitre. The only substances that I know that will and do dissolve out these salts from the bones, cartilages, etc., are acids, or rather acid salts; as the blood is the vehicle, and all the acids in the blood—even carbonic acid and Dr. Luff's *bête noire*, uric acid—are in more or less close or loose combination (according to the manner in which you care to view the union) with some base or other. In using the term "acidosis," I wish to guard myself against such criticism as the late Professor Anderson bestowed on a young Glasgow chemist who found sulphuric acid and suboxide of copper in Scotch whisky. Anderson said you might as well expect to find a red-hot poker in a barrel of gunpowder.

With the rather free administration of phosphoric or citric acid, especially when the lime salts are cut out of the diet, it is a very easy matter to produce pains in the joints, neuralgia, muscular weakness, increase of the deep reflexes, and excessive excretion of lime. I have tried the experiment on myself, so I know all about it, but I have not done myself any harm; in fact, I think I have benefited, as I have succeeded in establishing a calcium equilibrium. Moreover, it rather sharpens your wits, and after a long course I can strongly recommend the treatment to Dr. Luff.

By a combination of decalcifying agents with respiratory exercises you can extract the lime salts from rigid costal cartilages. When the treatment gives rise to any albuminuria, I think you have carried the decalcifying process too far, and it should then be stopped. With the addition of some milk to the diet, and perhaps the administration of calcium iodide, the albuminuria quickly disappears.

Dr. Luff continues: "He further states that the extraction of the lime salts from the fibrous tissue causes it to swell, while the loss of the lime salts from the muscles causes them to waste—two apparently contradictory statements." Well, really! What next? Wherein does the contradiction lie? I merely stated a fact, and after all you can only explain a fact by stating other facts more or less well understood. I cannot therefore forecast whether Dr. Luff will comprehend my explanation or not, but I hope others will not require it. The presence of soluble calcium salts prevents the free imbibition of fluids by fibrous tissue or laminaria tents. The absence of lime cannot cause them to swell, but the removal of the *inhibition* allows them to do so, always provided there is fluid present to imbibe, and in these cases there is plenty of blood serum about. This imbibition increases the watery constituents of the fibrous tissue and causes it to swell, but it does not primarily cause any hypertrophy. It admits, however, of increased vascularity and subsequent proliferation of the fibrous tissue elements. There is no obligation on muscular tissue to take on the same rôle in its relations to the calcium salts. The presence of calcium is absolutely essential for muscular contraction, and fortunately in these cases it is never absent, otherwise the muscle would cease to functionate, and the patient to exist. Its diminution increases the irritability of the muscle, but lessens the efficiency of its contraction; the nutrition fails, and the muscle wastes. There may be, and often is, effusion into the fibrous sheath of the muscle. The varying amount of lime in the cardiac muscle, and the quantity of free calcium ions in the circulation have much to do with the irritability, tone, and contractility of the heart. I have recorded a case where the amount of lime in a gram of the left ventricle was double that in a gram of the right ventricle.

He takes strong exception to my statement about the uselessness of potassium iodide, and guaiacol, and winds up: "I have employed guaiacol carbonate and potassium iodide in *some thousands of cases*, and I am convinced that this combination is capable *in the great majority of cases of arresting the disease*, and so of preventing the frightful suffering connected with movements of the affected joints, a condition which is so common in cases of unrelieved rheumatoid arthritis." (The italics are mine.) Marvellous! Some thousands of cases treated with guaiacol carbonate and potassium iodide, and I presume many more thousands treated with other drugs before he arrived at this panacea. I am really sorry for these patients, as they must have swallowed hundreds of thousands of doses of this nauseous and, in my opinion, useless mixture. In order to have arrived at his very definite conclusion he must have had these patients under observation for a long time. Some thousands of cases of rheumatoid arthritis and not one cure, but the great majority *arrested*, not by a policeman, but by guaiacol carbonate and potassium iodide. *Mirabile dictu.* That the disease may have been *arrested* by the removal of the cause while the patient was swallowing these drugs I am quite ready to admit, but that the mixture ever *arrested* the disease since Adam was a little boy I do not believe. What evidence have we that these drugs ever *arrested* the disease, except the *ipse dixit* of Dr. Luff? The patients must swallow something, but surely he does not expect me to swallow his statement holus-bolus.

I do not see how the problem is going to be solved by Dr. Luff's mixture. In the name of all that is holy, just, and true, how is potassium iodide going to *arrest* rheumatoid arthritis? It may stimulate the thyroid gland and thus increase calcium metabolism, which from my point of view is injurious. It may spoil the patient's appetite, which is also deleterious. Guaiacol carbonate as an antipyretic is not required in this disease, and as an antiseptic it is a very indifferent substance loudly vaunted by manufacturing chemists. If it were shown that rheumatoid arthritis is microbic in origin, any little germ which guaiacol carbonate would kill might be safely neglected. It has also been largely used in phthisis, but it has sickened the patients rather than the tubercle bacilli. These *post hoc, propter hoc* arguments of Dr. Luff won't wash. One advantage of his mixture is that it is cheaper than his treatment of fibrositis by a change of residence and a damp-proof house. It would almost seem as if the versatile Judge Parry had been consulting Dr. Luff, as I find in his article in to-day's *Sunday Chronicle* that he refers to the custom of Hamlet's father to sleep of an afternoon on the damp grass in his orchard, and says that in the natural order of things this must have ended in rheumatoid arthritis. He kindly refers to what he is pleased to call my "iconoclastic attitude towards former workers and writers on this subject," and in appreciation of his kindness I hope he will afford me another opportunity of pulverizing a few more of his treasured idols. I must also thank him for this opportunity of expanding my address.—I am, etc.,

Liverpool, April 20th. James Barr.

SIR,—I waited a week for another issue of the JOURNAL, thinking that part of Dr. Luff's and Sir James Barr's addresses must have been left out, especially the parts dealing with treatment, but in this week's issue (April 19th) I see no notice to this effect. The lectures, as printed in the issue of April 12th, contain nothing beyond what we find in all the textbooks on medicine that have been issued for the last thirty years. The newer and more efficacious treatment is conspicuous only by its absence. Are we to believe that neither of the above authors has ever seen the wonderful improvement that follows in some cases of rheumatoid arthritis after the usual seaweed bath, given at a temperature of something over 104° F. (this bath consists of boiled seaweed with a strong alkali), when followed by the inunction of a suitable ointment into the spine and stiff joints? Strange as it may seem we are also forced to believe that neither of the writers is familiar with the results that usually follow applications of the thermo-penetrating current to the spine, and the affected parts.

So far as I can learn, about one-third of the practitioners in Britain are at present treating this disease with serums, with results much superior to what were obtained by the ancient treatment recommended by Dr. Luff and Sir James Barr. There is still a great diversity in the profession as to the efficacy of the various serums, as also in the method of preparing them; as a rule, practitioners do not rely solely on the serums, but use them as valuable aid to other treatment. I see no mention of a single serum, the method of preparing it, or the results of its use in either lecture. Are we to believe that neither of the writers has any experience of the antirheumatic serums now in common use? "Arsenic, potassium iodide, guaiacol, etc.," may be worse than useless if they are given without any selection of cases. The same may be said of all the other treatment advised in both lectures. I have only glanced cursorily through them, but I have failed to notice any indications as to what treatment should be adopted in individual cases. Each author seems to have treated all his cases of fibrositis somewhat after the manner of the sixpenny doctor, who is supposed to have his pharmacopoeia in about half a dozen barrels, and every case that appears gets a bottle from one of the taps. In Sir James Barr's case the barrel contains mostly lime. In Dr. Luff's case a mixture of potassium iodide, arsenic, aspirin, guaiacol, nux vomica, and a little syrup of the glycerophosphate. I see no mention in either lecture of the best counter-irritant to be applied to the spine and painful parts; how to determine which ointment should be used in each case; when one has learnt this he gets results of a most encouraging character, far superior to any that I have obtained by ionization—a method that I have occasionally used during the last twenty years, but have failed to notice more marked improvement than I have seen to follow the same doses of galvanism when the electrodes have been soaked in warm water.—I am, etc.,

Llandudno, April 19th. JAMES CRAIG.

THE WATER CURE FOR HYDROPHOBIA.

SIR,—It will be interesting to supplement the record of the use of water in the old time before us in the treatment of hydrophobia, given in the JOURNAL of April 5th, p. 721, by an article upon the subject from the pen of the renowned Dr. Haygarth, of Chester (of whom a full account was given lately in your Nova et Vetera), which is to be found in the form of a communication from Dr. Haygarth respecting hydrophobia, made to Dr. Withering. This paper was published in 1822 in the first of the two volumes of *The Miscellaneous Tracts* of the late William Withering, M.D., F.R.S., from the pen of Dr. Withering's son. It will be remembered that Dr. Withering was a distinguished physician in Birmingham, where his memory is especially cherished as of a patron saint in therapeutics, where he was a physician to the great General Hospital, and where he wrote *The Botanical Arrangement of British Plants*, in four volumes, and much else, and where he wrote and published in 1785 his immortal book, *An Account of the Foxglove and some of its Medical Uses: with Practical Remarks on Dropsy and other Diseases*. Dr. Haygarth was an intimate correspondent of Withering, and this paper of his upon the treatment of some of the effects of the bite of a mad dog is of the greatest therapeutic interest. Perhaps it has been lost sight of by being included in a posthumous volume of medical tracts and memoir.

Dr. Haygarth wrote to his friend: "Near Wrexham, in North Wales, three men died of canine madness in October and November, 1788. These melancholy cases spread a general alarm. But it ought to give great comfort and satisfaction to any one who may be bit to know that there is a safe, easy, and effectual method of preventing infection, which can seldom give pain or require skill, and is in the power of every person to employ. It is universally allowed by physicians that the spittle of a mad animal, infused into a wound, is the *only* cause, hitherto known, that can communicate canine madness to the human body. This poison does no immediate mischief, but is slowly absorbed into the blood, and sufficient opportunity is given to remove it before any danger can arise. Whenever any one is bit, the plain and obvious means of preventing future injury is, first, to wipe off the spittle with a dry cloth, and then to wash the wound with cold water—not slightly and superficially, but abundantly—and with the most persevering attention; in bad cases, for several hours. After a plentiful affusion of cold water, warm water may be employed with safety and advantage; a continued stream of it, poured from the spout of a tea-pot or tea-kettle, held up at a considerable distance, is peculiarly well adapted to the purpose. After the bite has been carefully washed, colour it with spittle tinged by ink, etc. When some hours have elapsed wash out the stain. A visible proof may thus be obtained how soon and perfectly water can cleanse the wound from spittle. As a proof that slight washing of the wound is not sufficient to cleanse it effectually from the poison, we may mention that in some cases, after inoculation for the small-pox, the poisonous matter has been attempted to be washed out of the wound by persons who wished to prevent its effects, yet the inoculated small-pox appeared at its proper period.

"These unsuccessful attempts were performed secretly, hastily, and timidly by a female hand; but, in a case where the inoculated incisions were probably washed with greater care, infection was prevented. They teach us the importance of patient perseverance in washing away the poison, but they need not abate our confidence that such perseverance will certainly be successful. The ablution should be accomplished with great diligence and without delay, and may be performed by the patient or any assistant. However, as the apprehension of this dreadful disorder always excites the greatest anxiety, a surgeon's advice and assistance ought to be obtained as soon as possible in all cases where the skin is injured. He will execute these directions most dexterously and completely. In a bad wound the poison may be conveyed deep into the flesh by long teeth or by lacerations. In such circumstances he will open and wash every suspicious place, and whenever any uncertainty can remain that may occasion future solicitude, he should cup and syringe the wound. By this method of purification it cannot be doubted that every particle of poison, and consequently that every cause of danger, may be effectually removed. If the bite have been neglected till inflammation has commenced, it should be washed, syringed, and cupped (after the inflamed surface has been shaved off) with double diligence."—I am, etc.,

JAMES SAWYER, M.D., F.R.C.P.

Birmingham, April 7th.

BOVINE AND HUMAN TUBERCULOSIS.

SIR,—Dr. J. Preston Maxwell has written stating that in the part of China in which he resides—as in districts more to the north—tuberculosis, including tuberculosis of the joints and bones, is common. The importance of this observation rests upon the fact that only where China borders on Thibet is cow's milk used as a food. Elsewhere the drinking of milk is regarded by the Chinese with a similar abhorrence to that with which we regard their habit of eating dogs and cats.

It must be obvious, therefore, that tuberculous disease of the joints and bones may be prevalent where there is no risk of infection from the cow. It is necessary to reconcile this fact with results of laboratory experiments such

as those recorded by Dr. John Fraser (BRITISH MEDICAL JOURNAL of April 12th). Dr. Fraser does not deny that joints and bones may be attacked by the human bacillus, but contends that under the age of 3 years the disease in these parts of the body is generally of bovine origin. His conclusion rests upon the belief that the tests given as to differences between the bovine and human bacilli are absolutely reliable. The greatest confidence is placed upon the difference of virulence of the bovine and human bacillus towards the rabbit. The bovine bacillus is said to kill the rabbit comparatively quickly, while the human bacillus has little effect. Apparently tubercle bacilli obtained from children under the age of 3 years much more often than not killed rabbits quickly, and on this result mainly it is concluded that the tubercle bacillus found in young children is generally bovine.

Such a conclusion ignores what may be described as the peculiarities of the human body as a culture medium. It assumes that the human body may be considered to act in a uniform way towards bovine and human bacilli at all ages, and that the only differences to be noted are those observed as the result of experiments outside the body. That is to say, although we know the human body in early life to be, in the majority of instances, a much better culture medium for the bacillus than in later life, for laboratory purposes a bacillus derived from the human body when outside the body is assumed to act in the same way whether derived from a body favourable or comparatively unfavourable to its growth. Such an assumption seems open to question. Can we assert that the tubercle bacillus during growth in the body at an early age does not acquire certain qualities in consequence of the character of the medium in which it has grown? We want to know whether tubercle bacilli obtained from babies, such as those in China, who cannot have been infected with bovine bacilli, will not kill rabbits as readily as bacilli obtained from babies in Edinburgh.

However that may be, if bovine and human bacilli possess such marked differences in virulence that one will kill a rabbit and another will not, then in a sensitive medium, such as is provided by the tissues of a baby, we ought to expect some marked differences in the behaviour of the two types of bacilli.—I am, etc.,

Sidcup, April 12th. THEODORE FISHER.

SYPHILIS AND CANCER OF THE TONGUE.

SIR,—In your issue of the 12th inst. there is an interesting communication from Dr. Arnold Renshaw, in which he refers to a lecture of mine recently published in the BRITISH MEDICAL JOURNAL.

My point is that, as a result of investigation of cases of tongue cancer which have come under my observation, 80 per cent. have given a previous history of syphilis, and in the majority of these cases there have been marked syphilitic lesions of the tongue present.

One would therefore conclude that in the greater number of these cases a positive Wassermann reaction would be found, and such in fact has been our experience at the Cancer Hospital. I have referred the matter in Dr. Renshaw's letter to Dr. Archibald Leitch, the pathologist to the Cancer Hospital, and he writes:

> In the last seven cases of tongue lesions which were operated on and which were clinically and histologically malignant, five gave a positive reaction. The method employed was that of Browning and MacKenzie, which is the most critical of all the methods used.
>
> Every serum was tested separately with two different complements, not less than eighteen and not more than twenty-four hours old. The advantage of this duplicating of the complements was evidenced by the fact that one particular complement used on two serums tested on the same day was supersensitive, whilst the other complement was not.

I may add that I regard a positive Wassermann reaction as indicative of syphilis; but it does not exclude cancer.—I am, etc.,

London, April 22nd. CHARLES RYALL.

SIR,—With regard to the interesting relationship between syphilis and cancer of the tongue on which you have recently thrown a good deal of light, it may be of interest to recall that Mr. Clement Lucas used to teach us that the three great causes were the three S's—syphilis, smoking, and salivation. In his opinion the stomatitis of greater or less degree resulting from the prolonged use of mercury—needful though it was—was a factor which could not be neglected when summing up the various forces at work.—I am, etc.,

Southsea, April 18th. M. ASTON KEY.

TUBERCULOSIS OFFICERS, SCHOOL MEDICAL OFFICERS, AND THE MEDICAL OFFICERS OF HEALTH (SUPERANNUATION) BILL.

SIR,—From all parts of England and from the North of Scotland replies to my letter in your issue of April 12th have reached me. Every one of them strongly urges the necessity of including in the bill school medical inspectors and tuberculosis officers. Widespread discontent with the remuneration at present offered, especially to school medical inspectors, is almost invariably shown in these replies. Those who have written have also brought the bill to the notice of their member of Parliament.

To the following gentlemen I have sent the appended letter: Sir Philip Magnus (presenter of the bill), Sir Henry Craik, Mr. Lough, Mr. Charles Bathurst, Sir Henry Norman, Mr. Godfrey Locker-Lampson, and Mr. Glyn-Jones, supporters of the bill.

A copy has also been sent to the Secretary of the Society of Medical Officers of Health, and to the Secretary of the British Medical Association, and to Dr. Addison.

Dear Sir,—I have the honour to request your attention to, and consideration of, the following amendment, which I hope you will see has a strong claim for insertion in the bill during the Committee stage:

Amendment.—That the words "medical officers of health" in the title and throughout the bill include "school medical inspectors and tuberculosis officers."

Reasons.—1. Medical inspectors and tuberculosis officers have salaries ranging on the average from a fourth to a half of that paid to medical officers of health.

2. Being whole-time officers, they are precluded from augmenting their salaries by engaging in other work.

3. About three out of every four medical inspectors and tuberculosis officers will not receive promotion from their present position, because their numbers are so much greater than those of medical officers of health.

4. They form the junior branches of the Public Health Service.

5. All the arguments adduced in the bill in favour of public health officers apply in the case of medical inspectors and tuberculosis officers.

—I am, etc.,

ALEXANDER GRAHAM,
School Medical Inspector, West Ham, E.

London, E., April 21st.

THE NEGLECT OF VACCINATION.

SIR,—I have to thank Dr. Killick Millard for the lucid statement of his case in his letter of April 7th. I admit that efficient infantile vaccination is by itself insufficient to check the spread of imported small-pox and to make small-pox hospitals unnecessary. In the absence of re-vaccination, and with the prospect of vaccination becoming optional and of emergency vaccination (limited by lymph supply and time and lay persuadability) being carried out, we must hope that the community may have less small-pox than can be reasonably foreboded.—I am, etc.,

Brent Knoll, April 14th. J. W. PAPILLON, M.R.C.S.

THE "MILWARD FUND."

SIR,—A fund under the above title has been started in Cardiff to assist the widow and three young children of the late Dr. Courtenay Milward, who are left practically without means.

Reference to the manner of Dr. Milward's death is made in your obituary columns, and the members of the profession in Cardiff and district feel that it is their duty to do all that they can for those he has left behind. The fund is open to all, medical and lay, and donations will be gratefully received by the undersigned.—We are, etc.,

WILLIAM SHEEN,
2, St. Andrew's Crescent, Cardiff,
Honorary Treasurer.

A. L. THORNLEY,
18, Windsor Place, Cardiff,
Honorary Secretary.

The Services.

ROYAL NAVAL MEDICAL SERVICE.

Surgeon-General Sir James Porter, K.C.B., has been awarded the Good Service Pension of £100 per annum vacant by the death of Inspector-General of Hospitals and Fleets John Fisher.

Flying Pay.

By an Order in Council, published in the *London Gazette* of April 18th, the following arrangements have been sanctioned: (1) Medical officers who obtain the certificates of the Royal Aëro Club at their own expense to be eligible for gratuity of £75, provided the permission of the Admiralty to undergo such training has first been obtained. (2) Medical officers trained at the Central Flying School, or at a naval flying school, to be paid half the authorized rate of flying pay while under instruction. (3) After attaining such standard of proficiency as may be laid down, medical officers to be paid the authorized rate of flying pay (*a*) for any days on which they may be required to fly on duty, (*b*) for days on which it may be necessary for them to carry out practice flights not exceeding two days per month.

THE INDIAN MEDICAL SERVICE.

The *Gazette of India* of February 15th, 1913, notifies that Colonel G. W. P. Dennys, Inspector-General of Hospitals in the Central Provinces, is granted leave for eight months, and that Lieutenant-Colonel H. E. Banatvala acts in his place. This announcement is of interest as being the promotion of an Indian member of the I.M.S. to officiate in the administrative grade and as Principal Medical Officer of an Indian province. No Indian has yet attained permanently to such a post, but one, Lieutenant-Colonel E. P. Frenchman, C.I.E., acted in the same office, in Burma, in 1909.

It was a strict rule of the East India Company that only men of pure European extraction should be appointed to the I.M.S. The India Act of 1853, Acts xvi and xvii Vict., cap. 95, introduced competitive examination, open to all natural-born subjects of Her Majesty, for admission to the service. The first examination was held in January, 1855, when the list was headed by S. C. G, Chuckerbutty, a Bengali Christian, who had been one of the Indian students sent to study in England, under the guardianship of Dr. H. H. Goodeve, ten years before. Chuckerbutty took the diploma of M.R.C.S. in 1848, the degree of M.D.Lond. in 1849. From 1850 to 1854 he served in the Uncovenanted Medical Service. Of the five students sent home with Goodeve, Chuckerbutty was the only one who was young enough, in 1855, to enter for the examination for the I.M.S.

Since 1855 over 100 men with pure Indian names have gained admission to the I.M.S., of whom nearly forty-nine have joined on the General List instituted in 1896. Some twenty others, with Portuguese or Armenian surnames, have also entered; as well as a considerable number of Anglo-Indians of mixed blood, who, of course, cannot be identified by their surnames.

It is not perhaps surprising that no Indian has yet risen permanently to the administrative rank. More than half of the Indians admitted are still too junior for any question of their promotion to have arisen. Of the seniors, comparatively few, only some ten in all, have put in the full thirty years' service necessary for promotion or full pension. Many have taken the first opportunity of retiring as soon as they had earned the first pension. Several have held appointments of importance with credit and success. Chuckerbutty became professor of materia medica in the Calcutta Medical College, and second physician of the College Hospital, in 1864, and held the post till his death, when on leave, in London, on September 29th, 1874. Another Indian, R. C. Chandra, was his successor in these offices, and held them for nearly twenty years, till his retirement on October 16th, 1891. Lieutenant-Colonel Frenchman for several years held the Inspector Generalship of Prisons in Burma. Another Indian officer held that post in the province of Eastern Bengal and Assam, and now holds it in the new province of Bihar and Orissa. Ten have risen to the rank of brigade surgeon, or its modern equivalent, lieutenant-colonel, on the selected list.

Lieutenant-Colonel Hormusjee Eduljee Banatvala is a Parsi by birth. He was born on October 20th, 1859, so has a year and a half yet to run before attaining the age for compulsory retirement. He was educated at the Grant Medical College, Bombay, where he took the L.M. and S. in 1881, and at St. Bartholomew's Hospital, taking the M.R.C.S., L.R.C.P.Lond., and L.S.A. in 1882. He entered the Bombay Medical Service as surgeon on April 1st, 1884, passing third, and a few months later was transferred to Bengal, became surgeon-major on April 1st, 1896, lieutenant-colonel on April 1st, 1904, and was placed on the selected list on January 1st, 1910. For the first nine years he remained in military employ, serving in Burma from 1886 to 1889, when he took part in the operations of the First Brigade and in the pursuit of Hla Oo; he received the medal with two clasps. He also served in the Lushai expedition of 1892. For the last twenty years he has been in civil employ in the Central Provinces, where he now becomes Acting Inspector General of Hospitals.

GLASGOW UNITS, ROYAL ARMY MEDICAL CORPS.

The annual gathering and presentation of prizes in connexion with the Glasgow units of the Royal Army Medical Corps (Territorial) took place in the new head quarters at Yorkhill Parade. Lieutenant-Colonel A. D. Moffat, M.D., Commanding the 2nd Lowland Field Ambulance, presided, and there were also present Colonel D. J. Mackintosh, M.B., M.V.O., Assistant Director of Medical Services, Lowland Division; Lieutenant-Colonel H. Wright Thomson, Lowland Mounted Brigade Field Ambulance; Lieutenant-Colonel George H. Edington, M.D., 1st Lowland Field Ambulance; Lieutenant-Colonel A. G. Hay, M.D., 3rd Scottish Hospital; Colonel Alexander Napier, M.D., 4th Scottish Hospital, and others. The chairman said that the aggregate authorized strength of the units was 32 officers and 730 other ranks, and that there were serving on February 28th 29 officers and 743 other ranks. Since then the shortage of officers had been made good, and he congratulated those present on being members of a highly prosperous and admirably equipped corps. So far as the crisis in the Territorial Force was concerned they had no knowledge of it in the Glasgow units of the Royal Army Medical Corps. Colonel Mackintosh presented the prizes gained during the past season, and congratulated Colonel Moffat on the excellent report. He was glad to learn that a large number of men proposed to re-engage for a further period, which showed their patriotism and their loyalty to the Territorial Force.

Universities and Colleges.

UNIVERSITY OF LONDON.

Graham Scholarship in Pathology.

The late Dr. Charles Graham, Professor, and later Emeritus Professor of Chemical Technology in University College, by his will bequeathed the residue of his estate to the University of London, to found at the School of Advanced Medical Studies of University College a Charles Graham Medical Research Fund. The Senate was empowered to establish a Graham scholarship in pathology of not more than £200 a year to enable a young man to continue his pathological researches, while at the same time he gives his services to the school as a teacher under the Director of Research appointed under the Graham bequest. The Senate now invites applications for the Graham scholarship in pathology, which is of the value of £200 per annum for two years. Applications stating the research upon which the applicant proposes to work, and marked "Graham Scholarship," must be sent to the Principal, University of London, South Kensington, S.W., by May 31st, accompanied by the names of not more than three references, one at least of which should be the name of a professor, lecturer, or teacher of the university or college in which the candidate has conducted his studies in pathology.

CONJOINT BOARD IN ENGLAND.

The following candidates have been approved at the examination indicated:

First College (*Part IV, Practical Pharmacy*).—C. H. B. Avarne, A. J. Bado, O. Baier, P. W. Barnden, C. A. Bernard, J. W. Bouwer, H. H. Castle, A. J. Chillingworth, G. D. Compston, D. T. Corke, H. L. Cronk, F. W. Crook, J. D. L. Currie, G. Dayal, S. B. Depree, E. Donaldson, K. M. K. Duff, P. Green, H. S. Groves, H. Gwynne-Jones, W. T. Gwynne-Jones, A. R. Hacker, T. W. Hancock, T. C. Higgins, G. G. B. Holroyde, T. R. Kenworthy, G. H. S. Letchworth, A. R. Muir, W. E. Neale, F. A. M. Nelson, D. W. Pailthorpe, A. B. Preston, F. N. Reynolds, A. N. Rushworth, T. W. Sheldon, A. H. Taymour, G. O'N. Waddington, L. M. Waldron, A. S. Westmorland, G. W. Wheldon, L. H. Woods.

CONJOINT BOARD IN SCOTLAND.

The following candidates have been approved at the examinations indicated:

First College.—W. Brown, N. S. Bruce, R. P. Crawford, H. G. Fitz-Maurice, J. A. Murray.

Second College.—J. Crawford, A. Evans, D. A. Imrie, R. MacGregor, J. Y. M'Lean, J. M. A. M'Vey, G. L. Pillans, H. Shaw, W. Templeton, F. W. Thompson, R. L. Wright.

Third College.—J. W. Cowie, J. R. C. Gordon, W. L. Paterson.

Final.—S. Cochrane, A. M. Robertson, W. N. P. Williams, Madeline MacWilliam, W. E. Cruickshank, M. J. Ahern, R. Craig, M. R. Mahlangeni, J. F. Bourke, J. R. Gwynne, G. L. Clark, S. Swaminathan, R. S. Miller, U. R. Hattiangadi.

Obituary.

RAYMOND BROADLEY ETHERINGTON-SMITH, M.A., M.B.CANTAB., F.R.C.S.ENG.,

WARDEN OF THE COLLEGE OF ST. BARTHOLOMEW'S HOSPITAL.

THE toll paid to death by the medical profession during the past few months has been exceptionally heavy, but no loss is likely to be more generally deplored than that arising from the death, on April 19th, of Mr. Raymond Broadley Etherington-Smith in his 36th year.

St. Bartholomew's Hospital, medical students, and rowing men of the present and of the future are equal sufferers. The hospital has lost a member of its staff who did credit, and was certain to do constantly increasing credit, to its repute; the students have lost a teacher whom they could not fail to admire, both as a man and as a source of information; and Surgery has lost an exponent who, apart from his professional capacities, was possessed of such personal charm that he was bound to win it friends. Etherington-Smith, in short, was not a man whom any profession, or, indeed, any nation, could afford to see snatched away from it in the very prime of his life without the deepest regret, and a kind of wonder as to what great purpose of Providence was served thereby.



Photograph by] R. B. ETHERINGTON-SMITH. *[Elliott and Fry, Ltd.*

He was born in 1877, and was the second son of Mr. J. R. Etherington-Smith, Recorder of Derby and a Bencher of the Inner Temple; his mother was a daughter of Sir Thomas Pears, K.C.B. Educated, like his father, at Repton, Etherington-Smith entered Trinity College, Cambridge, in 1895, and graduated in Arts and Medicine in 1903. He received the later part of his professional education at St. Bartholomew's Hospital, which he entered as a university student, and was admitted a Fellow of the Royal College of Surgeons of England on the same day that he received his membership in June, 1907.

At the hospital he made his way very rapidly, and held the posts successively of surgical registrar, demonstrator of surgical morbid anatomy, assistant surgeon, and warden of the college. He was also assistant surgeon at the West London Hospital. In all these positions he exerted himself to the full limit of his strength, and the end of a long winter found him unable to resist an attack of pneumococcal peritonitis, which seized him suddenly on the evening of April 16th, and ended in his death on April 19th, in spite of the most devoted surgical and nursing attention. Just before his illness he had had occasion to operate on a case of gangrene of the lung, and there is reason to believe that his death adds another to the long list of those directly due to the performance by medical men of obviously dangerous duties.

Etherington-Smith was already a man of mark when he entered the medical profession some ten years ago. Quite early in his career at Cambridge he attained a reputation on the river, and subsequently he became one of the best-known English oarsmen and most successful coaches of his day. That day, too, lasted unusually long, for it began in 1895 and ended only in 1908; meantime he had stroked many London Rowing Club, Leander, and Cambridge crews to victory, and in addition had carried off the Diamond prize for sculling on more than one occasion. His crowning performance was the captaincy of the English crew which, despite unfavourable presages, won the Olympic regatta of 1908.

Rowing, however, did not exhaust his energies. He entered fully into every side of the life of his hospital, and though the amenities of professional life obliged him of late years to use a motor car, he was also an ardent motor cyclist. Driving in his car, commonly with a friend, he was a familiar sight in the streets of London on his way to the chief athletic events of the year.

As a surgeon Etherington-Smith was, of course, only at the beginning of his career, but he had already made considerable progress in several special departments of his science, and had also attained some degree of surgical repute among the general public. This may have been partly due to his connexion with athletic circles, but his own personal qualities and professional skill were of such a kind that, had he lived, he was bound sooner or later to have come to the front as one of the surgeons of the day.

No man unpossessed of physique and character could have attained and kept for so long a period the position of Etherington-Smith as an oarsman, and both were obvious almost at first sight. Not only was he a tall, decidedly handsome, man, but there was a quality in his face which was a true index of his character. Full of grit and intelligence, absolutely loyal to his friends, he was a clean living man who could not fail to attract all those who came into contact with him. Even-tempered, courteous in manner and quiet in address, he held decided opinions based upon assured knowledge, and expressed them clearly and pleasantly. In professional subjects his opinion was always sound, for it was based upon a broad platform of accumulated facts.

His influence on his contemporaries and juniors was always of the very best kind. His contemporaries were his devoted friends, and their familiar talk of "Ethel Smith" was invariably and wholly to his credit, whether it was in connexion with school subjects or the towing path; and junior men reverenced him with the affection and awe commonly felt by athletic aspirants for one who has outshone all others in his own department. He was therefore ideally fitted for what may be regarded as the more important of the three posts which he was filling at the time of his death—that of Warden of the college of St. Bartholomew's Hospital. It brought him into intimate contact with medical students fresh from home and school, and he maintained for the post the prestige which the office acquired many years ago under the sway of Sir James Paget.

Though Etherington-Smith's death is deplorable, he did not live in vain, for he impressed the genius of his character not only on his own friends but on men of several younger generations, who will live with higher ideals owing to their association with him. Etherington-Smith was unmarried.

The first part of the funeral service on April 23rd was held in the Priory Church of St. Bartholomew the Great, which was filled to overflowing. The coffin was carried from the hospital to the church by those members of the hospital staff who had been most closely associated with him as colleagues and house-surgeons. It was draped with the Cambridge University Boat Club and the Leander Club flags. The service was conducted by the Rev. H. S. Close, the Hospitaller. The committal service was carried out in the Putney Vale cemetery amongst a wealth of flowers and the first verdure of spring, the coffin being lowered into the grave by six Cambridge Blues who had shared with him many a hard-won race.

THOMAS HAYES, M.D., J.P.,

RATHKEALE, CO. LIMERICK.

Dr. Thomas Hayes, of Rathkeale, co. Limerick, passed away at his residence in that town on April 3rd in the 81st year of his age. At the time of his death he still held several appointments, and, despite his advanced age, was by no means a titular occupant thereof. Only some four months before his death he performed a successful operation on a case of strangulated femoral hernia in a woman 80 years of age. Even the illness which, after lasting three months, terminated his life, left his mental faculties unimpaired, and throughout its course he used to discuss with his medical attendants (two of his own sons) the different phases of the diabetes, complicated by gangrene, from which he was suffering.

An admirable example of a medical man of the old school, Dr. Thomas Hayes had been at work in the province of Munster for over fifty years, his practice extending over a very wide area of Munster. He performed its various duties, which included much surgery and consultation work, in such fashion as to gain the full confidence of his patients and the affection of a large proportion of the inhabitants of the province. Indeed, there were many who regarded him as a true Irish prototype of the Scottish country surgeon rendered so famous by the novelist Ian Maclaren under the name of Weelum Maclure.

He was born in Fairy Street House, Athea, in August, 1832, being one of a family of eight children orphaned when all were still quite young. It thus came about that he received his early general education at the local national school—a fact of much interest, in view of the high degree of culture and knowledge of classical and other languages which he constantly evidenced in adult life. On reaching the age of 20 he joined the medical side of Trinity College and had a successful career there, being appointed a prosector and winning prizes in sundry class subjects; among them was botany, in which he snatched the prize from a student who afterwards became a distinguished professor of the same subject in Trinity College. Subsequently he spent several years between Edinburgh and London, completing his student life by becoming M.D.Edin. and M.R.C.S.Eng. in 1856.

His first intention was to join the Indian Medical Service, but eventally he determined on general practice in Ireland. After working some years in the Shanagolden district of Munster, he became medical officer to the Rathkeale workhouse and dispensary, and settled in Rathkeale, where he continued to reside during the rest of his life, meantime taking up a good many other appointments. As a young man at Edinburgh he had studied the use of chloroform as an anaesthetic under Simpson himself, and he was one of the first to use it extensively in practice. He was an able surgeon, and when occasion arose he was never afraid to operate, even in the discouraging conditions often encountered in country practice. Some of his characteristics and the impression he made on those well acquainted with him are well brought out in the following letters. Mr. W. C. Stevenson, of Steevens's Hospital, Dublin, after describing how he was to be seen driving for long distances in his outside car, in every kind of weather, and at all times of the day and night, continues:

> Thirty years ago he was one of the best known general practitioners in the South of Ireland, and until recently enjoyed a very extensive practice and was the respected and esteemed family physician to many county families. He was a man of many parts and always derived a great deal of pleasure from the study of nature, and possessed a surprising knowledge of the geology and botany of his county. . . . He was a good diagnostician, and frequently obtained brilliant results by a fearless administration of a drug which would surprise the younger generation. Dr. Hayes was a strong man and an erudite physician and surgeon also of the old school. His stout rule and conviction that a doctor should have no politics made his services acceptable to all parties alike. At home he was a most hospitable and courtly gentleman. . . . His death after a very strenuous and useful life severs a link with the past in a way which only those who knew him can appreciate.

Other points in his character are equally well brought out in the following letter from Dr. D. Mahony of Glasnevin, who after some preliminary observations, writes:

> A large section of the province of Munster mourn their wise counsellor, their "beloved physician." His was in truth a noble personality, a living example of what a physician ought to be. Invariably courtly and serene, genial, kindly, and painstaking, we have lost in him what we can ill spare, the embodiment of the best type of traditional Irish medical man. None to whom he ministered in the course of his extended career can ever forget his lovable character, his all-embracing sympathy, his loyalty to his friends, his human-kindness. Of wide general culture and literary tastes, he had in addition the talisman of the successful doctor—that elusive "healing-touch"—the power to inspire confidence and to cheer the depressed. We have left but his memory and the example of his life—a long life consecrated to acts of duty and kindness, and to the welfare of his fellow men. But—
>
> To live in hearts we leave behind
> Is not to die.
>
> In the venerable Gaelic tongue which he loved so well—
>
> Go mbeannuide Dia ar a anam.

A high-minded man himself and an uncompromising opponent of anything in the nature of sham, Dr. Hayes exercised his keen powers of observation to advantage throughout his life, and thus had much that was interesting to relate of those who were great medical authorities in his student days. For Sir Dominic Corrigan, under whom at the Whitworth Hospital, Dublin, he first learnt the treatment of fevers, he had a particular admiration. Dr. Hayes wrote as he spoke, both forcibly and fluently, and was never at a loss for an apt quotation from classic authors. Some of the subjects on which he contributed papers to the medical press were the surgery of severe gunshot injuries, excision of the tonsils, the treatment of chronic inflammation of the knee-joint by Corrigan's cautery, and the importance to be attached to a uterine bruit as a sign of life after apparent cessation of the movements of the fetal heart. He was also a student of Hebrew and Welsh, and conversant with several modern languages. In Gaelic he was a ready speaker, and was engaged during the latter months of his life in translating the *Odes of Horace* into this language.

Dr. Thomas Hayes, who was at one time President of the Munster Branch of the British Medical Association, married in 1861 a daughter of Mr. Henry Bouchier, of Fort William, and is survived by three sons and one daughter. The latter kept house for him during the later years of his life, and of the former two are medical men—Dr. J. T. Bouchier-Hayes, J.P., of Rathkeale, and Dr. H. Bouchier-Hayes of Charleville.

WILLIAM COURTENAY MILWARD, B.A.Oxon., M.R.C.S., L.R.C.P.,

CARDIFF.

We much regret to record the death of Dr. William Courtenay Milward of Cardiff at the early age of 41. His death occurred with startling suddenness from angina pectoris on April 9th; that he was ill was known practically to none. Having regard to the nature of his illness, it is no exaggeration to say that overwork and much mental strain in connexion with the Insurance Act materially contributed to his death. His loyalty and devotion to the needs of the local profession were unceasing, and amidst much contention and difference of opinion he had the confidence of every one. He took a sane, level-headed view of all problems, and thoroughly understood the difficulties and anxieties of the recent troublous times.

As senior secretary of the Cardiff Division and Representative of the Division at the Representative Meetings the calls upon him were unceasing, and he was always ready and willing to give advice and assistance.

Mr. Milward was educated at the University of Oxford and Guy's Hospital. He had practised in Cardiff since 1902, where he held the appointments of Poor Law medical officer and medical officer to the Clerks' Association, and was physician to the French Consulate. He was a man of wide reading and considerable culture.

His professional work, though hard, was relatively unremunerative. His work for the profession and his refusal to go "on the panel" until formally released from the "pledge" must have acted detrimentally to his practice.

Dr. Milward attended, on March 19th, a meeting of the Subcommittee of the State Sickness Insurance Committee appointed to consider the amendments to the Insurance Act which are desirable. At its meeting on April 15th that Subcommittee adopted a resolution of regret and sympathy with the relatives of the late Dr. Milward in their bereavement, and this resolution was endorsed by the State Sickness Insurance Committee at its meeting on April 17th.

The local profession feels that it is an obligation on it to do something for his widow and three young children, who are left almost totally unprovided for. A fund has therefore been opened, to be called "The Milward Fund," to which reference is made in our correspondence columns. The fund is open to all, and we hope that it will be liberally supported to mark the appreciation of one who gave his life for the profession.

The late Sir Henry Swanzy.—At a meeting of the members of the Council of the Royal Victoria Eye and Ear Hospital, Dublin, on April 15th, the following resolution was adopted:

> The President and Council of the Royal Victoria Eye and Ear Hospital desire to place on record their deep sense of the irreparable loss which has been sustained by them personally and by the hospital in the decease of their Honorary Secretary, the late Sir Henry Rosborough Swanzy. The hospital owes its origin almost entirely to his initiative and public spirit, and the present existing excellence of its structure and organization is largely to be ascribed to the unremitting personal attention which he devoted to every detail. It was through his loyal and single-hearted effort that the many difficulties surrounding the effectual amalgamation of the two older hospitals—St. Mark's Ophthalmic Hospital and the National Eye and Ear Infirmary—were surmounted through the machinery of the Act of Parliament obtained in 1895. Since that date he never spared himself in seeking to arouse in others his own enthusiasm on its behalf and in promoting its development and improvement in everything that modern science could suggest. This hospital was the great aim of his life, and it stands to-day as a lasting and worthy monument to his memory. The President and Council desire to convey to his family their heartfelt and sincerest sympathy with them in the sorrow of their great bereavement.

Dr. William Robinson Evans of Dublin died suddenly on April 7th. He attended a meeting in the Merrion Hall that evening, and was one of the speakers; resuming his seat after his remarks, which had occupied about twenty minutes, he almost immediately became weak, and died a few minutes later from heart failure, in spite of all the efforts of another doctor who was present at the meeting. Dr. Evans was educated at Trinity College, Dublin, where he graduated M.B. in 1870 and M.D. in 1879. He studied for some time in Vienna. For many years he had been a well-known and respected practitioner in Dublin. He was consulting physician to the Orthopaedic Hospital. His sister, who has been ill for some time past, was greatly distressed by her brother's death, and died about twelve hours later.

Surgeon-Lieutenant-Colonel Alexander Brebner, late Army Medical Service, who died on March 30th at the age of 72, took the degrees of M.B., C.M.Aberd. in 1862 and that of M.D. in 1873. He entered the service in April, 1863, became surgeon in March, 1873, and surgeon-major in April, 1876, retiring in May, 1888, with the honorary rank of surgeon-lieutenant-colonel. He served in the Bhutan expedition in 1865, taking part in the capture of Dewangiri, and received the medal with clasp.

Dr. Agnes McLaren, who died at Antibes on April 18th, was one of the pioneers of the medical education of women. It was at the house of her father, the late Mr. Duncan McLaren, M.P. for one of the divisions of the City of Edinburgh, that the agitation for the medical education of women, the chief actors in which were Dr. Sophia Jex-Blake and Miss Peachey, was begun. Their object was to open the medical schools, university, and extramural, as well as the clinical wards of the Royal Infirmary of Edinburgh, to women. To a large extent their efforts were in the long run successful. Dr. Agnes McLaren graduated at the University of Montpelier, and afterwards settled at Cannes, where she had a large practice. Some years ago she retired to Cap d'Antibes, and gave herself up to a vigorous campaign against the white slave traffic, and to other social reforms with reference to women. She was a woman of strong individuality and character, and was known to a large circle of philanthropic workers of many nations, of many kindreds, and of many creeds—she had herself become a Roman Catholic. She has died at an advanced age, though somewhat unexpectedly, and will be greatly missed by many. She was the sister of Lord Aberconway; of the late Lord McLaren, one of the judges in the Supreme Court in Scotland; of Mr. Walter McLaren, M.P., and of Mr. Duncan McLaren, of St. Oswald's, Edinburgh.

Medico-Legal.

LIND-AF-HAGEBY VERSUS ASTOR AND OTHERS.

This case, which had occupied practically the whole time of Mr. Justice Bucknill and a special jury since April 1st, came to a conclusion on Wednesday, April 23rd. The claim was for damages for libel, the action being brought by Miss Emelie Augusta Louise Lind-af-Hageby against Mr. William Walford Astor, the proprietor of the *Pall Mall Gazette*, Mr. David Cameron Forrester, the printer, and Mr. James Louis Garvin, the editor, and Dr. Caleb Williams Saleeby, the writer of the articles complained of. The defendants denied that the words referred to the plaintiff, and in the alternative said that they were true in substance and in fact. They also pleaded bona fide comment on a matter of public interest.

The plaintiff appeared in person.

Mr. Duke, K.C., Mr. McCardie, and Mr. S. J. Field appeared for Dr. Saleeby; and Mr. Shearman, K.C., and Mr. Hugh Fraser for the *Pall Mall Gazette*.

Dr. Saleeby had written about the exhibition of the Animals Defence and Antivivisection League in Piccadilly, and in the *Pall Mall Gazette* of May 7th had referred to "the systematic campaign of falsehood without which the antivivisectionist societies could not exist," and cited this window as an illustration of "the unscrupulous mendacity of their hirelings." He pointed out that there was no indication given that the animal upon the board was chloroformed, and asked, "What point would there be in the exhibition if that fact were known?"

The plaintiff was the honorary general secretary of the Animals Defence and Antivivisection League and editor of the *Antivivisection Review*, and had taken a prominent part in the antivivisection campaign.

The defendants, in support of their defence that the words in question were true, had set forth a large number of extracts from various publications issued by or with the authority of the plaintiff. The documents most frequently quoted from were *The Shambles of Science* and the *Antivivisection Review*. Each member of the jury was supplied with a copy of these particulars.

A large number of witnesses were called on either side; those called for the plaintiff included Dr. Robert H. Perks, Mr. Stephen Smith, Lieutenant-Colonel Lawrie, I.M.S.(ret.), Dr. Valentine Knaggs, Dr. W. J. Cameron, and Dr. Richard Cowen; and for the defence, Professor E. H. Starling, Sir Victor Horsley, Dr. C. J. Martin, Director of the Lister Institute of Preventive Medicine; Dr. J. W. H. Eyre, Director of the Bacteriological Department of Guy's Hospital; Dr. Alice Corthorn; and Dr. William Bulloch, Bacteriologist of the London Hospital.

Mr. Justice Bucknill, in the course of his summing up, said that after a long inquiry he had the most difficult duty of any one in court—namely, to remind the jury of the real facts and issues at stake. It was a question of fact which the jury had to deal with, not a religious question or question of sentiment. Had Dr. Saleeby defamed the character of the plaintiff so as to give her a legal right to sue for damages for defamation? Looking at the passages which were said to be libellous, they were said to amount to this—that the plaintiff had untruthfully and dishonestly with her associates carried on a campaign against the practice of vivisection. She had undoubtedly been a very hard worker in a very laudable cause. In her honour be it said that he could not help admiring the vigour with which she had fought the battle of the antivivisector. She was entitled to be an antivivisector. She was a lady of marvellous power, able to stand

in court day after day showing no sign of fatigue, not losing her temper, and able to cross-examine as well as any counsel at the Bar. All that was to her credit. But it was her duty to be truthful and fight her opponents fairly. He could not help thinking that she must now regret the attack upon the Royal Commission which was embodied in the letters signed "Nemesis," admittedly written by her. In one of those letters she had said of Lord Cromer: "You are not the first man of prominent position who has warmly championed cruelty." It was true she might express her opinion as strongly as she liked; but she was not entitled to further the cause by making statements which were dishonest and untruthful. There was no evidence to show that she had done anything to ascertain the truth with reference to her statement that 6,500,000 people had died from plague in India as a result of serum inoculation; she had made a statement of which she had no knowledge. [At this point the plaintiff interjected the remark: I relied on Dr. Helen Bouchier, who had been in India.] Reviewing the evidence given by the plaintiff, his lordship remarked that she had said in terms that she had adhered to the open letter written to Lord Cromer. If that was so, Lord Cromer might well bring an action against her. He (the learned judge) disliked the practice of writing "open letters," and in saying that he was not speaking of Miss Lind alone. Many men did not want to go to law to set up a character which they knew they had never lost, but some people were so sensitive that, if accused of being untruthful, they would take sixteen days before a judge and jury to prove the contrary. He felt much puzzled by the antivivisectionist argument that one may cut up a mouse to save the mouse's life, but one must not do so to save a human life. The jury had to ask themselves whether Dr. Saleeby's letters might have been considered by a reasonable person to apply to the plaintiff, and whether the language was defamatory. Had no evidence been called on the part of the defendants, the only questions would be, was there malice and the amount of the damages. As to damages, the plaintiff had not said much as to how much she wanted. She had said that she felt very deeply that her character had been impugned, but she also said she had come, not for the purpose of obtaining money, but to vindicate her character. If they found in her favour, they would give her damages which would not be so small as that people might point the finger at her and say that she had been awarded the smallest coin of the realm. They must mark in a sensible way the wrong which had been done her. His lordship then reviewed the evidence for the defence at considerable length. He pointed out that Dr. Saleeby, in an earlier part of the article attacked, had said that he, too, disapproved of cruelty. As to the suggestion of the plaintiff that an air of levity sometimes pervaded the lecture theatre, the evidence showed that students would joke and laugh, but whether they were laughing about football or not, they were not laughing at animals in pain. Did they think that the defendants had made out their case? Had they satisfied them (the jury), in the first place, on the plea of justification? It was not necessary that every single fact alleged in the plea of justification should be proved. The question was, Had the truth of the allegations been substantially proved? If they thought that the list of particulars of justification had been substantially proved to their satisfaction; that what Dr. Saleeby wrote he was justified in writing, and wrote on facts which had been proved to be true; that, in point of fact, the plaintiff had been proved to be guilty of mendacity; that the campaign had been carried on untruthfully; that she and her associates had during this long time been attempting to destroy the vivisectional stronghold, and take to themselves the people as antivivisectionists—if they were satisfied on all these points, and that the plaintiff had knowingly taken an active part, they would be entitled to say that the plaintiff's case had not been proved. But that was not all. There was the plea of fair comment. Let the jury imagine they were all antivivisectionists, and ask themselves the simple question, "If we were to carry on a campaign against vivisection, would we have carried it on as this campaign has been carried on?" Would they have carried on a truthful campaign if it had been conducted on these lines? He would add one word as to Miss Lind in conclusion. She had spoken very strongly and very deeply when appealing to them at the close of her reply. Verdicts, however, must be given on evidence, not on sentiment. If they thought Dr. Saleeby was justified in writing the letters, their verdict must be for him. However sorry they might feel for her, they must do their duty.

After an absence from court of about twenty minutes, the jury returned a verdict for both defendants.

Judgement was entered accordingly, in both cases with costs.

THE late Sir Thomas Frederick Chavasse, F.R.C.S., left estate of the gross value of £17,407, of which £16,010 is net personalty.

A NEW system of lighting operating theatres has recently been brought out by Messrs. Leitz, of Wetzlar and London, and appears to merit examination by surgeons. Its central feature is the distribution of the light of an arc lamp by a series of reflectors, so placed that one or other of them must continue to supply adequate illumination whatever the position or attitude adopted by the operator. An installation of a corresponding kind is stated to have been in use at the new obstetric school at Strasburg for about a year and to have proved successful.

Public Health AND POOR LAW MEDICAL SERVICES.

POOR LAW MEDICAL RELIEF AT BURNLEY.

IN our issue of April 12th, p. 797, it was pointed out that the Local Government Board had refused to sanction the proposals of the Burnley Guardians with regard to the arrangements for medical relief in the union, pending their consideration by the new board about to be elected. That board has just held its first meeting, and the matter was again considered. It is to be regretted that after what seems to have been a very cursory examination of the subject under dispute, and in spite of urgent representations from some of the newly-elected guardians, the board by a large majority instructed the Clerk to forward the same scheme again to the Local Government Board for its approval, without any alteration. The Burnley Guardians had before them a strong protest from the Corporation of Colne, and a request from the local profession to receive a deputation to discuss the matter in order, if possible, to come to an amicable arrangement. Several of the guardians were strongly in favour of receiving this deputation, and Mr. Procter (a guardian) considered that there was much information the old members had never had before them. But a large majority of the board was opposed to all compromise, and desired to ignore the objections both of the local authorities in their area and the Burnley profession. No attempt was made to answer the numerous objections that have been put before the Local Government Board, and no further reason was given in favour of their proposals than a plea based on Art. 159 of the Consolidated Order of July, 1847, that a medical district should contain a population of not more than 15,000. As this regulation is practically a dead letter in most parts of England and Wales, it can hardly appeal very strongly to the Local Government Board, and is certainly no answer to the weighty objections that have been urged on the other side. The matter is now entirely in the hands of the Local Government Board, which can hardly approve of the high-handed action of the Burnley Guardians. It is earnestly to be hoped that before deciding the matter it will itself institute some inquiry on the spot.

Medical News.

VACCINATION has been made compulsory in Bosnia and Herzegovina.

THE eleventh International Congress of Pharmacy will be held at The Hague in September (17th to 21st).

DR. D. J. GALLOWAY has been reappointed an unofficial member of the Legislative Council of the Straits Settlements.

THE annual meeting of the London and Counties Medical Protection Society will take place next Wednesday, April 30th, at 4 p.m., at the society's home, 32, Craven Street, W.C.

AN Anglo-German exhibition is to be held this year from May to October at the Crystal Palace. Of its seven sections, one will be devoted to questions of education, and another to those of food supplies.

FOURTEEN French colonization companies have contributed funds for the institution of a complementary course of colonial studies (pathological protohistology) in Paris, with a laboratory in connexion therewith.

THE Council of the Royal Sanitary Institute, believing that the Medical Officers of Health Superannuation Bill would tend to the better administration of the public health service, has resolved to petition Parliament in favour of it.

THE Gresham Professor of Physic, Dr. F. M. Sandwith, will on Tuesday, Wednesday, Thursday, and Friday of the week beginning May 13th give four lectures on the cradle of pharmacy, on opium, on arsenic, and on mercury respectively. The lectures will be given at 6 p.m. on each day at the City of London School.

A SOCIETY of Jewish doctors and scientists in Palestine has been founded for the purpose of improving the sanitary conditions of the country. It is intended to establish a bacteriological laboratory, central clinics for the education of those who have charge of infants, and departments for the study of malaria and the suppression of trachoma. The president is Dr. Sandler, Droyscnstr. 6, Charlottenburg.

DR. LE FLEMING, Chairman of the Bournemouth Division; Dr. Eleanor Bond, Secretary; Dr. Johnson Smyth, Representative; and Dr. Willans, Secretary of the Bournemouth Practitioners Union, were entertained at a banquet and musical evening at the Mont Dore Hotel, Bournemouth, on the evening of April 16th. As a further mark of the

appreciation of their labours during the Insurance Act crisis, each was presented with a silver salver suitably engraved.

The Swiss Esperanto Medical Association has invited the Universal Esperanto Medical Association to hold its annual congress in Berne during the ninth International Esperanto Congress, which commences on August 24th next in the buildings of the University of Berne. There will be one or two meetings of the Universal Esperanto Medical Association during the seventeenth International Medical Congress in London.

A national league against cancer has been founded in Belgium with the title "The Mauve Cross." The head quarters are at Brussels, and it is intended that there shall be local committees in the provinces. It is in contemplation to create an institute of cancer with a laboratory and annexes, and to subsidize the four Belgian universities with the object of founding in them centres for the study of cancer. The initiative of the movement is due to Professor Jacobs, the well-known gynaecologist.

A special meeting of the Section of Medicine of the Royal Society of Medicine is to be held next Tuesday evening for the purpose of witnessing a demonstration by Dr. Monod of Vichy of the possibilities of the cinematograph in the teaching of biology. The films to be shown by him include a new method of demonstrating the heart's action by animated cardiograms, one relating to the development, fecundation, and segmentation of cells, and others bearing on the circulation of the blood and the digestion of albumen, fibrin, and starch. The section extends an invitation to be present to all members and Fellows of the society.

On December 18th, 1912, the medical profession of the State of New York organized and duly incorporated under the State law an association entitled the American Society of Medical Economics for the study, investigation, and control of the economics of the profession. Membership is open to all duly licensed practitioners, and the society aims at the unification of the entire medical profession in economic matters. It is hoped that it will thus become possible to develop a degree of concerted medical activity for the protection of the public against ignorant, improper, and corrupt legislation, medical frauds, the substitution of drugs in the dispensing of doctors' prescriptions, the sale of impure drugs and foods, and quackery in general. The society has provided for the immediate establishment, through the development of branch societies in every State in the Union, of a national body for the management and control of medical economics.

On May 1st, under an Order in Council signed last October, carbolic or liquid preparations sold as carbolic or as carbolic acid, or as carbolic substitutes, or as carbolic disinfectants, and which contain not more than 3 per cent. of phenols, become substances to which Section 5 of the Poisons and Pharmacy Act, 1908, applies; that is to say, in whatever form they are put up for sale they must be labelled not only with the name of the substance and the name and address of the vendor, but also with the word "Poison." Failure to observe this rule may be punished by a fine not exceeding £5. The Local Government Board points out that when liquid disinfectants are either distributed gratuitously or used by their own officers, local authorities ought to observe the same precautions as those which are enforcible by law when such substances are dispensed or sold.

The Local Government Board has issued a general order accompanied by a circular letter to boards of guardians outside London expressing the desire that the arrangements now in force in London for securing a more uniform and satisfactory treatment of the problem of the tramp should be extended to the rest of the country. In London the Metropolitan Asylums Board co-ordinates the work of dealing with casuals, and in more than twenty counties of England arrangements are in force or in contemplation based on the "way-ticket" system. The Local Government Board desires that in every county a committee, representative of the various boards of guardians and of the police, shall be established to co-operate with the guardians in securing: (*a*) Uniformity of administration in regard to casuals; (*b*) discrimination in favour of those genuinely in search of work; and (*c*) the provision of a mid-day meal for vagrants.

The annual meeting of the General Association of the Medical Practitioners of France was held on April 6th under the presidency of Professor Gaucher. The budget showed a deficit of £280; last year the deficit was £240. After consideration of the financial situation, there was a discussion on the nomination of physicians and surgeons to provincial hospitals. A report presented by Dr. Maunoury, of Chartres, recommended that in large towns they should be elected by public competition, and that in towns of less than 5,000 inhabitants the hospital appointments should be distributed in turn among the local practitioners. The meeting approved the recommendations. What the profession is anxious to do is to withdraw the physicians and surgeons of the hospitals of small towns from the arbitary authority of the Mayor, the Prefect, and administrative commissions.

The Société d'Hygiène de l'Enfance offers a prize for the best essay on the following subject: The place which notions of puericulture and the hygiene of infancy should occupy in modern education. Essays sent in competition must be unpublished and may be written in French, German, English, Italian, or Spanish. They must be authenticated by a device or motto reproduced on a sealed envelope containing the name and address of the author. Manuscripts should be sent before December 31st, 1913, to the President of the Société d'Hygiène de l'Enfance, 10, rue St. Antoine, Paris (4e). No essay will be returned; all, without exception, will remain the property of the society, and must not be published by their authors. The society reserves to itself the right to extract from the best essays matter for a pamphlet of propaganda and instruction. The prizes consist of gold, silver-gilt, silver and bronze medals and honourable mentions. The prizes will be awarded at the public annual meeting of the society in 1914.

Supporters of the National Hospital for the Paralysed and Epileptic met at the Hôtel Métropole on April 16th, when the festival dinner took place, under the presidency of Lord Strathcona, who, in proposing the toast of "Success to the Hospital," spoke of the value of the institution as a field for medical training. Sir Frederick Macmillan, Chairman of the Governors, in response, mentioned the improvements that had been made in the last eleven years in the equipment of the hospital. The Dean of Canterbury submitted the toast of "The Medical and Surgical Staffs." He said that the medical and surgical staffs of hospitals had been the means of changing the significance of the word "hospital." Whereas a hospital was formerly a place of refuge for the destitute, it had now become a place, not of resignation, but of hope. It was largely due to the efforts of the medical staff of the National Hospital that the advances of the last fifty years in the study of nervous diseases had been made. Sir Victor Horsley, who responded, said that no medical staff ever received better support from the board of management than did the one attached to the National Hospital. The toast of "The Chairman" was proposed by H.S.H. Prince Alexander of Teck. It was announced that a collection made during the evening on behalf of the hospital funds amounted to £2,316. Lord Strathcona subscribed £1,000.

Some interesting types of primitive humanity are to be seen at the Victoria Palace, Victoria Street, S.W., where Mr. Alfred Butt is presenting a series of animated pictures reproduced from photographs taken by Mr. Martin E. Johnson, who accompanied Mr. Jack London, the famous American novelist, on his four-years' voyage among the islands of the South Pacific. The little band, which consisted of Mr. London, his wife, and their four companions, visited New Zealand, Sumatra, Java, Borneo, New Guinea, the Hawaii, Fijis, Solomons, Marquesas, and the New Hebrides, and made their way into regions hitherto unknown even to the missionary or the trader. The results of this adventurous cruise, as recorded in Mr. Johnson's beautiful photographs, will be of great interest to every student of ethnology. The inhabitants of the South Sea Islands comprise many widely varying racial types, from the comparatively civilized mongolian of the Zulu Archipelago to the debased negroid type usually found amongst the cannibals of the Solomons and New Hebrides; the flat noses, thick lips, and woolly hair of a group of Solomon Islanders photographed by Mr. Johnson (one of whom showed unmistakable signs of elephantiasis in the right forearm) present a striking contrast to the light brown skins and more regular features of the natives of Samoa or Hawaii. The language, dress, habits, religious beliefs, and manner of warfare of these primitive races differ as much as their personal appearance; and save where they have been modified by contact with the white man, their customs have remained unchanged. Mr. London and his party availed themselves to the full of their opportunities for studying native life at close quarters, and thanks to their courage and perseverance in the face of dangers and difficulties of every kind, it is possible to obtain an insight into the conditions in which the South Sea Islander lives and dies. Mr. Johnson's collection of photographs is now on view for the first time in England, and forms an interesting memorial of the expedition.

Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

V. asks to be referred to some recent summary on the vaccine treatment of chronic bronchitis, together with any statistics of successful cases, the class of case most likely to be benefited, and the best time of year to adopt such treatment.

A. H. asks for suggestions for the treatment of angio-neurotic oedema in a man aged 49, of abstemious habits. The attacks are accompanied by transient urticaria, and the patient has had one illness believed to be due to gout. He has been carefully dieted, oral sepsis attended to, and such drugs as bismuth and calcium lactate administered without relief. A short course of vaccine treatment led to no marked result.

INTERMITTENT GLYCOSURIA.

DR. THOMAS writes: I am much obliged to Dr. Cammidge for his valuable information—not given in the ordinary text books—on the above subject. But the question on which I desired enlightenment was whether the faulty glycogenic metabolism, as evidenced by the glycosuria, and, in this case, accompanied by bacilluria, was chemical or bacterial in origin; or, to put it another way, what caused the particular hormones to go on strike and stay in their native home in the pancreas, or wherever they may dwell or are born?

RHEUMATOID ARTHRITIS.

CHRONIC RHEUMATISM writes: Doubtless many readers have enjoyed Sir James Barr's paper on the above in the JOURNAL of April 12th. As it introduces the question of a logical basis for certain alleged clinical facts may I be allowed to ask Sir James one or two points? Is not the statement that the pain of rheumatoid arthritis is only nocturnal rather too "universal" to be made by a single observer, this apart from its supposed cause which for Sir James Barr is the supervention of an acid tide in the tissues at night? Are rhubarb and oatmeal condemned on theoretical grounds or as the result of large personal observation—the views of the laity on the former are well known and based on the "acid" theory. If the "alkaline treatment," quite an old one, is a "cure" (the word "cure" is used in the last paragraph of the paper), how has it given place to guaiacol, vaccines, etc., and how far do the dwellers on limestone and chalk formations suffer or undergo automatic cure as compared with those enjoying a soft (acid) water supply?

INSTITUTIONS FOR MENTAL DEFICIENTS.

A MEMBER of the Association, who expects to be consulted with regard to the erection of institutions for mental deficients, asks to be referred to (1) textbooks on the subject—he is acquainted with the Report of the Royal Commission and the National Conference for Prevention of Destitution, 1911—and (2) to any institutions in England, if not abroad, where the practical working of the subject such as the bill now before Parliament contemplates could be studied.

*** (1) In addition to the two reports mentioned, there is a scheme outlined in Sherlock's book, *The Feeble-minded* (London: Macmillan and Co., Limited, 1911, price 8s. 6d.), Chapter VII. The secretary of the National Association for Promoting the Welfare of the Feeble-minded, Denison House, Vauxhall Bridge Road, London, S.W., has pamphlets and descriptive particulars of American institutions, and would, we have no doubt, be happy to show them. (2) The National Association has a farm colony at Hildenborough, Kent; in addition to these are in England the Starcross Institution (farm and industrial) near Exeter, the Darenth (farm and industrial) Colony of the Metropolitan Asylums Board at Dartford, Kent; the colony of the Lancashire and Cheshire Society for the feeble-minded at Sandlebridge, and the colony established by the Birmingham Board of Guardians. For American colonies, see the report of Royal Commission. Our correspondent might also refer to the report on the family care of the insane poor, published in the BRITISH MEDICAL JOURNAL of 1905, vol. ii, but most of the facts contained in this report were, we believe, given to the Royal Commission by Dr. Cunyngham Brown.

ANSWERS.

HIBERNIA.—No doubt a considerable number of infants are vaccinated when under 4 weeks old. There is no special reason why this should not be done in the case of healthy infants, except that parents are disposed to attach the blame to vaccination where skin affections appear subsequently. By waiting until 4 to 6 months old the liability of the infant to skin troubles will have been ascertained. During the prevalence of small-pox in any locality there should be no hesitation about vaccinating infants under 4 weeks old.

INCOME TAX.

A. D. M.—A practitioner in general practice, holding also the office of medical officer of health, is allowed, upon notifying his intention to do so, to include his emoluments in his general return under Schedule D. The form of return under Schedule E should be sent to the assessor or surveyor with an endorsement to the effect that it is proposed to follow this course.

HYPERTROPHIED PROSTATE.

DR. H. D. MCCULLOCH (London) writes in reply to "X. X." to recommend either of the two following methods: (1) By *x*-ray irradiation in the lithotomy position, without divestment of garments, through the perineum. A medium hard tube with a Belot's shield and localizer and thick leather filter; twelve bi-weekly applications of ten minutes' duration each. Histologically the prostate is an adenoid gland, closely related to lymphatic glands, which are peculiarly amenable to such applications. (2) By a six weeks' course of drinking radium emanation water daily. The emanation is eliminated by the lungs and kidneys; the abnormal fibrous tissues would be resolved. These methods are contraindicated in acute inflammatory processes. Attention may also be drawn to the abstract which appears on page 59 of the Epitome of Current Medical Literature, BRITISH MEDICAL JOURNAL, April 12th, 1913.

*** For information with regard to the emanation, reference might be made to the report of the Radium Institute published in the BRITISH MEDICAL JOURNAL of January 25th, 1913, page 149.

THE HALF-PAY LIST.

HALF PAY.—It is not correct to say that half pay is unknown in the Royal Army Medical Corps, though it is true that the conditions under which an officer is placed on the half-pay list differ essentially from those applying to half pay in the Royal Navy. In the Royal Army Medical Corps the term "half pay" is only used in two connexions: (1) A full colonel on completion of four years in that rank may be placed on the half-pay list, but is eligible for restoration to the active list and promotion to higher rank subject to the usual rules as to retirement on account of age. (2) Any officer who is pronounced physically unfit for duty, and who is still pronounced unfit for duty at the end of the regulation period of possible sick leave, may then be placed upon half pay; but he is eligible to return to the full-pay list at any time within five years if found fit for duty. If not found fit for duty within five years he must retire on any retired pay or gratuity for which his service may render him eligible.

LETTERS, NOTES, ETC.

FOOT SUPPORTS.

A FOURTH edition has been issued of *Scientific Correction for Ailments of the Feet*, a pamphlet issued by the Scholl Manufacturing Company. It contains a general description of the anatomical conditions which have been deemed by surgeons to be benefited by appliances worn in the boots, and then gives descriptions of some two dozen or more of the devices manufactured by itself. These include arch supports intended for various degrees of flat-footedness, one intended to be worn by those whose foot fatigue arises mainly from their being engaged in occupations necessitating their standing for prolonged periods, and several means of relieving cases of bunion and obviating conditions which result therein. Such of the appliances of the firm as we have examined have seemed well devised, and were generally made of a silvery material which oxidized only to a very limited extent on exposure out of doors for several days. The firm does much of its work apparently through agents, a special feature of its arrangements being the supply to each of them of a simple piece of machinery designed to adapt the exact curve of any support to its intended wearer's foot when this has been relieved of all weight. Copies of the pamphlet can be obtained from the firm at 1-4, Giltspur Street, E.C.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Eight lines and under	0	4	0
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NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

An Address

ON

THE PRESENT EVIDENCE FOR AND AGAINST THE USE OF TUBERCULIN AS A SPECIFIC CURE.

DELIVERED AT A COMBINED MEETING OF THE CITY DIVISION OF THE BRITISH MEDICAL ASSOCIATION AND THE FINSBURY MEDICAL SOCIETY.

BY

H. BATTY SHAW, M.D., F.R.C.P.,

PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL; LECTURER ON THERAPEUTICS, UNIVERSITY COLLEGE HOSPITAL MEDICAL SCHOOL; AND PHYSICIAN TO THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

IT is a fact that no such unanimity exists in the profession as to the specifically curative effects of tuberculin in any of its forms in cases of tuberculosis as exists with regard to the use of diphtheritic antitoxin against infection with the Klebs-Loeffler bacillus. It is also a fact that tuberculin is nevertheless being widely used as a true specific, and observers are to be found—some who are certainly convinced of its efficacy; some who, though they are uncertain, are driven to use it by the force of opinion of those who are certain. There are others who are equally sure that the evidence of its specific value is insufficient, and even that it is a harmful drug, and they will not prescribe it.

With such a chaotic state of affairs it is reasonable to consider the whole subject critically, to take the evidence for and against its use, and to endeavour to arrive at some satisfactory conclusion.

KOCH'S FUNDAMENTAL EXPERIMENT.

It cannot be out of place, with such a programme, to go back to Koch's own experiments and to examine calmly his statements and see whether, after all the years that have elapsed since 1890-91, any support for his contentions has been advanced.

Koch's first public utterance on the use of what was known as tuberculin three months later was made at the first general session of the Tenth International Medical Congress, held in Berlin on August 4th, 1890, and can be found in the reports of the congress in various periodicals—for example, in the *Deutsche medizinische Wochenschrift*[1]—and in the BRITISH MEDICAL JOURNAL of August 16th, 1890, p. 383. His address was largely a general survey of the accomplishments and the hopes of bacteriological study. After referring to the efforts he had made to discover something which, whilst checking the growth in the body of tubercle bacilli, effected no harm on the body, he said, with a very pointed observation, that his investigations, though carried out for nearly a year, were not complete, and

> that guinea-pigs, which, as is well known, are extraordinarily susceptible to tuberculosis, if exposed to the influence of this substance cease to react to the inoculation with tuberculous virus, and that in guinea-pigs suffering from general tuberculosis, even to a high degree, the morbid process can be brought completely to a standstill without the body being in any way injuriously affected.

In the same German periodical[2] during the month of November, 1890, he published an article on "*Weitere Mittheilungen über ein Heilmittel gegen Tuberkulose*," giving the results of the application of this substance to the cure of human tuberculosis. In 1891 Koch gave further experimental details:

> If a healthy guinea-pig is injected with a pure culture of tubercle bacilli, the inoculation puncture as a rule closes and in the beginning appears to heal; in the course of ten to fourteen days a small nodule occurs which soon breaks through the skin, forming *an ulcer which lasts until the animal dies.* Quite a different result occurs if a guinea-pig which is already tuberculous is inoculated, especially if the inoculations take place four to six weeks after the first one. In such an animal the seat of inoculation at first closes as in the above animal, *but no small nodule forms*; on the next or following day a *peculiar change takes place at the* site of the inoculation. *This becomes indurated and darker in colour, and these changes spread over the neighbouring parts until the total area measures about 0.5 to 1.0 cm. across. During the next days necrosis of the skin takes place,* and there remains *a superficial ulcer which ordinarily heals quickly and permanently without the neighbouring lymphatic glands being infected.* The injected tubercle bacilli act quite differently upon the skin of a healthy as compared with that of a tuberculous guinea-pig. This striking change does not belong exclusively to living tubercle bacilli, but occurs just the same with dead tubercle bacilli, whether they have been killed by prolonged low temperatures or by heat or by certain chemicals.[3]

If you will peruse the works of modern writers (Löwenstein, Cornet,[4] Römer, Bandelier, and Roepke[5]) who concern themselves with the use of tuberculin, you will find the above paragraph. They all fall back upon it as the original statement published by Koch in support of the use of tuberculin. Löwenstein, who is responsible for the article on the therapeutic application of tuberculin in man, in Kraus and Levaditi's *Handbuch der Technik und Methodik der Immunitätsforschung* (Erste Band, S. 821, 1908), goes on further to say that by means of these fundamental observations of Koch it was established that the animal body after a single injection developed definite resistance against reinfection—a statement which every reader will acknowledge is quite in accordance with the experimental data given by Koch. Löwenstein proceeds to say that the idea of using these agencies which rendered the second injection innocuous as a means of influencing the deposits brought about by the first injection led Koch to the specific treatment of tuberculosis. Koch thought if antecedent tuberculosis profoundly modified subsequent inoculation, it was possible that inoculation also profoundly affected the antecedent tuberculosis. He experimented, and stated the experiments confirmed his speculations.

At this point it is necessary to pause and realize how the modern worker views the fundamental experiment above detailed. What must be noted was that Koch in the first part of his experiments practically performed a von Pirquet test upon his tuberculous guinea-pig. The superficial ulceration which healed and which resulted from the second inoculation was an expression of the phenomenon now known as a von Pirquet test, and is explained, as will later be seen, by the laws which govern anaphylaxis or hypersensitiveness. Now follow Koch's further observations.[3] He found that if the second inoculation of a tuberculous guinea-pig with tubercle bacilli was a large one, the animal died. This again is easily understood, thanks to the development of our knowledge of anaphylaxis, as being an example of anaphylactic death. The crucial point now remains, and that is that Koch[3] observed that if small frequently repeated doses of tubercle bacilli were injected into a tuberculous guinea-pig, not only was the general condition of the animal improved, but the ulcerating wound, situated where the tubercle bacilli were originally injected and which caused the animal to become tuberculous, *also showed favourable retrogressive changes, and the disease was brought to a standstill in the animal.*[6] It was, in fact, cured.

Now, this definite statement of the actual bringing the disease to a standstill, or of the favourable influence upon tuberculous lesions in guinea-pigs, coming from such an authority, ought only to be questioned with the greatest care. There is no need to recall the stir made by subsequent papers, in which marvellous cures in men were announced, because of the many disastrous consequences to life which also were so obvious. It is said now that too great doses were given and the wrong cases were treated. These statements have been repeated all over the world, and it must be admitted the swing of the pendulum has brought tuberculin into use again.

But what has happened with regard to the original experiments? Has any one been able to repeat Koch's experiments, and show that an infected guinea-pig can be cured by the use of tuberculin, whether old tuberculin (T.A.) or the second tuberculin (T.R.), or the third tuberculin (B.E.), or albumen-free tuberculin, or bovine tuberculin, or tuberculin derived from avian or other sources? Has it ever been successfully essayed to cure cattle of

tuberculosis by such means rather than slay them because they have been proved to be tuberculous by the tuberculin test? Is it not a certainty that if bovine tuberculosis could be cured by the use of tuberculin, its use for such purposes would be world-wide? On the contrary, we hear of numbers of cattle being slain in order to stamp out the malady. We even hear of cattle being "doctored" so that they will not give the tuberculin test, and so be saved from destruction. If it were proven that tuberculous cattle could be cured by vaccination by means of tuberculin, we may be quite sure (1) that it would be widespread in veterinary practice, (2) that the whole medical profession would have adopted it with very little hesitation, and they would have been justified. But where are the reports on cattle which should make us at ease on this point? Frankly, they do not exist. There are many reports dealing with the preventive treatment of calves by means of tuberculin, but even that important question cannot be satisfactorily answered because of fallacies which in part beset Koch's own original investigation. Supposing a calf does not give the tuberculin test, and therefore is considered to be free from tuberculosis, and a prophylactic course of tuberculin is given to it, and it neither yields a tuberculin test eventually nor becomes tuberculous, how can any one argue from such data that the apparent freedom from tuberculosis is a reality, when it is known—

(1) That an animal may cure tuberculosis spontaneously (and yet give a tuberculin test);
(2) That it may be tuberculous and yet not give a tuberculin test, and
(3) That the undetected tuberculosis that it may already be burdened with may be (see Koch's experiment) the reason why it cannot be reinfected?

These facts have plagued veterinary surgeons to such an extent that there is not unanimity amongst them as to the value of the evidence for using even prophylactic vaccination in calves, and it also explains why there is no attempt to vaccinate tuberculous cattle in order to cure them. Can it be wondered at that the medical profession is not unanimous in its advocacy of the present fashion for curing human tuberculosis with any form of tuberculin administered in any particular method? Contemporary textbooks and guides to the use of tuberculin do not face these difficulties of comparative therapeutics, and one well known one is a standing example of the troubles caused by Koch's unconfirmed experiments—on one page it makes out that when the tuberculous guinea-pig was injected with subsequent doses of tubercle bacilli the ulcerating wound formed where the *first* injection was made, which caused the guinea-pig to become tuberculous, healed as a result of the second injection, and yet on a later page the author says it was the small superficial necrosis of the *second* site of inoculation which healed.

To sum up the evidence in favour of the allegation that tuberculin can cure a tuberculous animal, whether calf or guinea-pig, there *is no evidence but Koch's*. Bandelier and Roepke[7] admit that they must confess that the healing of infected guinea-pigs and rabbits by means of tuberculin preparations has been accomplished by only a few authorities who have been engaged in such extremely tedious studies, and shield themselves from criticism in this direction by saying that rabbits and guinea-pigs are such unsuitable animals to work upon. And yet these two authors, like all others who advocate the use of tuberculin, set out in full the details of Koch's experiments which led to the introduction of tuberculin and say that the basis of its use is these self-same experiments on guinea-pigs. What has been said to be a proof is entirely nullified by the fact, admitted by bacteriologists, that both varieties of animals may be spontaneously tuberculous and may spontaneously cure themselves of the tuberculosis, and yet this cannot be established until after the death and complete dissection of the animal. If this is the case with guinea-pigs and cattle, the lives and deaths of which can be so fully observed and encompassed, it is just as certain with regard to human beings, who, like the animals, may be tuberculous and yet yield no test, chemical or otherwise, that they are.

To many physicians the result of animal experiments is quite enough, or shall we say the difficulty of establishing or not the fact of tuberculous disease in animals is great enough to make them set their faces against the practice of using tuberculin to cure human tuberculosis? And yet hard things have been said about withholding tuberculin from tuberculous mankind. The pendulum has swung back in favour of using tuberculin again; but it is even more impossible to-day than it was in the years immediately succeeding 1890–91 to quote evidence in support of Koch's experimental results.

The Modern Dosage in the Use of Tuberculin.

Ignoring the unsatisfactory nature of Koch's alleged cures of tuberculosis in animals which have never been confirmed and which will not stand criticism, though such of his experiments which show merely the truth of the principles of anaphylaxis have been fully confirmed, workers abroad have developed the practice of giving the tuberculin in infinitesimal doses compared with the original ones. But in face of the objections already raised in the last section, it really does not matter whether the dosage is large or small so long as the experimental proof of cure by means of tuberculin has never been established. Neither large nor small doses of tuberculin are used to cure the tuberculosis of cattle.

The Experience of Urinary Surgeons of the Value of Tuberculin.

It is pointed out that, despite the abandonment of the use of tuberculin in other affections, certain urinary surgeons have remained loyal to the use of tuberculin in this disease. Marvellous cures of the disease are recorded even during the years immediately succeeding 1890–91.

Later on it will be pointed out that the element of "control," without which no specific cure can be established, forms no part of the demonstration of the extreme usefulness of tuberculin in these cases. It is usually found that some of the number to whom tuberculin is given are "better after receiving it."

The Post-mortem Demonstration of Cured Pulmonary Tuberculosis.

Much capital has been made out of such well-known phenomena. There is no hesitation whatever in admitting that tuberculosis may be completely cured, but to argue that because tuberculin does produce a reaction in a large number of tuberculous animals and in man it must be a means of effecting this cure is illogical. No one questions that the Widal test is a proof of typhoid fever, and yet no one has established that typhoid vaccine is a cure for typhoid fever already contracted. Observations seem to show that it is a prophylactic against typhoid fever for one or two years, and so tuberculin may be a prophylactic against tuberculosis for a period of three months in cattle, but no one has the right to say that a process which is an effective agent in preventing a disease must *ipso facto* be effective when the disease has already begun.

The Encouraging Effect upon the Patient and Doctor of doing something for the Patient instead of leaving him to specifically Cure or Not Cure Himself.

It almost seems out of place to consider such a matter in the discussion of so serious a subject as the adoption of tuberculin to cure tuberculosis. No reference would be made to it were it not that we are in direct contact with patients. Patients ask for tuberculin to be administered, and how can we refuse them when the public press lends its advocacy, when tuberculin is even used in obedience to the permission of the Insurance Act? What every man must feel is that if his convictions are that such and such a remedy cannot cure specifically he must say so and withhold it.

The Antitoxin Treatment of Diphtheria.

So impressive was the great reduction of the mortality after the introduction of diphtheria antitoxin that the hope arose that all infections would yield the same happy issues. It is a fact that there are many who to this day think that tuberculin is an antitoxic serum, and should therefore be successful. The final section of this address will serve to show that such a view is utterly wrong. The use of the serum of a horse which carries in it material which is capable of neutralizing the poisonous effects of diphtheria bacilli, and that

this can be shown to occur in a test tube as well as in the human body, is one thing, but to cure an infection with the tubercle bacillus by means of tuberculin derived by breaking up tubercle bacilli and making an emulsion of them is quite another.

The Variety of the Cures of Tuberculosis.

There are those workers who still maintain that sanatorium methods are the only ones which effect a cure of tuberculosis; there are others, again, who repudiate all such claims, and who advocate treatment with tuberculin alone; and now there is a group of workers who maintain that the combination of tuberculin and sanatorium treatment is necessary. These facts alone point to a difference of opinion which begets the suspicion that perhaps the tests applied to prove the efficacy or not are at fault. A most important paper has recently been published by Messrs. Palin Elderton and Perry.[8] They show that tuberculin treatment does not contribute any increased length of life to the patient when carried out in conjunction with sanatorium treatment, as judged by the large amount of material for investigation provided by Dr. Lawrason Brown in America and Drs. Prest and Guy in Scotland. The same suspicions are aroused when distinguished Continental workers put forward the idea that the disease is after all to be cured by an antituberculous serum, and when it is said a "cure" is to be found in quite a different direction—namely, by the production of artificial pneumothorax. Of Friedmann's cure we have still to await further details. We have heard of "pneumosan" and "dioradin." With such a varied list of cures, blessed by one school and condemned by another, is it remarkable that the layman should also offer his "remedies" for a cure? Further, is it remarkable that members of our profession are also convinced that the specific cure has yet to be found? Professor Metchnikoff in his recent address[9] delivered in London has nothing to tell us of a remedy which specifically cures tuberculosis.

The Method Adopted to Test the Value of Tuberculin.

No one can look into the problem of the cure of tuberculosis without becoming aware that the secret which underlies the existence and development of so many vaunted "cures" is to be discovered in our ways of estimating their value. When the layman copies these ways we are angry, and condemn him, and feel justified in doing so (1) because he does not announce his cure through channels which we consider proper, and (2) because we argue that he does not know the nature or course of the disease. We have seen with regard to tuberculin that there is no confirmation that an animal can be cured of tuberculosis by means of it; therefore in advocating it, we put ourselves in a faulty position similar to that of the layman with his "causal" cure. There remains, then, but one way in which we differ from him—we know the nature and course of tuberculosis, and he does not. It seems to me that we have not made enough of our knowledge of the course of tuberculosis if left unaided. Of 1,532 cases of pulmonary tuberculosis (tubercle bacilli being present in the sputum), it was found that one-seventh lived five years and more from the date of the manifestation of tuberculosis, one-thirtieth lived over fifteen years, and in five cases there was documentary proof that they had lived sixteen, eighteen, twenty-four, twenty-five, and forty years. Not one of these cases had been treated in a sanatorium nor had they received tuberculin.[10]

The fact is that as a profession we are wrong in our methods of estimating "cures" in the only sense a layman wants to hear of them—real "cures," complete eradication of the cause. We have too long judged of "specific" cures without allowing for the *post hoc, propter hoc* fallacy. We cannot afford to do so any longer, because our statements are being revised by skilled mathematicians; our "impressions" of proof of cure have been put into the scales and they are found wanting. Professor Karl Pearson tells us[11] that, taking our own death certificates as supplied to the Registrar-General, it is clear that a fall in the death-rate from tuberculosis of the lungs had begun in 1835 and continued till 1891. Since then it has ceased to fall, despite the help that has come, so it is said, from the use of sanatoriums and of tuberculin. It has been said that tuberculosis dispensaries have led to a great fall in tuberculosis in a certain town, but the same critic is able to show that the fall was paralleled in two other towns in which the dispensary system had not been introduced. We physicians, therefore, have failed to establish by our own death certificates or by our methods of inquiry any improvement due to sanatoriums, tuberculin, or dispensaries. The improvement was due to a natural process of which we have been unmindful.

It is not without interest that I should have figured as one of the collectors of evidence in favour of the use of tuberculin.[12] In 1905 tuberculin was not used in this country for the cure of pulmonary tuberculosis. I circularized every institution which had to do with this disease and found this out. Following out non-critical methods, I published results such as the following: Of 656 early cases treated with tuberculin, 91 per cent. reached a certain standard of improvement, whereas, of 611 not treated with tuberculin, only 62 per cent. reached the same standard. But when the individual accounts of certain workers whose reputation is world-wide were looked at, the large difference of 29 per cent. disappears. Dr. Turban treated 86 cases with tuberculin, and of these 52.6 per cent. achieved permanent good results; of 241 not treated with tuberculin, only 39.4 per cent. achieved the same result—a difference of 13.2 per cent. Dr. Trudeau was able to find that the use of tuberculin was followed by an increase of cures of 8 per cent.

Now it may be argued that these last figures are quite good enough, and until they are found to be wrong it would be useless to deny the use of tuberculin simply because experiments on animals had failed to establish the same happy results. At the time I wrote that article I thought so too, but subsequent experience has shown that cases reported to be cured too often broke down again later, that "permanent good results" gave place to permanent and final bad ones, and that physicians are not sufficiently skilled in making mathematical deductions. It is obviously difficult to find proof of the efficacy of tuberculin treatment by methods which do not take into consideration the whole of the life, or which cannot be controlled as can those in animals, by slaughter and the examination for active disease. An interested critic of our methods of testing the value of tuberculin propounded to me a method which, if carried out in a large number of cases, would satisfy him. I was to find a group of cases of pulmonary tuberculosis which were recognized by tuberculin advocates as suitable for treatment with a reacting dose of tuberculin; half were to be treated with tuberculin and half without, other conditions being equal. The choice of each half was to be left to chance; I was not to pick out those "specially" favourable ones as suitable for tuberculin. This method of testing the value of tuberculin is opposed entirely in principle to that advocated by modern workers. Bandelier and Roepke[13] lay it down as an axiom that the cases must be selected ones—individualization is the secret of success—extremely early cases are the only likely ones to give satisfactory results (*sic*); they do not give sufficient prominence to the fact of spontaneous cures in such cases. As a test of the improvement of the lung condition, I chose the method of registration of the advance or retrogression of râles after three months' treatment. Dr. Rigg, the house-physician who bore the burden of the test, has recently published the results.[14] Of the 10 tuberculin treated patients, 1 improved, 4 became worse, and 5 remained *in statu quo*. Of 9 non-tuberculin treated patients, 4 improved, 3 were worse, and 2 remained *in statu quo*. It cannot be said that this is a clear argument against the tuberculin effects on the lung, because it might equally well be maintained that it was an argument against using a remedy which so raised the temperature as to keep the tuberculin treated patients in bed, whilst the others were up and about; but still this method of giving tuberculin is advocated at the present time and is being extensively used. We are now trying a series of cases in which this difficulty will be met.

The Evidence of Individual Cases, or of Series of Cases, Neither Controlled.

No greater fallacy needs exposing than that which underlies the statements of individuals who have been "cured" after this, that, or another treatment. One has

only to ask, as veterinary surgeons have now to ask themselves, How can one be sure when a human being or animal appears to overcome a tuberculous lung affection that such victory has necessarily followed, not from Nature's efforts, but because of the remedy used before the improvement comes? It is certain that if any proprietary article or quack remedy, etc., were applied to cases of pulmonary tuberculosis, some of the individuals would get better after its use. The same may be said of tuberculin. Such evidence is set at naught because patients recover spontaneously just as cattle do. But there have been many series of cases reported in which it is said there is evidence that tuberculin is a specific cure. The criteria have differed in different reports. Bandelier has published results of tuberculin treatment; he found that 100 per cent. of the cases in Turban's first stage lost their tubercle bacilli; 87 per cent. of the cases in Turban's second stage and 44.2 per cent. of the cases in Turban's third stage also lost their tubercle bacilli. The total cases treated numbered 202. We have a right to ask, What would such cases have done without tuberculin? And it is right to object that disappearance of tubercle bacilli from the sputum is too often but a temporary phenomenon.

What Does Tuberculin Do?

Like all vaccine treatment, tuberculin is certainly capable of effecting a change in the aspects of the disease. But it has never been experimentally proved that such changes are curative; the alleged curative changes can be explained on anaphylactic grounds. To explain this requires technical consideration.

We know that when diphtheria bacilli invade the body, they poison the body by means of diphtheria toxin; the patient may resist the effects of this toxin by manufacturing his own antitoxin; nowadays we do not wait to see if he does, we administer antitoxin developed experimentally in the horse. The toxins of tetanus and botulismus or sausage poisoning can be met by a similar mechanism. The chemical response of the cells of the body to and against the toxin are figuratively expressed as receptors of the "first" order of Ehrlich. Their interaction is diagrammatically figured in most textbooks of bacteriology. These receptors are certainly of therapeutic value.

When the typhoid organism assails the body, a different group of chemical actions is developed on the part of the body cells; the serum of the body now possesses not antitoxic but agglutinative properties; no one has demonstrated that this development of what are known as receptors of the second order has any therapeutic significance, though the diagnostic value is of the greatest importance (Widal test for typhoid fever).

It is seen, then, that receptor development following upon bacterial invasion is not necessarily of benign curative purpose. We may expect more complicated receptors than those of the first and second order to be developed, of different properties, and again not necessarily of therapeutic value.

This brings us to the consideration of another group of receptors—the third order—which has particular interest in connexion with this address. It enables us to understand better the meaning of anaphylaxis, of a von Pirquet test, and of a tuberculin test; it also enables us to understand such complicated tests as the "complement fixation" test for tuberculosis, and if recent experiments are confirmed it will enable us to understand how the effects of tuberculin administered as a curative agent can be explained on other grounds than therapeutic ones; finally, it will help us to understand why two cases—one under the care of A. Fraenkel and one under Wolff-Eisner—developed a tuberculous ulcer on the tongue and tuberculosis of the lungs respectively, whilst undergoing a course of tuberculin treatment for lesions located elsewhere in the body.[15]

Let us suppose that a tubercle bacillus (A) enters into the body of an animal. It may, and probably does, in countless instances suffer annihilation by agencies which have been transmitted from the animal's parents. No infection occurs, and the animal is none the worse. But supposing there is more than one bacillus, or that the one gaining access is more virulent, or suppose that the animal has inherited from the parent no insusceptibility, something like the following takes place: A cell of the body (B) in the neighbourhood of the deposit of tubercle bacilli is busy with one of its physiological duties of absorbing nourishment; it includes the tubercle bacilli in this category, and the effect upon the cell is to increase its appetite for more (a popular expression for Weigert's law that an excessive stimulus provokes an increased supply of receptors or chemical affinities). Let us represent this increased appetite by a cell with several receptors attached to it of the pattern C. This is known as an "amboceptor," because it can attach at D a special agent known as complement (K), which is present in all living healthy animals, more in some than in others; at its opposite extremity, E, it can also attach to itself a tubercle bacillus (A) or tuberculin (A'), which also



DIAGRAMMATIC REPRESENTATION OF CELLS, RECEPTORS, ETC.
A, Tubercle bacillus, with its chemical affinity for cells of the body represented by a receptor, H. A', Tuberculin, with its chemical affinity for cells of the body represented by a receptor, H'. B, A cell of the body showing four fixed or sessile affinities or amboceptors, C, capable of uniting with a tubercle bacillus or tuberculin at E and with complement, K, at D. M, Tuberculin-anaphylatoxin, composed of three elements—complement, amboceptor, and tuberculin. N, Tuberculo-anaphylatoxin, composed of three elements—complement, amboceptor, and tubercle bacillus. F, A ferment present in each amboceptor. The combinations M or N when completed lead to the dissolution of the tuberculin or the tubercle bacillus and the cell B. The liberation of digestion products is accompanied, according to the quantity liberated, by the phenomena of anaphylaxis in slight or extreme degree, anaphylactic death, anaphylactic shock, or "tuberculin reaction," with rise or fall of temperature, etc. P, Tuberculo-anaphylatoxin operating on a "prickle" cell, L, of the skin. The change in the cell, L, contributes to the production of what is known as a "von Pirquet" reaction; if it took place in a conjunctival cell, to a "Calmette" reaction. R Represents "free" tuberculo-anaphylatoxin. Were it possible to demonstrate the existence of "free" tuberculo-amboceptors, then the serum treatment of tuberculosis would be reasonable. Were it possible to demonstrate "free" tuberculin amboceptors, the tuberculin treatment of tuberculosis would be reasonable; but in both cases the undesirable effects of anaphylaxis would have to be met.

have chemical affinities represented figuratively as receptors (H and H'). We must also suppose that resident in the amboceptor is a special ferment (F) which is capable of acting upon protein and breaking it up into much simpler bodies—for example, peptones or albumoses, or amido-acids, and into some substance capable of influencing temperature. We will suppose (at first) that these amboceptors are anchored to the cell B. When to this "sessile" or "fixed" amboceptor complement is attached at D and

antigen (in the shape of tuberculin or tubercle bacilli) at E, it is as if a match had been put to a firework. The ferment resident in the amboceptor can now operate on the cell B and the antigen E, and lead to the above proteolysis of both. If this is complete a liquid residue is all that remains, if incomplete the cell B is swollen and its nucleus obscured; cell death is more or less complete. Presumably when a focus of tuberculosis develops all the cells in the neighbourhood undergo change, and we recognize a "tubercle" by the naked eye—grey, white, or caseating according to the stage of action. But it is possible that cells far removed from the seat of tuberculosis may also have their special receptors developed—for example, in the skin L, subcutaneous tissues, etc. We must suppose, too, that these receptors may be inherited, or they may develop after birth as the result of an infection. They may exist, therefore, although there is no certain tuberculosis present in any part of the body. In other words, these receptors are a sort of hall mark of infection which may be inherited or acquired.

Now let us introduce into such a tuberculous animal a dose of tuberculin as Koch did in his original experiments. This reaches E in numerous cells; complement is fixed and a "reaction" is set going, so thoroughly described by Koch years ago. One thing we now know is that such reaction is a test of the presence of suitable receptors, *not necessarily of active tuberculosis*. The reaction is slight or brisk, and may be fatal, according to the available receptors and the dose of tuberculin. This helps us to understand the catastrophes following on Koch's introduction of tuberculin. The temperature may rise or fall or remain unaltered according to the amount of poisonous material let loose when the reaction takes place. The combination of complement, amboceptors and antigen, for example, tubercle bacilli or tuberculin, is known as "anaphylatoxin," the reaction this brings about as "anaphylaxis." If tuberculin is given repeatedly, it will use up all the tuberculo-amboceptors, until reaction is no longer given. The individual can, as is well known, become completely insensitive to tuberculin; this insensitiveness cannot experimentally be transmitted from one animal to another.[16] We begin to see why it is that the giving of tuberculin is not necessarily followed by cure because there is no reaction, and we see why Fraenkel and Wolff-Eisner's cases, though undergoing treatment with tuberculin, were yet developing fresh tuberculous lesions elsewhere. Koch was able to show the difficulty of reinfecting his tuberculous guinea-pigs when he reinjected them with tubercle bacilli in small amounts; it is easy now to see why; the tubercle bacilli were at once fixed by tuberculo-amboceptors and digested, producing symptoms or not according to the amount of available receptors and tubercle bacilli; these experiments, first announced by Koch, have now been shown by Römer[17] to be true. Whether temperature alterations occur is dependent upon the amount of poison liberated (Thicle and Embleton).[18]

Now, the theory thus given says nothing about an attack upon the tubercle bacilli which are responsible for the formation of the amboceptors in the first case. Such organisms may be locked up in some fibrous focus, they may be quite unaffected, they may be busy provoking the formation of fresh amboceptors. Indeed, so far as animal experiments go, no one has ever succeeded since Koch did, *pace* the "few cases" referred to by Bandelier and Roepke[19] (no reference given), in showing that the injection of tuberculin does affect the life of these organisms, to the extent of bringing the tuberculous process to a standstill. This part of his original statement has never been confirmed, whereas the rest has been repeated by Römer. Römer gives no statement to the effect that in repeating Koch's experiments he also was able to cause the original tuberculous process to come to an end. Römer's writings show only too well the impossibility, which he fully recognizes, of ruling out spontaneous cures and infection. It is so common to hear that vaccines, including tuberculin, increase the individual resistance, that the increase of the resistance is shown in the diagram, and that the diagram is a perfect support of the contention that just as the amboceptors attach themselves to artificially introduced tuberculin or tubercle bacilli, so they will attach themselves to tubercle bacilli naturally occurring and causing the development of amboceptors. The reply must be that the absence of proof of this last happy issue in animals negatives such a view, and it is also understandable that tubercle bacilli ring-fenced in inaccessible fibrotic or caseous foci are not approachable by such a mechanism. There is nothing of a curative nature to be discovered from anaphylaxis; it is a reaction, not necessarily defensive, of the body to any foreign protein introduced from without, whether bacterial or other.

The recent work of Drs. F. H. Thicle and D. Embleton[20] on some observations on the production of temperature variations should be read by those who are interested in the problems associated with tuberculin treatment. They show that very probably the poisonous effects produced in the body by bacterial invasion are not the results of poisons developed in and by the living bacteria, but are due to the operations of the invaded organism which, by means of its amboceptors, produces poisons by the digestion of the invading bacteria. Indeed it looks as if the body may tolerate infection well enough, but what it cannot always tolerate is the poisoning which is set agoing when the body cells react against these bacteria. Tuberculin when administered actually helps this poisoning; in 1890 and 1891 such catastrophes were frequently seen because large doses of tuberculin were used; when, since 1905 and 1906, some form of tuberculin has been administered in small doses the poisoning has been whittled down to small injuries as tuberculin reactions and tuberculin cures. This may sound a revolutionary doctrine, but it is one which follows upon the advent of the discovery of anaphylaxis.

The Bearing of the Success of Antityphoid Inoculation.

So far my task has been an easy one; practically all the points in favour of the use of tuberculin to cure disease already existent have been met with counter-explanations, and I sincerely hope my arguments have been fair and have convinced you that the tuberculin cure of human tuberculosis so far is unproven.

But I admit to you I am in a great difficulty when I contemplate the fact announced by Sir William Leishman in this country and by workers abroad in favour of antityphoid inoculation. It has been shown that the prophylactic inoculation with a typhoid vaccine confers on the individual for about two years a lessened risk of contracting typhoid fever; or if contracted, of reducing the case mortality until at the present time, amongst those so inoculated, the number of soldiers in the British army who contract typhoid fever is less than the number who died from it a few years ago. The advocates of the tuberculin treatment of *established* tuberculosis, or for the vaccine treatment of any *established* infection, feel that if typhoid fever can be reduced in case incidence and in case mortality by vaccination before the disease is developed, it should be able to be controlled by vaccination after the disease is developed. I can say at once that figures have yet to be published to establish this speculation. It is not difficult to see that if antityphoid amboceptors are developed in a healthy individual before he contracts typhoid fever, when the infection does occur it finds the cells of the body *ready* to digest the bacilli as they arrive. Every cell to which the typhoid organism gets access is provided with receptors whose life is about two years, which are ready to behave in the manner above described.

If tubercle bacilli, on the other hand, gain access to the body, if they surround themselves with an almost impenetrable ring of fibrous tissue, caseous or calcified material, then any subsequent development at a remote part, say, of the skin or subdermic tissues of "sessile" tuberculin- or tuberculo-amboceptors by means of injections of tuberculin or tubercle bacilli, may be quite unable to reach the tubercle bacilli. Once again, and finally, until animal experiments can be made showing that this difficulty can be overcome, or until a critically controlled application of tuberculin to a large number of tuberculous human beings can be shown to cure the tuberculous lesion, I submit that the case for tuberculin cure is unproven.

There still remains one more point which must be discussed, and it is this: It may be fairly asked whether it is

not possible that some of the alleged cases of cure of tuberculosis by means of tuberculin are, after all, real and explainable on the ground that all the tuberculin-amboceptors figured in the above diagram do not exist in the form of "fixed" receptors—that some are "free," circulating in the blood stream, and are capable in certain "suitable" "early" cases of tuberculosis of gaining access to the tubercle bacilli present in the focus of tuberculous disease before the latter is rendered inaccessible by fibrosis or other processes of caseation, etc. Such a possibility must be admitted, because by the "complement" fixation method it is possible to demonstrate in certain tuberculous subjects the presence of antibodies in the serum. The answer is that, though infection with living tubercle bacilli may be productive of the formation of tuberculo-amboceptors, which will react to living tubercle bacilli introduced at a second injection or to tuberculin, and which may be free in the blood stream and may give a positive complement fixation test, no one has ever succeeded in proving that if a healthy animal is injected with tuberculin, tuberculin-amboceptors are produced, which will react to living tubercle bacilli, causing their death and solution, or that the serum of such an animal gives a complement fixation test, using living tubercle bacilli as antigen. Moreover, it is well known that no one has ever succeeded in demonstrating in a non-tuberculous man a positive von Pirquet reaction, simply dependent upon repeated previous injections with tuberculin.

Though experimentation has shown that previous tuberculosis, by means of tuberculo-amboceptors, certainly "fixed" in character and may be "free," may prevent subsequent infection with tuberculosis, it has not shown that tuberculin-amboceptors, "fixed" or "free," can prevent subsequent tuberculous infection. Römer[21] has supplied some evidence which supports this latter contention, for he has found that cattle immunized by living tubercle bacilli and normal animals both show about the same sensitiveness to tuberculin, while the immunized animals show a high degree of hypersensitiveness to tubercle bacilli as a sign of their immunity, and the control normal animals do not.

REFERENCES.

1 *Deut. med. Woch.*, 1890, No. 33, S. 757.
2 *Deut. med. Woch.*, 1890, No. 46a (Extra-Ausgabe), S. 1029.
3 *Deut. med. Woch.*, 1891, No. 3, S. 101.
4 Cornet: *Die Tuberkulose*, II Hälfte, Wien, 1907, S. 1005.
5 Bandelier and Roepke: *Lehrbuch der spezif. Diagnostik u. Therap. der Tuberkulose*, Würzburg, 1908.
6 *Deut. med. Woch.*, 1891, No. 3, S. 101.
7 Bandelier and Roepke: Loc. cit., S. 109.
8 Elderton and Perry: *Research Memoirs of the Drapers' Company*, No. 8, 1913.
9 Metchnikoff: *The Warfare Against Tuberculosis*, 1913 (London: Constable and Co., price 1s.).
10 *Lancet*, 1911, vol. i, p. 3.
11 Karl Pearson: *The Fight Against Tuberculosis and the Death-Rate from Phthisis*, 1911 (London: Dulau and Co.).
12 *Lancet*, 1905, vol. i, p. 923.
13 Bandelier and Roepke: Loc. cit., S. 46.
14 Rigg; BRITISH MEDICAL JOURNAL, February 1st, 1913, p. 213.
15 Wolff-Eisner: *Handbuch der Serumtherapie*, 1910, S. 204.
16 Michaelis, in Wolff-Eisner's *Handbuch der Serumtherapie*, S. 1, u. 205.
17 Römer: Kraus and Levaditi's *Handbuch*, I, S. 933 u. 1063; erste Ergänzungsb., S. 339.
18 Thiele and Embleton: *Zeitschr. f. Immunitätsf. u. exp. Therap.*, 1913, Bd. 16, Hft. 2, S. 178.
19 Bandelier and Roepke: Loc. cit., S. 109.
20 Thiele and Embleton: Op. cit.
21 Römer, quoted by Sahli: *Tuberculin Treatment* (English Translation), 1912, p. 188.

THE *Liverpool Daily Post and Mercury* has succeeded in collecting £2,000 in ten days for the purpose of supplying radium for the treatment of cancer at the Liverpool Royal Infirmary.

AN international congress on the protection of infancy is to be held in Brussels in July. The work of the congress will be divided among two sections: (1) Children morally abandoned, with special reference to the competence of the courts in respect of children, and the organization of supervision, having regard to liberty. (2) Infancy and puericulture, including the establishment of uniformity of the bases of statistics of infant mortality; consideration of the means of popularizing the principles of hygiene and puericulture; measures of protection for the child outside the home, whether of the father, the mother, or the legal guardian. The sections will discuss together the question of the creation of an international bureau for the protection of infancy.

PLEA FOR UNIFORM METHOD OF TREATMENT WITH TUBERCULIN.

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NOTWITHSTANDING much excellent work which has been accomplished during recent years in connexion with the specific treatment of tuberculosis, there still exist much confusion of thought and diversity of practice with regard to the best method of administering tuberculin. There is little or no uniformity of practice in the variety of tuberculin used, in the method and frequency of administration, or in the cases selected for treatment. To the writer it seems that what is urgently required at the present moment is the placing of the treatment of pulmonary tuberculosis with tuberculin on a rational uniform basis which will provide a guide to the general practitioner, who rightly complains against the multiplicity of tuberculins recommended and the difference of opinion regarding treatment which exists among experts. It is not possible, nor in view of the value of comparative studies is it desirable, that a uniform method of treatment with tuberculin should be applied to the whole country. It is certainly desirable, however, that some uniform procedure with regard to the methods and variety of tuberculin used should be applied in each county or district in which the machinery for dealing with tuberculosis is now being established. The aim of tuberculin treatment is to evoke a focal immunizing response *pari passu* with the production of a well-marked degree of tolerance both to the endotoxin and the exotoxin of the tubercle bacillus. The production of a rapid and well-marked tolerance to the exotoxin alone by the inoculation of filtrates of various strengths does not protect the patient sufficiently against the body of the bacillus, and may indeed mask the presence of a slowly progressive lesion. The researches of Koch, Wright, and other observers have demonstrated that it is the body of the bacillus with the contained endotoxins to which we most look for the production of any efficient and permanent immunizing response. Moreover, clinical experience bears this out. Recently I examined a patient who had received over 90 inoculations of exotoxic tuberculins of increasing strengths. There was an entire absence of constitutional symptoms, but crepitations were audible over four lobes, there was a large interarytenoid ulceration, and the urine contained tubercle bacilli. This patient followed his occupation up to a few weeks before death. Clearly in his case the production of tolerance proved a curse in disguise.

It has generally been accepted that the method of treatment with tuberculin is the same at the dispensary as in the sanatorium, but this is not the case. In the sanatorium patients are under constant medical supervision, and the amount of muscular and respiratory activity is regulated according to the requirements of each individual case. In the sanatorium treatment by auto-inoculation takes the place of the preliminary course of treatment with exotoxic tuberculin at the dispensary. I have previously[1] pointed out the excellent results obtained in a sanatorium by a course of tuberculin containing both endotoxin and exotoxin administered when patients have ceased to react to the maximum amount of walking exercise and manual labour; in other words, when a certain degree of tolerance to exotoxin has been secured. At the dispensary, on the other hand, the muscular and respiratory movements of the patients are not under intelligent control. The patient is liable to show sensitiveness to auto-inoculation with the exotoxin of the bacillus, hence a degree of tolerance sufficient to steady the temperature must first of all be produced by a course of treatment with exotoxic tuberculin. The method of administration and frequency of dosage are a source of no little diversity of opinion. In my experience the most efficient and permanently beneficial focal result is obtained by inoculating the patient once a week and by gradually increasing the dose without the production of any marked general or focal reaction, 99° F. being regarded as the danger zone. It is true that if the doses are rapidly increased and reactions are ignored a high degree of toxic tolerance may be obtained, but this is secured at the

expense of tissue immunity, so that the last stage of the patient becomes worse than the first.

The following is the method of treatment with tuberculin which I have adopted.

At the Dispensary.

(*a*) A course of treatment with T.O.A. (exotoxic) until a certain degree of tolerance is produced.

The following doses are given every eighth day:

0.00001 c.cm., 0.00002 c.cm., 0.00003 c.cm., 0.00004 c.cm., 0.00005 c.cm., 0.000075 c.cm., 0.0001 c.cm., 0.0002 c.cm., 0.0003 c.cm., 0.0004 c.cm., 0.0005 c.cm., 0.00075 c.cm., 0.001 c.cm.

(*b*) When the dose of 0.001 c.cm. has been reached a course of treatment with tuberculin T.R. or new tuberculin W., both of which contain endotoxin and exotoxin of the human bacillus, is commenced. The cost of tuberculin T.R. is 8s. 6d. per c.cm., and the cost of new tuberculin W. 6s. per c.cm. The filtrates of the tubercle bacillus are much cheaper, and it is unfortunate that our views regarding the value of tuberculin preparations are no doubt influenced by their price. I employ new tuberculin W. in the following doses:

Immediately following 0.001 c.cm. T.O.A., 0.00005 c.cm., 0.000075 c.cm., 0.0001 c.cm., 0.0002 c.cm., 0.0003 c.cm., 0.0004 c.cm., 0.0005 c.cm., 0.00075 c.cm., 0.001 c.cm., 0.002 c.cm., 0.003 c.cm., 0.004 c.cm., 0.005 c.cm., 0.0075 c.cm., 0.01 c.cm., 0.02 c.cm., 0.03 c.cm., 0.04 c.cm., 0.05 c.cm., 0.075 c.cm., 0.1 c.cm. This is the maximum dose, and it is repeated at gradually increasing intervals.

The above course of treatment applies to well-marked types of the disease with evidence of slight phases of recurring or persistent auto-inoculation. I have not found it necessary or desirable to go above the maximum dose of 0.1 c.cm. of pure tuberculin.

In the Sanatorium.

In the sanatorium a course of treatment with exotoxic tuberculin is replaced in the majority of cases by treatment with induced auto-inoculation. The patient with an active tuberculous focus is thus led from a period of rest through the various stages of induced auto-inoculation to a full course of treatment with tuberculin containing both the endotoxin and exotoxin of the human bacillus. Part of this course will be commenced at the sanatorium, but it will usually be completed at the dispensary.

Elsewhere[2] I have described the excellent results obtained by a course of treatment with tuberculin T.R. following treatment with auto-inoculation, and I recommend in the sanatorium a course of new tuberculin W. in the following doses:

0.00001 c.cm., 0.00002 c.cm., 0.00003 c.cm., 0.00004 c.cm., 0.00005 c.cm., 0.000075 c.cm., 0.0001 c.cm., 0.0002 c.cm., 0.0003 c.cm., 0.0004 c.cm., 0.0005 c.cm., 0.00075 c.cm., 0.001 c.cm., 0.002 c.cm., 0.003 c.cm., 0.004 c.cm., 0.005 c.cm., 0.0075 c.cm., 0.01 c.cm., 0.02 c.cm., 0.03 c.cm., 0.04 c.cm., 0.05 c.cm., 0.075 c.cm., 0.1 c.cm. The maximum dose to be repeated at gradually increasing intervals.

It is desirable that, in the various districts which embrace sanatorium and dispensary in the scheme for dealing with tuberculosis, there should be some uniformity with regard to the method of administering tuberculin in the sanatorium and dispensary, so that when the patient passes from the sanatorium to the after-care of the dispensary there should be no marked cleavage in the methods of treatment.

Conclusions.

1. It is desirable that the various districts in which the machinery for the treatment of tuberculosis is being established a uniform system of treatment with tuberculin should be adopted.

2. It is especially desirable that the system of tuberculin treatment carried out in the sanatorium should correspond with the method adopted at the dispensary.

3. A short course of treatment with T.O.A., followed by a course of treatment with new tuberculin W., should form the basis of treatment at the dispensary.

4. A course of treatment by auto-inoculation followed by a course of treatment with new tuberculin W. or tuberculin T.R. should form the basis of treatment in the sanatorium.

REFERENCES.

[1] The Selection of Sanatorium Cases for Treatment with Tuberculin, BRITISH MEDICAL JOURNAL, January 16th, 1909. [2] *Consumption in General Practice*, Oxford Medical Publications, 1912.

PROGNOSIS IN PULMONARY TUBERCULOSIS: THE RESULTS OBTAINED BY ARNETH'S METHOD.

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THE prognosis in pulmonary tuberculosis is of vital importance both to the patient individually and to the health of a community. But to make a correct prognosis is in many cases very difficult, and in some almost impossible if physical diagnostic signs are the only guides available.

Arneth's method of blood counting offers, however, some solution of the difficulties encountered in this connexion. When he devised this method he took the neutrophilic leucocyte, which may have I, II, III, IV, or V nuclei, as the cell, and on this he made his count. He then assumed that the cells with I or II nuclei were less resistant than the cells with III, IV, or V nuclei, and that when those less resistant cells were present in large numbers the severity of the case varied directly as the number of these cells.

I adopted this method at the Sheffield Union Hospital, and applied it to 30 cases extending over a period of three months. The observations made on these cases suggested that Arneth was right, and that the prognosis varied inversely as the increase in neutrophiles having I or II nuclei.

The technique employed is as follows:

The specimen of blood is obtained in the usual way by pricking the finger and spreading the drop of blood thus obtained on a clean slide by means of another slide held at an angle of 45 degrees. The slides should be kept in a mixture of equal parts of ether and alcohol, and when required for use are wiped dry with a soft duster. The film of blood thus prepared is allowed to dry in the air, after which staining is proceeded with.

The stain used varies with different observers, and in this particular series of cases Jenner's stain was employed throughout. The slide is flooded with stain, which is kept on for five minutes and then washed off with water, dried and mounted in xylol balsam, care being taken to have an adequate quantity of stain to obviate the danger of the slide becoming dry. The slide is now examined microscopically, and $\frac{1}{12}$ in. oil immersion lens is used. If a larger lens is substituted it is very difficult to be sure of the number of nuclei in the cells. A movable stage should also be used in order to alter the position of the slide as easily as possible so as to avoid the accident of counting the same field twice; 100 neutrophilic leucocytes are then counted and classified according to the number of their nuclei.

The count is then compared with the normal one observed by Arneth, which has been used as the standard in all the results of this series of cases. The normal is as follows:

I.	II.	III.	IV.	V.
5 per cent.	35 per cent.	41 per cent.	17 per cent.	2 per cent.

It is noticed that in an unfavourable case there is an increase in the number of cells with I or II nuclei, and usually both I and II are increased; in other words there is a drift to the left. This drift has been present in all cases in this series.

The following examples are given:

1. A. P., aged 33. Physical signs definite and the patient ill. Tubercle bacilli numerous. The count showed on June 14th, 1911:

I.	II.	III.	IV.	V.
44 per cent.	31 per cent.	20 per cent.	5 per cent.	0 per cent.

Death occurred on August 10th, 1911.

2. P. R., aged 55. Patient ill. Cavitation present; tubercle bacilli also present. Count on June 19th, 1911, showed:

I.	II.	III.	IV.	V.
45 per cent.	40 per cent.	12 per cent.	2 per cent.	1 per cent.

Death on June 22nd, 1911.

3. G. E., aged 39. Patient ill, signs definite, and tubercle bacilli present. Count on June 26th showed:

I.	II.	III.	IV.	V.
20 per cent.	44 per cent.	29 per cent.	7 per cent.	0 per cent.

Death on July 1st, 1911.

4. A. H., aged 45. Signs definite; tubercle bacilli present.

I.	II.	III.	IV.	V.
51 per cent.	39 per cent.	8 per cent.	2 per cent.	0 per cent.

Death took place in four days after the count had been taken.

5. J. G., aged 28. Patient ill; signs definite.

I.	II.	III.	IV.	V.
6 per cent.	34 per cent.	16 per cent.	4 per cent.	0 per cent.

Death in ten days after the count.

6. B. J. G., aged 15. Signs definite and ischio-rectal abscess present, tuberculous in origin. Count taken June 14th:

I.	II.	III.	IV.	V.
33 per cent.	35 per cent.	25 per cent.	5 per cent.	2 per cent.

On September 8th patient appeared well. No temperature; abscess healed. Count gave:

I.	II.	III.	IV.	V.
12 per cent.	40 per cent.	42 per cent.	4 per cent.	2 per cent.

As the condition improved the drift to the left was not quite so marked.

The conclusions arrived at after the above observations were that in cases with an unfavourable aspect the cells with I or II or I and II nuclei were present in greater numbers than normally, and that as the improvement of the general condition takes place the drift to the left of the picture is not so marked; or in other words, the cells with I and II nuclei are not so numerous, and approach nearer the normal.

THE EPIGLOTTIC SUTURE: ITS VALUE IN INDIRECT LARYNGOSCOPY.*

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THE object of this brief communication is to draw the attention of the members of this Congress to the fact that the field of vision obtained by indirect laryngoscopy may be greatly improved by the passage of a suture through the epiglottis, and that this suture may now be rapidly and safely passed. The suture is recommended as a substitute, more efficient in all respects than the many forms of epiglottis lifters introduced to facilitate intralaryngeal inspection.

I am fully conscious of the enormous boon the direct method has become to laryngeal surgery, and many enthusiasts have entirely given up the indirect method for it. The time is therefore opportune for bringing forward a plea for the revival of the indirect method, supplemented by the suture.

The method is not new, but is a resuscitation of an old idea. I admit that in my first publication on this subject[1] I described it as original, as I could not at that time find any evidence to the contrary. Sir Felix Semon, however, drew my attention to previous work in this field when I demonstrated it at the meeting of the Laryngological Section of the Royal Society of Medicine of London in December, 1907.[2]

I propose to make no reference to the many varieties of instrumental epiglottic retractors which require the continuous use of the hand to hold the instrument in position. Whether that hand be one of the operator's or that of his assistant is immaterial, for such a method is obviously unsuitable or inconvenient in intralaryngeal operations.

Türck[3] published in 1866 a description of two instruments which he devised for the purpose of utilizing a thread as an epiglottis lifter. With the first a small hook with a thread attached, was inserted into the epiglottis, but the thread did not penetrate the epiglottis. With the second, however, a needle and thread were passed through the epiglottis and the thread was held by an assistant. This instrument was complicated and its use extremely difficult, largely owing to the fact that local anaesthesia by cocaine was not in use at that time. He further feared that the thread would tear through the epiglottis—a complication which can only be caused by great local unrest. It is no wonder, therefore, that the method fell into disuse. The great value of the principle was, however, recognized, and the instrument was modified and simplified by Schrötter and Tobold.[4]

Jurasz and Jelenffy[6] recommended the suturing of the glosso-epiglottic ligament instead of the epiglottis, and by this they lifted the epiglottis. Sir Felix Semon and Sir Victor Horsley,[6] in a series of experiments on dogs, passed a thread through the epiglottis in order to see better the interior of the larynx.

Dr. Gleitsman[7] of New York has devised an instrument which, from the illustration, appears to be very similar in principle to my latest pattern, and he has found it of great value in rendering possible both a correct diagnosis and an intralaryngeal operation.

The idea of using an epiglottic suture first occurred to me in July, 1906, when I adopted it in order to facilitate an operation of exceptional difficulty—namely, the excision of a very tough fibrous web which united the anterior halves of the vocal cords and extended some way down into the cavity of the larynx. The epiglottis was not overhanging, but I wished to get it out of the way because I was using a sharp-pointed Heryng's knife, followed by sharp punch forceps, and it was necessary to get the best possible view. I used a pair of Spencer Wells forceps, curved at the point, with which I held a small curved and threaded needle. With the aid of the laryngeal mirror the needle was pushed through the epiglottis from before backwards, the point being then caught by the forceps and drawn through. There was not much difficulty in passing the suture and not the slightest discomfort to the patient, who had already been thoroughly cocainized in preparation for the operation.



Fig. 1.

In the following year I used a needle-holder made to my design by Messrs. Mayer and Meltzer (see Fig. 1), its principle and use being as above described. This instrument was shown, and the method described and demonstrated on a patient, at the meeting of the Laryngological Section of the Royal Society of Medicine already referred to.[2] Soon after I still further simplified the method by the suture forceps shown in Fig. 2, which was made for me by Messrs. Mayer and Meltzer. It is a modification of Kurz's forceps used for the passage of deep sutures in pelvic surgery. This instrument and its use were demonstrated at another meeting in April, 1908.[8] The mechanism of the catch greatly simplified the passage of the suture. Though I have used it with complete success in a large number of cases, I have again modified and simplified it, and my latest pattern, which I call the epiglottic suture forceps No. 2, is the instrument which I now recommend (see Fig. 3); it may be obtained from Messrs. Mayer and Meltzer or H. Pfau, Berlin.

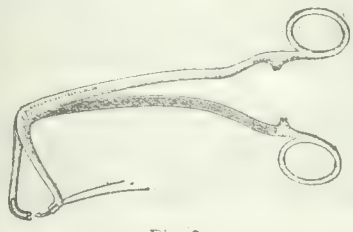


Fig. 2.



Fig. 3.

The successful use of either pattern depends, as in other intralaryngeal operations, upon the efficient preparation of the patient for local anaesthesia. Cocaine should be applied to both surfaces of the epiglottis and to the centre of the root of the tongue. It is as well also to apply a little adrenalin to the epiglottis to prevent the possibility of haemorrhage obscuring the field of operation. The needle is first threaded with a long piece of silk and placed in the proximal blade, and the whole carefully sterilized. With the aid of the laryngeal mirror, the

* Read at the Third Rhino-Laryngological Congress in Berlin, September, 1911.

forceps are introduced into the throat until the upper border of the epiglottis is seen to pass between the point of the needle and the distal blade, the blades are then firmly closed and then opened and the instrument withdrawn; it will be found that the suture has passed through the epiglottis. The ends are then brought over the centre of the tongue and gripped by a large pair of Spencer Wells or any similar forceps, and allowed to hang some distance below the jaw. The tongue is held for examination in the usual way, and it will now be seen that the epiglottis is held up against the root of the tongue by the weight of the forceps only and the intralaryngeal view greatly improved. On the occasions in which I have used this method the patients have neither strained nor coughed, and were not conscious of the presence of the suture so long as the effect of the cocaine lasted, though in some cases there were feelings of nausea, which, however, soon passed off. The use of the instrument entails no risk to the patient. The needle is held sufficiently firmly in the proximal blade to prevent it falling out before it is passed, and should it do so, it falls into the glosso-epiglottic fossa only, and is easily withdrawn by the thread, which is held in the hand. When the blades are closed it is firmly caught in the distal blade, and cannot be released until the instrument is withdrawn and the needle turned on its long axis to be liberated; there is, therefore, no risk of its falling into the cavity of the larynx. The epiglottis does not suffer by the passage of the needle, and I have never observed any inflammatory or other complication following it. The suture occupies no space in the mouth, and, unlike other epiglottis lifters, does not require the assistance of a third hand. It further helps to steady the larynx and increases the laryngeal illumination. Though the shaft of some laryngeal forceps may be used to pull the epiglottis forward during their use, it is a decided advantage to be independent of that action, so that the operator may be free to place the forceps in any position he desires, so as to prevent the shaft from hiding the point and obscuring the light.

I consider that the preliminary use of the epiglottic suture for facilitating intralaryngeal operations should not be limited to cases of obscured field of operation caused by a markedly overhanging epiglottis, but should be used in all cases where the epiglottis in any way hinders a delicate intralaryngeal manipulation, whether it be cutting or cauterizing, especially where a perfect vocal result is desired. This method may also be used simply for diagnosis, when other methods of lifting the epiglottis have failed. It may in a few cases be used without the aid of a laryngeal mirror, when it is found, on depressing the tongue, that the upper border of the epiglottis can be seen.

It is scarcely necessary to illustrate my remarks by relating cases in which I have adopted this method, the majority of them having been for innocent growths within the larynx, and these include ten vocalists, who are now singing successfully before the public. I would like, however to refer to one case, for it is the best illustration I have had of the value of the method.

The patient, a tenor vocalist, had been unable to use his voice effectively for four years because of a small fibroma situated on the upper surface of the right vocal cord, overhanging its edge and near the anterior commissure. The larynx was situated rather low in the neck, so that the vocal cords were not easily reached by the ordinary sized laryngeal forceps. This probably explains the fact that during three years numerous attempts by two expert laryngologists failed to remove the growth. These attempts included the use of many varieties of instruments, the direct method once under cocaine and once under chloroform. I succeeded at the first visit with a pair of Whistler's forceps, and my success was entirely due to the use of the epiglottic suture.

The best proof of the accuracy of this method of manipulation was the fact that two months after the patient sent me a press cutting of his successful appearance at a concert.

Since I brought the subject before the Laryngological Section of the Royal Society of Medicine of London I have had many encouraging reports from those of my colleagues who have used the method, and I should like to quote the experience of Sir StClair Thomson, who writes to me as follows:

I have used your epiglottic suture forceps (No. 1) on several occasions and always with complete satisfaction. I have found it most useful in cases of overhanging epiglottis where the growth was situated near the anterior commissure, a site where the use of the direct method is not so satisfactory as might be expected.

I know of several patients who have welcomed it as an agreeable alternative to the uncomfortable attitude created by the requirements of the direct method.

REFERENCES.
[1] Horsford: *Lancet*, 1908, vol. ii, p. 89. [2] *Proceedings of the Royal Society of Medicine*, vol. i, p. 3. [3] Türck: *Klinik der Kehlkopf-Krankheiten*, 1866, p. 552. [4] Schitzler, Laryngoskopie und Rhinoskopie, *Weiner Klinik*, 1874, iv, 7. [5] Heymann: *Handbuch für Rhin-Laryngologie*, Bd. i, p. 347. [6] Semon: BRITISH MEDICAL JOURNAL, 1886, vol. ii, p. 445. [7] Gleitsman: *Laryngoscope*, St. Louis, May, 1907. [8] *Proceedings of the Royal Society of Medicine*, vol. i, p. 7.

CHEILOTOMY: A FUNCTION-RESTORING OPERATION IN CRIPPLING TRAUMATIC ARTHRITIS OF THE HIP-JOINT.

[WITH SPECIAL PLATE.]

BY

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SURGEON WITH CARE OF OUT-PATIENTS TO THE MIDDLESEX HOSPITAL;
AND
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THIS brief paper is to be regarded as a preliminary communication on an operative method which may prove to be of wide application in the treatment of chronic hypertrophic arthritis, especially if it be uniarticular and of traumatic origin. It is a record of the two first cases in which the method has been applied. Both were of traumatic origin, and in both the hip was the joint affected. In both, while flexion remained relatively free, the movements of abduction and rotation were lost, so that riding was impossible and walking was slow and difficult. In the first case continuous severe sciatic pain, dating from the accident, made the patient's life a misery to him.

Stereoscopic radiograms showed clearly that the principal obstacle to the movements of the joint in both cases was an osteo-arthritic lip or cornice around the head of the femur. It occurred to one of us (C. P. B.) that it might be possible to chisel away this lip sufficiently to relieve pain if not to restore a useful range of movement to the joint. An operation for this purpose was devised and successfully carried out, with functional results in both cases which up to the present have surpassed our expectations. The operation consists in opening the hip-joint and removing the cornice on the head of the femur, so far as it is accessible, by suitable bone-cutting instruments devised to work in a cramped space. On account of its technical difficulty the operation is somewhat prolonged, but in both instances shock has been absent and convalescence uneventful.

It will probably be found that this operation is applicable in other joints than the hip. It may, for instance, be of service in the knee-joint, using the same transarticular incision which has been employed by one of us for difficult fractures of the lower end of the femur.[1] A procedure so definite, and possibly of such wide application, appears to need a distinctive name. We suggest the name *cheilotomy* (χείλος, lip) as convenient.

So far as we have been able to ascertain, the operation of cheilotomy—at any rate, in the hip-joint—had not been performed prior to our first case in January, 1913.

CASE I.

Mr. J., aged 56, four years ago had a fall in the hunting field. His horse came down on the left side without dismounting him, so that his left hip was crushed between the ground and the horse's side. He managed to ride home, did not consult a doctor, and only lay up for three or four days. But from this time forward he began to suffer from severe left sciatic pain, which has gradually reduced him to a crippled condition. For the last two years he has been unable to ride.

He first consulted Dr. Preston Ball in July, 1911. He was then suffering from general rheumatism especially affecting the joints, but more especially the left hip-joint.

At times he was seized with most acute pain, not only in the left hip but in the lumbar region, and also in the shoulders and arms. Varied medical treatment had proved of no avail up to this time, and Dr. Ball gave him a course of inoculations with streptococcus vaccines at intervals of seven days, beginning with small doses of one million, and gradually increasing the injection up to fifty million, the last six being of a mixed vaccine containing along with the strains of streptococci the *Micrococcus rheumaticus* of Poynton and Paine. At the same time the patient was given suitable tonics, and ionic medication was adopted for the left hip. His condition greatly improved in a comparatively short time, his general health was better, and he could walk and play golf without pain, and in November, 1911, he appeared almost cured, the only trouble then being a little stiffness in the left hip.

For several months he continued to be free from pain, and was well in every way, but in September, 1912, the pain returned in the left hip and rapidly became worse, and it was only with great difficulty he could walk at all. Golf had to be abandoned. He consulted Dr. Ball again, and ionic medication was continued, but the hip-joint continued to give him great trouble, and a skiagram of the joint showed distinct osteo-arthritis, with considerable "lipping" around the acetabulum. An abnormal bony outgrowth, shaped like a canine tooth, could be seen projecting from the lower margin of the articular surface of the head of the femur, immediately in front of the sciatic nerve. The patient now consulted Mr. Handley with a view to the removal of the bony lipping of the femur. A stereoscopic radiogram showed that the tooth-like projection was directed downwards and forwards, not downwards and backwards as had been assumed, so that it could not press on the sciatic nerve. But it also showed other outgrowths (see Fig. 1) surrounding the margin of the head, some of which might be pressing on the nerve, and it seemed right to attempt the systematic removal of the lip so far as it could be reached. An element in this decision was the patient's helpless condition, for he had given up walking altogether, except for the shortest distances, and with a painful effort. Moreover, a resort to sedatives had become inevitable, and even morphine had been necessary on many occasions.

Prior to operation he was seen by Dr. W. H. Willcox, who allows us to quote the following extract from his notes made at this time:

> The patient was seen by me on January 9th, 1913. He had had during the past few years spa treatment at Droitwich and Buxton and all the usual forms of medicinal treatment. On examination it was found that the only joint affected was the left hip. There was deficient movement of flexion and extension, but there was some range of free movement in this direction. The lateral movement was very deficient, and any attempt at circumduction gave considerable pain. As there was no evidence of any acute inflammatory condition of the hip-joint, and as no other joints were affected, and as the *x*-ray examination showed bony changes which no medicinal treatment could possibly affect, I advised operative treatment.

It may be added that all the muscles of the left lower limb were flabby and atonic from disuse. There was no definite tenderness along the course of the sciatic nerve, and pain was felt in the front of the thigh as well as at the back. Actual sciatic neuritis could therefore be excluded.

Operation.

On January 13th, 1913, the operation was carried out, and abduction and external rotation at the close of the operation were found to be restored to a large extent. By the tenth day the wound was soundly healed. During the first two or three nights morphine was necessary, more on account of restlessness and the tedium of a fixed position than for actual severe pain. By the fourth day the patient was entirely free from the pain which had made his life a misery for years. Slight rotation of the joint caused no uneasiness. Passive abduction was begun gently on the fourth day, it was free without the use of any force whatever. By the twentieth day the patient was allowed to get up and sit in a chair. A day or two later he was permitted to stand, and to walk about wearing a temporary apparatus supplied by Mr. G. Ernst to limit the movements of the hip and prevent undue strain on the sutured capsule. He left the home on the twenty-fifth day absolutely free from pain, and with a large range of abduction and external and internal rotation in the joint.

To illustrate the patient's relief after the operation it is permissible to quote from a letter to one of us just before he left the nursing home: "I feel a different man, and am only too thankful I came and saw you."

Before returning to Ireland he was seen by Dr. A. P. Luff, who in reply to a recent letter respecting the case writes:

> I saw him with you on February 6th, and the notes that I have with regard to his examination are that there was extremely good mobility of the joint as regards internal and external rotation and abduction. I think the result of your operation is an extremely satisfactory one.

He has been seen by Dr. Ball on two occasions since his return home. His general condition has greatly improved, and he can walk quite well. Both external and internal rotation appear to be normal. He is greatly pleased with the results of the operation, and the improvement is well maintained up to the date of writing (April 9th, 1913).

CASE II.

Major A., aged 62, was sent to Mr. Handley by Dr. Preston Ball on March 26th, 1913, for traumatic arthritis of the left hip with increasing fixation of the joint and difficulty in walking. The patient is a healthy man, looking much less than his age, and has lived an active outdoor life, first in the cavalry and since his retirement in sports and country pursuits. For some years the condition of the hip has prevented him from riding, though until recently he has been using a bicycle. Walking has become a slow and laborious process, though it is not painful. The patient felt his increasing disabilities keenly since they cut him off from his principal active interests, and he was quite willing to undergo an operation if there was any prospect of improvement.

Twenty-two years ago, as the result of a fall in a steeplechase, he damaged his left hip. After treatment of several weeks by his local doctor in Carlow, who "fired" the joint, he came over to Dr. Wharton Hood. The treatment was so successful that fourteen days later he was able to begin riding. For many years after this the joint does not appear to have troubled him very much, but in 1904, after a critical attack of double pneumonia, the hip began to stiffen.

In 1910 the situation was becoming serious, and he underwent a course of manipulations and fomentations. Last summer he went to Aix and had baths and exercises. He noticed that passive movements of the joint did not produce any improvement, and left it rather painful. He consulted Dr. Preston Ball in October, 1912. Dr. Ball noted that the history was similar to that of Case I, and that the pain and loss of power were confined to the hip-joint, his general health being quite good. It was agreed from the first that he should consult Mr. Handley with a view to operation; but in the interval between October and March he had ionic medication and electrical massage, which possibly gave him slight relief, though there was no marked change or improvement. An ordinary skiagram showed distinct overgrowth of bone around the hip-joint.

He was first seen by Mr. Handley on March 27th, 1913. The great trochanter on the left side was about ¼ in. higher than on the right side, the left thigh was 1 in. less in circumference than the right, and the left calf ½ in. less than the right. The movements of the spine were good though perhaps slightly limited. There was no grating in any of the joints, except in the right shoulder-joint, where slight crepitus was present, probably the result of an accident which fractured the right clavicle. Flexion of the right hip was free, but flexion of the left hip was very limited. Rotation of the left hip was practically absent, while that of the right hip was free. Abduction of the left hip was entirely absent, while on the right side it was nearly normal.

The patient stated that his doctor at Aix considered bony ankylosis to be present in the left hip. While this statement is difficult to explain in view of the amount of flexion, it emphasizes the fixity of the joint as regards rotation and abduction. In contrast to Case I, the patient had suffered hardly any pain, and it was entirely on account of disability that he desired relief.

A stereoscopic radiogram, taken by Mr. Coldwell (Fig. 2), showed exuberant lipping surrounding the whole of the head of the femur. Judging by this alone, the case seemed extremely favourable for cheilotomy. There were, however, other changes in the joint, namely, some bony deposit round the acetabulum, apparently in the capsule, and a disappearance of the cartilage interval over the convexity of the head of the femur, showing that in this situation cartilage had disappeared. These changes, however, were not sufficiently marked to contraindicate operation. A stereoscopic radiogram of the right hip showed some similar changes, but in a very early stage. Dr. W. H. Willcox confirmed Dr. Ball's opinion that the patient was medically sound, and allows us to quote as follows from his notes:

> The patient was seen by me on March 28th, 1913. I found him a thin, spare, muscular man who was perfectly sound and fit except for lameness arising from the left hip. He walked very



FIG. 1. Case I. Mr. J., left hip.



FIG. 2. Case II. Major A., left hip.

Figs. 1 and 2 should be viewed through a stereoscope.



FIG. 3.—Case I. The fragments of the portion of the femoral lip removed by operation. Natural size.

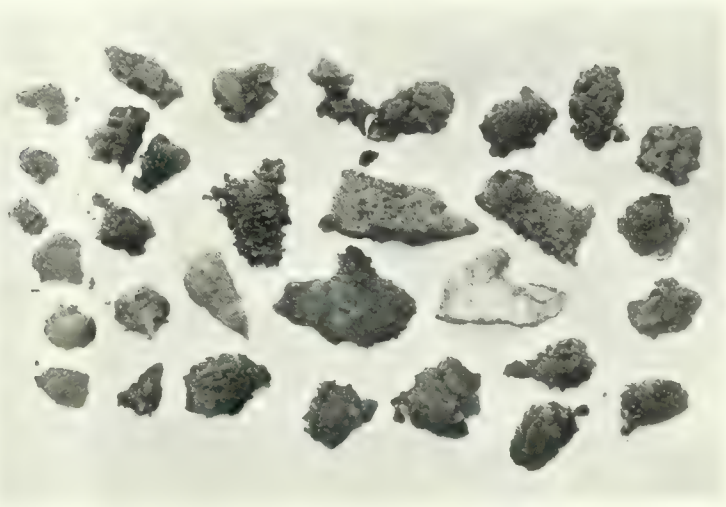


FIG. 4.—Case II. The fragments of the portion of the femoral lip removed by operation. Natural size.



FIG. 1.—Skiagram.

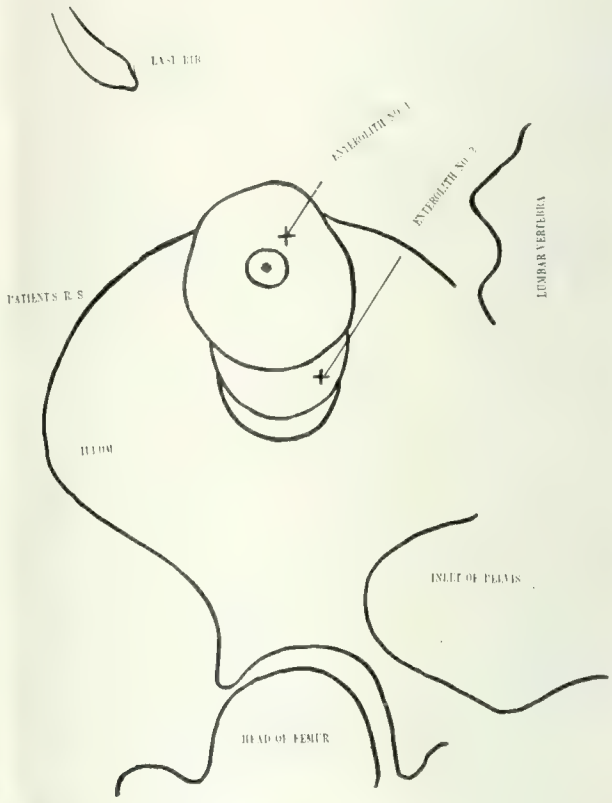


FIG. 2.—Diagram of Fig. 1.

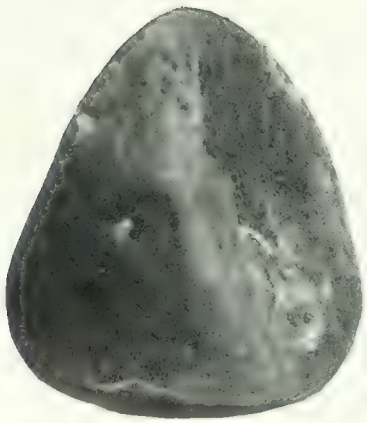


FIG. 3.—Enterolith No. 1.

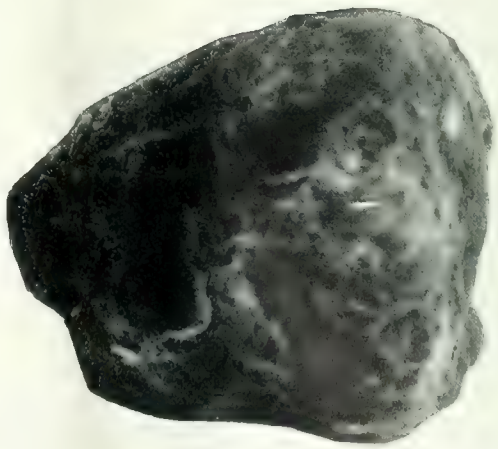


FIG. 4. Part of enterolith No. 2. The portion in the caecum had to be crushed to facilitate removal.

lame, and experienced pain in walking. All the joints were practically normal except the left hip. The left hip showed great impairment of movement. There was only slight flexion, about 10 degrees, and very little lateral movement was possible. The *x*-ray examination showed very marked lipping, and bony changes round the left hip-joint. The patient had had all forms of medicinal treatment and had visited various spas without any benefit. As it was obvious that medicinal treatment could not improve or affect the marked bony changes round the left hip-joint, and since there was no inflammation round the joint, and no other joint was affected, I advised surgical treatment.

Operation.

On March 30th the operation of cheilotomy on the left hip was performed through a posterior incision in the capsule, securing free rotation and a considerable amount of abduction. The operation proved to be more difficult than in Case I, mainly on account of the bony deposit in the capsule at the margin of the acetabulum. The bony lip round the margin of the head of the femur was removed for a considerable portion of its circumference, and the capsule was sewn up.

On the evening of the day of operation the patient was quite free from pain, and he is making an uneventful convalescence. There seems every prospect that the result in this case will be just as satisfactory as in Case I, for abduction and rotation already, only ten days after the operation, are free and painless, though there is more tendency to muscular spasm than in Case I.

[Dr. W. H. O'Meara of Carlow writes on April 26th: I saw Major A. yesterday, and must congratulate you on the great success of your operative treatment. He can walk about with comfort, and can rotate, extend, and abduct the leg freely.]

It is probable that the restoration of movement produced by cheilotomy, while depending mainly upon the removal of actual bony obstacles to rotation and abduction, is also due to another cause. The head of the femur is unduly large and the capsule is consequently stretched, and does not possess that reserve of "slack" which is necessary to allow a good range of movement. The restoration of this "slack" by the operation is an important factor which must not be lost sight of.

May we, in conclusion, utter a word of warning against the indiscriminate application of the operation in unselected cases. For cases where the constitutional or toxic element of osteo-arthritis predominates, the method is obviously unsuited, and other methods of treatment, including the vaccine treatment, of which one of us has made a special study,[2] should always be tried. Nor should the operation be undertaken save under the best conditions, with ample assistance, with all possible aseptic precautions, and with the essential preliminary of a good stereoscopic radiograph of the joint.

The best and most suitable cases are probably those in which medical and vaccine treatment has improved the patient in relation to his or her general health and where the smaller joints (probably those most recently affected) have improved, but the one joint shows distinct osteitic changes as described.

REFERENCES.

[1] *Transarticular Operations for Certain Difficult Fractures near the Knee and Elbow*, by W. Sampson Handley, BRITISH MEDICAL JOURNAL, 1912. [2] *The Treatment of Rheumatic Disease by Vaccines*, by C. Preston Ball, BRITISH MEDICAL JOURNAL, May, 1911.

A CASE OF ENTEROLITHS.

[WITH SPECIAL PLATE.]

BY

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AN *x*-ray photograph of enteroliths *in situ* must be comparatively rare. In fact, I can find no evidence of any such having been recorded. The main factors responsible for this appear to me to be: (*a*) Intestinal concretions are distinctly uncommon.[1] (*b*) In many cases the symptoms are so insidious in their onset and of so long duration that medical aid is summoned only when there is evidence of intestinal obstruction, and the diagnosis is made when the abdomen has been opened. (*c*) Only recently has *x*-ray examination become a routine method in abdominal diagnosis.

The case is that of J. O., a ploughman, aged 39, seen by me with Dr. Gowans of Broughty Ferry on July 23rd, 1912. Except for seven years, when he was working in an oilcake factory, he has followed this employment since the age of 13. His habits have been regular and he has had no other illness. The history was that for the past eighteen years he had been subject to attacks of colic in the right iliac region, varying in duration from a few minutes to half an hour, and recurring generally three or four times a month. They commenced with distension of the lower abdomen, associated with gradually increasing discomfort till the pain suddenly began to diminish and the indisposition culminated in complete relief followed by the passage of a large quantity of flatus. He had also had flatulence not associated with pain. The bowels had been fairly regular, but he had had occasional attacks of diarrhœa followed by constipation. There had been no vomiting and no urinary symptoms. During the last month these attacks had increased in frequency and severity, and had been accompanied by marked anorexia and slight loss of weight.

On examination, the teeth were good and his tongue clean. An irregular tumour of stony hardness and about the size of the fist was felt in the right iliac fossa. It was fairly mobile, and gave the impression of being intimately connected with the cæcum. I was unable to feel it by the rectum. He was advised to go to hospital for *x*-ray examination and probably exploratory operation, but delayed till his general health began to suffer and his discomfort increased.

He was admitted to Dundee Royal Infirmary on August 20th, 1912. His condition on admission was very much as above noted but with a general aggravation of all symptoms and somewhat severe intestinal stasis; the tumour was less movable.

The *x*-ray photograph reproduced was taken by Dr. Pirie, and gave the foundation for definite diagnosis.

On August 22nd, under chloroform, I opened the abdomen through the right rectus (Battle's incision). The lower portion of the ileum was found to be very much increased in calibre, and its walls markedly hypertrophied. The tumour consisted of two portions, the larger fixed at the ileo-cæcal valve, the other free in the lumen of the ileum some 5 in. from its lower end.

The smaller concretion was removed with ease through an incision in the longitudinal axis of the gut. The portion of bowel containing the second calculus could not be brought up to the abdominal wound, so it was deemed expedient to pack off the general peritoneal cavity and attempt removal through the same intestinal opening. This enterolith was roughly hourglass-shaped, and impacted at the valve, and the cæcal portion had to be broken down and the mass delivered with a large stone forceps. The bowel was closed with Lembert sutures.

Convalescence was uneventful, and the patient was discharged well on September 20th. He is now nearly 2 st. heavier than before the operation.

The specimens* look like pieces of compressed felt.

(*a*) The smaller, which was wedge shaped, with two large facets, measured 16 × 14 cm. in circumference.

(*b*) The larger showed no facet, and measured 19½ × 24 cm. (the last measurement is approximate, owing to damage in removal). The capsule and nucleus, which were well marked in the skiagram, were found chemically to consist mainly of calcium phosphate, while the intervening material appeared to be mostly faecal and vegetable matter bound together by fine hair-like substance. Since removal they have lost quite half their weight.

The case is interesting mainly from the following points of view:

(*a*) The large size of the concretions.

(*b*) The fact that these, though situated at what is normally the narrowest portion of the gut, did not give rise to more marked obstructive symptoms.

(*c*) The duration of the symptoms without disturbance sufficiently grave to necessitate medical attention at an earlier date.

(*d*) The extreme value of *x*-ray examination in arriving at a correct diagnosis.

Two points of interest noted in the history were that porridge had been one of his most frequent articles of diet.

* The specimens were shown at a meeting of the Forfarshire Medical Association, November, 1912.

and that he very frequently bit hairs from his moustache and swallowed them.

The patient was again referred to me in March, 1913, with a breaking-down tumour situated about the middle of Scarpa's triangle on his right leg. I excised it and found it to be a spindle-celled sarcoma growing from the superficial fascia.

His general condition is excellent.

REFERENCE.
[1] British Medical Journal, November 19th, 1912 p. 1282.

REMOVAL OF INTRATHECAL TUMOUR FROM LUMBAR REGION OF SPINAL CORD.

BY

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This case illustrates the symptoms produced when a tumour compresses both the upper roots of the cauda equina and the spinal cord itself, and affords another instance that these intrathecal growths are so often single and non-malignant.

History.

The patient was under the care of Dr. Harvey Bird, of Bridgwater, who recognized the nature of the case, and sent her to the Bristol General Hospital. She was married, aged 52, had had six children, and had enjoyed good health until the present illness; there was no suspicion of syphilis.

Order of Symptoms.

Towards the end of 1909 she began to suffer from "rheumatic pains" in the right thigh, which henceforth recurred at gradually decreasing intervals. In 1912 the pains became worse, they were sharp and shooting in character, from the hip down into the leg and foot, and the right leg became weak. In April, 1912, the pains greatly increased; she also felt "pins and needles" in the toes, and increasing numbness and loss of power in the whole limb. By May the right leg was paralyzed, and from this and increased pain she could no longer get about. At the end of May shooting pains were also felt in the left leg, though not so severe as in the right, and were accompanied by numbness and gradually increasing loss of power in it. She also suffered from pains in the back, and a feeling of tightness around the lower abdomen.

At the end of July, 1912, there was paraplegia; she was unable to walk or stand. For a fortnight during August she had retention of urine, but recovered control of her bladder under use of the catheter; from this time, however, she was liable to occasional incontinence. Bowels constipated. Severe pains continued until admission to Bristol General Hospital on September 7th.

Condition on Admission.

She was well nourished, but had a drawn, haggard expression. She was completely paraplegic and moved or turned herself in bed with the greatest difficulty. Passive movements of the lower limbs caused great pain, especially at the joints. She complained so constantly of great pain, when moved or touched, that it was both difficult to examine her or to do anything for her; possibly she was unnerved by the pain she had suffered, which had necessitated morphine injections. She slept badly. The thoracic and abdominal organs were normal. The urine was normal. The cranial nerves, upper extremities, and trunk muscles were entirely unaffected.

Motor Symptoms.

The right lower extremity could not be moved at all in any part of it; she could draw up the left thigh a little way and bend the left knee slightly, but these were the only movements possible in this limb.

The paralysis was of the flaccid type; there was double foot-drop and the toes were flexed.

The anterior thigh muscles were not wasted, except from disuse. There was marked wasting of all muscles below the knees in both legs, predominating in the tibialis anticus, peronei and extensors of feet, more marked on the right than on the left side, though the circumference of each calf measured the same. The glutei and hamstring muscles were also wasted.

Electrical Reactions.

Diminished reaction to both electrical currents was present in both quadriceps extensor muscles, especially the right, and in the glutei and hamstring muscles. Reaction of degeneration was present in tibialis anticus, peronei, extensors of toes, calf muscles, and plantar accessorius. The peroneal nerves reacted very feebly to the faradic current; to the constant the formula for the right nerve was KCC=0, ACC=20 milliampères, and for the left KCC=10 milliampères, ACC=8 milliampères.

Sensory Symptoms.

The sensory affection is shown on the chart (Fig. 1). Apparently the border of loss of sensation to cotton-wool

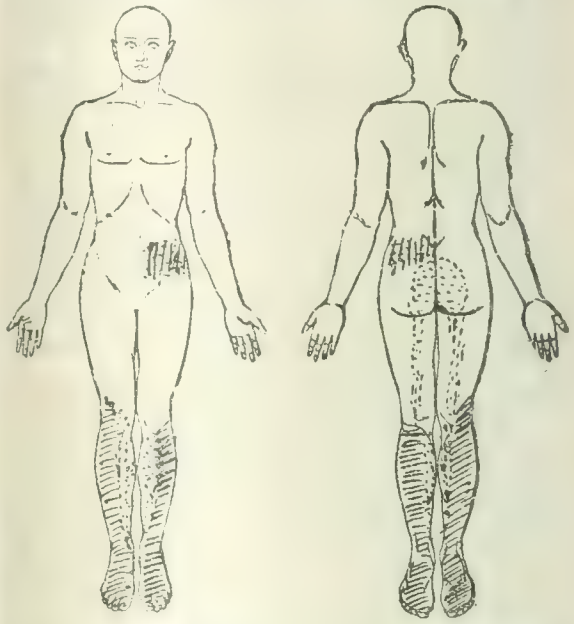


Fig. 1.—Loss of sensation to touch, pain, and temperature; dotted area, defective sensation to touch, pain, and temperature; ill-defined band of hyperaesthesia.

and pin-prick was coterminous. The loss to heat and cold was absolute over the affected areas, whilst there was diminution of sensation to pressure over the same distribution. Both feet felt very cold to the touch. There was also some loss of the sense of position of the limbs; she had constantly a feeling that her legs were floating in the air and not lying on the bed. There was an indefinite zone of hyperaesthesia on the left side in the lower lumbar or upper sacral and lower abdominal regions.

The chart gives the result of a number of observations on the sensory changes, and can be regarded as approximately correct; she was a difficult patient on whom to make any investigations of this kind.

Reflexes.

Abdominal present and normal. Plantar absent or (?) feebly flexor on strong stimulation.

Knee-jerks and ankle-jerks present. Right knee-jerk active. Marked ankle clonus on right side, not on left; no knee clonus. The bladder was not distended; there was occasional slight incontinence of urine, which seemed partly due to inadvertence, as she was not always aware of it; she could not hold her water for more than an hour at a time. There was no anaesthesia of bladder or rectum. The anal sphincter contracted normally.

There were no trophic lesions of the limbs, and no actual bedsores; but on admission the skin over the sacral and lower lumbar regions of the back was in a very unhealthy state and on the verge of breaking down.

X-ray examination and lumbar puncture showed the spinal column and cerebro-spinal fluid to be normal.

Diagnosis.

From the above signs the diagnosis of an extramedullary tumour at the level of the fourth and fifth lumbar and first sacral roots, chiefly on the right side, was made and operation advised.

The operation had to be considerably delayed until the skin of the back could be got into a more healthy condition, which was a matter of some difficulty.

Operation.

On October 15th, 1912, Mr. C. A. Morton removed the laminae of the eleventh and twelfth dorsal and the first and second lumbar vertebrae. When the dura mater was thus exposed it was seen to be pushed backwards, and on splitting it up the cord was found also pushed backwards, so that it lay closely pressed against the dura mater sheath, and the latter had to be divided with great care, so as not to cut into the underlying cord. When the lumbar enlargement of the cord was exposed, it was seen to be not only pushed backwards, but also much flattened and spread out, on a plum-coloured, smooth tumour lying anterior to it and chiefly to the right side. There was a free escape of cerebro-spinal fluid as soon as the dura mater was exposed. The growth lay opposite the body of the twelfth dorsal vertebra; it was about an inch in length, and seemed to fill the anterior part of the spinal canal. By means of the flat end of a small probe some very delicate connexions of fine membrane between the front of the cord and the tumour were broken down, and the cord was then lifted off the tumour, and gently drawn to one side. Some very loose connexions of the tumour with the dura mater sheath in front were then easily torn through with the probe, and the tumour readily enucleated. It was not necessary to divide any nerve roots in order to remove the tumour, as in this part of the cord they all pass obliquely downwards, and those underlying the tumour were turned aside with the cord. The tumour was very soft, of a pink colour, and about the size of the part distal to the last joint in an average-sized middle finger. After its removal the cord fell back into the canal. The dura mater was closed with a continuous suture of fine silk. This prevented any leakage of cerebro-spinal fluid, which was evidently distending the sewn-up sheath at the completion of the suturing. There was practically no bleeding within the spinal canal. The mass of muscle and aponeurosis reflected from the laminae, before these were removed, was brought together over the gap in the spine. No drain was employed. She did not suffer from shock.

The muscles united firmly across the gap in the spine, and the skin wound was soundly healed a fortnight after the operation. There were no signs of any inflammatory changes in the spinal membranes during the healing of the wound.

Nature of Growth.

Microscopical examination of the growth showed it to be a soft fibroma. No other tumour could be found, and its large size accounted for the wide extent of the symptoms, and its situation, chiefly anterior to the cord, for their roughly symmetrical character.

After-History.

She made a good and uneventful recovery from the operation.

On October 23rd, she had recovered power over the bladder, could move the left leg and toes, and flex the right knee. She could feel a light touch over both thighs and legs, but imperfectly over the calf of the leg, and not at all over the feet, and a pin-prick over the right leg, but not over the left. The right ankle clonus was still present, and a flexor plantar reflex was present on each side. At the end of another week there was further gain of power, especially in the left leg. She looked well, and had greatly improved in appearance, although she still complained of much pain. She had no more morphine after this time. She insisted on going home—a journey of 35 miles—early in November. Her friends found it, however, impossible to nurse her at home, so she returned to the hospital on November 18th.

Two months after operation the condition of sensation was: Pain (pin-prick) felt over whole posterior surface of both buttocks, thighs, and legs, but defective, often felt as touch only, over front of thighs, legs, and dorsum of right foot; normal over dorsum of left foot. Sensation to light touch (cotton-wool) defective over areas shown in Fig. 2; localization was defective over right leg and foot; pressure was felt everywhere, but distinctly unpleasant on right leg and thigh. This defect of sensation in the areas of the third lumbar and increased loss in those of the fourth lumbar roots on the right side had appeared since the operation, and probably represented a slight but unavoidable bruising of these roots in holding them aside in order to deliver the tumour from under the cord. To the same cause is to be attributed a decrease of the right knee-jerk, and almost complete loss of response of the right quadriceps extensor to both faradic and constant currents after the operation.

By this time she had regained power over her bladder, and could hold her water for several hours; the unhealthy condition of the skin had entirely disappeared, and the feet and legs no longer felt cold.

Without going into details, the further history of the case was one of steady but slow recovery of sensation and

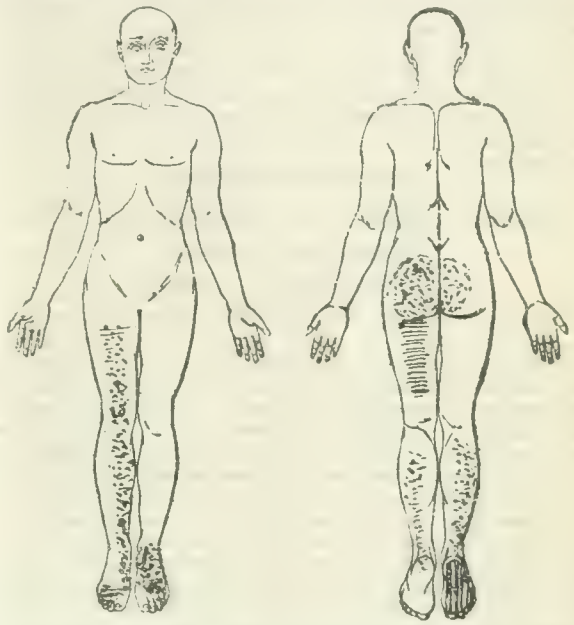


Fig. 2.—November 28th. Tactile sensation (cotton-wool): Dotted area, defective; ▒ absent; ▓ hyperaesthesia to cotton-wool.

of muscular power. Recovery was much more rapid in the left than in the right leg, owing to the more extensive damage done by the pressure of the tumour to the spinal cord and roots on this side.

She made up her mind to go home again early in January, 1913, and left the hospital on January 14th, three months after operation. Her condition then was that she could sit up in bed and in a chair quite well, and had recovered power in the left leg; lying in bed, she could raise it in the air and move it freely in all directions; she was not able to stand alone, but with help she could almost support her weight on the left leg. The wasted muscles had filled up very much, and reacted normally to faradic and constant currents.

Right leg: Recovery in this limb had not proceeded so far; there was still foot-drop; she could move the toes and flex and extend the foot; there was feeble flexion of the knee and hip, but this was all. The muscles of this limb were still much wasted and many of them tender; they only reacted feebly to a very strong faradic current; they reacted to a constant current of 8 to 10 milliampères. ACC = KCC, with the exception of the quadriceps extensor, which hardly reacted at all. The knee-jerk was present; ankle clonus still continued to be marked. The reflexes in the left leg were normal.

Sensation to touch and pain had returned over the sacral region and over the whole of the left lower extremity, but over the right, although improved, was still somewhat defective; and over the back of the right

thigh and leg a touch was disagreeable (protopathic sensation); sensation to heat and cold normal except over the front of the right thigh.

Dr. Bird reports that on March 25th—five months after operation—sensation over both legs is normal, the left leg has recovered, and she can support her full weight upon it; there is still right foot-drop, but she can move the right foot and toes, and can extend the right knee, so that steady recovery is proceeding in this limb also. She can sit up, and has not had any morphine.

The history of the case with the severe root pains increased by moving the limbs, the muscular wasting, the reaction of degeneration in the muscles, the distribution of tingling, and loss of sensation—the latter so far as could be made out of posterior root type—in certain root areas together with slight affection of the bladder, pointed to a lesion chiefly on the right side and affecting certain roots of the cauda equina high up. There was one symptom, however, which definitely indicated that the spinal cord was also involved from pressure, and not only aided in the diagnosis of the side of the tumour, although this was clear enough from the predominance of sensory and motor troubles in the right leg, but also of the main position of the tumour as above the origin of the first sacral root and below that of the third lumbar, and that was the persistent and very marked ankle clonus on the right side in presence of an active right knee-jerk. The slower recovery in the right leg is due to the more severe damage to the roots on this side, which must take a considerable time to recover, though it is to be anticipated that she will regain the use of this leg in from eight to twelve months from operation.

CLASSIFICATION OF TUMOURS OF THE PITUITARY BODY.

By GERHARDT v. BONIN.

(From the Laboratory, Royal College of Surgeons, England.)

When I was engaged in work upon a recent case of acromegaly[1] I was constantly met by a practical difficulty due to the absence of a generally accepted or standard nomenclature of pituitary tumours. It has therefore occurred to me that a useful purpose might be served by suggesting a new scheme of classification that would be easy of application and might recommend itself for general adoption, because it is based on the principle of histogenesis, and thus takes into consideration the physiology of the tumours; for epithelial tumours, even when malignant, lead to hyperpituitarism, whereas tumours developed from the stroma will destroy the glandular tissue and thus lead to hypopituitarism.

The following scheme differs in some important respects from that published by Roussy and Clunet,[2] and it is hoped that for the reason above explained it will afford a still better basis of classification.

I. *Heterotopic Tumours.*
   1. Tumours of the cranio-pharyngeal duct.
   2. Teratomata.

II. *Homoiotopic Tumours.*
   1. Epithelial tumours:
      (*a*) From anterior lobe — Chromophile, Chromophobe, Combined — Cubic cell adenoma. Round cell adenoma.
      (*b*) From pars intermedia — Carcinoma.
   2. Tumours developed from connective tissue:
      (*a*) From anterior lobe and pars intermedia — Fibroma. Sarcoma.
      (*b*) From posterior lobe ... ... — Glioma.
   3. Mixed tumours ... ... — Fibro-adenoma.

I. The group of heterotopic tumours comprises those which develop from a tissue normally not present in the pituitary.

1. Tumours of the cranio-pharyngeal duct were first recognized as such by Erdheim[3] eight years ago. They arise from *Anlagen* of the epithelium of the duct which are frequently met with in normal pituitaries and which have been developed from the ectoderm of the buccal cavity. They consist of squamous epithelium, often containing *Schichtungskugeln*. They occur in the infundibulum or in the pars anterior of the hypophysis and are either benign or malignant. Erdheim collected a number of cases from the published literature which were described under different names, some of them as adenomas, but which really belonged to the category of tumours of the cranio-pharyngeal duct.

2. Teratomata in the pituitary are rare, but great importance has been attached to them by some authors, especially by Marburg.[4]

II. Homoiotopic tumours arise from a tissue normally present in the gland.

1 (*a*) According to Courtellemont[5] the following features are characteristic of the epithelial tumours of the anterior lobe:

1. A tendency towards the development of a single cellular type.
2. Rarefaction or entire disappearance of interlobular connective tissue.
3. Diminished disposition of the cells to arrange themselves in acini.

The first characteristic holds good for most pituitary tumours, although it is to be remembered that some cases have been described in which both kinds of cells were present in the new growth.

Three types of glandular tumours can be distinguished: Chromophile, chromophobe, and combined; each type may deviate more or less from the normal structure of the gland—that is, it may be more or less degenerated. Adenomas with cubical cells approximate most closely to the original glandular structure, so closely, indeed, that some authors designate them as struma of the hypophysis. The cells are still arranged in acini, which, however, are larger and more irregularly disposed, and contain less connective tissue than is the case in the normal gland.

If these tumours begin to degenerate the glandular structure is almost completely lost, and the cells are grouped round the blood vessels, which are mostly sinusoidal capillaries. The specific cells are slightly smaller than the cells of the adenoma. At the same time they assume a round shape. Hence these tumours are described in the scheme as round cell adenomas. Clinically these tumours should be regarded as benignant. Malignant tumours seem to have the same histological appearance; they can only be distinguished by their behaviour in forming metastases. The germs from which such metastatic tumours arise are carried not only by the blood stream, but also by the cerebro-spinal fluid. Malignant tumours of the pituitary are, however, extremely rare. If the histological examination of an extirpated tumour reveals a tumour possessing the features just described, it will in the vast majority of cases be a round cell adenoma, which permits a good prognosis.*

(*b*) Tumours of the pars intermedia appear to be rare. Those tumours described as glandular tumours of the posterior lobe seem really to have developed from the pars intermedia, the cells of which normally show a tendency to proliferate into the pars nervosa.

2. The tumours developed from connective tissues in the pituitary exhibit the same feature as those formed in other parts of the body.

3. The term "fibro-adenoma" is proposed for the mixed tumours first described by Zak,[7] in which the stroma, instead of being rarefied, has undergone considerable increase. These tumours are said to be a sign of diminished glandular function; they have never been found to be associated with acromegaly, but only with degeneratio adiposo-genitalis.

REFERENCES.

[1] *Quart. Journ. of Med.*, vol. vi, p. 125, 1913. [2] Roussy and Clunet, *Revue neurologique*, 1911, vol. xix, p. 313. [3] Erdheim, *Sitzungsbericht*, K. Akad. d. Wissensch., Wien., Bd. 113, Abt. 3, 1904. [4] Marburg, *Wien. klin. Woch.*, 1907, p. 2514. [5] Courtellemont, *Revue neurologique*, 1911. [6] v. Eiselsberg, *Arch. f. klin. Chir.*, Bd. 100, 1908, p. 1. [7] Zak, *Wien. klin. Rund.*, 1904.

* These "round cell adenomas" are often very similar to sarcomas, so that the differential diagnosis can be extremely difficult. Sarcomas, however, are very rare; most sarcomas of the literature are really adenomas. Von Eiselsberg[6] has recently published his cases of pituitary tumours; in his paper will be found some instructive illustrations of the histological appearance of these tumours.

THE estate of the late Dr. Henry William Cross of Whitley has been declared at a net value of £17,993. Dr. Cross, who became M.D.Durh. in 1886, was formerly in practice at Newcastle.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

WESTMINSTER HOSPITAL.

A CASE OF CAESAREAN SECTION UNDER SPINAL ANAESTHESIA.

(Reported by KAYE F. RASHELL DAVISON, Resident Obstetric Officer.)

THE patient in the following case—a primipara, aged 26—was admitted to the medical wards on December 27th, 1912.

She had had two attacks of rheumatic fever—the first at 10 years of age, the second five years later—and had developed valvular lesions of the heart—namely, double mitral and double aortic. The heart was much enlarged, and she was slightly cyanosed and dyspnoeic, but there was no oedema of the legs or elsewhere.

In view of the condition of her heart and the fact that she was eight and a half months pregnant (last menses May 16th, 1912), and a primipara, Dr. Purves Stewart, in whose ward she was, advised her to avoid the strain of labour by undergoing the operation of Caesarean section after the administration of a spinal anaesthetic. To this she consented, and the operation was performed on February 8th, 1913, by Dr. Drummond Robinson. He was assisted by Dr. Stanley Dodd, while the spinal anaesthetic was administered by Dr. Purves Stewart himself. Three-quarters of an hour before he introduced the anaesthetic the contents of one capsule of omnopon-scopolamine were injected subcutaneously. The spinal injection consisted of a solution containing 10 cg. of stovaine and 0.0075 mg. of strychnine hydrochloride. It was introduced between the twelfth dorsal and first lumbar vertebrae. For the next ten minutes the patient remained lying in the supine position, and was then found to have total anaesthesia and analgesia below a horizontal line drawn 2 in. beneath the nipples; the operation was then commenced.

Operation.

A median vertical incision, only 5 in. in length, was made below the umbilicus through the linea alba, and the peritoneum opened. The whole of the anterior wall of the uterus was then visible, after retracting the upper angle of the incision, and this was made especially easy by the completely relaxed condition of the abdominal wall. A median vertical incision about 5 in. in length was made through the anterior uterine wall, and the placenta was then found to be attached to this wall; it was therefore separated digitally and the child delivered by its legs. After delivering the placenta and membranes, the cervix was dilated from above by passing the hand into the uterine cavity. At this point 20 minims of liquor ergotin were injected hypodermically. The uterus, after the application of hot towels, retracted well, and was then closed by a double row of silk sutures. The patient was then sterilized by the excision of the interstitial portion of each Fallopian tube. At this stage the pulse became irregular and weak, and a hypodermic injection of 5 minims of liq. strych. hydochlor. was administered with the desired effect. The abdominal wound was then closed in its several layers. Throughout the operation there was only slight haemorrhage.

The child, a male weighing 6½ lb., was fully formed and well developed. There was no respiratory embarrassment.

Remarks.

The patient behaved admirably throughout. For a few seconds only after the injection of stovaine she complained of subjective sensations of "pins and needles" in her feet and legs, which were attributed by Dr. Stewart to transient stimulation of the nerve roots. After this she felt absolutely nothing during the operation, and conversed freely with the persons present. She felt thirsty, and was given small quantities of water to drink.

The operation lasted thirty minutes, and two hours after the time at which the spinal injection had been given the patient was able to move her legs; sensation and complete motor power then rapidly returned. She has since made a complete recovery; the wound is perfectly healed, her heart is beating regularly at almost a normal rate, she is on a full diet, and she is able to nurse her baby.

Note by Dr. Drummond Robinson.

In this case I was struck by (1) the extreme relaxation of the abdominal wall, which allowed the uterus to be dealt with through a small incision; (2) the excellent general condition at the end of the operation.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

RESUMED DEBATE ON ALIMENTARY TOXAEMIA.

April 21st and 28th, 1913.

Sir FRANCIS CHAMPNEYS, President, in the Chair.

Nature of Adhesions: Short Circuiting.

MR. P. LOCKHART MUMMERY remarked that even a small delay in the passage of intestinal contents caused symptoms of toxaemia, and in long-standing cases the liver became so damaged that it allowed poisons to pass through into the blood. Mr. Lane, he thought, attributed too much to the action of gravity. The lesions found were seldom inflammatory, but mostly owed their origin to chronic constipation and overloading of the bowel in early life. He did not think Mr. Lane's theory was correct with regard to the formation of adhesions. They were often not adhesions, but folds of normal peritoneum. They were not mere thickenings in the normal peritoneum but double folds of its membrane. Apart from this, Mr. Lane seemed to disprove his own case by admitting that these bands were found in young children, in whom the forces to which he attributed their origin had not begun to act. The symptoms due to the presence of poisonous material in the alimentary canal could be remedied in three ways: (1) By preventing the formation of poisonous material in the tract; (2) by preventing its absorption; (3) by removing that portion of the tract in which the toxin was formed. The first of these could often be carried out by alterations of diet. The second result could only be secured by preventing the material remaining in the tract long enough to form a toxin. But the occurrence of stasis was not necessary for the production of toxaemia. Conversely, there were many instances of severe stasis in which no toxaemia occurred; this was best seen in congenital dilatation of the colon, where the patient's bowels acted only a few times a year. Yet he had not seen one such case which suffered from toxaemia. Sometimes stasis could be remedied by washing out through an appendicostomy opening, or by short-circuiting the large bowel. Some of the most important conditions were those associated with joint lesions. Some cases of crippling arthritis were due to poisons formed in the large bowel, and in such cases lipping of cartilages and a tendency for the destruction of the joint might be observed. By early operation in these cases it seemed that the joint condition could be prevented. The operation chosen should depend on the cause of the stasis in the particular case, and every effort should be made to arrive at a correct diagnosis. He had found the sigmoidoscope of the utmost value in diagnosis, and much information was also obtained by giving a bismuth meal and taking an *x*-ray picture. Examination of the stools was often misleading, and was seldom of much value. Short circuiting should be reserved for cases in which appendicostomy failed to give relief. His objection to a short-circuiting operation was that it left the large bowel blind at one end. He had never seen a case in which he considered colectomy justifiable, except where the patient was so ill as to negative that operation. His experience of short-circuiting had been disappointing, as in several cases it had failed to produce complete cure. He had noticed acetonuria more often in cases of the nature now under discussion than in those where alimentary toxaemia was not present. He had had three such cases during the last year, and one of them was fatal. It was advisable to administer dextrose in all such cases before operation. The after-treatment he regarded as of great importance. Care was required during convalescence, especially as the patients were usually neurasthenic and had lost confidence in themselves. Attention should be devoted to them for three months, or even longer if their normal health was not re-established. Sometimes great benefit followed cutting off nitrogenous food for a time.

Anatomical Consequences of the Erect Posture.

Professo ARTHUR KEITH dealt first with the formation of peritoneal adhesions, a matter which, he said, was

receiving a great deal of attention from anatomists; it brought under consideration one of the most striking of all the developmental changes seen during the growth of the fetus. Man came of a stock in which the mesentery and bowel were originally arranged in a primitive and simple manner, for in the second month of development the human intestine and its mesentery had the lineal arrangement seen in the lowest mammals. During the third, fourth, and fifth months of fetal life a profuse adhesive process set in—a regulated embryological peritonitis—which led to the cohesion of mesenteries and viscera to the posterior wall of the abdomen, an adaptation, as was supposed, to the upright posture, for it was only in upright forms that these adhesive changes took place. After the fifth month the process of adhesion proceeded more slowly, and was completed about the time a child learnt to walk. The extent of the process was extremely variable, as might readily be seen by consulting recent papers by Dr. Douglas Reid, the monograph by Drs. Henry M. W. Gray and W. Anderson, or the fine treatise on the appendix by Kelly and Hurdon. In about one newly-born child out of every ten the process of adhesion bound the mesentery of the lower part of the ileum to the pelvic fossa, giving the condition associated with ileal kinking. The extent to which adhesions were produced between the caecum and ascending colon varied, but a condition which gave rise to a "Jacksonian membrane" was not rare; wide adhesions at the region of the hepatic and splenic flexures were always present. All these adhesions were parts of a normal embryological and useful process, but all peritoneal adhesions in the ileo-caecal region were not embryological and normal. Occasionally there was in adult bodies a degree of adhesion never seen in the child at birth, and anatomists recognized that some of the adhesions were the result of pathological processes. The majority of the adhesions, often regarded as pathological, were in reality mere expressions of a normal and healthy fetal process. Anatomists had recognized that ptosis, or dropping of the viscera, was frequently to be observed before they became aware that Glenard had scheduled visceroptosis as a distinct pathological entity, and long before the clinicians were convinced of the frequency and the importance of the condition. The discovery of Roentgen placed a new means of inquiry in the hands of anatomists. A study of the living diaphragm convinced anatomists that the essential feature of the abdominal viscera was not their fixity but their mobility; they were so attached that they could move freely with the respiratory tide. It became apparent that mesenteries and visceral ligaments only came into action when the limits of normal movement were reached; the musculature of the abdominal wall was the essential mechanism for supporting the viscera. The pathology of visceroptosis was therefore to be sought in a better understanding of the nerve relationships between the viscera and their supporting walls. The researches of Sherrington, Hill, Mackenzie, Elliott, and many others showed how closely the tone and contraction of the abdominal parietes were related to the posture of the body and to the condition of the viscera. The problem of how the tone and contraction of the musculature of the body wall and of the alimentary canal are co-ordinated had not yet been solved, but the evidence led to the suspicion that they were regulated by a common nerve mechanism and that this mechanism could be acted on and deranged by pathological products generated in the intestine, so that visceroptosis was one of the manifestations of alimentary toxaemia. The essential question in the discussion was, What is the functional value of the human great intestine? At the beginning of the present century a sharp divergence of opinion set in. In the years 1902 and 1903 three men—an anatomist (Barclay Smith), a bacteriologist (Metchnikoff), and a surgeon (Arbuthnot Lane)—came independently and by a different train of reasoning to the same conclusion, which was that, so far as man is concerned, the great intestine is not only a useless but a pernicious structure. It was a very significant fact that in Paris, London, and Berlin, the position of the great intestine should have forced itself on the attention of thoughtful medical men at the same date. To anatomists, who knew that the great intestine was an intrinsic part of every air-breathing vertebrate, that it reached a high degree of development and specialization in every mammal that included a vegetable element in its diet, that in all the animals immediately allied to man—his contemporaries and his very ancient predecessors—the great intestine was shaped, arranged, and developed as in him, the conclusion that the human great bowel was a useless structure seemed a flat contradiction of every law applicable to the animal body. What suggested itself was, not that the organization of the great intestine had failed, but that the modern dietary set it a task for which it was not adapted. Examination of the evidence on which the useless and pernicious nature of the great bowel was based was twofold. The great bowel could be excised and health maintained, which proved that it was not an essential structure. If diseased, excision might lead to improved health, which proved that to have no colon was better than having a diseased colon. What must be proved, however, before the colon could be regarded as a useless structure was that a man without a colon was in a better state than the man with a healthy colon. Knowledge of the function of the great bowel in the economy of the animal body was vague. Remembering the history of the progress of medicine, it would be rash to presume that, because the use of the colon was not known, it had no function, and was a useless structure. Every year saw some structural part formerly placed with the useless or vestigial structures removed from that list. Only a few years ago, Pavlow and Starling demonstrated the elaborate mechanism which controls the exit of the contents from the stomach to the duodenum. By their investigations Professor Keith had been led to look for a similar mechanism at the junction of the ileum and colon. Elliott had demonstrated that such a mechanism existed at the time he was carrying out research on the movements of the great intestine. Professor Keith felt certain that Dr. Hertz was right in attributing the effects (which Mr. Arbuthnot Lane ascribed to a kinking at the terminal part of the ileum) to a derangement of the ileo-caecal sphincteric mechanism. Every step forwards in knowledge cut the ground from under those who took a purely mechanical view of the action of the great intestine. He felt justified by the evidence he had accumulated lately in supposing that the mechanism for regulating the passage of food from the ileum to the caecum of man was more elaborate than had been supposed. Besides the muscular fibres situated directly at the ileo-caecal orifice and evidently designed to secure that orifice against reflux from the caecum, there was another for regulating, as Dr. Hertz suggested, the passage of the contents of the ileum to the caecum. The musculature of the terminal part of the ileum for an extent of nearly 4 in. (roughly 10 cm.) above the ileo-caecal junction was endowed with a special tonic function, and served as a sphincter for the terminal part of the ileum. Every diseased colon removed by operation should be systematically and minutely investigated. Professor J. W. Smith, of Manchester, had recently had results affording him an opportunity of examining a very complete specimen removed by operation. There was mucous colitis throughout the whole of that part of the great intestine which was excised, with abundance of intestinal sand scattered along the lumen. A typical ileal kink was present 4 in. above the ileo-caecal orifice. The musculature of that part of the ileum was strongly contracted. The terminal 4 in. of ileum was bound down to the pelvic fossa by a peritoneal adhesion exactly similar to that seen in a proportion of normal newly-born children. There was nothing in the nature of the iliac adhesion to suggest that it differed in origin and nature from the natural bond seen so often in children.

Chronic Intestinal Stasis.

Mr. GEORGE ROWELL said that no one who had seen Dr. C. Mayo's photographs of the ileal kink would doubt the existence of the characteristic band; he had seen it demonstrated to the onlookers at operations scores of times in the most unmistakable manner and had seen also the fastened up appendix, crossing and obstructing the end of the ileum, similarly demonstrated on numerous occasions. Whether the new structures causing these two forms of abnormality were of inflammatory origin or not did not affect reference

to the results produced. In both cases there was a fixed point, and it was obvious that the sagging of the bowel in the vertical position of the trunk must in each case cause some obstruction. Long lengths of intestine were frequently drawn up out of the pelvis in these operations, of which the only fixed attachment was this point, and cases exhibiting these structures displayed in a definite manner the symptoms described by Mr. Lane as those of chronic intestinal stasis. He had seen the bands developed in connexion with the duodenum and the sigmoid demonstrated many times in the clearest possible manner, and had constantly seen the duodenum dilated, sometimes very dilated, in these cases. In operations undertaken for duodenal ulcer he had several times seen ileal obstruction found. The adhesions described at the splenic and hepatic flexures and those supporting the stomach were also quite familiar to onlookers at Mr. Lane's operations. Most of the operations for the relief of chronic intestinal stasis at which he had been present during the last few years had previously been examined by the *x* rays and reported upon by Dr. Jordan. Nearly always the report had predicted accurately the condition found. The precision with which, when assisted by the *x* rays, the exact causation and degree of stasis could be diagnosed before operation was indeed most striking. The *x* rays sometimes showed less than was found at operation; a kink was occasionally missed, but he had never seen a dilated duodenum diagnosed by the use of the *x* rays that could not be demonstrated at the operation. In patients in whom pain had persisted after the appendix had been removed he had seen the ileal band divided and immediate relief result, although it was realized that the relief might not be permanent without a short-circuiting. It was no doubt difficult to understand how, as was claimed, the general effects of chronic intestinal stasis could include the impairment of every tissue. For example, if it were true that a connexion existed with thyroid enlargement, it followed that the relief of stasis ought to diminish the size of the thyroid. In addition to the case related in Mr. Lane's introduction, Mr. Rowell had on two occasions seen an enlarged thyroid diminish very rapidly after short-circuiting. Dr. Hale White had adduced a case of exophthalmic goitre which disappeared during an attack of typhoid. The rest in bed, the milk diet, and the diarrhoea during the illness obviously must have kept the patient without stasis for some weeks, so that instead of affording an argument against the theory that exophthalmic goitre was associated with chronic intestinal stasis, the case would seem to be in perfect accord with that belief. The cure of duodenal ulcer by rest in bed had a similar significance. Symptoms of long-standing chronic intestinal stasis were often demonstrated in cases of cancer of the breast, and repeatedly in cases of cancer of the bowel. In disease of the gall bladder and of the pancreas the ileal kink was clearly shown. In pyorrhoea, a condition held by Mr. Lane to be a result of chronic intestinal stasis though probably he would not deny the possibility of direct infection, as for example from pet dogs, complete cure might follow the use of vaccines or scrupulous local treatment, but in many cases the cure was much aided by paraffin internally.

Bacteriology.

Dr. LANGDON BROWN said that toxaemia only resulted when either (1) abnormal intestinal flora became established which produced specific toxic substances, or (2) the normal flora acquired an abnormal habitat. He had a young man now under care in whom the rhinitis with offensive crusts from which he suffered was due to *B. coli*. The reason for the comparative failure of the phenol compounds as intestinal antiseptics was that by combining with the sulphates they deprived the body of the power of rendering harmless those putrefactive substances the formation of which they could not altogether prevent. Sulphates in the treatment of intestinal diseases had not only an aperient but also an antitoxic action. Mr. Mackenzie Wallis had recently pointed out how unstable a substance indican was, making it necessary to examine for it as soon as the urine was passed. The association of paroxysmal haematoporphyrinuria with an intestinal toxaemia was practically certain. The simple chemical poisons of the body did not stimulate the production of antibodies; they were neutralized by substances normally present. When pyorrhoea, which played an important part in the production of atonic dilatation of the stomach, was cured the rapidity with which the stomach might regain its tone was remarkable.

Mr. PETER DANIEL thought that in seeking for the cause of a toxaemic state intrauterine conditions were too frequently overlooked. And a toxic upbringing of the fetus was likewise very important. He did not agree that visceroptosis was the result of civilization, or that the erect posture was the cause of intestinal stasis. Intestinal toxaemia was due not to stasis but to the presence of harmful microbes. He dwelt on the importance of pyorrhoea and gingivitis.

Mr. K. W. GOADBY, in a careful consideration of the subject from the bacteriological point of view, reported that in a series of 150 consecutive and unselected cases of suppuration of the alveolar process of the jaws, 24 per cent. had no general symptoms, notwithstanding the constant swallowing of pus for at least two years; 42 per cent. had gastro-intestinal affection, 56 per cent. had rheumatic and joint symptoms. In none of the 150 cases was gastritis an acute symptom. The main symptoms pointed to affection of the large bowel. The essential pathological change in pyorrhoea alveolaris was rarefying osteitis of the alveolar process, as well as of the body of the bone; hence the drastic removal of teeth advocated by dentists did not always get at the root of the matter. The treatment should be both local and general.

Results of Operation.

Mr. EDRED CORNER said that a certain amount of alimentary toxaemia was physiological and natural. Certain patients who had had colectomy or short-circuiting done, with or without appendicostomy, had been greatly improved, and he did not think the improvement could have been attained in any other way. Patients who had found life a burden for ten years had, after that operation, become rejuvenated to a remarkable degree. But as some cases so treated did not show that improvement, the point was to choose the right sort of case. The procedure was to make the alimentary tract only one of a number of excretory systems; the skin, kidneys, and lungs were others, and where the operation failed it was probably because one of the other systems was at fault. The terms "alimentary stasis" and "alimentary toxaemia" should not be used more or less synonymously. Some people with intestinal stasis yet enjoyed good health.

Mr. C. H. FAGGE was a strong supporter of the views of Mr. Arbuthnot Lane, because he had had the opportunity of observing his work. In nearly every case of his own he had received definite and reliable evidence from the skiagrams taken and interpreted by Dr. Jordan. He noted with satisfaction the shifting of view of a large number in the profession from harsh antagonism and denial of the occurrence of these bands to criticism of method of their production, and to objection to Mr. Lane's view that any symptoms could occur therefrom. He dealt in detail with the operative aspect, expressing the view that caeco-plication was not sound.

Mr. CARSON said there were two conditions the cure of which almost depended upon the correction of intestinal toxaemia—these were parenchymatous goitre, to which Major McCarrison had drawn attention, and chronic or subacute mastitis. Delay in the passage of intestinal contents caused increased bacterial activity and absorption of toxins. First, constipation occurred, the amount of contents maintained in the erect posture for sixteen hours a day produced a great strain on the caecum and ascending colon, causing sometimes prolapse of the caecum. Nature's effort to overcome this led to the formation of bands, passing from the parietal peritoneum on the outer side of the ascending colon, downwards and inwards, to be attached to the colon on its anterior surface. A similar band was often seen at the beginning of the sigmoid flexure. These bands he regarded as protective in the first instance, and not inflammatory. The kind of operation done must depend on the condition found on opening the abdomen. Whatever operation was chosen, medical treatment should be continued for at least six months.

Mr. E. C. HUGHES dealt with the question of the origin of the bands, and expressed his agreement with Mr. Lane's views. The band in connexion with the small intestine

was responsible for the ileal kink. The upright attitude was followed by important changes in the position of the appendix, and in adults it was his experience to meet with an appendix abnormally situated more often than not. He had seen cases of Still's disease and of rheumatoid arthritis in which the relief from operation had been marvellous.

Oral Sepsis and Pernicious Anaemia.

Dr. WILLIAM HUNTER, after observing that alimentary processes began in the mouth, were continued in the stomach and intestine, extended to the portal blood, and might be said to end in the liver, said that of toxaemic blood conditions commonly met with the most mysterious and severe was associated with oral sepsis; he had been led to look from disturbances of the stomach and intestines back to infective lesions in the mucosa, which were an invariable accompaniment. He showed, by means of the epidiascope, specimens of disease in various viscera, as well as a most instructive set of crowns and plates of teeth used in conservative dentistry which proved to be prolific culture-beds for bacteria. The portal blood was always toxic, even in health; the causes might be classified as: (1) non-infective; (2) infective. The first embraced the various products of digestion formed by the ferments of the salivary, gastric, pancreatic, and intestinal digestion. The second were those caused by the *coli* group of organisms. Nature's provision against harm produced by the latter was, first, the daily removal of the mass of excrement, and secondly, the provision of protective mucus lining the whole gastro-intestinal tract, and of protective muscular movements which kept the gastro-intestinal contents in more or less continuous movement. Dr. Hunter discussed the uses of the other flora of the intestine, especially the lactic acid group, which were the most beneficent and least harmful. The streptococcal group played an important part in disease, especially in diarrhoea, congestion, inflammation, and ulceration. Pernicious anaemia was due to the haemolytic infective organism. Oral sepsis was a double-handled weapon of offence in relation to the blood, and the effect of removal of the offending mouth trouble on the general health was like magic.

Selection of Cases for Operation.

Sir BERTRAND DAWSON said that although the terms "alimentary toxaemia" and "intestinal stasis" were open to criticism, they conveyed a definite clinical picture—the sallow, dirty complexion, the inelastic skin, the dusky lips and nails, the dirty tongue, evil-smelling breath, constant abdominal discomfort of one kind and another, the doughy inelastic abdomen, cold extremities, the physical and mental depression. That such a condition could be produced by colon block and stasis was clear, and that, when thus produced, it was curable by putting the colon out of action by short-circuiting was demonstrable. He thought, however, that Mr. Lane gave too great prominence to motor defects. Mechanical delay was not a necessary condition of alimentary toxaemia. It might equally be caused by chronic infection of the gums, stomach, or appendix. Some of the most marked cases of alimentary toxaemia he had seen had been associated with diarrhoea and an empty colon. Bad cases of stasis were benefited by operation, not only because short-circuiting removed the obstruction, but because the colon was diseased and had become an active influence for evil. The key to the condition might often be found in its early chapters. The sequence in time might be in one case infection-stasis, and in another stasis-infection. If an infection, it might begin in the gums, tonsil, or stomach, and finally manifest itself in the appendix or colon; or the order of the infection might be reversed. Acute infection of the stomach had been long recognized; but it was equally true that chronic infection, usually by a streptococcus, was a definite and fairly common cause of gastric disturbance. Sometimes such chronic infection existed alone; at other times in association with, say, disease of the appendix or colon. A study of appendix operations brought out well the infective and motor aspects of gastro-intestinal toxaemia. In one group of cases the appendix was not the seat of inflammation, but the caecum was distended and toneless, perhaps tied down in the pelvis, and the ileum might be kinked. The prime cause of the trouble in such cases was mechanical; the small intestine could not empty, and toxaemia ensued. The efficient treatment was to cure the stasis; removal of the appendix alone was futile. In such a case the first event was motor failure of the colon; the later stages were infective or toxic, and might extend to the stomach or mouth. In another group a chronically inflamed appendix, containing muco-pus, was found, and as the result of its removal the patient was cured of colitis or gastritis, the tongue cleaned, the breath ceased to smell, and he became well. Here the prime cause was infective. If the appendix focus were not removed, the colitis might progress, and what had begun as an infection in the colon might pass on to motor failure, and everything which Mr. Lane described as intestinal stasis ensue. Colitis comprised conditions which were widely different. In one case the passing of mucus, and it might be of blood, went with obstruction of the colon, and, if the conditions were severe, the only cure would be to graft the ileum into the sigmoid. In another case colitis might be associated with an infection of the appendix, or was the final expression of an infective attack taking its origin in the throat, stomach, or upper intestine. It was not uncommon for a patient who passed mucus in the stools to have acute attacks, which commenced it might be with sore throat or gastric discomfort, and then passed in a few hours to pain in the colon and the passage of much mucus. All cases should be systematically investigated, both from the infective and the motor standpoint. It would not be sound reasoning to put down vague symptoms to intestinal stasis merely because there was objective evidence of colonic block. With some people a loaded colon was not incompatible with health. After the existence of toxaemia had been established, careful investigation was needed to show whether the prime cause was infective or obstructive. If obstructive, careful examination of the anus and rectum should be made. In many cases the obstruction of the colon was due to fibrotic sphincter ani; in other cases the simple operation of appendicostomy sufficed. In a large proportion of cases, however, systematic medical treatment, carried out with persistency, was followed by success. Such treatment comprised suitable diet, hydrotherapy, massage, exercises, petroleum oil, carefully regulated lavage, and other measures. The success of such treatment depended on careful regulation of every detail carried out in an institution, and no class of disease emphasized more the need of sanatorium treatment. The reason why the treatment of gastro-intestinal disease was sometimes more successful on the Continent than in England was that the treatment was more methodical and carried out in institutions which in this country were lacking. Finally, there remained cases in which the colon was hopelessly diseased, powerless to perform its functions, and in some way an active influence for evil; in these suitable cases, and by suitable hands, ileo-sigmoidostomy gave truly wonderful results, and was a great advance in treatment.

Chemical Problems.

Dr. MELLANBY confined his attention to the purely chemical aspect of the subject, laying special emphasis on the amines and the proteolytic ferments. A great impetus to the study from the physiological point of view of the process of intestinal absorption had been given by Starling, Bayliss, and Cow.

Electricity.

Dr. ETTIE SAYER spoke of the value of high-frequency currents in promoting excretion and reducing blood pressure. It was important to remember the heating effect of such currents on their passage through the body. She had encountered a number of cases of constipation and toxaemia which yielded to the high-frequency current when other measures had failed. Galvanic currents caused no muscular contraction except when switched on and off; their tension was too low to have any appreciable heating effect, but their ionizing action was a most useful stimulant of excretion. Where systemic toxaemia preponderated over the local symptoms, a combination of high-frequency current and massage was excellent. For local patches of fibromyositis, ionization with lithium iodide gave great relief, and the electrical treatment acted

as a nerve sedative. Much care, however, was needed where there was any failure of ventricular compensation.

Dental Conditions.

Dr. SIM WALLACE laid great stress on the lodgement and proliferation of micro-organisms, and defective elimination or control of the toxins generated. Among the physiological processes which kept the mouth in a hygienic state, and prevented the ever-present bacteria from stagnating and so causing toxaemic effects, the action of tongue and teeth was most important; the former not only moved the bolus of food about, but subsequently cleaned the teeth and gums. No food residue should be permitted in the mouth after a meal. The coating of mucus over the teeth prevented harm to them from acid foods. Superseptic states, together with recession of the gum and extensive absorption of the alveolar process, could occur without the occurrence of pyorrhoea alveolaris. Tender teeth and gums should at once be put right, because function in their neighbourhood was inhibited, and inefficient action resulted. There was great harm in the retention of functionless superseptic teeth. He concluded by insisting on a very careful and systematic mouth ritual.

Cardiac Complications.

Dr. BEZLY THORNE recalled a paper he had read seventeen years ago on self-poisoning and heart disease. Therein he pointed out that many of the affections of the circulatory mechanism were associated with some catarrhal condition of the alimentary canal, especially the gastro-duodenal portion; and that coincidentally it was common to find evidences of rheumatoid arthritis. He, however, fully recognized the gravity of sepsis originating in the mouth, nares, and accessory cavities. Normal formed faecal matter could be retained several days with no result beyond discomfort. Fluid stools were due to interference with the bio-chemistry of digestion. Drab or yellowish stools, especially if fluid, were always toxic. Without a sufficient supply of the biliary and pancreatic juices the door was opened to morbific bacterial activity. The person with frequent watery stools was undergoing rectal feeding on his excremental poisons. This was accompanied by a rise of blood pressure, and conduced to a degenerative change in the myocardium, and especially of the tunica media of the arteries. It favoured also the production of fibrositis. He concluded by quoting illustrative cases in his own experience.

Other Complications.

Dr. ADAMSON said that the eruptions caused by various drugs, and by special foods such as shellfish, tinned meats, and certain poisons, were generally regarded as phenomena of anaphylaxis, or a hypersensitiveness to foreign proteids. That explained why a person who had once had such a poisoning remained hypersensitive to the food which caused it. Abdominal symptoms associated with erythema multiforme were probably due to the occurrence of the same lesions in the mucous membrane of the intestinal canal.

Dr. R. MURRAY LESLIE considered that in some cases the symptoms of alimentary toxaemia were aggravated by defective functional action of the liver, as shown by a patient of his own in whom indican and skatol, as well as urobilin, were found in the urine. More than one speaker had said that there was no necessary relation between the amount of stasis and the degree of toxaemia; there were marked idiosyncratic differences. Shortly before death, when the vital forces were at a very low ebb, the *B. coli*, streptococci, and other bacteria passed readily through the intestinal mucous membrane and so into the circulation, while their toxins, not being neutralized, accumulated in the circulating blood. The thyroid and other ductless glands played an important part in the vital resistance, and he believed the internal secretions of the genital glands also had an effect in counteracting the effects of alimentary toxaemia.

Mr. LEWIN PAYNE believed pyorrhoea alveolaris to be a curable disease, and that the number of cases cured without resorting to extraction was increasing. In advanced cases extraction was necessary, but carbohydrate dyspepsia was aggravated by removal of the teeth. A combination of local treatment with the use of vaccines he had found of great benefit.

Dr. ACKERLEY approached the problem from the point of view of the spa physician, and pointed out that absolute control over only one part of the alimentary tract—namely, the mouth—could be obtained. He deplored the lack of teaching on the importance of complete insalivation of the food, especially to children; and he related how, by means of taking milk in various ways, he had demonstrated to his own satisfaction the importance of proper admixture of saliva with the food, which was best brought about by a sucking action. He also alluded to the harm done by merely swallowing pappy foods and the modern methods of preparation of foods which called for a minimum of masticatory effort.

Mr. S. F. ST. J. STEADMAN did not agree with Mr. Lane that pyorrhoea alveolaris was secondary to intestinal stasis. The work of Mr. J. F. Colyer and Mr. J. G. Turner showed that the chief factors causing disease of the tract were the lodgement and subsequent decomposition of the sticky carbohydrate food. He was in close agreement with Mr. Goadby's contentions, but he could not satisfy himself, as the result of a good deal of observation, that vaccines had any permanent benefit on the disease.

The discussion will be continued on Monday, May 5th.

SECTION OF MEDICINE.

AT a meeting on April 22nd, Dr. FREDERICK TAYLOR, President, in the chair, Dr. H. LYON SMITH, in a paper on *Gout and chronic rheumatism*, pointed out that the infection was chronic and its nature must vary enormously; it was uncommon to find two cases presenting identical infections with identical symptoms. Probably the time was not far distant when the old clinical terms would be replaced by names which expressed more accurately the nature of the malady. He had not attempted to produce gout or chronic rheumatism by means of the organisms found in these cases. Fibrositis he regarded as inflammatory infiltration of the connective tissues. Bacteriological investigation showed that a closer relationship existed between gout and chronic rheumatism than clinicians usually thought. There were a number of lesions which served as foci of infection, such as pyorrhoea, chronic pharyngitis, post-nasal catarrh, bronchitis, gastro-intestinal catarrhs, urethritis, cystitis, pyelitis, vaginitis, and even some forms of dermatitis. Considerable divergence of opinion existed as to what constituted pyorrhoea alveolaris, some holding that it was not present unless pus could be extruded from between the teeth and the gums; but that was the advanced stage of the condition. Most of the cases of chronic rheumatism he had seen had a gum affection, and the infection of the joints was usually a mixed one. Frequent bacteriological examination of pathological exudates would often afford valuable clues to diagnosis and treatment. Dr. LUFF declared his belief that all cases of so-called rheumatoid arthritis were of infective origin, though not due to any one organism. So-called chronic rheumatism he regarded as fibrositis—that is, a hyperplasia of the white fibrous tissues in various parts of the body. There was no evidence that the causal microbes were in the joints, the affection of which was toxic, such toxin probably originating in the intestinal tract. Dr. MCWALTER (Dublin) commented on the lack of success in the treatment of the conditions under consideration, though the profession had been studying the problem for hundreds of years. The uric acid hypothesis seemed to mark an advance, but Dr. Luff had declared that to be a harmless by-product of metabolism. Dr. T. R. LISTER, in a paper on *Treatment of ambulant cases of pulmonary phthisis* by T.R. and bacillary emulsion in the out-patient room, said there were disadvantages in the treatment of patients in these circumstances, partly due to the difficulties of the patients and partly to the intermittent observation. The practice had been to take the mouth temperature on first awaking in the morning and one hour after tea. In the wards, with the patients under continuous observation, dosage could be spaced with more regard to positive and negative phases. There was even greater need for selection of cases for tuberculin treatment in the out-patient department than

for sanatorium treatment. Nutrition was, of course, an essential point. Many unfavourable results, he felt sure, were due to failure of nutrition. General physique had also to be taken into account, and the manner in which the organism withstood the infection. There must be a great number of cases of the disease which simply got well. A theory had been advanced that nine-tenths of the population recovered from infection by tubercle owing to the general infection and possible immunization consequent thereon. Each case must be decided by itself in regard to suitability for the treatment and prognosis. The adverse factors were poor physique, extreme poverty, bad family history, rapid pulse, and severe anaemia. Cases which had a primrose tint of the soft palate, with general anaemia of the buccal mucous membrane, generally did not do well. He usually began with 0.00001 to 0.00002 mg. of T.R.; this was experimental. Patients were instructed to carefully register their temperature during the first two or three days, and to report on their feelings. He usually injected on Friday afternoons, so that any reaction would be manifest on the Sunday and they would be able to rest. If there had been no evidence of undue susceptibility the dose was increased to 0.00004 to 0.00005 mg., subsequently mounting to 0.0001 mg. He protested strongly against the present indiscriminate use of tuberculin, especially as it was a toxin, not an antitoxin. He was not able to say when treatment should be discontinued. He had taken no out-patients up beyond 2 mg. of bacillary emulsion. The patient should come up at intervals of one or two months to repeat the dose. He described the technique he followed, and concluded by saying that his present attitude towards tuberculin in cases of ambulant phthisis was one of investigation rather than of conviction. Dr. McWALTER spoke of the results following the use of tuberculin in phthisis in a pessimistic tone; indeed, he regarded the treatment of tuberculosis as one of the most hopeless things in medicine. There was a danger of being misled by some of the tuberculin statistics which were put forward. He thought much of the supposed reduction in the death-rate of phthisis was due to the disease sharing in the benefits ensuing on the improved conditions of living. Dr. FENTON thought it difficult to assess the effect of a remedy when cases were selected, and he had treated with tuberculin all his cases in which tubercle bacilli were found in the sputum. The net result was to leave him in grave doubt as to what was the real value of tuberculin in the condition. In the case of out-patients much depended on the patients' home circumstances, and the kind and quantity of food they could get. Dr. BATTY SHAW recommended a study of the published records of the efforts to stamp out tuberculosis in cattle by means of tuberculin. He also emphasized the varying but definite tendency to get well, which made it a difficult matter to prognose about any patient. Dr. LISTER, in reply, pointed out that his attitude on the matter was one of inquiry rather than dogmatism. He felt, however, that some of his ambulant cases had done well under tuberculin.

SECTION OF BALNEOLOGY AND CLIMATOLOGY.

AT a meeting on April 17th, Dr. MOUILLOT, of Harrogate, in the chair, Dr. EDGECOMBE (Harrogate), in a paper on *The significance, treatment, and prognosis of high blood pressure*, expressed the view that there was a condition of functional or "neurotic" high blood pressure not due to arterio-sclerosis, and distinguishable from hyperpiesis. In the majority of such cases direct treatment was unnecessary, and might be harmful. The condition did not readily lead to arterio-sclerosis. The treatment of early cases of hyperpiesis was imperative, and usually satisfactory. Spa treatment gave the best results. Dr. A. MANTLE (Harrogate), in a paper entitled *The undesirability in confirmed cases of high blood pressure of actively applying therapeutic means to reduce it*, said that one of the unfortunate results of ability to determine a patient's blood pressure in millimetres of mercury was that the sight of the column near the top of the tube often led to immediate active treatment to reduce it at any cost. Consequently cases had been sent to him with a history of high blood pressure in which treatment had effected some reduction, but at the expense of the heart losing the compensatory hypertrophy necessary for the control of the circulation. The fact was that owing to the gradual increase of blood pressure each individual readjusted his cardiac vascular physiology to compensate this, and the physiological limit was not now 140 or 150 mm. Hg, but possibly 220 or 250 mm., and to reduce the pressure below this new physiological limit was not only not indicated, but bad therapy; he met with cases in which he had to give cardiac tonics to raise the pressure rather than adopt vaso-dilator treatment to reduce it. Some cases of high blood pressure due to disturbances of the alimentary canal in free livers—so-called "hyperpiesis"—might be cured if caught early before any fibrosis of the vessels took place. It was advisable to put the patient on a régime limiting the intake and assisting the natural outlets of waste products; it was only after some months of observation that one could say that a pressure was permanently supernormal. Dr. BUCKLEY (Buxton) reported a case in a woman of 38, whose systolic pressure had persisted between 240 and 270 mm. for the three years during which she had been under observation. Her most troublesome symptoms were neurotic, chiefly obsessions. Treatment had proved unavailing, even rest in bed for a prolonged period, but thyroid gland seemed to be of some benefit. Cardiac hypertrophy gradually developed, also albuminuria. He referred also to a case with a similar range of pressure in a woman of 55 with no symptoms definitely referable to this condition, but who had rapidly developed all the appearance of an old woman. Dr. BEZLY THORNE endorsed the views expressed by both Dr. Edgecombe and Dr. Mantle. In the course of 15 observations he had never known digitalis to raise blood pressure. On the other hand, he had found the solution of adrenalin, orally administered, to lower maximal readings, apparently by bringing the muscular tissue of the arteries into action and stimulating conductivity. He strongly advised making diastolic, in conjunction with maximal, records of pressure. Dr. ACKERLEY (Llandrindod Wells) could not regard high blood pressure as the cause of the symptoms associated with it. As regards food, he did not think red meat or any other form of nitrogenous food was necessarily dangerous. Few meals, moderate or small in quantity, avoidance of common salt, and free flushings with water apart from meals, were the essential dietetic rules. Starchy foods, imperfectly insalivated, were dangerous, as they fermented in the bowel. Dr. C. O. HAWTHORNE held that to present sphygmometric readings in terms of blood pressure was hardly justifiable, and agreed that a mere high reading was not a claim for active treatment. He doubted if any drugs had a sustained effect on high readings, and thought the action of nitrites short-lived. Dr. HUMPHRIS agreed with the prevailing sentiment, but protested against the suggestion that the treatment of a high blood pressure by high frequency was disappointing. If it were so it was either the choice of case or technique in fault. Too often the current used (d'Arsonval) was limited in amount to 250 to 300 milliampères, whereas it should be 1,000 milliampères and upwards. With this current the reading should be 10 per cent. lower at the end than at the beginning of the treatment.

MEDICO-LEGAL SOCIETY.

The Futility of the Coroner's Inquest.

AT a meeting on April 22nd, Dr. W. A. BREND, Barrister-at-Law, read a long paper on the futility of the coroner's inquest. He pointed out that the coroner, whose office dated from the twelfth century, was originally a revenue officer of the Crown, and his object in inquiring into a death was to ascertain whether there was property to seize for the Crown, which was the case if the deceased was an outlaw or felon. He had also to assess the value of the deodand, that is, the animal or inanimate object which had led to a death, and which was forfeited to the Crown. But these functions had disappeared, and nothing had been definitely substituted for them. Hence there was great lack of uniformity in the practice and procedure of coroners. Some only inquired into deaths under suspicious circumstances, others investigated deaths where the pathological cause was unknown, though free from suspicion. Some coroners considered they were bound to hold inquests upon all deaths under anaesthetics, others only if there were allegations of negligence. Some went fully into accident cases with the object of settling claims

for compensation, others considered this no part of their duty. One coroner would scarcely hold an inquest without calling medical evidence, another only required such testimony occasionally. The statistics showed remarkable variations between different localities, and pointed generally to the fact that a much larger proportion of inquests are held in towns than in country districts. This was not due to a greater incidence of violence, and meant either that unnecessary inquests were held in towns, or inquests were not held in the country when they should be held. Either explanation indicated an unsatisfactory state of affairs. From the legal point of view a coroner's verdict carried little weight. In criminal cases the courts were almost always guided by the magistrate's decision. If a person was committed for trial on a coroner's warrant, but the charge was dismissed by the magistrate, it was the practice not to offer evidence on the coroner's warrant. Two preliminary investigations before trial, in addition to the grand jury's inquiry, were superfluous. In such cases either the coroner or the magistrate alone should conduct the inquiry. In accident cases the verdict had no legal meaning. Insurance companies were not bound to accept it and often did not. If a claim for compensation was disputed, the whole of the evidence had to be heard over again in the county court or higher courts, and a different decision might be reached. Juries sometimes strained the evidence in order to find a verdict of accident, with the object of assisting a defendant to obtain compensation. This encouraged persons to undertake useless litigation. In cases of alleged suicide verdicts of natural death or accident were sometimes found in the face of clear evidence to the contrary. The publication of details of suicide had a strong suggestive effect upon weak-minded persons. The publication of letters left by suicides, which often contained unfounded charges against innocent persons, was demoralizing, inflicted great distress upon relatives, and served no good purpose. Coroners' juries were not competent to investigate deaths under anaesthetics, and the frequent accounts in the newspapers of inquests upon deaths from this cause raised public alarm and increased the risk of giving an anaesthetic. As regards sources of information open to coroners other than the police, registrars were not competent to revise medical certificates of death, and frequently failed to inform coroners of cases which should be investigated. The coroner's officer was unknown to the law. He might be quite inefficient and was sometimes amenable to bribery. Owing to the pain and publicity attaching to inquests, strong pressure was brought to bear upon practitioners to avoid them if possible, and in consequence they did not always report cases in which the cause of death was unknown if free from suspicion. According to the Registrar-General's returns, there were in 1910 in England and Wales 199 deaths from accident and negligence upon which no inquests were held, and 690 deaths which were neither certified nor reported to coroners. Coroners did not always fully appreciate medical evidence, and serious results sometimes followed. The procedure in some districts was very lax and irregular, and inquests were sometimes scandalously hurried. A coroner's inquest did not settle legal questions, and the scientific results were small. In the matter of reform two alternatives presented themselves. It could be decided that the inquiry was fundamentally for legal purposes, in which case legal weight and meaning should be given to the verdict. The coroner, then, should be a lawyer of high standing; legal procedure would be observed, he would be bound by the laws of evidence, and his court would rank as one of first instance. He alone would investigate charges of murder or manslaughter and would commit for trial. In cases of accident he would possess the powers of a county court judge, and his verdict would be legally binding until upset by a court of appeal. The other alternative was to regard the inquiry as held essentially for medical and scientific purposes. The coroner under this proposal would be a highly qualified medical man, and his primary function would be to determine the pathological cause of death, leaving all legal questions to be settled by other tribunals. In the case of accidents he would settle once for all whether the condition was due to disease or injury, but would not enter into questions of responsibility or compensation. On the other hand, he would investigate deaths from natural and unknown causes more fully than at present, but with simplified and semiprivate procedure. The jury would be abolished and only representatives of the deceased, of persons concerned, and of the police would have a right to be present. Medical men would then hesitate less to report cases. Of the two alternatives the latter was preferable, since the legal aspect was already largely covered by other tribunals. The absence of any satisfactory method of investigating deaths from the scientific point of view militated against the progress of medicine. The system should be combined with reform in the method of certifying deaths. At present medical men hesitated to put down causes of death reflecting upon the character of the deceased. All medical certificates should be sent straight to the medical coroner instead of to the registrar, who would revise them and adopt the simplified procedure in cases where they were not satisfactory. A private inquiry did not lead to "hushing up" in Scotland, and the present system in England was, in fact, already open to this objection. Agitation for reform must come from the medical profession, for they alone knew the dangers and deficiencies of the present system. The discussion was adjourned until May 20th.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT a meeting on April 11th, Professor E. W. HOPE, President, in the chair, Dr. P. BOOBBYER, opening a discussion on the *Administration of sanatorium benefit*, said that the heart of any scheme was the dispensary, which was at once a head office, a clearing house, a diagnosis and treatment centre, and an information and instruction bureau for the entire movement. While centralization in the administrative department necessarily made alike for economy and efficiency, it must not be forgotten that even with the best means of communication it was undesirable in a large proportion of cases to call upon the patients to travel long distances. The dispensary administration should be closely linked up with the health and housing departments, and this union should be centred in the person of the medical officer of health. No scheme should be considered complete without a hospital for advanced cases, a farm colony, and an open-air school for tuberculous children. The incorporation of Mothers' and Babies' Welcomes in any schemes was important. They should be used as branch dispensaries, more especially for the examination, sorting, and treatment of children suffering, or suspected of suffering, from tuberculosis, and who lived in the neighbourhood of these institutions. Dr. EUSTACE HILL dealt with the question from the county area point of view, and maintained that the county councils, and not the insurance committees or the local sanitary authorities, were the proper bodies to carry out sanatorium benefit schemes. Although there should be co-operation between the Insurance Committee and the County Tuberculosis Committee, the latter should be an independent committee and not a subcommittee of the Housing Committee of the county council. Co-operation between district and county councils was essential to success, and he recommended the use of existing isolation hospitals for tuberculous cases, suggesting that additional pavilions should be put up by the district councils and rented by the county councils at an annual sum which would repay the outlay in thirty years. The administration, he advised, should be in the hands of the district council, the county authority paying a fixed sum per patient for maintenance, nursing, etc. Dr. KAYE was also in favour of using isolation hospitals for tuberculous patients, and stated that in the West Riding workmen's houses for discharged patients were to be erected in connexion with a scheme for the treatment of acute and advanced cases. He objected to the use of the terms "chief" and "assistant" in connexion with tuberculosis officers, and suggested that they should be styled "tuberculosis officer" and "district tuberculosis officer" respectively. Dr. S. G. LAWRENCE feared there might be differences of opinion between the county and district authorities as to the sites of the head and branch dispensaries and as to the tuberculosis nurses. As regards the latter, he considered they should be on the staff of the medical officer of health of the district. Mr. F. E. FREMANTLE advocated the use of the existing nurses as tuberculosis nurses as it was difficult to divorce preventive from curative action. Dr. CORFIELD, on the other hand, advised the employment of a special nurse for preventive work who

would act as a health visitor. Dr. W. G. Willoughby said that there was sometimes a sentimental objection to school nurses dealing with tuberculous cases on the score of possible infection. Dr. Sandilands considered that the dispensary nurses should be on the staff of the medical officer of health. Dr. Caldwell Smith thought it was not the duty of a dispensary nurse to attend people at their homes and make beds, empty slops, etc. The people themselves should do this. Dr. Bygott was afraid that tuberculosis work might get into the hands of voluntary charitable societies, whose standard was not usually very high. Dr. Gerard Taylor urged the importance of co-operation with the general practitioners who were just now suspicious of innovations, and feared the time might come when their work would be taken from them by public officials. Dr. Herbert Jones, Dr. F. Robinson, and Dr. Howard-Jones also took part in the discussion, a portion of which took place at an adjourned meeting of the society on April 25th, when Dr. W. G. Willoughby presided.

ULSTER MEDICAL SOCIETY.

At a meeting on April 17th, Dr. R. W. Leslie, President, in the chair, Professor Symington demonstrated a method of making anatomical preparations by filling the hollow cavities with gelatine. Transverse sections of the human body an inch thick could be made in this manner, and could then be handled without displacement of structures, which so frequently happened when sections were made by other methods. Exact poker-work models could be made of these sections in wood, and transfixed in column by a long iron rod. Mr. Crymble gave a demonstration on the living body of the palpation of the ileo-colon, the caecum, the transverse colon, and the lower end of the ileum where it enters into the caecum; and subsequently showed lantern slides of some abnormalities of the large intestine, and their relation to intestinal stasis. The other exhibits included demonstrations by Dr. Malcolm of the paracolic folds and fossae, and some sections showing pericardial effusion; of the form and capacity of the renal pelvis, by Dr. Kerr; of the motor area in a case of brachio-facial monoplegia in an infant, by Dr. Dickey; and of a method of improved technique of staining tubercle bacilli, which was especially useful when there were a large number of specimens, by Dr. W. J. Wilson.

LIVERPOOL MEDICAL INSTITUTION.

At a meeting on April 17th, Mr. F. T. Paul in the chair, Mr. Jeans, after showing some specimens of *Desmoid tumours*, said the term was applied to tumours consisting of fibrous tissue growing from muscle and fascia, especially in the lower part of the abdominal wall. It was supposed that they might originate from inflammation, haemorrhage, or from friction. They sometimes appeared in cicatrices. Mr. Lockwood had described them and had recommended that they should be treated as suspect of malignancy. The specimen shown was about the size of a pigeon's egg, and had occurred in a fat, healthy woman of 22 in the region of McBurney's point, and had been noticed for three years, and was slowly growing and becoming painful. Mr. Paul said the tumour was of a class of spindle-celled tissue which might become malignant, but when removed in time would not recur. Dr. J. Murray Bligh, in a note on the *Tuberculin reaction*, said he had used Koch's old tuberculin in 60 cases, all children, half of whom had no symptom of tuberculosis, and half with evident tuberculous disease. His general conclusions were that tuberculin reaction was of no practical value for diagnostic purposes. He mentioned that in 9 cases of chorea tested 8 gave a positive reaction to human or bovine tuberculin, or to both, and after the chorea was cured they gave negative reactions. Professor Beattie said that a positive reaction in cases where there was no evident disease might arise from tuberculous disease being present in the tonsils. He had found this in cases where there was no other tuberculosis. The cases of chorea might give a reaction, as sore throat was a common accompaniment of chorea, and it might be tuberculous, and so explain the high percentage of reactions in chorea cases. Dr. Percy Marsh had found, after extensive use of von Pirquet's method, that it was of little value, but in children under 1 year a positive reaction had invariably meant a fatal result in that case.

Reviews.

HUMAN EMBRYOLOGY.

Although the science is but of yesterday, the two handsome volumes of the *Manual of Human Embryology*,[1] by Keibel and Mall—one consisting of over 500 pages and the other twice as large—illustrate in a striking fashion the enormous output of work in this subject since the late Professor Wilhelm His began, by means of serial sections, the systematic examination of human embryos. He it was who made the great change in technique, and who constructed the apparatus for section cutting which, primitive as it now seems, led the way to our modern microtome, and he also thought out a method of graphic reconstruction which has been greatly improved, especially by Born, and which is now absolutely indispensable in embryological investigation. It was with this equipment that His began the study of human embryology, and a whole army of investigators—many of whom received their first inspiration to the study of the subject in his laboratories—have continued the work.

The idea of working out a complete account of the development of the human body was always before the mind of His, but as time went on the hope of accomplishing the task single-handed failed him, and he suggested to Professor Keibel of Freiburg that he should collaborate with him in writing a textbook on the subject. Unfortunately, through the death of His in 1904, the plan was never carried out, but Professor Keibel, on whom His's mantle has fallen, has been able by means of his *Normentafel zur Entwicklungsgeschichte der Wirbeltiere*, to carry the plan further, and to prepare the way for its fulfilment. Obtaining the assistance of one of His's most distinguished pupils in America, Franklin P. Mall, of the Johns Hopkins Medical School, he has been able to bring to completion such a handbook of human embryology as His and he had planned. To do this they have enlisted the services of a number of colleagues, the necessary similarity of treatment being secured by a common purpose and by editorial supervision. No one can examine the pages of these two volumes without being struck by the fact that each contributor writes with a complete mastery of his subject. In vol. i Keibel has written on the germ cells, fertilization, segmentation, and young embryos; Grosser has contributed the article on the egg membranes, the placenta, and menstruation; Mall has written on the pathology of the human ovum and the determination of the age of human embryos and fetuses; Pinkus has contributed the chapter on the development of the skin; Barden that on the skeleton; and Lewis that on the muscles. The first volume is completed by an article by Mall on the development of the diaphragm and the body cavity.

In vol. ii Streeter has a long article on the development of the nervous system; Zuckerkandl a short one on the suprarenals and chromaffin organs; Grosser, Lewis, and McMurrich have collaborated to write the chapter on the development of the digestive tract and its derivatives; whilst Minot, Evans, Tandler, and Sabin together have contributed the article on the development of the blood, the vascular system, and the spleen. One of the most comprehensive chapters—that dealing with the urino-genital system—has been written by Felix, and the work is rounded off by Keibel, who has summarized in a brief closing chapter the interdependence of the various developmental processes.

Within the limits of this review it is not possible to give any detailed criticism of the work, and we cannot do more than speak in general terms of the high character of the whole series of articles contributed. It has been a gigantic task, and embryologists the world over are under a great debt of gratitude to the distinguished editors and authors for providing such a record of present knowledge of the embryology of the human body, a record which must remain the standard work to which all investigators in this field will turn for reference. It is a work also which indicates in a critical way the lines along which future work must develop. The usefulness of the book is greatly

[1] *Manual of Human Embryology.* By various Authors. Edited by F. Keibel and F. P. Mall. London and Philadelphia: J. B. Lippincott. Two vols. (Imp. 8vo, vol. i, pp. 555, illus. 425; vol. ii, pp. 1040, illus. 658. 30s. net each.)

enhanced by the free use of illustrations—it contains over one thousand—and also a very full bibliography; in short, it is a mine of authoritative information, to which the physician and surgeon will doubtless turn, as well as the teacher and student of anatomy, whenever helpful knowledge is required in connexion with the development of any part of the human body.

THE TREATMENT OF INFANTILE PARALYSIS.

THE English translation of the book on this subject by Dr. OSCAR VULPIUS of Heidelberg,[2] has been made by Dr. ALAN TODD, and we may say at once that he has succeeded in rendering the German into clear and idiomatic English. Beginning with the history of infantile paralysis Dr. Vulpius gives an interesting summary of the recorded epidemics of the disease in Europe and America. He inclines to the disquieting opinion that its prevalence has increased, although it must be admitted that the increase may be apparent only, owing to the increased attention given to disease in general and to nervous diseases in particular. The surgical treatment of infantile paralysis may be roughly classified as correction of position by means of operations on the skin, bones, joints, and tendons, or correction of function by operations on tendons and nerves, designed to restore lost powers of voluntary movement. These latter proceedings are of quite recent date, for although Nicoladoni's first operation was done in 1880, it is only since 1892 that much attention has been given to the subject by surgeons, and notably by Professor Vulpius himself. His statement, therefore, in this book of his experience and of his opinions is bound to have great weight and interest, and we do not think that the student of the subject can find anywhere a more complete account, or one which will give him more full practical advice, always remembering that the author is somewhat of an enthusiast in tenoplasty, and that some authorities, notably Professor Kirmisson of Paris, would very heavily discount his account of the benefit to be expected from it. The work includes a great deal of valuable information upon the incidence of the different forms of paralytic deformities, discussions of the best treatment for each, and a very good section on orthopaedic instruments. The illustrations are many and excellent.

RADIOLOGY.

A BRIEF account of the methods employed in the *x*-ray examination of the stomach and intestines is given by HOLZKNECHT.[3] It is illustrated by diagrams showing the appearances that may be considered normal, and comparing them with the signs found in such disorders as hypermotility, duodenal obstruction, chronic constipation, ulceration or new growth in the colon, enteroptosis, and so on. He recommends the use of barium sulphate, *chemice purissimum ad usum internum*, as the best salt for the purpose. Of this, 80 grams (2¾ oz.) may be given by the mouth in milk-gruel; when the large intestine is to be examined, 300 grams (10½ oz.) of it may be administered to an adult in a starch enema, 500 to 1,000 c.cm. being slowly injected in children, 1.500 to 1,700 c.cm. in adults. The *x*-ray examination should be made immediately after the enema has been given, and, in general, both six and twenty-four hours after the barium sulphate meal has been taken. Holzknecht notes that the enema commonly fills the whole colon and caecum, often the appendix too, not rarely part of the ileum. The pamphlet may be warmly recommended to the attention of skiagraphers and clinicians.

Dr. H. E. SCHMIDT, of Berlin, who is well known as a dermatologist and radiologist, has written a small practical manual on radium-therapy, but it would not be claiming too much for it to describe it also as a book of reference.[4] The German style is easy, terse, and to the point, and the subject is treated so simply that the English reader will have no difficulty in understanding even the technical section, which occupies the first sixty-eight pages of an admirably illustrated book. The advantages and disadvantages of the many varieties of appliances now on the market are shortly reviewed in this section, and the study of it will amply repay any intending purchaser of an *x*-ray outfit. The second part is a compendium of *x*-ray therapy, and includes a very clear description, under subheadings, of the development of the art, *x*-ray dermatitis and carcinoma, sensitization and desensitization to *x* rays, deep-level technique, prophylaxis for the operator, and the detail for the individual treatment of all the skin disease indications, with simple diagrams to illustrate his exact meaning. The survey concludes with a reference to the applications of radio-therapy in general medicine, and the treatment of such diseases as leukaemia, malaria, Graves's disease, arthritis deformans, etc. Neuralgia, uterine myomata, tuberculosis, hypertrophy of the prostate, inoperable carcinomata, and certain diseases of the larynx and air passages are discussed. Every worker should possess a copy of this book.

[2] *The Treatment of Infantile Paralysis.* By Oscar Vulpius, M.D. Translated by Alan H. Todd, M.B., B.S., B.Sc.Lond. With introduction by J. Jackson Clarke, M.B.Lond., F.R.C.S. London: Baillière, Tindall and Cox. 1912. (Med. 8vo, pp. 328; 243 figs. 10s. 6d. net.)

[3] *Die Röntgenuntersuchung des Darmes.* Von Priv.-Doz. Dr. G. Holzknecht. (8vo, pp. 12, with 12 figures.) Reprint from *Jahreskurse für ärztliche Fortbildung*, Munich, August, 1912. J. F. Lehmann.

[4] *Kompendium der Röntgen-Therapie.* By Dr. H. E. Schmidt. Third and enlarged edition. Berlin: August Hirschwald. 1913. (Demy 8vo, pp. 233; Abbn. 80. 5s.)

NOTES ON BOOKS.

AN issue of the Twentieth Century Science Series which has not hitherto been noticed is by Dr. SIDNEY HILLIER of Stowmarket, Suffolk, whose volume is entitled *Medical and Surgical Science*,[5] the scope of the work being further indicated by the subtitle, "Conception and Progress." Considering the modest size of the volume, the account supplied by it of the evolution of the science and art of medicine from the earliest ages up to the present time must be deemed remarkably complete. For the most part it is schools of thought and those who have founded or represented them that are considered; but in the later pages the author deals in some degree with modern treatment, and indulges himself in a cautious forecast of future developments. Obviously keen as is his interest in the subject, he nowhere allows it to run away with him, the result being that all periods receive a well-balanced meed of attention, and that the volume may be read with interest either by laymen or by members of the medical profession. In addition to a good index and some reproductions of old pictures of early surgical procedures there is a comparatively brief bibliography.

[5] *Medical and Surgical Science: Its Conception and Progress.* By S. Hillier, M.D. Twentieth Century Science Series. Halifax: Milner Company. 1911. (Crown 8vo, pp. 133; plates 6. 1s. net.)

MEDICAL AND SURGICAL APPLIANCES.

An Antiseptic Toothbrush.

IN 1910 Dr. D. W. Carmalt-Jones and Mr. Herbert Smale read a joint paper before the British Medical Association on "Some Points in the Bacteriology of Toothbrushes," in which they advocated the sterilization of those articles, because it appeared to them that even in an infected cavity such as the mouth it was preferable that an instrument which is so used that it may scarify the gums should not convey any additional organisms directly into the wound. This paper appears to have attracted some attention in America, and Dr. Carmalt-Jones and Mr. Smale inform us that an American dentist, Dr. Ernest C. Dye, of Greenville (S.C.) has devised a toothbrush which is efficiently sterilized by formalin vapour. It consists of a cylinder closed at one end by an hemispherical cap which contains wool soaked in formalin and kept in place by wire gauze. The other end carries the brush, which is screwed on for use and after use is reversed and screwed inside the cylinder, where it is exposed to the formalin vapour and rendered sterile. A more practical modification is, they consider, the use of a long cylinder in which an ordinary toothbrush can be kept while out of use. If the toothbrush is damp when put into the cylinder all ordinary mouth organisms are killed.

AT the meeting of managers at the Royal Infirmary, Edinburgh, on April 28th, it was intimated that of the 2,862 patients admitted to the wards for treatment between January 15th and April 14th, 1,197 were insured persons; of the 7,966 out-patients treated during these three months 2,535 were insured persons.

DEPUTATION TO THE PRIME MINISTER IN SUPPORT OF THE STATE REGISTRATION OF NURSES.

On April 28th the Prime Minister received in his private room at the House of Commons a deputation from the Central Committee for the State Registration of Nurses, which was introduced by Dr. Chapple, M.P. The various bodies represented by the deputation were the British Medical Association, the Matrons' Council of Great Britain and Ireland, the Royal British Nurses' Association, the Fever Nurses' Association, the Association for Promoting the Registration of Nurses in Scotland, the Scottish Nurses' Association, the Irish Nurses' Association, and the Society for the State Registration of Trained Nurses. With Mr. Asquith was Mr. Burns, President of the Local Government Board.

Dr. Chapple, in introducing the deputation, said that practically the whole of the institutions connected with nursing and attendance on the sick were represented. Two vested interests were affected by the State registration of nurses; one was that of the unqualified nurses and the other consisted of one or two hospitals which, it was not too much to say, exploited nurses for the financial advantage of the institutions. The training of nurses was as essential as training and skill in the medical profession, and unqualified nurses were just as great a danger to the community and the patients whom they attended as an unqualified medical man would be. The deputation did not ask that there should be any exclusive right to nurse, but simply that there should be a distinction between those who were qualified and those who were not. It was difficult to get young girls to go through a difficult and tedious curriculum unless at the end of their training they were given a status. The public interest should be the first and greatest consideration, and as a medical man he knew no greater danger in the sick room than an unqualified nurse. With the increase of scientific surgery and greater accuracy in medication it was just as essential to have a trained nurse as a doctor who was trained. The various associations represented by the deputation felt that if the Prime Minister could give facilities for a bill aiming at State registration this country would come into line with others which had already passed this reform and had found it very successful both in the interests of the public and the nurses.

Sir Victor Horsley, who, with Dr. Cox (Medical Secretary), represented the British Medical Association, remarked that four years ago Mr. Asquith very courteously received in that room a deputation consisting almost of the same persons as were now before him. He claimed that the British Medical Association was the only organization which represented the whole medical profession, and that claim was the more justified because there was no record of any resolution having been passed in opposition to the objects of the deputation by any gathering of medical men, any more than of the nursing profession. The situation therefore was unaltered. On the last occasion the Prime Minister told them that the various interests concerned were not unanimous in making their demands, because he held in his hand expressions of opinion in opposition by various medical and nursing authorities. Sir Victor Horsley remarked that he was not aware of any nursing body having passed a resolution hostile to the objects of the deputation. The Prime Minister had indicated on the last occasion that in view of the letters he had received, he could not accede to the request. Nevertheless, the deputation felt its request to be a democratic one because it embodied resolutions passed at various meetings of the societies concerned. It was a democratic request, made constitutionally, whereas the opinions quoted by the Prime Minister were bureaucratic ones, and were put forward unconstitutionally. Those opinions could not be held to represent the views of the medical profession; moreover, they should not be anonymous. Those who asked for this reform asked for it publicly, and the opposition should be public also. On this occasion they found themselves on a stronger footing because since 1909 the Government had re-established the registration of teachers, having recognized that in that profession registration was essential. It was an extremely complicated matter to carry out the registration of teachers; the registration of nurses, on the other hand, was just as simple as the other was complicated. The portals to the nursing profession could be controlled quite easily. Members of the medical profession knew the advantages they gained by registration, and wanted the same advantages for the nursing profession, because the public would benefit. Medical work had now become imperial; they were trying to get reciprocity in this respect with the Dominions. This also applied to nursing, but the Dominions had nursing registration, and their nurses complained because when they came to this country they found they had not the same professional status. That was a just complaint, and one it was hoped Mr. Asquith would see his way to remedy, and that he would, on behalf of the Government, accept the view that State registration of nurses was necessary.

Miss Cox-Davies, speaking on behalf of matrons and nurses, said it was now twenty years since the Matrons' Council adopted as one of its chief objects a uniform system of education and the State registration of nurses. Urgent as the need was then, it was more so now when demands were made for trained nurses to fill most responsible positions, both as preventive agents and in assisting the medical profession. It was of paramount importance to the community not only that the supply should be adequate but that the members of the nursing profession should be educated for their responsible duties. At present fully-trained nurses found themselves in competition with semi-trained and unreliable persons who were often found unsuitable even for supervised work in hospitals. Miss Cox-Davies alluded to the shortage of nurses experienced by the Metropolitan Asylums Board and reported in the last issue of the British Medical Journal. She remarked that this experience was general throughout the country.

Lady H. Munro Ferguson, who addressed herself to the general aspects of the question, urged that this was a matter which not only affected doctors and nurses, but the public also. It was practically impossible for a member of the public to be sure of getting a nurse suited to his or her requirement, because there was no standard and nothing to ensure that a particular institution or hospital gave the necessary training. It was no safeguard for the public to pay high fees at a nursing home, for, in the absence of any standard, it was open to any organization to state that its nurses were fully trained. It was not proposed to prevent untrained women from practising; only that the public should have a means of assuring themselves of the services of a fully trained nurse if they required one. The passing of the Insurance Act and the campaign against tuberculosis had made this reform more urgently needed, owing to the fact that in the future nurses would be employed more largely than ever before.

Dr. D. J. Mackintosh (Glasgow) spoke on behalf of Scottish nurses. He said he agreed with what other speakers had said, and would merely add that there was no opposition at all in Scotland to the proposals urged by the deputation. They were supported by the whole nursing profession.

Mr. Asquith: Is that so?

Dr. Mackintosh: So I believe.

Dr. McGregor Robertson (Glasgow) said that the nurses in Scotland had organized themselves as they had not been before, because they all recognized the need for a standard of training and examination, and for State recognition of that standard. He was sent by a very large body of Scottish nurses of many grades and forms of qualification. Amongst that large body there had never been a doubt that the bill now before Parliament was in the highest interests of the nursing profession as well as in those of the public. The bill was practically unanimously supported by the nursing profession in Scotland.

Miss Huxley, on behalf of the Irish Nurses' Association, said that fewer well-educated women than formerly offered themselves for entry into the nursing profession, although the advances of medicine and surgery demanded more intelligent and accurate work from the nurses. The absence of a standard was the reason for this regrettable change.

Mr. Asquith asked what he or the Government were requested to do.

DR. CHAPPLE: We want to get your sympathy with the bill now before Parliament.

MR. ASQUITH: You want us to give facilities for the bill?

DR. CHAPPLE: We might be satisfied with something short of that.

MR. ASQUITH: Nothing short of that will be of any use to you. Have you had a second reading?

DR. CHAPPLE: We have not.

MR. ASQUITH: Then there is not much chance for it to get through.

DR. CHAPPLE remarked that it was the unanimous opinion of all those concerned in this question that never before had there been so much sympathy with the objects of the bill exhibited in so many different quarters. They were hopeful that if the Government gave facilities the bill would have an easier passage through the House than on the former occasion.

MR. ASQUITH, in reply, said he was glad to receive the deputation, although he did not profess to have any special knowledge of the subject; nor, indeed, was he the Minister, or one of the Ministers, responsible for this particular branch of administration. Nevertheless, the subject raised issues which affected the welfare of the community at large, and was one to which he could not be indifferent. It was a question of growing importance that our nursing system should be recruited from the best possible sources, and should be carried on by persons who were more and more qualified for what were now generally regarded as very difficult and arduous duties. All of them in their time had been interested, either as subjects or as spectators, in the operations of a nurse, and he did not suppose there was any profession, unless it was the medical profession itself, in which was needed a more careful and well-adjusted combination of the head, heart, and hand. He understood it to be the view of the deputation that by the machinery which in this bill it was proposed to set up two, at any rate, of these qualities would be better secured; he did not suppose that the third could be affected by legislative means. Mr. Asquith said he had been very much impressed by the arguments brought forward, and he recognized, as no one could fail to do, the representative and authoritative character of the deputation, which, as Sir Victor Horsley very properly said, could claim to speak as the mouthpiece of a number of organizations that had publicly expressed representative opinions on the subject. On the other hand, they would forgive him for saying that Dr. Chapple took too sanguine a view when he thought that the opposition to the proposals now advanced had diminished either in amount or in authority. He gave them on the last occasion a wearisome catalogue of those who were opposed to any change in this matter. The list had been brought up to date, and it was now a more formidable and menacing array than it was before. It consisted, he was informed on the best authority, of ninety-one chairmen of hospitals. Sir Victor Horsley called them bureaucrats, but, after all, they were chairmen of hospitals, and obtained their position by free election on the part of subscribers.

SIR VICTOR HORSLEY: May I explain? I referred to men who are in office. I meant they were not speaking on behalf of the board of management; they are speaking as individuals. We do not recognize them.

MR. ASQUITH: I am in office, and exactly the same thing might be said of me. He added that there were also amongst the opponents 66 London matrons and 178 provincial ones. They were not bureaucrats.

SIR VICTOR HORSLEY: They are not speaking in the names of their nurses.

MR. ASQUITH: Presumably they are persons of experience. There are also 1,332 nurses and 340 doctors. I do not say they are right for a moment. I do not say my sympathies, so far as they are worth anything, are not with you, but it is impossible to say, in view of these facts, that there is anything like unanimity in the medical or even in the nursing professions on this matter (because the matrons must be included amongst the most experienced and authoritative section of the nursing profession), or that the measure would not encounter, as I am certain it would, a very vigorous opposition in the House of Commons, and perhaps elsewhere. We are face to face now, as we were four years ago—I wish it were otherwise—with a position in which it cannot be said that substantial unanimity prevails; and while I do not for a moment attempt to controvert or even to criticize your views, or even to say that I do not in a great measure agree, yet, looking at this matter from a purely parliamentary point of view, I cannot say, if the Government gave this measure facilities as compared with measures of its own, that it would have the sympathy of the House and an easy course, and not excite a great deal of opposition. I am obliged to have regard to the exigencies of the parliamentary situation, and I should not be dealing honestly with you if I do not say that until—as very likely you may—by conviction, argument, persuasion, and every legitimate process you have, I won't say completely annihilated, but substantially mitigated that somewhat formidable opposition, which I am sure would make itself articulate and operative in the House of Commons just as it does outside—until this is the case I cannot honestly say I think any Government would give facilities, or, in other words, practically adopt as a Government measure a bill which is of a definitely controversial character. I have spoken quite plainly because it is best to tell the honest truth, but you must not think I am expressing any kind of hostility or want of sympathy. I think it is most desirable that the medical and nursing professions should arrive at a concordat: I do not mean unanimity—you will never get that in this imperfect world—but something approaching unanimity. Whether it is possible by modifying any details of your scheme I am not in a position to say, but it might be desirable to take into counsel or negotiation the more authoritative and representative of your present opponents and see whether it is not possible for you jointly to elaborate proposals which will command the substantial assent of the great body of the medical and nursing professions. If you do that, you will find no more ardent sympathizers than the Government, or any one more desirous of co-operating with you. I am afraid, cold as the comfort may seem, that is all I can say to you at present.

SIR VICTOR HORSLEY: May I ask for the names of the 340 medical men? We have never heard of them; if we had their names we could start on the campaign at once.

MR. JOHN BURNS: You shall have them.

MR. ASQUITH: I have the matrons too. He added, in reply to an inquiry whether any opposition under that head came from Scotland, that there was not very much.

DR. CHAPPLE, in acknowledging Mr. Asquith's advice, remarked that it would be impossible to get complete unanimity on this question. Unanimity could not be secured amongst individuals, especially when those who opposed had vested interests in untrained nurses. For instance, it would be impossible to get the Chairman of the Committee of the London Hospital to support the view of the deputation. The London Hospital only gave a two years' training, which the deputation maintained was absolutely inadequate. Before that time had expired nurses who cost the hospital £28 a year were sent out, and their work brought in a revenue to the institution at the rate of £100 a year.

MR. ASQUITH: Do you mean to say we do not get good nurses from the London Hospital?

DR. CHAPPLE: The nurses do not get adequate training.

MR. ASQUITH: I shall communicate what you said to the Chairman of the London Hospital.

DR. CHAPPLE: I shall be very glad if you will do so.

SIR VICTOR HORSLEY (to Mr. Asquith): We have absolute unanimity among 40,000 people—doctors and nurses—and we are opposed by a handful of people, who do not even give us their names.

MR. ASQUITH: Here they are. (At the same time the Prime Minister handed to Sir Victor Horsley certain names which he had before him.)

A vote of thanks to Mr. Asquith concluded the proceedings.

THE fourth Italian Congress of Occupational Diseases will take place at Rome in June (8th to 11th), under the presidency of Professor Guido Baccelli. The following are the subjects proposed for discussion: Ankylostomiasis, diseases of the blood of professional origin, infant mortality in relation to the occupations and social conditions of the parents, forms of dermatitis of professional origin, professional pathology of railway employees.

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

THE ADVERTISEMENT OF MEDICATED WINES IN THE MEDICAL PRESS.

AT the commencement of the sitting on April 24th, the Chairman (Sir Henry Norman) said the Committee had received a letter from Dr. Cox with reference to certain answers given before the Committee on March 27th by Mr. W. Rudderham on behalf of the proprietors of Wincarnis (BRITISH MEDICAL JOURNAL, April 5th, p. 725). Dr. Cox recalled that the witness was questioned by Mr. Lawson as to the conditions under which the advertisements of Wincarnis were withdrawn from the medical press, and the impression conveyed by the evidence was that no objection was raised to the acceptance of the advertisements by those responsible for the conduct of the BRITISH MEDICAL JOURNAL, but that the advertisement was withdrawn by the proprietors for "ordinary commercial reasons." Dr. Cox said that this statement was misleading and not in accordance with facts as far as the JOURNAL was concerned. When the contract for the advertisement expired the manager was instructed by the Council to decline to accept in the meantime any advertisement for Wincarnis, or for any other medicated wine of the same kind. On September 22nd an order was tendered for thirteen insertions of an advertisement of Wincarnis, and this was not accepted. Dr. Cox added that he had the authority of the manager of the *Lancet* to say that the *Lancet* definitely refused the advertisement of Wincarnis some time before the BRITISH MEDICAL JOURNAL.

Mr. Harry Lawson: Of course it will be open for rebutting evidence to be given?

The Chairman: Obviously the Committee will receive any statement which Mr. Rudderham desires to make.

THE ANALYSES IN "SECRET REMEDIES."

Mr. E. F. Harrison, the consulting analyst engaged by the British Medical Association in connexion with the analyses in *Secret Remedies* was then recalled, the Chairman remarking that he appeared both by his own desire and that of the Committee. Mr. Harrison said that what he wished to say fell under three divisions: First, some of the evidence in regard to the contents of the *British Pharmacopoeia*, and the qualifications of an analyst competent to deal with medicines, was, in his opinion, misleading; secondly, he wished to deal with some of the evidence which appeared to be intended to convey that the articles mentioned in *Secret Remedies* and *More Secret Remedies* had not any considerable sale; thirdly, he would discuss the analyses that had been challenged.

With regard to the *Pharmacopoeia*, the impression apparently left upon the minds of the Committee by the evidence of Mr. Umney was that only 44 out of 235 vegetable preparations in the *British Pharmacopoeia* could be discovered.

Mr. Glyn-Jones: Mr. Umney used the phrase, "by chemical analysis."

Mr. Harrison proceeded to criticize the way Mr. Umney and Mr. Parry used the terms "discover" and "determine" in an analytical connexion. He said that the number 44 was nowhere near the truth unless, when Mr. Umney spoke of their being "determined," he meant "quantitatively determined." The number of drugs which could be identified when in the form of their preparations had nothing to do with the number of those which could be quantitatively determined.

Mr. Lawson at this stage raised a point of order. He suggested it was unusual to have detailed replies to other witnesses by witnesses who had been already in the box, because it led to an interminable series of rebuttals. He thought that whilst it would be quite in order for the witness to refer to matters in a general way, it would be a great mistake for the Committee to allow any witness to enter into detail question by question. Obviously it would be necessary to recall the witnesses challenged.

Sir Philip Magnus (who was in the chair at the time) thought there was a great deal in what Mr. Lawson said. At the same time Mr. Harrison was a very important witness, and many of his statements had been controverted by Mr. Umney. In the interests of the Committee, it was very desirable that Mr. Harrison should have an opportunity of rebutting statements which he considered to be incorrect. To do this it would be necessary to go into them in some detail. After Mr. Harrison's statement, if Mr. Umney thought it important that he should be called again, the Committee would have to give him an opportunity of reappearing. That should entirely close the arguments for and against.

Mr. Lawson suggested that Mr. Harrison's evidence should be confined to a few of the main points which required reply.

Mr. Newton remarked that Mr. Harrison appeared to be dealing at the moment with the misuse, or varying use, of a certain term by previous witnesses.

Mr. Glyn-Jones said there was no denying the importance in the present investigation of the two books for which Mr. Harrison was in the main responsible. He felt it would be necessary to put definitely to Mr. Harrison the various allegations of error.

Mr. Harrison proceeded to deal with the number of vegetable preparations in the *British Pharmacopoeia*. Mr. Umney spoke of 235. There were only 160 separate and distinct vegetable drugs in the *Pharmacopoeia*; it was, perhaps, an arguable question what should be counted a preparation of a drug, and, according to his counting, there were 301 galenical preparations of vegetable drugs. Whatever the principle upon which Mr. Umney made his selection of these, it was clear that different preparations of one drug were counted as different articles. He had roughly arranged the different vegetable drugs in the *Pharmacopoeia* in five classes as follows: (*a*) Those containing definite constituents capable of being determined by chemical means, 36; (*b*) those containing constituents readily recognizable by physical means—taste, smell, colour, etc.—with or without chemical tests as well, 48; (*c*) drugs of little or no therapeutic activity, used chiefly as excipients, or suspending, flavouring, or sweetening agents, 13; (*d*) drugs which could be detected, but might not be completely identified, 28 (in this class examination might only show that the substance being tested was one of three or four, without enabling the analyst to say exactly which); (*e*) drugs which would probably not be detected when in the form of their preparations, 26. The other respect in which Mr. Umney's evidence on this matter seemed to be misleading was his repeated implication that an analyst was limited to chemical tests, and was debarred from other methods, such as the use of taste and smell, which were available to Mr. Umney. Mr. Harrison then began to quote Mr. Umney's statement that a consulting analytical chemist could not get the knowledge arising from handling, tasting, and smelling drugs, which came to one engaged in the drug trade.

Mr. Lawson thought it would be most objectionable to have matters of personal controversy brought to the notice of the Committee.

Sir Philip Magnus: I think you desire to point out that the analyst responsible for these analyses had that additional knowledge and capacity of detecting drugs?

Mr. Harrison agreed, and said that it was not a question of personal rivalry between himself and other witnesses. His point was that he spent many years gaining pharmaceutical experience in the wholesale manufacturing houses, and exactly the kind of experience that Mr. Umney mentioned. He had some other remarks as to actual qualifications; he thought that some of the evidence on this point was rather misleading, but he would leave it alone if the Committee desired.

As to the extent of the sale of the articles in the two volumes, Mr. Waring and Mr. Barclay both stated that they were ignorant of a large proportion of the remedies mentioned, but as to this Mr. Harrison pointed out that the books included sixty German nostrums. These appeared to be of sufficient interest to be included, but it had never been suggested that they had any appreciable sale in this country, and they occupied very little of the two books, though numerically they were considerable. Another large proportion of the remedies mentioned was distributed through the post, and therefore would not be known to the two witnesses he had named. The witness mentioned a case in which he wrote to Barclay's for a medicine for analysis, and received a letter from the firm stating that the maker would not supply through them, but only direct. Also a number of the articles in the two books probably

had chiefly a local sale: such medicines were commonly quite numerous, but it was thought best to include a certain number of them as representatives.

Passing on to the allegations of inaccuracy in the analyses in *Secret Remedies*, Mr. Harrison said he did not feel called upon to defend his reputation in this matter. When he was before the Committee on the first occasion he insisted on the limitations of what analysis could do. The fact that Mr. Umney had found ingredients which he (the witness) had not found would not be held to be final proof that they existed in the preparations he analysed. That was not a mere academic point; there was very strong evidence in some cases of alteration of formulae, intentional or otherwise. Mr. Harrison recalled that some of the witnesses had admitted that variations in the formulae had occurred; he had compared two bottles of Seigel's Syrup, and found there was undoubtedly far more capsicum in one bottle than the other. Other instances were referred to in *Secret Remedies*. The maker might put forward statements in good faith which nevertheless must be received with scepticism; for example, Mr. Lawson said in his evidence: "The statement in *Secret Remedies* that the weight of a Daisy powder is 6 grains would show that the analyst must have examined a very old packet. The dose had been 5 grains for at least nine years." The packet in question was bought from Barclay's in April, 1906, and it was hardly likely that they had kept it in stock for over two years.

Detailed Reply to Alleged Inaccuracies in Analysis.

Mr. Harrison proceeded to deal in detail with each of the cases in which inaccuracy of analysis was alleged in *Secret Remedies* and *More Secret Remedies*. In regard to Seigel's Syrup, Mr. Harrison quoted Mr. Umney's statement that it was not possible to separate the special vegetable ingredients, except by very long processes, and that he had determined the total solid extractive matter and then deducted from that the amount due to saccharine bodies. He took this to mean that Mr. Umney had determined the total solid matter, and also the total saccharine matter or sugars, and, having deducted the latter from the former, he regarded the difference as the "special vegetable extracts" added in making up the medicine. Treacle, however, contained a proportion of non-saccharine extractive, which varied very much. The formula of Seigel's Syrup given in *Secret Remedies* gave 60 parts of treacle in 100 parts by measure, and he believed it had not been alleged that this proportion was incorrect. The evidence given on behalf of the proprietors was that 181 lb. of extracts went into 230 gallons of the syrup, which was 7.9 parts in 100 parts by measure, so that if Mr. Umney regarded the quantity of the total solids minus the sugars as evidence of the amount of extracts added, and was satisfied at finding the proportion stated by the proprietors to be added, more than this quantity would be accounted for by the non-saccharine solids of the treacle, and there was therefore no analytical evidence as to the amount of extracts present.

Mr. Glyn-Jones: Is this important in view of the fact that eleven vegetable extracts are stated to be in the preparation, and Mr. Umney and Mr. Parry both definitely say they have found some? Is not the important thing whether you are prepared to say that those ingredients which they say they found are or are not present? Are you prepared to say that?

The Witness: Certainly not; but what I want to come to is that there is no evidence to show that this case is not covered by what I said before—that a maker might put in a small quantity of a large number of extracts, and an analyst cannot find them. In this case the non-saccharine matter of the treacle is so large that it would more than account for the extractive. If Mr. Umney relied on that he could not say anything about the quantity of the extracts, and there is no analytical evidence on the point.

The Chairman: You admit they may have been there? —Certainly.

As to Clarke's Blood Mixture, Mr. Harrison suggested that the criticism raised in this case was quite frivolous. It was stated that the ammonia was not there as aromatic spirit of ammonia, but since the ammonia and the alcohol were admittedly there it seemed quite immaterial whether they were added together in the form of sal volatile or not. The amount of sal volatile stated would contain about one-thirtieth of a grain of oil of nutmeg and one-twentieth of a grain of oil of lemon, and it would hardly be seriously suggested that these quantities in a bottle of sixteen doses were of any consequence at all.

With regard to Woodward's Gripe Water, he had a small quantity left of the supply of this which he had tested, and after reading the evidence given he tasted it again and was prepared to admit that it contained a trace of the pungent aromatic substance which had been named privately to the Committee. The amount was so minute that the Government analyst reported it as a trace of capsicum resin. Nevertheless there was a well-known test for distinguishing them, showing presumably that the quantity obtained was too minute for this test to be applied. Mr. Umney called this trace of the unnamed substance "the most important ingredient," and much was said about its value by Mr. Woodward. Mr. South and Mr. Hake had asserted, in regard to another infants' medicine, that the presence or absence of a trace of the far more potent drug, opium, was immaterial. This well illustrated what he had said in his former evidence—that so long as a proprietor could keep a medicinal ingredient secret, he could and did make very large claims for its medicinal value.

As to Mr. Parry's evidence in regard to Beecham's pills, that he found one ingredient after its name had been disclosed to him by the makers and another without such disclosure, Mr. Harrison remarked that it did not appear that the presence of the latter was confirmed by the makers; and as for the test suggested by Mr. Parry, the appearance, smell, and taste, and behaviour on putting into water—all these characters might be affected by differences in the excipient or non-medicinal ingredients of the pills.

In reply to Mr. Glyn-Jones, the witness said he was not prepared to say that the ingredients mentioned by the other witnesses were not there, but he insisted that if there they were only present in small quantity; further, the tests described by Mr. Parry really amounted to nothing.

As to Doan's dinner pills, the witness pointed out that in *Secret Remedies* the pills were only stated to contain "a resin that appeared to be jalap resin," and "an extract that resembled extract of henbane." No more definite statement was made. The absence of conclusive tests for the last-mentioned ingredient was expressly mentioned, and the formula given was only stated to give a similar pill. There was, therefore, nothing surprising in Mr. Parry's statement, made with a full knowledge of the formula.

As to Ozerine, Mr. Harrison said that he did not make this analysis. The six articles dealt with in Chapter XIII of vol. i were analysed before he took up the work by a gentleman who was now dead. He was a very competent chemist and pharmacist, and it was unlikely that he made any mistake in analysing a simple mixture, chiefly of inorganic salts, like this one. Mr. Parry had told the Committee that two other ingredients were there; Mr. Harrison did not think they could have been present in the batch examined by the deceased analyst.

As to Pond's Arthriticus, Mr. Harrison quoted Mr. Parry's statement that an important constituent was omitted from the analysis in *More Secret Remedies*, which he found to be present to the extent of nearly 10 per cent., and this he had identified chemically. That would amount to a very serious allegation indeed, but, in reply, Mr. Harrison said he had been informed by a gentleman (who was prepared to substantiate the statement before the Committee) that the principal ingredient was formerly potassium acetate, but that a batch was made and sent out without any potassium acetate. The gentleman making this statement was at that time a director of the company manufacturing the medicine. In the light of Mr. Parry's statement, he had carefully gone through his analytical results again, and could affirm without any doubt that the mixture he analysed did not contain any appreciable quantity of this substance or anything else but the ingredients given on page 13 of *More Secret Remedies*. This case illustrated the fact that Mr. Parry, in assuring the Committee that formulae were not altered, was speaking of matters not wholly within his cognizance.

Similarly, with regard to Johnson's Soothing Syrup, Mr. Harrison pointed out that whereas Mr. Parry found only a trace of sodium chloride, he found 5.7 parts in 100 parts by measure. He did not think Mr. Parry or any one else would suggest that he was incapable of determining sodium chloride correctly, or that "a trace" could possibly be mistaken for 5.7 per cent. The inevitable conclusion, therefore, was that Mr. Parry and he were examining liquids of very different composition. Nevertheless, he must protest against Mr. Parry's suggestion that, having found certain things, he "jumped" to a conclusion. Mr. Parry added that this was what he himself would probably have done. Without disputing that statement, Mr. Harrison said he did not jump to a conclusion, and the assumption was quite gratuitous.

Mr. Glyn-Jones referred to a description in the BRITISH MEDICAL JOURNAL of this preparation, stating that it was a preparation for rubbing on children's gums which contained hydrochloric acid. The witness said the JOURNAL was not to blame for making that statement; it was guided by the analysis in *Secret Remedies*. He agreed as to the possibility of the preparation containing lemon juice, saffron, and tolu, but he found it hard to account, on that basis, for the amount of acid he found.

Mr. Cawley: Is it your opinion now that your original analysis was right?

The Witness: Yes, I think on the balance of probability it is. At any rate, very nearly right.

Mr. Harrison dealt in passing with this comment on himself in Mr. Parry's evidence: "I have verified that he jumped to the conclusion, because there was an alkaloid present in Marza wine and it was labelled 'coca wine,' that it must have been cocaine." Mr. Harrison said he jumped to no such conclusion; the words of his report were: "The alkaloid was bitter, and caused numbing when applied to the tongue . . . its solution showed the fluorescence characteristic of quinine or quinidine." That was a plain record of observed facts, and cocaine was not even mentioned. Mr. Parry was therefore going beyond what was justifiable in speaking in that way.

With regard to Ciefa, as to which Mr. Parry stated the ingredient which Mr. Harrison called diastase to be a much more expensive article, Mr. Harrison said he knew of no means of distinguishing in such a mixture between the diastatic ferments, diastase, ptyalin, and taka-diastase, and he knew of no difference in their physiological action except the quantitative one. As the activity was determined quantitatively and recorded, it appeared quite immaterial that the name "diastase" was used. If a price had been given for the ingredients based on the assumption that the cheaper substance was present when actually the tablets contained the dearer, there might have been some cause for complaint, but in this case as in others when the results did not allow of fairly exact pricing, no price was mentioned.

As to Powell's Balsam, the fact that Mr. Parry found no alkaloid had no bearing on the fact that he found a trace in another sample of the medicine some years previously. It was not denied that the composition of this medicine had been altered at least once. As to Mr. Hake's statement that an ingredient not mentioned in the analysis of Steedman's powders contained a minute proportion of an alkaloid, the analysis in *Secret Remedies* stated that a minute amount of an alkaloid was present, so that the only omission appeared to be that the drug from which it was derived was not named. He thought it likely that the drug in question was powdered ipecacuanha; without a prior knowledge it would not be readily detected in the presence of the large proportions of maize starch and calomel. As the powders in one packet were found by him to vary in weight from 1.9 to 4.5 grains, pointing to extreme carelessness in putting up, it was not unreasonable to suppose that there might have been some carelessness in mixing, and that the powders examined by him might have contained even less of this ingredient than the quantity intended to be present.

In reply to Dr. Lynch, who pointed out that in some of the cases in which preparations analysed in *Secret Remedies* were submitted to the Government analyst the results arrived at varied considerably as compared with Mr. Harrison's, the witness said it did not follow that either of the analyses was incorrect; it was clear evidence of variation of composition. When the analyses in *Secret Remedies* were made, he had not in view such a searching inquiry as this; had he foreseen it, he would not have exercised more care, but he would probably have operated on larger quantities of materials. The analyses were made in the first instance for the information of medical men, to give them as accurate an account of the composition of proprietary medicines as could be done with a reasonable expenditure of time. If the work had been done for the purposes of the Committee it would have been justifiable to have taken longer, and to have used far more of the medicines.

Sir Philip Magnus: Then your results would have been a little more accurate?

The Witness: They would have been a little more full—more accurate in that sense.

In reply to Mr. Cawley, the witness said that, in regard to Woodward's gripe water, he was quite satisfied, whatever the missing substance was, its amount was very minute.

Mr. Lawson: Do you find, in the case of preparations made up by chemists according to the *Pharmacopoeia*, variation to a greater or less degree?

The Witness: The *Pharmacopoeia* allows variation, and then after analysis standardization.

Mr. Glyn-Jones suggested to the witness that it would have been more in keeping with what was fair if the British Medical Association had submitted the material in the second volume of *Secret Remedies* to the Committee instead of publishing it.

The Chairman (Sir Henry Norman) said the witness must consider if he felt justified in answering for the British Medical Association.

The witness said that personally he saw nothing unfair in it, especially as all the matter was before the public in the JOURNAL, but was only rendered more accessible by the volume.

Mr. Glyn-Jones: Would it not have been fairer to have withheld it from publication until the proprietors had had an opportunity of answering before the Committee?

The Witness: That point I was never called upon to consider, but in my own opinion it was perfectly fair to publish it at the time it was published.

The Chairman: It may have been for the convenience of the Committee.

Mr. Harrison: That was certainly so. I pressed on the compilation of the second volume for the sake of putting it before the Committee.

Sir Henry Norman: Do I understand that you still maintain, in spite of all criticism, the substantial accuracy of the analyses in these two volumes?

The Witness: Yes; the perfect accuracy of a very large number and the substantial accuracy of, at any rate, the large majority of the remainder.

In reply to further questions by the Chairman, the witness reiterated his earlier statements of the limitations of analysis, and agreed with the Chairman's suggestion that it was possible for any one to add to a mixture of drugs a small quantity of vegetable substances and claim that analysis was impossible. There was nothing in the limitations of scientific analysis, if the Government decided to set up an analytical bureau, to prevent such a bureau from deciding upon the nature of medicines submitted to it. It would find some of the limitations he had referred to already, but as regards essential ingredients the limitations would be small.

THE PHARMACEUTICAL SOCIETY.

Mr. C. B. Allen, President of the Pharmaceutical Society, described the work and methods of the Pharmaceutical Society in connexion with the Poisons and Pharmacy Act. He remarked that, although the organization was a purely voluntary one, it had performed an immense volume of work, as much in the interests of public safety as for the benefit of its members. It might be supposed that the Pharmaceutical Society would be in possession of important rights and privileges in return for its earnest work, but this was not the case, and apart from certain provisions in the Insurance Act, there had been practically no State recognition of a vocation for which men undertook a laborious training.

SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE, 1913.

SECTION OF MEDICINE.

THE President is Sir William Osler, Bart., and the honorary secretaries Dr. John Cowan (Glasgow), Dr. Lovell Gulland (Edinburgh), Dr. A. R. Parsons (Dublin), and in London, Dr. A. E. Garrod, Dr. W. Pasteur (acting secretary), Dr. H. D. Rolleston, and Dr. W. Hale White.

The meetings of the Section will be held at the Royal Society of Medicine, 1, Wimpole Street, and its work will comprise (1) discussions, (2) selected papers, (3) a clinical museum, and (4) demonstrations of clinical apparatus, methods, etc. The following discussions have been arranged:

August 7th: The Clinical Aspects of Haemolysis. Reporters: Professor G. Banti (Florence) and Professor F. Widal (Paris).

August 8th: Correlations of the Organs of Internal Secretions and their Disturbances. (Jointly with Section H, Physiology.) Reporters: Professor E. Gley (Paris), Professor Dr. Baron Alex. von Koranyi (Budapest), and Professor Dr. Frederick Kraus (Berlin). Drs. Bernard, Carnot, and Claude (Paris), Biedl and Falta (Vienna), Hedon (Montpellier), Meltzer (New York), and Ferrannini (Camerino) have intimated their intention of taking part in the discussion.

August 9th: The Pathology of Heart Failure. Reporters: Professor H. Vaquez (Paris), Professor Dr. H. F. von Wenckebach (Strassburg).

August 11th: Diabetes. Reporters: Professor George Dock (St. Louis, U.S.A.) and Professor Dr. Karl von Noorden (Vienna).

August 12th: Differentiation of the Diseases included under Chronic Arthritis. Reporters: Professor L. F. Barker (Baltimore, U.S.A.) and Professor Dr. Freidr. von Müller (Munich).

The afternoon sittings will be devoted to the reading and discussion of independent papers. Among many already promised the following may be mentioned:

Treatment of leukaemia with benzol (A. von Koranyi). Treatment of pulmonary tuberculosis by artificial pneumothorax (Ch. Saugman). Insuffisances pluriglandulaires (H. Claude, Paris). Der augenblickliche Stand der Diagnosis der Pancreas-Erkrankungen (F. Wohlgemuth, Berlin). Chronic bacterial endocarditis, with a series of preparations illustrating the condition from the Pathological Museum, Mount Sinai Hospital, New York (E. Libman). The recognition of the status lymphaticus in adults (Haven Emerson, New York). Diagnosis and treatment of duodenal ulcer (Max Einhorn, New York). A modified form (?) of sporadic typhus, Brill's disease (Brill, New York).

Demonstrations of clinical cases of special interest will be held in connexion with the morning and afternoon meetings of the Section, and a strong committee has been formed to bring together the best available material for this purpose. Facilities will also be given to any member of the Section who wishes to demonstrate any new clinical apparatus or clinical method. All applications should be addressed to the Acting Secretary, Dr. W. Pasteur, 4, Chandos Street, Cavendish Square, W.

The dinner of the Medical Section will be held at the Connaught Rooms on Friday, August 8th. For information about the dinner, members of Congress are requested to apply to the Secretary of the Dinner Committee, Mr. George Bethell, 11, Chandos Street, Cavendish Square, W.

SECTION OF SURGERY.

The Surgical Section will meet under the presidency of Sir W. Watson Cheyne, Bart., F.R.S.; connected with it are the subsections of Orthopaedics, presided over by Mr. Robert Jones of Liverpool, and Anaesthetics, with Dr. Dudley Buxton in the chair.

The meetings of the principal section will take place in the large lecture theatre on the ground floor of the Imperial College of Science and Technology.

The list of set subjects for discussion are: (1) The operative treatment of malignant disease of the large intestine, excluding the rectum, introduced by Professor Bastianelli of Rome and by Professor Körte of Berlin. (2) A discussion, conjointly with the Section of Neuropathology, on the treatment of tumours of the brain and the indications for operation. Professor Bruns of Hanover; Professor Harvey Cushing of Harvard University; Professor von Eiselsberg of Vienna; and Dr. Howard Tooth will speak. (3) A discussion on the diagnosis and treatment of early renal and vesical tuberculosis will be held jointly with the Section of Urology. It will be introduced by Professor Legueu of Paris; by Professor Rochet of Lyons; and by Dr. Wildbolz of Berne. (4) The surgery of the arterial system will be reported upon by Professor Matas of New Orleans and Professor Oppel of St. Petersburg. (5) Intrathoracic surgery will be considered on the last day of the Congress by Professor Sauerbruch of Zürich and Professor Tuffier.

Papers will also be read by individual members. Many have already been received, but it is noteworthy that they all come from abroad, and no English surgeons have yet offered any contribution. There seems, too, to be some ill-defined idea that the Section is a gathering of London surgeons who are inviting their colleagues from other countries. This is in no sense true. It is the surgeons of the United Kingdom who are endeavouring to make an international congress as truly representative of British surgery as is possible. The vice-presidents, the council, and the secretaries of the Section have been chosen, therefore, with a due regard to representation of surgery in England and the provinces, in Scotland, Ireland, and His Majesty's oversea dominions.

The Social Side of the Section.

The sectional work of the social side of the Congress is also in an advanced state of preparation, thanks largely to the energy of an influential Ladies' Committee under the direction of Lady Watson Cheyne. It is proposed, amongst other things, that a party of one hundred surgeons and their wives shall be shown round the University of Cambridge on Saturday, August 9th, where they will be received by Mr. Howard Marsh, the Master of Downing College, who is also Professor of Surgery in the University. By the kind permission of the Master and Warden of the Company there will be a personally-conducted party of seventy surgeons and their wives or daughters to Barbers' Hall, which owing to its position in the City is rarely visited. The hall is interesting from its historical associations, as well as its architecture and art treasures. It has remained on the same spot for at least nine hundred years, and thus represents the cradle of English surgery. No sectional dinner will be held, but this omission will be more than supplied by the offers of private hospitality which have already been received. The Hon. W. F. D. and the Lady Esther Smith have invited members of the Section to a garden party at Henley, and the Ladies' Committee will hold an afternoon reception in the Botanical Gardens.

THE SIGHT TESTS OF THE BOARD OF TRADE.

THE following statement has been sent to us for publication:

We, the undersigned, are of opinion that the sight tests of the Board of Trade are not satisfactory for the following reasons:

1. The types used in the form vision test should be printed on a smooth flat surface, preferably white porcelain, and not on a roll of canvas which has to be held down by the examiner.

2. The wool test for colour blindness is not an efficient test.

3. Any lantern used for testing for colour-blindness should have means for regulating the luminosity of the lights shown.

(Signed)

ANDERSON CRITCHETT.
J. B. LAWFORD.
WALTER H. JESSOP.
E. TREACHER COLLINS.
PERCY C. BARDSLEY.
C. DEVEREUX MARSHALL.
N. BISHOP HARMAN.
H. H. B. CUNNINGHAM.
BERNARD CRIDLAND.
R. J. COULTER.
CYRIL H. WALKER.
SYDNEY STEPHENSON.
PRIESTLEY SMITH.
F. R. CROSS.
J. GRAY CLEGG.
W. T. LISTER.
S. JOHNSON TAYLOR.
RICHARD R. CRUISE.
GEORGE MACKAY.
RAYNER D. BATTEN.
F. M. GRANGER.
HENRY E. JULER.
J. H. TOMLINSON.
W. B. INGLIS POLLOCK.
ELMORE BREWERTON.
W. ADAMS FROST.
J. BURDON-COOPER.
ARTHUR GREENE.
ERNEST CLARKE.
W. LANG.
F. W. EDRIDGE-GREEN.

A DEPARTMENT for the treatment of hydrophobia has just been added to the International Hygienic Research Institution in Jerusalem. Hitherto patients have had to be sent to Cairo.

THE ETHICS OF ANTIVIVISECTION.

ANTIVIVISECTIONISTS profess to act up to a higher standard of ethics than the ordinary moral law accepted by the rest of mankind. When they cannot deny that knowledge useful for the relief of man and the cure and prevention of disease has been obtained by experiments on animals, they reply that this is no justification of that method of research. "The whole question of man's rights and duties towards the helpless animals given into his dominion by the Ruler of the Universe is," Mr. Stephen Coleridge told the Royal Commission on Vivisection, "a moral question, and has nothing to do with science." By parity of reasoning it might be held that the killing of animals for food and raiment, the infliction of acute suffering on them for personal adornment, and their mutilation for various purposes that have nothing to do with their own good, are moral questions that have nothing to do with any real or supposed benefit to man. In regard to these things, however, the ordinary antivivisectionist is usually content to accept the benefits without allowing inconvenient ethical scruples to interfere with his convenience.

It is far better, Mr. Coleridge said on the same occasion, to do without physiology than to be without pity. This, if it stood alone, would be a truism; but in the mouth of the antivivisectionist it means that a sentimental pity for animals should override all active pity for suffering human beings. It is not strange, therefore, that many antivivisectionists are not only hostile to the advance of knowledge by experimental research, but are by no means remarkable for good nature and consideration for the comfort and feelings of their fellow creatures. Miss Frances Power Cobbe made the strange boast that she loved animals by nature, and her own kind only by grace. We need only glance at their literature to see how they strive to wound not only the "wicked" vivisector, but those of their own side, if they happen to differ from them on some point of detail, or seem to threaten to displace them in the eyes of the public.

A fierce light is thrown on the manner in which some of the antivivisectionists apply the ethical principles on which they profess to take their stand by the following incident.

In a letter circulated in the press and reprinted in the *Zoophilist* of September, 1912, Mr. Stephen Coleridge gave an account of a visit he had himself paid to the Physiological Institute at University College. He said that he had frequently been taunted with refusing invitations to visit laboratories and see for himself how happy are the animals therein vivisected. He had never accepted such invitations, because, he said, he regarded them as similar to the invitation of a motorist to a policeman to drive in his car and observe that he never exceeded the speed limit. He did not imagine that animals would be in visible agony when he arrived by invitation. A surprise visit, however, he regarded as similar to a police trap on a straight piece of road, and that was the test he proposed to institute at University College Laboratory. The circumstances which led Mr. Coleridge to depart from his fixed policy of declining to see things for himself are set forth as follows:

> On the 18th of October, 1911, I received a letter from a reputable source complaining of the dreadful sounds of the howling of dogs in suffering that were constantly to be heard in the neighbourhood of the laboratory attached to University College in Gower Street. Having first sent others to ascertain whether these complaints were well founded, and having received confirmation of them, I determined to visit the neighbourhood myself. Accompanied by Mr. Arthur Veasy, I went to some premises behind the college, and from the windows myself heard the dreadful cries of the dogs. The pitiful howlings seemed to me to indicate that the wretched animals were enduring miseries more poignant than the mere discomfort of confinement. With the desire and intention of ascertaining personally whether or not I was mistaken, and in order to give those responsible for the laboratory the opportunity of showing me that I was wrong in attributing these mournful cries to physical pain, I went over to the college with Mr. Veasy, and, with the assistance of two courteous students, was guided to the foot of the stairs, at the top of which was the door into the laboratory.

Mr. Coleridge goes on to say:

> That there might be no subsequent dispute as to why I came and what I asked, I sent up my card with the following note, a copy of which I kept:
>
> "February 21st, 1912. Mr. Stephen Coleridge requests permission to go over the laboratory of University College, registered under the Act 39, 40 Vic., cap. 77, for experiments on living animals."

Mr. Veasy and he awaited a reply at the landing next the door, a view of which they commanded. The rest is better told in his own words.

> In a very few moments there emerged a person whom I deemed to be one of the twenty-one licensed vivisectors who are attached to this laboratory, followed by four or five of his pupils. This person, a small man in a brown holland pinafore, appeared to be labouring under an access of violent excitement. I think he feared that I had come with the intention of making an entry by force, and was desperately determined to prevent it, assisted by his students, who were more stalwart and more composed than himself. He proceeded to display the manners and the temper of a vivisector. "How dare you come here, sir?" he vociferated several times, while I regarded him with amused patience. "You don't wish to show me over the laboratory?" I replied. "Certainly not!" he spluttered; "get out of this; get out!". "Would you like to know why I came?" I asked. "No," he cried; "I won't listen to you. Get out!" "By all means," I said; "I will get out, but I should like to know your name." "Starling is my name," he replied. "Ah!" said I, "I remember having the pleasure of seeing you in the witness-box in Mr. Bayliss's action."

The pleasure of a sight which recalled this incident was probably not altogether unmixed, and the "amused patience" of Mr. Coleridge during the interview on the stairs did not leave him sufficiently cool to prevent his confusing the "small man in a brown holland pinafore" with Dr. Starling, who spoke to him and who was dressed in blue serge. There the interview ended. Mr. Coleridge concludes as follows:

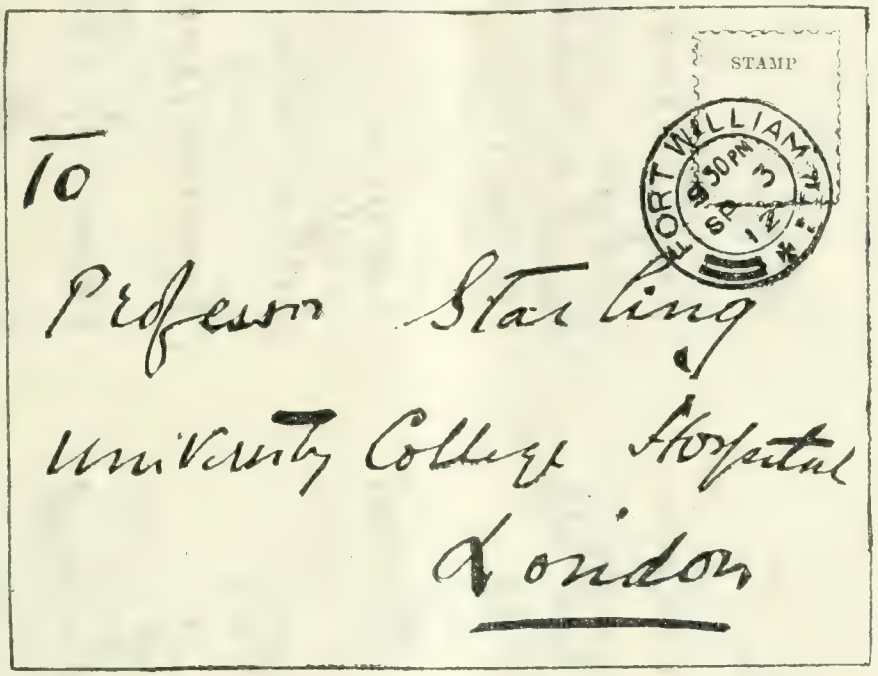
> I make the obvious and necessary and conclusive deduction from Professor Starling's conduct throughout this transaction that he feared to admit me to the laboratory because he knew what I should find there, and because if admitted instantly I should have come away from the spectacle armed with ocular demonstration that the dreadful cries which I had heard emanated from dogs whose dolorous clamour was caused by the wounds in their bodies inflicted on them under certificate B.

Mr. Coleridge professes to be shocked at a split infinitive—perhaps because the operation is performed without an anaesthetic. We suppose, therefore, the mixture of metaphors here must be set down to excitement. One would like to have seen him leave the laboratory "armed with ocular demonstration" of dreadful cries. The sentence reminds one of Bottom's question whether Theseus would like to *see* the epilogue or hear the Bergamask dance. Ocular demonstration of cries, however, is the kind of proof that seems to satisfy antivivisectors. But how was it, if dreadful sounds of dogs in suffering were constantly to be heard, that Mr. Coleridge did not see them when he was actually on the threshold of the chamber of "torture"? It may be added that even if Mr. Coleridge had seen anaesthetized dogs with wounds in their bodies inflicted on them under certificate B. and had had "ocular demonstration" of cries, this would not have proved that the animals were suffering. If he would go into an operating theatre in any hospital he could scarcely fail to hear dolorous clamour from patients under the knife, who yet will tell him when they recover from the anaesthetic that they had felt nothing whatever. The "obvious and necessary and conclusive deduction" to be drawn from Professor Starling's conduct throughout the transaction, taking Mr. Coleridge's account as strictly accurate, is simply that a busy man objected to being disturbed by one who has reviled him for years and who, it was natural for him to assume, did not come with the intention of seeing impartially, but with the wish to find some semblance of justification for his unfounded charges. Can it be supposed that a man with a mind so biassed as Mr. Coleridge could have gone to the laboratory with any other intention than to find fault? We say nothing of Mr. Coleridge's language further than to suggest that he might ponder in his heart the following words of a French writer: *Il est si facile d'être insolent! C'est un art qui demande peu d'étude, qu'on possède de naissance, et où les plus sots excellent, une musique qu'ils chantent d'inspiration, à livre ouvert.*

That Mr. Coleridge's description of what took place is grossly exaggerated is shown by a letter from Professor Bayliss, dated August 27th, 1912, which appeared in the *Yorkshire Post*. He says he happened to be passing

during the interview spoken of by Mr. Coleridge and heard the reason given to him why he was not shown over the laboratory. It was this: "You have done all in your power to hinder us in our work here, and you are requested to leave at once." In a further letter published in the same paper of September 2nd, Professor Bayliss says the time at which Mr. Coleridge appeared was by no means inopportune, as all the workers in the laboratory were at tea, and no experiments were being made. He goes on to say that: (1) Visitors capable of understanding what they saw would be admitted at any time without giving notice. (2) Any unprejudiced person would be welcomed. But, he asks, what would be gained by admitting people who had already made up their minds with respect to what they would see, and would see exactly what they wished to see? (3) He adds: "The falsity of Mr. Coleridge's description of University College laboratory was shown in the court of the Lord Chief Justice, and in consequence of this he had to pay damages of £2,000."

Though this may be the first time Mr. Coleridge has sought to have "ocular demonstration" of the cries of suffering animals, it is not the first time that he has endeavoured to harrow the feelings of the public by descriptions supplied by other people of the howlings of dogs supposed to be in the hands of vivisectors. In his evidence before the Royal Commission he stated that he had received a letter from some undergraduates of Keble College, Oxford, in which they said that, living directly opposite the laboratory, they heard screams of vivisected animals. Mr. Coleridge did "the obvious thing a gentleman ought to do." He wrote at once to the professor, told him the information he had received, and asked for his explanation. The answer was that the head of the laboratory gave the lie to the six gentlemen at once. Mr. Coleridge's comment is that "all he could say was that in a court of justice the six witnesses would go against the one." The Commission was not impressed by the testimony of Mr. Coleridge's six witnesses, however, and it was elicited from him that after he had received a further letter from his informant saying that the professor was a liar, he had left the matter there. "That," he said, "was a flat contradiction. It was no use carrying the matter further." We think it would have been of great use, for it would have given him another and better opportunity of doing the obvious thing a gentleman ought to do. That is to say, instead of leaving on record a story—as it stands unaltered in the reprint of his evidence published by his society in 1907—based on nothing but the imagination of some undergraduates, ignorant of science and knowing nothing of laboratories, he would have frankly withdrawn the charge and expressed his regret at having been made the medium of a false accusation. If he does not know the facts which he might have discovered by carrying the matter further, we have much pleasure in bringing them to his knowledge. The undergraduates apologized, and withdrew the statements made in their communication to Mr. Coleridge; what they heard was not howls of dogs under the vivisector's knife, but the yelps of a litter of young puppies at play, which were kept not for experiment, but because a laboratory guard dog had borne them. Mr. Coleridge cannot divest himself of the responsibility of having by his speeches and publications contributed to bring about a state of mind which could lead a set of young men at once to assume, merely because the sounds happened to proceed from the backyard of a laboratory for physiological research, that the noise produced by a batch of puppies during their youthful gambols was in reality due to the piteous howls of dogs writhing under the vivisector's knife.



It may not be amiss to recall that on a previous occasion Mr. Coleridge made a violent attack on University College. At the annual meeting of the National Antivivisection Society held on May 1st, 1903, he tickled the ears of the groundlings at St. James's Hall with the following delectable piece of rhetoric:

> Within the walls of University College there was a laboratory licensed for vivisection, and into its dark portals there passed a never ending procession of helpless dumb creatures. Dogs, lost or stolen from their homes, where they had known nothing but love and affection, followed one another down that Via Dolorosa into a scene of nameless horror, where man degraded his race and his manhood, and brought on that University a smirch that time itself would never erase. Within the precincts of the college and close to this Pit of Tophet was a school dedicated to one of the purest and loftiest of human studies—that of the fine arts. Between this place of peace and the place of torment, the dividing wall was slight, and into the serene and silent school of the beautiful rose distinctly from the vivisectors' den the shrieks and piteous cries of the dogs in their agony. Surely in this world Heaven and Hell were never brought so near together! But the love of beauty never yet failed to keep the soul alive, and through the Slade School students had the inarticulate sobs and moans of these wretched creatures reached the ears of those less pitiless than their tormentors. Thus through him had the piteous cries reached the thousands in this hall, and he trusted they would reach a million ears through the press. There might be some few persons so hard to convince that even the shrieks heard in the Slade School might not be sufficient, and they might say that until he could produce the testimony of an eye-witness they would not believe. He had come prepared even for them.

Then Mr. Coleridge quoted the testimony of his eye-witnesses, which we will not repeat, as it had the effect of landing him in the law courts, where he was mulcted in heavy damages. But we wish to call special attention to another part of the same speech. After professing that he "desired to observe the amenities of gentlemanlike debate," he went on to say that

> so certain was he of the deep and abiding humanity of the British race that he felt sure that did they know what he knew went on in these dens of infamy, they would not wait for supine legislation; they would not wait for the second readings or third readings of bills in Parliament; but they would go in their irresistible thousands; they would set free the victims from their cages; they would smash to atoms the horrible instruments of torture; and they would leave every laboratory in the kingdom a heap of ruins.

It must charitably be supposed that Mr. Coleridge was on this occasion, to use Disraeli's phrase, "intoxicated by

Argyll Mansions
Feb 3 1913

Sir

Having heard that
you refused admittance
to The Hon Stephen Coleridge
I write to say I
consider you an absolute
blackguard.
The cries from the
tortured dogs are being
continually complained
of & I intend to make
this known & many

people of position &
influence on my return
to England.
I sincerely trust &
confidently think &
believe that your
death bed will be
one of the most agonizing
ever known & that
in the next world

You will receive the same torturing agonies you give to dogs.

It shows pretty well what you do to the poor creatures as you are so afraid of anyone seeing the laboratory. I look upon you as an incarnate fiend & hope you may suck into your devils sooner than you think.

In my opinion it is not wrong to kill a man who tortures animals a fiendish as you do

R. J. C. M. D.

the exuberance of his own verbosity." None the less, he must be held responsible for an incitement to violence and destruction of property which, addressed to the kind of audience he had gathered to hear him, might very easily have led to the perpetration of unlawful acts.

That his appeals to fanaticism might possibly lead to even more serious results is shown by a letter received by Professor Starling since the publication of Mr. Coleridge's account of his visit to the Institute of Physiology at University College. Professor Starling receives communications of the kind very frequently. The following, therefore, may be taken as a sample of the kind of feeling the vituperations of Mr. Coleridge may be capable of exciting:

[*Copy.*] Argyllshire,
N.B.
September 3rd.

Sir,

Having heard that you refused admittance to The Hon. Stephen Coleridge, I write to say I consider you an absolute blackguard.

The cries from the tortured dogs are being continually complained of, and I intend to make this known to many People of Position and influence on my return to England.

I sincerely trust and confidently think and believe that your deathbed will be one of the most agonizing ever known, and that in the next world you will receive the same torturing agonies you give to dogs.

It shows pretty well what you *do* to the poor creatures as you are so afraid of anyone seeing the laboratory. I look upon you as an incarnate fiend and hope you may meet with your death *sooner* than you *think*.

In my opinion it is *not* wrong to kill a man who tortures animals as fiendishly as *you* do.

R.F.C. M.P. [? M.D.]

The last sentence may be taken as representing the ethics of antivivisectionism in their extreme form. The letter, which from the handwriting would seem to have been written by a woman, is signed with initials and with a description doubly underlined, which may be M.P. or M.D. Possibly the ambiguity was not unintentional. We cannot find the name of any member of Parliament with the initials "R. F. C." The letter is reproduced in facsimile by photography, and it is perhaps possible that the writer may be identified. It is, indeed, intolerable that men who are seeking to enlarge the bounds of human knowledge and to discover means of relieving human suffering should be subjected to this form of persecution. Foolish as it is, it represents a state of mind which might very well become dangerous. Possibly some of our readers may remember that some years ago an attempt was made to organize the destruction of vivisectors by prayer. The document was published in the JOURNAL of January 23rd, 1909. The text need not be given again, but one significant passage may be quoted. The writer, M. Cowan, stated that she had thought of prayer as a means of "removing" vivisectors. She thought first of experimenting on Dr. Starling, but, strange as such a scruple may seem, it seemed to her unfair to give such a stab in the dark without first letting it be known what was intended.

> It was therefore finally decided to make earnest prayer, giving much thought to the subject, that the Almighty, if the prayer were in accord with His will, would promptly remove the man most likely to cause future suffering to innocent subjects by his experiments. About a fortnight later one of our most distinguished medical scientists dropped, and the newspapers were lamenting the loss to science of this vivisector and the discoveries he was just about to make.

We do not know who this victim of homicidal prayer may have been, but it obviously was not Professor Starling. The idea was not original, for it is recorded in the life of Dr. Anna Kingsford that she used to boast of the vivisectors whom she had done to death by the power of her will. The poor lady had to confess that she had found Pasteur too tough a subject, and we have not heard of any special mortality among vivisectors as a result of M. Cowan's prayer. This kind of folly can only excite a smile, but the letter here reproduced in facsimile is in a different category, for its last sentence must mean, if it means anything, that the assassination of a vivisector would, according to the code of ethics held by this particular follower of Mr. Coleridge, be a justifiable act. Such an expression of opinion by a person who conceals her name and address has no importance except as evidence of the state of mind which may be produced by the inflammatory appeals of antivivisection agitators. It may safely be assumed that the people who read and are moved by these appeals do not make any investigation into the truth of the allegations upon which such appeals rest, and it is therefore all the more incumbent on those who make such allegations to make sure that their facts are correct, and that the deductions are "obvious and conclusive and necessary," and not wholly erroneous and superfluous.

Mr. Coleridge dissociated himself from M. Cowan's prayer league; will he also publicly express his disapproval of R. F. C.'s code of ethics? It may seem absurd to take serious notice of such threats as the letter contains, but we cannot forget that a Belgian newspaper once published a direct incitement to murder Pasteur. The terms of the letter would appear to show the effect which Mr. Coleridge's rhetorical appeals may have on an excitable mind, and that we are afflicted at the present time with many persons who are prepared to translate hasty words into rash deeds there is abundant evidence. We invite Mr. Coleridge to consider whether he would not be well advised in future first of all to ascertain the facts, and then to state them without exaggeration. Should he and other antivivisectors then find that they do not supply material for prolonging their agitation, that will be the fault of the facts.

It may be asked, Was Mr. Coleridge, then, mistaken in thinking that he heard the howls of dogs? Not necessarily. But he was certainly mistaken in believing that they proceeded from animals undergoing "torture." We have ourselves heard the most appalling shrieks emanating —if we may borrow a word from Mr. Coleridge's elegant vocabulary—from a terrier frenzied with the lust of blood owing to the neighbourhood of some mice he could not reach. Most workers in laboratories within the precincts of which dogs are allowed to ramble have had similar experiences. We recommend Mr. Coleridge not to rush into print again with descriptions of "dolorous clamour" caused by wounds inflicted under certificate B till he has had "ocular demonstration" that the dreadful cries do not emanate from untouched dogs protesting that they are debarred from following the instinct of "Nature red in tooth and claw."

ONE HUNDRED YEARS AGO.

TYPHUS FEVER.

IN May, 1813, typhus fever was much in men's minds. As has so often happened, it came not alone, but was accompanied by famine and war; these three grim forms stood menacingly over Central Europe in the spring months of the year. In 1812 there had been the rush of a great wave of armed men from west to east across the Continent. More than half a million soldiers, constituting *la grande armée* of Napoleon, poured over the territory held by the Confederation of the Rhine, and, gathering numbers, flowed on with slackening speed into Russia, to break against the walls of Moscow and to stream back again over Poland and Prussia from east to west in feeble, shattered wavelets. It was General Typhus, allied with Generals Famine and Frost, who had come to Russia's aid, had scattered these invading thousands, and had sent them back as bands of disease-stricken stragglers, dying by hundreds on the way, across Germany, and carrying the pestilence wherever they went. In May, 1813, a second great eastward flow was in progress; it was now France with some Westphalian, Bavarian, and Saxon contingents, which was opposed to Russia in alliance with Prussia and later with Austria too, and this wave broke into spray in the terrible three days' battle of Leipzig—without exaggeration termed the "Battle of the Nations"—in which there was a total loss of not less than 120,000 men (October 16th to 19th, 1813). To quote from the *Cambridge Modern History* (vol. ix, p. 541), Napoleon "brought back to France only about 70,000 men, of whom 30,000 soon afterwards fell victims to typhus, and many others wasted away; within little more than a year two French armies, amounting together to nearly a million of men, had perished." Exactly how much of this mortality and disablement was due to typhus fever cannot, of course, be determined, but there can be no doubt at all that both in the campaign of 1812 and in that of 1813 this malady was terribly fatal.

To the medical men of the beginning of the nineteenth

century typhus fever was no unknown or little known disease; under the names of nervous fever, spotted fever, exanthematic typhus, putrid fever, and febris pestilens, it was always in the thoughts of the doctors, and the vernacular terms *jail*, *hospital*, *ship*, and *camp fever* tell only too plainly something of the places in which it wrought its devastating effects. We hear nothing nowadays of "black assizes," but our ancestors were not so blissfully ignorant. Many of us at the present time have never met with a patient suffering from typhus fever; the writer of this article has only seen one case of it, and that was thirty years ago this May when he was a medical student in his final term of study. Its name appears but seldom in our medical journals. But to the medical practitioners of the time the typhus epidemics of 1812–13 were as fresh reminders of the unmanageable nature of this dire scourge, and a new flow of books and articles on the subject came from the medical press of Germany, France, and Great Britain during the years which immediately followed the Moscow campaign and the battles round Leipzig. For instance, Professor Parrot of Dorpat dipped his pen in ink and wrote his paper, *Ueber das im jetzigen Kriege entstandene typhöse Fieber und ein sehr einfaches Heilmittel desselben;* and this contribution to the etiology and treatment of *Nervenfieber* (as he preferred to call it) appeared in Hufeland and Himly's *Journal der practischen Heilkunde* for May, 1813. It is, indeed, the principal article in the May monthly instalment of that widely read periodical, occupying 72 out of the 128 pages of which it consists.

Dorpat, it is true, lay to the north of the line of advance of the *grande armée* through Russia upon Moscow, but it was well within the zone of the typhus fever epidemic which accompanied and spread out on all sides from the path of retreat of the broken and dispirited masses of men struggling through snow and storm to regain the banks of the Niemen. Professor Parrot had abundant opportunity of observing cases of typhus and of testing his remedy, which was acetic acid or vinegar. He speaks very highly of its efficacy, and in a later number of Hufeland's *Journal* (July, 1813) he is able to supplement his earlier report with further evidence furnished by an independent writer. As for the rest of his article, the part which deals with etiology and with what he calls his "fundamental hypothesis," it has fallen quite dumb to us of the twentieth century; its terminology is almost obsolete, and the ideas which underlie it have passed away. The illustrative cases, which meant so much to Parrot for the support which they gave to his fundamental hypothesis, are interesting to us for other reasons. The paper was no doubt eagerly scanned by the readers of Hufeland's *Journal* who had typhus cases to treat, and there were many of them we may be sure; but to us it stands simply as an indication of the severity of the epidemic of 1812–13, and as a grim reminder of the medical aspects of Napoleon's march upon Moscow.

Now, a hundred years later, Dr. Achilles Rose[1] of New York, has taken pains to collect into one volume the contents of many scattered and almost inaccessible pamphlets and books bearing upon the medical details of the campaign of 1812. He has worked the historical into the medical in a way that makes the work very interesting and almost absorbing reading; and from beginning to end we feel that it was disease more than all the other opponents of the march which Napoleon had to fear. Dr. Rose utilizes books and dissertations published soon after the war, as well as those journals and diaries which have only recently become available, in order to tell his story with effect and graphic accuracy. Among the former he relies largely upon Dr. Krantz's *Bemerkungen über den Gang der Krankheiten welche in der Königl. preuss. Armee vom Ausbruche des Krieges im Jahr 1812 bis zu Ende Waffenstillstandes (im Aug) 1813 geherrscht haben*, published in 1817, and upon Dr. Ch. Jo. de Scherer's dissertation (Tübingen, 1820) *Historia morborum, qui in expeditione contra Russiam anno MDCCCXII facta legiones Württembergicas invaserunt*, etc. Among the latter he draws upon the works of Bleibtreu (1908), Johann von Borcke (1888), Heinrich von Brandt (1870), Carpon (1902), Chuquet (1912), Wilhelm Ebstein (1902), Paul Holzhausen (1912), Karl Schehl (1912), and von Yelin (1911). It is now possible from these various sources to reconstruct, with some degree of accuracy and also with an appalling sense of horror, the medical history of the events of 1812 and of the sequel to them in 1813.

Napoleon's great army, containing, let it not be forgotten, many thousands of Westphalians and Württembergers and of other nationalities which were not French, was in reality annihilated before it reached Russia. These are Rose's striking words, and he is able to furnish facts which show his statement to be not unfounded: forced marches over the sandy plains of Poland and Lithuania, the drinking of stagnant water, dysentery, immoderate use of spirits, insufficient food, and the absence of medical supplies and of proper hospitals, all tended to sap the soldier's strength and make him unfit for the campaign in Russia itself. Further—and this has a bearing upon recent work on the causation of typhus fever[2]—the army "found Prussia, and especially Poland, ugly, dirty, miserable, all the houses were full of dirt and vermin, domestic animals of all kinds were the intimate *syntrophoi* of the peasants in their living rooms." In Russia medical conditions became rapidly worse; each battle added to the misery of the troops, and served to demonstrate the inefficiency and inadequacy of the hospital arrangements. Already at Wiasma there were numerous cases of typhus; but when the long retreat from Moscow began then that dread scourge fell upon the wretched, starved, half-frozen soldiery and swept them off in thousands. Dr. Rose gives details from contemporary narratives, almost too horrible to be read calmly, of the frightful ravages of typhus fever. The track of the army became infected, so that whoso passed along it afterwards caught the contagion. Thus, "the first East Prussian regiment of infantry, when it came to the Vistula, had not a single case of typhus in it, while after a march of fourteen miles on the highway which the French had passed before them there were fifteen to twenty men sick in every company, every tenth or even every seventh man." Along with the typhus came epidemic ophthalmy. "All the hospitals between the Vistula and Berlin . . . were thoroughly infected and thus transformed into regular pest-houses, exhaling perdition to every one who entered, the physicians and attendants included." A typhus patient's best chance was to be treated on the march, a fact which excited surprise then but need not do so now. Hospital treatment consisted in the exclusion of fresh air and the hourly administration of medicines!

It is only within recent years that some light has been thrown on the transmission of the infection of typhus fever, but the causal organism remains unknown. In fact we have in this fever the curious phenomenon of a malady which has almost entirely disappeared in many parts of the world without its cause having been discovered. But there seems to be now no doubt that the natural agent of transmission of typhus fever is the common body louse; and, further, there is evidence to show that the second generation of progeny of infected lice are able to confer a certain degree of immunity (*vide* annotation in this JOURNAL for August 24th, 1912, p. 452).

Now, if body lice be indeed the carriers, there is abundant evidence in Dr. Rose's book and in other articles that the conditions both in 1812 and 1813 were most favourable for their activities. Take this passage from Rose's work (pp. 102–103):

> And the vermin! Carpon, a surgeon-major of the grand army, in describing the days of Wilna . . . speaks on this subject. It is revolting. Strange to say, it is hardly ever mentioned in the medical history of wars, although every one who has been in the field is quite familiar with it. At last I have found—in Holzhausen's book—a description of the most revolting lice plague (phtheiriasis) from which, according to his valet, Constant, even the emperor was not exempted. As a matter of course under the circumstances—impossibility of bodily cleanliness—this vermin developed in a way which baffles description. Suckow, a Wuerttembergian first lieutenant, speaks of it as causing intolerable distress, disturbing the sleep at the camp fire. Johann von Borcke became alarmed when he discovered that his whole body was eaten up by these insects. A French colonel relates that in scratching himself he tore a piece of flesh from the neck, but that the pain caused by this wound produced a sensation of relief.

Again, when the Prussian troops reached their own

[1] *Napoleon's Campaign in Russia, Anno 1812: Medico-Historical.* By Dr. A. Rose. Published by the Author. New York, 1913. (Pp. 212.)

[2] BRITISH MEDICAL JOURNAL, 1912, ii, p. 451.

land in 1813 one of their first occupations was to remove from their faces the mask of dirt which had accumulated there; and their fellow countrymen of all ranks made a good wash the first part of their hospitality. Here is another short extract from Dr. Rose's book:

"Sergeant Schoebel, together with a comrade, was quartered in the house of an honest tailor, who, seeing how the soldiers were covered with lice, made them undress and, while the wife boiled the undergarments, the tailor ironed the outer clothing with a hot iron.

It seems strange that a hundred years have had to pass before the carrier of the contagion of typhus fever has been identified as the body louse; but, assuredly, the annals of the wars of 1812–13 furnish abundant evidence that there then existed no lack of opportunities for this etiological factor coming into action.

ROYAL MEDICAL BENEVOLENT FUND.

AT the April meeting twenty-one cases were considered, and grants amounting to £200 voted to eighteen of the applicants. Appended is an abstract of the cases relieved:

1. Widow, aged 57, of L.R.C.P.Edin. Only income about 10s. a week from lodgers; children unable to help. Relieved three times, £34. Voted £10.

2. Widow, aged 51, of M.B., C.M.Glasg. Since husband's death, ten years ago, has been supported by a son, but asks for a little help to relieve him. Voted £5.

3. Daughter, aged 45, of late M.R.C.S. Was a district nurse for many years, but had to give up her post owing to feeble health, and now tries to support herself by letting rooms. Relieved twice, £20. Voted £10.

4. Widow, aged 39, of L.R.C.P., L.R.C.S.Edin. Lost her husband about twelve months ago, after several years' illness, and is now suffering from a grave internal complaint. No income; three children, the eldest only 16. Voted £24.

5. Widow, aged 48, of L.R.C.P., L.R.C.S.Edin. Health too feeble to admit of occupation, and is allowed £1 a month by the Working Ladies' Guild. Is a candidate for a pension from the British Home and Hospital for Incurables. One child dependent and the others unable to help. Relieved seventeen times, £195. Voted £12.

6. Widow, aged 43, of M.B., C.M.Aberd. Supplements an income of a few shillings a week by taking boarders, but having four young children finds great difficulty in meeting her unavoidable expenses. Relieved twice, £20. Voted £10.

7. Daughter, aged 66, of late M.R.C.S. Is mentally feeble, and for many years has been practically dependent on this Fund and a small pension given by another society. Relieved fourteen times, £144. Voted £12.

8. Daughter, aged 42, of late L.R.C.P., L.R.C.S.Edin. Endeavours to support herself by nursing but finds great difficulty in obtaining engagements and has recently been incapacitated by illness. Relieved eight times, £61. Voted £5.

9. Widow, aged 50, of M.B.Aberd. After husband's death supported herself by nursing but broke down in health and has now for the last few years been quite incapacitated. No income and dependent on a small weekly allowance from a sister and a little help from a married son. Relieved five times, £49. Voted £12.

10. Widow, aged 46, of M.R.C.S. Quite unprovided for at husband's death a few years ago from a new growth, and has been obliged to give up a situation as mother's help on account of uncertain health. Is practically dependent on a stepson whose earnings are small. Relieved four times, £48. Voted £12.

11. Widow, aged 64, of M.R.C.S. Income less than 5s. a week and is deprived for the present of the help given by two of her children. Relieved three times, £36. Voted £12.

12. Daughter, aged 51, of late M.R.C.S. Used to be a governess but has become nearly blind, and is quite unable to maintain herself. Relieved twice, £24. Voted £12.

13. M.D.Aberd., aged 60. Has suffered for several years from a spinal complaint and is now practically bedridden. Receives help from other charitable societies, but having three children dependent is obliged to seek further assistance. Relieved three times, £33. Voted £10.

14. Widow, aged 68, of L.R.C.P., L.R.C.S.Edin. Only income a small pension from a charitable society and is quite incapacitated by rheumatoid arthritis. No children. Relieved three times, £29. Voted £10.

15. Daughter, aged 60, of late M.D. Is quite helpless owing to an advanced nervous disease and is practically dependent on this fund and slight help given by friends. Relieved four times, £44. Voted £18.

16. Daughter, aged 67, of late M.R.C.S. No income, and only able to occasionally earn a few shillings a week. Relieved once, £12. Voted £12.

17. Wife, aged 48, of L.R.C.P., L.R.C.S.Edin. Since the mental breakdown of her husband five years ago has endeavoured to support herself by taking boarders; two sons, aged 20 and 17, the elder barely self-supporting, and the younger an apprentice not yet earning anything. Relieved three times, £48. Voted £2, and case to be reconsidered next month.

18. Daughter, aged 70, of late M.R.C.S. At father's death many years ago was fairly provided for, but lost some of her capital through the failure of a bank and the rest in the endeavour to establish a boarding house; now dependent on this fund and a sister who can ill afford to help. Relieved three times, £36. Voted £12.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, London, W.

LITERARY NOTES.

STAFF-SURGEON-GENERAL MORI, of the Japanese army, has translated Goethe's *Faust* into Japanese.

Messrs. Baillière, Tindall, and Cox will publish a new edition of Castellani and Chalmers's *Tropical Medicine*, which embodies the most recent researches. The book has been revised throughout, and special attention has been bestowed on many of the chapters—notably those on protozoa, fungi, skin affections, pellagra, enteric fever, and trypanosomiasis. About 250 new illustrations have been introduced, while some 500 pages have been added to the text.

The May issue of the *Arena* opens with two articles answering from differing standpoints the question: "Are views on women's suffrage inculcated at girls' schools and colleges?" The writers are Mrs. Elizabeth Sloan Chesser, M.B., and Mrs. Frederick Harrison. The former sums up her view in the concluding sentences of her article:

"If suffrage is spreading in the schools, let us welcome the fact as a sign that the modern girl is developing an interest in the affairs of the nation and the empire which will in no way diminish her zest for tennis or for her *joie de vivre*.

There are not a few golf players, however, who might say that it tends seriously to diminish their opportunities of playing their favourite game. On the other hand, Mrs. Harrison holds that it cannot be the purpose of education to turn its pupil into a party politician, and that the teachers are seldom well prepared to treat of the Feminist movement. She adds that the cultivation of a sense of humour would greatly improve the situation. "It is not for school girls to make revolutions!" Professor Strong contributes an amusing account of the early days of the University of Liverpool, and of the struggles of that institution to obtain a permanent footing. Another university dealt with is that of El-Azahr, the great Mohammedan university in Cairo. The author makes an interesting comparison between that institution and Oxford; both universities began as semi-religious foundations, and have carried their atmosphere of the Middle Ages with them down to the present time. We take this opportunity of again expressing our appreciation of the excellence of our contemporary. The skill with which the literary fare is varied to suit the intellectual palates of different readers reflects the highest credit on the editor, Mr. Horace W. Wyatt.

In the *Married Life of Queen Victoria*, published recently by Eveleigh Nash, the author, Clare Jerrold, states that at the birth of the Princess Royal (the late Empress Frederick), Locock, who officiated on that auspicious occasion, received a fee of a thousand pounds; probably the other physicians present—Blagden and Sir James Clark—were paid on the same scale. A comic poet of the period celebrated the services of those learned men in the following verse:

> Doctors Locock, Blagden, Clark,
> They made the great discovery,
> And having brought the goods to town,
> Were paid upon delivery.

It was also announced—not, it need hardly be said, officially—that Prince Albert intended to present Locock with a piece of plate bearing the inscription, "To the great deliverer of his country."

In *Paris Médical* of March 15th Dr. Julien Roshem gives an account of a French medical journal of the seventeenth century. It was entitled *Le Temple d'Esculape*, and was intended to chronicle new discoveries in medicine. The first number was published in Paris in January, 1680, the editor being Nicolas de Blégny, a well-known surgeon of the time. He

explains the name and the object of his periodical in the following announcement:

Nothing has more served to render medicine dogmatic than the tablets formerly placed in the pagan temples where Esculapius was adored as the god of medicine because these tablets contained not only the names of those who had been cured by extraordinary remedies, but also an exact description of the remedies and of the use that had been made of them. For the same reason it is hoped that the new discoveries made in that science being recorded and published according to the design of the author will make the good fortune of individuals available for others and furnish for the future more certain principles and more infallible rules for the art of preserving life.

He describes the nature of the contents of the periodical more in detail as follows:

The reader will always find in these numbers the discoveries made at the opening and dissection of bodies, the extraordinary features that may be observed in common diseases, the signs and features of those which are newly identified, the histories and illustrations of monsters and other prodigies of nature, descriptions of remedies and newly-invented instruments which facilitate the cure of diseases, new chemical experiments, remarkable things seen in the art of healing, the reasonings of scientific men on all these various subjects, new systems of physics and generally everything relating to the knowledge of natural bodies.

Blégny must have been a man of considerable boldness since his very first article was on the causes and effects of ecstasy as to which he says that, although theologians looked upon the condition as an effect of grace, it may also sometimes have natural causes. The case was an ordinary one of apparent death. Some of the articles boom remedies of which the nature is not disclosed, together with the names of physicians who used them successfully. It would almost seem, therefore, that the gentle art of palming off on the innocent reader paid advertisements as original contributions to science was not unknown in the reign of the Sun King. Reviews of books are also among the contents of the *Temple d'Esculape*, and the editor did not spare the rod. For instance, he says of a certain compendium of medicine:

Those who love good books well enough to be provided with them will easily be able to dispense with this one because it contains hardly anything which cannot be found elsewhere.

—a criticism which could be applied to much literature of the present day. There are also prescriptions which show that John of Gaddesden's distinction between medicine for the rich and medicine for the poor still existed. Thus we have a sudorific for the rich and one for the poor, a cordial for the rich and one for the poor, and so on. The periodical seems to have been well received, for from a monthly it was transformed into a fortnightly from its second number. By the end of 1680 it had changed its title to *Nouveautez journalières concernant les sciences et les arts qui font partie de la médecine*, and became a weekly. As to its subsequent fate we are left in the dark.

In the February number of the *Chemical World* Sir William A. Tilden states that three letters in the handwriting of Sir Humphry Davy have recently come into his possession. Two of these are addressed to Professor W. T. Brande, who in 1813 succeeded Davy as Professor of Chemistry in the Royal Institution. These letters were written during Davy's travels on the Continent in 1818. The first, dated June 26th, is from Vienna, and conveys Davy's congratulations to Brande on his approaching marriage. The second letter supplies a few facts of biographical importance which help to fill a lacuna in John Davy's life of his famous brother. In the journey to which the letter relates Davy, who was accompanied by Lady Davy, passed through Flanders, ascended the Rhine, crossed Germany to Ratisbon, and passing down the Danube reached Vienna about June 13th. After visiting Venice they made their way over the Apennines to Rome, and afterwards to Naples, where they began experiments on the unrolling of the Herculaneum papyri. The letter is dated Idria, April 23rd, 1818. Davy writes:

Since I wrote to you at Vienna we have made a very long journey. I have visited the most interesting parts of Hungary, Styria, Saltzburg, and Carinthia, and have seen some mountain scenery quite as worthy of admiration as any I ever saw in the Swiss Alps. I have lived amongst the mountaineers purer and more uncorrupted than even the Swiss. We have had delightful weather and have had full enjoyments of a summer fine—but not sultry, in districts where without fine weather there could have been but little pleasure.

I will not write to you a geological letter or describe to you the great calcareous mountain chain that runs from Kermond in Hungary to Berchtesgaden in Bavaria and to the centre of Carniola with its belts of Breccia, and its intersections of Shist and its central column of Granite—I will not tire you with a page that might claim a place in the transactions of the plum pudding stone Society; but I will give you a line on the *quicksilver mines* which I came here to see. The formation is in Bituminous Shist which sometimes emits inflammable air and which alternates with limestone like the Derbyshire. I have this day been down 1,120 feet and returned without being salivated. I pity the poor workmen, who all lose their teeth in a very short time. The veins of cinnabar are very beautiful and one I saw nearly a foot in thickness. My Wife went down with me and visited the whole mine which is rather a feat to be talked of for a lady.—I found a good deal of inflammable air Carb: Hyd: in the great salt mine at Halstadt. The salt is like the quicksilver here in Bituminous Shist.—I taught them the use of the lamp, which notwithstanding the science of their imperial proprietor they were still unacquainted with. A good many men had been burnt a few months ago. The inflammable air is found in largest quantities where the *blue* salt is. I have been again searching in vain for the cause of this extraordinary colour.

* * * * * *

I am now in the *Proteus Country*, and I hope to send Sir Everard some alive. I go to the caverns where they are found the day after to-morrow.

Sir William Tilden points out that the "*Proteus* country" here mentioned is in Carniola and Carinthia, where the subterranean waters occurring in some of the caves of that district are inhabited by the curious amphibian, the *Proteus anguinus*, which seems to have interested Davy very much. One of the divisions of his *Consolations in Travel* is headed, "The Proteus or Immortality." The "Sir Everard" mentioned in the letter is Sir Everard Home.

In the JOURNAL of December 21st and 28th, 1912, reference was made to the powers formerly possessed by bishops of granting licences for the practice of medicine. We regret that by an oversight we omitted to quote an interesting document sent us a considerable time ago by Dr. James Griffin of Banbury. It is a diploma from the Archbishop of Canterbury granted to an ancestor of his to practise at Deddington some six miles from Banbury. It may be mentioned that members of the family have been in practice in the county of Oxford since 1600. The diploma was granted by the Archbishop to William Griffin of Deddington on August 3rd, 1734. Our readers may be interested to see the text of the document:

WILLIAM by Divine providence Archbishop of Canterbury Primate of all England and Metropolitan to our beloved in Christ WILLIAM GRIFFIN of Deddington in the County of Oxon and of our province of Canterbury Health and Grace WHEREAS we have been credibly informed that you have for some time past been conversant in the practice of Physick and Surgery and by God's assistance have cured many who have been desperately sick and wounded and have received a laudable Testimonial from several practitioners of your experience fidelity diligence and industry in performing the cures which you have undertaken in these arts of Physick and Surgery We do for the causes aforesaid and others justly moving us in this behalf as far as in us lyes and we can by the Statutes of this Realm and not otherwise nor in any other manner admit and approve of you and do by these presents give and grant to you our Licence (as long as you shall behave yourself well and laudably) to practice the said Arts of Physick and Surgery in and through our whole Province of Canterbury the places in the Act of Parliament mentioned being excepted you having first taken the Oaths of fidelity and allegiance to his Majesty King George and of renouncing all Foreign Jurisdiction power authority and superiority according to an Act of Parliament of this Kingdom made and provided in this behalf IN WITNESS whereof We have caused the Seal which we use in this behalf to be hereunto put this Third . . . day of August—in the year of our Lord one thousand Seven hundred thirty four and in the Nineteenth year of our Translation.

(signed) JOHN HAYNES Register.

Attached to the diploma is a seal bearing the archiepiscopal arms and the inscription, "The seal of the Vicar General to His Grace of Canterbury." The document is stamped to the amount of fifteen shillings.

British Medical Journal.

SATURDAY, MAY 3RD, 1913.

THE ANTIVIVISECTOR AT LARGE.

For some years one of the antivivisection societies has maintained in Piccadilly, nearly opposite Burlington House, where so many scientific societies have their homes, a shop for the purpose of advancing the propaganda in which it is engaged by an appeal to the eye of the passer-by.

In the window were displayed models, pictures, and literature—one of the models purporting to represent a dog gagged and bound to a board for vivisection without anything to suggest the use of an anaesthetic; one of the drawings showed a large saw, such as might be used for cutting up logs; and the literature included examples of the class usually circulated by the opponents of the experimental method in physiology and pathology. The exhibition in the shop window was provocative and misleading, more especially owing to the absence of any suggestion of the use of anaesthetics. It provoked Dr. Saleeby, a graduate in medicine of the University of Edinburgh and a journalist of long experience, to write a denunciation, and the editor of the *Pall Mall Gazette* had the courage to publish it. The denunciation was strongly worded. The plaintiff in her opening statement said (according to the report in the *Times*) that Dr. Saleeby had not said that she had made a mistake, or that she might have been carried away by her enthusiasm for the cause, but had emphasized the charge that she had carried on a systematic, carefully-thought-out campaign of falsehood or deliberate suppression of the truth, and that she had shown the greatest audacity in the attempt to keep the antivivisectionist society alive. The verdict of a special jury rendered in the Court of King's Bench has established that the denunciation was not stronger than the circumstances could be held to justify.

That it required no little courage to publish the article is sufficiently shown by the fact that the case occupied nearly all the working hours of the court for over a fortnight, and any one who has any experience of the law can form some idea of the financial risk run in respect of costs alone, to say nothing of damages. Antivivisectionists, though critics by profession, have before now shown themselves very sensitive to criticism, and this Journal some years ago had to defend an action for libel brought by the editor of another review which devoted much space to this propaganda. That case fortunately terminated in a few hours, and the verdict was for the defendants; but the case which the *Pall Mall Gazette* has recently had to defend dragged on day after day, and, though it terminated by the finding of a similar verdict, the expenditure must have mounted up to a very considerable total.

The judge paid the plaintiff a high compliment on the forensic ability with which she had conducted her own case. The questions he left to the jury were, first, whether the plea of justification advanced by Dr. Saleeby and the *Pall Mall Gazette* was substantially proved: and, secondly, if that plea failed, were they satisfied that the comment was fair and bona fide, and would the jury, had they been antivivisectionists themselves, have carried on the campaign as it had been carried on by the plaintiff? The jury after a short absence returned a verdict for the defendants, in which the judge said he entirely concurred.

The long-drawn-out proceedings in this case have been very fully reported in the daily press, and it may therefore be hoped that they will have the effect of enlightening the public mind as to the real character of the methods pursued by certain leaders of this agitation. The general line the plaintiff took was that experiments on animals were useless, and her contention was supported by such statements as that Harvey had embodied and put in order the discoveries of others who had not experimented by way of vivisection; that the germ associated with a disease was not its cause, but a symptom; that the use of diphtheria antitoxin was followed by an increase in the number of cases of paralysis; and that plague inoculation had increased plague, and was responsible for six and a half million deaths in India. This last statement must have been a blunder of the plaintiff or her informant, but that it should have been for one moment believed is an instance of the almost incredible readiness with which an assertion to the disadvantage of the experimental method is prone to be accepted by those engaged in this agitation. The plaintiff, moreover, maintained to the end that though the six and a half million persons had not been inoculated, yet plague had been spread through this inoculation, so that instead of lasting seven months, which she said was the normal period of an outbreak of plague, it had lasted twelve years.

Mr. Stephen Coleridge, who seems always anxious to convince the public that he is the *preux chevalier* of the agitation against the application to physiology and pathology of the experimental method which has been so fruitful in advancing other sciences, hastened, as soon as the trial was over, to disclaim for his society that it had ever been associated in any way with any of the issues involved, and to announce that its policy in Parliament and elsewhere would not be "altered or modified in any manner whatever in consequence of this action." Nevertheless, it might be well that he should seriously reflect on the possible results of some of the methods by which his policy is pursued. He has allowed himself on at least one occasion to invite the British race, or those among it who accept him as a guide, not to wait for legislation, but to go in their irresistible thousands and leave every laboratory in the kingdom a heap of ruins. As is shown by the letter published elsewhere (p. 952), another utterance of his so worked upon the mind of one of his admirers as to induce an anonymous letter to be addressed to a physiologist of eminence in this country expressing the confident hope that his deathbed would be agonizing, and that he would be tortured in the next world, and the opinion that it would not be wrong to hasten his exit from this. Mr. Coleridge no doubt would be careful before wrecking the laboratory to afford the professor and his assistants an opportunity to make good their escape; there is just a risk, however, that others might not be so humanely considerate.

QUACKERY IN LONDON IN THE EIGHTEENTH CENTURY.

LADY MARY WORTLEY MONTAGU seems to have regarded her fellow countrymen as peculiarly susceptible to the lures of the quack. Writing in 1748, she says: "I find tar water has succeeded to Ward's drop: it is possible by this time that some other quackery has taken the place of that; the English are easier than any other nation infatuated by the prospect of universal medicines: nor is there any country in the world where the doctors raise such immense fortunes. I attribute it to the fund of credulity which is in all mankind." She adds the shrewd remark: "We have no longer faith in miracles and reliques, and therefore, with the same fury run after receipts and physicians; the same money which three hundred years ago was given for the health of the soul, is now given for the health of the body, and by the same sort of people, women and half-witted men: in the country where they have shrines and images quacks are despised, and monks and confessors find their account in managing the fear and hope which rule the actions of the multitude." It is quite probable that even at the present day the nostrum vendor does not find so good a market for his wares in countries where faith in miracles is prevalent as in those where secret remedies are regarded as more potent than relics. The superstitions are to a large extent incompatible. That the Englishman of Lady Mary's day was more the slave of quackery than other men is probable enough, for the intelligent citizen of the United States did not then exist. There is ample evidence that charlatanism of every kind was rife in this country, especially in London.

In the eighteenth century there was no accepted code of medical ethics, and we read of physicians whose names live in medical history doing things which the General Medical Council would now treat as infamous conduct in a professional respect. If these things were done in the green tree, it may easily be guessed what was done in the dry. Indeed, except the possession of a diploma—and even that was not absolutely necessary—there was little to distinguish the regular doctor from the quack. Smollett, who was a member of the medical profession, though his irritable temper did not make for success, has much to say of the arts by which physicians sought to make themselves known in his day. He also gives, in *Ferdinand Count Fathom*, a vivid picture of the contemporary quack. When that ingenious blackguard found all his attempts to pose as a man of fashion fail, he "wisely came to the resolution of descending one step in the degrees of life, and of taking upon him the title of physician, under which he did not despair of insinuating himself into the pockets of his patient and into the secrets of private families so as to acquire a comfortable share of practice, or captivate the heart of some heiress or rich widow whose fortune would at once render him independent and happy." After acquiring a smattering of medical lore from books he determined to make Tunbridge Wells his first scene of action. On arriving there he went to the shop of an apothecary and wrote a prescription, which he desired to be made up forthwith. While the physic was being compounded he discoursed on the virtues of the Tunbridge water and on medicine in general, impressing the apothecary so much that he spoke of the new oracle of medicine to every family in the town. In the meantime Fathom did his best to push himself. He was not at first well received by the ladies, but at last he found his chance. A young lady crossed in love was seized with a nervous attack when her ordinary physician happened to be out of the way. Fathom was called in and by good luck succeeded in curing the patient. When the season at the Wells came to an end he repaired to London, where he bought an old chariot which he had repainted, and hired a footman whom he clothed in lace livery. Fathom found that the field was wholly occupied by a few practitioners who, having reached the height of reputation, were no longer obliged to cultivate the arts by which they rose, while the rest of the business was parcelled out into small enclosures occupied by different groups, each composed of a waiting woman, nurse, apothecary, surgeon and physician, and sometimes a midwife, who all played into each other's hands. Fathom took lodgings over an apothecary's shop, and advertised that every day at a certain time and place he would give advice to the poor for nothing, hoping that some lucky cure might bring him fame and patients. In the meantime his chariot rolled during the whole forenoon through all the most frequented streets, and at the usual hour he never failed to put in an appearance at the medical coffee house, where he mingled freely with the company there. "The other means used to force a trade, such as ordering himself to be called from church, alarming the neighbourhood with knocking at his door at night, receiving sudden messages in places of resort, and inserting his cures by way of news in the daily papers, had been so overdone that they had lost their effect on the public." Fathom therefore decided to wait till he should have acquired interest enough to erect a hospital by the voluntary subscriptions of his friends—a method which had paved the way to success for many doctors. But even in the middle of the eighteenth century it "was so overdone that almost every street was furnished with one of these so-called charities." A "lucky miscarriage," brought about by means of a remedy so violent in its action that it nearly killed the patient, made him talked about, and he neglected no method of advertisement to keep himself before the footlights. His practice increased so rapidly that he seemed to be on the high road to fortune, when the seduction of a patient, followed by the death of a nobleman whom he had ordered to be bled, brought about his ruin, and he was finally laid by the heels in prison. There we may leave him.

The various devices for gaining practice mentioned by Smollett were used by doctors and quacks alike in the eighteenth century. John Huxham, a highly respectable physician of Plymouth, who was one of the first to describe diphtheria, did not disdain to ride hurriedly out of one of the gates of the town and return by another that he might be thought to be busy. All the arts practised by Tom Sawyer, late Nock'emorf, were in use long before the day of that enterprising practitioner. Dickens in his youth was a great reader of Smollett, and he may have taken hints from *Ferdinand Count Fathom*. With regard to the founding of hospitals by doctors, who hope in this way to raise themselves into notice "on the carcasses of the poor," as Smollett crudely puts it, many people probably think this a modern invention. It is well known that in times not remote special hospitals have sometimes had their origin in the desire for professional advancement. Yet we see that in the eighteenth century this device was already regarded as "overdone."

The methods of professional pushfulness and quackery are much the same in all ages, and, we venture to add, in all countries. Although the

profession is better disciplined now than it was in the eighteenth century, quackery flourishes with even ranker luxuriance than it did in Smollett's time. As we have often pointed out, the only cure is by scientific education to create an intellectual atmosphere in which superstition and credulity cannot live. We have little hope, however, that this state of general enlightenment will ever be reached. In the immortal words of Robert Macaire: *Tout passe, mais les badauds ne passeront jamais.*

THE POSITION IN SOUTH WALES.

We venture to invite the attention of all members of the Association to the paragraphs in the annual report of the Council, published in the SUPPLEMENT for this week, dealing with the position in South Wales, and the use that is there now being made of Section 15 (3) of the Insurance Act, which gives to insured persons the right to apply to the Local Insurance Committee to be allowed to make their own arrangements for medical attendance and treatment.

In South Wales an attempt is being made to use this subsection in a way never intended and contrary to the spirit of the Act, and contrary more especially to the tenor of the provisions designed to ensure free choice of doctor. There has been in existence in South Wales for many years a system under which the workman made a weekly or fortnightly contribution to cover the cost of medical treatment of himself and his dependants. When the Insurance Act came into force the medical profession put forward certain proposals to meet the situation. The general effect of these proposals was that insured persons whose personal needs were provided for under the panel system instituted by the Insurance Act would make a monthly payment, usually 1s., to provide for medical attendance on their dependants, and that those who had no dependants would make a monthly payment of half the amount so that the burden on all those engaged in the industry might be equalized. The friendly societies and various trade unions did not accept this just, and indeed generous, proposal, but set to work to form combinations to impose much more onerous terms upon the medical profession. With the assistance of the Local Insurance Committees and the connivance of the Welsh Insurance Commissioners, they are endeavouring to formulate schemes, the general drift of which is to obtain the whole-time service of men willing to work for a stated salary under conditions unhesitatingly condemned by the profession.

The Council, in its report, points out that combinations of workmen and their dependants formed for the purpose of employing medical practitioners, either whole or part time, having failed in many instances to secure recognition under the Harmsworth amendment (Subsection 4 of Section 15), on the ground that they were not in operation at the time of the Act coming into force as the subsection requires, are now receiving encouragement from the Welsh Commissioners to ask the Insurance Committees to give them permission to make their own arrangements collectively under Subsection 3 of Section 15. The approval of some of the Insurance Committees has already been given to a number of such schemes. If the action of the Insurance Committees receives the approval of the Welsh Insurance Commissioners the effect will be to exploit the local medical profession, and to place them more completely under lay control than is possible under the panel system, or indeed was achieved under the old system of medical aid associations now universally condemned by public opinion in Great Britain. Should the Welsh Insurance Commissioners give their consent it will be regarded as a distinct breach of faith with the medical profession on the part of the Commissioners and of the Government. Such a step would raise to exasperation the feelings of medical men in South Wales.

The medical men in Swansea are unanimous in their decision not to accept such service, and the honorary medical and surgical staff of the Swansea Hospital have given their support by resolving that they will in no circumstances meet in consultation, or have any professional dealing, either at the hospital or privately, with any medical man holding office under a society or association having for its object the employment of medical men under conditions not approved by the medical profession, and will decline, except in cases of gravest emergency, to treat in hospital any member of such a society. In taking this action the honorary medical and surgical staff is fully aware that it may come into conflict with the managing committee of the hospital on which representatives of the friendly societies serve. The whole position is explained in the able letter by Dr. Reid, chairman of the Medical Board of the hospital, which is published in the SUPPLEMENT, and nothing we can say will add to the force of his statement, which is tantamount to an appeal to the whole profession to support their brethren in South Wales.

The position already brought about emphasizes a point to which we have already frequently referred; this is, that there is urgent need for the Joint Committee of Insurance Commissioners to exercise the controlling and co-ordinating powers they possess in order to prevent the increasing dissatisfaction aroused in many parts of the country by the dictatorial or pettifogging proceedings of Insurance Committees, backed up, as in this case they have been, by the Insurance Commissioners responsible.

ANNUAL MEETING IN ABERDEEN, 1914.

THE Aberdeen Branch has decided to invite the British Medical Association to hold its annual meeting for 1914 in Aberdeen. This announcement will, we feel sure, be received with great pleasure by members of the Association. Many of them will, we do not doubt, be glad to take advantage of the opportunity to visit a city which has taken so large a part in the intellectual development of Scotland, and has recently extended the facilities its University affords for academic instruction and research. To those who have never visited the "silver city by the sea," it will be a pleasure to see its stately buildings, and especially the magnificent pile recently added to Marischal College, which forms the medical side of the University.

ORGANIZATION OF THE PROFESSION IN SCOTLAND.

IT becomes increasingly evident that the new problems created by the National Insurance Act will call for greater attention on the part of the profession in all parts of the country to questions of organization; and in regard to Scotland an important decision was arrived at by the Council at its meeting on April 23rd. For some years the special needs of Scotland have been dealt with by the Scottish Committee, which consists of the Secretary of each Scottish Branch of the British Medical Association and of all the members of the Council who represent the

Scottish Branches. After the Insurance Bill was introduced, and it was found that a Special Commission was to be set up for Scotland, the Scottish profession thought it necessary to set up an emergency organization called the Scottish National Insurance Council, composed of representatives of the Scottish universities and medical corporations, representatives from each insurance area, and the members of the Scottish Committee. The time has now arrived in the opinion of the Council of the Association when medical organization in Scotland should be put upon a more permanent and efficient footing. The Scottish National Insurance Council having served its purpose, the Scottish Committee has retired from it, and it is, we believe, probable that the first-named emergency organization will now be dissolved. At any rate, the Council of the Association has decided that the Scottish Committee shall be given a special grant for the purpose of employing a part-time officer for its clerical work, and to assist it in holding conferences, at least once a year, with representatives of the Scottish Local Medical Committees. Full power has been placed in the hands of the Scottish Committee to make arrangements for the holding of these conferences, and the Council is now considering the desirability of transferring to the Scottish Committee the entire duty of organizing the Branches and Divisions of the Association and the Local Medical Committees in that country. At present this duty is shared with other committees of the Association. It is believed that the new arrangement will enable the profession in Scotland to deal with its own peculiar problems under the Insurance Act in a more direct and efficient manner, that it will decentralize some of the work of the Association with advantage to all concerned, and will in addition give an impetus to the work of organizing the profession in Scotland by placing full responsibility for it to a much greater extent than before on a body thoroughly representative of all parts of Scotland, while not too large for regular meetings and effective committee work. At the same time the arrangement, being under the aegis of the British Medical Association, will preserve that co-ordination of the interests of the profession in the various parts of the United Kingdom which is so essential.

DIPHTHERIA ANTITOXIN.

IT is now more than eighteen years since Behring introduced his antitoxin for the treatment and prevention of diphtheria, and the efficacy of the treatment has been fully recognized. The statistics of the Metropolitan Asylums Board and of the various hospitals in this country and abroad have proved conclusively that if the injections are carried out early the disease can be cured with something like certainty. Dr. Eckert deals with a number of points which still require to be cleared up in connexion with this treatment, and which should be of importance to the practitioner as well as the laboratory worker.[1] He starts by calling attention to the endeavour of the manufacturers and institutes to produce a preparation of high valency at a reasonable price. It is possible to prepare a serum which contains 1,000 antitoxin units per c.cm. The addition of 0.5 per cent. of carbolic acid is of practical value, but he points out that 18 c.cm. of serum should be regarded as a maximum dose in view of the carbolic acid content. This would be equivalent to 9,000 units if the usual concentration is employed. The serum is standardized by Ehrlich's method, and Eckert considers that the French method of requiring an estimation of the curative power of the serum is unnecessary, and less reliable than the determination of the amount of serum required to neutralize a given quantity of toxin. With regard to the way in which the antitoxin acts he suggests three possibilities: there may be a reversible absorption of antitoxin by the toxin, or a chemical combination may take place with a complicated molecule, or the antitoxin having become absorbed with the toxin may permit the complement to act on the latter and effect a fermentative dissociation. It has been proved that absorption does take place, and it is possible to regain the toxin from the mixture by treatment with acids. The second assumption would explain a large number of difficulties, and has much in its favour. The third is certainly not excluded, but has not been proved. As to the practical question of the best mode of application, Eckert recalls the observation of Berghaus, who has shown that antitoxin, when injected intravenously, acts 500 times more strongly than when given subcutaneously, and that the quantity absorbed after intramuscular injection within four to eight hours is eight times greater than after subcutaneous injection. The serum has been given by intralumbar injection, but this method has not obtained any popularity. The importance of giving the serum as early as possible is supported by the experimental evidence. The curative value of antitoxin is demonstrated by the official German statistics. In spite of an increase in morbidity in 1907–1908, the mortality has fallen from 15.8 per 10,000 of the population to 2.3 and even 2 per 10,000. The statistics of the various hospitals show in the majority of cases that when antitoxin is used on the first day of illness the mortality is *nil*, when used on the second it varies between 4 and 8 per cent., and is correspondingly higher when first used on the third, fourth, or subsequent days. Heubner maintains that after antitoxin the membrane never spreads locally; that a large number of cases of diphtheria croup can be cured with antitoxin alone; that a considerable improvement has been shown in cases of measles and laryngeal diphtheria, and that the relapses which were greatly feared in the pre-antitoxin days are now rarely seen. After considering the question of dosage and stating that large doses, measured as antitoxin units, should be given, especially in severe cases, he discusses post-diphtherial paralysis. It is in accordance with experimental and clinical observations that the earlier the antitoxin is given the less frequent and the less severe will be the paralytic sequela. An important point in the treatment of diphtheria is that dealing with anaphylactic symptoms. We dealt with this subject not long ago.[2] Dr. Eckert recommends in cases of reinjection the trial of a small quantity of serum subcutaneously, which will not only indicate the necessity of caution, but will at the same time induce a certain degree of anti-anaphylaxis. In conclusion, attention may be called to an excellent account of the experience of the Rudolf Virchow Hospital in Berlin during the year 1910–1911 in the treatment of diphtheria, by Dr. K. Blühdorn.[3] The details given in this article generally confirm the statements made by Dr. Eckert.

[1] *Deut. med. Woch.*, October 24th, 1912.

THE LISTER MEMORIAL.

As has already been announced, the Committee of the Lister Memorial Fund proposes that the memorial should be of a threefold character: (1) A simple marble medallion bearing a sculptured portrait of Lord Lister to be placed in Westminster Abbey among the monuments of the nation's illustrious dead; (2) a larger and more conspicuous monument to be erected in some public place in London, the city wherein he lived and worked; (3) if funds sufficient shall be obtained, the founding of an International Memorial Fund from which either grants in aid of researches bearing on surgery or rewards in recognition of important contributions to surgical science shall be made, irrespective of nationality. The sum already subscribed or promised is perhaps sufficient for the completion of the

[2] BRITISH MEDICAL JOURNAL, October 19th, 1912, p. 1071.
[3] *Muench. med. Woch.*, No. 23, 1912.

first two parts of the proposed memorial, which are of local character, but for the third, or international part of the memorial, an international appeal is now being made, and a letter has been addressed by the Secretary, Sir John Rose Bradford, to the principal universities and medical societies on the Continent of Europe and in the United States. A similar letter is being sent to the corresponding institutions in the British Dominions and Colonies. Among the subscriptions received for the international fund are the following: Academy of Sciences, Paris, 500 francs; University of Paris, 500 francs; Medical Faculty of the University of Montpellier, 250 francs; and the Karolinska Medico-Kirurgiska Institutet, Stockholm, £5; His Excellency Privy Councillor Vladimir Kowalevsky, President of the Technological Society of Russia, has made a donation of £5 "in memory of one of the greatest benefactors of the human race." The Universities of Michigan, Yale, Harvard, and Leland-Stanford (California) have already undertaken to promote the memorial, and the College of Physicians of Philadelphia has made a special appeal to its Fellows. In addition, as already noted, Dr. Keen, of Philadelphia, is making a somewhat wider appeal. The University of Toronto has appointed a special committee to promote the fund. We published recently a list of contributions of various medical societies in this country, and to it should now be added a subscription of 10 guineas from the Medical Society of London. The honorary treasurers of the fund are Lord Rothschild and Sir W. Watson Cheyne. The offices of the fund are at the house of the Royal Society, Burlington House, Piccadilly, London, W., and subscriptions, made payable to the fund, may be sent to the treasurers there.

THE TUBERCULOSIS DISPENSARY AT WORK.

THE economic value of the tuberculosis dispensary, apart from considerations of tuberculin treatment, is now fairly well established, and, even if full allowance be made for the enthusiasm always attendant on any new system, there can be no doubt that a recognizable amount of immediate success has followed the cautious use of tuberculin injections. Personal opinions have mainly to be relied upon at present, since no fair conclusions can be drawn from statistics which necessarily range over a limited period of experience. Time alone will show whether the ultimate results have justified the vast expenditure that is being made to bring the unfit into the working line. Activity in this direction is manifest in many large industrial centres, and a good beginning appears to have been made in Bradford, where the energy of the chief tuberculosis officer is being exerted on sound lines, as shown in his report upon the work done in the Tuberculosis Dispensary and Brierley Hall Hospital during the second half of the year 1912. Although started as an entirely new venture, the number of persons attending for diagnosis or treatment bore testimony to the need for such an institution. Of 508 patients examined, no fewer than 403 were found to be suffering from the disease, and in many instances it was possible to examine their "contacts" also, with the result that in 27 per cent. of such cases the presence of incipient mischief was detected. The importance of this means of discovery and early disease can hardly be exaggerated, and stands second only to the need for segregation of the advanced infecting case. Efforts to eradicate consumption must necessarily be one-sided, so long as the spitting patient is allowed to mix with the healthy or with those who may be especially sensitive to the effects of the bacillus. But failing segregation there remains the ever-spreading influence of education, and herein the work of the dispensary is far-reaching. By its means the knowledge of the simple rules of general and special hygiene is carried into the very homes of the people. Reports of 50 cases of tuberculosis in various forms and stages which have been treated during the six months by tuberculin injections show a preponderance of present success, and have so far favourably impressed the tuberculosis officer as to warrant him in advising his committee to undertake a wide extension of the system.

THE PENAL SYSTEM.

THERE is an amusing misprint in the official reports of the proceedings of the House of Commons ("Hansard"), where, in an answer by the Chairman of the Joint Committee of Insurance Commissioners, the panel is printed the "penal" system. As the misprint occurs in a reply by Mr. Masterman dealing with an instance of the policy sanctioned by the Insurance Commissioners of penalizing the doctors in a district who have not thought fit to join the panel by introducing an outside doctor with special privileges for several years, the printer's devil seems for once to have been inspired from a higher source. Mr. Masterman admitted that the Commissioners had authorized the Leicestershire Insurance Committee, under the proviso to Section 15 (2) of the Insurance Act, to make a special arrangement whereby a medical practitioner had undertaken to attend and treat all the insured persons within certain parishes in the county on condition that he was given the exclusive right of practising among the insured persons in that area for a period of three years from January 15th last, and also that he would have the right of being included on a panel where a panel system existed. Mr. Cautley, in his question, had asked Mr. Masterman if he were aware that the cards of about 200 insured persons in the parishes concerned had been signed by their former medical attendant and desired to be attended by him, but, although he was ready and willing to attend them, the Insurance Committee had ordered them to go for medical treatment to the medical practitioner brought into the area from outside, stating that, if they went to their former medical attendant, they must do so at their own expense. Mr. Masterman did not reply to this part of the question, and appeared to be unaware of the facts, for he stated that the arrangement was made as a special arrangement under the proviso to Section 15 (2), because the alternative was that over 200 persons would have had no medical attendance at all. The result, as he further admitted, was that the insured persons in the district had no choice of doctor, but he appeared to believe that it was the best arrangement the Insurance Committee could make. Apparently, therefore, the Insurance Committee, with the sanction of the Insurance Commissioners for England, have forced upon the parishes in question a system approved neither by the medical profession nor by the insured persons.

LARGE FEES.

MILLIONAIRES are not always particularly liberal in rewarding the ministrations of their doctors. The business instinct which enables them to acquire vast wealth makes them always suspicious that their money may make them the prey of designing persons. This reproach cannot be brought against the executors of the late Mr. Pierpont Morgan, who, it is said, have paid very large fees in money to each of the three physicians in attendance and to the nurses. Other rich men have adopted unusual ways of feeing their doctors. It is related of Dupuytren that he was consulted several times by the head of the Paris house of Rothschild in his day. No fee was tendered at any of the visits, but a considerable time afterwards the surgeon was presented with a handsome sum, the proceeds of a Bourse transaction in which the financier had interested him without his knowledge. A Mr. Steer took the same way of expressing his indebtedness to Sir Astley Cooper, who had attended him as a friend. He sent the famous surgeon a draft, stating that it was the profit "on £2,000 of the ensuing loan, which I had an

opportunity, out of a very small sum Sir F. Baring has given me, of appropriating for your chance." A Mincing Lane merchant for years paid Cooper £600 a year for attendance. One of his largest fees was that given him by a West Indian merchant, Mr. Hyatt, who, after being operated on for stone, took off his nightcap and threw it at Cooper, saying: "There, young man, put that into your pocket." The cap contained a cheque for a thousand guineas. Sovereigns have sometimes considered that the honour of attending their august persons was a sufficient reward for their doctors, but there are many instances of princely generosity. Abu Nasr, who was believed to have saved the Caliph Nasr from the necessity of being cut for stone, is said to have received a fee equivalent in money value to £12,000, besides rich presents. Gabriel Bachtishua was paid by the Caliph, whose physician in ordinary he was, at the rate of £1,000 a month, and received a present of £1,250, besides robes of honour, every New Year's Day. On one occasion he is said to have received £25,000 as a single fee. Dimsdale, who went to Russia in 1768 to inoculate the Empress Catherine and her son, received a fee of £12,000, with a pension of £500 a year and the title of Baron, which is still borne by a descendant. In 1792 Dr. Willis (who had charge of George III in his periods of derangement) was called to Lisbon to undertake the treatment of the Queen of Portugal, who was suffering from mental disease, on the following terms: £1,000 a month as salary, the expenses of his journey, a table for himself and suite; and £20,000 if he succeeded in curing his illustrious patient. Willis was received at Lisbon with honours such as are usually reserved for royalty. Sir Morell Mackenzie received £13,000 for three months' attendance on the Emperor Frederick. But the largest fees paid by a monarch in modern times were those distributed among his medical attendants by Louis XIV after the famous operation for fistula. Like the public benefactor of whom it is recorded that

> He, out of his great bounty,
> Built this bridge at the expense of the county,

the Roi Soleil was liberal at the expense of his people. It is estimated that the *grande opération*, as it is known in French history, cost the nation some £40,000. Félix de Tassy, the operator, received 300,000 livres in addition to a landed estate. The surgeon was a favourite with the King, who two years before had given him 100,000 livres, and who four years later gave him a patent of nobility. The physicians present at the operation were also richly rewarded. D'Aquin received 100,000, Fagon 80,000, and Bessières 40,000 livres. Each of the four apothecaries received 12,000 livres. The apothecaries doubtless did something for their money, but the physicians were merely onlookers, and it must have been gall and wormwood to these haughty pedants to be compelled to leave the treatment of their royal master in the hands of one whom they despised as a mere handycraftsman.

DEATH IN THE STREETS.

DR. F. J. WALDO, Coroner for the City of London and the Borough of Southwark, in his annual report for 1912 draws special attention to a matter of great public interest—traffic fatalities. The conclusions formed by one possessing such unique opportunities of studying this question in all its details cannot fail to be interesting and instructive at a time when we are watching the transition from horse-drawn to motor vehicles. Dr. Waldo has come to the general conclusion that, bearing in mind the increase in the daily population of the City, there is no real increase in the number of traffic fatalities, and it will come as a surprise to many to learn that in the four years, 1908 to 1912, there were within his jurisdiction as many as 116 deaths due to the horse-drawn against 146 due to motor vehicles. Fatalities from motor traffic do not, in Dr. Waldo's opinion, depend on increased speed or to the particular method of propulsion, but certain factors, unavoidable at the present time, such as crowded traffic, narrow streets, loss of control, skidding, carelessness on the part of drivers, carelessness also on the part of pedestrians, who, it is said, frequently alight from a moving vehicle or cross the street without due regard to the traffic. In this last respect the death-roll is particularly heavy among children, for the records show that in the combined areas of the City and Southwark over one-fourth of the traffic fatalities occurred to children under ten years of age, while in Southwark alone, where the number of children is far larger, the proportion reached one-third. The County Council and the omnibus companies are trying to combat this evil by means of handbills, notices, and other means, but Dr. Waldo thinks that much could be done in the schools to teach children the danger of crossing streets without looking out for the traffic, and to impress upon them the fact that legal punishment as well as injury may result to them from riding upon or hanging to the backs of vehicles. To educate the children with regard to the dangers they incur would seem to be the only useful plan, for it would be unreasonable, even if it were possible, to deny them the use of the streets in poor districts. Dr. Waldo, although agreeing with the principle of the speed limit, doubts its value in crowded centres, for the driver is apt to think that he may travel in any circumstances at a speed not exceeding the limit; again, there is no means at present of accurately estimating the speed of a vehicle in a crowded thoroughfare, though Dr. Waldo looks forward to the day when the engineer will provide a speedometer that is thoroughly trustworthy and will sound a continuous alarm when the speed limit is reached, and so assist the police to detect offenders. He suggests that the police should be entrusted with wider powers; that more refuges should be established in long streets and between tram lines as well as at crossings, and that subways and even light bridges should be employed in especially dangerous localities. At present there appears to be no really satisfactory fender or life-guard that can be applied to motor vehicles generally, but were one forthcoming the fatalities might be very considerably reduced. Attention is rightly called in the report to the fact that the metropolis (with the exception of the City) is far behind the great cities of other countries in not possessing a rapid ambulance service, though there seems some prospect that the co-operation of the London County Council and the Metropolitan Asylums Board, with the ever ready assistance of the police, will in the future result in providing the greatest city in the world with what is now regarded as an elementary necessity in most civilized countries.

THE GREAT WATER SPOUTER.

THE note on the "Human Aquarium," published on April 26th, p. 904, recalls Floram Marchand, who is immortalized in several works on eccentric men, and in particular in *The Book of Wonderful Characters: Memoirs and Anecdotes of Remarkable and Eccentric Personages in all Ages and Countries*, published by Mr. Camden Hotten in 1869. Hotten drew his information mainly from an older collection of biographies by Wilson and Caulfield. According to *Wonderful Characters*, a Frenchman named Floram Marchand professed to be able to "turn water into wine and at his vomit render not only the tincture but the strength and smell of several wines and several waters." It was said that he learnt the rudiments of his art from Bloise, an Italian. Cardinal Mazarin suspected sorcery and threatened Bloise with pains and penalties, upon which the unhappy man made a confession to the Cardinal, who, it appears, was then satisfied that there was no magic about the performance. Marchand was induced by two Englishmen to come to England in 1650,

where he seems to have astonished the public for some time, to his great profit. At length his two friends seem to have betrayed him by publishing a somewhat circumstantial account of Floram Marchand's "mystery." He never broke his fast on the days when he appeared on the stage until after the performance, when he made "a very good supper and ate as much as two or three other men who have not their stomachs so thoroughly purged." Just before coming on the stage he swallowed half a pint of a strong decoction of "Brazil," or logwood, took a big pill of heifer gall and flour, and then drank several pints of tepid water lest the mucus ejected with the water should make the latter turbid and offensive to the spectators. Bowing to his audience, Marchand first brought forward a pail of lukewarm water and sixteen wineglasses in a basket. The glasses were all washed in white vinegar, and when he took up the first glass on the stage he rinsed it out two or three times lest the vinegar might "discolour the complexion of what is represented to be wine." Then he drank four-and-twenty glasses of lukewarm water and vomited first what "seemed to be a full, deep claret." The gall pill and the free imbibition of lukewarm water facilitated the vomiting process, which Marchand could at the same time control. He clearly was a man of much nerve, for timid orators and public performers have been known to retch when their stomachs were empty. The "claret" being ejected into the first glass, Marchand then drank as many glasses of water as his stomach would hold. But of necessity, the staining of the injected water by the "Brazil" already swallowed, grew less and less, so that he appeared to vomit light wines into the glasses which he placed on the table in succession, all rinsed, as at first. After several glasses were filled, he placed on the table another, without rinsing it. Then ejecting water into it, the faint trace of logwood mixing with the white vinegar would give the colour of English beer, and no doubt make a froth, although the chroniclers do not say so. Marchand continued these rather nasty tricks, throwing out a white wine, that is, pure water which seemed to be wine. By pure sleight of hand he also ejected rose water and angelica water, really taken out of two glasses concealed behind the pails of lukewarm water which he swallowed freely throughout his performance. In conclusion, Marchand managed to slip into his mouth a tin instrument with "three several (separate) pipes." Then he put his arms akimbo and shot out three jets of clear water to a distance of four or five yards, which he did "with so much port and such a flowing grace, as if it were his masterpiece." The book from which these particulars are quoted has a portrait of Floram Marchand in the act of shooting three jets of water into three wineglasses. He holds a fourth glass, empty, in his right hand, and behind him on the floor are a small pail and a fifth glass. We are not informed of the ultimate fate of this conjurer. The first necessity for a performance of this kind is a capacity for holding great quantities of fluid in the stomach and ejecting them at will; the illusions in Marchand's case were due to tricks above explained.

HOBBIES.

EVERY medical man should have a hobby: most medical men have one or more which they delight in trotting out on occasions. Mr. Shandy—who said so many true things—affirmed that he could "draw my Uncle Toby's character from his hobby-horse." We will not go so far as to attempt to draw Dr. Boon's character from his hobby-horse—which is evidently photography—but will advise those who have the opportunity, to visit the rooms of the Royal Photographic Society, in Russell Square, and try to work out the problem for themselves. Dr. Boon, who practises his profession at Alassio, shows forty-two specimens of his hobbyhorsical work. They are very beautiful and strangely unlike the pictures of the professional photographer. He seems to be equally clever with interiors and exteriors. As an example of the former, what could be more delicate and satisfying than "Breakfast" (No. 19), and of the latter than "The Sting" (No. 25), or "The Landscape" (No. 15)? Dr. Boon seems to love sunlight, and most of his figures are fully basking in it. But he does not use it for the purpose of throwing the other side of his picture into shade—as is so often done. He makes his children, his fields, and his flowers actually absorb all the glorious rays which fall upon them. No doubt he is fortunate in that he rides his hobby-horse in a place where the sun is no stranger. Indeed, he has made it his warm friend and his inseparable companion. The two seem perfectly and fully to understand each other, and to play delightfully into each other's hands. The number of the house in Russell Square is 35, and the only passport needed is a visiting card. Further than this, from the porter in the hall to the secretary in his office, every visitor seems welcome. Once more we advise our readers who are likely to be interested in these sun pictures to try to spend a half-hour with them.

SNAKES AND WILD ANIMALS IN INDIA.

A BLUE BOOK has been issued giving statistics of the number of persons killed by wild animals and snakes in British India from 1880 to 1910. The figures show that the tiger is the animal most destructive to human life; during the last five years of the period it was responsible for 38 per cent. of the total number of deaths caused by wild animals, leopards accounting for 16, wolves for 12, and bears for 4 per cent. Of the total number of persons (2,382) killed by wild animals in the year 1910, the tiger accounted for 882, the leopard for 366, and wolves and bears for 428. Elephants and hyenas, the two other animals distinguished in the returns, were between them responsible for 77 deaths in 1910. Of the 629 deaths attributed to "other animals," 244 are assigned to alligators and crocodiles, 51 to wild pigs, 16 to buffaloes, 24 to wild dogs, and 220 to unspecified animals. In 1910 there were 22,478 deaths from snake-bite, compared with 21,364 in the previous year, but Bombay was one of the provinces which did not contribute towards the increase, and is in other respects one of the more fortunate parts of India. In Bengal, for example, 1,130 persons were killed in 1910 by wild animals and 7,767 by snakes; but Bombay is, with the exception of the Punjab, at the bottom of the list with 22 deaths by wild animals and 1,247 by snakes. The statistics regarding the number of cattle killed by wild animals are not very perfect, but it is estimated that in the five years ending 1910 the number of animals killed was about 100,000, leopards accounting for 48 per cent. and tigers for 32 per cent.

DR. MONOD of Vichy, at the conclusion of a cinematograph demonstration given before the Section of Medicine of the Royal Society of Medicine on April 29th, announced that M. Widal had arranged to afford facilities, in the new clinical laboratories under his control at the Hôpital Cochin, for British medical men who desire to undertake research work under his supervision, while at the same time making themselves acquainted with the medical resources of Paris and the ideals and methods of the French school. In this M. Widal will have the co-operation of some of his colleagues who are arranging to afford similar opportunities in their clinics and laboratories.

THE new school buildings of Guy's Hospital Medical School will be opened by the Right Hon. A. J. Balfour, M.P., on Tuesday, June 3rd. The opening ceremony will be preceded by a luncheon at 1.30 p.m.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Work of the Session.—In view of the great amount of time which has been taken by the consideration of the bills relating to the temporary discharge of prisoners and to the provisional collection of taxes, it is very doubtful whether all the measures which it was desired to pass this session will get through Parliament by an early date in August. There are still eighteen days to be devoted to Supply and the final stages of the Finance Act of the year, which is now to be divided into two bills. In addition, the Plural Voting Bill is to be passed, and the closure resolutions allotting the time for the passage of the Home Rule and Welsh Disestablishment Bills, together with those bills themselves. It is quite certain, from the feeling of the House, that any proposal to prolong the session beyond the date contemplated would meet with very strong opposition, and it is difficult to see how any other bills which are likely to meet with opposition can get through during the time remaining for the parliamentary session. The Mental Deficiency Bill is likely again to meet with considerable opposition from at least a small section of the House, and, without having any official knowledge, it is difficult to be sanguine as to the prospects of this measure and of the different Milk Bills promoted by the Local Government Board. The reply of the Prime Minister to the deputation, the proceedings of which are reported elsewhere, declining to promise Government support for the Nurses Registration Bill, makes it practically certain that the bill will not secure a second reading, and, in view of what the Prime Minister said, it would seem that a great deal more spade-work is required on the part of the supporters of this proposal and a much greater unanimity amongst the authorities interested before a measure of this character can find its way on to the Statute Book.

Railway Accidents and Coroners' Inquests.—A bill has been brought forward by Mr. Hudson, supported by members of the Liberal and Labour parties, to amend the law relating to coroners' inquests in the case of fatal accidents on railways. Its purpose is to secure that when an inquest is to be held on the death of any person occasioned by an accident on the railway, the coroner shall send telegraphic notice to the Board of Trade of the time and place of the holding of the inquest, and shall have power to adjourn the inquest if an inspector or some person on behalf of the Board of Trade does not attend at the time appointed to watch the proceedings. The adjournment, however, need not interfere with the taking of evidence as to identification, or with the issue of an order for interment. The bill also provides that the coroner may require things to be left as at the time of the accident until the holding of the inquiry, unless compliance with such an order would increase or continue a danger or impede the working of the railway, and it also provides that any relative of a person whose death has been caused by the accident, or any person appointed by the committee of the trade society or friendly society of which the deceased was a member, shall be at liberty to attend and examine witnesses either in person or by counsel, subject to the order of the coroner.

Sight Tests.—In reply to a question by Mr. Peto, addressed to the President of the Board of Trade, Mr. J. M. Robertson said that from April 1st, when the new colour vision tests were instituted, until April 22nd, 138 candidates for certificates of competency were examined at London and Liverpool; 125 of these passed the local tests, 5 failed, and 8 were referred for special examination at South Kensington. One who failed had not yet appealed, and one who was referred had not yet been specially examined. The remaining 11 had been specially examined, with the result that 7 passed and 4 failed. The lights shown in the lantern test represented ships' side lights at a distance of one mile. He saw no occasion to take any steps in the matter. In further reply, Mr. Robertson said that he was not able to admit any claim for compensation in the cases of those who failed to pass the tests.

Meals for School Children.—A short bill to amend the Education (Provision of Meals) Act (1906) has been introduced by Mr. Jowett, supported by members of all parties, whereby a local education authority would be authorized within the limits of the principal Act to provide meals for children ordinarily in attendance at any public elementary school in their area on any day of the week, including Sundays, whether the school is open or not—that is to say, during school holidays, if required.

Dental Inspection in Ireland.—In reply to Mr. Cathcart Wason, Mr. Birrell said that there were about 200 registered dentists in Ireland. A sum of £5,000 had been included in the Estimates for public education, Ireland, for the purposes of dental inspection in schools. The general principle on which the money was disbursed was a grant of £1 for each £1 of local contribution towards the total cost of dental inspection under each approved scheme.

Irish Creameries and Dairy Produce Bill.—In reply to Mr. Newman, who inquired as to whether it was not an understanding that this bill should be introduced into the House in the form in which it had been approved by the Advisory Committee on Dairying on October 3rd, 1912, Mr. T. W. Russell said that during the progress of the bill last session the House of Lords struck out a provision in Clause 1 which had been inserted at the request of the Board of Trade and the Board of Agriculture, and without which they declined to allow the bill to proceed. The only alteration of the slightest substance made in the bill as now introduced was the insertion of a subsection to Clause 1 which made the previous proviso clearer. In further reply to Mr. Muldoon, who inquired as to whether it was not a fact that the Irish Agricultural Society was hostile to the bill, Mr. Russell said that the Irish Agricultural Society was hostile to the views of the Board of Trade and the Board of Agriculture in this country, and to the proposal embodied in the proviso, which, however, he considered a necessary part of the bill. He could not admit that in trade circles the term "creamery" as applied to butter was universally understood to mean butter manufactured in an Irish creamery. The term might be used with perfect propriety in connexion with butter manufactured in an English, Scottish, or other creamery. Subsection (3) of Clause 1 of the bill would not, as suggested, have the effect of inferior butter being sold in England to the detriment of Irish creamery butter.

Artificial Colouring of Milk.—Mr. Charles Bathurst asked whether, in view of the fact that all, or very nearly all, the milk sold in London was artificially coloured by annatto to look like the milk of Jersey cows, and that thereby a false standard of quality was set up and London consumers deceived thereby, he would issue an Order prohibiting the dyeing of milk, and thus enable householders to judge of the quality of the milk by its appearance. Mr Herbert Lewis replied that under the existing law the Local Government Board was not empowered to take action with regard to the process of colouring milk referred to in the question. This was one of the matters in respect of which it was proposed to take power to make Regulations under the Milk and Dairies Bill.

Scottish Prison Commission.—In reply to Major Hope, Mr. McKinnon Wood said that it was a fact that Dr. Devon's name was on the list of vice-presidents of the St. Rollox Liberal Association, but that he had been informed by the secretary that Dr. Devon had withdrawn from the association six years ago, and had not since subscribed to its funds or attended its meetings. He added that he was the best writer on criminology in Scotland; that his application had been supported by testimonials from magistrates, sheriffs, procurators fiscal, and others, many of them Unionists, who supported him on the ground of his eminent fitness for the post, and that his promotion had been welcomed by the *Glasgow Herald* as a "very popular" appointment.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

SHEFFIELD.

Insurance Act and Hospitals.

The Sheffield medical charities, on the initiation of the panel system, issued a joint statement regarding their attitude towards insured patients. The only alteration of procedure is that an insured patient who after medical examination is found to be suffering from a condition which can be adequately treated by his panel doctor is referred to that doctor. As might be expected, this has not resulted in any material diminution of in-patient work. The casualty out-patient departments have been affected to the extent of several hundred cases a week. There has been very little friction, and one case only has been reported and discussed before the Insurance Committee; in this a medical man refused to take the responsibility of dressing a case of injury to the hand by a piece of steel. It was felt that there had been some misunderstanding, and that a private communication to the doctor would meet the case.

School Medical Service.

Some indications of the rapid growth of this public service are visible in the scheme for new premises for the School Medical Service. These will be situated in Sims Street. The capital outlay on land and buildings is estimated at £12,300. About one-fourth of the building will be used for the purposes of a public tuberculosis dispensary, three-fourths being available for the School Medical Officers' Department. A report presented by the School Management Subcommittee expressed the hope that the Local Government Board would contribute £1,000 towards the capital outlay, while the Board of Education would defray approximately 50 per cent. of the annual outlay on the School Medical Officers' Department. But at the meeting of the Education Committee on April 29th, Mr. Harland stated that the Local Government Board could not defray any capital expenditure, but would contribute a sum towards the annual charge for services of debt, so that in the long run it was considered only about one-half the total cost would be put upon the rates.

There are also two new proposals with regard to open-air schools. At present there is an open-air school for 100 children at Whiteley Woods, about four miles from the centre of the city. The children are taken to the school in motor buses, but at the end of the day walk about one mile downhill to the nearest tram terminus. This makes the school rather expensive, and has hitherto limited its utility, as many tuberculous children could not undertake this walk, so that the school has been attended mainly by cases of "anaemia and malnutrition." The school has also been closed during the winter months. It is now proposed to convert it into a sanatorium school by acquiring some adjacent land and providing dormitory accommodation for forty children at an approximate cost of £1,300 for land and building. The cost for food is now £375 for 100 children (2s. 6d. a week a child provides all meals for the five days on which the children attend), whilst under the new scheme, whereby the school would be open throughout the year, for forty children it would come to 3s. 6d. a week or £364 per annum.

It is also proposed to open a new open-air school at Northfield Road, Crookes. This school is close to one of the tram routes, and it is hoped that the cases of anaemia and malnutrition which have hitherto been treated at Whiteley Woods will be treated here at a much smaller annual expenditure.

A grant of £1,502 4s. 6d. has been received in aid of expenditure incurred in the medical treatment of school children, and £183 15s. towards the cost of the present open-air school.

Accommodation for Cripples.

The King Edward VII memorial in Sheffield has taken the form of an Institute for Crippled Children. The committee of the institute has approached the Education Committee and asked its co-operation in framing a scheme "by which the management and maintenance of the crippled children's institution shall be undertaken by the Education Committee, subject to a proviso that the trustees of the institution shall have the option of the first call on a number of beds, subject to terms in respect thereof being from time to time arranged." The Chief Medical Officer of the Board of Education has stated that such a scheme would receive sympathetic consideration. A preliminary estimate of the annual expenditure, on a basis of provision for 120 children, is £4,839, of which about £2,000 would be required from the rates. It was stated that from £70 to £90 a bed, or a total of £9,600, would be given towards the cost of the building, the remainder of the total, £30,000, being provided by public subscription.

NEWCASTLE-UPON-TYNE.

Officers of the Newcastle Division of the British Medical Association.

An event of more than local interest took place in Newcastle on April 25th, when a dinner was given in honour of the officers of the Newcastle Division of the British Medical Association. The gathering included some eighty medical men practising in the locality. The officers in whose honour they were assembled were: The Chairman of the Division (Dr. Andrew Smith), the Chairman of the Local Medical Committee (Dr. James Don), the Representatives at Representative Meetings (Dr. J. W. Smith and Dr. R. A. Bolam), and last, but not least, Mr. R. J. Willan (Surgical Registrar at the Royal Victoria Infirmary), who is Honorary Secretary of the Division. The chair was taken by Dr. J. D. Farquharson, who followed up his speech in honour of the guests of the evening by making presentations to each of them on behalf of the local profession. The principal gift was that made to Dr. Willan; it consisted of a silver tray and rose-bowl, inscribed:

> Presented to R. J. Willan, F.R.C.S., in grateful appreciation of invaluable services rendered in strenuous times, 1911-13.

In making the presentations Dr. Farquharson remarked that, though it could not be claimed that the battle was entirely over, the Division could at least feel that the honour and dignity of the profession had been maintained under the wise leadership of those whom it had put into responsible positions. Despite many disparagements and discouragements, something to balance the account had been obtained. To Mr. Willan primarily they owed much of what had been accomplished. The Division deeply regretted that it was about to lose Mr. Willan as secretary, and did not intend to allow him to escape into the backwoods of obscurity. To their other guests he would say that the gifts made to them were accompanied by their hearty and grateful thanks for the work they had performed.

Each of the guests in turn made acknowledgement, Mr. Willan observing that he still hoped to serve the Division as secretary of its scientific meetings. A large section of the profession still resented the Insurance Act, but in Newcastle it was working somewhat better than had been anticipated. The Act required substantial amendments, and one subject which should be considered by the Commissioners was that of compensation. There were plenty of precedents for such compensation in connexion with former legislation, and plenty of need for it in the present instance. Certain practitioners, whose cases he proceeded to detail, had had their private practices totally destroyed by the operation of the Act. The future of the medical profession depended very largely on the British Medical Association. There were a few malcontents who had threatened to resign their membership, but remarkably few had actually resigned. The action of the latter seemed to him nothing short of contemptible, bearing in mind what the Association had done for them. The British Medical Association must receive the whole-hearted support of the profession.

This latter note was also struck by Dr. James Don, who said there would be need for unanimity even more in the future than in the past. The proceedings concluded after the health of the Chairman had been drunk, on the proposal of Sir Thomas Oliver, and duly acknowledged by Dr. Farquharson.

BIRMINGHAM.

THE CHILDREN'S HOSPITAL, BIRMINGHAM.

ON April 23rd Her Royal Highness Princess Louise, Duchess of Argyll, accompanied by the Duke of Argyll, laid the foundation stone of the new buildings of the Children's Hospital, and unveiled the statue of King Edward VII. The statue and the new hospital, which is to be called the King Edward VII Memorial Children's Hospital, have been provided by public subscriptions "in loyal commemoration of the beneficent life and reign of a beloved monarch." These words will form part of the inscription to be carved on the back of the statue.

Her Royal Highness was received at the entrance of the site of the new hospital by the Lord Mayor, and there were also present the High Sheriff of Warwickshire, Sir Francis E. Waller, Bart., the Bishop of Birmingham, Major-General Keir, C.B., and the following representatives of the hospital: The President, Mr. Edward Cheshire; the Chairman of the Committee, Mr. Walter E. Pearson; the Chairman of the Medical Board, Mr. L. P. Gamgee, F.R.C.S.; and the Matron, Miss Tison Clarke.

The old Children's Hospital, which is now situated in Broad Street, was established in 1861 by the late Dr. Haslop in a private house. When the Lying-in Hospital vacated its buildings in 1870, they were converted into the in-patients' department of the Children's Hospital, the out-patients being retained on the old site, and a building, in the Gothic style, erected to accommodate them. The in-patient department was enlarged by the addition of detached wards in 1878, so that it contained sixty-two beds. In 1912 the number of patients treated at the hospital was 13,826, and of these 845 were in-patients, and 12,981 out-patients and casualties.

For many years there has been great difficulty in carrying on the work of the hospital in a full and efficient manner, owing to the age and inconvenient arrangements of the buildings. The hospital had become quite unfit for the increased demands made upon it, while the accommodation for the nurses was so deficient that they had to be quartered in four different buildings inconveniently scattered. In 1908 the committee issued a special appeal for the rebuilding of the hospital, and a new site was bought. Not enough money was subscribed to justify the committee in starting building operations, but in 1910 the rebuilding was made possible by the action of the proprietors of the *Birmingham Daily Mail*, who opened a King Edward Memorial Fund. The sum subscribed by their efforts was £32,808, and of this £2,700 has been devoted to the erection of the statue. The total cost of building and furnishing the new hospital is estimated at £62,000; including the contribution from the Memorial Fund, the hospital committee has in hand about £49,000, so that a further sum of £13,000 is required if the new building is to be opened free from debt.

The Memorial Hospital is being erected on an extensive site in Ladywood Road, and will be well situated, as it can easily be reached by omnibus, tram, or train. The administrative offices front on Ladywood Road, and here are arranged the quarters of the resident medical staff and the board room. At the extreme end on the right wing there will be a small out-patient department, for it is not proposed for the present to remove the out-patient department from the existing building. On the other wing there will be a large recreation room for the nursing staff. The wards, six in number, on three floors, in the rear of the administrative block, will be approached by a main corridor. Each ward has folding windows along the greater part of the southerly frontage, so that nearly the whole of one side of a ward can be opened. Each main ward will contain fourteen beds, and, attached to a smaller ward of five beds in which a warmer temperature can be maintained, a small room for the reception of children and where surgical dressings can be removed and medical examinations made, and the usual sanitary annexes. The hospital will provide accommodation for about 150 beds. The operating theatres are on the top floor in the centre, and are reached by a lift. The floors are to be made of fire-resisting reinforced concrete, and there will be an emergency staircase from each ward. There will also be an isolation ward for infectious patients, a laundry, and a pathological department.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

THE LATE DR. CECIL SHAW.

THE following resolution was adopted at the meeting of the Senate of Queen's University, Belfast, on April 16th, on the motion of Dr. J. Walton Browne, seconded by Sir Peter O'Connell:

> That the Senate have heard with very great regret the announcement of the death on April 10th of Dr. Cecil Shaw, lecturer in the university on ophthalmology and otology. They desire to place on record their sense of the eminent services which Dr. Shaw rendered to the advancement of the special branches of medical science to which he devoted himself, and to their teaching both here and in the hospitals in which the students of our medical school receive their clinical training. They request the Vice-Chancellor to convey this resolution to Dr. Shaw's widow, with the assurance of the Senate's sincere and deep sympathy with her in her bereavement.

At the meeting of the Ulster Medical Society, under the chairmanship of its president, Dr. Richard Whytock Leslie, on April 17th, the following resolution was placed on the minutes on the motion of Professor J. A. Lindsay, seconded by Professor Symington:

> The fellows and members of the Ulster Medical Society desire to put on record their deep sorrow at the death of Dr. Cecil Shaw and their sense of the serious loss which the society and the medical profession have thereby sustained, and they desire to convey their sincere condolence to Mrs. Shaw and other relatives.

THE AMALGAMATION OF IRISH WORKHOUSES.

Mr. J. G. McSweeney, Local Government Board Inspector, who attended a recent meeting of the Clogheen Guardians to urge the necessity of a sewerage scheme for the workhouse, which has recently been furnished with a new water supply, was questioned on the matter of Poor Law reform; he said that he did not think those present would see amalgamation. It would cost 6 millions to carry out. Matters, he said, would mould themselves in time, and the necessities of the times would make such a place as the Clogheen Workhouse more and more of a district hospital with larger medical staffs.

At the last meeting of the Glenamaddy (co. Galway) Board of Guardians a report was read from the Local Government Board Inspector, containing complaints as to the condition of the workhouse. There were, it was alleged, no beds for the infirm men and women, and they were allowed to sleep on the floors. The Clerk, however, said that the infirm inmates had been sleeping on stretchers, and that they slept so near the floor that if they fell out they would not be hurt. An order to procure the necessary number of beds was nevertheless made.

SALARIES OF DISPENSARY MEDICAL OFFICERS.

For the thirteenth time in ten years the Carrick-on-Suir Board of Guardians have marked "Read" applications for increased salaries from the dispensary medical officers in the service of the board. Two of the doctors have each £80 a year, two £100, and one £115.

THE MENTAL DEFICIENCY BILL.

The Committee of Management of the Down District Asylum has passed a resolution expressing regret that Ireland is again excluded from the proposed benefits of the Mental Deficiency Bill. It points out that in the absence of other specialized institutions persons of the mentally defective class are received into the district lunatic asylums in Ireland, and that in consequence the yearly expense has been unduly increased, while at the same time there has been a yearly decrease in the grant-in-aid. It is suggested that a grant-in-aid should be provided for in the bill, and that, pending legislation, the said grant should be supplemental to the 4s. grant-in-aid, and paid to the different asylum authorities in the country.

MEDICAL PROGRESS IN BELFAST.

The *Belfast Evening Telegraph* of April 23rd contains a number of "tercentenary messages" in which the development of Belfast in various directions is traced by writers having special knowledge of the subject. One of the most interesting of these is a history of medical progress, by Sir John Byers. A very notable feature in

that history, since he began practice, is the growth of laboratories. Since 1894 new chemical, physiological, and pathological laboratories have been opened at Queen's College, Belfast (now the Queen's University of Belfast), a movement which has led to the establishment of a school of research workers, whose original contributions in many departments of medicine have brought the greatest credit upon the Belfast School of Medicine. When the buildings now in course of erection at Queen's University are completed there will also be new anatomical, physical, natural history, pharmacological, and public health laboratories. Sir John Byers thinks that one of the most important new developments will be the King Edward VII Memorial Block, which is shortly to be erected in connexion with the Royal Victoria Hospital. There, he says, it will be possible to employ for the benefit of patients as well as for the education of students the very latest practical applications to disease of chemistry, electricity, *x* rays, Finsen light, radium, haematology, and vaccine therapy. Another notable feature in the medical progress of Belfast is the growth of hospitals. At the outset of Sir John Byers's professional career, with the exception of the old Belfast Royal Hospital and the Throne Convalescent Hospital attached to it, the District Lunatic Asylum, and the Infirmary and Fever Hospital at the workhouse, the only other hospitals were the Hospital for Cutaneous Diseases, the two Eye Hospitals, the Samaritan Hospital, and two Children's Hospitals. With the growth of the city and the development of specialization, the Hospital for Nervous Diseases (1896), the Mater Infirmorum Hospital (opened in 1883), and the Forster Green Hospital for Consumption have come into existence. In 1897 two cancer wards were added to the Samaritan Hospital for Women; in 1905 the Belfast Maternity Hospital, founded in 1794, was removed to its present site in Townsend Street; in 1903 the new Royal Victoria Hospital was opened by King Edward VII; and last year the new Ulster Hospital for Children and Women was opened in Ballymacarrett. During the same period the Belfast Board of Guardians has erected within the grounds of the workhouse, where they have accommodation for about 1,700 patients, a new maternity (1892), a new nursing home (1901), and the large "Dufferin" Hospital for Children (1907), while at "The Abbey" they have established and equipped one of the finest consumption sanatoriums in any country; it is about to be taken over by the City Corporation in connexion with their new scheme for dealing with the problem of tuberculosis. The public health department of the corporation in 1903 established a self-contained small-pox hospital with 60 beds, and in 1906 opened the municipal fever hospital at Purdysburn (containing 168 beds); this is shortly to be enlarged to provide accommodation for 100 more patients. In 1902 the Belfast Asylum was separated from the county of Antrim, and its further development to its present fine condition at Purdysburn has taken place under the auspices of the City Corporation. There have also sprung up all over the city private hospitals or nursing homes for patients who are able to pay for treatment. Another direction in which there has been an enormous advance is State medicine. Since Sir John Byers entered the medical profession the most important public health reforms in Belfast have been—

The regular and systematic removal of house refuse; house to house inspection;
The notification of infectious diseases and tuberculosis; the provision of the municipal fever hospitals at Purdysburn; house disinfection and disinfection of clothes; the notification of births, with early visitation by female inspectors in such cases;
The demolition of insanitary dwellings;
The provision of bacteriological examination of specimens;
The supervision of food supplies;
The improvement in the drainage of the city; the more complete inspection of dairies; and the provision of public baths.

As for the water supply, when the Belfast City and District Water Commissioners have, in accordance with their Act passed last year, constructed the great reservoirs in the valley of the Annalong river and in the valley of the Kilkeel river, there will be, he thinks, no city in the United Kingdom possessing a more perfect water supply than Belfast.

British Dairy Farmers' Conference.

The British dairy farmers are to hold a conference in Dublin from May 17th to 27th. An inaugural dinner will be held in Dublin on May 17th, at which it is expected that the Lord Lieutenant, the Countess of Aberdeen, and the Right Hon. T. W. Russell will be present. On May 19th the party will visit Straffon House to inspect the herd of pedigree shorthorns, one of the largest in the United Kingdom, and in its formation special attention has been given to milk production. The conference will be opened in the Royal College of Science in the evening. Among the subjects to be discussed are the elimination of the unprofitable cow, and the improvement of Irish dairy cattle. Various dairies and creameries will be visited throughout the country, and Mr. John Wills's herd of Kerries will be inspected. The conference will visit such places as Thurles, Limerick, Adare, Killarney, and Cork.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Edinburgh and the Inclusive Fee in Medicine.

At its meeting, on April 21st, the Edinburgh University Court had under consideration a letter, dated March 31st, from the Lords Commissioners of His Majesty's Treasury, stating, with regard to the inclusive fee in medicine, that they were content that the University Court should await some further experience of the working of the inclusive fee before finally deciding whether it could be instituted or not in medicine and applied science. The next sentence in the letter was as follows:

My Lords are giving directions for the payment of the additional grant of £12,500 for the current financial year, but they must stipulate that, as a condition of receiving payment of the full amount of grant for which provision is made in votes of Parliament 1912-13, the Court will appoint a committee to inquire fully as to the difficulties in the way of instituting an inclusive fee in applied science and medicine, and as to the possibility of surmounting them, and they will be glad to learn that the Court agree to this course being adopted, and to receive the report in due course.

The University Court resolved to comply with the condition attached to the receiving of the grant—the appointment of a committee being a step which, in the circumstances, the Court of its own motive would have taken. The lecturers of the extra-mural school also discussed the question of the inclusive fee in medicine and applied science at a meeting on April 22nd; but no conclusion was then reached.

Edinburgh Medical Missionary Society's Training Home in Agra.

The Edinburgh Medical Missionary Society's Training Institution for Medical Missionaries in Agra has suffered a severe blow in the sudden death of Dr. William Huntly, the superintendent of the institution. Dr. Huntly was taken ill with pneumonia, and died on April 11th. The institution exists for the purpose of aiding in the training of Christian lads of the Agra Medical School who wish to become medical mission assistants, and twelve of these young Indians were under Dr. Huntly's care.

Bacteriological Work in Private Practice.

As showing what can be done in connexion with bacteriological work in private practice, Dr. Lachlan Grant, Ballachulish, Argyllshire, forwards two reprints giving the results of one year's work in his private laboratory. In this laboratory he prepares his vaccines and 63 cases received vaccine treatment. Besides the preparation of vaccines Dr. Grant made numerous examinations of sputum, blood, throat cases, etc. Dr. Grant pleads for the establishment of laboratories for bacteriological work throughout the Highlands, under the control of the Local Government Board or county council. As the outcome of the Dewar report it is more than likely that facilities will be given for such work being carried out under Government control. Much credit is due to Dr. Grant for the work he has been doing in his private laboratory.

TUBERCULOSIS ADMINISTRATION IN EDINBURGH.

It will be remembered that in a former number (p. 850) the meeting of the expenses of the proposed tuberculosis administration for Edinburgh and other matters connected therewith were referred by the town council to the Treasurer's Committee for report. That Committee met on April 25th, when it was agreed to send the whole question to a subcommittee.

EDINBURGH PARISH COUNCIL APPOINTMENTS.

The little group of appointments which were referred to some weeks ago (p. 631) in connexion with Edinburgh Parish Council were made on April 28th. Dr. T. Y. Finlay was appointed medical officer, Craiglockhart Poorhouse; Dr. W. L. Martin was appointed consulting physician, Craigleith Poorhouse; and Mr. Lewis Beesly, consulting surgeon for Craiglockhart and Craigleith Poorhouses.

Special Correspondence.

PARIS.

Cystic Angioma of the Abdomen.—Hereditary Tuberculosis.—Tuberculosis or Hereditary Syphilis?—Pregnancy Complicated by Ovarian Tumour.—Ethmoidal Headache.

THE Congress on Pediatrics and Obstetrics was held in Lille from March 25th to 28th, under the presidency of Professor Pozzi. M. Gorse of Lille reported a case of cystic angioma of the abdomen in a child aged 4 years on whom the diagnosis of right inguinal hernia was first made. The operation revealed the fact that the condition was really one of large retroperitoneal cystic angioma. Pathological examination showed that the condition was due to a lymphomatous cyst.

M. Delcarde added one more to the few recorded cases of hereditary tuberculosis. The mother was known to be tuberculous, and the child when born was taken away from her, but it fell ill and died. *Post mortem* no organs were obviously affected, but the bacillus was found abundantly in the pulp of the spleen, and guinea-pigs inoculated with the organs rapidly died of tuberculosis.

The subject of pseudo-tuberculous manifestations in hereditary syphilitic children was discussed by MM. Tridon, Le Fort, and Vidal. M. Le Fort remarked on the fact that cervical adenitis, cutaneous ulcerations, and disease of the bones and joints were frequently diagnosed tuberculous, when in reality the condition was due to hereditary syphilis, a diagnosis frequently confirmed by the Wassermann reaction. M. Vidal agreed with this, and said that in Algiers such cases, especially in the native population, showed marked improvement under treatment with mercury and iodide.

MM. Vauvert and Puech, in discussing the treatment of tumours of the ovary complicating pregnancy, expressed the opinion that during the first six months of pregnancy operation should always be performed, whereas during the last three months operation should only be performed when absolutely necessary. The tumours most difficult to deal with were pelvic cysts, which might cause abortion, prolapse of the cord, inertia, or even rupture of the uterus.

Dr. Guisez read an interesting paper at the Academy of Medicine on migraine of ethmoidal origin. In each one of 70 cases studied the complaint made was of severe repeated attacks of headache. In several trigeminal neuralgia was the first diagnosis made, and the treatment in some cases was medical; in some the nerve was operated on. In all these cases the pain was generalized at first over the head, and finally became most severe in the frontal region. That it was due to a vaso-congestion of the upper part of the nasal fossae and in the orbital plexus of the veins was shown by the congested appearance of the upper fossae, by the seat of pain, and by the marked improvement following applications of cocaine and adrenalin. He recommended as the only satisfactory treatment the removal of the front of the middle turbinate.

VIENNA.

Appointment of Professor Kraus to Buenos Aires.—Compulsory Vaccination in New Austria.—Instruction in Medical Ethics.

PROFESSOR RUDOLF KRAUS, whose name has become well known lately owing to the circumstance that he was called upon by the Bulgarian Government to deal with the outbreak of cholera during the Balkan war, has now accepted a proposal of the Argentine Republic that he should place his knowledge at its disposal. A large and very up-to-date institute for combating the prevalence of infectious diseases has been erected in Buenos Aires, and of this establishment it has been arranged that Professor Kraus shall be the director. His financial and social position in the Argentine will be very satisfactory, and his opportunities for scientific work will be of the most extensive kind. Among other duties he will have to organize, so to say, the prophylactic and therapeutic crusade against infectious disease of all kinds among cattle (the chief source of Argentina's wealth) as well as among the human population. Naturally the prospective loss of such an eminent teacher and investigator is greatly felt in Viennese scientific circles, and his very popular lectures on immunity will be much missed by students. He has arranged to leave in the summer.

An interesting law has recently been promulgated in the two provinces of Bosnia and Herzegovina called "New Austria." These provinces contain about 2 million inhabitants spread over an area of some 20,000 square miles, and hitherto have had few sanitary regulations except those of a kind easily enforced. Owing to the war there has been a large influx of immigrants, numerous Turkish families having sought refuge and a new home in these Austrian provinces. Hence the danger of small-pox and other infectious diseases being spread has been undoubtedly increased. For this reason vaccination is to be compulsory, and the law comes into force at once. Every healthy child must be vaccinated before it reaches its third year of age. It will be exempt if meanwhile it is attacked by true small-pox, or if it is deemed too weak to undergo the process safely. But this exemption is only temporary, for on reaching its eighth year every child must be revaccinated. If the first attempt at revaccination is ineffective the proceduro must be repeated a year later. If this, too, is without effect another attempt must be made two years later. Each vaccinated child must be reported to the board of health, and in each case in which vaccination has been postponed or remains without effect, a report, with details, must also be sent to the board. Any practitioner besides the public vaccinator is entitled to vaccinate. No child which is not marked by small-pox may be admitted to school without a certificate of effective vaccination. It is intended to make vaccination compulsory also for grown-up persons within a short time.

The Association of Vienna practitioners has instituted a series of lectures for students of medicine and for practitioners, dealing with problems of medical ethics and economics. Some specific subjects with which they will deal are the following: The relations between the general public and the practitioner; the problems of State and contract practice; and the relations between general practitioners themselves and consultants. The vexed problems of income and other taxes, the legal rights of medical men and the forensic duties of medical men, and those duties in regard to notifications of births and deaths and infectious diseases, are also among the topics. The experiment (for such it was at the outset) has now become an important part of the unofficial equipment for preparing the young doctor for the struggles of practice—and the battle of clubs!

THE fourth International Congress on School Hygiene will be held at Buffalo, New York, in August next (25th to 30th), under the patronage of the President of the United States. The congress will be attended by delegates from all the leading nations, and from every university and college of note in the States and from many educational, medical, and hygienic organizations. All communications relative to the congress should be addressed to Dr. Thomas A. Storey, College of the City of New York, N.Y.

Correspondence.

THE MILWARD FUND.

SIR,—It was my privilege to know Dr. Courtenay Milward, and I was shocked to read in the JOURNAL of his untimely death on April 9th. His charm of manner always greatly impressed me, but what struck me above all things was the strenuous, whole-hearted, and self-sacrificing efforts which he was making to help the profession in our fight against the injustices of the Insurance Act.

He was one of few plucky ones who refused to break their pledge and join the panel until released by the Association, even though this refusal was detrimental to his own interests, and I appeal most earnestly to the profession to see that his wife and children do not suffer for his devotion to our cause.

For very shame let us not neglect our clear duty and privilege to mark our appreciation of a gallant English gentleman.—I am, etc.,

JOHN F. WALKER,
Southend-on-Sea, April 28th. Representative, S. Essex.

RHEUMATOID ARTHRITIS.

SIR.—With reference to Sir James Barr's letter in your last issue, I cannot regard translucency of the ends of the bones, as exhibited in some skiagrams of the affected joints in cases of rheumatoid arthritis, as proof of the extraction of lime salts from the fibrous tissue, muscles, nerves, cartilages, and bones. This is his only answer to my question as to the evidence on which he based his opinion that the proximate cause of the disease is "a mild chronic acidosis, which extracts the lime salts from the fibrous tissue, muscles, nerves, cartilages, and bones."

Sir James Barr recommends me to sharpen my wits by the administration to myself of phosphoric or citric acid, but, if the tone of his letter is an illustration of the direct effect of this treatment on his own person, I would rather abstain from following out his advice to similarly experiment on myself.

Sir James Barr liberally showers his gibes upon me, but I can assure him that I remain unaffected by them, and I am quite incapable of either adopting his peculiar polemical style or of replying in similar terms to his remarkable animadversions.—I am, etc.,

London, W., April 26th. ARTHUR P. LUFF.

SIR,—The illuminating address by Sir James Barr, published in the BRITISH MEDICAL JOURNAL of April 12th, 1913, will be received with enthusiasm by very many physicians who have been puzzled and perplexed with the pathology of rheumatoid arthritis and more than disappointed at the futility of the most vaunted method of treatment—that of potassium iodide and guaiacol carbonate.

According to Dr. Luff, in a letter in the issue of April 19th, Sir James Barr has been "very iconoclastic in his attitude towards former workers and writers on the subject." But is this statement quite correct? Bath has been the Mecca, so to speak, for very many years for those afflicted with rheumatoid arthritis. Now, upon examination, what do we find? The mineral waters of Bath contain 111.5 grains of calcium per gallon in unknown association, but given in the analysis made by the *Lancet* laboratory as sulphate and carbonate. Personally I have always favoured the drinking of the mineral waters, rather than the bathing, in rheumatoid arthritis, and, if the patient will take as much, prescribe 20 oz. twice daily. At the time they are drinking this water I give them treatment daily for twenty minutes with the static wave current with a voltage up to 100,000. This acts generally upon the tissue metabolism of the body and at the same time raises the tone of the system as a whole. During the past six years I have been following this method with complete satisfaction to all interested. The beneficial results which have accrued have surpassed anything I at first expected, but the time required for the reparative process is from two to three years, giving a month's treatment as above described twice yearly.—I am, etc.,

Bath, April 28th. GEORGE E. BOWKER, M.D.

SIR,—So far as I am concerned a few lines will suffice for my reply to the cursory glance and cursory remarks of Dr. James Craig of Llandudno in your issue of April 26th. In my opinion rheumatoid arthritis, as a prolonged disease, is a standing disgrace to the medical profession. The disease should be early recognized, the cause removed, and the patient cured. I do not take the recommendations of Dr. Craig too seriously, but if they be, as he says, new, then I feel inclined to say in this case what is new is not true.

I have heard about the use of vaccines in this disease, but let us hope that the serums only exist in the brain of Dr. Craig.—I am, etc.,

Liverpool, April 26th. JAMES BARR.

DILATATION OF THE CERVIX IN ECLAMPSIA.

SIR,—Dr. Gibbons, in his lecture on puerperal eclampsia, refers to dilatation of the os uteri by means of Bossi's dilator, and expresses the opinion that it requires great care to avoid lacerating the cervix in its use. Bossi's dilator is an apparatus I have no liking for; it seems a most unmechanical idea to expand a circle by means of the angles of a square. The risk of tearing the cervix increases the more widely the blades are separated, as no support is afforded to the portions of the cervix between the blades.

A method which I devised about five years ago, and have not seen described elsewhere, seems to me to be superior to dilatation with this instrument. I first employed it in a case of puerperal eclampsia at the seventh month of pregnancy, in which I decided to empty the uterus by rapid dilatation of the cervix. I had no dilators with me except Hegar's, and these I used as follows: Dilatation was proceeded with as usual up to No. 26; this was then withdrawn, and three smaller sizes were inserted together. Another small one was then pushed in, in the middle of the three. When they were felt to be less tightly gripped another was added, and others again as dilatation proceeded, until there was a large bunch in the os, which eventually was sufficiently dilated for me to be able to deliver with forceps.

It is an easy matter with this method to determine how rapidly the os is responding to the pressure of the dilators, as the action is the same as with the dilators used singly. The pressure is evenly distributed round the os, and the risk of laceration is thereby reduced to a minimum.

The single-ended Hegar's dilators are the most suitable for this method; I have no doubt that Hawkins Ambler's form would be equally convenient, but these I have not tried.—I am, etc.,

Huddersfield, April 26th. CLEMENT ROGERSON, M.D.Lond.

THE FORM AND POSITION OF THE STOMACH.

SIR,—After reading Mr. Gray's letter in your issue of April 19th and finding my writing extensively quoted, I can only say, "Is it possible that such an interpretation can be given?"

That this "middle sphincter" is, if it exists, of no practical importance is obvious to any one who does bismuth examinations to any extent—with the exception of cases of hour-glass contractions due to ulceration or to spasm, the interior of the stomach, when once canalized by the food, is invariably one undivided cavity. When peristalsis is powerful the waves will often divide the food almost completely, and we can watch this division travel slowly towards the pylorus; but this is no sphincteric action, it is simply peristalsis.

Mr. Gray has not grasped the fact that the empty stomach is a potential space whose walls are in a state of tonic contraction. When hypertonus is present it is only natural that the downward passage of the food, under the action of gravity and with the aid of peristalsis, will be more or less obstructed, and a small mouthful will often remain just below the air shadow for quite a long time. If I recollect aright I demonstrated this to Mr. Gray and then gave a little more food, and we saw the gastric cavity canalized, and, as is perfectly natural according to the laws of physics, the onward progress of the food was again arrested at the lowest point before turning to the right along the pyloric canal, simply because gravity ceased to act, and it was not until a wave of peristalsis

came to its assistance that the food passed round the corner.

On p. 854 Mr. Gray quotes me at length, and what I have just written is merely an attempt to make even more clear what I believe must be obvious to any one. The first paragraph simply refers to the way in which the food is held up in the upper part—that is, just below the cardiac orifice; the second paragraph definitely states that "it frequently happens that at the lowest part of the organ" there is a considerable pause in the progress of the food; while in the third paragraph I am writing of "spasmodic contractions of the middle of the body" of the stomach. Mr. Gray apparently claims all these sites as his "middle sphincter," and I am absolutely at a loss to know where he believes this middle sphincter to be.

At the oft quoted demonstration I endeavoured to show the "normal anatomy of the stomach," although, as I said at the time, I did not happen to have what I considered to be a perfectly normal stomach to show; but surely Mr. Gray knows that a slight increase or decrease in tonic action is of the commonest occurrence, and some of the cases I happened to show him were perfectly normal, except in that they exhibited what I considered to be slightly increased physiological tonic action. Both Professor Elliot Smith and I understood that Mr. Gray had mistaken the pause at the lowest point for the action of a sphincteric band of fibres. Certainly Mr. Gray gave us no indication then that he was going to claim a "middle sphincter" just below the cardiac orifice, in the middle of the body of the stomach as well as at the lowest point—in fact, anywhere from the cardiac orifice to the pylorus. It is a most elusive thing, this "middle sphincter"! The pause I have just described at the upper part and at the lowest part disappears and leaves no indentation as soon as the stomach is canalized by the food and the organ at once becomes one continuous cavity. I certainly thought Mr. Gray had shown us where he placed his middle sphincter—that is, at the lowest part of the stomach—and it was obvious that the simple mechanical explanation of the action of gravity was quite sufficient to account for the delay that occurred in the cases we observed together.

As to the spasmodic contractions that occur in the middle of the body of the stomach and elsewhere, although they occur in what is apparently a perfectly normal stomach, they are by no means normal. They do not always occur at the same point, and they are not seen on the operating table. Although they occur in the normal stomach, they are of very great pathological significance, and are probably reflex. On April 18th I read a paper before the Electro-therapeutic Section of the Royal Society of Medicine, in which I gave a considerable amount of evidence for believing that they are secondary to various toxic agencies, such as bad teeth, constipation, appendix inflammation, etc., but they are not dependent on any specially developed muscular bands, at any rate no trace of them has been found at operation, and when once the cause has been removed these contractions disappear.

It is simply waste of time, ink, and paper to continue correspondence on this subject, for apparently it lends itself to distortion by those who are not familiar with normal appearances. If Mr. Gray could spare an hour or so either here or with Dr. Hertz in London, I am quite certain that, if he could only locate this elusive middle sphincter for us, it would save him the trouble of bringing up the subject again, and of carrying on another lengthy correspondence.—I am, etc.,

Manchester, April 23rd. A. E. BARCLAY.

OWING to the operation of the National Insurance Act, last year threatened to be a period of stress for the Metropolitan Hospital Saturday Fund. In the event, however, the diminution in the total receipts was inconsiderable. The income of the general fund, it is true, diminished by some 5 per cent., but the amounts received in part payment of benefits were higher, so the total for the year reached £45,118, as against £45,468 in 1911. The management expenses were 7.6 per cent. of the gross receipts. The number of benefits provided was 65,267, a considerable increase. But these satisfactory figures cannot be taken as a gauge of the ultimate effect of the Insurance Act on the prosperity of the fund, since the deductions from wages under the Insurance Act and the fall in receipts only commenced in the second half of the year.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

Degrees.

THE following degrees have been conferred:

M.D.—P. Hamill, C. W. Hutt, L. Nicholls, W. B. Wood.
M.C.—G. H. A. C. Berkeley.
M.B.—H. G. Earle, H. M. D. Nicoll.
B.C.—H. M. D. Nicoll.

Examination.

The following candidates have been approved at the examination indicated:

SECOND M.B. *Part II (Pharmacology and General Pathology).*—C. G. Ainsworth, M. L. Atkinson, J. Aydon, J. V. Bates, P. R. Boswell, C. C. Brewis, W. H. W. Cheyne, V. M. Coates, A. O. Courtis, C. S. Dodson, B. C. Ewens, B. J. L. Fayle, C. Gardiner-Hill, W. T. Hare, R. Hargreaves, C. B. Hawthorne, L. G. Jacob, A. H. Little, C. F. Mayne, G. C. Metcalfe, H. S. Miles, B. Mountain, E. C. W. Starling, P. Wallice, E. Watson Williams, W. L. Willett, A. G. P. Wills.

UNIVERSITY OF MANCHESTER.

Ashby Memorial Scholarship.

THE committee of the Ashby Memorial Scholarship has decided, instead of selecting a subject for research this year, that candidates on applying for the scholarship shall propose their own subjects. The scholarship was founded for the promotion of the study of the diseases of children, and the research proposed must be in this subject. The award of the scholarship will be made early in July. Applications may be sent to the Registrar on or before June 30th. The announcement of an award previously made was due to an oversight as regards the regulations as to dates.

Examinations.

Owing to the early date of Whitsuntide the examinations for entrance scholarships and exhibitions will begin on May 19th next, and be continued on succeeding days.

UNIVERSITY OF SHEFFIELD.

THE Council has appointed Mr. F. G. Mordaunt, L.D.S., to the post of Lecturer in Dental Surgery and Pathology, in succession to the late Mr. Frank Harrison.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

A COMITIA was held on April 24th, Sir Thomas Barlow, Bart., K.C.V.O., President, being in the chair.

Admission of Members.

The following gentlemen, having passed the required examination, were admitted as Members of the College:

James Leatham Birley, M.B.Oxford, L.R.C.P.; Joseph le Fleming Coy Burrow, M.B.Edin.; Gordon Ley, F.R.C.S., L.R.C.P.; Gustave Jean Philippe Monod, M.D.Paris; Charles Sheard, M.B. Toronto, L.R.C.P.; Stanley Wyard, M.D.Lond.

Licences to Practise.

Licences to practise physic were granted to 88 gentlemen who had passed the necessary examinations.

Election of Fellows.

The following Members, nominated by the Council, were elected to the Fellowship:

John Oglethorpe Wakelin Barratt, M.D.Lond. (Liverpool); Edward Stainer, M.D.Oxford (London); Henry Russell Andrewes, M.D. Lond. (London); Francis Hugo Thiele, M.D.Lond. (London); William Philip Sutcliffe Branson, M.D.Camb. (London); Walter Henry Maxwell Telling, M.D.Lond. (Leeds); Ernest Edward Glynn, M.D.Camb. (Liverpool); Thomas Grainger Stewart, M.D.Edin. (London); John Brian Christopherson, M.D.Camb. (Khartoum, Egypt); Alexander George Gibson, M.D.Oxon. (Oxford); Frederick Samuel Langmead, M.D.Lond. (London); Henry Roy Dean, M.D.Oxon. (Sheffield); Thomas Lewis, M.D. Lond. (London); Maurice Alan Cassidy, M.D.Camb. (London); Charles Wilberforce Daniels, M.B.Camb. (London); James Mackenzie, M.D.Edin. (London).

Under By-law LXXI (*b*), which authorizes the Council to nominate registered medical practitioners who, not being members of the College, have in its opinion distinguished themselves in any branch of the science or practice of medicine:

Charles James Martin, M.B.Lond., F.R.S., Lister Institute, Chelsea, S.W.

Communications.

The following communications were received: (1) From the Secretary of the Royal College of Surgeons of England, reporting proceedings of the Council of the College on April 10th, 1913. (2) From Miss Ellen L. Wilks, asking leave to have a carbon print made of the portrait of the late Sir Samuel Wilks, Bart., which he left to the College. (3) From Mr. D'Arcy Power, asking leave, on behalf of the Section of History of Medicine of the Royal Society of Medicine, to photograph certain portraits of Harvey. Leave was granted in both instances.

Alteration in Regulations.

An alteration was made in the regulation appended to By-law CXVII whereby candidates for the membership should

be allowed three instead of four hours for each of the written parts of the examination.

Representative on the Senate of the University of London.

Dr. S. J. Sharkey was re-elected the representative of the College upon the Senate of the University of London.

Reports.

A report was received from Dr. A. E. Garrod concerning the Fourth International Congress of Physio-Therapeutics recently held in Berlin.

A report was received and adopted from the Committee of Management, dated March 4th, 1913, recommending that Blundell's School, Tiverton; Elizabeth College, Guernsey, and Boys' Grammar School, Watford, should be added to the list of institutions recognized by the Examining Board in England for instruction in Chemistry and Physics.

After some further formal business the President dissolved the Comitia.

SOCIETY OF THE APOTHECARIES OF LONDON.

THE following candidates have been approved at the examinations indicated:

SURGERY.—*†J. T. E. Evans, *†G. Fildes, *†H. C. C. Hackney, *†R. Jones, *†A. J. V. Matthews, R. A. Robinson, *†H. P. Shackleton, *†R. L. M. Wallis, *†S. Zarchi.

MEDICINE.—*†J. T. E. Evans, *†G. Fildes, *†H. C. C. Hackney, *G. R. Lynch, *†H. P. Shackleton, *†R. L. M. Wallis.

FORENSIC MEDICINE.—G. Fildes, D. Havard, H. P. Shackleton, R. L. M. Wallis.

MIDWIFERY.—H. P. Shackleton, R. L. M. Wallis, A. H. Willson.

* Section I. † Section II.

The Diploma of the Society has been granted to Messrs. J. T. E. Evans, H. C. C. Hackney, R. Jones, G. R. Lynch, A. J. V. Matthews, R. A. Robinson, H. P. Shackleton, R. L. M. Wallis, and S. Zarchi.

Medico-Legal.

GUARDIANS AND PROFESSIONAL FEES.

AT the Granard (Longford) Quarter Sessions Dr. F. C. Yorke was granted a decree for £2 2s. and £1 1s. expenses against the Granard Board of Guardians. Dr. Yorke was appointed to take the place of the workhouse doctor when he was called away on a Crown summons. The guardians submitted that, as Dr. Yorke was only employed for one day, a guinea was a reasonable fee. The Judge said he considered £2 2s. a reasonable fee.

A nurse sued the Ballymahon Board of Guardians to recover 12s. A car was sent to meet her by the guardians at a train, but she was detained by the hospital authorities in Dublin in removing a patient, and did not get home until a later train. She was obliged to hire a car at Mullingar, and the 12s. that she paid for it the guardians disputed, as the nurse had specific instructions as to the train by which she should return. The Judge gave a decree for the amount, remarking that "it was a miserable case and a mean defence."

CONSUMPTIVE LODGER.

AN interesting case was tried recently at the Monaghan Quarter Sessions. A boarding house keeper sued the executor of the will of a deceased man to recover £25 damages for injuries committed by the deceased when residing as a lodger in her house in June, 1912, for that he infected the house and furniture with a contagious disease. From the evidence it appeared that when the deceased and a friend came to the house to look for lodgings the plaintiff asked if he was suffering from consumption, and his friend assured her that it was congestion of the lungs, and on that assurance she took him in. A few mornings later he had a severe haemorrhage and soiled the bed clothes, carpet, and wall paper with blood. The doctor would not allow him to leave for six weeks, and some other lodgers left the house, and the plaintiff could not get the house filled for the rest of the season.

The Judge quoted a number of decided cases, showing that a person who, knowing that he is suffering from an infectious disease, succeeds in gaining admission as a lodger to the house of another person, either by falsely representing that he is not suffering from an infectious disease or by warranting that he is not suffering from some particular infectious disease, renders himself liable in damages, the amount depending upon the actual loss which reasonably followed upon the false representation or breach of warranty. These cases were all concerned with diseases such as small-pox, scarlatina, or measles, that is, diseases included in the various Notification of Infectious Diseases Acts. Under regulations of the English Local Government Board, pulmonary tuberculosis was declared to be an infectious and notifiable disease, and it was likewise notifiable under certain local Acts. The Judge pointed out that it would be very inconvenient from a public point of view if it was established in the courts that the principles applicable to small-pox and the like were to apply without restriction and qualification to consumption. The plaintiff in this case had got an assurance that the lodger was not suffering from consumption, and on that assurance let the rooms to him, and she was therefore entitled to a decree for the amount of her loss through the disinfection of the room and the destruction of some of the articles and for the loss on lettings. A decree was therefore given for £16 4s. 2d.

Obituary.

WILLIAM HUNTLY, M.A., B.Sc., M.D.GLASG.,

AGRA.

WILLIAM HUNTLY was born on December 1st, 1859, and was educated at Hutcheson's Grammar School and the High School of Glasgow. He then passed to the university of that city, and graduated M.A. there in 1880; he had one session at the United Presbyterian Divinity Hall (1880–1), and then turned to medicine and science, graduating B.Sc. and M.B., C.M. at Glasgow in 1885. His desire was to be a medical missionary, and he was far-sighted enough to recognize that such a calling would best be answered by gaining the most thorough knowledge possible of medicine and science; so he went through the arts, science, and medical curriculums, and put the copestone on the edifice of his training in 1889 when he graduated M.D. in Glasgow. He had already volunteered for service in India, and had been accepted by the United Presbyterian Church of Scotland for its medical mission work in Rajputana. To take up this work he sailed on October 30th, 1886. He had periods of service at Beawar, Nasirabad, Jodhpore, and Kotah in succession, and finally spent a year at Bundi, in the very centre of the famine-stricken districts of India. In this way fifteen years were spent. Then Dr. Huntly's health broke down, and in 1901 he had to return to Scotland to recruit. One who knew Dr. Huntly well has explained his great success by a reference to five characteristics which he possessed in particular—namely, his medical skill, his versatility, his accessibility, his evangelical earnestness, and his unselfishness. Added to these was his extraordinary sympathy with the natives of India; in their society he was most at home, and was perhaps seen at his best.

But Dr. Huntly's career in India was not yet finished. His health was so much restored that when Dr. Colin Valentine of Agra died, the thoughts of the directors of the Edinburgh Medical Missionary Society turned at once to Dr. Huntly as the most likely man to take his place as head of their Medical Missionary Training Institution in North India. So to Agra, in 1902, Dr. Huntly went, and there he laboured till his death from pneumonia on April 11th. As superintendent of the Agra Institution he was brought into close contact with the native Christian youths training to become hospital assistants, and upon them for some ten or eleven years he lavished all the sympathy of his nature, and gave them freely of the professional knowledge with which he was so well furnished. During recent years the number of students passing through the institute was somewhat diminished, a circumstance which occasioned Dr. Huntly a great deal of anxiety. It was to the action of the Government of India in requiring the standard of examination to be raised, and the consequent difficulty of finding among the comparatively limited numbers of the Christian natives of India sufficient young men who attained to that standard. It was a matter which would of course right itself in time with the raising of the school training, but it hampered Dr. Huntly's work to some extent in the past few years. It had this advantage, perhaps, that it made it possible for him to lend a helping hand to many other worthy causes in North India, and in giving such help he spared not himself.

Dr. Huntly leaves a widow and four children, two sons and two daughters. One of his daughters is married to a medical missionary in South India, Dr. Bulloch of Neyoor.

HUGH BEGBIE WILMOT, M.R.C.S.ENG., L.R.C.P.LOND.,

EDMONTON.

DR. H. B. WILMOT, who died on April 23rd, was educated at St. Mark's School, Windsor, and King's College Hospital. Soon after obtaining his diplomas in 1894 he joined Dr. J. H. Swanton at Edmonton, and on the latter's retirement to take up gynaecological work Dr. Wilmot succeeded to the practice, which has been carried on from the same house for more than a century. This house was the doctor's house when Edmonton was a country village of a few hundred inhabitants, and John Keats, the poet, was apprenticed to Dr. Harding, such

being the method of entering the medical profession in those days.

During his eighteen years of practice Dr. Wilmot witnessed the very rapid growth and development of Edmonton into a London suburb of over 67,000 inhabitants. His health, never robust, had been failing since a severe illness two years ago, but he remained at work, devoted to his patients, until a fortnight before his death.

The parish church of All Saints was the scene of his funeral service three days later, when the old building in whose churchyard the bodies of Charles and Mary Lamb repose, was full of Dr. Wilmot's patients, old and young, rich and poor, who thereby testified to their high esteem of his professional skill and sterling character. His professional brethren attended in large numbers, and a handsome floral memorial from the Edmonton Medical Society expressed their great regret at the early close of a useful life, and their deep sympathy with Mrs. Wilmot and her little daughter.

S. C. L.

WE regret to record the death of Dr. WILLIAM MICHAEL WILLIAMS at his residence, Penmachno, on April 20th, at the age of 56. He was born at Pwllheli in South Carnarvonshire, and received his medical education at the University of Glasgow, where he graduated M.B. and C.M. with commendation in 1881. He had held the appointment of medical officer of the Penmachno and Pentrevoelas District of the Llanrwst Union for twenty-eight years, and at the time of his death was the senior medical officer of the union. He was surgeon to the Penmachno Slate Quarries and certifying factory surgeon for the district. Dr. Williams also took an active part in public life; for several years he was a member of the Carnarvonshire County Council, and only retired in March last owing to ill health. For the last nineteen years he had been chairman of the parish council, and although he desired to retire from that position this year the parishioners would not allow him and unanimously re-elected him. He was a regular attendant at the meetings of the North Wales Branch, and in 1908 filled the presidential chair with great credit. For the theme of his address he took the treatment of pneumonia, and it will be long remembered by those who listened to him, embodying as it did the fruits of his keen observation and sound judgement. Although resident in a somewhat remote part of the country amongst the Welsh hills, he never allowed his mind to rust, but kept himself thoroughly abreast of the times, as evidenced by his contributions to and the part he took in the debates of the Branch. Dr. Williams had a very extensive practice, and was a most conscientious practitioner. He had an exceedingly kind nature, and by his death the district sustains a great loss, especially the poor, to whom he was always considerate. He had been in failing health for several years, but he fought bravely to the end. On April 23rd he was buried at Denio Cemetery, Pwllheli, his native town. He leaves a widow and two daughters to mourn his loss.

DR. SYDNEY WILLIAM CHEETHAM, of Forest Gate, E., met his death on April 27th, at the age of 49, in tragic circumstances. He had ridden his tricycle to visit a patient, and narrowly escaped disaster from a passing motor bus. Pushing on, he attended to his patient, and then immediately succumbed to an attack of heart failure, while still in the patient's house. Dr. Cheetham was educated at University College, Liverpool, and subsequently held the posts of Assistant Demonstrator of Anatomy and of Physiology there. After obtaining the diplomas of M.R.C.S. and L.R.C.P. in 1889, he was appointed Acting Senior House-Surgeon at Bootle Hospital. He had been established in Forest Gate for many years, and his professional skill, genial manner, and commanding presence had secured him the affectionate regard of his patients. To the care of an extensive practice Dr. Cheetham had recently added the responsible position of being one of the too few medical members of the West Ham Insurance Committee, a post which he accepted at the request of the West Ham Town Council. He was a frequent attendant at medical meetings, and his medical neighbours looked forward to the time when his cautious criticisms and his shrewd Mancunian common sense would be heard yet more often at their councils and committees. Dr. Cheetham leaves a widow and two children, to whom all sympathy is extended in their sudden and tragic loss; yet the man is to be envied who, when the inevitable occurs, is found at the post of duty.

DR. FRITZ GUSTAV VON BRAMANN, Professor of Surgery in the University of Halle, died on April 26th, aged 58. He was born at Wilhelmsberg, in East Prussia, on September 25th, 1854, and studied medicine at Königsberg. In 1884 he was appointed assistant in von Bergmann's clinic at Berlin, and qualified as Privatdocent in 1888. In 1890 he was called to the chair of surgery at Halle, and was appointed director of the surgical clinic of that university. The name of Professor von Bramann was probably best known to the world at large from the fact that he performed tracheotomy on the late Emperor Frederick at San Remo. In this way he became involved in the violent controversies which raged round the deathbed and over the grave of that monarch. The memory of these painful events need not be revived. Professor von Bramann continued to enjoy the confidence and esteem of the present Kaiser, who is said to have sent him a telegram of hearty appreciation on the twenty-fifth anniversary of the operation, which was performed in February, 1888. The deceased professor was the author of writings on dermoids of the nose, the treatment of wounds with iodoform compresses, arterio-venous aneurysm, and other surgical subjects.

MUCH regret has been caused by the death of Dr. JAMES ROWAN, of Ballyward, co. Down, who was for many years the medical officer of the Ballyward Dispensary District. He was the son of Dr. Nathaniel Words Rowan, of Ballyward, and was born in 1838. After receiving his diplomas in 1860, he spent the first eight years of his professional life in Bambridge, and in 1868 he succeeded his father as medical officer in Ballyward. On retiring from active duty in 1910 he was presented with a purse of sovereigns and an address.

THE number of British medical practitioners in the French Riviera, which has for some years been a diminishing quantity, has been further reduced by the death of Dr. CHARLES EDWARD CORMACK of Hyères and Vichy. He was a son of the John Rose Cormack who was for some years entrusted with the fortunes both of the British Medical Association and its JOURNAL, fulfilling as he did simultaneously the office of secretary of the one and editor of the other. At the beginning of this period John Rose Cormack had not long come south from Edinburgh, and it was at Putney, where his father was then living, that Charles Edward Cormack, his second son, was born in 1851. In the early Sixties the family moved to France, where John Rose Cormack, after performing great services during the siege of Paris, became physician to the Embassy, and was subsequently knighted. It was in France, therefore, that Charles Edward Cormack received the greater part of his education. It was in France, too, that he passed practically all his professional life. For over thirty years he was a well-known personage at Vichy, where he practised during the summer, and for a somewhat shorter period he had been equally well known in the south of France. In regard to Vichy he published in 1887 an interesting handbook, which included a detailed description of its waters and notes on diseases in which its use is indicated, together with a large amount of miscellaneous information concerning the locality and its surroundings. At Hyères he began to practise a few years later, room for his services there being created partly by its growth in favour as a winter resort, partly by the failing health of the late Dr. G. Griffith. It was at his residence, the Villa Marie Thérèse, in the latter town that he died in February. Dr. Cormack, who maintained his membership of the British Medical Association up to the time of his death, was married, and is survived by his wife.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are: Dr. James A. Egan, for many

years Secretary of the Illinois State Board of Health and an earnest worker in the cause of higher medical education and of effective State regulation of medical practice; Dr. J. G. Egger, of Landshut, well known by his work in the province of geology and palaeontology, aged 89; Dr. Gagnon, Emeritus Professor of Surgical Pathology in the Medical School of Clermont-Ferrand; Dr. Amie Henri, Professor of Medical Physics in the Medical School of Rheims; Dr. George McClellan, surgeon to the Howard Hospital, the General Hospital, and St. Joseph's Hospital, Philadelphia, author of a work entitled *Regional Anatomy*, which went through six editions and was translated into French, aged 63; and Dr. E. Angus Stewart, Assistant Professor of Pathology in the College of Physicians and Surgeons, New York, and formerly Assistant Professor of Pathological Anatomy in the Johns Hopkins Medical School, author of contributions to the study of blood pressure and conditions of the heart, and of researches on the adrenal bodies, aged 30.

Medical News.

THE Board of Trade has issued an Order rendering obligatory on all persons who employ labour in the ready-made and wholesale bespoke tailoring trade in Great Britain, and make garments for male persons, the minimum time-rates of wages fixed by the Board last August.

AT a meeting of the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W., on May 20th, at 7.30 p.m., the Chairman of the Metropolitan Water Board, Mr. E. B. Barnard, will give an address on London's water supply, and on the following day a visit will be made to the King George's Reservoir at Chingford.

THE Henry Phipps Psychiatric Clinic of Johns Hopkins Hospital, Baltimore, for the treatment of mental disorders was formally opened on April 16th. An address on specialism in general hospitals was delivered by Sir William Osler.

THE proposal to establish in Glasgow, as a memorial to King Edward VII. an institute of preventive medicine primarily intended for research and the dissemination of knowledge in relation to tuberculosis has been abandoned on the ground that the work proposed to be done will now be undertaken through the operations of the scheme recommended by the Astor Committee (BRITISH MEDICAL JOURNAL, March 15th, p. 567).

THE first of three lectures on recent physiological inquiries to be given by Professor Stirling of Manchester at the Royal Institution, Albemarle Street, W., was delivered on April 29th, and dealt with motion and locomotion. The second will be given on May 6th, and will deal with equilibration and the sixth sense, and the third on May 13th, when the subject will be ductless glands. The lectures are illustrated by the cinematograph and epidiascope, and by experiments.

A WELL illustrated booklet, recently issued by the Highland Railway Company, and obtainable upon application, bears the title, *Strathpeffer Spa Medical Guide*, and has for authors four medical men resident in the locality. Each of these is responsible for one section of the book. Dr. H. W. Kaye deals briefly with the position and use of health resorts; Dr. E. H. Duncan gives a detailed account of the waters of Strathpeffer and the various ways in which they are used; Dr. W. Bruce discusses medical treatment at the same spa; and Dr. J. Pender Smith, supplementary treatment by electricity.

A SERIES of academic courses for foreigners will be held in Hamburg from July 24th to August 6th. The subjects range from pedagogy to natural science and clinical medicine, and sixty-five professors from various German universities and institutes will take part. There will also be a practical course in the German language commencing on June 16th to July 26th, and during this period there will be a clinical course at the Eppendorf Hospital, and a series of lectures by L. Brauer on diseases of the heart and lungs. Further particulars can be obtained from Geschäftsstelle der Akademischen Ferienkurse, Hamburg 20, Martinistrasse 52.

To the physical and moral advantages resulting from the Seaside Camps for London Working Boys allusion has been made in these columns on several occasions. Their objects and the means adopted for their attainment are well described in the twenty-fourth annual report issued by the committee responsible for the upkeep of these camps, whose occupants are mainly youths belonging to the London Diocesan Church Lads' Brigade. Last year's work seems to have ended with a rather heavy balance on the wrong side, so subscriptions of any amount will no doubt greatly be welcomed by the secretary, Mr. F. Abel Bloxam, 22, Northumberland Avenue, W.C.

The usual monthly meeting of the executive committee of the Medical Sickness, Annuity and Life Assurance Society was held at 429, Strand, London, W.C., on April 18th, 1913, when Dr. F. J. Allan was in the chair. The claim account for the quarter ending March 31st was presented, and it was shown that, owing to the epidemic of influenza, the society had had to pay out heavy sums but the numbers were already decreasing. The new business had been well up to the average, and the appeal made by the chairman at the annual meeting to members to use their best efforts in making the advantages of the society known was stimulating enquiries. The main feature of the society is the weekly payment during sickness, for, as members often point out, when laid aside by illness their expenses run on just the same, and in fact are increased owing to locumtenent and other expenses. The society may justly claim to have experienced a unique record, in that during twenty-nine years it has paid over £200,000 in sickness and accident pay, and no claim has ever had to go to arbitration. Prospectuses and all information to be obtained from Mr. Bertram Sutton, Secretary, Medical Sickness and Accident Society, 33, Chancery Lane, W.C.

THE sixth annual Nursing and Midwifery Conference and Exhibition was held at the Royal Horticultural Hall, Westminster, from April 22nd to April 25th, and was attended by large numbers of nurses and midwives. A variety of interesting novelties were on view at the different stalls, including such useful articles as an invalid chair specially designed for wheeling up and down stairs without jolting the patient or fatiguing his attendants, a "running table" that can easily be moved by a person lying in bed, and a baby's feeding bottle in which the usual indiarubber attachments are replaced by a glass valve adjusted in such a fashion that it can neither leak, drop out, nor become clogged with milk. One of the most attractive stalls was that of *The Nursing Mirror*, whose doll-dressing competition had resulted in an amusing collection of dolls dressed in the uniforms of sisters and nurses at most of the principal hospitals in the kingdom; whilst the Women's Imperial Health Association was responsible for a stand containing model sets of cheap clothing for children. Another centre of interest was the stall belonging to the Royal National Pension Fund for Nurses, in connexion with which a Nurses' Insurance Society has recently been formed, where full particulars concerning the insurance of nurses under the National Insurance Act could be obtained. An interesting series of lectures on the different branches of nursing and midwifery was given daily during the course of the exhibition at the London County Council Technical Institute adjoining the hall.

PROFESSOR JOHN EDGAR, Professor of Education at the University of St. Andrews, has recently said that eugenics is a science, a matter of the head, whilst patriotism is enthusiasm, a matter of the heart, which in the hour of one's country's danger bursts into a mighty fire and becomes one of the greatest forces of the world. The spread of eugenics, in creating a new social atmosphere, would develop a new and benign spirit of patriotism. The eugenist wanted not merely healthy, moral, and stronger animals, but better citizens, with all the variety that citizenship implied; and only through good nature and good nurture could the highest results be obtained. If it were true that the wealth of a country was efficient men, that its health lay in healthy men, and its glory in intelligent men, then there was a danger in Britain of an enemy steadily marching to threaten us with ruin. Whilst the number of marriages had increased the number of births had decreased; it was not the decrease alone which gave cause for anxiety, but the fact that the number of births tended to decrease disproportionately amongst the educated and most successful sections of the population. In an investigation made in his own neighbourhood amongst such classes, Professor Edgar said that he had found the average number of children per family to be a small fraction over one; yet consumptive families in England had an average of five children. During the last half of the nineteenth century the responsibility of maintaining the birth-rate had been shifted from the middle classes to the weak and the poor; and it was among the mass who were struggling for bare existence that fertility was maintained. The new spirit needed was, after all, the old patriotism of Spartan men and women translated to modern conditions. We no longer thought of eliminating the weak, but we

called science to our aid in eliminating the weakness. Eugenics was pointing the way of escape from a national peril.

THE present-day worker in London probably knows a good deal less about the Mother City than his predecessor. The latter commonly lived within the actual confines of the metropolis, not infrequently walked to his work, and had not adopted the week-end habit; while the London worker of to-day is swished into town in a tube or on an enclosed tramway car in the morning, and swished out again in the evening, and in the interval usually confines his peregrinations to a very limited area. Rare indeed is the man who spends his spare time, his Sunday and Saturday afternoons, in wandering about London, in exploration on foot of its back streets and nooks and corners. Though he alone, perhaps, can thoroughly appreciate the vigilance of the Metropolitan Public Gardens Association, yet no habitual visitor in London can remain unaware of the growth of its open spaces and of the speed at which these tend to be converted into gardens, and all alike have reason to be thankful for these green oases in a land of bricks. Hence it should be remembered that their origin is by no means spontaneous. Each represents a victory in a probably prolonged fight on behalf of the interests of the general public against those of some corporation or individual. Even for a person who pays attention to the matter it is not always easy to discover to whom gratitude in any particular instance is due; commonly it is given to the London County Council or some equivalent body. Almost invariably, however, it is the Metropolitan Public Gardens Association which should also be remembered. There are few pics of this order in which it does not have a finger, but so soon as it has played its part by agitating, or otherwise helping to secure the retention of an open space, and its decoration by trees or enclosure as a garden, it retires from the scene in favour of the body which undertakes the responsibility for future maintenance. Hence we commend to the perusal of Londoners the annual report of this body, which shows what the association has effected during the previous twelve months, in what directions it has failed, and what projects it still has in hand. Such perusal is by no means unlikely to result in at least an impetus towards becoming a subscriber to the association's funds. Its head quarters are at 83, Lancaster Gate, the residence of the Earl of Meath, who for many years past has been both its chairman and its honorary treasurer.

A REPORT of the annual meeting of the After-care Association, formed in 1879 with the object of facilitating the readmission into ordinary social life of poor persons discharged recovered from asylums for the insane appeared in our issue of March 8th, p. 513. The report for 1912, now issued, sets forth the class of cases dealt with, and states that 391 applications for aid were received, though it fails to tell us how many of these were actually assisted. Subscriptions, donations (including offertories), legacies, and dividends on investments reached a total of £1,998 12s. 3d. during 1912; legacies amounted to £550 11s. 7d., and it is remarked that "although the income has increased, it is almost entirely owing to the receipt of legacies, and the result of the Model Market and Cafe Chantant kindly held by the Guild of Help in October," so that additional subscriptions are still wanted. Investments amount to £4,382 1s. 9d., and the actual expenditure during 1912 was £1,006 12s. 9d., including £48 14s. from a special advertising fund established in 1911 by the generosity of Mr. H. D. Greene, K.C. Salaries amounted to £264 8s., equivalent to about 26 per cent. of the total expenditure, which seems a moderate proportion considering the essentially personal character of the aid given. Of the value of the work carried on by the association and its officers there can be no doubt, and the personal services rendered call for much tactful discrimination. Some striking instances of cases assisted during 1912 are appended to the report, showing how suitable situations have been found in numerous cases; how clothes, artificial teeth, tools, and instruments have been supplied to those needing them to obtain employment, and how board, change of air and medical comforts have been provided in appropriate cases. The multifarious operations of the society meet the varied needs of a most pitiable class, helping those who by reason of their recent affliction have been cut off from the usual sources of employment, and giving them a fresh chance to make their way in the work-a-day world. By such means relapse is often prevented, and the work of the association is in many cases an essential supplement to that of the mental hospital. The offices of the Association are at Church House, Dean's Yard, Westminster, and further information will be furnished by the Secretary, Mr. H. Thornhill Roxby.

Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

ALPHA wishes to hear of any experience in erecting a surgery and waiting-room of semi-permanent or so-called temporary materials, and the cost.

C. J. S. D. asks for advice in the treatment of a lad, aged 19, who has suffered from nocturnal incontinence following an attack of measles at the age of 3. He has been treated for some months by the usual drugs, including belladonna and chloral, without improvement.

SUSSEX asks how to remove stains produced by scarlet-red and amido-azo toluol.

*** The stains can be dissolved from linen or similar fabric with chloroform, but we are not aware of any means of removing them from the skin; apparently, from inquiries, no such means is known.

A CASE FOR DIAGNOSIS.

DR. FRANK ELVEY (Fouriesburg, South Africa) invites suggestions as to the diagnosis and treatment of a case which may be summarized as follows. The patient was born with a birth-mark extending from the right foot to the knee, and then up the front of the thigh to the right lower half of the abdomen, the right labium being much thickened. The right leg was distinctly larger than the left, and behind the knee was a circumscribed tumour covered by normal skin. Within a few days this tumour materially increased in size, the skin becoming adherent, while an ill-defined lumpy thickening appeared at the back of the upper third of the thigh; the leg was also swollen. At age 2 months a painful abscess-like swelling appeared on the inner side of the thigh, and from this about an ounce of thickened dark blood was removed. At age 5 months (that is, at the date of the report) the child was fat, well grown and healthy in itself, but its right leg had a circumference four times that of the left; the foot was almost shapeless and the skin over its dorsum shiny and thinned. The right thigh was also swollen, though not as much as the leg. The abdomen was large but symmetrical, and traversed by prominent veins about the epigastrium; its subcutaneous tissue beyond the limit of the birth-mark and up to the chest was irregularly thickened. The parents stated that about a month previously the child had an attack of pain, after which the swelling of the limb subsided, but subsequently returned. As conditions difficult to reconcile with one another, Dr. Elvey points to the absence of enlarged glands, the healthiness of the child as distinct from the local condition, the evacuation of blood and the lack of precise correspondence between the naevoid area and the subcutaneous infiltration. Would a trial of Coley's fluid, he asks, be warranted?

ANSWERS.

CORONERS' INQUESTS.

M.—A coroner is empowered by statute to order an analysis to be made of the stomach and its contents at any period between the issue of his warrant and the termination of the inquest, and the jury has no power to object. On the other hand, by Section 21 of the Coroners Act of 1887 the jury is empowered to call upon the coroner to order a *post mortem* examination or an analysis to be made if it is of opinion that the cause of death has not been satisfactorily determined from the evidence given at the inquest. Thus a jury, while unable to object to an analysis, can insist upon one being made. It would, we conceive, be the duty of a medical practitioner finding poison in the organs of a deceased person to communicate the fact to the coroner in any circumstances.

LETTERS, NOTES, ETC.

PRACTICE IN NEW ZEALAND.

M.B., C.M., F.R.C.S.EDIN., sends a word of warning with regard to the risk of British practitioners going to New Zealand to practise. He states that the population of New Zealand is only a little over 1,000,000, and of these 100,000 belong to friendly societies, who pay the lodge doctor on an average 15s. to 18s. for attendance on a man, wife, and family, and he adds that abuse is rife. He considers that, as there are 130 medical students studying in Dunedin and many New Zealanders are studying in Great Britain, the local output is sufficient or more than sufficient to meet the demands. He states that in some cases bush townships offer a guarantee of £200 or £300 a year, but that many who have accepted such conditions find that the net result is not satisfactory.

SHALL WE DRINK?

DR. JOHN HADDON (Hawick) writes: Reflecting on the lesson my dog has taught me as to drinking water, even when fasting, some facts are recalled to mind which seem worthy of note. An old gentleman of my acquaintance told me that a horse properly fed would hardly taste water, and at grass they never drink. An old lady of my acquaintance, who lived to 89, used to say she never ate more than she could "*drack*"—that is, than she could make moist enough with saliva to swallow—and I never saw water on her table. I have always known that dogs fed on animal food drink much, but not at all when animal food is withheld, and I had noticed that it was when horses had had too much food, or had been perspiring much, that they drank most water. The whole question of food and drink is deserving of further study in regard to disease, and it would be well if our research scholars would pay attention to the subject.

ARSENIC IN MALARIAL CACHEXIA.

MR. J. G. BERNE, L.R.C.P. and S.Irel., late Captain R.A.M.C., has forwarded us, with the permission of the Medical Superintendent of the Elder Dempster B.W.A.S.N. Company, some notes of a case of chronic malarial fever under his charge on board ship for upwards of two months. The infection dated back ten years, and the patient, who had habitually dosed himself freely with quinine and was very cachectic, had very marked anaemia and an enlarged spleen. His condition was at one time serious, but by the time he left the ship all grave symptoms had disappeared, and he was quite "fit." The chief treatment was the regular administration of liquor arsenicalis, quinine being given only when the temperature ran high. In the writer's opinion quinine is somewhat abused, laymen talking about taking it as if it were a food. He considers that in debility caused by malarial fever a combination of iron and arsenic is the sheet anchor, and that quinine should only be given when the fever persists beyond two days. He thinks the best hepatic stimulant in these cases is calomel.

TARAXICUM IN PARTIAL INTESTINAL OBSTRUCTION.

DR. JOHN BAIN (South Shields) writes: Last autumn two letters appeared in the JOURNAL regarding the beneficial effect of taraxicum when administered in cases of gradually increasing obstruction of the bowels, the obstruction being most probably of a malignant nature. The following case completely bears out all that was claimed for the treatment: Three months ago I was called to see Mrs. C., aged 58, who at that time was suffering from vomiting, flatulent dyspepsia, and increasing difficulty in getting the bowels to move. She was very much wasted, and had the sallow, yellowish tint of skin often associated with advanced malignant disease. The abdomen was distended and tympanitic, and on placing the hand on it peristalsis was very distinctly felt. Palpation did not, however, reveal any hard mass, and rectal examination failed to indicate any departure from the normal in the lower bowel. As the patient absolutely refused to entertain the idea of going into hospital, I was compelled to do my best for her at home. My efforts to relieve the vomiting and flatulence with sedatives and antiseptics were of no avail, and the only thing that gave her any relief was morphine in full doses. This, of course, increased the constipation, which was only very partially relieved by copious enemata. It was at this time that I remembered having read in the JOURNAL of taraxicum being used in similar cases, and decided to put the patient upon the drug. For the first week there was little improvement, except that the vomiting and dyspepsia were not so persistent. After this, however, matters began to go on much more smoothly. Slowly, but surely, all urgent symptoms began to disappear, and in three weeks from the commencement of treatment the patient stated that she felt like a new woman. The stomach symptoms were entirely gone, being replaced by a good, healthy appetite, which enabled her to do justice to every meal, while the bowels moved freely and naturally every morning. The only symptom that still troubled her was pain in the lower abdomen after defaecation, but this also is clearing up. To me, the most striking alteration in the patient was the look of returning health on her face; the sallow, cachectic tinge of the skin was gone, and the expression was no longer that of a person in continual pain. How long the woman will continue to enjoy her present state of health cannot, of course, be said, but there cannot be the slightest doubt that the administration of taraxicum was the first thing that relieved her symptoms and paved the way to an apparent return of good general health.

EMETINE IN PLACE OF IPECACUANHA.

BIBLIOPHILE writes: In view of the recent revival of iodine and certain other drugs, after many years of neglect, the following may be of interest, as showing that the proposed substitution of emetine for ipecacuanha may be included amongst these revivals. Volume xi of the *Annals of Philosophy* (Baldwin, Cradock, and Joy, 47, Paternoster Row, 1818) contains abstracts from a paper entitled "Chemical and Physiological Researches on Ipecacuanha," by Magendie and Pelletier, read before the Royal Academy of Sciences in February, 1817. The following constitutes one of the authors' conclusions: "Emetine may be substituted for ipecacuanha in all cases where we employ this medicine, and with the more advantage, as this substance in a determined dose has always constant properties, which is not the case with the different species of ipecacuanha that are met with in commerce, and it has also the further advantage of having very little taste and scarcely any odour."

IS TUBERCULIN A FAILURE?

M.D. writes: I think that we must come to the conclusion that any remedy which has not been found to be frequently successful in the hands of the general practitioner, even when the latter has made a special study of the treatment of tuberculosis of the lungs by tuberculin, in the best clinics in Europe, is, at any rate, a comparative failure. Even if we grant that there are a few experts who have had good results in afebrile and selected cases of phthisis, it is quite open to argue that those cases were cured in spite of the tuberculin treatment, and that they would have been better without it. I have before me the details of the treatment by tuberculin of a young and healthy physician in whom the diagnosis was made in the very early stage of the disease, and who had the treatment at the best known sanatoriums—yet the result was fatal. The production of an artificial pneumothorax has given no better results. May I suggest the following experiment on animals having well-marked tuberculous foci in the lungs, namely, the production of pneumonia by the injection into the lungs at the site of the tuberculous lesion of a culture of the *Diplococcus pneumoniae*, made from a strain which has partially lost its virulence. A large number of experiments of a similar kind may lead to some definite result in producing an inflammatory condition in the lungs which will destroy the *B. tuberculosis*, and yet from which the patient will have a fair chance of recovery.

FRAUDULENT ADVERTISING.

THE *Perfumery and Essential Oil Record* for April contains an article under this title by "Observer" who certainly does not mince his words.

"The 'fraudulent advertiser' is as much a social pest as the 'three card trickster' or the blood-sucking moneylender, and by fraudulent advertiser is meant not merely the seller of worthless goods, but also the person who deliberately claims properties for his merchandise which they do not possess, or professes that he alone of all men engaged in his particular line produces goods worthy of the consideration of consumers. Fraudulent advertising is harmful and despicable in whatever light it is viewed. On moral grounds, on business grounds, on economic grounds it should be suppressed and killed with as little compunction as an obnoxious insect. . . ."

"Imagine the thousands of pounds which are annually extracted from the pockets of the public by means of fraudulent advertisements, and alas! too frequently the money is literally filched from the pockets of those who can ill afford it. It is all very well to argue that the public goes into the game with 'eyes open,' as it may seem that they do, but in reality they are hoodwinked from the first. . . ."

"The 'fraudulent advertising penny snatcher,' if he knows his game, has a whole bagful of rubbish to shoot out on the public, and just as fast as the sales of one of his trumpery fal-lals dries up he produces another, and, strange to relate, only too frequently catches the same 'flats' again and again. Well, as to the 'flats,' if they cannot protect themselves they ought to be protected. . . ."

Observer then goes on to express the opinion that advertising of this character is damaging to advertising generally:

"All will remember the famous saying of Abraham Lincoln, and, as all the people cannot be fooled all the time, some portion of the public, and perhaps no inconsiderable portion, may come to the conclusion—a false one admittedly—that all advertising is fraudulent. . . . It therefore behoves all honest men connected with advertising, and all newspaper owners who place principle before pocket, to kill the fraudulent advertiser before the fraudulent advertiser kills advertising. . . . What is wanted, therefore, is the excision of the fraudulent and insincere: and this in the interest of advertiser, newspaper, public, agent, and every man and woman dependent for their livelihood on the advertising business."

The same issue of this periodical contains an interesting article from the pen of the editor, Mr. J. C. Umney, on Grasse Revisited, which with its illustrations gives a good idea of the magnitude of the trade in essential oil and perfumes obtained from plants and flowers.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

A Lecture
ON
INTUSSUSCEPTION.

DELIVERED AT THE WEST LONDON HOSPITAL POST-GRADUATE COLLEGE.

BY H. S. SOUTTAR, F.R.C.S., M.CH.,

ASSISTANT SURGEON, WEST LONDON HOSPITAL; SURGICAL REGISTRAR, LONDON HOSPITAL.

Definition.

AN intussusception consists, in the words of John Hunter, in the passing of one portion of the intestine into another. Except in certain rare instances, and in the multiple intussusceptions of the death agony, with which we have no concern, this passage is always of the upper into a lower portion. It may occur in any portion of the bowel, and we thus distinguish enteric, enterocolic, and colic varieties; but in the absence of some definite cause—some abnormality, congenital or pathological—the great majority of these occur in the neighbourhood of the ileo-caecal junction. We shall later on discuss the causes of this remarkable circumstance.

Anatomy.

A simple intussusception consists essentially of three tubes embracing one another—the outer layer or sheath, the middle or returning layer, the inner or entering layer. The sheath is, as we shall see, actively engaged in swallowing the other two layers, which are entirely passive. The sheath is therefore called the intussuscipiens, the other two layers being together the intussusceptum. The end of the intussusceptum is called the apex, the upper end of the intussuscipiens is the neck. This is, of course, the simplest form of intussusception. Double and treble varieties are not infrequent.

Let us now examine in greater detail the three tubes or layers we have just defined. The peritoneal coats face respectively outwards in the sheath, inwards in the returning layer, outwards in the entering layer. The sheath and the returning layer have, therefore, their mucous surfaces in contact, and whilst this stimulates the sheath to contract, it renders adhesions between these layers most unlikely. The returning and entering layers, on the other hand, have their peritoneal surfaces in contact, and early adhesion between these layers may be expected. In fact, such adhesion in the neighbourhood of the apex, or oldest part of the intussusception, is almost invariable in acute cases of any standing, and may offer a serious obstacle to reduction. These two layers are therefore rightly grouped together as the "intussusceptum."

Causation.

Intussusceptions are produced by a perversion of the normal mechanism of intestinal propulsion. We shall therefore briefly describe the normal mechanism and then discuss the abnormal factors which may lead to this condition.

In the normal propulsion of food the latter acts as a foreign body, exciting by its contact with the mucous membrane a reflex contraction above and a reflex relaxation below. The circular fibres above contract strongly, driving the bolus onwards; the longitudinal fibres over the bolus at the same time draw up the intestine over it as a sleeve, taking their purchase from the fixed constricted ring above. Now, an invaginated portion of intestine will act as a foreign body, and will tend to be driven onwards by this normal intestinal mechanism. The primary occurrence of the invagination depends upon certain abnormal conditions.

Of these abnormal factors, by far the most important is prolapse of the mucous membrane at the ileo-caecal valve. It is not sufficiently recognized that in this region we have a thickening of the circular muscular coat of the last few inches of the ileum forming a detrusor, and terminating in a tonic ileo-colic sphincter, both exactly comparable to the corresponding structures in the rectum. It is therefore not surprising that prolapse of the mucous membrane at this point is common, and exactly as in rectal prolapses this "foreign body," embraced by the sphincter, will induce increased spasm, with congestion and swelling of the prolapse. But here the conditions diverge. A rectal prolapse projects into the air, and is largely increased by straining, being driven out by the resulting increase in intra-abdominal pressure. An ileo-caecal prolapse, on the other hand, projects into the large bowel, which grasps the swollen mass and endeavours to drive it onwards, whilst abdominal pressure, acting equally in all directions, has no power to either accelerate or retard its advance.

A second group of cases depend for their causation on growths, innocent or malignant, in the bowel wall, and on swollen Peyer's patches. The ordinary polypus is the commonest cause in this group, and giving rise, as it does, to symptoms resembling those of the intussusception it may induce, is apt to confuse diagnosis. As long as the surface of the polyp is covered by mucous membrane it is apparently without effect, but should it become ulcerated, contractions of the bowel are induced by its contact with the intestinal mucosa, and an intussusception may readily follow.

Finally, we have the inverted diverticula—Meckel or the appendix. The former is not uncommon; the latter exceedingly rare. The diverticulum becomes inverted, and projects into the bowel, an ulcer, thickening, or growth at its apex being frequently the primary cause of its inversion.

Varieties.

It is possible to divide up intussusceptions in an infinite number of ways, and the nomenclature which has been introduced for this purpose is astonishing. For the most part it is purely artificial and absolutely useless, for it is rarely possible, except at a *post-mortem* examination, to determine the exact class to which a case belongs. For practical purposes, as Fitzwilliams and Corner have pointed out, they may all be reduced to four types as follows:

1. *Enteric*, where small intestine is alone involved.
2. *Ileo-colic*, of ileum and colon.
3. *Ileo-caecal*, also of ileum and colon, but primarily headed by ileo-caecal valve.
4. *Colic*, of large intestine only.

Any of these may, of course, form the nucleus of a multiple intussusception, double, treble, and even more complex. But the form of the nucleus is alone of practical interest. The first and last groups are obvious, but the bulk of the cases occupy the second and third groups, and, to clearly understand the distinction between these, we must study the method by which an intussusception grows.

Method of Growth.

Growth takes place at the neck entirely. There is no exception to this rule. The apex soon becomes oedematous, stiff, and swollen, and once this has happened it is impossible for the apex to change. The driving force is supplied exclusively by the sheath. As in normal peristalsis, the circular fibres of the sheath contract strongly above, driving on the stiff intussusception and forming a fixed point from which the longitudinal fibres can act. These act in one of two ways. If the sheath is loose they pull it over the intussusception like a sleeve. If it is tight they drive the intussusception onwards into it. This is the only way in which an intussusception can grow, and, as Fitzwilliams points out, the old idea is untenable that the ileum as a whole can prolapse through the ileo-caecal valve with a changing apex, as the rectum can prolapse through the anus. The latter occurrence is dependent largely on intra-abdominal pressure, and bears no relation to the case in point. The only driving force is derived from the sheath.

How, then, do we account for the common ileo-colic form? It may occur in one of two ways. It may start as a true enteric intussusception, the initial cause being perhaps a small polyp or a swollen Peyer's patch. The point of origin remains, as always, the apex, but once the apex has passed the ileo-caecal valve and drawn through the end of the ileum, the result is anatomically identical with what would be found if a prolapse had occurred. Another method seems to be more probable, though so far as I know it has not been previously described. The mucosa of the termination of the ileum is by no means firmly attached to the muscular coat. It prolapses readily, as above described, and this prolapse will still further

loosen its hold in the neighbourhood of the valve. When, then, it becomes taut and can prolapse no further, it will drag upon the muscular coat and tend to intussuscept it, not at the valve, but at a point from one to two inches above. This exactly corresponds with what is actually found, for commonly the last part of an intussusception to be reduced (and therefore the first to be inverted) is at a point from one to two inches above the ileo-caecal valve. This is thus the natural result of the prolapse of mucous membrane through the ileo-caecal valve which we know to be so common.

The distinction between the ileo-colic and ileo-caecal forms has more than a mere academic interest, for in reducing an ileo-colic intussusception great difficulty occurs in the last stage in reducing the apparent ileal prolapse. In the rarer ileo-caecal form the valve is the apex, and there is no such apparent prolapse to deal with.

Pathological Changes.

We must next study the changes which occur in an intussusception as the immediate result of its development. The mesentery is dragged in between the entering and returning layers, and is subject to traction and to compression at the neck. At first it would seem that the drag on the mesentery must very soon bring the progress of an intussusception to a standstill. But it must be remembered that the mesentery is chiefly attached about the centre of the horseshoe formed by the great intestine, a fact which greatly modifies the elongation required; and also that in infants the peritoneal attachments of caecum and ascending colon are very incomplete, and that great mobility of these parts is the rule.

The effect of this drag on the intussusception is striking. It is forced into a curved form with the concavity towards the centre of the abdomen where the mesenteric root lies. The drag being entirely on one side, the orifice at the apex is dragged out into an elongated slit, whilst the apex itself is turned over and firmly pressed against the sheath. This change in the form of the orifice is probably responsible for the old idea that the apex was usually the ileo-caecal valve, especially as it was stated that the lips of the valve could be felt per rectum.

But of far more importance is the effect of tension and compression on the vessels of the mesentery. First the veins and lymphatics are obstructed, finally the arteries. As this occurs changes in the intussusception rapidly follow:

(*a*) There is marked oedema with extravasation of blood, especially at the apex. The glands of the mucosa take on an abnormal activity, and blood and slime appear in stools. The apex, and to a less extent the whole intussusception, become stiff and swollen, increasing the morbid activity of the sheath, and rendering reduction more and more difficult.

(*b*) The adjacent peritoneal surfaces of the entering and returning layers throw out lymph, which soon glues these surfaces together, this effect being also most marked in the oldest part—namely, at the apex—making reduction still more difficult.

(*c*) As soon as the arterial supply is cut off gangrene sets in. And now we are faced by a grave situation, for not only is the bowel obstructed, but it is occupied by a septic mass which must be removed if the patient is to survive.

(*d*) Its removal occasionally, but very rarely, occurs spontaneously, and the mass consisting of entering and returning layers is passed by rectum.

All these changes are more marked in the intussusceptum the middle layer especially suffering, whilst the sheath may be almost normal. Meanwhile the patient suffers not only from obstruction, but also from absorption of septic material from the damaged if not gangrenous tissues.

These characteristic changes are only seen, however, in the acute form of the disease. In the chronic form the peritoneal attachments have time to stretch, and consequently the pull of the mesentery is of much less importance. The contractions of the bowel are less violent, and may have little or no effect on the circulation. There is thus only slight swelling at the apex of the intussusceptum, and adhesions may be absent or be limited to this region. Severe oedema and gangrene only occur if the condition becomes acute.

Clinical.

In studying a large number of cases of intussusception we find that they fall naturally into two well-marked groups—the acute and chronic forms. These present, in almost every feature, a very remarkable contrast, and will require entirely separate discussion.

Acute intussusception occurs almost entirely in infants, and three-quarters of the cases are under 1 year. It presents an absolutely characteristic group of symptoms remarkably free from variation. As a rule no obvious cause for the condition exists.

Chronic intussusception, on the other hand, is rare in infants and occurs in children and adults. The symptoms are most irregular, and in at least 50 per cent. of the cases the diagnosis is anything but the correct one, varying from tuberculous peritonitis to new growths in the lung. In a large proportion of the cases a definite cause is discovered, such as a polypus or carcinoma. The clinical course of the two forms is in similar contrast, and the treatment involves very different considerations.

Acute intussusception occurs, as we have said, for the most part in young children: 100 cases, under 12, were distributed as follows:

Under 1 year	72
1 to 6 years...	22
6 to 12 years	6

(Fitzwilliams.)

Above 12 it is rare, and, when it does occur, usually is the result of some definite cause.

But when we come to examine the cases under 1 year an even more striking result appears. Of the above 72 cases, 46 (64 per cent.) occurred during the four months from the fourth to the seventh inclusive. During the first three months the condition is exceedingly rare. Taking again cases under 12 years, two other facts of great interest appear. First, the boys outnumber the girls in the proportion of three to one. Secondly, there is a definite seasonal variation in the incidence, with sharp rises in April and December, and a great fall in numbers between.

From these statistical observations Fitzwilliams makes the deduction that improper feeding is an important factor in causation. At the fourth or fifth month the child is weaned, and after that we know only too well the sort of diet on which it is expected to subsist. And as Easter and Christmas are seasons of adult rejoicing it is considered only fair for the infant to participate.

As three-quarters of these cases occur in infants under 1 year, and as these are of a constant and characteristic type, we shall now describe in some detail the symptoms and signs of this group.

Acute Intussusception of Infants.

The child is usually well nourished and in perfect health. It rarely occurs in a child the subject of colitis or summer diarrhoea. The sudden onset of this severe condition in a fat and healthy baby is most characteristic. As a rule it starts with a severe and sudden abdominal *pain*, coming on in acute attacks with intervals often of complete relief. The child may vomit, but never to any great extent. Tenesmus is a marked feature, the child straining incessantly, but only passing a little blood and slime. At first a motion or two may be passed, but after this there is absolute obstruction, and no trace of bile will be found on the napkin. This sign, which was first pointed out by Barnard, is almost infallible, and should in every case be part of a routine examination. The blood and mucus are exuded from the intussusception in sufficient quantity to soon clear the lower bowel of its contents, in view of the violent peristalsis which is occurring.

On examining the child in a typical case the abdomen will be fairly lax unless the child is actively straining. In the course of the colon a tumour may be felt. It has very definite characteristics:

1. It is in the region of the transverse or descending colon.

2. It gradually shifts its position, advancing along the colon and increasing in extent.

3. It is sausage-shaped and of horseshoe form, the concavity being towards the centre of the abdomen.

4. Manipulation causes it to contract and become hard. This hardening is accompanied by an attack of pain and an increase in the tenesmus. The characteristic feature

is that, although the tumour may not be very tender, and manipulation may cause no instant pain, the pain rapidly follows and continues long after manipulation has ceased.

5. The apex may be felt by rectum.

The presence of this tumour is the essential sign of intussusception, and it is probable that if proper methods are adopted it may be discovered in all cases. A few words as to the examination of an infant's abdomen may therefore not be out of place.

First try without an anaesthetic. Sometimes the tumour may be felt at once, for between attacks of pain the abdomen may be quite lax. Usually, however, the child begins to cry, and the examination is given up as hopeless. This is an entire mistake. The abdomen of a crying infant can be readily palpated if the surgeon has patience and skill. Every now and then the child must inspire, and for an instant the abdominal wall is absolutely lax. This is the surgeon's opportunity, and yet it requires a nice touch to obtain satisfactory results. The slightest roughness is met by instant rigidity. The hand must be felt to form part of the abdominal wall, and to move with it, and at the instant of relaxation, when the diaphragm also moves downwards, the hand should perceive objects moving into contact with it from inside rather than attempt to reach these objects by a sudden plunge. With these precautions, the abdomen of a crying infant can be deeply palpated with certainty.

In any case of doubt an anaesthetic should be given. This enables one to carry out a most important manœuvre, first suggested by Sir Frederic Eve—I mean a bimanual examination. A finger in an infant's rectum can, in conjunction with a hand outside, explore practically the whole abdomen. If after such an exploration no tumour is found, the case is probably not one of intussusception.

Contrasting with the tumour, a vacant space may be felt in the right iliac fossa—the famous Signe de Dance. It is the contrast between an empty and a full area that is of importance rather than the actual void itself. I would repeat that the abdomen as a whole is not rigid. Rigidity, apart from straining, and distension are signs that the case has gone too far for operation to be of any avail.

Let me recapitulate the cardinal signs of the acute intussusception of infants:

Pain, in sudden severe attacks.

Tenesmus and constant straining.

Blood and mucus in stools, and *no bile*.

Tumour, varying in consistency, increasing in size, advancing in position with each attack of pain.

Treatment.

The only treatment of intussusception is immediate laparotomy. Inflation by rectum is both useless and dangerous. Useless, because it rarely even appears to succeed, and because any reduction effected is almost always incomplete and rapidly recurs. Dangerous, because it increases shock, wastes valuable time, and may do considerable damage. It was only justifiable in the days when the mortality of laparotomy was cent. per cent.

Precautions are taken for the avoidance of shock, the child being wrapped in wool and placed on a hot-water pillow in a hot theatre. The abdomen is opened through the right rectus, slightly below the middle. Two fingers are introduced and the bulk of the intussusception rapidly reduced, with sometimes an assistant's finger in the rectum. The last few inches may resist reduction. This portion of the gut will now be opposite the wound, and can be readily brought completely outside the abdomen, where it is carefully protected with hot pads. The reduction of these last few inches is always the crux of the operation. The mass is grasped in the left hand and gently, but firmly, squeezed. It will gradually unroll at the neck. Very slight traction on the entering layer is permissible, and may be necessary in the last stage, especially in the ileo-colic form. But the pressure of the left hand is the essential part. This not only tends directly to unroll the neck, but squeezes lymph out of the swollen apex, and enables it to pass the more easily. The peritoneum will probably crack at one or more places, but this must be disregarded. Complete reduction is essential. Very often the arrival of the appendix indicates the end. Any cracks in the peritoneal coat are closed with fine silk. The abdomen is closed by through-and-through sutures of silkworm gut. The layers are too delicate for separate suture, and speed is essential. The after-treatment is simply directed against shock. Saline injections, either by rectum or subcutaneous, are started at once, and, if possible, kept up continuously. I would lay stress on the importance of the child receiving the fluid at a proper temperature (100°). Too often it cools in unprotected tubing, and is practically delivered as cold water. Adrenalin or pituitary extract are useful as accessories. Strychnine can only do harm, and should be entirely avoided.

But we may find that, in spite of every effort, the last few inches are irreducible, adhesions binding together the peritoneal coats or the apex being too large to pass the neck. This is a serious complication, for the continuity of the bowel must at all costs be restored. A faecal fistula is very unsatisfactory in an infant, and excluding, as it here does, the whole of the large intestine, is almost invariably fatal. Resection is attractive, but unjustifiable unless gangrene is present, for there is no recorded case of an infant under 1 year surviving this operation. Without any doubt, the best treatment is to bring the small and large intestines into apposition as close to the irreducible portion as is safe, and perform a lateral anastomosis. This relieves the obstruction and prevents a recurrence of intussusception. The irreducible part may gradually reduce itself, or may remain as a permanent condition, or the intussusceptum may slough away and be passed by rectum.

If the intussusceptum is gangrenous we have no choice but resection. In such a case Jessett's operation is probably the most hopeful, and certainly the easiest, to perform. A longitudinal opening is made in the sheath in a healthy region. Through this the intussusceptum is protruded till healthy tissue is reached. It is transfixed by two sutures at right angles and amputated. The sutures are divided so as to provide four sutures equally spaced round the stump and piercing all the coats. They are now tied and the stump returned into the sheath, which is closed by two layers of sutures. Two or three Lembert sutures may be inserted at the neck after as complete reduction as possible. In some cases direct resection with closure of the ends and lateral anastomosis may be more convenient. In an infant success is practically hopeless, though the attempt should be made, but after 5 years old several cases have recovered.

Intussusception in Children and Adults.

In studying cases of intussusception occurring after the first year of life we are at once struck by three features in which they contrast forcibly with cases in infants. In 70 per cent. of the cases a definite cause can be discovered; they tend to be chronic; the symptoms are irregular.

Causation.

In an extensive series of cases (Eliot and Corscaden) the following were found to be direct causes:

1. Tumours were found in 40 per cent. Of these 24 per cent. were innocent and included mucous polyps, fibromata, lipomata, submucous haemorrhages; 16 per cent. were malignant—carcinomata and sarcomata.

2. Ulcers were found in 14 per cent., and were due to typhoid, dysentery, and tuberculosis.

3. Meckel's diverticulum (inverted) was the cause in 12 per cent.—a very remarkable number considering the comparative rarity of this abnormality.

4. Trauma, such as a blow or a violent strain, was a definite cause in a few cases.

We have already discussed the manner in which these causes act.

Chronicity.

More or less acute attacks occur, with intervals during which the patient is free from any acute symptom and only complains of general poor health. The attacks become more frequent and severe as time goes on, but they may go on over a period of from a month to a year.

Symptoms and Signs.

Pain is always a prominent feature. At first the attacks of pain are sudden and severe, and may cease as suddenly as they began. As, however, adhesions form and tend to check the progress of the intussusception, the pain takes

on a different character, and its onset and cessation are both more gradual.

Vomiting occurs in two forms, which should be carefully differentiated. With the pain we have the bilious vomit due to dragging on the mesentery. Apart from pain, and in the later stages, we have the dark vomit of intestinal obstruction, with all the grave characteristics of that condition.

Wasting and anaemia are always marked, and frequently lead to a false diagnosis, such as tuberculous peritonitis or carcinoma.

Either constipation or diarrhoea may be present. The former is more usual in enteric intussusceptions; the latter occurs in colic cases, and is accompanied by the passage of blood and mucus.

A tumour is to be felt in the abdomen in most, if not all, of the cases. It presents the characteristics we have already described. In form it resembles a concave sausage. With each attack of pain it becomes firm, increases in size, and advances in position, following always the path of the colon. In 30 per cent. of all cases its apex can be felt by rectum. It is tender and manipulation brings on an attack of pain.

The abdomen is not distended till obstruction has become a marked feature. Emptiness on the right side and fullness on the left are frequently noticed and are very characteristic.

Such are the symptoms of a typical case, but they may occur in such masked form that diagnosis is practically impossible. Of 55 cases collected by Rafinesque, 27 were incorrectly diagnosed, and other writers give an even larger percentage of error. A patient with wasting, obscure attacks of pain, and an indefinite tumour presents a fairer picture of the average case, and suggests a wide field for diagnosis.

The *treatment* of these cases only differs from that of the acute infantile form in a few details. Laparotomy is as essential in the one as in the other, but here we are dealing with an older patient, and extensive operations can be successfully carried out. And we have the further incentive to resection that we can thus remove the *cause*, which so often is of a definite nature in these cases. Once the condition is suspected operation should not be delayed, for many cases terminate with startling abruptness in a few hours, and, in any event, operation during an acute exacerbation is a very grave proceeding. Spontaneous recovery is rare, for although cases where the intussusceptum has passed by rectum are not very common, the great majority of these have died.

I have only dealt with the leading features of a very wide subject. Those who wish to study it in greater detail will do well to refer to the papers I mention below. In these full references to the literature will be found.

BIBLIOGRAPHY.

Fitzwilliams: *Lancet*, February 29th, 1908.
Lett: *Lancet*, February 20th, 1909.
Barnard: *Contributions to Abdominal Surgery*, 1910.
Goodall: *Boston Medical and Surgical Journal*, April, 1910.
Eliot and Corscaden: *Annals of Surgery*, February, 1911.
Walton: *Practitioner*, August, 1911.

THE first State dental clinic for school children was opened in Vienna on March 13th.

ON January 15th, 1913, the total number of students in the medical faculties of France was 8,247. Of these 7,400, among whom were 803 foreigners, were men, and 847, of whom 358 were French and 489 foreign, were women. The schools as distinguished from faculties of medicine had 1,497 students, of whom 1,287, including 29 foreigners, were men, and 210 women, of whom 9 were foreign. The numbers for the several faculties were as follows: Paris, 4,211, as against 4,170 in 1912; Lyons, 1,055; Bordeaux, 751; Montpellier, 699; Toulouse, 346; Nancy, 306; Lille, 285; Algiers, 156. Among the medical schools Nantes stood first with 255 students; next came Marseilles with 245, and Rennes with 148. The others had numbers ranging from 52 (Limoges) to 220 (Grenoble). Of the foreign students the most numerous were the Russians, of whom there were 831. Of these 585 belonged to the Paris Faculty, and 133 to Montpellier. Next came the Turks, of whom there were 85; of these 68 belonged to Paris and 11 to Montpellier. There were 67 Bulgarians, of whom 20 were at Lyons, 28 at Montpellier, and 12 at Nancy. There were 59 Roumanians, of whom there were 54 in Paris and 5 at Montpellier. Among other nationalities represented were England (13), Greece (24), South American Republic (22), all studying in Paris.

REMARKS ON TRANSVERSE COLOSTOMY AS THE OPERATION OF ELECTION.

BY

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IN 1906, at a meeting of the old Clinical Society,[1] I ventured to draw attention to the question of the transverse operation of colostomy as opposed to the iliac method, and stated my belief that, of the two methods, the former was for many reasons the best. My views were at that meeting subjected to some criticism at the hands of certain leaders of the profession who had no better arguments to adduce than that the old iliac operation had always answered very well, that the control of faeces could not in the nature of things be so complete in the transverse operation, and that the length of colon excluded, being so much longer than that left by an iliac colostomy, could not but be a source of trouble.

I received these criticisms, coming as they did from such eminent authorities, in a somewhat chastened spirit, until on making inquiries I found that these gentlemen themselves had had very little more experience of transverse colostomy than I had myself, and two of them acknowledged that the question of anything better than the iliac method had never suggested itself to them. I therefore concluded that I had at least some ground for speaking on the subject.

Since that time I have continued to practise the operation of transverse colostomy as a routine method, and, judging from my own results, I have now very little doubt that the claims I put forward in 1906 were well founded; so much so that were I ever in the unfortunate position of having to undergo the operation of colostomy myself, I would stipulate most strongly for its performance by the transverse method, provided that the conditions permitted of its being done.

I am fully aware of the fact that the cases I have operated upon are not so numerous as to command the attention of surgeons who will never condescend to consider anything less than four-figure statistics, nor of those members of the profession who, being attached to the staffs of hospitals dealing solely with rectal conditions, are perhaps apt to look upon the work of others in their special domain as that of the unauthorized. It is not to such that I propose to address myself, but to those who, like myself, being attached to the staff of a general hospital, while dealing with a smaller number of such cases, have, from the varied nature of their work, developed a wider and perhaps more broad-minded outlook on surgery generally. I do not propose for a moment to attempt to defend the operation of colostomy, or make it out to be anything better than an unfortunate, and usually solitary, alternative to a very dreadful and necessarily fatal condition; it should never under any circumstances be performed if any better way out of the difficulty can be found; but that it merits the expressions of loathing and horror that are so frequently heaped upon it by those who have not stopped to consider its purposes, its results, and its surgical technique, I would most strenuously deny. Nothing is further from the truth than to say, as I have often heard said: "Better be dead than have a colostomy done."

It was with much interest and serious reflection that I read Mr. Paul's most excellent opening address in surgery at the meeting of the British Medical Association at Liverpool,[2] and while I realized that any statement coming from so well-known and famous a master of his craft as Mr. Paul must be accorded an attentive hearing, I must confess to no small measure of astonishment that not only does he advocate the lumbar route (which has long been considered obsolete) as a better method than the iliac, but that he refuses any place to transverse colostomy, and openly advises that it should never be performed. With all respect to Mr. Paul I would submit reasons why iliac and lumbar colostomy are not and cannot be in any way comparable to transverse colostomy, which, after practical experience, I have come to regard as the method *par excellence* from every point of view.

If we are to arrive at the ideal we must first of all have

a clear conception of what we consider the ideal—that is to say, what are the requirements which should be fulfilled by a really good colostomy? They may be stated as follows:

1. Good sphincter control.
2. Firm support for belt and plug.
3. Freedom from prolapse.
4. Accessibility.
5. Good spur formation.
6. Removal to a distance from the site of growth.

If these points are considered separately, I think it can be shown that the iliac operation—and what applies to the iliac will also apply, in some points more and in some less, to the lumbar—is singularly deficient in all of these desiderata, whereas the transverse operation has many advantages and few objections.

1. *Good Sphincter Control.*

Control of faeces in the absence of a *natural* sphincter depends on four conditions:

1. Elimination of the influence of gravity.
2. The formation of the most effective artificial substitute that can be devised for the natural sphincter.
3. The assistance of this artificial sphincter by a really efficient plug and belt.
4. The careful regulation of the diet and bowels in all colostomy cases.

In none of the first three of these points does the iliac operation satisfy our requirements. The best result obtainable is always marred by the imperfection of the control, and from time to time, sometimes unfortunately constantly, the patient is harassed by the extravasation of faeces when he is up and about, his life being rendered a misery to him by the constant necessity for repeated cleansing, and the unavoidable odour about his person. The reasons are not far to seek. The vertical position of the descending colon allows of a column of faecal matter accumulating above the colostomy opening, every fresh addition as it passes the splenic flexure increasing the weight of the column and the pressure on the artificial sphincter; thus the slightest exertion on the part of the patient tends to force this column past the sphincter, the influence of gravity being thus a very important factor.

2. *Firm Support for Belt and Plug.*

If this pressure is to be resisted, it must be met by a very efficient sphincter and a very efficient belt and plug. But what do we find? A sphincter made of the worst material and in the worst possible situation, and in a situation ill-suited to the requirements which the belt is expected to fulfil.

Now in iliac colostomy the sphincter may be placed in one of three positions, according to the length of meso-sigmoid.

(*a*) In the substance of the oblique muscles.
(*b*) In the linea semilunaris.
(*c*) In the substance of the rectus muscle.

The first of these positions is that of the old method; it brings the opening too close under the vertical column of the descending colon; it is deficient in aponeurotic backing; and it is too close to the anterior superior spine of the ilium, with the result that when extravasation repeatedly occurs in elderly and thin people the skin over this prominence becomes macerated, and being rubbed by the belt, breaks down, and a painful ulcer, not unlike a bedsore in its intractability to treatment, is formed. Moreover, the action of these muscles is not particularly powerful at this point.

The second position is hopeless; the abdominal wall here is thin, aponeurotic not muscular, and the position has nothing to recommend it.

The third position is the best, but it is a long way from any fixed support; there is no aponeurotic backing, since the posterior sheath of the rectus muscle ends at the semilunar fold of Douglas; and this is the thinnest and weakest part of the rectus muscle. How do these positions suit the application of the belt? The belt to be efficient must have sufficient purchase to bring pressure on the opening. In all of these positions the alae of the pelvis are too widely separated to permit of this purchase, the abdominal wall, especially mobile at this point, simply giving to the pressure applied, and in this position a tight belt is not easily borne. Moreover, the slope of the loins and the prominence of the hips constantly tend to make the belt "ride" upwards, and this necessitates the use of perineal straps if the belt is not to be quite useless; and this is especially so in women.

The fitting of a plug to a colostomy opening in any of these positions is also unsatisfactory, for to be efficient it must fit tightly without overstretching the opening or causing pain; and, although patients do not usually complain of the latter, the tendency of the opening to stretch is undeniable, since the muscle layer through which the bowel comes is lacking in aponeurotic support behind, and has only a comparatively feeble layer in front. The result is that frequently the plug has to be changed for a larger one in order to control the discharge of faeces, and ultimately the margins of the opening may become so flaccid that prolapse is favoured.

3. *Freedom from Prolapse.*

The comparative frequency with which this is seen in iliac colostomy is a strong point against the operation. It is true it does not occur in *every* case, but it occurs in certain cases, no matter how carefully the operation may have been conducted. One of the causes of the trouble has already been given; the other is again the effect of gravity; the conversion of the upper portion of the sigmoid into a receptacle subjecting it to dilatation, and the pressure of the vertical column of faeces in the descending colon bringing about a slipping down of the mucous membrane, if not actually of the bowel itself. I have more than once seen as much as 6 to 7 in. of bowel and everted mucous membrane protruding from the colostomy opening. Such prolapse is greatly aggravated by any excessive activity of the bowel, as from purgatives and irregularities of diet, of which it may, indeed, be to some extent the result.

4. *Accessibility.*

Although an iliac is more accessible to the patient than a lumbar colostomy opening (indeed, the latter could hardly be less conveniently placed), it is nevertheless in an awkward position, especially in stout patients with protuberant abdomens, since it tends to become overhung by abdominal fat. Again, when an action is intended, it does not permit of the placing of a receptacle over the opening *while the patient is in the sedentary posture*, unless the body is maintained upright, which position greatly lessens the purchase of the abdominal muscles for defaecation, and brings an undue strain on the inguinal regions.

For the comfort of the patient a colostomy opening should permit of accessibility both for cleansing and defaecation.

5. *Good Spur Formation.*

Some surgeons have denied the desirability of a double opening to a colostomy with a spur between, and maintain that the distal opening is bad because it catches any faecal matter which may pass the spur.

Personally I do not agree with this, and would always recommend a double opening and a good spur being made. If the operation is properly done and the plug fits snugly, nothing will pass the spur; and in cases of advanced rectal cancer it is a very great comfort to the patient to have the excluded loop of bowel washed out and cleansed of stinking débris and blood clot; and at times the pain may be much lessened by the introduction of various analgesic drugs. With a single opening, this could not be done. The idea that the excluded tract harbours a great quantity of secretion is entirely erroneous: it rarely harbours anything but a small quantity of the débris mentioned; but, if it did, surely the worst that could be done would be to shut it in by occluding the opening and compelling the bowel to absorb it, or pass it over the raw surface of the ulcer—the surest method of increasing the patient's anaemia and pain.

6. *Removal to a Distance from Site of the Growth.*

I have seen certain cases in which the proximity of a growth high in the rectum rendered the iliac operation difficult so far as carrying the bowel over towards the rectus muscle is concerned, the outer of the three positions having to be chosen. As the difficulty was caused by thickening and shortening of the meso-sigmoid, it is obvious that the iliac operation was unsuitable in these cases; in one of them the growth subsequently invaded the colostomy opening.

Thus it will be seen that iliac colostomy has little to recommend it, and a close comparison between the points above mentioned and those same points when applied to transverse colostomy will, I think, show the latter operation in a much more favourable light. The anatomical position of the transverse colon at once disposes of the effect of gravity in promoting extravasation; indeed, it does more, for since of the fixed points—the splenic and hepatic flexures—the former occupies a higher position, the colon passing between them, lying in the position of a hammock, it is clear that the passage of the faecal mass towards the stoma will, if this be placed to the left of the middle line, be accomplished *against* the force of gravity, consequently neither extravasation nor prolapse are likely to occur. I have never seen either of them in my own cases when once the belt and plug had been fitted; and with regard to prolapse Allingham has said, "Prolapse might happen, but we have not yet seen it, and it would scarcely be so likely to occur as in other places, for the transverse colon is in a way fixed at its hepatic and splenic flexures, and would thus tend greatly to prevent prolapse of the gut through the transverse opening."[8]

The portion of the bowel between the stoma and the hepatic flexure, from its position, acts as a receptacle, which, like the rectum, can be conveniently voided from time to time, and it is very remarkable to see the excellent control patients ultimately acquire over this act, the bowels being opened night and morning with great regularity, the patient gradually becoming aware of the need to void the contents of the colon. Such perfect control I have never seen in any case of iliac colostomy.

The sphincter provided for the stoma is as nearly perfect as anything can be. The opening should be made two inches to the left of the linea alba, and the same distance below the costal margin. There are excellent reasons for the efficiency of the sphincter when made at this point. The rectus muscle here is thicker and stronger than below the umbilicus, thus forming a deeper and firmer canal; it is reinforced *in front and behind* by powerful fibrous aponeuroses, which tend to moor the stoma in place. This anchorage is further strengthened by the linea alba internally, and the lineae transversae, one of which should fall above and one below the stoma. Owing to the shorter fibres of the rectus lying between these latter, the grip of the "sphincter" at the stoma is much more efficient than in the iliac operation.

The situation is admirable for the fitting of a belt; for not only are the loins here of a shape to hold the belt without slipping, thus doing away with braces, bands, etc., but a degree of pressure can be supported here with comfort which would be impossible below the umbilicus, this pressure being rendered possible by the presence of the costal margins and the presence of liver and the firm nature of the abdominal wall here.

Prolapse I have already dealt with; I have never seen it occur in any of my cases.

The position of the transverse colostomy opening renders it extremely easy for the patient to cleanse and care for it; no matter how obese he may be, the opening is never overhung by fat, as may be the case with iliac colostomy. The skin here is thick and not easily excoriated by the moisture of the mucous membrane. The evacuation of the bowels is most simply accomplished, for it can be performed in the sedentary attitude, the body being inclined forwards and a receptacle placed over the stoma. Owing to the depth of the intramuscular canal and the length of the mesocolon here, an excellent spur can be made when the operation is done by Maydl's method. That this spur is *always* better than that of an iliac colostomy I do not claim, but I have already given my reasons for the occasional defects in the spur formation in the latter, which defects are invariably absent in the transverse operation.

Besides this latter question of spur formation, removal of the colostomy to a distance from the site of the growth offers one other great advantage; there is no little doubt that the offensive odour of a colostomy is largely due to the proximity to and the ease with which the foul débris of an ulcerating growth is discharged from the iliac opening. I have seldom, if ever, known a transverse colostomy to be in the least offensive, but I have never known an iliac one that was not.

There is one other point in which transverse has a great advantage over iliac colostomy—that is, in cases of intractable fistulae of the rectum and anus, where a cure has been effected by temporary colostomy; the ultimate reconstitution of the colon is effected far more easily and far more safely and certainly in the case of the former than in that of the latter operation.

I have then endeavoured to lay out the points which to my mind support strongly the adoption of this method as a routine practice; and finally I would consider the objections that have been raised by certain surgeons to its performance.

The objection has been made that the subcostal position of the stoma is a more unpleasant one for the patient. I can only reply to this that none of my own patients have ever complained on this score; and the greater cleanliness and better control which this position gives goes far to overcoming this objection.

Again, it is contended that control *must* be more difficult, since the motions in the transverse are more fluid than in the descending colon. This I can answer from my own experience: it is a purely theoretical objection; there is so little difference in the contents of the two sections that there is nothing to choose between them. It is quite obvious that the life of a patient, no matter of what variety his colostomy may be, can never again be regarded as normal. That is to say, he must always so regulate his diet and fluid intake as to favour constipation rather than diarrhoea, and so keep the excreta as firm as possible.

Mr. Paul has made the objection that the position is not a good one in view of the possibility of a subsequent laparotomy; neither is any colostomy, iliac, lumbar, transverse, or caecal. But since these operations are commonly reserved for patients who are already doomed, the prospect of their ever having to undergo such laparatomy must be very small indeed. Case xv is an exception—the only one I have come across in my practice.

Lastly, an objection from one of the highest authorities on rectal surgery made to me personally, is one which I mention merely to show the extraordinary attitude so often assumed by certain surgeons who, because they cannot themselves see any good in a new method, would deny the possibility of its existence, when expounded by others. It was that "iliac colostomy having served its purpose for so many years, there did not appear to be any obvious reason why it should be abandoned." On such an objection I leave the more progressive of surgeons to pass their own criticism. My cases are, as will be seen, comparatively few, and this is accounted for, first, by the fact that I have only used those of which accurate notes have been kept, many being hospital cases of which the notes have been found worthless, or have actually been mislaid; and, secondly, because I have never submitted any patient to colostomy who could by any means be safely tided on to the end without it; thus I have often avoided the operation where, with less trouble or more precipitate action, I might have performed it.

CASE I.

M. C., aged 60, married; has had three children; advanced carcinoma of second part of rectum; iliac colostomy by Maydl's method; bowel opened on third and divided on fifth day. Belt fitted on twenty-seventh day.

Patient survived eight months. Control seldom complete, and extravasation occasionally troublesome; complained much of her condition. Towards the end prolapse of mucous membrane with every evacuation, manual reposition being necessary. Could never leave her house for any length of time. Painful excoriation about anterior superior spine, she being a thin woman.

CASE II.

E. J., aged 52, married woman; three children; very stout; advanced carcinoma of first part of rectum with secondary deposits in liver, and malignant ascites. Iliac colostomy by Maydl's method; bowel opened on third and divided on fifth day. About an hour after division the divided ends suddenly receded into the abdomen. Laparotomy immediately performed, Paul's tubes in either opening; abdomen sponged out and drained.

Patient died forty-eight hours later from shock. The conclusions to be drawn from this case are that the fifth day is dangerously early for the division of the bowel; and that when ascites is present it is especially so, since the oozing of ascitic fluid between the bowel and the wound margins results in delay in the formation of plastic adhesions. Since this case was done I have made it a rule never to remove the rod or divide the bowel before the tenth day.

CASE III.

E. P., aged 18, unmarried girl, with a fistula in the left iliac region, following the opening of an abscess resulting upon left salpingo-oöphorectomy performed by another surgeon. Every means had been tried in hope of closing this fistula without success. Transverse colostomy by Maydl's method done, with a view to resting the fistula and allowing it to close. Bowel opened fifth day and divided on tenth.

Result excellent; control perfect; no extravasation or prolapse. Although discharge from fistula not entirely stopped, latter reduced to fine probe sinus at end of ten weeks. Patient, when apparently in perfect health at end of three months, and while waiting for reposition of colon, was suddenly taken with signs of acute intestinal obstruction. Operation was refused by her parents and she died unrelieved. *Post mortem:* Ileum caught by the loop of a fine adhesion, stretching from right psoas muscle to umbilicus. Colon below the stoma shrunk to diameter of little finger. Fistula track Y-shaped and leading to both sigmoid and small intestine, 4 in. above ileo-caecal valve.

CASE IV.

J. B., aged 50, widow. Advanced carcinoma of second part of rectum. Much ulceration and bleeding and great pain, defaecation causing agony for one or two hours. Iliac colostomy by Maydl's method resulted in very great relief, the bowel being opened at end of forty-eight hours and divided on tenth day. This patient lived five months. Control was never complete, and extravasation, in spite of repeated fittings of belts and plugs and careful dieting, caused her much misery, and she was practically bedridden owing to this from the time of her operation.

CASE V.

F. D., man aged 25, admitted for intractable chronic dysenteric ulceration of rectum; his motions being mixed with blood and mucus, and defaecation being accompanied by intense aching pain. Patient rapidly going downhill. Transverse colostomy by Maydl's method resulted in complete cessation of pain and great improvement in general condition. At the end of a year patient, finding his control so good and colostomy so satisfactory, refused to have the colon replaced. Owing to the fear of a fresh outbreak and of the formation of a stenosis of the rectum which even now threatened, this was not pressed. Two years or more after his operation this patient contracted pulmonary phthisis, of which he died.

CASE VI.

K. C., woman aged 55. Advanced carcinoma of rectum, involving second part high up, threatening obstruction, nothing but fluid motion passing; tenesmus and dragging pains; blood in motions; discharge very foul. Iliac colostomy by Maydl's method; meso-sigmoid thickened and very short. Bowel opened in forty-eight hours, and divided on tenth day. Subsequent control very difficult, owing to slipping of belt, she being small in the waist and wide in the hips. Complained much of the discomfort, and never could regulate her actions sufficiently to trust herself out of doors; consequently had to lead the life of an invalid to the end, which came eight months after operation. There was always a tendency to prolapse, moisture, excoriation, and foul discharge from the distal stoma.

CASE VII.

H. B., aged 45, suffering from faecal fistula through old laparotomy scar and stenosis of rectum. Six months previously patient had apparently undergone operation for pyosalpinx; this was followed by pelvic peritonitis, the formation of an abscess which burst into the rectum, and a second one which burst through the old wound and very soon discharged solid faecal material. Several attempts were made to close this sinus without avail, nearly all her excreta passing through it. It was then found that the rectum passing through a mass in the pelvis was tightly stenosed. Transverse colostomy by Maydl's method. Belt fitted at end of three weeks. Patient is alive and well eight years after operation. She tells me she has no difficulty whatever with the colostomy. Her control has always been so perfect that she can frequently leave off the belt. She knows exactly when the bowel requires evacuation, and has trained herself to do this morning and evening. She has never had prolapse, and only on one or two occasions has there been the least tendency to extravasation when she has taken a purgative. She does not experience any unpleasantness from the high position of stoma, and finds access to stoma much easier than it was to the old fistula, which closed entirely six or seven months after operation. The patient has been so perfectly comfortable that she has carried out her work for the past seven and a half years without any difficulty.

CASE VIII.

K. B., 47, sent to me by Dr. Sidney Beauchamp for the cure of an umbilical hernia. During convalescence was discovered to be suffering from carcinoma of rectum. Seen in consultation with Mr. (now Sir Anthony) Bowlby and Mr. (now Sir Alfred) Pearce Gould, who advised against excision. Transverse colostomy done by Maydl's method. Bowel opened on fifth and divided on tenth day. Belt fitted twenty-fourth day. This patient travelled to Devonshire at the end of the fifth week, and dined the same night in evening dress with her family. This she continued to do, leading her ordinary life and frequently motoring many miles in the day, to within four months of her death, which occurred over three years from the time of her operation. So satisfactory was her condition throughout that none of her household except her husband knew that such an operation had been done. She wrote to me many times saying how perfectly satisfactory she found the colostomy.

CASE IX.

P. C., married woman, aged 49. Advanced carcinoma of rectum in the second and third part, with secondary deposits in the liver and sacral glands. Could only pass flatus and fluid. Great pain and tenesmus, and occasional distension and partial obstruction. Linen always stained with foul bloody discharge, the sphincter ani being quite inactive. Transverse colostomy. Bowel opened at once on a Paul's tube and divided tenth day. From time of operation bleeding, discharge, and pain ceased entirely, and patient began to sleep well at night. She lived for fourteen months. During this time her colostomy worked perfectly. In less than two months she had almost complete control. From this time she never had the least difficulty; there was neither extravasation nor prolapse, and she herself said that had she realized how little inconvenience she was to have she would not have hesitated so long to have the operation done.

CASE X.

D. M., man aged 61, admitted with signs of acute intestinal obstruction, no obvious cause being present. Colon distended as far as the splenic flexure. Symptoms had been present for three days, and patient was very ill and feeble. Transverse colostomy was performed and a Paul's tube inserted. Immediately an enormous quantity of flatus and faeces passed, and patient was relieved. Four days later he again began to vomit and become distended, and although the signs were obviously those of general peritonitis, he was too ill to undergo any further operation, and died on the sixth day. *Post mortem* was found general suppurative peritonitis resulting from a perforating ulcer of the ileum just above the ileo-caecal valve, due probably to the preceding distension.

CASE XI.

J. A., married woman, aged 71. Advanced cancer of the sigmoid colon, chronic obstruction becoming acute. Patient very feeble. Refused operation till third day of vomiting, and then accepted. Transverse colostomy. Patient unrelieved, and died of ileus on the second day.

CASE XII.

M. L., married woman, aged 62, under care of Dr. Donkin of Bexley. Exactly similar case to the above, the obstruction being acute. Transverse colostomy: bowel opened at once, a large amount of faeces and flatus escaped. Union, however, was defective, probably owing to debilitated condition of patient, and leakage occurred into the perineum, causing patient's death from general peritonitis on the tenth day.

CASE XIII.

E. W., married woman, aged 47, under care of Dr. R. T. Smith. Carcinoma of uterus. The whole pelvis appeared to be filled with a mass of growth, the rectum being almost completely obstructed. Transverse colostomy. Bowel opened third and divided tenth day. Belt fitted twenty-fourth day. Patient died more than two years later. From the time this patient received her belt, she had no difficulty in controlling her motions with the usual restriction as to diet, she remained comfortable up to the end, the bowels being opened night and morning; there was neither extravasation nor prolapse.

CASE XIV.

J. D., man aged 41. Carcinoma of rectum in second part, with secondary deposits in liver and glands. The patient was so ill and wasted that the question of operation was deferred, but as obstruction threatened, and he began to vomit, an iliac colostomy was done. The sigmoid mesocolon was found much contracted, and the bowel was rather tense when the rod was passed beneath it. It was opened as in the last case, but the result was negative, little or nothing but flatus passing; the vomiting, however, ceased. As it was clear that there was some obstruction higher up, it was thought unwise to open the tranverse colon, and therefore a caecostomy was done. This relieved the patient, who, however, died of asthenia on the fifteenth day.

CASE XV.*

B. C., married woman, aged 42. Carcinoma of sigmoid. Laparotomy. No secondary deposits found; growth quite free. Growth with meso-sigmoid eventrated and fixed in position of iliac colostomy. Proximal loop opened on fifth day, the whole mass being resected on fourteenth day, leaving the parts in the condition of iliac colostomy. The patient is still alive and well five years after operation, but has always had great difficulty in controlling her bowels. She can never depend on her belt although many varieties have been tried, and lately she has suffered from prolapse; her skin is consequently often tender and excoriated, and she has to allow herself to become constipated in order to be able to do her housework. She is at present considering the question of transverse colostomy in order to obtain relief. A year later I removed this patient's appendix, obtaining a primary union in spite of the colostomy.

* Since this paper was written this patient has undergone two further operations, first for a non-malignant tumour of the right ovary, during which operation I did away with the lower colostomy opening by implanting the rectum into the transverse colon; and, secondly, for closure of the upper colostomy opening. This patient is still in hospital, but is doing well and is passing everything per rectum. She shows no sign of any return of her growth.

CASE XVI.

S. C., married woman, aged 20. Extensive carcinoma of the whole abdomen, probably commencing in the pelvis. Early acute obstruction. Transverse colostomy. Colon found so bound down and the mesocolon so infiltrated that it could not be brought over the rod; it was therefore stitched to the skin margin and a Paul's tube inserted. Patient was relieved of vomiting and pain, but the absence of a spur permitted a good deal of faecal matter passing beyond to stoma. Patient died of exhaustion a fortnight later.

CASE XVII.

J. V., man aged 60. Carcinoma of third part of rectum and anus. No obstruction, but great pain and bleeding on defaecation; some small glands in both inguinal regions. Transverse colostomy by Madyl's method and removal of all inguinal glands. Bowel opened fourth and divided on tenth day. Excision of rectum and anus four days after colostomy by direct route. Patient is alive and well three years after operation. He has never had the least trouble with the colostomy, and has excellent control, knowing at once when the bowels require relief. Tells me he frequently discards his belt in the hot weather, as he never suffers from extravasation or prolapse. There is at present no sign of recurrence.

CASE XVIII.

M. H., 69, married woman. Under care of Dr. Sidney Beauchamp. Patient had an umbilical hernia, with symptoms of intestinal obstruction, which were thought to be the result of it. At operation no strangulation was found but a narrow ring cancer of the splenic flexure. Transverse colostomy by Maydl's method. Bowel opened on table and divided on tenth day. Patient relieved; good recovery. Patient lived eighteen months. Up to last two months of her life she had no difficulty whatever with her bowels, the belt being comfortable and controlling the motions perfectly. During the last two months the growth invaded the abdominal wall and broke down, an abscess discharging beside the stoma. This ceased to discharge for some time, but again broke down, and ultimately the patient died of asthenia. Had this patient not been so aged and corpulent, the case would have been better served with an ileo-sigmoidostomy.

CASE XIX.

L. C., married woman, 57 years of age. Inoperable carcinoma of rectum in the second part. Admitted with acute obstruction, vomiting, and distension. Patient very ill, and transverse colostomy done simply to relieve distress, bowel being opened on table. Immediate recovery took place and colostomy worked well, but patient died of perforating ulcer of caecum on the eighth day.

CASE XX.

M. S., married woman, aged 57. Inoperable carcinoma of sigmoid. Patient going gradually downhill with bleeding, pain, sleeplessness, and recurrent obstruction. Transverse colostomy by Maydl's method. Bowel opened third and divided tenth day. Bleeding and pain ceased almost entirely. Patient obtained complete control as soon as belt was fitted, and although more or less an invalid owing to her weakness, was able to get about with comfort for months after her operation, and was still alive when seen twelve months from that date. There was never either extravasation or prolapse, and patient expressed herself as perfectly comfortable.

CASE XXI.†

R. C., man aged 57, suffering from carcinoma of second part of rectum, with bleeding, pain, and incontinence of faeces. Growth was removed by abdomino-perineal excision. Transverse colostomy done by Maydl's method as a preliminary operation. Bowel opened in forty-eight hours and divided tenth day. Patient, in spite of *Bacillus coli* infection of superficial layers of abdominal wound, made an excellent recovery. He has never had any difficulty with his wound and has done his work without discomfort, extravasation, or prolapse for nearly two years, and says he is very satisfied with his operation. There is no sign of recurrence.

CASE XXII.

S. S., man aged 65, suffering from malignant growth of transverse colon at junction of middle and left third. Laparotomy done at site of transverse colostomy and growth found slightly adherent to stomach and omentum. The whole mass with its mesocolon eventrated and fixed outside abdomen. Bowel opened on fifth day and whole mass resected on fourteenth day, leaving him with the condition of a transverse colostomy. It is now two years and eight months since his operation, and he is alive and well; he has done his work regularly since convalescence, and so satisfactory has his colostomy proved that he tells me he has "discarded his belt as he has perfect control without it, and never uses it 'unless he has taken a purge.'" In spite of the absence of the belt there is no prolapse. He wears a pad of cotton-wool over the stoma to protect it.

CASE XXIII.

F. J., man aged 41. Similar case to No. 21; transverse colostomy preliminary to abdomino-perineal excision of rectum. Patient unfortunately suffered severely from *Bacillus coli* infection owing to the tearing away of growth in the pelvis, where it was slightly adherent to the sacrum. He died on the fourth day.

† This patient has died of a recurrence since this paper was written.

CASE XXIV.

E. S., married woman, aged 62. Extensive inoperable carcinoma of second and third parts of rectum, with enlargement of liver and secondary glands. Transverse colostomy by Maydl's method. Bowel opened fifth and divided tenth day. Patient had perfect control and lived three months without discomfort or prolapse. Bowels were moved morning and evening. She died of asthenia.

CASE XXV.

M. M., married women, aged 60. Similar case in all respects to the above, and equally satisfactory; neither extravasation nor prolapse, and patient is alive and able to get about without discomfort.

CASE XXVI.

J. W., unmarried woman, aged 57, sent to me by Dr. Donkin of Bexley. Carcinoma of second part of rectum, no glands and no enlargement of liver. Transverse colostomy done as preliminary operation to abdomino-perineal excision of rectum, the two operations being done under spinal analgesia, with the exception of forty minutes light chloroform anaesthesia. Sixteen months since operation, patient well and no sign of recurrence. Colostomy works well, and with belt she has complete control, is comfortable, has no trouble with her bowels, and is able to get about as well as ever. She expresses herself as being very pleased with the result of operation.

Thus of these 26 cases 20 have been done by the transverse and 6 by the iliac method. Of the former 3 were done for non-malignant and 17 for malignant conditions. Of the non-malignant 1 died of strangulation at three months, and 1 of phthisis at two years from operation, the third is alive and well to-day.

Of the malignant cases 5 are alive to-day, 1 at three years, 1 at two years, 2 at eighteen months, and 1 at a year from the time of operation; and in all of these this method of colostomy has fully justified the opinion I have formed of it, as it has also done in all cases in which the patients have lived sufficiently long to allow of an honest judgement being formed.

REFERENCES.

[1] *Clinical Society's Transactions*, 1906. [2] BRITISH MEDICAL JOURNAL, July, 1912. [3] Allingham. *Diseases of the Rectum*, p. 432.

URACHAL FISTULA.

BY

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As is well known, in early fetal life the allantois, the pouch from the lower end of the primitive intestinal cloaca, projects through the umbilicus. At the seventh month the upper portion of the allantois becomes normally closed and forms a fibrous cord, called the urachus, extending from the umbilicus to the urinary bladder, which is derived from its lower portion. Now and then the upper part remains patent, as the so-called urachal fistula, from which a certain amount of urine escapes upon attempts at micturition. In such a case any of the following conditions may be observed:[1]

(*a*) A button-like papillary projection at the umbilicus with an orifice at its summit, through which a probe may be passed.

(*b*) The urine may escape at several points of a hernial protrusion, covered externally by mucous membrane.

(*c*) The orifice may be a mere deficiency in the linea alba.

The abnormality may be said to be one of degree, the greatest deformity being fissure of the bladder, in which condition the allantois has failed to close completely inside the abdomen, so as to form the urinary bladder, and the lateral borders of the latter are adherent to the sides of the cleft, while the anterior wall is entirely absent. Again, the cleft may be confined to the upper part of the bladder, which presents itself as a red protrusion just beneath the umbilicus, the parts below being perfect.[2] Whichever condition exists, there is a greater or less amount of discomfort and danger.

The following case is interesting, because of the size of the projection, the presence of an apparent pouch, and the rapidity of closure with practically no interference of a surgical nature:

Mrs. W., primipara, somewhat neurotic, was confined on May 19th, 1912. Presentation was normal, and, on account of a prolonged second stage and the patient's temperament, delivery was accelerated by forceps under an anaesthetic.

The child (a male) was apparently healthy, presented no obvious signs of incomplete development, and shortly after birth weighed 7½ lb. It may be noted that the umbilical cord contained a great excess of Wharton's jelly, its circumference being 6 in. at a point 7 in. from the child. It was tied and afterwards dressed in the ordinary way.

Four days later (May 23rd) the nurse reported that the state of the navel seemed unusual, and that the infant had not passed any urine. On examination the cord was found to be partially separated and particularly foul, the surrounding skin having an inflamed appearance. What remained of it was removed, and there was found at the umbilical region, projecting quite above the surface of the skin, a bright red mass of almost cauliflower appearance, having a circumference slightly larger than that of a penny. It was tender to the touch, and at two obvious points upon its surface small globules of urine oozed, while the child cried and struggled. On passing a fine probe into these openings it was found that one led straight into the cavity of the bladder without any obstruction; the second led into the first passage, about 1½ in. from the entrance; there was a third opening on the surface into which the probe entered for only an inch, but when in this small pouch it could be moved easily from side to side. In no case could the probe be passed upwards.

The surrounding skin was smeared with a mild, unirritating cintment, and waterproof tissue, cut in such a way as to fit tightly round the base of the projecting mass, and so prevent the urine touching the skin, was applied, and on the top of this a thick pad of wool and binder, the wool being changed as frequently as was necessary. There was a slight degree of phimosis present, but when, two days later, a small catheter was passed, the urethra was found quite patent. The raw surface was dressed several times a day like an ordinary wound, and the child got frequent boric acid baths, as recommended by Vaughn,[3] to aid normal micturition.

On May 30th, eleven days after birth, the nurse stated that normal micturition had begun, and on June 6th it was seen that the pad of wool was no longer wet with urine. The protuberance had diminished in size, and, on probing, though the main canal leading to the bladder was still pervious, the smaller one could not be found, whilst that connected with the small pouch would scarcely admit the probe. The whole surface was lightly touched with silver nitrate.

On June 12th the projection was only the size of a small nut, and pink instead of red in colour. The only canal pervious was the main fistula, and no urine was squeezed out even when the child struggled, or during micturition. It was again treated with silver nitrate, the entrance to the fistula being especially cauterized.

On June 24th the umbilicus still projected slightly, but had become the colour of the surrounding skin. Probe entered the fistula with difficulty.

On August 10th there was no apparent fistula left, and all the functions of the infant were normal.

At no time in this case was there any rise in temperature, nor was any faeculent material ever excreted at the fleshy protrusion. The child, with the exception of the first few days of its existence, steadily increased in weight, and on August 10th was 16 lb., and above the average weight at that age. There were no complications, and the progress throughout was not such as to warrant more energetic methods of treatment.

In some cases a slender electric cautery has been applied to close up a small urachal tract, but this is not without danger; in others, laying open the dilated urachus at the umbilicus, curetting its walls, and cauterizing the whole interior with zinc chloride, is successful even after plastic paring has failed.[4]

In cases simpler than that detailed above the application of a ligature around the base of the papilla which will dry up and fall off, leaving the fistula permanently closed, is sufficient. The choice of any of those methods of treatment, however, must depend not only upon the local conditions at the umbilicus, but also upon the circumstances associated with the abnormality, for urethral calculus, phimosis, and congenital stricture often accompany it, and unless these are treated with a certain degree of success, no attempt at closure should be made.

REFERENCES.

[1] Treves: *System of Surgery*, vol. ii. [2] Coats: *Manual of Pathology*, p. 48. [3] *Trans. Amer. Surg. Assoc.*, vol. xxiii, 273. [4] Willard: *Surgery of Childhood*.

A COMMITTEE has been formed for the establishment of a German society of military dentistry. The president is Hofzahnarzt G. Labaschin (Berlin-Wilmersdorf).

THE Royal Academy of Medicine at Turin reminds the medical profession in all countries that the thirteenth award of the Riberi prize of £8,000 for scientific work relating to medical subjects in the widest sense will be made on December 31st, 1916. For particulars application should be made to the Secretariat of the Academy, 18 Via Po, Turin.

ENCHONDROMA OF THE MANUBRIUM STERNI SUCCESSFULLY REMOVED BY OPERATION.

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A. C., aged 26, a healthy, well-developed, sea-going engineer, was sent to me on February 15th, 1913, by Dr. Baker, of North Shields. He had a swelling in the lower part of his neck, immediately above the sternum (Fig. 1), and he complained of difficulty in breathing when he exerted himself.

When I first saw him he had just arrived at the Royal Victoria Infirmary, having walked uphill from the railway station, a distance of less than a mile; he looked anxious and appeared to be distressed in breathing, and he told me that he always felt the same after exertion. With the exception of shortness of breath he had no complaint to make and he appeared to be in perfect health.

History.

He had known of the existence of a swelling above the sternum for years. It had never inconvenienced him by interfering with his employment and it had never been painful. Seven months previously he noticed that it was increasing in size, and shortly after that date he began to feel some shortness of breath during exertion, but he always found that he recovered as soon as he rested. The shortness of breath, however, had become distressing during the few weeks before he saw Dr. Baker, and on that account alone he sought medical advice.

Condition on Admission.

The swelling was in the mid-line of the neck, and in appearance it was indistinguishable from an adenoma of the thyroid gland. It was densely hard, uneven on the surface, and continuous with the sternum. The sternal head of each sterno-mastoid muscle passed in front of the tumour, which was not affected by the act of swallowing. Movements of the head and of the neck were natural. There was no cyanosis and no visible distension of the veins of either the head and neck or of the arms. The patient was not aware of any alteration in the tone of his voice, and there was no pulsation or bruit in the tumour.

He was admitted as an in-patient for observation, and during the few following days he showed no symptoms whatever.

The tumour, being of very slow growth, was thought to be innocent; but, in view of the fact that the difficulty in breathing was increasing rather rapidly, there was a suspicion that it might be sarcomatous. An *x*-ray photograph showed a shadow in the situation of the tumour, but it was ill defined and little more than enough to obscure the shadows of the vertebrae.

Diagnosis.

We had to deal with a tumour attached to the sternum which was narrowing the upper outlet of the thorax and implicating the trachea at such a low point as to render it impossible to perform tracheotomy, should that operation, as seemed probable, become necessary, and thus removal of the tumour was the only alternative. The question arose, Was removal practicable? Slow growth and the absence of any symptoms pointing to infiltration of adjacent structures made it probable that there was something in the nature of a capsule, and, if that were the case, removal would be possible. In that opinion I had the benefit of the concurrence of Professor Rutherford Morison.

Operation.

I operated on March 5th. The incision was in the line of a necklace with a pendant (Fig. 2). Both sterno-mastoid muscles were fully exposed in their lower portions, and so were the great pectoral muscles and the sternum to a point below the junction of the manubrium and the gladiolus. Each sterno-mastoid muscle was divided about 2½ in. above the clavicle, but not completely, the outer part of the clavicular portion of each muscle being left. The sterno-hyoid and sterno-thyroid muscles were behind the tumour, and were divided at a late stage of the operation. Each clavicle was sawn through about ¾ in. from

its sterno-clavicular joint (Figs. 3 and 4). The portion of each great pectoral muscle which covered the first intercostal space was dissected up, and then the intercostal muscle on either side was separated from the sternum with a periosteal elevator. The sternum was sawn through immediately above its junction with the second costal cartilages, and an elevator being inserted into the saw-cut, the manubrium sterni was levered up. This latter procedure did not cause any increase of pressure upon the trachea. Each first costal cartilage was divided with bone pliers. It was found that there was a capsule over the posterior surface of the tumour, and thus the subsequent steps of the operation consisted in easing the underlying structures and the innominate veins over the irregularities of that surface—partly with the blade and partly with the handle of the scalpel. The wound was sewn up with interrupted silkworm gut sutures and a drain of iodoform gauze left in, chiefly for the purpose of checking haemorrhage from the cut ends of the clavicles; one end of the gauze was brought out at the lower end of the vertical incision.

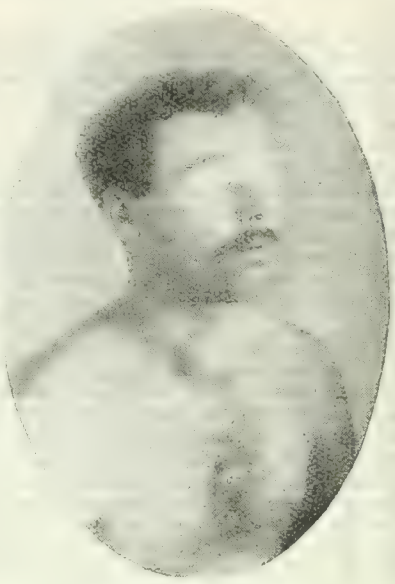


Fig. 1.—Condition on admission.

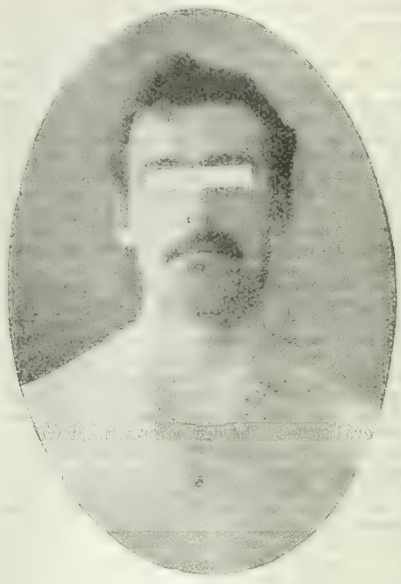


Fig. 2.—Three weeks after operation.

During the operation it was found that though the growth sprang from a point towards the left side of the upper border of the manubrium sterni, the most prominent backward projection of the tumour almost reached the spine towards the right side of the neck, and the upper opening of the thorax was in a large part occluded. The trachea was not recognized. Haemorrhage was slight. At the end of the operation the patient coughed, and the consequent distension of the veins in the floor of the wound was very alarming, as they swelled up to a degree which recalled the bulging of an abdominal ventral hernia. In the dressing a large pad of wool was retained in position by an elastic bandage to make good the absence of support normally given to the great vessels by the manubrium sterni.

Nature of Tumour.

On section, the tumour appeared to the naked eye to be a simple enchondroma, and Professor Stuart McDonald has reported that microscopic examination confirms that view.

After-History.

The wound was dressed on the fifth day, for the purpose of removing the gauze, and it was healed on the tenth day. The patient was allowed to be out of bed on the sixteenth day, and he is now well.

The remaining portion of the clavicular head of each sterno-mastoid muscle acts strongly, and both arms can be raised from the sides, at full stretch, until the palms of the hands meet together high above the head, or are placed together straight out forwards.



Fig. 3.—Photograph of the whole mass removed, viewed from the right side. A, Posterior surface, showing the irregular, walnut-like surface of an enchondroma; B, Anterior surface; C, Upper surface; C to D is the plane of transverse division of the tumour. 1, Clavicle; 2, First costal cartilage; 3, Sawn edge of sternum.

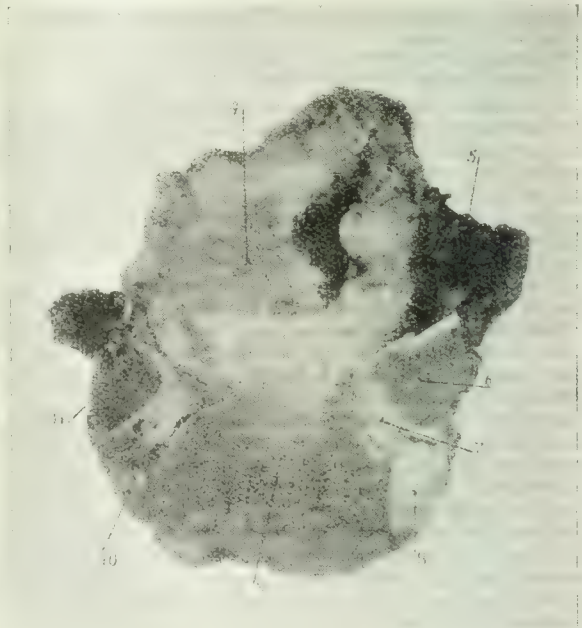


Fig. 4.—Photograph taken after division of the tumour, and it shows the anterior half, viewed from behind. 4, Enchondroma; 5, Sterno-mastoid muscle; 6, Right clavicle; 7, Sterno-clavicular joint; 8, First right costal cartilage; 9, Manubrium sterni; 10, First left costal cartilage; 11, Left clavicle.

A CASE OF ABDOMINAL ANEURYSM WITH UNUSUAL FEATURES, OPERATED ON BY MEANS OF COLT'S APPARATUS.*

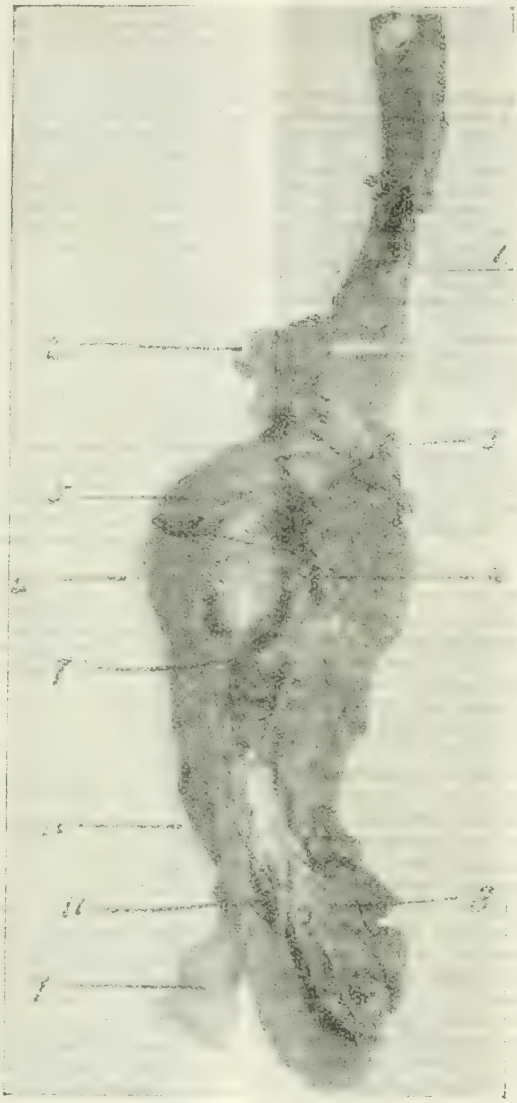
BY

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C. P., aged 41, had all his life been a farm labourer, and had enjoyed good health with the exception of having attacks of "indigestion" and being subject to colds. During the past twelve months he had lost weight and had lately been troubled with obstinate constipation.

He was at full work up to the day of his present illness and was accustomed in the course of his work to carry a sack of meal weighing 2¼ cwt. On March 26th, 1912, he was at his work as usual when he was seized with what he described as a pinching pain which doubled him up and caused him agony. He went home to bed; his wife applied hot fomentations and the pain became less. The next morning he was feeling so well that he started out to work, but as soon as he began to labour he was seized with the same pain as previously and soon after vomited some green fluid. He returned to bed, and on April 2nd was sent into hospital on an ambulance as a case of acute appendicitis. He was admitted to the surgical ward and on the following day we saw him together, and he was transferred to the medical side.

The man was very pale, sweating, and in considerable pain, which he located as griping him right across the abdomen above the umbilicus and going into his back. The temperature was 100° and the pulse 66. The right side of the abdomen was contracted but was not hard. There was a little tenderness to palpation over the right hypochondrium, but no tenderness. Any attempt at deep palpation produced contraction of the abdominal muscles. The area of cardiac dullness was enlarged, the apex beat was in the sixth space in the nipple line, and the blood pressure was 115 mm. of mercury. The knee-jerks and pupil reflex were normal. The urine contained a few red blood cells. The leucocyte count was under 8,000 on the three occasions on which it was examined, the haemoglobin was 100 per cent.



1, Aorta. 2, Coeliac axis. 3, Left renal artery. 4, Oval opening into aneurysm. 5, Upper end of wire which has penetrated into the aorta. 6, Point at which the wire was inserted. 7, Lower end of wire lying just outside the endothelium. 8, Left common iliac artery. 9, Right common iliac artery. 10, Vena cava. 11, Dissecting aneurysm round the left common iliac artery.

He was ordered belladonna suppositories and hot fomentations to the abdomen. On the following day he was much easier and the abdomen less contracted. For the next few days he felt so much better that he asked each day to be allowed to go home and resume his work. On April 6th he passed some bright blood with a motion, and had a considerable amount of pain, for which he was given morphine. The pains now were more severe, and occurred more frequently; they were always in the same region, and he thought that the pain in the back was worse than the pain in the abdomen. On admission he lay on his left side, but later preferred to lie on his right side or on his back. The abdomen was always flatulent, and palpation was accompanied by much gurgling. The stomach was dilated.

The least exertion, as turning in bed, was liable to evoke paroxysms of the most acute pain, which rendered him pallid and perspiring. On two occasions he was in a bad attack of pain when one of us entered the ward, and the pain ceased on palpating the abdomen. The pain would come on suddenly and leave him abruptly, and, though he was an extremely plucky man, he suffered at times severely, in spite of receiving one-sixth of a grain of morphine every six hours.

We could now make out a swelling in the right hypochondrium, below the ninth costal cartilage, and wholly to the right of the middle line; the tumour pulsated, and though it was difficult to say whether the pulsation was distensile, we thought it was. A loud single sound, systolic in time and impure in character, but not harsh enough to be termed a bellows murmur, was audible over the swelling and along the spinal column. We made an entry in the notes that we were surprised to find that the pulse in the dorsalis pedis, could not be felt on the right, but easily on the left. On the following day (April 14th) the right leg and foot became oedematous. There was no sign of oedema in the left foot until April 28th, two days before the operation, when it too became oedematous. On April 14th the collateral circulation was evidenced by the distension of the right epigastric vein and by little patches of dilated venules on the right side below the costal arch. The temperature continued irregularly febrile in character. Constipation was difficult to treat, as anything in the nature of laxatives by the mouth caused him much pain.

The diagnosis was beset with difficulties. Absence of tenderness in the right iliac fossa and on rectal examination seemed to exclude appendicitis. The finding of red blood cells on three occasions in the centrifugalized deposit from the urine, the sudden paroxysmal pains, and the contracted right abdominal muscles, suggested a renal cause. The history of loss of flesh (the patient was clearly wasted), with recent obstinate constipation, a tumour to be felt, a considerable haemorrhage from the rectum, and oedema of the right leg suggested strongly the existence of a neoplasm of the bowel, with a deposit pressing on the right common iliac vein. The absence of all anaemia and of any leucocytosis was evidence against malignant disease. The expansile pulsation of the tumour, the delay in the artery of the foot, the bruit over the swelling and also over the spinal column, and the character of the pain, agonizing while it lasted and then ceasing, and readily evoked by movement of the bowels or of his position in bed, pointed to the presence of an aneurysm.

* Communicated in brief to the Surgical Section of the Royal Society of Medicine.

While fully recognizing that abdominal aneurysm is nearly always on the left side of the abdomen, and in spite of the fact that Stokes states "fever is rarely met with in any stage of abdominal aneurysm,"[1] and that he has never observed in cases of abdominal aneurysm "collateral venous circulation, as shown by the enlargement of the epigastric veins,"[2] we formed the opinion that we were dealing with an abdominal aneurysm. The patient urged us to do any operation which might ease his pain.

To a great extent encouraged by the successes of Mr. Wheeler of Dublin[3] in operating on these cases, we decided to wire the aneurysm, and obtained Colt's apparatus for doing so. Before describing the operation there is one other point to which we would draw attention. Examining the patient every day in the ward, we found the aneurysm varied in the ease with which it was palpable, and on three or four occasions we were told by the house-physician that the tumour had disappeared. It certainly required at times much deeper palpation in order to feel it. This is worth recording, as it agrees with a note made by Stokes in regard to Case lxxiv, page 632 in his book, *Diseases of the Heart and Aorta*:

> I had no difficulty in recognizing an aneurysm, for in addition to the evidences from the symptoms I found a large pulsating tumour in the epigastrium, having every character of abdominal aneurysm, and presenting a distinct bellows murmur. He was admitted into hospital, where, after two days had elapsed, I examined him a second time. To my surprise, the epigastric tumour which had been manifest had disappeared; so that I began to hesitate as to the correctness of the first opinion. The patient now mentioned that when he lay on his side he felt at ease, and the tumour disappeared, but that when he lay on his back the pain returned, and also the tumour. This singular experiment he performed in my presence on several occasions, and always with the above result.
>
> I do not remember ever witnessing a more singular circumstance than the reappearance and as it were growth of the tumour under the hand when the patient continued on his back for a period certainly within two minutes.

Operation.

The operation was performed on April 30th. The patient was anaesthetized with chloroform by Dr. Tatham, Mr. Howell, our colleague, and Mr. Henry, the house-surgeon, assisting. A rubber air cushion was placed under the dorsal spines.

The abdomen was opened from the ensiform cartilage to below the umbilicus. On passing the hand in a large globular pulsating swelling about 4½ in. in diameter, or the size of a large Jaffa orange, was found springing from the aorta, and extending over to the right hypochondrium. The tumour reached from below the renal artery to the bifurcation of the aorta. It was extremely tense. The transverse colon and the duodedum lay in front of it, the latter being adherent to the wall of the sac. The reflexion of the external peritoneal from the ascending colon was torn through, and the duodenum was with difficulty separated from the sac in an upward and inward direction. Colt's trocar was thrust into the aneurysm, and on removing the aspirator a jet of blood shot up 2 ft., and blood welled up by the side of the cannula. A cap packing containing 150 in. of wire with a surface area of 3½ sq. in. was passed into the tumour. On withdrawing the cannula there was free bleeding from the side of the puncture, which stopped after ten minutes' pressure with a gauze sponge. The abdomen was closed without a drain.

The patient stood the operation fairly well, but had extreme pain afterwards, which 1½ grains of morphine in the twenty-four hours following the operation failed to control. He complained even more bitterly of inability to sleep than of the pain. In addition, he caused grave anxiety by frequently vomiting large quantities of dark green watery fluid. In fact, this vomiting with inability to pass flatus or a motion for the first three days after the operation suggested that the irritation of the wire was reflexly causing a spasmodic intestinal obstruction; be this as it may, on the fourth day he passed a small partly formed motion, and the vomiting grew less. A few hours after the operation the dorsalis pedis in the right foot could be felt easily. The day following the left foot was observed to be more oedematous than the right, from which the oedema was disappearing; on May 3rd all trace of oedema had left both feet and legs. On auscultation on May 3rd the bruit was much coarser and was a definite bellows murmur.

It has already been shown that there was a definite relation between the condition of the bowels and the occurrence of pain in the aneurysm. Both constipation and the effect of purgatives evoked pain. We think this to be of importance as a diagnostic sign, as the same has been described in the classic case recorded by Beatty in 1829,[4] and referred to in Stokes's book.

On May 5th the patient was still vomiting, though to a lesser extent, and said he felt much better. Thinking the vomiting might be due to dilatation of the stomach one of us tried to pass a soft tube to wash the stomach out, but this caused so much discomfort and retching that we deemed it wiser to stop lest the aneurysm should rupture. On May 6th the patient was distinctly weaker, the vomit a dirty brown colour but without faecal odour. We transfused 2 pints of saline, but the patient sank in the evening.

Post-mortem Examination.

There was no peritonitis. The aneurysm extended from the right renal artery to the bifurcation of the aorta. The sac came off the right side of the aorta, and lay wholly to the right of the middle line. The external measurements of the aneurysm were 4½ in. in length by 3 in. in breadth. There was an oval opening from the aorta into the aneurysm, 2 in. by 1 in., on its right wall, filled with firm clot. There was a further opening on the left and lower extremity, directed down outside the bifurcation of the left common iliac, encircling three quarters of its circumference. The upper end of the wire was found projecting through a point ⅝ in. above the centre of the oval opening on the right side, having torn its way through the aortic wall. The lower end of the wire was tucked away inside the aneurysm immediately outside the end of the liver, which tore on handling.

It was now seen that the wire had not opened into a cage form, but was lying with the component wires close together, embracing the anterior border of the opening into the aneurysm. The site of the puncture made by the trocar was ½ in. behind the centre of the aneurysm.

The vena cava lay immediately below the aneurysm; on slitting it up, the union of the two iliacs was seen to be at the junction of the lower and upper three-fourths of the aneurysm. The way in which the aneurysm overhung the right iliac vein offered an explanation of the fact that the oedema of the right leg preceded that of the left. Small patches of atheroma were present in the aorta and common iliac vessels. The transverse colon was lying over the upper half of the aneurysm. The left renal vein was seen running just above the superior border. The duodenum and pancreas were very closely adherent to the sac.

It was interesting to note that, in spite of the fact that the man suffered from intense pain, there was no erosion of the vertebrae, and we suggest that the pain was caused by the dissecting aneurysm along the left common iliac artery. The stomach was very dilated, its lower border reaching to the umbilicus. The thoracic viscera were normal.

In criticism on this method of treatment we submit the following:

1. The wire did not form in a cage as it is supposed to do.
2. The wire that we used was too strong.

After seeing the result of the *post-mortem* examination we made some experiments on tennis balls with Colt's apparatus. We noticed that when the wire came in contact with the wall it failed to spread out in the same way as it had failed in the aneurysm. Apparently, in order that the wire should spread out into a cage form, it is necessary that it should have sufficient room to do so without encountering much peripheral resistance.

We suggest that it might be an advantage if the ends of the wires were turned in, forming when closed a cartridge resembling the folding of an umbrella probang; and, when opened out, a cage like a ball of string. We also suggest that if the component wires were roughened it would lead to more rapid clotting in the sac.

REFERENCES.

[1] *The Diseases of the Heart and Aorta*, by William Stokes, 1854, p. 647.
[2] Ibid., p. 649. [3] Wheeler, Annual Meeting, British Medical Association.
[4] Stokes, p. 610.

THE Russian Duma has petitioned the Government to establish some new medical faculties in different parts of the empire.

THE twelfth International Congress of Ophthalmology will be held at St. Petersburg in August next, under the patronage of the Czar. The official languages will be French, English, German, Russian, Spanish, and Italian. The subjects proposed officially for discussion are the etiology of trachoma and the nutrition of the eye.

CHEILOTOMY FOR CRIPPLING TRAUMATIC ARTHRITIS OF THE HIP-JOINT.

BY W. I. DE C. WHEELER, F.R.C.S.I.,
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I WAS much interested in the communication published under the joint names of Mr. Sampson Handley and Dr. Preston Ball which appeared under the above heading in the BRITISH MEDICAL JOURNAL of May 3rd.

I have many times, in common with other surgeons, operated upon cases of chronic rheumatic arthritis to relieve pain and deformity, but as my last case is identical in all essential respects with the two cases described in the communication, and as the operation was performed on the patient's hip on October 22nd last, three months before Mr. Sampson Handley operated upon his first patient, it may be of interest to mention the outstanding features, and thus put a third case on record. The question of priority is of no great importance, but Mr. Sampson Handley and Dr. Preston Ball are in error in thinking that the operation had not been performed prior to their first case in January, 1913.

Miss H. D., aged 21, residing in London, was sent to me in September last, the subject of polyarticular chronic rheumatic arthritis from which she had suffered from childhood. The left knee-joint, the right hip and the two wrists were disorganized with the changes characteristic of the disease. The left knee could not be completely extended without intense pain, and the right hip could bear no weight whatever, the slightest pressure on the heel causing pain in the joint. Locomotion was therefore only possible with the aid of crutches, and even then was attended with much suffering. She had been dependent on the use of crutches for seven years.

X-ray photographs, taken by Dr. Hayes on September 9th, showed lipping of the tibia to the outer side of the left knee-joint, which was the site of great tenderness. A ring of osteo-arthritic bone surrounded the right hip, impeding every movement of the joint, stretching the capsule, and on pressure evidently abutting against the rim of the acetabulum and the neighbouring bone.

The first operation was performed on the knee-joint on September 12th. (It should be mentioned that the shortening produced by the enforced flexion was corrected in London by raising the boot about 2 in.) Through an incision made along the outer side of the knee-joint the lipping of the tibia was removed with a gouge and chisel through a well-marked line of cleavage such as is seen in the new bone formed in connexion with a bunion. A weight and pulley was attached to the limb for about ten days to correct the flexion, and massage was applied for a short time subsequently. All pain disappeared immediately after the operation, and on removal of the weight and pulley the joint could be fully extended and flexed.

The result of this operation encouraged me to operate upon the hip of the opposite side on October 22nd. The joint was opened through Kocher's posterior incision. There was a well-marked "cornice" of newly-formed bone encircling the junction of the head and neck of the femur, giving it the mushroom appearance commonly seen in the specimens of chronic rheumatic hips found in the surgical museums.

The capsule having been freely opened, the hip was rotated in all directions by an assistant, and the new bone was chiselled away from about two-thirds of the circumference. The result of the operation surpassed all expectations. The following day pressure on the heel caused no pain. The stitches were removed in ten days and the patient was allowed up. She could now bear her entire weight on the right limb, and the movements of the hip-joint were free and painless. Subsequent progress was uneventful. I saw the patient when in London last week, and she is walking without crutches in absolute comfort after being a cripple for seven years. I can arrange for Mr. Sampson Handley to see the patient and the *x*-ray photographs if he is interested in the case.

I was glad to read the result of his two cases, which convinces me that my result was no exception, and that in selected cases the operation of "cheilotomy" is destined to give instant relief, and to change completely the outlook for a certain class of crippled patients. I think the title of the paper would be better if the word "traumatic" were omitted; the etiology matters little if the pathological changes are the same.

I should mention that practically every form of treatment, including the use of vaccines and serums, had been tried in my case during the nine years she had suffered from the disease. The condition of the wrists has improved considerably since the patient has been able to discard the use of crutches.

THE INTERNEURONIC SYNAPSE IN DISEASE.

BY
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I HAVE long felt that the cell-exhaustion theory does not satisfactorily explain the pathology of acute delirium. Take, for instance, such a case as this: A young woman, while walking in her sleep, falls from a height, injuring herself severely, and at once becomes acutely delirious; or a girl, owing to a celluloid comb in her hair suddenly taking fire, immediately develops acute insanity; or a similar state results in an elderly widow on finding her sister dead in the same bed. Up to the occurrence of the shock, a state of mind entirely normal to the individual apparently exists, and almost immediately after we find more or less complete inco-ordination of the higher centres and misinterpretation of stimuli. Inco-ordination of the higher centres is the outstanding result. To my mind, this suddenly developed condition, accompanied as it is by extreme motor restlessness, cannot logically be due to cell exhaustion. For purposes of comparison I have examined my records of 17 cases of insanity occurring after surgical operation in which the undoubtedly important factor producing the alienation was exhaustion—physical and mental—plus the slight shock of the operation perhaps, and contrasted them with 25 cases of insanity immediately supervening on sudden and violent mental shock, with the following results:

TABLE I.—*The Types of Insanity Resulting.*

Type of Insanity.	Etiological Factor.	
	Shock.	Operation.
Acute delirium	11	4
Confusional insanity	5	—
Melancholia	5	9
Mania	3	3
Stupor	1	—
Delusional insanity (systematized)	—	1
Totals	25	17

TABLE II.—*Ages at Onset.*

Age.	Etiological Factor.	
	Shock.	Operation.
Under 20 years	4	1
21 to 30 ,, ...	5	2
31 to 40 ,, ...	3	5
41 to 50 ,, ...	4	6
51 to 60 ,, ...	4	3
61 to 70 ,, ...	5	—
Totals	25	17

As regards predisposing causes, a family history of insanity was ascertained in 28 per cent. of the cases due to shock, and in 23.5 per cent. of those due to operation.

Table III.—*After-History.*

	Recovered.	Died.	Permanently Insane.
(*a*) *Cases due to Shock:*			
Acute delirium	6	4	1
Confusional insanity ...	3	—	2
Melancholia	3	—	2
Mania	1	—	2
Stupor	—	1	—
(*b*) *Cases due to Operation:*			
Acute delirium	2	2	—
Melancholia	4	3	2
Mania	3	—	1
Delusional insanity (systematized)	—	1	—

The average period required for recovery was in the cases due to shock 5.8 months, and in those due to operation 16.2 months, practically three times as long. In 50 per cent. of the cases resulting from shock which became chronic a definite family history of insanity was obtained. The average period of recovery of the deliriant cases was practically the same in both, namely, three to four months.

It will be noticed that the type of insanity resulting from severe shock is decidedly different from that produced when exhaustion is the important etiological factor. Acute delirium resulted in practically half of the former cases—and, indeed, the confusional cases were verging on delirium—melancholia in more than half of the latter. In other words, as a result of sudden and severe mental shock, the tendency is to acute delirium, and when prolonged exhaustion enters into the causation the tendency is to depression. From my cases, too, I am justified in saying that the greater the shock the more the tendency towards delirium. Now if this is sought to be explained by saying that the delirium is a more intense reduction, the fact that complete recovery is both more probable and more rapid in these cases than in melancholia must be reckoned with.

Again, the tendency in acute delirium is either towards rapid recovery or death. Only one out of the whole 15 cases became permanently insane, which is in marked contradistinction to other forms of insanity. In the one case, which became a secondary dement, there was a strong family history of insanity, and she was herself of a very low mental type. One would expect profound cell exhaustion to produce a depressive—almost stuporose—type of insanity, whereas what we apparently find as a result of intense mental shock is the opposite.

In cases due to shock the age has apparently no influence worthy of notice. This is quite different from what obtains in post-operative cases, among which 8 out of the 17 occurred between the ages of 40 and 50 inclusive. The fact that 11 of the whole 17 were operated on for uterine or ovarian trouble will throw some light on this.

I think it may fairly be assumed that the delirium resulting from sudden nervous shock cannot satisfactorily be explained by the theory of cell exhaustion.

Whatever be the nature of the nerve current, the cell has apparently the power of releasing energy on the reception of a stimulus corresponding in degree to the intensity of that stimulus. The balance of evidence appears to be in favour of the nervous impulse being a physical process, and it is, I think, satisfactorily established that resistance to its passage is principally met with at the inter-neuronic synaptic membranes and finer terminal arborizations.[1]

It is a matter of common observation that minor degrees of shock are accompanied by a rigor-like thrill. A weird sound in the silence of the night, the presence of a human form at a time and place when and where it is not expected, will give rise to a "start" and a conscious sensation as of an electric-like discharge throughout the system. If this is a matter of common observation on the occurrence of slight or moderate degrees of shock, is it not probable that a very intense nervous discharge might cause serious damage to the finer nerve arborizations and synaptic junctions, and that, just as under similar conditions electrically the fusion of a wire would take place, so here, as a result of intense shock, we may have some degree of what might be termed "synaptic fusion" of the higher neurone terminals and interneuronic membranes, causing dissociation of the higher centres and misinterpretation of stimuli? These higher associative neurones being the latest to develop their terminal arborizations, are probably the most delicate.

The effect of very intense nervous shock on the memory is similar to that occurring after severe concussion—namely, there is total lack of recollection of the shock itself and of events happening shortly before, or, at best, the recollection is very indistinct. A further point of interest is the fact that the average period required for recovery in acute delirium resulting from shock is identical with that required for nerve regeneration as a result of trauma—namely, three to four months.

In a few cases return to co-ordinated thought is apparently sudden. It seems probable that in these cases synapses of association fibres not in common use were probably uninjured by the discharge, allowing an almost sudden return to sanity once the current found a new path connecting up the higher centres. The tendency of the nervous impulse to revert to its accustomed course would account for the fact that such cases are very liable to slight relapses before ultimate recovery. In those cases which quickly result in death, may it not be due to the intensity of the discharge causing damage to many more axone terminals than would occur in a slighter degree of shock which in another case will terminate in recovery, given similar resistance at the synapses?

There are different degrees of synaptic resistances.[2] Sherrington states that "there is abundant evidence that synapses differ from one another" in this respect, and the action of strychnine and tetanus toxin affords further proof. Now, if in the same individual different degrees of synaptic resistance are met with, is it not probable that individuals will differ with regard to nervous irradiation, owing to the fact that in general their synaptic resistances are heightened or lowered abnormally? Strychnine and tetanus toxin have the effect of lessening synaptic resistance and of converting normal spinal inhibition into excitation.[3]

I have noticed that great susceptibility to the action of strychnine exists in hysteria, relatively small doses causing most unpleasant sensations, such as tachycardia and much mental uneasiness. Might not this indicate that in hysteria the neuronic trouble is synaptic—that there is normally in this affection too little interneuronic resistance, resulting in a constant leakage of current, so to speak, outside the area to which it is limited in the normal individual? Supposing this is so, what would we expect? "The hysterical temperament," to quote Starr, "is manifested by an abnormally keen sensibility to all external impressions and sensations, and a susceptibility to suggestions, by a manifest incapacity to exercise control over thought, emotion, and action, and by a tendency to act on sudden impulses."[4] In other words, stimuli which normally would only take a certain definite course, owing to a lowered interneuronic resistance become diffused in their effects on the higher associative centres, and also concomitantly the ultimate stimulation is more intense than normal, hence hyper-ordinate and inco-ordinate reaction. The mental process resulting from sensory stimuli is in the normal person orderly, and in nine cases out of ten similar stimuli will result in a similar train of thought, but given a generally lowered synaptic resistance it is obvious that these same sensory stimuli will not confine themselves to the same orderly path, but that in addition other associated neurones will be affected, which in the normal individual would remain quiescent. Ideation is confused and chaotic and conduct illogical, distractibility is intense, the nervous mechanism is out of control and feels the need of a stronger mind, hence its susceptibility to suggestion and hence the ready obedience to the commands of one for whom the hysterical person feels respect and has confidence in.

This would probably be the result of an abnormally lowered synaptic resistance. Now imagine the opposite—an abnormally heightened resistance. Is it not possible that the periodical disorderly discharge of nervous energy in some cases of epilepsy may be due to certain neurones

acting practically as storage batteries owing to the fact that the synaptic membranes which separate them from contiguous neurones present an abnormally great resistance to the passage of the impulse, thereby practically insulating these neurones until such time as the resistance is overcome by accumulation of energy or by the reception of a violent stimulus?

An important etiological factor in the production of acquired epilepsy is alcohol. Now, alcohol spends itself principally on the interstitial tissue; it is therefore quite likely that its circulation through the nervous system will have a more injurious effect on the interneuronic junctions than on the neurones themselves; it is also quite probable that alcohol will have a selective action on different series of synapses in different individuals. A cirrhotic liver is rarely seen in the asylum *post-mortem* room, and the moral loss of tone so common in chronic alcoholics and the peculiar memory disorder may result from dissociation of the higher association centres, and consequent lack of orderly thought and judgement.

That a sudden fright is so frequently thought to be the determining cause of epilepsy is of much interest in the light of the suggestion that acute delirium as a result of shock may be due to what I have termed "synaptic fusion." It might be possible that this fright has caused minute structural change in certain synaptic junctions, perhaps in the way of upsetting the normal polarity or causing temporary insulation, if one might use the term, of neurones, and spasmodic and irregular nervous discharge as a consequence. The idea that epilepsy may be due to faulty synaptic conduction is a fascinating subject for speculation; for instance, if we suppose the channels connecting the cerebrum and cerebellum to be affected, then as a result of spasmodic action at these synapses, and consequent brief interruption of the normal inhibitory influence of the cerebrum, a condition analogous to decerebrate rigidity would result, and the clonic spasms succeeding the tonic are what we would expect to find before the establishment of association is again complete.

It is not, of course, suggested that in every case of epilepsy synaptic disorder is present; for instance, convulsions are readily produced in children by slight irritation of peripheral neurones (phimosis, etc.). This may be due to the distracting effect of these stimuli on cerebral neurones, resulting in temporary cessation of the normal inhibitory influence of the latter over cerebellar tonus.

My attention has been called to the fact that Dr. Stoddart has already expressed the opinion that there is increased synaptic resistance in acute confusional insanity. As his reasons, he gives the effect of repeated subliminal stimuli in overcoming the analgesia which is present, which he compared with Sherrington's experiments on the scratch reflex of a dog, and the fact that he has met with success in the treatment of some cases with strychnine.[6] I have not found any benefit from the exhibition of strychnine in these cases; indeed, it was this fact which led me to think that some definite synaptic lesion had occurred. In epilepsy, on the other hand, I have found decided alteration, in the majority of cases, both in the number and intensity of the fits during the administration of strychnine—in 25 per cent. there was no apparent difference, in 50 per cent. the fits were decreased both in numbers and intensity, and in 25 per cent. they were increased. This inconstant effect is to be expected, as the pathological basis of epileptiform convulsions must undoubtedly vary greatly; for instance, it may be that the neurone is irritated through its blood supply either mechanically by vasomotor action or intravascular clotting, or by the direct effect of toxins, or it may be that the cortical neurones are themselves intrinsically abnormal. In any of these cases strychnine is not likely to have any definite effect; but if the sudden discharge of nervous energy is due to faulty synaptic action, either in the way of constant or spasmodic excessive resistance to the passage of the current, then it probably would have some effect on the number and intensity of the seizures. Bearing in mind Hughlings Jackson's speculation that post-hemiplegic muscular rigidity was due to the unantagonized action of the cerebellum, which is the centre for continuous (as is the greater brain for changing) movement,[6] it seems possible that the convulsions resulting from excessive doses of strychnine may be due to some kind of synaptic spasm affecting the cortico-cerebellar fibres. He says: "When the influence of the cerebrum is permanently taken off by disease of the cerebrum, as in hemiplegia from the parts which it most especially governs (arm and leg), the cerebellar influence is no longer antagonized, there is unimpeded cerebellar influx, and hence rigidity of the muscles which in health the cerebrum chiefly innervates."

In this connexion also the experiments of Ferrier on the electrization of the cerebellum of monkeys are of much interest;[7] the ocular and other movements produced were similar to those occurring in epileptic convulsions. He found, on stimulating different portions of the cerebellum, backward, forward, and left or right movements resulted corresponding to certain definite cerebellar areas; also—an interesting fact in view of the involuntary cry so common in epilepsy—he found that irritation of the adjacent testes "invariably excites a sudden bark or howl." Now if we suppose faulty action at the cortico-cerebellar synapses to exist, allowing momentary unimpeded discharge from the cerebellar neurones, the result would be a tetanic seizure, becoming clonic as the cerebral influence resumed its sway, and the nature of the seizure would indicate which cerebellar area was primarily affected. Epileptics generally fall in each fit in the same way, so that when the eyes are moved upwards and the head thrown back the initiatory discharge would probably be in the monticulus cerebelli, as Ferrier has shown that such movements result from irritation of this area.

REFERENCES.
[1] C. S. Sherrington, *The Integrative Action of the Nervous System.* [2] Ibid. [3] Ibid. [4] M. A. Starr, *Nervous Diseases.* [5] W. H. B. Stoddart, *Mind and its Disorders*, second edition. [6] Hughlings Jackson, *The Medical Examiner*, London, 1877-78. [7] David Ferrier, *The Functions of the Brain.*

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

SUTURE OF TENDONS.

OWING to the relatively unsuccessful results frequently following the suture of tendons, especially when closely adjacent tendons and their sheaths are injured, I have adopted the plan, after suturing each tendon, of surrounding it at the line of suture with a wrapping of membrane taken from beneath the shell of an egg sterilized by boiling. The tendon sheath is then closed.

I have seen no mention of this material having been used for the purpose of preventing the formation of adhesions, and venture to bring this method to notice as one easy of application, and one from which I have obtained improved results.

T. T. JEANS,
Fleet Surgeon, R.N.

A CASE OF ACTINOMYCOSIS TREATED BY A VACCINE.

THE following case, although not unique, may help to emphasize the curability, even in advanced cases, of that somewhat rare disease, actinomycosis. As is well known, the outlook in advanced cases of this disease is particularly gloomy.

The patient, a schoolmaster, aged 40, chewed a stalk of corn whilst taking a country walk last June. Throughout July he noticed a gradual deterioration in health; in August a definite swelling appeared above the outer part of Poupart's ligament in the left groin; this was a hard, fixed mass; shortly afterwards swellings appeared also between the shoulders and at the back of the neck. The tumour in the groin was incised at the London Hospital, and was found to contain the fungus of actinomycosis. As further swellings appeared he was sent home, and the case was considered and treated as hopeless. Potassium iodide, which had been given freely, was wholly without effect.

As the condition was at one time alleged to be the result of an accident on duty, I was asked to see him and report to the London County Council. When I saw him on November 16th, 1912, he was confined to his couch; he was pale, emaciated, with a large suppurating abscess in the left iliac fossa, a second in the left costal margin in the nipple line, and a third between the shoulders. His mental

attitude and physiognomy reflected the pessimistic prognosis which his medical attendants had made, and of which, unfortunately, he had become aware. The outlook was indeed dreary, for he was rapidly and steadily wasting.

I induced his doctor to send him to Sir Almroth Wright, who kindly at once undertook the case, and to whom I am indebted for permission to publish it. Eleven days after I saw him he was given a vaccine injection from stock, the dose being 7½ million. He at once improved, and by January 11th, 1913, the dose had been brought down to 5 million once a week. In February of this year an autogenous vaccine was for the first time used; this was administered regularly up to March 18th. He had in all some seventeen inoculations.

On April 30th he called on me and stated that he had returned to work. His groin trouble had entirely disappeared; two small healing wounds remained; both will probably heal in a few weeks; he has gained much weight, looks the picture of health, and is, and has very good reason to be, grateful that he lives in the days of vaccine treatment.

London, W. JOHN COLLIE, M.D., J.P.

CARIES OF THE MILK TEETH.

THE reluctance of dentists to undertake conservative treatment of the teeth in school children is easily understood. Filling is very tedious and exhausting, and only work carefully done is of any avail in a young mouth.

The following few simple rules as to extraction may be of use:

1. Where the tooth is painful on mastication, either from pulpitis or periodontitis, extract.

Reason. The avoidance by the child of vigorous mastication will hinder development of the jaw, the latter not depending entirely, as is sometimes supposed, on the presence of teeth.

2. Where the tooth has an abscess or chronic sinus, extract.

Reason. The tooth is dead and will not be shed at the proper time. Although the patient may not complain of pain at the time of the interview, there are certain to be periods of subacute inflammation when vigorous mastication is suspended.

3. If the tooth has an interstitial cavity on the side near a permanent tooth, remove before the latter is affected. The most usual instance is that of a cavity in the distal surface of the second temporary molar infecting the first permanent molar.

Much may be done by breaking down cavity walls and rubbing with lunar caustic, a deposit of secondary dentine with complete repair of a carious surface being a frequent and happy result. To be successful with this, the tooth must be alive and have no gross exposure of the pulp.

The above hints are intended as guides for institutional and school work only.

Bury St. Edmunds. H. E. H. TRACY, M.R.C.S., L.D.S.

*** This memorandum was elicited by a question published in the BRITISH MEDICAL JOURNAL of March 29th, p. 696.

THE report for 1912 of the council of the Metropolitan Provident Medical Association shows that during the year it has devoted much time to anxious consideration of the new circumstances created by the Insurance Act. It hoped to be able to devise some plan by which the association would become part of the working machinery of the Act, but became convinced that no step in this direction was possible. The association will continue its work on the same principles and with the same aims as heretofore, though difficulties, it is expected, will ensue from the loss at every dispensary of the bulk of the insured persons; the council, however, feels that this loss increases rather than diminishes its responsibility towards women, children, old people, and other uninsured persons, and hopes that its endeavour to retain for them the fruits of thrift and self-dependence will be acknowledged by an increase in charitable contributions. The payment rates for provident members have been revised and have been accepted as fair by all parties concerned. Much gratitude is expressed towards the medical staff of the association for its loyalty and co-operation during a very trying period.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

UNION HOSPITAL, BRADFORD.

THE VACCINE TREATMENT OF ACUTE LOBAR PNEUMONIA.

(By W. C. LYONS, M.B., Ch.B., Assistant Medical Officer.)
(From the Department of Pathology, University of Leeds.)

THE following cases of acute lobar pneumonia which have been treated with a pneumococcus vaccine show results which indicate the value of the treatment in such cases.

A vaccine of the pneumococcus was prepared by inoculating a mouse intraperitoneally with sputum derived from a case of acute lobar pneumonia. The animal died from general pneumococcal infection and its heart blood was plated out on nutrient agar. An emulsion was made from the agar culture with normal saline and killed by heating to 56° C. for one hour, and ½ per cent. phenol added, and the vaccine standardized.

The vaccine and method of dosage were the same for all four cases. In all, four injections were made in each case, twenty-four hours elapsing between each injection. The first dose contained 5 million organisms, the second and third 10 million each, and the fourth 15 million. The vaccine was given subcutaneously into the abdominal wall.

CASE I.

L. R., aged 34, male, was admitted on the third day of the illness, having well-marked signs of consolidation in the lower lobe of the left lung, with a typical pulse-respiration ratio. The sputum was rusty and viscid; pulse dicrotic; mild delirium. Twelve hours after the first dose the temperature fell from 102.4° F. to 100.4° F.; after the second it became 100.8° F., falling after the third dose to 99.2° F., and after the fourth dose, on the eighth day of the disease, it fell to 98° F., and remained about this level during the remainder of the stay in hospital. There was no change in the pulse or respiration rate until after the third dose, when they began to fall, and finally became normal on the tenth day of the illness.

CASE II.

F. S., aged 24, male, was admitted on the third day of the illness, with the usual signs of consolidation in the lower lobe of the right lung. Sputum viscid and rusty; pulse dicrotic. There was considerable delirium in this case, and a pronounced alcoholic history.

Twelve hours after the first dose of vaccine the temperature, which had been 103° F., fell to 101° F. Following the second dose it fell further to 100° F., rising to 101.2° F. in four hours. After the third dose it remained at 101° F., and fell after the fourth to 100.2° F.; six hours later it was normal, nor did it rise above this level during a brief convalescence. The pulse and respiration-rate began to fall after the third dose, on the seventh day of the disease. Sedatives were employed in this case on account of the delirium.

CASE III.

B. B., aged 37, male, was in hospital suffering from transverse myelitis, when he contracted acute lobar pneumonia. Pneumococci were found in the sputum, which was viscid and rusty.

In this case the temperature remained at 103.4° F. until after the third dose given on the fourth day of the disease, when it fell to 100.8° F. After the fourth dose it increased to 103° F., but came gradually to normal on the seventh day of the illness, and there were undoubted signs of resolution.

On the tenth day, however, the patient had retention of urine, and pus was found in the catheter specimen, and the temperature again increased to 101.2° F. By the fifteenth day all the signs of consolidation had apparently disappeared. The patient died on the twenty-second day from cystitis.

CASE IV.

J. T., aged 39, male, was admitted to hospital on the fourth day of the disease, with well-marked signs of consolidation in the lower lobe of the right lung. Pulse dicrotic: sputum viscid and rusty. History of alcoholism and considerable delirium.

After the first dose the temperature fell from 103.2° F. to 102.4° F., and fell further to 101° F. after the third dose, reaching normal after the fourth dose on the seventh day of the illness, and remained normal during convalescence.

It would seem that the advantages gained from this method of treatment are—a lessening of the toxaemia as evidenced by the gradual fall of temperature followed by a fall in the pulse-rate and respiration-rate, together with an improvement in the general condition of the patient, and an earlier abatement of the symptoms, lysis in each case appearing to supplant the crisis.

I am indebted to Dr. Coplans of Leeds University for the primary cultures of pneumococcus.

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

BATH AND BRISTOL BRANCH.

THE sixth ordinary meeting of the session was held at Bath on April 30th. Dr. ROXBURGH, President, was in the chair, and twenty-eight members and visitors were present. Mr. C. E. S. FLEMMING read notes of *Some cases of acute oedema of the lung*, and the PRESIDENT, Mr. PAGAN LOWE, Colonel LEE, Dr. NEILD, and Dr. KENNEDY added other instances. Dr. G. H. H. ALMOND read a paper on the *Urinary products of intestinal intoxication*, which was discussed by the PRESIDENT, Mr. PAGAN LOWE, and Dr. NEWMAN NEILD. Mr. T. PAGAN LOWE read a note on *The physiological action of radio-active water*, and the PRESIDENT made remarks upon it. Dr. R. WATERHOUSE described a case, and showed the skiagram, of *Cervical rib*. It was discussed by the PRESIDENT, Mr. COSTOBADIE, Mr. LACE, and Dr. BOWKER.

SOUTHERN BRANCH: PORTSMOUTH DIVISION.

A CLINICAL meeting was held on April 22nd, when Dr. LYSANDER MAYBURY was in the chair and thirty-three other members were present. Dr. HILDA CLARK, in opening a discussion on *The practical application of tuberculin treatment*, emphasized the importance, in summarizing experience, of considering its relation to the natural production of immunity to tuberculosis and the influence of environmental factors, and suggested that this could best be done by grouping cases treated according to the clinical condition regarded as a whole, and not only by the anatomical extent of the disease. To this end she had tabulated a complete series of consecutive cases of adult pulmonary tuberculosis treated to a greater or less extent by the intensive dose method. Tubercle bacillus was present in 181 cases and absent in 210. Each set was subdivided after careful consideration of the history, the nature of the onset, and progress of the disease, and the condition, general and local, when treatment began. After an account of the preparations of tuberculin used—that is, PTO, PT, OT, TAF, PBE, and BE, and of the technique of administration—Dr. Clark gave an account of her experience and conclusions with regard to dosage, intervals, and special preparations in these different types of cases. The practical application of tuberculin treatment was first and foremost, in our present state of knowledge, to early cases, in the vast majority of which her experience showed that it could be used safely and successfully as the main method of treatment. She also showed that the temporary improvement obtained by tuberculin alone in many advanced cases, together with the complete arrest of the disease occasionally obtained even in severe cases, led to the conclusion, suggested by Koch in 1890, that, combined with sanatorium treatment, if sufficient time could be given before the patient had to return to bad conditions, a higher percentage of cases of permanent arrest of the disease might be expected than with sanatorium treatment alone. She emphasized the necessity for allowing time for the completion of the arrest of the disease after the production of immunity had been initiated by any method of treatment adopted. A discussion followed, in which several members joined.

DR. W. BRYCE ORME, formerly medical officer at Larut, Federated Malay States, has been appointed P.M.O. to British North Borneo.

THE third international congress on cancer research will be held in Brussels in August (1st to 5th). The subjects proposed for discussion are: (1) The use of physico-chemical measures in the treatment of cancer and the use of chemical substances after radical operations; (2) vaccination treatment of tumours; (3) statistics of cancer, its local distribution; (4) organization of institutions where cancer patients can be treated; (5) nursing of cancerous patients and instruction in this subject; (6) report on the position of cancer research and the struggle against cancer in various countries, including special literature for doctors, leaflets of instruction for lay people, etc.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

RESUMED DEBATE ON ALIMENTARY TOXAEMIA.

Monday, May 5th, 1913.

Dr. AMAND ROUTH in the Chair.

PROFESSOR H. J. HUTCHENS (Newcastle) said he understood by the term "alimentary toxaemia" the circulation in the blood of certain poisons elaborated in the alimentary canal, which would combine with and to a certain extent injure the cells of the body for which they had a chemical affinity. These substances might be elaborated either chemically—by the action of digestive juices acting on the foodstuffs—or as the result of the activity of bacteria. The poisons produced by the bacteria in the alimentary tract might be of two kinds: (1) The specific poisons of the bacteria themselves; or (2) the non-specific products manufactured by bacteria. Outside the body the colon bacillus produced indol, which was not a specific toxin of the colon bacillus. There were two schools of thought: the one maintained that certain bacteria were essential to animal life, that they broke up the food so that it could be more readily absorbed, and that they protected the body against pathogenic species; the other school, led largely by the French, said that bacteria were altogether harmful, and that the digestive juices in the animal sufficed to elaborate the products necessary for the maintenance of life. They pointed out that it was mainly in the large intestine that bacteria were found, where practically no digestion took place, and the organisms found there were productive of the sclerotic changes characteristic of old age. These were largely hypotheses, and there were but few facts to support them. In many cases of gastric disturbance following alimentary toxaemia the colon bacillus was present in the urine when not suspected.

Sir JAMES GOODHART considered that more diseases were attributed to oral sepsis and pyorrhoea alveolaris than was justifiable, and he agreed with Professor Keith that the question of alimentary toxaemia centred round the nature and functions of the colon. But he did not consider the physiological arguments which had been used altogether sound. Though it had been shown that some people could apparently get along in comfort without the large bowel, he believed the colon had been gradually elaborated and was a great organ of digestion. It had been said that the colon absorbed little beyond water; but he believed that its function was to display to the food passing through it the greatest extent of surface possible. The colon should be full, not empty; satisfied, not hungry. Yet it had been grafted into the minds of the profession and the laity that the one object in life was to get the bowels opened once a day, and failing this, there would be poisoning by noxious products. But the function of delay to facilitate absorption must be borne in mind, and every kink in the large intestine must not be regarded as a source of pathological obstruction.

Mr. W. LANG's thesis, which he set out to establish by showing tables of large numbers of cases, was that pyorrhoea alveolaris and other septic conditions in the upper part of the alimentary tract were answerable for inflammations in every part of the eyes. In many of the cases he could not discover the nature of the poison, but the improvement which immediately followed upon removal of the septic source convinced him that his suspicion was correct. In some cases of choroiditis lost vision quickly returned when these measures were taken. He had notes of 10,000 private cases, the results in which were properly comparable, as he examined them all himself. Septic cases were, of course, very common among hospital patients, but even among private patients some of the results were striking. He showed photographs of septic gums, and described the *modus operandi* of the infection of the visual apparatus.

Dr. DAVID SOMERVILLE said that many people at and past middle age consumed excessive quantities of protein—that is, more than they could properly oxidize or assimilate. The lassitude, headache, drowsiness, irritability, etc., were accompanied by abnormal physical and chemical changes in the urine, and frequently by increased

arterial tension. The surface tension of the urine was lowered; it contained increased indol, skatol, and aromatic acids, and the proportion of ethereal to preformed sulphates was increased, as well as the ratio of the ethereal sulphates to the total nitrogen. Many patients were greatly improved when they substituted carbohydrates for proteins in their diet. The most important matter was not what happened in the alimentary canal, or what bodies were found in the urine, but what was constantly happening in the intermediate body tissues.

Dr. A. C. JORDAN again stated his position in regard to the question of ileal and other kinks and obstructions, and showed a number of striking skiagrams bearing on the subject. He insisted that his opinion, founded upon *x*-ray examination, was constantly being put to the test by operation, and it was the rule for his findings to be verified. He did not find ileal kinks except in patients whose duodenum was distended and who presented clinical evidences of toxaemia.

Mr. ERNEST CLARKE contended that the eye registered, in a delicate manner, certain conditions of the system, and intestinal toxaemia was one of them. The condition of the lens was a very good index, for the degree of its "squeezability" decreased not only naturally with age, but prematurely as the result of disease, so that more and more assistance was needed to enable the possessor to see near objects. He had records of over 3,000 cases, which he had plotted on a chart to show the age of the patient and the accommodative power of the lens. For instance, the lens of one man, aged 40, had the accommodative power of a man aged 55. Conversely, regular habits and a healthy life resulted in preserving the resiliency of the lens long beyond the normal period. He had marked in a number of cases a very distinct rejuvenation of accommodative power when intestinal stasis had been efficiently treated.

Dr. F. LANGMEAD dealt specially with the relation of the thyroid gland to the condition of alimentary toxaemia. Tetany was supposed to be due to toxins generated in the alimentary canal; it disappeared if the stomach were washed out. It was common in rickety children, in whom it was usual to find some dilatation of stomach. It was sometimes treated with success by the administration of thyroid extract. Infective arthritis was not uncommonly accompanied by enlargement of the thyroid, or by Graves's disease, or by tetany. In rheumatoid arthritis great improvement had been noted to follow short-circuiting, and also the giving of thyroid extract. He had observed great improvement in cases of enlargement of the thyroid from the use of a vaccine prepared from the coliform bacilli from the patient's own bowel. In one case the goitre entirely disappeared, and in all the others the gland had diminished in size.

Dr. J. M. H. MACLEOD observed that though many skin conditions had been attributed to food toxins and the aberrant products of digestion, the assumption was only warranted at present in respect to a few, including urticaria, toxic erythemata—that is, erythema multiforme, rosacea, and the acneiform eruptions of adolescence, especially in women. In many cases the harm resulting from the ingestion of certain kinds of food was due to the patient's idiosyncrasy. The primary attack of urticaria was often a sequel of gross dietary error, but thereafter a very small quantity of that food would cause a return of the eruption. The toxic erythemata were polymorphic, and their pathogenesis was not certain, though some thought they were a consequence of a toxin acting on the walls of the blood vessels.

Dr. E. VON OFENHEIM said that stasis caused bacterial poisons to be formed, which had a paralysing effect on the intestines. In stasis the organisms were in a condition which indicated that they were in an unusual environment, the changes being similar to those seen in overgrown cultures. Only about a fifteenth of the attempts to make cultures from the faeces in these circumstances were successful as compared with those from the faeces of normal healthy people.

Mr. S. H. BROWNING remarked that certain eye conditions were cured when certain alimentary conditions were remedied, and that seemed the only ground to go upon at present. Considering the wide prevalence of pyorrhoea alveolaris, it was surprising that such a small percentage of cases suffered from eye disease; he thought the reason was that eye conditions occurred when a particular form of organism was present in the gum condition. He had been struck with the frequency of pneumococcal infections in this connexion, and this organism was the least common in pyorrhoea except *Staphylococcus aureus*. The treatment of pyorrhoea lay chiefly with the dentist, but cure could be greatly accelerated by the use of vaccines. He had noted the frequent association of asthenopia with pyorrhoea, and he regarded this as a valuable early indicator of alimentary intoxication. The tonsils were a frequent source of alimentary toxaemia, and the eye condition most often associated therewith was irido-cyclitis. Sometimes removal of the tonsils cured the eye disease. In many cases the result of treating the eye condition by means of attention to the intestinal canal had been unsatisfactory, but there was sufficient encouragement to warrant a systematic examination of the excreta.

CLINICAL SECTION.

AT a meeting on May 2nd, Mr. WALTER G. SPENCER, Vice-President, in the chair, the following were among the exhibits:—Dr. F. PARKES WEBER: Old quiescent *Zoniform scleroderma* of the right lower extremity. The patient was a woman, aged 44, the disease having been first noticed when she was aged 11 or 12. There was a hard depressed band, feeling like a cicatrix, in the subcutaneous tissues. It partly encircled the upper part of the thigh and extended downwards to the inner side of the knee. Dr. FILIP SYLVAN: *Pulmonary tuberculosis after gymnastic treatment*. The man, aged 24, had extensive disease of the lungs, which Dr. Sylvan thought had been arrested after ten weeks' treatment. Dr. G. H. HUNT: (1) *Complete heart-block* in a woman aged 22. It had caused no symptoms. The pulse-rate was usually about 30 per minute. The etiology was uncertain. (2) A case illustrating *Prognosis of extra-systoles*. It was that of an athletic man aged 23. With a dilated heart, ventricular extra-systoles had been present. The dilatation improved and the patient returned to vigorous exercise. This caused the extra-systoles to disappear. Mr. PHILIP TURNER: *Renal calculi in both kidneys* of a woman aged 42. The left kidney had been exposed and a calculus weighing, when dried, 4 oz. and several smaller ones were removed. Four weeks later seventeen calculi and a number of small ones were removed from the right kidney. The patient made good progress. Mr. J. G. SANER: (1) *Congenital lipoma* of the sole of the foot with hypertrophy of the second and third toes in a child aged 2. (2) *Congenital hypertrophy* of the right leg with scoliosis in a girl aged 13. There was a general naevoid condition of the skin. Mr. R. J. PYE-SMITH read a short paper on *Arsenic cancer*, with notes of a case. It was illustrated by a photograph and microscopic slides. The case occurred in a woman who had been treated for some years for psoriasis probably by arsenic, hyperkeratosis resulted, and later epithelioma. The probable sequence in such cases was hyperkeratosis, fissuring of the heaped-up areas, and finally epithelioma. The condition had been described by Sir Jonathan Hutchinson.

SECTION OF DISEASES OF CHILDREN.

AT a meeting on April 25th, Mr. A. H. TUBBY, President, in the chair, the following were among the exhibits:—Dr. J. L. BUNCH: Two cases of *Hereditary syphilis* treated by intravenous injections of salvarsan and neo-salvarsan—(1) A child, aged 2, who was given 0.03 gram of salvarsan at 8 weeks old; (2) a child, aged 3 months, to whom, when aged 5 weeks, 0.04 gram of neo-salvarsan was administered. Both had benefited considerably by the treatment. Dr. J. PORTER PARKINSON: *Tuberculosis of the kidney* in a boy aged 8. The diseased kidney was palpable. Tubercle bacilli were found in the urine. Mr. R. H. A. WHITELOCKE: A successful case of *Cerebral decompression* for convulsions. It was of a boy aged 4. The chief points were: (1) The unascertained cause of the illness, no lesion having been found; (2) the one sided limitation of the spasms, with at first no loss of consciousness; (3) the complete cessation of the fits so soon as intracranial pressure was relieved by the operation; and (4) the complete and rapid restoration to health. Also *Enlargement of the thyroid gland* in a family of five

children—four boys and a girl. The disease existed in all the children of the family, the parents being exempt. One case was congenital. The thyroids enlarged in all the children, whether they lived on bracing and high ground or in a low-lying and damp watershed. Dr. H. MORLEY FLETCHER: *Cachexia strumipriva* in a girl aged 13. A small tumour had been removed from the neck, at the level of the thyroid cartilage, when she was aged 7. This proved to be thyroid glandular tissue. The physical evidences of myxœdema had not improved under thyroid therapy, but the mental state was good. Dr. E. A. COCKAYNE: *Distal myopathy* in a boy aged 6. The boy was small for his age and showed great wasting of the glutei and of the muscles below the knees. It did not fall in any definite group of the myopathies. Dr. E. BELLINGHAM SMITH: *Congenital absence of abdominal muscles* in a baby aged 2 months. The abdominal wall showed many linear grooves, and the navel was slit-like. The right leg was kept slightly flexed at the hip-joint and knee-joint. There were genu valgum and talipes calcaneo-valgus on both sides. A faint systolic murmur was heard over the cardiac apex. Dr. J. D. ROLLESTON: *Diphtheria of the œsophagus.* A membrane was found about 1½ in. from the cardiac orifice and small patches below it. There was a membranous inflammation also of the naso-pharynx, larynx, and trachea. Mr. WHITELOCKE recorded two successful cases of operation for *Strangulated inguinal herniæ in female infants* of the ages of 22 and 17 days respectively. The special features of interest were: (1) The early age at which strangulation occurred without definite cause; (2) the unusual hernial contents, in one case an ovary and tube as well as small intestine, in the other an unduly mobile cæcum with a large appendix; (3) the successful issue in each case, even after the obstruction and symptoms of strangulation had lasted for over three days; (4) the absence of post-operative shock, after a general anæsthetic and herniotomy, and in the younger of appendicectomy also. Mr. Whitelocke also described a case of pseudo-meningitis, in which the symptoms were caused by the escape of threadworms into the peritoneal cavity through a perforated appendix.

BALNEOLOGICAL AND CLIMATOLOGICAL SECTION.

IN the account of the discussion on the etiology and treatment and other aspects of high blood pressure, on April 17th, which was given at page 940 of our issue for May 3rd, Dr. Bezley Thorne was represented as having said that in the course of fifteen observations he had never known digitalis to raise blood pressure. In reality, however, he spoke not of fifteen single observations, but of fifteen years of observation.

MEDICAL SOCIETY OF LONDON.

Monday, April 28th, 1913.

Mr. A. E. BARKER, Vice-President, in the Chair.

The Treatment of Arterio-sclerosis and High Tension.

DR. DE HAVILLAND HALL, in introducing a discussion on this subject, said that the Registrar-General's reports showed that among males 45 to 65 years of age there had been an actual increase in the death-rate of late years, and that between the ages of 55 and 65 one-third of the total deaths were due to diseases of the heart and blood vessels. Dr. Hall discussed the various conditions causing arterio-sclerosis, such as the increased physical and mental strain of modern life and the increase in the consumption of tea, coffee, and tobacco, and he alluded to the influence of alcohol and syphilis. Under the head of treatment the necessity of relieving mental strain was insisted upon. Autointoxication was considered to play a very important rôle in the production of arterio-sclerosis. Directions were given as to diet. In advanced cases meat and soups made from stock were prohibited; a milk and vegetable diet was recommended. Attention to the quantity as well as to the quality of the food was advised. Special directions were necessary should the patient be obese. The amount of tea, coffee, and tobacco consumed must be strictly limited. Alcohol was to be abstained from, if possible. An abundant supply of distilled water for drinking was recommended. Turkish and electric light baths had a beneficial action, but must be ordered with caution. The desirability of exercise in the open air was insisted upon; failing sufficient exercise massage was a useful substitute. In the event of an enlarged prostate causing trouble prostatectomy was advocated. Oral sepsis required to be treated. Stress was laid upon the necessity for daily action of the bowels and of the advantage of an occasional dose of calomel or blue pill. Potassium iodide was stated to be the drug most generally useful in cases of arterio-sclerosis associated with high tension, and it might be necessary to continue its use in small doses even for years. The addition of bromide to the iodide was especially useful in the high tension so common at the menopause. Iodides were contraindicated in cases of low tension and failing compensation, and in these digitalis and strophanthus were useful. Small doses of thyroid extract had given excellent results in obese patients with high tension. Mention was made of the hippurates, guipsine, and Trunecek's serum (antisclerosin) in the treatment of arterio-sclerosis. The speaker was of opinion that in the past the more powerful vaso-dilator drugs had been indiscriminately and injudiciously employed. It must be realized that high pressure was an effort of Nature to maintain the balance of the circulation under adverse circumstances, and that it should not be interfered with, unless there were reasons, such as anginal pains or headache, to justify the employment of these drugs. The abstraction of blood by leeches or venesection was highly commended in suitable cases. Spa treatment and the Nauheim system of treatment were briefly alluded to.

Sir LAUDER BRUNTON said he had been accustomed to regard arterial tension as almost entirely depending upon the force of the heart in propelling blood and the resistance opposed by the capillaries to its onward flow, this resistance depending almost entirely upon the greater or less contraction of the arterioles or capillaries. He had, however, neglected too much the viscosity of the blood as a factor in raising blood pressure. It had been found by Determann and Weil that the viscosity depended upon the number of formed elements within it, and that its viscosity could be roughly estimated by their enumeration—a distinctly easier method than that of employing the viscosometer. It appeared to him that in future they must direct their attention, not only to the power of the heart and contraction of the vessels, but to the viscosity of the blood.

Dr. A. P. LUFF referred to the relation of strain, increased pressure, and toxic agents to arterio-sclerosis and high tension. He drew attention to the fact that the two terms were not necessarily synonymous, as in many cases of gout in elderly persons arterio-sclerosis occurred without high tension, provided that contracted granular kidneys did not exist. On the other hand, the very highest pressure might be present with quite moderate thickening of the vessels. The most important factor in treatment was to diminish the production of toxins in the gastro-intestinal tract and their absorption therefrom, which was effected by ensuring a free action of the bowels and a reduced consumption of meat and alcohol. Potassium iodide and sodium nitrite were most valuable for the reduction of tension, but vaso-dilators should not be used in cases of advanced arterio-sclerosis, as in such a high arterial pressure was essential in order to maintain a sufficient circulation of blood through the tissues.

After further discussion by other members, Dr. DE HAVILLAND HALL replied.

LIVERPOOL MEDICAL INSTITUTION.

AT a meeting on April 24th, Mr. ROBERT JONES, President, in the chair, Dr. GARDNER-MEDWIN described a case of *Malta fever* in a patient who had never been in Malta and who had no history of having taken goat's milk. The *M. melitensis* was isolated from the urine. The patient had jaundice. Mr. R. C. DUN recorded 220 cases of *Hernia* operated upon in the out-patient room, the children being sent home the same night. There had been no mortality, and in all cases under 1 year of age there had been healing by first intention. In two cases there had been suppuration; one had a stitch abscess; the other had broken down on the tenth day, apparently from infection, when the stitches were removed. For preparation of the skin 2 per cent. iodine in chloroform was used. He divided the sac

high in the canal and used a stitch to pull the pillars of the ring together. A mattress subcuticular suture was used to draw the wound together. There was no dressing beyond flexile collodion. The child was put on a Thomas's hip splint to keep it at rest. The operator thought 3 months the best age at which to operate. Professor J. M. BEATTIE, in a paper on *Relapses in acute rheumatism*, said some relapses were probably reinfections from the throat, but might be due to survival of the infection in the synovial membranes. In 89 *post-mortem* examinations in which the joints were examined bacteriologically, 60 had sterile joints. In 12 there were putrefactive organisms or staphylococci, in 17 diplococci or streptococci. Of the 10 streptococcal cases 9 had a definite rheumatic history. In all definite rheumatic cases an organism could be isolated from synovial membrane of joints; the organism could be grown outside the body, and was still capable of producing rheumatism if kept even for three years. Slides were shown illustrating the effect of the injection of cultures and of cold air on eleven rabbits that had been injected. The injection produced joint trouble which tended to disappear, but exposure to cold would cause relapses. Treatment by salicylates should be continued during the apyrexial period with a view to preventing relapses. Not much was to be hoped from vaccines during the acute periods, but they might be of service during the latent condition of the disease. Sir JAMES BARR considered mechanical strain was of importance in determining the site of the attack. Dr. T. R. BRADSHAW thought that treatment by salicylates was not pushed far enough nor continued long enough to prevent cardiac lesions. He agreed that vaccine treatment was of no use in the acute stage. Dr. PERCY MARSH had used an antistreptococcus vaccine in treating children, but had given it up. Dr. JOHN HAY found it hard to satisfy himself that there was any useful treatment except rest and the salicylates. Professor BEATTIE, in reply, said he had not treated rabbits with salicylates. He had seen chorea in one rabbit, and an organism had been isolated from the spinal cord. Watering the floor of the animal room produced relapses. He thought the organism was an inhabitant of the alimentary canal, and the infection probably came, in many cases, from the mouth and tonsils.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on April 18th, Dr. DOBSON, President, in the chair, the following were among the exhibits:—Dr. WATSON: A case of *Heart-block* in a man of 60. For some weeks the condition had been looked upon as being one of complete heart-block. The pulse varied from 22 to 26 per minute, and was regular in rate and force. There were practically no symptoms beyond dyspnoea on exertion and dizziness. He was treated with potassium iodide in 7-grain doses with small doses of liquor morph. three times a day. After a few days the pulse-rate jumped to 44 per minute, and afterwards to 72 to 76 per minute. Whenever the pulse-rate altered in frequency the patient experienced a momentary sensation of faintness. Dr. WARDROP GRIFFITH: A woman in whom he had diagnosed *Patency of the ductus arteriosus*, and in whom the condition was complicated by acquired mitral disease. Mr. A. L. WHITEHEAD: A case of *Congenital "pit"* at the right macular region; he explained its developmental origin. Dr. R. A. VEALE: (1) A man with an *Arthritis of the elbow-joint* of doubtful causation, which had given rise to ulnar nerve paralysis. Rapid improvement was taking place with massage and electricity. (2) A case of *Hydroa aestivalis* in a boy aged 4 years. He pointed out the seasonal incidence of the disorder, and mentioned its rare occurrence. Mr. J. F. DOBSON: Two cases of *Intestinal stasis with rheumatoid arthritis* in whom he had performed ileo-sigmoidostomy. After the operation there was almost immediate improvement in both the general health and in the local condition of the joints. Dr. C. W. VINING: Two cases of *Para-syphilitic disease of the nervous system*. In his remarks Dr. Vining emphasized the importance of accurately differentiating between tertiary syphilis and para-syphilis. In the former case treatment was necessary and usually effective; in para-syphilis, no treatment as a rule was of avail.

AT a meeting on May 2nd, Dr. DOBSON, President, in the chair, the following were among the exhibits:—Dr. J. G. GREENFIELD: Sections exhibiting *Subacute combined degeneration of the spinal cord*. Mr. S. W. DAW: (1) A case of severe *Rickety deformity of the legs* in a girl of 17. The patient had been unable to walk up to the time of operation. Osteotomies of femur, tibia, and fibula on both sides were performed, followed by rectification and fixation in splints. Now, one year later, the patient could walk well and was able to earn her living. (2) A case of double *Congenital talipes equino-varus*, previously treated and relapsed. Over-correction with Thomas's wrench was performed, followed by fixation in plaster for many weeks. The patient can now walk well, correction being temporarily maintained by a simple apparatus. Dr. WARDROP GRIFFITH described the case of a young man with extensive *Sarcomatosis*. On admission there was a flaccid paraplegia, with abolition of superficial and deep reflexes, partial anaesthesia, and some loss of control over the sphincters. There was slight retraction of the head, with great stiffness of the neck. Facial paralysis of Bell's type on the left side, with some deafness, was present. There was enlargement of the liver and spleen and well-marked optic neuritis. Under the skin of the abdomen many small purple tinted growths, varying in size up to a small lentil, were found, and under the skin of the scalp a great many masses were found which were not movable on the cranium. The diagnosis of sarcomatosis, originating probably in one or other of the bones, was confirmed by Dr. Stewart's examination of the blood and cerebro-spinal fluid.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on April 16th, Mr. W. G. LAWS, President, in the chair, Mr. LYN DIMOND read a paper on *Colloids in medicine and physiology*. Their absorption depended on surface and tension. Among other therapeutic cases they had been employed in the treatment of malignant disease. Mr. ALEX. R. TWEEDIE gave a demonstration on the *Functions of the labyrinth and cerebellum*, based on the methods of Bárány and Ruttin, and illustrated by the diagram evolved by the former observer. The physiological phenomena associated with induced vertical nystagmus and the effect on vertical and horizontal co-ordination under the influence of rotation with the head erect were first shown in a normal subject. Two patients were then utilized to demonstrate the variations of these phenomena under pathological conditions, both the rotatory and cold caloric tests being employed. One of these patients had been operated on for caries of the labyrinth and the other for extensive suppurative disease of the middle ear coupled with cerebellar abscess. Incidentally the uses of Bárány's "noise apparatus" could be well shown in both these patients as in each the cochlear nerve on the diseased side was functionless. Allusion was also made to the puzzling transitory effects of disseminated sclerosis in simulating labyrinthine and cerebellar lesions in certain cases.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on April 9th, Dr. WALTER SWAYNE, President, in the chair, Mr. E. H. E. STACK, in a demonstration on some varieties of arm splints, advocated the use of a malleable metal anterior angular splint for the treatment of *Fractures of the forearm*. For all injuries about the elbow-joint he had found the position of acute flexion to give the best results, and demonstrated a simple method for putting up an arm in that position. He advocated the early use of active rather than passive movements, the patient being better able to judge the amount of movement possible without risk of damage. Mr. CHARLES CORFIELD, in a paper entitled *What is an accident?* pointed out that it was impossible to give a satisfactory definition, but that each case must be decided on its merits. Such diverse conditions as lightning stroke and anthrax had been adjudged to be accidents within the

Workmen's Compensation Act; on the other hand, a case of sewer gas poisoning was ruled to be outside it. Dr. PARKER suggested that as a doctor was only expected to use ordinary skill and care, so an accident should only be so adjudged if it would similarly have affected a person in an ordinary state of health. Mr. STUART V. STOCK related two cases in which death from heart failure occurred two or three days after an operation in patients the subject of fatty heart, although they had shown no bad signs during a prolonged *Administration of an anaesthetic*. Mr. A. RENDLE SHORT, in a paper on the nature of *Surgical shock*, pointed out that the two great objections to the generally accepted vasomotor fatigue theory of Crile and Mummery were that the peripheral vessels were found to be constricted and not dilated, and that the centre could be shown experimentally not to be exhausted. He had examined the venous blood of a number of patients the subjects of shock, but had been unable to confirm the theory of Yandel Henderson that shock was due to a deficiency of CO_2 in the blood. His own view was that the symptoms were due to a loss of fluid from the blood; it apparently passed out into the tissues and was possibly squeezed out by vasomotor reflexes.

LONDON DERMATOLOGICAL SOCIETY.

AT a meeting on April 15th, Dr. M. DOCKRELL in the chair, Dr. KNOWSLEY SIBLEY, in a paper on *Electrical procedures in diseases of the skin and mucous membranes*, dealt with some of the more recent treatments under the following headings: (1) Electrolysis, in which connexion he described the process of removing sebaceous cysts by two copper needles; (2) ionization, especially for the cure of lupus vulgaris and the absorption of scar tissue; (3) high frequency currents for the treatment of pruritus ani et vulvae, haemorrhoids, etc.; (4) *x* rays, under which he described the most appropriate doses for the cure of many chronic skin diseases, such as eczema, psoriasis, lichen, etc.; and (5) radium, on which he spoke at greater length, giving the various methods of application and dosage, together with a description of some of the skin diseases which give the most satisfactory results from treatment by radium, such as rodent ulcer, naevus, keloid, etc. Finally, he compared the treatments by radium with those of *x* rays, and detailed the advantages and disadvantages of the one with the other. The cases shown during the evening included the following:—Dr. BUNCH: (1) A case of *Scleroderma* in a man aged 25, with marked keratosis of the palms, considered to be possibly due to arsenic. It was proposed to treat the case with thyroid extract. (2) A case of severe *Tertiary ulceration* of the buttocks in a married woman aged 25 years, who gave a history of considerable haemorrhage from these ulcers about each menstrual period, her normal catamenia being absent for fifteen months. (3) A case of *Pityriasis rosacea* in a man aged 35 years. Dr. SIBLEY: (1) A boy, aged 6, who had suffered since 8 months of age with a severe *Generalized irritable eczema*, accompanied with enlarged glands in the femoral region, and therefore resembling in some respects prurigo. (2) A boy, aged 6 years, sent him by Dr. McHugh, with apparently a very extensive psoriasis on an ichthyotic skin. Dr. GRIFFITH: Specimens of growths of two varieties of the fungus of *Ringworm* which varied in colour, some growing pinkish and some white.

IT is stated by the *Journal of the American Medical Association* that a lady has given £130,000 for social welfare laboratories to be conducted by the New York Association for Improving the Condition of the Poor. In the laboratory are to be studied questions relating to public health and hygiene, the welfare of school children, and the food supply. Among the subjects to be investigated are the ventilation of school and other public buildings, and for this purpose a committee of experts will be organized to conduct research and experimental work. The subcommittee on food supply will make investigations concerning the scientific production of various articles of food, its purchase in larger quantities, its scientific storage, its efficient and honest handling, and the latest facts as to relative food values, with the object of ascertaining how the cost of food to the consumer may be reduced and its nourishing qualities increased.

Reviews.

DISEASES OF WOMEN.

THE call for a new edition shows the attractiveness of the older form of the book which now appears as *Diseases of Women*,[1] by HERMAN and MAXWELL. This attraction—and it is a great merit—lay in the skill and emphasis with which Dr. Herman presented the subjective as well as the objective side of his cases. The intimate individual note struck in a book written from the personal experience of the author had also its advantages, but in the preface to this new edition Dr. Herman acknowledges that it has defects in the treatment of operative gynaecology, and he has called in the assistance of Dr. Drummond Maxwell whose name appears on the title page. The impression left on the mind, after comparing the methods of operation as described and illustrated in the older editions and in this, is that it would have been well to have given Dr. Maxwell rather more scope. The added figures and the descriptions of newer methods materially increase the value of the book as a general manual. In the description of abdominal hysterectomy for cancer the method given for recognizing the ureter is not so certain as its recognition by vision on the inside of the peritoneal flap when this has been incised and pulled inwards. The description of ovariotomy hardly differs from that of the first edition, and the dressing with iodoform is neither so simple nor so good as some of the modern methods. The "index of authorities" is not so useful as a moderate bibliography would be, and the preponderance given to the *Transactions* of the London Obstetrical Society lends a somewhat restricted air to the volume, which, though its descriptions perhaps represent the natural history of diseases of women before rather than after the present surgical era, is on the whole a very interesting and useful book.

The most recent appearance among the ranks of English authors on the subject of gynaecology has been made by Dr. T. G. STEVENS, who, in his *Diseases of Women*,[2] has produced a work which, without presenting any particularly striking feature, may certainly claim to be regarded as a good textbook, in which the student and practitioner will find much valuable information. The author points out that, as far as the present limit of knowledge allows, the subject is nowadays to be dealt with on a pathological basis and that it has been brought into line with other branches of surgery, with the result that much of the mystery which at one time appeared to surround diseases peculiar to the female has been dispelled. Perhaps the most noticeable feature is presented by the photomicrographs. The author has considered it necessary to apologize for these in the preface. To our mind no such apology is necessary, as they are excellent. They are obviously taken from actual sections and are not spoilt by any attempt to alter them into diagrams—a process which is frequently adopted, although the result of so doing is not always an increase of utility. The manual presents a genuine attempt to deal with the subject in an up-to-date manner. All prehistoric theories have been suitably treated by omission, and only such are put forward for consideration as have some support in fact. The chapters on menstruation and its anomalies are well written in a short space; much well worth reading is said. It is, however, difficult to be absolutely in agreement with the author as to the great importance to be attached to the part played in this connexion by the salts of calcium. In many gynaecological manuals it is the custom to regard an alteration in the position of the uterus as of such serious import that it might be gathered from them that most of the ills to which the female flesh is heir have their origin in such a malposition. The author has handled this subject rationally and the treatment suggested is well considered. The language of the

[1] *Diseases of Women*. A Clinical Guide to their Diagnosis and Treatment. By George Ernest Herman, M.B., F.R.C.P., F.R.C.S.Eng. Enlarged edition, revised by the author, assisted by R. Drummond Maxwell, M.D., F.R.C.S.Eng. London: Cassell and Company, Limited. 1913. (Med. 8vo, pp. 914, plates 8, figs. 292. 25s. net.)

[2] *Diseases of Women*. By T. G. Stevens, M.D., B.S.Lond., F.R.C.S.Eng., M.R.C.P.Lond. London Medical Publications. London: Hodder and Stoughton, and Henry Frowde. 1912. (Demy 8vo, pp. 445: figs. 202. 15s. net.)

book is concise; it is well printed and the text interspersed by numerous illustrations, which are not only interesting but useful.

Nine years have elapsed since the appearance of the sixth edition of LEWERS'S *Textbook of the Diseases of Women*.[3] The seventh, as was only to be expected, contains much new matter, and is published in a well-printed volume. The author has added much matter respecting radical operations in cases of cancer of the uterus, and states that he has witnessed Professor Wertheim performing the operation with which his name is associated. Dr. Lewers figures the table and instruments rather than the stages of this procedure. He rightly warns the operator to set the ureters sufficiently free so as to permit of their being held out of the way as required, but not to strip them too clean, lest they should slough. It is questionable how far Wertheim's operation is suitable as a method to be taught in a textbook for "the beginner," who is mentioned in the second line of the author's introduction. Like some other experienced gynaecologists in this country, Dr. Lewers does not speak with enthusiasm about this radical method. He concludes that it is most successful in early cases, and admits that he has not had good results when the disease was advanced. More stress might have been laid on the danger of damage to the bladder, the results of which do not appear immediately. If free dissection be made beyond the immediate area of the uterus and appendages, it should be as much in the direction of the vagina as upwards. Dr. Lewers still prefers the supravaginal operation to panhysterectomy in the treatment of fibromyoma of the uterus. He rightly says little about myomectomy, which is a dangerous procedure unless the operator has special experience in operations involving the wounding of uterine tissue. Lastly, Dr. Lewers is quite to be commended in his observations on operations for the suspension of the uterus, most of which are unscientific and liable to prove complete failures. This distrust is supported, we may add, by much clinical and pathological evidence recently made public by M. Bazy in his article on the after-results of such operations in the *Revue de gynécologie*. Thus Dr. Lewers's new edition is quite up to date, and the author cannot be blamed for writing somewhat vaguely on the merits of certain new methods which are certainly radical but not so surely surgical.

MARTIN and JUNG are deservedly popular with teachers and students in Germany on account of their *Pathologie und Therapie der Frauenkrankheiten*. It is a concise sketch of its subjects. There is a great demand for German medical works in the United States, and Dr. Henry Schmitz has prepared a translation under the title *Pathology and Treatment of Diseases of Women*.[4] Firstly and above all, as far as the British and American readers are concerned, it is published in the English language by a writer conversant with the German tongue as well. Thus an excellent textbook is available for those whose mother tongue is English. It is compactly bound in cloth boards, and the type is large and clear; the illustrations are not so satisfactory. There are a few fairly good coloured drawings in the original fourth edition (1907), such as Fig. 132, representing a surface carcinoma of the corpus uteri, and Fig. 185 showing a uterus presenting the changes due to perimetritis, but both, especially the latter, come out poorly in this translation. Moreover, some of the plain illustrations of diseased structures, which were rough in the original, are not improved in the translation. Fig. 181 representing a parovarian cyst, compares very unfavourably with the beautiful drawings of tumours of that type in certain well-known books published in the translator's country. Relatively speaking, the microscopical drawings come out better. The translation is a faithful rendering of the original handbook, and will be of great use to those who, ignorant of the German language, desire to know the teaching of a distinguished German gynaecologist and his opinions on asepsis and radical operations.

[3] *A Practical Textbook of the Diseases of Women*. By Arthur H. Lewers, M.D.Lond., F.R.C.P.Lond., Senior Obstetric Physician to the London Hospital. Seventh edition. London: H. K. Lewis. 1912. (Demy 8vo, pp. 550, illust. 258, plates 18. Price 12s. 6d. net.)

[4] *Pathology and Treatment of Diseases of Women*. By A. Martin, Professor and Director of the Universitäts-Frauenklinik, and Ph. Jung, Professor and Oberarzt to the Frauenklinik, Greifswald. Fourth edition. Only authorized English translation, written and edited by Henry Schmitz, M.D., Professor of Gynaecology, Chicago College of Medicine and Surgery, etc. London: Rebman Limited. 1912. (Super. roy. 8vo, pp. 475; illustrations 187. 21s. net.)

MANUALS FOR HOUSE-SURGEONS AND DRESSERS.

THERE was a time when *Pye's Surgical Handicraft*[5] was the only book of its kind, and many of us remember with pleasure its quiet, modest aspect, its rather crude illustrations, and its old-fashioned chapter headings. Of late years it has had many rivals, but after a careful inspection we venture to think that the sixth edition of "Pye" can safely be trusted to hold its ground. Mr. W. H. CLAYTON-GREENE is responsible for the editing and to a great extent the rewriting of the book. He is to be congratulated on producing a thoroughly up-to-date accurate work without losing sight of the main purpose of the original author in 1884, which was to inculcate the acquisition of manual skill or handicraft. There can be no doubt that students are apt to be carried away with enthusiasm for brilliant operative work, and to pay less attention to everyday routine care of patients. We are satisfied that there is real need for such a book as this, if only to give dressers correct ideas of the things they have got to know. These things cannot be learnt by reading, they can be learnt only by direct frequent and diligent contact with the patient, but this book points the way. In Mr. Clayton-Greene's work nothing has been omitted. But we venture to think that the illustrations and descriptions of the "capeline" and "knotted bandage" for the head should be expunged. Soft gauze bandages are now so easily obtained that the hard inelastic material so difficult to apply neatly should be relegated to the past. We must also point out an inaccuracy in the description of the Macewen method of controlling the abdominal aorta. We agree that there is none better. The proper way to do it, however, is for the assistant to stand on a low stool at the patient's left side, with his right closed fist pressing just immediately to the left and above the umbilicus, the right arm being straight and rigid; there is no muscular effort demanded; the attitude of the assistant is that of a public speaker standing easy on the right foot with the left leg crossed in front; the left hand is free to feel the patient's left femoral if required. The book is handsomely bound, well printed, and profusely illustrated.

The house-surgeon generally finds the first few weeks of duty a trying time. He is suddenly placed in charge of a position of responsibility, and he makes the discovery that there are a great many practical matters about which he knows nothing. He is confused by the multiplicity of his duties and embarrassed by the assumption of those in contact with him that he really does know what he is about. *The House-Surgeon's Vade-Mecum*,[6] which Mr. RUSSELL HOWARD has written, will do much to relieve the fledgeling house-surgeon of his mental perturbation. If this little book lies handy he will find in it a short, succinct solution of every difficulty he is likely to meet with. The author is to be congratulated on the way in which he has contrived to include all the essentials of the really practical and everyday features of a house-surgeon's work and in resisting the temptation to flood the book with pathology and bacteriology. The chapter dealing with injuries and diseases of the urinary organs and the modes of handling them appeals to us as quite the best of its kind we have read. The section on septic conditions and burns is exceedingly well and concisely written. The author might have mentioned excision of carbuncle and the early removal under an anaesthetic of sloughs in cases of burns and scalds as methods of treatment which materially shorten the period of residence in

[5] *Pye's Surgical Handicraft*. Edited and largely rewritten by W. H. Clayton-Greene, B.A., M.B., B.C.Cantab., F.R.C.S.Eng., Surgeon to St. Mary's Hospital, Lecturer on Surgery in the Medical School. Sixth edition, fully revised, with some additional matter and illustrations. Bristol: John Wright and Sons, Limited; London: Simpkin Marshall. 1912. (Demy 8vo, pp. 611; figs. 329, plates 11. 12s. 6d. net.)

[6] *The House-Surgeon's Vade-Mecum*. By Russell Howard, M.B., B.S.Lond., F.R.C.S.Eng., Surgeon to Poplar Hospital, Assistant Surgeon, London Hospital. London: Edward Arnold. 1911. (Post 8vo, pp. 526; figs. 142. 7s. 6d. net.)

hospital. The diagram illustrating the Fowler position does not represent the best way of using this important adjunct to the after-treatment of abdominal cases; a photograph of a patient in the usual sitting posture with knees flexed would appeal at once to the reader. In this connexion we would like to call the attention of Mr. Russell Howard to a bed frame suggested by Mr. P. Paterson of Glasgow; this is hinged in two places, so that the upper half supporting the upper half of the patient from the hip joints upwards can be screwed up to any angle, and the knees can be similarly flexed by a second screw; the mattress is not a special one, but bends with the angles made by the bed frame. The chapter on anaesthetics is by Dr. Ashley Daly, and maintains the same level of concise practical statement without embellishment found in the rest of the volume. We can heartily commend this book to the notice of chiefs to put into the hands of their house-surgeons. We are satisfied that on its own merits it will readily make a place for itself.

In all works on surgery *Modern Wound Treatment and the Conduct of an Operation*[7] are subjects fully set forth, but Sir GEORGE BEATSON has been prompted to embody his views in a small handbook which is an expression of gratitude to Lister and reverence for his memory. The introductory chapter is a short outline of Lister's life and work. The principles of wound treatment are then discussed, and the various classes of organisms met with which the surgeon is most concerned are described. The plan of an operating theatre, the duties of the various people concerned with the operation, the preparation of dressings, the preparation of the patient and the operation area are all exhibited in accordance with everyday practice. Sterilization of the skin with iodine receives proper emphasis, but the other method described, requiring, as it does, no fewer than six steps, cannot be regarded as simple, and it might have been proper to mention that thorough scrubbing with hot soap and water of surgeon's hands and patient's skin is regarded by some operators as sufficient. In some hospitals the omission of a description of a method of preparing iodized or other form of sterile antiseptic catgut will be regretted, but as a whole this little volume is well suited for the use of house-surgeons and surgical nurses.

PHYSIOLOGY.

As Professor HOWELL says in his preface to the fourth edition of his *Textbook of Physiology*,[8] any author who undertakes such a task is confronted with the enormous output of experimental work in physiology. "The ever widening boundaries of physiological literature make it more and more difficult for any one individual to gain a familiar knowledge, not only of the highways but of all the many byways along which enthusiastic workers are following their investigations." Yet the place of the textbook in the student's career cannot be filled by a series of monographs dealing with each separate part of the subject, and each written by an expert thoroughly up to date in his subject. These monographs are required, and the teacher endowed with the power of popular exposition must, using them as quarries, construct the edifice required; a textbook which will not merely catalogue facts, but arouse interest, excite imagination, and lead the student to further sources of knowledge. How well Professor Howell succeeds is shown by the wide popularity of this book on both sides of the water. He has produced a thoroughly sound book, interesting and readable, and has kept it up to the mark in each edition. One of the most interesting chapters is that on reproduction, growth, and senescence. He says:

> The physiological evidences of an increasing senescence warrant the view that death is a necessary result of the properties of living matter in all the tissues, except possibly the reproductive elements; the course of metabolism is such that it is self-limited, and even if perfect conditions were supplied natural death would eventually result. We do not understand the nature of these limitations—that is, the ultimate causes of senescence.

If the Bulgarians include some 70 per cent. of all the centenarians in Europe, is it because they live on sour milk? We think not, but rather because they come of a long-lived breed and live a simple open-air life. If one of a long-lived breed of Englishmen would seek out as a mate some fair Bulgar the daughter of a family of centenarians, he might endow his children with more than the threescore years and ten now allotted to man. Strange things will happen when men turn their attention to the selection and breeding of human beings in place of big gooseberries.

Mr. ERNEST EVANS, Natural Science Master at the Technical Institute, Burnley, has written a volume entitled *The Student's Human Physiology*[9]—a first-year course in the practice and theory of the subject. He has also written *The Student's Hygiene* and *How to Study Geology*. What the value of the last of these books may be we do not know, but we cannot say that the volume before us shows the student rightly how to study physiology. A catalogue of facts may be crammed up, but is of little educational value. To write an elementary book of science is a most difficult task, and can, we believe, only be accomplished successfully by one who has worked as an investigator and learnt the breadth of view which comes from years of original work in his subject. Mr. Evans's book is suitable for a candidate to run through just before an examination. For ordinary examination purposes the information given is clearly set out. The illustrations are rather poor.

DISEASES OF THE MOUTH.

Diseases of the Mouth[10] (syphilis and similar diseases) is a translation from the German of Professor Dr. F. ZINSSER by Dr. STEIN of the New York College of Dentistry. The book is really an atlas of mouth syphilis, and is intended to be an illustrated aid in study and diagnosis; consequently the therapeutic side has not been taken up, nor have the diseases resembling syphilis received more than a short description dealing with the chief points in differential diagnosis. Since the main point of the book is to supply the need there exists for lucid and detailed instruction in the diagnosis of syphilis and similar diseases of the mouth, syphilis is accorded a far more detailed description. This includes introductory remarks on the *Treponema pallidum*, the Wassermann reaction, and spirochaetes which may be found in the sites of syphilitic lesions, and chapters on primary, secondary, tertiary, and hereditary syphilis, all written with special reference to the mouth. The two remaining chapters are devoted to diseases similar to secondary and tertiary syphilis in the mouth.

In reading those chapters one gets the impression that syphilis is very prevalent in Germany (p. 13). In Cologne, every year during the carnival time, the number of primary lesions in the mouth is especially great, and perhaps this accounts for the inclusion of all forms of hypoplasic teeth as syphilitic, and for the failure to recognize the septic element in the causation of leukoplakia buccalis. It is further suggested that numerous other irregularities in shape and position of the teeth (shark-like teeth, absence of teeth, microdontism, etc.) can be traced to hereditary syphilis. Certainly, if the same standard of diagnosis were applied here in England, many grievous errors in diagnosis would be perpetrated.

The author thinks the tooth-hypoplasia is not of a specific nature, since a local syphilitic process should produce asymmetrical lesions; this, in fact, does occur, and he seems to have overlooked Cavallero's sections showing the early stages of destruction of the tooth germ. He expresses the opinion that "deformities of the teeth following heredo syphilis are of quite frequent occurrence and of great importance," but we think he very much over-estimates their frequency.

The forty-six plates, containing seventy-three illustrations, are all of great merit. Most are coloured, and the

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[7] *Modern Wound Treatment and the Conduct of an Operation.* By Sir George T. Beatson, K.C.B., B.A., M.D., Surgeon, Western Infirmary, Glasgow; Senior Surgeon, Glasgow Royal Cancer Hospital. Edinburgh: E. and S. Livingstone. 1913. (Cr. 8vo, pp. 106; figs. 10. 2s. net.)

[8] *A Textbook of Physiology.* By Professor Howell. Fourth edition. Philadelphia and London: W. B. Saunders and Co. 1911. (Med. 8vo, pp. 1018; 306 figs. 18s. net.)

[9] *The Student's Human Physiology.* By Ernest Evans. London: George Allen and Co. 1912. (Cr. 8vo, pp. 319; figs. 113. 5s. net.)

[10] *Diseases of the Mouth: Syphilis, and Similar Diseases.* By Professor Dr. F. Zinsser, Dozent at the Academy for Practical Medicine, Cologne. Translated and edited by J. B. Stein, M.D., New York College of Dentistry. London: Rebman, Limited. 1913. (Imp. 8vo, pp. 286; illustrations 73. 30s. net.)

natural tints are well reproduced. Each illustration is accompanied by a short description giving the reasons for the diagnosis. A large number of the illustrations refer to syphilis, but every disease mentioned in the text as possibly resembling syphilis is also illustrated. It is doubtful whether Figs. 63 to 66 represent teeth of syphilitic origin. The price of the book (30s.) will put it beyond the reach of most students, but it should be kept in every reference library.

TASTE AND SMELL.

To the series entitled *Questions Biologiques Actuelles*, edited by Professor Dastre, a volume on taste and smell has been contributed by L. LARGUIER DES BANCELS.[11] The subjects are treated in a readable and scholarly form. An interesting experimental observation quoted from Pawlow is that the sight of black may cause saliva to flow into the mouth of a dog if an acid solution coloured black has been put several times into its mouth; this sight reflex disappears if repeated frequently without being confirmed by the acid stimulus. The author quotes from Berthelot the curious calculation that if a gram of iodoform were enclosed in a tube communicating with a receiver of the capacity of 100 c.cm., it would scent every cubic centimetre of this perceptibly in one hour, but the amount lost by the iodoform is so small that if a fresh receiver were put in place every hour for a hundred years the iodoform would have lost only 1 mg. in weight; 0.01 mg. of mercaptan will scent 230 cm. of air, and 1 litre of air so scented will not contain more than 0.000,000,04 mg. of mercaptan. Odours spread as a gas diffuses, and the olfactory nerve endings are excited by the minutest quantity of matter. The fixation of odours by different substances is curious—for example, paint by wet hay, and tobacco by curtain materials; skatol is fixed by aluminium, musk by copper, tin, nickel, and lead, but not by aluminium or glass, and onions by steel. One of the most interesting ways of obtaining scents is *l'enfleurage à froid;* that is, simply putting the flower in contact with a layer of fat. The pommade so obtained when treated with alcohol yields up the scent.

PATHOLOGICAL INEBRIETY.

SHORTER than Dr. Hare's recent volume, Mr. J. W. ASTLEY COOPER'S work on *Pathological Inebriety*[12] gives a lucid, workmanlike account of the pathology and treatment of inebriety. As Sir David Ferrier says in his introductory words of commendation, the book is characterized by sound sense, and bears the marks of ample experience. It is the work of an observer and thinker who writes well, but never permits temperance zeal to kill the scientific presentment of his subject. Mr. Cooper holds that all inebriates who come within the scope of the title of his book are psychoneurotics, and that, to be effective, treatment must be based on a recognition of this deficiency in their equipment. He employs a combination of isolation, drugs, and psychotherapeutics in the form of suggestion or other variety of hypnotism. The first stage is to withdraw the alcohol and suppress the desire for it; the second is the restoration of psychoneural integrity to enable the patient to realize his condition and the need for total abstinence. Mr. Cooper believes that the inebriate has the best chance of recovery in a well-managed retreat, and indulges in a friendly criticism of Dr. Hare's attitude towards these institutions. The pathology and treatment of the periodic and chronic inebriate are adequately dealt with, and the modern view that sudden stoppage of alcohol incurs the risk of delirium tremens is upheld. When once it has started, however, alcohol is said to do harm. Mr. Cooper pleads for preventive treatment in the shape of self-discipline of the young and the control of the inebriate, who both by precept and example is a potential manufacturer of inebriates. Chapters on inebriety and temperance societies, drug treatment and secret remedies, conclude the book, which is a valuable addition to the accumulating store of reliable facts on the subject of inebriety, and can be heartily recommended.

MEDICAL JURISPRUDENCE.

IT is easy to see why GIFFEN and DUNDAS'S *Student's Manual of Medical Jurisprudence and Public Health*[13] has reached a third edition in a comparatively short time. It is extremely handy in size, beautifully and clearly printed, and contains all essentials for a student arranged in such a way that reference is extremely easy, for the eye is easily caught by tables, headings, and subheadings in different type. All these points must naturally increase the popularity of such a book in the eyes of students, and we are of opinion that they really do constitute intrinsic excellence in themselves, for after all the most that any student of the subject can learn is its principles, real knowledge can only come by experience in courts and elsewhere. It is somewhat of a triumph of good packing to get the principles of forensic medicine and toxicology into 232 pages, and those of public health into 98. The worst feature of the book—it is not peculiar to this particular work, but applies to all small manuals for students—is that as the authors have to accept and teach one particular view of very disputable points, the student learns this view and very probably no other, and it remains with him through life, possibly to lead to trouble in cross-examination in court, where dogmatizing is out of place. Our meaning may be illustrated by referring to page 256, where it is asserted that the destruction of lecithin in fresh milk is *the* (the italics are ours) cause of the deterioration of milk from boiling or sterilization.

NOTES ON BOOKS.

THE number of textbooks on elementary biology is constantly increasing, and one is tempted to wonder for what purpose they are all written as so many of them cover the same ground, and with regard to most of the subjects treated there can be little new to add. An exception may, however, be made in the case of *Applied Biology*,[14] by Professor MAURICE A. and ANNA M. BIGELOW, for while it is true that the organisms, both animal and vegetable, dealt with in most textbooks are also included in this, it has the advantage of being a combined textbook and laboratory guide, and special attention is paid to the physiological and economic aspects of the science. There is also a part devoted to evolution and heredity in animals and plants. A student of general biology working conscientiously through this book will have gained a very considerable insight into the processes of Nature and a solid groundwork upon which to base further studies. Towards the latter he is also helped, advice being given as to the more advanced works which may be consulted by those wishing to probe further into the subjects dealt with in the various chapters. While the book covers more ground than is required by the average medical student, except perhaps, in the case of candidates for certain university degrees, nevertheless the applications to man are so constantly referred to that the book may be recommended to all who wish to understand biology, and not merely to "cram up" the minimum amount for examination purposes.

It is only after reading a book like *The Cruelty Man*[15] that one realizes fully the benefits of the age in which we live and which, in spite of its drawbacks, has yet grasped the fact that it has duties and responsibilities to discharge towards the weak and suffering. "The Cruelty Man" is the name by which the inspectors employed by the National Society for the Prevention of Cruelty to Children are known in certain districts to the people amongst whom they work, and the book contains an account of the actual experiences of one of these officers. No stronger proof could be given of the need for such a society than

[11] *Le goût et l'odorat.* By L. Larguier des Bancels. *Questions Biologiques Actuelles.* Collection de monographies publiée sous la direction de M. A. Dastre. Paris: A. Hermann. 1912. (Roy. 8vo, pp. 100. Fr.3.50.)

[12] *Pathological Inebriety, its Causes and Treatment.* By J. W. Astley Cooper, Medical Superintendent and Licensee of Ghyllwood Sanatorium, near Cockermouth; with introduction by Sir David Ferrier, M.D., F.R.S. London: Baillière, Tindall, and Cox. 1913. (Crown 8vo, pp. 165. 5s. 6d. net.)

[13] *Student's Manual of Medical Jurisprudence and Public Health.* By G. Heaton Giffen, F.R.C.S.I., D.P.H.Camb., and James Dundas, M.D., D.P.H., D.T.M. Third edition. Edinburgh: William Bryce. 1913. (Cr. 8vo., pp. 348. 5s. net.)

[14] *Applied Biology.* By Maurice A. Bigelow, Ph.D., and Anna M. Bigelow, M.S. New York: Macmillan Company. 1911. (Pp. 585.)

[15] *The Cruelty Man.* Actual experiences of an inspector of the N.S.P.C.C. graphically told by himself. London: National Society for the Prevention of Cruelty to Children. 1912. (Cr. 8vo, pp. 160. 1s. net.)

this matter-of-fact record of the tortures endured day by day by helpless children at the hands of those who ought to be their natural protectors. The author has been an inspector for many years and has seen many sad and dreadful sights, but he has managed to preserve his belief in the inherent goodness of human nature, and the gloom of his terrible story is lightened by his honest pride in his work and his tender pity for the miserable little beings he has helped to rescue from their wretched homes. His book is a mirror which faithfully reflects the hideous conditions in which thousands of suffering children are to-day leading their neglected lives, and its appeal on behalf of these innocent victims of parental vice and ignorance should go straight to the heart of every right-thinking man and woman.

In late years it has become a custom with some of the principal wholesale and manufacturing pharmaceutical houses to publish to the world much of the information which they obtain in the regular course of testing crude drugs, chemicals, and preparations made from them. Such a practice is entirely to be commended. The latest publication of this kind which has reached us is *Evans's Analytical Notes for 1912*, published by Messrs. Evans, Sons, Lescher, and Webb, Ltd., of Liverpool and London. It contains accumulated data of great value to all those engaged in the analysis of drugs, and not without interest to the medical practitioner, as showing the amount of trouble and of scientific work which has to be expended in maintaining the quality and purity of medicines for which the leading houses can now be depended on. In the introductory note it is mentioned that over 10,000 samples have been examined in this firm's laboratory during the year. Of the 2,400 samples dealt with in the *Notes*, 250 were found to be in some way below the standard; this fact well exemplifies the necessity for such testing, especially when it is borne in mind that the drugs tendered to a firm known to test samples thoroughly are likely to be distinctly above the average of all those in the market. The details of the notes are necessarily very technical and outside the scope of these columns. The fact is alluded to that "the researches of science are being employed in an illegitimate, as well as in a legitimate, direction"; it is evident, however, that in the perpetual competition between sophisticator and analyst the latter manages to maintain a good lead. The firm offers to send a copy of the *Notes* to any person interested.

English men and women are notoriously bad linguists; and even amongst the educated classes there are many who have considerable difficulty in making themselves understood when travelling in a foreign country. To such people the *Travellers' Practical Manuals of Conversation*,[16] published by Marlborough and Co., should prove invaluable travelling companions. The second volume of this excellent series is designed to meet the needs of English tourists in France, Belgium, Switzerland, Austria, Germany, and Holland, and contains, besides the usual phrases and a full vocabulary of French, Dutch, and German words, much information that should be of assistance to the inexperienced traveller. The book, which has been very carefully compiled, is well printed, and has the additional advantage of being of a convenient size and shape for carrying in the pocket or handbag.

A third edition has appeared of Dr. PROUT'S *Lessons on Elementary Hygiene and Sanitation*,[17] a composition which has already received very favourable notice in these columns. Its scope extends somewhat further than is indicated by the title, for elementary anatomy and physiology both receive considerable attention. Though written mainly from the point of view of the needs of dwellers in tropical climates, it would be a useful book to place in the hands of lay students anywhere.

The volume entitled *Collected Papers by Officers in the Royal Army Medical Corps*[18] consists of reprints of various communications appearing in the *Journal of the Royal Army Medical Corps* during the twenty months ending December, 1913. Numbering just two dozen, they relate largely to research work in connexion with venereal disease, malarial fever, and other tropical diseases. The volume bears notable testimony to the scientific activity of the modern soldier-doctor.

[16] *Marlborough's Travellers' Practical Manual of Conversation.* No. 2, in English, French, German, and Dutch. London: E. Marlborough and Co. 1912 (Pott 8vo, pp. 144. 1s. 6d.)

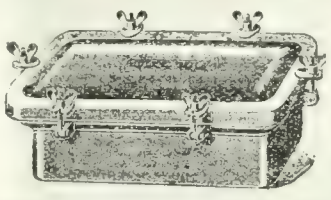
[17] *Lessons on Elementary Hygiene and Sanitation, with Special Reference to the Tropics.* By W. T. Prout, C.M.G., M.B., C.M.Edin., Medical Adviser to the Colonial Office. Third edition. London: J. and A. Churchill. 1913. (Demy 8vo, pp. 204; 60 figs. 2s. 6d. net.)

[18] *Collected Papers by Officers of the Royal Army Medical Corps.* Vol. 1. London: John Bale, Sons and Danielsson. 1913. (Sup. roy. 8vo).

MEDICAL AND SURGICAL APPLIANCES.

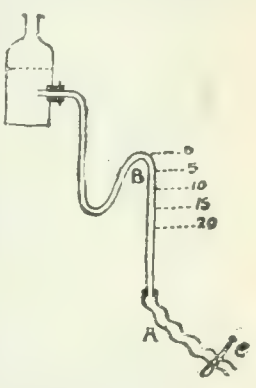
An Instrument Tank.

MR. W. SAMPSON HANDLEY (London) writes: The sterilization of instruments in private houses by a spirit lamp and boiling water immediately prior to an operation is an annoying and time-consuming process. Owing to the vagaries of spirit lamps, it is not unattended by risk of accident. The instrument tank represented in the figure is of a size to hold all the instruments required for an ordinary abdominal operation. The instruments required are boiled at home in an ordinary sterilizer, dried (or dipped in methylated spirit), and placed in the tank immediately ready for use, immersed in methylated spirit, to which, if desired, a proportion of lysol can be added. Sharp instruments—such as knives, scissors, and needles—are kept in the tank permanently, and need not be boiled. Ligatures may also be kept in the tank. Once in two or three weeks the instruments should be taken out and cleaned, especially if lysol is used, since it causes a greasy deposit to form upon them. It is also important to see that no blood or water gets access to the tank, since in either case the instruments will rust. It should be noted that the tank is not intended for sterilizing instruments by heating. It is simply used as a container. It was made to my design by Messrs. Meyer and Meltzer, and has been tested by two years' constant use in practice. The top, sides, and bottom of the box are made of sheet copper. The whole strength of the box is concentrated in the circumference of the lid, which is a gun-metal casting, and the top edge of the box itself, which is also cast in gun metal, and has upon its upper aspect all round a deep undercut groove into which a ring of hard rubber is forced by pressure. This groove corresponds with a V-shaped ridge within the lid, which bites into the rubber and ensures a spirit-tight joint. The spirit should be changed whenever it becomes turbid.



Technique of Hypodermic Injection.

DR. H. POLLARD HACKER (London), writes: I recently devised an apparatus which enables nurses and others to test themselves in the technique of hypodermic injection. It shows at a glance whether the full dose has been delivered, and also whether any air has been admitted at the same time. It consists of a reservoir of coloured water connected to an arrangement of tubing as shown in the diagram. The dose prescribed is measured in ether and is injected through the rubber tubing at A. The ether will be seen to rise through the coloured fluid and can be measured off at B, and the actual amount delivered compared with the dose intended. Any bubble of air also admitted will be evident above the fluid injected. The clip C is then released for a moment, and the injection flushed out by fresh fluid from the reservoir. When the clip is reapplied the apparatus is again full, and is ready for the next trial. The apparatus can also be used to demonstrate the method of using Southey's tubes and the aspirating syringe.



THE first Italian congress of medical radiology, organized by the Italian society of medical radiologists, founded in January, will be held at Milan in October. The subjects proposed for discussion are intensive apparatus in *x*-ray technique, introduced by Professor Maragliano of Genoa; radiological investigation of the skull, introduced by Dr. Aristide Busi of Bologna; radiology of the bowel, introduced by Dr. Pasquale Tanjoda of Naples; Roentgen-ray and radium treatment in gynaecology, introduced by Professor Lario Bertolotti. Communications should be in the hands of the General Secretary, Dr. Felice Perussia, Foro Bonaparte 61, Milan, on or before August 31st.

FESTIVAL DINNER OF THE ROYAL MEDICAL BENEVOLENT FUND.

In the absence of Prince Arthur of Connaught, owing to the illness of the Duchess of Connaught, Sir JOHN TWEEDY, the President, occupied the chair at the festival dinner of the Royal Medical Benevolent Fund at the Hotel Cecil on April 30th. A numerous company sat down, and the guests included many ladies.

Sir JOHN TWEEDY, in proposing the toast of "The Fund," read a message from Prince Arthur of Connaught, who, after announcing that, in addition to conferring the title of "Royal," His Majesty had bestowed a still greater honour upon the fund by consenting to become its Patron, described the work of the fund, and continued:

> I am not sure that we all realize what a debt we owe to the medical profession. The fact that its members are spending their lives in alleviating suffering and fighting disease must appeal to the imagination. Do any of us, whose business hours are from 10 to 4, ever think of the over-worked doctor, liable to be called out at any hour of the day or night to pass several hours at a bedside, while others, who have probably not spent nearly such a hard day in pursuit of their profession or business, are obtaining what they consider their well-deserved rest?
>
> Great prizes in the way of fame and fortune are, no doubt, attained by a few members of the medical profession, but these must always be in a minority. When we consider the long and patient training needed for such a profession as medicine and surgery has become in these days of exact science, it is inevitable that amongst the rank and file some must go to the wall. Even those whose talent and industry give promise of a brilliant career may be struck down by illness, and it is to provide for the fatherless children of such that I plead this cause to-night.
>
> As you are all aware, the Royal Family and myself have very special reasons for gratitude to the medical profession, by whose skill and care my beloved mother, the Duchess of Connaught, though passing through a very grave crisis, is being slowly restored to her normal health and strength. Consequently it is a great pleasure to me to subscribe to this fund and to hand over a cheque from my father as his contribution as a thank-offering and tribute of respect and admiration for the noble profession so largely represented at your gathering to-night.

Dr. SAMUEL WEST, the Treasurer, in responding, remarked that no one could fail to be touched by the sympathetic tone in which Prince Arthur of Connaught had written of the fund and its work. The announcement that the King had consented to become the Patron of the fund would render that gathering memorable. They would ask Prince Arthur to convey to His Majesty their grateful appreciation of the honour, and of the sympathy the King showed in the work of the fund. Dr. West went on to say that every profession had its woes, but upon the doctor misfortune, when it came, laid a particularly heavy hand. If in the early years his health broke down, or should he die, there might be, owing to the expenses of the long training and the acquisition of a practice, no adequate provision for the widow and children. Dr. West described the methods by which the fund is administered, and alluded to the need for an emergency fund out of which pressing needs could be relieved with greater liberality than was possible out of the ordinary income. He also referred to the valuable work of the Guild of Lady Helpers in rendering the personal service which was no less important than the pecuniary assistance afforded by the organization.

Sir JOHN TWEEDY proposed a resolution of thanks to Prince Arthur of Connaught for his sympathetic interest in the fund, and for the earnest and eloquent appeal he had sent on its behalf. Sir John Tweedy remarked that never was medicine higher in the hierarchy of the sciences than at the present time, but, on the other hand, never were the prospects and status of the general practitioner more uncertain. The difficulties of medical practice were such that it was difficult for the majority of medical men to do more than earn a modest livelihood and secure sufficient means for the decent maintenance and upbringing of a family. He wished he could see any solid hope for improvement in the future, but he feared that straitened circumstances and even actual poverty must be the portion of a large number of medical practitioners in this country.

Mr. PARKER YOUNG, Chairman of Committee, seconded the vote of thanks, which was carried with acclamation. Lord GOSCHEN proposed the health of the Chairman, who made suitable acknowledgement.

During the evening it was announced that subscriptions to the fund had been collected or promised to the amount of nearly £3,000.

SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE, 1913.

SECTION OF OBSTETRICS AND GYNAECOLOGY.

THE President of the Section is Sir Francis Champneys, Bart., and the Honorary Secretary is Dr. Herbert R. Spencer (104, Harley Street, W.). The section will meet in the Chemistry Theatre of the Imperial College of Science. The following discussions have been arranged:

Thursday, August 7th.—A discussion will be opened by Professor Döderlein (Munich) and Professor Essen-Möller (Lund) on the treatment of haemorrhage from the placental site (placenta praevia and accidental haemorrhage) in the later months of pregnancy.

Friday, August 8th.—A discussion (jointly with the Sections of Diseases of Children and Hygiene and Preventive Medicine) on infant mortality in the first four weeks of life will be opened by Dr. A. K. Chalmers (Glasgow), Dr. Henry Koplik (New York), and Professor Wallich (Paris).

Monday, August 11th.—A discussion (jointly with the Section of Radiology) on Roentgen and radium therapy in gynaecology will be introduced by Dr. Foveau de Courmelles (Paris), Professor B. Krönig (Freiburg), and Professor A. Schönberg (Hamburg).

Tuesday, August 12th.—A discussion on cancer of the uterus (body and cervix)—operative technique and results, will be introduced by Professor D. de Ott (St. Petersburg), Professor A. Pollosson (Lyons), and Professor Wertheim (Vienna).

The afternoon sessions will be occupied with the reading and discussion of independent papers, which will be selected by the Council of the Section, and for demonstrations. The latest date for the reception of titles of papers is July 1st.

The department of the museum dealing with obstetrics and gynaecology will contain specimens illustrating the papers and discussions, and also other material either dealing with the subjects of cancer of the uterus and haemorrhage from the placental site or illustrating other investigations and observations of current interest.

An exhibition of old obstetrical instruments will be a special feature of this department of the museum. It will contain the whole of the collection now preserved at the Royal College of Surgeons, which is being catalogued by Mr. Alban Doran, and, it is hoped, many other rare old instruments from British and foreign sources. Communications regarding the museum should be addressed to the Honorary Secretary of the Museum Committee, Mr. H. W. Armit, Ravenhurst, Talbot Road, Wembley.

On Saturday, August 9th, a dinner will be given by British members of the Section, at which foreign guests will be entertained.

SINCE antityphoid vaccination was introduced in the French Army, in January of last year, 62,788 men have voluntarily submitted to the treatment. No injurious effects have been observed, and the measure of protection afforded by the vaccination has been very marked. The official statistics show that in France no case of typhoid fever has occurred among the soldiers vaccinated, who, on December 31st, numbered 37,140. On the same date only one case was reported among the 13,290 vaccinated men in Algiers-Tunis; that was in a soldier who had come from Morocco. In Morocco the results were as follows: In Eastern Morocco the morbidity and mortality were *nil*, whereas among the non-vaccinated the morbidity was 38.23 and the mortality 5.51 per 1,000. In Western Morocco the morbidity among the vaccinated was 2.96 and the mortality 0.09 per 1,000, whereas among the non-vaccinated the morbidity was 168.75 and the mortality 21.29 per thousand. Taking the average typhoid statistics for the whole army it is estimated that antityphoid vaccination has, among the 62,788 men treated, prevented 2,101 cases of disease and 266 deaths during the year 1912.

NINTH INTERNATIONAL PHYSIOLOGICAL CONGRESS.

GRONINGEN, SEPTEMBER 2ND TO 6TH, 1913.

THE Ninth International Physiological Congress will be held at Groningen from September 2nd to 6th next, under the presidency of Dr. H. J. Hamburger, Professor of Physiology in the University of Groningen, and Director of its Physiological Institute. Previous congresses have been held in Bâle (1889), Liége (1892), Bern (1895), Cambridge (1898), Turin (1901), Brussels (1904), Heidelberg (1907), and Vienna (1910).

Groningen was one of the first universities in Europe to be provided with a building specially designed to fulfil the purpose of a physiological institute. About the year 1863, the late Professor Donders induced the then Minister of the Interior for Holland to provide in the national budget a grant of money for the erection of physiological laboratories at Utrecht, Leyden, and Groningen. The first of these to be completed in Holland and the second in Europe was that at Groningen. It was fitted up under the direction of Van Deen in 1865.

The present building, which has replaced that erected in 1866, was completed and fitted under the direction of Professor Hamburger, and was opened on April 7th, 1911.

The main building forms three sides of a square, and the illustration shows the main front. The building consists of a basement and two stories. On the first floor is a large lecture room fitted with a kinematograph, for which device Professor Hamburger foretel's a great future in physiology, not only as a means of demonstrating movements to students, but also for research, and particularly for the analysis of movements by running the machinery slowly. Adjoining the theatre are the preparation room and the private office and laboratory of the Director. On the same floor is a laboratory and reading room, a balance room, a "spectatorium" for demonstrations, a laboratory for candidates preparing their theses for the Doctor's degree, and a laboratory for assistants, a histological class-room with attached preparation room, and a drawing and photograph room.



On the ground floor are the rooms for practical instruction in physiology, a bacteriological laboratory, where in particular investigations are carried out with regard to enzymes and antibodies, for Professor Hamburger entertains the opinion that the essentials of serum therapeutics and immunity, since they are based on physiological reactions, concern the physiologist as much as the pathologist and hygienist. There is a large operating room for animals, with attached preparation room, observation room, and sterilization room. On this floor also are rooms for physico-chemical researches, and for optical and x-ray investigations.

In the basement there is a room for electro-physiology, a laboratory for low temperatures, another for investigation of the body temperature, a centrifugalizing room, a room for meters of gas, water, and electricity, and various offices.

The laboratory is surrounded by grounds, which are cultivated for green food and clover, and are used also as a meadow, which contains a natural pond, where fish can live through the winter. In the grounds there is also a stable.

The facilities afforded by the institute are placed at the disposal of competent investigators free of charge. Great pains have been taken in the arrangement of the details of the rooms, so that, with the help of an inventory, anything can be found at short notice. If an object is taken away, a printed card is put in the vacant place recording the name of the person who has borrowed it and the room to which it has been taken. In fact, Professor Hamburger has worked out with scientific precision the old injunction to find a place for everything and everything in its place.

The scientific staff of the institute consists of the Professor-Director and four assistants, whose duties are confined to giving assistance in the conduct of the practical classes. The rest of their time is at their own disposal for scientific work. One of the assistants, who has the title of Conservator, assists the Director in the management of the laboratory, and acts when necessary as his substitute. Every week the Conservator makes a report to the Director on what has been going on in the laboratory during the past week. In addition to the scientific staff there is a technical staff whose offices are permanent; the professor is assisted in his lecture experiments by the senior member, called the first amanuensis. The second amanuensis is responsible for the inventory, and both assist, not only the Director, but other members of the scientific staff in their experiments.

The chief instrument maker has a workroom and an apprentice, and there is a mechanic who attends to the larger engines for general use.

The Congress, as has been said, will begin on September 2nd, and the President in a recent circular emphasizes his approval of one of the rules of the Congress, which is: "Special value is attached to the demonstration of actual experiments, which will always take precedence of merely oral communications." He invites physiologists to give demonstrations and experiments, even though they may already have been published. The business of the Congress will occupy from about 9 a.m. to 5 p.m. on Tuesday, Wednesday and Thursday. On Friday afternoon, September 5th, a closing meeting will be held in the aula of the University, when Professor J. P. Pawlow will give an address on the investigation of the higher nervous activities.

During the Congress there will be an exhibition of physiological instruments and apparatus. These will be exempt from all duty, and the cases containing them will only be opened in the laboratory at Groningen. A committee of ladies has been formed to arrange entertainments and excursions.

A tour has been arranged, starting on Saturday, September 6th, through some of the most interesting parts of Holland, including the northern part of the country, which, though known to few foreigners, is most characteristic and interesting.

THE Paris Academy of Sciences has awarded prizes of the value of £100 each to Dr. Carlos Finlay and Dr. Aristides Agramonte of Havana in recognition of their investigations on yellow fever.

A DEPARTMENT for treatment with radium emanation has been established at the New York Post-Graduate Medical School and Hospital. The department is intended for scientific investigation as well as for the treatment of disease.

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

THE ADVERTISEMENT OF MEDICATED WINES IN THE MEDICAL PRESS.

On May 1st the Chairman (Sir Henry Norman) announced that he had a further statement to make on the subject of the advertisement of Coleman's Wincarnis in the BRITISH MEDICAL JOURNAL. The Committee had received a letter from Mr. Rudderham, the general manager of Messrs. Coleman and Co., enclosing a copy of correspondence between Dr. Cox and himself on this matter. It did not appear necessary for the whole of the correspondence to be read; summarized, it was to the effect that Mr. Rudderham entirely repudiated the statement made by Dr. Cox that the advertisement of Wincarnis was refused by the BRITISH MEDICAL JOURNAL, and he declared that statement to be supported by the advertising agents of the firm. Mr. Rudderham suggested that possibly the British Medical Association might have considered the question of the advertisement of medicated wines after the advertisement by his firm had ceased, and he invited Dr. Cox to give him any documentary proof. On the other hand, Dr. Cox adhered strongly to his statement that on September 22nd, 1910, the Financial Secretary and Business Manager to the JOURNAL received an order for thirteen more insertions of the Wincarnis advertisements, and that this was not executed. There was, therefore, a complete contradiction of evidence between the parties and on neither side had any documentary evidence been placed before the Committee.

With reference to this matter, the Medical Secretary of the British Medical Association on May 5th addressed a letter to the Secretary of the Committee, in which, after recapitulating the Chairman's observation, he wrote as follows:

> I have now the honour to send you the actual order, dated September 22nd, 1910, for further insertions of the Wincarnis advertisement in the BRITISH MEDICAL JOURNAL, on which document I based my case for challenging the accuracy of the statement made by Mr. Rudderham. I would ask you in due course to return this order.
>
> I beg to state, in order that there may be no further doubt about the matter that the advertisement tendered was not inserted, that no correspondence took place on the matter, and that the advertising agents, on inquiring through the telephone why they had not received any communication respecting the advertisement, were informed by our Manager that we did not intend to insert it.
>
> I note that according to the statement made by the Chairman of the Committee Mr. Rudderham has nothing to say in regard to the *Lancet*, and I would repeat that I have the authority of the Manager of that journal for saying that they definitely declined the advertisement of Wincarnis for reasons which I have previously stated, and that the Manager of the *Lancet* is willing to appear before the Committee if required.
>
> It is obvious, therefore, that if the above statements are correct, and they are easily capable of being tested, Mr. Rudderham was not correct in stating that his advertisements were withdrawn from the medical press for commercial reasons.]

THE LIMITATIONS OF ANALYSIS.

Evidence was then given by Dr. Dobbie, who said he was head of the department organized by the Treasury about two years ago for the purpose of advising various Government departments on analytical questions and to do chemical work on their behalf.

In response to the Chairman's request, the witness first dealt with the limitations of analysis. He remarked that there was an important distinction between the terms "detection" and "determination," which were constantly used in connexion with chemical analysis. Detection of a substance meant proving its presence without regard for its quantity. Determination meant ascertaining the quantity. It might be quite possible to detect or identify a substance by chemical means in certain cases where there were no satisfactory chemical means of determining or evaluating it. For example, the presence of one or more of the constituents of digitalis in a medicine might be determined chemically, but there was no satisfactory chemical method of determining the proportion of the active ingredients in digitalis. In some cases the physiological test was employed; the drug was administered to animals. Thus, while the statement made to the Committee that only forty-four of the vegetable preparations in the *British Pharmacopoeia* had definite chemical principles which could be determined might or might not be correct, it would not be correct to say that only forty-four could be recognized by such methods. Detection of a substance depended ultimately on obtaining it or some of its combinations or derivatives in a condition recognizable by some characteristic property—for example, form, colour, smell, taste, melting point, boiling point, solubility, miscibility, or alteration in colour or other characteristic, when brought in contact with chemical reagents. There was no essential difference in principle between the method of detecting a substance by ordinary analysis and those of the expert who judged chiefly by smell and taste. From some of the evidence it might appear that the one method of identification was essentially different from the other.

In reply to the Chairman, the witness said he did not disagree with the view that an expert who had spent years in the handling of drugs would have acquired a certain applied use of the senses in a special degree in detecting drugs.

Continuing, he said that the quantity of essential oil obtained in the ordinary analysis of medicine was often so small that it would be impracticable to determine its physical and chemical constants, such as specific gravity, boiling point, polarization, and so on; the odour alone had often to be relied upon. On the question of the trustworthiness of analysis when applied to medicinal preparations, when it was a question of a single drug, either as a solid or in solution, there would usually be no great difficulty in identifying the drug, provided that it was one of the official drugs or one the properties of which had been described in the ordinary chemical or pharmacological literature. In the large class of drugs included in inorganic substances, such as salts of bismuth, mercury, zinc, bromides, iodides, alkalis, acids, and so on, no difficulty would arise in analysis. The same could be said of substances of definite composition, either prepared synthetically or extracted from plants, such as acetanilide, salicylic and other acids and alkaloids; also plants or parts of plants, whole or powdered. Taking the whole range of medicinal substances, in regard to the great majority there would be no special difficulty in identifying the drug in question with certainty when the analyst was dealing with single articles, the properties of which had been adequately studied and described. When, however, the drug was a new one, or one not known to British pharmacists, or one which had no known characteristic, chemical or physical property, its definite recognition might be difficult or impossible. To that group belonged extracts from certain plants, obtained by maceration of the plant with alcohol or other solvent. The extract might only contain substances common to several plants and nothing characteristic of any one, and then it would be impossible to identify it positively by chemical means. Speaking generally, it was quite practicable for chemical analysis to deal with most of the mixtures of drugs prescribed in ordinary medicines, but when a number of drugs were mixed together the difficulty increased with the complexity of the mixture, and eventually the difficulties became so great that the complete analysis of the mixture was impossible. Even in such cases bodies of a distinct character might be separated from the mixture and identified, the organic from the inorganic, the volatile from the non-volatile, and so on. In many cases the constituents of a mixture could be detected directly and readily because they had characteristic properties. Broadly it might be said that the proportions of mineral drugs could be determined with no substantial error; organic bodies, however, presented a much wider range of variation, and, while some of them could be determined accurately, approximations only were possible in other instances. So far as a general opinion could be given, it would be safe to say that where the presence of an active organic drug in a mixture had been definitely ascertained, in the majority of cases the analyst by one means or another could obtain a fair idea of its proportions, although sometimes he must be content with a rough approximation only.

The Chairman: Speaking generally, the analysts who have appeared on behalf of proprietary medicines have told us that in very many cases it is practically impossible to detect or determine the composition of a medicine. On the other hand, the analyst who has appeared on behalf of

those who are criticizing proprietary medicines has told us that practically to all useful intents and purposes you can detect what is in a medicine. On which side do you range yourself?

The Witness: So far as I have read the evidence I do not think there is very much conflict between the analysts. I would say that some of the witnesses on one side would push the dividing line further than I should in one direction; on the other side the witnesses would push it further in the other direction. (Laughter.)

The Chairman: I am sorry you cannot range yourself a little more definitely on one side or the other.

The Witness: I am on the side of the chemists.

The Chairman: I am not sure we know which side they are on. (Laughter.)

Sir Philip Magnus: The dividing line to which you referred is a "movable fixture"?—Yes.

The Chairman: May we put it that, as a general rule, any drug with fairly active therapeutic effects can be detected?

The Witness: Not every drug, but most drugs.

Do you mean there may be a drug with fairly active herapeutic effects which cannot be determined by analysis?—If it is contained in a mixture, yes.

Then in that case, supposing a proprietary medicine owner says in his advertisements that his is a very valuable medicine, and no analyst can possibly tell what it is, that might be a correct statement in certain circumstances?—I think so. The witness added that the number of drugs which could not be identified was constantly diminishing as knowledge advanced.

Mr. Cawley: Is it correct to say that drugs which have a therapeutic effect have generally some known reactions which enable them to be discovered without much difficulty?—I think as a general statement that is correct.

The Analysis of Woodward's Gripe Water.

After the luncheon interval, Sir Philip Magnus, who was then in the chair, said he wished to ask the witness a question regarding the analysis of Woodward's gripe water. The Committee sent a sample of this preparation to the Government analyst, and when that analysis was read to Mr. Umney he said: "It is not more accurate than Mr. Harrison's; the particular ingredient (the ingredient stated by Mr. Umney to be present) has not been found, but certain ingredients not in it have been found, and I think practically it is a general confirmation of the statement that these things cannot be determined by analytical methods." Since then (proceeded Sir Philip Magnus) the Government analyst had again analysed the medicine, and he asked if the witness had anything to say on this.

The Witness: As regards the statement that certain ingredients that are not in the gripe water have been found, we see no reason whatever for modifying the terms of our report; we are not prepared to dispute the allegation that another extract is an ingredient of the article—if so its presence was masked by the capsicum.

Disclosure of Formulae: An Analogy.

Dr. Dobbie went on to deal with the suggestion advanced by various witnesses that the formulae of proprietary medicines should be registered with the Customs and Excise Department, with particulars of any poisons they contained. He thought it might be useful to the Committee to have some information as to the regulations adopted for the protection of the public in a case somewhat analogous to the sale of proprietary medicines. The Board of Agriculture, he explained, to secure that sheep dips should be efficient for the purpose, while at the same time securing that the various makers' formulae should not be divulged to trade rivals, and that within certain limits freedom of competition and manufacture should prevail, made the stipulation that sheep must be dipped with a dip approved by the Board of Agriculture, and the dip must contain 1 per cent. or more of a disinfectant. Makers might include any other ingredients they wished, and the formulae in fact varied considerably, but, in order to get a dip approved, the formula must be submitted to the Government chemist, an analysis being made to see that the manufactured product conformed to the formula. More than 1,300 samples had been examined in connexion with the various formulae submitted, but no complaint had been made that the makers' secrets leaked out, and the regulations had not destroyed competition in the production of dips. There was a somewhat similar procedure with regard to the strength of disinfectants used on board ship. He thought this procedure gave some hints as to a possible method of dealing with proprietary medicines; it showed it to be possible to have a disclosure that would protect the public and not injure the interest of the proprietor.

Mr. Bathurst suggested that it would be difficult to apply this procedure, because in the case of proprietary medicines more than one ingredient needed supervision. The witness thought that the method might be that before a proprietary medicine vendor could get a medicine stamp or licence he would have to disclose his formula to a public department and submit a sample for examination; if the medicine was found to contain the admitted remedy for the complaint which it purported to treat, then his view was that it would be accepted.

Mr. Bathurst: But who is going to decide whether the alleged remedy is a remedy?

Mr. Lawson: The British Medical Association, perhaps?

The witness replied that a public body would have to be given that function.

Mr. Glyn-Jones: If a man buys a dip, he has the Government guarantee that it is efficacious. Would the Government analyst like to be put in that position as regards the proprietary medicines?

The Witness: It would be a Government statement that the preparation did contain an admitted remedy for the complaint it claimed to cure.

You agree that it is much easier to act as a censor for a sheep dip than for a medicine?—Yes.

Mr. Lawson remarked that, although sheep dips were sold under a certificate by the Board of Agriculture, that sort of approval could not be applied to proprietary medicines. The witness thought that was for the Committee to say. In reply to a further question, he said that difficulties of analysis would be to a great extent overcome in this way; if the vendor were required to submit the formula, it would always be possible to check the composition, because the article could be made up in accordance with the list of ingredients, and it could be ascertained whether the article resulting agreed with the formula.

Mr. C. Simmonds, a first class analyst in the department of the Government chemist, then gave evidence. He put in, without reading, an elaborate statement as to the character of the drugs in the *Pharmacopoeia* which might be determined by analysis. Mr. Glyn-Jones suggested that the fact that there were so many drugs outside the *Pharmacopoeia* vitiated the figures given in the witness's statement of the drugs which could and could not be determined by analysis. The witness, however, thought that his list might be taken as fairly representative. Mr. Glyn-Jones further suggested that there were drugs for whose therapeutic action scientists could not account, and that therefore analysis would not have any bearing on their medicinal merit. The witness replied that this question was a medical one and was beyond his competence.

The Committee adjourned for a month for the Whitsuntide recess.

An international conference for the biological and statistical study of alcoholism was recently held at Paris at which France, Great Britain, the United States, Austria, Italy, Russia, Switzerland, and Belgium were represented. The following list of questions was drawn up as an international programme of studies: (1) Does alcohol possess any alimentary property or not? (2) What is the relative influence of the forms and manner in which alcohol is consumed? (3) What is the alimentary value of the different alcoholic beverages? (4) What are the effects of pure alcohol and the extraneous substances produced by the distillation of fermented products? (5) What are the principal causes and effects of alcoholism? (6) What are the means employed against alcoholism, and with what results? (7) A critical investigation of the national statistics of the production and consumption of alcohol and alcoholic beverages; consideration of the effect of such production and consumption.

UNIVERSITY OF LONDON.

FINAL REPORT OF THE ROYAL COMMISSION.

[THIRD NOTICE.]*

THE ROYAL COLLEGES IN LONDON.

So far as we have been able to ascertain from a study of the report, the scheme propounded by the Commissioners contains no place for the Royal Colleges of Physicians and Surgeons in London. They would not be constituent parts of the University, and they would not be entitled to representation on the proposed Board of Medical Studies nor on the Medical Faculty should it be formed. Both of these bodies would consist wholly or mainly of direct representatives of schools actually engaged in teaching.

The Commissioners devote a section of their report to the consideration of proposals made to them by the Presidents of the Royal Colleges of Physicians and Surgeons in London and Mr. Hallett, the Secretary of the English Conjoint Board, for the purpose of establishing a single portal to the profession in England. The witnesses, it is stated, spoke in their private capacity, and not as representing the Royal Colleges.

The proposal was that all English students should enter the medical profession through the single portal of the final examination in medicine, surgery, and midwifery of the English Conjoint Board. A student who had passed the earlier examinations of a university and completed a five years' course would be admitted to the final examination, and, having passed it, would be entitled, upon payment of the fees required by the Royal Colleges, to the diplomas of L.R.C.P. and M.R.C.S. His university would require further study, and probably additional subjects, and might require additional examinations to entitle him to the medical degree of the university. A student who was not a member of a university but had passed a preliminary examination recognized by the Conjoint Board and a preliminary and intermediate science examination of that Board could obtain the diplomas of the Royal Colleges upon passing his final examination, but could not proceed to a university degree. It was proposed that the universities should either have three representatives on the Committee of Management of the Conjoint Examination, or should have assessors to be present during the examination of their own students, or should agree to accept, in lieu of their own examination in the final professional subjects, the examination of the Conjoint Board. The Board, on the other hand, as has been stated, would continue to admit to its final examination not only students who had taken the earlier part of their course in the University but also students who had passed the preliminary examination accepted by the Conjoint Board "which is of a lower standard than a matriculation at the universities," and had also taken the examinations held or accepted by the Conjoint Board in the preliminary and intermediate sciences. The Commissioners express the opinion that in view of the provision of Section 3 of the Medical Act, 1886, such a scheme would probably require the sanction of Parliament. The section of the Medical Act referred to defines a qualifying examination as follows:

> A qualifying examination shall be an examination in medicine, surgery, and midwifery, held for the purpose of granting a diploma or diplomas conferring the right of registration under the Medical Acts by . . . (c) Any combination of any such university as aforesaid with any other such university or universities, or of any such university or universities with a medical corporation or corporations, the bodies forming such combinations being in the same part of the United Kingdom.

In view of subsection (c) the opinion that further authority from Parliament would be required is a little surprising.

The Commissioners state that the main argument in favour of the proposal was that the large number of medical students who reach the final examination for the degree of M.B. of the Universities of England have already passed the final examination of the Conjoint Board, and that it is a hardship that they should be compelled to pass two examinations in the same subject. The statistics given to the Commission were to the effect that about 87 per cent. of the university students who reached the final examination of the university also took the final examination of the Conjoint Board. The percentage in the case of students of Oxford, Cambridge, and London universities was 82, while in the case of the northern universities it was not more than 40.

The Commissioners considered the question of the advisability of a single portal as the entrance to the medical profession to be beyond their reference, because they could not be in a position to form a considered opinion without ascertaining the views of all the universities and other licensing authorities whose consent and agreement would be required, and that to ascertain these views would have carried them beyond the scope of their inquiry.

On the other hand, they consider that it is within their reference to consider whether it may be desirable and feasible for the University of London to make an arrangement with the Royal Colleges with regard to the final examination. The Commissioners observe that if the University of London were to join in an arrangement between all the English universities and the Royal Colleges for the conduct of the final examination it might be possible for the Royal Colleges to require all candidates for their diplomas to take the courses and examinations of the University in the earlier part of their curriculum.

The Commissioners, however, hold that it is more important to raise the standard of entrance to the medical curriculum and to afford a more scientific foundation for the professional studies than to ensure a uniform standard of professional attainment for entrance to the profession, and believe that "the permanently open door of the Conjoint Board to a lower level of general education than the universities require, and an examination in the more purely scientific part of the medical curriculum which tends to hamper the teaching by the requirements of a prescribed syllabus is a greater disservice to medical education than any slight variation of standard in professional attainment which the final examinations of the universities may allow."

In their examination of the reasons given for the establishment of a single portal the Commissioners say: (1) That the contention that the number of licensing authorities has been largely increased by the creation of new universities would have more weight if there were any real danger of the standard being lowered, but they do not think it is suggested that the General Medical Council fails to perform its inspecting duties efficiently, and still less that the qualification granted by any university is at the minimum standard. (2) To the argument that the Government and municipal medical services are increasing the demand for official as compared with private medical practitioners, the Commissioners reply that what is specially required for a public medical service is the scientific training of a university education, rather than strict uniformity of professional attainment. (3) Another argument quoted is that the endowment of the medical departments of the universities and of independent medical schools by the State through the Board of Education entails a system of Government inspection, and that from inspection to control, dependent upon results of examinations, with a view to uniformity, is a short step. The Commissioners express their inability to understand this argument, and point out that the grants of the Board of Education to medical schools are university grants, and it is contrary to the declared policy of the Board to interfere with the educational freedom of the universities. If it were not so, the Commissioners state that they would be strongly opposed to such a method of subsidizing university education.

They declare themselves unconvinced by the contentions stated, and express the opinion that to make separate arrangements with the University of London would not improve the earlier Conjoint Board examination. On this point they say:

> It would not be possible under a separate arrangement between the University of London and the Royal Colleges to insist on the Royal Colleges reciprocating by requiring a university standard of general education, and university courses and examinations for the earlier parts of the curriculum, because if such an arrangement were made with regard to London students, and did not apply to other candidates for the diplomas, all the purely Conjoint men would be driven out of the London medical schools—

* Previous notices were published on April 19th (p. 836) and April 26th (p. 893).

a result which the Royal Colleges would not face, and the University of London would not desire. Moreover, such an agreement might not be possible, as we were told that the northern universities had announced their intention of opposing any exclusive agreement between London University and the Royal Colleges.

In dismissing this subject the Commissioners state that, after careful consideration, they are not prepared to recommend the University of London to give up examining in the final subjects of medicine, surgery, and midwifery, and express their final views in the following sentences:

When great internal educational reforms are being proposed, it is hardly the time for the University to commit itself definitely to any system of examinations beyond its own control. We are satisfied by the evidence we have taken that the examinations of the Conjoint Board are admirably arranged and efficiently conducted. It is claimed as their chief merit that the examiners appointed are teachers, and teachers at their best; that they are chosen from all the London Medical Schools under conditions which ensure that they are men in the middle period of their career, whose powers are at their highest. This is as it should be, but we cannot tell what the state of things would be if any far-reaching change of the organization of clinical teaching, such as we have proposed, should be introduced; and in these circumstances we cannot recommend that the University should agree, perhaps irrevocably, to the examination of its students by examiners appointed by an external authority.

So far as we can gather, the idea of the Commissioners is that the Royal Colleges should continue as at present. If, therefore, the teaching university conceived by the Commissioners comes into existence, the position of the Royal Colleges in London will be very similar to that of the Royal Colleges in Edinburgh. We have already quoted (BRITISH MEDICAL JOURNAL, April 19th, p. 838) from their report the most important passages in which the Commissioners deal with the grievance of London medical students that they are debarred by circumstances from obtaining a university degree in medicine. The Commission recognizes that so far as entrance to the University is concerned the average London student has been under a real disadvantage in the past, partly because the present matriculation examination is not connected with a well-developed system of secondary education, and partly because the Conjoint Board and the General Medical Council accept standards of admission to the medical curriculum which the University will not accept, so that students do not realize until too late that they are excluded from the beginning of their course from taking a university degree. The Commissioners regret that so large a proportion of medical students in London do not graduate from its university, but state that the difficulty resolves itself into one of defective early school education, and that the true solution is to institute a proper system of school examinations.

THE ADMISSION OF STUDENTS TO THE UNIVERSITY.

We may now, in concluding these articles, give a short account of the scheme of the Commissioners for the admission of undergraduates to the University.

The Commissioners recommend that the normal qualification for admission to the University should be a school examination based upon the curriculum of the school, conducted in the interests of the school itself, and closely related to its curriculum.

The Commissioners consider that the study of the preliminary sciences should not be included in the medical curriculum, and an undergraduate should not be admitted to the Faculty of Medicine in the University until he had received thorough instruction in the principles of pure science, and that whenever possible the best time and place for this instruction is the last two years of a good secondary school course. A certificate of having passed such an examination, which should not be taken until the pupil has reached the age of about 18, should be the normal qualification for registration as an undergraduate. The Commissioners recommend that the first step the University should take should be to cease to admit pupils in schools to its own examinations, and that no student should be registered as matriculated until he has attained the age of 17. A boy intending to become a medical student who had passed the lower school examination at the age of 16 would remain at school and continue the course of his general education, but during the last year and a half or two years would work at special subjects, physics, chemistry, and, "if possible," biology, for the higher school examination to be taken at 18.

The Commissioners do not recommend the continuation of the system under which the Conjoint Board in England and the General Medical Council have recognized secondary schools for the teaching of preliminary sciences; they consider that the responsibility of deciding what schools are efficient in this respect should lie with the Board of Education, which in estimating whether the teaching in any school reached the standard and character required would be guided by the opinion of the universities as to the standard of knowledge requisite. The Commissioners add the following very important qualifications of this opinion:

We do not know how soon the number of schools may become sufficient to give the necessary instruction to the majority of those seeking to enter the medical profession, but we are convinced that the aim should be to increase their number sufficiently for the purpose. Meantime the teaching of those candidates who have been unable to obtain the necessary instruction at school should be provided for either in the science laboratories of the University itself or in institutions recognized for the purpose by the University. There is another class of student who may desire to study medicine, and who has not reached the necessary standard in the Preliminary Science subjects at school because the course of his secondary education has followed other lines. This class of student will continue to exist after the provision of secondary schools is complete; but it will not be a large class, and for these it ought not to be difficult for the University to continue to make the necessary arrangements. But these arrangements will, as we have pointed out in paragraph 92, be incidental. We think, however, that neither class of student should be admitted to the regular undergraduate teaching and examinations of the Faculty of Science, but that they should be dealt with in special classes and examined at the close of the course by a general examination of the kind described below (see paragraphs 384, 385) as suitable for students in schools of the University.

With regard to biology, a further qualification is found necessary, inasmuch as the subject differs from physics and chemistry in more than one respect. Upon this point the Commissioners say:

In the first place, the number of schools teaching biology is far smaller than that of the schools teaching physics and chemistry, and is likely to remain so. Its teaching is much more expensive. A separate laboratory is required, specially arranged and exclusively reserved for this science; more trouble is involved in providing the necessary materials, and the number of pupils who wish to take the subject is small. Secondly, the study of this subject cannot be carried beyond the most elementary stages by the methods of instruction which hitherto have generally been employed in schools. Even in the case of physics and chemistry, some change in the method of instruction may be desirable, and is, in fact, being introduced. But biology must be approached with a certain independence of mind, and the better opinion is that it is more profitably studied under conditions of freedom and intellectual responsibility which are not commonly reached till the stage of pupilage is past. Nevertheless, we think that these conditions are present in the upper forms of the great public schools, and in some other schools in which special provision is made for the study of biology; and whenever this is the case it is a gain that this subject should be included in the school curriculum of boys who stay at school till the age of at least 18.

The prospective medical student would, therefore, have to pass two examinations at school. A lower school examination, planned for pupils of about the age of 16, which should be a test of general education; and a higher school examination, planned for pupils of about the age of 18, which should be suitable as a test for pupils whose course had to some extent been specialized. A student admitted on the higher school examination would, if the appropriate subjects had been taken, be excused from the Preliminary Science examination, and would be admitted direct to the Faculty of Medicine, his course in the university being shortened to four and a half years.

A student admitted on the lower school examination and a student admitted on the higher school examination,

in which the science subjects had not been taken, would be required to pass a Preliminary Science examination before admission to the Faculty of Medicine.

The Matriculation examination (to which pupils in schools would not be admitted) would be retained for those students who did not approach the university through the normal avenue of the secondary school. Students of mature age desiring admission to a constituent college or university department would be submitted to a special test approved by the Senate and conducted by the Faculty he desired to enter.

Nova et Vetera.

THE LEGEND OF THE ENGLISH TAIL.

In the British Medical Journal of October 17th, 1908, we discussed the meaning and origin of the epithet *Caudatus* (tailed), which was applied to Englishmen as an opprobrious nickname all through the Middle Ages. It was concluded that the clue to the meaning was to be found in a tradition that the fishermen of the English coast received St. Augustine and his fellow missionaries with insults, in particular fastening fish tails to their garments. For this a curse was laid upon them by the saint that their descendants should be born with tails. On the Continent this legend grew into a popular belief, especially among the French, who avenged their many defeats by their hereditary foes by calling them *coués* (tailed). With the notion of an actual physical deformity was mingled the idea of want of courage, the French *couard* and the Italian *codardo*, from which the word "coward" is derived, being connected with *cauda* or *coda*, the tail. In heraldry a lion *couard* has his tail between his legs. M. Louis A. Barbé has recently discussed what he calls The Story of the "Long Tail" Myth, in a chapter of his interesting book entitled *In Byways of Scottish History* (Blackie and Son, Ltd., 1912). He produces an abundance of evidence from mediaeval literature showing that the belief that Englishmen had tails was accepted in a literal sense. A typical example occurs in a mediaeval poem communicated by Professor Wattenbach to the *Anzeiger für Kunde der Deutschen Vorzeit* (1874). There the Englishman is described in the following unflattering verse:

> Anglicus a tergo caudam gerit: est pecus ergo;
> Cum tibi dicit "Ave," sicut ab hoste cave.

M. Barbé traces the legend through chronicles and popular literature from the twelfth to the seventeenth century. Only two or three instances need be cited. When Richard Coeur de Lion was betrayed and brought as a prisoner before the King of Allemayne he represented himself and his companions as pilgrims, but the king replied with a jeering allusion to their tails. A poem, dated about 1430, celebrating the exploits of Joan of Arc, opened with the words *Arrière, Englois coués, arrière!* When, in 1436, the English evacuated Paris, which they had held for sixteen years, the inhabitants shouted after them in derision, "Tails, tails!" In the sixteenth century the English king is described as wearing a tail. By the seventeenth century the tradition had almost died out, and when allusion to the *quoucz* English was made in a French poem, a footnote was appended to the passage explaining that the epithet was justified by the fact that in most Englishmen the end of the os sacrum, called "coccyx," actually protrudes and forms a tail!

Even at the present day, says M. Barbé, the old cry has not died out. In Guernsey, where it was once so frequently heard, the country children have a custom of throwing at passers-by a hairy, clinging weed which grows abundantly by the wayside. If any of this sticks to the victim's clothes, he is assailed with cries of "La Coué!"

The legend of the tail seems to have long persisted in Cornwall. Mr. Baring Gould, in his *Myths of the Middle Ages*, says that, as a child, he firmly believed, on the authority of his nurse, that all Cornishmen were born with tails.

It was natural that the Scots should adopt the taunt which they had learnt from their Continental allies. Many examples of allusions to the supposed tails of Englishmen, taken from Scottish literature ranging from the thirteenth to the sixteenth century, are given by the author. The festivities accompanying the christening of the infant son of Mary Queen of Scots on December 17th, 1566, included a masque written by George Buchanan, in which figured satyrs wearing tails. As the mummers passed the English guests they put their hands to their tails and wagged them, thus nearly causing a brawl.

The earliest account of the origin of the legend is given by Goscelin, a monk of Canterbury, who wrote a life of St. Augustine, based on older records and embodying local tradition as it existed before the Norman Conquest. Two versions of the life of Augustine are given. Both agree that the outrage on the saint and his companions occurred in Dorsetshire. The episode reappears about the middle of the twelfth century in the *Gesta Pontificum* of William of Malmesbury, who names as the scene of the event Cerne, a village where a ruined abbey now exists, about seven miles north of Dorchester, while Robert Wace, the Anglo-Norman poet, in his *Brut* says it happened in Dorchester itself, which is five or six miles from the sea; otherwise the legend is substantially the same. Layamon, who translated, or rather paraphrased, Wace's poems in old English, states that foreigners by that time attributed to all Englishmen indiscriminately the tails with which only the actual offenders and their posterity were afflicted. He says the tails were called "Muggles" and the men who wore them "Mugglins." The scene of the insult to St. Augustine was in course of time transferred to Strood near Rochester, where, it was alleged, "tayles of thornback or like fishes" were attached to St. Augustine and his brethren. It may here be stated that Æneas Sylvius, afterwards Pope Pius II (1405–64), who was in England in 1435, on his way to fulfil a secret mission in Scotland, mentions Strood, "whereof the natives are reputed to be born with tails."

It would seem that two legends became confused, the original story about St. Augustine being replaced or supplemented by a tradition that the docking of the tail of St. Thomas à Becket's horse by the people of Rochester was punished in the same way as the insult to the older saint. From the middle of the sixteenth century the legend begins to die out. Writers mention it only to scoff at its absurdity. In the seventeenth century, however, a trace of it is found in the attribution of tails to the men of Kent. Andrew Marvel, in his *Loyal Scot*, says:

> For Becket's sake Kent always shall have tails.

In his *Worthies of England*, Fuller, discussing the origin of the nickname, states that the saying is "first of outlandish extraction and cast by Forrainers as a note of disgrace on all the English, though it chanceth to stick only on the Kentish men at this day." He thinks the nickname arose from the fact that the county of Kent lies nearest to France, and the French were the originators of the calumny. Barbé concludes that the actual possession of tails by Englishmen was accepted as a fact from the outset. His explanation is that the insult offered to St. Augustine, about which there is no ground for scepticism, was believed to be worthy of punishment in the same way as the disrespect of the children who called the Prophet "bald head" was visited upon them. The conviction that this ought to be the case easily led to the assumption that it actually was. The nature of the punishment was suggested by the offence. The legend found ready acceptance in a credulous age, and with the various connotations of "tail"—"beast," "coward," and so forth—supplied a term of insult of which "our fair enemy France" and her ally Scotland were glad to avail themselves.

The belief was, however, by no means confined to these countries. Fazio degli Uberti, an Italian poet of the fourteenth century, refers to England as an island where people are born with short tails, such as are seen in stags and other beasts. Boccaccio also mentions that certain Englishmen are born with tails. The legend is a striking example of credulity accepting as true a statement the falsity of which could so easily have been ascertained. But it must be remembered that even at the present day there are among us many people who seriously believe that a man

has one rib less than a woman because a rib was taken from Adam to form Eve. Perhaps the tail legend should be taken as an unintended compliment implying that English warriors did not show their backs to their enemies. All nations, even at the present day, are too ready to believe the most absurd things about foreigners. The ease and rapidity of communication nowadays has led to the decay of such superstitions as that Frenchmen feed on nothing but frogs and Germans on sauerkraut. But there still remains the general idea that a foreigner is somehow differently constituted from ourselves. This makes the ridiculous legend that Englishmen bore about them the mark of a beast in the shape of a tail all the more amusing.

LITERARY NOTES.

La Revue Mensuelle de physiothérapie pratique is the name of a new periodical devoted, as its title imports, to physical methods of treatment. The journal is intended for practitioners, and it therefore deals with essentially practical subjects. The editorial secretary is Dr. Duhain, of Lille.

In an article which appeared in the BRITISH MEDICAL JOURNAL of May 3rd (p. 959) we referred to "Tom Sawyer, late Nockemorf." We have to entreat forgiveness for a momentary aberration which led us to give the immortal "Bob" the Christian name of Mark Twain's delightful creation. At the same time we apologize for having inserted a superfluous apostrophe in the name of Sawyer's predecessor in the Bristol practice, "Nockemorf," especially as the superior literary person now *naso suspendit adunco* the author of Pickwick. But we are sure that many of our readers are lovers of Dickens, and to them the mistake in Bob Sawyer's name must have come as a painful shock.

Messrs. Jack announce *The Battlefields of Scotland*, by T. C. F. Brotchie, F.S.A.Scot. During the summer of 1912 Mr. Brotchie, in the course of a tour over all the Scottish battlefields, from Culloden in the north to Flodden in the south, made a number of crayon drawings. These drawings, which are included in the present work, form a valuable record of this phase of Scottish history. The book also contains a map showing the sites of the various battles.

A volume entitled *Matriculation Albums of the University of Glasgow, 1728 to 1858*, has just been issued by Messrs. MacLehose. It was compiled by the late Mr. Innes Addison, Registrar of the University. For a long time matriculation was compulsory only on "gown" students whose intention it was to proceed to a degree, and those who wished to have a vote on the election of the Lord Rector. Till 1843 the lists cannot be taken as complete. Mr. Addison tried to trace the after-career of the students whose names were entered on the matriculation roll, and in this laborious task he met with a "gratifying measure of success."

Visitors to an exhibition held some years ago at Earl's Court will doubtless remember a room containing a quantity of Nelson relics, amongst which was the first letter written by the hero of Trafalgar after the loss of his right arm. Nelson was not naturally ambidextrous as this irregular straggling writing testified; but that he quickly gained a certain amount of facility in writing with the left hand is proved by the signature reproduced in the April number of *The Child*, to which Dr. H. Macnaughton-Jones has contributed an interesting article on ambidexterity. According to Dr. Macnaughton-Jones the modern system of teaching children to write and draw with either hand is by no means a new one. Apart from the warlike Scythians, who are said to have been ambidextrous from birth, there is reason to believe that the ancient Egyptians were trained to use both hands, whilst ambidexterity has been a common trait amongst the Japanese of both sexes ever since Japan has had a history. In Persia at the present day a large proportion of workmen are ambidextrous, whilst the signing of letters and documents is usually done with the left hand. In Europe the teaching of ambidexterity has only in recent years found its way into the schools. It is interesting to find, however, that several famous artists, including Leonardo, Holbein, and, in our own day, Landseer, used the left hand freely when painting. Landseer, indeed, has even been known to draw different objects with either hand at one and the same time. Dr. Macnaughton Jones strongly advocates the training of children in the use of the left hand from their earliest infancy, regarding it not merely as a useful accomplishment, but as an excellent mental and moral discipline. The same number of *The Child* contains a short article on the hygiene of the car by Mr. C. A. Adair-Dighton, and an interesting description by Mr. G. C. Brown of the College for the Higher Education of the Blind at Worcester, the only public school for blind boys in the kingdom.

In the *Chronique Médicale* of May 1st we find the following story which shows how malingering was treated in the Reign of Terror. The painter David had a particular affection for his pupil Gérard. Wishing to give the young man a proof of his sympathy and esteem, the famous Republican painter caused him to be chosen a member of the jury appointed to try Queen Marie Antoinette. Gérard was by no means anxious for the "honour" thus thrust upon him, but timidity and the fear of offending his master prevented his declining the nomination. Seeing no other way of getting himself exempted from service, he pretended to be lame, and, shutting himself up in his studio, practised walking on crutches. David came several times to stimulate the zeal of his pupil, which was too lukewarm to please the *atrox animus* of the revolutionary. Gérard pleaded the pain in his leg as an excuse. This state of things lasted several days, when one of the most noted leaders of the Revolution came to see Gérard, whose talent he greatly admired. The young painter escorted his visitor to the bottom of the stairs, pretending to walk with great difficulty. When he was alone, however, he put his crutches over his shoulder and quickly ran up the stairs, on a landing of which he was met by Madame Fourcroy—probably the wife of the famous chemist. He hastily attempted again to play the cripple, but the lady said, "Do not be alarmed, sir. I have guessed the motives of your action, and respect them too much not to keep silent." David, too, had suspected the truth. The next day he called on Gérard, when the following significant conversation took place: "You don't wish to be on the jury?" "No, I can't. They would be obliged to cut off my leg if I did so." "Ah, really! Well, something else will be cut off." "What is that?" "There is a rumour about that you are an aristocrat, and if you don't come you will be guillotined." These words wrought a miraculous cure. Gérard threw away his crutches, and took his place in the jury-box.

In his delightful book, *A Wanderer in Florence* (Methuen and Co., 1912), Mr. E. V. Lucas refers to a curious piece of medical folklore which still survives at Florence. When Pazzo de' Pazzi, a founder of the family, was in the Holy Land during the First Crusade, it was his proud lot to set the Christian banner on the walls of Jerusalem. As a reward Godfrey de Bouillon gave him some flints from the Holy Sepulchre. These he brought back to Florence, and they are now preserved at SS. Apostoli, the little church in the Piazza del Limbo, off the Borgo SS. Apostoli, and every year the flints are used to kindle the ritual fire for Easter Day. Gradually the ceremony was expanded until it became a great spectacle, which was for centuries under the direction of the Pazzi family. A car containing explosives, after being drawn in procession through the streets by white oxen, is ignited by the sacred fire borne to it by a mechanical dove liberated at the high altar of the Duomo. With its explosion Easter begins. "This," says Mr. Lucas, "is a great moment not only for the spectator but for all Florence, for in myriad rooms mothers have been waiting, with their babies on their knees, for the first clang of the belfries, because if a child's eyes are washed then it is unlikely ever to have weak sight, while if a baby takes its first steps to this accompaniment its legs will not be bowed."

The fame acquired by the Italian shrine of Loreto led to the opening of what may be called branch establishments in other countries. Of such shrines Scotland, we learn from Mr. Louis A. Barbé's *Byways of Scottish History*, possessed at least two. One was in Perth, the other, of greater reputation, was beyond the eastern gate of Musselburgh on the margin of the links. This was founded in 1533 by one Thomas Douchtie, or Duthy, who had long been a captive in the hands of the Turks. There is a charter of James V, dated July 29th, 1534,

confirming the grant by the bailies of a "petra" of land in the territory of Musselburgh to Thomas Duthy of the order of St. Paul, first hermit of Mount Sinai, for the erection of a chapel in honour of Almighty God and of Blessed Mary of "Laureto." The king also gave a quantity of vestments and altar linen for the use of the chapel, and himself went thither as a pilgrim when he made further gifts at the shrine. The foundation throve under this royal favour, and Sir David Lyndsay testifies to the crowd which went

> Under the forme of feinzeit sanctitude,
> For till adore ane image in Laureit.

Against the hermit himself he brought the charge that:

> He pat the common peple in beleve
> That blynd gat seycht and crukit gat their feit,
> The quhilk that palyard no way can approve.

The popularity of the shrine was increased by the claim put forward that, in addition to its general healing powers, it possessed a special obstetrical virtue. The success of Duthy's venture naturally excited jealousy. In his *History of the Scottish Kirk*, Calderwood relates how one John Scott, "a landed man," having failed to get himself accepted as a partner in the enterprise, set up in competition. He erected an altar in a chamber near Edinburgh, whereon he set his daughter, a young maid, and wax candles about her burning, to be worshipped in place of the Virgin Mary. This did not prove successful. Scott seems to have been an early hunger-striker, though, it would seem, not to escape punishment but to demonstrate that he was a special object of heavenly protection. Calderwood says:

> Before his departure out of this country he had succumbed in an action of law, and because he was not able to pay the sum which the other party had evicted he took sanctuary at Holyrood House. There he abstained from meat and drink certain days. The bruit of his abstinence coming to the King's ears, the King caused put him into David's tower in the Castle of Edinburgh and bread and water to be set beside him. He abstained from eating and drinking thirty-two days. When he was let forth the people came flocking to him. He uttered many idle speeches, and among the rest that by the help of the Blessed Virgin he could fast suppose never so long time. He went to Rome, where he was committed to prison by Pope Clement till trial was taken of his abstinence.

After he had given a similar exhibition at Venice he got 50 ducats to pay his expenses to Jerusalem. Passing through London on his return, he was imprisoned for a harangue against Henry VIII, "but was set at liberty after he had been keeped fifty days, all which space he abstained from meat and drink."

SCIENCE NOTES.

At a recent meeting of the Royal Society, Professor J. H. Priestley and Mr. R. C. Knight communicated the results of some curious observations on the nature of the toxic action of the electric discharge upon the *Bacillus coli communis*. They found that the electric discharge in air was fatal to bacteria, and that the effect is due to the products of the interaction of the constituents of the air—namely, nitric and nitrous acid and ozone. Discharge in air-free hydrogen had no deleterious effect on the organisms, but the presence of small quantities of air allowed the formation of a toxic substance, probably hydrogen peroxide, which exerted a bactericidal action. It therefore followed that electric discharges in which the current density did not exceed 10^{-5} ampères per square centimetre did not exert any directly toxic action upon micro-organisms, a result contrary to statements made by some previous investigators.

Schryver and Singer have shown that in cases of simple ulcer on the lesser curvature of the stomach the analysis of the stomach contents after a test meal is often almost identical with that given in the case of gastric carcinoma; but when the lesion is situated in the pylorus, be it simple or cancerous, either a normal analysis or hyperacidity is obtained. In duodenal ulcer there is almost always hyperacidity. In cancer of the body of the stomach it is usual to find a condition which may be described as achylia, and this is indicated not only by the absence of hydrochloric acid, but also by the very low amount or practical absence of pepsin and the small amount of total chlorides. In healthy gastric juice they find that about 2.4 is the "nitrogen factor"—that is, the ratio of difference to titration to methyl orange and phenolphthalein divided by the amount of nitrogen—and any increase of this factor above 2.8 is diagnostic of delayed emptying of the stomach.

Dr. Wheeler has carried out at the Home Office Experimental Station at Eskmeals a series of experiments[1] called for by two dust explosions—one at a provender mill in Glasgow and the other in an oil-cake factory in Liverpool—each attended by serious loss of life. In these experiments several kinds of dust were dealt with so that the degree of their inflammability should be determined as well as their capacity to transmit explosions. Dust was taken at random from the beams and crevices in factories. In all sixty-six samples were taken. Attention was in the first place directed to the separation of harmful and harmless dusts and to the temperatures at which the dangerous dusts readily took fire. Some dusts readily ignite and propagate flame, the source of the heat for ignition being small, such, for example, as that from a lighted match; other dusts become readily ignited, but for the propagation of flame there is required a source of heat of large size and high temperature (an electric arc) or of long duration (the flame of a Bunsen burner); and there are also dusts which are incapable of propagating flame under any conditions likely to obtain in a factory. Sugar, starch, and the ground grain of many cereals come under the first class of dusts; oil products, sawdust, and leather under the second. Sugar, dextrine, starch, and cocoa are the most dangerous, sugar exceptionally so. It ignites when projected as a cloud against a surface heated to below red heat, and when ignition takes place the flame travels with great rapidity through the dust cloud. The temperature at which ignition of the different kinds of dusts takes place varies. Dr. Wheeler reduced the various kinds of dust as far as possible to the same degree of fineness by passing them through a 200-mesh sieve. For the sake of comparison the temperature of bituminous coal dust was determined and found to lie between 1000° C. and 1100° C. Some dusts of a fluffy nature could not be passed through a sieve. The ignition-temperature of briquette dust was found to be 1090° C., chicory 1070°, flour 1060°, starch 1035°, tea 1010°, oil cake 945°, and dextrine 940° C. The inflammability of combustible substances is regulated by the rapidity with which oxidation can be effected so as to produce flame. It is therefore a question of the affinity of the combustible material for oxygen. Physical conditions, too, are not without influence, a circumstance which explains the greater inflammability of coal dust than coal in the lump. The finer the dust the greater is its inflammability. From such dusts as those alluded to inflammable gases are evolved which form with atmospheric air inflammable mixtures. Should such a mixture of gas and air become ignited, sufficient heat would be provided to cause inflammation of an adjoining layer of air and dust, and thus initiate an explosion. In a series of tables Dr. Wheeler gives the lowest temperatures at which ignition can be effected. The report is an interesting and valuable contribution to an important subject.

[1] Report on the Inflammability and Capacity for Transmitting Explosions of Carbonaceous Dusts, etc. By R. V. Wheeler, D.Sc. 1913. Price 1½d. (Cd. 6562.)

Dr. Hearsey, P.M.O. of the Nyasaland Protectorate, in his *Sleeping Sickness Diary*, Part XIX, states that during the preceding quarter 15 additional cases of human trypanosomiasis were reported; of this number 12 were found by Dr. Shircore and 2 by Dr. Conran in the sleeping sickness area; the remaining case was notified by Dr. Morgan from the Marimba district; these added to the cases previously reported made a total of 108. Dr. Hearsey points out that so far some 10 cases of trypanosomiasis have been discovered in or found to be derived from the districts lying to the north and south of the proclaimed area. This indicates that the factors necessary for acquiring infection are not limited to the Dowa subdistrict. Much difficulty has been experienced by medical officers owing to the natives refusing to present themselves for examination and also hiding their sick. This, however, had been to a great extent overcome in the proclaimed area of the Dowa subdistrict by the employment of special police.

British Medical Journal.

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THE SITUATION IN SOUTH WALES.

THE acuteness of the situation in South Wales, where the relations of the medical profession to the Insurance Commissioners and certain organized bodies of workmen are strained almost to breaking point, affords good reason for dealing at some greater length with the position than was possible last week. If there was a part of the kingdom in which it might have been prophesied that the National Insurance Act might work with the minimum of friction the industrial areas of South Wales would probably have been selected. Medical practitioners there had for generations been accustomed to work on a contract system, and, indeed, in some districts practically no other kind of practice was known. The special needs of the poundage contract systems seemed to be met by that otherwise objectionable subsection of Section 15 of the Act known best as the Harmsworth amendment. Wales is believed to be strongly Radical in its political tendencies, and it might naturally be supposed that every effort would be strained by the administrators of the Act, paid and honorary, to make it a popular success in the home of its author. The Act has more than once falsified expectations, but never more than in this case. While it may be said that over Great Britain generally it is working with less friction than might have been anticipated we find that in the mining and industrial areas of South Wales apparently nobody is pleased. The public, the Commissioners, the Committees, and the doctors are all dissatisfied.

As regards the poundage systems, which have in many areas supplied medical attendance for workmen and their families to the general satisfaction of all concerned, an unexpected obstacle arose when the Welsh Commissioners declined to approve their continued existence under Subsection 15 (4) as institutions existing at the time of passing of the Act, unless a committee were set up whose duty it would be to receive the money of the workmen, pay the doctors, submit audited accounts, and perform other functions which would doubtless in time extend to the complete control of the doctors unfortunate enough to be in their employment. It did not matter that the schemes had worked perfectly well for years in most cases without any such committee; that the deductions had been made at the office of the mine or works and paid direct to the doctor; that unless the new committee was to prove superior to the temptation of making deductions for various purposes from the workmen's contributions the only items on the balance sheet would be, on the one side—collected so much; on the other—paid to the doctor the same amount. The vested interests of the doctors who had been making their livelihood through these schemes were apparently also deemed to be of no consequence, though we know that it was the vested interests of the friendly society medical aid associations which led to the insertion of the Harmsworth amendment in the Insurance Bill. In spite of the protests of the doctors, and also of the workmen in some of the areas where they are quite content with the old arrangement, the Commissioners have insisted on the institution of committees of workmen. The medical men in these areas, to their great credit, have for the most part flatly declined to have anything to do with such committees. They have proved them to be unnecessary, and they know from sad experience what it means to members of the profession to put themselves under their yoke.

But there were areas where such schemes were not in operation at the time of the passing of the Act, and where, in consequence, it appeared they could not now be set up. The ingenuity of some of the Welsh Insurance Committees, encouraged it appears by the Welsh Commissioners, has proved equal to the emergency. Why not try Subsection 15 (3) of the Act, which allows persons, with the permission of Insurance Committees, to make their own arrangements? It is true that Dr. Addison, the author of this subsection, never dreamed of its being used to set up what amounts to a new creation of "Harmsworth institutions," nor was it suggested to Parliament when the matter was being debated that the subsection was intended for this purpose. But such small obstacles as these could not be allowed to stand in the way of large bodies of workmen who saw the chance not only of getting their dependants attended cheaply by the aid of the money allowed for attendance on insured persons, but saw in it an opportunity for getting the local profession under lay control in a manner much more effective than anything possible under the panel system. Accordingly a considerable number of "schemes" have been floated in Monmouthshire and Glamorganshire in which it is proposed to offer an inclusive sum to the doctor for attendance on a number of insured persons and their dependants, the funds being obtained by pooling the 6s. 6d. of the insured person, *plus* small extra contributions on behalf of the dependants. Several of these schemes have already been approved by Insurance Committees.

A very interesting feature about these schemes is that, unless they are entirely *ultra vires*—an opinion which we strongly hold—they only need the approval of the Insurance Committee, and do not require that of the Commissioners. That is to say, that a scheme which, had it been in operation at the time of passing of the Act, would, if it sought approval under Section 15 (4), have been restricted in the most careful way by the Regulations of the Commissioners, is under Subsection (3) to be allowed to be established without any of these safeguards. Take an instance which is quite within the bounds of probability. A scheme is set up consisting of 1,500 insured persons with their dependants, and pays its doctor £700 a year. If we assume that the dependants average two to each insured person the doctor of the scheme will be required to attend 4,500 persons. The committee working the scheme would receive from the Insurance Committee 6s. 6d. for each insured person—that is, £487 10s.; therefore, the 3,000 dependants would only need to find £212 10s., or 1s. 5d. a head per annum. Now, it is obvious that the person who gets his or her attendance for 1s. 5d. per annum is getting it at a rate which is ludicrous. The inevitable result of a system under which insurance funds were used to subsidize a system of this kind would be to depress the standard of medical attendance on the whole 4,500. We have no hesitation in saying that any Insurance Committee which permits its money to be used in

this way is guilty of aiding and abetting the defeat of the ends aimed at by Parliament in granting the rate of 6s. 6d. a head for insured persons. We go further and say that, in spite of the fact that Subsection 15 (3) leaves the right of allowing persons to make their own arrangements in the hands of the Insurance Committees, and apparently does not contemplate any supervision on the part of the Commissioners, any body of Government officials which acquiesces in the institution of such schemes is guilty of a dereliction of duty to the State and to the insured persons for whose medical treatment they are responsible.

It is instructive to note the difference between the action of Insurance Committees in Wales in connexion with this subsection and that of the Committees in England and Scotland. It has only been with the greatest difficulty in most insurance areas in England and Scotland that even thoroughly deserving cases have been allowed to "make their own arrangements." In Wales the Committees are apparently willing to allow it on a wholesale scale and the Commissioners look on with complacency. The whole situation appears to us to be a grave public scandal. In protesting against it the profession in Wales will receive the sympathy and the whole-hearted support of the Association. In resisting the imposition of lay control in its most repugnant form they are doing a service to the profession and to the public. We would say again that the case is eminently one for the exercise of the powers of co-ordination in regard to medical benefit which are possessed by the Joint Commissions. If there is ever to be a case for their intervention, this is one. We understand, indeed, that the points at issue have been brought prominently before Ministers and the Joint Commission, and are receiving their serious attention, so that it is not likely that a decision will be arrived at without a full consideration of all sides of the case. Parliament rose for the Whitsuntide recess last Thursday, and it is not anticipated that an announcement will be made on the subject for two or three weeks.

THE CONDUCT OF LABOUR WITHOUT INTERNAL EXAMINATIONS.

CAN confinement cases be conducted safely and efficiently without vaginal examinations? If they can be so conducted, then internal examinations should be abandoned, for it is easy to show that they introduce an element of risk into labours which apart from them would be free from danger. The risks are nowadays well known. There is, first, the introduction of infection from without, and even the expert obstetrician occasionally, with all his aseptic precautions, may carry into the vagina, on his fingers, gloves, or instruments, microbes of diseases with which he has been in touch. How much more the midwife or the inexpert or incautious! There are also microbes in the vagina or near to it which, whilst they are confined to that canal and its surroundings, seem to be less virulent than usual, but become dangerous when they are carried up by examinations to its upper part and into the neighbourhood of cervical cracks or erosions. They constitute a second risk, that of infection from within; and this risk is intensified by vaginal examinations. Professor Charles M. Green, of Harvard University, who has been writing on this subject,[1] states another objection to internal examinations in midwifery—namely, that they are distasteful and even painful to the parturient woman, especially when she is a supersensitive primipara.

Now the real question to be settled at the present time is this: Granting that internal examinations in labour, even when practised by obstetric experts, introduce an extra risk into the management of confinements, is there any way in which the diagnostic and prognostic purposes for which they are made can be obtained otherwise? Professor Green and a good many other teachers think that the external examination, which is free from risks, may be safely regarded as a sufficient substitute; and it is true that if it be carried out as these obstetricians advise, and with the *tactus eruditus* which they possess, it must be ranked high both in diagnosis and prognosis. But it is not everyone who can by noticing the movements of the unborn infant "map out the fetus by sight," detect by palpation "the presence of a complicating neoplasm and locate the placenta," or gauge the normal amount of liquor amnii after the rupture of the membranes. Further, we fear the practice of the "Pawlik grip" would upset a supersensitive primipara as much as, if not more than, a vaginal examination. These, however, are objections which it is safe to say may be largely overcome by proper teaching and by persistent practice, but there are others which are not so easily disposed of.

How, for instance, is progress in the dilatation of the cervix to be measured if not by internal examination? How are pelvic contractions, still more vaginal septums and bands, the presence of a dermoid cyst in the pelvic cavity, and such anomalies as prolapse of the cord in labour, to be discovered so as to allow of proper treatment being instituted at a suitable and sufficiently early time? It may be urged—and this is the view which Professor Green apparently takes—that if labour goes on normally and terminates within reasonably normal limits of time, there is no need to know about the dilatation of the cervix. But the detection of the pelvic and other anomalies is a more difficult problem, and it is just here that we are in cordial agreement with the Harvard professor. He says, Let every pregnant patient be under the care of her medical attendant from the early months of her pregnancy; let the pelvis then be measured externally with care, and search made for any existing condition likely to make the future labour abnormal; nay, more, let a thorough bimanual examination be made. But why should an internal examination be advised in the early months and forbidden at the time of labour? Will the supersensitive primipara be likely to submit more willingly at the former than at the later time? No; but the reason, of course, is that in the former case there are no abrasions and tears in the cervix and vagina, and the uterine cervix is closed, and the risks of bacterial infection very small. This is a very important point, and it is well to emphasize it; in order to enable us to conduct labours without internal examinations in labour we must make these examinations in early pregnancy. To what, then, does this conclusion lead but to the value of diagnosis in pregnancy, and through it we reach the prematernity ward or pavilion about which we have spoken more than once (*vide* JOURNAL, February 8th, p. 297)? Curiously enough, Professor Green has apparently reached the prematernity ward himself, although he gives it no special name, for here is what he says: "Even in my hospital more and more women have year by year been led to make early application for pregnancy care and observation, until finally a clinic has been established, with a special staff, to carry on this work for

[1] *Boston Medical and Surgical Journal*, vol. clxviii, April 10th, 1913, pp. 521–530

hospital patients and out-patients alike, and the same advantages are extended to the poor as to the private patient." Assistance may be forthcoming from the radioscopic investigation of pregnancy and labour. At first much was expected from this means of diagnosis and yet comparatively little was obtained on account of technical difficulties, fetal movements (which the *x* rays seemed to stimulate), and the deep breathing of the mother; now, however, the radiographers of some of the Parisian hospitals seem to have surmounted all obstacles and are able to give reliable skiagrams of obstetric conditions and even to show the fetus at the fourth month.

Whilst all these things are true—whilst, by making use of careful external inspection, palpation, and pelvimetry in labour, and whilst, by carrying out internal examinations in the early and even in the later months of pregnancy, there will be less need of the vaginal examination in actual labour, yet it cannot be dispensed with altogether in all cases. Even Professor Green accepts this conclusion, for he enumerates *ante-partum* haemorrhage, eclampsia, prolapse of the cord, long delay in labour, and the complications rendering operation necessary, as conditions warranting vaginal examinations during labour. We cannot therefore answer in the affirmative the question asked at the beginning of this article; we cannot say that confinement cases can be conducted safely and efficiently without vaginal examinations. We can well agree with Professor Green when he says that "the common custom of making frequent vaginal examinations during labour is a bad one," and it deserves the name of "vaginal invasion" which he has given to it. We can go further, and look forward to the time when the doctor, by his earlier acceptance of responsibility for supervising his obstetric patients, will be able to dispense more and more with vaginal examinations at the time of actual confinement. The general institution of prematernity institutions will help also. Still, the conclusion must be that vaginal examinations cannot be entirely abolished in labour.

SCHOOL BOOKS AND EYESIGHT.

THE report of a special committee on the influence of school books upon eyesight, issued recently by the British Association,[1] is a sign of a revival of interest in the ancient and honourable craft and mystery of printing. In the beginning almost all books were beautifully printed, for the type makers gave their characters bold forms, taking the work of the manuscript writers as their model. They considered all the factors in the legibility of the page which the report we are considering enumerates, and paid regard also to the form and balance of the mass of type, to the size and shape of the page, and so got a beautiful and gracious effect. Until almost the other day, all printing was done from the actual type and on hand presses, but the hunger for knowledge and the growth of the habit of reading produced a demand for cheap books which was met at first by using cheap paper and small type, and so cramming as many words as possible on to as small a page as possible. For generations things have been going from bad to worse, for to the earlier defects have been added those due to the practice of stereotyping or casting, and the use of rapid mechanically-driven printing presses. There have always been a few printers who have kept a higher standard in view, and there have always been the old books to remind us of what a well printed book is. But until lately the general tendency has been downwards.

This has been due to the spirit of competition in commerce and the assumption that the public would prefer quantity to quality in the matter of paper and printing, and would be certain to choose the book that supplied the largest number of words for sixpence. Bargains in books would often be found to be no gain to the reader if the sum total of the effects of the reading were ascertained, and there are signs that the public are beginning to find this out. School books ought not merely to share in the improvement, but to lead the way, for only school children, students, and reviewers are compelled to read books they find trying to the sight.

The report commences with a statement of the results of the committee's inquiries into the present practice of local education authorities under the authority of Circular 596 of the Board of Education. The conclusion arrived at is that "practically no systematic attention is given to the influence of school books upon eyesight."

Four pages of the report are given to a report of the oculist subcommittee, consisting of Dr. H. Eason, Mr. Bishop Harman, and Professor Priestley Smith. This report is really the answer to the question set before the committee. The surgeons state categorically the effects that reading is likely to have on the children who read too much or begin too early. The warning given in the report of this subcommittee as to the grave danger incurred in overworking the immature eye of the young child is worthy of the most serious attention from every one concerned. No amount of provision and care in the production of school books will make up for the lack of recognition of this one point. If the report does no more than drive this simple fact home to those who are responsible for the training of the young, it will have earned the thanks of the next generation. Equally wise and cautious are the remarks of the surgeons concerning the production and increase of myopia. These four pages should be in the hands of every one who has educational charge of children. They are certain to be helpful, and technical terms which might confuse the understanding of the layman are avoided.

The third section of the report deals with the hygienic requirements with which school books should conform. The several conditions that go to make up good printing and their relation to the psychology of the reading process are set out. Similarly the requirements of special subjects such as music, mathematics, and foreign scripts are set forth. The report ends with an appendix, a glossary of technical terms, and ten pages of specimen types suitable for children's use at various ages.

The general findings of the committee as to the conditions a book which shall be "good" in the sense of legibility must fulfil may be summarized as follows: (1) The size of the type must conform to the age of the child. (2) The width of each character must be proportionate to its height. (3) The outline to the type must have sufficient strength. (4) The space between the lines, termed the "leading," must be sufficient. (5) The length of the line must be reasonable. (6) The ink must be black. (7) The paper must be white, or nearly white, hard, opaque, and without gloss.

The practice of printing has changed greatly of recent years. The extended use of machinery, "fashion," and improvements in the arts of manu-

[1] Report on the Influence of School Books upon Eyesight, by the Special Committee of the British Association appointed to inquire thereon. Pp. 34. Price 4d., from the offices of the Association, Burlington House.

facture, have changed the prevailing style of type, not always for the better. The skill of the type-founder has led him to produce founts that are a marvel of accuracy and delicacy of moulding, with hair lines that would have been the wonder of earlier printers. But the value of these improvements so far as the comfort of the reader is concerned is *nil*, rather they are a drawback. The introduction of rapid machines for printing has had even greater effects. It was unavoidable that the hand press should go, but it is a thousand pities that the bold emphatic impressions which came forth from those presses should go with them. The expression "damp from the press" tells of the way in which the old printers got their fine effects: they damped the paper. To-day most printing is more or less dry, and dry paper and thin-faced type give an effect that is not impressive to the eye of the reader, and causes fatigue and weariness. The conditions become worse when the requirements of illustrations of modern style—commonly photographs reproduced by photography—are met by the use of a highly-glazed "art" paper for the text also.

The legibility of print depends upon effective contrast. The contrast cannot be effective when the paper shines, or when it is so thin and wanting in opacity that the print of the other side shows through, or when the lines are so close that the eye is confused by their nearness. Further, the salient points of letters are mainly along their tops, so that to enlarge a letter by increasing its height is not to make it more legible; breadth is equally necessary. The point can be well seen by reference to the specimens of type given in the report. No. 1 is a large type of "modern face"; No. 3 slightly smaller type of "old face," yet the latter is legible at a greater distance than the former. The committee had evident leanings toward the superior legibility and artistic merit of the "old face," or "old style antique," and there can be no doubt of the truth of its recommendations. A page of old face type has an air of distinction that is a dignified introduction to what we may hope are pearls of wisdom in the text. For school books it should be the standard style of type. Examination of recent elementary school books shows that publishers are already turning their attention once more to this style, which seems to be the only style that can successfully counteract the evil effects of rapid machine printing on dry paper.

The report is not without defects in detail. No note was made on the binding of books—a very necessary point since the introduction of the machine staple. If these are set in from side to side, as is too often the case, the book cannot be opened flat, and therefore becomes unreadable. The Stationery Office sets a deplorable example in this respect. The scale of "leading" is inaccurate for the younger years. In school books the minimum space between the lines made by the short letters should not be less than twice the height of these letters. Some of the specimens are examples of that which should be eschewed rather than that which is commendable. No. 4 is a beautiful style of type ruined by lack of "leading." No. 5 seems to pass muster on the soft paper of the report, but on a hard paper it has an unpleasing effect like the dazzling produced by viewing a long row of palisading. The hair lines are too fine in comparison to the downstrokes—the common fault with "modern face" style. No. 6 shows a type that conforms to standard measurements in size and leading, but there is a want of strength of line, and the whole effect is "pale faced." On harder paper this would be more marked. These errors in the report show how necessary it is that printers and writers should come together again as no doubt they did in former days. If the printer knows nothing of the ideas and intentions of authors, how can he be an artist in type?

The report ends with a severe but thoroughly justified criticism on the printing of Bibles, prayer-books, and hymn-books. For the most part these books are not fit to be put into the hands of young children, because the elders who produce, vend, and buy these books are greedy. They are not content with a book of modest contents, of the size that a child can handle, done in type that a child can see. They must needs cram into that same sized book enough material to fill half a dozen, with the result that the paper is thin, the type small, and the book unreadable. So far as the Bible is concerned there is no necessity for this. The issue of the several books of the Bible in well printed volumes of convenient size is merely a matter of arrangement; the "parts" at present on sale are too cheap and poor for school use.

The whole moral of the report of the Committee of the British Association may be summed up in the words—less material and better quality.

THE AMENDMENT OF THE INSURANCE ACT.

A number of statements have appeared in the press as to the lines of the bill to amend the Insurance Act now under consideration, but we believe that they mainly represent the kind of guesswork with which we are familiar on these occasions. When the additional money was provided for medical benefit it was understood that the use of this money as a supplement to the two-ninths otherwise contributed by the State towards the cost of benefits would have to be regularized in an amending Act, and, as we suggested in a recent issue, the difficulties presented by casual labour are so great that they can scarcely escape attention during the present session. It will be remembered also that an undertaking was given by the Chancellor of the Exchequer that the Government would give attention to the contention put forward by medical men in respect of insured persons who subsequently become well-to-do. Under Section 1 (3) (*b*) such persons may continue as voluntary contributors if they have been insured for five years. The point of the medical objection is that thereby a number of well-to-do persons with incomes of more, sometimes far more, than £160 a year might be able to take advantage of the State-aided insurance. We should certainly anticipate that the Government will see to the fulfilment of that promise in the forthcoming amending bill. The grant of money made to assist in providing medical benefit for those who are insured under the Act, and were 65 years of age at the appointed day, will also probably require embodiment in the forthcoming bill.

INTERPRETING THE INSURANCE ACT.

The case Heard *v.* Pickthorne, which was decided by the Court of Appeal on May 1st, settles a point of considerable practical importance both to insured persons and to members of the medical profession. A friendly society had refused to accept the certificates of a medical man as evidence that the applicant was entitled to sick benefit on the ground that the signature was not that of a doctor on the panel. It appeared that the society had adopted a resolution "that in every instance a certificate from a panel doctor must be sent." The case was brought to the notice of the London Medical Committee, and an application was made to Mr. Justice Bucknill for an interim injunction against the defendants on the ground that the resolution and the consequent refusal were *ultra vires* and not enforceable. The judge did not issue an

interim injunction, on the ground that the matter was one which should be tried in court. It accordingly came before Mr. Justice Bailhache, who dismissed the action with costs, on the ground that the point was one which ought to be decided by arbitration under Section 67 of the National Insurance Act. The National Medical Guild, the body which has developed out of the London Medical Committee, took steps to ensure that an appeal was entered against this decision, and the hearing was expedited in view of the importance of the matter. The Court of Appeal was unanimous in holding that the action of the friendly society was *ultra vires*, inasmuch as its resolution had stated that the only proof it would accept of incapacity for work was a certificate signed by a panel doctor. The Court held that the society had no right to limit beforehand in this way the kind of evidence it would accept. When the Insurance Act was hurriedly completed in December, 1911, it was prophesied by many that it would afford a great deal of work for the lawyers and the law courts. This case is one of the earliest proofs of the truth of this prophecy, and the importance which the Courts attach to speedily setting doubtful points at rest is shown by the almost unexampled celerity with which this particular matter had been dealt with. There is, we are afraid, no doubt that the friendly societies, and at least some of the authorities created by the Act, are disposed to interpret any point in doubt to the disadvantage of the medical profession. The result in this case will encourage the profession, where it feels that it is being unjustly treated and the terms of the Act are being strained to its disadvantage, to bring the matter promptly to the arbitrament of the Court of King's Bench. The Court of Appeal in this case has shown itself jealous of its authority, and has very definitely indicated its opinion that the case was one which fell within the jurisdiction of the courts of law, and was not a matter to be settled by arbitration.

ATTENDANCE ON AGED AND DISABLED MEMBERS OF FRIENDLY SOCIETIES.

THE issue by the Insurance Commissioners for England of the Memorandum (155/A.S.), which is reproduced in the SUPPLEMENT, raises once again the question of the rate of remuneration for the attendance on those members of friendly societies who, because they were over 65 or were permanently disabled, did not become entitled to medical benefit under the ordinary arrangements made between Insurance Committees and doctors on the panel. The circular repeats, and emphasizes, that reading of the Section 15 (2) (*c*) of the National Insurance Act to which the Association has taken strong exception, and for which we can find no foundation in the wording of the section, and certainly none in the code of honour which regulates ordinary dealings between man and man. As we have repeatedly pointed out, the Association made a bargain with the friendly society representatives that if they on their part would abandon their proposed campaign in favour of inducing Parliament to reverse its decision to put the administration of medical benefit in the hands of the Insurance Committees and not into those of the friendly societies, the Association on its part would undertake that the class of members of friendly societies with whom we are now dealing should be attended at the same rate of remuneration as applied to insured persons. The Association was, of course, ready to carry out its side of the bargain, and, being unaccustomed to deal with people who hold that whether they do so or not depends on whether it pays them, ingenuously imagined that when the terms of the bargain were incorporated in the Act the last word had been said. But it did not reckon on the ingenuity of the friendly societies, or rather some of them, for they have not all tried to evade their obligations. Nor did it reckon on having the dice loaded against it by the active partisanship of the Chairman of the Joint Commission, who by official action, by innuendo, and by direct accusations of meanness against the medical profession, has done his worst to keep alive a quarrel which without his intervention would, in all probability, by this time have died a natural death. In the memorandum now under consideration an official document is used to dot the i's and cross the t's of Mr. Masterman's misreading of this subsection. We are told that the Exchequer grant of 2s. 6d. will be available for all the insured persons over 65, though not for the permanently disabled members of friendly societies who were thereby prevented from becoming insured persons. But the societies are told that if they are able to make a contract with doctors at less than 8s. 6d. for attendance and medicines, they will be able to give the contributor the advantage, by giving him an increase of his sick pay—at the expense of the doctor! But the most amazing part of the document is contained in paragraph 8, where the societies are told that the doctors on the panel can be *required* (this word is italicized in the memorandum) by the Insurance Committees to attend these classes of friendly society members at the same rate as the insured, but that the duties of the Insurance Committees "are limited to enforcing upon doctors upon the panel, if called upon to do so, one of the conditions of these doctors' contract with the Committee." In plain English this means that the doctors can be held by official machinery to *their* side of the bargain, but that the friendly societies are at liberty to do all in their power to evade their obligations and are to have resort to the compulsory powers of the Committees only if they find the doctors are not so foolish as it is hoped they will be. It is as well to have the matter thus plainly stated, and we hope the eyes of the medical profession will be fully opened to the unscrupulous nature of the opposition they have to encounter on this subject. The duty of the profession is quite clear. In spite of any leanings its members may individually have towards dealing on charitable terms with the old and disabled members of friendly societies, it must remember that on its behalf a bargain was made that medical practitioners would attend this class at the same rate as was paid for insured persons generally. The efforts of the other parties to the bargain to escape their lawful obligations, backed as they have been by official and officious interference, should only make the profession more determined that the bargain shall be kept by both sides. The problem which the friendly societies have to solve is a very small one. They now, by the terms of the circular under consideration, have 2s. 6d. towards the payment for the medical attendance on each of their members who were 65 at the passing of the Act, so that no difficulty should arise as to these. As regards their permanently disabled members who could not become insured, all the societies have to find is the difference between the old rate of payment to the doctor and the 8s. 6d. now paid for the attendance on insured persons. It must be remembered that these members have for years been insured by the medical profession for their medical attendance at a rate which the Government has admitted was inadequate even for ordinary healthy employed persons. How even Mr. Masterman can contend that that inadequate rate should be continued for the worst class from an insurance point—the class the Government refused to insure because the risk was too great—passes our comprehension, and may well pass the endurance of the medical profession.

A NEW TYPE OF CONSCIENTIOUS OBJECTOR.

DURING the passage of the Insurance Bill through the House of Commons Mr. McKenna gave an assurance that the case of those who conscientiously objected to receiving treatment from qualified medical practitioners should be considered. Their case was mentioned also in the

discussion of the amendment to Section 15 of the Insurance Act, under which certain persons might be allowed to make their own arrangements for medical attendance and treatment. A deputation on this subject was received by Mr. Masterman on May 6th, and it was promised that the Government would endeavour to see that in some way or other those persons who did not believe in the orthodox system of medicine, and were willing to make a declaration as insured persons that they wished for some other form of treatment, should be allowed to have that treatment and should not on that account lose the proportion of the money allotted to them for medical benefit. It is understood that applications have been received from different parts of the country from insured persons who wish to be treated by herbalists, Christian Scientists, and others, and it seems to be considered that the only way in which the Government promise to this class of person can be redeemed will be to devise some scheme by which they will be allowed to use the money set aside for providing medical benefit to help them to pay for "the treatment" they desire to receive. The administration of sickness benefit according to their rules is wholly in the hands of the societies. The Insurance Committees have nothing to do with the payment of sick benefit, and it will remain for the societies to decide whether they will accept certificates for sickness from herbalists and Christian Scientists. There is no indication at present that the societies are willing to accept certificates from any persons other than qualified medical practitioners.

SCHOOL MEDICAL OFFICERS IN CONFERENCE.

If anything were required to show how far the profession has travelled in the subject of the medical inspection and management of school children during the past twenty years, it is furnished by such a conference as that which met in Edinburgh last week; a brief report of it is published elsewhere. The single fact that ten years ago there was at most only one medical inspector of a school board school in the whole of Scotland and that now there are 105 such officers is sufficient to set in a high light the revolution which has taken place in this department of medical practice. Formerly the schoolmaster ruled over the school and the scholar, with the inspector exercising periodic discipline over the schoolmaster; but now the medical man has stepped upon the scene, and with him has come the realization of the paramount importance of the second part of the old adage, *Mens sana in corpore sano*. As was being said in Edinburgh last week, "physical culture is to come before the Humanities, and hygiene is to be reckoned of greater importance than higher mathematics." It looks as if it were to be a stiff contest between the leech and the dominie, with the advantage of attack on the side of the former. That one out of the four sessions into which the conference was divided was held in Dunfermline furnished the delegates with an object lesson which will not be lost either upon them or upon the profession and public generally. In the ancient Fifeshire royal burgh, the scene of many stirring historic events, the birthplace, in 1837, of Dr. Andrew Carnegie, and now a busy manufacturing town, the Carnegie Dunfermline Trustees have since 1903 made provision for the bodies as well as for the minds of the school children within the bounds. As Dr. Ross (Chairman of the Trust) told the visitors, the Dunfermline Carnegie Trustees began their interest in physical training by providing on a humble scale for gymnastic exercises; then they extended the work to the teaching of physical culture in all their public schools; then they passed to medical inspection of all school children, and eventually were further led to the creation of a College of Hygiene and Physical Training, where students, after pursuing a suitable course of study, became qualified as teachers to communicate what they had gained by their studies to the children in the public schools throughout the country. Still further, medical inspection had led the way to its natural and indispensable sequel, medical treatment. In all these advances the Carnegie Trustees, with it can well be believed the full approbation of the truster, tried to act as pioneers, and their success can now be recognized. Further, the delegates not only heard of these things—they saw the training lessons for children of various ages going on, and witnessed an exhibition by the students of the College of Hygiene. The conference was notable for other things, however, as well as the visit to Dunfermline. Dr. Campbell Munro, the County Medical Officer for Renfrewshire, carried the sense of the gathering with him when he advocated simple and inexpensive buildings and condemned the palatial schools—costly solid stone structures—put up as if they were to last for ever. Inexpensive buildings, well heated of course, well lighted, and well ventilated, were what were needed; they would serve their day and could then be razed to the ground when new ideas perhaps demanded a different type of structure. Dr. Leslie Mackenzie touched upon another difficulty when he asked the conference how far they could, without danger to the boy or girl, require the industrial worker to remain at school. This was the medical problem of the continuation schools. Was it medically right to permit a boy or girl to work eight or nine hours a day, and then to require two or three hours of intellectual labour at an evening school? There were several other matters of no little moment discussed, such as the difficulties of the medical treatment of school children in the rural districts, on which Dr. Maxwell Ross spoke helpfully and suggestively. Touching upon the problem of the teeth, especially between the critical ages of 6 and 8, Dr. Maxwell Ross, we notice, recommended the appointment of a whole-time dentist for such a county as Dumfries. One of the most interesting events of the conference was the visit paid to one of its sessions by Sir John Struthers, K.C.B., Secretary to the Scottish Education Department. In an address he expressed what was probably in the minds of all the delegates, the thanks they owed to Dr. Leslie Mackenzie, to Dr. Cruickshank, and others for making the conference possible and for carrying it through so successfully. Very significant, too, was Sir John Struthers's remark that he was entirely with Dr. Campbell Munro in his desire for improvement and economy in the building of schools. Taking it altogether, this conference, the first of its kind held in Scotland, must have lasting effects. The school medical officer is a growing power in the land; and with the help of such conferences to enable him to see his subject "steadily and see it whole," and with such special training as can now be got from post-graduate courses on the diseases and defects of children, he ought to be a beneficent force likewise.

LONDON SCHOOL OF TROPICAL MEDICINE.

The extensions in progress at the London School of Tropical Medicine are approaching completion and will materially increase its resources. The new general laboratory, which is beautifully lighted from the north, will provide bench room for seventy-two students, or, indeed, more if necessary. Separate laboratory accommodation on a generous scale is also being provided for a suggested new department of tropical sanitation and for an insect room, a preparation room, and a director's room. All these are in addition to the existing helminthological, protozoological, and entomological laboratories. The residential accommodation has been extended, and now comprises twenty-seven bedrooms, while a new mess-room and serving-room are nearly completed. Suitable accommodation is being provided also for ladies, a considerable number of whom attend the classes. The necessity for this general increase in the workrooms and residential quarters is due to the gratifying growth in the number

attending the three sessions of the school which are held each year. Last year the total number attending the three classes was 194. The school draws its pupils from all parts of the British Empire and not a few from other countries. The visitor to the school cannot fail to be impressed by the way in which the institution is organized, and especially, perhaps, by the high standard already attained by the comparatively new special departments of helminthology, protozoology, and entomology. It is probable that the extension of the school will be opened with some ceremony during the summer, and in any case everything will be ready for the work of the next autumn session. The hospital is in immediate connexion with the school; both occupy a site close by the entrances to the largest docks on the Thames, and there are projects for adding to the docks at least one still larger. In the wards of the hospital may be seen, in the course of a month or two, seamen and others of almost every nationality suffering from those exotic diseases to the study of the prevention and treatment of which the whole institution is primarily devoted.

GRAND OLD MEN.

THIS is usually said to be the day of the young man, and in business at least the phrase "too old at forty" is supposed to express the truth. Undoubtedly, the pushful young man is very much to the fore, but in the higher spheres of activity where judgement and ripe experience are more valuable than adventurous energy, old men still do more than hold their own. The question of a retirement age for judges has recently been discussed, and Lord Alverstone is reported to have said that a judge is at his best from 65 to 80. Mr. Justice Phillimore, again, is reported to have delivered himself of the apparent paradox that the work he now does is so hard that if he was a younger man he could not do it. This, we take it, means that the larger experience he has gained with increasing years has made him more capable. But it is not only on the bench that we see octogenarians full of intellectual vigour, and there are among us several nonogenarians who are far, indeed, from the second childishness and mere oblivion of the last act of Jaques's drama of life Lord Wemyss at 94 still wields a slashing pen in the advocacy of his opinions, and Lord Strathcona at 92 continues active in public life. We are proud to claim as one of our grand old men of medicine the Right Hon. Sir Charles Tupper, now aged 91, who sailed from Canada for England on May 2nd. He is a Doctor of Medicine of Edinburgh, but is best known as a politician. He was Premier of the Province of Nova Scotia at the time of the Confederation in 1867, and has held nearly every great office of State in the Canadian Government. He was President of the Privy Council in 1872, Minister of Inland Revenue (1872–3), Minister of Customs (1873), Minister of Public Works (1878–9), and Minister of Railways and Canals (1879–84), High Commissioner for Canada in England (1883–7 and 1888–96), and Minister of Finance 1887–8). He was one of His Majesty's Plenipotentiaries on the Fishery Commission at Washington in 1887–8, and Commissioner for the negotiation of a treaty between Canada and France, 1893. He became Prime Minister of the Dominion of Canada in 1896 and was Leader of Opposition in the Canadian House of Commons from 1896 to 1900. He was created a baronet in 1888 and was named a Privy Councillor in 1909. Few men's lives have been so full of work useful to their country and to mankind as that of Sir Charles Tupper.

SIR JAMES PORTER.

SURGEON-GENERAL SIR JAMES PORTER, K.C.B., who retires from the office of Director-General of the Medical Department of the Royal Navy, which he has held for exactly five years, has had a very distinguished career since he entered the service as Surgeon in 1877 as the first man of his year. He served as Surgeon to H.M.S. *Orontes*, which was employed as a hospital ship during the Egyptian war of 1882, and received the medal and Khedive's star. From May, 1884, to May, 1885, he was Surgeon of the Royal Marine Battalion engaged in the defence of Suakim and in the operations in the Eastern Soudan. He took part in the action at Hashien, ToFrek, the attack on the convoy of Guards and Marines, and the taking and burning of Tamai; for these services he received the two clasps—Suakim, 1885, and ToFrek. In 1889 he was promoted Staff Surgeon, and in 1898 Fleet Surgeon. He served in the South African war from an early period. He was Senior Medical Officer of the Naval Brigade landed for the defence of Stormberg, and subsequently joined Lord Methuen's (the first) division of the army, taking part in the actions at Belmont, Graspan, with storming party of naval brigade, Modder River, and Magersfontein. He then joined the sixth division under General Kelly Kenny, and took part with it in the relief of Kimberley, including the action at Klip Drift, engagements at Paardeburg from start to finish, Poplar Grove, Dreifontein, and the entry into Blomfontein. Later he joined the eleventh division under General Pole-Carew, and served with it from Blomfontein to Belfast, being present at the following engagements during the advance: Vet River, Zand River, Johannesburg, Pretoria, Diamond Hill, and Belfast. Afterwards he joined the cavalry division under General French and proceeded with it to the capture of Barberton. He received the South African medal with eight clasps and was specially promoted to Deputy Inspector-General in 1900 for his South African war services. He received the military C.B. in June, 1902, and was promoted to Inspector-General, the rank now called Surgeon-General, in 1906. In addition to these war services he has held many appointments, having been in medical charge, among other establishments, of Gibraltar, Chatham, and Haslar Hospitals. His tenure of office as Director-General has been marked by the same administrative abilities as distinguished the other stages of his career, and his nomination to be K.C.B. in 1910 was felt to be a fitting recognition of his loyalty to the premier service and to his own department. Recently he was appointed Honorary Physician to the King. He will be succeeded by Surgeon-General Arthur William May, C.B., who entered the service in 1878 and served in the Egyptian war of 1882, the Suakim expedition of 1884, and with the Camel Corps of the Nile expedition for the relief of General Gordon. He acted as Deputy Director-General from 1905 to 1909, and was recently in charge of the Royal Naval Hospital, Chatham.

THE ROYAL SOCIETY CONVERSAZIONE.

THE Royal Society held its annual conversazione on May 7th at Burlington House. Owing to the celebration of the 250th anniversary of the foundation of the society last year, there was a considerable change then in the character of exhibits, but this year the demonstrations given were of the usual type, forming, as on previous occasions, for the most part, the usual synopsis of the year's advance in science. Naturally, this was shown most strikingly in the number of exhibits illustrating the new forms of apparatus, or new means of determining principles connected with the science of aeronautics. There was little in the exhibits having a direct bearing on medicine. An exception, however, must be made in the case of the demonstration by Mr. H. G. Plimmer of blood parasites that were either new to science or had been found in new hosts. The most remarkable of these, which were mounted with characteristic skill, were a new type of haemogregarine in the blood of a Bengal monitor, a trypanosome that had been found in the blood of a Malay parrakeet, though it had hitherto been

believed that there were no trypanosomes in that country, and the presence of *Spirochaeta pallida* in the lung of an embryo whose mother was infected. There were many exhibits bearing indirectly on medical science. The most remarkable of these, and one of the most interesting in the whole collection, was the collection of living crustacea from the neighbourhood of Plymouth shown by the Marine Biological Association of the United Kingdom. The principle of the arrangement was to illustrate the modification in living crabs and their allies. Among the specimens shown were good examples of the spider crab, which decks itself out with all sorts of foreign material and small "parasites," so as to make itself resemble its environment; of the hermit crab, which, not content with living in a shell that it has commandeered, joins forces with an anemone, the advantage gained being that whereas the crab is a favourite prey for fish, the anemone is avoided on account of its powers of stinging; and of the crustacean in which the female, after being parasitic on a fish, drops to the bottom of the ocean and converts the whole of its body material into eggs to carry on the race. Among the many exhibits was one of certain crabs that had come from a tropical port, sheltering themselves beneath the shell of the barnacles fastened on the ship's bottom; they were eventually discovered when the vessel was dry-docked in Plymouth. The Curator of Geology at the British Museum, Dr. A. Smith Woodward, showed the famous Piltdown skull of the species named *Eoanthropus dawsoni* and with it a number of plaster casts, some showing the exact remains as they were discovered, and others illustrating how it had been possible to reconstruct the skull of the species. It was perhaps unfortunate that this exhibit was not placed side by side with that shown by Professor Elliot Smith, who had a number of casts of the brain of the species and of other primitive brains in primitive man, anthropoid apes, and other mammals supposed to be near the line of human ancestors. The series illustrated the interpretation of the distinctive features of the most primitive human brain, and elucidated to some extent the nature of the evolutionary process by which the human brain has been derived from that of the early mammal. Professor E. B. Boulton showed a number of moths illustrating points in heredity, and Mr. L. Doncaster by a series of six generations of the moth *Abraxas grossulariata*, in which families consisting solely of females had appeared. Usually, the exhibit demonstrated, unisexual broods are the offspring of females which belonged to such broods; but not all such females have only female offspring, and in some cases unisexual broods had been produced by females of bisexual broods immediately descended from unisexual families. Professor Collie and Mr. H. F. Paterson gave a demonstration of the neon and helium they have found in hydrogen after the passage of the electrical discharge through the latter at low pressure. An ultra-condenser for the observation of ultramicroscopic particles, greatly simplifying the apparatus necessary for this class of work, was shown by Messrs. Leitz and Routh. In the evening special demonstrations were given on "The Motion of Viscous Fluids," by Mr. Leonard Bairstow, and on "The Discovery of a Paleolithic Skull and Mandible at Piltdown, Fletching, Sussex," by Dr. A. Smith Woodward.

THE RECENT ACTION AGAINST THE "PALL MALL GAZETTE."

A letter signed by 148 representatives of the medical profession and teachers of medical sciences has been sent to Mr. W. W. Astor, proprietor of the *Pall Mall Gazette*, congratulating him on the result of the recent libel action against that paper, and thanking him for the public service which he has rendered to the medical profession in this matter. The letter was in the following terms:

"We desire to congratulate you on the result of the action recently brought against the *Pall Mall Gazette*, and to thank you for the public service which you have rendered to our profession. You have enabled all men to understand more clearly the principles of our science and practice, the absolute necessity for research into the problems of disease, and the profound significance of the discoveries made during the past thirty years. You have spared neither time nor trouble nor money to bring home to the public the truth about experiments on animals in this country, and to expose the errors of antivivisection. We thank you, in the name of our profession, for the very important work which you have thus accomplished."

The spring session of the General Medical Council will begin on Tuesday, May 27th, when the chair will be taken by the President, Sir Donald MacAlister, K.C.B., at 2 p.m.

The Presidency of the Section of Ophthalmology of the XVIIth International Congress of Medicine, which became vacant by the lamented death of Sir Henry Swanzy, has been accepted by Sir Anderson Critchett.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

Parliamentary Grant to Universities.—A considerable number of questions on this subject have been addressed to Mr. Pease, the President of the Board of Education, in connexion with questions relating to the administration and management of the University of Bristol. In one of his replies, Mr. Pease said that he was informed by the Advisory Committee, presided over by Sir William McCormick, that the educational work was efficiently carried on, and laid down the general principle by which he was guided in the allocation of parliamentary grants to universities as follows: "Power is given, through the Sovereign, to the President of the Council and the visitors to make inquiry if one is needed. But my duty is to see that the parliamentary grant is efficiently administered in connexion with education, and I am satisfied that the educational efficiency is satisfactory at the present time."

Milk Preservatives (Boron Trioxide).—Mr. Charles Bathurst asked the President of the Local Government Board whether, in the opinion of his expert advisers, the use of less than 0.20 per cent. of boron trioxide as a preservative in cream was injurious to the health of infants, pregnant women, and invalids; whether the new milk and cream regulations of his Department permitted its use for that purpose, and, if so, in what quantities. Mr. Burns said that there was no exact consensus of opinion as to the amount of boron trioxide which might be necessary to produce injurious effects in different persons. The regulations to which reference was made were not intended to control the amount of preservative which might be added, but only to secure that no preservative should be added to cream without declaration on the label as to the amount. The provisions of the Sale of Food and Drugs Act, 1875, were available for preventing the use of preservatives to an extent such as to render any article injurious to health.

Tuberculosis Order, 1913.—Mr. C. Bathurst asked the President of the Board of Agriculture whether, seeing that under the Dairy, Cowsheds, and Milkshops Order of 1885 compulsory veterinary inspection of cowsheds and notification of bovine tuberculous disease was now required by those district sanitary authorities only which had adopted that Order and would continue to be required by them until uniformity of action was secured as the result of the

passage into law of the Milk and Dairies Bill, and seeing that under the Tuberculosis Order of 1913 such inspection and notification would be optional throughout the greater part of the country, he would facilitate local procedure and secure simultaneous uniformity of tuberculosis administration, as contemplated in 1909, make the commencement of the operation of the Tuberculosis Order contemporaneous with that of the Milk and Dairies Bill. Mr. Runciman said he had considered the suggestion, but he saw no good reason for postponing the operation of the Tuberculosis Order.

Air Space in Cowsheds.—In reply to Mr. Charles Bathurst, Mr. Burns said that no decision had yet been arrived at in regard to the prescribing by Departmental Order the minimum cubic air space for cows beyond the 500 cub. ft. commonly accepted as sufficient. He added that in framing the regulations care would be taken to see that any requirements which were prescribed were reasonable and practicable.

Lind v. Saleeby and the "Pall Mall Gazette."—Sir J. D. Rees asked the Attorney-General if the attention of the Government had been directed to the case of Lind *v.* Saleeby and the *Pall Mall Gazette*, which had occupied a judge and jury sixteen days; what had been the cost to the State of this trial and how much would be recovered from the plaintiff, who herself occupied several entire days; and whether any means existed or would be devised by the Government to make it impossible to convert the Courts of Justice into theatres for the discussion of abstract issues and places of advertisement for the professors of particular scientific or other beliefs.—Sir Rufus Isaacs said he had seen the reports of the trial in the public press. No extra cost had been caused to the State by the trial. If the court had not been occupied with that action it would have been engaged in the trial of other cases. It was for the learned judge who presided at the trial to decide whether the opinions of professors were relevant to the issue and should be given in evidence.

Lead Poisoning in the Potteries.—In reply to Mr. Noel Buxton, Mr. McKenna said that the number of cases of lead poisoning in the Potteries reported up to date was twenty-six, of which four were fatal: the number for the corresponding period in 1912 was the same, five, however, being fatal. The new Regulations were only made on January 2nd last, and entailed a great deal of work, both on the occupiers and the Department, to give effect to the requirements. It was too early yet to look for any substantial change in the figures of lead poisoning.

School Medical Officers.—In reply to Mr. Leach, Mr. Pease stated that the latest complete figures were those given in the chief medical officer's report dated October, 1912, in which it was stated that the total number of medical officers in the School Medical Service in England and Wales was 943.

Sleeping Sickness Commission.—In reply to Dr. Chapple Mr. Harcourt said that the Commission of Inquiry appointed last autumn by the British South Africa Company when it was found that a case of sleeping sickness had occurred south of the Zambesi, was constituted as follows: Dr. Fleming, the Medical Director; Mr. Carbutt, of the Native Department; Mr. Jack, the Government Entomologist; and Dr. Stohr, of the Northern Rhodesian Administration, who had been engaged in sleeping sickness work in North-Eastern Rhodesia.

Motor Ambulance Wagons: Petrol Duty.—In reply to Dr. Chapple, Mr. Lloyd George said that he was considering, in connexion with his forthcoming Revenue Bill, the question as to the possibility of exempting from duty the petrol required by ambulance wagons used in accident and sick transport work.

Housing of the Working Classes (Ireland) Act.—In reply to Mr. William O'Brien, Mr. Birrell said that from the information furnished by local authorities it would appear that the average weekly rent charged for houses erected since the passing of the Housing of the Working Classes (Ireland) Act, 1908, was 3s. 4d. Twenty-eight houses were let at rents under 2s. a week.

Housing of the Working Classes Bill.—At the meeting of Grand Committee last week, the bill introduced by Sir Randolph Baker, commonly known as the Boscawen Bill, was under consideration. The President of the Local Government Board announced his intention of refusing to bring in a resolution to make the necessary financial provision. On this announcement Mr. Long advised the promoters to withdraw the bill, and this was accordingly done, but the action of the President of the Local Government Board has evoked emphatic protests from members of the Conservative, Liberal, and Labour parties. In view of the attitude adopted by Mr. Burns, it is certain that very considerable pressure will be exercised on the Government to introduce alternative proposals of their own.

Treatment of School Children (Scotland) Bill.—A short bill has been presented by Mr. McKinnon Wood, the Secretary for Scotland, which consists of one operative clause, the effect of which is to give to the education authorities in Scotland the same powers and duties with reference to the provision of medical treatment for children attending schools within their districts as they have with reference to the provision of sufficient and proper food or clothing or necessary personal attention under the provisions of Section 6 of the Education (Scotland) Act, 1908.

Bill for the Abolition of Vivisection.—A bill has been introduced by Mr. Chancellor, supported by Mr. Black, Mr. Hodge, Sir John Rolleston, Mr. Parker, Mr. William Thorne, Mr. John Wilson, Mr. Tyson Wilson, Mr. Thomas, Colonel Lockwood, Mr. Keir Hardie, and Mr. Snowden, the effect of which would be to prohibit the performance on any live animal, with or without the use of anaesthetics, of any experiment or demonstration or inoculation of a nature to give pain or suffering, either directly or in its after-effects, for any pathological, surgical, or any scientific purpose, or for the acquirement of manipulative skill. Whether this bill is or is not a product of a recent case in the Court of Queen's Bench it is difficult to say, but it is fairly safe to suggest that it has not much chance of obtaining a second reading.

Infanticide Bill.—A bill has been introduced by Sir William Byles the object of which is to abolish sentence of death in cases of infanticide by mothers where the infant is under the age of 4 weeks. The sentence which the bill proposes to substitute is detention during His Majesty's pleasure.

Capital Punishment (Age of Liability) Bill.—Another bill has been introduced by Sir William Byles on a subject similar to the foregoing, the object of which is to abolish sentence of death where the criminal is under the age of 21 years. The sentence which the bill proposes to substitute is detention during His Majesty's pleasure. The present age of liability to capital punishment is 16, such liability having been abolished as regards "children" and "young persons" by the Children's Act, 1908.

Whitsuntide Recess.—The House adjourned on May 8th for the Whitsuntide recess. It will reassemble on May 27th, and on that day the Mental Deficiency Bill, the Elementary Education (Defective and Epileptic Children) Bill, and the Milk and Dairies Bill have been put down for a second reading.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Conference of Scottish School Medical Officers in Edinburgh.

The medical event of the week in Edinburgh was the holding of a two days' conference (May 1st and 2nd) of Scottish school medical officers. At the first session Dr. Carstairs Douglas presided, and in his opening remarks referred to the state of things as it was in 1891–2 and as it is now; a great evolution had, he said, taken place, and it was to be remembered that school medical officers were not merely examining children, but were rendering a great service to their country. Dr. Leslie Mackenzie dealt with the social significance of medical inspection, and pointed out that ten years ago there was no medical inspector in the whole of Scotland or perhaps only one, whilst now there were 105 medical men engaged in the work; there were various departments, including the hygiene of the school, medical research, medical examination of teachers, recuperative residence schools, the tuberculosis school, and medical conditions in the continuation school. Dr. Campbell Munro contributed a paper on the hygiene of the school, in which he protested against palatial school buildings which would be antiquated long before they were worn out. Dr. Rose spoke upon school medical research, and emphasized the importance of the investigation of the colour sense and the practice of physical culture.

The second session took place in the afternoon of May 1st at Dunfermline, where the delegates were received by Dr. Ross, the chairman of the Carnegie Trust. Dr. Ross pointed out how Dunfermline had, by its College of Hygiene and Physical Training, led the way in physical culture and medical inspection of school children and its necessary consequence—medical treatment. A visit was paid to the Women's Institute, where an address was given by Dr. L. D. Cruickshank on the organization of physical education as an integral part of the work of the school medical service. He urged that a broad general system of constructive hygiene should form the basis of the entire work of the medical inspector; the child not the disease should become the main point of interest; there was need for the correlation of the work of the expert in physical culture and the medical officer. The delegates also saw typical physical training lessons for children of different ages in the institutions under the Carnegie Trust, as well as an exhibition by the students of the College of Hygiene in the Carnegie Gymnasium. Altogether the visit to Dunfermline was a most interesting part of the conference's work.

The second day the conference had a morning session, over which Dr. A. E. Scougal, formerly H.M. Chief Inspector of Schools for Scotland, presided, and at which Sir John Struthers, K.C.B., of the Education Department of Scotland, gave an address; in the course of it he expressed his personal strong belief in the importance and value of the system which had now been initiated, and his fervent hope for its further advancement. It was, he said, beginning to be realized that all educational theorizing was more or less futile unless it started from the physical basis. Where the medical officer was convinced that improvement in school premises was needed for the health of the scholars, and where the local authority was reluctant or recalcitrant, he strongly suggested communication with the inspector of schools in the district, who had very definite powers under the Code. Dr. Alister Mackenzie, Principal of the Dunfermline College of Hygiene and Physical Training, read a paper on the medical and physical examination of candidates for the physical training profession, dealing with the qualifications for women students only. The candidates underwent searching examination, and the attempt was made to select such as would be not only suitable physically, but who would surround their pupils with a good intellectual, aesthetic, and moral atmosphere. A paper by Dr. Darling, the medical officer of the Edinburgh Provincial Committee, on some typically difficult cases which come under the medical examination of candidates in the teaching profession, was read in his absence by Dr. Isabella Cameron, lecturer on hygiene to the Edinburgh Provincial Committee. Legal means and extreme persuasion should be used to compel attention to all remediable and arrestable morbid conditions. In some cases the medical officer should have power to recommend the granting of a temporary certificate.

At the afternoon session, which was presided over by Dr. James Ritchie, Medical Officer, Heriot's Hospital, Dr. J. Hailey Meikle, Chief School Medical Officer, Edinburgh, read a paper on the medical treatment of school children in towns, in which he dealt with the management of such defects as blindness, deafness, epilepsy, and various maladies (tuberculosis, skin diseases), and of such other conditions as defective eyesight and teeth. Dr. Maxwell Ross (M.O., Dumfriesshire), considered the same matters as they called for attention in rural districts, specially emphasizing the dental problem, which he regarded as the most pressing. He favoured the plan of the appointment of a whole-time dentist for such a county as Dumfriesshire. A discussion of these papers brought the conference to a close, but not before Dr. Cruickshank (who along with Dr. Leslie Mackenzie had done so much to bring about the conference) had made the important suggestion that steps might be taken to hold a three weeks' course of physical training for medical officers in Edinburgh during the summer. The suggestion was favourably received.

County Councils and Sanatoriums.

At the annual meeting of the Association of County Councils in Scotland on April 24th the question of the erection of sanatoriums and the treatment of tuberculous patients was considered. The committee expressed the view that Scottish county councils should proceed with the erection of sanatoriums in terms of Section 64 of the National Insurance Act for all areas for which such institutions had not already been provided.

The Chairman (Sir Charles Binc Renshaw) said it was very important that county councils should act on parallel lines in regard to sanatoriums, and suggested that the Secretary for Scotland should be asked to introduce a short bill providing that the borrowing powers which the county councils enjoyed under the Local Government Acts were, to the extent necessary, available for the purpose of providing sanatoriums.

This suggestion was unanimously adopted, and the Chairman said that a condition precedent to any action by the county authorities should be that the cost of treatment of insured persons should be borne by the Government. In Renfrewshire there was a deficiency of £600. The treatment of defendants and others was also important. Mr. Shaw, County Clerk, Ayr, said that in Ayrshire the Insurance Committee had adopted a resolution to meet the expenditure upon uninsured dependants, and had submitted through the National Insurance Commissioners an estimate of the deficiency, which amounted to £11,600, which included the treatment of tuberculosis other than phthisis. The general situation was serious. If the Insurance Committee, which did not represent the ratepayers, could call upon the County Council, which did represent the ratepayers, for a large sum of money, it was time the county councils had a larger representation on these committees.

After discussion it was agreed that county councils should undertake the erection of sanatoriums, that the association should make a representation to the Treasury with regard to the cost of providing sanatoriums for insured persons, and that no discrimination should be made between those counties which had and those which had not already provided sanatoriums.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Tuberculosis Scheme for Belfast.

The Belfast Public Health Committee has, after considerable discussion and deliberation, formulated a tuberculosis scheme, which will be laid before the City Council and the Local Government Board. The scheme is comprehensive and includes both the insured and the uninsured. The total cost is estimated to amount to over £42,000 a year. To meet this liability about £8,000 is

expected from insured contributions and half of the balance will be paid by the Exchequer. The Abbey Sanatorium, which at present costs the ratepayers already £12,000 per annum, is to be taken over from the Poor Law Guardians, so that no further taxation will be required to meet that item. The Corporation already pays to the Forster Green Sanatorium some £3,000 a year, so that, unless things are managed on a much more expensive scale, only an extra £1,000 a year or so will be required, and a clear sum of £42,000 a year will be available for use in the prevention and treatment of consumption.

There will be two branches of work—the sanatorium and the dispensary. Several dispensaries may be required. The Abbey Sanatorium will be enlarged by the addition of 100 beds. Belfast's share of the £140,000 to be provided by Government for buildings will be £10,000 or more.

Operations in Workhouse Hospitals.

Among the reports received at a recent meeting of the Lurgan Board of Guardians was one which this board requests the medical officer of its workhouse, Dr. J. S. Darling, to make annually on the surgical operations performed therein. It was published in the local papers in a subsequent account of the meeting, and is worth attention as an indication of the wide field covered by the work of a medical man in this position, and of the amount of skill which he must possess for its successful performance. The operations performed during the year totalled 274, and included 35 appendicectomies, with 1 death; 7 gastro-enterostomies, with 1 death; 3 excisions of the rectum; 10 operations for repair of ruptured perineum; 5 prostatectomies, with 1 death; 5 cases of strangulated hernia, with 2 deaths; 17 cases of radical cure of hernia; 14 operations on malignant growths, with 1 death; 4 ventrifixations of the uterus, 11 plastic operations, and 8 major amputations. Taken together, the 274 operations cover fairly well the whole field of modern surgery, and give a total mortality-rate of only 4.3 per cent. This would seem to be a very satisfactory figure, especially when it is borne in mind that the conditions for operative work—though through Dr. Darling's efforts they have been greatly improved, and as may be seen provide some of the essentials for success—can hardly be as ideal as those at the great hospitals in large centres, and that there must be little opportunity for the selection of cases. In the fever block of the same workhouse, there were over 369 cases, with 12 deaths, these including 7 deaths from scarlet fever on a total of 240 cases, and 3 from diphtheria on a total of 33. Dr. Darling in his report gracefully expresses his indebtedness to Dr. Pedlow, Dr. Laird, and his other colleagues for assistance rendered to him in his work.

The Mental Deficiency Bill.

A special meeting of the Joint Committee of Management of the Richmond District Lunatic Asylum was held last week for the purpose of considering the provisions of the Mental Deficiency Bill now before Parliament, and whether it would be advisable to make application that the Act should apply to Ireland.

The Resident Medical Superintendent stated that the Royal Commission had reported that of the feeble-minded in Ireland 66 per cent. were urgently in need of attention; in England 44 per cent. and in Scotland 34 per cent. were similarly circumstanced. Ireland had no institutions open to the poorer class defectives, while across the water private charity had done a good deal to help these pitiable outcasts of society—in fact, about 25 per cent. were already provided for. From the ratepayers' point of view the Act should be distinctly beneficial, as it contemplated a contribution of as much as half the cost of maintenance, thus to some degree making good the deficiency from the local taxation account. A deputation from the Medico-Psychological Association had waited upon the Chief Secretary, who had expressed his willingness to draft an amendment extending the Act to Ireland, and that if the Irish members approved it would go through. Resolutions in favour of its extension to Ireland had been passed by the Irish Workhouse Reform Association, Philanthropic Reform Association, the State Medicine Section of the Royal Academy of Medicine, the Medico-Psychological Association, and the Committees of the Down District and several other asylums. The following resolution was proposed and seconded:

> That in the opinion of the Joint Committee of Management the Mental Deficiency Bill now before Parliament should be extended to Ireland, and that we request the Irish representatives to see that the provisions of the Act are extended to Ireland, and that proper safeguards are inserted in the bill with reference to an adequate Treasury grant in aid of the rates.

The motion was opposed on the ground that one of the first things to be undertaken by the new Irish Parliament would be the reform of the whole system of charitable relief, and that the extension of this Act to Ireland would be only a patching up of the present system, and that it would be better to see how the Act worked in England before adding a further burden to the ratepayers. On a poll the motion was lost, 5 voting for and 7 against.

Severe Epidemic of Measles.

A serious epidemic of measles prevails in Wexford, and it is estimated that at the present moment there are 250 cases in the town. During the past seven weeks an average of about twelve young children have died per week from pneumonia or bronchitis supervening on measles.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LEEDS.

Retirement of Mr. Littlewood.

To the great regret of every class in Leeds, and in a very special degree to the regret of his colleagues on the staff of the infirmary, Mr. Littlewood has decided, not only to resign his position as Senior Surgeon to the infirmary, but to retire from practice and to leave Leeds. Mr. Littlewood, who was educated at University College, London, was appointed Resident Surgical Officer to the General Infirmary at Leeds in 1886. This position he held for about four years, and shortly after he ceased residence he was appointed to the assistant staff, on which he served for six years, when he was promoted to the full staff. During the earlier years of his teaching he acted as honorary demonstrator of surgical pathology at the School of Medicine, was afterwards lecturer on practical and operative surgery, and then succeeded Mr. Edward Ward as professor of surgery, from which position he retired in 1909. Mr. Littlewood held many other honorary appointments, but it is, of course, as a teacher, both at the medical school and at the infirmary, as a distinguished member of the staff, and as a deservedly popular consulting surgeon, that he will longest be held in remembrance. It would, indeed, be difficult to over-estimate the value of the work which Mr. Littlewood has done for the welfare of the university and the infirmary. His teaching has always been of the highest order, and he always seemed to succeed in getting the best work out of those who were privileged to work under him. At a meeting of the weekly board of the infirmary the following resolution was passed:

> That the Board of the General Infirmary desire to record their deep regret at Mr. Littlewood's resignation and their appreciation of the great services which he has rendered to the patients and to surgery.
>
> During his whole connexion with the infirmary, and particularly during his twenty-three years' service as assistant surgeon and surgeon, he has gained the confidence of his profession and extended the fame of the institution.
>
> The Board wish him much enjoyment in his well-earned leisure.

Every one who knows Mr. Littlewood will cordially join with the board in the good wishes which they express for his happiness in his retirement; Mr. Littlewood has been a most strenuous worker, and many will fully understand his desire to return to his native county of Norfolk while still in the zenith of his fame as a surgeon.

MANCHESTER AND DISTRICT.

THE MANCHESTER ROYAL INFIRMARY.

AT a meeting of the board of management of the Manchester Royal Infirmary, held last week, it was announced that Dr. A. T. Wilkinson had intimated his intention to resign his position as Honorary Physician to the infirmary from May 24th. Dr. Wilkinson has been a member of the staff for upwards of thirty-three years—twelve years as a member of the resident and non-resident junior staff, and twenty-one years as a member of the honorary staff. The board passed a resolution expressing regret that the time had arrived for his retirement from the active work at the infirmary, and its high appreciation of the services he had rendered to the institution. It is understood that retirement from the work at the infirmary does not involve retirement from private work as a consulting physician. The board further decided to appoint Dr. Wilkinson Honorary Consulting Physician to the Infirmary from the date of his retirement. Dr. E. N. Cunliffe, who is now Senior Honorary Assistant Physician, succeeds to the vacancy caused by Dr. Wilkinson's retirement.

LONDON.

METROPOLITAN ASYLUMS BOARD.

Appointment of Research Pathologist.

DR. WILLIAM MAIR, M.A., B.Sc., M.D., Ch.B.Edin., and D.P.H.Camb., for seven years Lecturer in Pathology at the Manchester University, and Pathologist to the Manchester Children's Hospital and the Salford Royal Hospital, has been appointed research pathologist to the Metropolitan Asylums Board.

Recognition of Medical Services.

The Asylums Committee reported that in view of the greatly altered conditions at the Darenth Industrial Colony it had had under consideration the salary of the medical superintendent, Dr. Rotherham, who had been in receipt since 1908 of his maximum remuneration of £800 with emoluments. The changes in administration had involved the removal from Darenth of the unimprovable imbeciles, who merely required housing, and the aggregation there, in two separate sections, first of the highest grade, or improvable imbeciles, and, secondly, of the non-certified feeble-minded. The Committee quoted favourable reports upon the institution by the Lunacy Commissioners, and said that the work which had elicited so many commendations had been carried out under Dr. Rotherham's personal direction and supervision. The Board approved a proposal which would have the effect of increasing the salary of the medical superintendent by about £40 per annum.

The Board also approved the increase of the salary of Dr. W. T. Gordon Pugh, Medical Superintendent of Queen Mary's Hospital for Children, from £600 with emoluments, to the maximum of £700 in one increment. The committee in this case noted that the development and organization of the work of the hospital, the introduction of many up-to-date forms of treatment, and the widespread reputation the hospital had gained in the eyes of visiting deputations from all parts, were attributable to the great initiative and resource of the medical superintendent. Side by side with this, due regard had been paid to economical management, and the Finance Committee had noted the comparatively low cost.

LONDON COUNTY COUNCIL.

The London County Council at its meeting this week received a report from the Public Health Committee advising that, in order to allow a comprehensive scheme for the treatment of tuberculosis in London to be evolved, and in view of the fact that the Council has hitherto not been an authority providing treatment for tuberculous patients, and that the Metropolitan Asylums Board has available the machinery necessary for the provision of residential treatment, the Board should be enabled to become an authority providing institutions for residential treatment for tuberculous persons of all classes. After some discussion, the Council instructed its Parliamentary Committee to take the necessary steps to place the Metropolitan Asylums Board in a position to form an active unit in any scheme that may be framed by the Council for the treatment of tuberculosis. It will be observed that the Local Government Board has already notified its intention to recognize the London County Council as the central organization for the provision of institutional treatment.

NEWCASTLE-UPON-TYNE.

BANQUET AND PRESENTATIONS TO PROFESSOR DRUMMOND AND PROFESSOR SIR THOMAS OLIVER.

ON May 6th, in view of their retirement as honorary physicians from the Royal Victoria Infirmary, Professor Drummond and Sir Thomas Oliver were entertained to dinner by the past and present students of the University of Durham College of Medicine, and were made the recipients of very handsome presents in silver. Old students came from a considerable distance to do honour to the guests of the evening, and altogether about 100 were present. The occasion will be memorable in the history of the infirmary in so far as two of its best known men have retired from the active staff. Their retirement is a loss to the infirmary and to the clinical teaching of the university. Mr. H. B. Angus, Professor of Surgery in the College of Medicine, and one of the surgeons of the Royal Victoria Infirmary, occupied the chair. To Dr. Nathan Raw was entrusted the task of making the presentation to Professor Drummond and of proposing his health. In a manner and in language appropriate to the occasion he discharged the task uncommonly well. As one of his old house-physicians, Dr. Raw could speak from experience of the ability of Dr. Drummond as a physician, of the interest he took in the students generally, and of the value of his contributions to the study of diseases of the nervous system. Equally happy, but with evidence of a feeling of regret at his severance from an institution with which he had been connected for thirty-five years, was Dr. Drummond in his reply. A note of sadness ran through the earlier part of his speech, and he was speaking to an audience which was in sympathy with him. When he passed to the story of his early years spent in Trinity College, Dublin, and spoke of his association as house-physician with Sir William Stokes, he warmed to a subject which riveted the attention of those assembled, and drew forth expressions of their appreciation. In a peroration at once graceful and dignified, he thanked the past and present students for the handsome silver tray and salver which had been presented to him.

Professor Beattie, in submitting the health of Sir Thomas Oliver, and in presenting to him a silver tray, salver, and centre piece, spoke of the lengthened service which he had rendered to the infirmary, and of the successful part he had played in the clinical instruction given there. He also dwelt on the work which Sir Thomas has done in the field of industrial diseases, and reminded his hearers that long before the Gulstonian Lectures on Lead Poisoning were delivered he, as one of his old students, had listened to clinical lectures on occupational disease by the guest whose health he had the honour of proposing. Sir Thomas Oliver, in accepting the gifts, after thanking Dr. Beattie for the compliments paid him, said that the mirror was held up to their gaze as well as to his own, and that on it was reflected the word *failure* in bolder letters than the word *success*. No man's life could be regarded as a success, for it was a question whether man's work was ever accomplished, since fulfilment could never transcend aspiration. Becoming reminiscent of his early association with the infirmary, he drew a picture of the great changes which had taken place in administration and progress. Listerism had just come into being when he joined the infirmary staff. Its adoption generally had changed the whole practice of medicine and surgery. Sir Thomas Oliver sounded no note of sadness on his retirement from the active staff of the infirmary, but said he looked forward to carrying on investigations which were waiting for him.

In a happy speech intermingled with anecdote Professor Stuart M'Donald proposed "Past and Present Students," which was acknowledged by Professor Bolam and by Mr. J. M. Pirie.

The toast of "The University of Durham" was given by Dr. William Martin in an excellent speech, and responded to by the Vice-Chancellor of the University, Professor Sir George Hare Philipson. Dr. Parker submitted the health of the Chairman, and spoke of the interest Mr. Angus always took in sport and in all that concerned the welfare of the student.

During the dinner music was rendered by Mr. Robert Smith's band, and later on the harmony of the evening was much enlivened by the songs given by Dr. Abraham and Mr. Nattrass. It is seldom that such a successful medical gathering has taken place in Newcastle. Much of the success of it was due to the honorary secretaries, Messrs. C. S. Woodman and F. J. Nattrass.

Australasia.

Consumptive Immigrants.

Attention has been drawn to the fact that there is a relatively large proportion of cases of tuberculosis among the immigrants who have come out to New South Wales from the Old Country during the last few years. Dr. Richard Arthur, M.L.A., the President of the Immigration League, has on several occasions called attention to this matter both in the press and in Parliament, and some months ago he wrote to the leading London journals pointing out the cruelty of persons in England sending out their relatives who were suffering from advanced phthisis. The vice-president of the National Association for the Prevention of Consumption, who is also one of the physicians to the Tuberculosis Dispensary, states that he has lately come across several cases in the last stages of consumption among immigrants who have only recently arrived from the Old Country. While it is impossible at present to state the actual increase in the number of these cases, the Commonwealth statistics for 1910 give some idea of the number of advanced consumptives who came into the Commonwealth during the previous few years. In that year exactly 100 consumptives died who had been in Australia four years or less, while 43 died who had been in the country from five to ten years. Of these, 29 had been in Australia less than twelve months, while 27 had been there for one year, 21 a couple of years, 16 three years, and 13 four years. Increased care in the future is to be exercised in the selection of assisted immigrants. It is, of course, recognized that the dry and warm atmosphere of some parts of Australia is especially good for cases of early pulmonary tuberculosis, but the profession in England should be particularly careful in advising consumptive patients to come to Australia unless they have independent means.

The late Sir James Graham of Sydney.

Sir James Graham, M.A., M.D.Edin., died in Sydney on March 8th in his 56th year. He went out to New South Wales in 1880, and was appointed superintendent of Royal Prince Alfred Hospital. In 1889 he was elected assistant physician to the hospital, and on the death of the late Dr. Chambers was appointed lecturer in obstetrics in the University of Sydney, a position which he held till the time of his death. He was awarded the gold medal for his thesis on hydatid disease in Australia presented for the degree of M.D. at the University of Edinburgh. He founded the Surgical Appliance Aid Society, and was a Director of both the Sydney and Royal Prince Alfred Hospitals. In 1893 he was elected an alderman of the City of Sydney, and was the leader of the Municipal Reform party. He was president of the Citizens' Vigilance Committee when the first epidemic of bubonic plague occurred in Sydney. He was elected Mayor of Sydney in 1901, the year in which King George V, then Duke of York, visited Australia, and this was the occasion of his receiving the honour of knighthood. For several years he was a prominent figure in politics. He was elected a member of the Legislative Assembly for Belmore in 1894, and represented that constituency for six years. He was Vice-President of the Liberal Association and was a strong supporter of the Liberal party. In 1890 he married Miss Millard, who was at that time a nurse at the Prince Alfred Hospital. He is survived by his widow and one son, who is at present a medical student at the Sydney Medical School. The funeral service was held at St. James's Church, King Street, Sydney, and was attended by a large and representative gathering, and the interment took place at Waverley Cemetery.

A Campaign against Syphilis in Victoria.

When the Australasian Medical Congress met in 1908 the following resolution was carried after prolonged discussion:

> That syphilis is responsible for an enormous amount of damage to mankind, and that preventive and remedial measures directed against it are worthy of the utmost consideration.

The congress took place in Melbourne and public interest being aroused by the resolution, a deputation of the clergy waited on the Premier of Victoria and asked that some action should be taken. The Victorian Government later consulted its medical officer, Dr. Barnett Ham, who advised that a comprehensive inquiry into the extent of the prevalence of venereal disease should be made by utilizing the Wassermann blood test. The details of the inquiry were arranged by Dr. Ham with the assistance of an advisory committee of medical practitioners, and of what followed an account is given in the April number of *Bedrock*, by Dr. James W. Barrett, C.M.G. For twelve months syphilis was made a compulsory notifiable disease within a radius of ten miles from the General Post Office, Melbourne. No names were given, but the age, sex, and clinical conditions were to be accompanied by a specimen of blood which was submitted to the Wassermann test, a special staff being employed for the work. The profession, on the whole, responded well to the appeal, although Dr. Barrett thinks that probably only a small proportion of cases were caught in the net. At the end of the year about 5,500 cases had been reported and tested. Of these, 3,167 — or the equivalent of 0.5 per cent. of the population — were definitely proved to be syphilitic. Simultaneously two other lines of investigation were followed up. At the Victorian Eye and Ear Hospital, during a period of four months, 550 patients were submitted to the Wassermann test, without regard to the condition which had caused them to visit the hospital. Of the eye cases 13 per cent. were found to be syphilitic, and of the ear and throat cases 15.8, giving a total percentage for all the 550 of 13.3 per cent. At the same time, at the Children's Hospital, a pathologist examined the tissues of those who showed signs of syphilis, whilst the blood was independently examined, the results going to confirm the observations already cited. In addition, a little later on, the staff of the Women's Hospital informed the Government that, in their opinion, half of their operative work was due to gonorrhoea, that much sterility was due to that cause, and that if an attempt were to be made to suppress one venereal disease, it would be better in the public interest to deal with all such diseases. Finally, this first committee presented a report, which was handed by the Government to the daily press for publication, with the object of convincing the public that action for the suppression of venereal diseases was imperative.

The Victorian Government next appointed, under the presidency of Dr. Ham, a permanent advisory committee of medical men and women, which at once made it known that whilst its members would informally support any moral campaign, its business in a corporate capacity was to teach people how to prevent infection, and to render those infected no longer dangerous to others. This was to be done by open educational means. The aid of influential ladies was then sought, and the National Council of Women was informally approached. This council convened a meeting of its members, and after hearing statements of fact from medical women passed a resolution offering to co-operate with the Government in any reasonable steps which might be taken to diminish suffering, though it would oppose the passage of a Contagious Diseases Act unless it applied to men as well as to women.

The passage of no such Act, however, was really contemplated, for the committee itself considered that the problem could be better attacked by other means. Newspapers were asked to publish official and unexpurgated accounts of the steps taken, to call these diseases by their proper names, and in general to abandon the ostrich-like attitude usually adopted in regard to them. This request was agreed to, and such reports have since been regularly published.

The Victorian Government then decided to equip a ward in the Alfred Hospital and the Women's Hospital, at Melbourne, for the treatment of persons of any class suffering from venereal diseases, except prostitutes, for whom other arrangements exist, and the profession was asked to send such cases for indoor treatment. These wards are specially staffed, and the Government defrays the cost of maintenance. The object of this measure was to prevent further infection and to give opportunities for advice to the patients. The Government has further arranged with the University of Melbourne for the free application of the Wassermann test to 2,000 hospital cases a year, and to all other cases at a low rate of payment. Lastly, it is proposed to introduce a modification of an Act which is in force in a sister State of the Australian Commonwealth, so as to provide that any person sentenced to a term of imprisonment for any cause can, if found to be suffering from contagious venereal disease, be detained until he can be released without risk to others.

The campaign against venereal diseases in Victoria is, therefore, founded on the rational basis of a comprehensive investigation as to the extent of their distribution, followed up, when this has been ascertained, by a combined attack on medical lines. In this work Dr. Barrett says the clergy have been of great service. They have had the facts placed fairly before them and have opened their pulpits to medical men who are prepared to state the facts in a temperate manner. Dr. Barrett thinks the elimination of venereal disease by such measures quite possible, and if the problem is faced straightforwardly, not very difficult. It will be interesting to watch the results of the experiment which every lover of his kind must fervently hope will be successful.

British Guiana.

THE report of the Surgeon-General, Dr. Godfrey, for the year ending March 31st, 1912, has recently been issued.

Hospitals and Asylums.

The Public Hospital, George Town, has accommodation for 291 males and 245 females; 11,149 patients were admitted during the year, and there were 496 patients in hospital on April 1st, 1911. The number of out-patients treated was 44,958, being an increase of 3,050 on the previous year. There were 1,265 deaths: this gives a death-rate of 10.8 per cent. of the total number treated. The deaths amongst children under 5 years of age were 235, or 18.5 per cent. of the total deaths; this percentage is high, and is to a large extent due to malnutrition consequent on improper feeding. The gross cost (medical attendance excepted) was 50.17 cents, and the net cost 43.8 cents a head a day. In the Public Hospital at New Amsterdam 3,867 patients were treated and 27,372 out-patients, with a death-rate of 10.2 per cent. on the cases treated. In the three other hospitals in the colony 2,277 in-patients and 4,609 out-patients were treated. There were 469 male and 299 female lunatics under care in 1911, and 75 males and 56 females were admitted. In the Leper Asylum there were 306 males and 134 females; the percentage of mortality on the total number of inmates was 13.

Public Health.

Glycerinated lymph is imported for the use of the public vaccinators, to whom it is supplied free of charge; 1,284 successful vaccinations were performed during the year.

The colony was free from plague, yellow fever, and small-pox.

The death-rate of the colony was 31.7 per 1,000 as against 34.4 per 1,000 for the previous year; the birth-rate was 28.8 per 1,000 as against 27.5 for the previous year. Pneumonia still claims a large number of victims. At the Public Hospital, George Town, 388 cases were treated with a death-rate of 32.2 per cent. There was also a large increase in the number of cases of enteric fever treated at the Public Hospital—108 cases with 37 deaths, against 60 cases with 19 deaths for the previous year. The mortality amongst children under 1 year was 235 per 1,000 in 1910 and 229 per 1,000 in 1911. The mean rate for the past five years was 223 per 1,000. Tuberculosis was the cause of 7.3 per cent. of the total mortality of the colony; in the previous year the rate was 6.8 per cent.

The number of cases of malarial fever treated in the city hospitals shows a slight decrease. In 1906–07 it was 33,748, in 1910–11 they had fallen to 21,063, while the number of cases in 1911–12 had fallen to 15,169. The decrease is attributed to the antimalarial measures which have been adopted on the estates, consisting of the abolition of mosquito breeding grounds, including the screening of tanks, baths, and other receptacles for storing drinking water, removal from the yards of old tins, bottles, etc.: and keeping the drains and trenches clean and free of grass, so as to allow small fish to get at the mosquito larvae. Quinine was distributed free to the resident labourers, and especially to the children.

Ankylostomiasis.

In connexion with this disease preventive measures which have for some time been advocated by the department have been continued on the different sugar estates. These measures consist of (1) the erection of latrines; (2) the systematic examination of all newly arrived emigrants, and of all persons suffering from anaemia or who show the least sign of being infected with the parasite; (3) the treatment and constant observation of all known infected cases. The introduction every year of a large number of infected East Indian immigrants is a serious factor in preventing not only much better results but the eradication of the disease.

Bacteriological Department.

In connexion with the Government bacteriological department much important work was done during the year. Over 5,000 specimens were dealt with, and various reports were issued by the bacteriologists. The bacteriologists completed their investigations of the use of nastin in leprosy. Their conclusions were as follows: (1) That nastin has apparently very little beneficial effect on cases of leprosy; (2) a solution of benzol chloride in oil shows a higher percentage of improvement than nastin; (3) anaesthetic cases of leprosy run a definite course, after which the disease seems to die out, leaving the patient no longer infected.

Special Correspondence.

BERLIN.

Noguchi's Observations on Treponema Pallidum in the Brain in General Paralysis.—The Functions of the Cerebellum.—Cerebral Surgery.—The Results of Nephrectomy.—Communication of Syphilis to Rabbits.—A Diphtherial Vaccine.

THE hypothesis that general paralysis of the insane, tabes, and allied affections of the central nervous system are parasyphilitic or metasyphilitic in their relation to the original infection has been rudely shaken by Noguchi's latest researches.[1] This renowned investigator recently sent to Ehrlich in Frankfort, and to Hoffmann—the lamented Schaudinn's co-worker at Bonn—some sections of the brain from cases of general paralysis stained by a modification of the Levaditi method. The spirochaete of syphilis is present in every section, and both Ehrlich and Hoffmann have testified to their conviction by demonstrating the specimens on the same evening at their

[1] BRITISH MEDICAL JOURNAL, March 1st, 1913, p. 461.

respective medical societies. The organisms were more numerous in the cortex cerebri than in the medulla, and the nerve cells infected by them presented obvious signs of degeneration. Noguchi stated that he had been successful in finding the spirochaete in 14 out of 71 cases of general paralysis of the insane—that is, in 20 per cent. of all examined. As a result of his findings he has suggested that the disease is a lues cerebri; but Hoffmann, in the absence of any histological evidence to this effect, said that he was unable to accept this view, although he fully acknowledges the great importance of the discovery, which was bound to modify present views on the nature of a whole series of hitherto so-called parasyphilitic affections. At the close of his demonstration at Frankfurt Professor Ehrlich brought forward the following interesting theory to explain the frequent and well-known occurrence of lucid intervals in the course of the disease: When the spirochaetes in the brain have reached a certain number an antibody is produced which fixes the majority of them, and thus produces an intermission of the symptoms. A relapse would follow as soon as the organisms that had escaped fixation had reproduced themselves in sufficient number. On similar lines the fact that only 20 per cent. of Noguchi's cases yielded a positive result might, he thought, be explained, for the examination probably took place at a time when the majority of the spirochaetes had been destroyed. It must, however, be admitted that the comparative inefficiency of all therapeutic measures in this dark chapter in the history of the disease had been rendered even still more difficult of explanation by this discovery. Ehrlich believed that, although it was very doubtful if it were possible to eradicate the spirochaete completely from the brain in these cases, energetic administrations of a combination of arsenical compounds should at least be attempted, and would offer the best chance of success. Hoffmann took the same view, and urged resort to such measures, especially in early cases. Their opinions, however, are not shared by Westphal (Bonn), who, writing in the *Berliner klinische Wochenschrift* after the Ehrlich-Hoffmann demonstrations, and in reply to their statements, gave a warning that for the present we are still bound to the old symptomatic treatment, and rather resignedly bade us beware of too much optimism in our immediate therapeutic outlook.

At a joint sitting in Berlin of the Surgical Society, the Society for Internal Medicine and Pediatrics, the Otological and the Neurological Societies, an important discussion was held on the functions of the cerebellum. The anatomy and physiology of the subject were respectively represented by Professors Edinger of Frankfurt and Bárányi of Vienna, whose recent work on the relations of the vestibular apparatus to cerebellar function and localization in the cerebellar cortex has given rise to so much interest amongst neurologists. Dr. Rothmann, a member of the Berlin Physiological Society, read a paper in which, after referring to the recent cerebellar experiments on dogs, he stated that he had established the presence of special centres in the cerebellar hemispheres for certain attitudes of the fore and hind extremities respectively. Stimulated by Bárányi's work he had been able to demonstrate the existence of other centres in these, for the alteration of both fore and hind leg postures. Whilst single extremities were separately represented in the cortex of the cerebellar hemispheres, it was important to note that ablation experiments on the median lobe—the so-called vermis cerebelli—constantly produced co-ordinated disturbances of the trunk and extremities, disturbances of Edinger's "statotonus," a name devised by him to express the muscular and articular co-ordination (controlled through the labyrinth) which makes walking and standing possible. The functional importance of the cerebellum was further emphasized by the case of a woman aged 30, presented conjointly by Oppenheim and Krause. The former had diagnosed a tumour of the left cerebellar hemisphere, and Krause had operated and removed it from its place of origin in the roof of the fourth ventricle, whence it had grown upwards between the vermis and the left cerebellar hemisphere. It proved to be a lymphangio-sarcoma, and the interest and importance of the case lay in the fact that its ablation necessitated the removal of the roof, and the complete exposure of the floor of the fourth ventricle with its vital cardiac, respiratory, and vasomotor centres. The patient had completely recovered, and during her convalescence and in the two years which have passed since the operation had presented no symptoms assignable to disturbances of any of these centres. The result is a veritable triumph of surgery, and disposes once and for all of the old conception that surgical interference in the neighbourhood of the fourth ventricle can hardly be countenanced.

At the annual Surgical Congress, held shortly after Easter in Berlin, a discussion on cerebral surgery was opened by Professor Eiselsberg, of Vienna, whose statistical results on 162 operated cases are of great interest. Of these, 69 had been diagnosed as cerebral tumours; 20 cases were trephined without discovering anything, and 7 cases subsequently died. The cerebral tumours were removed in 40 cases with a direct mortality of 9; of these deaths, 4 were due to meningitis, 3 to shock, and 1 to pneumonia. In 9 of the remaining 31 cases there was a recurrence with fatal termination in the course of a few months. Of the 22 remaining cases, 6 were improved by the operation, 3 remained *in statu quo*, and 9 were cured. He was able to publish better results from his operations on 16 cases of tumour of the hypophysis cerebri. There were 4 deaths and 12 cures or improvements. Of 33 cerebellar cases, 9 died after the first operation, and the tumour was found in only 8 cases. Among 17 cases of tumours in the acusticus region there were 10 deaths, which suggested thereby that this localization has the worst prognosis. Kütner of Breslau presented his results on 92 cases. The immediate mortality of the operations worked out at 30.5 per cent., and he gave the same percentage of successful results, a percentage which in the case of his private patients rises to 55 per cent., owing, probably, to earlier interference. The surgery of the spinal cord as reported from the Eiselsberg clinic showed a mortality of 30 out of 40 cases operated upon. Oppenheim called attention to the fact that in late years the prognosis of operations for the relief of cerebral tumours appeared to have become less favourable. He was of opinion that the indications for intervention had become too broad, and urged that in cases in which the diagnosis was at all uncertain surgical intervention should be withheld, as spontaneous cure or alleviation occasionally took place.

The result of nephrectomy was another subject discussed at this congress. It was introduced by Kümmell of Hamburg, who published the after-history of 386 cases. There was complete cure in 80 per cent. of the tuberculous cases, in 40 per cent. of the malignant tumours, 90 per cent. of the cases of pyonephrosis, and in 98 per cent. of those of hydronephrosis. The prognosis was excellent in unilateral traumatic cases, but it was the reverse for cases of nephritis. A great many nephrectomized patients died within the first year. Pregnancy and parturition did not seem to be attended by special risk in such individuals. In 17 such cases there was 1 of nephritis and 1 of miscarriage. The Berlin University clinic reported the results of 100 nephrectomies. Of these 9 died as a direct sequel to the operation, and 28 of intercurrent disease, and 60 are still living. Among 18 cases of malignant disease of the kidney there was no successful case; all had since died from recurrence or metastatic deposits.

A report of some recent experiments by Uhlenhuth and Mulzer on the infectivity of human syphilitic blood and other tissue fluids for the rabbit has been published in the *Berliner klinische Wochenschrift*. Blood from patients in various stages of the disease was injected into the testicles of rabbits, and although spirochaetes were never demonstrable by examination of the blood by the dark ground illumination, a typical syphilitic orchitis set in, on an average within sixty days of the injection, and in the syphilomata thus produced spirochaetes were frequently found. There were 19 inoculations from typical primary syphilis, and 16 positive results (84.2 per cent.) were obtained. Of 36 inoculations from patients with secondary syphilis the results were positive in 27 (75 per cent.). In 4 cases of late tertiary cases only 1 yielded a positive result. At the time of writing, these investigators were experimenting with milk, urine, semen, and sputum from infected cases, and had obtained positive results in a few, whereas all attempts to convey the disease from the cerebro-spinal fluid of recent syphilitics, tabetics, or paralytics had been fruitless. These results might, they thought, have considerable value clinically, in cases of

doubtful or latent syphilis, and might solve the vexed question of the meaning of a positive Wassermann reaction in cases of latent syphilis, where it was doubtful whether virulent syphilis was present in the organism and potential for harm, or whether the reaction was merely proof of a previous and possibly unobserved infection. Furthermore, these infected rabbits would afford most valuable material for the observation of the therapeutic results of various antisyphilitic remedies.

Dr. Hahn had some interesting reports to give at the last meeting of the Medical Congress at Wiesbaden on his results with Behring's new prophylactic vaccine for active immunization against diphtheria. The protection given by the old serum only lasts a few weeks, and repeated injections carry with them the danger of anaphylaxis. Neither of these disadvantages could be urged, he said, against the use of the vaccine, which is a bacterial emulsion, and confers an immunity to the disease lasting for several months. One or two injections are required, and the active protecting bodies are produced in from three to five weeks after inoculation.

PARIS.

Medical Students and Military Service.—Treponema in General Paralysis.—Radioscopy of the Fetus in Utero.—Oculo-cardiac Reflex.

The proposal to extend the term of compulsory military service, which is now two years, to three will of course apply to medical students. In order to obviate as far as possible delay in their studies, while at the same time enabling them to serve their country as other men do, the staffs of the Schools of Medicine and Pharmacy recommended the adoption of the following resolutions:

Every Frenchman must serve his country when physically fit for a period of three years.

The students of medicine and pharmacy must be under strict military discipline for the same prescribed period as other men.

As the Army Medical Corps is not so efficient as might be in time of peace, and would possibly be inefficient in time of war, it is thought wise that the medical students should serve their time in this corps in the twenty-three towns in which medical and pharmaceutical schools exist. By these means they will be enabled to serve as male nurses in the hospitals and at the same time continue their medical studies.

At a recent meeting of the Society of Biology, Drs. Levaditi, Marie, and Baukowski communicated the results of the examination of the brain in 24 cases of general paralysis. In 2 cases they found the *Treponema pallidum*, thus confirming the findings of Noguchi in such cases. The parasites were found in the cortex of the frontal lobes. In one patient, in whom the disease had lasted seven years, the *treponema* was found in the brain substance. With the ultra-microscope the parasites were demonstrated to be alive and active. The results were confirmed by different methods of staining and also by the Chinese ink method.

At a recent meeting of the Medical Society of the Hospitals, Drs. Potocki, Delherm, and Laquerrière reported results obtained by the radioscopy of the fetus *in utero*. Thanks to the perfect equipment of the department at the new Pitié Hospital, the radioscopic results obtained were useful and interesting; in one case the fetus was photographed as early as the fourth month. Before making such an examination, a purgative must be given and the bowels thoroughly cleared out. The patient lies on her back on the table and the bulb is placed under the table, the plate being fixed on the abdomen. During the exposure the patient must not breathe deeply, or the photograph will be blurred. The time of exposure found necessary was about two and a half seconds. By this means the various presentations could be made out and useful information obtained regarding the probability of a normal labour.

Drs. Loeper and Mougeot made a communication recently to the same society on the "oculo-cardiac" reflex. They found that the cardiac rhythm might be affected by pressure on the eyeballs. In the normal subject the pulse-rate decreased by some six beats a minute. In nervous disorders of the stomach the reflex was exaggerated when the symptom-complex pointed to over-excitability of the pneumogastric nerves; it was diminished when the sympathetic was involved. In a case of ulcer of the lesser curvature of the stomach marked slowing of the pulse due to irritation of the vagus nerves was observed.

Correspondence.

RESEARCH DEFENCE SOCIETY.

Special Appeal.

Sir,—We have carefully considered what course our society ought to pursue in view of the recent exposure of antivivisection. We are of opinion that the society ought to maintain for some years in London a place of its own where it could put before the public, every day and all day long, the truth about experiments on animals in this country. We have tried this method in temporary premises and have found it abundantly successful, and we now have the opportunity of acquiring a small ground floor and basement at a moderate rent in one of the more important thoroughfares admirably suited for our work. It is the plain duty of all who desire the prevention of disease among mankind and among animals to help "the man in the street" to arrive at a right judgement in this matter. We are convinced from experience that the best way of dealing with antivivisection methods at the present time is to maintain a bureau where all passers-by can read and learn for themselves the truth about experiments on animals, and can obtain pamphlets and leaflets and ask for further information.

We therefore appeal for generous contributions towards a special fund for this one purpose. It is the especial business of the Research Defence Society to dispel the ignorance, or worse than ignorance, which still exists as to the character and object of experiments on animals in this country; and the maintenance of a bureau in London would be of an immense advantage to the work of the Society. All donations and subscriptions should be sent to the Honorary Treasurer, 21, Ladbroke Square, London, W. All cheques should be crossed Messrs. Coutts and Co.—We are, etc.,

David Gill, *President.*
Cromer, *Vice-President.*
Sydney Holland, *Chairman of Committee.*
Arthur R. Cushny,
Eldred Horsley,
Reginald Talbot,
Beatrice Leslie Thomson,
Members of Committee.
F. M. Sandwith, *Hon. Treasurer.*
May 5th. Stephen Paget, *Hon. Secretary.*

THE OPERATION OF "CHEILOTOMY."

Sir,—The operation of trimming an osteo-arthritic cornice from around a joint margin, described by Mr. Sampson Handley, has no doubt occurred to and been performed by others, who, however, have not been able to invent an appropriate name.

In November last I performed this operation for the removal of a ridge around the anterior, upper and lower margins of the head of the femur in a patient with coxa vara; I had previously, in common, I believe, with many others, performed similar operations on the great toe for hallux rigidus.

Mr. Handley, unfortunately, gives no details of his operative methods. The real difficulty in the case of the hip is the inaccessibility of the joint. In my case I was obliged to approach the joint by an anterior incision, and the chief difficulty was found to consist in the overhanging of a somewhat highly developed iliacus muscle. I opened the joint by a V-shaped incision, the apex of the V being at the root of the neck of the femur, the other ends of the incision being respectively immediately below the anterior inferior spine, and at the lowest accessible part of the acetabular margin. A flap of capsule was turned inwards, good exposure of the joint being obtained. The capsule was sutured with chromic gut, and I allowed the patient to stand without support after a fortnight.

Mr. Handley was fortunate in the amount of movement he obtained. In my case the amount of ligamentous and

muscular contraction has rendered it extremely difficult to maintain the increased mobility which the removal of the bone allowed.

It is to be hoped that Mr. Handley will give us further details of his operative methods; and skiagraphs of the patients after the operation, to illustrate the extent to which the head of the femur was trimmed, would also be of much interest.—I am, etc.,

London, W., May 5th. R. C. ELMSLIE.

RHEUMATOID ARTHRITIS.

SIR,—Sir James Barr admits that no doubt "many organisms set up a monarticular or polyarticular arthritis," also that "certain cases of arthritis are associated with pyorrhœa alveolaris, etc., and have been cured by a vaccine," and then states these cases are "not what we designate rheumatoid arthritis." That is to say, he makes his assertion (that rheumatoid arthritis is simply due to "a mild chronic acidosis") more probable by arguing that any case of monarticular or polyarticular arthritis which can be proved to have a microbic origin is therefore not rheumatoid arthritis.

He defines the disease as "a low chronic polyarticular inflammation," etc., and proceeds to describe it. If an inflammation, why due to acidosis rather than microbe or toxin? Its characteristics being so similar to arthritis due to the latter causes, why refuse to admit any cause but "a chronic acidosis"? Decalcification of bone cannot be admitted as a proof, for it is a common accompaniment of any bone inflammation; skiagraphs show it in tubercle, after fractures in the bone-ends, in whitlow, in terminal phalanges, etc. In the first and third cases one would not suggest acidosis, and they are due to microbic infection.

The wasting of articular cartilages, occurring early and seen as a constant feature in skiagraphs of joints affected by rheumatoid arthritis, seems to me much more possibly due to inflammation caused by microbe or toxin; its irregularity in incidence, attacking cartilages, first one then another, and one part of a cartilage before another part, suggests a series of local infections rather than a general acidosis.

However, until either theory of causation—acidosis or microbe—is proved (which seems well nigh impossible) cases have to be treated empirically, and some will find lime most successful and some iodides. I believe in antibacterial treatment, and consider, with Dr. Luff, that iodides (or iodine) are valuable in causing arrest of the disease.

I am strongly of opinion that the influence of continued cold and wet as a predisposing cause is very great. This disease attacks women in such very different positions in society, who, curiously, give a history of exposure to cold and wet. My cases include, for example, among hospital out-patients, laundry workers, scrubbers, workers in aërated water factories, and, in private, hunting ladies who have had wet gloves on for long together, amateur lady gardeners, ladies who spend much time in washing laces, etc.; some very poor, some wealthy, yet all affected similarly, all with history of exposure to cold and wet.

In a paper on treatment locally by radiant heat and iodine ionization[1] I gave my early experience of the results of a treatment which is now largely used in fibrositis and rheumatoid arthritis. There is no doubt in my mind that, properly carried out, as a local treatment, it has a real value. By this combined method cases of fibrositis can as a rule be cured absolutely, with perseverance for a sufficient time; perhaps Dr. Craig has given ionization up too soon, and that accounts for his failure with it. Treatment daily for a month, or on alternate days for two months is not too long; of course, many cases are cured in a fortnight. "It is," as Dr. Reginald Morton stated in his presidential address on arthritis this year in the Electro-Therapeutic Section of the Royal Society of Medicine, "not enough to get a few ions through the skin, we must endeavour to suffuse the joint with ions, and thus render the site unsuitable to the development of the organism" (he is referring to the bacillus of Schuller as the possible cause of rheumatoid arthritis).—I am, etc.,

Brighton, April 25th. C. FRED BAILEY, Royal Sussex County Hospital.

SIR,—I have read with much interest Sir James Barr's address upon this subject, and also his reply to what appeared to me a very fair criticism of his views by Dr. Luff.

Rheumatoid arthritis is a disease in which I have long been interested, and I think I may claim to have some knowledge of the subject, for I have been attached to the Royal Mineral Water Hospital almost continuously for the past twenty-three years, and during that time I have, both there and in private practice, seen and treated a very large number of cases.

First, I would like to say that the more I see of this disease, the less inclined I am to dogmatize about it. A few years ago I made bold, in a paper I read before our local Branch, to assert that there was no such disease as rheumatoid arthritis, but that what we call by that name was in part a bastard form of rheumatism or of gout, and in part an infective arthritis the result of many and different organisms. Granting, however, that there is in this great group of joint affections an inner group which may fairly be regarded as a distinct disease, I will take Sir James Barr's definition of rheumatoid arthritis as applying to this inner group, so that there may be no doubt as to the class of cases I am considering. Sir James Barr defines this disease as "a low chronic polyarticular inflammation with frequent acute exacerbations," etc.[1] I would point out that this definition rests entirely upon clinical features, and I suggest that there should be stronger grounds for establishing rheumatoid arthritis as a distinct and separate disease.

Sir James's definition, of which I have only quoted the first sentence, gives an excellent picture of a typical case of rheumatoid arthritis, and he says that, even in its later stages, "it is still possible to cure the disease, though not the deformities," presumably by administering sufficient lime salts. "If, however," he goes on, "you keep hunting after the germ and its toxin, the patient as well as the joints will become a hopeless wreck."

Sir James dismisses the idea of rheumatoid arthritis being an infective disease as not worthy of consideration. But I have seen cases of undoubted infective origin, from which Sir James's own clinical picture of the disease might have been drawn—cases, for instance, due to pyorrhœa alveolaris and the gonococcus, cases which, according to Sir James, are only associated with these infections, but in which a cure followed the removal of the centres of infection and the use of the proper vaccines. I am more justified in asserting that these cases were due to infection than is Sir James Barr in claiming that they were caused by a decalcifying agent supposed to exist in the blood. Has Sir James Barr tested his theory as severely as he tells us that those who believe in an infective arthritis should test theirs? If in those cases of which I have spoken I had waited to apply the tests of Koch, of which he speaks, both I and my patients would still be waiting for the happy results which followed the, possibly unscientific, use of the remedy.

After all, what evidence is there that Sir James Barr's views as to the causation of this disease are correct? He claims that rheumatoid arthritis is due to a deficiency of lime salts in the body caused by a "mild chronic acidosis," but he does not tell us to what this "mild chronic acidosis" is due. He is met at the outset with the difficulty of explaining the later osteo-arthritic forms of the disease, for he says, "It is true that the deposit of lime salts may take place in the final stages of rheumatoid arthritis," and adds that this is "Nature's clumsy method of effecting a cure." In such a case as this, will Sir James Barr tell us when the change took place in the "mild chronic acidosis" so that the extracting of the lime salts from the bones and tissues ceased and their deposit began? Are we to understand from Sir James Barr that Nature, after extracting the lime salts and recognizing that she has gone rather too far, begins in a "clumsy method" to lay them down again? In his letter in the

[1] BRITISH MEDICAL JOURNAL, 1910, pp. 518, 519.

[1] BRITISH MEDICAL JOURNAL, p. 753.

Journal of April 26th, he says if Dr. Luff has any doubt about the extraction of the lime salts from the bones he had better look at some skiagrams. I think Dr. Luff's doubts upon this point are well founded, and I suggest that something further than the evidence from skiagrams is needed to prove this point. During recent years I have taken a large number of skiagrams at the Royal Mineral Water Hospital, and the conclusion I have come to is that in rheumatoid arthritis, and in other diseases where the tissues are wasted, the bones are more translucent than is normal, but that no reliance in diagnosis could be based upon this method.

According to Sir James Barr, rheumatoid arthritis begins in the larger joints and spreads to the smaller. This is entirely contrary to my experience. It is in the smaller joints, especially of the hand, that it first begins, and often, as Dr. Kent Spender pointed out, in the joint and muscles of the thumb.

That it is more common among the poorer classes I quite allow, but it is also seen only too often among the well to do. If the poverty of the one causes the "mild chronic acidosis," does the plenty of the other do the same?

As to the dilated stomach which Sir James Barr says is "almost invariably" present, and the albuminuria of the later stages accompanying the effusion into the joints, my experience and his do not at all agree, though of course either of these conditions may be present in special cases.

With regard to diet, and remembering the "mild chronic acidosis," Sir James Barr said acid fruits and sugar are to be avoided, though a little marmalade may occasionally be allowed. I have always understood that in a pound of marmalade there is more than half a pound of sugar and the rest is made up of the acid fruits that he says should be avoided.

That cases of this disease are benefited by the drugs that Dr. Luff advises, and upon which Sir James Barr pours such contempt, I am sure, and I have equally no doubt that in Sir James's hands good results have followed the use of lime salts, though their administration is based upon a theory that he has not proved.—I am, etc.,

Bath, May 4th. Preston King, M.D.

Sir,—The general practitioner in these days of specialism is not credited with knowing much about anything, but if there is one class of ailments of which he may claim some knowledge, it is rheumatoid arthritis and "rheumatic" affections. An experience of thirty years' practice in health resorts, during which period I have seen scores of cases of rheumatoid arthritis proves that Sir James Barr's statement about potassium iodide, arsenic, etc., is correct. The most absolutely useless drug to administer in this disease (or any other disease) is guaiacol carbonate. It has no influence either in mitigating the symptoms or moderating the course of the disease. What it does is to upset the patient's digestion, causing continuous disgusting eructations and adding generally to already existing miseries. I have asked many brother practitioners if they have ever tried it, and they all answered in the negative, and a leading chemist recently told me that he did not even stock it, there being no demand for it. There are one or two useful remedies for rheumatoid arthritis, but guaiacol carbonate is not one of them.—I am, etc.,

Margate, April 27th. Percy Newell.

Sir,—Dr. Luff's tale of injured innocence will deceive no one. He should remember that when he enters the pages of the British Medical Journal he is not lecturing a class of students who must accept his statements as gospel truth. The only effect which his letter has on me is to make me take off the gloves, and I shall not put them on until I have not left him a leg to stand upon.

The rarefaction and even in extreme cases crumpling up of the ends of the bones; the thinning and erosion of the cartilages; the effusion into the joints; the swelling of the fibrous tissues; the wasting, weakness, and increased irritability of the muscles with frequent effusion into their fibrous sheaths; the neuralgia and neuritis in cases of rheumatoid arthritis afford no proof to Dr. Luff of the extraction of the lime salts from these respective tissues. What, then, does he imagine that these allied phenomena prove? If he be not satisfied with the skiagrams which he sees, surely out of his thousands of cases he will have an opportunity now and again of making a *post-mortem* examination. He will then be able to examine these tissues both physically and chemically. When he can show me anything else except an acid which will extract the fixed lime from these tissues, I shall reconsider my position. In the meantime, while he is waiting for the autopsy, as something which will readily come within his cognizance, he might study the extraction of the lime salts from a carious tooth.

I have shown that with the phenomena which constitute rheumatoid arthritis there is an excessive excretion of lime and phosphates; that the normal amount of lime in the tissues is diminished, and in the case of the ends of the bones entering into the affected joints this is apparent to the most casual observer; that nothing will extract these fixed salts of lime but acids; and that again you can induce the phenomena of rheumatoid arthritis by the free administration of phosphoric acid and citric acid, especially when you cut the lime salts out of the diet. There is another experiment with the lime salts which I would advise Dr. Luff not to try; a person can readily and rapidly kill himself by converting the lime salts in the blood into the insoluble oxalate. I must apologize to the intelligence of your readers for this verbose explanation, which, however, seems to be necessary.

Dr. Luff apparently does not take kindly my prescription for sharpening his wits, but I can assure him there is nothing heroic or new, and the experiment is well worth trying. In 1910 I said, If you want to think quickly, speak quickly, and act quickly you had better not have too much lime in your nervous tissue.

I tried to lay my hands on a few of Dr. Luff's thousands of cases of rheumatoid arthritis, but I failed, as St. Mary's Hospital, which used to be considered a very important teaching centre, does not publish any statistics of the cases treated there. My countryman, George Bernard Shaw, says that every one should be required to prove the necessity for his existence at least every ten years, and I certainly think that a specialist who has had thousands of cases of rheumatoid arthritis under his care, and has got no "forrader" with the treatment than an abominable and useless mixture of guaiacol carbonate and potassium iodide is on his defence.

I may now in as serious an air as I am capable of assuming assure Dr. Luff that the best treatment for rheumatoid arthritis is to prevent its occurrence. This is the end of the second round and I am still smiling. By the time we get to the fifth or sixth round the subject of rheumatoid arthritis will be getting very interesting.—I am, etc.,

Liverpool, May 3rd. James Barr.

ADRENALIN IN CHLOROFORM ANAESTHESIA.

Sir,—The thanks of the profession, and of anaesthetists in particular, are due to Mr. Depree for publishing his fatality after the injection of solution of adrenalin chloride during light chloroform anaesthesia.

The importance of the paper read by Dr. Goodman Levy at the annual meeting at Liverpool cannot be overestimated nor the results of his experiments too widely known in order that these fatalities may be avoided in the future. Clinical experience has unfortunately confirmed Dr. Levy's results, though against them it has been urged that adrenalin has been injected during light chloroform anaesthesia in hundreds of cases without any untoward results. The reason is, I think, obvious—namely, that danger only arises in cases where some small blood vessel has been pierced, and the solution has found its way directly into the blood stream, an accident that can neither be foreseen nor prevented.

Of all the excellent work done in the Anaesthetic Section at Liverpool, two papers made an indelible impression on me—the one referred to above, and a paper by Mr. R. E. Apperly, in which, *inter alia*, he brought forward experimental proof of the increased risk of fatal acidosis after the administration of chloroform in the presence of abdominal sepsis. This is a digression, but I refer to the matter in the hope that catastrophe from this source also may be avoided in the future.—I am, etc.,

London, W., April 26th. G. A. H. Barton.

SIR,—The thanks of all who are interested in the subject are due to Dr. Depree for his report (p. 879) of a death under chloroform anaesthesia following the submucous injection of a solution of adrenalin. I may, perhaps, be permitted to refer to three points in connexion with the case that appear to me to be of interest from the point of view merely of those who are frequently called upon to perform the operation of submucous resection of the nasal septum: (1) I think a 1 in 1,000 solution of adrenalin is too concentrated for submucous injection. (2) A general anaesthetic is, I think, rarely required for the operation in question in a man aged 26. If a method such as that of Freer be employed, perfect local anaesthesia can be obtained. (3) I do not consider submucous injection of adrenalin solution necessary as a preliminary to submucous resection of the nasal septum under general, or, for that matter local, anaesthesia. I have always obtained satisfactory haemostasis by the surface application of strips of gauze soaked in a solution of cocaine (10 per cent.) in adrenalin chloride 1 in 1,000, for from three-quarters to one hour before the operation.—I am, etc.,

Liverpool, April 29th. THOMAS GUTHRIE.

SYPHILIS AND CANCER OF THE TONGUE.

SIR,—Your correspondent, Dr. Aston Key, says Mr. Clement Lucas used to teach that the three great causes of cancer of the tongue were syphilis, smoking, and mercurial stomatitis. I think it was Alfred Fournier who first emphasized the importance of syphilis as a primary and tobacco as a secondary cause of lingual cancer. As regards mercurial stomatitis as an exciting cause of cancer of the tongue, the evidence is rather against this view, because under modern mercurial treatment stomatitis is, or should be, either mild or absent, while the incidence of cancer of the tongue apparently has not diminished. In this connexion it will be interesting to see whether this incidence will be diminished by salvarsan treatment. As regards the Wassermann reaction, perhaps it may be positive in the majority of cases of lingual cancer, but so is a history of syphilis; and, as Mr. Ryall wisely remarks, a positive Wassermann reaction does not exclude cancer. It might be added that it does not exclude any other disease. The main point is that Mr. Ryall, by his series of cases of cancer of the tongue, has confirmed the doctrine of Fournier—that syphilis is the primary cause of lingual cancer.—I am, etc.,

London, W., April 28th. C. F. MARSHALL.

SIR,—I have to thank Mr. Ryall for his courteous reply to my letter relating to cancer of the tongue and the percentage of cases resulting from active syphilis.

Mr. Ryall indicates that, because a history of syphilis is obtainable in 82 per cent. of cases, syphilis is an active factor in the development of this condition, and in his lecture that "The thorough treatment of syphilis would well-nigh abolish cancer of the tongue." Mr. Ryall's argument very much resembles *post hoc, ergo propter hoc*. One might as truly say that because a patient has been taking mercury by the mouth for so many years therefore cancer of the tongue is due to the stomatitis associated with the too free ingestion of this metal. In this connexion one remembers the statement, due, I believe, to Mr. McDonagh, that on the Continent cancer of the tongue is rarer than in this country, where internal administration is much more largely used than the other methods of administering this metal.

The Wassermann reaction appears to have been tested in seven cases. I maintain, however, that if the reaction be applied to a large number of cases the percentage of cases in which one can definitely say that a syphilitic process plays an active part will be very much smaller.

In view of Mr. Ryall's association with the Lock Hospital as well as with the Cancer Hospital, is it not possible that an unduly large proportion of the tongue cases have first been met with at the former hospital?

Dr. Leitch has overcome the supersensitiveness of his complement by using two serums. I overcame that objection by testing the strength of complement previously, by testing each patient's serum on more than one occasion, and by testing them along with serums which I had had under observation on many previous occasions.

It is useless to argue that one method is better than another unless the same serums are used in a large number of cases. I am anxious to investigate this question to the utmost, not only in cases of cancer of the tongue, but also by means of the Wassermann reaction to ascertain the relationship of syphilis to cancer in other situations. If Mr. Ryall will further extend his courtesy, I would suggest that the serums from such cases be exchanged between the two hospitals, that Dr. Leitch check my results by his methods, while I for my part will undertake to test most carefully any serums he will be good enough to forward to me.

I have the consent of Dr. Wild, the Chairman of the Medical Board at the Cancer Hospital in Manchester, to exchange serums for this purpose, and I can assure Mr. Ryall and Dr. Leitch that so far as I am concerned I am prepared to investigate the matter most fully.—I am, etc.,

Manchester, April 29th. ARNOLD RENSHAW.

EVIDENCE FOR AND AGAINST THE USE OF TUBERCULIN.

SIR,—I should like to congratulate Dr. H. Batty Shaw on the prominent position which he assigns to Nature's efforts in the cure of tuberculosis. If therapeutics is ever to be raised to a satisfactory scientific level, the enthusiasm of the therapeutist must not be permitted to obscure this cardinal fact to which Dr. Shaw directs attention. The crucial experiment, however, of leaving Nature entirely alone in one series of cases and introducing this or that factor in other series cannot, for obvious reasons, be made. It seems to me, therefore, that in this, as in most other departments of medical work, the verdict must ultimately rest on a consensus of opinion of careful clinical workers of wide experience. To expect cures in the sense that the man in the street expect cures is, I think, to expect too much. The question is not so much whether we can make absolute cures in that sense, as whether we can to any real extent assist Nature's efforts, as distinguished from mere routine meddlesomeness.

After a number of years' constant use of tuberculin I am convinced clinically (1) that in the doses suggested by Sir Almroth Wright it does no harm in afebrile cases; and (2) that in a very considerable percentage of such cases real good is effected. I may say that the pulmonary cases upon which I base my conclusion as to the value of tuberculin were not early cases, but I may add that they were not continuously febrile. In this latter class I have failed to do any perceptible good, possibly because here Nature fails to do her fair share of the work. I do not suggest that specific treatment in this type of case is absolutely valueless; all I say is that it has failed in my hands, even in cases in which some evidence of immunizing response (evidenced by improvement of appetites and general feeling of well-being) was obtainable. On the other hand, to any one who has treated a moderate number of gland cases, for example, with secondary infections by means of tuberculin and autogenous vaccines, the question as to the value of such treatment is no longer open. It rests with the sceptic either to remain a sceptic or convert himself by practical experience.

Dr. Shaw admits that "all vaccine treatment is capable of effecting a change in the aspects of disease." Whether that is strictly true as a general proposition, I am not prepared to say; but I think that there is now available a large amount of evidence that in many chronic ailments there is such a change and, if the method be properly employed, that the change is in a curative direction.

In conclusion, I should like to add that some individuals of a neurotic type seem to be abnormally sensitive to tuberculin, and for this reason, if for no other, any uniform or rule-of-thumb method of using it appears to me objectionable. Tuberculin is a remedy, I think, which demands the most careful consideration of each case on its merits.—I am, etc.,

J. STAVELY DICK,
Honorary Clinical Pathologist, Northern Hospital.
Manchester, May 6th.

EXISTING UNSATISFACTORY CONDITION OF THE SCHOOL MEDICAL SERVICE.

SIR,—May I be allowed to call attention to the existing unsatisfactory condition of the school medical service of this country, both as regards organization as well as regards the future prospects held out to those desirous of devoting their lives to this branch of medical work?

In the larger centres there are at present two systems of organization of the school medical service. Under the first the medical officer of health has also been created school medical officer; under the second, the two offices are held by different individuals, assistance being given under both systems by a staff of subordinate officers known as school medical inspectors. Considering the ever-increasing number of duties imposed on medical officers of health, it is practically impossible for them to take any active part in the work of the school medical department; moreover, the duties of a school medical officer include many matters, such as the diagnosis of mental deficiency and its educational treatment, the examination and educational treatment of the blind and deaf (both total and partial cases), and a host of other matters too numerous to mention, which find no place either in the training or experience of medical officers of health as such. Practically the whole of the work, therefore, passes into the hands of young and inexperienced assistants, who, in the absence of any hope of future advancement in the service, are constantly coming and going, and consequently never become really experts at their work.

The second system could undoubtedly be developed into a highly satisfactory and efficient national service, the school medical officers being selected from the more experienced and efficient of the subordinate officials—the school medical inspectors. By this means the placing of the control of the service in thoroughly experienced and competent hands would be assured.

There are at present twenty-two county boroughs where the school medical officer is an official distinct from the medical officer of health. There appears, however, to be a movement in many of these cases on the part of directors and secretaries of education to assume control over these school medical officers and their work, a movement which, if not promptly nipped in the bud, will result in the spectacle of laymen assuming direction of the work of medical departments.

The result under either system has been to make members of the service either assistants to the medical officer of health, or, in the case of those that are not, the penalty is incurred of being classed on the same level as regards both salary and status. Of the twenty-two county boroughs above referred to, in six instances only does the salary of the school medical officer amount to £500 a year; in most it appears to average about £300, and in some even less. The usual salary of a medical inspector is £250. These figures refer entirely to full-time appointments. A condition of things which holds out no better prospects to would-be entrants into the service than that of remaining for life in the position of assistants and drawing the salaries of assistants must not only prove a barrier against any further development of its efficiency, but must also inevitably result in its early and rapid deterioration.—I am, etc.,

ROBERT HUGHES, M.B.Lond., etc.,
School Medical Officer.
Stoke-on-Trent, May 3rd. County Borough of Stoke-on-Trent.

THE PARISH DOCTOR AND HIS OPPORTUNITY.

SIR,—I quite agree with Dr. Morley Lynch's letter of April 12th. It is high time that the Poor Law medical officers struck for better pay. Speaking generally, the pay is not half as good as that obtained from insurance work, which is generally considered inadequate.

In my own particular case, for a workhouse with some 270 inmates, with 125 sick beds in the infirmary, I am paid £60 a year and have to supply drugs, whereas 270 insured, healthy people at 8s. 6d. a head (being beyond the three-mile limit) would give £114 15s. My salary works out that for 7s. 6d. I have to drive six miles, see 125 sick persons, supply all drugs, etc., which is less than 1d. a patient and is just the cab fare to see the patients and back.

As district medical officer I am paid at the rate of 8d. a visit with medicines, and I often have to drive 18 miles, as my district is a wide one.

Surely united action on our part would stop this sweating.—I am, etc.,

DUDLEY W. BOSWELL, M.D.,
Medical Officer, Mutford and Lothingland Union
Lowestoft, April 29th. and Workhouse.

TRADE UNIONISM AND MEDICINE.

SIR,—The medical profession is to be congratulated on the success of the appeal in the case of Heard *v.* Pickthorne and others, and the case seems to show the necessity for the existence of a strong body, whose primary object shall be to watch over the position of medical men in relation to the Insurance Act. The British Medical Association found itself unable to advise action in the matter, but the National Medical Guild decided to take up the case, and, notwithstanding the reverse suffered in the King's Bench, pressed the matter to appeal, and has succeeded in maintaining due recognition of medical certificates, whether panel or non-panel.

Dr. Gordon Ward has ably shown reasons why the body to deal with Insurance Act questions should be registered as a trade union, notably in order to be free from liability to libel actions, and with a view to obtaining in the future representation in Parliament. In the meantime it would be well for the attention of the Divisions to be drawn to a proposal from Leicester which is on the agenda for the Representative Meeting. It is suggested that the Association should recognize a trade union, working apart from the Association but under its aegis. Such a body might very well be developed from a federation of trade unions already formed or in process of formation. It should aim at representing the whole profession, and, while demonstrating that it does not exist for the purpose of "smashing the Act," it should press forward a policy for restoring the freedom of the profession while safeguarding the interests of the community. As outlines of such a policy may I suggest the following?

1. Ultimate abolition of the "panel" in the future.
2. Fullest possible measure of "contracting out" in the present.
3. Abolition of lay control in medical matters.
4. Substitution of medical referees in place of the proposed medical inspectors.
5. Recognition of wage limit.
6. Curtailment of unnecessary forms and records.

In addition to advocating these improvements in the Act and Regulations, the trade union would take up any question of arbitrary action such as that involved in the case of Heard *v.* Pickthorne, and numerous other points that are bound to arise in the administration of an Act which makes great inroads on the freedom of the public.—I am, etc.,

London, W., May 5th. CHAS. BUTTAR.

THE ETHICS OF ANTIVIVISECTION.

SIR,—You have done me the honour to devote five and a half columns of your issue of May 3rd to what I am sure you intend for an attack upon me. But as a considerable portion of your article consists of verbatim reproductions of what you describe flatteringly as my rhetoric, I can view with more complacency the remainder written by yourself.

I see no ground for your pleasantry in the matter of my phrase "ocular demonstration." In its place as I used it, the expression was felicitous and appropriate. I had already received auricular evidence of the presence of dogs in pain at the laboratory at University College; what I sought for was confirmation or confutation of that auricular evidence by the use of my eyes. If I had seen the dogs with the wounds in them after vivisections performed on them under Certificate B, and observed with my eyes that their howls were induced by those wounds, I should have come away, as I remarked, "armed with ocular demonstration that the dreadful cries which I had heard emanated from dogs whose dolorous clamour was caused by the wounds in their bodies inflicted on them under Certificate B."

I entirely appreciate why you imagine you can with safety represent me to your readers as an illiterate person. The absorption of many of them in the pursuit of some

confined corner of science precludes them from a study of the classics, which alone could make them capable of perceiving the absurdity of your efforts. In your concluding paragraph you recommend me "not to rush into print again with descriptions of dolorous clamour caused by wounds inflicted under Certificate B, till he has had ocular demonstration that the dreadful cries do not emanate from untouched dogs protesting that they are debarred from following the instinct of Nature, 'red in tooth and claw.'" It is idle to upbraid me in this manner for not doing exactly what I endeavoured to do. You bid me go to the laboratory and see for myself. That is precisely what I did, and was refused admission.

As to the silly anonymous letter which you think it worth while to reproduce in facsimile across two whole pages of your JOURNAL, I know nothing about it. I myself, like most public men who advocate anything with firmness, am constantly subjected to every sort of filthy anonymous communication. But I do not publish them in the *Zoophilist;* if I did, I dare say my opponents would accuse me of writing them to myself for the purpose of creating prejudice. I make no such accusation against Professor Starling; I simply think him foolish to take any notice of such things.—I am, etc.,

London, S.W., May 6th. STEPHEN COLERIDGE.

MEMORIAL TO MR. ETHERINGTON-SMITH.

SIR,—At a meeting held at St. Bartholomew's Hospital on May 1st it was decided to open a subscription list for a memorial to the late R. B. Etherington-Smith.

It is suggested that the memorial should take the form of providing and endowing separate sick quarters at St. Bartholomew's Hospital for the use of the medical, surgical, and resident staff, and of providing a suitable memorial at Cambridge.

Etherington-Smith's life-work was so bound up with St. Bartholomew's that this form of memorial will doubtless commend itself not only to his colleagues in the profession, but also to the larger body of men who knew and admired him as an oarsman and friend.

The scheme has received the cordial approval of his family.

Subscriptions will be received by the Honorary Treasurer, Dr. T. W. Shore, Dean of the Medical School, St. Bartholomew's Hospital, E.C., or they may be sent to the "Etherington-Smith Memorial Fund" at the Bank of England.

(Signed) ANTHONY A. BOWLBY, C.M.G., Senior Surgeon to St. Bartholomew's Hospital.
W. B. CLOSE, C.U.B.C.
G. ACTON DAVIS, Acting Treasurer, St. Bartholomew's Hospital.
J. H. GIBBON, C.U.B.C.
HARCOURT GOLD, O.U.B.C.
W. P. HERRINGHAM, Senior Physician to St. Bartholomew's Hospital.
R. C. LEHMANN, C.U.B.C., Secretary to the Fund.
HOWARD MARSH, Professor of Surgery, Cambridge University.
S. D. MUTTLEBURY, C.U.B.C.
GUY NICKALLS, O.U.B.C.
G. D. ROWE, O.U.B.C.
H. T. STEWARD, Leander R.C.

THE eighty-fifth annual meeting of German scientists and medical practitioners will be held at Vienna in September (21st to 26th). Among the communications to the medical section will be one by Professor von Behring on the prophylaxis of diphtheria.

A NUMBER of medical charities benefit under the will of the late Colonel Frank Shuttleworth, of Bedford and Lincoln, among them being Lincoln County Hospital, £2,000; Lincoln Dispensary, £500; Bedford County Hospital, £3,000; Bedford Dispensary, £500; Middlesex Hospital, £1,000; the Cancer Hospital, £1,000; and the Great Northern Central Hospital, £500.

THE Corbett Hospital for Children, Amblecott, near Stourbridge, in Worcestershire, is the recipient of a sum of £5,000 under the will of the late Mr. Edward Webb. The sum is bequeathed in memory of the testator's wife, and is to be used for the building and equipment of a new wing.

Obituary.

JOHN CHARLES THOROWGOOD, M.D., F.R.C.P.,

CONSULTING PHYSICIAN, CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

THERE passed away last month at Bognor, in the person of Dr. J. C. Thorowgood, a fine representative of the transitional period of medicine and a physician who at one time played a very active part in the professional life of London. He had been living at Bognor since his retirement from practice some twelve years ago, and died in the eighty-first year of his age, on April 25th, after a very short illness.

Dr. Thorowgood was the son of a schoolmaster, and received his general education at his father's school at Totteridge, in Hertfordshire, then quite a small village. He completed it in the Art Faculty of University College, where he was a prizeman both in Latin and Greek. Subsequently he joined its medical faculty, and evinced therein the same aptitude and industry that he had displayed as a student in arts. Erichsen, who was then the professor of surgery, awarded him the silver medal, and subsequently the Fellowes medal for clinical work also fell to his lot. He fared equally well at the hands of the London University examiners, winning gold medals both in chemistry and medicine at his M.B. examinations. These he completed in 1855, and became about the same time L.S.A. A year previously he had been admitted M.R.C.S.Eng., and in 1857 graduated M.D.Lond. Meantime he rounded off his work by acting as assistant to his sister's husband, who was in general practice in the provinces, and then, after spending some time in the South of France in charge of a patient, returned to London to start a career as a consultant.

His first success in this direction was his appointment as physician to the Royal General Dispensary in Bartholomew Close, an ancient institution which has been the early training ground of many distinguished men, and where he had as colleague the late Dr. James Andrew, afterwards senior physician of St. Bartholomew's Hospital. Next came his appointment to the assistant staff of the City of London Hospital for Diseases of the Chest, a post for which he qualified by becoming a Member of the Royal College of Physicians. Here, too, he had James Andrew as a colleague, for there were two vacancies for an assistant physician at this hospital, and both received appointment on the same day. This appointment assured Thorowgood's success, and little by little he attained the prominence in the medical life of London to which his personal qualities and professional abilities certainly entitled him.

His connexion with the City of London Hospital lasted to the end of his life, for on his retirement from the post of senior physician under the age clause in 1885 he was elected consulting physician. His connexion with the West London Hospital, where he was physician, was almost equally long. He also served the Middlesex Hospital, though not as a member of its staff. His work there lay in the school, where in 1872 he succeeded Sir Lauder Brunton as lecturer on materia medica and therapeutics, and in the same year delivered the introductory address at the beginning of the winter session.

To the Fellowship of the College of Physicians he was elected in 1874, and during the last year of his life in London he served on its Council. The Medical Society of London was also indebted to him, for he acted as one of its honorary secretaries for some years, and at the time when Sir Erasmus Wilson was president delivered the Lettsomian Lecture. He was also one of its vice-presidents. More important still, perhaps, was the work that Dr. Thorowgood did at the Society of Apothecaries. He became one of its examiners at an early date, and for four years was chairman of its board of examiners. He was also a member of the Society and filled the office of Warden. In the natural course he would have served a year as Master, but when the time came the condition of his health necessitated his refusal of the honour. Other offices which he held were those of consulting physician to the Royal National Hospital for Consumption and the presidency of the West Kent Medico-Chirurgical Society.

Unlike many of his contemporaries, Thorowgood did a good deal of writing on professional subjects. Apart from contributions to the medical journals he published several

books. His *Notes on Asthma*, which contained a good deal of the material on which his Lettsomian Lecture was based, went through three editions; while two appeared of a book on materia medica which he wrote for students. Curiously enough, the least successful of his publications was the one which in many respects is of the most permanent interest; this was a book entitled, *The Climatic Treatment of Consumption;* it was written by him quite early in his career and put forth views which are in consonance with present conceptions. He combated the notion that phthisical patients should be sent to mild climates, and argued that, on the contrary, bracing resorts must be best for them, since they would have a tonic influence and improve digestion and the constitutional strength of the patient.

Dr. Thorowgood married in 1863 Miss Ashwin, of Bourton-on-the-Water, Gloucestershire, by whom he was predeceased, but he leaves several daughters.

PROFESSOR JACCOUD,

SECRETARY OF THE FRENCH ACADEMY OF MEDICINE.

DR. S. JACCOUD, Perpetual Secretary of the Academy of Medicine and former Professor of Clinical Medicine in the Paris Faculty, has recently died at the age of 83. He was born in Geneva and received his literary education in that city. He went to Paris in 1849 with only a few letters of introduction, and at first, while studying medicine, he had to make his living by giving lessons in literature and music. He also put his talent as a violinist to use in the orchestras of the Odéon, the Gymnase, and the opera balls. Later he taught anatomy. He had a brilliant career as a student. He gained the coveted post of *interne*, coming out first on the list. Four years later he was awarded the gold medal of the *internat*. He took his doctor's degree in 1860 with a thesis on the conditions producing albuminuria. He won the appointment of physician to the hospitals in 1862 at his first trial, again being first among the candidates; the following year he became *agrégé*, also at the first trial, and again with the first place. These successes are said to be almost unparalleled. His thesis for the position of *agrégé* was written and printed in less than a fortnight; it shows a deep knowledge of the history of medicine, whilst the point of view is entirely modern. In 1876 he became professor of internal pathology. In 1883, after the death of Lasègue, he was at his own wish transferred to the chair of clinical medicine at the Pitié Hospital, where he remained during the rest of his teaching career. Jaccoud was elected a member of the Académie de Médecine in 1877; he was president in 1898, and became its perpetual secretary in 1901. Among his works are an annotated translation of *Graves's Clinical Medicine* (1862); *Paralysis and Atony of Movement* (1864); *A Treatise of Medical Pathology* in two volumes (1870–71), the last (seventh) edition in three volumes appeared in 1882; clinical lectures delivered at the Charité Hospital (1867); and the Lariboisière (1873); a monograph on the curability and treatment of pulmonary phthisis (1881); and *La clinique médicale de l'hôpital de la Pitié* (vol. iv, 1883–1888). To foreigners his name is perhaps best known in connexion with the *Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques* (1864–1886), a medical encyclopaedia in many volumes published under his direction, to which he contributed a number of articles dealing with albuminuria, diabetes, endocarditis, and other subjects. He had a wide acquaintance with foreign medical literature and was thus able to put before his pupils and readers very complete accounts of the actual state of medical science. His vast knowledge, together with the precision and clearness of his ideas, and his great gift of expression, made him a first-rate teacher. In his work he opened up new paths and was looked upon as one of the most advanced among his contemporaries. He scorned popularity and never stooped to the mean arts by which it is acquired. He was a man of austere integrity, and when his conscience showed him his duty he followed its dictates with a firmness which often seemed opposed to his own interests. His independence made him hold himself aloof from all coteries. Those admitted to his intimacy knew the goodness of his heart and the affectionate sympathy which he could display when the occasion called for it. The dignified aloofness in which he lived, however, served to hide those amiable qualities.

E. J. W. CARRUTHERS, M.D.EDIN.,

CONGLETON.

THE death of Dr. Edward John Walter Carruthers, of Congleton, which was briefly noted in our columns at the beginning of last month, has removed from the ranks of medicine at an early age a man who had the gift of winning the warm affection, as well as the respect, of those who came in contact with him. He received his medical education at the University of Edinburgh, where he graduated M.B., C.M. in 1891, proceeding to the M.D. some four years later. In the meantime he had obtained a wide knowledge of his profession by institutional work, among the posts that he filled being those of senior resident medical officer to the Hospital for Sick Children at Pendlebury, and resident physician to the Royal Infirmary at Edinburgh. For a considerable period also he assisted his father-in-law in the conduct of the Wye House Asylum at Buxton. At Congleton he settled in practice some sixteen or seventeen years ago as successor to the late Dr. Moss, and at the time of his death, which occurred in the 46th year of his age, he was honorary surgeon to the Congleton Cottage Hospital, and medical officer to the Congleton Union. Some of his characteristics, both as a practitioner and as a man, are well brought out in a letter from another medical man who at one time served him as an assistant. After expression of his sympathy with Dr. Carruthers's family and of his own sense of loss, and some references to Dr. Carruthers's skill as a practitioner and the position he held among his fellows, he writes as follows:

> My sojourn with him was the happiest time of my life. He was a splendid man for a young graduate to go to, and many of his assistants must, like the writer, have a lot to thank him for. One got well grounded not only in diagnosis and treatment, but in the general routine of practice. He taught you things that the textbooks do not and cannot teach. He was particularly strong on the duties of a medical man towards his brother practitioners and on questions of medical etiquette, and for many acts of kindness towards myself and my family my heart is truly grateful to him.

Dr. Carruthers, in short, was one of those general practitioners who form the real backbone of the profession, bringing to their work as they do not alone up-to-date book knowledge, but clinical experience and the power of correct observation and the influence of high ideals. As might be expected of such a man, Dr. Carruthers was a staunch upholder of the British Medical Association, and held the view that every young man should join its ranks as soon as he is entitled to do so. Dr. Carruthers was married, and is survived by his wife and several children.

WE regret to announce the sudden death of Dr. ROBERT HOPETON BROWNE, Medical Superintendent Officer of Health for the Rathmines Township, on April 29th. His father was one of the first Township Commissioners elected after the incorporation of the district in 1847, and his brother, the late Mr. Vere Ward Browne, was for many years a member of that body. Dr. Browne was educated at Trinity College, and as a student of the Royal City of Dublin Hospital gained the Purser Studentship. He took the degree of M.B. in 1868, and that of M.D. in 1871. For some time he studied in Paris. He took the Fellowship of the Royal College of Surgeons in Ireland in 1876. He early gained a considerable practice, and was elected to the Board of Commissioners of Rathmines. He relinquished this position when he became medical officer of the dispensary. He was appointed medical superintendent officer of health in January, 1898, and discharged the duties of that post with conspicuous ability. Though for the last twelve months he had been in bad health, it was only recently that his illness took a serious turn. He was an enthusiastic golfer and vice-president of the Rathfarnham Club. At a special meeting of the Rathmines Council, the following resolution was passed:

> That this meeting has heard with the deepest regret of the death of Dr. Browne, with whom we have been associated so long as medical superintendent of health. The loss of one who has been for so many years closely associated with everything tending to the advancement of the township is keenly felt by us, and we desire to express our deep sympathy with Mrs. Browne and the other members of his family.

THE announcement of the sudden death of Dr. MACCORMAC was received in Belfast with much regret, and great sympathy is felt with his widow and family. Dr. MacCormac was in his usual health and was taking a quiet walk after dinner on April 20th on one of the country roads in the neighbourhood of the city; when opposite the gates of the Forster Green Consumptive Sanatorium he became suddenly ill and fell; the resident physician was immediately summoned and rendered such aid as the emergency demanded, but death supervened. Dr. MacCormac, who took the diplomas of L.R.C.P. and S. Edin. in 1867, graduated M.D.Durh. in 1885. After a short residence in Belfast, he practised for a time in England, but returned to Belfast nearly twenty five years ago, and specialized in nervous diseases. He was mainly instrumental in starting the Hospital for Diseases of the Nervous System, Belfast; at the same time he opened a private institution for the same class of disease. He made several contributions to the journals and medical societies.

Medico-Legal.

MEDICAL CERTIFICATES UNDER THE INSURANCE ACT.

THE case, Heard *v.* Pickthorne, which came before the Court of Appeal on May 1st, raised the question whether a friendly society is entitled to refuse payment of a claim on its State sick fund unless the certificate in support of the claim is signed by a medical man on the panel, and the three Judges of Appeal unanimously decided in the negative. In other words, they ruled that a certificate signed by a non-panel medical man is valid for the purposes of the National Insurance Act. The facts in the case had already been considered on two occasions by judges of the High Court, and the hearing of the appeal was expedited in view of the public importance of the matter. For the same reason the proceedings were reported in detail by the *Times* and the *Morning Post*. We derive the following summary of matters from the former paper:

The plaintiff in the original action—that is to say, the appellant in the appeal action—is a member of a London branch of the Ancient Order of Foresters, and brought an action against the administrators of that society on behalf of himself and all other members other than the administrators on the following ground: Having been ill, he claimed an allowance out of the sick fund, presenting a certificate signed by his own medical man, but the defendants declined to pay it unless the plaintiff obtained and presented a certificate of sickness from a doctor on the panel. This refusal was based on a resolution of the society which affected all its members, and which resulted from a discussion on the question of what medical certificate should be accepted to place members on the State sick fund. The resolution was "That in every instance a certificate from a panel doctor must be sent." The plaintiff, believing that this resolution and the consequent refusal of his claim was illegal, *ultra vires*, and not enforceable, applied in the first instance to Mr. Justice Buckmill for an interim injunction against the defendants. This being refused he made a request for a declaration to this effect in an action before Mr. Justice Bailhache. The defendants met it by asserting that the resolution was not illegal and that the dispute as to the granting of the sick pay ought to be decided by arbitration under Section 67 of the National Insurance Act. Mr. Justice Bailhache dismissed the action with costs. Thereon the appeal followed.

After setting forth the general facts of the case, counsel for the plaintiff indicated the following as the questions to be determined: Was the resolution passed by the society illegal? If any illegality existed, could it be restrained by a court of law, or was the dispute between the plaintiff and the defendants one which ought to be settled by arbitration? He then set forth the law in regard to friendly societies. If they made rules or amended rules, they must register such rules or amendments with the Registrar of Friendly Societies. There was a penalty for not registering rules, but no penalty for not registering amendments. The rules of this particular society had been approved by the Insurance Commissioners, and one of them disentitled a member to sickness benefit unless he sent to the secretary of the society a declaration of incapacity for work in the form required and a medical certificate or other evidence of incapacity and the cause thereof. The society now purported to have amended that rule by the resolution in question, and this, counsel maintained, was illegal. The resolution imposed upon an insured person an obligation which was not an obligation allowed by the Insurance Act or by the rules. He submitted that an insured person might offer any sort of proof of sickness that he thought fit. No doubt in any particular case the society could say that the proof offered was not sufficient, but it had no right to lay down beforehand any arbitrary rule imposing a condition which was not allowed by the Act. Nor was the dispute one which should go to arbitration. There was a clear distinction between cases in which dispute arose as to the internal management of a society and those in which a member complained that the society had done something illegal or unconstitutional. The former cases the court ruled had to be matters for arbitration, but in respect of the latter it had allowed injunctions to be issued.

Counsel for the defendants said that the resolution was passed on the day on which the benefits of the Act came into operation, and was passed in consequence of a warning which the society had received from the Insurance Commissioners to the effect that they must not make out of the State funds any payments which were not authorized by the Act or by their rules. If they did so they would be surcharged on audit. The resolution consequently adopted was not a new rule, merely an instruction to an officer of the society. It contained nothing *ultra vires*, and any dispute regarding it was a dispute under Section 67 of the Insurance Act.

Junior counsel on both sides having further argued the matter, Lord Justice Vaughan Williams said that by the resolution in question the society had said that the only proof it would accept of the incapacity for work on the part of an insured person was a certificate signed by a panel doctor. In his opinion the society had no right to limit beforehand in such way the kind of evidence it would accept. In each case the society was bound, he thought, to consider the evidence of sickness offered, whether it was the certificate of a panel doctor or the certificate of any other qualified medical man, or whether, indeed, it was any other sufficient evidence of sickness. It was not disputed that there were cases in which an injunction might properly be obtained against a society, or that there were other cases in which an injunction ought not to be granted, the complainant being left to resort to arbitration; but the present case seemed to him one in which a friendly society was interfering with the rights of those entitled to its benefits, and he thought the court had the right and duty to prevent such *ultra vires* action. The matter at issue was whether it was a legal condition to the right of an insured person to receive sickness benefit that he should produce evidence of a particular kind—namely, the certificate of a panel doctor—or whether it was sufficient for him to produce any other kind of medical certificate. In his opinion such a question ought to be decided not by arbitration, but in the courts. He held that the resolution was illegal and *ultra vires*, and that the plaintiff was entitled to a declaration to that effect and to an injunction with costs both in the Appeal Court and in the court below.

The other two Judges of Appeal delivered judgement to the same effect, Lord Justice Hamilton, according to the *Morning Post*, stating that it seemed to him that the resolution was an attempted evasion of the rights of the plaintiff to get his compensation under the Act, and Mr. Justice Bray stating that the resolution was not, as was suggested, a mere instruction, but a new rule which sought to impose a very grave restriction on a member of the society in regard to the rights given him by the Act.

Earlier in the case Lord Justice Vaughan Williams asked counsel for the defendants whether it did not seem to him that it was contrary to natural justice that a man who was ill and who was attended by his own duly qualified doctor should nevertheless have to get a certificate from a panel doctor before he was paid sickness benefit.

The Services.

ROYAL ARMY MEDICAL CORPS.

THE King has granted permission to Captain William Byam, R.A.M.C., to accept and wear the Imperial Ottoman Order of the Medjidieh (Fourth Class) conferred upon him by the Khedive of Egypt in recognition of valuable services rendered.

INSURANCE ACT: CONTRIBUTIONS OF MEMBERS OF THE TERRITORIAL FORCE.

A MEMORIAL signed by some 150 members of the House of Commons has been presented to the Prime Minister and Colonel Seely suggesting that as an encouragement and as a help to members of the Territorial Force, the contributions required of them under the Insurance Act should be defrayed by the State. Colonel Seely, on receipt of the memorial, stated that the Government would give careful consideration to the proposal, and that it would be discussed with the Treasury authorities.

THE TRAINING OF THE SPECIAL RESERVE AND EPIDEMICS.

AT the meeting of the county council of Inverness, held on May 1st, Dr. Jno. Macdonald, the chief medical officer of health, called attention to a statement in a report by the district medical officer in North Uist to the effect that serious loss was occasioned through school closures and in other ways in the island by the introduction of diseases annually by the men attending the special reserve training, and suggesting that when an epidemic occurred in the battalion the men should be kept in quarantine long enough to make it certain that none of them would be carriers of infection. Dr. Macdonald suggested that in conjuction with Ross-shire a representation should be made

to the War Office regarding these matters. Cameron of Lochiel, who commands the Special Reserve Battalion of the Cameron Highlanders, and is a member of the county council, said that it would require a special Act of Parliament and a supplementary vote in the House of Commons to keep the battalion one day longer in camp than the date allowed for the closing of the training. He did not believe the county council would pass any resolution until the army medical authorities had an opportunity of replying to the accusations in the report, and suggested that the statement should be sent to the Principal Medical Officer of the Scottish Command for his remarks. This suggestion was adopted.

SIXTH LONDON FIELD AMBULANCE, R.A.M.C.(T.F.), SECOND LONDON DIVISION.

Two vacancies exist for a senior and junior officer in this unit. Applications should be addressed to the Officer Commanding, Duke of York's Head Quarters, Chelsea, S.W. Hours and days for attendance are so arranged that interference with private work is reduced to a minimum. Transfers from other corps can be arranged if deemed expedient. The vacancy for a junior officer would suit a member of the junior staff of a hospital, or a young medical man who is practising, or intends to practise, in the London District.

HIGHLAND FIELD MEDICAL UNITS.

IT is now officially notified that the three Highland Division Field Medical Units, the 1st and 2nd Field Ambulances from Aberdeen and the 3rd Field Ambulance from Dundee, will undergo their annual training in camp at Boards, near Stirling.

INDIAN MEDICAL SERVICE.

THE Government of India has sanctioned a limited number of officers of the Indian Medical Service, not exceeding four in a year, being attached, while on leave in the United Kingdom, to the staff for periods of one month each for the purpose of undergoing a course of training in medical work in the field and medical organization generally.

Universities and Colleges.

UNIVERSITY OF LONDON.

FACULTY OF MEDICINE.

AT a meeting of the Faculty of Medicine, held at the University of London on Friday, May 2nd, Sir Alfred Pearce Gould, Dean of the Faculty, in the chair, Mr. H. J. Waring, M.S., was appointed to represent the Faculty on the Senate for the period 1913–17.

The constitution of the Board of the Faculty was approved as follows: Sir Alfred Pearce Gould, *Dean*; Dr. C. Wall, *Secretary*; Dr. Herringham, Professor Crossley, Dr. Eason, Sir Rickman Godlee, Dr. Graham Little, Dr. Senter, Professor J. H. Thomson, Professor Waller, Mr. H. J. Waring (members of the Faculty who are also members of the Senate). The chairmen of the following boards of studies: Preliminary Medical Studies, Professor Womack; Intermediate Medical Studies, Professor Halliburton; Advanced Medical Studies, Sir Francis Champneys; Hygiene and Public Health, Professor Kenwood; Physiology, Dr. Pembrey; Human Anatomy and Morphology, Professor Wright. Professor J. P. Hill and Mr. J. A. Gardner, nominated by the Board of Preliminary Medical Studies; Professor Parsons and another, nominated by the Board of Intermediate Studies; Dr. H. D. Rolleston, Mr. Stanley Boyd, Dr. Herbert Tilley, and Mr. S. G. Shattock, nominated by the Board of Advanced Medical Studies; and the following members appointed by the Faculty: Mr. Raymond Johnson, Mr. A. Macphail, Mrs. Scharlieb, Dr. T. W. Shore, Dr. T. G. Stevens, and Dr. H. Tooth.

The sum of £100 for advanced lectures in the Faculty of Medicine was allocated in the proportion of £35 to the Board of Intermediate Medical Studies, and £65 to the Board of Advanced Medical Studies.

The Faculty requested the Board of the Faculty to consider the position of the Faculty of Medicine in view of the publication of the report of the Royal Commission on the University of London, and to present a report.

KING'S COLLEGE.

The course of four lectures on the physiology of absorption to be given by Professor T. G. Brodie, F.R.S., will begin on May 28th, at 4.30 p.m., instead of May 21st, as originally proposed. The lectures, which will be continued on the three following Wednesdays at the same hour, are free to all medical students in London medical schools, to internal students of the University, and to medical men on presentation of their card.

VICTORIA UNIVERSITY OF MANCHESTER.

Appointments.

THE following appointments have been made: Dr. C. P. Lapage to be Lecturer on Diseases of Children, Dr. G. H. Lancashire to be Lecturer on Skin Diseases, and Dr. N. William Ingalls to be a Research Fellow in Anatomy.

UNIVERSITY OF DURHAM.

Installation of Chancellor.

THE Duke of Northumberland was on May 3rd installed Chancellor of the University by Sir George Hare Philipson, Vice-Chancellor.

After the newly elected Chancellor had given a short address a number of honorary degrees were conferred, including that of D.Sc., upon Sir Archibald Geikie, President of the Royal Society; Sir William Ramsay, K.C.B.; Sir T. Clifford Allbutt, K.C.B., Regius Professor of Physic at Cambridge; Sir J. A. Ewing, Director of Naval Education; Sir William Crookes, O.M.; Sir J. J. Thomson, O.M., Cavendish Professor of Experimental Physics at Cambridge; and Dr. E. B. Poulton, Hope Professor of Zoology at Oxford.

Afterwards a thanksgiving service was held in the cathedral, at which the Dean of Durham preached a sermon, in the course of which he said that the university owed its origin largely to Van Mildert, who, when Bishop of Durham, conceived the notion of appropriating some of the revenue of the cathedral for the establishment of a university in the north of England, where the first signs of the immense industrial development, which had since taken place, were becoming apparent. Durham thus shared with Oxford and Cambridge an ecclesiastical origin.

UNIVERSITY OF GLASGOW.

THE following were among the degrees conferred at the spring graduation ceremony:

D.Sc.—Williamina Abel, M.D.Aberd.; G. H. Edington, M.D.Glas.
M.D.—*J. Taylor, A. R. Carmichael, J. H. Douglas.
M.B., C.M.—A. P. Aitken.
M.B., CH.B.—J. S. K. Boyd, †H. S. Banks, †W. C. Davidson, †W. M. Howells, †F. M. Robertson, †R. A. Barlow, Cecilia S. T. Anderson, Janet R. Anderson, W. L. Anderson, J. L. Brownlie, A. G. Buchanan, W. L. Cassells, J. Connel, R. Craig, W. E. Elliot, J. Fraser, W. Fraser, A. Glen, J. L. Gregory, J. M. Grier, D. M. Hunter, Jane K. M. Hunter, J. F. Hutton, T. P. Inglis, C. J. Kirk, Mary A. Kirk, P. A. M'Callum, J. M'Ghie, Margaret H. M'Killop, M. H. MacLeod, J. H. Magoveney, W. E. Maitland, W. Montgomery, J. M. R. Philip, Sarah A. J. Radkine, A. W. Russell, J. J. Sinclair, N. I. Sinclair, J. A. Smith, R. A. Steven, G. Taylor, E. G. Y. Thom, A. Walker, J. C. Watt, J. Whiteside, A. M. Young.

* With honours. † With commendation.

On the same occasion the following prizes were also handed to the winners of the competitions involved: The Arnott Prize for Physiological Physics, J. W. Moffat; the Bellahouston gold medals for eminent merit in a thesis, J. S. Dunn, W. Golmour, Ivy M'Kenzie; the Asher Asher gold medal for laryngology and rhinology, D. K. Adams.

Inclusive Fees.

At the statutory half-yearly meeting of the General Council of Glasgow University, held on April 30th, a report was submitted from the Business Committee dealing with the representations made to the University Court on the subject of inclusive fees in medicine and applied science. The report stated that the circumstances had been considerably altered, for the Treasury had agreed to make the full grant for this year. The Committee adhered to the view that sufficient experience of the working and effect of an inclusive fee in other faculties had not been gained to warrant its adoption in the difficult case of medicine, and that an inclusive fee in medicine would exercise an adverse influence on extramural teaching.

Public Health AND POOR LAW MEDICAL SERVICES.

MEDICAL INSPECTION OF CHILDREN IN SCOTLAND.

THE Committee of Council on Education in Scotland has issued a minute requiring that the medical inspection of children in schools within the area of every school board shall be conducted in accordance with the regulations embodied in the department's memorandum on the medical inspection and supervision of school children, bearing date March 31st, 1909; and also, that in cases where such inspection is not provided for under a scheme approved under Section 17 (6) of the Education (Scotland) Act, 1908, it should be conducted by a medical practitioner who (*a*) holds the diploma in public health or possesses other qualifications which are accepted by the department as equivalent thereto; and (*b*) is not engaged in private practice; but that nothing in the minute shall prejudice the right of any school board to institute a supplementary scheme of medical inspection for the children attending schools within their district, provided that any such supplementary scheme has been submitted beforehand to the department for approval.

HEAVY FINE FOR MILK ADULTERATION.

LAST week, in the Dublin Southern Police Court, a woman was summoned for selling milk adulterated with 28 per cent. of water. It was mentioned that there were several previous convictions against her, and that she had been fined £25 on the last occasion. The magistrate said he would now impose a fine of £100, to be reduced to £10 if the woman, who is old and in feeble health, discontinued the business within three months.

Medical News.

SIR LAUDER BRUNTON has been elected an honorary member of the Imperial-Royal Medical Society of Vienna.

THE Congress of the Alliance of Social Hygiene will be held in Paris (5, rue Las Cases) on May 14th and 15th.

THE Master and Wardens of the Society of Apothecaries have issued invitations to a conversazione on Friday, May 23rd.

THE house of the Royal Society of Medicine will be closed for Whitsuntide from Saturday, May 10th, to Tuesday, May 13th, both days inclusive.

DR. R. PRICHARD, M.O.H. Llandaff and Dinas Powis Rural District, has been granted an increase of salary of £50 per annum in view of additional work imposed by recent legislation.

MISS N. M. BASCHMAKOWA, of St. Petersburg, the oldest sister of the Red Cross in Russia, who worked under Pirogoff in the Crimean war, has recently died at the age of 103.

H.R.H. PRINCESS CHRISTIAN OF SCHLESWIG-HOLSTEIN will lay the foundation-stone of the Helena Building (new out-patient department), Royal Free Hospital, on Monday, May 19th, at 2.45 p.m.

THE Durham University Medical Graduates' Association will hold a dinner at the Criterion Restaurant, Piccadilly Circus, on Friday, May 30th, when the President, Dr. F. Edridge-Green, will take the chair.

DR. ALEXIS CARREL, well known for his experiments on the survival of tissues and other researches, for which last year he was awarded the Nobel prize in medicine, has been made a Knight of the Royal Order of Isabella the Catholic by the King of Spain.

THE annual oration before the Medical Society of London will be delivered by Sir William Whitla, M.D., on Monday evening, May 25th; the subject will be recent advances in therapeutics. Subsequently a smoking conversazione will be held.

THE sixth International Dental Congress will be held in London in August (3rd to 8th), 1914, under the patronage of His Majesty the King. The President of the Congress will be Mr. J. Howard Mummery, and the joint General Secretaries are Mr. Norman G. Bennett and Mr. H. R. F. Brooks. Mr. H. Baldwin is Honorary Treasurer. The offices of the Congress are at 19, Hanover Square, London, W., to which address all communications should be sent.

THE Central Committee for Medical Post-graduate Education in Prussia has arranged a series of medical courses, including all branches, to be given from June 19th to June 28th. The course is primarily intended for German practitioners, but foreign physicians will be admitted at a higher fee as far as space permits. Further particulars can be obtained from the Bureau of the Kaiserin Friedrich-Haus at Berlin, N.W. 6, Luisenplatz 2–4.

THE usual Friday evening discourse at the Royal Institution was given last week by Mr. H. G. Plimmer, who gave his audience a rapid birdseye view of the whole field of blood parasites, and, as he modestly suggested, gave them at least some idea of its extent and of the great gaps which still await the investigator's spade. He did not attempt to follow a biological order, but dealt first with the blood parasites which live in the plasma and those which enter the corpuscles. The address was very fully illustrated by lantern slides.

THE Hunterian Society's medal, awarded this year to Dr. Graham-Stewart, of Margate, was presented to him at a meeting on April 23rd. On the same occasion he read an abstract from the essay for which the medal was awarded. It dealt with hyperpiesis, and urged the desirability of measuring the blood pressure in all cases of illness. A theory of autoinoculation was put forward in regard to etiology, and it was contended that the common belief that digitalis should never be administered to persons whose blood pressure was high was ill founded. Since digitalis was incapable of raising pressure which was already high, its use was legitimate if other symptoms in the case called for its employment.

AT a meeting held at the house of Dr. Clement Cleveland of Philadelphia on April 22nd it was decided to organize a national anticancer association and to begin a campaign of education as to the means to be adopted for the prevention of cancer. An organizing committee was appointed. The main object of the association is to educate the public to recognize the early symptoms of the disease by means of magazine articles, leaflets distributed through boards of health, social workers and women's clubs, special instruction in nurses' training schools, and public lectures. The campaign of education is addressed chiefly to women. Two committees already appointed for the consideration of such an organization were represented at the meeting, one formed at the annual meeting of the American Gynaecological Society in May, 1912, the other at the surgical congress held in September.

THE Historical Medical Museum, organized by Mr. Henry S. Wellcome, to which reference was made in a recent issue of the BRITISH MEDICAL JOURNAL, is to be opened in London towards the end of June. Mention has already been made of some interesting exhibits. Among the others there will be a large collection of the original apparatus used by Galvani in his first experiments. Ancient microscopes and optical instruments, gathered from all quarters of Europe, will form another feature, and a selection of surgical instruments used by famous surgeons when operating on historical personages is promised. A large collection of votive offerings will also be exhibited; it will include Graeco-Roman *ex-votos* in silver, bronze, marble, and terra cotta, together with a number of similar objects used to express thanksgiving for recovered health in the Middle Ages and in modern times. A number of amulets and charms used in English folk-medicine will also be shown. A collection of early medical medals and coins from the Graeco-Roman period, ancient manuscripts, and early printed medical books will also be exhibited.

THE second Guildhall School Conference of the Food Reform League will be held on June 30th and July 1st. The opening session will be devoted to a discussion of papers on the working of the English and Scottish Acts governing the provision of meals for necessitous school children. At the second the educational aspect of the problem, the meals of country school children, and the relation of school and home will be considered. The morning of July 1st will be taken up with a discussion of the teaching in public elementary schools of personal hygiene, food values, catering and cookery, while the concluding session will be devoted to the consideration of diet, cookery, and hygiene in day and residential institutions for children and adolescents, both public and philanthropic, including open-air and special schools, reformatories, industrial schools, and Poor Law institutions. Full particulars will be sent to any one forwarding a stamped addressed envelope to the Secretary, National Food Reform Association, 178, St. Stephen's House, Westminster.

A DINNER of the Brussels Medical Graduates' Association, in connexion with the forthcoming congress in Paris of the Royal Institute of Public Health, was held at the Trocadero, London, on April 22nd. In the unavoidable absence of the president, Dr. Arthur Haydon took the chair, and, after the usual loyal toasts, gave the toast of "The Visitors." The object of the dinner, he said, was to bring together the members who were interested in the Paris Congress, and to appoint delegates to represent the association. If possible, he hoped to be able to organize another river party next July, on the same lines as the successful party last year. The association was making good progress, and quite a large number of candidates were working for the degree, both at home and abroad. Dr. Ettles then proposed the toast of the "Brussels Medical Graduates' Association," and Dr. James Metcalfe suitably responded. The following were elected officers for the year: President, Dr. Harold S. Sington; vice-president, Dr. Howard Humphris; honorary treasurer, Dr. Major Greenwood; honorary secretary, Dr. Arthur Haydon; Members of council, Drs. Wilkinson, Callender, Smallwood, Fielden Briggs, Dutch, Bryce Macaulay, Bruce-Porter, Robinson, and Gibbon.

THE third of the Chadwick lectures by Dr. J. T. C. Nash was read for him by Professor R. T. Hewlett, the author being unfortunately still indisposed. In this lecture the consideration of the evolution of epidemics, of which an account appeared in our issue for April 12th, was concluded by a discussion of the question of whether pathogenic micro-organisms are not only specific but immutable in structure and powers. He concluded that this was not the case, and that, like the higher organisms, bacteria were likely to be affected by their environment. Hence the conclusion was drawn that to combat pestilences successfully the measures taken must be aimed at the common environment alike of mankind and of pathogenic organisms, improving it for the former, rendering it less favourable for the latter. This conception involved direct sanitation such as the destruction of vermin, purification of water, and the prevention of contact between the defective and the sound, and justified the "sanitary idea" of Chadwick, Richardson, Alfred Carpenter, and other of the older pioneers of the science of public health.

Letters, Notes, and Answers.

Authors desiring reprints of their articles published in the British Medical Journal are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

Correspondents who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

Telegraphic Address.—The telegraphic address of the EDITOR of the British Medical Journal is *Aitiology, Westrand, London*. The telegraphic address of the British Medical Journal is *Articulate, Westrand, London*.

Telephone (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Paralysis Agitans.

G. F. P. asks for advice or references which would help him in treating a case of paralysis agitans in an elderly lady in whom the constant flow of saliva is a distressing symptom.

LETTERS, NOTES, ETC.

The Treatment of Liver Abscess by Injections of Emetine.

Major F. J. W. Porter, D.S.O., R.A.M.C., writes: I have recently treated a native of Hyderabad, Deccan, by injections of emetine. There was a definite history of a liver abscess, which had burrowed into the right lobe about a month before I saw him. Physical signs of consolidation and softening were present, and there was much wasting. The temperature ranged between 101° and 103°. Expectoration (containing typical liver pus) was about 2½ pints in the twenty-four hours. Within three days the temperature was normal, and the amount of expectoration was only half a pint. There was no pain in the chest after the first day. Convalescence was very rapid, and there has been no relapse. Nine injections were given in all, and the remedy acted like a charm.

Herpes Zoster and Varicella.

Dr. B. Jones (Boscombe) writes: In the Epitome of January 11th there is an annotation anent "Herpes Zoster and Varicella" in which particulars are given of many cases of shingles being followed by chicken-pox in other members of the family about a fortnight after the shingles appeared in the first patient. In *Guy's Hospital Gazette* of Saturday last there is a further case, reported from Rhodesia, of this disease followed after a fortnight by three cases of chicken-pox in the family. As the affected house was three miles from the nearest farm and nine miles from a railway station and every inquiry failed to discover any possible source of infection, the matter is certainly very curious. Years ago, when medical officer to a workhouse, I was frequently puzzled by the causation of shingles which occurred from time to time, generally in twos or threes, but did not give much thought to what was always, in my experience, in young people a trifling disorder. I have nothing to add to the subject, but it is one of those cases worth noting.

Is Tuberculin a Failure?

Dr. J. Reid (London, W.C.) writes: In 1884 I had occasion to make a *post-mortem* examination on a young man in a room lighted with one candle, where there was a very limited supply of water. Both lungs were full of cavities, hard. I accidentally cut two fingers with a scalpel. The cuts were on the back of the fingers, on the second phalanges of the left hand. I treated both alike, but one became erysipelatous and healed in a few days, although it gave me a great deal of pain. The other refused to heal under compresses and various germicides, including corrosive sublimate. In about six weeks I used balsam of Peru—it was then still troublesome and ulcerating—and it healed speedily. A writer in the Journal proposes experiments with pneumococcus and tubercle. If he looks round he will find many in man, which recover and leave the tubercle to run its course. I am now in good health in spite of the tubercle inoculation.

Rheumatoid Arthritis.

Dr. Lionel Calthrop (Woodhall Spa), writes: The fact that it is possible for two such teachers and leading men in our profession as Sir James Barr and Dr. Luff to differ so widely both as to the etiology, pathology, and treatment of so important a disease as rheumatoid arthritis, as shown by their articles and correspondence, must inevitably cause confusion in the mind of the rank and file. One hoped that we were gradually approaching more precise and reliable knowledge on the subject, but apparently this is not so. Has not the time now arrived when it is advisable that a representative committee should be formed thoroughly to investigate all the points at issue and at least report for the guidance of the profession as to which of the many methods of treatment now in vogue produces the most successful results?

Decimal Weights and Measures.

The annual report of the Decimal Association contains a good deal of encouragement for those who are anxious to see the British practice of returning weights and measures in all kinds of ancient terms replaced by the decimal or metric system. The fact that the General Medical Council has decided to employ the metric system in the next issue of the *Pharmacopœia* has attracted considerable attention, and the gem dealers of London are now agitating for the introduction of an official metric carat. In South Africa likewise matters are trending in the same direction. The Union Government introduced last year a bill for the consolidation of the various acts of the four States relating to weights and measures, and in the schedule to this bill the metric system was adopted. The bill did not reach a second reading last year, but it is not anticipated that when reintroduced there will be any serious opposition. In Malta an Ordinance on the subject was promulgated in 1911, and, when it comes into operation next year, will have the effect of rendering the metric system compulsory in commerce. Russia is the only European country besides the United Kingdom in which the decimal is not the sole official standard; the decimal system is there used, among others, and the Duma has now passed legislation which will encourage its use. In China also there appears to be a strong disposition towards the introduction of the metric system as one of the outcomes of general reform. The Advisory Council has passed a measure on the subject, and the Government proposes to send Commissioners to all the provinces to arrange tables for the conversion of the old weights and measures into those of the decimal system. If and when this reform takes place it will be a matter of considerable importance to this country, more especially when it is taken in conjunction with the fact that in the kingdom of Siam a metric system is also now in use. One of the arguments which principally led to the rejection of the Decimal Bill introduced in the House of Commons in 1907 was that the Lancashire cotton manufacturers and merchants would suffer if they were forced to adopt a metric system, because the conservatism of their customers in the Far East was so great that they would regard any change in the dimensions of the fabrics offered to them with extreme suspicion. If native merchants in the Middle East were themselves obliged to use decimal measures, and thus became accustomed to them, arguments of this character would lose their force. Though the main arguments in favour of the general adoption of the decimal system are commercial, it might be contended also that if a child can be rendered fit to conduct the ordinary business transactions of life without being forced to learn a confusing series of tables of weights and measures it would have more time to learn other subjects. The offices of the Decimal Association are at Finsbury Court, Finsbury Pavement, E.C.

Warnings.

A man, presenting the appearance of a workman—brown hair, thick set, 6 ft. in height—wearing a suit of dark material, called recently on a medical man; when asked for his insurance card he said that he was not insured. In payment of the fee he placed what appeared to be half a sovereign on the writing table. We are informed that a person answering this description is wanted by the police at Willesden Green, N.W., for passing counterfeit coin.

There is reason to believe that an individual is now visiting medical men in London and seeking from them monetary assistance. He has stated that he was an American medical man stranded in London, and so hard up that he had had no food for hours. He has produced a copy of a telegram addressed to a person of position in America, asking for the remission of funds, and stated that pending their receipt he required a little assistance. He has also alleged that he has just been discharged from a certain hospital in London after a serious operation. One medical man to whom he applied investigated this particular point, and could find no evidence that it was true. The individual in question was sturdily built, about 5 ft. 3 in. high, clean shaven, and had curly hair, and there was evidence that he was a heavy smoker. His general appearance suggested a Jewish origin.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

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Note.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

THE INTERNAL SECRETIONS IN RELATION TO DERMATOLOGY.

BY

SIR MALCOLM MORRIS, K.C.V.O.,

SURGEON TO THE SKIN DEPARTMENT, SEAMEN'S HOSPITAL, GREENWICH.

NEARLY twenty years have passed since Byrom Bramwell reported to the Newcastle meeting of the British Medical Association (1893) the results which he had obtained in cases of psoriasis, lupus vulgaris, and acute eczema by the internal administration of thyroid extract.[1] This was the beginning of organotherapy in connexion with dermatology. Thyroid treatment had already been successfully used in myxoedema by G. R. Murray, Hector Mackenzie, Arthur T. Davies, and others; and it was now employed on an extensive scale in the therapeutics of skin affections. But, as was perhaps inevitable, it was administered with too little discrimination, and, though it found enthusiastic advocates, signs of reaction were not long in declaring themselves, and after a while it was neglected and almost forgotten. Of late years, owing in part to the light that has been thrown upon the physiology and pathology of the ductless glands by a multitude of investigators, there has been a revival of interest in the subject, and the more discriminating use of animal extracts in many chronic skin diseases has yielded results more favourable than those at first obtained. The time seems, therefore, to be appropriate for considering in some detail the influence of the internal secretions upon the skin and its appendages, and attempting an estimate of the value of organotherapy in the treatment of cutaneous affections.

HISTORICAL NOTES.

It may not be without interest first to note the chief landmarks in our knowledge, so laboriously acquired, of the internal secretions, one of the most obscure and complex, and at the same time one of the most fascinating branches of medical science. In his textbook of physiology, published in 1776, Haller[2] grouped together the thyroid, the thymus, and the spleen as glands which, though ductless, secrete fluids that find their way into the general circulation. Thenceforward the glandular character of the thyroid body was generally accepted, though it was not until many years later that any serious attempt was made to investigate the nature and function of its secretion. In 1844 Johannes Müller[3] included among secretory as distinguished from excretory glands, the spleen, thyroid, suprarenals, thymus, and placenta. But it was in connexion with a gland that is not ductless that the action of an internal secretion was first experimentally proved. In 1849 A. A. Berthold, of Göttingen,[4] published his famous experiments in the transplantation of the testicles of cocks, showing that after the transplantation the animals retained their male characters in voice, reproductive instinct, fighting spirit, and growth of combs and wattles. Thus he demonstrated the influence exerted through the blood upon the economy by an organ through which the blood stream circulates, and to him, as Biedl[5] remarks, belongs the honour of having first proved the existence of an internal secretion and seized its immediate significance.

The demonstration, however, passed unheeded; the time was not yet ripe for a recognition of its far-reaching import. In the following decade came the classical investigations by which Claude Bernard[6] proved that in addition to its external secretion—bile—the liver forms an internal secretion—glycogen—which, he held, passes into the blood stream as sugar. But it was reserved for Brown-Séquard[7] to formulate (1869) the theory that all glands, whether furnished or unfurnished with ducts, contribute to the blood substances of physiological utility. Some years earlier,[8] prompted by Addison's discovery of the connexion between the suprarenals and the disease which now bears that great physician's name, he had experimentally investigated the action of those bodies, and had come to the conclusion that in certain animals their extirpation caused rapid death, which could be postponed by the injection of suprarenal extract. Finally, in 1889,[9] he related the experiments which he had been conducting for twenty years with the subcutaneous injection of testicular extract, and thus, whatever view may be taken of the value of that series of experiments, became the founder of modern organo- or opo-therapy, so like, yet so unlike, the organotherapy of primitive medicine.

The importance of the thyroid was first revealed by the results of the operations undertaken by the Reverdins and by Kocher for the relief of goitre. The keen observation of Sir William Gull[10] had already detected the resemblance to cretinism of the condition afterwards known as myxoedema, and he had characterized it (1874) as "a cretinoid state supervening in adult life in women"; and when (1883) the Reverdins and Kocher described the symptoms produced in goitrous patients by removal of the thyroid their identity with the symptoms described by Gull was recognized by Sir Felix Semon,[11] and the Reverdins styled the condition they had unwittingly created "*myxoedème postopératoire*." Next, it was found *post mortem* that myxoedema is associated with degeneration of the thyroid. The brilliant experimental work of Schiff, Sir Victor Horsley, G. R. Murray,[12] and many other observers that followed these discoveries has not, it must be admitted, finally solved the problems to which it was directed, partly because the gland functions differently in different animals, but also because at first the influence of the parathyroids was not recognized. These bodies were only discovered in 1880 by Sandström, and it was not until 1892 that their importance was insisted upon by Gley,[13] whose view, elaborated by Vassale and Generali, is that their secretion is even more essential than that of the thyroid itself.

To the pituitary body, which has functional relations with the thyroid, a glandular character had from time immemorial been ascribed. It was the view of Galen, and long afterwards of Vesalius, that it secreted a mucous fluid, which escaped through the nose, while Magendie, in times nearer our own, held that its office was to collect the cerebral lymph and pour it into the circulation; but it was so recently as 1889 that Pierre Marie,[14] by associating it with acromegaly, suggested the real nature of its function as influencing the development of the body and furnishing the explanation of gigantism, infantilism, and other abnormalities of growth.

Of the thyroid and its functions our knowledge is still defective. The most diverse views are taken of its relations with the parathyroids, and all that can be regarded as certain on this point is that the relationship is of the most intimate character. This inference would appear to be irresistible from the hypertrophy which the parathyroids undergo when the thyroid is extirpated, and the thyroid when the parathyroids are excised.

To these historical notes it may be added that it was Starling[15] who proposed the term "hormones" (from ὁρμάω = I excite or arouse) for the chemical stimuli, or, to use his own expression, "chemical messengers," which are "carried from the organ where they are produced to the organ which they affect by means of the blood stream." The word met with general acceptance and is frequently used as a synonym for "internal secretions."

CUTANEOUS SYMPTOMS OF MYXOEDEMA.

How the thyroid and the other ductless glands influence each other and the body generally—whether the secretions elaborated from the blood and then, directly or indirectly, returned to it, stimulate metabolism and growth, or neutralize the toxins of metabolism, or exercise an inhibitory effect upon organs whose activity requires to be controlled, or whether there is a combination of these processes, is a question still involved in obscurity. Nor is the difficulty of determining the functions of the thyroid lessened by the interaction that takes place between this gland and others. But however the thyroid does its work, and whatever its relations with other glands, it is certain that degeneration of this organ is causally connected with the changes in the integuments which enter into the myxoedema syndrome. It is probable also, though the evidence is less conclusive, resting as it does upon purely clinical grounds, that in irregular functioning of the thyroid is to be found in many cases, though not necessarily in all, the explanation of cutaneous changes similar to those met with in myxoedema. In this disease the skin is cold, dry, and rough, seldom or never perspires, and may take on a yellowish tint; it presents swellings, and the mucous membranes

also may be swollen. There is a bright-red flush in the malar region, due to dilatation of capillaries and veins. Swale Vincent[16] has found that the elements of the connective tissue of the derma are torn asunder, while the fibres are the seat of a hyperplastic process, and the cell nuclei and the fibrils of the gelatinous substance between the fat lobules are multiplied. The skin as a whole looks transparent, as though saturated with a semi-fluid substance. The hair of the scalp becomes scanty, the pubic and axillary hair, with the eyelashes and eyebrows, often falls out; in many cases the teeth are brittle and carious. As these signs disappear under the administration of thyroid preparations, there is prima facie ground for expecting benefit from the same treatment in conditions presenting more or less resemblance to them, but not associated with myxoedema, such as psoriasis, alopecia, ichthyosis, and xerodermia. That expectation has been abundantly justified by experience. So often, indeed, have I during the last two years found the use of thyroid extract followed by improvement in these and other conditions that I now make it a routine practice, in examining patients suffering from chronic skin affections of which the causation is not known, to palpate the thyroid. If the gland be smaller than usual a trial of thyroid extract is suggested; if there be marked hypertrophy, thyroid medication is contraindicated. It has, however, to be remembered that thyroid insufficiency may be due not to atrophy of the gland but to replacement of the vesicular substance by interstitial growth. Moreover, it is probable that thyroid hypertrophy is sometimes compensatory rather than morbid,—the result of an effort to restore secretory equilibrium that has been disturbed by failure of some other ductless gland. Cases are recorded in which thyroid treatment has abolished cutaneous symptoms associated with thyroid excess; such cases are examples of what French authors designate *l'instabilitie thyroïdienne*. It is necessary, therefore, to be on one's guard against hastily concluding that a moderate degree of thyroid hyperplasia is an indication against the use of thyroid extract.

Itching Affections.

In no skin affection has thyroid medication given better results than in *psoriasis*. The failures that have been reported by myself and others are explained by the fact that formerly there were no data for determining the cases to which the remedy was appropriate. My recent experience has led me to the conclusion that one of the secrets of success in the employment of thyroid extract, as of other ductless gland preparations, consists in selecting for its administration cases in which the skin affection complicates other conditions in which this remedy is indicated. In obesity, in infantile wasting, in a certain type of chronic rheumatism, both articular and muscular, in osteomalacia, rickets, and delayed union of fractured bones, in haemophilia, etc., thyroid preparations are of proved utility, and whenever cutaneous affections are found associated with such conditions as these, there is a presumption in favour of thyroid treatment. The association may, of course, be fortuitous, but on the whole it is more likely that the morbid process in the skin is an expression of the constitutional condition. Thus I have found thyroid extract specially efficacious in psoriasis associated with adiposity. In the case of a woman aged 32, who also displayed the mental symptoms of myxoedema, under a course of thyroid extract and arsenic the psoriasis entirely disappeared, the adiposity diminished, and the mental symptoms and general health were greatly benefited. Arsenic alone had been employed without avail; there can be no doubt, therefore, that the improvement was due, mainly at any rate, to the thyroid extract. This is but one of a series of somewhat similar personal cases in which the treatment has proved to be successful. Léopold-Lévi and de Rothschild[17] report cases of psoriasis associated with chronic rheumatism in which the psoriasis completely disappeared under thyroid treatment. In psoriasis generally my experience is that the treatment is more suitable for chronic than for acute cases; and I agree with Radcliffe Crocker and with C. E. Sajous[18] that thyroid extract should not be exhibited until the eruption is fully developed. Stelwagon,[19] while holding that it has but a limited sphere of usefulness in psoriasis, allows that it has been of service in a few instances in which other agents had failed, and he regards it therefore as a reserve remedy for trial in rebellious cases. In one such case in which it was employed with little hope of success, Sir Clifford Allbutt was agreeably surprised to find that it produced rapid and complete cure. The effect produced consists not only in lessening or abolishing the irritation, but also, it would seem, in stimulating the epidermal layers, so that the degenerate epidermis scales off and is replaced by healthy epidermis.

This is not the only itching affection in which thyroid treatment has been used with success. Obstinate cases of *pruritus* have proved amenable to its influence. In *eczema* I am able to report most encouraging results. Unlike psoriasis, this affection responds to it not only in chronic but also in acute forms. The most responsive cases are those in fat subjects, and those, again, in which the eczema is associated with xerodermia. In cases belonging to both these groups I have found it to answer exceptionally well. Léopold-Lévi and de Rothschild record three cases of eczema associated with thyroid symptoms which were cured or ameliorated by thyroid treatment: they also refer to a case reported by Parhon and Papinian in which eczema complicating chronic rheumatism disappeared under the same treatment. Marbé[20] reports two cases of eczema cured by thyroid. Eason[21] has successfully treated cases of eczema in young children with thyroid, and I have employed it with advantage in such cases. In several cases of infantile eczema, especially in fat babies, I have had equally satisfactory results. Moussous[22] has found the treatment answer well in seborrhoeic eczema of the scalp.

Dystrophies of the Skin.

Ichthyosis, a malformation of the epidermis, was one of the affections in which thyroid extract was used with advantage in the early days of cutaneous organotherapy by Byrom Bramwell and by Arthur T. Davies.[23] Darier[24] counsels its prudent use in such cases. Stelwagon can only say that it deserves a trial. My own recent experience has been distinctly more favourable. I have used this agent in a number of cases, and in none without benefit. One in particular may be cited because of its inveteracy. The patient was a lady of 25, who had long-standing xerodermia of the palms, elbows, and knees, with severe seborrhoea of the scalp, scanty hair, and dry skin, the general picture resembling that of myxoedema. Under a combined course of thyroid extract and arsenic all the symptoms, notably the seborrhoea of the scalp and the dryness of the skin, were much abated, and the general health strikingly improved. Favourable results are also reported by Weill, Mouriquand, and Barth.

In *Darier's disease* there is ground for believing that thyroid is indicated, since it is associated with cellular degeneration, and is not improbably, as Audrey and Dalous hold, an expression of dystrophy of the whole epidermis. Darier himself has suggested that this remedy be tried, though not to the exclusion of local measures.

In *sclerodermia*, again, there is a presumption in favour of the efficacy of thyroid, for it has been held that the changes in the derma are the result of perversion of nutrition analogous to myxoedema, and Ehrmann has advanced the view that they are the response to an autoinfection commencing in the thyroid body, while Pedrazzini found that of 5 cases the thyroid was small and atrophied in 4. Sir William Osler, in 1898, did not go beyond saying, from his own experience in 6 cases and from results recorded by others, that thyroid treatment in this condition might "be tried without harm." Later reports are by no means unanimous, but there is a rather considerable body of testimony in its favour, among others from Lancereaux and Paulesco, Lustgarten, Ménétrier and Bloch, Picko, Jakimoff, Schamberg, and M'Master. Grünfeld and de Kornfeld have found thyroid treatment beneficial in sclerodermia, even when associated with Graves's disease. Léopold Lévi and de Rothschild explain this result by the suggestion that Graves's disease and sclerodermia sometimes evolve upon a *terrain* of thyroid insufficiency. Of 9 cases of sclerodermia which they themselves submitted to thyroid medication the treatment was finally successful in 5, but it had to be perseveringly applied.

C. J. White of Boston[25] has reported great improvement from thyroid treatment in a case of *acanthosis nigricans*.

This affection, of which the pathology is not understood, may be referred to here; for although it is sometimes included among new growths, it was first designated, by Darier, *dystrophie papillaire et pigmentaire*.

CHELOID.

Cheloid appears to have been first submitted to thyroid treatment in the United States, by J. William White, who observed a lessening of the growth under its influence. Stelwagon employed it in several cases, in one of which there was material diminution of the growth. In my experience, it is distinctly useful in this affection, and I have been especially struck by its influence in alleviating the pain which is not infrequently a symptom of cheloid.

WARTS, ACNE, AND RHINOPHYMA.

Occurring as they do most commonly in children, and tending to disappear at puberty, *multiple warts* are possibly an error of development. Whether this be so or not, I have repeatedly found them disappear under thyroid medication. *Acne vulgaris* is another affection of childhood or adolescence which, in my experience, responds well to thyroid extract. In one case, that of a boy of 16 who had overgrown his strength, after a month's treatment the acne was considerably less, while the accompanying seborrhoea of the face and scalp had entirely cleared up and the general health had much improved. I have had equally satisfactory results in a number of other cases. Thyroid treatment is obviously indicated in *acne rosacea* occurring as a result of flushing in what, for lack of a better designation, I may term the pseudo-myxoedema sometimes associated with the menopause in fat women, who become dull and lethargic and depressed. In such cases I have found that the adiposity, the mental symptoms, and the rosacea have all alike responded to the treatment. Léopold-Lévi and de Rothschild report several cases of acne rosacea and acne vulgaris which were cured by thyroid treatment. In one, in which the skin affection was associated with menstrual irregularity, corpus luteum extract was combined with the thyroid treatment. A remarkable case of cure of *rhinophyma* after three months' thyroid treatment is reported by Dyer of New Orleans.

CUTANEOUS TUBERCULOSIS.

Lupus vulgaris is one of the affections in which thyroid treatment was first employed by Byrom Bramwell. In 1898 Pearce Gould[25] exhibited to the Clinical Society of London a woman of 47 in whom long-standing lupoid ulceration of the face, with tuberculous lesions in other parts, had completely healed over after three weeks' administration of thyroid colloid. Radcliffe Crocker is another of those who have reported favourably of thyroid medication in lupus. Pringle[27] has declared that it produces results little short of marvellous. According to him the cases which make the best response are those in which there is marked hyperaemia or inflammation. Both in lupus and in tuberculosis of the skin (*scrofulodermia*) I am able to report favourably of the treatment.

CUTANEOUS SYMPTOMS OF GRAVES'S DISEASE.

In exophthalmic goitre, generally held to be due to excessive or perverted functioning of the thyroid, the cutaneous symptoms are the reverse of those met with in myxoedema: instead of coldness, dryness, and scaliness there are heat and moisture; pigmentary changes are not infrequent; and there may also be pruritus, factitious urticaria, and purpuric erythema; but in both conditions there may be loss of hair and atrophy of the nails. In Graves's disease thyroid treatment is, of course, contra-indicated; but there are cases on record in which cutaneous symptoms associated with some degree of overaction of the thyroid have been benefited by the judicious administration of thyroid extract. Those are cases, probably, of the "thyroid instability" referred to above, in which the thyroid makes an effort to compensate the defective action of some other gland.

AFFECTIONS OF THE HAIR.

The influence of the thyroid gland upon the growth of hair is unmistakable. In myxoedema, as already noted, the hair of the scalp becomes scanty, and the eyelashes and eyebrows, the pubic and axillary hair, often fall out, while under thyroid treatment there is a return to the normal. Hertoghe[28] records a case of entire baldness in myxoedema, followed by complete restoration of hair after the use of thyroid. On the other hand, in cases of thyroid excess there is sometimes hypertrichosis, manifesting itself in superabundance of growth, exaggeration of length, and growth in unusual situations, although in Graves's disease the hair often falls out, as in myxoedema. The hair of the face also may be affected by thyroid irregularity; with thyroid insufficiency the hair of the beard and moustache may fall, or its development may be retarded; with thyroid excess, spontaneous or due to medication, there may be growth of hair on the face in women, or black hairs may appear in the light-coloured beards of men. The colour of hair, too, is influenced by the thyroid, as is proved by return to the normal under thyroid treatment in cases of premature greyness. Examples of the effect of thyroid treatment upon the growth and colour of the hair in such affections as chronic rheumatism, sclerodermia, neurasthenia, migraine, and asthma, associated with various degrees of thyroid irregularity, are reported by Léopold-Lévi and de Rothschild.

There is reason to believe that the pituitary and the adrenals take part in the trichogenic function. Thus in hyperpituitarism there is marked hypertrichosis, while in hypopituitarism, though the hair of the scalp may not be affected, except in cases commencing in adult life, that of the axillae and pubes may be almost entirely lacking, or in males may conform to a feminine type of distribution. A case reported by Bulloch and Sequeira[29] seems to support the view that there is some relation, stimulative or inhibitory, between the functioning of the adrenals and the growth of hair. The patient was a girl of 11, who, normal up to the age of 10, then began to show precocious general sexual development, evidenced by increase in her size and bulk, by the onset of menstruation, by rapid maturation of the mammary glands, and by the growth of hair on pubis and face and axillae. All this time a tumour was growing in the abdomen, which was found *post mortem* to be a malignant hypernephroma. Their researches brought to light a number of similar cases, in which carcinoma or hypertrophy of the suprarenals was attended by precocious sexual development, and also cases in which suprarenal atrophy was associated with non-development or disappearance of pubic hair and by genital hypoplasia.

It has long been known that the growth of hair is also influenced, directly or indirectly, by the sexual glands. Arthur Keith,[30] in his masterly little book on *The Human Body*, remarks that in elderly women the withdrawal of the sexual secretion seems to allow the forces of growth to assert themselves: hence the growth of hair on the faces of elderly women. This ingenious suggestion finds support in the fact, observed by Aristotle, and confirmed by Sabouraud as the result of inquiries made in Constantinople and Cairo, that eunuchs do not become bald. Léopold-Lévi and de Rothschild incline to the view that the thyroid chiefly influences the hair of the scalp, and the sexual glands the pubic and axillary hair, and the beard. The whole subject needs much further investigation.

AFFECTIONS OF THE NAILS.

Both in myxoedema and in Graves's disease, and also in the intermediate degrees of thyroid disorder, the nails, as well as the teeth, undergo degenerative changes. Cases in which thyroid treatment exerted a favourable trophic influence upon the nails are recorded by Léopold-Lévi and de Rothschild. The new part of the nail, nearer the matrix, became normal in colour and thickness and texture, and, as is observed in convalescence from some acute affections, there was a furrow between the old part and the new. The number of such cases is not considerable, but they are sufficient to encourage the use of thyroid treatment wherever ungual affections not known to be of parasitic origin are associated with thyroid disturbance.

In hypopituitarism also there is dystrophy of the nails. They are frequently small, thin, and imperfectly developed; and Crowe has noticed that they do not show the crescents at their base.

PIGMENTATION.

There can be little doubt that the coloration of the skin is influenced by several of the internal secretions, and

also, it may be, by the liver and the abdominal sympathetic. It is significant that, as Rolleston[31] has noted, the pigmentation in Addison's disease is an exaggeration of the normal, and occurs, therefore, on the face, the neck, the hands, the anterior folds of the axillae, the nipples, the perineum, and the genitals, while in more advanced cases the mucous membranes may become pigmented. There is pigmentation also in hyperpituitarism, but it is often accompanied with asthenia and low blood pressure, which suggests that it may be due to adrenal insufficiency rather than to excessive functioning of the pituitary. The familiar pigmentary signs of pregnancy suggest that the sexual secretions may be concerned in normal coloration. There is evidence also that the thyroid is not without influence in this process. One of the signs of myxoedema is the yellowish tint which the skin may present, and Lancereaux and Paulesco, and others, have found that abnormal pigmentation is beneficially affected by thyroid treatment. In leucodermia favourable results from thyroid treatment are recorded, but the negative results recorded by other authors suggest that a careful selection of cases is necessary. The treatment appears to answer best in diffused cases.

Indications are not wanting that the rôle of the thyroid in coloration is of a regulative character. Arbuthnot Lane[32] has described the pronounced pigmentation met with in cases of alimentary toxaemia, beginning in the eyelids and thence spreading gradually over the face. The neck becomes first brown and then almost chocolate-coloured. The skin of the abdomen, the thighs, the axillae, and that covering the spinous processes of the vertebrae grows progressively darker, and on these surfaces areas of a still darker staining may develop. This observer also calls attention to the changes the thyroid undergoes in cases of intestinal toxaemia. In one case, in which the patient had for eight years suffered from an enlarged thyroid, it was obvious a few days after resection of the large intestine that the gland was diminishing in size, and by the time she left the hospital it was but little larger than usual. The case does not stand alone, for he had noticed the complete disappearance of symptoms of thyroid excess in other patients after operation for intestinal stasis. Such cases suggest that the thyroid may hypertrophy in its effort to antagonize the intestinal toxins to which in these cases the abnormal pigmentation is probably due. Possibly it is in this way that the effect of thyroid medication in improving the complexion is to be explained.

Thyroid Dosage.

So powerful an agent as thyroid extract must obviously be used with great caution, and its effects closely watched. As a rule I begin with a 2½ grain tabloid, to be taken at bedtime, and after a few days double the dose; then, if the remedy be well borne, a tabloid of the same strength is taken, in addition, after breakfast, and, later, another after dinner, and so gradually a maximum of 10 grains per diem is attained. For infants I begin with ¼ grain a day, increased to ½ grain, and occasionally to 1 grain. Experience is proving that small doses are as efficacious as the larger doses formerly given, and it is obviously desirable to run no avoidable risk of evoking symptoms of thyroidism, such as rapid pulse, nausea, headache, lumbar pain, restlessness. On the appearance of such symptoms the treatment must be at once suspended or the dosage diminished.

In cases treated with thyroid in which arsenic would be used, as in psoriasis, I usually employ the two agents together, and have found the combination answer admirably. I am glad to find myself in agreement on this point with Ewald and with Gauthier.

The Pituitary Body and the Skin.

That the skin and its appendages are subject to the influence of other ductless glands than the thyroid might have been anticipated from the interaction that has been proved to exist between these bodies, as well as between them and certain organs of external secretion—the testis and the ovary, for example—which also form internal secretions. As the result of this interaction there may be simultaneous functional disturbances in several organs of internal secretion, and thus may arise the clinical picture which has been designated pluriglandular or polyglandular insufficiency. In seeking for the causes of cutaneous affections the dermatologist must be prepared to take account of the pituitary body. The thyroid is so often and so greatly affected in acromegaly, and the pituitary in myxoedema and after experimental thyroidectomy, as to suggest not merely a complementary relation between these glands when either is the subject of disease, but even some measure of normal interaction—a suggestion which finds support in their histological resemblances. Harvey Cushing,[33] in considering the relations between the pituitary and the thyroid, points out that definite alterations in the thyroid have been reported by many observers in animals from which the hypophysis had been experimentally removed, and that in 24 acromegalics Furnival found only 5 thyroids that were normal, while Schöneman, in 85 cases of goitre, observed marked alterations of the pituitary in 84. In acromegaly there is increase in the size of the hair follicles and of the papillae, and, as the result of enlargement and abnormal activity of the secretory glands, the skin becomes moist and greasy. There is also hyperplasia of the connective tissue of the subcutis, which may involve the muscles, and while the process of hyperpituitarism is active there is, as is mentioned in an earlier paragraph, an unusual degree of hypertrichosis, strikingly exemplified in one of Cushing's illustrated cases. The transition from hyperpituitarism to hypophyseal insufficiency is attended by a very slow but unmistakable retrogression of the cutaneous symptoms. Just as the condition of the skin in Graves's disease is the exact reverse of that in myxoedema, so in primary hypopituitarism the cutaneous changes are the opposite of those in acromegaly. Cushing found that in all his patients affected with primary hypopituitarism, except the older ones, the skin was "smooth, transparent, and notably free from moisture." In some it had an infantile smoothness, such as might suggest a subcutaneous oedema, though there was no pitting on pressure.

In connexion with the pituitary I may refer to the rapid growth of the long bones which often follows typhoid and many other infections in young adolescents, and which comes under the notice of the dermatologist, because of the patellar and other striae produced by the tension to which the skin is subjected. In one of my own cases—that of a girl of 15, who had had scarlet fever—there were linear streaks on the thighs, abdomen, and breast, suggesting a general skeletal overgrowth. Jean Chanal[34] has suggested that the skeletal over-development is due to bacillary stimulation of the epiphyses, but I agree with Cushing that it is more likely to be the result of a functional hyperactivity of the pituitary, which sets free in unusual quantity the hormones that stimulate growth.

The Thymus and the Skin.

In view of the relation subsisting between the thymus gland and the sexual system, it is possible that to irregularity in the functioning of this gland may be due some affections of the skin that occur specially in childhood and adolescence. There is now reason for believing that the thymus continues to function regularly until puberty, and it has been found that in castrated animals the gland does not at puberty undergo hypoplasia. Although its secretion has not been definitely isolated, there is much to be said for the view that the thymus furnishes a secretion which is of service to the economy while the reproductive organs are undergoing development. Some cases of acne, therefore, may possibly be due to insufficiency or excess of its secretion. Similarly there appears to be some connexion, as Sabouraud has suggested, between large and active sebaceous glands and over-activity of the testicle; this may account for the frequency of seborrhoea in virile and hairy men and its rarity in women, who, when the subjects of it, are generally of the masculine type. It is significant that acne in women often coincides with the menstrual periods.

Thymus, Pituitary and Suprarenal Extracts in Skin Diseases.

Neither thymus nor pituitary nor suprarenal preparations have yet been extensively used in dermatology. But I have employed thymus gland extract with advantage in *acne* associated with enlarged thyroid and rapid heart, and have had encouraging results from pituitary gland extract, and also from suprarenal extract, in *persistent urticaria* and *angio-neurotic oedema*, conditions in which Ravitch and other French authors report improvement

under thyroid treatment. I have also found benefit to follow the use of suprarenal extract in *lupus erythematosus*, possibly owing to its influence upon the vasomotor centres. This condition is amenable to physicotherapeutic methods—to radium and carbonic acid snow; but it is not a merely local affection, and when the lesions disappear under local treatment there is always the possibility of recurrence to be reckoned with. It is desirable, therefore, that further trial be given to any agent which holds out the promise of beneficially affecting the constitutional condition.

Unsolved Problems of Dermatology.

The influence which the thyroid, the pituitary, the thymus, and other glands exert on metabolism and growth, and so on the nutrition of the integuments and their appendages, suggests that further knowledge of their nature and functions will help to solve some of the many perplexing problems of dermatology. Bacteriology has accounted for not a few skin diseases, and vaccine-therapy and serum-therapy have now a recognized place in dermatological therapeutics; but there is still a disconcertingly long list of skin affections of which the cause is unknown and the treatment purely empirical. May it not be that of some of these the explanation will be found in overaction or underaction of glands that form secretions at once so potent and so difficult of analysis? The facts that animals from which the hypophysis has been partially removed betray diminished power of resistance to infections, and that pituitary hyperplasia has been found associated with bacterial intoxications, may possibly prove to be charged with significance. It is conceivable that irregularity of this or of other organs of internal secretion may be the direct cause of certain obscure skin diseases, and that in others it may induce the predisposing condition which is the opportunity of bacterial or other pathological influences. Thus, too, may possibly be explained the tendency of so many skin affections to recur after the lesions have disappeared under empirical treatment.

I will not pursue these speculations, tempting as they are. But I venture to think that the results yielded by organotherapy in a considerable number of skin affections are sufficient to warrant a more extensive use of this method of treatment in dermatology. It was by the experimental use of thyroid extract, for example, in such affections that we acquired the knowledge that now enables us in some measure to select the cases suitable for its exhibition, and only by the further use of this and other preparations in the same spirit, guided largely by the principle of analogy, will our knowledge be extended. That animal extracts must be employed with circumspection need not be said: but their effects are now tolerably well understood, and those who are practised in their use will be at no loss to recognize the conditions in which they are contraindicated.

References.

[1] British Medical Journal, October 28th, 1893. [2] Albert von Haller, *Element. Physiologiae*, 1776. [3] Johannes Müller, *Lehrbuch der Physiologie*, 1844. [4] A. A. Berthold, *Arch. f. Anat. u. Physiol.*, 1849, S. 42. [5] Artur Biedl, *Internal Secretory Organs* (translation by Linda Forster), 1913. [6] Claude Bernard, *Leçons de physiol. exper.*, 1855. [7] Brown-Séquard, *C. R. Soc. de Biol.*, Paris, 1869. [8] Brown-Séquard, ibid., 1856, xliii, xliv; 1857, xlv. [9] Brown-Sequard, ibid., 1889. [10] Sir William Gull, *Trans. Clin. Soc. of Lond.*, vol. vii. [11] Sir Felix Semon, *Trans. Clin. Soc. of Lond.*, vol. xiv; *Lancet*, 1883, vol. ii, p. 952. [12] Professor G. R. Murray, *Diseases of the Thyroid Gland*, 1900. [13] E. Gley, *Arch. de Physiol.*, 1892; *Gaz. de Paris*, 1892, No. 43. [14] Pierre Marie, *Progrès méd.*, 1889. [15] Professor E. H. Starling, *Lancet*, 1905, vol. ii, p. 340. [16] Swale Vincent, *Internal Secretions and the Ductless Glands*, 1912. [17] Léopold-Lévi et Henri de Rothschild, *Nouvelles études sur la physio-pathologie du corps thyroïde*, Paris, 1911. [18] C. E. Sajous, *Internal Secretions*, vol. i, 1911. [19] H. W. Stelwagon, *Diseases of the Skin*. [20] Marbé, *Thèse de Bucarest*, 1907. [21] Eason, *Scot. Med. and Surg. Journ.*, May, 1908. [22] Moussous, *Arch. de méd. des enfants*, 1908, p. 189. [23] Arthur T. Davies, *Trans. Hunterian Soc.*, 1901-2, p. 51. [24] J. Darier, *Précis de dermatologie*, Paris, 1909. [25] C. J. White, *Journ. Cut. Dis.*, April, 1912. [26] Sir A. Pearce Gould, British Medical Journal, November 5th, 1898. [27] J. J. Pringle, *Brit. Journ. Derm.*, 1896. [28] Hertoghe, *Bull. Acad. roy. de méd. de Belgique*, 25 Mars, 1899. [29] W. Bulloch and J. H. Sequeira, *Trans. Path. Soc. Lond.*, 1905, vol. lvi, p. 189. [30] Professor Arthur Keith, *The Human Body*, 1912. [31] H. D. Rolleston, *Goulstonian Lectures on the Suprarenal Bodies*, 1895. [32] W. Arbuthnot Lane, *Proc. Roy. Soc. of Med.*, vol. vi, No. 5 (Supplement). [33] Harvey Cushing, *The Pituitary Body and its Disorders*, 1912. [34] Jean Chanal, *De la croissance au cours des maladies aiguës fébriles du jeune age*, Paris, 1907.

THE late Surgeon-General Sir Colvin Colvin-Smith, Honorary Surgeon to Queen Victoria, King Edward, and King George, an Indian Mutiny veteran, left estate valued at £10,708.

A Lecture

ON

SOME POINTS IN THE EARLY DIAGNOSIS OF CANCER OF THE STOMACH.

Delivered at the Cancer Hospital, Brompton,

BY

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IT may possibly seem to some that as my contribution to this course of lectures I have chosen to speak on an unattractive subject. "What is the good," it may be said, "when you have diagnosed cancer of the stomach? You have diagnosed an incurable disease." There are three important considerations, however, a proper appreciation of which shows the subject to be one of great consequence.

1. *The incidence of the disease is high.* Cancer of the stomach is a very common disease, and it is becoming more common still. Half of all cancers originate in the stomach, and in men a larger proportion even than this. Whether a disease is, in its ultimate issues, incurable or not, if it is a common ailment and if it entails much suffering, it is essential that we should study it minutely and be able to recognize it at its earliest inception.

2. *The question of curability is probably in large degree a matter of early diagnosis.* This consideration not only holds good to-day, when the radical treatment of all cancers is by their surgical removal, but will no doubt hold good if and when the treatment of cancer proceeds along other than surgical lines.

Whatever chemical, physical, or biological principles govern the future treatment of cancer, it will be as important to begin the treatment at the earliest possible moment as it is now important to subject the patient at the earliest moment to a surgical operation.

3. *The differential diagnosis between cancer of the stomach and some other important, but less serious, maladies is often extremely difficult.* The thorough investigation of a case of suspected cancer of the stomach provides the best possible exercise of the clinician's powers, because of the large number and the great variety of observations that must be passed in review.

I do not intend to deal to-day with purely pathological points, such as the morbid anatomy or the histology of the disease, nor shall I treat of the help in diagnosis derived from chemical investigations made upon the stomach contents after giving a test meal. I shall confine myself to the purely clinical aspects of the disease—to the symptoms and signs that can be made out without the aid of special apparatus.

Briefly put, the problem is usually as follows: A man, about 40 years of age, consults us on account of dyspepsia. What are the conditions of his illness which lead us to suspect, and eventually to diagnose, gastric carcinoma?

I. History of the Present Condition.

In the history there is one very material point that quite often emerges: it is that the dyspepsia has arisen, as it were, in the midst of health. The man is not, as a rule, a chronic dyspeptic. This is rather a striking fact. There seems no doubt at all in many situations as to the predisposing effect of chronic irritation in causing cancer; but chronic gastritis does not seem to lead to new growth in the stomach. Certainly, for one case in which this sequence is observed there are a dozen in which it is absent. The rule is that patients developing gastric carcinoma have, until the beginning of the disease, enjoyed good digestion. The exception that proves the rule is the passing of a chronic gastric ulcer into carcinoma, but this, though definite enough at times, is not at all a common event. A close analogy exists between this fact in the history of cancer of the stomach and a fact so often seen in the study of intestinal cancer—the difficulty with the bowels complained of by patients with this disease is very frequently their first experience of constipation. Chronic constipation does not lead to cancer, despite the theorists

who lay so much stress upon "intestinal stasis" as a cause of malignant disease. To summarize this point: as we should be very suspicious of constipation arising in a patient of 60 whose bowels have moved "like clockwork" until recently, so we should strongly suspect the state of affairs leading to dyspepsia of gastric type in a man of 40 who has formerly had no indigestion.

II. Symptoms.

1. *Anorexia.*—This is an extremely common symptom, too little emphasized by the textbooks. For a long time it may be the only symptom of actual gastric origin; it may be quite unassociated with pain or vomiting. Its degree may be very marked, amounting to a positive loathing of food rather than a merely passive lack of desire for food. I recently saw a patient who said that to hear the rattle of the tray as the servant brought the meal upstairs, before the smell of the food was apparent—and the smell often causes distress—created a most unpleasant feeling of loathing. This anorexia, with the loss of flesh and strength accompanying it, is itself enough to raise suspicion of cancer of the stomach if no other cause is found. The anorexia may be for all kinds of food; at times it is for meat only. It contrasts with the state of the appetite in most cases of simple ulcer; here the appetite is seldom lost, and is often excessive or capricious.

2. *Flatulence and Heartburn.*—Symptoms common to various stomach disorders, and to some that are trivial in their nature. They help little in the diagnosis of the case. There is, however, one point worth mentioning—that the feeling of distension, in the case of cancer, is but little relieved by careful choice of food. Removal of sweet stuff, and perhaps of all carbohydrates, from the diet, usually serves to diminish, it may be completely to abolish, the gastric distension present in ulcer or dilatation. This is rarely seen in carcinoma.

3. *Pain* is a very variable feature, perhaps the most variable of all. Occasionally it is quite absent, even throughout the whole illness; it is sometimes a matter for surprise to see a patient with a large gastric tumour and extreme wasting quite free from pain. Unfortunately the contrary is the rule; cancer of the stomach is usually a very painful malady. The character of the pain differs from that of chronic simple ulcer; it is more constant, though it rarely rises to those severe heights of extreme and acute suffering seen in the hyperchlorhydria of ulcer. It is generally present as a persistent intractable ache—the worst sort of stomach-ache in fact. The pain more often involves the back in cancer than in simple ulcer and the radiation of the pain commonly suggests widespread gastric adhesion. "Hunger pain" is uncommon, food seldom giving complete relief, as is often the case in ulcer.

4. *Vomiting*, again, is a variable symptom, but it is more constantly present than in ulcer. When it occurs it less often brings relief of pain than in simple ulcer. And careful dieting less often checks it.

5. *Haematemesis.*—A frank bleeding—that is to say, the vomiting of a good quantity of fresh or recently clotted blood—is distinctly uncommon in cancer of the stomach. When it occurs it is often a terminal event, and is due to the ulceration of quite a large vessel, such as the splenic artery or the pancreatico-duodenal artery, the vessel having been caught up into the base of the malignant ulcer. A patient who faints, or who is left blanched, as the result of a severe haematemesis—or of a severe melaena, for the same argument holds good—is much more likely to be suffering from a simple ulcer than from a carcinoma. This point in differential diagnosis is not altered by the fact that the patient's age is over 40; chronic ulcer is not uncommon round about the age of 50, and occurs even later than this. It is not a single large haemorrhage but steady slight oozing that characterizes cancer. This oozing shows itself, by careful inspection of the vomit, in two ways: (*a*) By the so-called "coffee grouts," a sediment of dark brown material, sometimes only distinguishable from the dark residue of gastric stasis by spectroscopic examination; (*b*) by small black specks or shreds which are in reality small clots altered by the action of acids in the stomach. The identification of one or of both of these forms of blood is of the utmost importance. Single findings are not, of course, of nearly such significance as repeated findings.

6. *Loss of flesh.*—Despite the fact that some patients with gastric cancer lose no weight, or actually gain weight under preliminary treatment, the fact remains that the great majority progressively lose weight, and this in spite of treatment. In almost every wasting disease the patient may come under observation in a condition when the general nutrition is below that degree necessarily imposed by the extent of his lesion. No conclusion, therefore, should be deduced in this respect until he has been at rest and under treatment for about fourteen days. If, at the end of this time and despite treatment, the weight still falls, a case of stomach disease is almost certain to be either cancer or extreme pyloric stenosis, or, of course, a combination of both of these—that is, the observer is dealing either with a condition of relative starvation from mechanical obstruction at the pylorus or with progressive malignant disease. And it is not very difficult to decide between these two states. In connexion with chronic diseases of the stomach, therefore, careful periodic weighings are of the utmost importance.

7. *Loss of Strength.*—Asthenia is significant, but not very helpful in diagnosis, unless associated with definite evidence of stomach disease.

III. Physical Signs.

1. *Local Signs*—that is, signs elicited on examination of the abdomen and adjacent parts. These signs are found almost entirely by inspection and palpation.

(*a*) *Inspection* of the abdomen is of great importance, and is too often slurred over. For efficient observations a good light is essential, and the position of the observer should for preference be at the head and at the foot of the bed rather than at the side. In this way any asymmetry, however slight, or anything unusual in the curves of the abdomen, may be quickly detected. The effects of respiration upon the lines of the abdomen are carefully watched. It may be advisable to inspect the abdomen again after inflation of the stomach by gas. It is convenient to remember that the two common situations of gastric cancer are (1) the region of the pylorus and (2) the region of the lesser curvature and body of the organ. (Growth at the cardiac orifice and diffuse infiltration of the whole organ are types of cancer of much less frequent occurrence.) These two common forms present two different pictures: (1) Pyloric cancer leads to dilatation of the stomach—it may be great dilatation—with (at some time or other) a small tumour in the right hypochondrium. Here the signs of dilatation are seen, and usually of gastroptosis also. (2) Cancer of the body of the stomach leads usually to early fixation of the organ in a more or less normal position, with (at some time or other) a tumour in the epigastrium. In (1) there is apt to be a depressed epigastrium and a full hypogastrium; in (2) the epigastrium is apt to be full, the hypogastrium (relatively) depressed.

(*b*) *Palpation* of the abdomen is no less important than inspection. Here a warm hand is as much a desideratum for successful examinations as a good light was in inspection. The position of the patient is that in which the muscles are most relaxed. It is sometimes helpful to palpate the abdomen whilst the patient is in a warm bath. Palpation possibly discovers five things: (1) The position and size of the stomach if this is dilated; (2) the presence of a tumour; (3) rigidity of muscles; (4) tenderness; and (5) enlarged glands or secondary masses in other organs than the stomach. It is well to emphasize the importance of localized rigidity of muscle—a finding that is only secondary in importance to the discovery of a tumour. Constant rigidity of certain areas of the rectus abdominis, such as the upper part of the left rectus, in a case of suspected cancer on other grounds, is probably sufficient to justify operative procedure. For it must be remembered that this rigidity may conceal a tumour, and even if this be not the case, it is important to operate on gastric cancer before the growth is so large as to yield an abdominal tumour on examination. When rigidity is definite it is well to examine under chloroform; the absence of a tumour in these circumstances raises the question of chronic simple ulcer. In palpating for enlarged glands the region of the supraclavicular triangles must not be omitted.

2. *General Signs.*—These include some very important features.

(*a*) *Anaemia.*—Blood examination yields definite differential help between cancer and simple ulcer. For if considerable haemorrhage be excluded, the presence of any degree of anaemia greatly favours cancer—or, to be more accurate, it should be said that the absence of anaemia is much against cancer. In pyloric stenosis due to simple fibrosis, as from an old healed ulcer, wasting may be extreme, and yet there may be little or no anaemia; the condition is largely one of starvation, and in starvation the blood suffers relatively little. Whereas ofttimes a patient in whom the degree of wasting is less, but who suffers from gastric cancer, yields a red blood count and haemoglobin percentage considerably below normal. Too much importance can scarcely be attached to this point.

(*b*) *Fever.*—When fever is present in a chronic case of stomach disease, the nature of the disease is more likely to be malignant than simple ulcer. It is not, however, common—it is not nearly so common as in cancer of the large bowel.

(*c*) *Cachexia* is a late sign, and therefore one I will not dwell upon.

(*d*) *The tongue* gives very little, if any, help. Its state is very dependent upon local conditions, as of the teeth, pharynx, etc.

The data obtained as the result of all these considerations is supplemented by observations of the stomach contents removed after giving a test meal. It is important that more than one such observation should be undertaken. In some cases a series of *x*-ray pictures after a bismuth meal will still further assist the diagnosis. As the result of all these methods, and not as the result of any one alone, a diagnosis of cancer of the stomach should be arrived at as early as possible. In concluding, let me draw your attention to these two specimens in our museum; they both illustrate successful operations upon cases of cancer of the stomach. In the first the growth which you see was removed seven years ago; in the second, two and a half years ago. Both patients are to-day alive and quite well. Such results as these, albeit not common, should stimulate us to active and thorough efforts at early diagnosis of this important disease.

AN INSTANCE OF LARGE URETERAL CALCULUS AND SOME OTHER CASES OF CALCULI.*

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I RECORD my five cases in which calculi have been removed by operation. Four were renal or ureteral, and in one a stone was excised from the perineum. In the cases of renal and ureteral stone the *x*-ray photographs proved very helpful.

CASE I.

The first case is that of a girl, aged 16 years, from whom large calculi were removed from the pelvic portion of the right ureter by intraperitoneal operation. The patient was admitted to Addenbrooke Hospital under the care of Dr. Bradbury, by whose kindness I was called in to consider the case. It should be noted that there was very little in this girl's condition to call attention to her real malady. She was admitted with pains in the joints and epigastric pains; there was some swelling of the knee-joints on both sides; she had pain in the right side of her chest, aggravated by coughing, and had not felt well for a month. There was a history of pneumonia and pleurisy two years before, and frequent sore throat. The urine was acid, free from albumen and sugar. She was watched during five weeks until an access of fever and abdominal pain led to further examination of the urine, in which pus and blood were found, and some crystals of oxalic acid. Digital examination by the rectum detected a hard mass on the right of the uterus; under an anaesthetic this mass was felt to be fixed, but not connected with the uterus. The *x* rays made it almost certain that there were calculi in the ureter; a clear space was to be seen around the stones inside the ring of the true pelvis. As the patient's condition was certainly growing worse it was decided to operate. Her temperature varied from 101.4° on the day of admission to 104.2° on the day of operation.

Operation.—Through a median incision the abdomen was opened, and then with the patient in the Trendelenburg position two large calculi were found in the pelvic portion of the ureter. The stones were fixed and could not be pushed upwards or downwards. The ureter was clamped above, an incision was made, and the stones removed; about two ounces of purulent urine was swabbed out. The ureter was sewn up with catgut, using a harelip needle. The patient was then placed in the horizontal position and the suturing tested, so that the pressure in the ureters was tried in two positions. The clamp was removed and the abdomen closed in the usual way without the use of drainage.

In this case the calculi were so deep in the pelvis as to make it a question whether it would not be better to pursue the bolder course of operating through the peritoneum rather than by the usual extraperitoneal route. In the latter procedure the consideration of the large size of the wound, the difficulty of suturing the ureters, and the certainty that a drain would have to be used, with long delay in healing, decided me to venture on the operation above described, in spite of the very real risk of leakage of purulent urine into the peritoneal cavity. However, a good recovery was made, the temperature came down at once to normal, and except for washing out the bladder with boric lotion there was no trouble with the nursing. In textbooks the extraperitoneal method is recommended. But it is obvious that methods may be combined of operating through the peritoneal cavity and then making a drain from the pelvic basin to the exterior, directed from within by a limited incision. There is the possibility also of pushing the stone upwards to the pelvis of the kidney or downwards to the bladder. The two narrow points where stones commonly lodge are just below the kidney and, lower down, some two inches above the bladder. In the pelvic end of the ureter stones are fortunately not so often found.

It has chanced to many surgeons, as it has chanced to me, to cut through a healthy ureter which has become involved in a tumour, and on the ureter being carefully stitched no trouble beyond anxiety to the surgeon has resulted. But in dealing with pathological cases in which the ureter is dilated and contains urine loaded with bacilli, the risks must be serious. With regard to the technique of the operation, there is much to be said in favour of an intestinal needle instead of a harelip needle unless the tissues are very thick, but in any case catgut, not silk, should be used lest a crust should subsequently deposit on the silk. The stones removed from Case I were of large size. Together they measured 2½ in. by 1 in. diameter, and their weight when dry was 226 grains and 91 grains = 317 grains.

CASE II.

The next case is that of George S., aged 23, who had calculi in both kidneys. The stone in the right kidney was first removed. In this operation there was nothing unusual and a good recovery was made, but on the left side there was a great collection of pus, and as the stone in the ureter could not be reached from the loin, a large drainage tube was put into the abscess cavity, and when a certain stage of recovery had been reached and the cavity had contracted, an abdominal intraperitoneal operation was planned and the stone pushed into the kidney. This done, the incision in the loin was enlarged along the drain tube, and the stone extracted with a scoop. The patient made a good recovery, and wrote to the hospital on May 23rd to state that he was well and about to start work.

CASE III.

This was a chauffeur, aged 28, who had continued his work until his admission to hospital under the care of Dr. Bradbury. He had pain in the left loin, which had begun only about five weeks previously. He had passed blood on one occasion only; it was after taking urotropin. About a year previously he had an attack of appendicitis, but recovered without operation; thirteen years ago he had had a vesical calculus removed by lithotrity. On admission there was tenderness over the left renal area; the urine was loaded with pus, but showed no blood or casts, and a skiagram demonstrated calculi in the left kidney. At the operation were removed masses of phosphatic débris too friable to hold together in the scoop, and the whole kidney was distended with purulent urine and in a state of phosphatic pyelonephritis. Thorough douching was used to clear the cavities of crusts as well as possible, and a large drainage tube inserted.

The patient did well, but there was pus in the urine for some weeks, and an *x*-ray photograph taken since the operation still shows the shadows of phosphates. His general condition is excellent.

CASE IV.

This was a countrywoman, who, though stout, looked pale and feeble; she had been ill and in great pain for many months past, and had constantly passed large quantities of pus with the urine. Finally, when absolutely obliged by her malady, she sought relief at the hospital. With all her stoutness it was

* Read before the Cambridge and Huntingdon Branch of the British Medical Association.

possible to make out a swelling and a dull area at the seat of her pain in the left lumbar region, and a skiagram showed a collection of stones. It was evident that an operation was her only chance. Despite her wretched condition it was undertaken. An incision resulted in the removal of a quantity of stones and of a large amount of pus from an enormous loculated abscess. She rallied somewhat and gave hopes of recovery, the pus draining well from the inserted tube, but after a week the struggle proved too much for her enfeebled powers, and she gradually sank and died nine days after the operation.

There was no fair chance for surgery in this case, the patient having delayed too long. The operation was borne fairly well, but there seemed no recovery power, and probably there was very little actual kidney tissue left remaining.

The last case to which I propose to draw attention was one of calculus in the perineum.

Case v.

The patient, a labouring man aged 33, came under my care in the hospital on April 24th, 1912, with a sinus in the left side of his scrotum, which discharged pus and urine. The left testis was absent, and he had a right scrotal hernia. He had been at work up to the end of 1911, when he had an attack of influenza; and it was only since then that he had noticed discomfort and discharge. A catheter passed into the urethra struck a stone about the position of the triangular ligament; and two days after his admission an incision down to this point was made and the stone removed. It measured 1⅔ by 1¼ in., and must have been forming for a long time. It was very firmly impacted in the perineum under the pubic arch, and projecting into the urethra, and thus blocked it. The septic condition of his scrotum prevented me from examining the bladder lest it should be tainted by the catheter or sound. During his convalescence from the operation the sphincter of the bladder worked perfectly, the patient passing water like a woman, until the wound had granulated and healed up; he recovered without the recurrence of any cystitis.

This, therefore, was an extravesical stone when extracted, but had its origin in the kidney or bladder, whence it had travelled into the urethra, and there ulcerated through the mucous membrane, and gradually grew into the perineum along the lines of least resistance to its present size. The patient did all the work of a labourer on the land until shortly before the operation, but never rode a bicycle.

The *x* rays proved a very valuable help in the diagnosis of these cases, as also in their operative treatment; and I am grateful to Dr. Scales for his co-operation, especially for the picture of the large pelvic stone in the young female.

TREATMENT OF CONGENITAL DISLOCATION OF THE HIP.

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surgeon to the royal national orthopaedic hospital, etc.

[With Special Plate.]

Since Lorenz, in 1895, first introduced his operation of "bloodless reduction" of congenital dislocation of the hip, treatment of this affection has become well established in orthopaedic practice, and it is attended, in the majority of cases, with the happiest results.

Many surgeons, however, have not made themselves acquainted with the progress of this branch of surgery during the last eighteen years, and even now one hears the old objection that in congenital dislocation treatment is useless, and that the acetabulum is absent, or at least so small that the head of the femur cannot be placed therein. But orthopaedic surgeons know that an acetabulum of some sort is always present, except in some old untreated cases in which, in the course of years, it becomes obliterated; and the argument that it is too small is a relic of obsolete pathology, for, however rudimentary it may be, it is still sufficient. It is many years since we were taught to believe that bone is a rigid, unalterable structure. We know now that bone, like other tissues, is capable of undergoing plastic changes in obedience to forces acting upon it; an angular deformity in fracture becomes buttressed by new bone on one side and rounded off on the other; the bones of the foot become changed in shape, both in the development and in the cure of deformities; similar changes occur in the spine, the chest, in fact in any part of the skeleton. It is proved beyond question that in congenital dislocation of the hip, if the head of the femur is placed and retained "in," "on," or "against" the acetabulum, the bone grows out around the head, the acetabulum becomes deeper and the head better developed, so that a joint is formed which is anatomically and functionally sound.

The majority of surgeons who deal with these cases have adhered more or less closely to the technique described by Lorenz; indeed, many still follow his original teaching in every detail. But it must not be supposed that the surgery of congenital hip has stood still for eighteen years. Many modifications have been introduced during that time—some good, and some bad—and, while the general principle of Lorenz's pioneer work remains the same, there is no doubt that just as good results—and in many cases, I am convinced, much better results—can be obtained by a technique which differs in many ways from the original.

I do not propose to describe the details of Lorenz's procedure here, but some criticisms of the method must be made.

I.

As every one knows, the first step in Lorenz's "bloodless" operation is to stretch or tear the soft parts around the joint; the adductor muscles are ruptured by forcible abduction and hacking with the hand; the parts behind and in front are stretched by forced flexion and hyperextension, and those above by traction on the limb. It is taken as an axiom that the hip cannot be properly reduced until all the soft parts are so stretched as to offer no resistance. This is not true; for in the majority of cases the hip can be reduced without any of these violent preliminaries, which are responsible for most of the shock and for nearly all the accidents of the Lorenz operation, and which, in addition, greatly weaken the muscles of the thigh.

The constant pull of the muscles upon the femur is the most important factor in bringing about the development of the joint, and, provided that the head of the bone is in place, the more powerful the muscular retraction the better. The muscles should therefore be damaged as little as possible.

II.

Many surgeons do a preliminary tenotomy, sometimes an extensive division, or even partial excision, of the adductors, in order to facilitate stretching. This, I am convinced, is a great mistake. I have seen a number of cases in which there was a wide gap where the adductors had been divided. Some of these cases had been successfully reduced and had good hip-joints, and yet they walked very badly. The disability in many of these cases is, I believe, due to permanent weakness of the adductor muscles, the gait being comparable in every way to what is often seen in cases of infantile paralysis when the adductors are affected, and the child, to compensate for the weakness, throws himself on to the head of the femur at each step, so that he sways from side to side. Simple tenotomy of the adductor longus is sometimes necessary in old and resistant cases; as a routine it is to be condemned. When a congenital hip is reduced and fully abducted, some muscles are bound to give way, but the damage should be limited to this, and unnecessary interference avoided.

III.

In the earlier attempts to treat congenital hip, the great difficulty was the tendency to redislocation of the head of the femur backwards. To overcome this, Lorenz introduced his "frog" position, in which the thigh is fixed in right-angled abduction and external rotation, the knee being actually behind the plane of the hips, and this position is still used in the majority of cases immediately after the hip has been reduced.

But the fear of reluxation has been exaggerated. In the Lorenz position the head of the femur is thrust forwards and tends to project in front; often it passes in front of the acetabulum, and an anterior transposition is the result. Anterior transpositions are so common after the Lorenz technique that some surgeons have even counted them among their "successful" results! It is

true that, compared to an untreated dislocation, the functional result of anterior transposition is often very good, but it cannot for a moment be compared with that of true reposition. The head should be placed *in* the acetabulum, and nothing short of that can be called a success.

When the Lorenz position is maintained too long, the retraction of the soft parts behind is so great that the thigh cannot be rotated inwards. Consequently after this treatment one sees many cases of persistent external rotation (often associated with anterior transposition), which gives rise to great disability, and is most difficult to treat. The Lorenz position should be employed until the tendency to backward displacement is overcome—that is, a comparatively short time—after which the thigh should be placed in a position of *internal rotation*, which gives a much more perfect apposition of the head of the femur and acetabulum, and which also allows retraction to take place more equally all round the joint.

IV.

When the hip is successfully reduced, there is considerable tension on the muscles of the thigh, especially on the hamstrings, which keep the knee tightly flexed. Great stress is laid by Lorenz and his followers upon the stretching of these muscles by daily extension of the knee soon after reduction. I believe this to be absolutely wrong. The surest way to induce redislocation of the hip is to stretch the hamstrings early by extension of the knee. The force of such stretching acts obliquely upwards on the femur, and if there is any possibility of the head slipping sideways from the acetabulum, it will be made to do so. The fear of permanent flexion of the knee is unfounded. Personally I make a point of including the knees, flexed, in the first plasters, so as to ensure that they are left alone. I have had them fixed in this position for upwards of eight months, and I have never had any trouble in getting them straight afterwards. In the second position of the hip it is necessary to include the knee in order to secure internal rotation.

V.

Another fallacy of the Lorenz after-treatment is the alleged importance of "grinding" movements of the head of the femur in the making of a new acetabulum. To this end the child is encouraged actively to use the limb within the restrictions imposed by the plaster. The knee being left out, some rotation of the femur is possible, and it is a common practice to put the child astride on a low chair or hobby-horse, and to let her push herself about with a leg on each side; then she is taught to walk, and the activity such patients display in their plasters is often surprising. All this, as I have said, is to encourage "grinding" of the joint. It is thought that the grinding or boring motion of the head of the femur is a most important factor in deepening the acetabulum and in promoting the formation of new bone around it.

I belive this is a notion derived from a false analogy. We know that in certain fractures which fail to unite, constant movement is a factor in preventing repair; and that when a false joint forms the opposed ends of the bone become smooth, rounded, and to some extent mutually adapted by friction and pressure; friction, too, is mainly responsible for the development of a false capsule to the joint. But in congenital dislocation of the hip totally different conditions obtain. The head of the femur and the acetabulum are both covered by cartilage, and all the elements of a joint are present. The aim of treatment is to secure *stability*. The changes in the bones are brought about, not by friction, but by constant unchanging *pressure*. The source of this pressure is the pull of the thigh muscles upon the femur, and this pull is constantly acting when the head of the bone is in place. Under the influence of this force, if the limb is left absolutely undisturbed, the acetabulum can be seen (by *x* rays) to become deeper, the head of the femur is better developed, and a buttress of new bone grows up from the margin of the acetabulum around the head until a secure joint is formed (Fig. 2). Then, and not till then, should the child be allowed to use the limb. Activity before this stage can only make for instability. By movement the pressure is distributed over a wider area, instead of being concentrated on the centre of the joint; the acetabulum becomes wide and shelving instead of steep and abrupt; the capsule is looser all round than if the joint had been kept still, and, lastly, movement is a potent cause of redislocation.

VI.

Ultimately, when the plaster is removed and the child is allowed full freedom, she rapidly regains her strength and normal use of the limb, *provided that the hip has been properly reduced*. I have never found it necessary to order special exercises, massage, or manipulations to strengthen the muscles or to obtain movement in these cases. Children do not waste to a skeleton through mere inactivity. In cases of tuberculous disease of the spine or hip we see children immobilized, sometimes for years at a time, and yet, as soon as they get about, they pick up all they have lost. During recumbency they are for the most part plump, and merely "out of condition" in the athletic sense. In congenital dislocation of the hip persistent weakness after reduction is due to gross injury of muscles; restricted movement is due to faulty reduction.

The Reduction of Congenital Dislocation of the Hip.

By far the best method with which I am acquainted is that of reduction over the *inferior* border of the acetabulum, advocated by Ridlon. It is performed in the following way: In the case of a left hip the knee is grasped with the right hand, and the limb is fully flexed both at the hip and the knee; the head of the femur is thus directed downwards. Pressure—and, if necessary, great pressure—is now made straight downwards upon the knee, so that the head of the femur is driven down below the acetabulum; counter-pressure is made by the other hand upon the tuberosity of the ischium, and the position of the femoral head is made out by the fingers of that hand feeling in the buttock. The descent of the head is increased by internal rotation of the thigh, but, as Ridlon has pointed out, it may even descend too low for easy reduction. When the head has thus been brought below the acetabulum, the thigh is slowly abducted; the head then passes upwards over the lowest part of the rim into the acetabulum.

The simplicity, rapidity, and ease of this reduction, as compared with the Lorenz method, is often surprising. In the latter the hip is reduced over the *posterior* margin of the acetabulum, with the thigh abducted to a right angle. To do this successfully, the head of the femur must first be brought down to that level by tearing and stretching the soft parts. But in reduction over the inferior border no preliminary violence is employed; the limb is not previously pulled about in any way; descent of the head is secured by the position of the limb and by direct pressure downwards on the femur; when the thigh is abducted the muscles aid rather than oppose reduction.

The elimination of unnecessary violence is a great advance in the treatment of congenital hip. Shock is infinitely less; the risk of accident—fracture, paralysis, etc.—is reduced to a minimum; permanent weakness of the muscles is avoided, and their important action during after-treatment is better preserved.

One other advantage must be specially mentioned. In the treatment of congenital hip it is generally agreed that there is an age limit beyond which it is inadvisable to attempt reduction—usually about eight years in bilateral, and about ten years in unilateral, cases. This restriction is imposed on the Lorenz operation on account of the great violence required to stretch the soft parts in older patients, whereby the severity of the operation is proportionally increased, and the risks of serious accidents are very much greater. But, as I have already said, in reduction over the inferior border, these preliminary forcible manipulations are avoided, so that the same objections do not apply to this method. Accordingly, the scope of the operation has been considerably extended in recent years, and many older patients are treated now than formerly. It is not to be denied that the difficultes increase with age, but provided that they can be overcome, there is *no age limit*, as such, to reduction of congenital dislocation of the hip. The limit is reached, in an individual case, when the operator ultimately fails to get the hip in. I have emphasized this point because many surgeons maintain that it is unjustifiable to attempt reduction over a certain age. Many patients are, therefore, passed over who at the present day certainly ought to be

given a chance. The ideal of treatment is to benefit the greatest possible number of patients, and if there is any possibility of getting a hip in without serious injury to the patient, it should be attempted. It may be said in passing that the age of a patient is not always a sure guide to the difficulty of reduction; a case of 14 or 15 may prove to be easier than one of 4 years old; often in bilateral cases one side is much more difficult than the other; some of the most difficult cases are in quite young children.

Treatment after Reduction.

As soon as the hip is reduced it is put up in plaster-of-Paris while the child is still under the anaesthetic. At this stage the Lorenz position—that is, abduction to a right angle and external rotation—is adopted, but it should be seen that the head of the femur is not displaced too far forwards. *Both* sides should be put up, even when the dislocation is unilateral; though in the latter case the sound hip need not be forced into full abduction, but should be put into as nearly a symmetrical position as it will go. A unilateral plaster is unsatisfactory, as it does not fix the hip properly. Also, I always make a point of including the knees in the plaster, so that no stretching of the hamstrings is possible.

Skiagrams should be taken before and throughout the treatment, and the position of the head of the femur should be checked by them. The position is often spoken of as being "good," "fair," or "nearly in." But there are no degrees in reduction of congenital hip—the hip is either in or it is out. If it is in, well and good; if it is out, the plaster must be cut off and one must begin again by reducing it.

One is often asked how long the first plaster should be left on, but it is impossible to give a fixed time for all cases. It is determined in each case by the conditions found at operation and after. In an average case, where there is fair stability on reduction, it is left on for three or four months, and at the end of that time the hip is examined, and according to the degree of stability present it is decided whether to change the position or not. The hip should never be allowed to redislocate in order to estimate its stability. Cases which are very difficult to reduce, and also cases which are very easy, as a rule require longer fixation than others. Often the more easily a hip slips in the more easily will it slip out and the longer will be the time required to make it firm. In some very mobile cases—especially in some which had been unnecessarily stretched—I found that the only way to prevent redislocation was to keep the hip in the first position for a year. On the other hand, it must be remembered that fixation for too long a time in one position may give rise to difficulty later. The time must be separately determined, not only for each case, but, in bilateral cases, for each hip.

When sufficient retraction has occurred in the soft parts behind the hip, the position of the limb should be changed.

The second position is one of slightly diminished abduction with about 45 degrees of *internal rotation*. This brings the centre of the head of the femur into more perfect apposition to the acetabulum; it removes the tendency to anterior transposition; and it allows a more equal retraction of the soft parts around the joint. An anaesthetic is necessary for this change, and the position is secured by a plaster which again includes the knee, flexed. In a bilateral case each hip is treated according to its own indications; so that either the position may be symmetrical, or one hip may be in the second position while the other is still in the first. In a unilateral case the sound thigh is brought down straight, and the upper part of it is included in the plaster.

This plaster is left on as a rule for four or five months, after which a fresh one is put on in still further diminished abduction, and this time leaving the knee out. In a unilateral case, only the affected side need now be put up. If there is any contraction of the knee it is soon overcome; and then, provided that the hip is firm, the child is allowed to walk, the sole of the boot on the affected side being raised about 2 in. to keep the limb abducted. In a bilateral case if one side is more advanced than the other, it must wait until both are ready for the child to walk, and of course no raising of the boot is necessary.

When I first adopted fixation of the knee in the plaster I expected that some contraction of the hamstrings would follow, and I was surprised, on cutting off a plaster after eight months' continual flexion, to find that the knee could be straightened at once without any force. This I have since found to be common, and when slight contraction does occur it is always easily worked out in a few days by ordinary manipulations. I have never had any difficulty in getting the knees straight, and as I believe that it is important to leave the muscles alone until the hip is firm, I never have any hesitation in fixing the knees during the earlier stages of the treatment.

The last stage of the treatment consists in gradually reducing the amount of abduction and in deciding when to allow the child to go free. The skiagrams should now be showing a well-marked formation of new bone above the acetabulum, the cavity of which is better developed, as is also the head of the femur. These changes indicate that redislocation will not take place, and the child may safely be allowed to go without plaster. The last remnant of abduction is left for the child to get rid of, and, if a good joint has been formed, she quickly does this, and in addition recovers full use of the hip.

Naturally, plastic changes occur more readily in the growing bones of young children than in the denser, more mature bones of older patients. The fact that reduction may be attempted at a later age *in neglected cases* must not be taken to mean that treatment may safely be deferred while the child is young. To obtain the best results congenital dislocation of the hip must be treated in *early childhood* while the growing bones are soft and readily adaptable. Only in neglected cases does the question of late treatment arise, and in these cases it is determined by (1) the possibility of getting the hip "in," and (2) the probability of a stable joint forming within a reasonable time.

It has been shown that, if time is no object, bone changes similar to those which occur in children may be brought about, even in adults, by a constantly acting force. Thus in the old days of exclusively instrumental treatment of deformities, extreme cases of genu valgum, etc., were *cured* by apparatus which was worn sometimes for any period up to fifteen or twenty years. Such slow progress is not tolerated at the present day, and, of course, it is out of the question in the case of congenital hip, where the patient cannot get about until the joint is firm. The example merely serves to show that plastic changes can be brought about in a mature skeleton, though much more slowly. In late cases of congenital dislocation of the hip the question is whether sufficient stability can be secured within a reasonable time. If there is a fairly good acetabulum and fair stability on reduction the ordinary routine treatment may be successful, but failing this the only alternative is an open operation to make an acetabulum—that is, by cutting it out. The open operation has given good results in a number of selected cases, but it is exceptional treatment to be reserved for old cases, and its performance as a routine in young children is to be absolutely condemned. The best results in congenital dislocation of the hip are obtained by manipulative reduction in early childhood, and they are incomparably superior to those obtainable by any other method of treatment.

IN a speech recently delivered at the general meeting of the Society of Preservation against Tuberculosis, the French Minister of the Interior supplied the following figures as to tuberculosis which he said no one could dispute. Of the total number of deaths in France a proportion of 12.07 per cent. is due to definitely recognized tuberculosis, a figure higher than that of all other diseases. The proportion is higher in France than anywhere else. Moreover, during a period of three years 217 deaths per 100,000 inhabitants have been recorded, as compared with 139 deaths in Belgium, 166 in Italy, 146 in England, and 168 in Germany. The evil appears still more serious when it is considered that it is especially in persons between the ages of 20 and 40 that tuberculosis is particularly frequent. Of 100 French men and women who die at that age, 42 die of tuberculosis. In Paris the mortality from tuberculosis in 1909 was 44 per 10,000 inhabitants. The proportion was 33 for the department of the Seine, 30 for the Seine Inférieure, 27 in the Cotes-du-Nord, 26 in the Finistère, L'Ille et Vilaine, Loire Inférieure, and the Rhone. In the Hautes Alpes it fell to 10.

CONGENITAL DISLOCATION OF THE HIP (MR. A. S. B. BANKART).



FIG. 1.—Congenital Dislocation of Left Hip. Boy aged 3½ years. Before treatment. B, Upper epiphysis of femur. (Skiagram by Dr. Stanley Melville.)

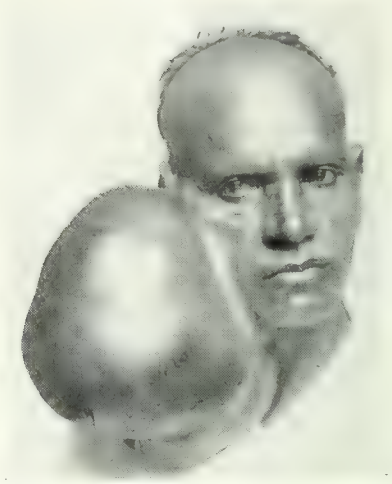


FIG. 2.—Congenital Dislocation of Left Hip. Same case as Fig. 1, ten months after reduction. A, Buttress of new bone at upper margin of acetabulum. B, Upper epiphysis of femur.

PAROTID TUMOURS (PROFESSOR A. STREET, I.M.S., BOMBAY).



CASE I. Hindu, aged 48. Tumour had existed since childhood. Weight, 7 lb. 3 oz. Perithelioma.



CASE II. Hindu, aged 35. Weight, 5 lb. 4 oz. Ten years' history. Endothelioma.



CASE III. Hindu, aged 40. History, 5 years. Weight, 6 lb. 8 oz. ? Round-celled sarcoma.



CASE IV. Hindu, aged 25. Weight, 2 lb. 12 oz. Ten years' history. Myxoma.

A SERIES OF CASES OF PAROTID TUMOUR.

[WITH SPECIAL PLATE.]

BY LIEUTENANT-COLONEL A. STREET, M.B., F.R.C.S., I.M.S.,
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THE following cases were reported by me at the meeting on June 20th, 1912, of the Bombay Branch of the British Medical Association, but as there was a full account of one such case reported in the JOURNAL of June 8th from China I think these, with the accompanying photographs, may be considered of sufficient interest to be published in the JOURNAL.

They were all operated on by me at the Jamsetji Jeejeebhoy Hospital, Bombay, and all recovered without any troublesome symptoms. The four operations were all performed under chloroform, and the dragging and weight of the tumour in no way caused difficulty in its administration. During the removal of the tumour very little difficulty was experienced, and afterwards the main trouble was that nearly all the veins required ligature, the walls being too thin to stand torsion, and if only clamped were liable to restart bleeding when sponged. The amount of skin that needed removal was more than one would have expected at first, and owing to only a small piece having been removed in the first case there was some bagging and collection of serous fluid which delayed healing till it could be drained away. The duration and the weight of the tumour had completely destroyed the elasticity of the skin, and the amount of stretching it had undergone is well shown in Fig. 2 by the distance between the pores.

The clinical history was much the same in all: one had existed for forty years, two for ten, one for five. The growth of the tumours had been slow and even, except in No. 3, which had spurted the last year. The tumours were painless, not tender, freely movable, and the skin was only adherent in places where cauterization and then healing had taken place; but the skin in all showed where cauterization as applied by the native Hakims had been tried. One man came from Ratnagiri in the south, one from Poona in the east, one from Surat, and one from Cutch in the north. They were all Hindus and males. They gave their ages as 48, 40, 35, 25. Two, at all events, confessed that the reason they wanted operation was that they were waiting to get married. Their clinical history and description was practically the same, and the naked-eye section did not reveal much difference, some being more nodular both on the surface and on section than the others; very few, and small, cysts were found in all. No glands were found enlarged in any case.

A portion of each growth was sent to the pathologist of the hospital for examination, with the statement that it was part of a parotid tumour. His report, however, showed very considerable difference. No. 1 was stated to be perithelioma; No. 2, endothelioma; No. 3, round-celled sarcoma; No. 4, myxoma—a mixed tumour. No. 1 weighed 7 lb. 3 oz.; No. 2, 5 lb. 4 oz.; No. 3, 6 lb. 8 oz.; No. 4, 2 lb. 12 oz.

This series seems interesting on account of the large size of the growths, and the fact that they should come from north, east, and south within a period of six months.

PROFESSOR BLANCHARD reported recently to the French Academy of Medicine the occurrence of a tapeworm in man previously known as infesting the orang-outang only. It was passed by a girl aged 8 in Mauritius. It belongs to the genus *Bertia* (now *Bertiella*) formed by Professor Blanchard in 1891 to receive two cestodes of the anthropoid apes, *B. studeri* of the chimpanzee, and *B. satyri* of the orang-outang. Apart from the interest of the communication due to the addition it makes to the ever-growing list of human parasites, it raises a curious point in zoological distribution. This parasite has now been found on opposite sides of the Indian Ocean, in the ape in Borneo and in man in Mauritius, and so far in these localities only; but Professor Blanchard points out that this is not a solitary instance of the wide distribution of a cestode. *Davainea madagascariensis* (a parasite of man) first identified in the Comoro Islands north-west of Madagascar, has also been found by Leuckart in Siam, and by Daniels in British Guiana.

CHRONIC ARTHRITIS:

THERAPEUTIC EVIDENCE OF THE INCIDENCE OF STREPTOCOCCAL INFECTION.

BY D. W. CARMALT JONES, M.D., M.R.C.P.,
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IT is a commonplace that accurate bacteriological diagnosis is essential to the successful treatment of bacterial infections by specific therapy. Yet in many cases this diagnosis is so difficult that it is abandoned, and frankly empirical methods of bacterio-therapeutic treatment are adopted, with necessarily variable results; still, some information of diagnostic value may be gathered from the results obtained in a series of empirically treated cases.

In practice, bacteriological diagnosis for therapeutic purposes is made by direct or indirect methods, or a combination of the two. The direct method consists in the recovery of bacteria of known infective nature, such as the *Bacillus tuberculosis*, from any part of the body, or of bacteria of any kind from sites normally sterile, such as the blood stream or the joints.

The indirect methods consist in the estimation of "reactions," either "immunity reactions" or "constitutional reactions." The "immunity reactions" depend on the power of the tissues to elaborate antibodies to any foreign albuminous substance introduced into them which is capable of solution in the body fluids. The antibodies are produced in excess of the amount required to neutralize the foreign substance, and the residue passes into the blood and can be demonstrated by suitable methods in the drawn blood serum. The bactericidal, bacteriolytic, or agglutination reactions are those most generally available. The opsonic reaction is similar, but presents certain differences.

The "constitutional reactions" depend on the peculiar sensitiveness of a person suffering from certain specific diseases to inoculation with minimal doses of the infecting organism or its products, a rise of temperature and local signs at the site of inoculation occurring in a susceptible person which do not arise in healthy people; this is the basis of the various tuberculin tests.

These two methods are applicable to infections with bacteria of known virulence, and are comparatively straightforward procedures, but much of the difficulty in bacteriological diagnosis is due to the fact that many organisms are only potentially infective, since they are constantly present on the mucous surfaces of quite healthy persons as harmless parasites, and only occasionally give rise to disease. When definite pathogenic bacteria cannot be found, organisms of potential infectivity may be taken from any breach of surface or from one of the mucous membranes, and the immunity reactions of the patient's blood may be investigated. Instructions to carry out these tests so often turn out to be a counsel of perfection, that treatment is frequently invited with a general recommendation to do the best one can.

To do this it is necessary to hazard a bacteriological diagnosis on clinical grounds, and in these circumstances it is as well to give a guarded prognosis, nevertheless the clinical diagnosis of some bacterial infections is made every day with tolerable accuracy. Such a diagnosis, however, can only be made on the strength of numerous previous observations, in which a group of symptoms and physical signs have been demonstrated by recognized bacteriological methods to be constantly associated with a certain infection. Any bacteriological evidence, therefore, which associates a disease of obscure causation with a definite infection is an addition of some value to the knowledge of the etiology of that disease.

In reviewing the indirect methods of bacteriological diagnosis, mention was made of "constitutional reactions," meaning general and local disturbance set up in susceptible subjects by small doses of bacterial substances. Another form of constitutional reaction is complete or partial recovery from a given disease under treatment by specific antibacterial methods, but since diagnosis should precede treatment this method is not available for purely diagnostic purposes. However, the records of results of similar cases treated empirically by the same specific remedy afford

bacteriological evidence which may be of value for clinical diagnosis.

This paper is a contribution to the bacteriological diagnosis of arthritis based on the results of such empirical therapeutic measures. It contains the records of twenty consecutive cases in private practice suffering from arthritis of various types, in all of which a tentative clinical diagnosis of streptococcal infection was made, and which were treated with vaccines of streptococci derived from different sources. They do not go to show that all cases of arthritis are due to streptococcal infection, nor is that the least likely, for the *B. tuberculosis*, gonococcus, and pneumococcus are all well known to infect joints, which indicates that joints are susceptible to a considerable variety of bacterial infection. If, however, therapeutic results can be accepted as a basis of bacteriological diagnosis, these cases indicate that steptococcal infection is frequently concerned in cases of chronic arthritis.

The cases were, in the majority of instances, of long standing, they had resisted general therapeutic measures, and no source of infection was clearly indicated. Effusion into joints was rare, and the fluid when removed by puncture was invariably sterile. Blood cultures were also sterile whenever investigated. For various reasons streptococcal infections were suspected, and the patients were accordingly treated with vaccines made from streptococci obtained either from the mouth, in cases of oral sepsis, from the urine, or from the faeces. The patients have, in most instances, remained in the charge of their own medical men, whose reports are here quoted, so that any prejudice on the part of the writer, and any suggestion to the patient arising out of the employment of a new doctor and a supposedly scientific method of treatment have been, as far as possible, excluded.

CASE 1.

Seen with Dr. Luff, under the care of Dr. Johnson, Richmond. A lady, aged 70. Arthritis of many years' duration; bedridden.

Possible Site of Infection.—Mouth; gums retracted.

Bacteriological Examination.—Blood culture, sterile; urine, sterile; faeces, *B. coli* and *Streptococcus faecalis*; gums, streptococcus, *Micrococcus catarrhalis*. Vaccine of *Streptococcus faecalis* prepared.

Inoculation followed immediately by subjective improvement. Duration of treatment six months. Dr. Johnson reports: When first inoculated, sallow, almost yellow, with the usual toxic stain of skin, and anaemic. Pains in all joints, notably shoulders, elbow, and knee. Finger-joints and knee-joints much swollen. Nights bad, unable to turn herself in bed, appetite *nil*, bowels constipated. Pulse 90 to 96. Now extremely well in herself, excellent colour, pink and clear. Pulse 70 to 76. Temperature normal. Great abeyance of pain, though every now and then a fair amount in hands (finger-joints) and knees. Anxious to try to walk: appetite excellent, bowels regular. Joints very little swollen, though considerable joint destruction and tendency of fingers to ulnar side.

CASE 2.

A lady of 60, seen with Dr. Luff, under the care of Dr. Christopherson, St. Leonards. Rheumatoid arthritis, duration six years (since menopause). Joints affected—cervical, shoulders, wrists, hands, knees, ankles.

Possible Focus of Infection.—Gums; teeth began to "dissolve" some years before arthritis was felt, many had been extracted, and of the few left the incisors were much worn away at the necks.

Bacteriological Examination.—Blood culture, sterile; urine, sterile; gums, streptococcus, tetrad, *Micrococcus catarrhalis*. Vaccine of streptococcus. Inoculated six months. Dr. Christopherson reported that he was unable to see any improvement. The patient ultimately died of abdominal neoplasm.

CASE 3.

A lady of 50, seen on the recommendation of Dr. Luff, under the care of Dr. Halley, of Fulham. Duration twenty-four years. Joints affected: nearly all joints of limbs, great disorganization of metacarpo-phalangeal joints of hands with forward dislocation.

Suspected Cause.—Septic absorption from intestine. Gums sound; no oral sepsis.

Bacteriological Examination.—Blood culture, sterile; urine, numerous diphtheroid bacilli; faeces, *B. coli* and *Streptococcus faecalis*. Vaccine of streptococcus; after six inoculations Dr. Halley reported she had less pain in joints, and was decidedly stronger, but the improvement was not maintained.

CASE 4.

Seen on the advice of Dr. Williams, Harrow. A lady aged 45. Arthritis affecting many joints, with effusion into wrists, and sometimes other joints. No evidence of bony change. Duration several years. Exciting cause unknown.

Possible Source of Infection.—Teeth, well cared for, but considerable retraction of gums.

Bacteriological Examination.—Fluid from wrist-joint, sterile; urine, coliform bacillus giving reactions of *B. acidi lactici*; faeces, coliform bacilli only; gums, *Streptococcus salivarius*. Vaccines: (1) *B. acidi lactici*, four inoculations given with little change; (2) after this, mouth streptococcus for about eight weeks; massage was employed at the same time. There was marked subjective improvement both in general health and in the joints, with decrease of pain and increase of power, and considerable decrease in swelling, though the joints were still liable to effusion.

CASE 5.

Seen on the advice of Dr. Luff, under the care of Dr. Fox-Symons, South Kensington. Gentleman, aged about 50. Had an attack of gout, followed by septic conditions of the throat, and some angina. After this had acute pains in various joints, with temperature up to 103°. Joints hot, swollen, and painful.

Bacteriological Examination.—Blood culture, sterile; urine, numerous diphtheroid organisms; faeces, *B. coli* and *Streptococcus faecalis*. Vaccine of latter. Two inoculations were given.

Dr. Fox-Symons reports that the temperature rose to nearly 102°; there was a general lighting up of pains all over the body. After an interval another dose was given; all acute symptoms recurred, and inoculations were discontinued. The patient had had inoculations of the stock vaccine previous to this, and probably an error was made in starting the autogenous vaccine with too large a dose.

CASE 6.

Seen on the recommendation of Dr. Luff; under the care of Dr. Murray, of Hornsey. A lady of about 60. Severe polyarthritis of sudden onset, six months' duration.

Possible Site of Infection.—Gums; much pyorrhoea, lower incisors loose. Patient refused to have efficient treatment for the mouth.

Bacteriological Examination.—Gums: Profuse and nearly pure streptococcus. Vaccine of same. Dr. Murray reports that after four or five injections the patient had derived no benefit, and refused further treatment.

CASE 7.

Under the care of Dr. Earle, Hyde Park. A lady of about 65. Arthritis two and a half years, following prolonged fatigue. Joints affected numerous, especially hands and knees. Much deformity of fingers, shortening of tendons, but no bony changes detected.

Possible Site of Infection.—Mouth; much gingivitis and pyorrhoea, which remained untreated.

Bacteriological Examination.—Mouth, streptococcus; urine, diphtheroid bacillus and streptococcus. Vaccine of streptococcus. Treatment about three months.

Dr. Earle reports that the treatment seemed to give some slight subjective relief at the time: no objective improvement.

CASE 8.

Lady of 30. Tonsillitis for many years, subject to acute attacks; recent acute attack followed by arthritis in knees, ankles, and arm joints.

Bacteriological Examination.—Throat: *Streptococcus brevis*. Vaccine of same. Inoculated six weeks. Made good recovery.

CASE 9.

Seen on the advice of Dr. Luff, under the care of Dr. Cathcart Bruce, Kensington. Lady of 28. Acute illness clinically resembling rheumatic fever several months before treatment began. Many joints involved. Condition had apparently become chronic. No oral sepsis.

Bacteriological Examination.—Blood culture, sterile; urine, sterile; vaginal discharge, diphtheroid bacilli; faeces, *Bacillus coli* and streptococcus. Vaccine of *Streptococcus faecalis*.

Dr. Bruce reports that after fourteen weeks' pain, with temperature ranging high during which many joints were affected enlarged and painful, the vaccine treatment was started. This had an almost immediate effect, and at the end of three months there was no sign left of the trouble, and no recurrence at the end of eighteen months.

CASE 10.

Seen on the recommendation of Dr. Luff, under the care of Dr. Earle, Hyde Park. Lady about 60. Arthritis of about two years' duration. Many joints affected, especially knees. No evidence of bony change. Teeth well cared for. Abscess of one tooth had affected the gums of some of those adjacent.

Bacteriological Examination.—Urine contained streptococcus. Vaccine of same.

Under treatment for several months. Great subjective improvement with occasional slight relapses.

CASE 11.

Lady aged 60. Seen on the advice of Dr. Luff, under the care of Dr. Schacht, Kensington. Arthritis of two or three years' duration following severe mental and physical strain; bedridden. Joints affected: Small joints of fingers, elbows, ankles, and other joints. No fluid, no bony change detected. Gums retracted.

Bacteriological Examination.—Blood culture, sterile; urine, sterile; faeces, *B. coli* only; gums, streptococcus. Vaccine of streptococcus.

Dr. Schacht reports that the patient's general condition gradually improved in the summer and autumn to a marked degree; was able to attend an "at home." Less nervous and irritable, and sleeping well; pain in shoulders and joints less;

wrists and finger-joints smaller and more mobile. Some months later there was a recurrence, and further inoculations were given. It is difficult to estimate the fluctuations, but "There is no doubt she is distinctly better again."

CASE 12.

Under the care of Dr. Earle. Lady aged 50. Chronic rheumatic pains in various joints. No oral sepsis.

Bacteriological Examination.—Urine, numerous diphtheroid organisms; faeces, *B. coli* and *Streptococcus faecalis*. Vaccine of streptococcus. Duration of treatment about six months.

Dr. Earle reports both subjective and objective improvement during and for some time after treatment. There has been a relapse since. On the whole the treatment seemed to do good.

CASE 13.

Seen on the advice of Dr. Luff; under the care of Dr. Wood, Bloomsbury. Lady aged about 50. Arthritis two years. Right knee, left wrist, many finger-joints affected; changes chiefly polyarticular; no evidence of bone affection. Slight gingivitis; no other obvious source of infection.

Bacteriological Examination.—Blood culture, sterile; urine, *B. coli*, staphylococcus; mouth, many organisms, chiefly coliform and *Micrococcus catarrhalis*; faeces, *B. coli* and *Streptococcus faecalis*. Vaccine of *Streptococcus faecalis*.

The patient went abroad and reported after about a month: "The treatment is doing me a lot of good, and I think when I have my teeth seen to I shall soon be able to walk as I used to."

CASE 14.

Seen on the advice of Dr. Luff. Gentleman aged 51. Joints affected: temporo-maxillary, shoulders, elbows, distal joints, three ulnar fingers, hips, knees; feet flat, hammer toes. A little fluid and slight grating in several joints, especially hips. Teeth few and bad; receding gums. Completely crippled. Five years previously had slight injury to a knee, followed by sudden hydrarthrosis. Had bath treatment and massage, which led to an attack of "rheumatic fever." In bed five months; joints began to swell. Progressive arthritis ever since. Distinctly worse after bath treatment. Had gonorrhoea fifteen years before, but no evidence of gonococcal infection could be obtained by autoinoculation experiment.

Bacteriological Examination.—Teeth, diphtheroid bacillus, tetrad; urethral discharge, diphtheroid bacillus; faeces, *B. coli* and streptococcus. Vaccine of gonococcus was tried without result. He has had inoculations of streptococcus vaccine for the last two and a half years. The disease is progressing, but the patient thinks he gets slight relief from the inoculations.

CASE 15.

Under the care of Dr. Tyson, Folkestone. Lady aged about 45. Arthritis, duration several years. Joints affected generally, especially hands. Enlargement of joints, interphalangeal joint left hallux destroyed, with hyperextension. Left temporo-maxillary joint sometimes affected.

Site of Infection.—Lower gums considerable swelling, no definite pyorrhoea.

Bacteriological Examination.—Urine and faeces similar streptococcus; mouth, *Micrococcus catarrhalis*, coliform bacillus. Vaccine of streptococcus.

Dr. Tyson reports: Inoculated two months, but "I cannot say that there were changes subjective or objective noticeable either for better or worse."

CASE 16.

Seen on the advice of Dr. Luff. Lady of about 50. Arthritis twenty years' duration. Sudden onset in left index finger; all joints affected since, varying in degree. Right knee much distended and stiff, hands deformed.

Possible Site of Infection.—Mouth, slight pyorrhoea.

Bacteriological Examination.—Synovial fluid in knee, sterile; gums, streptococcus. Vaccine of streptococcus. Inoculated three months; no improvement.

CASE 17.

Seen in consultation with Dr. Farquhar Buzzard, under the care of Dr. Payne, Torquay. Lady aged about 35. Joints affected, fingers, knees, ankles, and others. Slight limitation of movement. No bony change detected. Duration eighteen months. Teeth and gums sound and well cared for with the exception of an abscess at root of one tooth. Chronic vaginal discharge.

Bacteriological Examination.—Gums, *Streptococcus salivarius*; vaginal discharge, diphtheroid bacilli in pure culture; urine normal; faeces, *B. coli* and streptococcus. Vaccines of *Streptococcus faecalis* and *Streptococcus salivarius*. Under treatment nine months.

Dr. Payne reports the amount of pain very variable; sometimes quite free when at rest, but comes on with movement. Finger-joints smaller, wrists and ankles markedly improved. Knees and neck most troublesome. Still fluid in left knee. Shoulders better; pain chiefly felt in knees and neck. After the first two months in Torquay the *Streptococcus salivarius* vaccine was commenced; up to that time the joints and other symptoms were getting much worse. The chief improvement has taken place since very good Swedish massage was started three months ago.

CASE 18.

Under the care of Dr. Turner, Ryde. Lady aged 33. Duration two years; stated to have followed septic condition of mouth. Joints affected: Right wrist slightly swollen, right knee swollen, left elbow flexed; great loss of power in all limbs. Possible site of infection mouth; slight gingivitis.

Bacteriological Examination.—Synovial fluid from knee, sterile; mouth, *Streptococcus salivarius*; urine, sterile; faeces, *B. coli* and *Streptococcus faecalis*. Vaccine, *Streptococcus faecalis*.

Dr. Turner reports: Duration of treatment six months: during last months of treatment improvement has taken place in pain and swelling, which continued steadily until six months after discontinuance. Both pain and swelling have now disappeared, leaving nothing but ankylosis.

CASE 19.

Lady of about 60. Under the care of Dr. Male, Croydon. Joints affected, fingers; Heberden's nodes on fingers; synovial crackling right knee, thickening of synovial membrane left knee. Possible source of infection, rheumatic fever twenty-seven years before. History of endocarditis. Aching pains on and off ever since in legs and arms. Joints very recently affected.

Bacteriological Examination.—Urine, streptococcus. Vaccine of same.

Dr. Male reports that vaccine was injected for four months. Marked subjective improvement during treatment, but relapsed later towards the end of treatment. On the whole condition now is better than formerly. Does not complain of knee. Temperature has tendency to rise at night. Nervous symptoms predominate. Still has occasional bouts of rheumatism at times.

CASE 20.

A medical man. Seen on the advice of Dr. Luff. Acute arthritis of some months' duration. Double flat feet, especially on the right; severe pain in tarso-metatarsal joint; fusiform swellings of all finger-joints. Mouth sound, slight gingivitis only.

Bacteriological Examination.—Blood culture, sterile; urine, sterile; faeces, *Streptococcus faecalis*. Vaccine of latter. Duration of treatment, three months. Slight improvement, probably not referable to vaccine.

I wish here to record my thanks to the various gentlemen who have assisted me with these reports and for their permission to publish them.

These results may be analysed as follows. One case, No. 9, is cured. Six cases, Nos. 1, 4, 8, 10, 11, 18 are much improved. Six cases, Nos 3, 7, 12, 13, 17, 19 have shown some improvement. Six cases, Nos. 2, 6, 14, 15, 16, 20 are unchanged. One case, No. 5, was much worse.

From the point of view of bacteriological diagnosis, the cases cured and much better afford strong evidence of streptococcal infection, and No. 5—the case in which there was marked increase in symptoms—points equally in the same direction. The six cases which were quite unchanged are evidence against such infection, and the improvement in the six cases described as slightly improved cannot be separated from accessory treatment such as the massage adopted in Case 17, or from the psychological influence inherent in any form of treatment which is new to the patient. It is, however, a reasonable conclusion from this series of cases that eight out of twenty unselected cases have given strong therapeutic evidence that their arthritis was due to infection by streptococci chiefly derived from some part of the alimentary tract.

THE Governments of Norway and of the Principality of Monaco have given their adhesion as from January 1st, 1913, to the arrangement signed in Rome on December 9th, 1907, by which the international office of public hygiene was created in Paris. The number of countries which now take part in the work is twenty-nine.

AT the last meeting of the Roentgen Congress, held at Berlin under the presidency of Dr. Immelmann, it was decided to establish a system of tours for the purpose of seeing radiographers in different places at work and studying their methods. A large number of heads of laboratories have already expressed their willingness to receive the members. The first tour is to take place from September 15th to 20th, when the visit will be made to Vienna. For the second tour the week before Whit-Sunday of next year has been suggested. A round of visits will then be paid to Bremen, Hamburg, Altona, Cologne, Bonn, Frankfort-on-the-Main, Nauheim, Erlangen, and Munich. A special subcommittee has been formed from the committee of the German Roentgen Society, consisting of Drs. Eberlein, Levy-Dorn, and Immelmann. Communications should be addressed to this subcommittee, Lutzowstrasse 72, Berlin.

SEQUEL OF A CASE OF CARDIOLYSIS.

BY

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In the British Medical Journal of December 14th, 1912, was published a case of cardiolysis.

A boy of 15, who appeared to be at the point of death from cardial failure, supposed to be secondary to adhesions of the pericardium to the heart muscle and to surrounding tissues and organs, was operated upon by Mr. Barling on June 17th. Every method of treatment had previously been tried but had failed to relieve him.

At the operation about 14 in. of ribs over the praecordial region were removed and adhesions to the sternum and ribs were broken down. Good results were almost instantaneous; four days later the pulse, which had always been from 100 to 120 per minute, fell to 60. Diastolic bruits which had been audible could no longer be heard, and the only systolic murmur audible was over the mitral orifice.

Three weeks later it was noted that, though his pulse was irregular, he was comfortable and much less cyanosed than formerly. His breathlessness had vanished, he was able to walk up and down stairs, oedema had disappeared from his legs, and the marked ascites was no longer existent. The improvement was quite remarkable, and continued until the end of October, when he gradually began to fail.

All the old symptoms reappeared, and, though he was treated continuously either in the General or the Jaffray Hospital, nothing could be done for him. Death occurred at the end of March. A very careful *post-mortem* examination was made for me by Dr. Parsons and Mr. Haycraft, and the result of their examination, for which I am greatly indebted to them, is as follows:

Post-mortem Notes by Leonard G. Parsons, M.D., and J. B. Haycraft, F.R.C.S.

External Appearances.—The body was very thin and wasted. The face was cyanosed. The abdomen was distended and discoloured, and there was some oedema of the legs, chiefly on the left side. Over the precordium there was a large depression and a semilunar scar where the ribs had been resected by surgical operation.

Thorax: Universal adhesions; many of the adhesions were oedematous, broke down easily, and looked fresh; others were dense and firm. The heart and pericardium were extremely large, measuring 6 by 5½ in., with marked recent and old adhesions to the chest wall, to the operation scar, and to the lungs. The pericardium is universally adherent to the heart, and can be separated in patches only, and that with the greatest difficulty. The heart cavities are considerably dilated. There is a slight thickening of the mitral cusps (some functional regurgitation). The other valves are quite normal in appearance. The heart muscle is quite pale and very flabby, and showed marked hypertrophy. Left ventricular wall ⅝ to 1 in. thickness. The pericardium is very adherent to the diaphragm, and there are marked adhesions around the inferior cava and round the superior vena cava and the venae innominatae. All these veins, together with the jugulars, were very distended with blood. The left internal jugular measured 1 in. in width. These veins were traced along their whole extent, and no constriction or stenosis was found, even where they were enveloped in fibrous tissue.[1] The left lung was considerably retracted. There was a fair amount of straw-coloured fluid in each pleural sac, and there were many adhesions. Both lungs showed marked oedema, and the lower lobe of the right lung was consolidated. The pulmonary veins throughout the lung seemed distended, and their walls showed up very distinctly; they did not appear to be distended.

Abdomen: On opening the abdomen there was an escape of a large amount of clear, yellowish-coloured fluid. The inferior vena cava was full of blood and markedly distended. The renal veins were in a similar condition. The stomach and duodenum were healthy. The intestines were normal.

Liver: There is some perihepatitis, and on section there is a definite, although small, increase in fibrous tissue. The liver on section shows a well-marked nutmeg character. It is free from adhesions to other organs and to the diaphragm.

Pancreas: Healthy.

Kidneys: Right, 3¾ oz.; left, 4 oz. They showed some congestion.

The *spleen* was enlarged, firm in consistence, of a dark red colour, and congested and also showed a mild degree of perisplenitis.

The *suprarenals* were enlarged and of a purplish colour.

[1] The inferior vena cava showed the smallest calibre when passing through the diaphragm. There was no stenosis beyond that point, and it opened into the auricle by a very large mouth. The Eustachian valve was very prominent, and the right muscle very dilated.

Microscopical Examination.

Liver: The capsule showed some degree of thickening, and there was a slight increase of fibrous tissue round the portal tracts with some spread into the lobules. In a few places there was some small-celled infiltration, and the liver columns were separated by oedema and congestion.

The *kidneys* showed some degeneration of cells of the convoluted tubules, and some early fibrous change affecting the vessels and glomeruli.

Spleen: Definite fibrosis of capsule, trabeculae, and vessels.

The *suprarenals* showed patches of small-celled infiltration, and the medulla was of more open structure (? oedema) than normal.

So far as I know this is the first time the sequel of a case of cardiolysis has been recorded, and the results are not only very interesting but may have also a very important bearing upon treatment. In addition they do, to a certain extent, justify the opinions I hazarded as to the causation of symptoms when the pericardium is adherent to structures in the mediastinum.

They show, moreover, the accuracy of the observations of Sir Thomas Barlow, who had noted the dilatation of the jugulars in similar cases, and of Professor Keith, who suggested that the symptoms were largely due to the posterior adhesion. To both of these gentlemen I am greatly indebted for their letters and their interest in my case. They justify, I think, my guess that the ascites and the cyanosis might be due to the nipping of the inferior and superior cavae respectively, for though no stenosis of the former was found, it is expressly stated that the smallest calibre of the vein was found in its passage through the diaphragm.

The disappearance of practically all the bruits which had been audible over the whole cardiac area was remarkable, and justified the opinion that they were due not to endocardial changes but to distortion of the relations of the valves and the heart cavities.

What the bearing of the *post-mortem* evidence on future surgical methods may be I cannot say, and perhaps it would be unwise to generalize from a single case, but it is difficult not to think that, if there are evidences of pathological adhesions to the diaphragm, it would be wise to try to divide some of them. It is, I think, material to this point to remark that the operation has been always done in cases in which there is no possibility of improvement by means other than surgical, and that if death results, as, so far as published cases show, it never has resulted, from operation, it will anticipate by only a few days or weeks death with all the distressing symptoms of breathlessness, sleeplessness, and mental misery.

There can be no question that in my case the operation was worth doing, for it gave the patient a good six months of pleasant life and comfort before the recurrence of distressing symptoms began.

AN ANALYSIS OF A SERIES OF CASES OF HYPERTENSION AND HYPOTENSION TREATED AT VITTEL.

BY

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I look upon the sphygmomanometer as just as important an instrument in the diagnosis and treatment of chronic ailments and diseases as is the thermometer in acute ones. The interpretation of blood-pressure readings, however, is a far more complicated problem than is that of making one's deductions from the varying height of the thermometric column.

My first experiences of the use of instruments for measuring the hydraulic phenomena of circulation were those early investigations of Dr. George Oliver. From that time onwards I employed at irregular spells one or another of the numerous instruments for measuring arterial tension. In 1903 I was driven by a very serious attack of cyclic synovitis for treatment at Vittel, where I entirely recovered, and since 1904 have reversed my condition from patient to physician at that spa. During the last nine seasons, therefore, a large number of patients have passed through my hands.

At about this time—1904—I realized that a large proportion of ailments attributed to varied and multiple causes could be grouped together as due to different forms of chronic toxaemia. The writings of Huchard and others were directing attention to the importance of hypertension as being most frequently the preliminary phenomenon that eventually led up to "heart disease." They furthermore assigned to most hypertensions and eventual arteriosclerosis a toxi-alimentary origin. Their teaching had a marked influence upon our ideas of the whole question, and did much to modify our views of treatment. I was much struck by these writings, and my old interests in blood pressure were again thoroughly revived, all the more so because Huchard had chosen Vittel as being the ideal place for the treatment of hypertension.

Two or three years' experience convinced me, however, that although a toxi-alimentary origin formed a large proportion of predisposing causes, there were also others at work, and that not infrequently several causes were combined. In fact, I now think that there are many conditions which favour this ailment, some of which we do not know, while of others we have but the faintest inkling.

I have chosen at random some 456 cases of all kinds which have resorted to Vittel for treatment, the only conditions I have observed in the selection of them being that I was in possession of full records of each case, consisting of two complete quantitative analyses of the urine made under my supervision in my own laboratory both before and after the cure, and of the determinations of blood pressure, capillary reflux, pulse, weight, etc., taken before, during, and after the cure.

Normal Blood Pressure.

For the moment I do not propose to touch upon the arterial tension of children, of which I know little, but upon which some interesting researches have lately been published. Limiting the discussion, therefore, to adults, we are still met by a number of difficult problems. I have further circumscribed this study to maximum or systolic pressure only. The minimum or so-called diastolic pressure is still too problematical, and, although in most of these cases minimum pressures are recorded, yet I am so dissatisfied with the uncertainties of the readings that I postpone drawing conclusions therefrom to a later date. Most of the pressures here quoted were those recorded by a mercurial manometer. A large proportion were taken by my secretary, who has no medical training, and therefore no theoretical ideas by which to be influenced, but has great technical skill, and a large number were confirmed afterwards by myself.

In giving my experiences with Pachon's oscillometer[1] in a cursory way, I stated in outline only an empirical method which I have adopted, fixing upon average normal blood pressure, but with the desire to limit my letter I did not give collateral details and reservations. I here repeat the method: For every year of age after 15 I allow 1 mm. Hg. and add 100 to the number. Thus a person of 15 years of age should have 115 mm., one of 35 years 135 mm., one of 60 years 160 mm., etc.

The first qualification I would make to this is that these figures represent a *safe maximum*. The second is that for persons over 60 years of age there should not be a uniform rise in the systolic thrust, as somewhere about this time a markedly less strenuous mode of living is followed, and also the heart muscles begin to show the first indications of senile enfeeblement. As a third qualification I would say that, as the general muscles, glands, nerves, etc., vary in different people, so, no doubt, their heart, blood vessels, capillaries, etc., also vary, and even vary amongst themselves. A powerful heart with weak arteries and perhaps inefficient kidneys will give us a normal average blood pressure for such a person very different from that which a reverse condition would register. Many physicians know of people with permanently high blood pressures who have lived for years in good health, whilst others with relatively low blood pressure have died of apoplectic haemorrhages or failing hearts.

Analysis of Cases.

These 456 patients include persons resorting to the cure for all sorts of ailments, but chiefly those who owed their ill health to some form of chronic toxaemia. The largest number are those of the "gouty" nature—visceral, articular, and nervous. Next come those with the dominant phenomena of hypertension and heart troubles. After these follow albuminurics and other renal and vesical sufferers, while lastly we may place glycosurics, hepatics, etc. As may be observed, these are mostly ailments in which we expect to find some alterations in blood pressure.

Age.

From this total of 456 persons, then, we get an average age of 53.78 years—which will, no doubt, be inferior to the truth, since a considerable proportion were ladies—and an average blood pressure of 151 mm. Hg, evidently a far higher maximum blood pressure than we should obtain from the same number of persons of the same ages not requiring a cure. The average blood pressure on departure was 138 mm., which affords us a mean diminution indiscriminately for each person of 13 mm. But of the 456 patients there were 75 whose blood pressure rose and 36 with no variation. This leaves us 345, or three-fourths of the total, whose blood pressure went down in consequence of the cure. The calculated average age of these 345 was 54.1, while their blood pressure was 156 mm. before and 136 mm. after the cure, giving an individual mean reduction of 20 mm.—a striking demonstration of the good effects of the Vittel treatment.

The next thing to select was all those whose blood pressure on arrival was over 160 mm., my maximum safe limit for any age. These attained the number of 154, the larger proportion of whom were sent to Vittel for the purpose of reducing their hypertension. The average age of these was 59.75 years, with a mean tension of 182 mm. before and 159 mm., or a reduction of 23 mm., after the cure.

I then proceeded to make a selection of those over 60 years of age. Taking their averages once more I got 66 years, with blood pressure at 161 mm. before and 146 mm. after, or a reduction of 15 mm.—that is a gain of 14 mm. below the maximum safe normal for their ages.

It will be observed that those above 60 years of age had on arrival an average lower tension than the others of all ages who had a blood pressure above 160 mm. This would lead us to infer that in these younger patients we had further special causes for increased arterial degeneration, such as syphilis, nephritis, adrenal excess, capillary spasm, higher blood viscosity, etc., than in those over 60 years of age, where we have to look more to the true senile wear and tear of the arteries. In the group of those over 60 years no doubt a less strenuous mode of living would keep the heart at a lower level of activity, and our average may be vitiated by a certain number of failing heart muscles.

Passing now to the consideration of the 36 patients whose blood pressure remained unaltered during the cure, we obtain a mean age of 55 years and blood pressure of 144 mm., which, I think, will give us an absolute normal for persons of their age, and therefore it is to be presumed that as no reduction was necessary in such cases the cure did not act in this direction.

Effect of Vittel Treatment on Abnormal Tension.

In the last group of the 456 we have 75 whose blood pressure was raised during the cure, their mean age being 51.6 years and their blood pressure before the cure 131 mm. and after 142 mm., or an augmentation of 11 mm. It may be noticed how very near were the final readings of these hypotensionists to the normal blood pressure of those who remained unaltered during the cure—that is, 142 and 144 mm. Obviously, 131 mm. is a decidedly low blood pressure for people averaging 51.6 years. If, however, we examine individually this group of 75 persons, we find many of them with blood pressure below or near 100 mm. In the statistics, however, the results are marred by a certain number whose blood pressure was fairly high and rose during the cure. Why this increase took place I am unable to say in some cases, but in others, as seen by their history and the analyses of their urine, we have to deal with hypertensionists from chronic nephritis. In these patients their kidneys are just able to perform the ordinary daily work, but when the renal structure has to deal with the large extra amount of fluid,

the actual volume of blood is temporarily increased. If one is able to watch these cases for several days after the cure, one may see that several of them come down finally to below the blood pressure they had on their arrival, and show permanent improvement. One well-known man illustrated this admirably. He had had blackwater fever four times. During the cure his blood pressure went up somewhat, but finally came down with a considerable margin to the good, and marked improvement in health. In these cases we ought to be allowed much longer for the cure, in order that we may push water-drinking so much less in proportion. All practitioners know, however, the meanness of patients in the question of time given to any course of treatment.

If we get a prolonged spell of cold and damp weather such as we had last year (1912) blood pressure often goes up, and then drops when warm weather comes, and the capillary reflux oscillates in accordance, showing that the hypertension is due to capillary spasm. The mechanism of this is, I think, fairly clear. I should like to know if any other physician has observed this fact. At any rate, it points to the great advantage of dry, warm weather for hypertensionists in general. I have frequently observed this favourable influence in such cases that come to me in my winter practice on the Riviera.

I am often asked by my medical colleagues whether, over and above the relief of the symptoms that usually accompany hypertension, the reduction or increase of blood pressure towards normal is permanent. The reply to this question must be qualified. I have no hesitation in saying that in most cases the improvement is not evanescent. On the other hand, if no intermediate care as to mode of living is taken, or no lixiviating treatment followed from time to time, the blood pressure again gradually rises. This rise, however, is far and away more gradual than after treatment by drugs, most of which I have used with very indifferent success, and which, I am convinced, are more dangerous—excepting as a temporary measure—than the hypertension which they are intended to reduce. Drug treatment in such cases is neither more nor less than superposing or replacing one toxaemia by another. In consequence of the length of this study, I propose to postpone to a future paper an investigation on these lines of a number of annual *habitués* to Vittel, who well illustrate this point.

Classification of Patients.

Experience has taught me to classify persons suffering from increased blood pressure into three classes. In the first group are those persons "who are never still"—I mean those who work, worry, play, etc., very hard. Their heart is always in an overstrained and excited condition, and pumps too hard. These may or may not have a minimum arterial-capillary spasm from their vessels carrying and being fed by a toxaemic blood in ratio to the nature of their diet and the efficiency of their excretory organs. In the second group are those where a toxaemic blood, setting up capillary and arterial spasm, has persisted until the arteries have advanced more or less towards permanent reduction in calibre by arterio-sclerotic changes, just as a long restrained limb becomes permanently a rigid one. The earlier these cases are treated, the greater and easier is the fall of blood pressure coincident with an increase in capillary permeability.

If we measure the capillary reflux in these cases we often find it fall during the cure from five to ten or more seconds to three or even less, and simultaneously the systolic blood pressure will diminish 30 to 50 mm., the heart regains its exhausted forces, the aortic clang is no longer audible, and cold extremities are replaced by warm ones. Even in the last stages of arterio-sclerotic disease, with a dilated and failing heart and fallen blood pressure I have seen great improvement; but, of course, here the cure must be very gentle, carefully watched, and prolonged over several weeks.

In taking the averages of our records of capillary reflux we obtained an average of 3.7 seconds before the cure and 3.5 seconds after. Taking 3 seconds as the average normal, it will be observed that all the patients had slow capillary circulation, showing that the average high tension was to no inconsiderable extent due to capillary spasm and high blood viscosity.

It is interesting, though to a less extent, to investigate the total effect on the pulse, which often increases as blood pressure is reduced in ordinary conditions. This occurs when the pressure descends from normal or above it to below normal, the heart making an effort to keep up circulation, and so equalize nutrition in distant parts of the organism. Our pulse records give us a mean of 75 per minute on arrival and 73 on departure. Although the mean reduction is only two, yet the approach to average normal is marked. But what is of greater interest is that, notwithstanding the marked reduction in the blood pressure of these patients, not only did no increase of pulse-rate occur, but on the contrary a slight reduction, demonstrating that the improvement of the hydraulics of the circulation was a real and substantial one.

In the third group we must place the renal cases. Here great complexity arises. Complete twenty-four hour urine analyses help us a good deal, but are often deceptive as to the amount or advance of the kidney lesion. Many of these cases come year after year to wash their blood and tissues, clear their urine of casts, diminish or get rid of their albumen, if they have any, and to reduce their arterial tension. Some cases get quite well, and remain so for years; others wind up their clock of life for some months; but, year by year, as they return, a morbid, degenerative action, although greatly reduced in the speed of its progress, eventually leads to a fatal termination. In two of the cases recorded a patient and his wife came each winter to Beaulieu and each summer to Vittel. They were both cases of chronic nephritis. The wife, step by step, for three consecutive seasons at Vittel, quite recovered her health, but her husband, though he improved considerably each season, yet each year on his arrival had lost during the eleven months' interval more than he had gained during his previous cure. Eventually, after a number of retinal and other small haemorrhages, he died in London of uraemia. This man, two seasons before his death, arrived at Vittel with the phenomenal blood pressure of 290 mm., which fell during the first five days of the cure to 245 mm., and at the end of it to 215 mm. I have selected these two as illustrations, as they lived inseparably for many years, and therefore were exposed to identical surroundings, and ate the same food, etc.

Another question I am often asked is whether the reduction of hypertension in old people is brought about by a cure at Vittel. The answer to this is already given in the statistics for those over 60 years of age, as also for those with blood pressure over 160 mm. on arrival. Both results—the former showing a reduction after the cure of 17 mm. as the average per head, and the latter one of 23 mm.—are speaking enough. No more striking demonstration could be offered, I think, of the remarkably practical, positive, and fairly permanent results of proper treatment by a non-chloride bearing, slightly hypotonic water, in which we introduce into the organism no substance that does not enter into the composition of the human frame to a greater or less extent, a method of treatment incomparably superior to any employment of drugs.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, January 13th, 1912.

THE Principal Medical Officer (Dr. Sanson), in his annual report for 1911, states that the estimated population of the Federated Malay States was 1,045,947, being an increase of 44,690 over the number for 1910. The birth-rate was 19.41 per 1,000 of the estimated population—a slight decrease on the rate for 1910, which was 21.39. The death-rate for 1911 was 37.03, as against 32.16 for 1910. Malaria caused 45.02 per cent., and dysentery and diarrhoea 19 per cent. of the total deaths. The infantile mortality was 170 per 1,000. There are forty hospitals and nine gaol hospitals, and in these 97,162 in-patients were treated during the year, and 232,506 out-patients. An Advisory Board has been appointed (1) to collect and distribute information regarding malaria; (2) to advise how anti-malarial measures could be most advantageously carried out in each district; (3) to encourage and advise local bodies in their efforts towards extermination of mosquitos; and (4) draw up appropriate legislative measures. There were 6,042 cases of beri-beri treated in the hospitals, with 695 deaths. The Government has had under consideration several proposals for preventing or limiting the use of an unsafe rice and encouraging the use of a safe rice.

X RAYS IN THE TREATMENT OF DISEASES OF THE PALM.

By HALDIN DAVIS, M.R.C.P., F.R.C.S.,

ASSISTANT PHYSICIAN TO THE HOSPITAL FOR DISEASES OF THE SKIN, BLACKFRIARS.

VERY soon after their discovery the therapeutic value of *x* rays in the treatment of skin diseases became manifest, and a proper knowledge of their powers has become increasingly necessary to the dermatologist. As is well known, they are extremely valuable in the treatment of rodent ulcer, lupus, mycosis fungoides, and other serious diseases of the skin, and in this country, at all events, the attention of the profession seems to have been concentrated on this aspect of their utility to the exclusion of the advantages they possess in dealing with such conditions as chronic eczema and psoriasis. There are very few references to this branch of the subject to be found in English; the earliest I have been able to find is a paper by Biddle.[1] Other earlier but Continental papers are by Albers-Schonberg[2] and Hahn, who published a series of 35 cases with uniformly good results. Wetterer[3] in 1908 stated that he had treated several hundred cases of chronic eczema with *x* rays which without exception did well. In America, Williams[4] in 1904 published several cases of eczema cured with the rays.

The best account of the treatment of eczema with *x* rays will, however, be found in a book recently written by Dr. Schultz,[5] which has been translated into English. The whole subject of *x*-ray therapy is excellently and impartially treated in this work, and it is a great misfortune to the science and art of radiology that Dr. Schultz has recently died. Very little has been published in this country on the treatment of eczema with *x* rays, although as early as 1899 Thurstan Holland published in this JOURNAL a case of eczema of the hand cured in four sittings with *x* rays. This is almost the only paper on this branch of radio-therapeutics which has been published in this country. In *Light and X-Ray Treatment*, by Sir Malcolm Morris and S. E. Dore, the question is dismissed in about three lines, and about the same space is devoted to it in the last edition of the same authors' textbook and also in that of Dr. Sequeira.

Perhaps more attention has been given to the radio-therapeutics of psoriasis, no doubt because that complaint is more often refractory to the older methods of treatment. Still there are many cases of chronic eczema persisting over long periods which may almost without exception be cured with *x* rays. Among the most obstinate forms, often quite uninfluenced by the ordinary treatment with ointments and lotions, are those which affect the palms of the hands. In these cases the skin of the palms is thickened, the horny layer is much changed and exhibits both the phenomena of hyperkeratosis and parakeratosis, and as a consequence the natural lines of the palm are much deepened, and often become the sites of painful and troublesome cracks and fissures. The patients complain as a rule of great irritation, which is occasionally sufficiently severe to disturb their sleep. Psoriasis of the palm does not, perhaps, cause the patient so much discomfort, but it is equally refractory to treatment. It consists of sharply defined areas of scaling, sometimes accompanied by changes in the nails, but by no means always associated with typical psoriatic lesions on other parts of the body. In the absence of psoriasis on other parts of the body the diagnosis may be very difficult. I have lately had the opportunity of treating some cases falling into the above categories, and in view of the fact that so little attention has been directed to this method of treatment I think they are worthy of publication.

CASE I.—*Palmar Eczema.*

G. G., a gentleman aged about 48, a patient of Dr. Stocker. He had suffered for two years from typical palmar eczema with well-marked fissures and much hyperkeratosis. The subjective symptoms were not very severe—in fact, he was able to play golf in comfort when wearing gloves, but he complained of the unsightliness of the condition and the constant necessity for using lubricant applications to prevent the hands becoming stiff. He had used various plasters and ointments without much relief. The whole of the patient's skin was somewhat dry and he had a poor circulation, as was shown by the prominence of the venous network on his limbs. The eczema had been supposed to be gouty, although there was no other sign of that condition, and otherwise he enjoyed excellent health. The examination of the urine disclosed nothing abnormal.

He was treated with *x* rays in the following manner: On September 2nd the left hand was exposed for seven minutes to a tube of equivalent spark-gap of 4 in. with 5 milliampères of current passing through it, while the right hand was exposed for five minutes with the current gradually increasing from 0 to 1 milliampère. The distance of the anticathode from the skin was 8 in., and from measurements previously made with the same tube the whole dose was calculated to be about half a pastille dose.

On September 10th both hands were somewhat improved, especially the right. Each hand was given another half-pastille dose. On September 17th the hands were still more improved. Each palm received only a very small dose—about one-third of a pastille. On September 24th the palms were practically well, but some new cracks had appeared on the left thenar eminence, and this part, which had not previously been exposed to the rays, received half a pastille dose. On October 1st and on October 8th the left thenar eminence received about one-third of a pastille, and since then the patient has been quite well.

CASE II.—*Palmar Eczema.*

A lady, aged 68, who had definite articular gout, had suffered from fissured eczema of the palms for thirty years. When first seen on December 12th she had, in addition, patches of vesicular weeping eczema on the backs of the hands and also on the dorsal aspect of the the third finger of the left hand just underneath her wedding-ring. She also had a patch of irritable erythema on the forehead.

The backs of the hands and the forehead were treated with zinc and ichthyol for a month and got quite well. On January 9th the palms were first *x*-rayed. They were given a dose of about two-thirds of a pastille each, and the same dose was repeated on January 23rd. On February 6th, except for being a little dry, the palms were quite well, there were no more fissures, and the patient said that the irritation had practically disappeared, so that she was able to sleep better than for many years. She said, however, there was still a little itching on the backs of the hands, and they therefore received half a pastille dose.

CASE III.—*Palmar Psoriasis.*

M. H., a woman aged 58, first came under my care at the Hospital for Diseases of the Skin, Blackfriars, on May 17th, 1912. She exhibited on the palms of both hands large peeling areas with well-defined margins. The natural lines were deeply cut, and in some places fissures had developed. The diagnosis of psoriasis was made because the condition was strictly confined to the palms, and there was not, as is usually the case in eczema, any inflammatory condition of the dorsal aspects of the phalanges. The nails, however, were, as is common in psoriasis, slightly pitted. The patient had suffered from this condition for eighteen months, although she had had much treatment.

She was treated at the Skin Hospital at first with tar and salicylic acid ointment, and for the first month made good progress, but afterwards relapsed. Various applications were tried without much success. Ultimately, however, on September 20th, 1912, she had a full pastille dose of *x* rays to both palms. On October 4th they were already much better, and on October 25th they were quite well, the first time for two years. Since then they have remained well.

As has been stated above, *x* rays are extremely useful in treating chronic eczema in most situations, but they are especially advantageous in the case of lesions situated upon the hands, because it is obviously very inconvenient to keep those almost indispensable appendages continually swathed in bandages, as is necessary if treatment with ointments is to have a fair chance of success.

REFERENCES.

1 *American Quarterly Journal of Roentgenology*, vol. 1906-1907. 2 *Fortschritte an der Gebiete der Röntgenstrahlungen*, 1898. 3 *Handbuch der Röntgentherapie.* 4 *Roentgen Rays in Medicine and Surgery.* 5 *X Rays in the Treatment of Skin Diseases.*

THE Maryland University School of Medicine has instituted a course of tropical medicine, under the direction of Surgeon J. A. Nydegger, of the United States Public Health Service, with the assistance of Dr. C. W. Stiles and other members of the same service.

PROFESSOR SHERIDAN DELÉPINE, in a paper on post-graduate teaching in tuberculosis, published recently in the *British Journal of Tuberculosis*, urges that tuberculosis officers selected by authorities should be allowed after their appointment to devote a part of the first year to the study of the special pathological, administrative, and clinical work to which they will have to devote themselves in the service of the public. This proposal seems to be on all-fours with the regulations which already exist with respect to the medical services of the army and navy.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

CHICKEN-POX DURING INTRAUTERINE LIFE.

I HAVE been unable to find in the literature any account of a case resembling the following:

I was called to see an infant some four hours after delivery. The child was apparently healthy, except for the presence of a rash distributed generally, but more marked on the scalp, face, and trunk. The palms of the hands and soles of the feet were also affected, as was also the mucous membrane of the mouth. In character the eruption was identical with that which obtains on or about the fourth day in varicella, that is, macules, vesicles, vesicles with turbid fluid contents, pustules, ruptured pustules, and scabs, were all present, indicating that the eruption must have begun whilst the infant was still unborn. There were no further signs of disease, and the eruption disappeared in a few days without a further crop appearing.

The mother of the child was apparently unaffected with the disease, but in the same house there had been cases of chicken-pox fourteen days previously, disinfection of the room having taken place, however, in the interval between that time and the birth of the child. The history of the illness of the other children was as follows: About twenty-five days before the confinement one child was removed to the fever hospital with measles and broncho-pneumonia. Four days later a second child developed measles and chicken-pox, and a third followed with measles, and this last child developed chicken-pox in the fever hospital, incubation period having begun at home. In the interval between the removal of the last child and the birth of the infant—that is, fourteen days—no illness could be traced in the house, neither could any contact with infectious disease be discovered, except for the fact that the mother visited her children at the fever hospital.

Hirst, in his *Textbook of Obstetrics*, gives an account of various infectious diseases occurring in the fetus, and the following remarks are extracted in the main from that work. At first it was thought that the transmission of organisms into the placenta from the maternal blood was impossible, the ground for such belief lying in the results of experimental inoculation of animals with the tubercle bacillus, with the anthrax bacillus, and with pathogenic organisms. In the fetuses of animals injected with these micro-organisms, although the latter were found in the maternal blood in large numbers, none were ever discovered in that of the fetuses. Later, however, the observers responsible for the foregoing conclusions, as a result of further experiment, stated that micro-organisms and colouring matters, when injected into the maternal blood, could be discovered in that of the fetus. In a human fetus removed by Caesarean section from its mother, dead of septicaemia, numbers of micro-organisms were found in the blood.

Koubasoff[1] stated that he had always found anthrax bacilli in the blood of fetuses born of mothers infected with the disease except in one instance, where, in a twin birth, one fetus was macerated and its placenta the site of haemorrhages, the other being healthy and its placenta unaffected. In the blood of the former organisms were not isolated, whereas in that of the latter they were numerous; this seems to suggest that a pathological condition of the placenta is necessary to prevent the transmission of organisms, and is one which alone offers resistance to microbic invasion of the fetal blood.

The list of infectious diseases affecting the fetus *in utero* is lengthy. Variola is a well recognized entity. A child may be born covered with pustules or even scars, and the mother may or may not be affected with the disease. As a general rule, however, the fetus of a small-pox patient is born unaffected. The mother has in some cases been vaccinated during pregnancy in order to see if immunity may be produced in the fetus; a positive result occasionally obtains, but the reverse is the rule.

McDonald[2] has reported intrauterine measles, and scarlatina has been noted in many cases. Hirst quotes a case reported by Leale[3] in which a child was born with a "strawberry" tongue and a red coloration of the skin, the latter remaining for seven days, and on the tenth day albuminuria and oedema appeared.

Other diseases are also reported in the new-born fetus. A child has been born with consolidation of its lungs, the mother herself being affected with pneumonia. The organisms of septicaemia, cholera, malaria, typhoid, and erysipelas are reported to have been found in the blood of the new-born fetus.

All these facts are interesting in the light of the above case, which was clinically a definite but mild attack of varicella, as evidenced both by the eruption and the history of illness in the house, together with a satisfactory incubation period, although disinfection had taken place. If, then, small-pox and other infectious diseases may and do occur in the fetus, their origin taking place *in utero*, there is no reason why, in virtue of this case, chicken-pox may not be added to the list.

I must express my indebtedness to Dr. J. Prescot Hedley for advice and permission to publish this case.

Darlington. F. C. PRIDHAM, M.R.C.S., L.R.C.P.

[1] *Medical News*, August 30th, 1884
[2] *Edin. Med. Journ.*, 1884–1885, p. 699.
[3] *Medical News*, 1884, p. 636.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

WOLVERHAMPTON AND SOUTH STAFFORDSHIRE GENERAL HOSPITAL.

RUPTURED SPLEEN IN A BOY: SPLENECTOMY: RECOVERY.

(By HOWARD H. C. DENT, M.B., F.R.C.S., L.R.C.P., Honorary Surgeon to the Hospital.)

ON January 3rd, 1913, a boy, aged 14, was admitted under my care. He had been walking along a pit "way" without his light when he was run into by a tub coming towards him and thrown violently against a "prop." He felt a blow in his abdomen, suffered great pain internally, and vomited.

When I saw him he was blanched, very restless, and had great pain and distension of the abdomen. The urine contained blood, and he had bruises over his left shoulder and left ribs. The temperature was 97° F., the pulse was 108 and increasing in rate, and the respirations 28.

Internal haemorrhage was diagnosed, and the abdomen was opened in the middle line. It was found full of blood. The bleeding came from the splenic region. In order to gain more room a transverse incision was made across the left rectus. With considerable difficulty the spleen was pulled up for examination, and was then found badly crushed and lacerated posteriorly. I did not think it possible to suture the tears, and therefore decided that the safest course was to remove the organ. Clamps were put on the vessels close to the spleen and the latter cut away. The vessels were then tied with difficulty, owing to the depth, the shortness of the pedicle, and the difficulty of pulling the latter into the wound. It was also necessary to take care not to include any portion of the pancreas. After the ligatures had been tied there was still some small amount of oozing, and as the boy's condition demanded speed, the region was packed with gauze, the end of which was brought out at the lower angle of the transverse wound. During the operation 2 pints of saline solution were put into the median basilic vein.

The after-treatment consisted of continuous salines per rectum, pituitrin every four hours, and morphine hypodermically, as there was great restlessness. The morphine had to be used for four days. After the operation there was no further haematuria. During the next week the temperature ranged from 98.4° F. to 100.5° F., the pulse from 100 to 120, and the respirations from 30 to 40. The gauze was removed on the third day.

On January 12th—nine days after the operation—the temperature went up to 102° F., and kept at 101° for the next three or four days. The respirations varied from 40 to 46; the pulse was 120. Signs of fluid were found on the left side of the chest, the side that was bruised; 10 oz. of bile-stained fluid were withdrawn by aspiration, and the temperature, pulse, and respirations rapidly improved, and the signs of fluid disappeared. The boy

was allowed up on January 30th, and on February 15th was only waiting for an abdominal belt before discharge. He was very fit and well. He had been taking a mixture since February 1st containing liq. arsenicalis and ferri et ammon. cit. An examination of the blood at this stage by Dr. Rattray, the Resident Medical Officer of the hospital, gave the following result:

Haemoglobin	80%
Red corpuscles	5,066,000
White corpuscles	9,600
The latter consisted of:	
Polymorphs	22%
Large lymphocytes	13%
Small lymphocytes	64%
Eosinophiles	1%

The lymphocytes being mainly of transitional type—that is, with large numbers of basophile granules and kidney-shaped nucleus.

This boy came to my out-patients on March 3rd, 1913, feeling remarkably fit and well. A blood film was taken, and Dr. Gordon Ward, who kindly examined it for me, reports as follows:

"There is slight eosinophilia and marked lymphocytosis, as is commonly found after splenectomy.

"Slight changes in the red cells of little significance, and commonly found in children.

"Increase in the platelets of doubtful significance."

Differential Leucocyte Count.

Polymorphs	41.2 %	
Eosinophiles	3.8 %	48.0 %
Mast cells	0.4 %	
Transitional leucocytes	2.6 %	
Small mononuclears	51.0 %	52.0 %
Large mononuclears	1.0 %	
Anisocytosis	Increased.	

British Medical Association.

CLINICAL AND SCIENTIFIC PROCEEDINGS.

STAFFORDSHIRE BRANCH.

THE third general meeting of the session of the Branch was held at Wolverhampton on April 24th, when the chair was taken by the President, Mr. E. C. STACK, F.R.C.S.I.

Mr. E. DEANESLY showed the following patients: (1) *Two Cases of Facio-hypoglossal Nerve Anastomosis for Facial Paralysis.*—The first, now a girl of 14, was admitted nine years ago with facial paralysis on one side and double mastoid suppuration. Radical mastoid operation was performed on the paralysed side, but two months later the facial paralysis was still complete. The facial nerve was therefore exposed as it emerged from the stylo-mastoid foramen and the hypoglossal nerve at the hyoglossal border. The latter was divided, turned back, and anastomosed with fine silk into a longitudinal slit in the undivided facial nerve. The second case, a girl of 16, underwent a similar operation two years ago on account of facial paralysis following a radical mastoid operation. In this case both nerves were divided, and the distal end of the facial nerve anastomosed directly to the central end of the hypoglossal. Both cases now showed identical results. In repose the face showed no difference in the two sides; there was no flaccidity on the affected side or overaction on the opposite side. A smile, however, at once showed a marked difference, the mouth being drawn strongly towards the unaffected side. On making a strong voluntary effort to frown and screw up the eyes, the brow muscles, the orbicularis, and the muscles of the angle of the mouth all contracted visibly, though less strongly than on the opposite side. Voluntary action of the affected muscles was, however, much stronger when associated with voluntary movement of the tongue, for when the latter was protruded and withdrawn the action of all the muscles on the affected side was almost equal to that on the sound side. The half of the tongue on the side of the anastomosis was completely paralysed and wasted. (2) *Two Cases of Paralysis of the Arm from Injury of the Brachial Plexus at Birth.*—The first, a child of 8 months, which was awaiting operation, showed the ordinary type of birth palsy described by Duchenne—namely, paralysis of the deltoid, spinati, biceps, brachialis anticus, and supinators of the radius. The arm hung helplessly by the side without power to flex the elbow or perform any shoulder movements except adduction (pectoral muscles) and slight elevation of the scapula (serratus). The second case was in a similar condition on its admission to hospital seven years ago at the age of 10 months. The site of the nerve injury was indicated by a cicatricial ball at the junction of the fifth and sixth cervical nerves to form the highest primary cord of the brachial plexus. This node was excised and the divided ends of the cord reunited with fine silk. The affected muscles responded to faradic stimulation of the divided nerves. Recovery was now practically perfect, save for slightly less power of supination on the affected side. The arm could be raised above the head, and all the previously paralysed muscles could be seen to be plump and well nourished. (3) *Cancer of the Rectum.*—A man, aged 50, from whom a cancerous rectum had been removed by the abdominal route. He was now soundly healed, and had normal actions of the bowel through the anus. The operation performed was not the combined abdomino-perineal operation; the whole operation was carried out in the Trendelenburg position through a median hypogastric incision. The operation was not applicable to cases in which the anus was involved in the growth, or so near it as to necessitate sacrifice of the anus, but it was applicable to all cases not less than 2 in. above the anus. After mobilizing the sigmoid and dividing the superior haemorrhoidal artery, the rectum was detached from the sacrum behind and the bladder in front until it could be cut off well below the growth and immediately above the anus. The upper section was made at the lower end of the sigmoid flexure and the length of bowel removed measured 9 or 10 in. The end of the sigmoid was then passed through the anus from above and sutured to the cut edge of the remaining anal segment of bowel. The peritoneum was carefully closed over the pelvic floor and the wound closed. Performed in this way there was no haemorrhage and remarkably little shock.

The Nutrition of Elementary School Children.—Dr. W. SPENCER BADGER, in a paper on this subject, discussed the various methods of assessing nutrition, and pointed out that clinical examination afforded the only reliable means of estimating its value. The popular belief that the nutrition of slum children was good was controverted. Among the common characteristics of malnutrition were expressionless countenance, mental dullness, mouth breathing, blepharitis, loss of muscular tone, half-open eyes, blueness of the extremities, and a harsh dry skin. The frequency of bronchitis and nasal catarrh in school children was commented upon. One-fourth of a series of 700 scholars were reported to be subject to night sweats. Malnutrition had a close association with disease, sometimes preceding and sometimes following it. Heart disease, particularly, was a nutritional disorder in school children. Dental caries had a widespread influence in producing malnutrition, and insufficiency of sleep was one of the prime preventable causes. The harmful effect of overwork operated mainly by reason of the work outside school hours being undertaken by the least fit and worst fed children. Malnutrition was frequently associated with poverty, but in such cases the poverty was commonly found to be accompanied by thriftlessness, ignorance, dirt, or neglect. It was remarkable how little alteration the nutrition of the children of thrifty and sober parents underwent. In the face of such abundant evidence of neglect as existed in the elementary schools it was regrettable that national philanthropy consisted so exclusively in giving assistance. While there were various agencies for the relief of destitution, there was a conspicuous disinclination to apply the proper remedies for the prevention of neglect. Drs. LILA GREIG, LOWE, GALBRAITH, and Mr. STACK discussed the paper, and Dr. BADGER replied.

Thrombosis and Embolism after Pelvic Operations.—Dr. FREDERICK EDGE suggested the prophylactic fixation of the thrombus by injections of antistreptococcal serum, the administration of horse serum, calcium lactate, and potassium iodide by the mouth. The volume of blood should be increased by copious saline solutions. Messrs. ALCOCK, DEANESLY, and STACK took part in the discussion which followed, and Dr. EDGE replied.

Intestinal Obstruction.—Mr. DEANESLY read a paper on this subject.

Exhibition of Pathological Specimens.—Mr. Deanesly showed several specimens of cancerous rectums removed by abdominal operation. Also a cancerous stricture of the transverse colon removed twelve months ago, the operation being completed by end-to-end suture of the divided bowel. The patient had recovered and was still in good health. Dr. Edge showed: (*a*) A uterus with chorion-epithelioma following a hydatidiform mole successfully removed by abdominal hysterectomy. (*b*) A uterus with soft degeneration of a small myoma. Dr. Codd showed a specimen of cerebral tumour from a girl aged 8. The chief symptoms were headache, blindness, optic atrophy, conjugate deviation of head and eyes to the left, Babinski's and Kernig's signs, progressive drowsiness, and at the last very profuse purulent nasal discharge. The tumour appeared to originate in the left crus and invaded the right crus, the third ventricle, the infundibulum, and perhaps the pituitary. The sphenoidal sinus was full of pus, but the floor of the sella turcica appeared to be intact. There was much calcareous change and cystic degeneration; the tumour was a psammoma.

YORKSHIRE BRANCH.

At a meeting of this Branch on April 16th, Dr. Gibson (Harrogate), President of the Branch, in the chair, Mr. Priestley Leech (Halifax) showed some *X-ray photographs* of fractured heads of humeri and of early bone tuberculosis. Mr. Basil Hughes (Bradford) read a paper on the utility of *Autogenous vaccines in the treatment of chronic joint affections*, notably rheumatoid arthritis and gonorrhoeal arthritis. Dr. Maxwell Telling drew attention to some points in the management and treatment of cases of grave or *Pernicious anaemia*. In the first place, he emphasized the necessity of the most scrupulous attention to the mouth to eliminate any source of oral sepsis, for certain cases of grave anaemia arose from this cause and could be cured by its removal; in true pernicious anaemia, however, some other factor was present, and the results of treatment on these lines were not so striking, though the treatment was not less necessary. The difficulty in feeding these patients was mentioned. In pernicious anaemia oro-gastro-intestinal attacks not infrequently occurred, often associated with pyrexia; the treatment was not, as a rule, to stop the administration of arsenic, but to continue it and to bring the alimentation down to the patient's powers of assimilation. The occurrence of mental disturbances and pyrexia was also discussed.

Election of President and New Members.—At a meeting of the Council on the same day Dr. Stanger (Wakefield) was unanimously appointed President-elect, and thirteen new members were elected.

An international exposition of town hygiene will be held at Lyons in 1914, from May 1st to November 1st. One of the objects is to show the organization of a modern city, especially from the sanitary point of view. The exposition will be divided into forty-two sections: Statistics and demography; administration of streets, roads, waterways, and other channels of communication; transport; drinking water; sewers and the purification of waters that have been used; disposal of solid residues; dwelling; furnishing; lighting; ventilation, heating, and refrigeration; alimentation of animal origin; milk and its derivatives; alimentation of vegetable origin; hygienic drinks; adulteration of foodstuffs, investigation of frauds; mineral waters; chemical products; protection of infancy and puericulture; school; military hygiene; care of the body and cleanliness; primary and secondary education; superior education; technical, professional, and household education; hygiene and protection of labour; social economy; police of cities and police lavatories; infectious diseases (parasites, microbes, fungi); disinfection; organization of public hygiene in States; departmental and municipal services of hygiene; public assistance and hospitals; the struggle against tuberculosis; the struggle against alcohol; touring; physical culture and sports; arts; photography; industries of the book, the advertisement and the newspaper; horticulture; electricity; posts, telegraphs, telephones. Professor Courmont, who is general commissioner of the exposition, has made it a condition that no alcoholic drink, with the exception of hygienic beverages, shall be admitted to the exposition.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

Debate on Alimentary Toxaemia (*concluded*).

Wednesday, May 7th, 1913.

Sir Francis Champneys, Bart., M.D., President, in the Chair.

Dr. H. D. Rolleston, in reopening the debate, said that the alimentary was not only much the largest mucous tract of the body, but was the most exposed to infection and intoxication. Though it was protected by the acid gastric juice against microbial activity, and by the liver against poisons, these lines of defence could be broken down. It was, however, possible to attribute too many disorders to intestinal toxaemia; many of the defects assumed to be toxic might be due to the passage of micro-organisms in small numbers into the circulation, and so into the tissues, as was shown by Adami's subinfection with *B. coli*, which he held played some part in cirrhosis and pernicious anaemia. Toxaemia and bacteriaemia might occur simultaneously, as was evidenced by the frequent association of chronic pancreatitis and portal cirrhosis. The digestive processes might be so modified or the circumstances so altered by a change in the intestinal flora, as to produce poisons out of ordinary food. Herter and Kendall had found that intestinal infantilism was associated with large numbers of *Bacillus infantilis* in the stools. The view that exophthalmic goitre might, in some instances, be due to alimentary toxaemia was supported by the facts that digestive disturbances were frequent, that a protein diet usually aggravated the symptoms, and that indicanuria was common. The relationship between arthritis and alimentary toxaemia afforded scope for discussion; chronic rheumatoid arthritis might be secondary to a focal infection in various parts of the alimentary canal. It seemed clear that the intestinal tract was primarily at fault in enterogenous cyanosis, and it was difficult to avoid the conclusion that in young children intestinal toxaemia was sometimes the cause of anaemia. It had long been known that indiscretions in diet and overeating caused chronic arterial and renal disease. The mechanism by which alimentary toxaemia might cause arterio-sclerosis was not yet proven; but it might do so by inducing thyroid insufficiency.

Dr. Douglas Wilson (Harrogate) based his views on the subject upon observation and treatment of 800 cases in which he believed the colon to have been the seat of toxic absorption. Practically all the cases were treated with colon irrigations of mineral water and other spa methods; 43 per cent. of the cases were males, 57 per cent. females. The condition occurred in families, and sometimes two or three generations had been affected. The onset was insidious. The patient usually sought advice at about 40 years of age, when the wear and tear of life were beginning to be felt. Constipation was present in most of the cases, and sometimes colon irrigations brought away hard old scybala. These subjects often had lax abdominal walls, though the remaining musculature of the body was vigorous and good. It was common to find the sigmoid spasmodically contracted. Usually the subjects of colon intoxication were depressed, irritable, and worried by small causes; there was difficulty in concentration and the memory suffered. It was a not sufficiently recognized cause of insomnia. There might be acute neuralgia and persistent hemicrania, as well as irregularity of pulse, both as to time and force. Fibrositis, gout, rheumatoid arthritis were other sequelae of intestinal derangement.

Dr. F. W. Brook said that he had for a long time examined the faeces of all cases of neurasthenia which came under his care, and had details of 54 cases, all showing an abnormal condition of the flora. He gave autogenous vaccines, commencing with very small doses, so as to minimize constitutional reactions, and found that patients expressed themselves as feeling better when the motions were found to be acid. Intestinal antiseptics were given from time to time, but only beta-naphthol and sulphur were found to be serviceable. A vegetarian diet was useful in rendering the stools acid.

Dr. ARMSTRONG (Buxton) believed that dental sepsis originated or kept up gastric disturbances and in some cases arthritic mischief, though recently there seemed to be a tendency to over-rate this cause for joint trouble. The treatment was divisible into three heads: (1) methods of emptying the stomach, (2) strengthening the atonic gastric wall, (3) measures to control the poisonous fermentation.

Dr. W. KNOWSLEY SIBLEY said that a system saturated with the toxins absorbed from an overloaded intestine was by no means an uncommon cause of a large number of apparently very different skin diseases. Psoriasis he regarded as often the result of the influences of toxins derived from the alimentary canal, and a change to a vegetarian diet would often cure an old-standing case. Many of the drugs useful in skin diseases—arsenic and quinine were good cases in point—were also intestinal disinfectants.

Dr. H. D. MCCULLOCH emphasized the fact that the localities where microbes were most prolific were those in which lymphatic channels and glands were most numerous. It was the lymph which most needed protection from microbic and toxic contamination.

Dr. J. F. BRISCOE commented on the rarity of gross intestinal lesions, such as appendicitis, in mental hospitals. Dr. Mott, pathologist at Claybury, had stated that there had not been a case of appendicitis found on the *post-mortem* table out of 2,000 deaths since he had held the post. Constipation was a link in the series of causes and consequences arising from the disturbed abdominal viscera; it encouraged irritability, perverted moral feelings, and melancholia; while physically it led to emaciation, rheumatism, and many other conditions. Sometimes a copious motion dissipated an attack of insanity. Stasis was a less formidable condition when the food had been thoroughly triturated before being swallowed. In the ten years 1902–11 the English Commissioners in Lunacy recorded only 75 deaths from appendicitis, typhlitis, or perityphlitis, ascertained in most cases by *post-mortem* examination.

After some remarks from Dr. ROBERT BELL and Dr. RALPH VINCENT the discussion was wound up by Dr. HALE WHITE, who began his reply by observing that it was obviously impossible to present, in a quarter of an hour, any adequate summary of a debate in which sixty speakers had taken part. Probably poisons were continually being formed from the contents of the alimentary canal, or they might be endotoxins derived from dead bacteria, but no harm followed so long as the constantly active defences of the body against such poisons were in full play. A great step forward would be made when experimental pathologists were able to say which cases of supposed alimentary toxaemia were really caused by disease of the liver, disease of thyroid, or disease of some other organ, or which were due to the formation of abnormal poisons or to an excess of normal poisons in the alimentary canal. There seemed to be a consensus of opinion that the phrase "alimentary toxaemia" should be limited to the absorption of chemical poisons, and should not include the passage into the blood of bacteria themselves, although this probably occurred more often than was usually thought. The discussion had shed very little light on the bacteriology of alimentary toxaemia originating in the gastro-intestinal tract. Probably among the intestinal bacteria the *Bacillus aminophilus intestinalis* and its allies would most repay research, but it certainly appeared that many of the statements of the French school on the intestinal flora needed serious revision, and that the case against indol had not been proved. In the clinical part of the discussion the dental surgeons seemed to be on surer ground than other speakers. Disease of the gums leading to periodontal disease was by far the most fruitful source of oral sepsis. Mouth breathing in children led to persistent marginal gingivitis, which was more intractable and serious in its results in mouth breathers. It followed that not only must teeth be treated, but that often it was necessary to treat nasal obstruction also. Probably the most important part of the treatment was local, but in the more severe examples the intelligent use of autogenous vaccines might be of distinct help. It was possible that in a few cases pyorrhoea alveolaris was secondary to a toxaemia arising from some other parts of the alimentary tract, or, at any rate, that the pyorrhoea was increased by the fact that the general resistance of the body was lowered by an alimentary toxaemia of other origin. The discussion had been of great use in directing attention to the fact that some diseases of the eye might be due to pyorrhoea alveolaris; what others were due to other forms of alimentary toxaemia could only be decided by future clinical observation. The extremely interesting question whether failure of accommodative power might not often be due to intestinal toxaemia needed further investigation. The urticaria which followed the ingestion of shellfish, copaiba, etc., in some persons was most likely an example of anaphylactic phenomena following the absorption of foreign proteins, and therefore not an instance of alimentary toxaemia. The purpura often associated with cirrhosis of the liver was probably an alimentary toxaemia in which the poison absorbed from the intestine was able to act, because the protective influence of the liver was in abeyance. Henoch's purpura might be an example of alimentary toxaemia, and the dark-blue tint of the skin in enterogenous cyanosis was almost certainly due to alimentary toxaemia, and the brown cutaneous pigment so often seen in disease of the intestines might have a like cause. It had been urged that in consequence of the erect posture of man the intestines tended to drop; that to overcome this peritoneal bands were evolved; that they produced kinks; that these led to stagnation of the intestinal contents and increased putrefaction, and this was followed by the formation of poisons, which, passing into the general circulation, caused definite symptoms, and predisposed to many diseases. The question would have to be solved by anatomists. Were these bands to be found in all animals in whom the body was usually vertical—for example, in apes, gibbons, and penguins? were there evidences of them in animals whose bodies approached the vertical—for example, giraffes? and were there what might be called reverse bands in bats that spend so much of their time head downwards? if present in animals that adopted the erect posture, did such animals have intestinal stasis? Those who laid great stress on an ileal kink as a cause of intestinal stasis did not seem to have estimated at its full value the strength and activity of the ileo-caecal sphincter; much of the holding back of the intestinal contents at the end of the ileum was normal, and when abnormal was often due to spasm of the ileo-caecal muscle. Many of the statements about kinks and stasis claimed support from *x*-ray examinations after bismuth or barium sulphate, but it had been urged on the other hand that sometimes food was given too soon after a bismuth meal; that sometimes so much bismuth was given that its weight might invalidate the observations; that allowance was not made for normal variations in the average time taken in the passage of a bismuth meal, anything differing from the average being taken as abnormal; that sometimes the bismuth mixture lagged in the stomach because it was nasty, although in the same patient a meal would leave the stomach normally if palatable; that the so-called writhing of the duodenum was nothing else than the normal peristalsis and segmentation rendered more clearly visible than usual by the great quantity of bismuth-containing chyme present; that the *x* rays did not show the duodenum to be dilated in cases of duodenal ulcer; and that many of the kinks which the *x* rays were supposed to show depended upon the fact that the *x*-ray picture was taken in a single plane. As the *x*-ray work on this subject had been so severely criticized, it should be repeated by independent observers. Those who believed that evolutionary peritoneal bands often led to intestinal stasis because they produced kinks, especially a kink at the last part of the ileum, thought that as a further result a kink formed at the end of the duodenum, and this and the stomach dilated, and either might become ulcerated. The debate had not provided any statistical evidence to show in what proportion of sufferers from duodenal or gastric ulcers such kinks were found, nor had any experimental evidence been brought forward to show that in animals such ulcers formed as a result of an artificially induced ileal kink. It seemed that the onus of proving their contention lay with those who believed that these phenomena followed intestinal stasis. It was agreed that in the vast majority of cases medical treatment sufficed. If the cases that now

seemed to some to justify surgical treatment had been treated in the first stages by proper medical means surgical interference would not be necessary, so that, when this was widely appreciated, cases ought never to become so ill that surgical treatment would be contemplated, and it might be hoped that one result of the discussion would be that "the drainage scheme" of patients would be kept in sufficiently good order to render surgical interference unnecessary.

Surgical Section.

At a meeting on May 6th, Mr. G. H. Makins, President, in the chair, Mr. J. Hutchinson, in a paper on *Aberrant renal arteries*, said that it might have been thought that symptoms would be caused more commonly in females with movable kidney, and would come on early in life, and be produced by an artery lying in front of the ureter. But in the 21 cases seen at the London Hospital between 1904–12, 15 were in males, 6 in females, and the right kidney was affected twice as commonly as the left. It was usually fixed in position, and the aberrant artery lay posterior. The onset of symptoms was always sudden, commonly between the age of 15 and 25; in only 4 of these cases did they develop after 30. In 2 the kidney had already been fixed by operation, and the true condition was not diagnosed. It had to be diagnosed from duodenal ulcer, gall stones, renal colic, etc. He thought the main points in diagnosis to be periodic attacks of right renal pain followed by a dull aching in males between the ages of 15 and 25. The patients lay on the side of the pain, it was unrelieved by lying down, and was accompanied by sweating and vomiting; the vomiting often relieved the pain. The cystoscope might show congestion of the ureteral orifice, and the *x* ray the absence of a calculus. Albuminuria and haematuria were occasionally present. With these signs a provisional diagnosis could be made and the lumbar region explored. The aberrant artery often produced a narrowing of the ureter and distortion of the pelvis. In these cases removal of the artery might be insufficient, and he was tempted to perform a plastic operation, and sew up a longitudinal incision transversely. The published records of this plastic operation were bad; he could not advise it. If necessary, he performed nephrectomy, all but two of the recorded cases being one-sided. Mr. F. Kidd said a positive diagnosis could be made by intra-ureteral injection of 8 c.cm. of a 5 per cent. solution of collargol. A pyelograph could then be made and a dilated pelvis seen. Mr. A. Johnson said that 15 per cent. of renal arteries were abnormal, and the veins still more frequently. Pyelography after a collargol injection would show a dilated pelvis, and in the absence of a movable kidney, stone, or tumour, an aberrant artery should be diagnosed. Mr. McAdam Eccles recorded a case of intermittent hydronephrosis due to an aberrant vein. The vein was tied, and the hydronephrosis at once disappeared. Mr. F. Kidd recorded two cases of *Splenectomy*. One was in a patient who four years previously had been sent to a fever hospital with a diagnosis of typhoid fever; the Widal reaction was negative and Banti's disease diagnosed. She was of a dirty yellow colour, had had haematemesis for one year, her periods had ceased; the liver was small and the spleen large; the blood showed a typical anaemia. She suddenly developed ascites and was tapped. Splenectomy was performed. The veins were much enlarged and caused trouble; the liver was hard and cirrhotic. A good recovery was made, and menstruation recommenced and her blood returned to normal. The second patient gave a three months' history of pain in the left hypochondrium relieved by vomiting, and referred to the left shoulder-joint. The spleen, which was enlarged, was removed, and it was found to be in a condition of hypertrophy, both macroscopically and microscopically. The pain in the left shoulder-joint was caused by irritation of the fifth cervical root; it gave origin to both the phrenic and the suprascapular nerves. He thought splenectomy should be performed in all cases where the liver was cirrhotic and the spleen enlarged. It was best done through a 4-inch incision through the left rectus; a 2-inch transverse incision could be added to it if necessary. Mr. J. Hutchinson recorded a case of splenectomy for splenic anaemia with haematemesis and marked failure of mental development. After the operation there was great improvement in mentality. Sir John Bland-Sutton stated that he had performed splenectomy in 10 cases for wandering spleen, injury, tubercle, and Banti's disease. One was eighteen years ago. He thought the after-effects—thirst, restlessness, and pain in the bones—was due not to overaction of the bone-marrow, but to sepsis of the splenic pedicle. He was sure there was a great future for splenectomy. The President showed a case in which splenectomy had been performed fifteen months previously for splenic anaemia. The white corpuscles rose to 43,000 on the second day after the operation, and fell to 12,000 on the ninth day.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

At a meeting on May 7th, Mr. J. M. Cotterill, President, in the chair, Dr. H. M. Traquair, in a paper on *Bitemporal hemiopia* (postponed from March 5th), described the condition as occurring in two types: the *scotomatous type*, where there was a scotoma occupying part or all of the area between the fixation point and the blind spot, associated with a varying degree of defect of the temporal field, and the *non-scotomatous type*, where the defect diminished in intensity from the periphery to the centre of the temporal field. For the detection of these defects the ordinary examination was often inadequate, and the use of small and large objects of known diameter and of different colours, and the additional employment of a large Bjerrum screen (2 metres) were necessary. Following this special technique the author gave details of his examination in a series of cases of hemiopia. Of those of scotomatous type, one was a case of acromegaly with pronounced neighbourhood signs (Cushing's Class I), and the other of maxillary empyema with ocular disturbance. Some of the chief points elicited by a long series of vision fields were the peculiar regular progress of the field defect, the sharp vertical and horizontal edges of the scotoma representing the apices of several quadrants, the appearance of vertical splitting in the fields, and the great power of recovery (apparently spontaneous) in both cases. This recovery seemed to indicate rather a vascular congestion or oedema in the region of the chiasma than a tumour pressure. The examples of non-scotomatous type were three cases of acromegaly with absence of neighbour signs but predominant hypophyseal symptoms. These like those of the first group, showed defects of low intensity, which were only revealed by the use of the special methods of examination employed. It seemed probable, therefore, that such defects of low intensity were really commoner than was indicated by present records. Thus the records of a large number of cases of acromegaly show such field defects in only 50 per cent., while he, in a small series of seven acromegalies, had found field defects in all. The scotomatous type was associated as a general rule with an active lesion and a short case-history, and if other evidence, such as the enlargement of the pituitary fossa on *x*-ray examination, pointed to tumour, it indicated a malignant rather than a benign tumour. The non-scotomatous type was associated with the opposite conditions. Dr. Lewis Thatcher described a case of congenital *Malformation of the urinary apparatus* with absence of the abdominal wall musculature in a male child which came under observation at the age of 3 weeks, and died when aged 2 months. There was some asymmetry of the skull, and flattening of the pinnae of the ears. The chest was markedly prow-shaped (a deformity absent at birth). The abdominal wall showed a remarkable wrinkling and redundancy of the skin, which was also sunk in and showed clearly the outline of liver, spleen, kidneys, and a greatly enlarged and thickened bladder. Long deep longitudinal furrows scored the surface, and at the foot of one of these lay the umbilicus, in normal position, but firmly attached to the apex of the bladder. The cause of death was bronchopneumonia. The autopsy showed an absence of the recti and of the greater part of the oblique and transverse muscles. The urethra was patent and healthy, but the bladder wall was thickened to three-quarters of an inch, and the ureteral openings were almost obstructed by this hypertrophy, leading to great dilatation and hypertrophy of the ureters and to some hydronephrosis of the kidneys. Both testicles were undescended. Dr. Thatcher analysed 11 similar cases which he had found in the literature. All were in males, and showed close agreement both in

the external picture and also in the condition of the internal organs. Various explanations had been put forward, but the most probable was that of Stumme. He ascribed it to an increase of intra-abdominal tension caused by enlargement of the bladder. This took place at an early period before the muscles of the abdominal wall had developed, for the condition was one of muscular aplasia and not of atrophy. The thickening of the bladder accounted for the blocking of the ureteral openings and the secondary dilatation of the ureters. This theory made the change in the bladder the primary one; and this had been suggested by Dr. John Thomson as due to an inco-ordination of the vesical sphincter, analogous in its origin and effects to congenital hypertrophy of the pylorus.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF STATE MEDICINE.

AT a meeting on April 11th, Dr. T. P. C. KIRKPATRICK in the chair, Dr. T. T. O'FARRELL urged the desirability of the hospital statistics of Dublin being all returned on the same basis, and described the system in use at St. Vincent's Hospital, which was found to work satisfactorily. It was based on the card-indexing system, and distributed the work over a number of people. The registrar's work was confined to keeping the admission and discharge book, filing the case sheets and cards, and at the end of the year drawing up a digest of the cases in an analysis book. Its details were briefly as follows: (1) Cases are divided into males and females, the method of registration for each being the same. (2) Each patient on admission is provided with the usual history sheets, etc., together with a "coloured card"—red for males and blue for females. (3) At the end of each week the "coloured cards" of each new patient, containing preliminary details, are sent to the registrar, who copies them into the admission and discharge book, and having given the card its registration number, returns it to the ward. (4) At the end of each case all the notes are completed and sent up to the registrar. (5) The registrar then enters the date of discharge, diagnosis, date of operation, if any, and result in the book, together with any short comment necessary in the observations column. He also fills in the number of the disease as it appears in the College of Physicians' *Nomenclature of Diseases*. (6) The registrar then files the charts and coloured cards as follows: (*a*) History sheets and other notes according to registration number in serial order in batches of ten, each batch being enclosed in an open stiff paper pocket, special indicators of a remarkable colour being placed at the hundreds intervals; (*b*) the "coloured cards" are filed alphabetically, according to the surname of the patient. Both these files are in the form of drawers in a cabinet, and worded according to the card-indexing system. At the end of the year these files are cleared, the contents being placed in boxes, numbered according to year, and stored on shelves in an easily accessible place. (7) At the end of the year the "analysis book" is drawn up, which is a rearrangement of the cases according to disease. The register number of each case is marked down, so that all the cases of any one disease treated can be seen at a glance and their case-sheets easily referred to if required. (8) The final report is drawn up from the analysis book, the total number of cases of each disease, with their results, being set down.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on May 2nd, Dr. G. P. SHUTER, President, in the chair, Professor FREDERICK HOBDAY, F.R.C.V.S., read, by invitation, a paper concerning *Diseases communicable from animals to man*. In regard to glanders he said that until about ten years ago it was a most unusual thing for a day to pass without several fresh glanders cases being reported, and the veterinary inspector was only permitted to interfere with the clinically glandered cases, and not to enforce the mallein test. Now, however, when an outbreak occurred in a stable the test was applied and all reactors were valued and slaughtered. Although not a common disease in man, glanders used to be sufficiently often met with in all large cities to be of interest to medical men. The absence of definite and differentiating symptoms made it necessary to bear the disease in mind when treating stable hands. In one of the cases he had seen the patient had been ailing off and on for ten months without a diagnosis being made, and at the *post-mortem* examination the lungs were found full of glanders nodules. In the year 1901, 2,370 horses were reported in Great Britain as suffering from the disease. Last year the numbers had been reduced to only 504 individual horses for the whole of Great Britain. In the horse, dog, and cat, tuberculosis was well recognized, and in connexion with the latter two this fact ought to be kept well in mind on account of their constant presence in the house as pets. With regard to mange every species of domesticated and many wild animals might become the subject of an attack. It was always caused by the presence of a parasite caught from somewhere, and was contagious to man as well as to other animals. The parasite did not of necessity find its new host, when transmitted to man, as comfortable and convenient a resting-place as its original host, and as a rule lived its life but did not propagate. Mange as acquired from dogs and cats was sometimes unrecognized, and was treated unsuccessfully either as pruritus or eczema. It was manifested by a troublesome irritation and vesicular eruption, with small black spots at the places where the heads had been removed by scratching. In reply to various questions, Professor Hobday stated that in the cases of ringworm infection caught from horse or calf which he had seen himself, the persons had been infected on the face or arms and not on the head. He had no personal experience of the ophthalmic reaction, either with mallein or tuberculin, and could not say whether damage occurred to the eyesight as was sometimes the case in human subjects. It was not generally admitted by veterinarians that cats were the subjects of scarlet fever, or of true diphtheria, nor were they especially susceptible to glanders, although under certain circumstances they might of course become the carriers of the contagion. The disease known as bird diphtheria, and commonly met with in wood-pigeons and other birds, had no analogy with the disease known as diphtheria in the human species.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

AT a meeting of the Northern and Midland Division on April 24th, Dr. J. G. SOUTAR, President, in the chair, Dr. CASSIDY gave an account of the history of the Lancaster County Asylum. The accommodation provided in 1815 was for 150 patients; in 1824 the number had risen to 250, and in 1913 to 2,450. Among methods of treatment in vogue in the early days of its work was the warm room and the whirligig chair, and the restraining of patients by fastening them to the wall. All the windows in the wards were kept carefully shut, and an attendant was reported if he left one open. Dr. DOUGLAS, in a paper on the Mental Deficiency Bill, 1913, defined the different classes of persons deemed to be defectives within the meaning of the bill, distinguishing between idiots, imbeciles, feeble-minded, and moral imbeciles. He then mentioned how these cases had been dealt with up to the present time. He said that it was by careful classification alone that one could hope to obtain any tangible result from the education and training of the different classes of persons deemed defective within the meaning of the bill. A combination of counties, forming associated areas, aided by institutions already in existence, should be able to deal with the matter. Each of the voluntary institutions might be used as a centre or filtering ground through which all defectives in the area would pass before being drafted to the other homes or colonies. Dr. BLAIR showed a case of *Catalepsy* in one of three sisters, all of whom had been treated at Lancaster Asylum, and she was there first from the beginning of 1906 to the end of 1908. She was admitted again in January, 1910, and for the past three years had been insensible. She gave no response, or very slightly at times, to stimuli, and had to be forcibly fed. At present she showed slight indications of returning sensibility. Dr. ROWS gave a demonstration of interesting objects and processes in the pathological laboratory of Lancaster County Asylum, where the meeting was held.

Reviews.

INSECTS AND DISEASE.

Within the past few years the important part played by insects and other animals in the transmission of disease has become more and more realized. Not only is this true of the mosquito and other tropical insects, but even our common house-fly cannot be exempted. A popular account of the way in which insects may spread or cause some of our common diseases has been given in a little volume entitled *Insects and Disease*,[1] by Mr. R. W. Doane, Assistant Professor of Entomology in the Leland Stanford Junior University. The volume is one of the American Nature Series. The title does not sufficiently indicate the contents, since insects are not the only parasites dealt with. There is a chapter on bacteria and protozoa, and another on ticks and mites, these latter being frequently regarded as insects by the uninitiated. The general principles of parasitism are also briefly treated. The author claims it only as a "popular account" and as such it must be judged. From this standpoint it may be stated that the author has been successful in his attempt. The book is written in a popular style and is not without humour. It is illustrated by a series of admirable and instructive photographs. To the systematist or to the student of tropical medicine, whether human or veterinary, the book will yield little that is new, but the general reader will no doubt find in it much to interest him, and it is to be hoped that many belonging to that class will read it. Men of science are too prone to hide their light under a bushel, with the result that all too little is known of the economic value of much of the work which is being done. The inevitable effect of this is the lack of funds in this country to assist in carrying on work of this nature. If only the intelligent person with means at his command could be made to realize the importance of much of the good work now being unostentatiously carried on, they might be stimulated to give money for its furtherance. A book like the one before us enables them to become acquainted with some of the results already achieved. Or, again, the importance of flies in the dissemination of such diseases as enteric fever or even of the summer diarrhoea of children, is not yet appreciated by the public at large. These are some of the facts to which the author draws attention, and sufficient evidence is detailed to justify the conclusions which have so far been made. As a work of the missionary type the book is to be commended. There is also a good bibliography which will materially assist those desirous of seeking for further information.

Another book, which has just been published, *The Reduction of Domestic Flies*,[2] by Dr. E. H. Ross, may be commended as making to the same end. It discusses the life-history and habits of domestic flies, both in this country and in warmer regions; the egg, larva, and chrysalis are described, the flies' enemies are enumerated, and a campaign against these pests is first outlined and then worked out in detail. A chapter is devoted to the justification of expenditure of money and energy in suppressing the plague of flies, and there is another chapter, written in very popular style, tracing the life-history of a female fly from her birth in a manure heap until her death by fungus infection, leaving a numerous progeny behind her. The book is well illustrated by photographs of larvae and flies and diagrams showing their anatomy and habits. Its publication at this season of the year is opportune even in this country, and it will be found extremely useful by residents in the tropics and sub-tropics.

ORTHOPAEDICS.

In a book on orthopaedics for the general practitioner, Dr. Georg Müller[3] of Berlin sets out to supply post-graduate instruction on orthopaedics to those who cannot leave their practices or for other reasons cannot attend a university or hospital course of instruction on the subject. The book has no pretensions to the completeness of a full treatise on the subject, and the author, as he says, only treats of anatomical, physiological, and pathological-anatomical relations so far as they are strictly necessary for understanding practical treatment. The work is divided into a general and a special part. In the former, after a short historical review, the various materials for making temporary and permanent appliances, such as plaster-of-Paris and celluloid, Hessing's apparatus and artificial limbs, massage, gymnastics, hydropathic treatment, diet, Bier's hyperaemic treatment, and the serum therapy of surgical tuberculosis are dealt with at moderate length. In the special part the conditions, including joint diseases, usually treated of in books on orthopaedics are considered briefly. In a book of this sort nothing very novel is to be looked for. The author briefly describes the morbid conditions, gives an adequate account of the usual methods of treatment, and indicates briefly those which he recommends as best or most expedient. Although we have not the pleasure of Dr. Müller's acquaintance, yet after looking at the illustrations of this book we feel that his genial personality is familiar to us, for his likeness appears in twenty-one of them.

The good opinion expressed five years ago of the first edition of Dr. Lovett's book upon *Lateral Curvature of the Spine*[4] (British Medical Journal, 1908, vol. i, p. 992, April 25th) has not been altered by the lapse of time, and we now welcome the second edition. The form and scope of the book are unchanged, but it is a good deal more than a mere reprint, for the whole has evidently been carefully revised and brought up to date. The number of illustrations has been increased, and a chapter has been added on school life and scoliosis. These changes are all for the better, and we can but repeat and emphasize the recommendation made in 1908. Dr. Lovett does not claim to be able to work miracles upon deformed spines, but the moderation of his statements and the good sense of his reasoning are far more convincing than the extravagant promises made on behalf of some methods of treatment. Particularly interesting, as showing the importance of unremitting and thorough treatment, are the illustrations on page 167, which show the progress of a case during seven years from bad to worse, owing to discontinuous and inefficient treatment.

TEXTBOOKS OF OPHTHALMOLOGY.

A volume recently issued by the University of London Press cannot fail to be a boon to every student and general practitioner into whose hands it falls. There are so many excellent manuals on ophthalmology written in the English language that it seemed as though there could be no place for another, and yet, now that we have the latest book in our hands, we feel that it has given the student exactly what he requires. Mr. Devereux Marshall has compiled a modest volume on *Diseases of the Eyes*,[5] which contains the clinical teaching the ophthalmic dresser needs to supplement his practical work at the hospital. He will here find the most modern practice, and will not have to wade through pages of mathematical optics or of abstruse pathology to discover the exact symptoms of a disease and the best means of treating it. Mr. Marshall rightly assumes that every student has already had a course of optics and physiology and is acquainted with the simple dioptrics of the eye. He proceeds at once to practical teaching. The chapters upon refraction and upon the examination of the eye are admirable, and inculcate that good style which is as essential to the oculist as it is to the cricketer. The correct method of refraction is to perform an accurate retinoscopy and then to proceed with the trial lenses and test types. Every student should realize that unless he can use the retinoscope he cannot retract. Mr. Marshall's

[1] *Insects and Disease.* By Rennie W. Doane, A.B., Assistant Professor of Entomology, Leland Stanford Junior University. London: Constable and Co. (Demy 8vo, pp. 241. Price, 8s. net.) *American Nature Series.* Group iv, Working with Nature.

[2] *The Reduction of Domestic Flies.* By E. Halford Ross, M.R.C.S., L.R.C.P.Lond. London: John Murray. 1913. (Med. 8vo, pp. 111; illustrations 18. 5s. net.)

[3] *Die Orthopädie des praktischen Arztes.* By Dr. Georg Müller. Berlin. Berlin and Vienna: Urban and Schwarzenberg. (S. roy. 8vo, pp. 258. Mk. 10.)

[4] *Lateral Curvature of the Spine and Round Shoulders.* By Robert W. Lovett, M.D.Boston. Second edition, revised and enlarged. London: Rebman Limited. 1912. (Demy 8vo, pp. 202; 171 illustrations. 7s. 6d. net.)

[5] *Diseases of the Eyes.* By C. Devereux Marshall, F.R.C.S. London Medical Publications. London; University of London Press, Hodder and Stoughton, and Henry Frowde. 1912. (Demy 8vo, pp. 316; figs. 95. 10s. 6d. net.)

views upon the treatment of lacrymal obstruction are thoroughly modern; in this respect, as in many others, he has discarded methods which, though of respectable antiquity, are founded upon a false pathology, and can only bring discredit upon the surgeon and his art. The chapter upon colour blindness is exceedingly valuable. Tests founded upon the Young-Helmholtz theory of colour vision are justly condemned, and the Holmgren test, which has been repeatedly shown to be valueless in this country and in Germany, is utterly discountenanced. Instead, the Edridge-Green lamp is recommended, and methods which really unmask the dangerously colour blind are carefully explained. Judging the book by the standard necessary for the student and the general practitioner we can give it the highest praise, and can confidently recommend it. It is, however, capable of improvement in some respects. "Myosis," although often spelt with a "y," should be "miosis." The author might reconsider his doubts about the etiology of episcleritis, for the evidence brought forward by Verhoeff and others points very strongly to a tuberculous origin. It should be noted that Paton's researches convinced him that it was impossible to decide upon which side of the brain a tumour was situated from a study of the discs. The cases in which the tumour was found to be situated on the same side as that on which the oldest or most intense optic neuritis was present were about equally balanced with those in which the tumour was on the opposite side. Nyctalopia is not mentioned as a symptom of tobacco amblyopia. These and some other minor points are all the defects noted in a book which is admirably adapted to the use of students.

The appearance of a second edition of Professor RÖMER'S *Lehrbuch der Augenheilkunde*[6] is a proof that it has been successful in Germany, and the fact that the first volume of the American translation has been published points to its popularity outside Germany. We reviewed the first edition at considerable length, pointing out that it represented the complete course of lectures given by the author at the University of Greifswald. The old bulky volume has now been divided, and the present edition is sold in two volumes. An attempt has been made to make the diction in places more concise, and the space so gained has been utilized for more illustrations and coloured plates. A marginal analysis has been added, so that it is comparatively easy for the reader to find the paragraph relating to the subject he is searching for. The university eye clinic has been able to train its own ophthalmoscopic artist, who has contributed some excellent plates to the new edition. Some of these represent the external diseases of the eye, others retinal conditions. The two volumes contain 32 coloured plates and 268 illustrations. Although the subject is presented in the form of lectures, the arrangement of the book is of the usual kind. The first chapter deals with the clinical examination of the anterior part of the eye, and is followed by one upon the diseases of the conjunctiva and cornea. The iris and lens are next considered, and then the vitreous and the optic nerve. The retina and choroid occupy Sections VII and VIII. The first volume is ended by chapters upon the sclera and the eyelids. The second volume treats of diseases of the lacrymal apparatus, of the orbit, of injuries to the eyes, glaucoma, the pupil, strabismus, paralysis of the ocular muscles, ocular neurology, and of the functional investigation of the eyes, in the order named. The index, as is usual in German books, is not very elaborate, only one, or at most two, references being given under each head. When we last reviewed the book we concluded that it was a very good one, but pointed out certain imperfections here and there; these have not been removed: thus, under "glaucoma" very little information is given about the newer operations for glaucoma which seek to establish a filtration scar. Elliott's trephining operation, Holth's punch method, and Herbert's flap operation are not even mentioned. The whole question of the ocular circulation and the theory of glaucoma is exhaustively treated and has been brought up to date, but the valuable anatomical discoveries made by Thomson Henderson with reference to the action of iridectomy and sclerosis of the pectinate ligament are not mentioned. In fact, for Römer, British ophthalmology seems hardly to exist, for, as far as we can see, Priestley Smith is the only English ophthalmologist mentioned in the book. We find the same thing when we come to the article on colour-vision tests. Edridge-Green's theory and his lantern are not mentioned. Even the Young-Helmholtz theory escapes notice, whereas two pages are devoted to Hering's theory of colour vision, a theory which is now much discredited. In spite of small defects Römer's book is a valuable addition to ophthalmic literature, and the English translation may be commended to the general practitioner, for whom Römer wrote the book.

[6] *Lehrbuch der Augenheilkunde in der Form klinischer Besprechungen.* Von Dr. Paul Römer. Erster und Zweiter Bands. Zweiter Auflage. Berlin and Vienna: Urban and Schwarzenberg. 1913. (Sup. roy. 8vo. Vol. i, 396, Tfn. 21, Mk.16; Geb., Mk.18. Vol. ii, pp. 381-828. Tfn. 22-32, Abbn. 162, Mk.8.)

THE SURGEON'S WORKSTEAD.

IN the preface to his book on the working-place, or to coin a word, the "workstead," of the surgeon and orthopaedist,[7] Dr. OSCAR LANGEMAK says that its object is to show how with comparatively scanty means the objective necessaries of surgical and orthopaedic practice may be provided; what they are and what they cost. Dr. Langemak takes nothing for granted, and begins with the waiting-room. This should, if possible, be remote from the consulting-room, so that the waiting patients may not be disturbed by the cries of pain from the patient under treatment, and that the latter, on leaving, need not pass through the waiting-room. The word-picture which he draws of some surgeons' waiting-rooms is far from pleasant, nor are the illustrations which he prints of the waiting-room as it ought to be, very attractive. This will, perhaps, be understood when it is noted that he allows only £5 15s. (Mk.115) for the purchase of furniture. Almost every imaginable detail of apparatus useful in the examination and treatment of private patients is mentioned. Many ingenious contrivances are of the author's own invention. Various methods of preparing sutures and ligatures and dressings are considered, and the best method of preserving rubber goods is not forgotten, nor does the author omit prescriptions for ointments to be used in the surgery. X-ray apparatus, fittings and chemicals for the pathological laboratory, methods of lighting, case-books, machines for mechanical treatment, plaster-of-Paris—all are considered, and advice is given as to where to buy everything and what to pay for it. In the section on the installation of a private hospital the same thoroughness is manifest. Lists of bed-linen and nurses' clothing, discussions of all the details of ward furniture down to spittoons and towel-horses here find places, as well as full lists for instruments for anaesthesia and all operations. The book will probably be of considerable use in Germany, but its value in this country must be seriously reduced by the fact that many of the appliances of the patterns recommended are not obtainable in England, and that the firms named and prices quoted are of course German.

[7] *Die Arbeitstätte des Chirurgen und Orthopäden (mit Winken für Einrichtung).* Von Privatkliniken von Dr. Oscar Langemak, Specialarzt für Chirurgie und Orthopädie in Erfurt. Jena: Gustav Fischer. 1912. (Med. 8vo, pp. 189; Abbn. 45. Mk. 5.)

NOTES ON BOOKS.

FOR those who love children there is, perhaps, no more fascinating occupation than to watch from day to day the gradual awakening of the mind of a little child. The "new-born denizen of life's great city" has been a source of inspiration to innumerable writers, amongst whom must be reckoned the German poet, OTTO ERNST, whose charming study of his little daughter *Roswitha*[8] has recently been translated into English by Mr. A. C. CATON. Herr Ernst is well known to his fellow-countrymen for his exquisite portrayal of the short joys and sorrows of childhood; and he has given here a delightful picture of a German home and the doings of his five children, the youngest of whom gives her name to his book. There are few of his readers, we imagine, who will not fall under the spell of this pet and plaything of the whole household and the queen of her learned father's heart. *Roswitha* is a wonderfully close and subtle analysis of child nature; and English readers owe a debt of gratitude to Mr. Caton for his admirable translation of a most interesting and

[8] *Roswitha.* Being leaves from the life of my little daughter. By Otto Ernst. Translated by A. C. Caton. London: A. C. Caton. 1913. (Cr. 8vo, pp. 322. Price 5s. net.)

attractive book. The grace and innocence of early childhood have seldom been more delicately or more lovingly described; and the baby girl to whom they are dedicated is worthy to rank beside the nameless child who inspired one of the most beautiful of Longfellow's poems:

> On thy head
> The glory of the morn is shed,
> Like a celestial benison!
> Here at the portal thou dost stand,
> And with thy little hand
> Thou openest the mysterious gate
> Into the future's undiscovered land.

At a time when research is vigorously attacked as being productive of no useful results a book which deals in popular language with the progress and attainments of modern medicine should be welcome. Such a book is *Bacteria*,[9] by Dr. MAX SCHOTTELIUS, written with the object of promoting an understanding of the responsibility of medical action in the fight against disease. The ground covered is comprehensive and includes a chapter on protozoa, which, though outside the scope of the title, is quite germane to the theme. With so rapidly moving a science as bacteriology a book on the subject soon becomes out of date, but at this time of day one does not expect to find the statement that, "if tuberculosis is conveyed to man, and especially to children, by milk, it is by human tubercle bacilli which have got into the milk." That is a particularly unfortunate statement in a book designed to popularize preventive medicine. In other respects the views adopted are as recent as can reasonably be expected. With so much good material and so fascinating a subject, it is a pity that a little more care has not been taken with the English translation. There is much good stuff in the book, and it should appeal to the laity and to such members of the profession as require a brief summary of the subject. Ten excellent coloured plates atone for a number of split infinitives.

A Roosevelt Hospital Graduate Nurse has written under the title of *A Stitch in Time*[10] a kind of first-aid guide to the common emergencies, accidents, and every-day troubles. By using clear terse descriptions much more has been included than in the average first-aid guide, and the book contains excellent hints on the preservation of health, the treatment of minor ailments, and a useful list of invalid foods. It is essentially a practical book, useful to the householder, and one from which the medical man can glean a few wrinkles.

The failure to obtain a sufficient number of recruits for the Territorial Force, and the want of interest and even dislike manifested by so many of the younger generation for any form of military service, has given rise to much discussion as to the merits and demerits of conscription in this country. One of the most ardent supporters of compulsory military service is General Sir IAN HAMILTON, whose stirring speech on *National Life and National Training*,[11] which was delivered at Birmingham in September last, has just been published as a pamphlet. Sir Ian Hamilton, foreseeing a time when the great European Powers will "Cry havoc! and let slip the dogs of war," suggests the adoption of enforced military training in every boys' school in the kingdom as the most effectual means of preparing for the conflict which he regards as almost inevitable. He states his reasons for this proposal very clearly and temperately. His sympathy with boyhood has given him a thorough understanding of the mental and physical needs of the average English boy; and his pages are characterized by a good humour and common sense that should do much to reconcile to his opinions even the most confirmed antimilitarists amongst his readers. His words are at once a warning and an appeal on behalf of that boyhood upon whose well-being and efficiency the future welfare of the race depends, and should be read with attention by all those into whose hands the destinies of the British Empire have been confided.

[9] *Bacteria*. By Max Schottelius. Translated by Staff Surgeon Herbert Geoghegan, R.N. Second edition. Oxford Medical Publications. London: Henry Frowde and Hodder and Stoughton. (Cr. 8vo, pp. 336; figs. 33; plates 10. 8s. 6d. net.

[10] *A Stitch in Time*. Simple and practical remedies for use in emergencies. By a Roosevelt Hospital Graduate Nurse and a Grateful Patient. New York and London: G. P. Putnam's Sons. 1912. (Crown 8vo, pp. 30. 3s. 6d. net.)

[11] *National Life and National Training*. By General Sir Ian Hamilton, G.C.B. London: P. S. King and Son. 1913. (Cr. 8vo, pp. 55; 6d. net.)

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE annual general meeting of the above society was held on Tuesday, May 6th, Sir Thomas Boor Crosby, President, in the chair. Twenty members were present. The Secretary read the following report for 1912, which was adopted:

Since the last report eight new members were elected; seven died and three resigned. The society consists at the present time of 1 honorary member, 152 life, and 149 ordinary members, making a total of 302, which, considering the number of medical men who are eligible for membership, is but a very small proportion.

The advantages of the society, and the very great amount of good which it does, cannot be better shown than by a short study of the balance sheet for the year. The invested funds amount to £101,600, from which was derived in interest the sum of £3,180 5s. 9d.; £361 3s. was received in subscriptions and donations. Amongst the annuitants of the charity—namely, 46 widows and 11 orphans, the sum of £3,066 was distributed, each widow receiving on an average £50, besides an additional £10 as a Christmas gift, and each orphan £15 and a gift of £3 at Christmas. The grants to orphans have been increased from £15 to £25 per annum.

The Copeland Fund is a special fund which enables the society to grant to any widow or orphan already in receipt of the society's ordinary relief, extraordinary assistance in special circumstances of unusual distress, such as blindness, paralysis, insanity, severe disabling accident or grave permanent disease, and to continue such extra relief in the case of orphans beyond the age of 16 or 18 years (at which under the society's existing by-laws, the ordinary relief ceases) for such further period as the Court of Directors may think fit.

One widow and five orphans were elected on to the funds during the year, and on December 31st there were 46 widows and 11 orphans in receipt of grants. One of the widows has been on the books since 1854, and has already received over £2,420.

Relief is only granted to the widows and orphans of deceased members who have paid their annual subscription for three years, or who are life members. During the year thirty-two letters were received from widows of medical men who, in many instances, had been left practically penniless, asking for relief, but this had to be refused, as their husbands had not been members of the society. An application for relief was received from the widow of one of the members on behalf of herself and five orphans; her late husband had paid in subscriptions £16 16s. The court voted a grant at the rate of £50 per annum for the widow and £20 per annum for each orphan, making a total grant of £150 per annum. In addition, the widow will probably receive at Christmas £10, and each orphan £3, bringing the total amount she will receive from the society up to £175 per annum. A more striking example of the advantages of joining the society can hardly be shown.

The directors would bring to the notice of the members of the medical profession, especially the younger, the advantages of joining the society. Membership is open to any registered practitioner who at the time of his election is resident within a twenty mile radius from Charing Cross. Should any member remove beyond the limits of the society he nevertheless continues to be a member. The annual subscription is two guineas; every member who has paid this sum for twenty-five years becomes a member for life. Life membership may also be obtained by the payment of one sum, varying with the age of the applicant.

Further particulars and application forms may be obtained from the Secretary at the offices of the society, 11, Chandos Street, Cavendish Square, W.

The acting treasurer, Dr. F. de Havilland Hall, reported that the society would shortly benefit under the will of the late Mr. James Brickwell to the extent of over £36,000. Mr. Brickwell was elected a member in 1833 and died in 1893. By his will he made the society his residuary legatee, his son, however, having a life interest in the money.

A RADIUM hospital has recently been established in Tokio under the direction of Dr. K. Watanabe, formerly Surgeon-Lieutenant-Colonel in the Japanese Army.

THE German society for the prevention of venereal diseases will hold its annual meeting this year on June 20th and 21st at Breslau, on the occasion of the centenary exhibition there. The programme includes a number of important questions of wide interest. Dr. Julian Marcuse and Professor Blaschko will present reports introductory to a discussion on venereal diseases and social problems. Professor J. Heller will deliver an address on venereal diseases and the right to marry. Dr. Chotzen will present a report on the action taken by the society in regard to instruction in sexual matters. The discussion will turn largely on the expediency of further action in this direction being taken by the society.

THE REPORT OF THE ROYAL COMMISSION IN REFERENCE TO MEDICAL TEACHING IN LONDON.

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I.

REGRET has been expressed that there was not included among the Commissioners a medical man, preferably a London graduate, who should be acquainted at first hand with the conditions of medical education in London. Such an inclusion would, however, have been in contradiction to the spirit underlying the appointment of the Commission. Its labours included the consideration of the teaching of arts, science, and engineering, as well as of medicine. No teacher of these subjects or engineer was included, the Commission being made up entirely of administrators and business men (with one judge)—that is to say, of men whose life business it has been to act or to devise policies after taking the opinion of experts on the different problems involved. It would have been hard, therefore, to make an exception in favour of medicine, and still more difficult to choose a representative medical man who, though interested in the matter, had taken no side in the interminable discussions which have occurred during the last twenty years of the University. The advantage of having no such man on the Commission is that the Commissioners have come to the burning questions which have divided medical opinion in London—for example, the concentration of preliminary and early medical studies—with an entirely open mind. As a result they have left some of them entirely on one side and have indicated new policies, which may indeed not satisfy any particular party in the University, but represent, at any rate, an unbiassed attempt to create a London Medical School which shall be second to none in the world. It behoves every medical teacher, therefore, to try and approach the recommendations of the Commission with an equally open mind, and to ask himself whether, although his pet scheme is not advocated, the actual recommendations may not be, if not in his opinion equally effective, yet a considerable advance on present conditions, and whether they may not contain the possibilities of a right development in the future.

The recommendations in the Report fall under two headings:

1. In the first place suggestions are framed which will enable the work of medical education in London to go on with the present machinery, while removing many of the hindrances which medical schools have experienced in their work.

2. In the second place, a plan is sketched out by which the new University, when it is constituted, may establish, either *de novo* or preferably out of the present machinery, a University Faculty of Medicine under the control of the University and with full control of academic matters affecting medicine, which, while preserving all the advantages of the present English system of medical training, may provide, as has never yet been done, for the carrying out of the other function of a university—namely, the *advancement* of learning. This act of creation cannot, however, be immediate, since it awaits the formation of a new university by Act of Parliament, and in all probability also the voluntary sacrifice of autonomy on the part of one or more of the present medical schools. It will be convenient, therefore, to deal first with the situation which will present itself directly the new University is constituted.

THE PRESENT MEDICAL FACULTY.

At the present time the Medical Faculty is a large unwieldy body composed of practically all the teachers in the London Medical Schools. It has no powers except the election of three representatives on the Senate, representatives who as soon as they enter on their duties find themselves enmeshed in a great cobweb of red tape which renders them practically powerless for good or for evil. The Faculty has no power to appoint Boards of Studies, to propose the curricula, and to nominate examiners. The proposals of the Boards of Studies are subject to alteration and amendment by the Senate, and have to be approved both by the Academic Council and by the Council for External Students. No change in the curricula has any chance of approval unless it is equally adapted to the needs of London students and students in the provinces.

THE PROPOSED BOARD OF MEDICAL STUDIES.

In the scheme proposed by the Commissioners the Senate becomes a small body of men occupied with finance and general policy, who will therefore not interfere in academic and professional questions. All the present Medical Schools will be continued as Schools of the University, and their teachers, who at present form the Faculty of Medicine, will lose this name and be entitled the "Board of Medical Studies." This Board will have power to appoint any committees it may wish, and these committees will play the part at present appertaining to the Boards of Studies. These committees, however, will be appointed by the body of medical teachers, and will have to report to this body before any recommendation is sent up to the Senate. The Board of Medical Studies can determine also what committees it is advantageous to appoint. It will directly or through its committees draw up curricula, nominate examiners, and determine conditions of the examinations. The examinations, as now, will be general, but open and common only to students in the London Schools, the external student in the Faculty of Medicine being abolished.

There is apparently no suggestion to interfere with the present grants of the Board of Education to the London Medical Schools, and it is to be presumed that these grants, as now, will continue to be awarded on the amount of professional training of sufficient quality which is given in the schools.

These changes are none of them very revolutionary, but are improvements on present conditions, and probably represent a large part of what would be regarded as desirable by those teachers who are strongly attached to the principle of autonomy of the separate schools.

EARLY EDUCATION.

More fundamental proposals are made with regard to the studies and examinations which are antecedent to the professional curriculum. It has long been felt that one of the chief bars to any increase in the number of medical students in London taking a university degree has been the exclusive character of the matriculation examination. In its older form, with a number of compulsory subjects, it might have served as a test of a good secondary education; but, owing to the fact that only a small number of schools regulated their courses of studies in accordance with the requirements of the London University, most boys who wished to take a London degree had after, or just before, leaving school to take special classes, or go to crammers to be prepared for this examination. Changes which have been introduced into the examination during the last ten years have, indeed, rendered it easier, but have robbed it of most of its value as an incentive to a properly balanced secondary education.

The Commissioners regard the whole examination as a mistake, and propose that admission to the University should be determined on the basis of a school examination, which should be passed by the scholars in all secondary schools of the country at about 16 or 17. The examination will probably be under the general supervision of the Board of Education, acting in concert with the local university, and with the school teachers, and will be based on the school curriculum. If this school-leaving examination is made a necessary requisite for entrance to all professions, as is the case with the Abiturienten examination in Germany, every medical student in the country will finally be qualified to pass to a degree in the University of London. Until such action is taken by the Board of Education it would seem that some examination like the present matriculation must be continued by the University. But it does not appear likely that the newly constituted University will place the captious difficulties in the way of recognizing the entrance examinations of other universities as has been the case with the present University.

Education in the Preliminary Sciences.

The proposals of the Commissioners with regard to the preliminary scientific education and examination are more revolutionary, or, at any rate, unexpected, and suffer from the objection that, however desirable they may be in themselves, many years must probably elapse before they can come into effect to any large extent or influence any considerable majority of the London students. The Commissioners adopt the view which has long been maintained by the Royal Colleges, namely, that preliminary science should be learnt during the school years. They therefore recommend that a *senior* school examination be held in all secondary schools, more specialized than the examination mentioned above, and varying in type according to the subsequent aims of the pupil. In the case of the pupils who propose to proceed to medicine this examination will include physics, chemistry, and biology, and should be passed by the pupil about the age of 18, so that the last one and a half to two years at school will be spent in the study of these subjects. Until this examination is not only instituted but becomes general, the University will have to continue its Preliminary Scientific examination, and not until this examination is passed can a student enter the University as a student of medicine. Probably the nature of this examination, and the method of holding it will be largely influenced by the representations of the Board of Medical Studies, that is, the body corresponding to the present Medical Faculty. But it is a weak point in the Report that no clear account is given of the long transition period which must elapse before the recommendations can become effective, and it would seem that the Medical Schools may have to provide teaching for the subjects of this examination for a considerable time to come. The Report draws attention to the greater difficulty of teaching biology in schools as compared with physics and chemistry. The changes recommended by the Commissioners would be certainly easier to bring about if this subject were dropped for the Preliminary Science examination and the training in general biological principles transferred to the teachers of anatomy and physiology in the Medical Schools. Such a change would meet with the approval of many of the teachers of the professional subjects, but it is not clear from the Report that any such change is contemplated by the Commissioners. Certainly most Medical Schools would feel it a relief to receive the students already well grounded in the elements of general science by a two years' course of physics and chemistry taken while they are still under school discipline and during their most receptive years.

The Nature and Functions of University Education.

These proposals, however, do not make a University Faculty of Medicine, they simply provide for an improvement in the examinational test of knowledge acquired at a number of hospital schools, and ensure some correlation between the examinations and the average teaching carried out in the different schools.

The fundamental idea underlying the present Report is that university teaching can be given only by men who are actively and systematically engaged in the advancement of knowledge in the subject they teach. It is the association of such men which forms the university and creates an atmosphere in which the student not only learns to earn his living but acquires also the training of mind which will fit him to take part in or to avail himself of every advance in the knowledge of his subject. "He learns to weigh evidence, to follow and criticize argument, and put his own value on authorities."

Hitherto there has been no means of organizing either teaching or research with a single eye to the interests of medicine as a whole. It was these considerations which led the last two Royal Commissions to advocate the concentration of preliminary and early medical studies in university institutions, so that London men should have the advantage, at present enjoyed by Oxford and Cambridge students, of a university training during the first three years of their medical course, and the institutions, being under the direction of professors appointed by the University, could have been freed from the hampering effect on their education which is at present exercised by the system of external examinations.

In the last University Commission the subjects of pathology and hygiene were grouped with those of the intermediate studies, anatomy, physiology, and pharmacology. Until recently no one has ventured to suggest that the professional subjects of medicine, surgery, and gynaecology were equally susceptible of treatment as subjects in a university curriculum, or that the university spirit was as necessary in the pursuit of these studies as in that of physiology and anatomy. We have been apparently so deeply impressed by the system in which we have been brought up, derived from the century-old method of apprenticeship, that we have regarded the main object of medical education in the later years of the curriculum as a training in a craft. As Mr. Flexner rather unkindly says, "Such medical teaching regards itself as preparing the student to be a higher sort of artisan." Curiously enough this attitude of mind is peculiar to England, and its long survival and its strength at the present day are probably due to the first-rate quality of the technical training which is given, especially in London, and to the high personal character of the men who are responsible for the training. But its effect on the advance of medicine and surgery in this country can only be regarded as disastrous. In the advances of the last twenty years our clinical teachers have taken little part. The English schools of physiology and pathology, and of tropical diseases, have acquired a high reputation in the civilized world, but reference to the authorities quoted in any textbook of medicine shows that, with but a few honourable exceptions, the recent advances in the science of medicine, when not due to pathologists or physiologists, are accredited to some foreign school. Nor are our clinical teachers to be blamed for this condition. Many, perhaps most of them, take up medicine or surgery from a love of the subject, and the question of professional success—that is, the acquisition of a large practice—may be at first an entirely subordinate consideration. But it has to be taken into account that at the present time "there is no place in the sun" for the man who would give his life to medicine or surgery. Unless he has a considerable private income he must practise or starve. Nor are the chances of advancement in his profession determined by his powers and work as an original investigator. It is more important that he should work for the school to which he is attached than for the subject which he professes. It is twenty years since I was told authoritatively that "a medical school is not the place for research," and since that time conditions have altered considerably, but even now organized research is regarded as something fitting for the scientific teachers in the school rather than for the clinical teachers attached to the hospital staff.

The complete lack in London of teaching of university rank in the professional subjects of the medical curriculum was brought clearly before the Commission by Flexner, not only in evidence, but also in his reports to the Carnegie Institute on the conditions of medical education in the States, Canada, Germany, and France, as well as in this country. If a real University Faculty of Medicine is to be created in London it must be made possible, in Flexner's words, "to import into London the scientific producing clinician—devoted to teaching and research—from any place in which he may be found; and younger men must be taught that their chances of higher appointment depend, not on using themselves up in tutorial coaching, not on faithfully stepping into the breach when the superior is absent nor following in his footsteps when he is present, but on the development of their own powers along genuinely productive lines. . . . The first step in the direction of modernizing medical education would appear to lie in the total conversion of an existing school or in the creation in London of a new school, the clinical Faculty being selected upon precisely the same lines as the scientific Faculty, the entire body of teachers animated by one ideal and working as an organic unit towards a single end. The clinician's relation to the hospital must reproduce the chemist's relation to his laboratory."

University Colleges of Medicine.

Evidence to somewhat the same effect was given before the Commission by Sir William Osler, by Dr. Head, and, with reservations, by the staffs of St. Bartholomew's and of the London Hospitals, with the result that the Commissioners have been convinced of the feasibility of creating a University School of Medicine in London which

will include all subjects of professional study, and which will conform to the ideals of a university which are generally accepted for the Faculties of Arts, Science, and Technology. The Commissioners therefore propose that, as in the other Faculties, one, two, or three University Constituent Colleges of Medicine be instituted in connexion with hospitals. In these colleges the financial and academic control of the schools must be in the hands of the University, the local management of each being carried out by a delegacy appointed by the Senate of the University. Each of these Colleges will include departments representing *all* the subjects of the medical curriculum subsequent to the Preliminary Scientific examination. Only University students, that is, those who are qualified for registration as matriculated students in the University, will be admitted to these Colleges, but it must be remembered that most students of Oxford and Cambridge, and probably of other universities, will be capable of being so registered. All the teachers in the Colleges will finally be appointed by the University, using the mechanism of Boards of Advisors as at present, as professors, associate professors, or readers. The "Faculty of Medicine" of the University will be composed of these teachers appointed by the University. Since these teachers will be selected and appointed by the University, they will be trusted to develop their teaching along their own lines, and to determine—subject to the general approval of the whole Faculty, and in the qualifying examinations to inspection by the General Medical Council—the nature and extent of the examinational tests to be applied. It is laid down, however, that assessors must be appointed to aid the professors in their public examinations.

It will be noted that the Commissioners thus accept the argument insisted on during the concentration discussion of a few years ago, especially by the teachers of the Medical Schools of London and Guy's, as to the great advantages connected with the close association of all subjects in the medical curriculum, intermediate and advanced, in the same educational institute. By throwing over "concentration," however, the Commissioners have had to abandon a principle on which much stress was laid by the advocates of concentration and of which they themselves approve in the early part of their Report—namely, the advantage to the student of an education in an institution where many Faculties are represented, so that he can broaden his mind in directions other than the immediate subjects of his studies. Both advantages are real ones, and I am inclined to think that if choice has to be made between them the Commissioners have taken the right course. Moreover, it is possible that the mixture of students of many Faculties may be effected to a considerable extent by the institution of hostels connected with the University rather than with any given College or School, whether of one or more Faculties of the University.

The most important innovation in this scheme, and the one which promises most for the advancement of medicine in this country, is the recommendation that University professors shall be appointed to deal with the clinical subjects. These professors are to have charge of wards and of laboratories attached to the wards. They will have a number of paid whole-time assistants, in addition probably to half-time unpaid assistants. They will have charge of an out-patient department connected with their wards. They will receive a salary of £1,000 to £1,500 a year, and will be expected to devote all their heart and the greater part of their time to the work of teaching and research in their department. They will, however, be allowed a certain limited amount of private practice—for example, two or three afternoons a week.

There is no question that these proposals of the Commissioners will meet with much criticism. Mediocrity is certain to be up in arms at the institution of any system which promises to pick out and place in a superior position the talented, the enthusiast, or the man of genius. But it must be distinctly pointed out that no proposal is made to abolish the present system of clinical teaching in London—namely, teaching by appointments. All the witnesses examined before the Commission were unanimous on the advantages of this system; and Flexner in his book on *Medical Education in Europe* expressly shows that the great lack in German medical education is some system like this, in which students obtain direct access to the patients during the whole of their professional studies. There is no doubt that in London the art of medicine and surgery is taught to the ordinary student better than anywhere else. This system, however, will not be any the worse for having added to it instruction by skilled teachers who are giving their life to their subject instead of by men in active practice who can spare a few hours a week for their hospital wards, but have no time either to carry out investigations for themselves or even to keep themselves abreast of the modern developments of science.

At the present time it is the training rather than the teaching which is the strong point of the London schools. The most important teaching that a medical student in London gets he receives from himself and from his fellow students, especially those holding senior appointments, as he passes through the various positions in the hospital with their graded responsibility. Much of the teaching by the staff is recognized by the students themselves as out of date. The actual instruction imparted in a school is largely directed to passing the students through their examinations, the most sterile form of instruction possible, since knowledge gained solely in preparation for an examination is apt to be thrown away and be lost a very short time after the examination is passed. In a real University the passing of the examination is not the end of the training, and should hardly bulk at all in the mind of the student. The whole aim of his education should be to fit him for his future work, to render him mentally alert and resourceful, keen to avail himself of the advance of knowledge, and prepared by scientific training to distinguish the true from the merely specious among the various modifications in the theory and practice of medicine which are being continually brought before the public.

The recommendation of the Commission that a certain limited amount of private practice should be allowed to clinical teachers will hardly count as an attraction to the right kind of men for the post, but it will be useful in furnishing a bridge by which a professor who is tiring of his earlier aims, or losing his enthusiasm and is beginning to be attracted by the more lucrative rewards of practice, may be enabled to give up his post and devote himself entirely to practice, his place being taken by some younger man with his enthusiasm for medicine and medical research still hot upon him. In this way a constant succession of the right class of man should be assured, and it must be remembered that these men will be drawn not from any given Medical School or College, but from the whole Empire.

FINANCIAL.

It is evident that no step can be taken in the creation of a Medical College or Colleges of this type until the new University is established. The Report suggests that one, two, or three of the existing medical schools might be taken over by the University. In each such Medical School the buildings and funds available for medical education should be vested in the University and be administered by a delegacy appointed by the University.

Suggestions are made in the Report for the manner in which adequate arrangements might be made between the University and the hospital with regard to the use of the wards for teaching, but this I need not go into.

It is calculated that in a School with an annual entry of about seventy students the income from fees, endowments, and grants from the Board of Education would amount to about £12,000 to £15,000, and would be sufficient for the requirements of the departments of Anatomy, Physiology, Pharmacology, and Pathology. To this the University would have to add another £12,000 for the service of the three units of clinical study—medicine, surgery, and gynaecology. Additional provision would have to be made, either in the school or elsewhere, for the special departments of clinical study, which would require further expense. Thus the University would have to be founded and provided with funds before it could carry out the negotiations necessary for the conversion of one of the present Medical Schools into a constituent College of the University. It is impossible at present to say which, if any, of the schools would be willing to accept the terms suggested. Although the School itself would gain enormously in prestige and usefulness, considerable sacrifice

would be required from the individual members of the present staffs; for the change would mean not only the sacrifice of their present autonomy and patronage, but also the admission of a new order of men who would be academically, though not necessarily professionally, of a higher grade than the present clinical teachers.

The change would also involve the transference of the whole future of the School into the power of a new and unknown body, and necessitates, therefore, considerable faith in the adequacy of the statutes made for the government of the new University, and in the quality of the men selected in the first place as members of the Senate.

It would be impossible, for instance, to imagine any Medical School daring to entrust its fortunes to the guidance of the present Senate.

I believe, however, that the principles laid down in the Report will be found adequate, and that if the right men are chosen by Government to guide the fortunes of the new University through the first six years of its life, there is a prospect of having after these seventy-five years of struggle a University worthy of London and a Medical School in the University inferior to none.

Those who oppose these changes will have to show that their opposition is really based on a consideration for the welfare of medicine and the medical sciences, and is not directed by a regard for the private interests of themselves or their Schools. The Report points out that the public are alive to the fact that hospitals founded and supported by charity should be used to the fullest extent for medical education and the advancement of medical science. If hospitals "are required for a University Faculty of Medicine in London which has no end in view but medical education and the advancement of medical science, the public interest must be considered, and the question of the privilege of access to the great London hospitals cannot be treated as a matter of private right, or decided as if they were the private property of the existing Medical Schools."

SPECIALISM IN THE GENERAL HOSPITAL.

The Phipps Psychiatric Clinic in connexion with the Johns Hopkins Hospital, Baltimore, was opened with the customary ritual of "exercises," speeches, and banqueting on April 16th.

It owes its establishment to the liberality of Mr. Henry Phipps of New York, who some years ago gave a large sum to Johns Hopkins in furtherance of the knowledge of tuberculosis. The cost of the building of the Psychiatric Clinic is estimated at £200,000, and Mr. Phipps has further undertaken to provide for its maintenance during the next ten years and has endowed a professorship. The director is Dr. Adolf Meyer, who during the last three years has been engaged in organizing the clinic, which is now ready for the reception of patients; his staff will consist of ten physicians and some fifty nurses.

Of the addresses delivered at the opening of the new foundation, the most notable was that of Sir William Osler, who discoursed on specialism in the general hospital. He said that, although in 1889 the Johns Hopkins Hospital seemed to many the last word in hospital construction, year by year since then new departments had been added, new lecture rooms, operating rooms, laboratories, and so forth. He recalled the fact that in the address delivered by him when he was leaving Johns Hopkins in 1904 he spoke of the need of special departments, expressing the hope that within twenty-five years they would have a psychopathic institute, a children's hospital, a genito-urinary clinic, and a special building for diseases of the eye, ear, and throat. Two of these were already in existence—the department for sick children, and now the psychopathic institute. Money had been furnished for the new genito-urinary clinic. Others would follow rapidly, and it was safe to say that within a dozen years there would be as many special departments, semi-independent units in a great organization. Each of these units was a place where sufferers received the best skilled help that could be given; each was a place where students were taught, and each was also a centre of study and research. Each unit represented a technical school linked to the university by the Medical Faculty. They differed from the more purely scientific departments of the medical school in one important particular. The hospital units minted for current use in the community the gold wrought by the miners of science. That was their first function. "Only a cold-hearted, apathetic, phlegmatic, batrachian, white-livered generation, with blood congealed in the cold storage of commercialism, could not recognize the enormous debt which we owe to these self-sacrificing miners of science; and yet there are to-day sons of Belial, brothers of Schimei, daughters of Jezebel, direct descendants of the scribes, pharisees and hypocrites in the time of Christ, who maligned these prophets and wise men, winners in a fight for humanity, unparalleled in the annals of the human race." Dealing more particularly with the new institute, Sir William Osler went on to say that the progress in the rational treatment of insanity was a bright chapter in the history of the past century. On the other hand one of the tragedies of the subject had been its dissociation from centres of active professional and university life. A department of medicine with the closest affiliation with the life of the community had been segregated and stamped with a taboo of a peculiarly offensive character. At Johns Hopkins it would take its proper place as a unit in the work of the medical school of the university. A new atmosphere would be diffused, a new group of energy and activity would come into the hospital which could not but be helpful. The medical student, living as he did in close fellowship with the hospital staff, would be influenced in this way by the very presence of the institute. It was to be hoped that time might be found for general instruction of the senior students in the elements of neuro-psychology. To a large class outside the institute it should prove immensely beneficial. He estimated that there must be a thousand or more assistants in the asylums of the United States whose pineal glands were not yet crystallized, and who should find there inspiration and help. He expressed the hope that room would be found for the general practitioner, through whom more than any other group the benefits of the institute would be distributed. The doctor in general practice needed enlightenment as to the vast importance of early deviations from normal mental states, instruction in new methods of diagnosis and treatment, and encouragement to feel that in the great fight for sanity in the community he was the man behind the guns. Men talked a great deal about the human mind, and when cornered quoted Hamlet to cover an unpleasant ignorance of its true nature. The modern student, like the ancient, took his stand either with Plato and compared the mind and brain to a player with his musical instrument, or with Lucretius to a musical box wound up for so many years to play so many tunes. Modern authorities leaned to one or other of these views. Three things they did know: Departures from normal mental states were extraordinarily common; they were the most distressing of all human ills, and they should be studied systematically by experts with a view to their prevention and cure. A widespread feeling had arisen that the hygiene of the mind was just as important as the hygiene of the body, that they must return to the Greek ideal of the fair mind in a fair body. He was afraid several generations must pass before they saw any practical result of the present active eugenic crusade. But there was an immense and hopeful work to be done in educating parents in training-stable methods. The orator expressed his confidence that the psychopathic institute would play its part in the national campaign of prevention of mental ill health through education, a campaign as important to the public as the great struggles against tuberculosis and infant mortality. It would be helpful, too, to study in a sane, sober, and sympathetic way epidemics of mental, moral, and even economic folly as they swept over the country. The present outbreak had not been equalled since the capture of the Roman world by oriental cults. The same old-fashioned credulity existed that enabled Mithras and Isis, Apollonius and Alexander, to flourish then as the new cults did to-day, and for the same reason. There was still potency in the protoplasm out of which arose in primitive man magic, religion, and medicine. So recent was the control of the forces of Nature that even in the most civilized countries man had not yet adjusted himself to the new conditions, and stood only half awake rubbing his eyes outside Eden. Still in the thaumaturgic state of mental development 99 per cent. of their fellow creatures when in trouble, sorrow, or sickness, trusted to charms,

incantations, and the saints. Many a shrine had more followers than Pasteur, many a saint more believers than Lister. Mentally the race was still in leading strings, and in the childhood of the world they could not expect people yet to put away childish things. These were some of the hopes that filled their hearts as they thought of the future of the new department.

Dr. W. H. Welch delivered an address, in which he said that Mr. Phipps wished the clinic to be for the "ameliorated treatment of the insane." There had been no branch more in need of close association with the medical school and hospital than psychiatry. The general practitioner as a rule lacked opportunities for study and investigation in this line of medicine.

Dr. Stewart Paton, of Princeton, in a speech on the clinic and the community, said that institutions of that kind were intended for the study of man on broad biological grounds. The patients presented themselves for treatment as victims of imperfect adjustment to life's problems. That clinic should be considered an important link among many other links—the home, the school, the university, and others.

Dr. Mott paid a warm tribute to the value of the new clinic, which he said was one of the most prominent, if not the leading, institution of its kind in the world.

Dr. Meyer pointed out that the institution had a great educational value, and should aid in bettering civic conditions. Now that the North and South Pole had been found, it was time for the public to take an increased interest in exploring the great field of the nature and function of the brain.

Three hundred and fifty guests, some of them of world-wide fame, sat down to the ceremonial banquet in the evening. Dr. William H. Welch was in the chair. Among those present were Sir William Osler, Dr. F. W. Mott, and Dr. William McDougall of Oxford, besides many American leaders in psychiatry and neurology.

THE BIOLOGICAL PROPERTIES OF MILK.

In the report of Dr. Janet E. Lane-Claypon to the Local Government Board the biological characters of human and cow's milk are considered largely from the standpoint of infant feeding, and an extensive literature on this subject comes under review. The subject is considered under two main headings:

(*a*) The ferments in milk and their mode of action.
(*b*) Those protective substances in milk similar to the bodies found in normal or immune serums which play a part in immunity.

The literature dealing with the individual substances is passed in review and the present position of knowledge considered.

The report should appeal both to the research worker and to all dealing with the questions of infant feeding and public health; for although the value to the infant of the substances reviewed would not appear to be great, to reach this conclusion has required an amount of critical reading and research on the part of Dr. Lane-Claypon not possible to many who are interested in all phases of the milk problem. Unfortunately, many of the earlier workers did not sufficiently realize the importance of employing only sterile milk, and hence it is not surprising to find that several of the enzymes originally stated to be present in milk are really derived from bacterial contamination.

Oxidizing Ferments.

The enzymes which receive most attention in the report are the oxidizing and reducing ferments and catalase. With regard to the former it was at first considered that two enzymes were concerned, one, an oxidase, giving a direct action; the second, a peroxidase, acting only in the presence of a peroxide, such as hydrogen peroxide. More recently, however, it has been shown (Moore and Whitley, Bach, and others) that the first of these is not an enzyme but a peroxide, so that only one enzyme need be considered—namely, the peroxidase; a direct action merely indicates that a peroxide is already present. In using the peroxidase reaction as a test for boiled milk it must of course be remembered that the addition of a small quantity of raw milk to a boiled sample will again make the test positive. In order to overcome this difficulty attempts have been made by Van Eck and others with a certain amount of success to carry out the test in a quantitative manner. Peroxidase appears to be always present in cow's milk, even when this is entirely free from bacteria. The enzyme can be precipitated from the whey by saturation with ammonium sulphate, and is probably associated with the lactalbumin. It is destroyed by heating to a temperature of about 75°.

In human milk its presence is less certain; it is, however, nearly always found in colostrum, and also in inflammatory conditions, such as mastitis. It would, therefore, appear to be derived from cellular elements, such as the leucocytes. The mechanism of the peroxidase reaction is not fully understood, but it seems likely that it depends on the presence in the milk of small quantities of metals or metallic salts in the colloidal state. This theory receives support from the work of Sarthou, who has shown that very minute traces of colloidal iron and manganese—two metals almost always present in milk—can bring about the reaction.

Reducing Ferments.

Passing next to reducing ferments, we have again to consider a direct and indirect action. The reagent usually employed to detect reducing enzymes is a solution of methylene blue, either alone or with the addition of formaldehyde (Schardinger's reagent). The work reviewed shows quite conclusively that milk free from bacteria does not reduce methylene blue alone—that is to say, the direct action, when it occurs, is due to bacterial contamination. It has even been suggested (Bartel) that this reaction might be used as a test for contamination. With Schardinger's reagent, on the other hand, reduction is brought about by cow's milk, even when sterile, though not by human milk, which contains, therefore, no reducing ferments. The mechanism of this reaction has received much attention from Bach, and an interesting review of this worker's chief results is given in the report. Bach suggests the name "perhydridase" for the enzyme acting in the presence of formaldehyde, and considers that its action is analogous to that of the metallic sols, which have been shown by Bredig and Sommer to possess similar properties. He thinks that scission of the water by the oxidizable substance (formaldehyde) takes place under the influence of the enzyme, which then forms a strongly reducing compound with the hydrogen. At the same time Bach calls attention to the analogy between the action of perhydridase and of peroxidase, which is indicated by the following equations:

$$\text{Peroxidase} + H_2O = O \text{ (peroxidase reaction)}$$
$$\text{Perhydridase} + H_2O = 2\,H \text{ (Schardinger reaction)}$$

Prolonged boiling of milk also leads to an increased reducing action, but this is probably due simply to the formation of reducing bodies in the process of boiling and cannot be caused by ferment action.

Catalase, the enzyme which destroys H_2O_2, appears to be nearly always present in cow's milk even when sterile. It is, however, much increased by bacterial contamination, many organisms such as *B. pyocyaneus*, *Proteus vulgaris*, and *Oidium lactis* being able to produce this ferment. The catalase reaction has, therefore, been suggested as a means of measuring the degree of contamination and several forms of apparatus have been devised for this purpose. In this connexion, however, it is pointed out that Schroeter found no connexion between the amount of oxygen evolved from H_2O_2 and the bacterial count, and hence it is obvious that the test cannot be applied in a very stringent manner. Catalase is usually present in human milk, but the amount is extremely variable. It is more plentiful in colostrum, and is also increased as a rule in ill health or where the gland is acting badly.

Other Enzymes.

The other enzymes have received very much less attention, but it would appear that sterile milk contains neither proteolytic nor lipolytic ferments, while the presence of

* Reports to the Local Government Board on Public Health and Medical Subjects. New Series, No. 76. Report to the Local Government Board upon the "Biological Properties" of Milk, both of the Human Species and of Cows, considered in Special Relation to the Feeding of Infants. By Janet E. Lane-Claypon, M.D., D.Sc.Lond.

lactase is doubtful. Amylase, however, is present in small quantities both in human and cow's milk, and it is interesting to find that, according to most observers, the hydrolysis of starch proceeds no further than to dextrin. It is difficult to see what use such a limited action could be, and further experiments are desirable to examine the correctness of this view.

Action of the Enzymes in Milk.

The enzymes usually present in fresh human milk are therefore catalase, amylase, and peroxidase, while cow's milk contains in addition perhydridase. A considerable amount of evidence is, however, brought forward to show that the presence in the milk of these ferments can be of little biological value to the infant. Peroxidase, for example, is rapidly destroyed by acid, and would therefore be inactivated on reaching the stomach, while amylase is already present in the saliva of newly born infants, and hence cannot be required in the milk. These ferments are probably derived for the most part from the blood, and their presence in the milk is therefore probably more or less accidental.

Protective Substances.

The protective substances dealt with in the report are such as have been directly demonstrated in the milk or have been investigated from the standpoint of infant feeding.

As to *complement* in milk, the work up to date has been carried out largely by the use of the haemolytic test. The chief points of interest elucidated are that complement is present in cow's milk in the colostral period, but that later it is absent or the quantity is so small as to be negligible. Some evidence, however, has been brought forward to show that it becomes substantial in amount in early mastitis. The complement of human milk requires a sensitive system for its demonstration.

Haemolytic amboceptor is found in normal cow's milk only in the early colostral period, and apparently not later. Bulloch was also able to demonstrate *specific amboceptor* in the milk of immunized rabbits. The results which have been obtained with haemolytic amboceptors probably indicate the type of behaviour of other specific immune bodies in the case of milk.

Bactericidal substances have been investigated by considering the growth of the organisms found in milk itself, and also the growth of organisms added to approximately sterile milk, the samples being kept at different temperatures. The growth was determined by plating out samples of the milk at stated intervals. The results of this method have been attacked by Rosenau and McCoy, and others who account for the apparent inhibition or bactericidal effect by agglutination. They have shown that slight traces of serum added to boiled milk produce the same effect: further, by breaking up the clumps of bacteria in fresh milk and counting, they proved that the inhibition was apparent rather than real. The work of Bub on this subject supports the contention of Rosenau and McCoy. Inhibitory and bactericidal action against *B. coli*, *B. typhosus*, *B. pyocyaneus*, *V. cholerae*, and the organisms found in ordinary milk, have for long been attributed to fresh milk, but most of the work on this subject requires repetition of the experiments under conditions which avoid the errors introduced by agglutination.

The *precipitins* in milk seem to have received little study. The account of Langer's work in this connexion is not stated in very clear terms.

The *agglutinins* of milk have already been noted as complicating and vitiating many of the experiments on the bactericidal properties of milk. The natural agglutinins are present in greater quantities in colostrum. It has been shown, however, that artificial agglutinins also pass out into the milk, and diphtheria antitoxin behaves in a similar way.

The general conclusion is that if specific immune substances are present in the blood of the mother they will pass out in small amount into the milk, in which they are present in the whey.

The value of protective bodies in the milk to the infant largely depends on whether they can be absorbed into the blood stream. The effect of digestion on these protective bodies is discussed. Complement appears to be destroyed in the stomach in the course of a few minutes, but the work of Ehrlich, Römer, Hamburger, and others shows clearly that some passive immunity can be conferred on the young of the species by the *milk* of a protected mother. The question as to the absorption of foreign protein through the mucous membrane of the infant's alimentary tract is discussed at great length, and much evidence adduced to show that it can be absorbed during the first few days of life, but in the case of the homologous whey proteins it appears possible that the absorption can go on for a longer period. Disturbance of the alimentary canal and excess of protein may also result in absorption of foreign protein in older animals. Specific agglutinin, according to the work of various observers, is not absorbed from the intestinal tract of sucklings, but apparently the subject has not been studied in the very young. The mouth feeding of young animals with dead vaccines, however, gives rise to marked formation of agglutinins in the serum.

The type of feeding seems to have some effect on the antibody content of the serum of infants. Pfaundler and his school have shown that the complement content of the serum at birth is high, that it falls after birth, and rises subsequently at a rate depending on the character of the infant's food. There seems some evidence to show that amboceptor for sheep's red cells, which is a normal constituent of human blood, appears earlier in the case of infants artificially fed than in those which are breast-fed. It has been suggested that this difference is due to infection, but the point has not yet been decided.

Finally, in a short addendum to the report, attention is called to the recent work of Schaumann and Funk on beri-beri,[1] and the bearing of this on the question of infantile scurvy is discussed.

Conclusion.

Dr. Lane-Claypon's main conclusion alone remains to be considered, and this can best be given in the author's words: "The weight of evidence suggests the absence of any direct value in the biological substances *per se*, but it also most decidedly shows the paramount importance of providing breast milk for the young animal. It would seem impossible to emphasize this fact too strongly, and all those concerned in the health of infants should aim at obtaining satisfactory breast feeding for all infants during, at any rate, the early weeks of life."

INTERNATIONAL CONGRESS OF MEDICINE.

LONDON, AUGUST 6TH TO 12TH, 1913.

IN the advertisement columns of to-day's issue a list of subscribers to the International Congress of Medicine to be held in August next will be found. A further sum of £2,500, which is the minimum required to cover the necessary expenditure, is asked for. This method of appeal has been adopted in order to avoid the very large expenditure entailed by a fresh general issue of circulars to members of the profession.

The expenses of this great meeting have in this country to be met entirely by private subscription, since the actual membership fees do not more than suffice to pay for the copy of the *Transactions* supplied to each member.

It will be noted that less than 600 members of the whole profession are at present represented in the list of subscribers, and that upon many of these will fall the further expense of private entertainment of guests during the course of the meeting.

We earnestly support the request for further subscriptions. It is expected that at least 7,000 persons will attend the Congress, an estimate which is fully corroborated by the entries which have been received up to the present time, and, further, that the meeting will be fully representative of the profession in the various European countries, America, and the British dominions beyond the seas. It may be pointed out that in the matter of private hospitality the executive will receive support from His Majesty King George, and from many prominent men, such as Lord Strathcona, the Hon. W. F. D. Smith, and Mr. Astor, as well as from the medical corporations and some of the City Livery Companies, and that the subscriptions asked for will be mainly

[1] BRITISH MEDICAL JOURNAL, April 5th, 1913, p. 722.

devoted to the scientific objects of the meeting. As the Congress is an international engagement, the larger the number of the names which appear upon the list, independently of the amount subscribed, the greater will be the compliment to our colleagues from abroad and from the Dominions who are visiting us upon this occasion.

Subscriptions may be sent to the Treasurer, International Congress of Medicine, 13, Hinde Street, London, W.

SECTION II.

Physiology.

The President of this Section is Professor E. A. Schäfer of Edinburgh; the Vice-Presidents, Professors Brodie, Gotch, L. E. Hill, McKendrick, Sherrington, Starling, Stirling, and Waller. The Secretaries are Dr. Edkins and Professors Halliburton, Noel Paton, and W. H. Thompson.

The number of set discussions is three; the one which appears to be exciting most interest, to judge by the number of those wishing to take part in it, is that on Internal secretions, which will be held jointly with the Section of Medicine. The Reporters in this discussion—Professor Gley of Paris and Professor Biedl of Strassburg—have been nominated by the physiologists. To introduce this subject a discussion on Endogenous protein metabolism, to be held in conjunction with the Subsection of Chemical Pathology, will be introduced by Professor Abderhalden, Dr. H. D. Dakin, and Professor G. Embden. The third discussion will be confined to the Section of Physiology, and will deal with the question of Reciprocal innervation: it will be introduced by Professors Sherrington and Max Verworn.

Perhaps the most interesting meetings of this Section will be three laboratory meetings, at which demonstrations will be given. These will be held in the Physiological Laboratories of the University of London, University College, London, and King's College, London, respectively. The remaining sittings of the Section will be occupied by the reading of papers; the number of titles sent in so far is not great, but they include communications from Professor Lendemann of Kiev, Professor Sivén of Helsingfors, Professor Graham Lusk, Professor N. Zuntz, and Dr. Iscovesco.

The meetings of the Section will take place in the rooms of the Physiological Laboratory, University of London.

The following is a provisional programme:

Wednesday, August 6th.—Morning: Demonstrations. Afternoon: Papers.
Thursday, August 7th.—Morning: Papers. Afternoon: Laboratory Meeting. University of London.
Friday, August 8th.—Morning: Discussion: Internal Secretions. Afternoon: Laboratory Meeting at University College followed by a Physiological Society Dinner.
Saturday, August 9th.—Morning: Papers. Afternoon: Garden Party at Professor Bayliss's.
Sunday, August 10th.—Morning: Picnic Party on the Thames.
Monday, August 11th.—Morning: Discussion: Reciprocal Innervation. Afternoon: Laboratory Meeting at King's College.
Tuesday, August 12th.—Morning: Discussion: Protein Metabolism. Afternoon: Papers.

The acting secretary is Professor W. D. Halliburton, King's College, London, to whom titles of papers and demonstrations should be forwarded without delay.

The entertainments arranged include an excursion on the Thames on the Sunday, a garden party kindly given by Dr. and Mrs. Bayliss at Hampstead, and an informal dinner given by the Physiological Society after one of the laboratory meetings.

THOSE in search of information with regard to Buxton can obtain it from a handbook recently issued. It contains a full account not only of the provisions made for the treatment of disease, but of the opportunities offered for motoring, golfing, and angling, and the enjoyment of music and picturesque scenery. There is also ample information as to hotels and lodgings. Special attention is drawn to the fact that this spa now has a winter as well as a summer and autumn season, and that during the former prices are somewhat reduced. Copies of the booklet can be obtained on application to the Bureau of information, Buxton.

VACCINATION INQUIRY IN THE ISLE OF MAN.

SEVERAL months ago the Manx House of Keys passed a Vaccination Acts Amendment Bill, the object of which was to secure exemption from vaccination by means of a conscience clause. Before becoming law it was necessary for the bill to be submitted to the Legislative Council for consideration and adoption or rejection. The Legislative Council decided to take expert evidence and conducted an inquiry. Dr. Hadwen (Gloucester) gave evidence against vaccination on March 1st; Dr. Drury (Halifax) and three resident doctors gave evidence in favour of vaccination on March 10th. At a meeting of the Legislative Council on April 21st the subject was further discussed and the Amendment Bill was unanimously rejected.

The evidence given at the inquiry has been published in a Blue Book. Dr. Hadwen first dealt with the question from a moral and political standpoint, and urged that it was absolutely wrong for any Government to embody a medical prescription—even supposing that prescription were a right one—among its legal enactments. Whatever might have been the conditions formerly, they did not now warrant any such enforcement, because small-pox had gone the way of the black death, sleeping sickness, and the plague. This was due to sanitary improvements. The State gave no guarantee that vaccination would effect the purpose it professed to accomplish. Vaccination was a cause of injury and death. Surveying the historical aspect of vaccination, Dr. Hadwen submitted that Jenner got £30.000 for the so-called discovery (which Jenner himself had not made) without presenting one atom of solid proof of what he professed to have accomplished. The whole great system had been built up on one solitary fictitious case. The medical men of Jenner's time accepted vaccination without any evidence whatever beyond Jenner's statements. Dr. Hadwen next dealt with the statistical side of the question. After thirty years of compulsory vaccination, the small-pox deaths increased. It was not until the passing of the Public Health Act that small-pox commenced to go down. At the present time, when half the population had not been vaccinated, there was practically no small-pox. He considered the Gloucester epidemic was due to the insanitary state of Gloucester. On the south side the whole area was in an insanitary condition, and the people were living practically over a huge cesspit. The main sewer was broken in every direction. The year was exceptionally dry, and the water supply ran short. He did not know about the necessity for the introduction of small-pox virus. It was constantly being said in these days that there must be an importation of small-pox. Cases had arisen in previous years which showed no connexion whatever with one another. He did not think there was any evidence that small-pox must be caught or that it must be introduced from elsewhere. His figures regarding the Gloucester epidemic did not agree with the official figures of Dr. Coupland. He could not conceive how such blunders were made. The alleged condition of the hospital at Gloucester was described in detail by Dr. Hadwen. It was said that the wards were undermanned, the nurses mostly untrained, and the earliest cases not properly attended by a medical man for days and weeks together; "the patients must have been simply choked with filth." He was a strong antivivisectionist. He would not say that cow-pox was syphilis, but cow-pox could not be distinguished from syphilis. Dr. Hadwen repeated this statement many times. He did not believe in the germ theory of disease in any form. It had never been proved that a specific germ produced a specific disease. The percentage of unsuccessful vaccinations in the West End of London was far larger than in the East End. This led him to suppose the West End doctor vaccinated with an exceedingly light hand, because he got his fee whatever might be the result. Regarding the dangers of vaccination, even the recorded cases of death did not include all, because it stood to reason that medical men would not like to give certificates condemnatory of their own acts. The majority of the profession believed in vaccination because the medical profession were more ready than any other profession to follow the fashion of the day. The medical profession had seldom been unanimous except when it had been

unanimously wrong. With regard to the practice of vaccination the medical profession had been misled by prejudice. Most of the doctors would admit there was no science for it. He did not believe in the use of antitoxius, in antiseptic surgery, or in any of Pasteur's works. Asked if he could give the names of any men in the front rank of the profession holding the views that he did, Dr. Hadwen mentioned the names of Dr. Charles Creighton, Professor Crookshank, Sir William Collins, and Dr. Tebb. There were, he said, a good many more. There was no widespread uneasiness whatever among the profession caused by the great diminution of vaccination. No medical man troubled himself about it. The only people who were troubling themselves about it were the public vaccinators because they were losing their emoluments. He would like to see the Legislature of the Isle of Man set an example to the whole of England, and not merely grant exemption to the conscientious objector, but wipe out compulsory vaccination altogether from the island.

Dr. Drury commenced his evidence by reference to the Royal Commission on Vaccination, its constitution and conclusions. The seven conclusions in par. 377 of the final report were read and emphasized. Diagrams suspended on the walls showed "The mean annual deaths from small-pox at successive life periods per million living at each such period (1847–87), England and Wales." After the introduction of vaccination there had been an enormous fall in the deaths from small-pox at the age under 5 years. This fall commenced long before the Public Health Acts and continued after. The antivaccinator would not consider the points "when" vaccinated and "how" vaccinated in dealing with the subject. The provaccinist considered this of great importance. The witness detailed the mortality-rates from small-pox in recent epidemics at Sheffield, Dewsbury, Halifax, Bradford, and Oldham. The marked difference between the mortality in the vaccinated and unvaccinated illustrated in these and other epidemics was most significant. He did not wonder at antivaccinators talking about colossal collusion when they deal with this aspect of the subject, because the figures worked out so uniformly in one direction, and that was practically the only explanation the antivaccinators could give. It was, however, nonsense to suggest that the medical officer of one town was in collusion with another to produce a uniform set of figures. After demonstrating the effect of vaccination in reducing the liability to death, Dr. Drury proceeded to show how vaccination effected a mitigation of small-pox in persons vaccinated long before. A table calculated on the cases in epidemics at Sheffield, Leicester, Warrington, and Dewsbury showed the proportion of mild and severe cases among the vaccinated and unvaccinated respectively. The figures were almost exactly reversed in the two groups. In Sheffield, for example, among the vaccinated at all ages the percentages of mild cases were 82.8; severe, 17.2. Among the unvaccinated the mild cases were 18.5, and the severe 81.5. He thought the statistics told rather unfairly in favour of the antivaccinators because of the large number of cases of imperfect vaccination, and these were put down as vaccinated. Small-pox was not absent from the country. There were cycles of epidemics almost rhythmic in their regularity. In November and December last there were 42 cases at Kirkcaldy; since then cases had appeared at Basford, Lydbrook, Bristol, Ayr, Cardiff, and Grangemouth. Quite recently between 20 and 30 cases were notified at Newhaven. As to the alleged dangers of vaccination, they were, in his experience, due to preventable causes. He had vaccinated between 8,000 and 10,000 persons, and had never seen a case that could be confused with syphilis. He proposed to hand to each member of the Council a copy of Dr. John McVail's review, which was a complete answer to Dr. Creighton's views regarding vaccination and syphilis. It had been suggested that syphilis increased during a period corresponding with increased vaccinations. The antivaccinator quoted from official returns to show this, but omitted to mention that the whole of the increase referred to was in infants under 3 months old—under the vaccination period. Further, the increase in syphilis was greater in the same period in Leicester than in England and Wales generally, vaccination being at the same time reduced to a minimum. The names of Dr. Creighton, Dr. Crookshank, and Sir William Collins were constantly being used by antivaccinators. Of these, Dr. Creighton told the Royal Commission vaccination afforded no protection at all. Dr. Crookshank admitted there was evidence to show a temporary antagonism between cow-pox and small-pox, and that for a period of two or three years small-pox, by the test of inoculation, would not take after an attack of cow-pox. The third—Sir William Collins—was not in reality an antivaccinator. He supported the unanimous decision of the Royal Commission that the State should continue to provide vaccination. It was a misstatement of fact to say there was no widespread anxiety in the profession. The persons who should be concerned were really concerned. He had collected about 150 "warning notes" from medical officers of health published in their annual reports recently. Examples were read from Ipswich and Liverpool. Dr. Drury handed to the Council the most recent book on the subject of vaccination and small-pox in Liverpool by Dr. Hanna. A communication which appeared in the British Medical Journal from the medical officer of health at Ossett (Yorks) was read by Dr. Drury dealing with an outbreak of small-pox among school children. This "unpremeditated experiment" brought out precisely the points with which the conclusions of the Royal Commission began, and the case for vaccination ended. The epidemic at Gloucester and the "Leicester method" of dealing with small-pox were discussed by Dr. Drury; also the recent outbreak at Newhaven, where three exempted children in one family died from small-pox on consecutive days in January. On the subject of compulsion he did not think the first conscience clause in England did much harm, but the second (1907) had brought about an enormous increase in exemptions. The Legislature would be justified in increasing the certainty, by any means possible, of getting the people properly vaccinated.

Dr. Thomas Mackenzie and Dr. Pantin of Douglas and Dr. Barbour of Ramsey gave important evidence on the subject, and urged the Council not to relax the vaccination laws.

As previously stated, the Council announced its decision on April 21st by unanimously rejecting the Amendment Bill.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

The annual general meeting of the London and Counties Medical Protection Society, Limited, was held on April 30th, at the offices of the society, 32, Craven Street, W.C. Dr. G. A. Heron, chairman of council, presided, and before submitting the annual report suggested that the meeting should send to Sir Jonathan Hutchinson a letter conveying the society's warm greetings and good wishes. He had been its president ever since its foundation twenty-one years ago, and was still keenly interested in its doings The suggestion was adopted unanimously.

The report submitted stated that the past year had been one of prosperity, despite many dangers and difficulties. Not only had the society, as usual, many battles to fight for its members, but it had itself been assailed in the law courts, an effort being made to apply the old enactments against Maintenance so as to hinder its work. The society, however, had been as successful in its own defence as it had in nearly all the cases it had taken up for its members. The fortunate results of the legal proceedings during the year had enabled it to save a substantial balance out of the moneys provided for the protection of its members against adverse verdicts in the courts. The council had watched very closely during the year the questions arising out of the National Insurance Act, but had felt that while the British Medical Association was conducting negotiations in the name of the medical profession any independent public action on its part might do more harm than good. In regard to the future, the council felt that in the new conditions of medical practice it would be more than ever necessary for medical men to provide by the help of the society against numerous possible and even probable dangers to their reputation and position. The plan adopted of providing against damages and costs of the other side in unsuccessful actions had worked very successfully. By undertaking the risk up to the extent

of £2,000 per annum, and reinsuring against anything in excess of that sum up to £20,000 per annum, the council had succeeded in retaining for the benefit of the society a considerable part of the money subscribed by members for insurance purposes. The report also supplied details of a number of cases in which the society's advice and assistance had been sought during the year, and concluded with a financial statement covering the work of the past seven years. The latter showed that, after valuing investments at their market value on December 31st, 1912, instead of at their cost price, and making all other due reductions, the society at that date had at its command for the work of the coming year resources equal to £36,568, in addition to annual subscriptions which would be received during its course. During the expired year 350 new members had been admitted, and 4,762 members were in benefit, in addition to 141 who, being in arrears with their subscriptions for more than a month, were for the time being out of benefit.

In moving the adoption of the report, Dr. HERON reviewed the early history of the society. It had risen from a very small beginning to one which, as the report showed, possessed a very substantial financial basis. It had seemed originally that a subscription of 10s. a member was a very small sum on which to start life, but the work done with that subscription had given results on which every man connected with it must look with satisfaction. Little by little money had been saved, thanks partly to careful management, partly to the fact that practically all the officers of the society did their work without pay, while those who were paid were remunerated on a very low scale. General expenses were still met out of the original subscription of 10s., the additional 10s. now paid being reserved exclusively for the purpose of insuring members against every possible risk of legal actions. The insurance was effected at Lloyd's, which, as it possessed no data for an estimation of risks, was only willing to undertake the work on a yearly contract. Hence, as also with the object of saving the premiums paid, it was desirable that the society should endeavour to accumulate an insurance fund of its own, say a sum of not less than £20,000. The general business of the society was increasing, for members had got to know that it was ready to help them in various small matters as well as in big ones, and sought advice in all sorts of predicaments. Most of such work was done by Dr. Woods, but when he did not feel equal to dealing with any given matter, he, with the consent of the council, handed it over to the society's solicitors, Messrs. Le Brasseur and Oakley, who did their work in a way which entitled them to the gratitude of the members of the society. The National Insurance Act would certainly give the society a great deal more work to do; as that meant increased expenditure, it was very desirable that every member of the society should do his best to increase its roll of membership, for although there was a reserve fund it would not be sound policy to allow general expenses per member to exceed the aggregate amount of the proportion of each annual subscription devoted to them.

The report having been adopted, the business concluded with the election of officers and a vote of thanks to the chairman. The president (Sir Jonathan Hutchinson), the vice-presidents, the treasurer, and the secretaries were re-elected, and the vacancies on the council caused by the annual retirement in rotation of a third of its members were filled by the re-election of Drs. Atkinson, Spriggs, and Stowers, and the election of Mr. Raymond Johnson.

MR. EDGAR JONES, F.R.C.S., of Great Burstead, Essex, who died on August 24th, in his 103rd year, left estate of the gross value of £14,981, of which £12,458 is net personalty.

AN addition has been made to the number of journals produced for the benefit of those who for one reason or another take an interest in horseless vehicles. This is the *Motorist*, a weekly paper whose distinctive features externally are a blue cover and its low price of one halfpenny a copy. It is freely illustrated, and proposes to cater more especially for the needs and tastes of the owner-driver, who is presumed to find too much purely technical matter supplied by the older motor journals. Should the standard of this first issue be maintained, the new journal is likely to become popular.

LITERARY NOTES.

MESSRS. T. C. AND E. C. JACK announce the publication of a new book entitled *Insects: their Life-Histories and Habits*, by Harold Bastin. It is a popular work, embodying in plain language all the latest knowledge regarding insects. The book is illustrated in colour and half-tone.

The name of Shetland, to most people, is usually associated with the manufacture of a certain kind of wool; but probably few of the present generation are aware that the neighbouring islands of Orkney were once almost equally well known for the exportation of imitation Leghorn straw for ladies' hats. Mr. John Firth, writing in the April number of the *Old Lore Miscellany of Orkney, Shetland, Caithness, and Sutherland*, says that straw-plaiting was introduced into the Orkneys by an English company about the beginning of last century, and for many years was a favourite occupation among the younger women, particularly with those whom some physical disability had rendered unfit for heavy outdoor labour in the fields. In those days almost every hamlet had its "plaiting-house," where the young men and girls of the district spent the long winter evenings, the latter busily plaiting straw by the light of the peat fire and a single "cruzie," whilst the former enlivened the monotony of their toil with songs and story-telling. Straw-plaiting was well paid, and the Orkney plait was, for a time, very popular in the south; but the reduction of the duty on foreign straw paved the way for a change of fashion that ultimately resulted in the extinction of an industry which had once given employment to nearly 7,000 women. The Orcadians themselves, however, put down its decline to another and quite different cause. "A story current in Orkney, and generally believed," says Mr. Firth, "was that Her Majesty Queen Victoria, on being presented with a straw bonnet, laughed derisively at it, and then placed it on the head of her pet dog; and that on hearing of this action of the Queen all the ladies in the south gave up wearing straw hats," probably one of the most remarkable explanations ever given of the vagaries of "Fashion, leader of a chattering train, whom man, for his own hurt, permits to reign." The same number of the *Old Lore Miscellany* contains a description of the early Christian monuments of Caithness, and some natural history notes on the habits of the sea-eagle, a species once common in the Western Highlands, but now, unfortunately, showing signs of dying out.

The horrors of war have been well described by many writers; but none, perhaps, have drawn a more moving picture of the sufferings of the rank and file than the famous collaborators Erckman and Chatrian, whose novel *Le Conscrit* enables the modern reader to realize the miserable plight of the wounded during the Napoleonic campaigns. The rough-and-ready treatment meted out to patients in a field hospital less than a hundred years ago is now, happily, a thing of the past, and to-day no effort is spared to ensure the comfort and safety of the sick and wounded after a battle. An interesting proof of the enormous improvement in military hygiene is given in the April number of *L'Hygiène*, which contains an account by Dr. Rebreyend of his experiences with the Red Cross Ambulance sent from France to Philippopolis at the beginning of the Balkan war. It supplements the more severely professional accounts of ambulances in the Balkan war given by Laurent of Brussels, and Monprofit of Angers, noted in our issue of March 22nd, p. 623. The French ambulance was established in an empty college belonging to the Assumptionist Fathers, whose pupils had deserted them as soon as war was declared, and the new arrivals found themselves well received by the Bulgarians, whose confidence and affection they quickly gained. His touching belief in the infallibility of the French doctors and the dauntless courage that seems to be a characteristic of his race made the Bulgarian soldier an ideal patient, and Dr. Rebreyend and his colleagues had the satisfaction of seeing many men leave the hospital restored to health and activity after injuries that a century earlier would either have killed them outright or disabled them for life. An interesting pendant to Dr. Rebreyend's experience of modern warfare has been contributed to the April number of *L'Hygiène* by M. Pasteur Vallery-Radot, who has had frequent opportunities during the last few months of observing the effects of gunshot wounds in the hospitals

of Constantinople. The same number of our excellent contemporary also contains the first instalment of a series of articles by Dr. Cabanès on the hobbies and amusements of European royalties; and some useful hints from Mme. Augusta Moll-Weiss on the diet of young children.

Questions of "purity" of speech have always excited a good deal of interest among readers of the Journal. We have always contended that philological pedantry must not be allowed to hamper the growth of language. It is related that Lord Thurlow was once waited upon by a deputation of Nonconformist divines, who asked him to help in the redress of certain alleged grievances and disabilities. The Lord Chancellor told them he could do nothing for them unless they got their "d——d religion" established by law. This irreverent expression applied to language seems to state the true principle, which is that whatever gets itself established is right. In an excellent article on the *Oxford English Dictionary* which appeared some little time ago in the "Literary Supplement" of the *Times*, it is pointed out that the problem of "purity" of language confronts Frenchmen and Germans as well as ourselves. M. Henry de Gourmont, in his *Esthétique de la Langue Française*, says "purity" consists in assimilation. He holds that the French words are pure which have undergone those modifications and changes by which the French language has been created out of Latin and given its French character and sound. On the other hand, "impure" words are those which have been imported by scientists and scholars unchanged from the classical languages, or have come in from modern tongues unassimilated in sound and form.

> As English is partly Teutonic and partly French in origin and character, it is in a combination of the German and French ideals of purity that we shall find the soundest basis for our conservatism. From the Germans we may learn to encourage native terms and from the French to assimilate our borrowings and make them conform to native ways.

The writer goes on to explain that by the "Anglicity" or integrity of the English language is, or should be, meant the harmony of our new terms with the real core or central part of the language. Those which are out of harmony with this should be regarded as "impure," and we should endeavour to modify them or cast them out. But, as we have insistently urged, language is a living, ever moving thing, the advance and expansion of which cannot be controlled by artificial restrictions. As the writer from whom we have quoted puts the matter:

> We cannot "shut up the sea with doors or draw our Leviathan with a hook," and it would seem as if the individual must struggle in vain against the great collective will of the community.

That collective will, it is added, is not altogether a blind force; it is ultimately governed by a confused sense of what the language ought to be. More and more the soundness of this speech-feeling depends upon the taste of the educated classes. If they encourage the right fashions, the set of the language will be guided in the right direction. The writer goes on:

> But something the individual can do towards forming a healthy state of public opinion; and in cases of undecided usage he can give his vote (which may be a casting vote) for the purer and more English form. He can help to wear off the awkward newness of new and native compounds; and when foreign words appear in two forms (*fori* and *focusses*, for example) . . . he will have a sound and definite principle to direct his choice. And if he be a fanatic in the cause of purity he can easily attain to martyrdom by attempting to naturalize the large and increasing number of our unassimilated terms. He will be committing a solecism but committing it in a good cause; and our usage, which has already discarded so many foreign pronunciations and so many pedantic plurals—*asyla, ideae, chori, musaea, sphinges*—may come round to him in the end.

We do not, however, allow that he is guilty of a solecism when he gives the adopted word an English dress; he is doing his best to maintain the "purity" of our speech by promoting the assimilation of foreign words. The "martyrdom" to which he may attain by this would scarcely entitle him to a place in the *Acta Sanctorum*. We have ourselves been through it in respect of such plurals as "serums," "sanatoriums," and we have had the satisfaction of seeing them already almost as firmly established as "encomiums," "eulogiums," and so forth. Doubtless there were some who felt their sense of philological propriety outraged when Matthew Arnold wrote of "Cerberuses," but the author of *Friendship's Garland* is not one penny the worse in literary reputation for the "solecism."

SCIENCE NOTES.

As a result of research work carried on by the National Fruit and Cider Institute at Long Ashton, in Somerset, it has been demonstrated that the blackening of pear blossom and foliage, resulting in the withering of the fruit, is due to a specific bacillus, and not to frost and cold winds, as is commonly supposed. In reply to a question in the House of Commons, however, the President of the Board of Agriculture has stated that the Board is not at present in a position to issue a leaflet on remedial measures.

At a meeting of the Roentgen Society, on May 5th, Dr. F. Hernaman-Johnson, in a paper mainly on the subject of the secondary radiation obtainable from metallic and other substances when excited by a primary *x*-ray beam, mentioned that divergent results were forthcoming from the electroscope on the one hand and the photographic plate on the other when employed to measure this secondary-ray effect. In discussing the paper, Mr. J. H. Gardiner, F.C.S., said that a little thought made it clear that the difference between the indications given by the electroscopic and by the photographic method was inevitable. The action on the photographic plate was cumulative, while that on the electroscope was instantaneous; further, the photographic emulsion itself acted as a screen, and this introduced another variable element. Mr. C. E. S. Phillips said that attempts to measure secondary radiation by means of the photographic plate were necessarily vitiated by the scattered primary rays. An interesting suggestion was put forward by Mr. F. H. Glew, who had attempted to obtain the photographic effect of the secondary radiation proceeding from gold, silver, and copper. Using a hard tube, he had found that the silver gave an entirely abnormal effect, its image being disproportionately intense, and he thought it quite possible that the silver in the photographic plate itself acted selectively, having a preference for its own radiation, so that in the case of a silver medium an *x* radiation was excited to which the silver in the photographic plate was specially responsive. The photographic effect might therefore be due to an ionization action on the silver and not to a wholly chemical action, nor to a physical one, save so far as ionization was physical. If this were the case, photographic effects obtained in many investigations of the kind were open to error.

The murexide reaction is the standard test in use for the presence of uric acid in the blood, but it is merely a qualitative test, and as it is liable to confusion with the xanthroproteic reaction, owing to the presence of various protein materials and phenol compounds in the blood, it is probable that many of the positive results that have been reported were erroneous. The methods devised for quantitative estimations are either not sensitive enough or demand a very large quantity of blood for their application. Folin and Denis use a phosphotungstic acid solution (*Journal of Biological Chemistry*, January, 1913) which is capable of detecting 1 part of uric acid in 1 million parts of water. The blue colour obtained from ¼ mg. of uric acid is adequate for a quantitative estimation, and this amount has been found to exist in from 15 to 25 c.cm. of normal blood. A weighed volume of blood is oxalated, and after treatment with five times its volume of boiling acetic acid solution is filtered and the residue refiltered after treatment with boiling water. The combined filtrates are further acidified and evaporated to a small volume. The uric acid is precipitated from this concentrated mother liquid by alkaline silver lactate solution, and after treatment of the precipitate with hydrogen sulphide the uric acid is obtained in solution. The blue colour produced by the addition of the phosphotungstic reagent is estimated approximately by dilution to the tint of one of the standard solutions, and then accurately determined by comparing it with that standard in the colorimeter.

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PSYCHIATRY AND THE GENERAL HOSPITAL.

ELSEWHERE will be found a report of the opening of a special department for the study and treatment of mental diseases in Johns Hopkins Hospital, Baltimore. The Phipps Psychiatric Clinic owes its existence to the enlightened liberality of a wealthy citizen of New York who sees in it a means of improving the treatment of the insane. How much has been done in that direction by the combined efforts of physicians and philanthropists in modern times can be learnt without laborious research by a glance at Hogarth's picture of Bedlam, which represents the last of the phases of the "Rake's Progress," or at Goya's still more dreadful picture of the Casa de Locos.

The clinical study of insanity has shed much light on the manifestations and course of insanity, and in recent years the investigation of its pathology by the scientific methods of the laboratory has led to the discovery of the physical basis of certain forms of the disease. But the immense importance, not only to the insane themselves but to the community, of a knowledge of mental disorder is still imperfectly recognized by those entrusted with the management of public affairs, and not at all by the people who place it in their hands. To this cause, combined with a short-sighted economy, is due the amazing apathy which so long delayed the realization of Dr. Maudsley's scheme of a hospital for the treatment of the insane in London, and at one time threatened to defeat the object of his princely munificence. As has repeatedly been pointed out, institutions on hospital lines where cases of acute insanity and those in the incipient stage can be promptly dealt with, where cases on the borderland can be watched, and where chronic cases can be weeded out and drafted to asylums, are essential if really satisfactory results are to be obtained. It is obvious that the indiscriminate herding together of masses of mad folk in huge barracks does not place them in conditions favourable to recovery.

Magnificent as are many of our asylums, we are sadly behind Germany and the United States in the matter of hospitals for the scientific study and treatment of mental diseases. In Germany every city of more than 50,000 inhabitants has a small hospital for acute cases and a colony for chronic lunatics in the country. Dr. Peterson of New York has strongly advocated this as the ideal system. In the United States emergency cases of insanity are, we believe, treated in the Bellevue Hospital, New York, and in the Blockley Hospital, Philadelphia. Bellevue has a separate pavilion for the purpose, with thirty beds and a resident medical staff. Some years ago the general hospital of the city of Albany, New York, built a model pavilion for the exclusive care of the insane, and a mental hospital was constructed by the State of Michigan in connexion with the State University at Ann Arbor.

Until lately insanity has been looked upon as altogether different in kind from other diseases, and the medical student has had very limited opportunities of studying the phenomena that indicate a disordered mind. The subject has to a large extent been isolated, and as a necessary consequence has been neglected by all but specialists. In Germany, indeed, psychiatry has been kept in touch with general medicine by the establishment of clinics in connexion with the universities. Every university has a psychiatric clinic, with pathological, chemical, and psychological laboratories. Special mention may be made of those of Giessen, Berlin, Kiel, Munich, Breslau, and Greifswald. Of the scale on which these institutions are built a notion may be formed from the fact that the one in Munich cost £120,000. Dr. Peterson, in his article on the hospital treatment of insanity in the *Encyclopaedia Britannica* (1902), says that the mental hospital should, if possible, be associated with a university or medical school; and Sir Thomas Clouston recently stated that this view is now accepted by all medical psychologists.

The Phipps Psychiatric Clinic is not only a university clinic; it is also a special department of a general hospital. This is a great advance which will bring the study of mental disease out of the seclusion in which it has hitherto been forced to dwell into free commerce with other provinces of medical activity. Psychiatry, instead of being, in the words of Sir William Osler, stamped with a taboo of a peculiarly offensive character, will, at Johns Hopkins, be in organic relationship with the clinical study of other diseases, and the student will realize that it is not an art or mystery standing by itself, but a living branch of the great tree of medicine. The Clinic will be a centre from which knowledge will be diffused among assistants in asylums and also among general practitioners. We need not labour the point that it is vitally important that doctors in general practice should be able to recognize the signs of oncoming insanity, and should be fully acquainted with the relations between mental disease and heredity. On them often depends the hope of cure for the patient, while to society they are the first line of defence against the spread of insanity. They will have a much better chance of obtaining the necessary knowledge in a hospital clinic than in the wards of an asylum.

Sir William Osler speaks of a national campaign against mental ill health through education. By "education" we take it that Sir William Osler means the education of the public mind in a rational system of eugenics. But there is another way in which insanity may be to a considerable extent prevented. Dr. Mott and others have shown that certain forms of insanity are caused by syphilis, and are therefore for the most part preventable. The diminution of syphilis would therefore entail a corresponding diminution of insanity. A campaign for the prevention of syphilis has recently been organized in Australia, and is said already to give good promise of success.

Sir William Osler concluded with the pregnant suggestion that a study, at once critical and sympathetic, of the epidemics of mental, moral, and economic folly which sweep over classes of people and whole nations, would be helpful. Certainly nothing would be a greater benefit to society in these days of superstition, credulity, sentimentalism, and contagious hysteria, than the discovery of means of conserving sanity in the individual and the community. To this end the human mind must be

closely studied in all its vagaries; the source of these must be traced, the conditions that favour or check their development determined, and the means of turning the perverted energies to which they may be due into right channels if possible discovered. This will be the work of the Phipps Psychiatric Clinic, and we heartily share Sir William Osler's hope that it will be successful. It is to be wished that the example of Mr. Phipps may be imitated by some philanthropist in this country. There is a large field for the study of the pathology of the mind, and, although much may be expected from the establishment of the Maudsley Hospital, there is abundant room for the psychiatric clinic.

THE CAROTID BODY.

Although this little bilateral structure was found by Haller so long ago as 1766, it is only quite recently that attempts have been made to apply the test of experiment to the question of its possible functions. The carotid body is present in all mammals; according to some writers it is found in birds; its presence in reptiles has been proved by Trinci (1909, 1912), and by de Gaetani (1912); Maurer describes it as present in amphibia but absent in fishes; it does not appear to have been found in cyclostomes. In man it is situated most commonly on the inner side of the common carotid artery close to the bifurcation—the site in which de Gaetani has found it in *Lacerta viridis* and *muralis*. The human carotid body is a greyish or brownish-red ovoid body, measuring from 5 to 7 mm. in length, 2½ to 4 mm. in breadth, and 1.5 mm. in thickness; it is sometimes bilobed. It is highly vascular—a fact which tends to prove that it is not a rudimentary and functionless organ. Its arterioles come from the common carotid artery or its two main branches. It has an extraordinarily rich supply of nerves, chiefly non-medullated; these were described by Luschka fifty years ago as coming from the plexus intercaroticus, which is formed by fibres from the glosso-pharyngeal nerve, branches of the vagus nerve, and communicating twigs from the superior cervical ganglion of the sympathetic. This very rich nervous plexus contains some very small ganglia. Kohn describes a close relationship between the nerve fibres of the carotid body and its specific cells. He recognizes four histological types of the mammalian carotid body: (1) The compact circumscribed form in which the connective tissue of the organ is finely divided so that the cellular character of the tissue stands out prominently, a type seen in the cat; (2) the lobular type with much connective tissue, as in the monkey; (3) the insular type seen in man, the organ being divided into separate islets by connective tissue; (4) the diffuse type, consisting of scattered islets, as in the rabbit. As a rule the cells of the carotid body are large. Their shape varies considerably; they have a large granular nucleus, and one, or even sometimes two, nucleoli.

Various opinions have been held as to the nature and the morphological position of the carotid body. The earlier anatomists looked on it as a nerve-ganglion; Luschka considered it to be of glandular nature, resembling the pituitary and the adrenals. Its developmental origin was held by Stieda to be from the epithelium of a branchial cleft. Some observers derived it from the parathyroid bodies, which are themselves of branchial origin. Yet others claim to have proved that it arises from a thickening of the internal carotid artery at its point of origin, and that its elements are not epithelial, but perithelial. Modern embryologists for the most part accept the teaching of Kohn that it is derived from the embryonic sympathetic system. Kohn regards it as a part of the chromaffine system, and gives it the name of paraganglion intercaroticum; yet he admits that its cells, even when fixed with the mixture of potassium bichromate and formol (which gives a marked chromaffine reaction in the case of the true paraganglia), do not for the most part take the yellowish-brown coloration well, while some fail to take it at all. But he claims that even these uncoloured cells show by their form, size, and disposition, the characters of chromaffine cells. Still, we do well to bear in mind that mere cell-characters form a very unsafe basis on which to found a morphological classification. It is important to note that Pende (1909) failed to obtain the chromaffine reaction by Kohn's staining methods in the case of the carotid bodies of newly-born children, whilst he got it readily in the case of the ganglia of the solar plexus, the adrenal medulla, and the paraganglion of Zuckerkandl (the temporary aortic bodies found in the newly-born child). Again, Tarozzi failed to get the reaction in the carotid body of human adults; and lastly, Vassale (1911) failed also in the case of the cat's carotid body, while he obtained an intense chromaffine reaction from small punctiform paraganglia found in these animals in the course of the abdominal sympathetic. He notes also that in the cat he never got the perchloride of iron reaction of Vulpian, which is characteristic of the vaso-constrictor principle of paragangline, the secretory product of the paraganglia. Vassale therefore concluded that the carotid body could not be included in the paraganglia, and that it was an organ whose nature still remained to be determined. The tumours of the carotid body, which occasionally occur in man, have received attention from many pathologists, and they have even formed the subject of a thesis by M. Pagès (Montpellier, 1911); but up to the present, however, clinico-pathological studies have quite failed to throw any light on the functions of the carotid body.

The earliest experiments were apparently those of Scaffidi; it is stated by Vassale that Pende mentions that Scaffidi got entirely negative results from bilateral extirpation of the carotid body in guinea-pigs. Similar extirpation experiments were attempted by Vassale in 1911 in cats; but he found that in them complete extirpation was difficult, if not impossible, on account of the great risk of injury to the carotid artery. He chose the cat for his inquiry because, as was first pointed out by Kohn, that animal's carotid body is a compact parenchymatous organ, is clearly delimited from neighbouring structures, and is composed of numerous cell groups with little connective tissue. Vassale failed to completely extirpate the cat's carotid bodies, and adopted the method of their destruction by the cautery. He carried this out successfully in thirteen cats and kittens. In all the animals glycosuria appeared in the first urine voided on coming out of the chloroform narcosis; this disappeared usually on the fourth day. Albuminuria was generally absent; when present it appeared as only a trace on the first day. During the period of temporary glycosuria the animals were depressed, their hair was bristly, and their voice was raucous; but appetite remained good and recovery was perfect except in the case of two kittens, which were kept under observation for five or six months; although they ate voraciously and showed no glycosuria after the first three days following the operation, yet they became cachectic, showed alopecia of the head, neck, and body, emaciated greatly, and died from asthenia.

Vassale does not believe that the post-operative glycosuria is due to a lesion of the very abundant nerves of the carotid body, for in one case of attempted bilateral extirpation he found that a small piece of one carotid body was left, and yet glycosuria followed. In another case avulsion of the nerves entering the carotid body was followed by only minimal traces of glycosuria. With reference to these experiments it must be remembered that the cat is specially apt to show temporary glycosuria after any operative procedure. We cannot, therefore, admit that Vassale's experiments materially help us to understand the nature of the functions of the carotid body, and still less the mode of their action.

The recent experimental studies of Frugoni (1912) have added facts of positive value which help towards a better understanding of this question. He has approached the subject by means of the extract-injection method. He prepared extracts from the carotid bodies of young calves by a special method, so that 4 c.cm. of the extract represented one carotid body. He found that 4 to 6 c.cm. usually proved rapidly fatal when injected intravenously into rabbits. Changes were found in the blood, heart, and respiration, but he established the interesting fact that, by diminishing the interval between small doses, which were well borne, and by gradually increasing the dose, he was able to set up such a tolerance that even many times the ordinary fatal dose was easily borne. Small doses of carotidin gave rise to moderate vascular hypertension followed by fall of pressure, which was considerable and prolonged; it was proved that this hypotensive phase was not due to a modification of tonus of the bulbar vasomotor centre; it was shown that carotidin had a definite vaso-dilator property, and that the hypotension was, at any rate, largely subordinated to this vaso-dilator action. Experiments on the isolated hearts of rabbits showed that the vascular hypotension was not due to cardiac weakness; the extracts, indeed, tended to strengthen the heart. Frugoni did not observe changes in the blood vessels following repeated carotidin injections, such as are produced by adrenalin, lead, or tobacco. He further demonstrated the interesting facts that adrenalin when injected in the complete hypotensive phase of carotidin, gave its usual blood-pressure effects; that carotidin, when injected in the hypertensive phase of adrenalin, gave some hypotension, but only in large doses; and finally that, when adrenalin, and carotidin were injected simultaneously, the effects of adrenalin were always obtained, but possibly with a slightly less abrupt rise of blood pressure than that produced by adrenalin alone. Frugoni concluded that the carotid body probably possessed a true internal secretion, but that its existence could not at present be categorically affirmed. These experimental studies of Frugoni will, of course, be repeated, amplified, modified, and added to. One application is sorely needed: we need to know what histological changes, if any, occur in the endocrine glands of both young and old animals which have been previously injected with carotidin, from young and old animals, both in the case of the large, rapidly fatal dose, and in the case of smaller, long-continued doses.

In view of the conflicting opinions as to the genetic origin of the carotid bodies, and the absence of all chromaffine reaction in at least some of their cells, it seems quite possible that these little bodies may prove, on renewed embryological study, to be of double ontogenetic origin; in that case, they would be brought into line with the adrenal glands whose double genetic origin has been proved by many observers. Be that as it may, we now have definite proof that the carotid body has an action on blood vessels; and we must class it among those many small gland-like bodies which have an action on body metabolism, an action which is as yet by no means nearly fully understood. One important point concerning the carotid body which seems not to have been studied is whether it remains of constant size throughout life or becomes smaller or larger during post-natal life. Even if it becomes smaller, we should not be justified in saying that it is useless, or is even becoming useless. Who will to-day be so rash as to say that the adrenals are becoming useless? And yet the fetal adrenals are much larger absolutely, and enormously larger relatively, than in post-natal life; and they go on diminishing in size in relation to the body weight of their possessor during the passage from early life to maturity. This question of the gradual changes in the size of organs, and the probable gradual change in functions that accompanies them, is one of the greatest physiological problems waiting for solution. It seems probable, in the light of Darwin's work, that all organs are always changing, the only difference being that some change very slowly—that is, the testes, etc.—and others more quickly and more radically. Any one who may be inclined to sniff contemptuously at the bare idea of such an insignificant looking organ as the carotid body possessing functions may be advised to remember that, if Maurer be right that these organs exist in amphibia, the history of the carotid body goes back to the Permian period of the Palaeozoic era when amphibia first made their appearance. And when we have got back so far as that we have gone a long way indeed! And yet here is this small body still "going strong" and showing no signs of any intention to disappear in any animal that is known to possess one. It may play one of the small parts in the physiological drama, but that it does its part well we cannot doubt.

HOUSING REFORM.

AN important statement was made by the Prime Minister on May 7th, in reply to Sir A. Griffith-Boscawen, who directed his attention to the speech made by the President of the Local Government Board in Standing Committee A on May 1st, in which he stated that the proposed grant-in-aid of housing was wrong in principle, and that it would deter private enterprise and discourage local authorities. It was asked whether in this matter the President of the Local Government Board was speaking for himself only or for the Government, and whether the Government had definitely decided against State grants-in-aid of housing.

The Prime Minister said that the remarks of the President of the Local Government Board were directed to criticizing the financial proposals of the bill under consideration, and that he agreed with him that in that particular case they would have been wasteful and unjust. The Prime Minister, however, added that the Government certainly had never said, and did not say now, that the question of grants-in-aid was excluded from consideration.

Other statements also recently made by the Prime Minister indicate that the representations which are being made from all quarters of the House on this subject are receiving the attention of the head of the Government, whose public utterances afford a welcome contrast to the attitude adopted by the President of the Local Government Board. It must

be plain that, whilst under the existing law considerable clearances of insanitary dwellings may be made, the difficulty of rehousing the displaced occupants is not being overcome, and that the whole subject of the character, powers, and duties of the local authorities, the security of tenure of their medical officers, and the rehousing at economic rents of displaced tenants are all so inter-related and involved that simple and effective reform, coupled with State aid, are essential if progress is to be made. It would appear, however, that he would be a sanguine person who looked for such undertakings whilst the policy of the Local Government Board, as defined by its President, remains as it is at present.

THE NATURE OF THE WASSERMANN REACTION.

That the Wassermann reaction for syphilis is not a true example of the Bordet-Gengou phenomenon was early demonstrated, but the real nature of the reaction still requires elucidation. Recent researches by Thiele and Embleton[1] with the object of discovering the true nature of the antigen and antibody, throw some further light on the subject. They conclude that the antibody so-called in the Wassermann reaction is not a true antibody, and is not characteristic of syphilis, but is probably only a stage in the formation of an anticomplementary combination which develops when there is rapid tissue destruction, as in acute infections, narcosis, and death. In all these processes proteins and their cleavage products are set free, and phosphatids are liberated. The latter form new combinations of the nature of non-specific antibody and antigen. In syphilis the process of destruction is slow, and the anticomplementary combination is not complete until an active lipoid has been added. The tissue destruction occurring in acute infections, after narcosis, and during and after death accounts for the apparent Wassermann reactions reported in such cases, but the authors do not regard these as true Wassermann reactions. Again, as regards the antigen, these observers find that the complement-fixation property is independent of the number of spirochaetes, their products, or changes due to their presence, and that there is no evidence that syphilitic organ extracts bind antibodies which cannot be bound by non-syphilitic extracts. They draw attention to the errors which may occur in carrying out the Wassermann reaction. In the first place, the antigen itself may be anticomplementary, and "an antigen can cause relatively and absolutely quite a large absorption of complement before any trace of inhibition of lysis becomes evident." Secondly, serums often contain anticomplementary substances which increase on standing. They also state that if two anticomplementary substances are mixed together, the complement-binding power of the mixture is much greater than the sum of the quantities bound by the separate components. In this way the mixing of an anticomplementary substance such as cholesterin with the antigen in the Wassermann reaction causes an increased absorption of complement, much greater than the sum of the quantities which are bound through the reaction, and through the anticomplementary power of cholesterin. The reaction is thus made more sensitive, while much more complement is absorbed. This is, however, in no way a property of syphilitic serum, but always occurs when two anticomplementary substances are brought together. This power they call the adjuvant phenomenon. They conclude, finally, that a true Wassermann reaction is only produced by injection of tissues of homogeneous origin. Thiele and Embleton's researches are no doubt of much interest from the biochemical point of view, but it can hardly be said that they add much support to the diagnostic value of the Wassermann reaction, for it appears that not only does the reaction bear no relation to the presence of spirochaetes, but also that, unless the test is performed with definite quantities of reagents (themselves more or less unknown quantities), an apparent Wassermann reaction may be produced by anticomplementary substances present in the antigen or serum.

[1] *Zeitschrift f. Immunitätsforschung*, Bd. vi, Heft. iv, p. 430.

ACTION OF NORMAL PRODUCTS OF METABOLISM ON THE CIRCULATION.

In a thesis for the degree of M.D., E. L. Backman[1] has given an account of work done by him at the Physiological Institution at Upsala and elsewhere between the years 1905 and 1912, as to the action, if any, of the products of metabolism, particularly the nitrogenous decomposition products, on the normal circulatory system. The experiments on the heart and blood pressure were carried out on rabbits, and the substances tested included ammonium carbonate, sodium hippurate, creatin, hypoxanthin, xanthin, and allantoin. The dilution of these bodies corresponded as closely as possible to that in which they may occur in the blood in health or disease. It was found that a 0.16 per cent. solution of creatin increased the contractility of the isolated heart, and that an intravenous injection of creatin solution, constituting 0.18 per cent. of the blood, caused a marked and continuous rise of blood pressure and a transitory increase in the pulse-rate. Many of the other substances had a somewhat similar action, but the rise of blood pressure varied considerably in character. He describes four types of pressure curve. In one the variations were slight but well maintained; in another the pressure fell to a marked degree, but rapidly rose again; in a third, when sodium hippurate was given, large oscillations of blood pressure were observed over a long period; in a fourth, when ammonium carbonate, creatin, hypoxanthin, or allantoin were given, the pressure fell rapidly, and then rose slowly to normal. The author concludes that, in certain strengths, all the substances he has tested increase the work done by the isolated heart. Several of the substances, when injected into the blood, increase the pulse-rate and raise the blood pressure. Many, too, are powerfully diuretic, and he credits them with the power of stimulating the circulatory system, and thus effecting their own elimination. Whether they also act directly on the renal epithelium, and thus hasten their excretion, is not clear. The thesis contains no promiscuous speculations about the conclusions to be drawn from the experiments as applied to man, and even as applied to the experimental animal Backman is guarded. He is honest enough, in fact, to admit frequently that his work is incomplete, and that further investigation is required.

[1] *Bidrag til Fragan om Normala Ämnesomsättningsprodukters Verkan pa Hjärta och Blodtryck.* Af E. Louis Backman. Upsala: Almquist und Wiksell. 1912. (Demy 8vo, pp. 282.)

THE ORIGIN OF A BACTERIOLOGICAL CHAIR.

In addition to the Moncrieff Arnott Chair of Clinical Medicine, the regulations for which were approved at the meeting of the University Court on May 7th (see page 1089), another medical professorship in the University of Edinburgh—that in Bacteriology—is now about to be founded. The circumstances which make this foundation possible are somewhat peculiar; indeed it may be said without much exaggeration that bacteria have had a good deal to do with this chair of bacteriology. There is an island, about twelve miles long and nine miles broad, lying some two hundred miles to the south of Java in the Indian Ocean, which is called Christmas Island. It was visited in 1688 by Dampier, who found it to be uninhabited by man but swarming with seafowl. Exactly two hundred years later (in 1888) it was annexed by Great Britain, chiefly as a result of the repre-

sentations of Sir John Murray (of the *Challenger* Expedition) and by the influence of the late Duke of Argyll. Sir John Murray had found that the island contained valuable deposits of phosphate of lime, and, according to a writer in the *Encyclopaedia Britannica* (vol. vi, p. 234), this phosphatic deposit had doubtless been produced by the long-continued action of a thick bed of seafowl dung (this is where the bacteria come in), which had converted the carbonate of the underlying limestone into phosphate. Sir John Murray obtained a lease of the island and formed a small company to develop its resources. In this company the late Robert Irvine, a Fellow of the Chemical Society, held 230 shares of £10 each, and at his death he bequeathed his interest in the company for the purpose of establishing a Chair of Bacteriology in the University of Edinburgh when the interest from these shares should reach the sum of £25,000 or £30,000, as the trustees might determine. Doubtless it did not appear very likely at the time that shares to the value of £2,300 would yield £30,000 within anything like a short term of years; but those persons who were sceptical have been pleasantly disappointed, for in eleven years from the death of the donor, so lucrative has the undertaking turned out to be and so busy in shipping the phosphates have the few hundreds of Chinese and Javanese workmen on the island been, that that large sum of money is available. Indeed, there will be enough to equip class-rooms and laboratories also, and to aid research, whilst, in accordance with Mr. Irvine's wishes, a merely nominal fee will be charged to those attending the lectures or working in the laboratories. The surviving trustees, who are Professor Sims Woodhead, Dr. David Patrick, Dr. David S. Jordan, and Mr. William Maxwell, are now about to hand over to the University Court the sum named for the founding of the chair. But this is not all, for the remaining interest in the shares is ultimately to pass in equal lots to the Edinburgh Royal Infirmary, the Royal Edinburgh Hospital for Incurables, and the Dunlop Cancer Fund. In this curious way has Christmas Island with its accumulated stores of phosphates, the deposits of countless generations of seafowl, and the results of their internal metabolic processes, come into the history of the founding of a chair of bacteriology. "Truth is stranger than fiction," as Byron sang; and "truth makes all things plain" and easy, as Shakespeare said.

MEDICAL TERMS IN THE NEW ENGLISH DICTIONARY.

ONE of the most interesting medical words in the present instalment of Sir James Murray's great lexicographic achievement[1] is *Sore*. As a noun it has had three meanings, two of which at least are now obsolete, namely, bodily pain, disease, and mental suffering. As an instance of the first Dr. Craigie (who edits this part of the *Dictionary*), gives the sentence from *Cursor Mundi*, "Ute of his side . . . wit-oten sare a rib he tok"; of the second, "S. Anthonies Sore, called the Rose," forms an example; and Chaucer furnishes an illustration of the third usage in his question, "Who feeleth double soor and hevynesse But Palamon?" A fourth meaning of *sore* is almost obsolete, namely, a bodily injury or a wound, for Dr. Craigie has to go back to 1785 for the quotation, "He'll suck the poison frae the sair, An' be a noble leech." The only meaning of *sore* which has, so to say, held its own is "a place in an animal body where the skin or flesh is diseased or injured so as to be painfully tender or raw"; of this there are numerous instances, such as bring "a salve for that sore," and such compounds as *bed-sore* and *saddle-sore*. *Sore*, the adjective, has also had meanings which are now obsolete or nearly so; for instance, a *sore head*, signifying a headache, is often quoted as a Scotticism, but it is really a survival of the word sore in the sense of pain. Indeed, *sore throat* and *sore spot* do not necessarily imply any ulceration of the mucous membrane or skin. But we must pass on to some other medical terms, for there are many of them between the words *sniggle* and *sorrow* with which this section begins and ends. There is the obsolete *sords*, meaning filth, with its not-naturalized relative *sordes* and its little family of *sordid*, *sordidness*, *sordidly*, and *sorditude*. *Sordes*, which, by the way, may be construed either as singular or plural, signifies either filth or faeculent matter, or, more particularly, impure matter collecting about the teeth and gums, especially in typhoid fever. We use *sordid* so often in its application to habits and character that we are surprised to find that it is still employed in a strictly pathological sense; at any rate, the late Dr. Matthews Duncan wrote of "sordid epithelial detritus." A somewhat rare medical term is *sorbefacient*, derived from the Latin *sorbere*, to absorb, and meaning a substance which causes or promotes absorption; thus, mercury and iodine have been supposed to act as sorbefacients. *Sopor* is used itself to express deep sleep, and from it come *soporate*, *soporation*, *soporative*, *soporiferous*, *soporific*, *soporose*, and *soporous*; but it is not at first sight clear why *soporal* should be a synonym for carotid until we read Dr. Craigie's illustrative quotation from Phillips, "the Carotid Arteries, so call'd because if they be tied, they immediately incline the Person to Sleep." In this, as in other parts of this dictionary which have been commented upon in this JOURNAL, the reader will be struck by the care expended in giving the medical senses in which ordinary words are occasionally used. Instances of this minute and vigilant care are found under such terms as *soothing* (for example, syrups and applications), *solvent* (a laxative), *solution* (for example, in "solution of continuity" and as meaning the crisis of a disease), *solicit* (in the sense that aperients solicit peristalsis), and *snuffles* (meaning the malady of children in which respiration is hindered in the nose). The mysterious word *sooterkin* is fully illustrated; it seems first to have signified a sweetheart (*soetkin*, *dulcis amica*), and then, wonderful to relate, an "imaginary kind of afterbirth" associated in some recondite manner with Dutch women sitting over lighted stoves, and finally a literary composition of a supplementary or imperfect character. We may assure the editor that the *New English Dictionary* at any rate runs no risk of having this quaint term applied to it.

[1] *A New English Dictionary on Historical Principles.* Snigle-Sorrow (vol. ix). By W. A. Craigie, M.A., LL.D. Oxford: At the Clarendon Press, Henry Frowde. Double Section. Price 5s. (1 dol. 25 c.). April 1st, 1913.

TRIALS OF A COURT PHYSICIAN.

A PHYSICIAN who has the keeping of a sovereign's health enjoys the advantages of a conspicuous position, but against this must be set the heavy burden of responsibility which he has to bear. He may also have difficulties with his august patients; even Louis XIV, the most doctor-ridden of monarchs, resented an expression which seemed to imply that he was under a physician's "orders." Dr. Barthez was in 1856 attached to the person of the Prince Imperial, then an infant of 3½ months. The doctor's letters to his wife from Saint-Cloud have recently, we learn from the *Chronique Médicale*, been published in a book entitled *La Famille Impériale*. Barthez, who was evidently a close observer, gives a picture as detailed as a Dutch painting of the Emperor and Empress and of the Imperial Court. The physician had to use a good deal of diplomacy in the exercise of his functions. Neither Napoleon III nor the Empress Eugénie had much faith in rational medicine. The Empress professed to believe that all doctors were ignoramuses who never worked. She scoffed at their endeavours to cure diseases and prevent death, a thing which she declared to be impossible, since when the hour had struck the player on

the stage of life must make his exit. This fatalistic attitude, though unreasonable, is at any rate intelligible. But it is not easy to understand how Her Majesty could have been led to say that doctors never gave a thought to the relief of suffering! This statement is all the more amazing since the Empress who—wrongly as it turned out—believed herself to be pregnant, expressed a wish that she should be chloroformed when the expected hour of sorrow arrived. "It is even possible she may compel Jobert to give her the anaesthetic without cause, solely that it may be ascertained whether she could be pregnant." The Emperor thought there was an immediate remedy for every pain. Induced pain he bore with stoical fortitude. He rode on horseback with sores on the thighs and legs caused by recently applied blisters. He did not complain of the production of pustular eruptions on the back by the use of irritants. It was even believed that he applied moxas to himself. To all this he submitted with such patience that no one about him was aware of his sufferings. This recalls the heroic endurance which he showed at Sedan, when, with a stone in his bladder, he remained on horseback throughout that fateful day. But of "spontaneous pain" Barthez says he was very intolerant. He was subject to cutaneous neuralgia, which made him "indescribably impatient." He reproached the physicians for the failure of their remedies and was inclined to put his trust in any quack he came across. Barthez gives an example of the methods that had to be adopted by an official doctor to make his services acceptable to capricious royal personages. He says: "The Empress was pleased the other day to wet her feet badly. She lunched without changing her shoes, and after lunch did not wish to disturb her attendants, who were reposing. So she kept on her wet shoes, with the result that she caught a tremendous cold, which starting from the nose descended to the throat, then to the bronchi." With some difficulty Barthez induced her to interrupt her course of sea bathing, but she insisted on accompanying a water party on the Nive. There was first a drive in an open carriage, then a sail lasting two good hours, and finally the return in the evening in an open carriage from Bayonne to Biarritz after sundown. Barthez forbade the trip, and even threw himself in mock-heroic style at the feet of the Empress. She raised him up, punctuating her refusal to obey with a playful slap on the face. Barthez was forced to go in one of the boats. He salved his professional conscience by having a sedative potion made up; this he gave to a gentleman who was to be in the Empress's boat, begging him to make her take it on the way. He thought it likely, however, that the physic was thrown into the river. Barthez, it may be added, was a physician of the highest distinction, who long afterwards ministered to M. Thiers in his last illness. He announced the death of the ex-President to the widow in the graceful phrase, *Madame, votre illustre mari a vécu.*

ANTIQUITY OF THE HUNGER STRIKE.

The hunger strike is not an invention of the suffragists, although they may, perhaps, claim the introduction of it as a means of release from prison. In the Journal of May 10th (p. 1010) we cited the case of John Scott, who in the sixteenth century, while confined in David's Tower in Edinburgh Castle, abstained from meat and drink for thirty-two days in order to show that he was under the special protection of heaven. But hunger striking is a custom of great antiquity. In a letter published in the *Tablet* of May 10th a writer, who signs himself "Anglus," points out that in an article on the "Ascetic Traditions of the Celtic Church," which appears in the current number of the *Irish Eccles Record*, Dom Gougaud, of Farnborough, mentions "a legal institution of ancient Ireland—the procedure of fasting. Having exhausted all legal means to conquer the resistance of a powerful doctor, his creditor had only one means of constraint left to him—that of standing before the door of the debtor and of refusing to take nourishment till the debt had been paid. If the debtor allowed the person fasting to die of hunger he was responsible for his death and had to pay his family a considerable indemnity in addition to the original debt. This was called 'fasting *against* or *on* a person.'" Dom Gougaud adds that in no Christian society to his knowledge has there been made such frequent and daring use of this curious process as in mediaeval Ireland. The custom is frequently mentioned in the Brehon laws. Fasting seems to have been practised when it was desired to turn a heathen king into a Christian, and the monarch, if hard of heart, counter-fasted as a means of protecting himself against conversion. It is recorded that St. Patrick "fasted upon" Loegaire, the heathen over-king of Ireland, until the latter embraced Christianity, and in accordance with the superstitions of the times the king and his family felt it incumbent upon them to fast at the same time until this test of endurance was won by the saint. The custom of hunger-striking for the same purpose was formerly common in India, but it is now almost obsolete. It is known in the East as dharna (or dhurna) baithna, or "sitting dharna." It was chiefly resorted to in order to force payment of a debt. The creditor would sit at the debtor's door and taste no food until his claims were satisfied. If the debtor allowed the creditor to starve, it was believed that he laid himself open to supernatural punishment, especially if the starver happened to be a Brahmin; accordingly, Hindus of lower caste would sometimes engage a Brahmin to starve for them. The custom was much abused, being utilized to levy blackmail upon persons who were not debtors at all.

THE PASSING OF THE CHINESE OPIUM TRADE.

We have repeatedly pointed out in these columns that the time was at hand when the Government would be compelled by the force of circumstances to announce a new departure in the matter of the Indo-Chinese opium trade. The debate in the House of Commons on May 7th furnished the occasion, and Mr. Montagu, the Under Secretary for India, made what had become the almost inevitable announcement that the Indo-Chinese opium trade is to be brought to an end. Still, under the treaty of 1911, Great Britain has the power, if she had the will, to sell China many thousands of chests of opium up to and including the year 1916. But, as was pointed out in the Journal of January 18th, there is at the present time in the Chinese ports a glut of Indian opium, the profits from the sale of which by the Indian Government have gone to swell the record surplus of the Indian budget. Meanwhile the Chinese Government, recovering from the dislocation of the revolutionary period, is pursuing a policy of suppressing both poppy-growing and opium-smoking with sincerity, and indeed with Draconian severity. With a falling demand and huge accumulations in the market, it was idle to pursue the policy previously announced by the Government of maintaining 200,000 acres under poppy cultivation in India. A virtue has accordingly been made of necessity, and after the present stocks have been—as it is euphemistically put—"absorbed" by China, at the rate of 2,000 chests a month, and if China continues steadfast in well-doing, not a single ounce of the product of the Indian poppy is ever again to be sold to the citizens of the young republic. But for this new announcement some 43,000 more chests of Indian opium would have been sent to China under the rather illogical provisions of the treaty of 1907 as revised in 1911. This passing of the opium question, while removing a long-standing reproach from our Indian policy, will give additional point and importance to the steps which we

understand are now being taken towards ratification of the International Opium Convention of 1912. Evidence abounds to show that the vice of morphine taking, the Western analogue of the opium smoking of the East, is only too readily accepted as a substitute for the latter when active suppression of that practice has been attempted among Oriental nationalities. The imports of morphine and cocaine into China and India, both licit and illicit, are of a magnitude quite incompatible with any medical or legitimate use. Statements recently published have shown that on the Continent of Europe and in America far more stringent control in the traffic of these and other "drugs of addiction" is imperatively demanded. The shutting down of the Indo-Chinese opium trade will doubtless make more profitable than now the traffic in these alkaloids which is devastating the bazaars of the East. The International Convention drawn up at the Hague in 1912 by the twelve Powers which participated in the conference provides for the necessary international arrangements to secure a world-wide co-operation with a view to restrict to legitimate uses the manufacture and distribution of drugs thus liable to abuse. It is reported that next month representatives of all the Powers which have since January, 1912, signed the Convention will meet at the Hague, at the invitation of the Netherlands Government, with a view to proceeding as speedily as possible to ratify and give effect to that Convention. The new policy of Great Britain in the Far East just announced will be an earnest of the seriousness of her purpose, and at the same time will render more necessary than ever that international co-operation which it is the main object of the Opium Convention of 1912 to secure.

THE HARD CASE OF THE MANX CONSCIENTIOUS OBJECTOR.

A NOTABLE victory for vaccination has been achieved in the Isle of Man. The Legislature of the island consists of a lower chamber, the House of Keys, and an upper chamber, the Legislative Council. Early in the year a Vaccination Amendment Bill, allowing exemption on grounds of conscience, passed the House of Keys, and, in accordance with ordinary procedure, was sent to the Legislative Council, which decided to hold an inquiry for the purpose of taking expert evidence. Dr. Hadwen (Gloucester) attended on behalf of the antivaccinators and Dr. Drury (Halifax) for the defence of vaccination. Three doctors resident in the island also gave evidence. An official report of the whole of the evidence has been issued and will be found useful and instructive to all interested in the controversy, as the case for vaccination and the case against it are clearly stated. The examination of the witnesses by the members of the Council showed the earnestness and ability with which the inquiry was conducted. By a unanimous vote the Council rejected the bill. Judging from the reports in *The Isle of Man Examiner* and *The Isle of Man Times* no one of the speakers appeared to have had any difficulty in arriving at the decision to vote against the bill. The Attorney-General is reported to have said, "Taking the evidence of the strong witness on the antivaccination side—Dr. Hadwen—it convinced him that there was absolutely nothing in the case against vaccination." Dealing at length with Dr. Hadwen's evidence regarding vaccination and syphilis, the Attorney-General said, "If this inquiry had served no other purpose it had been well worth undertaking in that it had dispelled such a hideous bogey. There was not the slightest vestige of evidence to show that there was any such danger. . . . Not a case of syphilis being caused by vaccination with calf lymph could be produced, and the danger alleged entirely broke down." The Governor (Lord Raglan) made some severely critical allusions to Dr. Hadwen's evidence. He is reported in the papers mentioned to have said "that he had heard with the greatest possible regret expression given to sentiments which he could not allow to pass." He referred to the very unfair and what he ventured to think was the extremely unwarranted attack made by Dr. Hadwen on the medical profession. "There was no profession in the world—there was no class of men in the world—so conscientious, or that did so much to assist charity or the poor as the medical profession. . . . To say that there was a conspiracy among the doctors to bolster up vaccination solely in view of the fees to be derived from vaccination seemed to him (the Governor) to be utterly unworthy of a man in Dr. Hadwen's position, and it was with the greatest possible regret he (the Governor) heard him make such a statement." The inquiry provided Dr. Hadwen an opportunity to distinguish himself, and advance the case against vaccination. What actually happened is reflected in the remarks of the Attorney-General and the Governor just quoted. On page 1069 a relatively brief epitome is published of the evidence of Dr. Hadwen and Dr. Drury taken from the official report (published by Messrs. Brown and Sons, Ltd., "Times" Buildings, Douglas, Isle of Man). Gratitude is once more due to Dr. Drury for the public spirit which induced him to give the Legislative Council of the Isle of Man the assistance which his unsurpassed acquaintance with the history of vaccination and with the methods of antivaccinists so well qualified him to afford. His action on this occasion involved not only large expenditure of time but a certain risk to health, as he was at the time suffering from an attack of indisposition which would have more than justified him in declining to make the journey at a rather inclement season. Fortunately no ill effects ensued and he has the satisfaction of feeling that he has discharged a public duty with complete success.

THE FEELING OF UNREALITY.

THAT descriptive master of morbid psychology, Edgar Allan Poe, has done much to reveal in flashes of genius many of the dark places of the human soul, and the tortures endured by a diseased imagination. But we are only now becoming fully alive to the fact that these things are not bodied forth from the imagination of the poet alone; they are daily facts with which the physician in ordinary practice has to deal. We can look for no assistance from the result of ordinary physical examination in these cases, and almost invariably the systemic examination is negative. Courtney[1] of Boston in this connexion quotes the case of a Russian Jewess, aged 25, who suffered from a condition which may be best described as "a feeling of unreality." There had been no actual insanity in the family, although a brother had been the victim of a variety of "phobias" and obsessions. The condition appears to have developed after the operation of curettage following a miscarriage, and rendered the life of the patient a burden to her. She felt as if her body had been entirely transformed. From morning to night she had to keep up an argument with herself to prove to her satisfaction that it was "her voice with which she talks, her hands with which she grasps things, and her legs which carry her about." There was a numbness of all the faculties of sensibility, and she asserted that she never felt cross, tired, or hungry. An examination of the nervous system showed that the ordinary reactions were normal and sensibility well preserved. The latter fact has been seized upon by some psychologists to affirm that this feeling of unreality is purely ideational in its action. The author criticizes Janet's view that this uncanny feeling results from the loss of a special intellectual operation—"the function of the real." The first form of this function of the real allows us to deal with external objects and metamorphose reality; its last form is concerned with the constitution of time—the formation in the

[1] *Boston Medical and Surgical Journal*, February 6th, 1913.

mind of the present moment. Courtney criticizes this theory severely. According to him it means "that the highest grade of intellectual activity is required to be able to realize that one is awake and thoroughly prepared at all times to cope with the ever-changing social complexities of everyday life." To the victims of the feeling of unreality the present is by no means vague. His difficulty with regard to time lies rather in the realm of feeling. He may know that it is noonday, but he cannot *feel* that it is. That the function of the real is, as claimed by Janet, of high intellectual value is disproved in these cases by the fact that such patients are by no means intellectually defective. It is in the unequal struggle between the intellect and the emotions, in which the latter are nearly always victorious, that the patient's failure to respond to the call to action lies. The expressions, "I feel like myself," or "I don't feel like myself," suggest, says the author, a contrast between the totality of bodily sensations which constitute "the ego" of the moment and a standard feeling of self-reality. Courtney regards the feeling of unreality as arising from "a lack of vividness and coherency of relation in the primary sensory and sensorial elements which in their totality constitute the ego—the personality—of the individual. Examination of the individual sensory and kinaesthetic elements of feeling, even if the result is normal, is no argument, according to him, against this view, as it is impossible to judge of any complex associative affect by the primary sensational elements composing it. The "feeling of unreality" is not itself a clinical entity, but constitutes a symptom of that complex adynamic state of the nervous system which is termed psychasthenia.

OPHTHALMIA NEONATORUM.

A MEMORANDUM has been published by the Medical Officer of Health of Glasgow submitting a report by Dr. Florence Mann on the recent experience of the department in dealing with ophthalmia neonatorum. The report covers a period of seventeen months, during which time 341 cases occurred; this is equal to 9.4 per 1,000. In only 31 per cent. of the cases was the gonococcus recovered, but as the taking of swabs becomes more usual it is thought that a higher percentage will be obtained. It is usually regarded as being present in about half the affected cases. In at least 9 per cent. of the cases syphilis was also present, and in contrasting the results of the eye affection in children with and without syphilis Dr. Mann shows that of the non-syphilitic cases 81 per cent. made an absolute recovery, but of the syphilitic cases only 48 per cent. Total blindness followed in 1.2 per cent. of the former and 8 per cent. of the latter. This observation is most significant. In 3.5 per cent. the symptoms developed within twelve hours of birth, 56 per cent. occurred within the first four days, 3.2 per cent. after the fourth day, and 8.5 per cent. after the eighth day. Treatment at home was found to be unsatisfactory in many instances, and such cases were admitted to the reception home. Dr. Mann came to the conclusion that it was wise and even advisable in many instances to take the children into the home without the mothers. Under these conditions the children did well. Written directions are issued by the department for the guidance of the nurses attending the cases. The report brings strongly into view the fact that the disease is very amenable to treatment, and that if this be commenced early enough few cases will be lost. If, however, in the early stages treatment be inefficient there is no disease more liable to produce permanent blindness.

UNUSUAL SOURCES OF POLLUTION OF WATER.

IN the majority of instances there is not much difficulty in locating the source of gross pollution of public water supplies, but instances occur from time to time which puzzle even the most careful investigators. Examples of some unusual causes of pollution were lately given by Dr. J. C. Thresh in a contribution to the Institution of Water Engineers. In one case in the water from a deep well in the new red sandstone *B. coli* were found in 10 c.cm. An examination of the surroundings did not suggest a solution, but the source of the pollution was eventually found to be in an iron tank under the engine-house floor, into which the water was first pumped and then forced to the reservoirs. The water in the tank was covered with dust, and appeared greasy, and the sides of the tank were coated with slime, which on examination bacteriologically was found to be a mass of bacteria of objectionable type, including myriads of *B. coli*. In another case, in which the water taken from a house tap was found to contain *B. coli*, the pollution was shown to be in the tap itself, which was placed over the kitchen sink; when the finger was placed in the nozzle of the tap it brought away a slimy mass of filth resembling sago, which proved to consist almost entirely of bacteria. The filthy condition of hydrant boxes was responsible for the pollution of particular mains in one district and bird-droppings from trees surrounding a reservoir in another. The leaking tank of a gas-holder situated 100 yards from deep wells, giving a large public supply, was considered to be the cause of pollution in another district. A peculiar odour was observed in the water when large quantities were drawn, but this entirely ceased, and the water became normal after the gas-holder had been put out of use.

A MEDICAL SKYSCRAPER.

THE doctors of New York are to have a skyscraper of their own. It is to be a structure of thirty-five stories, and will consist mainly of suites of offices for physicians, surgeons, and dentists. On the top floor will be a fully equipped operating room for the common use of the tenants. There will be vacuum cleaning throughout, together with an ample electric service for medical apparatus. Four lifts will be installed, and on the ground floor will be found waiting-rooms and shops for druggists and purveyors of other medical supplies. There will be an inner court with a turntable for ambulances. This skyscraper is to be known as the Professional Building, and will be situated at the south-east corner of Seventy-Second Street and West Avenue. The building is to be begun in June and finished by the spring of 1914.

THE STAFFING OF TUBERCULOSIS DISPENSARIES.

WE notice in the *South-Eastern Herald* of May 9th a letter from Dr. J. H. Keay on the appointment of a tuberculosis officer to the Greenwich Tuberculosis Dispensary. He points out that it was unanimously agreed at a meeting of the medical men practising in the district that the dispensary should be staffed by the medical men in the neighbourhood who had experience in the use of tuberculin, and that the general administration should be in the hands of the medical officer of health. The borough council unanimously adopted the findings of the meeting. The Local Government Board, however, in its craze for whole-time officers, stepped in and gave it to be understood that the work of the tuberculosis dispensary must be done by a whole-time officer, and refused to receive a deputation from the medical men in the neighbourhood to discuss the matter. The borough council meekly submitted to the Local Government Board, and, if Dr. Keay's information be correct, is about to advertise for a whole-time tuberculosis officer for the dispensary at a salary of £350 a year. The line taken by the medical men at Greenwich is in the main consonant with the tuberculosis scheme set out by the British Medical Association; since that was adopted the capitation fee of 6d. for all tuberculosis cases has been propounded by the

Treasury, so that the whole question of the treatment of tuberculosis is now in the melting-pot and in a very chaotic and unsatisfactory condition. If the salary of the whole-time officer is to be £350 we feel sure that a man of the high standing and special experience necessary for undertaking this work in sympathetic agreement with the medical men of the neighbourhood will not be found. The minimum salary suggested by the Association is £500 per annum, and this sum has been generally accepted throughout the country as a reasonable commencing salary. There is no good reason why the Local Government Board and the Greenwich Borough Council should endeavour to get a good man for less.

SCIENTIFIC ALLIANCE OF THE LATIN RACES.

AN association, called the Union Médicale Franco-Ibéro-Américaine has recently been formed in Paris for the purpose of uniting the doctors of the Republics of Central and South America with Spanish and French physicians in a scientific alliance of Latin races. From the initial letters of its title it is called for shortness "Umfia." The president is Dr. L. Dartigues; the general secretary is Dr. Gaullier l'Hardy; the vice-presidents, Drs. Bandelac de Pariente (physician to the Spanish Embassy in Paris), Manrique, and Delaunay. Among the members of the honorary committee are the Spanish Ambassador to the French Republic; Professor Ortega Morejon, member of the Spanish Academy of Medicine; Dr. Pulido, senator of Spain; Dr. Risquez, sometime rector of the University of Caracas, together with the Dean of the Paris Faculty, Professor Landouzy, and Professors Ch. Richet, F. Widal, A. Robin, Pozzi, Pierre Marie, Pinard, Legueu, Doléris, and Bazy, and Dr. Roux, Director of the Pasteur Institute. Membership is open to all doctors throughout the world who speak Spanish or Portuguese. At present there exist more than twenty autonomous nations of Spanish speech, and it is estimated that the language is spoken by more than a hundred million persons. It is proposed to establish a Hispano-American Hospital, to arrange scientific tours, and to make summaries of all medical papers written in Spanish available for members. The objects of the Umfia are to make its members known to each other, to establish relations, social and scientific, with the doctors of every country where Spanish is spoken; to establish an information bureau for Spanish or Portuguese doctors who go to Paris to pursue clinical work and research; to arrange courses of instruction, lectures, meetings, festivities and congresses, and to organize means of assistance to foreigners of Spanish-American origin settled in Paris who may be in need of help. Almost all the doctors of France who speak Spanish are members, and already the Umfia has official representatives in all the principal cities of Spain and South America. It is hoped that the association, which has been in existence only a few months, will before long have a membership of many thousands.

WE understand that the proposal recently made for the issue of half-yearly insurance cards is receiving sympathetic consideration, and may quite likely be adopted for considerable classes of cases.

ON April 25th a meeting was held in New York to take steps for the commemoration of the work of Dr. J. S. Billings. Dr. Weir Mitchell recited Dr. Billings's services as a surgeon in the United States Army during the Civil War; Sir William Osler spoke of his work in the library at the Surgeon-General's Office, and Dr. W. H. Welch dwelt on his ability as a hospital organizer. A tribute was also paid by Mr. Andrew Carnegie, who was for many years associated with Dr. Billings in the work of the New York Public Library.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Asylums Officers' Superannuation Bill Amendment.—This bill, to which reference was made in a recent issue, was introduced under the ten minutes' rule by Sir John Jardine on May 6th, and read a first time. It has been put down for second reading on May 29th. The Home Secretary has stated, in reply to Mr. Rowlands, that the Commissioners in Lunacy reported that the total number of day and night attendants and nurses, exclusive of head attendants and assistant head attendants, employed in the county and borough asylums in England and Wales on December 31st, 1912, was 12,337 (5,762 males and 6,575 females). Of that number, the proportion under one year's service was 23 per cent. (namely, male attendants 17 per cent., and nurses 29 per cent.); and the proportion over five years' service (excluding six asylums open less than seven years, where 655 attendants and nurses were employed) was 37 per cent. (namely, male attendants 52 per cent., and nurses 24 per cent.).

Feeble-Minded or Epileptic Poor.—Mr. Staveley-Hill asked for the names of the counties in which guardians had made application to the Local Government Board for Orders for the formation of joint committees of boards of guardians for the purpose of provision and special accommodation for, or special treatment of, the feeble-minded or epileptic poor.—Mr. Burns said that an Order had been issued for a joint committee of guardians in the county of Wiltshire. Orders were in preparation for the counties of Cornwall, Essex, Glamorgan, Salop, Staffordshire, and Warwickshire, and applications had been made by the counties of Kent, Suffolk, and Surrey. It was understood that schemes of combination were also under consideration in several other counties.

London Hospital: Employment of Nurses.—Dr. Chapple asked whether the Prime Minister intended to introduce legislation to prevent the London Hospital from sending out nurses one year before the expiry of the normal course of training required by every other great metropolitan hospital at the rate of 11s. 6d. a week while they earn £2 2s. a week for their hospital? Mr. Harry Lawson asked the Prime Minister whether he was aware that Mr. Sydney Holland, chairman of the London Hospital, flatly contradicted the first part of the statement when it was first made; whether he knew that the London Hospital trained its nurses free of charge or premium for two years and made a large loss on the whole transaction; and whether, when the nurses were properly equipped, they were able to earn a livelihood for themselves at the expense of the hospital.—The Prime Minister said: "I have not heard; and, with all respect to my hon. friend, I rather deprecate questions of this kind relating to a great London hospital, to which the metropolitan community is under a deep debt of gratitude. I am not aware of any grounds for legislation."

Forcible Feeding.—In reply to Mr. Thomas, Mr. McKenna stated that prison medical officers did not receive extra payment for operations performed in His Majesty's prisons, and that the question of additional payment for forcible feeding did not arise.

Sewage and Trade Effluents Bill.—In reply to Mr. Sherwell, the President of the Local Government Board said that he hoped to be able to introduce the proposed bill for dealing with the question of sewage and trade effluents during the present session.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Mr. William M'Ewan and the M'Ewan Hall.

The great memorial of the late Mr. M'Ewan's interest in the University of Edinburgh, and of his princely generosity to it, is the hall in Teviot Place which bears his name, and which completes the massive pile of buildings known as the Medical School. Here, on the site of the house in which Dr. Archibald Tait, one time Archbishop of Canterbury, was born and brought up, there now stands the M'Ewan Hall, in which graduation ceremonies and other academic functions are celebrated. Mr. M'Ewan, whose death took place in London on Whit Monday (May 12th), was born at Alloa in 1827, was educated in Alloa Academy, and, after that period of years (which seems to be almost essential to the great success of a Scotsman) in which he was thrown on his own resources, he found himself in his uncle's brewery business in Edinburgh (that of Messrs. John Jeffrey and Company). Soon, however, he ventured to start brewing on his own account, and with a capital of £2,000, one half of which was a cash credit from the bank, he founded the great brewing concern in Fountainbridge, Edinburgh, which is now known well nigh over all the world. In 1886 Mr. M'Ewan was returned to Parliament for Central Edinburgh, as a Liberal supporting Mr. Gladstone's Home Rule policy; and he represented that division of the capital of Scotland until 1900, when in consequence of failing strength he did not seek re-election. It was during this term of years that Mr. M'Ewan made his great gift to the University. In the early eighties of the last century the new Medical Buildings, made necessary by the rapid increase in the number of medical students attending the classes at Edinburgh, were completed at a total cost of £245,000, a large part of which was raised by public subscription. No graduation hall, however, was forthcoming, and it was felt that the public ought not to be again approached for financial aid so soon. It was then that Mr. M'Ewan came forward and agreed to defray the whole expense of the hall. It was designed by Dr. Rowland Anderson, in the Italian style of Cinque Cento period, with an interior fashioned in the form of a Greek theatre, and with wonderfully fine mural decorations by Palin of London; it cost, not £40,000 as was expected, but £115,000, but the whole amount was cheerfully given by Mr. M'Ewan. It took ten years in the building, and was opened in 1897. At this time also the freedom of the city was conferred upon Mr. M'Ewan, and some years later (in 1907) he had the honour of being made a Privy Councillor. For many years he had resided in London, and since the death of his wife, in 1906, his Edinburgh residence in Palmerston Place had seen him hardly at all. His name, however, is indissolubly linked with that of Edinburgh University, and his gift stood out in 1897 as the greatest benefaction that institution had received from any one man by his own act and in his own lifetime.

Fifeshire Medical Association.

The spring meeting of the Fifeshire Medical Association was held at Dunfermline on May 9th, Dr. Alan Tuke, Dunfermline, presiding, when Dr. Edwin Bramwell, Edinburgh, gave an address. Thereafter, permission having been granted by the Admiralty and by Messrs. Easton, Gibb and Son, the contractors, the members were conducted over the works at Rosyth Dockyard. On returning to Dunfermline the party dined at the Royal Hotel.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Funds of Dublin Hospitals.

At the recent annual meeting of the Meath Hospital and County Dublin Infirmary it was reported that owing to the increase in the indebtedness of the hospital either some of the invested funds would have to be sold or some of the beds closed. The income from legacies was practically sufficient to cover the excess of expenditure over the income from the subscribers, but last year there was a drop in the legacy income from £1,000 to £500. Many of the other Dublin hospitals are finding the same shrinkage in their funds, and one of them is just about to issue a special appeal, as it finds that many of its usual subscribers are failing to send their subscriptions this year. In a "boom" year, when charitable subscriptions might be expected to be heavy, there can be only one explanation for their extraordinary smallness, and the explanation is the Insurance Act. The Act appears to be destroying the system of voluntary charity. If all employers are compelled to insure their employees against sickness, few will care to make a second payment to the voluntary institutions which wage war on sickness. The decline in charitable legacies is probably in part due also to the heavy increase of death duties in recent years.

St. John Ambulance Brigade.

A meeting of the St. John Ambulance Brigade was held in Dublin last week to consider the arrangements for the Dublin Ambulance Challenge Cup Competition. It was decided to hold the competition on June 21st in Lord Iveagh's gardens, which he kindly offered. It was announced that Messrs. Jacob had offered to present medals to the winning team. It was also announced that with the object of promoting ambulance work amongst women resident in Ireland, the Hon. Mrs. Ernest Guinness had promised to present a silver challenge cup to the St. John Ambulance Brigade to be called the Irish Women's Ambulance Challenge Cup for annual competition between teams of four women who are holders of the first aid and nursing certificates of the St. John Ambulance Association and who belong either to the St. John Ambulance Brigade, Voluntary Aid Detachments, or St. John Ambulance Centres. It was decided to hold this contest also on June 21st.

Insane Patients in Workhouses.

In view of the action, reported last week, of the Committee of Management of the Richmond Asylum with regard to the Mental Deficiency Bill, the memorandum of inspection forwarded to the South Dublin Union by the Local Government Board is of special interest. The memorandum stated that notwithstanding the transfer of 58 patients to the Richmond Asylum since May, 1912, the number of patients in the lunatic wards of the workhouse had increased from 198 to 202. It was incumbent on the guardians to consider without delay the serious state of dilapidation into which many of the buildings had fallen. Apart from their unsuitable character and overcrowded state, and the risk of fire, they were in such a condition structurally as to involve danger to life in the event of a high wind. Since the last inspection 233 patients had been admitted to these wards and 100 discharged, in addition to those transferred to the Richmond Asylum, while 71 had died; and of those remaining, 15 were classified as insane epileptics, and 43 were stated to suffer from congenital mental weakness.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

MANCHESTER AND DISTRICT.

New Sanatorium for Salford.

The Salford Health Committee has issued an important report with reference to the provision of sanatorium accommodation for tuberculous cases. In order that no time might be lost in providing hospital and sanatorium treatment for insured persons and others suffering from tuberculosis, the town council some months ago resolved to utilize the Drinkwater Park Hospital, which has in the past been used only for cases of small-pox. It was fully recognized at the time that the situation of Drinkwater Park, in the valley close to the river Irwell, was not an ideal one for tuberculosis, and some strong criticism was directed against it which would have been fully justified if it had been intended as a permanent sanatorium. But the Health Committee and the Insurance Committee felt bound, owing to the number of applica-

tions for sanatorium treatment, to make some temporary arrangements, and the Drinkwater Park buildings being unoccupied were altered and adapted and pavilions erected at a cost of several hundred pounds. A few weeks ago the institution was visited and inspected by the Insurance Committee, and the opinion was expressed that everything was being done to meet immediate requirements. There was accommodation for thirty-five beds, and at the time of the committee's visit thirty patients were in residence, and the report of the medical officer as to their progress was most satisfactory. In the meantime the Health Committee has been in search of a better site for the erection of a permanent sanatorium, and the report just issued states that it has now had the offer of a freehold site known as Rab Top Farm, Rose Hill, Marple, for the sum of £2,500 with £100 for expenses. As the site contains about 65 acres this is at the rate of about £40 an acre, and the site lends itself readily to the erection of a sanatorium of a hundred beds. The committee thinks that such a sanatorium could be erected for about £15,000, and it is expected that the Local Government Board might contribute out of the fund set aside for this purpose by the Treasury between £8,000 and £9,000 towards the capital cost. The cost of maintaining such an institution is estimated at about £7,700 per annum, and towards this the committee expects to receive about £2,000 from the Insurance Committee and about £2,850 from the Hobhouse grant. This leaves the corporation to provide out of the rates about £2,850 a year. The Health Committee therefore recommends the council to accept the offered site, and to proceed as early as possible with the erection of a sanatorium. The proposal will be considered at the meeting of the town council to be held next week.

India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

Sanitary Education in Bombay.

An appeal for funds towards the establishment of an Indian sanitary institute in Bombay has been published, the idea being to develop the admirable work done by the Bombay Sanitary Association for the past ten years by building a suitable institute in Princess Street. It is to form the head quarters of the association, and house a health museum and library on the lines of the Royal Sanitary Institute in London, providing also lecture and class rooms where courses of lectures and practical demonstrations of elementary sanitary science will be given.

The Health of the City of Bombay.

The population of Bombay was ascertained by the census of 1911 to be 979,455, an advance of 1,623 (1.5 per 1,000) on the census of 1906. The proportion of females was 35 per cent. The conditions of the year 1911 were favourable to health. The birth-rate—21.8 per 1,000—was the highest on record. The number of stillbirths registered was 1,759. The death-rate was 35.6 per 1,000, which is considerably below the average of the previous decade. Infantile mortality was 379.8 per 1,000 of births, against 413.9 in 1910. Ten visiting nurses and midwives are employed by the municipality for purposes of aid and instruction, with excellent results. The diseases to which mortality is mainly due are, in order: Plague, respiratory diseases, fevers, tubercle, bowel complaints, small-pox, measles, and cholera. As compared with the preceding decade, there has been a saving in 1911 of 9,889 lives, a decrease under the headings of plague, fevers, bowel complaints, tubercle, small-pox, and cholera, but an increase under chest diseases and measles. The visit of the King caused for a time a great overcrowding, but no evil result followed. The report of the health officer, Dr. J. A. Turner, D.P.H., is very elaborate, and gives evidence of good and progressive sanitation.

Sanitation in Delhi.

The difficulties in the way of the sanitarian in Delhi are very great, and a leading Indian journal points out that, whilst New Delhi is prominently in the public eye, it is well that Old Delhi should not be overlooked. A campaign against the uncleanliness and unhealthiness of this walled city and its suburbs has already been organized. The death-rate of the city exceeds the birth-rate—in the year just closed the former was roughly 50 per 1,000 and the latter 45. If there was no flow of immigration, the population of the city would be on the decline. Moreover, last year 37 per cent. of the 10,974 children born died before they were 12 months old. In this connexion it might be urged that the ignorance of mothers has more influence on the death-rate than a lack of sanitation, but it is significant that in the healthiest ward the infant death-rate is comparatively small. If more were needed to emphasize the case for reform, one has not far to look. The flies that abound, not only in the city, but overflow into the Civil Station, are testimony that cannot be shaken—flies cannot exist without dirt. To a sanitarian desirous to demonstrate the value of his science, the problem of Delhi, despite its magnitude, must present many attractions. Here is virgin soil—if the associations permit such a figure of speech—offering unlimited scope for work. The reformer will start with the advantage that the influence of a supreme Government urging haste is on his side, and that it will not be his lot to be standing impatient whilst a sceptical municipality doles out much-grudged funds.

Hand Transport for Sick and Wounded in the Indian Army.

There is good reason to be proud of the organization of the army in India, but no one would contend that in some directions there is no room for improvement. One particularly glaring defect is the hopelessly inadequate number of trained dhooly-bearers. At present on manœuvres or mobilization a large proportion of the men enlisted, or rather hired, as dhooly-bearers are absolutely raw coolies, often the riff-raff of the bazaar. In physique and character these men are entirely unsuited to the work, and their discipline is *nil*. During the recent medical manœuvres they proved hopelessly inefficient, several deserted, and on the final day, when it rained hard, the whole of the men attached to two field ambulances disappeared *en masse*. We believe that in the final conference General Sir James Willcocks commented strongly on the unfitness of the men for the duties they were expected to perform, and it is to be hoped, therefore, that steps will now be taken to provide properly trained dhooly-bearers in adequate numbers.

The Health of Calcutta.

The census of 1911 revealed an increase of 5.7 per cent. in the population of Calcutta. Of the 896,067 inhabitants 68 per cent. were males, and 32 females. The increase of the male population was 8.2 per cent., and of the female 1.1. The increase was entirely due to immigration, as the death-rate habitually exceeded the birth-rate. The birth-rate of 1911 was 21.7 per 1,000 of the population—the highest ever recorded. Vaccinators are now employed as sub-registrars of births and deaths with advantage. Still-births numbered 1,216, against 1,033 in the previous year. The death-rate was 27.2, the lowest hitherto recorded. Infantile mortality was 251 per 1,000 of registered births—a decrease attributed to the increase of registered births. "The city suffered considerably less from epidemic diseases than in previous years." There were only 41 deaths from small-pox and 88 from measles; cholera and malaria were less fatal, but plague, bowel complaints, and tuberculous diseases showed a slight rise. There were only 20 deaths from epidemic dropsy, which in recent years has been so severely prevalent. The health officer, Dr. Pearse, remarks: "There is no evidence that the diet of the people has been changed, and milling of rice goes on exactly as before."

Jamaica.

Is Yellow Fever Endemic?

Dr. Angus Macdonald, Medical Officer of Health for Kingston, Jamaica, in a paper read before the Jamaica Branch of the British Medical Association, discusses the question, "Is yellow fever endemic in Jamaica?"

His paper appears to be a reply to the report of Captain Potter, who maintains that yellow fever was endemic in

Jamaica and expressed the opinion "that there is no justification for the use of the term 'vomiting sickness'; it is not a separate clinical entity. I am of the opinion that the majority of deaths ascribed to the so-called 'vomiting sickness' are due to yellow fever."

Dr. Macdonald analyses Captain Potter's report to show that this has not yet conclusively been proved. Out of 73 cases personally investigated by Captain Potter 35 are admittedly cases of some other condition, while of the 38 cases left Dr. Macdonald considers that there was not one in which the *post-mortem* evidence was typical of yellow fever. Of 73 cases of vomiting sickness investigated 35, he maintains, were due to some definite condition other than yellow fever, and the conclusion is drawn that medical men should be chary in making a diagnosis in any case of vomiting, especially in childhood.

Dr. Macdonald's reasons for his conclusion that yellow fever is not endemic in Jamaica are:

1. In the absence of definitely typical cases for a period of years it may be that all cases have been stamped out and reimportation has not taken place.

2. The nature of the shipping of Jamaica in recent years and the quarantine methods in force render the importation of yellow fever difficult. The possibility of the introduction of infected *Stegomyia* is so remote as to be negligible; the seasonal prevalence of vomiting sickness in the cold months is marked, while the *Stegomyia*, though certainly more abundant after rains, is met with all the year round. According to records of epidemics, the seasonal occurrence of yellow fever has been in the hot months.

The few cases recorded in Kingston in 1904 were typical yellow fever in adults, imported probably from Central America and limited to a group of young adult males. That yellow fever is not now endemic in the island may require to be proved; but its absence in typical form from Kingston, where there must be thousands of susceptibles resident, and where thousands more migrant susceptibles yearly still get bitten by *Stegomyia*, is suggestive of, at any rate, extremely limited endemicity.

Correspondence.

RHEUMATOID ARTHRITIS.

SIR,—In reply to Dr. Bailey, I may say that I have given what I consider a perfectly clear verbal picture of rheumatoid arthritis, which I believe to be a distinct entity, and one which can be easily differentiated from other affections of the joints, an entity which can be prevented, and which can be easily cured if early recognized. I do not propose to go over this ground again; that it is not always differentiated from other forms of arthritis is a concern which should trouble the patients rather than myself. The other day I saw an extremely well marked case of osteo-arthritis affecting one hip and one knee-joint; the patient had a magnificent set of teeth, every one his own, and not an unsound one in his head, yet two London physicians had recently recommended the extraction of nine of these teeth for a supposed pyorrhoea alveolaris, which was not present when I saw him, or, at least, I failed to discover it. As they would not guarantee a cure, the patient wisely declined the operation. I was rather surprised that the less heroic treatment of a vaccine had not been suggested.

Dr. Bailey says "decalcification of bones is a common accompaniment of any bone inflammation; skiagraphs show it in tubercle, after fractures in the bone ends, in whitlow, in terminal phalanges," etc. It is plain enough what he wants to imply, but what does he prove? Does he confound disorganization of the joints with decalcification? Does he confound the relative transparency of cancellous tissue with decalcification? Decalcification "after fractures in the bone ends" is certainly a bad look-out for bony union; it is the kind of thing surgeons would rather not see. A bone may be destroyed without an acid, and, I may add, even without a microbe; the pressure of an aneurysm may make a big hole in the spinal column; a sarcoma, or the growth in myelopathic albumosuria may eat up the bone, but here we may possibly have to consider the electrical potential between the ions within and without the cells.

He is quite at liberty to believe that microbes may eat up the cartilages, and that "antibacterial treatment" is the correct card to play, but I can also exercise my right to estimate his beliefs at what I may consider their value —*nil*.

I do not question that many "laundry workers, scrubbers, workers in aërated water factories, hunting ladies, amateur lady gardeners, ladies who spend much time in washing laces" may get rheumatoid arthritis, but at the same time I have not the slightest doubt that hundreds of thousands of such individuals (though my practice and observation are not so extensive) never get and never have any intention of getting rheumatoid arthritis. When will medical men drop this *post hoc propter hoc* argument? I saw a man fall through a trap-door and break his neck after his breakfast, but I never thought that his breakfast had anything to do with the fracture.

"Treatment locally by radiant heat and iodine ionization for a month or on alternate days for two months" seems to me a laborious employment; it is, however, one which does not strongly commend itself to me. But why only two months? Why not as long as the patient's purse will hold out? The disease will certainly survive much more than two months of such treatment.

Dr. Preston King begins his letter with a testimonial to himself as to his large experience and interest in the subject, from which I in no way wish to detract, but he must excuse me if I refuse to discuss seriously with him his hypotheses about conditions concerning which he has even written a paper "to assert that there was no such disease as rheumatoid arthritis." Why, then, waste your space and your readers' time about a non-existent disease? He then proceeds to jumble all the joint affections together, and is willing to grant that there may be "in this great group of joint affections an inner group which may fairly be regarded as a distinct disease." Having set up this inner group, he then proceeds to mix it with pyorrhoea alveolaris and the gonococcus, so that we do not know where we are, and I must leave him to get out of his own muddle.

He quotes my statement that in the later stages the disease is curable, though not the deformities, and then adds "presumably by administering sufficient lime salts." What right has he got to saddle me with his presumption? If he would only take the trouble to read my address with an ordinary amount of attention, he would find that the first part of the treatment is to remove the cause, and until this is accomplished it is often very difficult to get lime into the tissues.

At this stage I think it would serve no useful purpose to enter into any discussion with him as to the passage from rheumatoid arthritis into osteo-arthritis, as it is evident that at the very outset we would differ as to what is meant by nature. I may, however, say that many cases of rheumatoid arthritis are cured by the removal of the cause in spite of treatment.

I cannot attach much importance to his interpretation of his skiagrams, seeing that he does not clearly differentiate between the different affections of the joints. I have not laid down any hard and fast rules as to which joints are first affected; and, again, if he takes the trouble to read my address carefully, he will find that the joint affection is only a part of the disease. He talks about poverty and plenty as causes of mild chronic acidosis. How is it possible to have patience with such a travesty of my statement? The following similitude may make the matter clear to him: Drunkenness is usually preceded by the absorption of alcohol, but it is not necessarily associated with either poverty or wealth. His remarks about marmalade and acid fruits may seem to him spicy, but no fair-minded critic would ever attempt to divorce this matter from its context. He talks as if my treatment consists solely in the administration of lime salts.

I must express my thanks to Dr. Percy Newell for his kind appreciation of my address and for his whole-hearted condemnation of the drugs which I, it appears, boldly ventured to ostracize in this disease. In my presidential address last year I predicted a bright future for the general practitioner: "In my opinion the future of medicine will rest with enlightened and highly educated general

practitioners—men who will look after the health of the community, who will see that mechanism of a high order is produced, and who will see that the machinery of the individual is properly lubricated, and not subjected to any unnecessary friction or strain. The enlightened public will look to their medical attendants as guides, philosophers, and friends both in health and disease." The sooner we cease to batten on disease and go in for prevention the better for the public.

Professor W. E. Dixon has drawn my attention to an article on The Pathology of Chronic Fluorine Poisoning, by Dr. Fritz Schwyzer.[1] Schwyzer records a case of chronic fluorine poisoning in a man, aged 33, brought about by taking up the poison in his food. He also conducted experiments on rabbits, guinea-pigs, and pigeons. He concludes as follows:

> In summing up, I wish to state that the main symptoms of chronic fluorine poisoning in man and animals so far experimented upon are the same. Abnormal increase of the myelocytes in the blood at expense of the number of the other leucocytes, partial change of the yellow bone marrow into red (so far seen only in animals, as my patient did not die), pain in the bones and joints, increased coagulability of the blood, and great deficiency of chlorine in the body.
>
> That there was an enormous increase in the output of calcium could be shown directly in man through the analysis of the urine and faeces, and in animals by determining the specific gravity of the bones.

As sodium fluoride is used as a preservative it may be as well to be careful about its employment. It may be within the recollection of many of your readers that many years ago hydrofluoric acid was highly vaunted in the treatment of exophthalmic goitre, but its uselessness in that disease was soon recognized. It may possibly have done some good in cases of fibrocystic endemic goitre.

The well-known decalcifying effects of oatmeal I have ascribed to silicic acid.

I wish now to draw the attention of your readers to an able paper in the *Lancet* of May 10th by Professor W. E. Dixon, being his contribution to the discussion at the Royal Society of Medicine on alimentary toxaemia—an extraordinary title, by the way, for which Professor Dixon is in no way responsible, but which cannot reflect much credit on those who gave it birth. Professor Dixon says:

> It is true that under certain conditions a kind of toxaemia may be induced from carbohydrate metabolism; for example, in certain conditions of the bowel an excess of lactic acid may be found leading to an excess of ammonium salts in the urine, and some four or five times the normal excretion of calcium; the result may be calcium starvation, of which one symptom is probably joint trouble.

—I am, etc.,

Liverpool, May 10th. JAMES BARR.

SIR,—Most clinicians who have paid special attention to the subject will agree with Sir James Barr as to the inefficacy of guaiacol carbonate and other drugs in this disease. At the same time considerable difficulty will be felt in accepting the view suggested by Sir James Barr—that the cause of the disease is a mild chronic acidosis which extracts the lime salts from the fibrous and other tissues. For my own part a close study of the disease has led me to accept as most likely the view condemned by Sir James Barr—that the disease is a toxic arthritis of bacterial origin. Sir James Barr brushes this view aside as resting on no firmer foundation than the imagination of some writers, and he goes on to deprecate hunting for the germ and its toxin. A study of the later part of Sir James Barr's admirable article presents what appears to be a curious inconsistency in his position. We find, for example, that the principles for successful treatment are laid down by him as follows:

(1) Attention to be directed to the *prima via*, all sepsis to be eradicated. (2) All acid fermentation in the stomach to be eliminated. (3) The administration of medicinal substances, such as olive oil at night, and the regular administration of an aperient to keep the bowels open. (4) Leucorrhoea, if present, to be treated, and any infection of the urinary tract to receive attention, vaccines *often* proving useful in this class of case.

Now, taking these points seriatim, it seems clear that, consciously or unconsciously, the toxic or bacterial origin of the disease bulks much more largely in Sir James Barr's mind than he would have us believe. A bacterial origin of the disease is clearly suggested by his first principle; since acid fermentation in the stomach and bowel is most commonly the result of abnormal bacterial activity, an *a priori* case for the germ origin of the disease is established by his second principle. Further, since a very large proportion of the faeces consists of bacteria, it will be readily understood that drugs which accelerate the passage of the faeces through the alimentary canal will diminish the amount of putrefaction which takes place in the bowel from these organisms, and also limit the absorption of their toxic products; and, lastly, Sir James Barr's personal experience of vaccines often proving useful in cases of rheumatoid arthritis associated with infection of the urinary tract, is itself a proof of the value to the patient of the physician hunting for the germ and its toxin.

I entirely share the view put forward by Sir James Barr that rheumatoid arthritis as a prolonged disease is a standing disgrace to the medical profession, and if the principles of treatment so well laid down by Sir James Barr were universally recognized (and this involves a careful bacteriological examination along modern lines), this unfortunate position of affairs would soon be corrected.—I am, etc.,

Edinburgh, May 10th. CHALMERS WATSON, M.D.

SIR,—I often think that when writing on the etiology and treatment of rheumatoid arthritis we would do well to confine our observations to the disease as it is seen in young women. Then we should clear the ground.

Later on in life other varieties of chronic arthritis are met and often confused with the disease under consideration. This is hardly excusable even without the assistance of skiagrams, and yet how often we see osteo-arthritis and rheumatoid arthritis mistaken for each other. Thus it happens that treatment which may be of service for one of these diseases is extolled for both. We speak of iron anaemia and arsenic anaemia to distinguish between the remedies best suited for chlorosis and pernicious anaemia, so to-day we might borrow from that therapeutic definition and speak of iodine arthritis and calcium arthritis.

Those who have the patience to try iodine tincture in increasing doses for long periods in the treatment of osteo-arthritis (nodular rheumatism), as recommended by Trousseau in vol. iv of his *Clinical Medicine*, published as far back as 1872, will not be disappointed; but this treatment is perfectly useless in rheumatoid arthritis. Whether or not a mild acidosis is responsible for the decalcification of bones so often observed in rheumatoid arthritis I am unable to say, but I do know that this disease in young women is frequently benefited in no small degree by adding large quantities of milk to their diet.

In my own practice I endeavour to get these patients to take 3 or 4 pints daily in addition to their ordinary food, and I have seen the disease entirely disappear under this treatment.

What the prime cause may be we do not know, and whilst our ignorance is so colossal we must do the best we can, guided by the experience of those who have had most opportunity of studying the disease, but we have a right to expect that two entirely different pathological conditions should not be treated as one and the same malady.—I am, etc.,

Bath, April 28th. T. PAGAN LOWE, M.R.C.S., L.R.C.P.

SIR,—Sir James Barr, in his letter in the JOURNAL of May 3rd, although professing to reply to my questions, fails to answer any of them. If Sir James Barr has no knowledge of the subject, may I tell him that the thermo-penetrating current has been in common use in Germany, Austria, and France for rheumatoid arthritis for many years? I have myself used it or seen it used many thousand times during the last five years, both in this and other diseases, with excellent results. The hot seaweed or other alkaline bath is, I fancy, almost as old as the employment of lime in the treatment of this disease. The hot alkaline bath is of itself of some value, and also, probably by increasing the absorptive powers of the skin, increases the value of the inunction when administered while the patient is still warm and damp after leaving the bath. Suitable inunctions to the spine and affected parts

[1] *Journal of Medical Research*, vol. x, p. 301.

are also very valuable when applied to the spine and affected joints, either when the parts are heated before a fire or even when applied at the normal temperature of the body. The best ointment to employ to the spine must vary. I may, however, say that I find milder counter irritants give much better results than the actual cautery or strong blisters, and have the further advantage that they can be almost continuously used; the patient in this way derives great benefit from the long-continued absorption of the medicament employed. Antirheumatic serums have been in use for over twenty years.

My objection to the employment of the calcium salts in rheumatoid arthritis is that they are neither good nor new. I remember in the year 1873 the late Sir Robert Christison gave his class a list of the various reasons different writers gave for using calcium salts in rheumatoid arthritis. He pointed out that some of the reasons were both plausible and ingenious, others rather stupid, and ended by telling us that after a prolonged trial his experience was he might as well have given his patients an infusion of straw. After forty years, in the *Medical Annual* for 1913, I notice that Hirschberg gives as his experience of treating a number of patients suffering from rheumatoid arthritis with a diet deficient in calcium, "that in a certain proportion a notable degree of improvement is obtained both in the mobility of the joints and in the relief of pain." I tried this treatment some years ago, but failed to notice any improvement.

I gathered from the cursory glance I gave Sir James Barr's address some weeks ago that he had either read about or employed vaccines in some forms of this disease, but I failed to notice any mention of antirheumatic serums.—I am, etc.,

Llandudno, May 4th. JAMES CRAIG.

THE INTERNEURONIC SYNAPSE IN DISEASE.

SIR,—Dr. Shaw's suggestion that in hysteria the neuronic trouble may be synaptic opens out one of the ways in which it may still be possible to bring into line the physiological and psychical conceptions of that disease.

Is it not more probable, however, that increased rather than diminished synaptic resistance is the cause of hysterical symptoms. The statement that "the hysterical temperament is manifested by an abnormally keen sensibility to all external impressions and sensations" is open to serious question. It is not in accord with the anaesthesia, loss of memory, paralysis, and diminished field of vision, which hold such an important place in the hysterical symptom complex. In the severe hysterical paroxysm the patient is often completely oblivious of her surroundings.

These facts are more in agreement with Janet's theory that hysteria is due to a diminished field of consciousness, and such a diminished field would be more likely to be brought about by increased synaptic resistances isolating more or less completely certain areas of the mind than by diminished resistances allowing impulses to run riot in all directions. The susceptibility to suggestion and lack of control are undoubtedly facts of the hysterical state, but these may be due to the cutting off of the higher controlling functions of the mind, reason, and will, and so are quite compatible with Janet's theory and increased synaptic resistance. Further, Dr. Shaw gives epilepsy as an instance of increased synaptic resistance causing an accumulation of energy which eventually bursts its bounds, causing an epileptic fit. This explanation has many facts to support it, but the phenomena of hysteria and those of epilepsy show several parallel features. In both we have fits characterized by an abnormal output of nervous energy, and in both we have an interparoxysmal period. The same explanation could therefore equally well be applied to both—namely, an undue accumulation followed by a sudden and violent output of nervous energy.

It is true that the phenomena are in detail very different, but this could be explained by assuming that different areas of the brain are involved.

Shock, which, as Dr. Shaw suggests, often appears to be a determining cause of epilepsy, is often also an important factor in the etiology of hysteria. If, in the case of epilepsy, the shock acts by causing "synaptic fusion" and consequent increased resistance, is it not possible that a similar process may be at work in hysteria?—I am, etc.,

Sheffield, May 12th. ARTHUR G. YATES, M.D., M.R.C.P.

THE FORM AND POSITION OF THE STOMACH.

SIR,—I had feelings of great astonishment and disappointment when I read Dr. A. E. Barclay's letter on this subject in your issue of May 3rd.

My quotations from his most recent writings on *x*-ray appearances of the stomach under varying conditions were surely extensive and consecutive enough to prevent any suggestion of misquotation. My previous communications on this subject indicate definitely where I locate the "middle sphincter." Dr. Barclay merely throws dust in the eyes of the reader and confuses the issue by saying that "apparently Mr. Gray claims all these sites as his middle sphincter." These sites are described by Dr. Barclay as "half-way down the stomach," "the lowest part of the organ," and "the middle of the body," and I interpreted these expressions as referring to one and the same situation. If this is not what Dr. Barclay meant then he is particularly unhappy in his choice of terms and in his descriptive powers. After all, the truth appears to be that he and I agree as to radiographic appearances presented in the stomach, but differ, widely it is true, as to the interpretation of these appearances. Nobody should be more willing than Dr. Barclay to admit that there is room for such disagreement, because his own writings indicate how frequently, in his own experience, operative findings show that his interpretations of the *x*-ray pictures have been delusive.

During this correspondence I have endeavoured to show (1) that the adoption of Dr. Hertz's suggestions regarding operative procedure in cases requiring gastro-enterostomy would entail retrogression, and (2) that the findings of radiographers of repute in different parts of the world are neither consistent nor conclusive.

Dr. Barclay, who has taken upon himself to reply to my letters, has entirely ignored, as has Dr. Hertz also up to this time, the very definite questions I put (1) with regard to discrepancies as to the positions accorded to the pylorus by himself and Dr. Jordan, to say nothing about the pelvic position given to it by Drs. Maclaren and Daugherty; and (2) with regard to the explanation of certain well-known clinical phenomena in the light of Dr. Barclay's "gravity theory." These are most important points, and I hoped that they would be taken up and answered without divergence into side issues. In the absence of such answer, I agree that "it is simply waste of time, ink, and paper" to attempt to forward the discussion, because it is apparent from Dr. Barclay's letter that "the subject lends itself to distortion," not merely "by those who are not familiar with normal appearances," but also by those who professedly are.—I am, etc.,

Aberdeen, May 10th. H. M. W. GRAY.

EXISTING UNSATISFACTORY CONDITION OF THE SCHOOL MEDICAL SERVICE.

SIR,—I had occasion recently to circularize a number of school medical officers in reference to the subject of salary, and I could not help being impressed by the large number of private communications I received from all parts of the country, in addition to the answers to my circular, expressing views almost identical with the letter published in the BRITISH MEDICAL JOURNAL of May 10th.

The manner in which the school medical service has been organized bids fair to create a most practical system for bringing about an almost ideal method of preventive medicine, which is certainly the common-sense way of dealing with disease. Moreover, it has apparently attracted many very able men to join its ranks, but unless there are some prospects of a fair living wage, similar to that of tuberculosis medical officers, it is more than probable the service will rapidly deteriorate.

There is a feeling among some people, who have little or no practical experience of the work, that any one who has a qualification to practise is competent to do it, but owing to its special and far-reaching nature this is by no means the case.—I am, etc.,

O. POLHILL TURNER, D.P.H.,
Hastings, May 12th. School Medical Officer.

SIR,—The remedy for the exceedingly unsatisfactory state of affairs in the school medical service described by the S.M.O. of Stoke-on-Trent in your issue of May 10th is indicated by the minutes concerning salaries of school medical officers contained in the SUPPLEMENT of May 3rd. No one can reasonably object to the commencing salaries of £500 and £250 laid down therein as the minimum salaries proper to be paid for senior and junior posts respectively. Unfortunately, however, the Association has not been able to secure the adoption of these salaries in practice. As a matter of actual fact, some responsible school medical officers were appointed at salaries that were the minimum proper to be paid to their assistants, and after four years they are still paid the salaries of junior officials, notwithstanding the responsibilities of their office and the fact that more than sufficient time has elapsed to make the necessary adjustments.

Under these circumstances the development referred to by your correspondent is not to be wondered at. In practice the status of the school medical service cannot be considered altogether apart from the salaries paid to its officials. If the school medical officer receives—as he frequently does receive—a salary utterly inappropriate to the importance of his work and to his responsibility, it is not surprising that the direction of his work tends to pass into the hands of laymen who happen to be better-paid officials.

Local authorities cannot, however, be altogether blamed in the matter, for the burden of medical inspection was thrust upon them at a time when they were most unwilling to incur any further financial obligations. But the fact remains, unfortunately, that the school medical service has been starved in consequence.

The Board of Education makes insistent demands upon education authorities for the efficient performance of medical inspection; and further, indicates the desirability of school hygiene being dealt with in its broadest aspect. The burden of all this falls upon the school medical officer, the chief concern of his committee being to limit the expenditure of money under this head. Among the economies thus practised, the school medical officer's salary is frequently the first to suffer.

It is earnestly to be desired, therefore, that school medical officers will themselves draw attention to the existing sweating of the school medical service. But it is not only in their own interests that complaint should be made of inadequate salaries. It is a matter of national importance that the status of the school medical service should receive adequate recognition by local authorities. Failing such recognition the service will almost inevitably suffer serious deterioration in the near future.—I am, etc.,

W. SPENCER BADGER,
May 13th. S.M.O., Wolverhampton.

DEATH VACANCIES AND THE PANEL SYSTEM.

SIR,—May I make to you and your readers, with the hope that it may be eventually considered by the various Branches, what appears to me to be a practical and valuable suggestion?

It is only too true that the average practitioner, if stricken down in his earlier and responsible years, leaves behind him very little provision for the protection of those nearest and dearest to him. Prior to the incidence of the Insurance Act there was always a provision, small or large—unfortunately often small—derived from the sale of the death vacancy. With the incidence of the Insurance Act this provision may become very small indeed, for death will terminate the contract between the insured and the late doctor, and the former will be at liberty to go wherever he pleases, and I fear this will be seldom to the buyer of the death vacancy, and thus death vacancies will be valueless.

My suggestion is that, if a scheme were developed whereby the purchaser of a death vacancy was assured for twelve months of the possession of the panel patients of a deceased medical man, the provision for the widow and children would at least be a sum equal to the annual value of the panel patients—that is, at the present rate £350 a thousand.

All that should be necessary would be to bind all the panel men not to accept, under a penalty of £10, a patient the client on the insured list of a deceased colleague for twelve months after such a colleague's death. The carrying out of such a proposal would be equivalent to each man insuring himself to the amount of the annual value of his panel practice, and should find ready acceptance by all. There appears to me to be no difficulties in putting such a proposal into practice, as the means of discovering what the list of a deceased colleague was will be in the possession of his executors and in the Insurance Office.—I am, etc.,

Plymouth, May 12th. H. B. PALMER.

THE PARISH DOCTOR AND HIS OPPORTUNITY.

SIR,—It appears to me that the crux of the whole matter is that these appointments are made by men who for the most part are entirely incapable of forming a just opinion on the merits of the different candidates, and they are often made a matter of—shall I term it—"expediency" between the different parties on the boards of guardians.

The remedy seems to be in the appointments being made by a select committee who would not be parties to the sweating principle that most boards adopt. Whilst agreeing that united action on our part is desirable, much also may be done by educated laymen on the board, and our influence should be brought to bear to support these men at election times, who are willing to serve from the highest motives of public spirit.—I am, etc.,

F. BRYAN,
Late Medical Officer and Public Vaccinator,
Ipswich, May 12th. Basford Union.

LECTURES TO VOLUNTARY AID DETACHMENTS.

SIR,—The British Medical Association has passed a resolution that the minimum fees paid to doctors for giving first aid or nursing lectures should be 5 guineas for each course, and some of the Divisions of the Association, including York, have recently passed similar resolutions.

Whilst fully agreeing that doctors should be paid a fixed uniform fee for these services to the general public, to railway companies, county councils, and factories, I strongly feel that services voluntarily given to a voluntary and patriotic movement in preparation for the defence of this country in time of peril and need should be given gratis—first, as an example to our fellow countrymen and countrywomen; and secondly, because there are no funds to meet these fees, and this good and useful work will be absolutely crippled and will consequently fall to pieces, and the profession blamed for it. Some form of compulsory service, combatant and non-combatant, may be necessary for the defence of this country, but until that becomes law we must not imperil the safety of our country by refusing to volunteer our services and discouraging others to volunteer.

I do not know whether the officers of the R.A.M.C. in time of peace would be allowed to do this work for the medical practitioner, or if they have the time and willingness to undertake it. But I am surgeon to a voluntary aid detachment, and in absence of funds I shall continue to volunteer my services to this company rather than see it disbanded for want of a lecturer or instructor. In order to keep these companies or sections up to strength recruiting has to be done, and for this it is necessary to give a course of lectures every year in first aid and nursing, and if there are no funds I cannot charge a fee. It has been suggested that the county councils would pay these fees if approached. I do not know if they would, but that would lay the classes open to all, whether they joined these voluntary aid companies or not, and in this neighbourhood we generally form these classes only for those who are willing to enlist in the company.

It is an important question, and I should like the views of others. I feel quite sure that the profession does not wish to stand in the way of a patriotic movement.—I am, etc.,

Green Hammerton, York, May 7th. J. A. BENSON.

MEMORIAL TO MR. ETHERINGTON-SMITH.

SIR,—As a friendly opponent may I be permitted to add my encomiums to the memory of one who, by his tactful and manly bearing, has endeared himself not only to his colleagues, but to his rivals in work and sport?

Some years ago while judging an international boat-race in Cork for the O'Brien Trophy an unfortunate and unforeseen (inter-nation) point arose which demanded prompt decision, and but for the courteous and charming personality of our departed friend serious difficulties might have occurred. His influence will be long felt by the rising generation.

The form the memorial has taken and the sad circumstances of his death should appeal to all.—I am, etc.,

SHEPHERD BOYD,
President, Harrogate Medical Society.

May 12th.

Obituary.

JOHN HERBERT HAWKINS MANLEY, M.A., M.D.CANTAB.,

M.O.H., WEST BROMWICH.

On May 4th occurred the death of Dr. Manley at his residence, New Street, West Bromwich, in his 57th year. He had been in failing health for some considerable time, and recently a severe operation became necessary, from which he appeared to be on the way to recovery, when haematemesis occurred, to which he succumbed.

Dr. Manley was the only son of the late Mr. John Manley, who was medical officer of health for West Bromwich for over seventeen years. He was educated at Winchester, Cambridge, and Guy's Hospital, and graduated M.B., B.C. in 1884, and proceeded M.D. in 1902. He took the diploma of L.S.A. in 1882, and that of M.R.C.S.Eng. in the following year. After holding the appointment of resident obstetric physician at Guy's Hospital he returned to West Bromwich about twenty years ago, and joined his father in private practice. He obtained the Diploma of Public Health in 1899, and in the following year succeeded his father as medical officer of health for the borough.

Dr. Manley was a barrister-at-law of the Middle Temple, and at one time thought of practising in this profession, but on his appointment to be school medical officer he devoted all his time to his official duties. He was also medical officer of the Infectious Hospital, examiner in lunacy for the West Bromwich Union, examiner of the St. John Ambulance Association, and a Captain in the Royal Army Medical Corps (T.F.), being a sanitary officer whose services would be available on mobilization.

West Bromwhich owes a great deal to Dr. Manley, for he was indefatigable in his work, and instituted a large number of sanitary reforms. He was held in high esteem by his medical colleagues, not only for his great professional abilities but also for his charming personality. He was a man who had many true friends, for he could always be relied upon. He was a prominent Freemason, and one of the founders of the Lewisham Lodge at West Bromwich. He did excellent work in connexion with the Incorporated Society of Medical Officers of Health, being for some years secretary; he had also held the office of President of the Birmingham and Midland Branch.

He was ex-president of the Birmingham Branch of the British Medical Association, vice-president of the Section of State Medicine at the annual meeting at Leicester in 1905, vice-president of the Medical Defence Union, a Fellow of the Royal Sanitary Institute, honorary associate of the Midland Counties Veterinary Medical Association, and a member of the Medico-Legal Society. He had also been president of the Birmingham Graduates' Club, and a vice-president of the Birmingham Medical Benevolent Society. He was the author of a Legal Appendix to *Reid's Practical Sanitation* (1906), and contributed many articles to the medical and public health journals.

DR. A. G. BATEMAN (General Secretary of the Medical Defence Union) writes:

Dr. Herbert Manley has for many years been a vice-president and member of the Council of the Medical Defence Union, taking the deepest interest in the work. During the last year he was too ill to attend, but, as soon as his almost miraculous recovery occurred, he at once took up his duties again, and as late as April 21st was present at the last monthly Council meeting. His legal knowledge as a barrister and his practical experience as a medical officer of health afforded to the Council great assistance in dealing with public health matters, and his advice was constantly called for and placed most fully at the services of the executive officers. Dr. Manley was a classical scholar of the first rank, of keen intellectual powers, and a valued friend. The Council will ever retain a high regard for his memory and regret his loss with sincerity.

SIR JOHN WILLIAM TYLER, a well-known Anglo-Indian medical officer, died at his residence in London on May 12th, aged 73. He was educated at the Deveton College in Calcutta, and at the medical college in that city, and in 1861 came to England and took the diplomas of L.S.A. and L.R.C.S. and L.R.C.P.Edin. In 1862 he graduated M.D.St. Andrews, and in 1870 became F.R.C.S.Edin. In 1863 he was appointed to the Uncovenanted Medical Service in the North-West Provinces, and joined as civil surgeon of Ebah District. In March, 1866, he was transferred to Manipuri. In April, 1873, he entered the Gaol Department as Superintendent of Meerut Gaol, and in April, 1876, took over charge of the Agra Gaol, which he held for fourteen years. Under Tyler this gaol became known as a great manufacturing gaol, its special line being Indian carpets of the best quality. He was employed on special duty in England at the Colonial and Indian Exhibition of 1886, and for his services on that occasion was given the C.I.E. In December, 1886, he was deputed on special duty in the Dholpur State, and in 1887 came to England again on the staff of the Maharaja of Bhartpur for the jubilee of Her Majesty Queen Victoria. In 1888 he received the honour of knighthood, and in September, 1890, was appointed Inspector-General of Prisons in the North-West Provinces, now the United Provinces of Agra and Oudh. He retired in July, 1896, after a career which may be said to be the most successful of any officer who ever served in the Indian Uncovenanted Medical Service.

LIEUTENANT-COLONEL ALEXANDER WILLIAM MACKENZIE, Bengal Medical Service (retired), died suddenly at Plymouth on May 11th. He was born on October 23rd, 1853, educated at Aberdeen, where he took the degrees of M.B. and C.M. in 1876, and entered the Indian Medical Service as surgeon on March 31st, 1887. He became surgeon-major on March 31st, 1889, and surgeon-lieutenant-colonel on March 31st, 1897. He served in the Afghan war of 1878–80, when he took part in the action at Chihildakhteran, and in the march from Kabul to the relief of Kandahar, and in the battle of Kandahar, gaining the Afghan medal with a clasp and the bronze star given for the march to Kandahar. Subsequently he served in four expeditions on the North-West Frontier of India, the Mahsud Waziri expedition of 1881, the two Miranzai campaigns of 1891, receiving the Frontier medal with a clasp, and in Waziristan in 1894–95, gaining another clasp.

MAJOR CHARLES FREDERICK WEINMANN, Indian Medical Service, died in London on May 4th. He was born on July 2nd, 1871, and was by extraction a Ceylon "burgher." After taking the degrees of M.B., C.M. at Aberdeen in 1896, he entered the Indian Medical Service as lieutenant in 1899. He became captain in 1902, and major in 1911. He served in Waziristan, on the north-west frontier, in 1901–2, receiving the frontier medal with the clasp for that campaign. For the past six years he had been in civil employment in Bengal, and since October 3rd, 1912, on furlough. Major Weinmann was civil surgeon of Midnapur at the time of the sedition trials at that station, a few years ago, and also at the same time was acting as superintendent of Midnapur Central Jail, in which a number of prisoners who were being tried for sedition were confined; this was a very onerous charge for a young officer who had lately taken up civil employment. Subsequently he appeared as a witness in the notorious Midnapur conspiracy case in the Calcutta High Court. He had complained that his life had been threatened by members of the anarchist party in Bengal, owing to his having given evidence in that case on behalf of Government. Such threats to witnesses, police officers, and magistrates in Bengal have been numerous during the

past few years, and in several cases the threats have been carried to the extent of political murders. His mind gave way under the strain. On March 1st last, while staying in a Bloomsbury boarding-house, he was found in bed suffering from eight wounds, inflicted by a surgical lancet. He was then suffering from a delusion that the servants in the house were trying to poison him. He was removed to the Royal Free Hospital, and there recovered from his injuries. Subsequently he greatly improved, both mentally and physically, and seemed to have made a complete recovery. Unfortunately his delusions returned, and on the morning of May 4th he threw himself from a third-story window of the house in which he was staying, and so put an end to his life.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the medical profession in foreign countries who have recently died are Dr. Bastian, lecturer in the University of Geneva, one of the founders of the Société Romande de Gynécologie et Obstétrique, President of the Geneva League against cancer; Dr. Julian Count de Calleja, Dean of the Medical Faculty of the University of Madrid, and President of the Spanish Academy of Medicine; Dr. Ch. H. Ali Cohen, formerly lecturer on hygiene in the faculty of medicine of Groningen; Dr. John H. Droge, chief laryngologist to the German Hospital, Brooklyn, of which he was one of the founders, aged 53; Dr. A. P. Co Korkaunoff, former professor of therapeutics in the University of Tomsk; Dr. T. H. Perrin, lecturer on urology in the medical faculty of Lausanne; Dr. Hugo Schinelka, professor in the veterinary university of Vienna, formerly assistant in Professor Albert's Surgical Clinic; and Dr. Paul Yvon, co-founder with Bourneville of the *Archives de Neurologie* and the *Progrès Medical*, author of a handbook of urine analysis, commentaries on the Pharmaceutical Codex (1908), in the preparation of which he had taken a leading part, and in collaboration with Professor Gilbert of a *Formulaire pratique de thérapeutique et de pharmacologie*, a work now in its twenty-fifth edition, aged 65.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.D.—H. T. Ashby.
M.B.—G. V. Bakewell, T. H. G. Shove, H. K. Waller, H. F. Wilson.
B.C.—T. H. G. Shore, H. K. Waller.

UNIVERSITY OF EDINBURGH.

GENERAL COUNCIL.

Decrease in Number of Medical Students.

THE statutory half-yearly meeting of the General Council of the University of Edinburgh was held on May 7th. It was intimated that whilst there was an increase for the year (1911-12) in the total number of matriculated students attending the University there was a decrease in the number of medical students (1,326 as against 1,374 in the previous year).

The Inclusive Fee.

Reference was made to the question of the inclusive fee in medicine in several of the reports presented. Thus the Finance Committee noted with interest that "My Lords of the Treasury are giving directions for the payment of the additional grant of £12,500 for the current financial year, stipulating as a condition of receiving payment of the full amount that an inquiry shall be made as to the difficulties in the way of instituting an inclusive fee in applied science and medicine." Mr. J. B. Clark, Convener of the Business Committee, also referred to the action of the Treasury, which he regarded as an ample vindication of the attitude which the University Court had taken up on the subject, and consistently maintained, and Principal Laurie, Heriot-Watt College, believed that the General Council had made good their point not to allow the Treasury to interfere too much with the freedom and autonomy of the university. An appendix to the report contains the minute of the Conference of Representatives of the General Councils of the Universities of Glasgow and Edinburgh on March 22nd, when the effect of the inclusive fee in medicine upon extra-mural students was specially considered, and a subcommittee was appointed to prepare a reasoned statement. Meanwhile Principal Laurie moved that the General Council represent to the University Court the desirability of amending the regulations for the payment of inclusive fees in such a way that extramural students might be placed at no disadvantage; and this was agreed to.

Moncrieff Arnott Chair of Clinical Medicine.

The draft ordinance for the foundation of the Moncrieff Arnott Chair of Clinical Medicine was approved. The chair is intended to perpetuate the memory of the late James Moncrieff Arnott, of Chapel, in the county of Fife, a graduate of the University of Edinburgh, and a medical practitioner of distinction, and also the memory of his daughter, the late Miss Jane Moncrieff Arnott, benefactors of the university. The Professor of Clinical Medicine is to be a Professor in the Faculty of Medicine, and is to be paid as an annual income the interest of £15,000, and if this does not amount to £600 a year the salary is to be made up to that sum out of the General University Fund. Further, on due cause being shown, the University Court shall have power to increase the emoluments. The University Court also shall from time to time, after consultation with the Senatus, define the duties of the Professor; and the patronage of the Professorship and the right of presentation or appointment shall be vested in and exercised by the University Court after consultation with the Managers of the Edinburgh Royal Infirmary for the time being. An important clause is that which provides for the contingency arising should the Professor of Clinical Medicine cease from any cause to have charge of clinical wards which in the opinion of the University Court are well fitted for the efficient teaching of his subject, then the Court shall have power to terminate his tenure of office as Professor of Clinical Medicine, and to determine the amount of pension, if any, which shall be granted to him—that is to say, if the contingency arise before he is entitled to a pension in the ordinary course.

Appointments.

The Business Committee reported that the following appointments had been made: Frederick Gardiner, M.D., an additional Lecturer on Diseases of the Skin. R. Chapman Davie, M.D., B.Sc., Lecturer on Botany in room of R. Stewart MacDougall, D.Sc., resigned. W. G. Sym, M.D., Lecturer on Diseases of the Eye. David G. Hogarth, M.A., Fellow of Magdalen College, Oxford, and Keeper of the Ashmolean Museum, Munro Lecturer on Anthropology and Prehistoric Archaeology for 1914. A. Ninian Bruce, M.D., D.Sc., Lecturer on the Physiology of the Brain and Nervous System. Professor Henri Bergson, Collège de France, Paris, Gifford Lecturer in Natural Theology for 1913-15.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

A COMITIA was held on May 8th, Sir Thomas Barlow, Bart., K.C.V.O., the President, being in the chair.

Admission of Fellows.

The Members who were elected to the Fellowship at the last meeting were admitted Fellows.

Diplomas in Tropical Medicine and Hygiene.

Diplomas in Tropical Medicine and Hygiene were granted in conjunction with the Royal College of Surgeons of England to the following: F. P. Connor, Captain, I.M.S.; C. A. Gill, Captain, I.M.S.; Frances M. Harper.

A report was received from the Censors Board recommending that the following clause in a report of the Committee of Management be adopted. This was agreed to. The clause was as follows: "The attention of the committee has been called to the fact that the short title of the Diploma in Tropical Medicine and Hygiene—namely, 'D.T.M.England'—is not sufficiently descriptive, and that it is desirable to add a reference to hygiene in the title. The committee, therefore, recommend that the short title of the diploma be altered from 'D.T.M.England' to 'D.T.M. and H.England.'"

Alteration in By-laws.

An alteration was made in By-law CXXIV relating to the examination for the Membership. Candidates who have not been approved by the Censors Board can now be readmitted to examination after the lapse of six months, instead of a year as heretofore.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary Council was held on May 8th.

Grant of Diplomas.

Diplomas of Membership were granted to eighty-nine candidates found qualified at the recent examination. Diplomas of the Licence in Dental Surgery were granted to five candidates found qualified. Diplomas in Tropical Medicine were granted conjointly with the Royal College of Physicians to three candidates.

Honorary Fellow.

Surgeon-Major Henry Benjamin Hinton was made an Honorary Fellow. An account, written by our South Australian correspondent, of the life of this retired officer, who attained the centenary of his birth on March 7th, was published in the BRITISH MEDICAL JOURNAL of March 15th, p. 559.

Vacancy on Board of Examiners.

The vacancy on the Board of Examiners occasioned by the retirement of Mr. W. F. Haslam will be filled in June. Mr. Haslam is not eligible for re-election.

Resignation from the Council.

The resignation of Mr. Bruce Clarke from the Council was

accepted with regret by the Council. The vacancy will be filled up at the annual meeting of Fellows in July.

Letter from the Home Office.

Mr. Richardson Cross was nominated to give evidence before the Home Office Committee on Factory Lighting.

CONJOINT BOARD IN ENGLAND.

At a meeting of Comitia of the Royal College of Physicians on April 24th, and of the Council of the Royal College of Surgeons on May 8th, diplomas of L.R.C.P. and M.R.C.S. were respectively conferred upon the following candidates:

C. B. Alexander, J. Appleyard, J. S. Arkle, R. A. Banbury, M. Barker, H. G. Barrie, H. J. Bates, R. S. De C. Bennett, E. W. Blake, T. D. J. Bowen, B. J. Brewitt, R. C. Briscoe, W. H. Broughton, P. P. Butler, P. N. Button, L. D. Cohen, F. Collar, G. D. Compston, E. R. C. Cooke, H. D. Cowper, W. Dale, A. C. L. D'Arifat, A. L. Davies, H. W. Davies, R. D. Davy, H. P. Dawson, S. A. Day, E. L. Dobson, J. D. Driberg, E. L. Z. Fickling, G. Garland, A. Goodwin, A. O. Gray, J. L. Green, A. Griffith-Williams, J. L. A. Grout, D. M. Hanson, J. S. Higgs, W. H. S. Hodge, *Elsie M. Humpherson, G. B. H. Jones, J. E. T. Jones, W. E. Kingdon, G. Laurence, G. A. Lilly, W. M. Lupton, J. D. Lyle, G. R. D. McGeagh, P. McRitchie, E. M. Mahon, H. Y. Mansfield, S. H. Marcus, G. S. Mather, W. J. Morris, H. H. P. Morton, W. H. Ogilvie, H. F. Overend, J. Owen, R. C. Parry, J. R. Payne, W. A. Pocock, R. C. Poyser, N. P. Pritchard, A. L. H. Rackham, W. A. Rail, C. G. Reinhardt, J. E. Rivera, G. M. Roberts, G. F. Rodrigues, A. B. Rosher, W. Salisbury, E. L. K. Sargent, A. W. M. Sawyer, R. S. Scott, D. N. Seth-Smith, A. K. Sinha, J. G. Skeet, J. S. Souttar, W. C. Spackman, D. B. Spence, E. J. Staddon, A. J. C. Tingey, E. W. Twining, E. H. Udall, A. Viney, I. L. Waddell, G. Whittington, R. F. Wilkinson, H. Wilks.

* Under the Medical Act, 1876.

Public Health
AND
POOR LAW MEDICAL SERVICES.

TUBERCULOSIS (IRELAND) ORDER.

Arrangements have now been made with the Treasury and the Irish Department of Agriculture have issued a Tuberculosis Order on the same lines as that operating in Great Britain. Every person having in his possession or under his charge (1) any cow which is, or appears to be, suffering from tuberculosis of the udder, indurated udder, or other chronic disease of the udder; or (2) any bovine animal which is or appears to be suffering from tuberculosis with emaciation shall, without avoidable delay, give information of the fact to a constable of the police force for the area wherein the animal is, and the constable shall transmit the information (*a*) to the local authority, who, if not the sanitary authority, shall inform that authority; and (*b*) to the department. The milk from such a cow must not be mixed with other milk until the cow has been examined by a veterinary inspector; it must be boiled or otherwise sterilized forthwith, and any utensil in which such milk is placed before being so treated shall be thoroughly cleansed with boiling water before any other milk is placed therein. The animal must be kept isolated as far as practicable from other bovine animals. By this order a veterinary inspector shall be authorized to visit and examine all suspected animals, and if necessary and with the consent of the owner apply the tuberculin test; he may also require the cow to be milked in his presence, and take a separate sample of milk from any particular teat. Authority is also given for the slaughter of all such animals as are reported by the veterinary inspector to be diseased, except in the case of animals valued at over £30, so long as the animal is detained and isolated and the milk (if any) is sterilized. When a veterinary surgeon in his private practice is employed to examine an animal, and is of opinion that the cow is tuberculous, he must notify the case. Authority is also given to make *post-mortem* examinations of all animals slaughtered under this Order, and to require suspected animals to be removed from markets or sale yards, and any cow which is or appears to be suffering from tuberculosis must not be brought to any port for shipment. Provision is also made for the cleansing and disinfection of premises and sheds in which tuberculous cows have been recently kept.

This Order applies to the whole of Ireland, and is to come into operation on June 2nd.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Guildford Rural District.—Based on an estimated population at the middle of 1912 of 18,420, the net birth-rate was 19.4 per 1,000 and the net death-rate 8.9 per 1,000. The infant mortality-rate was equal to 48 per 1,000 births. Although out of the 172 houses inspected under the regulations of the Housing, Town Planning, etc., Act, 1909, 16 were considered to be unfit for human habitation, no steps were taken to close them owing to the reluctance of the district council to make closing orders until all other means had failed to make the houses habitable, for cottages are very scarce in the district. Dr. Pierce, the medical officer of health, describes a method which has been adopted with success for dealing with the drainage of cottages otherwise than by means of cesspits. A small pit or detritus chamber has been constructed at a distance of not less than 20 ft. from the dwelling, and radiating from it are rows of end-to-end agricultural pipes laid within a foot or so of the surface whereby subsoil irrigation is carried out. By-laws with respect to tents, vans, and sheds are in force, and Dr. Pierce considers they have been of considerable service. For the effective control of persons occupying these places he considers further legislation may be necessary. He is not altogether in favour of the formation of recognized encampments, as his experience of two such has shown that the aggregation of large numbers on small areas of ground, especially when in a low-lying locality, leads to a deplorably insanitary condition of the ground, and that nothing short of the provision of a hard dry surface with suitable drainage for surface and waste water, and periodical scavenging will prevent such places from becoming insanitary in course of time. By-laws with respect to slaughter-houses are in force in the district, but they do not apply to farm premises upon which sheep and swine, but not cattle, may from time to time be slaughtered, provided that such sheep or swine are not conveyed to a farm specially for the purpose of slaughter. The Local Government Board was asked whether the by-laws would apply to cottagers who occasionally slaughtered an animal, but would express no opinion on the matter, merely stating that each particular instance must be considered on its merits.

Barry Urban District.—Dr. George Neale states that the net birth-rate during 1912 was 23.9 per 1,000 and the net death-rate 10.4 per 1,000 of the population, which was estimated at 33,767. The infant mortality-rate was equal to 60 per 1,000 births. Although there are in Barry nearly 6,500 houses, only about forty of them were built prior to the year 1885, and these are mostly well-constructed farmhouses on the outskirts of the town. The governing body of the town has always been alive to its responsibilities so that it is not surprising to learn that there are practically no slums. What may be described as the municipal equipment of the town is very complete. The sewage is discharged by two outfalls into the sea below low-water mark, and there has never been any evidence of any of it being returned by the incoming tide. About twelve years ago a destructor was erected at a cost of £9,000; it is capable of destroying 30 tons of refuse daily. The power generated is used for providing electric light for the destructor works and for the adjoining public abattoir and for giving steam to the latter for water-heating purposes. There are separate hospitals for small-pox and for other infectious diseases. The latter institution does not seem to be very much used, for only 1 of the 63 cases of scarlet fever, 2 of the 47 cases of diphtheria, and 6 of the 26 cases of typhoid fever notified during the year were treated in the wards of the hospital. A qualified veterinary inspector is employed by the district council to inspect the dairy cows in the town. In the course of his inspections in 1912 he discovered two cows with tuberculosis of the udder, and his diagnosis was confirmed by bacteriological examination of the milk. The cows were isolated and the owners were requested to destroy them. In one case the request was complied with and general tuberculosis was found to be present. In the other case the owner refused to destroy the animal unless he was compensated, but in a short time it died. Dr. Neale includes in his report a very useful table giving the rateable value and the amount of the district rate since the year 1889, from which it appears that the rateable value has increased from £18,000 to £186,000. The district rate, which was 3s. 6d. in the £ in 1912, has been as low as 1s. 8d., and only in one year has it been as high as 4s. in the £.

LOCAL GOVERNMENT BOARD REPORTS.

East Stow Rural District (New series, No. 75).—Dr. Wilfred Fletcher's report to the Local Government Board on the rural district of East Stow, in East Suffolk, is the result of an inspection of the district made in consequence of doubt having been raised as to the sufficiency of the arrangements for the discharge of the duties of inspector of nuisances. Dr. Fletcher appears to consider those arrangements adequate, and formed the opinion that the district council had for some time displayed little desire to secure improvements in the sanitary circumstances of the district, though he recognized that it was now making real efforts to do so. The housing accommodation is described as fairly good, but there seems to be a deficiency of accommodation for agricultural labourers, whose weekly wage of 12s. is insufficient to enable them to pay an adequate rental for good dwellings. There are no by-laws in force in the district, so that the deterrent effect of stringent regulations is not a determining factor in the failure to erect cottages in East Stow. Of the dairies and cowsheds in the district there is little adverse criticism. Regulations concerning them have been in force since 1907, and are apparently enforced. Dr. Fletcher takes occasion to point out that a district council's duties with respect to cowsheds are not limited to those cowsheds which are in the occupation of cowkeepers and purveyors of milk who are registered, but extend to those occupied by "any person following the trade of cowkeeper and dairyman," and, therefore, to such as carry on the trade of cowkeeper for the manufacture of cheese, butter, or for other purposes. The population of the rural district is over 6,000, and has increased in the past ten years, but no provision has been made for isolating cases of infectious disease, except that for small-pox purposes a small portable building is stored in sections. The district council would be well advised to combine with one or more adjoining districts in making the necessary provision for other infectious diseases.

CONDITIONS OF SUPERANNUATION ALLOWANCE.

A RETIRED Poor Law medical officer, who is in receipt of a superannuation, has been succeeded by his partner. He wishes to know if his superannuation would be forfeited if he were to give an anæsthetic for his partner when operating on a Poor Law patient.

*** We are advised that superannuation would not be forfeited in the circumstances he describes. Under Section 6 of the Superannuation Act of 1896, if he were to accept another Poor Law office the emoluments from which exceeded his superannuation, the latter would be suspended so long as he continued to hold that office. But the superannuation would not be affected by his acting as deputy for his partner, or assisting him in his Poor Law work.

Medical News.

THE Post-Graduate College, West London Hospital, will give a conversazione at the hospital, Hammersmith Road, on Wednesday, May 21st, at 8.30 p.m.

DR. ARGYLL CAMPBELL, assistant to Professor Schäfer, University of Edinburgh, has been appointed Professor of Physiology in the Medical School at Singapore.

THE Bakerian Lecture before the Royal Society will be delivered by Professor Sir J. J. Thomson, O.M., at 4.30 p.m. on Thursday next. The lecture will deal with rays of positive electricity.

THE annual general meeting of the Asylum Workers' Association will be held at 11, Chandos Street, W., on May 28th, when Sir Robert Jardine, K.C.I.E., M.P., President of the Association, will take the chair at 3 p.m.

THE Glasgow University Club, London, will hold its annual spring dinner at the Trocadero Restaurant, Piccadilly Circus, on May 30th, when the Right Hon. A. Birrell, M.P., Lord Rector of the University, will take the chair at 7.30 p.m.

A NOAH'S ark fair and variety show in aid of the London Hospital Quinquennial Appeal Fund is to be held at the Albert Hall on June 11th and 12th, under the patronage of H.M. Queen Alexandra, who has consented to be present on June 11th.

THE annual general meeting of the Medical Defence Union will be held on May 29th at 4 p.m., at the New London Hotel, Exeter, when the usual statutory resolutions will be placed before the members, together with the annual report and balance-sheet.

THE annual conference of the British Hospitals Association will be held at Oxford from June 20th to June 28th. Papers dealing with the Insurance Act as affecting voluntary hospitals, the treatment of tuberculosis, and the upkeep of hospitals will be read and discussed.

THE first of the summer course of lectures at Brompton Hospital for Consumption will be delivered next Wednesday at 4.30 p.m. The lectures are free to all registered medical practitioners and senior students, and will be given by different members of the staff on Wednesday each week.

THE British Fire Prevention Committee's testing station, near Regent's Park, was opened, after the recent extension and alteration, on May 7th. The testing arrangements for the day comprised high-temperature fire tests with fire-resisting glazing and with fire-resisting party-wall doors. There was a large attendance of representatives of the various public authorities concerned in fire protection, such as the Home Office, H.M. Office of Works, the Admiralty, of the Post Office, Woolwich Arsenal, of municipal bodies, and of Colonial and foreign Governments.

AT a meeting of the Medico-Psychological Association of Great Britain and Ireland to be held at the house of the Medical Society of London at 3.15 p.m. on Tuesday, May 27th, Drs. R. G. Rows and David Orr will read a paper, illustrated by lantern slides, on the spread of infection by the ascending lymph stream of nerves (ascending neuritis) from the peripheral inflammatory foci to the central nervous system.

IN the announcement of the approaching twelfth International Congress of Ophthalmology published last week (p. 988) it should have been stated that it will take place in the month of August next year, and not August next. It will be opened in St. Petersburg on August 10th, 1914, under the presidency of Professor Arnaldo Angelucci of Naples, the city in which the last congress was held. The subjects selected by the Congress in Naples for special discussion at St. Petersburg were the etiology of trachoma and the nutrition of the eye. The general secretary in St. Petersburg is Dr. Th. Germann, the Ophthalmic Hospital, Mochowaja 38, St. Petersburg.

A FRENCH philanthropist who wishes to remain anonymous has offered a prize of £200 for the best memoir relating to the etiology, prophylaxis, or treatment of such forms of iritis, irido-cyclitis, or cyclitis as are not dependent on syphilis. Only such papers as have been communicated to one of the ophthalmological societies of France or some other country will be admitted to competition. The jury, three in number, will be chosen from the ophthalmologists of the principal institutions for eye diseases of Paris. Memoirs, which may be written or printed, may be in French, English, or German. They must be sent by August 15th, 1914, to the Bureau des Annales d'oculistique, 26, Boulevard Raspail, Paris.

THE Cremation Society of Geneva, which celebrated the twentieth anniversary of its foundation in November, 1912, has decided to present M. Burkhard Reber, its President, with a gold medal in commemoration of his strenuous labours for the advance of cremation during the last quarter of a century. M. Reber was the first to propose the establishment of a cremation society with its headquarters at Geneva. He met with much opposition from different quarters, and many difficulties had to be overcome. His persistence, however, overcame all obstacles, and cremation has now conquered its rightful place in Geneva. M. Reber has taken an active part in the propaganda in other parts of Switzerland and foreign countries. M. Reber, who is a pharmacist by profession, has a fine collection of antiquities relating to the history of medicine, pharmacy, and the natural sciences.

IT appears from an address recently published by Dr. Louis Stricker that an "Optometry Bill" was passed by the Ohio Legislature but vetoed by the Governor. A large fund had been collected by the opticians in the United States, and Dr. Stricker says that "it was not all used to engage learned counsel," and expresses regret that some medical men refer patients to these unqualified practitioners for refraction, and that some oculists accept commissions from opticians for the patients they send to them to have glasses fitted. It is necessary that the public shall be educated in the difference between the qualified medical men who are ophthalmic experts and the advertising spectacle vendors, but Dr. Stricker went on to say that some doctors who had had no special ophthalmic training posed as experts, and brought the whole profession into disrepute. Sooner or later he hoped that legislation would be introduced compelling all men calling themselves specialists in ophthalmology to pass an examination such as has been inaugurated by the Universities of Oxford, Liverpool, and Colorado.

The Head Master of Eton lectured on Eugenics, Ethics, and Religion before a large audience at the May afternoon meeting of the Eugenics Education Society, which was held at the Grafton Galleries on May 8th. Canon Lyttelton said that the science of eugenics was concerned with racial development, and dealt with the past in a scientific way, hoping to extract from it lessons for the future, and emphasized the sense of the preciousness of human life, which was the direct outcome of Christianity. The eugenist should be welcomed in the religious training of the young, since he could show how vigorously science corroborated the true principles of child training; but the Christian could hardly be expected to welcome biology unless it came as an addendum to something deeper and more personal. The eugenist and the Christian were so near together, however, that there should be no difficulty about co-operation between them. The Christian could not say that his religion was not concerned with the bodily health of the present and future generations; and the Divine example warranted us in believing that we were intended to beautify, refresh, and cheer the lives of others in this world, and not only to prepare them for the next. In so far as we believed the eugenic principle to be true, we should plant it in young minds for its own sake, and not primarily because its outcome would be beneficial to humanity. If disloyalty to a common faith had been the real cause of the social disorders around us, then a return to our faith must be fraught with almost infinite hope. If what he conceived to be possible came to pass, there would be a saving revival of home life and training in England; but in the meantime we had to deal with innumerable young lives which had been in those respects stunted and starved. It could not be wrong to try to apply the principle of foster-parents, and huge though the sum total of failures might be, it must not be doubted that every worker who tried to quicken the lives of young people by inspiring them with the touch of love was doing his utmost to spread a great truth. It might be the truest eugenics to revive in every class of society the meaning of home as a place where the seeds of physical, moral, and

spiritual life were sown. Unless ideas of home were spread and deepened in the next hundred years the outcome must be the decay of the people.

At a well-attended dinner of the medical profession of Wigan and district held on May 8th, Dr. Monks, J.P., in the chair, a cheque for £50 was presented to Dr. Campbell, who has acted as secretary of the Local Medical Committee since the passing of the Insurance Act, and has expended much time and energy in securing equitable treatment for the medical profession in the area. As the chairman pointed out, the cheque would but barely recompense Dr. Campbell for the out-of-pocket expenses which he has incurred on behalf of his colleagues. Amongst those present were the Chairman and ex-Chairman of the Division (Wigan) of the British Medical Association, the Chairman and Honorary Secretary of the Wigan Medical Society, and Dr. John Campbell, Assistant Lecturer on Anatomy at the University of Liverpool, and brother of the guest of the evening.

The members of the Dover Division of the British Medical Association entertained Dr. F. B. Hulke at a complimentary dinner on May 8th, when the Chairman, Dr. Charles Wood, presented to him a silver rose bowl, subscribed for by members of the Division as well as other members of the profession in the district, as a recognition of their gratitude to him for the ungrudging manner in which he had given his time and services, on their behalf, as a member of the Kent County Medical Committee since its formation. The toast having been duly honoured, Dr. Hulke thanked the subscribers and said he would always most highly value the gift and the feeling which had prompted it. After referring to the struggle through which the profession had passed during the last two years, a struggle which he believed was still in its infancy and likely to become more strenuous, Dr. Hulke urged on those present the necessity for perfecting their organization and binding themselves together, each individually supporting his neighbours. In the meantime they must remember that, though they were few in numbers, and their votes were not likely to turn any election, and that, for this reason, they were liable to be overlooked by both sides in party politics, still the profession possessed immense influence, if it only took the trouble to use it. The great mass of the people, the insured and their families, and the employers as well as the employed, must be won over.

Dr. Neville Crowe, Honorary Secretary of the Worcester Division, was entertained at a complimentary dinner on Friday evening, May 9th, and presented with a purse of gold and a silver salver bearing the inscription, "Presented to H. Neville Crowe by members of the Worcester Division of the British Medical Association in recognition of his services as their Representative. May 9, 1913." Dr. Stretton (Kidderminster), who presided, in making the presentation said that Dr. Crowe, who had carried on the duties of secretary in troublous times with such remarkable success, must have inherited his capacity from his father, who for twenty-six years had been honorary secretary of the Worcestershire and Herefordshire Branch. The improvements effected in the conditions of medical benefit as compared with those laid down in the bill as introduced, and the increased remuneration, were due to the action of the various Divisions and their secretaries throughout the country, and among those officers no one had worked harder than Dr. Crowe. Seventy-seven members of the Division had subscribed in order that Dr. Neville Crowe should have some tangible reminder of the work he had done. Dr. Crowe, in acknowledging the compliment and the gift, said that members of the Association had reason to congratulate themselves upon having been able to convince Mr. Lloyd George that he had underestimated the amount which should be paid to the medical profession for the work it was required to do. Even now, however, although the profession had undertaken to carry out the work at a certain price until January, 1914, the Government, as represented by the Insurance Commissioners, was trying to make certain deductions from the amount agreed to be paid. There were, however, two sides to every contract. Dr. Crowe also said that certain Insurance Committees seemed to consider that they had no responsibility to pay the doctor for those persons who had not yet exercised their right of choice, but the profession was responsible for the treatment of any person who presented the insurance card, and would therefore expect to be paid for every insured person from January 15th, 1913. It was essential that every doctor should keep the records required by the Government, for there might be an attempt to cut down the contract price in the future.

Letters, Notes, and Answers.

Telegraphic Address.—The telegraphic address of the EDITOR of the British Medical Journal is *Attiology, Westrand, London*. The telegraphic address of the British Medical Journal is *Articulate, Westrand, London*.

Telephone (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Omega asks for suggestions as to the etiology and treatment of pain in the back experienced by a patient on rising and throughout the day. Its locality can be covered by placing the hands over and on either side of the spine about the level of the waist belt. The kidneys are not movable, and all organs, as well as the spine, are apparently healthy. The patient, a domestic servant aged 35, presents no evidence of hysteria or of rheumatism of the joints, and though spare and of poor muscular development seems otherwise healthy.

LETTERS, NOTES, ETC.

A member of the British Medical Association, who died not long ago, left behind him a complete series of all the issues of the British Medical Journal from 1874 to 1910. They are well bound in half-yearly volumes, and the administrator of the deceased member's estate is willing to present them to any medical man or institution desirous to possess them. His name and address can be obtained on application at the office of the Association.

The Waters Testimonial Fund.

The Honorary Secretary of the Bootle Ward of the Liverpool Division of the British Medical Association (Dr. J. Walker) forwards the following letter of thanks for publication:

On behalf of Mrs. Waters and the trustees of this fund, we beg to acknowledge with grateful thanks the liberal response of the members of the Liverpool Division to the appeal which we circulated last month. Subscriptions amounting to £63 6s. have been received since the issue of the circular, which, added to the amount previously subscribed, makes a total of £243 7s. 6d. It is proposed to use the fund for the education of the children of the late Dr. Waters, both girls, aged 11 and 6 years respectively.

E. J. Claxton.
J. Dunn.
J. Walker.

Medical Evidence.

Lawyers are in the habit of scoffing at medical evidence, unless it happens to be on their side. It cannot be denied that doctors sometimes cut a sorry figure under the ordeal of cross-examination by a keen-witted counsel. Sometimes the tables are turned, as when a much-badgered physician said, in reply to a suggestion that the mistakes of doctors are often buried underground, that the mistakes of lawyers were sometimes hung above it. We have come across another instance of a doctor scoring off counsel in the *South African Medical Record*. A medical witness in a Western State of America was giving evidence in a case of murder. One of the jurymen asked him whether the accused "had anything wrong with his head." "Yes," said the doctor, "he was the subject of old-standing and severe alopecia praesenilis." Counsel did not press the examination on this point further, and although the case for the prosecution was conclusive the accused was acquitted by the jury, who were under the impression that the man was not responsible for his actions.

Correction.

In the report of a case of abdominal aneurysm by Dr. J. Rupert Collins and Mr. C. Braine-Hartnell, published last week, it was stated, under the heading "Post-mortem Examination" (p. 988), that "The lower end of the wire was tucked away inside the aneurysm immediately outside the end of the liver." For "end of the liver" read "endothelium."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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A Clinical Lecture
ON
THE TREATMENT OF PERNICIOUS ANAEMIA.

DELIVERED AT THE ROYAL INFIRMARY, EDINBURGH.

BY

BYROM BRAMWELL, M.D., F.R.C.P.E., LL.D., F.R.S.E.,

PHYSICIAN TO THE CHALMERS HOSPITAL, EDINBURGH; CONSULTING PHYSICIAN TO THE ROYAL INFIRMARY, EDINBURGH.

I BEGAN the study of pernicious anaemia now almost forty years ago, when I was physician to the Newcastle-on-Tyne Infirmary. In the year 1874 two cases of profound anaemia were admitted to the Newcastle Infirmary under my care; both died, as these cases so often do. The disease was then very little known in this country, though it had been described by the celebrated Dr. Addison. He met with a number of cases of fatal and apparently causeless anaemia; he termed it "idiopathic anaemia," and it was while hunting about in the bodies of patients after death to try and find the cause of this peculiar form of anaemia that he discovered the remarkable lesion of the suprarenal capsules which is the pathological substratum of the disease, which we now, of course, all know as Addison's disease.

The terms "pernicious anaemia" and "progressive pernicious anaemia" were subsequently given to the idiopathic anaemia described by Addison, for it was found—as, indeed, he had found—that the patients suffering from this form of anaemia always, or almost always, died, whatever the form of treatment employed. Addison failed to discover any cause for this profound and fatal anaemia, and we are still ignorant of its exact cause.

Now, profound anaemia arising without any loss of blood or other apparent cause may, theoretically at least, be due to one or other of two great causes—namely, either a defective production or an excessive destruction of the red blood corpuscles. Either of these two conditions may, when acting in a marked degree, produce a very profound form of anaemia.

About the time that I commenced the study of pernicious anaemia a celebrated American physician, Dr. Pepper, Professor of Medicine, and afterwards Principal or Provost of the University of Pennsylvania, described the lesion in the marrow of the bones found in the bodies of patients who have died of pernicious anaemia. He termed the disease "myelogenous anaemia," for he thought it was due to defective production of red blood cells in the bone marrow. The bone marrow is, I need not say, the most important red-blood-producing structure. Pepper thought that this lesion in the bone marrow was the fundamental lesion of the disease.

Some years later, when I was assistant physician to this infirmary, I had as one of my assistants Dr. William Hunter, who has identified himself with the subject of pernicious anaemia. While he was my assistant in the out-patient department he made a series of very important observations with regard to the *post-mortem* findings in pernicious anaemia and with regard to the artificial production of anaemia in animals. He came to the conclusion that pernicious anaemia is not due to defective formation of red blood corpuscles in bone marrow, as Pepper had supposed, but to excessive destruction of the red blood cells in the portal circulation. In proof of this he advanced the fact that the liver in pernicious anaemia shows a large excess of iron.

In my early studies of pernicious anaemia I paid particular attention to the condition of the blood. I found that the red blood corpuscles, instead of being biconcave, circular discs, all about the same size, varied greatly in size and shape, some being larger, some smaller than the normal, and many of them misshaped in various ways—poikilocytosis, as it is now termed—some of them apparently nucleated. I described and figured this condition in the *Edinburgh Medical Journal*. The nucleated condition of the red corpuscles, as I took it to be—in unstained films parts of some of the corpuscles are more deeply pigmented than normal—was subsequently shown to be merely an apparent, not a true nucleation, due to a concentration of the haemoglobin in a particular part of the corpuscles. But we now know that in many cases of pernicious anaemia some of the red blood corpuscles, stained by methylene blue and eosin, are actually nucleated; indeed, this nucleated condition of the red corpuscles is a characteristic feature of the blood in many cases of pernicious anaemia; but it is not the condition I described.

When Dr. Hunter told me of his researches and of his view that pernicious anaemia is due to an excessive destruction of red blood corpuscles in the portal circulation, I asked him how he accounted for the enormous number of small, immature, imperfectly-formed red blood corpuscles which is such a striking feature of the blood in pernicious anaemia—the presence in the blood of so many immature red blood corpuscles seems to show that there is a defective formation of red cells. He met that argument in, I think, a perfectly legitimate and satisfactory way. He said if you destroy at one end of the circulation, say in the portal circulation, an enormous number of red blood cells, you call upon the bone marrow—the red-blood-forming tissue—for an excess effort, with the result that a great number of immature and imperfectly-formed red blood corpuscles are thrown into the circulation. That certainly seems a plausible explanation, but it is not, perhaps, the whole truth.

We may take it, then, that there is excessive destruction of red blood corpuscles in the portal circulation, together with an excessive production of immature and imperfectly-formed red corpuscles in the bone marrow. Free iron is liberated and is stored up in the liver—this is seen *post mortem*. The bone marrow is called upon to produce an excessive quantity of red blood cells, and it is, as we know, found on *post-mortem* examination to be in an abnormal condition. The destruction of the red corpuscles in the portal circulation is probably due to the presence of some toxin, which is probably absorbed from the gastro-intestinal tract. But, if this is so, we do not know what the toxin is.

Now it is possible that the toxin which destroys the red blood corpuscles in the portal circulation also stimulates the bone marrow to excessive formation of red blood corpuscles, or perhaps acts injuriously upon the bone marrow; and, if this be so, the lesion in the bone marrow is not merely a compensatory effort to meet the excessive destruction of red blood cells which is undoubtedly present; it is not merely a secondary lesion, but is, in part at least, a primary lesion.

The bodies of persons who have died from pernicious anaemia are extremely bloodless; the tissues are very often stained yellow—canary or primrose yellow; the most characteristic naked-eye lesion is the fatty condition of the organs, particularly of the heart; the thrush-breasted or faded-leaf appearance of the muscle of the left ventricle is highly characteristic. In many cases small petechial haemorrhages are scattered throughout the body—in the retina, on the surface of the heart, lungs, brain, for example. Professor Stockman of Glasgow suggested some years ago that these haemorrhages are the cause of pernicious anaemia. But that is not so; they are merely secondary—a consequence not a cause of the condition. In some typical cases of pernicious anaemia no petechial or other haemorrhages are found on *post-mortem* examination.

In the fatal cases of pernicious anaemia which I examined *post mortem* in 1874, I was struck by the fatty condition of the heart. I knew that arsenic is a remedy which is often very beneficial in cases of fatty heart, and I said to myself, Why should one not try arsenic in cases of pernicious anaemia? I tried it, with very marked success.

During 1875 six cases of pernicious anaemia were admitted under my care in the Newcastle-on-Tyne Infirmary; all of them were treated with arsenic. One of these early cases lived for thirteen and a half years, and ultimately died of the disease, having had several relapses. That patient lived, I think, longer than any other case which has come under my notice.

It is a very remarkable fact that the first cases which one treats with any new remedy are often singularly successful. My experience of the thyroid treatment of

psoriasis shows this. In the first case of myxoedema which I treated by thyroid I gave too large doses, and produced acute thyroidism; it was attended with profuse desquamation of the skin. I argued that if thyroid tissue—I was then using the raw gland—could produce this extraordinary desquamation in myxoedema, it would probably be of use in psoriasis and other skin diseases. In the first three cases of psoriasis in which I tried it the result was remarkable. The extraordinary success in these first cases led me to think that I had made a remarkable discovery. There is no doubt that it was a discovery and advance, for many cases of psoriasis and certain other skin diseases are very greatly benefited by thyroid treatment, but the remedy is an uncertain one. Some cases of psoriasis are cured by it, or temporarily cured by it; others are not. I have had many successful and many unsuccessful results. I mention this for the purpose of showing how careful one should be in drawing therapeutic or indeed any other conclusions from a limited number of cases. I will give you another example—a remarkable coincidence which shows how fallacious it is to reason from a limited number of cases. Of the first 7 cases of pernicious anaemia which I treated by salvarsan three were women and four were men. The names of all the women began with P, and the names of all the men with S. Now if one limited oneself to these facts, and if one were dealing with a new disease one might perhaps argue that the names of all women affected with pernicious anaemia begin with P, and the names of all men affected with pernicious anaemia begin with S. This, of course, is a bizarre illustration, but it shows what I mean.

Since I began to treat pernicious anaemia with arsenic in 1875 I have had a long and continuous experience of this and other methods in the treatment of this very grave and fatal disease. The result has been to show that cases of pernicious anaemia, if they are first attacks, usually do exceedingly well under arsenical treatment; that many of them get apparently quite well, but that, with very few exceptions, they relapse and ultimately die of the disease. The remedy seems to lose its effect and to be much less efficacious in the relapses than in the primary attacks. Consequently, we want some better remedy than arsenic for pernicious anaemia.

Dr. William Hunter has directed attention to the condition of the mouth and tongue, and emphasized the importance of oral sepsis. I think he has attached far too much importance to this point. I have seen and published several cases of pernicious anaemia in which there were no decayed teeth, and in which for years before the onset of the disease the patient had had no teeth. I have seen several cases in which there had never been any ulcers on the tongue or any inflamed or irritative condition of the buccal mucous membrane; I look upon the ulcers in the mouth merely as part and parcel of the disease, perhaps due to the same toxin which destroys the red blood cells, but not the primary, or even a predisposing, cause of the disease.

In addition to arsenic, a great number of other remedies have, of course, been employed in the treatment of pernicious anaemia. Iron has been given, but in the great majority of cases it does harm rather than good. One would expect this from the condition of the blood in pernicious anaemia.

In the normal male the red blood corpuscles number 5,000,000 per cubic millimetre, the haemoglobin equals 100 per cent. (with Gowers's instrument, which we use, we rarely get 100 per cent.), and the colour index, which represents the percentage of haemoglobin divided by the percentage of red corpuscles, equals 1 ($\frac{\text{C.I. } 100}{\text{R.C. } 100} = 1$). In pernicious anaemia there is an enormous diminution of the red blood cells; in an average well-marked case the red blood corpuscles number 1,000,000 instead of 5,000,000; the haemoglobin equals 30 per cent. or more; and the colour index is consequently above the normal 1.5 or more ($\frac{\text{C.I. } 30}{\text{R.C. } 20} = 1.5$). The haemoglobin is in many cases much higher than this; in some cases the colour index is 2 or even more.

In chlorosis, another form of idiopathic anaemia, the red blood corpuscles usually number about 3,500,000 per cubic millimetre (the average normal number of red corpuscles in the female is 4,500,000); the haemoglobin is about 50 per cent., and the colour index is often about 0.5 or less.

There is, then, this striking difference between chlorosis and pernicious anaemia, that in chlorosis each red cell contains on an average about half the normal amount of haemoglobin, whereas in pernicious anaemia it contains more than the normal amount of haemoglobin. Consequently, the indication is to give iron in chlorosis; and we find, as a matter of fact, that iron is a specific in that disease. But if you give iron in pernicious anaemia, if you stuff the red cells, which already contain too much iron, with more iron, you do harm rather than good. There are, however, some cases of pernicious anaemia in which iron seems to do good, but they are quite exceptional. I have published some cases of this kind.

Intestinal antiseptics, such as beta-naphthol and bone-marrow, also have been tried, and in some cases the result has been satisfactory. Treating the mouth, removing bad and decayed teeth and stumps, keeping the mouth so far as possible in an aseptic condition, has been insisted upon by Dr. Hunter. It should certainly be done, for a bad condition of the mouth may do harm and cannot do good.

None of the remedies which have been used, with the exception of arsenic, have stood the test of a prolonged trial. Experience has, I think, shown that arsenic is the only remedy which up to the present time has afforded any real benefit in the treatment of pernicious anaemia, but its beneficial effects are in the great majority of cases only temporary.

Two or three years ago salvarsan was introduced by Ehrlich for the treatment of syphilis; it contains arsenic and mercury. After seeing the remarkable effects of this remedy in some cases of syphilis, I thought that possibly it might give as good or better results in pernicious anaemia than the ordinary arsenical treatment—Fowler's solution by the mouth. In giving arsenic by the mouth, I begin with small doses—2 minims of Fowler's solution, three times a day after food—and gradually increase the dose by an extra drop every fourth or fifth day until the maximum which the patient can take is reached. This dose varies greatly in different cases; it is 10 or 12 drops in most cases, and 16 or 20 drops in some cases, three times a day. I push the remedy until I find the maximum dose which the individual patient can take; I then go on with that dose for several weeks. In some cases intestinal disturbance, particularly diarrhoea, is produced even by small doses; I have found in these cases that by combining a small dose of morphine—an eighth of a grain or less—with each dose of the arsenic, the arsenic is usually quite well borne.

Further, one must remember that if one gives arsenic in large doses for a long period of time one runs the risk of producing arsenical neuritis—a very serious condition; I have seen it produced in several of my cases of pernicious anaemia. But some risks must be run. Pernicious anaemia, if allowed to go on, will certainly kill the patient.

I commenced the salvarsan treatment of pernicious anaemia in October, 1910—two and a half years ago—and have treated eleven cases with salvarsan, with, on the whole, most remarkably beneficial effects. I will show four of the patients and briefly describe the results in all of the cases.

CASE I.

A man, J. S., aged 49, married, an electric hoist man, formerly a soldier, was admitted to the infirmary in October, 1910; I had seen him in October, 1909, and had then prescribed arsenic by the mouth. He presented all the characteristic features of pernicious anaemia. The red blood corpuscles numbered 1,035,000 per cubic millimetre, the haemoglobin equalled 30 per cent., the colour index was 1.5. He had four injections of salvarsan (December 21st, 0.2 gram; January 5th, 1911, 0.3 gram; January 19th, 0.3 gram; February 9th, 0.3 gram.) I may say that I have in all cases injected the remedy into the gluteal muscles; in none of my cases has the intravenous method been employed. He was discharged from the infirmary on February 22nd, 1911, looking and feeling perfectly well; all the anaemic symptoms had disappeared. The red blood corpuscles were then 3,580,000 per cubic millimetre, the haemoglobin equalled 78 per cent., and the colour index was 1.1. He has remained quite well and has been working regularly ever since. I saw him last, on March 7th, 1912; the red blood corpuscles then numbered 4,580,000 per cubic millimetre, the haemoglobin equalled 94 per cent, and the colour index was 1. When I saw him last, on March 7th, 1912, he had, in consequence of the railway strike, to walk ten miles to get here in time for the clinic. He was perfectly fit and fresh after the ten-mile walk.

You will see that he looks quite well. He tells me that he has been quite well and working regularly every day since March, 1912.*

CASE II.

A woman, Mrs. P., aged 40, was admitted to the infirmary on November 15th, 1910, suffering from all the characteristic symptoms of pernicious anaemia. On November 15th, 1910, the red blood corpuscles numbered 990,000 per cubic millimetre, the haemoglobin equalled 30 per cent., and the colour index was 1.6. She had four injections of salvarsan (December 24th, 1910, 0.3 gram; January 7th, 1911, 0.3 gram; January 24th, 0.3 gram; February 9th, 0.3 gram). She made an uninterrupted recovery and was discharged from hospital on March 16th, 1911, looking and feeling well. Her red corpuscles then numbered 4,420,000, the haemoglobin equalled 94 per cent., and the colour index was 1.1. When her blood was counted last, on March 7th, 1912, the red corpuscles numbered 6,210,000 per cubic millimetre, the haemoglobin equalled 120 per cent., and the colour index was 0.97. Now this is the only case of pernicious anaemia I have seen in which the red corpuscles have gone above the normal as the result of treatment. I will now show you this patient, whom I have not seen for a year. She looks, you will see, the picture of health. She states that during the past year she has been perfectly well, with the exception of several attacks of biliary colic.

CASE III.

This case was a very severe one. A woman, Mrs. P., aged 56, was admitted to the infirmary on March 30th, 1911, apparently in a dying condition; the red blood corpuscles numbered 680,000 per cubic millimetre, the haemoglobin equalled 18 per cent., and the colour index was 1.3. She had two injections of salvarsan (April 6th, 0.3 gram; May 4th, 0.3 gram). All of us who watched the case were profoundly impressed with the remarkable improvement in her appearance and symptoms which followed the treatment; the red corpuscles went up to 1,020,000, the haemoglobin to 28 per cent., and the colour index was 1.4. She discharged herself on July 25th; she relapsed and died on September 5th, 1911.

CASE IV.

This was a remarkable case. A woman, Mrs. P., aged 41, was admitted to the infirmary on March 28th, 1911. The red blood corpuscles numbered 695,000, the haemoglobin equalled 16 per cent., and the colour index was 1.15. She had two injections of salvarsan (April 6th, 0.3 gram; April 21st, 0.3 gram). On May 5th she had to go home to look after her house and children, one of whom was ill. She was in poor circumstances, she had to nurse her sick child and do all her housework, washing, etc. On her discharge from hospital the red corpuscles numbered 1,495,000 per cubic millimetre, the haemoglobin equalled 34 per cent., and the colour index 1.2. Well, she went home; I never expected that she would improve, and did not hear of her again till May, 1912. She was unable to leave her children and come into hospital for further salvarsan treatment, and on May 23rd, 1912, I sent her a prescription for arsenic—2 minims of Fowler's solution three times daily. She only took two bottles of the medicine, and has had no treatment since. I have seen her from time to time. I was able, through the kindness of some friends, to get up a small fund in order to enable her to live more comfortably. She has made a splendid recovery. On January 18th, 1913, the red corpuscles numbered 4,060,000 per cubic millimetre, the haemoglobin equalled 74 per cent., and the colour index was 0.91. You will see that she looks remarkably well. She tells me that she feels perfectly well, and has since her discharge from hospital done all her housework without any assistance.

On *March 1st, 1913*, the patient wrote to me as follows: "In reply to your letter of the 28th February, I hope you will not be displeased when I tell you that I have only taken two bottles of the medicine, and just started to take the third one now. I have not been taking it constantly. Doctor, I thought I would just tell you that I have never had to call in the doctor for myself since I left the Royal Infirmary, and this is the first two years in my life, as far back as I can remember. It is out of a full heart of gratitude I thank you again for your great skill and kindness shown towards me and my humble home."

This is a very remarkable case, because when the patient was discharged from hospital she was very ill—profoundly anaemic, feet swollen, etc.—and she had to struggle on under great disadvantages.

CASE V.

A man, W. S., aged 50, was admitted to the infirmary on May 12th, 1911, suffering from profound pernicious anaemia. He had two injections of salvarsan (May 15th, 0.3 gram; June 19th, 0.3 gram). Slight improvement followed the first injection, but the improvement was only temporary; he died on June 24th, 1911. In this case the treatment produced no benefit.

CASE VI.

A man, P. S., aged 31, was admitted to the infirmary on May 17th, 1911, with very marked pernicious anaemia. The red blood corpuscles numbered 955,000 per cubic millimetre, the haemoglobin equalled 26 per cent., the colour index was 1.4. He had three injections of salvarsan (May 29th, 0.3 gram; June 12th, 0.3 gram; July 12th, 0.3 gram), but he did not improve, and went home, we thought to die, with his red cells numbering 600,000 per cubic millimetre, haemoglobin 19 per cent., and the colour index 1.6. In this case salvarsan seemed to do no good whatever while the patient was under treatment in the hospital. After going home, he remained semicomatose for ten days. He then began to improve and ultimately got apparently perfectly well. When I saw him on November 11th, 1911, he looked quite well; his red blood corpuscles numbered 3,100,000 per cubic millimetre, the haemoglobin equalled 66 per cent., and the colour index was 1.1. He had no treatment for the anaemia after leaving the hospital.

He remained in good health, without any return of the anaemia, until February, 1912, when he died from acute croupous pneumonia.

I am not going to affirm that this extraordinary improvement was the result of the salvarsan treatment, for we occasionally see cases of pernicious anaemia which show these very remarkable alterations and improvements. At the same time I cannot altogether rid my mind of the idea that the salvarsan was, perhaps, the cause of the improvement, for in two cases which have proved fatal, and have been examined *post mortem*, the salvarsan was found to be encapsuled in the buttock, and much of it unabsorbed, even after a very considerable time. I think it is quite possible that the long-continued improvement which has resulted in many of the cases which I have treated with salvarsan is probably due to the slow and gradual absorption of the remedy. If that is so, the extraordinary improvement in this case may perhaps have been the result of the salvarsan treatment.

CASE VII.

T. S., aged 55, was admitted to the hospital on October 24th, 1911, suffering from profound pernicious anaemia. His red blood corpuscles numbered 790,000 per cubic millimetre, the haemoglobin equalled 27 per cent., and the colour index was 1.7. It was a very bad case indeed. He had one injection of salvarsan (October 27th, 0.3 gram), and a fortnight afterwards his red blood corpuscles had doubled—1,460,000 per cubic millimetre, the haemoglobin equalled 25 per cent., and the colour index was 0.8. He then unfortunately took an attack of bronchopneumonia and died.

Since I left this infirmary I have had some further experience in the salvarsan treatment of pernicious anaemia.

CASE VIII.

This was an extremely severe case of pernicious anaemia in a young man of 25; it was of three years' duration (it is very unusual for pernicious anaemia to develop at such an early age—22). It was one of the most severe cases I have ever seen. The patient was admitted to Chalmers Hospital on October 3rd, 1912; he had two injections of salvarsan (October 6th, 0.3 gram; October 12th, 0.3 gram); there was no improvement. He died on October 14th, 1912.

Now, in a severe case of pernicious anaemia—and the same statement applies to every grave organic disease—one must expect to find many failures from any plan of treatment, however successful it is in the great majority of cases. I do not claim that salvarsan will produce improvement in every case of pernicious anaemia, but I do say that it does produce remarkable improvement in a very considerable proportion of cases.

CASE IX.

A man, J. C., aged 72, was admitted to Chalmers Hospital on August 30th, 1912, suffering from very severe pernicious anaemia. His red blood corpuscles numbered 1,055,000 per cubic millimetre, the haemoglobin was 26 per cent., and the colour index 1.3. Although 72 years of age, he improved remarkably under this treatment. He had three injections of salvarsan (August 31st, 0.3 gram; September 14th, 0.3 gram; September 28th, 0.6 gram). He was discharged on November 27th, 1912; his red blood corpuscles then numbered 3,450,000 per cubic millimetre, the haemoglobin equalled 75 per cent., and the colour index was 1.

I intended to have brought this patient before you today, but I hear he is not well enough to come; whether it is simply a relapse of his old trouble or something else I do not know; but, be that as it may, the beneficial effects of the treatment in that case were very striking.

CASE X.

A man, J. T., aged 59, was admitted to Chalmers Hospital on December 12th, 1912, suffering from very profound pernicious anaemia with oedema of the feet, etc. His red corpuscles numbered 1,045,000 per cubic millimetre, the haemoglobin equalled 24 per cent., and the colour index was 1.14. He had two injections (0.3 gram of salvarsan on December 13th, 1912, and 0.3 gram of neo-salvarsan on January 9th, 1913.) He is now quite well. He looks the picture of health. On February 14th,

* Cases I to VII are fully reported in the BRITISH MEDICAL JOURNAL, June 22nd, 1912.

1913, his red corpuscles numbered 3,900,000 per cubic millimetre, the haemoglobin equalled 86 per cent., and the colour index was 1.1. This is one of the most successful cases I have had.

Case xi.

A man, J. R., aged 58, was admitted to Chalmers Hospital on January 11th, 1913, suffering from moderately severe pernicious anaemia. His red corpuscles numbered 1,690,000 per cubic millimetre, the haemoglobin equalled 48 per cent., and the colour index was 1.4. He has had two injections of neo-salvarsan (January 14th, 1913, 0.5 gram; February 14th, 0.5 gram). Up to the present time the improvement in this case has only been slight, but sufficient time has not yet elapsed to allow of a definite statement regarding the result. On February 6th his red corpuscles numbered 2,490,000, the haemoglobin equalled 67 per cent., and the colour index was 1.2.

Case xii.

Another case, which is perhaps a case of pernicious anaemia, though the diagnosis is somewhat uncertain, is that of a man aged 42. He was admitted to Chalmers Hospital on December 16th, 1912, suffering from subacute combined paralysis and a moderate amount of anaemia (the red corpuscles numbered 2,750,000 per cubic millimetre, the haemoglobin equalled 80 per cent., and the colour index was 1.4). The high colour index is very suggestive that the anaemia is of the pernicious type. He has had two injections of neo-salvarsan (December 23rd, 1912, 0.4 gram; January 24th, 1913, 0.4 gram). There has been a slight improvement in the condition of the blood, but no improvement in the nervous symptoms.

I mention this last case as I am anxious to give my full experience—every case in which I have employed this treatment—whether the result has been satisfactory or not.

I have now given the results of eleven cases of undoubted pernicious anaemia, and of one doubtful case treated by salvarsan; of the eleven undoubted cases, four have been apparently completely cured—whether in these cases a relapse will occur or not I am, of course, quite unable to say; in two cases there was very striking improvement; in one case there was very considerable improvement, but ultimately a relapse and death; in one case there was slight improvement and death from bronchopneumonia while under treatment; in two cases there was no improvement; and in one case slight improvement, the patient being still under treatment. In the case of subacute combined paralysis associated with anaemia (perhaps pernicious anaemia), I tried the remedy as a last resource, though I did not expect it to beneficially affect the spinal lesion.

These results are very striking and very encouraging. I have had nearly forty years' experience of the ordinary arsenical plan of treatment of pernicious anaemia, and I have the greatest confidence in saying that the salvarsan treatment, so far as my present experience enables me to judge, is superior to the ordinary arsenical treatment. Further experience is, however, required before one can say whether the beneficial effects, which it undoubtedly produces in many cases, will be lasting or merely temporary.

In giving salvarsan I have always given it intramuscularly. In syphilis the usual way is to give it intravenously. In syphilis we know there is a definite organism, and we want to kill that organism as rapidly and as effectually as possible. In the treatment of syphilis the usual plan is to inject 0.6 gram of salvarsan into a vein. In primary and secondary syphilis the results are quite remarkable; relapses occur, however. The results in some of the tertiary cases are not so satisfactory as was at one time supposed. The results of salvarsan treatment in such conditions as tabes and general paralysis of the insane—parasyphilitic lesions—are practically *nil*. There have been different opinions expressed on this point, but I think the experience of the great majority of reliable physicians is that in tabes and general paralysis of the insane salvarsan is of little or no use.

In pernicious anaemia I have employed the intramuscular method of administration, for, in this disease, we want, I think, a remedy which will produce sustained and continued effects. We do not know what the toxin is which appears to be the cause of pernicious anaemia—whether a germ toxin or a chemical toxin. The dose I have always employed has been 0.3 gram, half the dose which is usually given in syphilis. In severe and advanced cases of pernicious anaemia, in which the patient's hold of life is very precarious indeed—and this was the condition in many of the cases I have brought before you—a very little thing will turn the scale. I have therefore hesitated in these cases to give the remedy by the intravenous method.

In some cases the salvarsan, when given intramuscularly, produces very considerable inflammation, pain, and swelling; but the neo-salvarsan seems to be much more satisfactory in this respect—it does not produce such marked local results. In the cases in which I have used neo-salvarsan I have found that there is little or no local pain or hardness, and little or no rise in temperature. In the meantime I shall continue to give the remedy intramuscularly.

Addendum (*May 7th, 1913*).

Case ix.

This patient was readmitted to Chalmers Hospital on March 3rd, 1913, suffering from a severe relapse. The red blood corpuscles numbered 1,010,000 per cubic millimetre; haemoglobin 36 per cent.; colour index 1.7. As the result of two injections of salvarsan he has improved very rapidly; I fear, however, that as soon as he is again discharged another relapse will in all probability occur, and that the effects of the treatment will be merely temporary.

Case xii.

During February, 1913, this patient rapidly got worse, the paralysis passing into the flaccid stage. He died on March 22nd. *Post-mortem* examination showed all the typical appearances of pernicious anaemia.

ACUTE PERFORATION OF THE GALL BLADDER:

WITH AN ACCOUNT OF SIX CASES.

BY

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In these days, when the early and exact diagnosis of acute abdominal conditions is a matter of extreme importance, it is essential to form a clear conception of the characteristic signs and of the methods of treatment of even the rarest forms of abdominal catastrophe.

Although McWilliams[1] and Cotte and Arnaud[2] have given such excellent descriptions of perforation of the gall bladder, in nearly all its varieties, there are perhaps some points of particular interest in the cases given below.

The effect of sterile bile in the general peritoneal cavity is to destroy the bactericidal quality of serum.

In rabbits Noetzel showed that whereas a certain amount of *Staphylococcus aureus* or *Bacillus coli* or streptococci placed in the normal healthy peritoneal cavity was innocuous, a similar amount was always fatal provided the bile from the healthy gall bladder was allowed to escape into the body cavity.

Normal bile is well tolerated for a considerable time, and becomes gradually shut off by inflammatory adhesions.

In a case recorded by Garré, operation undertaken two months after the injury which ruptured the gall bladder showed a localized and large collection of bile; the patient got well. In a case recorded by Hildebrandt operation was successful twenty-three days after a tear into the hepatic duct.

Bile which escapes from a rupture in a gall bladder containing stones is not an aseptic fluid, it teems with the *Bacillus coli* or other organisms.

It is in cases in which gangrene and rupture occur in an infected gall bladder that rapid and fatal peritonitis develops. Clearly the prognosis depends chiefly upon the number, character, and virulence of the organisms present in the bile.

McWilliams, omitting the purely traumatic variety, describes three kinds of rupture of the gall bladder:

1. Rupture from over-stretching; with or without stones.
2. Perforation from pressure of stone on the wall.
3. Perforation from gangrene due to:
   - (*a*) Thrombosis of vessels with or without stones.
   - (*b*) Cutting off of circulation from pressure of stone.
   - (*c*) Diphtheritic, ulcerative infection of the wall with or without stone.

To these there must probably be added:

4. Subperitoneal perforation of the gall bladder with subperitoneal extravasation of bile as illustrated in Case VI.

Signs and Symptoms.

As Sir Berkeley Moynihan has frequently pointed out, in every case of gall-bladder trouble, provided the history be carefully noted, there is a complaint of flatulent indigestion over a long period.

Attacks of severe pain in the region of the gall bladder, with shivering fits of great or small intensity, may be present in nearly all cases where there is an infection of any degree of severity.

It is of great interest to find that the sudden agonizing pain characteristic of the rupture of a hollow viscus, followed by a zealous rigidity of the neighbouring body wall, does not occur in all cases; probably both conditions depend to some extent upon the virulence of the invading bile.

At the moment of perforation there is always severe pain in the region of the gall bladder, followed in two or three hours by pain referred to the umbilicus. Moynihan showed how the fluid from a perforated duodenal ulcer gravitates over the bend of the hepatic flexure to the right iliac fossa; fluid escaping from the gall bladder follows the same course, and gives rise to swelling and pain in the region of the appendix.

It is a matter of much interest and of some importance to note that the effusion of a quantity of bile of a degree of virulence sufficient to cause a peritonitis will in course of a day or two give rise to a definite fluid swelling simulating in every way an appendix abscess (Case V).

The degree of rigidity is most variable and there is hardly ever the "marble" hardness found in other abdominal catastrophes. In none of the cases seen by the writer has there been that degree of involuntary stiffness and inability to move about seen in other grave abdominal conditions.

It would appear that the absorption of bile from the peritoneal cavity slows the pulse-rate, just as absorption of bile in cases of jaundice reduces the normal pulse-rate. The pulse-rate after twenty-four hours will depend upon the virulence of the infection and the kind of peritonitis. The temperature may remain subnormal until the formation of an abscess or the onset of acute peritonitis.

Treatment.

Early operation naturally gives the best results. If one can be certain that a catastrophe has occurred, as evidenced by a clear history and by the presence of extensive rigidity in the right hypochondrium, operation should be undertaken at once, before a rise in pulse-rate indicates a considerable extent of peritonitis. The presence of dullness in the right flank would necessitate immediate operation. To be able to say with certainty that there is a perforation of the gall bladder in the early stage, and not a condition of cholecystitis, is probably impossible. So long as the rigidity does not extend beyond the neighbourhood of the gall bladder and so long as the pulse-rate keeps below 95 the case should be watched.

It is of great assistance in helping to come to this decision if the patient lies easily and placidly in his bed and moves about in comfort.

It may happen (Case V) that the condition rapidly settles down within a few hours, and in a few days there is left a localized, dull, tender swelling in the appendix region.

The incision must be vertical, splitting the rectus of the right side. It is an easy matter to extend the incision up or down as required.

In Case IV there was well-marked oedema of the subcutaneous tissues and staining by bile. To quote McWilliams:

> He who is the keenest observer of the conditions found in the abdomen, who can best estimate the virulence of the infection present, the degree of adhesions, and the pathological conditions present in the gall-bladder system, who can make a good mental estimate of how much or how little the patient can stand, who can get in the quickest, inflicting the least possible trauma, will have the greatest successes in these trying cases.

If the gall bladder can be easily and quickly removed, this should be done in every case where there is gangrene present. A large maroon gall bladder with a perforation and containing stones may be emptied and drained after widening the perforation. If there be a stone in the cystic duct, the gall bladder should be removed if circumstances permit (Case IV).

A small contracted gall bladder is difficult to remove at any time, and it would be well in most cases to open, empty, and drain rather than make any attempt to remove. In many cases it is quicker to remove the gall bladder than to drain it. Mere suture of the perforation should never be attempted.

Cholecystotomy gives the best immediate results, 60 per cent. recovering; probably in expert hands cholecystectomy will give the best permanent results.

In all cases the right kidney pouch and the area of the cystic duct must be drained, either by stab puncture through the right loin or from the anterior wound.

If the whole abdomen is flooded with bile, as much of it as can be mopped up by hot swabs should be removed and a suprapubic tube (inserted through a separate puncture) should be pushed to the bottom of the pelvis. In every case Murphy's rectal infusion in the Fowler position must be the after-treatment.

Where the bile has collected in the right iliac fossa, in the form of an appendix abscess (Case V), the incision should be lengthened downwards, the bile and pus mopped out, and the area drained by tube through a puncture over the right anterior superior spine or through the anterior wound.

Whatever the procedure adopted it must be gently and quickly carried out. Washing out the peritoneal cavity cannot be done effectually at any time or under any conditions, and should never be attempted. The condition of the patient may be so grave (Case IV) that very rapid drainage must be obtained and removal of stones from the gall bladder left for a subsequent operation.

Statistics.

In 3,180 cases operated upon for gall stones (McWilliams) there were 29 cases of acute perforation. In 1,000 cases operated upon for gall stones at the Leeds Infirmary there were 10 acute perforations, 1 being a perforation of the hepatic duct. McWilliams records 108 cases of perforation, and to these the cases in the writer's list must be added, and 2 cases published in Sir Berkeley Moynihan's book, *Gallstones*.

CASE I.

Seen by Sir Berkeley Moynihan in consultation with Dr. Hind of Harrogate. The writer assisted at the operation.

Mr. J., aged 60, had resided in Ceylon for thirty years. Enjoyed good health until three years ago, when he became dyspeptic, constipated and depressed. Two and a half years ago he developed diverticulitis of the sigmoid with obstruction and abscess, and underwent an operation.

During the time of this illness he complained of intense pain in the right hypochondrium, and it was feared there might be some further suppuration of the nature of that dealt with at the operation for diverticulitis. He was treated with *B. coli* vaccines, and was much relieved.

In April, 1912, he had a return of his old trouble, dyspepsia and constipation, and was treated by a pill of aloes and nux vomica.

Suddenly on April 30th he was seized with great colicky pain and sickness, and for twelve hours could not locate the trouble. The abdomen was much distended, but there was no marked resistance. He then had rigors, the temperature reaching 106° F. Distinct tenderness over the gall bladder developed, and on May 1st Sir Berkeley Moynihan saw him and decided to wait.

On May 4th Sir Berkeley operated. An incision was made vertically over the upper part of the right rectus, the muscle being split longitudinally. Much free golden yellow bile escaped. The area of the gall bladder was shut off by huge masses of intensely engorged omentum which were adherent by lymph to each other and to the liver and gall bladder.

After separating the adhesions a small circular perforation was seen, about 2 mm. in diameter, on the inferior surface of the fundus of the gall bladder. The walls of the gall bladder were thinned away at this part so that the edges of the perforation were thin as tissue paper, and were stained a brilliant orange red. Yellow bile leaked in a slow stream from the opening. The aperture was enlarged, many small stones were removed, and a tube fixed into the gall bladder. There was no marked enlargement of the gall bladder, and removal would have been difficult. The area of the right kidney was drained and the abdomen closed.

The patient made an uninterrupted recovery.

CASE II.

Operation at Leeds General Infirmary by Mr. Collinson.

Mr. E. C., aged 54. At 4 a.m. on October 24th he was seized with a sudden umbilical pain. He could not rest, got up,

partially dressed, and went downstairs. He had bad pain all day long, and vomited once. Next night he had very little sleep, and several attacks of colicky pain in the body; opium was given. Next morning (October 25th) the pain was no better, abdomen getting swollen, bowels not open. At 3.30 p.m. ill, pinched, abdomen distended and tender all over, especially in the upper zone. Liver dullness present.

The history, as far as he was able to give it, was that he had been for some years subject to attacks of pain in the upper abdomen, not related to food, and associated with vomiting. He was a painter by trade, but there was no blue line and the knee-jerks were present.

The diagnosis of perforation into the peritoneum (? nature) was made.

Operation.

Incision vertically over the right rectus, about opposite the umbilicus. Appendix area explored and found normal; marked spasm of the small intestines; some free bile seen at the root of the mesentery. Incision lengthened upwards, and much bile found free in the peritoneal cavity; only one flake of mucopus noted. The gall bladder was small and very adherent to the omentum; there was a small perforation of the under part at the fundus, at a spot where there were no omental adhesions. The opening was enlarged and many stones removed, and the gall bladder was drained. Large tube drain through a separate opening in the right kidney pouch.

The patient recovered and went home on November 16th.

CASE III.

Operation at Leeds General Infirmary by Mr. Collinson.

G. H. C., a man aged 62, was in a most wretched condition on admission, and was incapable of giving any history whatever.

In addition to the abdominal condition he had marked aortic stenosis, and operation was undertaken under intraspinal injection of stovaine.

Temperature on admission was 99°, pulse 110, and respirations 33. Abdomen very distended, and moved very slightly on respiration.

Operation was performed at once (May 1st). A long incision was made over the right rectus; there escaped a quantity of yellow fluid, which was part of a collection around the gall bladder. This collection was shut off by adhesions of small intestines. A few small gall stones were found loose in the peritoneal cavity. There was a small perforation on the under surface of the gall bladder. The gall bladder was drained by tube, and the area of peritoneum invaded by bile was drained by another tube. The patient lived until May 9th.

Post-mortem, marked aortic stenosis, coronary atheroma, fat necrosis, and general peritonitis were found.

The three following cases were operated upon by the writer.

CASE IV.

Seen in consultation with Dr. Hall of Dewsbury.

Mr. M., aged 64, had some history of indigestion, but none of severe abdominal pain at any time. On April 25th, 1912, he was feeling a bit "run down," with vague abdominal discomfort. During that night he woke with severe pain in the body, and on the morning of April 26th Dr. Hall saw him. At that time he had very severe pain all over the body and was rolling about the bed in agony, the abdomen was markedly distended and very tender all over, the pulse was 120 per minute, and the bowels were open. On April 27th there was definite localized tenderness over the appendix and less pain and tenderness elsewhere.

I saw him on April 28th. He was a very stout, plethoric man, and he lay in bed on his back with his knees drawn up and apparently in comfort. His face and lips were livid and he had just a suggestion of jaundice. His abdomen was enormously distended and respiratory movements were only slight. There was general tenderness, but definite, localized, exquisite tenderness over McBurney's point. There was dullness in the right flank and a fluid thrill over the right half of the abdomen. The pulse was small and 130 per minute. Rectal examination revealed some fullness high up on the right side. Liver dullness was normal and he had not had a rigor. "Appendicitis with peritonitis" was diagnosed and possibly a large abscess.

Operation.

Immediate operation was decided upon. He was far too ill to be removed, and only very limited accommodation was available and very poor light. Under ether anaesthesia a vertical incision was made over the lower part of the right rectus and the musole split. In cutting through the fat and deep fascia it was noticed, and remarked upon, that there was oedema of the tissues and obvious staining by bile pigments.

On opening the peritoneum a very large quantity of yellow bile mixed with mucus and purulent exudate escaped, the mixture looking like yellow pea-soup. In it were many small, faceted black gall stones. The incision was rapidly lengthened up to the costal margin, and large quantities of thick yellow fluid escaped, with dozens of gall stones. Innumerable small stones lay on the neighbouring intestines. There were no adhesions, but much flaky lymph and stringy mucus.

The gall bladder was one and a half times the natural size, and was intensely red. On its lower surface, near the fundus, was a small circular perforation about 3 mm. in diameter; its edges were a brilliant golden yellow. Large numbers of stones lay in the gall bladder and others in the cystic duct. The perforation was enlarged by cutting with scissors up to the fundus and as many loose stones as could be got quickly out were removed. A tube about ¾ in. in diameter was stitched into the gall bladder. Some stones were picked off the intestines, but many were left, and much fluid was mopped away. From the lowest part of the wound a long, wide tube was placed as a drain to the bottom of the pelvis, and the wound closed in layers.

He was given continuous rectal infusion and fixed in the Fowler position. He made an uninterrupted recovery. The whole operation occupied thirty-five minutes. Large numbers of stones came through the tube, and for many months he had a mucous fistula from the gall bladder, but this is now healed.

It is nearly certain that had I attempted to remove the gall bladder in this case or to remove the stones in the cystic duct he would have died on the table. It was of great interest to note that some weeks after the operation the patient explained that the very first onset of his pain had been over the region of the gall bladder.

CASE V.

Seen in consultation with Dr. Orford, Pontefract.

Mr. W., aged 60, for many years had had bad indigestion, characterized by distension and frequently relieved by vomiting. On several occasions he had severe pains under the right ribs and occasionally some shivering. He had been jaundiced on one occasion.

Dr. Orford saw him on October 16th, 1912, and found him suffering from bad pain over the gall bladder and occasional vomiting. There was marked localized tenderness and some rigidity. Pulse was 80 per minute, temperature was 100° F., and respirations 30.

On October 17th he was worse, the pulse had gone up to 85, and the temperature had fallen to normal, but he looked ill. He complained of a catchy pain in the right ribs when he breathed deeply, but he easily rolled about in bed and sat up to have the back of his chest examined. There was definite rigidity over the upper half of the right side of the abdomen and exquisite tenderness. The right flank was resonant. The diagnosis of acute cholecystitis was made.

On October 18th he was removed to a nursing home in Leeds in much the same condition. Perforation of the gall bladder was now definitely suspected.

On October 19th he was better, the pulse falling to 80 and the temperature being normal. The rigidity and tenderness were restricted to the gall bladder region.

On October 20th there was some bile in the urine and he was slightly jaundiced. The bowels were opened and the tenderness over the gall bladder was less marked. There was tenderness and some rigidity over the appendix area.

From October 21st to 23rd he improved daily and a definite lump gradually made itself apparent in the appendix region, the size of an orange. Temperature rose gradually to 100° F. Tenderness over the gall bladder less marked.

Operation.

On October 24th an incision was made vertically over the middle half of the right rectus, splitting the muscle. There were recent plastic adhesions and intense engorgement of the intestines. On separating the adhesions clear bile escaped from the region of the gall bladder. The incision was lengthened up to the costal margin.

The gall bladder was of normal size, but thick and deep red in colour. On the under surface near the fundus was a clean-cut circular perforation 3 mm. in diameter, its edges pigmented a golden yellow. From it exuded clear yellow bile and some stringy mucus. Cholecystectomy was easily performed; the gall bladder contained many small faceted stones. Three or four spots of fat necrosis were noticed in the omentum. A large drain, reaching the stump of the cystic duct and the right kidney pouch, was introduced. Examination nearer the appendix region revealed a large collection of bile and pus, not unlike pea-soup, shut off on the lower, inner, and outer sides by recent adhesions, but open to the upper side by a channel leading up on the outer side and in front of the ascending colon to the gall bladder. Along the channel was yellow bile. The cavity was mopped out and drained by a tube through the lowest point of the wound.

He made an uninterrupted recovery.

CASE VI.

When admitted to the Leeds General Infirmary the patient was most gravely ill, pulse 160 per minute, respirations 36, temperature 101.5° F. He was a very big, stout man, aged 49, and was unable to give much history. He said he had pain all over the body and was vomiting frequently. For many years he had suffered from pains under the front of the ribs on the right side and constant indigestion. Fourteen days before admission he had a rigor, but no very bad pain; seven days later he began to have bad pain over the gall bladder which spread all over his body.

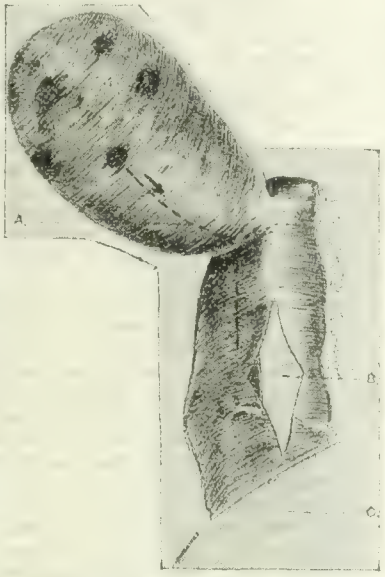
The abdomen enormously distended, moving well except over the right hypochondrium. There was exquisite tenderness over the gall bladder where there was some resistance suggesting a solid mass. Diagnosis of acute cholecystitis with possibly perforation was made.

Operation.

An incision was made vertically over the upper part of the right rectus splitting the muscle. A little clear free fluid escaped from the peritoneal cavity, but no bile. Plastic adhesions between coils of congested and distended intestine, confined to the right hypochondrium. Stomach, duodenum, hepatic flexure of colon adherent to the gall bladder by plastic lymph.

On separating the adhesions, the gall bladder was seen to be twice its usual size, deep maroon in colour, and presented five or six patches of black gangrene over which the peritoneal coat was intact and shiny. The patches of gangrene were each about the area of a sixpence.

The most remarkable appearance was over the region of the common duct, where there was a large swelling the size and shape of a banana looking like a full leech or a coil of gangrenous intestine; behind it the finger could be easily passed into the foramen of Winslow. There was no perforation into the general peritoneal cavity and no free bile.



A, Retroperitoneal track of bile. B, Common duct. C, Duodenum.

The gall bladder was quickly and easily removed, and an incision made into the peritoneum over the position of the common duct. Free black bile escaped, probably about an ounce. The common duct lay in its usual position and was pale red in colour. No perforation of it could be found, and it was its usual size and lay free, stripped of its peritoneal coat by the layer of bile. (See diagram.)

The region of the cystic duct was drained, and the right kidney pouch was drained separately by a large tube through the right loin. The wound was closed.

The whole operation occupied thirty-five minutes. He was most gravely ill throughout, and he died some little time after the abdomen was closed.

Post-mortem Examination.

There was very rapid decomposition; the common duct was reduced to a black-green pulpy mass, but there was no break in its continuity and no sign of a perforation. No stones were found.

There was a small recent abscess in the upper pole of the right kidney. The pancreas was soft and almost diffluent.

The gall bladder contained twenty-two stones. The wall was thick and intensely red. There were ten definite areas where the mucous membrane was black and thinned away until in some parts the peritoneum only remained.

In all the part covered by peritoneum there was no perforation, and none could be found in the portion devoid of peritoneal covering; curiously enough there was not a single patch of gangrene on this portion of the organ.

From one of the patches of gangrene on the under surface near the fundus, starting from the mucous surface, a probe could be passed under the peritoneal coat towards the cystic duct and along it.

It is a most unfortunate fact that the specimen was misplaced by the Pathological Department and cannot be found.

It is difficult to account for the presence of bile under the peritoneal covering of the common duct except on the grounds of a perforation. Whilst it was unfortunate the common duct underwent such rapid decomposition, it was not so bad but that one could come to a definite decision that no leakage had occurred from it. Gangrene of the duct was not present at the time of operation, because the duct could be seen looking pale red when the black bile had drained away.

Is it possible that bile had passed down from the gall bladder, through the breach in the mucous membrane at the gangrenous spot, along the track where the probe passed, and so to the cystic and common ducts?

It would appear no explanation other than a subperitoneal perforation of the gall bladder can be offered.

My thanks are due to Sir Berkeley Moynihan and to Mr. Collinson for giving me permission to use their cases.

REFERENCES.

[1] *Annals of Surgery*, February, 1912. [2] Clinique Chirurgicale de Prof. Poncet.

THE INCIDENCE OF OPHTHALMIA NEONATORUM IN LONDON.

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THE first official statement on the incidence of purulent conjunctivitis in the newborn in London appears in the recently issued report of the Medical Officer of Health of the London County Council. The report is for the year 1911, and it bears the printed date of February 18th, 1913.

The information published in the report is the outcome of the order which made this disease notifiable within the London County area. This was done in March, 1911, by an order extending the provisions of Section 55 of the Public Health (London) Act, 1891, to ophthalmia neonatorum. Prior to this date there was no authoritative knowledge of the incidence of the disease in the population at large, and it was spoken of as "rare" or "common," just as cases bulked largely or otherwise in the minds of medical men and social workers who came in contact with them in maternity hospitals and in private practice. It was obviously impossible to obtain general information for a whole community without official action. Indeed, no attempt seems to have been made to obtain such information except on one occasion, when by the courtesy of several doctors in private practice in one quarter of London I was able to gather and publish statistics concerning some 12,000 births.[1] It will be of interest to put these private returns made in 1906 alongside the official returns for 1911.

The Council's notification order came into force on March 13th, and from that date until the end of the year 673 cases were notified (p. 82). The births in London for 1911—less stillbirths (corrected)—are given (p. 6) as 100,830. To obtain the percentage incidence of the disease it will be necessary to compute the probable figures of the disease for the whole year, instead of as is given, for nine and a half months. There is no reason to suspect any material variation in the incidence of the disease in different seasons of the year. The corrected figures for the year would be 850 cases. Compared with the number of births given, that means an incidence of 0.843 per cent. This figure is very nearly the same as that obtained in my private census for 1906; in 12,680 live births there were 110 cases of purulent conjunctivitis, or an incidence of 0.867 per cent.

The point of greatest importance is the number of cases in which the disease is productive of injury to or loss of sight. The Council's report states that the condition of 278 cases occurring in the practice of midwives was followed out so that in most the ultimate issue was known. There was a wastage, however; 17 children died whilst suffering from the disease, and in 30 instances the parents removed, and could not be traced. There are left 231 cases; of these, 218 were reported to be completely cured; in 13 cases there was impairment of vision.

The rate of injury is, therefore, 13 in 231, or 5.6 per cent. It is interesting to compare this with the private return. In that I found 6 children with permanently damaged eyes out of 110 affected, or an injury-rate of 5.4 per cent.

Details of the 13 cases in which the sight was affected are given:

Blind in both eyes	3
Blind in one eye, other damaged	1
Blind in one eye, other uninjured	4
Both eyes damaged	2
One eye damaged	3

There was a history of vaginal discharge in the mother in 7 of these cases. In every case except one the eyes were cleansed with some antiseptic immediately or soon after birth; where there was delay it was due to the birth of the child before the arrival of the midwife. In the single case in which cleansing is not noted the disease did not appear until the eleventh day after birth, so that it is almost certainly a secondary infection. Efficient medical help was obtained with promptitude in most cases. There was delay of three, five, and, in one case, ten days, owing

to the opposition of parents or neglect of midwives in giving warning.

Of the 278 cases occurring in the practice of midwives a number of details of interest are given.

Mortality.

Whilst the disease was in progress 17 infants died. It is not possible to tell from the infant mortality statistics given in the earlier pages of the volume whether or no this death-rate is like or in excess of that found in healthy children, for the death-rates or infant mortality given are for infants under 1 year old. The mortality recorded is 12.9 per cent.; the death-rate among these new-born diseased children was 6.9 per cent., but the two figures are not comparable. It would be of interest if the death-rate of infants, say, of less than 1 month of age could be obtained for comparison. Lobenstine and Harrar[2] showed that infants born of gonorrhoeal mothers were less viable than those born of healthy mothers.

Date of Onset.

The Council's report gives the day of the puerperium on which the signs of inflammation were first noticed:

Day ...	1	2	3	4	5	6	6	7	8	10	Later.	Not Ascertained.
Cases .	18	23	38	33	28	29	18	23	19	11	26	4

Condition of the Mother.

A history of vaginal discharge was obtained in 111 instances—that is, in 40 per cent. of the cases.

Prophylaxis.

The antiseptics used for the child's eyes at birth or as soon afterwards as possible were: Boracic lotion in 125 instances, mercury perchloride (1 in 4,000) in 102, silver nitrate (a 1 or 2 per cent. solution) in 27, protargol in 1, and mercury biniodide in 1 instance; in the remaining 22 cases sterile water was used. An interval between the birth and the use of an antiseptic occurred in 50 cases owing to the fact that the infant was born before the arrival of the midwife.

The report gives details of the methods adopted to warn midwives of their duties in regard to this disease, and the opportunities provided for them in the matter of further education and training.

Nursing and Treatment.

The difficulty of nursing the affected children early became manifest. The midwives could not be in attendance all day, and in any case their attendance ceased before the child was relieved. "The Council felt therefore that risk was being incurred by allowing cases of inflammation of the eyes to receive no more attention than was bestowed on them by the people living in the house." Four nursing societies were approached, and agreed to undertake the duties of attending to the infants under the direction of the medical practitioner called in. During the year their services were made use of in 68 cases.

The Council had under consideration the question of hospital treatment for severe cases, and an endeavour was made to secure accommodation for mother and child (infant), so that while the child was being treated it would not be deprived of the advantage of being breast-fed. The ophthalmic hospitals and the general hospitals had difficulty in providing such accommodation, but in some instances both mother and child were admitted to the Poor Law infirmaries. Of the cases occurring in the practices of midwives during the year, in 12 instances mother and child were admitted to hospitals or infirmaries, and in 20 the child alone was admitted; 101 other cases were treated by the ophthalmic and general hospitals as out-patients.

This report and the official figures given therein may be taken to settle once and for all the question whether or no it is advisable to promote the compulsory use of prophylactic measures; and by that is meant the use of a silver salt or other efficient preparation immediately after birth. The proposition has been frequently mooted. Strong opposition has been raised against the proposals both in this country and in America. After a discussion on the subject at the Obstetrical Society in London (1903), a strenuous protest appeared in the BRITISH MEDICAL JOURNAL by Sinclair. The objection to the proposal was based on two grounds—(1) that the risk of the procedure outweighed its prospective advantages, seeing the incidence of such blindness was small; (2) that it was an unwarrantable stigma on the parents and an interference with the liberty of the subject.

In 1892 a special committee of the American Ophthalmological Society presented a report calling for legislation for the compulsory use of prophylaxis in almshouses and State institutions, and recommended the routine use of silver nitrate, in 2 per cent. solution, for all newly-born children. But there was also presented a strong minority report in which disapproval of compulsory legislation was expressed. It asserted that there was not sufficient data of the frequency of such blindness in the United States; that the statistics of other countries, especially Germany, are of doubtful value or positively misleading.

This was the position that I adopted in my little book published in 1907, and therein were given the figures which supported that contention and which are quoted above. The Council's figures are in entire agreement with that position. It is quite certain that no Legislature in the world would entertain for a moment an agitation for the compulsory use of a measure for the prevention of a disease to which no child need be liable, for it is not a disease that every and any one may contract; and which even in a huge conglomeration of human beings like London is found to affect less than 1 per cent. of the newborn. It is quite true that the effect of the disease is lamentable; it does not kill, but it blinds, and that in my experience is the worst of the possibilities. It does this in whole or in part in about 1 child in every 2,000 born. But the knowledge of the condition and the light that is thrown on the work of the obstetrician, by notification and the publication of returns such as these, is as likely, probably more likely, to ensure a minimum incidence of the disease or of damage arising therefrom than is the universal use of potent antiseptics, with the possibility that they may be carelessly used or used to cover dirty practice.

There is one other point in the report deserving of special mention. In 1807, at the time when microbes were unknown, and when the cause of the disease was so obscure that most of our profession thought that all would be well if the baby's eyes were protected from draughts or bright light, Dr. Benjamin Gibson,[3] of Manchester, gave the earliest recommendations for the prevention of the disease; they are such that they cannot be bettered now. In fact, this report is a complete vindication of the measures he proposed. His rules were:

1. The leucorrhoea of the mother ought, if possible, to be cured during pregnancy.
2. When this has not been done, the noxious secretion ought to be removed from the vagina during delivery.
3. The infant's eyes ought, immediately after birth, to be cleansed with a fluid which either removes the noxious matter or is able to prevent its injurious effects.

I quote Gibson's recommendation because of the emphasis he lays on the necessity of curing the mother. His implication is that the disease ought, if possible, to be made impossible by proper attention to the maternal passages. The Council's report shows that in 40 per cent. of the mothers whose babies contracted the disease there was a history of vaginal discharge.

REFERENCES.

[1] *Preventable Blindness*, London, 1907. [2] *Bulletin of the Lying-in Hospital, New York*, December, 1906. [3] *Edin. Med. and Surg. Journ.*, 1807, p. 160.

OFFICIAL statistics show that in 1911 there were in France 20,809 doctors, 2,848 dentists, 11,589 pharmacists, and 13,066 midwives.

A BILL regulating the importation and sale of foreign pharmaceutical products is now before the Cuban Parliament. It provides that foreign specialities are not to be allowed to circulate in Cuba unless the agent entrusted with the sale of them is a Cuban pharmacist. Further, the specialities must conform to the following conditions: (1) The label must indicate the components to which the product owes its therapeutic activity, and the quantity of these components; (2) the Cuban Academy of Science must satisfy itself that the preparation really possesses the properties claimed for it; (3) a certificate will be required showing that the product has been made in laboratories which work according to the law of the country from which it comes.

A PRELIMINARY NOTE UPON AN EXPERIMENTAL INVESTIGATION OF CONCUSSION OF THE SPINAL CORD AND ALLIED CONDITIONS.

BY ALAN NEWTON, M.S.MELB.

(From Sir Victor Horsley's Laboratory of Experimental Neurology, University College, London.)

SIR VICTOR HORSLEY, in whose laboratory it has been my privilege to work, suggested the subject of this research, devised the methods and himself performed some of the experiments. For these and many other kindnesses I feel that I cannot adequately express my gratitude.

INTRODUCTION.

The term "concussion of the spinal cord" requires definition, for at least two separate meanings have been attached to it.

In the first place it has been used to denote a clinical condition comparable with cerebral concussion in which no structural lesion has taken place and from which the subject quickly recovers. Clinical and anatomical evidence has been adduced to disprove the existence of such a state in the spinal cord, and to show that the symptoms are due to organic change. Thus the expression has been more frequently employed in connexion with sudden injury to the spinal cord, and such is its use in the present instance, in which attention is mainly directed to the results of slight concussion.

The medico-legal importance of injuries resulting from railway accidents first directed general attention to this subject, and soon the symptoms were grouped together as of a definite clinical entity, "Railway spine," although it was realized that less sensational and remunerative accidents in everyday life often occasioned a similar condition. In addition to signs indicating involvement of the spinal cord, the cases often presented various psychical phenomena, and difficulty was experienced in differentiating them from those of pure malingering, so much so that Erichsen[1] wrote: "An extensive experience in railway accidents will probably impress the observer more with the ingenuity than the honesty of mankind."

The subject has since been extensively investigated from the clinical standpoint, but it is impracticable here to give a complete review of the literature, though mention must be made of the work of Charcot and Oppenheim. Oppenheim[2] says that though it cannot be denied that railway accidents, for instance, may give rise to organic changes in the cord without causing severe external injury, such a result is exceedingly rare, and that the affections of the nervous system occurring after them should, for the most part, be regarded as functional neuroses.

In his opinion traumatic neuroses are the effect of mental and physical shock, giving rise to molecular changes in the nervous system. He points out that this view does not exclude the possibility that minute organic changes (in the vessel walls—disintegration of myelin in single fibres, etc.) may exist and form the basis of individual symptoms.

Charcot,[3] however, held that the condition is produced by auto-suggestion, while Strumpell[3] affirms that the idea of making money out of the accident is the chief cause of the neurosis.

Unfortunately opportunities for pathological examination are few, but upon such observations as have been made many neurologists have based the opinion that actual organic changes are present more frequently than was supposed, and that the spinal cord is very susceptible to slight injury, although in some cases the results of such injury may not be obvious until time has elapsed (Warrington).[4]

The experimental literature on this subject is scanty. Schmaus,[5] however, has conducted examinations upon kittens, and found that blows upon the spinal column produced sensory and motor interference in the spinal cord. Subsequent examination revealed no lesion of the bone and no meningeal haemorrhage. Capillary haemorrhage in the cord was rare, but swelling of axis cylinders and other slight changes were seen. He believes that as a result of external violence forceful movement in the cerebro-spinal fluid occurs, producing slight injury to the spinal cord. These results have been confirmed by other workers.

Intimately connected with the question of changes in the cord following concussion are those dealing with spinal compression and anaemia. These factors are of importance in connexion with spinal tumours and vertebral caries, as, for instance, the reason for the persistence in caries of movements of the toes, after the disappearance of all other lower limb movements, is still doubtful.

In this investigation, therefore, an attempt has been made to determine the effect upon the exposed cord of varying degrees of concussion and compression, and also the effect upon cord function of obstruction of the aorta.

METHODS.

Experiments were performed upon fifty animals—three monkeys, eight dogs, and thirty-nine cats. Cats and monkeys were employed for the concussion and compression experiments, but dogs were used, because of the larger size of their vessels, in the aortic obstruction experiments. All the animals were kept free from operative sepsis. The anaesthetics used were mixtures of chloroform and ether.

The spinal cord was exposed by a laminectomy between the fourth and eighth dorsal vertebrae, but the dura was not opened except in two cases of slight compression, for two and five minutes respectively.

Concussion.

The momentum of a glass rod 8 mm. in diameter, weighing 50 grams, falling upon the cord, caused the concussion. The rod was removed immediately after the impact, accuracy of direction being obtained by means of a glass tube 1 cm. in diameter, through which the weight fell. This tube was maintained in a vertical position above the exposed cord by means of clamps. Variations could be introduced by altering the height from which the weight fell or the time during which the animals were allowed to recover from the concussion.

Table Indicating the Nature of the Experiments.

Number of Animals.	Height of Concussion, in cm.	Time before Cortical Excitation, in Days.
2	1	3, 5.
6	2	2, 2, 3, 4, 4, 4.
1	5	1.
7	10	0, 0, 1, 1, 4, 5, 10.
5	20	1, 3, 3, 11, 12.
2	30	9, 11.
7	40	0, 1, 1, 4, 5, 6, 14.

Twelve animals died after blows from heights of 10 to 40 cm., the number of deaths increasing in direct ratio to the height. Four of the deaths occurred in the first twenty-four hours, marked distension of the urinary bladder, producing respiratory interference, being constantly present. Owing, no doubt, to paralysis of the sphincters and infection from the faeces, a condition of purulent cystitis, with numerous semi-confluent submucous haemorrhages in the bladder wall, was present in the remaining eight animals, death occurring between the third and eighth days.

Compression.

In compression experiments the same glass rod, weighing 50 grams, was gently placed upon the exposed cord and allowed to remain thereon for varying times. It was maintained in position by the glass tube already mentioned.

Interference with the Circulation of the Cord.

At first the aorta was obstructed by means of a clamp applied through an incision in the thoracic wall, but this method was abandoned for one in which a distensible rubber tampon was passed down the lumen of the aorta from an opening in the right carotid artery.

The instrument consists of a graduated metal tube (No. 1 catheter size) with a slight terminal curve. Surrounding this tube at this curve for 2 cm. of its length and

extending almost to the distal extremity of the instrument is a rubber tampon, which could be inflated by an air pump attached to the proximal end of the tube. The mere presence of the instrument in the vessel caused no perceptible change in femoral pulsation, which, however, at once disappeared upon inflation, returning immediately at the conclusion of the experiment.

In this method the desired end is attained with a minimum of operative interference, a small incision in the neck being all that is necessary; no question of the influence of defective aëration can arise, and artificial respiration, which has been used to counteract the possible influence of the latter complication in the transthoracic method, can be dispensed with.

It was found that, though obstruction for fifteen minutes at the level of the twelfth dorsal vertebra produced no fatal effects, after obstruction for thirty minutes in this region four dogs died in the first twenty-four hours. Recovery, however, followed when the aorta was obstructed for this time immediately distal to the renal vessels.

Method of Testing the Effects.

Motor conduction was tested by faradic excitation of the hind limb area of the motor cortex. In many experiments the skin was removed from the limb in order to differentiate contraction in the different muscle groups.

A Kronecker coil, with 6 S.R.M. cells in the primary circuit, was employed in all cases. The excitation was bipolar, the electrodes being 1 to 2 mm. apart.

Sensory conduction was tested by the reflex effect upon respiration, and, in some cases, upon the blood pressure of stimulation of the sciatic nerve.

Results.

The Effect of Concussion upon the Conduction of Motor Efferent Impulses.

At the outset it was necessary to determine what degree of violence inflicted upon the exposed spinal cord could be described as "slight concussion." To this end experiments were performed in which the weight of 50 grams was dropped upon the cord from heights of 40, 30, and 20 cm. It was soon seen, however, that such concussion was too severe in that it abolished motor conduction immediately, and, further, that no return thereof could be demonstrated by cortical excitation after periods varying from eleven to fourteen days. The animals exhibited paraplegia with increased knee-jerks and double extensor contracture. Yet, despite this marked disturbance of function, the surface of the cord upon inspection immediately after the impact did not appear to be greatly injured. It is true that slight subdural haemorrhage was usually present, but this was not due to rupture of the larger superficial vessels.

However, it was obviously necessary to lessen the degree of the concussion, which was then inflicted from heights of 10 and 5 cm. Here again the disturbance of conduction was considerable, for cortical excitation produced no response distal to the injury after four to five days had elapsed, although in one cat, of 10 cm. concussion, conduction was demonstrated after ten days.

Further reduction in the degree of concussion was decided upon, so that the height was diminished first to 2 cm. and then to 1 cm. This extremely feeble blow produced no visible effect upon the surface of the cord, but nevertheless the disturbance of efferent conduction was pronounced.

After 2 cm. concussion no conduction could be demonstrated after the lapse of two days. After three and four days, however, a very interesting condition was apparent, in that cortical excitation was followed, not by the usual movement of flexion, but by extension of the hind limb. Increased stimulus naturally produced epileptic clonus in the fore limb and trunk anterior to the mid-dorsal region, but distally the sole effect was to increase the movement of extension, clonus being completely absent. In this instance a dissociation was clearly effected, the cortical character of the response was lost, and only spinal phenomena resulted.

Three to five days after 1 cm. concussion a similar result was produced by excitation, but in this case a further important difference was present, as increase of the excitation stimulus produced, not increased extension, but flexion of the hind limb. If, however, the cortical excitability was lowered by deep anaesthetization, the increased stimulus again produced extension. In short, extension occurred during deep anaesthesia or as the result of a weak stimulus, but flexion followed reversal of either of these conditions. This interesting reciprocal demonstration is worthy of further investigation.

Experiments on the Cord in the Monkey.

Forty cm. concussion abolished motor conduction in *Macacus rhesus* as completely as in the cat, so that concussion from 2 cm. was performed in two monkeys. After four days cortical excitation of the hind-limb area was followed, not only by the usual movement of flexion of the opposite limb, but by a movement of progression—that is, contralateral flexion, with marked ipsolateral extension of the hind limbs.

Summary.

Slight concussion, producing no macroscopic and very little microscopic changes in the spinal cord, nevertheless produces marked alteration in motor conductivity. This is at first completely abolished, and later is so changed that, in the cat, excitation is not followed by the flexion movement which is predominantly represented in the cortex, but by the "lower centre" movement of extension, and, in the monkey, by the spinal movement of progression.

An attempt was made in these experiments to discover if, in the cat, conduction remained to one muscle group after it had been abolished to all others—that is, if a condition could be produced comparable with that already mentioned in connexion with vertebral caries, where slight toe movements often remain after all others have disappeared. Though such a condition has not yet been produced in these experiments, flexion of the ankle was in all cases more marked than similar movement at the knee and hip, and the march of flexion was in the order of ankle and toes, knee, hip.

The Effect of Compression upon Motor Efferent Conduction.

It was found that the compression caused by gently placing a weight of 50 grams upon the cord of a cat was sufficient to arrest conduction immediately. Here the question of the part played by vascular obstruction is important—that is, Was the arrest of conduction due to anaemia of the motor fibres?

Ehrlich[6] and others have shown, however, that degeneration after arrest of circulation in the cord is limited to those fibres which arise from cells situated in the anaemic area, and that fibres of the long tracts escape degeneration even if deprived of blood for one hour. It would appear, therefore, that the motor fibres are very sensitive to compression, irrespective of changes produced in blood supply.

After removal of the compression conduction in the cord returns, after an interval varying directly with the duration thereof, and the degree of interference remaining after eleven to fourteen days depends upon the same factor. This will be seen from the following table:

Time of Compression.	Lapse of Time before Excitation.	Effective Stimulus (Kronecker's Scale).
2 minutes	11 days	1,000
5 "	11 "	2,000
30 "	12 "	3,000
45 "	14 "	6,000

The Effect of Concussion upon Sensory Afferent Conduction.

Although after concussion of the spinal cord of the cat by 50 grams falling from heights of 30 and 40 cm. no motor or efferent conduction could be demonstrated, yet it was found that changes in respiratory rhythm could still be induced by faradic stimulation of the sciatic nerve.

It would appear, therefore, that sensory conduction remains after concussion that has quite abolished motor conduction—a result which is in accordance with clinical evidence.

Experiments employing variations in blood pressure as a guide to sensory conduction have as yet proved less definite, but point to the same conclusion.

Anatomical Changes in the Cord produced by Concussion and Compression.

After concussion by 50 grams falling 1 and 2 cm. the changes in the cord at the point struck were trivial. They consisted of small haemorrhages in the grey matter, usually in the basal region of the posterior cornua or in the posterior grey commissure, scattered swellings of axis cylinders and disintegration of myelin sheaths. Compression for short periods produced similar changes. After more severe injuries there were more marked anatomical changes, particularly in the grey matter. These consisted, as before, in haemorrhages, with swelling of axis cylinders and disintegration of fibre sheaths.

The vessels of the cord were not occluded by thrombosis, therefore the disturbance in structure could not be attributed to thrombotic softening by secondary degeneration. Sections stained by Marchi's method displayed both ascending and descending degeneration. The number of degenerated fibres varied with the severity of concussion, but even where this had been inflicted from a height of 10 cm., the resulting degeneration was less pronounced than might have been expected from the disturbance in conduction. After concussion from 30 and 40 cm., however, the degeneration was very extensive.

Ascending degeneration particularly affected Goll's column and the direct cerebellar tracts, but after the more severe injuries the area showing degeneration extended round the margin of the cord as far as the anterior fissure. Below the lesion degeneration was seen in the pyramidal and anterior tecto-spinal tracts.

The Part played by Interference with the Circulation.

1. *State of Circulation at the Site of Injury.*—Though haemorrhages of varying extent were caused by concussion and compression, these were due to rupture of small vessels, for no thrombotic processes could be detected in the larger vessels. Apparently, therefore, there was no gross circulatory obstruction at the site of injury.

2. *The Effect of Obstruction of the Aorta upon the Conductivity of the Cord.*—The conductivity of the spinal cord rendered anaemic by aortic compression has been studied by Loewenthal,[7] in whose paper a bibliography of this subject will be found. His experiments were performed upon cats, the aorta being digitally compressed in the thorax after resection of the sixth or seventh rib on the left side. To counteract the possible effect of deficient aëration artificial respiration was maintained. He found, in the first place, that after one or two minutes stimuli reaching the anterior cornual cells produced no motor response, but that the first effect of arrest of circulation upon the functions of the spinal cord was an increase in the readiness and strength of intraneural transmission of nerve energy lasting for thirty seconds.

In certain of the animals he observed convulsive phenomena in the posterior half of the body at the commencement of ischaemic paralysis, which, in his opinion, deserved the name of "spinal fits." Also, he considered that probably every single neuron as a functional unit retains its vitality for a period exceeding fifteen minutes, but that the mechanism linking them is rapidly destroyed.

In the present experiments motor conduction in the cord could not be demonstrated by cortical excitation fifteen to thirty seconds after the arrest of circulation, which is a much shorter interval than that described by Loewenthal.

No conclusions have as yet been arrived at regarding the initial increased response to excitation, nor did any of the animals exhibit convulsive phenomena. It must, however, be remembered that in the present research a smaller portion of the cord was rendered anaemic than in Loewenthal's experiments.

The arrest of circulation for fifteen minutes at the level of the twelfth dorsal vertebra was followed in the dog by considerable paraparesis, which was obvious after twelve days had elapsed, and was most noticeable in the anterior tibial muscles. Unfortunately no dogs survived arrest of circulation for thirty minutes at this level. On the other hand, little paresis was produced by obstruction half an inch distal to the renal vessels.

It may also be mentioned that ligation of the aorta in the cat just distal to the inferior mesenteric artery produced no degeneration in the spinal cord.

It follows, therefore, that arrest of its blood supply rapidly causes a loss of conduction in the spinal cord, a result which may be reasonably ascribed to its action upon the interneuronic mechanism.

CONCLUSIONS.

The provisional conclusions to be drawn from these experiments are as follows:

1. The spinal cord is extremely sensitive to slight degrees of concussion and compression.

2. Despite the slight anatomical changes demonstrable after lesser degrees of injury, the resulting disturbance of function is considerable.

3. After concussion which has quite abolished motor efferent conduction, sensory conduction can still be demonstrated.

4. Arrest of the spinal cord circulation by aortic compression abolishes spinal cord function in from fifteen to thirty seconds.

5. These experiments support the view that there is an organic basis for the signs and symptoms of "railway spine" and allied conditions of traumatic neurasthenia.

REFERENCES.

[1] Erichsen, *Textbook of Surgery.* [2] Oppenheim, *Textbook of Nervous Diseases.* [3] Charcot and Strumpell; quoted by Oppenheim. [4] Warrington, *Review of Neurology and Psychiatry*, 1910. [5] Schmaus and Sacki, *Pathologische Anatomie des Ruckenmarks*, 1901. [6] Ehrlich and Bruder, *Zeit. f. klin. Med.*, vii, 1884. [7] Loewenthal, *Brain*, 1902.

PSEUDO-FRACTURES OF TRANSVERSE PROCESSES.

BY OWEN L. RHYS, M.D.,

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ABOUT three years ago I published in the BRITISH MEDICAL JOURNAL the radiograph of a man whose lumbar spine showed an apparent separation of the left transverse process of the first vertebra. In that case there was no history of injury. Since that time I have met with five other cases of a similar kind showing the same abnormality of one or more processes.

The condition seen in most of the spines referred to was a distinct gap between the outer end of the process and the base. In three of them there was also displacement of the outer end upwards or downwards, so that it was not difficult to imagine that muscular strain had fractured the process and torn away the tip. In two of the cases the bony edges of the gap were thickened and curled as though callus had been formed.

In one man the tips of the third and fourth left transverse processes were displaced downwards for quite half an inch, and in a radiograph which I published in the JOURNAL in October, 1910, the second, third, fourth, and fifth left processes were much displaced. In this last case there was a definite history of muscular strain, the man being a collier. He complained of pain on the opposite side of the spine, but, finding the condition described, he was assumed to have fractured the processes.

In the light of subsequent cases I very much doubt if this was a case of muscular strain causing fracture. In only one of the other cases I have mentioned was there any history of injury, and that was a fall on the buttocks, which could not, I think, in any way have accounted for the abnormality seen, namely, an apparent separation of the first left transverse process. In this case also the pain was referred to the opposite side.

The psoas magnus, quadratus lumborum, and erector spinae are all attached to the transverse processes, and any violent lifting strain might, of course, snap the processes at their weakest point; but one would expect, first, displacement in each case, and secondly, union of the fractured bone where there was no great displacement, and not a permanent gap.

I think that the cause of these conditions is developmental, and in support of this view there is, first of all,

the absence of any injury in almost all the cases, and secondly, the fact that the first lumbar is the most frequently affected vertebra. In one case both transverse processes of this vertebra showed a distinct gap. The

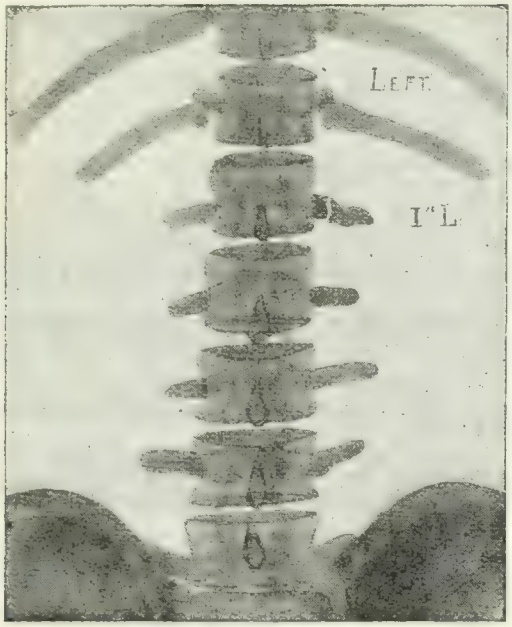


Fig. 1.—Showing a typical pseudo-fracture of the first lumbar transverse process.

epiphyses of the transverse processes are not united until the twenty-fifth year, and in the embryo there is a costal element in connexion with the transverse process of the first lumbar. Occasionally this develops into a rudimentary

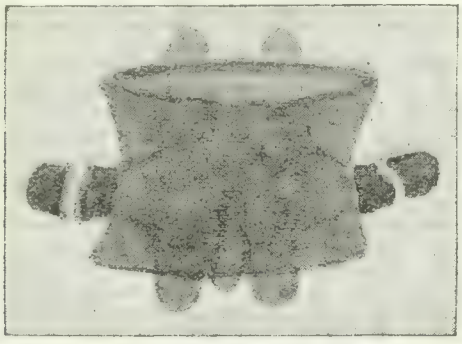


Fig. 2.—First lumbar, showing gaps in both transverse processes.

supernumerary rib, in fact the transverse processes are homologous with the first part of the ribs, and the appearance of such rudimentary ribs would correspond with the condition seen in some of these cases. Incomplete ossifica-

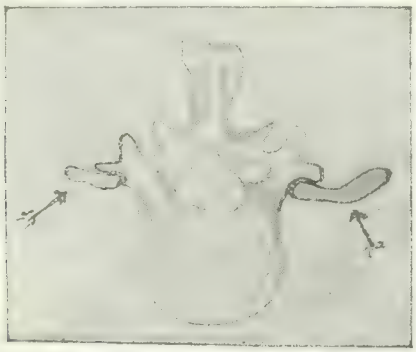


Fig. 3.—Rudimentary ribs attached to first lumbar vertebra. (After Allen Thomson.)

tion of the processes would also, of course, account for the transparent gap seen in some of the processes. All the six cases I have mentioned were those of adults, the youngest being about 20, the oldest nearly 60 years old. The importance of such abnormalities in claims under the Workmen's Compensation Act was, of course, obvious from the first, but another aspect lately came to my notice in a case where a surgeon proposed to cut down upon and remove what had been diagnosed as an ununited fracture of a transverse process.

The accompanying diagrams show the appearance seen in most of the cases referred to.

A CASE OF TETANUS TREATED WITH INTRASPINAL INJECTIONS OF MAGNESIUM SULPHATE.

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The following is the record of a case of tetanus treated with intraspinal injections of magnesium sulphate:

A boy, aged 8 years, was admitted into the Great Northern Hospital on the morning of September 3rd, 1912.

History of Illness.

Quite well previous to August 30th. On that day did not seem well, and noticed some difficulty in opening the mouth.

On August 31st had "some kind of fit" and fell down.

On September 1st and 2nd had attacks of pain, becoming rigid, but with no loss of consciousness. The jaw remained stiff after the attacks.

Previous History.

No fits previously and no illnesses. One month ago fell and cut right side of head, and three weeks ago fell and cut chin. Both cuts slight.

Condition on Admission.

Well developed boy. Conscious and understands perfectly. Mouth tightly shut. Slight "risus sardonicus." Neck rigid. No squint. Ocular movements perfect. Pupils equal and react to light and accommodation. No head retraction. Body rigid. Arms and legs stiff but easily moved and flexed. Knee-jerks present on both sides. No cuts or septic foci. The temperature was 98° F. and the pulse 112 and regular.

During the afternoon of September 3rd he had several slight spasms, during which he cried out, and became rigid, with slight opisthotonos. In the early part of the night the spasms became very frequent. In these the mouth was tightly shut, there was marked risus sardonicus and opisthotonos, and apparently great pain.

Treatment.

Lumbar puncture was then performed, and 10 c.cm. of cerebro-spinal fluid, which was under considerable pressure, were withdrawn. Without removing the needle there was then injected into the subdural space 3 c.cm. of a sterilized 25 per cent. solution of magnesium sulphate. Following this the spasms ceased, and the patient had a quiet night.

On September 4th the temperature rose to 101.4°. The pulse remained between 100 and 120. There were no spasms during the day, and the mouth could be slightly opened. There was still general rigidity. On the 5th the temperature fell from 101° to 99°. There were no spasms, and the mouth could be opened a little further. Towards evening pain in the neck returned. On the 6th the general rigidity became more marked, and the teeth could scarcely be parted. The temperature was normal, and the pulse 100. A patch of herpes developed on the lower lip. The injection of magnesium sulphate was repeated.

On the following day the temperature rose to 100°, and fell again. During this and the next few days the rigidity became gradually less, and the spasm of the jaw diminished. The patient became able to say a few words consecutively, and was able to swallow custard on the 9th. On the 10th he complained again of pain in the neck, the jaw became stiffer, and there was one slight spasm. A third injection of magnesium sulphate was given. This was followed the next day by a rise of temperature to 101°, but the spasm and rigidity gradually diminished from this date, and no more attacks of spasm occurred. The pulse fell gradually. On September 13th 10 c.cm. of antitetanic serum were injected subcutaneously.

For about ten days there was severe headache, but this passed off, and the patient was allowed to get up on September 26th, and was discharged on October 3rd.

He has since remained in good health.

Remarks.

No septic focus was found when the patient was admitted, but the diagnosis of tetanus appears undoubted. Many cases of treatment by injections of magnesium sulphate into the subdural space have been recorded. Series of cases have been published from Egypt where the organism is much more prevalent than here. The results

are claimed to be good, although it must be remembered that the percentage mortality from tetanus in Egypt is not so high as in the British Isles. The percentage mortality is less the longer the period of incubation, and where this is between three and four weeks the mortality in the British Isles is about 50 per cent. For an adult a dose of 6 c.cm. of a 25 per cent. solution in distilled water may be given. This contains 1½ grams (about 22 grains) of magnesium sulphate.

As the injection of antitetanic serum has proved to be of very little curative value in tetanus, the injection of magnesium sulphate in this manner is certainly worth a good trial. The withdrawal of cerebro-spinal fluid is doubtless an additional advantage.

I have to thank Dr. Alexander Morison, into whose ward the patient was admitted, for his kind permission to publish this case.

CAESAREAN SECTION, WITH ESPECIAL REFERENCE TO THE RARER INDICATIONS FOR THE OPERATION.*

By W. H. MAXWELL, M.A., M.B.Camb., F.R.C.S.Eng.

THE title of this paper was suggested to me by the circumstance that, while it has fallen to my lot to perform this operation four times during the last two years, in none of these four cases, curiously enough, has the indication for it been that for which I suppose something like 90 per cent. of Caesarean sections are performed—namely, pelvic contraction. The three cases upon which my remarks are based form an interesting series, in that each illustrates certain points of importance to the student of what one may perhaps be allowed to call the "higher obstetrics." My personal experience of Caesarean section is relatively small; I have done the operation myself five times, and have had the opportunity of assisting at it in seven other cases. My own five cases have been unattended by a fatality; of the other seven, two died, the cause of the fatal issue being, as I shall point out later, apparently identical in both. In the first case that came under my observation the operation was done by my old friend the late Mr. E. H. Douty, of King's College, Cambridge, in Addenbrooke's Hospital in 1896.

For some reason or other, in South Africa we meet with few examples of the higher degrees of pelvic contraction; hence Caesarean section and kindred operations are called for somewhat rarely. I must make it clear that in speaking of Caesarean section I refer entirely to the classical operation of Sänger and Porro—that is to say, what should be designated "anterior transperitoneal hysterotomy"—my experience of the various modifications suggested, of which "vaginal" Caesarean section seems the most extolled, being *nil*. With this premise I will proceed to a brief description of the three cases referred to.

CASE I.

Mrs. M., aged 40, married twelve years, had had four children, of whom three were living still, and two miscarriages. She was admitted into the Queen Victoria Hospital for Women early one morning in labour, and her arrival intimated to me by a telephone message from the matron to the effect that she had examined and "could not find the os." Not, perhaps, without an inward smile, I obeyed the summons, and on making a vaginal examination likewise was unable to find the os. Finally, on introducing my arm, under light anaesthesia, nearly to the elbow, the partially dilated os could be made out lying right up in the lumbar region, the impression being that a very large rounded tumour was obstructing the pelvis and pushing the cervix upwards and backwards. The patient said (in explanation of a median abdominal cicatrix) that an operation had been done a year before in the General Hospital, but she was ignorant of its nature. Telephone inquiries elicited the fact that the operation had consisted in a direct "ventral fixation," and the nature of the case was now evident, the "tumour" being merely the body of an extremely anteflexed uterus, which, in fact, was almost in an inverted position. It was fairly obvious that extraction of the child *per vias naturales*, even dead, was wellnigh, if not altogether, impossible, and my colleague, Dr. Gordon Grant, who saw the case, confirmed this opinion. I therefore decided on Caesarean section. The patient was prepared as quickly as possible, the child, a healthy full-term male, extracted without any difficulty, and the placenta and membranes removed; the womb was then drawn out through the abdominal incision and carefully sutured. Haemorrhage was negligible in quantity throughout and subsequent contraction was excellent. The mother made an uneventful recovery and was able to nurse the child as usual.

It was noteworthy in this case that, in spite of the almost incredibly anteverted position of the uterus, one was not troubled during the operation by any obvious adhesions or other sources of difficulty. Hitherto in performing the—often very useful—operation of ventral fixation or hysteropexy (in contradistinction to the "indirect" operation of Gilliam and its countless modifications) I have always had in my mind the fear lest it might—as it certainly does—interfere with subsequent pregnancy, unless great care be taken to pass all sutures well down on the anterior uterine wall; and not a few cases have been published in which recurring abortions seem to have followed the operation; but I had never realized before that such an extreme malposition of the uterus could result as to demand Caesarean section. About two years ago, however, there was published in the BRITISH MEDICAL JOURNAL[1] by Dr. Amand Routh a carefully collected series of eight cases similar to the one I have just described. I can only say that had I not seen the condition before delivery in this case I should have felt somewhat sceptical as to the validity of the indications for the operation. Possibly a similar suspicion might arise in the minds of many as regards the next case to which I have to refer.

CASE II.

Mrs. T., aged 34 years; married five years; one child living aged 4 years. Had had a "bad miscarriage" eight months previously. This patient was sent into the Queen Victoria Hospital one afternoon with a diagnosis of placenta praevia, by her medical attendant, Dr. Brebner. When I saw her soon after admission she appeared pale, but not markedly exsanguine; there were no pains and not the slightest sign of dilatation of the cervix; the general indications were those of about six and a half months pregnancy, the fetal heart being audible. She had bled a good deal, and I decided that something ought to be done on the following day.

During the night she had steady and almost continuous bleeding, and when I saw her at 6 a.m. she was in an extremely grave condition, partly, it appeared, owing to cardiac failure supervening on pretty severe haemorrhage. There was still not sufficient dilatation of the cervical canal to admit even the tip of a finger, and her condition was so bad that it seemed doubtful whether we could get her alive on to the operating table. Saline infusion (subcutaneous and rectal) improved the pulse a little, but it was tolerably obvious that any attempt at an *accouchement forcé* must result in death from the further haemorrhage inevitable during extraction of the uterine contents; I therefore decided upon Caesarean section as giving her a better chance. This was performed in the usual manner, saline infusion being kept up during the operation. The uterus was opened with the greatest possible rapidity after being drawn right out through the parietal incision; the child, followed by the placenta and membranes, was removed, with an astonishing absence of haemorrhage, in about three minutes from the start. The pulse practically disappeared, but was restored by filling the peritoneal cavity with warm normal saline solution while the stitching up of the uterine wound proceeded, another jugful being introduced just before closing the abdominal incision. The only loss of blood worth mentioning came from the placental site after removal of the uterine contents, but good contraction prevented any great loss.

For the first twenty-four hours it seemed very doubtful whether the patient would recover, as the cardiac condition gave rise to grave anxiety; but after this she improved so rapidly that she was able to sit up by the seventh day, and her recovery was not retarded by any complication. The child, of course, though delivered alive, was not viable. I should mention that the placenta, as far as a hurried examination allowed one to determine, was as nearly "central" in position as it could possibly be.

The great point of interest in this case lies in the consideration of *placenta praevia* as an indication for Caesarean section. The question has, of course, been raised often enough; and while it is usually admitted that on purely theoretical grounds Caesarean section should be the ideal treatment in certain cases, yet the general consensus of opinion appears to condemn this operation as a practicable line of treatment owing to the absence of any reliable method of gauging, in any given case of placenta praevia, how much or how little difficulty and danger the condition is going to cause. Any one who has had an even moderately extensive experience of this dangerous complication must have observed that many cases do extremely

* Read before the Witwatersrand Division of the Transvaal Branch of the British Medical Association.

well in spite of pretty severe bleeding, and that frequently the expected degree of trouble fails to materialize. The mortality *qua* the child is very high, no doubt because the very condition that plays so important a part in conserving the waste of maternal blood—namely, obliteration by thrombosis of the torn sinuses of the placenta *pari passu* with its detachment during delivery—is actually inimical to the child's chance of surviving; given, that is to say, a certain degree of placenta detachment the child, in spite of its being extracted with the utmost rapidity, is of necessity delivered in a too exsanguine condition to be capable of surviving; the drainage of blood from the placental sinuses during delivery means also, it must be remembered, drainage from the child's vascular system. It would appear from such considerations that those who have been foremost in urging the propriety of hysterotomy in cases of placenta praevia have for the most part had in mind rather the child's welfare, and if this be so the case I have recorded here is, I think, an interesting one in view of the fact that it illustrates the possibility of Caesarean section being desirable in the interest of the mother, though perhaps it must not be held to establish a precedent.

It is noteworthy that the late Mr. Lawson Tait strongly urged the adoption of Porro's operation in cases of placenta praevia, and recently I came across a remark of Professor Japp Sinclair's in 1901 to the effect that sooner or later placenta praevia would have to be considered as a possible indication for Caesarean section. Yet the statement was made only the other day, without qualification, "Placenta praevia is *not* an indication for Caesarean section"! Without wishing to emphasize unduly the value of my own judgement, I can affirm without any hesitation that in this particular case and at the particular stage at which the operation was performed no other kind of treatment would have availed to save this patient's life, though I am willing enough by all means to class such a case among those proverbial exceptions which are said to "prove the rule."

CASE III.

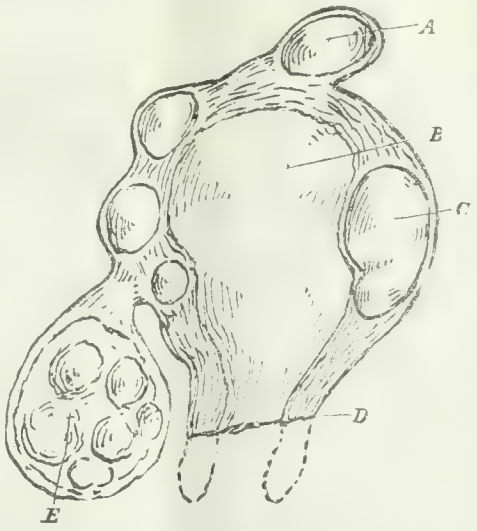
A woman, aged 42, was sent to see me when just five months pregnant for the first time, having been married two years. She complained chiefly of a good deal of pain about the rectum (though not markedly constipated) and some increased frequency of micturition. The first thing that struck one was that, while the menstrual history suggested five months' pregnancy, the uterus reached well above the umbilicus. Examination revealed a fibroid (evidently), about the size of a large orange, lying in the pelvis and pressing on the rectum, the cervix being pushed forward, considerably flattened, in front of the tumour against the pubes. It was quite impossible to push the tumour up, and at first, on account of the pain and pressure symptoms, I nearly decided on immediate operation, but was deterred from this course by the wellnigh certain prospect of having to do a hysterectomy; the position of the tumour gave very little hope of the possibility of a myomectomy with conservation of the uterine contents.

I put it, therefore, to the patient, who was extremely anxious to have a child, that it was worth while for her to try and hold on until full term, as she would then have a good prospect of a living child, and it was not likely that things would get very markedly worse during the next four months.

She followed this advice, and although at intervals of every few weeks she had rather severe attacks of pain and occasional slight bleedings, she managed to get along fairly comfortably up to within a week of the time reckoned upon for natural delivery—had that been possible—and two days before the time at which I had advised her to come into hospital I received a telephone message at 7 a.m. saying that she had arrived and was in labour.

Realizing the danger of delay, I operated at 9.30 a.m., the skin being prepared by the iodine method; no vaginal examination had been made for more than six weeks previously. The abdominal incision reached to about 2 in. above the navel, and swabs were then packed in between the abdominal wall and the uterus, the latter, which was studded with fibroids, being incised without eventration. The organ was so much distorted by these numerous tumours, more particularly by one rather large intramural fibroid in front, that it was unusually difficult to hit off the uterine cavity, especially as it was now obvious that the membranes had already ruptured, evidently before admission, labour being, in fact, well on in the first stage. I feared at first that the child was dead; but it speedily revived and did well—male, weighing 5 lb.). I removed placenta and membranes, all of which were somewhat adherent, and then drew out the uterus. It was obviously futile, in view of the large number of fibroids of all sizes studding the uterus, to attempt multiple myomectomies, and the tumour in particular which had obstructed the pelvis, as shown in the diagram,* was situated so low down posteriorly that even after emptying the womb it would have been practically impossible to enucleate it. I proceeded, therefore, to remove the uterus by supravaginal amputation; both ovaries looked healthy and were not interfered with. The cervix had undergone such a degree of dilatation that it formed quite a broad stump, which, after approximating its cut surfaces with "mattress" sutures, was covered over in the usual manner with peritoneum. Haemorrhage gave no trouble—a somewhat unusual feature, to judge by my own experience, in amputation of the pregnant uterus, the cervical region often being the seat of a good deal of troublesome oozing.

The operation took over an hour and a half, but the patient's condition gave rise to no anxiety then or later, and she made an excellent recovery; plenty of milk appeared by the fifth day, and the child likewise did well. The obstructing myoma was subserous and almost pedunculated, but could not have been pushed up, being apparently incarcerated below the sacral promontory, on the one hand pressing upon the rectum and on the other pushing the cervix and bladder forwards against the pubes.



Diagrammatic representation of the condition of the uterus in Case III. A, Small fibroid, palpable before operation. B, Uterine cavity. C, Intramural fibroid. D, Line of section of cervix. E, Subserous fibroid obstructing pelvis.

In seeking to emphasize the points of chief importance which the cases I have referred to seem to illustrate, I venture to crave the indulgence of some of my colleagues whose experience of Caesarean section is possibly more extensive than my own, and I think sufficient justification for so doing can be found in the extreme importance to the obstetrician and his patients of a proper grasp of both the possibilities and the limitations of this time-honoured method of delivery; one would be tolerably correct in asserting that in no other department of surgery have such triumphant results attended the progress of aseptic technique. But it is of prime importance to understand that the modern diminution of the mortality of the operation is due, next to the development of a proper application of the principles of asepsis, to the fact that the operation is now performed, not as a last resort—a desperate measure to save the mother's life—but either before the onset of labour or, at all events, before labour has proceeded very far. Even now, it seems to me, the cardinal point to remember is to operate early; Caesarean section done before rupture of the membranes (or, at any rate, before the end of the first stage) is one thing, Caesarean section done after the end of the first stage is quite another. Probably the mortality proper to the former operation is between 2 and 5 per cent.; that of the latter even now must be something like 15 to 20 per cent. And I must point out here that, especially if the rule be adhered to that vaginal examination just before the operation should be avoided whenever possible, one is very apt to discover that labour has progressed much further than one had suspected. In the only two fatal cases that have come under my own observation labour was found to be well on in the second stage; that is to say, not only were the membranes ruptured, but the child's head was in the vagina, and so, in order to release the head, the operator had to prolong his uterine incision down through the cervix—a proceeding which not only involves an otherwise unnecessarily long incision, but is almost certain to result in trouble, owing to haemorrhage from the numerous veins surrounding the upper part of the vagina. Proper apposi-

* The specimen was shown at the October meeting of the Branch.

tion of the edges of the uterine wound is much more difficult in this region, owing to the thinning of the uterine walls produced by the phenomenon known as "retraction." The whole operation is easier if the uterine incision can be kept high up, where the uterine muscle is thicker, though I can see no definite advantage in the transverse incision known as the *Fundusschnitt nach Fritsch*. Any one, too, who has had some experience of these cases will have noticed that the opening of the uterus is an easier proceeding when the membranes are intact.

Providing that one be lucky in avoiding the placenta, the uterine incision may be made slowly and deliberately with an extremely small loss of blood until the membranes bulge into the wound, when the amniotic cavity can be opened at leisure. The only disadvantage in cutting through the placenta is that one is obliged, in order to arrest the haemorrhage as soon as possible, to hasten the process of extraction of child and secundines, but it is scarcely worth while, as some have suggested, to try and work round the edge of the placenta instead of cutting through it. I can see little, if any, advantage in "eventration" before delivery of the child; a much longer abdominal incision is required, whereas, if the womb be left *in situ*, it is easy enough, by arranging a couple of large gauze swabs on either side between the uterus and the abdominal wall, to prevent the escaping liquor amnii and blood from entering the peritoneal cavity.

As soon as the placenta and membranes have been removed the uterus should be drawn right out and suturing begun. The manner of closing the uterine incision is of considerable importance. I personally prefer a not very coarse "chromicized" (Red Cross No. I) catgut, and for the first row I use "mattress" sutures, as they are less liable to cut out than single interrupted stitches, each stitch taking a wide grasp of muscle and just missing the uterine mucosa. The second layer is a continuous suture ensuring proper approximation of the serous coat. There should not be more than a quarter—or at the outside three-eighths—of an inch between any two sutures of the first row.

The history of the development of the modern conservative operation is of some interest, because for a very long time it was the universal custom not to stitch up the uterus at all, and the mortality arose principally from infection of the peritoneal cavity through the uterine wound, and without any understanding of asepsis it will easily be believed that any attempt to close the uterine wound probably made matters worse. Hence it is understandable what a different complexion was put upon the operation by Porro's suggestion (first carried out in 1876) of removing the uterus altogether. Now, it must be remembered that the modern operation of supravaginal amputation is *not* the original method of Porro. His operation consisted in drawing out the uterus, transfixing with the "pin," and applying the Koeberlé *serre-noeud*, after which the body of the uterus was cut off; the whole operation could, of course, be done very rapidly, and the mortality was enormously reduced by this method. I believe that even now there are not a few cases, especially among those operated upon late in labour, where the mother's life could be saved by Porro's method.

It is no doubt hard for us to realize what Porro did for Caesarean section. His operation at once precluded the possibility of subsequent peritoneal infection and of haemorrhage, besides possessing the advantage already mentioned of extreme rapidity. The objection has been raised that the operation is "unsurgical." This is nonsense; the most "surgical" procedure is that which, under any given circumstances, gives the best chance of saving the patient's life, and, as regards safety, Porro's original method is not easily beaten. At the time when, in 1777, young Sigault of Paris performed the first successful symphysiotomy, public opinion as regards Caesarean section was at so low an ebb that the operation almost fell into disuse, but it was Baudelocque chiefly who demonstrated the fallacy of supposing symphysiotomy to be so very much the safer operation. So things continued without much progress until relatively late on in the nineteenth century, when Porro (of Milan) introduced his operation; immediately prior to this the mortality was well over 50 per cent. It is difficult to get satisfactory statistics, but it is probable that Porro's method further reduced the mortality by about another 20 per cent. What we may call the final stage was reached when Sänger of Leipzig not very long afterwards proposed the adoption of proper suturing of the uterine wound, and Sänger's *conservative Kaiserschnitt* remains, with various modifications and improvements, the operation of to-day. With the advent of Sänger's operation conservatism justifiably reasserted its claims, and at present the universal practice is to trust to careful suture and leave the uterus intact; the question as to whether sterilization should be effected must of course be decided by a consideration of the merits of the individual case.

In only one of my own cases did union by primary intention fail, and this occurred in a patient from whom I removed an acutely inflamed appendix early in labour (primipara), Caesarean section being done simultaneously because it appeared the best course in the circumstances. The appendix infected the uterine wound and a large abscess had to be opened and drained; the patient ultimately made a good recovery though a slow one.

Since the above paper was written it has, by a curious coincidence, fallen to my lot to operate on a second case very similar to one of those already mentioned; it seems worth while, therefore, to place on record a brief note of the case.

CASE IV.

A woman, married twelve years. Had had eight children, the last two and a half years ago. Prior to her admission to hospital she had been in labour for twenty-four hours; the membranes had ruptured early and repeated vaginal examinations had been made by an unqualified midwife and subsequently by two medical men. On admission the head of the child could be made out lying high above the pelvic brim, the pelvic cavity being nearly filled by a large firm rounded mass, which the examining finger could not pass (a fortunate circumstance, in all probability, for the patient and myself); the pains were fairly strong.

It was obvious that in this case Caesarean section was the cause *ex necessitate*; the usual preparations were therefore made, and the operation proceeded with. The only difficulty in the first stage of the operation arose from the scantiness of liquor amnii, but the child was extracted in a fairly healthy condition, only to succumb ten days later to the effects of a severe burn of its back produced by contact with a damp hot-water bottle. Haemorrhage was easily controlled after eventration, and it was then seen that the fibroid was a solitary subserous one, growing from a point about level with the os internum outwards and backwards under the right broad ligament; the shelling-out process occupied some considerable time, but it was possible to leave a good cervical stump with abundant peritoneal covering, the operation being completed in the usual way. The right ureter had a somewhat extraordinary course, and the right uterine vessels were difficult to secure.

The patient was eventually discharged practically well, but had to remain in hospital for nearly two months on account partly of a troublesome phlebitis arising in old varices of both legs and partly of grave failure of compensation in an old rheumatic heart with rather well-marked mitral disease, the existence of which was discovered subsequently to the operation. The wound healed *per primam*, and gave no trouble. The uterus with the tumour weighed, after removal, about 9 lb.

REFERENCE.

[1] BRITISH MEDICAL JOURNAL, 1911, i, p. 189.

THE eleventh international conference on tuberculosis will be held this year at Berlin in October (22nd to 25th). All communications relative to the congress should be addressed to the General Secretariat, Berlinerstrasse, 137, Charlottenburg.

A PAPER by Surgeon Grow, of the United States Navy, published recently in *Ophthalmology*, deals with a subject which has already received the close attention of the British Admiralty—the vision necessary for the men who train and point large naval guns. The United States naval authorities insist that gun-layers shall possess a vision of 6/4.5 in the sighting eye, and 6/6 in the other. In other words, a gun-sighter must have normal vision, for 6/6 is subnormal, although conventionally accepted as normal. The author concludes that all candidates for the original rating of gun pointer or trainer should have a minimum vision of 6/4.5 in the sighting eye, and of 6/6 in the other eye. Hypopia of over 3.00 dioptres should be a cause for rejection. The medical officers should carefully re-examine the eyes of these men once a year, and if any deterioration be present the man should be examined by an ophthalmic surgeon. A slight reduction may be accepted in the case of successful gun-layers who have served a considerable time. In all cases the navy "unlearnable vision test cards" should be used.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF ASPIRIN POISONING.

At the present time aspirin is probably more frequently employed than any other medicinal substance. The frequency with which it has been given in moderate and large doses in varying painful conditions resulting from widely divergent etiological factors without untoward results has earned for it a reputation not only as an efficacious but also as a safe remedy. Only a few cases have been published in which its administration has been followed by toxic symptoms, and the writers until the present case had never seen any untoward symptoms from its use, although they have administered this drug to many hundreds of patients.

The patient was a painter aged 29 who, when in the Royal Mineral Water Hospital one day, complained of a slight cold, and at 7 p.m. was given 10 grains of aspirin. Just previously he had taken a glass of milk. An hour and a half later he felt a burning pain in his epigastrium, and his right eyelids began to swell. The swelling then quickly spread over the left eyelids, the face, lips, tongue, and pharynx. The roof of his mouth "felt dry," his speech became thick, and urticarial blotches appeared over his chest and arms. At the end of three hours from the time of taking the aspirin he could see out of the right eye only with difficulty. There was no dyspnoea. He experienced some discomfort from the swelling of the face and presented a very bloated appearance. Next morning, that is, fifteen hours after the administration of the drug, the only sign remaining consisted of some puffiness of the eyelids, which did not entirely disappear until the fourth day.

This case shows that alarming symptoms may follow moderate or even small doses of aspirin, and corresponds with those described by Barnett, Abercromby, and Brown. More severe symptoms, however, such as violent palpitations, feeble rapid pulse, dark green urine, and gradually approaching unconsciousness, have also been described. The onset in one of such cases occurred in only from fifteen to twenty minutes after administration.

The fact that the patient in our case had had a glass of milk previous to taking the aspirin may possibly have had some bearing on the case, because alkaline substances decompose aspirin with liberation of salicylic acid, which produces the toxic phenomena. At the same time, idiosyncrasy doubtless plays an important rôle.

We are of opinion that aspirin should be taken on an empty stomach, and unaccompanied by anything except water. It is said that one grain of powdered ergot, owing to its antagonistic action, will prevent symptoms of poisoning.

James Lindsay, M.D., M.R.C.P.,
Honorary Physician,
A. J. Bruce Leckie, M.D.,
Resident Medical Officer.
Royal Mineral Water Hospital, Bath.

A CASE OF FILARIASIS IN DEVONSHIRE.

In the middle of March a girl aged 19 years (a National Insurance patient) presented herself for treatment for a sore throat, and on recovery from this told me she had for six months or more suffered from a vaginal discharge, which had at one time nearly ceased, but had again become more profuse than ever. But for the sense of uncleanliness, the discomfort, and deep yellow stains on her linen, she would not have mentioned it, as it was occasioning no other symptom whatever.

On examination she was found to be a virgin, and no inflammatory signs were present in or around the parts. The urine was normal. I took a swab and made several slides of the discharge for examination, and ordered her injections and cinchona.

Under the microscope there were found pus cells, but no Gram-positive cocci or gonococci or rod forms in any quantity, but almost every field contained embryonic filaria.

The discharge apparently ceased under or during treatment. I therefore directed that it should be omitted for several days and again made a film, and found only what were apparently broken parts of filaria. At the same time (2.30 p.m.) I made a blood film from the finger, and found an increase of mononuclear and polynuclear leucocytes and eosinophiles, and also what was apparently an aggregation of several filaria, and also separate ones.

What, in my opinion, makes this case worth recording is the fact that the girl has never resided away from Devonshire or the adjoining southern counties, nor has she been in contact with any persons from countries where filariasis is common, and she is, moreover, seemingly in average health.

The microscopic examination of course removed a suspicion from the girl's mind and also from her parents' as to the nature of the "whites" as she called it, and at the same time revealed the unexpected to me and made me wish I had taken a swab of the throat.

It is also worth noting that a few days ago, in attending a recognized phthisical patient, struck by the little body-wasting in an otherwise typical and formerly haemorrhagic case, I made an examination of the sputum, and picking on a tiny nodule, found beside the acid-fast tubercle bacillus, the streptothrix or actinomycosis clump and very numerous loose mycelial spore-bearing tubes or threads.

This latter mixed infection is probably not rare, and I see has been reported in a paper by Dr. Frank Nicholson (British Medical Journal, February 12th, 1912) but regarding the filariasis I can find no mention of it as occurring in residents of this country.

Arthur King, M.R.C.S.Eng.,
Bow, North Devon. L.R.C.P.Lond.

THE PRESENCE OF INTRACELLULAR AND FREE AMOEBOID PARASITES IN NOGUCHI'S CULTURES OF *SP. PALLIDA*.

In the British Medical Journal of December 14th last we described certain intracellular parasites found commonly in syphilitic lesions. These parasites were demonstrated by the jelly method of *in vitro* staining; and their development into spirochaetes was also described. They have now been found by us, and their presence has been confirmed by others, in every case of syphilis examined—in the primary and secondary lesions, in the circulating blood of syphilitics, and in some tertiary manifestations. In addition to these intracellular parasites, free amoeboid developmental forms were mentioned as occurring in chancres, glands, and sores. Analogous parasites found in certain animals suffering from allied affections were also noted (in rabbits, hares, guinea-pigs, earthworms). Lastly, these parasites were given the generic name of Lymphocytozoa, all species of which possess a spirochaete-like phase, the spirochaetes being the gametes.

As soon as Noguchi's cultures of the *Spirochaeta pallida* could be obtained a search was made in them for the parasites described. The medium employed by Noguchi consists of a mixture of agar and ascitic fluid in which are suspended small masses of rabbit tissue cells, and the spirochaetes grow anaërobically. After the sixth day of incubation, in the tissue cells (in those cultures which show the spirochaetes) what appear to be intracellular parasites have been found, and these seem to be indistinguishable from those seen by us in chancres, glands, sores, and blood of syphilitics. Moreover, the same free amoeboid forms, as described by us in the paper mentioned, have been found in the cultures. The cultures under observation were subcultures taken from those obtained from the Rockefeller Institute, New York.

The method of demonstrating these intracellular and extracellular parasites in the cultures is as follows: A subculture is chosen which contains spirochaetes. A long sterile pipette, with its upper end sealed, is thrust down through the layer of paraffin used to keep the medium anaërobic, through the semi-solid mixture of agar and ascitic fluid, into the mass of tissue cells at the bottom of the tube. The sealed end of the tube is then cut off, and some of the cells, some parasites, and perhaps some spirochaetes, enter the lower end. The upper end of the pipette is then sealed again, and it is withdrawn. Finally, some of its contents are shaken out on to a cover-slip, and this is inverted on to a ready-prepared jelly when the cells and parasites are stained by the jelly method. In old cultures, where there is considerable destruction of tissue, the parasites appear to undergo development outside the cells. The parasites in the cultures seem to be morpho-

logically similar to those described in the BRITISH MEDICAL JOURNAL of December 14th, 1912, and pictured therein.

EDWARD HALFORD ROSS,
E. JENNINGS, Lieut.-Colonel, I.M.S.
(From the laboratories of the John Howard McFadden Researches.)

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

LEEDS GENERAL INFIRMARY.

A CASE OF PUERPERAL ECLAMPSIA TREATED BY CAESAREAN SECTION.

(By JOHN B. HELLIER, M.D., Honorary Obstetric Physician to the Infirmary; Professor of Obstetrics in the University of Leeds.)

THE patient in the following case, an unmarried girl aged 18, was admitted on February 24th, 1913, in the eighth month of pregnancy. She had had good health before pregnancy, but since conception had suffered from vomiting all the time, and in the later weeks from headache and from oedema of feet, and of the eyes and face in the mornings. On the day of her admission she had had convulsions, and had bitten her tongue.

State on Admission.—She was very ill indeed, with a temperature of 101°, pulse 156, respirations 48. She was profoundly comatose, and there was a very large amount of albumen in the urine. Labour had not begun. The prognosis was considered rather bad.

Treatment.—It was decided to evacuate the uterus by abdominal Caesarean section, and, chloroform having been administered, this simple and easy operation was performed without any difficulty or complication. The child could not be got to breathe, being poisoned by the toxaemia.

Progress.—The patient had seven fits after the operation, and received saline injection and hypodermics of morphine and atropine. At 2 a.m. of the night following the operation the temperature was 104.8°. The fits ceased at 4.30 a.m.

February 25th. She improved during the day, and showed some return of consciousness by evening, but passed no water.

February 26th. She was much better, and passing urine freely, with less albumen. The temperature was normal.

On February 27th she was quite conscious, and on February 28th passed 76 oz. of urine.

On March 2nd she was again very much better, and was reading a paper.

Result.—On April 9th she was sent to the Convalescent Home, and inspected again by me at the infirmary on April 16th. She was very much better; all oedema had gone, but some albuminuria remained.

REMARKS.—Eclampsia occurs only in connexion with pregnancy, and the emptying of the uterus stops the formation of the toxins, although time is needed to eliminate what is already in the system. Abdominal Caesarean section is the quickest way of emptying the uterus when labour has not begun and it causes wonderfully little shock, and all trauma of the cervix and vagina is avoided; this is no small matter in an eclamptic primipara.

I do not advocate this operation as a routine treatment, but it seemed quite a good plan to adopt in this case, for the patient was little more than a girl, the symptoms were urgent, labour had not begun, and was not due for a month, and the parturient canal was not infected; moreover, she was in a clinic with all appliances handy for the operation, and where much experience has been acquired in the rapid and successful performance of Caesarean section. Such an operation also offered the best chance for the child. I did not desire to try the vaginal section. I have recently seen it performed on the Continent in a very similar case, and was much struck with the serious amount of trauma involved. Owing to the great force required for delivery I am sure the trauma was many times more severe than if the abdominal route had been adopted.

THE next congress of French-speaking paediatrists will take place in Paris on October 3rd and 4th, under the presidency of M. Netter. The subjects proposed for discussion are obesity in children and cerebral tumours.

Reports of Societies.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

AT the first meeting of this society under its revised constitution, which was held on April 24th and 25th, Mr. J. B. LAWFORD, President, in the chair, Mr. FRANK JULER described a case of *Acute purulent keratitis in exophthalmic goitre*, which he had treated by repeated tarsorrhaphy. Mr. ORMOND recorded two cases of permanent hemianopia following migraine, the patients being young and apparently healthy persons, and he referred to three similar cases recorded by Dr. Thomas of Boston. Both Mr. Ormond's cases had suffered from sick headaches for years, with very severe migraine, followed by hemianopia. Observations had been made in other patients temporarily blinded by attacks of migraine, in which a spasmodic condition of the retinal arteries had been seen with the ophthalmoscope. The probable cause of the blindness in these two cases was a spasm of that branch of the middle cerebral artery supplying the visual centre, resulting in a permanent interference with the visual function of that side, and so leading to blindness on the opposite side. Dr. JAMES TAYLOR and Dr. GORDON HOLMES described two families showing a similar defect in vision, and emphasized the following: (1) The coexistence of family optic atrophy with tabes, yet the absence of any apparent effect of the tabes on the optic nerve in the cases affected. (2) The transmission of the optic atrophy in the female line. (3) The occurrence of migraine in several of the patients affected, and its persistence even after practical blindness had been reached. (4) The occurrence of other eye defects in members of the family. Mr. ANGUS MACNAB read a paper on an operation for the *Excision of the conjunctival sac and lid margins*, which he described in detail. He had been impressed by the relief given to the patients who had discharging sockets by this operation, and had no hesitation in recommending it to those persons with an empty socket covered with a shade, especially as the appearance was greatly improved by the procedure. Mr. N. BISHOP HARMAN supplied an analysis of 300 cases of high myopia in children, with a scheme for the *Grading of fundus changes in myopia*. These cases were collected during educational work in London, and all belonged to the elementary schools, so were socially of the working classes. All had come under observation in connexion with the new schools for myopes; many had been watched for several years; out of the 300, boys were 46 per cent., girls 52 per cent., a difference of 8 per cent., which agreed with the difference in the sexes in ordinary vision tests. The bulk of the cases seen were aged 8 to 12 years. Dealing with fundus conditions, the speaker criticized adversely their present nomenclature for changes about the disc. He proposed that the fundus should be spoken of as first, second, or third degrees, according as the atrophy at the disc was as wide as one-half the disc diameter, the whole diameter, or greater than that. To this would be added other details about the macula, etc. He showed a chart giving the correlation of refraction and fundus change according to this plan; it bore out his contention. He maintained some definite notation was necessary when these cases came under observation for a definite object such as the regulation of education. The next communication, by Mr. TREACHER COLLINS and Mr. HUDSON, dealt with the pathological examination of an eye with *Congenital anterior staphyloma*. Mr. TREACHER COLLINS followed with a paper dealing with *Fibrous tissue formation* in connexion with the fibro-vascular sheath and visible vessels on the surface of the iris. Mr. E. ARTHUR DORRELL, speaking of *Tobacco amblyopia*, said the dilatation of the pupil obtained when the skin of any part of the body was stimulated was either in abeyance or obtained only by increased stimuli in the condition. His 100 cases were divided into three classes: Class A, ordinary unselected cases, showing no signs of nervous disease and not suspected of tobacco poisoning; Class B, cases suspected of tobacco poisoning and showing no signs of nervous disease; Class C, cases showing signs

of nervous disease. In Class A 58 eyes were examined, with the result that in 89 per cent. only five to seven cells were required to produce the reflex. In Class B 121 eyes were examined and in only 20 per cent. was dilatation obtained with five to seven cells, and in over 50 per cent. of the remaining 80 per cent. no dilatation was obtained at all, with the strongest stimulus the patient could stand. In Class C 18 eyes were examined and in only 22 per cent. was the reflex obtained with five to seven cells, and over 75 per cent. of the remainder gave no dilatation. Owing to the similarity in the results in Classes B and C this test was not a positive sign in favour of tobacco poisoning alone, but should be included in the symptom complex of locomotor ataxia and allied affections of the spinal cord.

Retinal Changes Associated with Systemic Disease.

Dr. James Taylor, in opening a discussion on vascular and other retinal changes in association with general disease, said he proposed to direct particular attention to thrombosis or embolism of retinal vessels, and to raise some points in reference to other conditions embraced in the title of the discussion. He asked first as to the prognosis in albuminuric cases, and referred to the short duration of certain cases and the length of life in others. He referred also to diabetic cases, and mentioned a case in which the condition had existed during eight years, the patient being still alive. The condition of "silver wire" arteries, described by Marcus Gunn, was also alluded to, and a case, seen by Gunn and diagnosed by him, was mentioned as being still alive after nine years. Dr. Taylor then referred to 4 cases with the ophthalmoscopic appearance of embolism of the central artery of the retina. In 2 of these heart changes were present; in 2 no such changes existed, and there was no albuminuria. Reference was made to the frequent occurrence of the characteristic ophthalmoscopic appearance of embolism of the central artery in which no heart disease could be discovered. Such were probably thrombotic. Eight cases of venous thrombosis were then described. In 7 albuminuria with a hypertrophied heart was present: in several both conditions. One was alive and in fair health after two years. A brief reference was made to retinal haemorrhage resulting from syphilitic disease—not a very common condition. He concluded by expressing the opinion, gained from the experience which his colleagues at Moorfields had afforded him, that in most cases of venous thrombosis cardiac hypertrophy and vascular disease with or without albuminuria might be present. In his experience, venous thrombosis was not very common in glycosuric cases. The prognosis in such cases was bad, yet exceptionally the duration of life after venous thrombosis was much longer than one would naturally expect. Mr. L. Werner (Dublin) dealt with the subject of angio-sclerosis chiefly from the chemical and ophthalmoscopic points of view. The ophthalmoscopic evidences of the disease were first considered and discussed. The necessity of an ophthalmoscopic examination in cases of suspected angio-sclerosis in general practice was emphasized, and some cases were related illustrating several points of interest. Obstruction of the retinal circulation was next treated of in connexion with two cases, illustrative of different types of disease. In conclusion, the interesting subject of sudden temporary obscurations of sight was referred to, the ophthalmoscopic appearances observed during the attacks were summed up, and the cause discussed, including the theory of arterial spasm. Mr. George Coats described first the normal structure of the central artery and vein, and pointed out the changes which took place in disease. In the retinal vessels the commonest form of disease, at least in cases of obstruction of the central vein, was a thickening of the fibrous tissue of the wall fibrosis. It was not improbable that endothelial proliferation occurred in response to the stimulus of a circulating toxin. Mr. Coats also demonstrated the pathological features of some cases of obstruction of the central vein, and showed that in early stages a homogeneous thrombus might be found, which subsequently underwent invasion and organization from the surrounding connective tissues, or sometimes from the endothelium. Two cases were also demonstrated which proved that some cases of arterial obstruction were not due to endarteritis and thrombosis, but that the condition might be caused by embolism.

ROYAL SOCIETY OF MEDICINE.

Section of Ophthalmology.

At a meeting on May 7th, Sir Anderson Critchett, President, in the chair, the following were among the exhibits:—Mr. N. Bishop Harman: (1) A case of *Exenteration of the orbit*, with partial excision of the maxilla and ethmoid for rodent ulcer. The woman had first seen the rodent seventeen years ago, and she treated it herself with caustics. It frequently recurred, and nine years later was as large as a farthing. She then had *x* rays at every recurrence for four years. Next, zinc ions were used, followed by radium for nine months. When sent to Mr. Bishop Harman for operation the ulcer was as large as a penny, and was fixed to the bone. Ultimately an extensive operation had to be performed, for the growth was found to have extended into the orbit and the bony walls. In reference to the case the exhibitor said that none of the newer measures for the treatment of rodent ulcer could compare with the knife for certainty and security, and the knife was infinitely less costly than any other method. Had this growth been excised in the first instance, the woman would have escaped the necessity for this severe operation, and would have preserved to herself two sound eyes. (2) Drawings of a case of extreme *Hyperphoria*, for which he had operated by his new method of subconjunctival reefing. The patient, a woman aged 28, had been a martyr to severe headaches since school days, and could obtain no relief from them. Examination of the eyes revealed hyperphoria, or latent vertical squint, requiring a 15° prism to correct. It was impracticable to wear such a high degree prism. Concluding from other signs in the case that the left superior rectus was at fault he operated, shortening that tendon by his new method. She had now orthophoria to every test, and the headaches had completely ceased. Seven months had elapsed since the operation, and the result was perfect in every way. Mr. Edgar Chatterton: A case of *Tuberculous iritis* in both eyes. The boy noticed that his sight was bad when at school thirteen months ago. He had never had pain, and there was no history of tubercle or syphilis. Two months ago he had yellow vascular nodules in both irides at the angle of the anterior chamber, posterior synechiae, keratitis punctata, and vitreous opacities. He was now having tuberculin injections, $\frac{1}{1000}$ mg. once a week, and frequent tappings of the aqueous. The condition had improved on that treatment. Mr. Sydney Stephenson: A case of *Ocular torticollis* in a boy aged 13½. At 3 months of age, when recovering from whooping-cough, he held his head towards the left shoulder, and that habit had persisted. While he was in the wry-neck posture there was no squint nor diplopia. But when he straightened his head the right eye turned upwards and outwards, and vertical and contortional diplopia developed. Mr. G. H. Pooley and Mr. Harold Grimsdale: Some cases of *Angioma of retina*. Mr. Pooley: A case of *Giant-celled sarcoma* in which there had been several operations for recurrences, the last in November, 1911, since which there had been no further appearance of the disease. The President commented on the present procedures as a great advance on the days of removal followed by the application of caustic zinc paste to the remaining surface of the wound. Mr. H. Herbert: A case of *Third nerve paralysis* with rhythmic clonic spasm. No divergence was to be seen, but there was the same absence of strabismus as in congenital paralysis of the sixth nerve. The synchronous raising of the lid to the normal extent was due to spasm of the unstriped levator muscle, which was innervated by the sympathetic. Mr. H. J. Fisher: A case showing arterio-venous communication in the cavernous sinus successfully treated by *Ligature of the common carotid*. Mr. Elmore Brewerton, discussing the case, pointed out the reason why the internal carotid should be tied in preference to the common carotid, and said he thought that measure would be followed by more cures and less cerebral complications. Mr. Ernest Clarke: A case showing an unusual arrangement of *Opaque nerve fibres*. The patient was a myopic youth aged 20. There was a peculiar ring round the disc, bulging forward, giving to the disc a crater-like appearance. Opaque nerve fibres spread from all parts and partly involved the macula. Mr. R. Cruise: Three instances of *Sclerotic trephining*, combined with insertion

of thread in glaucoma, the object being to increase the area after trephining. The aqueous filtered along the course of the thread and did not cause inconvenience. He explained that the procedure was on its trial. The PRESIDENT said one of the cases shown he sent to Mr. Cruise for treatment, expecting that enucleation would have to be performed, but from a tension of T — 3 the tension was now found to be normal or even subnormal, and the pain had gone. Mr. RICHARDSON CROSS (Bristol): *A Pigmented growth of the conjunctiva.* The general impression was that free excision followed by the galvano-cautery to the residue should be done.

SECTION OF OBSTETRICS AND GYNAECOLOGY.

AT a meeting on May 1st, Dr. AMAND ROUTH, President, in the chair, Dr. NAPIER BURNETT (Newcastle-on-Tyne) recorded a case of *Bacterial infection of the fetal membranes* in a primigravida, aged 28, who had an abortion in the twenty-third week. Pregnancy had run a normal course until sixteen days previously, when a discharge of watery fluid occurred, which was followed in two days by a more copious discharge; this continued intermittently, and the fetal movements were still felt by the patient. During the miscarriage there was practically no liquor amnii, and the afterbirth was discharged spontaneously. On examination of the membranes a thickened yellowish patch about the size of the palm of the hand was noticed, situated upon the pole opposite to the placenta. The puerperium was complicated by an attack of appendicitis, but in other respects was normal; the appendix was removed four weeks later and found to contain about 2 drachms of purulent fluid. The thickened patch of fetal membrane was examined by Professor Stuart Macdonald. He found the thickening affected chiefly the chorion, which presented nodular bulgings on its decidual aspect; the amnion was only slightly affected. The thickened parts showed leucocytic infiltration and extensive areas of necrosis; in the latter were found isolated areas closely resembling miliary abscesses in appearance. These parts also showed extensive bacterial invasion, but, as the membranes had been hardened in preservative fluid, no cultures of these organisms could be made, and consequently their identification was impracticable. The author believed that the fluid discharged was liquor amnii, and further expressed the opinion that the bacteria had probably been lying dormant in the vagina during pregnancy; no vaginal examination had been made previous to the miscarriage. Dr. RUSSELL ANDREWES described a case of *Rupture of the uterus* in a multipara admitted to the London Hospital twenty-four hours after labour. She had been attended by a doctor who reported that he had had great difficulty in delivering with forceps, and then directly after delivery a pendulous mass came down through the vulva. The patient was extremely ill; the swollen, torn cervix protruded through the vulva, and examination under anaesthesia showed the following lesions: (1) Incomplete rupture of the perineum with much bruising; (2) vagina completely separated from cervix except for about three inches in front and to the right side; (3) lower uterine segment and cervix separated from the upper uterine segment except on the right side and in front; (4) lower segment and cervix torn through from top to bottom on the left side. There was a large quantity of blood in the peritoneal cavity. Vaginal hysterectomy was at once performed. There was some pyrexia for four and a half weeks after the operation, but ultimately the patient made a good recovery. The author believed the injury had been caused by one blade of the forceps having been applied outside the uterus, and that the cervix and lower uterine segments had been pulled away with the head by main force.

SECTION OF LARYNGOLOGY.

AT a meeting on May 2nd, Mr. HERBERT TILLEY, President, in the Chair, Dr. DE HAVILLAND HALL, in introducing a discussion on the etiology of unilateral *Paralysis of the recurrent laryngeal nerve*, drew the following conclusions: (1) Aneurysm of the aortic arch is the most common cause of recurrent paralysis, and may be the only symptom for a year. (2) The left recurrent nerve is almost exclusively affected in aortic aneurysm; the transverse and descending arch constitute the particular site. (3) The occurrence of valvular disease is a cause of recurrent paralysis. (4) When the paralysis is due to pressure it is almost always left-sided, which is four times more frequent than right unilateral paralysis. (5) In malignant disease of the oesophagus the recurrent nerves are almost equally affected. (6) Right recurrent paralysis and dysphagia are almost always due to malignant disease of the oesophagus; left recurrent paralysis and dysphagia are usually due to this disease. (7) If recurrent paralysis be due to central causes the nerves are affected nearly equally. Sir DAVID FERRIER contended that the Semon-Rosenbach law should be regarded as an illustration of his view that in all motor nerve trunks the nerve fibres of extensive muscles were more vulnerable. Paralysis of the recurrent laryngeal nerve was either (1) complete, in which case the cord was relaxed and assumed a cadaveric position, or (2) incomplete (more common), when the posterior crico-arytenoid muscle was more affected than the adductors. The toxins of beri-beri and lead picked out the extensors, as did also the pressure of the fetal head in the case of the anterior crural nerve. Injections into the sciatic nerve had a selective effect, and after death the extensor nerves lost their power first. In tabes there was probably a neuritis of the vagus trunk, and the recurrent was affected in this selective fashion and led to abductor paralysis. The nucleus ambiguus, or motor nucleus of the tenth nerve, was closely related to other nuclei. In only two tabetic cases had central changes been proved, and in one of these other nuclei were involved with no resulting symptoms. The nucleus ambiguus supplies three nerve branches: (*a*) Upper, supplying the crico-thyroid and oesophagus; (*b*) middle, distributed to the palate; (*c*) lower, which supplies the recurrent laryngeal and inhibitory fibres to the heart. In bulbar disease and muscular atrophy no selective abductor action could be recognized. Dr. PERMEWAN stated that cases due to aneurysm were not so frequently published as those due to the rarer causes, hence the preponderance of these cases in the records. Of Avellis's cases, published in 1891, in nearly one-half the cause was not ascertained. Taking the record of the last ten years, and classifying according to Sir StClair Thomson's scheme, he had collected 360 cases. The greater accuracy had resulted from (1) the use of *x* rays, (2) the recognition of paralysis of the cord in chronic bulbar lesions, (3) the assignment of toxic causation, (4) the discovery of the association of paralysis with forms of cardiac enlargement. In the aneurysm cases two-thirds were confirmed by an *x*-ray examination. Mitral stenosis resulted in an expanded left auricle which stretched rather than pressed on the recurrent laryngeal. From the point of view of prognosis, the frequency of recovery in the neuritic group was of great importance. Sir FELIX SEMON considered that his law held good both for nuclear as well as nerve affections. The abductor action of the cords could not be described as analogous to extension of the limbs. The respiratory movement of the cords was bulbar in origin, while phonation was voluntary and cortical. There was no antagonistic action between the abduction of respiration and the adduction of phonation. Organic disease affected the abductors and functional disease disordered adduction: to this there was no analogue in limb paralysis. Probably the nucleus ambiguus and the recurrent nerve were affected on different occasions in a manner analogous to oculo-motor paralysis, which might be either cortical, nuclear, or peripheral. Possibly bulbar paralyses as described were really due to pseudo-bulbar paralysis; it was essential to rely only on clinical cases where a *post-mortem* examination was recorded. Dr. P. WATSON-WILLIAMS supported the view that the nucleus was affected in tabes, and instanced the association of palatal paralysis with abductor paralysis. In tabes interference with the inhibitory fibres of the vagus was the explanation of the high pulse frequency so often observed. Mr. E. D. DAVIS alluded to the rarity of abductor paralysis in tuberculous disease of the right pleura. Dr. DUNDAS GRANT mentioned the difficulties of mediastinal skiagraphy. Mr. T. GUTHRIE described certain definite cases of abductor paralysis where the patient recovered. The PRESIDENT described 3 cases of unilateral abductor paralysis in whom he had observed complete recovery; influenza played an important part in the causation of the neuritis. The prognosis was very different in the aneurysmal cases.

SECTION OF OTOLOGY.

AT a meeting on May 16th, Dr. DUNDAS GRANT, President, in the chair, the following were among the exhibits:—Dr. DONELAN: A case of persistent paroxysmal cough, apparently due to *Irritation of the chorda tympani nerve*. The patient, a man aged 45, was seized, a few days after visiting some engineering works, with a violent fit of coughing. Coughing fits persisted for the ensuing two years without ascertainable cause. Except for general laryngeal hyperaemia, probably due to the coughing, the larynx appeared normal, and various medical examinations failed to assign a cause. On examining the ears, there was found on the left tympanum a tiny black spot surrounded by a reddish areola, just behind the malleus where the chorda tympani nerve crossed it. Under cocaine a small spicule of steel 3 mm. long was extracted; this was followed by violent coughing, but there had been no further trouble. Mr. JOHN F. O'MALLEY: A girl, aged 10, a congenital syphilitic, whose *Bilateral deafness* of one year's duration was cured by neo-salvarsan, three doses of 0.3 gram intravenously having been administered over a period of three months. The PRESIDENT: (1) A case of *Chronic attic suppuration* treated by an operation, which enabled the ossicles and the remains of the membrane to be retained. The patient, aged 23, had had discharge from the left ear about ten years, and it was found to issue from the attic. Hearing was very good. The operation shut off the diseased cavity from the Eustachian tube and naso-pharynx, and healing ensued quickly. Removal of ossicles and membrane would have left the cavity of disease in communication with the pharynx, and rendered it liable to continuous reinfection. (2) A case of chronic *Suppuration of the middle ear* which had proved rebellious to transmeatal treatment until that was supplemented by tubal injections of chloride of zinc. The patient, a girl aged 20, had had discharge from the right ear since childhood. The lower part of the tympanic membrane was absent. The injection of a few drops of a 1 per cent. solution of chloride of zinc up the Eustachian tube through the Eustachian catheter, followed by a few drops of paroleine to drive the chloride of zinc into the tympanum, led to speedy improvement, and there was now no sign of pus.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

AT a meeting on April 4th, Dr. J. O'CARROLL, President, in the chair, DR. J. B. COLEMAN, in a paper criticizing the *Iodoform and benzoyl chloride treatment of pulmonary tuberculosis*, said that in the year 1911 the advocate of this treatment practised intramuscular injection of iodoform and benzoyl chloride dissolved in ether and liquid paraffin, the use of benzoyl chloride being suggested on the assumption of its proved efficacy in leprosy—an assumption which more recent investigation at the Mahaica Leper Asylum in British Guiana proved to be erroneous. In the same year the treatment was carried out in Steevens's Hospital, Dublin, and abandoned after 4 out of 7 cases so treated had died. Later on the exploiter of the treatment, in a paper read before the Academy (see BRITISH MEDICAL JOURNAL, vol. i, 1913, page 21), reverted to the method, introduced by Dewar in 1903, of intravenous injections of half-grain doses of iodoform dissolved in ether and liquid paraffin (followed by tuberculin and vaccines). He contented himself with accepting Dewar's conclusions, and he made no attempt to justify the administration of iodoform on scientific grounds. His narration of 6 cases of pulmonary tuberculosis, in which successful results were claimed for the treatment, was of no scientific value as it was not a complete enumeration of all the cases in which the treatment was tried by him. Amongst the objections to iodoform was the fact that the drug was weak, not fatal to bacteria, and not monotropic for the tubercle bacillus, in the sense in which this term was used in connexion with the specific chemotherapy of Ehrlich. On the other hand, it was toxic to human beings. In pulmonary tuberculosis the intravenous injection of iodoform was attended with special dangers, as the injection was liable to be followed by severe attacks of coughing, and thereby entailed the risk of haemoptysis or of pneumothorax. Sir Almroth Wright, in a report dated October, 1912, in reference to an inquiry into the treatment of pneumonia by ethylhydrocupreinhydrochlorate, considered the conditions which ought to be satisfied before any drug treatment could be applied with a view to killing the causal agents of disease in the infected body. He discussed the relation in which the specific pharmacotherapy of Ehrlich stands to the prescribing of antiseptics, and pointed out that "it never entered into the conception of the physician who prescribed antiseptics to require of these that they should be monotropic for the causal agents of disease, nor did he appreciate that the effective dose of a therapeutic agent was capable of being determined by blood tests." He pointed out that the medical profession regarded it as "an indefensible proceeding to administer a drug concerning which we have neither *a priori* grounds for believing that it will, nor evidence to show that it does, do what is intended. And we condemn not only treatment which is based upon notoriously erroneous assumptions, but also treatment which is simple random experimentation." *Mutatis mutandis*, the rules laid down by Sir Almroth Wright, in investigating the effect of ethylhydrocupreinhydrochlorate in pneumonia, applied to an inquiry on similar lines in reference to the use of iodoform in pulmonary tuberculosis. Dr. WALTER SMITH said that when called upon to judge of the success or otherwise of any method of treating disease there were two postulates—(1) an adequate knowledge of the drugs or methods used; (2) sufficient clinical and scientific evidence of their fitness. There might be a third, but doubtful, method—namely, the method of analogy. In regard to the second postulate, the paper in which the treatment now criticized was advocated had not produced satisfactory evidence. Enough was known about iodoform to justify scepticism as to a half-grain dose introduced into the body of a man exercising any influence. Even *in vitro* it was harmless to the *B. tuberculosis*. As for benzoyl chloride, he could not understand how so irritating a compound could be tolerated by the human organism. Dr. CROFTON, the reader of the paper criticized, said that, owing to the extraordinary *a priori* objections to the use of intravenous injections of iodoform in ether he had tried to get something as good to be given intramuscularly, and had, therefore, tried iodoform and benzoyl chloride, and if he had not succeeded in the advanced cases referred to, he considered that he had not hurried their end, and since some cases had much improved, he held that he was therefore justified in trying the treatment. As to the assumption that iodoform would do no good, he showed that rabbits had been injected with the bovine bacillus, and when the disease had developed had been completely cured with iodoform in ether given intravenously. This, he considered, gave good grounds for its use in human cases. Could it be shown that fresh air or sanatorium treatment had ever cured such infected rabbits? Iodoform with the molecule intact he admitted was a weak germicide, but in the presence of pus it was split up with the liberation of free iodine, and he suggested that it acted as an inactivator of the toxin of the tubercle bacilli. He had never met with pneumothorax in any of his cases, nor had he ever heard of such an accident. He concluded by giving a summary of 29 private cases in which the treatment had been carried out: 6 early cases, apparently cured; 8 second stage cases, apparently cured; 15 advanced cases, 6 apparently well, 2 very much improved, 7 died. Dr. PARSONS said that it did not take very long after the introduction of a treatment which was successful for that treatment to become general, and pointed to salvarsan as a notable instance of this recently; but this had not been the case in regard to the iodoform treatment suggested by Dewar. Sir JOHN MOORE discussed the dangers attending this form of treatment. Dr. T. GILLMAN MOORHEAD said that he did not think that any member should be allowed to remain under the impression that the Academy disapproved of the trial of any method of treatment unless that method was dangerous; he did not consider this method dangerous, and he saw no objection to its trial. What should be deprecated was bringing a method of treatment before the public before the profession was satisfied that it should be brought forward. All desired to arrive at the truth of the matter, and he therefore suggested that it might be well if a certain number of cases could be submitted to independent examination, and then treated and compared with

some other cases which had not been treated, and that the results might then be reported to the Academy. Dr. KIRKPATRICK said that several of the cases in which the treatment was employed were under his care. The patients had been in hospital for some time under satisfactory conditions, the majority of them being treated in the open air on the balcony, where they were in as good circumstances as in a sanatorium. He could say that in no case did the treatment seem to do them any harm, nor did the patients object to the treatment. Dr. BEWLEY endorsed what Dr. Moorhead had said. He had tried the treatment, but had not yet arrived at any conclusions; he looked forward to bringing his results before the Academy. The PRESIDENT said he considered that Dr. Moorhead's suggestion would get over all the difficulties. He suggested that the profession should, as far as possible, keep clear of doing away with healthy scepticism.

ULSTER MEDICAL SOCIETY.

AT a meeting on May 8th, Dr. R. W. LESLIE, President, in the chair, Mr. A. FULLERTON read a paper on 48 cases of *Nephrectomy*, with four deaths. He laid stress upon the necessity of using the ureteral catheter, and demonstrated the accuracy of diagnosis attainable by its use. Mr. HICKS, in a paper on *Cæsarean section for eclampsia*, enumerated three successive cases of eclampsia; in one no operation was allowed, and the patient died; in another operation was not performed till the second or third day, and the patient died; in a third, section was done twelve hours after the first symptom of the eclampsia, and the patient made an uninterrupted recovery.

HARVEIAN SOCIETY OF LONDON.

AT a meeting on May 8th, Dr. LEONARD GUTHRIE in the chair, the following were among the exhibits:—Mr. LAMING EVANS: A case of *Congenital dislocation of the hip*, in which he had replaced the head of the bone two years previously, and complete functional use of the limb had been recovered. Dr. HAY: A case of *Friedreich's ataxia* in a boy; another member of the family had no knee-jerks. Dr. PATTERSON: A case of *Bronchiectasis* in a child aged 5, the symptoms having been present for at least two years. Dr. TORRENS: A boy suffering from *Splenomegalia*. Dr. WILLCOX: (1) A woman who had had a temperature for about a year, with signs of endocarditis; no treatment proved of any avail until a virulent *Rheumatic vaccine* had been injected. (2) A man with *Fibrosis of the left lung;* some fluid had been found by means of the *x* ray, although the physical signs all pointed to the complete absence of fluid. Dr. TURTLE: A case in which there had been marked *Separation of the lower epiphysis of the humerus*, followed by complete recovery. Dr. FITZWILLIAMS: A case with a swelling at the root of the neck, the diagnosis lying between a hernia of the lung, a lymphangioma, and a blood cyst. Opinion was fairly evenly divided between the first two.

ASSOCIATION OF REGISTERED MEDICAL WOMEN.

AT a meeting on May 6th, Dr. CONSTANCE LONG, President, in the chair, Dr. FLORENCE WILLEY, in a paper on *Menstruation*, raised the following questions: (1) What is normal menstruation? (2) In women whose type of menstruation has undergone any change, what conditions are found of an abnormal character which may reasonably be supposed to account for that change? If physiological menstruation rendered the majority of women invalids for a day or two each month, then all women workers, she said, ought to have the necessary leave of absence. But if menstruation were normally a physiological function, performed without pain or distress in healthy women, it were well that this should be generally recognized. The speaker had investigated 500 consecutive cases. Among the conditions found in hospital patients attending the gynaecological out-patient department were the following: Age of onset between 12 and 17 years in 86 per cent., at 14 or 15 years in 44 per cent.; menstruation regular in 84.7 per cent.; recurring every twenty-eight days in 80.9 per cent.; loss moderate in 72.5 per cent., scanty in 15.1 per cent., profuse in 12.4 per cent.; in 73.7 per cent. menstruation was painless, in 5.6 per cent. it caused slight pain, and in 20.7 per cent. it was definitely painful. In 68 per cent. the period lasted four to seven days, in 18 per cent. less than four days, in 14 per cent. more than seven days. These cases, though representing a series of women complaining of some gynaecological ailment, showed that in over 75 per cent. the women had begun to menstruate at the age of 13 to 16, the period recurred regularly every twenty-eight days, the amount of blood lost was moderate, and the whole function was performed painlessly. Statistics obtained from a series of private patients agreed closely with those quoted, except that less than half (45 per cent.) menstruated painlessly, whereas more than three-quarters of the working women experienced no pain. With regard to pathological conditions found among those patients whose menstrual habit had undergone some change, the speaker, after stating that a very large proportion of gynaecological patients showed no menstrual change at all, claimed that the most important conditions influencing menstruation were marriage, retroposition of the uterus, pelvic inflammation, and constipation. Metrorrhagia almost invariably indicated one of four conditions—malignant disease, polypi, haemorrhages associated with pregnancy, inflammation of the appendages. The influence of marriage on the menstrual periods generally appeared to be entirely beneficial. The conclusions she drew from her investigations were: (1) That normal menstruation was not an incapacitating experience either from the amount of blood lost or from the association of pain; (2) that it was an experience to which normal healthy women paid no more attention than they did to other physiological functions, such as defaecation or micturition, which also were normally performed painlessly, but might become acutely painful under pathological conditions; (3) irregularity, pain, excessive loss, and incapacitating malaise during menstruation were due to pathological conditions requiring treatment. Painful menstruation was due either to some abnormal condition of the muscle of the uterine wall or to some failure of that polarity of the uterus by which dilatation of the cervix tended to make contraction of the body less painful and more effective. Dysmenorrhoea was most commonly found in girls leading sedentary lives, who suffered from constipation and anaemia. Outdoor exercises or gymnastics were often effectual in curing dysmenorrhoea with excessive loss. She advocated much outdoor exercise for girls during school life, excluding, however, violent exercise at the time of the periods. In the discussion which followed, Dr. CONSTANCE LONG advocated the playing of games but not of matches during school life, and said that bicycling was specially useful in relieving the pelvic circulation. She attached no importance to the occurrence of amenorrhoea apart from a definite pathological condition, as it practically always righted itself. Dr. ALICE CORTHORN had conducted inquiries among 1,000 school girls and had found that only 5 per cent. suffered from dysmenorrhoea. Dr. EMILY FLEMMING and Dr. DOROTHEA COLMAN disapproved of excessive exercise for school girls during the menstrual periods but considered moderate exercise to be permissible. Other members having joined in the discussion, Dr. WILLEY replied.

THE estate of the late Dr. George Bruce McDonald, of Shepperton, has been sworn at £17,021.

IN a paper in the *Quarterly Journal of Experimental Physiology* Lyda May Degener reports the results of experiments to test the statement of Simpson and Hunter that (in sheep) thyroidectomy was followed by some increase in the weight of the pituitary body; the increase was much less than had been recorded by other observers. Degener removed the thyroid glands completely from twelve adult rabbits which were killed at periods varying from ten to 179 days after the operation. The hypophyses were weighed after death, and found to be distinctly heavier than in control animals. The increase in weight appeared to run parallel with the time that intervened between thyroidectomy and the death of the animal. After an interval of 179 days (six months) the pituitary had increased to about three times the normal size.

Reviews.

THE ORIGIN OF LIFE.

THE veteran author of *The Origin of Life*[1] has for years maintained that the spontaneous development of lowly forms of life may occur in solutions of various composition which have previously been submitted to sterilization by heat. He has maintained the correctness of his observations in the face of the most strenuous, and sometimes unfair, criticism, and when possible fallacies in the methods have been suggested he has always been ready to meet them. The solution principally employed is composed of distilled water with ammonium phosphate, phosphoric acid, and sodium silicate; another contains a few drops of sodium silicate and liquor ferri pernitratis to the ounce of distilled water. Tubes of soft glass about 1 in. in diameter and 3 in. long, sealed at one end and drawn out to a tapering extremity at the other are half filled with the solution through the tapering end, which is then sealed in the flame. The tubes are afterwards sterilized by heat, either by boiling in a water-bath for twenty minutes on three successive days, or by heating in a calcium chloride bath to 115° to 130° C. for from ten to twenty minutes. These prepared tubes are then exposed to daylight in an east window, or are kept in an incubator at 30° to 33° C. for some six or eight months, after which the contents are examined microscopically with or without staining. In successful experiments, Dr. Bastian claims that bacteria and torulae, and occasionally thread and mould forms, are to be found entangled in the colloidal precipitate which forms in properly prepared tubes. They are never free in the liquid. By observing the organisms in ringed cells or by transferring some of the precipitate to tubes containing a sterilized solution of ammonium tartrate and sodium phosphate, the organisms are found to multiply, and are thus proved to be living.

The solutions named were employed because, admitting that life originated at an early period of the earth's history before organic compounds had yet been formed, they would presumably be more likely to favour the development of life *de novo* than the complex organic solutions commonly employed by the bacteriologist. The solutions are in an unstable condition, and very readily yield colloidal precipitates. Silicon is employed because of its chemical affinities with carbon. There would also be present a sufficiency of carbon dioxide to yield the necessary carbon if silicon does not replace it. Such solutions do, in fact, contain all the elements necessary for the constitution of ordinary protoplasm; it is true some might be present in the minutest traces, but still sufficient for the formation of all the organisms detected, for even good distilled water contains sufficient nutrient material to support the life of millions of bacteria in every cubic centimetre! The principal criticisms which have been made regarding Dr. Bastian's work and conclusions may be summarized as follows:

1. Organisms of the comparatively high development of bacteria and torulae could not be expected to be the primitive forms which would originate *de novo*. In reply to this it may be pointed out that these organisms are not found in the solutions until a lapse of some months after their preparation—a period presumed to be sufficient for development to proceed from molecular aggregates, through ultra-microscopic into visible forms.

2. The organisms presumed to have originated *de novo* have developed from organisms originally present in the solutions—that is, the solutions have not been sterilized by the process. As against this it may be stated that the methods employed are such as in the majority of instances do yield sterile solutions, though it must be admitted that occasionally resistant organisms occur (for example, in inulin) which are not destroyed by the processes ordinarily employed for sterilization. But if control experiments show, as they seem to do, that no growths can be obtained from the solutions immediately after sterilization, this criticism to a large extent falls to the ground.

3. The organisms found are the dead bodies of organisms originally present in the solutions. Dr. Bastian admits that a few organisms, and therefore their dead bodies, are present in the solutions, but points out that the organisms found after incubation for a period of several months are far more numerous than are ever found at the commencement of the experiment.

4. The presumed organisms are "artefacts," or simulations of organisms, due to peculiar aggregates of the colloid. This is a more serious objection, because we know from the work of Leduc and others how extraordinarily colloidal and other aggregates may simulate organic forms. Moreover, such aggregates may stain and increase in numbers just as organic forms do. The crucial test is the cultivation and multiplication of the "organisms" in solutions free from the colloid, and this, too, Dr. Bastian claims to occur (in solutions of ammonium tartrate and sodium phosphate).

The work undertaken by Dr. Bastian is most laborious, and is surrounded by pitfalls, some of which are difficult to guard against. We congratulate him on the present presentation of his views. He has made out a *prima facie* case, and his work cannot be dismissed in the light-handed manner hitherto customary. Already interest has been excited in the work in several quarters, and we may expect that in the course of a year or two the correctness or otherwise of his conclusions will be established. In any case, no one can fail to admire the courage and tenacity with which Dr. Bastian has carried on the investigation of this subject, resuming, after a long interval filled by successful labours in another field, the study which had first engaged his attention at an early stage of his distinguished career.

[1] *The Origin of Life.* Being an Account of Experiments with Certain Superheated Saline Solutions in Hermetically Sealed Vessels. By H. Charlton Bastian, M.D., F.R.S., Emeritus Professor of the Principles and Practice of Medicine, University College, London. Second edition. London: Watts and Co. 1913. (Pp. 98. Price 3s. 6d. net.)

THE SURGICAL WORK OF THE BROTHERS MAYO.

IT is interesting to note the movements of the great centres of surgical influence. It may, perhaps, be said that half a century ago France—that is, Paris—dominated the surgical world; a quarter of a century later the great German schools were the most influential, while to-day the keen surgeon of our country recognizes the value of widening his outlook by a visit to the United States, or at least by cultivating a close acquaintance with the work of American surgeons. The advance in American surgery has been for the past decade or more extraordinarily rapid. It is to be accounted for by the influence of a few men. Two summers ago we had opportunities of making personal acquaintance with some of the best-known surgeons of the States when they visited this country; all were distinguished by strong energetic personality. Without disparagement of others, perhaps few features of American surgery attract British surgeons more than the Brothers Mayo and their work at St. Mary's Hospital, Rochester. In two volumes before us, entitled *A Collection of Papers Published Previous to 1909 by William J. Mayo and Charles H. Mayo*,[2] papers have been carefully collected and edited by Mrs. MELLISH with the object of preserving a complete file of the writings of these two surgeons from the time of their graduation up to February, 1909. Chronological order has been observed in the arrangement so that the development of the subject may be watched. All the original subject matter has been incorporated and careful search has been made to avoid omission.

The record of work thus presented is really enormous, not in quantity only, but in the extent of the field covered. It displays originality of conception, elaboration of detail, and careful regard for the writings and doings of others.

The subjects are too numerous and varied for us to notice all. The addresses to medical colleges and societies on the experience gained in visiting foreign clinics, and on subjects of general interest relating to the welfare of the profession, are bright and happy. The Mayos are strong advocates of indulgence in *Wanderlust;* other men and different methods must be studied, and so they tell of what they have seen in European and other American

[2] *A Collection of Papers Published Previous to 1909 by William J. Mayo and Charles H. Mayo.* In two volumes. Philadelphia and London: W. B. Saunders Company. 1912. (Roy. 8vo, vol. i, pp. 506, figs. 46; vol. ii, pp. 598, figs. 71. 42s. net.)

medical centres. The address on the "medical profession and the issues which confront it" is particularly appropriate to our country and the status of our profession to-day. The doctor starting practice is strongly recommended to keep up the habit of daily study, and is advised to put in even one hour a day reading journals and books of reference, and to make frequent trips away for purposes of observation. Thus only will he avoid the rut of self-satisfied content which checks advancement and limits usefulness.

The surgery of the intestinal tract forms the major part of this collection, and of that region the stomach has the most prominent place, no fewer than 300 pages in the first volume being devoted to that organ. The surgery of the stomach is dealt with freely, untrammelled by tradition. The gradual development of the surgical treatment of ulcer in stomach and duodenum leading up to the no-loop posterior gastro-jejunostomy can be traced through these pages. We venture to think that some of these papers will rank with the classics, and we are particularly pleased to note that the pictures by Miss Dorothy Peters illustrating gastric operations so familiar to students of the subject are here preserved. The quantity of material at the disposal of the surgeons in St. Mary's Hospital is very great. Some idea of this may be formed when we find that in the more limited region of the gall bladder and bile ducts 1,500 operations have been performed in the fifteen years ending May 1st, 1906.

We feel certain that surgeons will be glad to possess and to read these volumes. They are a mine of surgical wealth. It is true that some of the papers might well have been excluded. Even poets do not always like to see their earliest effusions printed in later years. Many of these papers are simply records of cases of little value, others embody conclusions drawn from consideration of groups of cases which are served up again in later papers. But it is easy to find the wheat. These volumes show the workings of two brilliant minds; they bristle with evidences of originality and resource; they are an exposition of virile personalities which could well have made their mark in any sphere of human activity, but which, fortunately for surgery, had an hereditary bias towards the art of healing.

DISEASES OF THROAT, NOSE, AND EAR.

If the law of supply following demand holds good in the matter of elementary textbooks on diseases of the throat, nose, and ear, then the demand by practitioners and students of medicine for instruction in a subject which, not many years ago, was practically not taught is truly remarkable. To the large selection of textbooks on the subject Dr. W. G. PORTER has added another entitled *Diseases of the Throat, Nose, and Ear; for Practitioners and Students*.[3] His main object has been to provide the practitioner and senior student with a single volume of moderate size, embracing sufficient information on the diseases of the throat, nose, and ear to be of value in practice. We may say at once that he has attained his object. This success is to be attributed to the special attention paid to diagnosis. In a region in which so much can be brought under ocular inspection by modern methods, accurate diagnosis is possible. It cannot be too strongly emphasized that a student must be trained to be a diagnostician of diseases of the throat, nose, and ear before he can be entrusted with their surgical treatment. Dr. Porter has wisely confined his remarks on treatment within the limit that the latter can be carried out by the non-specialist. Therefore the major operations have not been described; the indications for their performance and their general features alone are given. The book naturally falls into four sections dealing respectively with the pharynx, the larynx, the nose, and the ear. Each section is prefaced by a full account of the ordinary methods of examination, and this is followed by remarks on general semeiology and therapeutics. The diseases in each section are described with a due sense of proportion. The practitioner is put on his guard against performing operations which even in the hands of experts do not always yield the gratifying results that textbooks and papers would lead him to expect. As an instance, we may take Dr. Porter's remarks, which we fully endorse, anent the surgical treatment of suppurative disease of the ethmoidal labyrinth:

> The employment of curettes, guided only by the sense of touch, is to be deprecated, as there is considerable danger of causing meningitis by fracturing the cribriform plate, or of endangering or even losing the eye by perforating the wall of the orbit.

The index unfortunately broke down under the first test. A reliable index is of all importance to the busy practitioner who has to refresh his knowledge at short notice. Accordingly we turned to a disease commonly diagnosed by the public—nasal polypus. We are referred to page 114. There is no account of the disease on that page or in that chapter or in the following chapter, but on page 128 we find the condition described and illustrated. This, however, is a defect to be remedied in the future editions which the book well deserves.

Amongst the volumes dealing with aural diseases we welcome that of LAKE,[4] which has reached the fourth edition. It has been considerably enlarged, and will be found useful both by students and practitioners who desire to become generally acquainted with the causes of deafness and its treatment. This *Handbook of Diseases of the Ear* is well illustrated in coloured drawings of various pathological conditions of the membrana tympani, and some good prints of sections of the temporal bone, depicting the various important structures it contains seen from different points of view. The definitions given throughout the book are concise and to the point, and the explanations of somewhat abstruse points are generally excellent. There are few typographical or clerical errors. The work shows evidence of a careful weeding out of all unnecessary matter, and, if any fault is to be found with it, it is that in one or two instances questions which are still *sub judice* are dealt with as if settled—for example, that of increased labyrinthine pressure. The indications for intranasal treatment are dealt with, and the chapter on the estimation of acuteness of hearing is well written, though the value of "the proportional test" to one not thoroughly experienced in its use is doubtful. Chronic non-suppurative diseases are well dealt with and most useful information given. The treatment by inflation of the middle ear is thoroughly described and valuable hints given regarding those cases in which it is inadvisable. Bárányi's test is described, but more detailed instructions and advice would have been useful. Intracranial complications of middle-ear diseases are fully discussed, but the statement that "optic neuritis or papillitis is found during the whole of this"—the second—"stage" of cerebral abscess should have been prefixed by the proviso—when present. The paragraph on post-influenzal mastoiditis is excellent, and if the hints there given were always borne in mind, some lives would be saved; for the failure to recognize that grave danger may exist with a normal temperature has been responsible for more than one death. Various prescriptions are given in an appendix, and there is a very good index.

Our great debt to Professor ONODI is increased by the addition of his book entitled *The Accessory Sinuses of the Nose in Children*[5] to the list of valuable works he has contributed towards the perfection of our knowledge of the normal anatomy of the nose and its accessory cavities. He has, in accordance with his custom, gone direct to Nature, and has elaborated his descriptions from the data afforded by 102 specimens derived from subjects varying in age from six and a half months of fetal life up to nineteen years of extrauterine existence. At some of the most interesting ages he gives skiagrams of a very informing character. Curiously it happens that in more than one of them one of the frontal sinuses is undeveloped, but it is

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[3] *Diseases of the Throat, Nose, and Ear: for Practitioners and Students.* By W. G. Porter, M.B., B.Sc., F.R.C.S.Ed. With 77 illustrations, 44 of which are in colours. Bristol: John Wright and Sons, Limited; London: Simpkin, Marshall, Hamilton, Kent, and Co., Limited. 1912. (Demy 8vo, pp. 287. 7s. 6d. net.)

[4] *Handbook of Disease of the Ear.* By Richard Lake. Fourth edition. Four coloured plates and 77 original illustrations. (Demy 8vo; pp. 300. 7s. 6d. net.)

[5] *The Accessory Sinuses of the Nose in Children.* By Professor Dr. A. Onodi, Director of the University Clinic of Diseases of the Nose and Throat in Budapest; with a Preface by Professor Dr. W. Waldeyer. Translated by Carl Prausnitz, M.D., M.R.C.S., L.R.C.P. London: John Bale, Sons, and Danielsson, Limited; Würzburg: Curt Kabitzsch. 1911. (Imp. 8vo, pp. 23, photographs 102. 21s.)

not contended that this indicates the true average frequency of this condition. In a chapter devoted to a consideration of the application to surgery of the results of anatomical investigation, Professor Onodi draws attention to the fact that "we observe more often than in the fully developed cavity a certain amount of blurring and indistinctness of the outline, although the sinus may be perfectly healthy." Reference is also made to the tendency for infectious disease to attack the partially developed accessory sinuses. "In the first years of childhood the value of skiagraphy and the conclusions to be drawn from it, so far as the frontal sinus is concerned, are very limited; this is shown by our results and pictures where, with few exceptions, the sinus in the first years only reaches the lower limit of the basal portion of the squama or exists as a definite cavity only in the interior basal portion of the squama" (pp. 17–18). In view of these observations it devolves upon us all the more to study the other clinical features in our diagnosis, and above all to familiarize ourselves with the anatomy of these cavities in their various stages of development. When dealing with them the surgeon could have no more valuable work of reference than the one now before us. The descriptions of the illustrations which form what is really an atlas, are given in English, French, and German; the text of the work in English.

EMERGENCIES AND MINOR MALADIES.

To use a single word where ten will do is repugnant to a true child of the Fatherland, and accordingly Dr. RICHARD LENZMANN has chosen a lengthy title for his excellent work[6] on the pathology and treatment of emergencies. It has now reached its third edition, and has been translated into Spanish, Italian, and Russian, as we are told in the third of its three prefaces. A great deal of ground is covered by its contents, as the emergencies met with in medicine, surgery, and midwifery are most of them discussed from the point of view of a didactic and highly competent general practitioner. The first section of the book deals with emergencies arising in diseases of the brain and nerves, the second with those of the disorders of the respiratory tract. Then follow sections given to the diseases of the circulatory and digestive systems and the kidneys, emergencies that may occur during pregnancy and the puerperium, and finally come seventy pages devoted to cases of all sorts of poisonings and to the dangers occasioned by anaphylaxis. The book ends with an indifferent index. Dr. Lenzmann writes clearly and at full length, and his book is intended for the general practitioner. One cannot, perhaps, agree with all the statements it contains; Dr. Lenzmann, for example, would diagnose nephritis whenever the arterial blood pressure is found as high as 190 to 220 mm. Hg (p. 475), and he would treat acute oedema of the lungs with cardiac excitants only, and without the use of morphine. But there are singularly few omissions in this carefully written volume, and few directions as to treatment that are not well within the scope of the general practitioner's means. The book may be recommended with confidence to those for whom it is designed.

The third edition of Dr. LEONARD WILLIAMS'S *Minor Maladies and their Treatment*[7] is no less welcome than its predecessors. It contains much, we venture to believe, that the average practitioner has never really learnt or, if so, has forgotten, and in this lies its chief value. Of the vast amount of knowledge that the student of modern medicine is supposed to assimilate, a certain quantity—if we may so put it—is necessarily "bolted," resulting in a not inconsiderable residue of otherwise quite valuable mental pabulum. It is this fact that Dr. Williams has seized upon and turned to such admirable account. He has a knack of picking up these apparently unconsidered trifles and appraising them at their true value. We note, for example, his remarks on the diagnosis of diphtheria. While not disparaging in any way the value of bacteriology in this connexion, he quite properly reminds the general practitioner that, in the absence of knee-jerks and in the presence of albumen in the urine, which are to be noted quite early in the disease, he possesses a corroborative diagnosis too often ignored. He rightly lays great stress upon the far-reaching effects of eye-strain on the nervous system, apart from the occurrence of headache. The chapter on indigestion follows more or less closely modern views on this difficult subject. Quite naturally, but not obtrusively, the author indicates his preference for certain drugs or combinations of drugs in this malady, and although he banishes to the rubbish heap one or two cherished formulae, he provides some excellent substitutes. Without wishing to be accused of preciosity, however, we view the combination of potassium iodide and bismuth with a certain measure of distrust. The wine merchant, who has suffered much at the hands of the profession of late years, will be cheered to read Dr. Williams's strictures on the "whisky and soda school," and will feel grateful for his temperate appreciation of the juice of the grape. The book concludes with a very clear and instructive chapter on insanity, not omitting to mention the procedure necessary in the notification of insane persons, a matter with which the average medical man is not, as a rule, too familiar.

INTERNAL SECRETIONS.

PROFESSOR BIEDL'S book on the *Internal Secretory Organs*[8] has been translated from the German by Miss LINDA FORSTER, and issued with an introductory preface by Dr. Leonard Williams. The exact physiological study of the internal secretions has illuminated the pathology of myxoedema, cretinism, and goitre, of acromegaly, of Addison's disease, of diabetes, and of the sexual life. Professor Biedl has analysed all the experimental work which has been done up to a recent date, and gives the reader what appears to be a complete list of references to the literature in each department of the subject. Professor Swale Vincent's book on the *Internal Secretions*, published by Arnold, and recently noticed in these columns,[9] resembles in its general scope and contents Professor Biedl's work, and the English reader is now supplied with two admirable summaries of the present knowledge of the internal secretions. Each author has enriched his work with the fruits of his own research. The conceptions which result from the study of the organs of internal secretions must, when generally realized, have a profound effect on the ethical opinions of mankind. The atrophy of a small gland such as the thyroid changes a normal child into a stunted and frightful cretinous idiot; the hypertrophy and hyper-secretion of the thyroid produces the over-emotional, restless, and unstable nature of the subject of exophthalmic goitre; an adenoma of the cortex of the suprarenal gland may induce precocious development of the sexual organs in a child of 4, and lead to his expulsion from the kindergarten school for offences against little girls; castration of the child entirely changes the development of the sexual secondary characteristics and the mental and moral nature; the transplantation and successful grafting of an ovary, in place of the complete removal of both, ensures the continuance of menstruation and sexual appetite; the sexual organs of each sex contain developmental traces of the opposite sex organs, and each of us is to a greater or less extent a hermaphrodite in mental nature. A greater tendency towards the characteristics of the opposite sex may lead to non-sexuality, or to sexual perversion, change the life not only of the subject, but of his or her mate, and help to swell the sum of human misery and the work of the Divorce Court. These are the facts which the philosopher, the priest, the politician, and the judge have to grasp. The efficacy of prayer and moral training are powerless to help the cretin, while thyroid tablets will convert him into a normal and useful being. No man by taking thought can add a cubit to his own stature, but he can add many inches to a boy, who is too short to enter the navy, by feeding him with thyroid if the cause of the arrested growth is deficiency of this gland.

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[6] *Die Pathologie und Therapie der plötzlich das Leben gefährdenden Krankheitszustände.* By Dr. R. Lenzmann. Third edition, revised and enlarged. Jena: G. Fischer. 1913. (8vo, pp. xviii and 664. Mk.12.50 paper; Mk.14 bound.)

[7] *Minor Maladies and their Treatment.* By Leonard Williams, M.D., M.R.C.P. Third edition. London: Baillière, Tindall, and Cox. 1913. (Cr. 8vo, pp. 404. 5s. net.)

[8] *The Internal Secretory Organs, their Physiology and Pathology.* By Professor Arthur Biedl. Translated by Linda Forster. London: J. Bale, Sons, and Danielsson, Limited. (Roy. 8vo, pp. 592; price 21s. net.)

[9] BRITISH MEDICAL JOURNAL, October 19th, 1912, p. 1030.

NOTES ON BOOKS.

IN the preface to his book on *Geometrical Optics*[1] Mr. A. S. PERCIVAL states that it is primarily intended for medical students preparing for the preliminary scientific examinations, but that it also contains most of the optics necessary for the ophthalmic surgeon. The work treats of the nature of illumination, pinholes and shadows; reflection at plane surfaces; reflection at a spherical surface; refraction at plane surfaces; refraction at spherical surfaces; and finally of lenses. At the end of each chapter a few examination questions are given for the student to work out, and the answers are contained in an appendix. It will be seen that the theory of the ophthalmoscope and of retinoscopy are not included, and so the book would not be sufficient for a candidate for a diploma in ophthalmology. It is really a mathematical treatise upon optics, and as such is eminently useful to a student who is reading for an examination in pure optics. The subject is treated as simply as possible, and a knowledge of algebra and trigonometry will allow the reader to follow the demonstrations. The author insists that the use of cardinal points—a valuable procedure—has been much neglected, and he treats the solution of the problem in a simpler manner than is customary.

Practitioners of all classes will be interested in the publication of Dr. JOHN B. MURPHY'S *Surgical Clinics*.[2] A number is issued bimonthly and contains the clinical account of various representative cases. The story of each appears to have been taken down in shorthand and published very much in the same language as was used at the clinical demonstration. This method, when carried out in describing the steps of an operation as the various structures are dealt with, is apt to lead to confusion; indeed, the description of many of the operative procedures is ragged. We find, further, that even very simple questions put to the intern—that is, the house-surgeon—and equally simple answers on matters of fact are inserted verbatim. The Socratic method is most excellent in clinical education, but Socratic questions should lead up to something, should conduct the learner gently and by the use of his own reasoning powers along the path of knowledge. Simple facts, such as dates of previous operations, and the temperature of the patient, would better be given in preliminary statements.

"But to return to static treatment," writes Dr. HOWARD HUMPHRIS, when discussing neurasthenia in his *Electro-therapeutics for Practitioners*.[3] And that is what Dr. Humphris is often doing; very frequently does he return to the static treatment. Seven chapters at the beginning of this volume are devoted wholly to static electricity, and elsewhere we find it referred to in connexion with the treatment of many ills, from eczema, herpes, and pruritus, to sciatica, and synovitis, and rheumatoid arthritis, and constipation, and dysmenorrhoea. Some emphasis is placed upon its value in enlarged prostate, and in the form of the static bath it is recommended as an adjunct in the treatment of inebriety. The only considerable section in which there is no reference to this agency seems to be that dealing with malignant disease. Here, apparently, the static machine is impotent, except, of course, as a means of exciting the *x*-ray tube. Dr. Humphris would probably plead guilty to being an enthusiast for the static modalities, and the consequence is that, in spite of the catholic title of the book, the other forms of medical electricity get rather short shrift. But his enthusiasm has, at any rate, given to his essays—for that is how he describes these sharply cut chapters—a refreshingly personal and original outlook. The pages in which he advances his electrical theory of pain, for instance, whether convincing or not, are an oasis in the dry desert of electrical literature, and so is his frank discussion of the failures encountered in this branch of medical healing, with its recognition that there is such a thing as idiosyncrasy to electricity, apart from electrophobia. The incandescent light treatment also occupies a good deal of space, and the author foreshadows, not in so many words, the prospect of a light bath in every home, in which the overworked and sedentary slaves of our latter-day civilization may recoup their energies and regain their tone. The work may not be as comprehensive as a textbook—Dr. Humphris disclaims that description for his modest volume—but it is decidedly more interesting than many.

The British Guiana Medical Annual for 1911,[4] though somewhat late in putting in an appearance, is nevertheless welcome. It contains the following papers: (1) The narcotics and stimulants of the Guianese Indians, by Walter E. Roth (Commissioner of the Pomeroon District; (2) Trichosporosis nodosa, by J. W. H. Macleod, M.D. (reprinted from the *British Journal of Dermatology*, April, 1912); (3) A case of tinea cruris in British Guiana, by J. H. Conyers, M.B., C.M.; (4) Causes of cough, by Mrs. E. M. Minett, M.B., B.S.; (5) The treatment of leprosy by nastin and benzoyl chloride, by E. P. Minett, M.D., D.P.H.; (6) Studies in enteric fever, by K. S. Wise, M.B., B.Sc., D.P.H.; (7) The frequency of *Bacillus violaceous* in the water and milk supplies of British Guiana, by E. P. Minett, M.D., D.P.H., D.T.M. and H.; (8) Reviews of the milk question in British Guiana, by K. S. Wise, M.B., B.S., B.Sc., D.P.H., and E. P. Minett, M.D., D.P.H.; and (9) Myiasis, by F. E. Field, M.D., D.P.H. Part II is devoted to clinical notes. Part III contains the *Transactions* of the British Guiana Branch of the British Medical Association for 1911 and 1912; while Part IV deals with the public health, statistics, and medical institutions of the Colony. Many of the papers are of interest and importance, and are worthy of careful perusal.

The fifth edition of *Physical Diagnosis*,[5] by Dr. R. C. CABOT, is as attractively illustrated as its predecessors. The pictures, indeed, have been considerably increased, and the book as a whole is likely to be regarded in every wise as satisfactory a guide as the earlier editions. It is clear and practical throughout, both qualities being partly due, no doubt, to the principle on which it is written. The author, who is the Assistant Professor of Medicine at Harvard University, does not attempt to describe every method of physical diagnosis ever suggested by any one. In respect of technique he details solely those with which he himself is familiar and has found useful, but sometimes records the information stated to be obtained by other methods. A case in point is the use of electro-cardiograms.

MEDICINAL AND DIETETIC ARTICLES.

An Acetone Soap.

WE have received from Mr. W. Martindale (10, New Cavendish Street, London, W.) a sample of acetone solution of soap. This is a clear stable liquid containing about 25 per cent. of soft soap. The solvent and penetrating properties of the acetone are added to the cleansing properties of the soap, and we have not observed any unpleasant effect on the skin as a result of using it. It will doubtless prove a useful preparation.

Salts of Emetine for Hypodermic Injection.

The observations of Professor Leonard Rogers, recorded in our columns, on the great value of hypodermic injections of salts of emetine in amoebic hepatitis and amoebic dysentery have led to a considerable demand for the pure salts of this alkaloid. We have received from Messrs. Whiffen and Sons, Limited (Lombard Road, Battersea, S.W.) samples of emetine hydrochloride and emetine hydrobromide prepared by them; they are white minutely crystalline salts, readily soluble in water. For hypodermic use the salt employed should be dissolved in sterile normal saline solution. It was for a long time supposed that the value of ipecacuanha in dysentery was due to some constituent other than the alkaloids, and to obviate the vomiting caused by the drug "de-emetinized" ipecacuanha, or ipecacuanha from which most of the alkaloid had been removed, was largely employed, but failed to give the desired results. Professor Rogers's recent observations have shown not only that emetine is the important constituent of the drug in the treatment of dysentery, but also that when given hypodermically it does not usually cause vomiting.

[1] *Geometrical Optics*. By Archibald Stanley Percival. London: Longmans, Green and Co. 1913. (Med. 8vo, pp. 138; figures 59. 4s. 6d.)

[2] *The Surgical Clinics of John B. Murphy at Mercy Hospital, Chicago*. Philadelphia and London: W. B. Saunders Company. (Med. 8vo, six vols. 35s. a year.)

[3] *Electro-therapeutics for Practitioners*. By Francis Howard Humphris, M.D., F.R.C.P.Edin. London: Edward Arnold. 1913. (Demy 8vo, pp. 252; figs. 57. 8s. 6d. net.)

[4] *The British Guiana Medical Annual* for 1911. Edited by K. S. Wise. Eighteenth year of issue. Demerara: Printed by the "Argosy" Company, Limited, Printers to the Government of British Guiana. 1913. (Demy 8vo, pp. 108. 5s.)

[5] *Physical Diagnosis*. By Richard C. Cabot, M.D. Fifth edition, revised and enlarged. London: Bailliere, Tindall and Cox. 1913. (Royal 8vo, pp. 542; plates 5, figs. 267. 15s. net.)

TREATMENT OF FRACTURES.

Preliminary Report of the American Committee.

The American Surgical Association at its meeting in Montreal in 1912 appointed a committee, consisting of Dr. John B. Roberts (chairman), Dr. Edward Martin, Dr. W. L. Estes, Dr. Thomas W. Huntington, and Dr. John B. Walker, to report on the relative value of the operative and non-operative treatment of fractures of the long bones, and on the value of radiography in the choice of the method of treatment.

This committee presented a preliminary report to the meeting of the American Surgical Association held in Washington on May 6th, 1913.

The committee expresses its high appreciation of the value of the report issued by the Fractures Committee of the British Medical Association (published in the British Medical Journal of November 30th, 1912), and in a preliminary discussion of that report points out that in it all recent closed fractures not treated by incision and fixation of the fragments were included in the non-operative category, which, therefore, must have included some cases that not even the ardent advocates of operation would consider proper for operative treatment. The statistics in the operative class of cases referred almost entirely to selected cases under the care of surgical experts, though among the fractures in the non-operative class were some presenting serious general and local lesions, and many treated by practitioners of no special skill in fractures. The members of the American Committee think it possible that the non-operative results would have been better had all the cases been in the hands of experienced surgeons, and had the complicated fractures been eliminated. To obtain a true estimate of the value of the best non-operative means of treating those fractures, they contend that only the best non-operative method should be compared with an operative method used in selected cases by experts.

The American Committee proceeds to point out that the general methods for the non operative treatment of fractures are immobilization, early gentle massage or friction, and an intermediate method, now largely used in the United States, by which a considerable amount of passive and active mobility with friction is allowed early in the treatment of fractures. This method is probably more frequently adopted in the treatment of fractures of the upper than of the lower extremity, because in American hospitals patients with fractures of the upper limb are largely treated as ambulant cases.

In order to afford data for forming an estimate of the relative value of the two methods—the non-operative and the operative—of closed fractures of the long bones of the limb, the circumstances should be the same, and the Committee observes:

The surgical attendant in each case should be equally skilled, the fracture identical in character and situation, and the patients similar in temperament, in environment, and in social and financial standing. Diagnosis in both forms of treatment should be made with the aid of the *x* ray and immediate reduction attempted under anaesthesia and the method of treatment then selected. After a few days the correctness of the reduction should be confirmed by *x* rays, and attention given to active and passive motion of the joints to prevent stiffness occurring as the result of traumatic arthritis, which often happens in fractures, as it does in sprains. Prolonged abstinence from weight-bearing must be insisted upon in fractures of the bone of the lower limb.

The three questions the American Committee set itself to answer were:

I. What should be the routine method for the average general practitioner and those unskilled in surgery as a speciality?

II. What should be the routine treatment for trained surgeons with the usual facilities afforded by small or cottage hospitals?

III. What should be the routine treatment for skilled surgical experts with adequate hospital facilities?

It answers these questions as follows:

For all three classes of medical attendants the Committee believes that *prolonged* immobilization with *continuous* fixation by means of external splints or apparatus should be abandoned. This ancient method frequently leads to bad anatomical and bad functional results. The evil sequels may be caused by concealment of imperfect reduction or by overlooked later deformity from imperfect maintenance of coaptation of fragments. Ankylosis of joints may arise from unrecognized coincident traumatic arthritis or from prolonged immobility of proximal joints. Pressure sores, ischaemic palsy, and gangrene may follow the omission of frequent examination of an exposed limb. This method, fortunately, has long been abandoned by the surgical expert. Some surgeons and medical attendants mentioned in the first class may not yet have replaced the immobilization method by more modern procedures.

I.

For the first class, which includes all those not trained in surgery as a speciality, the Committee suggests the study and adoption of a routine method midway between that of immobilization on the one hand and the mobilization of Lucas-Championnière or the traction method of Bardenheuer on the other. It is believed that either the method of the French surgeon mentioned or that of Bardenheuer, the German expert, probably will be found to require too much skill, experience, and attention to be safe in the hands of those who only occasionally have need to treat the more troublesome fractures. For these general anaesthesia should nearly always be employed for the diagnosis and reduction of the fracture, unless *x* rays are used during the manipulations preceding the application of the fracture dressing. General anaesthesia should always be used by such practitioners in the diagnosis and reduction of fractures involving joints. It alone will solve many difficulties of diagnosis and often simplify the subsequent treatment of the injury.

If reliance is placed upon *x*-ray readings, the study of the skiagraphic plate must be under the direct supervision of a medical man accustomed to both clinical and radiographic examination of bone lesions. The radiographic reports of even expert radiographers alone are not always reliable guides to surgical practice. They must, as other pathological reports, be studied in association with expert surgical experience and clinical observation.

The maintenance of reduction of the fragments should be assured by position, traction, splints, or other easily removable and adjustable apparatus. Splints should be so arranged as to allow easy and frequent inspection of the condition of the fragments and soft parts, and to permit early passive and slight active movements. Moulded splints of gauze and gypsum or other plastic materials fit well, and best fulfil the above requirements. The watchwords for this first class of practitioners are general anaesthesia, plastic splints or traction, frictions, and frequent inspection, early mobility, delay in weight-bearing.

II.

By most trained surgeons in America, restricted by the moderate facilities of small or cottage hospitals, prolonged immobilization has probably been largely discarded already, when they take personal care of the entire treatment of a fracture. This is especially true of patients in private practice. Mobilization, less than that advised by Lucas-Championnière, or traction apparatus, to a less extent than that used by Bardenheuer, varying with the locality of the injury, has been adopted by many, and probably should be adopted by all such surgeons for the usual run of fractures. One or the other method will probably continue to be the routine at the hands of the class of surgeons mentioned in private practice and in small hospitals with moderate facilities.

This opinion suggests, it will be observed, that the operative treatment be restricted to especially rebellious fractures known to be such or found to be such after a very few days' study. This judgement is recorded because of the difficulty under such circumstances of insuring perfect asepsis and sufficient trained assistance.

The troublesome fractures that may with propriety be mentioned as probable candidates for operative treatment are:

Fractures of the surgical neck of the humerus, T-fractures at the lower end of the humerus, fractures of the upper third of the radius, fractures of the upper third of the radius with dislocation of the radial head, fracture of the radius and ulna in the shafts, especially in adults; fractures of the upper third of the femur, supra-condyloid fractures of the femur, fractures of the tibia and fibula near the ankle occasionally. In a general way it may be said that operative treatment suggests itself as the preferable method in any fracture which cannot be properly reduced or retained after reduction.

If operative treatment be selected, the metal plate under absolute asepsis is the final resource, unless open reduction alone, or sutures, nails, or screws be effective.

When reduction of fragments is not easily gained or its maintenance is doubtful, plating will be usually found better than wiring. A few cases will not need direct fixation after the reduction has been accomplished through the incision. The operation should be immediate—that is, within a week or ten days after the receipt of injury. It is, in fact, better to operate within a few hours than to delay even a few days, unless shock or other contraindication requires delay. The method selected by the surgeon within the first week should, as a rule, be continued, if the surgeon be familiar with both operative and non-operative procedures.

III.

As to the routine treatment for skilled surgical experts with adequate hospital facilities, the Committee considers that if prolonged immobilization has not been discarded, the surgeon can hardly be termed a skilled surgical expert in fracture treatment. He is behind the times in the surgery of fractures, though he be a recognized expert in abdominal, cerebral, thoracic, or pelvic surgery or other branches of the medical art. To a fracture specialist with the facilities, a sufficient number of trained assistants, and the other essentials of a well-organized modern hospital, it makes little real difference in morbidity or mortality whether he select the non-operative or the operative plan. The latter, like all aseptic surgical procedures, requires more time, more care, and more conscientious service at the beginning, but makes the after-days easier for the surgeon, less painful for the patient, and less troublesome for the nurses. These surgeons may at times gain great advantages from the use of the fluoroscope while adjustment is in progress.

The time must soon come when metropolitan hospitals will not be considered satisfactorily organized unless fractures are assigned for treatment to specially equipped wards under the care of surgeons particularly interested in the pathology and treatment of these injuries. Gun-stock deformities of the elbow, forearms incapable of full pronation and supination, deformed wrists, valgus ankles, coxae varae, and shortened and crooked femurs all too frequently prove the need for increased surgical skill, perhaps specialism, in the treatment of fractures of the tubular bones of the extremities.

It is probable, though not certain, that consolidation of a fracture takes place a little more slowly after direct fixation of fragments with a metal plate than in a well-reduced fracture under non-operative treatment. The statement that the surgical expert will be able to conduct in safety the patient to the point of recovery with good result in most fractures by either the operative or the non-operative route is only true provided he personally dominates the situation as to reduction, fixation, and after-treatment, and sets the time at which the patient shall be allowed to resume his original occupation. Such a surgeon, if of a mechanical turn of mind, will obtain good anatomical and good functional results in many fractures without blood-letting measures. In others he will not fail to recognize early the need for open reduction and direct fixation, nor will he fear sepsis, haemorrhage, or shock. Similarly he will seldom fail to recognize those cases in which these risks of operation outweigh the benefits likely to be obtained through it. Then some of his patients will be treated by non-operative methods, and may, perhaps, show poor anatomical restoration of the skeleton, as well as bad functional use of the injured limb. They will, however, live.

If, on the other hand, this expert have more liking for operative surgery and a mind less mechanical in its attitude toward fracture repair, he will apply operative procedure to a greater number of fractures than will his colleagues above mentioned. He will, however, equally recognize those cases in which operative surgery of the blood-letting kind has no place.

The report of the American Committee concludes by suggesting to Fellows of the Surgical Association a series of questions to which they might give attention, with the object of presenting succinct reports of the result of their inquiries two months before the next annual meeting of the American Surgical Association.

THE Royal Dental Hospital, Leicester Square, has received a donation of £400 from the trustees of Smith's (Kensington Estate) Charity.

THE Board of Management of the Metropolitan Convalescent Institution announces that at the Home for Adults at Walton, near Weybridge, 24 beds are now provided for patients requiring surgical treatment after operation.

SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE, 1913.

SECTION OF STOMATOLOGY.

THE Stomatological Section will hold its meetings in the lecture theatre of the Royal Dental Hospital, Leicester Square.

The following discussions have been arranged:

The pathology and treatment of peridontal disease. To be opened by Dr. N. N. Znamensky and Mr. E. B. Dowsett as reporters.

The relation of nasal obstruction to dental disease. To be opened by Dr. Jules Ferrier and Mr. J. G. Turner.

Dental disease in relation to public health, which will be introduced by Dr. Harold Williams and Dr. J. Sim Wallace.

A discussion on the supervision of the health of children between infancy and school age will be held conjointly with the Section of Hygiene and Preventive Medicine. Mr. W. W. James will report on behalf of the former Section, and Dr. Leslie Mackenzie on behalf of the latter.

The final discussion of the meeting will be on reflex and functional disturbances in connexion with teeth, Drs. Rousseau-Decelle and A. W. W. Baker being the reporters.

The papers to be read include the following:

The enamel organ and its products, by A. S. Underwood and A. W. Wellings, assisted by T. G. Brodie and Lovatt Evans.

The relation of mouth conditions to cancer of the alimentary canal, by Mr. F. St. J. Steadman, founded on an extended clinical investigation of cases in various London hospitals.

Dr. J. Zilz, of Hungary, will read a paper on general infection via the tooth pulp, and Dr. Besson will discuss suppuration in the temporal fossa of mouth origin.

Mr. K. Goadby will contribute a paper on arthritis deformans of mouth origin.

There will be a clinical demonstration at the Royal Dental Hospital on Monday, August 11th, at 5 p.m., of cases of interest collected from the various dental hospitals in London. It is anticipated that between seventy and eighty patients will be shown. In addition there will be an exhibition of pathological specimens and stereoscopic skiagrams. To this gathering the Stomatological Section will welcome any members of the congress.

Some special entertainments have been arranged. A dinner will be held at the Hotel Metropole on Friday, August 8th, and on Saturday the President of the Section will give a garden party at Phyllis Court, Henley.

The President of the Section is Mr. Morton Smale and the Secretary is Mr. J. F. Colyer, 11, Queen Anne Street, W.

A SCHEME FOR MEDICAL ATTENDANCE ON WORKMEN.

WITH the concurrence of its workmen the Metropolitan Water Board applied for exemption from the Insurance Act, and submitted to the Commissioners a scheme which was accepted by them. While giving the men better terms than they would have received under the Act, it does not provide for medical attendance. Most of the 3,000 workmen were in clubs, into which they paid 1d. a week for medical attendance, and it was found that they were willing if they had free choice of doctor to continue paying this 4s. 4d. per annum if the Board would pay the difference between that sum and the amount agreed to by the Board's district medical officers. After conferences with the doctors and the men a subcommittee of the Board recommended the following terms, which have been provisionally accepted by all concerned:

1. An inclusive payment to the doctor of 10s. per annum for each man on his list, this sum to include attendance, medicine, and all certificates required by the Board.
2. A payment of 3s. 6d. for first aid and a special fee for serious surgical cases.
3. Every medical practitioner who, on April 1st, 1913, was attending not less than twenty-five of the Board's permanent employees to be included among the medical officers.

The total estimated cost of the scheme is £1,500 a year, and of this sum the men will contribute about £625.

This scheme was entered into with good will by the Board, the doctors, and the workmen, was carried out in a spirit of give and take, and ultimately accepted by the representatives of all concerned as a good working compromise. It is in pleasing contrast to the bungling and irritating schemes of the Insurance Commissioners in too many instances.

Nova et Vetera.

PROVERBIAL MEDICINE.

PROVERBS ON ARTICLES OF FOOD—BREAD AND CHEESE.

MOST of the ordinary articles of food make their appearance in one or more of the proverbs which are in common use; in this way their chief characters, or their supposed characters, are emphasized, and some at least of these are medical in their nature. A beginning may be made with bread and cheese, although "some folk by nature do abhor cheese," and others hate cats, perhaps for no better reason.

Swift, in *A Tale of a Tub*, makes Peter say, "Bread, dear Brothers, is the staff of life"; and this saying must be a very old one. Homer, in the *Odyssey*, speaks of bread as the "marrow of men" (*μυελὸς ἀνδρῶν*); and Matthew Henry, in his *Commentary* on the Psalms (Ps. civ), says: "Here is bread which strengtheneth man's heart and therefore is called the staff of life." Lean[1] also has found "staff of life" in Howell's *Parley of Beasts*, published in 1660. Well, too, does the writer remember a reproof he received when a child for passing a piece of bread to a guest on the sharp end of a knife: would you offer the staff of life on the point of death? The paramount position in nutritional values which is occupied by bread is recognized by its name being sometimes used as synonymous with subsistence or means of livelihood; and "to take the bread out of one's mouth" or "to know on which side one's bread is buttered" have another meaning than the strictly literal one. Lean[2] quotes from Havergal's *Herefordshire Words and Phrases* this distich:

> Bread when you're hungry, drink when you're dry,
> Rest when you're weary, and Heaven when you die;

and it is true that most of life's pressing needs are thus supplied.

But one can have too much even of a good thing, although Rosalind asked, "Why, then, can one desire too much of a good thing?" and Herrick sings:

> Bad are all surfeits, but physicians call
> That surfeit took by bread the worst of all.

Perhaps the reason is to be found in the binding tendency of bread—at any rate, of white bread—for does not brown bread help to check constipation? There is a proverb which gives no uncertain sound on this matter—namely, "Bread's a binder, wealth's a miser; drink down care and thou art wiser"; Lean quotes it from Brathwayte's *Barnaby's Journeys*.[3]

New bread is difficult of digestion and does harm, and yet all over this country the bakeries are at work at two o'clock in the morning to supply freshly-baked bread! There is a French proverb[4] which warns against too new bread: it runs thus: *Le pain de nuit Grandement nuit*—that is to say, last night's bread greatly hurts; or, to make a rhyme for the nonce, Last night's baking sets you aching. In another language there is a similar saying: *Nacht broot is een letsel groot;* and an Italian proverb[5] seems to refer to the pain in the back due to indigestion, for it reads: *Quando se taia pan frescho, se fa doler la schena a quei che lha fatto.* Peter Lowe,[6] writing more than 300 years ago, gives counsel on the kind of bread which should be preferred: "Good breade of wheate, that is neither over new, nor too stale, as counsaileth Avicen; for over new and hote bread doth digest evill, altereth the body, and ingendereth obstructions, sending vapours and fumes to the head." Again, W. Ellis, in *The Modern Husbandman*, ascribes great force to new bread, and quotes the saying, "New beer, new bread, and green wood will make a man's hair grow through his hood," whatever that terrible result may be.

There are proverbs which define exactly the best age of bread for eating. Bohn (in his reprint of Ray) gives "Bread of a day, ale of a month, and wine of a year"; and two French proverbs (both from Joubert's collection) read, *Pain d'un jour, vin d'un an, farine d'un mois*, and *Oeuf une heure, pain d'un jour, chair d'un an, poisson de dix*. Lowe, again, gives the reason why too old bread is not good: "It drieth too much and remaineth long in the stomacke." To digest bread of a fortnight old calls for an insatiable hunger; at least, that is what Meurier's proverb of the sixteenth century seems to mean, *A pain de quinsaines, faim canine de trois semaines*. Proverbs, however, are not at one on this question of stale bread. In a play of Ben Jonson,[7] Peter Onion says to Antonio, "My mind to me a kingdom is"; Antonio answers, "Truly a very good saying." Onion then says, "'Tis somewhat stale, but that's no matter," and Antonio goes further: "O, 'tis the better, such things ever are like bread, which the staler it is the more wholesome." Bullein[8] says both are to be avoided: "And also bread muste neither be eaten new baken, nor very stale or old, for thone causeth drynesse, thirst and smoking into the hed, troubling the brains and eies, through the heat thereof. The other drieth the body and bringeth melancoly humours, hurting memori. The best bread is that which is of a day old, and the loves or manchets may neither be greate nor little, but mean." We may leave the virtue of stale bread undecided; probably there are two opinions about it to-day even.

There are differences of opinion, too, regarding the grain which makes the best bread. To quote Robert Burton, "By profession a divine, by inclination a physician," we find the following:[9] "Bread that is made of baser grain—as pease, beans, oats, rye, or overhard baked, crusty, and black—is often spoken against, as causing melancholy juice and wind. Joh. Mayor, in the first book of his *History of Scotland*, contends much for the wholesomeness of oaten bread. It was objected to him, then living at Paris in France, that his countrymen fed on oats, and base grain, as a disgrace; but he doth ingenuously confess, Scotland, Wales, and a third part of England, did most part use that kind of bread, that it was as wholesome as any grain, and yielded as good nourishment. And yet Wecker (out of Galen) calls it horsemeat, and fitter for juments than men to feed on." This quotation, by the way, seems to cast some light on Johnson's famous definition (now proverbic in force) of oats: "A grain which in England is generally given to horses, but in Scotland supports the people," and on Lord Elibank's repartee which it provoked, "Very true, and where will you find such men and such horses?"[10] Dr. Johnson, it is well known, was an enthusiastic student of Burton, and the latter's *Anatomy* was the only book that ever took him out of bed two hours sooner than he wished to rise. It is more than likely that the sentences quoted above were in his mind when he defined oats. Burton,[11] in another place, names the Chinese as "scoffing at our Europeans for eating bread, which they call tops of weeds, and horse-meat, not fit for men." Well, well, every one to his taste; but it is to be remembered that "all breads are to be eaten, and all maids to be wed."

"Bread with eyes and cheese without eyes" is a Spanish proverb, given by Ray; and Bullein[12] says, "The lighter the bread is, and the more full of holes: it is the holsomer, as Averrois and Rasis saye"; this we take to mean that light bread and solid cheese are best. But what, we wonder, is the origin of the superstition, "A hollow loaf is a sign of death?" Is it because it is hollow like the tomb, or because it betokens a scarcity of grain? In this connexion it may also be asked why it is a bad omen if bread-and-butter fall on the buttered side; and why it is unlucky to take the first slice or outside of a loaf—the so-called "loun's piece." Perhaps the buttered side is more likely to have the dirt of the floor adhere to it, perhaps it is impolite or selfish to take the first slice; but these are hardly convincing explanations. Ramsay's proverb, "Broken bread makes hale bairns" is a puzzling one, too. Why should the fragments left from a meal make healthy (whole) children? Of course the verbal point of the proverb lies in the contrast between broken

[1] Lean's *Collectanea*, vol. i, p. 479, 1902.
[2] Ibid., p. 478.
[3] Ibid., vol. i, p. 480, 1902.
[4] Ibid.
[5] Ibid., vol. ii, p. 177, 1903.
[6] P. A. Lowe, *Discourse of the Whole Art of Chyrurgerie*, 2nd edit., p. 44, 1612.
[7] B. Jonson, "The Case is Altered," Act I, Sc. I; *Plays*, vol. ii, p. 666, Everyman Edition.
[8] W. A. Bullein, *A Newe Boke of Phisicke;* the Governement of Health, p. 186, 1558.
[9] R. Burton, *Anatomy of Melancholy*, Part I, Sect. ii, Mem. ii, Subsect. 1.
[10] Boswell's *Johnson*, Birkbeck Hill's edit. i, p. 295.
[11] Burton, Ibid., Subsect. 3.
[12] Bullein, W., *The Government of Health*, p. 186, 1558.

and whole; but the saying may perhaps have been meant for the pampered child, who turned away his head from plain bread and demanded cake. There is another Scots proverb, "A bread house skailed never," meaning that a house with bread in it is never empty; it is used, says Wright,[13] "when we have bread and perhaps want something finer."

After all has been said, we shall come back to this, that bread is of the first importance. In *Don Quixote* is the old Spanish saying, *Todos les duelos con pan son menos* (All sorrows are less with bread). Burton[14] says, "S. Hicromo esteems him rich that hath bread to eat" (*Satis est dives qui pane non indiget*); and in Juvenal[15] we read: "Two things only the people anxiously desire, bread and the circus games" (*Duas tantum res anxius optat, panem et circenses*). The Herefordshire distich (quoted above) has its counterpart in the Italian proverb,[16] *A fame pane, a sete aqua, a sonno panca* (For hunger bread, for thirst water, and for sleep a plank or bench); and there is a French saying,[17] *Pain le meilleur metz à qui a faim* (Bread is the best dish to him who is hungry). "Bread at pleasure, drink by measure" is a good motto; and "Better halfe a lofe than no bread" is a piece of worldly wisdom.

That "ever famous Thomas Moffet,[18] Doctor in Physic," has preserved for us two proverbs of the Elizabethan age both touching upon bread, and both with a medical flavour in them. Dr. Moffet, for so his name is to be spelt, and not Muffet or Mouffet, was very high in his praise of bread; he never saw, read, or heard of any man that naturally hated it; it is, he thought, the staff of life, without which all other meats would either quickly putrefy in our stomachs, or sooner pass through them than they should, whereupon crudities, belly worms, and fluxes do arise to such children or persons, as either eat none or too little bread; it is never out of season, disagreeing with no sickness, age, or complexion, and therefore truly called the companion of life; it neither inflameth the choleric, nor cooleth the phlegmatic, nor overmoisteneth the sanguine, nor drieth the melancholic; it also best nourishes both man and beast; is mentioned in Genesis and in the Lord's Prayer; and indeed, "all troubles are easie with bread, and no pleasure pleasant without bread." Here are his two proverbs: "Money and bread never brought plague," and "Bread and cheese be the two targets against death." Of course it is possible that the plague of the first of these sayings simply means any trouble or annoyance not necessarily of the nature of a disease, and it is hardly likely that it signifies the great plague; but yet it may indicate a malady of some kind. The second proverb is very interesting, for it gives us the verbal picture of a man defending himself against his Apollyon with a shield or buckler in each hand, one of bread and the other of cheese! Whether he is thus "lock'd up in steel" against all death's darts may be doubted; but there is no denying that much may be done on bread and cheese, and in the case of bachelors, with kisses added, so goes the adage.

Cheese has been mentioned in alliance with bread, and the alliance is a good one; but the proverbs on cheese are important enough to be considered separately. There is one at least which comes into conversations pretty often and has quite an up-to-date peptonizing sound about it, although exactly what it means would form a hard question in a physiology examination paper. "Cheese is a peevish elf, It digests all things but itself." In this proverb the phrase "peevish elf" may be taken to mean a perverse, obstinate, contrary sort of little creature, freakish in his behaviour, doing for others in the matter of digestion what he will not or cannot do for himself. The writer, when a child, well remembers a story he was told to explain this mysterious statement about cheese; it was a story which fixed itself firmly in his mind, probably by reason of its gruesome ending, and possibly, who knows, turned his young thoughts to the art of healing. It was about a very clever but somewhat eccentric and rough spoken doctor; there seemed to be a fashion in that particular type of medical man in those days. A child was ill, and the doctor was sent for; he was busy (confinement case it may be, such things being commoner then than now) and could not go, but inquired what the child had been eating. He was told it was cherries—a great many of them. "Then give him cheese," was the voice of the oracle. The child grew worse, and the anxious parents sent again; the doctor, still busy, asked if his orders had been carried out, found they had not been, and again repeated them, "Give him cheese." The child, however, was not given cheese, and died. The doctor then came along, but too late: "Why did you not give him cheese?" Then, to show that he had offered the best advice, so the story went (becoming a trifle blood-curdling to the lay mind), the doctor cut open the little one's stomach, revealed the cherries lying there in a heap, called for a piece of cheese, put it on them, and immediately they were seen to melt away.

There are two medical maxims[19] of the School of Salerno, one at least of which has a bearing on the "peevish elf" proverb. The one is *Caseus est nequam quia concoquit omnia secum*, or "Cheese is bad because it digests all other things with itself;" and the other is *Caseus est sanus quem dat avara manus*, or "Cheese is wholesome when given with a sparing hand." The former is evidently another version of the saying about cheese digesting everything but itself; and the latter seems to refer to the fact that cheese is a highly nutritious form of food, to be taken, therefore, in moderation. Both ideas appear in the position commonly assigned to cheese in a meal, expressed in Ray's laconic proverb, "After cheese comes nothing." Lean[20] has found a sort of rhyming version of this in Franck's *Northern Memoirs*—namely, "Cheese after meat prohibits other dishes, and after shellfish rarely other fishes."

There is a medical flavour in a number of other proverbs about cheese. Lean is our source for a saying found in the Harleian MSS. (6395), "Cheese is physic for gentlemen and meat for clowns"; the "fees" in the adage "Bread and cheese for the sound are good fees," are probably perquisites, wages, or rewards. Cheese is also conjoined with bread in the Latin proverb, *Caseus et panis sunt optima fercula sanis*, and with an onion in the other Latin one, *Caseus et cepe veniunt ad prandia saepe;* about butter and about fruit as well as about cheese it has been said "Gold in the morning, silver at noon, lead at night." Two French proverbs emphasize the wisdom of eating little cheese or none at all, namely, *Fourmage qui moins en mange est tenu le plus sage*, and *Jamais homme sage ne mangea fromage;* but if a man must have his cheese with his bread then another French proverb says, *Pain legier, pesant fourmage, devez toujours prendre si vous estes sage:* and Howell gives "White loaf and a hard cheese never shames the master."

For a proper appreciation of the meaning of some of these old sayings about bread and cheese, it is almost necessary to know the varieties of bread and the characters of the cheeses which were eaten in the days of the Tudors or even earlier. The white, brown, and black breads of the past; the white, wheaten, and household breads; the rye, oaten, barley, maslin (mislin), and mongcorn breads; and cheeses innumerable have ceased to be found in the common language of a people who buy their bread from the baker and their cheese from the grocer, and have almost forgotten that their ancestors baked and worked in their cheeseries.

There is the old proverb, "To believe that the moón is made of green cheese," but although one has a general idea of its meaning it is unlikely that many know exactly what green cheese is. It is not called green, says Boorde,[21] "by the reason of colour, but for the newnes of it, for the whey is not halfe pressed out of it." There were four cheeses in those days, green, soft, hard, and spermyse, whatever the last named may have been. Then, again, the well-known saying, "as like as chalk to cheese" (meaning, of course, that it is unlike) loses its point, if we think of some of the modern fancy cheeses. Still, we have a fair notion of what Tom Hood meant when he sang of Miss Kilmansegg's adulators, "Flatterers make cream cheese of chalk, they praised—how they praised—her very small talk, as if it fell from a Solon."

[13] Wright, *English Dialect Dict.*, vol. v, p. 236.
[14] Burton, *Anat.*, Pt. ii, sect. iii, Mem. 3.
[15] Juvenal, *Satires*, x, 1, 80.
[16] Tommaseo, quoted by Lean, *Collect.*, i, p. 480
[17] Meurier, quoted by Lean, ibid.
[18] Moffet, T., *Healths Improvement*, p. 236, 1655.
[19] King, W. F. H., *Classical and Foreign Quotations*, p. 75, 1889.
[20] Lean, *Collectanea*, vol. i, p. 502, 1902.
[21] Boorde, *Dyetary*, xiii, 266, 1542.

Addison, in the *Spectator*,[22] has some very interesting remarks upon antipathies, and cites cheese as one of the things which some people cannot abide. Some of these persons, he wrote, "offered to our consideration the miraculous Powers which the Effluviums of Cheese have over Bodies whose Pores are disposed to receive them in a noxious Manner; others gave an account of such who could indeed bear the Sight of Cheese, but not the Taste; for which they brought a Reason from the Milk of their Nurses." In this connexion one wonders how much the threats launched against us in our childhood's days have to do with the antipathies of later years: many of us still remember the vague sense of something terrible happening if we ate too much cheese. There is an Italian proverb,[23] too, which carries a terrible warning to the child who eats cheese or too much of it: *Il caccio fa romperle scarpette e ingrossar la lingua*. Certainly it is very alarming to think of any foodstuff bursting our shoes and making the tongue swell up! Perhaps this is the origin of the saying which the writer remembers being discharged at him when he was a boy and a lover of cheese, "You may eat cheese and choke."

We must bring these rambling remarks on bread and cheese proverbs to an end with two adages which illustrate once more the two views of cheese—that it is good, and that it is bad unless taken in great moderation; the one is, "You may eat bread and cheese till you become hungry again," and the other is, "A pennyworth of cheese is enough."

Before, however, we leave the subject altogether, let us hear Dr. Thomas Moffet;[24] we have taken his views upon bread; what has he to say about cheese?

> Now if the Butter be at Market when the Curds or Cheese is prest at home, then are they both utterly unwholsom, clamming the stomack, stopping the veins and passages, speedily breeding the stone, and many mischiefs; but if they be equally mingled with the butterish part, then the Cheese made thereof is wholsom, unless age or ill-housewifery hath made it bad: For new, sweet, and fresh Cheese nourisheth plentifully; middle-aged Cheese nourisheth strongly, but old and dry Cheese hurteth dangerously: for it stayeth siege, stoppeth the Liver, engendereth choler, melancholy, and the stone, lieth long in the stomack undigested, procureth thirst, making a stinking breath, and a scurvy skin: . . . But was not that a great Cheese think you, wherewith Zoroaster lived in the Wilderness twenty years together, without any other meat? or rather was it not most cunningly made or preserved, when at twenty years end it did eat as soft as at the first day? Which though some do think impossible, yet the Parmisan of Italy will prove it true, by age waxing mellower and softer, and more pleasant of taste, digesting whatsoever went before it, yet it self not heavy of digestion. Our Essex Cheese, being well handled, would in my judgement come next unto it. . . . The Irishmen, like to Plinies Barbarians, have not yet so much wit as to make Cheese of Milk; and our Welshmen want cunning to make it well. French Cheese in Plinies time tasted like a medicine; but now the Angelots of Normandy are counted restorative; which many of our Gentlewomen (and especially a Niece of mine own) have so well counterfeited, that they excell their first pattern. Spain hath forgotten the art of Cheese making; and Portugal makes them but indifferently well, though sometimes the best in the world were made at Cuna, near to Cape Vincent. . . . As for our Country Cheeses, Banbury and Cheshire yields the most, and are best; to which the Holland Cheeses might be justly compared, if their makers could but soberly put in salt.

There was published in 1599, by a certain Henry Buttes, a book called *Dyets Dry Dinner*, in which a good deal was put forward in praise of tobacco; but the author had something to say about cheese as well as the "weed nicotian." Here it is: "They that have best leisure, and love cheese best I would wish them to write an Apology in defence of the common dislike thereof why so many love it not." But these remarks are growing wearisome, and the writer must desist, lest the reader say to him, as Sir Hugh Evans[25] said to Simple: "I pray you, be gone: I will make an end of my dinner; there's pippins and cheese to come."

[22] *Spectator*, No. 538, Nov 17, 1712.
[23] Lean, *Collectanea*, i, p. 501, 1902.
[24] Moffet, T., *Healths Improvement*, pp. 131-133, 1655.
[25] Shakespeare, *Merry Wives of Windsor*, Act. i, Sc. ii, 11-13.

UNDER the will of the late Miss Helen Margaret Greswell of Oxford, the Radcliffe Infirmary receives a bequest of £1,000.

THE FUTILITY OF THE CORONER'S INQUEST.

THE discussion of Dr. Brend's paper, entitled "The Futility of the Coroner's Inquest" (BRITISH MEDICAL JOURNAL, May 3rd, p. 940), was resumed at the meeting of the Medico-Legal Society on May 20th.

Sir FREDERIC HEWITT said that he had intended to speak on the subject from the point of view of one who was interested in the use of anaesthetics, but he was so much impressed with Dr. Brend's paper that he desired to extend the scope of his remarks. He regarded that paper as a most valuable contribution to the subject, and there was no doubt it made out a strong case for reform. The verdict of the coroner's jury sometimes contained some valuable information, but generally it was quite useless. In most cases in which inquests were held there was much unnecessary mental suffering entailed, without any adequate return from the public point of view. After vacillating for some years, he had come to the conclusion that inquests were of no use in relation to deaths under anaesthetics. In collaboration with a London coroner who also took a particular interest in this subject, he had prepared a series of questions to be administered to medical practitioners at inquests of this character, but even the statistics so obtained were wholly useless. The time had in his (Sir Frederic's) judgement arrived when some action should be taken. He agreed with Dr. Brend's proposals. To have a medical inquiry in the first instance would enable most valuable statistics to be compiled.

Mr. G. C. GARDINER said that the chief charge Dr. Brend appeared to make against the present system was that deaths frequently formed the subject of a dual inquiry, but that was no real objection. Inquests were of more importance now than they were in days gone by. Many inquests had to do with death by accidents. Liability for the accident was not the question. Recently the Home Office had instructed its solicitors to appear and report at every inquest relating to a motor accident. The chief object, therefore, of these somewhat informal inquiries was not to settle who must pay damages but how could such accidents be prevented in future. It had been stated by Dr. Brend that coroners' verdicts were ignored by insurance companies, but many cases never reached the courts. The information elicited at inquests was frequently made use of by the insurance companies. As to medical evidence, he advocated an autopsy by an independent medical man, preferably a public official, and suggested that the medical evidence should be that of independent persons. As to the proposed reforms, it was already difficult to obtain medical certificates. How much more difficult would it be to get the practitioner in a poor district to give evidence which would have the effect of preventing a poor widow getting compensation! Personally he would be inclined to enlarge and not restrict the function of the coroner's jury.

Dr. J. SCOTT said that a strong case had been made out for altering the functions of the coroner. Speaking as one who had had considerable experience at the Old Bailey, he was far from saying that inquests were useless. In the Central Criminal Court he found the coroner's depositions very valuable, especially when he was inquiring into the state of mind of a prisoner. The coroner could call the prisoner's wife as a witness, while a court of law could not. On the whole he thought that the second of Dr. Brend's proposals was the better. He had not had much experience of Scottish inquiries, but agreed with Dr. Brend that there was very little disadvantage in having the private inquiry.

Mr. A. M. FOOKS said that public inquiries were essential. A large percentage of the inquests held concerned the poorer classes of the community. From their point of view publicity was of vital importance by discovery of suspicious circumstances and preventing abuses. The English system was preferable to the Scottish. It was only by accident that the Ardlamont mystery was revealed in Scotland. Had the case arisen in England it would have been discovered at once in the ordinary course. Although his experience as a coroner had not been very long, he had noticed an improvement in the treatment of children, and he believed it was largely due to the influence

of the coroner's inquest in giving publicity to dangerous methods of treating children. Dr. Brend had said that "criminal courts are nearly always guided by the magistrate's decision." Only a fortnight before he had a case in which the inquest showed conclusively that the shot which caused death was accidental. The person who had fired the gun was before the magistrate, and as a result of the inquest the prisoner was at once discharged. The question usually raised at an inquest was such as was best decided by a jury. He had often felt grateful to a member of the jury who evinced special knowledge of the building or some other trade.

Dr. MORGAN FINUCANE said he entirely disagreed with Dr. Brend. What was necessary was the attachment of a specialist to each court. In the early days the coroner was a high judicial officer. The coroner's function was performed untrammelled by the laws of evidence. He and his jury had to inquire "to the best of their skill and knowledge." In compensation cases he fully appreciated the enormous advantage of having an independent pathological examination. He regarded the coroner's court as a progressive institution, although he admitted that the procedure might be improved.

Mr. HERBERT SMITH, LL.D., said that his experience at the Bar led him to desire the abolition of coroners' courts. Only recently he had appeared at an inquest at which his client was found guilty of gross negligence without his advocate having had the right to address the court. Such a verdict might give rise to expensive litigation. In criminal courts, if the grand jury threw out the bill, and counsel attempted to proceed on the coroner's inquisition, what would the judge say to him? Coroners' courts did not attend to the rules of evidence, but if the verdicts returned were to be judicially recognized the inquiry should be conducted judicially.

Earl RUSSELL, whose remarks concluded the discussion, said that sufficient weight had not been attached to Dr. Brend's statistics, but he could not agree with Dr. Brend's conclusions. The object of the coroner's inquiry was to allay public apprehension. It also served to fix liability upon some one. If a mere legal inquiry was begun at once there would be no "fishing" inquiry, and that would be a disadvantage. The suggested scientific inquiry was a counsel of perfection from the point of view of the general public, which looked to the coroner to make sure that a number of undetected murders did not occur. Another advantage was that at an inquest a man was put on oath soon after the event. In his view Dr. Brend had been led astray by a desire to formulate a scientific system.

Dr. BREND, in reply, said that those who had criticized his observations had founded themselves upon experience of London coroners. It should not be forgotten that country coroners' inquests were often conducted in a slipshod manner. Only a medical man could properly understand medical terms. In translating his evidence into simple English, which was necessary if the coroner was a layman, the medical witness was bound to lose some of his accuracy. The complaint that no coroner appeared to have any principle on which to go in deciding whether to hold an inquest or not had not been met. He regarded the suggestion that an expert pathologist should be present as an admission that the present system was defective.

UNDER the will of the late Mr. Isaac Danson of Boston the General Hospital, Birmingham, receives a bequest of £1,250 for the endowment of a bed in memory of the testator and of his sister, Jane Danson.

AN attempt is to be made to determine the standard of physical development of the normal American child. It was announced on April 28th that the New York Milk Committee, with the help of a number of recognized experts from different States of the Union, have undertaken the task. For the purposes of the investigation a series of competitive examinations of normally healthy children will be held in county, city, and State contests. One hundred thousand children will be scientifically tested and measured, and the weight, height, physical measurements, condition, and mental development will be entered on cards furnished by the committee. Prizes will be given to encourage the mothers, who will also be afforded opportunities of instruction in the art of rearing children. It is hoped that by these investigations the standard of the normal healthy American child will be established beyond dispute.

LITERARY NOTES.

MESSRS. OLIPHANT, ANDERSON, AND FERRIER announce a volume on the late Dr. Joseph Bell. The identification in the public mind of the well-known Edinburgh surgeon with Sir Arthur Conan Doyle's "Sherlock Holmes" has, since Dr. Bell's death, given more and more weight to the mistaken presentation of a good man's personality. A volume of reminiscences written by an old friend of Dr. Joseph Bell will, it is stated, "show his absolute unlikeness, save in one respect, to Conan Doyle's masterpiece."

Advantage is to be taken of the occasion of the opening of a new hospital at Toronto to publish an account of the General Hospital of Toronto. That institution was, according to the *Canadian Practitioner*, established by means of funds supplied by the Loyal and Patriotic Society in 1812. The medals struck for the heroes of the war of 1812 were never issued, but were melted down, the bullion sold, and the proceeds handed to the hospital. A complete history of the hospital will be published for the first time, and it is expected that it will form an interesting contribution to Canadian history as well as to hospital literature.

The Cambridge University Press will shortly publish Mr. F. Kingdon Ward's record of his experiences and observations when engaged in plant collecting in Western China and South-Eastern Tibet during the year 1911. The book, which is entitled *The Land of the Blue Poppy*, is not one for botanists only; the author has many interesting tales to tell of the Tibetan people, amongst whom he often played the part of medicine-man, receiving presents of milk and eggs as his fee. A number of maps at the end of the book show the exact districts—some of them not visited before by white men—covered by Mr. Ward in his travels; the book will contain also forty photographs taken by the author. The book is dedicated to the memory of the author's father, Professor H. Marshall Ward.

The W. B. Saunders Company, of Philadelphia and London, has in active preparation a work on the *History of Medicine*, by Dr. Fielding H. Garrison, Principal Assistant Librarian, Surgeon-General's Office, and editor of the *Index Medicus*. The book, which will be in one volume, will give a concise account of the evolution of the healing art from primitive times, the story being carried on through Egyptian, Sumerian, and Oriental medicine, Greek medicine, the Byzantine period, the Mohammedan and Jewish periods, the mediaeval period, the period of the Renaissance, the revival of learning and the Reformation. Then the history of modern medicine is related—the seventeenth century ("the age of individual scientific endeavour"), the eighteenth century ("the age of theories and systems"), the nineteenth century ("the beginning of the organized advancement of science"), and the twentieth century ("the beginning of organized preventive medicine") being successively passed in review. The account of each period will be followed by a brief survey of its social and cultural phases. There will also be appendices covering the medical chronology, the histories of important diseases, the histories of drugs and therapeutic procedures, and the histories of important surgical operations, with bibliographical notes for collateral reading. The book will be illustrated.

"Alba," writing in the *Aberdeen Weekly Journal* of May 9th, says that Dr. John Brown's *Horae Subsecivae* had been anticipated, so far as the title is concerned, by another Edinburgh physician, Dr. John Fletcher, lecturer in physiology and medical jurisprudence in the Argyle Square School of Medicine. The book was published in 1833 by John Carfrae and Son, 62, South Bridge, Edinburgh, and was entitled *Horae Subsecivae; or First Steps to Composing and Conversation on Medical Subjects in Latin Language*. Dr. Fletcher died in 1834, and there is a tablet to his memory in St. John's Episcopal graveyard, Edinburgh. After Dr. Fletcher's death a posthumous work of his entitled *Rudiments of Physiology, or a General Treatise on Organism and Life*, was published in 1835. In some of the reviews of the book Fletcher was

described as the most original thinker and writer on medical subjects of his day. John Brown was then a young medical student, and probably attended Fletcher's prelections, but beyond the title, there was no likeness whatever between the two books. Duport published *Musae Subsecivae* some 200 years before, and Paley his *Horae Paulinae* in 1790; but Latin titles to English books have deservedly fallen into disuse now. The Americans, in their reprint of Dr. Brown's book, translated the title and called the book *Leisure Hours*.

Dr. W. L. Storey (Belfast) writes: Dealing with Latin misquotations, you very pungently observed, in "Literary Notes" in the JOURNAL of April 26th:

> That Latin as written by many journalists and authors is a dead language is sufficiently shown by the corrupt fragments so freely strewn about certain kinds of current literature.

But what about our own language? Specimens of the English tongue have been handed down to us in original bottles, but many of the present-day writers and speakers refuse to dispense them until they have altered them by additions of their own. The result is that the full effect of the original is lost, and a malodorous composition foisted on the public, "though every nare olfact it not." Shakespeare, perhaps, suffers more from sophistication than any other great original. Take a few samples: "The ills that flesh is heir to," "Screw your courage to the sticking point," "Make assurance doubly sure," "Such stuff as dreams are made of," "There is a Providence that shapes our ends," "The sere and yellow leaf." Milton, too, has been adulterated—for example, "Fresh fields and pastures new," "That last infirmity of noble minds." Cowper's generous hospitality has been reduced to "The cup that cheers," while Keble's duties have been altered to "The common round, the daily task." Possibly one of the most generally accepted substitutes is "A little knowledge is a dangerous thing." The Bible itself has not been left alone by our dispensers. We are assured that the British workman earns his bread by the sweat of his brow, as did Adam. But is this the exact wording of Adam's curse? "There is nothing new under the sun," except the surprise some people will experience if they refuse that imitation and insist on having Solomon in the original. Was it some facetious K.C. or Q.C. who first told us that "in the multitude of counsellors there is wisdom"? An unsuccessful litigant will not subscribe to this declaration. Indeed, he will find it difficult to accept the statement even in the original.

Readers of *Pickwick* will remember that Mr. Robert Sawyer refused the offer of a head for dissection on the ground that he could not afford expensive luxuries. In resurrection days prices of bodies ruled high, but we were told by a distinguished professor of anatomy who had been a student during that period that the cost to students was not appreciably higher than it is now, the school paying the difference. In an article in the February number of *Aesculape* Dr. Marcel Fosseyeux, of the Paris Assistance Publique, who has access to the archives of the Assistance Publique and the manuscripts in libraries relating to old Paris, gives a number of facts as to the price of bodies in the seventeenth and eighteenth centuries. In a memoir presented to the Académie des Sciences in 1785 by Tenon on the hindrances to the progress of anatomy one of the principal of these is said to be the difficulty of getting bodies for dissection. To remedy this drawback he proposed to establish dissecting rooms communicating with the mortuary of the Hôtel-Dieu, so as to avoid the exhumation and transport of bodies. He estimated at 500 the number of subjects necessary for the instruction of students at that day, and putting the price of each body at 6 francs he said a sum of 3,000 livres a year would have been available for the payment of the hospital attendants whose duty it was to take the remains to the cemetery after dissection, or in case of need for prayers for the repose of the souls of the original owners of these fragments of humanity. Two kinds of persons supplied bodies to anatomists for anatomical purposes —students who wanted them for their own use, and men who looked for profit from a dangerous trade. Often it was necessary that the students should co-operate with the resurrection men in order to direct them and prevent scandals which these men, almost always drunken, were only too apt to cause. Frequent complaints were addressed to the office of the Hôtel-Dieu by people living in the neighbourhood of the Clamart Cemetery, whose rest was disturbed by the raising of bodies at night. This was not the only subject of complaint. It was not always easy to get rid of the remains. Some cremated the bones, then the neighbours complained of the foul-smelling smoke; the soft parts were thrown into privies, making these even more horribly insanitary than they always were; or into the Seine. Fragments stopped by rafts or boats caused terror among the people always ready to suspect crimes. In the archives of the Bastille are recorded the doings of a student of the Charité who, accompanied by a porter and six soldiers, used to break after midnight into the cemetery of Saint Sulpice, where he raised bodies and took them away in a coach. He gave 10 francs to each of his assistants, and the price at which he sold the bodies was on an average 150 francs. In the seventeenth century there is evidence that bodies cost 40, 80, and even 100 livres. Sometimes the price went up to 250 francs. For dissections students paid 40 sous the first year, 20 the second, 10 the third. After that no further payment was required. A Bachelor of Medicine, elected every year, and known as the "archdeacon," was charged with the duty of getting hold of the bodies of people who had been executed and of having them buried after the demonstrations and dissections. There was often much unseemly haggling over these bodies, although the charges to be paid had been fixed by Parliament in 1632. The law was invoked, but the "archdeacon" often paid what was demanded so as to fulfil his contract.

The fourth annual *Year Book of the Viking Society for Northern Research*, recently published, contains a full account of the proceedings of the society during the year 1911–1912. Many interesting discoveries that throw light upon domestic life and customs during the Viking period are here described; one of them reveals the ingredients used by the cooks of that period in the making of their household bread. Under the heading "Notes and Queries" we read that "Dr. Schnittger, professor at Stockholm University, has made an interesting find relating to the remote past of his country at Ljunga, in Eastern Gothland—namely, some bread dating from the time of the Vikings. Microscopical examination has shown this bread to be made from pine bark and pea meal, thus proving that peas were grown in Sweden as far back as a thousand years ago." It seems to prove also that their staple article of diet must have been a fruitful source of appendicitis to the hardy Norsemen, or else that they were blessed with better teeth and stronger digestions than their more weakly descendants. The Ljunga loaf is not the only specimen of ancient bread exhumed by Dr. Schnittger, who, in the course of the excavation of Boberg Castle five years ago, dug up a loaf dating from the fourth century of the Christian era. With these two exceptions, however, few finds of this kind have been made in Northern Europe, though several prehistoric loaves have been discovered from time to time in the Swiss lake dwellings and in Egypt. The contents of the *Year Book* also includes some excellent reviews of current literature, and a short account by Dr. Haakon Schetelig of Captain Hj. Negaard's recent discovery of a number of stone huts in the mountains of Western Norway. These huts, which belong to the Stone Age, are said to have been the dwelling-places of a prehistoric race of hunters, who inhabited the lonely plateau in the mountains between Hardanger and Hallingdal, and whose only means of supporting life must have been the reindeer still found in considerable numbers in certain parts of Norway.

Sir James Paget, in an introductory address delivered at St. Bartholomew's Hospital in October, 1863 (*Memoirs and Letters*, edited by Stephen Paget), warned his hearers that they must be prepared for the apparent success of dishonesty. He added:

> In our department of social life, as in all others, the supply of rogues is duly proportioned to that of fools. For the most part medical dishonesty is but the complement of non-medical folly. Therefore until there is a widespread teaching of natural science there probably will always be much success in quackery.

We are glad to find so strong a confirmation of what we have always insisted upon—that the only cure for quackery is the education of the public. This will, as Lecky said, create an atmosphere in which superstition and credulity cannot live.

British Medical Journal.

SATURDAY, MAY 24TH, 1913.

THE FRIENDLY SOCIETIES' CONFERENCES AND THE MEDICAL PROFESSION.

THE members of the medical profession are apparently not the only people concerned with the National Insurance Act who have a difficulty in acquiring a taste for its "rare and refreshing fruit." The friendly societies, judging from the reports of their Whitsuntide conferences, are succeeding in at least dissembling their enjoyment very creditably. We can quite understand their feelings of soreness. When the bill was first talked about, it was understood that the friendly societies were practically to have a monopoly. Their representatives went about with advance drafts of the bill in their pockets and a smile of great contentment on their faces, but during the progress of the bill a change came over the scene. The friendly societies found that the collecting and industrial societies, with no claim based on past history, but by superior commercial ability and influence, had managed to secure a very handsome share in the administration of the Act. Moreover, since the beginning of the operation of the Act duties have been imposed on the friendly society officials to which they were little accustomed, and which must have proved a source of much irritation. We can therefore quite understand that the societies met this Whitsuntide in a somewhat resentful spirit and prepared to vent their resentment on somebody. The Chancellor of the Exchequer, of course, was the subject of some bitter reflections, and the Commissioners were told, more in anger than sorrow, that they knew nothing about the business they are supposed to administer.

Mr. Lewis, of the Hearts of Oak, with the most engaging candour, indicated that the Commissioners required careful watching by a "lively, keen body of men," of which we presume Mr. Lewis might be induced to become one. He also gave hints, by no means obscure, to Sir Robert Morant that the eyes of the Hearts of Oak were upon him, and that unless that gentleman mended his ways he would soon get his marching orders. We trust that Sir Robert will give this warning such attention as it may deserve. Mr. Lewis wound up by expressing the opinion that the Government had made a mistake in not giving the administration of medical benefit to the approved societies, as they could have done it much better and more cheaply than the Insurance Committees. Mr. Lewis is, however, prepared to give the Government another chance of doing the proper thing in the forthcoming amending Act.

Probably it has not occurred to the gentlemen who made speeches of this kind at the various conferences, nor to those who applauded them, that any desire they may conceive the medical profession to have had to see medical benefit administered by the friendly societies—and of any such desire we have found no evidence—is not likely to be increased by these petty exhibitions of meanness and wrath at the loss of opportunities of patronage which have escaped the friendly societies, for ever. How much cheaper would the societies like to make medical attendance for the insured person? He pays four-ninths of the original 6s. estimated for medical benefit, the rest of the 6s. being found by the employer and by the State, and an extra 2s. 6d. by a special State grant. That is to say, the insured person himself pays 2s. 8d. per annum for his medical attendance, medicines and appliances, as against an average cost to himself in days before the Act of 4s. per annum if he were a member of a friendly society, and probably more if he were a private patient. The less the representatives of the friendly societies say about the cost of medical attendance the better, considering their own record in the way of sweated rates against which the Association has so long and so successfully protested. But it is really not so much the cost of medical attendance which is worrying the friendly society official, though doubtless he thinks some of the money which now goes to the doctor might well have been spent in some other way—the encouragement of the hard-worked friendly society official, for example. The real thorn in the flesh is the fact that the friendly societies have lost their control over the profession. No longer is it possible for a doctor who does not "keep in with" the officials of a lodge to find that by means of the clumsy wire-pulling of a little coterie he is to lose at one swoop the whole body of club members. The contract practice doctor has regained his freedom to an extent which can never be understood by those members of the profession whose first experience of contract medical work has been gained in the insurance service. There are irksome restrictions inherent in all contract practice, but, thanks to the work of the Association, these have been greatly reduced under the Act compared with what they were in friendly society club work. If a medical man unwittingly offends a person on his insurance list, the trouble only entails the loss of that person, and perhaps a few of his immediate relatives, just as would happen in private practice, whereas in the old days it might have meant the loss of the whole membership of a club numbering hundreds. If a complaint were made against a friendly society doctor, he might or might not have an opportunity of meeting it; but the final decision on which his tenancy of the appointment rested lay with a body of laymen without any admixture of his professional peers. We say this, not as loving Insurance Committee control more but as loving friendly society control less—a lesson taught by long and bitter experience. It is not that the friendly societies did not know all this, but when they had it in their power to remove many of the grievances of those members of the medical profession who served them, they refused; yet they appeared to be surprised when the profession declared with one voice for Insurance Committee control, for any control in fact, rather than that of the friendly societies.

The efforts of Mr. A. H. Warren at the conference of the Manchester Unity of Oddfellows at Scarborough excite special admiration. He was in fine form, and made what is described in the *Yorkshire Post* as a "slashing onslaught on the medical profession." He complained bitterly of the House of Commons, who with only seventeen exceptions agreed to hand over the administration of medical

benefit to the Insurance Committees, and said this administration was now less satisfactory and less efficient than at any previous time. Warming to his subject, he said, "deliberately," that in the eyes of the friendly societies the doctors had played a most despicable part, and when the history of the British Medical Association on this question came to be written it would not be regarded as a credit to a great and honourable profession. The line taken by the profession was quite unaffected by any praise or blame it might receive from the friendly societies, and when Mr. Warren went on, as he did, to accuse the doctors of not playing the game fairly, of treating their insurance patients like paupers, of taking their money but not being willing to work for it, he overreached himself. Where is the evidence that the insured persons are not receiving proper treatment? If any such instances are produced we shall be the last to defend such lapses. If any one is in a position to hear of these abuses it should be the various bodies of Insurance Commissioners. We challenge Mr. Warren to apply to those bodies for the production of any cases justifying the statement he makes and to lay them before the public. The fact is Mr. Warren and his fellows cannot rid themselves of the obsession that insured persons are unable to look after their own interests but need the protection of the friendly societies. When will they learn that free choice of doctor gives the insured person all the protection he needs, and in fact places him on the level of the duke whose only protection is that if he is not satisfied with the attention he receives he can change his doctor? So can the insured person, and we venture to say that any abuses of the nature mentioned by Mr. Warren, if they exist at all, will be righted by the full play of the principle of free choice of doctor. That is the safeguard of the insured person, and not anything which the Manchester Unity can do for him. We would, however, remind Mr. Warren that accusations of not playing the game come with a singularly bad grace from one who was a party to the bargain made by the friendly societies with the Association that the aged and infirm members of those societies should be attended at the same rate as is charged for insured persons. Mr. Warren was present at the conferences, and there is no doubt that he was one of those who thought they had done a good stroke of business when they got the bargain embodied in the Act; yet he has been prominent amongst those who have tried ever since to evade the friendly societies' side of the bargain. The profession has not sunk so low that it needs to take its lessons on "playing the game" from persons who act in this way. Mr. Warren wound up by moving "that in the opinion of this Annual Conference the National Insurance Act should be so amended as to restore to approved societies the right to administer medical benefits under the Act." This resolution was, of course, carried unanimously. We know how the Association convinced the Chancellor of the Exchequer that friendly society control of medical benefit had been a bad thing in the past, and would damn his bill if persisted in. We know how the House of Commons almost unanimously endorsed that opinion, and we have little fear of the result if the question is again raised, but the transfer is in our opinion already outside the range of practical politics. As to the action of the medical profession we have no doubt. Whatever differences of opinion there may be in the profession in regard to other points in connexion with the Act, there are absolutely none in regard to this, and we can confidently assert that there would be no difficulty in bringing about an almost complete breakdown of the medical benefits of the Act if the Government were so misguided as to trust their administration to the approved societies. The profession has had a long experience of that kind of refreshing fruit, and its motto is, "Never again."

THE PLACE OF HYGIENE IN TREATMENT.

THE old time apothecary, whose extinction has recently been deplored by Lord Rosebery, was an example of a system which tended to foster overconfidence in the efficacy of drugs. Medical counsel was an imponderable to which no value was attached unless it was expressed in the concrete form of pills and potions; charges for medicines were recoverable at law, but professional advice had no place in the apothecary's account. Sir William Gull considered it one of the best achievements of his life that he with Sir William Jenner disabused the public mind of the notion that drugs were the beginning and end of medical treatment. We remember his saying publicly that during the whole time of the severe attack of typhoid which nearly robbed the nation of the future Edward VII, not a single dose of any medicine whatever had been given. His prescriptions were habitually of extreme simplicity, and he once said that if every drug in the world were abolished a physician would still be a useful member of society.

How far the medical mind has travelled on this path is shown by an address recently delivered by Dr. C. Mongour, Professor of Therapeutics at Bordeaux.[1] He says that the importance of drugs has diminished as the applications of physiotherapy have developed. Our notions of therapeutics now depend on the nature and evolution of diseases, and on the natural means of defence which the organism possesses. Acute maladies which run a definite course—measles, scarlatina, typhoid fever, bronchitis, pneumonia, erysipelas, and so forth—have a natural tendency to spontaneous cure. Even tuberculosis, when it takes an acute pneumonic or broncho-pneumonic form, tends, he maintains, to get well. He suggests that this may, perhaps, explain why specific drugs appear more efficacious in acute than in subacute or chronic forms of tuberculosis. He asks why we make war on the symptoms which constitute the normal manifestation of an infection. His answer is, Because we are still under the sway of the old notion that every morbid reaction is an evil which must be suppressed forthwith as an exciting cause of organic lesions. But, he points out, the symptoms may be factors in the curative process. For instance, in typhoid fever the pyrexia, he thinks, hastens the destruction of morbid germs; the temporary constipation, by immobilizing the intestines, lessens the risk of perforation; and the want of appetite prevents overloading with undigested material. He adds his testimony to that of those who insist on the harmful influences of antipyretics, purgatives, and aperients, used as matters of routine in the treatment of acute affections. In many cases even of such affections as acute diseases of the liver, of the biliary passages and the kidney, ulcer of the stomach, and

[1] *Province médicale*, 1912.

appendicitis, there is a natural tendency to cure. His doctrine is that the physician must respect the natural means of defence in the organism, and that, in short, the true scientific attitude is, to use a phrase erroneously attributed to the late Lord Salisbury, "animated expectancy." But to maintain this attitude judiciously one must know well the normal course of diseases, and how to distinguish a regular from an abnormal morbid reaction. Professor Mongour denies that he is a nihilist in therapeutics, and admits the difficulty of the position of the doctor, who is credited by patients and those about them with the power of curing disease by means of drugs. He is expected to "do something." This conviction, says Professor Mongour, must be respected, and he recognizes that at certain times and for special reasons antipyretics, analgesics, and hypnotics are often necessary.

He complains of the neglect of the expectant method. Whereas the hour for a draught or a cachet is not often forgotten, it is exceptional for friends to obey the directions as to feeding strictly, to attend rigidly to the hygiene of the sick chamber, to take the temperature regularly, and to collect the whole of the urine that is passed. In these things the doctor often meets with an indifference or a covert opposition which discourages him. His drug treatment may not be discussed, but the family will criticize his hygienic directions, and if anything goes wrong it is that part of the treatment which will be blamed. Chronic diseases have no tendency to spontaneous and definite cure, but they have periods of rest in their evolution, provisional cures which can be prolonged by opportune intervention, and this often, of course, consists in advising hygienic measures.

His address is not a depreciation of drugs, but a plea for still greater reliance on hygiene and physiotherapy. Diet, which is only one form of this, is, he says, neglected in the treatment of chronic disease, because we have not yet acquired the habit of methodically and regularly testing the functional capacity of the different organs by means of the procedures which the clinical laboratory places in our hands. But functional testing thoroughly carried out means an expenditure of time the patient is not disposed to compensate and the expenditure of efforts which he does not appreciate. It is extremely difficult, too, to get a regimen adhered to, and often, owing to social or personal conditions, it is practically impossible to expect it to be carried out; in such a case its severity must be mitigated.

We take it that professional opinion is largely agreed that over-drugging is a bad thing, but it is quite easy to go to the other extreme. Some of the distrust of drugs is to be traced to the employment of preparations of uncertain stability or inferior quality. At the same time, it will not be denied that what may be called the hygiene of disease is too much neglected by the public, owing to the persistence of prejudices which are not easy to overcome. Most patients of all classes are not quite satisfied unless they get a prescription. Man seems to have a craving for medicine. Sir William Osler says: "Heroic dosing for several generations has given his tissues a thirst for drugs. As I once before remarked, the desire to take medicine is one feature which distinguishes man the animal from his fellow-creatures. It is really one of the most serious difficulties with which we have to contend. Even in minor ailments which would yield to dieting or to simple home remedies, the doctor's visit is not thought to be complete without the prescription." Patients expect it, even those among them who scoff most at physic and boast that they throw their medicine out of window. Why in such cases they should go to the expense of buying it is one of those contradictions in human nature which we must leave the psychologists to explain. But although that kind of polypharmacy which gave rise to the "small-shot prescription" is dying a natural death among doctors, there are still a good many who have a remedy for every symptom. Practitioners of this class are particularly ready to prescribe new remedies with names of "learned length and thundering sound." Hardly has a new synthetic product made its first bow to the public than they hasten to use it. They order it indiscriminately, till, more or less quickly, the truth is forced upon them—first, that there are disadvantages attending the use of the new elixir; next, that its benefit is doubtful; lastly, that it is useless. It is this eternal cycle that led Broussais to tell a patient to make haste to take a certain medicine while it was still in the curative stage, *Hâtez vous de prendre ce remède pendant qu'il guérit.*

Of course the opposite course is equally to be avoided; doing too little is, perhaps, worse than doing too much. Expectant treatment must not lend itself to the application of the line:

Rusticus expectat dum defluat amnis.

Our aim must be to make diagnosis more and more accurate, and by experimental research to discover remedies and the means of applying them with accuracy so that they shall produce the exact effect that is wanted. In a word, our pharmacopoeia should be an armoury of weapons of precision, used with the knowledge gained by clinical observation made surer by the growth of physiology and pathology. In this way, and in this way alone, can therapeutics strengthen its position as a science.

AN ACTUARIAL STUDY OF SANATORIUM STATISTICS.

AT the present time work throwing light upon the value of the sanatorium method in the treatment of pulmonary tuberculosis is of peculiar importance, and a recent paper of Messrs. Elderton and Perry[1] is of interest in this connexion. The writers, who are professional actuaries, have been provided with data from several sanatoriums, the principal series being derived from the records of Dr. Lawrason Brown at Adirondack, and from material extracted from the case-books of the late Dr. Austin Flint relating to phthisical patients seen between 1845 and 1870. The authors analysed the records in the following way. A certain life table (The English Life Table, No. 6) was used as the standard, and the data were tabulated into a number of groups, regard being had to sex, age, and number of years under observation. A comparison was then instituted between the number of deaths observed and the number to be expected on the basis of the life table used. The subdivisions employed in the case of the Adirondack records were as follows: Three sets of one thousand each were taken; the first comprised patients admitted between 1885 and 1897; the second fell between 1897 and 1904; and the third comprised admissions from

[1] *Drapers' Company Research Memoirs; a Fourth Study of the Statistics of Pulmonary Tuberculosis: the Mortality of the Tuberculous; Sanatorium and Tuberculin Treatment.* Based on (1) Dr. Lawrason Brown's Adirondack Sanatorium Data; (2) Data from two Scottish Sanatoriums; (3) Dr. Austin Flint's Data from Presanatorium Days. By W. Palin Elderton, F.I.A., and Sidney S. Perry, A.I.A. London: Dulau and Co. 1913. (Med. 4to; pp. 55. 3s. net.)

1903 to 1909. Each thousand was then subdivided into (1) incipient, (2) advanced, (3) far advanced cases. These groups correspond roughly, but not exactly, to Turban's three stages.

The authors find that in almost every group the rate of mortality diminished on passing from the first to the third thousand; thus the ratio of actual to expected deaths for incipient cases (females) was 2.7 for the first thousand, 2.5 for the second, and 1.0 for the third, the number of years at risk being reckoned from the date of admission to the sanatorium. For advanced cases the corresponding figures were 11.4, 10.7, and 7.9. For far advanced cases the rates were 50.3, 48.3, and 8.0, but the last ratio was based on a very small number of patients. The authors believe that a different selection of cases has had a good deal to do with the improved experience, that the incipient cases in the later experience may have been less advanced than the same group in the first thousand. Taking the last 2,250 cases admitted, the ratios for incipient, advanced, and far advanced cases were 3.6, 10.0, 36.8 for males, 2.3, 10.4, and 45.4 for females. Flint's patients, allotted as far as possible to the same clinical groups, gave 13.9, 18.4, and 106.0 for males and 9.1, 37.2, and 90.0 for females. There were, however, very few incipient cases in the Flint series, and, as the authors point out, a comparison between this and more recent experience is fraught with difficulties. Thus, to mention but one drawback, a modern English life table is perhaps hardly an appropriate standard of mortality even in the case of contemporary American lives, it is certainly inappropriate in the case of persons living some half a century ago, because the mortality at the ages principally involved has markedly diminished.

The writers have also applied their method to those cases in the third thousand from Adirondack which had been treated with "TBF" or "TBF Co" ("Broth Filtrate" and a mixture of "Broth Filtrate" and "Bacillary Emulsion"). The incipient cases so treated showed a slightly lower and the advanced cases a slightly higher mortality than those of the third thousand as a whole.

A comparison is also instituted between the mortality experiences of patients classified in other ways. It is found, for instance, that the mortality of patients with tubercle bacilli in the sputum was more than twice as heavy as that of patients whose sputum did not contain the bacillus, and that the mortality of those suffering from the disease was not heavier if their parents also had the disease. As the authors are careful to point out, this last result has no bearing on the question whether the offspring of phthisical parents are or are not more likely to develop the disease than the children of healthy persons.

The main conclusion which emerges from this patient inquiry is that we can hardly base a decided judgement as to the real value of modern methods of treatment upon existing data. The impression any reader derives from a perusal of Messrs. Elderton and Perry's memoir can hardly fail to be coloured by his personal predilections. Professor Karl Pearson, who contributes an introductory note, pleads for the expenditure of a "few thousand pounds on a more thorough study of the origins of phthisis and of the relative value of existing and alternative treatments." Most medical readers will be in sympathy with this plea, even if they have some misgivings as to whether the difficulties in the way of a compilation of adequate statistical data may not be greater than can be overcome even by the expenditure of many thousand pounds.

That a task is difficult is not, however, any reason for declining to undertake it, and it is satisfactory to observe from its final report that the Departmental Committee on Tuberculosis was alive to the importance of statistical research; its recommendations are now, we understand, receiving the careful consideration of the Government, and it is probable that an announcement as to the steps proposed to be taken will be made before very long. The scientific study of medical statistics has advanced by leaps and bounds in the last few years, and it is not too much to expect that before long a more satisfactory statistical stock-taking of our tuberculosis results will be practicable. When that time arrives, Messrs. Elderton and Perry's pioneer work will not pass without recognition, and in the meantime their suggestive paper will be useful both to the student and the general reader.

THE HOSPITAL CLINICAL UNIT.

MR. GREY TURNER has printed in a pamphlet an interesting address he gave last October as President of the Newcastle-on-Tyne Clinical Society. It is the outcome of the visit made to certain surgical clinics abroad by an informal club of British provincial surgeons, who, beginning with various centres in this country, have extended their range to Berne, Vienna, Paris, and some other places. The pamphlet, which has the title, *What English Surgery Needs*,[1] may be read with particular interest at the present moment by London teachers and old London students, for what Mr. Turner considers we need in this country is the highly organized and amply staffed clinic hospital unit which the Royal Commission on University Education in London has recommended as the proper basis for the medical faculty of the reformed University. The system has advantages and disadvantages, and if its adoption meant the abandonment of the English system of progressive appointments for students the loss would be greater than the gain to the student if not to the progress of medicine and surgery. But it need not mean this, as the Commissioners take care to point out. Mr. Turner gives most of his space to the clinics of Kocher in Berne and von Eiselsberg in Vienna. Of the needs of British surgery the two chief are, in Mr. Turner's opinion, first "recognition by performance"—that the universities, to get the best teaching in the clinical subjects, should go into the open market of all the men who speak the language, as they have already learnt to do in regard to professors of anatomy, physiology, and pathology. The second great need is adequate assistance—a graded staff to work with the professor and more or less under his guidance and his inspiration. Already we have moved some way in this direction. A surgeon and assistant surgeon if they work together, with a surgical registrar, house-surgeon, assistant house-surgeon, dressers, and clinical clerks, would form such a unit easily capable of expansion. The greater part of the staff exists and some at least of the material, but expansion and better organization are needed so as, in particular, to afford more time and greater facilities for the study of the problems of disease with all the assistance modern laboratories can provide, and to permit the utilization of the whole system for the education of the students in principles. The chief danger of the system of university clinical hospital units is that, unless effectively controlled by the governing body of the university, it may throw far too much power and patronage into the hands of a single dominating personality. This is not an imaginary danger, as the history of some great European centres sufficiently proves. There is the risk of crushing independence, and producing conditions which favour the

[1] *What British Surgery Needs.* Newcastle-on-Tyne: Easey and Best. 1913. Reprinted from the *North of England Clinical Journal.* (For private circulation.)

pliant rather than the original mind. We do not want to copy slavishly the German or Austrian, and still less perhaps the French system, but it seems clear that the growing complexity of medicine and surgery make it necessary that we should learn from them some of the lessons in organization they have to teach.

TUBERCULIN TESTS IN ANIMALS.

DURING the experimental work carried out by the Royal Commission on Tuberculosis many tuberculin tests were applied to a variety of animals, and the results systematically recorded. A carefully prepared summary of these has now been issued as a supplementary volume to the final report of the Commission.[1] It is believed that it will prove of value not only to the laboratory and farm investigator of tuberculosis, but, in view of the increasing employment therapeutically of tuberculins in the tuberculosis of human subjects, to the clinical physician also. The report has been written by Dr. L. Cobbett and Dr. Stanley Griffith, by whom, along with Dr. F. Griffith, the tests were made. In the preparation of the report Mr. Cyril Fox has given much assistance by making detailed analyses of the immense number of records. The first part of the report discusses the tests applied to the ox, pig, goat, horse, dog, cat, rabbit, fowl, and various species of apes and monkeys. In this, perhaps, the most interesting information given is as to the reliability of the tests as a proof of the presence or absence of tuberculosis. According to the standard of reaction adopted, 88.8 per cent. of the 250 tuberculous bovine animals tested reacted, while of 1,217 normal animals of the same species 0.4 per cent. only reacted. In the case of tuberculous pigs (53 animals) the percentage of reactions was the same as that obtained in the tuberculous ox, while among 136 tests on normal pigs no reactions occurred. Of the tuberculous goats (21 animals) no fewer than 95 per cent. reacted, while of 70 normal goats tested, 3 (4.3 per cent.) reacted, but 2 of the reactions occurred in kids, in which the temperature is notably unstable. Ten tuberculous horses only were tested and all reacted; 23 normal horses were tested and none reacted. These figures show that the tuberculin test, while not infallible, is nevertheless sufficiently constant in its action to afford a means of diagnosis of great practical value for the large domestic animals included in this first group. In tuberculous animals of the other species investigated the tuberculin test proved very inconstant in its action, especially in the case of the monkeys and apes. Of 32 tuberculous dogs 14 reacted, and of 11 tuberculous cats, 6. The results in rabbits and fowls were similar, and the general conclusion is that in this second group of animals the tuberculin test as employed is of little practical value. Stress is laid on the importance, when looking for a reaction, of taking the temperature sufficiently early and sufficiently often. In order not to miss in the ox and pig reactions which end unusually early, or begin unusually late, it is necessary to record temperatures every three hours from the sixth to the twenty-first hour after injection. In the goat it would seem to be permissible to begin at the ninth hour. The importance of taking the temperature often is due to the fact that the rise may be of very short duration, producing a "steeple curve." Since such steeples may reach their highest point as early as the sixth hour and as late as the twenty-first hour, it would seem advisable to take temperatures even at the third and twenty-fourth hours, in order that when a curve of this kind occurs records of the temperature before and after the maximum may be at hand to support it. In this way fallacies due to an error in a single observation would be avoided. Some experiments on the results of successive injections of tuberculin in tuberculous animals, chiefly bovine, were also made. They showed that for the most part tuberculous bovine animals might react more than once to tuberculin, even when the injections followed one another at intervals of a few days. Sometimes a second reaction might be even more marked than the first, though usually it was less prolonged. As a rule, the capacity to react showed a progressive diminution with successive injections, and in many it became completely exhausted. It persisted longest in animals with general tuberculosis—that is, in animals in which the disease was in all probability active. The experiments did not give any certain answer to the question whether capacity for reacting when once completely exhausted was later on regained.

[1] H.M. Stationery Office (through any bookseller). (Cd. 6796. 5s. 7d.)

ANTITYPHOID INOCULATION.

THE final report of the Antityphoid Committee, appointed by the Army Council in March, 1904, to investigate the practical prophylactic and therapeutic value of current methods of immunization against enteric fever, has been issued this week. An immense amount of research work has been quietly carried out by the committee, and valuable statistical data have been collected by officers of the Royal Army Medical Corps attached to units to make the inoculations and to observe the results. Much of the work has already been published, mainly in the *Journal of the Royal Army Medical Corps*, but this report gives a complete summary. We may direct attention to the following points: The first subject investigated was the development of immunity against the typhoid bacillus as shown by the quantitative estimation of the antibodies produced; the agglutinins, bacteriolysins, and bactericidal substances were all found to be much increased as a result of inoculation with a typhoid vaccine. The next subject to be investigated was the most efficient way of killing the bacteria. Chloroform, alcohol, tolulol, and glycerine were tried, but were not found to be altogether satisfactory. Lysol 0.25 per cent. sterilized a culture in twenty-four hours without reducing its immunizing properties. Exposure to a temperature of 53° C. for one hour was found to be the most satisfactory procedure; after the culture has cooled to room temperature 0.25 per cent. of lysol is added, to minimize the risk of subsequent contamination. The relative efficacy of vaccines prepared in different ways was also thoroughly investigated, both by measuring the development of protective substances in the blood and by determining the degree of protection which the different vaccines conferred on animals against multiple lethal doses of virulent typhoid bacilli. The vaccine prepared according to Sir A. E. Wright's method was found to be the most satisfactory. Many attempts were made to devise a simple method of standardizing the vaccine; a modification of Sir A. E. Wright's method of counting the number of bacteria in a given volume has been finally adopted. An important point which has been cleared up is the effect of storing the vaccine and of exposure to heat on its keeping qualities; after six months considerable deterioration takes place in its immunizing properties. The effect of swallowing the vaccine was also investigated; unfortunately this simple plan has been found to be too uncertain in its results to warrant its general adoption. The reaction which follows inoculation is much increased in severity by fatigue, exposure to the sun, or by the ingestion of alcohol. For statistical purposes the histories of 19,314 soldiers, whose average period of service abroad was twenty months, were carefully followed, and in all cases of typhoid fever every care was taken to verify the diagnosis bacteriologically. Of this number 10,378 were inoculated, and 8,936 were not inoculated. The case incidence of typhoid fever among the inoculated was 5.39 per mille, and among the non-inoculated 30.4 per mille. A subcommittee composed of Dr. James Galloway, Dr. R. Foord Caiger, and Sir William Leishman, investigated the medical history sheets of 258 undoubted cases of

typhoid fever. Of this number 202 were not inoculated and 56 were inoculated. The cases were divided into two main groups, the mild and the severe, including fatal cases; among the inoculated men 66.1 per cent. of the cases belonged to the mild group, and only 33.9 per cent. to the severe group. Among the non-inoculated men only 29.3 per cent. of the cases could be placed in the mild group, while 70.7 per cent. were classed as severe. The committee recommends that the protective inoculation against typhoid fever should be extended as much as possible, or better, be made universal, and that research work on this subject should be continued. It may be noted that inoculation against typhoid fever is now compulsory for everyone under 45 years of age in the American Army.

THE SOUTH AFRICAN INSTITUTE FOR MEDICAL RESEARCH.

The ceremony of initiating the building of the South African Institute for Medical Research, to which allusion was made in our issue for April 16th, was performed at Johannesburg on the last day of the following week on a site on Korte Street, not far from the General Hospital. The estimated outlay on building is £32,500, and towards this amount and the cost of its equipment the Witwatersrand Native Labour Association has furnished £40,000, while the Provincial Government gave the ground. The same two bodies will also for the time being provide between them a small annual sum by way of income for the institute. Two foundation stones—one inscribed in English, the other in Taal—were laid by Sir Kendal Franks, C.B., who subsequently delivered a short address. He had been invited, he said, to perform the ceremony because he was President of the South African Committee of the British Medical Association, a body which had members scattered all over South Africa and represented the medical profession as none other could. Hence it was the whole medical profession of South Africa which was honoured by the invitation accorded him to perform the ceremony, and it deeply appreciated the fact. Around the stones which he had laid would be raised a building dedicated to the good of mankind and the preservation of human life. The work done in it would, it was hoped, lead to the discovery, first, of the causes of the diseases chiefly affecting South Africa, and then of a means of freeing the land from these scourges. Such objects had been attained elsewhere, and could be attained in South Africa. What the revolution brought about in surgery by the discoveries of Pasteur and Lister had done for mankind was well known. When the same theories were applied to medical diseases the results were obtained more slowly, but they were none the less revolutionary. The problems to be solved were numerous, and bristled with difficulties, and had to be investigated separately. The prolonged, accurate, and patient investigation required could only be carried out in an institution such as was now to be erected. In regard to diseases of animals, a similar institution already existed at Pretoria, and was doing work which had in many instances spelt salvation for the farmer and his stock. An address was also delivered by Dr. Watkins-Pitchford, who is to be medical superintendent of the institution. The pessimistic outlook which in the past had called for the establishment of homes for the incurable had changed, he said, to an optimism which demanded the provision of institutions for medical research, and by the foundation of the future institution South Africa had placed itself in the front rank of civilized nations. Industrial diseases and those commonly associated with the aggregation of people in South African towns, compounds, and camps, would receive special attention, and inquiry would also be made into any subject pertaining to the domains of medicine and surgery and public health. The wards provided would give facilities for the systematic observation of the results of disease. Modern statistical methods would be employed, and a library and museum relative to the special objects of the institution be acquired. Since the mining industry attracted natives from all parts of South Africa, advantage would also be taken of the opportunities for anthropological and ethnological research. Technical reports on the work done would be issued from time to time and facilities afforded to practitioners to acquire a knowledge of laboratory methods of investigation. There would also be provision for the holding of medical discussions, and popular lectures would occasionally be delivered. The institution, however, at present had nothing in the way of an assured income, and it was to be hoped that those who were amassing wealth in South Africa would provide an endowment fund. The plans of the institution show a handsome edifice surrounding three sides of a square; the transverse block has a cupola in the centre, but the general style of the architecture is classic.

THE SERUM TREATMENT OF EPIDEMIC MENINGITIS.

The fourth and final report on the experience gained by the Rockefeller Institute during six years' treatment of epidemic meningitis with a specific serum has been published by Dr. Simon Flexner,[1] whose verdict is unequivocally in its favour. This system of treatment was started early in 1906, and the present report deals with an analysis of about 1,300 cases treated with serum distributed by the institute in the United States, Canada, Europe, and Asia. The mortality among 1,294 consecutive cases treated was 30.9 per cent., whereas that of the recent pandemic in the United States was approximately 70 per cent. The importance of giving the serum early is shown by a table in which the mortality among patients treated between the first and third days of the illness is seen to be 18.1 per cent., while it was 36.5 per cent. among patients treated later than the seventh day. It is a significant fact that this latter group includes 666 cases, while the group treated early includes only 199 cases. Less than one-sixth of all the cases were treated early, and one-half were treated after the first week of the illness. It is therefore probable that when the serum is more generally available and confidence in its value extends, it will be given earlier and the results will become better. The most favourable results were obtained at ages between 5 and 10 years, and the least favourable after 20. Spontaneous recovery from the disease is usually by lysis, and the number of recoveries by crisis is relatively small. Indeed, in some epidemics this class of case is unknown. After treatment with serum within the first three days of the illness, recovery by crisis was as common as by lysis. When the serum was given later in the illness recoveries by lysis became relatively more frequent. It was also noticed that the proportion of cases which recovered by crisis was highest at the age most favourable to recovery, and that it was lowest at the most unfavourable age. The incidence of complications and sequels to the illness was also reduced by the treatment, but affections of the middle ear were still frequent, and occurred in about 3.5 per cent. of all cases. Other complications which arose in spite of the treatment were impairment of vision and arthritis. The latter was invariably transitory, and its disappearance was hastened by the direct injection of the serum into the inflamed part. Although at first regarded as doubtful, it is now clear that cases of fulminant meningitis may also benefit by the treatment; for several recoveries followed it in such cases, and the lowering of the mortality in the first three days of the illness, which is the period in which the fulminant cases end in death, also supports this view. But it is undoubtedly the ordinary type of epidemic meningitis which responds most satisfactorily to the treatment, as shown by the general reduction in mortality and by the change of the termination of the

[1] *Journal of Experimental Medicine*, May 1st, 1913.

illness from lysis to crisis. It is this transformation, and the general shortening of the whole course of the illness, and the consequent suppression of the chronic form of infection, which justify the claims advanced by the advocates of the treatment. One of the most conclusive objective criteria of the action of the serum is its effect on the meningococci, whose multiplication is arrested and whose phagocytosis and intraleucocytic digestion are accelerated. The tendency to hydrocephalus in the young has been reduced, and the intraventricular injection of the serum has frequently abolished infection and inflammation of the cerebral ventricles, and has re-established communication between the ventricles and the subdural space of the spinal cord. The initial difficulties of administration by direct subdural injection have been largely overcome, and the serum is now being used in private as well as in hospital practice. Dr. Flexner discusses some of the latest epidemics in which the serum was extensively used. One of these is reported on by the Louisiana State Board of Health, and is known as the Shreveport epidemic of 1912. There were 250 cases, 176 of which were not treated with serum. The mortality among these was 85 per cent., whereas it was 30 per cent. among those treated with serum. Dr. Flexner's report concludes with a repetition of the claims made for the treatment in 1909, when an analysis of 400 serum-treated cases was made. "The antimeningitis serum, when used by the subdural method of injection, in suitable doses and at proper intervals, is capable of reducing the period of illness; of preventing in large measure the chronic lesions and types of the infection; of bringing about complete restoration of health in all but a very small number of the recovered, thus lessening the serious, deforming, and permanent consequences of meningitis; and of greatly diminishing the fatalities due to the disease." The Rockefeller Institute, it is stated, no longer prepares the serum, and will not continue to collect histories of cases treated with it.

THE SOFTENING, PURIFICATION, AND STERILIZATION OF WATER SUPPLIES.

MORE than a year ago the Director of Water Examinations for the Metropolitan Water Board presented an important and interesting report on the excess-lime method, primarily as a germicidal agent and secondarily for softening purposes. The germ of this report is to be found in the seventh report, which stated that "quicklime (about 75 per cent. CaO) added to raw Thames water in the proportion of 1 part of quicklime to 5,000 parts of water kills *B. coli* in five to twenty-four hours under laboratory conditions of experiment." During 1912 research work into the truth of this idea was pursued, and as a result of the year's work it is stated in the eighth report that if 15 lb. of quicklime is added to 7,500 gallons of raw unstored Thames water it will kill within twenty-four hours the microbes of water-borne disease; then, if these 7,500 gallons were added to 2,500 adequately stored water, which would neutralize the excess lime, there would be 10,000 gallons of water which would have lost 15 parts of its total hardness, would contain no undesirable excess of lime, and would be innocuous. The process would quickly render an initially foul water absolutely safe bacteriologically, and would virtually increase the yield of the sources of supply by rendering the water always fit for abstraction. The complete fulfilment of these anticipations would raise the purity of the metropolitan water supply to a pitch of perfection never before attained, if ever seriously contemplated as possible, by any water works authority in the world dealing with sources of supply comparable to those of London. All this as the result of laboratory experiments is very satisfactory, but the practical question arose whether these conclusions would stand the test of a series of outdoor experiments on a large scale. To set this question at rest the Water Board at a recent meeting decided to incur an expenditure not exceeding £6000 to demonstrate the practical utility or otherwise of the "excess lime method." We look forward with interest to the result of these larger experiments. They should tell us what the lime method will cost per 1,000,000 gallons, including the capital cost of machinery and softening tanks, and the periodical removal and disposal of the sludge from the tanks. They should prove also whether the method will deal satisfactorily with the colour and contents of flood water, or whether it will result in browner water with more organic matter in it, and also whether the incidental softening of the water will be an unmixed good from the health point of view. These and many other questions are involved in the experiments about to be undertaken, which will, we hope, yield speedy and satisfactory answers. The question of the ultimate water supply, not only of London but of other places also dependent on contaminated rivers of limited flow to meet an increasing demand, will be less urgent if the water which now runs to waste can be made potable at a reasonable cost. Now that the Water Board has decided to incur the necessary expenditure for these experiments they should be pushed on with all reasonable speed. More than a year has passed since the "Excess Lime" report was submitted to the Board, and it is seven months since the Committee specially interested in the quality of London's water first recommended that the laboratory experiments detailed in the report should be tested on a larger scale outside. So far there has been no evidence of hurry on the part of the Board. Further delay, however, would not only be highly undesirable in face of the heavy responsibility of the Board, but might also involve it in large expense, which may possibly prove to be unnecessary, in connexion with the new Thames reservoirs recently commenced.

THE LAW OF LEAST EFFORT IN SPEECH.

WE are hearing much at present of the "Board School Voice," and, of course, the accent of the cockney is distressing to a cultivated ear. But the voice and accent of a certain class of educated people make almost equal discord of our speech, which, when properly uttered, is far from deserving the reproach of harshness often brought against it by foreigners who cannot appreciate the richness of its melody. This reproach is doubtless founded on the wrong way in which it is often spoken. At present among all classes the law of least effort is coming more and more to govern our language. From the "'arf a mo'" of the cockney to the clipping of words now so common at the universities, the tendency to spare the vocal organs any avoidable stress is everywhere in evidence; it is common among the class whom Bishop Warburton happily designated the "better vulgar." Young ladies speak of "undies" when they mean underclothing, and complain of "indies" when they suffer from indigestion. It used to be a mark of fashion to dock the "g" from the end of words, and to speak of "ridin'," "amusin'," and so on; and the fashion survives to-day, for any mutilation of speech which gives less trouble in utterance tends to persist. We may, however, comfort ourselves with the reflection that the tendency is not new, and that not all clipping habits become permanent. Nearly two hundred years ago Swift, in his *Introduction to Polite Conversation*, called the attention of the reader to the fact that he has been "diligent in refining the orthography by spelling the words in the very same manner as they are pronounced by the chief patterns of politeness at courts, at levies, at assemblies, at playhouses, at the prime visiting places by young templars and by gentlemen commoners of both universities who have lived at least a twelvemonth in town and kept the best company. For instance, *can't, han't, shan't, didn't, coudn't, woudn't, isn't, en't*, with many more; besides

several words which scholars pretend are derived from Greek and Latin, but now pared into a polite sound by ladies, officers of the army, courtiers and templars, such as 'jommetry' for the geometry, 'vardi' for verdict, 'lard' for Lord, 'learned' for learning, together with some abbreviations exquisitely refined as *pozz* for positive, *mobb* for mobile, *phizz* for physiognomy, *rep* for reputation, *plenipo* for plenipotentiary, *incog* for incognito, *hypps* or *hippo* for hypochondriacs, *bam* for bamboozle . . . whereby much time is saved and the high road to conversation cut short by many a mile." "Mob" has been adopted into the dictionaries, and "plenipo," "phiz," and "incog" are still in use. "Rep." "hippo," and "bam" have become extinct. But, now that economy of effort has once more become fashionable, it may be expected that clipped forms will largely take the place of the full words in ordinary speech, and will in due course find their way into the select society of the dictionary. The movement is in accordance with the physiological principles which regulate pronunciation, and of these the chief is ease in articulation. We may hazard the conjecture that, in accordance with the law of least effort, the aspirate will in time fall into disuse, as has occurred in languages of Latin origin. The old Romans themselves had the same trouble with the letter *h* that vexes some Englishmen. Even 'Arry had his prototype among them, as we know from the Arrius ridiculed by Catullus, who

> *C*hommoda dicebat, si quando commoda vellet
> Dicere, et *h*insidias Arrius insidias.

He was sent on a mission to Syria, and soon a dreadful report reached Rome that

> Iōnios fluctus, postquam illuc Arrius isset
> Jam non Iōnios esse, sed *H*iōnios.

MICROMELIC DWARFS AT BERGAMO.

DURING a recent and somewhat hurried visit to Bergamo Professor Max Kassowitz of Vienna had his attention arrested by the extraordinary number of dwarfs whom he saw there.[1] They were all affected with micromelic microsomia, possessing large crania broad in the vault, with the root of the nose depressed and having short and twisted limbs. Professor Kassowitz was only about two hours in the Upper Town (*citta alta*), and yet he counted at least twenty of them there; he noted not more than one in the Lower Town (*citta bassa*). The subjects were both adults and children, and it seemed to him that there were more women than men. They all had intelligent faces. He calls upon the medical men of Italy, and especially of Bergamo, to investigate this curious instance of endemic micromelic dwarfism, and refers to a possible, although not a very probable, allusion to its occurrence in this same town in Northern Italy in Shakespeare's time. In *A Midsummer Night's Dream*[2] Bottom, the weaver, says: "Will it please you to see the epilogue, or to hear a Bergomask dance between two of our company?" "A dance of clowns" then takes place. A "Bergomask" is defined as a rude *clownish* dance, such as the people of the town of Bergamo were wont to practise, and there is evidence that the people of this town were spoken of commonly as clownish in manners and in speech. Lean, in his *Collectanea*,[3] gives several sayings about Bergamo and its inhabitants, amongst which are two or three which refer to the thick speaking of the Bergamasks—for example, "Bergamasco ha 'l parlar grosso e ma 'l ingegno a far sottile." There is another saying in which the inhabitants of Bergamo are described as buffoons (*zanni*)—namely, "Sicilia da i Covelli, Francolini i Graziani, Bergamo gli Zanni," etc. There is also some evidence that in stage representations the clowns were made of a stunted and contorted, dwarfish appearance. It will be interesting if the Bergamask doctors are able to throw any light on this matter.

[1] *La Pediatria*, xxi, p. 148, 1913.
[2] Shakespeare, *Midsummer Night's Dream*, Act 5, Sc. i, l. 360.
[3] Lean, *Collectanea*, i, pp. 298, 299.

NOSTRUM LEGISLATION IN WESTERN AUSTRALIA.

For many years past the secret remedy proprietor has had a freer hand in the British Empire and America than in most Continental countries, both in regard to what he may put into his nostrum and to the claims he may make for it. Experience has shown, however, that the public interest requires this freedom to be severely curtailed. The American Pure Food law of a few years ago has had a good effect in preventing the sale of many fraudulent or dangerous medicines; the Australian States and New Zealand have for some time been engaged with proposals for legislation directed to the same end, and in this country the holding of the present Parliamentary inquiry is a step in the same direction. Western Australia, however, appears to be the first British state to have actually put into force a tolerably stringent law against the evils of this traffic, and it is of interest to note exactly what is the present position in that colony. By the Health Act of 1911, amended by subsequent Acts of 1911 and 1912, the general control and supervision of matters affecting the public health are put in the hands of a medical practitioner, who is styled the Commissioner for Public Health, while for matters relating to the sale of food and drugs an Advisory Committee, consisting of the Commissioner, the Government analyst, a bacteriologist, and two other persons conversant with trade requirements, is appointed by the Governor. The Act provides that the Commissioner may, on the advice of this Committee, prohibit the sale of any patent or proprietary medicine which in the opinion of the Committee is deleterious or dangerous to health, and any person selling or advertising such medicine shall be guilty of an offence; the general penalty for a breach of the Act is a fine not exceeding twenty pounds and a daily penalty not exceeding forty shillings. It is further made an offence to publish or cause to be published, whether in a newspaper or a publicly exhibited notice or by distribution through the post or otherwise, any statement intended to promote the sale of a medicine or appliance for the prevention, alleviation, or cure of disease, which is false in regard to the ingredients, composition, structure, nature, or operation of the article, or to the effects which have followed or may follow its use. An important section of the Act empowers the Governor, on the advice of the Advisory Committee, to make regulations on many matters arising out of the Act, and amongst other things such regulations may require any specified information to be given on the label of any food or drug. The regulations which have been made and are now in force require that the principal label attached to every package containing any patent or proprietary medicine shall bear a statement in English of the ingredients and the proportions of the same in such medicine. Exemption from this requirement as to labelling may, however, be obtained by the manufacturer or importer by depositing the same particulars with the Commissioner and signing an undertaking that all such medicine sold in the colony shall comply with the particulars so deposited. We are informed that considerable opposition has been shown by the owners of proprietary medicines and their agents, but that the Government has refused to withdraw or amend the regulations. It is not easy to see what objection can be taken to these enactments by persons desiring to sell harmless medicines and to make only true statements in regard to them, but it is evident that the sale of those which depend on false or exaggerated statements will become practically impossible. The manufacturer who deposits his formula with the Commissioner will avoid making it public, and will, therefore, not lose the commercial value of his trade secret—if he has one. But the maker's statement of formula—checked, of course, by the Government analyst—will enable the authorities to judge if the advertised statements in regard to the medicines are false, and, if they are, to take action against those responsible. It will be interesting and instructive

to watch the working of this law in Western Australia, which might well serve as a pattern for legislation in this country.

POOR LAW APPOINTMENTS AT BURNLEY.

WE have frequently had occasion to mention a dispute which has been going on for some time between the Burnley Division, acting on behalf of the Poor Law medical officers of the Burnley Union, and the local guardians. Some months ago all the district medical officers of that union resigned their posts on account of the inadequacy of the remuneration, but not until they had made attempts to get redress from the guardians. The Burnley Division has cordially supported the Poor Law medical officers in the attitude they have taken up, and, with one exception, every medical practitioner in the neighbourhood has, we believe, signed an undertaking not to apply for any post under the guardians to the detriment of the late holders until a settlement has been reached to the satisfaction of the Division. The guardians, instead of frankly meeting the difficulties, which are mainly those of underpayment, put forward a scheme of redistribution. The Division and the Poor Law Medical Officers' Association of England and Wales memorialized the Local Government Board, asking it to disapprove the scheme of the guardians, on the ground that though the new arrangement was an improvement on the old as regards the scale of payment, the remuneration of the doctors concerned would still remain far below the average of that paid in other unions. The Division and the Poor Law Medical Officers' Association took special objection to the proposal of the guardians to make each medical officer a public vaccinator in his own district, because it was obvious that this was a mere pretext for using the fees for public vaccination to eke out the payment for the Poor Law work. It is to be regretted that the Local Government Board has sanctioned the rearrangement of the medical relief and public vaccination districts as proposed by the guardians, thus in effect washing its hands of the affair and throwing the responsibility upon the guardians. It is really unfair that the Local Government Board should shirk its responsibilities in this way. It is evident from the way in which that Board has dealt with the matter that it was, to say the least of it, doubtful of the wisdom of the proposed action of the Burnley Guardians. As one of the guardians said at the last meeting, the Local Government Board had played with the matter for five months. The Royal Commission on the Poor Law made severe comments on the extent to which sweating goes on in the Poor Law medical service; the Local Government Board itself has frequently protested against the small salaries offered, and particularly against that juggling with vaccination and parish appointments which is a striking feature of the present case. Yet it generally contents itself with mere protests, evasive answers, or futile delays, rarely taking decisive action. Those members of the medical profession and those public representatives who take action against the continuance of these grievances deserve more support from the Local Government Board. The guardians have now advertised for medical practitioners to fill the position of district medical officer and public vaccinator in fifteen districts. A Warning Notice regarding these appointments appears in our advertising columns, and it is earnestly to be hoped that no member of the profession will apply for one of them without making himself thoroughly conversant with the facts. We have little doubt that any one who makes such inquiries will decline to assist the guardians in attempting to defeat the local practitioners, who have so loyally bound themselves together for the ultimate good of the local profession and of the poor of the district. The pauper who is unable, often through no fault of his own, to help himself, and who is under the protection of the guardians, should have the best medical attendance that can be provided, not only for his own sake, but because it is more economical in the long run. Efficient medical attendance cannot be got at sweating rates, and it is this sweating which the Burnley Division has determined to destroy in that district. The action of the Division deserves the admiration and imitation of other districts. Do the Burnley public realize that their board of guardians, in refusing to meet a deputation of the local medical profession and in declining to raise the rate of remuneration, is perpetuating the worst abuses of Bumbledom?

CLINTON DENT.

THE Association of British Members of the Swiss Alpine Club recently presented to the Swiss Alpine Club a mountain hut, the Cabane Britannia on the Klein Allalinhorne, Saas Fee. It was opened with some ceremony on August 17th, 1912, and a letter dated August 13th from the President of the Association, Mr. Clinton Dent, was then read, in the course of which he expressed his profound regret that he was unable to take part in the festivities. In less than a fortnight after that letter was written Clinton Dent was dead. We gave in our obituary notice some account of his achievements as an alpine climber, and the association of which he was president has now issued a pamphlet containing an account of the ceremonies at the opening of the hut, commemorating Clinton Dent's influence in alpine affairs. It is well illustrated, among the photographs reproduced being a very characteristic photograph of Dent in mountain kit, and another of the Portjengret, one of the peaks which he was the first to ascend. The Committee of the Association of British Members of the Swiss Alpine Club, which has Mr. A. E. W. Mason as president, and among its vice-presidents Dr. O. K. Williamson and Dr. H. L. R. Dent, proposes to establish a Swiss memorial to Clinton Dent. A stone with an inscription will be erected outside the Cabane Britannia and a memorial tablet at Zermatt; further, if the sale of a certain number of copies can be guaranteed, Clinton Dent's book, *Above the Snow Line*, which is out of print, will be republished; this would be his best memorial as a climber. Subscriptions to the memorial should not exceed 10s. 6d., and may be sent to the Honorary Treasurer, Mr. J. A. B. Bruce, Selborne Lodge, Austen Road, Guildford, who will also, we presume, be glad to receive notifications of the desire to have a copy of the book if reprinted.

DR. WILLIAM H. WELCH, Professor of Pathology at Johns Hopkins Medical School, has been elected President of the American National Academy of Sciences for a term of six years.

THE annual dinner of the Indian Medical Service will be held at the Hotel Cecil, Strand, on Tuesday, June 10th, at 7.45 p.m., when the Director-General, Surgeon-General the Hon. Sir C. P. Lukis, K.C.S.I., will preside, and the Service will have the honour of entertaining the Marquis of Crewe, H.M. Principal Secretary of State for India. Officers intending to be present should communicate without delay with the Honorary Secretary, Lieutenant-Colonel P. J. Freyer, 27, Harley Street, W.

THERE will be four vacancies to be filled at the coming election of members of the Council of the Royal College of Surgeons of England on July 3rd. The President, Mr. Edmund Owen, and Mr. Golding-Bird have held their seats on the Council since 1905, but, being President, Sir Rickman Godlee does not vacate his seat, so that only two vacancies by rotation are to be contested this year, but there will be a third vacancy caused by the death of Mr. Clinton Dent, and a fourth made by Mr. Bruce Clarke's resignation. Mr. H. J. Waring, of St. Bartholomew's Hospital, has already expressed his intention to present himself for election on this occasion.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

JUBILEE OF DR. JAMES RITCHIE.

DR. JAMES RITCHIE, of Edinburgh, who has during the past few years occupied in turn the presidential chairs of the Obstetrical Society, the Edinburgh Medical Missionary Society, and the Medico-Chirurgical Society, and who has done much for the British Medical Association Branch in Edinburgh, was honoured on the evening of May 16th in connexion with another side of his activities. For fifty years Dr. Ritchie has been an office-bearer in Lady Glenorchy's United Free Church, and during that period he has acted for thirty-one years as Clerk of Deacon's Court and for fifteen years as Session Clerk, a post which he still holds. The congregation of Lady Glenorchy's church took the occasion of congratulating him and presenting him with a solid silver tray in commemoration of his jubilee. At the meeting at which the presentation was made by the Rev. Mr. James Harvey (the minister of Lady Glenorchy's), letters were read from several members of the medical profession (including Sir Alexander Simpson, Sir Halliday Croom, Sir James Affleck, and Sir Robert Philip) expressing the high esteem in which Dr. Ritchie was held by his brethren. Dr. J. W. Ballantyne and Dr. H. M. Church, who were present, also spoke, as personal friends, of Dr. Ritchie's manifold activities and constant attachment to all good causes. Dr. Ritchie, in acknowledging the presentation, gave interesting reminiscences of the Lady Glenorchy's Church of his boyhood, its ministers, elders, precentors, and its Mutual Improvement Society, which would nowadays be termed the Literary Society. He incidentally referred to the large number of persons pitted with small-pox then to be met with, and contrasted it with the freedom of the streets from such sights now, thanks to the protective effects of vaccination. There was a large gathering of friends and a pleasant evening was spent.

THE MIDLOTHIAN COUNTY COUNCIL AND SANATORIUMS.

At a meeting of the Midlothian County Council in Edinburgh on May 14th, presided over by Colonel Trotter, Convener of the County, a report was presented of the proceedings at the conference of county councils in the south-eastern district of Scotland regarding the provision of sanatoriums. The Chairman stated that the general opinion was that the councils should combine in the provision of sanatoriums under the Insurance Act rather than under the Public Health Act, one of the reasons being that they would under the former Act obtain large grants towards the original cost of erection of the sanatoriums. The opinion at the conference was that the counties concerned should combine for the purpose of providing a sanatorium, as being the most economical plan and the one likely to give the best results; it was also strongly favoured by the Local Government Board. They were not, however, in agreement as to the question of treating advanced cases of tuberculosis in the sanatorium. The report was approved. A letter was read from the Insurance Commissioners regarding the estimated expenditure on sanatorium benefit by the Midlothian Insurance Committee for the year commencing January 13th last. The Commissioners requested the county council to inform them whether it was prepared to sanction the expenditure, and pointed out that in that event the council would be liable to make good out of the general purposes rate half of any sum so sanctioned by it in excess of the amount available for defraying expenses. The Commissioners further stated that if the local authority agreed to pay half of any deficit incurred by the Insurance Committee the Treasury was prepared to find the remaining half. The Chairman pointed out that as the county was not in a position meantime to provide sanatorium benefit, it was hardly possible to rate the people for the present year. The amount required would probably mean 1¼d. on the rates. He moved that the account should not be sanctioned at present, and this was agreed to.

EDINBURGH ROYAL MATERNITY HOSPITAL.

At the annual meeting of the subscribers of the Edinburgh Royal Maternity and Simpson Memorial Hospital on May 19th, over which the Bishop of Edinburgh presided, a reference was made to the regrettable circumstance that the annual subscriptions showed a decrease of £121; this decrease, taken in conjunction with the fact that the ordinary income of the year (1912) had fallen short of the ordinary expenditure by the large sum of over £497, was causing the directors much anxiety. Part of the drop in annual subscriptions was probably due to the operation of the Insurance Act. The annual report which, along with the accounts was adopted unanimously, in referring to the effect of the Act, stated that it was too early to estimate its influence upon the numbers of patients taking advantage of the service offered by the hospital; but since the maternity benefit provided by the Act had become payable in January, 1913, the number of cases, both at the hospital and at the Leith branch, had diminished. The directors hoped that this was only a temporary condition, due to the unsettled state of affairs inevitably connected with the start of the operations of an Act of such magnitude. The Board had given earnest consideration to the new position created by the Act, and its delegates had been in consultation with the Commissioners, at whose suggestion communication had been opened up with the approved societies and the Insurance Committees of Edinburgh, Leith and district, with the view of coming to a satisfactory working agreement within the scope of the Act. After full consideration along with the Medical Board, the directors had suggested as a fair arrangement a flat rate of 15s. a case, payable by the societies on behalf of those who took advantage of the service of the hospital, either as intern or extern patients, and so far as the experience had gone, it was understood that the representatives of the societies considered the proposal reasonable and the rate moderate. It was reported that during the year (1912) the total number of patients attended through the hospital and its Leith branch was 1,915; 70 nurses had been trained in the institution, 78 undergraduates had attended the hospital and associated dispensaries, and some 50 medical men and women had received clinical instruction in August and September in connexion with the post-graduate classes then conducted. Professor Harvey Littlejohn, Dean of the Medical Faculty in the University of Edinburgh, spoke gratefully of the work which was being done in the hospital for the benefit of the students attending the university, but thought it was to be regretted that a larger proportion of the 200 undergraduates who annually passed away from Edinburgh as qualified medical men did not take advantage of the excellent teaching in the institution. The annual report also made reference to the improvements which had been made in the hospital during the year, more especially in connexion with the new operating theatre, the installation of the electric light, and the extended nurses' residence; of these changes some account was given in the JOURNAL for February 8th, p. 308.

BEQUESTS TO EDINBURGH ROYAL INFIRMARY.

Mr. William M'Ewan bequeathed £15,000 to the Royal Infirmary of Edinburgh and £1,000 to its Convalescent House at Corstorphine. A legacy of £1,800 by the late Sir James Pickering Gibson, Bart., some time Lord Provost of Edinburgh, and three other legacies amounting to £1,535 have also been received.

EDINBURGH SCHOOL BOARD AND MEDICAL MATTERS.

At a meeting of the Edinburgh School Board on May 12th, and on the motion of Mr. James Clark, K.C., C.B., who was in the chair, it was unanimously agreed to adopt the Committee's recommendation for the appointment of Miss Lisette A. M. Wilson, M.B., Ch.B., D.P.H., the City Poorhouse Hospital, to the position of Assistant Medical Officer under the board. Mrs. Leslie Mackenzie, the Convener of the Committee on Health, submitted the report of the medical officer for the session 1911–12, from which it appeared that the number of schools under the board's scheme of medical inspection was 70, compared with 62 in the previous year. There was marked improvement in the cleanliness of the children, of whom 27,000 had been examined in the year for their condition in this matter as well as for the state of their teeth, vision, and hearing. Mr. Ramsay, Convener of the Attendance Committee, stated that during the spring holidays 541 necessitous children had been provided with dinners. The proposal

to institute classes for defective children in the north side and in the west end of the city was agreed to, and the matter was remitted to the Health Committee. The Chairman then drew attention to the bill to enable the provision of medical treatment for children attending schools. Medical treatment followed as the inevitable corollary upon medical inspection, if the parents of the children were not in a position to provide it themselves. Whilst welcoming the principles of the bill, he pointed out that although the central authority undertook half of the cost of the medical inspection, there was no such provision made for the medical treatment. He proposed that the board should approve generally of the principle of the bill, but should express the opinion that the cost to the locality, like that of medical inspection, should not exceed half the total expenditure, the other half being met by Government grant. This was unanimously agreed to.

Treatment of Consumption in Edinburgh.

Sir Robert W. Philip and several members of the Board of Directors of the Royal Victoria Hospital for Consumption met a subcommittee of the Public Health Committee of Edinburgh Town Council on May 19th in connexion with the arrangement proposed to be entered into between the Royal Victoria Hospital and the city for the treatment of tuberculosis, when various preliminary matters were discussed. Further meetings will be held with, among others, the Burgh Insurance Committee before the matter comes before the Town Council again in the form of a report.

Ireland.

(FROM OUR SPECIAL CORRESPONDENTS.)

Royal Medical Benevolent Society of Ireland.

The annual meeting of the Belfast and District branch of this society was held in the Medical Institute, Belfast, on May 16th. Sir Otto Jaffé, LL.D., was in the chair, and Dr. Fielden (honorary secretary and treasurer) read the annual report. The total amount collected during the year was £157 19s. 2d., a slight increase over the previous year. The expenses were £6 3s. 2d., and the net contribution to the central fund was £151; 138 Belfast practitioners contributed £94, and 46 country practitioners, £28; this latter is a small proportion for country doctors; no doubt the difficulty lies in bringing the claims of the fund before them. The country practitioners form less than 25 per cent. of subscribers to the funds, yet over 60 per cent. of the money distributed in grants goes to widows of practitioners who live outside Belfast. Reference was again made in the report to the question of converting the institution into a medical insurance society, and one member withdrew his subscription as no attempt had been made to carry out such a project. Professor Symington was re-elected president, Sir William Whitla, Sir Alex. Dempsey, Sir Otto Jaffé, Dr. R. J. Purdon, Dr. M. F. Cahill, Dr. Gardner Robb (all of Belfast), Dr. J. B. Johnson (Gilford), Dr. J. J. Adams (Antrim), Dr. R. A. Shekleton (Holywood), Dr. James Wallace (Knockahollet) were elected members of committee, and Dr. Victor Fielden was elected honorary secretary and treasurer. A cordial vote of thanks was passed to Sir Otto Jaffé for taking the chair.

Roentgen Rays at South Infirmary, Cork.

At the monthly meeting of the South Infirmary, Cork, a letter was read from a firm of solicitors offering on behalf of a client £500 as a donation to the funds of the hospital, to be applied as may be arranged hereafter in connexion with the *x*-ray department of the hospital, so that its sphere of usefulness may be increased by the more extended employment of the Roentgen rays in the investigation and treatment of disease. The offer is made subject to the conditions that the committee of management appoints an honorary specialist to the department, who must be a duly qualified medical man who has devoted special attention to *x*-ray work, and that he shall be entitled to charge reasonable fees in cases of private patients applying to the department.

Presentation to Dr. George Elliott, Belfast.

The medical profession was entertained by the council of the Belfast Medical Guild at a smoking concert in the Medical Institute, Belfast, on the evening of May 13th. The more immediate object of the function was to make a presentation to Dr. George Elliott, who was leaving to take up practice in England. Dr. Elliott had been honorary secretary to the guild from its inception, and had worked strenuously and devotedly in the difficult and rough paths of medical politics and ethics during the past two years. He had also been secretary of the Belfast Division of the British Medical Association, and in that capacity had rendered valuable services. The president of the guild, Dr. T. C. D. Cathcart, made the presentation of a purse of sovereigns and an album on behalf of the profession. He extolled the services of Dr. Elliott, expressed regret at his departure, and wished him God-speed in his new sphere. Dr. Gardner Robb, chairman of the Belfast Division, supported the words of the president of the guild, and Dr. Elliott suitably replied. Mr. R. J. Johnstone said that in Mrs. Elliott the doctor had an indefatigable co-worker, and that their heartiest thanks and good wishes should be conveyed to her, and Dr. Elliott returned thanks on her behalf. An enjoyable evening, varied with songs and recitations, was passed.

Presentation to Dr. Laverty of Rathfriland.

On May 2nd, at a meeting of the medical men of South Down at Rostrevor, Dr. Laverty of Rathfriland was presented with a cheque as a mark of esteem and an expression of the sympathy of his colleagues in respect of charges of neglect of his professional duties, from which he was exonerated after a sworn inquiry held by the Local Government Board. Dr. M'Cartan, who occupied the chair, expressed the great pleasure it afforded him to be the spokesman of his colleagues in asking Dr. Laverty's acceptance of a cheque towards the expenses which he had incurred in meeting and successfully refuting the charges that had been brought against him. Dr. Laverty deserved the thanks of his brethren for the decisive steps he had taken, as in fighting his own battle he was also fighting for the rest of the profession. The cheque was the spontaneous outcome of his colleagues' confidence, sympathy, and respect. Dr. Laverty, in his reply, said that he was well rewarded for his fight by the kind sympathy and good fellowship of his brethren.

Unvaccinated Condition of Ireland.

Of late years, chiefly owing to the energies of branches of the Antivaccination Society started throughout the country, the number of vaccination defaulters has risen so rapidly that to-day in many districts the majority of the children have never been vaccinated. The boards of guardians refuse to enforce the Vaccination Act, and pay no heed to the remonstrances of their medical officers or of the Local Government Board. However great the danger caused by this unvaccinated condition of the population may be in England, it is much greater in Ireland, owing to the less rigorous attention that is paid in this country to sanitation and inspection. The condition of the country may be gathered from the following figures which have been recently published: In Newry the guardians were notified by the dispensary medical officers that about 1,000 children in the union had not been vaccinated. In Gorey, co. Wexford, the dispensary doctor reported that there were 399 unvaccinated persons in his dispensary district alone; the board of guardians, however, made no order on the report. Reports to the same board of guardians, that the unvaccinated persons in Coolgreany numbered 140, and in Killenagh and Wells 283, were treated in the same way. At Fermoy a letter was read to the board of guardians from the Local Government Board stating that steps should be taken to ensure compliance with the law on the part of the defaulters under the Vaccination Acts in the union, whereupon a proposal that notices should be posted in the dispensary districts, warning people that they need not have their children vaccinated if they did not wish to do so, was carried unanimously.

Overcrowding in Asylums.

The resident medical superintendent reported at the last monthly meeting of the Clare Asylum Committee that there were in the house at the close of the year 488 inmates—273 males and 215 females, the largest number recorded. The asylum, he said, continued to be over-

crowded, specially on the female side. He hoped the new female observation dormitory would soon be ready for occupation.

England and Wales.

[*FROM OUR SPECIAL CORRESPONDENTS.*]

WALES.

The University of Wales.

At the court of the University of Wales held on May 17th at Bangor, Mr. Lynn Thomas, C.B., Surgeon to the King Edward VII Hospital, Cardiff (the Cardiff Infirmary), was elected Junior Deputy Chancellor in succession to Colonel Sir Pryce Jones. The King is Chancellor of the university, and Lord Kenyon, who presided over the court, is Senior Deputy Chancellor. The other candidate for the post of junior deputy chancellor was Sir Marchant Williams, one of the Treasury representatives on the court of the university. We recently had occasion to refer to the steps which were in contemplation to complete the Medical Faculty of the University of Wales, and to establish a complete medical school in the University College for South Wales and Monmouthshire at Cardiff. In electing Mr. Lynn Thomas to the office of Junior Deputy Chancellor, the Court was no doubt actuated by the desire to place in high office one who is intimately identified with the scheme for the establishment of a complete Welsh medical school in Cardiff. His participation in the *Wanderlust*, to which, as noted elsewhere, British surgeons have wisely in recent years more and more given free rein, has afforded him opportunities of becoming acquainted with the system of medical teaching and research in the universities and university hospitals and institutes of other countries. This experience will stand the Welsh school in good stead during the deliberations on the many important questions which must shortly be decided.

Gift to the Newport Hospital.

At the meeting of the directors of the Newport and Monmouthshire Hospital on May 30th, Sir A. Garrod Thomas, M.D., who was in the chair, announced that Lord Tredegar had presented, in memory of his uncle and predecessor in the title, the house and grounds of The Friars, a beautiful house of Gothic style, situated on an eminence above the hospital and quite close to it. The donor hoped that the house would be used as a convalescent home, and the gardens, which extend for some 14 acres, as pleasure grounds for the benefit of the hospital generally. Sir Garrod Thomas, in making the announcement, said that the gift would place the Newport Hospital in a most enviable position, and without encroaching upon the green fields, which extended right up to the present hospital grounds, it would be possible to make any necessary extension of the hospital buildings. The value of the gift is estimated at over £20,000. Lord Tredegar was unanimously elected president and trustee of the hospital in place of the late peer.

The Cardiff Hospital.

The medical board reported to the governing body of the Cardiff Hospital on May 14th that a communication had been received from the Honorary Secretary of the Swansea Division of the British Medical Association with reference to the treatment of members of any society or association having for its object the employment of medical men under conditions not approved by the medical profession. After careful consideration the medical board had decided to reply that the medical staff was in full sympathy with the staff of the Swansea Hospital, but, as no communication had been received from the Cardiff Division of the Association, no action could be taken. After a member had urged the hospital board not to allow any local dispute to interfere with the work of the hospital, the discussion closed.

LIVERPOOL.

Royal Infirmary.

Through the energy and enthusiasm of one of the Liverpool daily papers a fund of over £2,000 has been raised to provide the Royal Infirmary with a supply of radium sufficient for therapeutic purposes. It will be under the control of the radiographer of the institution, Dr. Thurstan Holland.

Swimming Baths.

The City Council has decided to provide swimming baths at the Pier Head, the heart of the business portion of the city. This scheme will cost little short of £100,000, but the resulting building will be worthy of the city and in keeping with the important edifices in the same neighbourhood.

Abattoirs.

The question of the removal of the abattoir from the neighbourhood of the university and the Royal Infirmary is still undecided, but will shortly be brought to a definite issue. From a medical and an aesthetic point of view there can be little doubt as to the desirability of a removal.

Gynaecology and Obstetrics.

Dr. Willett has been appointed to the staff of the Lying-in Hospital, and to the staff of the Hospital for Women. He thus fills the two vacancies caused by the death of the late Dr. Arthur Wallace.

India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

New Cocaine Rules.

Revised rules regulating the import and possession of cocaine in the Punjab have recently been published. They cover, with certain exceptions, all cocaine preparations, and all drugs, synthetic or other, having a like physiological effect to that of cocaine. The quantities of such drugs allowed to be possessed by certain specified persons are as follows:—By officers of Government, such drugs as come into their possession in the course of their official duties; by medical practitioners (including medical and veterinary officers of Government when engaged in private practice) up to the limit of half an ounce; by a licensee, up to the limit of his licence; by any other person, up to the limit of such quantity as he may have purchased on the prescription of a qualified medical practitioner. The preparations of cocaine specially exempted from these rules are as follows:—Cocaine used in impure solutions in ointments for local application and made nauseous to the taste, or the following bona fide proprietary medicated articles:—(1) Toothache drops. (2) Ear drops. (3) Compound tablets of lozenges composed of—(*a*) cocaine, chlorate of potash, and borax; (*b*) krameria and cocaine; (*c*) menthol, cocaine, and red gum; (*d*) benzoin and cocaine, provided that they are stated by the makers to contain not more than $\frac{1}{16}$ grain of cocaine, novocain, eucaine, beta eucaine and beta eucaine lactate, or holocaine in each lozenge or tablet; and certain proprietary mixtures. There have recently been many cocaine raids, and the Report room at Sall Police Station has been overflowing every morning with persons arrested the previous night on charges of being in possession of the drug.

Mosquitos in Assam.

An interesting experiment has been made by Captain T. C. McCombie Young, I.M.S., under the instructions of Government, which sanctioned an expenditure of Rs.900 in the new civil station of Dacca. The Ramna, as it is called, is a recently cleared area upon which the residences of civil officials and some of the new Government offices at Dacca were built. Numerous tanks and ruins of mosques give evidence of its former habitation. Captain Young started operations in November, 1911. The area under treatment comprised about two square miles, and the buildings on it were good class private houses with their compounds, a residential college, and

some Government offices. The operations consisted in cleaning such tanks as needed it, sweeping and flushing drains and watercourses, and the use of kerosene. Every breeding ground, actual or potential, within the area was marked down on a map and regularly treated, and Captain Young was satisfied that no breeding of mosquitos was taking place within the area. Nevertheless matters were not materially improved, for whenever there was even a gentle breeze from the south the cantonment was invaded by mosquitos transported from the breeding grounds in Dacca City a mile and a half away. Captain Young concluded therefore that it would be necessary to carry out larvicidal measures in Dacca City as well. To do this effectively it would first of all be necessary to provide an efficient surface drainage system at a cost of 50 lakhs of rupees.

Special Correspondence.

PARIS.

The Cause of Mercurial Tremor.—Transudates and Exudates.—Pericardotomy in Tuberculous Pericarditis.

DRS. GUILLAIN AND LAROCHE reported at a recent meeting of the medical society of the hospitals the results of a clinical study of the etiological factor of the tremor which occurs in chronic mercurial poisons. They pointed out the resemblance between mercurial tremor and the tremor of cerebellar disease, and the resemblance also of the symptoms of slurring of speech, nystagmus and ataxic movements frequently present. From these signs and from the fact that in many other drug toxaemias certain portions of the nervous system are selected for attack, they conclude that mercurial tremor is in reality caused by a toxic lesion of the nerve centres, and more especially of the cerebellum.

At a recent meeting of the Society of Biology, Dr. Villaret made some observations on the differentiation of a transudate from an exudate. A series of 200 effusions was examined by the Gaugi Rivalta collargol and violet reactions. The violet contact-reaction with hydrochloric acid pointed to the presence of blood corpuscles in the effusion. In the collargol reaction the silver salt was precipitated by the addition of a few drops of transudate, but was not precipitated by the addition of an exudate. The use of these reactions led to the conclusion that in ascites from cirrhosis of the liver the fluid was primarily a transudate, due to the hypertension existing in the portal system, and only became an exudate secondarily to an infection of the peritoneum.

The results of two operations of pericardotomy for pericarditis with effusion were recently communicated by Dr. Jacobs to the Surgical Society. In both pericardotomy without drainage was performed, and in both cure followed. The first patient was a soldier, aged 21. The temperature was 102.7° and the pulse 120, and cardiac dullness was markedly increased; the patient appeared very ill. Pericardotomy was performed, and 700 to 800 grams of fluid were evacuated. The pericardial incision was not closed, but the muscles and skin were sutured, and the wound healed satisfactorily, and complete cure resulted. Dr. Jacobs maintained that if tuberculous pericarditis were treated by leaving the pericardial incision open but without other drainage, recovery would be rapid and satisfactory. Aspiration of the pericardial sac was, he thought, always dangerous; adhesions might be present, so that no fluid was obtained; further, the heart muscle might be injured and death ensue.

How important a part in public life is played by doctors in South America may be inferred from the fact that in Paris alone the Minister Plenipotentiaries of Mexico, Chile, and of Equador are members of the medical profession. The representative of Mexico is Dr. Diego Suarez, while Chile and Equador are represented by Dr. Puga-Borne and Dr. Rendon respectively. Dr. Manrique was formerly Minister Plenipotentiary of Colombia. Drs. Olano, Santiago, Letond, Hernandez, Gana, Alberto Alvarez Canas, are Consuls-General of Salvador, Chile, Costa Rica, and other states.

Correspondence.

THE REORGANIZATION OF THE ASSOCIATION.

SIR,—It appears to me absolutely necessary that the Annual Representative Meeting in July should recognize that its primary duty and the one essential reform is the reorganization of the Association, beginning with a thorough overhaul and searching inquiry into the present organization from top to bottom. There will be few to deny this need and its vital importance. No time is more opportune than immediately after a severe test, while the details of cause and effect are fresh in mind. That the present organization is cumbersome, costly, dilatory, and withal ineffectual is admitted. As the medico-political machine for the protection of all the interests of the profession, the Association must have a strong, active, alive, and real organization.

There must be more active co-operation between its component parts, closer communication and touch with its extremities. In this way will confidence in the strength and power of the Association be inculcated in the individual members, and that mutual confidence obtained without which there can be no reliance.

I trust the Representative Body will take this matter in hand seriously as one of urgent necessity.—I am, etc.,

Sittingbourne, May 16th. T. BARRETT HEGGS, M.D.

*** A reference to the paragraph headed "Reform of the Present Constitution" in the report of the Proceedings of Council, published on page 421 of the SUPPLEMENT of May 10th, will show that this subject is receiving the earnest attention of the Council, and that the matter is being expedited as much as possible. The Organization Committee has a report in preparation which will be presented to a special meeting of the Council on June 13th.

POST-GRADUATE STUDY IN PARIS.

SIR,—In starting next autumn a special course of post-graduate classes for the benefit of British medical men, Professor Widal's only aim is to offer, in Paris, the same opportunities as your fellow-countrymen are used to find in the German and Austrian schools.

If Sir William Osler's advice about studying in a foreign country is followed by any of your readers, here, then, is an opportunity of availing themselves of the very best resources of the modern Paris school, using school in the broad sense of the word, for this organization has nothing to do with the university: it is worked privately in Widal's private laboratories and wards.

A schedule will be published in due time. Our programme includes:

1. Clinical work and clinical teaching.
2. Practical bacteriology as regards diagnosis.
3. Practical teaching of biological methods applied to clinical researches, more especially the practical demonstration of Professor Widal's original methods.

Every opportunity will be given for those who want to study specialities, and hours will be arranged so that no time will be lost. But as we want more than anything else to be practical and useful, I would be glad to hear from those who may be interested in this new departure. Any advice, hint, or suggestion would be welcome.

For instance, we are not quite sure about the suitable time to start this course (we suggest October 15th); and we wonder if we might run it up to Christmas? It has also been suggested that the teaching should be done in English. Much may be said *pro et contra*. On this very important point I should like to hear from those who may be interested.—I am, etc.,

GUSTAVE MONOD, M.R.C.P.Lond., M.D.Paris.

Vichy, May 17th.

RHEUMATOID ARTHRITIS.

SIR,—Sir James Barr's article on rheumatoid arthritis was not very convincing. After an opening showing how impossible it was that the disease could be caused by any bacillus, he began his directions for treatment by advising that the mouth should be kept free from micro-organisms. This was not a piece of general advice, but part of the treatment of the disease known as rheumatoid arthritis.

As regards his argument as to a bacillary cause, it should seem that the absence of proof that a particular cause produces a particular effect is not a very strong proof that it may not do so. As a general rule a theory must have much added to it before it can become a theorem, but the fact of there being a transition stage cannot be held to be sufficient reason for rejecting the theory.

I have pointed out that there is no such thing as rheumatic fever in the Malay Peninsula, and Major Buchanan agrees with me that there is none in tropical India. I now add that in eighteen years' experience in the tropics I have never seen a case of rheumatoid arthritis, and think that the factor underlying this great difference between England and the Malay Peninsula should supply the knowledge of the cause of these diseases.

It seems to me more than possible that the absence of both these diseases in one place indicates a causal connexion, and that rheumatoid arthritis may be a sequel of the presence of the poison of rheumatic fever without the original disease necessarily ever having manifested itself, just as nephritis may manifest itself as a sequel of scarlet fever or of quartan malarial fever without any history of the occurrence of one of these diseases previously. I do not mean that rheumatic fever is the cause of rheumatoid arthritis, but suggest that the cause of rheumatic fever is a necessary constant in the production of rheumatoid arthritis. The fact that rheumatic fever does not occur in the Malay Peninsula may be due to the organism producing it being unable to exist extra-corporeally at a mean temperature of 80° F.—I am, etc.,

J. Tertius Clarke,
Hinckley, May 14th. Health Officer, Perak, South F.M.S.

Sir,—I have such a high opinion of the excellent work of Dr. Chalmers Watson on dietetics that I am quite prepared to receive any opinion of his with the greatest respect; but on the present occasion I am rather sorry to see him parting with the substance for the shadow. It will be time enough for Dr. Watson to clench his view "that the disease is a toxic arthritis of bacterial origin" when he has discovered either the bacterium or its toxin. I have shown that there are many cases of arthritis of microbic origin, but I think that such cases can be and should be differentiated from what I understand by rheumatoid arthritis. There is, in my opinion, no justification for allowing the numerous joint affections to remain in their present muddle in the medical mind.

The "curious inconsistency" which Dr. Chalmers Watson thinks he has discovered may turn out to be a mare's nest. I have no wish to shut my eyes to any inconsistency, if such can be shown to exist, as I always appreciate the saying of Burns:

> O wad some pow'r the giftie gie us,
> To see oursels as ithers see us!
> It wad frae mony a blunder free us.

In this case, however, the blunder, according to Dr. Chalmers Watson, carries me in the right direction. Perhaps we will all get there in time.

I have always advocated, and I hope I shall always continue to advocate, the treatment of the patient rather than his disease. In any disease every morbific condition present or in any way associated with the disease should receive attention. If there be any interference with the digestion, either by pyorrhoea or anything else, it should be corrected. There are often acid-forming organisms in the mouth. The carbohydrate metabolism set up by acid-forming organisms cannot be cured by a vaccine, and organic acids introduced from without, though not so constant in their action, may prove almost as injurious. It is remarkable how scanty is the evidence of putrefaction in this disease considering the frequent constipation. We do now and again get a trace of indican in the urine, but not such as to justify any one in ascribing any rôle in this disease to putrefactive organisms. There is no vaccine which can harm any organism which has merely established a habitat on any unbroken surface of the body; the bacterium must get beyond the surface before the vaccine comes into play. I saw a lady the other day whom I had previously seen about six years ago, when I found a luxuriant growth of the *Bacillus coli* in her stomach. My treatment with antiseptics and keeping the bacilli moving proved advantageous for a time, but on a relapse she got into the hands of a London physician, who gave her a long course of an autogenous vaccine. The last end of this woman is worse than the first, but I hope she has now had sufficient experience to make her give a rational treatment a fair trial. There has been plenty of evidence of putrefaction in her case but none of rheumatoid arthritis.

I am delighted to find Dr. Pagan Lowe among the converted; yesterday I came across a young woman (Mrs. E.) who about two years ago was a long time under his care with rheumatoid arthritis, and since then has seen many others, but has steadily got worse. She had sour milk, radiant heat, vaccines, and arsenic, all to no purpose so far as she is concerned. She is now on a Salisbury diet, and in a short time will be getting as much milk as would now please Dr. Pagan Lowe.

Dr. Thurstan Holland has pointed out to me that in my last letter I misunderstood Dr. Bailey's remarks about the skiagrams, and that Dr. Bailey did not mean, as I thought, absorption of lime salts at the seat of fracture, but absorption from some of the neighbouring bones—for example, in Colles's fracture of some weeks' standing there may be absorption of the lime salts from the carpal and metacarpal bones. I noticed in the skiagrams which Dr. Holland showed me that the finely stencilled lines of absorption occurred at the edges of the bones where the blood supply comes from the periosteum. So far there is no explanation forthcoming as to how this interesting fact takes place or why it should occur. The solution of this problem, which will repay the considerable amount of trouble necessarily involved, seems to me comparatively simple, or at least one which will offer no insuperable difficulties. It would appear as if the atrophic condition of bones and muscles did not entirely depend on the want of use, but had some underlying common cause. It is here not merely a question of dietetics but also of the oxidation of the sarcolactic acid generated in the muscles. It is well known that in tuberculous disease of the bones and in severe cases of phthisis there is a marked deficiency of lime.

It will take something more than Dr. Craig's recollection to make me believe that Sir Robert Christison ever uttered such a statement as that attributed to him by Dr. Craig. I look upon such a statement as a libel on the memory of a great man. In 1873 rheumatoid arthritis—a name which had been coined by Sir Alfred Garrod some years previously—was merely a generic term for a group of chronic joint affections which had not been differentiated, and the whole series were then as inextricably mixed as they are to-day by Dr. Craig.

Sir Robert Christison never wrote anything about rheumatoid arthritis; the principal physiological effects of calcium were not then known; his lectures on materia medica had no necessary connexion with therapeutics, and in his remarks on the actions and uses of the lime salts there is not one word about rheumatoid arthritis. I can find no reference to the use of the lime salts in this disease in any work which I have come across published about or before that time. The infusion of straw scarcely merits the contempt poured upon it by Dr. Craig, as it contains a large quantity of lime in solution, and might thus be of much more use in this disease than, say, barley-water or a "thermo-penetrating current."

Sir Robert Christison's admirable investigation on poisoning with oxalic acid was carried out in co-operation with Dr. Coindet of Geneva; they recognized that oxalic acid formed soluble salts with calcium and magnesium, and hence the alkaline salts of these metals were recommended as antidotes; after the absorption of the oxalic acid or of any of its soluble salts they ascribed its secondary poisonous effects to a sedative action on the nervous system, and did not recognize that it deprived the blood of its soluble calcium salts which are necessary for the maintenance of the heart's action. Dr. Coindet was the first to introduce iodine in the treatment of bronchocele, which sometimes had a good effect and at other times the result was rather disastrous. This no doubt arose from the fact that the endemic was not then differentiated from the exophthalmic variety.—I am, etc.,

Liverpool, May 17th. James Barr.

SYPHILIS AND CANCER OF THE TONGUE.

SIR,—As a letter by Dr. Renshaw in your issue of May 10th affects Mr. Ryall and myself, I may be allowed a reply for both. In endeavouring to establish the thesis that syphilis is an important factor in the production of cancer of the tongue, the limitations of inductive logic were quite well appreciated, but the argument is none the less cogent. The following facts were put forward by Mr. Ryall: (1) The history of syphilis in 80 per cent. of cases, (2) the accompanying evidences of lingual syphilis in most, (3) the observation of syphilitic tongues in which cancer afterwards supervened, (4) the marked local improvement that frequently results from the administration of antisyphilitic remedies in cases proved to be cancer of the tongue, and (5) the indication of a syphilitic taint given by the Wassermann reaction. There is probably not much weight in the contention that the oral administration of mercurial salts is a factor in the production of cancer of the tongue, nor are there any statistical data available to us which alone would enable it to be said whether the disease is more or less frequent in this country than on the Continent. The statement quoted in this respect is one of those unsupported assertions regarding cancer that are scarcely worth the trouble of refuting.

The main point with regard to the employment of the Wassermann reaction in cases of lingual lesions is that it is quite useless as a means of discriminating between cancer and syphilis. This is just what one would expect. In cases of cancer in other situations a positive Wassermann reaction, provided a reliable method is adopted, is very rare, and when it is found, as it has been by several other workers besides myself, a preceding syphilis is either known or cannot be excluded. Many of the reactions that pass under the name of "Wassermann reactions" are far from being reliable, and Dr. Renshaw was quite entitled to ask what technique was adopted and to reject the conclusions if the method used was, in his opinion, slipshod. A comprehensive reply to the request for precise information regarding percentages and methods could not be given, for the reason that the reports of others were not available for critical examination, but a definite statement could be made in respect of seven cases of lingual cancer investigated, amongst many other things, by a well-known quantitative method. This method and its *rationale* are, perhaps, unknown to Dr. Renshaw, for he would have spared me a little lecture on elementary principles, which I trust are as clearly understood as they were pontifically expressed by him. I would quite appreciate the criticism that my chance sample might be abnormal and capable of correction by more extended experience, but in view of the general strength of the case for syphilis as an etiological factor, in my opinion unassailable, such a research would be comparatively profitless endeavour.

I am sorry I have not the time, much as I have the desire, to be of service to Dr. Renshaw in controlling his results by the Browning-Mackenzie method, and I am regretfully precluded—for the present—from furnishing him with cancerous serum by the fact that my own serum investigations of another nature are only limited by the available supply of material, on which several friends have already a heavy mortgage.—I am, etc.,

Cancer Hospital, S.W., May 16th. ARCHIBALD LEITCH.

WHOLE-MILK DIET FOR INFANTS.

SIR,—Dr. Cameron evidently believes[1] that the vast majority of digestive disturbances are due to excess of either sugar or fat in the diet. An excess of protein he believes will not cause dyspepsia, and in support of his hypothesis he refers to the great success of whole-milk feeding. The good results he attributes to the low percentage of sugar in cow's milk rather than to any means which may be employed to prevent the clotting of casein in the stomach. I have had considerable experience in giving undiluted cow's milk at my infant consultations during the last five years, and I can fully confirm Dr. Cameron's opinion as to the success of this method, but I fail to see why excess of protein should never cause dyspepsia, or that the clot which is formed in the stomach should have no effect on digestion. It is surely reasonable to assume that the gastric and intestinal juices find it harder to battle with a solid substance than if the food is present in a fluid form. I have found the addition of sodium citrate of the greatest value in whole-milk feeding. I use 1 grain to each ounce of milk.

Later on in his article Dr. Cameron draws rather a gloomy picture of the child who is fed entirely on pure cow's milk. He says that "the want of sugar often leads to constipation, to want of growth, and to backward development generally." He writes of the pale, undersized pure-milk infants, and compares this with the larger and fatter infant who has some additional sugar in the diet. Now, I venture to say that this description gives an entirely false view of the pure-milk baby. No doubt at Guy's Hospital the infants are only brought when they are ill, so that Dr. Cameron would come in touch with the failures due to whole-milk feeding. On the other hand, at our infant consultations the object is to prevent illness, and so we are able to exercise some supervision every week with regard to the amount and quality of food. We certainly do not see these small, puny, backward children which we can definitely ascribe to whole-milk feeding and to no other cause. On the contrary, the vast majority are active and have hard muscles, and are better developed than those fed on milk mixtures. The growth of an infant is surely more dependent on the protein constituents of the food than on any other.

Dr. Cameron says, in referring to pure milk feeding, that he "has seen infants who for months showed no gain in weight, although they were daily taking enormous amount of milk of good quality." These cases, I should say, were suffering from dilated stomachs due to overfeeding. It is essential that the child should not be given more milk than it can digest; the small feeds which even breast-fed infants obtain, as shown by the "test feed,"[2] should put us on our guard in ordering cow's milk. I have repeatedly found the child puts on weight if the amount of milk is reduced. I cannot agree with Dr. Cameron that whole-milk feeding causes constipation. I find that the commonest cause of constipation is starvation, and that if the quantity of food is cautiously increased the bowels will act regularly. It stands to reason that if there is not sufficient residue in the bowel there can be no stimulation of the centre in the spinal cord. I have never found it necessary to give drugs or sugar to cure constipation.

I think proprietary foods should be prohibited amongst the poor because of their expense. Carbohydrate can be given in the form of bread jelly to infants of 6 months and over, and amongst the very young ones I order bread soaked in boiling water, and then squeezed through muslin; the portion which passes through the muslin can be added to the milk in the bottle.—I am, etc.,

RONALD CARTER, M.D., M.R.C.S., L.R.C.P.

Kensington, May 14th.

[1] BRITISH MEDICAL JOURNAL, April 26th, 1913, p. 872.

EXISTING UNSATISFACTORY CONDITION OF THE SCHOOL MEDICAL SERVICE.

SIR,—The success of any particular service—that is, its usefulness to the community—will be strictly in proportion to the talent and energy of those engaged in it. There are two ways of securing this talent and energy. You may arrange to have a good sprinkling of big plums in the way of remuneration and a host of comparatively inadequately paid minor positions. This is the traditionary method of the church, the bar, the legal, and the medical professions, and it keeps up a steady stream of the most energetic and ambitious heads. Or you may offer a host of modestly satisfying positions, each sufficient to make a man able to maintain a status that the world will think dignified, with a slow but sure scale of increment. This is the method of the civil services; it is not perhaps so attractive as the other to our most enterprising youth, but it serves.

It must be admitted that the school medical service has neither big plums nor a steady if modest competency to offer. It is, indeed, fed at present by the enthusiasm which a new subject begets, the thrill and pride of pioneering. But this cannot, of course, last; and it is evident that, unless the school service can be put on the same footing of self-sufficiency as the public health and other services, it will be starved of its most energetic men and women.

[2] *Lancet*, September 2nd, 1911.

The general notion of linking up the school service with the public health service in each locality is thoroughly sound. We want for each county a chief medical officer, a great administrator, to co-ordinate all the medical interests—hospitals, asylums, river pollution, school inspection, and what not. But as a corollary each separate medical interest needs a seasoned and experienced chief who can feel that if he gets no further up the ladder, it will at least not mean disaster to his family.

It is evident that there will continue to be unrest in the school medical service until the conditions come more nearly to resemble those of the public health service.—I am, etc.,

Stafford, May 20th. JOHN PRIESTLEY.

EVIDENCE FOR AND AGAINST TUBERCULIN.

SIR,—The question raised by Dr. Batty Shaw (May 3rd, p. 921) is one of primary importance, especially to the general practitioner. And it is time that an attempt were made to give a definite and authoritative answer to the question, Is there clear evidence that pulmonary tuberculosis can be cured by the use of tuberculin? Dr. Batty Shaw is specially qualified to deal with the question from his experience as a physician of the Brompton Hospital and the calm, judicial attitude of his mind.

One of the arguments which he brings forward on the negative side strikes me as having great significance:

"If it were proven," says Dr. Batty Shaw, "that tuberculous cattle could be cured by vaccination by means of tuberculin, we may be quite sure (1) that it would be widespread in veterinary practice; (2) that the whole medical profession would have adopted it with very little hesitation, and they would have been justified. But where are the reports on cattle which should make us at ease on this point? Frankly, they do not exist."

Surely that is a staggering blow to the tuberculin propaganda. If bovine tuberculosis has not been cured by bovine tuberculin, what reason is there to assume that human tuberculosis will be cured by human tuberculin?

In the BRITISH MEDICAL JOURNAL of May 10th I see a letter by Dr. J. Stavely Dick criticizing in a very temperate manner Dr. Shaw's address. But I cannot quite see the force of his remark that "the crucial experiment, however, of leaving Nature alone in one series of cases and introducing this or that factor in another series cannot, for obvious reasons, be made."

What are these obvious reasons, and what other method would Dr. Dick suggest to test the value of a doubtful remedy? Dr. Dick states that he is "convinced clinically (1) that in the doses suggested by Sir Almroth Wright it does no harm in afebrile cases; and (2) that in a very considerable percentage of such cases real good is effected"; but I should like to know whether the "real good" includes a decided and curative effect on the pulmonary lesion as revealed by physical examination of the chest.

My attitude is not one of hostility to tuberculin, but that of one who is desirous to have definite proof of its curative effects.—I am, etc.,

JAMES W. ALLAN,
Resident Physician, Bellefield Sanatorium, Lanark; late
May 12th. Physician, Glasgow Royal Infirmary.

VACCINATION INQUIRY IN THE ISLE OF MAN.

SIR,—Your condensed report of the above inquiry is quite fair, but your editorial remarks are not fair. They are contradictory. The reason of the difference is that the former is based upon the actual evidence supplied by an official verbatim report of the proceedings, whereas the latter consists of deductions drawn from the speeches of members of the Legislative Council, who were anything but correct in their statements and conclusions.

You quote the strong remarks of two members—the Attorney-General and the President (Lord Raglan). The former stating that my evidence "convinced him that there was absolutely nothing in the case against vaccination." But if you will look at his remarks uttered just before, you will see that he says:

I approached the subject strongly prepossessed in favour of the utility of vaccination, and the undesirability of in any way relaxing the law to enforce it,

This considerably discounts his estimate of my evidence. It was clear that every one of the ten members of the Council was in the same frame of mind, and the result, so far as they were concerned, was practically settled before the inquiry commenced.

You proceed to quote what the Attorney-General said of my remarks concerning the relationship between original cow-pox and syphilis. If you will compare his criticism with your own report of my evidence you will see that he never grasped my argument, and, if the full report of the examination and cross-examination is perused, it will be noticed that he quite failed to understand the subject at all.

It is to be regretted that you should quote the remarks made by Lord Raglan, and add that "what actually happened is reflected in the remarks of the Attorney-General and Lord Raglan" without first verifying the truth of the criticism. Both gentlemen have gravely misrepresented me. No such expression and no such "attack" as stated by Lord Raglan fell from my lips, and I indignantly repudiate his statements. Nothing of the kind professedly quoted by him can be found anywhere in my evidence.

I enclose a copy of my reply to Dr. Drury's evidence, together with my answer to the speeches of the members of the Legislative Council.—I am, etc.,

Gloucester, May 19th. WALTER R. HADWEN, M.D., J.P.

Public Health AND POOR LAW MEDICAL SERVICES.

SCIENTIFIC RESEARCH FOR THE LOCAL GOVERNMENT BOARD.

THE President of the Local Government Board has authorized the following special researches to be paid for out of the annual grant voted by Parliament in aid of scientific investigations concerning the causes and processes of disease:

Continuation of the Board's inquiries into:

1. The cause of premature arterial degeneration, by Dr. F. W. Andrewes.
2. On insects in relation to disease: Professor Nuttall, F.R.S., on the life-cycle of the body-louse and bug; Dr. Bernstein and Mr. Hesse, on the *Empusa muscae* in flies.
3. As to infantile diarrhoea, by Mr. F. W. Twort and Dr. Edward Mellanby.
4. As to the virus of poliomyelitis, by Drs. Andrewes and M. H. Gordon.

And the following investigations:

5. By Mr. F. W. Twort, into the character and life-history of certain filter-passing micro-organisms.
6. By Professor Leonard Hill, F.R.S., on respiratory exchange in man under varying conditions.
7. By Mr. J. E. R. McDonagh, on the biochemistry of syphilis.
8. By Dr. L. Rajchman, into the possibilities of serological diagnosis of scarlet fever.
9. By Dr. D. M. Alexander, on the relation between the clinical symptoms and the bacteriology of the acute respiratory affections.

POOR LAW MEDICAL OFFICERS' ASSOCIATION OF ENGLAND AND WALES.

A COUNCIL meeting was held at 24, Copthall Avenue, London, E.C., on May 15th, Dr. Balding, J.P., being in the chair.

The Honorary Secretary reported the death of one of the members of the council (Dr. T. Carey Barlow); on the previous Friday he had gone to bed after his usual day's work, and passed away during the night. Much regret was expressed by the members present, and the Honorary Secretary was instructed to write to Mrs. Carey Barlow, conveying the sympathy of the council with her in her sad bereavement.

Dispute at Burnley.

The Honorary Secretary reported that there had been little change with regard to the Burnley dispute since the last council meeting. A copy of the last letter of the association dealing with the matter had been sent by the Local Government Board to the Burnley guardians, who had replied they had nothing further to add. The new board of guardians had endorsed the recommendations of the late board; but up to the present no further answer had come from the Local Government Board, but it was hoped that before coming to a decision it would hold a local inquiry.

Cost of Drugs.

A letter was read from one of the district medical officers of the East Ham Union, stating that the guardians were proposing

to supply at their own cost the medicines, etc., hitherto found by the medical officers, and that the clerk to the guardians had inquired what deduction from their salaries they were prepared to allow in consequence. The district medical officers strongly objected to any deduction. In addition to the pecuniary loss, it would further diminish the value of their superannuations in the future. The council was strongly of opinion that no deduction should be permitted. Drugs ought in all cases to be supplied at the expense of the guardians, and the present salaries of Poor Law medical officers were by no means exorbitant for the medical work alone. Dr. Holder (Hull) said that the Sculcoates Guardians not long ago decided to supply the drugs, and took that duty off the medical officers without diminishing their salaries. He believed the same had been done by other boards of guardians.

Emergency Attendances.

The responsibility of guardians to pay for services rendered to inmates of their workhouse by practitioners called in the absence of the workhouse medical officer was raised by a recent occurrence in a northern town. The council was of opinion that if outside medical assistance were called for on behalf of the guardians by an officer entitled to pledge the credit of the same a fee could be recovered. It was not clear why in this instance the deputy had not been sent for. It was decided that the annual meeting should take place in London on Thursday, July 3rd, at 3 p.m.

Insurance Act.

It was pointed out that complaints were arising in many places that the maternity benefit seriously interfered with the emoluments derived from the extra fees granted for attendance on midwifery cases. In one union a medical officer was petitioning his board for compensation on the ground that his quarterly account for extra fees, which had never been below £20 for many years, had dwindled down in the last quarter to £7. When the serious effect of such a reduction, if permanent, on the superannuation of the medical officer is considered, the reality of the grievance becomes obvious. It was thought by the council that Poor Law medical officers were quite as much entitled to compensation for losses of this nature as were vaccination officers for their loss of income through the "conscience clause" in the last Vaccination Act, and with regard to the latter compensation had been given in some instances.

Universities and Colleges.

UNIVERSITY OF OXFORD.

THE following gentlemen have been appointed by the General Medical Electorate as members of the new Board of Faculty of Medicine:

Dr. A. E. Garrod, F.R.S., Dr. Cecil Wall, Mr. A. P. Dodds-Parker.

New regulations have been approved by the Board of Faculty of Medicine for the First B.M. Examination in Organic Chemistry, and will be published in the forthcoming issue of the *Examination Statutes*.

UNIVERSITY OF CAMBRIDGE.

New Psychological Laboratory.

THE buildings of the new psychological laboratory at Cambridge, erected from the designs of Sir T. G. Jackson, R.A., in the English Renaissance style, were formally opened by the Vice-Chancellor on May 15th. The new laboratory is approached by the same entrance and staircase as the physiological laboratory now in course of construction. The psychological laboratory consists of three floors. On the ground floor are a lecture-room, a mechanic's workshop with a small organ bellows for blowing wind instruments needed for acoustic experiments, and a research room. On the first floor is a library, dark room, and two practical class-rooms. On the top floor are six research rooms, including a sound-proof room for auditory experiments and another which can be completely darkened. When the organization of a department of experimental psychology was begun by the appointment of Dr. Rivers, room was found for it in the physiological laboratory, but its growth compelled it to move in 1901 and again in 1903. In 1907 Dr. Rivers became lecturer in the physiology of the senses and Dr. Myers in experimental psychology, and the university thereafter offered a space on the Downing site for the construction of the new laboratory. Dr. Myers succeeded in collecting £4,000 for the building now completed, and grants have been made for its equipment and endowment from the Museum Fund and by the Cambridge University Association.

UNIVERSITY OF EDINBURGH.

UNIVERSITY COURT.

AT the meeting of the University Court on May 13th, sympathetic reference was made to the death of the Right Hon. William M'Ewan, P.C., LL.D., which became known during the course of the sitting, and it was arranged that the chairman (Principal Sir William Turner) should represent the university at the funeral on May 15th at Bookham, in Surrey.

The Court had before it an Order of His Majesty in Council approving of the Court's Ordinance No. 14, which has to do with the foundation of a Chair of Bacteriology (to which reference was made in this JOURNAL, vide p. 1076). Grants from the Earl of Moray Endowment for the promotion of original research, recommended by the Senatus, were approved.

Recognition, for a term of three years, was granted to Dr. John Orr, Edinburgh, as an extra-academical teacher, whose course of instruction in practical materia medica shall qualify for graduation in medicine.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE COUNCIL.

THE constitution of the Council of the College is as follows:

President.

Sir Rickman J. Godlee, Bart.; C, (1) 1897, (2) 1905.

Vice-Presidents.

Mr. Clinton T. Dent (deceased); C, (1) 1903, (2) 1911.
Mr. G. H. Makins, C.B.; C, (1) 1903, (2) 1911.

Other Members of Council.

Sir Henry Morris, Bart.; C, (1) 1893 (substitute), (2) 1898, (3) 1906.
Mr. Edmund Owen; C, (1) 1897, (2) 1905.
Sir W. Watson Cheyne, Bart., C.B.; C, (1) 1897 (substitute), (2) 1901, (3) 1909.
Mr. F. Richardson Cross: C, (1) 1898, (2) 1906.
Sir A. Pearce Gould, K.C.V.O.; C, (1) 1900, (2) 1908.
Mr. R. Clement Lucas; C, (1) 1901, (2) 1909.
Mr. C. W. Mansell Moullin; C, (1) 1902 (substitute), (2) 1907.
Sir Frederic Eve; C, (1) 1904 (substitute), (2) 1907 (substitute), (3) 1912.
Sir Anthony A. Bowlby, C.M.G.; C, (1) 1904, (2) 1912.
Mr. C. H. Golding-Bird; C, 1905.
Mr. W. Harrison Cripps; C, (1) 1905 (substitute till 1908), (2) 1909.
Mr. W. Bruce Clarke (resigned); C, 1907.
Mr. Charters J. Symonds; C, 1907.
Mr. W. F. Haslam; C, 1908.
Mr. C. Barrett Lockwood; C, (1) 1908 (substitute), (2) 1910.
Mr. W. Arbuthnot Lane; C, 1908.
Mr. Bilton Pollard; C, 1910.
Mr. C. A. Ballance, M.V.O.; C, 1910 (substitute for Mr. G. A. Wright till 1914).
Sir J. Bland-Sutton; C, 1910.
Mr. D'Arcy Power; C, 1912.
Sir Berkeley G. A. Moynihan; C, 1912 (substitute for Sir H. T. Butlin, 1919).

The medical schools are represented as follows:

London:	
St. Bartholomew's	5*
Guy's	4
King's College...	1
London	2
Middlesex	3
St. George's	1†
St. Mary's	1
St. Thomas's	2
University College	2
Total, London Schools ...	21
Provincial:	
Birmingham	1
Bristol	1
Leeds	1
Making total of Council ...	24

* Including Mr. Bruce Clarke, resigned.
† Mr. Clinton Dent, deceased.

On this occasion there will be four vacancies. Mr. Edmund Owen and Mr. C. H. Golding-Bird, who were elected in 1905, retire in rotation, having served the term of eight years. Sir Rickman Godlee, re-elected in the same year, does not retire, as he holds the office of President. The third vacancy is due to the death of Mr. Clinton Dent, re-elected in 1911, and the fourth to the resignation of Mr. W. Bruce Clarke, elected in 1907.

Owing to a misunderstanding it was stated last week that Surgeon-Major H. B. Hinton had been elected an Honorary Fellow. It should have been said that the Council had adopted a resolution congratulating him on attaining the hundredth anniversary of his birth.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

The Fellowship.

THE following candidates have been admitted to the Fellowship:

F. Armstrong, C. B. Baxter, G. N. Braham, R. C. Brewster, H. A. Cookson, F. H. Diggle, K. B. MacGlashan, F. G. Ralphs, F. A. Scannell, R. L. Scott, A. D. Stewart, A. C. Thomson.

The Bathgate Prize in Materia Medica has been awarded to Mr. G. T. Mowat.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Appointments.

THE following have been appointed to act on behalf of the College at examinations for the Conjoint Licence and the Diploma in Public Health: In *Anatomy*, A. C. Geddes and A. A. McConnell; in *Surgery*, C. A. Ball, G. J. Johnston, Seton Pringle, R. A. Atkinson; in *Physiology and Histology*, J. A. Scott; in *Pathology and Bacteriology*, A. H. White; in *Midwifery and Gynaecology*, F. W. Kidd; in *Biology*, J. Burgess; in *Ophthalmology*, H. Cunningham and R. D. Joyce; in *Chemistry*, S. Young; in *Sanitary Law and Vital Statistics*, M. Russell; in *Engineering and Architecture*, C. J. Powell.

The following have been appointed examiners for the Fellowship of the College and for its Licences in Surgery and Midwifery: In *Anatomy*, A. C. Geddes and J. Keegan; in *Surgery*, C. A. Ball, L. G. Gunn, G. J. Johnston, and Seton Pringle; in *Physiology and Histology*, F. Purser and J. A. Scott; in *Pathology and Bacteriology*, R. J. Rowlette, A. H. White; in *Midwifery and Gynaecology*, F. W. Kidd; in *Chemistry and Physics*, E. Lapper and S. Young.

Mr. J. B. Story has been elected a member of the Council of the College.

CONJOINT BOARD IN IRELAND.

THE following candidates have been approved at the examinations indicated:

FIRST COLLEGE.—R. J. Bassett, E. J. Benson, T. F. Broderick, T. F. Corbett, E. M. T. Crymble, I. B. Culhane, H. W. Hackett, H. I. Hawkes, D. Kelly, J. E. Lucas, J. A. McKinnon, *D. J. Steele.

SECOND COLLEGE.—*H. M. Alexander, C. H. Brennan, M. Burke, W. R. Dimond, K. Elmes, B. Glasson, *H. Graham, F. Greene Kelly, M. J. Loftus, C. A. R. McCay, C. W. Robinson, J. Ryan, A. R. Soady, N. E. Stephens, P. J. Walshe.

THIRD COLLEGE.—T. M. Cronin, W. A. N. Fox, T. L. Enright, T. F. Higgins, J. D. Hamilton, W. J. A. Laird, J. S. McHugh, C. J. O'Carroll, D. V. O'Connor.

FINAL.—Miss M. J. Ahern, B. N. Blood, J. Barrett, D. W. Beamish, H. J. Burke, P. D. Daly, A. J. Faulkner, F. E. Fitzmaurice, J. J. Glynn, T. J. Kelly, A. P. Kennedy, J. Kirker, V. J. Lawless, F. J. McCarthy, T. Mulcahy, C. Petit, C. L. Sproule, T. J. Sinnott, G. Wilson, W. Waugh.

D.P.H.—J. Hormasji Contractor, J. Daniel, *C. A. Farrell, M. Halpenny, Sheik G. Rasul, W. G. Ridgway, H. Roberts, *L. Robinson, *N. J. C. Rutherford, Major R.A.M.C., *P. Sampson, Captain R.A.M.C., *J. L. Thomas.

* Passed with honours.

Obituary.

COUNT RINALDO TAVERNA, Senator of the Kingdom of Italy, and President of the Italian Red Cross, who recently died, displayed great energy in organizing help for the sufferers from the earthquakes of Messina and Calabria, in the cholera epidemics of 1910, 1911, and for the wounded in the Tripoli campaign and in the war in the Balkans. His loss is greatly regretted by the medical profession.

MISS ARA GRAY MURCHISON, whose early death took place on May 10th, was a student of the Medical College for Women, Minto House, Edinburgh, during the years 1902–7; she graduated M.B., Ch.B. in Edinburgh University in 1907, and afterwards did work as an assistant in Lanarkshire; then for a time she was resident medical officer of Egilshay, Roushay, and Weir (or Viera), in the Orkney Islands; next she was assistant medical officer of health in Huddersfield and then resident medical officer to St. Luke's Hospital, Halifax. At this time, however, her health broke down and she underwent a serious operation. It was hoped that her health was restored and she returned to Edinburgh, where she was appointed clinical assistant in the Electrical Department of the Royal Infirmary, and busied herself also with research work; but her former trouble returned and after an illness of two months she passed away. She was buried in Rosebank Cemetery on May 13th.

In its May number our contemporary *Garden Cities and Town Planning* states that an International Garden Cities and Town Planning Association has been formed. For the present the offices will be at 3, Gray's Inn Place, London, W.C., and Mr. Ewart G. Culpin will act as honorary secretary. Already a number of organizations dealing with these matters have intimated their willingness to join such an international movement, and it is proposed to hold periodical conferences in the various countries represented. During the past two months over two hundred requests have been received from different parts of Europe, Asia, Africa, America, and Australasia for information on civic matters. These have in the past been dealt with by the Garden Cities and Town Planning Association, but the growth of the work both in Great Britain and abroad necessitates the promotion of the new association in order to link together the various bodies that are being formed in different parts of the world. Among the countries represented by these inquiries are the United States, France, Germany, Russia, Poland, Hungary, Austria, Roumania, Sweden, Belgium, Holland, and Spain, each of the States of Australasia and South Africa and the Canadian Provinces, India and Burma, and Trinidad.

Medical News.

THE late Mr. Jordan Lloyd, of Birmingham, left estate valued at £60,213 gross, with net personalty £58,587.

PROFESSOR VON ROENTGEN, of Munich, has been elected an honorary member of the German Surgical Society.

SIR WILLIAM OSLER delivered the Silliman Lectures at Yale University recently, his subject being the Evolution of Modern Medicine.

THE Canadian Medical Association will hold its forty-sixth annual meeting in London, Ontario, on June 24th and 27th, under the presidency of Dr. H. A. McCallum.

THE sixth medical congress de la Langue Française de l'Amérique du Nord will be held at Quebec in 1914, not at Montreal this year as previously stated.

PROFESSOR BATESON'S postponed lectures on the heredity of sex and some cognate problems will be delivered at the Royal Institution on Monday, June 2nd, and Wednesday, June 4th, at 3 o'clock.

AT the meeting of the Royal Society on Thursday next a paper on the action of radium rays upon the cells of Jensen's rat sarcoma by Drs. S. Russ and Helen Chambers will be read, and also a report from the Sleeping Sickness Commission on the morphology of the Mzimba strain of trypanosome.

MR. HENRY RUTHERFORD, of New York, who died in February, has bequeathed the sum of £40,000 to the Rockefeller Institute of Medical Research, the "income to be applied to investigations into the causes and nature of the disease known as cancer and the methods of its prevention and treatment."

THE seventh annual meeting of the Women's Medical Society of New York State was held at Rochester on April 28th under the presidency of Dr. Helen J. C. Kuhlmann of Buffalo. About one hundred women physicians from various parts of the State attended the meeting. Dr. Marion Craig Potter of Rochester was elected president for the ensuing year.

THE Continental manager of the Great Eastern Railway will send to any one interested a copy of a little book well illustrated in colours and black and white describing the company's routes to Harwich and from it to the Hook of Holland, Antwerp, Hamburg, Esbjerg (Denmark), and Gothenburg. The route by the Hook of Holland is one of the best appointed to the Continent, and the traveller's only regret, on a fine night, must be that there is so little time to enjoy the comforts and convenience provided.

THE American Medical Association will hold its sixty-fourth annual session at Minneapolis from June 17th to 20th, under the presidency of Dr. John A. Witherspoon. The work of the meeting will be distributed among the following sections: The practice of medicine, surgery, obstetrics, gynaecology and abdominal surgery, ophthalmology, laryngology, otology and rhinology, diseases of children, pharmacology and therapeutics, pathology and physiology, stomatology, nervous and mental diseases, dermatology, preventive medicine and public health, genito-urinary diseases, hospitals and orthopaedic surgery.

AT a dinner attended by some fifty medical men of Burnley and the neighbourhood on May 10th, Dr. A. E. Bird, Honorary Secretary of the Burnley Division of the British Medical Association, was presented with a massive solid silver tea and coffee service and waiter. All the members of the Division had subscribed to the testimonial, which was presented in recognition of the arduous work of the honorary secretary during the past two years. The presentation was made by Dr. Crump, chairman of the Division, and the service bore the following inscription:—"Presented to Dr. A. E. Bird by the members of the medical profession in the area of the Burnley Division of the British Medical Association as a mark of appreciation of his services as honorary secretary, May, 1913."

WE are asked to state that the National Medical Guild is a trade union for medical practitioners conducted on trade union lines—that is to say, its main policy is the defence of its members by all legal means. It has, as a trade union, immunity for many actions under the laws as to conspiracy and libel, and this is regarded as essential for the protection of its funds and for the success of any combined action on the part of the medical profession. The case Heard *v.* Pickthorne, which it successfully contested, has, it is held, established that it is not competent for an approved society to refuse non-panel doctors' certificates for the purpose of sickness benefit. This case was reported and commented on in the BRITISH MEDICAL

JOURNAL of May 10th, p. 1014 and p. 1033. Medical practitioners, whether on the panel or not, are eligible for election, and the subscription is one guinea per annum. Further particulars can be obtained from the Organizing Secretary, Dr. Gordon R. Ward, 34, Villiers Street, Strand, London, W.C.

IN connexion with the article on the carotid body published in the JOURNAL of May 17th, p. 1074, the following additional particulars will be of interest. In 1900 von Heinleth described the human carotid body as developing until puberty, and stated that it then either underwent atrophy or arrest of development. If it continued to grow after puberty it underwent tumour formation. In 1908 Gomez stated that it increased in size as the individual grew by increase of connective tissue, blood vessels, and parenchyma. Reaching a certain stage, between the age of 20 and 30 years, it remained stationary for a time, and then only the connective tissue increased, the interlobular blood vessels thickened, and sclerosis and atrophy of the gland resulted. Finally, in 1904 Mulon found that aqueous extracts of the carotid bodies of old horses, when injected intravenously into rabbits, gave invariably a rise of arterial pressure, and sometimes an acceleration of the heart and increased force of its beats.

IT seems that the day of oblivion for the sundial is not yet. Under its modern name of "sol horometer"—a name chosen, we imagine, to confound the poets—it is still counting the sunny hours. But as a concession to a world which is less inclined to take trouble than formerly, its mechanism has been adjusted to show the standard time to within the fraction of a minute without any mental deductions and allowances for position. A sector under the bowl of the instrument indicates the correct angle for any latitude, and the instrument is tilted accordingly. To enable the time to be read with precision, a box-shaped screen, somewhat resembling the eye-piece of the radiologist's fluoroscope, extends pivoted across the engraved surface. The purpose of this screen is to reduce the radiation of the light to a minimum, and thus secure a sharp image, which, after the slight adjustment of the dial for the date, duly passes the time of day. The instrument, which is described and illustrated in a pamphlet by Messrs. Pilkington and Gibbs, Limited, of Preston, is clock, calendar, and compass in one, and its appearance on an appropriate pedestal and with the inevitable motto around it, combines old-word dignity with chronological exactitude. The only disturbing element in this method of time-keeping is due to the erratic absences of the sun itself.

THE foundation stone of the new Helena Building at the Royal Free Hospital, Gray's Inn Road, was laid on May 19th by Princess Christian of Schleswig-Holstein, who was received on her arrival by the Earl of Sandwich (Chairman of the Hospital Committee), the Archdeacon of London, Dr. Harrington Sainsbury, Mr. James Berry, Miss R. Cox-Davies, matron of the hospital, and several members of the Board of Management. The Earl of Sandwich, who welcomed the Princess on behalf of all associated with the work of the hospital, said that it had long been the desire of the Committee of Management to provide improved accommodation for out-patients attending the hospital in a building that would meet all modern requirements for their efficient treatment. In this new building provision was being arranged for the reception of accidents and urgent cases, for the medical staff, throat and eye specialists, massage, and dental and electrical departments. A complete maternity department would be provided on the second floor, whilst accommodation was also being set apart for the medical students, in place of their present quarters in the old building. The Royal Free Hospital, continued the speaker, was the only one in London through which women could enter the medical profession. An ever-widening sphere of usefulness was opening out for medical women at home and abroad, particularly in India and the Eastern dominions, and therefore an increasing importance was attached to the work of the hospital and the need for extension was now more urgent than at any other previous time. The Earl of Sandwich then presented the architect (Mr. Ashley) and the contractor (Mr. Downs) to the Princess Christian; and the hymn "Thou to whom the sick and dying" having been sung, the foundation stone was laid, and the benediction given by the Archdeacon of London. The ceremony concluded with the presentation of a number of purses containing subscriptions towards the expenses of the new building. The total collection amounted to £1,632, the cost of the building having been estimated at between £40,000 and £50,000, of which over £11,000 has already been subscribed.

Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, Westrand, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, Westrand, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

SOFT WATER AND IRON PIPES.

DR. E. H. O. SANKEY (Baschurch, Salop), who has a supply of very pure soft water, finds that it cuts away iron hot water pipes very fast and is always red and rusty. He asks what can be used to line pipes and boiler and so protect them.

INCOME TAX.

G. A. W. asks on what basis the income tax return for the present year should be made in a case in which the effect of the Insurance Act has been to increase income.

*** The profits of the practice should be returned on the average of the past three years notwithstanding the increase. Neither an increase nor a falling off of the profits in a particular year is taken into consideration in arriving at the income-tax liability, except in so far as it affects the average profits.

F. J. W. inquires under what schedule of the income tax he should return his grant for vaccination.

*** As the grant does not arise in connexion with an appointment for which "F. J. W." is assessed to income-tax under Schedule E. the grant should be regarded as part of the receipts of the general practice and included in the profits to be returned for assessment in following years on the average of three years.

DOUBLE TAX.—The Board of Inland Revenue offers no objection to the inclusion in a general practitioner's return (Schedule D) of fees received in respect of public appointments, and, in view of the indubitable injustice that would otherwise arise, we apprehend that the Commissioners will acquiesce in the assessment of insurance fees under Schedule D as profits of the general practice. We advise our correspondent to prepare his return on this basis, and if necessary urge his views on the surveyor of taxes.

ANSWERS.

T. H. M.—Carwardine's saccharometer does not differ in principle from a burette and porcelain capsule, and it is not clear why our correspondent should fail to get a complete reduction of the cupric oxide; after the test tube has stood for a while the bluish tinge, however complete the reduction, will return, as the cuprous oxide takes up oxygen from the air. This may be the source of the difficulty.

PARALYSIS AGITANS.

T. writes, in reply to "G. F. P." (May 10th, p. 1036), as to the treatment of ptyalism in a patient afflicted with paralysis agitans, to recommend ten-drop doses of tinct. belladonnae three times a day or pilocarpine nitrate gr. $\frac{1}{30}$.

PAIN IN THE BACK.

IN reply to "Omega," Mr. Paul B. Roth, F.R.C.S., writes: Provided the abdominal and pelvic organs are healthy, and can be excluded, "pain in the back on rising and throughout the day," may be the only subjective symptom of (1) "weak relaxed back," (2) scoliosis, (3) subluxation of the sacro-iliac joint, (4) Pott's disease.

1. In this condition the natural antero-posterior curves of the spine are either exaggerated or diminished, and the patient may be unable to maintain the erect position for more than a few seconds without pain.

2. In scoliosis a hip or shoulder-blade may be prominent, and on flexion of the patient's trunk there may be seen a projection posteriorly on one side more than the other of the ribs, or of the erector spinae in the lumbar region.

The treatment of both these is by "posture and exercise."

3. This condition occasionally occurs: In addition to the pain in the back, a tender spot is found over one or other sacro-iliac joint when palpated behind. It is entirely relieved by encircling the pelvis firmly for some weeks with a strip of broad strapping.

4. Radiograms may be of use here, and an important sign is muscular rigidity; the treatment is, of course, immobilization.

LETTERS, NOTES, ETC.

CONFECTIONER'S PARONYCHIA.

A MEMBER of the British Medical Association resident in Australia informs us that on the same day that there reached him a copy of the JOURNAL for March 15th, containing an account of that comparatively little recognized disorder, confectioner's paronychia, there reached him also a copy of the *Sydney Daily Telegraph*, which contained an unintentional comment thereon. This was in the shape of an account of an action for damages in respect of an illness brought about, it was alleged, by the plaintiff finding in her mouth a human nail which had been embedded in a chocolate drop just eaten by her.

COUNTERCHECK FOR A PUSHFUL TRADESMAN.

WE are all considered fair game for touts of all kinds. Most of us are content to bear the nuisance with what philosophy we can muster, as we seldom have the chance of appropriately punishing the importunity. It is pleasing, therefore, to read of the countercheck administered by a Strassburg doctor to an enterprising tradesman who sent him a box of cigars which had not been ordered, together with a bill for 15 marks. The accompanying letter stated: "I have ventured to send these on my own initiative, being convinced that you will appreciate their exquisite flavour." To this the doctor replied: "You have not asked me for a consultation, but I venture to send you three prescriptions, being convinced that you will be quite as satisfied with them as I am with your cigars. As my charge for a prescription is 5 marks, this makes us quits."

RHEUMATOID ARTHRITIS.

DR. WM. HARDMAN (Bispham, near Blackpool) writes: As I entered the medical profession in 1864 and have been more or less actively engaged in practice until a year ago, you will believe me when I say that I have seen several cases of rheumatoid arthritis. That any single person has seen "thousands" of cases I have difficulty in crediting, as the disease is not common, though it seems commoner than it is, as each case usually lasts many years and passes under the care of several medical men. I have also seen several cases of chronic arthritis which I did not doubt were caused by micro-organisms such as the gonococcus, streptococcus, or pneumococcus. I have thought the rheumatic affections of this latter class usually easily distinguishable from rheumatoid arthritis, and in the arthritis of this kind the most valuable drug I have discovered is creasotal (creasote carbonate), the effects of which are very similar to those of guaiacol carbonate. From potassium iodide alone I have never seen any benefit. I do not believe in the least that exposure to cold and wet are ever essential factors in the causation, for the disease ought to be enormously more common if it were capable of being brought into existence by this, and should be particularly frequently met with in sailors, which, in my experience, it is not. I have noticed no especial connexion between rheumatoid arthritis and poverty; on the contrary, almost all the cases I have seen have been in people well-to-do or comfortably off. The only treatment I have found really effective in true rheumatoid arthritis is antistreptococcus vaccine, the killed cocci hypodermically injected weekly in increasing doses for long periods.

SHALL WE DRINK?

DR. WM. BRAMWELL (Liverpool) writes: Dr. Haddon's reiterations about the elimination of fluid from dietary are interesting in the extreme, but I would like to remind him that it is more than just possible that such advice, acted upon for any great length of time, might lead to disaster. I have had under my own observation more than one case in which I have reason to believe that the patient's continued dislike to fluid has resulted in operation for stone in the kidney. One patient that I have particularly in mind would rarely drink more than half a cup of tea at breakfast, and would frequently go the whole day without taking anything else to drink. His life became a perfect misery to him, even after he had undergone an operation for stone in the kidney; nor was health finally attained until he was advised as to his diet in which a normal amount of fluids was insisted on. And this, it seems superfluous to say, is necessary for the continuous flushing-out of the kidneys.

Since Dr. Haddon has quoted the habits of animals to illustrate his point, I would like also to remind him that farmers seem to think an abundance of water essential for their cattle, or they would not go to the expense and trouble of supplying tubs of water in fields which do not contain a pool or border upon a stream; and judging by the number of times animals are seen to drink at these, one would be led to believe that the elimination of fluids from dietary is against Nature, and particularly so since we know that so large a percentage of the animal body consists of water, a percentage which cannot possibly be kept up by no more than that amount of water which goes to make up the constituents of solid food. How often has a canary been found dead in its cage with an abundance of seed but no water! It is true that there is water in the seed, but yet far from enough to support life. The fact that horses do not drink when at grass seems to me sufficiently explained by their taking in sufficient water when the grass is saturated with morning dew or the rain, but I cannot see any physiological reason for doubting that they get—must get in fact—considerably more water than is actually present in the grass itself.

In advising patients to limit the amount of fluid they drink where a continued low blood pressure has been essential, I have always felt some trepidation lest I should do some harm to the kidneys by favouring the development of stone, and it is this danger particularly that I wish to point out to Dr. Haddon, to say nothing of the possibilities of producing chronic constipation, extreme nervous depression, and all the miseries, nervous and otherwise, consequent upon an inspissated blood, which must of necessity lead to a uric acid diathesis with its thousand and one symptoms.

HERPES AND VARICELLA.

DR. GEORGE BRUCE (Melbourne, near Derby) writes: *Apropos* the note of Dr. B. Jones and his reference to the annotation in the EPITOME of January 11th regarding chicken-pox following shingles in different members of the same family, I write to say that on April 18th I was called to see a lady over whose right temple and eye a profuse crop of shingles was developing. She was nursed by her sister, who was with her almost without intermission. This sister complained on May 4th of feeling poorly, and during the next day or two numerous spots, which were without doubt those of varicella, began to appear over her face and body. These spots have been going through all the phases characteristic of that complaint.

AN IMPROVED NEVILLE'S AXIS TRACTION FORCEPS.

DR. F. WM. INMAN (Wallasey) writes: In your issue of January 11th, p. 79, Dr. Stack describes an improved Neville's axis traction forceps, the principal feature being an enlargement of the axis traction rod, so that the traction is in the line of a tangent to a semicircle in the axis of the pelvis. So far back as 1900, whilst obstetrical assistant to the Liverpool Lying-in Hospital, I had a pair of forceps made of similar design, and have used them since, finding them of great advantage, and certainly an improvement on the ordinary Neville's. The idea that these forceps might be improved occurred to me whilst a student at the Coombe, Dublin, in 1898, where I saw an unfortunate woman rather badly torn owing, in my opinion, to the insufficient amount of bend in the traction rod; in the efforts to pull in the axis of the pelvis the handles were dragged against the perineum, causing a laceration before the head reached the pelvic floor. Many will say, "Why not use Milne Murray's?" If you are content to apply the forceps, and to then pull until the head is torn, there does not appear to be much advantage; but if you are in the habit of frequently pulling with the left hand, and examining the advance of the head meanwhile, with the right in the vagina, then there is an advantage in not having so much metal in the passage. The great benefit of the simpler instrument lies in the greater ease of application and removal. To take an instance—suppose that you are called to a patientt worn out by a long first stage, the waters having ruptured early on, leaving the cervix almost fully dilated, but owing to the failure of the head to descend, hanging loose in the vagina; having waited as long as possible, you apply forceps, and by gentle traction draw the head through the brim, you now find the cervix caught up and dangerously stretched. After gently pulling with the left hand, feeling the cervix meanwhile with the right, you remove the forceps, and either let the patient come out of the anaesthetic, or at any rate wait a short time, and then reapply. If the cervix still appears to threaten to tear you again remove, and wait for more pains. Having thus safely passed the cervix you bring the head down on the perineum; supposing the patient to be a primipara, you find this to be dangerously stretched, and you remove the forceps and wait for a few pains; progress being slow, you again apply, and gently cause the head to dilate the perineum; having got it well down, you again remove the instrument, and by traction on the back of the occiput, with the fingers of the right hand to draw the occiput down and to prevent early extension, combined with pressure on the chin behind the anus, you cause the head to pass the perineum with the smallest possible sub-occipito-bregmatic diameter distending it. In occipito-posterior cases it is very important to be able to remove the forceps easily, and to reapply after manual rectification.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
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An average line contains six words.

All remittances by Post Office Orders must be made payable to the British Medical Association at the General Post Office, London. No responsibility will be accepted for any such remittance not so safeguarded.

Advertisements should be delivered, addressed to the Manager, 429, Strand, London, not later than the first post on Wednesday morning preceding publication, and, if not paid for at the time, should be accompanied by a reference.

NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

The Annual Oration

ON

THE TREND OF THOUGHT IN RECENT PHARMACOLOGICAL RESEARCH.

DELIVERED BEFORE THE MEDICAL SOCIETY OF LONDON.

BY

SIR WILLIAM WHITLA, M.A., M.D., LL.D.,

SENIOR PHYSICIAN, ROYAL VICTORIA HOSPITAL, AND PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS, QUEEN'S UNIVERSITY, BELFAST; VICE-PRESIDENT OF THE BRITISH MEDICAL ASSOCIATION.

PRESIDENT AND GENTLEMEN,—My first duty is to express my thanks for the high honour conferred upon me by the Medical Society of London appointing me Orator for 1913. I feel quite overwhelmed when I reflect that with hosts of metropolitans of world-wide fame, all far better fitted to fill this exalted position, you have honoured the outpost of civilization to which I belong by selecting an obscure provincial to address you to-night.

My colleagues and professional brethren across the Channel cling to the belief that though separated by this turbulent streak of melancholy ocean they are as proud of the traditions of English medicine as if a bountiful Providence had cast their lot in the heart of your mighty metropolis on the banks of the Thames instead of on the quiet shores of the Lagan. Therefore, though it may not be permitted of me to refer in these degenerate days to loyalty of a different kind, I nevertheless rejoice in assuring you that our pulses throb in unison with your own in every aspiration for the advance of British medicine.

In casting my eye over the wide domains of the science and practice of our art in search of a subject to claim your attention for a brief hour to-night the present condition of the field of therapeutics suggested itself. In no other department of medicine at the moment is such laborious research manifest or have there ever been more earnest attempts made to utilize every discovery in other branches of science for the prevention of suffering and for the relief and cure of disease. The triumphs of physics and the advances of synthetic chemistry are being daily pressed into the service of therapeutics, and each addition to our knowledge in pathology, etiology, and diagnosis is valued by the standard of how far it shall be found useful in leading up to a more successful treatment of human maladies. The result of this ceaseless activity has been an advance in the art of healing during the last three or four decades, which is perhaps as great as the progress registered in any corresponding number of centuries.

Whilst the militant army of chemists, bacteriologists, and pathologists was successfully wresting from Nature her treasured secrets when the majority of my present auditors were entering upon their professional studies, the therapeutic battalion seemed to be merely marking time. These were the days when the pessimist and the sceptic, strengthened by the startling revelations of microscopic changes in diseased tissues, and emboldened by the failures of empirics or the visionary seekers after specifics, scoffed loudest at the bare possibility of such results as have been since achieved. This condition of affairs was not without its depressing and retarding effect upon therapeutic progress, so that even the facts accumulated throughout many years of patient clinical observation on the old and well-tried remedies were frequently denied or altogether ignored, because a scientific explanation of their action was not immediately forthcoming.

In the present age of pharmacological activity and discovery, when the air is still ringing with the marvellous results achieved by such agents as thyroid extract, diphtheritic antitoxin, and salvarsan, we have to guard ourselves against the allurements of the opposite evil of credulity. We can, however, always rejoice in the existence amongst us of the honest doubter—one of the best assets of British medicine—for only through honest doubt can we hope to reach the final goal of sure belief—the essential factor in successful therapy.

The present seems to me, therefore, a suitable opportunity for pausing and investigating the truth of the more important theories which, like beacon lights, have been guiding pharmacologists in their successful search after new remedial agents. Obviously, the brilliant triumphs achieved by operative surgery and Listerism cannot come under our immediate consideration, owing to the shortness of the time at my disposal; neither, indeed, is it necessary to speak of them, since they have been ably dealt with by more than one of your recent annual orators.

On the threshold of such an inquiry we are reminded that very often the advances made in one era are to be traced backwards to their origin in a rational or accidental discovery made at a much earlier date, and sometimes to a research the importance of which was overlooked at the time. Should such a retrospect in the domain of therapeutics prove successful in elucidating a scientific starting point to which our present advances can be reasonably attributed, the subject becomes of more than a mere historical or academical interest, since we can confidently hope for further progress so long as research is conducted upon the lines originally laid down, or lines directly or indirectly communicating with the main track.

Such a starting point, I believe, may be found in the epoch-making researches on the action of methyl-strychnine, conducted by Crum Brown and Fraser in 1868. It was well known that ammonia and its derivatives, when administered to animals, caused stimulation of the spinal cord and medulla, which ended in convulsions; it was also recognized that the chemical constitution of the vegetable alkaloids corresponded to the type of an ammonia derivative. These experimentalists made the discovery that by linking the organic alkyl radical, methyl (CH_3), to the nitrogen of the complex molecule of strychnine, the resulting comparatively slight change in chemical structure altered in a remarkable manner the physiological or pharmacological action of the alkaloid. The alteration was manifested by a change from the convulsant effect on the cells of the cord to a paralytic one on the terminals of the motor nerves, such as is witnessed in the well-known symptoms of poisoning by curare. This change of physiological action being manifestly due to the transformation of the original tertiary base into a quaternary ammonium compound, it was not to be wondered at that almost identical results were obtained by altering in the same way the chemical constitution or structure of a number of the other alkaloids exercising widely different actions on the human body.

Similar change in physiological action is also obtainable by linking other alkyl radicals, as C_2H_5 instead of CH_3, the radicals being, in each case, previously combined with iodine or bromine. That this change in action is not a mere coincidence or accident, is demonstrable in a remarkable manner by the methylation of curare itself—the drug which, in its natural state, affords the most typical example of a paralytic effect upon the motor nerve endings. This substance contains two ammonia bases—the active curarine and the comparatively inert curine. Now, if the latter base be altered by the before-mentioned manipulation with methyl, the transformation in its chemical constitution causes it to become about 230 times more poisonous than before, and the resulting new compound is found to be identical with curarine, the active principle of the drug.

Sir Lauder Brunton, to whom British therapy owes so much, speaking in 1886 of Crum Brown and Fraser's discovery as directing pharmacological advance along a new path, prophesied that another twenty years would not only add greatly to our stock of remedial agents, but to a better knowledge of our patient's condition, ushering in the era when we should be able to ensure the drug action we desired without feeling that our patients often died for lack of knowledge, not on our part but on that of our art. We all feel painfully that such a millennium is still far off, but, nevertheless, we are steadily, if slowly, approaching it. If we interpret Brunton's forecast concerning "our better knowledge of the patient's condition" as implying a clearer conception of the incessant changes taking place in the protoplasm of the body cells, it must be conceded that enormous strides have been made in our progress in this direction, since, during the last quarter

of a century, a chemical basis has been industriously constructed, upon which the science of pathology now securely rests—a fact not sufficiently recognized, even by pharmacologists.

Therefore in a re-survey of our therapeutic position any examination of the value of the theory concerning the relationship between pharmacological action and chemical constitution must proceed hand in hand with a consideration of the advances made in chemical pathology and physiological chemistry. The truth of the axiom that pathology must constitute the basis of every rational system of therapeutics is more obvious to-day than it was fifty years ago, at which time the study of diseased processes was mainly conducted on morphological lines. If the science of pharmacology is to rest upon the arch of pathology, whose keystone is physiological chemistry, it obviously follows that this foundation must be sufficiently strong and wide to support the growing fabric of all scientific therapy.

The subject of the relationship between physiological action and chemical structure is a most complex and tedious one for treatment in a solitary address, especially as the high pressure and whirl of professional activities permit few practitioners to cultivate the habit of thinking in chemical language. The nature of our work almost compels us to think out our clinical problems from the physical or vitalistic point of view, hence in my attempt to review the accumulating evidence in favour of accepting the doctrine of a close connexion between the action of a drug and its chemical structure I shall try to avoid as far as possible references to complicated graphic formulae and the highly technical phraseology of the student of organic chemistry.

It was expected by pharmacologists that Brown and Fraser's discovery would immediately revolutionize the science of therapeutics, but in this they had to realize soon a keen disappointment. The application of a few swiftly constructed generalizations to the solution of intricate therapeutic problems at first only led to failure and chaos, and, as always happens, a revolt against the new doctrine soon appeared. Even at the present hour some pharmacologists may be seen labouring under the old incubus of trying to explain the action of drugs on the theory of some purely physical or mechanical property in their atoms or molecules, whilst others are falling back hopelessly upon the ancient vitalistic conception. Hence arises the importance of a scrutiny of our present position, since the problem is not one to be decided only in the laboratory, but to be finally tested by the practitioner at the bedside.

It is hardly necessary to remind my auditors that in the examination of the theory of the relationship between pharmacological action and chemical constitution we must put aside the question of the mere chemical composition of a drug. It is not the number or nature of the atoms in a compound which we have to think of, but the plan of structure by which these are built up and linked to each other in the drug. In other words, it is not a consideration of the number or nature of the individual bricks or building stones employed, but the manner in which these are grouped together in the molecules of the compound radicals determining the final chemical construction or constitution of the compound. This vital distinction between the structure and composition of a chemical compound is seen in the empiric formula $C_6H_{12}O_4$, which is the label attached to no fewer than sixty-six compounds —all totally different substances. It is true that a simple change in the mere composition of a salt may change or vary greatly its action, but this will generally be found to be due to some alteration in its solubility which causes retardation of its absorption or acceleration of its elimination. Thus the victim of the malarial parasite can be often speedily rescued from his perilous toxaemia by a moderate dose of the hydrochloride of quinine when he would perish with an enormously larger amount of the insoluble alkaloid or its sulphate lying unabsorbed in his gastric cavity.

After the demonstration of the results of methylating the strychnine molecule came the valuable generalization of Brunton and Cash on the actions of the carbon compounds. These observers pointed out that the two great fundamental groups met with in organic chemistry differed very materially in their pharmacological actions. The substances built up on the open-chain plan, the type of which is marsh gas (CH_4) and chloroform ($CHCl_3$), all paralyse the nerve centres and tend to exert an anaesthetic action, whilst the close chain or ring series, represented by the benzene nucleus, produce convulsions or spasms before paralysing. Liebreich, seizing the truth of this common paralytic action of the open chain or fatty series of the carbon compounds, started out in search of a new hypnotic, which ended in the discovery of chloral, as Schmiedeberg likewise gave to therapy the invaluable hypnotic—paraldehyde.

When one of the hydrogen atoms in the closed benzene ring is replaced by the radical hydroxyl (HO) phenol is formed, and as each of the other hydrogen atoms is substituted by a further hydroxyl addition, or by methyl, the antiseptic power of the resulting aromatic compound proportionally increases. It was found that by varying the position of hydroxyl in the ring valuable antipyretic qualities could be developed; thus was achieved a notable triumph in therapeutics by advancing from hydroquinone to the synthetical building up of kairin, thallin, and finally of antipyrine.

Since then innumerable examples have accumulated equally suggestive of this close relationship, a mere recital of which would occupy the entire time at our disposal, and by their multiplicity would obscure the issues under consideration. It is noteworthy that these examples tell in opposite directions. Not only is the synthetical chemist able, by altering the structure of the molecule, to intensify greatly the action of the compound; but he can, with equal ease, render the poisonous drug inert by introducing into the molecule such acidic groups as the sulphuric, sulphonic, and carboxylic. Thus the poisonous phenol is converted into the inert phenyl-sulphuric acid, and morphine-sulphuric acid can be swallowed with impunity in drachm doses. Notwithstanding, however, these accumulating instances of close relationship, it must be conceded that it is still impossible for the pharmacologist to foreshadow with absolute certainty the physiological or therapeutical action of a particular untried drug, so that rational must proceed in company with a certain degree of empirical therapy. But the shrewd guesses of a couple of decades ago are now being replaced by the stronger probabilities of later years, and by the almost certainties of 1913. It is often argued by the sceptic, with an apparent show of reason, that this relationship between chemical structure and pharmacological effect, if it be a definite law, should always afford the certainty of a mathematically correct prophecy. That it does not is due to the fact of our want of knowledge about the construction of the molecules of the highly complex carbon compounds, whose number almost suggests infinity, and of which but a very few comparatively have been studied structurally. Each discovery of the true nature of the graphic formula of these shows that Nature is gradually, if reluctantly, yielding up her secrets to the indefatigable analytical and synthetical chemist, who at once seizes upon the advance as a new stepping stone from which to approach the creation of an entirely new compound with the almost certainty of obtaining a specific action upon some particular type of body cell or tissue. It is true that unforeseen secondary actions of the newly created drug may vitiate the desired result and prove a barrier to its safe use as a therapeutic agent, but often a further study of its complex molecule suggests a new substitution process by which untoward effects can be eliminated after handing back the compound from the pharmacologist to the synthetical chemist. Another real difficulty in the acceptance of the relationship as a definite law is the operation of the incessant changes, chemical and physical, which are occurring in the blood and body cells, but this difficulty, as already mentioned, is steadily being lessened by the new flood of light thrown on metabolic processes by the physiological chemist.

The few pharmacologists who attempt to belittle the importance or deny the truth of the intimate relationship between drug action and chemical structure because of their adherence to a purely physical or mechanical theory of the *modus operandi* of remedial compounds, appear to have overlooked the obvious possibility of the physical character of the molecules being entirely due to the chemical structure of their constituent groups. Thus, it cannot be too clearly realized that should some startling

discovery prove the correctness of the old physical theory (though such an event is almost inconceivable), the importance of the relationship as a factor in therapeutic advance would in no way be lessened, especially as it is abundantly recognised that the operation of purely physical laws plays an important part in at least either retarding or facilitating the entrance of the drug to the cells of the tissue upon which it acts.

Let us now, for a moment, suppose that sufficient instances are not yet forthcoming to justify us in regarding the connexion between chemical constitution and physiological action as a definite "law," but only as a working hypothesis, and let us glance at the results which have accrued to practical therapeutics from its application. No stronger proof could be produced for the demonstration of a truth in medicine or in any other science than the long list of new synthetic antiseptics, antipyretics, analgesics, local anaesthetics, and hypnotics, the discovery or creation of which has owed its origin not to empiricism, but to the inspiration of a rational therapy founded on the theory of this relationship. Truly men do not gather grapes of thorns or figs of thistles. If we even set aside the entire series of new remedial agents just mentioned, salvarsan would alone demonstrate the truth of the contention. Ehrlich in the introduction to *The Experimental Chemiotherapy of the Spirilloses* states that from the beginning of his medical studies he became possessed with the conviction that "if a connexion between the constitution and the physiological action were granted, this must be pushed further and the tissues must also participate in the distribution, and whereas formerly the substances were offered to the medical man by the chemist for testing purposes, the conditions could now be reversed and the chemiotherapeutist could give the chemist points which lead to the desired recovery of genuine curative substances."

To my mind the question of whether or not Ehrlich has discovered a genuine cure for syphilis sinks into insignificance when contrasted with the importance of the fact that his methods are based upon such a rock-bed of truth as must ultimately revolutionize the treatment of all parasitic diseases by chemical agents. That no single step in his laborious search for a remedy against the spirochaete was taken empirically or at haphazard is evident from his repeated assertion that from start to finish every advance was made in a most purposive manner and only after an exhaustive study of the molecular construction of each of his 606 tested compounds. How far Ehrlich pushed his conviction beyond the theory of mere relationship brings me to the consideration of the second great fundamental principle underlying the conception of a purely chemical basis for all therapy.

His term "chemiotherapy" implies a great deal more than the acceptance of an established dependence of action on chemical constitution. With this new word another working hypothesis leaps into view, and it is essentially different from the one which we have been considering. The mixing up of these two theories has already threatened a check to therapeutic advance. Stated in its most advanced form, this second theory attempts to explain the action of a drug as the result of a chemical combination of some of its groups with other constituent groups or radicals in the complex molecule of the living protoplasm of the cell or tissue upon which it acts. It must be at once conceded that such chemical reaction can only be proven in a few cases, and therefore cannot be said to rest, as a theory, on the solid basis which must be acknowledged as existing in the case of the established relationship between structure and drug action. Hence it is not surprising to find that some pharmacologists who regard the relationship theory as not incompatible with the older hypotheses of vital, physical, and catalytic actions, nevertheless deny the truth or probability of the newer doctrine.

It will repay us to put this working hypothesis of chemical reaction to the same severe test as we have applied to the outcome of Brown and Fraser's discovery in order to examine and determine what part it has played or is playing in therapeutic progress, so that we may judge of its truth by the fruit which it has brought forth. And here let me remind you that the molecular theory upon which the science of chemistry is based is still but a working hypothesis, and probably must remain as such for all time. It has long been known that many drugs suffer a fundamental change between the periods of their absorption and final elimination from the body. The direction of this change, as put by May, is usually in the direction of a transformation of an active or poisonous substance into a less harmful compound, and though it cannot be accepted as proof that the effect of the original drug is due to a chemical reaction between its molecules and those of the living protoplasm on which it acts, it may nevertheless be incidentally mentioned that this knowledge has been put to practical account by suggesting to the synthetic chemist the planning of a new compound on the same type as the transformed eliminated product. In this way, from a study of the behaviour of aniline in the body, phenacetin and other valuable para-amino-phenol derivatives have been added to the therapeutic armamentarium.

The great difficulty of demonstrating the doctrine of a purely chemical basis for pharmacological action rests in our incomplete knowledge of the chemical construction of the living cell protoplasm and of the physico-chemical processes incessantly occurring therein. The puzzling and highly complex constitution of the proteid molecule is gradually being cleared up, and already about a score of its cleft off building stones have been examined and proved to be of definite chemical composition and constitution, containing strong basic and acid groups capable of combining with each other to form an infinite number of compounds. Though we are still a long way from a synthetical construction of a protein molecule, the building up of the polypeptides by Emil Fischer strongly encourages the hope that this giant achievement is a possibility in the not far distant future. How vast is the field for such research, and how numerous are the amino-acid groups all capable of combining with each other through their basic and acid radicals may be dimly appreciated by the estimation of the molecular weight of haemoglobin as 16,669.

On reflection it becomes obvious that the complexity of the construction of the molecule of the cell protoplasm and the almost infinity of its changing groups are in themselves arguments rather in favour of than against the theory of a true chemical reaction between the compound administered and some of the radical groups existing in the cytoplasm.

These considerations clear the way for a brief glance at Ehrlich's great side-chain hypothesis or working theory advanced in order to explain the phenomena of the action of the antitoxins of diphtheria and tetanus. It is based entirely upon the chemical conception, and at first view the remarkable fact is obvious that this purely chemical hypothesis was built up to explain the action of the most complex organic compounds known to science in order to elucidate the phenomena of immunization. It recognizes the fact that the toxin molecule contains a large number of complex organic groups or radicals bound together to a central chain or nucleus.

Some of these radical groupings possess a chemical affinity for other complex groups existing in the protoplasm of the cells susceptible to the poison. These chemical affinities constitute in the language of Ehrlich the side chains known as the anchoring group or haptophore, which combines with a receptor radical in the cell protoplasm, and thus fixes or anchors the toxin molecule to the protoplasmic molecule. The harmful radical in the toxin, being thus fastened in close relationship with a chemical group in the cell, combines with it through its toxophore radical, the chemical reaction accomplishing the injury or death of the cell.

According to this working hypothesis no result will follow the injection of a toxin unless the cells of the organism contain in their molecule a group or radical, known as the receptor, which possesses an affinity for the haptophore or anchoring radical in the toxin as well as a group capable of being injured by the toxophore side chain of the poison. The phenomenon of natural insusceptibility is thus easily explained, since the immune animal contains in its cellular protoplasm no receptors for the fixation of the toxin molecule. Of much more practical importance to the therapeutist is the working out of this hypothesis when applied to the elucidation of acquired insusceptibility or immunization, and of still greater importance is it in solving the problem of the action of

antitoxins in the cure of disease. When doses of the toxin short of producing a fatal result are injected the chemical reactions just described are assumed to have occurred, but the smaller amounts, instead of destroying the cell, only serve to excite it to regenerate its receptors. The cell is also further stimulated to produce more of the chemical receptor substance than is required merely to replace that which has already combined with the toxin, the excess being showered into the blood constituting the antibodies found in the serum. These, therefore, are to be considered as free cell receptors with unsaturated chemical affinities which immediately combine with the haptophore radicals of the toxin, thus effectually preventing them from anchoring to the cell protoplasm, without which fixation a toxic effect cannot be produced.

At the risk of wearying my auditors I have ventured to give this brief description of the side-chain hypothesis, which is often put in such technical language as to obscure its purely chemical application; we shall now glance rapidly at the practical results of serum therapy. This has been during the last few years confused often with vaccine therapy to the retardation of therapeutic advance. I have used the term "toxin" only in its now scientifically restricted sense as the poisonous product of a true secretion of a bacillus. It is necessary to keep in mind that probably only four pathogenic bacilli really secrete a chemical poison. These are the microbes of diphtheria and tetanus, botulismus and pyocyaneus bacilli. The toxins obtainable from castor and croton seeds do not come within our present scope, and the product of Shiga's bacillus is still of doubtful nature. All the other vegetable parasites contain their poisons as an intracellular chemical or endotoxin, which can only operate deleteriously on the tissues after the death and dissolution of the microbe. This fact constitutes the fundamental difference between serum and vaccine therapy. Only toxins lead to the formation of true antibodies in the serum.

Sir Almroth Wright, who never loses an opportunity for demolishing the untenable pretensions of those who apply serum therapy to the treatment of bacterial diseases other than those of diphtheria and tetanus, speaks of the action of the serums for these latter affections as a miracle of successful immunization—a miracle which gives in a few cubic centimetres a sufficient antitoxin to change the entire course of the patient's disease. When we remember that Behring was able to immunize an animal to such a degree that one thousandth part of a single drop of its serum was sufficient to neutralize a lethal dose of the chemical toxin, we become able to realize that there is nothing in the whole realm of therapy which rests upon a more secure foundation than the serum treatment of diphtheria and tetanus. The comparative failure of the antitoxin of the latter disease only strengthens the structure upon which the therapy is erected, since by the time the first symptoms of trismus have appeared a chemical combination between the groups of the toxin and the molecule of the cell protoplasm has already taken place. We are even justified in asserting that if we could know the exact moment at which the bacilli of these diseases enter the body, by an immediate resort to the serum a fatal issue would always be averted.

It is necessary to realize the truth of this in order to judge rightly of the value of Ehrlich's hypothesis, which explains, on a purely chemical basis, almost every problem met with in the marvellous processes of active and passive immunization, notwithstanding the theoretical qualifying views of Arrhenius and Madsen regarding dissociation, or the adsorption theory of Bordet and Biltz and the recent experiments of Abderhalden with the polariscope. But even if we assume that the side-chain hypothesis does not assist us in establishing proof that the action of the antitoxic serum is of the nature of a true chemical reaction, the following facts must be accepted as conclusive evidence that the result is due to the operation of laws which govern all other chemical reactions:

1. The neutralization or saturation of the toxin by the antitoxin occurs in the test tube as well as in the animal body.

2. It is more rapidly effected by mixing together strong solutions than weak ones.

3. It occurs more quickly under warmth and is proportionally retarded by cold.

4. A very marked elevation of temperature always accompanies the reaction *in vitro*, the degree of heat having been accurately measured by Arrhenius and Madsen, who found it to correspond to about half the elevation which follows the neutralization of a strong acid by an active alkali.

5. It has been proved experimentally that the toxin and antitoxin do not perish, or are not destroyed by the chemical combination; though the former is deprived of its injurious property for the time, it can afterwards be recovered from the solution.

6. The neutralization of the toxin has been demonstrated to proceed in obedience to the law of constant proportion; that is to say, a given amount of the chemical poison, or multiples of this amount, are always saturated by corresponding multiples of antitoxin—a fact which alone would establish the purely chemical basis of the reaction.

7. If the tetanus toxin be mixed with an emulsion of the brain of a healthy guinea-pig it becomes innocuous, chemical combination being thus brought about between it and the nerve protoplasm, probably in the exact manner in which this takes place in the living animal after injection of the poison.

These indisputable facts, if they cannot be accepted as proof that all other drug action is the result of a chemical combination between the drug and a compound radical with unsaturated affinities in the protoplasmic molecule of the selective cells, nevertheless must be accepted as going a long way in this direction. That proof is so conclusive in this instance of serum-therapy where the chemical structure is so very highly complex is not without significance. (I may incidentally mention that if the result of the action of strychnine be due to a chemical combination between the alkaloid and the cell protoplasm in the spinal cord, this hypothesis should be proven if previous trituration with nerve matter rendered the poison innocuous, as in the tetanus experiment. I regret to state that a long series of experiments, inaugurated by me some years ago, failed to establish this result, the failure being probably due to the alkaloid being prevented in gaining an access to the cellular protoplasm, owing to the cessation of some preliminary physical or chemical process in abeyance in the dead protoplasm.)

The purpose, however, with which I have set out in these remarks is not so much to heap up examples in support of a purely chemical theory of the action of drugs as to point to the influence of the hypothesis on the most recent trend of therapeutic progress. If we find that by following this conception as a working hypothesis pharmacologists have been able to achieve a notable triumph over disease, we may then safely accept its truth after the manner in which the chemical explorer accepts the molecular theory.

In this consideration a study of the evolutionary steps in the side-chain hypothesis affords a considerable degree of interest. It started in Ehrlich's mind on observing the effects of various staining agents on different parts of the animal cell. After studying the chemical structure of the dye molecule he was led by the laws of reasoning to apply his inferences to the explanation of the phenomena of immunization, and it is a most noteworthy fact that he at first denied the possibility of any similarity between the action of a chemical substance of known composition and of an antitoxin. He was, however, inexorably led by his research work to the conviction that the protoplasmic molecule possessed chemio-receptors which united with the haptophore or anchoring groups in the drug.

Dixon argues with a brilliant *naïveté* that since these hypothetical receptors are obviously distinct from food receptors it is difficult to regard them teleologically as pegs specially designed for the physician on which to hang his drugs. From a consideration of the results achieved it must be conceded that they are pegs strong enough to support the heavy superstructure of chemotherapy, the coping stone of which at present is neosalvarsan.

Led first by the truth of the generalization arising from the research of Crum Brown and Fraser, Ehrlich proceeded on his path of exploration by applying at each step his side-chain hypothesis to the elucidation of the complex reactions occurring in the human body after the

injection of various dye stuffs and a host of arsenical compounds, with the result that he was enabled to discover an agent possessing the maximum parasite-destroying power with the minimum of organotropic action. But this was not all; the blending of the solution of two problems which confronted him is to be seen when we examine his final achievement. He had not only to solve the problem of killing the parasite without injuring the patient, but he had to cure the disease, which was liable to be aggravated seriously by the rapid disintegration of the slain spirochaetes. In his method we find chemio- and sero-therapy working side by side, the one aiding the other. A dose of salvarsan injected into the veins of a syphilitic mother effects the dissolution of the parasites, whose liberated toxin at once leads to the formation of antibodies in the parental blood, these on being conveyed to the infant in the mammary secretion destroy its myriad spirochaetes or render their propagation impossible, as in the diphtheritic disease, even when no trace of the salvarsan molecule can be detected in the mother's milk.

In establishing chemiotherapy, Ehrlich's aim was to effect a complete sterilization of the body by a single full dose of the antiparasitic drug without injuring the tissues, a result which he designates the *therapia sterilisans magna*. It is a very remarkable fact that in both this result and in the chemical combination theory which led to its achievement, he was forestalled by Binz of Bonn in a most important research made in 1867, the year previous to Brown and Fraser's discovery.

Binz, when experimenting on the action of various drugs on the infusorial organisms met with in ordinary hay infusions, discovered that active paramoecia were readily destroyed by a 1 in 10,000 solution of quinine, though they withstood the action of enormously stronger solutions of strychnine and other poisons of vegetable origin.

Three momentous conclusions were drawn from this simple experiment: First, that the cause of malaria, which was then unknown or dimly guessed at as a nervous manifestation, would probably be found to be of protozoan nature, since malarial disease was so readily cured by quinine. Secondly, that by administering 15 grains of the hydrochloride to an average man a solution of twice the strength in the blood necessary to kill amoebae was formed, thus fulfilling the ideal of *therapia sterilisans magna* of Ehrlich. Thirdly, at a later period the working hypothesis of true chemiotherapy was applied, by which it was inferred that the quinine entered into chemical combination with the protoplasmic molecule of the parasite, whereby it was robbed of its power of absorbing oxygen, and died of asphyxia.

Though Binz's work was mainly empirical and not conducted upon the purposive lines of Ehrlich's researches, nevertheless it affords us evidence that he was but dealing with another glimpse of the seamless garment of an eternal truth which will be found ultimately to clothe all drug action as well as every mysterious metabolic process in the living body.

From a consideration of the chemical basis of serum-therapy one is naturally led to test the value of this working hypothesis as affording an explanation of the advances made in vaccine-therapy by Wright. We shall pass lightly over these brilliant achievements, not because they are of less importance, but because the progress made in this direction does not very obviously appear from Wright's published writings to have been started entirely by the impulse of a chemical theory, as was the case in the more apparently purposive scheme of Ehrlich's researches.

The recent Witwatersrand Report of Sir Almroth on "The Treatment of Pneumonia" gives no uncertain note about his views on this subject and forces us to believe that vaccine treatment owes its origin to the conception of a true chemical combination occurring between the remedial vaccine and the bacterial protoplasm. Thus, he states that there is within the human body a laboratory which can, within certain limits, furnish bacteriotropic substances which will enter into destructive chemical combination with any and every variety of bacterial protoplasm without poisoning the tissues or becoming inert in the blood. All immuno-therapy and, in particular, all vaccine-therapy has been built up, he says, "upon these facts and upon the fact that the chemical machinery which elaborates bacteriotropic substances is set in motion whenever a chemical attack is made upon the tissues by dissolved bacterial protoplasm." He objects to the term "chemiotherapy" being restricted in its application to specific treatment by drugs, since, in all cases, both in serum and vaccine treatment as well as in specific drug therapy, the attack upon the microbes is a *chemical* attack.

A host of workers has already been busy with the test tube and the chemical balance in this department of investigation, guided by the side-chain theory, so that the mysteries of vaccine action and its allied phenomena are being steadily cleared up. But the light let in upon the working of the process flows from the genius of Wright through the discovery of his own peculiar methods of demonstrating the possibility of measuring dosage and results by the opsonic index and other modifications of the phagocytic machinery.

The chemical reactions are much more complicated, and hence more difficult of demonstration than in the case of the simpler neutralization of a toxin by its antitoxin, because, as already stated, no true antibodies are produced during vaccine treatment. Nevertheless, the serum of an immunized animal will kill the corresponding bacteria when these are added to it *in vitro* though in a distinctly different manner from that by which the diphtheritic and tetanus antitoxin act.

Two substances are required for this destruction of the microbe; one of these, the so-called *immune body*, is produced during the injection treatment, the other, known as the *complement*, exists already in the normal serum, and is not elaborated in increased amount by the injections. The side-chain doctrine hypothecates the immune body as possessing two receptors, one of which binds it to the bacterial endotoxin, whilst its second affinity satisfies itself by combining with the complement. The possession of this double affinity of the bacteriolysin is recognized in its name of amboceptor. It must be regarded as an intermediary body which (in the chemical language of Wells), on being added to the bacteria during the process of immunization, gives to them a chemical affinity for the complement existing already in the blood serum. It is therefore the complement and not the immune body which effects the destruction of the bacteria.

The sceptic may say that this explanation is pure fancy and that chemical laws have nothing to do with the result, but Hektoen has been able to isolate the complement and to prove that it is a definite chemical compound. He has rendered it inactive by causing it to combine with the ions of calcium, magnesia, and sulphuric acid, and Manwaring has succeeded in divorcing it from these ions by a simple chemical reaction. Other investigators have shown that it is a body which, though closely resembling an enzyme and very susceptible to heat, nevertheless combines with the amboceptor, in obedience to the law of definite or multiple proportions which prevails in every true chemical reaction.

The most inscrutable problem arising in serum therapy is the phenomenon of hypersensitiveness which appears on the reinjection of a serum, and causes death when all is apparently going well with the patient. Wolf-Eisner pointed out that the fatal result was due to the operation of a general biological law governing the action of a heterogeneous albumen, namely, that it causes the formation of reactive substances. It is a most noteworthy fact that, quite recently, this hitherto insoluble crux has been brought under the grasp of the chemical working hypothesis in a most unexpected way by Friedberger, who, by mixing quantitative proportions of antigens, antibodies, and complement obtained from healthy serum, was able to liberate the chemical compound which produces the tragic phenomenon of hypersensitiveness.

From these important discoveries which have established a true working theory for serum therapy, vaccination treatment, and hypersensitiveness, we derive faith that the long cherished hope of dealing effectually with all bacterial diseases will be soon realized, especially as it has been abundantly proven that the protoplasmic molecules of nearly all the pathogenic organisms possess receptors capable of combining chemically with various staining reagents.

Till quite recently it must be confessed that all the more

important advances in therapy left the greater problem of the treatment of the diseases caused by endotoxin microbes untouched. Neither did the triumph of salvarsan aid us directly, save by lifting therapeutics out of the old rut of empiricism by demonstrating what could be achieved by the application of rational methods based upon a sound chemical theory.

The fringe of the dark cloud which like a pall had overshadowed the therapeutics of the commoner bacterial affections has recently been lifted by the experimental researches of Morgenroth and his co-workers. Writing of these results, Wright states that "they are destined to stand out as a landmark in the history of pharmacotherapy, because they furnish the first demonstration of the possibility of preventing and curing a bacterial—as distinguished from a protozoal or spirochaetal—infection by the administration of a drug." The experiments were made by injecting mice with the pneumococcus, which always proved fatal when untreated. By injecting ethylhydrocupreinhydrochlorate before the inoculation 90 per cent. of the rodents were saved, and in 50 per cent. death was prevented when the salt was injected after infection. These results place the action of Morgenroth's agent in a totally different category from that of any known chemical antiseptic. When tested in the treatment of pneumococcal infections in man, though the new drug was found disappointing and was proved to produce optic disturbances, it affords us every reasonable hope that by proceeding on Ehrlich's rational lines a substitution product will be discovered capable of giving equal or better results than the startling effects on mice suffering from the same microbic infection.

A grave obstacle to the acceptance of a purely chemical hypothesis of drug action has hitherto existed in what we may term the bogey of catalysis and cell enzymes. Even this, however, has now been removed by the scientific explorer. The most recent researches into the nature of the highly complex chemical structure of the enzymes afford no clue to the plan of their constitution, which remains still a profound secret. All we know about them is derived from a study of their effects. They are to be found in every living cell, and the old view which maintained that all the metabolic phenomena of life were due to the vital activity of the cell is now shifted to the action of enzymes. These, even when intracellular, have in many instances been separated from the living protoplasm though in a state of only comparative purity.

Every known enzyme is undoubtedly in the first instance the product of a living cell, but the same may be said of quinine and strychnine, and the part played by the parent enzyme cell may be conceived by the demonstration of Kobert, who procured chemically active trypsin from the body of a spider preserved for a century and a half in the Nuremberg Museum, as Sehrt discovered active glycolytic ferment in the muscles of a mummy. The researches of Croft Hill and Oswald have proved that the action of enzymes is simply a chemical one, thus the mystery of their behaviour, which a few years ago was regarded as the bulwark of the vitalist argument, has now been demonstrated to be nothing but a series of chemical reactions which are occurring in every cell in the body. The enzyme merely increases the speed of the reaction, which, like other chemical reactions, is reversible, the change occurring from either side of the equation till equilibrium becomes established. In this way, as clearly pointed out by Wells, enzymes not only hasten the splitting up of organic compounds, but they quicken synthesis, though both processes would go on without their presence, only at a much slower rate of progress. He sums up the results of our recent knowledge in the following words: "All metabolism may be considered as a continuous attempt at establishment of equilibrium by enzymes perpetuated by prevention of attainment of actual equilibrium through destruction of some of the participating substances by oxidation, or other chemical process, or by the removal from the cell, or entrance into it, of materials which overbalance one side of the equation."

If we could clearly prove that the action of enzymes is to be explained on a purely chemical basis, as has been done in the case of the toxin and antitoxin, it must be conceded that the way to a clearer chemical conception of drug action is opened up. I believe that this has been done, for the following reasons:

Though enzymes do not act quantitatively, they are, nevertheless, practically identical, pharmacologically, with true toxins—that is, with those chemical compounds which are the free secretion of bacilli. If a full dose of a sterile enzyme be introduced into the circulation, a profound toxaemia, terminating in death, occurs. When a smaller amount is injected and repeated in increasing quantities, immunization results from the formation of antibodies, which impart an anti-enzymatic property to the blood serum. This serum, when removed from the vessels of the immunized animal, is found to possess the power of neutralizing fatal doses of the enzyme injected into another animal, and appears to behave, in every particular, in the same manner as the antitoxin of diphtheria does with its toxin. Moreover, the anti-enzymatic action of the serum is rigidly specific, combining only with its own enzyme, as pointed out by Lider.

It appears, therefore, impossible to escape the conclusion that the ferment contains a haptophore and toxophore group, which combine chemically with receptors in the molecule of the antiferment. This would probably apply also to the action of specific hormones, to which Dixon tentatively attributes the physiological activity of the tissues.

The importance of the acceptance of a chemical theory for the explanation of the action of enzymes affects the science of therapy much less than it does that of physiology and pathology. We realize this when we think of the modern biologist's view that the living cell must be regarded as a co-ordinated system of ferments, upon whose activities all the phenomena of life depend. Not only are they incessantly breaking down, but they are as continually building up or synthesizing new compounds and forming antibodies whose presence prevents the autodigestion of the different organs and tissues in the body.

To this broad conception of biological chemistry we might apply a modification of the old Greek's jest—The world is supported by Atlas, Atlas is supported by a tortoise, whilst *Chelonia graeca* itself is resting upon fair weather. E. J. Lewis has playfully suggested that the riddle of the world might be better figured by substituting the word "enzymes" for "fair weather," and I would venture to transform the burlesque into a scientific truth by suggesting that the enzymes are now resting finally upon the solid foundations of chemistry, whose laws govern—

"Air and ye elements, the eldest birth of Nature's womb, that in quaternion run, perpetual circle multiform; and mix and nourish all things."

Any survey of the potent factors in recent therapeutic advance would be very imperfect without a recognition of those purely physical forces whose fascinating influence is obviously manifesting itself on the mind of every explorer in each of the domains of natural science. I refer to those physical laws whose operations are seen in alterations of surface tension, osmosis, diffusion, dissociation, etc.

Our recently acquired knowledge of these forces sometimes proves a veritable *embarras de richesse* to the pharmacologist. Thus one of the latest arguments used for the support of the old physical view of drug action is derived from the study of the *modus operandi* of the hypnotics and narcotics by applying the theory of Hans Meyer and Overton. This postulates that the selective action of a narcotic depends upon its solubility in the brain lipoids, the more powerful members of the group being those least soluble in water and most soluble in fat. Traube's theory also runs on purely physical lines, since he attempts to explain the hypnotic action by assuming a difference of the surface tension, which alters the velocity and direction of the osmosis.

The applications of such theories may, with all respect to their supporters, be regarded as an illustration of the invisibility of the wood because of the presence of its trees. To the searcher after the truth of things such theories merely explain the entrance of the drug molecule to the cerebral cell protoplasm without affording us any help whatever regarding the way in which the narcotic effect is produced. To obtain this we must fall back on the chemical theory of Baglioni, which assumes that the temporary paralysis of the cerebral cell is due to the withdrawal of its life-giving oxygen, since the benzene-phenol compounds, in obedience to the law of relationship

between physiological activity and chemical constitution, exert their hypnotic action in inverse proportion to the amount of oxygen present in their lateral radicals. That such reduction explanation is almost certain to be true is proved experimentally by the fact that ether, chloroform, chloral, and alcohol reduce the oxidizing power of living cells. Moreover the physical theory of Overton and Meyer fails entirely to afford any explanation of the action of the most typical member of the group—alcohol.

The more closely we examine the physical and vitalistic conceptions of drug action the more certain does it appear that behind the operation of physical laws and vital activity, chemical reactions are continually taking place which are the real cause of the physical forces being themselves set in motion. Such a statement as this might at first sight appear to be bringing us perilously near to a futile discussion on the origin of life should we venture to define life itself simply as a form of chemical action as some have done. But it is quite another matter to recognize that the original fiat—"Let there be life"—effects its mysterious design through the operation of chemical laws aided by the physical forces which are to be seen in action everywhere around us.

As I draw these necessarily disjointed generalizations to a close, let me for a brief moment turn from the theories of drug action to a wider arena, where we may see in active operation all the forces which are probably also busily engaged in every pharmacological experiment. It will widen our horizon to realize what the application of a chemical hypothesis is doing for the science of pathology, upon which science only can we hope to build up a rational therapy. I will therefore ask you to glance at a subject which has engaged the attention of every pathological explorer since the advent of Virchow's conception of the cell being the structural unit of the living organism. I refer to the mechanism of inflammation. The most prominent and constant feature observable in the early stage of a local inflammatory process is the remarkable phenomenon of the invasion of the site of inflammation by hosts of leucocytes. Whence they come in such increased numbers into the circulating fluid we need not pause to consider; we are mainly concerned with the fact of their rapid swarming to the seat of injury. Why do they come? Can any explanation be given of their remarkable behaviour in penetrating the capillary walls and migrating far and near into the injured tissues? Whether we accept the earlier views of Metchnikoff and regard them as fighting cells or accept the later view of Baumgarten, which gives to them the position of grave diggers, we long for some light on the way in which they are seen to engulf foreign bodies such as bacteria or fragments of perished tissue.

Those who swallow the doctrine of vitalism have no difficulty in regarding each leucocyte as a sentient and discriminating gourmand who carefully selects and enjoys his food, who occasionally, disdaining the limits of his little reign, breaks bounds voluntarily, and may even seem in so doing to snatch a fearful joy. The scientist, however, explains easily the entire phenomenon in a perfectly rational manner by the application of the bio-chemical principle known as chemiotaxis.

It has been demonstrated that certain chemical substances powerfully attract the leucocytes, and these amoeboid organisms are seen to be drawn towards them when such compounds are brought anywhere near their zone. It appears to be absolutely certain that the immigration of the white cells into the site of an inflammatory action is determined by a chemical change in the protoplasm of the injured tissue or to the presence of a soluble chemical in its fluid constituents.

If any one doubts that the apparently volitional movements of a leucocyte cannot mostly be explained in this easy manner, he has only to resort to the simple experiment of manufacturing for himself an artificial amoeba and watching its extraordinary behaviour when various substances are brought into its presence. By placing a single drop of oil of cloves in a small dish partially filled with a mixture of alcohol and glycerine, the little bladder of oil floating on the surface will be found in structural and other peculiarities to conform to the type of an amoeba, and I have been able to form even vacuolated artificial amoebae by pouring chloroform into strong perchloride of iron solution.

Rhumbler's clove oil amoeba may be made to perform all the puzzling antics of a living leucocyte by gently injecting into the liquid in its immediate vicinity substances which alter the surface tension on one side of the sphere. In this manner it can be made to throw out pseudopodia like a living cell. A chloroform droplet in water can be repeatedly fed by various substances which it will take into its interior. If an insoluble solid, as a particle of quartz, coal, or glass, be coated over with a thin layer of shellac and presented to this artificial amoeba it is speedily swallowed, engulfed or surrounded, and after it has digested or dissolved its resinous envelope the droplet disgorges its indigestible prey. If the lac be offered in the form of a drawn out thin thread of sealing wax it will be seen to seize it by its middle and bend it, after which it throws out pseudopodia to the ends of the thread so as to pull the thread within itself by coiling it up in its interior till its solution, or we may say till its digestion, is completed.

The startling lifelike osmotic growths of Stéphane Leduc illustrate but another phase of the same phenomenon. These fantastic formations of dead sterilized chemical substances absorb food into their interior, break it up chemically, expel the waste products of the reaction, using only those necessary for their growth. They reject some chemical substances when offered to them and greedily absorb others; they grow up vigorously during their short-lived youth; remain stationary for a time, then die and suffer disintegration like living beings.

These phenomena of chemiotaxis and alterations in the surface tension so closely simulate life that many observers have ceased to hesitate to apply their action to the explanation of the behaviour of the leucocytes in the inflammatory area, though Jennings thinks that he sees a fundamental difference in the flow of the fluid contents. Each amoeboid leucocyte contains its own co-ordinated system of enzymes, the ceaseless activity of which is incessantly effecting changes of a chemical nature in the surrounding liquid medium by which the laws of surface tension and chemiotaxis are kept in constant action.

It is not only in the mechanism of the inflammatory process that chemiotaxis has been shown to play such a prominent part. From the biologist's point of view the crowning or supreme function of the living organism is seen in the phenomenon of reproduction. I need not remind you how Sir John Bland-Sutton, in the fascinating and original oration of last year, referred to the subject of gametic attraction, in which is witnessed the operation of some powerful and mysterious force by means of which the spermatozoon is drawn towards the passive yolk-laden ovum. Pfeffer experimentally demonstrated that malic acid strongly attracts the spermatozoids of various ferns when brought within their zone. Now, this substance has been found to be produced within the female sperm cell, and it can hardly be doubted that it is the agent which determines the actual contact of the male with the female elements of the cryptogam. It was to the discovery of this strange phenomenon that we owe the origin of the term "chemiotaxis"—a force which thus plays a leading part not only at the very inception of the life of the new individual, but all through his prolonged struggle against disease and final dissolution.

When we are thus enabled to realize the prominent part which chemical laws play in the phenomena of inflammation, and likewise also in the process of immunization, it cannot but aid us in accepting at least the high probability if not the actual proof of the force of such factors operating in all drug action. We then in renewed hope and strong faith can look forward to our arrival at the final goal of a rational therapy by travelling on the guiding lines which the genius of Ehrlich and of Wright has laid down for future research work.

THE late Dr. Alfred Chune Fletcher, Resident Medical Officer of Sutton's Hospital in the Charterhouse, left estate valued at £18,441.

THE Fourteenth International Antialcohol Congress will be held in Milan in September (22nd to 28th). The proceedings will be introduced by Professor Ettore Marchiafava, of Rome, with an address on the pathology of alcoholism. One day will be devoted to a discussion of the relations between the campaign against alcohol and the interests of viticulture.

FURTHER EXPERIENCE OF THE CARDIAC SIGN IN CANCER.

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Some nine years ago[1] I drew attention to a cardiac sign in cancer which seemed to possess some diagnostic value, and over four years ago[2] I published evidence that this value existed. I now desire to bring forward further evidence corroborating the former, and, from fuller experience, to define more closely the extent of the value and its limitations. May I remark that our means of diagnosing cancer, even in its later stages, are not always so perfect as to make any help superfluous?

The cardiac sign in cancer consists of a remarkable diminution of the cardiac dullness in the recumbent posture as determined by digital percussion. In that posture the dullness, in the normal adult, begins above about the third costal cartilage, reaches rightwards as nearly as possible to the mid-sternal line, and measures across about 3 to 3½ in. at the level of the fifth costal cartilage. On the other hand, in the cancer patient who presents the sign the cardiac dullness in recumbency begins above about the fourth or fifth costal cartilage, has its right margin ½ in. or 1 in. to the left of the mid-sternal line, and measures across less than 2 in. at the level of the fifth costal cartilage. Often it measures less than 1 in. across. Sometimes there is no cardiac dullness at all.

Digital percussion is a good deal dependent on personal factors. The measurements I am here quoting refer to my own observations. Others may find somewhat different limits. The percussion I use is moderately light.

The sign may be explained in three different ways:

1. In some cases of cancer the heart is small, and this reduction in size has been said to account for the reduction of the dullness. It may sometimes partly explain it; but by no means always; for often the dullness, though very small in the recumbent position, is normally or even abnormally broad in the erect.

2. If the loss of elasticity, so common in the skin in cases of cancer, affects the lung as well, it is conceivable that ordinary respiration may induce a sort of spurious emphysema and thus diminish the dullness. It is now known that a peculiar form of emphysema does often occur in cancer—Fenwick found it in 28 per cent. of his cases of gastric cancer[3]—and no doubt in many cases this helps to produce the sign.

3. The cardiac sign is often associated with a remarkably soft and toneless pulse, and with very feeble heart sounds. If we suppose that the first is due to a deficiency of blood—such as the anaemia so often present suggests—and that the second shows a flabbiness of the heart muscle comparable to the flabbiness of the skeletal muscles so often recognizable in such patients, it is not difficult to imagine a flabby and imperfectly filled heart dropping back from the anterior chest wall on recumbency more than a normal heart would do. And this is just what actually seems to occur. For the disparity between the heart dullness in the erect and recumbent positions in cancer is usually much greater than that observed either in health or in other diseases. I have found, for instance, a heart dullness in a case of cancer, measuring 5 in. across in the erect position, drop to 1½ in. across when the recumbent posture was assumed. Indeed, in cases where an enlarged heart prevents the appearance of the cardiac sign as I have defined it, I have thought that such an exceptional disparity in the erect and recumbent dullnesses, or an exceptional withdrawal leftwards of the rightward edge of dullness on assuming the recumbent position, had almost the same meaning as the cardiac sign itself. That, however, requires further investigation.

But it is necessary to bear in mind certain obvious limitations of the sign's significance. Thus, when any cause is present tending, like common emphysema, to reduce the heart's dullness, then a very small cardiac dullness has naturally no special meaning. Also where, in a case of suspected cancer, some well known cause of enlarged cardiac dullness is present, such as albuminuria, valvular heart disease or retraction of lung from phthisis or former pleurisy, then the absence of the cardiac sign is, of course, of no significance.

To these obvious limitations I would add two others, from experience, less obvious and yet easily understood. Where the heart is considerably displaced upwards by abdominal distension, I have found the sign unreliable. Here clearly the organ is pushed from a wider into a narrower space, where it cannot so easily drop away on recumbency from the anterior chest wall. Again, where a large oesophageal cancer has lain just behind the heart the sign has been absent, and I have thought that this might be explained by the growth pinning the organ forward against the sternum and rib cartilages.

TABLE I.—*Thirty-six Cancer Cases in which all other Causes tending to Reduce the Cardiac Dullness were Absent.*

Seat of Disease.	Age.	Loss of Weight, etc.	Cardiac Dullness.	
			Width.	Upper Level.
			Inches.	Rib.
Stomach	46	Late. 1 stone lost; trace of albumen	Almost none	
Stomach	64	Late. Died soon; 30 lb. lost	¾	—
Stomach	66	Late. Died soon	¾	—
Stomach	60	Late. Tumour	⅞	5th
Stomach	38	Early. Operation; removed; microsc.	1	5th
Caecum	50	Late. Emaciated; gland microsc.	1	—
Rectum	55	Late. Extremely thin; palpable	1	4th
Prostate	49	Late. Ulcer into rectum	1	5th
Stomach	54	Late. Operation; microscop.	1¼	4th
Stomach	45	Late. Tumour; 2 stone lost	1¼	4th
Stomach	66	Glycosuria. Died 8 months later of cancer of liver	1¼	5th
Pharynx	54	Large fixed glands in neck. Iodide useless	1¼	4th
Liver	45	Late. Trace of albumen	1¼	4th
Colon	62	Late. Died a month after leaving hospital	1⅜	4th
Stomach	47	Late. Tumour	1½	4th
Sigmoid	42	Late. Mass palpable; 2½ stone lost	1½	4th
Cervix uteri	50	Not quite fixed	1½	4th
Recurrence in brachial plexus	64	After removal of glands in axilla	1½	5th
"Abdominal"	48	Late. Nodule microsc.	1⅝	4th
Rectum	62	Early. Some loss of flesh; operation; removed	1¾	4th
Oesophagus	56	Late. *P.M.*	1¾	4th
Pancreas	70	Late. *P.M.*	1⅞	4th
Stomach	66	Late. Died "evidently from cancer"	1⅞	4th
Stomach	64	Late. Tumour	1⅝	—
Stomach	70	Late. Tumour	Under 2	—
Caecum	68	Late. Died; tumour and large fixed glands	Under 2	—
Oesophagus	68	Late. Died	Under 2	—
"Abdominal"	77	Late. Died; doctor sure it was cancer	Under 2	—
"Abdominal"	70	Late. Also cancer of breast	Under 2	—
Skin of neck	73	Late. After removal of tongue	Under 2	—
		EXCEPTIONS.		
Stomach	44	7 months' duration. Lost 3½ stone; advised exploration; died 8 months later of perforation; operation	3½	3rd
Ovary	47	3 months' pain. No loss of flesh; healthy appearance; advised exploration; operation; removed	3½	3rd
Rectum	56	Late. Fixed; considerable wasting	3½	3rd
Transverse colon	50	1 month symptoms. No loss of flesh; healthy appearance; diagnosed cancer; operation; too adherent to remove	3	3rd
Stomach	60	Late. Tumours, apparently in stomach and liver; loss of flesh; no free HCl	2	4th
Stomach	56	Late. Large tumour, apparently gastric; loss of flesh 1 stone	2	4th

Yet, allowing for all these limitations to its employment, there remains a very large number of cases in which its usefulness or uselessness can be tested. In the accompanying lists it should be understood that all sources of error from any of the causes I have mentioned have been carefully excluded.

What, then, is its precise value?

In 1908, from a study of 103 cases,[2] into all of which a suspicion of cancer had entered, I obtained the following figures: Of 38 cases in which a presumable cancer was naturally accessible to direct observation or was examined at operation or *post mortem*, 89 per cent. showed the cardiac sign. Of 19 cases which ended fatally in accordance with a diagnosis of cancer, nearly 90 per cent. showed it. Of 46 cases, on the other hand, which could not be supposed to have been cancerous, it was only found present in 24 per cent.

My further experience bears out this contrast. During the last four years I have collected 107 cases, either cancerous, simulating cancer, or accompanied by loss of flesh. They indicate that whereas in cancer the sign is present in an overwhelming majority, in non-cancerous cases it is even rarer than my former figures suggested.

Thus, of 36 cases which appear undoubtedly to have been cancerous, 83 per cent. showed the sign (Table I), whereas of 71 cases which cannot be supposed to have been cancerous, only 8 per cent. showed it (Tables II and III).

Putting together this series and that of 1908, we obtain 93 cancerous cases showing the sign in nearly 87 per cent., and 117 non-cancerous cases showing it in only 14 per cent.; or, considering the results in another way, of 98 cases showing the cardiac sign 82 per cent. were cancerous, and of 112 cases not showing this sign 88 per cent. were non-cancerous.

To be entirely fair, however, only such cases should be compared with the cancerous as themselves were open to a possibility of malignancy like those dealt with in 1908. Amongst those enumerated in Tables II and III, I think 37 cases may be so regarded, as may also the 6 exceptions.

TABLE II.—*Twenty-eight Cases of Pronounced Non-cancerous Wasting, in which Heart, Lungs, and Kidneys were Healthy.*

Disease.	Age.	Loss of Weight, etc.	Cardiac Dullness. Width.	Upper Level.
			Inches.	Rib.
Addison's disease	43	3 stone	Increased.	
Leucocythaemia	43	6 stone	5½	3rd
Diabetes	63	"Much loss"	4	3rd
Diabetes	58	"Much loss"	4	3rd
Hysterical polyuria	54	Over 3 stone. Better 6 months later	4	3rd
Gall stones	49	½ stone. Well 2 years later	4	3rd
Diabetes	35	3 stone	3⅞	3rd
Diabetes	21	1 stone	3⅝	3rd
Diabetes	20	2 stone	3½	3rd
Diabetes	33	4 stone	3½	3rd
Diabetes	32	"Emaciated"	3½	3rd
Tuberculous glands	34	"Considerable loss." Operation; micros.	3½	3rd
Gastritis	62	3 stone. Well 6 months later	3½	3rd
Psoas abscess	53	"Great loss"	3⅜	3rd
Diabetes	74	"Great loss"	3⅜	3rd
Addison's disease	21	"2 or 3 stone." No question of cancer	3¼	3rd
Gastritis	20	Probably 1 stone	3¼	3rd
Gastritis	34	"Very much loss." Operation; no cancer	3	3rd
Tuberculous peritonitis	16	"Much loss"	3	3rd
Tuberculous peritonitis	17	"Much loss"	3	3rd
Diabetes	30	"Considerable loss"	3	3rd
Diabetes	35	2 stone	2¾	3rd
Gastric ulcer	37	Emaciated; perforated; operation; no cancer	2½	4th
Gastric ulcer	27	"Great loss"	2⅜	3rd
Psoas abscess	22	2½ stone	2½	3rd
Febrile enteritis	42	Great loss. Recovered.	2	4th
		EXCEPTIONS.		
Gastritis	55	2 stone. Much better 6 months later	Under 2	—
Gastritis	69	"Many pounds loss." Better 3 years later	Absent.	—

TABLE III.—*Forty-three Non-cancerous Cases, either with Wasting or with Suspicion of Cancer, in which Heart and Lungs were Healthy and Bright's Disease absent.*

Disease.	Age.	Loss of Weight, etc.	Cardiac Dullness. Width.	Upper Level.
			Inches.	Rib.
Mucous colitis	63	Well 3 years later	4	
Ovarian tumour	47	Operation. No cancer	4	3rd
Gall stones	49	Lost 20 lb. Much better 2 years after	4	3rd
Gastritis	53	Well 3½ years after	4	3rd
Haematemesis	56	Well 1 year after	4	3rd
Operation for piles	37	No cancer	4	3rd
Abscess left kidney	43	Urine normal. Operation	4	3rd
Gastritis	36	Lost a good deal of weight. Well 18 months after	3½	3rd
Gastritis	48	His doctor suspected cancer. Well 1 year after	3½	3rd
Gastritis	29	Lost a good deal of weight. No cancer	3½	3rd
Tuberculous kidney	28	Urine normal after removal. Great wasting	3½	3rd
Gastric ulcer	41	Much better 2 years after	3½	3rd
Mucous colitis	39	Lost ¾ stone. Well 5 months after	3½	3rd
Gastritis	62	Lost 3 stone. Well 6 months after	3½	3rd
Abscess of thigh	66	Lost some pounds	3½	3rd
Miscarriage	25	"Much thinner"	3½	3rd
Hydronephrosis	65	—	3½	3rd
Splenomegaly	43	No suspicion of cancer. Improved	3¼	3rd
Gall stones	55	Operation. No cancer	3	3rd
Appendicitis	60	Lost much weight. Operation; no cancer	3	3rd
Neurasthenia	55	Lost much weight. Well 1 year after	3	3rd
Gastritis	37	Had lost weight. Greatly improved	3	3rd
Hysteria	42	Extremely thin. Greatly improved	3	4th
Ovarian tumour	30	Loss of weight. Operation	3	3rd
Gastritis	37	—	3	3rd
Tuberculous bladder	30	Bright's disease absent	3	3rd
Goitre	43	Had lost weight. No evidence of cancer	3	3rd
Gastritis	48	Very thin. Well 1 year after	Normal	
Abdominal adhesions	65	Operation. No cancer	Normal	
Duodenal ulcer	60	Lost much weight. Operation; no cancer	Normal	
Thyroid tumour	56	Hard, nodular, adherent. Well 3 years after	Broad	
Abscess in pelvis	53	Question of sarcoma. None found	Normal	
Gastritis	63	Family history of cancer. Well 3 years after	Normal	
Gall stones	60	Well 1 year after	Normal	
Neurasthenia	47	Well 1 year after	Normal	
Dysphagia	34	Well 3 years after	Normal	
Gastritis	38	Very thin. Well 4 years after	Normal	
Gastritis	56	Losing weight. Well 2 years after	2½	3rd
Gastritis	31	Stomach dilated. Well 4 years after	2½	—
		EXCEPTIONS.		
Gastritis	52	Advised exploration. Well 3½ years after	1	4th
Dilated stomach	47	Better 2 years after	¾	5th
Gastritis	44	Lost ½ st. in 2 months. Better 4 years after	¾	—
Dysphagia	64	? Cause. Now has jaundice, but no proof of cancer	Absent	

Here, therefore, we have a series comparable to that which I published in 1908. They give a percentage of only 14 showing the cardiac sign. Adding the two series (of 1908 and 1912) together, we obtain 89 cases non-cancerous but more or less open to the suspicion of being cancerous, with only 19 per cent. showing the sign, a striking contrast to the actually cancerous cases; and of 88 cases which did not show the sign 85 per cent. were non-cancerous.

So that in a suspected case of cancer the presence of this sign adds considerably to the likelihood of the presence of cancer and its absence to the likelihood of the absence of cancer, except, I should add, in early cases.

But it has been objected by an able observer that the sign is only corroborative of considerable wasting. If this were correct, the sign would only be a curiosity. The following facts show that his suggestion is mistaken.

In non-cancerous wasting, even when extreme, it is rarely present (Table II).

In cancerous wasting, even when marked, it is occasionally absent (Table I).

In cases of cancer which have not wasted at all, it is sometimes present (Table I).

Indeed, it is not apparently even true that the diminution of the dullness in cancer is proportional to the wasting (see Table IV).

TABLE IV.—*Cancer Cases in which the Amount of Wasting is indicated distinctly (in* TABLE I).

Amount of Wasting.	Cardiac Dullness.		Amount of Wasting.	Cardiac Dullness.	
	Width.	Upper Level.		Width.	Upper Level.
	Inches.	Rib.		Inches.	Rib.
None	3½	3rd	2½ stone ...	¾	—
None	3	3rd	2½ stone ...	1½	4th
1 stone... ...	Almost none		3⅝ stone ...	3½	3rd
1 stone... ...	2	—	"Extremely thin"	1	4th
2 stone... ...	1½	4th	"Emaciated"	1	—

One very important question—the value of the sign in operable cases—I cannot settle because so few operable cases, satisfying the conditions I have laid down, have presented themselves. But it is worth mentioning that of 6 operable cases 4 gave the sign.

Another important question—how often the sign may lead one into error—can be reasonably answered. If ordinary care be taken and the frequency of its occurrence in cancer and of its non-occurrence in other cases be remembered it should rarely mislead. In the cancer cases which were operable it caused no mistake. In non-cancerous cases it has, perhaps, induced me to suggest exploration unduly often—a pardonable error—and in several to hazard an erroneous forecast. On the other hand, had I paid more heed to it, I should have saved myself more than once from mistake.

In sarcoma I have noticed that the sign seems less commonly present.

With regard to some of the earlier cases it is instructive to recall the opinions of others—all men well qualified to form a sound judgement, but without the advantage of experience of the sign.

Caecum.—Diagnosed five weeks before a distinguished surgeon would accept the opinion and operate. After operation the growth recurred.

Sigmoid.—A well-known surgeon declined to admit that a diagnosis was possible; it had been made, however, and on operation a cancer was found and removed. It has not recurred during five years.

Stomach.—An able surgeon declined to accept the diagnosis and to operate. He operated, however, several months later. Cancer was found (microscoped).

A friend of mine, who habitually looks for the sign, has had a similar experience to these. He sent an early uterine cancer to a well-known specialist. The specialist declined to operate, because he considered the case was not cancerous. In fact, I believe he treated my friend with some contumely. Later on, when the case was inoperable, he apologized.

In conclusion, I would sum up thus the results of my experience:

1. The sign is of practical value.
2. If present in a case where the presence of cancer is possible, the diagnosis of cancer should only be rejected after most careful consideration.
3. If absent in what may be an early case of cancer, little stress must be laid on its absence.
4. But if absent in what must be, if cancer at all, a late case of it, its absence strengthens considerably the likelihood of the absence of the disease.

REFERENCES.
[1] *Transactions of the Royal Medical and Chirurgical Society*, March, 1904. [2] BRITISH MEDICAL JOURNAL, 1908, vol. ii, p. 298. [3] Fenwick, *Cancer and Tumours of the Stomach*, 1902, p. 74.

LIPODYSTROPHIA PROGRESSIVA.*

BY

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I WOULD define lipodystrophia progressiva (λίπος = fat, δυς = bad, τροφή = nourishment), a term for which we are indebted to Dr. A. Simons[1] of Berlin, as a morbid condition, possibly confined to the female sex, and characterized by progressive disappearance of the subcutaneous fat from the face, upper extremities, and trunk, whereas the fat of the lower extremities and gluteal regions remains unaffected or is increased in amount. In some cases, perhaps, the condition is one of pathologically altered distribution of fat rather than of genuine wasting, or possibly merely of relative excess of fat in the lower extremities and buttocks of an otherwise rather thin subject. Although I have retained the adjective "progressiva" as suggested by Simons, it is by no means certain that the disorder is always a progressive one. In all probability all degrees of this abnormal fat distribution occur, progressive in some subjects, and arrested or stationary in others, whilst in yet other cases the condition may probably occur as only a temporary feature in the life-history of a patient or as little more than a slight exaggeration of a normal female sex character. In this connexion it must of course be remembered that the development of subcutaneous fat is greater in the thighs and gluteal regions of the average human female than of the average male. This local distribution of subcutaneous fat constitutes practically a secondary sex character, and the gluteal prominence is greatly exaggerated in some African races, constituting the racial peculiarity known as "steatopygia," which is illustrated by the pictures of the "Hottentot Venus."† In regard to the occasional exaggeration of this sex character in Europeans I would quote a remark made by Pierre Marie at the discussion of a case at the Société de Neurologie, at Paris, July 11th, 1912—namely, that it is not rare to meet with women the upper part of whose bodies is emaciated in comparison to the fatness of their lower limbs. A curious fact is that in some pathological conditions, notably in the case of a young woman shown by Dr. H. G. Turney at the Royal Society of Medicine on March 5th, 1913, as probably an example of "a pituitary and adrenal syndrome," this sexual predominance of subcutaneous fat about the thighs and gluteal regions is altogether wanting, though there may be an apparently excessive accumulation of subcutaneous fat in the face and trunk.

In June, 1911, I saw a young unmarried woman, aged 27, of Jewish parentage, who had lost almost all the subcutaneous fat from her body, but less from the parts below the iliac crests and groins—that is to say, from the buttocks, thighs, and legs—than from the trunk, face, and upper extremities; moreover, there was no extreme loss of fat from the orbits or mammae. I found no evidence of any visceral disease. There was a report of temporary glycosuria about one year previously,‡ which I

* A paper read at the Neurological Section of the Royal Society of Medicine on May 22nd, 1913.

† In regard to the racial distribution of "steatopygia," see S. G. Shattock, On Normal Tumour-like Formations of Fat in Man and the Lower Animals, *Proceedings of the Royal Society of Medicine, Pathological Section*, London, 1909, pp. 209-226.

‡ Transient glycosuria is, I believe, not rarely to be found in young persons with various disorders of general nutrition and development. I have noted it myself in an undeveloped girl of the "mitral infantilism" class, and in a young woman with a moderate degree of infantilism of the "ateleiosis" class. I showed both these cases at the Royal Society of Medicine in the first half of 1913.

regarded as of no importance. The clinical history was that the patient was a healthy girl up to the age of 16 years, when the menstrual periods commenced. Since then her general condition had been unsatisfactory. She had suffered from a certain amount of pain with the periods, and likewise complained of dyspnoea and of insomnia, for which she had taken various drugs. She was likewise discontented with life in her parents' home, and was desirous of obtaining some useful occupation, which would render her more independent. In January, 1913, I heard that her condition remained much the same. There was some neuropathic family history.

The condition had to be regarded as a peculiar variety of emaciation, probably in some way dependent on the nervous system, the distribution of the fat-atrophy being specially affected by the patient's sex, so that the lower extremities (normally very liberally supplied with subcutaneous fat in females) retained their fat.

At the time when I saw this patient in 1911 I already had seen one similar case:

A young woman, aged 21 years, was brought before the Clinical Society of London on March 22nd, 1907,[2] by Dr. Harry Campbell, who described the case as one of "disappearance, more or less complete, of the subcutaneous fat above the region of the lower extremities." The wasting of the fat was specially marked in the face, chest, and abdomen, including the region of the mons veneris, but there was no disappearance of fat from the mammary glands or the orbits, and there was an abundant deposit of subcutaneous fat in the buttocks and lower extremities generally. The patient, who was of Jewish parentage, was said to have been perfectly normal up to the age of 6 years, but from that time to the age of 14 years the fat gradually disappeared from the affected regions. The fat first disappeared from the face, and then the process of fat-absorption gradually spread downwards at the rate of about one inch every year. Six years later Dr. Campbell showed the case again, and said that the absorption of subcutaneous fat had spread about six inches downwards during the six years' interval. The orbital fat and the mammary fat still remained unaffected. Tests revealed no difference between the secretion of the sudoriferous glands in the affected and unaffected areas. He regarded the case as one of "trophic" changes of obscure origin.[3]

A very similar case was described and illustrated by Dr. Eugen Holländer, of Berlin,[4] in 1910:

In a young woman aged 21 years the intraorbital fat appeared to some extent to have shared in the atrophic process, so that the patient had a peculiarly cadaverous expression. The cheeks were sunken and the orbits were hollowed out around the eyes. The mammae were round and hard, but apparently consisted of glandular tissue only. The superficial muscles of the neck, trunk, and upper extremities were mapped out, as in "anatomical manikins." Below the hips, on the contrary, all the parts were covered by subcutaneous fat in abundance, and, indeed, there was decided excess of fatty tissue in the outer parts of the thighs. Except for a rotatory nystagmus, apparently of congenital origin, nothing else abnormal could be discovered. All kinds of treatment had been tried, but had failed to fatten the patient—that is to say, to fatten the emaciated parts—but from the cosmetic point of view Holländer seems to have been more successful by injecting a sterilized mixture of human fat and mutton suet into the subcutaneous tissue of the face.

Sir William Osler has very kindly told me of a similar loss of subcutaneous fat, but occurring in a much younger girl.

The patient was only 10 years old in 1895, when she was first brought for treatment as a dispensary patient in America. The contrast between the extreme thinness of the face, trunk, and upper extremities and the plumpness of the part below the hips was very great. She had begun to get thin five years previously, the loss of flesh being first noticed on the face and back. She was very pale. Her mother and mother's mother were said to be "nervous."

Information obtained in February, 1913, showed that menstruation had commenced when the girl was 12 years old, and that her general condition improved afterwards. Her face had still little subcutaneous fat, though more than it had before, but no complete examination of the patient had been made during late years. Though she still looked thin and weak, she said that she felt well and was much stronger than most women. The tendon reflexes were excessive.

A case, evidently of the same class, was described by A. Pic and Ch. Gardère at the Society of the Medical Sciences of Lyon on December 23rd, 1908, as an example of "generalized atrophy of the face and parts of the body above the umbilicus with pseudo-hypertrophy of the pelvic region and lower extremities."[5]

The patient was a woman (age not stated) whose illness had commenced four years previously, with sudden loss of weight and strength, anorexia, digestive troubles, and pallor. There was no cough. She was unable to continue her work, as the slightest effort gave rise to palpitation of the heart and feeling of oppression. She was also mentally depressed, and gave way to frequent attacks of crying without any reason. After a "rest and feeding cure" she commenced to regain strength, the lower extremities increased in size, and her pallor disappeared. At last, after an interruption of one and a half years, she was able to start work again. Nevertheless, her face, upper extremities and thorax remained emaciated, whilst her lower extremities progressively increased, chiefly in amount of subcutaneous tissue, so that their size came to be in striking contrast to the skeleton-like appearance of her face and the upper part of her body, in which, however, the mammae retained their normal size. The tendon reflexes in both lower and upper extremities were markedly exaggerated; in the lower extremities more than one jerk was sometimes obtained by a single tap ("clonic or trepidation type" of response); the plantar reflexes were of the normal flexor type; no disorder of sensation was present. Electrical examination of the muscles showed nothing abnormal. Her gait was natural, and there was no longer any special tendency to fatigue on exercise. Some physical signs in the chest pointed to the presence of slight pulmonary tuberculosis. Menstruation (which had commenced at the age of 15) was regular, and had always been so, excepting at the commencement of her illness four years previously, when she had amenorrhoea for six months.

The case of "segmentary adiposis of the lower limbs," recently published by Laignel-Lavastine and Viard,[6] must probably be regarded as belonging to the group we are now considering, though the emaciation of the face and upper part of the body was less decided.

Their patient was an unmarried woman, aged 39, an embroiderer, who complained of great enlargement of the lower extremities. This commenced, according to the patient's account, at the age of 22 years, and first involved the legs, then the thighs, and lastly the buttocks. Various methods of treatment had been resorted to (thyroid extract and iodine, milk diet, etc.), but without satisfactory results. The great size of her lower extremities offered a striking contrast to her thin chest and the general slenderness of the upper part of her body. The left thigh was decidedly larger than the right thigh, but both thighs, both buttocks, and both legs shared in the enlargement. The mammae were very small. The thyroid gland was slightly enlarged. The menstrual periods, which had commenced at 14 years of age, lasted only two days each time. At the Salpêtrière the patient had been given thyroid and ovarian extracts, but as yet without any effect on the size of the lower extremities.

Laignel-Lavastine and Viard, besides the case of Pic and Gardère already described, quote a case published by L. Barraquer, at Barcelona, in 1906.

A young woman, aged 25 years, in her 15th year, after an attack of "influenza," had commenced to waste rapidly in her face and the upper part of the chest. These wasted parts contrasted strikingly with the plump condition of the rest of her body.

It seems, therefore, that "lipodystrophia progressiva" varies in degree in different cases. In some cases it is the excessive growth of subcutaneous fatty tissue in the lower extremities that attracts attention rather than any very decided emaciation in the face and upper parts of the body. In such cases the condition may be regarded as an exaggeration or caricature of the ordinary tendency to fat distribution which constitutes almost a "secondary female sex character." In other cases the wasting of the face and upper part of the trunk first attracts attention, the wasting usually commencing in the face, neck, and upper part of the thorax and spreading gradually downwards. In some of these latter cases the onset of the wasting may be fairly sudden, and the disease may, for a time at least, be associated with anorexia, neurasthenic symptoms, and excess of knee-jerks and Achilles-jerks. Such excess of tendon reflexes is often met with in persons of nervous temperament, and, I think, more frequently in persons of Jewish than in those of Anglo-Saxon or Teutonic descent. It may here likewise be noted that the first two patients whose cases I have above referred to were of Jewish descent, and it is possible that some of the other patients were also of that race.

The symptoms may commence in quite early life, at 10 or 13 years, or later on, up to between 20 and 30 years of age. The disease, though it seems (at all events in its most typical forms) to be confined to the female sex, does not appear to be connected with any obvious disease of the thyroid gland or ovaries. In a sense it might certainly be called a "trophic disease," but it is of uncertain origin, and no successful treatment has yet been discovered for it.

In regard to diagnosis, the distinctions from the cases of "trophoedema," as described by H. Meige and others,

seem to me too obvious for discussion, and the same may be said in regard to the conditions of muscular hypertrophy or pseudo-hypertrophy met with occasionally in various cases of primary muscular dystrophy, as well as in the typical pseudo-hypertrophic group. Other diseases, such as the various forms of chronic oedema and elephantiasis in the lower extremities connected with lymphatic obstruction, are still less likely to be confused. Just at the commencement, when the atrophy of subcutaneous fat is still almost limited to the face, the condition might possibly resemble that seen in cases of "bilateral atrophy of the face"; indeed, it is just conceivable that certain cases of bilateral atrophy of the face may have been mild examples of lipodystrophia progressiva, modified by the male sex of the patients, males not being so inclined as females to special deposit of subcutaneous fat in the lower extremities. At the Clinical Society of London, in 1905,[7] H. Batty Shaw showed a boy, aged 10 years, who had commenced to show bilateral wasting of the subcutaneous tissues of the face when he was 2½ years old. The boy was brought to the hospital because the mother feared he might have tuberculosis. A. F. Hertz and W. Johnson,[8] at the Clinical Section of the Royal Society of Medicine, in January, 1913, showed a young man, aged 26 years, whose face had become progressively thinner during the last two years, so that his friends thought he must be consumptive. There was no weakness of the facial muscles, and otherwise he was well developed and strong. I instance these two cases of facial wasting in males to illustrate the kind of cases of "bilateral atrophy of the subcutaneous tissue of the face" to which I wish to draw attention in connexion with the diagnosis and pathological classification of "lipodystrophia progressiva."

I have given no photograph or drawing of the condition of lipodystrophia progressiva, but no such illustration is needed. For a typical case one need only imagine a grotesque figure the lower part of which seems to be modelled after an extraordinarily florid Venus of the ultra-Rubens style, whilst the face and upper part of the trunk might call up a picture of one of the forbidding Moerae, or their dreaded sisters, the Erinyes, or might bring to mind the popular idea of one of the witches in *Macbeth*.

REFERENCES.

[1] R. Cassirer, *Die vasomotorisch-trophischen Neurosen*, second edition, Berlin, 1912, p. 675. [2] H. Campbell, *Transactions of the Clinical Society of London*, 1907, vol. xl, p. 272. [3] H. Campbell, *Proceedings of the Royal Society of Medicine, Neurological Section*, 1913, vol. vi, p. 71. [4] E. Holländer, *Munch. med. Woch.*, 1910, vol. lvii, p. 1794. [5] Pic and Gardère, *Lyon Médical*, 1909, vol. cxiii, p. 61. [6] *Nouvelle Iconographie de la Salpêtrière*, Paris, 1912, vol. xxv, p. 475 (with plate). [7] H. Batty Shaw, *Transactions of the Clinical Society of London*, 1905, vol. xxxviii, p. 222. [8] Hertz and Johnson, *Proceedings of the Royal Society of Medicine, Clinical Section*, 1913, vol. vi, p. 92.

THE estimated population of Jamaica in 1912 was 845,767, an increase of 6,520. The marriage-rate was 4.2 per 1,000 persons living, the birth-rate was 39.0 per 1,000, and the death-rate 22.1; the infantile death-rate per 1,000 births was 18.7 under 1 year old, and 27.4 under 5 years old. In 75.2 per cent. of the deaths registered during the year the causes of death were not medically certified. The principal causes of death were diarrhœa and enteritis, debility, phthisis, and enteric fever; 84 deaths were recorded as having been caused by "the vomiting sickness," 21 of these being medically certified. On April 1st, 1912, there were 127 names on the Jamaica Medical Register.

THE so-called sleeping sickness of Nyasaland, called by the natives kaodzera, differs in certain respects from the typical sleeping sickness, and the Royal Society's Commission finds that the trypanosome present in the disease, though it resembles *T. brucei* and *T. gambiense*, is a distinct species identical with *T. rhodesiense* (Stephens and Fantham). These observations were reported to the Royal Society, and have been published in the *Journal of the Royal Army Medical Corps* (May, 1913). The authors of the report are Sir David Bruce, Majors D. Harvey and E. A. Hamerton, R.A.M.C., Dr. J. B. Davey, Nyasaland Medical Staff, and Lady Bruce. The parasite resembles *T. brucei* more closely than *T. gambiense*. It is concluded that the human trypanosome disease of North-East Rhodesia and Nyasaland is not the disease known as sleeping sickness in Uganda and the West Coast of Africa, and it is suggested that the native name kaodzera might be used for this disease to distinguish it from the older-known sleeping sickness.

CHRONIC PNEUMOCOCCAL INFECTION OF THE LUNGS IN CHILDREN.

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SINCE the beginning of the routine examination of elementary school children there has been much discussion on the prevalence of phthisis in children of school age, and while some medical inspectors consider that the disease is uncommon in school children, or at any rate not to be diagnosed always with assurance, others seem to believe that the cases are numerous and easily recognized. Indeed the amplitude of variation in figures given in the report of the Chief Medical Officer of the Board of Education compels the suggestion that the prevalence of phthisis in certain school areas may be not so much a matter of pathological fact as of clinical bias. For instance, the percentage of phthisis among the Staffordshire school children examined in 1910 was 0.151; the percentage in Worcestershire was 4.183; and yet the phthisis death-rate of these counties was the same, namely, 0.7.

It is, of course, the experience of all clinical observers to see children in whom the pulmonary signs suggest the presence of phthisis. These cases present the following features: (1) they are often the sequels, immediate or remote, of measles or whooping-cough; (2) cough, sputum, and emaciation are variable in amount or degree; (3) tubercle bacilli are not found in the sputum. It may be argued that these are cases of mild or chronic phthisis. We are of the opinion that phthisis is seldom mild or chronic in children; it is too often acute and progressive, and from observations made both clinically and pathologically we have come to the conclusion that many cases in school children diagnosed as, or suspected of being, phthisical, are not such, but are chronic infections due to some other cause.

In support of this we shall first compare the result of the examination of the sputum from (*a*) suspected cases of phthisis in adults, and (*b*) suspected cases of phthisis in children from the age of 5 up to and including the age of 15.

During the past eighteen months ending October, 1912, the sputum of 1,824 adults has been examined in this laboratory for the tubercle bacillus. Of these, 33.7 per cent. gave a positive result. During the same period the sputum of 230 school children has been examined for tubercle bacillus, and of these 9.1 per cent. were positive. In not a single negative case among the children was a positive result obtained by a subsequent antiformin examination.

To carry the matter to a more definite state the negative sputum was in the cases of 69 suspected children inoculated into guinea-pigs. Of the 69 guinea-pigs only 2 were found tuberculous when killed at the end of one month, 30 died in from one to nineteen days of peritonitis more or less acute, and 37 were normal when killed after one month. This gives a percentage of 2.9 tuberculous.

Negative sputum from adults was inoculated in only 18 instances. Of these, 2 guinea-pigs were found tuberculous, 7 died of peritonitis, and 9 were normal—a percentage of 11 tuberculous.

Results of Examination and Inoculation: Adults and Children.

(*a*) Adults:		
Sputum examined and found positive ...	33.7	per cent.
Guinea-pigs inoculated and found positive	11.0	,,
(*b*) Children:		
Sputum examined and found positive ...	9.1	,,
Guinea-pigs inoculated and found positive	2.9	,,

There is a remarkably close resemblance in the proportion of the two sets of figures, the ratio in each case being nearly 3 to 1; and though the number of adult inoculations is small, the fact of the ratio between the microscopical and biological results being practically the same in adults and children may be accepted as far as it goes. That is to say, we may take the figures for the microscopic

examination of the sputa as being a fair approximation and index of the incidence of phthisis in adults and children. This is not to assume that the disease is over three times (33.9 to 9.1) more frequent in adults than in children, but we are entitled to say that tuberculosis of the lungs is less common in children than in adults, and less common, too, than is generally supposed.

In view of this conclusion, which is quite reasonable in the circumstances, the question is: What is the nature of these cases of suspected phthisis in children? The probable explanation is that they are chronic catarrhal conditions associated sometimes with varying degrees of bronchiectasis and are the chronic residue of pneumonic or broncho-pneumonic inflammations which in turn have followed measles or whooping-cough, or indeed may have arisen alone. The cough, the types of breath sounds, the râles, and the sputum, can all be explained by such a condition, and where dullness is elicited it is no doubt due to pulmonary fibrosis. Dr. Theodore Fisher has already, in this JOURNAL, called attention to the existence of peri-bronchitis and bronchiectasis in children, and has emphasized the need of caution before diagnosing phthisis in such cases.

Ages of 22 Positive Cases.

Age 15	...	...	7 cases	Age 11	...	...	3 cases
,, 14	...	...	3 ,,	,, 10	...	...	2 ,,
,, 13	...	...	2 ,,	,, 9	...	...	1 ,,
,, 12	...	...	4 ,,	,, 8 (and under)			0 ,,
				Total	...	...	22 cases.

The fact that a positive result was obtained in only one case below the age of 10 and in twelve between that age and 15 suggests an increasing liability to phthisis as the age of childhood is left behind.

Out of 22 cases we have been able to trace 17. Of these in eighteen months 7 are dead, 6 are "worse" or "past relief," and 4 are indefinite, which supports our belief that phthisis in children is more apt to be acute and progressive than slow and benign. It must not be forgotten, however, that many of these suspected cases may give a tuberculin reaction through being infected with tubercle elsewhere, whence an invasion may take place later into the already damaged lungs, but this does not invalidate our contention that many cases of phthisis in children are falsely so called.

The next point to be considered is the fate of the inoculated guinea-pigs. The inoculation of the sputum from both adults and children resulted in a large percentage in peritonitis—namely, 38.8 per cent. from adults and 43.5 per cent. from children. In the negative sputa of children the pneumococcus was found in large numbers and was by far the most abundant organism present. The peritonitis in all the guinea-pigs inoculated with the children's sputa was, with one exception, pneumococcal. The organism was present in abundance, and was isolated from the peritoneal exudate.

The fact that from adults and from children about 40 per cent. of the inoculated animals died of a peritonitis which was pneumococcal in almost all the children's cases and in the majority of adults' cases—such a fact suggests that the pneumococcus has a special significance and virulence in the causation of these cases of suspected phthisis. Speaking with regard to children it seems to us that such a lesion—namely, a chronic infection by the pneumococcus—is the true explanation of many of those cases of suspected phthisis which live on from year to year, no doubt in a more or less debile condition, but able to go about and put in an irregular attendance at school.

CONCLUSIONS.

1. Phthisis is not so common in children as certain recent reports would appear to imply.

2. Many cases of "phthisis" or "suspected phthisis" in children are really chronic pneumococcal infections of the lungs inducing bronchial and peribronchial lesions.

3. These pneumococcal cases in children form a large percentage of the cases cured or improved in open-air schools.

4. It is extremely likely that such cases in children are treated at tuberculin dispensaries as phthisis in which the tubercle bacilli are not found in the sputum.

5. These pneumococcal infections tend to be chronic and non-fatal, though there is always the liability to tuberculous infection.

THE TREATMENT OF ADENOIDS AND ENLARGED TONSILS WITHOUT OPERATION.

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CONSIDERING the efficacy of *x* rays in reducing the size of chronically inflamed lymphatic glands it is surprising that hitherto there has been no attempt, as far as I am aware, to treat enlarged tonsils and adenoids by this method.

As the present surgical treatment is open to several objections, an investigation of the possibilities of the Roentgen rays was undertaken with a view to providing at least an alternative method which would be suitable in a large percentage of the cases now operated on. From inquiries made it would appear that the average number of hospital operations in London for this condition alone is not less than 500 a week.

Observations were at first confined to cases that had chronically inflamed lymphatic glands situated near the angle of the lower jaw and having enlarged tonsils at the same time. The treatment of the glands involved the radiation of the tonsils, so that there was no question of experimenting on patients until justification was obtained to proceed further.

All these cases showed a corresponding diminution in the size of both glands and tonsils. Patients were then selected in whom the condition of "tonsils and adenoids" was well advanced, and characteristic symptoms were marked—that is, mouth breathing, snoring, deafness, discharge from the ear, etc.

Each of the following examples is taken to show some special feature, with a view to the summation of the results to be obtained by radiation.

CASE I.

F. B., aged 10, had the typical adenoid type of face, mouth open, lower jaw dropped. Adenoids were made out by digital examination to be an exceptionally large mass, and the tonsils projected well beyond the pillars of the fauces. There was a discharge from the left ear. It was stated that the child suffered from colds and earache; that she could not hear properly, and that she snored at night.

As the result of the first dose it was reported that she could hear better and snored less, but the discharge from the ear continued.

After the second dose, discharge less and snoring less.

After the third, discharge from the ear stopped, snoring stopped, but child breathes heavily when asleep. Hearing much better. Mouth still open, but much less than at first.

Progressive changes were to be noted at each successive visit, the tonsils became smaller, but, though the adenoid tissue round the pharynx had shrunk sufficiently to give a good air passage, the change in actual size was not as much in this case as had been hoped for. This result was probably due to the prolonged neglect, the influence of which will be commented on in connexion with another patient.

The cases of two brothers are the subjects of the next examples, as their symptoms were much the same, differing only in degree.

CASE II.

James N., aged 11, had tonsils projecting beyond the pillars of the fauces, and adenoids could be felt as scattered masses. The father stated that the boy was constantly getting colds and was becoming increasingly deafer, so much so that arrangements had already been made to send the child to a school for deaf children, but the parents decided to seek further advice before giving their consent to this proposal. The boy snored when asleep and kept his mouth open.

Very little change was noted at first, but an improvement could be observed about a week after the second dose. A letter of inquiry to the schoolmaster elicited a reply to the effect that both boys had improved considerably lately, James, if anything, more than Joseph (the other brother).

Six weeks after the initial treatment the boy showed marked improvement, though he was still snoring a little and breathing through his mouth.

After seven weeks the snoring had stopped and the mouth was kept shut. A further letter from the schoolmaster stated:

"Joseph—Improved. Can hear from the back of the class.

"James—Improved. Can only hear when sitting right in front of class."

Although the boy's hearing was far from perfect, as shown by the above report, his condition was immeasurably better than when it was considered advisable to send him to a school for the deaf.

On examination at this time the tonsils were found to be well within the pillars of the fauces, but they had not quite

regained their normal size. The adenoids could be made out, and the mass was smaller. How much so it was, however, difficult to determine.

CASE III.

Joseph N., aged 13. Tonsils and adenoids in apparently much the same state as the previous case, though his symptoms were not so marked. Snored at night, and breathed through his mouth. Hearing defective.

The boy showed progressive improvement throughout the course of the treatment. His snoring and mouth breathing ceased a week or so earlier than in his brother's case, and the schoolmaster reported as above at the end of seven weeks that the boy could hear when at the back of the class.

The tonsils became almost normal in size, and the whole aspect of the boy changed for the better, becoming brighter, and a dull, listless appearance that was evident when he first came for treatment quite disappeared.

CASE IV.

Alexander H., aged 8. Tonsils and adenoids causing mouth breathing, snoring, and defective hearing.

A fortnight after the first dose it was reported that the child did not snore so much. After the third dose the child kept its mouth shut when sleeping, but was still snoring. The child's teacher had remarked that his hearing had improved.

Seen a fortnight after the fourth dose, the mother stated that the boy then slept with his mouth shut and did not snore. On examination, the tonsils were normal in size and he could breathe freely through his nose.

As regards the diminution in the size of the tonsils this was the best case that was under observation, and the cure was brought about by only four applications of the rays.

In the following instance the enlargement was probably purely adenoid in nature, the amount of fibrosis being very limited:

CASE V.

Florence P., aged 22. Tonsils meet in the midline. Adenoids a large mass. The patient states she has had enlarged tonsils ever since she can remember. She cannot breathe through her nose, and when she wishes to clear her nose she can only do one nostril at a time, and even this with great difficulty. She is constantly getting sore throats and has had quinsy three times lately.

Five weeks after the first dose and two weeks after the second dose she stated she could breathe through her nose with her mouth shut for the first time and her throat did not feel sore. The tonsils, however, were still enormously enlarged, but not as big as they were when she first came.

Successive treatments though giving considerable relief to her symptoms did not cause much apparent effect as regards the size of the tonsils, although they looked much healthier and less inflamed.

In this case it is certain that the bulk of the hyperplasia of the tonsil was due to fibrous and not to adenoid tissue, so that it could hardly be expected that the *x* rays could exert much influence under such circumstances at once, but as soon as the septic state of the tonsil had been remedied the fibrous tissue would gradually become more compact, and the tonsil would shrink.

Such a case as this is altogether exceptional, but is used as a contrast with the next case—a child of 3.

CASE VI.

H. R., aged 3. Tonsils enlarged. Adenoids could be felt. The child had the adenoid expression, and kept her mouth open. She snored at night. Her mother had her examined because of constantly recurring colds and earache. The cervical glands were palpable on both sides. A third of a Sabouraud dose was given on each side, the irradiating area including the upper cervical glands, the mastoid process, and the nasal mucous membrane.

Six weeks after the mother wrote:—"I am glad to say that H. has been much better since she had the treatment; there have been no complaints of pain in the ear, and the glands seem quite normal. She has not snored so much at night, but it is still very bad. Do you think it would be better for her to have another dose of the rays?"

On examining the child the tonsils were found to be much smaller and the adenoids were less. The adenoid expression was scarcely perceptible. The glands in the neck could not be felt. The mother said that there had been no more colds since the treatment.

Another third Sabouraud was then given on each side, and about a fortnight later the mother stated that there was no further snoring.

The next example has been selected because, although both tonsils were equally swollen when the child was first seen, one tonsil rapidly regained a normal size, and the other yielded very gradually and incompletely to treatment.

CASE VII.

C. O., aged 8, was sent to the hospital for *x*-ray treatment of a unilateral mass of tuberculous cervical glands extending from the mastoid process to half the length of the sterno-mastoid. Beyond noting that both tonsils were enlarged, no observation of adenoid symptoms was made when the boy first came. As treatment proceeded the tonsil on the side of the tuberculous glands yielded very gradually to the treatment, whereas the other disappeared after some four or five radiations.

This boy's history of glands in the neck extended back for over two years, so that probably the refractory tonsil had been infected with tubercle for some considerable time, and the fibrosis had interfered with the rapid reaction which characterized the other tonsil.

Other cases of tonsils and adenoids have shown similar changes as the result of treatment. In no case was there any failure of reaction to the rays. Some required only two or three doses to give relief to their symptoms. The longer the condition had existed the longer the treatment required to be; from which the inference can be drawn that tonsils and adenoids of long standing are to a large extent composed of fibrous tissue formed by the prolonged inflammation.

CONCLUSIONS.

1. Roentgen rays have a stimulating effect on chronically inflamed adenoid tissue, and enable it to resume its healthy condition.

2. The tonsils do not entirely regain their normal size except in favourable cases, the diminution in size being dependent on the time the organ has been inflamed or on the amount of fibrous tissue that has been formed.

3. The decrease in size is sufficient to dissipate all obstructive symptoms.

4. Conditions dependent on the septic state of the tonsils and adenoids are relieved.

Regarding the merits and demerits of the surgical and radiological methods the following points may be raised:

It cannot be right to remove tissues that have a definite function, and though this procedure has been necessary in the past it is surely better to restore such tissues to a healthy condition rather than remove them. A small proportion of tonsils owe their enlargement to tubercle, and in these cases it is a matter of risk to resort to surgery on account of the possible dissemination of the disease.

The radiological method certainly takes longer, but against this there is no shock to the child and no convalescent period; and as for the sum total of inconvenience the advantage lies with the *x* rays. The parts affected by operation do not comprise the whole of the inflamed area, whereas by radiation all the pharyngeal lymphoid tissue can be subjected to the influence of the *x* rays. Recurrences are not at all uncommon after the use of the guillotine, necessitating another operation.

TECHNIQUE.

The same method was not adhered to during the investigation but in all cases a hard tube was used, the rays were filtered and not more than a half Sabouraud dose was allowed to pass through any given area of skin. The rays were applied laterally, the anticathode of the tube being above and behind the angle of the jaw, so that the rays encountered the minimum resistance in reaching the tonsil; the head was so placed that the rays swept in front of the vertebral column and the posterior pharyngeal wall. After a dose had been given on one side the head was turned and a similar treatment given on the other side.

All measurement was done with a pastille lying on the skin. With restless children it is useless to adopt Sabouraud's plan of having the pastille halfway between the anticathode and the irradiated area.

The tube was placed at a greater distance from the patient than is usual in order to obtain approximate equality of intensity of radiation throughout the pharynx.

The interval between the doses and the amount of the doses was varied, but under no circumstances was a larger dose than a half Sabouraud given.

THE effect of radium in the treatment of cancer is to be made the subject of a special investigation under the direction of Dr. William Duane, at the Harvard Medical School. As soon as possible a special building is to be constructed adjoining the medical school expressly for the purpose of the research, which is to be carried out under the supervision of the Cancer Commission of Harvard, of which Dr. E. E. Tyzzer is director.

THE CAUSE OF ENLARGED TONSILS AND ADENOIDS IN CHILDREN AND THEIR TREATMENT WITH LYMPHATIC GLAND EXTRACT.

(PRELIMINARY REPORT.)

BY HUGH T. ASHBY, B.A., M.D.CANTAB., M.R.C.P.LOND.,

PHYSICIAN TO THE MANCHESTER CHILDREN'S HOSPITAL; ASSISTANT PHYSICIAN TO THE SALFORD ROYAL HOSPITAL.

MANY theories have been put forward as to the cause of enlarged tonsils and adenoids, but I think it is possible to rule all of them out conclusively. For this reason I am advancing a new theory, which may have some connexion with their enlargement.

By analysing some 3,000 cases in children suffering from enlarged tonsils and adenoids, it became apparent that by far the commonest ages for the children to suffer from enlarged tonsils and adenoids is from 2 to 5 years, but that many infants, even from birth, have enlarged adenoid growths in the naso-pharynx.

To find out at what age the adenoid tissue is developed I have obtained a number of fetuses of different ages and dissected away the posterior wall of their naso-pharynx, where the adenoids subsequently develop. The tissue thus obtained has been examined microscopically, and I have been able to find that adenoid tissue was present in every fetus after the age of 6 months. This being so, I think we can say that every child is born with adenoid tissue at the back of the naso-pharynx, but that it grows for some reason in some children more than in others.

The mere presence of adenoids does not constitute a disease, and they only become pathological when they hypertrophy and cause trouble. In infancy and childhood the lymphatic structures are at their maximum exactly at the time when enlarged tonsils and adenoids are commonest, and it is one of the functions of the lymphatic tissue to form the lymphocytes. Now it is a peculiar fact that children with enlarged tonsils and adenoids rather have a diminution of lymphocytes in the blood, and there is also an increase in the total number of leucocytes. For this reason it looks as though the enlargement of the tonsils and adenoids were an attempt on the part of Nature to supply the deficiency in the other lymphoid tissue of the body. At the age when enlarged tonsils and adenoids are commonest (2 to 5 years) the lymphocytes are normally beginning to decrease from the high percentage found in infants to the adult standard, and again, the thymus is also decreasing in size. I think these two facts support the view that the adenoids and tonsils are an attempt to augment the lymphoid tissue of the body. It is also a common fact that when the enlarged tonsils and adenoids are removed carefully by a competent surgeon before the age of about 5 years they are very liable to recur, so that Nature, as it were, makes a second attempt to raise the amount of lymphoid tissue, or at least supply the body with some secretion from the lymphoid tissue, which it needs at this age.

If we could supply these children with lymphoid tissue artificially, there would be no need for the enlarged tonsils and adenoids, and in consequence they would go down, and it is on these lines that I have been working. Messrs. Burroughs and Wellcome have made me some lymphatic gland extract, exactly on the same lines as they make thyroid extract. Up to the present I have treated about 30 cases of enlarged tonsils and adenoids with this lymphatic gland extract, gr. v, three times a day. No bad effects have been observed, and nearly all the children have improved in a very satisfactory way: the snoring and noises in breathing have disappeared, and the tonsils have diminished in size.

This being so, I think it is well worth while pursuing the treatment in a larger number of cases. In many instances of enlargement of the thyroid gland at puberty in girls, if thyroid extract be given the thyroid gland diminishes in size, showing that the gland enlarged to make up for some deficiency in its secretion, and that when the deficiency was made up artificially the gland went back to its normal size.

IODINE AS AN ANTISEPTIC IN TROPICAL COUNTRIES.

BY J. C. RIDGWAY, B.A., M.D.DUBL.,

MEDICAL OFFICER, NIMULE, NILE PROVINCE, UGANDA.

IN an article on strangulated epigastric hernia published in the BRITISH MEDICAL JOURNAL in December, 1910, I mentioned the beneficial use of a 2 per cent. solution of the tincture of iodine in skin preparation, as a preliminary to operation.

The following may be of interest, showing as it does the excellent results obtained by its use where preparatory antiseptic measures could not be adopted, and where the existing conditions were by no means favourable from an aseptic point of view.

Reclus, in *La presse médicale*, mentions the excellent results he obtained by its application in compound fractures, and quotes cases to substantiate his statement.

1. Early one morning a Bunyoro native came to my hut at Nimule to be treated for a crocodile bite. He had been down to the Nile close by to cut grass for his employer, an Arab trader. In stooping to do so, at the water's edge his right forearm was seized by a crocodile, but fortunately he was able to catch hold of a small tree with his left hand, and thus save himself from being immediately dragged under water. His call for help brought another native to his assistance, and he, by repeatedly belabouring the animal with a stout stick, succeeded in making the crocodile let go, and retire under water.

It was seen that he had sustained a compound fracture of both bones of the forearm in their middle third. The upper ends were protruding through the wound on the flexor side, the superficial muscles being extensively torn, but on the extensor side, beyond the skin and fascia being lacerated by teeth marks, the muscles escaped practically untouched. Embedded in the wound were small pieces of grass. From the nature of the wound I gathered that the forearm was seized by the front teeth of the crocodile, the hand, wrist, and lower third of the forearm being at the time inside the animal's mouth.

The wound and adjacent skin was thoroughly syringed, and washed with a 2 per cent. solution of iodine for about fifteen minutes. I then reduced the fracture and stitched up the wound, dressing it with plain sterilized lint and applying splints. The arm was bandaged to the side, and the forearm fixed across the chest, as it was impossible to get him to remain in a recumbent position. The wound was again dressed with the iodine solution in four days' time, and was to my satisfaction a healthy one, the same procedure of bandaging being carried out. The limb was left in this position until the twelfth day, when the stitches were removed. On examination of the forearm it was then found that union had taken place between the approximated ends. The same procedure as before was adopted in fixing the limb.

On the eighteenth day I again dressed him, and gave instructions to come to me again in five days.

On the twenty-fifth day, as he had not put in an appearance, my native servants were sent to look for him, and later brought him to me. He had removed the splints, but had applied the bandages over the lint covering the wound, which was then quite healed.

I again saw him on the thirty-seventh day. The radius and ulna had then completely united, he could grip firmly with his right hand, and was able to extend, pronate, and supinate the injured forearm, but had a limited degree of flexion.

Three months later he came to me complaining of symptoms resembling sleeping sickness, which unfortunately proved to be true.

2. On a punitive expedition which I accompanied as medical officer into the hinterland of the Nile against some hostile tribes, I was called upon to treat over a hundred cases, comprising gunshot, spear, arrow wounds, and cuts, incurred on both sides. In almost every case I treated them with a 2 per cent. solution of tincture of iodine, and was surprised at the excellent results obtained. The various injuries healed in a remarkably short space of time, and I am of opinion that the beneficial results obtained from the use of this drug compare most favourably with any of the other antiseptics now in use, and,

moreover, I venture to state that on active service of such a nature in tropical countries, it is to be preferred to other germicidal preparations.

THE BIONOMICS OF THE RAT-FLEA.

BY

C. STRICKLAND, M.A., B.C.,

TRAVELLING MEDICAL ENTOMOLOGIST IN THE FEDERATED MALAY STATES.

(From the Office of the P.M.O., Kuala Lumpur.)

HAVING been in the "backwoods" for some time past, I have only lately had my attention drawn to a paper by Nicoll in the BRITISH MEDICAL JOURNAL for October 26th on the life-history of the rat-flea (*Ceratophyllus fasciatus*, Bosc).

The work which Nicoll describes and the facts which he has elucidated are essentially similar to my own in 1910-11, which are the object of a report to the Local Government Board now in course of publication. But I disagree with certain of Nicoll's hypotheses put forward to substantiate these facts, and I would like here to give the reasons for my disagreement.

The facts are these. Fleas are found to live in a certain medium of rubbish for apparently a great length of time without food—Nicoll found for fourteen months, while mine were alive after eighteen months, when they were accidentally thrown away. This fact is of great practical importance, of course, in itself, particularly if the fleas are able to remain disease-infective for the same length of time, and the explanation of the fact may be equally important to the fact itself. Nicoll's hypothesis is that the rubbish contains a large number of larvae, which do not all undergo metamorphosis at once. Some of them pupate and imaginate after one month, some after ten months, and so on, remaining in a resting state meanwhile. In this way a constant succession of new adults is produced which take the place of the old ones, which die off in about a month's time if kept without food, the net result being that the original fleas apparently live for a great length of time.

Now, I disagree with this hypothesis for the following reasons:

1. I have taken specimens of the rubbish from time to time and looked carefully in it for larvae, or pupa-cases which should contain either resting larvae or pupae, and I have never succeeded in finding a single one. Active larvae certainly could not escape detection. Pupa-cases are more difficult to find, but not so difficult that they cannot be seen on a careful search. I have therefore concluded that the rubbish does not contain either active larvae or any resting stages of the metamorphosis. (I admit, however, that for the first month or two resting larvae could probably be found.)
2. I have carefully taken away from a quantity of rubbish all the adult fleas present (a live bait is an efficient mode of procedure for this purpose), and I have then watched the material carefully from day to day for three to four months to see if more adult fleas would appear, but with negative result. Now, if resting stages of the larvae were living in the rubbish and constantly producing a batch of new imagines, it is difficult to see why during the time observed adult fleas did not appear.
3. It is postulated that metamorphosis is most active in summer, yet our actual experience was that the adult fleas to be found in the rubbish greatly decreased during the hot months. This is hard to explain, if the resting larvae imaginate more quickly than in winter.

The conclusion which my experiments led me to was that it was the adult fleas, and not any stages in the metamorphosis, which survived for such a great length of time as eighteen months. I imagined this was possible to the adult flea, because the rubbish in which it lived was hygroscopic and non-conductive to heat, so that heat and dryness inimical to the flea's life was escaped from in its depths.

The facts which I elucidated could only (on Nicoll's hypothesis) be explained on the assumption (1) that the pupa cases which I searched for and failed to find were actually there; (2) that although for some reason or other the resting stages failed to imaginate after three to four months, they might have done so later on; (3) that the resting stages are more prolonged in summer than in winter—a conjunction of events improbable enough to make me believe that the adult flea really survives for great lengths of time without food.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF DERMATITIS ARTEFACTA.

IN December, 1911, the patient, a domestic servant, aged 42, was admitted to a cottage hospital for convalescence from some skin trouble. The lesions on admission were merely several reddened patches fast clearing up.

In July, 1912, she returned for treatment in the initial stages of an attack. The lesions, which were distributed fairly generally all over the body, would start with painful erythematous patches followed shortly afterwards by the formation of little blebs. On several occasions there was vomiting and distaste for food, so that I wondered whether an intestinal toxin was the causal factor. This attack lasted one month.

In January, 1913, I received a letter from the patient, saying the trouble had recurred and asking to be re-admitted. The lesions then were much larger and coarser, chiefly on the right side of the neck near the angle of the jaw and on the right upper arm (flexor surface). The patch on the neck was some four to five square inches in extent. Furthermore, reddened patches would occur, which were not always followed by blebs. I very soon doubted my original diagnosis, but there was nothing obviously artefact about the shape of the lesions. One day I remarked to her that it was curious how on this occasion all the patches occurred on the right side. Two days later a patch occurred on the left elbow with bleb formation. At the end of a month the lesions were healed, leaving a little pigmentation, and the patient looked out for and obtained a situation. As it was near London, I advised her to see Dr. Sequeira at the London Hospital if there should be any return of the trouble.

A fortnight later I had a letter from Dr. Sequeira saying that the patient had been to see him, and that "the eruption as then seen was undoubtedly artefact." One spot had such a curious shape that he felt at once it was self-produced. "Its boundaries were all straight lines and sharp angles." There was a faintly acid reaction to litmus. The patient then wrote to me that she had been compelled to give up her situation owing to recurrence of the trouble, and asked me to sign a sick-pay certificate. I refused to sign without seeing her, and she returned to the cottage hospital. A glance at the lesions was sufficient to make me confident that the patches were artefact. I tested one of them with litmus and got a faintly acid reaction, but when, as a control, I tested normal skin I got a much more acid reaction. This proved absence of caustic as an agent, and probably acid too. I accused the patient point-blank of practising deception. She was obviously taken aback, but soon met the suggestion with repeated denials and later with tears. In the pocket of her other dress a screw of paper containing yellow powder was found, but as I had told the searcher to look out for some fluid no notice had been taken of it and no sample obtained.

Next day I asked the patient privately to turn out her pockets, telling her that she had every right to refuse. She was then wearing the dress in the pocket of which the screw of paper with the yellow powder was found. She had no objection, and the pockets contained a few postage stamps and an empty purse. I rather expected this; it did not enable me to know what the powder was, but I felt tolerably certain that it was mustard. She told me most emphatically that there had been nothing in the pocket the previous day which was not in it at the moment of turning it out, and this confirmed me in the belief that I was on the right track. Even when I confronted her with the finder of the yellow powder she still denied it. I called her attention to the penalty under Section 69 of the Insurance Act, and she eventually confessed to having used mustard. In three days the skin trouble had cleared up.

The cottage hospital is partly supported by a small fee charged to the patients (5s. to 10s.). The patient was entitled to sick pay.

The case bears out the persistence of such patients. I was fortunate in being able to get her into an institution where her belongings could be easily searched. At home or in service to have found mustard in the house would have availed little.

I could find no anaesthetic areas so common in dermatitis artefacta associated with hysteria—that is, palate, glove, or stocking anaesthesia. For a moment the acid reaction of the normal skin nonplussed me, but, as events turned out, it strengthened my hand.

I am inclined to think the last attack in July, 1912, was not artefact.

The case shows the imperative need of medical referees under the Insurance Act, who will safeguard both the doctors' interests and the friendly societies' funds.

In conclusion, I would like to thank Dr. Sequeira for his valuable help in bringing the case to a successful conclusion.

Newick. J. CHARSLEY MACKWOOD.

A CASE OF GASTRIC ULCER ASSOCIATED WITH TETANY.

SOME features of the following case seem of sufficient interest to make it worth recording.

The patient was a married woman aged 37, who for twelve years had had constant symptoms of chronic gastric ulcer. In addition, during the later five years she had had, at intervals of about six months, attacks of acute left-sided abdominal pain accompanied by vomiting, which completely prostrated her for the time being. Four years ago she had been in a hospital for five weeks, her treatment there consisting in the administration of peptonized milk in measured quantities.

I was called to see her on December 5th, 1912, during one of her attacks of pain, and strongly recommended that she should undergo an operation as soon as the attack had subsided. Consequently she entered hospital, where on December 9th a small ulcer at the cardiac end of the stomach was excised. She left hospital at the end of December feeling somewhat relieved, but the symptoms soon recurred, and in the middle of February she had another of her old attacks of acute pain, vomiting, and prostration.

She remained in the same condition until March 20th last, when I was sent for in a hurry. She had suddenly collapsed in the street, and had been carried home. When I saw her she was in a condition of extreme shock, was unable to speak, but could understand questions addressed to her. The abdomen was extremely tender and rigid, especially on the left side. The lower border of cardiac dullness was 1½ in. higher than normal, and in the left flank there was marked dullness. Both hands were in a condition of extreme tetany. Although she appeared to suffer from abdominal pain she indicated her shoulders, especially the left, as being the seat of most pain. I diagnosed gastric perforation at the cardiac end, and advised immediate operation. Mr. Basil Hughes, whom I called, took the same view, and as her condition was too grave for removal to a hospital we decided to operate in her own home.

Accordingly an incision was made one inch to the left of the middle line, and the peritoneal cavity opened. A large quantity of material resembling gruel poured out, and on examining the stomach a large indurated ulcer, about the size of a five-shilling piece, was found at the cardiac end. In its floor were two ragged openings through which the gastric contents were escaping. The gastric wall around the ulcer was soft and very oedematous. These openings were sewn up and the ulcer buried with Lembert sutures, much difficulty being experienced owing to the friability of the oedematous tissues. The procedure was then completed by posterior gastro-enterostomy. Her convalescence was rapid and uninterrupted, and the tetany, which disappeared under the anaesthetic, has never returned. She can now eat anything she fancies without the slightest inconvenience, and has quite altered in appearance, having become quite plump, with a good colour, and having lost that drawn, anxious expression of chronic pain, which formerly was hardly ever absent from her face.

The case is of further interest from the presence of the tetany described. In no other of the great number of perforated gastric ulcers seen by me has this symptom been present. In all these the perforation has been at or near the pyloric end of the stomach, and I have reason to believe that perforation at the cardiac end has been said to be associated with tetany. But whether the tetany in this particular case was of toxic or reflex origin, I am not at present prepared to say. The pain in the left shoulder is also of interest, because I have frequently noticed that in cases of perforation at the pyloric end (that is, to the right of the hepatic ligament) the pain is referred to the right shoulder.

Bradford. H. SUTHERLAND METCALFE, B.A., M.D.Dub.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

SOMERSET HOSPITAL, CAPETOWN.

TWO CASES OF FRACTURED PELVIS.

(By HOWARD W. REYNOLDS, M.B., B.Sc.Lond., Radiographer to the Hospital.)

THE two following cases present certain points of interest, among them being the absence of grave symptoms despite the extent of injury revealed by radiography. The first case is that of a patient sent in as the subject probably of fractured pelvis. The injury was caused by a horse falling on him about a month previously and was thus due to direct violence. He was able to walk and had not much pain.

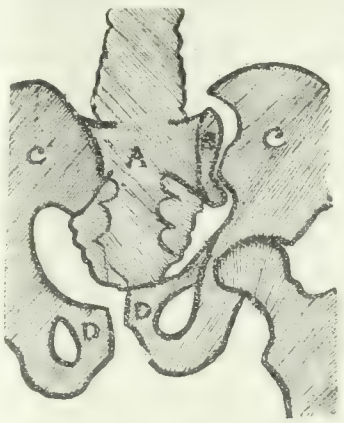


Fig. 1.—A, Sacrum. B, Torn piece of ilium. C, Rest of ilium. D, Pubis.

A radiograph was taken of which Fig. 1 is a pen and ink picture copied from the 12 × 10 negative; B is the posterior portion of the left ilium which had been torn off, but was still in articulation with the sacrum. The rest of the innominate bone is displaced upwards, the displacement at the pubic symphysis being very marked. One would have thought that the membranous urethra must have been damaged, but the patient has had no urinary symptoms, and indeed, except for a little lameness, is quite well, no reduction having been attempted.

The second case was sent in as one of dislocation at the hip-joint, but the surgeon in charge of the case thought otherwise, though he could not make out what the actual condition was.

The injury was caused by a fall from a trolley on the railway, the tibia and fibula being fractured at the same time. A radiograph was taken, and of this Fig. 2 is a sketch.

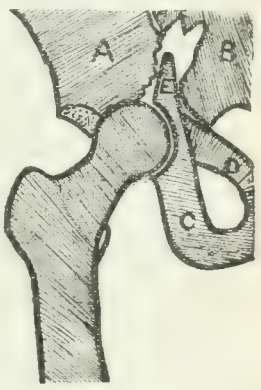


Fig. 2.—A, Outer fragment of ilium. B, Inner fragment of ilium. C, Ischium. D, Pubis. E, Wedge.

The iliac portion appears to have been split by a wedge-shaped portion of the lower fragment, so that the inner portion of the ilium and the ischio-pubic portion are

displaced inwards, carrying the femur with them. The head of the bone has left the upper part of the acetabulum, but still articulates with the lower part. Thus the original diagnosis was in part correct, though the fracture was overlooked. The patient was able to walk on crutches.

My thanks are due to the surgeons in charge of the patients for permission to publish these notes.

Reports of Societies.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

At a meeting on May 21st, Mr. J. M. Cotterill, President, in the chair, the following were among the exhibits: Dr. Dawson Turner, two cases illustrating *Radium treatment*, one of a recurrent cancer in a woman (after surgical removal of a medullary cancer in the axilla), which disappeared after six weeks' treatment; the other a port-wine stain and keloid, which also disappeared under treatment, carbonic acid snow and nitric acid having been previously tried without much benefit. Dr. Melville Dunlop: *Syphilitic synovitis* of both knees in a boy aged 8, who showed no signs of congenital syphilis until a development of interstitial keratitis a year ago; under salvarsan the condition was showing gradual improvement. Dr. R. A. Fleming: (1) *Spastic paraplegia* of two years' duration in a woman, aged 26, who had had rachitic deformity of the pelvis and legs since childhood. (2) A sailor, aged 24, with *Congenital heart disease*, and marked clubbing of fingers and toes, associated with acquired bronchiectases of nine years' duration. Dr. J. Eason: Two cases of *Pancreatic infantilism*, characterized by frequent large unformed motions containing a high percentage of fat; the first case, a boy aged 15 years, had shown remarkable improvement after a month's treatment with a pancreatic preparation; the second case, a lad aged 20 years, was of longer duration, and showed a more marked retardation of development. Professor Caird: (1) A case of *Intestinal obstruction*, first dealt with by colostomy, and later by resection of a carcinoma of the pelvic colon. A further operation was required to close the artificial anus. Nearly two years later a ventral hernia developed at its site, and it was treated by operation. (2) A case of *Pyloric carcinoma* fixed under cover of the liver, and not palpable even under anaesthesia. The symptoms, of three and a half months' duration, were pain, vomiting, and rapid emaciation. On operation the tumour was found to be mobile and removable by pyloro-gastrectomy. Mr. C. W. Cathcart: A case of *Epithelioma of the cheek in a miner*, occurring on the site of an injury by a fragment of stone seven weeks before. An ulcer formed here a week after, and had enlarged steadily. Mr. David Wallace: (1) A case of partial *Oesophagectomy*, in a woman aged 47, for an *Epithelioma* of the upper end of the oesophagus; the symptoms of sore throat and dysphagia had lasted a year. (2) A case of *Ileo-caecal stricture* in a man aged 43, who had suffered from pain and constipation for six weeks. A hard palpable mobile tumour was found in this region, and on operation a tumour of the caecum, with hard nodules in the mesocolon and ileum and hard enlarged glands, was found. The provisional diagnosis was carcinoma, and a lateral anastomosis of the ileum to the transverse colon was performed. Microscopical examination of a nodule showed the condition to be typical tuberculosis. (3) A case of plating of the humerus for ununited fracture of three months' duration. Mr. Miles: (1) *Gummatous meningitis* in the region of the pons in a man aged 40. His symptoms were those of cerebral tumour, headache, vomiting, blindness of the right eye and defective vision in the left, nerve deafness, and facial paralysis on the right side. The Wassermann reaction was positive. Under potassium iodide and mercury headache and vomiting had ceased, but there had been no improvement in vision. (2) A man, aged 53, eleven months after *Occipital decompression* for tumour of the cerebello-pontine angle. His symptoms before operation had been unsteady gait, severe occipital headache, impairment of vision, deafness of right ear and defective hearing in the left, defective sensation to touch, etc. The tumour was irremovable, but since the decompression operation there had been great improvement. Headache and vomiting had gone, and the patient could walk out daily and could read the paper. Mr. W. J. Stuart: Three children after operation for *Tuberculosis of the vertebrae*. The object was to cause immobilization by ankylosing diseased vertebrae to one another and to healthy vertebrae above and below, and consisted in splitting the spinous processes and laminae subperiosteally and bending them down in contact with the adjacent bones. It was claimed that the children could walk without support in three to four months. Mr. Fraser showed several cases illustrative of the *Elastic ligature treatment of umbilical hernia* in children, a method which he regarded as being both shorter and more effective than the treatment by pad and pressure. Mr. Scot Skirving: A case of very acute infective *Synovitis in the knee-joint* in a youth, aged 16½ years, resulting in a mobile joint after operation and subsequent massage.

EDINBURGH OBSTETRICAL SOCIETY.

At a meeting on May 14th, Dr. Haig Ferguson, President, in the chair, Professor Robert Jardine (Glasgow) showed a uterus from a woman, who died during labour, in which there was a large *Retraction ring* that had obstructed the head. The lower uterine segment had ruptured during an attempt at version, and the woman died shortly after admission to hospital. Such obstructing rings might be in front of or behind the presenting part. Of the former condition he described two cases. In the first, a woman whose true conjugate was 3½ in., there had been four dead children before; only the last was at full time. She was admitted to hospital to allow of induction being performed if necessary. As the head could be forced into the pelvis right up to the time when the birth was expected, no interference was necessary. After labour had been in progress for some time and the cervix was fully dilated, with the membranes bulging into the vagina, the head still remained mobile above the brim. In front of it was a distinct ledge running round about one-half of the cavity. This was the retraction ring, and obviously prevented descent. Four hours after a full dose of morphine there was no relaxation of the ring, so Caesarean section was performed. Mother and child did well. In the second case, under Professor M. Cameron's care, the membranes were ruptured, the os was fully open, but the head was held back by the ring. Caesarean section was again performed with success. In cases of the kind under consideration attempts at manual dilatation were futile, incision of the ring from below was certain to be followed by an extending rupture of the uterus, and full doses of morphine never produced any benefit. Hence he would always advise Caesarean section. Where the retraction ring caused obstruction behind the presenting part, it formed after rupture of the membranes before there was much dilatation, or even before labour was begun. Of this condition he recorded two cases. In the first, a multipara with a roomy pelvis, the previous labours had been easy. The membranes ruptured at the onset of labour, dilatation increased; but many hours afterwards there was no progress. The head was high up in the first position, and apparently in no way obstructed. Milne-Murray forceps were applied, but they slipped, and on introducing the hand the attendant recognized the retraction ring tightly grasping the child's neck. The speaker, on examining the patient in consultation, found the ring almost complete, and as manual dilatation was impossible and the child was dead, and as the forceps slipped on being again applied, the head was perforated to give a grip to the combined extraction instrument. Delivery was then obtained. The placenta, however, being held back by the ring, had to be delivered manually. The second case was a uniparous woman with a roomy pelvis. The membranes ruptured early in labour, but as no progress was made after many hours, the forceps were applied and the head drawn down as far as the vulva. It was now evident that the body was obstructed, and the hand passed into the pelvis recognized that the neck was grasped all round by the retraction ring. Manual dilatation was impossible. As the child was dead the right clavicle was torn through with the crotchet and the right arm removed. Even then no impression was made on the body till the other clavicle was broken. The

author stated that no explanation could yet be given of these cases. As regards treatment, opiates were of no benefit. Manual dilatation was impossible, so with a living child forceps should be tried. If this failed Caesarean section was indicated.

The Lower Uterine Segment.

Dr. A. H. FREELAND BARBOUR outlined the position which this subject occupies at the present day. Schroeder first showed that the retraction ring develops at a higher level than the os internum, and that it was present in normal labour. This was confirmed by the specimen described by the author and Professor Webster (1890). In Bumm and Blumreich's section (1907) there is a retraction ring at the os internum, but this specimen was abnormal in that the cervix was extremely thinned out posteriorly. The author's conclusions were as follows: (1) A retraction ring is not present in every specimen; (2) when present it does not always develop at the same point. Sometimes it is as low as the os internum, but more frequently it is above this level. Dr. BERRY HART, in discussing the papers, referred to a case seen by him, in which the labour was obstructed by a retraction ring firmly grasping the fetal neck. As regards remedies, amyl nitrite was said to be useful. Dr. OLIPHANT NICHOLSON thought "contraction ring" a better term than "retraction ring." The PRESIDENT said that the danger associated with amyl nitrite was uterine atony. He had seen the retraction ring cause obstructed labour in a breech case.

MEDICAL SOCIETY OF LONDON.

AT a meeting on May 19th, Sir W. WATSON CHEYNE, President, in the chair, Mr. JOHN HOWELL (Cheltenham), in introducing a discussion on the *Functions of the peritoneum*, said that the chief of them was that of a "perienteric trap" for the reception and annihilation of micro-organisms, which constantly and normally — that is, without producing symptoms—permeated the intestinal wall. It was part of the duty of certain organs intimately connected with the peritoneal cavity, of which the liver, stomach, and intestines were the chief, to excrete the toxic products formed therein, including, in times of stress, the bacteria themselves, with the minimum risk of contamination to the remainder and more important parts of the body. In illustration of his theory he dealt with the evolution of the coelomic cavity, and the part which it probably played in certain of the lower animals. He brought forward in support of his view many clinical observations. In his opinion, the symptoms of peritonitis, intestinal obstruction, and many other conditions were best explained by it. Dr. A. E. RUSSELL expressed the opinion that if organisms did constantly and normally permeate the intestinal wall, such process should be susceptible of demonstration in histological preparations. He briefly adverted to other functions of the peritoneum, and to the importance of general toxaemia in peritoneal injections. Valuable as the peritoneum was for the purpose of allowing free contractions and movements of the intestinal coils, the presence of a large surface with innumerable nooks and crannies carried with it grave disadvantage in the presence of any bacterial invasion. He was of opinion that Mr. Howell's views required substantiation by bacteriological evidence. Mr. PETER DANIEL said that he regarded the mucous membrane as the first line of defence against invasion by organisms from the intestinal tract. The peritoneum, however, was capable of affording protection, even when no mucosa was present, as was shown by two cases he quoted. He believed that the portal vein was being constantly infected, and that most liver disease was due to this infection. He regarded no disease as a purely local condition. The peritoneum did not protect the whole body, but only dealt with its own infections. If the bowel became damaged, it was easy to demonstrate its permeation by organisms. Mr. PERCY SARGENT said that the peritoneal cavity was a potential cavity rather than an actual one. There was no proof that a large number of leucocytes were present there in conditions of health. Dr. Dudgeon and he, in the course of their investigations, had never found organisms in a normal peritoneal cavity, and he asked whether anyone else had. Many of the organisms concerned were non-motile, and could only be carried by external physical or mechanical agencies. They could not enter the peritoneal cavity by their own efforts. He thought that the fluid of an ovarian cyst was infected from the blood stream. It must be remembered that organisms reached the peritoneal cavity by other ways than through the bowel wall, the blood stream being an important channel. Mr. HOWELL replied.

UNITED SERVICES MEDICAL SOCIETY.

AT a meeting on May 21st, Fleet Surgeon BASSETT-SMITH, President, in the chair, Major E. B. WAGGETT, R.A.M.C.T.F., in a paper on the *Medical problem of the mobilized Territorial Force*, laid stress on the lack of experience of the average Territorial medical officer in dealing with the sanitary problems of armies in the field. A fortnight in camp afforded no index of the success or otherwise of the sanitary measures taken, as it was unusual for epidemic disease to make its appearance for at least six weeks after mobilization. In regard to the safety or danger of billets as accommodation for large bodies of troops, England was a terra incognita, no large bodies of troops having remained in billets, or indeed under canvas, in this country for any length of time. If the experiment were made it would fall to the lot of the Territorial Force to make it, and the responsibility resting on the authorities to provide the force with an efficient sanitary service was very great. Salisbury Plain was sacred, in regard to disturbing the surface of the ground, so the sanitary authorities of the troops were deprived of opportunities of carrying out in peace the duties that would fall to them in war. Small-pox would be very likely to give trouble in the absence of efficient revaccination, and enteric fever would be rife under the conditions ensuing on mobilization of the Territorial Force. Excellent as were the sanitary companies they were insufficiently numerous to cope with the vast problems involved. Matters would be improved somewhat if Territorial medical officers were permitted to attend army manœuvres as supernumeraries, thus obtaining an insight into the methods of dealing with large bodies of troops under service conditions, and if there were brought into existence a special class of officer who, on qualifying, would be attached for one year to the regulars, and thus bring to their service with the Territorials the knowledge derived from intimate association for a considerable time with regular troops, both in barracks and on manœuvres.

A MEETING of an organization committee appointed by the Clinical Congress of Surgeons of North America was held at Washington on May 5th, with Dr. Edward Martin of Philadelphia in the chair, to discuss the formation of an American College of Surgeons. The object aimed at is the standardization of surgery in the United States. Five hundred representative surgeons from all parts of the North American Continent had agreed to become founders of the college, and of this number fully 300 were present at the meeting in Washington. They were unanimously in favour of the project. The proposal is that a minimum standard of requirement should be set up for any legally qualified doctor who wishes independently to undertake operations in general surgery or any of its special branches. An endeavour will be made to obtain the legalization, under national, colonial, State, or provincial laws, of a distinct surgical degree that will entitle those possessing the required qualifications to operate. The medical colleges are to be urged to confer the degree of surgeon on such graduates as have, in addition to the medical course, gone through the necessary apprenticeship in surgical hospitals, operative laboratories, and actual operative surgery. It is further urged that men who have gained the title of "Surgeon" in this way should be authorized to use it in medical directories and elsewhere by appending the initials F.A.C.S. to their names. The following officers were elected: President, Dr. J. M. T. Finney, Baltimore, Md.; Vice-President, Dr. Rudolph Matas, New Orleans, La.; General Secretary, Dr. Franklin H. Martin, Chicago, Ill.; Treasurer, Dr. A. J. Ochsner, Chicago, Ill. The headquarters of the college will be in Chicago, where the first meeting will be held in November. It is expected that the President of the Royal College of Surgeons of England will be the guest of honour on the occasion.

Reviews.

ANOTHER YEAR'S EXPERIENCE OF TUBERCULIN TREATMENT.

TWELVE months ago we had the satisfaction of commending a new work on *Tuberculin Treatment*[1] to the notice of the profession. A second edition of that work, by Dr. CLIVE RIVIERE and Dr. EGBERT MORLAND, is now before us to testify that it has met with the appreciation that it deserved as a trustworthy guide in practice. In preparing it the writers have had the advantage of another year's experience and the opportunity of learning how the method has succeeded in other hands than their own. Already a great extension may be noted in the number of institutions in which tuberculin is used, and the reports hitherto have not disclosed any reasons for apprehension on the score of general safety. Caution, however, is as necessary at the present time as at any period of recent history, and it is equally needful that a general knowledge of tuberculin, its mode of preparation and administration, its action and results under different conditions, should be acquired before any one attempts to make use of it.

The two main lines followed by different schools may be expressed as the production of immunity (*a*) by means of large doses pushed until tolerance is established, and (*b*) by means of small doses extending over long periods and not pushed to the extent of producing tolerance.

Each of these methods would appear to have produced undeniable results in so far as present benefit is concerned. Even if full allowance be made for the influence of simple faith in a mysterious remedy, there can be little doubt that, for a time at any rate, the influence of the tuberculous process is checked, and the individual regains and maintains strength to a degree not attained by treatment on general hygienic lines alone.

The writers, from close observation of results, express considerable doubt as to the wisdom of producing focal reaction in cases of pulmonary tuberculosis, and it may be presumed that they have good grounds for recommending caution. In every case of pulmonary tubercle the use of inoculation is practically a leap in the dark. It is not possible to be sure of the extent or of the present condition of the focus of disease, and, although experience may enable the specialist to form a more or less accurate judgement, there must of necessity be certain cases in which the focal reaction produces far more systemic disturbance than had been anticipated. Although in the long run such vigorous reaction may lead to no serious harm, it is nevertheless advisable to avoid it if possible.

The treatment of mixed infections does not appear to have made much headway. Vaccines prepared from the actual organisms taken from the case to be treated appear to be greatly preferable to stock preparations, which are seldom of much use. It is only in cases of open tuberculosis where surgical measures are possible that septic infections can be dealt with effectively.

With the prospective addition of many tuberculous dispensaries throughout the country, the question of the success or failure of ambulant treatment becomes a burning one. The methods adopted at the Phipps Tuberculosis Dispensary, attached to the Johns Hopkins Hospital at Baltimore, have been generally recognized as a type worthy of adoption, and the experience gained in treatment at the Municipal Dispensary at Portsmouth affords some idea of the amount of practical success that may be looked for at the present stage of the movement. Already the number of cases treated without daily supervision has reached many thousands, and thus far no catastrophe has been reported. It cannot be forgotten, however, that many cases are lost sight of, and it may well be that some of these have deliberately abstained from further treatment, lest a worse thing should befall them. The advantages offered by ambulant treatment are obvious from the patient's point of view, but there are many drawbacks from the scientific aspect.

As in their original edition, the writers refrain from the publication of their own or other workers' statistics. General experience points to the fact that closed tuberculous foci, uncomplicated by secondary infection, can be rendered quiescent or inert by the use of tuberculin, and that this desired result is obtained far more readily by such means than by simple hygienic or therapeutic measures. In cases of open tuberculosis, already the seat of mixed infection, tuberculin used with caution is a valuable adjunct to general hygienic and other means. Many patients are unquestionably better with it than without it, but in such cases it cannot be regarded as a specific in the same sense as would apply to the uncomplicated conditions.

Attention has recently been prominently called to the fact that tubercle in susceptible animals has never been shown to have been cured by tuberculin, and clinical experience does not warrant any larger assumption than that a neutralizing effect is produced upon the focus of disease, rendering it inert and for a time incapable of reinfecting the body. But this effect would seem to be temporary, and only the maintenance of sound health thereafter will serve to maintain permanent quiescence.

[1] *Tuberculin Treatment.* By Clive Riviere, M.D.Lond., F.R.C.P., Physician to the City of London Hospital for Diseases of the Chest, Victoria Park; and Egbert Morland, M.B. and B.Sc.Lond., M.D.Berne, Visiting Physician to the English Sanatorium, Arosa, Switzerland. Second edition. Oxford Medical Publications. London: Henry Frowde, and Hodder and Stoughton. 1913. (Post 8vo, pp. 262. 6s. net.)

TREATMENT AFTER OPERATION.

MR. WILLIAM TURNER and Mr. E. ROCK CARLING have written a useful book on *Treatment after Operation*[2] containing a great deal that is of sound practical value, and readable throughout. A commencement is made with a chapter on the sick room, giving general nursing instructions, and drawing attention to such risks as burns from hot water bottles. There follows a consideration of general after-treatment, including that of vomiting, shock, restlessness, and so on. This chapter might have been enlarged with advantage by a more detailed analysis of the causes of the most important general complications. The advice for treatment is practical and to the point, but such a condition as shock requires more than two pages for such an exhaustive discussion as one is entitled to expect in a volume on after-treatment. The management of aseptic and septic wounds and of haemorrhage is laid down on recognized lines; the necessity for great caution during convalescence from post-operative thrombosis is properly emphasized. There follow short chapters on operations involving different tissues and organs—the skin, nerves, bones, face, tongue, and so on. Very wisely the authors are definite in their instructions. Of course practice varies; for example, some surgeons eschew the use of protective silver leaf, etc., to cover skin grafts and find that grafts covering a clean granulating surface require no dressing other than sterile gauze. Other divergencies of practice might be noticed, but it must be acknowledged that a short handbook is no place for the discussion at length of alternative methods.

It is in the later chapters on abdominal and genito-urinary surgery that the authors fulfil their task most satisfactorily. The increasing practice of getting patients up within the first fortnight after aseptic abdominal operations is not supported; the authors are on the side of caution. The management of drained wounds of the peritoneal cavity is admirably dealt with. In acute dilatation of the stomach attention should have been directed to the value of the prone position. Mr. Cargill, who writes the chapter on treatment after eye operations, has been liberally dealt with in the matter of pages; he has therefore had an opportunity of writing a really detailed guide to the management of these cases, and has made good use of it. The illustration of this last chapter is full, of the rest of the book adequate. The practitioner or house-surgeon will find much in the volume (which is one of the series of medical books issued by the London University Press) that will help him in difficulties, and the instructions may be trusted as being throughout on sound recognized lines.

[2] *Treatment after Operation.* By William Turner, M.S., F.R.C.S., and E. Rock Carling, B.S., F.R.C.S., with a Chapter on the Eye by L. V. Cargill, F.R.C.S. London Medical Publications. London: University Press. 1912. (Demy 8vo, pp. 255; illustrations 55. 10s. 6d. net.)

REFRACTION.

PROFESSOR HIRSCHBERG of Berlin has published a short treatise on *The Treatment of Shortsight*,[3] which has been translated into English by G. LINDSAY JOHNSON. The essay is founded on a lecture delivered in 1911. Professor Hirschberg first goes into the question of the history of myopia and its causes. In the matter of treatment he is most emphatic; he strongly deprecates the use of high concave glasses, and thinks that they should be used only with the utmost caution. In grades between 0.75 and 3 D. he allows a full correction to be used continually. In medium degrees from 3.5 to 6 D. full correction is to be used for distance only, while for near work weak glasses should be used or none at all. In the higher grades of 6 D. and upwards two separate pairs should invariably be ordered, and the reading pair should be half the strength, or a little more, of those ordered for distance. He disapproves of full correction for anything but momentary use in high myopia, and states that "nobody can endure wearing −16, −18, or −20 continuously." He prefers an opera glass for occasional use at a distance to the full correction. He refers to his own good results obtained by operating for senile cataract upon myopes, and shows that these results are very much better than the published results of those who have had a large experience in removing clear lenses for myopia. He goes fully into the various pathological changes known to complicate and be induced by high myopia. The use of the Heurteloup artificial leech he condemns, and considers that these cases require tonic treatment rather than the reverse, while rest from all near work is essential. Many cases are quoted illustrating the results of treatment, including that for detachment of the retina. He is by no means an advocate for the operation of the removal of the clear lens, and considers that detachment of the retina is very liable to follow it, but he has done it in specially selected and suitable cases with good results. Finally, he devotes several pages to the subject of the prevention of myopia. The book is original, and the facts are clearly stated, but the teaching will be found to differ considerably from many of the generally accepted theories on this important subject. The translator has done his work well.

DR. JAMES THORINGTON, of Philadelphia, has brought out the sixth edition of his very useful and practical book on *Retinoscopy*.[4] It is quite a small volume but with 61 illustrations. It is particularly to be recommended because it is so well arranged, and because, in spite of its small size, it contains all that a beginner can learn, by reading, of the art of retinoscopy. All the rest has to come from practice. The author describes in detail the special method he uses in the arrangement of the light. He also advocates the self-illuminating retinoscope. There are various little devices to facilitate the working out of a refraction case which have for a long time been associated with the name of the author; these are all useful and practical, and are clearly described. The schematic eye for the practice of retinoscopy is figured, and altogether any one who wished to learn the principles of the method could not do better than study this book. We hope that the new edition, which has been revised, will be as popular with students and practitioners as those which have preceded it.

THOMSON'S "HEREDITY."

A WARM welcome for the second edition of THOMSON'S *Heredity*[5] was ensured by the admirable qualities of the first. It was a model of comprehensiveness and impartiality. The author stated the facts fully and clearly, together with the deductions they had been held to justify, but he never hesitated to advise suspension of judgement. He played the part not of the schoolmaster who would compel acceptance of his formula by the threat of the ferrule, but that of the sweetly reasonable guide and companion who carefully and exactly told all that was known and said and then suggested with a humorous smile that it is never wise to believe all that one is told. We have been led here into stating by implication one of the secrets of the success of Professor Thomson's book; it is stuffed full of facts, but its pages never long lack the lambent lights of humour and practical wisdom. As a text for the chapter on the history of theories of heredity and inheritance, he quotes from Pope's *Iliad* the apposite lines:

> Like leaves on trees the race of man is found,
> Now green in youth, now withering on the ground,
> Another race the following spring supplies,
> They fall successive and successive rise,

and adds this commentary: "The same may be said of the succession of theories of heredity, but, in both cases, there is a persistent living tree, to whose growth all the leaves contribute."

In consequence of the attitude of mind in which the author approached his task, he has had to make in his second edition very few changes in the matter of the first, and, so far as we have observed, the difference between the two lies chiefly in the records of new facts and theoretical developments which have arisen in the interval. This seems to be the case even in the discussion of Mendelism, a subject of much observation and still more speculation during the last five years.

The problems with which the book deals can never be long absent from the mind of any practitioner of medicine who thinks for himself. They insistently force themselves on his attention, but their complexity as they present themselves to him in man is so great that he must often put them away as insoluble. The biologist who has the whole of living nature for his field is more fortunate since he can begin with the simplest cases. The medical student of the subject must turn to the biologist for guidance, and in this book he will find what he needs. It cannot be too strongly recommended as a book to be read through, and then kept on a convenient shelf for reference. It is so well and logically arranged that anything that is wanted can quickly be found even without the aid of the excellent index. It should be added that Professor Thomson has compiled a bibliography which, though he describes it as "simply representative, not in any way exhaustive," yet fills sixty pages. Its value is greatly enhanced by the notes added to many of the entries, indicating the general scope and purpose of the work mentioned. There is also a list of the "best books to begin with," nearly all of them published in this century, but already numbering over thirty. There is, therefore, all the greater debt of gratitude due to Professor Thomson for giving us in one volume a comprehensive "best book to begin with," which will carry the student safely to a state of mind and knowledge enabling him to go on at once to any special line of investigation that may appeal to him. Many writers on heredity are afflicted by cocksurity. From this defect Professor Thomson is free, and we may apply to him the praise he gives to Professor Tower—his "general conception of the attributes of the organism appears to us to have a wholesome breadth and elasticity such as the present state of knowledge demands."

BREAD-AND-BUTTER WISDOM.

THE gratitude of our transatlantic brethren is due to Dr. T. F. REILLY, who, being Professor of Applied Therapeutics at Fordham University, New York, has not disdained to instruct his juniors in the art of making a success of life. Nor is the interest of his book[6] confined to his compatriots; the conditions determining financial success or failure appear to be substantially the same in the New World and the Old. When one has become accustomed to some trifling differences of nomenclature—to hearing general practitioners spoken of as "physicians," their consulting rooms called "offices," and so forth—one finds one's self in the main upon familiar ground. We have, indeed, been surprised to find how generally applicable the author's advice appears to be. The book makes quite good reading, for Dr. Reilly has a gift of sly humour and a certain genial cynicism, as well as a wide knowledge of professional economics. In a chapter dealing with post-graduate study the young practitioner is advised to take out a course in

[3] *The Treatment of Shortsight.* By Professor Dr. J. Hirschberg of Berlin. Translated by G. Lindsay Johnson, M.D., F.R.C.S. London: Rebman Limited. 1912. (Demy 8vo, pp. 123; figs. 12. 5s net.)

[4] *Retinoscopy.* By James Thorington, A.M., M.D. Sixth edition, revised and enlarged. London: Rebman Limited. 1912. (Demy 8vo, pp. 87; 61 illustrations. 4s. 6d. net.)

[5] *Heredity.* By J. A. Thomson, M.A. Second edition. The Progressive Science Series. London: J. Murray. 1912. (Demy 8vo, pp. 643; figs. 47. 9s. net.)

[6] *Building a Profitable Practice.* By Thomas F. Reilly, M.S., M.D. Philadelphia and London: J. B. Lippincott Co. 1912. (Demy 8vo, pp. 304; illustrations 16. 10s. 6d. net.)

any speciality to which he feels himself drawn, and preferably after five or six years of general practice. By that time his tastes will have matured, and he will have acquired a knowledge of his real aptitudes and limitations. Moreover, if he goes to Europe, the hygienic benefit will be a consideration. The facilities for post-graduate study in London are deservedly commended. It is interesting to note that what we call here club practice, and our American cousins lodge practice, does not appeal to the author any more than it has hitherto appealed to us.

As a matter of fact (says Dr. Reilly) few men get much out of this line of work. The man who does succeed would succeed just as well without it. The people do not think they are getting satisfactory treatment, no matter how careful and conscientious the doctor may be, and, once they have that notion, nothing will change their value of your services. They know you are cheap, and they will not trust their children to you. From the obstetric standpoint, their wives will have the same feeling.

As to family contracts, the author condemns them unreservedly.

Do not under any circumstances take up this work; rather retire from the profession and go behind a dry goods counter than touch it.

From the chapter on medical finance we gather that the average fee ranges higher in the United States than in Great Britain. Probably, where we should charge from 2s. 6d. to 5s. for a visit, an American practitioner of similar standing would expect from one to two dollars; and in obstetric cases a fee of ten dollars would seem to correspond to our guinea fee. A good example of the author's dry humour is a remark he makes apropos of the courtesy call. He advises the beginner to utilize the occasion of this visit to ascertain "the fee table in vogue in that particular location." But he is careful to add that "unless you are dealing with a particularly high class of practitioners, you will find the fee table idealistic, and that a third to one-half less is gratefully received." Similarly, while deploring the insistence of the laity upon an early and often impossibly definite diagnosis, he indicates a plan by which this weakness can be indulged without undue risk of humiliation. "It is better," he says, "to make a double diagnosis when in doubt, and at a later period drop one of the diseases if necessary." There are many other aphorisms which we are tempted to quote, but we will conclude with this suggestion as to the method of eliciting a cash payment:

At your first call, after having finished your work, stand up in the middle of the floor and slowly look about, twirling your hat as though you were waiting for some one to come, at the same time not saying anything for a few minutes. This will cause most people to make some suggestion as to payment.

OLD COOKERY BOOKS.

ALTHOUGH Englishwomen have never enjoyed much repute as first class cooks, they have always been regarded as notable housewives, and even the great ladies of the past did not disdain to take an active interest in all that concerned the health and comfort of their families and dependants. The position of mistress of a large household was no sinecure in the good old days, when the chatelaine, besides superintending and taking part in the housework, was usually her own baker, brewer, laundress, and dressmaker, and not infrequently was called upon to act as doctor and chemist as well. Nearly every family possessed a number of homely remedies, many of which had been handed down from mother to daughter for generations, and the relation between good health and good food was fully recognized by every good housekeeper. It is not surprising, therefore, to find that many ancient cookery books include, besides the usual receipts, full directions for making up different medicines and the treatment of a variety of diseases. Dr. ARNOLD WHITAKER OXFORD, whose book on *English Cookery Books to the Year 1850*[7] contains a most interesting collection of title pages of these antique volumes, has found in them a wealth of curious detail relating to the medicine of the past. The majority of the remedies quoted by Dr. Oxford sound more strange than efficacious to modern ears, and many are frankly disgusting. To "apply a live puppy to the naked belly," as advised by *The Family Magazine* published in 1741, sounds a remarkable way of treating acute abdominal trouble, whilst the lady mentioned in *The Complete English Cook* (1762) who was cured of "a Cancer in her Breast, a Consumption, a Sciatica, and Rheumatism, which she had near twenty years" simply by taking a cold bath, would have made an excellent advertisement for any spa or holy well. Dr. Oxford is to be congratulated on his careful arrangement of this mass of material. He gives, besides the title page of each volume, a short synopsis of its contents, beginning with the *Boke of Cokery* published in 1500 and ending with *Common Sense for Housemaids*, which appeared exactly three hundred and fifty years later. His occasional extracts from these dead and gone authorities on domestic economy have much the same effect on his readers as the workhouse gruel on Oliver Twist, inasmuch as they make them long for more. The book forms an interesting sequel to the *Notes from a Collector's Catalogue*, published some time back by the same author.

[7] *English Cookery Books to the Year 1850.* By Arnold Whitaker Oxford, M.A., M.D. Henry Frowde: Oxford University Press; London, Edinburgh, New York, Toronto, Melbourne, and Bombay. 1913. (Pp. 192. 5s. net).

NOTES ON BOOKS.

IN the second edition of *A Manual for Women's Voluntary Aid Detachments*,[8] by Lieutenant-Colonel P. C. GABBETT, are included chapters on the clearing of hospitals, the equipment of those intended for temporary use, the need for training, the preparation of rooms, instruments, and dressings for operations; the administration of medicines, and the choice and preparation of diets; on first aid to the injured, on field drills and the equipment required for the training of squads, and on the kind of outfit required by a nurse when going into camp. Since the volume devoted to these subjects numbers only 112 very small pages, it is natural to find that as a whole it hardly represents what might be expected from its title. Nevertheless, there are doubtless a good many beginners who will be able to derive from it much useful information, while to those already versed in the various subjects it may possibly supply some new idea.

Dr. LESLIE THORNE THORNE has brought out a new edition of his book relating to *The Nauheim Treatment of Diseases of the Heart and Circulation*.[9] Intended to facilitate the use of this system in English-speaking countries, it describes the action and administration of the baths and the selection of cases for treatment, as also the exercises employed, the latter being very clearly illustrated. Finally come some detailed records of cases which have been under the author's observation for years. The book from the first supplied an excellent exposition of the subject, and this fourth edition, amplified as it is by the inclusion of electro-cardiograms and sphygmographic records, is decidedly attractive.

A psychological clinic, such as exists in connexion with the University of Pennsylvania, and is described by Dr. HOLMES in *The Conservation of the Child*,[10] is an institution typically modern in the best sense of that word. Staffed by a trained psychologist, a medical examiner, one or two voluntary social workers, and a stenographer, its main function is to serve as a clearing house for abnormal, and in particular mentally defective, children. By a series of careful and systematic observations, often extending over a considerable period, the subjects brought by parents and guardians are ultimately classified in accordance with the degree and nature of their departure from the normal standard of their respective ages. Great pains are taken to provide for their future welfare by directing their parents as to home training or by placing them out in one or another of the various institutions available. The voluntary workers are required to keep in touch with the patients of the clinic, to follow up and supervise their progress, and to report thereupon. In the book before us a full and clear account is given of all these activities and an excellent case made out for the social utility of such

[8] *A Manual for Women's Voluntary Aid Detachments.* By Lieutenant-Colonel P. C. Gabbett, I.M.S. (retired). Second edition, revised, and enlarged. Bristol: John Wright and Sons. London: Simpkin Marshall. 1913. (Double post 32mo, pp. 115. 1s. net.)

[9] *The Nauheim Treatment of Diseases of the Heart and Circulation.* By Leslie Thorne Thorne, M.D., B.S.Durh. Fourth edition. London: Baillière, Tindall, and Cox. 1913. (Cr. 8vo, pp. 112; figs. 55. 3s. 6d. net.)

[10] *The Conservation of the Child.* By Arthur Holmes, Ph.D. Philadelphia and London: J. B. Lippincott Co. 1912. (Post 8vo, pp. 345. 4s. 6d. net.)

work. We cordially commend the study of Dr. Holmes's book to all who are interested theoretically or officially in the important subject with which it so admirably deals.

In reviewing the first edition of Mr. YULE'S *Introduction to the Theory of Statistics*[11] we expressed the opinion that it was decidedly the best work on the subject available. The appearance of a second edition within twelve months of publication is a practical confirmation of our judgement. Some errors have been corrected, the wording of certain paragraphs has been changed, and a few additions have been made, the most important being a section on the correlation ratio. Readers of current statistical literature will be aware that some of the methods of measuring association which are advocated by Mr. Yule have been vehemently impugned. Whatever may be the judgement finally pronounced by qualified persons upon the points at issue, we have little doubt that Mr. Yule's work is, and will long remain, the best introduction to statistics in our language.

The abolition of the army and navy and the blessings of universal peace form the subject of Dr. WINSLOW HALL'S allegorical play, *The Peacemaker*.[12] in which the identity of the four great nations who play the principal parts is but thinly concealed under the names of private individuals. Dame Britt, Uncle Sam, Fritz, and Jeannette have hitherto lived side by side in armed neutrality, until the first named, urged by her youngest son Layburr, dismisses her guards, demolishes her defences, and finally prevails upon her quarrelsome neighbours to follow her example and live together in brotherly love and tranquillity. Dr. Winslow Hall has evidently great faith in the humanizing effects of universal disarmament, and satirizes severely those politicians who believe that the surest way to preserve peace is to be strong enough to enforce it. His play, which is in blank verse, has been written with the object of turning men's thoughts away from the contemplation of wars and rumours of wars, and to hasten the advent of that happy time

> When shall all men's good
> Be each man's rule, and universal Peace
> Lie like a shaft of light across the land,
> And like a lane of beams athwart the sea.

The love story of Dermot Fitzgerald and Nora Townsend, as told by the author of *The Surgeon's Log* in his novel *The Night Nurse*,[13] goes far to prove the truth of the saying that the course of true love never did run smooth, for his hero and heroine have even more than the usual amount of trials and misunderstandings before they are united in the last chapter. Mr. ABRAHAM has depicted the daily life of residents and nurses in a Dublin hospital with much vivacity and skill, though he has perhaps given undue prominence to what is, after all, only one side of the picture; and he has succeeded in treating the hackneyed theme of two women in love with the same man in a novel and interesting fashion. The author is at his best, however, when the scene of his story shifts to a little town in the wilds of Mayo, where an outbreak of typhus has caused the principal characters to congregate. It is then that his writing develops a depth and force that are lacking in the early part of the book; whilst his description of the squalid workhouse, transformed for the occasion into a fever hospital, and the heroic efforts of the overworked doctors and nurses to do their duty in the face of overwhelming difficulties, is tragic in its grim realism. The novel is considerably above the average both in style and in plot, and has, moreover, the supreme merit of being written by one who knows from personal experience the lights and shades of hospital service, and the strange mixture of tragedy and comedy that makes up the daily life of the little world enclosed within the walls of a public hospital.

[11] *An Introduction to the Theory of Statistics*. By G. Udny Yule. Second edition, revised. London: C. Griffin and Co. 1912. (Post 8vo, pp. 396; figs. 5?. Price 10s. 6d. net.)

[12] *The Peacemaker: A Retrospective Forecast*. By W. Winslow Hall, M.D. London: A. C. Fifield 1913. (Pp. 63. 1s. net.)

[13] *The Night Nurse*. By the author of *The Surgeon's Log*. London: Chapman and Hall, Ltd. 1913. (Post 8vo, pp. 316. 6s. net.)

A BELGIAN Association of Social Medicine was founded at Brussels on March 29th on the initiative of Dr. Stassen. The new association is to devote itself to the study of questions of hygiene, labour, insurance, and so forth. The provisional committee consists of Drs. Gilbert, Inspector of the Ministry of Labour; René Sand, agrégé of the University of Brussels; and Stassen, Physician to the Dispensaire de l'Espérance at Montegnée, Liége.

MEDICAL AND SURGICAL APPLIANCES.

An Operating Screen.

DR. C. A. STIDSTON, of Wolverhampton has recently had made to his design by Messrs. Allen and Hanbury an appliance by which both patient and operator can easily be screened from the anaesthetist when desired. It consists of an upright of plated brass tubing, carrying an horizontal arm of the same construction and material on which towelling can be hung. The upright is attached to the operating table wherever desired by an iron screw clamp, and both the upright and the arm are freely extensible to heights and lengths within wide limits, and movable in any direction. The screws bringing about these movements are so placed as to be under the control of the anaesthetist. The appliance has been found especially useful in connexion with operations about the neck.

A Sanitary Closet Seat.

In these days when frequent absence from home necessitates the use of public sanitary conveniences, it is important that the dangers incident to many appliances in public places should be reduced to a minimum. At large railway stations it is the usual custom for an attendant to cleanse the seat of a public watercloset after use with cloth which may be indifferently clean, while in some public latrines in parks and elsewhere a rail is substituted for the seat, though in military camps even the rail has been abandoned and the straddling position over a trench is enforced. For those closets provided with a seat this part of the apparatus can now be obtained made in two halves from before backwards, a space of a few inches being left at the front and the back of the divided seat. There is thus much less chance of the seat being soiled than where the ordinary type is in use. The seats can be fixed to any closet pan, and are obtainable from Messrs. Murray, Morgan and Co., Limited, 1, Norwich Street, Furnival Street, Holborn.

SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE (LONDON, 1913).

SECTION OF RHINOLOGY AND LARYNGOLOGY.

THE President of this Section is Sir StClair Thomson, and the Acting Secretary, Mr. Douglas Harmer, 45, Weymouth Street, W.

As in other sections the mornings will be devoted to discussions. The following subjects have been selected:

Discussions.

On Thursday, August 7th, Professor Killian and Professor Jackson will report on endoscopic methods as applied to the larynx, trachea, bronchi, oesophagus, and stomach.

On Saturday, August 9th, there will be a discussion on indications for and relative values of tonsillotomy and tonsillectomy. To be opened by Professor Burger and Dr. Goodale.

On Tuesday, August 12th, Professor J. Ferreri, Dr. H. Marschik, and Dr. E. Lombard will open a discussion on the pathology and treatment of malignant growths of the nose and naso-pharynx (fibroma to be excluded).

The remaining two mornings—namely, Friday and Monday (*August 8th and 11th*) will be devoted to a joint meeting with the Section of Otology. On the former day Professor Gerber and Dr. André Castex will introduce a discussion on the methods and results of treatment of diseases of the throat, nose, and ear by salvarsan and other arsenical compounds, and on Monday Dr. Victor Delsaux and Dr. E. W. Goodall will report on the special treatment of the throat, nose, and ear during the active stages of certain infectious fevers.

The afternoon sessions will be devoted to papers offered by members of the Section.

When the arrangements for the Congress were first considered, the question arose whether laryngology and otology should continue to be divided, or should be united in one section. The former plan was adopted, but it was arranged that the *Transactions* of both sections should be supplied to members of either, that they should have conjoint meetings, and should be in close contiguity. They will both meet in the Central Technical College in adjoining rooms.

Museum.

In connexion with the Section of Laryngology, a department has been arranged in the General Pathological Museum to illustrate the following three groups of diseases: (1) Neoplasms of the nose, accessory sinuses, and naso-pharynx (excluding mucous polypus); (2) the rarer forms of laryngeal tumours, including post-cricoid

carcinoma; (3) diseases of the trachea and bronchi. There will be an exhibition of instruments to illustrate recent improvements in broncho-oesophagoscopy.

The committee is prepared to arrange for a limited number of short demonstrations in the museum at stated hours. Members who desire to lend material for exhibition are requested to communicate with Dr. Dan McKenzie, 62, Brook Street, London, W.

Section of Otology.

The President of the Section is Mr. Arthur Cheatle, and the Acting Secretary Mr. Sydney Scott, 130, Harley Street, W. Messrs. J. S. Fraser, G. J. Jenkins, and Patrick Dempsey are also secretaries. It has been stated that this section is closely connected with Section XV (Rhinology and Laryngology), and that a subscriber to either receives the *Transactions* of each. Joint discussions on (*a*) the methods and results of treatment of diseases of the throat, nose, and ear by salvarsan and other arsenical compounds; and (*b*) special treatment of the throat, nose, and ear during the infectious fevers, will, as there mentioned, be held. The other mornings will be given up to discussions on: (*a*) The pathology of deaf-mutism, on which Professors Alfred Denker and Holger Mygind will report, and Professor Siebermann will give a demonstration; (*b*) non-suppurative diseases of the labyrinth (reporters, Professors G. Alexander and Karl von Eicken); and (*c*) climatic and occupational influences in diseases of the ear, introduced by Dr. Clarence Blake and Professor Gradenigo. In addition, an extra discussion has been arranged for surgical anatomy of the mastoid region. This will be held on Wednesday afternoon, August 6th, and will be opened by Professor Mouret. The afternoon sessions will be given up to independent papers.

There will be a museum connected with this section, which will be devoted to illustrating by specimens, transparencies, and other exhibits, the anatomy, physiology, pathology, and surgery of the labyrinth. Members who desire to lend material for exhibition are requested to communicate with W. M. Mollison (Secretary), 48, Brook Street, Grosvenor Square, London, W.

Entertainments.

The dinner of the combined Sections of Rhinology and Laryngology and Otology, to which all foreign members who register their names will be invited, will be held at the Hotel Cecil on Tuesday, August 12th, at 7.30 p.m. Tickets can be obtained from the Treasurer, Mr. Mark Hovell, 105, Harley Street, London, W., at the price of 2 guineas. An excursion to Oxford on Sunday, August 10th, will also be arranged. Visitors will be asked to pay their own expenses, amounting to about 10s. 6d. each, and it is possible that the numbers may have to be limited. Gentlemen wishing to give private entertainments of any kind during the Congress, and visitors who require hotel accommodation, are asked to notify the Secretary of the Entertainments Committee, Mr. Cecil Graham, 17, Upper Wimpole Street, London, W.

We are informed that, though a large number of the children when received into Dr. Barnardo's Homes are in an emaciated condition and physically afflicted in various ways, the death-rate last year was only 5.15 per 1,000; 17,191 children in all were dealt with during the year, and nearly 9,000 are always in residence.

At the annual meeting of the Medical Association of the Greater City of New York, the recent official request of the New York Board of Health that all practitioners should report promptly to them all cases of syphilis, gonorrhoeal infection, and chancroid, together with the source of infection, if obtainable, was discussed. On the proposal of Dr. William S. Gottheil it was resolved that such notification would be an undesirable and useless invasion of the most confidential relationship between physician and patient. The mere compilation of statistics in venereal diseases, it was suggested, had no value, and the attempt to make it in this manner was a direct incentive to falsification and disobedience of the law. The measure was described as of value only as a step towards the relegation of these cases to the Board of Health, and it was urged that its ultimate effect would be to promote self-medication and quackery. It was further resolved that a committee should be appointed to decide what action should be taken in the matter.

THE REPORT OF THE ROYAL COMMISSION ON UNIVERSITY EDUCATION IN LONDON.

By ERNEST H. STARLING, M.D., F.R.C.P., F.R.S.,
Jodrell Professor of Physiology, University College.

II.—The Matriculation Question.

The University of London has for so long been a mere sorting and labelling machine that we in London often find it difficult to conceive of a University from any other point of view. One of the main causes of dissatisfaction with the University has been the impossibility of obtaining a label, in the shape of a degree, for the majority of London medical students. Though the inability to obtain a degree may represent a real disability to London students, and may have had an injurious action on the entries to our medical schools, it is not a matter which directly affects either the community or the science of medicine, nor could it serve as a pretext for State interference with the present University or for the grant of funds from the State for the foundation of a new University. So far as labels and examinations go, the State protects itself by prescribing a certain minimum of knowledge which must be obtained by its licensed practitioners, and has entrusted a body—the General Medical Council—with the office of guarding this standard. It is, however, of importance to the community that as many practitioners as possible should have received an education considerably transcending the prescribed minimum, and it is therefore in its interests that the general standard of medical education should be as high as possible, and that London, with its rich store of clinical material and its attraction for the greatest intellects in the profession, should be equipped and organized for the utilization of material and men and thus play its due part in the education of the profession and in the advance of medicine.

Entrance to the University.

From this standpoint the State is justified on behalf of the community in remodelling the University and employing public funds in the foundation of a great school of medicine, and endeavouring to attract to this school as large a proportion as possible of its future practitioners of medicine. The continuance of the present impediments to the entry upon a University course in London would effectively bar the new University from taking its proper share in the medical education of the country. At first sight it is not easy to make out how the measures proposed by the Commissioners will accomplish this object—that is, an increased accessibility of the University course to the London medical students. Indeed, the report evidently contemplates that at first its constituent college or colleges of medicine will be confined to the students of London, Oxford, and Cambridge Universities; and it is significant in this connexion that the report estimates that more than half of these students will have received their preliminary and early training at Oxford and Cambridge, and thus will not be in the strict sense of the term London University students at all. A more careful consideration of the report shows, however, that this will apply only for a short time immediately after the inception of the University.

In order to see how this condition of things will be remedied, it is necessary to read the parts of the report dealing with the question of entrance to the University and school-leaving examinations, together with the report of the Consultative Committee of the Board of Education.[1] In the preface to the latter report the Board of Education indicates that it is engaged in formulating a definite scheme of action in accord with the main principles laid down by the Consultative Committee in respect to school-leaving examinations, and such examinations as give entrance to universities. This report appeared in 1911, and it seems probable that by the time the new University of London comes into existence, which we may hope will not be more than three years from the present date, the Board of Education will have devised some common scheme of school examination which will apply to the whole country, and which will determine the admission

[1] Board of Education. Report of Consultative Committee on Examinations in Secondary Schools. H.M. Stationery Office. 1911. Price 2s. 6d.

to all the universities, and, perhaps, to all the learned professions. It may be interesting to anticipate, in the light of the recommendations contained in these two reports, the manner in which the Board of Education may be able to co-ordinate the multifarious school examinations, local examinations, and university entrance examinations, which at present are the terror of the schoolmaster and the stumbling-block of the students.

Most London teachers would agree that the majority of the London medical students are capable, or might be made capable, of profiting by university education of the highest type. A minority, which is probably not greater than 10 per cent., who have been crammed through some inadequate preliminary examination, ought never to have entered the profession at all. Some of these fail to qualify; others slink in after many years through some of the back doors to the profession which still exist in various parts of the country. The majority, however, fail to commence a University career simply because they have not passed the matriculation examination. It cannot be pretended that this examination is too difficult. It is, however, only suited to a certain number of schools. Boys coming from other schools would have to undergo a special preparation for this examination. At the present time the majority of the boys and girls in the secondary schools who are expecting to proceed to a University or to any profession pass some examination or other while they are at school. Of these school examinations there is an enormous number; Oxford and Cambridge both hold three examinations in addition to the Joint Schools Examinations. The students entering St. Bartholomew's Hospital in one year had passed the following examinations as entitling them to begin the study of medicine: London Matriculation, College of Preceptors, Cambridge Previous Examination, Oxford Responsions, Cambridge Senior Local, Oxford Senior Local, Oxford and Cambridge Schools Examination Board, Educational Institute of Scotland, B.A. Cape of Good Hope, Matriculation Royal University of Ireland, Central Welsh Board, Sandhurst Entrance Examination. Until a few years ago none of these examinations, except the London Matriculation itself, would have allowed a student to matriculate as an undergraduate of the London University, and even now, when a few of them are allowed as alternatives to the Matriculation, the subjects have to be taken in exactly the same combination as is prescribed for the London Matriculation, irrespective of the nature of the curriculum of the school at which the boy has been educated. The function of a University is to educate, to make the best of the students presented to it by the secondary schools, and it is neglecting its duties if it refuses to accept three-fourths of those who would enter its portals because the ideals of the school where they have been educated do not fit in to a certain Procrustean bed devised by the University.

There can be no doubt that a new University, guided by an Academic Council which regards education as the main function of a University, will at once get rid of the disabilities at present attaching to boys educated in two-thirds of the schools of the country, and will accept any school-leaving examination or local examination which affords evidence of a secondary education sufficient to enable a boy to profit by the education offered him by the University. The whole present system of school examinations is, however, temporary. University education must be hampered and kept back while secondary education is in its present inchoate and unorganized condition. Reform of secondary education will mean improved quality of the students coming to the University and greater power in the hands of the University, and this reform must be carried out by the schools themselves, and cannot be enforced on them by a system of matriculation regulations.

Let us consider what preliminary education the student needs who is to commence the study of medicine. In the first place he must have a sound knowledge of his own language, English, so that he not only apprehends what he reads or hears, but has also acquired the power of expression and of orderly thought. The development of reasoning power cannot be dissociated from the use of language, and it is one of the defects of our school education as compared with that of France that children are rarely taught to use language as an instrument. "English" generally means English literature or English grammar, whereas every lesson in geography, in history, in chemistry or physics, should be at the same time a lesson in the use of English—that is, in the art of expression and of reasoning.[1] Since the student is to devote his time to some of the most difficult branches of biological science, he should also be acquainted with the principles of the nature and reaction of things—that is, he should have an elementary knowledge of physics and chemistry. For this purpose he will need to add to his knowledge of English a knowledge of the language of quantity and exact measurement—namely, mathematics.

Moreover, since science is international in character, he ought to have at least a reading acquaintance with one or two modern languages other than his own, and there is very little difficulty in teaching children during their school years both to read and speak sufficiently well for practical purposes two modern languages. Thus the training which a student should have received to qualify him to pass through the gateway of a medical faculty of a University should include English, mathematics, elementary physics and chemistry, and one or two foreign languages.

A medical man, however, is a member not only of a learned profession, but also of a community including individuals engaged in many other forms of activity. Social intercourse among these individuals involves a certain common fund of knowledge and interests, and for this purpose it is important that every child, whatever its future destination in life, should pass through a certain common education—an education which should give them some idea of the history and political conditions of their country, its relation to other countries, its literary possessions, and the foundations of its laws, customs, and ideals. As a result of this education, the child will acquire a fund of culture to which he may add in one direction or another according to his tastes later on in life, and it is evident that in the hands of different schoolmasters one or other side of this discipline will tend to undergo hypertrophy at the expense of the others. If, however, the education is such as to arouse the child's interest, to create mental alertness, and to impart habits of discipline, the education may be considered as having succeeded in its object.

The Scottish School-leaving Certificate.

Considerations such as these seem to have influenced the Commissioners as well as the Consultative Committee of the Board of Education in their respective reports, and to have actuated those responsible for the system which is actually in work in Scotland. In Scotland practically all the secondary schools are under the control, either in respect of grants or by their voluntary action, of the Scottish Education Department. This Department has a staff of inspectors and examiners, so that it is able to exercise a very considerable control over the curriculums in the various schools. It does not attempt to achieve uniformity among the different schools, but rather to encourage educational experiments. The work is, however, so arranged that, whereas during the early years of the pupil he is studying subjects of general culture, during the last two or three years he is specializing more in the direction of the subjects which will be of value to him in his future career. Two sets of examinations are held at the schools. The first examination is held at the end of a course, called the Intermediate Curriculum, which extends over not less than three years. This curriculum, in order to be approved by the Board, must provide for instruction in at least five subjects, embracing English (with English history and geography), a language other than English, mathematics, experimental science, and drawing. The general standard which is looked for as a condition of the award of the Intermediate Certificate is the degree of all-round proficiency which a well-taught pupil of average ability might reasonably be expected to attain at the age of 15 or 16. After gaining the Intermediate Certificate the pupil must take a post-intermediate course at the school of at least two years' duration. During this time he must study not less than four subjects taken from a fairly extensive list, and at the end he is examined, and, if successful,

[1] This point has been extremely clearly brought out by Mr. P. J. Hartog (Academic Registrar of the University of London) in his small book, *The Writing of English*.

granted a Leaving Certificate. In this examination, as in the examination for the Intermediate Certificate, comparative excellence in one branch may be held as compensating for some degree of deficiency in another. This leaving certificate in Scotland is the usual avenue to the universities. The object of the whole scheme is to free the schools and give them the determination of the direction in which the education of the pupil should develop. It has not, however, done away with university preliminary examinations, which are still regarded as necessary for candidates from India, the Colonies, etc.

School Examination for England.

It is a weak point in the Scottish system that although the Leaving Certificate is necessary for the University, a relaxation of this rule is made in the case of medicine, admission to which faculty is made on the strength of the Intermediate Certificate. The report of the Royal Commission agrees with that of the Consultative Committee in recommending the institution of two such examinations in the secondary schools of England and Wales also. The first examination, to be passed at the average age of 16, would include the subjects of general culture which form the main basis of the curriculum of the school in question. In this curriculum it is evident that the chief emphasis might be laid either on classics or on science or on modern subjects, according to the traditions of the school or the ultimate destination of the majority of its pupils.

The second examination would be held two years later—that is, at the average age of 18—and in the case of future students of medicine, engineering, or science, would probably include English, mathematics, physics and chemistry, and possibly a modern language, and in some cases biology. It is evident that many schools would not be in a position to give this further specialized education in science, which should be the leaving examination for all students intending to take up the study of any science at the University. At first, therefore, it would be necessary to admit students to the University on the results of the junior examination, and the elementary instruction in science such as that given for the Intermediate Scientific or for the Preliminary Scientific Examination would have to continue to be given at the University. Under the fostering influence of grants, however, from the Board of Education it may be possible to group the schools in different districts and to provide first-class scientific instruction in one school in each group, together with bursaries or travelling allowances for the students, so that in this school a first-rate instruction in elementary science could be given. In the same way other schools might specialize in classics. It is doubtful whether the Board of Education will be able to effect so complete a unification as is carried out under the Scottish Education Board. It must be remembered, however, that it has considerable control over the majority of the schools in the country and of the universities by virtue of the grants which it makes every year. It seems possible that, instead of forcibly abolishing all the agencies of school examination which at present exist, it may make use of them and their organizations to conduct the type of examinations which in Scotland are in the hands of the Education Board itself. It could limit a school to that form of intermediate and school-leaving examination which is most suitable to the requirements of the majority of its pupils. By its inspectors it can satisfy itself of the sufficiency of the education imparted at each school, and it will then be in a position to insist on an equivalence of all the school-leaving examinations as entrance examinations to the Universities or to those departments of the University which are in receipt of its grants.

The Place of Teachers in the New University.

The main point, however, of the report of the Royal Commission is that in academic matters the guidance of the new University will be in the hands of the teachers. The aim of the University will be teaching and not labelling, and it is difficult to conceive that it will not, either in co-operation with the Board of Education or of its own initiative, endeavour to gather into its net all those who are in need of higher education and are in a position to profit by its instruction.

A Criticism of Professor Starling's First Article.

To the Editor of the British Medical Journal.

Sir,—Professor Starling has contributed to your issue of May 17th a very interesting dissertation on the Final Report of the Royal Commission on University Education in London. He naturally receives the report with approbation; indeed, he may feel some pride of paternity in it, for the Commissioners have done him the honour of largely reproducing his own individual views. In their most important recommendation, that is, as to the government of the new University, the Commissioners have followed "Report A" of the Academic Council. "Report A" can be demonstrated to be chiefly, if not wholly, of Professor Starling's drafting.

With your permission I shall comment upon the recommendations of the Commission, chiefly as presented by Professor Starling.

The Preliminary and Intermediate Teaching.

Professor Starling is obviously disappointed that the Commissioners have not—ostensibly—revived his pet scheme of concentration of the preliminary and intermediate teaching in three centres. Their astuter advisers no doubt cautioned them that it would not really do to run directly counter to the Report of Lord Macnaghten's Committee of the Senate, which had condemned this scheme, root and branch, only a few months previously to the appointment of the Commission. But Professor Starling may be, and no doubt is, completely reassured; for the Commissioners really concede the substance of his aspiration; they give back with one hand what they only seem to have taken away with the other. The Concentration Scheme, it will be remembered, contemplated the provision of three centres for the teaching of the preliminary and intermediate medical studies—that is, of chemistry, biology, physics and anatomy, physiology and pharmacology. Of these three centres, University and King's Colleges, the only ones actually in being—and the only ones, some of us think, ever really contemplated—were to be two. In spite of the most energetic canvassing, no subscriptions were received in response to the appeal for support of this scheme (Senate Minutes, 1907–1908, No. 543).

To understand the present position aright it must be carefully borne in mind that University and King's Colleges are by recent Acts of Parliament protected in the permanent retention of the teaching of these subjects; wherever else they may or may not be taught, they must be retained at these colleges.

Now we are told by the Royal Commission that the preliminary subjects will, it is hoped, in future be taught at the secondary schools of the country. But, as Professor Starling admits, there is no general provision, and cannot be general provision, of such teaching for many years, if, indeed, general provision ever becomes possible. "Meantime," we are told, "the teaching of those candidates who have been unable to obtain the necessary instruction at school should be provided for, either in the Science Laboratories of the University itself, or institutions recognized for the purpose by the University." For "Science Laboratories of the University" we must read the "Laboratories at University and King's Colleges," which are the only undergraduate laboratories at its disposal. The inference is fairly obvious that the preliminary teaching will be the monopoly of King's College and University College for many years to come, if not for ever.

The suggestion that chemistry, biology, and physics should be taught at the secondary schools and cease to be university subjects seems to me, if seriously intended, the most retrograde of measures. At a time when the civilized world is ringing with the discoveries in chemical therapeutics associated with Ehrlich and his school, it seems, indeed, singularly inopportune to withdraw chemistry, for example, from the University curriculum. The teaching of these subjects at the medical schools, as at present conducted, is said by the Commissioners to be "inadequate." Is it conceivable that the secondary schools, scattered throughout the country and with necessarily small classes in these special subjects, will attract abler teachers than those now employed by the medical schools? The insistence upon a high proficiency

in the preliminary scientific subjects has always honourably distinguished the London degrees, and this recommendation must inevitably reduce the standard of their teaching.

Intermediate Studies.

We are told that King's College is to be removed to the vicinity of University College in Bloomsbury, and it is hoped to found a University quarter in London round these two favoured seats of learning. As the medical faculty is one of the largest in the University and will certainly be the largest body of residential students, it is reasonable to suppose that the new medical colleges to be established will also be in that area. The supposition becomes stronger when we are told that intermediate teaching will be conducted "in close proximity" to the new colleges—Professor Starling says by the same institutions. Keeping in mind the privileges secured by King's and University Colleges, it is obvious that two of the three new centres must include these colleges. The old scheme of concentration of preliminary and intermediates studies is thus revived in all its nakedness, with the addition that that panacea is to be applied to the clinical teaching as well. I doubt whether the addition will make the scheme any more palatable to the schools left outside than it proved in 1906–7, and the arguments which weighed with Lord Macnaghten's Committee are stronger now even than then. That committee found:

> That apart from the money difficulty (that is, the absence of adequate financial support) which, in the opinion of the Committee, is of itself fatal, the scheme has also become impracticable for other reasons. The Medical Faculty, which formerly reported in favour of the scheme, has now reported against it. Several of the medical schools have changed their opinions in the same sense, and some of them had made arrangements involving considerable outlay for providing more efficient instruction in preliminary and intermediate medical studies.—Senate Minute, 1907–1908, No. 553.

Final Studies.

Professor Starling describes the Commissioners as "men whose life business it has been to act or to devise policies after taking the opinion of experts on the different problems involved." How have they done so in the recommendations as to the final studies? They consulted a very large number of representatives from the medical schools, from the Royal Colleges, and from the various educational bodies. They ignored these real experts, and have produced practically in its entirety the fantastic scheme of one, or at most two, witnesses, both with no personal experience of medical education in London; one, the chief and perhaps "the only begetter," Mr. Abraham Flexner, is an American layman who exhibited the most ludicrous ignorance of our English system; the other is a physician who had spent all his active professional life in America. The "Flexner scheme," as it may very properly be called, was indeed condemned most emphatically and specifically by witnesses with actual experience and knowledge of the questions at issue, who really can claim to be experts. Professor Starling attempts to counter this serious opposition by a mere flippancy. "Mediocrity," he says, "is certain to be up in arms at the institution of any system which promises to pick out and place in a superior position the talented, the enthusiast, and the man of genius."

When it is seen by perusing the evidence that men such as Sir A. Gould, Sir H. Morris, Sir B. Dawson, Sir A. Bowlby, Sir Thomas Barlow, Drs. Herringham, Sharkey, Frederick Taylor, Norman Moore, Campbell Thomson, Norton, Fisher, Garrod, and others specifically opposed the Flexner scheme, I think Professor Starling is sufficiently answered.

Let us, however, examine these suggestions more closely. "The most important innovation in the scheme," says Professor Starling, "and the one which promises most for the advancement of medicine in this country, is the recommendation that university professors shall be appointed to deal with the clinical subjects." The clinical demonstration on the German model is, it appears, to be the means of salvation; but the professor and his assistant are also to continue the bedside teaching which is traditional in the English schools, and which is wholly absent from the German model:

> No German student (says Dr. Head) has ever handled an individual patient until he has qualified. No student enters the wards except very occasionally in the company of his professor or his assistants. Each patient he has seen has been brought out for examination to an auditorium. (Fifth Report, p. 141.)

The change in our present system is considered necessary because our teachers are said to be unable to give the time required for the elaborate staging and accessories of the German theatrical demonstration. How, it may be asked in turn, are the professor and assistants to find time for the much more exacting bedside teaching, absorbed as they will be by the glorified public demonstrations, and the researches which are their *raison d'être*. We are told that the professor will be limited in his private practice, and so will devote more time than it is presumed the present clinical teacher does. It is obvious that it will be about as possible to limit the professor's private practice as it would be to limit his hours of sleep or the amount which he eats at his meals. I have personal acquaintance with several German professors. They have one and all been men with large practices, a circumstance which, indeed, was rendered inevitable by the prestige and reputation conferred by their appointment. An entirely erroneous opinion, which has been demonstrated by many witnesses to be erroneous, seems to be held by the Commission, that present day teachers give the briefest possible time to their duties. I had the good fortune to be clinical clerk for nine months to that incomparable teacher, the late Dr. Howship Dickinson, who used to spend from three to four hours every day of the week in his wards.

Professor Starling says:

> The complete lack in London of teaching of university rank in the professional subjects of the medical curriculum was brought clearly before the Commission by Flexner.

Most persons will accord more authority to the opinion of the great universities of Oxford and Cambridge as to what constitutes teaching of university rank even than to the opinion of the omniscient Flexner; and these universities have been willing for many years to give the imprimatur of their degrees to men whose tuition in these subjects has been wholly given in the London schools of medicine.

We are told by Mr. Flexner, who gets his usual echo from the Commission, that the professor is to use his hospital ward as the chemist uses his laboratory. Those who are familiar with German hospital methods have sometimes been shocked at what appears to the English-trained man as callous handling of the sick. This new notion of the function of the hospital patient as a sort of experimental reagent is not likely to be favourably received either by the charitable public or by the hospital patient himself.

The Faculty of Medicine.

The worst feature of the scheme is that it creates two kinds of medical school: the privileged college and the school not so privileged. The teachers at the colleges are to form the new Faculty of Medicine on which the schools will be unrepresented. Professor Starling makes as much as he can out of the new "Board of Studies," which is to satisfy the outside schools, but omits to mention that whereas the college teachers, constituting the Faculty, report directly to the Senate, the Board of Studies reports to the Faculty—that is, to a body of rival teachers directly and personally interested in the ultimate extinction of the outside schools. It is said that no compulsion will be exercised on the pupils of the schools to go to the colleges, but when we consider that at the latter institutions the pupils are to be examined by their own teachers, whereas the students at the schools will have to submit themselves, with no guidance from a syllabus as to the scope of the examination, to the collegiate teachers, and will have to compete with collegiate students whose degrees, we are told, will be given rather as certificates of good behaviour during pupilage than upon examination tests; when we further consider that the privileged colleges are to be subventioned from public funds by at least £12,000 per annum for each college in addition to students' fees and Board of Education grants; when we recall that these grants are, as Dr. Headlam, late Principal of King's College, has pointed out, almost certain to be manipulated so as to enforce the findings of the Royal Commission, the conviction is forced

upon us that the survival of the schools against such unfair competition cannot be long maintained, and is not expected to be maintained.

Professor Starling closes his dissertation with this clause, which is no doubt intended to discourage expression of dissent from his own opinion:

> Those who oppose these changes (he writes) will have to show that their opposition is really based on a consideration for the welfare of medicine and the medical sciences, and is not directed by a regard for the private interests of themselves or their school.

It is equally pertinent to inquire to what degree the advocacy of those who advocate these changes "is directed by a regard for the private interests of themselves or their school." By both these canons Professor Starling stands condemned as himself the least disinterested of critics, a fact which cannot but detract from the respect which might otherwise be accorded to any avowal of his views.—I am, etc.,

London, W., May 26th. E. GRAHAM LITTLE.

Nova et Vetera.

THE FIRST GERMAN BOOK ON SURGERY.

IN an address delivered before the St. Louis Medical History Club, and reprinted in the March number of *Janus*, Dr. Frank J. Lutz gives an interesting account of an old German book on surgery. It is entitled *Das Buch der Buendth-Erztnei* (the book of bandaging).

The author, Heinrich von Pfolsprundt, flourished about the middle of the fifteenth century. At that time, in Germany as elsewhere, the treatment of all external diseases was in the hands of barber surgeons, who were united in a guild. They learnt their art from a master, and were accepted as apprentices on condition that they were of German parentage and were considered worthy by the freemen of the city. The admission of a pupil was a function accompanied by prescribed ceremonies, which took place before the assembled council of the burghers, and in the presence of the Master. After the apprentice had served his time, and had shown himself "learned in the art," he was made a journeyman. To become a master he had to present his indenture and pass an examination. In proof of his skill he was obliged to produce a "masterpiece." This, according to the regulations for the barber surgeons of Hamburg from 1468 to 1519, consisted in a demonstration of methods of reducing dislocations. Pfolsprundt was a practitioner of this class; he learnt the elements of minor surgery in the barber's shop, and enlarged his knowledge by study under masters of renown in various parts of Germany and Italy.

His book is said to be the first surgical treatise written in German. It was composed in 1460, being thus older by thirty-seven years than that of Hieronymus Brunschwig. The manuscript of the work was found in 1858 among the effects of a doctor in Silesia, and probably had belonged to the library of the University of Erfurt. Since this was published in 1868 by Haeser and Middeldorpf another copy has been found by Haeser in the Royal Library, Dresden, which differs in many particulars from the first manuscript.

Had the book been published at the time it was written, Pfolsprundt would have been recognized as the first to describe the operation of rhinoplasty, to which the name of Tagliacozzi, who described it 126 years later, has ever since been attached. Pfolsprundt seems also to have been the first who made special mention of gunshot wounds. His teaching as to some points in abdominal surgery shows that mediaeval practitioners were more advanced than we at this time of day are apt to believe. In the thirteenth century the Four Masters had recommended that in transverse wounds of the intestine, especially the large one, the trachea of an animal should be inserted into the lumen of the gut, which was first drawn out with a thread. The intestine was then stitched together over the trachea and brought to the wound in the abdominal wall. It was thought that in time the trachea would be disintegrated and discharged. Pfolsprundt recommended in such cases freshening the wound by complete division of the intestine and inserting a silver tube, large enough to allow faecal matter to pass through. Over this tube the cut ends of the bowel were to be tied with green silk thread. Here we have a kind of forerunner of Murphy's button, but we are not told what became of it, or how the vitality of the gut was maintained, after the constriction of its ends by the threads tied over the tube. He says, however, that a patient so treated might survive from forty to fifty years.

Pfolsprundt seems to have belonged to a noble family which dwelt in the little town of Pfolzpaint, which is still in existence near Eichstaedt in middle Franconia, Bavaria. He was a member of the German Order, and gained considerable surgical experience in the wars against Poland. His book was written for the instruction of barber surgeons. He was an uneducated man and had no knowledge of anatomy, not even of the bones, although he had a large practice in the treatment of fractures and dislocations. He does not quote a single author. But within his sphere he was a sensible, experienced practitioner, and frequently reminds the reader how necessary it is to use common sense in adapting the treatment to the special needs of the patient. He set up a high standard of professional morality, insisting that before the surgeon attended a patient he should hear Mass unless the case were too urgent, when he should recite five Paternosters, five Aves, and the Creed. He warns the surgeon against drunkenness, and urges that he should not eat onions because of the danger to the wound from his contaminated breath, nor indulge in unclean cohabitation before handling a patient. His bandages should be clean, and he should wash his hands before dressing a wound.

The barber surgeon collected and prepared his own plants, keeping his methods of doing so secret. Pfolsprundt knew how to put "a person to sleep whom you wished to cut or one who is suffering from insomnia" by narcotic inhalations. Opium, hyoscyamus niger, atropa, mandragora, unripe mulberries, hemlock, etc., were dissolved and sponges saturated with the solution. These were afterwards dried in closed vessels in the sun or indoors. Before such a sponge was used it was placed in warm water for an hour and then held before the patient's nose until he fell asleep. After use the sponge was dried for future service. The patient was aroused from this sleep by holding before his nose a wad of charpie containing vinegar, fennel seed, and olive oil.

SCIENCE NOTES.

SOME account has already been given here of certain physiological observations at high altitudes made during the expedition to Pike's Peak under the leadership of Dr. J. S. Haldane of Oxford during the summer of 1911. Miss Mabel P. Fitzgerald has recently reported to the Royal Society observations made during the same expedition on changes in the breathing and blood in persons residing in towns, mining camps, etc., at various altitudes from 5,000 to 14,000 ft. in the Colorado portion of the Rocky Mountains. It was found that the volume of air breathed per unit mass of CO_2 produced by the body was always increased in persons acclimatized at high altitudes. The mean increase of breathing was such as to produce a fall of about 4.2 mm. (or roughly 10 per cent. of the normal for sea level) in the partial pressure of CO_2 in the air normally present in the lung alveoli for every 100 mm. of fall in the barometric pressure. Both men and women showed this fall, after allowance had been made for the normal difference in the alveolar CO_2 pressure of men and women. The percentage of haemoglobin in the blood of acclimatized persons was likewise increased, the mean increase being about 10 per cent. of the normal at sea level in men for every 100 mm. of diminution in the barometric pressure. Both men and women showed this fall. It might take some weeks for the changes to establish themselves fully in persons passing to a high altitude or to disappear in persons passing to sea level. The increased breathing and percentage of haemoglobin seem to be adaptations to the shortage of oxygen consequent on the diminished atmospheric pressure.

In his Bakerian Lecture last week before the Royal Society on positive rays of electricity, Professor Sir J. J. Thomson returned to a subject with which he dealt

earlier in the year, as noted in this column last March (p. 514). The positive rays were observed first by Goldstein in 1886, who named them *canal strahlen* (canal rays), because they are expelled backwards from the kathode through channels cut in the plate. They are deflected by strongly magnetic and electric fields. Sir J. J. Thomson used positive rays emitted through a minute tube, and studied the effect of these deflections by taking photographs of the tracks. The particles in the canal rays consist of charged ions, whose mass and velocity depend on the nature of the gas in the tube, and the main general interest of the Bakerian Lecture lay in the contention, the truth of which seems to be generally admitted, that the use of the positive rays in the manner indicated affords a new method of analysis which, in the skilled hands of its discoverer and his disciples, will render it possible to solve certain chemical problems, or at least to enable them to be attacked from a new direction. Sir J. J. Thomson adheres to the opinion that X_3, described in the previous note on this subject, is a new element with atomic weight 3, though he discussed certain other possible explanations, one of them being that there was a hitherto unrecognized element with atomic weight 2, and that X_3 was a stable compound of this with hydrogen. He, however, preferred to regard it as a monatomic element of atomic weight 3 comparable with the inert gases, and pointed out that Mendeléef had predicted an element with that atomic weight, although he expected it to possess the properties of a superfluorine, which were very different from those of X_3. The method of positive rays had also afforded evidence of the existence of another new element of atomic weight 22 occurring in association with neon in the proportion of 5 to 10 per cent.

LITERARY NOTES.

THE June number of the *English Review* will contain an article entitled "Spontaneous Generation" by Dr. H. Charlton Bastian.

Mr. E. V. Lucas, in his book entitled *A Wanderer in London*, when speaking of St. Saviour's, Southwark, says that among the epitaphs is one upon Lockyer, "the Cockle and Holloway, Beecham and Carter of his time—the middle of the seventeenth century":

> His Virtues and his Pith are so well known
> That Envy can't confine them under Stone.
> But they'll survive his dust and not expire
> Till all things else at th' Universal Fire.

Yet where, asks Mr. Lucas, are the pills of Lockyer? "Where are the galleons of Spain?" We suggest that not improbably their virtues and their pith are embodied in some newer pill. It were a curious speculation that might have engaged the attention of Sir Thomas Browne to conjecture the metempsychoses which these things undergo.

We have received a copy of the *Irish Book Lover*, a monthly review of Irish literature and bibliography, edited by Dr. John Smith Crone, of Kensal Green. It contains an account of Mr. James Stephens, described by the *Saturday Review* as "a new power among the writers of Ireland." There is also a note on Dr. Edmund Bailey O'Callaghan, who, after a few years' practice in Quebec, went to Montreal and became editor of a newspaper. He was elected a member of the Legislature, but owing to a disturbance of the political atmosphere he removed to the United States, where he settled in Albany and again for a short time practised medicine. He was appointed custodian of the historical manuscripts in the Secretary of State's Office. That position he held till 1870, when he moved to New York. He died in 1880. He was the author of a number of monographs on historical and bibliographical subjects. We commend the *Irish Book Lover* to the favourable notice of all lovers of books and antiquarian lore. In a small compass it contains a goodly amount of interesting reading.

In Mr. John Fyvie's *Story of the Borgias* (Eveleigh Nash, 1912) there is an amusing account of a doctor of Ferrara in the seventeenth century, and a copy of a diploma given him in 1642 for his skill in medicine. It should be premised that Ferrara, like Padua and Bologna, was celebrated for its school of medicine, but some notion of the knowledge required of its graduates may be gathered from the diploma. The document is said to have been discovered by the historian Citadella in the archives of Ferrara, and was seen by Mr. William Gilbert (father of Sir W. S. Gilbert and author of a biography of Lucrezia Borgia which appeared in 1869) engraved on parchment in the library of that city. A certain Generoso Marini, wishing to practise as a legally qualified physician, applied to the judges for a diploma, and duly presented himself for examination. The following is the text of the diploma, which bears the signatures of "Joannes Cajetanus Modoni, Judex sapientum civitatis Ferrari," and "Franciscus Altramari, Cancellarius."

> Having publicly examined and approved the science and knowledge of medicine of Signor Generoso Marini, and his possession of the wonderful secret called *orvietano*, which he exhibited on the stage built in the centre of the Piazza of this our city of Ferrara, in presence of its entire population (so remarkable for their civilization and learning) and in presence of many foreigners and other classes of people, we hereby certify that, in our presence also as well as that of the city authorities, he took several living toads, not those of his own providing, which might have given suspicion of deception on his part, but from a great number of toads, which had been caught in fields of the locality by persons who were strangers to him, and which were handed to him at the moment of making the experiment. An officer of the court then selected from the number of toads collected five of the largest, which the said Generoso Marini placed on a bench before him, and, in presence of all the assembled spectators, he cut all the said toads in half with a large knife. Then, taking a drinking cup, he took in each hand one half of a dead toad and squeezed from it all the fluids and juices it contained into the cup; and the same he did with the remainder. After mixing the contents together he swallowed the whole; and then, placing the cup on the bench, he advanced to the edge of the stage, where for some minutes he remained stationary. Then he became pale as death, and his limbs trembled, and his body began to swell in a frightful manner, and all the spectators began to believe that he would never recover from the poison he had swallowed, and that his death was certain. Suddenly, taking from a jar by his side some of his celebrated *orvietano*, he placed a portion of it in his mouth and swallowed it. Instantly the effect of this wonderful medicine was to make him vomit the poison he had taken; and he stood before the spectators in the full enjoyment of his health. The populace applauded him highly for the indisputable proof he had given of his great talent. And he then invited many of the most learned of those present to accompany him to his house, and he there showed them his dispensary, as well as his collection of many antidotes, and among them a powder made from little vipers, a powerful remedy in curing every sort of fever, as he proved by different experiments he made on people of quality and virtue, all of whom he cured of the fevers under which they were suffering. He also exhibited a wonderful balsam he had invented, which cured with great rapidity all bruises and wounds, as well as burns and scalds of every description. The said Generoso Marini has also great skill in drawing teeth, in which he exhibited an extraordinary dexterity. But that which most distinguished him was his wonderful power in restoring many persons to health who were suffering from divers incurable diseases. In consequence of the rare talent exhibited by Signor Generoso Marini, and as a proof of our love and respect for his wisdom, we have resolved by the authority placed in our hands publicly to reward him with our diploma, so that he may be universally recognized, applauded, and respected. In witness whereof we here set our hands and the public seal of the municipality of Ferrara.

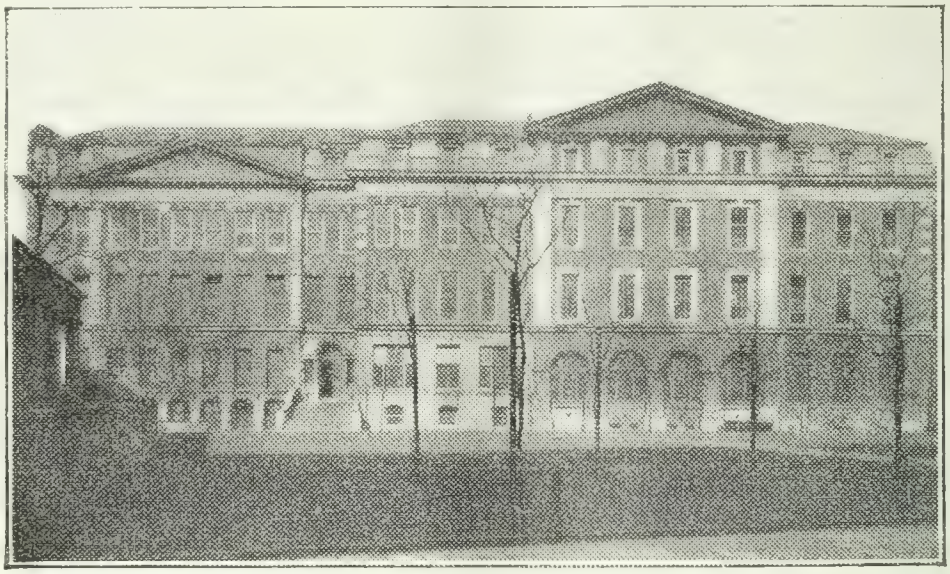
Well might Molière's quack say: *O grande puissance de l'orviétan!*

The *Journal of the American Medical Association* has recently taken occasion to call attention to a misunderstanding of the word "cure" as used by German, Italian, and, we may add, by the older physicians who wrote in Latin. The trap lies in the word *kur* or *cura*, which does not mean restoration to health, but care or treatment. An Italian writer is quoted as having said that he had cured ten typhoid patients within a given period and six of them died. What he meant to say, of course, was that he had treated ten cases. In the same way, when we read that some distinguished person has gone to Ems or Marienbad for a *Kur*, what is intended to be conveyed is that he has gone to the health resort to go through a course of treatment there. When Hahnemann enunciated his famous, but by no means original, principle, *Similia similibus curentur*, he meant that like things should be *treated* by like. The aphorism was for a long time almost universally cited *Similia similibus curantur*, and translated Like is *cured* by like—a very different thing.

THE NEW BUILDINGS OF GUY'S HOSPITAL MEDICAL SCHOOL.

As a preliminary to the formal opening by Mr. A. J. Balfour next week of the new buildings of Guy's Hospital Medical School, a number of representatives of the medical and lay press were shown over the buildings on May 27th. The opportunity was taken of indicating the important part played by medical schools attached to hospitals in the advancement of research and every department of medical science, and the hope was expressed that wealthy benefactors would come to the aid of medical schools in London—and that attached to Guy's in particular—in the way that is frequently the case in the big towns of the country.

After ten years' uninterrupted labour the work of rebuilding the medical school of Guy's Hospital has been completed at a cost of over £100,000. Of this sum no less than £77,000 had been found by the generosity of the governors and other friends of the school, while the members of the staff, in order that the ever-increasing cost of maintenance may be met, have voluntarily resigned a great part of the income formerly paid to them from students' fees. What is needed is that the outstanding debt of £23,000 upon the building should be paid, and that an endowment of £200,000 should be raised for the establishment of lectureships and research fellowships.



The Main Block of New Medical School Buildings.

The new buildings are divided into three main blocks. In addition, the old Department of Anatomy has been rebuilt and an extension added for the teaching of operative surgery. The old biological laboratory has been refitted throughout. In the main block there is to the left of the spacious entrance hall, containing busts of famous men associated with Guy's, a students' laboratory for physiological chemistry, and a large lecture theatre with accommodation for 400. To the right are the research laboratories of the demonstrators, and in the basement numerous store-rooms and class-rooms, and a room fitted with *x*-ray apparatus.

On the ground floor is the Wills Library, and a small museum of Guy's antiquities. The Gordon Museum is beyond this, and is of considerable extent, being divided into four bays or apartments by a central staircase. The shelves afford accommodation for nearly 10,000 specimens, and here are housed also the famous collection of wax models made by the late Mr. Towne. Adjoining the museum are a large lecture theatre, fitted with an epidiascope, the curator's room, and other small rooms and laboratories.

On the first floor are the students' histological laboratory, the research laboratories of the lecturer in physiology, the offices of the medical school, and the committee-room of the staff. The second floor accommodates the department of physics, and comprises a large students' laboratory, a dark room for the study of optics, class-rooms, private laboratories, and a large lecture theatre. The third floor contains the students' chemical laboratory, with a balance-room and a research laboratory for the demonstrators. There is a smaller laboratory for chemical work of the department of public health.

The new Dental Block occupies buildings three stories high surrounding a central courtyard. Waiting rooms, offices, and a laboratory for probationary work occupy the ground floor. On the first floor are the students' and pupils' mechanical laboratories; the latter has accommodation for a hundred pupils. The metallurgical laboratory, in which the appliances are operated by electric power, are also on this floor. The conservation room extends over the whole of the second floor, and contains eighty pump chairs of the most modern type.

The third of the new blocks provides accommodation for the department of pathology in a building five stories high. Here are lecture theatres, laboratories for the teaching of morbid histology and bacteriology, pharmacological laboratories, private research laboratories, and accommodation for experimental work in pathology. No part of this building is used for the routine pathological work of the hospital, but the whole is devoted to teaching and research, the routine work being carried on by other workers in separate laboratories at the expense of the hospital. A sum of £2,000 has been devoted to the equipment of this department, which was erected at the expense of an anonymous donor, and presented to the school this year, free of charge.

A comprehensive view of this great building scheme, obtained from the roof of one of the new blocks, gave some insight into the courage of the staff of the Medical School in embarking upon and bringing to completion so large a scheme for the advancement of medical education. It is to be hoped that their efforts will meet with the support and encouragement they deserve.

DR. WILSON, who perished with Captain Scott on the return journey from the South Pole, left estate valued at £965.

PROFESSORA RINA MONTI has been appointed, by a unanimous vote of the teaching staff, director of the School of Pharmacy in connexion with the University of Sassari.

THE Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India, No. 57, 58, and 59, deal with the anatomy of the mouth parts of biting flies, and with the flagellate parasites of different genera found in insects. Captain Patton's paper on the latter subject is entitled "Studies on the Flagellates of the Genera Herpetomonas, Crithidia, and Rhynchoidomonas." Captain Cragg contributes the papers on the mouth parts of the biting flies. His first paper (No. 58) deals with studies on the mouth parts and sucking apparatus of the blood-sucking diptera (Orthorapha). His second (No. 59) is on *Lyperosia minuta* (Bezzi). These papers are very interesting but, of course, somewhat technical. Those interested in the subjects can consult the originals in the library of the British Medical Association.

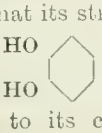
British Medical Journal.

SATURDAY, MAY 31ST, 1913.

RECENT PHARMACOLOGICAL RESEARCH.

THE Annual Oration delivered before the Medical Society of London by Sir William Whitla, and dealing with the trend of thought in recent pharmacological research, is printed in full upon another page. It summarizes the present position and future prospects of pharmacology with all the charm and skill that we have learnt to expect from that able orator its author. To a pharmacologist the Oration is delightful, because it proves a willingness on the part of an eminent physician to go at least half-way to meet him. Eminent physicians there are in plenty who hold and act upon the negative and chilly view that only a few drugs, and those mostly old favourites, are worth using, and who are apt to exhibit sodium bicarbonate in small doses when called upon to prescribe for the majority of the ills they have to treat. To a chemist, also, the Oration is not less delightful, for in it he finds the science of chemistry, organic and synthetic, once more exalted to the position to which he fondly believes it entitled, while due credit is given to the pioneers who have led the way in this most complex of sciences, and the sympathy they deserve is measured out to their errors.

As Sir William Whitla points out, it is to the synthetic chemists on the one hand, and to the investigators of vaccine-therapy and opo-therapy on the other, that pharmacology owes its rapid progress during recent years. It may be said, perhaps, that these two groups of workers attack its problems from their opposite ends. It is the function of the opo-therapist to find out what is the effect of any given animal extract upon the body, and to prepare it in a state of the greatest purity. It is the business of the organic chemist to analyse this purified extract, to learn its structural formula by breaking it down into simpler organic compounds of known composition, and then to prove the correctness of his work by the synthesis of the active principle of the extract he set out to investigate. The first of these organic syntheses to be performed, one that is familiar to every medical student who takes up the study of organic chemistry, was made by Wöhler in 1828, when he formed urea synthetically by warming a solution of ammonium cyanate in water. As a single quite recent example of the progress in pharmacology that has been made possible by the co-operation of the opo-therapist and the organic chemist, may be quoted adrenalin. Its physiological and pharmacological properties have been long known to us, and it is a drug that is in daily use. As the result of elaborate researches, the organic chemist has been able to show that its structural formula is—



corresponding to its chemical name, pyrocatechinethanolmethylamine. As the result of an immense amount of experimental work on its congeners and derivatives, it is now possible to refer its physiological activity to certain of the atomic groups that it contains, and to their relation to other of its atomic groups. The greater part of its activity is due to the presence of an amino group (—NH_2, or rather —$NHCH_3$) separated from a benzene nucleus by another group (—$CHOH.CH_2$—); this activity is increased by the two hydroxyl groups (—OH) in the ortho-position to one another in the benzene nucleus, and is still further increased by the third hydroxyl group in the chain connecting together the benzene ring and the amino group.

Complex formulae and statements such as those just given must seem highly speculative or frankly incredible to many, particularly to those who are unfamiliar with the steady progress in experimental pharmacology and the vast amount of work that has been done in it during the last twenty years, or, to put back the date to the starting-point mentioned by Sir William Whitla, since the researches of Crum Brown and Fraser on methyl-strychnine were published in 1868. But it is impossible for any one who is acquainted with the data furnished by the organic chemist and the experimental pharmacologist, and who is in a position to trace the development of the ideas or theories that underlie their work, to doubt either that such formulae and inferences are true or that the work is being carried out along the correct lines. New drugs with properties foreseen and calculated are being put on the market daily; and if the calculations do not always come true—it would be idle to pretend that they do—if unforeseen secondary actions of the new drug may vitiate the required result, the fact merely illustrates the limits of chemical knowledge, and has often proved to be of service in the long run by stimulating further research.

Sir William Whitla, as we have said, has earned the gratitude of organic chemists and pharmacologists by showing how much the world owes to their tested synthetic drugs. In the latter part of his Oration he expounds the influence that Ehrlich's side-chain theory has exercised in the development of our views on the constitution of living matter and its *modus vivendi*, and he discusses the bogey, as he calls it, of catalysis and cell enzymes. Here we find ourselves face to face with questions as complex as any one can be called upon to answer; as Sir William shows, they must be left in suspension until the time when our knowledge is far more complete than it is at present. He draws particular attention to the all-pervading influence of the force known as chemiotaxis in the mechanical operations of the living cell, and points out how closely living nature can be imitated by solids and liquids of carefully adjusted surface tensions left to the influence of the osmotic forces that play between their surfaces. As to the future of therapeutics, that may safely be left to the future itself, so long as the science continues to follow the guiding lines upon which it now travels.

THE NEW DIPHTHERIA ANTITOXIN.

MUCH interest has been created in Germany recently by Professor von Behring's announcements with regard to the bacterial emulsion which he has devised with the object of producing immunity to diphtheria lasting for several months. More than one injection is necessary, and the active protecting bodies are produced in from three to five weeks after inoculation. Von Behring has himself published recently the results of some new investigations

relative to the toxicity and immunizing power of this prophylactic vaccine.[1] As has already been stated, the product is an emulsion of virulent diphtheria toxin with antitoxin in such proportions that the mixture is innocuous to the guinea-pig.

It had always been supposed—for toxin-antitoxin combinations are no new departure—that if the guinea-pig could withstand the injection of a mixture in a fixed proportion, other animals, including man, would likewise prove resistant. This, however, proves not to be the case. Behring has found that mixtures non-toxic for guinea-pigs may, in the monkey and the ass, produce marked febrile reaction with the formation of antitoxin in large quantities. The reaction in man is less violent, but varies considerably with age. In children between 4 and 5 it is far more marked than in newborn infants. Of great practical importance also is the fact that so-called "carriers" and individuals whose blood reaction, as expressed in units of antitoxin, proves them to have been carriers of bacilli at some period of their lives, have been found to be hypersensitive to the mixture and very readily produce large quantities of antitoxin after injection. One such case is reported from Marburg, in which $\frac{1}{16}$ c.cm. of the injection produced 600,000 antitoxin units, where 250 units would have sufficed to ensure immunity. The case is very noteworthy, for a second child was for the first time passively immunized from it—that is to say, it was immunized with an anthropogeneous or homogeneous, as opposed to a heterogeneous serum, and it was found that the immunity thus obtained was of far longer duration than can be obtained with the horse serum antitoxin now in common use. The great importance of such a discovery scarcely needs emphasis, for not only has the immune period been prolonged, but the well-known side-effects of heterogenetic serums have been eliminated.

Behring states that he is ready to place his antitoxin in the hands of clinicians for the purposes of research to ascertain the ideal dosage—that is, one in which there is a minimal local and febrile reaction with a maximum of antitoxin production. The experimenters must also undertake to place on record the antitoxin content of the blood both before and after inoculation, and are requested to employ it especially in persons exposed to infection, and for the inmates of asylums, orphanages, and prisons who remain under observation for considerable periods of time, and among whom the disease is often endemic. He recommends inoculation (1) among diphtheria-carriers to determine the destruction of naso-pharyngeal bacilli as rapidly as possible; (2) to produce a prolonged immunity; and (3) for the manufacture from highly immunized subjects of an anthropogeneous serum, both for passive immunization purposes, and for the cure of the actual disease.

Professor Schreiber, who controls the Magdeburg Krankenhaus, published his own results, which supported this pronouncement, in the following number of the same journal. He states that the remedy is absolutely harmless and fully capable of producing immunity.

The time has been too short as yet to establish definitely that subjects inoculated do not take the disease, but a communication from the surgical side of his institution has reached Behring to the effect that no inoculated children had been infected to date, or could be proved to be carriers, although an epidemic of the disease was raging in the wards at the time.

[1] *Deut. med. Woch.*, May 8th. See also the issues of May 15th and 22nd.

In the last number of the *Wochenschrift* further observations are chronicled. Professor Zangemeister, Obstetric Physician at the Magdeburg Hospital, states that according to Prussian statistics the total infantile mortality from diphtheria is 0.58 per cent., so that it is important to establish immunity as rapidly as possible after birth. For this reason newly-born infants have been inoculated with the antitoxin—in some cases the pregnant mothers only, with a view to minimizing possible ill effects at a critical age. Blood determinations were not made in these cases for obvious reasons, but it will be interesting to follow the history of these protected children in ensuing years. We may rest assured, however, that inoculation of infants is not only possible but advisable, because, as already stated, the reactions in them are less violent than at later ages, and are constant.

Behring's assistant, Dr. Viereck, in the same journal, describes a method for the practical determination of the antitoxin content of the blood, and maintains that if a prolonged period of immunity be desired a comparatively energetic reaction to inoculation should be aimed at in order that a large amount of antitoxin may be produced. By this he means a pronounced local infiltration at the site of injection, which may, but need not, be accompanied by fever. Without such a local reaction, he states, there is probably an inadequate production of antitoxin. Behring is convinced that, just as the dose for guinea-pigs can be accurately gauged, that for the higher animals and man is also constant, provided that the special factors above indicated do not exist in the individual to be inoculated. The adult is about 100 times more susceptible than the infant, and Behring is of opinion that this hypersusceptibility rests solely on a preceding infection in the case of the former, an infection which but few escape, and which may have run its course without producing any of the classical symptoms of the disease.

TEMPORARY ABSENTEES.

THE Memorandums issued by the Insurance Commissioners in England with regard to the provision of medical benefit to temporary residents have caused a great deal of dissatisfaction and not a little perplexity.

As to the perplexity, its first source is that the Commissioners should have issued Memorandum 161 on Thursday and Memorandum 159 on Friday, for 159 is only 161 printed in different type on larger paper with some additional paragraphs, yet, if the numbering means anything, the longer memorandum in larger type must have been in existence before the shorter was extracted from it. It looks rather like waste of insurance funds; but the more important matter is that, after reading 161 and 159, or 159 and 161, according as the student prefers the chronological or the numerical order, he is still left in some perplexity, some doubt as to what after all the Commissioners in fact mean.

The calculations are based on the sum of 9s. a year available for medical attendance and drugs (medical attendance, 6s. 6d.; tuberculosis, 6d.; drugs, 1s. 6d.; drug suspense fund, 6d.) in respect of every insured person, and on the assumption that one-third of the insured persons fall ill during the course of a year. In that case the average rate of remuneration for each person attended will be 9s. multiplied by 3, or 27s. for both medical attendance and drugs. This sum of 27s. is called the "case

value." It is a quite hypothetical value, and the Scottish Commissioners estimate it at one-third less, 18s., and it may very well turn out that even this is too high. But, taking the English Commissioners' 27s. a head a year as the "case value," we are then told that "the proposal is therefore to look to the cases of 'temporary residents' who actually require treatment, and to the circumstances of the Committee areas whence they respectively come, and to transfer from each Committee's funds to the Central Fund in respect of each temporary resident receiving treatment a sum calculated on the principle illustrated above by reference to the actual degree of sickness in the area of his usual residence. In this way no Committee will suffer a reduction of their funds by way of transfer at a higher rate than the actual rate of remuneration in their area."

These involved sentences have given rise to many difficulties of interpretation, and the failure to state the position clearly has caused the suspicion to arise in some quarters that the paragraph was deliberately intended to be obscure. We are far from accepting this suspicion, and believe that even without Sam Weller's pair o' patent double million magnifyin' gas microscopes of hextra power it can be perceived to be capable of only one meaning, and that it is the same as that expressed in the clear and precise paragraphs of the Scottish Commissioners, who have also issued a Memorandum 159/I.C. The draftsman of the Scottish Memorandum not only had a command of the English language denied to his southron colleague, but was endowed with sufficient imagination to foresee the difficulties of the reader and the frankness to forestall them. As already noted, the Scottish Commissioners base their calculations on the assumption that the number of cases of illness per annum will be "equal to half the total number of insured persons," so that "the average rate of remuneration in respect of each case of illness will be 9s. multiplied by two, or 18s., and this will be the 'case value' rate for that area." What the Scottish draftsman says is this: "The proposal is, therefore, to look to the cases of illness among 'temporary residents' which actually require treatment, and to the circumstances of the Committee areas from which the temporary residents respectively come, and to transfer from each Committee's funds to the Central Fund in respect of each case of illness of a temporary resident so receiving treatment a sum calculated in the manner indicated above by reference to the 'case value' rate in the area of his usual residence. Thus the contribution by an Insurance Committee whose 'case value' is 18s., and which has 20 insured persons treated outside its own area, will be £18."

The Scottish Commissioners again show their political wisdom by frankly admitting that for the current year the scheme "can only be adopted in so far as the doctors and chemists under the Act give their consent. The scheme is not included in the agreements signed by the doctors and chemists." The English Commissioners did not state this fact. They left the doctors to find it out for themselves. It was, of course, very soon found out, but the want of frankness in failing to state it has contributed to increase the irritation which the proposed deduction from the minimum remuneration promised has produced.

The plan would work out in practice as follows: If an insured person proposed to go away for three or four weeks for a holiday or to convalesce, he would apply to the Insurance Committee of the area in which his home is for a green voucher. If he got through his three or four weeks at the seaside or health resort without needing medical attendance the matter would end there; he would tear up his green voucher and return rejoicing to his home. If, on the other hand, he found himself in need of medical treatment when at, say, a seaside resort, he would hand his green voucher to the doctor of his choice, who would retain it and enter upon it particulars of the services rendered. When the temporary resident returned home the seaside doctor would send the voucher to the Insurance Committee of his own district. The voucher would be examined by the Local Medical Committee. When this and all similar vouchers had passed that ordeal the Insurance Committee of the seaside district would notify the Insurance Commissioners the total amount of the local claim on the Central Fund, the claims being assessed according to the tariff appended to the Memorandums.[1]

The Insurance Commissioners would then have two duties—first, to fill the pool (the Central Fund), and, secondly, to empty it. To fill the pool they would ascertain the case value of each insurance district which had during the year supplied temporary residents to other districts. This sum multiplied by the number of temporary absentees would yield an amount with which the Local Insurance Committee of the inland town would be debited. The total of all these sums so debited would form the central fund or pool. This total would be compared with the total amount of the several claims upon it from all the districts which had received green vouchers. If the two sums should exactly correspond, the local seaside insurance committees would be credited with the full amount of their claims, and the doctors would be paid in full according to the tariff. If the total amount in the pool fell short of the total claims upon it the Commissioners would declare a dividend; for instance, if the total claims on the green vouchers amounted to £10,000 and the total payments into the pool in respect of the case values amounted to £9,000, the seaside doctors would receive nine-tenths of the amount of their claims according to the tariff. If, on the other hand, the total of the claims remaining the same, the central pool amounted to £11,000, the seaside doctors would receive eleven-tenths of their claims. The scheme, it will be seen, does not attempt to deal with the insured persons as individuals, but in the bulk, nor does it attempt to deal with each area separately, but again in the bulk, deficiencies in one district being set against excess in others, on a principle well recognized in all insurance business.

Under the English scheme, if a temporary resident in a seaside resort continued ill after a period of three months from the beginning of his temporary residence, he would then be transferred to the Insurance Committee of the seaside town as a permanent resident, and the coast doctor from that time would be paid not by fees for attendance, but at the ordinary capitation rate (7s. per annum). In Scotland the period is six weeks, not three months, but it counts not from the beginning of temporary residence, but from the beginning of medical attendance whilst at the seaside town.

The term "seaside town" is used for convenience, but, of course, the doctors in every insurance area, seaside or inland, rural or urban, would be paid on the same attendance basis for any temporary residents within their bounds, so that there might, or perhaps would, be in most cases both income and

[1] SUPPLEMENT to BRITISH MEDICAL JOURNAL, April 19th, p. 335.

outgo, the balance no doubt being in favour of the seaside and rural areas.

The Scottish Commissioners state that "the new system is put forward by the Commissioners because it is equitable as between town doctors and chemists on the one hand, and doctors and chemists in holiday and health resorts on the other," but there are, in fact, two questions of equity involved. The first is whether it is equitable to make any deduction, and the second, granting that a deduction should be made, whether the amount and method of deduction and the method proposed for the distribution of the fund so formed are equitable. With regard to the second point, we are disposed to agree with those members of the Association who have expressed the opinion that if the justice of making any deduction be acknowledged, the method proposed for forming and distributing the central fund is worthy of trial upon the understanding that should experience show it to operate inequitably it will be amended.

The equity of making any deduction at all from local insurance funds for this purpose is another matter. The doctors who have accepted service under the Insurance Act have undertaken to give medical attendance and treatment throughout the year or the whole period for which their contracts run; they are bound to give personal service or to provide a sufficient substitute; they never know when they may be called upon; and their establishment charges must be based upon a full year. Moreover, there is the distinct undertaking on the other side—that is, on the part of the Government—that the rate of 7s. for each insured person on the list would not be diminished. The central fund for temporary absentees is to be formed by making deductions from this minimum amount, or, rather, from the minimum 9s. including drugs and appliances. It is no answer to say, as is said, that the doctor is relieved of the responsibility for giving medical attention to the temporary absentee during the period of his absence. The doctor has entered into a contract to give his attention and must make his arrangements accordingly. If by a voluntary act one party absents himself for a certain period to suit his own convenience, the voluntary absentee may equitably be called upon to take the consequences, and the State Sickness Insurance Committee has, therefore, expressed the opinion that the Regulations should be so amended as to provide that medical benefit shall not be understood to include medical attendance and treatment on insured persons who temporarily change their residence for holiday or health purposes.

DR. ROBERTS THOMSON.

Last week Dr. Roberts Thomson, who is well known to members of the British Medical Association by the great services he rendered to it when President in 1891 and Chairman of its Council from 1899 to 1902, was presented with the honorary freedom of Bournemouth. The honour was the greater, inasmuch as there had previously been chosen only four honorary freemen, of whom the first was Earl Roberts. The resolution of the town council conferring the freedom stated that it was given as the highest mark of esteem within its disposal in recognition of the eminent services rendered by Dr. Roberts Thomson to the borough, and of the splendid example of self-sacrificing citizenship which he had displayed during the whole period of his residence in Bournemouth. The resolution continued as follows: "The council acknowledge with gratitude the prominent and leading part he has taken in the founding, promotion, support, and administration of the local hospitals, whose beneficent mission has been largely helped by his munificent contributions, personal service, and judicious counsel; his services in connexion with various phases of educational work, and particularly as the chairman of the governors of Bournemouth School; his able and impartial conduct as a justice of the peace for the county borough of Bournemouth and for the county of Southampton; his successive services as county councillor and county alderman; and the loyalty, patriotism, and military enthusiasm which he displayed as an officer of Volunteers, rising by successive steps to the command of the 4th Volunteer Battalion, and now honorary colonel of the 7th Battalion of the Hampshire Regiment. Such a record of citizenship, supplemented as it has been by private munificence of catholic and unstinted character, constitutes a unique and honourable record which entitles him to the sincere and lasting respect of every burgess, and justifies the highest form of official recognition." In speaking to this resolution, Alderman Mate referred in particular to Dr. Roberts Thomson's services to the cause of education in Bournemouth, Alderman Beale to his work in connexion with hospitals, and Alderman Robson to his military services. The presentation, made by the Mayor, consisted of the text of the resolution enclosed in a massive silver casket adorned with an enamelled minature of the recipient, with the arms of the town, a trophy of the King's colours, and the regimental colours of the 7th Hants, and with views of the Victoria Hospital and the Bournemouth School. Dr. Roberts Thomson, in acknowledging the presentation and election, said that during his life at Bournemouth, extending now to nearly forty-seven years, he had seen enormous progress and had from the first recognized that the responsibility of the medical profession was serious in amount and would be far-reaching in its results. In his work for education he had been inspired by the thought that the community was engaged in a warfare against waste—waste in physical life through sickness and disease and waste in mental life, for of all causes of waste ignorance was the most prolific. After mentioning the growth of the Bournemouth School, he referred to the approaching opening of the Municipal College, and expressed his belief that the wisdom of this development of art and technical work would be fully justified. In conclusion, he thanked the Council for associating Mrs. Thomson's name with his own.

ENDEMIC FEBRILE OUTBREAKS IN INDUSTRIAL SCHOOLS.

A report by Dr. McGowan and Dr. McNeil issued recently by the Scottish office deals with a problem which has perplexed the authorities in charge of industrial and reformatory schools for a good many years. In certain of these institutions mysterious outbreaks of febrile illness have occurred from time to time. An alarming and malignant character has been given to these outbreaks by the occurrence of fatal cases in which death took place within a few hours of the onset of symptoms; and in not a few instances boys going to bed in apparently perfect health have been found dead in bed in the morning. These fatal cases, however, form only a small proportion of the total cases of illnesses which, though differing in severity, belong, it seems fairly certain, to the same group. The new report is not by any means the first published account of these institutional illnesses. From 1886 onwards, descriptions of these outbreaks have appeared from time to time in medical journals, and in 1897 a Blue Book was published giving the results of Dr. Sidney Coupland's investigations into similar cases at two Lancashire schools. Drs. McGowan and McNeil now trace in full the history of an industrial school at Tranent, near Edinburgh, which has been marked by particularly virulent and extended outbreaks of this character; and at the same time they have been at pains to collect all the

available records from other schools of this kind. From this point of view alone the report is of value, as it collects and brings under review all known data and facts concerning these illnesses. The authors divide the illnesses into three clinical groups: Cases of acutely fatal illness, of pneumonia, and of febricula, a term used by Coupland in his report. From the *post-mortem* and clinical evidence obtained, the definite conclusion is drawn that all the cases are examples of pneumonia, but of pneumonia in a "distorted" form. Two groups are formed: the first of fulminant, and the second of irregular, pneumonia. The cases in the second group are examples of latent or abortive pneumonia. Like previous observers, they find no evidence of contagion; and they also record the striking fact that these illnesses are confined to the boys, the resident staff being completely exempt. They make the further hypothesis that these forms of atypical pneumonia, endemic in certain industrial schools, owe their irregular character to the pre-existence in the boys of a morbid diathesis, which in the fatal cases resembles that of status lymphaticus. This hypothesis is founded on the record of enlargement of the thymus and hyperplasia of other lymphoid tissues in a significant number of the necropsies made at Tranent. The report gives a full account of the sanitary and general environment of the boys, and the conclusions are controlled by similar observations at a neighbouring industrial school which is free from illnesses of this character. The authors show great reserve in expressing any opinion as to unhealthy conditions that might explain the prevalence of this peculiar form of pneumonia. The school at Tranent actually shows a superior record as regards zymotic and tuberculous disease over the control school; and no gross departure from the usual hygienic and sanitary standards could be discovered. But in some respects the environment was found unsatisfactory—in the inadequate clothing of the boys and the insufficient heating of the dormitories in winter, and in insufficient allowance of air space in the dormitories and recreation rooms. The hypothesis as to status lymphaticus is interesting, but further observations will be required before it can be regarded as established. If it should prove correct, it may very well lead to some extension of knowledge of this obscure condition. If it is to be held as accounting for the severity of outbreaks of this nature in industrial schools, it would seem that it must be present there in endemic form, and predispose to the occurrence of peculiar types of pneumonia, some of them fulminant and rapidly fatal.

THE LONDON INSURANCE COMMITTEE AND ITS FUNDS.

IT will be noted at the last meeting of the London Insurance Committee it was proposed that the money due to the medical profession in respect of the 400,000 insured persons in London who have not chosen a doctor should be distributed among the doctors on the panel, and a discussion took place as to the most equitable method of distribution. The Chairman of the Committee moved a resolution in favour of the money (£34,000) being distributed in proportion to the number of accepted persons on each doctor's list, but Mr. Rockliff took exception to the legality of this, and on the Chairman justifying it by Circular 10 I.C. of February 18th, Mr. Rockliff expressed the opinion that the distribution could not be allowed to take place on the strength merely of a circular of the Commissioners. On this the Chairman withdrew the motion, and the whole matter is to be considered by a special meeting, doubtless after consultation with the Commissioners. The legal aspect of the case would appear to be that, according to Section 15 (2) (*d*) of the Act, every Insurance Committee must adopt a system which will secure that the insured persons who, after due notice, have failed to make any selection, or who have been refused by the practitioner whom they have selected, shall be distributed amongst the several practitioners whose names are on the list. That is to say that all insured persons in the area, and therefore all the money payable on their account, must be distributed amongst the doctors on the list. Many Insurance Committees have already distributed or arranged to distribute the money in hand in respect of persons who have not selected a doctor, instead of acting in strict accordance with the provisions of the Act and distributing the patients in respect of whom the money has accumulated. It seems so obvious that no method of distribution of patients by any Committee can be as satisfactory as the selection of doctors by the patients themselves that we should have thought that any method which would delay the distribution of insured persons amongst the doctors, and would give them further time to make their selection, would be welcomed by representatives of such persons on Insurance Committees. There can be no doubt that the money belongs to the doctors already on the panel. The only way in which any capitation fee can be made to pay doctors for contract medical work is by the fees from all the insured persons being paid to them, and not merely those from the persons who, because they were ill, or because they thought they were likely to be ill, took the precaution of choosing a doctor. This seems so elementary that we trust there will be no undue delay in distributing this money.

THE DECLINING BIRTH-RATE.

BAGEHOT tells the story of an indifferent public speaker who, when at a loss what to say next, was accustomed to begin, "Mr. Gladstone, gentlemen"—whereupon his voice was drowned in cheers, and he had time to collect his thoughts. It is possible that some proportion of the pamphlets, speeches, and books dealing with the declining birth-rate and "race suicide" owe their origin to similar considerations, and it is at least certain that they are of very unequal merit. In the production of this literature Germany takes a leading place; three treatises of some size by Drs. Wolf, Borntraeger, and Marcuse[1] have recently appeared, and we have lately received a pamphlet by Dr. Hermann Rohleder of Leipzig on the same topic.[2] Dr. Rohleder is of opinion that a declining birth-rate is a necessary consequence of increasing civilization, and that those who are of a different opinion are merely displaying their incomplete scientific culture. He energetically combats Wolf's theory that the birth-rate tends to vary with the prevalence of certain religious beliefs, and pours scorn upon the measures suggested by Borntraeger—some of which do indeed appear to argue a degree of confidence in the powers of a bureaucracy which could hardly exist outside of Germany—to arrest the decline. Rohleder contends with some show of truth that race suicide is not a pressing question so long as a population even with a declining birth-rate continues to increase; but he is on more doubtful ground when he argues that declining fertility necessarily must imply superior quality of the offspring, since the larger the family the less adequate the provision which can be made by the parents for their children. This is, indeed, the crux of the problem. Given a fixed income anywhere near the poverty line, it is obvious that a parent can provide better housing, nourishment, and education for two children than for five. Do the environmental advantages which thus accrue to the diminished numbers of the offspring outweigh the disadvantages of a slackening of the intensity of natural selection operating upon a larger number of children, some of whom must be

[1] Wolf, J., *Der Geburtenrückgang. Die Rationalisierung des Sexuallebens in unserer Zeit*, Jena, 1912. Borntraeger, J., *Der Geburtenrückgang in Deutschland, seine Bewertung und Bekämpfung*, Berlin, 1912. Marcuse, J., *Die Beschränkung der Geburtenzahl ein Kulturproblem*, München, 1913.

[2] Rohleder, H., Der Geburtenrückgang eine Kulturfrage (from the *Berliner Klinik*, March, 1913), pp. 35.

"weeded out"? Again, are the effects upon the health and morals of a nation of the employment of artificial methods of restricting fertility so prejudicial as to counterbalance the individual advantages? Neither of these questions can be answered offhand, and many persons who have given a good deal of attention to the subject differ fundamentally with respect to them. We believe that the medical profession as a whole is by no means agreed upon the matter, and it would be very undesirable for us to propound in these columns a solution of the problem which must, in the present state of knowledge, be tentative and subject to revision. We do, however, think it fitting to remark that various writers on this topic—Dr. Rohleder is by no means an exception—have expressed themselves with a confidence that the knowledge at command by no means warrants. The attainment of definite knowledge will doubtless require the co-operation of scientific workers in different fields, and at present writers on the subject might advantageously adopt as a motto the words of Helmholtz: "The confession of actual doubt is better than the delusion of dogmatic certainty." As usually happens, this caution will be least regarded where it is most required—namely, on the platform and in the popular press.

A PRINCELY PRACTITIONER.

THERE have been sovereigns who found a pleasure in practising surgery on the bodies of their liege. James IV of Scotland had a passion for surgery, especially for the extraction of teeth. Henry VIII is said by Froude to have been the best physician of his realm, and he is credited with an ointment for the cure of ulcers of the legs. Peter the Great was fond of operating, but little seems to be known as to the fate of his patients. Edward VII was an Honorary Fellow of both Royal Colleges, but as far as we are aware he fulfilled the hope expressed by Lord Rosebery—himself an Honorary Fellow of the College of Surgeons and the descendant of a surgeon—that he would not practise the art of healing. It has often been stated that the ex-Queen of Portugal is a fully qualified doctor, but this is a mistake; her Majesty takes a great interest in medicine, but has never been formally admitted *in nostro docto corpore*. In the House of Wittelsbach, however, there is what may be called a medical tradition. Several princes of the blood royal of Bavaria have gone through the whole course and graduated doctors of medicine. The late Duke Karl Theodor was well known as an ophthalmologist, and practised at Munich and at Meran. Prince Ludwig Ferdinand, who also is a real not an ornamental doctor, spends his time in the practice of his chosen profession. He not only treats his patients without fee, but also supplies medicines gratuitously, while to the very poor he gives help in money. It is stated that his practice has grown to such an extent that the vast rooms of his palace are inadequate to accommodate the patients who wait their turn to consult the princely oracle. The Prince, therefore, has had to seek a larger stage for his activity. He first looked for a house which could be transformed into a clinic, and not having found any that was hygienically satisfactory in the older parts of Munich, he asked the Minister of Instruction to place at his disposal some rooms in the university buildings. The Minister hastened to set aside for him various rooms of a clinic that was not in use, and thither the Prince transferred his out-patient department. This concession roused the profession of Munich, which had already begun to look on the work of their august colleague with jealousy, to a vigorous and unanimous protest. The medical faculty, making itself the interpreter of the general feeling, addressed a remonstrance to the Minister, urging that this act was illegal, as the Prince is not a university teacher. The Minister replied that although the Prince is only a private practitioner, his work is so beneficial to the people that it well deserves such modest aid from the Government as the assigning to his use of a few rooms in a public building. The medical faculty is not satisfied, and continues to protest, but the Minister refuses to withdraw from the position he has taken up. Meanwhile the Prince keeps himself apart awaiting the issue of the controversy. There the matter rests at present. We confess that, while admiring the self-sacrifice and humanitarian zeal of the Prince, our sympathies are entirely with the doctors. Philanthropy is an excellent thing, but the virtue should not be exercised to the detriment of a particular class of the community, especially when that class is one that more than any other devotes itself, regardless of its own selfish interests, to the public welfare. The conception of a rich man ministering to the sick out of pure benevolence is grand, no doubt, and has found a beautiful embodiment in Balzac's *Médecin de Campagne*. But princes and millionaires who undertake the drudgery of medical practice purely from the love of the work are few indeed, and the profession at large will always have to shape its life in accordance with the principle of the French *émigré*, who was met by a noble friend when trundling a costermonger's barrow, *Faut vivre*.

A NURSING HOME FOR PATIENTS OF LIMITED MEANS.

THE experiment which is being made in Edinburgh in the establishing of a new nursing home for patients of limited means (to which attention is directed in another part of this JOURNAL, *vide* p. 1185) has evoked considerable local interest, and it will probably excite discussion much more widely now that the home has actually been opened. The principle upon which the home has been founded is that the existing hospital and nursing-home system fails to provide suitable accommodation for people of limited means who are on the one hand not able to pay the large fees asked by the ordinary nursing homes and who on the other hand do not wish to receive for nothing services for which they are able to pay a small fee. Physicians and surgeons have always been ready to reduce their fees or indeed in many cases to forego them altogether in such cases; but there remained the difficulty of the home charges. To many in Edinburgh it seemed that if the initial cost of the home and its furnishing and equipment could be met by public subscription, it would be found possible to carry it on as a self-supporting institution and yet not charge fees which would be outside the resources of people of limited means. Dr. Chalmers Watson deserved to the full the encomium which Lord Balfour of Burleigh passed upon his organizing and constructive work at the opening ceremony last week, for, since the inception of the scheme in 1910, he has been the heart and soul of the undertaking; and it is largely to his energy and skill that the result is due. Lord Dunedin, too, who presided at the opening of the home, is entitled to feel some sense of reward for the time and labour he must have given to the cause which he has so ably championed. It remains to be seen how it will all work out; but the success of the smaller home which has been in existence for some years in Edinburgh (Rutland Square) is a good augury for the new and larger institution, more especially as the services of Miss Shaw, the matron, are being retained. The crux of the experiment will be whether the fees received will be sufficient to meet the working expenses and the necessary repairs and possible new developments to satisfy the ever advancing requirements of modern medicine and surgery. This will greatly depend on the extent to which the twelve private bedrooms at three guineas a week each are occupied; for, doubtless, the management is relying upon them to help to defray the cost of the cheaper beds at one and two guineas. It will be necessary for the home to be fairly well filled constantly to make it a success; but those who have studied the local circumstances

closely do not dread this part of the test. The physicians and surgeons who send patients into the home — and its doors are open to the patients of any medical man who wishes to give them treatment himself or to obtain the assistance of a specialist for that purpose—will probably be able to obtain a certain rate of remuneration for their work which will not be oppressive to their clients and will yet reward them to some extent for their time and skill. It is more than likely that, as Lord Balfour of Burleigh said, the institution will have many imitators elsewhere; at any rate, the experiment will be closely watched in many large towns where the need which has brought it into being in Edinburgh is equally pressing.

A SHORT WAY WITH LEPERS.

THE mediaeval methods of dealing with leprosy were extremely drastic. Lepers, and, it is to be feared, many persons suffering from syphilis, lupus or other unsightly skin diseases, or who, like Falstaff, had lost their voice through hallooing and singing of anthems, were dragged into the net and swept into lazar houses, where they were cut off from the fellowship of their kind. Philip the Fair of France, if he is not belied, had a still more effectual way of stamping out leprosy in his realm, for he is said to have burnt some 11,000 supposed sufferers from the disease. It is true that a large proportion of the pestilent persons thus purified by fire were Jews, and it may perhaps be conjectured that the King owed many of them money or coveted their wealth. If we are to believe Dr. J. J. Matignon, for many years physician to the French Legation at Peking, Young China, whose professed aim is to bring the Flowery Land within the pale of modern civilization, has adopted Philip's hygienic methods in dealing with the leper question, though as yet on a much smaller scale. In the *Chronique Médicale* of May 15th he says that in the neighbourhood of the town of Nan Ning, the capital of Kouang Si, there lived a small colony of lepers. No notice was taken of them by the authorities or anybody else, except some French missionaries who helped them as far as they were able. It was proposed to build a refuge for them, and many of the well-to-do inhabitants promised their support. The governor of the province was understood to approve of the scheme. But Young China resented the interference of foreigners in a matter of social hygiene, and did its utmost to stir up public opinion against the lepers, who were described as outcasts rejected by Heaven whom it would be impious to help. A general massacre in the interest of the public health was openly spoken of. The rest of the story is told in a long letter, the authenticity of which is guaranteed by Dr. Matignon, which is published in the *Bulletin du Comité de l'Asie Française* for March, 1913. It is there stated that on December 14th, 1912, the leper village was at daybreak surrounded by more than a hundred soldiers. Like a flock of sheep driven to the slaughter-house the lepers were forced towards a pit from two to three metres deep that had been carefully prepared in the manœuvring ground. At the bottom of this pit was a thick pile of wood, and a ladder was placed at the side. One by one the lepers, the women with their children in their arms, went down the fatal ladder and sat at the bottom. Then the word of command, *Cha* (kill), was given, and the soldiers fired almost point blank at the victims. Petrol was then poured into the pit, and a flame of fire announced this triumph of the new hygiene. A few lepers who had escaped were pursued and shot. The governor declares himself particularly satisfied with this sanitary achievement. In a proclamation he says: "I Tan Hao Ming, wish to bring this to the knowledge of the people. The lepers commit abominable excesses and are feared by everybody. They take advantage of their disease to molest the inhabitants of the village, to ravish their women, and to extort money from them. The recital of these crimes makes the hair stand on end. I have referred the matter to the president of the province, who, by a secret order, commanded me to seize and kill all the lepers of the town of Nan Ning. At once, therefore, I had a large pit dug and had all the lepers arrested and exterminated. Thus shall we be delivered for ever from contagion. I am assured of universal approval." This is certainly a more drastic method of dealing with lepers than segregation. The complacency of the governor is that of a man who thinks he has deserved well of the commonwealth. If Young China continues to follow this path in its progress towards hygienic reform there will, in no long time, be no contagious diseases—and no citizens—left in the new republic.

THE GASTRIC JUICE IN DISEASES OF THE STOMACH AND DUODENUM.

THE *Quarterly Journal of Medicine* has acquired an honourable position by according the hospitality of its columns to lengthy papers for which there has been no place since the death of the *British and Foreign Medico-Chirurgical Review*. This service should gain for it the support of all who desire to see the work done by physicians in this country put upon an equal footing with that performed abroad, and it is satisfactory to know that the *Quarterly Journal* has not only gained a scientific position, but is successful as a commercial venture. Its current issue contains an account of a laborious investigation carried out by Drs. Schryver and Singer in the Research Institute of the Cancer Hospital on 125 cases of malignant and non-malignant disease of the stomach and duodenum, to determine the diagnostic value of chemical methods of examining the gastric contents. The points inquired into were the phenolphthalein acidity, the dimethyl acidity, Guenzburg's test, the peptic index, the total chloride, the secreted chloride, the nitrogen, and the nitrogen factor. The labour involved in such a research must have been immense, and we are sorry the results are disproportionate to the time and work devoted to them. However, this has for some time been anticipated by the experience of clinicians, who have come to regard the chemical examination of the stomach contents as rather interesting than important, and frequently to be safely dispensed with in private practice where a practical conclusion is all that is desired. The writers conclude that all available methods of estimating the chloride-secreting activity of the stomach "contain sources of error beyond experimental limits," and must be checked by determining the "nitrogen factor," arrived at by subtracting the estimated hydrochloric acid acidity from the total acidity and dividing this by the number of cubic centimetres of decinormal sulphuric acid required to neutralize the ammonia formed by a Kjeldahl examination of 10 c.cm. of the filtered gastric juice, the result being multiplied by 10. They believe the gastric efficiency as regards hydrochloric acid is best determined by the "secreted chloride" (that is, the total chloride less inorganic chloride), and they dispute the delicacy of Guenzberg's reaction for showing the presence or absence of free hydrochloric acid. Yet the estimation of the "secreted chloride" is essentially a laboratory process, and they speak of it as "comparatively cumbrous" and "involving certain sources of experimental error." Their methods have not enabled them to distinguish pyloric from duodenal ulcer, in both of which the "secreted chloride" is high, but in the case of ulcers in the body of the stomach the results vary. Similar results were seen in carcinoma in accordance with its position, hyperchlorhydria or euchlorhydria being common in cancer of the pylorus, while the presence of this disease has "no specific effect on the composition of the gastric juice."

Again, "hyperchlorhydria, hypochlorhydria, and achylia are encountered independently of coarse gastric lesions." This is in contradiction to the positive assertion of some surgeons, which have never been generally admitted by physicians, although "the coincidence of a definite hyperchlorhydria with a greatly raised 'peptic index' (80 or over) is practically diagnostic of pyloric and duodenal ulcer among gastric diseases"; but these "must be carefully distinguished from certain cases of chronic appendicitis." By "peptic index" the authors mean the numerical expression of the peptic activity determined by the Fuld-Levison method. They also find that a "nitrogen factor" over 2.8 is "almost diagnostic" of delayed emptying of the stomach—a point obviously better determined by direct examination. A more interesting statement is that chronic gastritis "probably causes dissociation of chloride and pepsin secretion," by which they mean excess of hydrochloric acid and diminished pepsin. It should not be forgotten that the diagnostic rules formulated by Ewald were empirical, but that further experience has justified most of his conclusions. It is, however, unwise to rely in diagnosis on any single method, and stomach chemistry becomes a dangerous snare if depended upon to the exclusion of other means. It can hardly be maintained that the complicated and elaborate investigations carried out by these workers afford such trustworthy information as to induce clinical workers to devote to them the time and labour they need.

TROPICAL ULCER.

During the past few years many observers have studied the peculiar condition known as tropical or sloughing ulcer, and its etiological agent is now usually admitted to be a spirochaete, which Prowazek, who discovered it, named *Spirochaeta schaudinni*. Garin,[1] who has worked on the subject in Lourenço Marques, states that the disease is very frequent there in all its forms, from the mildest, small ulcerations, only one-fifth of an inch in diameter, to serious and even phagedaenic types which cover the whole leg, destroying tendons and muscles and attacking the bones. Within the last two years he has studied more than 400 cases, all, with two exceptions, in natives. He agrees that the spirochaete is the cause, though apparently it has to be associated with fusiform bacilli, which have some relationship with the *B. fusiformis* of Vincent. He points out, however, that the species of these organisms is not yet fixed, and that many points in this alleged fuso-spirillar association are still very obscure. It has been suggested that the parasite may be transmitted by leeches, but this seems not to have been established, and it must be admitted that, frequent though the disease be in certain places, the mode of infection is unknown.

LISTER MEMORIAL.

The President of the Royal Society has received from the Portuguese Legation subscriptions amounting to £21 5s., forwarded by the Society of Medical Science of Lisbon as a donation to the Lister Memorial Fund. A sum of 867 dollars has been collected by Dr. W. W. Keen, F.R.C.S., of Philadelphia. Further donations intimated from foreign countries include: The University of Paris, 500 francs; *Muenchener medizinische Wochenschrift*, 200 marks; the University of Lyons, 100 francs; the Société de Chirurgie of Lyons, 100 francs; the Faculty of Medicine of the University of Munich, 100 marks; the Faculty of Medicine of the University of Breslau, 110 marks; Stockholm Medico-Chirurgical Society, £5; and Naturhistorisch-medizinischer Verein, Heidelberg, 50 marks. A donation of £10 has been received from the University of Calcutta.

[1] *Transvaal Medical Journal*. December, 1912.

THE PHILADELPHIA COLLEGE OF PHYSICIANS.

We have received a reprint from *International Clinics* of an account of the Philadelphia College of Physicians by its president, Dr. G. E. de Schweinitz. It is not definitely known to whose initiative the foundation of the college is due. As early as 1767 John Morgan made proposals to Thomas Penn for the erection of a college, but a charter was refused. It was not actually instituted till September, 1786, and the first meeting took place on January 2nd, 1787. That day, therefore, is regarded as the official birthday of the college. Its objects, as set forth in the original constitution, are: "To advance the Science of Medicine and thereby to lessen Human Misery by investigating the diseases and remedies which are peculiar to our Country by observing the effects of different seasons, climates and situations upon the Human body, by recording the changes that are produced in diseases by the progress of agriculture, Arts, Culture, and Manners, by searching for Medicines in our Woods, Waters, and the bowels of the Earth, by enlarging our avenues to knowledge from the discoveries and publications of foreign countries; by appointing stated times for Literary intercourse and communications, and by cultivating order and uniformity in the practice of Physick." Two years after its foundation the college was incorporated by charter. The college has nothing to do with licensing practitioners, but is a scientific body which holds monthly meetings (except during July, August, and September), at which papers on medical, surgical, and allied subjects are read and discussed. These communications are published in the *Transactions*, the first volume of which appeared in July, 1793. In addition to its purely scientific work the college almost from the beginning has taken an active interest in matters concerning the health and welfare of the community, and it has been consulted on such questions by the State and municipal authorities. The first standing committee, that on meteorology and epidemics, was appointed in 1787 and presented a yearly report until it was abolished in 1882, a period of ninety-five years. In 1787 another committee was appointed to submit plans of hot and cold baths and a botanical garden for the city. It held consultations with the State Legislature in 1789 as to the spread of infectious diseases. In 1794 it considered the regulation of the practice of physic within the State and the establishment of quarantine and a hospital for contagious diseases. It worked in conjunction with the Philadelphia Board of Health in the management of an epidemic of cholera in 1788; it memorialized the State Legislature in 1787, and the Congress of the United States in 1790, on the deleterious effect of alcohol on the human system and the need of laws regulating its consumption. In each decennial revision of the *Pharmacopoeia* of the United States, the College has taken an active part. In regard to animal experimentation, especially since 1885, when it first addressed a protest to the Legislature against a bill to prevent such experiments, it has played the part of a research defence society. The college is now, as it has been in the past, always ready to give advice in matters pertaining to the welfare of the community. As an example may be mentioned the careful investigation made by a committee at the request of the Commissioner of Health of Pennsylvania as to the expediency of the free distribution by the various county societies of antitetanic serum. Of the library not much need be said, as a full account of it was given by Professor W. W. Keen in an illustrated article which appeared in the British Medical Journal of October 16th, 1909, p. 1161. The nucleus of the library was a donation of twenty-four volumes by Dr. John Morgan in 1788. The total number of volumes in the collection is 95,896, besides which there are 8,917 unbound theses and dissertations, and nearly 90,000 unbound pamphlets. Two years ago the college instituted a series of lectures on great doctors

and achievements in medical research; these are intended for the education of the public in the aims and progress of scientific medicine.

THE FRIEDMANN CURE FOR TUBERCULOSIS.

THE first official opinion of the board appointed by the American Government to investigate and report as to the value of Dr. Friedmann's treatment of tuberculosis was embodied in a statement read before the National Association for the Study and Prevention of Tuberculosis at its annual meeting held at Washington on May 9th, by Dr. John F. Anderson, of the United States Public Health Service, Chairman of the Board. The report, according to the *Medical Record* of New York of May 17th, was to the effect that the board, without presenting in detail the condition of patients under observation, was in a position to state that the effects thus far observed did not justify the confidence in the remedy which had been inspired by widespread publicity. The report proceeds: "In our opinion harm may have been done by this undue publicity in so far as it has lessened the confidence of tuberculous persons in well recognized methods of treatment or interrupted their use, and we are constrained to advise against any lessening of these well-known measures which not only have effected cures, but which have reduced the incidence of the disease." After the reading of the report the association passed the following resolution: "That there is no information before the National Association for the Study and Prevention of Tuberculosis to justify the belief that any specific cure for tuberculosis has been discovered which deserves the confidences of the medical profession or the people, and that it is the duty of the public to continue unabated all the present well-tried agencies for the treatment and prevention of tuberculosis."

AT the anniversary meeting of the Royal Geographical Society, on May 26th, the patron's medal, which had been assigned to the late Dr. Adrian Wilson, chief of the scientific staff of Captain Scott's expedition, was handed to his widow. Lord Curzon, in the course of his presidential address, said that Mrs. Wilson had offered to present to the society some of the water-colour sketches of her late husband, which apart from their special interest were works of art of high merit. They would be placed in the museum, which would form a conspicuous feature in the new and spacious quarters of the society in Kensington.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Prospects for the Session.

THE House of Commons reassembled on Tuesday, May 27th, and it was quite evident from the events in the House and from the general state of business that the prospect of getting through the bills already projected by an early date in August is by no means favourable.

Tuesday and Wednesday, May 27th and 28th, were to be devoted to an Address to the Crown that an additional judge should be appointed to the King's Bench Division, to the second reading of the Appellate Jurisdiction Bill already passed by the House of Lords, and to the second reading of the Mental Deficiency Bill, Elementary Education (Defective and Epileptic Children) Bill, Milk and Dairies Bill, and of the Bee Disease Bill, if time permitted.

Considerable opposition was offered by a small number of members to the Judicature Bills, so that the whole sitting of Tuesday, May 27th, was occupied in the adoption of the Address to the Crown, and in the commencement of the discussion on the second reading of the Appellate Jurisdiction Bill. Further, out of the time available for Government business, an hour and a half was occupied in opposition to a bill promoted by the London County Council. In view of the opposition to the Appellate Jurisdiction and Mental Deficiency Bills, it is certain that the other measures on the list cannot be proceeded with further this week.

The second reading of the latter bill was moved on Wednesday by the Home Secretary, who in a short speech directed attention chiefly to the points in which the bill of this year differs from that of last year. The differences and the general scope of the bill were fully discussed in an article published in the BRITISH MEDICAL JOURNAL of April 5th, p. 730. A motion to reject the bill was made by Mr. Handel Booth, who received a good deal of support from other members sitting on the ministerial benches, including Mr. Wedgwood and Mr. Atherley Jones. The debate had not concluded when it was adjourned under the rules of the House at 11 p.m.

As the period of the session becomes more advanced, the prospects of the passage of the Mental Deficiency and Milk Bills become much less favourable, unless the House is to sit throughout August, or have another autumn session. In view, however, of the strong opposition of members to sitting through August, it is very likely that some of the bills above mentioned will be abandoned.

The other business of the session will be the passage of the Finance and Revenue Bills, and the second reading debates and other stages of the Home Rule, Welsh Disestablishment, and Scottish Temperance Bills, which are to be passed a second time under the Parliament Act; the remaining days that must be devoted to the discussion in Supply must also be taken into account, and in addition the Plural Voting Bill, although a very short measure, is to be taken in Committee of the whole House. A resolute opposition to it is to be anticipated both on the Committee and Report stages, and the order paper already shows a large number of ingenious amendments. There will also probably be a debate on the report of the Marconi Committee.

Finally, in view of the statement of the Prime Minister, it is certain that the Government proposes to introduce and pass a measure directed to the amendment of the National Insurance Act in various respects.

In connexion with the last-named measure, the reports current in the Lobby are of the most diverse and fanciful character. The rumours which have been spread as to alterations in its compulsory character may certainly be dismissed as baseless, since any one acquainted with the financial arrangements which have been made by the societies and the Commissioners will recognize that such a fundamental alteration is quite outside the field of practical politics. No doubt an effort will be made to keep the amending bill as non-controversial as possible, although it can easily be imagined that in financial, administrative, and other matters there may be various adjustments to be made, as a number of points have arisen during the debates and in questions to which the Government has promised to give consideration.

So far as professional matters are concerned, we have heard of nothing which would induce us to depart from the forecast which was given in a recent issue.

THE Croonian Lecture before the Royal Society will be delivered by Dr. Robert Broom, Keeper of Vertebrate Palaeontology in the South African Museum, on Thursday next, at 4.30 p.m. The subject is the origin of mammals.

THE course of three Chadwick Lectures, to be delivered by Dr. F. W. Mott, F.R.S., at the Royal Society of Arts, John Street, Adelphi, W.C., at 5 p.m., on June 6th, 13th, and 20th, will deal with nature and nurture in mental development. Sir James Crichton-Browne will preside at the first lecture; Mr. Henry C. Stephens, Chadwick trustee, at the second; and Sir William J. Collins, chairman of the trust, at the third. The lectures will be illustrated by lantern slides, and will be free to the public.

THE Medical Society of London, at its meeting on May 19th, appointed Sir David Ferrier, F.R.S., president, in succession to Sir Watson Cheyne, and Dr. J. Mitchell Bruce, treasurer, in succession to Sir John Tweedy. Other officers appointed were Dr. R. A. Young and Mr. G. E. Gask, honorary secretaries, and Dr. F. Parkes Weber, honorary secretary for foreign correspondence. Dr. F. M. Sandwith was chosen to deliver the Lettsomian lectures and Mr. Robert Jones, of Liverpool, the annual oration. A council of twenty was also appointed.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

WALES.

Research in Mental Disease.

Last week the Home Secretary, at the invitation of the Lord Mayor of Cardiff, who is also Chairman of the Committee of the Cardiff Mental Hospital, visited that institution, and, after making a tour of the buildings, was received in the new pathological research laboratory by Dr. Goodall, the medical superintendent, who pointed out that the pathological problem of mental disease was now viewed more and more from the standpoint of general pathology. The problem was mainly of a biochemical nature, and for its solution the services of the general pathologist and bacteriologist, the chemist and the physiologist were needed. A properly equipped department or institute for pathological research in mental disease should provide facilities for workers in these branches of science, and, of course, for ordinary clinical pathology, such as would be conducted by the physicians at the mental hospital with which the department was connected. Correlation of the work of these experts was necessary, as each could throw light on the difficulties of the other. The immediate requirements of the research department were a worker in physiology and funds for the formation of a library, and eventually for the remuneration of a scientific director to devote his whole time to the work. Subsequently the Home Secretary was shown round the general laboratories by Dr. H. A. Scholberg, and over the chemical laboratory by Dr. Stanford, Research Chemist.

It will be remembered that some time ago the Lunacy Commissioners received a deputation representing some fifty-three asylums, which pointed out the need for the establishment of hospitals for mental disorders with adequate laboratory provision for research in contiguity with every complete school of medicine. The Lunacy Commissioners have made representations to the Home Secretary suggesting the propriety of making a State grant for research in mental diseases, and at a luncheon held at the City Hall after the visit the Lord Mayor of Cardiff said that it was hoped that the Home Secretary would shortly make a new departure by instituting Government grants to local authorities progressive enough to establish departments of research into the cause and cure of mental diseases. In the research work so successfully carried out by Dr. Goodall and his staff of expert assistants, the Committee of the Mental Hospital had been heartily supported by the corporation as a whole, but local burdens were already very heavy, and it was time to ask Parliament to set aside a certain sum to be administered by the Lunacy Commissioners by way of grants in aid of mental research laboratories.

Mr. McKenna, in his reply, after declaring Cardiff *de facto* the capital of Wales, said that he was much impressed by the representations which had been made to him and by what he had actually seen at Cardiff, and would impress upon the Treasury the necessity for the extension of the work, not only at Cardiff, but in other great centres, such as London, the West Riding, and Lancashire, where attempts of a similar character were being made to effect a larger proportion of cures of mental disorders than had been possible in the past.

MANCHESTER AND DISTRICT.

The Physique of the Modern Boy.

In a paper recently communicated to the Statistical Society of Manchester,[1] Dr. A. A. Mumford brings together a considerable mass of statistical data relating to the physique of children of school age. In the first part rather scanty data collected by the Factory Inquiry Commission, giving the heights and weights of factory and non-factory children in 1833, are compared with the measurements of city children recorded by the Anthropometric Committee of the British Association in 1883, and the conclusion drawn that, so far as growth in height and weight are concerned, no progressive decay is observable. In the second part a similar comparison is instituted between the boys in the Manchester Grammar School during 1881–6 and 1905–10. These figures show, if anything, an improvement in the later period. From a study of the records of their athletic sports it would also appear that the physical attainments of middle class boys have not deteriorated, but evidence of this kind is of somewhat limited application. Very useful tables give the heights, weights, and girths of deaf and normal children at the same ages, and seem to show that "in spite of the very superior care in feeding, in physical training, and in bodily care they [the deaf] receive at the Royal Schools for the Deaf, Old Trafford, they never catch up to the normal members of their own class." This statement applies to the boys rather than to the girls. Lastly, the "free place" boys in the Manchester Grammar School are compared with their fellows, the differences found being apparently of little moment. It must, of course, be remembered that the "free placers" are all picked boys and presumably above the average of their class.

[1] *The Physique of the Modern Boy.* By Dr. A. A. Mumford. Reprint of a paper read before the Manchester Statistical Society, December 11th, 1912. Manchester: John Heywood, Limited.

Guardians' Visits of Asylum Patients.

Several weeks ago the South Manchester Guardians proposed to stop paying visits to patients they had sent to asylums, the idea being that no good ever came from such visits. In a letter dated May 8th, the medical superintendent of the Lancashire County Lunatic Asylum gave it as his opinion that visits of guardians did no harm and might even be beneficial to some patients, providing the number of the deputation were limited to, say, three or four, with, in addition, the clerk and the medical officer. The South Manchester Guardians have now received a letter from the Lunacy Commissioners which very strongly expresses the views of the Commissioners "that the visitation by guardians of patients from their unions is of the first importance to the comfort and contentment of the patients, who, cut off and separated from their friends and homes, and suffering frequently from a sense of injustice at their confinement at all, regard with much pleasure the visits of the outside local authorities who bring them into some sort of relation with their own homes."

LIVERPOOL.

Memorial to Dr. Waters.

On Sunday, May 25th, at St. Luke's Church, in the course of the morning service, Archdeacon Madden unveiled a handsome brass mural tablet which has been placed in the church by Mrs. Waters in memory of her husband, the late Dr. A. T. H. Waters of Liverpool. The unveiling was preceded by a few appropriate words, addressed to the congregation, and by a short dedicatory prayer. The inscription is as follows:

> To the glory of God and to the dear memory of Alderman Thomas Houghton Waters, M.D., F.R.C.P., born 5th June, 1826, died 8th June, 1912, who for 32 years within these walls found strength for the service of his Master. Associated with the medical charities of this city for nearly 60 years, and always active in the relief of human suffering, he shared in every effort to increase knowledge or to ennoble life, till having served his generation he was called to his rest.

The Insurance Act.

The Liverpool tramway employees have obtained a certificate exempting them from all contributions under the Act, on the ground that the persons concerned have a scheme which provides medical benefits, superannuation, etc., on even better terms than the Act could offer. Unfortunately their estimates are based on a rate of remuneration to their medical officers which is considerably less than the standard secured by the Act. It is hoped that the doctors concerned will not consent to an arrangement which would negative much of the work of the Association during the last two years. They naturally ask an assurance that if they insist on the higher rate they will not be undercut by their neighbours. The matter is one which will no doubt receive the early attention of the local Division.

CHANGES IN HOSPITAL STAFF.

Owing to transfer of Dr. Warrington to the Royal Infirmary, a medical vacancy has arisen at the Northern Hospital. There will also be vacancies for an assistant physician and an assistant surgeon at the Children's Hospital, and for an assistant surgeon at the Women's Hospital, Shaw Street.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

EDINBURGH PARISH COUNCIL AND THE ROYAL INFIRMARY.

AT the meeting of the Parish Council on May 19th (Mr. Huie, Vice-Chairman, presiding) a letter was read from the Clerk of the Royal Infirmary with reference to the application of the Council for representation on the board of managers of the infirmary. The managers pointed out that election to the board was regulated by the Infirmary Act of 1870 and by the charter of the institution, and they regretted that they were not in a position to grant the request of the Parish Council. A discussion followed, in which some feeling was expressed regarding the reply of the infirmary board; but finally, on a vote being taken, 12 voted for no further action being taken, and 10 for the matter being remitted to the Chairman's committee. The subject was therefore allowed to drop.

THE LORD HIGH COMMISSIONER AND MEDICAL INSTITUTIONS IN EDINBURGH.

During the ten days or so once a year in which royalty is represented in the Scottish capital, and in which the halls of Holyrood Palace re-echo once more to the tread of many feet, the Lord High Commissioner has always some minutes to spare to visit the many medical institutions with which Edinburgh abounds. This year has been no exception to the well-established custom, and during the past fortnight the Lord High Commissioner, with Lady Glenconner, and in some cases Lady Glenconner alone, have visited the Hospital for Diseases of Women, the Royal Victoria Hospital for Consumption, the Royal Institution for the Education of Deaf and Dumb, the Royal Blind Asylum, the Deaconess Hospital, the Hospice, the Royal Maternity Hospital, the Cripple Children's Home, the Royal Infirmary, the Royal Sick Children's Hospital, and Donaldson's Hospital (for deaf and dumb children). The Royal Colleges of Physicians and Surgeons have also been officially present at the levees in Holyrood, and representative medical men have had the honour of dining with His Grace.

OPENING OF NEW NURSING HOME, EDINBURGH.

On May 21st Lord Balfour of Burleigh, in the presence of a large and distinguished company, declared the new nursing home open. The home is the outcome of a movement to provide for persons of limited means a hospital where they will be able to obtain medical and surgical treatment as in-patients by paying moderate fees; it is, therefore, intermediate between the hospitals where accommodation and treatment are received as charity and the expensive nursing homes, which, by reason of the fees charged, are beyond the reach of a large section of the middle class. A beginning was made in 1910, when some preliminary subscriptions were obtained, chiefly from the medical profession itself, which has responded handsomely all through; then in 1911 a public meeting was held in Edinburgh, under the chairmanship of Sir Robert Usher, Bart., when an influential committee was formed, with Lord Dunedin as chairman, Professor Lodge as chairman of executive, and Dr. Chalmers Watson as honorary secretary; an appeal then made for funds was so well responded to by the public that now £13,000 out of the £13,500 asked for has been received. Public sympathy was excited in a remarkable manner when it was made clear that, provided the initial expense of buildings and furnishings was met, the home could be made self-supporting, the patients paying from 1 to 3 guineas a week, according to the accommodation supplied. Public sympathy was aided to make itself practically effective by means of a band of voluntary lady collectors, 250 strong, who in all parts of Scotland brought the scheme intelligently before the notice of the charitable. As a result over 10,000 subscribers gave sums varying from £250 to 3d. Meantime a pioneer home managed on the principles above described was being successfully carried on in Rutland Square; but it was on a much smaller scale than that now available, and it has been merged in the latter. Still, it has served to open the way and make the public more fully aware of the possibilities of such an institution. The home, formally opened by Lord Balfour of Burleigh on May 21st, is situated in what may be called the hospital quarter of Edinburgh; it is within a stone's throw of the Chalmers Hospital, an institution with somewhat similar aims, although not intended for quite the same class of patients, and of the Royal Maternity Hospital, and it is within sight of the Royal Infirmary. It is thus, so to say, within the sphere of the daily work of the various physicians and surgeons who are attached to these institutions, and who will doubtless be amongst the medical men who will give operative and other treatment in the new home. The home came into being through the adaptation of three continuous villa residences in Chalmers Street, and Mr. T. Duncan Rhind, A.R.I.B.A., deserves great praise for the skilful manner in which he has carried through the necessary changes and extensions. There are beds both for male and female patients; two of the wards have each 8 beds, five of them have 3 beds each, and there are twelve private rooms with 1 bed in each. There are two operating theatres, with a sterilizing room between, and there is an anaesthetic room with wide folding doors; there is an electric lift big enough to take a bed with patient in it, and a nurse, and there is another for food. In place of bells there is a silent system of electric signalling, and there are rooms for *x*-ray treatment, for hydrotherapeutic treatment, for massage, etc., as well as a dark room for photographic work. In addition to all these things there is accommodation for the matron and nurses, for the maids, for the doctor, for convalescent patients, and a bright room with four cots for children. At each end of the building there is a fire-escape iron stair which leads to the back green, and is connected with each floor.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

NURSING CONGRESS IN DUBLIN.

THE National Council of Trained Nurses of Great Britain and Ireland will hold a nursing conference and exhibition in Dublin on June 4th, 5th, and 6th, in the house of the Royal College of Physicians. Various papers will be read and discussed on the Wednesday and Thursday. A very attractive programme, arranged by the Irish Nurses' Association, will commence by a reception at the Royal College of Surgeons on June 3rd at 8.30 p.m., when a pageant illustrating the history of nursing will take place. On Wednesday the Master and Lady Superintendent of the Rotunda Hospital will be at home to the members, and in the evening, in the Abbey Theatre, a series of tableaux descriptive of the history of nursing will be shown. On Thursday there will be a garden party at the Zoological Gardens, and in the evening a banquet in the Mansion House. On Friday there will be an excursion to Glendalough, returning by Newcastle, where the governors of the Consumptive Hospital will entertain the party to tea. Shorter excursions to Howth and Killinay will be made on the same day.

TYPHUS FEVER IN CONNEMARA.

At the last meeting of the Oughterard Board of Guardians, the Chairman of the District Council handed in a notice of motion calling on the Congested Districts Board to sink wells and place pumps in the fever-stricken districts of Connemara. Sir Acheson MacCullagh, medical inspector to the Local Government Board, said that the majority of the patients came from Rosmuck—13 cases had occurred there; but he was glad to be able to state that at present there were only 3 cases of fever, 2 of which were practically convalescent and the other was improving. It was stated that some of the patients had to remain lying on the floor of their cabins, as it was impossible to transport them thirty miles to the fever hospital. All the cases were

miles away from the tracks of the tourist visitors, and it seemed that many of the statements which appeared in the public press were largely exaggerated. Typhus fever is endemic in the islands off the coast of Connemara, and since last September 40 cases have been notified in a dispensary population of 10,000 persons; as there have been only 5 deaths, the epidemic cannot be considered very serious. The standard of living in these islands is very low, and the people are housed in miserable hovels and draw their drinking water from stagnant pools. The local authority is too poor to undertake the necessary reforms, and it therefore rests with the Congested Districts Board to take steps to see that the urgent needs of these poor districts are supplied. This outbreak has shown the necessity for a temporary hospital on the mainland near the islands to which the patients could easily be brought, and to this purpose, perhaps, the funds which are being raised by public subscription could best be devoted.

At a meeting convened by the Lord Mayor in the Mansion House, Dublin, last week, to consider the condition of Western Connemara, the following resolution was passed:

> That a subscription list be now opened to ameliorate the conditions of life existing in the western parts of Connemara, and this meeting calls upon the responsible authorities to take immediate steps in discharge of their obligations for the purpose of securing decent conditions of life for the inhabitants of that district.

Correspondence.

MALARIA PREVENTION IN GREECE.

SIR,—Students of malaria may remember that seven years ago I published (*Journal of Tropical Medicine*, November 15th, 1906, ix, 22, page 341) an account of a visit to Greece, especially to the Copaic Plain, for the purpose of advising upon the reduction of malaria there. They may now like to have a short account of a second visit which I have just paid there, after an expedition to Cyprus on behalf of the Colonial Office for a similar purpose.

It will be remembered that the British employees of the Lake Copais Company suffered much from malaria in the old days, and that I advised the houses to be protected by wire gauze, and the neighbouring collections of water to be kept free of weeds and periodically oiled. I am glad to say that these measures have had an excellent result, and that I was informed during my recent visit that no indigenous cases have occurred amongst the British employees in the neighbourhood of Moulki for some years past. The houses are excellently protected, and the waterways kept periodically cleaned.

Some distance from these houses there is the Greek village of Moulki, which is, of course, under the sanitary rule of the Greek Government. Here much quinine has been given to the villagers, especially to the children; and the company has been good enough to oil the stagnant waters round the village as much as possible, though this duty does not lie upon its shoulders. The result has been that whereas in May to June, 1906, I found splenomegaly in 35 out of 62 children, or 56 per cent., now, early in May, 1913, I find it only in 14 out of 50 children examined. But this is not a quite fair measure of the reduction which has been effected, because I have been much more particular on this occasion to take into account the very smallest enlargements of the spleen. I should say, therefore, that the reduction has been greater than 50 per cent. Moreover, the village children and the villagers in general looked in every way much healthier than they did previously, and the priest, the innkeepers, the schoolmaster, and the head man of the village all testified to the improvement which had taken place, and praised the company for the work that it had been doing.

Nevertheless, in spite of all the trouble that has been taken at Moulki village, a spleen-rate of something like 28 per cent. remains; and the old stagnant pools of water remain also, even though they are kept oiled. This only confirms me in the belief which I have long held that quinine, oiling, and even wire gauze protection are seldom sufficient by themselves to eradicate malaria completely so long as the breeding pools remain undiminished in extent. In this connexion I would specially invite attention to the Indian experiences, well summarized by the Director-General of the Indian Medical Service, Surgeon-General Sir Pardey Lukis, in his presidential address at the third meeting of the General Malaria Committee held at Madras on November 18th, 1912. I doubt much whether, after all, the radical measure is not in the end the cheapest and the best, even for such semi-waterlogged places as the Copaic Plain.

It will also be remembered that, after my first visit to Greece, the Liverpool School of Tropical Medicine raised a subscription, which reached several hundreds of pounds, for the Greek Anti-Malarial League. The work of this league has been fully and ably set forth by my friend, Dr. Savas, Professor of Hygiene and Bacteriology at Athens, in his contribution to my book on *The Prevention of Malaria* (Murray, 1911, page 432). The league persuaded the Greek Government to make quinine a State monopoly in order to avoid the expense and frequent adulteration which used to occur in Greece. It also frequently sends experts to the villages in order to teach the people how to act against the mosquitos; but its funds are low, and I understand the Greek Government gives it only 5,000 drachmae (francs) a year. On the other hand, the Greek Government appears to be making quite a nice profit out of the sale of the quinine, amounting to 46,000 drachmae in 1908–9, 61,000 in 1910, and 83,000 in 1911. It seems to me to be scarcely a part of the function of Government to make a profit from sanitary measures; and Professor Savas and I therefore sought and obtained an interview with Mr. Venezelos, the distinguished Greek Minister, and urged that the money should be utilized for malaria prevention, and that the Greek Government should do more for draining the villages; and I am sure that our representations will have every consideration from him.

The fact is that the same defect holds almost everywhere throughout the world. The unfortunate villager produces the food of the world and pays his taxes, but almost nothing is done for him in the sanitary line by any of the Governments under which he toils. They give him peace and a certain amount of justice and education (at his expense); but scarcely ever spend even a few shillings to keep his village in a wholesome condition, or even his roads in proper repair. Thus, I learnt that at Moulki no money had been spent on the village for this purpose for years past. One reason why I have always so strongly urged mosquito reduction in malarious countries is because this sanitary measure means in fact a sanitary charter for the immense rural population of such areas; and if we can only persuade Governments to adopt it generally, a new epoch will be created in rural life in warm countries.—I am, etc.,

London, W., May 23rd. RONALD ROSS.

THE FORM AND POSITION OF THE STOMACH.

SIR,—I must apologize for writing again on this subject; but Mr. Gray accuses me of "throwing dust in the eyes of the reader and confusing the issue." If he will re-read my letter of May 3rd, he will see that in the last paragraph on p. 970 I state that I often find a pause in the onward progress of the food "just below the air shadow"—that is, just below the cardiac orifice—and also "at the lowest point before turning to the right along the pyloric canal," the normal stomach being approximately J-shaped. In the next paragraph I speak of the food being held up (1) "just below the cardiac orifice," (2) "at the lowest part of the organ," and (3) of spasmodic contractions being most often noted in the "middle of the body of the stomach." (If Mr. Gray will look up Figs. 10, 11, and any of Figs. 19 to 23 in my articles in the *Medical Chronicle* of January and February, he will see diagrams that should make these points quite clear.) And yet again in the next paragraph I wrote that apparently Mr. Gray claims a middle sphincter "just below the cardiac orifice, in the middle of the body of the stomach as well as at the lowest point." And yet, in spite of these very definite descriptions, Mr. Gray writes—in inverted commas, as if quoting from my letter of May 3rd—that I described these sites as "half-way down the stomach," "the lowest part of the organ," and "the middle of the body." I have re-read my letter most

carefully and cannot find these descriptions, and yet it is on this that Mr. Gray accuses me of throwing dust in the eyes of the readers, and says that I am "particularly unfortunate in choice of terms and descriptive powers."

The reason I took no notice of Mr. Gray's query as to the position of the pylorus is obvious; the question seemed to be raised with the object of discrediting radiographic findings, and the question in point was "the middle sphincter." Incidentally I notice that in the case Dr. Jordan describes and figures, and Mr. Gray quotes so frequently, the patient was "admitted for nausea and vomiting with haematemesis." It does not sound like a normal healthy subject, even if the surgeon did fail to discover anything abnormal in the stomach. Also, Dr. Jordan does *not* state that the pylorus is opposite the fourth lumbar vertebra, but that the pylorus is "behind the umbilicus," and I am sure Mr. Gray knows that this surface marking is not necessarily a fixed point in relation to the vertebrae.

If Mr. Gray will again look up the *Medical Chronicle* of January he will find on pages 208 and 215 an explanation of the discrepancies between the *x*-ray and operative appearances. Has he by any chance reopened an abdomen and found at the second examination a much larger or smaller stomach than when he first saw it? Or has he seen in the *post-mortem* room some of his own cases and found that what he had thought was a normal stomach had become a large flaccid sac or vice versa? Or, if he ever examines patients with the fluorescent screen, has he by any chance seen one who turned faint or became suddenly frightened, and noted how the lower border of the stomach dropped, or has he seen how the organ may contract right up under the diaphragm in the act of vomiting?

The changes that may be brought about by anaesthesia or death are infinitely more profound than those that might possibly be induced by mixing a little bismuth or barium into ordinary food. But why will Mr. Gray always seek to discredit radiographic findings, and confuse the issue by seeking out discrepancies which he could easily verify or disprove by undertaking for himself the systematic examination of a considerable number of healthy persons, and investigating the subject for himself? If he has not efficient apparatus at his disposal my offer is still open, and I trust that he will accept it.

With regard to the explanation of his clinical phenomena, I offer no suggestions, and admit that Mr. Gray's theory would be a satisfactory explanation but for the fact that no "middle sphincter" can be found, and that the stomach, with certain reservations already stated, is one undivided cavity.—I am, etc.,

Manchester, May 20th. A. E. BARCLAY.

RHEUMATOID ARTHRITIS.

SIR,—In the first place I wish to make a correction in my last letter. In the thirteenth line from the end the word *soluble* should be *insoluble*. This is a distinction with a difference.

Opinions such as those expressed by Dr. J. Tertius Clarke, of Perak, in the Federated Malay States, make one despair of the medical profession ever becoming a scientific one; in fact, it is only a medical journal that would print such rubbish. What does he mean by "the absence of proof that a particular cause produces a particular effect is not a very strong proof that it may not do so"? To help in the solution of this riddle I suppose we may say that the absence of proof that *two* and *two* make *five* is no very strong proof that they may not do so. His talk about a theory and a theorem is not very relevant to his further remarks. A theorem should be true though the truth is not self-evident, but when I have finished with his conjectures—I will not call them a theory—I shall leave your readers to form their own opinion as to how far distant his conjectures are from a theorem, or even from anything bearing the semblance of truth.

"I have pointed out that there is no such thing as rheumatic fever in the Malay Peninsula, and Major Buchanan agrees with me that there is none in tropical India." What a peculiarly constructed sentence! The man in tropical India agrees with the man in the Malay Peninsula, not that there is no rheumatic fever in the Malay Peninsula, but that there is none in tropical India. Now, I suppose Dr. Clarke will agree with Major Buchanan that there is no rheumatic fever in the Malay Peninsula. As they are agreed about something which it appears they do not see, perhaps they will also agree, say, about some feature of the moon which they really can see from their respective spheres. Dr. Clarke again says, "I may now add that in eighteen years' experience in the tropics I have never seen a case of rheumatoid arthritis," and yet he thinks he knows all about it.

The experience of these gentlemen reminds me of the story of an English officer who, after expatiating on his prowess in shooting lions and tigers in India, took part in a conversation about missionaries, and boldly stated that there were no missionaries in India, as he had been there for a quarter of a century and had never seen one; a missionary who happened to be present said that from a similar paucity of reasoning he could assert that there were no lions and tigers in India, as he had been there for thirty years or more and had never seen one.

Regarding rheumatism, let us see what Dr. August Hirsch says:[1]

> In *India*, according to nearly all observers, rheumatism is not only more frequent than in many countries of the temperate zone, but in fact it holds, after the malarial fevers, one of the first places in the statistics of sickness. We have details of it from nearly all parts of the country; including Lower Bengal, Tirhoot, Chota Nagpore, the Himalayan slope, and other regions of the Bengal Presidency; the Upper Godavery in Central India; many parts of the Madras Presidency; Cochin, Goa, and other places on the Malabar Coast; Balgam, Poona, Aurungabad and Satara, Gujerát, Cutch, and Sind in the Bombay Presidency; Meerut, Futtegar, and other parts of the Upper Provinces.
>
> Similar accounts of rheumatism being endemic come from various parts of *Lower India* (Prome, Rangoon, Malacca, Singapore), from *Cochin China*, and the *Malay Archipelago* (particularly Samarang in Java, the coasts of Borneo and Sumatra, and the Rioux-Lingga group); also from a number of places on the coast of *China* (Chusan, Shanghai, Canton, Hong Kong, Ningpo, and Hangkow); from *Japan*; from many of the *Polynesian* groups (Hawaii, Tahiti and Eimeo, Fiji, the Marquesas, Samoa, and New Caledonia); and from *Tasmania* and *New Zealand*.
>
> In *Cochin China* rheumatic fever complicated with heart affection is often seen among the native Anamese. It occurs also in the *Malay Archipelago*, particularly among the men of the Dutch navy, and there have been cases in China among the British troops.
>
> From 1859 to 1883 the annual number of cases of rheumatism among the British troops at home and abroad per 1,000 men were: Nova Scotia and New Brunswick 26, Bermuda 29.1, Mauritius 30.4, Cyprus 32.2, New Zealand 34.2, Canada 35.8, Ceylon 36.2, West Indies (English regiments) 38.4, Cape and St. Helena 41.2, Great Britain and Ireland 43.1, Gibraltar 43.8, Madras Presidency 44.9, Bombay 46, Malta 46.3, Australia 49.5, Bengal 55.2, West Indies (black troops) 62.5, West Coast of Africa (black troops) 74.2.

So much for rheumatic affections in general, but regarding rheumatic fever he says:

> While tropical and subtropical countries have no absolute immunity from it, and some of them, indeed, such as Central Arabia, India, the Cape, the Abyssinian plateau, and Peru, are much subject to it; yet the maximum of frequency falls quite decidedly within the higher latitudes.

I may say that Dr. Hirsch was the first to look upon rheumatic fever as a specific infective disease.

Some years ago I had a letter from a surgeon-major in the Madras Presidency in which he stated that there was plenty of malaria there, but there were no mosquitos. When I mentioned the matter to Sir Ronald Ross he said there are some men who cannot see anything so small as a mosquito. Last year I saw an extremely bad case of rheumatoid arthritis in a lady aged 36, who was born in India and lived there the greater part of her life; she was in this country from the age of 10 to 17 for her education; contracted the disease in India at the age of 18 years, and only returned last year to see what could be done for her helpless condition.

Dr. Clarke's last paragraph is such an extraordinary piece of reasoning that I will not trouble to tear it to shreds, but just content myself with quoting the following sentence: "I do not mean that rheumatic fever is the cause of rheumatoid arthritis, but suggest that the cause of rheumatic fever is a necessary constant in the production of rheumatoid arthritis." His conjectures imply that he thinks or believes that rheumatic fever is due to an organism which he has never seen and about which he

[1] *Handbook of Geographical and Historical Pathology*, vol. iii, pp. 749, 759, 751, 757, 758, 759, and 759.

knows nothing: that because he has never seen rheumatic fever or rheumatoid arthritis in the Malay Peninsula, that therefore they do not exist there, and that because they don't exist there then they are causally connected; that the organism which gives rise to rheumatic fever may be, or rather is, "a necessary constant in the production of rheumatoid arthritis," even without any intermediary stage of rheumatic fever. In the same way he asserts that "nephritis may manifest itself as a sequel of scarlet fever or of quartan malarial fever without any history of the occurrence of one of these diseases previously." Surely a disease which was not present cannot have a sequel. Again, he supposes that the organism is "unable to exist extracorporeally at a mean temperature of 80° F.," and yet it is supposed to thrive in the human body at 105° F. or more, and to survive in Lapland at much below freezing point.

I have taken a pleasure in exposing the kind of stuff that is purveyed in a *soi-disant* scientific journal. Surely it is about time that you insisted on your contributors exhibiting some slight knowledge of the subject about which they write.—I am, etc.,

Liverpool, May 24th. JAMES BARR.

SIR,—Sir James Barr expresses his regret at seeing me "parting with the substance for the shadow" and goes on to add that it will be time enough for me to clench my view "that the disease is a toxic arthritis of bacterial origin" when I have discovered either the bacterium or its toxin. I can make no satisfactory reply to the first part of the above, as I really do not understand his reference to the substance and the shadow; with regard to his second point, I do not think Sir James Barr has quite grasped my position.

I pointed out that a close study of rheumatoid arthritis has led me to accept the bacterial origin of the disease as the view most consistent with available clinical and pathological data.

I did not enter into the consideration of facts personally observed in my investigation of many cases, which led me to accept this view. I contented myself with pointing out the strong support given to it in Sir James Barr's instructive address. I pointed out—and to this there has been, and can be, no denial—that the four fundamental principles of treatment so admirably laid down by Sir James Barr implied the probable existence of a bacterial origin of the disease. It might further be added that if the bacteriological basis for Sir James Barr's principles of successful treatment be removed, there is little or no substance left for any other theory of origin of the disease.

In the purely practical side of the question with regard to treatment, I am glad to find myself in complete agreement with him. In his letter published on May 24th, Sir James Barr rightly emphasizes the personal equation in treatment—in other words, the individual variations in the power of resistance to infection determined by conditions of the "soil," inherited or acquired. The bacterial element in any chronic infection is only a half, and sometimes a small half, of its etiology. It is to be hoped that Sir James Barr's stimulating address, which has served as the basis for an instructive correspondence, will lead to a wider recognition of the soundness of the principles of successful treatment of this disease, so admirably outlined by its author.—I am, etc.,

Edinburgh, May 24th. CHALMERS WATSON.

SIR,—In his letter in the JOURNAL of May 17th Sir James Barr says I jumbled joint diseases together. He has himself made a great point of the evidence of skiagrams in support of the decalcifying theory, but of my experience in this direction he writes, "I cannot attach much importance to his skiagrams, seeing that he does not clearly differentiate between the different affections of the joints." If Sir James will read my letter again he will see that I especially took his own definition and differentiation of the disease, and merely recorded my experience as to the use of skiagrams for diagnosing rheumatoid arthritis, which is evidently similar to that of Dr. C. Fred. Bailey, namely, that increased translucency is not peculiar to this disease.

I do not understand why Sir James Barr should take exception to my presuming that he cures his cases with lime salts. If he does not claim that lime is the all-important factor, by its absence through the "mild chronic acidosis," in causing the disease and by its presence as a curative agent, then it is not clear what his views, as expressed in his address, really are. He told us in that address that by using decalcifying agents we run the risk, from which he himself has escaped, of producing rheumatoid arthritis, and under the head of treatment he speaks of the importance of lime salts and of the various ways in which they may be administered. Sir James Barr has tried decalcifying agents upon himself, and has produced some of the symptoms of rheumatoid arthritis, but he has "succeeded in establishing a calcium equilibrium," and yet he objects to my suggesting that he cures his cases with lime salts.

Sir James also takes exception to my statement that according to his views rheumatoid arthritis begins in the larger joints, saying: "I have not laid down any hard-and-fast rules as to which joints are first affected." But in his address (BRITISH MEDICAL JOURNAL, p. 753) he says: "In my experience the large joints, especially the knees and shoulders and ankles, are first involved."

I entirely agree with Sir James Barr that the joint affections are only part of the disease, and his general rules and directions with regard to treatment, apart from the calcium theory, are full of sound common sense.

For the rest, as Dr. Chalmers Watson points out, the toxic and bacterial origin of the disease is far more present in Sir James Barr's mind than he seems aware.—I am, etc.,

Bath, May 19th. PRESTON KING, M.D.

SIR,—I have never at any time either attempted to differentiate the different forms of rheumatoid arthritis or any other kind of joint affection, or signified my acceptance of any existing classification, so that when Sir James Barr writes: "The whole series of chronic joint affections were then as inextricably mixed, as they are to-day by Dr. Craig," his remark can only be regarded as another example of his peculiar style of reasoning. Sir James Barr associates the thermopenetrating current with barley water. There is no doubt that any one who knew nothing of the action and methods of using the diathermic current would find barley water not only more efficacious but much safer. At a meeting of the Balneological and Climatological Section of the Royal Society of Medicine in April of this year, where the gentlemen present consisted of physicians to whom, if there be any truth in the statement that "an ounce of practice is worth a ton of theory," we must look for guidance in the treatment of this disease, one of the speakers, in advising copious water drinking for rheumatoid arthritis, stated that "the presence or absence of some lime is of no importance whatever," confirming Sir Robert Christison's wise statement made forty years ago. None of the experts present cavilled at the remark, although, of course, they all knew of the deleterious influence lime has on the body, especially on the circulatory system, when the amount given exceeds the requisite amount—10 grains daily for the adult.

In reply to Dr. Bailey's advice to give ionization a more prolonged trial, I may say I have seen cases that have undergone this treatment for many months, with about the same improvement as occurred in other cases, when the electrodes were moistened either with warm water or salt water, the same number of milliampères being used in each patient; in each of the three divisions the improvement was very marked.

What does Sir James Barr mean when he writes: "That the finely stencilled lines of absorption occurred at the edges of the bones where the blood supply comes from the periosteum"? I advise Sir James Barr to continue to diligently study Burns, and if he must prescribe lime, to abandon the somewhat dangerous calcium salts, and give his adherence to the products of the linden tree.—I am, etc.,

Llandudno, May 24th. JAMES CRAIG.

VACCINE TREATMENT OF ACUTE LOBAR PNEUMONIA.

SIR,—It appears to me that something very much more in detail than the records given by Dr. Lyons (BRITISH MEDICAL JOURNAL, May 10th, 1913, page 992) is

required if it is sought to establish that improvement and recovery in his four cases of pneumonia not only followed but were the result of vaccine therapy.

In pneumonia, as in acute infections generally, everything depends on the virulence of the infection. Some cases are mildly toxic, and run a short course without at any time causing grave anxiety. Other cases show from the start serious symptoms, and signs of heart embarrassment are present in the earliest days of the attack. For the records of cases to be really convincing, some idea should be given of the degree of toxaemia present prior to the administration of the vaccine, particularly the condition of the heart and circulation. Especially valuable would be details of cases of asthenic pneumonia which had improved and recovered after the use of vaccines.

On May 5th I removed an undescended testicle from a boy aged 10 years. He promptly developed typical right apical pneumonia with a temperature which kept at about 103° until May 11th, when it came down to 100°. It went up again in the evening to 102°, but on May 12th it was normal. The boy's appearance did not cause any anxiety throughout; he had no vaccine, yet the course of his attack was very similar to, say, Dr. Lyons's third case (as regards the pneumonia).

Another case operated on the same day points to the possibility of fallacy even in cases where there is marked toxaemia. A gangrenous appendix was removed from a girl aged 8 years. Within twelve hours there was increasing abdominal distension, no passage of flatus, a pulse of 140, respirations 38, and a marked toxic appearance. I asked Dr. Eurich to prepare an autogenous vaccine. By the time the vaccine was ready the clinical picture had entirely changed—temperature 99°, pulse 112, bowels well moved, restlessness gone and some hours of normal sleep. The vaccine was consequently not given, but had it been possible to inject it whilst the patient was critically ill I should most assuredly have given it the credit for the remarkably rapid improvement in the symptoms.

I am a convinced believer in the efficacy of vaccine therapy and have seen not only symptoms abated, but lives—as I believe—saved by its use. But I think distinct disservice is done to the cause of vaccine therapy when cases are published in such an incomplete fashion that while the virtues of vaccines are asserted it is impossible to deduce them from the meagre details given.—I am, etc.,

Bradford, May 12th. JAMES PHILLIPS.

TUBERCULOSIS OFFICERS.

SIR,—While quite appreciating the good intentions of Drs. Graham and Lissant Cox as to the inclusion of tuberculosis officers in the Medical Officers of Health Superannuation Bill, I am sure I am voicing the opinion of many of us when I say that we do not quite fall in with the view that we are "a junior branch of the public health service" (Dr. Graham), that we "look forward to entering the main branch of the public health service," or that "the ranks of medical officers of health will be recruited from . . . tuberculosis officers" (Dr. Cox).

We are a new and distinct service created by the necessities of the Insurance Act, working in close harmony with medical officers of health, but whose training has been of necessity absolutely different, and whose experience, if to be of any value, has been gained not in the public health laboratory and in the working out of administrative and mathematical problems, not in studying the various Acts of Parliament so essential to the post of a medical officer of health, but in the wards and outpatient departments of chest hospitals, sanatoriums, and tuberculosis dispensaries. Our goal is not the position of a medical officer of health, who from the outset of his choice of a career works in quite a different channel, but rather that of promotion in the special service we have chosen, posts in sanatoriums, or in our later lives the career of consultants for diseases of the chest.

To class the tuberculosis officers as a junior branch of the public health service, and suggest that it is a stepping stone to the post of medical officer of health, is an error, and creates the idea of a hybrid service into which no man would put his best energies; nor is it in keeping with the spirit of the recommendations of the Local Government Board and Departmental Committee.—I am, etc.,

HORACE WILSON, M.D., B.S.Lond.

Merthyr Tydfil, May 10th.

TRADE UNIONISM AND MEDICINE.

SIR,—It has come to my knowledge that members of the profession in certain areas resent the suggestion contained in my letter published in the JOURNAL of May 10th, p. 1030, that we should aim at the abolition of the panel system in the future.

May I explain that to my mind the ideal panel list is the *Medical Register*, and I look forward to the substitution of this for the publication of lists of panel doctors in post offices? Then any doctor who chooses to take patients at 7s. per head per annum can do so and will be paid in full for them, while any patient who desires to go on paying his fees can also do so. Such people should be allowed to contract out of the capitation system of payment, and be allowed at the end of each year to receive 7s. against any medical bills for that year that they may be in a position to present. I suggest that under such a system the medical profession retains its freedom, the community retains a large portion of its freedom, and better work will be done than by bringing the bulk of the community under a capitation system. Capitation is a bad system in its essence, although undoubtedly necessary for the poorer classes of the community. It should be restricted to these classes.—I am, etc.,

London, W., May 27th. CHARLES BUTTAR.

FAT IN INFANTS' FOODS.

SIR,—Complaint having been made to me by Messrs. Allen and Hanbury that the proportion of fat in their infant foods given in the last edition of my book on *Food and Dietetics* is too low, I have had a fresh analysis of these preparations made, and find that the percentage of fat in their No. 1 and 2 foods should be 18.5 and 17.6 instead of 14.0 and 12.3 respectively as stated.

I am glad to have the opportunity of correcting this mistake and of pointing out that the proportion of fat in the No. 1 food *when mixed ready for use* is thus made practically the same as that in human milk. (See *Food and Dietetics*, third edition, page 470.)—I am, etc.,

London, W., May 22nd. ROBT. HUTCHISON.

Medico-Legal.

MEDICAL INCOMES DERIVED FROM INSURANCE FUNDS.

AT the Lambeth County Court on May 20th a question arose as to whether fees due to panel medical officers could be garnisheed—that is to say, whether they are liable to be ordered by a court to be paid, not to the medical man concerned but to some creditor of his in part or full payment of a debt proved before and ordered to be paid by a court of law. His Honour Judge Parry delivered judgement to the effect that a garnishee order must be issued, but that as the court was entitled to temper the wind to the shorn lamb, the order would only affect about one-third of the arrested sum; the balance would be paid to the defendant.

ALLEGED NEGLIGENCE AT AN ISOLATION HOSPITAL.

IN the King's Bench Division, on May 23rd, damages in respect of alleged negligence in the treatment of a patient at its isolation hospital were claimed from the Hendon Rural District Council. According to reports in the *Morning Post* and *Daily Telegraph*, the patient, a boy suffering from scarlet fever, was admitted as a paying patient, and remained for sixteen days. Towards the end of his stay he developed rheumatism in the arm, and on removal to a nursing home symptoms of heart trouble supervened. He was ill for several months, and was now regarded as unfit to enter the navy. His rheumatism and heart trouble were ascribed to the way in which baths had been administered at the hospital. They were given in a verandah; the verandah was enclosed, but it was alleged that it faced north-east, and that the bath was within a few feet of the entrance door of the hospital, and that at the opposite end there was a hole in the wall owing to building operations being in progress. It was also alleged that there was negligence in other respects, there being a deficiency of egg-cups and glasses in the wards.

For the defence it was stated that when the boy first had his bath he was carried to and from it wrapped in a blanket by a nurse, that the partition separating the verandah from the open air had been rendered airtight by a special arrangement, that the doors and windows had been properly closed and the temperature was kept at one approximating to that of the wards. Medical evidence was also given to the effect that there was nothing inconsistent with the possible results of scarlet fever in the boy's condition subsequent to leaving the isolation hospital.

Rheumatism and endocarditis, such as that from which the boy suffered, might result from scarlatinal infection and ensue despite the most skilful treatment.

After prolonged consideration the jury returned a verdict to the effect that the defendants had taken all reasonable care in providing a competent staff, and that though a verandah did not seem to the jury a desirable place for the administration of baths to fever patients, the plaintiff had not suffered from any negligence on the part of the defendants.

The Services.

ROYAL NAVY.

ROYAL NAVY MEDICAL CLUB.

THE annual dinner of the Royal Navy Medical Club was held at Prince's Restaurant, Piccadilly, on May 23rd. The President on this occasion was Surgeon-General Arthur W. May, C.B., Medical Director-General, and the guests of the club included Sir Thomas Barlow, Bart., K.C.V.O., F.R.S., President, Royal College of Physicians; Sir Rickman J. Godlee, Bart., President, Royal College of Surgeons; Sir Archibald Geikie, K.C.B., F.R.S., President, Royal Society; and Surgeon Ed. L. Atkinson, who has recently returned from the Antarctic. Professor Harvey Littlejohn, Dean of the Faculty of Medicine, Edinburgh University, and Mr. W. Girling Bell, F.R.C.S., were also present as guests.

There was a large attendance of members and the meeting was in every way successful. The toast of "The King" was followed by that of "Our Guests," proposed by the President and responded to by Sir Thomas Barlow. Surgeon-General Sir James Porter, late Medical Director-General, then proposed the toast of "The President of the Dinner," and in his reply Surgeon-General May gave expression, on behalf of the Service, to the universal esteem held for Sir James Porter and the regret at his retirement.

Among the members of the club present were the following:

Surgeon-Generals.—J. J. Dennis, Charles James, A. J. J. Johnston, Christopher Pearson, K.H.P.

Deputy Surgeon-Generals.—R. Gavin Brown, W. M. Craig, F. J. Lilly, Lawrence Smith, M.V.O., G. Welch.

Inspector-Generals.—Henry Macdonnell, C.B., Belgrave Ninnis, C.V.O.

Deputy Inspector-Generals.—F. A. Jeans, J. McC. Martin, D.S.O.

Fleet Surgeons.—W. G. Axford, A. S. G. Bell, P. W. Bassett-Smith, C.B., F. W. A. Clayton, J. Chambers, W. R. Center, Sydney Croneen, E. C. Cridland, R. A. Fitch, A. Gaskell, A. F. Harper, Robert Hill, C.V.O., D. W. Hewitt, J. A. Keogh, Antony Kidd, M. H. Knapp, D. J. P. McNabb, W. L. Martin, P. M. May, R. C. Munday, C. J. Mansfield, M.V.O., J. A. Moon, J. Moore, E. S. Miller, C. L. Strickland, J. W. O. Underhill, A. E. Weightman, E. C. Ward, G. W. P. Waters.

Staff Surgeons.—F. Bolster, A. A. Forrester, H. Hunt, L. Lindop, J. McCutcheon, F. G. McKenna, C. A. G. Phipps, P. D. Ramsay, T. B. Shaw, E. G. Swan.

Surgeons.—A. F. Fleming, A. B. Marsh, J. H. B. Martin, N. C. Ridley, Campbell Ross, G. T. Verry.

Obituary.

WE regret to record the death of Dr. CECIL FIRMIN LILLIE after an illness which commenced in December in South Africa and terminated in London on April 17th within a week of his arrival. Dr. Lillie, who had just completed his 40th year, was a son of the late Rev. William Lillie, rector of Newchurch, Kent, and commenced his medical education at Cambridge, where he took a Second Class in the Natural Science Tripos, 1894. He joined St. Bartholomew's Hospital as a university student, and within the next few years became M.R.C.S., L.R.C.P., and in addition to completing his medical degree examinations at Cambridge received the diploma in public health of that University in 1897. Meantime he had filled a number of appointments at his hospital and its school, including those of house-surgeon, clinical assistant in the nose and throat department, and assistant demonstrator of pathology. He was one of those who went out to South Africa as a civil surgeon during the war; on his return he proceeded to M.A., and then began to divide his time between a winter practice at San Remo and summer work in England. In 1907, however, he went out to Grahamstown, where he remained working at the Albany General Hospital for some two years. He then went up country to take temporary charge of a practice at Salisbury, and on the return of its owner was invited to become a partner. Eventually, however, he decided to start a practice on his own account in Rhodesia, and on doing so met with the success to be expected of a man of his amiable personal qualities and wide experience in all branches of his profession. But at the end of last year misfortune overtook him; an attack of pneumonia was followed by pleurisy and pericarditis, and finally ended as already stated. Dr. Lillie, who was a member of the British Medical Association, contributed to our columns in 1902 a paper on the treatment of dysentery based on some of his experiences during the war, and in 1906 dealt with the incubation period of morbilli in the *Journal of St. Bartholomew's Hospital*. Dr. Lillie, who married in 1899 Caroline, youngest daughter of the late Rev. G. P. Percy-Ayscough, Vicar of Braybourne, Kent, and the Hon. Mrs. Percy-Ayscough, is survived by his wife and by three children, the eldest of whom is a chorister at Westminster Abbey.

Dr. ACHILLES BARUFFALDI died at Milan on April 11th of pyaemia, contracted in operating on a puerperal woman. He had a high reputation as a gynaecologist, and was a prominent figure in the local world of sport. He was only 31 years of age.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.D.—W. E. Hume, G. H. Harper-Smith, G. L. Webb.
M.B.—T. N. Wood.

Scholarship.

The electors to the Michael Foster Research Studentship in Physiology have given notice that an appointment thereto will be made this year. The regulations concerning the scholarship will be found in the *University Reporter* for February 6th, 1912.

THE VICTORIA UNIVERSITY OF MANCHESTER.

Professor of Clinical Medicine.

DR. ERNEST S. REYNOLDS has been appointed Professor of Clinical Medicine. Dr. Reynolds, who received his education at Owens College, is physician to the Manchester Royal Infirmary; he was at one time pathologist at the West Riding Asylum, Wakefield, and in addition to many contributions to medical literature dealing especially with neurology, he is well known as the physician who drew attention to the epidemic occurrence of peripheral neuritis due to the presence of traces of arsenic in beer. He is a Member of the Council of the British Medical Association, and was Secretary of the Section of Psychological Medicine at the annual meeting of the Association in Manchester in 1902.

CONVOCATION.

Parliamentary Representation.

At a special meeting of Convocation of the Manchester University on May 23rd, a resolution of a previous meeting came under review, which expressed the opinion that the right to parliamentary representation at present confined to certain universities should be extended to the universities now unrepresented. A motion was proposed to the effect that, having asked for parliamentary representation, the university principle of equal privilege for all its graduates should be maintained by the inclusion of women in the exercise of the proposed privilege. It appears, however, that the opponents of any parliamentary representation of any universities are fairly numerous, though most of them hold that all the universities should be treated alike. At the same time, under the charter of the Manchester University, women are eligible for every office in the university, and it was felt that it would be wrong if the first distinction were allowed to be set up in respect of parliamentary representation. Considerable discussion took place as to the most suitable form of words to meet the situation, and eventually the following resolution was adopted without opposition:

> If the principle of parliamentary representation is to be extended to this university, Convocation wishes to affirm its desire that the university principle of equal privilege for all its graduates should be maintained by the inclusion of women in the exercise of this proposed privilege.

Diploma in Ophthalmology.

For some time past a movement has been on foot to induce the Manchester University authorities to institute a special diploma in ophthalmology. This has met with considerable opposition, and a motion by Dr. Goodfellow, "That, in the opinion of Convocation, the institution of a diploma in ophthalmology is not to be desired," was carried by 16 votes to 2.

UNIVERSITY OF EDINBURGH.

THE following bursaries have been awarded in the faculty of medicine: The *Mackenzie* Bursaries in Anatomy to A. J. Caird, F. R. Cripps, W. Goldie, and E. F. Griffin; the senior *John Aitken Carlyle* in practical anatomy and physiology to J. L. Owen; the junior *John Aitken Bursary* in anatomy and chemistry to J. S. Bow: the *Crichton* Bursaries to D. H. Cameron, J. Learmont, and W. G. Robson; the *Grierson* Bursary to G. J. Alexander. The *Van Dunlop* Scholarship has been divided between A. Peffers and T. Skene.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following candidates have been approved at the examination indicated:

FIRST FELLOWSHIP.—A. C. Ainsley, A. Anderson, C. W. Archer, E. B. Barnes, H. E. Batten, C. F. Beyers, A. L. Blunt, J. F. C. Braine, C. M. Burrell, P. F. Chapman, F. B. Chavasse, G. H. Chisnall, W. A. Curry, R. G. Dainty, H. McW. Daniel, J. Davidson, T. B. Davies, M. Donaldson, J. D. Driberg, H. H. Dunmere, H. Evers, J. F. Fairley, E. Forrester-Paton, H. E. Gibson, D. W. Hume, J. G. Jones, T. H. Just, R. D. Lawrence, R. S. Lawson, G. L. Lillies, W. S. Lindsay, G. Lynden-Bell, D. A. McCombie, T. P. McMurray, J. T. Morrison, C. E. Petley, L. G. Phillips, K. N. Purkis, N. L. M. Reader, F. D. Saner, A. Seddon, H. N. Shufflebotham, R. F. Standage, T. C. Summers, R. E. T. Tatlow, D. C. Thomas, G. H. Wickens, C. M. Williams, C. R. Wright.

Medical News.

THE late Dr. Philip Frank, F.R.C.P., formerly of Cannes, left estate valued at £70,428.

A COURSE of five lectures and demonstrations on the psychoses and neuroses of children will be given by Dr. Francis Warner at the London Hospital Medical College, Mile End, E., on Thursdays at 2 p.m., beginning on June 5th.

UNDER the will of the late Mr. Abraham Haigh Crowther of Rochdale the infirmary in that town receives a bequest of £5,000 for the maintenance of five beds. Under the same will £3,000 is left to the Queen Victoria Memorial Nurses' Home in Rochdale for endowment purposes.

THE General Infirmary at Burton-on-Trent has received an intimation that the sons of the late Mr. Robert Ratcliff, a director of Messrs. Bass, Ratcliff, and Gretton, intend to present to the institution £20,000, a bequest of that amount having been included in a will which had not been signed when their father's death occurred.

THE Ingleby Lecture of the University of Birmingham will be delivered in the Medical Lecture Theatre by Professor J. T. J. Morrison, Surgeon to Queen's Hospital, at 4 p.m. on Thursday, June 5th. The subject of the lecture is spinal anaesthesia by tropacocaine, with a review of 1,000 cases.

THE *Annals of Tropical Medicine and Parasitology* (vol. vii, No. 1), issued by the Liverpool School of Tropical Medicine, contain several important papers on trypanosomiases and malaria, including a description of a mosquito-proof and storm-proof house for the tropics, by T. F. G. Mayer, and a paper on Sanitation in the Panama Canal Zone, Trinidad, and British Guiana, by David Thomson.

THE attention of Fellows of the Royal College of Surgeons of England who desire to offer themselves as candidates at the coming election of members of council on July 3rd should be turned to the notice received from the secretary of the college, announcing that nomination papers may be obtained from him on application, and must be received by him in return not later than next Friday, June 6th. Our usual analysis of the present council appeared in the JOURNAL of May 24th.

THE election of officers for the Obstetrical and Gynaecological Section of the Royal Society of Medicine resulted in the appointment of Dr. W. S. A. Griffith as president, of Drs. T. Watts Eden and C. Hubert Roberts as honorary secretaries, of Dr. C. Cuthbert Lockyer as representative on the library committee, and of Dr. John Phillips as representative on the editorial committee. Nine vice-presidents and eighteen other members of council were also appointed.

DR. W. HORTON DATE, who recently left Culmstock in Devonshire to devote himself entirely to public health work, was the recipient of a testimonial on May 19th from his former friends and patients. The gifts took the form of an oak sectional bookcase, a Chesterfield satin cabinet, a mirror, and a piece of silver, together with a book containing the names of the many subscribers, and a statement that the gifts were made as a token of sincere regard and gratitude. A corresponding presentation was also made to Mrs. Horton Date.

THE following have been elected officers of the Brighton and Sussex Medico-Chirurgical Society for the current year: *President*, Dr. W. Broadbent; *Vice-Presidents*, Drs. E. Hobhouse and F. Hinds; *Honorary Treasurer*, Mr. R. F. Jowers; *Honorary Librarian*, Dr. R. J. Ryle; *Honorary Literary Secretary*, Dr. S. B. Figgis; *Honorary Financial Secretary*, Mr. A. J. Martineau. A council consisting of nine members has also been elected. In this society the vice-presidents are chosen from among the ex-presidents, while those elected to the council must be members of at least three years' standing.

A SPECIAL post-graduate course is to commence at the North-East London Post-Graduate College on Monday, June 9th, and terminate on the 20th of the same month. The time has been very carefully mapped out, the first week being mainly devoted to practical instruction in the diagnosis and treatment of affections of the digestive system. The authorities, however, appear ready to arrange other classes in any subjects which may be desired. The fee for the whole fortnight is three guineas. The names of those wishing to attend should be sent to the dean at the hospital not later than June 6th.

THE annual report of the Royal Sanitary Institute recently issued shows satisfactory progress and development in the institute's work, both in England and other parts of the Empire. A new branch has been established in New Zealand, and the total number of members and associates on the roll is 4,257. An epitome of the three years' work since the institute was established in its new premises in Buckingham Palace Road is appended to the report; the attendance at the lectures of members, students, and the general public, indicates that the present situation of the institute is convenient. The institute has paid for the new buildings out of its accumulated fund, and the growth in the income has more than overtaken the increased expenses involved by the larger buildings.

ON May 10th the new building of the Henry Phipps Tuberculosis Institute at Philadelphia, which is under the direction of the University of Pennsylvania, was formally opened. On the occasion the honorary degree of LL.D. was conferred on Mr. Phipps, who has given £200,000 for the establishment of the institute and an endowment of £10,000 a year for its maintenance, and on Dr. Edward L. Trudeau, founder of the famous Adirondack Sanatorium. Addresses were delivered by Dr. Herman B. Biggs, of New York; Dr. W. H. Welch, of Johns Hopkins; Dr. Theobald Smith, of Harvard; Dr. A. Stenzal, of the University of Pennsylvania, and Dr. Weir Mitchell. The building is not primarily intended for a hospital, though it can accommodate twenty-four patients. Besides dispensary and hospital treatment of patients, the work of the staff will be sociological, educational, and preventive. The sociological work now in progress is the investigation of the relationship of tuberculosis to garment-making trades.

THE Surrey County Council has decided to provide medical treatment as a corollary of school medical inspection. The number of children whom it is believed will be inspected during the current year is 27,500, and it is estimated that 5,500 of these children will be found defective and to require treatment of some kind or other. It seems to be intended that this shall be furnished partly by whole-time medical officers and partly by private practitioners, and that there shall be 21 treatment centres, ultimately to be increased to 24. Operative treatment for diseases of the nose and throat is to be carried out at fixed fees by local medical practitioners, either at cottage hospitals, when available, or at school clinics, or failing either at the patient's home if the consent of the Board of Education can be obtained. Defective vision will usually be treated by the whole-time medical officers, but in certain districts local medical practitioners who specialize in this subject will be employed and will receive fixed fees. Subject to the consent of the Board of Education, *x*-ray treatment of ringworm will be undertaken by medical practitioners at a fixed fee either at hospitals or in local surgeries possessing the necessary equipment. The Surrey Education Committee formulated this scheme after several conferences with representatives of Surrey medical practitioners, and submitted it in outline to the Board of Education in January. The latter promised to contribute not less than 50 per cent. of the net cost, but stipulated that the local authority must retain full control over all arrangements for treatment. The Board would not approve the use of local surgeries except in special classes of treatment, such as *x*-ray work, and would hesitate to make any grant if the scheme included the payment of subsidies to medical committees or voluntary agencies.

Letters, Notes, and Answers.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

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TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, Westrand, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, Westrand, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

DERMA asks for advice in the treatment of superfluous hair on the chin in a lady who objects to electrolysis. He asks whether avulsion, shaving, depilatories, or bleaching with hydrogen peroxide would be the best.

McW. asks whether there is any evidence that the sense of smell is stronger in man than woman.

*** There is no evidence of any certainty that the sense of smell differs in acuity in the two sexes. Reference may be made to the following papers: Nichols and Bewley, *Nature*, 35, 74, 1887; Ottolenghi, *Riv. d. Psycol. Psichiatr. e. Neurol.*, 2, 1898; Toulouse et Vaschide, *C. R. Soc. Biologie*, 1899.

OXALURIA.

Z. asks for a reference to a discussion of the oxalic acid diathesis.

*** We are indebted to Dr. Saundby for the information that, in his opinion, the best statement on oxaluria is contained in von Noorden's *Metabolism and Practical Medicine*, translated and edited by Walker Hall, vol. iii, p. 1046. The following dietary has been based by Dr. Saundby on Klemperer's principles; some salt of magnesia—for example, the chloride—should be given daily:

Breakfast.—Weak coffee and cream, sugar if desired; any fish or bacon; dry toast; butter; no milk or eggs.

Lunch.—Meat or fish of any kind, except liver, sweetbreads, and kidneys; toast or rusk; potatoes, lentils, peas, asparagus, turnips, lettuce, cucumbers, mushrooms, onions, salads; stewed apples; boiled rice or hominy; Vichy, Contrexéville, Salutaris, or distilled water; a little whisky if desired.

Tea.—Weak coffee with cream, as at breakfast; toast, teacake, or cake; butter.

Dinner.—Soup; any fish; any meat, as at lunch; potatoes, rice, lentils, peas, turnips, onions, leeks, salads; mushrooms; stewed apples, pears, peaches, or apricots; no jellies or rich pastry; beverages as at lunch; apples, nuts; coffee.

LETTERS, NOTES, ETC.

HERPES AND VARICELLA.

DR. GEO. CHAS. WALKER (Southport) writes: On January 30th I was consulted by a nurse suffering from shingles of the left side of the body. In about fourteen days two of the children developed chicken-pox, and subsequently four others, going through all the phases characteristic of that complaint. I was at a loss to trace the source of infection in this instance.

SUPRARENAL ACTIVITY.

DR. J. BARCROFT ANDERSON (East London, S.A.) writes: On page 708 of the JOURNAL of April 5th I read: "The suprarenal is divided into two parts, the cortex and the medulla. . . . Now the changes that seem to indicate excessive activity of the suprarenals occur in the cortex." My experience with human *post-mortem* examinations is that in those cases where there has been a great call upon the suprarenal secretion before death the medulla is hyperaemic, enlarged, and in extreme cases broken down. In some cases, as in bubonic plague, one notices a hyperaemia of the cortex as well. Accordingly I presume that the remark in the JOURNAL is intended to apply to chronic activity.

MALINGERING.

SIR JOHN COLLIE (London, W.) writes: In a recent address on "Malingering, Valetudinarianism, and their Prevention," delivered before the Pathological Society of Manchester, and published in the BRITISH MEDICAL JOURNAL of April 19th, 1913, Dr. Byrom Bramwell referred to some misleading statements, which he said had been made at the last meeting of the British Medical Association in the course of discussion on medical training for the detection of malingering, with regard to the reaction of degeneration and the electrical testing generally of muscles. In the course of his remarks he said: "In a recently published book on malingering, equally erroneous statements as to the effect of electricity in cases of paralysis, and of the value of electrical testing in the diagnosis of malingering are made." I have been in communication with Dr. Byrom Bramwell, and I have his authority for stating that his criticisms did not refer to my book on malingering, but to an entirely different work.

SCARCITY OF SHIP SURGEONS.

LATE SHIP SURGEON writes: At present the many steamship companies are experiencing the greatest difficulty in obtaining surgeons. A large number of the companies have increased the pay from £10 to £12, £15, and £20 per month. Also, to obtain the best class of doctors, the companies have agreed to sanction the charging of medical fees for services to first and second class passengers. No fees can be charged to the crew nor to emigrants.

Many doctors complain bitterly of the action of those doctors who, going out to stay in Australia or New Zealand, sign on for a shilling a month, and of the doctors who, wishing for a cheap sail, sign on for a similar wage. Any sensible person must see that the action of these two classes of doctors tends seriously to lessen the social and professional standing of doctors generally. There is no reason why each doctor cannot obtain a minimum of £15 monthly.

Another thing which the ship doctor is now asked to do is to examine medically the crew before these sign the articles for the voyage. Many of the ship doctors are not paid one penny for this work; and, as the shore doctors are paid a fee of from £2 to £3, it is easily seen how the ship doctors are practically doing other doctors out of just fees.

My idea is that no doctor should accept any ship surgeoncy except through a medical agency, and that the deans of the various medical schools should so inform all the doctors, and that the British Medical Association similarly instruct them. In the better-class liners it is no exaggeration when one says that a month's salary is swallowed up in providing for the two suits of uniform now insisted upon.

THE TYPHOID CARRIER.

SURGEON-GENERAL VON SCHJERNING, Chief of the Sanitary Corps of the German Army, Professor Ehrlich, Professor Gaffky, Professor Kraus, Director of the Second Medical Clinic of the Charité of Berlin, Professor Uhlenhuth, Director of the Hygienic Institute of Strassburg, and Professor Hoffmann, of the Ministry of War, have issued a circular calling attention to the offer by an anonymous donor of a prize of Mk. 10,000 (£500) for the discovery of a remedy which shall free typhoid carriers from the bacilli which make them a danger to the people among whom they live. It must be shown that the intestinal excreta and the urine of the typhoid carrier have after treatment remained free for at least half a year from the typhoid bacillus. The researches must be described in detail and preparations must be sent at the competitor's expense to the committee for purposes of control. The period of control will extend to June 1st, 1915. If an entirely satisfactory solution of the problem is not reached, a portion of the prize may be awarded. Papers, which must be written in German, should reach the President of the Prize Committee, Professor von Schjerning, Wilhelmstrasse 86/87, Berlin, W., at latest by October 1st, 1914.

WARNINGS.

THE Oxford University Press desires to give notice to the profession that a man named John Williams is reported to have called upon doctors in North Wales, Lancashire and Cheshire districts, soliciting orders for the Oxford Medical Publications, and giving receipts in their name. The Oxford University Press can accept no responsibility for orders placed with him. Messrs. J. and A. Churchill also desire to state that the man calling himself John Williams is not in their employment, nor authorized to represent them.

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A CLINICAL STUDY OF PNEUMONIA:

WITH NOTES OF

*ONE HUNDRED CONSECUTIVE CASES OCCURRING IN HOSPITAL PRACTICE.**

BY

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PNEUMONIA constitutes one of the most formidable problems which confront the physician. The disease is upon the increase; nothing is known as regards its prevention; it involves a very heavy mortality; the treatment is a matter of much difficulty and anxiety. On all these grounds it calls for the best thought and study which we can devote to it.

The series of 100 consecutive cases here recorded were treated in my wards of the Royal Victoria Hospital, Belfast, in the years 1899-1913. They are recorded as they arose, without any selection. The deaths include 2 cases which were moribund on admission. Hospital mortality is everywhere somewhat high, inasmuch as, speaking generally, only cases of considerable severity seek admission; patients are in some cases only admitted when the disease has run its course for several days; and the number of children admitted to general hospitals is relatively small. All these factors have a bearing upon the mortality.

I. *Age.*

Age.	Cases.	Deaths.	Mortality.
			Per Cent.
Under 10 years	5	0	0
10–20	17	0	0
20–30	27	5	18.5
30–40*	18	3	16.5
40–50	14	5	35.7
50–60	13	3	23
60–70	5	3	60
Over 70	1	1	100

* Under 40 years—67 cases 8 deaths; average mortality 11.94 per cent.

This table brings out clearly the dominating influence of age. Under 20 years there were 22 cases and no deaths. Under 40 there were 67 cases, with 8 deaths—average mortality, 11.94 per cent. After 40 the mortality rose rapidly. The fact that the mortality was higher in the ages 40 to 50 than in the ages 50 to 60 was probably a casual fluctuation. The general influence of advancing years is clear.

II. *Sex.*

Sex.	Cases.	Deaths.	Mortality.
			Per Cent.
Males	75	15	20
Females	25	5	20

The higher attack-rate in the male sex is in accord with general experience. The mortality was identical in the two sexes.

III. *Occupation.*

	Cases.	Deaths.	Mortality.
			Per Cent.
"Indoor" occupations ...	55	10	18.18
"Outdoor" occupations..	45	10	22.2

So far as these figures go, the influence of occupation upon the attack-rate and the mortality is not noteworthy.

Though Belfast is a great port, it is remarkable that only one sailor appears in the series, and he was a Hindu.

* Read at a meeting of the Ulster Branch in Londonderry.

HISTORY OF PATIENTS PRIOR TO THE ATTACK.

Alcoholism.

There was a definite history of alcoholic excess in 17 cases—all males—of whom 4 died, 3 of these being over 40 years of age. This is a lower mortality in the alcoholic than might have been anticipated, especially in the light of the age law. Unacknowledged alcoholism was, no doubt, a factor in other cases—it is impossible to say how many.

Previous Attacks of Pneumonia.

In 18 cases there was a history of previous attacks, varying in time from thirty years to three months before admission. Of these only 2 died. One patient who had had two previous attacks recovered.

These statistics support the view that the prospects of a patient who has passed successfully through a previous attack of the disease are above the average.

Wetting and Exposure.

Only 6 patients attributed their attack to a wetting. Exposure is so common in patients of the hospital class that its influence as a causal factor cannot be determined with any accuracy. It has probably considerable influence.

Pulmonary Tuberculosis.

Twelve patients had a definite history of tubercle, and of these only one died. This tends to support the view that the prospects of phthisical patients in pneumonia are, on the whole, good. My experience in private practice confirms this view.

Abnormal Histories.

1 case followed immersion in the docks and proved fatal.
1 ,, ,, gas poisoning and also proved fatal.
1 ,, ,, ether administration—recovered.
2 cases were moribund on admission.
3 ,, occurred during attacks of bronchitis.
2 ,, had previously had acute rheumatism—1 died.

The absence of a history of influenza is noteworthy.

Mode of Onset.

47 cases gave a history of one severe prolonged rigor.
1 case had two rigors.
1 ,, had three rigors.
1 ,, had several rigors.
1 ,, had "shivered for six hours."
1 ,, had "shivered for three days"!
48 cases gave no history of rigor.

Early prostration was marked in nearly every case. Only 2 cases remained at work after the initial rigor.

SYMPTOMS.

Most cases presented the typical pneumonic syndrome, but—

(*a*) 5 cases were admitted as "abdominals"—namely, 3 as "colic"; 1 as enteric fever; 1 as subphrenic abscess. All these patients recovered.
(*b*) 13 cases had persistent vomiting; all recovered.
(*c*) 17 cases had albuminuria in considerable amount; of these 6 died—mortality, 35.3 per cent.
(*d*) 7 cases had valvular disease of the heart; of these only 1 died—mortality, 14.3 per cent.
(*e*) 3 cases had marked delirium; all died.
(*f*) 1 case had practically no symptoms. In elderly patients the onset of pneumonia may be quite insidious.
(*g*) A tinge of yellow in the conjunctiva was common, but marked jaundice hardly occurred.

Relation of Temperature to Mortality.

Maximum Temperature.	Cases.	Deaths.	Mortality.
			Per Cent.
Exceeded 105° F.	1	1	100.0
104°-105° F.	10	3	30.0
103°-104° F.	39	7	18.0
102°-103° F.	27	5	18.5
101°-102° F.	7	4	57.1
Under 101° F.	16	1	6.25

The most noteworthy feature of this table is the high mortality in cases where the maximum temperature ranged from 101° to 102° F. A low temperature in pneumonia may indicate imperfect reaction, and is common in

the elderly and in the alcoholic. It may also indicate a mild attack. A smart pyrexia is not unfavourable.

Lung Involvement.

	Cases.	Deaths.	Mortality.
			Per Cent.
(*a*) Double pneumonia ...	13	7	54.0
(*b*) Right base	40	8	20.0
(*c*) Left base	31	2	6.4
(*d*) Right apex	5	1	20.0
(*e*) Left apex	3	0	0.0
(*f*) All right lung	4	1	25.0
(*g*) All left lung	4	1	25.0

These figures emphasize the deadliness of double pneumonia. They show a heavier mortality in right than in left pneumonias. They run counter to the view which has sometimes been maintained, that apical is more serious than basal pneumonia. In my cases, upon the whole, the contrary was the case. The moderate mortality in cases where an entire lung was involved is worthy of note.

Complications.

The complications recorded as having been present were as follows:

Pleurisy	8 cases.
Empyema	3 ,,
Pulmonary fibrosis	4 ,,
Pharyngeal abscess	1 case.
Gangrene of lung	1 ,,
Pharyngeal abscess	1 ,,
Unilateral spasm	1 ,,

No case of abscess of the lung was recorded. One patient developed aortic reflux during the attack. No clear case of malignant endocarditis occurred in the series, though its presence was more than once suspected. No patient, not previously tuberculous, developed phthisis as the result of his illness. Pleurisy was only noted as a complication where it was a prominent feature. No case of meningitis occurred. The small proportion of cases of empyema is noteworthy.

Course of the Disease.

Definite crisis, 52 cases—namely:

On the 3rd day	8 cases
,, 5th ,, ...	19 ,,
,, 7th ,, ...	19 ,,
,, 9th ,, ...	3 ,,
,, 11th ,, ...	3 ,,

It is curious how this table supports the old medical tradition that the crisis usually occurs upon the uneven numbers. A termination by lysis was recorded in 34 per cent. of cases.

Average duration of patients' stay in hospital: Uncomplicated cases, 23 days.

Pathology.

The pneumococcus was found to be practically constant in the sputum.

Seasonal Influence.

The attack-rate, as is shown in the following table, was much higher in the months November to May than in the months May to November. The mortality shows some curious fluctuations in the monthly averages, but is, upon the whole, higher in the months of greater prevalence of the disease.

Influence of Season upon Attack-rate and Mortality.

Month.	Cases.	Deaths.	Mortality.
			Per Cent.
January	11	3	27.2
February	16	3	18.7
March	9	1	11.1
April	14	3	21.4
May	12	2	16 7
June	8	1	12.5
July	3	0	0
August	4	0	0
September	5	2	40
October	4	1	25
November	7	2	28 5
December	7	2	28.5

Comparative Virulence of the Disease in Different Years.

There is evidence that the disease varies much in intensity in different years. The following table is instructive from this point of view:

Year.	Cases.	Deaths.	Mortality.
			Per Cent.
1899	3	0	0
1900	2	0	0
1901	1	1	100
1902	4	0	0
1903	12	1	8.3
1904	3	1	33.3
1905	3	1	33.3
1906	9	3	33.3
1907		3	33.3
1908	8	0	0
1909	10	2	20
1910	8	0	0
1911	14	5	35.7
1912	7	0	0
1913	7	3	43

Thus in six years out of fifteen the mortality was *nil*, while in seven years it was over 30 per cent. This can hardly have been a matter of chance. We must assume variations in the intensity of the virus of the disease. I cannot trace any connexion between varying rates of mortality and the meteorological characteristics of the different years. None of the years in the record were specifically "influenza years."

Mortality.

The general mortality was 20 per cent., or, omitting, as we may fairly do, two cases which were moribund on admission, 18 per cent. This is roughly the average mortality of the disease in general practice, including all ages and every degree of severity, but hospital statistics, which are usually less favourable, often show a much higher figure. Osler's mortality in his clinic at the Johns Hopkins Hospital was 30.4 per cent., or, excluding some cases of terminal pneumonia, 26.4 per cent. Goodhart had 25 deaths in 120 cases. At the Presbyterian Hospital, Philadelphia, the mortality was 28.7 per cent.; at the Montreal General Hospital, 20.4 per cent.; at the Boston City Hospital, 29.1 per cent. On the other hand, Fraenkel at the Hamburg Hospital had a mortality of 19.2 per cent., and Powell at the Middlesex Hospital a mortality of 17 per cent.

Prognosis.

The prognosis is determined mainly by the following factors, namely:

(*a*) The patient's age; this dominates the outlook.

(*b*) The amount of lung involved. Double pneumonia is very deadly.

(*c*) The general character of the symptoms. Marked cerebral involvement is very serious. Very high temperatures are grave, while abnormally low temperatures may indicate either a mild attack or deficient reaction. The latter is common in the aged and alcoholic. Slight febrile albuminuria has little weight, but signs of marked renal congestion are serious.

(*d*) The nature of the complications. Gangrene and abscess of the lung are very serious. Pericarditis, of which curiously there is no record in any of my series of 100 cases, but which is not extremely rare, is a grave complication, and malignant endocarditis carries with it an almost certainly fatal issue. Meningitis is another rare complication which usually involves death. The good

record of my cases with endocarditis—7 cases with 1 death—is somewhat surprising.

DIAGNOSIS.

The diagnosis of pneumonia is usually obvious, yet mistakes are common, and not always due to carelessness on the part of the practitioner. In a small minority of cases the diagnosis is really difficult. Mistakes arise in the following ways:

1. Because the physical signs may be entirely latent for one, two, three, or more days. It is not very rare for a patient to have a typical seizure and to present all the typical symptoms while the most careful exploration of the chest fails to yield any definite signs. The sudden onset, the initial rigor, the sharp pyrexia, the urgent dyspnoea, and the rapid prostration should suffice to put us on our guard in such cases.

2. Because the early symptoms may be mainly cerebral—namely, intense headache, convulsions, delirium, excitement, or coma. The unwary practitioner is apt to diagnose these cases as meningitis or acute mania, but movements of the alae nasi, the temperature, the burning skin, and the signs in the chest make a correct diagnosis easy.

3. Because abdominal symptoms may be prominent at the outset, especially abdominal pain. Five instances of this unfortunate error are recorded in my series, three cases being mistaken for "colic," one for enteric fever, and one for subphrenic abscess. But this by no means exhausts the category of abdominal conditions which have been confused with pneumonia. Perforation of the stomach or bowel, appendicitis, peritonitis, and even acute pancreatitis have been wrongly diagnosed and laparotomies needlessly performed. These mistakes are easily avoided by attention to the history, the mode of onset, the temperature, the dyspnoea, and the physical signs in the chest.

4. Because certain of the specific fevers have occasionally a pneumonic onset. I have seen several cases of enteric fever which began with pneumonic symptoms and signs and where the diagnosis at first was difficult. But if we are on our guard we need not fall into error. Some of the characteristic signs of enteric will soon appear. An enlarged spleen, a suspicious spot or two, a significant course of the temperature, or Widal's reaction, may give us the necessary hint. In some countries, in the presence of an untypical pneumonia, our thoughts should turn to plague.

I will not occupy your time by a discussion of the differentiation of pneumonia from pleurisy, bronchopneumonia, or pneumonic phthisis. Every textbook on medicine does full justice to such matters.

TREATMENT.

It remains to speak of treatment. I shall first indicate my own methods and then deal with two or three controversial points.

I treat pneumonia as an acute general infection, with special impact upon the lungs, inducing a very intense type of toxaemia, and involving special danger from the side of the heart. Everything that tends to conserve the patient's strength and remove sources of irritation receives attention. Our system of ventilation at the Royal Victoria Hospital, which changes the air seven times in each hour, secures an abundant supply of pure air. Only milk is allowed—three pints in the twenty four hours—any excess of nourishment being regarded as likely to remain unabsorbed, and to distend the stomach, and embarrass the heart. A light warm poultice, frequently renewed, is applied to the chest, care being taken not to embarrass the respiratory movements, and after the third or fourth day this is replaced by a jacket of cotton-wool. In the hope of diminishing the toxaemia the skin, bowels, and kidneys are gently stimulated, all remedies which might tend to depress the heart being avoided. If the patient is in great pain or very restless a hypodermic of morphine or a few grains of Dover's powder are administered.

In the presence of any signs of circulatory weakness strychnine is given hypodermically, and ammonia and digitalis, and sometimes caffeine, by the mouth. Alcohol is used sparingly, and only in the more serious cases and in moderate or small quantity. Of the 100 cases in my series, only 39 received any alcohol. Brandy was the usual stimulant, and the amount seldom exceeded three or four ounces. In the presence of unusual dyspnoea or cyanosis oxygen is administered, the gas being passed through alcohol. Tepid sponging is vigorously practised in every case, and cold sponging when the indications seem to point to its use. Antipyretics or expectorant drugs are not administered.

Bleeding was not employed in any of this series of cases, though I have had some small experience of that procedure elsewhere. For the relief of persistent insomnia paraldehyde, bromides, and morphine are sparingly used. The various complications, when they arise, are treated upon the usual lines. After the crisis all special medication is suspended, the patient is allowed a liberal diet, and some tonic is administered. Alcohol is always stopped at this stage, unless there are serious complications.

The above represents a comparatively simple therapy, and I am persuaded that fussy and meddlesome treatment in pneumonia does more harm than good.

In conclusion, let me deal briefly with some controversial points. I have never used icebags or ice poultices to the chest in pneumonia, and I can furnish no evidence as to their value. This method of treatment does not appear to be gaining favour. There seems to be some danger that it might depress the heart. As clots are found *post mortem* in the right heart in many fatal cases of pneumonia, I tried the administration of citrates and citric acid in a few cases some years ago, but I could not satisfy myself that this line of treatment presented any advantage. I have made a limited trial of serum treatment, but have not felt encouraged to persevere with this method. On theoretical grounds pneumonia seems a particularly unpromising field for vaccine therapy. We may yet get an efficient serum, but up to the present no such remedy appears to be available.

I have seen bleeding employed in a few cases, and there is no doubt that the removal of a few ounces of blood tends to relieve the labouring right heart, and to mitigate the dyspnoea. But I have no wish to see this long-discarded method reintroduced into general favour. If applied without great discrimination, it is quite capable of turning the frail balance against a patient at the critical juncture. We should need some definite statistics to prove the efficacy of venesection before adopting it as a common expedient. Textbooks give the practice a sort of qualified benediction, but cautious practitioners are shy of it at the bedside.

The value of alcohol in pneumonia is a vexed question. I incline to its use in moderate quantity in severe cases, and in the presence of circulatory weakness, especially in patients who are no longer young and who have been accustomed to it in health. In mild attacks, in most young patients, and where the pulse is good, it is better withheld. It should certainly not be given in any routine fashion or in the excessive quantities which were at one time in vogue. If we may often be in doubt as to the wisdom of prescribing alcohol, we can generally tell without much difficulty whether, when given, it is proving of service. The effect upon the pulse, the nervous system, the skin, the urine, and upon sleep are the chief points which should guide us in this matter.

Among the errors to be avoided in the treatment of pneumonia we might signalize the following: Neglect of thorough ventilation; forgetfulness of the fact that any local applications which impede the free movements of the chest are likely to do harm; the use of expectorants which are probably inert; the excessive employment of strychnine and cardiac tonics in the absence of signs of circulatory weakness; too much timidity in the use of sedatives in the early days of the disease; too much nourishment; too free exhibition of alcohol.

In the treatment of unresolved pneumonias every case must be dealt with according to its special indications. Counter-irritation is usually employed, and fibrolysin and the *x* rays are recommended. Our main reliance, however, will probably be upon general tonic and hygienic measures and change of air. Mountain air is often useful.

To sum up, we should treat pneumonia on the lines of the acute general infections, remembering the intensity of the toxaemia, its self-limitation and relatively brief duration, its tendency to depress the heart and cause circulatory failure, the increase of the fibrin elements in the

blood, the importance of a fortifying line of treatment and of avoiding all depressing measures.

The problem of specific treatment still awaits solution.

(I have to acknowledge the valuable assistance of my house-physician, Dr. Turkington, in preparing the data for this paper.)

A Lecture
ON
RADIUM IN THE TREATMENT OF MALIGNANT DISEASE.

Delivered at the Cancer Hospital, Brompton.

By ROBERT KNOX, M.D.,

Director of the Electro-therapeutic Department of the Hospital; and Honorary Radiographer to King's College Hospital.

The action of radium on human tissues was accidentally discovered by Bécquerel in 1901. He carried a quantity of unprotected radium in one of his pockets for a time. A fortnight later a burn appeared on the skin. This accident quickly led to a number of experimental exposures, first on animals and later on human subjects. Wickham of Paris experimented largely with the new agent, and there is no doubt that the medical profession is greatly indebted to this pioneer in radium-therapy, both for the valuable work he has carried out himself, and for having stimulated others to work on the subject.

Remarkable success followed the use of radium on superficial lesions of the skin; naevi, keloid, lupus, rodent ulcer, and, later, epithelioma, have yielded to its curative power.

Methods of Application.

The emanation may be used for inhalation alone or mixed with oxygen, by injection, or, after its deposition upon metals, in glass tubes or on agar pads.

Inhalation has had up to the present no practical value in the treatment of malignant disease. The emanation may be injected into tissues in a saline solution. The solution takes up a very small percentage of the active gas, and is therefore hardly applicable for the type of case we are usually called upon to treat.

The deposition of the active principles upon metals, etc., opens up a large field of usefulness, and it is possible that in the future we may be able to make good use of this method in selected cases.

Experiments are being carried on by Mr. Phillips, the honorary physicist to the hospital, on the absorption power of petroleum, and we hope to get a fairly large percentage of the emanation taken up by petroleum, giving us a very active preparation which may be useful both for internal administration and for injection into the tissues; by the former method it is hoped that we shall be able to introduce into the system a large quantity of radio-active matter. We cannot expect to influence cancer and similar disease, but Dr. Bellingham Smith has shown that radium emanation in whatever form it is used is rapidly eliminated by the respiratory organs, so that a future field of usefulness for radium may lie in the treatment of respiratory diseases (phthisis, asthma, chronic bronchitis, etc.).

The deposit of emanation upon flat surfaces (pads of agar-agar) and their application to the surface of a growth and ionization of the particles into the deeper structures by the aid of a galvanic current may prove to be a useful method.

Flat applicators containing the radium in a varnish are useful in the treatment of rodent ulcer, superficial epithelioma, recurrent nodules of cancer, etc. It is chiefly the beta rays which are employed by this method.

Radium contained in metal tubes which act as filters, of the necessary thickness, may be used for particular purposes, and several tubes may be arranged around a growth.

Tubes may be inserted into the various cavities of the body (mouth, oesophagus, etc.). In treating a stricture of the oesophagus, a preliminary *x*-ray examination is necessary to locate the stricture and to give some idea of the extent of the malignant growth. A bismuth cachet is swallowed by the patient, and when screened may be seen passing down the oesophagus. Should there be obstruction, the cachet will be found in the stricture. The exact situation of the obstruction can be determined before the radium tube is passed into it. Later, a radiograph will help us to ascertain if the tube occupies the correct position necessary to influence the growth.

Radium tubes may be buried in the substance of a tumour for a time determined beforehand. It is important that the tubes shall be well surrounded by the growth in order to get the maximum effect of the radiations upon the new growth; the tubes should be placed at equal distances from one another to ensure an equal distribution of the radiations.

Action of Radium upon Tumour Cells.

The action of radium on tumour cells is not purely caustic, though caustic effects can readily be produced if the exposure is too prolonged or the filtration is insufficient. In some growths we deliberately make use of the caustic action to produce necrosis of the mass, in the hope that when the slough separates the normal tissues will fill in the resulting ulcer.

Occasionally enlarged glands are reduced in size with hardly any skin reaction; nothing more than a slight erythema may be produced even after repeated exposures to the same area of skin, yet the enlarged glands situated at a much deeper level slowly diminish in size.

Malignant indurated ulcers will rapidly break down and heal under the action of radium.

The degree of action induced is dependent upon the method of application. The various degrees of tissue change depend upon the filtration employed and the length of the exposure. Thus, if necrosis of the growth is necessary, a thin filter would be used and a long exposure given. Here we are making use of the beta ray almost entirely. Should it be necessary to act on a deeper structure and at the same time protect the skin from such action, a thick filter of platinum or lead is used. Two millimetres of platinum or four of lead are sufficient to cut off all but the hardest of the beta rays, while the gamma ray is unaltered. The filters containing the radium are enclosed in a rubber tube to prevent the secondary radiation induced in the platinum by the radium rays from damaging the superficial structures. If the exposure be long, further protection can be secured by using an inch or more of lint or gamgee tissue.

In this way we can control the exposure so that we get nearly the pure gamma-ray effect. This enables us to get an action upon the deep-seated parts.

It has been claimed that radium possesses a "selective action" on cancer cells. While admitting that it undoubtedly appears to act on such cells, the word "selective" is badly used. Radium exercises an action on all living cells in a varying degree according to the resistance of the particular cell in question. Thus, young actively growing cells are more readily influenced than mature cells. The cells of a new growth approximate in structure and power of resistance to the actively growing cells of a tissue. In this way it is conceivable that the cancer cell is influenced should it at the time of exposure be attacked comparatively early in its life-cycle. Should the cancer cells be of a stronger or more vigorous type, it is conceivable that the action of the radium may be stimulating, and instead of a decrease in vigour of a particular cell we may find an increase in activity, and a consequent increase in the size of a tumour. It is a fact that some cases of cancer increase in size at a quicker rate after radium has been applied. Some types of cancer are more amenable to radium treatment than others.

In addition to the action upon the cancer cell itself, radium acts upon all the tissues composing the growth and surrounding structures unequally. There is a general stimulation of the healthy tissues as a result of radium treatment so long as the exposure is not excessive. If it should be excessive the action is apt to produce a caustic and ulcerative effect, which leads to local death of the tumour and a portion of the tissues around it. This may sometimes be desirable.

When the effect upon the healthy tissues is confined to stimulation, we expect to find an increase of fibrous tissue formation which shuts off the cancer tissue from its blood

supply and causes the atrophy of such cells. The reparative power of the normal tissues is strengthened, enabling them to cope with the invading cells and lead to their destruction. These changes can be seen in sections removed from cases undergoing treatment.

The changes induced in malignant growths by the action of radium and similar agents are, so far as we can see, indistinguishable from the degenerative changes seen in cases of growth which have received no treatment; but this important point must be insisted upon: that the percentage of cases in which we see these changes is much larger in the group of cases treated by radiations than in the group which has received no treatment.

It must be admitted that occasionally we see a case of untreated cancer diminish in size and, in a very small percentage, ultimately disappear. During the treatment of cancer by radiations it is by no means uncommon in a fairly large percentage of our cases to see a marked diminution in size produced. In a smaller percentage we do see the growth disappear—at all events for a time.

The local disappearance of a growth is not a cure. The disease may have, and in the majority of cases undoubtedly has, extended to other parts of the body. Consequently no case can be said to have been cured until we have given the deeper ramifications of the growth sufficient time to develop and manifest their presence. It is therefore important that before we treat the local condition a search be made for secondary deposits. From the point of view of prognosis, this is a most important matter.

Of the means we possess of ascertaining the secondary spread of cancer the first important point is to remember the distribution of the lymphatics draining the area in which the growth shows itself. Recent improvements in radiographic technique enable us to examine the thorax and other parts for secondary deposits in the mediastinum, pleura, or lungs.

A man, aged 24, came for the treatment of a growth of the lower jaw, in itself a serious condition to deal with, because at that age the progress of a new growth is rapid and exceedingly difficult to check. An examination of the thorax revealed a large secondary growth in the right lung. One has to treat such a case, but the result can easily be foretold.

In another case a parotid tumour had been operated upon on several occasions, and latterly the condition had practically disappeared under radium. The patient appeared to be in good health, but had lost a great deal of weight in a few months and complained of occasional attacks of dyspnoea of short duration. A radiograph showed that both lungs were riddled with secondary growths.

A woman, aged 55, had her left breast removed. She came for prophylactic *x*-ray treatment. The scar was free from secondary deposits, but she complained of a deep-seated pain at the upper end of the sternum, and secondary deposits were discovered in the anterior mediastinum.

One more case may be quoted. A patient, who had the left breast removed about a year earlier, came for the treatment of recurrent growth in the scar, axilla and supraclavicular region on the left side. For several months she had complained of a severe pain on the right side of the sternum, deep seated and gnawing. Several screen examinations and radiographs failed to reveal the presence of definite recurrence on the right side. She was carefully watched, and another radiograph revealed the cause of her pain. A well marked secondary nodule could be plainly seen, and in addition, on the left side, a supraclavicular gland.

This case is most instructive. It illustrates a point I am anxious to emphasize, namely, that regular examinations at intervals should be carried out on all patients undergoing treatment, either curative, palliative, or prophylactic.

Selection of Cases for Radium Treatment.

The class of case which offers the best results in radium treatment also holds out the best promise of success by operation. The earlier we can treat a case of malignant disease the surer can we be of the result. At the very outset we must decide between the two, and in the present state of knowledge of radium and its effects upon new growth the choice must be given to early operation. We cannot tell when a case is going to do well under radium. Two cases of the same disease, and to all appearances precisely similar, may react quite differently to radium. Further, should the growth not promptly yield to the treatment, it may happen that the stimulation of the tissues composing the growth leads to a rapid extension of the disease; secondary nodules appear at the periphery of the tumour and grow rapidly, or metastases may appear quickly in deeper parts. Even when, to all appearances, the growth has disappeared, sooner or later recurrences may follow, and this after what at the time seemed adequate prophylactic treatment.

Rodent ulcers, when treated early, are particularly amenable to radium. They remain healed for considerable intervals, yet in the end a small recurrence appears at the periphery of the ulcer, and if not promptly dealt with may spread. Repeated recurrences have frequently to be dealt with in the same patient.

Admitting that in every early case of malignant disease operative measures should come first, there are some conditions when radium should be our second choice:

1. The patient may refuse operation, and thorough treatment by radium in early cases may lead to a disappearance of the growth.

2. Or the patient may not be in a suitable condition for operation, and again radium may be found useful.

3. Or it may be that the operation must be so radical that the risk to life is great. Radium should here be given careful consideration as a remedial agent.

4. Inoperable cases of malignant disease are generally handed over for radium treatment. Many of these are hopeless from a curative point of view. Here radium will relieve pain, diminish discharges, check haemorrhages, and frequently heal up ulcers of considerable size.

For comparison of results, it is well to subdivide the group of inoperable cases into the following classes:

(*a*) Advanced cases of malignant disease, in which it is obviously impossible to hope to do anything beyond relieving the pain and other distressing symptoms. This relief is sometimes a marked feature in radium treatment. Discharges may be lessened, and where haemorrhage is a feature in the case, especially if it be a general oozing from the growth and surrounding tissues, a sufficient exposure to the action of radium will lead to a cessation of the bleeding. Failing the prospect of achieving either of these results, such advanced cases should be left severely alone, as their treatment by radium can only bring discredit upon it.

(*b*) Less advanced cases, in which there may be a prospect of inducing degenerative changes in the tumour mass which will lead to a diminution in size. Some cases may thus be brought within the range of operative treatment. The method of treatment adopted must be thorough: full exposures given at regular intervals and the patient kept under observation. The treatment may be external, or, in selected cases, tubes of radium may be buried in the substance of the growth. Inoperable tumours of the breast come under this heading.

Surgical methods may profitably be combined with the use of radium, and partial operations are a great help to the radium therapist, as it is quite rational to remove as much of the tumour as is possible in order to facilitate the use of radium. A large fungating necrotic tumour of the breast is not likely to yield to radium treatment alone, but if the surgeon removes as much of the growth as possible, then radium may be employed on the portions of the tumour left. Secondary deposits in the glands and areas drained by the lymphatics may be vigorously treated by radium, and if a diminution in size is brought about these may be removed at a subsequent operation. Life may be rendered more tolerable, and undoubtedly prolonged by such measures. Several such cases treated by radium and *x* rays have shown marked improvement; enlarged malignant glands have been successfully removed after reduction in size following upon radiation treatment.

While admitting the claims of operative measures in dealing with early cases of malignant disease, and with no intention of pushing the claims of radium, I should like to quote two or three cases which were in my own, and in the opinions of several surgeons, operable, but the patients refused operation and were treated by radium.

A case of endothelioma of the soft palate with a secondary gland in the neck was operated upon for the removal of the gland; a portion of the growth in the palate removed for microscopic examination showed it to be a slowly-growing endothelioma. The palate growth was of considerable size; under radium treatment it slowly subsided and practically disappeared. The case was treated nearly three years ago; to-day the patient is in hospital for a recurrence of the growth in the posterior aspect of the soft palate. She has been quite comfortable during the time that has elapsed since she was first treated. I have no doubt she will derive benefit from further treatment by radium.

A gentleman about 60 years of age was referred to me for treatment of a growth in the right tonsil involving the soft palate and uvula. He was seen by several surgeons, but refused to have an operation performed. A section removed for examination showed the growth to be an epithelioma. A gland removed from the left side of the neck was inflammatory; a number of enlarged glands were present on both sides of the neck. Under radium treatment the growth slowly diminished in size; a portion removed later still contained malignant cells, but they were changed in character and surrounded by inflammatory products. The glands in the neck slowly subsided. To-day the patient is perfectly well and free from recurrence.

Rodent Ulcer.

Early cases are readily influenced by treatment. They quickly heal, but prophylactic doses should be given after the ulcer has healed. If the condition is quite superficial the filtration need not be great. The beta rays appear to exercise a profound change in these cases. After healing has taken place filtered doses should be used to reach the deeper parts. Even after thorough prophylactic treatment recurrences are apt to follow at longer or shorter intervals, but frequently respond to further treatment. All cases treated should be kept under observation for a considerable time in order that an early stage of the recurrence may be observed and promptly treated.

When the ulcer is large and involves bone and cartilage the prospect of a cure is not so good. Most complete and powerful dosage may fail to check the progress of the disease. These cases may be even stimulated by radium treatment and increase rapidly in size. In such cases it is better to combine surgical measures, such as scraping or excision, with radium treatment. Several cases so treated have healed and remained well.

Epithelioma.

Growths in the skin are sometimes successfully treated by radium. Here again the excision of the growth and after-treatment by radium commends itself as a rational method of cure.

When the mucous membrane is involved greater difficulty is experienced in influencing the growth favourably. Some growths of the mucous membrane of the mouth and pharynx are hardly influenced by radium.

Epitheliomata which have healed may break down later and grow rapidly. Secondary involvement of glands must be treated as well as the primary growth.

Sarcoma.

The round-celled variety seems to be the type of growth most readily influenced by radium. Large tumours may gradually diminish in size, smaller growths disappear, while secondary glands also clear up. The spindle-celled variety is not so readily dealt with, possibly because it is a more active type of growth. When the mediastinum is involved, exposures may be made over the sternum and ribs in the hope that the disease may be checked.

Cancer of the Breast.

This class of cases forms a large percentage of those sent for radium treatment.

Secondary deposits may be met with in the glands of the axillary and supraclavicular regions. These may be treated at the same time as the primary growth. Secondary deposits in the cartilage of the ribs or sternum may also require treatment. Prolonged exposures to large quantities of well-filtered radium have in several instances led to a diminution in the size of the growth.

Cancer of the Oesophagus.

This condition has been treated with a beneficial result for a time; a number of patients have gained weight and retained the use of the oesophagus up to the time they died of secondary growth in the mediastinum.

Cancer of the Rectum.

Symptoms may be relieved for a time. The radium must be passed into the stricture, otherwise it may act as an irritant to the healthy mucous membrane, and increase the distressing symptoms so common in this situation.

Cancer of the Cervix Uteri.

Radium treatment may also benefit this condition: haemorrhage and discharge are lessened, and great relief of pain is a frequent result of treatment.

Cancer of the Bladder.

If a tube can be introduced into the bladder and brought in contact with the growth, relief may be obtained.

FACTORS INFLUENCING THE RESULT OF TREATMENT.

In routine treatment by radium, the following factors should always be kept in mind, as a full consideration of all in each case will help us to foretell the degree of action and the result likely to follow from treatment:

(*a*) Type of growth and condition of patient.
(*b*) Situation of the tumour, size, etc.
(*c*) The quantity of radium used.
(*d*) The filtration employed.
(*e*) The duration of the exposure.

An improvement in the results at present obtainable by radium in the treatment of malignant disease may be obtained:

(*a*) Larger quantities of radium may be used. Up to the present the largest quantity used has been about 1 gram of pure radium salt. Far-reaching effects may be produced by such treatment, especially if the filtration is great and the exposure prolonged; yet, even with such a dose, the result in one or two cases has been temporary benefit only. The type of case so treated has been a deep-seated growth which could only be acted on by the very penetrating rays. For surface lesions the increased dosage may have a speedier effect, which should help to prevent the spread of the growth to deeper structures if it can be efficiently checked.

(*b*) A more thorough knowledge of the physical properties of radium may enable us to select for particular cases the quality of radiations likely to influence the cell metabolism.

(*c*) Improvements in the technique.

It must be admitted that the technique has hitherto been more or less faulty. A knowledge of the influence of the various thicknesses of filters may help us to get speedier results. It may be that the use of the beta rays in some cases would lead to better results. Similarly the alpha rays, which up to the present have been little used, may in the future be found to exercise an inhibitory effect upon morbid processes when they are brought into contact with the cells of a growth. The difficulty has been to apply them at all. The radio-active waters at present in use do not appear to have any influence on cancer cells when administered by the mouth.

It may be possible to deposit the active principles of the radium emanations in such a way that we can utilize them either by direct application or by ionization with the aid of a galvanic current, or a combination of radiations may be helpful. In several cases radium and *x* rays appear to have hastened reparative processes. It is possible that some of the effects noticed may be due to secondary radiations, produced in the structures composing the growth, which exercise a physiological action. Some such general action appears to take place, because it is quite a common occurrence for patients so treated to improve in general health.

The employment of radiations in any form leads to a constitutional disturbance which we designate as reaction. This varies in time of onset according to the dosage. After a time a period of depression sets in, most probably due to a change set up in the growth which leads to the liberation of toxins into the circulation. If they are excessive, the condition of the patient may be rendered serious. This form of toxaemia is met with when large rectal growths are treated. It is possible to make the condition of the patient much worse if care is not taken to regulate the dose.

Up to the present the treatment of malignant disease by radium and other radio-active bodies has been purely local. Consequently it cannot be regarded as a specific

method of treatment. The conditions under which it may become so are being investigated. The endeavour must be to procure a substance, radio-active or not, which, when introduced into the general circulation, will influence morbid processes in the tissues. It may be possible to use a substance which when treated locally by radium, *x* rays, or other agents capable of exciting the secondary radiations of such substances, will benefit the tissues.

The best we have yet been able to do has been by local stimulation to produce secondary radiations from the tissues, blood, and lymph in the deposits of cancer. When the secondary radiation value of these tissues is better known, and when we know which particular radiation acting upon them will give us their maximum value, then we may hope to improve our results.

Conclusions.

1. In all cases of early cancer the operative method is undoubtedly the best; it is quicker, safer, and offers the best prospect of cure.

2. Radium is a useful adjunct to the treatment of all cases, first as a prophylactic after operation, and, failing operation, the next best method we possess. It must, however, be stated that *x* rays are in selected cases quite as useful as radium.

3. In patients who refuse operation, or are for other reasons not suitable for operation, radium is a useful remedy.

4. In inoperable cases radium may help to render the case operable; and, failing that, is undoubtedly useful as a palliative measure.

DIACHYLON OR DUTY: A CALL TO ACTION.

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It is now several years since I drew attention to the fact that not only is the female white lead worker more predisposed than the male to plumbism, and to the worst types of it, but that lead probably exercises its baneful influence upon her through the medium of the reproductive organs. A female lead worker, if pregnant, frequently miscarries, so that expected maternity in many instances can only be realized by women when *enceinte* keeping away from the lead works altogether. In pressing the Home Office, through the White Lead Committee, of which I was a member, to abolish female labour in the dangerous processes of lead manufacture or where lead compounds are manipulated, I based the recommendations upon the idiosyncrasy of the female sex generally, upon the disastrous effects of lead upon offspring born either prematurely or at term, and also upon the fact that most of the children born of women who work in lead die from convulsions a few hours or several days after birth. Experience has shown that by the abolition of female labour in the dangerous processes of lead manufacture, both in this country and abroad, not only has much suffering been spared and loss of expectant life to the race been averted, but that actual benefits have been conferred upon the industry itself. Public opinion is less hostile to the trade than it was, and there has been less sickness among the employed, while the manufacturers have saved considerable sums of money, owing to fewer claims than they otherwise would have had under the Workmen's Compensation Act.

Since such admitted benefits have followed the prohibition of female labour in the dangerous processes of lead-making a comparatively new problem of plumbism in female life must now be faced. Medical men in the potteries and elsewhere have repeatedly drawn attention to the fact that, for the purpose of procuring abortion, pills made from diachylon plaster are frequently taken, so that it is unfair to regard all the cases of plumbism occurring in female workers in the potteries as arising from occupation. This announcement has not been acceptable to a section of the reforming public, who, while admitting that such a practice probably exists, can only regard it as of limited extent, and as a statement put forward by interested persons to prevent further legislation for the protection of females working in lead processes in the manufacture of pottery. The self-administration of diachylon pills by pregnant women for the purpose of procuring abortion is a practice more widely indulged in and with more serious consequences than at first sight appears. The time has come when something must be done, and that at once, to put an end to a practice in some instances followed by death, though the cause is not always recognized, and in more instances by acute suffering and by protracted illness.

Several medical men have written upon the subject, of whom from memory I may allude to Dr. Handford of Nottingham, Drs. Prendergast, Shufflebotham, and Ward of Staffordshire.

During the last two years I have seen seven or eight cases of acute plumbism in married women who had taken diachylon. Two of them just escaped dying, while two others will probably never be the healthy women they were previously to their illness.

Case I.

A woman, aged 40, pregnant, mother of eleven children, ten of whom are alive, was admitted into the Royal Victoria Infirmary under my care on June 9th, 1911, suffering from severe pains in the abdomen and great weakness of the limbs. Three months before this, believing herself to be pregnant, she took in all 40 diachylon pills. After taking two pills night and morning for ten days she became seriously ill. She had acute abdominal pain and repeated vomiting; she felt listless and was so weak that she could hardly stand. On her admission the menses had not been re-established; there was a marked blue line on the gums, absence of sulpho-cyanide in the saliva, and complaint of pains in the arms and legs. On two occasions albumen was present in the urine. A large tender mass could be felt in the lower part of the abdomen in the middle line corresponding to an enlarged uterus in the fifth month of pregnancy. On examining the blood the red corpuscles numbered 2,400,000 and the white cells 11,000 per c.mm. No lead was found in the urine by Professor Bedson. Under the administration of ½ grain of sodium monosulphite with tincture of cardamoms in water thrice daily, and an occasional opiate when the pain was severe, the patient made a good recovery, left the infirmary on July 7th, and in due course was delivered of a healthy child at term.

Case II.

A married woman, aged 29, with four children, was admitted into the infirmary under my care on July 18th, 1911, suffering from severe pains in the abdomen and back. She was in a highly strung and nervous condition. Believing herself to be pregnant, she had taken "black stick"—a mixture of diachylon and aloes—in the form of pills, sold to her by a chemist. She took six pills night and morning for the first week, and half that number for the second week. Severe abdominal pain developed, and she miscarried on July 14th, about seventeen days after taking the first pills. For five days previously to miscarrying she had fairly free but interrupted uterine haemorrhage.

She vomited several times daily, and continued to do so for a few days after entering the infirmary on July 18th. There was neither diarrhoea nor constipation, but severe pain during defaecation. She had lost considerably in weight. Her legs were so weak that she could hardly stand. There were tremors of the lower half of the face, and also of the hands. There was not only a dark blue line on the gums, but a patch of deeply pigmented buccal mucous membrane opposite the lower teeth. The abdomen was extremely tender, especially over the left ovarian region. The knee-jerks and the plantar reflex were lost. On microscopical examination of the blood, which was repeated on several occasions, only once were four basophile corpuscles found over the whole field. The urine was free from albumen on admission. A few days after treatment had been commenced the urine contained a trace of albumen, but this disappeared, and was never again found. On one occasion only was lead found in the urine by Professor Bedson, and that was after the commencement of the administration of sodium monosulphite, which formed the regular treatment throughout, and under which she made a good recovery, leaving the infirmary on August 28th. This woman had taken 144 pills, each of which contained 1 grain of oleate and stearate of lead.

In one woman whom I saw with Dr. Nesham at the Maternity Hospital, and who had taken a pennyworth of diachylon and a pennyworth of aloes, the abortion, was incomplete, and curetting had to be resorted to. In another whom I saw with Dr. Tiplady the symptoms were those of abdominal pain and intractable vomiting, to which the patient all but succumbed. She too had aborted, and presented temporary albuminuria.

I will only mention one other case, and that with the permission of my colleague, Professor Thomas Beattie, in

whose ward I have had the opportunity of frequently seeing and examining the patient.

CASE III.

A married woman, aged 24, the mother of two children born within the period of one year and two weeks, had taken "black stick" with the object of inducing abortion. Seven days after taking the drug she aborted. Two weeks afterwards she was seized with severe headache and vomiting. There was neither colic nor constipation. A month after taking the pills the right hand, and shortly afterwards the left, became paralysed, and then both legs. The muscles of hands and legs rapidly atrophied. There was a blue line on the gums, and marked naso-labial tremor. The urine was free from albumen. Professor Bedson found a trace of lead in the urine. Blood films were stained and carefully examined, but on no occasion was one basophile corpuscle found. It is now five months since this patient took ill, and although her legs have partly recovered their power, there is still almost complete double wrist-drop, so that she lies in bed in a comparatively helpless condition. It will be months before she is better, and even then it is a question as to the completeness of her recovery.

There is not the least doubt that lead is a powerful and a dangerous ecbolic. It probably acts upon the unstriped muscle fibre of the uterus, setting up strong muscular contractions followed by expulsion of the fetus. I am disposed to take this view rather than that lead destroys the fetus first. Pregnant rabbits to whom I administered lead miscarried, and in one instance so severe were the muscular contractions that the uterus ruptured.

The dangers following the self-administration of diachylon are not only that the woman may have a long and painful illness, accompanied or not by paralysis of hands and limbs, but that she may die in the attack of acute plumbism, either from intractable vomiting, acute inflammatory affections of the pelvis consequent upon incomplete abortion, or from convulsions. To my knowledge young females, married and unmarried, have been admitted into hospitals or been treated by medical men outside, and have died in convulsions or from recurrent vomiting, and at the *post-mortem* examination nothing has been found to explain either the symptoms or the death. In a few of these it was afterwards ascertained that diachylon had been taken.

What, then, is the duty of women, the Government, and the medical profession in regard to this important question? Disciples of Malthus would probably maintain that there is something to commend in the action, not the means, by which when patient Case I, in her twelfth pregnancy, with ten children alive, the eldest only 18 years of age, and her husband earning 30s. a week, finding herself pregnant, sought to relieve herself of a prospective burden by a remedy so easily obtained as diachylon. It would have been a greater and more disastrous calamity to the husband and to the family had this woman died and left ten children to be brought up, the eldest daughter being only 18 years of age. Where the means to procure abortion are attended by such risks to life and health it is the wiser plan for women not to take anything. It is the light-hearted manner in which unmarried and young married women, in their eagerness to avoid responsibilities and the assumption of tasks which interfere with their pleasure, resort to the use of diachylon that calls for condemnation.

Seeing that for two pence abortion can be procured, and that women in the guise of nurses are secretly preaching the advisability and encouraging the practice of it among the poorer working classes, also that in the full glare of daylight druggists are selling the material, surely the time has come when we might well ask the question how long the Government is going to allow this state of things to continue? It can no longer be said that the Government is ignorant of the practice nor of the extent to which it prevails. The responsibility rests with it to put a stop to a practice which is discreditable to the age in which we live, a source of danger to adult female life, and a cause of antenatal death. The sale of diachylon should be prohibited. Soap plaster can be made, and just as effectively, without lead as with it. By the prohibition two years ago of white phosphorus in the manufacture of lucifer matches, and which was also resorted to as an abortifacient, death has been averted and much suffering has been prevented. This, too, would be the case if the sale of diachylon or of lead pills, unless the latter under medical prescription, was made a criminal offence. Notification of industrial lead poisoning is compulsory; why should lead poisoning by diachylon be made the occasion of its evasion?

The attitude of the medical profession has in this matter been consistent. Its duty is simple: it is to discourage by all means the use of such a drug; to point out to women, wherever possible, the grave danger to life and health attendant upon its administration, also to comply with the wish of the Government, should such be expressed, to notify, on the same terms as those concerning industrial plumbism, the occurrence of lead poisoning by diachylon or by any other medicament.

THE USE OF CELLULOID IN THE TREATMENT OF TUBERCULOUS DISEASE OF THE SPINE.*

[WITH SPECIAL PLATE.]

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CELLULOID was first introduced into orthopaedic surgery by Phelps and Lorenz, both of whom used it for splint manufacture in the form of sheets softened in hot water. Later, Landerer and Kirch in Germany and Ducroquet and Calot in France rendered its employment more practical by conceiving the idea of dissolving the celluloid in acetone and applying the solution to woven tissues. In France its use is now very general. At Alton it has been adopted to the almost entire exclusion of other removable spinal supports, and the interest which these jackets has created is my apology for this paper.

For my acquaintance with celluloid for orthopaedic purposes I am indebted to my friend Dr. Jacques Calvé, of Berck, who first instructed me in its use and has devised a particularly ingenious and useful jacket, which is described in his paper referred to below.[1]

CHEMISTRY OF CELLULOID.

Celluloid is made by gelatinizing nitro-cellulose of low nitration with an alcoholic solution of camphor. The alcohol is nearly all driven off during the subsequent process of manufacture, leaving an intimate mixture of nitro-cellulose and camphor. It is uncertain to whom its original discovery can be certainly attributed. Parkes, in Wales, early in the fifties, patented a process for preparing a substance, which he afterwards called "Parkesine," prepared from pyroxylin. In 1869 the Hyatt Brothers, in America, made xyloid, which was essentially celluloid, and in 1877 the business of Daniel Spill, who was Parkes's successor, was taken over by the British Xylonite Company, Ltd. In 1876 the Hyatt Brothers founded the first celluloid factory in France.

Transparent celluloid is a hard, tough, somewhat elastic substance of horny appearance. Its chemical composition is not constant but may vary within considerable limits according to the method of its manufacture. Its density is about 1.37. It is softened by heat, but if kept too long at a temperature of 130–140° C. slowly decomposes; at a temperature of 198° C. it decomposes instantly. It is highly inflammable. It is soluble in various substances, of which acetone alone concerns us here. It may be decomposed by concentrated sulphuric, nitric, and hydrochloric acids.†

THE ADVANTAGE OF CELLULOID SPINAL JACKETS.

Jackets made of this material are light, elegant, rigid but slightly elastic, strong, are not acted upon by the heat and moisture of the body, maintain their shape indefinitely, are comparatively easy to make. Their greatest value lies in the fact that they may be made to accurately fit a cast of the patient and maintain the shape of this cast indefinitely.

The great objection to the use of celluloid is its inflammability. Impregnated, however, in woven tissues there is very little danger in its use. Both in France and in

* A paper read before the Medical Society of London.

† For kindly confirming the accuracy of this paragraph I am indebted to Mr. T. R. Brooke, of the British Xylonite Company.

England Calvé and I have made many hundreds of celluloid splints, and have never witnessed a case where its use has been harmful on this ground to patients. Neither have we been able to find any record of disaster following its use in the practice of others. Actual contact with flame is necessary before the jacket will burn, and even when it is well alight the flame can be readily extinguished. It is, however, not generally known that even this slight danger from fire can be easily avoided. Celluloid splints may be easily rendered non-inflammable. Two methods may be employed: (1) By covering the celluloid splint with non-inflammable material; (2) by making the celluloid itself non-inflammable.

As an example of the first method, the splint when made may be covered by a tissue which has been impregnated with sodium tungstate. Such a tissue is non-inflammable. The tissue may be protected by a light covering of leather, and the resulting splint at least equals in appearance one made of leather, and is more serviceable.

The celluloid splint may be covered by one of the numerous non-inflammable paints now procurable, and it has even been suggested that a light coating of potassium silicate may be used. Such expedients, however, are clumsy and not of great value, and a far better method is to render the celluloid itself non-inflammable. This may be very easily done by mixing with the celluloid in solution in acetone various substances of which the following are examples—iron perchloride, calcium chloride, magnesium chloride, salts of aluminium, the acetate or oleate of zinc, etc. Of these, after numerous painstaking and exhaustive experiments, for which I am indebted to Miss Butler, our late plaster sister, the substance which at Alton has been found of the greatest practical value is calcium chloride. Miss Butler discovered that if a supersaturated solution of calcium chloride in very hot water is added to the celluloid dissolved in acetone, the resulting mixture when dry is absolutely non-inflammable.* It retains its non-inflammability when made into a splint, and such a splint cannot be made to burn even when held in a fire. This discovery, therefore, disposes of the greatest, and indeed the only, objection which can be raised to the employment of celluloid in the manufacture of orthopaedic appliances.

Celluloid made into splints in the manner to be described, either alone or combined with metal, forms one of the most useful materials for orthopaedic appliances.

To mention but a few of the conditions in which I have used it with success, I may cite almost all forms of tuberculous joint disease, infantile paralysis, various forms of talipes, genu varum, genu valgum, Charcot's disease of the knee-joint, scoliosis, after fractures and osteotomies, etc. In some of these and in other conditions it is likely to surpass other materials hitherto employed, as, for example, in the convalescent stages of joint disease, the ambulatory treatment of fractures, and in infantile paralysis.[2] I would also suggest its value in the manufacture of artificial limbs, though, with the conservative measures adopted at Alton, such aids are rarely necessary, and I have not had an opportunity of using it for this purpose.

In this paper I propose to confine myself simply to outlining its use in tuberculous disease of the spine, and will describe the manufacture of such a spinal jacket as might be used in an ordinary case of dorso-lumbar caries. In such a lesion, when complete immobilization is required, there is no doubt that celluloid should not be employed. No form of mechanical support hitherto devised can compare with an efficiently applied plaster jacket,[3] but when the time comes when this extreme immobilization is no longer required, and when, indeed, if unduly prolonged, it might be harmful, there is no doubt that a properly made celluloid splint is the best mechanical support which can be used. Too prolonged immobilization in plaster may increase the muscular atrophy produced by the disease, and this is especially seen in cases of hip or knee disease, but it is also apparent in tuberculous disease of the spine. Prolonged immobilization in plaster does not of necessity result in fixation of the joints—indeed, tuberculous joints long properly immobilized are much more likely to recover good movement than joints inefficiently immobilized, but there is undoubtedly a period when such complete immobilization as effected by a perfectly fitting plaster jacket is neither essential nor, indeed, desirable. Such a period in the natural history of the disease is reached when it may be inferred that the lesion has consolidated and become well shut off from the rest of the body, and that the disease is apparently arrested. Limited movement, either active or passive, is now of value; and, indeed, the aid of gentle massage and electrical treatment may be invoked to further restore muscles long inactive. Now a removable jacket is indicated. The function of such a jacket should be only regarded as one of support and reasonable protection to the area affected, but not of complete immobilization, though very efficient immobilization is obtained. It, indeed, may be so designed that it will still further assist in correcting deformity which might have persisted, but the manufacture of, and indications for, a celluloid jacket adapted to such a purpose will not be considered here.

The advantage at this stage of an efficient jacket which may be removed is manifold. It affords protection in the interval between the period when complete support or protection is no longer required, but entire absence of both might be harmful. It should be worn by the patient at such times as its absence might be a source of danger—in other words, when the patient is lying in bed or resting it is not required, but when he is walking about and might presumably be exposed to extraneous injury or strain, then it is of the most extreme value. Numerous materials have been employed from time to time for this purpose, each having its own advocates, but after extensive use of every mechanical support which I have been able to try, none presents, to my mind, so many advantages as celluloid. Moreover, celluloid has this extreme value—the jacket itself can be made by the surgeon who is treating the case or made under his immediate supervision, and this is an undoubted advantage. It is not realized how much crippling results from the indefensible practice of leaving all details of mechanical support to the instrument maker. In the treatment of bone and joint tubercle skill in the application of properly designed mechanical supports is of far greater importance than mere surgical dexterity, and the surgeon-mechanic will obtain results which neither the surgeon nor the instrument-maker, working singly, can approach. To such a worker celluloid affords the most valuable assistance in the exercise of his skill. The jacket, to fulfil the necessary requirements of a spinal support, should be made on a very accurate cast of the patient, and the first step in its manufacture consists in the taking of such a cast. This, indeed, should be done with almost every form of spinal support, though unhappily it is comparatively rarely attempted, largely because of the prevailing ignorance of plaster technique.

METHOD.

There are various ways in which a suitable cast may be taken; but I shall confine myself to describing one simple and practical method.

The patient is suspended from a suitable gallows by a bridle applied to the chin and occiput so that the spine occupies the desired position. This position varies within considerable limits but in the majority of cases should be one of slight hyperextension. Suspended from the gallows in the selected manner, he is thoroughly anointed with warm olive oil and a plaster bandage is applied around and on to the trunk from below upwards, commencing below the right iliac crest encircling the trunk at the level of the pubis and gradually rising until the shoulders are reached. The thickness of two or three turns of the plaster bandage is all that is required. The shoulders are taken in by turns of bandage being passed from chest to back and vice versa and fixed by a further turn around the trunk, and just before the cast is setting the crests of the ilia, the pubis, and the sacrum are very carefully moulded. The counterpoints of application in such a simple jacket as this would be the two clavicles, which are moulded also with the greatest care, and behind the negative must be accurately applied to the whole length of the spine and to the two scapulae. A point to be ever borne in mind in making any jacket for dorsal caries which can have any pretence to efficiency is that

* Three ounces of calcium chloride should be added to 2 oz. of boiling water. The resulting mixture, added to 150 oz. of celluloid of low nitration, dissolved in acetone, will render the celluloid non-inflammable.

possibility of flexion of the spine by the patient must be prevented. Hence the importance of careful moulding about the pubis and its counterpoint the clavicles, or in a high jacket the mastoid processes and occiput. In other words, the distance between the *points of application* should be constant. Very rarely is it insisted that a jacket should take proper purchase from the pubis, and this is obviously essential if the jacket is to be efficient. In applying the plaster the greatest care must be taken to pleat each turn of the bandage so that the resulting negative shall occupy the greatest bulk of the trunk and not cause any compression of the thorax or abdomen.

As soon as set, the jacket is cut up laterally in the way shown and gently removed from the patient. The jacket should be removed just as its set is completed, and it will be noted that at this moment every movement of respiration is accompanied by slight sucking noise as the skin recedes from the now firm negative. When the jacket has been slipped off the patient it is allowed to thoroughly dry, and the cut edges are accurately apposed and fixed together by another plaster bandage which encircles the negative. The holes for the arms and the base of the jacket are covered over likewise with a plaster bandage. This being done, the inside of the jacket is carefully oiled again, and the negative thus produced is allowed to thoroughly dry, which at an ordinary room temperature takes three to four hours.

Making the Positive.

Into the oiled negative fluid plaster of Paris is poured, which plaster is prepared by adding five parts of water to three of dry plaster. Cheap plaster of Paris is sufficiently good for this purpose. The negative may be placed in a box full of sand or sawdust which will support it all round and the open neck end alone left exposed, or, if preferred and sufficiently strong, filled without such support. Before the plaster sets a substantial piece of wood is thrust down the centre and forms a convenient projection for subsequent manipulation. As soon as the plaster has set the negative is removed and the positive is left ready for further treatment. This treatment consists in carefully modelling above the pelvic brim and accentuating its outline so that the grip on the pelvis may be secured with certainty and precision. This carving of the cast is of great importance and requires care and skill. The plaster to be removed is cut away with a strong long-bladed knife. The subclavicular fossae are also sculptured. The whole of the cast is then covered with an additional thin layer of plaster which will increase its bulk slightly in all directions, and thus ensure the jacket which is to be made on it being of comfortable though perfect fit. On to the positive thus formed the splint has now to be made.

Making of the Celluloid Splint.

The fluid celluloid, which has already been referred to, has the power of thoroughly impregnating any loose texture to which it is applied, as, for example, vesting or gauze. When applied the acetone evaporates, and leaves the celluloid deposited as a solid. The most effective way of making a splint is to place over the cast a vest of cotton which is slightly smaller than the cast, and which can be very accurately applied to it. Frequently parts of the vest have to be stitched to secure accurate approximation. This vest may be pinned to the bottom of the cast and on to the neck and the armholes with ordinary drawing pins. It may be accurately applied to depressions in the cast, such as those about the iliac crests, by means of either tape or cotton drawn tightly over these depressions and fixed at appropriate intervals with drawing pins. This being done, it will be found that the vest now is correctly adapted to the shape of the cast made, and on to this vest is painted with an ordinary stiff brush a coating of the celluloid solution. It is very desirable that this solution should be thoroughly worked into the vest. It will be found that when the acetone has evaporated and the celluloid is left deposited on the vest, there are probably numerous places which have not received a sufficient quantity of celluloid, and therefore two, three, or more coats should be painted in turn on the vest. When a sufficient quantity of celluloid has been incorporated, a layer of thin muslin—ordinary book-muslin unstiffened—is applied to the cast in two pieces, one to occupy the front and the other the back, the two parts overlapping at the sides, and the celluloid is then worked into this. This process is repeated until it is estimated that the jacket has attained sufficient strength, each layer being allowed to dry before the next is applied. It will be found that the number of layers of muslin with incorporated celluloid will vary usually from ten to twenty. For small children the former will be sufficient, but for adults the latter will be required. It should be noted that those parts which will have a special strain placed upon them—as, for example, round the points of application of the jacket to the pelvis—a greater thickness may be required, and this can easily be obtained by placing a small additional piece of gauze in the appropriate situations and impregnating these with celluloid at different stages of the manufacture of the splint.

When the last layer of muslin has been applied, and that has thoroughly dried on to the splint, two or three more coats of celluloid should be painted on to ensure that the splint should have that smooth and elegant appearance suggestive of a highly polished surface, which adds so much to the attractive appearance of the finished celluloid.

It will be found that between each layer of muslin which is applied, and which is coated with celluloid, an interval of from five to ten hours should elapse to allow the acetone to evaporate and the splint to dry. Great care should be taken in the manufacture of the splint that no air bubbles are allowed to remain between the different layers, and that each layer is in the most accurate apposition to the layer subjacent. Otherwise the strength of the splint will be diminished and the layers of celluloid may tend to separate in laminae.

The application of the celluloid having been concluded the splint must now be removed from the cast and this may be done in various ways, according to the inclinations of the surgeon. For a simple spinal jacket as is here described, the easiest way is to cut through the splint in the middle line anteriorly from top to bottom. The edges around the armholes and neck and bottom of the pelvis are carefully trimmed, and the splint can now be removed from the positive. It is now very desirable that the splint at this stage should be tried on the patient and the patient resuspended for this purpose. The splint having been put on the suspended patient it is a wise plan to tie it on the patient round the middle of the trunk by a piece of bandage, and on to the jacket thus applied lines are marked with a suitable pencil to indicate those parts which need not be retained. The first essential is to see that the splint thoroughly fits the pelvic brim and is accurately in apposition with the pubis, both iliac crests, and the sacrum. Above it must accurately fit the clavicles, and behind it should lie in close apposition to the spine.

A large ventral window should now be marked, and this cutting out of a ventral window is very important in securing a perfect fit, for it will be seen that the dimensions of the patient's trunk varies according to the amount of air inspired or expired from the lungs, and to the distension or retraction of the abdomen. The ventral window allows these alterations in the bulk of the patient to take place without in any way impairing the fit of the jacket or interfering with the support and protection it will give; while, if such a window is not cut out, it will be at once seen that the jacket will either be too tight or too loose for it to be of really complete value. It is to be regretted that spinal jackets made in this country rarely have effected this very simple expedient for their accurate fit. The lower part of the jacket should be cut somewhat in the manner shown in the figure, so that, while securing accurate apposition to the pelvic brim, there shall be ample allowance made for any movement of the thigh.

In front the lower border of the splint corresponds with the upper border of the pubis, at the sides to a point about the middle of Poupart's ligament and just over both great trochanters. Behind, its lowest limit should be the uppermost portions of the natal cleft. Above, it should be cut well away around the arms, so that free movement of the arms is obtainable. The moulding around the clavicles will ensure that the shoulders are kept pressed backwards. The moulding around the pubis will prevent forward flexion of the spine, and the spine will be maintained in an extended position consistent with comfort. It may not be out of place here to enter protest against the too frequent use of



FIG. 1.—Patient who has suffered from tuberculous disease of spine, with double psoas abscesses, suspended and plaster applied to the trunk for a cast.



FIG. 2.—The negative being cut off the patient's trunk.



FIG. 3.—Removal of the negative.



FIG. 4.—Manufacture of the positive. Plaster cream being poured into prepared negative.



FIG. 5.—Negative being removed from the positive.



FIG. 6.—Positive complete with vest applied.



FIG. 7.—Patient with jacket complete.

J. S. P. STOPFORD: SHAPE OF THE NORMAL EMPTY STOMACH.



Photograph of specimen. The outline of the stomach is indicated by the continuous black line.



axillary crutches, which are employed with the mistaken idea that they give the spine some support. The use of these crutches has been well deprecated by Vignard and Monod,[4] whose observations on them may well be repeated here: "They constitute one of the gravest faults in the old-fashioned spinal jackets. Their object is, as has been already said, without doubt to support the spine by the aid of the shoulders, but raise the shoulders and you will appreciate their inefficiency. Movement of the shoulders in the vertical direction which this action causes the axillae to undergo shows that it is only when having pressed up the shoulders to the extreme limit of their possible excursion that the axillary crutches can have any effect. These movements of ascent are partly limited by the serratus magnus muscle which, attached to the scapula, acts on the ribs and not on the spine. Only the lower slips of the trapezius muscle can furnish the means of useful action, and this action on the spine is really only an apparent one. The raising of the axillae is accompanied by a swinging movement of the scapula in its lower angle. The muscles which resist this swinging movement are the rhomboidei which are attached to the lower cervical and upper dorsal vertebrae, which vertebrae are thus drawn from above downwards. The exaggerated raising of the shoulders by the axillary crutches produces a compression of the spine and not stretching, which stretching is, on the contrary, only possible when the shoulders occupy the lower position.

"Untenable from anatomical considerations, on physiological grounds still stronger objections may be made to the use of axillary crutches. Even light, long-applied axillary pressure causes a strain which is uncomfortable, and may, indeed, be painful. The action on the respiratory movements is still more important. The raising of the shoulders has an enormous influence on the respiration. It corresponds to forced inspiration. The shoulders remaining high, it is impossible for the patient to accomplish complete expiration. Indeed, it is as bad to keep the thorax in a position of inspiration as it is to impede thoracic movements by compression. For these reasons, then, the use of axillary crutches should be abandoned, and the shoulders should be allowed to remain free, but pressed backwards and somewhat downwards."

The Completion of the Celluloid Jacket.

The splint having been cut out in the manner indicated, the edges may be bound and stitched with leather and suitable hooks, eyelets and buckles inserted into the celluloid. The splint is then to all intents and purposes completed. Nothing more is really essential, but it may be found advantageous to strengthen it with light steel as figured, though this is not by any means essential. From hygienic reasons it is desirable to punch numerous holes in the jacket to allow sufficient ventilation of the subjacent skin.

Such a jacket will be found of the greatest value to patients being treated in the convalescent stages of spinal caries. Its weight is negligible, it affords no obstruction to respiration or digestion, the support and protection it affords is ample, and the comfort and security it confers upon the patient renders it of unequalled value in mechanical treatment at this stage of tuberculous disease of the spine.

REFERENCES.

[1] Calvé: Quelques considérations sur les appareils amovibles en celluloïd dans le traitement de la Coxalgie et du Mal de Pott, *La Clinique*, April 28th, 1913. [2] Batten, F. E.: The Use of Celluloid Splints in the Treatment of Poliomyelitis, *Lancet*, 1912, vol. ii, p. 80. [3] Gauvain: The Use of Plaster of Paris in the Mechanical Treatment of Tuberculous Disease of the Spine, *Practitioner*, January, 1913. [4] Vignard and Monod: Le corset orthopédique, *Lyons Chirurgical*, December, 1909.

A CASE OF COMPLETE AURICULO-VENTRICULAR HEART-BLOCK.

WITH A REPORT OF THE PATHOLOGICAL CONDITION OF THE HEART.

BY

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[WITH SPECIAL PLATE.]

In the Schorstein Lecture which was delivered by one of us (T. W. G.) at the London Hospital last October, and published in the BRITISH MEDICAL JOURNAL on October 12th, mention was made of a case of complete auriculo-ventricular heart-block which presented some points of special interest. The patient died of pneumonia, and the examination of the heart was undertaken by one of us (A. M. K.). A preliminary note of the condition found was given in the lecture. The examination has now been extended and completed, and it is believed that the record will prove of greater interest if the paragraphs and figures in the lecture dealing with the case are reproduced. These were as follows:

DESCRIPTION OF PHOTOMICROGRAPH ON SPECIAL PLATE.

Section of cardiac septum cut in the direction described in the text. Magnification 8. Shows the great atheromatous thickening of the anterior mitral cusp (ventricular aspect) and the slight calcification present at the base. Dense fibrosis is seen to spread inwards into the cardiac tissue and across the membranous septum to the aortic cusps. The auriculo-ventricular bundle was involved in this fibrosis and its continuity completely broken. *a*, Anterior mitral cusp, greatly thickened by atheroma; slight calcification is present. *b*, Dense fibrosis spreading into cardiac tissue from anterior mitral cusp. *c*, Pars membranacea septi, enormously thickened and shortened by fibrosis spreading from the mitral to the aortic cusps; ventricular muscle fibres are seen mixed up with the fibrous tissue. *d*, Aortic cusp. *e*, Tricuspid valve. *f*, Portion of auriculo-ventricular node. *g*, Left ventricle. *h*, Right ventricle. *i*, Interauricular septum. *j*, Interventricular septum.

The tracing Fig. 38 [p. 1204] is from the case of a member of our own profession, and was taken when the patient was 81 years of age. The ventricles were beating at 40 and with great regularity, as all the pulse periods are seven and a half fifths of a second, except the few which are marked otherwise. The auricular beats are rather less than double* the number of those of the ventricles; they have no constant relationship to the ventricular beats, and we have here the additional evidence of the block being complete, in the fact that the auricular rhythm is markedly irregular, but that there is no reflection of this irregularity in the pulse.

There is another peculiarity in the tracing to which I desire to call attention. When a premature contraction of the auricle occurs it is followed by an interval which is seldom longer than those which separate the systoles of the auricle which occur about the same time. Now it is possible that this may represent nothing more than a sinus arrhythmia; but as it is clear that there is a profound interference with the conducting functions of the heart, I venture to suggest the possibility of another explanation, which I admit is highly problematical, and which I advance purely in the hope that others may meet with cases to confirm or to confute it. We have already seen that in complete auriculo-ventricular heart-block premature contractions of the ventricle are not followed by any compensatory pause. Let us apply the explanation of this to the possibility of a sino-auricular block, as suggested by the lower outline in the diagram I have already used (Fig. 32). When

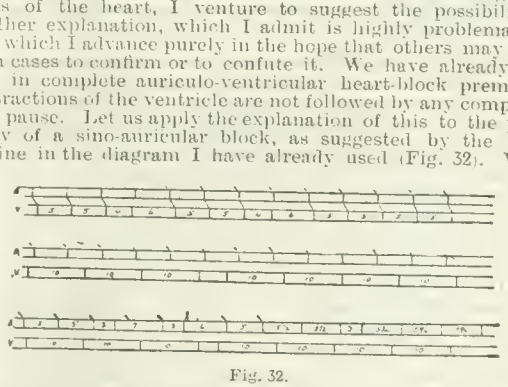


Fig. 32.

the sinus rhythm is dominant, we have seen that a premature contraction of the auricle is followed by a pause which is more or less complete according as the stimulus does not or does pass back to disturb the rhythm of the sinus. If, as the latter part of the diagram shows, the auricle may be supposed, in

* In the report of the lecture an unfortunate slip occurred, the word *half* appearing instead of *double*.

consequence of a block, to be emancipated from the influence of the sinus, a premature beat on its part would be followed by an interval of the usual interauricular length.

The patient was a man of active habits, and up to the time of his death, which occurred two years afterwards, was in the habit of walking some five miles a day. His daughter told me that as long ago as the early seventies she remembers her father being subject to peculiar attacks. Sometimes when making up medicine in his surgery he would suddenly, after apologizing to those who were present, lie down on the floor for a few minutes as if overcome by a feeling of faintness, and then resume his work as if nothing had happened. Of these attacks the patient had no recollection during all the time, some two years or more, that he was under my immediate observation. I saw him about eighteen years ago, when he had influenza, and my notes show that during the moderate fever which prevailed his pulse varied from 104 to 112. What the pulse-rate was in the interval I cannot tell. He had often had attacks of giddiness, but of late years these had got much less frequent, and for some time they had ceased. There was some tendency to cyanosis; the arteries were very atheromatous; the systolic blood pressure was as high as 260, and about the end of May of this year, though he was still rather a wonderful man for his age, and continued his active habits, he appeared to me to be failing. I was asked to see him early in June by his medical attendant. He was clearly suffering from pneumonia of a low type, and he died at the end of the sixth day. A tracing of the radial pulse on the third day of his illness (Fig. 39

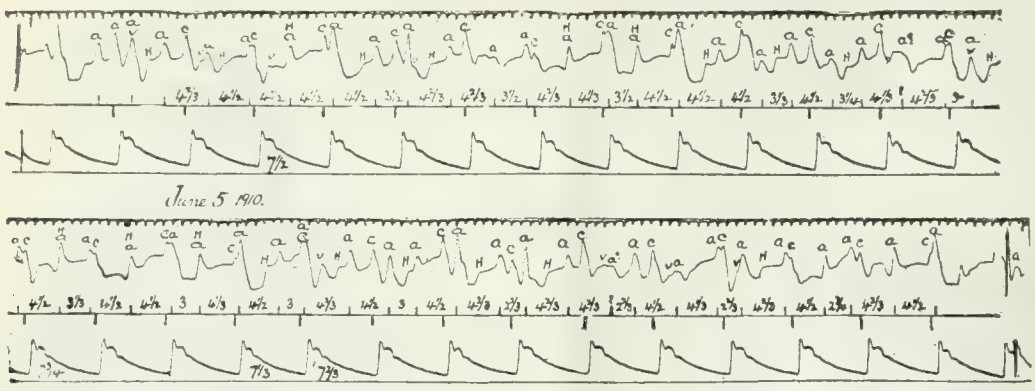


Fig. 38.

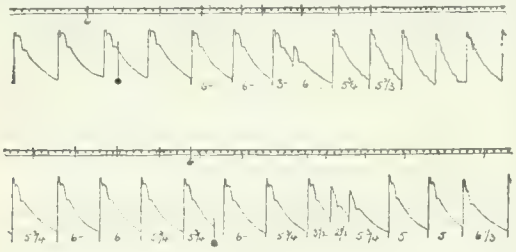


Fig. 39.

shows that the pulse-rate had risen to about 50, and it never rose above 60. The upper tracing shows a premature systole, and the lower two in succession, without in either case a compensatory pause.

The pathological examination of the heart shows that there is a generalized hypertrophy of the cardiac musculature, and dilatation of both auricles and of right ventricle; the left ventricle is contracted in systole, and there is an excessive deposition of fat on the surface of the heart. There is some superficial atheroma of the aorta, and, about 1½ in. above its valves, there is a large thick atheromatous patch which is softened in its centre; the coronary arteries are slightly fibrosed.

The mitral orifice is normal in width but the tricuspid is slightly dilated. The anterior mitral cusp on its ventricular aspect shows a uniform atheromatous thickening of its basal half, and extending outwards in strands to some of the chordae tendineae, and at its left-most edge, where it meets the posterior mitral cusp, there is a small area of calcification about the size of a lentil. This atheromatous area on the anterior mitral cusp extends inwards and spreads on to and involves the adjacent half of the pars membranacea septi, so that it must at least pass over the auriculo-ventricular bundle. Some of the chordae tendineae are thickened—a chronic atheromatous thickening—and the tips of the papillary muscles show some degree of fibrosis. There is fibrosis of the endocardium of the left ventricle just below the attachment of the mitral valve, and this fibrosis is distinctly evident over the situation of the auriculo-ventricular bundle—namely, below and behind the pars membranacea septi. In this situation the fibrosis is seen to be continuous with the atheromatous thickening of the anterior mitral cusp along its attached margin bordering the anterior edge of the pars membranacea septi.

There are no other valvular lesions.

A block of tissue was removed from the cardiac septum, which contained the pars membranacea septi, the adjacent portions of the auricular and ventricular muscular septa, the central fibrous body, and the attachments of the anterior cusp of the mitral valve and the septal cusp of the tricuspid valve. The block extended sufficiently far back to include the mouth of the coronary sinus, and it was cut out in such a manner that its long antero-posterior diameter was at right angles to the long axis of the heart. Such a block includes the whole of the auriculo-ventricular node and main stem of the auriculo-ventricular bundle and a portion of its two principal branches. It was cut in serial sections from above downwards in the horizontal plane, and a series at intervals of five were mounted and stained with haemalum and van Giesen's stain.

Examination of the sections shows enormous dense fibrosis at the base of the mitral valve, extending outwards as a thickened atheromatous plaque on the ventricular aspect of the anterior mitral cusp and inwards to the auriculo-ventricular node. The fibrosis extends downwards into the ventricular septum as a very thick and very dense layer; this layer extends from the endocardium of the left ventricle inwards to the auriculo-ventricular bundle, forming a thick mass along its left side, and extending underneath it, and appearing also along its right side, though here it is less abundant. The thick fibrous layer on the left side of the bundle can be easily followed from the mitral valve to the aortic valve, at the base of which it again increases in bulk. The normal space between the bundle and cardiac tissue proper is almost completely obliterated, and, particularly from the left side, strands of fibrosis can be seen extending into the bundle about its middle from the greatly thickened sheath, and so breaking the continuity of the main stem.* The left side of the node and the whole length of the main stem of the bundle are thus enclosed in a dense thick sheath, the thickening of which underneath the bundle raises the latter up, so that on leaving the node it takes a curved course upwards and then downwards to enter the ventricle; this gives the convexity towards the auricle, which has been described as normal, but which in this case is exaggerated and certainly abnormal.

In the dense fibrosis at the base of the mitral valve, along the left side of the bundle, and at the base of the aortic valve, there are areas of calcification. In the auricular tissue above the node there is probably some excess of fat, and a short distance below the node there is some fatty infiltration in the bundle visible as numerous large globules. The small arterioles in the node and bundle and cardiac tissue generally show well marked thickening and considerable periarterial fibrosis. The principal vein from the node and its tributaries show recent thrombus within them—a terminal formation, but the main trunk is not completely occluded.

* The preliminary note in the report of the lecture is not quite accurate; the continuity is completely interrupted.

There is fibrosis and slight calcareous infiltration in the ventricle, particularly on the left side.

A block of tissue, to include the sino-auricular node, was next removed from the junctional region of the right auricle and superior vena cava, and cut in serial sections, which were mounted and stained as above described.

Examination of the sections shows that the excessive deposit of fat, already noted on the surface of the heart, infiltrates into the right auricle in the sino-auricular nodal region, causing considerable alteration. The nerve endings in this region are all conspicuous, and a considerable number of the ganglion cells are visible, but there is apparently a scarcity of the true "nodal tissue" fibres and abundant fatty infiltration instead; there is also periarterial fibrosis.

The main bundle of the auriculo-ventricular junctional system being the path by which the auricular contractions are transmitted to the ventricles, it may be inferred from the pathological findings alone in this case that a condition of complete auriculo-ventricular heart-block was present during life. Regarding the pathological changes in the sino-auricular region, it does not seem justifiable in the present state of our knowledge to make a definite statement as to what their effects on the cardiac rhythm would be. One must simply record the facts, clinical and pathological together, and await further confirmation.

THE POSITION AND FORM OF THE NORMAL HUMAN STOMACH.

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It may be generally admitted that the normal human stomach exhibits many variations of form, dependent on temporary physiological or permanent anatomical causes.

From personal observations I am of opinion that the normal stomach is, in the majority of cases, a four-chambered organ (Figs. 1–12) composed of the following parts:

1. Cardia and fundus (Fig. 1, c).
2. Pyloric vestibule (P. V.).
3. Pyloric antrum (P. A.).
4. Pyloric canal (P. C.).

The constriction forming the pyloric vestibule between cardia and pyloric antrum may form a definite tubular canal (Fig. 5), or it may be a deep V-shaped notch in the greater curvature (Figs. 3, 6, and 9), producing often a typical hour-glass contraction. There is usually a considerable thickening of the muscular wall of the organ in relation to the pyloric vestibule and the pyloric canal. Out of twenty stomachs taken consecutively from subjects in my dissecting-room the majority showed this form (Figs. 1, 2, 3, 4). All these subjects were preserved by the same method—an injection of a mixture of equal parts of pure carbolic acid, pure glycerine, and water.

The variations from this type are due to repression of one or more of the parts referred to or to confluence of one with another of certain parts of the organ.

The commonest variation is due to repression of the *pyloric antrum*, so that the pyloric vestibule and pyloric canal form one continuous tubular passage (Fig. 7). Less common is the form in which the pyloric vestibule is absent and the cardia and pyloric antrum are confluent (Fig. 8).

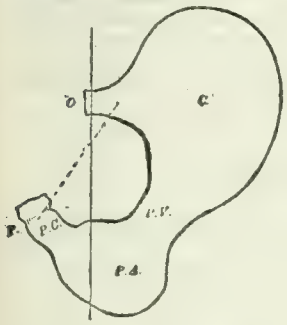


Fig. 1.

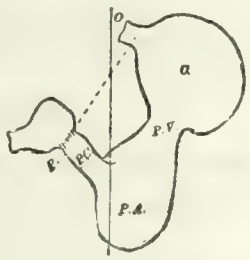


Fig. 2.

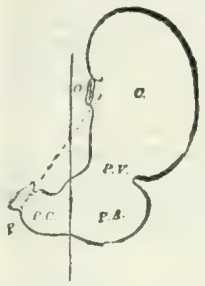


Fig. 3.

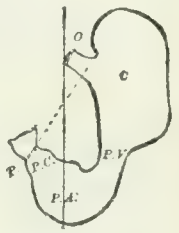
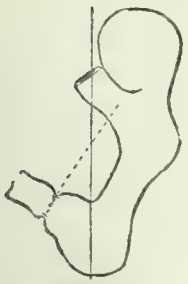


Fig. 4.

O, Oesophagus. C, Cardia. P. V., Pyloric vestibule. P. A., Pyloric antrum. P. C., Pyloric canal. P, Pylorus.


Fig. 5.

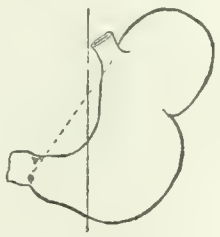
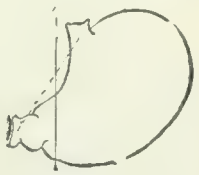
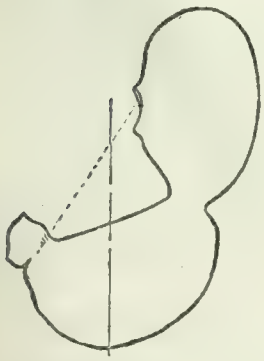
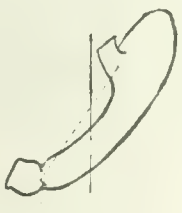
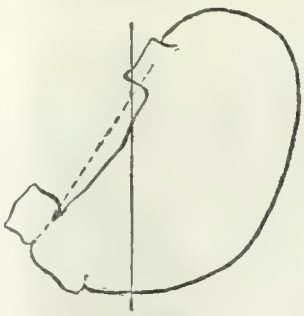

Fig. 6.

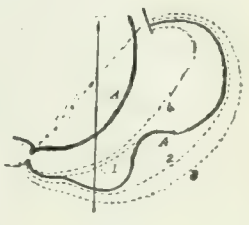

Fig. 7.


Fig. 8.


Fig. 9.


Fig. 10.


Fig. 11.


Fig. 12.

In the series are two examples of extreme conditions. In one case (Fig. 10) the stomach is contracted into a narrow thick-walled tube extending from oesophagus to pylorus, with a small thin-walled fundus to the left of the oesophageal opening. In the other case the stomach is wholly distended, with only a slight constriction near the pylorus (Fig. 11).

In any consideration of the form of the stomach, its position and connexions must always be regarded as of fundamental importance in determining its shape.

The chief alterations of form occur in the pyloric half and along the greater curvature.

Two main causes, in my opinion, are responsible for the form of the stomach and its variations. The less important factor is the relation of the organ to the vertebral column and the structures which lie in front of it—diaphragm, aorta, etc. The projection forwards of these structures may have an influence in producing lateral dumb-bell-like dilatations, with the pyloric vestibule as an isthmus between them.

The more important factor is to be found in the mechanical supports of the stomach. The organ is slung from two main attachments—on the one hand by the diaphragmatic connexions of the oesophagus; on the other hand by the connexion with the liver of the pylorus and the first part of the duodenum. It is obvious that these two points are only relatively fixed. Both undergo changes in position along with the movements of the diaphragm, and the position of the second point is influenced by the position and size of the liver. An oblique line (shown as a dotted line in the figures) may be drawn between these two points. This line may be regarded as fairly constant in position. It is obvious that any change in its obliquity will affect not only the position but also the shape of the stomach. Along this line the stomach sags. There are few alterations of importance in the form of the concave lesser curvature, whereas alterations, dilatations and constrictions, commonly occur along the more mobile and plastic greater curvature.

An hour-glass contraction of the stomach is not necessarily pathological. Indeed, it is the form most commonly found in the dissecting room.

Fig. 12 shows the outline of the normal stomach in a black line (*A A*), with the several varieties in dotted lines (*1, 2, 3, 4*).

A NOTE ON THE SHAPE OF THE NORMAL EMPTY STOMACH.

By J. S. B. STOPFORD, M.B., Ch.B.,
SENIOR DEMONSTRATOR OF ANATOMY, UNIVERSITY OF MANCHESTER.

[With Special Plate.]

Whilst performing an autopsy on an elderly woman who had died from malignant disease of the ovary only a few hours previously, I had the good fortune to find the excellent example of an empty stomach figured in the plate facing page 1203, which conforms precisely to what the radiographers tell us is the real shape of the stomach in the living, but is so rarely seen in this characteristic form in the dead body.

The viscus was tubular, except for one dilatation, and its outline corresponded exactly with the J shape described by Barclay[1] and Hertz.[2] This dilatation, which was roughly cone-shaped, was situated at the summit of the vertical cardiac portion and obviously represented the fundus. The vertical portion of the organ *in situ* corresponded with the description of Hertz,[2] but I should like to draw particular attention to the direction of rather more than the terminal inch of the pyloric portion, not only because it cannot possibly be understood or appreciated from a photograph, but also because certain writers have expressed their inability to understand the relationship of the stomach to the liver if the radiographers are correct. The alteration in direction of this part of the "horizontal" limb was very marked as it passed backwards, upwards, and to the right to come into relation with the visceral surface of the liver. Great difficulty has been experienced in understanding how the recurved portion of the J reached the gastric area of the liver; and in order to believe and realize the shape and position of the stomach as seen by the radiographers, it has to be more or less presumed that the terminal portion of the "horizontal" limb must be directed backwards, upwards, and to the right to reach the liver when the stomach is empty. On this account it is interesting and instructing to find that this was found in a case illustrating what the radiographers have shown to be the empty stomach.

The photograph shows clearly the very oblique oesophageal entrance and the incisura cardiaca between the oesophagus and the fundus.

The recent advances in radiography have revolutionized our ideas of the anatomy of the stomach, and attention is no longer paid to the "sac-like" and distorted specimens seen in the dissecting-room, as it has been repeatedly proved that they are untrustworthy and unreliable; but I consider this specimen worthy of attention, because it illustrates so well the outline of the normal empty stomach as demonstrated by the Roentgen rays.

The normal stomach is subject to the greatest variation, as is evidenced by the numerous descriptions published by anatomists; and it is only since the advent of radiography that correct differences in shape have been realized between the empty, the partially full, and the full stomach.

It is generally admitted now that a correct knowledge of the anatomy of the normal stomach can be acquired only by supplementing what is learnt in the dissecting-room by what is seen in *x*-ray examinations; but for reasons which have been explained many times of late it is rare to be able actually to handle a normal empty stomach that conforms to the radiographer's ideal.

References.
[1] Barclay, *Medical Chronicle*, January, 1913. [2] Hertz, British Medical Journal, September 23rd, 1912.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

TETANUS SUCCESSFULLY TREATED BY ANTITETANIC SERUM.

W. T., aged 30, was admitted into the Epping Workhouse Infirmary on the evening of April 22nd, suffering from tetanus. His body was absolutely rigid, the head immovable, the hands tightly clenched, the forearms pressing the chest, and the legs straight; the mouth could be opened about ¼ in.

He had a recent wound on the head, and a foul wound of old standing on the left shin. The history was that he had felt his jaws stiff for several days, and when walking suddenly fell down, and was unable to move. The police found him on the ground. His only complaints were of great and constant thirst, and the painful rigidity of his limbs. He could swallow liquids easily.

He was given 100 c.cm. antitetanic serum on April 23rd; this appeared to relieve his jaws somewhat. After another 100 c.cm. on April 25th he could open his mouth to half an inch, and the fingers and forearms became movable. After a third injection of 100 c.cm. on April 27th he could move his head, open his mouth with ease, move his arms, and bend his knees, the latter with difficulty; the rigidity of the back remained as before. He now developed an erythematous rash all over the abdomen, and when this disappeared on May 4th I gave him 60 c.cm., and within twenty-four hours he could move his legs comfortably and turn in his bed without assistance. All through he had no opisthotonos and very few spasms. The temperature never exceeded 99°. His further progress was uneventful. The injections were made in the anterior abdominal walls, 50 c.cm. on each side.

C. E. Denning,
Medical Officer, Epping Workhouse Infirmary.

THE VALUE OF EMETINE IN LIVER ABSCESS.

The patient in the following case, a woman aged 40, with a history of alcoholism, had a severe attack of dysentery about a year ago, and this had continued off and on in the form of diarrhoea up to the time I saw her. There was a clear history of excessive drink. About four months ago she had started getting high fever with rigors, and later on this fever abated a little and was unattended with

rigors. About the end of this period she was seen by Dr. A., who on three occasions aspirated her liver and removed large quantities of pus mixed with blood (30 oz., 29 oz., and 21 oz.). But the pus continued to collect, and the patient was getting weaker, so it was suggested that the abscess should be opened up, but the patient being unwilling to submit to such an operation I was consulted on March 13th this year. I found her extremely weak, anaemic, and emaciated, with enlargement of the liver extending almost to the umbilicus in the median line and about 6 in. below the right costal arch in the right mammary line. The swelling due to enlargement of the liver was quite distinct and visible. She had severe throbbing pain in the region of the liver, and was unable to lie on that side. She was having five liquid yellow motions daily without any griping pain, and the fever ranged between 99.8° in the morning and 103° in the evening. It was distinctly of hectic type, and she had hectic flush on the malar bones. She was not even able to sit or move in bed. She had nausea, and was unable to take her food. I prescribed ½ grain of emetine dissolved in distilled water to be taken thrice a day.

Within a week the temperature came to normal and remained normal; the diarrhoea stopped, and the pain in the hepatic region diminished. The swelling gradually began to diminish, and in a month the liver returned to its normal dimension; pain completely ceased, she was able to walk and had an appetite; anaemia disappeared, and she began to gain weight. She had altogether 21 grains of emetine.

During the treatment I noticed two things: First she had oedema of the face and feet, most probably due to excessive work being thrown upon the kidneys as a result of absorption of pus; it was relieved by diuretine and digitalis. Secondly, anaemia increased, most probably owing to the haemolytic effect of the pus absorbed. This was treated by haematogen.

My object in publishing the case is, first, to impress upon medical men that emetine is efficacious even when suppuration has already taken place, and second, that it is equally efficacious when given by the mouth.

S. MALLANNAH, M.D., D.P.H.,
Bacteriologist to H.H. the Nizam's Government, Hyderabad, Deccan.

TREATMENT OF PUERPERAL ECLAMPSIA.

I AM much interested in the article on page 70 of the Epitome of Current Medical Literature (JOURNAL, May 3rd, 1913) on the condition of the kidneys in eclampsia. Zinsser states that the convulsions are regarded as the signs of oedema of the brain. It would thus appear to be more rational to aim at the treatment of the oedema than of the defect of the kidney. Such a theory is in accordance with what physiologists teach us, namely, that our nerve cells are being drowned by the failure of the elimination of fluid from the system, and I had the opportunity of seeing a case treated on that theory, which recovered, as the consultant said she "had no right to do." The treatment by very small frequent doses of potassium bitartrate caused increased diuresis, and the patient improved. That drug was stopped and the symptoms again increased. Slight jaundice being noticed, the urine was found to contain leucine and tyrosin, and on the theory that acute yellow atrophy of the liver was present, a very grave prognosis was given. The treatment by potassium bitartrate was resumed, diuresis again occurred to a remarkable extent, and the symptoms of eclampsia simultaneously subsided. The patient made an excellent recovery, and is still alive. Such a case seems to support Zinsser's rational treatment.

Hawick. JOHN HADDON, M.D.

PAROXYSMAL HAEMOGLOBINURIA.

DR. E. W. SQUIRE informs us that a case which was recorded at page 768 of our issue for April 12th as one of paroxysmal haemoglobinuria has turned out to be a case of haematuria, but that the cause of the condition has not yet been discovered.

THE late Sir H. R. Swanzy, M.D., of Dublin, left personal estate in the United Kingdom valued at £12,487.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

LONDON HOSPITAL.

CASE OF PERFORATING WOUND OF OESOPHAGUS AND AORTA BY FISH BONE.

(By CHARLES JOSEPH TAYLOR, M.A., B.M., B.Ch.Oxon., M.R.C.S., L.R.C.P.)

[Under the care of Dr. WARNER.]

A YOUNG WOMAN, aged 22, by trade a box maker, presented herself in the receiving-room at 3 p.m. on February 14th, 1913.

History.

She stated that on February 9th she was eating some fish, when something seemed to stick in her throat. She tried to vomit, but could not. She then felt an uncomfortable sensation as of something sticking in her stomach; this persisted from that time onward up to her coming to hospital. She had been unable to swallow anything but slops since February 9th. On the evening of February 13th the feeling of discomfort gave way to a heavy choking sensation, accompanied by a strong desire to vomit with inability to do so. The stifling feeling prevented her from lying down; she could not sleep, and there was great discomfort in breathing, as she felt as if there was a weight on her chest. Inquiry into her previous health elicited the fact that on and off for four years she had suffered from "indigestion"—vague discomfort after meals with flatulence and a desire to vomit, though she never actually vomited.

Progress.

Whilst waiting in the receiving-room she suddenly vomited about two pints of bright red arterial blood. Her pulse became thready, and its rate rose to 160 per minute. She was somewhat blanched and very frightened. She was at once admitted to Dr. Warner's wards. By the time she had been put to bed her condition was much improved. The pulse was rapid, 116, but the volume and tension were fairly good. She was quite comfortable, and said she felt better than she had done all the week. Her colour had returned, and she was lying quite quietly. Examination showed her to be a well-developed and well-nourished young woman, with no physical signs of disease either in the abdomen, heart, or lungs.

Her condition remained the same till 4.30 a.m. on February 15th, when she again vomited about one and a half pints of bright red blood. She was given a hypodermic injection of morphine sulphate ¼ grain, and went to sleep. When seen about 11 a.m. the pulse was 116 and the temperature 100° F. She was cheerful, and made no complaint of pain or discomfort. At 12.20 p.m. she had another copious bright-red haematemesis—about two pints—which was followed in a quarter of an hour by another, after which she rapidly became collapsed. An attempt was made to transfuse saline solution intravenously, but death ensued within ten minutes.

Autopsy.

For the following notes of the autopsy I am indebted to Dr. Turnbull, Director of the Pathological Institute.

On *post-mortem* examination, forty-eight hours after death, it was found that a portion of a fish bone 2 cm. long and in shape resembling an arrow-head was projecting into the oesophagus through a ragged wound in the anterior wall immediately below the level of the bifurcation of the trachea. The perforation measured 0.5 cm. in diameter. There was a ragged, shallow wound in the descending thoracic aorta at the site of the obliterated ductus arteriosus. There was an abscess cavity containing brown purulent fluid in the areolar tissue between the perforations in the oesophagus and the aorta. Some red blood clot was found in the stomach, the lining membrane of which was in a state of mucous catarrh. There was melaena throughout the small and large intestines.

Remarks.

Apart from the rarity of the condition, the most interesting point in connexion with the case is the long latent

period intervening between the swallowing of the bone and the actual perforation of the aorta. It seems fair to conjecture that the haemorrhage actually commenced on the evening before her admission, and that at first there was a slow leak into her stomach, which had just about filled up as she arrived in the receiving-room. The bone itself may well have perforated the artery earlier and plugged the wound in the aorta until the surrounding area of ulceration had spread too widely to make this longer possible. Needless to say, the correct diagnosis was not even suspected. Had it been, and oesophagoscopy performed, one shudders to think of the haemorrhage which would have followed the extraction of the offending foreign body.

My thanks are due to Dr. Warner for kindly allowing me to publish these notes.

Reports of Societies.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

At a meeting on May 16th, Dr. H. C. DRURY in the chair, Dr. NESBITT gave an account of four *Tests for liver function*, which he stated were in general use at some Continental clinics, and which, he considered from his own experience, would be found of service. Two of them depended on the fact that laevulose and galactose were excreted in the urine in considerable quantity after their administration by the mouth when disturbance of liver function existed. In the laevulose test 100 grams of this sugar were given in the morning, and any trace in the urine indicated liver disorder, but not its nature. The size of the dose was objectionable, and the further fact that about 10 per cent. of normal cases show some sugar in the urine rendered the test unreliable. The use of galactose in 40-gram dose formed a much better test. Normal cases excreted sugar for one, or at most two, hours subsequently. Cases with general cell, as apart from local, lesions in the liver eliminated sugar for five, six, or more hours in considerable quantity. The test was therefore positive in cirrhosis of all varieties, toxic forms of icterus, and parenchymatous degeneration, but negative in local lesions, such as tumours, and in two more or less general conditions—namely, chronic passive congestion and amyloid disease. This test was easily applied and reliable. A further test, depending on quite a different function of the liver, was the use of amino-acids. Ten grams of glycocol are given, and the amino-acid in the urine estimated by a modification of Henrique's method. No increase over the usual small traces was found when the liver was healthy, but disease of this organ caused the appearance of substantial amounts, even up to 5 grams. The test was rather more troublesome to carry out, but in practice had been found extremely accurate. The most novel and reliable of these tests was, however, the "aldehyde reaction." Two drops of Ehrlich's aldehyde solution (a 2 per cent. solution of dimethyl-para-amino-benzine-aldehyde in 50 per cent. HCl) were added to 5 c.cm. of urine. A deep rose-red colour indicated excess of urobilinogen, and therefore insufficiency of the liver, which was allowing urobilinogen (formed in the intestines from bilirubin) to pass through into the systemic circulation. Normal cases showed only the faintest trace of pink, which constituted a negative reaction. This test had been found very reliable, and was given by any condition of the liver which would derange even a small number of cells, but was most strongly positive in such conditions as chronic congestion, cirrhosis, tumours, degenerations of various forms, syphilis, and amyloid disease. Further, the reaction would be obtained frequently before physical signs of any kind had appeared. Its advantages in cases of this kind would readily suggest themselves.

SECTION OF SURGERY.

At a meeting on May 9th, Sir JOHN LENTAIGNE in the chair, Mr. W. I. DE COURCY WHEELER, in a paper on the various abdominal angulations and kinks associated with the term *Intestinal stasis*, based his conclusions on a study of 20 recent abdominal cases. Stress was laid on the association of various intra-abdominal lesions, and the speaker condemned the practice of performing the operation of appendicectomy with great rapidity. If an appendix lent itself to rapid removal by its anatomical position of gross pathological changes, either the operation was not justified, or, more likely, the symptoms were equally due to such conditions as Lane's ileal kink or Jackson's membrane. The speaker had been able to trace Jackson's membrane in direct and unbroken communication with the right margin of the omentum, and he accepted the theory of Gray and Anderson that it was nothing more than the lateral margin of the great omentum pulled out during the descent of the caecum. The congenital theory as to the formation of this and other bands and membranes forming kinks was satisfactory and comprehensible. Dilatation of the duodenum was often overlooked, and was due to developmental adhesions at the duodeno-jejunal juncture or to a band stretching across the duodenum to the right of the superior mesenteric artery. Jackson's membrane, so far from helping to fix the caecum, often caused a marked kink at the hepatic flexure, with prolapse and dilatation of the caecum. Cases with slight or marked visceroptosis, with splashing caecum and diffuse right-sided discomfort or pain, almost invariably had a well-developed Jackson's membrane. The membrane should be divided if causing exaggerated angulation of the hepatic flexure. The cases with a little experience could be diagnosed before operation. Left-sided pain was often due to an exaggerated kink of the pelvic colon, rendered worse in females by the implication of the left ovary in the line of fusion between visceral (mesocolic) and parietal peritoneum which caused the kink. A plastic operation on the mesocolon relieved the kink, and often cured constipation in the most intractable cases. In enteroptosis cases the conditions described were most marked. Gastro-enterostomy, like appendicectomy, was often performed without having regard to developmental adhesions and obstructions of a congenital kind below the duodenum. It was a simple and rapid operation to perform, but was seldom indicated beyond cases of pyloric obstruction. Until recently, gastro-enterostomy was too frequently performed, and the after-results were not as favourable as was generally supposed. The whole subject matter required riddling and discussion, but certain points were definitely settled, one of the most important being the definite presence of abnormal angulations and rotations of the gut, which, when relieved by operation, caused the disappearance of symptoms in a number of obscure abdominal cases. The relief of constipation by a plastic operation on a developmental kink was worthy of attention. Dr. MAURICE HAYES, in a paper on the *Intestinal tract*, stated that in all cases the data furnished by the *x*-ray examination should be carefully analysed in conjunction with the previous history and the subjective and objective symptoms of the patient. Radiography should be employed as an aid to, and not as a substitute for, the ordinary methods of diagnosis. To interpret accurately the different shadows cast by the intestines required much practice and experience. The shadow of a loop of the bowel, when viewed obliquely, gave the idea of an existing kink; in reality this curve might be the arc of a circle quite insufficient to delay the passage of the intestinal contents. In spasmodic strictures of the oesophagus the bismuth food might be seen to enter the stomach with a sudden rush when the spasm relaxed. In cicatricial stenosis the food passed in a thin stream, and peristaltic movements were violent. In malignant strictures the peristaltic movements in the neighbourhood of the growth were feeble. Reversed peristalsis was often present, and enlarged glands could be observed near the gullet in the posterior mediastinum. As the position of the umbilicus varied, a transverse line between the summits of the iliac crests would be the most accurate landmark. In the erect position the greater curvature of what might be termed the "normal" stomach reached this line. Radiography was of doubtful value in determining the presence or absence of gastric ulcers. A point of maximum tenderness to pressure over a particular part of the stomach or duodenum was not strong presumptive evidence of an existing ulcer. Adhesions which fixed the terminal part of the ileum to the right pelvic brim could be detected by *x*-ray examination, and the latter was the most valuable method of accurately determining the

position of the large intestine. The duodenum was often seen to be much dilated—especially when there was obstruction to the free passage of food into the jejunum, or when there was delay in entering the caecum. Dr. FARNHAM said he had gone into the literature, and was not satisfied that the clinical symptoms attributed to these kinks were really due to them. It was well known that rest in bed improved the condition. He was not satisfied that the performing of plastic operations and the removal of them would improve the condition, nor would the removal of the adhesions improve it. The Chairman (Sir JOHN LENTAIGNE) said his opinion largely coincided with Dr. Farnham's. There were two main schools of mechanical theory of this affection—the English school, led by Lane, and the Danish; and there was a third, namely, the French. All the schools acknowledged that there were cases in which symptoms similar to those complained of in these instances were present without evidence of stasis, and that there might be some other cause. The Continental school said that most of the trouble was due to putrefactive changes in the intestine and that the condition was due to intestinal toxaemia; that there was a good deal of truth in this there was not the slightest doubt.

ROYAL SOCIETY OF MEDICINE.

SECTION OF MEDICINE.

AT a meeting on May 27th, 1913, Dr. FREDERICK TAYLOR, President, in the chair, Dr. H. A. LEDIARD (Carlisle), in a paper on *Chyliform effusion*, described a case which commenced in 1903 with abdominal pain, resembling that of peritonitis; a month later there was a second attack, and the recovery from it was associated with emaciation. All who examined the patient agreed that he had tuberculous disease of the abdomen. The face was expressive of prolonged physical depression, and his appetite was vicarious. The anterior abdominal wall showed distended veins, and, when he coughed, fluid passed down the left inguinal canal into the scrotum. There was dullness on percussion over a limited area above the umbilicus. Diarrhoea was a prominent symptom, probably on account of the unusual things the boy ate. The urine was free of albumen and sugar. Tuberculous peritonitis was diagnosed, and drainage recommended. The fluid withdrawn was reported upon as milky looking, alkaline in reaction, specific gravity 1005, 6 parts per 1,000 albumen, and less than 0.2 per cent. of fat. No distinct cellular elements could be found, nor was there either blood or pus. There was some improvement following the operation, but afterwards the patient fell away, and disturbance of the mentality suggested tuberculous meningitis; there was, however, no convulsion or fit. The abdominal swelling persisted, the tongue became dry, he was emaciated, and he died, obviously of brain symptoms. At the *post-mortem* examination chylous fluid escaped from the abdomen, and was found to be free in the abdominal cavity, more on the right side than on the left. It was not shut up in loculi; 65 oz. was removed. There was distension of the coils of the intestine, resulting in the heart having been pushed upwards. There were no adhesions between the coils of the intestines, nor between the latter and the abdominal wall. The omentum showed minute tubercle granulations, and the mesentery was much thickened; the mesenteric glands were much enlarged but not caseated. Near the pancreas was a mass of glands 2½ in. in diameter; the mesenteric vein was much obstructed. The thoracic duct in the thorax showed no abnormality. The glands presented numerous tuberculous foci, and in most of these the centre was caseated, with cellular proliferation, and giant cells. The lymphatic channels contained numerous mononuclear cells. The liver was not enlarged, but the spleen was large and doubled on itself; there was tubercle of the kidney also. There were no cavities in the lungs, but the air cells were filled with an exudate, and there were some tubercle bacilli found. The origin of the condition seemed to be that tuberculous disease affected the glands, and caused pressure on the receptaculum chyli. Death ensued owing to tuberculous involvement of the membrane of the brain, after a long period during which the disease was only abdominal. There was no means, short of tapping, by which the presence of a chyliform fluid could be determined. It had occurred to him that pressure could have been relieved by tapping the scrotum, though the chance of keeping that part aseptic was not great. In one of the cases on which the paper was based 31 oz. per day of fluid was drawn off. Dr. MACKENZIE WALLIS discussed the chemistry of these effusions, following upon analyses of the fluid obtained from 6 cases; 3 of these had been published in the *Quarterly Journal of Medicine*, and in that paper reference was made to the cases which could be found in the literature, 174 in all. The triple classification by Quincke was based upon the presence of fat in various quantities; but he believed that criterion was an erroneous one. He suggested the cases should be divided into two groups—the chylous and the pseudo-chylous. By chylous he meant the fluids which resulted from trauma or disease of the chyle vessels, with the escape of chyle from the lacteals of the pancreatic cyst. The pseudo-chylous were those fluids in the serous cavities in which the opalescence was only partially due to fat, other substances also being present. The commonest associated diseases with milky fluid were malignant disease, tuberculous infections, cirrhosis of the liver, and nephritis. Out of 172 cases, 42 had simultaneously pleural effusion which was milky and pseudo-chylous in character. In 18 the effusion was bilateral, in 24 it was unilateral. There were two examples of milky pericardial fluid, and four of milky peritoneal fluid associated with hydropericardium. In the chylous variety, the fluid reaccumulated much more quickly than in the pseudo-chylous, and the latter was a pure white, as against the yellowish-white of the other form; it also diminished in quantity after successive tappings. In one case, in which the disease was a septic hip-joint, the peritoneal fluid withdrawn was first milky, and later became serous. Odour was a great help in differentiation, for the pseudo-chylous was odourless, while the other smelt of ingested food, owing to the fat present in such food. Dr. RYFFEL described two cases in which milky-looking effusions were encountered. The first was one of chronic nephritis, in the later stages of which the fluid accumulated at a great rate. Its character corresponded with that described by Dr. Wallis as pseudo-chylous ascites. The second case, in which the fluid was found in the thorax, was a more difficult one, and the *post-mortem* examination did not enable the origin to be definitely stated. The liquid contained globules of fat, but they did not fully account for the opalescence.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT a meeting on May 24th, Professor E. W. HOPE, President, in the chair, Dr. C. O. STALLYBRASS, in a paper on the *Declining incidence of typhoid fever*, pointed out that this decline affected almost every civilized country; the statistics for Great Britain might be divided into two periods of decline, separated by a period lasting from 1890 to 1900, when the rates were stationary and there was an actual rise in some towns, notably London, Edinburgh, Birmingham, and Glasgow. Though one of the principal factors in the reduction of typhoid fever of late years had been the change from the conservancy to the water-carriage system of excrement disposal, yet in Liverpool the substitution of water-closets for privies was being actively enforced during the years 1880–93, and it was in those years that there was an increase of the disease in that city. Whatever influence was at work and operating to increase the prevalence of typhoid fever, it was sufficient to counterbalance the effect of the removal of the privy-middens which formerly existed. The speaker did not consider that the decline of the disease could be altogether attributed to an improved water supply, for this was excellent before the decline set in, nor did he think it was due to a diminished consumption of shellfish. It was more likely to be due to the increasing number of removals to hospitals, and most likely to the important sanitary work that had been effected in Liverpool in the last fifteen or twenty years, more especially as regards the rehousing schemes that had been carried out. These had involved the destruction of many insanitary courts, which at one time were a striking feature of the central and older parts of the city. They were provided with trough closets, common to several

families, which, in spite of the greatest care on the part of the sanitary staff, were often in a state of unspeakable filthiness. As a result there was an excessive incidence of typhoid fever in the central parts of the town compared with the outskirts. Since 1896 the number of these courts had been reduced from 1,540 to 500, and the annual number of cases of typhoid fever from 1,300 to 125; in other words, for every court destroyed there was one case of typhoid fever per annum less. Professor HOPE referred to the danger of fly contamination, and said that the public should be urged to obtain their food supplies only from those shops in which precautions against the contamination of food from the filth of flies were carried out. He was certain that more energetic control of the shellfish industry would benefit both those engaged in it and the public generally. Dr. VACHER was not convinced that immunity from typhoid fever was obtained by a previous attack. Dr. SYDNEY MARSDEN agreed as to the important association of privy-middens with outbreaks of typhoid fever, and stated that in Birkenhead the disease had practically become extinct with the adoption of water carriage. The Lord Mayor of Liverpool entertained the members of the society to luncheon, and in the afternoon motor excursions to the Liverpool Garden City and elsewhere were made, and about seventy members were taken for a cruise on the river.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

AT the quarterly meeting, held on May 27th, Dr. J. GREIG SOUTAR, President, in the chair, there was a unanimous acceptance of the resolution of a special committee that representations be made to the Home Secretary to the effect that it was most undesirable that criminal lunatics be sent to county or borough asylums. The Lunacy Commission had expressed its support of this attitude. The meeting was also unanimous in urging that Ireland should be included in the Mental Deficiency Bill now under discussion in the House, and it was shown that Ireland was in special need of such an enactment, even more so than the parts of the kingdom catered for in the measure. Dr. R. G. ROWS read a paper by himself and Dr. DAVID ORR on the spread of infection by the ascending lymph stream of nerves (ascending neuritis) from the peripheral inflammatory foci to the central nervous system. He said that it had been shown that toxins and organisms could travel by the lymph streams of peripheral nerves into the central nervous system; but while they could prove that degeneration of the myelin sheaths of fibres in their intramedullary course might thus be produced, they did not find unequivocal evidence of actual myelitis. In the present series of experiments the capsule containing the organism was placed much nearer the spinal cord than in the previous series, the cord being exposed at the level of the lumbo-sacral enlargement, and a capsule containing *Staphylococcus pyogenes aureus* was sutured against the dura mater. In some other experiments the capsule was placed close against an intervertebral foramen. All the experiments gave positive results, though in some instances the change was more acute than in others, owing to the capsule having burst and the nervous system being invaded by the organism. Generally it could be said that the nervous and meningeal tissues nearest the focus of irritation suffered most, and the phenomena became less marked from without inwards, with a minimum near the central canal of the cord. Only rarely were organisms found to have passed the barrier of the dura mater. Yet in both the white and the grey matter of the cord the vessels exhibited marked pathological changes. The resemblance between the experimental phenomena produced by the authors and the pathological phenomena found in acute poliomyelitis was very close indeed, and there could be little doubt that poliomyelitis was essentially a lymphogenous infection.

UNDER the will of the late Miss Margaret Jane Ashley, of Rowan House, Dorchester, Dorset, County Hospital receives a bequest of £1,000 and Weymouth Eye Infirmary one of £500.

Rebielus.

THE BRITANNICA YEAR BOOK.

ENCYCLOPAEDIAS are, of course, invaluable as works of reference, but their utility is greatly lessened by a serious drawback. Even when all the volumes appear at once, as in the last edition of the *Encyclopaedia Britannica*, not a few of the articles are necessarily out of date before the mechanical difficulties of publication can be overcome. No encyclopaedia, therefore, is absolutely trustworthy at every point at a given time. This is true of all branches of knowledge, but it is especially so in the case of science, which is subject to changes often amounting to revolutions every few years. It was Sir Michael Foster, we think, who estimated the average life of a physiological theory at ten years, and surgery is liable to changes almost as rapid. A considerable time must necessarily elapse between the editions of an encyclopaedia, and in the meantime knowledge continues to grow at a pace with which no publication covering the whole field of human activity can keep pace. It was a happy inspiration, therefore, which led the publishers of the *Encyclopaedia Britannica* to issue a year book which is at once a supplement to the *Encyclopaedia*, bridging over the gap between 1910 and the present time, and an independent work of reference.[1] The *Year Book* is a companion and in many points a corrective of the great work published in 1910–11. In the words of Mr. CHISHOLM, the editor, "it comes in direct series, though in a different form, with the eleventh edition of the *Encyclopaedia Britannica*, and carries on under the same auspices, with the same ideals, and with the same corpus of contributors—selected and enlarged for adaptation to the circumstances, the same attempt to give accurate and disinterested expression to the best judgement of the civilized world." The *Year Book* is designed on the plan of an annual survey, but the arrangement of the matter is on the same lines as in the *Encyclopaedia*, which as it were hands on the torch to those responsible for its production. It begins with a diary of events from January, 1911, onwards, which, as far as we can judge, is remarkable for its completeness and accuracy, and it contains, packed into a wonderfully small space, information not only about the present state of knowledge in various departments, but about the events which have led up to the political and social situation and to discoveries in diverse fields. *Quidquid agunt homines* would have been an appropriate motto for the book. Turning to the articles likely to be most interesting to our readers, Mr. Stephen Paget gives a concise but lucid summary of the advances made in medical science within the last two years, and Professor Edward Cameron Kirk, of the University of Pennsylvania, reviews the progress of dentistry. We are somewhat surprised in a publication such as the *Britannica Year Book* to find an article on osteopathy. The editor seems to feel that some kind of explanation of the intrusion of such a diatribe in the domain of science is necessary, for he prefixes a note in which he says: "The distinctive school and system of medicine to which this name has been given has become so prominent in recent years that an authoritative statement of its principles and claims appears desirable." Such an "authoritative statement" is accordingly supplied by G. W. Riley, Ph.B., D.O., who is described as "a leading American osteopathist." We need not discuss the article further than to compare the statement of the author that "the curricula of the osteopathic colleges embrace all the subjects taught in the other medical schools except materia medica" with what is said about these schools by Mr. Abraham Flexner,[2] who states "with all possible emphasis" that not one of these schools is in a position to give such training as osteopathy itself demands. "In so simple and fundamental a matter as anatomy—assuredly the cornerstone of a science that relies wholly on local manipulation—they are fatally defective." The equipment of the schools is of the

[1] *The Britannica Year Book, 1913.* A Survey of the World's Progress since the completion in 1910 of the *Encyclopaedia Britannica*. Eleventh edition. Edited by Hugh Chisholm, M.A.Oxon., Editor of the *Encyclopaedia Britannica*. London and New York: The Encyclopaedia Britannica Company, Limited. 1913.

[2] *Medical Education in the United States and Canada.* A Report to the Carnegie Foundation for the Advancement of Science. New York. 1910.

poorest; the laboratory work, where it exists, is a farce. To quote Mr. Flexner again, "the eight osteopathic schools fairly reek with commercialism. Their catalogues are a mass of hysterical exaggerations, alike of the earning and of the curative power of osteopathy." We can only express regret that a book of such high aims and so thoroughly well executed should be disfigured by what we can only call a piece of rigmarole. But on the whole the *Year Book* is a marvellous piece of work, and it is to be hoped that its success will encourage the publishers to continue an enterprise that will, so to speak, keep the *Encyclopaedia Britannica* permanently alive and abreast of advancing knowledge. That there is a good prospect of this being accomplished may be gathered from a circular which we have received from the publishers in which, in apologizing for any delay experienced in obtaining copies of the book, they state that the filling of 10,000 orders already received has exhausted the first impression, and the second printing has not been obtainable from the press quickly enough for the delivery of further copies on demand. They add, however, that the second impression will now be shortly received from the binders. For a doctor who wishes to keep himself well posted without much trouble in the progress of human affairs we know of no better guide than the *Britannica Year Book*. For the period which it covers it is an admirable *Conversationslexicon*.

TUBERCULIN IN DIAGNOSIS AND TREATMENT.

PRACTICAL experience in the use of tuberculin is gradually affording a mass of evidence as to its therapeutic value, its indications, and its limits. An important contribution to the common stock of information is forthcoming from the chief workers at the Henry Phipps Institute in Philadelphia, where the treatment has been in use for the last five years.

Drs. HAMMAN and WOLMAN have issued a substantial volume, *Tuberculin in Diagnosis and Treatment*,[3] containing a very full account of the principles underlying the action of tuberculin, and of their experience of its uses. Nominally written as a guide to the uninstructed worker, it makes clear certain general lines of thought, but the reader will rapidly discover that the points upon which all observers are agreed are not very numerous. From much that is purely speculative certain considerations stand out definitely, and of these we may mention the opinion that reaction to tuberculin is an indication of infection, but not of necessity of the clinical disease. Another important fact with regard to immunity may be held to be established. Actual immunity is only a relative condition. It depends upon the size of the reinfecting dose. A small reinfection may lead to much local disturbance in the immune subject by which the virulence of the infecting bacilli is destroyed, but a large reinfection may be attended by general symptoms continuing for a long time, and indicative of a chronic rather than an acute progression of the disease. A very acute infection, on the other hand, may produce all the symptoms of intense intoxication leading to death, even in a person previously assumed to be immune. The relapses so commonly observed in the human subject, varying in intensity and duration, are doubtless often due to auto-infection reacting in proportion to the size of the dose of poison that may be at work.

Although reaction to tuberculin, experimentally introduced, is a fairly good test, it is open to several sources of error and hence it will not surprise the reader, who may have hitherto put all his faith in the textbook, to find that a great divergence of opinion is obvious amongst experimenters as to the actual nature of the tuberculin reaction. The phenomena of hypersensitiveness have been more fully studied in recent times, but much remains to be done before its full diagnostic significance can be established. Most observers are agreed that a vigorous response to the cutaneous test is a good indication of such hypersensitiveness in early life, but in later years the frequent exceptions prevent any positive deductions. It would appear that from 40 to 60 per cent. of healthy adults have been found to react to the subcutaneous test, but the interpretation of this high average has been the subject of much contradictory discussion. The conjunctival reaction also has met with varied degrees of support and objection. It seems to have proved injurious in too large a number to admit of its unrestricted use, and the conclusion drawn from the large field of the authors' experience is not in favour of the routine use of any tuberculin test for diagnosis, but only when other means have proved inconclusive.

The later part of the work is devoted to the discussion of treatment, and full information is given as to the methods of preparation and technique employed. Like other special workers in the field of tuberculosis, the authors are fully alive to the danger of attributing recovery to any special means of treatment adopted. They maintain that three points must be regarded in estimating success or failure—namely, the duration of life after treatment, the ability to work, and the absence of bacilli from the sputum. The persistence or modification of physical signs are, they consider, of minor import, if the other conditions are favourable.

Although nominally intended as a practical guide, the work is in fact a compendium of former and latter observations and of the opinions founded upon them. The average reader without special knowledge may well be confused and enlightened in turn by the mass of conflicting evidence that is put before him. It need hardly be said that the ultimate verdict is in favour of tuberculin treatment, but there are so many side-issues to consider that the particular conditions of each individual case must still count for much before the decision that tuberculin should be used is reached.

[3] *Tuberculin in Diagnosis and Treatment.* By Louis Hamman and Samuel Wolman, of the Johns Hopkins University. New York and London: D. Appleton and Company. 1912. (Demy 8vo, pp. 395, figs. 30. 12s. 6d. net.)

EYE-STRAIN.

THIS useful little book[4] consists of a collection of articles contributed to the BRITISH MEDICAL JOURNAL, the *Lancet*, the *Birmingham Medical Review*, *The Ophthalmoscope*, and *The Reports of the Society for the Study of Disease in Children*. They include the Middlemore Lecture, delivered in 1910 at the Birmingham and Midland Eye Hospital. It is obvious that there must be a great deal of repetition, but the subject is of such vast importance that many of its phases cannot be too often reiterated.

The first article is on eye-strain, or asthenopia and its detection in practice. The author defines eye-strain as a convenient modern expression which may be taken to mean that the eyes cannot be used as they should be in a state of health without entailing a strain upon the muscles, intrinsic or extrinsic, of the eye, which in its turn betrays itself by local or general discomfort. This strain is more likely to be manifested among the cultured classes, and is more common in women and children than in male adults. The "neuropathic temperament" is an important factor in determining the symptom complex of eye-strain. Chronic headache and neuralgia are the symptoms most frequently met with; some American authors would add a multitude of other functional disorders, including epilepsy and chorea, but the author gives cogent reasons for believing that this is to go too far. The detection of eye-strain is by no means easy, especially when no eye symptoms are present, such as pain, blepharitis, conjunctivitis, or chronic sties, all of which are associated with errors of refraction. Many of the patients have perfect vision, and the error of refraction may be very small. In a susceptible individual even one quarter of a dioptre of astigmatism may be responsible for all the symptoms, especially if the axis be oblique or against the rule. The author agrees with Weeks in urging the absolute necessity of using a mydriatic in such cases, and he rightly says that full cycloplegia with atropine may be necessary. This advice is the more welcome because many ophthalmologists treat these cases without cycloplegics; the result is often failure to cure the symptoms of asthenopia. Time must be devoted to the case, and it may be necessary in a bad case to see the patient several times.

The second chapter deals with ocular headaches. The causes of headaches are classified, and among them eye-strain occupies a prominent place. Errors of refraction and of muscle balance are fertile sources of headache. The

[4] *Eye-strain in Everyday Practice.* By Sydney Stephenson, M.B., C.M.Edin., D.O.Oxon., F.R.C.S.Edin. London: *The Ophthalmoscope* Press. 1913. (Demy 8vo, pp. 139. 3s. 6d. net.)

author believes that migraine is often due to eye-strain: "I do not for one moment doubt that the *essential* factor in migraine is eye-strain." We are inclined from our own experience to agree with Flemming, who said that "he did not believe that the migraine would be cured merely by correcting errors of refraction, as there was a general condition to be considered in addition." Many cases of migraine have no errors of refraction or of muscle balance, and careful correction of such errors when present may fail to cure. Many cases may be greatly improved, but the prognosis should be most guarded or much disappointment may follow.

The third chapter, upon some unusual forms of migraine in children, is most valuable, coming as it does from the pen of one who has made the diseases of children his special branch of ophthalmology. Many of the headaches of children are migrainous in nature, and the migraine is apt to be atypical in infants. It is often bilateral, its periodicity is striking, tinnitus is frequently present, and hemianopsia and scintillating scotomata are rare. Stephenson discusses migraine associated with aphasia; migraine replaced by bouts of vomiting; and migraine associated with alterations of sensation or disturbances of mobility. Cases are cited in support of these types. Finally, the author believes that severe vertigo may be a manifestation of migraine.

The fourth chapter treats of habit spasm and eye-strain. The habits are jerking movements of the lids, often accompanied by a drawing up of the angle of the mouth; convulsive movements of the nose, the forehead, shoulders, arms, hands, or legs; and a tendency to make uncouth noises, such as "grunting," "clucking," "sniffling," or "hiccoughing." A careful examination of the eyes is essential in all these cases, which may often be cured by suitable glasses.

"Pseudo-optic neuritis" is the subject of the fifth chapter, which is headed "A Common Appearance of the Optic Disc liable to be mistaken for Optic Papillitis." The reviewer has found these cases exceedingly rare; although he has examined the disc of every child in a school clinic, he has so far not detected one among the last 250 cases; Stephenson finds 22.8 per cent. James Bordley describes the condition as "fairly rare," and Poltbeck gives the figures as 0.214 per cent. The cases to which references were made have all the characteristics of real papillitis, and can only be separated from it by a consideration of the whole circumstances of the case. The common mistake is to take pseudo-papillitis for real optic neuritis, but the reverse error has been made, even by Stephenson himself. The appearances of the disc vary so much that in slight cases it is difficult to decide whether a given example is within the physiological limits or whether there is an actual hyperaemia. The edges of the disc may be indistinct and yet the fundus may be normal. These facts may account for the frequency with which the author finds papillitis of the pseudo-hypermetropic type. The differences between the real condition and the "pseudo" type are discussed by the author. The final chapters deal with cases of eye-strain simulating grave organic disease of the central nervous system and the aftermath of eye-strain, the last being the Middlemore Lecture.

We have said enough to indicate the extreme interest and real value of the book, so we shall leave these last chapters to the reader. The subject of eye-strain as a cause of headache and an exciter of other manifestations of the neurotic habit is receiving much more attention from the general practitioner than formerly, but even to-day many persons suffer lifelong misery and often incapacity for work because no one tells them to consult an ophthalmic surgeon. The practitioner will never earn more gratitude from his patient who is a martyr to headaches than when he sends her to a careful and competent ophthalmologist. Too often such persons fall into the hands of the advertising "optologist." Every medical man would do well to buy, read, and digest Mr. Sydney Stephenson's book.

DISEASES OF THE HAIR.

THE work of Sabouraud has added more than that of any other dermatologist to our knowledge of the hair and its diseases within the last few years, and although many problems still remain unsolved he has done much to evolve order out of the chaos of vague ideas and empirical therapeutics which so long have prevailed in this department of dermatology. The *Treatise on Diseases of the Hair*,[5] by JACKSON and MCMURTRY, would deserve a welcome if for nothing else than that it presents the main results of Sabouraud's work on seborrhoea of the scalp and kindred subjects in a form easily to be understanded of the English-speaking public, but it has the merit also of being written in a scientific manner, and of making use of modern bacteriological observations. The first great advance in our knowledge of diseases of the hair was made by Gruby, who discovered the fungus which is the cause of ringworm; then came the differentiation of ringworm from alopecia areata and the separation of the different varieties of ringworm from one another; lastly, Sabouraud has thrown considerable light on the problem of premature baldness, now perhaps commoner than ever. One great question still, however, remains as obscure as ever, the etiology of alopecia areata. This problem has exercised the minds of many dermatologists, but the only fact as yet established is that heredity plays a part in its causation. The present authors discuss at some length each of the current theories, the parasitic, the trophoneurotic, and the dystrophic theory of Jacquet, but they do not throw any fresh light on the subject. We are driven to take refuge in the blessed word "toxaemia." Although a book on diseases of the hair must necessarily concern itself chiefly with the scalp, due attention has been paid to the hair of other parts of the body, and such diverse conditions as sycosis, hairy moles and trichotillomania are all dealt with adequately. The subject of treatment is in most cases fully dealt with, and there are many interesting prescriptions given which will repay examination. We are pleased to note that the Kienbock-Adamson method of applying x rays to the scalp is recommended as the method of choice when the whole scalp is affected with ringworm, but Fig. 71, which illustrates the points to which the rays should be directed, is not quite accurate, as the lines of application are not drawn in each case perpendicular to the surface of the scalp. The book is well got up, the illustrations, many of them derived from Sabouraud, to whom in their preface the authors handsomely recognize their indebtedness, are excellent, and we can recommend it confidently.

THE HISTORY OF CHEMISTRY.

A PERUSAL of Dr. CAMPBELL BROWN'S *History of Chemistry*[6] impresses the reader with the fact that the subject is practically coextensive with the history of all experimental science. The various branches into which science is now divided—chemistry, physics, botany, physiology, and all the departments of the science of medicine—all have a common origin, and in their earlier stages are scarcely distinguishable. As they have gradually diverged, chemistry has contributed to all of them, and in turn has been helped by each.

Dr. Campbell Brown commences his book with an account of the most ancient observations and speculations of which records have come down to us, and divides the history approximately into five periods, which partly overlap: (1) The Prehistoric, from prehistoric times to 1500 B.C.; (2) the Alchemical, from 1500 B.C. to 1650 A.D.; (3) the Iatro-chemical, from 1500 A.D. to 1700 A.D.; (4) the Phlogiston period, from 1650 to 1775; (5) the Quantitative period, from 1775 to 1900. In dealing with the first of these periods, ancient Chaldean and Egyptian records supply most of the material; the knowledge of metals, pigments, etc., in those remote times shows a practical acquaintance with some chemical processes which is by no means to be despised. The alchemical period was dominated, though perhaps to a less extent than is sometimes supposed, by the quest for the philosopher's stone and the power of transmuting baser metals into gold. In the iatro-chemical period, the association of chemistry with medicine, which has never since been dissolved, may

[5] *A Treatise on Diseases of the Hair.* By G. T. Jackson, M.D., and C. W. McMurtry, M.D. London: Henry Kimpton. Glasgow: A. Stenhouse. 1913. (Roy. 8vo, pp. 366; 109 engravings and 10 coloured plates 16s. net.)

[6] *A History of Chemistry, from the Earliest Times till the Present Day.* By the late James Campbell Brown, D.Sc.Lond., LL.D.Aberd. Professor of Chemistry in the University of Liverpool. With a portrait and 106 illustrations. London: J. and A. Churchill. 1913. (Med. 8vo, pp. 568; 106 illustrations. 10s. 6d. net.)

be said to have definitely commenced, since the main object of the iatro-chemists was the production of substances of value as medicines for human ailments. The theory of phlogiston marks the beginning of the more definitely scientific aspect of chemistry, the phlogistonists and antiphlogistonists being more concerned with the discovery of the explanation of such general phenomena as combustion than with any directly utilitarian object. But as a large proportion of the notable chemists from that time to the present were either practising physicians or pharmacists, or began their careers in medicine or pharmacy, the association between chemical science and the art of medicine has continued to be close. The quantitative period may be said to have begun with Lavoisier, who employed the balance systematically in the study of chemical phenomena; Priestley, Cavendish, and others were working at the same time in a genuinely scientific spirit, and with the enunciation, soon after, of Dalton's atomic theory, the science of chemistry began that advance which has revolutionized the world.

Dr. Campbell Brown's book, published posthumously, and edited by Mr. H. H. Brown, is based on the lectures delivered by him as part of his chemical course in the University of Liverpool, and shows an amount of research which proves how deeply he felt the absorbing interest of his subject. Practically half the book is devoted to the development of chemistry in the nineteenth century, and as the present time is approached details are more fully given; the final chapter is devoted to that latest field of chemical study, the radio-active elements. It is of great interest to observe from the narrative how imperfect theories, like that of phlogiston, which had to be abandoned and fell into discredit, can nevertheless be seen in the light of fuller knowledge to have come so near to the truth that comparatively little alteration suffices to identify them with the views now held and established by experience; and another striking observation is that an erroneous theory has not infrequently been maintained to the last by the very men whose work was making it untenable.

The interest of the book is considerably enhanced by the numerous portraits of famous chemists, from Boyle onwards, whose work is dealt with; there are also many reproductions of illustrations from old manuscripts of the apparatus and the signs employed by alchemists.

NOTES ON BOOKS.

DR. NORMAN PORRITT has published, under the auspices of the Church of England Temperance Society, a useful pamphlet of warning with regard to the dangers of the drug habit.[1] As he points out, the secrecy with which such indulgence is invariably practised renders it difficult, or rather impossible, to estimate the extent of the evil, but there can be little doubt of its wide and growing prevalence. Nor can it be denied that its effects upon moral and physical health are even more disastrous than those of alcoholism. The pamphlet is well calculated to enforce the gravity of the evil with which it deals, and deserves wide circulation.

Popular handbooks on the part the mosquito plays in the spread of disease are required, and one[2] by ALVAH H. DOTY, formerly health officer of the Port of New York, may be recommended. It deals sufficiently with the identification, breeding places, food, and length of life of mosquitos, the distance they can travel, and with their hibernation. The extermination of the mosquito, and remedies and agents for the prevention and treatment of mosquito bites, are discussed. The book is well illustrated with diagrams of larvae, pupae, and adult insects, which greatly increase its value. It should prove useful to the laity generally.

A monograph by G. A. WETTERSTRAND,[3] dealing with the many aspects of perforated gastric and duodenal ulcer, gives an analysis of 60 cases operated upon between 1900 and 1911 at the University Hospital in Helsingfors. Only in a few cases was it possible to distinguish ulcer of the stomach from ulcer of the duodenum before operation. It is unfortunate that hitherto satisfactory information as to the ultimate results of operation has not apparently been forthcoming. Previous publications indicate vaguely that more than half of the patients operated on for perforation of a gastric or duodenal ulcer lived many years after in perfect health, and that troublesome symptoms seldom occurred after recovery. The author has found it difficult to follow up his patients, only 17 of whom he has succeeded in tracing. Of these, 13 were fit for work, and of these, again, 8 showed no symptoms of ulcer. The author concludes that the disease is as common in Finland as in other civilized countries, but that men are far more liable than women to contract the disease. In 75 to 80 per cent. there was a history of symptoms indicative of ulcer. In three-quarters of his cases the author found changes in the liver dullness due to the escape of air into the abdominal cavity, and comments on the scant recognition which this valuable sign has hitherto received. He finds that peritonitis following perforation is usually diffuse, and that the mortality from this source is 45 per cent., as compared with 39 per cent. in cases of diffuse peritonitis following appendicitis.

[1] *The Drug Danger: A Warning.* By Norman Porritt, M.R.C.S., L.R.C.P. London: Church of England Temperance Society. 1d.

[2] *The Mosquito, its Relation to Disease, and its Extermination.* By Alvah H. Doty, formerly Health Officer of the Port of New York. New York and London: D. Appleton and Co. 1912. (Fcap. 8vo, pp. 80, 10 figs. 5s. net.)

[3] *Bidrag till Kännedomen om de perforerade Mag- och Duodenalsåren.* Helsingfors. By G. A. Wetterstrand. 1912. Aktiebolaget Lilius und Hertzberg. (Pp. 153.)

MEDICAL AND SURGICAL APPLIANCES.

A Milk and Butter Cooler.

MESSRS. BILTON AND CO., of Fenton, Stoke-on-Trent, have made a milk or butter cooler of a kind many housekeepers have been looking out for. The principle of its construction is scientifically sound and is well carried out. It consists of a large outer vessel of red porous earthenware and an inner of glazed white ware which rests on the rim of the larger and has a ventilated glazed cover. The outer vessel is filled with water which slowly filters through, so that if the vessel is kept clean and free from grease the outer surface is constantly moist, and the evaporation in warm weather keeps the temperature of the interior below that of the atmosphere. The outer vessel is of good design. The price varies, we are informed, from 4s. 6d. to 1s. 6d., according to size.

Tonsil Forceps.

DR. JAMES DONELAN (London, W.) states that he has used the tonsil forceps shown in the drawing for a long time with great advantage in the removal of embedded tonsils or in those in which only a small amount of tonsillar tissue has been left by a previous operation, but which are liable to become enlarged through recurrent infection of the remaining crypts. He has lately had the jaws of it modified so that it holds the gland without tearing it, as is so often the case with hooked instruments. It will be found especially useful in the removal of embedded tonsils by dissection, but is made without scissor handles in order to allow of the passage over it of a snare or guillotine.



THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

THE ADVERTISING OF "BEAUTY SPECIALITIES."

THE Committee of the House of Commons appointed to inquire into the sale and advertisement of proprietary medicines resumed its sittings on May 29th, when Mr. S. F. Ely, secretary and manager of Messrs. Dearborn, Limited, proprietary manufacturers in London, was called.

The Chairman (Sir Henry Norman) explained that the attention of the Committee had been directed to a series of advertisements in popular monthly magazines of medical preparations which were alluded to in the form of answers to correspondents appearing under the names of various ladies. The Committee desired to ask the witness certain questions about these advertisements—was he prepared to answer?

The Witness: I am afraid I am not. Mr. J. D. Daniels, who is the only director of the company and who writes the advertisements, is in America at present.

Questioned further, the witness said there was no one in this country at present who knew anything about the advertisements. Mr. Daniels was the sole proprietor of the company, whose authorized capital was £2,000.

Mr. Parkes, a solicitor, who accompanied the witness, offered to give evidence, and after the Committee had

considered the situation in private, Mr. Parkes took his seat in the witness chair. He stated that the company was incorporated in January, 1912; there were two shareholders, Mr. Daniels and another; Mr. Daniels held 501 £1 shares and the other shareholder one share.

The Chairman: Under the agreement this director, Mr. Daniels, sold to himself his own knowledge and his own services?

The Witness: That is so in all these one-man companies.

It was also elicited that when the company was formed Mr. Daniels became a debenture holder for £500, but after two or three months' trading the debenture was paid off. The witness said that Mr. Daniels consulted him as to the form of the advertising of the firm; he felt it would be a breach of professional confidence to state what advice he gave, but he had no objection to stating that since the interview the advertisements had not appeared in the form of answers to correspondents.

Mr. Glyn-Jones: Do you think it is a legitimate form of advertising to publish, apparently as part of the editorial matter of a paper, advice to use certain articles by means of fictitious answers to non-existent correspondents?

The Witness: My own view would be against it. I am not speaking of the legality or morality of it.

Mr. S. F. Ely was then recalled and sworn. The Chairman read the names of various ladies which appeared in several magazines as conducting a page of "Beauty Hints." The names were Mdlle. Florence Gauthier, Mdlle. Agnés Deprés, Mdlle. Marguerite Fournier, Mdlle. Mildred St. Aubyn, and others. He then said to the witness: You are speaking now with very great responsibility and upon oath. Are we to take it you state you have no knowledge either as to the existence or non-existence of these ladies?

The Witness: I do not know if they exist or do not exist.

The Chairman: It would strike anybody as strange that anyone in the responsible position of secretary and manager should be ignorant on the point.

The witness replied that Mr. Daniels did not discuss the advertising with him at all. He also said he had never seen any letters from these ladies, nor were there any entries in the books with reference to payment for services rendered. He could point to no fact leading him to think these ladies had a real existence; he "had an idea" that "Mildred St. Aubyn" was a real person, but he could not give any specific reason for this impression. He declined to say he believed the names were used for advertising purposes only.

Many questions were put by the members of the Committee, and after appealing to his legal adviser, the witness consented to say that the company had declared a dividend: but, he added, "you must not ask me how much." He told Mr. Lawson that "reader advertisements" cost 50 per cent. more than display advertisements, and that the magazine charges amounted to £15 and more a page. Mr. Lawson asked what the turnover of the company was. "You cannot know that," replied the witness; "it is private information."

In reply to the Chairman, the witness said he thought there were letters at the office of the company from "Mildred St. Aubyn."

The Chairman: Then you can produce them?

The Witness: I should not do so.

The Chairman: I do not think you realize the powers of the Committee. We can call on you to produce any documents or papers you have.

The Witness: Tell me what you want and I will decide whether you shall have it. (Laughter.)

The Chairman: Mr. Ely, I want to warn you. I quite understand you are in a difficult position in being called upon to give evidence in the absence of your employer, but that must not lead you into disrespect for this Committee. We desire to know whether these ladies have a real existence or not, or whether they only exist in imagination and for advertising purposes.

The examination concluded after the witness had stated, under pressure, the name of the firm of wholesale chemists manufacturing the company's preparations and had mentioned that the staff at the office consisted of himself (his duties being mainly those of an accountant), a typist, two bookkeepers, and two packers.

Nova et Vetera.

A MEDICAL PIONEER OF SOCIOLOGY.

It is noteworthy that among the pioneers of political economy medical men figure in the first rank. Sir William Petty, who may be said to have laid the foundations of the science in his *Political Arithmetic*, was professor of anatomy at Oxford and afterwards physician-in-chief to the army in Ireland. His *Political Arithmetic* was first published in 1691, after his death, but several writings of his on taxation and finance appeared in his lifetime. About the same time questions of currency and finance were much in the thoughts of John Locke, the philosopher, who was for some years a commissioner of the Board of Trade. Locke studied medicine and practised the profession at Oxford; although he was known among his friends as "Dr." Locke, it seems doubtful whether he ever took a degree. He gained the confidence of the first Lord Shaftesbury by his successful treatment of a chest complaint, and he became the confidential adviser as well as the physician of his patron. To this connexion he owed his introduction to the world of action, and he gave up medicine to devote himself to political and philosophical studies. Another pioneer of political economy—or perhaps it would be more accurate to say sociology—was also a member of the medical profession. This was François Quesnay, physician to Madame de Pompadour, the founder of the *physiocrates*. He was one of the most remarkable figures among the philosophers of the eighteenth century, and may even be held to rank among the great thinkers of all time.

Quesnay was born at Méré, near Montford-l'Amury, in 1694. He was of peasant stock, and his knowledge of the conditions of rural life largely determined the line of his intellectual development. The records of his early life are obscure and confused. His latest biographer, M. G. Schelle,[1] has taken great pains to get at the true facts. It appears that, after being apprenticed to a surgeon of Ecquevilly, he entered himself as a regular student at the Paris College of Surgeons and the Faculty of Medicine. Quesnay was a diligent student, never, it is said, missing a visit or a dressing at the Hôtel-Dieu, and finding time besides to complete his general education, which had been neglected. This he did to such good purpose that he obtained the degree of Master of Arts from the University of Paris. In 1718 he was admitted a Master by the College of Saint-Côme, and settled at Mantes as a surgeon, being at that time 24 years of age. He had a good practice at Mantes, and was held in special repute as a man-midwife.

Even at that early time he showed independence of thought and character. He was bold enough to break a lance with a Paris physician, Silva, who had advocated bleeding as a universal means of dispersing the humours localized in any part of the body. At this time the long quarrel between the physicians and surgeons of Paris had come to a head. It was a war of pamphlets and lawsuits, and the controversy between Quesnay and Silva was regarded as an incident in the campaign. On the initiative of La Peyronie, first surgeon to the King, an Academy of Surgery was formed. Quesnay gave valuable help in carrying the scheme into effect. La Peyronie formed a high opinion of his capacity, and it was probably by his advice that Quesnay resolved to settle in Paris. In 1734 the Duke de Retz appointed him medical attendant to his household, and in 1739, by one of those abuses common at the time, the Duke nominated him a commissioner for war. Quesnay drew the salary of this office till the time of his death. He accompanied his patron on his travels to Lyons, of which de Retz was governor, and to the army, but his chief domicile was the Duke's house in Paris. There he had time enough on his hands to devote himself to studies of his own choice. La Peyronie, on his part, in 1736 got Quesnay appointed sworn surgeon to the Prévôté de l'Hôtel, a post to some extent corresponding to that of police surgeon. In 1738 he was nominated "royal professor" of surgical medicaments. In that capacity he drew up reports on suppuration and the repair of tissues, and on resolvents, emollients, detersives, etc.

[1] *Le Docteur Quesnay, Chirurgien-Médecin de Madame de Pompadour et de Louis XV, Physiocrate.* Paris: Félix Alcan, Éditeur, Librairies Félix Alcan et Guillaumin Réunies, 108, Boulevard Saint Germain, 108. 1907.

In 1740 he was appointed secretary to the Academy of Surgery, an office which he held till 1748. In 1743 the first volume of the *Mémoires* of that academy was issued under his supervision. It contained articles on suppuration, gangrene, wounds, ulcers, and tumours, from his pen. His advanced views on the surgical treatment of abscess and "fungus" of the brain brought upon him the wrath of John Bell. Quesnay also contributed a preface in which he urged that surgeons should not be satisfied with manual dexterity and mere observation, but should look upon a knowledge of anatomy and chemistry as essential. He insisted that to be a sound practitioner it was necessary to be a surgeon as well as a physician. Quesnay had a considerable share in the great history of surgery issued under the auspices of La Peyronie. That work was intended to prove that the College of Surgeons had always been independent. The public was generally on the side of the surgeons, and in the end the surgeons were victorious.

In 1744 Quesnay took his degree as Doctor of Medicine at the little university of Pont-à-Mousson while he was at Metz with the army in attendance on the Duke de Retz. His abandonment of surgery is said to have been due to an infirmity which crippled his hands. His graduation brought him into conflict with the Faculty of Paris, which put in force an old decision that the doctors of Paris should not consult with those of provincial universities. La Peyronie continued to be a powerful protector, and left him a considerable legacy. On his death Quesnay was talked of for the post of first surgeon to the King, and his candidature was supported by Diderot with his pen. La Martinière was, however, appointed.



It was in an essay on the quarrel between physicians and surgeons, published in 1748, that Quesnay first showed the bent of his mind towards social philosophy. The interesting feature of this essay is that Quesnay considers the whole question from the point of view of the public good rather than that of the doctors. There is in more than one place a note of scepticism, as when he hints that the first thing to be inquired into is whether these professions are useful rather than hurtful to society, and whether they should be maintained or done away with. He points out that among poor people treatment is very simple, consisting in bleeding, *tisanes*, some purges, and very little else in the way of medicine, and this, he adds, is "perhaps the best."

By 1750 we find Quesnay installed at Versailles. A year or two before he had been chosen by Madame de Pompadour as her doctor. He had rooms in the palace near the floor occupied by the favourite. Madame de Pompadour was an exacting patient. She often had headaches and kept her bed, and Quesnay could not leave his post day or night. When she went to Paris, however, he sometimes got permission to pay visits to the capital. He followed her wherever she went, and it is said that on two occasions he saved her life. She left him a pension by her will, and gave him many other marks of kindness. He was on a very confidential footing with her, and had naturally many opportunities of becoming acquainted with people of influence. Quesnay's position at Court steadily improved, and he was often admitted to the conversations of the King with Madame de Pompadour. In 1752 he had charge of the Dauphin during an attack of small-pox, and the King's gratitude showed itself by the grant of a pension and letters of nobility. The King used to call him his thinker, and in allusion to this gave him three pansies on his arms ("pansies, that's for thoughts"). On one occasion when the King was taken so ill in the apartments of his mistress that he was thought to be dying, Quesnay was sent for and had the good fortune to cure him. This was rewarded by a gift from the King which made it possible for Quesnay to buy a considerable estate, where his son gave himself up to agriculture. He was also one of those who treated the King after the attempted assassination by Damiens. Although he visited his royal patient five or six times a day he made very light of the wound, saying if it was anybody else he could go to a dance.

Notwithstanding his position at Court, Quesnay led an independent life. He received persons of all parties in his rooms, and his friends knew that there they could talk with the greatest freedom and that nothing said there would be repeated outside. Among those who frequented his quarters were Diderot, d'Alembert, Helvetius, Buffon, Marmontel, the Marquis of Mirabeau (*L'Ami des Hommes*, father of the Mirabeau of the Revolution), and Condillac. Adam Smith knew him and formed a very high opinion of him. In Quesnay's rooms the Revolution was confidently foretold. Quesnay had neither taste nor talent for intrigue, and his rugged honesty was recognized by all. Though small and ugly, the brilliancy of his conversation made people forget his appearance. He knew men well and had the art of making them show themselves as they really were. In 1753 he published his last contribution to medical literature, a treatise on continued fevers, which he dedicated to Madame de Pompadour. His reputation was then well established. He was a Fellow of the Royal Society of London and of many other learned bodies.

Soon after Quesnay became attached to the Court the first volumes of the famous *Encyclopédie* appeared. The authors were his familiar friends. He took part in their work and contributed an article on pure metaphysics under the caption "Evidence" to the sixth volume. To the other volumes he contributed articles on farming and husbandry, but when in 1759 the licence was withdrawn Quesnay ceased his collaboration, although he had prepared articles on the functions of the soul, taxes, and interest on money. Although Quesnay took religion as the fundamental basis of his system, respected it in all his writings, and died quietly in the arms of the Church, he had a horror of fanaticism and dreaded the advent to power of the Dauphin, whom he believed to be under clerical influence. It may not be rash to conjecture that his orthodoxy was, at any rate to some extent, dictated by caution.

Where did Quesnay get his knowledge of economics? He acknowledges a debt to Locke, but there was very little economic literature in the eighteenth century to read. He had observed and thought much for himself. The son of peasants of the Beauce, and having lived long within a short distance of Paris, he had seen the effects of the famines of the last years of Louis XIV and that of 1723. He had seen with what arbitrary violence the police made requisitions for the food supply of Paris. He knew

the wretchedness of the rural districts. On the other hand, at Versailles he witnessed the selfishness of the Court, and the enormous fortunes made by contractors. Attached to the service of a woman who, because she was beautiful, believed herself capable of controlling the destinies of France, living close to a king given over to idleness and pleasure, who was content to leave the conduct of affairs to men who were mere empirics in statecraft, Quesnay was led to believe that in applying to the science of government the methods which he had used in medical science he might be able to exercise a beneficial influence. Had he been ambitious he might have pushed himself forward to high place, but he thought mainly of getting solutions of the problems which he studied accepted. Thus we have the extraordinary spectacle of a man of 60 giving up the studies of his life and devoting himself to researches on subjects hardly explored by others.

The crime of Damiens awakened Louis XV and even Madame de Pompadour for a moment to the importance of political economy. Taking advantage of this, Quesnay tried to get his views on taxation, agriculture, and commerce accepted by the Government. In his *Tableau Economique*, which was printed at Versailles under the eyes of Louis XV, he attempted to convey his ideas to the King and the favourite without their perceiving that they were being taught the principles of economics by their doctor. The manner in which he carried out this intention was as bold as it was ingenious. The King was beginning to feel the boredom of life, and at Quesnay's suggestion he sought diversion in mechanical work. A set of turner's tools was got for him, and he made wooden snuff-boxes for the whole Court. Quesnay next spoke about printing, and a press was set up in the private apartments of the King, of which the doctor was placed in charge. Quesnay induced him and Madame de Pompadour to print one of his own writings; it was arranged that it should be an unpublished work, which should remain secret, and should at the same time afford occasion for the display of all the resources of printing, with notes, italics, capital letters, and so forth. For this purpose Quesnay drew up his *Tableau*, following it up with a series of maxims which he fathered on Sully. He presented the little book to the King, saying, "Sire, you have seen when hunting a great deal of lands, farms, and labourers. You are going to print an account of how these people produce all your wealth." The King, who was more interested in printing than in turning, set up about half Quesnay's booklet, and revised the book several times. He was too indolent to give his mind seriously to the subject, but in setting up the type he noticed the daring opinions expressed. These led him to say: "It is a pity the doctor is not in the trade (government). He knows much more about it than any of them." The edition was magnificent, but only a few copies were printed, and it is believed that no public library has a copy to-day. The exact date of printing is not known, but it would seem to have been at the end of 1758 or the beginning of 1759.

The *Tableau* was considered very obscure by Quesnay's contemporaries. He appears to have wished to make the system which he opposed to the mercantile system visible, and with that intention drew up a scheme of the circulation of wealth evidently based on the mechanism of the circulation of the blood. The doctor was not forgotten in the economist. The maxims are the most suggestive part of the work. In them he showed himself a strong partisan of free trade, and insisted that rulers should remove all hindrances to the development of agricultural production. He advocated a single direct tax, susceptible of increase in critical times and always paid by the landlord. In this way he hoped that the farmers, freed from the arbitrary control of the tax collectors, would be able without fear to improve their cultivation. He also advocated limitation by law of the rate of interest on money, so that the State should not borrow at usurious rates which attracted capital to Paris and diverted it from agricultural use. He was strongly opposed to what he calls "pecuniary fortunes," understanding by that not capital employed in agricultural, commercial, or industrial enterprises or in the development of landed property, but fortunes consisting in interest got from money or employed in the acquisition of useless offices, privileges, and so forth. These are, he said, fortunes which gnaw and oppress the nation; they know neither king nor country. It was dangerous at that time to criticize finance, and Mirabeau, who collaborated with Quesnay, was sent to the Bastille for having said in his work on the theory of taxation that there were no services without money, and that the King had no money to pay for services. Owing to the influence of Madame de Pompadour he was released after five days, but his work with Quesnay was interrupted. The work of the physiocrats was afterwards carried on in silence. Quesnay, who attacked the financiers in the booklet which he got the King to print, and touched up the work of Mirabeau in which the farmers-general were treated as vampires, must have felt that he was indirectly aimed at by the denunciation which sent his friend to the Bastille. This doubtless explains the disappearance of the copies of the *Tableau* which had not been distributed. They were seized and probably destroyed.

The death of Madame de Pompadour in 1764 deprived Quesnay of most of his influence. But when he was deserted by personal friends disciples gathered round him and the "physiocratic" school was founded. It seems probable that the word itself was invented by Quesnay. Its principles are set forth in a collection of Quesnay's writings, entitled *Physiocratie ou Constitution naturelle du Gouvernement le plus avantageux au genre humain*, which appeared in 1767. The essentials of the doctrine are embodied in the motto on the title-page—

> Ex natura, jus ordo et leges:
> Ex homine, arbitrium regimen et coercitio

—which implies that the government most beneficial to the human race originates not from the arbitrary regulation and control of men, but from right order and obedience to the laws of Nature.

Towards the end of his life Quesnay fell upon evil tongues and evil days. The physiocrats became unpopular because to their teaching was attributed the dearness of bread which followed a bad harvest in 1767. In 1770 Senac, first physician to the King, died, but Quesnay was not named in his place, and in the last illness of Louis XV in 1774 he took no part in the consultations. Louis XVI had not the same regard for Quesnay that had been shown by his grandfather.

Quesnay was a martyr to gout, the pain of which he bore with patience. His conversation was lively, and he kept at work till the very end. Among other things he applied himself to mathematics, which he had neglected, but he was led astray into fancying that he had squared the circle. He died at Versailles on December 16th, 1774.

In Quesnay the social philosopher was not separated from the economist. Coming from the plough and prepared for observation by his medical studies, he began by seeking for the causes of agricultural distress and the means of remedying it. He laid the foundation of the theory of free trade. Henry George dedicated his book, *Protection and Free Trade*, to the memory of Quesnay and his friends "who in the light of despotism have foreseen the splendours of the new era." Quesnay's position at Court made it difficult for him to write freely, and he had little literary faculty. Therefore he required disciples to help him. He made them work under his eyes and constantly stimulated them. His little apartment at Versailles was a sort of workshop where, as in the case of old painters, pupils worked under the direction of the master. It was not a little thing to do to influence Madame de Pompadour, and through her the King, to take an interest in economic questions. The physiocrats, however, never gained much influence with the public even in their own country. This was due to the dryness of their style. Some of their doctrines, too, were regarded as chimerical, and were ridiculed in contemporary literature, as by Voltaire, who laughed at the single tax in his *L'Homme aux Quarante Écus*. They were too absolute in their belief and too rigid in their doctrine, which they held to be universally and immediately applicable in practice. They did not take into sufficient account national diversities or different stages in social development, nor did they adequately estimate the impediments which ignorance, prejudice, and interested opposition presented to statesmen.

THE GENERAL MEDICAL COUNCIL AND THE PROPOSED ALTERATION IN THE STANDARD OF PRELIMINARY EXAMINATIONS.

BY

SIR HENRY MORRIS, BART., M.A., M.B.LOND., F.R.C.S.

WHEN in November, 1910, the General Medical Council, with the object of raising the standard of preliminary education, resolved on making certain changes which were to date from January 1st, 1914, it was felt by some competent critics that the time for doing so was inopportune because of the falling off in the number of students entering the profession.

It may be thought, however, from the statement recently made as to an increase of 165 students registered in 1912 over the number registered in 1911, and as to the total number registered in the year 1912 coinciding with the average yearly number of the five preceding five years, that this objection no longer exists.

But the increase is apparent, not real. It is due to the fact that a large number of students, owing to recently altered regulations, were enabled to register in 1912 instead of a year or so later; and when this number is discounted, the real increase for the year 1912 is only 80, and the total number of entrants is considerably below the average of the previous five years, although it exceeds the total for the year 1911.

What, however, is of greater importance than any question as to the "how" and "when" of raising the standard of existing examinations, is the urgent need of the several universities and examining bodies in the United Kingdom uniting to foster the establishment of a recognized school-leaving certificate; of a certificate which, without indicating a uniformity in kind of the education received, and without pretending to imply an exact identity of standard, will yet be a sufficient proof of a sound general education to admit the holders of it to any university or to the curriculum of study for any professional or scientific calling.

The entrance to a university or to a profession ought not to be barred by (in the words of Huxley) "any absolute and defined preliminary examination, the passing of which shall be an essential condition of admission to the University." The instruction of a university, or that required for any professional career, ought, to be accessible to every one who is fit to take advantage of it, although he may not have been prepared at school to pass a particular "absolute and defined preliminary examination."

It is the want of a universally recognized and accepted school-leaving certificate which handicaps students, and is so embarrassing to school masters. It is this want which has been and is the chief obstacle in the way of many an excellent and accomplished student taking a university degree which otherwise he was fully competent to do; or changing from a profession for which he finds himself unfitted, or to which he has taken a dislike, into one for which he has developed a liking and realizes an aptitude. It is the difference between the educational course they have pursued and the character of the particular entrance examination which they too late discover they have to pass, and not because their education and grounding are deficient or inferior, that under present circumstances keep the door shut against many students who are even more capable and better instructed than some of those who have been allowed to pass through the portal.

The General Medical Council could not exert its influence in a better cause than in reiterating its desire that the Board of Education and the Oxford and Cambridge School Examination Board should co-operate in getting established such a certificate; in soliciting the universities, the State, and the local authorities to take steps to standardize the different inspections by making the inspection a joint matter between them; in trying to induce the head masters of all the secondary schools of the country to have their schools officially inspected; and in urging the various universities and licensing bodies to accept such a school-leaving certificate, without requiring anything else.

Pending the establishment of such a certificate the Council, voicing as it does the whole profession, would go a long way towards bringing about compulsory inspection of secondary schools if they could induce the universities and examining bodies of England to admit as candidates for their examinations (except, perhaps, in certain special cases) those only who have been educated at inspected schools.

But were such a desirable goal reached at home, it would still be advisable for the guidance of those Indian and Colonial examining bodies who already are recognized, or who in future desire to be recognized by the General Medical Council, that information should be given to them as to what should be the scope, character, and standard of their preliminary examination in general education.

The revision of the existing Recommendations of the Council whereby such information is at present conveyed alike to the examining bodies at home and in India and the Colonies has occupied much of the attention of the Education Committee since November, 1910. These Recommendations, which, on the joint advice of three educational experts, were adopted by the Council in 1900 and have ever since been in force, were, with "three important changes," reaffirmed in a report of the Education Committee in 1911. Two of these suggested "important changes" are (1) the increase of the percentage of marks required for the pass, and (2) the abolition of compensation between subjects. This report of the Education Committee was merely entered on the minutes of the Council.

Six months later—namely, in June, 1912—precisely the same proposals were again entered on the minutes of the Council. On neither of these occasions was the approval of the Council moved. On both occasions, on the contrary, a motion was proposed, though not carried, to refer the report back to the Committee.

In the reports of 1911 and 1912 the Sections I and II, which refer to "the character of the examination" and "the distribution of marks," are word for word the same as the Recommendations of the year 1900; whereas Section IV, as to "the Minimum Percentage of Pass," is entirely different, the pass marks then suggested being much higher than those recommended in 1900. Another important difference is that Recommendation IX of 1900 specially provides for granting compensation when the four subjects are taken at one examination "if the candidate reach the necessary percentage in the aggregate marks of his papers as a whole, provided that the required pass mark must be reached in the English paper"; whereas the reports of 1911 and 1912 suggest that "no pass should be granted in any subject when the percentage gained in the subject is less than that which is stated in Section IV of those reports."

Again, Section VII of the Recommendations of 1900, which allows of each of the four subjects of certain senior examinations being passed separately, is omitted from each of the reports of the Education Committee.

Since June, 1912, the Education Committee has been engaged in obtaining the opinions of the chief examining bodies, including those of India and the Colonies, on the proposals of the Committee; and now after nearly twelve months' interval the Committee has at the session just ended submitted a third report to the Council.

On comparing Sections I and II of this last report—which sections were adopted by the Council yesterday (May 30th)—with the corresponding sections of the Recommendations of 1900, several trifling alterations, chiefly, but not entirely, of a verbal nature, will be found. But the most important fact to mention, and, so to speak, what has cut the entire character of Hamlet out of the "Prince of Denmark," is the rejection by the Council of the whole of the section dealing with the raising of "the Minimum Percentage of Pass, in each subject."

Thus the various examining bodies—including the revised list of Indian and Colonial bodies conducting examinations recommended by the Committee to be accepted by the Council and mentioned in Division B of the report as having "*intimated their readiness to adopt immediately the new standard proposed*"—are left with no other standard of marking but that of 1900. And as the only allusion to "the abolition of compensation between the subjects" is in the first or historical section of Division A of the adopted report, the judicious and just No. IX of the Recommendations of 1900 obviously also remains *de facto* intact.

In a word, except for any indirect effect which the communications which have passed between the Education Committee and the various examining bodies may have upon those bodies, the decisions arrived at on May 30th by the Council, after two and a half years of deliberation by, and three reports from its Education Committee, give this result, namely, that in the words of the approved preamble, "the recommendations adopted by the Council to indicate the scope and character to be maintained in any preliminary examination in general education for which recognition is sought as qualifying for admission to the students' register" are substantially and essentially those which were adopted by the Council in 1900.

The consenting examining bodies are, therefore, now in the same quandary as children who have been encouraged to hope for a box of new toys, but who, finding the new toys have been withheld, are left with nothing but the empty box and the old toys to play with. Unless some change is agreed upon at the session of the Council in November next, the recommendations as to what should be the standard of the examinations on and after January 1st, 1914, will remain precisely the same as those of the last thirteen years.

May 31st, 1913.

ONE HUNDRED YEARS AGO.

Medical Reform in 1813: an Abortive Bill.

In the half-yearly report of the progress of medicine from January to June, 1813, which is dated June 1st, 1813, and appeared in the July part of the *Medical and Physical Journal*, a considerable amount of space is given to the subject of medical reform. The previous half-yearly report had also concerned itself largely with the same question.

The matter in controversy was the position of the apothecaries, who included in their ranks, it must be remembered, not only persons practising pharmacy but also many of those who exercised the arts of physic, surgery, and obstetrics. There was need, urgent need, for some legislative enactments to systematize and safeguard and elevate the privileges, position, and status of the apothecaries, who were really the general medical practitioners of the time. But there were also the Colleges of Physicians and Surgeons of London with their Charters, and their well established and predominant influence; "they," said one of the reports referred to, "felt every attack on their privileges like a wound." Against the "mighty hosts" of the two Colleges the "little phalanx of Apothecaries," strictly so called (that is, including under that name solely persons practising pharmacy alone), would be helpless, unless it were "reinforced with the strong arm of the country practitioners." At the time to which we allude (June, 1813) some such reinforcement had taken place, and a committee of the "Community of Associated Apothecaries and Surgeon-Apothecaries" was preparing a bill for the House of Commons. Indeed, a bill, "immature, hurried, imperfect, and defective in detail, though incontestably sound in principle," had been presented, but fortunately it had been withdrawn before the second reading, to be "revised and improved."

The writer of the 1813 report was strongly of opinion that there was need for some measure which should substitute for the "heterogeneous mass assuming the title and functions of medical practitioners, persons properly educated, of ascertained qualifications, respectable by the class of society whence they were taken, and by having passed through the series of essential gradations." The expression "heterogeneous mass" is defended in a footnote, for which room must here be found for its graphic delineation of the practice of the day, if for no other reason:

> The mass of the medical faculty of the British Empire is, indeed, an heterogeneous compound. Physicians, doctors of the English universities, fellows of the Royal College, versed in all human science, learned, honourable, and approximating to the "corinthian capital of society," are "pushed from their seats" by doctors of no universities, unlearned men and even women, without science, and without honor. The Abernethys, Coopers, and Brookes's have opposed to them self-created surgeons, raspers of shin-bones, advertising gonorrhœa cures, and men whose chirurgical knowledge has been acquired by carrying a box after the dresser at a hospital. The legitimate apothecary is circumvented by the druggist who was yesterday a grocer; by the chemist who hardly knows a crucible from a cauliflower. To the educated physician, to the regular surgeon, to the instructed apothecary, this is personally, perhaps, unimportant; but what is it to the public? pain, mutilation, death. London, that common sewer, teems with this surreptitious multitude. From Tower-hill, a doctor advertises that "all persons afflicted with any complaint *whatever*, may have an easy, speedy, and certain cure, without confinement," by applying to the said doctor. Mrs. —— cures the king's evil radically, and, what is more, safely too. Another benevolent female, at Battlebridge, continues, as usual, to cure consumptions; and still another, at Islington, cures cancer. Even at the college-gate of Edinburgh lived, very lately, a female "*practitioner in medicine*" from England; and the druggists of a Midland county at this moment are querulously complaining that a horrible attempt is making to take from them the privilege of prescribing for the sick.

Truly, if things were as bad as this, or half as bad as this, there was sore need for some Act of Parliament to protect society against these dangerous quacks, dangerous to the health of the community as well as to its pocket.

The apothecaries were, to begin with, simply persons who kept shops in which were sold spices, drugs, comfits, preserves, and the like; but gradually some of these goods were dropped, and in 1617 the Apothecaries' Company of London was separated from the Grocers', and incorporated. Under this charter of the time of James I (and VI) the apothecaries of London practised their art for nearly two centuries, until, in point of fact, the year 1813, of which we are speaking. At first they simply prepared and sold drugs for medicinal purposes, the work which is now carried on by the druggist and pharmaceutical chemist; but from about the beginning of the eighteenth century they began to take a place as general medical practitioners. A correspondent to the *Medical and Physical Journal* (p. 48, July, 1813) traces the entrance of the apothecaries into medical practice back to the year 1666. "I find," he wrote, "that the apothecaries had very little employment as prescribers of medicine till the time of the great plague, when the *physicians*, taking the alarm, *honestly* and *disinterestedly* ran away, but the *apothecaries* kept their proper posts, and as far as they were able assisted the sufferings of their fellow creatures; after which they rose into estimation, and from that time to this have either legally or illegally practised."

At any rate, in 1813 they were so practising, not only in London, but all over England; indeed, those who practised pharmacy alone were few in number, compared with those who exercised all the branches of the profession. They were still, however, working, although in very different circumstances, under the old charter of 1617–18. Almost the only cognizance which the law had taken of the changed conditions was the exemption of apothecaries from serving on juries or other civil offices which came into force in 1712. The application to the Legislature in 1813 could not, therefore, be termed hasty; neither was it unnecessary or uncalled for. The three main objects in view were the improvement of the school education of the apothecary and surgeon-apothecary; his instruction in the elements of science; and the prevention of unqualified persons entering this department of the profession, by means of the barrier of a strict examination. These main aims were, unfortunately, weighted by and almost hidden under a great number of other matters, side issues, and conflicting interests; and, worst of all, the privileges and rights of the College of Physicians and of the Court of Assistants of the College of Surgeons were, or rather seemed to be, affected injuriously. The Colleges stood on the one side, and on the other was the London Committee of the Apothecaries, now (in 1813) strengthened by the inclusion of deputies or delegates from the county districts of the whole of England and Wales. Here we see the beginning of something of the nature of a national association of medical practitioners, a something which was to be followed in 1832 by the British Medical Association. The immediate result, however, of the enlargement of the Committee of the London Apothecaries, and its conversion into the Committee of the Community of Associated Apothecaries and Surgeon-Apothecaries was delay; for a joint meeting revealed such complexities and so great need for adjustment of rival claims and the like that the pressing of a bill through Parliament had to be postponed.

These joint meetings of Apothecaries and Surgeon-Apothecaries, "at the Crown and Anchor," must have

been very interesting events. Here is the brief report of one of them:

The London Committee having met the Deputies of the County Districts (who came from the most remote parts of the kingdom) on Tuesday the 23rd inst. (April, 1813), at the Crown and Anchor; and, on Wednesday the 24th, a General Meeting of the London practitioners being convened at the same place; so many new views of the subject were developed, which promised so much improvement to the plan, that the Committee has thought it expedient to withdraw the Bill for the present session, with the avowed intention of submitting it to parliament next year, under circumstances of considerable melioration.

Dr. George Man Burrows, chairman of the Association of Surgeon-Apothecaries, presided over these meetings; he had himself been apprenticed to an apothecary at Rochester, had qualified at the College of Surgeons and Apothecaries' Hall, and was in general practice in London[1]; he was therefore well fitted to preside, being able to sympathize with the various interests at stake.

Much of what was said in these meetings is now of no moment; but one fragment which has been preserved almost accidentally is of some interest. The question under discussion was whether the London Committee, even with its added honorary members, representing Colchester, Hampton, Putney, Hampstead, Plaistow, Richmond, Clapham, and Tunbridge Wells, could be said properly to represent the "mixed" practitioners of England and Wales. One member was stung to ask, using an expletive not often heard in debate, "can it be admitted that Liverpool, Birmingham, Manchester, Exeter, Gloucester, Newcastle, Bristol, Bath, the universities, will confide their interests to four or five villages in Middlesex and Essex; that Tunbridge Wells shall represent the numerous, powerful, and never-submitting men of Kent?"

As is usual during such controversies, the medical papers were full of letters. Here are extracts from two letters, one of them written in dread lest the apothecaries should get the upper hand altogether, the other penned with a measure of far-sight which seems to have been rather rare at the time. The first is from a letter signed "Salus publica";[2] "Let us all retain our proper places, and the medical profession will afford fame for many, and a fair reward for all; but, when the floodgates are removed, and the rushing torrent breaks down its banks, I confess I see nothing but desolation and ruin for the country round." The "rushing torrent" of this writer was the crowd of apothecaries, better educated, and with a licence, and able to make legal claims for fees. "Let them only be confined to their proper sphere—let them compound, dispense, and deliver"—that is "Salus publica's" safeguard. The other extract is from a letter to Dr. G. M. Burrows, signed "C. W. S.," and the writer, seeing right into the heart of the matter and correctly gauging the real needs of the profession, said: "I think the bill might with a great deal of propriety be termed that of the general practitioner in medicine, surgery, and midwifery, in which the apothecary would be considered as included."

To make a long story short, the Apothecaries did not get their Act in 1813, nor yet in 1814, but only in 1815 (55 Geo. III, c. 19); and it was not all they wished, having to be amended in 1825 (6 Geo. IV, c. 133). By it the London Apothecaries' Company had its practice regulated, and its authority extended over all England and Wales. No person, not already in practice, might for the future practise as an apothecary, or apothecary's assistant, without passing an examination as to his fitness, and obtaining a certificate of his qualification. Armed with his certificate he could recover charges in a court of law. The Act, however, left undefined what "practising as an apothecary" was, and it was not till many years afterwards that it was settled to be "dispensing, mixing medicine, giving medical advice, and attending the sick as medical adviser."

It was, however, a distinct and notable beginning in medical reform. It left much unsettled; and it had to be followed by the Medical Acts of 1858, 1859, 1860, 1876, and 1886; indeed, it was not till the Apothecaries Act, 1907, had passed that the Society of Apothecaries was entitled to grant to those passing its qualifying examination the diploma of Licentiate in Medicine and Surgery (L.M.S.S.A.); but it opened the way for much that was sorely needed in regard to the state and the status of the profession, that "heterogeneous mass assuming the title and functions of medical practitioners." This too must be said for the Society of Apothecaries, that when the time came (in 1874) they were ready to admit women to the examinations required for certificates to practise as apothecaries, leading the way once more in another department of medical reform.

[1] *Dict. Nat. Biog.*, vii, 450.
[2] *Med. and Phys. Journ.*, xxix. 279. April, 1813.

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SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE (LONDON, 1913).

VOLUNTEER INTERPRETERS WANTED.

IT IS hoped that members of the Congress who speak foreign languages will be willing to wear a small badge denoting the language they can speak, as such an arrangement will be a great convenience to foreign visitors. If those who will consent to this will communicate with the General Secretary, 40, Wimpole Street, W., he will be very grateful.

SECTION OF RADIOLOGY.

This is the first time there has been a Section of Radiology included in the International Congress of Medicine. And every effort is being made to show that the advance in this branch of medical science fully justifies the formation of a separate section.

The section, of which Sir James Mackenzie Davidson is president, deals with *x*-ray work in all its branches and with radium therapy, but does not include electrotherapeutics. This subject is dealt with as before under the heading of Physiotherapy, a subsection of the Section of Therapeutics. Some little irritation is apparently felt on the Continent at the non-inclusion of electrotherapeutics. The formation of a separate Section of Radiology has, however, been entirely due to the energetic action of radiologists. There has been no special effort on the part of electro-therapeutists either to obtain a section for themselves, or to be included in the Section of Radiology, until too late, and therefore it behoves workers in this branch of medicine to see that they are more adequately represented at the next congress.

The morning meetings of the Section of Radiology are to be devoted to discussions of special interest and the afternoons to the reading of papers. The meetings will be held in a lecture theatre in the new School of Mines at South Kensington, which can be completely darkened, and will be provided with a lantern for the demonstration of lantern slides; provision will also be made for the illumination of original negatives where this is considered necessary. In the museum a room will be set aside for the exhibition of transparencies, and adjoining this room will be a continuation of the department of radiology, in which apparatus, skiagrams, and other daylight exhibits can be shown. Members wishing to exhibit should communicate with Mr. H. W. Armit, Honorary Secretary of the Museum Committee.

The following is the list of the discussions, together with the reporters selected for each:

The radiography of the stomach and intestines (Dr. Holzknecht and Dr. Leonard); That of the chest (Dr. Hugh Walsham and Professor Wenckebach); The radiotherapy of malignant disease (Dr. Abbé and Dr. Kienböck); Roentgen and radium therapy in gynaecology, a joint discussion with the Section of Obstetrics and Gynaecology (Dr. Albers-Schönberg, Dr. Foveau de Courmelles, and Professor Krönig); The radiography of bones and joints in its value in orthopaedic surgery, joint discussion with the Subsection of Orthopaedics (Dr. Fedor Haenisch, Dr. Nové-Josserand, Dr. P. Redard).

Many offers of papers have been received, but the final selection of these has not yet been made. Preference will be given to papers received before April 30th, and no paper can be considered unless the title has been received by the Secretary before July 1st. Any members wishing to read papers, and who have not yet made application, should communicate at once with Dr. G. Harrison Orton, Honorary Secretary, 67, Upper Berkeley Street, Portman Square, W.

A dinner will be held, probably on August 8th, to which members may bring their lady friends, and the Electrotherapeutic Section of the Royal Society of Medicine and the Roentgen Society are arranging jointly for an entertainment to take place after the dinner. A committee of ladies has been formed to look after the interests and make arrangements for the entertainment of foreign ladies, but the final arrangements are at present necessarily incomplete.

MEDICAL DEFENCE UNION.

The annual general meeting of the Medical Defence Union was held this year in Exeter on May 29th, when the President, Dr. E. G. Barnes, was in the chair.

Annual Report of Council.

The annual report contained a general statement by the council itself, a report from the solicitor of the Union, a special note on indemnity insurance, and the report of the Finance Committee.

The general statement indicated that the work of the year had been carried out to the complete satisfaction of the council, and that there was reason to believe that this was fully shared by members. Applications from the latter for advice and assistance were so numerous that even in August, usually a slack month, the executive was fully occupied. Much of the extra work was due to the Insurance Act, a measure which the council regarded as certain to make the existence of the Defence Union more necessary than ever. In this connexion the council pointed out that medical men whose duties included insurance work were liable to have their conduct challenged now not only by their patients, as in the past, but also by the Insurance Committees, and that the risk in this connexion was all the greater because the final decision as to how many patients he should accept did not rest in his own hands. The council also recorded in detail sundry negotiations with the Insurance Commissioners, and the dictum obtained from the authorities at Buckingham Gate as to there being nothing in the Act itself or in the regulations drawn up under it, or the rules of any approved society, which would justify a society in declining to accept a medical certificate on the ground that it was not signed by a doctor on the local panel. The passages relating to this matter were no doubt drafted before the hearing of the appeal action on the same subject, the upshot of which was recently recorded in our columns (May 10th, p. 1033). In connexion with an account of the measures by which the council succeeded in getting erased from the *Medical Register* the name of an impostor last November, it was mentioned that the Union was investigating four other cases of apparently like character. The statement concluded with a long list of subjects on which the council had been consulted, a note on the desirability of members applying for assistance as soon as a cloud appeared upon their horizon, an expression of belief that the Union was growing in repute and prestige every year, and regret at the death of one of its vice-presidents, Dr. Herbert Manley.

The solicitor's report recorded that his advice had been sought in 175 matters; 47 related to libel or slander actions; 42 to the defence of members in action for malpraxis brought or threatened; 11 concerned the suppression of unauthorized practice; 46 dealt with questions regarding the interpretation of deeds of partnership and claims arising under articles of appointments; and 29 with miscellaneous matters, such as the representation of practitioners at inquests and the adjustment of claims for giving evidence. Two of the cases involving legal action were settled by payments but all the others were successful. There was evidence during the year of a kind of epidemic of actions against medical men in the Liverpool and Manchester districts, but it is hoped that the people in that area have now learnt the Union's strength. Stress was laid in the report on the desirability of members who require the help of the Union in connexion with slanders obtaining at the earliest possible moment signed statements from persons who are in a position to speak personally of the fact of such slanders being current. The Union regards the obtaining of such statement as an essential preliminary to legal actions, even though members sometimes regard this precaution as somewhat of a grievance.

The note on indemnity insurance dealt with the conditions on which insurances were granted by the Yorkshire Company and made it quite clear that such additional insurances might be taken out or otherwise as the member wished, the Union itself being ready to pay, as always previously, the actual cost of the member in defence, apart from the costs of the other side in lost actions, and any damages which might be imposed by the court.

The financial statement included an interesting table showing the total amount which had been paid by each of some twenty-four members in the way of membership fees and the law cost incurred by the Union on their behalf during the concluded year. The balance-sheet showed liquid assets amounting to over £5,000, in addition to moneys due for the current year and arrears. The membership roll included 8,530 members.

President's Address.

The Insurance Act.

The President gave an address on the subject of the Insurance Act, in the course of which he said that he would not go into the vexed history of the past, but would deal with the subject from the point of view that the Insurance Act was the law of the land, that it was being more or less successfully worked throughout the United Kingdom, and that at the present time 14 millions of insured persons were receiving medical treatment at the hands of 18,600 doctors, an average of 750 insured persons to each doctor, for which service an average of £262 10s. per annum was paid exclusive of drugs. A change like this could not fail to have very decided consequences for good or for evil on the nation at large, on the insured persons in particular, on the friendly societies, on the hospitals, on the medical profession, and on the chemists.

The effect on the nation at large was that another step had been taken by modern legislation towards the increased taxation of the classes to ameliorate the condition of the masses—a step tending to the improvement of the conditions of labour, and especially of so-called manual labour, by placing medical benefits in sickness within the reach of all. They welcomed such a provision for the really poor, but they felt that it should be strictly guarded by a suitable income limit which should render it impossible for those who were in receipt of incomes in many instances larger than those of the medical men attending them to claim medical attendance as contract rates. The effect of the Act on the insured person was also complex; to many it was an undoubted boon, though hampered by red tapeism and vexatious delays, due mainly to the undue haste with which a vast scheme was brought into existence. To those insured who pay through the Post Office, the Act was a mockery, a delusion, and a snare, and it could not be too widely known that the only means of securing the real benefits of the Act was through an approved society. The Post Office contributor had only the sum paid for his individual insurance to his credit, and as an example he pointed out that with the Act only in existence a few months, that sum was so small, that, after payment of management expenses and the medical capitation fee, a claimant for maternity benefit found only 7s. or 8s. instead of 30s., and a claimant for sickness benefit found that it lasted but ten days or a fortnight. The effect on the old friendly societies was somewhat difficult to gauge; undoubtedly they had in some respects reason to think that after the pioneer work they had done for so many years the Act had not been too generous to them. It had exposed them to the keener competition of insurance companies, who, with their agents calling week by week to collect payments, and to pay sickness benefits without trouble to the insured persons, were building up a large increase of business. Another—and to them the most satisfactory—result had been that, owing to the free choice of doctor and the abolition of the club doctor, the friendly societies could no longer exercise the grinding pressure they had so often done in the past on the less fortunate members of their profession; indeed, in his opinion, that was one of the very few really satisfactory results of the National Insurance Act. The chemists, too, were directly affected by the Act—a large amount of dispensing hitherto done by doctors was placed in their hands, and to that many members of the profession strongly objected. On the other hand, there was little doubt that the tendency of the Act would be to check the large amount of counter-prescribing hitherto done by chemists.

As to the effect of the Act on the medical profession, he made bold to say that, whilst it was by no means a boon, it was not an unmixed evil. The conditions under which the profession worked were so varied that it was impossible to pronounce definite opinions, except as partial truths.

In London, and generally in large towns, they might recognize three distinct classes of practice, which were affected in different ways. They had, in the first place, a class of practitioners who were almost entirely unaffected by the Act, and whose practices would continue much as they were before it was introduced, such are hospital physicians and surgeons, specialists, and those general practitioners whose work laid mainly amongst the upper classes of society. The second class, whose work lies mainly with the middle classes, would be most affected. Many persons, such as clerks, shopmen, and domestic workers, who had hitherto paid their small accounts with regularity would become insured persons and be lost to private practice, and these practitioners had an anxious question to decide, whether they should join the panel or retain their full independence; and to such the act was an unquestionable evil. The third class—those who had had mainly working-class and club practices—would distinctly benefit under the Act; their rate of payment would be increased by more than 50 per cent., and taking into account the cost of drugs, would in many cases be doubled: the Insurance Committees with their medical members and members chosen by the county councils influencing, though not controlling, their proceedings would be better masters than the old club committees, composed exclusively of working men; and the free choice of doctor would give them more independence than under the old system. On the other hand, they would be more worried by book-keeping and red tape. One effect of the Act, which was much to be deprecated, would be the formation in towns of two distinct classes—panel and non-panel doctors. In the country places, however, the evils of the panel system would not be so great; the rural doctor had in some respects been the true general practitioner; he had attended all classes of patients from the peer to the pauper; he had had all classes of practice—obstetrics, medical cases, emergency operations, such as hernias and appendicitis, anaesthetics, accidents of all sorts—and his work trained him to all emergencies without the hospital and the hospital staff to fall back upon. The panel system would be no loss of caste to such a man; he would retain his better-class patients: he would diminish his bad debts and get a better average pay for the poor he must, in humanity, attend. The effect of the Act on hospitals could hardly be estimated. It might not improbably seriously affect their finances, as people who had to lick insurance stamps would correspondingly be less willing to subscribe to secure hospital treatment for their dependants. The in-patient departments would be as much wanted as ever, but it might, he hoped, be expected that the attendance at the out-patient rooms would be much diminished. The experience of the Medical Defence Union had made painfully apparent the enormous impulse given to that section of the profession who sought to attract patients by the advertising methods of the quack. If that were not speedily checked, the result must be a lowering of the profession in the eyes of all right-thinking men.

The defects of the Act which should be removed were numerous. The book-keeping difficulties which first existed (a cumbrous day-book and ill-designed carbon prescription books which would not be tolerated in a third-class restaurant) were fortunately giving way to simplified forms and a reasonable card system; but whilst book-keeping in any form seemed to be specially obnoxious to medical men, it must be remembered that the keeping of such returns as were now required were necessary in the interests of medical men. They were necessary because without them the profession would be unable to gauge the amount and character of the work done, and therefore unable to ascertain how far the present payments were adequate or inadequate. Dr. Barnes believed that if medical men generally had kept as close records of their club practice as of their private work, they would have been able long ago to have demonstrated in an incontrovertible manner the inadequacy of club pay, and would have had a far better chance of securing better terms under the old club system, and also have had a mighty weapon to deal with the Insurance Bill before it became an Act. Another pressing and difficult question was how to provide the medical attendance promised by the Act to itinerants—persons moving from one district to another to convalesce from illness, or to obtain home nursing and comforts during illness. The scheme of the Commissioners, which took money from the panel doctors in the district from which they removed to pay for actual work done by the doctors of the district into which they went, was unsatisfactory, inasmuch as it involved a distinct breach of the agreement under which each practitioner was entitled to 7s. per annum for each person on his list. If an attempt was made to carry this out it would be incumbent on the Medical Defence Union to take the highest legal opinion, and if that opinion confirmed the statement that he had ventured to make, to carry a test case even to the Court of Appeal. There were only two ways in which this question could be dealt with in fairness to the profession. But one—namely, to leave these casual cases to be treated as private patients, as had been the case under the old club system—was prohibited by the lavish promises made to the insured by the authors of the Insurance Act; the other way was for the Government to redeem its promise to the insured by making a special grant for this purpose, and this it at present refused to give.

Another crying evil was the almost complete absence of payment for mileage in country districts. The Government had made an utterly inadequate grant for this purpose, and it behoved every Medical Committee to see that application was made to the Commissioners for participation in this grant, and to support this application by all the evidence obtainable. Though this meant much trouble for the hope of, at the best, an inadequate reward, yet it should not be neglected, for it was an important step that the justice of the claim had been admitted by any grant, however inadequate, being made. The principle having been admitted, there was hope that with clear demonstration of the facts a more adequate grant might some day result.

Another point of principle to which the energies of the medical profession should be directed was the absence of any provision for payment of fees to medical men necessarily called in to administer anaesthetics or to assist in emergency operations. This was not only unfair to the practitioner, but was distinctly contrary to the principle of the Act to provide adequate medical attendance to insured persons. Among other matters towards the removal of which in any amending Act the profession should devote itself whole-heartedly were the enforced duty of attending insured persons for diseases brought about by immorality and misconduct; the encouragement of illegitimate births by the payment of maternity benefits to unmarried women; and the inclusion of attendances on abortion and premature confinements in the capitation fee.

An important matter which could be dealt with without an amending Act was the multiplication of medical certificates which many approved societies were seeking to insist upon. It should be sufficient to give a simple certificate that John Smith was incapable of following his occupation through sickness or accident, without any mention of the nature of that illness, and thus avoid all danger of libel actions founded on certificates incautiously or inadvertently given to unauthorized messengers; a weekly certificate of continued inability to work, and a final certificate of ability to resume work should complete the series of compulsory certificates. All other certificates, either more amplified or duplicated, should be paid for by the person needing them. In the meanwhile, if medical men were compelled to state the nature of the illness on certificates, it was incumbent on them to insure themselves against possible danger by the help of the Medical Defence Union and of the Yorkshire Insurance Company.

Another grand defect of the Act was the encouragement given to malingering, of which ample evidence was already forthcoming. This could only be checked by the appointment of medical referees, on whom should lie the onus of refusing sickness benefit rather than on the attendant practitioner alone.

In conclusion he uttered a word of warning: "The friendly societies were much concerned with the conditions under which such old members who did not come under the Insurance Act could receive medical benefit, and plead old age, infirmity, and long membership as reasons why the 7s. of the Insurance Act should in their cases be reduced to 4s. or 5s., and also that women and children should be attended at inadequate rates. He feared that

from many causes, from a feeling of charity, from the competition of medical institutes, from unfair competition between members of our profession, those somewhat plausible though shallow arguments were being allowed to succeed—but surely, such a policy on the part of the profession was extremely short-sighted; the work was admittedly fully worth the 7s. exclusive of drugs, or the 9s. inclusive of drugs, fixed by the Insurance Act; and when, as they were promised, in a very short time the Act was extended to include women and children, some future Chancellor of the Exchequer would use with telling effect the argument that he was merely taking the profession at their own valuation, when he offered them and expected them to accept the inadequate rates of payment now being accepted by many. The experience of the past two years ought to show them the folly of undervaluing their own services as they had done in their dealings with friendly societies in the past. It was only fair to acknowledge that, with respect to medical institutes, the Commissioners by requiring, as to his personal knowledge they had required, that they should not interfere with the free choice of doctor by their members and that they should produce duly audited accounts and only be able to claim what they actually expended in providing medical benefit, showed that they were determined that the Harmsworth amendment should not be made a lever to defeat the true intent of the Act."

The usual statutory resolutions were passed, and one resolution added in respect of the payment to members of the council of out-of-pocket expenses should attendance at a council meeting necessitate their stay in London for the night.

Dr. Edgar Barnes, Dr. Gunton Alderton, and Mr. Larkin were re-elected members of the council.

A vote of thanks to the President and Council for the valuable work done for the members during the past year was carried with acclamation.

ROYAL MEDICAL BENEVOLENT FUND.

AT the May meeting of the Committee thirty-six cases were considered, and grants amounting to £300 made to thirty of the applicants. Appended is an abstract of the cases relieved:

1. Wife, aged 48, of L.R.C.P., L.R.C.S.Edin. No income, and since her husband broke down mentally six years ago has endeavoured to support herself by taking boarders. Two sons, aged 20 and 17, who will, it is hoped, soon be able to give slight assistance. Relieved three times, £45. Voted £15.

2. Daughters, aged 54 and 47, of late M.D.Aberd. Each has an income of about £20 a year, but is unable to supplement it owing to permanent ill health. Voted £5 each.

3. Widow, aged 42, of M.R.C.S., L.R.C.P. Practically unprovided for at husband's recent death, but having many friends in the neighbourhood hopes to maintain herself by receiving boarders. Three children, aged 15½ to 2. Voted £10.

4. M.R.C.S., aged 73. Incapacitated by paralysis and practically destitute. No children. Voted £20.

5. Widow, aged 58, of M.R.C.S. Supported herself for some years by designing lace, but is now incapacitated by an incurable complaint. No children. Voted £10.

6. Widow, aged 62, of M.D.Aberd. Only certain income £12 a year. No children. Voted £12.

7. Daughter, aged 43, of late M.B.Lond. Was partially provided for, but lost her capital through unfortunate investments and is now without any means. Receives a home in return for services, but being in bad health is unable to obtain a salary. Voted £5.

8. Daughter, aged 36, of late M.R.C.S. Has been a clerk at a large draper's, but left through no fault of her own, and has quite exhausted her small savings. Voted £5, with leave to apply again if necessary.

9. Daughter, aged 85, of a surgeon in practice before 1815. Only income a pension of £13 a year. Voted £12.

10. Widow, aged 42, of L.R.C.P., L.R.C.S.Edin. No income; tries to support herself by nursing, but finds it impossible to obtain regular work. Two children, aged 18 and 9, the elder just self-supporting. Relieved seven times, £55. Voted £5.

11. Daughter, aged 58, of L.R.C.P.Edin. Exhausted small saving in the attempt to establish a small business, and now dependent on a weekly allowance from a friend, and small earnings by needlework. Relieved eight times, £64. Voted £10.

12. Widow, aged 79, of L.R.C.P.Edin. Only income an old age pension. Husband was an Epsom pensioner. Relieved once, £12. Voted £12.

13. Widow, aged 50, of L.R.C.P.Edin. No income; slight help from two sons who are sailors. Relieved nine times, £99. Voted £12.

14. Daughter, aged 74, of late M.R.C.S. No income, and entirely dependent on uncertain help from relations. Relieved once, £12. Voted £12.

15. Daughters, aged 66 and 63, of late M.R.C.S. Have a small income from a house, but at present it all has to be paid away for repairs which were necessary to secure a tenant. Relieved once, £12. Voted £10.

16. L.R.C.P., L.R.C.S.Edin., aged 53. Has been paralysed and nearly blind for the last five years, and is entirely dependent on his wife's earnings by letting lodgings. Five children, aged 18 to 13. Relieved five times, £90. Voted £18.

17. Daughter, aged 67, of late M.R.C.S. Income reduced to a few shillings a week through the failure of the family solicitor, and is now broken down in health. Relieved once, £5. Voted £5.

18. Daughter, aged 58, of L.F.P.S.Glasg. Only income £1 a month from a society, and physically incapable of earning a living. Relieved six times, £70. Voted £10.

19. Widow, aged 64, of L.S.A. Practically dependent on lodgers, and has had three rooms unoccupied for several months. Relieved eleven times, £120. Voted £10.

20. Daughter, aged 61, of late M.R.C.S. Only income a pension of £20 a year; health delicate and sight greatly impaired. Relieved once, £12. Voted £6.

21. Daughter, aged 57, of late L.R.C.P.Edin. Has been in bad health for several years, and requires help for unavoidable expenses consequent upon recent operation. Relieved eight times, £76. Voted £5.

22. Widow, aged 54, of L.R.C.S.Edin. No income, and requires help during convalescence after a severe operation. Relieved twice, £24. Voted £12.

23. Daughter, aged 64, of late L.S.A. Used to support herself by teaching, but lost her pupils during a long illness which preceded her mother's death. Only income a pension of £21 a year. Voted £10.

24. Daughter, aged 74, of late M.R.C.S. Maintained herself for many years as a housekeeper, but is now dependent on an old age pension. Voted £12.

25. Widow, aged 54, of L.F.P.S.Glasg. Slight help from children, and small earnings by letting rooms. A daughter, aged 18, had been seriously ill for the past twelve months. Relieved nine times, £94. Voted £12.

26. Wife, aged 45, of L.R.C.S.I. Husband was obliged to give up eighteen months ago owing to a complete break down in health, but is now sufficiently recovered to make a fresh start and hopes to build up a small practice. Three children, aged 18 to 11, for whose benefit some money is invested on trust. Relieved once, £12. Voted £6.

27. Widow, aged 52, of M.R.C.S. No income; small earnings from crochet and needlework and lives rent free in return for slight services. Two children, just self-supporting. Relieved twelve times, £115. Voted £9.

28. Widow, aged 42, of L.R.C.P.Edin. Has an income of about £1 a week, but having seven children, the youngest only 2½ years old, is unable to supplement it in any way. Relieved once, £12. Voted £12.

29. Widow, aged 56, of L.R.C.P.Edin. Endeavours to maintain herself by taking boarders, but finds great difficulty in obtaining them. No children. Relieved twice, £10. Voted £5.

30. Widow, aged 56, of M.R.C.S. Only income a pension of £26 per annum; children unable to help. Was assisted several times by this fund when a young widow, but has not applied for nineteen years. Voted £10.

Contributions may be sent to the Honorary Treasurer, Dr. Samuel West, 15, Wimpole Street, London, W.

UNDER the will of the late Mr. Edward Beck of Heddon House, Isleworth, University College Hospital becomes entitled to the reversion of a sum of £8,000 left in trust for the testator's brother.

THE twenty-third Congress of Mental Specialists and Neurologists of France and French-speaking countries will be held this year at Le Puy from August 1st to the 6th, under the presidency of Dr. Arnaud. Among the subjects to be discussed are: Disturbances of movement in dementia praecox; anaesthesia in cerebral hemiplegia; the conditions of surgical intervention in insane persons from the therapeutic and medico-legal points of view. The general secretary is Dr. Suttel, 8, Boulevard Gambetta, Le Puy (Haute Loire), to whom all communications should be addressed.

THE fourth International Congress of Hygiene and Health of the Dwelling will be held at Antwerp from August 31st until September 7th. The President is Dr. Victor Desguin, President of the Royal Belgian Society for Public Medicine, and the General Secretary, Walther Van Kuyck, engineer-architect, Antwerp. The congress will comprise four sections—the hygiene of emigrants, colonial hygiene, hygiene of ports and ships, the development of towns from the hygienic point of view. Expropriation on account of insalubrity will be considered as a special question by the congress, the study to be continued by the tenth International Congress on Cheap Dwellings which is to meet at The Hague on September 8th and following days.

OPENING OF THE NEW BUILDINGS OF GUY'S HOSPITAL MEDICAL SCHOOL.

MR. A. J. BALFOUR ON THE ENDOWMENT OF RESEARCH.

A DISTINGUISHED company assembled at Guy's Hospital Medical School on June 3rd, when Mr. A. J. Balfour formally declared open the new buildings described in our last issue.

Lord GOSCHEN, Chairman of the Governors of the hospital, who was supported by the President, Mr. Cosmo Bonsor, presided at the meeting in the Physiological Theatre, and students of the medical school had seats in the gallery. Sir Arbuthnot Lane, whose baronetcy had just been announced, was received with great applause. Mr. Balfour had an enthusiastic reception. Among those present were the President of the Royal College of Physicians, the Regius Professor of Medicine in the University of Cambridge; the Vice-Chancellor, the Principal, the Chairman of Convocation, and the Member for the University of London; the Principal of King's College, the Provost of University College, the Head Master of Westminster School, the Curator of the Museum of the Royal College of Surgeons, the Commandant of the Royal Army Medical College, the Master of the Apothecaries' Company, the High Commissioner for South Africa, Lord Aldenham, Lord Revelstoke, and many members of the staff of Guy's Hospital.

Lord GOSCHEN, in opening the proceedings, said that Mr. Balfour was closely connected with Guy's as a governor and as a disciple of science who had enthusiastically supported the scheme that had resulted in the completion of the new buildings. In fact, a great deal of the success of the enterprise was due to the encouragement and inspiration which Mr. Balfour gave them when he delivered an address at a prizegiving at Guy's in 1898 on the subject of the endowment of research, and made an eloquent appeal in that cause. Lord Goschen also alluded to the interest the late King had displayed in the work of Guy's Hospital Medical School, and said he was glad to note that that interest had been handed down to his son, King George, who had that day given a proof of his feelings towards Guy's by the honour he had conferred upon Mr. Lane, to whom, in the name of all connected with the hospital, he offered hearty congratulations. Lord Goschen mentioned that, although the new buildings had been erected at considerable cost, not one penny had been provided out of the funds of the hospital, and the governors owed a deep debt of gratitude to the medical staff and the friends of the staff who had so generously assisted in the building scheme. The governors realized that a great heritage had been handed down to them by famous men connected with Guy's in the past, and that they had a great trust for the future to provide for the rising generation adequate means of obtaining knowledge fitting them to take their place in the great profession of medicine, which was always moving forward.

MR. BALFOUR'S SPEECH.

Mr. BALFOUR recalled that some fifteen years ago he had the pleasure and honour of speaking in that hall to the predecessors of the present students upon the claims which research had, and must have, upon all who desired to see this country maintain its place among the nations of the world in what was, after all, the greatest of the practical professions. In the fifteen years that had elapsed since then, this great block of buildings, which it would be his privilege to declare open, had been almost entirely constructed. A hundred thousand pounds had been spent upon them, and those responsible for the scheme might be disposed at first to say, "We can now look back upon the work which has been done, congratulate ourselves upon its success, and rest from our labours." That was not the spirit in which he intended to address them. The work had only just begun. The buildings, it was true, were finished, but a sum of money estimated at twice the amount that had been spent on the buildings was required before these could do all they were called upon to do in the interests of medicine, as the science was now, and to make medicine what it would be in the lifetime of many of those present. It was a great task, and one not unworthy of the energy and liberality of this country. Some unacquainted with the movement of modern science might ask why it was that apparatus, buildings, expenditure of all kinds, infinitely in excess of what were necessary even fifty years ago, were necessary in 1913. It was not due merely to the growth of a great urban population; the necessity arose from the inherent progress of science. Looking back fifty years it was found that some of the branches of science, studied then as they were now by those who intended to devote their lives to medicine, had nevertheless an incomparably smaller connexion with medicine than they had now. As the connexion of chemistry, physiology, bacteriology, and other collateral sciences with the science and practice of medicine had become closer, so the apparatus required had greatly increased in cost, and the amount of knowledge required from the teachers, and the specialization of the teachers, had extended, until he sometimes wondered how it was possible for any physician in practice even to keep himself abreast of what was being done by researchers in his own country and in all other countries, which were now engaged in a happy rivalry for the furtherance of knowledge—a rivalry indeed far happier than the rivalry in armaments, but he sometimes thought hardly less expensive. (Laughter.)

To the public a hospital might simply be a place where those who were sick or injured came for healing and relief; that was a very small and narrow view to take of its functions, because, unless a hospital was in addition a place where the doctors of the future were to be trained, its functions would, as it were, die out with the existing generation, and no provision would be made for the carrying on of the great philanthropic duties which for the moment it might perform, but for which it would not train a new generation with increased knowledge and command over Nature to continue to carry them on in the future. It was at least as important that the great hospitals should be made training grounds for the surgeons and physicians of the future as that they should provide surgeons and physicians of the present day with scope for their beneficent enterprise. To carry out this work effectively required three separate kinds of gifts—qualities not necessarily or commonly associated in any single individual. The really successful professor of the healing art must have not merely a knowledge of all that the science of medicine could now teach, but that ready and happy intuition, that power of diagnosis and knowledge of human nature which made a physician a helper as well as a healer to those whom he attended. Next, if the hospital was to be a great school it must have men who could not only do, but men who could explain. Doing and explaining were very different things, and required very different qualities; they were not always associated in the same individual. Further, if the school was to be all it might be, it wanted also men who could investigate, who possessed that kind of originality which enabled them to see and to map out—not indeed the provinces of which they knew nothing; any fool could do that; it was quite easy to explain what it was the world did not know. It was not so easy to point out in what direction the next advance should be made, where progress might be expected, where Nature might be most easily compelled to yield up her secrets. They wanted men who could by the happy inspiration of genius suggest a solution of some long-standing difficulty which might throw a light upon a multitude of apparently separate phenomena and bring them all under one law, and suggest in reference to them one line of successful investigation. That was research. (Applause.) Genius was rare in any country and in any profession; the medical profession could not hope to have a larger share of it than others. All that organization could do was to give to these rarely endowed individuals an opportunity for effectively exercising for the common advantage the gifts God had given them. He was not sure that the present medical organization in this country did not need amendment in that respect. Men must live; they must have a profession; they could not be asked to give up the domestic life or the security of an assured income. Therefore, if the man of research was to devote to research hours which might be profitably given to the practice of his profession, there must be provided positions of security in which he could feel he was not sacrificing—not his own interests, but the interests of those nearest and dearest to him—in the pursuit and

advancing of our knowledge. The system here—like most things in this country—had grown up somewhat at haphazard. The result had been a great system. Nobody acquainted with the work the great hospitals had done, not merely in the day-by-day work of healing the sick and afflicted, but in the work that looked to the future—the work of education, of investigation, of research—would say that the hospitals had fallen short of the great duties they had taken voluntarily upon themselves and for which they had made great sacrifices. Yet so rapid was the movement of modern thought, so various were the qualities now required by the members of any great and scientific practical profession like medicine, so absolutely necessary was it to differentiate more than had been done in the work of teaching and research, that it was impossible now to ask that the whole of the teaching and research should be done by men engaged for more hours than was probably good for their health in the actual trying work of their profession.

I am certain (continued Mr. Balfour) that the public must assist these great hospitals by a form of endowment which will enable them, when they get a man gifted with a genius for research, to keep him and use him. I cannot forbear, though it may be somewhat outside my duties at the present moment, formally to make the appeal to which I have been leading up in the arguments I have laid before you. There are men who have got a quite unique talent for research who probably would not be very great clinical physicians, and who may have a very small power of expounding doctrines to large bodies of students. You must find a place for such men—when you can catch them; there are not many of them. If there is to be a true organization of medical research for the future you must find a place for these; it is to the liberality of the general public that I make the appeal.

The actual suffering of the moment touches all our hearts. Take the most indifferent man through the wards of a hospital, show him what is being done to diminish suffering and restore a man to a happy, fruitful, and effective life, and the most callous are moved, and the most indifferent open their purse-strings. The appeal I am making has no such immediate and natural advantages; I am appealing for the future, and not for the present; in favour of long, academic lives of research, of which the public know nothing, of which, if they knew anything, they could understand nothing, and yet upon which depend the real future of the healing art in this and other countries. Such an appeal is not easy to make; it is apt to fall on indifferent ears, it does not touch the immediate sense of the present, it looks forward through the mists of difficult scientific terms to some unknown future, but the future in this respect is as real as the present. Exercise your imagination but a little and you will see that it should touch you just as much as the immediate pain endured by a man who has broken his leg in the street and is being treated in the hospital here. If only those who have the means will exercise that small effort of imagination which I am endeavouring to elicit I am quite certain that those who are responsible for this great and important institution will find it as easy to collect the £200,000 that has yet to be gathered before what has been done can be continued to the best advantage, as it was to obtain from the public, and from the staff, the £75,000 which has been collected already for the buildings. It is my most agreeable duty to declare them open.

Vote of Thanks.

Dr. HALE WHITE proposed a vote of thanks to Mr. Balfour, whose mind, he said, was in tune with the advance of knowledge and in sympathy with the idea that led to the erection of the buildings. Dr. Hale White briefly traced the association of modern science with medicine and the recognition of this by those responsible in the past for the policy of Guy's Hospital Medical School. He urged that not only in this country but in the Dominions and in India the appeal for the endowment research at Guy's should find a generous response.

Sir ARBUTHNOT LANE, who seconded, remarked that in no country was research worse remunerated than in this; in the United States money was poured out for this purpose.

The resolution was carried with acclamation, and, Mr. BALFOUR having briefly replied, the visitors adjourned for tea in the "Park," the delightful little open space in the midst of Guy's Hospital buildings. The new laboratories, lecture rooms, etc., were also visited, and demonstrations were given of some of the equipment.

SCIENCE NOTES.

MR. G. E. BULLEN contributed to a recent meeting of the Zoological Society a short paper on cases of blindness in marine fishes. Hofer, de Drouin de Bouville, and others who have studied the pathology of fishes, appear to have directed their attention mainly to species of freshwater habitat. Mr. Bullen has found, in certain specific cases of blindness in marine fishes, pathological conditions similar to those described in several freshwater species and others presenting slight modifications. The examples dealt with in detail were traumatic corneal opacities in a conger eel and corneal opacities in a greater weaver and in a pollack, in the last instance accompanied by cataract.

The theory of the transmutation of elements has been carried a stage further by the paper read by Sir William Ramsay before the Chemical Society of Rome on June 2nd. He then stated that he had experimental evidence indicating that eight and four atoms of hydrogen respectively had been added to sulphur and selenium, with the result that argon and krypton made their appearance. A report of the portion of the lecture dealing with these points appeared in the *Morning Post* on Tuesday. As regards the experiment with sulphur, a control experiment, in which helium took the place of hydrogen, was made with negative results. Spontaneous changes which take place in radium and its products are attended by successive losses of helium atoms, and it is believed that the substance eventually remaining is lead. The recent suggestion of Ramsay, Collie, and Patterson is that the reverse process may also take place with the production of elements of higher atomic weight. The two observers last named maintained in their communication to the Chemical Society (noted in the JOURNAL last February) that on bombarding glass with cathode rays in the presence of hydrogen helium was produced, and that if oxygen was present neon appeared. All the chemists concerned make abundant reservations as to the necessity for the repetition of the experiments, but if the accuracy of Sir William Ramsay's experiments is accepted we have four similar reactions, two due to Collie and Patterson, and two due to Ramsay. In each of the four a single condition is altered, and the conclusion suggested is that transmutation has occurred. Sir William Ramsay believes that under the conditions of his experiment dry hydrogen is polymeresed into helium, a change which may be expressed thus: 4 Hydrogen = Helium the atomic weight of which is 4. He would then go on with the following series: 4 Hydrogen + Oxygen (16) = Neon (20): 8 Hydrogen + Sulphur (32) = Argon (40): 4 Hydrogen + Selenium (79) = Krypton (83). The theory is made possible if not plausible by recent work on the constitution of the atom and on radio-active substances, and it certainly satisfies one of the conditions of a useful hypothesis, for it should suggest a fruitful line of research.

THE Royal Academy of Medicine of Turin has awarded the Riberi Prize of £800 to Professor Luigi Pagliani for his treatise on hygiene and public health. The thirteenth competition for the prize is now open, and will remain so to December 31st, 1916. For particulars application should be made to the Secretariat of the Academy, 18, Via Po, Turin.

THE French legislature has before it two bills regulating the sale of narcotics. M. Felix Chautemps, Deputy for the Haute-Savoie, proposes to forbid the sale, circulation, and smoking of opium in France and the French colonies, and also the sale, circulation, and use without a medical prescription of morphine, cocaine, and all analogous substances. A bill introduced by M. Charles Leboucq, Deputy for the Seine, provides for the prevention of the sale or keeping in stock or unauthorized transport of cocaine, opium, and its alkaloids, the dispensing of prescriptions except in cases of therapeutic necessity, and the establishment of places or the loan of rooms for the purposes of smoking opium.



Madeira Drive, Covered Walk.

The Annual Meeting
of the
British Medical Association
Brighton, July 18th to 26th.

THE Association will hold its Eighty-first Annual Meeting at the popular seaside resort of Brighton, in Sussex. The annual conference has been held in this town on two previous occasions—for the first time in 1851, and for the second in 1886, twenty-seven years ago.

A few words of this meeting of over a quarter of a century past, and some comparison of names, facts, and figures with the present, will perhaps be of interest.

In 1851 the membership of the Association was only 1,700; in 1886 the members numbered 12,000; at the present time there are over 26,000 members. There was then, of course, no Brighton Division; now it is one of the most prosperous and flourishing of the whole Association.

Dr. W. Withers Moore, Senior Physician to the Sussex County Hospital, was President on the occasion of the Fifty-fourth Annual Meeting at Brighton (1886). On looking through the account of the meeting many items of interest are discovered. There were only eight Sections, compared with sixteen to-day. In the Surgical Section Mr. Willoughby Furner acted as Secretary; this year his name is found as Vice-President of the same Section. Mr. Jowers was a Vice-President; this year his son occupies the same position. In the Pathological Section Dr. Uhthoff acted as Secretary; at the present meeting he is Vice-President of the Pharmacology Section. Mr. A. Nicholson was Secretary of the Section of Ophthalmology; at this meeting he is a Vice-President of the same Section. So that only three officers of Sections of the 1886 meeting are in this year's list.

The titles of some of the addresses make interesting reading. Dr. Withers Moore selected as his subject The Higher Education of Women, and the views he expressed excited a prolonged controversy in the public press. The Address in Medicine was delivered by Dr. John S. Billings of the United States Army, whose death we have had so recently to lament. His subject was Medicine in the United States and its Relation to Co-operative Investigation. The Address in Surgery, delivered by Mr. F. A. Humphry of the Sussex County Hospital, was on The Medical Aspect of Surgery. Many papers by men whose names are now historical were read—for example, Sir William Broadbent spoke on Remote Effects of Remedies, Sir John Eric Erichsen on The Tendency of Modern Surgery. Other papers were read by Sir Lauder Brunton, Sir Thomas Clouston, the late Professor Dreschfeld of Manchester, and many others who have since risen to the first eminence in our profession.

The Honorary Secretaries of the meeting in 1886 were Mr. T. Jenner Verrall, now Chairman of the Representative meeting, and Mr. Alfred Scott, still practising in the town.

The various functions held on that occasion were very similar to those to be held in the present year. The annual dinner was held in the Dome instead of the Hove Town Hall, not then built. A garden party was given by Sir Julian Goldsmid, M.P., in the grounds of St. Ann's Well, then his private property. The Mayor of Hove is this year giving a garden party on the same spot, now the property of the town. The Mayor of Brighton, as on the present occasion, gave a reception in the Pavilion, the local Branch also held an evening reception. Excursions were arranged to Eastbourne, Tunbridge Wells, Arundel, and other places, all of which are to be visited this summer.

From the published accounts the whole meeting was a great success, and there is every reason to believe that the annual meeting on the present occasion will be at least as profitable and enjoyable to those who determine to make Brighton their Mecca this July.

The town of Brighton is situated on the English Channel, fifty miles from London, on the coast of Sussex, facing almost directly south. The population, including Hove, is 173,000. The railway service is excellent, plenty of trains doing the journey from London either way in exactly the hour. There are also good connexions with other lines. The L.N.W.R. runs a through train daily from Liverpool, Manchester, Stockport, Birmingham, Crewe, Stafford, and Rugby, and vice versa, and there are also through trains to Salisbury, Exeter, etc., via the L.S.W.R.; to the East Kent Coast (Margate, Ramsgate, Dover, Folkestone, etc.) by the S.E.and C.R. There is a regular service of steamers from Newhaven, a few miles from Brighton, to Dieppe, which renders it easy for visitors from all parts of the Continent to make a stay in the town. Facilities are offered for amusements of every description. The municipal orchestra is a great attraction, and military bands constantly perform on the piers, two in number, both of which cater for the entertainment of the public by all varieties of performances, dramatic and otherwise. There are several good theatres, notably the Theatre Royal, with a weekly change of programme, and in addition flying matinées by first class London companies. Concerts, ballad and classical, are very frequently arranged at the various halls.



North Entrance to Pavilion, showing Exhibition Building.

There are numerous opportunities for bathing, boating, steamer trips, motor boat trips, and coach, motor, and char-a-banc excursions to places of interest in the neighbourhood. Golf links are plentiful; tennis, croquet, football, and cricket are catered for in various parts of the town. On the Sussex County Cricket Ground in Hove the finest English teams hold their matches, and the Australians are frequent visitors. Archery, roller skating, racing, cinematograph theatres must all be mentioned; in fact, there is no end and no limit to the forms of amusement which the visitor to the town can procure.



The Pavilion. Reception Room: Mayor's Reception.

Some of the principal municipal buildings must be mentioned. The celebrated Aquarium, opened forty years ago, was purchased by the Corporation in 1901. It contains the finest piscatorial collection in the world, as well as a large collection of marine shells. Organ recitals and concerts by the municipal orchestra are given frequently.

The electric lighting works at Southwick are very fine, and capable of supplying the whole town with electricity. The waterworks provide one of the purest and best waters in the world. The department owns 1,400 acres, eighteen reservoirs, and six pumping stations. The water is entirely underground, never seeing daylight from the time of its absorption by the chalk to its exit at the tap.

The public parks are numerous and well kept, Preston Park, 66 acres in extent, being especially noticeable. Here are courts for lawn tennis and bowls. Polo matches are held, as well as cricket and football. Facilities are given for riding, one side of the park being set aside for equestrians, the riding track being continued right on to the South Downs.

It would be impossible to describe Brighton without a mention of its celebrated King's Road. One side are shops which would not disgrace Regent Street, divided here and there by great hotels, such as the Grand, the Metropole, the Bedford, or the Norfolk. On the other side is the sea, approached by a shelving beach, with its two projecting piers. The whole of the road has recently been relaid with tarmac, the opening ceremony being performed by Sir George Gibb, Chairman of the Road Board.

To the east of the Aquarium, on the Madeira Drive, is the fine covered walk, of over half a mile in length, sheltered from the worst weather, and decorated with euonymus. The walk is divided from the roadway by shrubs and a lawn. Above is another promenade not covered in, and beyond that a fine broad road, the Marine Parade.

The Royal Pavilion, which will be occupied by the Association for its Annual Meeting, was built by George IV when Prince of Wales, and used by him and some of his successors as a seaside home. The decorations of the chief rooms have been renewed, and the building is now used for concerts, plays, and meetings. In the Pavilion an interesting collection of prints, etc., is kept, illustrating Brighton in its many aspects. The Dome, which adjoins the Pavilion, formerly the royal riding school, is now used for large public gatherings. It is a fine building, capable of holding about 2,500 people.

Historical.

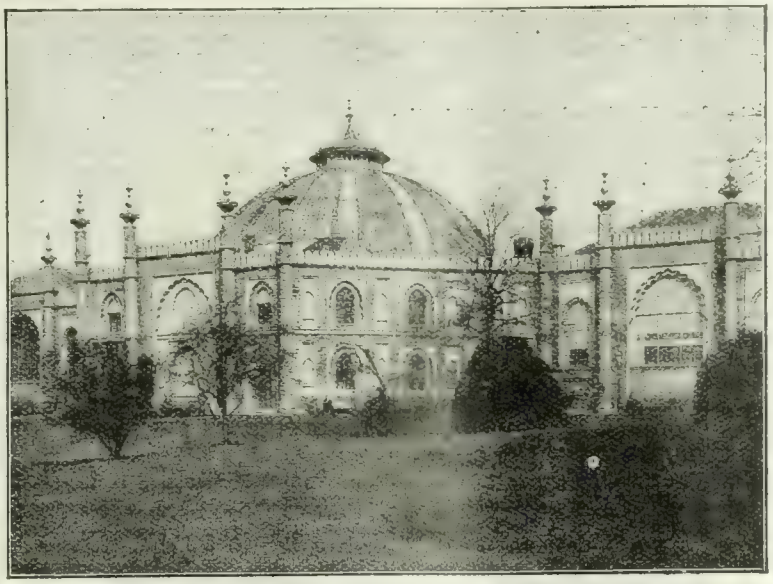
Before the Norman conquest Brighthelmstone, as the name was then spelt, came into possession of the family of Earl Godwin, and passed into the hands of his son Harold, who was defeated and slain by William the Conqueror at Hastings. The lordship of the manor was then presented by William I to William de Warrenne, afterwards Earl of Surrey. The rent paid, according to Domesday Book, was 4,000 herrings.

In the sixteenth century the town was burnt by the French, an interesting picture of which event is shown in the Public Library.

When Charles II escaped from this country after the battle of Worcester, he embarked at Shoreham, having spent the previous night at an inn (no longer in existence) in Middle Street. He was helped in his escape by Captain Tettersell, who was subsequently granted a pension of

£100 a year, and was buried at his death in the churchyard of the old parish church of St. Nicholas.

It was at the beginning of the eighteenth century that Brighton commenced to rise to fame. Dr. Russell, who was born at Lewes in 1687, settled in practice in Brighton, and, after a long study of his subject, issued his celebrated work, *On the Use of Sea Water in the Diseases of the Glands*. He recommended his patients to drink sea-water as well as bathe in it. A short account of his views, for which we are indebted to Dr. Gervis, an ex-mayor of Brighton, will be of interest. According to him the internal use of sea-water should precede its external application, for he says, "Many persons are apt to hurry into a course of bathing before the body is altered and sufficiently prepared by drinking sea water or by a previous course of other remedies, which hurry is always detrimental to the patient by protracting his cure." It would be quite erroneous to regard Russell as a mere crank, for in many ways he was in advance of his time. He recognized the value of open air in the treatment of consumption, and distinguished between those cases that required absolute rest and those which would be benefited by exercise. For the latter he recommended riding on the Downs. In the case of delicate children he insisted on the importance of keeping the nursery windows open, or not dressing the children too warmly, and on avoiding the use of opiates. In fact, his advice might be that of the most up-to-date county council health visitor.



The Dome Assembly Hall. President's Address; Dr. Spitta's Lecture.

It is possible that Dr. Russell's sage advice was even more efficacious than the pint of sea-water he made his patients drink daily; at any rate, his treatment had a tremendous vogue, and invalids deserted Bath and other inland health resorts and flocked to Brighton to be cured of all their ills by the novel method of bathing in the sea and drinking sea-water.

It is difficult nowadays, when the custom of spending holidays by the seaside is so widespread and everybody bathes in the sea as a matter of course, to realize how great a revolution Dr. Russell inaugurated. The tendency to regard sea-bathing as a medicinal process lasted long after Russell's time, even down to the middle of the nineteenth century. Dr. Russell, who did so much to raise Brighton to fame, died in 1759, aged 72, and the Rev. Dr. Mannington, of Levington, enshrined his memory in the following epitaph:

> Clara per omne aevum Russelli fama manebit
> Dum selinet vires unda marina suas.

It was during the time of the Regency and of George IV that the zenith of Brighton's popularity was reached. As already mentioned he, as Prince of Wales, built the Pavilion as a royal marine residence, at an enormous cost, with riding schools and stables connected with the Pavilion by an underground passage. The orgies which occurred in this residence during his occupancy are historical, and no credit to him or his satellites. After his death it was used by William IV as a seaside house, and Queen Victoria resided there several times during her brief visits to the town.

In 1850 the building was purchased by the town for £30,000. The old riding school is now the Corn Exchange—where the Annual Exhibition of the Association is to be held; the stables have been converted into the Dome, where Dr. Hollis will deliver his Presidential address. The Pavilion remains much in its original state, and is to be used for the purpose of the Annual Meeting, the reception, reading, writing, and other rooms being situated here.



The Palace Pier.

In the Old Steyne is the house of Mrs. Fitzherbert, wife of George IV; her tomb is situated in the Catholic Church of St. John the Baptist in Bristol Road, where the Catholic service of the Association is to be held

Some reference to the sister town of Hove must be made. This borough, though only separated from Brighton by a purely artificial boundary, has a corporation of its own, and manages its own affairs entirely.

The town has been well planned with wide, open streets, roads, and avenues. The sea wall, erected at a total cost of about £70,000, under the supervision of Sir John Coode, is one of the finest in England, extending almost to Aldrington.

The most imposing building in the town is its Town Hall. It was erected in 1882 at a cost of £50,000. The central hall has a good organ, and is capable of holding about 2,000 people. The central tower has a fine carillon of twelve bells, which play throughout the day every three hours.

Hove was a favourite resort of the late King Edward, who frequently stayed at the house of Mr. Reuben Sassoon at 8, Queen's Gardens. It was here he had an historic interview with the Prime Minister, Mr. Asquith, in reference to the steps to be taken to secure the passage of the Parliament Bill into law.

There are many parks and open spaces in Hove, the most beautiful of which is the rural St. Ann's Well. There is a chalybeate spring in the gardens, at one time much resorted to by visitors to Brighton, but it has now fallen into disuse.

Hove Park, situated in the old Shoreham Road, in the district known as Goldstone Bottom, takes its name from the Goldstone, an enormous grey wether, lying there for many years on the land of farmer Rigden. It was at one time supposed to be a Druidical altar or sacrificial stone, and it is said that it formerly lay in a stone circle. In the early portion of the nineteenth century it attracted the attention of archaeologists so frequently, that the owner, finding it a nuisance, dug a hole and buried it; and there it remained till 1902, when, after much searching, it was found and dug up, and remains in Hove Park, weighing 20 tons, and measuring 10 ft. by 14 ft. by 5 ft. at the thickest part.

This park, now the happy hunting ground of children and nursemaids, and one of the prettiest spots for the residents and visitors at Brighton to explore, was once the scene of a tragedy so terrible and sombre that it is difficult to imagine that it is only a little over one hundred years since it happened. A riot broke out in the Oxfordshire Regiment, and those who took part in it were tried by the authorities, who determined to make an example of the guilty ones. Various punishments were dealt out, and two of the unfortunate men were condemned to be shot. The following account of the execution of the sentence is taken, with slight alteration, from a contemporary newspaper:

On Friday, June 14th, 1795, at 11 o'clock at night, the Oxfordshire Regiment marched from Seaford in order to attend the execution of the two men who were condemned by a general court-martial for riotous and disorderly conduct. The hour of four was the time appointed to assemble. On the march the regiment halted, and twelve men who had taken part in the riot were called out, when the commanding officer ordered them to fix their flints and prepare to execute the sentence. This was done to demonstrate to the men that state of obedience in which the officers were determined to hold them, and by this measure they felt more pointedly the folly of their former conduct, when those persons, whom they had before made their leaders, were now to suffer death at their hands.

The regiment was then conducted to a spacious valley, now part of the New Park at Hove, and divided into two wings, which were stationed on each side of the place of execution. They were then followed by the whole line of encampment. On the rising ground above the valley three thousand cavalry were posted. They were followed by all the horse artillery. The guns were pointed and matches lighted. From the disposition of the ground and the arrangement of the troops a more magnificent and a more awful spectacle was never exhibited in this country.

After the corporal punishments had been inflicted on the prisoners of less note, Cooke and Parish, the two unfortunate men condemned to die, were brought forward with a very strong escort. They walked along the vale in slow and solemn procession, accompanied by the clergyman who had devoted his time so conscientiously to them from the moment the sentence was made known that they were fully prepared to meet their fate. They approached the fatal spot with resignation, and expressed much concern and penitence for the crime. They then kneeled down upon their coffins with cool and deliberate firmness, when the one who was to drop the signal said to his comrade, "Are you ready?" Upon the reply being made, he dropped a prayer book, and the party did their duty at about six yards distance. One of them, not appearing to be entirely dead, was instantly shot through the head, and the same ceremony was performed to the other. After this the whole line was ordered to march round the dead bodies.

This ghastly performance shows the callous brutality of the time—only a little over one hundred years ago. On the same day at Lewes two of the Oxford Militia were hung for stealing flour at Blatchington. They appeared very penitent, and desired the spectators to take warning by their untimely fate, and not to mix with any mob, as they themselves were insensible of the consequences at the time of committing the offence for which they suffered. The troops of the yeomanry cavalry raised in Sussex attended the execution.



Brighton Municipal Technical School and Day Training College: Sections.

The new parish church is a very fine building, or rather will be when completed by the erection of the tower. It is the largest parish church in Sussex.

The origin of the name of the borough is not quite clear. In the Domesday Book it is recorded that the Earl of Godwin held the borough wick of Hove before the Conquest. In the thirteenth century the manor of Hove was held by the Pierpoint family, now extinct, but with the record of their name in Hurstpierpoint, a village a few miles out. At this time the sea had begun its inroads, which ended in in the destruction of Aldrington.

An interesting event in the history of the town is the march of the men of Hove to the assistance of the men of Brighton. It was in 1545, when Francis I, King of France, invaded England and made his attack on the south coast. On July 18th Admiral Claude d'Annelant with 200 ships and 26 galleys of the French navy made his descent on the Sussex coast. An old print shows houses burning on the shore, with the town beacon alight, and the men of Aldrington and Hove marching to the assistance of their neighbour.

Hove only began to develop into importance at the time of the Regency, and since then has rapidly advanced to a fine attractive town.

The Annual Representative Meeting.

The Annual Representative Meeting will be held on Friday, July 18th, and subsequent days in the Hove Town Hall, situated in Church Road, in the centre of the town of Hove, and easily reached by motor bus from Brighton. Ample accommodation is obtainable in the



Lent by Messrs. Emery] Hove Town Hall: Annual Representative Meeting. *[Church Road, Hove.*

building to accommodate comfortably all the Representatives. The Mayor of Hove (Alderman Barnett Marks) will, on the opening day, welcome the meeting to Hove. It has been arranged on this occasion to make a presentation to the Representative Meeting by the local Division of a set of minute glasses mounted in silver. The work has been executed by the Goldsmiths' Company, of Regent Street, and makes a very handsome ornament. It will be a welcome addition to the regalia of the Association. A refreshment room will be opened on the premises, where lunch and tea can be obtained at a reasonable price.

Although the controversy over the Insurance Act has become less acute, there are many important and debatable subjects (including such questions as increased subscription for membership, the advisability of the Association becoming a trade union, the payment of expenses of Representatives, and the reorganization of Branch and Divisional areas in the United Kingdom, the proposed decrease in the size of the JOURNAL, etc.) still to be discussed at the Representative Meeting—subjects which will tax the powers and patience of the able Chairman (Mr. T. Jenner Verrall), whose name is so well known in Brighton, with which he was so intimately connected in the past. The provisional agenda of the meeting was published in the SUPPLEMENT of the JOURNAL on May 10th.

THE PRESIDENTIAL ADDRESS.

The head quarters of the Association are at the Pavilion, and the reception-room will be open early on Monday, July 21st, for the issue of members' tickets, *Daily Journal*, guide-books, catalogues, etc.

The annual address of the President will be delivered on Tuesday, July 22nd, by Dr. W. Ainslie Hollis, Consulting Physician to the Royal Sussex County Hospital, who has selected as his subject the medical history of Brighton. The oration will be delivered in the Dome. This function is always a picturesque one, and there is every reason to believe that this occasion will be no exception. Many distinguished visitors, both lay and medical, are expected, and as academic costume will be worn the display of colours of the gowns and hoods of the various universities, combined with the gay dresses of the ladies, will make a brilliant spectacle.

The Mayor of Brighton, Alderman Thomas Stanford, will open the proceedings by welcoming the Association to Brighton. The Mayor is intimately connected with the medical profession and it is an open secret that he only consented to the urgent wish of his colleagues to retain office for a third time on account of the visit of the British Medical Association to Brighton this year.

It has been decided on this occasion to present to the President, Dr. W. A. Hollis, a replica of the presidential badge of office, from the local Division, as a token of the esteem in which he is held by his colleagues in the town. To this ceremony the Mayors and Corporations of Brighton and Hove and many distinguished people are to be invited, so that a very large meeting is expected, but the seating accommodation at the Dome is very large and room will be found for all.

THE ADDRESSES IN MEDICINE AND SURGERY.

These addresses will be delivered in the Music Room of the Pavilion on Wednesday and Thursday at 12.30 p.m., that in Medicine by Professor George R. Murray, physician to the Royal Infirmary, Manchester; that in Surgery by Sir Berkeley Moynihan, Surgeon to Leeds General Infirmary.

THE SECTIONS.

The sections, sixteen in number, will all hold their meetings in two adjacent buildings, the Municipal Technical College and the Municipal Training School, kindly placed at the disposal of the Association by the Brighton Education Committee. These are easily reached from the Pavilion by tram in two minutes or by walking in five. Here there are plenty of large and well-arranged rooms, which will afford ample accommodation not only for the whole of the Sections but also for the Pathological Museum. The preliminary programme of the Sections was published in the SUPPLEMENT of May 17th, and reference need only be made here to a few of the discussions. Thus, in the Section of Climatology and Balneology, Dr. W. J. Tyson is to open a discussion on Sea Bathing, and Dr. Neville Wood will speak on The International Aspect of British Health Resorts. In the Ophthalmological Section an important discussion on School Clinics and the Prevention of Myopia will take place; and in the Section of Diseases of Children Professor Foerster of Breslau

will read a paper on Posterior Root section in the Treatment of Spastic Paralysis. In the Section of Laryngology, Rhinology, and Otology a discussion on a most important subject, the Care of Patients after Operations on the Nose and Naso-pharynx, will be held. In the Pharmacological Section Dr. Willcox will open a discussion on the Use and Abuse of Hypnotics. In the Section of Medical Sociology, at which a large number of non-medical members are expected to attend, many important discussions which will appeal to the intelligent public have been arranged. A debate on Crime and Punishment, in which Dr. Charles Mercier, Sir Bryan Donkin, and Dr. James Scott will take part, is one of the items; the Consideration of Eugenics is another; and the subject of Hospitals in Relation to the State, the Public, and the Medical Profession is sure to provoke animated argument. In this latter discussion Mr. Masterman, Under Secretary to the Treasury, will join, and the Chancellor of the Exchequer, the Right. Hon. D. Lloyd George, has been asked to contribute his views; he has intimated that he is unable to make a definite engagement so far ahead, but the local profession sincerely hopes he may be able to be present.

It will be seen from the above brief reference that the scientific proceedings have been arranged to include many subjects of interest and importance to every member of the profession, no matter what particular branch he may be engaged in, and the names of the officers and of those who have promised to take part in the discussions or read papers should vouch for the excellence of the material to be supplied.

The Pathological Museum.

This is being well organized by Dr. Galt of the County Hospital and his colleagues. Specimens are being collected from all over the country to illustrate the subjects treated of in the papers and discussions of the various Sections. In addition special branches of pathology are being taken up and illustrated, especially those relating to any recent research work. It is hoped also to have on view, with demonstration, the most recent instruments relating to clinical diagnosis and pathological investigation, such as the epidiascope. A good collection of microscopic exhibits has also been arranged for in a special room adjoining that in which the Pathological Section meets.

Church Services.

It has been decided that a service shall be held at the parish church of St. Peter's, Brighton, on the afternoon of Wednesday, July 23rd. The members will assemble and robe at the Pavilion; they will then march in procession, preceded by the Corporations of Brighton and Hove and their officials, through the gardens to the church. Canon Hoskyns, the vicar, will conduct the service; it is hoped that the Bishop of Truro, whose brother Dr. Ryle is a well-known practitioner in Brighton, will preach the sermon, and a leading member of the Association will read the lesson. Arrangements for hiring the robes, on this and other occasions, have been made with various firms, so that no difficulty will be encountered in the wearing of academic costume.

On the morning of Wednesday, at 9 a.m., a Roman Catholic service (short mass) will be held at the church of St. John Baptist, Bristol Road, Brighton. This church is situated within a few minutes of the Pavilion by motor bus. Canon Monsignor Johnston, D.D., will conduct the service, and afterwards will be pleased to show visitors round the church, which contains, among other objects of interest, the tomb of Mrs. Fitzherbert, wife of George IV.

Annual Dinner.

The annual dinner will be held at the Hove Town Hall on the night of Thursday the 24th. The number of tickets has, on account of seating accommodation, been limited to 400; and, as it is expected that there will be a great demand for these, early application should be made. Some very distinguished visitors are expected, and a successful function is with confidence anticipated. The after-dinner speeches will be few and short.

Popular Lecture.

A popular lecture entitled Some Wonders of Animal and Plant Life in Pond and Pool will be delivered in the Dome on the evening of Friday, July 25th, by Dr Spitta, and will be illustrated by a cinematograph; 2,500 tickets are to be issued, and they will be distributed mainly to working men, school teachers, and elder scholars, and the public generally. Dr. Spitta is so well known as a clever and capable lecturer, that there is sure to be a very large demand for admission. Captain Tryon, one of the borough members, will take the chair, and Mr. Percy Taylor will preside at the organ.

Annual Exhibition.

The annual exhibition of foods, drugs, books, and instruments, has been arranged in the Corn Exchange, a spacious building adjoining the Dome. It is hoped, in spite of the competition of the International Medical Congress to be held in August in London, that this will prove as useful and attractive as it has in the last few years. A unique opportunity is here presented to the members of the profession actually to inspect the latest productions in elegant pharmacy, the most recently published medical works, and the most modern surgical instruments. It has been decided to keep this exhibition open during the Mayor's evening reception, to be held in the adjoining buildings, the Dome and Pavilion, on the night of Wednesday, July 23rd.

Mayoral Reception and other Entertainments.

Many evening functions have been arranged. The Mayor of Brighton is issuing invitations for a concert and ball to be held in the Pavilion and Dome on Wednesday evening. These buildings essentially lend themselves to an entertainment of this nature. The handsome suite of rooms with their quaint ornamentation are specially suitable for a state reception, and no more appropriate place could have been selected than the old dwelling place of George IV. The municipal orchestra which will perform on this evening, under the direction of Mr. Lyell-Taylor, is justly celebrated for its performances, and will be heard to advantage in the Dome.

On Thursday night, the evening of the annual dinner, an entertainment is being arranged for the ladies and those members who are unable to be present at the dinner. It is not quite settled what form this will take, but probably one of the theatres in the town will be reserved for them.

On Friday the local Division is giving a soirée in the Hove Town Hall, and this should be a great success. A large number of invitations will be issued to prominent residents in the two towns to meet the members of the Association.

On the afternoon of Thursday, July 24th, the Mayor of Hove, Alderman Barnett Marks, will entertain the Association at a garden party in the grounds of St. Ann's Well Gardens. This park is without exception the most beautiful in either town. The picturesque paths, winding up and down hill, in the well-wooded grounds, are perfect on a fine summer's day, and no more suitable spot could have been selected by His Worship to entertain his guests.

Ladies' Entertainments.

A ladies' committee, presided over by Mrs. W. Ainslie Hollis, wife of the President, has been formed to look after the interests of the lady visitors, and they are endeavouring to provide amusements for them during the time their husbands are engaged at the Sections. Croquet, tennis, golf, etc., are all being arranged, and it is proposed to have a ladies' golf competition, the local Division presenting a cup to the winner. Visits to various places easy of access will be made, motor rides round the district will be taken, and so on. Nothing is being left undone by the Committee to ensure the comfort of their lady guests. Some members will be in constant attendance at the ladies' room in the Pavilion to assist the visitors in every way, and to provide them with afternoon tea.

Excursions.

Plenty of excursions to places of interest in the neighbourhood have been arranged for Friday and Saturday July 25th and 26th. The Mayor of Eastbourne, in conjunction with the Eastbourne Division of the British Medical Association, has invited a party to visit that town. A special train will be provided, and after the arrival of the visitors, they will be entertained at lunch at the Town Hall; they will then drive round the neighbourhood, have tea on the pier, be entertained at dinner, and finish up

with a concert and firework display in Devonshire Park, returning to Brighton by another special train.

The Mayor of Lewes, Dr. Hugh Stott, has arranged for a visit to Lewes, the county town of Sussex, and one of the most picturesque. This old town is full of historic interest. The racecourse lies on the hill where Henry III was defeated by Simon de Montfort in 1264. In Southern High Street there is still in existence the old house where Anne of Cleves lived after being divorced by Henry VIII. Other noted inhabitants were Sir Thomas Browne, author of *Religio Medici*, and Sir Nicholas Pelham, who in 1545 defeated a French force which landed at Seaford. The old castle, with its interesting archaeological collection, is worth a visit, and also the church with its Norman round tower. In Queen Mary's time sixteen martyrs were burnt at the stake after being imprisoned in a cellar under the old Star Inn. A monument was erected a few years ago on Cliffe Hill to their memory. After visiting these places of interest the party will be entertained at tea by Mr. and Mrs. Frankfort Moore in their beautiful home.

At Arundel the Duke of Norfolk has thrown open his magnificent seat, Arundel Castle, which dates from the sixteenth century, but which has standing in its grounds, on a lofty mound, an ancient Norman keep. Adjoining the castle is the parish church. This church is probably the only church in England devoted to two distinct religions, being divided by a brick wall between the chancel and the tower into a Roman Catholic and a Protestant portion. In the former the lady chapel contains the tombs of the Earls of Fitzalan and some interesting brasses. There is also in the town a second fine Catholic church, dedicated to St. Philip Neri. The Duke of Norfolk will entertain his visitors to tea after they have visited the town and castle, and will be assisted in every way possible by the Mayor of the town.

At Chichester Messrs. Shipham, of potted meat fame, will entertain a party. Here there are many buildings of great interest. The cathedral shows varied styles of architecture and presents one unique feature, the only example in this country, and that is a bell tower standing apart from the cathedral. The Gothic market cross, of fifteenth century date, stands in the centre of the town. St. Mary's Hospital, an old almshouse, the chapel of which was built in the fourteenth century, and contains some fine carving, is a most interesting building. Here, in little suites of rooms, each one self-contained, live old men and women elected to the charity, in comfort and respectability. The late King Edward frequently visited here during his trips to Goodwood, and showed his interest in the old people by many kindly acts.

At Tunbridge Wells the local Division has arranged to entertain a detachment of the conference at lunch, then to drive them to Penshurst, a fine mediaeval mansion, the seat of Lord De L'Isle and Dudley. Afterwards the visitors will be received by the Mayor of the town, who will provide them with tea.

At Shoreham, Lancing College, with its fine chapel, and Bungalow Town will be visited, the doctors in the neighbourhood having made themselves responsible for the entertainment of a party. Tea will be provided at the College, and it is hoped that some exhibitions of flying will be arranged at the Shoreham Aërodrome, one of the best on the South Coast. The town boasts of two old churches, and possesses a very quaint little Sussex harbour.

At Worthing parties, after partaking of lunch as the guests of the Worthing Division, will be taken to view the celebrated glass houses where the fruit-growing industry of the neighbourhood is carried on. Some will proceed to Bignor, where there is a fine specimen of Roman pavement; others to Cissbury, with its prehistoric remains, and Sompting, with its old church and Saxon Tower.

At Portsmouth the local Division has invited a number of members to lunch and to view the well-known dockyards. Visits to battleships are also being arranged for.

A sea excursion will proceed to Boulogne, where, after viewing the lovely cathedral and the ancient town walls and the statue to Jenner (by the irony of fate the only one in the world) the Mayor of Boulogne will receive his English visitors to tea.

This list, not yet complete, will show that the members of the Association who come to Brighton, will have ample choice of places to visit after the business work of the meeting is completed.

Interesting Places in and near Brighton.

Brighton is not a town with many industries of importance, but there are, of course, various businesses and manufactories, many of which are to be thrown open to members for inspection. Clark's Bread Factory, where the latest machinery for the making of bread without the intervention of the hands has been installed, will attract many visitors. Cox's Pill Manufactory and the Reason Electrical Works will also present many features of interest for those who go over them. Visits are being arranged to the works of the Sewers Board, with the main outfall at Rottingdean. This little village, situated about five miles from Brighton, with which it is connected by a good service of motor buses, is a popular resort, and many celebrities have lived here—for example, Sir Edward Burne-Jones, who designed the beautiful windows in the picturesque parish church, Mr. Rudyard Kipling, and William Black of literary fame, and now Sir Edward Carson, the Ulster leader.

The Corporation Electricity Works at Southwick, at the mouth of the Adur, the Brighton Railway Works, the waterworks, the special schools of the Brighton Education Committee—for example, the Mentally Defective School, the Home Training School, the Coombe Road School, built on the latest pattern and one of the best in England—are all to be open to members.

Many other places of interest, such as Captain Frazer's French garden situated on the London Road, about two miles out of Brighton, which attracted the great interest of his late Majesty King Edward VII, the Hove Bungalows, a group of cement houses, built right on the beach at Aldrington, with balconies eminently suitable for open-air treatment, will fill in spare hours.

The Sussex Art Club has decided to hold its annual exhibition during the conference week, and the exhibition of the School of Arts students' work will also be on view.

Garden parties, in addition to that of the Mayor of Hove already referred to, will be given at Roedean School, by the Misses Lawrence. This school is one of the finest girls' schools in England, standing in large grounds right on the cliff, half way to Rottingdean, and is well worth a visit. At Sylvan Lodge Dr. and Mrs. Holmes Meyrick, and at Wick School the head master, Mr. Thring, are also entertaining members at garden parties.

A Masonic reception has been arranged, the Worshipful Wardens of the Hove Ecclesia Lodge having extended a cordial invitation to all medical Masons to attend a special Lodge at the Old Ship Hotel, following the church service on Wednesday. Tea will be provided.

A visit to Brighton College, situated in Kemp Town, has been arranged, and an all-day cricket match in the grounds will probably be arranged.

This fine public school was founded in 1845, and erected from designs by Sir Gilbert Scott. In the early Eighties the school increased in numbers to about 200, and two large boarding houses were added, designed by Sir T. L. Jackson. The old sanatorium was also built at this time, but has since been adapted as an engineering workshop, and a new sanatorium has been provided. In 1903 there were further additions in the shape of quarters for the day boys. During the last few years the school has been growing rapidly, and has recently reached the record number of 250 boys.

Plans have just been accepted by the council for the erection of a big schoolroom and gymnasium at a cost of about £6,000. The work is to be started immediately, and it is hoped that the ceremony of laying the foundation stone of the new buildings will take place on July 26th, and that some members of the Association will be present.

Among old boys who have achieved fame in the medical profession are Inspector-General H. C. Woods, R.N., C.B., C.V.O., honorary physician to the King; Mr. C. Higgens, consulting ophthalmic surgeon, Guy's Hospital; Deputy Inspector-General E. I. Sharwood; and Dr. J. M. Cotterill, President of the Royal College of Surgeons, Edinburgh.

The arrangements for golf are excellent. By the courtesy of the clubs in the town and neighbourhood the links are thrown open to the members of the Association

during the week of the meeting. Among those clubs which have granted this privilege are the following: The East Brighton, the Brighton and Hove, the West Hove, the Southdown, the Pyecombe Club (five miles), Worthing (ten miles), and the Seaford (sixteen miles).

The Ulster Cup, open to all members of the Association, will be played for on Thursday, July 24th, at the East Brighton Golf Club, 18 holes, bogey play, under handicap (limited to 18). It would greatly facilitate the work of the Golf Subcommittee if intending competitors would as soon as possible enter their names, with the following particulars: (1) Golf clubs where they have their lowest handicap, together with that handicap. (2) Name of partner if possible. (3) Time at which they wish to start. Players may start at 9 a.m. Entries to be sent to the Honorary Secretary, Golf Subcommittee, 14, North Street, Brighton.

Ladies' Golf.—Lady visitors, who are members of recognized golf clubs, will be made temporary members of the Ladies' Golf Club at the Dyke. A competition will be arranged during the week, open to wives, daughters, and sisters of members of the Association.

Tennis grounds will be opened to both ladies and gentlemen, and the Croquet Association is holding its tournament (July 21st to July 26th) at the Sussex County Croquet Ground at Southwick. If sufficient members intimate their desire, a cricket match will be arranged between members or against another team. The principal clubs—the New Club, the Union, and the Hove Club—offer hospitality to the Association during their visit. The conductor of the Municipal Orchestra, Mr. Lyell-Taylor, will be glad to arrange to perform any special music desired, if members will intimate the same to him.

The Brighton and Sussex Medico-Chirurgical Society have given permission for the Association members to make use of their library and reading-room during the time of the visit of the conference.

Many inhabitants, both lay and medical, are arranging entertainments and hospitality; lunch and dinner parties are so numerous that one hopes the visitors to the town will survive them. In addition, such bodies as the Irish Graduates' Association and the National Temperance League are arranging their own functions—the former a lunch at the Metropole, the latter a breakfast at the Pavilion.

The Queen's Nurses have expressed a desire that members will visit their new home, the Brighton and Hove memorial to King Edward VII., recently opened in Wellington Road. It is a home up to date in every way, and has been specially designed to meet the complete requirements of the Queen's Nurses in the district.

This survey of the arrangements made for the instruction and entertainment of those members of the Association and their wives who attend the eighty-first Annual Meeting at Brighton, though by no means complete, shows that no stone is being left unturned to make their holiday a complete success, and to send them away from Brighton with a happy recollection of their visit.

LITERARY NOTES.

THE Académie Française has awarded the Grand Prix Broquette Gonin of the value of £400 to Professor Grasset of Montpellier. The prize is, in the words of the founder, intended to reward "the author of a work, philosophic, political, or literary, which shall be judged to be of a nature to inspire the love of the true, the beautiful, and the good." Professor Grasset, who has devoted his scientific life to the study of the nervous system, is the author of several works on questions of psychology, moral responsibility, and the philosophy of practical life. They are written in a lucid and attractive style, and have won for him a considerable reputation. This is the first time the prize has been awarded.

The June number of the *Arena* contains a long letter written by Mr. E. B. Sargent, who was a member of the Royal Commission on University Education in London, in which he answers a call for advice from the promoters of a new university in a distant part of the empire. Mr. Sargent is a strong advocate of the establishment of residential facilities in a new university, and gives much expert advice on the subject in this letter. Mr. Aflalo furnishes some extremely useful hints on the subject of the traveller's budget. An article of special interest is one on women students' life in the Scottish universities. There is no reference to the University of Aberdeen, where, to judge from the local academic magazine, *Alma Mater*, and from the class lists, lady students take a prominent part in the life of the university. Besides a reproduction of a particularly fine drawing by Mr. John Key of Worcester College, Oxford, there are many other illustrations.

The cult of the bath, now regarded more or less as the hall-mark of the educated Englishman, is nevertheless of comparatively recent growth in this country, where even yet we can hardly hope to emulate the elaborate apparatus used by the ancient Greeks and Romans for the cleansing of the human body. Bathing, however, has at last been recognized as a powerful agent for the preservation of health and the prevention of disease, and for this reason, in many countries, baths are provided in the public schools for the use of those children who are unable to obtain them at home. The therapeutic properties of the school bath are discussed by Dr. R. Fortescue Fox in an article that appeared in the May number of *The Child*, in the course of which the writer states his reasons for preferring the douche to the tub bath or swimming pool now in vogue in English schools. "Experience has shown," says Dr. Fox, "that the routine use of douche baths at school has had the best effect on the physical and mental condition of the children," partly, no doubt, because there is less fatigue and less chance of infection with the douche than with the swimming bath, and also because the former is far more cleansing and invigorating than the ordinary plunge bath. It is, however, impossible to make hard and fast rules with regard to school bathing, since children's constitutions differ as widely as those of adults and require to be studied with equal care. The school bath, as Dr. Fox reminds us, has to meet needs of a very variable kind, and school bathing should therefore only be carried out under strict medical supervision, the advice of the school doctor being asked in every case in order that the child may derive full benefit from the treatment. The May number of *The Child* also contains a short account of the Alexandra Hospital for Children with Hip Disease by Mr. Stanley Smith, and an interesting description of the work of the Salvation Army amongst the children of the London slums, to which Mrs. General Booth has contributed an introduction.

George Borrow, "the walking lord of Gypsy Lore," as he has been called, was born in 1803 at Dumpling Green, near East Dereham. He was educated at Norwich Grammar School, and at various periods of his life he dwelt in Norwich, Great Yarmouth, and Oulton, near Lowestoft. It is now felt by his admirers that the time has come when the place of the author of *Lavengro* in English literature is sufficiently recognized to call for some permanent memorial of him in Norwich. The committee, among the members of which we note the names of the venerable Sir Peter Eade and Dr. H. Cooper Pattin, Medical Officer of Health to the City of Norwich, has come to the conclusion that the most suitable form of memorial is the preservation of the house in which Borrow lived while in Norwich, and it is proposed to equip it as a permanent Borrow Museum. The Lord Mayor of Norwich (Mr. Arthur Michael Samuel) has offered to defray the cost of purchasing the freehold of the house, and at a meeting of the City Council, held on May 20th, it was resolved to accept the proposed gift, and maintain the house in trust as a permanent museum. The committee now confidently appeals for funds to alter the house into its original condition, to furnish it suitably, replacing such of the original furniture as can be recovered, and to secure by gift, loan, or purchase, books, manuscripts, letters, portraits, drawings, and other objects for exhibition in the museum. The formal presentation of the deeds of the house to the Corporation will be made the occasion for a celebration at Norwich on July 5th.

British Medical Journal.

SATURDAY, JUNE 7TH, 1913.

THE AMENDMENT OF THE INSURANCE ACT.

THE Government is pledged to introduce this session a bill to amend the Insurance Act, and the results of recent by-elections have produced a plentiful crop of rumours as to the matters which will and will not be dealt with in the bill that is being prepared. All these rumours should be received with the greatest reserve, for there is good reason to believe that the intention of the Government was, and probably still is, to avoid as far as possible the introduction into the amending bill of controversial matters. This may not be very easy of accomplishment, as upon some of the points to which the Government has undertaken to give attention there are differences of opinion.

The Government now has before it, in the considered Memorandum published in the SUPPLEMENT this week, the views of the British Medical Association as to the amendments immediately required in the Act and Regulations, and it is understood that it has been made acquainted also with the opinions of friendly societies, trade unions, and many labour members.

The medical profession will no doubt generally have recognized that, though there need not necessarily be conflict between the desires of labour and medicine with regard to amendments of the Act, its unpopularity with the insured, of which the by-elections are alleged to have given evidence, is not due to the same causes as render it distasteful to the profession, and that, so far as the Government may, as a matter of political tactics, be disposed to modify the existing system in the amending bill, changes introduced with any such motive are not likely materially to affect medical interests for the better.

The advanced stage of the session, the very large amount of other business which ought to be done, and the freely-expressed distaste of members of Parliament of all parties to undergo again the pains of an autumn session are all factors which will undoubtedly have weight with the Cabinet and tend to deter it from introducing a bill which goes beyond what it considers to be the irreducible minimum of amendment.

It seems clear that the bill must contain certain financial provisions; it must, for example, embody the provisions with regard to the additional sum for medical benefit, £1,877,000, promised by the Chancellor of the Exchequer last October, including the grant of money to assist in providing medical benefit for those persons insured under the Act who were 65 years of age at the appointed day. The Chancellor of the Exchequer has also undertaken to give attention to the position of the insured persons who subsequently become well-to-do. Under Section 1 (3) (*b*) such persons may continue as voluntary contributors if they have been insured for five years, and the justice of the medical objection that thereby a number of well-to-do people with incomes of more, sometimes far more, than £160 may be able to take advantage of State-aided insurance is acknowledged.

Another point which it seems to be generally agreed must be dealt with in the amending bill is the case of the casual labourer, who may be subject to having a deduction of 4d. made from his wages for only an odd day's work in a week, or who, if unsuccessful in obtaining work on a Monday, sometimes feels himself obliged to put a 7d. stamp on his card in order not to be at a disadvantage on subsequent days of the week.

The Association has put in the forefront of its Memorandum certain points with regard to the definition of the services to be rendered as part of the contract to give medical benefit which it has on several previous occasions placed forcibly before the Government. They were in particular fully set out by the deputation appointed by the Representative Meeting of November last, which had an interview with the Chancellor of the Exchequer on November 25th and 26th. These points were with regard to the provision of the services of a second practitioner (especially for the purpose of administering an anaesthetic), the treatment of diseases due to misconduct, and the treatment of miscarriages, abortions, and their consequences arising within four weeks. The Chancellor of the Exchequer did not meet the Association on any one of these points, and the Memorandum raises them again, all the more strongly as the experience of the working of medical benefit under the Act has fully confirmed the contention that the present interpretation of medical benefit operates unfairly to the medical profession, and is contrary to public policy. There can be no question in the mind of any person, lay or medical, that a medical practitioner should not be expected or encouraged to give an anaesthetic while at the same time rendering some other service to the patient. The practice is dangerous, but an insured person has no claim upon any doctor other than the practitioner on whose list his name is included. The case for the amendment of the system which makes it a duty of a practitioner under his agreement as drafted by the Commissioners to treat abortions and miscarriages as a part of the services he has undertaken to render, is very strong. The treatment of abortion, especially an early abortion, is a most anxious matter calling for the highest skill and judgement and making most serious demands upon the practitioner's time. Further, arguments of the same nature as those which weighed with the framers of the Act and led them to introduce maternity benefit as a special and separate form of benefit, arguments which have reference to the welfare of the woman and her possible future offspring and to the need for her to abstain from work and to receive careful treatment, apply with undiminished force—many experienced practitioners would say with even greater force—to abortion and miscarriage. It is not to the interests of the nation to encourage women to regard such events lightly.

The Memorandum submitted by the Association calls attention to the fact that Insurance Committees have with few exceptions failed to take advantage of the authority given to them under Section 15 (3) to require persons whose income exceeds a limit to be fixed by the Committee to make their own arrangements. The Association desires that the Act should be amended so as to make it incumbent upon the Insurance Commissioners to require Insurance Committees to adopt a local income limit, the limit to be subject to the approval of the Commissioners. The Memorandum also calls attention to the justice of so

amending the Act as to ensure that when the income from all sources of an insured person exceeds £160 per annum he should be required to make his own arrangements, and that in estimating the amount of income the total income from all sources should include any income independent of the personal exertions of the recipient, whether received by way of an allowance or otherwise. At the present time young men in receipt of a small salary, but in receipt also of a substantial allowance from their fathers, are compulsorily insured, and are therefore in a position to take advantage of the medical attendance provided under the arrangements with the Insurance Committee, and in some instances are actually taking advantage of such opportunities.

The Memorandum raises three points with regard to the representation of the profession on committees administering the Act, and recalls the fact that during the progress of the bill through Parliament the Association repeatedly drew attention to the defect in the composition of the Insurance Committees which gave to one interest a permanent majority over all the others. The effect of this, as was foreseen, is that the Committees are not so constituted as to be qualified to give a fair consideration to questions in which the interests of the dominant party are directly involved. A related point is that the Act did not give any direction as to the way in which District Committees shall be constituted. County Insurance Committees are required, after consultation with the County Council, to submit a scheme for the appointment of District Insurance Committees for the county, and there was an understanding that the profession should have representation on these District Committees corresponding to that which it has on the Insurance Committee. The understanding, however, was not embodied in the Act or Regulations, and the Association urges that this defect should be rectified by an amendment providing that the medical representatives should form the same proportion of a District Insurance Committee as of the County Insurance Committee. Similarly, the profession is not represented on the Committee of the Seamen's National Insurance Society, a body constituted for the purposes of the Insurance Act by the Board of Trade; its affairs are administered by representatives of that Board, of shipowners, and of members of the society in equal proportions. In the case of the home and coasting trade the ordinary rates of contribution apply, but in foreign-going ships the employer's contribution is reduced to 2d., and the seaman's is reduced by one-fifth. The insured persons are entitled to medical, sanatorium, sickness, disablement, and maternity benefits. The Association asks that the medical profession should be represented on the Committee of this official society in the same proportion as on Insurance Committees. It believes that by these reforms the administration of the Insurance Act will be rendered more efficient, and that there will be less risk of friction among the different sections if no one interest forms more than two-fifths of the total membership of the Committees.

With regard to temporary residents, the Memorandum distinguishes three classes—holiday-makers, convalescents, and persons who remove in the course of their employment. With regard to holiday-makers, the Association contends that they should not be entitled to medical treatment under the Act. With regard to persons removing in the course of their occupation, it urges that all such persons should be required to make their own arrangements, and not merely certain classes of them, such as actors and commercial travellers. With regard to persons who go away to the country or seaside on account of ill health, the Association urges that the Act should be amended so as to procure the provision by the Government of a special central fund, apart from any moneys already allocated for medical benefit, to provide for the medical attendance and treatment of such persons when temporarily absent from home. We believe that some members of the Government are not unaware of the injustice of the present arrangement and are not insensible to the arguments which have been adduced for the establishment of such a central fund. It may be hoped that their views will prevail.

Among the other points dealt with in the Memorandum are the proposal that the plan of attempting to deter insured persons from unnecessary night calls by inflicting a penalty should be replaced by a system of making a special charge for all such calls; the suggestion that before a draft agreement is issued in its final form it should be submitted to the Local Medical Committee; the proposal that medical practitioners, if they so elect, should be authorized to dispense medicines to insured persons on their list in all cases where the patient is more than a mile from a chemist on the list; and the proposals with regard to the mode of appointment and tenure of office of medical referees.

MOCKERS AT MEDICINE.

LIKE Falstaff, the doctor is the cause that wit is in other men. From time immemorial he has been used as a target by jesters of all sorts, great and little, to such an extent that he might ask with Dr. Johnson, after hearing so much criticism of himself, Are we alive after all this satire? If ridicule could kill, the doctor would long ago have become extinct. But, as Byron says in speaking of the physicking of Don Juan:

> This is the way physicians mend or end us
> *Secundum artem*; but although we sneer
> In health—when ill we call them to attend us
> Without the least propensity to jeer;
> While that "hiatus maxime deflendus"
> To be fill'd up by spade or mattock 's near
> Instead of gliding graciously down Lethe
> We tease mild Baillie or soft Abernethy?

Those who have never known what it is to be ill look upon disease as Samuel Butler, the author of *Erewhon*, regarded it—as a crime which society should punish. Logically they should treat the doctor as a malefactor, and we should perhaps be grateful that they only scoff at medicine and its professors. Many, however, who laugh loudest at the doctor are merely bluffing; the least touch of indisposition sends them forthwith to the consulting room or the surgery, and though they may affect to treat the counsel of the oracle with contempt, they get the prescription made up, even though they may boast that they do not intend to take it. In such cases the doctor has the best of the joke, for he pockets his fee, and if his advice is disregarded that is the patient's concern.

A large class of those who gibe at the doctors is made up of people whose minds have an elective affinity with quackery. The more absurd the pretensions of the vendors of secret remedies, the blinder is the faith with which they are believed by those afflicted with this warp of the intelligence. They would say, with Tertullian, *Credo quia impossibile*. Of course, these misguided folk dislike the doctor, who is, in their eyes, the representative of the authority of science. Then there are the cranks who

believe in nobody but themselves, and who hold that fasting, deep breathing, dispensing with breakfast, or "living according to the laws of Nature"—so easy to do if one always knew them—will prevail or cure all diseases. Some again there are whose professed contempt of the doctor is merely a pose. Of this class Mr. Bernard Shaw may be taken as the type. Like Verges, "he will be talking" whether he has anything to say or not, and his denunciation of doctors is only a mountebank trick to dazzle the silly people who take him seriously. A French writer has recently called Mr. Shaw the Molière of the twentieth century, but the satire of *The Doctor's Dilemma* is like a shillelagh compared with the polished rapier of the creator of Diafoirus, Purgon, Desfonandrès, and the other medicine men whom he ridiculed. Molière belongs to an altogether different class of jester from those which have been mentioned. The shafts of his satire were barbed by the anger of a sick man against the art of medicine which could do nothing for his relief. He did not put on the cap and bells to amuse the groundlings; his wit was no *ignis fatuus*, but a scorching flame which burnt the pompous wig of pedantry and exposed the bareness beneath. Molière may justly be ranked among the reformers of medicine.

Another famous invalid who scoffed at medicine because it failed to cure him was Montaigne, who suffered much from renal colic and gravel. His contempt for medicine was more cheerful than that of Molière. Speaking of the art of healing as it was in his day, he says: "My conceit of it is both the worst and the best a man may imagine; for thankes be to God there is no commerce between us. I am contrary to others, for I ever despise it; and when I am sick, instead of entring into league or composition with it, I then beginne to hate and feare it most, and answer such as urge mee to take Physicke, that at least they will tarie till such time as I have recovered my health and strength againe; that then I may the better be enabled to endure the violence and hazard of their potions. I let nature worke, and presuppose unto my selfe, that she hath provided her selfe, both of teeth and clawes, to defend her self from such assaults as shall beset her, and to maintaine this contexture or frame, whose dissolution it so much hateth. In liew of bringing helpe unto her, when shee most striveth, and is combateth by sicknesse, I greatly feare lest I bring succor unto her adversarie, and surcharge her with new enemies." But though he despised the art, he was, like Molière himself, friendly with its professors. On this he says; "As for me I honour Physitions, not according to the common-receiv'd rule, for necessitie sake (for to this passage another of the Prophets may be aleaged who reprooved King Asa because he had recourse unto Physitions) but rather for love I beare unto themselves; having seene some and knowne diverse honest men amongst them and worthy all love and esteeme. *It is not them I blame but their Arte.*" He goes on to describe his relations with doctors when he was ill: "I send for them when I am sicke, if they may conveniently be found; and love to be entertained by them, rewarding them as other men doe. I give them authority to enjoyne me to keepe my selfe warme, if I love it better so than otherwise. They may chuse, be it either leekes or lettuce, what my broth shall be made withall, and appoint me either white or claret to drink: and so of other things else, indifferent to my taste, humour, or custome."

Nevertheless he attributes the recourse that is had to doctors to fear and credulity, and he maliciously notes that they themselves when ill placed little trust in their own remedies. For himself he professed to prefer the remedies of old women to those of doctors, because they were harmless. There is (he says) no "poore Woman so simple, whose mumbling and muttering whose slibber-slabbers and drenches we doe not employ. As for mee, were I to buy any medicine, I would rather spend my money in this kinde of Physicke than in any other: because therein is no danger or hurt to be feared." He seems, however, to have got no relief from "this kinde of Physicke," for he visited the healing springs of France, Switzerland, Germany, and Italy, everywhere testing on himself the efficacy of the waters. He took careful notes of his symptoms, and looked for hopeful signs in these "Sybilline leaves," as he calls them. Whether he was a hypochondriac or not—a point which has been a good deal debated—he studied himself with minute attention and watched the effect of his self-prescribed remedies. He bore his sufferings bravely, and he may be excused if he thought lightly of the art which failed to relieve them.

It must be admitted that physicians in the days of the wig and the gold-headed cane brought a good deal of ridicule upon themselves by the gulf fixed between the largeness of their pretensions and the slenderness of their performance. We have now learnt the lesson taught by David Pitcairn, who died as long ago as 1800. Asked his opinion of a certain book on fevers, he replied: "I do not like fever curers; we may guide fever—we cannot cure it. What would you think of a pilot who attempted to quell a storm? Either position is absurd. We must steer the ship as well as we can in a storm and in a fever. We can only employ patience and judicious measures to meet the difficulties of the case." As medicine has become more scientific it has become more humble. The sacerdotal dogmatism which used to prevail among doctors has now been banished from the ward, and has found a refuge in that very modern shrine, the laboratory. The debt which practical medicine owes to research is incalculable, and without it progress would be impossible. But the laboratory worker is not always in perfect sympathy with the practitioner, whom he is perhaps too apt to look down upon. And it cannot be denied that from the laboratory have come a number of vain things which have given cause for irreverent laughter to mockers at medicine.

A MONUMENTAL BILL.

BILL No. 47, presented to the House of Commons this session by Mr. Rendall and eleven other members, deserves mention, not only for what it contains of professional interest, but as a mine of information for curious persons with abundant leisure, as well as for those who wish to refer to Acts of Parliament since the time of Edward III until the present day, and for those who desire to obtain the titles of the various Acts of Parliament which relate to particular subjects. It was ordered to be printed on March 19th, contains 389 pages, and is issued by the Stationery Office at the price of 3s. 2d.

The purpose of the bill is to re-enact, with additional matter and amendments, the Interpretation Act, 1889, and the Short Titles Act, 1896. It consists of four parts and three schedules, and we are informed by its introducer that if it were passed into law it would save thousands of pounds every year to those engaged in litigation. It sets out the existing Acts which relate to particular subjects, as well as those Acts or parts of Acts which are repealed. The

first four parts of the bill consist of interpretations and the definitions of titles.

In the first schedule are set out various Acts of Parliament with their title and short title from the time of Edward III to the present day. In the second schedule the various Acts relating to particular subjects are grouped together under their short titles and indicated by collective titles, alphabetically arranged. Thus, under the Medical Acts we find nine statutes dating from the Medical Act of 21 and 22 Vict. to the University of Wales (Medical Graduates) Act, 1911. The third schedule contains a recital of the measures which are repealed.

The definitions relating to the medical profession are set out in Sections 20, 21, and 22 of the bill. It will be remembered that at the time of the passing of the Insurance Bill some medical men and some members of Parliament raised the question as to the expression used in the bill indicating a "legally qualified medical practitioner." Clause 20 of this bill shows that any one so described or described as a "duly qualified medical practitioner" or as "fully qualified" or as "registered," or described by any expression "importing a person recognized by law as a medical practitioner or member of the medical profession, shall mean a person registered under the Medical Act and any Act, past or future, amending the same." In Section 21 the expressions "General Medical Council," "medical corporation," "diploma," and "medical diploma" are defined. In Section 22 a midwife is defined to mean "a woman who is duly certified under the Midwives Act, 1902," and the Central Midwives Board is therein defined. Section 37 gives the meaning which is to be attached to the various benefits under the Insurance Act, and in Section 74 the different Royal Colleges of the medical profession are defined; but it is noticed that an omission occurred here, for no mention is made of the Faculty of Physicians and Surgeons of Glasgow.

It would be impossible within the compass of an article to give an indication of the numerous terms and expressions which are defined in the different sections of the bill. The expression "medical" includes surgical, and the expressions "medicine and medicines" include drugs, and the expression "drugs" includes medicine. The expression "woman" includes a girl, and the expression "man" includes a boy; but there appears to be nothing to show where the "child" ends and the boy or girl begins.

Apart from the professional interest, the second and third schedules provide abundant material both for entertainment and profit. The Habeas Corpus Act, 1679, is described as "An Act for the better securing the Liberty of the Subject and for Prevention of Imprisonments beyond the Seas." The Cestui que Vie Act, 1707, is described as "An Act for the more effectual Discovery of the Death of Persons pretended to be alive to the Prejudice of those who claim Estates after their Deaths." The Riot Act is described as "An Act for preventing Tumults and riotous Assemblies, and for the more speedy and effectual punishing the Rioters."

An Act which might perhaps provide food for controversialists in their platform utterances on one of our current political questions is "The Mortuaries (Bangor, etc.) Abolition Act, 1713," which is described as "An Act for taking away Mortuaries within the Dioceses of Bangor, Llandaff, St. David's, and St. Asaph, and giving a Recompense therefor to the Bishops of the said respective Dioceses." In a similar way "The Mortuaries (Chester) Act, 1755," illustrates the control of the Church at that time over mortuaries.

There are several Acts which relate to the punishment of witchcraft and similar impostures. The Witchcraft Act, 1835, is described as "An Act . . . for punishing such Persons as pretend to exercise or use any kind of Witchcraft, Sorcery, Inchantment, or Conjuration"; but it is to be feared that the records of the Acts of Parliament are strewn with ineffective efforts to improve and restrain by legislation the habits and beliefs of the people.

In 1744 the Gaming Act was directed to prevent "excessive and deceitful Gaming, and to restrain and prevent the excessive increase of Horse Races," and the Profane Oaths Act in the following year was intended "more effectually to prevent profane Cursing and Swearing." At that time and for some years afterwards Acts to prevent cattle theft, frauds by workmen, treason, the illicit sale of spirits, disorderly houses, murder, and so forth, appear to have occupied a considerable portion of the time of the Legislature; but few, perhaps, would expect an Act of Parliament which relates to the theft of vegetables to be thus described: "An Act the title of which begins with the words, 'An Act for repealing so much of an Act,' and ends with the words 'Parsnips, Pease, and Carrots.'"

The first Act that is mentioned relating to provision made for lying-in women appears in 1773, and is entitled "An Act for the better regulation of Lying-in Hospitals, and other places appropriated for the charitable Reception of pregnant Women; and also to provide for the Settlement of Bastard Children born in such Hospitals and Places."

At the present time, when the methods for dealing with persons of a refractory disposition and who commit outrages have entered so largely into public and parliamentary discussions, some of those who are not disposed to be mild-mannered in their method of treatment may regret the absence from our Statute Book of two Acts which were abolished in 1816 and 1820. In 1816 the Pillory Abolition Act was passed which was intended to "abolish the punishment of the pillory except in certain cases," and in 1820 the Whipping Act is described as "An Act to repeal an Act passed in the Fifty-seventh Year of the Reign of His late Majesty King George the Third, intituled 'An Act to Abolish the Punishment of Public Whipping on Female Offenders,' and to make further provisions in lieu thereof."

From the time of the passing of the Apothecaries Act in 1815, the number of Acts of Parliament dealing with public health, the sick and the poor, the protection of food and such like matters, shows a progressive increase, and during the later years they form a considerable proportion of the Acts recorded in this catalogue. It would, however, be inappropriate at this place to attempt to give a summary of them; but whether the bill under notice finds its way on to the Statute Book or not, a copy of it may well be obtained by those who are interested in these matters and for purposes of reference. The labour involved in its preparation will in that way, at all events, not have been entirely in vain, for it is impossible to avoid the conviction that as a private member's measure it is not likely to be passed into law. One who was disposed to scoff might also suggest that the fact that it is intended to reduce the cost of litigation does not provide it with a favourable handicap with that large body of members who belong to another learned profession, and any one of whom can prevent its second reading by being present in the House when the title of the bill is called after the termination of public business and rising in his place and saying, "I object."

BIRTHDAY HONOURS.

AMONG the announcements in the list of birthday honours are two which will excite particular interest and pleasure among all members of the medical profession. The work done by Sir Arbuthnot Lane has been and is an inspiration and stimulus to surgeons not only in this country, but all over the world, and the boldness of his speculations have been justified by the skill which has established their truth. The baronetcy now fittingly conferred upon him in recognition of his eminent services to the science and art of surgery happily coincides with the entry into the stage of convalescence of a princess at whose bedside two continents have watched with affectionate solicitude. Professor Schäfer has won the highest distinction in another field of the wide territory of medicine, and his influence also has been inspiring and stimulant. He combines in himself two of Mr. Balfour's classes of men of science, for he possesses not only the genius of research, but the power to teach and infuse into his pupils something of his own enthusiasm and energy. The knighthood conferred on Dr. Thomas Flitcroft of Bolton will be a source of particular gratification to members of the British Medical Association, for he has been an active worker for it as a member for many years of the Representative Body and of the Lancashire and Cheshire Branch, of which he is now President. He is also Chairman of the Local Medical Committee under the Insurance Act. The same honour, conferred on Dr. Herbert Smalley, Medical Inspector of Local Prisons and Superintending Officer of Convict Prisons, is a recognition of a long and honourable career in the public service. The knighthoods conferred upon Dr. A. J. Horne, ex-president of the Royal College of Physicians of Ireland, and Mr. R. H. Woods, ex-president of the Royal College of Surgeons of Ireland and President of the Irish Medical Association, are gratifying recognitions accorded to the medical profession in Ireland. A knighthood is also conferred upon Major E. S. Worthington, M.V.O., R.A.M.C., who served in South Africa, 1899–1902, has been medical officer to the Duke of Connaught, Governor-General of Canada, since 1911, and has been in constant attendance upon the Duchess of Connaught during her illness. The honour of knighthood is also conferred on Lieutenant-Colonel James Reid Roberts, C.I.E., I.M.S., surgeon to the Viceroy of India. A similar honour is conferred upon Dr. Alexander MacCormick, honorary surgeon to the Prince Alfred Hospital, Sydney, lecturer on surgery in the University of Sydney and honorary consulting surgeon to the Commonwealth military forces. Surgeon-General Henry Hamilton, C.B., I.M.S., retired, is promoted to K.C.B., and the decoration of C.B. is conferred upon Deputy-Surgeon General William Maxwell Craig, M.B., R.N.; Surgeon-General Louis Edward Anderson, Deputy Director of Medical Services, Ireland; and Lieutenant-Colonel John Crimmin, V.C., C.I.E., I.M.S. Dr. H. P. Keatinge, Director of the Kasr-el-Ainy Egyptian Government Hospital and Medical School; and Dr. A. H. Spurrier, late Medical Officer of Health at Zanzibar, receive the C.M.G. Lieutenant-Colonel Gerard Godfrey Giffard, I.M.S., Superintendent of the Government Maternity Hospital, Madras, receives the C.S.I.; and Major R. J. Blackham, R.A.M.C., commanding the Station Hospital, Jutogh, is made C.I.E. The Kaisar-i-Hind Gold Medal is conferred upon Lieutenant-Colonel P. Balfour Haig, I.M.S., Agency Surgeon, Bhopal, Central India, and the Rev. J. Buchanan, M.D., missionary, Amkut, Central India. The services of medical officers in the Territorial Force are recognized by the appointment of Colonel W. H. Bull, F.R.C.S., Assistant Director of Medical Services of the South Midland Territorial Division, and Colonel John Arnallt Jones, M.D., Assistant Director of the Medical Services of the Welsh Territorial Division, to be Honorary Surgeons, and of Colonel William Kinnear, M.D., Assistant Director of Medical Services of the Highland Territorial Division, and Colonel Charles P. Oliver, M.D., Assistant Director of Medical Services of the Home Counties Territorial Division, to be Honorary Physicians to His Majesty.

PRELIMINARY EXAMINATION AND EDUCATION.

IN a note which will be found elsewhere in our columns Sir Henry Morris criticizes the report presented by its Education Committee to the General Medical Council, and in great part adopted during its recent session. He appears to regard the report as on the whole ill advised and ineffectual. Some years ago the Council decided that it was desirable to raise the standard of preliminary education, and the measures then decided upon were to take effect from January, 1914. The report presented last week was intended to provide the means for carrying out the intentions of the Council, and had relation to the standards of examination recognized for the purpose of admission to the *Students' Register*. An amendment was, however, moved that words should be inserted making it more clear that to this and this only the recommendations of the Committee referred. In this amendment, and in the speeches made in its favour it was thought that there was an echo of the old controversy between the Council and the Royal Colleges as to the powers of the Council. The amendment was carried, but did not end the discussions, for some thought that the recommendations, which entered into much detail, interfered with matters as to which the Council and its Committee were not experts. Attempts were made to refer the whole report back, but the Chairman of the Committee explained that to do so would almost be a breach of faith with the educational bodies with whom it had been in correspondence; some of them had modified their examinations to meet its wishes, and delay would cause serious inconvenience in the cases of those Indian and Colonial bodies which desired immediate guidance so as to make their examinations such as the Council would approve. Accordingly most of the recommendations were passed, including those affecting the recognition of certain examinations, some of which had been modified to meet the suggestions of the Committee. But a clause prescribing the percentage of marks which should suffice for a pass in the various subjects was thrown out altogether. This percentage was higher than that recommended in earlier reports, and, as Sir Henry Morris points out, its rejection leaves the bodies either without guidance, or with the guidance only of the old scale. It is open to question whether both the Committee, and apparently Sir Henry Morris also, do not attach too much importance to laying down the percentage of marks for a pass. Marks do not admit of being allotted with mathematical accuracy, and an examiner is much more likely to have in his mind the question whether the marks he is giving are pass marks, or more, or less, than to try precisely to appraise the merits of an answer in its relation to theoretical perfection. If this view be correct, then the question whether pass marks are to be 40 or 50 per cent. of full marks will not greatly affect the result. A more important matter is the proposal to abolish compensation between subjects—that is to say, to require that an excess of marks obtained in one subject shall not be allowed to compensate for a moderate deficiency in another. Such a rule is proper in an examination on professional subjects where a minimum knowledge cannot be dispensed with, but the case is different where the object is to ascertain, not that the candidate knows this or that thing, but merely that he has been educated up to such a point that he is in a position to profit by the teaching of a medical school. It is true that, as Sir Henry Morris points out, this prohibition is not embodied in the recommendations passed by the Council; but the passage stands in another part of the report, and it is not to be assumed that bodies

studying it in order to ascertain the views of the Council will discriminate very sharply between what has and what has not been passed as a definite recommendation; thus the expression of the Committee's opinion may have its effect notwithstanding. The hope that some form of school-leaving certificate may be officially established in England and Ireland was voiced by Sir Francis Champneys, and met with cordial support; but the Council has already made representations upon this subject. It is obvious that this would be the easiest solution of all the difficulties connected with the testing of preliminary education, and there is reason to believe that the Board of Education is also of this opinion.

CERTIFICATES AND THE MEDICAL PROFESSION.

There is probably no body of men in the country called upon so frequently as the medical profession to give certificates, and none upon whose word more absolute reliance is placed by the public. It would seem that the very frequency with which this duty has to be performed has sometimes tended to produce some laxity, which should be carefully guarded against. Cases which within the last few years have come before the General Medical Council show that most serious consequences may follow on any such laxity. This observation is illustrated by a matter into which the Council inquired last week. It was reported to it that a practitioner had been convicted at the Central Criminal Court of improperly filling up declarations upon forms of application for passports, and had been fined £50. It appeared that he had no real knowledge of the persons who applied to him. The Council took a serious view of the case, because, although the declarations were not certificates relating to any medical matter, it was in virtue of being a registered medical practitioner that he was enabled to sign them, medical practitioners being one of the classes of persons whose certificates are accepted for the purpose. During the course of the hearing of the case attention was called to the fact that the Council had issued a special warning notice with regard to certificates of all kinds in 1911, and the President, whose remarks are reported in the Supplement of May 31st, p. 493, quoted the operative parts of this notice in so far as they referred to the particular case. The notice issued in 1911 was in the form of a resolution adopted by the Council on November 30th in that year. In addition to passport declarations, it enumerated a number of other certificates which medical men may be called upon to sign, and, among these, certificates in connexion with sick benefit, insurance, and friendly societies were specified. The Insurance Act has probably added very largely to the number of certificates which have to be signed, and the need for the most punctilious regard to the terms and character of every certificate is evident in order that the honour and reputation of the medical profession may not suffer, as it must should it appear that the trust imposed in us to certify accurately is misplaced. The attitude taken up by the General Medical Council towards those practitioners who have been brought before it on charges of this kind shows a determination to deal severely with what it rightly regards as a grave danger to the character of the medical profession. The warning notice issued by the Council in 1911 and printed in the Supplement to the Journal of December 9th, 1911, p. 607, stated that as the Council had had evidence before it that some registered medical practitioners had given and signed untrue, misleading, or improper certificates, it gave notice that any registered medical practitioner shown to have given any improper certificate, whether relating to the matters enumerated in the notice or otherwise, was liable to be adjudged to be guilty of infamous conduct in a professional respect, and to have his name removed from the *Medical Register*.

MEDICAL DISTINCTION AND LONGEVITY.

As insurance statistics show, the medical profession as a class stands low compared with other occupations in respect of longevity. The preparation is long and severe and has necessarily to be carried out to a considerable extent under conditions of a kind likely to impair health. Then there is the struggle to obtain a footing, often in the face of circumstances that tend to break the spirit and undermine the constitution of a person of no more than ordinary strength. Even when fairly established in practice, a doctor's position is usually more or less precarious; his livelihood depends on the maintenance of his health, and he is more exposed than most men to disease and accident. The stress of competition leads to premature wearing out of vital power. Then there are other risks incident to the doctor's profession: he may be done to death by slanderous tongues, as occurred in a painful case recently before the law courts; or his heart may be broken by the ingratitude of patients or the wiles of unscrupulous rivals. These remarks hold good for the average practitioner. But if statistics recently published in the *Montpellier Médical* are to be accepted, there would seem to be a direct relation between distinction in medicine and longevity. The writer, whose name is not given, says that in the course of extensive researches he was struck by the longevity of most members of the medical profession who had left a mark in the history of science from antiquity to the present day. This induced him to work out some statistics of which he gives the results. Of 1,732 practitioners who had achieved distinction and whose exact age at death he was able to discover, he found that 88, or about 5 per cent., died at the age of 25 to 35 years; 122, or about 7 per cent., died between 35 and 45; 270, or about 15.6 per cent., died between 45 and 55; 173, or about 10 per cent., died between the ages of 55 and 60; 199, or about 11.5 per cent., died between 60 and 65; 229, or about 13.2 per cent., died between 65 and 70; 426, or about 24.6 per cent., died between 70 and 80; 205, or about 11.9 per cent., died between 80 and 90; while 20, or about 11.8 per cent., reached the patriarchal age of 90 and upwards. Thus about 37 per cent., or more than one-third, lived the allotted span of threescore and ten. Taking the nineteenth century alone, the proportion of longevity was found to be somewhat higher. Of the total of 1,732 cases, 472 belonged from the period from 1820 to the present time. Analysing these the writer found that 15, or about 3.1 per cent., died between 35 and 45; 62, or about 13.1 per cent., died between 45 and 55; 50, or about 10.6 per cent., died between 55 and 60; 65, or about 13.7 per cent., died between 60 and 65; 75, or about 15.8 per cent., died between 65 and 70; 133, or about 28 per cent., died between 70 and 80; 67, or about 13.8 per cent., died between 80 and 90; 5, or about 10.5 per cent., lived to be over 90. Thus more than 42 per cent. went beyond the biblical limit. The longevity was pretty much the same in all nations. It would appear from this that the activity of the brain is in direct proportion to the physical vitality of the body. The writer holds that this relation between distinction in medicine and longevity is not to be explained by the fact of greater length of days giving the opportunity for a larger output of scientific discovery. He points out that, taking the majority of the men, their reputation was made between 40 and 60. One-third died before reaching middle age. On the other hand, it cannot, we think, be denied that in the case of physicians, as of judges and other brain workers, eminence is largely a matter of survival. To many who seem destined for fame there comes in their early springtime the blind fury with the abhorréd shears and slits the thin-spun life. Capricious fate thus leaves the path to glory open to others. When it is remembered that Bichat died at the age of 31, one cannot help wondering what he would have achieved had his life been spared

for thirty or forty years more. One thinks, too, of Roger Cotes, the mathematician, who died in youth, and of whom Newton said: "Ah, if Cotes had lived, we should have known something!"

ANTISEPTICS AND DISINFECTANTS.

DR. DAVID SOMMERVILLE, in his course of Cantor Lectures at the Society of Arts on antiseptics and disinfectants, dealt with the problem from its scientific side. In his first lecture he traced the experience of mankind with antiseptics from the days of the Assyrian, the Greek, and the Roman down to the work upon antibodies and upon the pathogenic organisms and their environment, which has issued from the laboratories during the last five years. The beginnings of antisepsis might, in fact, be looked for beyond the limits of human history, and the instinct of the animal to lick its wounds afforded an illustration of the use of saliva, which, like the blood and other animal fluids, had a slightly germicidal action. There is evidence that the ancients used a picturesque assortment of substances, including honey, oils, resins, gums, and tar, for disinfecting purposes, and that the washing of a wound in wine was widely practised. Aseptic and antiseptic surgery, said Dr. Sommerville, had had a painfully slow evolution, but all great discoveries, even those of Pasteur and Lister, were due to the crystallization by a clear-sighted individual of what had been simmering for scores of years or for centuries before him. In his second lecture, Dr. Sommerville dealt in greater detail with the composition and mode of action of the chemical substances now used as antiseptics and disinfectants. Metallic salts, he said, were germicidal through the metallic ion, and were more powerful in watery solution than when dissolved in alcohol or ether, because ionization in the latter class of solvent was feeble. In a comprehensive exposition of the subject he demonstrated that antiseptics possessed a variable action according to the species of germ present; that germicidal activity increased with elevation of temperature; that bacteria could acclimatize themselves to antiseptics; that acids did not depend on their chemical energy for their disinfectant properties, but on the degree of ionization to which they could be subjected, and that reactions in heterogeneous systems were accompanied by changes other than the purely chemical. He dealt also with the concentration of bodies on the surfaces of contact between the phases of heterogeneous systems, and showed that adsorption formed an important factor in disinfection. He considered it justifiable to accept the view that in the process of disinfection one or more of these three types of activity might be engaged—namely, ionization with diffusion, adsorption, and purely chemical action—and that this last type of change was usually preceded by the first and second when the disinfectant was an electrolyte. He dealt also with colloidal solutions and emulsions, and discussed the factors which govern the stability of emulsions. In his third and concluding lecture he entered very fully into the theory of the disinfecting process. He suggested that it might be assisted by the meeting of suitable side-chains or affinities in the microbic and disinfectant body respectively. He discussed the hypothesis of internal disinfection by taking Ehrlich's dioxy-diamido-arseno-benzol (salvarsan) as an example. The records of the application of this body to the disinfection of the treponemes of syphilis, he urged, went to support the view that the sterilization of the tissues within the body was quite possible. Many cases of infection occurred in which the intensity of the toxins was so great that the organism was unable to prepare the necessary antibodies. Such cases rapidly became fatal, as was exemplified in young children who died of diphtheria. A previous use of intelligent disinfection might have so attenuated, if not destroyed, the virulent organism that the body would have been able to respond with the necessary production of antibodies. Death from diphtheria could be avoided in certain cases by the early and judicious use of disinfectants in the throat. There was, he considered, ample experimental evidence that the upper portion of the alimentary tract could be sufficiently disinfected to relieve certain distressing fermentations of that region; that the skin could be disinfected in acne and certain eczemas, and the throat and nose in catarrhal conditions; but in all these cases it was important that the method should be controlled by proper bacteriological examination. To such disinfections the higher phenoloids lent themselves admirably. The lecturer then entered upon a careful description of the Rideal-Walker drop-test method, and the modified method of the *Lancet* Commission, and rebutted certain American criticisms with regard to the former. As a general conclusion, he said that internal disinfection or chemiotherapy had a bright outlook. But with regard to the routine disinfection of clothing and dwellings, carried out as much of it was in a perfunctory manner and without bacteriological control, the outlook was not so bright. If properly handled by competent teachers, this subject of antiseptics would form an interesting and valuable chapter in general education, and in education rather than in governments lay the hope of the future.

THE SKULL OF DESCARTES.

THERE is in the Paris Museum of Natural History a skull, which, according to tradition, once enclosed the brain of Descartes. The Academy of Fine Arts recently invited Dr. Paul Richer, Professor of Anatomy in the Paris School of Fine Arts, and a member both of the Academy of Medicine and the Academy of Fine Arts, to compare by scientific methods, in collaboration with M. Gaston Darboux, the supposed skull of Descartes with the different portraits of the famous philosopher. Dr. Richer himself is a sculptor and engraver of great talent; he is therefore particularly well equipped for the task which he was asked to undertake. The plan adopted by him was first to indicate on a plaster cast given him by the Museum certain distinctive characters which are well marked on the head of the portrait painted by Franz Hals. It is evidently on these resemblances that Cuvier based the opinion that the skull is authentic, which he expressed in 1821. He next drew a skull, as closely adapted as possible, resembling that outlined in the portrait. Then he made a drawing of the Museum skull posed with the same orientation and on the same scale as the head of the portrait. Lastly, he superimposed the two drawings. The first of these procedures is more exact than might "at first thinking," to use a phrase of Swift's, be supposed. As a matter of fact, on every head can be seen a certain number of well-defined bony points; these are particularly apparent in the painting of the Dutch master. In his first drawing Dr. Richer marked certain points—at the root of the bones of the nose, on the external orbital apophyses, and on the nasal spine. These same points were repeated on the cast of the skull in the Museum. By means of these marks it was easy to place with almost mathematical precision the skull in the position which Hals had given his model. The superimposition of the two drawings showed an almost absolute agreement. On the other hand, other drawings made under the same conditions of several skulls taken at random, showed notable discrepancies. The same experiment was repeated with the other portraits of Descartes, namely, that by Sebastian Bourdon in the Louvre; that of Beck, of which there is a copy in the Library of the Institute, the terra cotta medallion of the Versailles Museum, and an old portrait by an unknown painter belonging to M. Rulhe, of Courbevoie. The comparison of the skulls in these different portraits with that of the Museum shows some striking resemblances, but never so complete an agreement as was found with the Hals portrait. Before Dr. Richer began his investigation

much the same procedure was employed by Dr. Verneau, Professor of Anthropology at the Museum, who came to the same conclusion. An account of his examination was given in *Aesculape* for November, 1912. As a matter of history it is known that the skull was detached from the philosopher's body in 1666 by Israel Planstrom, Captain of the Queen of Sweden's Guards, and it was given to the French nation by Berzelius. Now that the relic has been satisfactorily identified, it is suggested that it should be placed in the coffin which contains the decapitated skeleton of the philosopher. This is in the Church of Saint Germain des Prés, where it lies in one of the chapels between the remains of Mabillon and those of Montfaucon. Another suggestion is that the skeleton and skull might be solemnly transferred to the Pantheon in accordance with a decree of the Convention of October 2nd, 1793, to which effect was never given. At a meeting of the Académie des Sciences on January 20th, Professor Edmond Perrier declared that the identification having been made conclusively, it was no longer right that this relic of the great thinker should be left amidst the collections of the gallery of anthropology and palaeontology in the Museum. He undertook to have a kind of reliquary constructed in one of the rooms of the Museum where there are already relics of other famous men. There the skull of Descartes will be deposited, together with the documents establishing its authenticity.

FLOURISHES OF ADVERTISEMENT.

SOME time ago Mr. Justice Eve in giving a judgement was reported to have said: "The introduction of this preparation and its advent into this country was heralded by a flourish of advertisement, not overloaded with, but still not altogether devoid of, that picturesque hyperbole and flamboyant mendacity which in general seem to be inseparable adjuncts to the exploitation of a nerve tonic, a hair restorer, or an aperient." The deliverance is interesting in itself and comes with special weight from the lips of a judge. We thank Mr. Justice Eve for teaching us that particularly happy and appropriate phrase "flamboyant mendacity." It exactly expresses the style in which the vendors of many nostrums push their wares on a confiding and gullible public. In default of "flamboyant mendacity" they could not find a market. American vendors are in general past masters in the art of "picturesque hyperbole." To what an extent they have invaded this country our readers do not require to be told. But they seem to spread their nets all over the British Empire. We have received a circular from Burma which shows how the professors of the art of picturesque hyperbole adapt their style to the supposed weaknesses of the people among whom they hope to find a market. The substance to be sold is described as "a well known remedy which supersedes all tonics"; it is said to preserve the health, to increase the brain power, to "stand as a Safe Guard against all weakening losses," to purify the blood, to "regain lost manhood," to "regulate and cure females' complaints of menses and consequences thereof." We are assured that sixteen days' trial guarantees new life, and that being a compound of the most powerful and reliable drugs, it never fails even in the worst cases. It immediately shows its good effects "in improving of health, strength, vigor, and potency, removing old weak and despondent condition and strengthening muscular, circulative, and nutritive systems like magic and thus makes a man again healthy to love his tired life." It is invaluable "in irregularities of periodical illness in females and other diseases of the womb peculiar to the female sex and causing sterility on women kind," and so forth. It will be noted that the hand of the Babu is visible throughout; but it is requested that correspondence should be addressed to an American commercial association. Probably the vendor, if really an American, thought a native would know best how to reach the mind and pocket of the East. The appeal, as is usual in literature of this kind addressed to the Oriental, is mainly to those who wish, in the words of the scribe, "to keep everlasting youth, so as to undergo any amount of waste and exertion, even in old age." But the claims made are much wider than the restoration of lost manhood, and may deceive numbers of ignorant people who have a right to be protected from the lures of traders on human weakness. The real cure for such evils is, of course, the diffusion of a knowledge of the elementary laws of health. But in the meantime the authorities should do everything in their power to check the distribution of such circulars.

DOCTORS AND INTEMPERANCE.

THE twenty-ninth report of Dalrymple House, the first established Home for Inebriates, shows that of 1,064 cases admitted and discharged since 1883, ignoring those of no occupation, the medical profession has supplied the second largest number of inmates. The numbers drawn from the professions of divinity, law, and medicine have been 25, 43, and 79 respectively. This disparity may be accounted for by the fact that neither in the clerical nor legal profession is there the same temptation to tide over the want of missing meals, or to whip up the weary system, overtaxed by long hours and fagged by loss of sleep, with the handy, seductive spirit bottle. Sociability is given as the cause of inebriety in more than half the cases admitted to the home; and not even upon the clergy do the claims of social life fall more insistently than upon the doctor. To most of his patients the doctor is something more than medical attendant. The relationship implies sociability. In some places it implies a good deal of it. And if the social glass cements the desire to keep on good terms with patients as well as neighbours, it may lead to spirit drinking in the daytime, between or in place of meals. It is well to know our faults and failings, but that type of doctor, by some strange paradox, said to be "cleverer drunk than sober," is almost if not quite extinct, and it would be interesting to know the numbers of admissions to the home for each complete year. In view of the greater sobriety of doctors, one would expect that the medical profession was not providing so great a proportion of inebriates as it did a quarter of a century ago. Dr. Hogg, the medical superintendent, says there is much misconception as to the home, and inmates have told him that they would have come long before they did had they known what the place and the treatment were like; 42 per cent. of the patients have done well, and Dr. Hogg holds that, when supervision and treatment are possible, alcohol may be withdrawn suddenly and at once, without fear of bad results to the inebriate.

THE ALTON HOME.

ON May 31st the Lord Mayor and a numerous company of invited guests visited Lord Mayor Treloar's Home for the Treatment of Surgical Tuberculosis at Alton. The excellent work which is being carried on there has been more than once noticed in our columns, and in this issue the Medical Superintendent (Dr. Gauvain) gives an account of some of the methods of treatment followed there. After seeing the wards and other parts of the hospital the visitors inspected the college, or technical school for all kinds of crippled boys. In this institution the pupils have not necessarily been treated at Alton, but come from all sorts of hospitals and homes, and are crippled by all manner of diseases as well as tuberculosis. Here the problem of how to help those crippled children who are not too severely maimed to earn a living would seem to have been solved, for a great many of those who have been trained there are now earning good wages, and the college authorities could easily find good places for more boys than are available at present. The best paid trade taught there is that of leather bag and case making, and the visitors were able to see for themselves how well

the boys had been taught, and many of them showed their practical appreciation of the results by making purchases. The more severely affected lads learn tailoring and boot making, which trades, although not so well paid as the leather work, have this advantage, that they can be carried on in the patients' own homes, thus saving journeys to and from work. An adequate nurses' home is much needed, and an appeal is now being made for £10,000 for the building and equipment of such a home to be called after Queen Alexandra. Before leaving, the Lord Mayor watched a number of the boys going through a series of Indian club and dumb-bell exercises. Although some of them had lost a limb and all were more or less crippled, they performed with surprising smartness and vigour. The presentation of gold medals to two nurses who had distinguished themselves in examinations followed, and after brief speeches from the Lord Mayor, the Chairman of the London County Council, and others the visitors returned by special train to London, carrying with them very pleasant impressions of the value of the work done in the hospital and college. We cannot help adding, however, that it seems to us a mistake to claim, as was done in the printed particulars supplied to the visitors, that the proportion of successful cases "reaches a figure not approached by any similar institution in the world," for such comparisons must necessarily be misleading, seeing that different institutions have various classes of cases to deal with, and different standards of success.

EPIDEMIC CEREBRO-SPINAL MENINGITIS.

A good deal of public interest has been aroused by the announcement that cases of epidemic cerebro-spinal meningitis have occurred recently at Westerham in Kent. The facts are not so alarming as some of the early statements suggested. Two children in one family, aged 8 and 11, sickened on May 20th; by May 25th they both showed definite signs of epidemic cerebro-spinal meningitis, and a diplococcus was found by lumbar puncture. One child has since died. Three other cases in one family were under suspicion, as they had been in contact with the first two, who were neighbours; these three patients were seized with vomiting, attended by some rise in temperature. They were, however, clearly not instances of cerebro-spinal meningitis, though they were isolated as a matter of precaution. There are no other cases known in Kent. Five other cases of epidemic cerebro-spinal meningitis have been notified in various parts of the county during the last six months; but in no instance has there been any real epidemic, as only one case has occurred in each locality at one time.

THE ANNUAL MEETING, BRIGHTON.

In connexion with the annual meeting of the British Medical Association, to be held this year at Brighton, the usual railway concessions will be granted to members attending. Return tickets, which will be available from July 17th to July 28th inclusive, will be issued at the rate of a single fare and a third on the presentation of a voucher, which will be supplied to members notifying, on the form to be issued shortly with the list of hotels and lodgings, their intention of being present at Brighton. A separate voucher is required for each passenger. During the meeting reduced fares will also be granted to places within a radius of fifty miles of Brighton, including London. Members who propose travelling to and from Brighton daily should use the first half of the ticket on the first journey to and the return half on the last journey from Brighton, the reduced fares for the intermediate journeys being granted on production at the time of booking of the card of membership.

Mr. H. Betham Robinson, Surgeon to St. Thomas's Hospital, is a candidate at the approaching election to the Council of the Royal College of Surgeons of England.

We regret to record the death, after a prolonged illness due to infective endocarditis, of Mr. J. H. Targett, obstetric surgeon to Guy's Hospital. We hope to publish a notice of his career in an early issue.

At the meeting of the Royal Anthropological Institute, to be held at the Royal College of Surgeons of England, on Tuesday next, at 2.30 p.m., Sir H. H. Johnston, G.C.M.G., K.C.B., will give a lecture illustrated by the epidiascope on racial migrations in Africa.

A meeting of the Section of Surgery of the Royal Society of Medicine will be held at Birmingham on Tuesday next. The members will witness operations at the General Hospital and Queen's Hospital in the morning, and there will be an exhibition of surgical cases at the General Hospital in the afternoon, followed by an ordinary meeting at which Mr. Lawford Knaggs (Leeds) will read a paper on retroperitoneal rupture of the duodenum, and Mr. Jonathan Hutchinson a note on the treatment of Dupuytren's contraction by an improved method. After the meeting the members of the section will be entertained at dinner by the surgical staffs of the Queen's and General Hospitals. This, we believe, will be the first occasion on which the section has met outside London.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

Mental Deficiency Bills.—The adjourned debate on the Mental Deficiency Bill took place on Tuesday, June 3rd, and the same process of obstruction from a small body of members, mainly on the Government side of the House, was employed as on earlier occasions. After an hour had been occupied by a discussion and division under the ten minutes rule on a private member's bill conferring additional rating powers on local authorities introduced by Mr. Wedgwood, the debate was resumed by Mr. Montague Barlow, who contended that the amount provided by the Government of £150,000 a year was quite inadequate, and stated that if the 70,000 defectives existing in the country were to be properly provided for, it would involve in his opinion an annual cost of over £2,000,000. The bill was heartily supported by Dr. Chapple, but Mr. Pringle made an appeal on various grounds that it should not be proceeded with. Mr. Crooks, Mr. McCurdy, and Mr. Harry Lawson spoke in support of the measure, and at 6 o'clock, on the motion of the Home Secretary, the Speaker granted the closure. This was carried by 273 to 96, and the second reading was subsequently carried by 368 to 11. Another division was then taken against the bill being sent to Committee upstairs, but this was carried by 358 to 15. After an hour had been occupied in these three divisions, and as the House was due to rise at seven o'clock on occasion of the King's Birthday celebrations, only half an hour remained for the discussion of the Mental Deficiency and Lunacy (Scotland) Bill. It was briefly introduced by Mr. McKinnon Wood and supported by Sir George Younger, but on the motion of Mr. James Hogge, the debate was adjourned. In accordance with the anticipations in our notes of last week, the prospect for these bills and other minor measures grows daily worse.

Board of Trade Sight Tests.—Mr. Peto asked the President of the Board of Trade whether his attention had been drawn to a memorial signed by thirty leading ophthalmologists, who were of opinion that the sight tests of the Board of Trade were not satisfactory; and, if so, whether he would now reconsider the whole question of these tests.—Mr. Robertson said that careful consideration would be given to these and any other criticisms, but, as at present advised, he did not think that they disclosed any sufficient ground for reopening the question of the tests.

Mr. Peto also asked whether, in respect to officers

holding certificates who had been requested by the Board of Trade voluntarily to surrender their certificates through failing to pass the Board of Trade tests in either colour or form vision, the Board of Trade contemplated taking further action; and, if so, in what way.—Mr. Robertson replied that if any of the officers referred to were unwilling to surrender their certificates the Board of Trade would have no alternative but to order in due course inquiries, under the provisions of Section 471 of the Merchant Shipping Act, 1894, into their competency to hold the certificates.

Ten Years Building.—Mr. Wedgwood asked the President of the Local Government Board what was the total number of dwelling houses of all kinds built between the years 1901 and 1911, how many houses out of this total were built by local government authorities, and what was the estimated number of persons for whom housing accommodation had thus been provided by local government authorities and by private persons respectively?—Mr. Burns said that the figures necessary to give an answer to the precise question were not available. It appeared from Table I of the recently published Volume VI of the Census, that the number of inhabited houses in England and Wales exclusive of London increased by 879,381 between 1901 and 1911. This figure, however, took no account of demolitions, etc., during the intercensal period. Loans were sanctioned by the Local Government Board during that period for the erection of about 4,000 houses under Part III of the Housing of the Working Classes Act, 1890, by extra-metropolitan authorities.

Town Planning Schemes.—In reply to Sir Arthur Griffith-Boscawen, Mr. Burns said that one town planning scheme had been finally approved (Birmingham, Quinton, etc.); that three were before the Board awaiting final approval (East Birmingham, Rochdale, and Ruislip-Northwood), and that fifty others were in process of approval, and that altogether 150 towns and cities were making town planning schemes.

Hop-pickers.—Mr. George Roberts inquired as to the number of local authorities administering areas where labour for hop-picking was employed which had adopted by-laws and called attention to the conditions existing in the county of Hereford.—In reply Mr. Burns said: In only five out of some thirty-four districts in which imported hop-pickers are employed have the local authority failed to make by-laws. Legislation would be necessary to make the adoption of by-laws compulsory, but all these authorities have been urged to make by-laws. The districts had for the last four or five years been inspected by officers of the board, and they reported that the accommodation for hop-pickers was improving. Further visits are to be made this year.

Enteric Fever Inoculation (India).—Mr. Chancellor asked the Under Secretary of State for India if he was aware that the officer commanding the 1st Battalion Northumberland Fusiliers, now stationed at Mhow, India, had relegated to Class 2 service pay, under paragraph 686 of the King's Regulations, as being ineligible for active service, six privates, solely on the ground of their refusal to be inoculated against enteric fever; whether inoculation against this disease was compulsory on objecting soldiers; and, if not, what steps he proposed to take to ensure them against arbitrary penalties for exercising their right to refuse compliance with such orders in future.—Mr. Montagu replied that inoculation against enteric fever was not compulsory, but in view of the fact that it was highly desirable in the interests of the soldiers themselves to preserve them from dangerous illness, every effort was made to persuade and convince soldiers that they should be inoculated voluntarily. The allegation which the hon. member made was quite untrue, and if he would look at the regulation he quoted he would see that it was obviously impossible.

Vaccination (Cow-Pox Virus).—Mr. Snowden asked the President of the Local Government Board whether he was prepared to follow a precedent set up by his predecessor (1902) by ordering all vaccine or virus now in stock to be destroyed, and take steps to enforce the use of cow-pox virus only, as contemplated by the Vaccination Acts, seeing that the vaccine which failed to protect the members of the crew of His Majesty's ship *Conqueror* was derived from a secret unidentified strain of virus obtained from Cologne, and that there appeared to be no means of ascertaining whether such original foreign virus was free from variolous taint, in accordance with the provisions of Section 8 of the Vaccination Act, 1867.—Mr. Burns said that in the case referred to as a precedent, the lymph destroyed was not lymph prepared or issued by the vaccine establishment of the Local Government Board. The lymph obtained from Cologne was a sample of the current lymph of the vaccine institute of that town. During the six years since it was received a large series of calves had been vaccinated with lymph derived from this source, and the lymph from them had been used for a very large number of successful vaccinations.

Vaccination (Exemptions).—In reply to Mr. Peto, Mr. Burns promised to supply a table showing the increase or decrease in the number of vaccinations in the case of parents and children in each year from 1900 to 1912, and the number of exemptions granted. The power and the duty of taking proceedings against defaulters were vested in the vaccination officer under the Vaccination Acts without any direction from the guardians, and he did not consider it necessary to issue a further circular on the subject.

Foot and Mouth Disease Eradication.—In reply to Mr. C. Bathurst, Mr. Runciman said that he was aware that there had recently been several reports of outbreaks of foot and mouth disease in Great Britain, all of which had happily proved on investigation to be false alarms. The disease had been completely eradicated from Great Britain six months ago, and had not since broken out.

Bee Disease Bill.—In reply to Captain Murray, the President of the Board of Agriculture said that he was well aware of the widespread demand amongst bee-keepers and gardeners for the passing of this bill into law, and he hoped the second reading would be secured in the near future. There was no evidence that the bill was in any sense a controversial measure.

General Medical Council.

NOTES.

Passes and Rejections at the Final Examinations.—In accordance with recent custom the Examination Committee presented an analysis of the annual returns of the final examinations held by the licensing bodies. Amongst those bodies which require that medicine, surgery, and midwifery shall be passed at one time, the largest percentage of rejections is found at the University of London, which heads the list with 54.8, Bristol coming next with 50 per cent., and Queen's University, Belfast, following with 41.8; St. Andrews comes lowest with 13.3 per cent. of rejections. It is difficult to institute a fair comparison between these figures and those of bodies which allow the subjects to be passed separately, but adding together the percentages of rejections in the three separate subjects and dividing by three, neglecting decimal places, the following result is arrived at: The National University of Ireland rejected 33 per cent., Cambridge 31, and Dublin 22; the University of Glasgow 23, Edinburgh 20, and Aberdeen 18; the Scottish Conjoint Board rejected 55, the English Conjoint Board 38, and the Irish Conjoint Board 36 per cent. The percentage of rejections at St. Andrews is remarkably low (13.3), considering that all of the subjects must be passed at one time, though it should be noted that the figures relate to only fifteen candidates.

Exemptions.—The Examination Committee presented a report, which had evidently been considered with much

care, and constituted a strong indictment against a particular body. The attention of the Council had been drawn at a previous session to the fact that exemptions were granted from the earlier professional examinations to candidates who had passed in these subjects at examinations held by bodies whose qualifications do not receive recognition on the British *Register*. The Committee obtained returns which showed that these exemptions were more numerous than had been supposed, but that many of them were of a kind to which no exception could reasonably be taken. Thus the English Conjoint Board had granted during five years 124 such exemptions, but of these no fewer than 56 were on the ground that similar examinations had been passed at the University of Toronto, and other Canadian examinations figured in the list. It is probable that very shortly the qualifications of these Canadian bodies will be fully recognized. There were other examinations recognized for exemption, the standard of which is above suspicion. Hence it was clearly not desirable to lay down a hard and fast rule that no examinations, other than those conducted by bodies whose qualifications admit to the British *Register*, should be accepted as equivalents. Many—indeed most—of the licensing bodies publish lists of examinations which they are prepared to accept as the equivalent of their own, but other bodies stand in a less satisfactory position. The Apothecaries' Hall of Dublin appears not to publish any such list, and the wording of its regulation on the subject seems to open the door to all and sundry. The explanation offered by their representative that this was due to a typographical error, and that it did not say what it meant, did not commend itself, inasmuch as this published regulation governed the practice of the Hall, and its practice had included the recognition of examinations open to much question. The importance of the matter was considered to be increased when it was found that the Apothecaries' Hall, Dublin, had granted exemptions in the cases of 59.4 per cent. of those who had obtained its qualification in the past five years—a proportion more than six times higher than that of any other licensing body. It was also recalled that the Council has already advised that the first, second, and third examinations of the Indian Subordinate Medical Service, which are accepted by the Hall, should, in the absence of evidence as to their sufficiency, be refused recognition.

The Apothecaries' Hall, Dublin.—Last November the Council referred to the Examination Committee a proposal to discontinue the reports upon the examinations of the Apothecaries' Hall, Dublin. The Committee at this session presented a lengthy review of the whole history of this body as recorded in the minutes, and followed this up by giving under the letters X, Y, and Z the complete history of the passes and rejections of three gentlemen who had recently obtained the licence of this body. It was stated that these were the only three licentiates in whose cases it had been found possible to ascertain the whole of the facts. As this report has been sent to the body for its comments, it may be better to refrain from any further comment further than to observe that *primâ facie* there seems to be a good deal to answer with respect to these three cases. The Committee seems to believe that there is evidence that in some instances a candidate has obtained a qualification from the Apothecaries' Hall, Dublin, and has then, as a registered practitioner, gone up for the separate diplomas of the Colleges of Surgeons or of Physicians, a proceeding which has met with varying success. The reports of the assistant examiners in surgery appointed by the Council will in future be confined to their own section of the examination, and an inspector is to be appointed for the whole examination. Further, the Apothecaries' Hall has been requested to send in the returns required under Section XVIII of the Medical Act, 1858, in a form containing, *inter alia*, the places and dates of the examinations passed, including such particulars as to the preliminary examination. As information upon this last point had been refused by the Hall, the opinion of the legal advisers to the Council was sought, and their reply was to the effect that the Council was entitled to ask for it. The detailed information is sought because "it is obvious that the candidates who seek this diploma are almost, if not entirely, those who have commenced their series of professional examinations elsewhere." When it is provided it will enable the Committee to trace in detail, as has been done in the cases X, Y, Z, the complete career of those who qualify. All the recommendations of the Committee were adopted by the Council.

Alleged Personation.—A curious case was brought before the notice of the Council by the Medical Defence Union in which it was alleged that a person, who appears to have made use of several aliases, had improperly and irregularly procured the entry of the name of Anthony Ciaramelli, M.D.Univ. Naples in the foreign list, had practised here in this name, and had obtained himself to be put on the London panel for six districts. Dr. Antonio Ciaramelli is a real person practising in New York, and it was proved that the person who registered here was not Dr. Antonio Ciaramelli, and Dr. Bateman, the Secretary of the Union, was thanked and complimented by the President upon the manner in which the case had been presented. The only issue before the Council was whether the name should remain upon the *Medical Register*, and the Registrar was instructed to remove it.

The Pharmacopoeia.—Satisfactory progress is reported in the preparation of a new edition of the *Pharmacopoeia*, though no mention was made of the date when it may be expected. The Belgian Government proposes a conference for the establishment of a bureau for pharmacopoeial unification, and a delegate will be sent by the Council.

The Finances of the Council.—Owing to short sessions and to economies effected in various directions, in respect of which the Senior Treasurer paid a tribute to the zeal and success of the Registrar, Mr. Norman King, the accounts showed a surplus for 1912 of £1,105; in the previous year there had been a deficit of £1,370. It was mentioned, in estimating the future financial prospects of the Council, that the number of students registered in the year had risen to 1,397, almost exactly the average number for the past five years; it may be remembered that in the previous year there had been a material falling off. The dental fund shows a similar satisfactory result.

The Election of Committees.—Three methods of election to the several committees are in force. The Executive Committee and the Penal Cases Committee are elected by a ballot of the whole Council, the number of members taken from each Branch Council being prescribed by the by-laws. Certain other committees are elected by nominations sent in by the several Branch Councils, which meet during the session for this purpose, whilst other committees again are elected by nominations made in open Council. All members of committees are eligible for re-election, so that there is no automatic change in their constitution, and a survey of the results shows that, in fact, very little change does take place under any of the methods of election. From the point of view of continuity of action this is, no doubt, advantageous, if not carried too far, and may be taken as indicating the satisfaction of the Council with the work of its committees.

Alberta.—The Minutes of the Executive Committee contain the text of an amending Act which has been passed and assented to in the Province of Alberta. It contains some remarkable provisions. The examinations of candidates for admission to practise medicine, surgery, midwifery, osteopathy or homoeopathy are to be under the control of the University of Alberta, and, except as to osteopaths and homoeopaths, the subjects are to be such as prescribed by the Senate of the University, etc. A person who has, with a licence recognized by the American Osteopathic Association, practised for four months in Alberta, shall be granted a certificate, otherwise he must—and this applies to homoeopaths also—pass an examination prescribed by the Senate. A person licensed to practise one class of practice incurs a fine if he trespasses upon any other class of practice. It is rather difficult to see how this proviso is to be made operative; but the whole Act seems to stand in need of revision.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

POST OFFICE SANATORIUM SOCIETY.

THE fourth biennial conference of the Post Office Sanatorium Society was held in Edinburgh on May 31st. On the previous evening there was a smoking concert in the North British Station Hotel. Dr. Kenneth Douglas, medical officer to the General Post Office, Edinburgh, who presided, after welcoming the members, made special reference to the splendid work which had been done by Sir Robert Philip in the fight against tuberculosis. He regarded the creation of the Victoria Dispensary as the starting-point of the tuberculosis campaign. He thought the work of their own society had also been a great success; that done in their sanatorium was now being overshadowed by other work in the same direction under the Insurance Act, but the treatment given in it would compare favourably with that in any of the smaller institutions in the country.

At the conference, Mr. W. H. Davies (London) presided, and there was a large attendance of delegates. Sir Robert Philip gave an address, in which he stated that the society represented insurance against illness, and that illness the one that counted for most in human life. It also represented the principle of voluntary insurance against sickness; it made the benefit attractive, and so did away with compulsion, which, in such matters, seemed a doubtful policy. The society, too, had a statesmanlike outlook upon tuberculosis, recognizing that it differed from all other diseases; no two cases of tuberculosis were the same; and so the amount of treatment required for any one case was to be given, and it was not to be limited to three or four months; to limit it was a fallacious system, whilst to extend it to a year or longer, if medical opinion recommended it, was a wise policy. In their sanatorium at Benenden they had shown that tuberculosis could be treated practically anywhere within the United Kingdom, and, with satisfactory conditions, they could effect cures. The Chairman stated that the membership of the society, which in 1911 had been 47,400, was now 50,000. Mr. Durrant (the Secretary) reported that since the formation of the society in 1906, 447 cases had been treated, of whom 242 had been restored, 149 had generally improved, 46 had been discharged unimproved, and 10 had died during treatment. In a little over 87 per cent., therefore, the condition had been improved, and in more than half the patients the disease had been arrested. The admission of wives of members to the benefits of sanatorium treatment led to some discussion; the committee of management did not think it feasible, but by a small majority the conference remitted the matter back to the committee. Discussion also took place on several matters relating to treatment at Benenden, delegates who had themselves been patients there expressing their opinions. One of these matters was a resolution as to the performance of work, first light exercise and then heavy work, in order that the patients might become confident they were no longer invalids; and Dr. T. D. Lister, the consulting physician of the society, argued for obedience to medical directions on the part of the patients, otherwise the patient would be prescribing his own medicine. The resolution, which was to the effect that the working patients at Benenden Sanatorium be granted an additional half holiday each week for the purpose of taking walking exercise outside the grounds, was lost on being put to the vote. Another resolution (from Liverpool), that the time was now ripe when sanatorium accommodation situated in some place in the North of England or South of Scotland should be provided for the Post Office Sanatorium Society, and that the National Executive should make arrangements as soon as possible, was carried by 17 votes to 11.

RED CROSS DEMONSTRATION IN EDINBURGH.

The cup, which is presented by Lord Rosebery for knowledge in practical and theoretical first aid, home nursing, and cooking, was handed on May 29th to No. 4 Midlothian (Gramond) detachment (which was represented by Dr. Stewart, Blackhall) by General Johnstone; this detachment had gained 324 marks out of a possible total of 350. The detachment which came next with 319 marks was No. 10 Edinburgh, and then followed No. 6 Edinburgh with 317 marks; eleven teams in all competed. Brigade-Surgeon Lieutenant-Colonel Arnott, M.D., said that in 1912 there were seven women's Red Cross detachments in Edinburgh with a total strength of 193, and since then there had been raised and registered two men's detachments, bringing up the strength to about 230 or 240. There were difficulties in raising the men's detachments, which would, he believed, be at once solved if the St. Andrew's Ambulance Association, after training men for ambulance work in the piping times of peace, would hand them over to the Red Cross organization for service in a national emergency, such as an invasion, for which alone the Territorial Forces and the Red Cross Society were engaged. He was glad to report that they had been promised several suitable buildings as auxiliary hospitals, among which was the School of Domestic Economy, Atholl Crescent. Colonel Woodhouse, President of the Judging Committee, was thanked for the great interest he had shown in Red Cross work in Edinburgh.

LOCAL GOVERNMENT BOARD FOR SCOTLAND.

Dr. Ernest Watt, M.D.Glas., D.P.H.Camb., has been appointed an additional medical examiner of the Local Government Board, in consequence of the increased work thrown upon the Board by the National Insurance Act. Miss Mary Jennie Menzies, M.B., Ch.B.Edin., D.P.H., R.C.P.S.Edin. and Glas., has been appointed lady medical inspector in place of Miss Elizabeth M'Vail (resigned).

LOCAL GOVERNMENT BOARD REPORT.

The eighteenth annual report of the Local Government Board for Scotland, dealing with the year ended December 31st last, has recently been issued. It is stated that during the year, notwithstanding the exceptionally prosperous condition of the country, there was an increase of pauperism. Parish councils, stimulated by the economy of the rates secured by old age pensions, had pursued a more generous policy, but the increase might only be a reflex of the coal strike in the early months of the year. The Board did not consider that there had been any laxity in the administration of Poor Law funds, and was, indeed, convinced that the large measure of public attention the Poor Law had received during recent years had had a marked effect in improving the quality of the work done by the relief authorities. The number of poor of all classes, including dependants, in receipt of relief on May 15th, 1912, was 107,498, of whom 91,137 were sane and 16,361 lunatic. On the corresponding date in 1911 the number was 106,251. The increase of 1,247 represented a ratio per 1,000 of population of 23 in 1912, as against 22 in the previous year. The increase in the number of children separated from their parents was general all over the large town parishes, and was, no doubt, mainly due to the enforcement of the provisions of the Children Act of 1908. The ordinary receipts of the various parish councils amounted to £1,593,779. Of this sum, the expenditure on poor relief was £1,545,720 in the following proportions: Sane poor, outdoor, 37.75 per cent.; indoor sane poor, 24.37 per cent.; lunatic poor, 28.02 per cent.; and general administration, 9.86 per cent. Excluding general administrative charges—which cannot well be allocated—the cost per head of poor, including vagrants, worked out, on the basis of the number chargeable at May 15th, at: Sane poor, outdoor, £7 10s. 8d. a head; indoor sane poor, £27 10s. 10½d.; and lunatic poor, wherever situated, £26 9s. 4¾d. The general administrative charges amounted to £1 8s. 4½d. a head of poor of all classes. The Board had sanctioned plans for a home which the Edinburgh Parish Council is erecting for the accommodation of young children, and for a home the Glasgow Parish Council is erecting for physically defective young persons over school age who are likely to be permanently chargeable to the parish. The report states that there is ample evidence of the ever-increasing interest taken by local authority and the public generally in the Housing Acts. So far as Scotland is concerned the Act consists mainly of two parts—(1) the housing of the working classes, and (2) town planning. The one may be said to deal with slums already created; the other empowers local authorities to deal with the prevention of slums. Particulars are given of action taken or proposed to be

taken at Rosyth, Dundee, and Edinburgh. The Board is giving particular attention to the subject of water supplies throughout the country, and the report discusses also the question of the treatment of insured persons suffering from tuberculosis, and the notification of pulmonary tuberculosis and administrative control.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

TESTIMONIAL TO DR. PHILIP G. LEE, CORK.

On May 24th a largely attended meeting of the medical profession was held at the rooms of the Cork Medical and Surgical Society, when Dr. Lee was presented with a handsome bookcase, a solid silver tray, and a purse of sovereigns, subscribed for by the medical profession of the city of Cork, by the members of the Munster Branch of the British Medical Association, and by those of the Irish Medical Association residing in County Cork.

The presentation was made by Dr. Cotter, chairman of the medical profession in Cork, who said he had great pleasure in having been chosen as the medium to make this presentation on behalf of his colleagues. He spoke of the very many skirmishes Dr. Lee had been through during the past twenty years, fighting for the profession in the battle of clubs, and how he had always emerged with credit and upheld the dignity of the profession. Having referred to the great debt of gratitude owing to him, Dr. Cotter concluded by hoping that Dr. Lee would long continue to act as their able honorary secretary.

Dr. Lee, in returning thanks, said that everything he had done was with the one and only object of keeping his profession to the standard, or even a higher standard, that was set for it by their forefathers. He had therefore worked hard in the battle of the clubs in Cork, where work had been done that was not done elsewhere. The position of honorary secretary to the profession was one congenial to him, but their tribute to his endeavours was indeed too great. He concluded by saying that he would continue to work heartily in the future, and that this testimonial was regarded by him as the greatest honour he had ever received. It would be treasured by him, and by those whom he should leave behind.

On the tray was inscribed:

Presented to Dr. Philip G. Lee by the medical profession in Munster as a token of their appreciation of his invaluable services as honorary secretary for over twenty years. May, 1913.

LUNACY AND POPULATION.

During the Chief Secretary's recent visit to Ireland a deputation waited on him in connexion with a proposal to convert the Castlebar Prison into a department of the lunatic asylum. It was pointed out that since 1866 the population of the Castlebar Asylum had been slowly but surely increasing, and while the insane population was growing larger the ordinary population was steadily decreasing. In forty years the population of Mayo had fallen from 236,150 to 190,205, and at the same time the pauper lunatics in Castlebar Asylum had increased from 200 to over 800. Since 1890 the county had borrowed £55,052 to provide additions to the asylum, but despite this there were in the asylum 160 patients in excess of the accommodation the institution was intended to provide. The Asylum Committee and the county council were reluctant to incur any further liability in making additions, and it was suggested that the most businesslike way of dealing with the matter would be to ask the Irish Government to close the Castlebar Prison, which adjoined the asylum, and to make arrangements for its conversion into a department of the asylum. The Chief Secretary promised to give the matter his careful consideration.

TYPHUS FEVER.

At the last meeting of the Castlerea Board of Guardians the medical officer of the workhouse reported that a family from Ballaghadereen had been admitted to the workhouse hospital suffering from typhus fever. The family consists of twelve persons; the house of this family has been disinfected and closed.

MEDICAL OFFICERSHIP OF ACHILL.

At the last meeting of the Westport Board of Guardians a letter was read from Dr. T. H. Croly resigning his position as medical officer for Achill No. 1 Dispensary District owing to ill health after thirty-six years' service. The resignation was accepted with regret, and it was decided to advertise the appointment, and to consider Dr. Croly's superannuation allowance five weeks hence.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

NEWCASTLE-UPON-TYNE.

ROYAL VICTORIA INFIRMARY.

Presentation of Addresses to Professors Drummond and Sir Thomas Oliver.

At a crowded quarterly court of governors of the Royal Victoria Infirmary, held on May 29th, illuminated addresses were presented to Professors Drummond and Sir Thomas Oliver on the occasion of their retirement from the active staff—the former after thirty-four years' service and the latter after thirty-three. In the absence of the Chairman of the House Committee, Sir George Hare Philipson, who was attending the meetings of the General Medical Council in London, Sir Riley Lord presided. Addressing Dr. Drummond, the Chairman said that only once previously had his period of service as a physician been exceeded, and that was by the late Dr. Thomas Emerson Headlam, who had been connected with the infirmary for thirty-eight years. Dr. Drummond's association with the infirmary had been distinguished by faithful attention to duty and a careful observance of official responsibility. By distinctive ability and diagnostic acumen he had attained to a position of eminence in his profession and had maintained the traditions of the infirmary. In acknowledging the gift, Professor Drummond said that it was with mingled feelings he accepted the handsome expression of their kindness, for to the pleasure and gratitude was added the feeling of regret that the time had come when under statute he must relinquish his connexion with the active staff. For the moment the latter feeling outweighed the former. He had loved his work in the wards and he had appreciated the honour and privilege of having been connected with the office to which they had appointed him nearly thirty-five years ago.

The address to Professor Sir Thomas Oliver was framed in similarly eulogistic terms. It paid a tribute to his reputation as a scientific physician and to the investigations he had made as to the effects of industry on health, thus proving himself to be a benefactor to the industrial community. Sir Thomas Oliver thanked the chairman and governors for their kind appreciation of his services, and said that he thought the time had arrived when, for those who were to follow him in the infirmary, some alteration should be made in the retiring age limit or means taken to make the retirement more gradual by giving the physicians and surgeons five to ten beds, as was the practice in other large hospitals. It would be a distinct advantage to the institution itself, a gain to the teaching capabilities of the school, and not a disadvantage all round from a financial point of view. Sir Thomas spoke of the advances made by medicine and surgery during the last thirty-four years and of the changes which had come over the infirmary during that period. Of those who became his colleagues on his appointment only Sir George Hare Philipson, Dr. Hume, and Professor Drummond remained. He had appreciated much the honour which had been his of having been a member of a medical and surgical staff which had kept itself well abreast of the times, had been a good follower, and in not a few instances had led the way. It was to him a deep regret that the tie which had bound him to the infirmary for a third of a century must now be broken. He closed his speech with the consolatory remark that it was better to have been connected with that great infirmary and to bear the pang of separation from it, to have been privileged within that building to do something for the amelioration of the sufferings of one's

fellow men, even to have failed to attain to the ideal which, in the early part of his career as a young physician, he had set before him than not to have been connected with the infirmary at all and never to have attempted to reach the goal.

Both retiring physicians become consulting physicians to the infirmary. In this capacity—which gives them a seat on the monthly committee—it is hoped that they will still be able to exercise an influence on the affairs of the institution.

Pathological Chemist to the Infirmary.

Professor Bedson of the Armstrong College, on his retirement from the position of pathological chemist to the infirmary, was made an honorary life governor of the institution. It is desirable that services such as his should be recognized by his being made in addition consulting pathological chemist.

TYNEMOUTH INFIRMARY.

At the Tynemouth Victoria Jubilee Infirmary, North Shields, on May 31st, a large and representative gathering assembled, when the Mayor of Tynemouth handed over to the infirmary, on behalf of the town and as a memorial to the late King Edward, a new operating theatre, fully equipped, built in the newest style, and on the most approved methods. The mayor paid a well-deserved compliment to the honorary medical and surgical staff. Sir Thomas Oliver, who was present as the invited guest and who, it appeared, had been associated with the Tynemouth Infirmary movement at its inception thirty years ago, gave an address, for which he was thanked by Dr. L. Fraser, one of the senior members of the staff, and also by the vice-chairman of the institution.

BIRMINGHAM.

MEMORIAL TO THE LATE PROFESSOR JORDAN LLOYD.

IN response to a very general desire that something should be done to perpetuate the memory of the late Professor Jordan Lloyd, who was a Joint Professor of Surgery in the University of Birmingham, and who was for thirty years honorary surgeon to the Queen's Hospital, a fund has been opened by the committee of the hospital, who are appealing for a substantial sum towards the endowment of a surgical ward in the Queen's Hospital. The ward will be called the "Jordan Lloyd Ward," and it is proposed to place either a bust or a portrait of Professor Jordan Lloyd in the ward. The first list of contributions which is printed in the appeal that has been issued amounts to about £1,400. An appeal signed by Dr. Douglas Stanley, its chairman, is made by the Medical Committee to members of the medical profession in Birmingham and the Midlands, and to those who worked with Mr. Jordan Lloyd and feel that they owe much to him as a teacher. Contributions should be sent to the treasurer of the Queen's Hospital, Mr. H. F. Keep, and the secretary will be pleased to forward a copy of the appeal on application.

SANATORIUM EXTENSION FOR CONSUMPTION.

The new scheme for the extension of the sanatorium accommodation for consumptives is to be presented to the Local Government Board as a whole. It is proposed to add to the Salterley Grange Sanatorium châlets for twenty patients, at an estimated cost of £1,703. At West Heath Hospital 22 additional beds are proposed, at a cost of £842. The extension of Yardley Road Sanatorium will provide for 142 additional beds, at an estimated cost of £28,512. When the extensions are completed the total accommodation will be 319 beds, of which 54 are for children, leaving 265 for adults. There are 90 beds reserved at Romsley, so that the total will be 355 for adults and 54 for children. It is difficult to state accurately the number of tuberculous persons in the city of Birmingham, but the Health Committee believe they exceed 10,000.

A definite undertaking has been received that a sum of £90 a bed, or three-fifths of the cost, whichever is least, will be contributed by the Local Government Board towards the capital cost. When the scheme is regarded as a whole it appears that £90 a bed is less than three-fifths of the total cost, for calculated on that basis the total grant will amount to £16,560, which leaves a sum of £14,497 to be found by the corporation.

The cost of maintenance can only be approximately estimated. Assuming that 95 per cent. of the beds are continuously occupied and the weekly cost of each bed for adults averages £1 7s. 6d. and for children £1, the total annual cost, including interest and sinking fund, will be about £26,700. The cost of the tuberculosis centre in Broad Street, including salaries of medical staff, tuberculosis visitors, etc., is estimated at about £5,000, so that the total expenditure of the corporation, when the scheme is in full working order, will be about £31,700 a year. The Local Insurance Committee will contribute at least £10,000 towards this annual expenditure. Representations as to the heavy burdens likely to be cast upon the corporation were made by various public bodies to the Local Government Board and to the Chancellor of the Exchequer, and in December last a circular-letter was issued by the Board announcing the decision that, in respect of schemes which included the treatment of insured persons and persons who were not insured, the Exchequer would pay half the cost of treatment after the receipts from the Local Insurance Committees had been taken into account. The position is therefore as follows:

Cost of sanatorium treatment	£26,700
Cost of dispensary treatment, including cost of tuberculosis visitors	5,000
Total cost ...	31,700
Less payment from Local Insurance Committee	10,000
Contributions from Government	10,850
	20,850
Cost to be borne by Corporation	£10,850

During the financial year 1911–12, before the Insurance Act came into operation, the expenditure on tuberculosis amounted to £9,635, and this expenditure maintained only 90 beds. When, however, the new scheme is in operation, there will be 409 beds, and the dispensary work will be much increased, but the annual cost to the corporation will not be much more than formerly. For the present year, when only a portion of the proposed additional accommodation in the Corporation sanatoriums and at Romsley Hill will be ready for use, it is estimated that the total cost of maintenance will amount to £21,831. There will be about £10,000 to come from the Insurance Committee and £5,915 from the Government, so that for this year the corporation will be expending considerably less than in the previous year and will be treating a much larger of patients.

MANCHESTER AND DISTRICT.

THE MANCHESTER SCHEME FOR TREATMENT OF TUBERCULOSIS.

AFTER numerous changes and modifications, the scheme developed by the Sanitary Committee of the Manchester Corporation for dealing with cases of tuberculosis has been approved by the Insurance Commissioners, the Local Government Board, and the Treasury, as well as by the Manchester Insurance Committee. It has now received also the full approval of the Finance Committee of the Corporation. Dealing with the financial side of the question the Finance Committee shows that the total annual expenditure will be £41,612. Towards this the Insurance Committee will contribute £9,175. Of the remainder the Treasury will contribute one half, and, after deducting charges for treatment, the total additional charge on the rates will be £9,987, which is equivalent to a rate of 0.557d. in the £, that is just over a halfpenny rate. The Finance Committee points out that as a set-off against this there is a saving of about £7,000 in connexion with the transfer of fever patients from Baguley to Monsall. Certain other charges will, however, be increased, so that the net increase in the expenditure of the corporation will be £5,596, part of which is due to the increased expenditure in connexion with the notification of tuberculosis. The scheme provides for the following:

1. The use of the existing Hardman Street Dispensary of the Manchester Consumption Hospital.
2. The purchase of land in Hardman Street from the Board of the Consumption Hospital for the erection of new offices.
3. The enlargement and furnishing of the Baguley Hospital as a sanatorium, in which a new block with 100 beds will be provided for men, and a block with 50 beds for women.

4. The provision of new wards at Monsall Hospital for cases of fever hitherto treated at Baguley.

5. Purchase from the South Manchester Board of Guardians of the Abergele sanatorium.

The total capital outlay is £78,645, from which the Treasury grant of £22,500 is to be deducted, leaving a balance of £56,154, and the Sanitary Committee recommends that the Local Government Board be asked to sanction the borrowing of this amount.

Dr. Niven, the medical officer of health, has submitted a report on the scheme, the essential features of which he says are the establishment of a central dispensary and a linked system of treatment partly by private practitioners, partly at the dispensary, and partly at the Baguley, Crossley, and Abergele Sanatoriums. At the Hardman Street Dispensary it was originally intended to utilize the services of the five physicians each at a salary of £250 a year, but as one of them has retired, his place will be taken by a whole-time tuberculosis officer at the same salary. Besides attending to the patients at the dispensary, these five officers will act as consultants to private practitioners, and will visit Crossley Sanatorium once a month, and the Baguley Sanatorium as may be necessary. Eight nurses are also provided to visit the homes of patients. In addition to the whole-time officer replacing one of the physicians of the Hardman Street Dispensary, there are a senior whole-time tuberculosis officer at a salary of £500 and three juniors at salaries of £300. Thus the whole staff is composed of five whole-time officers, four part-time physicians, and in addition there are to be eight nurses, two clerks for the medical department, a secretary, a dispenser, a dentist, a general clerk, and two nurses at the dispensary. The services of an *x*-ray expert will be obtained as required. It is provided that fifty-four hours of treatment shall be given at the dispensary each week, and in this way it is expected that 378 cases will be seen in a week, and that, as on the average each case will be seen only fortnightly, 756 cases will be kept under treatment. In addition, the whole-time officers will give eight attendances a week of three hours each, which means that they can attend to 336 cases. Thus provision is made for continuous treatment at the dispensary of about 1,100 patients.

The Finance Committee having examined the scheme fully, now recommends the City Council to adopt it at its next meeting.

LONDON.

London County Council.

Inquiry into Atmospheric Pollution.

THE General Purposes Committee on June 3rd recommended the London County Council to set aside £100 for an inquiry as to suspended impurities in the atmosphere in London. The report reminded the Council that the Committee for the Investigation of Atmospheric Pollution appointed at the International Exhibition and Conference held in London in 1912 directed attention to the lack of co-ordinated effort in estimating the distribution of suspended matter in the air, and the absence of reliable data indicating the effect of smoke prevention in atmospheric purification and diminishing the frequency of fogs. Among the municipalities which had agreed to set up apparatus and take observations were those of Birmingham, Glasgow, Hull, Leeds, Newcastle-on-Tyne, Plymouth, and York, and the General Purposes Committee was therefore of opinion that the co-operation of the Council should be afforded. The estimated cost of each instrument and the analysis of deposit was £21 for the first twelve months and a subsequent annual expenditure of about £12 for each instrument. Six instruments would prove adequate, at any rate in the early stages of the inquiry.

The estimate of £100 was approved.

The Milk and Dairies Bill, 1913.

It was urged in a report submitted by the Public Health Committee that the Milk and Dairies Bill, 1913, introduced into the House of Commons by the President of the Local Government Board involved the loss or curtailment of many powers for dealing with infected milk already possessed by the London County Council. In particular the Committee objected that the power of taking samples of milk and of examining cows outside London was entirely lost under the bill. The necessity for the thorough and systematic inspection of the sources of London's milk supply was shown by the fact that since July 1st, 1908, no fewer than 2,187 visits had been made by the Council's inspectors to farms outside London, 59,616 cows had been inspected, and the supply to London from 642 cows suffering from tuberculosis of the udder had been stopped. The inspectors now had special knowledge, and a register of the sources of supply had been compiled which was of great assistance in carrying out this protective work. Instead of this efficient machinery entirely under the Council's control, it was proposed that the protection of the milk supply of London should be distributed amongst various authorities throughout the country, which had no direct interest in the matter. It was a mistake, also, in the opinion of the Committee, to delegate to the twenty-nine borough councils such powers as remained to London in this connexion. A register such as that on which the efficient administration of the work largely depended could not be compiled and maintained by twenty-nine authorities without overlapping of effort. The Local Government Committee stated that the allocation of powers proposed by the bill, coupled with the repeal or curtailment of some of the Council's existing powers, would seriously affect the position of the Council as the central public health authority for London. These provisions appeared to be inconsistent with the declared wish of the Local Government Board that the Council should act as the central authority for London in the matter of the treatment of tuberculosis, and would render more difficult the preparation and organization of a comprehensive scheme to deal with that matter. The committee considered that the bill should provide for a clear division of duties between the Council and the sanitary authorities in London so as to avoid overlapping, duplication of administrative machinery, and unnecessary expense to local authorities.

The Council postponed consideration of the report.

The National Health Society.

The annual meeting of the National Health Society, at which the Duke of Devonshire presided, was held at Grosvenor House last week, when Princess Christian of Schleswig-Holstein presented the diplomas, medals, and certificates of the society to the successful candidates. A vote of thanks to the Princess was proposed by Sir James Crichton-Browne, who said that at the Hygienic Congress held in Paris ten days ago, M. Ribot, who was no mean authority on the subject, took a very alarming view of French vital statistics. The country was sick, he said, and the French race was withering away, for the consumption of alcohol and the neglect of hygiene were decimating the population. Happily the state of this country was not quite so bad, for the English death-rate was only 14 per 1,000 instead of 18 or 19 per 1,000, as in France. But the death-rate afforded no sure criterion of a nation's health. In the elementary schools only 25 per cent. of the children had sound teeth, 30 per cent. suffered from some defect of the eyes, and 4 per cent. from rickets; whilst no fewer than 80 per cent. were infected with tuberculosis. Moreover, there were 50,000 children in England who were mentally defective, and the number of lunatics was steadily increasing. To these grave symptoms must be added another—the comparative lack of intellectual vigour and the impairment of public spirit owing to the absorption of Englishmen in their own personal affairs, particularly in money-making and motoring, to the neglect of their vital interests, such as national defence. The medical inspection of school children was doing much to counteract the evil, but to have any lasting effects the work should begin at home. It was into the home that the National Health Society was carrying the lessons of hygiene, and it was thereby doing an inestimable service to the country. The motion was seconded by Sir E. Ray Lankester and carried unanimously.

India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

The King Edward VII Memorial Sanatorium at Lotni.

THE memorial to the late King Edward VII raised by the people of the United Provinces took the form of a sanatorium which was erected at Lotni at an altitude of

6,000 ft. on a site presented by His Highness the Nawab of Rampur. It commenced work in 1912, and the arrangements made permit of the reception of both paying and non-paying patients, natives and Europeans, male and female, and the building when quite complete will provide accommodation for 50 patients. Its superintendent, Major A. W. Cochrane, I.M.S., reports that the first patient arrived for treatment on May 17th, 1912, and that before the close of the year 54 patients had been admitted and 17 remained under treatment at the end of the year. The treatment usually consisted in generous diet, regulated exercise, and tuberculin injections. Nearly two-thirds of those admitted were already in the third stage of the disease (Turban), and so very good results could not be expected. Excluding 6 who stayed less than a month, they were as follows: 1 died, 6 left not improved, 5 improved, 7 much improved, and in 11 the disease was regarded as being arrested. Better results would probably have been obtained if patients had remained longer under treatment, but Orientals are impatient. Though the climate is damp and chilly the patients did not suffer from colds. The institute is supported by the memorial fund and a grant of Rs. 12,000 a year by the local government. Rs. 2,713 were received from paying patients.

ADVANCED SCIENCE IN THE PUNJAB.

The foundation of an advanced science research institute is suggested to commemorate Sir Louis Dane's governorship in the Punjab. It is proposed that the Punjab contribution of over five lakhs to the All-India Moslem University Fund should be reclaimed and devoted to this institute.

OFFICERS' FAMILIES' HOSPITAL FUND.

At a meeting of the committee of Lady Grover's Fund for officers' families' hospitals in Simla on May 2nd the annual report for the past year was considered. During the first year of the fund's existence 416 officers joined it and 6 ladies obtained the benefits the fund is intended to provide. The fund secures admission to a nursing home in London on payment of £2 10s. a week, the difference between that sum and the amount actually charged by the home being paid by the fund. The committee has now decided to extend the benefits of the scheme, as far as funds permit. It has been represented that ladies may not always find it convenient to go to London for treatment, and are thereby debarred, under existing rules, from obtaining any advantage from the fund. To meet such cases, and as a tentative measure, it has been decided to contribute a sum not exceeding £2 10s. a week to the expenses of those ladies who go into nursing homes in the British Isles outside London. Application for this assistance should be made to the Honorary Secretary of the London Committee, whose address is 21, Neville Street, Onslow Gardens, London, S.W., and must in every case be supported by a copy of the bill. The decision of the London Committee as to the amount of assistance given, being dependent on the founds available, will be final. Another innovation is the adoption of the system of regimental subscriptions at reduced rates. It has been decided that a regiment may subscribe for the wives of its officers at the rate of Rs.20 for three ladies, Rs.40 for six, and so on. Each subscriber under this rule will secure for his family the benefits of the fund for a calendar year from the date of subscription, whether he remains with his regiment or is transferred to any other form of employment. The fund was always open to regimental chaplains of the Church of Scotland serving with units in India, and has now been extended to all chaplains of the ecclesiastical establishments shown in the Indian Army List and to officers of the Royal Indian Marine.

PILGRIM SANITATION.

The Government of India has seriously taken up the question of the sanitation of pilgrims. Colonel Robertson, I.M.S., Sanitary Commissioner with the Government of India, accompanied by a small committee, has completed a tour of places of pilgrimage in the United Provinces and Bihar and Orissa. He will visit similar places in Bombay in July, and from the Western Presidency he will proceed to Madras. In all the provinces he will be associated with special provincial committees. On completion of his visits to the various parts of India he will submit a report to Government.

Special Correspondence.

PARIS.

Treatment of Sleeping Sickness.—Facial Hyperaemia.—Ether Cleansing of the Peritoneum.

DRS. TANON AND DUPONT have given a brief sketch of their work, experimental and clinical, in the treatment of sleeping sickness, to the Medical Society of the Hospitals. They employed the new arsenical compounds of Mouneyrat, 1116 and 1151. The trypanosomes disappeared from the human blood in three hours after a dose of 0.001 gram per kilo body weight; in other words, a man weighing 65 kilos (143 lb.) would require 0.065 gram as a dose. After four doses the cure appeared to be complete in cases in which the nervous centres had not already been attacked. In experiments on mice, monkeys, rats, and kids complete destruction of the organisms was observed in all the phases, not only in the blood, but also in the lymphatic glands.

To the same society Drs. Jacob and Debat made a communication regarding the treatment of facial erythrosis by gymnastic exercises of the facial and cervical muscles. They found the method most useful in subacute and chronic skin diseases of the face and scalp and of value in the treatment of flushing of the face, whether physical, post-prandial, or from other nervous cause. The muscles controlling the movements of the scalp, forehead, ears, alae nasi, and the face in general should be made to contract regularly and rhythmically for five minutes several times daily.

At a recent meeting of the Surgical Society a communication was made by M. Tesmain regarding the favourable results obtained by cleansing the abdominal cavity in peritonitis with ether. M. Anvey reported a case of hernia with localized peritonitis in which he had cleaned the abdominal cavity with one litre of ether. The patient made an excellent recovery, and no signs of peritonitis occurred. M. Souligoux confirmed the excellent results obtained with ether in the cleansing of the abdomen in peritonitis.

Correspondence.

ACUTE MENTAL HOSPITALS AND PSYCHIATRIC CLINICS.

SIR,—In your leading article on psychiatry and the general hospitals, published in the JOURNAL for May 17th, you convey an impression in regard to the present mode of dealing with the insane in this country which, I think, so far as the modern asylums are concerned, is erroneous, and ought not to pass unchallenged. In several of the modern asylums in England we have hospitals for the treatment of acute insanity. Seventeen years ago I read a paper on the hospital treatment of the insane before the Psychiatric Section of the Association at the annual meeting at Carlisle, in which I advocated the institution of acute hospitals, in conjunction with the existing asylums, for the treatment of the insane, and I suggested the desirability of separating the acute recoverable cases in order to overcome "the indiscriminate herding together or massing of mad folks in huge barracks" which, I agree with you, "does not place them in a condition favourable to recovery." Fifteen years ago, on being appointed superintendent of the new asylum at Bexley, I was enabled to put my suggestions into operation; and we have at this asylum two acute hospitals, one for each sex, which are conducted on hospital lines, and in which the cases of acute insanity receive that individual study, care, and treatment which it is impossible to give in the large wards of a barrack asylum.

The staff in these hospitals is large, the proportion of nurses to patients being double that in the wards in the main building, and the patients receive the services of the most experienced of the medical staff. The hospitals are fully equipped, so that all the modern methods of treatment can be carried out. The bulk of the recoverable cases are treated to convalescence in these hospitals, and are discharged from the institution, never having been

associated with the general body of the patients except at the entertainments. Each acute hospital stands in its own grounds, surrounded by gardens with extensive lawns, with no restraining fences of any kind, so that that prison element of ordinary asylum life is entirely absent.

I should like to say in addition that we have a well-equipped laboratory for both clinical and original research.

The success attending these methods in this institution led to the provision of acute hospitals in the asylums of London, which have been since built at Horton and Long Grove, and the new asylum which is being projected, the plans of which are in an advanced state of preparation, will also be similarly provided. The principle has also been carried out in many of the new asylums which have been erected by other counties and boroughs in recent years.

I am absolutely in agreement with that portion of your article which advocates the formation of psychiatric clinics in this country on the lines of those at Munich, Leipzig, Berlin, Giessen, and the Johns Hopkins Hospital at Baltimore; but I am doubtful of their success in rate-supported institutions and with our present lunacy laws. Not all counties and boroughs could run psychiatric clinics in conjunction with their asylums, but it would be an easy matter for them to provide acute hospitals.

It is a great pity that these existing institutions, furnished with such abundant facilities for psychiatric study, should be situated so far from the teaching centres, which naturally militates against their working in direct co-operation with the medical schools; and by the same reason the institutions are deprived of the advantage and the stimulus which would result from closer association with the other specialized branches of medicine.—I am, etc.,

London County Asylum, Bexley, Kent, May 28th. T. E. KNOWLES STANSFIELD.

EVIDENCE FOR AND AGAINST TUBERCULIN.

SIR,—As a matter of courtesy I should like to reply to the questions put to me by Dr. J. W. Allan (May 24th, p. 1140), though I still think that the reasons why one series of cases cannot be employed as a control and left entirely to Nature are obvious. The function of a physician is to heal or, at all events, to endeavour to do so to the best of his ability. It is in order to be assisted as individuals that patients come to us, and I think we are not entitled, without our patient's consent, to abrogate our function of healing or potential healing even for such a desirable object as Dr. Allan has in view—the attainment of more precise knowledge as to the value of our therapeutic weapons. If the position were put clearly before the patient and his friends, and he consented to be used in this way for the benefit of the race, well and good. But would he consent? I suggest that in such circumstances the material for a control series would be lacking.

With regard to the real good which, I think, results in some cases from appropriate doses of tuberculin, I quite admit that my favourable impressions have been based mainly upon increased energy and capacity for work where work had previously been out of the question, on returning relish for food where appetite had been indifferent or bad, on a feeling of well-being and brightness where malaise and a certain degree of mental depression had been the rule, on stationary or increasing weight where weight was being lost prior to this form of treatment.

In a number of cases there was no doubt whatever as to the pulmonary lesion having become quiescent. But without the slightest desire to disparage the value of routine chest examinations, I cannot refrain from suggesting that a symptom-complex of this kind is generally of more value as an index of improvement than auscultatory or percussion phenomena in a condition where *restitutio ad integrum* is impossible. I may add that, in my experience, some patients who were immunized rapidly presented a striking improvement in appearance, especially as regards anaemia, and that in some of them I have been able to satisfy myself that Löwenstein's observation of increased phagocytosis in the sputum is correct.

I do not wish to engage in any controversy on the curability or otherwise of bovine tuberculosis, as I have no practical knowledge of the subject, but I should like to ask whether Dr. Shaw's facts do, as a matter of fact, "deal a staggering blow to the tuberculin propaganda"? Dr. Shaw himself asks: "Is it not a certainty that, if bovine tuberculosis could be cured by the use of tuberculin, its use for such purposes would be world-wide?"

If active immunity were as easily secured as passive immunity is in the case of diphtheria, for example, we might safely reply to Dr. Shaw's question in the affirmative. But it is well known that the elaboration of antibacterial substances in the blood in response to infection, or in response to the inoculation of bacterial vaccines, varies within wide limits in different individuals, and that the success of such a method of treatment depends largely upon a correct adaptation of dose to individual requirements.

It appears to me doubtful whether a cure (assuming tuberculin to be a cure) for tuberculous cattle which involved skilful manipulation of doses over a long period could justify itself commercially; and in this instance universal adoption of such therapy would be, I think, contingent solely upon commercial considerations.—I am, etc.,

J. STAVELY DICK,
Honorary Clinical Pathologist, Northern Hospital.
Manchester, May 26th.

INTRAVENOUS INJECTIONS OF IODOFORM IN PULMONARY TUBERCLE.

SIR,—In your issue of May 24th there is a report of the discussion at the Royal Academy of Medicine, Ireland, on this subject on April 4th.

As the introducer of this method, will you allow me to protest against Dr. J. B. Coleman confusing it with two other methods of which I know nothing, and condemning it—obviously without trial—along with these? I refer to the intramuscular injection of iodoform benzoyl chloride and the intravenous injection of half-grain doses of iodoform followed by tuberculin and vaccines.

Iodoform is of no use in pulmonary tuberculosis unless injected intravenously, and to condemn it because when injected intramuscularly along with another powerful body the results are unsatisfactory, or because it fails in association with tuberculin and vaccines, is curious. Dr. Coleman retailed the toxic properties of iodoform and the supposed dangers of intravenous injections. Has he ever had a personal experience of either? If so, it is strange that during all the years I have used it I have never met with them. Dr. Coleman objects to any one using any drug unless he is conversant with its chemistry and mode of action. Can he throw the smallest beam of light on the chemistry of tuberculin or vaccines further than that they are proteins whose molecules are very complex and of enormous weight relatively to a simple body like iodoform? To combine iodoform with tuberculin and vaccines in the treatment of phthisis and after failure to lay the whole blame on iodoform is really doing it too much honour.

Is there any higher court of appeal in medicine than the patients who recover by a particular treatment? But the iodoform treatment is not entirely wanting in laboratory support. Dr. C. H. Higgins, of the Biological Laboratory, Ottawa (Department of Agriculture, Canada), voluntarily wrote to me that he had inoculated rabbits intralaryngeally with virulent bovine tubercle, and after an interval of twelve days had treated them with intravenous injections of $\frac{1}{60}$ grain of iodoform for some weeks, and saved them—a result, to quote his own words, "unique in his laboratory experience." One was afterwards killed, and the necropsy showed wide tuberculous disease; sections were made and stained. No tubercle bacilli were found, and only fresh scar tissue.

That iodoform has toxic properties we all know, and so have nitroglycerine, strychnine, morphine, etc., in much smaller doses than iodoform, yet he surely does not condemn these! But the most serious indictment of Dr. Coleman's paper is that he grounds the whole of his attack on iodoform, and not on the ethereal solution, which is totally different. Iodoform is a very stable body, but the ethereal solution is very unstable, decomposing rapidly and liberating free nascent iodine under the influence of light in the presence of oxygen or moisture. Freshly prepared it is pale straw coloured, but if exposed to sunlight it becomes as dark as the liniment of iodine in a few minutes. In the *Transactions* of the Edinburgh

Medico-Chirurgical Society for 1905, and the *Glasgow Medical Journal* for 1911, a theory as to its possible behaviour in the body is in print, so no need to occupy space by recapitulation here.

I have injected myself with an ethereal solution of iodoform, and let others do it to me. Professor Mathew Hay of Aberdeen, at the hospital here, has seen me give intravenous injections, and deliberately inject some air along with them to demonstrate that a little air is an absolutely negligible affair. In point of fact, a considerable quantity causes no symptoms whatsoever. This disposes of one imaginary risk. I have never known embolism to occur, although I have given thousands of injections. Thrombosis does occur, but is due to the operator's want of dexterity, and is only of importance in so far as it blocks the vein and cuts off one of the channels for administering the treatment. I have never seen iodoform poisoning. If it occurs it is due to an error in the dose or in the frequency of repetition. If there is no truth in the iodoform method, it will soon die; if there is, it will survive till superseded by something easier and better.—I am, etc.,

Dunblane, N.B., May 28th. THOMAS W. DEWAR.

THE INTERNEURONIC SYNAPSE IN DISEASE.

SIR,—In thinking about hysteria in relation to possible synaptic disorder I did not overlook the fact that considerable analogy existed between the major symptoms (so-called) of that disease and epilepsy, which Dr. Yates points out, but the two affections are, I think, sufficiently (in the main) differentiated by their sex incidence.

We see hysterical evidences vastly more often amongst women than men, and feminine sensitiveness, address and intuition, rapidity of perception and jumping at conclusions, often wrong, would seem to indicate generally a very free synaptic conduction in that sex. The hysterical temperament and the major symptoms met with in hysteria are not one and the same thing; the latter are interesting phenomena occurring in individuals who possess abnormal nervous systems, and in my article I was referring more to this abnormal system than to the major symptoms.

Janet's theory, to which Dr. Yates refers, practically resolves itself into a solution of personality; to quote his words, this "tendency to the dissociation and emancipation of the systems of ideas and functions that constitute personality" might be explained by the abnormal, vague, and eccentric effects produced on the cortical centres which constitute such personality as a result of too diffuse and too intense stimulation, too little limitation to definite tracts, of given stimuli, producing a chaotic, indeterminate, and wholly abnormal ultimate consciousness. With regard to the major phenomena, it has to be recollected that relatively increased local synaptic resistance may of course result as a consequence of fright, etc., in an individual whose associative synapses generally presented abnormally little resistance to the passage of the impulse, and short-circuiting may shut out of association a large area.—I am, etc.,

County Asylum, Stafford, May 20th. B. HENRY SHAW.

THE FORM AND POSITION OF THE STOMACH.

SIR,—I quoted Dr. Barclay's expressions, "half-way down the stomach," "the lowest part of the organ," and "the middle of the body," from his writings in the *Medical Chronicle* and not from his letter of May 3rd. The source of the quotations was quite clear.

If Dr. Barclay cares to read again my papers published five years ago, he will find all the spasmodic contractions to which he has recently drawn attention already described there, and depicted in Cunningham's diagrams and my *x*-ray pictures. As I said in my last letter, I think Dr. Barclay and I agree as to the findings by *x* rays, but differ in our interpretation thereof. We agree that one of these contractions occurs frequently at the junction of the cardiac and pyloric portions. The collection of fibres so contracting I have called the "middle sphincter," for brevity's sake and for want of a better name. I repeat that it marks the beginning of the pyloric, tubular part of the stomach. Cunningham demonstrated the existence of a special bundle of fibres there. Dr. Barclay agrees with me that contraction occurs more frequently in this region than elsewhere, and I consider it of so much importance surgically that I think it deserves a special name, and if Dr. Barclay can suggest a better one I am quite ready to adopt it.

Add to this Dr. Barclay's admission in his last letter that my theory "would be a satisfactory explanation" of well-known clinical phenomena "but for the fact that no middle sphincter can be found." Cunningham showed the presence of the fibres anatomically; Dr. Barclay's skiagrams show them in action; and I have seen them in action on the screen, in skiagrams, on the operating table, under the use of general anaesthesia, and, still more markedly, under local anaesthesia of the abdominal wall, and the evidence of their presence in the *post-mortem* room. What further confirmation can reasonably be asked?

I should like to remark that all Dr. Barclay's statements in paragraph 3 of his last letter bring evidence against his theory that the stomach becomes mechanically canalized by the effect of gravity when food enters it. It is impossible to believe that all the striking changes in the organ which are mentioned by Dr. Barclay can be explained by his "gravity theory" alone! The muscular fibres of the stomach are there for a definite purpose. How can gravity act in four-footed animals or in human beings who are compelled to lie flat on their backs, often with the pelvis higher than the shoulders, for weeks or months on end, and yet the stomach discharges its functions perfectly well?

Dr. Barclay has not yet answered my question as to discrepancies between the interpretations of various radiographers regarding the position of the pylorus. Innuendo as to my powers of observation or knowledge of surface markings neither elevates the discussion (nor the umbilicus) nor supports his arguments.

Dr. Barclay's attempt to reconcile Dr. Jordan's interpretations with his own entirely fails. Dr. Barclay locates the pylorus opposite the second lumbar vertebra. Dr. Jordan places it "behind the umbilicus." While it is universally admitted that the umbilicus is not a fixed point, it is left for radiographers to suggest that it may reach as high as the second lumbar vertebra!—I am, etc.,

Aberdeen, June 2nd. H. M. W. GRAY.

SYPHILIS AND CANCER OF THE TONGUE.

SIR,—I regret that Dr. Leitch should find that he is unable to accept my offer to exchange serums for comparison in investigating the relative proportion of cases of cancer of the tongue in which a positive Wassermann reaction has been obtained.

The antisyphilitic treatment to which Dr. Leitch refers frequently solely consists in the administration of potassium iodide; and since this drug is useful in clearing up other morbid exudates, a temporary improvement in cases of cancer of the tongue by no means indicates a syphilitic basis.

No argument of any validity has been advanced to controvert my original observation—for example, that in tertiary syphilitic lesions of tongue, mouth, or pharynx a very strong positive Wassermann reaction is usually present. Why, then, in cases of cancer in these situations, with a lesion of much greater magnitude, is there not associated at least an equally strong reaction if syphilis plays such an active part as Mr. Ryall would have us believe? It is most unusual in cancer cases to get a strong positive Wassermann reaction even if one suspects a history of syphilis.

In this connexion a remark on the topographical distribution of cancer obtained from Dr. Powell White's recent work on *Tumours* is of interest:

> We find that there are marked differences in the incidence in the different districts. For example, in England and Wales the great centres of industry, such as Monmouthshire, South Wales, Durham, and Lancashire, have a low cancer mortality; while in the more rural districts, such as Huntingdonshire, Cambridgeshire, and North Wales, the incidence is higher.

Perhaps Mr. Ryall would have us believe that syphilis, too, is correspondingly more marked in rural districts than in towns, for it is useless trying to explain the

etiology of cancer of the tongue apart from cancer of pharynx, lip, uterus, or indeed any other organ.

I am content, however, for the present merely to draw attention to the rarity of a strongly positive Wassermann reaction in such cases.

I keenly regret Dr. Leitch's inability to accept my offer for another reason. I believe the above conclusion to be of interest in the ultimate serum diagnosis of cancer. I freely admit that there is one possible source of error—and it is this which renders the whole question worth investigating—that there is in conjunction with cancer a condition in the serum which tends to neutralize a positive Wassermann reaction which otherwise would be manifest. It is this latter point which I wished to draw out in opening this discussion. Dr. Leitch will, I think, ultimately regret his "5 out of 7."—I am, etc.,

Manchester, May 29th. ARNOLD RENSHAW.

PSEUDO-FRACTURES OF TRANSVERSE PROCESSES.

SIR,—I am much interested in Dr. Rhys's communication (p. 1103) relating to pseudo-fractures of the lumbar transverse processes. True fractures are sometimes met with, and may be the cause of severe and persistent pain in the lumbar region; it is doubtful if they are diagnosed clinically. The usual history is a fall from a scaffold or down the hold of a ship. A few weeks ago I found all the right lumbar transverse processes except the first broken and displaced, one of them quite a finger-breadth from the body to which it belonged.

The importance of these fractures is considerable from the medico-legal point of view, and given a case of persistent pain in the back after a fall or other injury in that region, a careful *x*-ray examination should always be carried out. It may save an honest man from a charge of malingering.

In the course of examining some hundreds of plates made of the lumbar region with a view of determining the presence or otherwise of urinary calculus, I have as a matter of interest paid attention to the many vagaries of Nature in her construction of the twelfth rib. I never feel sure whether she is engaged in some deep scheme of evolution for the benefit of posterity, or whether it is that she does not consider this structure worthy of any serious consideration. I do not think that two of these are ever found to be exactly the same, not even in the same patient. The difference may be small, or it may be only in the angle it makes with the spine, but there is always a difference. I need hardly say that only those plates made with the *x*-ray tube over the middle line are taken into consideration. In one case they were so short as to correspond almost exactly with the appearances shown in Dr. Rhys's paper (Fig. 2). By counting up from below I was satisfied that it was the twelfth dorsal vertebra. I have by me a plate that shows the same thing, but this time it is without doubt the first lumbar vertebra.

With regard to the appearances at the gap separating the outer portion of the process, the clear space bordered by a layer of very compact bone tissue so nearly resembles an articulation, that I have taken the view that these are really rudimentary ribs. The idea of incomplete ossification had not occurred to me, but I cannot help thinking that the appearances in my cases are rather against this view.

Referring again to Fig. 2 of Dr. Rhys's paper, I note that the two sides have been drawn differently. In my cases it has always been as shown on the left of the drawing. The process on the right side would more nearly correspond to my idea of incomplete ossification, but I have never seen this. It would be highly interesting and instructive if other radiologists would give us their views on this question. We have unique opportunities for illuminating many doubtful points in more senses than one.

Hand in hand with this morphological question we may note a similar apparent lack of decision in the structures near the opposite end of the dorsal vertebrae, though in a slightly different way. The first rib is perhaps too important a structure to be trifled with, but not so the seventh cervical vertebra. My only reason for introducing this is to raise the question as to what constitutes a cervical rib. The true rib is occasionally found, but not nearly so often as what I prefer to call an elongated transverse process. Both may give rise to similar symptoms, and many medical men class them all under the term "cervical rib." It is not unlikely that many cases of true cervical rib never come under observation, since with the absence of rigidity pressure effects are trifling or entirely absent. This may account for the fact that by far the larger number of cases sent for *x*-ray examination have one or both transverse processes elongated. These are sometimes called "false" cervical ribs, but surely we can find a better term than one that merely tells us what they are *not*.

Thanks to radiography this condition is much more frequently detected now than ever before, and knowledge of the condition has greatly increased in consequence.

This matter of abnormal ribs near both ends of the dorsal vertebrae would make an excellent subject for a thesis, and I hope some one who has the time will deal with it.—I am, etc.,

London, W., May 26th. REGINALD MORTON.

EXISTING UNSATISFACTORY CONDITION OF THE SCHOOL MEDICAL SERVICE.

SIR,—The opinions expressed by your correspondents, coupled with numerous private letters received in connexion with my communication to your columns of May 11th, leave no doubt that the school medical service of this country is in a very precarious condition. Both Dr. Graham and Dr. Turner bear testimony to the widespread discontent existing among members of this service, and as the one bases his opinion on a large number of letters received in consequence of his communication to your columns, and the other on replies to a circular letter, the reliability of their views cannot be questioned.

The letters I have myself received all indicate the same feeling; indeed, two inform me that the senders are leaving the service—a step which it is to be feared will ultimately be followed by all its best members unless some hope is held out of improved conditions in the near future.

One cannot help thinking that it is important, as a preliminary step, to try and secure more union between school doctors; at present opportunities for exchange of views appear to be confined to the press, while very few seem to know each other personally. I should be glad if any members of the school medical service, whether school medical officers or school medical inspectors, who share this view would be good enough to communicate with me. I think the solution of this part of the problem should present no difficulty.—I am, etc.,

ROBERT HUGHES, M.B.Lond., etc.,
School Medical Officer, County Borough of Stoke-on-Trent.
Stoke-on-Trent, June 2nd.

SIR,—I have read Dr. Priestley's letter with great interest, and I do not think the case could be put better. My object in writing is to express my whole-hearted agreement with his expressed opinions.

No one now doubts the onerous, exacting, and responsible duties of a school medical inspector. Frequently he possesses high degrees and has held house appointments, both at his own hospital and subsequently at special hospitals. He is often expected to do eye work and prescribe glasses. The pay may be £250 a year, and any opportunity to increase his income is firmly forbidden.

Presumably the advice of the school medical inspector is of value; if not, the inspection is useless. By means of Care Committees, nurses, etc., the parents are persuaded to act on the medical inspector's advice. If his advice be faulty the parents, who can ill afford it, pay a fee for nothing.

In this county the tuberculosis officer receives £500 a year; the school medical officer, who was in office years before the tuberculosis officer, receives £400. The reason for this difference in emolument is that the salary of the tuberculosis officer is provided partly or wholly out of Treasury funds. The school medical officer is maintained out of the rates.

School medical inspection was imposed upon local authorities at a time when their cup of bitterness was full, and the school medical service was not welcomed. It never will be welcomed till the cost is provided out of

Treasury funds. A man pays his Imperial taxes in sorrow, his rates in anger.

Not only is there no prospect for the school medical officers, but there is no security of tenure for their present positions. An adverse letter from the Board of Education may at any time displease the local authority, and as they cannot visit their displeasure upon the officials of the Board of Education, they make their own school medical officials suffer accordingly. This is not a fanciful supposition: it has actually happened.—I am, etc.,

Trowbridge, Wilts, May 27th. R. H. BREMRIDGE.

TUBERCULOSIS OFFICERS.

SIR,—Dr. Wilson has flattered Dr. Graham and myself by saying he appreciates our "good intentions!" He objects to Dr. Graham's statement that we (tuberculosis officers) are "a junior branch of the public health service." By date of formation and range of salary we are at present a junior service, but this is a painful subject, and I will leave it to Dr. Graham.

He next objects to my statements that we "look forward to entering the main branch of the public health service," or that "the ranks of medical officers of health will be recruited from "tuberculosis officers." My full statement was: "The ranks of the medical officers of health in the future must be recruited from school medical officers, superintendents of infectious hospitals, and tuberculosis officers, and most of these officers look forward to entering the main branch of the public health service." He sums up his own views that to "suggest" the tuberculosis officer "is a stepping stone to the post of medical officer of health is an error, and creates the idea of a hybrid service. . . ."

In making this statement Dr. Wilson has brought in his own views as to the correct status and qualifications of a tuberculosis officer. They may be right or wrong, but they cannot alter the fact that there are tuberculosis officers who regard their present post as a stepping stone to the post of medical officer of health, and that many tuberculosis officers are of the "hybrid" variety. As I write I recollect two such tuberculosis officers who happen to be personal friends of mine. As a matter of fact there are several kinds of tuberculosis officer in existence. There is a city in Lancashire which has five tuberculosis officers. The chief tuberculosis officer is the medical officer of health. The detailed administrative work devolves on an acting chief tuberculosis officer, who also is a junior assistant medical officer of health. The other three assistant tuberculosis officers are clinicians. There are thus two "hybrid" and three pure tuberculosis officers in this city. Further, in populous counties the senior tuberculosis officer is very largely engaged in administrative work, and tends to become more or less of a "hybrid."

But I wish to urge that every tuberculosis officer, pure or otherwise, should actively support every effort for his inclusion in the Medical Officers of Health Superannuation Bill. This should especially appeal to Dr. Wilson, because if a tuberculosis officer is a real "hybrid"—that is, a part-time medical officer of health—he is included in the bill, but if a really pure tuberculosis officer like Dr. Wilson, he is left outside.—I am, etc.,

Preston, June 1st. G. LISSANT COX.

The Services.

INDIAN MEDICAL SERVICE OFFICERS IN EDINBURGH.

THE annual dinner of the officers of the Indian Medical Service, retired or on the active list, took place in Edinburgh, in the Caledonian United Service Club, on Friday, May 30th. Sir Alexander Christison, Bart., was in the chair, and it was noted that there were some present whose service went back as far as the second Burmese war (1851). Among those who sat down were Surgeon-Generals Turnball, Hay, and Sinclair, C.S.I.; Colonel Sir Joseph Fayrer, Bart., M.D., the superintendent of the Royal Infirmary; Brigade-Surgeon-Lieutenant-Colonel James Arnott, formerly professor of midwifery in Bombay; Colonel Cadell, of Bengal; and others.

The name of Deputy Surgeon-General W. Eames was omitted from the list of those present at the annual dinner of the Royal Navy Medical Club, published on May 31st, p. 1190.

Medico-Legal.

INTERPRETATION OF AN AGREEMENT.

Eastes v. Russ.

IN the Chancery Division, on May 27th, Mr. Justice Sargant delivered judgement in an action between two medical men, each of whom conducts a clinical research laboratory in London. The point at issue was whether the defendant, by establishing his laboratory, had committed a breach of his agreement with the plaintiff, and Mr. Justice Sargant held that this was not the case.

The general facts were as follows: The defendant entered the service of the plaintiff in December, 1905, and left it in October, 1912. His duties were to act as one of the two qualified assistants of the plaintiff in the conduct of a clinical research laboratory, the ordinary hours of work daily being from 9 a.m. to 6 p.m. He signed no formal contract of service, but before being engaged was given a copy of a statement setting forth the nature of the work and conditions on which it was to be performed, and the salary to be paid and other like matters. The final paragraph stated that acceptance of the post would be taken as an agreement on the part of the candidate to all the foregoing conditions and as constituting a binding agreement between the two parties. The defendant was given a copy of this statement, and eventually accepted the post.

After holding it to the satisfaction of his principal for several years, as already indicated, he vacated it by common consent, and then opened in London a corresponding laboratory of his own. When doing so he did not endeavour, by circulars or otherwise, to obtain work from clients of his old principal, but nevertheless the latter held that by opening a clinical research laboratory at all in London the defendant had committed a breach of his agreement. One of the paragraphs in the statement mentioned said that the candidate selected would be required to enter into a bond not to engage in similar work within a distance of ten miles of this laboratory, either by himself or on the part of any institution of like character, under a penalty of £250; while part of another paragraph bound the holder of the post to co-operate in securing harmonious working of the laboratories.

On these facts the plaintiff asked for an injunction restraining the defendant from continuing to maintain the laboratory opened by him. The arguments put forward were to the following effect: The paragraph mentioned obviously referred not to the time during which the defendant was employed by the plaintiff, but to afterwards. It could not refer to the former, because the post held by the defendant was a whole-time post, the tenant of which could not possibly do the work covered by the condition. This was rendered clearer by the paragraph as to the tenant of the post being obliged to endeavour to promote harmonious working; there could be no harmonious working if the tenant were engaged in competitive work elsewhere. There was nothing in law to render invalid an agreement not to practise within a given limit during the whole period of life, and the condition was not more stringent or further reaching than was required for the reasonable protection of the plaintiff. Many of his clients resided at places outside a ten-mile limit, so the clause was not rendered unenforceable by undue stringency.

The reply put forward on the part of the defendant was to the effect that as a matter of fact he had read this condition as applying only to the time that he was actually employed by the plaintiff and not to any later period, and that that was the correct interpretation of the paragraph. Even if the contrary were the case, the wording of the paragraph was so ambiguous that the court ought not to hold that there had ever been any true consensus between the parties and therefore any enforceable agreement on the point. The argument that the condition could not possibly relate to the time during which the defendant was in the employ of the plaintiff because it was a whole-time post was not sustenable, because, as a matter of fact, during the whole of his service the defendant was doing other work as well. It was true that this was private research work and did not bring him remuneration, but the time occupied by it might have been employed by him in competitive work but for his interpretation of the existence of the paragraph in question.

Mr. Justice Sargant, after reviewing the facts of the case and the arguments on either side, held that he ought not to issue the injunction sought. It seemed to him that the natural interpretation of the disputed paragraph was that the condition laid down by it was coextensive with the defendant's employment by the plaintiff, and did not apply after its termination. Such interpretation was all the more natural, because every other paragraph related to that time, and there was nothing to differentiate the paragraph in this particular from the rest. He agreed that by his decision the plaintiff would suffer a certain degree of hardship. On the other hand, it would be monstrous that a man should be deprived for the whole of his career from carrying on work which had been the principal work of his life, unless that obligation had been put before him in definite and clear terms. It would be a terrible conclusion if the defendant, having accepted the terms as they were put before him by the plaintiff, and finding nothing whatever in them to indicate in any way that he was fettering himself from carrying on his life's work after the termination of his employment with the plaintiff, found that in fact, by a difficult and elaborate construction of the agreement, words were introduced into a paragraph which made that paragraph apply not merely, like the

other paragraphs, to the time during which the defendant was working for the plaintiff, but to the whole of the rest of his life. Hence the action would be dismissed with costs.

In the course of his judgement Mr. Justice Sargant expressed the opinion that the case had been very fairly fought by both sides.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.B.—E. Calvert, J. B. Pulling.
B.C.—F. S. Bedale.

UNIVERSITY OF LONDON.

THE following candidates have been approved at the examination indicated:

THIRD M.B.—‖F. E. Daunt, ‖P. V. Early, *§A. Goodwin, †‡A. L. Moreton (University Medal), *D. E. Morley, †W. L. Webb, E. Bach, Helen P. Barnes, A. B. Cardew, J. H. Cobb, H. S. Colson, G. Covell, L. G. Crossmann, G. R. Dobrashian, J. A. Edmond, A. R. Elliott, A. L. Fitzmaurice, F. R. Fletcher, G. T. Foster-Smith, C. R. Harrison, R. F. Hebbert, R. G. Hill, H. W. Hills, R. L. Horton, Charlotte G. Judge, S. Keith, F. H. Kelly, C. D. Killpack, J. D. Lyle, G. F. Lynch, G. S. Miller, P. J. Montgomery, Edith M. N. Moss, W. D. Owen, G. H. Pearson, H. R. Prentice, G. F. Rigden, W. Robinson, J. A. Ryle, W. Salisbury, F. Sanders, W. B. Sanders, A. R. Sharrod, A. J. E. Smith, Margaret E. E. Smith, W. H. D. Smith, W. C. Spackman, Mary A. van Ingen, E. W. Wade, J. R. M. Whigham, N. T. Whitehead, T. D. Williams, A. Wilson, W. W. Wood.

* Distinguished in Medicine.
† Distinguished in Pathology.
‡ Distinguished in Surgery.
‖ Distinguished in Midwifery and Diseases of Women.
§ Obtained the number of marks qualifying for the University Medal.

Group I only.—H. Davies, S. F. Dudley, C. E. A. Goddard, P. H. Henson, M. Hocken, S. G. Papadopoulos, H. C. Rook, E. A. Tozer, V. D. C. Wakeford, H. B. Walker.

Group II only.—R. Croasy, Henrietta F. Davies, J. P. Davies, R. D. Davy, W. H. Jones, W. J. T. Kimber, P. S. B. Langton, Margaret J. McEnery, L. A. Martin, G. Matthews, L. N. Reece, A. D. Rope, D. Ross, E. W. Whiting.

UNIVERSITY OF MANCHESTER.

RESIGNATION OF THE VICE-CHANCELLOR.

THE annual meeting of the Court of the University of Manchester was held on May 28th, the Chancellor, Lord Morley, presiding.

ANNUAL REPORT.

The Vice-Chancellor in presenting his annual report drew special attention to the fact that the number of students remained about steady. The actual increase on the year was three, but progress was indicated because the number of those who had taken honours and the full courses was larger than formerly. There had been a perceptible growth in the number of medical students. For some time there had been some anxiety on this point, but the arrangements made for medical education were now well recognized, and the number of students was increasing. The decision to admit women to the medical courses had proved successful, and the facilities now offered to women students were second to none in the kingdom. In the faculty of technology there had also been an increase, and he was satisfied that the arrangements made between the university and the School of Technology would be immensely helpful to both. With regard to the question of the superannuation of the teaching staff, the Board of Education had received most sympathetically the suggestions made by the university, and the Vice-Chancellor hoped that within the next few weeks an excellent scheme would be adopted which would allow of much elasticity to each university.

Number of Students.

The report showed that the number of students during the past session was as follows: All faculties, except medicine and technology, including 320 women students, 1,092. Faculty of Medicine, including 32 women students, 372. Faculty of Technology, including 2 women students, 246. This is a total of 1,710, or, allowing for 47 who have entered in both science and medicine, 1,653. In addition there are 201 persons attending evening classes, about 200 attending lectures on railway economics, and about 209 in courses in law and economics at the Bankers' Institute. In the Faculty of Medicine 134 were working for the degree examinations, 7 for the University of London, 10 for other universities, 2 for the F.R.C.S., 29 for the English Conjoint examination, 3 for the Scottish Triple qualification, 3 for the diploma in Psychological Medicine, 3 for the degree in Dentistry, 48 for the diploma in Dentistry of the Manchester University, and 15 for the diploma in Dentistry of the Royal Colleges of Surgeons and Physicians. Also 41 were working in special departments, namely, Medical, 5; Pharmaceutical, 5; and Public Health, 31.

Appointments in the Faculty of Medicine.

The report noted that A. Donald, M.D., M.R.C.P., had been appointed Professor of Gynaecology and Obstetrics, in succession to the late Sir William Sinclair, and W. K. Walls, M.B., Lecturer in Clinical Obstetrics and Gynaecology; A. E. Boycott, B.Sc., M.A., M.D., of Guy's Hospital, had been appointed Professor of Pathology, in succession to Professor Lorrain Smith, who had resigned on being appointed Professor of Pathology in the University of Edinburgh; Dr. E. S. Reynolds had been appointed Professor of Clinical Medicine, in succession to Dr. Judson Bury, whose professorship ceased on his retirement from the staff of the Manchester Royal Infirmary. Dr. William Sellers, Coroner for Salford, had been appointed Professor of Forensic Medicine, in succession to the late Dr. Dixon Mann; Dr. C. P. Lapage had succeeded Dr. Hutton as Lecturer in Diseases of Children, and Dr. G. H. Lancashire had succeeded Dr. Brooke as Lecturer in Skin Diseases.

HONORARY DEGREES.

The Court approved of the conferment of the following honorary degrees: LL.D., Mr. Jesse Haworth; Litt.D., Mr. T. E. Page and Mr. M. E. Sadler; M.Sc., Mr. R. W. Williamson. The conferment of the degree of D.Sc. on Professor Perkin for special distinction in chemical research was endorsed.

PROPOSED DIPLOMA IN OPHTHALMOLOGY.

Professor Elliot Smith moved the adoption of an ordinance instituting a diploma in ophthalmology. Dr. F. Shaw drew attention to the resolution recently passed by convocation in opposition to the ordinance; it was felt, he said, that it was not desirable, after a course of only six months, to confer a diploma which might give the public an erroneous idea of the amount of knowledge and experience of the holders. This was the first time a diploma had been proposed for a clinical subject, and if it were passed, the court could not logically refuse to give diplomas in all other clinical subjects. He moved, as an amendment, that the proposal be referred back. This was seconded by Mr. C. T. Needham, M.P., and carried.

RESIGNATION OF THE VICE-CHANCELLOR.

Sir Alfred Hopkinson then asked permission to withdraw while the court considered the letter which he had sent to the Chancellor, in which he begged to resign his position as Vice-Chancellor.

The Chancellor then read the letter, which stated that, having been engaged for over fifteen years continuously in the work of the university, Sir Alfred Hopkinson felt that the time had come when he should resign. He did so not for reasons of health nor from any desire to retire from active life, but simply because he believed that there was a period in the history of an institution when change was desirable and when a new administrative head might bring in fresh vigour and exercise a stronger influence than one who had held office so long as he had. While certain questions were pending, such as the position of the university with regard to Government grants and its relations to the Board of Education, it was impossible for him to take this step, but most of these questions were now settled, and the relations between the university and the city, county, and local authorities were of the most friendly character. During his tenure of office new buildings had been erected at a cost of £190,000, exclusive of the Whitworth Hall, for which Mr. Christie had provided, and all this sum of money, with the exception of a few hundreds, had been actually paid. No debts had been accumulated, and for some years the annual expenditure had not exceeded the income. The special problems that presented themselves at the time of his appointment and the reorganization of the university had now been dealt with, and he thought the moment now opportune for putting into new hands the new development work which the university would undertake. In conclusion, he thanked the Court for the kindness and generous support it had given him ever since his appointment.

After reading the letter, Lord Morley expressed his personal feeling of regret at the decision of Sir Alfred Hopkinson and the gratitude of the Court for the fidelity with which he had discharged his duties. Sir F. Forbes Adam then moved the following resolution:

> The Court has heard with regret the intimation of the resignation of the Vice-Chancellor, and begs to express the earnest hope that in the interests of the university he will see his way to reconsider it.

This was seconded by Professor Weiss and supported by Sir William Mather and Lord Morley, and adopted unanimously with applause.

At a meeting of the Council on June 4th, however, it was announced that a letter had been received from Sir A. Hopkinson stating that he must adhere to his resolution, and desired to retire not later than October next. He will, however, retain the Christie Chair of Law in the university.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

SURGERY.—*‡E. L. Jones, †E. M. Morris, *T. B. Paul, *C. G. Waddington.
MEDICINE.—*‡S. H. Andrews, *P. R. Cross, †A. C. Dickson, †T. H. W. Idris, *†E. L. Jones, *†W. R. Sadler.
FORENSIC MEDICINE.—S. H. Andrews, P. R. Cross, E. L. Jones, A. Y. Massey, W. R. Sadler.
MIDWIFERY.—D. T. Corke, W. H. Edmunds, E. L. Jones.

* Section I. † Section II.

The Diploma of the Society has been granted to Messrs. A. C. Dickson, W. H. Edmunds, E. L. Jones, and E. M. Morris.

Obituary.

THE death took place on May 16th of Dr. JAMES WILLETT, of Stockton Heath, a medical man who at the time of his death was one of the few Lancashire survivors of the old-fashioned type of country doctor. Dr. Willett, who became L.S.A. in 1857 and M.R.C.S. in 1862, was born and bred in the neighbourhood in which he practised, and was at one time medical officer of health for the area. He had given up practice for a good many years, but his personal qualities were such that he retained the trust and affection of his neighbours despite this fact and his advancing years. Until lately he was a member of the Warrington and Widnes Division of the British Medical Association, and the large gathering which attended his funeral on May 21st included a deputation from this body, as well as other members of the medical profession.

LIEUTENANT-COLONEL RICHARD CRAIG, late R.A.M.C., who died on May 5th, at the age of 67, was the son of the late Richard Craig of the Bank of Ireland. He took the diplomas of L.R.C.P. and L.R.C.S.Irel. in 1866, entered the service in March, 1868; was promoted to surgeon in March, 1873; and surgeon-major in 1880, retiring in January, 1892, with the rank of lieutenant-colonel. He served as senior medical officer of the Third Brigade with the Burmese expedition of 1886–83, and was awarded the medal with two clasps.

Public Health
AND
POOR LAW MEDICAL SERVICES.

BURNLEY GUARDIANS AND THEIR MEDICAL APPOINTMENTS.

THE position in the Burnley district has been from time to time recorded. The medical officers of the Burnley Union, acting on the advice of the Burnley Division of the Association, and after many attempts at negotiation with the Burnley Guardians, resigned their appointments some months ago as a protest against the salaries paid by the guardians. The Division had satisfied itself that these salaries were considerably less than those paid for similar work in many other unions. The guardians, after a long delay, during which the patients under their charge were attended as private patients by local doctors, succeeded in inducing the Local Government Board to sanction a plan for the redistribution of the appointments, at salaries which, though an improvement on the old scale, were yet considered by the Division to be below the standard set by other unions. The new proposals were vitiated also by the fact that the appointments were combined with those of the public vaccinators in a way which, while apparently raising the salary of the Poor Law medical officer, did so by lowering the real remuneration of the public vaccinator, a thoroughly bad system which has long been condemned by the Association, whose disapproval has been endorsed, in an academic way, by the Local Government Board and emphatically by the Royal Commission on the Poor Law. We regret to find, according to a report in the *Burnley Express* of May 31st, that three practitioners have been induced to make application for the fifteen appointments advertised. These gentlemen were appointed, and their applications led the guardians to express the hope, which we trust will be falsified, that other applications would follow. It is a matter of great difficulty to get any considerable number of the members of any calling to act together in a matter of this kind, but it was believed that the loyal way in which the local profession had stood by the former holders of the posts, and had declined to be cajoled into accepting the largely illusory improvements made by the guardians, would have received unanimous support when the crucial moment arrived.

The gentlemen who have been appointed no doubt thoroughly counted the cost before they applied for office, and came to the conclusion that the salary offered was, so far as they were concerned, adequate. As to that they are naturally the best judges. They are, of course, aware of the effect their action has produced, not only on the guardians who have accepted their services, but on their relations with their colleagues. In spite of this breach in the solidarity of the profession, we venture to express the hope that applications for the remaining twelve appointments will not be made. We do so not merely for the sake of again endorsing the spirited action taken by the Burnley Division, but because it has long been common knowledge that the remuneration offered for posts of this kind is in many cases far below what it should be, and such a depreciation of payment can only lead eventually to the lowering of the standard of service given, which is a bad thing for the profession and the public generally, and for the pauper patients in particular.

Medical News.

THE annual dinner of the Medico-Legal Society will be held at the Holborn Restaurant on Monday, June 23rd, at 7.30 p.m.

SIR DAVID GILL, for many years His Majesty's astronomer at the Cape of Good Hope, and President of the Research Defence Society, has been made a Commander of the Legion of Honour by the President of the French Republic.

THE University of Oxford has conferred the degree of D.Litt. honoris causa on Dr. John Wickham Legg. Dr. Legg, who was for some years assistant physician to St. Bartholomew's Hospital, is a recognized authority on liturgical literature.

THE Cavendish Lecture before the West London Medico-Chirurgical Society will be delivered by Sir Berkeley G. A. Moynihan, of Leeds, in the Town Hall, Kensington, on Friday, June 27th, at 8.15 p.m., the subject being the surgery of the large intestine.

AT the meeting of the Royal Society, on Thursday next, papers by Drs. Blacklock and Yorke on the trypanosomes causing dourine, and by J. G. and D. Thomson on the growth and sporulation of the benign and malignant tertian malarial parasites in the culture tube and in the human host will be read.

THE usual breakfast will be given by the National Temperance League at the annual meetings of the British Medical Association at Brighton. The President-elect, Dr. William Ainslie Hollis, M.A., F.R.C.P., has consented to preside, and Dr. Mary Scharlieb to speak after the breakfast, which will take place in the Banqueting Hall of the Royal Pavilion, on Thursday, July 24th.

MR. LITTLEWOOD, who, as already reported, has resigned his position as senior surgeon to the Leeds Infirmary to retire to the country, was recently entertained at a complimentary dinner by medical men in Yorkshire. The dinner took place at Leeds under the presidency of Mr. Pridgin Teale, and the toast of Mr. Littlewood's health was proposed by Dr. J. E. Eddison. The following evening Mr. Littlewood was entertained by the students of the medical school and presented with a silver cigar case.

WITH reference to a paragraph in the JOURNAL of May 17th, p. 1080, stating that a new medical building of the skyscraper order of architecture is in course of erection in New York, Dr. Charles Forsyth, of Hong Kong, writes that all the British doctors in Hong Kong have their consulting-rooms in the same building, which, though large, is not a skyscraper. The idea of a building let out to medical practitioners is, of course, not a new one. There are, we believe, several such buildings in the large cities in the United States, one or two of them at least having been erected fifteen or twenty years ago.

ON Wednesday, June 11th, the Anglo-German Exhibition will be opened at the Crystal Palace by the Lord Mayor of London. The exhibition, among a large variety of machinery, apparatus, industrial products, painting and sculpture, printing and so forth, includes sections of food supplies and education. There will also be a naval and military section. Every effort has been made to make the exhibition attractive as well as instructive by means of side shows and international athletic and gymnastic competitions. The exhibition is intended to increase the friendliness of the relations between this country and Germany.

A DINNER for past and present students of the Central London Ophthalmic Hospital was held on May 21st, at the Café Royal, London. Mr. Ernest Clarke, senior surgeon of the hospital, who presided, proposed the toast of "The Hospital and its Medical School," and spoke of its growth and success during the past few years, also of the fine new building which had lately been opened in Judd Street. Mr. Mayou (the Dean), in reply to the toast of "The Medical School," pointed out that its prosperity in the new quarters which afforded such excellent teaching facilities now seemed assured. The Chairman proposed the toast of "The Visitors," which was responded to by Mr. Sydney Stephenson and Mr. Leslie Paton, both of whom expressed their admiration of the new hospital.

THE *Daily Express*, which recently opened a subscription list for the purpose of providing the London hospitals with radium, received £10,375, and this sum has been distributed as follows: To the Middlesex Hospital, £1,100; to St. Bartholomew's, Charing Cross, the London, King's College, and St. George's Hospitals, £1,000 each; to the Westminster, the Metropolitan, the Seamen's, the West London, the Great Northern Hospitals, University College Hospital, and the Cancer Hospital, Fulham Road, £500

each; to the Prince of Wales Hospital, £275; and to the Chelsea Hospital for Women and to St. John's Hospital for Diseases of the Skin, £250 each. Some of the larger donors earmarked their contributions for certain institutions, and in respect of the rest our contemporary was guided in its allocation by a committee which, among other points, took into consideration the proportion of patients suitable for radium treatment which each institution was likely to have. It is calculated that for the lowest sum allocated—namely, £250—about 15 mg. are procurable, and that this is an amount with which a good deal of useful work can be done. In fulfilment of a promise made by Lord Glenconner (the Lord High Commissioner for Scotland) to Sir Joseph Fayrer (the superintendent of the Edinburgh Royal Infirmary), when he was paying his official visit to that institution last week (*vide* p. 1185), the High Commissioner has now intimated a donation of £1,000 to be employed in the purchase of radium to be used in the infirmary.

THE promoters of the National Health Exhibition, which was held at the Holland Park Skating Rink from May 16th to May 31st, have every reason to congratulate themselves upon the success of their attempt to interest the man in the street in the preservation of his own and his children's health. The exhibition, which was organized for the express purpose of instructing the lay public in the elements of domestic hygiene, was most attractively arranged; and even a cursory inspection of the exhibits could not fail to arouse the interest of the visitors in this important subject. Some extremely interesting exhibits were on view in the different sections, one of the most popular of which consisted of a number of incubators, each containing a living baby. Several stalls were given up to the display of dirt and germ destroying and labour-saving contrivances and unadulterated foodstuffs, whilst a series of pretty model rooms (including a charming nursery) gave a much-needed lesson in the art of furnishing a house according to the latest hygienic principles. Demonstrations in cooking were given daily at frequent intervals, and a variety of competitions were held in different subjects, for which gold, silver, and bronze medals and diplomas to the value of £100 were awarded.

AT the annual meeting of the Glasgow University Club, London, on May 30th, it was resolved to hold this meeting in future before the autumn dinner instead of before the spring dinner, thus enabling complete accounts for the expired club year to be furnished. The accounts presented included a donation of fifty guineas to the Glasgow University Athletic Club, but nevertheless showed a balance in hand of over £70. A donation of ten guineas to the Lister Memorial Fund was approved, the sum being earmarked for a memorial in Glasgow itself. Mr. W. Craig Henderson, M.A., D.Sc., having resigned office as one of the honorary secretaries of the club after seven years' service, was awarded a vote of thanks and elected a vice-president. As president Lord Rosebery was re-elected for a further year, and Drs. D. S. Roxburgh and Andrew Wiley were appointed honorary secretary and honorary treasurer respectively. At the dinner which followed the same evening the chair was taken by Mr. Birrell, who, in addition to many other things, is the present Lord Rector of the university. After speaking of the newer universities, he said that, after all, there must be some preference shown towards those which, like Glasgow, dated back to pre-Reformation times. It was a pleasure to think of their long centuries of use, and there was something fascinating in studying their history. The toast to the Chairman was proposed by Surgeon-General Babtie, V.C., C.B., and that to the guests acknowledged by Dr. George Ogilvie. The dinner was well attended, and in the course of the evening it was mentioned that the club now numbers 357 members.

THE members of the Aberdeen University Club, London, held their half-yearly dinner on May 21st. Dr. W. J. R. Simpson, Professor of Hygiene in King's College, London, was the chairman. Among those present were: Surgeon-General Sir James Porter, Sir Henry Craik, M.P., Sir Robert Burnet, Sir James Mackenzie Davidson, Dr. James Taylor, Professor Ashley W. Mackintosh, Mr. James Cantlie, Sir William Ramsay, Dr. James Galloway, and Sir John Collie and Mr. W. Hall Barron (joint secretaries). The Chairman, in proposing "The University and the University Club," mentioned that he graduated thirty-seven years ago. The professors who impressed him most were Struthers, Pirie, and Brazier. He believed there never would have been a Sir Patrick Manson if it had not been for the zoology professor in Aberdeen. Sir Patrick Manson's monumental work on the development of filaria in the mosquito, and his deduction from this as to what occurred in the mosquito in malaria, had, with Sir Ronald Ross's discovery of the correctness of his deduction, established a new era in tropical medicine and sanitation. Manson's work ranked with that of Pasteur and Koch. He went on to say that he had been in many lands, and everywhere he had found Aberdeen graduates in prominent positions, except in West Africa where Scotsmen were scarce, for the reason, he had heard, that the pay was not enough for an Aberdonian. He believed that was being altered now. Professor Mackintosh proposed "The Guests," and Sir William Ramsay responded. Mr. Cantlie, in proposing the toast of "The Chairman," said that as Manson was the father of tropical medicine, Professor Simpson was the father of tropical hygiene. Professor Simpson feelingly expressed his thanks.

THE Imperial Services Exhibition at Earl's Court, which was opened by the Duke of Connaught on Saturday, May 31st, affords a good opportunity for the general public to gain some insight into the different phases of life in the British Navy and Army, and incidentally proves with what care the health and well-being of the sailor and soldier are now guarded, both in peace and in war. A life-size model of the after-part of H.M.S. *Lion* enables the visitor to realize the surroundings in which the officers and crew of a modern battle cruiser live; the sick bay, with its spotless cots and big bath, presents a very attractive appearance. Close by is a miniature wireless telegraphy station, from which it is possible to transmit messages to the other side of the grounds, where an entrenched camp, blockhouse, and armoured train show how an invading army endeavours to protect itself from sudden onslaught and night attacks. In the Red Cross enclosure is a field hospital and a fully equipped hospital train, with medical officer, orderly, and nurses in attendance, whilst a number of Major Richardson's sentry and ambulance dogs are on view close at hand. A very large number of valuable curios, pictures, and trophies, including a collection of antique weapons from the Tower of London, are to be seen in the different buildings in the grounds; whilst, later on, it is hoped that the relics of the Scott expedition will be deposited for a time in the Prince's Hall. To the majority of visitors, however, the principal feature of the exhibition will be the magnificent spectacle of naval and aërial warfare in the Empress Hall, in which may be seen the bombardment of a town by a British fleet, every vessel of which is a replica of one of a battleship or cruiser now in commission. This interesting exhibition, which is one of the most attractive held at Earl's Court of recent years, has been organized and carried out by naval and military experts under the auspices of the Admiralty and the War Office, and the money taken at the gates is to be used entirely for the benefit of the sailors and soldiers of the United Kingdom.

THE annual meeting of the Asylum Workers' Association was held at the house of the Medical Society of London, W., on May 28th, under the presidency of Sir John Jardine, K.C.I.E., M.P. The annual report, presented by the Honorary Secretary (Dr. G. E. Shuttleworth), showed some falling off of ordinary membership for 1912, which was attributed to an active trade union propaganda in asylums, but the finances continued sound, and much useful work had been carried on by the Central Executive Committee for the benefit of asylum staffs throughout the United Kingdom. Sir John Jardine, in moving the adoption of the report, referred to the bill he had recently reintroduced for extending the benefits of the Asylum Officers' Superannuation Act of 1909 so as to allow female officers and nurses to retire on pension after twenty-five years' service, independent of age, and men in charge of patients after the same period, if 50 years of age. Some concessions were also asked with regard to giving asylum committees power to award gratuities to the dependants of those dying in active service, and to those incapacitated for further service, though short of the pension age, by illnesses (for example, colitis), as well as by injuries, clearly attributable to asylum duties. Provision was also made for reckoning for pension service in Scottish parochial asylums, and for a wider definition of "established officer or servant," with power of appeal to the Lunacy Commissioners in cases of dispute. Sir John Jardine trusted that, considering the arduous lives of workers amongst the insane, these moderate demands would not be opposed by a Liberal Government. The adoption of the report was seconded by Dr. Campbell (of Larbert Asylum), supported by Dr. Drapes (of the Enniscorthy Asylum) and Dr. Stewart (late of Dunmurry), and unanimously agreed to. Sir John Jardine was reappointed President for the ensuing year, and the executive committee and officers were elected. A resolution in support of Sir John Jardine's Asylum Officers' Superannuation Amendment Bill was enthusiastically carried.

Letters, Notes, and Answers.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

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☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

SOL asks for advice in the treatment of a girl, aged 12, who is quite healthy, but whose face is covered with freckles, present even in the winter.

DR. F. WILLIAM COCK, F.S.A. (1, Porchester Houses, Porchester Square, W.), asks where the preparation of the aortic aneurysm removed in 1847 from Robert Liston is. There is, he says, a persistent tradition that it is in existence, but he has been unable to locate it. It is not at University College, R.C.S. London, Edinburgh, Cambridge, or Norwich. In all probability the specimen was put up by William Cadge, who made the *post-mortem* examination.

SOMNAMBULISM.

ABER would be grateful for advice in the treatment of somnambulism in a young lady, aged 24. It commenced about nine months ago, during convalescence from a severe attack of diphtheria in which bradycardia was a predominant symptom. The patient often gets up two or three times the same night and walks to various parts of the house. The act seems to be preceded by a period of excitement, when the patient seems as if terrified. The general health is fairly good, though the patient has lost flesh during the last six months.

ANSWERS.

SUPERFLUOUS HAIR.

DR. DOUGLAS FRESHWATER (London) writes: I would refer "Derma" to my article on "Hairiness and its Treatment" in the *Practitioner* for May last. Probably, if the hairs are not too numerous, repeated rubbing with pumice stone would be the best treatment.

SOFT WATER AND IRON PIPES.

DR. E. NORTON (Capel Lodge, near Folkestone) writes: I think Dr. E. H. O. Sankey will find it advisable to abandon the use of iron pipes (either plain or galvanized), because hot, soft water eats into these very rapidly. I would suggest instead of them a copper boiler and pipes. He would then have clean water for baths and all household purposes. It also would be much hotter. The cost of copper pipes, etc., would probably be a third more than iron, but this would ultimately be saved in repairs. I am not aware of any danger to health; copper kettles, lined and unlined, have been in use for centuries.

SOFT CORNS.

J. M.—Reference to works on skin diseases will show that it is held that soft corns, like hard corns, are due to pressure or friction from tight or badly fitting boots, usually to a combination of these defects. The corn must be removed by soaking and scraping or by salicylic acid plaster. Crocker (*Diseases of the Skin*) continues as follows: "Soft corns should have the hard skin removed in one or other of the above ways; careful daily ablution with soap and water should be used, spirits of camphor painted on at night, and wool worn between the toes in the day time. All the numerous corn cures, if of any use, act on one or other of these principles. Duhring recommends the application of a 4 to 8 per cent. caustic potash solution after removing the thickened cuticle; it must be done cautiously, the part round being protected by a ring of plaster. Vigier's formula is also a good one: Salicylic acid, gr. 15; ext. cannab. ind., gr. 8; alcohol, ♏ xv; ether, ♏ xl; collodion flexile, ♏ lxxv. It is to be painted on with a brush three times a day for a week, when the corn can be easily picked off."

LETTERS, NOTES, ETC.

ARNETH'S METHOD OF PROGNOSIS IN PULMONARY TUBERCULOSIS.

DR. H. D. MCCULLOCH (London) writes: The method suggested by Dr. J. B. H. Holroyd in the BRITISH MEDICAL JOURNAL of May 3rd is attractive, though from a different point of view than that of the pathological haematologist. A question that must have occurred to many, and one that awaits answer, is, Why does the leucocyte become polymorphic; what is the cause of the transformation from the original mononuclear state?

The observations of Arneth led him to infer that "the cells with I or II nuclei were less resistant than the cells with III, IV, and V nuclei, and that when those less resistant cells were present in large numbers the severity of the cases varied directly as the number of these cells." Dr. Holroyd's observations confirm those of Arneth, whose normal standard appears very suggestive.

I have been inclined to ascribe polymorphism to the individual age and environmental experience of the leucocyte during its course of physiological existence—that is to say, the deformity of the original single nucleus inevitably follows upon its amoebic passage by penetration through variously dense tissues, which happen to be interposed between its gland or tissue of origin and the site or sites of the infective reagents on any part of the mucous membrane or defective cutaneous surface under the influence of chemiotaxis. The density of the walls of blood vessels during the egress or ingress of leucocytes may seem negligible, especially in vaso-dilator states, but the common occurrence of vaso-constriction on such occasions may be productive of polymorphic deformities on a more or less large scale. They may also conduce to an accession of blood platelets to the circulating blood as well by amputations of the leucocytic cytoplasm, as occurs under the vaso-constrictor effects, owing to the presence of toxic and purin pressor principles in young women anaemics.

I have recently drawn attention to this in a communication to the Physiological Society. I would suggest that the presence of the small percentage of I and II nuclei cells is indicative of the fact that these leucocytes are the last proliferations of the over-functional local leucopoietic tissues or glands, and that the large percentage of the III and IV nuclear leucocytes is indicative of their more remote source from the site of the lesion, and therefore of their greater efficiency.

TARAXACUM IN CANCER.

DR. A. STEVENSON (Sunderland) writes: I read with much interest Dr. Herbert J. Robson's note on the use of taraxacum in cancer, which appeared in the JOURNAL of May 25th, 1912; also the letters by "A. D." and Miss Evie Evans, M.B., on local applications of taraxacum juice, in the JOURNAL of July 13th, 1912, and Dr. Bain's article on taraxacum in partial intestinal obstruction in the JOURNAL of May 3rd, 1913. A patient of mine was operated upon by Professor Ranken Lyle, Newcastle, three months ago for a malignant tumour of the left ovary. When Dr. Lyle performed the operation he found secondary deposits in the liver and omentum, which he was unable to remove. After the patient left the hospital I again attended her, and had great difficulty in treating the sickness and constipation, which continued and increased as time went on. At last I gave taraxacum a trial, and after two or three doses the sickness stopped and the bowels became active. As the patient was very much emaciated her end was a matter of days, but during these few days she obtained much relief from the use of taraxacum. I can fully endorse all that Drs. Robson and Bain say in its favour.

SALVARSAN IN PERNICIOUS ANAEMIA.

DR. BYROM BRAMWELL (Edinburgh) writes: In my lecture on "The Salvarsan Treatment of Pernicious Anaemia," published in the BRITISH MEDICAL JOURNAL of May 24th, I state "salvarsan contains arsenic *and mercury*." It is, perhaps, unnecessary to say that this is a mistake. In the Address in Medicine, which I had the honour of delivering at the Birmingham meeting of the British Medical Association, the subject of which was "Mistakes," I said that, when one makes a mistake, one should always try and analyse that mistake, and find out the reason for it. How I got the idea that salvarsan contained mercury I do not know; an old house-physician writes me, saying that I made the same mistake at one of my clinics some two years ago. Perhaps some such mental process as the following was the origin of this mistake: Mercury produces great benefit in syphilis, salvarsan also produces remarkable benefit in syphilis—therefore, salvarsan contains mercury.

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An Address

ON

THE CLINICAL IMPORTANCE OF THE SYMPATHETIC NERVOUS SYSTEM.*

BY

S. A. KINNIER WILSON, M.D., B.Sc., M.R.C.P.,

ASSISTANT PHYSICIAN TO THE WESTMINSTER HOSPITAL AND TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN SQUARE, LONDON.

THE knowledge we possess to-day of the finer anatomy and of the physiology of the nervous system has been attained only at the expense of years of controversy. If there is much land still to be possessed, that which is now our heritage has been systematically explored and surveyed till we would fain believe it is a country with familiar and unchanging landmarks. Yet this is far from being the case, and while it would be a simple matter to find illustrations of the truth of this statement from other sections of neurology, we need not look beyond the sympathetic nervous system, which forms the subject of my remarks to-day, for a demonstration that will serve our purpose.

During the greater part of last century the anatomy and physiology of the sympathetic system was a *Haupttummelplatz* of neurological discussion, and it was only with the magistral researches of Gaskell and of Langley that order took the place of confusion and experimental data of empiricism. These English physiologists laid a scientific foundation for the study of the question, which remains unshaken, and their terminology has been accepted by the schools of other countries. As junior students of physiology we become familiar with the complex lore of vaso-constrictors and vaso-dilators, and even now we may not have forgotten our quondam interest in the behaviour of the vessels of the rabbit's ear under varying experimental conditions: but as practitioners of medicine it may be questioned whether we concern ourselves much with the application of our hardly-gained knowledge to the common clinical phenomena of disease that must daily obtrude themselves upon us. A little thought will convince us that disturbances in the realm of the sympathetic nervous system are probably more frequent than any other class of morbid symptom, and even a slight acquaintance with their interpretation would stand us in good stead.

But our knowledge of the functions of the sympathetic system has been notably modified and enlarged by recent discoveries of importance. Advances that have been made in regard to the nature and physiology of the ductless glands have thrown a flood of light on the former, and this we cannot afford to ignore. We are compelled to regard the sympathetic nervous system from a fresh viewpoint: the main principles of its action must be restated, and it is no exaggeration to say the gain thereby to clinical medicine is bound to be far-reaching. This is one of the aspects of the question to which special attention will be directed.

Before entering on it, however, I may be allowed to remind you of the salient features of the sympathetic system, as established by the work of Langley and various other investigators.

ANATOMICAL AND PHYSIOLOGICAL CONSIDERATIONS.

The sympathetic system, embryologically, is directly derived from the cerebro-spinal nervous system. As early as the sixth week of fetal existence the general development of the sympathetic system is complete, in the sense that its essential features can be traced even at that stage. It may be said very briefly that the ganglion cells of the sympathetic issue from the mass of nerve elements forming the neural crest, that they migrate thence at differing times and rates, those of the thoracic region always being in advance of the cranial and lumbo-sacral regions, and that on reaching their approximate final positions they proliferate and clump themselves into ganglion formations. The processes of the cells elongate into fibrillae and so a communicating network of fibres is produced, extending centrally to the cerebro-spinal system and peripherally to viscera. A number of sympathetic cells are left behind, however, in the cerebro-spinal axis, and later we shall see how the central connexions of the sympathetic will serve to explain the appearance of sympathetic phenomena in central lesions.

When full development is attained, the sympathetic system is found to consist of two divisions. The first is the sympathetic system proper, often called the vertebral sympathetic, consisting of the chain of ganglia of the cervical, dorsal, and lumbar regions. The cervical set is collected into three sympathetic ganglia, but in the case of the thoracic and lumbar there is a ganglion corresponding to each segment of the spinal cord. These ganglia are connected, on the one hand, with the spinal cord at their own levels, except that the central connexions of the cervical ganglia arise, not from the cervical cord, but by the first and second dorsal roots; and, on the other hand, from these ganglia fibres pass peripherally, as a rule through the medium of secondarily formed plexuses or ganglia, to all the viscera of the thoracic and abdominal cavities, to the vascular system, to the skin with its glands and other appendages, and to the pelvic viscera and genitalia.

The second division of the sympathetic is known as the parasympathetic, or, preferably, the autonomic system. At the cranial and caudal extremities of the cerebro-spinal axis are situated three sympathetic centres, two at the former and one at the latter. These centres are in the cerebro-spinal system, and from them sympathetic fibres pass out, again through the medium of intercalated ganglia, to all the viscera of the body, and to all the structures enumerated above as supplied by the vertebral sympathetic. In the case of the autonomic system there is only one set of ganglia, and they are to be found, as a rule, in the immediate vicinity of, or actually in, the organs innervated, whereas the vertebral sympathetic system, as has been said, possesses two sets—one the vertebral chain, and the other the plexuses, coeliac, splanchnic, and so on. In the case of the cervical sympathetic, however, there is only one set of ganglia on the path to the structures innervated by it.

The sympathetic nervous system, therefore, presents this remarkable feature—that it gives a double nerve supply to the skin and its appendages, the glands, vascular system, the alimentary system from mouth to rectum, and the respiratory system, and the importance of this fact will be the more appreciated when it is stated that there is much evidence forthcoming to show that the two divisions—the vertebral sympathetic and the autonomic—are mutually antagonistic in their function, as we shall see subsequently.

Let us look at the sympathetic and autonomic supply a little more closely. It should be premised that not all of the anatomical details about to be mentioned have been satisfactorily established, and there is difference of opinion on some not unimportant points. As far as is agreed on at present, it may be said that the arrangements are as follows:

The autonomic system has three centres, the mesencephalic, the bulbar, and the sacral, or lumbo-sacral. From the first of these pass autonomic fibres by the oculo-motor nerve and ciliary ganglion to the sphincter iridis, constricting the pupil in their action. The corresponding vertebral sympathetic supply, antagonistic in its function, is constituted by pupil-dilating fibres from the cervical sympathetic in the neck, reaching the eye by a circuitous route viâ the carotid plexus and the superior division of the fifth or trigeminal nerve.

The bulbar autonomic centre is formed by sympathetic cells in relation to the facial, glosso-pharyngeal, and vagus nerves. Connected with the first two of these are the fibres passing out to supply mucous and salivary glands, the blood vessels of the mucous membranes of mouth and nose, the lacrymal glands, and so on. These are antagonized by vertebral sympathetic fibres running in the cervical sympathetic and reaching the same distribution by the elaborate route already described. We may not have forgotten the differences between the autonomic "chorda saliva" and the "sympathetic saliva" of our student days. In the autonomic facial fibres, probably, are vaso-constrictors to vessels and sweat glands, in the cervical sympathetic are vaso-dilators, and so on. But I shall not particularize further, lest we should be unable to see the wood for the trees.

* Read at the quarterly meeting of the East Anglian Branch at Colchester and illustrated with lantern slides.

. The vagus centre, however, deserves our attention because of its great clinical importance. There is reason to believe it is the dorsal nucleus of the vagus which forms the autonomic vagal centre, but we need not delay over this vexed question. The vagus supply is extraordinarily wide. It furnishes sympathetic fibres, belonging of course to the autonomic system, to the heart and blood vessels generally, to the alimentary tract from mouth to colon, to the liver, pancreas and kidneys, to larynx, trachea, bronchi and lungs; its branches go both to smooth, non-striped muscle fibres in these various vessels and viscera, and to glandular organs therein contained. The autonomic vagal action is antagonized in all these—again it must be remarked that this is a generalization the truth of which has not as yet been established in every instance—by vertebral sympathetic fibres supplying the same structures and arriving viâ the visceral plexuses. Thus, to take the best known instance, there are cardio-inhibitory fibres in the vagus and accelerating fibres in the sympathetic. Again, the vagus contracts and the vertebral sympathetic dilates the coronary vessels. The sympathetic contains the constrictors for the blood vessels, the vagus the dilators, if there are such. In the sympathetic are the fibres for the sweat glands of the body, probably stimulating and not inhibiting fibres. The sympathetic fibres relax the smooth muscle fibres of oesophagus, cardiac sphincter, and stomach; the vagal fibres contract them. The latter contract the gall bladder; the former relax it. And so on.

Finally, in the lumbo-sacral part of the spinal cord is the third autonomic centre, from which fibres pass to the vessels of the rectum, anus, and external genitalia—vaso-dilator in function. The vaso-constrictors to the same are in the vertebral sympathetic system. Again, the sacral autonomic supplies the muscles of the colon, rectum, anus, urethra, bladder, and external genitalia, being chiefly concerned with contraction, while the corresponding sympathetic fibres are chiefly concerned with relaxation.

The Central Connexions of the Sympathetic.

A further anatomical matter that ought not to be passed over is the question of the central connexions of the sympathetic. It has been shown that the vertebral sympathetic system is an outgrowth from the cerebro-spinal. The efferent fibres joining the two arise from a definite tract running the length of the spinal cord from the lowermost cervical region to the lumbar. This is known as the intermedio-lateral tract, and it is composed of cells, readily distinguishable from those of the anterior and posterior horns, which are situated at the lateral extremity of the grey matter, where anterior and posterior horns meet. The nerve cells of this tract rise and fall in number in a more or less regular way for each segment of the cord. From them pass out efferent sympathetic fibres to join the chain of sympathetic ganglia, travelling by the anterior roots, and leaving the latter by the white rami communicantes immediately after the formation of the mixed nerve.

Now, it is inconceivable that the spinal sympathetic tracts should have no connexion with higher centres, and although it has been doubted whether there can be cerebral centres for the functioning of vasomotor nerves, sweat glands, the alimentary tract, and so on, we do know as a matter of fact that the spinal tracts already referred to are in association with bulbar sympathetic centres—not the autonomic bulbar centre of which we have been speaking—whose existence has been demonstrated in a conclusive fashion. And why should the system not be represented in the cerebrum itself? We may admit that the sympathetic system is very little under the influence of the will, but it is notably under the influence of moods and emotions. Anger, fear, shame express themselves outwardly by obvious sympathetic disturbances—by pallor, blushing, perspiration, dryness of mucous membranes—to mention but a few of the symptoms which will occur to every one; and if we believe, as there is evidence to show we should believe, that the emotions are placed at least as high as the basal ganglia, then the bulbar sympathetic centres must be represented anatomically still further cerebralwards. I shall refer to clinical cases which appear to bear this out a little later.

The sympathetic system further resembles the cerebro-spinal system in that it possesses afferent—that is, sensory—as well as motor, or efferent, connexions with the latter. There is excellent evidence forthcoming to prove that the viscera have a sensibility of their own, impulses underlying the appreciation of which are conveyed by afferent sympathetic fibres leaving the sympathetic chain and passing by the posterior roots to the spinal cord like any of the other sensory impulses. Normally we are quite unconscious of the functional activity of our organs, and this no doubt suggests that sympathetic afferent sensory impulses do not reach the brain and become conscious, or, rather, so that we become conscious of them. At the same time, we do well not to negative the possibility of such an occurrence.

It is of course well known, as I may venture to remind you, that in certain diseased states of viscera sensory impulses from them reaching the cord are ultimately interpreted by our consciousness as proceeding from the area of skin supplied by the ordinary spinal nerves running into the same segments of the cord as are reached by the abnormal sympathetic afferent impulses. Thus in angina pectoris the patient may have paraesthesiae apparently in the distribution over the skin of the inside of the left arm and hand. In gastric ulcer he may have hyperaesthesia over the skin of the upper abdomen on the left. Other instances will at once suggest themselves. These zones of referred pain have been carefully worked out by Head and others, and they are of localizing value. But that there is a possibility of actual sympathetic sensory impulses reaching consciousness in certain diseased states seems to me the only satisfactory explanation of some of the symptoms of neurasthenia and also of hysteria.

From what has been said it will appear that the sympathetic system is at once dependent on, and independent of, the cerebro-spinal system. Owing to the central connexions which the former possesses, there may develop obvious sympathetic symptoms in organic and functional disease of brain, spinal cord, or peripheral nerves. What of its possible independence?

We have seen that a very large part indeed of our somatic structure, our circulatory system, respiratory system, alimentary system, genito-urinary system, the skin, mucous membranes, glands, and so on, are as it were slung between the nerve supply of the autonomic system on the one side and the sympathetic on the other, and that these are mutually antagonistic. It may be concluded that the result is the constant maintenance of tone in these organs, a tone which is constantly varying, but which is not constituted by alternating periods of rest and unrest. There is always activity in function. Is it possible that sympathetic ganglia have an autonomous activity of their own, and that there is a peripheral independence in them not possessed by any of the organs reached by the cerebro-spinal system? It would appear to be not merely possible, but probable. There are short reflex arcs in certain hollow viscera the physiological activity of which appears to be independent of central connexions. The movements of the ureters, peristaltic action of the intestine, and the mechanism of the heart-beat, are illustrations in point. And while, as far as I know, a wider application of the principle has not been made, it seems possible that not a few of the phenomena seen in vasomotor neuroses, to take but one example, may be due to increase or decrease of peripheral sympathetic activity produced by morbid agents whose action is quite independent of the central representations of the sympathetic system.

Sympathetic Symptom-complexes.

Enough has been said to support my original contention, that disturbances in the realm of the sympathetic nervous system as a class of morbid symptom must confront us almost daily, and I should like now to sketch a few of the symptom-complexes, the significance of which can be understood at once by reference to the anatomical and physiological data we have been considering.

First of all, we shall look at the occurrence of obvious sympathetic symptoms in central cerebral lesions.

Reference has already been made to the familiar symptomatology of the expression of the emotions. Under the influence of an emotion we turn pale, we blush, we perspire, we shiver or shudder; under the influence of emotion the throat and buccal membranes of the public speaker become dry. Under emotion we experience a

"thrill" all over our body; our cheeks "tingle." All these clearly are somatic phenomena produced through the sympathetic system; the last is the pilomotor reflex, known no doubt to many of my audience.

Now it seems reasonable, if not indeed essential, to suppose that if these generalized somatic symptoms are produced, as they clearly are produced, through the agency of the autonomic and sympathetic system, then the vagus centre and the bulbar sympathetic centre must be capable of being acted on from higher levels. For the stimuli evoking the emotion pass in to the brain centres by such sense avenues as the visual or the auditory path, and the lowest point at which such sensory impulses could pass over from the afferent to the efferent side is in the mid-brain, which is definitely above the bulbar level of which we have been speaking. There must, therefore, be a higher representation of the sympathetic centres than the medulla, and there is evidence to show that this representation is at least as high as the basal ganglia, the optic thalamus and corpus striatum. I have seen an ordinary case of left hemiplegia of capsular origin in which there was a permanent "goose-skin" on the affected side of the body. I have seen another case of hemiplegia in which the affected limbs were the seat of a vasomotor paresis with oedema, and such cases are not really very uncommon. They are often met with in infantile cerebral hemiplegia. In such instances the lesion is certainly not lower than the pons, and is probably higher. It is patent, therefore, that both the autonomic and the vertebral sympathetic systems are centrally represented, and though this has been denied by one or two investigators it is difficult to set aside the evidence which has accumulated.

We are on surer ground when we come to the bulbar sympathetic centres, the centres in the medulla oblongata.

We may take the autonomic vagal centre first.

There is a definite symptom-complex associated with disturbance of the vagal centre to which it is well to direct special attention. The condition clinically is known to our American friends as a "nerve storm," and the description is not inapt. It is known also as pseudo-angina, cardiac neurasthenia, and under other designations, but the term which Sir William Gowers proposed, and which I much prefer to use, is "vaso-vagal attack." The attacks are usually periodic, often resembling epilepsy in their periodicity, and it is quite possible that in some instances, at least, they are of the nature of epileptiform discharges in these lower centres. Commencing as a rule with an epigastric aura, the attack rapidly develops into palpitation, forcible or racing cardiac action, sometimes almost cessation of the same, suffocation, and difficulty in respiration; with this the patient usually experiences an indescribably distressing feeling of impending death, or of impending misery of some sort; at the same time the extremities are as though of marble in their icy coldness, then to this may succeed clammy perspiration or burning flushes all over, and at the same time there is often trembling and quivering of the musculature. The attack may last a few minutes, or it may be drawn out over hours. It may be complete, after the description just given, or it may be very partial and incomplete. In either form the condition is far indeed from uncommon, and I have personally seen many instances of it. It is self evident, I think, after what we have learnt, that the whole vaso-vagal attack is a pure symptom-complex of a functional disturbance in the vagal autonomic centre, and as such it ought to be known. Nothing is more desirable, more imperatively called for, than to pick such attacks out of the rubbish heap of neurasthenia, with which they are constantly confounded, for the treatment of the two entities differs widely. Of course such an attack may occur as an episodic syndrome in the course of another disease, as can be well understood, but in its pure and uncomplicated form it is frequently met with, even in young people, and has scarcely received the attention it deserves. Its treatment with nitro-glycerine, in any form, but especially the liquor trinitrini, is often strikingly successful.

Apart from the vagal autonomic centre in the medulla there is a sympathetic centre in its neighbourhood—almost certainly in the substantia reticularis—which is a bulbar representation of the vertebral sympathetic system, and anatomically in continuity with it, or at least with the cervical part of it. As a result of a lesion involving this part of the medulla, an interesting series of sympathetic symptoms may develop of central origin. The region concerned is in the distribution of the posterior inferior cerebellar artery, which I may remind you is a branch of the vertebral and winds round the side of the medulla on its way to the cerebellum viâ the inferior cerebellar peduncle. As it winds round it sends in small terminal branches to the medulla, which penetrate its substance, and if the vessel is occluded from thrombosis—a not infrequent lesion—the area of the medulla supplied often suffers from ischaemia, and among the characteristic symptoms of this complex is paralysis of the cervical sympathetic nerve and loss of sweating on the face on one side.

When we come to the spinal cord, one of the common clinical pictures is that of irritation or of paralysis of the cervical sympathetic nerve, which arises from Budge's centre in the lateral horn of grey matter of the first and second dorsal segments, mainly, and passes out to follow that circuitous route in the neck and head to which reference has already been made. We have seen that there must be a continuation cerebralwards of this centre, for identically the same symptoms can be produced by a lesion of the posterior inferior cerebellar artery, as far as the cervical sympathetic is concerned, as by a lesion of the upper dorsal cord, or a lesion of the nerve trunk itself. The localizing value of paralysis of the cervical sympathetic is often precious. It reveals itself by a very clear-cut syndrome, consisting in ptosis, myosis, and enophthalmos, with or without vasomotor and sweat disturbances over the face and upper part of the trunk. A rare concomitant of cervical sympathetic palsy, which, however, has come under my notice at least three times, is heterochromia iridis, a pigmentary change taking place in the iris on the affected side. Stimulation or irritation of the cervical sympathetic naturally produces an opposite effect—namely, exophthalmos, widening of the palpebral aperture, and mydriasis. Sometimes almost the only sign of a commencing palsy from defect of this nerve path is failure of the pupil to dilate to shade. It is well worth remembering, also, that cocaine may be used as a test of the integrity of the cervical sympathetic; a drop instilled into the eye will cause the pupil to dilate only if the nerve be normal; atropin or homatropin is of no value in this connexion.

Many organic lesions of the spinal cord are accompanied by obvious vasomotor and trophic changes, which are to be regarded as due to implication of the intermedio-lateral tract. In compression paraplegia from whatever cause arising it is often possible to detect the level of the compression by the simple device of injecting pilocarpin, a sixth of a grain, and observing, adequate precautions having been taken to protect the skin surfaces with a cradle, whether the drug has failed to produce sweating in the lower limbs and up to a given level on the trunk. A valuable case of poliomyelitis has been recorded where after the onset there was complete anidrosis of the lower limbs, and at the necropsy a haemorrhage was found in each intermedio-lateral tract. The vasomotor symptoms that often accompany transverse myelitis, spinal tumour, and other spinal cord conditions that need not further be specified, find a ready explanation in involvement of the important intermedio-lateral tracts.

The symptomatology of organic disease of the thoracic and abdominal sympathetic system, outside of the cord, is not at all well known, and yet evidence is steadily accumulating which will help us some day to differentiate more clearly between the various ganglia and plexuses than we can at present. Of course, it is recognized that many of the familiar visceral crises of tabes are occasioned by organic disease of the sympathetic plexuses supplying the viscera in question. Again, the abdominal symptoms of lead colic may be the result of irritation of the solar plexus. A syndrome of the solar plexus has been described, consisting in hyperaemia of the abdominal viscera, vomiting, diarrhoea, oliguria, and general loss of strength. Certain forms of visceral neuralgia, to which attention has again been drawn recently, may be associated with affections of the coeliac plexus. The relation of mucous colitis, of many of the symptoms of acute peritonitis, of certain forms of angina pectoris, and certain acute pulmonary conditions—to mention but a few—to disease of the thoracic and abdominal sympathetic

plexuses is a chapter of clinical pathology that has yet to be written.

The Pharmacological Aspect of the Sympathetic System; Relation to Ductless Glands.

We must leave this part of our subject, however, only the fringe of which has been touched, to pass on to a view of the whole question which is eminently calculated, with the aid of further research, to lead to most fertile results. I refer to what may be called the "pharmacological" aspect of the sympathetic system, and the relation of the function of the latter to the function of the ductless gland system.

To appreciate this new standpoint we must begin by alluding to what is now called the chromaphil or chromaffin system of gland cells. It has long been recognized that the cortex of the suprarenal gland is distinct from the medulla of the same. The medulla is constituted by cells which possess this peculiarity, that they stain deeply when soaked in the salts of chromic acid—for example, potassium bichromate—becoming a rich brown colour. So characteristic is this reaction that such cells can readily be picked out in this fashion whatever be their situation; hence the expression chromaffin, or better chromaphil, to signify them. Now these chromaphil cells are found in many other places beside the medulla of the suprarenals. From the embryological standpoint they are known to originate in the same situation or *Anlage* as the cells which eventually reach and form the sympathetic chain of ganglia. In fact, we may speak of sympatho-chromaphil tissue. In every ganglion of the chain, then, on each side, and mostly lying in depressions on the dorsal portions of these ganglia, are rounded masses of chromaphil tissue, of exactly the same nature as the medulla of the suprarenal. Further, there is an unpaired strand of this tissue lying on the front of the abdominal aorta, and known as the aortic body or paraganglion of Kohn. Then they are found not merely in the sympathetic ganglia, but as a constant occurrence in many of the sympathetic plexuses, and they have been traced in the kidney, ureter, accessory suprarenals, prostate, ovary and epididymis, and in the carotid bodies. In the chromaphil system, therefore, we have a widespread tissue, intimately allied to the sympathetic system in origin and localization, which not only presents the histological peculiarities already specified, but is endowed with equally important physiological properties. Chromaphil tissue secretes a substance which has a definite and characteristic action on non-striped muscle fibres—in other words, on structures which are innervated by the sympathetic system.

No modern drug is more familiar to the physician than adrenalin. The important point about it is that adrenalin, which is the product of the secretion of the suprarenal medulla—that is, is derived from the sympatho-chromaphil system—acts solely on tissues innervated by the sympathetic. This is a striking fact. What are the effects of injection of adrenalin, or preferably "adrenin," since adrenalin has commercial associations? It causes a rise of blood pressure; it dilates the pupil; it contracts the muscles of the hairs; it excites the salivary and lacrymal glands, the liver, the muscular tissue of the uterus and vagina, of the vas deferens, the vesiculae seminales, the dartos muscle, and the muscular coat of the stomach. In no case does extract of adrenal correspond in its effect to what is produced by stimulation of cranial or sacral autonomic nerves: on the other hand, its effects are such as are produced by stimulation of some one or other sympathetic nerve.

There is, therefore, normally present in the body a secreting system which is normally producing a secretion with a definite pharmacological action on sympathetically-innervated tissue, and this tissue is thereby kept in a normal state of tone. If the secretion is defective, there is loss of sympathetic tone; if it is excessive, there is a pathological increase in sympathetic tone. In fact, our German *confrères* are already speaking of sympathicotonus and vagotonus, although, so far as I am aware, the expressions are not as yet employed in this country. Further, they speak of "adrenalin sensibility" and are using injections of adrenalin as a test for the functioning of the sympathetic system. The clinical and therapeutic importance of these facts must be at once apparent to us.

The question arises as to how adrenin acts, whether on sympathetic centres or on sympathetic end-mechanisms. It has been shown that it acts mainly on end-mechanisms, and that, further, there are substances which are antagonistic in their action to adrenin. For instance, adrenin has no special action for the autonomous system, as has already been pointed out. The autonomous system, however, is stimulated by cholin and analogous poisons and paralysed by atropin. The sympathetic system is indifferent both to cholin and atropin. It would appear, therefore, that in the body are normally found certain "poisons"—for example, cholin and adrenin—which have autonomous-exciting and sympathetic-exciting actions respectively, which are mutually antagonistic and can compensate one another.

But the matter does not end here. We know that other internally secreting glands are controlled by the same system—to mention only one, the thyroid. The thyroid is supplied with vaso-constrictor and vaso-dilator nerves; on these, whichever is the sympathetic group (for there are differences of opinion on this matter), the internal secretion of the chromaphil system, it may be assumed, has a stimulating action. Again, between the suprarenals and the pancreas there is undoubtedly a very intimate relation. It has been shown, for instance, that neither puncture diabetes nor pancreatic diabetes can occur after removal of the suprarenal bodies. It has been shown, further, that in pancreatic diabetes adrenalin dropped on the conjunctiva will dilate the pupil, whereas it will not dilate it in this way in the normal eye, although these experiments require confirmation.

It is undesirable, however, though it would be easy, to amplify these interesting and difficult topics. I may recapitulate in a sentence and say that a substance normally secreted by the adrenal medulla passes into the general circulation and maintains the tone of all sympathetically-innervated tissue, including other ductless glands. The cells which secrete this substance are embryologically of sympathetic origin. Other substances are produced in the organism which have an antagonizing, neutralizing, or compensating effect when compared with that of the adrenal secretion, and they act rather on the autonomous system. Similarly, many commonly employed therapeutic agents have an action on one or other of these groups. Cocaine, atropine, caffeine, stimulate the sympathetic system and inhibit the autonomic system. Morphine, chloral, antipyrin inhibit the sympathetic system and stimulate the autonomic system.

Application of Physiological Findings to Clinical Medicine.

The linking up of the sympathetic system and the ductless gland system is already proving to be a most important generalization in clinical medicine, and with increasing knowledge this importance will assuredly be intensified. There is a large group of diseases known as the angio-neuroses, included in which category are such conditions as Raynaud's disease in mild or severe variety, local pallor or "dead finger," local asphyxia, symmetrical gangrene, acroparaesthesia, sclerodermia, angioneurotic oedema, and so on—diseases obviously associated with disturbances of the sympathetic innervation of the vascular system. Now the frequency with which affections of one or other of the ductless glands are noted in such cases is remarkable. Disease of the thyroid is practically constant in sclerodermia. Myxoedematous patients constantly complain of feeling cold, and exhibit a malar flush; they often complain of acroparaesthesia. In Graves's disease vasomotor irritability is a cardinal feature. In fact vasomotor neuroses and disturbance of functions of other sympathetically-innervated tissue is an association that is no more than might be expected in view of what has been already said.

Again, many of the common symptoms of neurasthenia and hysteria are patently of sympathetic origin. Who of us has not seen the typical irregular red blotches appear on the skin of the neck and face as the neurasthenic subject "works himself up into a state"? The clammy hand, flushed or pallid features, dilated pupils, the innumerable paraesthesiae, the unwonted sensations in head or body, are surely of sympathetic parentage. In not a few cases of neurasthenia symptoms of this class are the chief or only manifestation of the disease. Here, then, is a condition of defective sympathicotonus; may it not have

much to do with impairment of function of the chromaphil system? Addison's disease, for all its continued obscurity, may be regarded as at least to a great extent attributable to disease of the suprarenals. One of its characteristic features is asthenia, which is sometimes profound. And there does not appear to me any tenable distinction between the asthenia of Addison's disease and the asthenia of neurasthenia. Cases of the former are not infrequently diagnosed as ordinary neurasthenia at first. It is difficult to avoid the conclusion that defect of glandular function is responsible for much in the clinical picture of neurasthenia.

In the familiar symptoms of the climacteric how prominent are those which are derived from the sympathetic system. Palpitation, noises in the ears, "rush of blood to the head," hot and cold feelings, mist before the eyes, sweating, trembling, paraesthesiae of all sorts, sinking feelings, vertigo—who does not know the whole gamut of climacteric symptomatology? Analysis indicates at once the sympathetic origin of practically all of it, but why should this branch of the nervous system be disturbed? The answer is ready to hand. At the climacteric a physiological involution of glandular activity occurs, ovarian function alters, and thereby the function of other glands is thrown out of gear. Sympathetic tone is dependent on adrenal support, and until the glandular equilibrium is once more attained sympathetic symptoms are likely to occur. Let it not be supposed that the male sex is free from such glandular upset. The age of 63 was regarded by those of another generation as the crucial year for the male; but it is not necessary to postulate an actual climacteric—it suffices that the physician should be able to interpret the symptoms complained of in the light of what has been said.

The protean phenomena of hysteria can in many instances be readily explained by reference to sympathetic function. Not only are vasomotor symptoms of very common occurrence in that disease, but a vasomotor theory has even been advanced to account for the whole symptomatology. It is impossible, obviously, to subscribe to such a view; at the same time the tendency to-day is to ignore the somatic symptoms of the disease, especially those of vasomotor origin—a tendency which should, in my opinion, be discountenanced. In hysterical paraplegia one often finds a vasomotor paresis; in hysterical anaesthesia failure to draw blood on pricking the skin is as easy to demonstrate to-day as it was 300 years ago. The results of such a failure, however, are not quite so serious from the patient's point of view as they were in the "good old days." In some cases of hysteria multiple cutaneous gangrene, so-called, is known to occur, and I have seen a case where the diagnosis of a somewhat similar skin condition was attended with the greatest difficulty. Dermatographia or urticaria scripta, no doubt, occurs as a more or less isolated phenomenon, yet in hysteria, above all other conditions, it is seen in marked degree.

The pathogenesis of the sympathetic impairment in hysteria is not easily elucidated. This is not the time to venture even on a brief attempt to sketch an adequate theory of hysteria, but I may remark that the occurrence of unmistakable sympathetic symptoms in that disease argues for the central representation of the sympathetic system, and the central control, in certain not yet clear conditions, of the ramifications of that system in viscera and blood vessels.

Many more conditions might be referred to in this connexion. I have said nothing of asthma, of migraine, even of transient symptoms which can scarcely be said to constitute a disease, such as blushing, local sweating, etc., although it may be remarked that in these and other morbid states of a like kind good results are being obtained by treatment on opotherapeutic lines. I have given only a brief account of some of the chief features of interest revealed by a study of the sympathetic system and its relations, but it may serve to show that the fresh light which is being thrown on sympathetic function by recent investigations exemplifies once more the mutual interdependence of scientific research and medical practice.

THE late Mr. Charles George Lee, Honorary Surgeon, Liverpool Eye and Ear Infirmary, left estate valued at £7,638.

VARIETIES AND TREATMENT OF CHOREA.*

BY

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CHOREA is insidious in its onset. The child who becomes the subject of chorea is usually nervous, excitable, and imaginative. She is easily frightened. At school, though by no means a dunce, she lacks concentration of thought and perseverance. Her attention wanders from the work to the creations of her active mind. It is easily diverted by all manner of extraneous and trivial circumstances.

Chorea begins as an accentuation of this psychical unrest. Before the actual movements appear the patient becomes more excitable, more irritable, more emotional, and less reliable. The distinction between when the mental state should be called choreic and when it should be regarded merely as evidence of a neurotic disposition is subtle. There are some who look on the many symptoms of nervous instability to which choreic children are liable as evidence of a rheumatic toxaemia, whilst others speak of chorea as especially prone to attack neurotic children. A compromise between these opinions is probably nearer the truth, for, if we accept the former view, we must acknowledge a persistent rheumatic toxaemia dating from very early life, whilst if we ignore it we shut our eyes to the very obvious psychical disturbances which a definite attack of chorea brings with it.

As evidence of the ill-balanced and hyper-excitable mental state is the frequent occurrence in the history of the same child of such functional errors as night terrors or day terrors, somnambulism, enuresis, nervous diarrhoea, and tic.

Long before the chorea is recognizable by its erratic movements the child's school work deteriorates. It becomes inaccurate, slovenly, and uneven. Perhaps this is best shown in writing and arithmetic. The letters and figures are badly formed, irregular and wavy, crowded in some places, spaced in others, and sloping at various angles. This falling off is readily detected by the teacher, who metes out punishment which he believes to be condign, but which is, of course, unmerited, and may precipitate symptoms of a more obvious form. The attack is then not unnaturally laid by the parents at the teacher's door.

Forms.

In almost every case, in addition to the erratic pseudo-purposive movements and the psychical changes, there are also some loss of power and some sign of cardiac affection. The loss of power is denoted by the characteristic crouching attitude when the child sits up, due to weakness of the back muscles and those which hold the head erect. The grip is feeble, and there is atony of the muscles and laxity of joints. The signs found by examination of the heart in many cases are merely those which may accompany functional disturbance—rapidity, a short, sharp, and rather slapping first sound, approximation of these sounds, and sometimes irregularity. A slight systolic murmur and slight dilatation may be present, and probably indicate a local rheumatic toxaemia or infection, especially if a mid-diastolic murmur or so-called reduplicated second sound are heard at the apex. In many cases signs of previous valvular disease are found.

The mental state when the chorea is readily recognizable is usually ill-balanced and the emotions are beyond control. It has been aptly likened to April weather, sunshine and shower alternating in quick succession. Tears flow as part of real distress for which there is no adequate reason or perhaps no reason at all.

Each of these four factors which contribute to the clinical picture of chorea—namely, erratic movements, psychical disturbance, weakness, and cardiac changes—may be exaggerated, so that it assumes the dominant part, and in this way four chief forms occur: (1) Motor, (2) maniacal, (3) paralytic, (4) cardiac, to which two other forms may be added, (5) latent, and (6) residual.

In the *motor* form the movements take the chief place,

* Based on a lecture delivered at the Hospital for Sick Children, Great Ormond Street.

and may be so severe that the child is unable to sleep or feed, and is in danger of death from exhaustion.

In the *maniacal* form the child is seriously ill and has all the appearance of one suffering from severe toxaemia. The temperature, which is usually only slightly raised in chorea, may in this form reach 105° or higher, and often remits from 102° to 99°. Sores are present on the lips, the tongue is coated, dry, and sometimes fissured. Hallucinations are not uncommon and the patient exhibits a considerable degree of mental distress, crying and moaning in bouts and howling in a manner reminiscent of a caged animal. A feature of these cases, which so far as I know has not attracted attention, is a dry, harsh, scaly skin, especially of the hands, which are often sore and cracked. The prognosis is usually favourable in spite of the alarming nature of the symptoms. Permanent mental derangement is very exceptional. Usually when the violence of the toxaemia is over the child recovers fairly rapidly, and the chorea is ended more quickly than in the more chronic and milder varieties.

The *paralytic* form usually supervenes upon one in which the movements have been active. Its most striking feature is the extreme atony of the voluntary muscles. On palpation they feel soft and almost downy, an attribute which has given origin to the term *chorea mollis*, by which this form is sometimes known. If the patient be taken out of bed the head falls back entirely unsupported and the limbs fall down as though lifeless. Grimacing and slight twitching of the limbs can still be seen. Generally the pupils are dilated and react feebly to light. The knee-jerks are lost in most cases. A special characteristic, more in evidence in this form than in others, is aphasia. For weeks, even for months, no attempt is made to speak. Motions and urine are passed incontinently, probably rather because the child is unable either by speech or gesture to signify its needs than from actual sphincter weakness. In spite of the apathetic state, of the aphasia, and of the incontinence, there is little or no dulling of the mind, for when the child is better it will be found that she remembers what has been going on under her observation, even to the minutest details. Such cases are always protracted and convalescence is slow, but ultimately, perhaps after several months, complete recovery occurs.

The term "*cardiac* form" has been applied to those cases in which the heart is seriously affected, whilst the signs of chorea are proportionately slight. Pericarditis, myocarditis, and endocarditis may each or severally accompany chorea, but they should more properly be regarded not as chorea of the heart but as indications of rheumatic heart disease. It is doubtful whether true chorea cordis is ever so obvious as to justify us in naming a special form of chorea after it. Indeed, some have denied its existence, and regard all cardiac signs in chorea as due to local infection or intoxication by the rheumatic organism.

Latent chorea especially deserves attention, for it is a form of the disease which is little recognized and frequently overlooked. Moreover, it is important, for coincident with it serious crippling of the heart may be in course of development. This is more particularly true of mitral stenosis, as Dr. Poynton has recently indicated.

It is diagnosed by regarding unconsidered trifles. Slight fidgetiness and mild psychical unrest, with deterioration of school work, especially in writing and arithmetic, and a weakened mental concentration may be the only indications of chorea. The diagnosis is assisted by signs of mild rheumatism other than chorea, signs which taken alone carry little conviction, but when considered together, indicate a smouldering rheumatic infection. Such are epigastric pain, growing pains, epistaxis, anaemia, and recurrent tonsillitis.

In this respect the *ocular phenomena* which I have described afford, I think, considerable help. The pupils are frequently dilated in chorea, and the action of the iris muscle is abnormal. Perhaps the most striking pupillary sign is hippus or a rhythmical contraction and dilatation. Not infrequently the pupils are unequal, an inequality which increases when contraction is induced by light or accommodation, the iris in the more dilated eye reacting more sluggishly than its fellow. When the choreic attack is over the pupils again become equal in size and activity. Alteration in the shape of the pupils may occur. Thus the usual circular orifice may become oval or irregular, to regain its normal shape when the attack has subsided. Lastly, its position may be altered so that it becomes eccentric, and on contraction this eccentricity is increased, the pupil usually travelling upwards and inwards. The only explanation I can give for these various phenomena is that the iris muscle shares with other muscles inco-ordinate movements, paresis and atony. In such a case the heart's action is often rapid and may be irregular, whilst dilatation and murmurs generally appear sooner or later. As has already been mentioned, a mid-diastolic murmur is likely to be heard. Such a murmur often indicates the advent of mitral stenosis, being gradually replaced by one presystolic in time and rough and rumbling in quality.

Residual chorea is the name given to a condition which persists, sometimes for several weeks after the disease has ceased to be active. It may have all the features of latent chorea. Indeed, in such cases it is really a form of latent chorea, for, in spite of the absence of active signs of the disease, the heart may become steadily more affected, showing that the rheumatic infection is still smouldering on, although its virulence has diminished. In other cases the movements become automatic, so that those characteristic of chorea persist although the disease proper is over. In yet others the child lies almost motionless and aphasic, though generally still grimacing slightly.

Treatment.

A very astute physician, so I have been told, once said that one of the most dangerous attributes of chorea is its treatment. While it is active, rest both to body and mind is essential. All occasion for excitement or fear should be carefully avoided. It is common knowledge that such events as a birthday party or a Christmas tree are followed not infrequently by an accentuation of the symptoms. In hospital in all but the mildest cases recovery is quicker if the child be screened off from the others in the ward. Where the movements are severe enough to cause the child to hit and bruise herself against the side of the cot it must be suitably padded.

The food need not be restricted in any way, for an ample diet is required to supply the loss of energy, which may be very considerable. In cases of difficult mastication and swallowing, semi-solid foods will usually be found the most satisfactory. In quite exceptional cases oesophageal or nasal feeding may be necessary.

During the time in which I was Medical Registrar at this hospital I had an exceptional opportunity of judging the respective merits of some of the most lauded drugs employed in chorea. In one ward large doses of sodium salicylate were used; in another arsenic was pushed; in a third—in most cases—no drug was administered. Though watching these cases for a considerable time, I was unable to assure myself that progress was quicker or more sustained in one ward than another.

Sodium salicylate, however, has a special sphere of usefulness in this condition, for although its effect on the chorea itself may be unconvincing it strikes at the root of the matter. Chorea I believe to be always rheumatic, at least in part, and therefore I always administer sodium salicylate lest fresh rheumatic manifestations develop which might thus be avoided. If there is any rise of temperature the use of salicylate seems to me imperatively to be called for. I cannot altogether follow my respected teacher Dr. Lees, who gives as much as 400 to 500 grains daily, and has given even more, for I am not sure that such doses do more good than those which are smaller (10 to 20 grains three times daily). On the other hand, his cases show that there are no grounds for that fear of the cardiac depressant effect of salicylates which is so generally entertained. There are a few important points to be remembered when salicylates are given to children. It is essential that before the treatment is started the bowels should be opened freely, and it is a good rule before increasing the dose to be sure that an evacuation has taken place during the preceding twelve hours.

The ill effects of the drug which are most to be feared are those of acid intoxication. Vomiting is succeeded by drowsiness, which if untreated leads to air-hunger and coma. The breath smells of acetone, and acetone is found in the urine. A few deaths have occurred. Such a catastrophe may be avoided if the bowels are not

allowed to be constipated and if sodium bicarbonate is administered at the same time in double the amount. With the onset of acetonuria, vomiting, or drowsiness the salicylate should be stopped temporarily. I have been able to collect twelve cases of acid intoxication following the administration of salicylates, and in every one constipation had been present.

Arsenic, in spite of its general employment, ought not to be recommended, in my opinion. Its good effects are difficult to see, but its bad effects are occasionally only too obvious. Severe gastritis is apt to be set up, and not a few cases of arsenical neuritis have followed.

The good results claimed for ergot by Dr. Eustace Smith have not been obtained by most other physicians.

Sedatives such as trional, chloral, bromides, sulphonal, and chloretone are widely used. Of these sulphonal is far too dangerous a drug to employ in this condition. Chloretone is sometimes useful in doses of from 3 to 5 grains thrice daily; but, although it has only been used extensively for a few years, already cases of poisoning have been noted. To obtain sleep in maniacal or very restless forms of chorea, chloral and bromides are valuable, especially if combined with a warm pack.

After-treatment is important. When the chorea is no longer active, the child often remains apathetic, scarcely moving in bed, and occasionally refusing to speak. Good co-ordination may not be re-established for several weeks. Power is still feeble. In such cases absolute rest is no longer indicated, and does more harm than good. Massage and easy exercises should be employed, and the child should be encouraged to test her powers of motion and speech.

While still in bed such easy re-education exercises as touching the nose, apposing the fingers of the two hands individually, making figures or houses with bricks or dominos, and playing draughts, are all useful. Later, the cribbage board supplies a more difficult exercise, the patient being instructed to put the peg into particular holes—for example, into every second or fifth. Still more exacting is the building of card houses. The legs may be re-educated to perform co-ordinate movement in a similar manner. The following exercise is useful to begin with: Heel to toe, heel to shin, heel to knee, done first with one leg, then the other. Fraenkel's boards may be used when co-ordination has begun to improve. When the patient gets up the leg movements may be corrected still more by encouraging her to walk on a certain plank or along a straight line, or on a particular part of the pattern of the carpet. By such simple devices as these recovery may be hastened considerably.

ON AVOIDABLE DIFFICULTIES IN THE HAND-FEEDING OF INFANTS.

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So much has been written on the subject of infant feeding that it seems almost to require an apology from any one who ventures to add another to the many contributions which are made on this subject. The comparative values of raw milk and sterilized milk, of whole milk and milk diluted, of the various proprietary foods, of the usefulness of added sugar and cream—all these matters are discussed and rediscussed, and not without benefit to the reader, for the results of a man's own personal experience can never be anything but welcome. One cannot, however, avoid remarking that the writers, ably as they descant upon their several views, rarely ask themselves why it is that the infant should so often show a helpless incapacity to digest the food provided for him however skilfully this may be chosen, or however carefully it may be prepared.

Now the majority of children at birth are healthy and fairly vigorous, and a healthy normal child has a digestive capacity which as a rule adapts itself readily to a food chosen with judgement—that is, with due regard to the age of the infant and the probable competency of its stomach. If the child give trouble and show signs of acidity and flatulence, it does so in most cases because the digestive organs are already in a state of derangement. We must remember that a newborn baby is suddenly transported from a temperature of 100° F. in which he has grown and developed, to a temperature of 65° or 70°. This is its first shock: an abrupt drop of 30° or more in the warmth of its surroundings. The child is then, after more or less delay, bathed—often very leisurely; dried slowly, and afterwards laid quite uncovered upon his nurse's lap while she attends to the navel and sews on a flannel bandage. The exposure of the sensitive body during all this time, with little or no protection, to a temperature 30° below that to which it has been accustomed must constitute a second shock of no little severity. Many vigorous infants, no doubt, bear this exposure without obvious signs of injury, and if fed with discretion, especially if they have the advantage of a nurse's or mother's breast, give little trouble to their attendants. On the other hand, infants of low resisting power often by this means contract a serious chill which at once disorders the stomach and causes them to digest with difficulty even their mother's milk. They vomit after taking the breast or show signs of flatulence and discomfort, so that the mother, after a short trial, is instructed by her medical adviser to give up all idea of nursing, from the mistaken notion that her milk is unsuited to her child. If brought up by hand and fed from a bottle, such infants suffer still more urgently from vomiting, flatulence, and abdominal pain. For all this trouble the food chosen is generally held to be accountable, and change after change is made in the hope of hitting upon something which will be welcome to the stomach and put an end to the distressing symptoms, quite regardless of the fact that while the derangement persists no food can be expected to agree. If now the real nature of the difficulty be recognized and proper steps are taken, the signs of uneasiness begin to abate and finally disappear, for as the catarrh subsides the digestive processes recover their normal vigour. In that case the food last experimented with gets the whole credit of the improvement. But if the treatment be injudicious or incomplete, if the proper steps are not taken to avoid unnecessary exposure and protect the infant from further chills, the disorder of the stomach not only remains unrelieved but suffers almost daily a fresh impulse, so that that which was in the beginning a merely temporary upset becomes a confirmed disorder which drugs and changes of diet alone have little power to correct. It is only by attention to the simple cause of the trouble that we can have any hope of bringing the child's organs into a more manageable state and paving the way for his eventual recovery. Any one who examines an infant suffering from obstinate marasmus of this purely functional character will commonly find the feet icily cold, and probably the legs and thighs as well nearly as high as the hips. It is impossible that with such a condition of the circulation a child's digestive energies can be anything but unsatisfactory, and it is hopeless to expect an improvement as long as this state of things is allowed to continue.

It is by no means for the first time that I urge this vital matter upon the notice of the profession; but I find it very difficult to gain for it the attention it deserves. In spite of the consideration, which no one would venture to dispute, that to ensure completeness of digestion we must have healthy digestive organs to work upon, the means by which soundness of these organs is to be determined and maintained are too often completely ignored. The family practitioner is too apt to regard such domestic matters as washing, clothing, and nursery management in general as lying outside his province, to be left without hesitation or inquiry to the discretion of the child's mother or nurse. In some cases, no doubt, this can be done without risk of harm; but it is not every nurse, or even every mother, who is intelligent, careful, and accurate, and whose reports can be accepted as strictly in accordance with the facts. Without any intention to deceive, very wrong impressions may be conveyed; for loose thinkers are often poor observers, whose statements of fact must be received with caution, and only accepted if confirmed. Such persons are far too ready to mistake assumptions for realities, and to declare that to be right which they do not certainly know to be wrong. I should find it very difficult to say how often I have been told that an infant's feet were quite warm when the application of my hand has shown me that they were the exact contrary. I submit, then,

that care in these matters is as important—is even more important—than the choice of a food; and that a practitioner who neglects them is doing only half his duty, and is, moreover, setting up obstacles in his own path, and unwittingly creating difficulties which more prudent conduct would avoid.

I have ventured elsewhere[1] to formulate three simple rules for the hand-feeding of infants. These if carefully observed would, I am sure, make the rearing of bottle-fed infants a far easier matter than it often proves to be. I have no desire to claim any novelty for these rules, unless, indeed, it be new to bring simple reason and common sense to bear upon our task, taking account only of plain facts and leaving theoretical considerations on one side.

The first rule is directed to the maintaining of the warmth of the surface and the avoidance of chills from exposure:

1. Take care that the infant is bathed as quickly as possible in hot water, and that his feet and legs are never allowed to get cold.

The second rule aims at encouraging the digestive processes by variety of flavour in the food. This is a matter of great importance to hand-fed babies, especially to those whose digestive deficiencies have already been a cause of anxiety. An infant, it is true, will digest his mother's milk morning, noon, and night, and want no change. He is taking his natural food which his healthy organs are specially constructed to digest, and he draws it straight from the gland, fresh, pure, and uncontaminated by noxious germs. A hand-fed baby, on the contrary, whose food is only something like that provided by Nature, and is often far from pure, is apt to resent the monotony of his artificial diet. In any case, his stomach should have every advantage we can give it, and we learn from ourselves that variety in diet is an active aid to normal digestion. Therefore:

2. See that a sufficient variety of flavour is contained in the several meals.

It will usually be sufficient to give two differently tasting foods alternately in the day and a third for the night. In exceptional cases, however, a greater variety than this is required.

The third rule relates to cleanliness, etc.:

3. See that the feeding apparatus is absolutely clean, the food fresh, and the sanitary arrangements generally in good order.

Milk should be kept outside the living room; cream is only to be used when quite fresh; foods are not to be allowed to stand for hours after being mixed; and highly perishable articles such as whey, barley water, etc., must be made fresh and fresh as required. At any rate, whey is not to be depended upon after four hours nor barley water after six.

These rules, as I have said, are nothing more than reasonable precautions, and any thoughtful person might frame them for himself. I believe the neglect of them—and that the first two are continually neglected no practical physician would venture to deny—is due to the attention of the family medical adviser being too entirely engrossed with the conflicting claims of the legion of foods, digestives, and modified milks which are pressed upon his notice; and also, and perhaps chiefly, to his feeling that the nursery arrangements are none of his business, and must be left to the attention of the person who is responsible for them. Experience has, however, shown me that this is leaning upon a very feeble support, too apt to fail us at our need. In any case, it does not absolve the medical attendant from the duty of himself keeping an eye on these matters, for I think I am quite within the mark when I say that more than half of the cases where difficulties arise in the course of hand-feeding—cases in which the infant digests with difficulty, frequently vomits, and suffers continually from flatulence and discomfort—are due solely to breaches of the above rules. Owing to neglect of these precautions many young children contract a catarrh during the first few weeks or even the first few days of their lives. This mishap may so heighten their susceptibility as to be a cause, not only of serious trouble during the first twelve months, but of much anxiety for years afterwards. In every case of difficulty in the bottle feeding of an infant the practitioner should personally look into the conditions in which the child is being brought up, and do his best to remedy without delay any carelessness or neglect in the nursery. By this means he will be far more likely to bring about the result he desires than by any ingenuity he may show in devising a food, or care in prescribing the exact proportions of casein, sugar, and cream to be allotted to the several meals.

REFERENCE.

[1] See a paper by the author on "Infant Feeding" in the *Index of Treatment*. Bristol: J. Wright and Son.

ORAL SEPSIS IN GENERAL PRACTICE.

By ARTHUR MILLS, M.D.,

KINGSKETTLE, FIFE.

Soon after starting practice in this country district in Fifeshire I became impressed with the number of patients who sought my advice and who were suffering from what at first sight appeared to be a marked degree of anaemia. These patients were most frequently women, but, as a rule, considerably over the age that one associates with chlorosis. Their complaints were various in character, but usually referred to a disordered state of the digestive organs, want of appetite, flatulence, pain, and sometimes vomiting. Occasionally they volunteered the information that they had frequent "bilious attacks," or that they "suffered from their liver." On the other hand, the symptoms complained of were not infrequently those which could be more easily attributed to their apparently anaemic condition, namely, breathlessness on exertion, weakness, giddiness, and palpitation. Constipation was the rule in these cases, but rarely a very urgent symptom, and once or twice an attack of diarrhoea was the immediate cause of my being consulted. The one feature which led me to group these patients together as being of one type was the very evident pallor of the face and mucous membranes. The face had a pasty-white appearance quite unlike chlorosis, and the mucous membranes were decidedly pale.

At first my efforts in the way of treatment of these patients were directed to relieving the stomach symptoms with suitable drugs and diet, regulating the bowels, and then administering iron, the idea, of course, being to improve the blood condition, which I believed then to be the true cause of their trouble. The stomach symptoms were frequently relieved for the time being, but the blood condition appeared to be affected very little, and sooner or later the patient returned to repeat the story. All this was in marked contrast to the behaviour of a typical case of chlorosis which I treated about this time in the usual manner. The foul odour of the breath in one of these cases led me to make a more careful examination of the mouth than usual. I found that the patient had a large number of decayed stumps, that the gums were swollen and red, that they bled easily on pressure, and that pus could easily be expressed from between tooth and gum, in many places. I persuaded this patient to have her decayed stumps removed, ordered her a mouth wash of hydrogen peroxide, recommended the frequent use of a toothbrush, and afterwards prescribed iron in the usual manner. She made a rapid and complete recovery. Similar cases, and others where the condition of the mouth was by no means so evidently bad, responded equally well to this treatment.

According to Dr. William Hunter, the credit of having recognized the fact that indigestion may be caused by a foul condition of the mouth belongs to Professor Miller; but Dr. Hunter himself appears to have been the first to emphasize the importance of septic conditions in the mouth as a cause of disease.[1] He originated the name "oral sepsis," intending it to cover not only pyorrhoea alveolaris, which is only one (and a comparatively rare one) of a large number of possible pathological conditions in the mouth, but "every other form of trouble, dental and oral, producible by septic infection for which an appropriate adjective can be found," the essential feature of all being that they are produced by pus organisms.[2] It is in this sense that the term "oral sepsis" is now used, and it covers, amongst others, all such common conditions as dental caries, stomatitis (numerous forms), gingivitis, alveolar abscess, and pyorrhoea alveolaris.

Although there has been a tendency to attach more and more importance to this subject within recent years, yet modern textbooks of medicine devote little or no space to it, and it is probable that the general practitioner does not yet value oral sepsis at its true worth as a direct and indirect cause of many disorders and ailments which he is called upon to treat.

I have kept a record for the past four years of all those patients who have come under my care and in whom this condition appeared to have a direct bearing upon the case. They number 80—61 females and 19 males—and are of all ages between 7 and 70. Many of the commonest forms of oral sepsis appear to be quite frequently unaccompanied by any degree of pain, and it is of interest to note that of these 80 patients only 8 came to me with the condition of the mouth as their complaint.

The cases can be conveniently arranged into groups.

GROUP I.—*Oral Sepsis associated with "Indigestion" and Symptoms suggesting Anaemia.*

This group comprises 36 cases—27 females and 9 males. Want of appetite, pain in the stomach, flatulence, irregular attacks of vomiting—known in this district as "bilious attacks"—lassitude, breathlessness, giddiness, palpitation, were the most frequent complaints of these patients. All without exception were sallow and anaemic in appearance; 12 were young women between the ages of 19 and 25, and in each of these 12 cases a rapid and complete recovery took place after due attention had been paid to the septic condition of the mouth. Iron was administered in the majority of instances, but in 4 cases at least recovery followed without its use, and to all appearances as quickly and as completely. The remaining 24 of this group ranged in age between 25 and 70. Recovery in these cases, though not so rapid, was also the rule. It appears to be more difficult to persuade these older patients to submit to the necessary treatment. Many become reconciled to a low level of health, and accept weakness and lassitude, "indigestion," and a frequent "bilious attack" as part of their destined lot: 10 of these 24 are of this description and remain untreated.

GROUP II.—*Oral Sepsis and Disorders of Menstruation.*

The following are notes on 6 cases in this group:

(*a*) Did not menstruate till the age of 16. She had been systematically dosed with iron from the age of 14½ onwards. Menstruation started six weeks after the mouth condition had been treated.

(*b*) Menstruation started at the age of 17, three months after the treatment of her oral sepsis. She had also been treated with iron for long periods previously.

(*c*) First menstruated at 20, over a year after some attempt had been made to deal with the mouth. The menstrual periods are still very irregular and a recent examination of the mouth disclosed three or four decayed stumps, surrounded by soft red gum discharging pus, and an extremely dirty tooth plate.

(*d*) Age now 23, menstruated at 14, and for a few years was quite regular and had little discomfort. About three years ago began to suffer from pain, sickness, and vomiting for one or two days at each period. She also lost her appetite and suffered from an occasional "bilious attack." The periods have now become very irregular, and she frequently misses five, six, or seven weeks. There is a perfectly clear history in this case of marked oral sepsis from the age of 16 onwards. Her pallor is very striking. She has taken iron on different occasions for three months at a time with no appreciable effect.

(*e*) Menstruated first at 15½. Her periods were then very irregular and she had frequent attacks of sickness and vomiting and the appetite was poor. She had five months' amenorrhoea at the end of 1911 and beginning of 1912, at which time she had a chronic alveolar abscess. The whole of the upper teeth, which were extremely bad, were removed; her periods immediately returned and the dyspepsia ceased. She came to me again on November 1st, 1912, complaining that she had again missed five and seven weeks and that a fortnight before she had had an attack of sickness and vomiting. She had numerous decayed stumps in the lower jaw. These were removed on November 3rd. She menstruated on November 14th (nine weeks after her previous period) and subsequently on December 16th, and then middle of January, and there is now no complaint of "indigestion." This patient also suffered from interesting symptoms of *arthritis*, described in the appropriate group.

(*f*) Well-marked oral sepsis. She did not menstruate till she reached the age of 19. In this case the mouth was not treated. Dosing with iron, however, had no effect whatever, as she had had no iron for six months previous to the onset of menstruation.

GROUP III.—*Oral Sepsis and Vomiting in Pregnancy.*

The notes of the 3 cases in this group are as follows:

(*a*) Mouth untreated; suffered for five months from incessant sickness and vomiting, and was confined to bed for two months previous to her labour.

(*b*) I was called repeatedly to see this patient in the early months of pregnancy, as she was suffering from persistent vomiting. Most of the usual remedies were tried with no effect. Removal of septic stumps, and the frequent use of a mouth wash was followed in a week by almost complete relief. At the end of another week she was perfectly well. She had then completed the fourth month, however, when some amelioration in her condition might naturally have been expected.

(*c*) Consulted me when she had been seven weeks pregnant. She complained of constant vomiting for the previous four weeks, growing worse every day, and said that she could not retain even a mouthful of water. She was extremely anxious not to take to bed. Her mouth was in a filthy condition. I immediately removed twelve teeth and several stumps. The roots of one or two molars were fringed with foul smelling granulations. She was also ordered the frequent use of a mouth wash. At the end of one week there was well-marked improvement, and thereafter she suffered only from a little sickness in the mornings. The morning sickness ceased at the end of the third month.

GROUP IV.—*Oral Sepsis and the Climacteric.*

The 9 women in this group suffered greatly from the usual disagreeable symptoms associated with the menopause as well as from disorders of digestion. Three of them complained also of recurring attacks of an eczematous rash over the face and neck and wrists. In 5 the oral sepsis was treated, and they were soon rid of the greater part of their symptoms. The number treated included 2 of those who suffered from skin trouble, and in these 2 cases the rash did not reappear.

GROUP V.—*Oral Sepsis associated with other Localized Suppurations.*

From the following record of 9 cases it would appear that oral sepsis tends to lower the resisting powers of the individual to pyogenic infection in other parts of the body. In each of the following cases oral sepsis was a very marked condition:

(*a*) Had an anal abscess.
(*b*) A carbuncle.
(*c*) A septic hand twice within six months without history of injury.
(*d*) A septic adenitis (bubo) following a scratch in the region of the vulva.
(*e*) A septic prepatellar bursitis.
(*f*) An indolent corneal ulcer of nine months' duration. After the mouth was treated the ulcer gradually healed, though no change whatever was made in the local treatment.
(*g*) Three attacks of furunculosis in 1908, 1911, and 1912, a whitlow in July, 1912, and in August of the same year a septic finger following a slight bruise with no abrasion of the skin. The mouth was treated in September, 1912. There has been no further trouble.
(*h*) A septic tonsillitis in March, 1912, a septic hand in October, 1912, following a slight bruise without abrasion of the skin. This patient also suffered in 1911 and 1912 from severe acne vulgaris. Numerous septic stumps were removed in October, 1912, the tartar was removed from his sound teeth, and toothbrush and mouth wash were ordered.
(*i*) An indolent sore over an interphalangeal joint of many months' duration. This was supposed to be tuberculous, but looked more like a chilblain that had refused to heal. It healed up at once after treating the oral sepsis.

GROUP VI.—*Oral Sepsis and Arthritis (10 Cases).*

This forms an interesting group, and in it the direct relationship between the two conditions appeared most evident.

(*a*), (*b*), (*c*), (*d*), and (*e*) were 5 cases of true rheumatoid arthritis,[3] and in each the onset of the disease was preceded by a well marked septic condition of the mouth. Treatment of the mouth was carried out thoroughly in 2 cases, and was quickly followed by very great improvement. Both have since been entirely free from "active" pains, their troubles now being associated with the already deformed and partially ankylosed joints.

(*f*) Had an attack of rheumatic fever on September 16th, 1912. He was treated with sodium salicylate, and on the fifth day pulse and temperature were normal and there was no pain or swelling in the joints, though there was some stiffness. I was called again to see him on October 9th, as he was suffering from pain and stiffness in several joints, and he was unable to walk. The temperature was normal and there was no swelling or redness of the joints. He had no appetite, felt languid and weak, and showed marked pallor. The sodium salicylate had been

stopped on September 30th. A large number of decayed stumps were removed, and a mouth wash was prescribed and sulphur as an aperient. In a week he was walking about, and in another week had returned to work.

This case is in accordance with Rolleston's statement in his Hunterian Lectures on acute arthritis of doubtful origin, that a patient who has oral sepsis may recover from the rheumatic attack and subsequently suffer from arthritis due to infection derived from the mouth.

(*g*) A case very similar to the above, where the mouth was untreated. She was confined to bed for five months, and has made anything but a complete recovery.

(*h*) A woman of 60; complained of pain and stiffness in one knee of seven months' duration, growing gradually worse. On attempting to walk there was a decided limp, and she evidently suffered great pain. She also complained of some pain in the left shoulder, and one metacarpo-phalangeal joint was thickened and tender. She had a poor appetite, felt very weak, and looked "anaemic." Her mouth was thoroughly treated and she was ordered an iron and quinine mixture. In ten days she walked without a limp, and in three weeks was practically well.

(*i*) This patient's menstrual and digestive symptoms are recorded in Group II. She consulted me on November 1st, when she had had pain and swelling in two interphalangeal joints, and in one wrist, of three or four days' duration. Pulse and temperature were normal. The mouth was treated (numerous stumps removed) on November 3rd. On November 8th she complained of pain and swelling in another small joint, stiffness of both wrists in the morning, and pain in the left shoulder, and on November 14th, when the joints were almost well, she had an extremely tender, red, inflamed spot over one internal malleolus, with great swelling of the foot. Complete rest and hot fomentations for two days was followed by recovery. This patient has had no further trouble.

(*j*) This was a boy of 6½ who had had his tonsils removed on September 10th. I was called on October 7th, to find him suffering from rheumatic fever, and a few days later he had an attack of pericarditis. Dental caries had been very extensive from the age of 3 onwards. One decayed tooth had been broken when having his tonsils removed, and at the site of this broken tooth there was a mass of pulpy granulation tissue discharging pus.

Why we should be so careful to obtain asepsis in, say, an amputation of a finger and make no effort whatever to obtain the same condition in an amputation of a tonsil I am at a loss to understand. It is generally agreed, too, that the path of infection in rheumatic fever is by the tonsils, and it is also well known that an attack frequently follows at an early date after the removal of the tonsils. It is surely, therefore, not at all unlikely that that attack is either directly caused, or at least predisposed to, by oral sepsis.

OTHER CASES.

Besides the groups of cases mentioned above, some individual cases appear worthy of fuller description.

A. A man, aged about 45, consulted me because he had vomited once or twice during the preceding few days, was "unable to eat anything," and was "growing yellow." When I saw him he was suffering from typical catarrhal jaundice. Inquiry elicited the facts that he had had a very poor appetite for six or eight months and had been feeling anything but fit for his work. His mouth was not one of the worst, but the necessary treatment was undertaken, and he made a rapid and permanent recovery.

B. A woman, aged 32, was operated upon for a ruptured ectopic pregnancy. She was out of bed in three weeks and made a perfect recovery up to a certain point, but remained very anaemic for eight months. During that time she had all the advantages of fresh air and sunshine and good food, and was systematically dosed with iron. Treatment of her septic mouth was then quickly followed by a return to normal condition.

C. A man of 50, who, when I was consulted, was suffering from a severe attack of acute gastritis. He was very feverish and in great distress, the vomiting having been severe for two days. The mouth was one of the worst in my record, and the odour was perceptible immediately on entering the room. His wife informed me that "his breath had been like that since ever she knew him," and that "he had suffered from his stomach for many years." I was also informed that "he had tried everything," and that his daily diet for many months had consisted of a little milk pudding. Two of the lower incisors were easily removed with the aid of a pair of dressing forceps and scissors. Attention was given daily to the mouth, and it was quickly got into better condition. This attack of gastritis occurred eighteen months ago, since when the patient has enjoyed excellent health.

D. This woman had a severe attack of brachial neuritis, probably predisposed to by a long spell of oral sepsis and the consequent malnutrition.

E. A case of chronic phthisis of four years' duration had come to this district for a change of air. The cough was not at all troublesome, but she complained of "want of appetite and indigestion." The condition of her mouth was very bad indeed, but she informed me that she had been told "she was too weak to have anything done to it." Removal of the offending stumps was not at all difficult, and was quickly followed by improvement in the appetite and digestion. It must be admitted that in such a case as this the treatment of even a slight degree of oral sepsis might be all-important.

F. A woman, aged 46, had suffered from well-marked oral sepsis for at least ten years. A year and a half ago she had an attack of appendicitis, possibly a direct result of the septic mouth.[4] For some time previous to this, and up to the time when she consulted me, she had felt tired and out of sorts. She complained of intense pain over the eyes coming on a few minutes after attempting sewing or reading. She reported that she had had her glasses "strengthened" three times in three months. She was using 3.50 dioptres, although refraction showed she had barely 1 dioptre of hypermetropia. This was a case of severe asthenopia the result of oral sepsis. Optic neuritis was also well marked, and acuteness of vision was subnormal. Three weeks after the mouth was thoroughly treated these symptoms had disappeared.

G. I was called to see this woman, who had been in bed for three or four months. I was told that she had had an attack of cardiac failure, that she had had extensive dropsy, and that the abdomen had been tapped. She had evidently had a very serious illness. About a fortnight previous to my visit she had had intense headaches, but the pain in the head had gone, and she had become gradually more and more "stupid." She was only semi-conscious, was unable to speak, asked for nothing, but swallowed liquid food and water when they were given to her, and suffered from complete incontinence of urine and faeces. Her temperature was subnormal, and her pulse 72 and irregular. She had well-marked cardiac murmurs. The mouth emitted a very foul odour, and she wore an upper artificial plate. Inquiry elicited the fact that the plate had not been out since she took to bed. It was removed with some difficulty, and there was brought away with it a very septic tooth to which it was attached. Her lower incisors were also in a filthy condition. Treatment of the mouth was at once instituted. Improvement set in almost immediately. In a week the patient was quite sensible, and in fourteen days she was feeding herself, and had complete control over urine and faeces. Thereafter she made a perfect recovery.

As in a large majority of these cases of oral sepsis pallor of the skin and mucous membranes had been well marked, an appearance which Hunter records in 78 cases out of 1,000 out-patients coming under his notice during twelve months,[4] an effort was made to learn something of the character and degree of the anaemia which this condition produces. Examinations of the blood were made in six cases chosen from amongst those in whom this appearance of pallor was most striking. The results were as follows:

Females:	
Case I, aged 55 ...	Haemoglobin, 84% Reds, 4,600,000
Case II, aged 23...	Haemoglobin, 89% Reds, 4,216,000
Case III, aged 25	Haemoglobin, 90% Reds, 4,400,000
Case IV, aged 52	Haemoglobin, 84% Reds, 4,400,000
Case V, aged 46 ...	Haemoglobin, 85% Reds, 4,350,000
Male:	
Case VI, aged 28	Haemoglobin, 93% Reds, 4,512,000

These figures would show that oral sepsis in the forms in which it is commonly met with does not of itself necessarily produce an appreciable degree of true anaemia, but rather a condition of pseudo-anaemia such as is commonly observed in a person suffering from nausea. The same condition is observed in Bright's disease, and in some forms of heart disease, where we know that a marked pallor may exist with haemoglobin and corpuscles nearly normal.

This finding has of course nothing to do with the possibility of oral sepsis being the cause of certain malignant forms of anaemia as described by Hunter and Dalton.

The general appearance of the patient appears to be no index whatsoever as to the condition of the blood. After making these six examinations I took a specimen of blood from a young perfectly healthy pregnant woman. By no stretch of the imagination could she be described as looking "anaemic" and yet her blood only showed 68 per cent. haemoglobin and 3,900,000 reds.

CONCLUSIONS.

1. That oral sepsis is a very prevalent condition. That its effects are definite and far-reaching, and that it must form a very important factor in the general health of the community.

2. That, as many forms of oral sepsis are not associated with pain, the patient rarely complains of the condition of the mouth, and as his general appearance and symptoms are frequently strongly suggestive of anaemia, the true state of the case may easily be overlooked.

3. That it is a common cause of disorders of the stomach, is directly associated with different forms of arthritis, and that it either predisposes the individual to, or at times directly gives rise to, suppurative processes in other parts of the body.

4. That at critical periods in the life of an individual, as for example at puberty, during pregnancy, at the climacteric or in the course of a chronic disease, it may be the all-important factor in the case.

REFERENCES.

[1] Dental Diseases in Relation to General Diseases, especially to Infective Gastritis, *Odont. Soc. Trans.*, January, 1899. [2] BRITISH MEDICAL JOURNAL, July, 1900. [3] Article on Rheumatoid Arthritis, *Allbutt's System*, 1909. [4] BRITISH MEDICAL JOURNAL, November 19th, 1901.

AUTOGENOUS VACCINES IN THE TREATMENT OF CHRONIC JOINT AFFECTIONS

(RHEUMATOID ARTHRITIS AND GONORRHOEAL ARTHRITIS).

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RHEUMATOID ARTHRITIS is, I think, a misleading term. I would prefer to call the condition "metastatic arthritis"—that is, metastatic to some infective focus in the body.

The joint is swollen and more painful at times than at others; the muscles around the joint show marked wasting. On palpation the local temperature may be slightly raised, the synovial membrane is thickened and fringing of it may be felt. On movement of the joint a soft crackling is felt, very different to the bony creaking felt in osteo-arthritis, which latter I consider to be quite a different disease, although in more elderly subjects rheumatoid arthritis may pass on to a condition of osteo-arthritis. Further, in some cases of rheumatoid arthritis there is a considerable quantity of free fluid in the joint cavity, and lateral mobility in the joint itself can be obtained.

Pathologically, rheumatoid arthritis presents features of a chronic infection, the synovial membrane is pinker than normal, it is soft and succulent, and often villous processes project from it. The articular ends of the bones beneath the articular cartilages show rarefaction, while microscopically there is present some extent of round-celled infiltration in the synovial membrane. Although the synovial membrane is thickened, it does not show a tendency to ulcerate or undergo destructive changes, as in the case of tubercle, and possibly syphilis.

I have repeatedly tried to obtain cultures from the fluid aspirated from these joints, using various culture media, but in no case with success. It has been suggested, and I think feasibly, that the organisms present are in such a low state of virulence and numbers that they will not grow; others have said that the organisms lie hidden in the connective tissues of the synovial membrane, but a very careful search in a series of cases failed to reveal any such organisms. Other observers assert that they have been able to grow organisms from these joints, and have produced this villous type of rheumatoid arthritis in rabbits by inoculating the animal with this organism; but such observations have not been confirmed.

I think we can safely say that the cause is not a form of tubercle. There is no tendency to caseation or to the formation of abscesses and sinuses or to destruction of articular cartilage. Von Pirquet's reaction has invariably been negative; this fact, though proving nothing, at any rate helps in excluding tubercle.

Further, I think we can exclude syphilis. It is true there is a type of syphilitic rheumatoid arthritis, but it is rare, and rheumatoid joints do not resemble syphilitic joints. Out of a large number of cases tested only a very small percentage have given a positive Wassermann reaction. The majority gave a negative history of syphilis, and those who gave a positive Wassermann reaction and in whom there was other evidence of syphilis did not respond to antisyphilitic treatment only, as far as their joints were concerned. I would, however, suggest that the Wassermann reaction be tried in these cases, for if it be positive it is well to administer antisyphilitic treatment along with treatment appropriate for the joint condition.

I have been interested some five years in this disease, and am becoming more convinced that rheumatoid arthritis is due to metastasis from some infective focus. The disease attacks the young and middle-aged, and in children there is that form called Still's disease, the cause of which is not yet ascertained.

Metastatic arthritis may commence at so early an age as 15 or 16. Commonly we see it in young women at 18 years and upwards. From 35 years onwards to the menopause it is again common. Frequently it is said to follow parturition, and other diseases affecting the female genital organs.

The three main points in the treatment of this disease are:

1. To find the infecting organisms.
2. Having found them, to raise the opsonic index of the individual against these organisms; this is most quickly accomplished by the use of autogenous vaccines.
3. Having rendered the patient artificially immune, to remove where possible the primary focus and apply local treatment to the affected joints.

The commonest foci of infection in my cases have been the following:

The Teeth.

Pyorrhoea alveolaris is frequently associated with rheumatoid arthritis. I have frequently seen cases who have been to American dentists and have been fitted with a dental plate. On removing the plate a series of stumps have been disclosed beneath it, bathed in pus of a most offensive kind containing a very mixed infection. Gold crowns are also bugbears. A dentist friend, by way of experiment, placed a gold crown over a carious molar tooth of his own and awaited results. He developed joint pains, rheumatic pains about the shoulders and back, which subsided immediately the crown was removed. The tonsillar crypts are also another source of infection. I have at present a case of a woman suffering from a very progressive type of rheumatoid arthritis, the primary focus being a pair of caseous, dirty tonsils, causing her, amongst other things, to have a most offensive breath.

In cases of pyorrhoea I have found the following form of treatment give most satisfactory results, and in a number of cases cure.

The mouth should be thoroughly washed and the teeth scrubbed for two or three days with normal saline solution without antiseptics. This gets rid of all extraneous matter from the teeth. At the end of three days a small quantity of pus is squeezed up from the gum, a slide taken, and agar tubes inoculated.

It has been a well-marked phenomenon that in these cases of mouth infection there is marked breaking up of the leucocytes seen on the slide taken, and very few of the organisms are intracellular. In brief, there is a poor attempt at phagocytosis. A vaccine is prepared and an initial dose, varying with the patient, given. After the second injection, if a second slide be taken and stained, it is often remarkable to see the phagocytosis present. It is now evident that the opsonic index is increasing, and this is the time to remove the septic stumps and bad teeth.

I have known cases in which doctors have advised patients to have their teeth removed for this condition. The whole mouth has been cleared at one sitting, and after all this the patient's joint condition has become worse. The teeth should be removed two or three only at a time, and this only after the opsonic index has been raised. Otherwise a large raw surface for absorption is opened up to organisms to which the patient has but poor resistance. If many stumps are removed while the patient's immunity is being artificially increased by means of autogenous vaccines, anaphylactic symptoms appear.

This treatment of joints associated with pyorrhoea has given such gratifying results that I now use it as a routine procedure.

In caseous tonsils a vaccine should be prepared and given, and then enucleation of the tonsils performed.

The Nose and Naso-pharynx.

Rheumatoid arthritis in connexion with septic polypi in the nasal cavities is not uncommon. In a girl aged 18, who had rheumatoid arthritis well started in the joints of the fingers of both hands, a vaccine containing *Micrococcus catarrhalis* and *Staphylococcus aureus* was made from her own discharge. There was in this pus no attempt at all at phagocytosis. She was vaccinated, but phagocytosis was most marked after the second inoculation of the vaccine. The polypi were then removed and she made a complete recovery from her joint trouble, having had no recurrence, either in the joints or of the polypi.

Chronic suppuration in the sphenoidal and frontal sinuses and in the antrum of Highmore are again possible foci of infection. I have opened a knee-joint for acute pneumococcal infection following on a pneumococcal infection of the maxillary antrum.

Chronic Otorrhoea.

I have seen one case of rheumatoid arthritis of both knee-joints clear up in a middle-aged woman after vaccine inoculation combined with clearing out of the antrum and middle ear. Here, again, few bacteria were intracellular. It is therefore very important in cases of these metastatic joints to make a thorough examination to exclude a primary focus in the mouth, nose, throat, and ear.

The Lungs.

Rheumatoid joints have been associated with bronchitis and bronchiectasis. I remember a case of the disease associated with bronchitis in which the pneumo-bacillus was isolated. A vaccine was prepared and given and the joint condition improved markedly, and finally the patient went back to work.

The Intestinal Tract.

Rheumatoid arthritis is often associated with dyspepsia, and I have seen it in association with chronic gastric ulcer and chronic appendicitis. With both these conditions there is a degree of intestinal stasis. I have frequently opened the abdomen and found the condition of pericolitis of a membranous kind affecting peristalsis. I can recall cases of marked amelioration in rheumatoid joints after gastro-enterostomy and ileo-sigmoidostomy, and Mr. Arbuthnot Lane has had cures. In this type of case vaccines do not produce much benefit. The condition causing the stasis must be removed. An *x*-ray examination should be made after a bismuth meal and any stasis or kinks looked for. If the intestine can be proved to be working efficiently, a very careful bacteriological examination of the urine should be made. If organisms are found —notably *B. coli*, in the absence of intestinal stasis—a vaccine should be made, and in this special type of case I have seen a great deal of good follow.

Leucorrhoea.

This often dates from a confinement, and in a number of cases I have examined I have found a displaced uterus and retention of some products of conception which have become adherent to the uterine wall. Any inflammatory condition in the uterine annexes will by contraction tend to deviate the uterus and cause passive congestion with leucorrhoea. Cultures taken from inside the cervix in these cases have shown mixed infections, the commonest form of organisms being the *B. coli*, a diplococcus, and staphylococci.

The vaccine base should be given prior to rectifying the uterus, so as to raise the immunity. I have seen many cases made worse by curettings and other operative procedures performed when the patient's immunity was low, but I have never seen anything but good follow when the surgical procedures have followed the second inoculation of the vaccine.

When once the primary focus is cut off and the patient's immunity raised to the particular infection, local treatment by Bier's bandage, Scott's dressing, etc., to induce an artificial hyperaemia with blood now enriched with opsonins, may be instituted. It is useless to resort to these local measures, and baths and spa treatment alone; the symptoms only and not the cause are treated. For contractions I usually apply extension during vaccine treatment. I have not seen drug cataphoresis do any good.

Chronic Gonorrhoeal Arthritis.

I believe this to be due to a mixed infection of the gonococcus and staphylococcus. The joints are characteristic. There is swelling and often oedema in the tendon sheaths around, well seen in the wrist-joint, marked pain, and a very early tendency to stiffness and limitation of movement of a most obdurate character. Adhesions form both within the joint and around it within the fibrous capsule, tending early to fix it. Any attempt at forcible movement is painful and only tends to again light up the trouble.

A vaccine should be made from the urethra by inserting the loop well into the meatus. The gonococcus grows best on slightly alkaline agar the surface of which has been smeared with decomplementized blood serum. I am very indebted to Dr. D'Este Emery for drawing my attention to this and sending me some tubes.

I give 100 million gonococci and 150 million staphylococci for a preliminary dose, and increase it to even 500 million gonococci and 1,000 million staphylococci, provided the reaction is not great. After the second dose an anaesthetic is given, and the adhesions in the joint broken down. I have seen no harm follow this proceeding, and with massage and daily movements while under the influence of vaccines I have patients back at their work again whose joints have been given up as hopeless. Bought vaccines do not appear to act so well as autogenous in these cases, and this has been most marked in some of my cases. Gonococcal arthritis is perhaps one of the types of case which best lends itself to autogenous vaccination.

Combined with this the chronic gleet should receive attention, and the best method I find is massaging the penis over a stout metal bougie passed into the urethra, followed by the insertion of a protargol bougie. Copaiba should at the same time be administered by the mouth.

VACCINES IN THE TREATMENT OF CHRONIC BRONCHITIS AND OF ASTHMA.*

By J. H. HARVEY PIRIE, M.D., F.R.C.P.E,
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Chronic bronchitis, with a tendency to frequently recurring acute attacks, and asthma, with or without bronchitis, have this at least in common from the point of view with which I am here concerned—namely, that they are frequently obstinate in their character and difficult to cure. Any method, therefore, which gives better or more permanent prospects of relief than those commonly in use seems worthy of trial, and I hope to show by a survey of the cases I have had under treatment during the past three years that in vaccine therapy we have a remedy which, if it does not always effect a complete cure, does, at least in most instances, give considerable relief, even in cases where other measures have failed more or less completely.

Recurrent Bronchitis.

The cases upon which this opinion is based are selected ones—not in the sense that I have picked out all those in which the results are good and discarded the others, but in the following respects: (1) All are cases in which the complaint was of some standing. (2) All have been under other forms of treatment for varying periods, but with more or less want of success. As, however, in most instances the other methods of treatment (medicinal, hygienic, etc.) were continued with, any difference in the results may fairly be attributed to the additional factor—that is, the vaccine. (3) Only those which have been under observation, or have been followed up, for some time have been included. This excludes cases which have only been under treatment quite recently and in which it is too soon to speak with any certainty as to the results; also those in which treatment was only carried out for very short periods and then, for one reason or another, given up. If the latter group were included, the failures would certainly bulk larger, but it would hardly be fair to judge a method by cases in which treatment had not been given a reasonably long trial.

* Read before the Medico-Chirurgical Society of Glasgow.

Autogenous vaccines were always employed, prepared usually from the sputum (obtained as free from contamination as possible, after cleansing of the mouth by brushing and rinsing out with boiled water), occasionally from swabs taken from the naso-pharynx. The details of preparation of the vaccine have been modified from time to time, but it has been my invariable practice to include in it all organisms found abundantly both in film preparations and in culture, so as to make as certain as possible of including the actual offending germs. I believe this is essential, because at present we have really no satisfactory method of determining which of the organisms found are pathogenic and which are not. It has also been my endeavour to employ always strains of organisms but little removed from those occurring in the human subject, and latterly nothing more remote than the first subcultures have been used. By making the original cultures fairly thin, it is usually possible to obtain pure growths in the next generation; where this has not been the case mixed growths have been employed to make up the vaccine, as potency is to my mind more important than extreme accuracy in dosage of the individual organisms in a mixed vaccine. Another important point in making subcultures, especially in dealing with such organisms as the streptococci and the *M. catarrhalis* group, is that they should be made from several colonies, and not from one only. So many strains of these organisms are probably quite non-pathogenic that, until better means of differentiating them are found, it is necessary to include a good representation so as to ensure having some of value.

Chronic or Frequently Recurrent Bronchitis.

Bacteriology of 16 cases:

Pneumococci	12 cases.
M. catarrhalis group	12 ,,
Streptococci	6 ,,
Staphylococci	5 ,,
Bacilli of Friedländer group	5 ,,
M. paratetragenus...	3 ,,
Unidentified organisms	2 ,,

Mixed growths occurred in all cases, and the vaccines have generally contained two or three organisms, sometimes even four. The most striking difference between this table and that given by Allen[1] is the complete absence of the *B. influenzae*. This may be partly due to the fact that I have not always used blood-agar for cultures, but as film preparations were invariably examined I think the chief reason is the rarity of this organism in Scotland at the present time. In this connexion it may be stated that the epidemic of so-called influenza prevalent here this winter has, in my experience, been caused invariably either by pneumococci or streptococci.

The following are short notes of 6 representative cases out of these 16:

CASE I.

M., aged 40. Chronic bronchitis and pharyngitis. In October, 1911, his sputum showed pneumococci and a few staphylococci. Doses containing 50 million of the former organism only were put up and sent to his medical attendant with instructions to give a half-dose at once when any acute exacerbation threatened, otherwise to give a full dose once a week. The attacks were reported later to be cut short by this plan, and also to be less frequent. In December, 1912, the sputum showed pneumococci and *M. catarrhalis* to be dominant, and a fresh vaccine containing 50 million of the former and 200 million of the latter was sent with similar instructions. The latest report (March, 1913) states that the patient "has been able for work all winter, and has only had two comparatively trivial attacks of bronchitis." (Greatly benefited.)

CASE II.

F., aged 14, who for several years has suffered from almost constant nasal and bronchial catarrh with acute "influenzal" attacks. Neither the nasal nor the bronchial secretion showed the presence of any *B. influenzae*, but from growths obtained a vaccine was prepared containing 25 million pneumococci, 100 million *M. catarrhalis*, and 60 million of an organism of the *B. Friedländer* group. Treatment with this at first, and later with double these amounts, for a period of six months at from seven to ten day intervals, has greatly improved the patient's general health and lessened the tendency to acute attacks, but there is still wheezing in the chest and a good deal of nasal discharge. Treatment is being continued with still larger doses. (Greatly benefited.)

CASE III.

M., aged 28, undergoing treatment for nasal obstruction, and who for two years has had increased susceptibility to attacks of bronchitis. Sputum contained abundant pneumococci and no other organism grew in cultures. Three months' treatment with doses ranging from 40 to 200 million resulted in complete freedom from bronchitis which has lasted up to date for almost a year. In this case, however, the honours must probably be shared between the vaccine and the surgical measures in the nose. (Cure.)

CASE IV.

F., aged 22, who for three years has suffered from chronic bronchial catarrh, worst in winter, with frequent "catching of colds," which often amount to actual bronchopneumonia. She is free from cough at times, but there are always rales to be heard in the chest. Tuberculosis was suspected for a time, but tubercle bacilli have never been found in the sputum. Examination of the sputum at various times constantly yielded pneumococci and *M. catarrhalis* with occasionally *M. paratetragenus* or staphylococci. Vaccine treatment carried out practically without intermission for a year, the dosage being pushed up to 200 million pneumococci and 500 million of each of the other organisms. After that treatment was stopped. Result one year later: Complete freedom from acute bronchial attacks, although there are still some moist sounds in the chest and occasional cough, but not sufficient to bother the patient much. (Practically cured.)

CASE V.

F., aged 44, who had resided for a number of years in the East Indies. Since her return to this country about five years ago she has suffered from almost constant bronchitis. Before coming under my care she had undergone almost a year's vaccine treatment in London, but with very little benefit. Careful examination revealed nothing wrong beyond the bronchitis. Under treatment for six months with vaccines of several organisms—pneumococci, streptococci, *M. catarrhalis*, and pneumo-bacilli. The composition of the vaccine was varied several times, and the dosage was pushed until as much as 1,000 million *M. catarrhalis* and 500 million of mixed pneumococci-streptococci were being given, doses which gave the patient considerable general discomfort, but which did not result in any amelioration of the symptoms. The treatment was then given up, and this winter the patient has spent in South Africa, to see the effect of a warmer and drier climate, but with what result so far I have not heard. (Failure.)

CASE VI.

M., aged about 40, with chronic naso-pharyngeal catarrh and crepitations near one apex (tubercle pretty well excluded), every now and again bronchitis and bronchopneumonia. In March, 1912, sputum gave a growth of pneumococci, *M. catarrhalis*, and a minute motile Gram-negative bacillus (which grew on ordinary agar). The patient was given a vaccine containing these three organisms for about five months, with resulting considerable improvement both in his general health and in the local condition. In November, 1912, up till which time he had been free from any bad colds, his sputum and naso-pharyngeal secretions were examined, and on this occasion a growth of *M. catarrhalis* and streptococci was obtained. The patient was put on a vaccine of these organisms, and this winter, although his general health has not been good, he has only had one bad attack of tonsillitis and pharyngitis, which, however, did not extend further down the respiratory tract. (Considerably improved.)

Summary of Results of Treatment in the Sixteen Cases.

In 7 cases there is now such almost complete freedom from colds and bronchitis that they may be considered as practically cured.

In 4 there has been marked improvement, although they cannot be said to be quite cured; two of these are still under treatment.

In 4 the improvement has only been slight. In none of these was treatment persevered with for over four months.

In 1 case there was no improvement even after eighteen months of vaccine treatment.

From these figures it may be said that vaccine therapy does hold out very considerable hope of effecting improvement in chronic bronchitis even in cases which have proved resistant to other modes of treatment, but—and there is always a but—it cannot be said to be certain of doing so, and in all cases it should be made clear to the patient at the outset that fairly long continued or repeated courses of inoculation are likely to be necessary to obtain good and lasting results. The average length of time for which these 16 cases were under treatment, constantly or intermittently, was nine and a half months.

I would now advise any patient, even when supposed to be cured, to have occasionally a few protective inoculations against any organisms to which they are specially sensitive, and more especially before the onset of winter. For this purpose either an autogenous vaccine might be employed, or one of the several so-called "combined vaccines for colds" which are on the market, and which aim at producing immunity against all of the commoner cold-causing germs. I have no personal experience of the use of these, but one objection which they seem open to as regards their use in Scotland is that none of them are suited in their composition to the infections which are

most common here at the present time, however suitable they may be for other parts of the country.

The dosage of the vaccines employed has varied considerably in the different cases, but the general tendency has been to increase the amounts given, pushing the dose in each individual case until one is arrived at which produces after inoculation some definite reaction in the way of general discomfort, slight feverishness usually, and not infrequently some temporary aggravation in the amount of the bronchial secretion.

Vaccine treatment is not, of course, recommended to the exclusion of other measures, but simply as an "extra" where these fail to give satisfactory relief. The ordinary medicinal and hygienic measures applicable should be employed, and, in particular, I consider it highly important to cleanse the nose and naso-pharynx at least twice daily with some form of douche and swab to remove mechanically at least some of the offending organisms which are constantly lurking in these situations, ready to infect the lower respiratory passages when given a suitable opportunity.

Asthma.

In the case of asthma we have to deal with a disease which is different from bronchitis, in that it is by no means of purely bacterial origin, but without going into the vexed questions of its etiology and pathology, I shall merely say here that I am of opinion that in many cases microbic infection is one, and an important one, of the factors which may precipitate an asthmatic attack. This is probably especially the case where there is bronchitis or infection of some other part of the respiratory tract associated with the spasmodic asthmatic attacks.

Asthma. Bacteriology of 15 cases:

Pneumococci	present in all cases.	
M. catarrhalis group ...	,,	14 ,,
Staphylococci	,,	8 ,,
Streptococci	,,	6 ,,
B. of Friedländer group ...	,,	6 ,,
Diphtheroid bacilli	,,	3 ,,
M. paratetragenus	,,	1 case.
B. influenzae	,,	1 ,,
Unidentified organism ...	,,	1 ,,

Mixed infections are commoner in my cases than in those recorded by Allen.[1] The pneumococcus found in all my cases seems to take the place of the streptococci which he records from 96 per cent. of his. Many of his streptococci occurred either in exceedingly long chains or as a form which he calls *S. maximus*, the individuals being large and some of them in each chain Gram-negative. I have met with both forms amongst my cases. Carmalt Jones regards an organism which probably belongs to the *Micrococcus catarrhalis* group as a possible cause of asthma.

Case I.

F., aged 28, who has suffered from bronchitis with occasional asthmatic attacks—not, however, of a very severe nature—for several years. The first examination of the sputum, obtained during an attack, gave a growth of *M. catarrhalis* and diphtheroid bacilli, and a vaccine was prepared containing 100 million of each. A half-dose was given first, then three full doses. A second examination of the sputum showed the presence also of pneumococci; 25 million of these were added to the vaccine and administration continued weekly for three months, the dosage being gradually pushed to double the original amounts. Treatment was then stopped, and four months later (April, 1913) the patient reported that she had been free from asthmatic attacks, although she still had some bronchial catarrh. (Considerable improvement.)

Case II.

F., aged 37, with chronic bronchitis and asthma of long standing. Greatly emaciated. Organisms: Pneumococci and *M. catarrhalis*. A dose of vaccine, containing only 16 million of the former and 50 million of the latter, brought on next day an attack of acute bronchitis. A subsequent injection of half those amounts was also followed by considerable reaction. Treatment was persevered with for three months at about ten-day intervals; in no instance was a bigger dose than 20 million pneumococci and 60 million *M. catarrhalis* given, and every dose was followed by considerable discomfort and frequently by an actual asthmatic attack. As no improvement was taking place, further treatment was declined. (Failure.)

Case III.

F., aged *circa* 40. Severe asthmatic attacks for several years; no bronchitis. Also suffers from cystitis. Cultures from the sputum on several occasions always yielded pneumococci and *M. catarrhalis*. Treatment was commenced with 12½ million of the former and 100 million of the latter, the dosage being soon increased to double those amounts. Injections weekly were continued over a period of almost ten months, with the result that the attacks are becoming much less frequent and less severe. Treatment is being continued. (Considerable improvement.)

Case IV.

M., aged 51, had suffered from bronchitis and asthma since childhood, and had also an old tuberculous lesion at one apex, which has for many years appeared to be quite quiescent. First culture almost pure pneumococci, a few *M. catarrhalis*, and diphtheroid bacilli. After two months' weekly injections of an autogenous pneumococcal vaccine in doses of from 50 to 120 million there was distinct improvement in the patient's breathlessness and in the frequency of the asthmatic attacks. A second examination of the sputum gave a growth of the same organisms, but a vaccine was made up containing pneumococci 100 million, *M. catarrhalis* 150 million, and diphtheroid bacilli 25 million. Treatment with this was continued for three months, injections being given weekly. At the end of this time the patient volunteered the statement that his asthma was very much improved, and that although he seemed to be bringing up more sputum, it came very much more easily. He then wished to try without further treatment, and since that time—nearly a year ago—has not been heard from. (Considerably improved.)

Case V.

F., aged 50, with bronchitis and asthma of ten years' standing. Organisms from sputum: Pneumococci, long-chained streptococci, and abundant bacilli of the Friedländer group; on a later occasion a few colonies of *M. catarrhalis*. Treatment for four months with a vaccine of mixed streptococci and pneumococci 60 to 180 million, and bacilli 200 to 400 million produced some improvement, but not sufficient to induce the patient to continue treatment for longer, as she objected to the pain and stiffness incidental to the injections. (Slight improvement.)

Case VI.

M., aged 40, who has suffered from asthma since infancy. Cultures both from the sputum and direct from the naso-pharynx gave a growth of pneumococci, *M. catarrhalis*, some streptococci corresponding in character to Allen's *S. maximus*, and a few leptothrix-like organisms. Four months' treatment with pneumococcal-streptococcal (25 to 100 million) and *M. catarrhalis* (100 to 200 million) vaccine has produced very distinct improvement. Treatment is being persevered with. (Considerable benefit.)

Case VII.

F., aged 20, with asthma, bronchitis, and nasal catarrh of ten years' standing. The patient has had nine operations on the nose, with in one instance about a year's relief from asthma. She has also tried residence abroad, and is particularly careful in looking after herself, but withal has very frequently to have recourse to sprays and other asthmatic remedies. Before treatment was commenced she was showing no tendency to improvement either in frequency or severity of attacks, but was rather drifting into chronic invalidism. Examination of swabs and sputa on numerous occasions always showed the presence of pneumococci and *M. catarrhalis*, and at times of such organisms as staphylococci, streptococci, diphtheroid bacilli, *M. paratetragenus*, and bacilli of the Friedländer group. The vaccines employed have always contained the first two organisms, and at times some one or more of the others; comparatively small doses have been employed throughout. Treatment was commenced in May, 1911, and has been kept up since that time, the injections being given as a rule weekly. In the summer of 1911 she was comparatively well, but this was not unusual, as she was always freer in summer than in winter. The winter of 1911–12, however, showed a marked improvement upon any past winter for a number of years. In the summer of 1912 the injections were reduced for a time to fortnightly, but as in the autumn there was a tendency to recurrence of attacks, the vaccines were again given weekly, and have been continued so up till the present time. The patient has come through this winter—a particularly trying one—with only one cold, which soon cleared up, and a very slight asthmatic attack, and she has been able to participate in all sorts of exercise and social events. (Practically cured.)

Case VIII.

F., aged 55, for many years had been troubled with frequently recurring attacks of bronchitis and asthma, especially in winter; latterly they had been becoming more common and less easy to throw off. In September, 1910, sputum gave a growth of *M. catarrhalis* and pneumococci, and a vaccine was prepared containing 200 million of the former and 25 million of the latter. Twelve doses of this were given at intervals of about a week, save for two intermissions during acute attacks. During January and February, 1911, the patient was free from acute exacerbations, but in March had an attack, when, in addition to the same organisms as before, pneumo-bacilli were obtained in culture. A fresh vaccine containing 300 million *M. catarrhalis*, 50 million pneumococci, pneumo-bacilli in amounts ranging from 50 to 200 million, was made up and given weekly. In May the patient stated that she had passed the best winter and spring she had had for twelve years. Vaccines stopped in June, 1911, and the patient remained almost free from colds till January, 1912, when a fairly severe attack occurred, the organisms found being pneumococci and pneumo-bacilli. A small dose of vaccine was given and the attack cleared up quickly, then four larger doses were given during the next

month. She had one further slight asthmatic turn in April. During the summer of 1912 she remained quite free; this winter she has not been under observation, but at Christmas time she wrote saying she had had no further attacks. (Practically cured.)

CASE IX.

F., aged 18, with bronchorrhoea, constant colds, and asthma of at least six years' standing. Tonsils and adenoids have been removed, but without much improvement. In January, 1912, she was put on an autogenous vaccine of pneumococci (75 million) and *M. catarrhalis* (200 million) weekly. In September on one containing pneumococci 125, pneumobacilli 100, *M. catarrhalis* 300, and staphylococci 300 million. In December, 1912, the dosage was commenced to be pushed. Pneumococci 200 up to 500, *M. catarrhalis* 300 to 800, and staphylococci 300 to 800 million, with excellent results. The patient at the present time (April, 1913) has been free from asthma for four months, although she still has some bronchial discharge, and catches cold rather freely. Treatment is being continued, but now with rather smaller doses. (Much improved.)

Summary.

Of the 15 cases 6 must be excluded from the present survey as having been for too short a time under treatment to state the permanency of the results; of the remaining 9 (those given above)—

2 may be regarded as practically cured and free from asthma;
5 have been considerably improved;
1 shows only slight improvement; and
1 has not been benefited at all.

These figures are, as might be expected, not quite so favourable as in the case of simple chronic bronchitis, but they are at least sufficiently encouraging to warrant a trial of vaccines in intractable cases of asthma. Here again, however, prolonged treatment is necessary. My cases have been receiving injections, constantly or intermittently, for, on an average, over ten months, and in the two instances in which the best results have been obtained for nearly as long as two years.

With regard to dosage, I have not found it advisable to push the amounts to the same extent as in chronic bronchitis. Asthmatics are usually too sensitive, and large doses are apt even to excite actual attacks. Only in one instance (Case IX) have doses which I would consider at all large been found of advantage.

Even more than in the case of bronchitis must other possible factors in the causation of the spasmodic dyspnoea be attended to if good results are to be obtained, particularly the state of the whole respiratory and alimentary tracts. In a recent paper Charlton Briscoe [2] lays stress upon septic absorption as playing a prominent part in the production of asthma, and insists on the importance of discovering the source of this absorption, and its removal if possible, also the employment of constitutional and special treatment by drugs, etc. The place for vaccines is as an adjunct to those methods when they do not produce the desired results. With this opinion I am in substantial agreement.

It should be stated that whilst I am wholly responsible for the vaccine treatment in most of the cases, in some instances treatment was commenced by the late Dr. James Miller, but the patients have since been under my charge.

REFERENCES.

[1] R. W. Allen: *Bacterial Diseases of Respiration and Vaccines in their Treatment*. London, 1913. [2] Charlton Briscoe: *Journ. of Vaccine Therapy*, February, 1913, p. 29.

THE Medical Chamber of Vienna has decided to make a careful investigation in the municipal schools of Austria with reference to scholastic hygiene. When the investigation is complete the results will be taken as a basis for the formulation of principles to be applied to the whole scholastic medical service throughout the country. The details will be left to the local authorities. In the meantime a society of school hygiene has been formed at Vienna.

COURSES of training in hygiene and tropical medicine for missionaries were established two years ago by the Institute for Foreign Missions in Lombardy. At the present time some thirty young priests who propose to work as missionaries are receiving instruction. On April 5th they were examined by a commission composed of three doctors. There were also present at the examinations Dr. Vogano, Bishop of Ezane, the Director of the Institute, and other clerics connected with foreign missions.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

POISONING BY MORPHINE AND ATROPINE.

POISONING by morphine and atropine is so uncommon that the following case seems worth recording.

A young woman was found in bed unconscious at 7.30 a.m. She was cyanosed, the breathing was shallow and irregular, tending to the Cheyne-Stokes in character. The pupils were equal and contracted, but not to pin-points, and the conjunctivae were injected. There was complete absence of reflexes. The skin was dry and the pulse small—120. A letter was found written to her mother which made it clear that it was a case of suicide. An empty hypodermic tube was found which when full would have contained 2½ grains of morphine. Subsequently, after death, two other tubes were found hidden under the mattress of her bed. In all, supposing the tubes had originally been full, she would have taken 7 grains of morphine, and ⅓ grain of atropine. She had vomited, apparently in the night, and possibly after the first doses of morphine, so that the exact amount taken is uncertain.

It is unnecessary to go into the details of the treatment. The stomach was washed out with solution of potassium permanganate, and injections of strychnine were given subsequently. Artificial respiration was performed, and she was bled on two occasions. The bleedings appeared to do good for a time, as she breathed better and was less blue afterwards.

At 10 p.m. the corneal reflex had returned, but she was still unconscious. At 2 a.m. she was found to have a temperature of 105° F. She was very blue, and breathing in short jerky respirations, with intervals in which she did not breathe at all. The corneal reflex was again lost. With artificial respiration, etc., she lingered on till 10.45 a.m. The heart continued to beat for a short time after respirations had ceased.

Post mortem the brain, lungs, kidneys, and other internal organs were deeply congested. The right heart was full of venous blood, and there were *ante-mortem* clots in the left ventricle. There was only an ounce or two of urine in the bladder.

The points of interest in the case are:

1. The length of time that elapsed from the time she was found until death, 27½ hours later. As she was deeply comatose when found but was heard moving in her room at about 1 a.m., it seems probable that she took the poison at that hour, which would make the time about 33 hours. I can find no record of anything approaching this time before death in opium or morphine poisoning. Was the prolongation of life due to the atropine?

2. The quiet pulse, which varied, but was generally at about 120, I consider due to the paralysis of the vagus inhibitory centre.

3. The absence of sweating (again atropine), combined with the almost total suppression of urine, are perhaps answerable for the high temperature during the last eight hours of life. In fact, did she in the end die of uraemic poisoning?

London, S.W. E. G. HUNT, M.D.

ETIOLOGY OF BERI-BERI.

I NOTICE on perusing your columns from time to time that it seems to be more or less accepted nowadays by a large section of the profession that beri-beri should be looked upon as a "deficiency" disease—in other words, that it is due to the consumption of rice from which the pericarp has been removed, the pericarp being supposed to contain a necessary essential towards the upkeep of the nerve fibre. Now during ten years of residence in Southern Nigeria I saw a number of cases of beri-beri. Of these, however, four stand out clearly in my memory; they were young Englishmen whose houses I visited every day, with whom I on numerous occasions had lunch or dinner, as the case may have been, and consequently whose mode of life I was thoroughly acquainted with. With regard to these cases I can guarantee that they lived as well as any ordinary young men would live in England. There was at all times an abundance of fresh food on the table: chicken, mutton, fish, fruit, and vegetables were always at hand, and although they may

have had a little polished rice with curry occasionally they had no greater percentage of it than any ordinary person in England. One of these patients died; the others recovered on going home.

I would beg some of the recent school of tropical pathology to give an explanation of the above cases, and would ask them what particular hypothetical substance they would postulate as having been absent from the food in question. None of these men was alcoholic.

E. G. FENTON, F.R.C.S.I.,
Rio Gallegos, Patagonia. Late S.M.O., Southern Nigeria.

A USEFUL SIGN IN ACUTE APPENDICITIS.

IN October, 1912, I began to notice a marked state of congestion of the right superficial circumflex iliac vein in cases of acute appendicitis.

At first I thought this might be merely a coincidence, but its regular appearance when I was on the outlook for it makes that extremely unlikely; in fact, I have never failed to find it in my own cases, and the senior house-surgeon at our infirmary reports that he has always seen it in the cases coming under the care of my colleagues. Therefore I think it must be nearly always present and distinguishable.

The congestion is often so marked that a glance at the abdomen reveals it at once; in other cases it is not so prominent, but still quite distinguishable. Nowadays, if I find this condition, and the history or other symptoms suggest appendicitis, I am led to make a more careful examination than I would perhaps otherwise make, and in every case so far I have been able to verify my diagnosis on the table.

The condition, I imagine, may be due to pressure on the external iliac or common iliac vein, or simply to general congestion of that region.

Only once in the past six months have I operated upon an appendix case in the quiescent stage, and in that case the vein did not show up at all.

It may be that attention has been drawn to this condition before, but if so I have not seen it; and it appears to me, if my experience be verified by others, that here we have a readily recognized additional sign of acute appendicitis.

JOHN BLAIR,
Honorary Surgeon, Royal Albert Edward Infirmary, Wigan.

TWO CASES OF FRACTURE IN THE REGION OF THE WRIST-JOINT.

CASE I.—*Impacted Colles's Fracture in a Woman aged 93.*

I WAS sent for on February 3rd, 1913, to see an old lady, aged 93, who had fallen early the same morning and had hurt her left wrist. I found a typical impacted Colles's fracture, which, having regard to the extreme age of the patient, I did not think held out much prospect of a satisfactory result. As the bones were very tightly impacted I obtained assistance and administered chloroform; I then managed with considerable difficulty to reduce the fracture, and set it on Carr's splints.

There was very little swelling, and I commenced passive movements of the fingers on the second day, and of the wrist-joint at the end of a week. As the patient was very feeble the splints were kept on for six weeks, so as to protect the arm in case of another fall, but they were removed for a short time daily in order that the arm might be carefully rubbed, and the joints moved. At the end of that time complete union had taken place, with perfectly free movement of the wrist and radio-ulnar joints.

An *x*-ray photo, which was taken about three months after the accident, was interesting, as showing how, even in a patient at the age of 93, excellent results may be obtained after a badly impacted fracture, and also to what a small degree callus had been thrown out round the site of the injury.

CASE II.—*Vertical Fracture of Lower End of Radius.*

On April 15th, 1913, I was called to see another case of injury to the wrist. The patient, a lady aged 52, a professional pianist, had fallen on her left wrist whilst avoiding a motor car; there was considerable swelling, but no deformity. She complained of slight pain, which was greatly increased on extreme flexion, but I could only detect a slight ridge on the posterior aspect of the radius running in a longitudinal direction, and extending 2 in. upwards from its carpal end, which was painful on pressure; no crepitus could be obtained.

As I was in some doubt as to the exact nature of the injury, I sent the patient to Dr. Stanley Melville, who kindly skiagraphed her. The print showed that there was a fracture of the lower end of the radius, running upwards from the radio-carpal joint, and separating the lower and inner portion of the bone.

In the meantime I applied a Carr's splint, and had the joint gently massaged from the third day onwards, passive movements being commenced on the eleventh day. The splint was worn for five weeks, and at the end of six weeks the joint had practically recovered, except for slight pain on extreme flexion.

The patient was able to resume her occupation fully at the end of four months, and now at the end of six months since her accident she has complete use of her hand with no pain, even on extreme movement.

Kensington. ERNEST F. TRAVERS, M.D.Lond.

REDUCTION *EN MASSE* OF INGUINAL HERNIA.

I WAS called on a Sunday night to see a man, aged about 46, who stated that he had suffered for some time from a rupture (right inguinal). After lifting a weight it suddenly came down. He pushed it back himself, using considerable force; he at once experienced pain, and vomited.

I found him somewhat pale, with a moderate amount of pain about the region of the right internal ring, with slight tenderness and resistance, but nothing very striking; the pulse and temperature were about normal. I felt then that probably some injury had occurred to the bowel when he pushed it back. I prescribed a simple bismuth and soda mixture, with 10 minims of liq. morphinae. Both pain and vomiting, however, continued for a few days. An enema was ordered, with some result, including flatus; but after this nothing was passing through the bowel.

Three or four days after my first visit I had a consultation with the late Dr. Rawlings, of Dorking, who drew my attention to visible peristalsis above and towards the right side of the internal ring. This increased the suspicion that reduction might have occurred *en masse*. Dr. Rawlings advised the discontinuance of the morphine lest symptoms should be masked. At this date the vomiting had stopped, but the moderate pain continued, and still nothing passed. I saw him again that afternoon and night, but the symptoms were no worse. Next morning he was fairly comfortable except for the moderate pain. The pulse and temperature gave no assistance in diagnosis. I again consulted with Dr. Rawlings, and we eventually decided to send him to hospital by motor. He says that the pain was considerable on the way to London. Mr. Berry operated the same evening at the Royal Free Hospital, and found a definite band of the sac tightly gripping the bowel, which although very dark had not lost its lustre. The patient recovered, and when last I saw him was doing his work and supporting his home.

In my opinion this case illustrates the comparatively moderate symptoms which may accompany a severe abdominal lesion, and may serve at some future time to put a fellow practitioner on his guard.

JAMES W. PEATT, L.R.C.P.Edin.,
Buckhurst Hill, Essex. L.S.A.Lond.

THYROID SUBSTANCE IN ECLAMPSIA.

OBSTETRICIANS seem to be unwilling to admit the possibility of thyroid gland substance being a cure or even a palliative of the albuminuria and skin swelling which always precede yet are not always followed by eclampsia.

The influence of thyroid gland substance in these conditions (I speak of two observations) is so marked, the relief of giddiness, swelling, and check to albuminuria are so pronounced, that it is impossible to overlook the beneficial effects of the medicament.

It is not difficult to propound a theory which might explain the necessity of the exhibition of thyroid gland. There are individuals in whom the thyroid secretion is always less than normal. With such persons the thyroid may be unable to meet the extra demands of pregnancy.

A more complex theory rests on the more than suspected connexion of the thyroid and the urogenital system in both sexes. Suppose an individual in whom the ovarian secretion is less than average, though apparently sufficient to meet the requirements of the system. Let such an individual become pregnant; then as the ovaries are more or less quiescent in pregnancy, the ovarian secretion becomes diminished, if not entirely suppressed; the interdependence of ovary and thyroid is disturbed, with the effect of inhibiting to a greater or less extent the influence of the thyroid secretion.

Under either theory moderate diet and restricted activity of the patient are indicated, in order that the waste products of work and digestion may not impose too great a task on the embarrassed thyroid.

The prophylactic treatment of eclampsia by thyroid gland substance should be given an extended trial, for I do not find that objectors quote failures.

It is, of course, necessary to distinguish pre-existing nephritis or valvular heart disease from the albuminuria due to pregnancy alone.

ELIZA L. WALKER DUNBAR, M.D., D.Ch.,
Clifton, Bristol. D.A.O.Zurich, L.K.Q.C.P.I.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

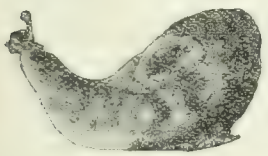
BRIGHTON INFIRMARY.

PERFORATED GASTRIC ULCER IN A CHILD AGED 11 MONTHS.

(By A. HAROLD DUCKETT, M.B., Ch.B.Aberd., Assistant Medical Officer to the Institution.)

ON May 9th I received an urgent call to see a child who had arrived at the receiving ward, and on arrival I found it had just expired. It was a male child, and appeared to be so terribly emaciated and small for its age that I at first thought its death was due to marasmus accelerated by neglect, but on making a *post-mortem* examination I found another explanation. I took the following notes.

The child weighed 7 lb. 6 oz., and there were on the right thigh and right side of the chest some superficial abscesses. In the thorax I found nothing organically wrong; no bronchopneumonic signs, nor was there anywhere any evidence of tubercle. In the peritoneal cavity there was evidence of food, and on closer examination I discovered a large perforation in the stomach wall near the lesser curvature. The margin of the ulcer was in a state of necrosis, and there was slight congestion round it. There were no further ulcers visible there nor in the intestine. Traces of milk were evident in the stomach, but nothing in the nature of harder food anywhere.



As to the history of the case, I could get but little help from the mother, except that the child had been "weakly" from birth, and during the past month had often vomited after food.

The symptoms of cases of this nature have usually dated from birth, and have been attributed either to injury at delivery or embolism of the umbilical vein, but the mother says the birth was uneventful. One would not expect a single ulcer if the case were tuberculous, and the tuberculous ulcers do not apparently give rise to any definite symptoms. This case might possibly be consequent on acute gastritis, but I have put it down to be one of "simple perforating ulcer," possibly due to embolism of one of the gastric arteries or of their branches, accelerated by lowered vitality and necrosis. The accompanying photograph illustrates the size and position of the ulcer.

THE late Dr. Samson Gemmell, Regius Professor of the Practice of Medicine in the University of Glasgow, left estate valued at £109,565 8s. 8d.

THE third annual meeting of the Canadian Public Health Association will be held in Regina, Saskatchewan, in September (18th to 20th) under the presidency of Dr. John W. S. McCullough, Toronto.

Reports of Societies.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on June 4th, Dr. PLAYFAIR in the chair, Dr. R. A. FLEMING, speaking of the *Cause of death in lobar pneumonia*, said that in autopsies of acute lobar pneumonia colourless blood in the right heart was more frequently present than in cases of death from other diseases. This thrombosis was generally regarded as agonal, but might it not in many cases have been present for hours or days before death? By *ante-mortem* clotting he meant those firm opaque fibrin clots sometimes to be found in the right auricle and ventricle and often extending far into the branches of the pulmonary arteries; they were sometimes firmly adherent to such structures as the pectinate muscles in the auricle, the chordae tendineae of the tricuspid valve, and the columnae carneae of the ventricle. In 61 autopsies of acute lobar pneumonia made by himself there was such *ante-mortem* thrombosis in 39, and in 16 of these the clot was adherent; while in 160 consecutive cases of other diseases there was right-sided thrombosis in only 20, and in 17 there was either bronchopneumonia or some acute suppurative condition. He therefore believed that in lobar pneumonia *ante-mortem* thrombosis took place some considerable time before death in more cases than were generally believed. Among the factors predisposing to this were the high carbonic acid content of the blood, and the excess of thrombokinase derived from disintegrating leucocytes, and this was also indicated by the shortened coagulation time of the blood. Further, there were signs by which this more protracted *ante-mortem* thrombosis could be recognized clinically—namely, an increasing fullness of the jugular veins in the neck, and especially a weakening of the second sound in the pulmonary area. In four recent autopsies he had had the opportunity of confirming the value of these clinical signs. The treatment of every case of pneumonia should take into consideration the danger of *ante-mortem* thrombosis, and should include the exhibition of strophanthus or digitalis in suitable doses from the first, the use of diffusible stimulants such as spirits of ammonia and chloroform, the administration of oxygen, and occasional change of the patient's posture. Further, bleeding should never be performed unless in very robust persons. Dr. GOODALL alluded to investigations made by Dr Ewart and himself which showed that the coagulation time diminished up to the crisis, and thereafter again slowly lengthened. This depended not on temperature nor on the gross number of leucocytes, but on the number of degenerated leucocytes. The blood plates had recently been shown to be an important source of thrombokinase. Dr. W. T. RITCHIE agreed as to the importance of diagnosing dilatation of the right heart in pneumonia, and for this a dusky tint of the ears, nose, and lips, and a weakening of the first sound were useful. He did not agree that digitalis was needed in every case of pneumonia, but where it was it should be given intravenously if an immediate effect were desired. Dr. EASON said that potassium iodide delayed the blood-coagulation time, and he had used it in a large series of cases of pneumonia with good results. Dr. FLEMING replied. Dr. A. NINIAN BRUCE communicated the results of an investigation into *Multiple neuromata of the central nervous system*. It was begun by the late Dr. Alexander Bruce and finished by Dr. J. W. Dawson. The case was that of a man who died when aged 30 years, and who had shown since birth extreme spastic paraplegia with contractures. The autopsy revealed nodules scattered irregularly through the grey and white matter of the spinal cord, which proved to be neuromata, consisting of nerve fibres with well-formed axis cylinders and medullary sheaths, but without nerve cells. They were definitely related to blood vessels, and could be traced along them round the periphery of the cord from the anterior nerve roots and into the white matter. Nodules were also discovered in the pons and medulla which were different in not being circumscribed, and also in their structure, which was not of nerve fibres but of fusiform nerve cells, which in places were joined end to end, forming cell chains. In these fusiform cells

it was possible to trace the development of an axis cylinder and of a myelin sheath. Dr. A. N. Bruce then explained the two main views of the development of nerve fibres, the central outgrowth theory, and the peripheral theory of multicellular chains. The investigation of these neuromata had shown that it was not possible to explain their formation on the "central outgrowth" theory, and they seemed to lend support to that of "peripheral cell chains" and of the multicellular structure of the peripheral nerve fibre. The case was thus not only of great interest as a pathological rarity, but of high importance as throwing light upon the still unsettled question of the development of the peripheral nerve fibre.

ROYAL SOCIETY OF MEDICINE.

SECTION OF OPHTHALMOLOGY.

AT a meeting on June 4th, Sir ANDERSON CRITCHETT in the chair, Mr. BISHOP HARMAN brought forward: (1) A case of *Melanotic growth connected with the iris* and seeming to originate from it. Mr. JESSOP inclined to the view that it sprang from the ciliary body, and pushed the iris on one side, causing flattening of the edge of the pupil. He agreed that it was a melanotic sarcoma. Mr. TREACHER COLLINS mentioned a case of *Melanoma of the iris*, malignant characters having arisen later. He agreed that in the present case the origin of the growth was probably the ciliary body. A possibility in Mr. Harman's case was that it was a cyst, such as Mr. Coats had described, with agglutination of the ciliary processes. (2) A case of spontaneous recovery from *Detachment of the retina*. The patient had had complete detachment for three months, and during it she was in bed three times; she refused operation. Shortly after that date the sight suddenly came back, and now there was no trace of any detachment; all that could be seen were one or two cobwebby lines in the disc. She had vision $\frac{6}{5}$ one-letter. She had 10 D. of myopia, but there had been no accident of any kind. She was a cook in a good family, and one February night she walked out from a hot room to the cold air, and her description was that something black suddenly fell over her eye, and she could not see anything more with it. Mr. GOUDIE described the case of a child which came to Glasgow Eye Infirmary with detached retina, and in whom three months later the retina became reattached. Two months afterwards it again became detached, only to again become attached. There was fair vision, and no iritis. Mr. RAYNER BATTEN said he had a case with nearly 20 degrees of myopia and detachment. Detachment occurred also in the other eye, and the patient was so blind for a year or two that she had to be led about. Later she came and said she saw a glimmer of light, and from that date her sight began to return; she accepted her lenses again, and was able to find her way about. He believed her vision was $\frac{6}{24}$. Mr. HERBERT PARSONS said he, like others, was sceptical about spontaneous recovery from detachment being possible until he had a case which altered his view. It occurred in hospital, and, though a little later the patient was very carefully examined, no trace of the detachment could be detected—not even streaks to mark what had occurred. Eighteen months later, however, he came with a relapse. Mr. MACNAB described a case of double detachment which underwent spontaneous cure. In another case in which the condition occurred there had been irido-cyclitis, and he believed it was due to tubercle of the eye; there was a large vitreous opacity, and very extensive detachment; the eye was very soft, being practically devoid of tension; the cornea could be seen to be dull and crinkled. Vision was reduced to mere perception of light. He gave tuberculin and vaccine cultivated from the patient's own *coli* bacilli. For four months now the tension had been normal, and the patient could count fingers at five or six metres. Mr. JESSOP reminded the meeting that when the Ophthalmological Society discussed the subject only one case was reported as having been cured, and that was spoken to by Mr. Nettleship and Sir John Tweedy. Many cases of cure of the condition had been reported, but they had not been lasting. Mr. ORMOND did not share Mr. Jessop's scepticism, and described a case of his own in a patient who had been treated by glasses for high myopia, and a little later she said her vision suddenly went in one eye. She had obvious detachment of the outer side of the retina. He did a sclero-puncture and removed some fluid, and in three days the detachment had disappeared. He had seen her a number of times since, and the attachment remained absolute. Vision was $\frac{6}{5}$. Mr. LESLIE PATON reminded the meeting that Mr. Harman's case was one of spontaneous reattachment, not after operation. He was more optimistic than Mr. Jessop on the subject. He had seen a case of thirty-five years' standing cured after operation, though it was a double case. In another case, that of a lady with 15 D. of myopia and vision $\frac{6}{18}$ in either eye, there was detachment in one eye, resulting in blindness, and that was followed by detachment in the other eye. After operation her vision was better than before the detachment. In the case of a girl with detachment, she was put on her back and treated with mercury and iodide, and in three months the retina had become reattached, leaving only a curious distribution of retinal pigment. In a series of 28 cases of detachment which he had looked up, 7 were cured. Mr. NETTLESHIP and Mr. JESSOP suggested that in the near future a further discussion on the subject should be held by the section. Mr. NETTLESHIP said he had records in his case-books of several cases of detachment which had recovered.

SCOTTISH OTOLOGICAL AND LARYNGOLOGICAL SOCIETY.

AT a meeting on May 31st, Dr. BROWN KELLY, who was in the chair, contributed a paper entitled *Nasal thermometry*, this being a description of a method of determining the influence of the nose on the temperature of the inspired air. Some tables shown exhibited the difference in temperature between the inspired and expired air, and the variations which occurred in varying degrees of patency of the nasal passages. Dr. W. S. SYME reported a case of *Otogenous temporo-sphenoidal abscess* in which the capsule, a very thick one, had been removed by operation. The abscess had evidently been present for some considerable time, and only gave rise to symptoms after the patient had received a blow on the head. The abscess was opened and drained, and two days later the patient became comatose. The drainage tube was removed and the opening in the dura enlarged. A necrotic mass presented, and on removal was found to be the capsule of the abscess. The patient did well for six weeks and the abscess cavity filled up, but he ultimately died with a second abscess in the frontal region. Dr. ALBERT A. GRAY, in a lantern demonstration, traced the *Evolution of the inner ear* in regard to the round window and the aqueduct of the cochlea from reptiles to birds and mammals. The varying size of the aqueduct and the relation of the round window to the cochlea and to the aqueduct at different stages of evolution was clearly shown. He also gave a microscopic demonstration of the changes in the labyrinth found in cases of otosclerosis and deaf-mutism, and of a nerve ganglion in the human temporal bone hitherto unrecognized and recently discovered by him. The following were among the exhibits: — Dr. BROWN KELLY: (1) A man with *Double abductor paralysis* of the larynx and other symptoms of central nervous disease, due probably to patchy gummatous lepto-meningitis of the medulla and of the cord in the cervical and lumbo-sacral regions. (2) A child recovered from osteomyelitis of the superior maxilla, the so-called *Empyema of the antrum* of infants. (3) A woman with *Papillomata* growing from the region of the middle meatus; it was pointed out that, like similar growths in the larynx, they had a great tendency to recur. (4) Two cases, a woman and a girl, with *Congenital closure of the posterior nares*. Both had been operated on, but difficulty was experienced in keeping the openings patent. (5) Three cases of *Dermoids* of the anterior border of the nose. Dr. J. R. DREVER: Two patients with *Chronic oedema of the face*. In both there was purulent nasal discharge, from which an autogenous vaccine had been prepared, and was used with beneficial results to the facial as well as to the nasal condition. Dr. J. L. HOWIE: A case of *Congenital defect of the external ear*. Dr. WALKER

DOWNIE: A case of *Carcinoma of the nose*, and a specimen of *Epithelioma of the auricle*. Dr. J. G. CONNAL: (1) A woman on whom he had operated for aural suppuration with labyrinthine symptoms. The radical mastoid operation was performed, and a fistula of the external horizontal canal was found. No pus came from the fistula, and no granulations were present in the neighbourhood, hence the labyrinth was not opened. The woman recovered. (2) A man in whom was exemplified the difficulty sometimes arising in deciding whether a laryngeal lesion is malignant, syphilitic, or tuberculous. In this case one cord was dark-red and swollen and restricted in movement. As the condition was improving under antisyphilitic treatment opinion inclined towards syphilis. Dr. JAMES ADAM: A case of superficial *Ulceration of the pharynx, palate, and larynx*. At first sight it appeared undoubtedly syphilitic, but it had remained stationary for over two years despite antisyphilitic treatment. The Wassermann reaction was doubtful. Pneumococcal infection, tubercle, syphilis, and pemphigus were opinions offered as to its nature.

LONDON DERMATOLOGICAL SOCIETY.

AT a meeting on May 20th, Dr. MORGAN DOCKRELL in the chair, the following were among the exhibits: Dr. J. L. BUNCH: (1) A case of a woman, aged 50 years, who complained of suffering from great skin irritation caused by the presence of various kinds of supposed lice, specimens of which she brought with her. She was evidently a case of pediculi cerebri. (2) The case of a man who had been in the West Indies and had a discharging pigmented lesion on the right forearm; it suggested tuberculosis, syphilis, or Delhi boil; also (3) a case of late secondary and or early tertiary lesions on the face of an Italian. The PRESIDENT: A case of sloughing *Ulceration of the penis* in a young man, which at one time looked like an epithelioma. A section examined under the microscope revealed a thickening of the stratum corneum and granulosum; the mucosa was thickened, but the basal layer was intact. Dr. GRIFFITH: Some *Chromogenic ringworm fungus*, which had changed from violet to grey. Dr. KNOWSLEY SIBLEY: A case of *Diphtheritic dermatitis* in a man aged 55, sent him by Dr. N. J. Williams. For some six months he had had recurrent acute attacks of facial dermatitis, always commencing at the eyes, and rapidly spreading over the face to the sides of the neck. Dr. Galbraith had recently found the Klebs-Loeffler bacillus from the discharge from the right external auditory meatus. He had now had an injection of 5,000 units of antitoxin and was already much better. Dr. HOWARD HUMPHRIS read a paper entitled *Electricity in some diseases of the skin*.

THE Section of Odontology of the Royal Society of Medicine, at a meeting on May 26th, elected the following officers: President, Mr. C. F. Rilot; Vice-Presidents, Messrs. C. Robbins, W. B. Paterson, J. H. Badcock, J. C. Foran, A. W. W. Baker, and G. G. Campion; Honorary Secretaries, Messrs. J. H. Mummery, R. McKay, and F. Coleman; Curator, Mr. J. F. Colyer. Representatives on the Library, Finance, and Editorial Committees of the society and a council of nineteen members were also appointed.

M. E. MALVOZ recently presented to the Académie Royale de Médecine de Belgique a report setting forth the results of a ten years' campaign against ankylostomiasis in the province of Liége. It began in 1903, when a dispensary was opened for the threefold purpose of undertaking periodical examinations in the population of the different coalfields, of insisting on the microscopic control of the dejecta of all persons working in the mines, and of subjecting carriers of parasites discovered by these investigations to an expulsive treatment, whether they felt ill or not. Up to the end of 1912 there were examined 186,040 samples of dejecta, and 8,898 infected persons were submitted to antiparasitic treatment. The result was a very considerable diminution of the general percentage of those infected in the whole of the coalfields of the Bassin de Liége. In 1902 the average was 23 per cent.; in 1912 it had fallen to 2 per cent. In other words, whereas formerly 1 in 4 of the miners was infected, now the parasite was found in only 1 in 50. The great coalfields of the Ans-Montegnée plateau, which were the most infected of the whole district—more than 50 per cent. of the miners suffering from the disease—are now virtually free from ankylostomiasis.

Rebielus.

INDIAN MEDICINE.

IT is claimed by natives of India that their civilization is the oldest in the world, and that their medicine is as old as their civilization. Whether or not this claim be historically justified, it is certain that in their ancient medical books there are traces of knowledge which is comparatively recent in the West. We therefore welcome Mr. BHISHAGRATNA'S translation of the works of Sushruta, the father of Hindu surgery, because, he says, few of his countrymen and fewer Western scientists "have the opportunity of reading the vast medical literature of ancient India in the original, and of thus forming an independent opinion of the solid and uncontrovertible truths and principles of the science of life and cure that underlie these works of ancient wisdom."[1] The work is to be completed in three solid volumes. The first is now before us; the second has, it is stated by the translator, already appeared, and the third is in the press. Sushruta's work, as originally written, seems to consist of only a few doubtful fragments, the work which now goes by his name being described as "only a recension, or rather a recension of recensions made by Nagarjuna, who is identified with the founder of the Madhyamika School of Buddhistic philosophy." Nagarjuna is believed to have flourished in the third or fourth century B.C., and the original work of Sushruta must have been written at least two centuries earlier.

It is often said that Indian medicine was the offspring of the influence of Greek medicine; and, in fact, from the close similarity between the *Samhita* and the aphorisms of Hippocrates, many Western scholars have concluded not only that the inspiration came from Greece, but that Sushruta is Hippocrates in an Indian disguise. On the other hand Mr. Bhishagratna seems inclined to argue that Pythagoras, who introduced the healing art into Greece, brought it from India, where he was initiated into the mysteries of the Brahmins.

Verses on medicine, hygiene, and surgery are scattered through the four Vedas. Vedic India recognized specialism. There were not only surgeons and physicians, but magic doctors, poison curers, and demon doctors. In the Vedic age, before Sushruta, the standard of medical ethics must have been very low, for we read that physicians had to go forth into the open street and call out for patients. Nowadays we have subtler methods of crying our wares. From the fact that the Vedic doctors lived in houses surrounded by gardens of medicinal herbs, it may be inferred that they compounded their own medicines. The translator gives a sketch of the origin of Ayurvedic surgery, which at first was called into being by the necessities of war. In the Rigvedas mention is made of the amputation of legs, which were replaced by iron substitutes, of the plucking out of injured eyes, and of the extraction of arrows. Sushruta first gathered into a systematic form the surgical experiences of the older practitioners and collected the fragments of medicine scattered through Vedic literature. Plastic and especially rhinoplastic operations were, as every one knows, commonly performed in India many centuries before anything of the same kind was attempted in Europe. The demand doubtless created the supply, as cutting off the nose was a very common form of punishment for conjugal infidelity and many other offences. The method of healing these deformities by the transplantation of living skin flaps is an Indian invention. Sushruta is also credited with the discovery of the art of couching for cataract. Limbs were amputated, abdominal sections were performed, fractures were set, dislocations reduced, hernias returned, haemorrhoids and fistulae removed. Where the intestines are injured Sushruta advises that the protruded part be gently replaced; when severed the cut ends should be brought together and living black ants applied. The body of the ant was then cut off, and the heads were left to serve the purpose for which

[1] *An English Translation of the Sushruta Samhita, based on the Original Sanskrit Text.* Edited and published by Kaviraj Kunja Lal Bhishagratna. With a full and comprehensive introduction, translation of different readings, notes, comparative views, index, glossary and plates. In three volumes. Vol. I, Sutrasthanam. Calcutta: S. L. Bhaduri, No. 10, Kashi Ghose's Lane. 1907. (Demy 8vo, pp. 650; plates 4. Rs. 15, or £1.)

modern surgeons now, curiously enough, often use small clasping hooks in place of sutures for the superficial skin layer of wounds.

In dealing with midwifery Sushruta describes the different movements of the fetus during the process of parturition, the application of forceps in difficult cases, operations such as craniotomy and Caesarean section when delivery was otherwise impossible. Sushruta is said also to have been the first to insist on dissection of dead bodies as indispensable to a student of surgery. To gain skill in surgical operations pupils were enjoined to try their knives repeatedly, first on natural and artificial objects resembling the diseased parts of the body before undertaking an operation. Incision, for example, was practised on plants of various kinds, evacuation on leather bags filled with water and on the bladders of dead animals, scarification on the hides of animals on which the hair was allowed to remain. Venesection was practised on the vessels of dead animals and on the stalks of the water lily, the art of packing cavities and probing on bamboo reeds, the extraction of solid bodies on various fruits, and suturing on pieces of cloth or hide. Ligaturing and bandaging were practised on dummies, cauterization on pieces of flesh, and catheterization on unbaked earthen vessels filled with water. The quartering of sacrificial animals afforded opportunities for the study of practical anatomy. We are told also that Sushruta anticipated the homoeopathic theory. After closely investigating the various views as to what it is in the drug that cures, it is stated that he inclined to the opinion "that it is the potency of the drug that is curative, though he observes that inasmuch as potency cannot exist independently of a drug, a drug is of primary interest for all practical purposes in therapy." This explanation reminds us of the answer of the candidate for the doctor's degree in the *Malade Imaginaire*, who, when asked why opium causes sleep, satisfied the examiners with the affirmation that *Opium facit dormire quia est in eo virtus dormitiva.* Ayurvedic physicians recognized two different sets of principles in the domain of practical therapeutics, which may be stated in terms of Western medicine as the laws of similars and contraries. In addition to these, Sushruta lays great stress on the value of psychotherapy in certain forms of mental or nervous disorders.

There is an anticipation of some of our modern prophets in the following:

> A good and proper diet in disease is worth a hundred medicines, and no amount of medication can do good to a patient who does not observe a strict regimen of diet.

Sushruta emphasizes the importance of cleanliness of both spirit and body in the prevention of disease.

It is impossible to discuss Hindu medicine here in detail. Much of the book is unintelligible to the Western reader even in its English dress. But there is much in it that is interesting to the student of medical history, and if we do not accept altogether Mr. Bhishagratna's claim that practically the whole art of healing came from India, enough remains after a liberal discount to entitle Sushruta to a niche in the Pantheon of medicine.

PATHOLOGY AND TREATMENT OF DISEASES OF THE HAND.

THE surgical treatment of suppurative infections of the tendon sheaths of the hand and the fascial planes of the forearm is often a source of worry and anxiety to both patient and doctor. The former watches the process with the haunting fear that the ultimate result may be physical disability, and the latter is concerned to prevent the upward extension to new areas and obviate tendon fixation and contracture. Dr. ALLEN B. KANAVEL, in his volume *Infections of the Hand*,[2] presents a very complete study of these conditions. He has made numerous experimental and anatomical investigations, and now presents a record of these and the surgical deductions to be drawn. The experiments are of great interest. Their object is to show the precise limits and branches of the palmar spaces by means of injections into the tendon sheaths of the fingers of materials impervious to *x* rays and to demonstrate their relation to the bones. The anatomical researches are also characterized by great thoroughness. Figures are given showing the various structures in the hand in cross section at eight different levels, and in the forearm at several levels. If infection reaches any tendon sheath at any point Dr. Kanavel can demonstrate all the possible travellings of the pus.

The same thorough patient methods are found in the sections devoted to diagnosis and treatment. The author has apparently had the benefit of working in a large outdoor clinic, and has had the assistance of friends in the surgical work. Some of his conclusions are therefore interesting, and his results seem to be uniformly good

He is more than doubtful of the value of Bier's treatment by passive hyperaemia in infections of the hand; he thinks it may be an aid, but not much more. Operation in suppurative teno-synovitis should, he says, always be performed under general anaesthesia and in a bloodless field. Where the process is virulent and acute the Esmarch bandage is left on the arm (decidedly slacker than for operative purposes, practically Bier's hyperaemia) for twelve to eighteen hours after operation. This is done not so much for therapeutic effects as to prevent the rapid absorption of virulent toxins.

In the treatment of carbuncle excision is condemned; the method approved is to make crucial incisions, beginning wide of the indurated area, and to undercut the flaps so formed. The propriety of operating with due regard to the various anatomical considerations involved, not in haphazard fashion but with system, is pointed out.

We have pleasure in recommending this work to the notice of practitioners, not that they may read it through, but that they may refer to it for plenty of information on the possibilities of infections of the hand. We feel bound to say that the book is too big. If such a limited bit of surgery requires 447 pages for the telling of its story, where and when shall we see the whole tale of the science and art of surgery? Dr. Kanavel's work would be more valuable if it were mercilessly cut down with careful excision of all the redundances and more precise enunciation of broad general principles.

VERTEBRATE OSTEOLOGY.

ADVANCED students in anatomy and teachers of osteology must frequently feel the need of a good work of reference on the osteology of the vertebrate kingdom. A valuable book for this purpose, as well as for obtaining a detailed account of the comparative anatomy of bones, is *The Vertebrate Skeleton*,[3] by Professor S. H. REYNOLDS, M.A., of which a second edition has recently been published. Professor Reynolds's work since 1897—the date of the first edition—has been increasingly, and latterly almost exclusively, geological. He tells us that he had thought at first of merely revising the book without bringing it up to date, but, fortunately, Professor S. W. Williston, the distinguished palaeontologist, learning that the new edition was in progress, offered to revise the section devoted to reptiles, and this induced the author himself to bring the whole book more up to date. This decision has led to considerable improvements in the volume, which can be confidently recommended as an admirable account of the vertebrate skeleton. We would particularly emphasize the value of Professor Williston's contribution to the osteology of the reptilia, the chapters devoted to which he has practically rewritten, and has contributed, in addition, some notes on the bones of birds and the stegocephalia. The whole volume constitutes an admirable contribution to comparative osteology, and medical students, and medical men, will find therein much that throws light on the skeleton of the human subject.

PIONEERS.

IT is a long time since we have read a more enjoyable book than Dr. VICTOR ROBINSON'S *Pathfinders in Medicine*.[4]

[2] *Infections of the Hand: a Guide to the Surgical Treatment of Acute and Chronic Suppurative Processes in the Fingers, Hand, and Forearm.* By Allen B. Kanavel, M.D., Assistant Professor of Surgery, North-Western University Medical School. London: Baillière, Tindall, and Cox. 1912. (Med. 8vo, pp. 460; figs. 133. 15s. net.)

[3] *The Vertebrate Skeleton.* By S. H. Reynolds, M.A., Professor of Geology in the University of Bristol. Second edition. Cambridge University Press. 1913. (Demy 8vo, pp. 551; figs. 144. 15s. net.)

[4] *Pathfinders in Medicine.* By Victor Robinson. With a letter from Ernst Haeckel and an introduction by Abraham Jacobi. New York: Medical Review of Reviews. 1912. (Med. 8vo, pp. 317; 16 illustrations. 10s.)

Every page teems with interest and sparkles with vivacity and humour. The book, too, has real value as a contribution to the biographical history of medicine and science. The author has a style of his own, a style with great merits, and, some will think, obvious faults. It is a flamboyant style, with a tendency to rhapsody and floridity; but the unflagging vigour and eloquence help to atone for a few sins of taste. Professional books are apt to be timidly academic; it is quite a refreshing change, therefore, to meet with a medical writer whose erudition serves not for the mitigation but merely for the enrichment of his robust human quality, one who, by the exercise of a vivid imagination, breathes life into the dry records of the past. Here one may learn many facts that are apt to be forgotten with regard to the anticipation by great men of discoveries for which the world at large had centuries to wait; as, for example, how Galen, eighteen hundred years ago, noted that "those who sleep in the same bed with consumptives fall into consumption, also those who live long with them, eat and drink with them, or wear their clothes and linen"; or how Aretaeus of Cappadocia (so completely "the forgotten physician" that the date of his birth cannot otherwise be determined than as falling in one of the first three centuries of our era), by revealing in his writings his practice of auscultation, anticipated by at least fourteen centuries the discovery of Laënnec. Dr. Robinson has even a good word to say for Paracelsus; and indeed it is hard to refute the claim for immortality on behalf of the man who not only was the first to describe zinc and to insist on the therapeutic value of metals in general, but to whom we are indebted for the internal administration of mercury in syphilis. From the *Christianismi Restauratio* of Michael Servetus (a book which, by reason of its theological heterodoxy, excited the wrath of Calvin and so cost its author his life) Dr. Robinson quotes a remarkable passage describing the pulmonary circulation in clear and accurate language. "So effectually was the edition destroyed that Harvey knew not his true precursor." He quotes Realdus Columbus but not Servetus. Full of historical as well as of professional interest is the chapter on "Ambroise Paré, that quaint and delicious writer, "the surgeon of princes and the prince of surgeons," who, by his accidental discovery of the injurious results of the barbarous practice of cauterizing gunshot wounds with scalding oil, effected a revolution in their treatment. There can be few more vivid passages in the literature of our calling than that cited by Dr. Robinson in which Paré describes the horrors of the plague as witnessed by himself. That it is impossible for Dr. Robinson to be otherwise than entertaining is proved by the fact that his chapter on Henry Cavendish makes quite interesting reading. For surely no more methodical, emotionless, or unsocial being ever walked the earth than that eminent chemist, physicist and mathematician who weighed the planet, discovered hydrogen and demonstrated the composition of water. Among the "pathfinders" whose careers are discussed are "Scheele the Apothecary," "Hunter the Natural Philosopher," "Jenner and Vaccination," "Laennec and Auscultation," "Simpson and Chloroform," Semmelweis, Schleiden, and Schwann. An eloquent panegyric upon "Darwin, Saint of Science," brings the book to a close. The dedication is to Ernst Haeckel, whose letter of acknowledgement is reproduced in facsimile. The author evidently belongs to the same school of thought.

BURDETT'S HOSPITALS AND CHARITIES.

IN the edition of *Burdett's Hospitals and Charities*[5] for 1913 the most novel chapter is one dealing with the interaction of the National Insurance Act and the hospitals. Sir HENRY BURDETT's view, as we understand him, is that the Insurance Act was from the very beginning only workable thanks to the existence of the hospitals, that already they have done a great deal of work for the insured, and that as time goes on the demands made upon them are bound to increase because all panel medical officers will practically be acting as recruiting sergeants in regard to them. Taking the figures of the actuaries as to probable sickness on the one hand and the number of beds available in hospitals on the other, he thinks it likely that the insured will require for their use the majority of beds at present in existence. As the voluntary hospitals cannot be given up entirely to the insured, the accommodation, he holds, must somehow be supplemented and the voluntary hospitals at the same time relieved of the added expense thrown upon them. Not long ago, when it was desired to get over the evil of sleeping out on the Embankment, the Local Government Board took advantage of its special powers in relation to the metropolis and put the Metropolitan Asylums Board into a position to co-ordinate and control, with excellent effect, the whole of the agencies, official and unofficial, for dealing with casuals. When, again, beds for tuberculosis patients were required, there was plenty of accommodation in the institutions of the Metropolitan Asylums Board, but since the Act excluded Poor Law authorities from dealing with the tuberculous insured this accommodation could not be utilized as it stood. In this case the difficulty was got over by the London County Council making an arrangement with the Metropolitan Asylums Board by which it took over some of its institutions and placed them at the disposition of the London Insurance Committee. In framing a National Insurance Amendment Act a hint should be taken from these two facts. The amending Act Sir Henry Burdett considers should enable the Local Government Board to divest Poor Law infirmaries of such Poor Law character as they possess and throw them open to the insured, enable the Board and municipalities throughout the country to lend money to voluntary hospitals for building purposes at 3 per cent. interest, *plus* 1 per cent. by way of sinking fund, giving power at the same time to reimburse voluntary hospitals the actual *pro rata* cost of treating insured persons as in-patients. In these ways both the immediate and future needs created by the Insurance Act would, he argues, be met, and the hospital system of the country be perfected without any additional charge on the ratepayers, and without interference with the present status of voluntary institutions. The latter, as also complete co-ordination and co-operation of all existing agencies for the indoor treatment of the sick, he regards as essentials. The rest of the contents of this valuable reference book are on all-fours with those of its immediate predecessor, but, in regard to the future, a statement of interest is made in the introductory chapter. Sir Henry Burdett removed last year one of its very few blots by taking as the basis of his useful commentaries the same figures as those supplied in the general text, and in the next edition he proposes, it would appear, to recast the volume altogether, with the object of bringing it out, if possible, much earlier in the year and therefore much closer to the date to which the figures supplied for the most part relate. In this connexion he urges once more the desirability of all hospitals adopting the same financial year, and suggests that since very many institutions have already fallen into line in the matter there can be no insuperable difficulty in the way provided secretaries will undertake the trouble involved. Both these theses are absolutely sound.

[5] *Burdett's Hospitals and Charities, 1913.* By Sir Henry Burdett, K.C.B., K.C.V.O. London: The Scientific Press. 1913. (Cr. 8vo, pp. 976. 10s. 6d. net.)

NOTES ON BOOKS.

THERE are not many enterprises that, like Minerva, can boast that they sprang full grown from the head of their progenitors. The history of most human undertakings is one of obscure beginnings and constant struggles against difficulties and disappointments of every kind; and particularly is this the case with regard to philanthropic works that are dependent upon the goodwill and generosity of the public. Mr. B. BURFORD RAWLINGS, in his book *A Hospital in the Making*,[6] gives an interesting account of the modest beginnings of what is now the famous National Hospital for the Paralysed and Epileptic. Founded in 1860 by Mr. Edward Chandler and his sisters, whose sympathy for the helpless victims of paralysis had been aroused by the illness of a near relative, the work of the National Hospital was for some years carried on in a private house in Queen Square, which contained ten beds destined for persons of either sex suffering from paralysis and other affections of the nervous system. Small as it was, the new establishment was at that time the only

[6] *A Hospital in the Making.* A history of the National Hospital for the Paralysed and Epileptic (Albany Memorial), 1859-1901. By B. Burford Rawlings. Published by Sir Isaac Pitman and Sons, Ltd., 1, Amen Corner, London, E.C. 1913. (Pp. 271. 5s.)

hospital in England where such diseases were admitted; and Mr. Rawlings has traced its gradual growth and development from the day of its opening down to the year 1901, when his long connexion with it ceased. The book gives a vivid picture of the working of a large charitable institution; and incidentally shows the salutary change in public feeling in regard to the care of the sick poor, evinced by the higher standard of comfort and the increased and unremitting care for the welfare of hospital patients. But as a record of the development of an institution in which some of the greatest advances in medicine and surgery have been made it is less satisfactory. Anyone ignorant of the facts might easily gather that the "making" of the hospital was mainly the work of Mr. Burford Rawlings. Valuable as that work may have been in its own sphere, it cannot be too strongly insisted on that the economic and administrative management of a hospital is altogether secondary to the work of the medical staff. While the book may be accepted as a record of Mr. Burford Rawlings's association with the National Hospital for the Paralysed and Epileptic, it is a very inadequate history of an institution which the fame of its medical staff has made a Mecca of neurology, visited by scientific pilgrims from every part of the world.

MEDICINAL AND DIETETIC ARTICLES.

Soluble Salts of Acetyl-salicylic Acid.

WE have received from Mr. W. Martindale (10, New Cavendish Street, London, W.) samples of tylcalsin and tylithin, which are respectively the calcium and lithium salts of acetyl-salicylic acid. Both are white powders having a slight sweetish taste and a faint acetous odour. They are very readily soluble in water, and their solutions rapidly undergo hydrolysis in the presence of alkali, showing salicylate in considerable quantity after a very short time. The advantage presented by these salts over acetyl-salicylic acid is, of course, their far greater solubility, favouring rapidity of action. They are supplied in 7½-grain tablets or in powder.

Standardized Thyroid Preparations.

A good deal of work has been done in recent years in the analysis of thyroid glands derived from sheep raised in different localities and killed at different times of the year. The results have revealed wide variations in the amount of iodine contained in the glands, and as the activity has been shown to be due to the organic compounds of iodine these differences are of serious importance. Standardization in accordance with the amount of organically combined iodine appears, therefore, to be a wise course. Mr. W. Martindale (10, New Cavendish Street, London, W.) has submitted a sample of liquor thyroidei standardized to contain 0.025 gram of iodine in organic combination per 100 c.cm., and also prepares the desiccated gland containing 0.2 per cent. of organic iodine, the latter being further supplied in the form of tablets of different strengths.

MEDICAL AND SURGICAL APPLIANCES.

A Portable Ward Screen.

COLONEL W. G. PRIDMORE, I.M.S., draws attention to a portable ward screen made to his design in Rangoon, and regarded at the general hospital in that city, where it is now in use, as a decided improvement on other appliances of like purpose. In its construction materials locally obtainable have been used, and found quite satisfactory. The skeleton of the screen consists of a frame of ¾-in. steel tubing, with the side bars 2 ft. 11¼ in. apart, the top bar 5 ft. 1½ in. from the ground, and the bottom bar 14 in. from the ground. It is supported by bent segments of the same material, which, like the horizontal bars, are attached to the uprights by T-joints. The tubing forming these feet is filled with lead, so as to secure stability. The framing is coated with a aluminium paint, which is easily renewable, and converted into a screen by drawing over it an envelope of white cotton. Strings and buttons are thus avoided, and provided the envelope is changed regularly the screen always has a clean, neat appearance. The bringing of several screens into close apposition when so desired is rendered possible by making one foot of each screen lower than its fellow, and lengthening the corresponding upright accordingly.

SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE (LONDON, 1913).

SUBSECTION OF CHEMICAL PATHOLOGY.

THE Subsection of Chemical Pathology has been constituted this year for the first time as a separate section apart from the Section of General Pathology. It will meet under the presidency of Dr. F. Gowland Hopkins, F.R.S. The meetings will be held in the Mechanical Theatre of the Royal College of Science, South Kensington.

Discussions.

On Thursday, August 7th, the subject for the morning discussion will be the pathological conditions due to defects of diet. The discussion will be opened by the President of the Subsection, who will be followed by Dr. H. Schaumann, of Hamburg.

On Friday, August 8th, a joint discussion will be held with the Section of Bacteriology and Immunity on the subject of cancer, the chemical aspects of which will be discussed by Professor Carl Neuberg, of Berlin, and Dr. E. Freund, of Vienna.

On Saturday, August 9th, the subject will be the clinical applications of pathological chemistry. The discussion will be opened by Professor Otto Folin, of Boston, U.S.A., and Dr. A. E. Garrod, of London.

On Monday, August 11th, Professor Otto Cohnheim, of Heidelberg, will open a discussion on the chemical pathology of the alimentary tract. Dr. G. Barger, of London, will speak next.

On Tuesday, August 12th, a joint discussion will be held with the Section of Physiology on the subject of the endogenous metabolism of proteins. Dr. E. Abderhalden, of Halle, and Dr. H. Dakin, of New York, will act as reporters on this subject.

The discussion on the subject of the clinical applications of pathological chemistry will, it is hoped, draw a large audience, as it is intended to bring forward many points in which chemical investigations have important bearings on diagnosis and treatment. The joint discussions also, with the Sections of Immunity and Physiology, will be of especial interest, as the subjects under discussion—cancer, and the endogenous metabolism of proteins respectively—will be approached from different points of view by the representatives of the respective sections.

The afternoons will be given up to the reading and discussion of independent papers. The number of papers at present submitted by English authors are few; further papers will therefore be acceptable. The titles must be sent as soon as possible to the central office. Among the subjects treated in the papers already received are the following:

The Recognition of Pancreatic Insufficiency.
The Ferments of the Gastric Juice in Carcinoma of the Stomach.
The Action of Light on Animal Chemistry.
The Ferments of the Blood in Normal and Pathological Conditions.
Sulphaemoglobinaemia.

It is proposed to have a Sectional dinner.

A Museum Subcommittee has been formed for the purpose of arranging for exhibits of interest from the point of view of Pathological Chemistry. Professor Walker Hall is Chairman and Dr. H. Maclean Acting Secretary. The exhibits will be shown in the General Museum.

The Secretary of the Section is Dr. J. F. Gaskell, 23, Ladbroke Grove, W., and Dr. G. Barger has undertaken the duties of Editor of the *Transactions* of the Section.

THE National League for Physical Education and Improvement has recently added to its series of health publications a new health poster and two health leaflets. The poster deals in a graphic manner with the evils arising from the use of push-carts for very young children, showing on the one side a young baby huddled up in a push-cart with the lower part of its body exposed to draughts and its chest contracted, and on the other side the same child undressed, with its spine much bent as the result of the use of these cheap instruments of torture. The poster is printed on stout manilla paper in life colours, from a design by the Nurses' Social Union. One of the leaflets deals with the hygiene of a bedroom such as a village mother would have, and explains in the simplest language what should be done in order to keep such rooms healthy. The other leaflet is on "Food and Drink," and is equally suitable for distribution by health or district visitors, or in schools where domestic economy and hygiene is taught.

THE PROGRESS OF CREMATION.

THE *Transactions* of the Cremation Society of England (No. XXVI), recently issued, contains the report of the council of the society for 1912. It states that during the year ended December 31st, 1912, 125 cremations were carried out at the society's crematorium near Woking, as compared with 114 in 1911. With two trifling exceptions there has been an increase at each of the crematoriums in Great Britain during the past year. The total number of cremations in 1912 in Great Britain was 1,134, as compared with 1,023 for 1911. Of this total 591 took place at Golder's Green. The appended table gives the figures for Great Britain during the last twenty-eight years.

Annual Meeting of Society.

At the annual general meeting of members of the society, Sir Charles Cameron, President, who was in the chair, in moving the adoption of the report, said that the movement was progressing in Great Britain steadily, though by no means so rapidly as he would like. The progress made was shown by the fact that during the eleven years that elapsed between the opening of Woking Crematorium in 1885—the first establishment in this country—and that of the fourth, which was opened at Liverpool in 1896—those at Manchester (1892) and Glasgow (1895) being the second and third respectively—the number of cremations in Great Britain was less by 62 than the total for the twelve months of last year. In the thirteen years from 1896 nine other crematories had come into existence, and 11,118 bodies had been burnt. The number of cremations in each ensuing year had surpassed that of most of the preceding ones, and last year's figure of 1,134 accounted for more than a tenth of the aggregate number during the twenty-eight years the society had been in existence. Since 1904 the annual number of cremations in Great Britain had doubled. So far as they had been received, the figures for 1913 showed an increase over those of 1912, and should the movement continue to progress in the future as it had done in the past, as there was every prospect it would, the present generation might hope to see the practical fruit of the society's work in the solution — at least to a very large extent — of the problem which every generation found more difficult, where to find ground for the burial of the nation's dead. Sir Charles Cameron went on to say that, although cremation had been legalized in Prussia only within the last two years, the number of cremations in that country was close on 9,000. Making allowance for the difference of population, the number of cremations per 100,000 inhabitants was about three times as great in Germany as in this country; and the present rate of progress in Germany might be judged by the fact that the number of cremations in 1912 exceeded that of 1911 by over 1,300—a figure larger than the entire number of cremations in Great Britain in the last and busiest year of the society. The statistics for the United States were incomplete, but, according to the latest information available, the number of cremations there last year amounted to between 7,000 and 8,000. But the most practical recognition of the advantages of that mode of disposal of the dead was at St. Gall in Switzerland, a town of some 20,000 or 25,000 inhabitants, where the municipality had provided facilities for cremation, and would only allow the ashes of cremated persons to be interred within its jurisdiction. The fact that there were 201 cremations at St. Gall in 1912, which would represent a death-rate of some 13 per 1,000, would indicate that the number still clinging to earth burial must be very inconsiderable. It was plain, therefore, that the cremation movement had commended itself to every section of the community. He had no information how far this was the case throughout Germany, but in certain districts it certainly held good to a very great extent. Thus in Possneck, a small town in Saxe-Meiningen, in 1912, out of 123 adults deceased, 62, or over 50 per cent., were cremated. In this country, on the other hand, the adoption of the method had hitherto for the most part been confined to the more highly educated section of the population. Among those whose bodies were cremated at Golder's Green during 1912 were the late Bishop of Truro, Sir Frederick Wallis, Sir Henry Butlin, Mr. John Troutbeck (coroner for Westminster), Lady Rendel, Mrs. Lecky, and Sir John Tollemache Sinclair. [It may be added that quite recently the remains of Lady Dorothy Nevill, Lord Ashbourne, and Mr. Alfred Austin, the poet laureate, were cremated there. The remains of Lord Rendel were cremated the other day at Woking.] But the prejudice among the poorer section of the population seemed at last to be giving way, and among the bodies cremated at Golder's Green and Woking in 1912 were those of over a score of working men.

Cremation Abroad.

The following facts, which are given in the *Transactions* of the Cremation Society of England, bring up to date the information given in the BRITISH MEDICAL JOURNAL of February 23rd, 1911, and April 27th, 1912:

Germany: Five new crematoriums were opened in 1912—at Berlin, Frankfort-on-the-Main, Hagen, Wiesbaden, and Munich. The Municipality of Freiburg in Baden has sanctioned the erection of a crematory. The total number in operation in the German Empire is 34. The number of cremations during 1912 was 8,858, and the total number cremated since the opening of the first crematorium at Gotha in 1879 to December 31st, 1912, was 46,387. *France:* There are crematoriums at Paris, Père Lachaise, Lyons, Marseilles, Rheims, and Rouen. *Switzerland:* There are ten—at Zurich, Basle, Geneva, St. Gall, Bern, Lausanne, Chaux de Fonds, Winterthour, Bienne, Aarau. The total number cremated from 1889, when the Zurich crematorium was opened, to 1912 was 9,332. *Italy:* There are crematoriums in operation at Asti, Alessandria, Bra, Bologna,

Table of Cremations carried out in Great Britain since the opening of Woking Crematorium in 1885.

	1885-9.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	Total.
Woking	100	54	99	104	101	125	150	137	173	240	240	301	273	275	*143	138	95	140	108	119	105	106	114	**125**	**3,565**
Manchester	...	...	...	3	30	47	58	52	51	62	88	83	96	81	92	98	97	90	98	116	106	114	124	**149**	**1,735**
Glasgow	...	...	...	...	...	...	1	10	16	12	16	20	18	20	24	19	35	44	30	28	30	28	39	**44**	**434**
Liverpool	...	...	...	...	...	...	...	2	10	27	23	40	40	54	35	40	35	46	34	32	46	37	50	**52**	**603**
Hull	...	...	...	...	...	...	...	...	...	...	...	...	17	13	18	20	15	17	29	37	15	21	25	**27**	**254**
Darlington	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	7	4	13	8	6	9	9	12	**15**	**87**
Golder's Green ...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	158	220	252	298	290	361	421	415	542	**591**	**2,556**
Leicester	...	...	...	...	...	...	...	...	...	...	...	...	...	1	5	8	16	12	12	14	19	16	13	**14**	**130**
Birmingham	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	19	22	25	33	18	30	38	44	**40**	**270**
Leeds	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	15	16	24	19	12	17	**24**	**143**
Ilford	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	23	18	19	24	22	20	**32**	**167**
Bradford	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	14	13	6	13	14	13	**9**	**83**
Sheffield	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7	6	18	12	18	8	10	**12**	**91**
Total	100	54	99	107	131	172	209	201	250	341	367	444	445	451	477	569	604	743	707	795	855	810	1023	**1,134**	**11,118**

*Golder's Green Crematorium in operation.

Brescia, Como, Cremona, Florence, Genoa, Leghorn, Lodi, Milan, Modena, Mantua, Novara, Padua, Pisa, Pistoia, Perugia, Rome, Siena, Spezia, San Remo, Turin, Udine, Verona, Varese, and Venice. *Scandinavia:* There are crematories at Stockholm and Gothenburg in Sweden, at Bergen and Christiania in Norway, and at Copenhagen in Denmark. *Belgium:* Cremation is not yet legalized, but an active propaganda is carried on with that object. *North America:* There are 44 crematoriums—43 in the States and 1 in Canada. In 1902 there were 30 in the States, and in that year there were 3,200 cremations. From the latest statistics available about 7,250 were carried out in 1912, and the total number since the opening of the first crematorium in 1876 is now more than 65,000. *South America:* Crematories exist or are in course of construction at Rio de Janeiro, Buenos Aires, and Montevideo. *Asia:* Setting aside India, Siam, Tibet, and Japan, where cremation is the customary way of disposing of the dead, a crematorium for the special use of Europeans has been established at Calcutta, and one in Shanghai. *Australia:* A crematorium was established in Adelaide in 1903, and a society has been formed in New South Wales for the purpose of establishing one in Sydney. *New Zealand:* The City Council of Wellington has erected a crematorium, and the Auckland Cremation Society is urging the council of that city to establish one. *South Africa:* A movement has been set on foot for the establishment of a cremation society in South Africa, with a view to the erection of crematoriums at Cape Town and Johannesburg.

OPENING OF EXTENSIONS TO HARROGATE SPA ESTABLISHMENTS.

Harrogate has long been favourably known to the medical profession as a well-organized and enterprising health resort which is never content to rest on its laurels. Considerable extensions of its bathing facilities have recently been made, and on Saturday, June 7th, these were formally opened by Sir David Burnett, Lord Mayor of London, who visited Harrogate in civic state. The Corporation of Harrogate, acting in conjunction with the Harrogate Medical Society and the Great Northern and North-Eastern Railway Companies, invited a large number of prominent members of the medical profession to be their guests over the week-end, and all concerned in the arrangements are to be congratulated on the thoughtful way in which everything was devised for the comfort of the guests, and the almost royal hospitality which was shown. A special train conveyed the Lord Mayor, the Lady Mayoress, the Sheriffs of the City of London, Alderman Sir Thomas Crosby, M.D., LL.D., and several other members of the civic party, and a number of London medical men to Harrogate. On arrival the guests were distributed among the principal hotels of the town, the Lord Mayor and Sheriffs being housed at the Queen Hotel, and a large medical contingent at the Majestic.

The extensions opened on Saturday were a new Pump Room joining the Royal Pump Room, better known as the "Old Sulphur Well." This new building has been found necessary to accommodate the large number of visitors using this water, the average number of drinkers before nine in the morning last season being about 2,700. The extension more than doubles the old area of the Royal Pump Room, and forms a cheerful and comfortable promenade. Extensions have also been made to the Victoria Baths, once the chief bathing establishment of the town; this, though supplemented in 1897 by the Royal Baths, to which additions were made at great expense so recently as 1910, has been found to be inadequate to meet the needs of the rapidly increasing number of bathers. A new wing has been added to the Prince of Wales Bath at Starbeck, and an important addition has been made to the amenities of the town, as well as to its wealth of mineral springs, by the acquisition by the Corporation of the Harlow Car estate, which consists of an hotel, a suite of baths, and seven mineral springs. This estate is to be developed on Continental spa lines, and no doubt in the near future will be found richly to repay the sagacious enterprise of the Corporation and testify to the administrative capacity of Mr. Henry J. Buckland.

The opening ceremony, performed by the Lord Mayor, was a most picturesque event. The civic party in full state arrived at the Royal Baths, where a large body of the public was in waiting. The streets on the route were gaily decorated. Amongst those on the platform were the Bishop of Ripon, Lord Faber, the Hon. Edward Wood, M.P. for the division, and many other distinguished people, but the gathering of Yorkshire Lord Mayors and Mayors was probably unique. Almost, if not quite, all of the heads of the municipalities in Yorkshire were there, a fact to which the Mayor of Harrogate (Mr. J. S. Rowntree) referred with pardonable pride; and a typical Yorkshire assembly they formed, radiating an air of justifiable satisfaction with their county, their hosts, and the towns which they represented, which was pleasantly characteristic of the proceedings of the week-end. Yorkshire is quite convinced that it is the greatest county in England—not only in size—and the municipal fathers on the platform were there to emphasize the fact that Harrogate, in showing the world what a watering-place should be, was proving herself worthy of the county. The ceremony was commendably short, the main item, apart from the ceremonial opening of the extensions, being a concise and business-like statement by Mr. Councillor Sheffield, Chairman of the Spa Establishments, showing the marvellous progress of the institutions under his care. He made a claim which was amply verified by the visitors afterwards—namely, that Harrogate was second to no spa in the world, either in the amplitude of its natural resources or in the ability and courage with which it had utilized and developed them. After tea the medical visitors were shown over the various bathing establishments, and the completeness of the arrangements made a great impression on those to whom Harrogate was previously unknown, except by repute. A mere list of the various kinds of baths is bewildering. Harrogate has over eighty different kinds of springs, of which all but sixteen are used for bathing purposes. It is mainly through its sulphur waters that Harrogate has become famous, but to the various combinations of sulphur baths the management has added all kinds of massage, inunction, electric light, and mechanical treatments. Peat is brought from the Yorkshire moors, brine from Cleveland, and, in short, there seems to be hardly any form of therapy known to bathing establishments of this kind which cannot be supplied at Harrogate, and supplied in comfort. It is probably true to say, with small reservations, that the medical man can obtain at Harrogate for his patients all the therapeutic advantages offered by Continental spas, combined with beautiful surroundings and a most invigorating air. Full particulars of the different forms of treatment available at Harrogate can be obtained from the general manager, Mr. Buckland. Harrogate also possesses very fine hotels, probably as good as can be found anywhere, and boarding-houses to suit almost every purse.

On Saturday evening the guests of the Corporation were entertained to dinner in the Majestic Hotel, and over 300 guests sat down. This large number was easily accommodated in the fine dining-room, the only difficulty, and one inseparable from such a vast room, being a little trouble in hearing some of the speakers. The Mayor of Harrogate was supported by the Lord Mayor of London, by the Lord Mayors of York, Leeds, and Bradford, and the Mayors of the Yorkshire boroughs. Amongst the prominent representatives of the medical profession were Sir James Barr (President of the British Medical Association), Sir James Crichton-Browne, Sir Alexander Dempsey, Sir John Moore, Sir C. Nixon, and Sir Peter O'Connell.

Sir James Barr proposed the health of the Lord Mayor, Aldermen, Sheriffs, and Corporation of London, to which the Lord Mayor responded in very happy vein. Sir J. Crichton-Browne proposed "The Harrogate Medical Society" with his usual skill and glowing rhetoric, mentioning the names of some of the well-known Harrogate physicians of earlier times. His story of the Irish doctor who had difficulty in naming the diseases from which his patients were suffering deserves reproduction. The doctor adopted the method of using the titles of George Meredith's books. A patient who was suffering from appendicitis was told he had "Diana of the Crossways"; indigestion was christened "Sandra Belloni"; while alopecia was designated "The Shaving of Shagpat." Dr. Campbell Boyd, President of the Society, in response, made a witty reply, which was received with great applause. The toast of "The Guests" was proposed by Lord Faber, and responded to by that wonderful octogenarian, Sir Thomas Crosby, whose voice was distinctly heard all over the room. Mr. Spencer Leigh Hughes, M.P., a noted after-dinner speaker, who also responded, lived well up to his reputation, and kept his audience in a continual chuckle. An excellent dinner and a well-planned

toast list were brought to an end by the toast of "The Mayor and Harrogate Spa," moved by Alderman Sir CHARLES WAKEFIELD and responded to by the MAYOR, who must be heartily congratulated on this as well as on the other items of the week-end's programme in which he took part. The visitors then proceeded to the Kursaal, which, with characteristic Yorkshire absence of mock modesty, boldly proclaims outside, its claim to be "the handsomest concert hall in England"—and certainly does not belie the claim inside. The Kursaal Orchestra, under the leadership of Mr. Julian Clifford, is too well known as one of the finest orchestras in the country to need any praise here.

On Sunday morning the civic party went to church, and afterwards paid a private visit to the bathing establishment. In the afternoon the whole party was taken in motor cars to Fountains Abbey and Ripon, and was thus given an opportunity to judge for themselves of another of Harrogate's claims—namely, that it is a beautiful town set amidst some of the most beautiful scenery in this or any other country, and, judging by the freely expressed admiration of the party, the patriotic Yorkshiremen will have no reason to quarrel with the verdict. After tea at the Ripon Hydropathic the guests were motored back to Harrogate, and those of the London party who were not staying overnight were brought to the station and left at 6.30 in the special train, in which dinner was served. All concerned—the Corporation of Harrogate, the Harrogate Medical Society, and the Great Northern and North-Eastern Railways—have every reason to congratulate themselves on the success of the whole affair. Harrogate looked its best, the welcome of the people was warm, the hospitality was worthy of the county—we cannot say more; the natural and other advantages of Harrogate from a holiday and medical point of view were brought fully home to the visitors, and everything went, so far as one could see, without a hitch. Special thanks are due to Dr. Shepherd Boyd, President of the Harrogate Medical Society, and to Mr. Buckland, manager of the baths. It is not difficult to understand Harrogate's continued and well-deserved success as a health resort when the irresistible combination of a fine town possessing many natural advantages with an enterprising corporation, a medical faculty ready to make the best use of all therapeutic facilities, and a manager always ready to meet all demands upon the bathing arrangements, are taken into consideration.

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

THE FOOD AND DRUGS ACTS AND SECRET REMEDIES.

ON June 5th evidence was given on behalf of the Local Government Board by Dr. A. W. J. MacFadden, Chief Inspector of Foods under the Board. He explained the relation of the Board to the work of public analysts throughout the country, and mentioned that the Board had received representations in favour of the removal of the exemption of proprietary medicines from the operation of Section 6 of the Food and Drugs Act. His view was that control of proprietary medicines could not be secured by that means unless the Sale of Food and Drugs Acts were extended to require full declaration of the nature and amount of the ingredients, the declaration having the force of a warranty. Without expressing an opinion as to the desirability of requiring such a declaration, he pointed out that it would require troublesome and costly analytical work. As to the proposal, made by several witnesses, to secure a more limited control in regard to certain dangerous or potent drugs in proprietary medicines, it would require the amendment of the Sale of Food and Drugs Acts to provide for a statement on the label of the name and dose of the drug, to constitute such a label a warranty and to punish any breach with a substantial penalty. The witness outlined the provisions of the United States law as regards "misbranding" and of the West Australian Health Act, 1911, for controlling false declarations. If any legislation on similar lines were contemplated for this country, he did not think it would be practicable to provide it by means of extensions of the Sale of Food and Drugs Acts, because these measures placed responsibility primarily on local authorities. It would be necessary in the case under discussion for owners of proprietary articles to submit their advertisements and labels to a central authority. Such a scheme would not be without difficulty, and it would involve a form of censorship similar to that exercised in Australia and the United States.

In reply to the Chairman, the witness said that the Sale of Food and Drugs Acts affected the proprietary medicine trade very little, and no extension could make them applicable. It would be necessary for Parliament to make a fresh start, and create a new body with new powers.

Questioned by various members of the Committee as to the West Australian law, the witness agreed that its provisions, which he thought admirable, might not be applicable to this country.

At the invitation of the Chairman, Dr. MacFadden outlined his personal views as to a method of regulating the trade in proprietary medicines. He would set up a censorship of labels and advertisements, not to deal with all advertisements and other announcements, but with those brought to the notice of the authorities. On the censorship committee the General Medical Council and the Pharmaceutical Society would be represented. It would be necessary for the Committee to have the maker's formula before it; this might be disclosed obligatorily but in confidence. He would give the Committee power to prohibit sale until the statements accompanying a proprietary medicine were such as the Committee could approve.

SUGGESTED ALTERATIONS IN THE LAW.

Mr. Guy Stephenson, Assistant Director of Public Prosecutions, who gave evidence at an earlier stage of the inquiry (BRITISH MEDICAL JOURNAL, June 15th, 1912, p. 1373), was recalled. He said that since he was last before the Committee he had considered the law as to proprietary articles, and, after discussing the question with Sir Charles Mathews, the Director of Public Prosecutions, he was prepared to put forward some suggestions for the alteration of the law. It might be possible to set up by legislation machinery similar to that provided by the Food and Drugs Acts. He suggested that a staff of inspectors or other officials might be created by statute; it would be their duty to be on the look-out for offences with regard to proprietary medicines, and to make a search of the files of newspapers with a view of finding any advertisements of an undesirable character. The inspectors would also purchase medicines and submit them to an analyst. He did not think this suggestion could be carried out without an alteration of the law making the vendor liable, quite apart from his knowledge of the contents of a medicine. To be effective the statement on the label of the formula of a proprietary medicine, as suggested by the British Medical Association, would have to be couched in popular language. As to the proposal to make the label a warranty, the witness remarked that, from a legal point of view, the question what was and what was not a warranty was very difficult to define.

In reply to questions, the witness reiterated his opinion that entirely new legislation was necessary to deal with the traffic in proprietary medicines. The onus of proof must be thrown on the vendor; he would have to show that he had reasonable belief in the efficacy of his preparation.

DR. GEORGE TEMPLETON, an account of whose death in the Hardanger Glacier, Norway, was published in the BRITISH MEDICAL JOURNAL of April 19th, left estate of the gross value of £9,429, of which the net personalty has been sworn at £9,262.

A "Travel Study Tour" of American Physicians to the Seventeenth International Congress of Medicine will start from New York on July 3rd. About seventy-five doctors will take part in the tour. In co-operation with the International Committee for post-graduate medical education, arrangements have been made for visiting clinics and hospitals in Paris, Munich, Vienna, Berlin, Dresden, Cologne, Brussels, and elsewhere, and for inspecting the health resorts of Carlsbad, Marienbad, Nauheim, Wiesbaden, and Homburg. The tour will end in London, where the travellers will arrive in time to attend the International Medical Congress.

AN EPIDEMIC CHARACTERIZED BY ADENITIS, TONSILLITIS, AND CARDIAC COMPLICATIONS.

A correspondent sends us the following account of an epidemic which has occurred in an institution to which he is medical officer. The disorder is, he believes, of a novel type. He writes:

The most obvious, though not the most important, feature of the disease is the swelling of the lymphatic glands in the neck, and their exceptional tenderness, causing in most cases a noticeable stiffness of the neck. The glands affected are chiefly those behind and beneath the jaw and in the anterior triangle of the neck, with very occasionally implication of the salivary glands. These lymphatic glands are sometimes so enlarged that they simulate a severe case of mumps. Associated with this is a condition of the tonsil which varies from a slight rash to an apparently pronounced and extensive diphtheritic membrane.

There is no apparent connexion between the severity of the throat trouble and the extent or the tenderness of the enlarged glands in the neck.

In three of my cases the trouble was in the larynx, and not obvious in the tonsils. In these, hoarseness and an irritating cough took the place of pain on swallowing.

In two cases there was a doubtful mottling of the neck and upper chest, which at the time I thought might be the precursor of the rash of scarlatina or German measles. In each case the mottling faded away within two hours.

One case developed orchitis, a painless, not very tender swelling of the body of the testis.

Two developed great swelling and induration of one tonsil and palate (though both tonsils were affected), pushing the faucial opening well over to the other side and almost obliterating it. There was a very small amount of deep-seated pus in these swellings. Several of the patients complained of the discomfort caused by the oedematous and greatly elongated uvula. I have been told about, but have not seen, cases of extensive cellulitis of the head and neck, with deep-seated suppuration in the neck.

About three-fourths of the cases were mild, with slight symptoms and no appreciable rise of temperature. The most dangerous cases commenced with trivial symptoms in the throat and neck—two of them with headache and high temperature, the others with scarcely any rise of temperature and no headache—so that I have come to look upon greatly inflamed tonsils and glands as rather favourable signs except for the local disturbance which they may cause.

In one case the patient had rigors with axillary temperatures of 106.4° F., 106.6°, 105.6°, 105°. He also had haemorrhage from the nose and lower bowels, and incontinence of urine. An examination of the blood showed streptococci. He is being inoculated with a vaccine made from his blood by my colleague.

Three other cases (and a possible fourth which may not have been this disease) developed heart mischief. The condition of each was the same, but of a different type to anything I have seen before. In each case there were no symptoms to call attention to the heart, and the patients were convalescent. But for the fact that, realizing the toxic nature of the disease, I was carefully examining all hearts every night and morning, I should never have noticed the insidious commencement. First there was the slightest possible *ff–ff* at one of the valves, followed a few hours later by a marked murmur. Two days later there were loud murmurs over the aortic and mitral regions and the heart was dilated, the apex having moved about ¾ in. to the left. It was more difficult to say what valve or surrounding myocardium was not affected than to say what was, so rapid and so extensive was the infective process. During the whole process the temperature remained subnormal, and the patients in two of the cases seemed unaware that anything particular had happened to them. Apparently the myocardium is affected in all except the slightest cases of this disease, for there is often unaccountable weakness for weeks after all other symptoms have disappeared.

None of the patients had sugar in the urine, and none had albumen, except that those with high temperatures had a small amount temporarily, and a distinct amount appeared in one who became insane. About half the cases had been in contact with previous cases; in the other half I was unable to satisfy myself as to the source of infection. In the case of those who had been in contact the period of incubation appeared to be about four days.

I have treated between 40 and 50 cases, but I did not recognize the nature of the disease in the case of the first ten or twelve; I imagined them to be cases of mixed infection. It was not until a colleague pointed out to me the definite grouping of symptoms in his own cases that I saw I had been mistaken, and realized that he was correct in considering the disease to be a new one.

It is not the mortality of the disease, which appears to be low, but the insidious nature of the heart affection, that inclines me to look upon this complication as an especially dangerous one, and one against which every practitioner should be on his guard.

AUTOMOBILES FOR MEDICAL MEN.

The "G.R. Car."

We recently had an opportunity of testing the G.R. car over a fifty mile very hilly route, and, on the basis of the experience gained in this and other ways, feel justified in believing that the car would be found to meet admirably the needs of medical practice. Though known as the Georges Richard or "G.R. car," it might, but for trade considerations, be equally well called a Unic, for its chassis is built throughout at Puteaux by the makers of the Unic, and on the same lines. The only difference seems to be that the Unic cars, which have long had an excellent reputation for durability, are for the most part larger cars, and of greater horse-power. Avoiding as far as possible purely technical details, which any one can obtain for himself from the pamphlet relating to this car, and into which we have not space to enter, it may be said that the Georges Richard is a 10 to 12 h.p. four-cylinder car, which was found to travel exceedingly smoothly at rates shown by the speedometer to range from five to over forty miles an hour. The engine performed its work very quietly, this being no doubt largely due to the valve lifters, though easily adjustable, being enclosed by a plate, and the various gears engaged with marked freedom from jar (the leather below the male portion of the clutch is fitted with laminated springs). Equally notable was the ease with which different rates of progress could be secured solely through the operation of the throttle, thanks largely, no doubt, to the excellence of the carburetter. There was indirect evidence of this in the appearance of the tyres of the car tested; they were ordinary Michelin tyres, which had not, we were assured, been changed since the car commenced the 4,600 miles shown by the speedometer to have been run, yet were in a condition very much better than could have been the case had frequent resort to the brakes been needed. As for cost, though there is nothing "cheap" about this car, its price, considering all things, is quite low. The chassis alone (including wire wheels with Captain detachable rims, plain tyres, and a kit of tools) costs £235, while fitted with a three-seat coupé body the price is £330. This body opens and closes easily, and provides ready access to the seat of the person who is driving. Other bodies obtainable are a two-seater (£300), and a four-seater torpedo body (£320). They are made in this country to the order of the concessionaires of the G.R. car, Messrs. Mann and Overton, 10, Lower Grosvenor Place, S.W., who have a branch at Whitworth Street, Manchester. A good many Unic cars, it may be noted, are running in London as taxi-cabs, and there is reason to believe that their average petrol consumption is low.

Auto-Cycles.

The Motosacoche Company informs us that of its two machines, the one which it principally recommends to medical men is the 2¼-h.p. car. It is a light weight machine, built not with a view to racing but to reliability, the protection of the rider from dirt, ease of control, and a minimum of expense on running and upkeep. In regard to these points it is stated that from 130 to 140 miles can be run on a single gallon of petrol, while the engine and all oily parts are so covered that the wearing of any special costume is superfluous: even trouser clips are not absolutely necessary. There is nothing gymnastic in the method of mounting, and, thanks to the sim-

plicity of the mechanism, any one who can ride an ordinary cycle can ride a Motosacoche forthwith. It is made with a special variable gear which, being operated not by the hand but by the foot, allows rates of speed from walking speed upwards being secured. Other points on which emphasis is laid are silence, capacity for hill mounting, and obviation of the risk of being delayed when called to start suddenly upon an unexpected journey by the provision of an appliance for dropping petrol direct into the cylinders when the engine is cold; this can be done without soiling the hands. These claims, judging from a communication from a member of the Association some time ago and from letters from medical men in the firm's possession, seem well founded. The price of the ordinary machine is £38, or £42 when provided with the variable gear here mentioned. It may be added that the Motosacoche has been a winner of medals, competitions, and trials of the reliability order ever since 1907. The address of the firm for letters is College Park, Willesden Junction, N.W.

THE DE DION BOUTON CARS.

Under the title of *The Doctor and the Car* Messrs. De Dion Bouton, of Great Marlborough Street, have brought out a booklet setting forth the general advantages in practice of using cars in place of horse-driven vehicles, and concluding with copies of detailed accounts of the expenses supplied by a large number of medical users of De Dion cars. These accounts are of distinct interest both to those who already use automobiles and to those who are wondering whether they can afford the expense. Most of these relate to small cars, which, as made by Messrs. De Dion, early won so much popularity.

The demand for such cars still continues, but side by side there would appear to be arising a corresponding demand for more expensive vehicles with numerous cylinders; indeed, the firm is now marketing a chassis with eight cylinders. A booklet relating to the latter can be obtained on application, as also one containing much testimony to the satisfaction given by the "DX" model put upon the market at the end of last year. The latter is a four-cylinder car, of 66 mm. bore and 120 mm. stroke. The chassis as it is being built this year keeps the frame rather higher from the ground than did the 1912 model, and provides more ground clearance; and the frame, too, is somewhat longer. The price of this chassis is £283. Of the eight-cylinder cars there are three models, two being of 26 h.p., and one of 50 h.p. Their prices run from £475 to £650. It is now generally admitted that six cylinders are an advantage, and it is claimed that these eight-cylinder cars are even smoother in torque than the best of sixes. In any case the literature concerning them is worth perusal.

A MOTOR CAR AT WORK.

At Brooklands, on May 19th, a new fourteen hours speed record was created by a standard 15.8-h.p. Argyll car, single sleeve valve engined, fitted with worm driven rear axle. The car covered 1,016 miles in fourteen hours, at an average speed of 72.57 miles an hour. The company send us some curious calculations, which may interest those arithmetically inclined, and certainly give a striking general impression of the high pitch of mechanical and structural perfection to which motor cars have been brought. We are told that the engine turned at the rate of 40 revolutions a second, or 2,400 revolutions a minute, for the fourteen hours, making altogether over 2,000,000 revolutions during the period; each piston travelled the length of the cylinder 80 times a second, equal to over 34 ft. a second. During each second of the fourteen hours of the run 80 charges of petrol gas were drawn into the engine cylinders, exploded, and exhausted.

THE British Fire Prevention Committee has established the nucleus of a technical library, which is to be known as the International Fire Library. It already has some 2,000 books, dealing specifically with matters of fire prevention, fire service, and fire loss, and desires to call attention to the fact that it will be glad to receive any books, pamphlets, or reports bearing on the subject, which authors, public authorities, publishers or collectors may be able to spare. They should be addressed to the Honorary Chief Librarian, the International Fire Library, 8, Waterloo Place, S.W. The same body has also recently issued another of its red books relating to fire tests with textile fabrics. It refers to experiments with a flame-proofing solution known as Snowdon's. This solution was found to have no injurious effect upon the textiles with which experiments were conducted, and to render them thoroughly flame-resisting. Its utility, however, so far as wearing garments are concerned, is seriously limited by the fact that the solution must be reapplied each time the garments are washed.

LITERARY NOTES.

IT is announced that Messrs. Constable are about to publish a work entitled *The Unexpurgated Case against Woman Suffrage*, by Sir Almroth Wright, F.R.S. The book is said to be written with the object of showing "that the Woman's Suffrage Movement has no real intellectual or moral sanction, and that there are very weighty reasons why the suffrage should not be conceded to women." As an addendum to the book is printed Sir Almroth Wright's letter on "Militant Hysteria" which appeared in the *Times*.

Dr. Francis J. Hall, of the Peking Union Medical College, is preparing for publication a second Chinese edition of Sir William Osler's *Practice of Medicine*.

At the Aberdeen graduates' dinner, a brief account of which appeared in the JOURNAL of June 7th, Mr. Cantlie recited the following verses in honour of the Chairman, Professor W. J. R. Simpson:

His heart's in the Tropics, his hopes they are high,
His heart's in Uganda a-chasing the fly.
The rat and the flea, in vain do they try
Tae plague us wi' sickness when Simpson is nigh.

At his presence the tsetse-fly skunks in the tree,
The trypanosome trembles sae frichtened is he.
O' the comma bacillus a full stop he's made,
An' na longer we fear for a cholera raid.

Wi' his heart in his wark an' his pen in his han'
Oh! ne'er was made a mair glorious stan',
For Simpson has fought in lands overseas
Tae shield oor compatriots frae plague an' disease.

Sae fare ye weel, oor laddie, God's speed on yer track
We'll look after yer little anes until ye come back,
And may be we'll see til't whan ye're far away
That the C.M.G. ye earned shall be fronted wi' "K."

In the JOURNAL of May 31st we quoted an epitaph on Lockyer, described by Mr. E. V. Lucas as "the Cockle and Holloway, Beecham and Carter of his time—the middle of the seventeenth century." In *Nugae Chirurgicae, a Biographical Miscellany, illustrative of a collection of professional portraits*, by William Wadd, Surgeon Extraordinary to George IV, the following concluding lines are given:

This verse is lost: his Pills embalm him safe
To future times, without an Epitaph.

We take this opportunity of correcting a misprint in the first line as cited by Mr. Lucas and reproduced in the JOURNAL, where "Pith" should be "Pills." Lionel Lockyer died in 1672. Under a bust of him, sculptured by J. Sturt, appear the following lines:

The true Effigies here you may behold
Of him, who, for preventing others' ill,
Hath gained a Medicine far exceeding Gold,
And known to all the world for Lockyer's Pill.

In reference to an article entitled Francis Bacon on Medicine, which appeared in the BRITISH MEDICAL JOURNAL of April 26th, p. 896, Dr. W. J. Rutherford (Renfrew) has sent us an extract from Macaulay's essay in which the subject is dealt with from a somewhat different point of view. Comparing the philosophy of Bacon with that of Plato, Macaulay says:

It is curious to observe how differently these great men estimated the value of every kind of knowledge. . . . To Plato, the science of medicine appeared to be of very disputable advantage (*Republic*, Book 3). He did not indeed object to quick cures for acute disorders, or for injuries produced by accidents. But the art which resists the slow sap of a chronic disease, which repairs frames enervated by lust, swollen by gluttony, or inflamed by wine, which encourages sensuality by mitigating the natural punishment of the sensualist, and prolongs existence when the intellect has ceased to retain its entire energy, had no share of his esteem. A life protracted by medical skill he pronounced to be a long death. The exercise of the art of medicine ought, he said, to be tolerated so far as that art may serve to cure the occasional distempers of men whose constitutions are good. As to those who have bad constitutions, let them die; and the sooner the better. Such men are unfit for war, for magistracy, for the management of their domestic affairs, for severe study and speculation. If they engage in any vigorous mental exercise, they are troubled with giddiness and fulness of the head, all of which they lay to the account of philosophy. The best thing that can happen to such wretches is to have done with life at once. He quotes mythical authority in support of this doctrine: and reminds his disciples that the practice of the sons of Aesculapius, as described by Homer, extended only to the cure of external injuries.

Far different was the philosophy of Bacon. Of all the

sciences, that which he seems to have regarded with the greatest interest was the science which, in Plato's opinion, would not be tolerated in a well regulated community. To make men perfect was no part of Bacon's plan. His humble aim was to make imperfect men comfortable. The beneficence of his philosophy resembled the beneficence of the common Father, whose sun rises on the evil and the good, whose rain descends for the just and the unjust. In Plato's opinion man was made for philosophy; in Bacon's opinion philosophy was made for man; it was a means to an end; and that end was to increase the pleasures and to mitigate the pains of millions who are not and cannot be philosophers. That a valetudinarian who took great pleasure in being wheeled along his terrace, who relished his boiled chicken and his weak wine and water, and who enjoyed a hearty laugh over the Queen of Navarre's tales, should be treated as *caput lupinum* because he could not read the Timaeus without a headache, was a notion which the humane spirit of the English school of wisdom altogether rejected. Bacon would not have thought it beneath the dignity of a philosopher to contrive an improved garden chair for such a valetudinarian, to devise some way of rendering his medicines more palatable, to invent repasts which he might enjoy, and pillows on which he might sleep soundly; and this though there might not be the smallest hope that the mind of the poor invalid would ever rise to the contemplation of the ideal beautiful and the ideal good. As Plato had cited the religious legends of Greece to justify his contempt for the more recondite parts of the art of healing, Bacon vindicated the dignity of that art by appealing to the example of Christ, and reminded men that the great Physician of the soul did not disdain to be also the physician of the body (*de Augmentis*, lib. 4, cap. 2).

* * * * *

A philosophy which should enable a man to feel perfectly happy, while in agonies of pain would be better than a philosophy which assuages pain. But we know that there are remedies which will assuage pain: and we know that the ancient sages liked the toothache just as little as their neighbours.

Macaulay was a Philistine, though a Philistine of genius, and his article on Bacon is a proof of his Philistinism. But in regard to medicine, we do not think the most enthusiastic disciple of the great philosopher could seriously say, *Mallem errare cum Platone.*

It was stated in the JOURNAL of June 7th that the first award of the Broquette-Gouin, of the value of £400, had been made to Professor Grasset of Montpellier. We are now enabled to add that the professor has decided to give the sum to the Medical Faculty of the University for the purpose of founding a special prize for students.

SCIENCE NOTES.

DR. ROBERT BROOM, Keeper of Vertebrate Palaeontology in the South African Museum, in his Croonian Lecture before the Royal Society, on June 5th, sketched a theory of the origin of mammals, which for its full development would have required a course of half a dozen lectures at least. Dr. Broom went to South Africa some fifteen years ago with the intention of studying the subject, for there is there an opportunity unequalled anywhere else of palaeontological research in a region some two thousand miles square with a depth of strata measuring seventeen hundred feet. The particular merit of the theory which Dr. Broom has elaborated seems to be that it takes full account of the struggle for life of carnivorous races in face of a decrease in the numbers of the herbivorous animals on which they preyed, and the effect of this on the direction of specific evolution. In the lecture he sought to trace the evolution of mammals from Cotylosaurians through carnivorous lines from the Upper Carboniferous period to that of the Lower Jurassic. He argued that in the types of animal along this carnivorous line—that is to say, in the Lower Permian period the Therocephalia, in the Middle and Upper Permian the Gorgonopsia, and in the Triassic the Cynodonts—the skull is very mammal-like. In the Lower Jurassic strata he said the cynodonts were so mammal-like and the mammals so cynodont-like that in no single case was it possible to be absolutely certain which was which. This line of argument was illustrated by a long series of drawings. He suggested that the small gorgonopsians fed almost exclusively on the comparatively slow-moving small herbivorous anomodonts. When in the Triassic period the last named became rare, the carnivorous animals which had subsisted on them had to seek other prey, lizard-like and more active, and the consequent necessity for increased activity in the pursuers resulted in the cynodonts, and finally in the mammals. In Upper Triassic times the larger cynodonts preyed upon the large anomodont, *Kannemeyeria*, and carried on their existence so long as these anomodonts survived, but died out with them about the end of the Trias or in Rhoetic times. The small cynodonts, having neither small anomodonts nor small cotylosaurs to feed on, were forced to hunt the very active long-limbed thecodonts. The greatly increased activity brought about that series of changes which formed the mammals—the flexible skin with hair, the four-chambered heart and warm blood, the loose jaw with teeth for mastication, an increased development of tactile sensation, and a great increase of cerebrum. Not improbably the attacks of the newly evolved cynodont or mammalian type brought about a corresponding evolution in the pseudosuchian thecodonts which ultimately resulted in the formation dinosaurs and birds.

The question as to whether or not the laws of regular reflection are obeyed by the x rays formed the subject of an interesting lecture given by Professor C. G. Barkla before the Roentgen Society on June 3rd. This line of investigation was started some months ago, he said, by three German physicists—Friedrich, Knipping, and Laue—who proved that when a fine beam of x rays was transmitted through a crystal the image obtained on a photographic plate placed on the other side of the crystal included not only a representation of the direct beam, but of a series of secondary pencils round the central impression. The interference pattern thus produced was explained on the spreading-wave hypothesis. It was subsequently discovered by W. L. Bragg that x rays could be reflected from the cleavage planes of crystals. Professor Barkla said that in his own experiments he used an ordinary x-ray tube, and made the rays emerge from a pinhole aperture. A thin sheet of rock salt or other crystal was placed at a distance of 40 or 50 cm. from the anticathode, and by observing the effects obtained on a photographic plate he was able to demonstrate that the laws of reflection did appertain to the Roentgen radiation. He exhibited a large number of photographic results, the general effect being that of various feeble secondary pencils arranged, often in what appeared to be concentric circles, around the central and more or less opaque patch due to the direct beam. Given sufficient photographic exposure, it looked, he said, as though there might be an indefinite number of these secondary pencils. No part of Professor Barkla's lecture was more illuminating than that in which he showed why crystal was the chosen medium for the order of effects. With a surface of mercury or a polished metal, while the free electrons emitted secondary waves in all directions, there was destructive interference also in practically every direction, so that the effect was effaced. Each molecule in a surface sent out a train of rays, but unless certain relations held between the distances from one molecule to another there would be destructive interference. The rays were not reflected regularly from a surface of mercury, because such a surface, while appearing to be a plane, had irregularities of molecular structure which were large as compared with the wave-length of the Roentgen radiation. A surface of the desired regularity was, however, provided by the layers in a crystal, where the molecules were arranged perfectly in definite planes, and with sufficient regularity to produce regular reflection. The reflection itself was due to the vibration of the constituent electrons within the molecules of the crystal, such vibration being set up by the impinging rays. The intensity of this secondary effect, in the experiments so far carried out, was nothing like 1 per cent. of the intensity of the direct beam. Professor Barkla thought it possible that an elliptical reflector might be arranged with sheets of mica, and that radiation be brought to a point focus, though whether the more intense beam thus produced would be of any use in secondary ray therapeutics he could not say. He concluded by reaffirming the certainty that x rays were regularly reflected exactly as light from regular planes in the crystal, and that the photographic result was due to an interference effect with the secondary radiation.

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CREMATION.

As will be seen from the article which appears at p. 1279, the progress of cremation in this country is steady, though disappointingly slow. It is now nearly forty years since the Cremation Society of England was founded by Sir Henry Thompson, and notwithstanding the most strenuous efforts to bring home to the people at large the advantages of this method of disposing of the dead, it cannot be said that these are yet properly appreciated.

The attitude of the press, whose function is supposed to be to mould public opinion, but which more often simply reflects it, is on the whole one of indifference. This is sufficient to prove that cremation makes little or no appeal to the ordinary man. It is hardly to be expected that it should, for most men try to put from them the thought of death till the grim spectre rises before them. Though among the cultivated classes cremation may almost be said to be becoming fashionable, the people as a whole still prefer earth burial; the poor particularly look askance at cremation. Sir Charles Cameron, in his presidential address at the annual meeting of the society, thought it strange that this should be so, since it is much cheaper than interment in the ordinary way. We think he has overlooked the fact that to the poor a burial is a function which is celebrated with all the pomp and circumstance that the funeral money will cover. They find a curious pleasure in the trappings of death, and think that by having these as costly as they can they do honour to the dead, besides making a brave show before the neighbours. The very cheapness of cremation may be an additional objection to it in the eyes of the poor. The fact, however, that the bodies of over a score of working men were burnt at Golder's Green in the course of 1912 may be taken to show that cremation is beginning to penetrate to new social strata.

We have said that although progress in this country is slow it has been steady. Since 1904 the yearly number of cremations in Great Britain has doubled. But the number is still an insignificant fraction of the whole number of deaths. It is more encouraging for those interested, as all doctors should be, in the adoption of what *Truth* only the other day called the more sensible and sanitary method of having one's remains disposed of, to look abroad, especially at Germany and Switzerland. Although this method of disposal of the dead has become lawful in Prussia only within the last two years, the number of cremations in 1912 was 9,000, while for the whole of Germany it was three times as great as in this country. In Switzerland there is a municipality, that of Saint Gall, so enlightened that it will not allow earth burial within the limits of its jurisdiction; cremation is compulsory in this sense that if the friends of a deceased person wish the remains to be buried in the ordinary way, the body must be taken elsewhere. This enactment seems to have been accepted by the inhabitants with little demur.

We need not again labour the points in favour of cremation which have so often been urged in the JOURNAL. We need only repeat that the sanitary argument is irrefutable, and the safeguards against crime are much stricter than in the case of ordinary burial. The religious prejudice has to a large extent died out. The Roman Catholic Church, indeed, still refuses to sanction the burning of the dead. But, as we have explained on previous occasions, this is not for any doctrinal reasons; it is a purely disciplinary measure, which could be rescinded at any time. Doubtless it will be rescinded in time, but it is a pity that a body of world-wide influence should not lead in a matter which must necessarily become of vital importance to the welfare of the living instead of waiting till it has to follow in the rear of a general advance. There is nothing whatever antagonistic to religious sentiment or belief in cremation. This is practically acknowledged by Rome itself, which permits of the burning of bodies in times of epidemic and war, when regard for the safety of the living makes it imperative that the bodies of the dead should be disposed of quickly.

Among the advantages of cremation, it has been pointed out more than once in the JOURNAL that it offers a means of reviving the beautiful old custom of burial in churches. The authorities of Westminster Abbey, we believe, now make it a rule that persons whose remains are to find a resting-place in that venerable building must first be cremated. The council of the Cremation Society states that in August last a chapel under the choir of St. Columba, Pont Street, Belgravia, was consecrated for the purpose of receiving and preserving the urns containing the ashes of persons who had been cremated. A Faculty was granted in January of last year for the immurement in the north wall of Coychurch Parish Church, and near Mr. Arthur J. Williams's family pew, of a sealed urn or casket containing the cremated ashes of the late occupier, who was formerly M.P. for South Glamorgan.

In a brief summary of the report of the Cremation Society of England the *Times* speaks of the argument that "cremation removes the possibility of being buried alive" as "singular." We should have thought it was a matter of common knowledge that this fear haunts many people throughout life, and has led not a few persons, including that very strong-minded lady Miss Frances Power Cobbe, to leave directions in their will that a doctor should make sure by thrusting a knife into the heart. Premature burial, although there is an association for its prevention which enjoys the patronage of Mr. George Greenwood, M.P., Miss Lind-af-Hageby, Dr. Josiah Oldfield, and Dr. Stenson Hooker, must be extremely rare. But it is impossible to deny that it has occurred and may happen again. Edgar Allen Poe has pictured the horrors of such an event. His description is well known but will bear quotation here: "Fearful, indeed, the suspicion—but more fearful the doom! It may be asserted without hesitation that no event is so terribly well adapted to inspire the supremeness of bodily and of mental distress, as is burial before death. The unendurable oppression of the lungs—the stifling fumes of the damp earth—the clinging of the death garments—the rigid embrace of the narrow house—the blackness of the absolute night—the silence like a sea that overwhelms—the unseen but palpable presence of the Conqueror Worm—these things, with thoughts of the air and grass above, with memory of dear friends who would fly to save us if but informed of our fate, and with consciousness that of this fate they can never be

informed—that our hopeless portion is that of the really dead—these considerations, I say, carry into the heart, which still palpitates, a degree of appalling and intolerable horror, from which the most daring imagination must recoil. We know of nothing so agonizing upon earth; we can dream of nothing half so hideous in the realms of the nethermost hell." These horrors, of course, are largely created by the morbid fancy of a poet; if premature burial did occur, the person would probably die without recovering consciousness. Still it is a dreadful idea, and it is scarcely singular that among the advantages of cremation should be included the fact that it removes the fear of such a doom.

We congratulate the Cremation Society of England on the pioneer work it has already done, and we hope that it will be encouraged to develop its beneficent activity. It deserves the active support of the public, and especially of the medical profession. The clergy might do much to promote a sanitary reform which, in the interests of the living, cannot be too quickly brought about. Medical practitioners should take every opportunity that comes in their way of urging the adoption of cremation. That it will in time become universal in civilized countries is practically certain, and burial will be looked upon as a "method of barbarism." No person of decent sensibility who has seen, in the Bargello at Florence, Gaetano Julio Zumbo's famous models in coloured wax of corpses rotting in the grave, could bear to think of the bodies of those whom he loved exposed to such slow and hideous corruption. The earth burial of bodies is at once a danger to the living and a desecration of the dead.

THE PROVISION OF TUBERCULOSIS SANATORIUMS FOR LONDON.

WITHIN five weeks from this date a year will have elapsed since the clauses of the National Insurance Act relating to sanatorium benefit came into operation, yet the machinery for giving these clauses full effect is still lacking in many districts, especially perhaps in London. It is true that in addition to arrangements for domiciliary treatment there are some tuberculosis dispensaries and their annexes either in operation or in process of formation, and that the London Insurance Committee can dispose of a certain number of beds for indoor treatment at sundry voluntary hospitals and public institutions; but these are only parts of the mechanism, and a practical scheme for linking them up with other elements and converting the whole into an effective combined system has not yet been completed.

Looking back at the steps that have been taken in the matter it is not easy to see who, if any one, has been responsible for the delay, while it is difficult, and at times impossible, to discover any true co-ordination between the activities exhibited by the various bodies concerned. One thing alone is certain—namely, that since the Act was passed neither the London County Council, nor the Metropolitan Asylums Board, nor the Metropolitan Borough Councils, nor the medical profession in London, have shown any inclination towards an obstructive policy, but, on the contrary, have all done, each within its own field of operation, everything that it could to give as much effect to the sanatorium clauses of the Act as circumstances have permitted.

Probably the initial error lay in the haste with which the sanatorium clauses, in common with many other clauses of the original bill, were adopted by Parliament; while it is certain that one of the difficulties in the way of the evolution of a proper scheme for London is due to the inclusion in Clause 16 (1) almost at the last moment of a sentence which aimed at preventing administration of the sanatorium benefit falling into the hands of Poor Law authorities. Those responsible for the wording of this sentence no doubt forgot for the moment that the circumstances of London are quite special, and that the Metropolitan Asylums Board, which plays such an important part therein, is, though largely representative of Poor Law authorities, a body whose operations extend far beyond Poor Law work.

It is an instructive fact that, despite the sentence in question in the Act, the Departmental Committee on Tuberculosis, in its interim report issued on April 30th, 1912[1]—that is, many months after the Act was passed—nevertheless mentioned Poor Law hospitals as being among the places which should be utilized for indoor treatment, and specifically suggested the institutions of the Metropolitan Asylums Board in this connexion. Indeed, it would almost seem as if the Local Government Board itself at this time and for some time later was under the impression that the sentence in question could be set aside, for it was not until October that this Board pointed out to the London County Council[2] that it was found that, in default of legislation, the provision of sanatoriums by the Metropolitan Asylums Board as such was impossible, and hinted that the London County Council should therefore step into the breach and get round the difficulty somehow. The result was a conference between the County Council, the London Insurance Committee, and the Metropolitan Asylums Board, which led to an arrangement[3] by which the latter placed its Downs Hospital under the nominal control of the London County Council (like accommodation at its Northern Hospital, Winchmore Hill, being subsequently added), the London County Council in its turn placing them at the disposition of the London Insurance Committee.

It was even later, namely, in the middle of December, that the London County Council was definitely informed by the Local Government Board that it would have to play a distinct part in giving effect to the clauses relating to sanatorium benefit, a matter on which there had been room for considerable doubt.[4] Even then it was told that its direct activities would be limited to providing indoor treatment, since the provision of tuberculosis dispensaries and the work connected with them had already been allocated to the various metropolitan borough councils. Nevertheless the Local Government Board wished the London County Council to draw up and submit to it a comprehensive scheme for administration by it of the sanatorium clauses throughout London and in regard to all aspects of tuberculosis.[5] On receipt of this communication the Council acted promptly, and less than two months later adopted a report on the subject from its Public Health Committee. This report[6] did not pretend to put forward any complete scheme, but showed that the aim should be the co-ordination of all existing institutions and agencies in London for the treatment of tuberculosis, and indicated the general fashion in which this might be done. Practically this is how the question still stands, though at a meeting in May the County Council, on a further report from its Public Health Committee,[7] decided

[1] BRITISH MEDICAL JOURNAL, 1912, vol. i, p. 1021.
[2] Ibid., 1912, vol. ii, p. 1165.
[3] Ibid., 1912, vol. ii, p. 1639.
[4] Ibid., 1912, vol. ii, pp. 1333 and 1727.
[5] Ibid., 1912, vol. ii, p. 1727.
[6] Ibid., 1913, vol. i, p. 365.
[7] Ibid., 1913, vol. i, p. 1022.

to instruct its Parliamentary Committee to endeavour to get the Metropolitan Asylums Board placed legislatively in a position to form an active unit in any scheme that the Council might frame for dealing with tuberculosis.

It seems unlikely that the promised Insurance Amendment Act will contain anything relating to this particular point, and meantime the present arrangement with the Metropolitan Asylums Board will doubtless be maintained. Its merit is that it provides approximately 600 beds for cases of tuberculosis, which at present could not be found elsewhere, and that to this extent it obviates the necessity of undertaking heavy sanatorium building expenditure such as would be necessary were the London Insurance Committee solely dependent on the accommodation available at ordinary institutions. Its demerits are that so round-about an arrangement is essentially unbusinesslike, and that it utilizes only to a very limited degree the very valuable machinery long since created by the Metropolitan Asylums Board. This body, which is responsible for the treatment of all cases of specific infectious disorders arising within the metropolitan area, controls as many as 8,500 hospital beds, and these are available for the whole community without distinction—indeed, less than 5 per cent. of them are habitually occupied by Poor Law cases; in addition, it also possesses two large hospitals for children, which, with certain connected sanatoriums at the seaside, provide further accommodation for 2,000 patients, a large percentage of the children admitted being tuberculous.

If the legal difficulties mentioned were removed two benefits, it is suggested, would follow. Instead of making temporary arrangements for the accommodation of a certain number of tuberculosis patients the Board would very likely be able to provide out of its own resources so much accommodation that the London County Council would never need to build sanatoriums of its own and to create all the new machinery connected with their administration. The Board itself would also benefit. At present it suffers from the fact that while it has to maintain a large number of fully-staffed institutions it is dependent for work on the rise and fall in the incidence of zymotic disease. With a constant new source of work such as would be provided by tuberculous patients it could, as occasion arose, make any necessary interchange of staff, rearrange the distribution of beds, and effect many economies. The financial questions seem hitherto to have received inadequate attention. It is stated that the funds of the London Insurance Committee will not be sufficient to pay for many more persons than are now under treatment, and that it is unlikely that the portion which may be allotted to London out of the capital sum provided under the Act for building would relieve the ratepayers of much of the cost if the London County Council were compelled to embark upon a scheme for building sanatoriums on a large scale.

For these and other reasons it seems certain that the London County Council will not be obstructed in obtaining the legislation mentioned, and it is clear that the Local Government Board would co-operate. It is by no means certain, however, that the House of Commons would prove amenable on the point, despite the fact that the Metropolitan Asylums Board is not truly a Poor Law authority. But should the House approve, and should it be ready to apply the same underlying principle (as recommended by the Departmental Committee on Tuberculosis) to the whole country, a very broad vista would be opened up.

CORONERS' INQUESTS.

THE discussion upon the futility of the coroner's inquest, raised recently by Dr. Brend before the Medico-Legal Society, although breaking no new ground, served a very useful end. It clearly showed that, notwithstanding the fact that it is generally admitted that the law dealing with this subject demands amendment, there exists nevertheless a very wide divergence of opinion as to the nature and extent of the reforms required. The discussion has helped to make it clear that the present confused and unsatisfactory condition of things is in a large measure attributable to the absence of any clear definition of the actual fundamental purpose of the inquiry. A coroner's inquest is held presumably for the purpose of ascertaining the cause of death. Although the cause of death can be considered from various aspects, such as the legal or the scientific or what, for want of a better term, may be described as the commercial, as exemplified by the point of view of an insurance company or of an employer or other person liable to be called upon for compensation, the Coroners Act, while stating the conditions under which an inquest shall be held, contains no pronouncement as to the actual purpose it is to serve.

In consequence of the absence of any guiding principle in the matter, every coroner has been compelled to become a law unto himself, and to select such reasons as seem good to him for holding an inquest. The result is that there is a very marked divergence in the practice of coroners, for each has to form his own conception of his duties. The fact that a coroner is justified in the exercise of his absolute discretion, so long as he keeps within the four corners of the Act, was made clear in certain correspondence between the then Lord Chancellor and the British Medical Association in 1904, in which it was stated that a coroner is not bound to take his law from any one and can only be removed from office for actual misconduct. To this same cause is largely due the fact that the scientific value attaching to coroners' verdicts usually is negligible. Such findings as "accidental death" and "death from natural causes" have no meaning or value as far as vital statistics are concerned. They merely serve to eliminate questions of negligence or foul play. The records show that such verdicts as "felo-de-se" and "suicide during temporary insanity" are interchangeable terms and vary largely in accordance with the idiosyncrasies of particular coroners. It would be easy to multiply instances of the kind, and it is a serious matter that the statistics relating to this large and most important class of death are vague and misleading and contribute nothing of real value to the study of sociological problems. They must remain in this unsatisfactory state until the fundamental purpose of the inquest is defined and regulations made to ensure that all such inquiries shall have a definite purpose and be conducted upon definite lines, and shall not, as at present, depend upon the unfettered decision of an individual, who may himself be somewhat vague as to his real duties in the matter.

It is, indeed, easy to prefer a serious indictment against the existing procedure, but it is more difficult to formulate suggestions for reform, owing to the wide divergence of opinion that exists on the subject, and to the fact that coroners may claim some vested interests, to which, no doubt, they will jealously cling; but it is difficult to see how any reform of the law relating to coroners can be usefully considered apart from the question of

reform of the law relating to death certification and registration, as the two subjects are inseparably bound together, the one being, in fact, the complement of the other. Any satisfactory amendment of the present system of certification and registration must of necessity be accompanied by certain alterations in the duties of coroners, whose mission, when all is said and done, is solely to deal with those cases in which a registrar is unable to accept a certificate without a coroner's authorization, a coroner being, in fact, the last link in the chain forged by the Registration Acts. Logically, he would appear to be definitely concerned with determining the pathological cause of death, as information regarding other matters is not provided for on death certificates. This view is strengthened by the fact that there already exists, quite independently of the coroner, special machinery for dealing with all the important issues that arise at inquests, with the exception of the determination of the actual pathological cause of death.

The matters arising out of inquests that come before magistrates' courts and county courts form a very small part of their work, and it is difficult to see what useful purpose would be served by interfering with the present useful function of these courts, as would be the case if their intervention was abolished and the inquest made a legal court of first inquiry, as suggested by some reformers.

The determination of the pathological cause of death could easily be made the fundamental object of the inquest without necessarily limiting the inquiry to that particular point, for there seems to be a large body of opinion that some really useful purposes are served under present conditions, more especially by means of the publicity of the inquiry, and its more or less conversational character.

It is claimed for this publicity that it acts as a deterrent, and that much useful information regarding general questions of health and the nature and prevention of accidents is thereby disseminated, while the legal profession seems to attach great value to the admission of hearsay evidence, which renders it possible to conduct a fishing inquiry in cases where, though no individual is clearly implicated, suspicious circumstances may exist. On the other hand, this publicity is frequently the cause of pressure being put upon medical men either to disguise the true facts or to avoid an inquest, owing to the very great distress that is caused to those concerned, by the very nature of the proceedings, a distress which is not infrequently grievously aggravated by the needlessly intimate nature of the questions that are put. As the laws of evidence are not observed in a coroner's court, it may happen that facts may be elicited which cannot be offered as evidence before another tribunal, but, being reported in the newspapers, become matters of public knowledge, and so in a sense may be said to prejudice the case. This, in fact, a coroner's warrant of committal absolutely does, for it commits an individual for trial as guilty of a certain charge, whereas a magistrate's warrant merely indicates that there is sufficient *prima facie* evidence to justify further inquiry.

Any scheme for reform of the law relating to coroners that does not include amendment of the Registration Acts must, as already indicated, be insufficient, and may be said to begin in the middle. Existing conditions must be carefully considered, and satisfactory reforms will have to be based upon broad views if they are to obtain the support necessary. This will not be readily forthcoming if there is any suggestion that they rest upon special pleading on behalf of either of the great professions interested in the question.

FUTURE ANNUAL MEETINGS.

As already announced, the Aberdeen Branch has invited the British Medical Association to hold its annual meeting in that university city next year, 1914; and in making this announcement we ventured to say that it would be received with great pleasure by members of the Association. We believe that the further announcement that we are now in a position to make will be received with equal satisfaction; it is that the Branch Council of the Cambridge and Huntingdon Branch has adopted a resolution recommending the Branch to invite the Association to hold its annual meeting in 1915 in Cambridge. If anything could add to the pleasure with which this announcement will be received it is the fact that it is intended to invite Sir Clifford Allbutt, Regius Professor of Medicine in the University of Cambridge, to fill the office of President.

HOSPITALS AND RESEARCH.

Mr. G. W. E. Russell is a writer with a delightful sense of humour and a gift of happy phrase, and he has seen history in the making and many of the men who helped to make it at such close quarters that his comments are always interesting and often informing. But, as George III said of Shakespeare, there is a good deal of nonsense in his writings; this is especially noticeable when he abandons the position of a critical observer of *choses vues* and allows himself be carried away by prejudice. In his recently published *Half Lengths* there is an essay in which, after making suggestions as to the uses to which wealth may be put, he goes on to say: "Hospitals again—here is a boundless field for the rich man's activities. It would be no contemptible ambition to build in the heart of some great city or on the hills which surround it an imitation of the German Hospital at Alexandria with its miles of marble corridors and its plenitude of appliances which make illness a luxury; all worked by 'sweet societies' of trained Deaconesses who labour for no other reward than the love and gratitude of the patients. Only let the rich man beware lest the disingenuousness of 'research' bring evil out of his intended good, and pervert the place of healing into a torture-chamber or a shambles." We are sorry to be obliged to say that in this passage Mr. Russell himself is disingenuous. He has been connected with the management of a well-known hospital, and in that capacity he must have learnt, if he learnt nothing else, that there are no "torture-chambers" or "shambles" in such institutions. He should leave such appeals to the "gods," to Mr. Stephen Coleridge and Miss Lind-af-Hageby, who have not had his opportunities of knowing the truth. A hospital in which clinical and pathological research is neglected must be unprogressive, and therefore cannot adequately fulfil the function for which it exists. The absence of research means stagnation. It is the sick poor who suffer, for gradually methods of treatment are improved, often revolutionized, by the results of research. Mr. Balfour put this point with admirable clearness the other day at Guy's Hospital, when he said that to look upon a hospital merely as a place where those who were sick or hurt went for healing was a very narrow view, because, unless it was also a place in which the future leaders of the medical profession were to be trained, its usefulness would die out with the present generation. It was at least as important that the great hospitals should be made efficient training grounds for the physicians and surgeons of the future as that they should afford a field for their beneficent enterprise. He insisted that to carry out that work effectively not only teachers but researchers were required. While to Mr. Russell "research" suggests "torture chambers" and "shambles," to the larger and more enlightened mind of Mr. Balfour it is a necessary means of progress. It offers the only hope of solving the many problems which stand

in the way of the advance of knowledge and baffle our power of curing, relieving, or preventing disease. We repeat, it is false that scientific "torture-chambers" exist anywhere in this country. Mr. Russell's insinuation that there are such places in our hospitals is worse than disingenuous: it is a calumny on a body of men whose ethical standards and moral character are, we do not hesitate to say, higher than those of any other profession whatever. Fortunately for mankind these men let the fanatics rave. But in the interest of the public the spirit which inspires their work and the lofty end to which it is directed should protect them against abuse which is as foolish as it is malicious.

MENTAL DEFICIENCY BILL.

DURING the last few days two appeals for the Mental Deficiency Bill have been published. The first, which is inspired by the fear, very generally entertained, that the Government will this year again drop the bill, is a direct request that sufficient time may be set aside to pass it. The appeal is signed by laymen interested in the subject as members of educational authorities or for other reasons, and by physicians who on various grounds are specially qualified to speak for the profession. It points out that "the principle of the compulsory education and training of defectives has long been conceded by the Education Acts dealing with blind, deaf, and epileptic children. It can hardly be regarded as anything more than a cruel inadvertence that in most parts of the country a feeble-minded child cannot at present be protected, unless its misfortune happens to be complicated by epilepsy. When, at the age of 16, a child who has already been under care and observation for several years still exhibits such mental deficiency as to render it incapable of self-protection and self-control, it is surely no unreasonable interference with the liberty of the subject to extend our care of it through years of special danger and temptation, and as long as may continue to be necessary, with the safeguards (provided by the bill) of short-period certification, and periodical visits by independent authorities armed with the power of immediate discharge." The opposition to the bill last year came from a very small number of members but was very determined. Mr. Wedgwood, who was one of those who opposed, has now written to the *Times* stating that he is in a position to assure both the Mental Deficiency Bill and the Elementary Education (Epileptic and Defective Children) Bill a rapid passage during the present session if two conditions are complied with—first, that the children must not be taken to the "homes" or "special schools" against their parents' wish, and, secondly, that the "homes" must be homes and not prisons, the inmates being as free to leave as they are to leave the existing admirable institutions. As to the second condition at least, it is not easy to see how any compromise could be made without destroying the efficiency of the bill. The second appeal is in the form of a letter addressed to the Home Secretary and signed by medical teachers and practitioners and teachers in various departments of physiology, biology, and anthropology in the great centres of learning in the three kingdoms. The letter urges that should the bill become law care should be taken in its administration to secure the continuous prosecution of research into the conditions on which mental deficiency depends and into the means by which it may be remedied or prevented. It is pointed out that the conditions must be due either to defective formation and development of the active structures of some portion or portions of the brain, or to defective formation or supply of the fluids by which these structures are surrounded and by which they are stimulated to activity. The last point is illustrated by a reference to the influence of the thyroid and other so-called ductless glands. The signatories expressed the hope that any system of treatment useful in the case of some of the lower defectives would be still more useful in raising the level of those above them, and would furnish a first step towards a system of education founded upon physiology. They point out also that the careful study of the imperfect brain development and simple intellectual functions of defectives might throw valuable light on the more complicated acts and conditions of the normal individual. The importance of utilizing for the general benefit of the community the facilities for scientific study which institutions established under the bill would afford is insisted on, and it is urged that the duty of so utilizing them should be committed to men of science fully cognizant with all that is known in relation to the subject and able to point out the direction in which further inquiry should be pursued. To this end it is asked that there should be an adequate representation of biological science on any commission to which the administration of the law may be entrusted.

VACCINES IN DERMATOLOGY.

WRIGHT'S methods are neither widely known nor generally accepted on the Continent, and it is therefore of great interest to read the results of some experiments, and the conclusions reached from them, by such recognized authorities as R. Sabouraud and H. Noiré.[1] The first part of the paper is devoted to a detailed description of the technique adopted in the preparation of the vaccines. The organisms used were staphylococci obtained from furuncles which the authors term deep or subcutaneous, the morococcus of Unna (identical with the polymorph coccus of Cedercreutz), and termed superficial or surface coccus, inasmuch as it is never found in boils, sycosis, or carbuncles; and thirdly, Sabouraud's seborrhoeic microbacillus commonly found in the acne comedone, and exceedingly difficult to cultivate. After an accurate description of dosage methods which accord with those in vogue with us, the authors reach the following conclusions: (1) The lesions most favourable for the treatment are undoubtedly furuncles. They have not so far met with any unfavourable results, and improvement—sometimes cure—was manifest after the first or second injection. (2) Less satisfactory results were obtained in the case of staphylococcic folliculitis and sycosis. Improvement up to a point was the rule, and then other methods were required for the residual pustules. But the patients themselves were convinced that no other methods had afforded equal relief. (3) Morococcus vaccine has no influence on lesions due to staphylococcus infection—for example, boils—nor is their injection followed by any sort of local or general reaction. The effect of this vaccine on lesions supposed to be caused by the morococcus (for example, pityriasis alba capitis, acne pustulosa, etc.) is not satisfactory, and the writers are of opinion that the failure is due to the fact that the organism is symbiotic, and that a vaccine to be successful must be composite and contain just those organisms present in each individual case. (4) The extreme difficulty of the cultivation of the microbacillus and the fact that it is comparatively non-virulent is responsible for the less imposing results obtained in acne and seborrhoea oleosa. But there are cases which respond after the first injection, and with weekly progressive doses go on to complete cure in four or five weeks. Others, again, especially acne furuncles of the neck and nape of the neck and acne necrotica of the temples and scalp, fail to react with the microbacillus vaccine alone, and are rapidly influenced if staphylococcus vaccine is combined with it. There are probably cases in which a mixed vaccine of the microbacillus and the morococcus would be successful, as should theoretically be the case in pityriasis seborrhoica. No positive results were obtained in progressive seborrhoeic alopecia. The authors emphasize the complete absence of all dangerous complications or subsidiary effects. They consider autogenous vaccines

[1] *Annales de derm. et de syph.*, vol. iv, No. 5, May, 1913.

unnecessary in cases of furunculosis, and are of opinion that estimation of the opsonic index is not to be relied on as a guide to treatment. They advise a more general use of vaccines in French dermatological circles.

HEALTH OF POTTERY WORKERS.

The trend of modern legislation towards improving the health of the people is nowhere more evident than in the rules and regulations governing the hours and conditions of work of those employed in operating the great industries. Masters and men alike are now realizing that success in business requires above all things the physical fitness of the workers employed. That the masters thoroughly grasp the importance of this is evidenced by the opening, on Monday, June 9th, of an exhibition in the King's Hall, at Stoke-on-Trent, of appliances designed to carry out the latest Home Office Regulations in regard to the pottery trade. The exhibition has been promoted by the Joint Committee of Pottery Manufacturers of Great Britain, and is being held in the very centre of the industry. The holding of such an exhibition reflects great credit upon the promoters whilst evincing strongly the keen desire of all concerned to carry out the new regulations as efficiently as possible regardless of expense. The present code of rules for the pottery trade was drawn up by a Home Office Departmental Committee, upon which both employers and workpeople were represented. The new rules aim in the main at reducing, as far as possible, the dangers arising from contact with lead and in preventing the spread of dust, the two factors which together are responsible for most of the mischief to pottery workers. In addition, they deal with the carrying of weights by young people and females, and for the first time they restrict the working hours of adult males engaged in processes involving contact with lead. The regular medical examination of all such workpeople is required once in each calendar month; the keeping or eating of any food in a room where lead processes are carried out is strictly prohibited, while suitable overalls, including head coverings provided by the employer, have by regulation to be worn by the workpeople. The employer also has to provide milk, or cocoa made with milk, to all women and young persons employed in lead processes who commence work before 9 a.m. When it is considered that working in pottery has never been remarkably unhealthy, the thorough and detailed character of the new regulations shows how anxious all parties are to prevent any disease which can be directly attributed to the occupation of the patient. The object of the exhibition at Stoke-on-Trent is to bring before masters and men alike the various appliances which must be employed in order that the regulations may be adequately fulfilled. The exhibits consist mostly of ventilating plant, including dust-exhaust apparatus, models showing how efficient protection of exposed machinery may be effected, non-absorbable dust-proof material for overalls, and so on. It is particularly the wish of the Joint Committee that the operatives themselves shall attend the exhibition in large numbers, and to this object lectures have been arranged, which they may attend free of charge. Dr. T. M. Legge, Home Office Medical Inspector of Factories, will give a lecture on "How to keep fit," and Mr. W. Burton, F.C.S., a well-known authority on matters connected with the pottery industry, will give two lectures dealing with the new regulations. The exhibition was opened by Mr. Ellis Griffith, K.C., M.P., Parliamentary Under Secretary to the Home Office, whilst the presence with him on the platform of Sir Arthur Whitelegge, H.M. Chief Inspector of Factories, was further proof of the sympathy felt in official circles with the objects of the exhibition. In his opening speech Mr. Ellis Griffith expressed the hope that the exhibits might be found some permanent resting place where they could be kept together and from time to time new apparatus added as it was devised, so that a complete set of contrivances for use in pottery workshops might be always available for inspection. It is to be hoped that this exhibition at Stoke-on-Trent will meet with the full measure of success it deserves, and thus in a practical manner demonstrate the public approbation of the wisdom and far-sightedness of the promoters. The exhibition will remain open until June 21st.

THE INFLUENCE OF THE CORSET ON ART.

Much has been written as to the baleful effects of tight lacing, but the corset finds champions even among medical men at the present day. Like most other matters, the question is one of degree. We are not here concerned, however, with the effect of the corset on health, but with its influence on art. In the March number of *Aesculape* Dr. Felix Regnault points out that the female figure presents two well-marked types: one built on large lines, though somewhat short and expressive more of vigour than of grace; the other tall and slender—"linkèd sweetness long drawn out," if we may divert Milton's phrase from its proper application. This has in all ages been generally regarded as the true aesthetic type. To fashion themselves like unto it women have employed from the remotest time various artifices—high-heeled shoes, towering pyramids of hair on the head, and especially compression of the body with corsets. The artificially slim waist is seen in the wall paintings of dancing women of the palace of Minos in Crete three thousand years before the siege of Troy; when these were discovered by Mr. Arthur Evans, a Frenchman who happened to be present exclaimed, *Mais ce sont des Parisiennes!* In ancient Egypt both men and women strove to mould their figure to an aesthetic slimness by means of a small corset going up from the waist to the breast, and often kept in place by two braces. In this way the chest was compressed so as to give it a cylindrical shape, as is seen in statues of the God Ammon-Rá, the Goddess Cneph or Chnouphis, and many others. The shoulders were pushed upwards to a horizontal position. The Egyptian artists, therefore, generally represented men with a long, thin body, broad, square shoulders, and arms hanging far from the bust. The ephod of the Jews and the chitoniscus of the Cretans were used for the same purpose. Greek and Roman women used long bandages of cloth (*fasciae*) to compress the bust. These supported hanging breasts, while at the same time the upper part of the thorax was squeezed to hide their bulging. In children the use of these bands tended to push up one shoulder and produce scoliosis. This fashion, which lasted from the second century before Christ to the second century A.D., was denounced by Galen, and by lay writers such as Martial, Terence, Catullus, Ovid, Petronius, Tacitus, and others. The influence of the bandages on Greek art is visible especially on the terra-cotta statuettes intended for the common people. These often represent women abnormally tall and slender, and some of them show evident signs of compression. They are seen especially on some Smyrna terra-cottas of the second century B.C., and on others from Myrina. Compression of the bust from the breast to the hip is seen in the famous painting of the Three Graces found at Pompeii. In the Middle Ages women had the same ideal. In the twelfth century they wore gowns moulded to the chest and abdomen so tightly that they could not bend their bodies or even their arms. A century later they squeezed the upper part of the trunk and made the abdomen project in such a way that Jehan de Meung, who lived between 1280 and 1320, bluntly says that it was often impossible to tell the empty from the pregnant. Gothic art represents women as long and slender, tight-laced in their clothes so that the ribs, the breast, and even the umbilicus are outlined under the stuff. But it does not reproduce nude bodies deformed by exaggerated compression. In the fifteenth

century women compressed the chest either with stays fitted to the figure or with the strings of their gowns. Under Charles VII they used cloth bandages passed round the bust in the ancient manner. They thought the projection of the abdomen caused by this was beautiful, and it was considered good form to present a belly as protuberant as that of a woman several months gone with child. The artists of the fifteenth and the beginning of the sixteenth century reproduced these deformities from the models they had before them. In Italy, at the Renaissance the cult of the antique preserved artists from these ugly shapes, and since then the classical tradition has been maintained. On the other hand, the realistic art of the Flemish and German artists produced during more than a century a great abundance of deformed Eves and other unaesthetic nudities. In the seventeenth century we find Riolan, and in the eighteenth Winslow, condemning whalebone stays which went up to the armpits, and like the Roman *fasciae* caused curvature of the spine. In the nineteenth century the corset compressed only the lower part of the thorax. The result of tight lacing in the modern sense is deformity of the lower part of the chest, and as a consequence displacement of the underlying viscera, such as the liver and the stomach, and more or less serious interference with their functions. But inequality of the shoulders is seldom, if ever, seen. Now the fashion has changed once more, and the corset has gone further in its descent. It encases the abdomen, the buttocks, and the upper part of the thighs. At all costs women wish to look long and slim. To that end fine, close-fitting tights have replaced the petticoat, and the gown is moulded over attenuated figures, the outline of which is distinctly visible. Artists no longer take as models the compressed and stiffened figures represented and exaggerated in fashion plates.

IS TYPHUS A COMMON DISEASE?

AT a meeting last December of the Johns Hopkins Hospital Medical Society, Dr. J. W. Anderson put forward a suggestion to the effect that typhus is probably a much commoner disease in American, Canadian, and other cities than is generally believed. The disorder which Brill of New York differentiated some ten years ago both from typhoid and paratyphoid fever, and which has come to be known by his name, was proved conclusively by Goldberger and Anderson some eighteen months ago to be really typhus fever, and at the same time they subscribed to the view that the transmission of typhus fever from patient to patient is brought about certainly by the bites of body lice, and possibly those of head lice, but not by those of bed bugs. They also put forward reasons for believing that the buccal and pharyngeal secretions from human cases of typhus are innocuous, and that the disease is never transmitted except in the fashion indicated. On the basis of these facts, and especially of the identification of Brill's disease—a fairly common disorder in New York—Dr. Anderson at the meeting in question asked whether it was not possible that many mild cases of typhus occurred, but escaped recognition. If it were true the fact would provide a solution of one of the well known problems regarding typhus fever—namely, the occurrence of epidemics after long intervals from any other outbreaks and at a great distance from any known focus of the disease. It would certainly not be remarkable that a benign form of a disease, often regarded nowadays as a species of medical curiosity, should fail of recognition, and point is incidentally given to the suggestion by a recent letter in the *Irish Times* in regard to a recent outbreak of typhus fever in Connaught. The object of the letter, which is anonymous, is to point out the probability of the disorder in this instance being transmitted by body lice, but incidentally the writer mentions that some years ago he admitted to an institution of which he was in charge a number of cases which he regarded as influenza, and which he identified as typhus fever only when a case with very definite symptoms was eventually sent in. This letter evoked from another medical correspondent, also writing anonymously, a letter containing a statement to the effect that immunity from the bites of body lice and other like vermin can be secured by the simple process of taking one sulphur lozenge daily, it being added that travelling showmen and their kin are well aware of this fact, and have assured the writer of the complete efficacy of the plan. The amount of sulphur contained in a sulphur lozenge is small, and the amount which would reach the skin after its introduction into the stomach is naturally smaller, but since there is no scientific knowledge of the degree of antipathy, if any, which body lice experience towards sulphur, it is impossible to say that the suggestion is quite unfounded.

THE LOT OF THE CONGRESS SECRETARY.

THE Congress season is upon us, and those who have undertaken to organize these meetings are working at the highest pressure. The preparation is—*si parva licet componere magnis*—something like the mobilizing of an army, and all who have a hand in it must feel the strain. But the lot of the general secretary is particularly unhappy. Some hints for the guidance, if not the encouragement, of these officers, may be found in a skit written by Dr. F. Berlioz, general secretary of a congress of hydrology held some years ago at Aix-les-Bains. It is cast in the form of the Decalogue as it is taught to French children; but the duties of the general secretary of a congress are so numerous and multifarious that the author has been unable to compress them within the limits of ten commandments. As any attempt at translation would spoil them, we give the lines in the original:

Longtemps d'avance tu t'y prendras
Pour ne pas choir piteusement.
La semaine tu travailleras
Et le dimanche mêmement.
Nuit et jour tu penseras
A recruter des adhérents.
Des circulaires tu enverras
Et des avis pareillement.
Les rapporteurs tu presseras
Pour leur travail très souvent.
L'imprimeur tu surveilleras
Car il retarde tout le temps.
L'administration tu solliciteras
Et l'on t'écoutera courtoisement.
Aux compagnies tu demanderas
Des permis résolument;
Et tu les obtiendras
En général facilement.

Ton président tu honoreras
Et les vices pareillement.
Les délégués tu placeras
En bon poste naturellement.
Les dames tu accueilleras
De ton sourire gracieusement.
Des discours tu prononceras
Aussi courts qu'intéressants.
Des toasts tu porteras
Le plus possible spirituellement.
Des excursions tu organiseras
Et des banquets agréablement.
Quand toutes choses bien fait tu auras
Les congressistes seront contents.
Après tu te reposeras
Si tu le peux un court moment
Et puis tu reprendras
Ton labeur quotidiennement.

Every one who has had to do with the arrangements for a congress will feel the force of the injunctions to work all the week and also on Sunday; to beat up adherents; to flood the medical world with circulars and notices; to harass the illustrious beings who have promised addresses and papers; to apply constant stimulation to the dilatory printer; to be a "sturdy beggar" from Government officials, railway companies, etc.; to be careful in assigning places of honour to delegates—we have known the most deplorable consequences follow some supposed affront to the dignity of a delegate; to cultivate a winning smile for the ladies; to be brief and as witty as Nature allows in speech-making; to organize excursions, garden parties, dinners, and all manner of entertainments. But M. Berlioz is too optimistic when he says that when one has spent oneself in the effort to make things go well the congressists will be satisfied. The most that the overworked and over-worried general secretary can hope for is to escape abuse. And when the hurly-burly's o'er he must find comfort in the feeling that virtue is its own reward.

THE ANTHROPOMETRY OF AMERICAN IMMIGRANTS.

In 1908 Professor Franz Boas, the well-known anthropologist, was instructed by the United States Immigration Commission to investigate the physical characteristics of immigrants. He has now presented his report,[1] which comprises most of the statistical data and an account of the results attained. The racial types examined were Bohemians, Slovaks and Hungarians, Poles, Hebrews, Sicilians, Neapolitans, and Scottish. The features studied were stature, weight, length of head, width of head, width of face, and colour of hair. The wealth of statistics provided can be gauged by the fact that in a volume of 573 pages nearly 500 consist of tables or diagrams. Professor Boas finds that the varying physical types represented among the immigrants tend to be modified, converging towards a uniform type. Thus the East European Hebrew, who has a very round head, becomes more long-headed; the South Italian, who in Italy has a very long head, becomes more short-headed, these two divergent forms thus tending to approach a uniform type so far as roundness of the head is concerned. In order to avoid the introduction of any fallacy due to the differing composition of the immigrant population at different times, parents were compared with their own children born before and after immigration. Combining all his results, Dr. Boas finds, for instance, that "children born less than ten years after the arrival of their mothers in America lose 0.9 unit in their cephalic index, and those born ten years or more after their mothers' arrival in America lose 1.9 units in their cephalic index, as compared to foreign-born children." Professor Boas believes that the observed results are to be attributed to the action of the environment. In discussing the suggestion that changes in physical type might be produced by a selective death-rate, certain types being less fitted to survive in the new environment, he observes: "On the whole, it seems to my mind the burden of proof would lie entirely on those who claim such a correlation between head index, width of face, etc., and death-rate—a correlation which, I think, is highly improbable, and which could be proposed only to sustain the theory of selection, not on account of any available facts. I grant the desirability of settling the question by actual observations, but until these are available we may point out that the very suddenness of the changes after immigration and the absence of changes due to selection by mortality among the adult foreign-born would require such a complicated adjustment of cause and effect in regard to the correlation of mortality and bodily form that the theory would become improbable on account of its complexity." As will have been gathered from what has already been said, an immense amount of labour has been expended upon this research, and all students of anthropology must be grateful both to Dr. Boas and to the United States Commission. We cannot, however, say that the report itself is adequate to sustain the very far-reaching and important conclusions indicated. The text shows signs of undue compression, with the result that the statistical processes do not, in the absence of detailed justification, appear satisfactory or complete; this is, perhaps, especially noticeable in the sections treating of heredity, while some of the age and sex corrections need further explanation. Again, the logic of some passages is not above criticism, that we have quoted above being a case in point. The labours of many naturalists, especially, perhaps, those of Poulton and his fellow workers in the field of mimicry and protective resemblance, have demonstrated that phenomena of great complexity, some apparently being reactions to the direct environment, can be adequately accounted for with the aid of a selection hypothesis. There is no inherent improbability in supposing that the operation of a selective death-rate may have had a good deal to do with the results Dr. Boas has observed, and others besides the pure "Neo-Darwinians" will object that this possibility requires something more than verbal criticism. We trust that Dr. Boas may see his way to publish a somewhat less compressed discussion of a problem of such great theoretical and practical importance.

[1] *Changes in Bodily Form of Descendants of Immigrants.* By Franz Boas, Ph.D. New York: Columbia University Press. 1912. (Roy. 8vo, pp. 285; figs. 53, tables 75 + xxxvi. Price 7s. 6d. net.)

THE LIVINGSTONE CENTENARY.

Commemoration is an annual festival at Livingstone College, but this year it was made the occasion of celebrating the centenary of the birth of David Livingstone, after whom the college is named. In the course of the proceedings which took place on June 7th, the Principal (Dr. Harford) mentioned that few of the speakers at various meetings held during the centenary celebrations in May had recognized the close relation between Livingstone's medical training and the great contributions which he made to knowledge of the African continent. It was felt to be appropriate that this should be emphasized at Livingstone College, where missionaries received medical training in order to fit them to go forth as missionary pioneers. A large number of its old students had gone to Central Africa to follow in the footsteps of Livingstone, and others were to be found in almost every part of the world. Wherever they worked they carried with them the spirit of Livingstone in endeavouring to exercise their powers of observation, a large-hearted sympathy, and a readiness to co-operate with other Christian missionaries. A short speech was also delivered by Sir Alfred Pearce Gould, who after dwelling on the distinction which should be drawn between medical missionaries and missionaries who had received elementary medical training, said that he would like to see every missionary undergo nine months' training at the college before going abroad; those who had not done so should when on furlough take advantage of the opportunity of study thrown open to them. The college, it may be mentioned, has prepared a souvenir of the Livingstone centenary containing coloured reproductions of various pictures of Livingstone in its possession, and these are on sale for the benefit of the Centenary Fund, by which it is hoped to clear off a mortgage on the property, effect certain improvements, and form the nucleus of an endowment.

TUBERCULIN DISPENSARIES.

At a meeting of the Tuberculin Dispensary League, held on June 6th, at 70, Chester Square, the Earl of Denbigh in the chair, Dr. W. Camac Wilkinson delivered an address in which he expressed the opinion that the only satisfactory method of dealing with tuberculous patients under the conditions laid down by the Insurance Act was by means of the tuberculin dispensary. Sanatorium treatment, he said, was inadequate because, owing to the enormous cost of the erection and maintenance of large buildings, it was impossible to provide accommodation for all those who needed treatment; whilst among the working classes, where consumption was always most rife, there were innumerable cases in which the patient could afford neither the time nor the money for the course of treatment extending over many months. It was therefore obvious that the sanatorium system was impracticable as applied to the poor. The tuberculin dispensaries, on the other hand, provided expert treatment, which did not involve the patient's absence from home or the loss of his occupation, and, money not being needed for building purposes, the funds were devoted entirely to the patients. Tuberculosis, continued the speaker, killed some 55,000 persons every year in England and Wales, and there were, in all, about 220,000 tuberculous patients in this country who required treatment. Sanatoriums could only deal with about 20,000 cases, and

the approximate yearly cost of their maintenance amounted to about £600,000. It would therefore cost over £6,000,000 a year to treat every case of tuberculosis in a sanatorium, whereas it was estimated that the tuberculin dispensaries could deal with 70 per cent. of these cases, and secure for the same amount of money that provided sanatorium treatment for 10 per cent. with only 50 per cent. of cures. Moreover, the individual results of the dispensaries were better than those of the sanatoriums, and the treatment itself was popular with the patients. Dr. Wilkinson's views were heartily endorsed by Mr. Charles Bathurst, M.P., who proposed a vote of thanks, which was passed unanimously. This brought the meeting to a close.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Dogs Bill.—By one of those parliamentary incidents which an expert parliamentarian like Sir Frederick Banbury, who has charge of the Dogs Bill, knows how to make use of, this bill was read a second time on Friday, June 6th. It had been anticipated that the whole sitting would be devoted to the report stage of a bill introduced by Mr. Pearce, the Member for Limehouse, to increase the hours of polling, so that they would extend from 7 a.m. until 9 p.m. The bill, as introduced and as passed through Committee, applied to parliamentary and local elections generally, but by one of those compromises which are often arranged in the House of Commons between the two sides, the opposition to the bill was suddenly withdrawn about 2 o'clock, the arrangement made being that the bill should only apply to parliamentary elections, and that the extended hours should be provided when asked for in writing by a duly nominated candidate on the day of his nomination. The Dogs Bill was the second order of the day, and, as the House had emptied after the compromise on the Polling Hours Bill, Sir Frederick Banbury got his second reading without opposition in a few moments. The bill prohibits experiments on dogs for all purposes. It has been sent to Grand Committee A, to which, in accordance with the usual practice, fifteen other members have been added. We understand that it will be strongly opposed in Committee, and in all probability drastic amendments will be introduced. It will then still have to pass the report and third reading stages in the House of Commons for a private member's bill. The chances at these two stages are very slight indeed. The opponents of the measure, however, should certainly be on the alert, as the sponsor of the bill is an old parliamentary hand, full of skill and knowledge of procedure.

Sir Victor Horsley.—Lord Robert Cecil asked the Home Secretary whether he had laid a complaint before the Royal College of Surgeons about Sir Victor Horsley; if so, what was the nature of the complaint; and whether he had refused to give to Sir Victor Horsley any information as to its nature.—Mr. McKenna said: Sir Victor Horsley made certain public statements reflecting very seriously upon the professional conduct and skill of two medical officers in the prison service. In justice to those officers, I considered it my duty to bring to the notice of the Royal College of Surgeons the statements made by him and the facts of the case as already stated by me in substance in this House. Having laid this full statement before them, I left the matter in their hands. In reply to Sir Victor Horsley's request for information, I have referred him to the Royal College of Surgeons. The communication of the contents of my letter is a matter entirely in their discretion.

Lord Robert Cecil: May I ask the right hon. gentleman whether he does not think, before making a complaint, or at the time of making a complaint, against a gentleman in the position of Sir Victor Horsley, it would have been better and fairer to have sent a copy of the complaint to the gentleman in question? Mr. King: Does not the right hon. gentleman think that the same rule would apply to Sir Victor Horsley's own conduct?—Mr. McKenna: Yes, Sir; I think if the rule were a good one it would apply, no matter what the position of the person may be. In this particular case nothing was communicated to the Royal College of Surgeons except what was made public, either by Sir Victor Horsley or by me in this House. I thought it my duty to bring his public statement to the notice of the Royal College of Surgeons.

Lord Robert Cecil: Have not the Royal College of Surgeons jurisdiction to consider, judge, and inflict penalties on any member of that body who is guilty of conduct which they regard as unprofessional?—Mr. McKenna: The whole of this complaint is within the knowledge of the accused person. I have communicated to the Royal College of Surgeons the attacks made by Sir Victor Horsley on prison officials.

Lord Robert Cecil: Will the right hon. gentleman now send a copy of the communication he made to the Royal College of Surgeons to Sir Victor Horsley?—Mr. McKenna: No, Sir; I adhere to the view I took originally, that it is a matter within the discretion of the Royal College of Surgeons. I have not marked my letter private, and they are perfectly at liberty to send my letter to Sir Victor Horsley.

Lord Robert Cecil: Will the right hon. gentleman say what objection he has to conveying to Sir Victor Horsley his letter, which must be of great importance to him?—Mr. McKenna: I personally have not the slightest objection; but I wrote my letter to the Royal College of Surgeons, and it is for them to communicate with Sir Victor Horsley.

Factory Inspectors.—In reply to Mr. Gill, Mr. Ellis Griffith said that the Secretary of State had decided to relieve some of the larger districts which, in consequence of the growth in the amount of work, had become unwieldy, and it was proposed to increase the number of districts from fifty-two to sixty-two and that the changes would involve an addition of six inspectors and two inspectors' assistants, together with the appointment of another medical inspector, two lady inspectors and an inspector of junior rank to assist in the work of electrical inspection, making a total increase of twelve. In further reply to Mr. Gill, Mr. McKenna said that superintending and certain special inspectors receive a night allowance of £1 for subsistence when away from home; that inspectors below the rank of superintending inspector receive 15s., and assistants 10s., and that inspectors are authorized to travel by rail first-class, and assistants and other inspectors second-class, or third if there is no second.

Grant for the Highlands and Islands.—In reply to Major Hope, the Secretary to the Treasury said that the special grant of £10,000 made for the benefit of insured persons in the Highlands and Islands was included in the Supplementary Estimates. The question of making a grant for uninsured persons and of providing for its administration was under consideration.

Housing Reform in Wales.—Mr. Edgar Jones asked the President of the Local Government Board whether, having regard to the need of housing reform in Wales, he was prepared to sanction a Provisional Order, under Section 10 of the Local Government Act, 1888, for transferring the powers of the Local Government Board under the Housing Acts to a central administrative council representing all the county councils in Wales.—Mr. Herbert Lewis, who replied, said that it was doubtful whether the proposal could be carried out under the Section.

Cost of Lunatics and Lunatic Asylums.—In reply to Mr. Campion, the President of the Local Government Board stated that the total amount expended by local authorities in England and Wales, otherwise than out of loans, on lunatics and lunatic asylums in the year 1910-11 was £4,100,000. It was estimated that of this sum some £1,200,000 might be regarded as defrayed out of Exchequer grants, £2,250,000 out of rates, and the balance from other sources.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

THE REGIUS PROFESSOR OF MEDICINE IN GLASGOW.

DR. T. K. MONRO has been appointed Regius Professor of Medicine. It is understood that there were no applicants outside of Glasgow, though it is no doubt sometimes a good thing for a great teaching school to have an outsider brought in to spread new ideas and state fresh views. There has, however, been considerable resentment felt among the local profession that so many of the recent appointments have fallen to graduates of other schools, and it is therefore with great satisfaction that the news of Dr. Monro's appointment has been received, as it is agreed that in him the university has obtained a man well fitted to maintain and extend its reputation. The two previous holders of the chair were by no means young when they were promoted; but Professor Monro, who took his first medical degree in 1883 and has been physician to the Glasgow Royal Infirmary for some time, is still a comparatively young man, and this will be an advantage to the university in dealing with any changes that may be considered to be required.

VETERINARY INSPECTION.

In order to enable the staff of the Local Government Board of Scotland to undertake heavy duties in connexion with the supervision of meat inspection and the inspection of dairies, Professor Gerald Rowley Leighton, M.D., F.R.S.Edin., has been appointed a veterinary inspector. Dr. Leighton is at present the professor of pathology, bacteriology, and meat inspection in the Royal (Dick) Veterinary College, Edinburgh. He is a graduate (M.B., C.M.) of Edinburgh University of 1895. He is the author of works on *British Serpents* (1901), on *British Lizards* (1903), on *The Meat Industry and Meat Inspection* (1910), and on *Scientific Christianity* (1911); and he has written papers on Canine Hydronephrosis, the Evolution of Immunity, and The Pathology of Canker in Serpents. For a time at the beginning of his professional life he was in private practice in Herefordshire.

EDINBURGH UNIVERSITY MEDICAL YEAR BOOK.

For the third year in succession Dr. Duncan C. L. Fitzwilliams has edited the handy guide book to things medical in Edinburgh University known as the *Edinburgh University Medical Year Book*. It will be, and indeed it has already been, of great service to former Edinburgh graduates who may wish to keep in touch with their Alma Mater, giving them information about the present residence and doings of old companions, and about the new developments in post-graduate teaching and the like. There are articles on Lord Lister, on the late Dr. George A. Gibson, on Professor Lorrain Smith, along with photographs of these and of other well-known Edinburgh men; there are full details of the various post-graduate courses, lists of the various local resident and non-resident posts open to graduates in the many hospitals with which Edinburgh is supplied; notes on athletic matters, and a list of the names and addresses of the graduates, arranged alphabetically and also geographically. The title of the work excludes more than scanty references to the great extramural school, with its staff of nearly sixty lecturers, which has in the past been so fruitful a training ground for the university teachers and professors.

MARINE BIOLOGICAL ASSOCIATION.

An appeal to the public will shortly be made for greater financial support for the marine biological research station at Millport on the Firth of Clyde. It appears that there have been during recent years some differences in the West of Scotland Marine Biological Association, but at the recent annual general meeting the chairman intimated that affairs were now being put into a satisfactory condition. It is proposed to secure a sailing boat with motor auxiliary as the funds do not yet permit of the steamer *Mermaid* being put in commission. A clear income of at least £550 is required to carry out the work of the station effectively.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

EXTENSION OF MEDICAL BENEFIT TO IRELAND.

THE statements which have been made in the press to the effect that it is not the intention of the Government to include the extension of medical benefit to urban districts in Ireland among the provisions of the promised Insurance Act Amendment Bill seem to have been welcomed both by employers and by employees. The former consider that it would involve a very considerable tax, accompanied by a great deal of trouble, and the employees are becoming confirmed in the opinion that they were better off before the Act was introduced, and that the difficulty of forcing the societies to pay sick benefit is very great. The friendly societies alone stand to gain by the extension of medical benefit, as most of them provide, or are at least supposed to provide, medical attendance as an extra benefit; they would, therefore, receive the extra contributions for what they are supposed to be giving now without them. The method of giving medical benefit adopted by most of the societies would seem to be to send the insured person either to a general hospital, the union hospital, or the dispensary doctor. A special committee appointed by the Belfast Board of Guardians has reported that in its opinion the effect of the Act has been to increase the number of dispensary patients and of those seeking admission into the workhouse hospitals.

THE MENTAL DEFICIENCY BILL.

The omission of Ireland from the Mental Deficiency Bill is very much regretted by those acquainted with the circumstances of the country, although it does not appear that anything very active is being done to remedy the defect. The need for the extension has on several occasions been pointed out in these columns. The pauper insane population of Ireland is, relatively to the total population, appallingly large, and it is steadily increasing. The floating population of the Irish workhouses is largely recruited from the ranks of the classes with which this bill proposes to deal. Though the number of illegitimate births in Ireland is small, it is said that the majority occur in districts where workhouses are situated, and that every workhouse has a *clientèle* of feeble-minded young women who are the mothers of one or more illegitimate children. The Mental Deficiency Bill would give Ireland the power to control the productive forces of insanity. In the first place, it would remove all defectives from the workhouses; and, in the next place, it would enable several counties to join in making provision for special institutions. There is not a single special school in the whole of Ireland for such defective children, while England has nearly 200. Nearly three-quarters of the feeble-minded are the children of the insane or of epileptics or of neuropaths, and there is need of more restriction upon the personal liberty of the feeble-minded and degenerate.

NURSING CONFERENCE IN DUBLIN.

Last week the Nursing Conference met for the first time in Ireland. On June 3rd a reception was given in the Royal College of Surgeons. The guests were received on behalf of the Irish Nursing Association by matrons of the various Dublin hospitals. The principal feature of the proceedings was the pageant of nursing, adapted from the pageant and masque of the evolution of trained nursing, by the courtesy of Mrs. Bedford Fenwick, the author and designer, who was present. There was a very large attendance of members of the medical and nursing professions in Dublin. On June 4th the serious business of the conference was commenced at the Royal College of Physicians, the chair being taken by Mrs. Bedford Fenwick, Honorary President. Miss Huxley, President of the Irish Nurses' Association, gave an address of welcome. Miss L. V. Haughton, Matron, Guy's Hospital, London, read a paper on the preliminary training of probationers; Miss B. Butler, Assistant Matron, St. Bartholomew's Hospital, London, read a paper dealing with reciprocal hospital training; and Miss Musson, Matron, General Hospital, Birmingham, dealt with the subject of post-graduate training for

trained nurses. These papers were followed by an interesting discussion showing the importance of the financial question in arranging for the training of nurses. The President said that it must be recognized by parents that if they were going to put their children into a profession they must pay for it. At the basis of all was the awakening of the professional conscience of women, who realized that they must give of their best to the sick, and could not unless they were properly educated to do it. At the afternoon session two papers were read on the training of the masseuse and on professional ideals with regard to massage workers, and were followed by a discussion. The delegates visited the Rotunda Hospital. In the evening tableaux illustrating the history of nursing from the earliest times were shown at the Abbey Theatre, and were followed by an Irish play.

The morning of June 5th was occupied with a discussion on the registration of nurses, and the following resolution was passed by a large majority:

> This meeting desires to record its earnest conviction that it is absolutely necessary, both in the interest of the professional status of nurses and of the public whom they serve, that provision should be made for their registration by the State, and that such registration should be under the supervision of a central professional authority, and that admission to the register of those who have fulfilled the prescribed conditions should be by the single portal of a State examination. This meeting regrets that the Prime Minister has not so far found time for the discussion of the question in the House of Commons, and urges that facilities may be given for the second reading of the Nurses Registration Bill at the earliest possible date.

In the afternoon the question of the legal status of midwives and Poor Law and school nursing were considered. A garden party was given at the Zoological Gardens, and the Lord Lieutenant, in the course of a short address of welcome, apologized for the absence of Lady Aberdeen at the Congress of the International Council of Women in Paris. In the evening there was a banquet in the Mansion House, with Miss Huxley, President I.N.A., in the chair. On June 6th, after a short meeting at the College of Physicians in the morning, when votes of thanks were passed, the majority of the delegates made an excursion to Glendalough, while the remainder made excursions to Howth and Killiney. The Irish Nurses' Association is to be congratulated on the success of the whole undertaking.

DR. STEEL, ARTICLAVE, COUNTY DERRY.

Dr. J. A. Steel, J.P., has been the popular and trusted dispensary medical officer for Articlave for nearly thirty-five years. On the occasion of his marriage the opportunity was taken by the residents of showing their appreciation of his services, both as a public medical officer and as a trusted private attendant. On the evening of May 30th, at a large and enthusiastic meeting in the Mark Memorial Hall, Articlave, he was presented with an illuminated address and a purse of sovereigns, and Mrs. Steel received a handsome clock with chimes. The profession joins with the donors in their best wishes and congratulations to Dr. and Mrs. Steel.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

BIRMINGHAM.

BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.

In the ninety-first annual report presented to the annual meeting of this society, held recently, the directors stated that the good work of granting relief to those in need of the society's assistance had been accomplished as usual in a quiet and unostentatious manner. The directors had good reason to believe that the help so given had been urgently needed, and gratefully received in every case. The invested funds amounted to over £16,000. Twenty-seven annuitants received help during the past year, two of these being annuitants for the first time. The annual value of the grants ranged from £36 to £18, and the sum expended on grants and donations in 1912 was £683. Two annuitants had died, so that at the end of the year twenty-five were receiving grants from the society. One member received a donation of £15. The total income was £783, and the expenses £751, leaving a balance of £32. The number of benefit members at the end of the year was 385, an increase of 10 on the previous year. Fifteen new members joined the society, and 5 left either from death or other causes. The directors drew attention to the large number of practitioners in the district who had not yet become members of the society, and urged all interested in the welfare of their professional friends, who were not yet members, to make a special effort to induce them to join. It is estimated that there are nearly 4,000 medical practitioners living in the area covered by this society. Mr. F. Marsh was elected president for the ensuing year; Mr. W. Flewitt, president-elect; Mr. Leedham-Green of Birmingham and Dr. E. N. Nelson of Nuneaton, vice-presidents; Mr. F. Marsh and Mr. W. F. Haslam, treasurers; Dr. Smallwood Savage, honorary auditor; and Dr. Sawyer, honorary secretary. Dr. Stacey Wilson was elected a trustee to fill the vacancy caused by the death of Sir Thomas Chavasse.

West Indies.

AN INTERCOLONIAL TUBERCULOSIS CONFERENCE.

An important intercolonial conference on tuberculosis, which met in Port of Spain, Trinidad, last March, was attended by delegates from most of the colonies in the West Indies, as also by a delegate from Great Britain (Dr. Cecil Wall), and by representatives from Columbia, Surinam, Venezuela, and Porto Rico. It lasted a week, the sessions being interspersed, as elsewhere, by excursions and social entertainments on a large scale. The inaugural meeting took place in the council chamber of the island, and was opened by Sir R. G. le Hunte, G.C.M.G., the Governor, in the presence of a large and distinguished audience.

The Hon. Dr. H. L. Clare, the president of the conference and surgeon-general of Trinidad, then delivered an address in which he gave an illuminating survey of the subject of tuberculosis from the point of view both of governments and individuals, and in addition brought its numerous problems into focus with the special circumstances of the West Indies. Every one in Trinidad, from the Governor and Lady Hunte downwards, had co-operated in endeavouring to make the conference a success, and the speaker hoped the result would be the formation of a kind of central pivot of well co-ordinated scientific and workable data from which might emerge the scheme best adapted to the requirements and capacity of each West Indian island. They might also look forward hopefully to a day not far off when there would be constituted a central West Indian bureau of tuberculosis, which would store all available information on the subject as it was collected from the various islands, and from which would emanate comparative statements as to progress made and valuable suggestions for future guidance. The holding of intercolonial conferences was no novelty, as several had been held on subjects of inter-island interest, such as quarantine, shipping, and foreign trade. But the present was the first West Indian medical conference, and it was right that, dealing as it did with tuberculosis, it should be held in Trinidad, since their zealous honorary secretary, Dr. G. H. Masson, enjoyed the distinction of being the pioneer of any organized effort in the West Indies to grapple with the great white plague. With tropical diseases all West Indians were familiar, but tuberculosis, despite its devastating prevalence, had attracted comparatively little attention either in official reports or among the public. The prevalence of other forms of the disease than the pulmonary was comparatively slight in the West Indies as compared with other countries. The general trend of present medical opinion seemed to favour the view that these other forms were usually of bovine origin, and if this were really the case their relative exemption from surgical tuberculosis was probably due to the fact that although the conditions in which milk cattle were kept were not invariably ideal, they were, from a tuberculosis point of view, incomparably better than those which prevailed in Great Britain and other countries where bovine tuberculosis was prevalent. In the West Indies the cattle lived all the year round in the open air, and, even when delicate and possibly

already infected cattle were imported, their progeny tended to remain free from tuberculosis. Nevertheless it was desirable that the milk traffic of the islands should be kept under observation and suitable measures applied when necessary. Dr. Clare also gave a detailed history of notification as applied to tuberculosis and of aëro-therapy, and drew attention briefly to the outstanding points of tuberculin treatment. In regard to the first subject, he urged the conference and the medical profession throughout the West Indies to insist on the advantages of notification. They should explain the enormous impetus that official knowledge and record of every case would bring to the progress of the tuberculosis crusade, and make it clear that notification was not a tyrannous inquisition but a procedure which would prove a beneficent influence to those already infected and a source of protection to the community at large such as was unattainable in any other way.

Dr. Masson's contribution took the form of an elaborate review of the prevalence and distribution of tuberculosis in Trinidad and Tobago during the last quinquennium, accompanied by diagrams and charts showing the mortality due to it, and comparing this with other rates. The tuberculosis death-rate was 2.29 per 1,000 in 1907–8, and 2.08 per 1,000 in 1911–12; while the same disease caused 8.81 per cent. of the total deaths. The fact was also brought out that quite early in the nineteenth century tuberculosis was believed to be more prevalent in the West Indies than elsewhere, and was then ascribed to the overcrowding of bedrooms and a dislike of ventilation at night. This cause still operated, and not merely among the poorer classes. Another factor of importance was the special susceptibility to tuberculous infection of the negro race, from which the majority of the population had sprung. In addition, both natives and Europeans showed a lack of resistance in lung affections; as in many other tropical countries, excessive heat and a high degree of atmospheric humidity appeared to have a prejudicial effect on the respiratory organs, and gave rise to a high death-rate from non-tuberculous respiratory disease, as well as from phthisis. Hence the practice prevalent among European medical men of sending to the West Indies cases of tuberculosis for the betterment of their health was ill-advised, especially in the hotter months of the year. Its unhappy results had no doubt at one time or another been painfully impressed on West Indian practitioners. A further possible factor in the increased incidence of tuberculosis in the West Indies was that the climate and the receptivity of the bulk of the population together served, perhaps, to supply the tubercle bacillus with an environment which enabled it to take on a greater degree of virulence than in more temperate zones.

The net outcome of the conference was the adoption of a series of resolutions to the following effect:

The first—moved by Dr. Cecil Wall, seconded by Dr. Noe (Martinique)—expressed the opinion that the tuberculosis measures adopted in the colonies and countries represented by the conference ought to include (*a*) notification, (*b*) housing reform, and (*c*) the establishment of tuberculosis dispensaries and other measures for the detection, prevention, and treatment of the disease.

The second—moved by Dr. J. E. Godfrey (British Guiana), seconded by Dr. J. F. Hutson (Barbados)—urged the foundation of an antituberculosis association in every West Indian colony in which one did not already exist.

The third—moved by Dr. MacDonald (Jamaica), seconded by Mr. P. T. Saunders (of the Department of Agriculture)—suggested that the measures adopted by the various Governments should include one aiming also at stamping out bovine tuberculosis where it existed and at preventing its importation.

The fourth—moved by Dr. M. P. Duke (Leeward Islands), seconded by Dr. W. Tucker (Bermuda)—advocated the addition of elementary hygiene and sanitation to the code of schools throughout the West Indian colonies.

The final resolution—moved by Dr. G. H. K. Ross (Jamaica), seconded by the Hon. Dr. E. F. Hatton (Windward Islands)—stated an opinion that the attempt to control tuberculosis would greatly be aided by efficient registration of births, deaths, and marriages.

This conference, which was undoubtedly a great success, included a tuberculosis exhibition and a cinematographic display of the work done at Edinburgh, accompanied by a verbal description from Dr. Cecil Wall. It is proposed to hold a second conference two years hence in British Guiana.

Correspondence.

DIACHYLON OR DUTY: A CALL TO ACTION.

Sir,—It is very gratifying to find Sir Thomas Oliver taking up the question of diachylon as an abortifacient with such vigour and thoroughness. At the same time his letter carries with it a certain sadness, for it shows that this pernicious evil is still spreading and that from its small beginnings in the Midlands it has now extended to the very North of England. In 1906 the late Dr. W. B. Ransom of Nottingham and I tried to arouse the profession and the public to this evil and published a joint paper in your journal on plumbism from the ingestion of diachylon as an abortifacient.[1] For the purpose of that paper I made inquiries from leading members of the profession in all the large centres of population in the United Kingdom, and at that time I was able to write that "at Newcastle-on-Tyne it appears to be quite unknown," whilst in and around Sheffield I obtained records of about 200 cases in two years. Sir Thomas Oliver's cases are dated 1911, so that within five years it has travelled far, but by so doing has happily secured us a strong champion. His statements as to the original place of origin of this evil, and his references "from memory" to the names of those who first brought it to light, are somewhat meagre and require considerable modification. They omit the names of some who have spent considerable time and trouble in trying to get this practice stopped. Some of those who were most active are, unfortunately, no longer with us, and I am sure Sir Thomas would be the first to desire that their work should not be forgotten. The earliest cases recorded in literature occurred not in the Potteries but at Leicester, and were published by the late Dr. F. M. Pope in this Journal (1893, vol. ii, p. 9). From then onwards cases were from time to time reported by Crooke of Birmingham, Bell Taylor, Ransom, Scott, Jacob and Trotman of Nottingham, Wrangham of Leicester, Layton of Walsall, and others. Leicester and Nottingham were the chief seats of the trouble. It did not spread north to the Sheffield district until soon after the beginning of the new century. From 1902 onwards the number of cases increased very rapidly, and at the Yorkshire Branch of the British Medical Association meeting at Bradford in January, 1905, I was able to record no fewer than 30 cases I had seen personally.[2] The evil became so crying in the Midlands that in 1906 Ransom and I determined to publish a joint paper (referred to above), and to take such other steps as we could to awaken interest in the subject, and induce the authorities to take action if possible.

We succeeded in getting the British Medical Association to appoint a special committee of inquiry, before which Drs. Pope, Ransom, and myself appeared and gave evidence. The suggestions we then made were chiefly: (1) That diachylon should be placed on the poisons schedule, and (2) that all cases of plumbism in women should be compulsorily notified. We also approached the various members of Parliament representing the districts affected, and they promised their help. But it was largely in vain. In spite of reports from coroners of deaths from this cause, several of which have occurred in this district; in spite of prosecutions at Nottingham and Sheffield, in which vendors of these pills were given long sentences of penal servitude; and in spite of the strong resolutions of the British Medical Association Committee, the reply from the authorities was that "nothing could be done."

So the evil continues. Fresh cases are constantly cropping up; within the last month we have had two at the Sheffield Royal Hospital. The numbers in this district are not so great as they were a few years ago for the simple reason that trade is booming and wages are good. But let us once get back to a period of trade depression such as there was about 1903 to 1906, and the number of

[1] British Medical Journal, February 24th, 1906.
[2] British Medical Journal, March 18th, 1905.

cases will go up by leaps and bounds unless something drastic is done. For the misfortune is that it is a simple and effective means of killing the fetus, and the public know it! How great is the price to be paid in health and suffering they do not care.

Some months ago I received an invitation to read a paper on this subject in the Section of Medical Jurisprudence at the International Congress of Medicine to be held in London next August. Possibly with the support of Sir Thomas Oliver's weighty influence it might be possible to get that Section to express an opinion on the subject which would arouse the authorities to action more effectively than we have hitherto been able to do. Any movement in that direction would have my personal active support, for the present state of things is an intolerable scandal.

In conclusion, I should like once more to tender my thanks to Sir Thomas Oliver for his powerful and inspiriting paper.—I am, etc.,

Sheffield, June 9th. ARTHUR J. HALL.

SIR,—Now that Sir Thomas Oliver has lent the weight of his authority to the effort to stamp out this deplorable traffic, it is to be hoped that an earnest endeavour may be made to urge upon the Government the imperative need of an attempt to repress it. Notification, not merely of industrial, but of *all* cases of blood poisoning, would, I believe, be of real service, as Sir Thomas Oliver suggests. It was a proposition I also put forward twelve years ago in this JOURNAL (vol. ii, 1901). But to be effectual it is necessary that medical men should be ready to recognize the different pictures which diachylon produces. I could almost wish that it might be raised to the dignity of a separate disease, and have a heading all to itself in the textbooks of medicine.

Whenever a woman complains of (1) severe gastro-intestinal symptoms, with headache, weakness, and a lemon-coloured skin; or (2) presents symptoms and signs of a polyneuritis, not infrequently with ocular symptoms, I would say: Inquire into her menstrual history and look at her gums. The artist's signature will often unexpectedly be found there.—I am, etc.,

Bradford, June 10th. W. WRANGHAM.

ACUTE MENTAL HOSPITALS AND PSYCHIATRIC CLINICS.

SIR,—I do not think Dr. Stansfield would desire to claim a precedence in regard to the separate hospital idea in asylums which is not according to fact. He says that seventeen years ago he advocated the institution of acute hospitals in conjunction with the existing asylums, and fifteen years ago had this carried out at Bexley. Now in 1882, over thirty years ago, we instituted at the Royal Edinburgh Asylum such a separate hospital, with a nursing staff twice the strength of the ordinary wards, where, also, the probationers were trained. The Scottish Commissioners in Lunacy took up the idea warmly, and urged it on all the Scottish asylums. Montrose and Larbert Asylums followed in a few years, and soon almost every institution in Scotland had such hospitals. The Commissioners would, in fact, pass no new plans that had not separate blocks for new and acute and sick patients. As a matter of fact, England was somewhat slow in taking up the idea and carrying it out. Now it is a *sine qui non* in every up-to-date institution all over the world. The medical idea is thereby sustained, and should pervade the whole treatment of the unsound in mind.—I am, etc.,

Edinburgh, June 9th. T. S. CLOUSTON.

RHEUMATOID ARTHRITIS.

SIR,—Dr. Chalmers Watson does not understand what I mean by parting with the substance for the shadow. Well, I suppose I should have recognized the fact that he is a Scotsman (some of my friends object to being called Scotchmen even when they take the barley-bree), but to make up for my apparent lack of perception I shall now proceed with a surgical operation. I was under the impression that I had given him a tangible cause for rheumatoid arthritis, but he immediately throws that to the one side and sets up in its place an imaginary bacterium of whose nature, or even existence, he offers no proof, because he thinks that such view is "most consistent with available clinical and pathological data." My idea of a bacterial disease is one which comports with all the postulates of Koch, and when Dr. Chalmers Watson, or any one else, has proven to the satisfaction of any first-class bacteriologist, such as Sir Almroth Wright, that he has conformed to all the postulates of Koch, and has really discovered a specific germ which causes what we at present understand by rheumatoid arthritis, then I shall gladly welcome the discovery and praise the discoverer. It is most fortunate that Koch laid down his postulates, otherwise we would have been overwhelmed with numerous varieties of specific bacteria which would have been discovered by highly imaginative clinicians. The so-called practical clinician of the present day is a most hopeless individual; when he runs up against a difficulty he stares it in the face and passes on.

It is just over twenty years since Schüller[1] found, in his observations on 116 cases of "chronic rheumatic arthritis," "short thick bacilli, the central portions of which are notched or grooved, while the poles present a collection of bright granules." Cultures of these bacilli were made, and when injected into rabbits they produced non-suppurative joint affections; similar organisms were removed from the joints of the affected rabbits, and these bacilli could again be cultivated, and the fresh cultures again reproduced the disease in other rabbits. This is much better proof than anything that my present opponents offer. Fortunately or unfortunately these bacilli are not found in all cases of chronic arthritis, and there are many other organisms which set up an inflammation in the synovial membranes of the joints, such as the gonococcus, the pneumococcus, and the meningococcus.

In 1886 Dr. Alfred Mantle of Harrogate found micrococci and short bacilli in the knee-joints and blood of 16 cases of acute rheumatism. In 1892 Sahli found the *Staphylococcus citreus* in the joints of a patient who died from acute rheumatism. In the present day there are several bacteriologists who claim to have isolated a diplococcus or streptococcus which they say is the cause of rheumatic fever; but they are not agreed among themselves, and each one claims that his particular coccus is the specific one. The so-called practical clinician goes much further. He does not trouble his brains about any specific organism; it is sufficient for him to find, or rather get someone else to find for him, a streptococcus in the faeces, if it cannot be found elsewhere, and forthwith the patient is submitted to a prolonged course of a so-called autogenous vaccine. This is what they call scientific medicine, but the pitiable tales which the patients have afterwards to tell are somewhat disheartening.

Dr. Chalmers Watson thinks that I have "not quite grasped his position"; but candidly I think that his bacterial position is so nebulous that there is nothing to grasp. Not content with the cultivation of his own imagination, he wants to make your readers believe that I am in the same happy frame of mind though I do not know it. Because I would clear away all offending organisms, whatever their nature, that are in the outposts, and because I say that there are often acid-forming organisms both in the mouth and the stomach, Dr. Watson thinks that I must really believe in the bacterial origin of rheumatoid arthritis, and there is no use in my denying the soft impeachment. Be that as it may, I shall remain obdurate until Dr. Chalmers Watson can show me how these organisms can be made to comport with Koch's postulates. From my point of view it does not matter very much what the acid is so long as it does not, like most of the mineral acids, form stable neutral salts, and so long as it has a greater affinity for calcium than for the alkaline metals. Nor does it matter very much whether the acid is generated in the stomach or introduced from without. It is a question both of calcium starvation and calcium elimination.

His conclusion about the "instructive correspondence" is really past a joke, and I must bring my operation at once to a close. To be so blind he must be very much overweighted with the importance of his own contributions. In my opinion I have never previously in the whole course of my existence had to refute so much unadulterated twaddle. Of course, it would be downright ingratitude not to exempt Dr. Chalmers Watson from this sweeping statement, and I can really assure him that I not only exclude him but I really never meant to

[1] *American Journal of the Medical Sciences*, 1893.

include him. On the contrary, I must express to him my thanks for his high appreciation of my work, which it appears only requires a few finishing touches by his master-mind to make it a perfect work of art. Of course, neither do I include my friends and supporters, Dr. George E. Bowker and Dr. Percy Newell.

I have had two letters from another Edinboro' Scot who has not a good word to say for my work. He is a medical man of high qualifications and a chronic rheumatic to boot. He thinks that I have not proved my theory of acidosis, that the medical public are beginning to view communications as to cures with suspicion. He is especially irate at my condemnation of oatmeal in this disease, on account of its decalcifying effects, and, funnily enough, he takes me for a brither Scot. He indignantly asks, "Are we invertebrate?" (Some of them are, though I do not blame the oatmeal.) He suggests that the Londoner who drinks hard water should have no rheumatoid arthritis. He wants thousands of cases from which he can draw his inductions. (By that time he will probably have found that the wicked have ceased from troubling and the weary are at rest.) He suggests that if I have not time myself to examine the blood for acidosis I should get some young Liverpool chemist to do so—of course, he magnanimously says, under my supervision—but, Scotch like, he makes no offer of a contribution towards the expenses. He himself "used Wright's method some ten or twelve years ago, without much result," using sensitive litmus as his indicator. I thought my account of the Scottish chemist who found sulphuric acid and the suboxide of copper in Scotch whisky would have saved me from this criticism. This gentleman knows very well that the blood is practically always alkaline, and the plasma more so than the serum. If the blood were acid even to sensitive litmus it would cease to take up any lime from any tissues but itself, because the heart would immediately stop. It is not a question of free acidity but of diminished alkalinity, and an increase in the acid radicles which are loosely united with bases from which they readily part in the presence of lime. The acid of the stomach is always united with some base when it enters the blood. If you add to a strong solution of sodium salicylate some carbonate of lime or magnesia you will get an intensely alkaline solution of caustic soda caused by the acid radicle laying hold of the calcium or magnesium. He says:

> The medical public are thoroughly suspicious of the various nostrums held up to them—fresh air cures, radium, living microbes for injection, ionization, etc. . . . I may state that I am perfectly familiar in my own person with a two years' trial of free ingestion of rhubarb, acid, acid fruits to act the popular view, while of late I tried and have had tried on myself vaccines and serums—results *nil*. I should, however, be sorry to forego oatmeal, once chief of Scotia's food.

Poor man, I am sorry for him; the treatment seems to me worse than the disease.

I have read Dr. Preston King's letter about half a dozen times, and I really find very little to answer except his peculiar way of mixing up the cause and the treatment. I can again assure him that the first part of the treatment is to remove the cause, and there is not much use in giving lime salts until you have removed the cause which is rapidly eliminating them.

I have plainly told Dr. Craig that I did not believe that Sir Robert Christison ever uttered the statement which he (Dr. Craig) attributed to him. He makes no direct attempt to answer this, and prudently drops the calcium-laden straw. Instead, he tells us that:

> At a meeting of the Balneological and Climatological Section of the Royal Society of Medicine in April of this year, when the gentlemen present consisted of physicians to whom, if there be any truth in the statement that "an ounce of practice is worth a ton of theory," we must look for guidance in the treatment of this disease, one of the speakers, on advising copious water drinking for rheumatoid arthritis, stated that "the presence or absence of some lime is of no importance whatever," confirming Sir Robert Christison's wise statement of forty years ago.

The only report of this meeting of the Section of Balneology and Climatology which I can find appeared in the BRITISH MEDICAL JOURNAL of May 3rd, 1913, p. 940, and in your report there is not one word about rheumatoid arthritis or lime. In fact the discussion was on "the significance, treatment, and prognosis of high blood pressure." From what I know of some of the gentlemen who took part in the discussion, I am sure they would be among the first to repudiate the old stupid wheeze about an ounce of practice and a ton of theory. Not only does he fail to substantiate the view with which he credits Sir Robert Christison, but he also fails to give any reference to the lime salts having been used and discredited, as he says, in this disease. Personally I have not come across any ancient or modern textbook in which any mention is made of the use of lime salts in rheumatoid arthritis. In a previous letter he stated:

> So far as I can learn, about a third of the practitioners of Britain are at present treating this disease with serums, with results much superior to what were obtained by the ancient treatment recommended by Dr. Luff and Sir James Barr.

It is well known that with the exception of antidiphtheritic and antitetanic serums, there is now very little sale for any of the serums, and the only serum that I know of on the market for rheumatism is an antistreptococcus serum prepared by Burroughs, Wellcome, and Co. Again Dr. Craig says, "Are we to believe that neither of the writers has any experience of the antirheumatic serums now in common use?" As there is no serum in the market under such a name perhaps he will tell us something about it.

He wants to know what I mean when I say that the finely stencilled lines of absorption occurred at the edges of the bones where the blood supply comes from the periosteum. I mean exactly what I say, and I can put the facts in no plainer language. I have no doubt Dr. Thurstan Holland will be pleased to show him the plates which he exhibited to me.—I am, etc.,

Liverpool, May 31st. JAMES BARR.

SIR,—There must be many of your readers who cannot but deplore the tone of Sir James Barr's recent letters on the subject of rheumatoid arthritis, and who think that the dignity of the President of the Association would be more suitably upheld by a style of a less bombastic and self-satisfied character.—I am, etc.,

Brighton, June 2nd. JOHN C. UHTHOFF.

EVIDENCE FOR AND AGAINST TUBERCULIN.

SIR,—I am much obliged to Dr. J. Stavely Dick for his courteous and ingenuous reply (June 7th, page 1249), but I fail to see that there is any impropriety in treating one set of patients with tuberculin and another set without tuberculin and comparing the results. If the former set gave the best results, then the latter could also have a course of tuberculin if desired. I do not think the "controls" in such a trial have any particular grievance.

As to bovine tuberculosis, I can only say: If it has been cured by bovine tuberculin, let us have the details of cases in which that result has been obtained.

Dr. Dick says, with regard to the real good obtained from appropriate doses of tuberculin, that his "favourable impressions have been based mainly upon increased energy and capacity for work . . . on returning relish for food . . . a feeling of well-being and brightness . . . on stationary or increasing weight. . . ." But I can assure Dr. Dick that I have seen all these improvements take place in patients undergoing sanatorium treatment without tuberculin. "In a number of cases," he adds, "there was no doubt whatever as to the pulmonary lesion having become quiescent." But even that result may (sometimes) be observed in cases treated only with fresh air, good food, rest, and regulated exercise. I quite agree with Dr. Dick that the patient's general condition (appetite, weight, strength, and feeling of well-being) has to be taken into consideration, as well as the physical signs in the chest. But I hold that if a patient with, say, a moist, crackling râle in one of his apices, still has his moist, crackling râle in the same place after a course of tuberculin injections, then he is not cured. If his appetite is good, and he is free from pyrexia, and his weight keeps up, we may conclude that the recuperative agencies in his system are in the ascendant, and that is a matter for satisfaction. But the active local mischief is still present, and, if the

resisting factors in the system fail, the disease reasserts itself, and the patient goes downhill.

I am of opinion that Dr. Batty Shaw's investigations are worthy of all praise.—I am, etc.,

JAMES W. ALLAN.

Bellefield Sanatorium,
Lanark, June 17th.

THE BIONOMICS OF THE RAT-FLEA.

SIR,—I see from your issue of May 31st that Mr. Strickland has questioned the correctness of Dr. Nicoll's explanation of the apparent lengthy fast of specimens of *Ceratophyllus fasciatus*.

I am, like Mr. Strickland, unfortunate in that my own breeding experiments with fleas, covering a period of two years, are not yet published. They will, I trust, be available ere long in the *Journal of Hygiene and Parasitology*. Meanwhile I can in a few words possibly throw some light on this particular question.

The egg period of this species occupies from about four to twelve days, according to the temperature, which is of course a most important factor. The *active* larval life may be anything from 10 to 114 days, and probably this is not the extreme limit in either direction. After the larva has spun its cocoon it may rest within it for over 400 days. The pupal period, so far as it is possible to determine, does not exceed about 10 or 12 days, but this is admittedly only a rough estimate. When the adult flea has shed the flimsy pupal envelope it does not always emerge from its cocoon, but may continue to rest for a longer or shorter period. As in the case of the pupal period, it is only possible to arrive at an estimate as to the length of time occupied by this rest—all the available evidence being circumstantial. I should not care to estimate it at more than two or three weeks, but it may be much longer.

Emergence is frequently in response to some mechanical stimulus, such as the disturbance of the box containing the cocoons.

Mr. Strickland's inability to find cocoons is, of course, beside the mark, as they must have been present, even if the fleas had emerged from them, unless the rubbish he refers to was not that from which the fleas had been bred, but was used as cover for adult fleas which had never been fed. He is correct, however, in concluding that the adult fleas are able to make lengthy fasts, but this appears only to be possible before feeding and breeding commences, while the fat bodies carried over from the larval period are unexhausted.

I have, however, no records of such lengthy periods as he suggests; under the most favourable conditions that I could devise the longest adult life without food was thirty-one days. This was when the fleas were put into a filter paper tube which was buried in sand kept at a low temperature (45° or 50° F.) in a cellar where the humidity was over 90. If allowed to bury themselves freely in the sand—the other conditions remaining the same—they were able to endure a longer period; the longest life noted was ninety-five days.

My own view is that the occurrence of adult fleas in breeding cages long after the host has been removed, is to be accounted for by the larval rest within the cocoon.—I am, etc.,

A. W. BACOT.

Entomological Department, Lister Institute,
London, S.W., June 4th.

A CONSTITUTIONAL POINT.

SIR,—A constitutional position of interest especially to the members of our profession has just been created by the action of Mr. McKenna, the Home Secretary, and Sir Rickman J. Godlee, the President of the Royal College of Surgeons.

On March 18th, 1913, Mr. McKenna made a personal attack upon me by name in the House of Commons. On May 1st I wrote to him asking him to publicly withdraw his statements, they being from evidence in my possession inaccurate in several respects, and the same time giving him the proofs of these inaccuracies. Further correspondence ensued but without any material result.

Whilst this correspondence was still proceeding it came to my knowledge that Mr. McKenna had lodged a complaint against me at the Royal College of Surgeons without informing me that he was doing so or had done so. On discovering this I at once wrote to the President (Sir R. J. Godlee), and requested that a copy of the document or documents containing the Home Secretary's charges be furnished to me so that I might deal with them.

Sir R. J. Godlee, who did not reply until he received a letter from my solicitor, declined to accede to my request. This request I made not only as a Fellow of the College, but also as a citizen of a country which prides itself on the fact that every one who is accused is entitled to know at once exactly what charges are made against him with a view to being enabled to reply to them should he wish to do so.

I also wrote to Mr. McKenna, making the same request. He also, whilst admitting that he lodged charges against me, declined to inform me of the nature and detail of his accusations.

It appears to me to be extraordinary for a Minister of the Crown to make a complaint concerning a professional man's reputation without giving him notice, and further, for the President of our College to refrain in his turn from informing the professional man thus complained against that such charges had been made, and to refuse to disclose the nature of them when asked to do so.

I mention this incident as evidencing the pressing need for reform in the present constitution of the Royal College of Surgeons.—I am, etc.,

VICTOR HORSLEY.

London, W., June 9th.

ANTIVIVISECTION.

SIR,—I, in company with the rest of the profession, have received a circular from the "Church Antivivisection League," in which we are asked to allow our names to be added to a list of doctors who do not believe in "vivisection." We are told in the circular that "there is a growing disinclination to believe that the medical man who countenances experiments on helpless animals will refrain from experiments on his equally helpless patients."

Our reward for allowing our names to be added to this list is evidently to be found in the following extract from the circular: "We are often asked by antivivisectionists for the names of antivivisectionist doctors in their respective neighbourhoods." It is to be hoped that none of our honourable profession will lend themselves to this form of touting. The list of doctors, it is stated, will be printed and circulated with the report of the league.—I am, etc.,

H. W. OGLE-SKAN, M.R.C.S., L.R.C.P.

London, N.W., June 9th.

MISS FRANCES POWER COBBE.

SIR,—My attention has been called to the following passage in an article, "The Ethics of Antivivisection," in your issue of May 3rd: "Miss Frances Power Cobbe made the strange boast that she loved animals by nature and her own kind only by grace." I think the quotation is not quite correct; certainly this was not said as a *boast*.

If, however, Miss Cobbe loved her own kind only by grace, she must have been abundantly endowed with it, for she spent her life in doing good to her fellow creatures. For many years she worked for the poor in their homes and in the workhouses; later she was instrumental in passing laws for the protection of women; and she was ceaseless, to the very end of her life, in her efforts to make all around her happy.—I am, etc.,

HELEN L. COBBE.

London, W., June 8th.

*** Our authority for the statement to which Miss Cobbe refers is Sir Mountstuart Elphinstone Grant Duff's *Notes from a Diary*. Under March, 1899, there is the following entry: "Miss Cobbe," remarked Lecky, "used to say: 'I love dogs by nature; human beings only by grace.'" With this may be compared another passage in the same *Diary* (August, 1895), where it is recorded: "We spoke of Miss Cobbe, and Paul said, 'I got into frightful trouble with her once, in the most innocent way. I used the expression "the lower animals." "Lower animals!" she said; "I acknowledge no such distinction—unless, indeed, you refer to married men."' We need not argue with our correspondent whether or not these things were said by way of boast. The tone and taste of the latter remark, we think, sufficiently indicate Miss Cobbe's feelings towards those at least of her fellow creatures who had the misfortune to belong to the male sex.

Public Health AND POOR LAW MEDICAL SERVICES.

THE NURSING OF THE SICK POOR.

THE Workhouse Nursing Association, of which H.R.H. Princess Christian is the president, recently submitted a memorandum to the Poor Law Orders Committee, suggesting amendments to several of the provisions of the Poor Law Institutions Draft Order now under the consideration of the committee, which, in the opinion of the association, would if adopted be retrograde rather than progressive as regards nursing administration in rural workhouse infirmaries and sick wards.

On June 4th the Hon. Mrs. John Talbot, a vice-president of the association and the chairman of the Executive Committee, together with Miss Gibson (late matron of Birmingham Infirmary), Mr. Henry Dixon Kimber (the honorary legal adviser to the association), and Miss R. V. Gill (the secretary), had a long interview with the Poor Law Orders Committee, as representatives of the association, in order to emphasize and explain more fully the views of the Workhouse Nursing Association on the seriousness of their objections to several matters to which attention had been drawn in the memorandum, and to urge the importance of giving effect to certain alterations in the proposed Order which were recommended by the association.

Universities and Colleges.

UNIVERSITY OF LONDON.

MEETING OF THE SENATE.

A MEETING of the Senate was held on May 21st.

Brown Animal Sanatory Institution.

The annual report of the Superintendent of the Brown Animal Sanatory Institution for 1912 was presented. It stated that 5,546 animals had received treatment at the hospital as out-patients and 470 as in-patients. The five lectures required under the will of the late Mr. Brown had been delivered by Mr. Twort, M.R.C.S., L.R.C.P., the Superintendent, the subject selected being a comparative study of tuberculosis and Johne's disease. The report gave a list of ten investigations which had been carried out by different workers in the laboratories during the year.

Anatomy and the B.Sc. Honours Degree in Anthropology.

It was resolved:

That the Examination in Anatomy forming part of the Second Examination for Medical Degrees, Part II, be accepted as the Examination in respect of Anatomy taken as a subsidiary subject for the B.Sc. Honours Degree in Anthropology for Internal and External Students.

External Council.

Sir William Collins has been added to the Council for external students for the remainder of the year 1912-13, in the place of the Rev. Professor W. H. Bennett, resigned.

Lecture by Professor Benedict.

A special lecture on the work of the Carnegie Nutrition Laboratory in Boston will be given in the Physiological Laboratory of the University on Friday, June 20th, at 5 p.m., by Professor F. G. Benedict, Director of the Carnegie Laboratory. The lecture, which will be free, will be addressed to advanced students of the University and others interested in the subject.

Rogers Prize.

The subject of the essay or dissertation for the Rogers Prize, 1914, will be the nature of pyrexia and its relation to micro-organisms. The latest date for the reception of essays is April 30th, 1914. Copies of the regulations for the award of the prize can be obtained on application to the Academic Registrar.

Officers' Training Corps.

The annual inspection of the University Contingent of the Officers' Training Corps will be held by Brigadier-General D. Henderson, C.B., D.S.O., in Hyde Park, on Saturday afternoon, June 28th. Applications for reserved seats should be addressed to the Adjutant at the University.

London (Royal Free Hospital) School of Medicine for Women.

Mr. F. D. Acland, M.P., has accepted the chairmanship of the Council, and Mrs. Willey, M.D., M.S., has been appointed Lecturer in Midwifery to succeed Mrs. Scharlieb, M.D., M.S., resigned.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

IT appears that neither of the retiring members of the Council, Mr. Edmund Owen and Mr. Golding-Bird, seeks re-election. The six candidates are Mr. J. E. Lane of St. Mary's Hospital (Fellow, December 14th, 1882; Member, 1880); Mr. L. A. Dunn of Guy's Hospital (Fellow, June 12th, 1884; Member, 1882); Mr. Jonathan Hutchinson of the London Hospital (Fellow, November 13th, 1884; Member, 1880); Mr. H. B. Robinson of St. Thomas's Hospital (Fellow, June 9th, 1887; Member, 1883); Mr. Walter G. Spencer of the Westminster Hospital (Fellow, June 9th, 1887; Member, 1885); and Mr. H. J. Waring of St. Bartholomew's Hospital (Fellow, October 15th, 1891; Member, 1890).

There are four vacancies to be filled, and the candidates first and second on the poll will hold their seats for the full term of eight years, namely, till July, 1921. The substitute for the late Mr. Clinton Dent, re-elected in 1911, will fill up the remaining six years, retiring in 1919, whilst Mr. Bruce Clarke's substitute will serve on the Council for two years, as Mr. Clarke was elected in 1907. No provincial Fellow has come forward on this occasion.

The Services.

INDIAN MEDICAL SERVICE.

ANNUAL DINNER IN LONDON.

THE customary annual dinner of the Indian Medical Service in London was held in the Hotel Cecil on June 10th, when the Director-General of the Indian Medical Service, Sir C. P. Lukis, K.C.S.I., was in the chair, and the guests were: The Marquess of Crewe, Secretary of State for India, Sir Thomas W. Holderness, Under Secretary of State for India, Sir Francis Champneys, President of the Royal Society of Medicine, Sir W. Watson Cheyne, Bart., President of the Medical Society of London, and the Editors of the BRITISH MEDICAL JOURNAL and *Lancet*.

After giving the toasts of the King and Queen and other members of the Royal Family, Sir C. P. Lukis said that he had been requested to break through the rule against making speeches after the annual dinner in order to mark the honour done to the service by the presence of the Secretary of State. Speaking after four years' experience as Director-General, he asserted that during that period steady progress had been made, and that in many respects the conditions of service had been greatly improved. Annual increments of pension after seventeen years' service had been granted, the fee rules, to which many officers took exception, had been modified in a most satisfactory manner, brevets had been awarded for distinguished service other than in the field, the rules for accelerated promotion had been amended, large grants had been given for financing medical research and for the establishment of a school of tropical medicine in connexion with the Calcutta Medical College, the King George Medical College had been opened in Lucknow, and a medical school for the central provinces was to be started in Nagpur. Three new appointments, moreover, had been sanctioned, namely, a whole-time professorship of pathology at Bombay, a residency surgeoncy at Seistan, and a directorship of the Pasteur Institute in Burma. The Indian Government had shown in a most practical manner its appreciation of the value of the services of individual officers. Formerly it was a common complaint that medical officers did not receive a fair share of honours and that professional merit met with no recognition. This might have been true in the past, but was so no longer. At no time in the history of the service had honours and rewards been given to it so liberally as during the past few years, and he mentioned the names of Surgeon-Generals Branfoot, Charles, and Bannerman, Colonel Giffard, and Majors Glen Liston and Leonard Rogers as proofs that professional merit did not pass unrecognized. He denied that the men now entering the service were not up to the former standard. He found that, taking the service as a whole, 71 per cent. of the officers possessed higher medical qualifications, whilst the average for lieutenants was 73.5 per cent., or 2.5 per cent. higher than the average for the service as a whole. That afforded clear proof that there was no falling off in the standard, and from his experience as Director-General he could vouch for the fact that it had many exceptionally brilliant men amongst its younger officers. The Indian Medical Service still offered a magnificent career to men of the right stamp. Changed conditions would undoubtedly arise and competition would be keener, but this need cause no alarm. One of the most remarkable developments of recent years had been the sanitary awakening of India, and when the medical needs of that vast country were remembered, the belief was justifiable that ample room would be found both for the Indian service, for the sister service, and for the independent medical practitioner. In conclusion, he proposed the health of the Secretary of State for India, expressing to him the thanks of the service for the sympathetic consideration he had shown in regard to all matters affecting either the general welfare of the service or personal interest of individual officers.

The Marquess of Crewe, in response, expressed his general agreement with the Director-General's view of

the prospects of the service and his deep sympathy with its work and aims. He referred to signs of the awakening of India to the meaning of sanitation, and to the great scope for work in the future which this opened up. He agreed that the large number of Indian gentlemen who were now entering the medical profession and making themselves thoroughly competent members of it must affect the Indian Medical Service, but he held strongly that there was room for both.

The following is a list of officers who attended the dinner, the number being unusually large:

Surgeon-Generals.—Sir A. M. Branfoot, K.C.I.E., Sir R. Havelock Charles, G.C.V.O., J. Cleghorn, C.S.I., J. P. Greany, G. Hay, Sir L. D. Spencer, K.C.B.

Colonels.—C. W. Carr-Calthrop, G. W. P. Dennys, D. ffrench-Mullen, B. B. Grayfoot, G. F. A. Harris, P. Hehir, D. E. Hughes, C. C. Little, M. D. Moriarty, R. D. Murray, A. Porter, P. A. Weir.

Lieutenant-Colonels.—W. Alpin, J. Anderson, R. J. Baker, R. H. Castor, W. H. Cadge, J. T. Calvert, D. G. Crawford, P. J. Freyer, C. R. M. Green, H. Greany, E. A. W. Hall, J. Jackson, E. Jennings, E. R. Johnson, D. F. Keegan, M. A. Ker, D. P. MacDonald, W. Molesworth, T. R. Mulroney, W. H. Ogilvie, K. Prasad, W. G. Pridmore, J. J. Pratt, W. H. B. Robinson, W. H. Thornhill, D. Warliker, H. R. Woolbert, H. G. L. Wortabet.

Majors.—W. R. Battye, R. Bonstead, P. F. Chapman, S. R. Christophers, De V. Condon, A. T. Gage, A. A. Gibbs, C. M. Goodbody, E. Hutcheson, H. F. G. Hutchinson, J. H. Hugo, W. Lethbridge, E. A. C. Matthews, J. H. MacDonald, F. O. N. Mell, O. St. John Moses, C. R. Pearce, E. L. Perry, Sir R. Ross, K.C.B., F.R.S., S. A. Ruzzak, R. F. Standage, J. W. Watson, J. M. Woolley.

Captains.—F. F. Barnard, C. H. Barber, F. Powell Connor, W. T. Finlayson, C. A. Gill, D. P. Goll, D. L. Graham, J. B. D. Hunter, H. H. G. Knapp, J. L. Lunham, G. E. Malcomson, E. Selby Phipson, R. D. Saigol, H. B. Steen, J. Taylor.

Lieutenant.—Bennett Hance.

NEW WARRANT.

A Warrant dated June 3rd, 1913, cancelling and replacing the Warrants of March 13th, 1908, and August 8th, 1911, has been issued. The following notes indicate the general substance of the several paragraphs:

1. Provides that substantive rank shall be as follows: Surgeon-General ranking as Major-General, Colonel, Lieutenant-Colonel, Major, Captain, Lieutenant; the Director-General, I.M.S., is to hold the substantive rank of Surgeon-General, but may rank as Lieutenant-General if approved by the Secretary of State.

2. An officer will not be permitted to remain in the service if at any time during the first three years from the date of his first commission his retention therein is, in the opinion of the Secretary of State, undesirable.

3. A lieutenant is eligible for promotion to the rank of captain on completing three years' full pay service if he has previously passed the required examination and is in all other respects qualified and recommended. If an officer has not passed the prescribed examinations he may, if he has not had a reasonable opportunity of passing them, be provisionally promoted, subject to his passing the exxminations when an opportunity is afforded.

4. A captain is eligible for promotion to major on completing nine years' full pay service in the rank of captain. The period may be reduced by six months if an officer produces satisfactory evidence of progress in any branch of knowledge likely to increase his efficiency. If a captain is prevented by the exigencies of service from obtaining an opportunity of qualifying for such accelerated promotion, the concession will remain open to him for four years after his promotion to the rank of major in the ordinary course, but any antedate granted will be without adjustment of pay.

5. A major is eligible for promotion to the rank of lieutenant-colonel on completing eight years' full-pay service in the rank of major, including any period covered by antedated promotion without adjustment of pay.

6. Time on half pay not exceeding one year will be reckoned as service for promotion under Articles 3, 4, and 5, if removal to half pay has been in consequence of medical unfitness caused by duty, military or civil.

7. For distinguished service in the field or for meritorious or distinguished service other than in the field a captain after six years' service and a major or a lieutenant-colonel may be promoted to the next higher rank by brevet.

8. A certain number of lieutenant-colonels may be specially selected for increased pay for ability and merit.

9. Promotion from the rank of lieutenant-colonel with increased pay to colonel and from colonel to surgeon-general will be given by selection for ability and merit.

10. A lieutenant-colonel may also be promoted to the rank of colonel, and a colonel to the rank of surgeon-general for distinguished service in the field. "In any case the officer shall remain supernumerary in the higher rank until the vacancy to which, in the ordinary course, he would have been promoted, or, in the case of an officer promoted to the rank of colonel, until selection for the rank of surgeon-general."

11. Exchanges between officers of the I.M.S. and the R.A.M.C., of the same rank and below that of major, and transfers of officers below the rank of major may be permitted on conditions, one of which is that the officer transferred is placed for seniority below that of officers holding the same rank at the time of his transfer, and shall not be promoted until the officer next above him is promoted, or has been refused promotion.

12. Medical officers will be placed on the retired list at the following ages: Director-general 62, surgeon-general and colonel 60, lieutenant-colonel and major 55. A lieutenant-colonel who entered before April 1st, 1911, and who has been specially selected for increased pay if he attains the age of 55 before becoming entitled to the pension for thirty years' service, may be retained until the completion of such service, or in any special case an officer may be continued in employment.

13. An officer appointed after September 11th, 1890, who may retire on pension before completing thirty years' service, will be liable till he completes 55 years of age to be recalled to duty in case of emergency.

14. Six of the most meritorious officers of the Indian Medical Service on the active list shall be named honorary physicians and honorary surgeons to the King, and they shall relinquish such appointment on retirement. On appointment as honorary physician or honorary surgeon an officer under the rank of colonel may be promoted to the brevet rank of colonel.

VOLUNTARY AID DETACHMENTS.

HUNTINGDONSHIRE on May 12th was the scene of a sham fight to which special interest attached by reason of the co-operation of three Voluntary Aid Detachments; indeed, the work of the day was specially arranged to that end by Lieutenant-Colonel E. J. Cross, M.D., the officer commanding the Eastern Mounted Brigade Field Ambulance. Early in the morning a detachment of the 5th Bedfordshire Regiment carried out a sham fight against an invading force near Weston Wood, and incurred 75 casualties, small and great. News of a heavy engagement was then dispatched to a wagon and tent station established by the field ambulance mentioned, and meantime the men applied their first aid dressings themselves, each wounded man having a label attached to him descriptive of his injury. Soon after light wagon and stretcher parties from the field ambulance arrived, and collecting the wounded took them to the wagon station, where they were treated and classified. The tent hospital was then cleared for further work by handing over the patients to the Voluntary Aid Detachments which had established hospitals at three farms; and one of these hospitals was subsequently evacuated on receipt of information that the enemy was close at hand. Each of the Voluntary Aid Detachments turned out fully supplied with doctors, nurses, pharmacists, bearer squads, wagon drivers, and transport officers, and all members had an excellent opportunity of seeing exactly the sort of work they would have to do in actual warfare. The medical men engaged during the day were Lieutenant-Colonel E. J. Cross, Captain W. Archibald, and Lieutenant G. C. Kay Sharp, of the Eastern Mounted Brigade Field Ambulance; while Drs. Robinson, Harrisson, and Williams were in medical charge of the Voluntary Aid Detachments.

Obituary.

JAMES HENRY TARGETT, M.S., F.R.C.S.,

OBSTETRIC SURGEON, GUY'S HOSPITAL.

IT is with great regret that we have to announce the death of James Henry Targett, at the age of 51, after a long illness. He was born in Wiltshire, and went to school for two years at Warminster. Owing to delicate health his education was continued with a private tutor at Salisbury. This frailty of constitution attended him throughout, and for this reason, perhaps, the energies that most men devote in part to outside pursuits were by him spent entirely on subjects in connexion with his profession.

He entered Guy's Hospital as a student in October, 1878. He graduated M.B.Lond., with honours in forensic medicine in 1883, the B.S. with honours in 1885, and M.S. in 1887. He took the diploma of F.R.C.S.Eng. in 1886. He was appointed surgical registrar at Guy's Hospital in 1885, and held this post till 1887, when he became assistant curator to the museum. In 1889 he was appointed demonstrator of anatomy, and in 1895 demonstrator of surgical pathology and morbid histology. In 1897 he became obstetric registrar and tutor, and assistant obstetric physician the year following. In 1903, on the retirement of Dr. Galabin, he became obstetric physician, the title of the post being changed to that of obstetric surgeon when he became the senior in the department.

During the earlier years of his connexion with Guy's Hospital he was doing much work outside. All through his career he had a strong bent towards pathological anatomy, and in this subject he became deservedly a recognized authority. Following on his curatorship at

Guy's he was appointed pathological assistant to the Museum of the Royal College of Surgeons in January, 1888, Sir Frederic Eve being at that time curator. He succeeded to the post of curator in 1890, and held it till March, 1897. One who knew his work there speaks of him as an able and energetic curator, who added a large number of specimens to the collection, and by his tact made many people friends to the museum. As a writer of reports, whether clinical or pathological, he was probably unequalled. He wrote apparently with ease, and could at once and in the simplest terms give a clear picture in words of any specimen he had to describe. During this period of his work he contributed numerous papers to the *Transactions* of the Pathological Society, of which he was secretary in 1895 and 1896. He edited appendices to the catalogue of the Royal College of Surgeons, and gave the Erasmus Wilson Lectures on pathology in 1893 and the two years following. He was also holding appointments as assistant surgeon at the Evelina Hospital, and later as surgeon to out-patients at the Samaritan Free Hospital. We may gratefully recall that during this period of his career he gave his assistance to this JOURNAL, contributing many reviews on pathological subjects.

Following on these years devoted in the main to pathology, came the time when his energies were absorbed mainly in his clinical work as an obstetric surgeon. And here the interest in and devotion to his work that characterized him throughout carned for him before very long a recognized and honoured position. In 1910 and 1911 he was secretary to the Obstetrical Society.

His was a charming personality. Kind and gentle in disposition, he was as slow to take offence as he was incapable of giving it. No man had a more honourable and upright standard of life always before him. He never spared himself when work was concerned. His energy at times seemed feverish, and he probably wore out a system frail from the commencement. In 1911 he underwent an operation for appendical abscess, and his health no doubt suffered further from the sad loss of his only boy in that year. The illness which terminated fatally was of long duration. He was taken ill in September, 1912, and it was not till Tuesday, May 27th, 1913, that the end came.

J. LLOYD THOMAS,

DEPUTY SURGEON-GENERAL, R.N.

WE have to record with regret the death of Deputy Surgeon-General John Lloyd Thomas; it took place at his residence, Penmon, in the Isle of Anglesey. During his services in China he contracted sprue, which not only rendered him unfit for active work for long periods during several years, but seriously undermined his constitution, and no doubt contributed to his untimely death.

John Lloyd Thomas was born on September 3rd, 1856; he received his medical education at the Middlesex Hospital and Queen's College, Birmingham, and was for a period obstetric house-surgeon to the Queen's Hospital in that city. He entered the Royal Navy Medical Service in February, 1884, and served first in the *Temeraire* on the Mediterranean station, and afterwards from 1887 to 1889 on the *Britannia* in the Home Fleet. In 1889 he went to the West Indies in the *Bellerophon*, and from May, 1891, to April, 1892, was at the Jamaica Hospital in special charge of yellow fever cases; and in 1893 he wrote a practical essay on yellow fever which received high commendation. In 1894 he went to China in the *Porpoise*, and in the following year attended the wounded Chinese soldiers and sailors at Chefoo during the China-Japanese war; his services were favourably noted, and he was promoted staff surgeon in 1896. After a term of service from 1897 to 1899 in the Royal Naval Barracks, Portsmouth, he went out again to China in the *Endymion* in 1899. In the following year he served with the second Peking Expedition, and the excellent health of the brigade was attributed in a large measure to the sanitary arrangements made under his supervision. He was specially promoted fleet surgeon for these services, and received also from the Emperor of China the Order of the Double Dragon, first division of the third class. He came home in 1902, already unfortunately suffering from the disabling disease which was to shorten his life. After a somewhat prolonged period of sick leave he so far recovered that, with the aid of his cheery temperament and sanguine outlook on life, he was able to do a good deal of public work, serving on the Council of the British Medical Association as a representative of his service; acting as President of the Navy, Army, and Ambulance Section of the Annual Meeting of the Association in 1903, and representing the Admiralty at the meeting of the Association of Military Surgeons, U.S.A., in 1905. He served at the Royal Naval Barracks, Chatham, in 1906–1908, and for the two following years in the drill ships *Daedalus* and *Eagle*. He retired in September, 1911, with the honorary rank of Deputy Surgeon-General, and went to reside at Penmon, Anglesey, a county in which he had shortly before served the office of High Sheriff.

WE regret to record the death of Dr. CHARLES DALLEY NUTTALL, of St. Albans, on June 1st, after a long illness. Born in Leicester, and a member of a family connected for several generations with the profession of medicine, Dr. Nuttall was a student of St. Bartholomew's Hospital, and became M.R.C.S., L.R.C.P. in 1884. Subsequently he acted for a considerable period as clinical assistant at the City of London Hospital for Diseases of the Chest, and then settled in practice in his native town, where he was surgeon to the provident dispensary, and acquired a considerable practice. After some years he broke down in health and gave up work altogether for a time, but later on took up a practice of a lighter kind in St. Albans. The improvement in his health was, however, only temporary, and for the last three years he had done very little work. During his residence in Leicester Dr. Nuttall was a well-known figure in the hunting field, and when in good health frequently played an official part at athletic meetings in different parts of the country. As a young man he was an excellent performer on the running path, his best distance being the quarter mile, and it was largely due to his abilities in this direction that St. Bartholomew's became the holder of the Inter-Hospitals Challenge Cup in the early Eighties. Dr. Nuttall, who married the eldest daughter of the late Dr. J. St. Thomas Clarke, of Leicester, is survived by his wife, but left no children.

DR. LYTTELTON STEWART FORBES WINSLOW, who died on June 8th in his seventieth year, was a son of Dr. Forbes Winslow, who for a number of years was a leading authority on insanity. He was educated at Rugby and Cambridge, where he took the M.B. degree in 1870. He was also D.C.L. of Oxford and LL.D. of Cambridge. He appeared as an expert witness in many trials both in this country and in America, and wrote a number of articles on subjects connected with his province of practice. In 1910 he published an autobiographical volume entitled *Recollections of Forty Years*, which was reviewed in the BRITISH MEDICAL JOURNAL of July 8th, 1911 (p. 76). His opinion on any case that happened to interest the public was apparently highly valued by some newspapers, but with his own profession it carried less weight. Dr. Forbes Winslow, who was twice married, leaves a widow and three sons and a daughter.

NEWS has been received in England of the sudden death at sea in the Far East of Dr. O. E. HIGGENS, of Earl's Court, S.W. Dr. Higgens, who entered the medical profession somewhat late in life, was a student at St. Mary's Hospital; he took the diplomas of M.R.C.S., L.R.C.P. in 1889, and graduated M.B.Durh. in the following year. Before entering the medical school he had been at Cambridge, where he was a scholar of Emmanuel College, and achieved first-class honours in the classical tripos of 1880. After filling at the hospital a number of resident appointments, he established himself in Holloway and practised there until some two years ago, when he moved to Earl's Court. His death, which took place in the 58th year of his age, was due to cerebral haemorrhage.

AT the recent examination for sanitary inspectors under the Public Health (London) Act, 1891, held by the Sanitary Inspectors Examination Board, twenty-one candidates, of whom twelve were women, passed.

A BILL restricting the sale and dispensing of cocaine and eucaine, their salts and preparations, has passed the New York State Legislature, and has been signed by the Governor. It is to come into effect immediately.

Medical News.

THE Royal Society of Arts has issued invitations to a conversazione at the Natural History Museum, Cromwell Road, S.W., on the evening of Tuesday, June 17th.

THE usual ladies' conversazione of the Royal Society was given on Wednesday evening last. Most of the objects had been shown at the first conversazione, but on this occasion the Antarctic drawings of the late Dr. Edward A. Wilson lent by his widow were displayed.

AN invention by Alderman John Whittaker now being tested at Rishton, near Blackburn, will, it is hoped, among other advantages, dispense with "shuttle kissing," a practice which, however small may be the danger of infection attached to it, is at best a dirty process.

THE annual luncheon of the Continental Anglo-American Medical Society, which is usually held during the annual meeting of the British Medical Association, will be held this year in London on August 7th during the meeting of the International Medical Congress.

MR. ARNOLD JAMES, who has been on the staff of the Metropolitan Hospital Sunday Fund for some years, has been selected by its General Purposes Committee to succeed the late Sir Edmund Hay Currie in the office of secretary.

THE Harben lectures of the Royal Institute of Public Health will be delivered by Professor J. Bordet of Brussels, at 37, Russell Square, W.C., on June 16th, 18th, and 20th, at 5 p.m. The first lecture will deal with anaphylaxis, the second with coagulation of the blood, and the third with microbian variability in relation to sero-diagnosis.

IN a paper in the *Journal of the American Medical Association*, Detwiler, of Omaha, states that he has repeated the experiments of E. H. Ross with the jelly method and has examined scrapings from chancres, the peripheral blood and fluid squeezed from punctured lymph-nodes of syphilitic patients, and has found the parasites and followed most of the phases described by Ross.

WE understand that there has been no fresh cases of cerebro-spinal meningitis at Westerham or in Kent. Dr. Tew, M.O.H. for West Kent, has reported the death of one of the patients at Westerham—a boy aged 11. The schools have been closed and disinfected, and certain books and articles used there destroyed. Complete arrangements have been made to deal with any future cases should they arise.

FRESH accommodation for the nurses is projected at the West London Hospital; they are at present scattered in several houses and rather crowded therein. The late Duke of Abercorn, who was for long the president of the hospital and very anxious to see the nursing staff properly housed, started an appeal fund for this purpose, and in view of these facts and as a tribute to his services, it is proposed to call the building, when erected, the Abercorn Home for Nurses. So far, only about a quarter of the £12,000 deemed to be necessary has been got together, and contributions, however small, will be gratefully received by the Chairman of the Abercorn Memorial Executive Committee, Lord Arthur Hill.

THE different di-electric capacities of Purbeck sand, chalk, and stone were demonstrated by Dr. Mahomed of Bournemouth, by means of an apparatus constructed by him, at a meeting of the Balneological and Climatological Section of the Royal Society of Medicine in that town on May 31st. Dr. Mahomed assumed that negative ions were given off by metals in a glowing state in the undercrust of the earth, and hence surmised that the di-electric properties of the earth would cause an induced positive charge in the atmosphere. He also showed some charts illustrative of the varying potential exhibited when electric currents passed from gravel and sand to chalk, and vice versa.

A CONVERSAZIONE was given at the Royal College of Surgeons of England by Sir Rickman and Lady Godlee on the evening of June 5th, and proved a great success. The theatre from 9.30 onwards was the scene of four successive exhibitions of the cinematographic pictures of big game in Africa, obtained by Mr. Kearton, and in the council room sundry historical specimens, the Hunterian manuscripts, and other objects of lay as well as professional interest were on view. In the conservator's room Dr. Keith provided a demonstration of microscopic specimens and of relics of prehistoric man; and in Room I of the museum Mr. Burne had on view a number of natural history specimens, while in Room III Mr. Shattock provided a corresponding collection of pathological specimens. Meanwhile, and throughout the evening, the Greenhill String Quartette discoursed sweet music, and refreshments were served in the library.

PENSIONS for its members and associate members have been provided by the governing boards of the Rockefeller Institute for Medical Research, New York, and have been financially secured by the generosity of Mr. John D. Rockefeller, who has for this purpose increased the endowment of the institute by a gift to it of securities amounting to about 500,000 dols. in value. The pension rules which have been adopted provide three-quarters pay pensions for members of the institute retiring at the age of 65 after fifteen or more years of service, and pensions of from one-half to three-quarters of full pay, according to the length of service, for members and associate members who retire at 60 years of age. There is also a provision for total disability after ten years of service, and for widows and orphaned children, at one-half the scale upon which members of the staff are pensioned.

THE fourth annual congress of the British Hospitals Association is to be held at Oxford in the last week of this month. It will be opened at 10 a.m. on June 26th by an address from the president of the congress, Sir William Osler, and a discussion on the National Insurance Act and its effect on the hospitals, with a view to the proposed amendment of the Act, will follow. In the afternoon of the same day a discussion on tuberculosis and the general hospitals will be introduced by an address from Sir Thomas Oliver, while on the next day (June 27th) a debate on the upkeep of hospitals will follow the reading of a paper on the subject by Mr. Keith Young, F.R.I.B.A. By permission of the Vice-Chancellor of the University the meetings will take place in the Examination Schools. In connexion with the conference a series of visits to places of interest has been arranged for Friday afternoon and Saturday. The business meeting of the association and the election of officers will take place on Friday. The present chairman is Dr. D. J. Mackintosh, of the Western Infirmary, Glasgow, and the secretaries are Messrs. Conrad Thies and A. Hayes, whose official address is 14, Victoria Street, Westminster.

THE dinner of the Durham University Medical Graduates' Association, which took place under the chairmanship of the President of the Association, Dr. Edridge-Green, on May 30th, brought together a large gathering, the guests including the Vice-Chancellor of the University (Sir George Hare Philipson), the Directors-General of both the Royal Naval and Army Medical Services, and the President of the Royal Society of Medicine (Sir Francis Champneys). Professor E. H. Starling, who proposed the toast to the chairman, referred to Dr. Edridge-Green's valuable and assiduous work in connexion with the subject of colour blindness, a work which still awaited adequate recognition. In acknowledging the toast, Dr. Edridge-Green mentioned that it was from Professor Starling himself that he had received much of the encouragement and support that he required at a time when he was in despair as to the progress of his crusade. In response to the toast to the services, Surgeon-General A. W. May, C.B., Director-General R.N., drew attention to the dearth of candidates for his department, and asked those in touch with newly qualified men to use their influence in obtaining for it recruits. The speeches during the evening were pleasantly interspersed with songs supplied by a number of professional singers.

THE Medico-Chirurgical Society of Bradford, which has now been fifty years in existence, duly celebrated its foundation by holding its annual dinner on the anniversary date, May 28th. There are now only two survivors of the original members, but both of these, Dr. David Goyder and Dr. Harry Meade, were able to be present. The former acknowledged the toast to the society, and gave some account of its earlier history; it had much scientific work standing to its credit, but was perhaps chiefly renowned, he said, in connexion with anthrax, a subject early associated with the name of one of the society's members, the late Dr. J. H. Bell, and at the present time with that of its existing President, Dr. F. W. Eurich. Dr. Goyder, who was for many years a representative of the Yorkshire Branch on the Central Council of the British Medical Association, and not long ago received the well-merited honour of being elected to the position of permanent Vice-President of the Yorkshire Branch of the Association, acted as Honorary Secretary of the Bradford Medico-Chirurgical Society for as long as twenty-five years; he became M.D.St.And. and L.R.C.S. in 1860, this being likewise the year in which Dr. Meade—also a member of the British Medical Association—became M.R.C.S., L.S.A. Both are on the staff of the Bradford Royal Infirmary, the former as consulting physician, the latter as consulting surgeon.

Letters, Notes, and Answers.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, Westrand, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, Westrand, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

A. W., who has employed male fern in the treatment of *Taenia solium* without success, after careful preparation of the patient, asks for further advice.

AMOEBIC HAEMATURIA.

W. (Transvaal) writes: During 1912 amoebic dysentery carried off an enormous number of Kaffir children. We have it every year, but never so bad in my seventeen years' experience of the Cape native territories. Usually, when the rains set in, dysentery becomes less frequent, and this year we had no proper rain till the summer was over. While the epidemic was at its height I saw two adult natives who had haematuria with some pain on micturition; though that is unusual, I expected to find bilharzia ova, and instead I found amoebae. The urine was strongly acid, like the faeces in dysentery. Has amoebic haematuria been noted elsewhere?

DOUBLE CHIN.

JUNO asks for advice in the treatment of a double chin in a young lady not otherwise obese.

*** We are advised that on general principles, unless the double chin is very unsightly, it is better to leave it alone. Gentle massage night and morning with soft grease and firm pressure with a bandage might be of some service, but the treatment should be carefully watched so that the tone of the parts is not diminished.

INCOME TAX.

E. M. H. asks what sums should be deducted in making his income-tax return (1) for the cost of purchase of a new motor car, and (2) the expense of having his old car (which he is still keeping) put in repair.

*** So long as "E. M. H." retains his old car for professional purposes the purchase of a second car is, strictly interpreted, an investment of further capital in his practice, and therefore no portion of the cost of the new car can properly be deducted. On the other hand, the amount spent on putting the old car in repair is a legitimate deduction in arriving at the "balance of profits and gains" of his practice.

ANSWERS.

T. F. C. W.—*A First German Course for Science Students*, comprising a reader and outline of grammar with diagrams and vocabulary, by H. G. Fiedler, Professor of German in the University of Birmingham, and F. E. Sandbach, Lecturer in German at the University of Birmingham (Alexander Moring, Limited, the De La More Press, 32, George Street, Hanover Square, London, W., 1906); or *German Grammar for Science Students*, by W. A. Osborne, M.B., D.Sc., Professor of Physiology and Histology in the University of Melbourne, and Ethel E. Osborne, M.Sc. (Whittaker and Co., 2, White Hart Street, Paternoster Square, London, E.C., 1906), would probably fulfil our correspondent's requirements as a guide in teaching himself to read scientific articles.

LETTERS, NOTES, ETC.

FRACTURE OF CERVICAL VERTEBRA BY MUSCULAR ACTION.

DR. A. A. ANGELIS (Walworth) sends us the following note with regard to the death of a young man found dead in a swimming bath: Although I attended immediately the body was discovered and made a careful examination of all the surroundings I could not find any marks of external violence or any signs indicating that the man struck the concrete of the bath. On *post-mortem* examination I found a fracture of the body and arch of the fourth vertebra (cervical), and on giving evidence at the inquest I expressed the opinion that in the absence of any other cause to account for the broken neck the only explanation, although very uncommon, might be a sudden retraction of the head to avert collision with the bottom on jumping into the water. Such cases are recorded in South's edition of Chelius's *Surgery*.

TREATMENT OF WHOOPING-COUGH.

M.R.C.S., who in the JOURNAL of October 19th, 1912, recommended potassium bicarbonate in the treatment of whooping-cough, informs us that he has received a letter from a reader who then tried the method stating that it proved beneficial in the case of his own daughter.

SCARCITY OF SHIP SURGEONS.

PEGASUS writes: In addition to the reasons mentioned by "Late Ship Surgeon" as a cause of the difficulty steamship companies experience in obtaining suitable surgeons, perhaps the enclosed letter, which was handed to me on joining the ship, may furnish additional explanation. My feelings on receipt of it were to leave the ship forthwith. I have acted as ship surgeon on various lines, but never previously received such an insulting letter from the owners.

*** The letter, which is addressed "The Doctor, S.S. ——, London," is couched in the following terms—the italics are in the original letter:

"Dear Sir,

"You are employed on board this steamer as medical adviser to the crew and passengers from the time she *leaves here until her return to this port.*

"Your specific duty, among others, is to give all possible *professional attention* to the crew as well as passengers, so please see this is done. Should the Master find it necessary to report neglect on your part in this respect, we shall have to treat the matter seriously and in a form that will be as disagreeable to you as to ourselves.

"Yours faithfully,

"—— ——."

MASONIC RECEPTION AT BRIGHTON.

DR. C. H. BENHAM, J.W., 1466 (14, North Street, Brighton), writes: May I, as one of the Wardens of the Hova Ecclesia Lodge, take the liberty of correcting the paragraph on p. 1231 of your issue of June 7th? This paragraph was written by one who is not a member of the craft, and the invitation should be worded as follows: "The Worshipful Master and Wardens of the Hova Ecclesia Lodge, No. 1466, extend a cordial invitation," etc. May I take this opportunity of reminding all Brethren who intend to be present that an early reply will greatly lighten the labours of those who are arranging for this reception? This may be sent to me at the address which appears above. We hope to have a hearty response.

STATUES OF JENNER.

DR. CLIPPINGDALE (London) writes: In the article in last week's JOURNAL dealing with the excursions at the forthcoming meeting at Brighton it is stated (p. 1231) that the statue of Jenner at Boulogne is, "by the irony of fate, the only one in the world." Things are not as bad as this. The Japanese, who are devoted admirers of Jenner, have erected a statue to his memory at Tokio; there is another statue in Berlin, another in Brünn (Austria), another in Gloucester Cathedral, and another in Kensington Gardens. The statue in Kensington Gardens afforded an illustration of the prophet being without honour in his own country during the Jenner celebrations a few years ago. Having read in the paper that on a certain day the Medical Faculty in Berlin would proceed to the Jenner statue in that city and lay upon it a wreath of laurel, I went to Kensington Gardens to see if the statue there was similarly honoured. I found, however, only a group of children playing near it, eating oranges and depositing upon the pedestal bits of discarded orange peel.

A DISCLAIMER.

DR. HUGH T. ASHBY (Manchester) writes: An article appeared in a local daily paper on June 2nd on Child Welfare and Adenoids with my name attached to it. May I be allowed to make it quite clear that the article was not written by me and that my name was put in quite unauthorized?

STANDARD OF PRELIMINARY EXAMINATIONS: A CORRECTION.

SIR HENRY MORRIS has drawn our attention to a printer's error in his article on the General Medical Council and the proposed alteration in the standard of preliminary examinations (BRITISH MEDICAL JOURNAL, June 7th, p. 1217). Line 12 of the article should read: "average yearly number of the five preceding years," and not as printed.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

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NOTE.—It is against the rules of the Post Office to receive *postes restante* letters addressed either in initials or numbers.

The Ingleby Lecture
ON
SPINAL ANAESTHESIA BY TROPACOCAINE;

WITH A REVIEW OF 1,295 CASES.

DELIVERED AT THE UNIVERSITY OF BIRMINGHAM.

BY J. T. J. MORRISON, M.A.CANTAB., M.SC.BIRM., F.R.C.S.ENG.,
SENIOR SURGEON TO THE QUEEN'S HOSPITAL, BIRMINGHAM, AND PROFESSOR OF FORENSIC MEDICINE IN THE UNIVERSITY.

IN the first place I offer my acknowledgements to the Council of the University for assigning to me the honourable duty of delivering this lecture. The roll of the Ingleby Trust includes the names of many distinguished men with whom it is a privilege to be associated. At the same time, I do not forget that the worth of their lectures as a permanent asset to medical literature increases the responsibility resting upon their successors.

And next a tribute is due to the memory of John Tomlinson Ingleby. By his talents and character he gained distinction among his contemporaries as an obstetric physician and teacher. The lectureship was founded in 1876—thirty-one years after his death—to promote the diffusion of medical knowledge, and to link with this purpose the name of a bygone worthy who did much in his generation to build up the reputation of the Birmingham Medical School.

Since Ingleby's day the field of medicine has broadened in all directions in correspondence with the introduction of modern tools and methods from the loom of scientific progress. In particular, the quest for better means of annulling pain during surgical operations has been keen and incessant, with the outcome that there is now at the service of surgery a wide latitude both in regard to drugs and their mode of application. A generation ago an operator had to choose between the suspension of consciousness by narcotics and the numbing of skin by means of ice and salt or ether spray. The arrival of local anaesthetics, together with the experimental study of their properties, marks a new period, and must be reckoned one of the notable medical events in the first decade of the twentieth century.

From the standpoint of minimal disturbance of the nervous system it is an immense gain if surgical procedures can be carried through without functional impairment of the highest centres, and with no derangement, or at most a transient one, of the normal physiology of the medullary centres. On theoretical grounds, therefore, given various methods of inducing surgical anaesthesia, including one which acts selectively on peripheral nerves while exempting the functions of the brain from harmful interference, that method is to be preferred; and it is now a daily commonplace of the operation theatre that the achievement of this result, notwithstanding surgical manipulations of the greatest severity, is practicable by means of a single needle puncture and the injection of a few drops of fluid into the spinal sac.

A procedure of such extraordinary simplicity and efficacy deserves more attentive study and wider adoption than it has yet received in this country, and if this does not appear from what I proceed to say on various aspects of the subject, I shall do less than justice to a convincing array of facts and considerations.

HISTORY.

For the introduction of spinal anaesthesia surgery owes a debt to the chemists and experimental pharmacologists who investigated the properties of the coca plant. *Erythroxylon* (that is red-wood) *coca* is indigenous in South America, where for centuries the leaf has had a vogue with the natives because of its supposed power to ward off the onset of fatigue during prolonged exertion. The alkaloid cocaine was described under that name in 1859 by Niemann, whose report mentioned the numb sensation produced by the drug on the tongue. Several years earlier the alkaloid had been isolated by Gadecke, the actual but now almost forgotten discoverer, and by him named "erythroxyline." Scant attention was paid to the subject until, in 1879, von Anrep carried out a research on the sensory effects of cocaine on the skin. His observations led him to suggest the use of the drug as a local therapeutic agent in man, and although the suggestion was not at once followed up, his experimental work became fairly well known.

The year 1834 is of special note because it dates the famous discovery of the action of cocaine on mucous membranes. The credit of this advance belongs to Köller, at that time a medical student in Vienna. Having tested the action of cocaine on his tongue, Köller reasoned that a similar anaesthesia, innocuous to the tissues, would be likely to result from the application of the drug to the conjunctiva. He put his ingenious idea to the proof, published his findings, and inaugurated a revolution in ophthalmic surgery. Not content with this conquest he proceeded to deal with the laryngeal and other mucous membranes on the same lines. (One may recall in passing another important discovery made by a medical student, namely, the vaso-dilator action of amyl nitrite, which was described by Lauder Brunton when he was an undergraduate in Edinburgh.) From 1884 cocaine ceased to be a mere therapeutic curiosity; it became an invaluable agent pressed into the world-wide service of medicine.

The logical extension of the use of the alkaloid as a local anaesthetic soon followed, American surgeons leading the way. Halsted seems to have been the first to inject a solution along the course of sensory nerves; he operated on a case of talipes by this means in 1884. W. O. Moore described in the *New York Medical Journal* of January, 1885, the effects of auto-injection into his arm. Within a period of eight hours he injected at intervals no less than 3½ grains of cocaine, and on regaining consciousness he says, "I might have exclaimed with Cowper, 'I awoke, like a toad out of Acheron, covered with the ooze and slime of melancholy.'" Which is a less cause of wonder than his survival to tell the tale. He concludes that amputation would be feasible by injecting over the site of the nerves supplying an extremity.

The pioneer of spinal cocainization was Leonard Corning of New York. He conceived the idea of acting on the cord by injecting directly on to the dural sheath, and published an article in October, 1885, on spinal anaesthesia and local medication of the cord by "a procedure in therapy which possesses the merit of novelty." Following up an instructive experiment on a dog, he operated on a neurasthenic patient, his purpose being to annul sensory conduction in the cord. Through the eleventh dorsal space he injected 30 minims of a 3 per cent. solution of cocaine hydrochlorate. As there was no tingling in six minutes (no doubt because the injection was not deep enough), the dose was repeated. This produced impaired sensation in the lumbar regions, lower limbs, penis, and scrotum; motor power remaining unaffected. The passage of a sound was scarcely perceived, whereas it previously caused much pain. Corning adds, "When the patient left my office an hour or more after the injections, sensibility was still impaired to a marked degree, and the patellar tendon reflexes were abolished." Headache and vertigo were complained of the next day. He suggests that such local medication might be useful in strychnine poisoning, tetanus, and hydrophobia; and concludes with the cautious remark, "Whether the method will ever find an application as a substitute for etherization in genito-urinary surgery, further experience alone can show."

Corning thus laid the foundation of the modern procedure. Holding the view that a drug inserted locally acted on the nerves of the part only by way of the blood vessels, he was content to place his solution in contact with the venous plexuses, and it would appear that in the case cited he did not puncture the cerebro-spinal sac. His example was not widely copied, perhaps because cocaine was soon found to be too dangerous a drug for indiscriminate use, or in doses exceeding half a grain. Meanwhile, as surgeons became familiar with lumbar puncture (introduced by Quincke in 1891), further possibilities were indicated, and in 1898 Bier introduced the present method of injection into the subarachnoid space. From observations on lower animals he proceeded to note the effects on man, and his assistant, Hildebrand, and

himself submitted themselves and six patients to the operation. Cocaine was the drug used, and complete analgesia of the lower half of the body was readily induced in every case, while in one patient the effect reached to the scalp. The by-effects, however, were most unpleasant, in the form of vomiting, giddiness, and severe headache. Hildebrand suffered from these symptoms, although just after the injection he was able to dine well and smoke several cigars. Bier thought the troubles were due to escape of cerebro-spinal fluid, and that rest in bed would prevent them; but experience failed to confirm his opinion. On the strength of his observations Bier was convinced that cocaine was too forbidding an agent, and, pending the discovery of a less toxic substance, he dropped the procedure. Bier's work cannot be too highly praised.

Tuffier of Paris continued using cocaine, and in 1900 he reported to the Academy of Medicine a series of over eighty cases in which he had injected cocaine through the third or fourth lumbar space and induced anaesthesia as high as the umbilicus. So satisfied was he with the results that he announced his intention to aim at a higher level of anaesthesia with a view to operations on the liver, stomach, and thorax.

Robert Jones was the first British surgeon to publish his results. In 1904 he read a paper at Liverpool on spinal cocainization, relating cases and advocating the method for suitable operations.

The discovery of stovaine by Fourneau, and the exposition of its properties by Pouchet in 1904, attracted wide attention and gave a fresh impetus to the subject. Prior to this, in 1891, Giesel had isolated the new alkaloid tropacocaine, naming it benzoyl-pseudotropeine. In 1892 it was tested physiologically by Chadbourne, who named it tropacocaine and reported that it was less than half as toxic as cocaine, and much weaker in its action on motor functions. Led by the advocacy of Schwartz several German surgeons tested the drug, with favourable results. This alkaloid has been much used in Germany, but in France and Britain stovaine has been more in evidence, and its use has been strongly advocated by Barker, McGavin, Gray, and others who have given it extensive trial. Novocain was discovered by Einhorn in 1904; it has been employed with great success by Canny Ryall. The present lecture is a further contribution to the possibilities of tropacocaine based on several years' experience.

Barker has done more than any other surgeon in this country to bring spinal anaesthesia to the notice of the profession and advance our knowledge of the subject. He uses a compound solution composed of stovaine 5 parts, glucose 5 parts, and distilled water 90 parts, all by weight. Having a specific gravity of 1023 as against that of cerebro-spinal fluid which is 1007, it sinks on injection to a level which can be regulated by adjustment of the patient's spine.

Gray has written valuable and suggestive papers. He substitutes dextrin for glucose, and claims that it is superior in respect of its indiffusibility.

Babcock of Philadelphia recommends a solution made lighter than cerebro-spinal fluid by the addition of alcohol.

Pharmacology.

As cocaine was the first substance introduced for spinal anaesthesia it remains the standard by which recent drugs are compared as to their toxic and anaesthetic properties. The list of substitutes includes tropacocaine, stovaine, novocain, and alypin. Of these, tropacocaine, like cocaine, is a vegetable alkaloid, all the others being synthetic compounds, and tropacocaine can also be built up artificially. The radicle benzoyl is common to them all except stovaine, which is a benzoate. Both the alkaloids are contained in coca leaves; but it is remarkable that the plant grown in Java, where it is not indigenous, yields a larger percentage of tropacocaine than the Peruvian plant, which fact explains why the commercial alkaloid is obtained from the Javanese leaf.

Each of the five substances named is freely soluble in water, and the solution can be sterilized at 115° C., except that of cocaine which decomposes on boiling. Stovaine will not stand sterilization by exposure to a high temperature as well as its allies, but its antiseptic nature compensates for this drawback. They are all protoplasmic poisons. Le Brocq estimates their relative toxicity as follows:

Taking cocaine as represented by 1—then alypin is 1.25, stovaine 0.625, tropacocaine 0.5, and novocain 0.49.

Injected into the tissues they have a selective action on nerve fibres, especially centripetal conductors, whereby the function of these is suspended, and a temporary block interposed between the centre and the periphery. In this respect the power of cocaine is surpassed by stovaine, and equalled by each of the other drugs. The bias of selection goes beyond a preference for inhibiting nerves rather than other structures, and sensory rather than motor fibres. It is much more discriminating, inasmuch as it does not stop all the composite functions of an afferent nerve simultaneously or to the same degree; so that the epicritic, protopathic, and deep sensibilities are variously affected. Taking tropacocaine as a type, we find that it subdues the perception of pain before stopping the sensations of touch, temperature, pressure, and position. Hence some clinicians prefer to describe the result as a condition of analgesia: this description is too restricted, and it is unnecessary to drop the term "spinal anaesthesia" originally proposed by Corning. When the action is complete the patient is not conscious of having any part of the body below the ribs.

For clinical purposes the list of agents has been narrowed down to three—stovaine, tropacocaine, and novocain. The aqueous solution of stovaine gives an acid reaction, and is easily rendered inert by a trace of alkali; some of the reported failures of stovaine to produce anaesthesia have been accounted for by the fact that the solution was stored in ampoules of glass containing soluble soda. In a 5 per cent. solution it has a haemolytic action, causing the red corpuscles to swell and break up. Tropacocaine gives a neutral solution in water, and is less irritating to the tissues than stovaine; it is also said to have less inhibitory power over motor nerves. Novocain is a very similar substance; its anodyne effect seems to be more fleeting, but against this can be offset its virtue as a non-irritant to the tissues in the strength ordinarily employed. This property gives novocain pre-eminence as a local anaesthetic.

Technique.

The spinal anaesthetist should think surgically and wear gloves. He is doing a piece of work that is simple enough, but demanding strict cleanliness of skin and apparatus, and my practice is to make the puncture myself. For the patient's back a coat of iodine solution is sufficient.

The instruments should be reserved strictly for the sole purpose of spinal anaesthesia. I use a Record syringe, which is easily sterilized, and steel needles made to my design by Down Brothers. The point is short and sharp, and the stem opens funnelwise into the base, so that the steel wire stylet can be promptly slipped into the canal. Everyone knows the difficulty of inserting a wire into a shouldered hollow needle except from the pointed end. Delay caused by boggling attempts to clear the eye of the needle when *in situ* should be specially avoided in the case of nervous patients. The needles vary in length from 6.5 cm. to 8 cm., and in diameter from 16 to 18 standard wire gauge. A needle must be discarded if it becomes brittle from repeated rusting, or it may break when being inserted, an accident which has happened in my hands; the piece was promptly extracted, and no ill result followed.

Tropacocaine in the form of a solution of the natural alkaloid can be obtained from the manufacturing chemist in glass ampoules. My earliest supplies came from a German firm, but the quantity did not always accord with the label, nor was the strength of the solution apparently uniform. Latterly I have been supplied with a reliable preparation by Allen and Hanburys. Each ampoule contains 1.5 c.cm. (say 25 minims) of a 5 per cent. neutral solution in normal saline, having a specific gravity of 1.016, and freezing at −1.13° C.

The dose is graded according to the patient's weight, allowance being also made for the modifying factors of age, state of health, and the desired level of anaesthesia. A dose of 1 grain of tropacocaine—that is, 20 minims of the 5 per cent. solution—is suitable for a healthy person weighing about 11 st. The maximum single dose I have given is 24 minims. For a child 1 year old 4 minims

would be enough. Debility and old age are indications for decreasing the quantity injected, and in such conditions I never leave more than 1 c.cm. in the syringe—that is, 17 minims—and since 2 minims remain in the needle, 15 minims is the maximum quantity injected, representing ¾ grain, or about 5 cg. After the lapse of forty or fifty minutes, if sensation is returning before the operation is finished, I give a second injection of 8 to 12 minims; alternatively—and as a rule this is the more convenient course when a very few minutes are needed—the last stage of the operation is done with the aid of a general anaesthetic, and it is impressive to see what a surprisingly small amount will suffice, deep narcosis being quite unnecessary.

The patient may be seated or lie on either side, but in the sitting position the puncture is more conveniently made and the needle less likely to stray from the right path. When well enough he sits on the side of the table with his feet on a chair, and leans well forward to round the back and separate the spinous processes; and with elbows on thighs he rests his head on his hands. In cases of serious abdominal disease or of great debility the lateral posture is always necessary, and must also be adopted if a second, and smaller, injection has to be given before the operation is finished. The back is curled into an arch by approximating the chin to the knees, and whenever this is impossible, owing to abdominal distension or other cause, any twist of the spine should be carefully noted and allowed for on insertion of the needle. By attention to this detail a puncture can always be made unless there is unusual deformity.

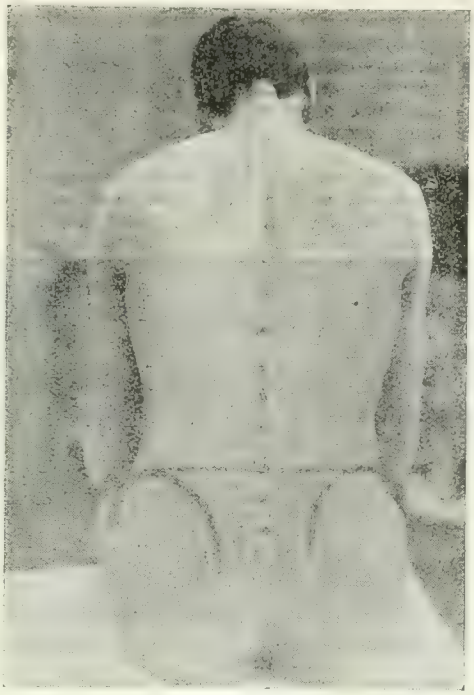


Fig. 1.—Showing the line which defines the fourth lumbar spine.

With regard to the site of puncture, the place of election is the second lumbar interspinous space. Here the needle enters below the spinal cord between the divisions of the cauda equina, and the interval between the spines is well marked; but the third space is almost equally accessible, and I often choose it. A valuable guide in counting the lumbar spaces is a line drawn across the back from the highest point of one iliac crest to the other; this line touches the fourth lumbar spinous process. A successful injection at the site mentioned produces anaesthesia of the lower limbs and trunk as high as the umbilicus, and by raising the pelvis on a sandbag sensation is lost up to the nipple line. For operations on the upper abdomen and kidney I inject through the tenth or eleventh dorsal interspace for choice, and although I have on several occasions gone as high as the ninth, I have come to the conclusion that the tenth dorsal space marks the highest limit beyond which it is not prudent to apply the procedure.



Fig. 2.—Position of choice, with the patient sitting up. The injection is being made in the middle line through the second lumbar interspinous space.

The needle, armed with stylet, is inserted in the middle line, just above the lower spine of the selected space, and is pushed steadily in the sagittal plane to a depth varying in adults from 4 cm. to 8 cm. From infancy to adolescence the distance of the dura from the skin varies between 1 cm. and 4 cm. In the lumbar region the track of the needle is almost perpendicular to the surface, with a slight inclination upwards, the angle between the needle and the skin being about 80°. In the dorsal region the upward deviation increases conformably to the overlapping of the spinous processes. If the point of the needle encounters bone in its path to the theca it must be partially withdrawn and then pushed home in a slightly altered direction. In rare instances it may be necessary to explore another space before entry is effected; most exceptionally the attempt may have to be abandoned, owing to crookedness of the column, unusual bony formation (as in osteo-arthritis), or extreme fatness of the patient preventing definition of the spines. Beneath the skin some resistance will be felt when piercing the supraspinous and interspinous ligaments, and to a less degree at the dura mater; the former may be so hard as to render a lateral puncture preferable, but the needle is then more likely to prick a nerve within the theca. The act of piercing the dura mater is perceived by the sudden loss of resistance.

Assuming a satisfactory puncture into the subarachnoid space, on withdrawing the stylet cerebro-spinal fluid at once flows out in drops or in a jet which intermits with the respiratory movements. Above the first lumbar space the stylet must be withdrawn as soon as the ligaments are pierced, and the needle then pushed cautiously through the dura mater. A scanty tapping may be due to one of several causes:

1. Low tension of the sac.
2. Occlusion of the eye of the needle by a fragment of tissue picked up *en route* or by a nerve within the sac.
3. Incomplete puncture of the theca, so that the eye is not entirely within the sac.
4. Perforation of the space, so that the needle's point is up against the posterior common ligament and the eye partly outside the sac.

One or other of the following means will generally succeed in increasing the flow: Making the patient cough, rotating the needle, inserting the stylet to clear the eye, varying the depth of puncture, aspirating with a syringe. In this connexion the observations of Lusk are pertinent. In several dissections he found the arachnoid and cord adherent posteriorly, so that the subarachnoid sac could only be reached by perforating the cord. Below the cord similar adhesions were found in some cases between the arachnoid and nerve bundles of the cauda equina.

Abnormalities of the sac undoubtedly occur and may prevent easy access to the cerebro-spinal fluid. If only blood escapes, the needle should be withdrawn and another space punctured.

A free outflow of cerebro-spinal fluid is ideal, for it proves that the needle is so placed as to ensure delivery of the full dose of anaesthetic into the subarachnoid space. Injection of a portion of the solution outside the theca explains most cases of imperfect anaesthesia, and must be guarded against by correct insertion of the needle and avoidance of displacement when connecting the syringe.

I collect and throw away 1 to 2 drachms of cerebro-spinal fluid, and attaching the syringe charged with a suitable dose from an ampoule, I draw, if possible, 2 c.cm. into the barrel to warm the dose; the mixture is then slowly injected. Stoppage of the flow when aspirating implies that a nerve filament has been drawn into the eye of the needle, and without further ado the injection is made, although little or no fluid has run into the syringe. As a rule it is not advisable to inject unless there has been a free escape of cerebro-spinal fluid; but the rule is not absolute, and exceptionally I have found it better to wait and see the result of injection before making a second puncture. Care must be taken not to disconnect the syringe before removing the needle. On removal of the needle the spot is sealed with collodion.



Fig. 3.—Showing screen which hides the field of operation from the patient.

My object in abstracting fluid is to delay absorption by reducing the tension of the sac. Perhaps, too, hypertension due to irritation of the sac is not so likely to occur, and thereby the tendency to headache is diminished.

The patient, lying recumbent and with his hands resting on his head, is next brought into the theatre; and the field of operation is hidden from him by a towel hung upon a wire frame stretched above his chest. Over this the surgeon can glance at will to observe the patient's face.

Phenomena of Spinal Anaesthesia.

The earliest effects are subjective. In less than a minute there is a feeling of increased warmth in the feet, quickly followed by tingling merging into numbness, which flows wavelike to the thighs in the next two or three minutes. Impaired tactile sensibility deepening into anaesthesia comes on rapidly, first in the coccygeal and anal regions, then in the feet, and travels upwards to the trunk. A common remark at this stage is "My legs are sleepy." The upper limit varies with site of injection, dose of anaesthetic, and posture of spine; it frequently reaches the nipple line, and may extend to the clavicles and upper limbs. Above the level of lost sensation there is a zone of blunted feeling several inches wide.

Objectively the knee-jerks soon disappear, and, a little later, the plantar and cremasteric reflexes. With the onset of motor paresis the patient notices that the lower limbs feel heavy, and until reassured he may be uneasy on finding that he cannot lift his feet from the table. Loss of motor power follows the lead of anaesthesia, but is never so high or complete. In particular the abdominal muscles become quite flaccid, and in acute peritoneal conditions the contrast to the previous board-like hardness is remarkable. In high anaesthesia the intercostal muscles are put out of function from below up to a variable level. Breathing may thus become almost entirely diaphragmatic in association with diminished rate and depth of respiration. This produces a sense of pressure on the chest, and another symptom which may be termed the "xiphoid tug," that is, a dragging sensation referred to the end of the sternum. Intercostal paresis is, however, by no means invariably present, even with anaesthesia above the nipples, as I have repeatedly demonstrated by directing the patient to cough. Yawning as a sign of air-hunger is very rare in my experience of tropacocaine.

The pulse-rate is not uniformly affected; as a rule it is first accelerated and slows down later on; exceptionally it may show no alteration. Some degree of syncope is common, and is accompanied by pallor of the face and sweating of the brow. One patient, a healthy young man operated on for radical cure of hernia, fainted on the table. An incident of such extreme rarity is matched by the case of another man who fainted in the anteroom before any preparation was made for injecting him; the cause here was clearly emotional. These conditions are not serious, and are combated by a whiff of smelling salts, or a tablespoonful of whisky, or ether and strychnine *sub cute*. Bathing the face with cold water is also refreshing.

Vomiting is another incident of faintness. It is uncommon, and never violent nor continuous. By raising the blood pressure it does more good than harm, and as it is soon over it scarcely delays the operation. Priapism is comparatively common to the extent of moderate turgescence. Relaxation of the anal sphincter and unconscious escape of the rectal contents occur not very infrequently. I have known this happen after relief of a strangulated hernia before the patient left the theatre. Very often it is simply the return of the residue of an enema, and in abdominal operations the advantage exceeds the inconvenience.

The most dangerous, and happily the rarest, symptom is stoppage of breathing. This occurred in one instance only among the series of 1,295 reviewed. The facts of the case are as follows:

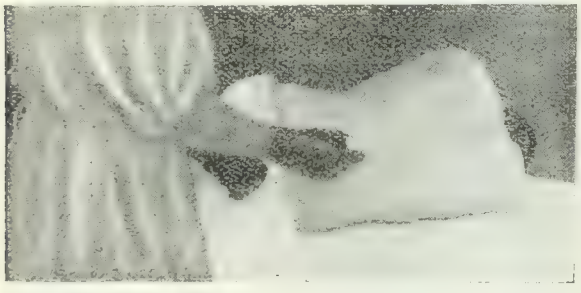


Fig. 4.—Injection in the lateral position.

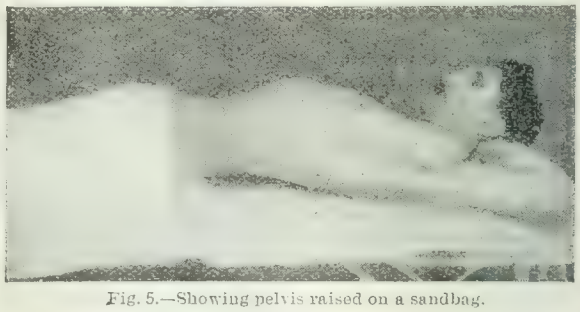


Fig. 5.—Showing pelvis raised on a sandbag.

Stoppage of Breathing.

H. R., aged 69, seen in consultation with Dr. Alfred Stanley of Leamington. He was suffering from jaundice due, in my opinion, to cancer blocking the common duct. As the patient thought his disease might be gall stones, he requested me to explore, and he was admitted to the Queen's Hospital for this purpose. I decided to operate under spinal anaesthesia, and injected 1 c.cm. of a 5 per cent. solution of tropacocaine into the tenth dorsal space, the patient being in the sitting posture. Within three minutes, and while lying on his back talking quietly to me, his speech and breathing suddenly failed. Ether and strychnine were at once injected, and artificial respiration began by a combination of the Sylvester and Laborde methods. Each pull on the tongue evoked contractions of the sterno-hyoid and sterno-thyroid muscles, but there was no perceptible

response by the diaphragm. After three minutes (the time is, of course, estimated, as attention was concentrated on recovery), as I was not satisfied with the entry of air, I opened the trachea. At that time faint heart beats could be detected, but there was no pulse at the wrist. Artificial respiration was maintained for about five minutes longer before natural breathing returned, and the pulse reappeared at the wrist. His condition became so good that it was possible to open the abdomen and ascertain the presence of a hard growth in the head of the pancreas. The abdominal and tracheal wounds healed by first intention, and the patient left the hospital ten days later apparently none the worse for his alarming experience. I heard subsequently that the disease had pursued its gradual course to the inevitable end.

In another case of jaundice the depth of respiratory depression made it advisable to give artificial help. The notes are as follows:

Jaundice: Respiratory Depression.

A woman, aged 73, sent to me by Dr. Ainscow of Warley. Suffering from gall stones, diabetes, bronchitis, an intermittent heart, and rigid arteries, she was a bad subject for any operation or anaesthetic. Two hours before operation a small dose of scopomorphine was given subcutaneously. The anaesthesia induced by 1 c.cm. of tropacocaine solution in the tenth dorsal space was very satisfactory, and all went well until the gall bladder was being emptied of its eighty-six stones, when the breathing became very shallow. After rhythmic pressure on the chest for a minute or two natural breathing became deeper and no further aid was required. Three stones were removed from the common duct, which was drained, and the gall bladder excised. She was very cheerful and pleased with herself when she called to see me a few weeks ago, though troubled with bronchitis and shortness of breath. I do not think I have tested the value of spinal anaesthesia more severely than in this case.

The anaesthesia lasts from thirty to ninety minutes, the average duration being about sixty minutes, and it ebbs through a stage of gradual recession. The variations depend mainly on the dose relatively to the particular patient—that is to say, the same dose will have a more prolonged effect on a light or asthenic patient than on one who is heavier and more vigorous. I am strongly opposed to giving a dose calculated to act far beyond the requirements of the operation, for if the anaesthesia recedes too soon a second injection of a half-dose can be given, or recourse may be had to general anaesthesia. The receding stage of blunted sensation is quite adequate for much operative work when reinforced by the twilight sleep of scopomorphine.

It is of interest to note the behaviour of patients on the table. Even to the most phlegmatic the prospect of an operation is not alluring, while to the highly-strung it may bring acute apprehension. Fear adds considerably to the risk of general anaesthesia and is not allayed by strange odours and bewildering sensations. Not seldom there is physical pain to boot. Now in both these relations, the psychic and the physical, spinal anaesthesia offers a genuine advantage. Forewarned of the needle and its effects, the patient regards the momentary prick as a trivial matter, and with the rapid onset of anaesthesia anxiety is replaced by an emotion of pleased surprise which is the best possible calmative. While the house-surgeon is taking notes, the ward sister stands by to give attention and to divert the patient with quiet conversation. Most patients prefer this course; those who have had scopomorphine go to sleep; others do the same without the aid of drugs; children are amused with a toy; now and then a cup of tea or a cigarette is asked for and given; and on occasion a patient indulges in singing or whistling. A question sometimes asked after an operation is finished is, "When am I going to have my operation?" and the patient is incredulous on being told that the diseased appendix or painful piles have been removed.

In no class of case is the benign effect more obvious and gratifying than in acute abdominal conditions such as fulminating appendicitis or perforated ulcer. Within five minutes of the injection the agonizing pain is subdued, the face loses its expression of suffering, and the erstwhile rigid muscles, now toneless, permit deep palpation which is unperceived by the patient.

In fine, the general attitude is one of placid self-possession and complete mental detachment from the surgical proceedings in progress. Those who have not witnessed the procedure will find a new sensation in the strange, I had almost said uncanny, experience of hearing a patient quietly chatting with the nurse while his viscera are being short-circuited or his gall bladder emptied.

By-effects.

In a large majority of the cases by-effects are conspicuously absent, and with the return of sensation the normal physiological state is resumed, apart from any disability incidental to surgical operation. The patient, having suffered no mental clouding, returns to his books and conversation, or goes to sleep. Food may be given with discretion, and this is a boon to old and weakly people; but, in view of possible vomiting, the first meal should be small and simple.

The ward scenes after spinal anaesthesia are in marked contrast to what is commonly presented after ether and chloroform. The absence of noisy crying, restlessness, and bouts of vomiting, does away with the need of special attention, and is appreciated both by the nurses and other patients.

The most objectionable by-effect is headache, and it is also the most capricious and puzzling. In 5 per cent. of the cases it is severe, persisting for several days; and in another 10 per cent. it is more or less present. Why so many should go scot free I cannot say, nor can I explain cases of which the following is a type. A woman aged 32, sent to me by Dr. Worsley of Coventry; after spinal injection for colotomy she had two sad days of headache, whereas on two subsequent occasions when she had similar doses of tropacocaine for operation on a recto-vaginal fistula and removal of sutures there was no discomfort. With regard to adults, apart from the fact that persons prone to headache on slight cause furnish the largest group, I know no ascertained relation to age, sex, disease, site of puncture, or posture of the patient. Since the symptom is met with after puncture without injection, a slight lesion is obviously an exciting cause, and altered tension of the sac is a not unreasonable conjecture. As a disagreeable sequel of anaesthetics it is not peculiar to spinal injection, and its importance need not be unduly magnified. Nor is it necessary to put suggestive questions to patients with a view to eliciting a complaint of headache. The common type is occipital, and it is aggravated by movement of the head. Aspirin in 10-grain doses is a good remedy, but not a specific.

Vomiting occurred in 7 per cent. of the cases—a proportion which can be reduced by deducting gastric and gall stone cases. As a rule it is a trivial symptom quite unlike what is frequently noticed after general anaesthesia. Indeed the comparative immunity from post-operative vomiting is a strong recommendation of the procedure; the patient is not sick or sorry; he is spared the strain of movements which would cause pain and delay repair; he has less need of anodynes; and nutrition being unhindered, he has a comfortable sense of well-being.

A less frequent trouble is backache, which may be complained of as a dull feeling along the spine, never serious, and gone in a day or two. Tolerance of this symptom, as of headache, varies with a patient's neurotic tendency and sensitiveness to pain in general.

Notes were made on the urine of 20 patients, taken at random, who were free from albuminuria before operation. After injection, albumen was found in the urine of 5 of these as follows: Two showed a faint haze in the first specimen only; 2 showed a faint haze in the first specimen and in each subsequent specimen for thirty-two and thirty-five hours respectively; 1 showed a faint haze in the third and fourth specimens passed at the fifteenth and twentieth hours respectively. So far as they go, these few observations indicate that tropacocaine is not an intense protoplasmic poison, and that in this respect it compares favourably with other anaesthetics.

A slight rise of temperature is exceedingly common after any major operation. I find no proof that tropacocaine augments this tendency. In a series of 20 cases, 11 showed a rise of temperature ranging from half a degree to two degrees, in 6 there was a fall of a fraction of a degree, and in 3 the temperature remained normal.

Retention of urine needing a catheter is uncommon, and in the few cases coming under my notice the cause was largely psychic.

No case of the 1,295 reviewed has come to my knowledge in which any lasting ill effect has followed the injection. Some observers have reported the occurrence of ocular and other paralyses persisting for weeks and in the case of the sixth cranial nerve for months. Such untoward results are very infrequent after spinal anaesthesia

with any drug, and are not unknown after simple lumbar puncture; but to whatever extent they may be attributable to other agents, I have not encountered a single instance of them as a sequel of injection with tropacocaine.

Lastly, the spinal method is exempt from several grave concomitants of ether and chloroform—namely, pneumonia, bronchitis, and acid intoxication.

Biological and Physical Data.

An inquiry into what happens within and beyond the cerebro-spinal sac when an anaesthetic is injected opens up a number of questions that are more easily asked than answered. Problems yet unsolved have elicited ingenious guesses, which in their turn have given rise to profitable debate and research; but further investigation is demanded if the gaps in our knowledge are to be bridged.

The average volume of cerebro-spinal fluid in an adult is estimated at about 70 c.cm., that is, 2½ fluid ounces nearly. It is derived from the blood plasma through the agency of the choroid plexus, but whether by dialysis or secretion physiologists are not agreed. The cells of the basement membrane look like those of secretory organs, and the fluid itself closely resembles the secretion of the lacrymal glands. Specimens examined by me immediately after collection were neutral to the phenolphthalein test, but became alkaline on short exposure to the air, probably owing to oxidation of proteins. This observation conflicts with Tuffier's statement that the cerebro-spinal fluid is distinctly alkaline. The specific gravity of my specimens averaged 1.007.

When an alien fluid is injected into the spinal canal it is distributed by three forces—propulsion, gravitation, and diffusion. Bier suggests another factor—namely, displacement of the column of fluid by change of posture. This seems very dubious, and is only mentioned because of the respect due to so great an authority on spinal anaesthesia.

Forcible injection would propel currents of the solution in various directions, and is to be deprecated. With gentle injection propulsion is negligible.

Gravitation can be taken advantage of within limits to localize the solution in a chosen part of the canal. Since the specific gravity of tropacocaine solution is 1.016, it begins to sink through the lighter cerebro-spinal fluid to a level determined by posture—upright, lateral, or dorsal; and its action is most evident on the nerve filaments over which the concentrated solution flows, and with which it remains longest in contact by temporary stasis.

Diffusion is of the utmost importance, for it results in uniform blending of the fluids throughout the subarachnoid space, and the drug, in an attenuated form, is thus brought into close relation with that part of the nervous system which lies beneath the cranial wall of the sac. So rapid is the movement that Rehn found methylene blue in the lateral ventricle of a horse ten minutes after injection with a solution of sugar into the lumbar region of the sac. When the anaesthetic solution is a mixture of diffusible substances, each component diffuses at its proper rate, as in a test tube, subject to the selective action, if any, of the mural cells. Hence the continuous action of the drug at its original 5 per cent. strength is very brief in whatever part it may reach by gravitation with a heavy menstruum.

By osmosis through the pia matral sheath tropacocaine invades the spinal nerve roots in the sac, and inhibits their conductivity. The same statement probably holds good in regard to the spinal cord to a degree far short of complete transverse blocking.

When the drug diffuses into the cranium it is similarly conveyed by osmosis to the medulla and other underlying nervous structures. This appears to be a consideration of greater weight than is generally held, and I suggest that the contingent risks of spinal anaesthesia by the drugs now in use would be largely reduced if their toxic effect on the medulla could be counteracted. Attenuation of 1 grain of alkaloid in 2 oz. of cerebro-spinal fluid is not sufficient protection to the medullary centres when their stability has been undermined by serious disease. Nor should it be overlooked that the action of poisons inserted in the cerebro-spinal sac is far more intense on the nervous system than when they are conveyed by the blood stream.

Falkenheim and Naunym have shown that drainage from the cranio-vertebral canal is mainly viâ the cranial portion and into the venous sinuses. The diverticula of the sac projecting into the longitudinal and cavernous sinuses (Pacchionian bodies) afford an easy route directly into the blood, but probably the theca is everywhere permeable. Mestrégat holds that permeability is only in one direction—namely, from the cerebro-spinal sac to the blood. The outward current is far from sluggish, for Leonard Hill has found methylene blue in the bladder and stomach within twenty minutes of its injection into the sac. Since the freezing-point of cerebro-spinal fluid is -0.59° C. and of the tropacocaine solution -1.13° C., the osmotic pressure is increased.

Little is known as to how long an anaesthetic may remain in the spinal canal. Rehn noted the presence of tropacocaine, novocain, and stovaine in the sac three hours after injection, and his observations led him to conclude that tropacocaine was the first to be eliminated by the kidneys and stovaine the last. Barker has found stovaine still present in the sac twenty-four hours after injection; in a specimen he obtained forty-six hours after he could find no stovaine, but the fluid was turbid and contained leucocytes. In one instance in which I withdrew cerebro-spinal fluid forty-one hours after injection of tropacocaine an analysis made for me by Allen and Hanburys detected no trace of an alkaloid; moreover, the fluid was perfectly clear and free from opalescence. Barker has detected traces of stovaine in the urine as late as the seventy-fifth hour after injection; this substance is therefore expelled very slowly.

Lowering of Blood Pressure.

The danger incidental to spinal anaesthesia lurks in the lowering of blood pressure. A rapidly induced and transient depression equal to 30 mm. of mercury may be tolerated by a person in sound general health, whereas in the presence of grave morbid conditions the consequence may be alarming.

In a number of cases I have had the blood pressure noted during operation; as a rule it fell within three minutes of injection, reaching the lowest point in about ten minutes; and I have known the descent amount to 50 mm. of mercury. But in some cases there was no fall of blood pressure, and in one a rise was noted.

I attribute the phenomena of faintness and respiratory depression to three causes acting in sequence and then in conjunction: (1) Blocking of afferent paths; (2) paralysis of intercostal muscles; (3) toxic impairment of medullary centres.

1. The area of the body switched off temporarily from functional connexion with the central nervous system is very extensive. In normal states every tissue emits a continuous stream of organic sense impulses flowing to the centres and influencing their functions. A single impulse, to be sure, is minute, but the abrupt interception of multitudinous impulses, however small in the unit, cannot be a light matter, and may derange the complex mechanism of the great centres beyond recovery. Such an event, though possible in any case of extreme asthenia, is of very rare occurrence; but more or less depression of the blood pressure is frequent.

In the case cited above dangerous signs ensued within three minutes of injection. Setting aside as negligible quantities the slight change of tension in the cerebro-spinal sac and the minute dose of alkaloid absorbed into the circulation, afferent blocking appears to be the proximate cause of the phenomena.

2. The observations of Gray and Parsons, confirmed by their research work in this university, prove that a rapid fall of blood pressure is associated with impairment of thoracic breathing as the dorsal nerves become inhibited and the intercostal muscles put out of action. This factor, however, does not operate in every case.

3. Toxic effects on the medulla may reasonably be expected to coincide with diffusion of the drug into the cranium, and are probably reinforced by the small amount circulating in the blood stream. Not infrequently low arterial tension and faintness supervene ten to twenty minutes after injection, in spite of ample costal breathing. The additional factor that has here come into play is poisoning of the medullary centres.

SCOPE OF THE PROCEDURE.

No progressive step in surgery can escape the ordeal of a probationary stage for the appraisement of its value, and during the past ten years spinal anaesthesia has been submitted to stringent tests at the hands of many operators bent on learning the facts about its alleged merits and demerits. Speaking for myself after unbiassed and ample experience, I am convinced that spinal anaesthesia has established its claim to be considered a distinct advance in practice and its right to a recognized place in our equipment. This is far from implying that other methods can be dispensed with; but the time has come to concede that spinal anaesthesia is entitled to a deservedly high position in their company.

Region.

The best way of demonstrating the possibilities of the procedure is to point out what has been done by its aid. Accordingly, I submit a table giving a broad classification of my cases at the Queen's Hospital:

SPINAL ANAESTHESIA BY TROPACOCAINE.
List of Operations.

Ablation of penis	1	For hernia (umbilical)	4
Ablation of penis and testes	1	For hernia (ventral)	11
Amputation through knee	3	For hydrocele	36
Amputation through leg	4	For ruptured ectopic gestation	2
Amputation through thigh	10	Gastro-enterostomy	7
Appendicectomy (acute stage)	61	Gastrostomy	3
Appendicectomy (quiet stage)	85	Jejuno-jejunostomy	1
Cholecystectomy	5	Laparotomy	24
Cholecystotomy	13	Nephrectomy	5
Choledochotomy	3	Nephropexy	30
Colotomy	10	Nephrotomy	8
Cystotomy and cystoscopy	36	Oöphorectomy	1
Division of anal fistula	92	Orchectomy	10
Enterectomy	3	Ovariotomy	2
Excision of rectum	3	Plating and suturing bones	12
Excision of semilunar cartilage	12	Prostatectomy	5
Excision of tumours	30	Sciatic nerve stretching	3
Excision of varicocele	63	Sequestrotomy	13
Excision of varicose veins	63	Ureterotomy	2
For haemorrhoids	124	Urethrotomy	18
For hernia (femoral)	34	Miscellaneous	67
For hernia (inguinal)	375	Total	1,295

These cases, which are consecutive and in no way selected, have been open to observation in a public institution, and under the close scrutiny of a succession of house-surgeons whose interest and assistance I cordially acknowledge. My records show that many types of subdiaphragmatic operations have been successfully performed under tropacocaine. I do not advocate carrying the upper limit above the diaphragm (although in one case I resected a piece of the sixth rib), but the table definitely proves that below the costal border any operation is practicable under spinal anaesthesia.

Jonnesco of Bucharest uses the method for all his operative work, employing for the purpose a mixture of stovaine and strychnine. By injecting through the first dorsal space he is able to operate painlessly on any part of the head or upper limb at pleasure. In this country Jonnesco's practice has very few adherents, and the reports which have come to my knowledge are so discouraging that I am opposed to this extension pending the introduction of safer means.

As at present advised, therefore, I exclude from the legitimate province of spinal anaesthesia all parts of the body above the level of the xiphisternum.

With regard to the suitability of the patient, the question may be considered in relation to age, disease, and psychic state.

Age.

I am not aware of any prohibitive age limit at either extreme of life, certainly not after the age of 1 year. The youngest in my series was a case of intussusception in a baby 11 months old, sent by Dr. Kirby of Smethwick. The dose I injected—namely, 6 minims—was needlessly large and induced shallow breathing, though not to a degree requiring artificial respiration. The stillness of the abdomen rendered the operation of laparotomy and reduction of bowel from the splenic flexure a simple matter, and recovery was uninterrupted. In a child aged 2 years a dose of 5 minims had to be supplemented by a second injection of 4 minims, after which he showed his indifference to the proceedings by going to sleep during the operation for radical cure of his hernia.

The oldest case in the series was a man, aged 81, for whom I did partial resection of a carcinomatous bladder. Here, too, the method was very successful, and a good recovery followed. (In private the method answered well in an operation on a lady, aged 95, whom I saw in consultation with Dr. J. H. Brice, of Edgbaston. She was suffering from intestinal obstruction, for which subumbilical colotomy was performed: this gave temporary relief but not a new lease of life, and she died from exhaustion the next day. The nurse, who was prejudiced against spinal anaesthesia by what she had seen of stovaine injection elsewhere, expressed great satisfaction on noting the patient's good general condition and freedom from pain during the operation.)

Physical State.

Coming to the question of a patient's physical condition of disease or health in its bearing on spinal anaesthesia, what here follows is to be taken subject to the provisoes that the proposed operation is within the region assigned to the method, and that the contraindications mentioned below are excluded. The ground is partly cleared by the fact that opinion is unanimously in favour of the method where there is serious respiratory trouble, impending uraemia, diabetes, and heart disease with broken compensation. It is also held to be preferable when an emergency operation has to be done on a patient who has just had a meal. These points are settled by consent, and the wide field beyond will be more or less occupied by spinal anaesthesia according to a surgeon's confidence in the method. My own experience tallies with that of others who have found the results so satisfactory that they have come to apply the method wherever feasible, irrespective of the patient's physical state. I have dealt with all gradations between robust health and extreme illness. Healthy persons—for example, young men requiring radical cure of hernia—give no anxiety either at the time or afterwards, and, so far as I know, a fatality in this group has never been recorded. At the other end of the scale, where the power of resistance is reduced to the verge of zero and life is trembling in the balance, the weight of a feather may turn the issue the wrong way. In these circumstances it is perilous to add to the ravages of disease the burdens imposed by emotional disturbance, an anaesthetic, and an operation; and not only is the death-rate necessarily high, but it is also impossible to assess the proportionate influence of the several adverse factors. Hence the fallacy of figures purporting to measure the comparative risks of anaesthetics. I believe, however, that in the critical conditions here contemplated spinal anaesthesia offers the best chance, however slender that chance may be; and I am satisfied that the formidable element of surgical shock is excluded by the barrier set in the path of afferent impulses. The power of preventing shock or the increase of existing shock is precisely the attribute above all others which distinguishes spinal anaesthesia as a means of life-saving in connexion with surgical acts of unusual hazard.

Acute abdominal lesions present a specially promising field for several reasons. Not only is there immunity from systemic surgical shock, but the local form which results in paresis and subsequent distension of bowel is likewise in abeyance. Moreover, the muscular walls offer no resistance to retraction of the wound or to its closure by sutures; and the intestines show no tendency to gush from the cavity, partly because of the remarkable stillness resulting from quiet breathing and the absence of forcible straining, and partly because peristalsis is not inhibited. Handling and replacement of protruding loops of bowel are thus minimized and exploration greatly simplified. Further, there is an important post-operative advantage in the relative non-liability to vomiting with its attendant risks of disturbance of the wound and abdominal contents. Taken collectively these favourable features constitute a strong plea in support of the method, and I have proved their value in many cases, among which may be cited closure of perforated typhoid and other ulcers, resection of gangrenous bowel, and operations for acute intestinal obstruction and septic peritonitis.

No surgeon who has given the procedure a reasonably

extended trial will entertain the smallest doubt that by its aid he has saved lives which would otherwise have been lost; and no surgeon who intends to keep in touch with progressive methods would feel justified in ignoring the evidence now forthcoming as to the utility and relative safety of spinal anaesthesia.

Chronic alcoholics are welcome neither to the anaesthetist nor to the surgeon; but they are relatively good subjects for the spinal method, in the sense that they are very obnoxious to ether and chloroform—hard to get under, and hard to keep under within safe limits of narcosis. A patient of this type reaps the full benefit of the physical calm peculiar to spinal anaesthesia in all stages before, during, and after operation. Within three or four minutes of the injection he passes without struggle or excitement into a state of quiescence marked by paresis of all muscles below the ribs, and this condition is maintained throughout and beyond an average operation. Whether the patient be an alcoholic or not, and whatever the form of his disease, violent muscular efforts during or just before an operation are always injurious, and in some abdominal conditions are attended by grave risks. The absence of all physical excitement is one of the most attractive features of spinal anaesthesia.

I have not found acute haemorrhage a deterrent. Two cases of ruptured ectopic gestation with copious bleeding were dealt with on the same day—one, a patient aged 29, sent to me by Dr. Mold of Halesowen; the other aged 24—and both did well in every respect.

Psychic State.

Familiarity with narcosis as the only means to an operation is apt to produce a prejudice in its favour, and it might be supposed that all patients would prefer not being conscious during an operation. I find, on the contrary, that few object to the spinal method on that ground; the point of view of many is well expressed by the remark of the man who said he objected to chloroform because he wished to be present at the operation. Once anaesthesia is established, all misgiving vanishes and confidence comes to the most timid.

I have been repeatedly told by patients who have experienced both methods that their preference was strongly in favour of the spinal. As the public become more acquainted with the possibilities of the procedure a larger number of patients will ask for its benefits.

Common to all methods is the factor of some measure of dread with which an operation is generally anticipated. At times this amounts to positive terror, which a nervous patient may be quite unable to control, and which may be more than embarrassing to the anaesthetist and his helpers who are called upon to overcome resistance by force. It is a great relief to all concerned to know that such a distressing and dangerous stage before the performance of a critical operation can be avoided by the use of spinal anaesthesia within its province.

On the other hand, there is undoubtedly a class of patients, more numerous in private than in hospital practice, who dread the idea of consciousness while undergoing an operation, and in the best interests of these complete oblivion of their surroundings may be necessary. If so, it is quite practicable to make use of general and spinal anaesthesia in sequence. Very excitable, sensitive persons are not satisfactory subjects for anaesthesia, but they should not be ruled out of the benefit of the spinal method as though their psychic condition were an absolute contraindication. Hysterical, neurotic women often prove most amenable to tropacocaine, especially if given scopomorphine in advance. Without this supplement emotional persons respond to the moral atmosphere of cheerfulness created by the bearing and remarks of the surgeon and nurses. Before giving the injection I make a point of explaining to patients the steps of the procedure, and the change of sensation it is intended to produce; they are thus prepared for what follows, and generally show a pleased interest in the phenomena. It does more harm than good to worry nervous patients by testing for anaesthesia, or by asking questions that suggest the possibility of pain, particularly when the action of the drug falls short of a complete blocking of all impulses, for they will probably imagine a great deal and misinterpret vague sensations as pain, besides becoming more self-centred. The twofold aim with such persons is to gain their confidence and divert their attention from the actual operation.

CONTRAINDICATIONS.

I have made it an invariable rule to require a patient to remain in bed for several days after spinal injection, and I certainly would not sanction the procedure unless it was going to be followed by at least twenty-four hours' complete rest. Otherwise I should expect trouble from by-effects. Out-patient practice is clearly outside the pale, and is, therefore, an emphatic contraindication.

And so is the presence of septic inflammation, suppuration, or eruptions near the desired site of puncture. I have met with several cases where I have declined to give an injection because of one or other of these conditions.

I have not knowingly used the method in a case of disease of the central nervous system; any such disease would make one hesitate; and above all, cerebral tumour must be deemed an absolute bar because of the risk attaching to alteration of intracranial pressure.

Reviewing a long series embracing various local and constitutional states I see no case made out for adding to the foregoing short list of conditions positively contraindicating spinal anaesthesia by tropacocaine. It has been urged that pyaemia is a deterrent; this may be so, but it is not a common disease, and the occasions in its course when the procedure might be suggested are few and far between; no such occasion has presented itself to me. More important than the label of a particular disease is the question of how far the power of resistance has been sapped by morbid processes.

FAILURES.

In three cases I have failed to enter the theca owing to spinal abnormality, complicated in one case by obesity. The latter condition prevents exact definition of the spines; if I had to deal with such a case where spinal anaesthesia was specially indicated owing, for example, to severe bronchitis, I would not hesitate to incise through the fat with the aid of local anaesthesia so as to make palpation of an interspinous space possible. In like circumstances of urgency an incision may also be advisable in a case of bony deformity.

In 14 cases—that is, a fraction over 1 per cent.—there was no anaesthesia, or it was too slight to be of service, and a general anaesthetic was administered. It is to be presumed that the prescribed dose of the drug was too small, or that a portion was not lodged within the cerebrospinal sac, or that the solution rapidly leaked into the extradural space. Whatever the explanation of these exceptional failures, the possibility of their occurrence must not be forgotten, and provision should always be at hand for the induction of general anaesthesia. Moreover, when sensation returns before an operation is completed, a general anaesthetic will often meet the indication better than a second spinal injection. There are 19 cases of that class in my list.

It is seen that a general anaesthetic was required on 36 occasions—throughout in 17 operations, and during the later stage in 19. On the whole series this gives a percentage of 2.8 nearly.

MORTALITY.

In the series here reviewed, reserving 1 case for separate record, there was no death attributable to the spinal injection. The total number of deaths was 21, which gives a death-rate of 1.6 (nearly) from all causes. The case referred to belongs to the thirteenth hundred of the series, and is summarized as follows:

The patient was a woman, aged 56, sent to me by Dr. Ewart Ashton, of West Smethwick. She had been bed-ridden for months suffering from calculous pyonephrosis, and was worn out with hectic fever and pain. She was also diabetic, and on admission it was obvious that she was desperately ill. A general anaesthetic could not be entertained, and it seemed improbable that local anaesthesia would suffice for the operation required on the left kidney.

Accordingly 15 minims of tropacocaine solution, that is, ¾ of a grain, was injected between the twelfth dorsal and first lumbar vertebrae, the patient being on her left side. The anaesthesia was perfect, and the patient's condition was no worse throughout the operation, which consisted in the evacuation of about one pint of pus and several calculi; no attempt being made to remove the adherent shell of the obsolete left kidney. The cavity was lightly packed with gauze and the wound partly closed with sutures. Shortly after removal to the ward she became collapsed, and despite prompt treatment with injections of

ether and strychnine, she died about fifty minutes after the spinal injection.

Permission to make a formal *post-mortem* examination was refused, but the right kidney and the heart were examined through the operation wound. There was no haemorrhage into the wound. The kidney was hydro-nephrotic, contained calculi, and its cortex was thin. The heart was fatty, and its musculature very soft.

Reflecting on this case it is difficult to say what part, if any, tropacocaine had on the issue. The patient had put off surgical help until too late, and her frail tenure of life was nearing its limit. Whether she would have survived the operation under any form of anaesthesia is a question on which critics will form their own judgement. One thing is clear: her condition was not worsened during the anaesthetic stage, and the collapse coincided with the return of sensation as the effect of the drug receded and painful impulses flowed to the medulla. It is also possible that hyperaemia of the wall of the large abscess on escape of its contents increased the liability to syncope and cerebral anaemia.

Combination of Anaesthetic Drugs and Methods.

Attempts have been made to achieve better results by injecting a mixed solution of a spinal anaesthetic and some other drug. Thus adrenalin or suprarenin borate has been combined with tropacocaine, stovaine, and novocain respectively, and by rendering tissues anaemic it might be expected to delay absorption, and so prolong anaesthesia, besides raising the blood pressure. Some acquaintance with the compound tropacocaine preparation did not disclose to me any superiority over the simple solution.

Another combination of stovaine advocated by Jonnesco for very high anaesthesia is with neutral strychnine sulphate. By its power of increasing the reflex excitability of the cord strychnine probably helps the transit of weak impulses between the neurons, and may thus fortify the respiratory mechanism. Nevertheless it cannot be relied on as an absolute safeguard, for fatal respiratory failure has followed its use, and has even been ascribed to spasm caused by the strychnine. The unquestionable risks of very high anaesthesia, whether mitigated by strychnine or not, are too great to justify the procedure at present; and for low anaesthesia strychnine has a tendency to shorten the duration.

Atropine and other substances are being tried, and an improved combination may yet be discovered.

The spinal method may also be used advantageously in sequence when a double anaesthesia, central and peripheral, is indicated. Thus it may be preceded by scopolamine and morphine given under the skin, or it may be followed or preceded by inhalation drugs. In cases of nephropexy it is my rule to give a subcutaneous injection of scopolamine $\frac{1}{200}$ grain, and morphine $\frac{1}{8}$ grain, one hour before operation; and I adopt the same practice generally in cases where the element of neurosis is conspicuous, or where the operation is near the diaphragm or likely to be prolonged. Quite commonly when this is done the patient sleeps through the operation with perfectly quiet breathing and no tendency to vomit.

If a general anaesthetic follows the spinal very little is wanted to induce sleep. I have on several occasions found it advisable to reverse the order of succession, beginning with light inhalation narcosis, and following up with the spinal method; here, too, the quantity of vapour inhaled has been very small.

Conclusions.

Admitting the high claims of stovaine and novocain, but restricting my remarks to tropacocaine, I sum up the position of spinal anaesthesia as follows:

1. It is a procedure of proved value and simple technique.
2. Its province is subdiaphragmatic operations.
3. There is no prohibitive age limit.
4. By blocking afferent paths it prevents surgical shock.
5. It induces muscular relaxation, quiet breathing, and abdominal stillness, and thus conduces to rapidity and safety in abdominal surgery.
6. Used with discretion in conditions of extreme asthenia and instability of the medullary centres due to toxaemia, exhausting disease, traumatic shock, and old age, it is superior to ether and chloroform.
7. It promotes the patient's comfort and nutrition in the post-operative stage.
8. Its scope is amplified with the aid of scopolamine and morphine.
9. By lowering blood pressure it tends to faintness and respiratory depression. The patient should therefore be carefully watched after injection, and treated as required by means of diffusible stimulants, pituitrin, saline infusion, and artificial respiration.
10. In a small percentage of cases it is inadequate, and must be supplemented by general anaesthesia.
11. It increases the possibilities of surgery by facilitating the work of a surgeon in the absence of a competent anaesthetist or assistant.
12. The procedure should be taught in medical schools.

THE LACRYMAL GLAND IN SURGICAL ANAESTHESIA.

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A series of careful observations on the behaviour of the lacrymal apparatus during the administration of certain anaesthetics has shown that the presence or absence of the lacrymal secretion is a useful and constant indication of the depth of narcosis. In over 200 cases, where the behaviour of the lacrymal glands was noted, it was found that the information thereby gained was constant and accurate, as shown by the presence of other signs and the subsequent progress of the cases.

It may seem surprising that any point of importance to the anaesthetist should have escaped attention, or at any rate mention, for so long a period, and the explanation appears to be that, since in the excitement stage of anaesthesia the lacrymal secretion is copious and the inner canthi become flooded, unless the pools of secretion be wiped away, no further indication of the lacrymal activity will attract attention. It may be that those who have observed the phenomenon of the lacrymal secretion have tested its value carefully and found it useless; in which case one can only regret that no mention of such work has been made in recent textbooks.

In an uncomplicated case, where anaesthesia is induced by the administration of chloroform or ether, the anaesthetist has no difficulty in regulating the amount of anaesthetic required by carefully observing the well-known signs of anaesthesia. In other cases the patients may react abnormally to the drug in one or two respects, as, for example, when the pupils remain large throughout the administration or when the corneal reflex is abolished abnormally early. Such cases present no real difficulty, since the abnormality is easily recognized and avoided. But cases are occasionally met with in which the anaesthetist has the greatest difficulty in securing a quiet anaesthesia, and where, in maintaining a constantly flaccid abdomen or other desirable condition, the resources of his craft are taxed to the utmost. It is in cases such as these that every sign or symptom is of value, and, although in no case can we afford to neglect a reliable sign, it is here especially that the lacrymal activity is of service.

I will now discuss (1) the behaviour of the lacrymal glands during the various stages of anaesthesia, and (2) the special importance of the lacrymal secretion in differentiating the dilated pupil of overdose from that of impending vomiting.

I.

The symptoms and signs observed during the inhalation of chloroform will suffice to illustrate the stages of anaesthesia seen when chloroform, ether, or a combination of these drugs is administered. Four stages are usually described: (1) A preliminary stage; (2) an excitement stage; (3) a stage of surgical anaesthesia; and (4) a stage of overdose.

The preliminary stage appears during the inhalation of the first few breaths of anaesthetic, and is made up of many components. The vapour irritates the nasal and bronchial mucous membrane, and reflex coughing and

salivation, with holding of the breath and slowing of the heart may be observed. Next, we notice disturbances of judgement, loss of memory and self-control, and often emotional tendencies. The special senses are next affected, and analgesia is well marked. The pulse-rate increases, and the blood pressure begins to rise; with this rise of blood pressue the respiratory-rate is increased. The pupils are now widely dilated. Here the first stage ends, and delirium, varying from shouting and singing to inarticulate muttering, ushers in the excitement stage.

In the first stage the activity of the lacrymal glands varies according to the strength of the irritation in the nose and tubes, and, if no vapour impinges on the corneae, the canthi may remain dry. With the onset of the excitement stage, however, the lacrymal glands become excessively active, and pools of secretion appear at the inner canthi, and from thence overflow on to the face. Tonic and clonic muscular spasms, coughing, retching, and vomiting may also be observed at this stage. The reflexes are diminished, and the patient is unconscious. The third stage is indicated by a general muscular relaxation, which at times appears quite suddenly, a loss of body reflexes, a steadying of the respiratory rhythm, a fall in blood pressure and temperature, and a decrease in the size of the pupils. During this stage of surgical anaesthesia the lacrymal glands cease to secrete, and the canthi, if dried after the excitement stage, remain so. The cessation of the lacrymal secretion usually takes place a few breaths before the complete abolition of the corneal reflex, although the disappearance of reflex and secretion may occur simultaneously.

The fourth stage, or stage of overdose leading to bulbar paralysis, is ushered in by dilating pupils, and this is followed by a fall of blood pressure, a loss of bladder and rectal reflexes, a shallowing and cessation of respiration, and a great depression of the cardiac muscle (in the case of chloroform). Here, in the stage of overdose, we find that the lacrymal glands are inactive. The canthi are dry, the pupils are widely dilated and inactive to light, the corneal reflexes are abolished, and the tone of the orbicularis palpebrarum is diminished.

Such, then, are the four stages seen in some cases of chloroform narcosis, and may be found similarly described in every textbook, with this exception—that the textbooks make no mention of the lacrymal activity.

We find that in the first stage the internal canthi may be wet or dry, in the second stage the lacrymal glands are always active, and in the third stage that the lacrymal secretion ceases at the same time as the earliest reflexes disappear, and that this cessation usually precedes the abolition of the corneal reflex by a very short interval. The slight variability in the time of cessation of the lacrymal secretion is of no practical importance, for in no case do the glands continue to secrete *after* the abolition of the normal corneal reflex (the term "normal corneal reflex" is used here purposely to distinguish it from the "diminished corneal reflex" observed after a time in an eye which has been continuously or carelessly tested). The moment at which the lacrymal secretion is first observed, after its cessation under the influence of chloroform or ether, is of the utmost importance, and provides a reliable indication of the exact moment at which to continue the administration, if a satisfactory surgical anaesthesia is to be prolonged. The time of the cessation of the lacrymal secretion during the induction period corresponds almost exactly with the time of its reappearance during the recovery period, and it is on this account that the "canthal" tear is so valuable, for it indicates when present that the corneal reflex is (or should be) obtainable, and that the amount of the anaesthetic is as much as is compatible with successful anaesthesia. If, then, we administer our anaesthetic in quantities just calculated to abolish the lacrymal secretion and then wait, if at any time in doubt, until the secretion again appears, we may feel confident that we are well on the safe side of the border line between deep surgical anaesthesia and an overdose.

The exhibition of such drugs as morphine, hyoscine, and atropine in a large number of cases completely abolishes the lacrymal secretion, and here it must also be noted that there are certain individuals, usually children under 10 years of age, in whom the lacrymal glands appear to be unaffected by the narcotics, and who, while under the influence of chloroform or ether, show no evidence of lacrymal gland activity. Such cases are rare, and do not detract from the value of the secretory phenomenon, since the absence of the secretion is evident during the excitement period, and hence this sign is neglected for the rest of the anaesthesia.

II.

The special importance of the presence or absence of the lacrymal secretion in differentiating the dilated pupil of overdose from that of impending vomiting is at once apparent. Those who affirm that it is possible to elicit a corneal reflex when the dilated pupil of "impending" vomiting is present will consider that no further differentiation is necessary; those who agree with me that only in the dilated pupil of "immediate" vomiting is it possible to obtain such a reflex will admit the value of a further test. The condition of the pupils in impending vomiting and in overdose are very similar; both may be inactive to light, neither retains a corneal reflex as a rule, and the accompanying signs and symptoms may give but little assistance to the administrator. It is in such cases that the value of the canthal pools is evident. If the canthi have been kept dry up to the moment at which the pupils commence to dilate, and if they remain dry after the pupils are dilated, then the anaesthetist should at once withhold the anaesthetic and prepare to deal with a case of relative or absolute overdose; but if the canthi are seen to be flooded with tears then the anaesthetic must be pressed to secure an adequate anaesthesia by abolishing the vomiting reflex.

Those who are experienced in the administration of anaesthetics and who subconsciously observe every little detail during the administration will affirm that at no stage should the administrator be in doubt as to the depth of narcosis. Nevertheless, it must be remembered that a large proportion of medical men called upon to act as anaesthetists have had but little experience with narcotics, and to such people, especially, an easily remembered and reliable indication of the depth of narcosis is valuable.

In some of the cases examined it was possible to show that although the corneal reflex could not be evoked during the stage of "impending" vomiting, nevertheless it reappeared occasionally a few seconds before vomiting actually commenced, in that period of time which has been alluded to as the period of "immediate" vomiting.

In the course of the investigations undertaken to establish the reliability of the lacrymal activity as a means of regulating the amount of the narcotic employed, over 200 cases were anaesthetized for operations varying in severity from the opening of a superficial abscess to the resection of several inches of intestine. Naturally many slight variations in the behaviour of the lacrymal glands were observed; but these variations were of no practical importance, and may be divided into variations (*a*) in the quantity of the secretion, and (*b*) in the time at which the secretion appeared and disappeared relative to the presence or absence of the corneal reflex. This latter variation has already been discussed. As regards the former, when chloroform is administered alone the quantity of the lacrymal secretion is usually small. During the administration of ether the lacrymal secretion is abundant, and in giving mixtures containing ether, the quantity of secretion does not fall much below that observed when ether is given alone.

Conclusions.

In conclusion, I would insist on the truth of the following three statements:

1. That since the appearance of a lacrymal secretion during anaesthesia is a constant phenomenon, it therefore deserves mention in books devoted to the subject of anaesthetics.

2. That the lacrymal secretion, bearing as it does a definite relation to the depth of narcosis, is of value to the anaesthetist.

3. That since the behaviour of the lacrymal glands under anaesthesia is almost constant, and since the exceptions to the general rule are easily recognized, the value of this sign as an aid to the administration of an anaesthetic must be at once apparent.

SLEEPING SICKNESS AND BIG GAME:

A PROPOSED EXPERIMENT.

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DURING the years 1908 and 1909 the diagnosis of several cases of human trypanosomiasis amongst Europeans, who had never been in contact with *Glossina palpalis*, drew attention to the occurrence of the disease in portions of Rhodesia and Nyasaland in which this particular insect does not exist.

In 1910 it was shown that the parasite causing the disease in Rhodesia and Nyasaland differed in certain respects from that causing sleeping sickness in other portions of tropical Africa. The name *Trypanosoma rhodesiense* was given to this new parasite. Since these discoveries many cases of sleeping sickness have been found in Rhodesia and Nyasaland, and in 1911 Dr. Kinghorn and I were sent to North-Eastern Rhodesia to investigate and report upon the conditions governing the spread of the disease in that country.

The first problem we had to solve was to ascertain the vector responsible for the spread of sleeping sickness in a country where *Glossina palpalis* does not exist. Now, although *Glossina palpalis* has not been found either in Nyasaland or in the Luangwa Valley of Rhodesia, yet *Glossina morsitans*, the tsetse fly which is known to cause "fly" disease in domestic stock, is present in enormous numbers, and it was soon proved by Dr. Kinghorn and myself that it is this fly that is responsible for the spread of human trypanosomiasis. This discovery is one of great practical significance; for whereas the former fly, *Glossina palpalis*, is limited in its distribution to watercourses, and never found far from the banks of certain rivers or the lake shores, the latter, *Glossina morsitans*, is ubiquitous, its distribution being quite independent of water. Hence it is obvious that it is impossible to attempt to deal with sleeping sickness in Rhodesia and Nyasaland by any such simple method as removing the native population away from the watercourses and lake shores, a procedure which was attended with such remarkable results in Uganda. The problem of preventing the spread of sleeping sickness in these countries, which a few years ago were thought to be in no danger, is one of infinitely greater difficulty than was that which had to be faced in Uganda.

A large number of wild *Glossina morsitans* were examined in the Luangwa Valley in order to ascertain what proportion were capable of infecting man with trypanosomiasis. This information is important, as it affords an approximate idea of the potential danger of the district. We found that 1 in 500 wild *Glossina morsitans* was infective. As this was far too large a proportion to have been infected from the comparatively few infected human beings, it was evident that some other host than man must serve as the reservoir from which the fly derives its infection. With the object of ascertaining what was the chief vertebrate reservoir of the virus, we examined 250 wild animals (including elephant, rhinoceros, hippopotamus, lion, buffalo, fourteen different kinds of antelope, caracal, galago, squirrel, genet, hunting dog, giant rats, and wild rabbits), 256 monkeys, 35 domestic stock, 142 wild rats, and 15 wild mice, making a total of 698. The results were striking; a large proportion of the antelope were found to be infected with the parasites which cause sleeping sickness in man and trypanosomiasis in domestic stock. As a conservative estimate, the percentage of game infected with the trypanosomes of man or domestic stock might at Nawalia in the Luangwa Valley be placed at 50, and at Ngoa on the Congo Zambesi watershed at 35.

Beyond stating that the figures in the accompanying tables refer only to the trypanosomes causing disease in man and his flocks and herds, it is unnecessary here to go into details as to their exact nomenclature. I might mention, however, that at Nawalia in the Luangwa Valley 16 per cent. and at Ngoa on the Congo Zambesi watershed 3.3 per cent. of the wild animals were infected with the human trypanosome, *T. rhodesiense*.

TABLE I.—*Percentage of Various Species of Game Found Infected with Trypanosomes Pathogenic to Man or Domestic Stock at Nawalia, Luangwa Valley.*

Animal.	Number Examined.	Percentage Harbouring Trypanosomes.
Bushbuck	9	66.6
Waterbuck	28	60.7
Kudu	7	57.1
Hartebeest	6	16.6
Roan	8	12.5
Warthog	9	11.1
Puku	10	10.0
Mpala	29	6.9

TABLE II.—*Percentage of Various Species of Game Found Infected with Trypanosomes Pathogenic to Man or Domestic Stock at Ngoa, Congo Zambesi Watershed.*

Animal.	Number Examined.	Percentage Harbouring Trypanosomes.
Sitatunga	2	50.0
Waterbuck	27	44.4
Eland	15	26.6
Duiker	9	22.2
Roan	5	20.0
Puku	8	12.5

This investigation, therefore, made it clear that the main reservoir of the trypanosomes of man and domestic stock is the big game.

Having ascertained these two essential facts—namely, that the tsetse fly, *Glossina morsitans*, is the agent by which the disease is spread and that the big game is the inexhaustible reservoir of the virus which causes the disease—we are faced with the problem of what, in the light of this knowledge, can be done to stamp out sleeping sickness or to limit its spread in Nyasaland and Rhodesia. Obviously the most satisfactory means of prevention would be the extermination of *Glossina morsitans*, which conveys the parasite from one vertebrate host to another. Unfortunately, however, this is out of the question at the present state of our knowledge. The only known method of getting rid of the fly from a district is by clearing away the bush. In the immediate vicinity of villages such a procedure is doubtless feasible, and would be attended by valuable results, and natives should be encouraged to do everything possible in this direction. The labour involved in clearing large tracts of country would, however, be so great that this method can be at once set aside as impracticable. Moreover, it must be remembered that not only would the country have to be cleared, but it would require to be kept cleared. Every one who has had experience of tropical Africa is familiar with the dense shrub growth which springs up in the site of old garden clearings two or three years after the natives have ceased cultivating the land. This shrub growth is exceedingly favourable to *Glossina morsitans*, so that, unless the country be kept constantly cleared, the last state of the district is worse than the first.

At present little is known of the bionomics of *Glossina morsitans*. Investigations so far carried out indicate that this tsetse fly has no breeding-places which are peculiar to it, but that its pupae are deposited in a more or less haphazard manner in hollow trees and excavations where they are not likely to be disturbed by game birds. Regarding the liability of the fly to disease and of its natural enemies practically nothing is known. Much more information is required on this subject, but it seems only too obvious that the investigations will be beset by great difficulties, and that knowledge will only be forthcoming as the result of much slow and tedious work. In fact, to those familiar with *morsitans* country the extermination of the fly must seem an almost impossible procedure.

In Uganda, where the disease is spread by *Glossina*

palpalis, the removal of the population a short distance away from the lake shores and watercourses was followed by most excellent results. Such a measure, however, is impossible in Nyasaland and Rhodesia, where the vector, *Glossina morsitans*, is practically ubiquitous in its distribution and not limited to watercourses as is *Glossina palpalis*.

In view of the impossibility of exterminating the fly and of the equal impossibility of removing the population from the fly belts, we must consider the only way that remains of combating the disease—that is, the advisability of attempting to destroy the reservoir of the virus. It is obvious that the mere isolation of infected human beings is futile in view of the fact that the main reservoir of the virus is the blood of the big game.

Since the beginning of last year, when Dr. Kinghorn and I published our paper announcing the fact that a large proportion of the wild fauna of Africa harboured the trypanosomes of man and domestic stock, a considerable polemic has arisen over the question of the advisability of attempting to exterminate the big game in the vicinity of human habitations in fly areas.

In discussing this subject it appears to me that I could not do better than state briefly what I suggest should be done and then reply to some of the more important criticisms which have been directed against these proposals.

In the first place, I consider that a decisive scientific experiment, the nature of which I will outline later, should be undertaken with a view to ascertaining the effects of completely eradicating the game in a limited area. As some years must elapse before the results of such an experiment would be known, I suggest that in the meantime the restrictions relating to the killing of game by Europeans and natives should be removed in those portions of the fly areas which are in the vicinity of human habitations.

It has been suggested that if the game be destroyed in any district, the fly, being deprived of its natural source of food, might turn its attention solely to man and his flocks and herds. It appears to me that little importance should be attached to this hypothesis; cattle do not, as a rule, live in the presence of *Glossina morsitans*, and the fly does not invade villages around which there is a clearing, even though at the present time they could by so doing obtain food, perhaps, still more readily than they do in the bush. Moreover, if the game be removed the reservoir of the infection is destroyed, and therefore in a short time the fly would tend to become non-infective. The bite of non-infective *Glossina morsitans* hurts nobody. Finally, there is absolutely no evidence indicating that if the big game in any particular district were slaughtered the tsetse fly, unable to obtain blood from these animals, would attack man and domestic stock to a greater extent than at present. It might equally well be urged that if the food supply of the fly be removed the fly would disappear. There is, moreover, a considerable amount of evidence that the tsetse fly spreads with the game. For example, since the rinderpest swept through Central and South Africa sixteen or seventeen years ago the big game has increased enormously in numbers, and with this increase in game there has been a corresponding increase of tsetse fly. Although *Glossina morsitans* was present in enormous numbers at Nawalia, in the Luangwa Valley, when we were working there, and natives sent out to collect the flies had no difficulty in capturing large quantities within a short distance of the laboratory, the magistrate who was stationed there in 1905 told me that he only occasionally saw tsetse flies at that time.

Again, it has been suggested that the big game might be only one of the reservoirs of the disease, and that the infection might equally well be harboured by the small vermin.

It must be remembered, however, that the small vermin is to a considerable extent nocturnal in its habits; and although *Glossina morsitans* does occasionally bite at night, especially when the moon is full, yet nobody who has lived in "fly" areas can have any doubt that this is exceptional, and that for practical purposes the fly feeds in the daytime only. Dr. Kinghorn and I examined a large number of small vermin—rats, mice, wild rabbits, etc.—without finding a single instance of natural infection with a pathogenic trypanosome. Furthermore, it must be remarked that there is no evidence to show that the small vermin are tolerant of the human trypanosome, as are the big game. In those which we infected experimentally the disease ran an acute course and the animals died. If this be the case with the majority of the small vermin they cannot have the same significance as reservoirs of the virus as have the big game, which can probably harbour the parasite for long periods without exhibiting signs of disease.

The theory has been advanced that cattle and other domestic stock might harbour the human parasite for considerable periods without detriment to health. This, however, is not the case. We found that the trypanosome rapidly kills horses, cattle, donkeys, goats, and dogs. Moreover, even if the human parasite failed to kill domestic stock, these would still die from the ordinary cattle trypanosomes, such as *T. pecorum*, *T. nanum*, and *T. vivax*, with which the wild *Glossina morsitans* is heavily infected; so that it is obvious that domestic stock cannot have the same significance as a reservoir of the infection as the antelope, which are tolerant of the trypanosomes pathogenic to man and domestic stock.

The hypothesis that human beings can harbour the parasites for long periods without detriment to health, and thus act as reservoirs of the virus in the same way as the game, is one which I cannot support. Amongst the cases discovered by us several—presumably recently infected—presented practically no symptoms, the only indication of the disease being the presence of trypanosomes in the blood, yet without exception they were all dead within six months.

We return, therefore, to the original position. The game is the natural reservoir of the infection; the part of the tsetse fly, *Glossina morsitans*, is to transfer the virus from the big game to man and his flocks and herds. At the present state of our knowledge we are unable to attack successfully the tsetse fly, nor, unfortunately, is there any prospect of our being able to do so in the near future.

Whether anything would be gained in this direction by slaughtering the big game is still a moot point, therefore I will not consider this side of the question, but advocate the advisability of attempting to drive back the game from inhabited regions solely because the game are the reservoir of the infection.

I might point out here that whether or not other flies, besides *Glossina morsitans*, be proved eventually to transmit the human trypanosome, does not affect the question, further than that, if this be shown to be the case, it simply emphasizes the difficulty of successfully attacking the transmitting agents and demonstrates clearly that if anything is to be done it must be in the direction of destroying the reservoir from which *Glossina morsitans* and the other (hypothetical) vectors derive their infection.

It has been asserted that the proposal to slaughter all game animals in an infected district is unsound in principle, because the game when harried would betake itself to places difficult of access to man or scatter in small herds or in pairs or singly over wide areas, and that should this occur it is highly probable that it might be followed by tsetse, thus spreading the danger of infection to wide areas now free from game and fly.

To such criticism as this it is not difficult to reply. If the game when harassed betook itself to places difficult of access to man, surely this is exactly what is desired. In such places it would no longer be a menace to civilization.

Regarding the second alternative, that the hunted game might scatter into small herds or in pairs and be followed by the tsetse fly, thus spreading the infection over large districts, the obvious rejoinder is that should this occur the game must be destroyed in the new areas, provided these happen to be inhabited regions. Such a contingency is, however, very unlikely, as it is very questionable if small herds of hunted game scattering over wide areas would cause the tsetse fly to migrate with them.

The Colonial Secretary has said that "To talk of the extermination of the wild fauna of a subcontinent is to talk wild nonsense." This is perfectly true, but it is no reason why the game in a definite limited area should not be destroyed. It was further stated that an attempt made in Nyasaland to get the game in a certain area killed off was, after twelve months, unsuccessful, though the natives

were encouraged to shoot. This, again, is no argument against the policy suggested, but merely a confession that the experiment was not efficiently performed.

Such experiments as these are unsatisfactory and do not yield any definite results. For reliable information to be obtained it is necessary that the work should be done in a scientific manner, and on a sufficiently large scale in some particular district. A locality which is fairly well populated, and which contains plenty of tsetse fly and game should be chosen. An exact census of the population should be made, and the proportion suffering from trypanosomiasis determined. The same must be done in the case of the domestic animals, if such exist. An index of the percentage of infective tsetse fly must be ascertained. This is most important, as it gives a definite idea of the potential danger of the district. Finally, the game must be completely eradicated, and at the same time the percentage infected with the human and cattle trypanosomes determined, and when once the game has been driven out it must be kept back by vigorous action and not allowed to return. After an interval of some years the population, domestic stock, and tsetse fly must again be carefully examined. Then we should be in a position to decide definitely whether or not driving the wild fauna back from the sites of human habitations in fly areas would be advantageous on a general scale in tropical Africa. As such an experiment as this would take some years to accomplish, I consider that for the present the game laws should be removed in fly areas, and that Europeans and natives should be allowed to kill what they like, especially in the inhabited portions of these areas.

Recently sleeping sickness was discovered in a certain isolated fly belt—the Sebungwe district of Southern Rhodesia—which is roughly about 2,500 square miles in size. On a hurried survey some twelve cases of the disease were found, including one European. The human trypanosome was also found in certain of the antelope in the area. It has been said that the proper way to deal with the situation is to remove the entire population from the fly belt. This at first sight appears an admirable plan, and will certainly save the inhabitants. Is there, however, not another side to the question? When the population is withdrawn there will be established all the conditions of a game reserve. The wild animals will increase and gradually spread and probably with them the fly, until the invasion of surrounding districts demands further removals. Surely it is preferable to make a reasonable attempt to stamp out the disease than at the first alarm to abandon such regions to the game and fly without even attempting to dispute the ground with them.

It is for such reasons as these that I venture to suggest the desirability of undertaking the decisive experiment which I have outlined, as it is only by this means that the exact knowledge necessary for our future guidance can be acquired.

BIBLIOGRAPHY.

Stephens and Fantham: On the Peculiar Morphology of a Trypanosome from a Case of Sleeping Sickness and the Possibility of its being a New Species (*T. rhodesiense*). *Roy. Soc. Proc.*, 1910, vol. lxxxiii.

Yorke: On the Pathogenicity of a Trypanosome (*T. rhodesiense*) from a Case of Sleeping Sickness in Rhodesia. *Annals of Trop. Med. and Parasitology*, 1910, vol. iv.

Stannus and Yorke: The Pathogenic Agent in a Case of Human Trypanosomiasis in Nyasaland. *Roy. Soc. Proc.*, 1911, vol. lxxxiv.

Kinghorn and Yorke: Reports of the Luangwa Sleeping Sickness Commission. *Annals of Trop. Med. and Parasitology*, 1912-13, vols. vi and vii.

Medical Notes in Parliament. BRITISH MEDICAL JOURNAL, 1912, July 6th.

Discussion on Sleeping Sickness and Big Game. *Proc. Zool. Soc.*, June, 1913.

A BILL, making insurance against disease and invalidity compulsory in Belgium, was presented to the Chamber some time ago by the Government. The organization of the service will be confided to the mutual aid societies, to recognized federations, and to mutualist local committees. The State and the employers will contribute, but in a less proportion than those directly interested. The insured will have a right to medical treatment and to a supply of such medicines as may be required; they will also receive one franc a day, starting from the tenth day of illness onwards. Permanent invalids will be pensioned. The maternity benefit will be thirty francs. The annual tax for non-members of mutual aid societies will be eighteen francs, of which twelve will be allocated for disease, and six for invalidity.

PRELIMINARY REPORT ON AN OUTBREAK OF FEBRILE DISEASE IN AN INDUSTRIAL SCHOOL.

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THE cases which form the subject of this communication occurred during the years 1910 and 1911 in St. Thomas's Industrial School, Preston. I have not been able, so far, to complete the investigation to my satisfaction, and hence have delayed recording the cases. At the time when the epidemic terminated I had the strong suspicion that there was a "carrier" in the school. There has not been a chance of clearing up this point since 1911, but on reading the full and careful report by Drs. McGowan and McNeil on a somewhat similar epidemic which occurred in Tranent Industrial School, and was referred to in a note in the BRITISH MEDICAL JOURNAL of May 31st, p. 1178, I thought I might place my experience of an unusual series of cases before the profession.

Clinical Description.

The clinical description of the epidemic in the Preston school tallies exactly with that in the Tranent and other schools, noted in the report mentioned. To put it as briefly as possible, we had to deal with an illness of sudden onset, marked by headache, epigastric pain, vomiting in mild cases of undigested food, but in severe cases of large quantities of a distinctly greenish or yellowish fluid, accompanied in some cases by intense prostration, a temperature varying from normal to 105°, by herpes labialis in a certain proportion, and in 5 cases by definite consolidation at the base of the lungs. In the very worst cases there was a true septicaemic condition. Three of the boys were found dead in bed, having retired apparently well the previous evening; four others died within twenty-four hours of the onset of headache or vomiting. It will be noticed that only five of my cases developed any definite pneumonic condition, although over 80 boys attacked were carefully examined by me.

Post-mortem Findings.

At the first *post-mortem* examination made the thyroid and thymus were greatly enlarged, the spleen was slightly enlarged but otherwise normal, and Peyer's patches and mesenteric glands were very pronounced. The lungs were congested but crepitant. Dr. Delépine examined the stomach contents for traces of poison, with a negative result. In the second *post-mortem* examination a similar enlargement of the lymphoid structures was found, with marked congestion at the bases of both lungs, but no actual hepatization. At the third and fourth *post-mortem* examinations similar appearances were found. In neither case could I definitely make up my mind that the lungs showed anything beyond hypostatic congestion, nor were the thyroid and thymus so much enlarged as in the first two cases.

I was able to satisfy the coroner's jury in each case by declaring that I considered the deaths due to a pneumococcal or influenzal poison epidemic in the school, and acting virulently on boys suffering from status lymphaticus. I did not feel satisfied, though I thought I was on pretty good ground, as I knew that three of my teachers—the late Sir William Gairdner, the late Dr. Finlayson, and the late Professor Gemmell—had reported on what seemed to be an exactly similar series of cases occurring in a school in Glasgow in 1888, when the diagnoses severally made were malignant influenza, abortive pneumonia, and pneumonia complicating some unknown intoxication.

At the next *post-mortem* examination the findings were so like what I have seen in an early case of enteric fever that I thought it probable there might be some intestinal poison at work. The Peyer's patches and solitary follicles were distinctly congested and enlarged, and the corresponding mesenteric glands varied from the size of a bean to the size of a walnut and were much congested. The spleen was enlarged and soft. The thymus was only slightly enlarged. The thyroid was enlarged and dotted with pin-point abscesses. Loops of bile, punctures from the spleen, scrapings from the mesenteric glands and

Peyer's patches and from the pin-point abscesses in the thyroid were inoculated into bouillon. I consulted my friend, Dr. J. J. Buchan, M.O.H. St. Helens, who suggested to me that I should try the agglutinating reactions of serum from boys suffering from the disease with the different strains of intestinal bacilli which he had in his laboratory. Dr. Buchan has my sincerest thanks, as, but for the use of his laboratory and materials and the fact that he corroborated and checked my results, I could not have continued the investigations.

Bacteriological Results.

From the spleen, Peyer's patches, mesenteric glands, abscesses in the thyroid, and from the faeces in two cases, a bacillus was obtained which was actively motile. The growth on agar gave the usual *coli*-typhoid appearance. The bacillus was negative to Gram, did not produce indol, did not clot litmus milk. On Conradi-Drigalski plates bluish colonies, much smaller than the red colonies of *Bacillus coli* used as a control, and on picric acid green and McConkey's bile salt media colonies quite distinct from the *Bacillus coli* colonies were grown.

Agglutination Results.

Briefly, the *Bacillus coli*, typhoid bacillus, and Gaertner's bacillus were excluded at once, as even after two hours in a dilution of 1 to 50 there was no agglutination with blood taken from boys who were ill. The laboratory paratyphoid B and the laboratory aertrycke bacillus agglutinated the same serum in dilutions of 1 to 50 almost immediately and 1 to 100 in a few minutes. Some of the specimens taken from boys who had recovered from the disease for some time agglutinated the laboratory paratyphoid B bacillus, but not the laboratory aertrycke bacillus. The bacillus cultivated from the *post-mortem* examination was negative to a case of typhoid, but agglutinated each blood that was positive to the laboratory paratyphoid B.

Whether the bacillus isolated is actually the paratyphoid B or not, there can be no doubt it is closely related to that organism, as it gave similar cultural reactions, and agglutinated the same bloods. Each boy who was ill was positive both to the paratyphoid B and the bacillus isolated. Some of the boys who had not been ill gave negative reactions to both, though some gave positive reactions. Some of these latter admitted having had "the headache," which even in the case of boys who had been evidently affected was almost all that could be obtained in the way of complaint.

The question of the presence of a "carrier" in the school was considered seriously, but the demands of a general practice debarred me from systematically testing the blood of each boy. However, the last *post-mortem* examination I did inclined me more than ever to this idea, though I was not, unfortunately, able to make any further progress in the investigation. The liver in this case was a beautiful specimen of hobnailed cirrhosis. The boy was aged 12, there was no history or suspicion of syphilis. He died after a few hours' illness, but had had an attack of great severity about six months before. It seemed quite a plausible inference that there had been some chronic absorption from the bowel producing cirrhosis of the liver.

I think, then, that this epidemic deserves to be placed alongside of the other recorded epidemics. The descriptions of these resemble the Preston epidemic just as closely as they resemble the Tranent one; and the mere fact that in this latter epidemic the infective agent was the pneumococcus, in view of the atypical form of pneumonia that is present in these epidemics, does not warrant the conclusion that all such outbreaks are due to abortive pneumonia. The diagnosis of the late Professor Gemmell showed his superlative powers as a clinician when he wrote in 1888, "They seemed all to be victims of the same poison, although, in some, owing probably to personal idiosyncrasy, aided by favourable atmospheric conditions, it issued in pneumonia."

The epidemic at Birkdale Farm School, reported on by Dr. Coupland, though diagnosed as pneumonia, was not due to the pneumococcus. It is over two years since I read the report, and I am writing from memory, but I think the organism was said to be a motile bacillus. In this connexion it is interesting to recall the epidemic of pneumonia in Middlesbrough in 1888, investigated by Dr. Ballard and Professor Klein. There were over 1,600 cases, with more than 300 deaths. According to Professor Klein, the germ at work was a motile bacillus, and from the description of the cultural appearances of this organism on gelatine, given in the *Treatise on Hygiene*, by Stevenson and Murphy, the appearances resembled more those of the *coli*-typhoid group than the pneumococcus. It is also of interest to recall the observation that bacon bought in the infected districts gave rise to pneumonia in mice fed upon it. Considering that paratyphoid B belongs to the meat-poisoning group, this fact may be of importance. However, I made nothing of my investigations in this direction in the Preston cases.

In view of the positive finding of the pneumococcus in the Tranent epidemic and the positive finding of a bacillus of the *coli*-typhoid group in the Preston epidemic, I think the search for a solution of the problem may well continue. It is only too likely that a chance for further investigation will present itself before long, considering the histories of the industrial schools of the country. I am, however, not sure that this type of disease is limited to the inmates of these institutions, as I cannot help being struck with the frequency with which at coroners' inquiries, deaths from acute conditions of a few hours' duration are returned as deaths from acute pneumonia. It seems to me possible that there are toxaemias of alimentary origin masquerading up and down the country as malignant influenza, gastric influenza, and fulminant pneumonia, in addition to the undoubted diseases of these names. It is in the hope that some one with sufficient time, and the fortune to meet cases of this class, may still further investigate the subject, and to keep the question of the naming of the disease open till we have further knowledge, that I have written this communication.

NOTES OF A CASE OF "NODULAR LEUKAEMIA."

BY

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G. M., a boy aged 10, was seen by Dr. Reid, on November 2nd, 1912, for pain in his right hip and leg. As no improvement followed rest in bed, Dr. Reid admitted him to the Throne Children's Hospital on November 13th. The pain closely resembled that of right hip-joint disease, and splints were applied; but the pain soon developed in the other side. On December 8th enlarged glands were found below the left lower jaw; some teeth were loose and were removed. Within a few days a swelling appeared above the right zygoma, and subsequently above the left, and later in the groins. He was rapidly losing flesh, but there were as yet no head symptoms.

On December 15th there was loss of vision in the right eye and later in the left, and slight proptosis. Some spinal fluid was withdrawn by Mr. Stevenson and examined by Dr. Thomson. On December 27th he was seen also by Dr. Calwell and Dr. Thomson, and at this date his condition was much worse; he was only partially conscious; he did what he was told if he was given time; his answers were fairly intelligent, but delayed, and were chiefly in monosyllabics; there were large symmetrical swellings above each zygoma, and the proptosis was more marked; there were sordes on the lips; the abdomen was full and tender; it was examined with difficulty, but no enlargement of liver, spleen, or kidney was detected; all the lymphatic glands—cervical, axillary, inguinal—were enlarged and shotty; on the skin generally, and on that of the abdomen in particular, there were palpable minute millet-seed-like nodules; there was some head retraction, well-marked Kernig's sign, and priapism; he was now blind, and later became deaf; there was also paralysis of

both lower extremities with anaesthesia, and unconscious action of both bowels and bladder; flexion of legs caused pain; one optic disc presented some neuritis, the other was clear. There was also epistaxis a day or so before death. The temperature varied from 98° F. to 100° F., but on December 26th it began to be sharply intermittent, and reached 104° F. on January 1st; it was subnormal before death, which took place on January 3rd. Unfortunately a photograph was not obtained nor a *post-mortem* examination allowed.

Report by Dr. Thomson.

The spinal fluid sent to me was so haemorrhagic that a cytological examination was of no value; a slight growth on agar was due to a staphylococcus, and as it was not again discovered it was probably a contamination.

At a subsequent examination of the patient on December 27th the following results were obtained:

Blood.—The coagulability was delayed; the serum showed distinct lipaemia; fat was extracted from it.

Red cells	... ...	2,800,000 per c.mm.
Haemoglobin	... ...	55 per cent.
Colour index	... ...	1 (practically).
White cells	... ...	5,640 per c.mm.
Differential count:		
Polymorphonuclears	...	12 per cent.
Large lymphocytes	...	49 ,,
Small lymphocytes	...	17 ,,
Transitional	... ...	12 ,,
Myelocytes	... ...	10 ,,

There was no poikilocytosis; no nucleated reds were found and no chromatophilia.

A blood culture gave a negative result.

Urine.—No albumen, no sugar, no Bence-Jones's substance. Nucleo-proteins were present in rather increased amount.

Lumbar Puncture (made by Dr. Thomson).—The fluid escaped at high pressure and again seemed almost like pure blood; fat was again present in large amount in the serum; a culture gave a negative result.

It was intended to confirm or modify these results of the physical examination and of the blood count by repeated similar investigations, but the rapid course of the disease prevented the accomplishment.

Remarks by Dr. Calwell.

Although these notes are not complete, we thought the case of sufficient importance to warrant us in putting on record such facts as we have. There seems to be little doubt that it falls under the broad category of "nodular leukaemia," as described by Dr. Gordon Ward in the Section of Medicine of the Royal Society of Medicine in 1912, and in type it most closely resembles "chloroma." The zygomatous swellings were marked; the early pain in the hip and leg, which finally developed into paraplegia, was presumably due to analogous deposit in the spinal column, and such a deposit would no doubt account for the deeply blood-stained fluid removed on both the occasions of lumbar puncture. The blindness, the deafness, the priapism, are all classical symptoms; the rapid course of the affection was in keeping with the diagnosis.

The result of the blood examination shows a remarkable smallness of white blood count; whether this paucity would have been found to be a constant factor on further examination cannot be argued; such a number has been found, and enormous rises and falls in the white blood count have been put on record by most authorities; in one case it is given as 800 per c.mm. The differential count is also interesting; the great increase of large lymphocytes and the presence of a considerable number of myelocytes is characteristic. Gulland and others say that the blood picture in leukaemia is by no means constant; so that the blood examination in this case confirms what has been already so often noticed, that neither in number or character of the red, nor in differential count of the white, have we a definite and final arbiter in the subclassification. In this case, however, the blood count sharply differentiates it from the series of cases given by Robert Hutchison, in the first number of the *Quarterly Journal of Medicine*, of suprarenal sarcoma in children with metastases in the skull, in which temporal swellings were present; but a blood count showed a simple marked secondary anaemia. Frew, however, in a later number endeavours to prove that such cases come under the term "carcinoma," and gives details of cases in which the differential count shows a very marked disturbance; such cases would widen the boundaries still further.

The usual conception of "leukaemia" rests on the differential count of the white corpuscles; in the acute form there is an excess of lymphocytes and profound constitutional disturbance, and often an early fatal issue; in the chronic or marrow form, symptoms are frequently delayed till late in the course of the disease, and we find an excess of myelocytes. In his paper Dr. Gordon Ward describes "nodular leukaemia" as embracing all cases of leukaemia in which nodules of leukaemic growth have been found in various parts of the body, and have been obvious to sight or inference during life. It is purely a clinical term. He mentions a great variety of titles, such as mycosis fungoides, chloroma, Mikulicz's disease, and others, and points out that lately facts have come to light which, apparently, link the affections described under these names closely together: cases of mycosis fungoides occur with a blood picture of leukaemia; cases of leukaemia occur in which nodules indistinguishable from those of mycosis fungoides have developed; similar nodules are found in chloroma; the green colour of chloroma may be present only in a minority of skull tumours, and may be found in the glands and marrow of leukaemia in which there were no tumours.

Whether we can rope in all the affections enumerated by Dr. Gordon Ward, and also by Dr. Treadgold,[1] is a matter for future investigation. We can distinguish the leukaemias from even extreme cases of leucocytosis, and also from cases of pure sarcomatosis; the blood picture, however, varies, not only in different patients, but also in the same patient from time to time; probably these differences are due to the type of cell becoming more and more primitive. "The variety and severity of the affection," says Treadgold, "varies with the part of the haemopoietic apparatus affected, with the intensity of the stimulus, and with the ability of the organism to withstand it." And one has thorough sympathy with him in his complaint regarding the cumbrous terminology that is suggested in each new article.

It might be considered more correct to use the term "infiltrating leukaemia" and not "nodular"; the collections of cells are not always circumscribed; oedematous infiltration may be found about the face, neck, scalp, and this may at times have a greenish colour; definite nodules of fair consistency are most common in the bones, especially those of the skull, but have also been found in the pelvis and vertebral column; they may occur also in the skin and subcutaneous tissue—indeed, wherever lymphoid tissue is found. The nodules vary in size, from that of a pin's head to that of a fist. They do not occur in the epidermis, but may ulcerate through it. The colour varies from that of the surrounding skin to yellow, red, purple, greenish. Minute nodules are found on the gums and in the submucous tissue of the alimentary tract. Parkes Weber points out that the pre-mycotic infiltration of mycosis fungoides may be sufficient to make the skin fall in rolls, and that this affection corresponds to Kaposi's lymphodermia perniciosa.

The more constant employment of the oxydase reaction, as described by Dunn in the April number of the *Quarterly Journal of Medicine*, 1913, may in future prove of service. His conclusions state that the occurrence of a positive indophenol-oxydase reaction in large non-granular cells in acute leukaemia is a certain proof of their myeloid nature, and enables a diagnosis of acute myeloid leukaemia to be readily made from blood examination; but that the reaction is negative in the more embryonic forms of marrow cells; cases of acute myeloid leukaemia may occur, in which the type of blood formation is so embryonic that the oxydase reaction is valueless for differential diagnosis; but even in such cases the histological characters of the large leucocytes may render a diagnosis possible. It seems, however, thus to fail us just where it would have been of great service—namely, the origin of the embryonic type of white cell.

Reference.

[1] *Quarterly Journal of Medicine*, 1908-9.

Surgeon-General George Bidie, C.I.E., Honorary Surgeon to the King and formerly to the Viceroy of India, left personal estate of the total value of £2,945.

A CASE ILLUSTRATING GREAT TENACITY OF LIFE.

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THE case of the French Zouave who lived for some time after practically the whole of the head except the brain had been removed by a cannon ball is one of the classical instances of tenacity to life. Weinlechner in 1881 reported that a man had lived and been conscious for twelve hours after a fall and injuries which included fracture of the cervical spine, with laceration of the cord, paralysis (motor and sensory) of all the limbs, rupture of the sternum, bleeding into pericardial and abdominal cavities, and laceration of the spleen. Erichsen (*Lancet*, 1870) reported on a man who, after leaping a distance of 60 ft. down a hoist, lived for ten days, although suffering from (1) fracture of seven ribs; (2) perforation of the apex of the right lung; (3) tearing of the pericardium; (4) complete fracture of first lumbar vertebra; (5) pulverization of the right os calcis.

Mr. D'Arcy Power read a paper in 1890 to the Pathological Society of London, indicating that considerable laceration can take place in the spleen and in the kidney with very slight symptoms, unless a large blood vessel is implicated.

If urgent haemorrhage does not immediately follow injury, the most extreme internal injuries can often be undergone with a minimum manifestation of shock. The following case will bear this statement out, and emphatically illustrates the powers of tenacity of life in the human frame:

P. H., a dock labourer aged 45, was admitted on December 31st, 1909, to the Western Infirmary, Glasgow, about 9 p.m. About noon on the same day he had fallen down the hold of a ship, but details of the accident were not forthcoming. For some time after the accident he remained in a dazed condition. He then recovered sufficiently to walk home, a distance of half a mile at least.

He went to bed, but began to experience increasing pain in the left chest and side, especially over the lower ribs. A doctor was called in, and recommended that he should be conveyed to hospital, but thought so lightly of the condition that he held out hopes of the patient's speedy dismissal. There was some delay in the arrival of an ambulance, and the man was *in extremis* on his arrival in hospital. In the afternoon, according to the statement of the relatives, he had passed "a bowlful" of red blood from the rectum.

On admission no external marks of injury were visible except a cut over and some bruising of the left eye. Yet the patient was suffering from great shock; he was semi-delirious and extremely blanched, the lips and mucous membrane being livid white. The pupils were dilated and equal, and no sign of fracture of the skull could be recognized. If there had been epistaxis it had ceased prior to admission, and there was no bleeding from the ears. There was no marked abdominal distension, but tenderness was elicited on pressure on the abdomen and on the left chest. Some dullness existed in the left iliac and lumbar regions. He could both move his legs and feel, and there were no symptoms of injury to the spinal cord.

The patient rapidly sank into unconsciousness, and died with symptoms pointing to internal haemorrhage about an hour after admission.

Necropsy.

A *post-mortem* examination was made by Dr. Robert Muir, Professor of Pathology in Glasgow University, to whom I am indebted for the following report:

A well-developed muscular man, with rigor mortis still present. There was a fresh ecchymosis of the left eyelids, but no subconjunctival haemorrhage. A small fresh incised wound, 1½ in. long, was found over the left supraorbital ridge. There was no external evidence of injury to trunk.

Head.—A fracture of the frontal bone is found extending down on the left side to the inner end of the supraorbital ridge. This part measures 2½ in., and has a small offshoot on either side. On the base of the skull the fracture is traced along the left orbital plate and across the sella turcica to the right middle fossa, ending just above the base of the petrous bone on the right side. A slight diffuse subarachnoid haemorrhage is present, especially over the posterior part of the right parietal lobe. No gross lesions in brain or pons.

Thorax.—A fracture is found through the first left costal cartilage near the sternum, and some tearing up of the sterno-clavicular ligaments and fibro-plate; no actual dislocation. The second, third, fourth, fifth, and sixth ribs are broken through about their middles. The parietal pleura is torn over the broken ends of the third and fourth ribs, and 6 oz. of blood is found in the left pleural sac. The eleventh rib is fractured towards the exterior end. Both lungs oedematous, otherwise healthy; no perforation of left lung, only slight bruising. Heart fairly normal.

Abdomen.—Two pints of fresh blood are found in the abdominal cavity. The spleen is extensively lacerated. There is much haemorrhage into the connective tissue round the left kidney and suprarenal. The left kidney is markedly crushed and lacerated. The right kidney is uninjured, as also is the liver. The oesophagus, stomach, and intestine are uninjured. No blood in the rectal faeces and no injury to the bladder. No injuries to the bones or column.

This man, therefore, walked half a mile after receiving:

1. A fractured skull.
2. Extensive fractures of the ribs.
3. Pulping of the spleen.
4. Pulping of the kidney and lesions in the vicinity of the solar plexus.

The bowlful of blood had probably been passed by the urethra from the ruptured kidney.

He was a tall and powerful man, but to achieve the above feat showed a retentive tenacity above the ordinary. It is seldom that such an extraordinary case is met with, and therefore it was deemed desirable to report it.

THE INFLUENCE OF MARIENBAD SULPHATE WATER ON ALBUMINURIA.

By MAX PORGES, M.D.,
MARIENBAD.

ALTHOUGH our ideas of the importance of albumen and casts in the urine have materially changed during the past decade, yet their presence must still be considered a fact of pathological moment. We know also that there are a number af pathological states in which the kidneys show a defect of function producing a temporary appearance of albumen and casts.

For many years I have been impressed with the fact that the presence of albumen with or without casts is very constant among the patients who come to Marienbad. The same observation has been published already by Dr. Zörkendörfer, director of the Balneological Institute,[1] who found either albumen or casts in 80 per cent. of his patients. Pflanz,[2] who has published cases that have been for a long time under observation, likewise draws attention to the frequency of this phenomenon.

The patients who are seen in Marienbad may be classed for the most part in four groups: (1) The obese; (2) the arterio-sclerotic; (3) those of the gouty-rheumatic diathesis; and (4) the plethoric.

If we analyse these cases the fact emerges that it is in the class of plethorics, and more particularly in those affected with plethora abdominalis, that albuminuria and casts make their appearance in the largest percentage. The arthritic and the gouty appear to be also subject to this kind of albuminuria.

Furthermore we have observed that this form of albuminuria with casts is very favourably influenced by the use of sulphate waters. In those cases in which there was well-established chronic nephritis, with rise in blood pressure, uraemic symptoms, and cardiac hypertrophy, it was scarcely possible to point to any favourable influence; on the other hand, we must be especially careful to avoid overburdening the heart by the use of mineral waters. But when the albuminuria is a symptom of disturbance in renal circulation, the unloading of the abdominal vessels will manifestly exercise a favourable influence on the nephritis, and consequently on the albuminuria.

In these cases it is generally a question of individuals who lead a sedentary life, are frequently overfed, often give the impression that their abdominal circulation is disturbed, and frequently suffer from haemorrhoids. There is often also constipation; nevertheless this is certainly not the reason for the albuminuria, as one could assume it *a priori* to be a symptom of enteric auto-intoxication.[3] Indeed, in a whole series of these cases not only is there no constipation, but rather frequent evacuation of stools, and even diarrhoea, existing as a symptom of intestinal catarrh due to this stasis. These patients generally exhibit a much distended abdomen, with symptoms of meteorism; the diaphragm is raised, and there is the characteristic displacement in the area of cardiac dullness described by Schütz.[4] The subjective symptoms consist in a feeling of plethora after meals, severe flatulence, and

a slight dyspnoea on exertion. The quantities of albumen vary between mere traces and 0.5 per cent., and the cylinders from two to fifteen in a specimen.

After using sulphate water for three or four weeks both the albumen and the cylinders disappear completely, and at the same time the symptoms of plethora are removed. The course is an equally favourable one in the case of a combination of arthritis and gout with abdominal plethora. If the patient becomes exposed to the old injurious influences after the albuminuria has gone, there is a fresh onset, after some time, of the excretion of albumen and cylinders, but this promptly disappears if the sulphate water be taken afresh. I have had this typical condition under observation in a patient for sixteen years, without so far any permanent mischief resulting to the kidneys.

In spite of the fact that the albuminuria and cylindruria taken by themselves in subjects of plethora do not, in my opinion, represent any serious pathological factor, it is nevertheless important to abolish the abdominal circulatory disturbance in good time by the aid of sulphate waters, as permanent mischief to the kidneys is certainly likely to result from the onset of injurious influences coming from some other quarter.

REFERENCES.
[1] *Wiener klinische Wochenschrift*, 1911, No. 5. [2] Ibid., 1911, No. 10. [3] Kohler, *Wiener klinische Wochenschrift*, 1898; Wallenstein, *Zeitschrift für klinische Medicin*, Band 58. [4] Schütz, *Prager med. Wochenschrift*, 1912, No. 24.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

THREE CASES OF ECLAMPSIA.

CASE I.—In June, 1906, I was called at 9 p.m. to Mrs. L., aged 39, about two miles in the country, for her fourth confinement. On arrival I found the child (a small girl, about eight and a half months) born, and the afterbirth just come away. There was no trouble with the labour. On putting the binder on, I was struck with the swelling of the legs, which seemed more than is frequently found in hard-working multipara. She told me they had been big for some time. She had had three natural confinements previously and three miscarriages. She had diarrhoea all the day the baby was born.

Next morning she complained of feeling sick and not sleeping. The oedema of the legs was less, but the face looked puffy. She had passed a fair amount of urine. The husband came to me in the evening and said she was better, but feeling sick still. I gave her a mixture with some bromide. I was called at 5 a.m. and found her unconscious, face flushed and puffy, pulse 120 and bounding. She had had fits at 9 p.m., 2 a.m., and 5 a.m. I gave her some chloroform and gr. ½ of morphine, which quieted her. I left about an hour later, but was called again almost at once to hear that she had had another very bad fit. I gave gr. ½ morphine, which caused a severe fit. I also gave 20 grains of chloral and potassium bromide by the rectum and drew off some urine, which was nearly solid with albumen. She had four fits during the day, and could not be roused at all. She had a succession of fits from 1.30 a.m. to 2.30 a.m., gradually became weaker, and died at 1 p.m.

CASE II.—I was called to a primipara, aged 24, at 7 a.m. on February 27th, 1909. She had fits at 6 a.m., 6.30, 7, 7.30, 7.45, 8.15, 11.20, 11.45, and 2.30. I gave her morphine gr. ½ at once. At 9 a.m., under chloroform, I dilated the os with Hegar's dilators, and put in a Barnes's bag. At noon I removed the bag, under chloroform, got my hand in the vagina, and dilated the os with the fingers. I then passed a sound, punctured the membranes, seized a leg, and delivered. The baby weighed 3½ lb., and did not live long. At 3 p.m. I gave her gr. iij of calomel and ɱ j of croton oil. She had severe fits at 5 p.m. and 7 p.m., when I again gave morphine gr. ½. She had a good night and no more fits. Next day she passed water freely, and gradually convalesced.

CASE III.—The patient was a primipara, aged 26, living about four miles away over the downs, to which I could only walk as there is no road. The confinement—on February 8th, 1913—was normal. Low forceps were used and a few whiffs of chloroform given. This was at 10 a.m. I was called back at 2 p.m. and found the patient quite unconscious. From her mother's description she had evidently had a fit. I gave her morphine gr. ½, and injected two pints of saline under the breasts; her pulse was 120. Next morning she was in the same condition except that she was paralysed down the left side. What little urine was in the bladder was full of albumen. She gradually became more feeble, and died early the next morning. The mother told me that her daughter had been quite well whilst carrying but her feet had been slightly swollen.

It used to be taught that eclampsia coming on after labour was usually mild and the patient mostly recovered. With me the opposite has been the case. Possibly in a hospital, with all the latest treatment at hand, they might have recovered, but I am rather doubtful of it. It is very difficult to have to treat a serious case several miles from home over the downs with only the next-door neighbour as midwife.

C. B. GERVIS,
Seaford. M.D.Brux., M.R.C.S.Eng., L.R.C.P.Lond.

APPENDICITIS COMPLICATING EXTRAUTERINE PREGNANCY.

ON September 19th, 1912, I was called to see a married woman, aged 23, complaining of pain and swelling in the left iliac region, which two days previously had been sufficiently acute to make her faint. She looked pale; temperature normal, pulse 102, respirations 18 per minute. Great tenderness and a distinct swelling in the left iliac region fully an inch above Poupart's ligament. Menstruation had been regular, but at her usual period three weeks before it had been scant, and she had continued to see a little every day. Micturition had been more frequent and accompanied by pain, as was also every movement of the bowels. The breasts were fuller than usual, and a drop of clear fluid could easily be expressed from the nipple.

The previous history showed that the pain had existed for at least twelve months, lasting a few days at a time and then disappearing for some weeks, but she was always conscious of discomfort in that region. This was aggravated by taking food and when the bowels were moved. She had lost flesh. Vaginal examination revealed a large firm swelling in Douglas's pouch, extending into the left broad ligament, with great tenderness in that region. An early abortion was diagnosed, and the pain and swelling on the left side regarded as inflammatory.

She was kept in bed, and the pain became easier and the metrorrhagia lessened; but on September 24th she had another attack of severe pain, and when I saw her next morning the pulse was 120 per minute, temperature subnormal, and the discharge profuse and offensive. The following day the uterus was curetted under an anaesthetic. No membrane was seen, but the discharge ceased. The pain and swelling, however, persisted, and four days after the curetting milk could be expressed from the breasts. A diagnosis of extrauterine pregnancy was then finally adopted. Hence on October 3rd I opened the abdomen through the inner border of the left rectus and found in the swelling not only the expected sac, but also the appendix and a loop of small bowel, these both being inflamed. There was also a large clot of blood. I completed the operation by removing the sac, the left Fallopian tube, the appendix, and the clot, and by stitching up the loop of bowel, which had been slightly torn in separating it. The patient made an uneventful recovery.

What had happened was that an old-standing appendicitis (the appendix extending to the left side) had set up an inflammation and formed adhesions round the left broad ligament. An extrauterine pregnancy had then taken place in the Fallopian tube on the left side, and had ruptured about six weeks, causing the collapse and swelling from the resultant haemorrhage, which was limited by the adhesions formed as a result of the appendicitis.

The condition of the tissue, especially the friability of the broad ligament, added to the difficulty of the operation, more particularly with regard to the vessels. The sickness (which resembled the sickness of pregnancy after the

curetting, and persisted until the second operation) disappeared immediately afterwards, as did also the milk from the breasts.

Dr. Findlay examined the case and gave the anaesthetic on both occasions at the patient's home.

ROBERT STEWART, L.R.C.P. and S., D.P.H.

Nelson, Lancashire.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

TAUNTON AND SOMERSET HOSPITAL.

A CASE OF CARCINOMA OF THE DESCENDING COLON IN A MAN AGED 27.

(By CHAS. FARRANT, Surgeon to the Hospital.)

W. C. S., a baker by trade, and a heavy cider drinker, was first seen by Dr. Alcock, of Creech St. Michael, on February 7th, complaining of pains in the stomach and sickness—chiefly in the morning—and loss of appetite. The bowels were not confined.

He improved under a mixture containing bismuth and soda until February 16th, when he complained of a return of the pains, which were severe, he said, all day. He vomited milk, but retained beef-tea and broth. His tongue was very dirty. There was some slight abdominal tenderness and a little distension. His temperature was normal. The bowels acted at 10 p.m. He had a bad night, with pain and sickness, and on the following morning his tongue was dirty, and the distension had increased. He was given an enema which brought away a few scybala and much flatus; this was followed by great relief. On February 18th and 19th he was better; there was not so much distension, and not so much vomiting.

On February 20th he was admitted to hospital on Dr. Alcock's advice. He vomited some green mucus, which had no faecal smell. He did not look ill; the tongue was dry, and the abdomen moderately distended. There was no tenderness or rigidity. Repeated enemata brought away some scybala and much flatus, and the distension was diminished.

For the next few days he remained very much the same. The bowels were kept open with enemata, and there was no increase of distension.

On February 24th, as there was no improvement in his condition, he was anaesthetized and examined with the sigmoidoscope, but nothing was found.

The abdomen was then opened to the left of the middle line by an incision about 4 in. long, with its centre below the umbilicus. A constriction was found in the descending colon. The wound was enlarged, and an attempt made to bring the affected gut outside, when unfortunately it burst just above the constriction, causing an escape of faeces. The hole was quickly clamped and everything mopped clean. The mesentery was then perforated and two pairs of intestinal clamps applied above and below the growth, which was then removed. An end-to-end anastomosis was made and the abdomen closed.

The patient left the table in a very feeble state, and, never rallying from the operation, died three hours after.

The growth was flat, about the size of a florin, with a depressed centre and thickened rolled edges. A piece was removed and examined by the Clinical Research Association, which reported as follows:

> This growth is a columnar-celled carcinoma composed of very irregular alveoli lined by proliferating columnar epithelium. These are infiltrating the submucous and muscle coats, and contrast very clearly with the normal mucous membrane.

ON May 6th Dr. Woodrow Wilson, President of the United States of America, received a representative joint delegation from the American Medical Association and a Committee on the Conservation of Health of the American Academy of Sciences, which urged the expediency of the establishment of a Cabinet department of public health. The delegation consisted of Professor Irving Fisher, Dr. A. Jacobi, Dr. G. H. Simmons, Dr. Harvey W. Wyley, Dr. Favill, and Dr. John B. Murphy.

Reports of Societies.

ROYAL SOCIETY OF MEDICINE.

SECTION OF OBSTETRICS AND GYNAECOLOGY.

AT a meeting on June 5th, Dr. AMAND ROUTH, President, in the chair, Dr. R. H. PARAMORE, in a paper on the *Intra-abdominal pressure in pregnancy*, said that his measurement of the pressure in the rectum in 24 cases of pregnancy showed that such pressure increased in pregnancy. This was the case whether the patient was standing or lying. It had been thought by those who had previously investigated the pressure in the rectum that this increase was due to an increase in the visceral weight, and that the pressure above the pregnant uterus was not increased. Hörmann, who made many investigations in all sorts of cases, came to this opinion. That authority's conclusion was, however, untenable, since the rectal pressure did not vary merely with increase of visceral weight, nor, indeed, with increase of visceral volume. The speaker, from a consideration of the intra-abdominal pressure in the non-pregnant, held that the visceral weight played some part in the production of the pressure, but that the compression of the visceral mass caused by the concerted reactions of the abdominal wall, thoracic diaphragm, and pelvic floor was much more important. That this compression was greater in pregnant than in non-pregnant women was shown by the change in musculature. It was in the well-developed women who became pregnant that higher pressure values were obtained, and it was in these that the toxaemia of pregnancy was so liable to occur. Dr. GRIFFITH said he was satisfied that Dr. Paramore had proved that intra-abdominal pressure was increased in pregnancy with primigravidae. But he had offered no evidence in the case of multigravidae with lax abdominal walls, and in them it was highly improbable that there was any similar increase except that directly due to the increased weight of the uterus and its contents. The author appeared to think that there was something wonderful about the ascent of the uterus, but he (the speaker) did not think it differed from ascent of the bladder due to distension—that is, the base of the organ remained at the same level. The PRESIDENT did not think that Dr. Paramore had sufficiently proved his first point to advance his main theory that the toxaemias of pregnancy were due to exaggerated increase of intra-abdominal pressure. The preliminary point now brought forward, that the increase of intra-abdominal pressure observed by him and others in pregnancy was due to the increased tone or tonic contractions of the muscles of the abdominal wall and thoracic diaphragm when at rest, had not been proved by him. Mr. GLENDINING said that the only reliable method of estimating intra-abdominal pressure was by a manometer introduced into the peritoneal cavity; the author had measured the intravisceral pressure, which was not at all the same thing. Dr. EDEN said that although the author's conclusions were not in themselves unreasonable, his paper failed to carry conviction because it consisted of too little fact and too much theory. The absence of control observations on non-pregnant women, and upon other common forms of abdominal distension such as ovarian and fibroid tumours, greatly weakened the case. Again, the conclusions he drew from the association of muscularity and corpulency—namely, that the abdominal muscles became hypertrophied as the result of an increase of intra-abdominal fat, did not appear sound; it was quite feasible that these persons were unusually muscular before they became corpulent. The author would find it very difficult to establish a mechanical theory of toxaemia, in view of the careful scientific work of recent years which pointed so strongly to biochemical causes.

SECTION OF LARYNGOLOGY.

AT a meeting on June 6th, Mr. HERBERT TILLEY, President, in the chair, the following were among the exhibits: The PRESIDENT: A case shown in illustration of the effect of time in obliterating extensive frontal scars. Dr. LAMBERT LACK: A *Nasal osteoma* recurrent in the region above the inferior turbinal of a woman aged 31. Nine

years ago a large osteoma had been ablated by the curette. Mr. H. J. DAVIS: Notes of a case of *Cavernous thrombosis* following tonsillitis in a boy aged 10 which terminated fatally in eighteen days. Antistreptococcus serum was injected on the ninth day, and only *Staphylococcus albus* resulted from a blood cultivation. The cavernous symptoms were definite on the fourteenth day. Infection had probably taken place by the facial vein. Incisions and doses of liq. ammon. fort.—5 minims in water every two hours—were of no avail, though such treatment diminished the tendency to thrombosis. The tonsillitis was on the left side, and the thrombosis symptoms were on this side only. Mr. O'MALLEY regarded the sphenoidal venous system as the route of infection, and in this Sir STCLAIR THOMSON concurred, adducing the evidence of sphenoidal sinus cases. Dr. FITZGERALD POWELL also quoted instances of the extension of thrombosis to the cavernous sinus along the petrosal sinus in petrous necrosis. Dr. JOBSON HORNE: A man aged 36 with a *Prominent superior ventricular band* concealing the vocal cord, and raised the question whether this was due to early tuberculosis of the laryngeal sac or a deformity. Examination of the sputum and chest were negative. Sir STCLAIR THOMSON considered the larynx to be free from disease. Dr. DAN MCKENZIE regarded the appearance as due to a prominent superior band, while in Dr. WILLIAM HILL'S opinion the sac was affected. Dr. DAN MCKENZIE: A case of *Sinusitis exulcerans* of the frontal sinus. In the first operation, which was directed to relieve the pus tension, in stripping up the frontal periosteum the elevator passed through the soft bone sinus and posterior wall through the dura, and inflicted a 3 mm. wound. The anterior wall was removed and the dural wound opened and a gauze drain inserted. As progress was good, six weeks later an attempt was made, after a modified Killian operation, to establish an infundibulum, which caused great reaction and necessitated a return to drainage through the skin incision. Subsequently the removal of a track leading to the optic foramen and softened bone in the outer angle resulted in healing. Dr. DAN MCKENZIE recorded a death after *Tonsillotomy* in a boy aged 9 who had had subacute middle-ear catarrh. Three days after the operation an incision over the oedematous neck allowed fetid pus to be delivered by Hilton's method for the deeper planes. Two days later pneumonic symptoms appeared, and the patient died. The organisms obtained from the pleural and cervical cavities were similar to those indigenous in the mouth. The teeth were sound, but the usual precaution of using a lysol mouth wash had been omitted. The case appeared to be a septicaemia from mouth infection. The primary infection was probably pneumococcal.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AT a meeting on June 6th, Dr. G. P. SHUTER, President, in the chair, Mr. T. JEFFERSON FAULDER, in a paper on *Enucleation of the tonsils*, said that he had ascertained that at least 40,000 operations for tonsils and adenoids were performed in the London hospitals alone during the year 1909, and it was therefore important to have an exact appreciation of the indications for operation and the best method of procedure. He had come to the conclusion that if it was found necessary to interfere with the tonsil surgically, it should in all, or nearly all, cases be completely removed. By complete removal he meant removal of the faucial part of the tonsil with its capsule, the lingual prolongation not being interfered with. Perhaps one of the most urgent reasons in support of his proposition was the fact that under previous conditions repeated operations were necessary. He was called to operate upon many cases where two, three, and even four operations had already been performed, and to his mind this constituted one of the most serious indictments of all against partial removal of a condemned tonsil. Partial removal was liable to set up recurrent tonsillitis and rapidly recurring hypertrophy in patients who had never suffered from sore throat before, and it was the recognition of this very fact which led to the evolution of the various methods of enucleation. With regard to the method best adapted for carrying out removal of the tonsil, it must be observed that the surgeon's object in using the guillotine was always to remove as much of the tonsil as possible. In using the guillotine in the original way it happened not uncommonly that so much tonsil was removed as to amount to enucleation. For this result, however, a very special kind of tonsil was essential—namely, a tonsil pedunculated, projecting, and not at all embedded—one with a capsular area very much less than that of the free surface, a variety relatively uncommon. But enucleation of embedded tonsils could be carried out with the guillotine as well as by any other method. All methods aiming at complete removal, whether by volsellum and forceps, wire snare, scissors, periosteal elevator, blunt knife or guillotine, were dissection methods, and he maintained that dissection by the guillotine had several advantages of its own. It took no longer to remove completely both tonsils by this method than it did to remove pieces of them. Mr. Faulder then demonstrated the principle of the method of operating, introduced by Sluder, with the aid of a phantom. Objections to total removal with reference to the hypothetical internal secretion of the tonsil were next dealt with, and the question of the protective value of a diseased tonsil appeared to have much the same academic value. He could not help thinking that this theory of protection arose from the appearance of the hypertrophied tonsils projecting in the narrow fauces like fortified Gibraltars, but he had come to the conclusion that they more resembled Scylla and Charybdis. Though the tonsils might act as filters they very easily became choked filters, a danger to sanitation. Finally he took up the question of post-operative bleeding. He was satisfied that the bleeding during and after the operation under consideration was very much less than that after tonsillotomy with a sharp instrument, and that patients lost less blood from enucleation by this method than by any other. Secondary haemorrhage from the third to the fifth day had occurred, but was excessively rare. As occasional cases of bleeding occurred whatever operation was performed it was necessary to be prepared for them, and his observations pointed to the adenoids being the source of trouble much more frequently than the tonsils. A firm pad of gauze damped with adrenalin was usually sufficient if held in position for a few minutes. The tonsil clamps shown were most efficient, although uncomfortable. Metal clip sutures might be used for clipping the pillars of the fauces together or for clipping the pillars to a roll of gauze placed in the tonsil cavity. What he had sought to do in his paper was to press for careful selection of cases, but at the same time for more thorough treatment. The PRESIDENT said Sluder's method was a less serious procedure than dissection, and appeared to achieve equally satisfactory results in most cases, but where it might be necessary to remove the whole tonsil, as in the case of diphtheria carriers, a dissecting operation was indicated. Dr. H. J. DAVIS strongly recommended Sluder's operation as performed with a blunt-bladed tonsillectome, and showed that surgeon's instruments presented to him by the inventor. They were far and away the best of the many instruments he had used for enucleating tonsils. Dr. M. E. LEICESTER agreed with Mr. Faulder that in operating on children no special instrument was required so long as the one selected was the right size, but in adults, where previous tonsillotomy had resulted in repeated attacks of tonsillitis, the tissues were thick and tough, and required a specially adapted instrument. Mr. O. L. ADDISON saw no reason for leaving any part of the tonsil, and thought the only satisfactory way in the majority of cases was to remove the entire tonsil with its capsule and lingual prolongation by the blunt dissection method originally introduced by Mr. Waugh. Mr. H. TYRRELL GRAY agreed with Mr. Faulder that complete removal of a diseased tonsil was essential, but enucleation with a guillotine lacked precision, and any method which failed to remove the lingual prolongation was unsound. None of the recent innovations on Waugh's method of blunt dissection appeared adequate. Mr. J. F. O'MALLEY recorded his high appreciation of Waugh's operation, but did not consider it essential, in the majority of cases, to remove the process of lymphoid tissue which connected the tonsil with the tongue, and did not like the depth of anaesthesia required in that operation. Mr. T. JEFFERSON FAULDER, in his reply to comments, mentioned that the

percentage of successful cases depended to some extent upon the selection, but he agreed with those speakers who put it at not less than 90 per cent.

EDINBURGH OBSTETRICAL SOCIETY.

At a meeting on June 11th, Dr. HAIG FERGUSON in the chair, Dr. BERRY HART discussed the *Pressure experienced by the fetus in utero*, referring especially to the work of Murk Jansen on achondroplasia, who believed that the shortening of the four limbs and of the basi cranii in this condition was due to extra local pressure from the amniotic fluid or the wall of the amnion. The speaker reasoned that, in addition to the liquor amnii, there was the intra-abdominal pressure, and the pressure exerted on the fetus must be uniform and equable. It was impossible to see how local pressure could have any influence in preventing growth in a symmetrical way. The explanation was to be found in the discovery that the bones affected in achondroplasia largely depended for their growth during fetal life upon endochondral ossification, the cause of the deficient growth being a premature arrest or absence of this process. The bony skeleton consisted of three great sections—the bones developed in early endochondral ossification, those developed in late endochondral ossification, and those developing in membrane. This division suggested the existence of Mendelian unit characters concerned in the formation of the skeleton. These, according to Weismann, would reside in the zygote as determinants, and, according to the author, achondroplasia corresponds to a loss of a growth factor for the bones developing in early endochondral ossification. This loss occurred with the extrusion of the polar bodies at fertilization and gave a variation analogous to the mutation of De Vries. Two rare specimens of *Hydatid mole in utero* were shown, the first by Dr. HAIG FERGUSON. The patient, 49 years old, had been married for eight years, and had had three abortions previously. She missed two periods, and on November 27th, 1912, commenced to bleed, this continuing to the operation on December 22nd. When seen then there was severe anaemia, breathlessness, and an abdominal swelling extending as far as the umbilicus. The diagnosis lay between a fibroid with pregnancy, placenta praevia, and hydatid mole. In view of the uncertain diagnosis and the danger which forcible dilatation of a rigid cervix in an exhausted woman would mean, hysterectomy was decided upon. There was free fluid in the abdomen, possibly indicating erosion of the uterine wall, and this, taken with the age of the patient, determined the author to perform supravaginal hysterectomy. On opening the abdomen 2 quarts of fluid escaped. Recovery was good. The second specimen, shown by Dr. J. W. BALLANTYNE, was obtained *post mortem* from a woman who died of haemorrhage immediately after reaching hospital. She was 47 years old and was three months pregnant. The uterus was enlarged to the size of a seven months pregnancy. Dr. JAMES YOUNG described the pathological features of the two cases. In the first case the wall of the uterus was about one-third of an inch thick throughout. There was no evidence of erosion of the uterine muscle of a malignant nature. In front the uterine cavity was seen and intervening between it and the hydatid mole there was a fibrinous layer—the decidua reflexa—that is, the mole was situated entirely within the mucosa of the uterus, the bleeding coming through the thin reflexa. Microscopically, appearances similar to those usually present in regions of chorionic activity were seen. The second specimen showed appearances like those seen in the above. In it the decidua reflexa was better preserved, although the hydatid mole was larger and in it definite decidual cells were seen.

WARWICK AND LEAMINGTON MEDICAL SOCIETY.

At a meeting on June 6th, Dr. ARNOLD MORRIS in the chair, Mr. BERNARD RICE in opening a discussion on *Appendicitis* gave an historical account of the disease. The first recorded case was in 1750, and from that time its increase had been gradual, but during the last decade had without doubt become much more frequent. He was at a loss to account for this, but inclined to look with favour on the influenzal theory and that connected with the use of enamelled saucepans. In diagnosis it was important to bear in mind the similarity of symptoms sometimes found in cases of movable kidney and also ovarian disease. The condition of the pulse was the safest guide. In regard to treatment, he agreed that all cases of diagnosed appendicitis required operation, and generally immediate operation. On the other hand he deprecated hard and fast rules, and called to mind cases in which he had regretted immediate operative interference, whilst he could not recollect any case of his in which waiting for a few hours under strict observation had been at all prejudicial to his patient's interest.

Reviews.

BIOCHEMISTRY.

In a small volume of some 400 pages Professor CARL OPPENHEIMER[1] has endeavoured to place before the student, and in particular the practitioner, the present position of biochemistry, and has succeeded in producing a most useful book for those who have not the opportunity or leisure for consulting the longer works and ever-growing literature on this most important subject. He has omitted all detailed description of the elementary substances and analytical composition of the body and also all methods, and has thus made room for the latest phases of knowledge in regard to those many great problems of biochemistry which so closely affect the nutrition of the body and the pathology and treatment of disease. In dealing with carbohydrates the author, using a simile suggested by Bernard, happily compares the glycogen dépôt of the body with the daily deposits of cash which are paid in and out of a bank, while the fat dépôts, mobilized with greater difficulty, are comparable to the paper securities which have to be realized before they can be used. The carbohydrates of the body can be utilized for the production of some, although not very much, energy at times of oxygen want, being then broken down into lactic acid. Neither protein nor fat can be so used, and the body does everything to conserve a store of glycogen against such need. In the chapter on ferments we find fibrin ferment still holds its own, but a note is added in which the modern work is mentioned whereby doubt is thrown on the ferment nature of coagulation of the blood which is ascribed to a precipitative change occurring in the colloidal blood proteins. Discussing the theory of muscle work the author puts forward the hypothesis of Zuntz that the contractile muscle element (sarcous element) explodes a molecule of foodstuff, and so produces in a confined space a high temperature, for example, 2,000° C. While this is almost instantly reduced again to a low temperature by the surrounding fluid, it suffices to produce an osmotic change in the muscle element which causes the entry of fluid and the swelling and shortening of the element. Thus the muscle is compared to an internal combustion engine.

Mr. SIDNEY COLE has brought out the third edition of his excellent laboratory book on *Practical Physiological Chemistry*.[2] Every exercise in this book has been worked through by the author, and the instructions are so given, and notes added, that the student who cares can reach and understand the stated results. Mr. Cole deals with his subject in the spirit of modern chemical science, explains on the ionic hypothesis the falling out of precipitates in colloidal solution such as the proteins form, gives the proper physical and chemical ideas concerning the reaction of the body fluids, and sets forth the recent improved methods of identifying and estimating the quantities of important physiological substances. Thus, in the chapter on the urine we find Folin's micro-chemical methods of estimating total nitrogen, ammonia, urea and urea acid, and Benedict's methods of estimating urea. In the estimation of total nitrogen by Folin's micro-chemical method a small volume of

[1] *Grundriss der Biochemie.* By Professor Carl Oppenheimer. Leipzig: G. Thieme. 1912. (Post 8vo, pp. 407. 9s.)

[2] *Practical Physiological Chemistry.* By Sidney W. Cole, M.A. Third edition. Cambridge: W. Heffer and Sons, Ltd. 1913. (Demy 8vo, pp. 240; figs. 13. 7s. 6d. net.)

urine is decomposed by sulphuric acid as in Kjeldahl's method; the ammonia is drawn over into acid and the solution treated with Nessler's reagent; the amount of ammonia is determined colorimetrically (using a Dubosq colorimeter) by comparison with a standard solution of ammonium sulphate simultaneously Nesslerized. In estimating urea the urine is treated with potassium acetate and acetic acid and boiled. The boiling point of the mixture is about 155° C., and at this temperature the urea is rapidly hydrolyzed to CO_2 and ammonia; caustic potash is added, and the ammonia aspirated into acid, and the determination proceeds as above. In estimating uric acid, Folin's uric acid reagent is used; this becomes coloured blue, and is compared colorimetrically with a standard solution of uric acid similarly treated. Mr. Cole says these methods of Folin are reliable, and may be quickly performed with but small amount of apparatus. He urges their clinical use and importance. The hypobromite method of estimating urea is too inaccurate to be of much value. In dealing with the acidity of gastric juice the author points out that the estimation of free HCl is practically that of the concentration of hydrogen ions in the gastric contents. HCl is very freely dissociated into H and Cl ions in such dilutions as those found in the stomach. But weak acids, as lactic and butyric, are only slightly dissociated. The addition of protein to a solution of HCl decreases the concentration of H ions, owing to the formation of a compound that only dissociates to a relatively small extent. The estimation of the free HCl is best done by the electrical method. The use of indicators is not advised. According to the latest researches it is certain that even Toepper's reagent (dimethylamido-azobenzene) reacts with an excess of butyric and lactic acids, and also with HCl in combination with protein. The simplest clinical method that gives results at all comparable with the electrical method is that of titrating with standard NaOH until no reaction for free HCl is obtained with Gunsberg's reagent. This method, however, is rather tedious.

CLINICAL MEDICINE.

IT is not often that the opportunity presents itself of reviewing such a work as *Clinical Medicine*,[3] by Drs. JUDSON BURY and RAMSBOTTOM, the last edition of which was issued (by Dr. Bury) something like thirteen years ago. When the important additions which have been made to the means of studying the manifestations of disease are remembered, the thought occurs that probably the work which appeared in its first and second editions under the name of Dr. Judson Bury alone would on this occasion present but little semblance to its predecessors. Fortunately for the modern student of medicine, it will be found, however, that whilst no pains have been spared to adjust the subject matter of the former editions to present-day knowledge, the principles which guided Dr. Judson Bury in the former editions have not been departed from. The salient feature of this guide to the study of clinical medicine is the graphic presentation to the student of the almost endless objective and subjective manifestations which are discoverable at the bedside. Numerous illustrations of objective signs will be found scattered through the work; their faithfulness is, as a rule, remarkable, though it must be admitted that a few are so crude that it would be well to replace them by others more in keeping which are so excellent (for example, Figs. 2, 12, 30, and 265). Besides pointing out with such success the objective manifestation of disease, the authors have contrived to write a book which is most readable; it is no mere piece of scissors and paste compilation, and the reader need fear no forbidding tables; or if he does find a few tables, he will also discover that their severity has been toned down by admirably written descriptions. The authors have called to their assistance three other workers in spinal subjects—Drs. Barclay, Wild, and Loveday—who have made themselves responsible for additions or revisions of sections dealing with Roentgen rays, diseases of the skin and its appendages, and the examination of the blood; indeed, the chapter dealing with the radiographic investigations contains one of the best accounts of the application of *x* rays to clinical medicine which a student could read. Favourable comment must also be passed on the section dealing with the examination of the digestive system and abdominal organs, and were we asked for pages which would exemplify the admirable principles on which the book has been written we would refer to p. 314 and 315, where the authors continue in moderate space to give an excellent differential diagnosis of the causes of ascites. It might be expected that the thoroughness of the revision of this edition might best be estimated by a study of the chapter dealing with the examination of the nervous system. It will not be found wanting, for most clearly described will be found those newer conceptions of the course of sensations—paths which we owe to Dr. Heard and his co-workers. We cannot close the volume without expressing gratitude to the authors for a presentation of their subject which is at once most pleasurable and instructive not only to the early student, who will find within its covers reliable guidance, but also to the senior student and practitioner who wishes to keep abreast in matters connected with clinical medicine.

The treatise by Dr. EMILE SERGENT[4] on the elementary technics of clinical medicine and semeiology is primarily intended for students as an introductory to clinical work. The omission of propaedeutics from the curriculum in the Medical School of Paris has induced Dr. Sergent to organize, with the help of his house-physicians, a series of tutorial classes in order to initiate the students into the usual methods of examining patients; for however well stocked the memory of the novice may be with the systematic descriptions of diseases, he is necessarily embarrassed in the presence of a given case in his endeavour to make a diagnosis, unless he has previously been taught how to collect and to appreciate the requisite data for this purpose. This enterprise has proved so satisfactory to his pupils that at their special request Dr. Sergent has published this book to enable them to refer to the inculcated lessons whenever they deem it necessary. The manual, which is very complete, contains short accounts of the symptoms of most forms of internal diseases with their significance and their conditional diagnostic imports. It also contains instructions for the making of chemical, microscopic, and radiological investigations more immediately suitable for the bedside. All statements in it are concise and easily intelligible; there are also 173 figures in the text and two coloured plates. We have no doubt that the book amply fulfils the purpose for which it is designed and will be most useful not only for students but also for the busy practitioner.

A GERMAN PRACTICE OF MEDICINE.

WE have already reviewed the first volume of Dr. KINDBORG's practice of medicine[5] in the issue of December 11th, 1911, of this JOURNAL. The plan adopted in that volume has been continued in the second, and we are pleased to say with as signal success. Wherever medicine is brought into close contact with the modern developments of the ancillary sciences, whether chemical, physical, anatomical, or physiological, the writer intercalates passages which briefly explain what those developments are, so that the reader is spared the time and trouble of referring to text-books on these subjects. Nothing is taken for granted, and it is assumed that the reader is desirous of knowing not only what it is that medicine borrows from other sciences, but what are the reasons for this adoption. The author has succeeded in the present volume as completely as in the first. Occasionally this plan leads to rather curious results; for example, whilst nearly four pages are given to the study of acute rheumatism, two pages are devoted to the chemical study of salicylates. The present volume concerns itself with those diseases which are con-

[3] *Clinical Medicine.* By Judson S. Bury, M.D.Lond., F.R.C.P., B.Sc.Vict., Consulting Physician to the Manchester Royal Infirmary; Examiner in Medicine to the Royal College of Physicians, London; formerly Professor of Clinical Medicine in the University of Manchester, and Albert Ramsbottom, M.D., M.R.C.P., Assistant Physician to the Royal Infirmary, Manchester. Third edition. London: Charles Griffin and Co., Ltd. 1912. (Med. 8vo, pp. 550; illustrations 305, plates 10. 17s. 6d. net.)

[4] *Technique clinique médicale et sémiologie élémentaires.* By Dr. Emile Sergent. Paris: A. Maloine. 1913. (Cr. 8vo, pp. 780; 173 figures, 2 planches en couleurs. Fr. 13.)

[5] *Theorie und Praxis der Inneren Medizin.* Ein Lehrbuch für Studierende und Aerzte. Von Dr. Erich Kindborg in Bonn. Zweiter Band. Berlin: S. Karger. 1912. (Imp. 8vo, pp. 647; 74 illustrations. Mk. 10.)

sidered to be due to errors of metabolism, to diseases of the organs of locomotion and to those of the digestive organs. As one would expect, Dr. Kindborg is able to give very good accounts of the first and last of these disorders, the study of which has been so much advanced by Continental workers. He is not without a sense of humour, and has his gibe on page 325 about the specialist and the use of the "stomach pump." It is also clear that Dr. Kindborg throughout his volume justifies his concluding sentence in the introduction, in which he says he has endeavoured to give the reader not only an account of the facts and theories of medicine, but also to express what are his own individual views and experiences. This can be seen when, in his remarks upon the meaning of catalepsy on p. 225, "flexibilitas cerea" is shown to be a condition of "transcortical motor apraxia" homologous to "transcortical motor aphasia." Dr. Kindborg gives an excellent account of the physiology and anatomy of muscles, and refers to the newer teaching of Weichardt as to the existence of "fatigue toxins" which operate like bacterial ones, even to the extent of leading possibly to the development of "fatigue antitoxins." Were we asked to state what is the specially interesting as apart from the merely instructive feature of this book, we would say it was the "asides" which Dr. Kindborg so adroitly introduces into what is a readable account of the accepted ideas of medicine. We have referred to some, but on page 142 is another especially interesting: here it will be found that he tilts at the views of Kionka, Kobert, and others according to which the good effects of colchicum in gout are attributed to the stimulant action of the drug upon the liver activity. With Umber and Schittenhelm and Brugsch he considers that colchicum has no "specific" effect—has no power, that is, of acting at the seat of the disorder upon the actual cause of the disorder; it is merely an "anaesthetic." The wonder is that Dr. Kindborg cannot see that probably salicylates act in much the same way, that is, as anaesthetics or anodynes in rheumatic fever. We cannot close the review without a word of praise for the excellent diet charts, for the tables contrasting the types of diabetes, for others showing the different reactions of the urine to 10 per cent. ferric chloride solution under varying circumstances, for the calorie values of common foods, and for the excellent accounts of radium and the physiology of the intestinal tract with special reference to the ferments.

PROSTITUTION.

THE recent output of literature devoted to the discussion of sex problems has gained dimensions which are alarming enough to the busy man who wishes to keep his knowledge of these and kindred subjects up to date. A few decades earlier the purely scientific aspect of these problems was much neglected; and what many medical men of a past generation would scarcely touch, is now carefully dissected, analysed, labelled, and docketed. The fearless discussion of matters hitherto largely shrouded in mystery has done much to put them on a more healthy and physiological basis; but there is also a common tendency at present to burden them with a mass of tedious and nauseous detail scarcely germane to their fundamental principles. This criticism is applicable to the voluminous work by Dr. IWAN BLOCH[6] on the subject of prostitution. The first volume alone runs to 870 pages, and deals mainly with the historical aspect of the subject. In his introduction Dr. Bloch urges the importance of regarding prostitution as a central factor from which other problems of sex radiate, and on which they largely depend. The eradication of prostitution is not, he claims, merely of interest in its bearing on venereal disease; it is also of vast ethical importance. Since the publication of Parent-Duchâtelet in 1836 it has not, he states, been scientifically analysed; and he holds that the time is now ripe for an objective and systematic scrutiny of a state of affairs the continuance of which is challenged. Among the modern movements which may tend to check prostitution must, he says, be included socialism and the emancipation of women. The latter, according to the author, may succeed in demonstrating that prostitution is not the "necessary evil" it has so long been called. He reviews in detail the history of prostitution among savage tribes, among the Grecians and Romans, and during the Middle Ages among the followers of Christianity and Mohammedanism. An interesting account is given of the laws enacted by Solon, whose aims were the preservation of the sanctity of marriage and the free indulgence of the passions out of wedlock. Solon, in other words, legalized prostitution to preserve the sanctity of marriage. This attitude was, in the author's opinion, erroneous; but it has been an unconscionably long time in dying. As might be expected, Martial and Juvenal are largely drawn on by the author, whose classical quotations are numerous. The amours of Clodia-Lesbia and of Valeria Messalina, the wife of the Emperor Claudius, are cited as classical examples of nymphomania and greed leading to scarcely credible excesses. Dr. Bloch's book should prove of value as a work of reference; but its very bulk and encyclopaedic dimensions reduce its usefulness to the average reader.

[6] *Die Prostitution.* Von Dr. Med. Iwan Bloch. Vol. i. Berlin: Louis Marcus. 1912. (Roy. 8vo, pp. 906. Mk. 10.)

CONVERGENCE IN EVOLUTION.

PROFESSOR ARTHUR WILLEY is so well known to all zoologists that any contribution from his pen is always eagerly anticipated. His last book, *Convergence in Evolution*,[7] will therefore be widely read.

The subject of convergence is one which has received much attention in recent years. It is also a subject of no little complexity. Formerly structural resemblances were regarded as indicative of phylogenetic affinity. Now, however, we know that such resemblances may occur as the result of similar factors operating on organisms quite unrelated to one another, that is to say, they are convergent. In the words of the author, the term "convergence" is applied to resemblances "which are not derived by inheritance from common ancestors, but which result from independent functional adaptation to similar ends."

The realization of the facts of convergence has shown that the difficulties in establishing genetic affinities are very much greater than used to be supposed. This has led to a division of morphology into homogenetic or normal morphology and convergent morphology; and comparative anatomists of to-day will doubtless all agree with Professor Willey in regarding each division as of equal importance. He considers convergence in its broadest aspects, and rather from the physiological standpoint. The earlier chapters focus ideas which have probably been at the back of many men's minds without having been definitely formulated. The author shows how animals may be roughly classified into the Phaneozoa and the Cryptozoa, the exposed and the concealed animals; or into the Eleutherozoa and the Statozoa, the free and the fixed. Such divisions are, of course, rough and imperfect, nevertheless the mere suggestion of such a classification is of considerable interest, as it draws attention to certain characters and habits common to animals belonging to widely separated groups.

All such characteristics the author rightly includes under the term "convergent"—a term too often restricted to internal anatomical structures, and for which Lankester has suggested the name "Homoplasy." The various aspects of mimicry, warning colorations, and social instincts are likewise so regarded. The "tropisms" or tendencies to reaction are referred to in relation to the causation of convergence, but only in a tentative manner, as must necessarily be the case in the present inadequate state of our knowledge.

The book is very interesting and very suggestive. If it perhaps leaves a vague feeling of insufficiency, the cause is to be found rather in the lack of sufficient knowledge to enable us to crystallize our ideas than to the author's ability to give them lucid expression. The publication of the *Origin of Species* necessarily gave an enormous impetus to detailed anatomical investigation; with this zoologists are now becoming somewhat surfeited. We require to know more of the why and the wherefore; to correlate and to generalize. It is to such a book as

[7] *Convergence in Evolution.* By Arthur Willey, D.Sc.Lond., Hon. M.A Cantab., F.R.S., Strathcona Professor of Zoology in the M'Gill University, Montreal. London: John Murray. 1911. (Demy 8vo, pp. 177. 7s. 6d.)

this that we look for refreshment, stimulation, and suggestion. Its dedication to Sir E. Ray Lankester is most appropriate.

PLANT-GALLS.

THE nature and causation of plant-galls is a subject which has excited the curiosity and aroused the interests of observers of nature from the earliest times. More than one Greek writer referred to them, and many are the superstitions which centre around these pathological growths and still retain their hold among the rural population.

The latest writer upon the subject is Mr. E. W. STANTON, curator of the Educational Museum at Haslemere. The introduction to his book on *British Plant-galls*[8] is written by Sir JONATHAN HUTCHINSON. It is essentially a book of reference, and as such should prove useful to all workers at the subject. More than half the volume is taken up with classification of the plants that may be affected, of the parasites which may attack the various plants, and with a bibliography. The remainder of the text is mainly devoted to somewhat detailed descriptions of the gall and correlated parasites. It is not a book to read, but to refer to. It seems a matter for regret that so little is said about the causation of the galls. It is true that our knowledge is not extensive, but the general reader would be interested in learning something about the ferments which are known to cause galls in certain plants. The information as to the economic aspects of the subject also is scanty, and more details about such subjects as these would undoubtedly have made the book attractive to a wider circle of readers. There are several very good coloured plates, for which Miss Mary K. Spittal is responsible. The descriptions of the plates are all placed at the end of the book. This arrangement is somewhat distracting—the account of the gall is on one page, the corresponding plate in another part, and the description of the plate at the end of the book. If another edition is called for, the suggestion is offered that to place the description on the page facing the plate would be much more comfortable for the reader. While thus criticizing the book, we cannot but add a word of praise for the patient labour which the author has obviously expended upon it.

NOTES ON BOOKS.

AT this time of day no demonstration of the value of the microscope in the daily work of the public analyst and the pharmacist is needed. The microscope will furnish, with the expenditure of a minimum of material and often of a minimum of time, information concerning the substances analysed that cannot be obtained by any other means. There is scarcely a food or drug that cannot be recognized, or an adulterant that cannot be detected, by its help. Mr. GREENISH'S book on *The Microscopical Examination of Foods and Drugs*,[9] of which we welcome a new edition, is so arranged that the student passes gradually from the simpler to the more complex examinations, acquiring as he proceeds a knowledge of the various tests and operations that are in general use. The starches and spores are described first; then follow careful descriptions of the methods of preparation and of the microscopical appearances of the wood fibres, stems, leaves, flowers, bark, seeds, fruits, rhizomes, or roots of such plants as are most likely to be met with by the analyst and the pharmacist. Of the substances which were not described in the first edition we may mention saffron, which is introduced as an example of part of a flower, almond as a type of the oily seeds now much in use as alimentary substances, and fennel fruit as a type of umbelliferous fruits. Liquorice, gentian, and calumba have been added to the section dealing with the roots. The new chapter on the more common adulterants of preserved foods and drugs and the general scheme for the examination of powders are valuable features. The book is clearly written, the type good, and the illustrations, which are, of course, of prime importance in a work of this kind, are excellent and abundant.

Mr. CARL HANSEL'S *Introductory Electricity and Magnetism*[10] is certainly not a book for the easy chair. It is a book for the work bench, to be held in one hand while the other grasps a bar magnet or operates a switch. As a manual for students preparing for elementary examinations in the subject, it is ably and carefully compiled, and we suppose that we ought to be grateful to an author, especially one who can write so clearly and well, for sacrificing his literary conscience by breaking up his pages into regular alternations of exercises, examples, and sets of questions. But even in a class book an occasional excursion into history and theory might be tolerated, and some sort of bibliography would be acceptable to those who, having accomplished this considerable trial flight, have the desire still to soar.

The rapidity with which edition follows edition of professional lexicons is a proof how new methods and new discoveries demand the introduction of new terms, for the days are long past when experts wilfully invented names which sounded learned and really deceived the general public. Dr. JOHN PRICE, the editor of *Hoblyn's Dictionary*,[11] has not overlooked this phenomenon. The book is amongst the best of its class and in form highly convenient, but the editor has to exercise great judgement lest the new editions grow bulky. The original author, in preparing the tenth edition, made the scholarship of his lexicon more uniformly accurate than before, and went so far as to indicate how unclassical and hybrid were such words as "mentagra." "Why not adopt the term *geneiagra*, from γενειον, the chin?" The present editor has retained several philological rebukes of this kind. We may note, by the way, in regard to "the term" in the sentence just quoted, that one of the most distinguished medico-literary censors strongly objects to "term" when applied so as to be clearly synonymous with "name," yet many leading physicians and surgeons never scruple to do this, and the same we see is the case with the compiler and editor of this dictionary. However, whether new words introduced by authorities and specialists be "names" or "terms," dictionaries are sought for in order that those who consult them may find out what the unfamiliar words signify. This edition supplies one want. There are a great many "new terms," owing, as Dr. Price observes in his preface, to recent advances in bacteriological science. He has turned to Muir and Ritchie's textbook for correct definitions, and so has done us good service. Nor need we groan at the perfectly necessary scientific words coined to denominate germs and their vagaries: at the worst, they are far less objectionable than the denomination of new surgical methods by the names of new operators. Following in Hoblyn's footsteps, Dr. Price has not overlooked scholarship, for he has freely consulted Murray's *New English Dictionary*, to which he admits his indebtedness.

The *Leeds Pharmacopoeia*[12] has been drawn up by a committee appointed jointly by the Local Medical and Pharmaceutical Committees under the Insurance Act, with a view to facilitating the ordering and dispensing of medicines. It contains about a hundred formulae for mixtures, lotions, pills, etc. The *British Pharmaceutical Codex* and the pharmacopoeias of the Leeds Public Dispensary and of various hospitals have been largely utilized in compiling it. Special attention is drawn in the preface to the parogens, a class of compounds adopted from the *Codex*; the basis of these is a mixture of paraffin (hard, soft, or liquid, as required) with an ammonia soap, and medicaments such as iodine can be rendered easy of absorption by the skin by exhibiting them in this form. The appearance of these compounds in the *Leeds Pharmacopoeia* is evidence of the intention of the compilers that the saving of time to prescribers and dispensers which the book is intended to effect shall not be gained at the price of neglecting improved forms of medicines.

[8] *British Plant-galls.* By E. W. Stanton, with an introduction by Sir Jonathan Hutchinson and 16 coloured plates by Mark K. Spittal. London: Methuen and Co., Limited. 1912. (Post 8vo, pp. 302; plates 32. 7s. 6d. net.)

[9] *The Microscopical Examination of Foods and Drugs.* By H. G. Greenish, F.I.C., F.L.S. London: J. and A. Churchill. 1910. (Roy. 8vo, pp. 406; illustrations 209. 12s. 6d.)

[10] Heinemann's Science Manual: *Introductory Electricity and Magnetism.* By Carl W. Hansel, B.Sc.(Hon.). London: William Heinemann. 1913. (Crown 8vo, pp. 392; 283 figures. 2s. 6d. net.)

[11] *Hoblyn's Dictionary of Terms used in Medicine and the Collateral Sciences.* Fifteenth edition, revised throughout, with numerous additions. By John A. P. Price, M.D.Oxon., M.B.Lond., Surgeon to the Royal Berks Hospital, late Physician to the Royal Hospital for Children and Women. London: G. Bell and Sons. 1912. (Post 8vo, pp. 888.)

[12] *Pharmacopoeia Leodiensis (The Leeds Pharmacopoeia).* Published jointly by the Leeds Local Medical Committee and the Leeds Local Pharmaceutical Committee. (1s. net.)

MEDICAL AND SURGICAL APPLIANCES.

A Tuberculin Syringe.

MESSRS. BURROUGHS, WELLCOME AND CO. have recently brought out a syringe which is primarily intended for the administration of tuberculin injections, but could equally well be used for hypodermic medication of any kind. It consists, apart from the needle, of three separate parts—a syringe barrel, a plunger, and a nozzle. All three are of glass, the latter being of blue glass, while the barrel, which holds just 1 c.cm., is marked in red in twentieths of a cubic centimetre. Being of glass the whole is easily sterilizable, while experiment shows that the piston fits the barrel so accurately that leakage does not occur. To this extent this new syringe does not differ from many others of the same order, but nevertheless there is a difference of material interest—namely, the syringe barrel is of such narrow calibre that there is a considerable distance between the graduating lines. This fact, coupled with the difference of colour between plunger and barrel, should make accurate measurement of a dose easy. The syringe, therefore, has definite practical merit.

A Retractor.

Mr. STANLEY BOYD, F.R.C.S. (Surgeon to Charing Cross Hospital), writes: The advantage and frequent necessity of dispensing with the hand of assistants is acknowledged. The simple retractor illustrated here has often enabled me to do so with comfort. The Holborn Surgical Instrument Company make it with claws ½ in. and 1 in. deep, the latter for the deeper wounds. With two of the retractors—one holding open the fat and external oblique, the other the internal oblique and transversalis—removal of an appendix by the muscle-splitting incision can be easily carried out.



Hypodermic Medication.

Under the title of "hypotubes," Messrs. Evans, Sons, Lescher, and Webb are now issuing hypodermic solutions and vaccines of various kinds put up in a manner designed to do away with the use of hypodermic syringes. The solution is placed in collapsible tin tubes which end not in a cap but a closed nozzle, which is so shaped as to fit accurately into the neck of a hypodermic needle. To inject the fluid the end of the nozzle is pricked and inserted into the neck of a needle, which in its turn is inserted under the skin; the fluid is then injected by squeezing the tube flat. The end of every nozzle, it is stated, is carefully sterilized, and the tubes are sent out with this nozzle covered by an india-rubber cap, while a suitable pricker and a needle are supplied, already sterilized, in a small glass tube filled with rectified spirit and plugged with a rubber stopper. The needle and pricker are carried in this tube in a metal support, and since their asepticity is maintained by the rectified spirit they can be used as often as desired. The device is certainly ingenious, and there seems no reason why it should not prove effective and gain considerable popularity.

The Chlorometer.

The Ridcal-Evans Chlorometer is an ingenious little instrument for detecting and measuring traces of chlorine or other strong oxidizing agents in water. It is intended to be used as an adjunct to the treatment of water or sewage effluent by the chlorine process, in order to ascertain whether sufficient and yet not too much chlorine has been employed, so that a trace, and only a trace, remains in excess. It consists essentially of a primary battery, in which the plates are of copper and platinum and the water to be tested is the fluid of the cell. In such a combination no measurable current is produced unless something is present to combine with the hydrogen which must be set free; a trace of "available" chlorine provides the necessary attraction for the hydrogen and causes a current to be produced, and the amount of current is a measure of the amount of "available" chlorine, while chloride does not interfere. The instrument is made by Messrs. Siemens, Brothers and Co., Ltd. (Woolwich), who also supply a descriptive pamphlet on its applications.

UNDER the will of the late Mr. John Kinnaird of Birnam, the City and County Infirmary, Perth, and the Northern Infirmary, Perth, each receives a bequest of £1,000, and, subject to certain life interests, are to share the residue of the estate with three other charitable institutions. The personal estate of the testator was sworn at a value of £21,275, in addition to other property.

THE PARLIAMENTARY COMMITTEE ON PROPRIETARY MEDICINES.

THE REGULATION OF IMPORTATION INTO AUSTRALIA.

THE Committee of the House of Commons appointed to inquire into the sale and advertisement of proprietary medicines held its last public sitting on June 12th. It began to take evidence at its meeting on May 9th, 1912.

Evidence was now given by Dr. W. P. Norris, chief medical officer for the Australian Commonwealth in London, and until recently Director of Quarantine and medical adviser under the Commerce Act to the Commonwealth in Australia.

The Chairman (Sir Henry Norman) asked the witness if he would first give a general outline of the reasons which caused the Commonwealth Government to undertake restrictive action in regard to proprietary medicines.

Dr. Norris said that following the inception of the Commonwealth the protection of the public in regard to the sale of secret remedies was discussed in the House, questions were asked by members on various sides of the House, and in the end the general feeling was crystallized in the Commerce Act, 1905. The Act dealt with a large number of matters as regards false trades description, and a special section (15) specifically mentioned articles used for food or drink by man, or used in the preparation of all such articles; medicines for external and internal use; apparel; jewellery; seeds and plants. All the procedure in connexion with proprietary medicines had been the outcome of that section. A power of prohibition of importation under the Customs Act was also operative. The Commerce Act prohibited the importation of any specified goods unless there was applied to them a description of a prescribed character.

The Principles Governing Regulation.

As to the principles upon which the regulations had been enforced, the witness said the question had not been dealt with from the standpoint of the interests of the medical profession, but purely from that of the interests of the public. The following were the considerations the department kept in view:

1. The protection of the person using or obtaining a proprietary medicine from injury, direct or indirect.

2. The protection of the public from injury. There were remedies offered for the cure of communicable disease; these could never be considered only from the standpoint of the person using them; the public interest was paramount.

3. The protection of the person from prejudice as a purchaser. Where it was considered that extravagant value was emphasized in printed matter, that was objected to, so that the public would not be deceived in that respect. If a thing was said to be of enormous value and plainly it was not, objection was made. While remedies put forward for serious diseases were kept chiefly in view, criticism was not limited to those. It was held that the public, necessarily relatively ignorant on such subjects, needed protection from exploitation which might waste their material substance.

4. It was held that the function of medical science and practice was to deal with the morbid condition itself in the light of all the facts of medical science, and on a consideration of the personal factors of the case as distinct from the mere symptoms. A competent diagnosis and estimation of all the facts of the case were essential antecedents to rational treatment.

5. It was a primary principle of medical science that there should be proper and prompt publicity regarding all actual or supposed remedial agents, and that it was wrong to conceal, for purposes of personal gain, the existence of facts regarding such agents. In reply to a question, the witness said this was the view of the medical profession generally, but the Commonwealth authorities might be taken as having endorsed it, having permitted official action to take place on those lines.

6. It was held that in view of the public importance of health and disease, any person engaging in the proprietary medicine trade might reasonably be required by the public to manifest in the descriptions and recommendations of a preparation a knowledge and appreciation of the facts of medical science and practice. This was the sole basis of

the legitimate practice of the healing art, and where it was not manifested there was no reason why the person or his trade should be protected in any way.

7. It was held that all useful remedies, recognized as such, were the product of pharmacological and related research and clinical practice.

The witness mentioned the safeguards which had been adopted by the department, without outside pressure, whereby an aggrieved manufacturer could submit the printing matter in dispute, with samples of the preparation, and the departmental criticism, to an independent public authority. (The authority of a professor of a university or the medical department of the English Local Government Board would be accepted.) This right of a manufacturer had rarely been exercised; manufacturers had fallen into line with the suggestions of the department.

In regard to the alteration of labels some proprietors had been willing, others had been desirous of compromising, and others adopted a defiant attitude until they saw that their goods would be prohibited if they did not give way. As to the possibility of a label being altered after a preparation had been admitted into the Commonwealth, the witness said it was held by some that owing to a defect in the Constitution the Commonwealth Government could not follow up goods inside the Commonwealth; he added that in practice it did not pay the manufacturers to alter the labels of each separate package.

In reply to Sir Philip Magnus, the witness said the law he was describing applied wholly to imported goods. There was an increasing trade in articles manufactured within the Commonwealth, and only in one or two cases did State action appear to be adequate. There was, however, a movement to bring the various States into line, and this had crystallized into legislation in the cases of New South Wales, West Australia, and, he thought, Queensland and Tasmania. The first legislation was that passed by Victoria.

In reply to Mr. Glyn-Jones, the witness said that if a manufacturer could not obtain sanction of his printed matter and sent it apart from the packages to an agent in Australia for the agent to put up the medicine and the labels together, he believed the Commonwealth would have power to stop it.

Mr. Glyn-Jones: Suppose a manufacturer establishes a factory in Australia, can he use the labels that would not be passed at the port of entry?

The Witness: He can; it has been done.

The Censorship of Printed Matter.

The witness proceeded to describe the lines of action taken by the Commonwealth in dealing with proprietary medicines. First, the principle of declaration was applied. In certain cases a special label was required to be placed on the package, or the declaration of specified therapeutic agents was required. The principle of censorship was applied. Suggestions would be made for amendment, or in certain cases prohibition was the action taken. If persons refused to alter the wording they were told that their preparations might be prohibited.

The Chairman: Judging from the evidence we have had, you have required alteration very frequently?

The Witness: Yes, in an enormous number of cases. Nearly all printed matter submitted requires radical alteration.

Continuing, the witness said the principle of the registration of the formula was only operative in West Australia, and perhaps Queensland and Tasmania. The Acts under which this was done were quite recent, and their effect could not yet be estimated. The witness gave instances of the claims in advertising matter that would not be permitted unless satisfactory proof of their bona fides were given—for example, a claim that a remedy was unique; that the maker was the "discoverer" of the remedy; that the remedy was "prepared from a famous doctor's formula." Doctors' testimonials were investigated as far as possible, and testimonials from chemists were objected to. Replying to Mr. Glyn-Jones, the witness said he meant testimonials from analytical chemists or testimonials from pharmacists which involved difficult medical questions; chemists were supposed to have a knowledge of materia medica. Objection was also taken to the growing practice of recommending other preparations by the same firm in the printed matter accompanying a particular preparation. Invitations to correspond with the makers were distinctly not encouraged. All misleading statements were objected to at once, an extravagant misstatement was condemned, but a puff, readily recognizable as such, was tolerated, not approved. Superlatives were objected to, and the department tried as far as it could in fairness to the maker to mitigate the effect on the public of vaunting statements in advertisements. The term "cure" would be objected to.

In reply to a question, the witness said the term "lightning cough cure" would not be accepted, nor would the phrase "the only cure." He had been looking through the shops of London, and he noticed this phrase frequently; in Australia it would not be allowed. The word "the" was objectionable when used in a certain way. The word "specific" and the expression "skin food" were not allowed. Recommendations for the routine use of proprietary medicines were objected to; the department did not think any one should become a medicine drinker. It took this line apart altogether from the question of habit-forming drugs; the unqualified advice to "take one of our pills once a week" would not be approved. The department had taken a strong line on the alcohol question. All claims that alcoholic beverages might have a medicinal value were eliminated. Alcoholic beverages must be sold as such and not as medicines. He did not class medicated wines as beverages; these were scrutinized very carefully. They were looked on with grave suspicion, and it would not be tolerated that they should be recommended for general use. It was held that medicated wines had a distinct tendency to the unconscious establishment of a taste for alcohol. "Guarantees of cure" were objected to, not only on account of the unsoundness of the claim, but because it was found on investigation that very few of the so-called guarantees could be held to be such in law. In the case of a wine containing a coca extract, it was required that it should be made clear on the label or other printed matter that there was a danger of drug-habit-forming.

The department took a particularly strong line in the case of any preparation sold for the treatment of a communicable disease, because there they held that private interest gave place to public interest. With any remedy for gonorrhoea and its local sequelae a definite statement was required to be placed prominently on the label to the following effect:

Note.—In any case under treatment, if the disease does not yield promptly and completely to treatment, medical assistance should be obtained at once.

The danger of spreading the disease, even after apparent cure, is very great, and a reliable medical opinion as to cure should always be obtained.

In the case of a cure for an infective disease the public danger was required to be pointed out on the label. In some cases preparations such as those he had just mentioned were objected to entirely; the precautions he had described were the least that was required. The witness added that there had been nothing but approval from the public of the regulation of the traffic. The department had not been considered to be acting in a high-handed way, and its relations with the importers themselves had been on the whole friendly. He could not say whether the trade in secret remedies had grown very much recently in Australia; they would naturally be taken somewhat freely owing to the scattered nature of the population, and to the fact that doctors did not dispense to any extent. More proprietary medicines went to Australia from this country than from the United States; they were now arriving from Japan also.

Suggestions for Future Legislation.

The witness proceeded to make suggestions as to future legislation. He would like to see uniform labelling of proprietary medicines in all English-speaking countries, and he regarded this as being likely to be a convenience to the trade as saving it from the necessity of labelling specially for the different countries. There was room in legislation for all the means of dealing with the subject that now operated. The principle of the public declaration of a formula or the presence of active drugs was

useful, but had drawbacks. The public was not necessarily advantaged by the declaration of the formula; it only thought it knew; the lodgement of the formula confidentially with a public authority might be of just as much advantage to the public. Any Act should prohibit the advertising of the fact that a public authority had passed the preparation and pamphlets accompanying. There was certainly room for the protection of the public by the scrutiny and correction of printed matter. There should be frequent addenda to the *Pharmacopoeia* in the form of supplementary lists. Unless some good reason were shown he would not allow the well-known drugs to be advertised under different fancy trade names; on the other hand, protection should be afforded to any one who could show that he was the discoverer. Advertisements should be dealt with carefully; the New South Wales Pure Food Law, 1908, gave power to prohibit the advertisement of any article in contravention of a notification of the public department concerned.

The Chairman: I suppose one may fairly sum up the general attitude of the Australian Government by saying it claims nothing but the application of common sense and medical knowledge in dealing with this question?

The Witness: That is so; the work has not been done in the interests of medicine or pharmacists as such, but for the public.

In reply to Sir Philip Magnus, the witness said there was a movement, which was gathering force, to extend to each State the regulative methods applied by the Commonwealth Government to imported proprietary medicines.

Sir Philip Magnus asked if the principle laid down by the witness of competent diagnosis as an essential was fully carried into effect, would it not prevent the sale of any proprietary medicine whatever. The witness replied that it would distinctly limit them.

Sir Philip Magnus: Does the scrutiny of advertisements apply to announcements in the public press as well as to printed matter?

The Witness: The scrutiny does, but unfortunately the censorship does not. We cannot touch the press under the Commonwealth Act, but some of the States are taking the power to do so. I think a weak point of our present machinery is that we cannot follow a medicine into the various States.

Mr. Lawson asked whether the driving force which produced the Acts was enthusiasm for public health so much as fiscal protection. The witness replied that the idea of fiscal protection had nothing to do with the matter. It was not a left-handed method of obtaining fiscal protection. Any growth of proprietary articles manufactured in Australia that might have occurred was entirely unforeseen, and as the Commonwealth was seeking power to control those, it was evidently not in sympathy with such a method of obtaining fiscal protection. He also said that the laws affecting advertising in the different States were not rigidly enforced at present. It would not be right to say the laws had remained largely a dead letter. In New South Wales, where the provisions had been in operation for some time, there had been test cases; elsewhere the laws had only recently been passed, and it would not be fair to judge them.

In reply to Mr. Newton, who asked the size and cost of the department which controlled proprietary medicines under the Commonwealth Government, the witness said that two doctors, himself and a colleague, had done the work of skilled scrutiny. The analytical work had been done as part of the ordinary routine of the Commonwealth laboratories; there was a small clerical staff, and occasionally leading physicians, surgeons, and veterinary officers were consulted. Often as many as twenty or thirty investigations in a week were made.

Mr. Newton: Does any serious delay to commerce occur through the operation of these regulations?

Dr. Norris replied that goods were released at first, even if some amendment was required, unless it was an extreme case where there would be positive danger to the public in admitting the preparation. Ample time was given for correspondence between England and Australia. Less objectionable printed matter was now received from importers; they were beginning to put their houses in order.

Mr. Glyn-Jones: If your principles were put in force to the full extent it would mean the prevention of any proprietary medicine trade at all?

The Witness: This trade does not seem to me to meet any public need so much as to engender by advertisement an unnatural sense of need.

The trade should be prevented if possible?—It should be very rigidly regulated.

Is it not dangerous to place in the hands of two permanent officials the right of prohibiting any particular trade without appeal to an outside body whose decision would be final?—The only prohibitions are in the case of preparations considered positively injurious. These are not made by the officers of the department, but by the Governor-General in Council. The prohibitions are published as Orders in Council.

In reply to further questions, the witness said that when the suggestions for amendment of printed matter made by the department were not at first acceptable to the importer, it was not a matter of compromise. The department insisted on its full requirements; the only option given was in the matter of terminology.

At the conclusion of his examination the witness said he wished to add that, in regard to the suggestion of several witnesses that cancer and consumption "cures" should be prohibited entirely, he would like, in view of their experience in Australia, to extend the list to include cures for tumours of all kinds, epilepsy cures, diabetes cures, and those preparations with a vague description of mental symptoms—hypochondriasis or mental depression.

The Chairman said the Committee was much indebted to Dr. Norris for his extremely valuable evidence.

SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE (LONDON, 1913).

Section of General Pathology.

The president of this section is Professor Shattock. The section will meet in the Royal College of Science.

The first discussion, jointly with the Section of Anatomy, is on the excitatory and connecting muscular system of the heart. The anatomical side will be taken by Professor His, Dr. Josué will speak on localization of function, and Dr. T. Lewis and Dr. Ivy Mackenzie will also contribute to introducing this subject, which has been deeply studied during the last few years.

The pathology of fats and lipoids is another subject on which much work has been done recently. It will be introduced by Dr. Iver Hang of Lund and Dr. Sigmund Fränkel of Vienna, whose views are well known to be divergent.

The third subject, the grafting of normal tissues, will be introduced by Professor Borst and Dr. Burrows; the fourth, the pathology of shock, will be introduced by Dr. Crile and Professor Yandell Henderson; and the last—the effect of radio-active substances on the tissues—will be opened by Dr. Hertwig and Dr. Lazarus-Barlow.

Among the contributors of independent papers are Professors Aschoff, Adami, Warthin, Dr. Charles Singer, Professors Brodie and Mackenzie, and among the subjects so treated are hyperblastosis, tetany, gastric ulcer, the influence of asphyxia on the kidney, and the rigidity of calcified arteries.

Further information can be obtained from Dr. Leonard Dudgeon (acting secretary), St. Thomas's Hospital.

The International Association of Medical Psychology and Psychotherapeutics will hold its annual meeting this year in Vienna on September 18th and 19th, under the presidency of Professor H. Bernheim, of Paris.

A bill has recently been passed by the New York State Legislature and signed by the Governor, which provides that where women are required to undergo physical examination with a view to obtaining employment, such examination shall be made by women doctors.

A syndicate of urology is being formed under the auspices of the *Revue Pratique des Maladies des organes génito-urinaires*, of Lille, and very many doctors from all parts of France have already joined. The head quarters of the syndicate will be in Paris, and its object is to group all practitioners who take an interest in urology, so that they may know each other better and discuss their professional interests.

Nova et Vetera.

EARLY REFERENCES TO TROPICAL MEDICINE.

IN the BRITISH MEDICAL JOURNAL of November 23rd, 1912, we gave an account of an interesting paper by Dr. Charles Singer, which appeared in the *Annals of Tropical Medicine and Parasitology* for May, 1912. A further paper by Dr. Singer on the subject appeared in the October number of the same periodical. In it he deals with the question of yaws and syphilis; some early references to dracontiasis or guinea-worm, and the measures taken in Paris in 1533 to prevent the spread of the plague.

Under the first of these heads Dr. Singer tells us that we owe the first accounts of yaws to the Spanish chroniclers, notably to Fernandez de Oviedo, whose *Natural Hystoria de las Indias* and *Cronica de las Indias* appeared in 1526 and 1547 respectively. He called the disease "bubas." Fuller descriptions are given by André Thevet in his *France Antarctique*, published in Paris in 1558. He calls the disease "pians," and compares it to the syphilis then spreading over Europe. Framboesia is still known in the French Antilles as "pians," which is said to be a native term for strawberry. An anonymous English translation of Thevet's book was published in 1568. Thevet expressed the opinion that "pians" was the result of too much "carnall and fleshely frequentation of man with the woman," and he adds:

> This sicknesse is no other thyng than the pocks that raigneth and hath power over all Europe, specially among the Frenchemen: For of us it is named the Frenche pockes, the whyche disease as the Frenchmen wright, was first taken at a voyage into Naples, and thether it was broughte by the Spanyardes, from the West Indies. For before it was discovered and made subiecte to the Spanyardes there was no mention thereof. It is not onely here in Europe but also in Grecia, in Asia and in Affrica.

This "wylde man's evyll" was conveyed by contagion like syphilis, and the symptoms were similar; further, "if it be waxen old it is harde (and dangerous) to heale: for sometimes it dothe afflict them even to the deathe." The passage quoted above is, Dr. Singer hints, a deliberate perversion of Thevet's statement. This is an amusing illustration of the manner in which writers of the sixteenth century strove to thrust the discredit of having imported syphilis into Europe on some other nationality than their own:

> The final responsibility has been left with the poor Indian inhabitant of the Western Isles, whose exclusion from the republic of letters has prevented his views from reaching us.

What Thevet says is that the points of similarity which he indicates made him "think that the disease was probably no other than that beautiful pox now so rife in Europe which has falsely been fastened on the French nation." One recalls Ancient Pistol's lament that his Doll "is dead i' the spital of malady of France." Thevet, when he speaks of "the pockes . . . taken at a voyage into Naples, and thether it was broughte by the Spanyardes from the West Indies," is referring to the terrible epidemic of syphilis which broke out in Italy in 1493–94, and quickly spread over Europe. Having regard to the origin of this outbreak he thought it would be more reasonable to call it the Spanish disease.

Another argument in favour of the identity of the two diseases is based on the principle *Naturam morbi ostendit curatio*. The disease was cured by drinking a certain decoction of the bark of a tree named by the natives *Hiuourahe*, or guaiacum, which in Europe continued to be used in the treatment of syphilis long after the introduction of mercury as an internal remedy about the middle of the sixteenth century. This argument was used by Oviedo himself. He says:

> I was often amused in Italy by hearing the Italians speak of the "French disease," whilst the French call it the "disease of Naples." But of a truth they would better hit its name off if they called it the disease of the Indies. And that this is the truth may be gathered from this chapter and from many experiments already made with holy wood and guayacan, wherewith especially, better than with any other medicine, this terrible pustulous disease is cured and healed.

The use of guaiacum as a native treatment of yaws survived its use in syphilis. In the eighteenth century it was still commonly administered (as *lignum vitae* or *lignum sanctum*) to infected negroes by planters in the West Indies and other parts of tropical America.

The guinea-worm disease was recognized in very early times, and, according to Dr. Singer, some have even held that the fiery serpents which tormented the children of Israel in the desert were filariae. References to the disease were made by Plutarch, Galen, and Aetius, while Paulus Aegineta devotes a whole chapter to the *Dracunculus*. The Arabian physicians gave full accounts, evidently founded on first-hand knowledge of the disease. In the sixteenth century the Portuguese Jew, Amatus Lusitanus, who was physician to Pope Julius III, had to leave Italy on the death of his protector, and found a refuge in Salonica. There he had the opportunity of observing what he calls the "Turkish disease." He speaks of it as

> a dangerous malady which develops not only in the country from which it takes its name, but also in Egypt, India, and other countries, as the Arabian physicians, especially Avicenna and Avenzoar, do teach, describing it as the Medina vein.

This name, *Vena Medinensis*, is explained by the fact that the disease was said by Avicenna to be commonest at Medina. In respect of treatment Amatus quotes a physician learned in Arabic, as giving the following advice:

> First, the patient ties the end of the vein or nerve round a small piece of wood, and this he winds little by little till the last part of the worm is drawn out. As the structure is often three cubits long, the treatment may last many days before the sufferer is altogether free from pain and inconvenience. Many adopt a cataplasm or cold suffusion, as Soranus, Leonides, and Paulus of Ægina recommend.

On this passage he comments to the following effect:

> Authors are in doubt as to whether this is a nerve, a vein, or a worm. But I have seen the condition with my own eyes, and can bear witness that a thin white worm in many coils was drawn forth . . . and if it should be broken in the process much pain and general disturbance ensues.

Another sixteenth century writer, the Dutch explorer Linschoten, described the disease, and the Latin version of his account of his travels, published in 1599, contains what is believed to be the first representation of the guinea-worm in a printed book. About the middle of the seventeenth century De la Motte Lambert, Bishop of Beirut, made a pastoral tour in the Far East, and a record of his experiences was published. Crossing Persia from Ispahan to the coast he passed through Lar, the capital of Lariston, which is not very far from Bandar Abbas. The water supply, not only of the town but of the country between Lar and Gomeron, was very bad, and was the cause of severe and mortal diseases. To this may, the Bishop says, be

> attributed certain worms of a prodigious length, which engender in the thighs and legs. These worms lie hid, tortuously entwined in the flesh. When detected, a little incision is made to get at the head, this is attached to a piece of stick, and the stick turned a little each day. The worm, which is often six feet long, is thus wound out into a skein. Should it break, the part which remains will cause a dangerous corruption. The way to avoid this worm is to drink only wine, or if water is used, only such as has been carefully filtered through linen.

Dr. Singer mentions another writer, G. H. Velschius, who brought together in a large volume entitled *De Vena Medinensi* every reference he could find to the *Dracunculus*. His imagination seems to have been haunted by the worm, which he saw everywhere—on ancient Roman emblems, in the signs of the Zodiac, in the serpent on many antique coins, in many Greek sculptures, in architectural details, and in drawings of Albrecht Durer and other artists. Dr. Singer says:

> The very emblem of our profession gives him one of his best opportunities, and in the serpents coiling round the staff of Aesculapius he distinguishes a guinea-worm which that distinguished physician has just extracted by entwining it around a piece of wood.

Of the measures taken in Paris to prevent the spread of the plague in 1533 nothing more need be said here than that the general regulations are similar to the Orders conceived and published by the Lord Mayor and Aldermen of the City of London concerning the Infection of the Plague, 1665. These may be found in Defoe's famous *Journal of the Plague Year*.

All who are interested in the history of medicine and in tropical diseases owe a debt of gratitude to Dr. Singer for his researches. He has brought wide learning and tireless industry to the performance of a difficult task. We congratulate him on the result of what has evidently been a labour of love.

FRANZENSBAD.

By a Member of the Franzensbad Association of Medical Men.

Franzensbad is situated in the western extremity of Bohemia, in the vicinity of Carlsbad, on a tableland about 450 metres above sea level, bordered by the Erz Mountains, the Fichtel Mountains, and the Bohemian Forest. It is protected by these mountains from the north and west winds, and has a mild mountain climate, with a medium summer temperature of 59° F. It has twelve mineral springs, a stratum of ferruginous mud, a source of dry carbonic acid gas, and in the near neighbourhood a source rich in radium.

The twelve springs yield in abundance bright and clear water, containing large quantities of carbonic acid gas, of carbonic ferrous-oxide, and of sodium salts in varying quantities. The chief constituents of the waters most used internally for diseases of the stomach and for atony of the bowels, such as the Salzquelle and the Wiesenquelle, are sodium salts; the water of the Franzensquelle, Neuquelle, and Stahlquelle, used for cases of anaemia and weakness, contains more iron. A third group, the Nataliequelle and Stefaniequelle, contain small quantities of salts, among which lithium carbonate is most prominent; they are used in the uric acid diathesis, gout, and chronic kidney trouble.

Mud Baths.

Franzensbad's most powerful remedy is the ferruginous mud. The mud stratum, situated in a basin surrounding the town, measures four kilometres in length, half to one kilometre in breadth, and is two to six metres deep. The mud has been formed by the penetration of the mineral springs into marshy vegetation, impregnating it with iron and alkaline salts. Such iron mineral mud can be produced only in a place which possesses a marsh and chalybeate springs penetrating it. The mud is not suitable for use when fresh. The quantity required must be removed from under the turf, and exposed to the air from autumn till spring, when a chemical change takes place, the insoluble combinations (mostly the sulphate of iron) being changed to soluble sulphates. Franzensbad mud, when ready for use, contains about 10 per cent. iron sulphate and a considerable percentage of sulphuric acid, both of which are strongly stimulating to the skin, act as astringents and tonics, and have at the same time a strong antimycotic quality. The mud is ground in mills, sifted, and mixed with the warmed water of the Franzensbad springs in different proportions to form a paste more or less thick. Its action is due to its mineral ingredients, to its temperature, and to its weight.

The Franzensbad iron-mud baths are used in cases of general weakness and anaemia, of chronic inflammations, mostly of the peritoneum and the sexual organs of women and in sterility, and also in arthritis deformans, gout and chronic rheumatism, neurasthenia, hysteria, neuralgia, and paralysis. The mud is also used for mud-packing and for mud poultices—mostly in such cases as inflammations of the abdomen, rheumatism, arthritis, or neuralgia of the extremities and joints, in which the application of mud is necessary at a higher temperature and for a longer period than would be possible with a complete mud bath.

Carbonic Acid Baths.

These are of two types—mineral and steel baths charged with carbonic acid gas, and dry carbonic acid baths. The water for the baths is prepared in different gradations without the addition of artificial carbonic acid gas, and are used in cardiac disorders, anaemia, weakness, and neurasthenia.

Franzensbad possesses also a gas well, which produces great quantities (12 litres per minute) of nearly pure dry carbonic acid gas; this is conducted to the special gas bath-house built over the gas spring. It is introduced into a basin about one metre deep, in which the patients sit or stand clothed; the gas stimulates the skin, and an acceleration of the circulation is felt as a slowly-increasing, agreeable warmth, spreading all over the abdomen. These gas baths are used in cases of anaesthesia and hyperaesthesia, of neuralgia and paralysis, of amenorrhoea and oligomenorrhoea, of frigidity and of childlessness.

The public frequenting Franzensbad consists mostly of three groups: (1) Ladies suffering from different women's diseases, slowness and irregularity of the sexual functions, and principally from childlessness; (2) patients affected with debility, weakness of the nervous system, diseases and irregular functions of the heart and circulation; (3) people suffering from rheumatism and gout, and the uric acid diathesis and its consequences.

Visitors to Franzensbad will find bath-houses arranged with every requisite comfort, and excellent hotels, and boarding-houses surrounded by beautiful grounds and gardens.

LITERARY NOTES.

At a meeting of the Académie de Médecine, on June 3rd, Professor Pozzi, on behalf of Dr. Georges Hervé, Professor in the School of Anthropology, presented what he described as a very interesting study on the bust of Quesnay, by the famous eighteenth century sculptor Vassé, which is now in the Royal Museum at Brussels. Dr. Hervé's essay was read to the French Society of Medical History in April last. Dr. Pozzi described Quesnay, an account of whom was given in the Journal of June 7th, 1913, p. 1214, as one of the most vigorous intelligences of the eighteenth century. He added that Dr. Hervé's work is well written and richly documented, and gives a living picture of the man. The bust was exhibited in the Salon in 1771. The portrait reproduced in the Journal of June 7th was painted by Fredou, and engraved by J. C. François in 1767. There are several other portraits of Quesnay—one painted by J. Chevalier in 1745, and engraved by J. G. Wille in 1747; one done in 1764 for the Académie de Chirurgie by an artist unnamed. This is now in the Paris Faculty of Medicine. Besides the bust of Vassé already mentioned there is a posthumous one done by Houdon, and exhibited in the Salon of 1781; and one by Leroux on the monument erected in the commune of Méré, the birthplace of Quesnay, on the initiative of M. Allain-Lecanu in 1896.

We have received a copy of the May number of the *British Review*, with which is incorporated the *Oxford and Cambridge Review*. This periodical is printed in a style that must make it a joy to those whose eyes are beginning to fail. Mr. R. A. Scott-James writes with excellent sense on the popular taste. He says the finest literature is not that which is most read, and the writer concludes that the finest ideas are not those which are most easily embraced. "The outlet which the majority of men find for their superfluous energy is not through the channel of fine ideas. Such literature as they read is for distraction and not for the vigorous use of their faculties." This, says the writer, is a matter of supreme importance, because this new reading habit of the million has turned the energies of authors and publishers from the few to the many. "It has introduced into the literary profession a demagogic habit, and has set up a quantitative instead of a qualitative habit." Dr. F. W. Macran discusses idealism and the Christian Faith, and Mr. L. F. Salzmand gives an amusing description of sea travel in the Middle Ages. He quotes a fifteenth century rhymester's description of the accommodation for passengers on the boats plying to Santiago:

> A sak of strawe were there ryght good,
> For som must lyg them in theyr hood;
> I had as lefe be in the wood
> Without mete or drynk;
> For when that we shall go to bedde
> The pumpe was nygh our beddes hede,
> A man were as good to be dede
> As smell thereof the stynk!

Another writer of the same period, William Wey, gives the following advice to intending travellers by the boats plying between Venice and the Holy Land:

> Furste, yf ye goo in a galey make youre covenaunte by tyme wyth the patrone and chese yow a place in the seyd galey in the

overest stage; for in the lowyst under hyt is ryght smolderyng hote and stynkyng.

That the diet was not exactly that of one of our modern floating palaces may be gathered from the following advice to the traveller:

Ordeygne yowre byscokte to have wyth yow; for thow ye schall be at the tabyl wyth yowre patrone, notwythstondynge ye schal oft tyme have nede to yowre vytelys, bred, chese, eggys, frute and bakyn, wyne and other, to make yowre collasyun; for sum tyme ye schal have febyl bred, wyne and stynkyng water.

For these reasons the writer says it is well to take a barrel of water and one of wine, and, in view of the habits of pilgrims and sailors, it is hinted that a prudent man should keep both barrels in a chest with other stores under lock and key. The more luxurious passenger would also take care to lay in a good store of fruits and spices, "confectyuunys, confortatyvys, laxatyvys and restoratyvys," while the complete traveller's outfit would include, beside a feather bed, which would cost three ducats when new, and could be resold for half that amount at the end of the voyage, a "lytyl cawdren and fryyng pan," with plates, dishes and glasses. As an afterthought William Wey adds the advice to buy "a cage for half a dosen of hennys or chekyn to have wyth yow in the galey." So equipped the traveller did not need to fear any shortage of provisions, and could rest with equanimity while his ship lay becalmed, "walterynge and walowynge in the see."

The *Bulletin of the Johns Hopkins Hospital* for May contains an article by August Schachner on Ephraim McDowell, the "father of ovariotomy." He was born on November 11th, 1771, in Virginia, and after a period of pupilage under Dr. Alexander Humphreys, of Staunton, Virginia, a graduate of Edinburgh, he went himself to what was called the "Modern Athens" to complete his education. There he came under the influence of John Bell, who, in lecturing on diseases of the ovary, suggested that it might be possible to extirpate the diseased parts, though not daring to advise surgeons to attempt the operation. The seed fell upon good ground. McDowell seems to have left Edinburgh without a degree, and in 1795 returned to America, settling in practice at Danville in Kentucky, where he remained till his death. On December 13th, 1809, he was called to see a Mrs. Crawford, who was thought to be pregnant and to have gone beyond her time. McDowell, after examination, explained to her the nature of her condition and what he proposed to do for her relief. The first account of the operation was not published till seven years later. It may be interesting to reproduce it here, though it is well known to specialists:

In December, 1809, I was called to see a Mrs. Crawford who had for several months thought herself pregnant. She was affected with pains similar to labour pains from which she could find no relief. So strong was the presumption of her being in the last stage of pregnancy that two physicians who were consulted on her case requested my aid in delivering her. The abdomen was considerably enlarged and had the appearance of pregnancy though the inclination of the tumour was to one side admitting of an easy removal to the other. Upon examination per vaginam I found nothing in the uterus which induced the conclusion that it must be an enlarged ovarium. Having never seen so large a substance extracted nor heard of an attempt or success attending any operation such as this required, I gave to the unhappy woman information of her dangerous situation. She appeared willing to undergo an experiment which I promised to perform if she would come to Danville (the town where I lived), a distance of sixty miles from a place of residence. This appeared almost impracticable by any, even the most favourable conveyance, though she performed the journey in a few days on horseback. With the assistance of my nephew and colleague, James McDowell, I commenced the operation which was concluded as follows: Having placed her on a table of the ordinary height on her back and removed all her dressing which might in any way impede the operation, I made an incision about three inches from the musculus rectus abdominis on the left side continuing the same nine inches in length, paralicl with the fibres of the above named muscle, extending into the cavity of the abdomen, the parietes of which were a good deal contused which we ascribed to the resting of the tumour on the horn of the saddle during her journey. The tumour then appeared full in view, but was so large that we could not take it away entire. We put a strong ligature around the Fallopian tube near the uterus and then cut open the tumour which was the ovarium and fimbrious part of the Fallopian tube very much enlarged. We took out fifteen pounds of a dirty gelatinous looking substance after which we cut through the Fallopian tube and extracted the sac which weighed seven and one-half pounds. As soon as the external opening was made, the intestines rushed out upon the table and so completely was the abdomen filled by the tumour that they could not be replaced during the operation which was terminated in about twenty-five minutes. We then turned her upon her left side so as to permit the blood to escape after which we closed the external opening with the interrupted suture leaving out the lower end of the incision, the ligature which surrounded the Fallopian tube. Between every two stitches we put a strip of adhesive plaster which by keeping the parts in contact hastened the healing of the incision. We then applied the usual dressings, put her to bed, and prescribed a strict observance of the antiphlogistic regimen. In five days I visited her, and much to my astonishment found her engaged in making up her bed. I gave her particular caution for the future and in twenty-five days she returned home as she came in good health which she continues to enjoy.

One scarcely knows which to admire most, the boldness and skill of the surgeon or the courage and endurance of the patient, who rode sixty miles resting her tumour on the horn of her saddle, and getting up to make her bed five days after the operation. As a further proof of McDowell's resolution it must be added that an excited mob gathered outside his house awaiting the issue of the operation; had the woman died, the surgeon would have been lynched. Mrs. Crawford had five children, all born before the operation. She survived the operation thirty-three years, dying in 1842 at the age of 78. It is believed that the original report was sent in 1816 to John Bell, but, in Bell's absence in Italy, fell into the hands of Lizars. Another copy was sent to Dr. Physic, of Philadelphia, with a request that it should be published if found worthy. This, like the other, received no attention. McDowell's nephew William, the bearer of the report to Physic, then turned to Thomas C. James, Professor of Midwifery in the University of Pennsylvania, and one of the editors of the *Eclectic Repertory*, who published it (vol. vii, 1817). McDowell's second operation was performed in 1813 upon a negress. The ovary was exposed and incised but not removed, as it was firmly adherent to the bladder and the fundus. She recovered, had no more pain, and was able to pursue her occupation. The third, which was the last included in the first report, was performed in May, 1816, upon a negress. In this case he removed a scirrhous ovarium weighing 6 lb. Two other cases were described in a second communication published in the *Eclectic Repertory*. One was operated upon in April, 1817. It was a scirrhous ovarium weighing 5 lb. The patient recovered from the operation, but it gave more trouble than the others at the time, and the result was not so satisfactory. The fifth—operated upon in May, 1819—had been tapped four times before the operation. There were many adhesions. Sixteen litres of gelatinous fluid were discharged from the tumour and abdomen. Death from peritonitis occurred on the third day. The tumour was a dermoid cyst. These were the only cases McDowell reported. How many he actually did is not known. Samuel D. Gross collected three additional cases, all white. Of these eight cases five operations were complete and three incomplete. Of the complete operations, two in white women and three in negresses, there was one death among the latter, giving a mortality for these operations of 20 per cent. His nephew William, who was at one time his partner, says his uncle performed the operation thirteen times in all. He also performed lithotomy thirty-two times without a death, one of his patients being James J. Polk, afterwards President of the United States. McDowell's first reports were received with indifference and incredulity, in some quarters with ridicule. His first paper attracted no attention till it was published in connexion with one of Lizars's failures. This aroused Europe and later America to the importance of his work.

W. Wadd, in his *Nugae Canorae* (1827), tells of a Count de Viry who carried his desire for secrecy in regard to his ailments to such a degree that he called a surgeon to dress an ulcer on his leg and when a similar one broke out on the other he sent for a different surgeon. He wished apparently that his right leg might not know what was the matter with his left. To a person who inquired for him, his secretary said: "He is dead, but he does not wish it to be known."

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UNIFIED STANDARDS FOR FOODS AND DRUGS.

The simpler conditions of a smaller community and the absence of conservative traditions and of the dead-weight of old vested interests sometimes enable the Colonies to devise and put into force legislation on matters in regard to which, in Great Britain, it is generally admitted that something ought to be done, though the difficulty of satisfying the various interests concerned and the constant congestion of parliamentary business effectually prevent any considerable steps being taken. The recently published report of a Royal Commission, appointed in Australia about a year ago to take and collate evidence from those principally affected by legislation in regard to the sale of foods and drugs, contains a good deal which illustrates the truth of this generalization, and it is of some interest from the point of view of the admitted need for further legislation on the subject in this country. Dr. J. Ashburton Thompson, Chief Medical Officer of the Government of New South Wales, was the sole Commissioner, and the special purpose of the inquiry was the making of recommendations for setting up uniform standards for foods and drugs in all the States of the Australian Commonwealth.

The actual state of the law at present is by no means uniform in the several States. New South Wales, apparently, is in general somewhat ahead of the others, but it is more especially in the regulations and standards under the various State laws that the want of uniformity is greatest. Before the appointment of this Commission, however, some important steps had been taken in the same direction. In 1910 a conference was held of principal medical officers, public analysts, representatives of commercial interests on the advisory boards of the various States, and representatives of the Commonwealth Government, and this conference included in its report a code of definitions and standards, to which all the members had agreed and by which they had undertaken to be guided. The report of this conference and its proposed code have since been before the country, but have not been enforced by legislation, and the business of the Royal Commission was largely to receive and collate the views of those chiefly concerned, on the report of the conference, as a preliminary to the institution of regulations for the whole Commonwealth or uniform regulations in the several States. The 165 witnesses included manufacturers, dealers, analysts, medical officers, etc., and the report of the Commissioner on the evidence must therefore carry much weight. Among the general conclusions it is stated that "the result of the directed inquiry shows quite clearly that satisfaction with the law, and in a general sense with the regulations thus far made under it, is felt and has been expressed"; and, in dealing with the grocery trade, that "The Secretary and the President of the Grocers' Association of Victoria, which is the mouthpiece of the trade in that State . . . testified that the effect of the Act in general was entirely favourable to their trade"; and again, in connexion with aërated waters, cordials, etc., after discussing certain criticisms, the Commissioner adds: "Notwithstanding the opinions which have been noticed above, as well as others of less importance, the conference recommendations were generally welcomed, and, with the Acts on which they are based, were thought to have purified trade and to have done much good already."

It is recommended that the inquiry now concluded should be followed by the holding of a further conference of Commonwealth and State officials, to draw up a code for adoption in all the States; and it is wisely pointed out that "experience has shown, however, that the most carefully drawn code must be revised from time to time for addition of new regulations and more accurate wording of some of the approved regulations. This work can be done only by the conference. This body, then, must be regarded as liable to be reconvoked either every year, or perhaps every second year."

Of the recommendations in regard to particular trades, it is perhaps those concerned with drugs and medicines that are of principal interest to the medical profession. One of the resolutions of the conference expressed an opinion that repetition of physicians' prescriptions by pharmacists at the request of the persons who happen to possess them should be restricted by law; but some of the witnesses thought that the responsibility should be thrown on the physician, who would direct whether the prescription should be repeated, and if so, how often; "this," comments the Commissioner, "seems a reasonable suggestion." Another resolution of the conference "requests that the law may be so altered that pharmacists shall be required to declare the presence in any mixture devised and supplied by them of any drug of which declaration is required by notice on the label"; this was objected to, and "the objections raised were, first, that declaration of the names of drugs on labels was inexpedient, and would give patients information which had better be withheld from them, and then, secondly, that the requirement would interfere with, and limit, the pharmacists' power of prescribing. By some witnesses this power was described as a 'right' to prescribe, enjoyed by them from time immemorial until the New South Wales law was made." It is pointed out, however, that "pharmacists have no right to prescribe other than that enjoyed by every citizen, and exercised by each person at his proper risk. The nature of the pharmacists' business leads to their being asked to prescribe rather frequently, and they are, doubtless, often unable to avoid doing so; but the impropriety of seeking, and the danger of taking, medicines prescribed by persons who have some chemical knowledge of the nature of drugs, but no knowledge at all of the human body, are generally known."

In regard to proprietary medicines, the Proprietary Articles Section of the London Chamber of Commerce sent out a representative to put before the Commissioner the views of the members of that section. Objection was raised by this witness, among other things, to the recommendation that proprietary medicines containing more than 2½ per cent. of alcohol should bear on the label a declaration of the amount present. It was urged that instead of this the law should be made the same as the Canadian Act of 1908, which requires that no proprietary medicine shall be sold "if it contains alcohol in excess of the amount required as a solvent or preservative, or does not contain sufficient medica-

tion to prevent its use as an alcoholic beverage." Another recommendation which was objected to on behalf of the owners of proprietary articles is that a proprietary medicine containing any drug in a list which is set forth—44 being named and others included as classes—should bear on the label a declaration of the presence of such drug and of the quantity or proportion present. It was asked that this should not apply to medicines the proprietor of which made a statutory declaration that "the doses of the drugs they contain do not exceed those prescribed by the *British Pharmacopoeia*"; but the list contains many drugs which are not in the *British Pharmacopoeia*, a point which appears to have escaped the notice of the Commissioner. His comment on this part of the evidence is "the reasons advanced by him were not clear, but the whole consisted in a statement of the witness's belief that the inscription would frighten the public and prevent them from purchasing, which, in country places far from physicians, would be against the public good." The same witness urged the financial importance of the interests which he represented, estimating the stocks of proprietary medicines held by various traders in the Commonwealth at £3,125,000, and the amount spent by the proprietors in advertising in Australian newspapers as £160,000 annually.

The Commissioner's final comment on the evidence on this subject is unfortunately as true here as in Australia: "The extent to which the daily press profits by this trade will also be thought to indicate some further difficulty in regulating it."

SLEEPING SICKNESS AND BIG GAME.

THE discovery made by Yorke and Kinghorn during their expedition in 1911 to North-Eastern Rhodesia that the trypanosome *T. rhodesiense*, the infective agent of sleeping sickness in Rhodesia and Nyasaland, was carried by *Glossina morsitans*—the tsetse fly which causes nagana, the fly disease of domestic stock—put a new complexion upon a problem already sufficiently difficult of solution. It had been supposed that the only insect vector of sleeping sickness was *Glossina palpalis*, a species limited in its distribution to watercourses and never found far from the banks of certain rivers or the lake shores. *Glossina morsitans* is independent of water and may occur in any part of the bush. This was disquieting enough, but Yorke and Kinghorn went on to show that the big game in the two districts examined—the Luangwa Valley and part of the Congo Zambesi watershed—were tolerant of *T. rhodesiense*, and that a large percentage carried it in their blood. It appeared therefore that the big game acted as a reservoir of the parasite, and in view of the practical impossibility of exterminating *G. morsitans* Dr. Yorke was led to make the suggestion that the big game in the districts infected with the Rhodesian trypanosome should be killed off or greatly reduced—a result which the native hunters and European sportsmen would be ready enough to accomplish.

The *Proceedings* of the Zoological Society for June contain a paper by Dr. Yorke in which he developed the same argument as in the paper published elsewhere in this issue (p. 1315), and also give in an appendix the opinions of several authorities on parasitology or on the fauna of South Africa. Mr. Guy Marshall, who spoke as one who had resided thirteen years in Southern Rhodesia, questioned whether there was any evidence that human trypanosomiasis was spreading north or south of the Zambesi river. He admitted that there was in Rhodesia and Nyasaland a very virulent form of trypanosomiasis carried by a *Glossina* with a wide local distribution and a much more persistent biter than *G. palpalis*, and, further, that a considerable percentage of the game was infected by *T. rhodesiense*. The existence of sleeping sickness in the district had been known for nearly five years, and he contended that its incidence in Nyasaland and Rhodesia presented a striking similarity with that found in West Africa. He argued that this fact taken in conjunction with other considerations strongly suggested that it was not a new disease, but one which had already been endemic for some years, though, as occurred earlier in West Africa, it had escaped detection. To these arguments Dr. Yorke replied that the question whether the disease were new or old was of secondary importance—the matter of primary importance being whether it was spreading. Though it was difficult to answer the question from the statistics available he believed that there was strong evidence that during the past few years sleeping sickness had been on the increase. It was not until the end of 1909 that the first white case was discovered, and since then, although the Luangwa Valley had been closed a number of Europeans had contracted the disease in North-Eastern Rhodesia. Before 1909 scientific experts had travelled through the Luangwa Valley without discovering a single case, either native or European. Another argument advanced by Mr. Marshall was that there was good evidence that the natives of West Africa were very largely immune to *T. gambiense*, and that there was no good reason for assuming that a similar power of resistance to *T. rhodesiense* might not exist in East Africa. In reply to this point Dr. Yorke stated that there was no evidence that human beings could harbour the parasites for long periods as did the wild fauna without exhibiting signs of the disease. Among the cases he had observed, several presented practically no symptoms when discovered, the only indication being the presence of trypanosomes in the blood, yet without exception all were dead within six months.

Professor Minchin, who accepted all the statements of fact in Dr. Yorke's paper, said that the two African trypanosomes deadly to man—*T. gambiense* and *T. rhodesiense*—were members of the large group typified by *T. brucei*; he believed that all the species of the *brucei* group were primitively parasitic upon wild ungulates, but that many had been carried by the agency of biting flies to other vertebrate hosts, in which they had been able to maintain themselves; that the wild ungulates were the natural hosts of these trypanosomes was, he argued, shown by the fact that the group was harmless to the wild ungulates but deadly to other animals. Professor Minchin urged that the utmost caution should be exhibited in putting into practice administrative measures based upon the data so far established; he thought it probable that if the tsetse flies in the bush were deprived of their natural hosts they would migrate in search of food, which they would find in human beings and in the cattle surrounding their habitation; it was within the bounds of possibility that the wholesale destruction of big game might lead to a condition of things more dangerous and disastrous than that existing at present. To this Dr. Yorke replied that cattle were not as a rule found in villages in fly districts, and that the fly did not invade villages around which there was a clearing, even though by so doing they could obtain food more readily than in the bush. To a suggestion by

Mr. Walter Rothschild that after the extermination of the game the fly would be driven to attacking monkeys, rats, and mice, Dr. Yorke replied that if this occurred these animals would quickly succumb, and would therefore not have the same significance as reservoirs of the disease as the big game, which are tolerant of the parasite. In reply to some observations by Sir Henry Seton-Karr, Dr. Yorke contended that the connexion between big game and sleeping sickness had been fully established, and that, even if there were other reservoirs of the virus, that was no reason why the main reservoirs should not be destroyed. While admitting Sir Henry Seton-Karr's contention that the greater freedom of intercourse among tribes under white protection had played a part in the spread of the disease, he contended that if civilization was to continue this freedom of intercourse must also continue, and it was therefore all the more essential to endeavour to render the tsetse flies as non-infective as possible by destroying the reservoir of the virus in the big game. In answer to a question by Sir Alfred Sharpe, K.C.M.G., as to the varieties of tsetses proved to be carriers of trypanosomes of sleeping sickness, Dr. Yorke said that it had been established that *Glossina morsitans* transmitted sleeping sickness under natural conditions—a fact which showed that it was almost hopeless to attempt to get rid of the trypanosome agent. If, therefore, anything was to be done, it must be in the direction of destroying the reservoir from which the *Glossina morsitans* and other hypothetical vectors derived their infection.

Dr. Yorke's suggestion is not that the whole of the game in tropical Africa should be destroyed, but that the restriction in fly areas should be removed, and natives and Europeans encouraged to kill game in those areas, especially in the vicinity of human habitations. We believe the suggestion that the attack must be directed against the reservoir, in view of the apparent hopelessness of materially diminishing the numbers of the transmitting insect, to be sound and based on scientific principles. If the natives were given a free hand with the game, and European large game sportsmen allowed to shoot as many antelopes as they liked, the stock would soon be enormously reduced, with a proportionate reduction of the risk of the game being a danger to man, black or white.

CONSTITUTIONAL REFORM.

WE venture to invite the careful attention of all members of the Association to the report of the Council on the reform of the present constitution of the Association, adopted by it at its special meeting on June 13th and referred to the Divisions. It is published in the SUPPLEMENT, and prefixed to it is a short account of the proceedings at the meeting of the Council at which it was discussed. It will be seen that the Council expresses its concurrence with the view put forward by the Metropolitan Counties and other Branches, and endorsed by the Organization Committee, to the effect that the Representative Body should cease to be an assembly of delegates bound to vote in a given way irrespective of the evidence placed before them at the Representative Meeting, by other members of that body, by the Council, or by the logic of events which have taken place since the meetings of the Divisions at which they were instructed. The view that the object to be aimed at is a body with deliberative powers consisting of men of judgement and honesty of purpose trusted by those who elect them and believed by their constituents to represent the feelings and opinions of the constituency is accepted. The Council also agrees with the opinion that the Representative Meeting is too large and ought to be reduced, but recognizes the difficulties in the way, and regards the reduction of the number of constituencies as inadvisable and more or less impracticable.

The Metropolitan Counties Branch recommended that the Council should be elected by the Representative Body with the exception of those members who would sit *ex officio* or as representatives of Colonial Branches. The Organization Committee pointed out the difficulties which stand in the way of this change, desirable as it may appear as a logical development of the present constitution. The Council after a long discussion finally expressed the opinion that no change should be made in the present method of election.

Difficulties which have occurred during the last two years in taking prompt action in the interests of the Association and the profession at large are within the recollection of every member. They have led many members to the view that the Representative Body should delegate its powers in the interval between one of its meetings and another to the Council. This policy it is thought would contribute to efficiency, while at the same time it would be adequately safeguarded by the regulations which give to seven constituencies the right to requisition a Special Representative Meeting.

Following on this report is another in which the Council, after indicating reasons why it can seldom or never be necessary to take a plebiscite of the whole body of members of the Association, submits to the Divisions the arguments in favour of introducing a system under which an appeal by a postal vote could be made to the members of the Association resident in an area such as England, Wales, Scotland, Ireland, or a Dominion.

Several other suggestions concerning proposals for alteration in the scope and constitution of the Association will be dealt with in a supplementary report of the Council to be issued in the JOURNAL of July 5th after the quarterly meeting of the Council on July 2nd.

THE DISCUSSION OF THE AMENDING INSURANCE BILL.

THOUGH no date seems yet to have been fixed for the introduction of the Insurance Act Amendment Bill, the intention of the Prime Minister appears to have been to refer it, after it had been read a second time, to a Grand Committee. This has caused much dissatisfaction, both among members of the House of Commons and outside. The Insurance Act has been the chief piece of social legislation accomplished by the present Government, and whatever view may be held as to the merits or demerits of its conception, public opinion demands that the amendments it is admitted to require shall be fully understood and the arguments in debate fully brought to public notice; this will not be the case if it is sent upstairs. The bill ought not to be withdrawn from the consideration of the whole House, for it deals with matters in which the constituents of every member are nearly interested. Moreover, discussions in Grand Committee always tend to be less full and less thorough than in Committee of the whole House, and the reports published in the press are always meagre. It is now admitted on all hands that the haste with which the concluding stages of the bill itself were hurried through at the end of 1911 was mistaken, and is, in part at least, responsible for the need of amendment at this early date. On every

ground, therefore, we hope that the clauses of the amending bill will be discussed not in the comparative obscurity of a Committee room but on the floor of the House.

THE AIMS OF EUGENICS.

THE annual general meeting of the Eugenics Education Society was held at the Grafton Galleries on Thursday, June 12th, when Major Leonard Darwin, who was elected to his third year of office, delivered the presidential address. The speaker, in commenting on the progress made by the society during the past year, said that one good effect of the promulgation of its doctrines was the establishment of several new branches in different parts of the country, those at Manchester and Glasgow being among the most recent, whilst the International Eugenic Congress held in London last year had resulted in the foundation of a number of similar societies abroad. But much remained to be done, and further support was needed for the eugenic movement, both as regards volunteers and supplies. Moreover, it was the right kind of support that was needed, for there was always a danger that eugenics would become a mere dumping ground for cranks. This was possibly due to the fact that the more thoughtful classes in the community stood aloof and took little interest in the movement, no doubt because of a misconception of the aims of the eugenists. It was necessary, therefore, that they should be made to understand what these aims were, and that eugenics did not mean the establishment of stud farms for the breeding of giants and geniuses, but rather the improvement of posterity by means of a more thorough knowledge of the laws of heredity. After speaking of the dangers of national degeneracy, Major Darwin pointed out that the expenditure on law, police, the poor, and lunatic asylums in the United Kingdom amounted to £48,000,000 and the impost for national insurance to £25,000,000 a year, and the latter sum could either be diminished or the benefits increased if there were fewer of the unfit amongst the insured. By the elimination of the unfit, moreover, the rate of wages would inevitably be raised. Eugenic reform, therefore, if successful, would lower taxation, raise wages, facilitate commercial competition, and increase the security of the country in time of war. In things immaterial also great benefits would also be felt; for a diminution in the number of the insane, the criminal, the feeble-minded, the diseased, and the wastrel, annually brought into the world, would mean the removal of a terrible burden of unmerited misery, whilst an increase in the output of men and women of character and ability would not only add to the reputation of a country, but also to the happiness of its inhabitants in many ways. These were the benefits which it was held to be in the power of this generation to bestow on the country in the future by resolutely grappling at the present moment with the problem of human heredity. The social reformer had long been busy in his attempts to improve the environment of the people, and his efforts merited the warmest approval. Progress in the evolutionary sense, however, was not thus certainly promoted, and might not be promoted at all. What was really needed was an intellectual campaign which would make the path of eugenic reform stand out more clearly by increasing the knowledge of the laws of heredity, and a moral campaign to make our fellow-countrymen ready to accept the sacrifices necessary to ensure the racial progress of their country in the future.

MEDICINE AT OXFORD IN THE MID-VICTORIAN PERIOD.

ALTHOUGH a medical school has existed at Oxford from a very remote period, and degrees in physic were conferred as early as the thirteenth or fourteenth century, science can scarcely be said to have flourished in the "home of lost causes" till Sir Henry Acland, by his indefatigable efforts, made the "lost medical school" a living thing. When he was appointed Regius Professor of Medicine in 1857, he found it in a state of suspended animation nigh unto death. There were not forty men on the books of all the colleges and halls who could legitimately append "M.D." or "M.B." to their names. It is significant that a candidate for the degree of M.D. was allowed such latitude in the choice of a subject for his thesis that it was said at one time that the distinction might have been conferred for a knowledge of volcanoes or for an acquaintance with the atomic theory or the botany of Virgil. If the Oxford doctor of that day added some knowledge of the elements of medicine to his more elegant accomplishments, he had done all that was expected of him. How little science was thought of is amusingly shown by the following story related by Mr. A. R. Bradley, son of a former head master of Marlborough, in a recently published book.[1] It was, he says, told to him by his uncle, the late Dr. Edward Fox of Clifton, who had been in the sixth form at Shrewsbury under the famous scholar, Dr. Kennedy. Fox went on to Balliol, and, being intended for the medical profession, he applied his very considerable talents to scientific studies, and took a first class in the then newly-instituted science school. He was actually the first "first class" in the Oxford Science School. Writing confidentially and light-heartedly to his old chief for the usual half-holiday for the boys in honour of the occasion, he received a characteristic reply of kindly indignation from that severe classic. Every one, wrote Kennedy, knew that no master rejoiced more in his pupils' classical triumphs than he, while even mathematical honours gave him no little gratification. He was always pleased to hear, too, of successes in athletics, and for personal reasons he congratulated his old pupil on achieving such measure of success as he had deliberately limited himself to; but really to ask for a half-holiday for science honours was, in short—well, a most audacious proposal! It may be remembered that Charles Darwin, when he was at Shrewsbury, was taken to task by Dr. Butler for wasting time that should have been given to the classics on such useless subjects as chemistry.

HYDRO-APPENDIX.

OWING to the great frequency of inflammation of the vermiform appendix and consequent operations for its relief, many unrecognized morbid conditions of that structure have recently been brought to light. Amongst them is a disease homologous, as far as the mechanism of the change in the tube and cystic duct is concerned, to hydrosalpinx and dilated gall bladder. It would appear, however, that the pathology is different, for the obstruction which brings about dilatation of part of the appendix is always tuberculous. This is an assertion important to remember whenever a cystic tumour is detected in the right iliac region, especially in considering prognosis after removal. Jaboulay seems to have been the first to distinguish this disease, when he removed an appendix from a boy aged 16 in 1898; five years later Lesueur wrote on dilatations of the appendix associated with tuberculosis, but the distensions—circumscribed cavities holding cheesy matter or pus—are not dilatations homologous to a hydrosalpinx. The contents of a true hydro-appendix are clear and mucous. About a dozen cases have been observed, all in French hospitals, and out of these only two have been reported, and both in theses. As the contents of the cystic appendix are clear, the operator might be misled, overlooking the tuberculous nature of the disease. An instructive monograph on the condition has been published recently by M. Duroux, who has worked under M. Jaboulay.[2]

[1] *Other Days; Recollections of Rural England and Old Virginia.* 1860–1880. Constable and Co.

[2] De l'Hydro-Appendicitose, *Revue de gynéc. et de chirurg.-abdom.*, February, 1913, p. 143.

in Lyons. He distinguishes two forms. The dilatation may be general, and then the appendix assumes the form of a banana, and in a female patient might well be taken for a certain type of hydrosalpinx, especially if free adhesions involving the pelvic viscera adjacent to the right iliac region are present. The most characteristic form of hydro-appendix shows irregular dilatation. A bilocular type, a basal unilocular variety, and an apical unilocular form are figured by M. Duroux. In all three drawings the relations of the meso-appendix and caecum clearly indicate the seat of the cystic structure. Eleven cases are recorded in full. In nine the patients were males, and two of these males were children. In all, relief was sought on account of the characteristic symptoms of inflamed appendix, excepting in one instance in which the patient died in hospital of chronic phthisis and haemoptysis; this was the only case where no operation was undertaken. Intermittent attacks and variations in the size of the swelling, the latter so familiar in hydrosalpinx, were frequent. Out of the ten cases operated on all recovered excepting a man aged 32, who had once been under treatment for phthisis which subsided. The wound was drained, but the tract ulcerated and could not be induced to heal. Miliary tuberculosis developed, and the patient died three months after the removal of the appendix. One patient was in good health five years after the operation; another, a boy aged 8, was well about six months after the appendix was removed, and so was a man aged 29, who had suffered nine years before from phthisis with pleurisy and haemoptysis. The other cases operated on were lost sight of. The necessary treatment of hydro-appendix is clear, but the study of a larger series of cases than that which M. Duroux has collected with great labour is necessary before definite conclusions can be reached. More than one case already recorded suggests that operative interference is perilous when tuberculous processes are going on elsewhere.

DEATH BY LIGHTNING.

SEVERAL deaths by lightning stroke have already occurred in this summer of quick atmospheric changes. Many people otherwise strong-minded enough are apt to lose their wits in a thunderstorm, and if they do not take refuge in the coal cellar or ring consecrated bells by way of conjuration, they are made acutely uncomfortable. Their fears may be, at least partly, allayed by an article in *Knowledge* for June. Mr. Marriott, the Secretary of the Royal Meteorological Society, says there that during the ten years 1901–10 the Registrar-General reported 124 fatal instances of lightning stroke in England and Wales—108 in men and 16 in women—a yearly average of only 12.4 deaths, or 0.36 per million living. In the twenty-nine years 1852–80 there were 546 such deaths, the yearly average for that period being 18.8, or 0.88 per annum per million living. The annual death-rate from lightning varies widely in different parts of England. In the north Midlands from 1852 to 1910 it was 1.8 annually per million living, in the metropolitan district only 0.13. On the Continent much higher yearly death-rates are found. In Hungary the annual death-rate from lightning is said to be 16 per million living (Milham); in Styria and Carinthia about 10 per million; in Prussia 4.4; in France and in Sweden 3; in Belgium 2, so far as the imperfect statistics available go (McAdie and Henry). In the United States of America the annual death-rate per million is high—about 10—in consequence of the frequency of thunderstorms on the one hand and of the large percentage of the inhabitants engaged in outdoor labour on the other; about 700 or 800 deaths from lightning were estimated to occur in the United States every year by Henry in 1900 to a population of 76 millions. Many more people are struck by lightning than are killed. For example, Jack records an instance in which a church was struck; 300 people were in it, 100 were injured and mostly made unconscious, 30 had to take to their beds, but only 6 were killed. Weber gives an account of 92 people struck in Schleswig-Holstein; 10 were killed, 20 paralysed, 55 stupefied, and 7 only slightly injured. In 1905 a tent with 250 people in it was struck and 60 were left on the ground in various states of insensibility, 1 was killed outright, another breathed for some minutes before dying, the rest recovered.

BALNEOLOGY AND CLIMATOLOGY.

AN interesting feature of the approaching Annual Meeting in Brighton is the inclusion for the first time among the authorized sections of one devoted to the subject of balneology and climatology. No doubt this is in a measure due to the fact that the meeting is to be held at a well-known health resort, but it is also a tribute to the improved position attained by these sister departments of medicine. Judged by the evidence of the oldest historical document to which the public at large has access treatment of diseases by balneological processes is among the most ancient practices of civilized man; but curiously enough, despite this fact, balneology and its companion have somewhat lagged behind other special branches of scientific medicine and surgery. Probably this is owing to their progress having been handicapped by several circumstances. A study of the index of the transactions of any balneological and climatological association or society will show that in practice it is not always easy to decide what subjects truly fall within their scope; while another obstacle has been the sometimes inevitable association of some balneological and climatological practice or theory with the material prosperity of a particular health resort. Furthermore, quite apart from such factors, both balneology and climatology present peculiar difficulties as scientific therapeutic studies. If they are approached from the clinical standpoint and an attempt is made to judge the accuracy of the theories concerned in them by the result of their application in a given case, there is always the difficulty of deciding how much is due to balneological and how much to climatological factors; while, when approached from the laboratory standpoint, they involve consideration of many of the most delicate problems of biochemistry. No doubt all these facts have been borne in mind by the officers of the new Section, since of the two subjects which they have chosen for special discussion one is sea-bathing and the other the international aspects of British health resorts. The first will afford an opportunity for endeavouring to distinguish what results, favourable or unfavourable, of sea-bathing are due to this form of treatment itself as distinct from its surroundings. It is by no means an easy question for an ordinary practitioner to decide, since in the case of a very large number of patients indulgence in sea-bathing means in addition change of climate, change of habit, and relaxation from the ordinary cares of existence. The second discussion, one may feel assured, will lead to its being shown that the topical associations of balneology and climatology, to which allusion has been made, are not inevitable, and that within the area of the British Isles there are facilities for almost every form of balneological and most forms of climatological treatment.

THE HALO OF BEAUTY.

IN the June number of the *Girl's Own Paper and Woman's Magazine* "An Old-Fashioned Person" writes on the troubles of the pretty girl. She tells us that she herself was a pretty girl, and of course we have no reason for doubting her word. But when she says that "in her girlhood she was so native to her element that the laws of hygiene scarcely applied to her," we can only wonder, while a little puzzled as to her meaning. We know, of course, that Thomas Walker, the author of *The Original*,

claims that by diet he reached a state of health in which he did not need to wash his face. His skin by some mysterious exhalation "repelled impurity." The "Old-Fashioned Person," however, was not only "gloriously independent of soap," and needed no starch bags for her complexion like other girls, but she never perspired, and did not tan or freckle. All this, however, is a trifle, for she goes on to say: "I was so full of life and so heartily well that I believe I gave off a sort of quivering iridescence that 'charmed' certain beholders. I do not expect the reader to understand this. I don't understand it myself—but several times I have seen strange manifestations of quivering vibrations rendering the human face and form transparent to the gaze, and edged at every outline with the colours of the prism. This is doubtless in the eye of the beholder; but there is something, too, in the object, or else we would oftener see people and things in this prismatic and quivering light—this strange halo that surrounds the pretty girl. . . . I do not know, but I believe there is a sixteen-year-old halo that a girl's face wears which must belong to the astral life—her angel prototype maybe trying to stand between her and an unkind world." We can only say that the privilege of seeing this halo of beauty has been so far denied to our grosser vision. The healthy sixteen-year-old girl as we know her glows with health, but her appetite is too carnal to be compatible with any visible manifestation of the astral life. Does the angel prototype desert the young girl when she sheds her halo? We gather that this takes place, for the "Old-Fashioned Person" believes that the time is not far off when women will be courted for other possessions than beauty. This, we take it, is a necessary consequence of the loss of the sixteen-year halo. A frivolous person might say that there are other "possessions" for which women are often courted. But it is mental qualities which, according to the "Old-fashioned Person," will attract men. This, she says, will be a great change, and will have a decided effect upon beauty. If you ask what effect, you are told that "it has so long been women's chief business to retain what is called her 'charm' for man, and she has resorted to such base means to do so, that in her new position before the world I believe she will scorn to employ the artificial, the immodest, and the loud." This is sound doctrine, and the lady is evidently a strong believer in the influence of the mind, if not on the body, at any rate, on its appearance. She says: "Could this world of ours drop all false beliefs and take up the only true idea which is simply the practice of good, all people would become more beautiful with a beauty that age cannot destroy." This is highly edifying, but regard for truth compels us to state that we have seen many excellent persons whose looks sadly belied the inward grace of their souls. When some one said to Sir Francis Burnand, "*Punch* is not so good as it was," he replied, "My dear fellow, it never was." This may serve as a general formula of reply to the *laudator temporis acti*. The "Old-fashioned Person" tells us that forty years ago the pretty girl was a genuine article; that bleached hair had never been heard of; that face powder was but "a vague accessory of Satan," and that low necks were utterly tabooed. All which propositions, as Teufelsdröckh says about the maxims on dandyism which he extracted from *Pelham*, we, for the present, content ourselves with modestly but peremptorily denying. Women have always been open to Hamlet's taunt: "God hath given you one face, and you make yourselves another." The "yellow topper" was as common in the early seventies as she is to-day; and it may be added that, to go no further back, the art of bleaching the hair was familiar to the Venetian ladies of the time of Titian. The connexion between face powder and Satan was not clearly recognized, and "low necks" were enforced at Court with a rigour which paid no heed to age or state of health. Certainly gowns did not then, as a rule, begin so late or leave off so early as they do now, and the outlines of the female figure were not so ungracefully displayed. On the other hand, there was, of course, the "halo of beauty." Perhaps the modern high school girl, devoted to hockey and cricket, can take care of herself without the help of an "angel prototype."

THE ENDOWMENT OF MEDICAL EDUCATION IN AMERICA.

IT is announced that Mr. Andrew Carnegie has offered to give to Vanderbilt University, Nashville, Tennessee, £200,000 for the development of its medical department. Of this amount the sum of £40,000 is to be given at once for the erection and equipment of laboratories, while the balance (£160,000) is to be given as an endowment, the income of which will be paid annually for the support of the medical department. A condition of the gift is that the direction of the educational and scientific work of the department shall be entrusted by the trustees to a small board of seven members, three of whom are to be eminent in medical and scientific work. The *Journal of the American Medical Association*, from which we take this information, states that Vanderbilt University has always enforced reasonably high standards of preliminary and medical education, and Mr. Carnegie's gift will, it is hoped, enable it to overcome the difficulties it has hitherto met with in carrying out its work.

HOW A HOSPITAL AUTOCRAT WAS TAMED.

THE relations between the medical staff and the lay administrators of a hospital are not seldom strained. There may sometimes be faults on both sides, but we think there can be no question that the friction is, for the most part, caused by fussy interference and attempts at actual usurpation of authority, which are not unnaturally resented by the doctors. This state of things is from every point of view deplorable and interferes with efficiency. Examples could be given from many hospitals in this country. We prefer to give one from abroad. A curious instance of the lengths to which administrators are apt to magnify their office is related of the director of a Paris hospital, a worthy man but rather jealous of his authority, and disposed to play the petty tyrant over the residents. He was always seeking for occasions to assert himself in this way. One morning he issued a ukase forbidding residents to receive any cases of emergency unless a precise diagnosis of the disease was entered on the card of admission. This caused something like dismay, the residents being naturally aggrieved at being asked to make a snapshot diagnosis in cases where the very princes of science were often at a loss. They took counsel together, and one of them, who has since risen to eminence, conceived the brilliant idea of recording a uniform and extravagant diagnosis in every case. From that time all emergency cases of every kind were entered under the head of anencephaly. The director at first congratulated himself on having discovered grievous laxity among the residents. Hitherto these gentlemen had evidently been receiving anencephalous patients without knowing it. The cases were labelled pneumonia, rheumatism, and so forth, and the patients were admitted without the disease being recognized. The good man thought with satisfaction of the progress in science he had been the means of making. Soon, however, he became alarmed at the number of anencephalics admitted. The disease raged in Paris with appalling severity. Accordingly he warned his clerks and other subordinates to adopt the strictest hygienic measures to protect themselves and their children from the devastating scourge. In the meantime the epidemic ran its course and the registers of the hospital overflowed with entries of anencephaly. Then came a statistician who was collecting cases to illustrate some novel

theory. He was astounded to read case after case of this kind: Stonecutter, aged 65, anencephalic; washerwoman, aged 42, anencephalic. He counted up to 130 of such entries. Astonished at the number of cases of anencephaly in persons of such ages, he had an interview with the director which opened the eyes of that functionary. He fulminated against the residents, but to no purpose, and the obnoxious decree was rescinded. By way of revenge he soon afterwards issued a new edict forbidding the routine making of *post-mortem* examinations. Again the residents met, and thenceforward all deaths were entered as "suspicion of poisoning." Now, in such cases the French law requires a *post-mortem* examination to be made, and this must be done in the presence of the director, a commissioner of police, and a doctor not connected with the hospital. The result was that the unhappy director had to spend a large part of his time in the dead-house. Soon the commissioner of police, who was also a victim of the suggested prevalence of poisoning, devoted the hospital and the director to the devil and declined to allow himself to be disturbed, for of course no trace of poisoning was ever found. The director, whose health was suffering, had to make a sacrifice of his bureaucratic obstinacy, and thenceforward he ceased to trouble the residents and allowed them to do their work in the accustomed way.

PAYMENT BY POETRY.

In his *Voyage en Italie*, Théophile Gautier relates that he saw in an Italian city a sonnet inscribed on a wall in a conspicuous place in praise of a doctor who had cured someone of a disease of the liver. This sonnet, which was written in the most florid style and packed with mythological allusions, recorded the fact that the Parcae had tried to slit the thin-spun thread of a patient's life, but were foiled by the art of the doctor. That learned man, accompanied by Aesculapius and Hygiea, had, it appeared, descended to the lower regions where he blunted the scissors of Atropos and entwined with fresh yarn the spindle of Clotho; the web of life was then woven anew by Lachesis. Gautier was pleased with what he called "this ancient and naive way of expressing gratitude." Wordsworth says, "With this key Shakespeare unlocked his heart," and we are willing to believe that the author of the sonnet mentioned by Gautier did the same. But did he unlock his purse? If all patients were to pay their doctors in sonnets the medical crisis would be considerably more acute than it now is. We can only hope that the doctor celebrated in the manner related by Gautier was a lover of poetry and had a soul above any sordid wish to be paid for his skill in some less ethereal currency. But perhaps the poetical advertisement on the wall brought a solid return. Even taking this result into account, what a dreadful thought it would be for any man with the most elementary sense of humour to have his praises sung in classic verse and published as a poster!

THE FRIEDMANN CURE FOR TUBERCULOSIS.

According to the *Medical Record* of June 7th, the Board of Health of New York, at a meeting held on May 29th, adopted a resolution constituting an amendment to the Sanitary Code, the immediate effect of which was the closing of the Friedmann Institute in that city. The adoption of the amendment followed a meeting of the Advisory Board of the Board of Health at which the latter was recommended to take action. A resolution was passed that: "Whereas certain tests of the efficiency and safety of an alleged cure for tuberculosis now being made in this city are now being rendered unsatisfactory, unscientific, and practically futile through the insistence of the originator of the alleged remedy on conditions which involve inadequate observations, inaccurate methods of administration and the insistence on secrecy regarding the substances employed in some phases of the treatment; and whereas evidence is already at hand to show that the so-called remedy not only does not fulfil the promises of efficiency and safety under which its use was at first permitted in this city, but, on the contrary, during its administration many patients have suffered serious and unduly rapid progress of their disease; therefore the use of living bacterial organisms in the inoculation of human beings for the prevention or treatment of disease is prohibited in New York City until after full and complete data regarding the method of use, including a specimen of the culture and other agents employed therewith, and a full account of the details of preparation, dosage, and administration shall have been submitted to the Board of Health, and until permission shall have been granted in writing for the use of the same."

We regret to have to record the death at Keswick, after a short illness, of Dr. Maclaren, consulting surgeon to the Cumberland Infirmary, Carlisle. Some account of his career will be given in an early issue.

Medical Notes in Parliament.

[From our Lobby Correspondent.]

The Local Government Board.

In connexion with the vote for the Local Government Board, an interesting debate occurred in the House of Commons on June 12th.

Mr. Walter Long moved a reduction of the Vote by £100, and said that he did so not on any grounds of personal hostility to the President of the Local Government Board, for he shared in the feeling of great admiration for the strong commonsense and courage with which Mr. Burns dealt with the many problems which confronted him. During his long tenure of office Mr. Burns on the whole had had a very free hand, and it was interesting to reflect upon the fact that it was left to what it was said was the most Radical Government the country had ever had to find in more than one of its Ministers a most determined autocrat. With reference to the laws affecting public health, Mr. Long said that the determination of the State to make certain contributions in respect to the salaries of certain local officials, and to give the Local Government Board power to exercise discretion in the appointment of those officials, taking at the same time the responsibility of paying portion of their salaries, was one of the greatest steps ever made in connexion with this most important branch of local government. On the question of the housing of the working classes, the President, in his opinion, had been guilty of a very great failure in the discharge of his duty. There was probably something like 100,000 new houses of a decent class required for the working classes. It had been suggested that local authorities should be given power to do the work, and that the State should contribute to the cost. Some members opposite could not hear this question discussed without immediately taking the view that it was an attempt to place on the State a burden which ought to be borne by the landowners. He would support the appointment of a Committee not composed of landowners, but to be drawn from the critics of landowners entirely, to inquire what the true state of the case was as regards the landowners of this country. He firmly believed that the large landowners had provided a sufficient number of good cottages for labourers, and denied altogether that any proposal to lighten the burden in connexion with cottage building by the local authorities would necessarily involve giving relief to the owners of the land. He was willing to abide by the decision of such a Committee on this question. Mr. Long then referred to what he regarded as the smallness of the results arising from the Act of 1909, and criticized adversely the action of the Local Government Board. With regard to vaccination, he said that he deplored the large increase in the number of

unvaccinated children, and could not help thinking that some day the results might be very grave. In his opinion this state of things was partly due to the insufficient remuneration of vaccination officers. They were paid under the old system of fees; the fees had decreased as the cases had decreased, and a large number of men in the country were doing work of the most important character on wholly insufficient remuneration.

Sir A. Griffith Boscawen said Mr. Burns had claimed that he could do everything necessary with regard to housing under the present law. If the law was now sufficient the administration must be very much at fault. The state of housing in towns and country districts, as well as in mining districts, in many parts of the country was deplorable. Sir William Lever had said that there were 100,000 deaths every year from overcrowding—a bigger number than were killed during the South African war. Mr. Burns's Housing Act had indeed done more harm than good, since it was better to have even insanitary houses for people to live in than no houses at all. During the first two and a half years after the passing of the Housing and Town Planning Act, only 315 houses were provided by local authorities; 100,000 cottages were needed at once, and at that rate of progress it would take a very long period to obtain them. A new administration and a new law, and, he ventured to think, a new President of the Local Government Board, were wanted if this matter was to be satisfactorily dealt with.

Lord Henry Cavendish-Bentinck said that the President of the Board of Agriculture had stated that 100,000 cottages were necessary to be built in the next five years. Since the Act of 1909 came into operation loans for 3,000 cottages had been sanctioned, and at that rate it would take something like a hundred years before existing requirements were satisfied. It was a serious reflection on the Liberal Government and the Liberal Party generally that there were only about 2,000 fewer children in workhouses than there were when they came into office.

Mr. Leif Jones called attention to the question of water supplies.

Mr. Herbert Lewis said that a survey of the whole of the water supplies of the country was recommended by a Select Committee in 1878 and by a Joint Committee of the two Houses of Parliament in 1910. In view of the fact that the House in 1910 ordered a return, the Local Government Board sent out requests for information and received 3,000 separate statements, the facts in which were being tabulated. The return was now in the printers' hands, and would be issued shortly. The information received dealt with all sources of water, private as well as public.

Mr. Hills referred to the number of cases of death due to starvation. The President had told the House that there were ninety-eight such deaths last year, forty of which were in London. He hoped that the Board's inspectors who inquired into such deaths made adequate inquiries as to whether Poor Law relief had been refused.

Mr. Astor called attention to the administration of sanatorium benefit, which, he said, was at present chaotic, largely owing to the fault of the President of the Local Government Board. There had been enormous difficulties with regard to this benefit. The Departmental Committee which had been appointed to make recommendations reported in April, 1912, yet it was not until December that the President appointed the London County Council as the central organizing authority for London to deal with tuberculosis. He also strongly condemned the delay in issuing the order approving of the domiciliary treatment of tuberculous persons, and stated that the Departmental Committee over which he had presided fully intended the County Council to be the authority for London, and only pointed out that use could be made of some of the beds under the Metropolitan Asylums Board.

Mr. Cave referred to the unjust treatment by the Local Government Board of vaccination officers, who had suffered considerable loss owing to the operation of the Vaccination Exemption Act of 1907. These men had been promised some compensation, but they still suffered large loss. He suggested that a General Order should be issued by the President authorizing boards of guardians to grant compensation to these officers.

Mr. Lewis Haslam referred to the treatment of children under the Poor Law.

Mr. Chaplin called attention to the great increase in the number of exemptions from vaccination since the President of the Local Government Board had made it possible for a parent to obtain an exemption by making a statutory declaration. When the President took office in 1906, the exemptions were 52,000; in 1907, 57,000, and in 1908, 162,000; in 1909, 190,000; in 1910, 230,000; and in 1911, 248,000; and in 1912, 276,000. This startling increase, he pointed out, was equivalent to 31 per cent. of the births.

Mr. G. Toulmin appealed to the President of the Local Government Board to hasten the extinction of the system of retaining children in workhouses.

Mr. Burns, in reply, said he felt so strongly the representations which had been made in regard to rural water supplies that the Board had prepared a bill, which was presented last year; it was on the paper this year, and if its passage into law could be secured there was no reason why the immediately critical aspect of the question should not be solved. With reference to Poor Law children, a great deal had been done in the last three or four years to secure their removal from workhouses and institutions where institutional treatment was not so good as could be secured in cottage, scattered or other homes. Since June, 1910, 100 boards of guardians had provided for Poor Law children accommodation away from the workhouses, in or about which only 8,000 were now left. In 1912 there were only 221 children between the ages of 3 and 16 in workhouses in London. In 1913 there were only 165, and of these 165, 74 were in separate buildings, and the remainder only in workhouses temporarily, being on their way to other places. Mr. Burns said that these figures were an earnest of the promise he had made to the House that he would accelerate the disappearance of children altogether from all workhouses. It had been pointed out that in one year 98 persons died of starvation in the United Kingdom, 40 of whom were in London. No stone would be left unturned to prevent such tragedies, but it must be remembered that the victims did not apply to the guardians for relief, and that some of them had money in their possession when they died, varying from a sovereign to £8 or £10. Great progress had been made with regard to out-relief to children, especially when it was remembered that 40 per cent. of the pauperism was due to widowhood, desertion, or orphanhood. The department and its staff had attended to the matter of sanatoriums with such signal success that even Mr. Astor did not produce any instance of a patient entitled to sanatorium treatment who did not receive it. Months before July 26th, and during the time Mr. Astor's own committee was sitting, the Local Government Board, the London County Council, the Metropolitan Asylums Board, and all the other authorities had made arrangements in anticipation for sanatoriums being provided as from July 15th onwards. They had really done a great deal of devoted and able work in trying to provide sanatoriums. So far as the Local Government Board was concerned, the figures provided an answer to much of the idle criticism and factious talk with reference to sanatoriums. Since July last 208 sanatoriums with 7,500 beds had been provided, and 192 dispensaries which were attended by many thousands of people. Forty-nine county councils out of 62, 66 county boroughs out of 75, and 25 metropolitan borough councils had got into working provisional schemes for tuberculosis sanatoriums and dispensaries, and, speaking generally, there was a margin of beds over those who required them. On July 15th there were in London anything from 800 to 1,500 empty beds in the possession of the Metropolitan Asylums Board, and it would have been the grossest folly to have thrown upon the County Council the cost of providing surplus beds and sanatoriums. In England and Wales there were 1,400 vaccination officers, of whom only 100 gave the whole of their time to their duties. Grievances had been alleged in respect of 658, and of those 594 had received gratuities, increased fees, and other forms of compensation. Of the 100 whole-timers, 90 were in office before the passing of the Act of 1907. In respect of 70, there had been alleged grievances, and 68 of them had been given compensation. He had devoted a great deal of attention to speeding-up and accelerating housing in both rural and urban areas. It was said nothing had been done, but in

the two years ending March, 1912, under the new Act 66,000 houses had been made fit for occupation and nearly as many more had been made fit under the Public Health Act of 1891 through the local authorities being screwed up in recent years by the Local Government Board to do this work. No less than 72,000 representations as to unfit houses had been made in the same period, and in the last three years loans amounting to £800,000 had been sanctioned to rural and urban authorities by the Public Works Loans Commissioners for housing. When it was said that nothing was being done with regard to housing, the answer was the fact that in 1912 there were in existence 180,000 more houses of £15 annual value and under than there were in 1909.

The vote was agreed to by 255 votes to 178.

Mental Deficiency Bill in Grand Committee.

The Mental Deficency Bill came before Grand Committee B of the House of Commons on June 12th. Sir D. Brynmor Jones was in the chair, and the Home Secretary, assisted by Mr. Ellis Griffith, Under Secretary, was in charge of the bill. On Clause 1, which contains the definition of defectives under the four heads (*a*) idiots, (*b*) imbeciles, (*c*) feebleminded persons, (*d*) moral imbeciles, Mr. Martin moved to omit feebleminded persons defined in the bill as—

> Persons in whose case there exists from birth or from an early age mental defectiveness not amounting to imbecility yet so pronounced that they require care, supervision, and control, for their own protection or for the protection of others, or, in the case of children, are incapable of receiving proper benefits from the instruction in ordinary schools.

Mr. McKenna opposed the amendment on the ground that it struck at a vital principle of the bill. The subclause concerned only children who had been declared to be mentally defective by the local education authority, but a child between the ages of 7 and 21 could not be confined without appeal or at the sole discretion of the local authority, and no child could be interned for life on the decision of a single magistrate. Mr. E. Jones pointed out that any such child could only be put into an institution at the instance of the parent or guardian. After some further discussion, the amendment was negatived.

On the last paragraph of the clause, in which moral imbeciles were defined as

> persons who from an early age display some permanent mental defect with strong vicious or criminal propensities on which punishment has little or no deterrent effect,

an amendment was moved to strike out the words after "propensities," but Mr. McKenna said that the criminal propensity would be difficult to establish unless it manifested itself in some overt act. The desire was to save such persons from being punished for offences for which they had no moral responsibility, but to treat them humanely in homes instead of sending them to prison. The amendment was rejected by 19 to 3, several members declining to vote, and the clause was then agreed to.

On Clause 2, rendering defectives subject to be dealt with under the Act by being sent to or placed in an institution for defectives or placed under guardianship, Mr. Harris moved to omit the first subparagraph, which authorized the defective to be dealt with under the Act by being sent to an institution "at the instance of his parent, or guardian if he is an idiot or imbecile or under the age of 21." Mr. McKenna said that he thought that if a parent or guardian wished to bring the child under the operation of the bill it ought to be within his power to do so without having to apply to the court. The provision for the protection of the child in the later clauses were exceedingly strong, but he would be willing that Clause 3 should be amended so as to require the certificates of two medical practitioners.

At the second sitting of the Committee on June 17th the consideration of Clause 2 was resumed, and Mr. Martin moved to leave out the paragraph which brought within the scope of the Act a woman "who is in receipt of poor relief at the time of giving birth to an illegitimate child or when pregnant of such child." Mr. Ellis Griffith said that guardians in many parts of the country had asked that the bill should contain such a provision. Mr. Hills objected that the object was not to put a woman into a home because she was in poverty and her child was illegitimate, but because she was defective, and because it was likely that the child would be defective. Mr. Ellis Griffith undertook to reconsider the phraseology of the paragraph.

On the second part of the clause an amendment was agreed to altering the age at which notification might be made by the local education authority to the local authority under the Act to the age of 7 years; in the bill the age was 5. The subclause was also amended by leaving out the words "three months" in the following paragraph and making it apply to children about to be withdrawn from a special school:

> Who on or within three months before attaining the age of 16 are discharged from a special school or class, and in whose case the local education authority are of opinion that it would be to their benefit that they should be sent to an institution or placed under guardianship.

Sir Norman Helme moved an amendment providing that such notice should be given by the local education authority to the local authority in the case of any defective children over the age of 7 who needed permanent care, provided the consent of the parent or guardian was obtained. This amendment met with a good deal of support, but was opposed by the Home Secretary and defeated by 16 to 12. The clause was still under discussion when the Committee adjourned.

Mental Deficiency Bill (Scotland).—In reply to Major Hope, who referred to the increase of the Treasury grant for England and Wales for mentally defective children from £4 4s. to £6, and who inquired whether a similar increase of grant was to apply to Scotland, Mr. McKinnon Wood said that he could not at present give a definite answer, but that the matter was under consideration.

Grants to Reformatory and Industrial Schools.—Mr. King asked the Secretary of State for the Home Department what was the total amount paid from the Home Office votes for educational purposes in this country, indicating, in addition to the total amount, the sums paid in respect of reformatory and industrial schools, prison education, and all other educational purposes.—Mr. McKenna said the total sum paid towards the cost of reformatory and industrial schools in England and Wales in 1912–13 was £220,826. It was not possible to say how much of this sum was for maintenance and how much for education. The pay and allowances of the officers employed in prisons and Borstal institutions in teaching prisoners, including trade instructors, amounted to £14,500 a year.

Lead Poisoning.—In reply to Mr. Snowden, Mr. McKenna said that he was aware that the number of fatal cases of lead poisoning included in the annual returns for 1910–12 was twice as large as the number for the years 1902–4, but the Medical Inspector of Factories regarded this not as indicating an increase in the actual number of fatal cases, but as due to the recognition that diseases such as chronic interstitial nephritis and cerebral haemorrhage might be sequelae of lead poisoning, and also to the greater inclination to certify deaths of lead workers from associated diseases, such as phthisis, gastric ulcer, etc., as having been accelerated by lead poisoning. Better tests of the effect of administrative action for the prevention of lead poisoning would be a comparison of the number of cases in which death was due to acute lead poisoning, and in non-fatal cases a comparison of the proportion of severe as distinguished from slight cases. In 1910–12 the number of deaths due to acute lead poisoning was six only as compared with fourteen in 1902–4, and the percentage of severe cases 18.2 as compared with 30.4 in 1902–4.

Colour Vision Tests.—Mr. Lynch asked the President of the Board of Trade whether he could state how many officers of the mercantile marine who had previously passed the Board of Trade tests had failed in the tests of colour vision introduced on April 1st; and how many men had passed the wool test and failed with the lantern test, and vice versa.—Mr. Robertson said that the total number of officers in possession of certificates of competency who were examined in the above tests during the

period April 1st to May 31st was 409: Failed in lantern test only: Six certificated officers failed in both local and special examinations; two failed in local examinations, but special examinations had not yet been held. Failed in wool test only: None. Failed in both lantern and wool tests: Three certificated officers failed in both local and special examinations; one had failed in the local examination, but had not yet been specially examined. Thus nine certificated officers had failed to pass the new tests; and three having failed at local examinations were awaiting special examinations before a final decision was given.

The Dogs Bill.—Notice of a number of amendments to this bill has been given by Dr. Chapple, Sir Henry Craik, and Sir Philip Magnus. The Standing Committee A, to which the bill is remitted, was called for on Monday, June 16th. No quorum was obtained, and the consideration of the bill was adjourned till Wednesday, June 25th.

Bovine Tuberculosis and Johne's Disease.—Mr. C. Bathurst asked the President of the Board of Agriculture if he would state how, under the Tuberculosis Order of 1913, bovine tuberculosis with emaciation was being distinguished from Johne's disease in cases where the owner did not consent to the application of the tuberculin test; and how, if no outward symptoms of tuberculosis exist, cattle could be notified as giving tuberculous milk in the absence of the proposed machinery of the Milk and Dairies Bill, whereby the presence of the disease in milk could, after bacteriological analysis, be traced from the retailer's premises to those of the cattle owner and the particular cow which yielded it. The President of the Board of Agriculture, in reply, said that no case of difficulty in making a differential diagnosis between tuberculosis with emaciation and Johne's disease had been brought to his notice, but he was advised that the following method might be used for distinguishing the two diseases, namely, by clinical examination, and, if necessary, microscopic examination of scrapings of the mucous membrane of the rectum, or by microscopic and biological examination of the faeces. With regard to the latter part of the question, whilst it was, of course, the case that owners of cows might not be able to notify cases of cows giving tuberculous milk from clinical symptoms, local Acts were already in existence under which cases might be found and dealt with even before the machinery was made generally applicable by the passing of the Milk and Dairies Bill. Mr. Bathurst asked if it were not a fact that the machinery of the Tuberculosis Order, so far as tuberculous milk was concerned, would break down almost entirely in the event of the Milk and Dairies Bill not passing into law. Mr. Runciman replied that he could not admit that. It was true that if the Milk and Dairies Bill were not passed into law the regulations would not be generally applicable, but would be applicable only in the most important cases. In reply to a question by Mr. Bathurst, who inquired as to the number of notifications of tuberculosis of the udder, emaciation from tuberculosis, or giving tuberculous milk, as the result of the Tuberculosis Order of 1913, during the month of May, and whether it was not a fact that the notifications were confined to the counties of Yorkshire, Lancashire, Derbyshire, Cumberland, Somersetshire, and Wiltshire, Mr. Runciman said that the number of notifications had been as follows: In England, 504; in Wales, 13; in Scotland, 51. He also gave a list showing a large number of counties from which no notifications had been received—more numerous in Scotland than in England and Wales. London was amongst the counties named in England. In conclusion, Mr. Runciman added that he was making inquiries with a view to ascertain whether in the counties named, or any of them, there had been unreasonable delay in enforcing the Order.

The Bee Disease Bill and the Milk and Dairies Bills.—In reply to Mr. Charles Bathurst, who indicated the need for legislation on these matters, and inquired as to whether the Government proposed to pass these bills this session, the Prime Minister said that the Government would be glad to carry the Bee Disease and the Milk and Dairies Bills through this session, but, unless they could proceed as substantially uncontentious measures, he was afraid there was little prospect of this in the time at their disposal.

The House-fly Pest.—In reply to Mr. Charles Bathurst, the President of the Local Government Board said that, under the Public Health Acts, local authorities had powers with respect to the removal of refuse and for dealing with accumulations of manure and other offensive matters. They were also empowered to make by-laws relating to the deposit and removal of refuse matters, and by-laws of this kind were in force in many districts. The question of the relation between flies and disease had been frequently under the consideration of the Local Government Board, which had made and was continuing a series of investigations with regard to it. In the circular of August, 1911, to local authorities on the prevalence of epidemic diarrhoea amongst children, the Board emphasized the importance of prompt removal of stable and domestic refuse and the prevention of the accumulation of organic matters. He had reason to think that this circular led to much valuable work being done, and he was considering the question of issuing a further circular this summer.

Colonial Medical Officers.—Mr. Grant asked the Secretary of State for the Colonies how many district residents, assistant residents, and district doctors were married in the following comparatively unhealthy stations in British Central Africa: Port Herald, Chiromo, Limonde, Fort Johnston, Kotakota, Chinteche, and Karongo; and how many district residents, assistant residents, and district doctors were unmarried in the following comparatively healthy stations: Zomba, Chirazulu, Blantyre, Neno, Nchen, Dedza, Lilongar, Dowa, and Mzimba.—Mr. Harcourt replied that, according to the latest information, at the stations mentioned as unhealthy there were eight married and seven unmarried administrative and medical officers. At the stations mentioned as healthy there were ten unmarried and nine married officers of three classes. At two other healthy stations, Mlanje and Ngara, the two administrative officers and the medical officers were all married, and he was prepared without reserve to accept the classification of stations as healthy and unhealthy.

DR. W. GIBSON PARKER has published in *Public Health* (April, 1913) an interesting statistical inquiry into the relation between the "condition as to nutrition" of school children and the rate of infant mortality prevailing in the families from which they come. The children were classified with respect to nutrition as good, average, poor, and bad. After the children had been classified, the family record of births and deaths was obtained from each mother and the results analysed. It was found that the mortality per 1,000 under one was 56.1 in the class "good," 61.5 in the "average" class, and 97.5 in the "poor" and "bad" classes taken together. The author is careful to point out that these figures are not comparable with the rates of infant mortality generally employed since, *inter alia*, at least one child in each family must have survived to school age, but he holds that they support the belief that a high infant mortality is associated with a deterioration of health among the survivors. The facts here collected are worthy of attention, but the measurement of selective mortality, as has been pointed out by expert statisticians such as Yule and Snow, is a task of great difficulty. The problem is to study the after-history of two populations which have been subjected to different rates of infant mortality, *keeping the environmental conditions constant*. The words in italics reveal the source of the difficulty. Since in practice we are never likely to be provided with populations differing solely in respect of their infant mortality-rates, and the environmental conditions are constantly changing, it is necessary to have resort to statistical artifices of a very intricate kind, with the result that their interpretation is a matter of some uncertainty. We hope that Dr. Parker will return to this important point, he will find hints as to the pitfalls to be avoided in Yule's appendix to the Local Government Board Report (Supplement to the Report of the Board's Medical Officer, 1910, Cd. 5263), the memoirs of Snow (E. C. Snow, *The Intensity of Natural Selection in Man*, 1911 (Dulau), and *Biometrika*, 1913 (ix, 58 to 68), and Greenwood and Brown's study of infant mortality in Bavaria (Greenwood and Brown, *Journal of Hygiene*, 1912, xii, pp. 5 to 45).

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Lunacy in Scotland.

The fifty-fourth annual report of the General Board of Commissioners in Lunacy for Scotland was issued on June 10th. It states that exclusive of insane persons maintained at home by their natural guardians, there were on January 1st, 1913, in all 19,188 insane persons in Scotland. This number included the inmates of training schools for imbecile children and of the criminal lunatic department of Perth Prison. There was an increase of 154 in the total number of the insane, as compared with the previous year (1911). The Commissioners were in favour of a change in the law with regard to the admission of voluntary patients; it might take the form that a person could be received into and kept in an asylum for three days on his own written application to the superintendent, provided the sanction of the Board were at once applied for, and that no voluntary boarder were retained for a longer period than three days without such sanction. The recovery-rates from insanity were not quite so good as previous years, a fact which might be ascribed in part to the increased use of observation wards connected with the parochial hospitals of several large parishes which received persons suffering from passing attacks of mental disorder who would otherwise have been for short periods in asylums; but other causes were the accumulation of chronic cases, and the development of nursing and the improved means of hospital care in asylums which had led to their being more freely used for the reception of patients whose age and whose mental and physical condition were such as to preclude hope of recovery. The death-rate of both class of patients (private and parochial) was 9.8 per cent., and was, therefore, higher than it had been for many years; it was 8.7 in 1911. The escapes numbered 143; of these 65 were brought back within twenty-four hours, 35 within a week, and 21 after a week. This apparently leaves 22 unaccounted for. The total expenditure for the maintenance of pauper lunatics for 1911–12 was £427,495 as compared with £415,694 in the previous year, and the total average cost per patient was £26 4s. 8d.

Overcrowded Houses in Edinburgh.

Mr. David Rutherford, the chief sanitary inspector, in the annual report of the sanitary department of the City of Edinburgh for the year 1912, states that there are now within the city 7,354 ticketed houses which are regularly inspected; 108 were found overcrowded, 695 required to have walls and ceilings cleansed, and in 334 cases the floors and bedding were found to be in a dirty condition. Continued visits are paid to houses, especially in the poorer districts, in which cases of phthisis have been notified as existing.

Edinburgh Medical Missionary Society.

The directors of the Edinburgh Medical Missionary Society gave a reception for the medical missionaries (former students of the society) now at home on furlough from the foreign field in the Green Café, Edinburgh, on the evening of June 13th. Emeritus Professor Crum Brown, the President of the Society, was in the chair for the first part of the evening, and Dr. J. W. Ballantyne, one of the vice-presidents, for the later part. There was a large gathering of the directors and of their friends, as well as of the present students of the society; and an attractive musical programme was carried through. Six of the medical missionaries present gave brief addresses. Dr. Lechmere Taylor, of the Church of Scotland Mission in the Punjab, spoke of medical work in the north of India; Dr. E. H. Edwards, formerly of the Baptist Missionary Society in Tai-yuen-fu, spoke of the calls China had made in the past thirteen years to the peoples of Europe; Dr. Nina Beath, of the English Presbyterian Church Mission in Swatow, spoke of the way in which medical work opened the hearts of the Chinese to western ideas; Dr. E. Mackenzie, of the Presbyterian Church of Victoria's mission in Santo, drew a picture of what medicine had done for the savages of the New Hebrides; Dr. J. W. Pell, of the Wesleyan Missionary Society's station at Changsha in China, spoke of some of the different ways in which medicine opened up the path for Christian teaching; and Dr. J. Davidson, of the London Missionary Society's station at Neyoor, Travancore, told something of the native medical evangelists there. All the speakers referred very warmly to the benefit they had derived from the society during their college and university days in Edinburgh. Among the other medical missionaries present were Dr. S. Osborn, who is going to Rhodesia, and Dr. G. Ap Thomas, who is to join Dr. Davidson in Travancore. Dr. C. D. Walker had started for his station in Paraguay, South America, otherwise he also would have been among the guests of the evening.

Epileptic Colony of the Glasgow Parish Council.

The first epileptic home erected under Poor Law auspices in Scotland was opened last week. The question how best to deal with sane epileptics chargeable to the rates has for several years come up periodically before the Glasgow Parish Council, but owing chiefly to the cost no permanent steps were taken, and the epileptics were accommodated in existing parochial institutions and in part were kept at home. The unsatisfactory results of indoor treatment and the increasing number of indoor poor forced the question to the front. With the consent of the Local Government Board a deputation visited existing institutions in England, and afterwards drew up a scheme for the erection of a special home at East Muckcroft, near Chryston. This was adopted, and six villa blocks, each accommodating fifty patients, with the necessary administrative buildings, laundry, recreation-hall, and tradesmen's workshops, and houses for the medical superintendent, attendants, and workmen were provided at the cost of £45,000 (£150 a bed). If the cost of the villa blocks alone is taken, the cost is only £70 a bed, which is even cheaper than the cost of £80 a bed of the similar colony at Monyhull, Birmingham. The Glasgow villas are one-storied brick buildings, containing day-rooms, dining-room, bathroom and lavatory accommodation, with kitchen and necessary offices. The dormitories are detached from the rest of the buildings. Each block has a separate heating boiler.

At the opening ceremony the Chairman of the Parish Council said it was intended to be more of the nature of a home than a hospital, and equipped with the view of relieving as much as possible the distressing accompaniments of the disease. It was proposed that the patients should lead as normal a life as possible, not the depressing, languid, wearisome drag so often seen in asylums. The colony was intended for those who were able to do something for themselves, and engage in work of some description which would in part at least help towards their maintenance. The colony had accommodation for 150 men and 150 women, and there were already 86 patients in residence. There were over 300 other epileptics of whom fully 200 were in mental institutions. Many of these reached a state of health which rendered them fitted for the greater freedom of the colony and as occasion offered they would be transferred to it.

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Royal Medical Benevolent Fund.

The annual meeting of the Royal Medical Benevolent Fund Society of Ireland was held last week in the Royal College of Physicians, when the President of the College, Dr. Charles E. Fitzgerald, presided, and there was a large attendance. According to the report, the number of applicants was larger than usual last year, and the amount given in grants was greater than the average, yet to many of the recipients the aid given was far short of their urgent requirements. The total number of applications considered during the year was 106, and the total amount of grants recommended since the last distribution was £1,444 10s.; there was a decrease of £141 1s. 3d. on the income of the preceding year.

Dental Clinic in Belfast.

Two months ago a dental clinic was opened in Belfast with the definite object of providing proper facilities for

treating the teeth of children in national schools; it was founded by a committee of the Children's Aid Society, and has been managed by it, but the scope and nature of the clinic's work have really been defined by the Commissioners of National Education, whose approval has been given. Local dentists have volunteered their services, which the Commissioners have consented to regard as equivalent to a fixed financial contribution, and have accordingly guaranteed an equal sum to help to cover working expenses. The local panel now contains eighteen dentists. During the first seven weeks one of the staff examined several hundred children of four schools, and of these 172 were sent to the clinic for dental treatment. Only children between 6 and 10 years of age have been dealt with; 129 permanent teeth have been filled; on alternate Mondays those cases requiring anaesthetics are treated; and a medical man has kindly offered to act as honorary anaesthetist. A trained nurse is in attendance. The local branch of the Dental Association has throughout given its approval and support; and the Secretary of the Children's Aid Society, Rev. W. G. Anderson, has made himself responsible for the registration of the cases and the general management of the clinic. Professor Powicke, Queen's University, Belfast, has brought the undertaking before the public, and contributed these details to the press. The preventive effect such work affords in disease should make a powerful appeal to all citizens, and enlist their help and sympathy.

Health of Belfast.

The Medical Superintendent Officer of Health reported to the monthly meeting of the City Council on June 2nd that scarlatina was still very prevalent; 170 cases had been notified during the month; in one district many of the cases were traced to a dairy, and after the necessary precautions were taken, the numbers fell. He urged that medical advice should be sought, even in the mildest cases. The number of cases of typhoid fever notified was 21; a considerable number had previously eaten shellfish, gathered on the foreshores of the lough, a habit against which grave warnings had been issued from time to time.

The Children's Act Committee brought forward the question of school accommodation, and its chairman stated that, in face of the report of the inability of some 10,000 children to get admission to the elementary schools from lack of room, an effort must be made to remedy the evil. Most medical men will remember the revelations of the late Dr. A. McKeown in the matter. Belfast is justly proud of many of its institutions, but elementary school accommodation is popularly considered one of its disgraces, and there seems to be much truth in the accusation.

Treatment of Tuberculosis in Cork.

At a meeting of the Committee of Management of the Cork Joint Hospital Board, on June 7th, it was proposed to recommend the county councils of the city and county of Cork to take over the management of the sanatorium at Heatherside from the Joint Hospital Board on receiving from the Local Government Board the sums of £8,621 16s. 7d. in respect of Cork County, £2,095 14s. 10d. for Cork Borough, or a total of £10,717 11s. 5d., with a subsequent recoupment of their share of the £25,000 deducted for other purposes from the total grant. By the Tuberculosis Act of 1913 the Conjoint Committee were enabled to do what was proposed and thus form a new body which would take over the management of the sanatorium. The further question, whether dispensaries should be established, was left open.

Annual Meeting of Irish Medical Association.

The annual general meeting of the members of the Irish Medical Association was held in the Royal College of Surgeons on Wednesday, June 11th, when Dr. J. B. Story, the newly-elected President, took the chair. The seventy-fourth annual report stated that the National Insurance Act, in its application to Ireland, had engaged the attention of the Council more than any previous legislation. At its annual meeting in Cork this Association arranged the general meeting of all medical practitioners, held on June 30th, 1911. At that meeting a Conjoint Committee of the British Medical Association and Irish Medical Association was formed. In June, 1911, a meeting of the delegates was held, when the Conjoint Committee was reconstituted to consist of nineteen members of the Irish Medical Association and a corresponding number of the British Medical Association, with representatives from the licensing bodies, colleges, and four provinces. Numerous meetings of the Committee had been held, and important work had been done. While matters affecting the Act generally were referred to the Conjoint Committee, the Council of the Irish Medical Association, through its Committee, advised members on various questions arising from time to time.

Dr. R. Marlay Blake (Dundalk) moved:

> That the representatives of the Irish Medical Association on the Conjoint Committee be called upon to resign their positions on that Committee.

He thought that the interests of the members of the Irish Medical Association had been betrayed by the Conjoint Committee when the latter advised the adoption of the panel system for certification as outlined by the Insurance Commissioners.

Dr. Callaghan (Galway), who seconded the motion, said that the Conjoint Committee had not the confidence of the profession. The Irish Medical Association had always represented the rural practitioners, and should dissociate itself entirely from the British Medical Association, which mostly represented the city practitioners.

Dr. Donnelly said the actual membership of the Irish Medical Association was 673, and on credible authority he learnt that there were in Ireland 800 members of the British Medical Association. There should, in his opinion, be no antagonism between the associations. When the Insurance Act was on the stocks it was the Irish Medical Association that banded the doctors together, and the Conjoint Committee was of no advantage to the doctors, but the contrary. Dr. Olpherts stated that it was entirely incorrect to say that Down was a panel county.

The resolution was then put to the meeting and carried with almost complete unanimity. The president said that he would rule that this resolution would prohibit the Executive Council from allocating any further funds to the Conjoint Committee.

The following resolution was passed:

> That all members of the Irish Medical Association who have gone on the panel in their areas, and outside their areas to certify for insured patients attended by non-panel doctors, be called upon to resign their membership of the Association.

A resolution expressing emphatic disapproval of doctors joining the panels, and calling on those who had joined to withdraw as soon as they could legally do so, was also passed.

The annual banquet was held in the Royal College of Surgeons in the evening, Dr. J. B. Story in the chair. On Friday afternoon the President and Mrs. Story entertained the members by an afternoon party in the Zoological Gardens.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LONDON.

District Nursing.

A CONFERENCE on the subject of district nursing in London was held at the offices of the Local Government Board on June 14th. In opening the conference, Mr. John Burns said that it was one of a series of efforts made by the Local Government Board to link up the different agents, public and private, working for the benefit of the poor. Hitherto the best possible results had not been obtained from district nursing, partly because of lack of co-ordination, while a further reason for holding a conference was the alteration in the problem introduced by recent legislation. For instance, one outcome of the medical inspection of school children was a need for the visiting of children in their own houses. Old Age Pensions Act and the National Insurance Act had also affected the problem. Neither the State nor the rates could do everything for the poor, nor was it desirable that they should. What was needed was the guidance and stimulation of the virtue the poor exhibited in helping

each other. Whatever was, or could be, officially done left plenty of room for the services of kindly people who were willing to devote their energies to district nursing. There were already, he was informed, 400 trained women engaged in work of this order, at a cost of not more than £30,000. It would be well if all public expenditure brought about an equally valuable return. The best work of nurses was not necessarily either medical or surgical; it was their human, sisterly, neighbourly qualities which were most valuable. They went into the homes of the poor and talked not at them, but to them, and by their kindly advice and persuasion brought about great changes for the better. Still, to get the best possible results, unification of aim and co-ordination of effort were necessary, though there should be no interference with the domestic management or independence of philanthropic associations. Some recent efforts at co-ordination in other directions proved their value. The drop in infant mortality from 145 to 90 deaths per 1,000 registered births was largely due to the Notification of Births Act having concentrated social and philanthropic agencies on the working-class mother and child at a very critical period, while the co-ordination of agencies for dealing with London vagrants had, besides removing the nightly blot on the Embankment, led to the closing of 33 per cent. of the casual wards in London, and to the reduction of casual pauperism from 1,300 to below 400. The discussion which followed this speech ended in the passage of three resolutions. The first asserted the desirability of all bodies concerned in district nursing in the metropolis being brought into closer co ordination in order to meet the demand for nursing on systematic and co-operative lines; the second suggested the selection of ten persons to form a provisional committee to prepare and promote a scheme for carrying out the first resolution and to report further on the subject, and the third named the following persons as members of such committee: Mr. A. Ellis (Metropolitan Federation of Queen's Nursing Association), Miss Hughes (Queen Victoria's Jubilee Institute for Nurses), Miss Paxley (General Secretary of the Ranyard Nurses), Miss C. Gregory (Southwark, Newington, and Walworth District Nursing Association), Sir Arthur Downes, M.D. (Local Government Board), Mr. Warburg (London County Council), Mr. J. A. Dawes (London Insurance Committee), Canon Curtis (Wandsworth Board of Guardians), Mr. F. Briant (Lambeth Board of Guardians), and Mr. C. S. Loch (Charity Organization Society).

Australia.

[*FROM OUR SPECIAL CORRESPONDENT.*]

Royal Prince Alfred Hospital, Sydney.

At the annual meeting of the subscribers to the Royal Prince Alfred Hospital Professor Anderson Stuart, the Chairman of the Board of Directors, presented the annual report. It stated that the total number of in-patients during the year was 7,115. As the available number of beds in the hospital was 392, the daily average number of patients was 386, and the mean residence of patients in days was 21.06. The rate of mortality per cent. for all cases under treatment (excluding 96 deaths which occurred in patients within twenty-four hours after admission) was 5.07. The number of attendances in casualty and out-patient departments was 69,082. In the year 1883, when the hospital was first opened, the number of operations was 147, the percentage of the number of operations to admissions being 13.75. In 1912 the number of operations was 4,690, being 69.15 per cent. of the number of patients admitted. While there had been an all-round increase in the amount of work, the increase in the pathological, *x*-ray, and medical gymnastics departments was specially marked.

The question of providing increased accommodation for the treatment of gastro-enteritis amongst infants has been under consideration during the past year. At present comparatively few cases of this disease can be accepted into the wards, but it is believed that if there were suitable accommodation for open-air treatment the high rate of mortality now prevailing would be much reduced. A scheme for establishing an annexe to the children's ward for the special treatment of these cases is now under consideration by the board. As the work of the pathological department has increased so much, the board, on the recommendation of the honorary medical staff, decided to appoint a chief resident pathologist, who, under the professor of pathology, would be a more or less permanent executive head of the department. Post-graduate work has also been under consideration for some time past. Recently a memorandum on the subject has been presented by Professor Anderson Stuart, Dean of the Faculty of Medicine, to the Senate of the University, and the matter is to be considered by a committee of representatives of the hospital board and the Senate.

During the year the number of students attending the Prince Alfred Hospital practice was again higher than during the previous year, and this showed that a large proportion of the students of the medical school desired to obtain their practical and clinical experience at this hospital. Considerable alterations have been made in the hospital buildings. The most important of these has been the erection of a large addition to the nurses' home. This consists of a brick building of three stories, and will provide over 200 bedrooms. The estimated cost of this building is £25,000, of which £8,000 was contributed by the board of directors and the balance by the Government. The net result of the year's operations was a deficiency of £1,412 2s. 7d. on the working account, while the Endowment Account showed a net gain of £538 3s. 8d. It was estimated that the ordinary expenditure of the hospital for the current year would be nearly £44,000, which should just be covered by the revenue to be expected from all sources.

Medical Fitness of Cadets in Training.

The Minister for Defence has published some interesting information in regard to the work carried out in connexion with the universal training clauses of the Commonwealth Defence Act. Up to February 28th, 1913, the total number of junior cadets examined (boys of from 12 to 14 years of age attending primary schools) was 45,248. The number found medically fit was 44,079; the percentage found fit was thus 97.4. The number found unfit or temporarily unfit was 1,169, or 2.6 per cent. The total registrations of senior cadets in training areas was 174,766. The total medically examined was 102,213; total medically fit, 93,483, or 91.5 per cent.; number temporarily unfit, 2,995, or 2.9 per cent.; number unfit, 5,737, or 5.6 per cent. The number of total exemptions granted in training areas was 58,582; number remaining to be medically examined or exempt, 22,701; number liable for training, 90,808; total number actually in training, 87,847. Exemption from training is given to all those who reside outside a training area, but they are nevertheless compelled to register. The total registrations of those cadets who reach the age of 18 years this year, and who on June 1st next will have to pass into the Citizens Forces, numbered 38,604; the total medically examined, 2,081; number medically fit, 1,521 (73.1 per cent.); number conditionally fit, 156 (7.5 per cent.); number temporarily unfit, 113 (5.4 per cent.); number unfit, 291 (14 per cent.); total exemptions granted in training areas, 16,481; number remaining to be medically examined or exempt, 20,446.

India.

[*FROM OUR SPECIAL CORRESPONDENT.*]

Foot and Mouth Disease.

The small scientific commission, regarding the foot and mouth disease, which visited India during the cold weather, has now gone home, and the results of their mission will be communicated to the Board of Agriculture. It is feared that their experience will not be of much use in dealing with the disease at home, as the characters of the malady differ materially in the two countries. In Great Britain the disease is virulent and often fatal, but in India it is not so.

Plague Vaccine.

With reference to the disinterment in a recent libel action of the alleged facts of the accident with plague vaccine in

1902, and the false argument unsuccessfully based thereon, it may be pointed out that from 1904 to the present date, 4,919,345 doses of vaccine have been issued in India, and although searching inquiries are always instituted regarding the action of the vaccine, there has not been a single verified case of any serious ill effects following its use.

BOMBAY MILK SUPPLY.

A scheme has been adopted for bringing milk into Bombay City from healthy dairy farms established in the surrounding country districts. The milk problem has long been a great difficulty to the Corporation. Milch-cattle stables are dumped down all over the town, and are often in most insanitary proximity to dwelling houses and other buildings which make undesirable close neighbours. The Corporation has recently maintained a steady effort to push these stables into more open localities on the outskirts of the city, and to ensure the observance of sanitary rules in each place, but there are obviously limitations in the power of compulsion in the matter.

Special Correspondence.

PARIS.

Treatment of Appendicitis.—Operation of Pericardiolysis.

A DISCUSSION on the treatment of appendicitis, in which several leading French surgeons took part, was held at a recent meeting of the Surgical Society. M. Jacob, who said that he had had the opportunity of following many cases in soldiers from the very beginning of the attack, stated that during the past three years he had operated on 148 cases—30 in the acute stage, with 28 recoveries and 2 deaths. The two fatal cases were not operated upon till the fourth day. He held that the commencement of gangrene might be diagnosed from the intensity of the pain. When the pain was localized in the right iliac fossa and very acute, commencing perforation was to be dreaded, especially when the attack was not the first. M. Reynier said that if operation were delayed for forty-eight hours the prognosis became much less favourable. In cases presenting the peritoneal facies, black vomiting, and pulse of 140, temperature of about 101°, washing out of the stomach and bowel frequently ameliorated the general condition and tided over the attack. After four days the operation of appendectomy might be performed without undue risk. M. Lenormant reported a mortality of 30 per cent. in bad cases upon which operation was performed. If the operation were done within the first forty-eight hours the prognosis was good. He had had only 1 death in 20 cases. Among 15 cases in which the operation had taken place after forty-eight hours there were 5 deaths. M. Potherat advocated surgical intervention in all cases. Ice, he said, merely acted as an anodyne, and did not influence the inflammation existing in the appendix itself, and certainly could not affect gangrene. M. Hartmann's conclusions were summarized as follows: (1) If the case is acute, operate at once; (2) if subacute, wait twelve hours, and if after twelve hours the temperature has not fallen below 101°, operate. In 196 cases he had had 29 deaths (13 per cent.). The operation was performed within twelve hours in 12 cases, with no deaths; within thirty-six hours in 13 cases, with 2 deaths; and after fourteen days in 13 cases, with 10 deaths.

Dr. Delagénière has reported to the Academy of Medicine the results obtained by pericardiolysis or removal of the anterior portion of the pericardium in its totality; it was designed to give both the ventricles and the auricles and great vessels freer action. The operation had been performed thirty-eight times, with thirty-one recoveries and six bad results, all in adherent pericardium. He related a case of a woman, aged 28, complaining of palpitations, cyanosis, and oedema of the limbs. After operation all these symptoms disappeared, and the patient had been in good health for the past two years. The operation consisted in the removal of part of the sternum and ribs covering the pericardium, and the freeing of the pericardium in its entire extent anteriorly.

BERLIN.

Friedmann's Tuberculin. — The Serum Diagnosis of Pregnancy.—The Treatment of Carcinoma Uteri with X Rays and Mesothorium.

THE report by Westenhofer, Prosector at the Pathological Institute of the Charité Hospital, made to the last meeting of the Berlin Medical Society, of his *post-mortem* findings in a case that had died of haemoptysis after a course of injections by Friedmann produced a considerable sensation. There were numerous pulmonary cavities, and a generalized miliary tuberculosis; but this is not the worst, for in the gluteal region, at the site of the infection, and in the musculature, where tuberculous deposits are exceedingly rare, there was a large focus containing giant cell systems and tubercle bacilli which could not be definitely classed either among the human or cold-blooded varieties. In the course of his remarks the speaker regretted that Dr. Friedmann had not as yet fulfilled his promise to the society to publish his culture methods in detail—a course, which he maintained, could only damage the high esteem in which German scientific research was held abroad. He was followed by Professor Schwalbe, who drew the society's attention to an official report of the Health Department at Washington, in which it was definitely stated that the patients treated by Friedmann in America had not been cured. The well-known bacteriologist—Frau Dr. Rabinowitsch—showed the society a pure culture of Friedmann's turtle tubercle bacillus recently sent to her from America. It had been obtained from an abscess produced by inoculation in a female patient in Rhode Island. Besides the tubercle bacillus there was cultivated from it a non-acid-fast bacterium which might possibly be designed to act in combination with the other. In her opinion the first named very closely resembled a bacillus isolated from the carp by Dubard fifteen years ago. Friedmann's bacillus grows best at room temperature and can be subcultivated on all the usual media, whilst microscopically and by staining methods it cannot be differentiated from the recognized "reptilian" tubercle bacillus. She reminded her hearers that Küster, Möller, and Edwin Klebs had fruitlessly tried to immunize animals some years ago with such bacilli, and mentioned that she herself had also failed. Piorkowski, a former assistant of Friedmann's, who had formerly cultivated turtle tubercle bacilli for him, has placed living cultures of this bacillus at the service of his colleagues in Berlin and elsewhere. At this meeting he stated that he had received favourable reports from certain sources, whilst other authorities had been unable to send him any positive observations. Friedmann found his only firm supporter in the person of Dr. Schleich, of local anaesthesia fame, who from the beginning has publicly stated his belief both in the man and the method. Schleich stated again that most amazing results had been obtained by Friedmann, and called upon the society to appoint a commission from among its members to examine into and report on his alleged cures.

At a Gynaecological Congress held at Halle recently, R. Freund and Brahm reported on 160 cases successfully tested by Aberhalden's method.* The practical value of the test was emphasized by Rübsamen, who in 7 cases of suspected tubal pregnancy obtained a positive indication four times and a negative thrice—results which were confirmed subsequently on the operating table. Rübsamen, after applying the test in 100 cases without a single failure, is of opinion that it is infallible. This speaker was followed by Schäfer (Berlin) and Lichtenstein (Leipzig), whose reports were likewise favourable to the method; whilst in an article in the *Münchener mediz. Wochenschr.* (June 10th) Maccacruni reports correct results in 85 cases, among which were four doubtful tubal pregnancies, in which the diagnosis was made from the serum and afterwards confirmed by the operation. Schiff, of the Physiological Institute in Halle, writes in the same journal that he correctly diagnosed the presence or absence of pregnancy in every one of 49 cases whose serum reached his laboratory.

At a recent meeting of the Berliner medizinische Gesellschaft, Professor Bumm, the Director of the

* Some particulars of this method were given in a leading article on biological reactions in pregnancy published in the JOURNAL on March 29th, 1913, p. 677.

University Frauenklinik, opened a discussion, and related his experiences with *x* rays and mesothorium in the treatment of malignant disease of the uterus. His own results indicated a therapeutic advance. It had been clearly demonstrated that normal tissue (especially the uterine and vaginal mucous membrane) would tolerate much harder rays than had hitherto been used, and that larger doses, provided they were filtered, could be given without ill effects in uterine disease. Moreover mesothorium rendered it possible to utilize radio-activity in cavities inaccessible to *x* rays. Professor Bumm reported on 12 cases of carcinoma, among which were some implicating the ureter or the vagina. Several of these were apparently cured by the combined irradiation alone; others, previously classed as surgically hopeless, were brought into the operable category, and in every case where pain, suppuration, and haemorrhage had rendered the patient's life a misery to her, these distressing symptoms were relieved. The result was due, not only to the rapid vacuolization and subsequent destruction of the individual cancer cells, but also to the hyaline degeneration and sclerosis of the newly formed connective tissue cells. The depth of penetration of hard rays, and the question of their action, if any, on metastatic deposits in the vicinity, and in the lymph glands, was, Professor Bumm said, as yet undetermined, but he maintained his opinion that in rapidly growing cancer, especially in young people, complete surgical removal of the growth and the glands offered the best chance of cure, but he was moved to advocate after-treatment with *x* rays and mesothorium, a method he had now adopted in every case of carcinoma uteri operated on in his own clinic. In cancer of the vagina, the urethra, and the external genitalia, and in the slowly growing cervix cases in elderly women he now placed considerable reliance on radiotherapy alone, claiming for the method that the clinical and functional results were superior to the surgical, whilst in all inoperable and recurrent cases it was the method of choice. Professor Franz, of the Charité Clinic, in discussing Bumm's paper, said that he could not accept the view that the use of mesothorium was the correct treatment for early carcinoma of the portio vaginalis. The records of operation on that condition showed a lasting cure of 50 per cent., whilst there were no means of determining, apart from operation, how deeply the growth might have extended from the visible ulcer. There was, he said, no doubt, on the other hand, that mesothorium was exceedingly useful in alleviating suppuration previous to operation, and sometimes in converting an inoperable into a comparatively easy case. The next speaker, Professor Rotter, said that during nine months he had in an inoperable case of carcinoma *coli* frequently injected, intravenously, 1½ to 2 million mesothorium units in solution. The matted growth had completely disappeared locally, although cancer nodules had subsequently recurred in the artificial abdominal opening and round the anal canal. The results of Hirschfeld and Meidner, who are conducting experiments on men and animals with thorium X injections at the Cancer Research Institute at the Charité (*Zeitschrift für klin. Mediz.*, June 11th), do not, however, support Rotter's single success. In 10 cases so treated they could not find that thorium solutions, although they were well borne, had any effect whatever. In a case of sarcoma slight temporary benefit was noted.

BUDAPEST.

Death of Professor Korányi.—Election of the Hungarian Committee of the International Medical Congress.—International Prize for Essay on Trachoma.—Pensions for Hungarian Doctors.—A New Medical Periodical.

THE death of Professor Frederic Korányi, the pride of the University of Budapest, is keenly regretted by the medical profession in Hungary. Korányi, who was a very energetic and hard-working man, and who had enjoyed excellent health during the whole of his long life, was in his 85th year at the time of his death, which occurred from heart failure on May 19th. Korányi had a very eventful career. Born in 1828 at Nagykállo in Hungary, he studied medicine at the University of Budapest, and at the age of 20 acted as military assistant-surgeon during the "War of Liberty" in 1848. In 1851 he graduated as doctor of medicine, and in the same year became surgical clerk to Professor Schuh, in Vienna. In 1852 he settled in his birthplace, Nagykállo, as a general practitioner, and in 1863 was appointed chief physician to the county hospital. His name soon became known, and two years later he was appointed lecturer on nervous disorders in the University of Budapest. In 1865 he was also appointed physician-in-ordinary to the city typhoid hospital, and in the following year the wards at the City Hospital destined for patients suffering from diseases of the nerves were placed under his care. In 1866 he became chief physician to the cholera wards at the Ludoviceum (the cadet school) and also professor of clinical medicine in the university. Korányi's work was recognized by the King, who in 1876 conferred upon him the title of "Advisor to the King," whilst in 1881 he became a member of the Order of the Iron Crown. He received a patent of nobility in 1884, which enabled him to place the prefix "de" or "von" before his name, and in 1891 became a member of the Upper House. He had already been nominated Rector of the university in 1886; and in 1892 he was elected President of the National Public Hygiene Committee; in 1894 he was President of the Hygienic Section of the International Hygienic and Demographic Congress; and in 1898 President of the National Public Hygiene Committee. He was also a member of the Hungarian Academy of Sciences and of the London International Investigation Committee; and in 1909 the King conferred rank corresponding to a baronetcy upon him and his heirs. After forty-three years spent in incessant work and in active warfare against the spread of tuberculosis in Hungary, Korányi resigned his chair last year in order to devote his whole time and energy to the reform of public hygiene. His name will always be remembered in his own country as being that of the first Hungarian doctor who was ever asked to contribute to foreign medical journals; and it was largely due to his writings that Hungarian medicine, hitherto little known to the rest of Europe, received the recognition it deserved. Korányi was a contributor to the Billroth Pitha *Encyclopaedia*, and compiled the five volumes of *Hungarian Clinical Medicine* besides writing scientific articles for Hungarian and foreign medical papers which aroused great interest. He also lectured constantly at the Academy of Sciences, whilst at the Wiesbaden Congress he was the head of the Pneumonia Section. His chief monographs deal with the position of the spleen; syphilis of the internal organs; nerve disease as observed in the Hospital of St. Roch; the diagnosis of diseases of the heart; combined infection from malaria and typhoid; the influenza epidemic of 1892; the arrangement and organization of a modern hospital. Korányi's funeral took place on May 21st. His body lay in state on its bier in the Great Hall of the University, and was followed to the grave by an immense crowd, in which almost every class of society was represented.

The Hungarian Committee of the International Medical Congress, whose members have just been elected, is working hard to promote the success of the congress by inducing as many Hungarian doctors as possible to take part in it. Prospectuses have been sent out containing full information as to travelling and accommodation in London, as well as details concerning excursions in various parts of England; and evening classes have been formed where intending members may take a course of lessons in the English language. The deputies sent to represent the Government at the congress have already been appointed, and Professor Emile de Grosz, who has thrown himself heart and soul into the work, has been nominated president of the committee, whose offices are at 39, Mária utcza VIII, Budapest.

The offer made some time ago by the Minister of Public Hygiene of a prize for the best essay on trachoma has had very satisfactory results, for a large number of excellent monographs have been received from all parts of Europe and America. The merits of these essays are to be judged by a committee of three—namely, Emile de Grosz, professor of ophthalmology in the University of Budapest, Professor Nuttall of Cambridge, and Professor Kolle, of Berne.

The "Pension Bill," which provides pensions for doctors after they have been in practice for a certain number of years, has been before the Hungarian Parliament since

1907, and ought to have come into force on November 1st, 1909. The long delay is over at last, however, and the bill, which was passed last April, is to come into force this year, when it will doubtless bring relief to the widows and orphans of many medical men. The pensions being granted by the State, a small percentage will be deducted from doctors' salaries during their term of service. Five years' service will render a doctor eligible for a pension, which will increase by 10 per cent. for every additional five years, whilst after thirty-five years' service he is entitled to retire on full pay. An interesting discussion on the question of pensions for medical men was opened in the Hungarian House of Commons by Sándor János, who laid stress upon the fact that in spite of the increase in the salaries of parish doctors granted by a bill passed in 1908, there are still more than 400 parishes in Hungary where there is no doctor. Moreover, the conditions of life in some of these parishes are so intolerable that, although the Minister of Public Health has granted a still further increase of salary, no candidates can be found to apply for the posts. On the other hand, there are 1,600 doctors (25 per cent. of the total number of medical men in Hungary) in Budapest alone, because, as the speaker pointed out, doctors prefer to lead a precarious existence in the towns rather than apply for a post in a country place where the bad housing, bad roads, defective sanitation, and heavy work disable them before their time and cause them to leave their families in complete destitution. It is by no means an uncommon occurrence for a parish doctor to be buried at the expense of his colleagues, whilst his widow is forced to earn her living as a domestic servant or assistant in a shop, facts which do not redound to the credit of a country that spends millions on its army whilst leaving the pioneers of science and culture in want. At the time of writing, however, the bill has been passed, and in a short time the State pensions will be enjoyed by hundreds of medical men.

The first number of a new medical periodical, the *International Zeitschrift für aerztliche Psychoanalyse*, has just been issued under the joint editorship of Dr. Sandor Ferenczi of Budapest, a favourite pupil of Professor Freund of Vienna, and Dr. Otto Rank, the Vienna neurologist. The Hungarian editor is an ardent disciple of Freund, and has made many converts by his work on "Lélekelemzès" ("The Analysis of the Soul"). The list of contributors to the first number, which contains a large amount of very interesting matter, includes the names of men in almost every country in Europe. The periodical, which is written in German, is published in Vienna by Hugo Heller and Co., the cost of subscription being 21.60 kronen, or about £1 in English money.

A COMMISSION composed of Dr. R. P. Strong, Professor of Tropical Medicine, Dr. E. E. Tyzzer, Director of the Harvard Cancer Commission, and Dr. A. T. Brues, sailed from New York a short time ago for a five months' tour of investigation on behalf of the department of tropical medicine of Harvard. The main object of the expedition, according to the *Journal of the American Medical Association*, is to obtain material and specimens for the department of Tropical Medicine at Harvard, and Guayaquil, Ecuador, which is a hotbed of tropical diseases, has been selected as the scene of operation. The expedition will also study verruca peruana.

A COMMITTEE of the American Institute of Homoeopathy has, according to the *Medical Record*, sent a communication to the American Medical Association asking on behalf of the homoeopathic physicians of the United States for a joint investigation of the scientific merits of the method of drug relation expressed by the formula *similia similibus curentur*. It is suggested that the American Medical Association shall appoint a committee of five to meet a like committee from the Institute of Homoeopathy to discuss this subject with a view of attempting a demonstration of the truth or falsity of the theory of similars. It is further suggested that the joint committee shall study the physiological action, in large and small doses, of a definite number of drugs in common use by the members of both societies, this investigation to be under the auspices of some research laboratory like the Rockefeller Institute in New York or the McCormick Institute in Chicago; and, finally, make a comparative trial of the therapeutic efficacy of these drugs, given according to the various methods of administration, in some of the large public hospitals.

Correspondence.

MENTAL HOSPITALS.

SIR,—In view of the increased attention now being paid to the hospital treatment of the insane, it is well to recognize that under that term there are several conceptions which have been proposed or actually carried into practice in varying ways. One sees that sometimes there is confusion in discussion in consequence of this fact not being considered fully. I am speaking by the book when I state that, during the debate in the Grand Committee on the Mental Deficiency Bill last year, one of the arguments or statements made by the very vigorous opposition was that there was great objection to the feeble-minded being sent to institutions for the doctors to make experiments on! Such a statement was, of course, due to the senseless suspicion felt by some more or less responsible people against any attempt to benefit mankind by research, and no doubt that suspicion will be shown by some of the public in regard to any hospital for the insane in which research work is carried out. But the majority of the institutions where the so-called hospital treatment is pursued do not carry on research work, and merely aim at individual treatment of those labouring under tangible disease. The different ideas which come under the general term can be catalogued in orderly series, but this would take up too much space. I can name a few of them.

First, there is the idea of lunacy wards in general hospitals. This idea was acted on at Edinburgh and, possibly, other towns. It was thus sought to bring lunacy within the scope of general medicine, an excellent idea in theory which the profession at large refutes in practice more and more each day by specializing.

I should place next the ideas of the London County Council, arrived at after an exhaustive inquiry instituted immediately after its constitution. The proposal (which has never been carried out) was to have a suitable establishment for the reception of cases of acute insanity, for treatment by general physicians, with the help, of course, of those specially skilled in psychiatry. I think I am right in saying that the leading idea was to give general medicine the chance of doing that which special medicine had failed to do. I am not aware how far this idea may be followed in the new hospital to be erected by the same body through the munificence of Dr. Maudsley.

Next I would place such an institution as the recently erected Mental Hospital at Cardiff, where, in addition to the care of the insane by alienists, assistance for research has been sought from the university, we hope with much ultimate success.

In all the foregoing it is to be observed that the advancement of general knowledge of the disease is an essential element. We turn from that to those places where the immediate care of the individual is the chief object.

Bethlem may be taken as an example of an institution which in principle aims at cure and not at detention. It has for many years been staffed by leaders in psychiatry, and its constitution aims at recovery or removal of the non-recovered, so that its machinery may be utilized for fresh cases which supply some hope of recovery. It is needless to say that its prime object has been supplemented by the offer of advanced teaching of a clinical nature. In fact, Bethlem, with other institutions, such as Morningside, have been veritable clinics.

After that may come the many places where a separate building has been erected for the reception of new cases in which inquiry, more or less scientific, can be, and often is, adopted, but in which the recovery of the individual is aimed at principally. This form was undoubtedly first provided in Scotland, where the example of the Fife Asylum has been followed in many newer asylums, such as Gartloch, Paisley, etc. But in these the population of the hospital portion has not been confined to the mental cases only. It is the asylum's general hospital in so far that other cases are lodged therein if they present signs of physical illness of any consequence.

Then followed in England the development of building within the asylum grounds separate establishments for the reception of recent mental cases only. As far back as 1889 I described my notions of such a place as an alternative to the more adventurous proposal of the

London County Council. Some years afterwards I had the pleasure of taking a leading part in the translation of these ideas into bricks and mortar in our County Asylum at Hellingly, though as a completed institution it was preceded by a few months by that built at Bexley under Dr. Stansfield. In addition to the concentration of medical attention on new cases I imagined, and not unwarrantably, that it would be a great thing to be able to say to those who entered the building, which is a few yards from the gate, "Thus far need you go and no further." The idea is also grateful to the relatives of the patients, many of whom are above the rate-paid class. Undoubtedly they are more ready to send in good time their invalids because they know that they will not be "herded," but specially treated as individuals.

Then come the arrangements made in existing asylums for the more or less segregated care of new cases. A shining example of this undoubtedly must be Morningside, where, *me teste*, Sir Thomas Clouston succeeded in transforming wards, hitherto crowded with the violent and dangerous cases, into a nursing heaven. I am sure that I am right in backing him up in his claim to being the first to carry out the hospital idea with strenuous determination and to the full, in spite of the difficulties of the time and place. But good as the plan was it lacked the complete detachment from the main institution. Here, of course, the care of the individual was supplemented by much teaching for the general advancement of knowledge, the teaching at first being clinical, to be followed later by extended laboratory work, until the full conception of a clinic was established.

Then, again, we find now that in all asylums of any standing wards are put on one side for new cases, thus carrying out the general idea of concentration of treatment for the benefit of the individual. If I am not under a wrong impression, I think that Dr. Rayner at Hanwell, thirty years ago, kept all his new cases for a stated time in bed in a special ward for the purpose of careful inquiry as well as for treatment by continued rest.

To sum up, I suggest that it is necessary, when talking of the hospital idea, to determine whether it is sought to promote the welfare of the individual or the general advancement of knowledge, or a combination of the two elements. This issue is rather obscured by the practice, now becoming quite common, of adopting the name of mental hospital for what was formerly called county or borough asylum. This practice is highly laudable, in that it tends to promote in the mind of the public as well as of the staff the belief in the constant practice of the latest ideas of psychiatry; but, without special knowledge of the aims of each place, it is easy for the public to be misled as to the true significance of the term and the intentions of its users.

Perhaps I may be allowed to add a few words on a matter connected intimately with the contrast of the scientific general idea with that of the welfare of the individual. It must not be assumed, as it readily may be assumed, by the public that, in this very proper struggle for the scientific development of treatment, drugs, instruments of precision and the like shall replace that which is called moral treatment. We must always remember that insanity is the result of fault between two partners, the mind and the body. The fault may commence with either or both. Harmony may be re-established by the commencement of better things on the part of either, and, conversely, harmony can be indefinitely postponed by the misfortunes of either. A chance word or a new phase of idea conveyed by a skilful nurse may be the beginning of recovery. I may say, without any fear of efficient contradiction, that the most scientific treatment in the world will be defeated by bad or careless nursing of the mind. There is a chance, slight it may be, that in the rush for physical care the need for the old-fashioned, but indispensable, guidance of mind may be lost to sight. Beyond this there is a chance that, under more liberal ideas connected with the scientific form of treatment, responsibility for the individual may be also forgotten. We know that an insane person is potentially dangerous to himself and others; therefore, means of supervision and safe custody cannot be dispensed with, even though they may obviously hinder progress. One can foresee that, while with those who know there will be no such danger, yet with the newer school of thought and practice, science may sometimes outrun safety.—I am, etc.,

Ticehurst, June 14th. H. HAYES NEWINGTON.

INTRAVENOUS INJECTION OF IODOFORM IN PULMONARY TUBERCULOSIS.

SIR,—I have read with much interest the report of the discussion on this subject which took place at the Royal Academy of Medicine on April 4th and Dr. Dewar's reply to it which appears in the JOURNAL of June 7th.

Having used this method of treatment for phthisis ever since Dr. Dewar first made it known to the profession in the JOURNAL, I can, without the least hesitation, state that I can entirely bear out all that he has claimed for it.

The gentlemen who criticized Dr. Crofton's paper at Dublin had, with one exception, no practical experience of the treatment, and simply condemned the method from fear of disasters which seemed to have their foundations in their own imaginations.

I cannot lay claim to have given many thousands of injections, but I have given at least considerably over 3,000, and I can quite corroborate Dr. Dewar's statement that any thrombosis that may occur must be due to lack of skill on the part of the operator, as I have never seen any bad effects locally from an intravenous injection.

Sometimes a patient does get a paroxysm of coughing, but this can be completely controlled by making him take rapid sips of water, breathing out after each sip. This fact completely does away with the academic objection that the coughing is liable to produce pneumothorax and rapid dissemination of the disease in the lung.

Neither Dr. Dewar nor myself have seen the slightest bad effects from an intravenous injection, and those who have condemned the treatment or have hesitated to give it a trial have based their objections on purely theoretical grounds.

Dr. Dewar has never claimed that his discovery is a panacea for pulmonary tuberculosis, that intravenous injections will cure every case of phthisis. He, however, does claim—and I can fully bear out his contention—that iodoform injected intravenously will give as good results as any other form of treatment that is at present practised by the medical profession.

It has been my experience within the last few years that where iodoform failed to achieve success it was hopeless to expect to save the life of the patient by any other method of treatment, and this conclusion was only arrived at after a thorough trial had been given to other remedies.—I am, etc.,

South Shields, June 8th. JOHN BAIN, M.B., C.M.

ADRENALIN IN CHLOROFORM ANAESTHESIA.

SIR,—It is to be hoped that the recent correspondence on the dangers of adrenalin in nasal surgery will put upon guard those surgeons who have up to the present found adrenalin satisfactory and safe. I am myself acquainted with two fatal cases, both following immediately the injection of adrenalin, and both under chloroform anaesthesia before the operation had commenced.

That there was danger was first brought home to me by the peculiar pallor, accompanied by cardiac distress and pain at the back of the neck and occiput, which followed an injection of a few drops of 1 in 1,000 solution. If this patient had been under chloroform anaesthesia it is possible that this would have been a fatal case. It is obvious that a solution of 1 in 1,000 is to many people a dangerous strength.

As Mr. Guthrie remarks, the nose must be packed with adrenalin for at least one hour for satisfactory ischaemia, and it is almost essential that the surgeon himself should do the packing; therefore, this will cause a difficult operation to occupy two to two and a half hours. Moreover, in a few cases it is physically impossible to introduce packing behind a deflexion on one side. The following technique will be found satisfactory in affording a bloodless operation field free from all danger:

1. An injection of morphine (grain $\frac{1}{6}$ to $\frac{1}{4}$) is made about twenty minutes before the surgeon's arrival.

2. A few gauze strips well pressed out after soaking in equal parts of adrenalin and 10 per cent. cocaine solution are inserted into each nostril.

3. The general anaesthetic should now be commenced, or if local analgesia is to be employed the syringe should be tested and charged with the infiltration solution. Pure chloroform should not be used for nasal operations if cocaine and adrenalin are also employed. A mixture of chloroform (1 part) and ether (2 parts) is quite satisfactory after the morphine injection. It should be noted that morphine overcomes some of the toxic action of cocaine.

4. When the patient is surgically anaesthetized an injection of ½ per cent. cocaine solution should be made in two spots on each side of the septum; if the needle passes well under the perichondrium the pressure of the solution will render the mucous membrane pale and, more important than this, will give a characteristic sensation of resistance. The syringe should be very powerful, on the principle of the dental syringe but of larger capacity, and the needle should be fairly coarse.

No adrenalin should be injected, especially if a general anaesthetic is being employed. The tachycardia, dilated pupil, and greyish pallor are all signs of excessive stimulation of the sympathetic nervous system and are identical with the immediate signs of surgical shock, with the addition of the direct stimulating effect of adrenalin upon the heart itself, which, of course, with a 1 in 1,000 solution, only aids the onset of failure.—I am, etc.,

Manchester, May 11th. WILLIAM WILSON, M.D.

A CONSTITUTIONAL POINT.

SIR,—In a letter appearing in your issue of June 14th Sir Victor Horsley comments on my action as President of the Royal College of Surgeons.

When he heard that the attention of the College had been called to his conduct by the Home Secretary, he wrote to me requesting that copies of all documents which had passed, or might in future pass, between me, or the College, and the Home Secretary should be forwarded to him. This letter I answered from the College of Surgeons the following day, and on returning to my house found a letter from his solicitor accusing me of the discourtesy of not replying. Sir Victor Horsley's statement that I did not reply until I had received a letter from his solicitor is therefore not in accordance with fact.

His comprehensive demand was one for consideration by the Council, not by me. When complaints are made to the Council with regard to the conduct of Fellows and Members, it is not the custom to communicate them to the parties involved, unless the Council decide to take the matter up. If any disciplinary procedure is contemplated, due notice is given, and ample time is allowed for explanation or defence. This, in my opinion, is the reasonable, fair, and prudent course to pursue. Complaints reach the College from time to time of the conduct of Fellows and Members which no useful purpose would be served by disclosing.

After mature consideration the Council decided that the evidence laid before them was so contradictory that they were not in a position to enter upon the ethical questions involved. They are, therefore, now under no obligation to disclose the precise form of the complaint, but, as a matter of courtesy, they have allowed Sir Victor Horsley access to all documents referring to himself, and have communicated to him the terms of their reply to the Secretary of State.

May I add that Sir Victor Horsley in numerous letters in the lay press shows that he is possessed by a fixed idea that I personally have been conspiring against him? I trust my professional brethren will believe that nothing is, or ever has been, further from my inclination or the fact.—I am, etc.,

RICKMAN J. GODLEE, *President.*

Royal College of Surgeons of England, Lincoln's Inn Fields, London, W.C., June 17th.

RHEUMATOID ARTHRITIS.

SIR,—When was Dr. Uhthoff appointed Editor-in-Chief of the BRITISH MEDICAL JOURNAL? We have got a Journal Committee, an Editor, and two Assistant Editors. Now we have got a self-appointed individual to supervise the Editor. If I were Editor—which post I should like to hold for about one week—I would not only not print this individual's letter, but I would tell him to mind his own business. Personally I attach no value to his opinion, except that I should feel that there was something wrong with my conduct if he approved of it. I may inform him that I would not attenuate, modify, or withdraw a single statement which I have made. On the contrary, many of the statements would have been very much stronger and more fitting for the occasion only for the supervised Editor.—I am, etc.,

Liverpool, June 14th. JAMES BARR.

*** Dr. James Craig (Llandudno) sends the following references in reply to the concluding paragraphs of Sir James Barr's letter published on June 14th, p. 1298: For the report of the Section of Balneology and Climatology of the Royal Society of Medicine to the *Proceedings* of the Society for April, 1913, p. 62, lines 22 and 23; for the statement attributed to Sir Robert Christison, his lectures for 1873 (February), in which the quotation about the salts of calcium will be found.

We cannot continue this correspondence.

SYPHILIS AND CANCER OF THE TONGUE.

SIR,—We have read with much interest the correspondence in the BRITISH MEDICAL JOURNAL concerning the interdependence of syphilis and cancer of the tongue. After all, this has a bearing on only part of a very important question.

In these laboratories an inquiry has been carried on during the last eighteen months upon a possible relationship between malignant disease and syphilis. Sixty cases of cancer have been investigated and a positive result with the Wassermann reaction obtained in 4 only. Carcinoma of the mucous membrane of the mouth provided 20 cases, with 1 markedly positive Wassermann reaction, while another was indefinite.

The suggestion put forward by Dr. Renshaw that the presence of malignant disease in a syphilitic patient may cause such an alteration in the blood as to negative the Wassermann reaction had occurred to us also.

We hope, at no distant date, to publish the result of our work on this subject.—We are, etc.,

HENRY MACCORMAC,
HECTOR COLWELL,
A. CLIFFORD MORSON.

Cancer Research Laboratories, Middlesex Hospital, London, W., June 11th.

COST OF VACCINE TREATMENT.

SIR,—Would it not be a great convenience to your readers if your "vaccine" contributors would state in their articles what the cost of vaccine treatment is in any disease in which they advocate its use? At present it seems to me that the interest in this matter is chiefly commercial rather than scientific. Many of us might persuade our patients to make the experiment if only we could tell them what the cost is likely to be.—I am, etc.,

Leeds, June 16th. A. G. BARRS, M.D.

DAVID LEWIS NORTHERN HOSPITAL, LIVERPOOL.

SIR,—May I appeal through your columns to all former residents at this hospital on the occasion of the retirement of the Secretary and Superintendent, Mr. J. Unsworth?

For the long period of forty-four years Mr. Unsworth has devoted his energies to the service of the hospital, and throughout that time he has maintained the most cordial relationships with the successive members of the resident staff, and in every way in his power has assisted them and endeavoured to make their term of office more agreeable.

I feel sure that all of them will welcome the opportunity of marking their appreciation of his valuable services, and shall be glad to receive their donations towards a presentation to him on his retirement.—I am, etc.,

GEORGE C. E. SIMPSON
(Honorary Secretary, the Medical Board).

21, Rodney Street, Liverpool, June 13th.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.D.—L. S. T. Burrell, M. F. Grant, A. F. MacCallan, S. V. Pearson.
M.B., B.C.—J. H. Pendred, H. C. T. Longdon, S. H. Rouquette, C. Warner.
M.B.—W. C. Hodges.
B.C.—A. F. R. Wolloston.

Examinations.

The following candidates have been approved at the examinations indicated:

PRELIMINARY SCIENCE (*Part I, Chemistry*).—G. E. Birkett, R. C. S. Bowker, A. D. Coates, B. M. Coates, F. C. Cozens, H. T. Cubbon, R. W. M. Dandy, A. W. R. Don, F. N. V. Dyer, R. H. Emmett, C. W. S. Fernando, J. B. Foster, R. French, C. I. C. Gill, W. N. Goldschmidt, N. B. de M. Greenstreet, E. W. Hall, J. Harbord, L. B. Hartley, W. E. Heath, L. G. Higgins, C. R. Hind, N. Hoole, S. M. M. Jabir, R. W. Jackson, A. V. Johnson, J. S. La Fontaine, H. C. Langdale, F. G. Laurie, J. G. Lawn, E. E. Llewellyn, R. Lumsden, G. Lyon Smith, J. W. MacKenzie, J. H. Massey, T. H. McCall, C. S. Millard, H. J. T. Neilson, A. V. Pegge, A. S. Richardson, J. A. W. Roberton, G. M. Shackel, G. H. Shakespeare, H. F. Squire, H. J. R. Surrage, A. Swann, A. P. Thompson, G. D. Thomson, H. M. Tulloch, M. D. Vint, W. M. Wallace, Y. S. Wan, A. Winfield. (*Part II, Physics*).—H. R. Bickerton, C. L. P. Biggar, G. E. Birkett, A. D. Coates, C. T. Cobbold, H. T. Cubbon, R. W. M. Dendy, F. N. V. Dyer, R. H. Emmett, T. Fernandez, C. W. S. Fernando, J. B. Foster, R. French, W. N. Goldschmidt, E. F. S. Gordon, N. B. de M. Greenstreet, W. B. Hathorn, W. E. Heath, H. P. D. Helm, L. G. Higgins, N Hoole, S. M. M. Jabir, R. W. Jackson, A. V. Johnson, F. G. Laurie, J. G. Lawn, P. C. Livingston, E. E. Llewellyn, A. G. F. McArthur, T. H. McCall, B. S. Martin, J. H. Massey, J. R. Mitchell, J. W. McK. Nicholl, J. Norman, C. E. V. Porter, E. A. Raimes, A. S. Richardson, J. A. W. Roberton, G. H. Shakespeare, A. T. Spoor, H. F. Squire, H. J. R. Surrage, A. Swann, A. P. Thompson, G. D. Thomson, C. G. Tindall, N. J. Tuck, A. C. Walker, W. M. Wallace, W. T. Williams-Green, A. Winfield, J. M. McC. Wright. (*Part III, Elementary Biology*).—H. R. Bickerton, R. W. M. Dendy, R. H. Emmett, S. L. Higgs, S. M. M. Jabir, J. G. Lawn, T. H. McCall, Y. S. Wan, A. Winfield.

THIRD M.B. (*under old regulations*) (*Part I, Pharmacology and General Pathology*).—R. Hodson, G. H. Maw, J. H. Newmarch, M. W. Paterson, A. S. Seabrooke, J. Ll. M. Symns.

VICTORIA UNIVERSITY OF MANCHESTER.

DEGREES.

THE following candidates have been approved at the examination indicated:

M.D.—†D. Dougall, *H. Heathcote, *C. B. Marshall, *A. B. Smallman, A. G. Bryce, F. M. Rodgers, A. Wharton.
† Awarded a gold medal. * With commendation.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on Thursday, June 12th, Sir Rickman J. Godlee, Bart., President, in the chair.

Diplomas.

Diplomas of Fellowship were granted to twenty-nine candidates found qualified at the recent examinations as follows:

H. H. Broome (Capt. I.M.S.), D. C. Taylor, A. E. Iles, H. G. Frean, H. C. R. Darling, R. H. Mawhood, C. E. Shattock, S. Hoyte, A. C. Palmer, C. D'O. Grange, H. Neame, D. D. Pinnock, A. H. Todd, J. E. P. Watts, C. V. Anderson, J. A. Davis, N. F. Lock, S. Ritson, M. E. T. D. Vlasto, G. C. Chubb, C. E. S. Jackson, W. M. Oakden, W. S. Perrin, R. Ferguson, W. Gemmill, J. Kennedy, C. F. M. Saint, F. G. N. Stephens, J. Thompson.

Diplomas for the Licence in Dental Surgery were granted to forty-nine candidates found qualified at the recent examinations.

Examiners.

Mr. William Thorburn was elected on the Court of Examiners for the period of five years, subject to the provisions of the Charter.

The President reported that the vacancy on the Board of Examiners in Dental Surgery, occasioned by the retirement of Mr. Sidney Spokes, would be filled at the next ordinary meeting of the Council.

The following were elected:

In Elementary Biology: G. P. Mudge, W. G. Ridewood. In Anatomy: J. Cameron, J. E. S. Fraser, A. M. Paterson. In Physiology: C. F. Myers-Ward, E. H. Starling. In Anatomy for the Fellowship: C. H. Fagge, R. W. Reid, J. Sherren, G. Taylor. In Physiology for the Fellowship: E. W. W. Carlier, J. S. Edkins, F. Gotch, H. W. Lyle. In Midwifery: H. R. Andrews, W. B. Bell, G. F. Blacker, G. D. Robinson. For the Diploma of Public Health: R. T. Hewlett (Part I), R. D. Sweeting (Part II). For the Diploma in Tropical Medicine: J. W. H. Eyre (Bacteriology), C. L. Daniels (Diseases of Tropics).

Votes of Thanks.

The thanks of the Council were given to Sir Henry Morris as Visitor to the Examinations of the Egyptian Medical School at Cairo; and to Mr. Ernest J. Wilde, on his retirement as Solicitor to the College.

THE ROYAL COLLEGES IN IRELAND.

DEFICIENCY IN GENERAL EDUCATION.

A RESOLUTION was recently passed by the Royal Colleges of Physicians and Surgeons in Ireland: "That our Colleges instruct their examiners at all professional examinations to report all cases of deficient general education to the Committee of Management; and in any case where the deficiency is such as to reflect discredit on our Colleges, to reject the candidate in the professional subject in which he presents himself, and to enter the cause of his rejection, 'deficiency in general education,' on the result sheet."

THE ROYAL COLLEGE OF PHYSICIANS OF IRELAND.

PORTRAIT OF DR. LOMBE ATTHILL.

ON June 6th a meeting of the Royal College of Physicians of Ireland was held, at which the President received, on behalf of the College, a portrait of the late Dr. Atthill. Dr. Little, Senior Fellow of the College, made the presentation on behalf of the Rev. William Atthill and the Misses Atthill, who were anxious that a picture of their father should be preserved in the College. Dr. Atthill was admitted a Licentiate of the College on February 12th, 1857, and elected a Fellow on May 1st, 1861, and subsequently served in every office of the College, being elected President in 1888 and again in 1889. Dr. Little said that during his long connexion of 53 years with the College, Dr. Atthill was its constant friend and wise adviser, and the high position which the College at present occupied was in no small measure due to the way he worked for the promotion of its interests. The portrait, which is the work of Miss Purser and an excellent likeness of the late Dr. Atthill, was accepted by the President, who expressed the great pleasure with which the Fellows received the gift, and the assurance that it would be preserved as one of the greatest treasures of the College.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following officers have been elected for the ensuing year:
President: Mr. Richard D. Purefoy. *Vice-President:* Mr. F. Conway Dwyer. *Secretary:* Sir Charles A. Cameron. *Council:* Mr. William Stoker, Sir Charles A. Cameron, Sir Lambert H. Ormsby, Mr. Henry Gregg Sherlock, Sir Charles B. Ball, Mr. John B. Story, Sir Thomas Myles, Sir John Lentaigne, Sir Arthur Chance, Mr. F. T. Porter Newell, Mr. Shepherd M'C. Boyd, Mr. Robert H. Woods, Mr. Richard Lane Joynt, Mr. R. Bolton McCausland, Mr. Edward H. Taylor, Mr. William Taylor, Mr. R. Charles B. Maunsell, Mr. Trevor N. Smith, Mr. William Ireland Wheeler.

Medico-Legal.

IMMUNITY OF TRADE UNION FUNDS.

A CASE decided by Lord Cullen in the Court of Sessions, Edinburgh, on June 14th, possesses some interest for the medical profession in view of the disposition to establish medical unions registered under the Trade Union Acts. The earlier parts of the judgement are in accord with what has generally been understood, but the concluding sentences raise possibilities which have not been present in the mind of every one.

The action was brought by an ex-official of the National Sailors' and Firemen's Union of Great Britain and Ireland against the union and its officials and the trustees of the union for alleged slanders in the *Clyde Seamen's and Firemen's Gazette*. Damages (£1,000) were sought, and an interdict against the continued publication of alleged defamatory statements.

The Court dismissed the action with expenses. Lord Cullen, according to the report in the *Times*, said that the conclusion for damages was directed only against the trustees of the union. Under Section 4 (1) of the Trade Disputes Act, 1906, no action lay against a trade union in respect of any tortious act alleged to have been committed by or on behalf of the trade union. The pursuer, however, contended that the action, so far as it concluded for damages, might be brought against the trustees of the union, so that a decree might be got which would give recourse against the union's funds. Before the Trade Disputes Act, 1906, a trade union could be sued in respect of such tortious acts as were here alleged. The Act, however, gave trade unions an immunity from such suits. This immunity would be worthless if actions falling within it could be prosecuted against the trustees of a union and recourse had against its funds and property to the same extent as if the union itself had remained exposed to action. Therefore, the pursuer's case, so far as it concluded for damages against the trustees, was irrelevant. As to interdict, his lordship said it was not suggested that the alleged slanders were actually perpetrated by the trustees, and the reason given for combining them with the union in this conclusion was that the *Gazette* was the property of the union vested in them. He did not think that this presented any relevant ground for an interdict against the trustees. There remained the conclusion for interdict against the union itself. Reading Section 4 (1) of the Act of 1906, he did not see how the action could be said to be other than one brought in respect of tortious acts alleged to have been committed. The pursuer was not left without a remedy. He had his action for damages, if he had been defamed, against the individual officials of the union responsible for the publication of the defamatory matter, and similarly he might seek to have them interdicted from repetition of their acts.

Obituary.

NATHANIEL H. ALCOCK, M.D.Dub., D.Sc.Lond.,

PROFESSOR OF PHYSIOLOGY, MCGILL UNIVERSITY, MONTREAL.

It is with deep regret that we have to announce the death of Professor Alcock at Montreal, where he held the Chair of Physiology (Joseph Morley Drake Professorship) at McGill University.

Nathaniel Henry Alcock was born in 1871, and was a son of Dr. D. R. Alcock, staff surgeon in H.M. Navy, and nephew of the Rev. Dr. T. K. Abbott, D.D., Litt.D., Senior Fellow of Trinity College, Dublin. He received his medical education at Trinity College, Dublin, and Sir Patrick Dun's Hospital. He graduated B.A. in Dublin University in 1893, with the senior moderatorship and gold medal in natural science. He graduated M.D. in 1896, and was shortly afterwards appointed demonstrator of anatomy at Victoria University, Manchester. In the following year he was appointed assistant to the King's Professor of Institutes of Medicine (Physiology and Histology) in the School of Physic of Trinity College and the Royal College of Physicians, Dublin, a post which he held till 1902. In 1903 he was appointed demonstrator of physiology in London University, and in 1904 lecturer in physiology in St. Mary's Hospital Medical School, Paddington, being successor to Professor Augustus D. Waller in the latter post. In 1906 he was appointed Vice Dean of the Medical School, and in 1909 he was granted the degree of D.Sc. of London University for his researches on the influence of anaesthetics on nervous phenomena.

In 1911 he was appointed to the Chair of Physiology at McGill University, Montreal, the post which he held at his death. By it British science has lost one of its sons whose work was always of the highest merit. Those who were associated with him could not fail to be impressed by the thoroughness and accuracy with which all his experimental researches were carried out. Every control that could be applied was used, every possible source of error guarded against to secure the foundations upon which his inferences were based. Consequently all his published work bears the stamp of an accuracy which renders it all the more valuable as a contribution to modern physiology. His, too, were a breadth of scientific taste and a versatility which remind one of Helmholtz, and are becoming all too rare in our modern age of extreme specialization. One of his first published papers was a monograph on Irish Bats, which appeared in the *Irish Naturalist*, vol. viii, and is still quoted as the leading authority on the subject, and included unique photographs which have been reproduced many times in works on British natural history. Astronomy also was a favourite subject of his, and here, too, his practical knowledge and manipulative and mechanical skill were very evident. He not only observed the heavens, but constructed the silver-on-glass mirrors for the telescopes with which his observations were made; and their quality excelled in some cases that of the products of the workshops of the professional optician.

As a teacher most cordial relations always existed between him and his classes. He was always willing to descend to the level of the beginner, in order to appreciate his difficulties, and help him to understand the intricacies of physiology.

His administrative ability was of a high order, and was testified to by the numerous committees upon which he at different times served. His services to St. Mary's Hospital Medical School, at a serious crisis in its history, will long be gratefully remembered. In his capacity as Vice-Dean he originated the negotiations with the Board of Education which resulted in establishing the medical school on a much more secure financial basis. The example of St. Mary's was afterwards followed by several other schools.

In private life he had nothing of the dry scientist about him, but showed a charmingly agreeable and humorous personality, flavoured with a lurking satirical tendency which could not always be quite suppressed in his writings. His pluck and courage in suffering and danger were conspicuous features of his character. Quite recently, having had his hand badly crushed by a falling boulder while climbing a mountain, though fainting and weak from loss of blood and in extreme pain, he trimmed up the crushed finger-tips with his uninjured hand, and was afterwards found trying to staunch a secondary haemorrhage himself rather than arouse his wife who was sleeping, exhausted from constant attendance on her crippled husband.

To the present writer, who knew him as a fellow student and afterwards became his demonstrator, he was always more like a colleague and a brother than a chief, and a pleasanter colleague one could never meet.

His published contributions to scientific literature were very numerous, and included researches on the electromotive force of the negative variation of various nerves, especially the vagus, under the stimulus of respiration, published in *Pflüger's Archiv*; fatigue in nerve and the velocity of the nervous impulse in tall and short people, in the *Proceedings* of the Royal Society (vols. 73, 77, 78); numerous papers on the relation between the physical, chemical, and electrical properties of the nerves, in the *Journal of Physiology*. Among his other contributions were articles on: "Muscarine," "Carpain," "The Accurate Dosage of Chloroform by means of a Regulating Inhaler"—the latter constructed by himself. A *Textbook of Experimental Physiology* (in conjunction with Professor E. H. Starling and F. O'B. Ellison); chapters on the physiology of nerve in *Further Advances in Physiology*, and very many others.

He married, in 1905, Norah Lilian Lepard, daughter of the late Sir John Scott, K.C.M.G., D.C.L., and at the early age of 42 leaves his widow, one son, and three daughters to mourn his loss.

Sir WILLIAM OSLER writes:

The death of Dr. Alcock is a great loss to the Faculty of Medicine at McGill University. During the short time of his occupation of the chair his work was chiefly in connexion with the organization of his department. He was much appreciated both by his colleagues and by the students. The energy and enthusiasm he displayed, though suffering for nearly three years from medullary leucaemia, were remarkable. I saw him a few weeks ago with Dr. Martin, in Montreal, in the terminal infection with which these cases so often end. He had finished his session's work, and was struggling in vain with the weakness associated with the paroxysms of fever. He had made an exhaustive study of his own case, and I do not remember ever to have seen blood charts in the disease so extensive or so elaborate. Against an implacable enemy he put up a splendid fight, and literally died in harness.

OSCAR WILLIAM CLARK, M.A., M.B.Oxon.,

SENIOR PHYSICIAN, GLOUCESTER GENERAL INFIRMARY.

We regret to record the death, on June 7th, of Dr. Oscar Clark, a medical man who for many years had played a prominent part in the professional and public life of the city of Gloucester. A few years ago he had had a somewhat serious illness, and it was known that his heart was affected, but he remained very active, and his death was quite unexpected; it occurred, indeed, quite suddenly while he was paying an official visit to the prison of which he was medical officer.

Dr. Clark, who at the time of his death was in his 59th year, joined St. Bartholomew's Hospital as a student in 1877, after a distinguished career at Oxford, where he took a first class in Natural Science. In 1881 he became M.R.C.S.Eng., and in the following year graduated M.A., M.B. of his old university. It was not very long afterwards that he established himself in Gloucester, but meantime he had successively filled the offices of house-physician and house-surgeon of St. Bartholomew's, and of resident clinical assistant of the City of London Hospital for Diseases of the Chest.

His early progress in Gloucester was rapid; in 1885 he was a successful candidate for a vacancy on the honorary staff of the General Infirmary, while in the same year he became medical officer of H.M.'s Prison, and little by little he began to play an increasingly active part in the general and professional life of the city. At the time of his death he was, in addition to being senior physician of the infirmary and senior medical officer of the provident dispensary, chairman of the District Nursing Association governor of the United Endowed Schools, a valued member of the Public Library Committee, and a member

of the council of the Bristol and Gloucestershire Archaeological Association. He was a member of the British Medical Association, and a few years ago was president of the Gloucestershire Branch.

To the affairs of the District Nursing Society he devoted much energy, and this body shortly after his death held a special meeting for the purpose of recording its profound regret at its death and

Its lasting gratitude for the intense interest he had ever taken in the conduct of the business and in the efficiency of the society, in the general management of the home, and in all things pertaining to the comfort and welfare of the superintendent and her staff.

A man of wide culture, Dr. Clark was much interested in the Oxford Extension Lectures in Gloucester, and was the first chairman of the committee in charge of them. In private life he devoted much of his spare time to literary pursuits, the early English poets being his special study; he was also an enthusiastic and highly skilled photographer. Dr. Clark was married, and is survived by his wife and several daughters. His remains were cremated at Birmingham.

JOHN WILLIAM FAWCITT, L.R.C.P., L.R.C.S.EDIN.,

BROUGHTON-IN-FURNESS.

THE sudden death of Dr. Fawcitt, of Broughton-in-Furness, has robbed his patients of the services of one who was a notable example of the very best type of country doctor, and will be much missed by a large circle of friends; for to know John Fawcitt was to be his friend.

He was a Yorkshireman, and was brought up in Thirsk. His school days were passed in York, and he then went to the University of Edinburgh, where he qualified in 1884. After serving as assistant at Slough and Castleford, he settled in Broughton in 1887, and in that charming country he has lived and laboured for more than a quarter of a century, endearing himself to the whole countryside by his painstaking work and ready sympathy. There was no man, woman, or child in his district that he did not know personally and for whom he had not a kind word.

It is difficult to speak of his characteristics, so wide were his interests. Professionally he was very sound, keeping in touch with the latest developments of medicine. He joined the British Medical Association in 1903, on the formation of the North Lancashire and South Westmorland Branch, of which he became President in 1910.

He was a great admirer of the beautiful in Nature, and few knew the Lake District better than he. Whilst he was interested in all sport, and entered with zest into the amusements and pursuits of his neighbours, his chief pastime was fly-fishing, and he was an adept in this gentle art. All his too brief holidays were spent in the exercise of his favourite sport among the becks, tarns, and lakes of the north country, the burns of Galloway, the lochs of Ireland, the glacier-fed streams of Norway, or the great salmon rivers of Scotland. Whilst he enjoyed to the full a week or two of salmon fishing, he used to say that, after all, there was nothing to equal a day on a good trout stream with a little 11-ft. rod and the trout on the feed. He made a special study of the habits and life-history of the Salmonidae, and took a great interest in the work of the Duddon and Windermere Fishery Board, of which he was a member. He was a capital teller of stories, and had a full store of yarns, fishing and otherwise. He was a most interesting companion, and could talk well on a wide range of subjects, and was, moreover, a good listener. As becomes a Yorkshireman, he was a great lover and an excellent judge of a horse, and always prided himself on keeping at least two rattling good cobs and on having them turned out well. A touching sight at the funeral was to see his favourite old dun cob "Prince" led behind his dead master to the churchyard.

He was a good Churchman and a strong Conservative, and died beloved by his friends and respected by all.

WE regret to have to record the death, on June 10th, of DR. G. H. ROQUÉ DABBS at his residence in Westminster. Dr. Dabbs had been for some years in failing health and had suffered from a distressing malady, which, however, he had not allowed to interfere with his professional avocations. More recently he had experienced several attacks of angina pectoris, and his death was no doubt due to the accidental inhalation of an overdose of chloroform taken to alleviate his sufferings. Dr. Dabbs, who was born in January, 1846, was the son of a staff surgeon in the Royal Navy and of a Basque lady. He was educated at the Royal Naval School, New Cross, and at King's College, London. In 1867 he took the diplomas of M.R.C.S. and L.S.A. and the degrees of M.B., C.M. at the University of Aberdeen. In the following year he graduated M.D. in the same university. After some years spent in visits to France and Spain, during one of which, we believe, he served as surgeon with the Spanish army, he settled in practice in the Isle of Wight. Dr. Dabbs had strong literary tastes, and it must have been a peculiar pleasure to him to have been the medical attendant of Tennyson when the poet resided, as was his custom for a part of every year, in the Isle of Wight. In the memoir of the poet by his son it is stated that according to Tennyson's manuscript notes *The First Quarrel* "was founded on an Isle of Wight story; Dr. Dabbs was the doctor." Dr. Dabbs attended Tennyson in his last illness, and wrote an account of the passing of the great poet beyond the bar. Dr. Dabbs wrote a good many books in prose and verse, among which *Ugly, a Hospital Dog*, was probably the most successful. He also composed several plays, and for some time edited, and we believe for the most part wrote, a small periodical which he called *My Journal*. In 1903 he left the Isle of Wight to become medical officer to the managers of the Stock Exchange. He had recently taken a partner, but retained the position until the time of his death.

DR. LOUIS ADOLPHUS DUHRING, of Philadelphia, whose authority on questions of dermatology was recognized throughout the medical world, died on May 8th in his 68th year. He took his degree at the University of Pennsylvania in 1867. After studying for two years in Paris, London, and Vienna, he returned to Philadelphia, where in 1870 he opened a dispensary for skin diseases. In 1871 he became a lecturer in the Faculty of the University of Pennsylvania, and in 1876 he was appointed professor. In 1911 he retired with the title of Emeritus Professor. He was one of the founders of the American Dermatological Association. Of his numerous works on dermatology, the principal are a *Practical Treatise on Diseases of the Skin*, which appeared in 1887, and was translated into French, Italian, and Russian. Of the others, his *Atlas of Skin Diseases* (1876) and his *Textbook of Cutaneous Medicine* (1898) may be mentioned.

DEATHS IN THE PROFESSION ABROAD.—Among the members of the profession in foreign countries who have recently died are: Dr. Theophile Anger, formerly surgeon to the Paris hospitals; Dr. E. Bennecke, lecturer on surgery in the University of Jena; Dr. Cl. Bernoud, of Lyons, a well-known rhinologist and laryngologist, aged 43; Dr. A. A. Bliss, for more than twenty years laryngologist and otologist to the German Hospital and Mary Drexel Home, Philadelphia, a former president of the American Laryngological Association, aged 53; Dr. Bochenek, professor of anatomy in the University of Cracow; Dr. David Coggin, consulting ophthalmologist to the Salem Hospital, Massachusetts, aged 69; Professor Ernesto Ferrantini, of Rome, a well-known specialist in diseases of children; Dr. Frederick Forchheimer, professor of paediatrics and for some time Dean of the Medical College of Ohio, author of works on the prophylaxis and treatment of internal diseases, the therapeusis of internal diseases, president of the Association of American Physicians in 1910, aged 59; Dr. Edward Garceau, gynaecologist to the out-patient department of St. Elizabeth's Hospital, Boston, author of a textbook on tumours of the kidney, aged 40; Professor Raimondo Guiata, founder of the Children's Hospital of Milan; Dr. Francis Parker Kinnicutt, professor of clinical medicine in the New York College of Physicians and Surgeons, and in 1907 president of the Congress of American Physicians and Surgeons; Dr. Charles Hunton Knight, of New York, for many years professor of laryngology in Cornell Medical College, in his 64th year; Professor Antonio Marro, Director of the Public Asylum, Turin; Dr. George H. Powers, of San Francisco, Emeritus Professor of ophthalmology in the University of California, aged 72; Dr. Ernest L. Shurly, one of the founders and Emeritus Professor of laryngology and clinical medicine in the Detroit College of Medicine,

aged 67; Professor Willy Thorn, head of the gynaecological department of the Magdeburg Municipal Hospital, aged 56; Dr. Camillo Verdelli, lecturer on medicine in the Medical Faculty of Parma; Dr. P. Vergely, professor of histology and afterwards of pathology and general therapeutics in the University of Bordeaux, author of numerous medical monographs, just before completing his 74th year; Dr. Alcibiades Vicencio, extraordinary professor of obstetrics in the University of Santiago (Chile) and director of the School of Midwives in that city, a strenuous advocate of puericulture and initiator of a boy-scout movement in Chile; and Dr. Theodor Weyl, lecturer in the Technical High School of Charlottenburg, and well known as a hygienist, author of many writings on subjects connected with his speciality, aged 62.

The Services.

GLASGOW TERRITORIAL FORCE ASSOCIATION.

THE Army Council has approved of Colonel Donald J. Mackintosh, M.V.O., etc., Assistant Director of Medical Services, Lowland Division, being appointed to a seat as a military member of the Territorial Force Association for the city of Glasgow.

Medical News.

THE annual general meeting of the Research Defence Society will be held on Tuesday, June 24th, at 5 o'clock, at the Royal College of Physicians, Pall Mall. The chair will be taken by Sir David Gill, K.C.B., F.R.S., President of the Society. The report will be presented by the Hon. Sydney Holland, Chairman of Committee. Other speakers will be: Sir William Osler, Regius Professor of Medicine at Oxford; the Right Rev. Dr. Frodsham, sometime Bishop of North Queensland; and Mr. Waldorf Astor, M.P., and Sir Hugh Bell.

ON March 29th the Texas Senate rejected, by a vote of 14 to 11, a bill providing for the sterilization of defectives in the State institutions.

AMONG the members of King George's suite who received decorations on the occasion of His Majesty's recent visit to Berlin was Sir James Reid, on whom the German Emperor conferred the Order of the Red Eagle (First Class).

THE New York Academy of Medicine has issued an appeal to the public for funds to enable it to erect a new building. The Fellows of the Academy have promised £25,800.

SURGEON-GENERAL JOSEPH E. GODFREY, chairman of the Local Government Board of British Guiana, has been reappointed a member of the Executive Council of that colony.

THE Hamburg Cancer and Tuberculosis Research Institute has received from an anonymous benefactor a gift of £1,000 to be applied towards the erection of a department for investigation of fungi. Dr. H. C. Plaut has been appointed director of the new department.

AT the meeting of the Royal Society on Thursday next a paper on light sensations and the theory of forced vibrations will be read by Dr. G. J. Burch, and another on the luminosity curve of a colour-blind observer by Mr. W. Watson.

THE authorities of the institution known as the Caterham Sanatorium and Surrey Hills Hydropathic celebrated by a luncheon party, on May 30th, the tenth anniversary of its establishment. It is conducted, we are informed, on the same lines as the Battle Creek Sanatorium, Michigan, U.S.A.

The annual prize distribution at the medical school of St. Thomas's Hospital is to take place next Tuesday, June 24th, at 3 p.m., the ceremony being performed by the Right Hon. Lord Ampthill. A garden party on the terrace of the hospital will follow, and the various departments of the joint institutions be thrown open to inspection.

THE annual meeting of the Medico-Psychological Association of Great Britain and Ireland will be held on Wednesday and Thursday, July 16th and 17th, at the rooms of the Medical Society of London. The annual dinner of the association will take place at the Café Monico on the evening of July 16th.

AS announced in the advertisement pages, the next examination of candidates for the Royal Naval Medical Service will be held at the Examination Hall, 8, Queen Square, Bloomsbury, W.C., on September 29th, and following days. Twenty-five appointments are offered for competition. Application forms and further particulars can be obtained from the Medical Director-General, Admiralty, S.W.

THE Royal Sanitary Institute has elected Mr. Waldorf Astor, M.P.; Mr. Lewis Haslam, M.P.; Major H. B. Fawcus, R.A.M.C., assistant professor of hygiene, Royal Army Medical College; Lieutenant-Colonel Sir Joseph Fayrer, R.A.M.C., superintendent of the Royal Infirmary, Edinburgh; Dr. W. H. Hamer, medical officer to the London County Council; Dr. F. St. George Mivart, medical inspector to the Local Government Board; and Professor H. A. Woodruff, M.R.C.S., L.R.C.P., M.R.C.V.S., of the University of Melbourne, to be Fellows of the institute.

AT the annual meeting of the Royal National Pension Fund for Nurses, on June 12th, the Chairman (Sir Everard Hambro) said that the invested funds stood at a book value of £1,720,475 at the end of last year, as against £1,632,725 at the end of 1911, and that any depreciation due to a fall in market values was well covered by the reserve fund. The sum now being paid to annuitants amounted to about £40,000 a year. The experience of the fund was that their annuitants lived long beyond the term of their assessed expectation of life at the time of their retirement. This, of course, was a disadvantage to the fund, but it showed what an advantage the fund was to nurses.

DR. JOHN JOHNSTON, of Bolton, who has taken a practical interest in ambulance work for the past twenty-five years, was the recipient on June 11th of a handsomely mounted umbrella from members of the Bolton ambulance class. The presentation was made at a meeting for the distribution of certificates and medallions secured by the Bolton ambulance division of the Lancashire and Yorkshire Railway during the past year. This division has for some years past held a conspicuous position among ambulance corps in the North of England; last year it won the shield offered by the company, and this year was awarded the Sir George Pilkington cup. In the course of the proceedings many allusions were made to the indebtedness of the corps to Dr. Johnston's tuition, and a comparison was supplied by the latter of ambulance work as it is to-day and as it was twenty-five years ago.

AT a meeting of the general court of governors of St. George's Hospital, on June 12th, it was decided by a majority of 17 on a total of 29 votes to take no action in the question at issue between the hospital and the King Edward's Hospital Fund for London until a report had been received from Lord Moulton and Sir George Hayter Chubb, who, at the request of the president of the hospital, Princess Christian, have consented to hold an independent inquiry. This decision was reached as an amendment to a motion to the effect that the hospital should provide the difference between £1,000 and the sum expended on the bacteriological and pathological departments out of the discretionary fund, as suggested by the authorities of the King's Fund. An outline of the facts of this long-standing dispute between these two bodies and of the arguments on either side will be found at page 549 of the SUPPLEMENT to our issue for June 14th.

THE progress of practical medicine is to be dealt with in a series of lecture courses given in Berlin by the Lecturers' Association for Medical Vacation Courses from June 19th to 28th in collaboration with the Central Committee for Medical Post-graduate Education in Prussia. Lectures will be given on all special subjects of practical medicine. Among the subjects we note the new problems with which the practitioner is confronted, owing to the new Government insurance regulations. Foreign doctors are entitled to participate. All applications should be addressed to the Bureau of the Lecturers' Organization for Medical Vacation Courses (Herr H. Melzer, N. 24, Ziegelstr., 10 11). Inquiries will be answered by the Bureau of the Lecturers' Organization and by the Medical Information Bureau of the Kaiserin Friedrich-Haus (Berlin N.W. 6, Luisenplatz 2–4).

AN excellent method for promoting friendly relations between England and Germany has been adopted by the managers of the Crystal Palace, where the great Anglo-German Exhibition was opened by the Lord Mayor on June 11th. Every effort has been made to render the exhibition as fully representative as possible of the arts and industries of both countries, and the result is an extremely interesting collection of exhibits, whose tasteful arrangement and attractive surroundings show them off to the best advantage. Paintings and statuary offer a good opportunity for studying the different methods of English and German artists, whilst the sections devoted

to music, printing, wood carvings, and brass and metal work enable the visitor to compare still further the artistic capacities of the two nations. Other sections contain naval and military appliances, machinery, and tools; textiles, furniture, chemicals, and surgical and optical instruments; whilst some of the prettiest stalls are given over to German toys, trinkets, and pottery, including a number of very beautiful specimens of Dresden china. A large variety of international musical and athletic competitions will be held during the course of the summer in the great hall and grounds of the Palace; and a repertory theatre has been instituted in which German plays will be acted nightly by a special company. The exhibition will remain open until October, and should fulfil a useful purpose in making better known to each other and fostering a more complete sympathy between the people of England and Germany.

In 1877 the Staffordshire Institution for Nurses was established at Hartshill, near Stoke-on-Trent, mainly through the exertions of the late Bishop Sir Lovelace Stamer and Mr. W. D. Spanton, then surgeon to the North Staffordshire Infirmary. The institution has done a great deal of good work, and recently it was arranged to establish in connexion with it a nursing home for paying patients. This home was opened a short time ago, and Mr. Spanton presided at the ceremony. He said that the home was intended solely for those who were unable to pay an adequate fee. The building, he said, was very simply constructed, the great objects being to secure an abundance of air, free ventilation, and plenty of light. The building was then declared open by Lady Stamer, the widow of the late bishop. The home has, owing to the slope of the site, three stories on the one side and two on the other. In the front are the kitchen, scullery, and other rooms. On the ground floor there are two large wards and a smaller one, with a preparation room, waiting room, and accommodation for the superintendent. On the floor above there are two large wards, bath room, maids' room, and store rooms. The floors are connected by a lift as well as by a wide staircase. The building is lighted by electricity, the corridors are heated by hot water, and each room has an open fireplace in addition to an electric radiator. The success of the nursing institution has been so great that it now employs over a hundred nurses, and its affairs have been so well managed that Mr. Spanton was able to state that the new home had been built from reserve funds.

The annual report of the National Society for the Prevention of Cruelty to Children, presented to the Council on May 27th, states that the number of offenders against children in cases reported to the society in England, Ireland, and Wales in the year ending March 31st, 1913, was 74,687, being 899 more than in the previous year. The central fact of the whole report is that during the year the society acted as the protector of 159,407 children, a larger number than in any of the twenty-nine years of its existence, and 2,770 more than in 1911–12. The total number of complaints was 54,541, being 353 more than in 1911–12. The complaints are classified as follows: Neglect and starvation, 47,880; ill-treatment and assault, 3,886; indecent assault 194, criminal assault 163, immoral surroundings 485 — making a total of 842 offences against morality; exposure for begging purposes, 575; exposure, 501; abandonment, 299; baby farming, 42; manslaughter, 1; other wrongs, 515. Of these 54,541 cases, 52,967, on a preliminary investigation, appeared to have substance in them; using the technical expression of the record, they were "found true." It is pointed out that this does not mean that the other 1,565 complaints made were not justified. "In the majority of these there was good reason for making them, but there was also an explanation that made it unnecessary for the investigator to proceed." Of the 54,541 complaints, 30,863 were made by members of the general public, 6,140 were reported by the police, 8,983 by school officials, 4,603 by other officials, while 3,952 were discovered by the society's inspectors. Stress is laid on the fact that prosecution is not the main object of the society's work. The cases brought to its notice during the year were dealt with as follows: Warned, 48,114; prosecuted, 2,456; otherwise dealt with, 2,397. The proportion of cases successfully dealt with by warning was larger than in any previous year, being 88.2 per cent. The report, though it bears witness to the splendid work done by the society, is sad reading, as showing the amount of suffering inflicted on helpless children. In view of the statistics set forth in the report there is comfort in the assurance, which is given with emphasis, that "neither cruelty nor neglect of children can be described as a characteristic of the people as a whole."

Letters, Notes, and Answers.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* British Medical Journal *are devoted will be found under their respective headings.*

QUERIES.

Suggestions are invited by "C." as to the two following cases: (1) A boy who, although only 12 and of average height, weighs 8 st. 7 lb., and gets very readily tired. The urine shows phosphates and the blood an increased number of white corpuscles, but otherwise the boy appears healthy. Thymus extract is apparently of some utility. His stoutness began a few months after an operation for hypertrophied turbinates, adenoids, and tonsils. What is its pathogenesis? (2) A case of rheumatism in the shoulders. Ionization has not been tried, but all ordinary remedies for rheumatism, including hot ironing, have proved useless.

ANSWERS.

Somnambulism.

Dr. Alexander Haig (London, W.) writes in reply to "Aber," Journal, p. 1256: I would suggest that if he will measure the circulation by methods similar to those suggested in my paper, "Some Circulation Factors Admitting of Easy Measurement," Journal, September 16th, 1911, he will find considerable defects due in part to impure blood and in part to heart weakness. If he can improve the circulation, the somnambulism will also improve or disappear. He will find a good deal bearing on the relation of the circulation to the kindred troubles, headache and epilepsy, in my book, *Uric Acid in the Clinic*, London, 1910, p. 32 and pp. 72 to 76.

LETTERS, NOTES, ETC.

Enquirer, who has recently sent us two letters, is informed that answers cannot be returned unless the enquirer authenticates his communications with his name and address.

Premature Cremation.

Dr. G. Angus Hunt (London, N.) writes: With reference to the leader in the Journal for June 14th, may I ask—and, like Rosa Dartle, "I only ask for information"—if the doom of a premature burial is possible, why not the doom of a premature cremation? Personally, I should prefer even a momentary return to consciousness in a coffin underground rather than in a casket in the midst of a burning fiery furnace.

*** We think that even Miss Rosa Dartle's thirst for information would for once have been satisfied had she witnessed a cremation. Moreover, with the stringent precautions as to the certification of death when cremation is proposed, the doom of a premature cremation is almost unthinkable.

Dogs and Dog Owners.

Miss C. A. M. Bailey, Honorary Secretary National Canine Defence League, has issued an appeal to dog owners not to chain their dogs. We quite appreciate the fine sentiment which has dictated this appeal, but is it not just a little sweeping? An unchained dog may have a taste for the calf of the human leg, but we agree that dogs are often treated by their masters with great carelessness. As Miss Bailey says: "A dog chained out in the sun in hot weather, unable to reach the shade, his kennel, which has been left to face the sunny quarter, baked through and through, probably with no water to quench his burning thirst, or only a drop of stale, filthy, hot liquid, suffers torments." But while condemning this inhumanity, we think that her unreserved demand, "Give dogs their freedom and do not chain them," fails to take sufficiently into account possible danger to human beings.

Diachylon or Duty: A Correction.

In the sixth line of Dr. W. Wrangham's letter under this heading in last week's Journal (p. 1297), for "blood" read "lead."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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Note.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

An Address
ON
THE DIAGNOSIS AND TREATMENT OF DYSENTERY.

DELIVERED BEFORE THE SOUTH MIDLAND BRANCH OF THE BRITISH MEDICAL ASSOCIATION
BY
SURG.-GENERAL SIR CHARLES PARDEY LUKIS, K.H.S., K.C.S.I., M.D., F.R.C.S.,
DIRECTOR-GENERAL, I.M.S.

GENTLEMEN,—In the first place let me say how greatly I appreciate the honour which your President has conferred upon me by asking me to address you to-day. When I first received his invitation I was doubtful as to my ability to tell you anything in connexion with tropical diseases that would be of use to you in your practice; but when I remembered that a large Anglo-Indian colony exists in Bedford, it appeared to me that the choice of a subject lay between malaria and dysentery, and I finally decided upon the latter.

The term "dysentery" was first employed by Hippocrates to distinguish a disease of the bowels characterized by the presence of blood in the stools, but later on the disease was differentiated more clearly by emphasizing the fact that there must be mucus as well as blood in the stools, and that the symptoms of tormina and tenesmus must be present. This definition still held good when I went to India thirty-four years ago. We were taught that the association of frequent dejections and straining with blood and mucus in the stools was sufficient for the diagnosis of clinical dysentery, and any patient exhibiting this syndrome was at once placed upon enormous doses of ipecacuanha, elaborate precautions being taken to prevent it from acting as an emetic.

Here I wish to warn you against the danger of thinking that because a patient who comes to you for advice has resided for many years in the tropics, he is on that account necessarily a victim to some form of tropical disease. If, therefore, an Anglo-Indian comes to you complaining of the classical symptoms of dysentery, do not at once jump to the conclusion that he is really suffering from that disease. There are numerous "pseudo-dysenteries," and the symptoms in question may be merely manifestations of tuberculous or malignant ulceration of the bowel, of stricture or gumma of the rectum, of inflamed piles, of helminthic infections, or they may be a terminal condition of that very fatal disease, kala-azar. All these may, however, be excluded by careful examination of the thorax and abdomen, by digital exploration of the rectum, by microscopic examination of the faeces, and, in the case of kala-azar, by an exploratory puncture of the enlarged spleen and search for the Leishmania-Donovani parasite.

BACILLARY AND AMOEBIC DYSENTERY.

Having by these means satisfied yourselves that you are dealing with a true dysentery, the next point for consideration is "What type is it—is it bacillary or amoebic?" This is of paramount importance, because the treatment suitable in the one form of the disease is useless, or even harmful, in the other. We owe our knowledge of the etiology of bacillary dysentery to the investigations of Shiga in Japan and Kruse in Germany during the years 1898–1900. They proved that the causal organism of the disease is a short bacillus, belonging to the *typho-coli* group, which is Gram-negative, non-motile, and which does not either clot milk or produce gas in any sugar media. Further investigations by Flexner, His and Russell, and Strong have shown that there are various strains of dysentery bacilli which resemble the original Shiga-Kruse bacillus, in that all of them have the common property of producing acid in the monosaccharides, glucose and galactose, whilst they do not ferment either lactose, dulcite, or sorbite. They differ from the Shiga-Kruse bacillus, however, in two important particulars—they all ferment mannite and they produce indol. Considerable divergence of opinion exists as to the exact significance of bacilli belonging to the latter subgroup. American writers regard all of them as being of equal etiological importance, whilst the German school hold that the Shiga-Kruse bacillus is the only true type, and this view receives some support from the results obtained by serum therapy. These various forms of *B. dysenteriae* are responsible for the production of three distinct types of disease—(1) epidemic dysentery, as seen in India; (2) asylum dysentery, as seen in England; and (3) certain types of infantile diarrhoea.

But there is another type of dysentery which is endemic or sporadic in its nature, which is most apt to run a chronic course, and which in a large proportion of cases is complicated by abscess of the liver. This type is associated with the constant presence of amoebae in the stools and in the lesions, especially in the walls of liver abscesses, and the pathological changes found in the bowel after death are entirely different from those of bacterial dysentery. As regards the relationship of the amoebae to this disease, there are three views: (1) That the presence of the amoebae is accidental, and they play no part in the causation of the disease; (2) that the ordinary *Amoeba coli* is a harmless saprophyte, but that there are two pathogenic amoebae—namely, *Entamoeba histolytica* and *E. tetragena*; (3) that, under certain conditions, all amoebae may become pathogenic. For reasons which I shall give later on we may, I think, reject the first view. The other two are subjects for academic discussion, and do not concern us as practical clinicians. It is sufficient for our purpose to remember that in one form of dysentery there is an absence from the stools of the various types of *B. dysenteriae*, and that their place is taken by certain forms of amoebae. Also that this disease differs from bacterial dysentery both in its pathology, symptomatology, prognosis, and its reaction to treatment.

As regards the symptomatology, the points of distinction between the two diseases are as follows:

1. Bacillary dysentery is always acute in onset, and it runs a rapid course in nearly all cases. Amoebic dysentery, on the other hand, even though it may begin with an acute attack, always runs a chronic course. It is therefore the form you are most likely to see in this country.

2. In bacillary dysentery pyrexia is common; in amoebic dysentery it is rare.

3. In bacillary dysentery toxaemia is a marked symptom; in amoebic dysentery it is absent except when a liver abscess is forming.

4. In bacillary dysentery the stools are muco-purulent, with large cellular exudate and small in bulk; in amoebic dysentery they are grumous, like those of serous colitis, they are copious, and they contain little or no cellular exudate.

5. Liver abscess never occurs in bacillary dysentery; it is a common complication in amoebic dysentery.

DIAGNOSIS OF ABSCESS OF THE LIVER.

Its onset is always insidious, but no difficulty occurs in a typical case in which you have the classical symptom of hectic temperature with night sweats, leucocytosis, diminished movement of the right side of the diaphragm, pain under the right shoulder blade, a dragging sensation on the right side associated with fullness and tenderness in the right hypochondrium, and rigidity of the right rectus. In many cases, however, all or many of these signs are wanting. You must remember (1) that the interior of the liver does not contain sensory nerves, and that quite a large abscess may form deep in the substance of that organ without causing any pain; (2) that a considerable portion of the liver is under the ribs, so that there may be no appreciable swelling, especially if the abscess is on the upper surface of the liver; and (3) that about 40 per cent. of liver abscesses are sterile, so that there may be a complete absence of fever or leucocytosis. Indeed, I have on several occasions diagnosed and evacuated abscesses of the liver in which all these signs and symptoms have been conspicuous by their absence.

How, then, is the diagnosis to be made in a case of this kind? The answer is simple—"By watching your patient." In amoebic dysentery there is an absence of toxaemia, except when a liver abscess is forming. If, therefore, a patient who has suffered from amoebic dysentery is obviously toxic and is losing flesh rapidly;

if his face is drawn and his expression listless, his complexion sallow, his conjunctivae dull, and his tongue thickly furred, lose no time in making an exploratory aspiration of his liver. The operation can do no harm even if you fail to find pus, and it may save you from the unpleasant experience of being sent for one day to find your patient coughing up pus from an unsuspected abscess of his liver which has burst into the lungs, or writhing in agony from its rupture into the peritoneum. Moreover, if when you aspirate the liver you find only a small abscess, and especially if the absence of fever leads you to think it is sterile, you may frequently cut short the disease and render subsequent operation unnecessary by repeated irrigation of the abscess cavity with a solution of bihydrochloride of quinine (3 to 5 grains to 1 oz.) by means of the flexible sheathed aspiration cannula which has been designed by Major Rogers for that purpose.

From the description I have given of the symptoms you will see that in the majority of cases no great difficulty arises in the diagnosis of amoebic dysentery from the bacillary form of the disease, but it is not always plain sailing, and in any doubtful case a complete microscopic and bacteriological examination of the faeces is advisable. The identification of the various forms of *B. dysenteriae* takes up more time than the busy practitioner can afford to give to it, and shreds of mucus should be put up in sterile tubes and sent to a pathological laboratory. But it is quite easy to detect the amoebae; for this purpose all that is necessary is to take a small piece of a freshly-passed stool and place it on a slide, adding to it one or two drops of a 1 in 10,000 solution of neutral red in normal saline. A cover-glass is then placed on top, gently pressed down and "ringed" with vaseline, and the preparation is examined under a ⅙ objective and a 1 or 2 in. eyepiece. With this magnification the amoebae are easily detected, and it will be found that they have taken up the neutral red, all the other constituents of the faeces, even the leucocytes, remaining uncoloured.

Treatment.

It is impossible to deal with this very important subject fully in the short time at my disposal. I shall confine myself, therefore, to the specific treatment of the causal organisms.

Bacillary Dysentery.

In bacillary dysentery we may adopt either the saline or the bacteriological methods of treatment; but in the amoebic form of the disease we must rely upon ipecacuanha or emetine.

There are two methods of treating bacteriologically a case of bacillary dysentery: (1) The use of a vaccine, thus producing an active immunity; (2) the use of an antitoxic serum, thus raising passively the immunity of the patient.

1. *Vaccines.*—Much work on this subject has been done in India by Major Forster, Professor of Pathology in the Lahore Medical College. His vaccine is prepared with the Shiga-Kruse bacillus, which he uses for all types of bacillary dysentery. He uses it in both acute and chronic cases, but in acute cases it is contraindicated from the fourth to the twenty-first day. After this period inoculation may be commenced with an interval of ten days between each dose. In both acute and chronic cases the dose recommended for an adult male is: First dose, 0.1 c.cm.; second dose, 0.2 c.cm.; third dose, 0.3 c.cm.; fourth dose, 0.4 c.cm. Females and children are given proportionately smaller doses. According to Forster these doses produce little or no negative phase, and in fourteen days the immunity is considerably raised, whilst a course of four doses usually suffices to get rid of all bacilli and to prevent the patient from becoming a chronic "carrier." Most authorities consider that on account of the severity of the local reaction and the risk of producing a negative phase the vaccine method is best reserved for chronic cases, and that in acute cases it is inferior to the serum and saline treatments. Certain experiments, however, are now being made with "sensitized vaccines," which, as you are doubtless aware, consist of bacilli which have become coated with specific antibodies (lysins, agglutinins, etc.) as the result of exposure to the action of an immune serum. Such bacilli are now "sensitized" and do not lose this property when killed by heat. As the result of this sensitization, they are more easily dealt with by the leucocytes, and the toxicity of the vaccine is decreased, whilst its immunizing power remains unaltered. For these reasons I am disposed to think that there is a great future before these sensitized vaccines; and that it may be necessary ere long to modify our views as regards the unsuitability of vaccine treatment in the acute stages of disease.

2. *Antidysenteric Serums.*—These may be either monovalent or polyvalent, but the highest degree of immunity is conferred when the Shiga-Kruse bacillus is used in their preparation. These serums are of the greatest value in the acute stages of the disease, especially if there be profound and prolonged toxaemia unaffected by other forms of treatment. The dosage depends upon the strength of the serum used, and is, as a rule, marked on the phial, but it is necessary to give it in large doses, the injections being made with the usual antiseptic precautions under the skin of the abdomen or flank. Thus the serum from the Lister Institute should be given in 20 c.cm. doses twice, or even, in severe cases, four times daily. The interval between the injections should be six hours. They need not, as a rule, be continued after the second or third day, and the only untoward effects likely to follow are urticarial rashes and other anaphylactic phenomena such as pain in the joints, etc. Textbooks tell us that these complications may be avoided by the administration of calcium chloride or lactate. Experience does not support this statement, but it may be taken as granted that grave anaphylactic phenomena only occur when the interval between the doses is long or irregular. The remedy, therefore, is regular and systematic administration of the serum.

Salines.—When the serum treatment cannot be carried out, or when you get the patient in the first day of the disease, the saline treatment is, in my experience, the most useful. Indeed in many early cases it suffices for a complete cure. Two drachms each of magnesium sulphate and sodium sulphate dissolved in 1 oz. of water should be administered and then half doses of a similar mixture should be given every hour or every two hours until the motions became faeculent, after which it is given every three or four hours for another twenty-four hours and then discontinued; but do not stop it too soon, otherwise the patient will still suffer from faecal retention, even though he be passing a large number of stools containing only blood and mucus.

Amoebic Dysentery.

Up till recently our only method of treatment of this disease was by the administration of huge doses of ipecacuanha. This treatment, if persevered in, was undoubtedly efficacious, but the nausea caused by the drug was so severe that it was extremely difficult to persuade patients to take it. To remedy this a de-emetinized ipecacuanha was put on the market some years ago, but this proved to be useless, and we were reluctantly compelled to return to our old methods. Recently, however, the treatment of amoebic dysentery has been revolutionized by the researches of Vedder in 1911 and by the brilliant discovery of Major Rogers that the amoebae can be quickly killed by the hypodermic injection of emetine, and that, when given in this way, the patient experiences no nausea or discomfort of any kind. Both the hydrochloride and the hydrobromide of emetine are equally useful, but the former is more soluble, the latter requiring 2 c.cm. of sterile water or saline for the solution of one dose. Rogers began with ⅓ grain, which is equal to 30 grains of ipecacuanha, but he now gives 1 grain of emetine each day, in two hypodermic doses of ½ grain each, and he claims that by this method all the amoebae in the body can be killed in from two to four days, the average for a number of cases being 2.35 days. He has also shown that one or two ½ grain tabloids may be given by the mouth on an empty stomach without exciting any great nausea, especially if they are keratine-coated. This method of administration does not effect a cure as speedily as when the drug is given hypodermically, but it may be useful when for any reason there are difficulties in connexion with the giving of the injections.

The hypodermic injection of emetine is also a valuable aid to diagnosis. If you have a case which you suspect to be amoebic dysentery, but which does not react to emetine within three days, you may be sure that your diagnosis is

wrong, and you need waste no further time in treating it as such. Moreover, the powerful effect of emetine on amoebic cases, compared with its uselessness in bacillary cases, may, I think, be taken as strong proof that amoebic dysentery is really a separate entity. That is why, in the earlier part of this address, I said that we might reject the view that intestinal amoebae play no part in the causation of this disease.

A Lecture
ON
MINERS' NYSTAGMUS.*

BY

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MINERS' nystagmus is an occupational disease of the nervous system, and is only found among workers in coal mines. The first case was described in Belgium, by Decondé, in 1861; and among the earliest observers were C. Bell Taylor, Nieden, Gräfe, and Snell. Romiée pointed out that the earliest recorded case was described in Belgium ten years after the safety lamp had been recommended for use in that country, and that it was only after the compulsory introduction of the Mueseler lamp in 1876 that he noticed an increase in the number of cases of the disease.

There have been two chief views as to the causation of the disease—the one that it is due to the position assumed by the miner at his work, and the other that it is due to deficient illumination. The first view was very ably and strongly advocated by Dransart, Nieden, and Snell, and the last named had several discussions with Dr. Court, who has the honour to be the first English observer to call attention to the importance of the light factor. Most English observers now hold that the chief factor is deficient light, but on the Continent there is still diversity of opinion.

SYMPTOMS.

The first symptom is failure of sight, especially at night time, or when the sufferer is called upon to perform the more skilled portion of his work. The man next complains that the lamps dazzle his eyes, and sooner or later that the lamps and all surrounding objects dance before him. Headache, varying from slight pain between the temples to attacks of extreme severity, giddiness on exertion and stooping, inability to see at night time, and dread of a bright light, are often present.

There are two distinct varieties of the disease. In the first the symptoms are absent or latent, and the man, suffering no disability, is unware that he has nystagmus; in the second the disease is manifest, and the man is more or less incapacitated and aware that his eyes are affected. Among 750 consecutive cases 150 latent cases were observed.

The table shows the frequency of the various symptoms in the remaining 600 manifest cases.

TABLE I.—*Symptoms in 600 Manifest Cases.*

	Number.	Percentage.	Symptom Marked.	Very Marked.
Movements of objects ...	566	94.3	—	—
Headache	507	84.5	51	16
Giddiness	490	81.6	52	8
Night blindness	459	76.5	4	—
Dread of light	284	47.3	10	—

PHYSICAL SIGNS.

The signs of the disease are: Involuntary and irregular movements of the eyeballs, chiefly of a rotatory character, tremor of the eyelids, eyebrows, head, and, in some cases, even of the neck and shoulders. A backward inclination of the head with drooping eyelids is characteristic and common. An attempt has been made lately to describe a condition in which the disease miners' nystagmus exists without the presence of the nystagmus proper, and in which the oscillation of the eyeballs is replaced by blinking of the eyelids. The question is at present under consideration by a Departmental Committee, and there is no time this afternoon to discuss the matter.

THE CAUSE OF NYSTAGMUS.

Owing to the deficient light in a coal mine, the images formed in the eyes are indefinite and inexact; this leads to indecision on the part of the controlling mechanism in the brain, with the result that irregular inco-ordinate movements of the eyeballs ensue. These irregular movements of the eyeballs are known as nystagmus.

FREQUENCY OF THE DISEASE.

Foreign authors estimate the frequency of the disease as being from 5 to 25 per cent. of all workmen employed underground. The following table will show the number of men disabled by the disease in this country. The figures are taken from the Blue Books on statistics of compensation.

TABLE II.—*Frequency of Disablement.*

Year.	Number of Certified Cases.	Percentage to Underground Workers.	Cost of All Industrial Diseases.
1908	460	0.057	£13,782
1909	1,011	0.123	£26,759
1910	1,618	0.19	£42,507
1911	2,519	0.29	£68,017

I have estimated the cost of the disease to the country in 1910 to have been over £100,000, and on the same basis to have been over £155,000 in 1911.

INCAPACITY.

With regard to the incapacity caused by the disease, I hold the following views: Slight cases can soon return to work underground; ordinary cases can return after an interval of surface work of three to twelve months. Although one attack of nystagmus predisposes to another, I think it only fair to allow a man to try to regain his income by working underground again if possible. The exceptional cases should not return to work underground, and by exceptional cases I mean the following: Men who have failed to work several times before; very young lads; old men with commencing cataract; men with high degree of refractive error, and those cases which have been of exceptional severity. The following table was taken from returns, extending over four years, from five large colliery companies employing over 28,000 men:

TABLE III.—*Late Results.*

Back at old work	152 or 45 %
Left employ or commuted	9
At surface work	105
Idle	73

It is at the present time much more difficult to persuade men to attempt to work underground.

A further question may be asked: Is it dangerous to employ a man underground who has once suffered from nystagmus? In the first place, is the man more liable to accident? It is very difficult to answer this question. Men are often sent out of the pits by managers from fear of this danger, but this is when they are about to fail on account of the disease. I think it probable that many slight accidents are due to nystagmus, but I have only once had a complaint from a man that his accident was directly due to his nystagmus. There is, however, the possibility of a greater danger—namely, that a catastrophe may result from the failure of a fireman or collier suffering from the disease to detect the presence of gas. The table given below shows the results of tests made on all the firemen of five large collieries. The tests were made on the surface with the help of an Oldham gas-testing chamber. The men were first examined for the presence of nystagmus and then tested independently for their ability to detect the cap given in the presence of gas.

*Delivered at the Mining Machinery Exhibition, London, on May 31st.

TABLE IV.—*Examination for Ability to see Gas Cap.*

	Number Tested.	Correct.	Trace.	Cap Shown.				
				1 Per Cent.		2 Per Cent.		
			Failed.	Failed.	Under-estimated.	Failed.	Under-estimated.	3 Per Cent.
Normal men	49	28	14	4	9	0	14	Seen by all, but frequently under-estimated.
Nystagmic cases	41	4	19	10	13	6	12	

It will be seen that all the men were able to detect the presence of gas when 3 per cent. was in the chamber. The nystagmic cases, however, certainly made more mistakes than the other men.

FACTORS DETERMINING THE OCCURRENCE OF THE DISEASE.

Age.

The mean age was 39.84 years and the mean years of underground life was 25.58 years.

Occupation.

The occupation of 685 cases is given; the remaining cases were all among under-officials who had been specially examined for the disease, and it was felt unfair to include them in the table. It will be seen that, although all classes of workmen are affected, the great majority of cases come from the coal face.

TABLE V.—*Occupation in 685 Cases.*

Colliers	525	= 557, or 81.3 %
Collier lads (fillers or loaders)	32	
Timbermen and repairers	52	= 7.5 %
Hauliers and haulage men	40	= 5.8 %
Rippers	8	
Labourers	6	
Contractors	5	
Under officials	3	
Hitcher, engine driver, ostler, and mason	1 each.	

Method of Work.

The method of coal getting known as holing (undercutting of the coal) is said by many authors to be the chief factor in the production of the disease. The following table was based on answers given by 580 nystagmus cases, who either were or had been colliers:

Much holing	177	= 348, or 60 %
Some holing	171	
Little holing	40	= 232, or 40 %
No holing	192	

Taking all the cases, 362, or nearly 50 per cent., had done no holing. Colliers in Somerset, Forest of Dean, and in the house coal pits of South Wales all get their coal by bottom-holing, yet nystagmus is very rare in these pits. The collier when holing is supposed to direct his eyes obliquely upwards, and the advocates of the old school say that nystagmus results from the strain produced by this unnatural position of the eyes, but does a collier look obliquely upwards when he holes? A collier looks upwards when engaged in top-holing, but not when he holes in the bottom. The eyes are then either directed straightforward or a little downwards. A little consideration will show that the swing of the pick will be more powerful and complete when the blow is ended below the level of the eyes. The photographs handed round will show the position of the men at work.

Seams.

The thickness of the seams does not appear to be of very great importance, as shown by the following table:

TABLE VI.—*Thickness of Seams.*

Less than 2 feet	1
2 to 3 feet	47
3 to 4 feet	133
4 to 5 feet	148
5 to 6 feet	115
6 feet and over	141

Illumination.

In metalliferous mines candles or open lamps are used, while in a coal mine safety lamps are often necessary. The naked light coal mine comes midway between the safety-lamp coal pit and the metalliferous mine, having the general blackness of the former and the good light of the latter. Manifest nystagmus is common in the safety-lamp coal pit, rare in the open light coal pit, and unknown in the metalliferous mine. Nystagmus is practically unknown in the purely naked light districts of Somerset and the Forest of Dean, and is rare in the open light pits of South Wales. In South Wales most of the men had worked at one time or another with lamps, and it is common for the men to continue working in an open light pit after they have failed to work with lamps. Taking into consideration the number of men employed, England and Wales, using safety lamps three times more frequently than Scotland, had four times the number of cases of nystagmus in 1910.

In the present series 741 men had used safety lamps, 723 almost entirely, and only 9 had worked with candles alone. As a result of an investigation in South Wales the following figures were obtained. The number of men working in both classes of mines was known and the illumination at the coal face had been tested.

TABLE VII.—*Number of Cases and Average Illumination.*

	Relative Number of Certified Cases of Nystagmus to Men Employed.	Average Illumination at Coal Face in Foot-Candles.
Safety-lamp pits...	6.3	0.008, or 1
Candle pits ...	1	0.09, or 5

In the same district the incidence of nystagmus was found to vary inversely with the candle power of the lamps used.

TABLE VIII.—*Number of Cases and Candle Power.*

Pit.	Men.	Nystagmus.	Candle Power of Lamps.
A	450	9	0.235
B	1,400	22	0.27
C	1,500	10	0.33
D	2,500	14	0.4
E	1,900	8	0.42

The illumination at the coal face depends mainly on four factors: (1) The candle power of the source of light used; (2) the distance at which this light has to be placed from the coal face; (3) the character of the surroundings; (4) the composition of the air at the coal face.

1. The candle power of the wax candles used in mines is generally equal to one standard candle, but the tallow candle may be equal to two. The oil safety lamp rarely gives more than one-third of a candle power at the coal face when clean and much less when dirty. Some dirty lamps have only given one-tenth of a candle power.

2. The candle can be placed close to the coal face, but the lamp must be placed out of danger, and is always much further from the coal face. As the intensity of illumination varies inversely with the square of the distance the advantage of the candle is very great.

3. In the coal mine practically all the incident light is absorbed and the advantage of reflected light is lost. We do not realize how much of the lighting of interiors is due to this reflected light, but the difference between a room papered with light paper and one with a dark red paper is very obvious.

4. The light of a safety lamp diminishes rapidly when the oxygen percentage of the air falls and the presence of moisture has the same effect. The presence of gas up to 4 per cent. increases the luminosity of the flame. So accurately does the safety lamp answer to the various changes in the atmosphere that a rough estimate of the oxygen percentage might be calculated by taking photometric readings of a standard oil lamp first under normal conditions, and then in the different districts of the mine.

The actual amount of light falling on the coal face was measured in several collieries, and the average of a large number of observations is given below.

In five open light collieries the average illumination at the coal face was 0.09 of a foot-candle. In eight safety lamp collieries the average illumination was 0.018 of a foot-candle, or only one-fifth of that obtaining in an open light mine.

The questions of the influence of holing and illumination have been discussed separately, and the following table has been drawn up to show the relation they bear to one another.

TABLE IX.—*Holing and Illumination.*

District.	Holing.	Position at Work.	Thickness of Seam.	Light.	Incidence of Nystagmus.
			Feet.		
Somerset	Much	On side	1½–3½	Candles	Unknown
Forest of Dean ...	Much	On side	2-4	Candles	Unknown
Open light pits, South Wales	Much	Side or knees	2½–5	Candles	Rare
Safety lamp pits, South Wales	None	Knees or standing	3½–6	Safety lamps	Common
Midlands	Much	Side ...	5–7	Lamps	Common

The Personal Factor.

The personal factor remains to be considered, and it is now recognized by a large number of surgeons that ocular defects play an important part in determining whether a man should have nystagmus or not. The result of my investigations is given below:

Not examined Latent	... ...	176
Too bad to test	... ...	49
		—225
Normal		95
Error of refraction present...		430*
Kind of error present—		
Hypermetropia		170
Myopia		57
Astigmatism		203

* = 81.9 per cent. of cases examined.

It must be remembered that a small error of refraction is common in normal people.

Accident and ill health are also determining factors. In 146 cases there was a history of an accident—in 73 cases to the eye, in 43 cases to the head, and in 30 cases the injury was general. In North Staffordshire accidents to the eye occur very frequently before the onset of nystagmus. In the first 600 cases seen there was a history of accident to the eyes in 36 cases; in the last 150 cases, all from North Stafford, there has been injury to the eyes in 37 cases.

PREVENTIVE TREATMENT.

It is in the first place necessary to improve the miners' lamp, and the mining engineer must no longer be content with an average illumination of one-fiftieth of a foot-candle at the coal face. The introduction of electric lamps into general use is probable, as it seems unlikely sufficient light can be obtained in any other way. The elimination of unfit workmen by medical examination before employment would also be of the greatest service. Efficient ventilation and any hygienic measures will also help.

AMINO-ACIDS AND SUGARS IN RECTAL FEEDING.*

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IN spite of its great drawbacks, "feeding" by nutrient enemata is in almost universal use at the present time. During the past few years, however, the advance in our knowledge of the ordinary processes of absorption from the bowel makes it necessary to review the experimental and clinical evidence on which the practice of rectal feeding is based. We hope to demonstrate that, as at present practised, it is nearly useless, but that it is possible considerably to enhance its value in most cases.

HISTORY OF RECTAL FEEDING.

An excellent summary of the older history is given by Gros. Galen and Celsus both practised it, and it was in fairly frequent use during the Middle Ages. Ramazini, in the seventeenth century, claims to have kept a girl alive by its means for seventy days.

The classical researches on the subject, on which the modern practice is based, are those of Ewald and Leube. In 1872 Leube kept a dog alive for months on injections of chopped meat and pancreas, claiming an absorption equivalent to 500 calories daily. Ewald in 1887 published tables purporting to show the results of administering egg and peptone enemata, which appear to demonstrate great absorption, but his experimental methods were unsatisfactory (for example, he used phenolphthalein as an indicator for ammonia) and the data inadequate. Later workers (Huber, Bial, Sharkey, Plantenga, Edsall and Miller, Mutch and Ryffel) all report a small but variable absorption of albumen and peptone.

All the above observations were made by the "wash-out" method, the enemata given one day being washed out next morning by rectal lavage, and it being assumed that what could not be recovered from the washing must have been absorbed.

Boyd and Robertson, whose tables we shall presently examine, appeared to have reposed confidence in the "wash-out" method, but they also analysed the nitrogen excretion in the urine. Langdon Brown criticized the "wash-out" method and trusted to the urinary analysis. He found practically no absorption of peptone.

The data for the absorption of sugar and fat will be discussed later.

THE ABSORPTION OF PROTEINS.

We have seen that many observers, trusting to the "wash-out" method, have reported a small, variable degree of absorption of albumen and peptone, the latter giving the better results. As a type of these observations we may examine the careful and detailed figures supplied by Boyd and Robertson, who also made urinary analyses for nitrogen by Kjeldahl's method. Seven young women suffering from gastric ulcer were fed entirely on nutrient enemata for six or seven days. They were kept in bed, and weighed before and after. All did well clinically. The enemata were given six-hourly, and consisted of two eggs or 200 c.cm. of milk and egg, dextrose, normal saline, and in one case cod-liver oil. The whole was pancreatized for twenty minutes. Every day the bowel was washed out, and the contents analysed.

Results of Analyses.

	Loss or Gain of Weight in Kilos.	Total N Disappeared from Bowel.	Total N in Urine.
		Grams.	Grams.
Case I (6 days) ...	− 2.27	9.26	19.66
Case II (6 days) ...	− 1.475	6.59	33.04
Case III (7 days) ...	− 2.837	11.93	18.81
Case IV (7 days) ...	− 3.632	4.33	41.21
Case V (7 days) ...	− 4.086	9.70	48.13
Case VI (7 days) ...	− 5.448	15.60	56.87
Case VII (6 days) ...	+ 0.227	− 0.17	42.19

It will be observed that in every case the amount of nitrogen absorbed from the bowel could not possibly account for that lost by the urine, even if we admit that disappearance from the bowel means absorption by the patient. As Langdon Brown has pointed out, this is very improbable. Patients who are having daily rectal washes may pass a huge putrid stool, which presumably came from the caecum and was not touched by the lavage. The physiological antiperistalsis of the colon may carry the remains of the nutrient enema up beyond the reach of the wash, and so it will disappear from the rectum and yet not be absorbed, but putrefy.

* Part of the expenses of this research has been defrayed by a grant from the Colston Research Fund.

Boyd and Robertson's own figures demonstrate this forcibly. If disappearance of nitrogen from the rectum means absorption, then the nitrogen excretion in the urine will run parallel. It does not. In Case III, where the urinary nitrogen is lowest, the apparent absorption was best but one. In Case VII, though the absorption was *nil*, the urinary output is above the average.

If it is accepted that the wash-out method is totally unreliable, as we maintain, the whole question of the value of rectal feeding with proteins requires fresh consideration. It emerges very badly from the examination; it is not going too far to say that the quantity absorbed is quite insignificant.

It may be argued that as patients can be kept alive for weeks on nutrient enemata, and the loss of weight is often very small, therefore the clinical evidence of their value is conclusive, and cannot be upset by physiological experimentation. This reasoning is quite fallacious. Men have lived as long as sixty-four days with no food at all, and if a patient is kept warm in bed, supplied with plenty of fluid, and given absorbable sugars by the rectum, it is not surprising that he may live for weeks on perfectly useless nitrogenous enemata. All clinicians know, however, that it is impossible to restore patients to strength or vigour by rectal feeding, and they are liable to sudden collapse, and even death.

It is certainly remarkable that so little weight is lost. Gros shows that even after a month the average loss is only about 4 kilos. Boyd and Robertson's cases, during a week of abstinence from food by mouth, lost weight varying from 1.475 to 5.448 kilos. More remarkable still are the cases in which there is an actual gain in weight. This, however, by no means proves that nitrogen is absorbed. In the only patient of the Scottish observers who gained a trifle, they admit that absolutely no nitrogen disappeared from the rectal washings; in fact, more was recovered than they injected. Langdon Brown has shown that a gain of weight is possible when nothing is given but normal saline per rectum.

The patients on whom observations have been made were almost all young women who had suffered from severe haematemesis and were exsanguinated in consequence. The gain of weight is, in our opinion, probably due to absorption of water to replace the blood lost. In Boyd and Robertson's series it was the patient who had lost most blood who gained in weight.

Again, it may be argued that even if the rectum is not able to absorb protein, antiperistalsis will carry the enema through the ileo-caecal valve into the small intestine. Gros quotes Gilles de la Tourette's famous cases, in which hysterical persons have vomited enemata. These occurrences are, however, highly exceptional. We now know from the employment of skiagraphy after bismuth enemata that in the great majority of cases the injection gets no further than the colon or caecum.

We believe that very little, if any, nitrogen is absorbed from nutrient enemata as ordinarily prepared, on the following grounds:

1. The nitrogen output in the urine of persons "fed" on peptonized proteins is little, if any, higher than that in the urine of professional fasting men or of patients receiving only normal saline per rectum.

2. Analyses of the differences in the amount of nitrogen in the alimentary contents—(*a*) at the ileo-caecal valve, (*b*) in the faeces passed per anum—show little or no absorption by the rectum (Groves and Walker Hall). These observations were made on patients with a right-sided colostomy.

3. We know that patients lose strength instead of gaining it on rectal feeding. It can never be relied on, for instance, to build up a patient with oesophageal cancer and make him more fit for a gastrostomy.

4. It has recently been established that the older teaching on the absorption of proteins is incorrect. We used to be taught that they were absorbed principally as peptones. Now we believe they are absorbed principally as amino-acids. Peptonization therefore does not go far enough to render protein absorbable by the bowel.

The second and third of these arguments need not be elaborated further.

Analyses of the urine of patients "fed" on peptonized milk or peptonized egg albumen have been made by many workers, and are now sufficiently numerous to lead to some definite conclusions. Laidlaw and Ryffel found that the nitrogen output corresponded pretty closely to that of professional fasting men. Langdon Brown found no difference in the urinary nitrogen output (Kjeldahl's method), whether the patients were given normal saline or the following enema pancreatized for twenty minutes:

Milk, 4 oz.
Plasmon, 1 to 2 drachms.
Dextrose, 1 to 2 drachms.
Sod. bicarbonate, 20 grains.
Liq. pancreaticus, 1 drachm.
Tinct. opii, ɱ v.

Boyd and Robertson have published daily urinary analyses in seven cases fed on pancreatized milk or eggs. They found, as we have, that the output of nitrogen varies much in different patients; in our cases it appeared to depend on whether the patient had been dieting and starving before the attack of haematemesis. In the Edinburgh cases sufficient clinical data to determine this are not given. Taking these seven cases together, the average daily excretion of nitrogen during the week of rectal feeding was 5.7 grams. During their first week of starvation, Succi and Cetti, the professional fasting men, passed a daily average of 12.6 grams. No doubt they were fortified for the ordeal by previous good living, but it is evident that the rectal "feeding" was practical starvation for the women with gastric ulcer.

The writers have made daily urinary analyses in eight cases of gastric ulcer fed by nutrients of varying composition.

Two patients were given raw milk nutrients. In one of these the average daily output of nitrogen from the second to the ninth day was 7 grams, as against the Succi and Cetti average of 11 grams. In the other case, the Bristol case showed a daily nitrogenous output from the eighth to the thirteenth day of 7.6 grams, as against the Succi average for the same period of 6.8 grams. A man was given nutrients of peptonized milk and somatose; his daily average output was 10 grams as against the Succi-Cetti average of 12.6 grams. In several of our cases the patients were given nothing but saline for a day or two, and then ordinary peptonized enemata, but these never stopped the starvation fall in the nitrogen output.

It is proved, therefore, that little if any nutriment is absorbed from a rectal injection containing albumen or peptone. This may be due to one of two causes: (*a*) That the colon is unable to absorb proteins or the products of their digestion; or (*b*) that the colon lacks the power to convert peptone, which is not absorbable, into amino-acids.

Modern physiological research has revolutionized our conceptions of protein absorption. It is now believed that peptones are scarcely at all absorbed, but that the products of protein digestion pass through the epithelial lining of the small intestine in the form of amino-acids as leucine, tyrosine, tryptophane, lysine, arginine, etc. Trypsin of pancreatic juice converts albumens into these amino-acids, and the ferment erepsin, in the succus entericus, can finish the work of the gastric juice and convert peptones (also caseinogen) into amino-acids. The ordinary nutrient enema is pancreatized for twenty minutes. In this time no amino-acids are split off. If we hope that the mixture of caseinogen, albumen, and peptone will be absorbed from the patient's rectum, we are assuming the presence of erepsin or trypsin in that particular person's rectum without evidence. If there is none there, absorption is impossible. Now it is true that the faeces may contain trypsin, but there is no evidence that the colon of patients who are receiving no food by mouth contains either trypsin or erepsin.

It might be thought advisable to use Leube's method, and to introduce into the bowel a mixture of chopped pancreas and meat. In practice, however, this leads to grave putrefaction and toxaemia.

It occurred to us that before abandoning rectal feeding as useless it would be wise to try the effect of giving prolonged pancreatic digests containing amino-acids.

Rectal Feeding with Amino-Acids.

All our patients were suffering from gastric ulcer, and were treated by cutting off all food by the mouth, though water was allowed. The nutrients were varied in each case. The plan was to give either normal saline or milk

peptonized for twenty minutes during the first three or four days, and then to change to milk pancreatized for twenty-four hours to see if it would interrupt the steady starvation fall in the output of nitrogen. In two cases we gave mixed amino-acids prepared by Merck by the action of strong sulphuric acid on proteins. This was, however, expensive, and only suitable for experimental purposes.

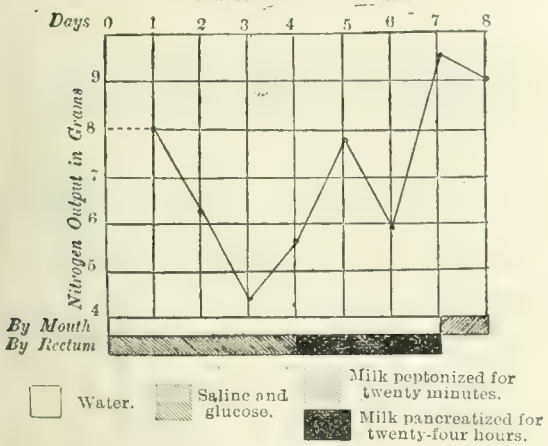
The enema we used most was prepared by boiling a pint of milk in a flask, adding two to four drachms of some reliable pancreatic preparation (some that we used were subsequently found to be inert), and keeping in the incubator for twenty-four hours, then boiling. From five to eight fluid ounces were given every six hours. A daily rectal wash-out was employed, but we did not analyse the washings. Instead, the nitrogen in the urine was estimated by Kjeldahl's method. The ammonia nitrogen was estimated by the formalin method by Dr. P. A. Opie.

CASE I.

Female, aged 25, suffering from gastric ulcer. Had been on peptonized milk by mouth for several days.

Day.	By Mouth.	By Rectum.	Urine.	Ammonia per Cent. of total N.	Daily N Output in Grams
			oz.		
1st	Water	Saline and glucose	29	—	8.03
2nd	Water	,, ,, ,,	22	3.2	6.28
3rd	Water	,, ,, ,,	26	0 8	4.36
*4th	Water	,, ,, ,,	26	12.3	5.56
5th	Water	Peptonized milk 24 hrs. (6 oz. 4 hourly)	16	12.7	7.66
6th	Water	,, ,, ,,	22	12.5	5.91
7th	Water	,, ,, ,,	32	9.3	9.53
8th	Peptonized milk	——	31	0.5	9.02

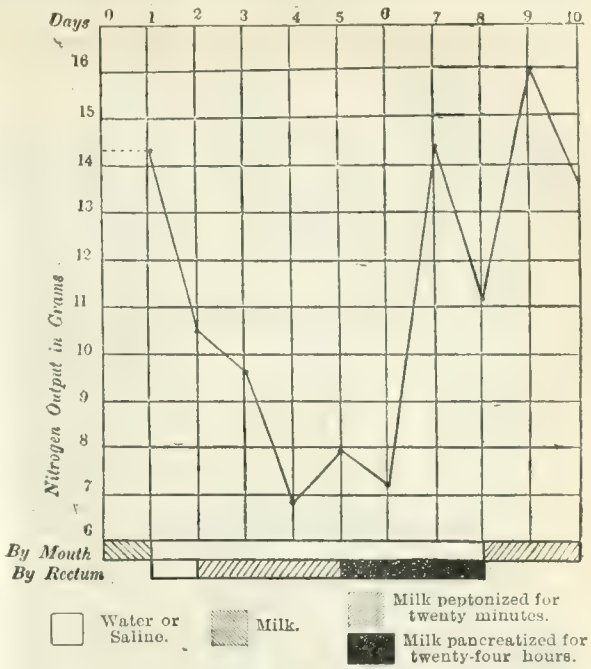
* Glucose not well retained.



CASE II.

Man with gastric ulcer. Had been taking full diet up to day of haematemesis.

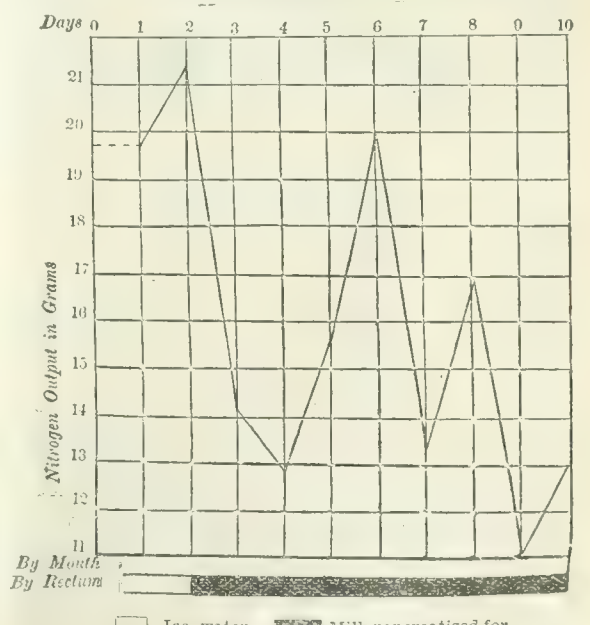
Day.	By Mouth.	By Rectum.	Urine.	Ammonia per Cent. of total N.	Daily N Output in Grams
			oz.		
1st	Milk	——	21	1.4	14.3
2nd	Water	Saline	19	2.9	10.7
3rd	Water	Peptonized milk 20 min. (5 oz. 6 hourly)	21	3.5	9.6
4th	Water	,, ,, ,,	20	4.8	6.8
5th	Water	,, ,, ,,	16	2.9	7.9
6th	Water	Peptonized milk 24 hrs., 3j glucose (5 oz. 6 hourly)	10	2.9	7.2
7th	Water	,, ,, ,,	21	3.0	14.4
8th	Water	,, ,, ,,	15	3.7	11.2
9th	Peptonized milk	——	23	2.8	16.1
10th	Peptonized milk	——	54	0.9	13.7



CASE III.

Man with haematemesis. Had been taking full diet up to that time.

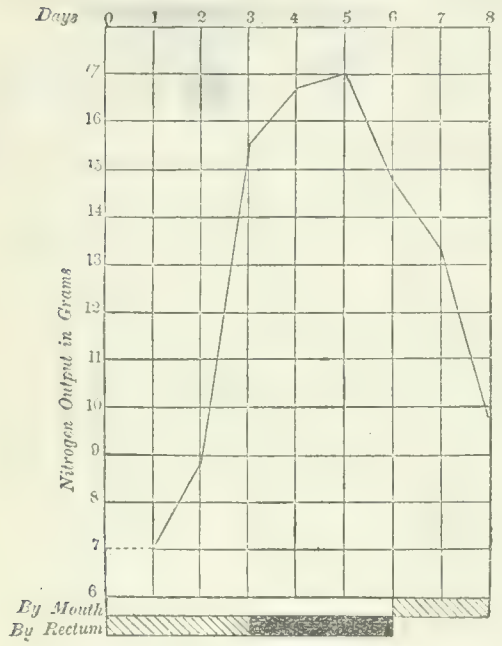
Day.	By Mouth.	By Rectum.	Urine.	Daily N Output in Grams.
			oz.	
1st	Ice, water	Saline	38	19.7
2nd	Ice, water	,,	50	21 4
3rd	Ice, water	Milk peptonized 24 hours (8 oz. 6 hourly)	32	14.1
4th	Ice, water	,, ,, ,,	26	12.8
5th	Ice, water	,, ,, ,,	31	15.6
6th	Ice, water	,, ,, ,,	36	19.9
7th	Ice, water	,, ,, ,,	24	13.3
8th	Ice, water	,, ,, ,,	30	16.9
9th	Ice, water	,, ,, ,,	21	11.1
10th	Ice, water	,, ,, ,,	24	13.0



CASE IV.

Man with haematemesis. On very scanty diet for three days before admission.

Day.	By Mouth.	By Rectum.	Urine.	Daily N Output in Grams.
			oz.	
1st	Water	Milk peptonized 20 minutes (6 oz. 6 hourly)	20	7.0
2nd	Water	" " "	28	8.8
3rd	Water	" " "	41	15.5
4th	Water	Amino-acids (Merck) (25 grams in 6 oz. saline, 6 hourly)	40	16.7
5th	Water	" " "	37	17.0
6th	Water	" " "	30	14.8
7th	Peptonized milk (1 oz. hourly)	Nil	24	13.3
8th	"	Nil	17	9.8

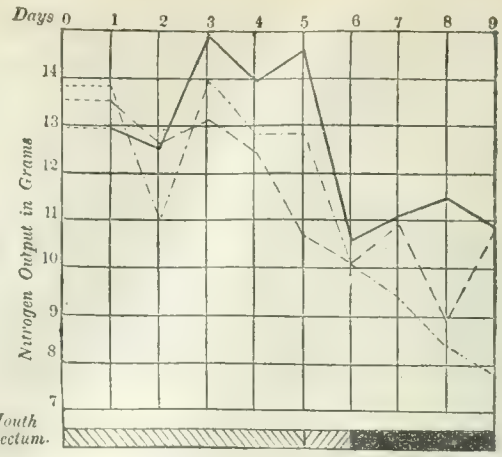


Water. Milk peptonized for twenty minutes. Amino-acids in saline.

CASE V.

Man, aged 24, admitted for haematemesis. On full diet up to that time.

Day.	By Mouth.	By Rectum.	Urine.	Daily N Output in Grams.
			oz.	
1st	Water	Milk peptonized 20 minutes (5 oz. 4 hourly)	19	12.9
2nd	Water	" " "	18	12.5
3rd	Water	" " "	20	14.8
4th	Water	" " "	19	13.9
5th	Water	" " "	20	14.6
6th	Water	Peptonized milk 24 hours	15	10.6
7th	Water	Amino-acids 4 per cent., glucose 5 per cent. (5 oz. 4 hourly)	16	11.1
8th	Water	" " "	16	11.5
9th	Water	" " "	15	10.9



Water. Milk peptonized for twenty minutes.

Amino-acids +glucose. Milk pancreatized for twenty-four hours.

Cetti's fasting figures indicated thus: — — — —

Succi's fasting figures indicated thus: — — — — —

In none of the above cases was any rectal irritation produced, either by the long-peptonized milk or by the amino-acids.

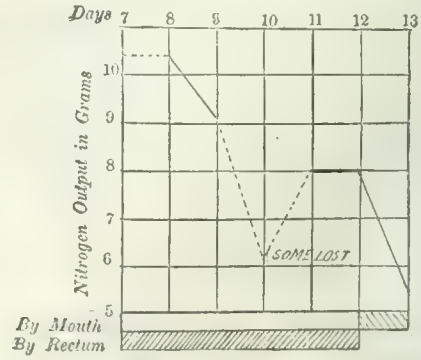
The three following cases serve for purposes of comparison. In two of them it was intended that they should be repetitions of the method used for Case II, but it was found afterwards that the preparation of pancreas used was absolutely inert.

CASE VI.

Female, aged 24, admitted for haematemesis. Well fed up to date of admission. Menstruating for first seven days; no observations. During this time she had nutrients of unpeptonized milk.

Day.	By Mouth.	By Rectum.	Urine.	Daily N Output in Grams.
			oz.	
8th	Water	Raw milk (1 pint a day)	26	10.4
9th	Water	" " "	24	9.1
10th	Water	" " "	26*	6.1
11th	Water	" " "	18	8.0
12th	Water	" " "	18	8.0
13th	Peptonized milk	Nil	16	5.5

* A few ounces lost.

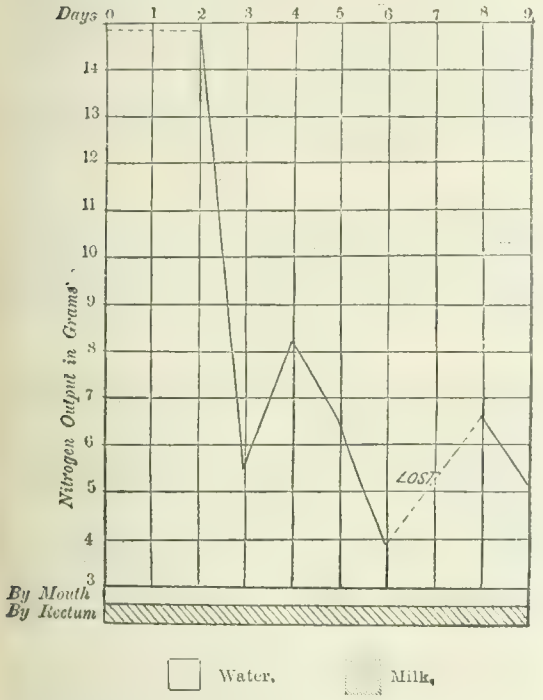


Water. Milk. Milk peptonized for twenty minutes.

CASE VII.

Female, aged 27, with haematemesis. Had been well fed till then.

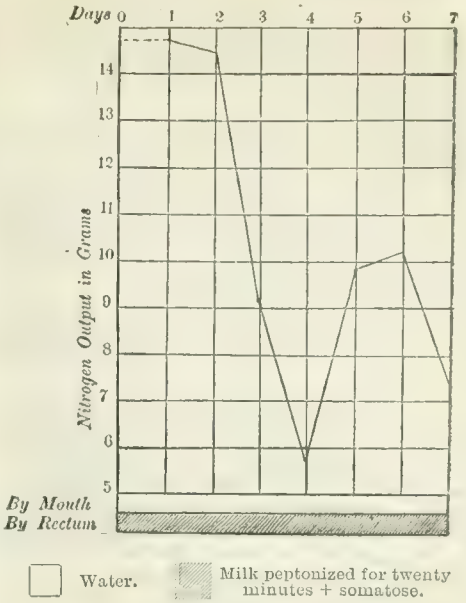
Day.	By Mouth.	By Rectum.	Urine.	Daily N Output in Grams.
			oz.	
1st	Water	Raw milk (5 oz. 4 hourly)	16	—
2nd	Water	" " "	28	14.8
3rd	Water	" " "	15	5.5
4th	Water	" " "	16	8.2
5th	Water	" " "	14	6.5
6th	Water	" " "	18	3.9
7th	Water	" " "	(Lost)	—
8th	Water	" " "	19	6.6
9th	Water	" " "	27	5.2



CASE VIII.

Man with gastric ulcer. Had been well fed up to time of admission.

Day.	By Mouth.	By Rectum.	Urine.	Daily N Output in Grams.
			oz.	
1st	Water	Milk peptonized 20 minutes; somatose (4 oz. 6 hourly)	24	14.7
2nd	Water	" " "	40	14.4
3rd	Water	" " "	28	9.1
4th	Water	" " "	21	5.7
5th	Water	" " "	40	9.8
6th	Water	" " "	35	10.2
7th	Water	" " "	21	7.4



On studying the records of these cases, it is to be observed first that it takes about twenty-four hours for the urine to show any response to improvement in the feeding in most cases. We have observed in these and other unpublished observations that the rise in the nitrogen output when sufficient mouth-feeding is resumed usually takes that time to develop. We notice, secondly, in Cases I, II, and IV, a very striking rise in the nitrogen output as soon as the patient is put on amino-acid nutrients, whether given as milk long peptonized or as artificial mixed amino-acids. This rise takes place at the time when there is usually a fall if no nourishment is being absorbed. Again, we observe in Case III, fed after the first two days on milk peptonized for twenty-four hours, that the nitrogen output maintains an extraordinarily high level, far higher than Succi's, Cetti's, our Cases VII and VIII, or Boyd and Robertson's seven cases. We are bound to conclude, therefore, that in these four patients amino-acids were undoubtedly absorbed from the large bowel in very considerable quantity. Clinically all the cases did most satisfactorily. They kept very fit and had little or no rectal trouble.

Our Case V demands a few words of special reference. It was in a different hospital, and the amino-acids were not keeping very well when they were brought into use. Apparently he did not absorb as much nutriment as the other patients. It is possible that this may have been due to some fault in the mode of administration. Although this case does not show the rise in the output of urinary nitrogen which is so striking in Cases I, II, and IV, it will be observed that the figures for the later days are higher than those of Succi and Cetti, although they were prepared for their fast:

Day.	Patient given Amino-acids.	Succi.	Cetti.
	Grams.	Grams.	Grams.
6th	10.6	10.1	10.1
7th	11.1	9.4	10.9
8th	11.5	8.4	8.9
9th	10.9	7.8	10.8

A criticism has been brought against the results, that perchance the amino-acids were so broken down by putrefaction that they could not be assimilated by the tissues after absorption, but simply ran to waste in the urine. The milk, however, if boiled before the twenty-four hours' pancreatization, kept perfectly sweet. If comparatively simple putrefactive bodies were absorbed and excreted, the ammonia nitrogen in the urine must have shown a rise; but it will be observed in Case I that the ammonia nitrogen was only a fraction higher on the three amino-acid days than on the fourth. In Case II the

evidence is yet more convincing, as the ammonia nitrogen was lower on the three amino-acid days than on the three days preceding. Free amino-acids, of course, would appear in the urinary analysis by the formalin method as ammonia nitrogen.

It might be argued that the products of protein digestion absorbed were converted into urea by the liver and not assimilated by the tissues, and this it appears impossible to refute; but there is no reason to suppose, if amino-acids are absorbed at all, that they should not be any less nourishing to the tissues when they enter by the rectum than when they enter by the small intestine. The rectal washings were not putrefactive.

We did not weigh our patients, partly because it was difficult in view of their ailment, and also because we believe that any loss of weight is masked by the absorption of water.

The Absorption of Sugars.

The two sugars with which most experimenters have worked are lactose and dextrose, the former in milk and the latter in pure solution. It is important to use it chemically pure, or it will probably be irritating.

There are two reliable means of estimating the amount of sugar absorbed into the blood. One is to determine the ammonia nitrogen in the urine, which only rises to a high figure when the sugar is very deficient. The other is to measure the respiratory quotient by analysing the expired air. The quotient is raised by carbohydrate feeding.

Reach found that a small inconstant rise in the respiratory quotient takes place after giving dextrine or dextrose by the rectum, but much less than after giving the same quantity by the mouth.

One of us* has published determinations of the ammonia nitrogen on two patients "fed" on nutrient enemata containing lactose in milk. The ammonia nitrogen soon rose to a very high figure (15 to 17 per cent.). This would appear to indicate that lactose is badly absorbed.

Dextrose undoubtedly controls the acidosis causing the rise of ammonia nitrogen very effectually. In our Cases I and II, so long as the glucose was well retained the ammonia nitrogen kept very low. This has been abundantly proved by other workers.

Although we attach no importance to the analysis of rectal washings in calculating the absorption of nitrogen, we are prepared to admit that Boyd and Robertson's arguments derived from this method of experimentation in favour of dextrose absorption are valid. The bulk of the protein they administered could always be recovered from the rectal washings, but the sugar had almost entirely, in two cases entirely, disappeared. They show conclusively that this cannot be accounted for by putrefactive changes. Deucher, Plantenga, and Zehmisch all obtained absorption of the great bulk of the sugar given per rectum.

Mutch and Ryffel have recently confirmed these results. Scarcely any sugar could be recovered in the rectal washings after 6 per cent. glucose enemata had been given.

Dextrose is, of course, a very valuable food, and the demonstration that it can be absorbed by the rectum opens up an important means of feeding patients who cannot take anything by the mouth.

The Absorption of Fat.

We have made no special observations on the absorption of fat, but a brief summary of our knowledge on this subject is included.

Deucher and other workers found a small absorption, but in their cases fat was being taken by mouth as well as by the rectum.

Boyd and Robertson used the unsatisfactory "wash-out" method, and felt justified in concluding that the fat which they failed to recover must have been absorbed. How little reliable this is one of their cases showed, in which more fat was found in the washings than was given in the enema. In three of their patients they considered that a good deal of fat was absorbed (as much as 7 grams a day in one case), and they believed that the more they gave the more was retained.

The most reliable observations are those in which it has been possible to estimate the fat in the chyle from the thoracic duct. Munk and Rosenstein used a case in which the chyle could be collected from a lymphatic fistula. On a fat-poor diet an enema of 15 grams of lipanin was given; the lymph showed a rise in fat contents from 0.18 per cent. to 0.45 per cent., about 3.7 per cent. of the oil being absorbed. In another experiment 5.5 per cent. was absorbed. Even when fat is given by the mouth, only about half of it can be recovered from the thoracic duct, so that these figures might probably be doubled to represent the actual absorption.

Langdon Brown mentions a case of filarial chyluria in which nutrients of olive oil and of milk failed to get absorbed sufficiently to appear as fatty droplets in the urine.

We must conclude, then, that the power of fat absorption by the rectum is only slight. If it is intended to take advantage of it, cod-liver oil should be given. Boyd and Robertson, as well as Langdon Brown, show that the quantity absorbed from milk is negligible.

General Considerations.

In using rectal injections as a means of treatment for gastric ulcer, or after operations on the stomach, it must not be imagined that that organ is given complete rest. Umber has shown on a patient with a gastrostomy that there is a copious gastric secretion after a nutrient enema, the total acidity being 30 and the HCl 20. Probably this accounts for the dyspeptic pain suffered by patients with gastric ulcer after each enema.

Eggs are not desirable constituents of a rectal feed. The sulphuretted hydrogen liberated from them is unpleasant for the attendants, and probably harmful to the patient.

We consider that the best form of nutrient enema should be prepared as follows:

To a pint and a half of milk, boiled and cooled, add ½ oz. of some reliable pancreatic fluid, or four pancreatic tablets. Keep in the incubator twenty-four hours. Add 1½ oz. of pure dextrose. Give 5 oz. every four hours, or, if the patient can retain it, 10 oz. every eight hours.

Conclusions.

1. The older observations on the absorption of foodstuffs from rectal enemata, based on the analysis of rectal "wash-outs," are unreliable.

2. The daily output of nitrogen in the urine of patients given nutrient enemata of milk or eggs peptonized for twenty or thirty minutes demonstrates that almost no nitrogenous matter is absorbed.

3. Modern physiological opinion holds that proteins are absorbed principally as amino-acids. The failure of the rectum to absorb ordinary nutrient enemata is largely due to the fact that peptones are given instead of amino-acids.

4. Chemically prepared amino-acids, or milk pancreatized for twenty-four hours so that amino-acids are separated, allows of a much better absorption of nitrogenous foodstuffs from the rectum, as demonstrated in five cases by the high nitrogen output in the urine.

5. The low output of ammonia nitrogen shows that this high output was not due to the absorption of putrefactive bodies. The rectal washings were not offensive.

6. Dextrose is much better absorbed than lactose, and relieves the acidosis of starvation.

7. Fat is not well absorbed. Scarcely any of the fat of ordinary milk enemata is retained.

8. The best nutrient enema consists of milk pancreatized for twenty-four hours, with 5 per cent. pure dextrose.

We are greatly indebted to Dr. P. A. Opie and Dr. W. A. Reynolds for help in obtaining clinical material.

Bibliography.

Boyd and Robertson: *Scottish Med. and Surgical Journal*, 1906, p. 193.

Brown, Langdon: *Trans. Roy. Soc. Med.*, 1911, Therapeut. Section, p. 63.

Deucher: *Deut. Arch. für klin. Med.*, vol. lviii, 1897, S. 210.

Ewald: *Zeit. für klin. Med.*, Bd. 12, 1887, S. 407.

Edsall and Miller: *Trans. Coll. of Physicians, Philadelphia*, vol. xxiv, 1902, p. 225.

Gilles de la Tourette: *Traité clinique et thérapeutique de l'hystérie*, p. 361.

Gros: *Traitement de certaines Maladies de l'estomac par la cure de repose absolu et prolongé de l'estomac avec alimentation rectale exclusive*, 1898.

* A. Rendle Short, *The New Physiology in Surgical and General Practice*. Second edition (Messrs. J. Wright and Co. 1912.), p. 225.

Groves and Walker Hall: *Proc. Roy. Soc. Med.*, vol. ii, 1909, Part III, Surgical Section, p. 121.
Huber: *Deut. Arch. für klin. Med.*, Bd. 47, 1891, S. 495.
Laidlaw and Ryffel: *Journal of Physiology*, vol. xxxvi, 1908, p. 47.
Leube: *Deut. Arch. für klin. Med.*, Bd. 10, 1872, S. 1.
Munk and Rosenstein; *Virchow's Archiv*, Bd. 123, 1891, S. 484.
Mutch and Ryffel: *Guy's Hospital Reports*, 1912, vol. lxvi, p. 223.
Plantenga: Diss., Freiburg, 1898.
Reach: *Archiv für exp. Path. u. Pharm.*, Bd. 47, 1902, S. 231.
Sharkey: *Lancet*, 1906, ii, p. 1263.
Umber: *Berl. klin. Woch.*, 1905, No. 3, S. 56.

THE EXPERIENCES OF A MEDICAL ADVISER UNDER THE INSURANCE ACT.

BY

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IT may be of interest to Insurance Committees who are considering the advisability of appointing a medical adviser, and to the profession generally, if I give a short account of my experiences in that capacity, based on the first hundred cases sent to me for my opinion. The duties that have been imposed upon me are to see and examine any insured person sent either by a medical man or by one of the friendly societies, and to report to the Insurance Committee my opinion as to whether the person sent is fit or not to work; perhaps it may be put thus—to decide whether a person complaining of certain symptoms and alleging that he or she is unfit to return to work, is fit. On my decision depends the payment of or refusal to pay sickness benefits, as far as regard the friendly societies, while it relieves the doctor of the unpleasant duty of refusing to sign any more sick certificates, an act which often makes him very unpopular in his district, as the matter is soon spread abroad.

My appointment dates from February 12th, but the doctors and the societies did not at first seem to appreciate the post, or perhaps to understand in what manner I might be made use of, for in the first few weeks no cases were sent to me. When they did, there was no mistaking the fact, as the cases came rolling in, so that by May 15th one hundred had been told off to come to me. The exact figures are: From March 5th, the day of my first case, to the end of the month, 22; in April, 50; while the remaining 28 came in the first fifteen days of May. Since then I have had 64 more, so that the number for the last four weeks is greater than any preceding four.

It must be remembered that there is nothing in the Act to compel any one to come; an insured person receiving a letter telling him or her to come to my house for examination can ignore it. No doubt they think it part of the Act, and fear some penalty if they neglect the order. Of course, they run the risk of having further payments refused by their society, and a few do abstain from coming or giving any reason for not appearing. On the other hand, many express their wish to be examined and seem to look on a visit to me as a sort of consultation on their case. So far I have not had any difficulty with any one. I have had an abusive letter from one alcoholic person whom I reported as fit to work, but that is the only case, though no doubt several have not been best pleased with my decision. I am confident if one treats these people with courtesy and does not charge each and every one with being a malingerer that unpleasantness will be the exception; they may not like my report, but I hope they recognize that my opinion was come to fairly and after duly weighing the facts they gave me. This want of power to compel an examination by a doctor specially appointed should be altered, in my opinion, and the Act made uniform with the Workmen's Compensation Act. My duty is not to act as a consultant, as is generally understood by that term, but merely to decide whether or not a person is fit to work.

The method is as follows: All references, whether from a doctor or a friendly society, for a person to come to me, are sent to the office of the Insurance Committee. The doctors have a printed form something like that used for the notification of infectious diseases; the societies write a letter to the clerk. All these references are telephoned to me and I give instructions on what day the person is to be told to come to see me and the hour. Generally I fix the next day, for I look on all cases as urgent, and I see them all at my house. I have had a little grumbling about this, as it often involves a long tram journey and the expenditure of some pence, which I fear some can ill afford; but as long as the post is a part-time one, my convenience must be considered both as regards time and place, though I am willing to make such arrangements as are possible for the insured persons. The question whether this post should be a whole-time one has been considered, and at present we in Bristol are not in favour of it being so, and for the following reasons: First, we are not too fond of the official doctor; secondly, we prefer to have one of ourselves in the position of adviser, and (though I say it of myself) one who is acceptable to the local profession; thirdly, the salary must be sufficiently large to make it worth the while of a medical man of some position and standing to give up his private work, for it is no light matter to ask a doctor to throw over his friends and patients after many years of attendance; there must, too, be some fixity of tenure, for the holder of the post cannot render himself liable to be turned out at the caprice of the Insurance Committee to pick up what shreds of practice he can gather after being for some years out of private work; and, lastly, there is the question of a pension. My salary is at present paid out of the local funds, but this may be altered if the Commissioners will take it over.

On the receipt of a note giving the name, address, and detail of the insured person, and the name of the doctor in attendance, I write to the latter and ask if he wishes to communicate anything to me about his patient. I generally get a letter or message giving me much useful information, which is of very material help to me. When the case has been referred by a doctor, this is not necessary, as a few notes are made on the notification paper. This, of course, involves a great deal of letter writing, for I always write to the doctor again after seeing the insured person to tell him what decision I have come to. There is, further, the report to the Committee. This latter body sends my report to the society the insured person was in.

Coming now to my figures, my hundred consisted of 43 males and 57 females, on whom the following reports were sent:

Males.

Reported as fit	23
Reported as unfit	7
Reported as not coming for examination ...	6
Reported as Workmen's Compensation cases ...	6
Reported as too ill to come and wrong address ...	1
	43

Females.

Reported as fit	20
Reported as unfit	25
Reported as not coming for examination ...	9
Reported as unclassified	3
	57

One or two remarks may be made on these tables. I find that some doctors do not recognize that I have, in my capacity as medical adviser, nothing to do with Workmen's Compensation cases. The distinction is easily made, for if a workman is in receipt of pay from his employer for an accident received in the course of his work, then the Insurance Act does not come in, though the man may be in receipt of pay from his club. The unclassified cases are as follows:

1. The woman received an accident between the time of reporting her to me and the time she was told to come.
2. The officious action of a health visitor.
3. A case in which I had some correspondence about the action of a doctor in refusing to give a certificate for more than one day.

So far the friendly societies have made more use of me than the doctors, as they have sent me 59 and the latter 41. In my second hundred, as far as I have gone, this disproportion is more marked, for out of 64 the doctors have only sent me 6. Some societies are very active, partly, no doubt, because they have a much larger number on their books than others, but in the first hundred two societies sent me 15 each. Sufficient care is not exercised yet in referring the cases to me, for I have had several who were obviously too ill to work, but as I found 43 fit out of 100 and only 32 unfit, there is not much to complain of.

The number of malingerers is very small; all have had

some ailment, and many for various reasons are disinclined to go back to work, or in some cases, having lost their job from sickness, to find another. From every person I inquire what wages they were receiving when at work, and one can see without much trouble how little inducement there is to go back and work hard for perhaps 6d. or 1s. a week more; one youth told me he only got 6d. more when at work, and with many women the difference is only 2s. 6d. a week. I will quote one case of this kind, but the young man gave himself away. His work was to take pastry round on a cycle with a side car to houses in the vicinity of his master's shop. He had an attack of influenza some weeks before he came to me, and his complaint was that he could not ride the cycle as it caused pain in his side. His chest revealed nothing at all, but he had unfortunately forgotten to take the clips off his trousers when he came into my consulting room, and on my charging him with having cycled from his home about four miles off, he admitted it, excusing himself by saying he walked up all the hills. Those who know Bristol will see that he must have walked nearly all the way, if he was truthful. He was reported as "fit for work." The difference between his receipts in work and out was only 6d.

THE "CONTROLLED" USE OF NEW TUBERCULIN IN THE TREATMENT OF PULMONARY TUBERCULOSIS.

By ARTHUR C. WATKIN, M.R.C.S., L.R.C.P., D.P.H.,

TUBERCULOSIS OFFICER TO THE COUNTY OF SALOP; LATE HOUSE-PHYSICIAN TO THE HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.

In a recent issue of this JOURNAL[1] Dr. E. E. A. T. Rigg published the results of his observations on the effects of new tuberculin on the physical signs of pulmonary tuberculosis. His cases were free from fever except when they reacted to tuberculin. My observations at the Brompton Hospital were carried out not only on cases which were afebrile, but also on cases which were intermittently febrile—that is, they sometimes had fever and sometimes were free from it—and also on some cases where there was spontaneous fever throughout. A further point of difference was the limitation of the dose of tuberculin to just those quantities which fell short of producing any febrile reaction, the object being to preserve complete parallelism between the tuberculin-treated cases and those not treated with tuberculin which were used as controls. As Dr. Rigg cogently remarked, his cases treated with tuberculin, by reason of the doses used and the reactions following them, were put at a disadvantage, as they were kept in bed, whereas the control cases were, throughout their stay in the hospital, able to be up all day and to take exercise in the grounds of the hospital.

I have had under observation in all 22 cases. These, whether controls or not, were watched for three months, with the exception of one or two which were under supervision for a fortnight or so less than that period. As in Dr. Rigg's report, no final decision can be said to have been arrived at, because both his and my own cases were limited in number, and the period of observation was only three months. I have, however, published my results, because notwithstanding these drawbacks the report has this advantage, that it concerns individuals who have been under close observation; and, further, it may encourage others who have access to cases for more considerable periods to carry out similar investigations. By this means a larger number of cases may be tested, sufficient to afford a reasonable conclusion as to whether tuberculin favourably influences the local manifestations of pulmonary tuberculosis as judged by physical signs.

My 22 cases include:

Afebrile cases	5
Intermittently febrile	12
Continuously febrile	5

It is unfortunate that the number of afebrile cases is so small. This is accounted for by the fact that the class of case now admitted to the hospital is different from that when Dr. Rigg held office, and also that the opportunity of sending afebrile cases to the Brompton Hospital Sanatorium at Frimley was greater. It is also unfortunate that the cases which were afebrile and those which were continuously febrile are represented by odd numbers. This can be explained by the fact that cases which at the beginning of my observations fell into one or other of the above categories had to be transferred to another because of spontaneous changes in temperature.

Another difficulty with which I have had to contend is that the dosage had to be very small, and the advances in the doses very tentative, lest fever—that is, reaction—should be produced. Indeed, in some cases, a rise of temperature did follow some doses. Whenever the rise persisted in afebrile cases, these were referred to one or other of the remaining categories, but when a rise of temperature was of short duration (twenty-four to thirty-six hours only) I retained them in the afebrile list, and, profiting by the experience, did not increase the dose, or repeated it after a longer interval than the usual two days.

Dosage.

In the afebrile cases the minimum dose was 0.00001 mg. of T.R. and the maximum 0.03 mg. In the intermittently febrile and the continuously febrile the minimum was 0.000005 mg. and the maximum 0.005 mg. (reckoning on the basis that 1 c.cm. T.R. contains the insoluble bacterial matter of 10 mg. of tubercle bacilli). Not every case received the above maximum. Something less was given as a maximum in cases in which it was not advisable to push the dose.

Criterion.

All cases had tubercle bacilli in the sputum, and had definite physical signs at the commencement of observation. They were all examined by Dr. Batty Shaw at the beginning and at the end of the period, and sometimes also between these limits of time. I also examined the cases at these times, but in addition made examinations once a fortnight. By this means it was possible to reduce to a minimum of error those spontaneous changes in râles which occur in the chests of tuberculous and non-tuberculous subjects alike, because when it could be seen that the signs of the final examination were not, as it were, the finale of a crescendo or decrescendo movement of the râles, re-examination and adjustment were made.

No reference was made to the notes of the previous examination, until the present physical signs had been estimated. Differences between the results as obtained by Dr. Batty Shaw and by myself, when they occurred, were met by re-examination and agreement.

The Controls.

These were chosen by lot from among the 22 cases at the commencement, as was done by Dr. Rigg. The patients were aware of the nature of the investigation and its purpose.

Results.

The results were as follows:

	Improved.	*In statu quo.*	Worse.
1. *Afebrile Cases* (5 in all) Treated with tuberculin ...	1	1	0
Without tuberculin	0	2	1
2. *Intermittently Febrile Cases* (12 in all) Treated with tuberculin ...	2	4	0
Without tuberculin	3	3	0
3. *Always Febrile* (5 in all) Treated with tuberculin ...	0	0	3
Without tuberculin	0	0	2

Putting these 22 results in a different form:

A. Of 6 cases which improved, 3 had been treated with tuberculin, 3 had not.

B. Of 11 cases which remained *in statu quo*, 5 had been treated with tuberculin, 6 had not.

C. Of 5 cases which were worse, 3 had been treated with tuberculin, 2 had not.

Comment.

As already mentioned, the cases are too few to allow of a final deduction being made, nor is this intended in the

publication of these observations. One result, however, is brought out, and that is the crying need for similar and more extended investigation at the hands of other workers. There cannot be the least doubt that the system of instituting "control" cases is sound, and I would add that the "controls" should be simultaneous ones and chosen by lot, so that there may be no possibility of unconscious bias in the selection.

To the objection that has been raised abroad that a period of three months is not sufficient to allow of judgement being formed upon the effect of tuberculin on the physical signs, heed must be paid, and it is to be hoped that others who have favourable opportunities for such extended observations will help to settle the question on the lines of this and Dr. Rigg's investigation.

Addendum.

One of the above continuously febrile cases not treated with tuberculin showed at the end of three months an increase of râles, although there were unmistakable signs of development of fibrosis in the affected lung.

One of the intermittently febrile cases treated with tuberculin showed no change in the extent of râles, but fibrosis was observed to be developing.

A child of the intermittently febrile class who was treated with tuberculin showed a reduction of râles, but a patch of lupus on the arm was not apparently diminished in severity or extent by the treatment.

In conclusion, I must record my thanks to Dr. Batty Shaw for the kind way in which he has supervised the work and assisted me in carrying it through.

REFERENCE.
[1] BRITISH MEDICAL JOURNAL, February 1st, 1913, p. 213.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

AN UNUSUAL CASE OF AMENTIA.

A FEMALE child, aged about 5 years, well grown, and healthy to all appearance, presents a complete absence of the faculty of interpreting the visual and auditory sensations which Charcot described as internal representation. Her eyesight and hearing seem to be sharp enough. She can pick up the smallest article without effort, but when she takes anything in her hands she lets it hang down and strikes the lower part of it as if she were trying to make it vibrate; but all interest in it seems to end here. When she wants anything she will catch her mother's hand and lead her to it, when she wants the door opened she will drag her mother's hand to the handle and place it on it. To words addressed to her she pays no attention, but sounds she can hear. The power of speech is totally undeveloped; within the last week or two she has been able to pronounce something like the word "ma." She hums a note or two. She is restless and constantly on the move; if caught firmly by the arm she does not struggle to get free, but immediately arrests her movements and assumes a thoughtful appearance, as if she were trying to interpret the meaning of the grasp or the external impression conveyed in this way to her brain. She seems to recognize her relations by the sense of smell; she will go round a roomful of people smelling at each one till she comes to her parents, when she will assume a fondling attitude, and smiles most pleasantly. It is most remarkable to see her rubbing her nose along her mother's arm and smiling all the while. I must confess I have never seen anything like this case before.

Bolton. A. W. CRAWFORD, M.B., C.M.

OBSERVATIONS ON OSTEOMALACIA.

SEEING in the BRITISH MEDICAL JOURNAL of February 8th, 1913, on page 24 of the Epitome of Current Medical Literature under the heading "Treatment of Rickets," that "a number of observers have come to the conclusion that rickets and osteomalacia are manifestations of one and the same disease," I wish to state that my five years' experience in India supports the view that osteomalacia and rickets are entirely distinct from one another. Of these five years I passed four on the staff of the Dufferin Hospital at Agra. This is in the United Provinces, where among Indian women osteomalacia was very common. It was of typical form, characterized by bowing of the long bones, settling down of the spine with forward displacement of the sacral promontory and exaggeration of the sacral curve, beaking of the pubes, approximation of the acetabula, and indrawing of the thoracic frame, causing great diminution of the capacity of the thorax. Accompanying these skeletal changes were spinal pressure symptoms, especially spasticity of the lower limbs, dwarfing of stature, rheumatoid pains, and tenderness to pressure of the affected bones.

In my experience the condition is much more common among Hindu than Mohammedan women, and the majority of the cases seen by me have belonged to the *Bunya* caste. The members of this caste are usually possessed of sufficient means and religious prejudice to prompt strict observance of the Hindu custom of child-marriage, which is often actually consummated at an incredibly early age. Miserable little girls of apparently 9 years or thereabouts, who had been subjected to sexual intercourse (as evidenced by ruptured hymen, etc.), have been brought to me by their mother-in-law; and if I remonstrated against this practice, the reply that the husband was a "young boy" was evidently thought complete justification. Mohammedan girls, on the other hand, are not married until puberty, and their diet includes flesh food. Probably both, and certainly the former, are reasons for the lesser incidence of osteomalacia among Mohammedans, despite the fact that their seclusion inside the houses is more strict. Of the 23 Caesarean sections (all for osteomalacic pelvic contraction) performed during these four years in the Dufferin Maternity Hospital, Agra, where the total number of Hindu and Mohammedan women admitted is about equal, 20 were on Hindu women and only 3 on Mohammedans. Among domiciled Anglo-Indians I have not seen any case.

Unlike osteomalacia, rickets in Agra is rare among Indian children, who are practically all breast-fed. If an infant has to be fed by hand in an Indian home, it usually soon succumbs. Nevertheless the disease is fairly common among the bottle-fed children of the mission orphanages, and among poorer class Anglo-Indians and Europeans, and this has strengthened my conviction that breast-feeding is the great prophylactic against the disease.

Osteomalacia I associate with overstrain of the sexual functions. It may begin prior to the occurrence of pregnancy, but I do not remember having seen a single case in an unmarried girl. Our Caesarean section patients, whom we invariably sterilized by ligaturing and dividing the Fallopian tubes, used to improve in health and find relief of pains with increased functional use of their bones and joints after the operation. This simple division of both the tubes between ligatures was followed by amenorrhoea (menopause) in all cases which I have been able to trace.

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THE ADMINISTRATION OF EMETINE BY THE MOUTH IN AMOEBIC DYSENTERY.

RECENTLY having had the opportunity of treating a case of relapsing amoebic dysentery, I thought it might be interesting to see what effect emetine administered by the mouth might have upon it. The results were very satisfactory. The patient acquired his dysentery abroad in August, 1912, and from that date had suffered from frequent relapses. I saw him on his return to England on June 9th, 1913, and found blood and mucus still present in his stools with many amoebae having the characteristics of *E. histolytica*. He had to leave town again the same afternoon, so I did not inject him with emetine, but told him to get Burroughs and Wellcome's keratin-coated tabloids of emetine hydrochloride (grain $\frac{1}{2}$), and to take one of these on going to bed that evening. If no bad effects followed I advised him to go on taking one each evening, to rest as much as possible, and to go on a milk diet.

I heard from the patient five days later. In his letter he stated that the effect of the drug was immediate, and that it did not cause sickness or upset him in any way. On the day following the first dose he noticed a distinct amelioration of all his symptoms, and by the second day

they had completely disappeared. Up to the time of writing this satisfactory condition had continued, and the patient's own words were "that after battling with the disease for ten months it seemed almost like a miracle to get rid of it so quickly."

The valuable effect of emetine when given by injection on amoebic dysentery is now of course well known. It may at times be inconvenient to give it by this method, and, if it acts as well by the mouth, then there is no special necessity for doing so. In administering it by the mouth, as far as one can judge at present, it will be best to employ keratin-coated tablets, so as to prevent the drug getting into solution until past the stomach, and if, in addition, the patient rests quietly in bed the risk of vomiting would seem to be slight.

Since writing this I have seen another patient just returned from India, who brought a supply of keratin-coated tabloids of emetine from there with him. He was taking one of these at nights with no special precautions, and they did not excite emesis in him either. There is always, of course, the danger of a keratin-coated tabloid not dissolving and being passed unchanged; if the symptoms do not improve rapidly this should be borne in mind.

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London, W

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN HOSPITALS AND ASYLUMS.

SHOREDITCH INFIRMARY.

A CASE OF CONGENITAL CYSTIC DISEASE OF THE KIDNEYS.

(By HARMAN GRAVES, M.R.C.S., L.R.C.P., Senior Assistant Medical Officer.)

A BOY aged 5 years was admitted on June 21st, 1912, suffering from symptoms believed to be due to ptomaine poisioning. The mother stated that both she and her son partook of some fried fish on June 19th. She noticed it was tainted, but thought it would be "all right"; the following day she felt queer, and had a "red blush" all over her body; her son was feverish and had diarrhoea. He was seen by a doctor on June 21st, and was sent to the Infirmary. His temperature on admission was 104° F., and he was extremely ill. He died the following day.

A *post-mortem* examination was made. The gastro-intestinal tract showed the usual signs of "acute enteritis,"



but the point of greatest interest was as follows. The kidneys presented marked congenital cystic disease. The right kidney weighed 1¼ oz., the left 1 oz. Both pelves were dilated. The remaining parts of the ureteric tracts were not beyond the ordinary calibre. The bladder was enlarged and sacculated; this, I take it, was due to the extreme degree of phimosis present.

The interest of this case appears to me that the patient, up to the date of his illness, had been a healthy boy, and the degree of structural changes present (as demonstrated by the accompanying photograph) would seem to contradict this fact.

LONDON HOSPITAL.

RECTAL SEPTUM PRODUCING CHRONIC INTESTINAL OBSTRUCTION.

(By H. S. SOUTTAR, F.R.C.S., Surgical Registrar to the Hospital.)

A MARRIED woman, aged 54, with eight children, was admitted on January 20th, 1912, with signs of chronic intestinal obstruction becoming acute.

For many years she had been troubled with wind and abdominal distension, but her bowels had acted normally till four months ago. For four months she had suffered from marked distension of the abdomen and from a bearing-down pain on walking, while the bowels had been somewhat relaxed. For one month there had been constant slight diarrhoea. Six days before admission she had an attack of vomiting. She had never had any severe illness, and her confinements had all been easy.

The patient was thin, but looked in the best of health. The abdominal wall was thin, and beneath it could be seen huge coils of hypertrophied bowel in violent peristalsis. In the centre of the lower abdomen was a vertical cylinder of bowel, in which the contractions passed from above downwards. To such a degree was the intestinal wall hypertrophied that this portion might easily have been mistaken for a solid tumour. The rectum appeared to be ballooned, but no obstruction could be reached.

A diagnosis of increasing chronic intestinal obstruction at the lower end of the pelvic colon was made.

Under stovaine spinal anaesthesia the abdomen was opened in the middle line below the umbilicus. The vertical portion of the intestine above referred to presented in the wound and proved to be the upper end of the rectum. It was about 6 in. in diameter. It was traced upwards to the right lobe of the liver, and from that point across the abdomen and down the left side to the left iliac fossa, where it became continuous with the descending colon. On passing my hand downwards I found that there was no pelvic peritoneal cavity whatever, the peritoneum being reflected directly from the rectum on to the brim of the true pelvis. The small uterus and appendages lay immediately behind the abdominal wall and entirely above the pelvis. The caecum, appendix, and colon were somewhat distended, but otherwise normal. The pelvic colon and rectum were enormously hypertrophied and distended.

Being unable to find any cause of obstruction on the abdominal side, I inserted the forefinger of my left hand into the rectum by the anus, when I found that my right hand in the abdomen could press down within its reach a septum stretched across the rectum with a small aperture in its centre.

The abdominal wound was protected and the patient placed in the lithotomy position. On stretching the sphincter a large cavity was displayed occupying the whole pelvic outlet and roofed in by the septum above mentioned. In the centre of the septum was a small aperture through which a minute stream of liquid faeces oozed. Its margins were thickened, and it would admit a No. 8 English bougie. The aperture was enlarged to admit a finger, and it was then found that the septum was a thin fibrous sheet. It was widely divided transversely with scissors, with practically no haemorrhage. A stream of liquid faeces at once began to flow with great force, and more than three quarts were removed. The patient made an uninterrupted recovery, and left the hospital eighteen days later perfectly well.

On the whole, it appears to me probable that the condition was congenital and due to persistence of the septum which, in the fetus, separates the proctodeum from the hindgut. The enormous hypertrophy of the bowel and

its entirely abnormal peritoneal relations indicate that the obstruction must have been present for many years, and, in the entire absence of symptoms, it may well have been present since birth. It is exceedingly difficult on any other hypothesis to account for a thin fibrous septum 4 in. in diameter. Malignant disease can be absolutely excluded, and there was no evidence of syphilis. There was no thickening or ulceration to suggest a chronic inflammatory process.

I have been unable to find in the literature any record of a similar case.

I am indebted to the kindness of Mr. F. S. Kidd, Assistant Surgeon to the London Hospital, for permission to publish the case.

Reviews.

THE CONTROL AND ERADICATION OF TUBERCULOSIS.

AT a time when an opportunity is open to the nation of grappling with the problem of tuberculosis as a whole, from an imperial rather than from a parochial or political point of view, any serious contribution to the discussion should meet with a cordial welcome. A noteworthy addition to the literature of the subject was made by the publication of a volume on *The Control and Eradication of Tuberculosis*,[1] edited by Dr. HALLIDAY G. SUTHERLAND, which for various reasons we have hitherto been unable to notice. A title so comprehensive as this might seem to imply that the book was intended to be *primarily* a study of the campaign against tuberculosis. It is, however, really, as the dedication frankly states, written in the first place as an appreciation of the work carried on by Dr. (now Sir R. W.) Philip in connexion with the Royal Victoria Hospital, Edinburgh, and in support of those measures which, in his opinion, need to be co-ordinated if a successful attempt is to be made to combat the disease. It is, in fact, an exposition of the principles of what is called the "dispensary system," founded by Sir R. W. Philip in Edinburgh.

The editor has received assistance from many contributors who are able to speak with authority on the conditions which exist in the various countries with which they are acquainted. Some of these writers have been Sir R. W. Philip's pupils, and most of them fully and generously acknowledge the debt which they owe to him for the inspiration they have received in their work.

The contributions are written from many different points of view, and come from widely separate parts of the world. Amongst them may be mentioned those of Adami, Hermann Biggs, and Vincent Bowditch from the continent of North America, of Béraneck from Switzerland, of (the late) Professor G. and Dr. F. Arloing from France, and of Dr. W. L. Mackenzie from Scotland, whilst there are others from Norway, Sweden, Denmark, the Netherlands, Russia, Italy, India, and New Zealand.

Such a variety of opinion has its disadvantages as well as its advantages. In the first place, there is a good deal of unavoidable repetition; and secondly, some of the articles, such as that on India, are too brief to be considered serious contributions to the subject. At the same time, much useful information may be gathered as to the progress of the antituberculosis campaign which has been made in various countries, and as to the success which has followed the adoption of those means which have been utilized to meet the widely different conditions which have had to be faced. It is obvious that identically the same methods cannot be applicable to Norway, to India, and to Russia.

As a general principle it cannot be questioned that Sir R. W. Philip's contention is a sound one. Any scheme for successfully dealing with tuberculosis should have at its centre an organization for locating cases when they occur, and for dealing with them when they have been found. It is obvious that more would be done to relieve the suffering of individuals, and to lessen the risk of contagion from hopeless and incurable cases, if all the agencies established for this purpose (whether voluntary or state, parochial or county) could be thoroughly co-ordinated into one harmonious scheme.

This is ideal. In the centre there would be a dispensary, working in touch with the medical officer of health, and endowed with powers and the necessary funds to draft off suitable cases to sanatoriums for the treatment of early cases; to asylums for the segregation of those who are incurable or dying; to labour colonies those who are able to work, though unable to return to their ordinary vocations; and, lastly, with means for treating such cases as may be rightly dealt with, without removing them from the surroundings of "home." The details of such a scheme were very clearly outlined in Dr. Philip's address at the Annual Meeting of the British Medical Association in 1909, which is reprinted at the end of the volume.

The book is divided into thirty-one chapters, of which four are devoted to the consideration of tuberculosis dispensaries and sanatoriums, and two to tuberculin and its uses. Others deal with such subjects as hospitals for advanced cases, the administrative control of open air schools, farm colonies, biological problems (with an excellent bibliography by A. E. Porter), and the antituberculosis movement in various countries. The volume closes with an appreciation of Sir R. W. Philip's work, and includes a selection from his writings, such as those to which allusion has already been made: On the Public Aspects of the Prevention of Consumption (1906), on Progressive Medicine and the Outlook on Tuberculosis (1909); and to these are appended a list of his writings on similar subjects—forty-four in number—dating from 1886 to 1911.

Such is the general scheme of the work under review. Its scope is almost too comprehensive to permit of each subject being dealt with in adequate detail. Some of the articles are, in consequence, little more than sketches of the matters with which they deal. The purpose of the book is, however, fully accomplished, since it brings generous recognition of Dr. Philip's work from many quarters of the globe, and so fulfils the special object with which it has been written.

If it has a defect it seems to be that it fails to recognize much of the work which has been done in similar directions by other workers in the same field; neither does it give any adequate account of the varieties, uses, and dangers of tuberculin in treatment, nor is any notice taken of the possible causes of the decline in the death-rate from tuberculosis as a result of agencies other than sanitation or treatment.

The first "antituberculosis dispensary" was instituted in Edinburgh by Dr. Philip in 1887. It was designed to be the one link in a co-ordinated system of defence against, and of attack on, the disease. It is defined as a clearing-house for tuberculous cases, from which they could either receive the treatment required or be passed on to such other institutions as their especial needs might indicate. The scheme is excellent, and that the hopes to which it gave birth are enthusiastically supported is well shown by the following statement in the introduction by Professor Béraneck (p. 3):

> Unquestionably if the measures existing in Edinburgh were applied universally, the extension of the disease would be prevented, and within a measurable time this scourge would become extinct.

It may be objected that such an outlook is too narrow, since it leaves out of account many factors which may exert a very powerful influence on the result, not the least important of which are those tending towards the development of a racial immunity, as has been so strongly urged by Karl Pearson, Sanarelli, and more recently by Metchnikoff. In this regard Professor Béraneck's glowing tribute to Dr. Philip's work may well be compared to the more guarded statement made by Dr. Hermann Biggs (p. 287), who, after describing the details of the far-reaching schemes for combating tuberculosis in New York, concludes by saying:

> Where such a comprehensive scheme as has been outlined in part above can be made effective, in my judgement there is every reason to look forward to a steady and continuous reduction in the morbidity and mortality-rate from this disease, *but the extinction of tuberculosis will only be achieved when many, as yet, unsolved social and economic problems have also been satisfactorily met.* (The italics are ours.)

[1] *The Control and Eradication of Tuberculosis: A Series of International Studies by Many Authors.* Edited by Halliday G. Sutherland, M.D., Medical Officer to the St. Marylebone Anti-Tuberculosis Dispensary. Edinburgh and London: Wm. Green and Sons. (Price 15s. net.)

In Chapter VII Dr. Sutherland gives an interesting account of the methods of treatment adopted in a sanatorium, including that by graduated exercise. No acknowledgement, however, is given to the splendid pioneer work inaugurated by Dr. Paterson at Frimley in 1904, nor is any allusion made to the fact that, even before work was started at Frimley, Grunat at the Lyster Sanatorium in Norway had instituted manual labour as a therapeutic agent for the stronger patients in 1902. Some of the methods suggested seem hardly necessary for the ordinary hospital patient, such as sponging with tepid water to which eau de Cologne is added, the giving of a glass of rum and milk at 4.15 p.m., and the addition of raw meat to the dietary. These, although doubtless sometimes permissible, must be looked on rather as luxuries than necessaries for the ordinary patient, and in many cases would certainly be undesirable.

Professor Béraneck writes on the theoretical and practical basis of tuberculin in treatment, but his article is of necessity by so much incomplete as it is merely an exposition of his personal views, and not in any way a critical study of the subject. It is impossible not to regret that no attempt has been made to correlate and compare the various and often conflicting opinions which are held on this important subject, or to give the arguments for and against the diverse methods of treatment by the many preparations of tuberculin which have been from time to time brought into use. Such a critical review might well find a place in any work which professes to deal with the treatment of tuberculosis as well as with its administrative control and prevention.

In writing of the public health aspects of the Edinburgh system, Dr. Hewat truly says that the "notification of cases can do no material good unless it be combined with measures for helping the patients and for preventing the spread of the disease." Much may be hoped for if those who are responsible for the administration of measures framed for dealing with the problem from a national point of view realize to the full the importance of this fact. As it is at present, neither the Insurance Committee for the County of London, nor the Metropolitan Asylums Board, nor any other single executive body, is able to extend sanatorium treatment to all tuberculous cases whether insured or no, so that a large number of necessitous cases, whose poverty renders them peculiarly liable to disease, and whose lack of employment leads them to be uninsured, are for the present inadequately provided for, and there is little doubt that they constitute a serious menace to the whole community by spreading the disease to those with whom they come into contact.

The administrative control of pulmonary tuberculosis is dealt with in an able and practical article by Dr. Leslie Mackenzie, of the Scottish Local Government Board. He rightly includes in the plan of campaign such questions as the prevention of overcrowding, the supervision of dairies, improved milk supply, sanitation and housing, the maintenance of paupers, etc. Without attention to these, the mere carrying out of any scheme of treatment must be of quite secondary importance. Further, he discusses the meaning of "sanatorium benefit" and the effect which may be expected to result from it in actual practice. The conclusion at which he arrives is that,

> With a disease so various, so widely diffused, so treacherous, the only road to success is patient study of individual cases, patient study of individual environments, and patient correlation of all administrative methods to the purpose of treating each individual patient according to his needs, and each individual's environment according to its condition.

It cannot be doubted that this is true, and in proportion as no provision is made for dealing with the great mass of those who are uninsured, by so much will the result fall short of what might be done if all tuberculous persons alike, whether insured or uninsured, are dealt with on the same lines, and are given the same opportunities of such treatment as may be possible, or, if in too advanced a stage of the disease, of being given an asylum in which to end their days.

It would be impossible within our limits to study in detail each of the articles which follow, but they show well the progress which has been made in some countries, notably in America, Norway, and South Australia, and the inefficiency of the measures adopted or perhaps even possible in others, such as India, Russia, Italy, or South Africa. Amongst the individual articles, attention may be directed to that of the late Professor G. Arloing, in which he enunciated clearly and emphatically the belief that in spite of the differences between human and bovine tubercle bacilli, they are merely variations of one species induced by long residence in one or other host. We are reminded that the infectious nature of pulmonary tuberculosis was recognized in Italy as long ago as 1754, and that, in spite of the fact that dread of the disease amounts almost to a panic, little effective effort is made to combat it in that country. Among other articles, one of special importance is that on the administrative measures for the control of tuberculosis in New York City, which bears strong testimony to the practical methods of our cousins across the Atlantic in any matter which they take energetically in hand.

The general get-up and typography of the book are excellent, and reflect much credit on the printer. Many of the illustrations do not seem to add much force to the text—a man "sweeping a lawn" or "securing the potato crop" looks much the same in a photograph whether he is on a farm colony or on any other farm. There are, too, some curious misprints which it would be well to correct in a second edition, such as "Arloing, Professor S." for "Professor G.," "mitigate" for "militate" (p. 20), "tetanous" for "tetanus" (p. 105), "Bericht. Uber die Talegkeit der . . . Schulartze" for Bericht über die Tätigkeit der . . . Schulärtze" (p. 150), "bacilla" for "bacilli" (p. 371), whilst on p. 375 appears a statement, which seems to need verification, to the effect that in Sweden the "May-flower" collection proved so successful that it brought in £186,608 2s. 5d., though we are told five pages previously that it had actually brought in £7,184 15s. 11d. in 1909. Is it possible that in the larger figure "pounds" are put instead of "kroner" (kr. 18.15 = £1)?

Lastly, it is unkind to readers to publish a book without an index.

In spite of these minor defects, this volume does credit to its editor, and is a notable testimony to the warm appreciation in which Sir R. W. Philip is held by his pupils, and to the value of his unwearied effort to co-ordinate and systematize all the weapons which are needed and which should be available in prosecuting the arduous campaign against tuberculosis.

COOKING FOR VOLUNTARY AID DETACHMENTS.

WE have received a copy of *Cooking Notes for V. A. Cooks*,[2] by B. H. DAVY, Staff Officer, Exeter Division, Voluntary Aid Organization. The book was written for the use of voluntary aid cooks belonging to the Exeter Division, and has been published in the hope, which we have no doubt will be fulfilled, that it will prove useful to the V. A. cooks in other divisions. Miss Buller, Assistant County Director, Exeter Division, Devon V.A.O., in a preface states that it would probably be fair to say of most Voluntary Aid Detachments that the level of efficiency amongst the nurses is superior to that found amongst the cooks. This she attributes to uncertainty as to the lines on which the cook's training should be conducted. While the official instructions lay it down that each woman's detachment must include four qualified cooks, there is no prescribed standard of efficiency, so that the word "qualified" may be variously interpreted. In consequence, she states, the post of cook is filled by persons of very different capacities—from the fully-trained professional to the amateur, who, given time and a recipe book, may be relied upon to produce a sufficiently good imitation of beef tea—but in very few cases are detachment cooks competent to perform the highly responsible duty which might be theirs in the event of mobilization. It is to remedy this defect that Miss Davy has written her handbook, and the method of instruction she advocates has been tested in the Exeter Division and found to work most satisfactorily.

The first three sections of the book deal with the

[2] *Cooking Notes for V. A. Cooks.* By B. H. Davy, Staff Officer, Exeter Division, Voluntary Aid Organization. With introductory preface by Miss Buller, Assistant County Director, Exeter Division, V.A.O. Exeter: M. A. Rudd and Son, 180, Fore Street. 1913. (Demy 8vo, pp. 90. Price 1s.; single copies, post free, 1s. 2d.)

general organization and lay down a scheme of instruction for ordinary cooks, the War Office requirements being in all cases noted. The fourth section deals with experts' classes, a matter of great practical importance, since a good domestic cook has much to learn of the methods of providing food for a large number of people in a short space of time with a scarcity of utensils and no convenient accommodation. In the following sections dealing with stoves, cooking utensils, and field kitchen arrangements, Miss Davy, writing from practical experience, mentions the difficulties likely to be encountered, and sufficiently shows that to surmount them requires knowledge and resource such as the ordinary domestic cook, however expert, has little opportunity of cultivating. There are some general observations on methods of cooking, the time and temperature required, and the percentage loss, and these are followed by a series of sections enumerating the various articles of diet and indicating the times of the year in which they are in season. There is a section on the stock pot—an institution little understood in this country—and others giving tables of weights and measures, diets for military hospitals, and an explanation of army forms. The last thirty-four pages of the book contain a classified list of recipes for cooking all kinds of food, from fish and meat to arrowroot and turnips; this section will appeal not only to V. A. cooks but to all persons whose acquaintance with cooking is more theoretical than practical, for Miss Davy gives the inexperienced just those definite details about the preparation of the raw food and the length of time for which it should be boiled or roasted or stewed which are so often missing from the ordinary cookery book; the handbook, therefore, will be found most helpful by the caravaner, the yachtsman, and the camper-out, although its direct appeal is to members of voluntary aid detachments. In appendices brief notes are given on the principles of food and feeding, on reasons for cooking, and of the quantities of food required daily when at work.

The handbook is to be very highly commended as a thoroughly practical production, and we are not surprised to learn that already voluntary aid detachments in other parts of the country have subscribed for copies of it. Any profit resulting will be given to the Voluntary Aid Fund in Devonshire.

A HANDBOOK FOR INSURANCE COMMITTEES.

As indicated in the title, *Knight's Handbook for the Use of Health Insurance Committees*[3] hardly pretends to be a full guide to the working of the Insurance Act, as, except incidentally, it deals only with those parts of the Act which specially concern Insurance Committees. The full text of the Act is printed; but while a detailed description is given of the administration of medical and sanatorium benefits, which are wholly in the hands of the Insurance Committees, sickness, disablement, and maternity benefits are only dealt with as they apply to deposit contributors, for whom the Insurance Committees are responsible, and little or no guidance is given to approved societies in the multitudinous matters that concern their members in connexion with the three last-named benefits. A careful and in the main accurate description is given in three chapters of the composition, powers and duties, and general proceedings of Insurance Committees. A special chapter is devoted to the finances of the committees and the prescribed methods of keeping their accounts, and while no one can fail to be struck with the extreme complexity of this subject, the chapter would be none the worse for a more concise digest of the numerous Orders and Memorandums which have been issued by the Commissioners. Little is attempted in way of criticism of the Act or Regulations, the object being evidently to paraphrase or explain in simpler language the various provisions that concern Insurance Committees, and to present them in something like a connected form. Several statements, however, are made which appear to need some modification, or at least amplification, such as that on page 35 to the effect that the Local Medical Committee "is in no way a statutory body." It would be more correct to say that though there is no statutory necessity that a Local Medical Committee should be formed, if one is formed and is recognized by the Commissioners it then has certain statutory rights. Again, on page 1 it is stated that two members of the Insurance Committee shall be elected in manner provided by Regulations by "any association of duly qualified medical practitioners resident in the county," etc., but an important qualification of this which occurs in the Act, clause 59 (2) (*a*), is omitted—namely, that such association must have been "formed for that purpose under the Regulations." It was clearly not intended that "any" association formed primarily for other purposes should be entitled to elect two members of the Insurance Committee. It must have been formed specifically for the purpose of the election, and special stress has been laid, particularly in Wales, on the necessity that any association formed for this purpose shall cover all the practitioners resident in the county or county borough. As a matter of fact, several months ago when the elections took place of two members representing the profession to hold office till July, 1914, few, if any, such associations had been formed, and provisional Regulations were issued on January 31st by the Commissioners prescribing the procedure of election by all the practitioners resident in the areas. Thus the bare statement of the book needs considerable modification, even though the provisional Regulations referred to are given in an appendix. Again, on p. 63 we read: "Where the panel is not such as to secure adequate medical service, that gives to the Committee and the Commissioners jointly *or to the Committee themselves alone*, the right to make any other arrangements they think fit or to suspend medical benefit and hand back to each insured person his own 6s." The words here printed in italics are surely hardly correct, for the Insurance Committees cannot "themselves alone" suspend medical benefit, and can only "make such other arrangements as the Commissioners may approve" (clause 15, (2)). The right of a Committee to allow insured persons to make their own arrangements when there is an adequate panel is, of course, a very different thing. The sum of 6s. here mentioned is corrected in other parts of the book, but this is not the only place where the amount mentioned as available for medical benefit needs correcting in view of the last Government grant. Again, in several places, and particularly on p. 67, referring to the Harmsworth subsection 15 (4), the author speaks of the "expressions used in the Act—namely, 'scheme' or 'institution,'" whereas the word used in the Act is not "scheme" but "system," which was chosen deliberately and after the most careful consideration after rejection of the word "scheme." It is well to be accurate in this, though, after all, the word "system" is left without precise definition. Every care appears to have been taken that all the Orders and Regulations issued up to January 31st should be either included verbatim or summarized, but already since that date the Commissioners have issued numerous other proclamations; and, as the author suggests in the preface, no apology is needed for the fact that the book is already in some particulars not completely up to date. Within the limitations imposed by the book itself it ought to be a useful handbook for members of Insurance Committees.

[3] *Knight's Handbook for the Use of Health Insurance Committees and all Other Local Authorities, Approved Societies, and Medical Practitioners Affected by the National Insurance Act, 1911.* London: Charles Knight and Co., Ltd. 1913. (Demy 8vo, pp. 390. Price 6s. net.)

NOTES ON BOOKS.

LITTLE more than two years have passed since we reviewed the fifth edition of Professor von NOORDEN's work on diabetes,[4] and we have now the sixth edition before us. In spite of the introduction of much new matter, the volume is no larger. The author has given special attention to what he calls the useful but dangerous and two-edged weapon of carbohydrate cures. He tells us that he has amplified the literary references and simplified and revised the index. Quite recently (see BRITISH MEDICAL JOURNAL, April 12th, 1913, p. 772) we reviewed Professor von Noorden's lectures on *New Aspects of Diabetes*, delivered in the New York Post-Graduate Medical School last October, which are actually more up

[4] *Die Zuckerkrankheit und ihre Behandlung.* Von Professor Dr. Carl von Noorden. Sechste vermehrte und veraenderte Auflage. Berlin: A. Hirschwald. 1912. (Roy. 8vo, pp. 450. Mk. 10.)

to date than this volume, the preface to which was written on February 20th, 1912. As a textbook Professor von Noorden's work has become a classic and has passed beyond the range of criticism.

We have received a second edition of the book on gouty and rheumatic disorders by KLEINE,[5] which was reviewed two years ago (see BRITISH MEDICAL JOURNAL, May 6th, 1911, p. 1058). We feel indisposed to add anything to what was said then. As was stated on that occasion, the book purports to be written by a patient who has been under the care of Dr. Kittel, of Franzensbad, and is designed to draw the attention of the public to the method of treatment pursued by that physician.

We have received a volume on *Mechanical Vibration: Its Physiological Application in Therapeutics*,[6] by Dr. M. L. H. ARNOLD SNOW (New York, 1912). It is largely made up of quotations from the works of other authors, and gives a full but quite uncritical account of the wonders that may be expected from the methods it advocates. It is dedicated "To one who lives that the world may be better for his having lived," a sentence that should serve as a model to any grammarian in search of an example of amphibology.

One hardly expects to see the term "treatise" applied to a small crown octavo volume, but the word is not ill used, perhaps, as part of the title of Dr. CHARLES COTAR'S book on *Mineral Waters of Vichy*.[7] He certainly deals with the subject comprehensively, as also in clear terms, and betrays throughout his writing wide reading and knowledge of the views of other medical authorities. Among other things he reviews the alleged physiological actions of Vichy waters, and endeavours to deduce therefrom the indications and contraindications for their use, corroborating these by observations derived from the work of his colleagues in Vichy and his own long personal experience at that health resort. A chapter is devoted to the diseases of children in this connexion, and the work concludes with some consideration of how far Carlsbad and Vichy are comparable. There is an excellent index. In a foreword Professor Harley refers to the scientific fashion in which Dr. Cotar has dealt with the subject, and expresses an opinion that the work will be found useful to medical men as giving them a complete summary of the whole treatment of diseases by Vichy waters, in particular, as well as by mineral waters in general.

The beginnings of disease in childhood are often so insidious that irreparable harm may be done before the condition of the patient is recognized to be sufficiently serious to justify a visit from the family doctor. Moreover, the same ignorance that has caused the delay in summoning him frequently handicaps the doctor in another way in his dealings with the case, since it is difficult, if not impossible, to obtain any satisfactory or coherent statement from an inexperienced or unobservant mother. Most practitioners, at one time or another, have occasion to deplore the lamentable want of knowledge displayed by even the most careful and devoted of parents; and it is for the guidance and assistance of these latter that Dr. C. WILLET CUNNINGTON has written his *Nursery Notes for Mothers*,[8] in which he describes, in the simplest possible language, the ordinary ailments of childhood, and the signs by which their coming is usually heralded. His book is not intended as a manual of first aid for the nursery, or even as a handbook of domestic medicine, but rather as a practical book of reference wherein the young mother may learn how to recognize the early symptoms of childish maladies and how to avoid the mistakes arising from a hasty amateur diagnosis. Mr. Cunnington's work may be highly praised, and should prove a friend in need to many an anxious mother whose education in child lore has hitherto been mainly left to chance.

The seventh volume of the *Transactions of the American Association of Genito-Urinary Surgeons*[9] relates to the proceedings of this body at its twenty-sixth annual meeting, just a year ago, when some eighteen papers, all coming strictly within the scope of the society's work, were read and duly discussed. Of special interest, perhaps, were two discussions in regard to the complement fixation test as a guide in the treatment of cases either known to be of gonorrhoeal origin, or open to the suspicion of having gonorrhoea as a factor in their causation. The facts put forward suggested that this test must often be of practical utility, especially in dealing with female patients. There is a carefully recorded case in which both chronic incontinence and retention of urine persisted despite the absence of any mechanical obstruction or any demonstrable nervous lesion. The volume also includes three theses presented by candidates for admission to the association.

This is an age of faith-healing and what the sergeant in *Punch* irreverently termed "fancy religions," and there is nothing overdrawn or exaggerated in Mr. PAUL NEUMANN'S account of the Church of the Gifts, whose rapid rise and equally rapid decay form the subject of his novel *Open Sesame*.[10] Its founder, Will Porteous, the son of an old-fashioned Nonconformist clergyman, and himself destined for the ministry, is an interesting study of a charlatan whose power over the minds of his fellow-men is discovered through an incident that launches him on his career as a fashionable preacher and faith-healer. But the Church of the Gifts is another house built upon sand, and suffers the same fate. The failure of its founder to cure a lame child leads to a gradual loss of prestige and popularity, and when Porteous is finally struck down with general paralysis the whole edifice collapses like a house of cards. Mr. Neumann has never done anything better than this moral dissection of the distorted mind of a quack. The man's whole mental attitude is revealed to us with pitiless fidelity, whilst his struggles to avert the inevitable catastrophe, and the misery of his last days, are described in a manner both powerful and convincing. The author has placed the unfortunate thaumaturgist and his willing dupes under the microscope, and the result, if not precisely pleasant, is at least a brilliant exposition of the unplumbed depths of human folly and credulity.

A notice of the first part of the fourth volume of the *Proceedings of the Canal Zone Medical Association*[11] appeared at page 776 of our issue for April 12th. We have now received the second part, which brings up what, as we pointed out on the previous occasion, is a somewhat belated record to the end of March, 1912. This part contains some twenty-four papers, most of which relate, as did their predecessors, to subjects of tropical medicine. Specially worth noting among them, perhaps, are two on the subject of the amoebae and entamoebae found in the area of the canal. Two others deal with some cases which were brought forward in support of two theories maintained by their exhibitors in regard to pellagra: the one being to the effect that there is a possible relationship between pellagra and the bacilli of the colon group, the other that this disease is an example of a disorder due to an autointoxication, resulting in this instance from imperfect assimilation of sugars and starches.

The author of *In the Grip of Destiny*,[12] when writing his latest novel, appears to have been animated with the same desire that led the fat boy in *Pickwick* to divulge the clandestine courtship of Mr. Tupman in order to make his mistress's flesh creep, for he has made "on horror's head horrors accumulate" in the course of his sensational story. The Russian conspirator is a stock character in fiction, and in Mr. STERREY'S novel he appears once more in the midst of plots and counter-plots, in which a mysterious pebble seems to play the part of the fiery cross of the ancient Highlanders. The story develops on somewhat conventional lines, but the secret society of the Equalisers is a romantic band of criminals, and Mr. Sterrey has unravelled the tangled threads of their

[5] *Die Heilung der Gichtisch-rheumatischen erkrankungen Gemaess der ersolgreichst Bewaehrten Methode des Dr. Med. M. J. Kittel*, Von J. F. Kleine. Zweite vermehrte Auflage. Berlin: Kleine and Stapf. 1912. (Demy 8vo, pp. 168.)

[6] *Mechanical Vibration: Its Physiological Application in Therapeutics*. By M. L. H. A. Snow, M.D. New York: The Scientific Authors Publishing Company, 1912. (Med. 8vo, pp. 492; plates 12; figs. 58. 3.50 dols.)

[7] *A Treatise on the Mineral Waters of Vichy, for the Use of Practitioners*. By Dr. Charles Cotar. London: H. K. Lewis. 1913. (Cr. 8vo, pp. 218. Price 4s. net.

[8] *Nursery Notes for Mothers*. By C. Willet Cunnington, M.B., B.C. London: Baillière, Tindall, and Cox. 1913. (Cr. 8vo, pp. 144. 2s. 6d. net.)

[9] *Transactions of the American Association of Genito-Urinary Surgeons*. Vol. vii. 1912. New York: Published for the Association. 1913. (Medium 8vo, pp. 315.)

[10] *Open Sesame*. By B. Paul Neumann. London: John Murray. 1913. (Cr. 8vo, pp. 367. 6s.)

[11] *Proceedings of the Canal Zone Medical Association*. For the half-year October, 1911, to March, 1912. Vol. iv, Part II. I.C.C. Presse: Quartermaster's Department, Mount Hope, Canal Zone. 1913. (Demy 8vo, pp. 152.)

[12] *In the Grip of Destiny*. By Charles Ernest Sterrey. London: George Allen and Co., Ltd. 1913. (Cr. 8vo, pp. 306. 6s. net.)

bewildering machinations with no little skill and ingenuity. His book can be safely recommended to that large body of readers who prefer incident to character; whilst those who enjoy a good detective story cannot do better than follow the famous Tanquerville step by step in his search for the clue that will enable him to lay his hands upon Professor Frayling's murderer, and discover the secret of his death.

MEDICAL AND SURGICAL APPLIANCES.

Blood Examinations in General Practice.

DR. P. G. HARVEY (Monmouth) writes: I do a good deal blood work and bacteriological examination, but being in general practice in the country, naturally at very irregular intervals. I have experienced considerable trouble with my reagents, especially with Jenner's and Leishman's stains, Lugol's fluid and Toison's fluid. Tablets of stains and reagents are of course very handy, but they require preparation, and some of them some time before they are fit for use; whilst those requiring methyl alcohol for their preparation, owing to the trouble of getting a reliable sample, are especially troublesome. At my suggestion Messrs. Phillip Harris and Co., Edmund Street, Birmingham, have prepared sealed ampoules of various stains and reagents.

Jenner's stain.
Leishman's stain, ½ c.cm.
Distilled water, 1 c.cm.
Lugol's solution for Gram's stain.
Toison's fluid.
Acetic acid 0.3 per cent., with methyl green, for white corpuscles in blood counts.

I have tested several of these at intervals, comparing the results with films, etc., stained from similar reagents taken from ½ oz. and 1 oz. bottles obtained at the same time, and the results are far superior. I venture to think that many men situated as I am, who like to do such work occasionally, will find these ampoules extremely convenient. Messrs. Harris are prepared to put up any other reagents in the same way if the demand is large enough. I have to thank Mr. T. Elliott, of Messrs. Harris's laboratory, for the trouble he has taken in carrying out my suggestion. The prices run from 1s. to 1s. 6d. a dozen.

A Bed Support.

Messrs. H. Aitken and Co. of York have recently brought out under the name of the Captain Edwyn Walker's Bedstop a very simple device for preventing patients slipping towards the foot of the bed when in a semi-recumbent position. It consists of a cylinder of wood encased in a coating of stout cloth or other resilient material, which is covered in its turn by waterproof, so that the appliance when complete forms a kind of round cushion some 16 in. long, with a circumference of about 9 in. It is brought into use by placing it just below the patient's buttocks. The outer covering is detachable for cleansing and is supplied in flannel as well as in waterproof material.

IT is announced that a gift of £200,000 has been made to the district of California by Mrs. George William Hooper of San Francisco, to be devoted to the establishment of an Institute for Medical Research. The gift is intended as a memorial to her husband.

IT is reported, according to the *New York Medical Journal*, that the clergy of the various denominations in the Oranges, New Jersey, will in future require that persons intending to marry, brides as well as bridegrooms, shall furnish certificates of health along with the marriage licence before the ceremony is performed.

THE fourth Congress of the International Surgical Society will take place in New York in April, 1914 (14th to 18th). The following subjects are proposed for discussion: Ulcer of the stomach and duodenum, to be introduced by Drs. de Quervain, Hartmann, Mayo, Sir Berkeley Moynihan, and Dr. Payr; grafting in plastic surgery, M. Morestin; grafting of blood vessels, M. Villard; grafting and transplantation, Drs. Ulmann and Lexer; transplantation of organs, Dr. Alexis Carrel; technique of amputations in general, Dr. Witzel; amputation of the arm and forearm, Dr. Ceci; amputation of the hand and upper part of the thigh, Dr. Kuzmik; amputation of the leg and foot, Drs. Binnie, Durand, and Ranzi. Arrangements have been made for a visit to the chief cities of the United States by the congressists.

SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE (LONDON, 1913).

SECTION OF OPHTHALMOLOGY.

THE lamented death of Sir Henry Swanzy on April 12th deprived the Section of a president who had devoted much time and attention to its affairs for more than two years. Sir Anderson Critchett, a former vice-president of the section, has consented to fill the vacancy so created, although recognizing the difficulties inseparable from so late an assumption of office.

The meetings of the section will be held in the Mechanics Laboratory, Royal School of Science, Exhibition Road, South Kensington. The following is an outline of the arrangements:

On Wednesday, August 6th, the Section will meet at 3 p.m., when a brief address of welcome will be given by the President. The arrangements for the meetings will be announced, and the reading of independent papers will then be begun. On the succeeding days the meetings will begin at 9.30 a.m. and 3 p.m., except on Saturday, on which day there will be no afternoon session.

The morning session on Thursday, Friday, Monday, and Tuesday will be devoted to discussions, although, if time permit, independent communications may be taken after the discussion. The subjects which have been chosen, the names of the openers, and the day selected for each discussion are as follows:

Thursday, August 7th.—The pathogenesis of chronic uveitis, excluding the syphilitic, tuberculous, and sympathetic varieties. Professor Fuchs (Vienna), Professor de Schweinitz (Philadelphia).

Friday, August 8th.—Glaucoma operations, with special reference to the comparative results obtained by iridectomy and its recent substitutes. Professor Lagrange (Bordeaux), Professor Priestley Smith (Birmingham), Lieutenant-Colonel Elliott (I.M.S.).

Monday, August 11th.—Affections of the eye produced by undue exposure to light. Professor C. von Hess (Munich), Mr. J. Herbert Parsons (London).

Tuesday, August 12th.—Anaphylaxis in its relation to ophthalmology. Dr. Morax (Paris), Dr. von Szily (Freiburg).

The afternoon sessions of the four above-mentioned days will be reserved for the reading and discussion of independent communications. Saturday morning, August 9th, has been set apart for demonstrations.

The sectional dinner will be held at the Connaught Rooms, Great Queen Street, on Thursday, August 7th, at 7.15 for 7.30 p.m., the President of the Section in the chair. Tickets, price £1 1s. inclusive, may be obtained from Mr. W. H. Jessop, 73, Harley Street, after July 1st. The President hopes to entertain members of the Section at luncheons at the De Vere Hotel, Kensington, at the termination of the morning sessions. The secretaries of the Section have also arranged to invite members to luncheons at the Rembrandt Hotel, Cromwell Road. A Ladies' Committee has been formed in order that suitable provision may be made for the entertainment of the wives and daughters of members of congress coming from abroad.

The honorary secretaries of the Section are: For London, Mr. J. B. Lawford, 99, Harley Street, W.; Mr. E. Treacher Collins, 17, Queen Anne Street, W. For Scotland, Dr. Geo. Mackay, 20, Drumsheugh Gardens, Edinburgh. For Ireland, Dr. L. Werner, 31, Merrion Square, Dublin.

SECTION OF NEUROPATHOLOGY.

The President is Sir David Ferrier, F.R.S., and the Secretaries Henry Head, F.R.S., and Dr. Fred. E. Batten. The meetings will take place in the Plant Physiology Laboratory of the Imperial College of Science and Technology, South Kensington.

The work of the Section will begin on Thursday, August 7th, at 9.30 a.m., when Dr. J. Babinski of Paris and Professor D. Rothmann of Berlin will open a discussion on the symptoms of cerebellar disease and their significance; and MM. André Thomas, M. Mendelssohn, Dr. R. Bárány, and others have signified their intention of taking part in the discussion. At 2.15 p.m. Dr. Bárány will give a demonstration of his method of investigating cases of cerebellar disease.

At the afternoon session, beginning at 3 p.m., a series of papers will be read.

On Friday, August 8th, Professor Déjerine of Paris and Professor Liepmann of Berlin will open a discussion on motor aphasia, anarthria, and apraxia. The discussion will be continued by Drs. Henri Claude, Ernest Dupré, Félix Rose, J. S. Collier, S. A. K. Wilson, V. Monokow, H. Gutzmann, and Heveroch.

At 3 p.m. a meeting will take plate at the National Hospital, Queen Square, at which will be exhibited patients illustrating various forms of family and hereditary diseases of the nervous system. There will also be an exhibition of pathological specimens. Tea will be provided in the quadrangle of the hospital at 5 p.m., when it is hoped that ladies will be present.

The sectional dinner will be held at Princes Restaurant, Piccadilly, in the evening at 8 p.m. (Tickets, £1 1s.)

On Saturday, August 9th, Professor Oppenheim, of Berlin, and Professor Spiller, of Philadelphia, will open a discussion on the relations of the myopathies; it will be continued by Drs. Huet, Félix Rose, G. Etienne, Mendelssohn, Batten, Madame Long-Landry, and others. At 2 p.m. papers will be read.

On Monday, August 11th, a joint discussion will be held with the Surgical Section in the Jehangir Hall, University of London, South Kensington, on the treatment of tumours of the brain and the indications for operation. It will be opened by Professor Bruns (Hanover), Professor Cushing (Harvard), Professor v. Eiselsberg (Vienna), and Dr. Tooth. They will be followed by Drs. Babinski, Henri Claude, J. Sicard, Jumentié, de Martel, and others. At 3 p.m. papers will be read.

On Tuesday, August 12th, Dr. F. W. Mott and Professor Nomme (Hamburg) will open a discussion on the nature of the condition termed parasyphilis. The discussion will be continued by Drs. Déjerine, Babinski, J. Sicard, A. Léri, de Massary, Charpentier, Sézary, J. Tinel, G. Etienne, Head, McIntosh, and others. At 2 p.m. papers will be read.

RESEARCH DEFENCE SOCIETY.

Annual Meeting.

The annual meeting of the Research Defence Society was held at the Royal College of Physicians on June 24th, Sir David Gill, K.C.B., F.R.S. (President), in the chair. Among those present were Sir Thomas Barlow, Lord Cromer, Sir Hugh Bell, Mr. Waldorf Astor, M.P., Bishop Frodsham, sometime of North Queensland, Mr. Sydney Holland (Chairman of the Committee), Dr. F. M. Sandwith (Honorary Treasurer), Mr. Stephen Paget (the Honorary Secretary). Sir William Osler, who was to have spoken, was unable to be present, and expressions of regret for unavoidable absence were sent by Sir Clifford Allbutt, Mr. Otto Beit, Lord Blyth, Lord Robert Cecil, Lord Cheylesmore, Sir James Dewar, Sir Arthur Conan Doyle, Mr. McAdam Eccles, Lord Faber, Mr. Walter Guinness, Lord Claude Hamilton, Sir Norman Lockyer, Mr. Spencer Lyttelton, Lord Northbrook, Sir Gilbert Parker, Mr. W. F. D. Smith, Sir Edgar Speyer, the Bishop of Stepney, and Mr. Henry S. Wellcome.

Testimony of a Bishop.

Bishop Frodsham, who was allowed to speak before the regular proceedings began in order that he might fulfil an engagement elsewhere, said the society had justified its existence. Since its foundation in 1908 it had increased from a small handful to more than 5,000 members and associates. When he accepted the office of Vice-President he anticipated that he would receive a share in the abuse which fell upon the members of the medical profession, and he was not allowed to be disappointed in his anticipation. But he was surprised to receive a little four-paged tract entitled *An Atheistical Bishop*, and to find that he was considered to be that person! The root of his offending was that he was a member of the Research Defence Society, which was guilty of gross cruelty to animals, and therefore unfaithful to Christianity. He instanced that egregious pamphlet because it represented the unfair attacks against scientific research which were constantly being made, and which the society had done so much to refute. In the first place, the society confined its operations to the publication of facts, and only by considerable rhetorical licence could be said to be involved in any charges of cruelty. Then scientific research in this country did not connote cruelty. Lastly, it would be difficult for objectors to construct a definite case in justification of the statement that research as it was carried on in this country was opposed to Christian teaching. He could with due modesty claim to have had more to do with obscure diseases than the majority of clergymen. There was nothing of which he was more proud in his life than of being instrumental in the formation of the Australian School of Tropical Medicine, where research work was being carried on. He humbly believed that it was an act of service to Him who said, "Inasmuch as ye do it unto one of the least of these My brethren ye do it unto Me." But he had done nothing in comparison with those members of the medical profession who were every day being held up to contumely and abuse. There were stages where the experiments upon animals ceased to be informative; then men experimented upon themselves. What could be said against the Christianity of those young American medical students who allowed themselves to be bitten by the *Stegomyia* mosquito in order to test how long the mosquito could be the host of the yellow fever germ? And yet these men were directly associated with medical research which involved experiments upon animals! He wondered how men who had never faced the horrors of unknown diseases, whose own lives were sheltered by the discoveries of science, dared raise their voice against the Christianity of those who showed over and over again their readiness to make the supreme act of applied Christianity: "Greater love hath no man than this that a man lay down his life for his friends." During the past week a correspondent had at much trouble to himself copied out the opinions of ten "notable persons" on what he calls vivisection. The Bishop noted with interest that the oldest of these opinions was given in 1876—the last in 1884—thirty years ago! He believed that many people who were most conscientious in their opposition to medical research were condemning things which might have existed thirty years ago, but which did not exist now. His friend, Dr. Sandwith, asked him to give this society a "mundane benediction." He did not exactly know what he meant. But with grave deliberation and an earnest realization of his own responsibility as a minister of Christ, he declared from a Christian standpoint that he believed research was not only justifiable, but that it was an act of service to Him of whom no higher panegyric could have been written than that simple phrase, "Jesus of Nazareth who went about doing good."

Report of Committee.

The report of the Committee stated that during the past year they had gained more than 400 new members and associates, but they had lost by death many members and associates and eight vice-presidents. The following members of the society had accepted the office of vice-president:—Sir Hugh Bell, Sir John Rose Bradford, Sir Arthur Branfoot, Sir John Brunner, Sir Lauder Brunton, the Dean of Ely, Lord Harlech, Sir William Mather, and Sir John Tweedy. After giving an account of the work of the society in the past year, the report went on to state that during its course several bills had been before the House of Commons for the further restriction or total abolition of experiments on animals, and one of them had reached a second reading. The Home Office had appointed its new Advisory Committee in place of the Association for the Advancement of Medicine by Research. At the annual meeting on May 21st of the Royal Society for the Prevention of Cruelty to Animals, the re-election of Lord Cheylesmore to the council of that society was defeated on the ground that he was one of their Vice-Presidents. The number of those who belonged to both societies was about fifty. A strong protest was signed by them against this action of the older society. This protest was drawn up and sent out by their committee. The Council of the Royal Society for the Prevention of Cruelty to Animals, at a special meeting last week, decided to take a poll of all the members, so as to ascertain the general feeling of the society on this important matter. It was hoped that the answers to this referendum would have a good result.

Honorary Treasurer's Report.

Dr. F. M. Sandwith, in presenting this report, said that the subscriptions received by the parent society in 1911 showed

an excess of £113, while the contributions from branches were also £100 in excess of the previous year. On the present occasion the subscriptions to the parent society showed a diminution of £106, while the contributions from the branches only slightly exceeded the amount paid during 1911. It was hoped that this was not due to any loss of interest in the society, but rather to the fact that many of their supporters considered it unnecessary to continue their subscriptions after the issue of the report of the Royal Commission on Vivisection. On the other hand, friends had nobly rallied round them again and had swelled the list of donations by responding to special appeals for funds towards the checkmating of the influence of temporary antivivisection shops.

Lord CROMER said he thought the vote by which Lord Cheylesmore failed to secure re-election as a vice-president of the Society for the Protection of Animals did not represent the real opinion of the majority of the members of that society. If it were not rescinded he would withdraw from its membership.

Sir THOMAS BARLOW said the College of Physicians and the medical profession were deeply grateful to the society, not only because of the good work it had done in educating the public mind, but especially for the manner in which it had defended the men engaged in research. A few years ago such men were overwhelmed with abuse against which there was no organized system of defence. The Research Defence Society had changed that state of things, and had carried the war into the enemy's country. Sir Thomas Barlow paid a high tribute to the work of Mr. Stephen Paget, who had always carried on the controversy on behalf of research in a manner befitting an English gentleman. Those engaged in the actual practice of medicine and surgery were glad that their brethren who forged weapons for them by means of research should be defended against calumny by the society. "Their cause," he declared emphatically, "is our cause."

President's Address.

After some introductory remarks Sir DAVID GILL said the society was founded in January, 1908,

> To make generally known the facts as to experiments on animals in this country, and the regulations under which they are conducted; the immense importance of such experiments to the welfare of mankind; and the great saving of human and animal life and health which is already due to them.

The need of such a society was due to the fact that efforts were being persistently made to bring about legislation which would have disastrous effects on the progress of medical science. As the result of these efforts there were at the present moment no less than four bills before Parliament:

1. The Hon. Stephen Coleridge's bill.
2. Sir Frederick Banbury's bill "To prohibit Experiments upon Dogs."
3. Mr. George Greenwood's bill, entitled "Cruelty to Animals Bill," its object being to carry out the minority reservations of the Royal Commission on Vivisection.
4. Mr. Chancellor's bill to provide for the total abolition of vivisection.

One of these bills—that of Sir Frederick Banbury to prohibit experiments on dogs—slipped through its second reading on Friday, January 6th, without opposition, because a bill dealing with the hours of polling, introduced by Mr. Pearce, the member for Limehouse, instead of occupying the whole day for discussion as had been anticipated, was suddenly withdrawn at 2 o'clock as the result of a compromise. The Dogs Bill was the second order of the day; and, as the House had emptied, an expert parliamentarian like Sir Frederick Banbury seized the opportunity, and got his second reading in a few moments without opposition. The bill had been sent to Grand Committee A, to which, in accordance with the usual practice, fifteen members have been added. It would then still have to pass the report and third reading stages in the House of Commons, and the chances of its so doing for a private member's bill were very slight. But no precautions to prevent its passing can be neglected, for Professor Starling's paper on The Use of Dogs in Scientific Experiments shows how essential such use was. This paper had been sent to every member of the Committee on the bill.

Sir David Gill proceeded: The bills above referred to have their origin chiefly in the efforts of the antivisection societies to instil into the public mind the belief that experiments on animals are useless to humanity, and that they involve cruelty to animals. Unfortunately these erroneous views have been accepted by many people as the result of reading misleading literature like *The Shambles of Science*, and by witnessing the disgusting and delusive objects exhibited by some of the anti-vivisection societies in their shop windows. The recent libel action—Miss Lind-af-Hageby *v.* Dr. Saleeby and the *Pall Mall Gazette*—proved, after a long and exhaustive trial, that the language published in the *Pall Mall Gazette* in condemnation of that class of literature and these exhibits was amply justified, and it is to be hoped that all respectable people will now withdraw their names from societies that employ such methods. The fact, however, remains that certain societies still continue to issue literature of the same misleading kind and to make disgusting exhibitions of a like character. In a shop in Kensington High Street there is exhibited a stuffed dog mounted in an apparatus of a formidable kind which has the following description:

> "Vivisection Apparatus."
>
> For firmly securing a live dog in a position for experimentation, supplied by Scientific Instrument Makers June 1910, consisting of a fixed board and NEW MUZZLE GAG according to Dr. W. Cowl (described in the Transactions of the Physiological Society).
>
> This model is copied from a photograph of an animal taken whilst the instrument was in use.
>
> The gag is made so as to be applied to the living animal without the use of an anaesthetic. It is furnished with adjustable nuts so that the mouth of the animal may be opened to any extent, and the tongue drawn out and fixed so as to expose the whole cavity of the throat.

I entered the shop, drew attention to the exhibit in question, and asked the person in charge whether it was intended to imply that, in this country, animals were thus vivisected without anaesthetics. The reply was:

> Most certainly I do; look at that inscription, which is copied word for word from the catalogue of the maker of that machine.

This is an example of one of the methods by which public opinion on the subject of experiments on animals has been misled, for not only was the exhibit in itself delusive in character, but the statement made to me in defence of the suggestion was absolutely false; for, as we all know, no vivisection is allowed in this country without the use of anaesthetics. Other societies make like displays in other places, for apparently the law has no power to put a stop to such exhibitions, and doubtless the societies that continue to make them trust to the shortness of the memories of the persons to whom they appeal, and believe that the results of the Lind-af-Hageby action will be soon forgotten. It is refreshing to relate that Mr. Henry C. Sharpe, the owner of the shop above referred to, is so angry at the use to which his premises have been put, without his authority, that he caused the house agents on June 12th to hand over to the Research Defence Society the sum of £30, being the rent for the month of their tenancy paid by the antivivisectionists; he added that he will not take their money because it is "not clean." I am sure that this meeting will cordially render its heartiest thanks to Mr. Sharpe for this manly and generous action.

We cannot expect always to arrive at so satisfactory a solution of our difficulties as this, and therefore, for the reason above stated, it is necessary that our society should take active steps to counteract the misleading effects of such displays upon public opinion. On these grounds I most cordially concur in the view of the Committee—namely, that our society ought to have for the next few years a place of its own in London on the ground floor, with a window facing a good thoroughfare, where the true facts of our case can be quietly put before all passers-by—every day, and all day long.

For this object the Committee is making an appeal for a special fund, and I would urgently beg of all who are interested in our cause to aid this good work. A total sum of £600 is required, of which £240 has been already received. To-day I am informed that Mr. Henry S. Wellcome has made a gift of £100 to this special fund.

I am bound to say that there are some antivivisection

societies which do not make such exhibitions, but in too many cases their publications are hardly less reprehensible. Since most of these societies are mainly supported by worthy, well-meaning, and kind-hearted people, how comes it that such methods and such writings are tolerated by them? The fact is that these good people, as a rule, have neither read the original literature nor studied the results of experimental research on animals. They have probably, in the first place, been induced to join some antivivisection society by the delusive literature it has published, and such literature continues to be their only information.

There is an admirable leaflet recently published by our society, entitled "A School for Scandal," which attributes much of this misleading literature to the abuse of the practice of press-cutting. The point is there so well put that I quote it verbatim:

> When rightly used, the Press Cutting Agency is a valuable means whereby a busy man may keep himself up to date in the literature of any subject in which he is interested, and qualify the impressions of his own experience by constant reference to those of others.
>
> But when press-cutting is employed to prove some narrow point, and is applied to the purposes of special pleading, it is capable of the gravest misuse. By the aid of press-cutting agencies the employees of the antivivisection societies are enabled to ransack the whole of literature—books and periodicals, medical and lay, old and new, for cuttings consisting of illustrations, paragraphs, sentences, or in some cases single words, which, isolated from the context that is needed to show their real meaning, can be used to support one or both of these two ideas—namely, that experiments are useless, and that they involve cruelty. And the people who are engaged in the production of this concentrated extract of scissors and paste are the very last who are likely ever to realize how very misleading a product it is, both to producer and consumer.
>
> The mistake is that the kindhearted enthusiasts who start antivivisection societies expect too much of human nature. They employ men and women as secretaries, keep them year in and year out at this sort of work, and they apparently expect them not to develop the instincts of the scandalmonger.
>
> Does the habit of scandalmongering not grow fast enough upon men and women who indulge in it, without it being made a means of livelihood?
>
> One is saying nothing against the moral character of those who compose the staffs of the antivivisection societies when one points out that the advent of the professional antivivisectionists destroyed the last hope that the societies they serve would ever be induced to look at the other side of the matter from their own, and that it is their presence more than anything else that keeps up that competition between the rival antivivisection societies, which would make it so difficult for any one of them, at this time of day, to lower its voice and moderate its tone.
>
> There is besides the unconscious vanity of their individual leaders, each of whom enjoys a certain distinction in his or her present capacity, which would have to be sacrificed in a general merging of the societies into one. And there is the fact that among people who hold forth, as antivivisectionists do, upon a subject they do not understand, there is room for a confusion of ideas and for a tendency to work at cross-purposes, which do not affect the defenders of research, who only need one society to represent them, and who know that they can trust it.

If people before joining antivivisection societies would read the final report of the Royal Commission on Vivisection, and study its conclusions, they would learn the real truth of the matter. That Commission held more than seventy sittings, examined a very large number of witnesses, and published its report last year; and we read on p. 20 of the final report as follows:

> We desire to state that the harrowing descriptions and illustrations of operations inflicted on animals, which are freely circulated by post, advertisement, or otherwise, are in many cases calculated to mislead the public, so far as they suggest that the animals in question were not under an anaesthetic. To represent that animals subjected to experiments in this country are wantonly tortured would, in our opinion, be absolutely false.

With reference to the administration of the law, the Commission makes certain unanimous recommendations in regard to the inspectorate and other matters which, on the whole, we as a society regard as perfectly right and reasonable, and to which few if any of the men I know who are engaged on research would object. On the contrary, they feel that if an increase of the inspectorate will lead to diminished misconception on the part of the public they will welcome the proposed increase. Formerly, there were three inspectors who also held other appointments. Now, in accordance with the recommendations of the Royal Commission, there are to be four inspectors who will devote their whole time to the work. I see no reason why that number should not be increased if it is found to be really necessary for proper and legitimate inspection. The law of the land regards all men as honest and law-abiding unless they are proved to be otherwise — and proper and legitimate inspection provides means for detecting those who are not honest and law-abiding. But the proposal inserted in Mr. Greenwood's bill now before Parliament is that an inspector shall be present throughout the whole course of each experiment; in other words, it is assumed that every experimenter is wanting in honour and cruel of disposition.

The proposal is impracticable on the face of it, for no Government would agree to provide the number of inspectors that would be necessary; and, worst of all, it is an insult to a class of men who, so far as I know them, are conspicuous for their humane and honourable character. To impose conditions that are only applicable to "law breakers" or "ticket-of-leave" men is an indignity which we have no right to inflict on any honest class of men, least of all on those who are labouring earnestly for the good of humanity. Wanton cruelty is in every case reprehensible and wicked, and our society sternly sets its face against it, but the most terrible and far-reaching class of wanton cruelty to man and to the lower domestic animals is that which would result from the abolition or undue restriction of research, and thereby withhold from them benefits which in the past have been the means of saving many thousands of lives; and which, with increasing knowledge derived from such further research, must bring added health and length of life to many millions in the future.

Vote of Thanks.

Sir HUGH BELL, in proposing a vote of thanks to the President, expressed his agreement with Lord Cromer in regard to the vote of the Society for the Prevention of Cruelty to Animals, and said if the resolution were adhered to he also would withdraw from that body.

Mr. WALDORF ASTOR, in seconding, made a strong appeal to the public for support. If they only could be made to realize the amount of preventable suffering and death that existed they would not wait, as he thought many now did, till they had lost some one dear to them before subscribing to the society and to hospitals.

Mr. SYDNEY HOLLAND congratulated the members on the progress made by the society during last year. Referring to the bill for the prevention of the vivisection of dogs which had passed its second reading, he spoke of the gratitude all real lovers of dogs, like himself, owed to research on the diseases of these animals, especially distemper and malignant jaundice. He added that they had been jeered at for the small attendance at their meetings, but if those who came were not very many they were all in earnest, and it was their keen interest in the subject that brought them there. Mr. Stephen Coleridge had, he said, spoken of the annual meeting of the National Antivivisection Society as a packed meeting. He would not deny the appropriateness of the word "packed," for he had heard that the bulk of the audience had been increased by persons who had been brought to the Queen's Hall in brakes; each of these, he had been told, had received ninepence for coming. Another criticism that had been made was that they were really a vivisection defence society. Vivisection happened to be at present the only form of research attacked; if other forms were subjected to the same opposition they were prepared to defend them. He concluded with an earnest appeal for funds.

Sir DAVID GILL, in acknowledging the vote of thanks, said the society owed everything to Mr. Stephen Paget, who inspired and directed the work.

A NEW pathological institute was opened at Jena on May 31st. The building cost £25,000.

ACCORDING to the *Medical Record* of June 14th, the United States Senate on June 6th unanimously adopted the following resolution, which was introduced by Senator Bristow, of Kansas: "That the Secretary of the Treasury be and he is hereby directed, if not incompatible with the public interest, to transmit to the Senate such reports as have been made by officers of the United States Bureau of the Public Health and such documentary information as he may have upon the so-called tuberculosis cures."

HISTORICAL MEDICAL MUSEUM.

THE Historical Medical Museum at 54A, Wigmore Street, organized by Mr. Henry S. Wellcome, was formally opened by Dr. Norman Moore on June 24th. Among those present were Sir Thomas Barlow, Sir Rickman Godlee, Sir Frederick Treves, Sir F. Champneys, Sir George Savage, Dr. Dudley Buxton, and Mr. D'Arcy Power.

Address by Dr. Norman Moore.

Dr. NORMAN MOORE said: I have been asked, as President of the Section of the History of Medicine in the International Congress of Medicine to be held in August, to preside over the opening of this museum. It will be a most important addition to the studies of the congress and will interest a great many of the 7,000 medical persons who are expected to attend. Museums are now so common that we forget what recent creations they are; they are a development from libraries. In the reign of Elizabeth, John Dee had a collection of mathematical and astronomical instruments and of various curiosities in his library at Mortlake, but the first considerable museum in England was that of John Tradescant, father and son, at Lambeth. The catalogue of the Tradescantian Museum was printed in 1656 and shows that it had fifteen sections, among which were birds, beasts, reptiles, weapons, and many dried plants and fruits, for the Tradescants were primarily gardeners and collectors of herbs. Their museum went to Elias Ashmole and was rearranged at Oxford, where most of us have seen one unique but dilapidated specimen—the head and foot of the dodo—the body having been destroyed in one of those periods of darkness to which all universities are liable.

Another great museum was found in London by James Petiver, an apothecary of the Charterhouse who was educated at Rugby School and at St. Bartholomew's Hospital. He was a botanist and entomologist, but the many sea captains whom he came to know brought him every kind of curiosity from all over the world. Sir Hans Sloane bought his collection and others, and made a great one of his own, and, as every one knows, bequeathed the whole under certain conditions to the nation. All these early museums were allied to libraries, and contained every kind of specimen, and this form the British Museum still retains. The museum of Francis Calceolari of Verona is described in a folio of 800 pages printed in 1622, and the picture of the museum shows the original form, which has developed into such a collection as is the British Museum. The specimens are in a well-proportioned room paved with variegated marble and surrounded by an ornate sort of dresser with drawers and shelves. At one end are books and on the shelves all round are specimens, some dried, some in jars. On one side is a statue of Atlas bearing the world, showing the regions whence the specimens have come, and on the other Minerva showing that all learning is included in the collection. On the cornice and hanging from the ceiling are stuffed animals of all kinds. Whatever the earth possesses, whatever had been hidden in the depths of the sea, the toil and skill of Calceolari had collected, says a Latin poem prefixed to the catalogue. The gift of Dr. William Hunter to the University of Glasgow was another museum of this type. It contains pathological, anatomical, and natural history specimens, manuscripts, pictures, early printed books, Greek and other coins.

A more limited kind of museum succeeded these vast collections. When Sir Edward Browne (son of Sir Thomas), having just taken his M.B. degree at Cambridge, came to London in 1664, he visited Edmund King, Surgeon to St. Bartholomew's, who showed him a collection of anatomical preparations. Woodward soon after made a small museum of geological specimens. Of these specialized museums the greatest was that of John Hunter, which is now under the care of the Royal College of Surgeons in Lincoln's Inn Fields.

The museum which we are here to open to-day has been formed by Mr. Wellcome, and is the first established in England to illustrate the history of medicine. A lectureship in the subject was founded at the Royal College of Physicians in 1901, and is at present the only one in England, though occasional lectures are given at Glasgow, and a professorship has been instituted at Edinburgh. This museum may justly be regarded as a further step in the establishmeent of the history of medicine as a regular study.

The origins of medicine may be studied in two directions. You can see in this hall two figures which typify these. There is Ixlilton, the Mexican god of healing, his head covered by a grotesque mask, a necklace of the teeth of the sperm whale round his neck, a curious instrument of enchantment in his right hand, seeming to have uttered some strange and terrifying ejaculation as he extended his left hand. Near him is the Apollo Belvidere, the most perfect of the sculptured representations of men, in his face showing the highest flights of thought and powers of observation. The figure of Ixlilton brings charms, amulets, and magical ceremonies before us at once. The figures of Apollo and of his son Asklepios suggest observation and experiment and reasoning, the clinical instincts of Hippocrates and Galen and Avicenna—a way of thought not disconnected from our own times, the true precursors of Harvey and Glisson, and Sydenham and Matthew Baillie, and Lister. It is this part of the history of medicine which interests me most, but other men prefer the study of incantations and of folklore. In the entrance hall these will find a fine collection of fetishes, of masks, and of strangely attired medicine men. The room in which we are meeting contains Egyptian, Chaldean, and other gods, a fine series of ancient models of morbid structures left as *ex-voto* offerings in temples, and collections of ancient dentistry, and of numerous instruments for operations. In the gallery are many drawings enlarged from illuminations illustrating medicine and surgery, and many cases of amulets. The next room contains portraits, busts, and medals, and beyond it is a room with medical pictures on its walls, and in its cases manuscripts—Latin, Arabic, and Persian—and early printed books on medicine and surgery. The basement has a series of scenes in the medical life of the past, beginning with a pharmacist's shop of the eighteenth century containing a fine collection of medicine pots and jars. Near this, on the ceiling, is painted the prescription for the Theriaca containing seventy-five ingredients, which, in a slightly modified form, remained in the London *Pharmacopoeia* till 1788. Next is an apothecary's shop in the Old Bailey in 1662. This was a contemporary of Francis Bernard, apothecary to St. Bartholomew's, who stayed in London throughout the plague of 1665. He was a most learned man and had a vast library of valuable books. Later in life he received a degree at Cambridge and became a physician. The Master of the Society of Apothecaries, who is here to-day, will support my statement that there were many apothecaries of similar learning. The laboratory of an alchemist stands next, and on the opposite wall are pictures relating to the plague, so that Ben Jonson's play comes into the mind and the pranks of Subtle the Alchemist in the house of a citizen who had left town because the plague was prevalent.

An early Italian pharmacy full of beautiful jars and vases shows us an apothecary who had thriven better than the Mantuan who had sold poison to Romeo. The workshop of a Tudor barber-surgeon is also presented, and, last of the series, a Pompeian surgeon in his gaily painted house. The silver skeleton with turning joints and backbone mentioned by Petronius Arbiter shows how far a knowledge of anatomy had extended in the provincial Roman towns, and makes us hope that the surgeon was well informed in proportion.

Such are a few of the features of this remarkable museum. It is due to the munificence and the labours during several years of Mr. Henry S. Wellcome, while its arrangement has been admirably carried out by Mr. C. J. S. Thomson and Dr. L. W. Sambon. That the museum is due to the exertions of a private individual like those founded in past years by the Tradescants, Petiver, Sir Hans Sloane, William Hunter, Woodward, and John Hunter is a proper ground of pride for him and for the nation.

Votes of Thanks.

Sir THOMAS BARLOW, who is President of the International Medical Congress, proposed a vote of thanks to Dr. Norman Moore for his interesting and fascinating address. In connexion with museums the name of Sir Jonathan Hutchinson, whom they had just lost, should be mentioned, for he had formed collections of all kinds for educational as well as scientific purposes. Sir Thomas Barlow made special mention of his tables and charts intended for the chronological study of the principal

events in human history. He paid a warm tribute to Mr. Wellcome, who had made, regardless of cost, a collection which gave unrivalled opportunities for the study of the history of medicine—a study most useful to doctors and interesting to all educated people.

Sir FREDERICK TREVES, in seconding, said the profession owed a debt of gratitude to Dr. Norman Moore for the immense services which he had rendered to the study of medical history. It would be hard to exaggerate the utility of such a museum as was opened that day. Progress in medical science was so rapid that it was well sometimes to pause and look back so as to see the steps by which the present state of knowledge had been reached. In regard to surgery, it was remarkable to note the narrow lines along which advance had been made. The study of the evolution of surgery made it to a certain extent possible to forecast its future development. Looking at the instruments there exhibited, the most striking feature was the steady advance from highly complicated to simple forms.

Sir RICKMAN GODLEE, in proposing a vote of thanks to Mr. Wellcome, congratulated him on a hobby which was at once delightful and useful. He had spent his time and wealth in the pursuit of a favourite study which now, after twelve years, had resulted in the formation of the splendid museum in which they were met. He understood that the collection was ultimately to be handed over to the nation. He did not know the locality that might be finally chosen for the housing of the museum, but he mentioned there was a fitting place in Lincoln's Inn Fields.

Sir FRANCIS CHAMPNEYS, who seconded, said he envied those who at the outset of their career had the opportunity offered by that museum of starting with a knowledge of how the foundations of the profession to which they were to devote themselves had been laid. Such a museum as they had there before them could not fail to excite the imagination of the medical student, and would enable him to begin with his mind set in the right direction.

Mr. WELLCOME, in acknowledging the vote that had been passed, made graceful reference to the advice he had received from Dr. Norman Moore, Mr. D'Arcy Power, Dr. Dudley Buxton, and other leading men in the medical profession, and to the invaluable assistance given by Mr. C. J. S. Thompson, Dr. L. Westenra Sambon, and other members of his staff. He also expressed his gratitude to the numerous persons who had lent or given objects for exhibition, and to the institutions which had contributed to the collection. The fact that the museum was connected with the International Medical Congress greatly enhanced its utility. Mr. Wellcome went on to announce his intention of forming a bureau of medical research in London. Of that bureau the head would be Dr. Andrew Balfour, whose brilliant work carried on for twelve years at Khartoum was known to all. The museum might form a fitting adjunct to the bureau. He said that the more he studied the older medicine the more he became convinced that it was not so bad as it was sometimes painted.

The visitors were then conducted by Mr. Wellcome round the museum. It is impossible to describe the exhibits in detail here. The collection is unique of its kind, and as nearly complete as well-directed knowledge and enthusiasm, reinforced by lavish expenditure on the part of Mr. Wellcome, can make it. It is intended to represent the evolution of the healing art in all its branches from its earliest beginnings. There is a magnificent show of fetishes, amulets, and charms of every age; numerous specimens of the "make up" of the medicine man of savage tribes; Roman votive offerings excavated chiefly at the Temple of Aesculapius on the Tiberine Island, and at the Temple of Maternity in Capua, and modern *ex votos* from Italy, Portugal, and other countries. Surgical instruments of all ages and nations, arranged as far as possible in the order of their development, make a most interesting display. There is a whole library of early printed books on medicine, and an interesting collection of old diplomas, some of which are real works of art. There are also numbers of personal relics, such as medicine chests that belonged to Nelson and Wellington, and a letter containing a prescription written by the victor of Waterloo to his apothecary; the first toothbrush used in this country, made for George III; letters and relics of Edward Jenner; the pocket surgical cases of Mungo Park and Livingstone; personal relics of Guy, the founder of Guy's Hospital; illustrated books relating to touching for the king's evil; instruments of torture and apparatus for restraining lunatics; reproductions of ancient hospital wards, old apothecaries' shops, with numerous portraits of eminent medical men and paintings relating to the history of medicine. The history and present knowledge of plague, malaria, yellow fever, sleeping sickness, pellagra, and other tropical diseases, are illustrated by charts, maps, and diagrams prepared under the direction of Dr. L. W. Sambon, whose experiment in association with Dr. Low in the Campagna was the crucial test of the mosquito theory of malaria, and whose researches into the etiology of pellagra have already revolutionized the notions on the subject which previously held the field. The whole collection is tastefully and conveniently arranged. The museum, which will remain open till September, is not intended for the general public, but members of the medical profession, chemists, scientists and nurses in uniform will be admitted.

LITERARY NOTES.

IN the April number of *Aesculape* Dr. Félix Régnault gives an account of modern anatomical *ex votos*. Ancient specimens are common in most museums. A fine collection of such *donaria* from ancient Rome may be seen in the Historical Medical Museum, of which a brief account appears on this page, and there are numbers of similar offerings belonging to the Gallo-Roman period in French museums. The use of *ex votos* is still common in Italy, Portugal, and elsewhere, but it may not be so generally known that such testimonies from gratified patients are found in South Germany and Tyrol. Dr. Régnault has visited as a scientific pilgrim the churches in these regions, and has found not only votive tablets recording cures like those in the ancient Greek Asclepieia, but representations in wax and in wood of parts which have been the seat of diseases believed to have been miraculously cured—hearts, ears, eyes, legs, feet, hands, busts, heads—even the penis and testicle. In Italy, Spain, and Greece the organs, though rudely modelled, are all normal; Dr. Régnault has sought almost in vain in those countries for an *ex voto* portraying disease. He has only found some specimens of eyes which appear to be intended to represent squint at Portici, near Naples, in the chapel of Saint Rita, who enjoys a reputation as a spiritual specialist in diseases of the eye. Sometimes, as in a church at Naples, there are voluminous bellies with large breasts suggestive of pregnancy; and occasionally a clubfoot may be seen, but this appearance may be due to the rudeness of the workmanship. In Bavaria and in Tyrol, on the other hand, pathological *ex votos* are common, and there are numerous specimens in the ethnographical museums of Berlin and Vienna. A very complete work on the subject, written by Richard Andrée, was published at Brunswick in 1904. Many of the representations of organs are copied, as was the case in antiquity, from the corresponding parts of animals. Therefore Dr. Régnault holds that it is a mistake to suppose that the state of anatomical knowledge among the ancients may be inferred from these votive offerings. A noteworthy point is the symbolical representation of diseases of the uterus, which was looked upon by the old physicians as an animal having the power of independent motion. This belief still survived in the sixteenth century; the womb was conceived as a toad which bit the woman; the disease was healed by presenting an image of the offending animal to the divinity, and the cure was signalized by cramps and loss of blood. The cramps were represented by the image of a hedgehog or sea urchin. Males might also be attacked by the malevolent beast; hence arose the curious notion that, as shown by *ex votos*, men might suffer from disease of the womb. While in Italy and the East the *donaria* are usually fashioned of metal, in Germany they are mostly made of wood. Sometimes the patients buy a wax candle at the door of the church, and mould it themselves very roughly into the likeness of the affected part, as is told in Heine's pathetic ballad, "The Pilgrimage to Kevlar," where the mother is said to have taken a candle and made it into a heart, telling her love-sick son to offer it to the Mother of God, who would soothe his suffering.

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SATURDAY, JUNE 28TH, 1913.

ORGANIZATION OF MEDICAL RESEARCH.

THE official statement of the Chancellor of the Exchequer as to the organization of the work of medical research, for which provision was made in the Insurance Act, is printed in full in the SUPPLEMENT (page 585). An executive committee, styled the Medical Research Committee, and an Advisory Council are set up and their functions defined. The intention is to give the organization a wide scope, for the suggestion made in some quarters that the researches to be undertaken are to be confined to tuberculosis is incorrect. Section 16 (2) of the Insurance Act provides that one penny for each insured person (or about £58,000 a year in all) out of the moneys provided by Parliament may be applied, in accordance with regulations made by the Commissioners, for the purposes of research, and we understand that the decision of the law officers of the Crown is that the research may be undertaken in connexion with any disease to which insured persons are liable. It would manifestly have been very undesirable that the work of the Committee should be limited by any such restriction as has been suggested, and we are glad to find that such is not to be the case. The Committee will have a free hand to survey the field both from the point of view of the researches that may be necessary and of the social, statistical, or other inquiries which it may desire to institute. Owing to the nature of the case and to the conditions under which the Committee is appointed, a great deal of its work in the earlier stages will doubtless be in respect of the different problems associated with tuberculosis, but it is free, as it may be able or may find it necessary, to prosecute inquiries on collateral or other issues.

Various considerations have doubtless had weight in the decision to institute an Advisory Council of a large and representative character. Foremost amongst these is the fact that in the proposed scheme the moneys available for the four countries have been pooled in a common fund. This is a wise and statesmanlike proceeding, and we are heartily glad that it has been adopted. In connexion with this, however, it is manifest that the representatives of the four countries will be anxious to secure that their own peculiar problems or needs are not overlooked, owing to an undue or precipitate centralization of effort. The Advisory Council, as indicated in the statement issued by the Chancellor of the Exchequer, has been constituted after receiving advice from the various colleges and universities in the different kingdoms, and is intended to secure, amongst other things, that the Minister, before consenting to the plan proposed by the Research Committee, should be fully informed as to the criticisms put forward by a body of a widely representative character. It was doubtless felt that it would be a mistake to constitute a body such as the Research Committee, whose sole purpose should be research and inquiry, on a strictly representative basis; that is to say, on a basis which should necessarily involve representation in due proportions upon it of the different parts of the United Kingdom.

Entirely apart from the problems which immediately need investigation, it will be a very important branch of the Committee's work to secure that a body of trained researchers shall be forthcoming in the future. One of the chief drawbacks which we have suffered in this country has been the fact that many men, who had both the disposition and the ability to prosecute useful research, have been deterred from following it because it afforded little or no prospect of providing them with a sufficient livelihood, and often they have had to dissipate their best energies by undertaking routine, "coaching," or other work in order to obtain an income, or to abandon their research altogether in order to take up practice. One of the most difficult tasks in front of the Committee will be to find and train men; but it will operate with this great and important advantage—that when it has found them it will be able to secure to them a sufficient livelihood.

We welcome also the arrangements which have been made to secure that the members of the Committee shall have sufficient length of office to secure continuity of plan and effort, while making provision for changes in its personnel at regular periods, so as to prevent its work becoming stereotyped or directed in too narrow a groove.

We have already discussed this great new departure in the relations of the Government to scientific work when the report of the Committee appointed to advise on the matter was issued. We pointed out the temptation which existed to embark on insufficiently considered schemes, and we insisted that the initial procedure should be the utilization to the full of the existing resources of the medical schools of the United Kingdom. We are glad to believe that what has now been done opens the way to such a policy. The task before the two administrative bodies instituted—the Medical Research Committee and the Advisory Council for Medical Research—is of the most arduous nature, and will call for constructive and administrative qualities of a very high order on the part of the members. It is no other than the creation of a machinery which shall organize and co-ordinate all the research workers in the United Kingdom who may be capable of furthering knowledge regarding the diseases of insured persons. The Chancellor of the Exchequer is to be congratulated on securing the services as the Chairman of both committees of Lord Moulton, for his pre-eminent qualities as a judge and his intimate acquaintance with the conditions of scientific work will appeal to all concerned. It is a further asset of the executive committee that it will have the services of Sir Clifford Allbutt, whose broad-minded views as to the equipment of the scientific physician are well known. All the proposals of the Committee must come under the review and criticism of the Advisory Council. This is a body on which all the interests concerned are represented, and the list of names of those who have consented to act on it will inspire general confidence. The considered opinion of its members, or even of a majority of them, on any question will be difficult to resist.

The situation which will develop during the next few months as the result of the deliberations of these two bodies will be of great interest, and we trust will ensure the full utilization of the great

opportunities which the research scheme presents for investigating tuberculosis and the other diseases which exact so heavy a toll from the industrial classes. The results of these investigations will, it cannot be doubted, place in our hands new and more effective means of combating these diseases—of preventing their occurrence, and of treating the sufferers to their own greater benefit and to the welfare of the community to-day and our successors in the future.

THE COMFORTS AND DISCOMFORTS OF OLD AGE.

THE attainment of healthy old age is probably the secret desire of every one, but only a few are privileged to achieve it. To some, even in perfect health, the later years may be attended with "labour and sorrow," but, as a rule, it may be noted that aged persons cling to the hope of extended life with as much tenacity as at any other period of their career. To what extent our days may be prolonged by "taking thought" has afforded a theme for many writers in times past, and the subject is once more brought into prominence by the appearance of a work on the subject by Dr. Saundby.[1] A physician of long experience and wide acquaintance with families of varying longevity cannot fail to have observed the practical bearing for good or evil of habits and peculiarities of living in the earlier stages of life. He must also have had constant opportunity of watching the gradual onset of disease in old persons, and of the conditions which have been operative in producing it.

The obituary columns of the daily papers lead every one to assume that a much larger proportion of the population reach old age than was formerly the case. This may not be entirely accurate, but some reasons why longevity should increase are obvious, and may be attributed primarily to the wider spread of education and common sense. It is no longer considered contemptible for a man to drink only when he is thirsty, nor does any glory attach to his ability to swallow more alcoholic liquor than another without getting intoxicated. It is no longer considered effeminate to take reasonable precautions against cold and wet; but, at the same time, it has been abundantly proved by armies in the field that hardships can be endured with as much stoicism as in the "good old days" before the umbrella had become an institution.

Middle-aged readers will doubtless remember the effort made some twenty-five years ago by Professor Humphry to ascertain by the process of collective investigation whether any common rules of life could be traced amongst octogenarians and other still more aged persons. The returns made by a very large number of contributors proved that in the majority of instances of life extended beyond the normal span there was a consistent history of sound physical health from birth upwards, and that in many cases a high standard of structural perfection and outward comeliness was manifest. Thus it was evident that such persons owed more to heredity than to their own observance of hygienic rules, but in most of the cases the records told of constant activity, moderation in diet, and powers of abundant sleep. Proof, however, was not lacking that, even without the advantages of inherited physical perfection, a very considerable number of persons lived to fourscore years by simple attention to the ordinary rules of health after they had passed the age at which the downward grade is supposed to begin.

In the discussion of the manifestations of old age and the precautions that must be observed if health is to be maintained, Dr. Saundby is able to draw upon the writings of distinguished octogenarians who have put their own experiences on record. From them we may extract two cardinal points which deserve most careful consideration from all who are, or would be, in the full enjoyment of old age. The first of these is exercise, a point upon which there is almost complete unanimity. The old man cannot take violent exercise, and games are not for him. No form of activity suits him so well as walking, but he must do it regularly and graduate the time and the distance by his reserve of physical power, always taking care to stop short of actual fatigue. The neglect of such exercise has led in countless cases to premature failure of health directly traceable to retention of effete substances, which might have been effectively prevented from accumulating by the very simple expedient of an hour's daily walk. The second cardinal point to be observed by the would-be octogenarian is in relation to diet. Not so much the quality as the quantity of food which he takes may influence his chances of longevity. As a man gets older he must no longer persist in his custom of eating more than is actually necessary to supply the wastage of the day's work. As he approaches the period of old age he may even take less than is actually required, and may suffer no greater harm than loss of superfluous fat; and this in the long run may prove to be a gain. Neglect of this rule is responsible for much disappointment as age advances. Indigestion and goutiness not only undermine the vigour of the individual, but they cause him a vast deal of suffering which might have been avoided had the rules of dietetic prudence been followed out.

But in spite of all care and precaution, it must happen that disease will come, and old age is prone to a very large number of ailments which may materially interfere with the enjoyment of later years. While all the organs are liable to functional disorder of some kind as their blood supply becomes modified by defective blood vessels, it is the nervous system which is chiefly prone to undergo damaging changes, having far-reaching though not necessarily fatal results. The curious loss of memory by which almost all elderly persons are affected was aptly described by Sir George Humphry when he said that old men were fond of telling tales of long ago—but they were apt to forget that they had just told them. Lapses of memory, slight attacks of vertigo, tremors, and general loss of enthusiasm and emulation are common symptoms as years advance. The graver forms of cerebral disturbance are too often productive of a form of living death which, as Dr. Saundby observes, is more to be dreaded than a sudden passing away in the midst of life.

Treatment claims a large place in the book, and a great deal of useful information will be found as to dieting and the general management of the disorders of advanced life, conveyed in an interesting form and interspersed with accounts of much personal experience which make the book at once readable and instructive. Although able to look back upon a fairly long series of years, the writer betrays no sign of senility in his own work, and the most recent theories and methods find their due expression.

[1] *Old Age: Its Care and Treatment in Health and Disease.* By Robert Saundby, M.D.Edin., F.R.C.P. London: Edward Arnold. 1913. (Cr. 8vo, pp. 320. Price 7s. 6d. net.)

CHARGES AGAINST DOCTORS IN CONNEXION WITH THE INSURANCE ACT.

THERE has been quite an epidemic in the daily papers recently of charges made by officials of friendly societies against doctors with respect to certificates given under the Insurance Act. It is, for instance, reported that at the biennial assembly of the United Order of Ancient Druids a Mr. Ward of London said that the doctors in his district were paralysing the efforts of the Order, and that he knew of a case where a doctor had given a man six certificates in advance, to be used as required. At the same meeting a Mr. W. J. Luff of Portsmouth is reported to have said that when the doctors of his district were rushed on the panel they said, "We will take it out of you for this," and other similar statements were made. The assembly passed a resolution calling upon the Commissioners to take a strong course in respect of excessive sickness rates with a view to bringing about a more efficient medical supervision. At the Scottish National Conference of Affiliated Friendly Societies in Edinburgh on June 21st the President referred regretfully to the removal of the administration of medical benefits from friendly societies, and "to the consequent wholesale malingering which that has led to." The Grand Master of the Manchester Unity is reported to have told an interviewer that "the excessive drain on the sick funds of my society is due to unsatisfactory administration of the medical benefit. The doctors are in part overworked, in part slack, and in part vindictive." Mr. Rockliffe, Secretary to the Joint Committee of Approved Societies, alleged that certificates were given by panel doctors in many districts without regard to the capacity or otherwise of the individual to work, and the Treasurer of the Royal Liver Friendly Society that in some cases doctors were helping members to malinger. It may be said, and said, we do not doubt, with a good deal of truth, that charges such as these are merely evidence of an organized campaign to induce politicians to believe that the only remedy for the evil painted in these lurid colours is to hand over the administration of medical benefit, "the control of the doctors" it is called, to the friendly societies. But the charges have been publicly made, and the honour and interests of the medical profession as a whole, which the British Medical Association exists to maintain, demand that they should be sifted, and, if substantiated, that the offenders should be punished. The charge seems to be that medical practitioners cannot be trusted to give certificates to their insurance patients, either because they are desirous of making things easy for themselves, or, as it is maliciously insinuated, because they desire to damage the Insurance Act. But if there is anything in the charge of giving certificates out of mere slackness, it would apply with equal force to the private practitioner dealing with his private patients, because the contention apparently is that the doctor is afraid to act according to his convictions, and gives the certificate merely to please his patient. The profession of medicine, like other professions, no doubt contains some members who do not come up to its highest ethical standard, but its record will show that these loose charges of general dishonesty and want of backbone are absurd. Charges of slackness in certification are, it is true, not altogether new. The friendly societies often enough complained of their club doctors on this ground, and it is possible that if asked to certify in the case of one of the influential members of a club the practitioner did not always take a very stern view of the case when he knew that such a course might lead to much trouble and vexation, ending, perhaps, in the loss of the club. The situation of a practitioner under the Insurance Act is in this respect more favourable. If he takes a strong line and declines to give a certificate in any particular case, his loss at the worst will be restricted to the patient offended, and perhaps a few of his friends, and even they, by the time they are at liberty to take their names off his list, may have come to the conclusion that their health will be safer in the hands of a man who knows his business and is not afraid to take a strong line than in those of some one who might be more complacent. Whatever the views of individual medical men may be in regard to the Insurance Act, the members of the profession, we feel sure, must universally recognize the honourable obligation to act with absolute fairness and impartiality if they, for any reason, have undertaken to do work under the Act at all. The charges so publicly made seriously affect the honour and good name of the profession, and we trust that those officials of the approved societies who have attacked the profession will take early steps either to substantiate the charges or to apologize for having made them. There is one other aspect of the matter to which it seems desirable to make reference. As has already been hinted, it is certain that increased calls on the funds of the approved societies will lead to a demand by them for control over the doctors and greater supervision of their work. Practitioners who do not use the greatest discretion in the matter of certification are doing a great disservice to the profession, not only to its reputation, but because they may unconsciously help on the demand, as an alternative, for a national whole-time medical service, which we believe the bulk of the profession is far from wishing to see established. In making these remarks we wish it to be clearly understood that in our opinion much of the trouble which the approved societies are now experiencing has been brought upon themselves by their anxiety to enrol in their ranks as many insured persons as possible without any reference to their physical condition. The inevitable result is that they are now suffering from the claims made by a class of life which is quite different from the average some of them were previously accustomed to deal with. Many of the complaints are in respect of women, and there is no doubt that most of the friendly societies had very little experience of the insurance of women against sickness, and are now realizing that they and the State have been to a certain extent gambling with a comparatively unknown factor. The State will have to meet its own difficulties, but the profession must boldly face those which threaten its reputation for honesty and self-respect. While our anxiety is for the good name of the profession, we would suggest that it is the duty of the Commissioners, who are responsible for the protection of the insured person and to whom the information in the press is available equally with ourselves, to insist that the charges we have mentioned shall be probed to the bottom.

MALINGERING UNDER THE INSURANCE ACT.

IN a recent number of the *National Insurance Gazette* Mr. J. Redman Ormerod strongly urged that, instead of medical examiners appointed by approved societies, "a more effective, reliable, and generally acceptable plan would be for the State to appoint in each district an expert medical examiner, especially one with a knowledge of working class conditions, habits, etc., who should be employed and remunerated by the State and entirely independent." Mr. Ormerod is vice-chairman of the Lancashire County Insurance Committee and also a member of the managing board of the National Amalgamated Approved Society, and is thus in a good position to know how great a strain is at present being placed on the sickness funds of the societies. He points out that in practically all cases the rules of approved societies provide that disputes between members and societies shall be decided by

arbitration, and Section 67 of the National Insurance Act gives leave to any party to such dispute to appeal from such decision to the Insurance Commissioners, but he holds that in practice it would be more costly to a society to conduct an inquiry by arbitration with the risk of further inquiry by the Commissioners than to continue to pay the malingerer. Mr. Ormerod evidently realizes the difficulties which doctors on the panel at present experience in dealing with malingering, and, while urging that medical referees should be doctors acquainted with the conditions of practice among the insured, he says "few panel doctors would care to take the possible risk to the patient and to the doctor's own interests by refusing to certify the insured person to be sick if that insured person declared he suffered the pains, etc., of sickness. It is necessary to relieve the panel doctor of having to exercise any judicial powers in respect of any of his patients, and the only way in which that can be done is to have medical examiners who are not panel doctors, and who are entirely independent." He therefore suggests that in the proposed amending Act, Section 67 should be altered so as to remove disputes regarding sickness benefits, etc., from the jurisdiction of the Insurance Commissioners, and to place them under the absolute jurisdiction of a State medical officer, or of a medical examining board in each district. The editor of the *National Insurance Gazette* considers that Mr. Ormerod's scheme goes to the root of the matter more completely than any other scheme, and may have to be adopted in the end; but he sees a difficulty, because it is understood that the Government will refuse to find any more money. In any case, he thinks that, even if the State will not pay, any amending bill should include a clause giving official medical referees final powers of decision, as "this would be at least a valuable alternative to the clumsy examination, arbitration, appeal proceedings imposed by the rules." While the discussion was still going on as to the advisability of appointing medical referees, the Bristol Insurance Committee so long ago as the beginning of February last appointed Dr. Bertram Rogers as part time medical referee, and in our present issue, page 1367, he relates his experience down to a recent date. Out of 100 suspected cases receiving sickness benefit, Dr. Rogers had to report 43 as really fit for work. He says that the number of actual malingerers, meaning by this apparently persons who falsely pretended to be ill when they were not, was small. The funds of the approved societies according to his experience suffer far more from valetudinarianism than from actual malingering. Most doctors on the panel will make short work with the gross forms of malingering, but they frequently find great difficulty in dealing with valetudinarianism. When a doctor has attended a patient during a long and perhaps dangerous illness, it is often a very fine question to decide when to sign the patient off as fit for work, and he properly gets the benefit of the least doubt especially if he has lost a situation through the illness, even though the sickness funds may have to suffer in consequence. In these cases, more than in cases of fraudulent malingering, an independent medical referee may be of great service to the panel doctors, always provided that the referee is a man of wide practical experience in dealing with the special difficulties of the working classes and refrains from all unwarranted interference with the practitioners in attendance.

THE DISABILITIES OF MEDICAL OFFICERS OF HEALTH.

Although, owing to the rules of the House of Commons, and in consequence of the factious opposition of a small group of members, there is little possibility of any progress being made this session with the Medical Officers of Health (Superannuation) Bill, Sir Philip Magnus, who has charge of the bill, has succeeded in another way in giving prominence to some of the disabilities under which a considerable number of medical officers of health are carrying on their work. In a very comprehensive and withal concise question, addressed to the Prime Minister on June 18th, he suggested the appointment of a committee to inquire generally into the conditions of service of medical officers of health. He apparently had in mind the insecurity of tenure of office of district and borough medical officers of health and the absence of any form of superannuation for, practically, all these officials. He included also in his question the important implication that many officers have to pay out of their salaries the expenses connected with the discharge of their duties. The full meaning of this last can best be appreciated when it is stated that the additional duties under the Housing (Inspection of Districts) Regulations, 1910, and under the last Tuberculosis Order of the Local Government Board have increased the travelling expenses of many medical officers of health by two or three hundred pounds annually, and, although the Board has intimated that it is quite prepared to sanction a corresponding increase in salary, such increase can be granted only with the acquiescence of the electing authorities, many of whom are not at all eager to increase the local rates for the purpose of carrying out more efficiently legislation with which they may not be altogether in accord. The present President of the Local Government Board has been credited in some quarters with a lack of sympathy with medical officers of health and with their work; it is therefore gratifying to find from his reply to Sir Philip Magnus, on behalf of the Prime Minister, that he is considering the question of the extension of the principle of fixity of tenure of whole-time officials and other aspects of the matter in the light of changes introduced by recent legislation. He also promised to give careful consideration to the suggestion of appointing a committee of inquiry. It could hardly have been expected that any more definite reply would be given, and medical officers of health must be satisfied with knowing that the reforms in the public health service which they have been demanding for years are at any rate being considered. This means a great deal in the light of the *non possumus* attitude hitherto adopted by the Board.

JOHN LOCKE AS A PHYSICIAN.

It was mentioned recently in the Journal that John Locke, the philosopher, was originally a physician. According to the *Encyclopaedia Britannica*, he did not take a medical degree, though his friends called him "doctor." In the *Nugae Chirurgicae* of William Wadd, Surgeon Extraordinary to George IV, however, it is stated that Locke took the degree of Bachelor of Medicine at Oxford, where he was practising when he became acquainted with Lord Ashley, afterwards Earl of Shaftesbury and Lord Chancellor. The history of Locke's connexion with him is interesting as showing how much a man's destiny is determined by accident. Ashley had been advised to drink the mineral waters at Acton for an abscess in his breast, and he wrote to Dr. Thomas, a physician at Oxford, to procure a quantity of those waters to be ready against his going there. Thomas was called away by other business and asked Locke to see to the matter for him. Locke, having entrusted the business to a person who failed him, was obliged himself to wait upon the noble patient and apologize for the disappointment. Lord Ashley received him with great civility, and being much pleased with his conversation detained him to supper and engaged him to dinner the next day. He even pushed his courtesy to an extent that might be inconvenient to physicians, if it became a general custom, by asking Locke to drink the waters with him. This was with the object of having the doctor's company both that and the following summer of 1667. Afterwards Lord Ashley invited Locke to his house and followed his advice as to having the abscess in his breast opened; the operation saved his life though the

wound never closed. The success of the treatment gave Lord Ashley a great opinion of Locke's skill in physic; yet upon a further acquaintance he regarded this as the least of his qualifications. He therefore advised Locke to turn his thoughts another way, and would not suffer him to practise physic out of his house except among some of his particular friends. He urged him to apply himself to the study of political subjects, both ecclesiastical and civil. This advice proved very agreeable to Locke's mental temper, and he quickly made so considerable a progress in the study of these matters that he was consulted by his patron upon all occasions. Ashley likewise introduced him to the Duke of Buckingham, the Earl of Halifax, and others of the most eminent persons of that time. About 1669 Locke accompanied the Countess of Northumberland to France with her husband, but the Earl dying at Turin in May, 1670, he returned with the Countess to England. He afterwards lived as before in the house of Lord Ashley, then Chancellor of the Exchequer. Ashley having, jointly with some other lords, obtained a grant of Carolina, employed Locke to draw up the fundamental constitutions of that province. Locke still retained his studentship at Christchurch, and he went occasionally to reside there for the sake of books and study, as well as the air, that of London aggravating an asthma from which he suffered. His connexion with Shaftesbury enabled him to see political actions from their origin to their result. The larger sphere of London life gave scope for his great faculties. He was intimate with Sydenham, and became a Fellow of the Royal Society, on the Council of which he served. After the fall of Shaftesbury in 1675 Locke went to France, where he spent three years, partly at Montpellier and partly in Paris. He always retained his interest in medicine, and he gives an amusing account of the elaborate ritual with which the degree of doctor of medicine was conferred at Montpellier. With Locke as a philosopher, or even a politician, it is not within our province to deal.

A PLACENTAL CAUSE FOR THE OVER-WEIGHT FETUS.

DR. ROMOLO COSTA[1] has been making observations upon the placenta in the case of over-heavy fetuses, and has made some interesting discoveries. It of course frequently happens that a big fetus has a big placenta, and naturally enough one thinks of the large placenta as the means by which the larger amount of nourishment passes from the maternal system to the fetal one in order to make the greater degree of growth possible. But the afterbirth is not always large in proportion to the largeness of the fetus, and the question then arises as to the mechanism by which the latter obtains a sufficient food supply to account for its unusual bulk. In order, if possible, to solve this problem, Dr. Romolo Costa, working in Professor Mangiagalli's institute in Milan, has examined microscopically the placentas from 28 cases of large (macrosomatous) fetuses. He regarded as macrosomatous all fetuses weighing 4,000 grams and over. The placentas were found to be of two types. One of these types exhibited a very remarkable increase in vascularity. Not only were the villi more numerous and smaller in size, but they also contained more blood vessels, the blood vessels had thinner walls, the connective tissue of the villi was scanty, and the intervillous spaces were more markedly engorged with blood. In a word, there were all the signs of more active circulation in the placenta. It is easy to see that in such a vascular sort of afterbirth more maternal blood is brought into contact with a larger area of fetal vessels; the feto-maternal interchanges will, therefore, be more considerable. As Dr. Costa puts it, a gram of such a placenta has a greater nutritional capacity than a gram of another sort of placenta. In this way it is possible to explain the greater weight of some large, over-weight fetuses whose placentas have showed no increase in size and weight. In the other type of placenta, however, Dr. Costa found no increased villous and intervillous vascularity; in it there was no territorial augmentation, so to say. Another cause had to be looked for here, and it was found in increased activity of the feto-maternal interchanges by reason of a sort of innately greater functioning power of the placental tissue. Dr. Costa, by preparing the placentas in a special way (Flemming's solution, formic aldehyde, etc.), discovered that the fat was so disposed in the villi as to suggest that it was passing with greater rapidity or in greater amount than usual from mother to fetus. There can be no doubt that these are very interesting observations, although it may be doubted whether the second type of placenta is so conclusively established as the first. Another question arises in connexion both with the vascular type and with that in which there is simply increased activity of function; what is the ulterior cause of the changes? Dr. Costa thinks that the increase in the vascular territory may possibly be a hereditary phenomenon handed down from parent to child, the placenta, we presume, being regarded as part of the child. This is not so likely to be the case in the other type, where one is inclined to think rather of some special circumstance in the pregnancy itself permitting or predisposing to a greater flow of nutriment from the mother to her unborn infant. It is clear that there is much investigation still needed before the physiology of the transplacental interchanges is thoroughly understood; but such work as this here referred to helps to fill up gaps in our knowledge, and, what is no less important, indicates the lines along which further research must travel.

[1] Costa, R., *Annali di ostet. e ginec.*, xxv, pp. 253-265, 1913.

LOUIS PHILIPPE AS SURGEON.

IN an article entitled "A Princely Practitioner," which appeared in the JOURNAL of May 31st (p. 1180), certain royal personages were mentioned as having a fondness for practising surgery on the bodies of their lieges. Among them should have been included Louis Philippe. Madame de Genlis, who was governess to the children of the Duke of Orleans (Philippe Egalité), gave them a very practical education, and, among other things, made her young pupils familiar with the principles and practice of what is now called first aid. Louis Philippe could dress and bandage a wound with the dexterity of a professional surgeon. In his youth he had followed courses of surgery at the Hôtel-Dieu and always carried a surgical case. His skill is commemorated by a picture painted by Alfred Johannot, which is now in the French Army Museum. The incident is related by Dr. Cabanès in the May number of *L'Hygiène*. On October 27th, 1833, the French King was going with his family to Le Bourget to await there the arrival of the King and Queen of the Belgians, who were coming to him on a visit. A postboy who followed the royal carriage was knocked down by a cart. He was carried to the side of the road, and the King after examining him declared that he must be bled. There was no surgeon at hand, and the question arose who should do what was needed. No one coming forward in answer to the appeal, the King took out of his pocket a lancet with which he opened a vein, whilst the princesses under his direction tore up their handkerchiefs to make bandages. The operation was successful, and the wounded man recovered perfectly and was a postboy ten years later. The incident was celebrated by a gold medal presented to Louis Philippe by the Société Monthyon et Franklin, in recognition of this manifestation of humanity. According to Victor Hugo this is "the first example of a king shedding the blood of a subject not to kill but to cure." Here, as usual, the omniscience of the great poet is at fault. Peter the Great, as we have already said, was fond of surgery, and other monarchs drew the teeth of their subjects. This they apparently

did from their love of the gentle art of dentistry, not by way of indirect taxation like Edward I, and others of lesser degree, in the good days of which Calverley sings:

And, by way of mild reminders
That he needed coin, the Knight
Day by day extracted grinders
From the howling Israelite.

CHLOROMA AND LEUKAEMIC AFFECTIONS OF THE EYE.

CHLOROMA is a very rare disease, and only about 50 cases have been published, although probably many more have died without a *post-mortem* examination or diagnosis. Although the symptom complex is fairly typical, few of the cases published have been recognized before death. The essential features are a lymphocytosis, which rapidly becomes acute and is in most cases the actual cause of death, and a sarcomatosis in which most of the bones and internal organs are infiltrated with granular cells, and massive deposits of new growth in the cavities of the skull, the thorax, and the abdomen occur. These growths and all infiltrated tissues are bright pea green, and it is from this characteristic that the disease, which has also been called cancer vert, has been named chloroma. The orbits are usually occupied by the growth, and in some cases the cavernous sinus is filled with a green mass. The exophthalmos, which is such a distinctive feature of the disease, is to be attributed to the great congestion of the orbital veins produced by these growths. Harrison Butler noted that the exophthalmos disappeared after a violent, almost fatal haemorrhage from the orbit, and that it was not present after death. In his case, which was published in this JOURNAL (1907, vol. i), the proptosis was not caused by the actual presence of the tumour masses in the orbit, but to the obliteration of the cavernous sinuses. The photograph of his case shows the characteristic bossing of the the temples caused by the development of green tumour masses under the temporal muscles. Another very typical case was published by Dunlop in this JOURNAL, and in 1909 a case was very thoroughly investigated by Hall,[1] who gives a complete bibliography. Hudson[2] describes a case which died in the Royal London Ophthalmic Hospital in 1908. Unfortunately, its true nature was not recognized during life, and the blood was not examined. The patient had some atypical symptoms, and an acute mastoid abscess, from which green pus escaped, developed. The histology of the case is minutely described. It is unfortunate that the green colour rapidly fades, and specimens do not show the characteristic and striking coloration seen at the necropsy. In the same number of the reports there is another paper by Hudson upon leukaemic affections of the eyes. A case of myelogenous leukaemia with tumour formation in the conjunctiva and elsewhere, was treated by *x* rays. The disease became acute, an excess of large mononuclear cells appeared in the blood, and the patient died. *Post mortem* it was found that the spleen, the lymphatic glands, the liver, the kidneys, the tonsils, and the bone marrow of the femur were densely infiltrated with the same type of lymphocyte. The same applied to the tumours which formed in the skin and elsewhere. The paper gives an excellent historical review of the whole subject and the practical warning that *x* rays may be the cause of the acute exacerbation of a myelogenous leukaemia into the pernicious form. This fact was first noted by Rist and Beclère.

THE FRENCH HOSPITAL IN LONDON.

THE first public institution visited by the President of the French Republic after his arrival in London was appropriately the French Hospital in Shaftesbury Avenue. This admirable institution, which was founded through the exertions of the late Dr. Achille Vintras, is managed by a committee of French residents in London, and is officered by English physicians and surgeons, of whom the seniors are respectively Dr. George Ogilvie and Mr. Edmund Owen. The hospital is open to all poor French persons and all poor foreigners speaking French, irrespective of creed or nationality. In 1912 the number of in-patients was 1,122, and of out-patients 5,064. In 1898 the hospital was enabled, partly by a bequest from M. Auchois, and partly by a gift of £4,000 by the French Government, with the assistance of the French Ambassador, to establish a convalescent home in Brighton. By the subsequent addition of the Paul Cambon Wing in 1904, and of the Rüffer Wing, built by the honorary president of the hospital as a memorial to his parents, the number of beds available at Brighton has been increased to 60, those in the Paul Cambon Wing being allotted to permanent pensioners. During 1912 the number of convalescent patients sent to the home was 380. The President of the Republic on arriving at the hospital on Wednesday morning was conducted to the board room where were assembled a number of supporters of the hospital, the medical and surgical staff, and representatives of the nursing sisters, and of the Red Cross nurses who work in the hospital. The president of the committee of management presented an address, in which he referred to the generous contribution of the French Government for the building of the hospital and to Dr. Achille Vintras, the best part of whose life had been devoted to advancing the interests of the institution. The address also made reference to the bequests of M. Auchois and to the interest the French Ambassador had shown in the development of the hospital. M. Poincaré, in replying, said that he was glad that his visit to London afforded him the opportunity of rendering his homage of admiration and expressing the gratitude of the French people to the medical staff of the hospital, to the devoted women who seconded their efforts, and to the whole *personnel* of the institution. M. Poincaré then conferred the distinction of Chevalier of the Legion of Honour on Mr. Clayton-Greene, one of the surgeons of the hospital, and decorated Mr. Hewitt Fletcher, the honorary auditor, with rosette of Officier de l'Instruction Publique. The President then visited the wards of the hospital, and conversed with some of the patients. M. Gaston Pondepeyre, the secretary of the hospital, had received on the previous day the distinction of the Legion of Honour.

THE CENTENARY OF GAS.

IT is just over a hundred years since our native fogs were first lightened by illuminating gas, and the present year sees also the jubilee of the Institution of Gas Engineers. The double event is to be celebrated in October by a National Gas Congress and Exhibition in London. At the jubilee meeting last week of the Institution of Gas Engineers, the President, Sir Corbet Woodall, delivered an address which had a wider range than the technical interests of the audience to which it was immediately addressed. He combated the idea that it was the incandescent mantle, arriving at the opportune moment, which propped up a declining industry. It was not Welsbach but Sir George Livesey who preserved the gas undertakings, and it was done by remodelling gas finance, so that, with pecuniary interest yoked to public duty, the reborn industry could enter the good fields of domestic cooking, house-warming, and industrial fuel-supply. Sir Corbet Woodall claimed that, so far as science could test the question, it was only by means of ordinary town gas, made straight from the most suitable coal of the district, that the huge domestic squandering of coal could be checked, and the smoke nuisance in towns abated. With regard to lighting, once the only function of gas, he pointed out that within the history of gas engineering the light obtainable from a cubic foot of gas had been increased from 2 to 60 candles, and suggested that even this limit might be

[1] *Proc. Roy. Soc. Med.*, vol. ii, No. 5, 1909.
[2] *Royal Lond. Ophth. Hosp. Reports*, vol. xviii, Pt. ii.

greatly improved, because no means existed of determining what were the final possibilities in the development of light from potential energy, whether in the form of the electric current or the combustion of coal gas. Sir Corbet did not think that gas would be superseded. With cheap gas as a result of more economical working, and an increasingly efficient public supply service, all the consequential benefits talked about by the prophets of town hygiene would follow as a natural course. A greater amount of smokeless, labourless fuel would be provided for urban Britain every year, and more coal fires would be put out. He contrasted the working man employed in gas concerns thirty years ago with his successor of the present generation, and the result of his experience is worthy of study by the sociologist. There was a time when those in charge of gasworks anticipated each week-end with anxiety, not to say disgust. Otherwise excellent and dependable workmen would be absent or would present themselves in a disgraceful condition, even to such an extent as to render the plant idle, and to endanger the adequate supply of a district. Wages were lower than at the present time, but the amount spent on drink was far higher. The drink trouble had now absolutely vanished, owing, doubtless, to education, domestic refinement, increased means of healthy recreation, and aids to thrift. The problems with which the modern captain of industry was faced were of a different character, but, with regard to these, Sir Corbet saw in co-partnership the good leaven which might yet work through the entire labour lump. Of the subjects set down for discussion and popular demonstration at the Congress more than half are connected with the hygienic aspects of the gas question, and the exhibition is to be on co-operative lines, the exhibiting firms having suppressed their rivalries and agreed to show only those pieces or sections of apparatus which, in the opinion of the executive committee representing the various gas associations, dovetail in with the general educational scheme. The idea of the movement, which is under royal patronage and has the support of many municipalities, is to link up the use of gas with the domestic and industrial arts, and even to give it a sociological significance.

THE POSITION IN SOUTH WALES.

WE are informed that, arising out of the visit paid by Dr. Addison, M.P., to South Wales, a meeting of the colliery surgeons has been held, and that representatives have been appointed with full powers to arrive at a settlement on behalf of their colleagues, and to attend a conference with the authorities and with other interested parties. No date has yet been fixed for the holding of the proposed conference, but negotiations are proceeding with a view to its being arranged as soon as possible.

THE ANNUAL MEETING: BRIGHTON.

MEMBERS proposing to attend the annual meeting of the Association at Brighton next month will find at pp. 7–10 of the advertisements a list of hotels and lodgings, and also the form to be filled in notifying their intention to be present. Members are requested to post this form without delay in order to facilitate the arrangements in Brighton. On the receipt of the form the necessary railway vouchers enabling members of the Association and their friends to travel to Brighton and back at the reduced rate of a single fare and a third will be forwarded. The tickets will be available from July 17th to July 28th inclusive.

As announced in our advertisement columns, an examination for commissions in the Royal Army Medical Corps will be held on July 23rd. The presence of candidates will be required in London from July 21st. Applications to compete should be made to the Secretary, War Office, by July 14th.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

Insurance Act Amendment Bill.

ON Tuesday, June 24th, under the ten minutes rule, the Chancellor of the Exchequer introduced the bill to amend the National Insurance Act.

The points in which he indicated that amendments of the bill were being proposed were:

1. The bill would legalize the additional grant to the medical profession.

2. It would fulfil the promise of the Government in regard to those voluntary contributors who under the existing Act might continue as insured persons, although their income was above the limit fixed in the bill, if they had been members of a society for more than five years. The bill would secure that these persons would not be able to receive medical benefit under the ordinary conditions of the Act.

3. Other provisions affecting the medical profession are an increased grant in respect of insured persons of more than 65 years of age, so as to bring the contribution for them in respect of the cost of medical attendance and treatment up to the same amount as for other insured persons, so as to secure, under the understanding arrived at between the medical men and the societies, that they should be treated on the same terms as other insured persons.

4. A further provision affecting medical benefit was a Government grant of 2s. 6d. a head to old and disabled members of friendly societies who formerly were receiving medical benefit, but who, in consequence of their age or disablement, had not been received into approved societies and had been deprived of medical benefit.

5. Another provision affecting medical men is that persons exempted from insurance, to the number of nearly 80,000, but on whose behalf the employer pays a contribution, are to receive medical and sanatorium benefit in virtue of the employer's contribution.

6. Other provisions of the bill will provide full sickness benefit to insured persons over 50 years of age, and the present distinctions operating at 60 and 65 will cease, so that the benefits of the Act will be uniform for all classes up to the age of 70.

7. It was also announced that the arrears arising from unemployment which are at present required to be paid by insured persons should not include the employers' section of the arrears provided, but the insured person should be responsible for his own section of the arrears only, the employers' section of the arrears being made good by a State contribution.

The Chancellor outlined the portion of the bill relating to casual labour, stating that the general purpose of the provision would be to make the contribution levied vary with the number of days' work within certain limits, instead of charging the full weekly contribution of fourpence on half a day's or on a full day's work, as may happen at present.

We believe that the proposal which is likely to be adopted will embody some modification of the principle of a daily stamp with limits within each week, and that the standard of 7d. as the unit weekly contribution will be maintained.

He stated also that increased powers should be taken to penalize employers who failed to pay their contributions or made improper deductions from wages.

A detailed study of the bill and the effect of the provisions it contains must be postponed until it has been printed.

Mental Deficency Bill.

The Committee Stage of the Mental Deficiency Bill was continued in Standing Committee B on June 19th and 24th. On June 19th very considerable progress was made with the bill.

Clause 3, which relates to the placing of mental defectives in an institution or under guardianship at the instance of a parent or guardian, was amended in two important particulars with a view to guarding against possible abuse. The amendments provided that a second

medical certificate should be furnished in these cases, and that one of the certificates should be given by a medical man whose name was on a list of medical men selected for that purpose by the local authority, and it was further provided that the petition should be accompanied by a certificate from a judicial authority. Considerable discussion took place on the question of the second medical certificate. Suggestions were made that one of them should be furnished by a special medical officer or by the medical officer of the institution to which the defective was to be sent. It was finally agreed that convenient and suitable provision could be made by the local authorities constituting a panel of medical men who were judged to be specially suitable for the purpose of granting these certificates.

A further important amendment was made to Subclause (3) of Clause 5 with a view to safeguarding the rights of the parent in cases in which a local authority shall present a petition in respect to a feeble-minded person. At the suggestion of Mr. Ellis Davis and Dr. Addison, an amendment was unanimously inserted to the effect that such a petition from a local authority must be accompanied by the consent of the parent or guardian, unless, in the opinion of the judicial authority, there are grounds for believing that such consent is being unreasonably withheld. The objection that, as the bill stood, a child might be taken from its parents or guardians against their will at the instance of a local educational authority, has been responsible for much of the opposition to the bill, and the amendments inserted will probably do much to allay it. The qualification with regard to the consent of the parent was introduced to meet that class of case in which parents are alleged to allow mentally defective girls to be used for immoral purposes.

Clauses 6 to 10 inclusive were rapidly passed through Committee with little or no amendment, and the Committee adjourned on the motion that Clause 11 stand part of the bill.

This important clause deals with the duration of detention under orders and the conditions under which a revision of the cases is undertaken. Dr. Addison pointed out that under Subclause (2) it appeared as if the case of a mentally defective child or young person might not be reconsidered by the visitors in the same annual or five-yearly periods as in the case of the other defectives, but that it might be open for such a case not to be reconsidered by the visitors until within three months after attaining the age of 21 years. This was plainly not the intention of the clause, and Mr. McKenna undertook to introduce words at a later stage which would remove any ambiguity on this subject.

At the meeting of the Committee on Tuesday, June 24th, Clauses 11 to 17 were added to the bill with several minor and not important amendments. On the motion of Mr. Rupert Guinness, Clause 12 was amended so that the authorities of a certified institution or home may discharge a defective on giving seven days' notice to the Board of Control. On Clause 14, in response to suggestions by Dr. Addison, the Home Secretary undertook that the mental condition of a person taken to a place of safety on being found neglected, abandoned, or cruelly treated, and thought to be a defective, should be reported on without delay. With respect to transfers from one institution to another, an amendment, proposed by Mr. Martin, was inserted in the bill in Clause 15 to the effect that the parent or guardian of the defective proposed to be transferred should be notified of the proposed removal, and informed of his right to withdraw the defective in accordance with the provisions of Section 12 of the bill. No material amendments were made in Clauses 16 and 17.

The first part of the bill concludes with Clause 18, and considerable discussion is likely to arise in the next sittings of the Committee over the clauses from Nos. 20 to 30, which set up the Board of Control, and relate to the position and duties of the local authorities.

In reply to Mr. Edward Wood on June 23rd, the Prime Minister said that the Government intended to proceed with the bill.

Mental Deficiency Bill (Scotland).—Mr. Frederick Whyte asked the Secretary for Scotland whether he was aware that many persons in Scotland apprehend that Clause 2, Subsection (1), of the Mental Deficiency and Lunacy (Scotland) Bill was to be interpreted as meaning that defective children might be removed from their homes without the consent of their parents; and whether, in order to allay such fears, he would make an early and authoritative statement on the point.—Mr. McKinnon Wood replied that the bill contemplated that a defective child, like any other child, should remain at home under the guardianship of his parents, and be educated or trained with the assistance of the School Board when required. No child could be removed to other guardianship or to a special institution without the consent of the parents, except under a judicial order, which would ensure full consideration of every reasonable objection on the part of the parent. Resort to this procedure should in practice be very exceptional, but there were special circumstances in which such a procedure might be necessary in the interests of the child.

Dogs Bill.—The adjourned meeting of the Standing Committee A on the Dogs Bill was held on Wednesday, June 25th. Considerable debate arose, in which Sir Philip Magnus, Dr. Chapple, Sir Henry Craik, and others took part in opposing the bill. Up to the adjournment for lunch little more than the first line of the first clause had been added to the bill. After lunch a quorum was not again obtained, and the meeting of the Committee was accordingly adjourned until Wednesday, July 2nd.

Duties, Emoluments, and Expenses of Medical Officers of Health.—Sir Philip Magnus asked the Prime Minister whether, having regard to the functions which were discharged by medical officers of health, particularly in the inspection of and reporting on the insanitary dwellings of the poor, in giving effect to the recent tuberculosis orders and in other matters affecting the health of the people, and having regard also to the disabilities under which they suffered in respect of fixity of tenure of office, absence of any superannuation allowance, and the payment out of their salaries of the increased and increasing expenses connected with the discharge of their responsible duties, he would appoint a committee to inquire generally into their conditions of service, and to report to the House.—Mr. Burns replied that he was considering the question of the extension of the principle of fixity of tenure of whole-time officials and other aspects of the matter in the light of changes introduced by recent legislation, and would give careful consideration to the suggestion.

Colour Vision Tests.—Mr. Cathcart Wason asked what percentage of men had failed with the colour vision tests introduced on April 1st, and how this percentage compared with that of former years; and how many men had passed with the wool test and failed with the lantern test, and vice versa.—The Parliamentary Secretary to the Board of Trade said that the total number of men examined in colour vision from April 1st to May 31st was 1,689, and of these 105, or 6.22 per cent., failed. Of the 105 failures, fifty-five failed in both the wool test and lantern test, and fifty in the lantern test only. None failed in the wool test only. It was not possible to give corresponding figures for previous years, since the statistics available related to examinations, and not to individuals. In 1912, out of 7,326 examinations in colour vision, 163, or 2.22 per cent., resulted in failure. The figures for the two periods were not comparable, both because of the difference of basis and because the Board of Trade had reason to believe that the number of candidates examined in the last two months included an abnormal proportion of persons who had never been examined before, among whom, naturally, the percentage of rejections was disproportionately high.

Post Office Cycles.—Mr. John Walsh asked the Postmaster-General if the postal telegraph messenger boys of 13 years of age were compelled to use bicycles weighing 37 lb., with a pedal, in many cases, 1 in. longer than the reach of their legs when the saddle was at its lowest point; if the danger to the health of those boys by such practice had been continuously brought under the notice of the authorities in London by one of the medical officers for some months past; if such representation had resulted in a point-blank refusal to supply a more suitable machine; and if this decision had been come to with the approval of the senior and second medical officers to the General Post Office.—

The Postmaster-General said that the question of the weight and build of the cycles used by telegraph boy messengers in the Post Office had received very full consideration; and he was advised that the present type of machine was suitable in all respects and was as light as was compatible with safety and durability. He was not aware that injury to the health of boy messengers had resulted from the use of this type of cycle. There were standing instructions that the saddles were to be carefully adjusted before the cycles were used. It was true that representations were made by one Post Office medical officer concerning the weight and build of a cycle used by boy messengers in his district; but the chief and second medical officers to the Post Office, who had seen the medical officer's representations and the reports on the local inquiry which was held in the matter, were satisfied that the cycles were of a suitable build and weight.

Veterinary Inspector (Scotland.)—Mr. Charles Bathurst asked the Secretary for Scotland as to the duties and qualifications of the new Veterinary Inspector to the Local Government Board appointed in Scotland, and was informed by Mr. McKinnon Wood that his duties are to supervise throughout Scotland the inspection of meat, of cattle, and of dairies in relation to milk supply. In further reply to Mr. Bathurst, Mr. McKinnon Wood said that Professor G. R. Leighton, who had been appointed Veterinary Inspector, held the following degrees and distinctions: M.D., C.M., L.R.C.P. and S.E., L.F.P.S.G., and F.R.S.E. He had been connected with Royal Dick Veterinary College since 1902, first as lecturer on comparative pathology and bacteriology, and latterly as professor of pathology, bacteriology, and meat inspection. In that capacity he had given lectures on diseases of animals, bacteriology of animal diseases, practical pathology, practical bacteriology, and meat inspection, and also demonstrations on healthy and diseased carcasses, the lectures on meat inspection and the demonstrations being conducted at the Edinburgh Corporation slaughterhouses. Professor Leighton had also a knowledge of Continental abattoirs, meat inspection, and methods of dealing with milk supply.

Medical Treatment and Nursing in the Highlands and Islands.—Major Hope asked the Secretary to the Treasury if he could state the amount of the sum which was to be granted for providing improved medical and nursing services for uninsured persons in the Highlands and Islands as recommended by the Medical Service Committee; and if he had come to an agreement as to whether the Insurance Commissioners or the Scottish Local Government Board should administer this grant.—Mr. Masterman replied that, under the arrangements proposed, the expenditure in respect of insured persons and non-insured persons would be met from a common fund made up of the moneys available under the National Insurance Act for medical benefit—the extra Parliamentary grant-in-aid of that benefit, and the proposed special Highlands and Islands Medical Service Grant of £42,000 per annum. It would not be possible to estimate beforehand what proportions of the total fund would be required for insured persons and non-insured persons respectively, but, when some experience had been gained, the approximate expenditure in respect of each class could no doubt be ascertained. It was proposed that the new grant should be administered by a Joint Committee of the several Government Departments concerned, in accordance with the Report of the Departmental Committee.

Docking of Horses.—In reply to Mr. George Greenwood, Colonel Seely said that representations had recently been made to the horse trade on this subject, and an order was now being issued to all concerned that after three years from this date no docked horse would be purchased for the army.

Foot and Mouth Disease (India).—In response to Sir John Spear, Mr. Runciman said that the report of the Committee sent out to India by the Board of Agriculture to investigate the cause and treatment of foot and mouth disease in cattle had been completed, but the drafting of a detailed report had been postponed owing to the illness of Sir Stewart Stockman, who was not yet able to attend to business.

Scotland.

[FROM OUR SPECIAL CORRESPONDENTS.]

Tuberculosis Treatment in Edinburgh.

During last week a good deal of interest was aroused among medical practitioners in Edinburgh by the circulation for signature of a memorial to the Lord Provost, magistrates, and Town Council, giving the views of the signatories on the proposed appointment of an assistant medical officer of health who should concern himself with cases of tuberculosis in insured and uninsured persons. The memorial was evidently widely approved, for over 200 names were appended. Attention was drawn to this proposed new appointment in these columns some time ago (April 12th, page 791).

The report recommended that the Corporation should appoint an assistant medical officer of health, with special qualifications for dealing with tuberculosis, who should give his whole time to the duties of the office and receive a salary of not less than £500 per annum. His services were to be placed at the command of the Local Insurance Committee, for purposes connected with sanatorium or other treatment of tuberculosis. The report also recommended that the arrangements at present subsisting between the Corporation and the Royal Victoria Dispensary, under which the Corporation contributes £450 per annum, should be amended, so that the dispensary would undertake to give dispensary treatment to all persons, whether insured or uninsured, sent by the medical officer of health or the assistant officer medical of health. It was recommended that the Corporation should also secure the services of a thoroughly qualified consultant to act as consulting officer to the Corporation and the Insurance Committee in connexion with the prevention or treatment of tuberculosis in all its forms, whether in insured or uninsured persons. It should be noted that the Corporation already receives insured persons sent by the Insurance Committee for sanatorium treatment to the City Hospital at Colinton Mains, established for the treatment of infectious diseases under the Public Health Act, Dr. Alexander James, the physician to the hospital, undertaking the treatment of tuberculous patients at a remuneration of £300 per annum.

The full meaning of the scheme, however, only began to be apparent lately. The memorialists represent that this new arrangement would have the effect of giving to an officer in the Public Health Department the power to revise the judgement passed by practitioners of medicine in respect of the actual clinical condition of the patient and the form of treatment that shall be adopted; and they protest against the intrusion of the medical officer of health or of his assistant into the clinical sphere. The memorial proceeds: "In relation to the clinical aspects of tuberculosis—that is to say, the diagnosis of the form and stage of the disease in a given individual and the treatment which the determination of these facts would entail—we dissent entirely from the suggestion that the opinion of the medical practitioner should be subject to consideration or revisal by any one save a clinical consultant such as the profession is in the habit of meeting in relation to other medical practice. If, for the purpose of sanatorium benefit, it is necessary that the applications be submitted to one person, who shall act as adviser to the Committee, we claim that such official should be a clinician of high standing, in whom the profession and the public could place entire confidence. We believe that the appointment of an assistant medical officer of health to undertake such duties would not be in the interests of patients suffering from tuberculosis, and is calculated in the highest degree to create dissatisfaction and distrust in the public mind, as it certainly would in that of the medical profession."

On June 20th the joint subcommittee of the Public Health Committee and the Burgh of Edinburgh Insurance Committee submitted its report dealing with the tuberculosis arrangements at a joint meeting of the Public Health and Treasurer's Committees of the Edinburgh Town Council; the report was unanimously approved by these Committees, and was submitted for the consideration of the Town Council. In this report, to which reference was made in these pages some weeks ago (April 19th, page 850), one of the recommendations is the appointment of a qualified assistant to the medical officer of health, who would give his whole time to the duties of the office in dealing with tuberculosis patients, and advise the

Insurance Committee as to the appropriate form of benefit in each case, whether hospital, dispensary, or domiciliary, the salary proposed being £500. The appointment is to be made after advertisement, the terms of which are to be submitted to the Insurance Committee. Most of the other suggestions outlined already (*vide* page 791) were accepted in principle in the report. The estimate made by the Insurance Committee of the expenditure for the year on sanatorium treatment was submitted at the meeting, and this showed that the income which the Insurance Committee received was not sufficient to enable it to carry out all the work on sanatorium treatment. The question came therefore to be, Would the Corporation agree to pay one-half of the deficiency whilst the Treasury paid the other? The deficiency amounted to £10,700, which meant that the Corporation would have to pay £5,350. It was agreed to recommend the Corporation to meet half of the deficiency under two conditions—namely, first, that the Treasury pay the other half; and, secondly, that the Burgh Insurance Committee approve of the scheme for the treatment of tuberculosis patients submitted by the Public Health Committee to the Town Council, after consultation with a special committee of the Burgh Insurance Committee.

The Insurance Committee met on June 23rd to consider the recommendations of the Sanatorium Benefits Subcommittee, which had been in conference with the subcommittee of the Public Health Committee of the Town Council.

The substance of the report was that the Committee should approve of the appointment by the Town Council of a qualified assistant to the medical officer of health to act as tuberculosis officer at a salary of £500 per annum; that the Insurance Committee agree to an arrangement being made by the council with the directors of the Royal Victoria Hospital for utilizing the dispensary in connexion with the scheme for dealing with tuberculosis, under which the magistrates and council would pay to the directors a sum of £1,000 per annum; that a consultant or expert adviser be appointed at a salary of £500 per annum; that the Insurance Committee receive the services of the tuberculosis officer, consultant, and dispensary, on the payment of one-half of the salaries of the tuberculosis officer and the consultant, and one-half of the contribution of £1,000 to the dispensary; and that the appointment of consultant be offered to Sir Robert Philip.

Councillor Robertson presided, and stated in detail the various steps of the negotiations up to the present time. Some discussion then took place as to whether the committee was now dealing with a report or with a "cut-and-dried" scheme. A motion was then made that the standing orders be suspended in order that the whole position be discussed *de novo;* on a division, 22 voted for suspension and 19 against, and as a two-thirds majority was necessary for suspension, the motion was lost. Mr. William Guthrie then moved approval of the recommendations, and stated that he could not see any objection to the appointment of an assistant medical officer of health; he would be so only in name, for his whole time would be taken up in dealing with tuberculosis, and he would be at the beck of this Committee. Councillor Young seconded, and maintained that they were following the lines of the Astor Report in appointing a tuberculosis officer through the public authority, and in making him a whole-time officer under the medical officer of health; he was also to be an expert clinician, whatever else he might be. Mr. Simpson moved to disapprove, as he regarded the scheme as disastrous to the patients; and Mr. Warden, who seconded this motion, said he based his action on the ground that such an authority as Sir Robert Philip was against the proposed scheme. A somewhat heated discussion followed, and, finally, on a division being taken, 21 voted for the approval of the report and 19 against. The report, therefore, was adopted.

At a special meeting of the Town Council, held on June 24th, the reports of the Public Health and the Treasurer's Committee were presented by Mr. Macpherson (the convener). There were in all seven recommendations:

1. That a qualified assistant to the medical officer of health be appointed to act as tuberculosis officer at a salary of £500 per annum.
2. That an inquiry officer be added to the staff of the medical officer of health, at a salary of £150 per annum.
3. That an arrangement be made with the directors of the Royal Victoria Hospital for utilizing the Royal Victoria Dispensary in connexion with the scheme for dealing with tuberculosis, under which the magistrates and council will pay to the directors a sum of £1,000 per annum, and the existing agreement with the directors will be superseded.
4. That a consultant or expert adviser be appointed at a salary of £500 per annum.
5. That an agreement be made with the Insurance Committee under which the services of the tuberculosis officer, consultant, and dispensary will be available to them on the footing that the Insurance Committee pay one-half of the salaries of the tuberculosis officer and the consultant and one-half of the contribution of £1,000 to the dispensary.
6. That the appointment of consultant be offered to Sir Robert Philip.
7. That Dr. James be appointed consulting physician at the City Hospital for cases of tuberculosis at a salary of £300 per annum.

Mr. Macpherson moved the adoption of the report, and pointed out that time was now pressing; the only important variation in the proposal was, he said, that the sum of £600 for the dispensary had been increased, at the request of the directors of the dispensary, to £1,000. The scheme substantially followed the lines of what was known as the Astor Report. After explainining the duties proposed to be assigned to an assistant medical officer of health, he stated that the consultant would be in effect the senior tuberculosis officer. The Committee suggested the name of Sir Robert Philip for this post, but it was open to the Council to propose another name, and so in the meantime he would leave the name of the consultant out of the motion. Mr. J. A. Young seconded, and expressed his opinion that the criticisms of the medical men were largely, or almost entirely, due to misapprehensions. If there was any interference between doctor and patient, it was an interference laid down by Parliament as necessary, and which the Town Council, as administrators, could not alter. In most cases in the past the part which the medical officer would play had been played without the slightest complaint from the medical profession or from the patients. Mr. Bruce Lindsay moved that the matter be remitted for further consideration, and Baillie Lyon seconded. On a division, the report, with the exception of that part dealing with the appointment of a consultant, was adopted by 37 votes to 3. The proposal to appoint a consultant was next considered, and in reply to a question whether any city or town had made a similar appointment, Mr. Macpherson replied that the circumstances in Edinburgh were unique. It had been done with a view of recognizing the great work which Sir Robert Philip had done in the burgh and in Scotland, and to acknowledge the usefulness of the Victoria Hospital and its work. Mr. Bruce Lindsay objected to the proposal, which was tantamount to saying to the medical men of the city: "A consultant has been appointed to whom you must go, and to no other person." He moved that the proposal to appoint a consultant be remitted back to the Committee. Mr. Deas seconded. Mr. Harrison said he agreed to the proposal if it were made a personal appointment, so leaving it to their successors in office to decide whether Sir Robert Philip should have a successor or not. Mr. Macpherson accepted this modification. The Council then voted on the question, and 35 members supported the proposal that the appointment be made a personal one, and 5 voted for delay. The financial arrangements as recommended by the Treasurer's Committee were then described by Treasurer Lorne Macleod, and were adopted.

The new buildings rendered necessary by the increased number of phthisis cases sent for treatment to the City Hospital at Colinton Mains under the Insurance Act are now in process of erection. The shelters are in the form of long sheds, open in front except for low screens between the supporting pillars; dressing-rooms and bathrooms are being erected also. Provision is being made at present for 63 beds. Mr. McHattie, the City Gardener, has a scheme in preparation for the planting of shelter belts of trees, which will require some 40,000 trees, about half of them being Austrian pines, and the others being elms, willows, and Canadian poplars. If the scheme be carried out as proposed, quite a pine forest may be expected to be in existence in a few years. The new shelters were inspected on June 17th by the Public Health Committee of the Edinburgh Town Council, and Mr. McHattie's tree-planting plan was discussed.

TREATMENT OF TUBERCULOSIS AT LEITH.

Dr. William Robertson, M.O.H., Leith, has issued a report on the administrative control of pulmonary tuberculosis, in which he states that the work connected with this disease demands far more personal and continual application than all the infectious maladies grouped together, excepting, perhaps, plague, small-pox, and typhus. Dealing next with the question of sanatorium accommodation, the report maintained that, if twenty beds sufficed for insured persons, thirty-four more would be enough for the dependants. The burgh architect believed that he could erect a sanatorium to contain that number at a cost of not more than £7,000. To meet the cost a grant of £50 a bed from the Local Government Board would provide £2,700, leaving £4,300 chargeable to the rates; for furnishing £800 would be required, making a total so chargeable of £5,100. Dr. Robertson thought that unless sanatorium benefit was restricted to phthisis serious expense would be incurred.

A COMBINED TUBERCULOSIS SANATORIUM.

At a meeting, on June 18th, of the Selkirk County Council for the purposes of the National Insurance Act, it was decided by a majority to combine with the counties of Berwick, Linlithgow, Peebles, Haddington, Midlothian, and Roxburgh in forming a central institution as a sanatorium for patients suffering from tuberculosis, and to maintain five beds therein as the share of the county of Selkirk. The amendment, which was lost (by 4 votes to 12), was that the council should have an institution of its own for the treatment of all cases. The question of the provision of local hospitals and dispensaries was delayed for further consideration.

EDINBURGH PROVIDENT DISPENSARY.

At the annual meeting of the Edinburgh Provident Dispensary, Marshall Street, on June 10th, when Mr. James MacIntosh presided, it was reported that during the past twelve months 4,831 patients had been treated, a decrease of 499 as compared with the previous year. The effect of the Insurance Act had been to diminish very considerably the number of adult males treated; but it had in no way impaired the usefulness of the dispensary, a large field of work being found among the numerous dependants on insured persons who were not themselves entitled to the benefits of the Act, as well as amongst the unemployed and uninsured class.

ECHO OF THE TURCO-BULGARIAN WAR.

Dr. Alice Hutchison, who was principal medical officer of the hospital of the Wounded Sick and Wounded Convoy Corps at Kirk Kilisse during the late war, was entertained to dinner at the Edinburgh Café on June 20th by some forty ladies. Dr. Hutchison had been absent in Bulgaria from November till recently, and since the end of January, when the Women's Convoy Corps returned to London, she had been working under the Bulgarian Red Cross Society, and had had charge of a field hospital to the south of Adrianople after the fall of that city. Dr. Elsie Inglis was in the chair, and proposed the health of the guest of the evening, who gave an interesting account of her experiences in Bulgaria. It was stated that this was the first occasion in which a medical woman had taken full charge of a military hospital in time of war.

FINLAYSON MEMORIAL LECTURE.

A large number of members of the medical profession, on the invitation of the Royal Faculty of Physicians and Surgeons in Glasgow, attended the Finlayson memorial lecture in Glasgow on May 6th. Dr. James A. Adams presided, and introduced the lecturer, Sir Thomas Clifford Allbutt, K.C.B., Regius Professor of Physic, Cambridge. Among others present were Dr. John Barlow, visitor, and Dr. W. G. Dun, treasurer of the Faculty; Principal Sir Donald MacAlister, and Sir Hector Cameron. The subject of the lecture was "Byzantine Medicine, from Galen to Salerno."

Ireland.

[FROM OUR SPECIAL CORRESPONDENTS.]

ULSTER MEDICAL SOCIETY.

THE annual meeting of the society was held in the Medical Institute, Belfast, on June 5th, when the president, Dr. R. W. Leslie, occupied the chair. The reports of the council, the honorary treasurer, and the honorary librarian were read, discussed, and passed. The treasurer drew attention to the fact that the balance in favour of the society had been falling for the last two or three years. Mr. R. J. Johnstone moved that in By-law V the words "such membership shall terminate at the end of the tenth year after the date of registration" be deleted. After considerable discussion it was agreed to postpone the matter for future discussion.

The following officers were elected for the session 1913–14:

President.—Mr. A. B. Mitchell, F.R.C.S.I.
Vice-Presidents.—Dr. Thomas Houston and Dr. Nolan (Downpatrick).
Honorary Treasurer.—Dr. John Rusk.
Honorary Secretary.—Mr. Samuel T. Irwin, F.R.C.S.I.
Honorary Editorial Secretary.—Dr. C. G. Lowry.
Council.—Mr. R. J. Johnstone, F.R.C.S., Howard Stevenson, F.R.C.S.I., Dr. J. C. Rankin, Mr. Crymble, F.R.C.S., Dr. Rentoul (Lisburn), Dr. W. McLorinan.

THE QUESTION OF PEAMOUNT SANATORIUM.

The Women's National Health Association has published a long memorandum to explain the action it recently took in connexion with the appointment of Dr. M'Grath as resident medical superintendent to to the Peamount Sanatorium. The property of Peamount was bought for the purpose of a sanatorium for patients recommended for sanatorium benefit under the Insurance Act for £2,500. This money was provided out of the special sanatorium grant under the Insurance Act and the Finance Act of 1911. The property is vested in five trustees nominated by the Women's National Health Association, with the approval of the Irish Government. The management is in the hands of the same association. It was intended at first to provide provisional accommodation for patients recommended for sanatorium benefit by County Insurance Committees. Very soon application was made by a number of county councils for permanent accommodation, and an arrangement was made whereby county councils could contract for the establishment expenses of beds at £70 each. The council of the Women's National Health Association appointed a Provisional Committee in April, 1912, to take charge of all work carried out by the association under the Insurance Act, and empowered the President to take all such steps as she deemed expedient in the interests of the work.

At a conference held in December the county councillors present decided that only those councils which took permanent beds should be represented on the committee of management, and that each of these should appoint one representative, and that for every two such representatives the Women's National Health Association should appoint one representative. The Local Government Board pointed out that such a committee would not be an official committee, but simply a committee appointed by the Women's National Health Association. A special council meeting of the Women's National Health Association adopted the principle recommended for the constitution of the committe of management, and nominated six of its members to act along with the twelve representatives of county councils who had taken permanent beds at Peamount. It was, however, agreed that the president, assisted by the other officers of the association, should be empowered to act on behalf of the association in connexion with the sanatoriums, and the provisional committee, before dissolving, directed that advertisements for a resident medical superintendent should be issued in the medical journals. The duties of that office were in the meantime carried on by Dr. Joseph Daniel, who had for four years been in

charge of the home treatment of tuberculosis patients cared for by the Women's National Health Association in Dublin, and who, for the last year, was assistant superintendent of the Collier Memorial Dispensary for Tuberculosis. Associated with him was Dr. Prudence Gaffikin, medical secretary for the Women's National Health Association (who had held a variety of medical appointments, including the assistant medical officership of Huddersfield and Warrington and acting medical officership of the latter town, including the supervision of a small tuberculosis hospital). Dr. Gaffikin resided at Peamount, and when Dr. Daniel took over the charge of the Collier Dispensary, became sole medical superintendent pending a permanent appointment. When the committee met in March the county councillors declined to transact business till the remaining county councils had had a further opportunity to elect representatives. It was decided to call another meeting four weeks later to make the appointment, and directions were given that only candidates having suitable qualifications should be placed on the list to be considered. One of the candidates then in charge of a sanatorium in Birmingham was eminently suitable, and would probably have been unanimously appointed, but unhappily he died the day before the appointment was to be made. The committee ordered fresh advertisements and appointed a subcommittee to examine the applications and to recommend candidates. There were fourteen applicants, and the subcommittee unanimously decided to recommend that Dr. Kilpatrick (of co. Armagh), who had seven years' sanatorium experience, should be appointed chief medical superintendent, and Dr. J. J. M'Grath assistant medical officer. The committee met on May 7th, and appointed Dr. M'Grath resident medical superintendent, adding a rider that this appointment be subject to the sanction of the Local Government Board being continued to the institution under the superintendence of Dr. M'Grath. The officers of the Women's National Health Association, who were present, protested against this appointment on the alleged ground that Dr. M'Grath had no experience in the administration of a sanatorium. The matter was referred to the Local Government Board, which replied expressing surprise at the appointment of Dr. M'Grath, and indicating that the sanction which had been extended to Peamount temporarily was likely to be withdrawn unless a gentleman with the necessary experience were appointed. Meanwhile, Dr. Prudence Gaffikin had remained in charge at Peamount, with the temporary assistance of her brother, Dr. Philip Gaffikin, who had made special laboratory study of tuberculosis, and had been in attendance for six months at the White Abbey Sanatorium, Belfast. The Committee of Management met again on May 15th, and having heard the letter of the Local Government Board, passed a resolution regretting its action, but accepting the position, and deciding to go forward with the appointment of medical superintendents. The President of the Women's National Health Association intimated that she understood that Dr. Kilpatrick did not wish to renew his application, and that she was informed it would not be for the credit of the institution in medical circles that a new advertisement should be issued immediately. A resolution proposing Dr. M'Grath's temporary appointment for three months, in order to test his suitability for the post, was not accepted, as it was pointed out that this plan would be neither in the interests of Dr. M'Grath nor in that of the institution. Finally, it was decided unanimously to ask Dr. Prudence Gaffikin to continue to act as superintendent, assisted by Dr. Philip Gaffikin, and this request was acceded to on the understanding that a permanent appointment should be made as soon as feasible.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

LIVERPOOL.

Medical Treatment of School Children.

A movement is on foot to establish care-committees to include school managers, members of the Education Committee, and voluntary workers. The duty of these committees will be to follow up cases of children who require special attention owing to defects of health discovered on medical inspection, or lack of nourishment, or other reason. It is thought that these committees might, mainly through their voluntary helpers, also advise and help as regards juvenile employment on leaving school. Each voluntary helper would interest himself or herself in one or more families, and would become the guide, philosopher, and friend in all matters pertaining to the children. It would be an obvious advantage if a single visitor could take the place of the numerous representatives of the different organizations which interest themselves in child-life, and if the parents of the poorer classes could be spared the many visits—official and philanthropic—which are not infrequently a cause of annoyance. It is doubtful, however, whether voluntary workers could ever attain a standing of friendship in the homes of the classes aimed at, if part of their duty were to investigate the means of the parents and the eligibility of the children for free meals, free medical treatment, etc. There are, moreover, many other difficult points to be settled before the present organizations, which have a record of excellent work to show, can safely be dispensed with.

Police Appointments.

As in the case of the tramway men, the Liverpool police are exempt from contributing to the Insurance Act. The members of the force receive medical treatment from doctors who are appointed by the Watch Committee at a fixed salary. This salary works out at a rate which is less than that payable for insured persons under the Act. A vacancy caused by the retirement of Dr. Thomas Dawson has drawn attention to this anomaly, and, following the advice of the local Division of the British Medical Association, members of the profession have agreed not to apply for the vacant post until the terms of service shall have been revised so as to make the remuneration at least equal to the standard set by the Insurance Act. Following on this action by the Division and by the local profession, the other police surgeons are approaching the Watch Committee with the view of obtaining an increase in the rate of remuneration of all police surgeons in the municipal area.

Hospital Changes.

Dr. Murray Bligh has been appointed Physician to the Stanley Hospital to fill the vacancy caused by the transfer of Dr. Pantland Hick to the post of Assistant Physician at the Royal Infirmary.

MANCHESTER AND DISTRICT.

The Manchester Consumption Hospital.

The annual report of the Manchester Hospital for Consumption and Diseases of the Throat and Chest, which was presented to a meeting of subscribers held last week, states that during the year the three departments of the hospital—the out-patient department, the hospital at Bowdon, and the Crossley Sanatorium at Delamere—have been inspected and approved by the Local Government Board, and arrangements are being made with various Insurance Committees for the use of beds at Bowdon and Delamere, and with the Manchester Insurance Committee for the use of the Hardman Street Dispensary as a tuberculosis dispensary. The board of management points out that the Insurance Act does not apply to a large proportion of the patients receiving advice and sanatorium treatment at the institution, and as in the last year the expenditure exceeded the income by £2,188 there is still need for the continued support of friends and subscribers. The chairman of the meeting, Mr. Alderman Fildes, said the board welcomed the fact that the nation and the municipalities were now taking up the work, and would be glad to work shoulder to shoulder with those who were working the Insurance Act. Sir Kenneth Crossley said that subscribers seemed now to be feeling that they might reduce their subscriptions to the hospital, but all subscriptions would still be needed, as it was desired that the hospital should be additional and not subservient to anything which the Government might do. Sir Charles Behrens, the Treasurer, said the Insurance Act did not provide for the treatment of school boys or girls who were not

insured, nor for housewives, and it was from these classes that the hospital had the greatest number of its patients. He hoped the public would appreciate this fact, as otherwise the hospital would not be able to do that work efficiently.

BIRMINGHAM.

DEATH-RATE OF BIRMINGHAM IN 1912.

NOTWITHSTANDING the heavy mortality from measles, the death-rate in 1912 was only 14.1 per 1,000, which is lower than any previous year except 1910 when the rate was 13.2. During the last quarter of the year there was a severe outbreak of measles, and nearly 4,000 cases were reported from the elementary schools. There were 453 deaths from measles during this quarter. There was also an exceptional prevalence of scarlet fever during the same quarter, no fewer than 2,268 cases being notified, which is double the average number. The chief causes of death in 1912 were as follows: Measles 571, scarlet fever 153, diphtheria 100, whooping-cough 331, typhoid fever 30, diarrhoea and enteritis 346, phthisis 1,088, other tuberculous diseases 204, and respiratory diseases 2,272. Pulmonary tuberculosis was for the first time compulsorily notifiable in 1912, and 4,553 cases were reported.

Correspondence.

THE PROPOSED REFORM OF THE CONSTITUTION.

SIR,—It fell to me to occupy the chair of the Council during a very momentous period in the history of the Association. As a member of the committee which drafted the present constitution, I have necessarily some knowledge of the history of the movement, and have taken a great interest in its subsequent development, though, from circumstances, I have taken no very active part of late years in the work of the Association.

It was unfortunate for the Association, and for the authors of the scheme which was ultimately evolved, that so comparatively early in its history such a heavy strain should have been thrown upon it, and that the Association should have been called upon to pass through so severe a crisis, thus testing machinery and administrative arrangements for which it may correctly be claimed by the authors that they never had a fair trial.

It is no matter for surprise, therefore, that in more than one direction there was a breakdown, and that a movement is now on foot to try to amend the existing constitution.

It seems to me very important that full advantage should be taken of past experience, and that if the constitution is to be thrown anew into the melting pot the result should be as perfect as existing conditions and knowledge will permit.

Very few of those who guided the Association during the somewhat troubled waters of that time—now twelve years ago—form part of the administrative body to-day, and it may not, therefore, be inopportune for one who took a pretty active part then to make some suggestions which may perhaps help in the discussion of what is at once a vastly important and a vastly difficult problem. On its proper solution the future welfare of the Association largely depends, so no apology is needed for discussion from all points of view.

I may here state that my attitude then was a conservative one, and I did not view with much confidence the possibilities of the machine which was brought into existence. I recognize, however, that it is little use looking back, and that evolution must proceed from the point at which we at present find ourselves.

There are some points of very great importance, and having a profound influence, which I think have been very much overlooked, but on which I should like to insist at the threshold of this discussion.

I.

The history of the administrative arrangements of the Association, and the interests—more or less vested—which had grown up in consequence, may first be noticed.

Under the conditions existing up to the year 1902 the Council was the supreme body, and the general members of the Association exercised little control over its government. Each Branch sent a member or members to the Council, and a seat once gained was seldom disturbed. Thus a vested interest arose, and when it was sought to be disturbed it did not make for domestic peace in the Branch.

This tradition still exists, and its influence is to be traced in the last report of the Council.

Now that Branches are more or less grouped the result is not very satisfactory, and the weaker Branches cannot always feel that their claims receive due consideration.

II.

Generally speaking, the members of the Association took little interest in the government or management of the Association, and it is more difficult than many members suppose to create this feeling. Men who are very busy in their professional lives have little time to attend meetings or to make themselves acquainted with the details of organization. The result has been that the meetings of Divisions are not as a rule well attended, and the voice of the profession has not been got at through this means.

III.

The voicing of the Association by delegation has not proved a success. However small or unrepresentative a Divisional meeting may have been at which any particular decision has been reached, the Representative has to vote, either individually or by card, in accordance with such decision. It may well be that such vote is in direct opposition to the real views of the Division had it been possible to obtain a full meeting.

IV.

The passing of the supreme power from the Council to the Representative Body has been hindered, not helped, by the compromise which exists.

If it is the wish of the Association, as seems now quite clear, that the supreme power should be vested in the Representative Body, then the formation of the Council, its mode of election, and its duties, will have to be entirely changed.

In my opinion, to make the constitution a logical, practical, and workable one, the following changes are needed:

1. The Representative Body to cease to be an assembly of delegates.

2. The Council to be elected by the Representative Body and from its own members, care being taken to provide by group voting, or otherwise, that each area in the kingdom is proportionately represented on the Council.

3. The Council to be the executive of the Representative Body, which shall delegate to the Council such powers as it shall think fit.

4. The Representative Body should meet at least every half-year, provision being made for special meetings being secured without technical difficulties.

5. Election to the Representative Body to be annual, and the voting at such elections to be by a postal vote only. It is essential that the mode of election be uniform throughout the Association.

6. The opinion of the Divisions on all important question should be ascertained by a postal vote—the Representative Meeting deciding in each instance when this is to be done.

By requiring presence at a Divisional Meeting to record one's vote brings about this very serious result—namely, that a large preponderance of members are practically disfranchised, and hence they will cease to take any active interest in the affairs or policy of the Association, and will repudiate the decisions arrived at in which they have had no voice. A postal vote removes this difficulty, because the opportunity is given to every one to record his vote either at an election or on a matter of policy. It is very easy to make too much of the necessity for hearing or taking part in discussions at Divisional meetings.

As a result of these propositions in my opinion the answers to the six points submitted by the Council are very simple. The whole of the points would be in the hands of the Representative Body.

I believe that in these ideas we have the germ of a

constitution which will, more effectually than that now in existence, obtain the views of the Association in a concrete form on any important question, and that it will provide an administration which will command the confidence and support of the general body of members.

The old order must, as far as possible, disappear so that the altered constitution in its start should have little or nothing of compromise or makeshift.—I am, etc.,

Bournemouth, June 25rd. J. ROBERTS THOMSON.

THE POSITION OF VOLUNTARY HOMES UNDER THE MENTAL DEFICIENCY BILL.

SIR,—In considering the position of voluntary homes under the Mental Deficiency Bill, attention may first be called to Clause 47 (1). This is the provision which makes it necessary for a voluntary home receiving defectives to come under the Act. It reads as follows:

47.—(1) It shall not be lawful for a person without the consent of the Board to undertake the care and control of more than one person who is defective, or who is placed under his care as being a defective, elsewhere than in an institution, a certified house, or an approved home, and if any person contravenes this provision he shall be guilty of a misdemeanour.

I assume that a voluntary home is one which receives or proposes to receive more than one defective, and also that the Board would not grant consent, apart from certification or approval, to such reception, except temporarily in case of emergency. It should be noted that the question of profit does not arise here as it did in the Lunacy Act. Voluntary homes must therefore apply for recognition under the Act if they wish to continue their work.

Presuming, further, that we are not considering homes run for private profit, they can apply for recognition either (*a*) as a certified institution, or (*b*) as an approved home.

It is not specifically stated, but it would seem from reference to Clause 60 to be intended that one part of a home may become a "certified institution" and another part "an approved home."

The conditions attaching to approved homes are dealt with in Clause 46. Incidentally it may be pointed out that the use of the word "institution," which is given a technical definition in the bill, is here apparently used in a loose, non-technical sense, and this introduces a certain confusion which should be cleared up.

Approved homes will apparently be subject to special and less stringent regulations, etc., than certified institutions. The essential difference between them is that "approved homes" cannot receive and detain persons ordered to be sent under an order of judicial authority, a court, or a Secretary of State. There seems to be a lack of clearness as to what class of defectives may be received in approved homes, and under what conditions. It will be remembered that Clause 1 defines four classes of mentally defective persons deemed to be defective within the meaning of the bill—idiots, imbeciles, feeble-minded persons, and moral imbeciles.

Clause 2 describes how defectives may be "dealt with" under the bill, and in doing so states that they may be "sent to" or "placed in" an institution for defectives or placed under guardianship. Guardianship does not concern us for the moment.

Apparently, then, this clause does not provide for either those defectives who are subject to be dealt with at the instance of a parent or guardian as being idiots or imbeciles or under the age of 21, or those who in addition to being defective in some way come in contact with the law in one of the categories set out in Clause 2 (*b*), being placed in an approved home, but only in an institution or under guardianship, and yet in Clause 46, which deals with approved homes, it is only group (*b*) which is forbidden to be received, namely, defectives subject to be dealt with under this Act, otherwise than at the instance of his parent or guardian, by the process explained in Clause 4, under order of a court, etc.

The "approved home" idea, as it figures in the bill, has every appearance of being an afterthought, and has not been thoroughly amalgamated with the other provisions of the bill. Approved homes are allowed to receive but not to detain defectives other than those subject to be dealt with under Clause 2. The cases so received will be in the nature of voluntary boarders if over 21, and will not be certified. Presumably "feeble-minded persons" under the age of 21 are suitable cases for being admitted to approved homes, and yet Clause 2 would, as has been explained, seem to exclude them.

Apparently local authorities would not be empowered to contribute towards the expenses of persons received in approved homes, though this is not absolutely certain (see Clause 45), but the local authority is responsible for the maintenance of a person ordered to be sent to a certified institution.

"Certified institutions," on the other hand, may receive defectives subject to be dealt with, whether at the instance of parents or guardians, or on the order of a court, etc., when, subject to the safeguards provided in Clauses 3 and 4, etc., there will be power of detention, but if not subject to be dealt with under the bill, a defective will presumably not be admissible to an "institution."

Voluntary homes wishing to become "certified institutions" will have to apply to the Board for a certificate, which will be granted by the Board to suitable managers if the premises seem to be fit. It is not at all certain what conditions as to fitness may be laid down—for example, as to numbers received, etc. The Secretary of State will make regulations (Clause 38) in regard to all such institutions and their management, etc.

If the views here taken are correct, it would appear to follow that all voluntary non-profit homes will find it desirable to become certified institutions, otherwise they lose the power of control which it is the main object of the bill to give them. "Approved homes" are introduced to provide for the voluntary boarder—that is, slight cases which parents will not certify and which are not subject to be dealt with by the Act.

What is to happen to feeble-minded cases over 21, not subject to be dealt with, who will not voluntarily enter an approved home, the bill does not say.

There remains the question whether local authorities will be willing to send their cases to voluntary institutions or whether they will prefer to provide their own. The main inducement for the recognition of the voluntary home, both by the Board of Control and the local authority, will be the financial one. The non-recognition or the disuse of voluntary homes would, in the first instance, be very costly, and it seems likely they will be encouraged to continue to fulfil their very useful functions as certified institutions.—I am, etc.,

London, W., June 23rd. R. LANGDON-DOWN.

THE NORMAL EMPTY STOMACH.

SIR,—In his note on the shape of the normal empty stomach, in the BRITISH MEDICAL JOURNAL of June 7th, Dr. Stopford remarks that it is rare to see in the dead body a stomach that conforms in shape to what radiographers tell us is the normal. My experience leads me to believe that it is a frequent occurrence to find contracted stomachs at autopsy.

I have a collection of human stomachs, obtained in the *post-mortem* room, which illustrate the various phases in contraction of the emptying stomach. Several of my specimens are identical in shape with that figured by Dr. Stopford. In order to obtain such specimens it is only necessary that there should be little delay in performing the section, otherwise the changes that set in so rapidly after death through relaxation of the muscular walls of the stomach soon produce the flabby sac that was formerly always seen in the dissecting room.

Perhaps one may also suggest that such stomachs, illustrating the division of the organ into cardiac sac and gastric tube, will be more often seen if the performer of the section be interested in the anatomy of the stomach. So long ago as 1851 Broca described a stomach removed shortly after death; it possessed a globular cardiac portion and a tubular pyloric portion not unlike intestine in appearance; in fact, precisely similar to those now described as empty contracted stomachs.

The introduction and use of formalin as an additional agent for preserving bodies for dissection was the means of bringing prominently before anatomists stomachs, caught as it were, in various stages of contraction. It is interesting to note that when these tubular forms of stomach were first brought forward as being a stage in the normal organ, it was actually suggested by some that they were artefacts produced by the formalin. But the

numerous similar specimens seen *post mortem*, such as the typical one Dr. Stopford figures, are clear proof against this view.

Radiographers have done much to bring home to clinicians Cunningham's views on the stomach, and have confirmed its anatomy so lucidly described by him in 1905 in his paper, "The Varying Form of the Stomach in Man and the Anthropoid Ape."—I am, etc.,

London, W., June 17th. CHAD WOODWARD.

ACUTE MENTAL HOSPITALS AND PSYCHIATRIC CLINICS.

SIR,—In reply to Sir Thomas Clouston's letter in your issue of June 14th, I would like to say that it was not the desire to claim a precedence in regard to the separate hospital idea in asylums which led me to indite the letter published in your edition of June 7th, but purely to correct the erroneous impression which might be left in the mind of any one not versed in these matters who read the leading article of May 17th. I referred to the large rate-supported asylums of England, only a small portion of which even at the present day have acute mental hospitals in connexion with them, but all of which undoubtedly have portions of the institution which might be termed "separate blocks or wards for new and acute and sick patients."—I am, etc.,

Bexley, June 18th. T. E. KNOWLES STANSFIELD.

SYPHILIS AND CANCER OF THE TONGUE.

SIR,—In connexion with the correspondence on "syphilis and cancer of the tongue," the following quotation from a paper on The State and Syphilis, published in the twenty-fifth volume of the *Transactions* of the Royal Academy of Medicine, Ireland, may be interesting:

Professor Poirier has said: "Everybody cannot have cancer of the tongue. Two conditions are almost indispensable. You must be a smoker or syphilitic, especially the latter, and those who combine these two conditions have a much greater risk than others." Cancer of the tongue, he says, may be called the cancer of syphilitic smokers. Of 32 such cases he found that 27 were syphilitic, 3 of the remainder probably so, and the other 2 cases I think he said were women. Again, Fournier found that of 184 cases of cancer of the mouth 155 had syphilis, and in the remaining 29 the antecedents were unknown.

I am, etc.,

SEYMOUR STRITCH,
Member Board of Governors (formerly R.M.O.) the Westmoreland Lock Hospital, Dublin.

Dublin, June 21st.

TUBERCULOSIS OFFICERS.

SIR,—Dr. Wilson, in his letter in the issue of May 31st, p. 1189, seeks to plough a lonely furrow. The tuberculosis officer is appointed by the Public Health Committee, is under the administrative control of the medical officer of health, receives and carries out the orders of the Local Government Board. Therefore, the only service to which he can be attached is the public health service.

He can hardly be called superior to the medical officer of health. The medical officer of health is commonly the adviser to the local committee, and has a seat on that committee, whereas the tuberculosis officer has not. In view of the words "under the administrative control of the medical officer of health," he can hardly be called the equal of the medical officer of health; hence the only word left to define him is "junior." The fundamental idea in the Insurance Act is to attempt to create one large service of preventive medicine within which there are branches with offshoots of a specific nature. Thus, the phrase to which exception is taken, "a junior branch of the public health service," places the tuberculosis officer at the present time in the correct category. Dr. Cox's "look forward to entering the main branch of the public health service" is a natural sequence to the above position.

Dr. Wilson stated in his letter what he thinks the position of the tuberculosis officer will be in the future. Before the advent of tuberculosis officers their duties were performed by the medical officer of health. The curve of death-rate from tuberculosis is descending at such a rate that it is computed that in 1958 the curve will be level, which is as much as stating that tuberculosis will be sufficiently under control to be called an uncommon disease. Professor Karl Pearson thinks that this decline is as much due to acquired immunity as to sanitation. The presence of tuberculosis officers may bring the date down to 1950, and then there might be a flood of "chest specialists" (Dr. Wilson) looking for work. Small-pox hospitals are being adapted as sanatoriums for tuberculous patients, and by 1950 these may be again adapted for venereal disease. In any case, superannuation would be a boon, and Dr. Wilson should give his support to the efforts being made to obtain it.—I am, etc.,

Forest Gate, E., June 20th. ALEX. GRAHAM.

LECTURES TO VOLUNTARY AID DETACHMENTS.

SIR,—With reference to Dr. Benson's letter appearing in your issue of May 17th, p. 1087, which concerns lectures to voluntary aid detachments, I fail to see why the profession should give their services for nothing. We are exploited quite enough as it is.

Personally I give four or five courses on first-aid and nursing each year, and find it, although interesting, quite hard work. Each lecture takes an hour and a half to give. One gives six lectures instead of five, in order to cover the ground.

Sometimes the doctor has to motor ten or fifteen miles. One is only paid travelling expenses for the examinations and not for the lectures. In addition to this, it is quite usual to lose patients in one's absence.

It is absurd to say that "there are no funds to meet these fees, and this good and useful work will be absolutely crippled, and will consequently fall to pieces, and the profession blamed for it." In Cambridge the education authority pays a considerable part of these very moderate fees. Recently a charge of half a crown was made to each person attending a course here. The public do not expect to be lectured and examined for nothing. The Red Cross fees should be the same as the St. John Ambulance.

Personally I wish every Division would pass the York resolution. I feel sure that fair payment to the doctor for his services will not in any way hamper this patriotic movement.—I am, etc.,

Cambridge, May 21st. CHARLES SEARLE.

Medico-Legal.

IMMUNITY OF TRADE UNION FUNDS.

THE JOURNAL of last week contained a note, page 1352, on a case heard in the Court of Sessions, Edinburgh, in which the judge said that while the plaintiff was barred from right of action against a trade union by the Trades Disputes Act, 1906, he had his remedy in an action for damages against the individual officials of the union. In a case heard before Mr. Justice Darling in the Court of King's Bench last week, a similar point was raised. The verdict, carrying damages, was found for the plaintiff, on the ground, if we understand the jury's finding correctly, that there was no trade dispute at the time when the men were induced to break their contracts. The judge incidentally expressed an opinion as to the liability of the individual members of the trade union in respect of breach of contract.

In this case, Dallimore *v.* Williams and another, the plaintiff was a bandmaster who gave concerts, and the defendants were the secretary and branch secretary of a trade union called the Amalgamated Musicians' Union.

The plaintiff stated that he had arranged to give a concert for the National Sunday League, and alleged that the defendant placed pickets outside the building, and induced the bandsmen to refuse to play for the remuneration agreed, and, in order to give the concert, the plaintiff had to agree to pay extra remuneration. The defendants alleged that the plaintiff offered less than the union minimum wage, but this was denied. There had been friction between the plaintiff and defendants over other matters, and the plaintiff alleged that the defendants had taken the opportunity of this concert to embarrass him, and in so doing acted from malice. The defendants denied malice, and pleaded that in any event they were immune owing to the provisions of the Trades Disputes Act, 1906. Before counsel addressed the jury the judge said, as reported in the *Times*, that the effect of Section 3 of the Act

appeared to him to be that though a person who in the course of a trade dispute incited another to break his contract was not liable to an action, yet the person who actually broke his contract as a result of that incitement was liable to his employer in damages.

Mr. Langdon, K.C., for the defendants, said it might be that the person who actually broke his contract was liable, but there was judicial authority for the view that an employer could not recover damages against his servant, his only remedy being dismissal. Whether that authority would or would not be supported he was not at the moment prepared to argue; it was not an issue in this action. In addressing the jury, Mr. Langdon said the real queston here was, What was a trade dispute? It was defined in Section 5 (3) of the Act as "any dispute between employers and workmen, or between workmen and workmen, which is connected with the employment or non-employment or the terms of employment, or with the conditions of labour, of any person"; and he submitted that on the facts here there was a trade dispute within that definition.

Sir F. Low, K.C., for the plaintiff, contended that, but for the Trades Disputes Act, there would have been no defence. A trade dispute within the Act must be a bona fide existing dispute, not one manufactured by the defendants for the occasion. There was, he submitted, no trade dispute here at all; but even if there was such a dispute, if the defendants availed themselves of it not for the purpose of furthering the dispute, but simply to annoy the plaintiff out of malice, the Act would be no protection.

Mr. Justice Darling, in summing up, said that the law was, as it had been, that if a person induced another to break his contract with a third person, the third person had a right of action. In 1906 the exception had been introduced that if the inducement took place in the course of a trade dispute the person injured could not recover. If the jury were satisfied that a trade dispute had been made out, and the defendants had induced the breach of contract in contemplation or furtherance of the dispute, they must find for the defendants. Section 3 of the Trades Disputes Act contained the provision that an act done in furtherance of a trade dispute should not be actionable, on the ground that it interfered with the right of a person to dispose of his capital or his labour as he willed. In words, therefore, it admitted that the right existed to dispose of one's capital or labour as one pleased. The statute admitted in terms the present right, but because it was found inconvenient to certain people this statute (not denying the right) took away the remedy. Whether there was a trade dispute or not was of the essence of this action. It must have been a bona fide existing dispute; the Act did not say, "in contemplation of a dispute which I am about to create" (Conway *v.* Wade [1909] A.C., 506). The defendant in the box had said the only way to enforce a strike was to get men to break their contracts, but it was possible to say to men that they had agreed to work for an improper rate, and that when they had worked out that contract they must not take another at that rate.

The questions left to the jury and their findings were as follows: (1) Did the defendants or either of them induce the bandsmen to break their contracts with the plaintiff?—*Ans.*: Yes. (2) Did the defendants conspire to that effect? *Ans.*: Yes. (3) Did the defendants so act in furtherance or contemplation of a trade dispute?—*Ans.*: They did not so act in contemplation or furtherance of a dispute; there was no trade dispute at the time when the men were induced to break their contracts, nor when the defendants conspired. (4) If they found for the plaintiffs what were the damages?—*Ans.*: The men broke their contracts in consequence of the inducement by the defendants. Damages, £350.

Judgement was entered accordingly.

THE LEGAL POSITION OF THE MEDICAL STAFF OF A VOLUNTARY HOSPITAL.

LAST week the case of Eddowes and others *v.* The St. John's Hospital for Diseases of the Skin (Incorporated) was heard by Mr. Justice Pickford. Although the trial was commenced before a jury, the jury was dispensed with by agreement between the parties.

Mr. Duke, K.C., Mr. Gore Browne, K.C., and Mr. Neilson (instructed by Messrs. Le Brasseur and Oakley, solicitors to the London and Counties Medical Protection Society) were for the plaintiffs; Mr. F. E. Smith, K.C., Mr. Sims, and Mr. Harold Smith (instructed by Messrs. Steadman, Van Praagh, and Gaylor) for the defendants.

The action was brought by Drs. Alfred Eddowes, G. W. Dawson, and L. F. Knuthsen, who were members of the medical staff at the defendant hospital to recover damages for wrongful dismissal. The case for the plaintiffs was that, being members of the staff, they were entitled to hold their offices until removed for good cause; that they had been dismissed without notice or justification. Their principal complaint was that no proper inquiry was made into the facts which led up to their being suspended by the board of the hospital. In effect they alleged that their dismissal arose through differences of opinion with the senior physician, Dr. Dockrell. They claimed damages for wrongful dismissal, and also a declaration that they were entitled to be reinstated at the hospital.

It is not proposed to set out all the facts (which were somewhat complicated), as the chief points of interest in the case seem to be the views of the learned judge on the position of the voluntary staff. These were expressed in his judgement.

Mr. Justice Pickford, in the course of his judgement, said the question he had to decide was not whether the defendants acted bona fide, nor whether they had purported to act in the best interests of the corporation. Neither proposition had been questioned. The question for him was whether they had acted within their legal powers, and the answer to that depended partly on the rules and the articles of association of the defendant company and partly on general principles. The plaintiffs had been what were called permanent members of the staff of this hospital. They had been appointed in the first instance on probation; and the appointments were confirmed, so that they became members of the staff. Their case was that they were there for life, subject, no doubt, to a power of dismissal for either incompetence or misconduct. On the other hand, the defendants contended that the plaintiffs could be required to resign at the will of the board of management. He had heard some evidence as to what was the opinion held in the medical profession on this matter in a case where there were no rules, but as a general thing hospitals now had rules dealing with the point. In the case suggested, however, the opinion of the medical profession was that the appointment was for life, subject to the power of dismissal in the two cases he had mentioned. It had been contended that the obligation was on one side only, and that the person appointed was entitled to resign at any time he liked. It was unnecessary to decide whether that view was correct, and he gave no decision on the point; but he thought that such an appointment to the medical staff of a hospital, whether of officers or of persons employed, must at least be one terminable only on a proper notice. There could not be a right to terminate the appointment at any moment. In this case there had been no notice—nothing that could be called notice, for he could not consider the seven days that had been mentioned. Unless he could discover something in the rules or "articles" as to the nature of these particular appointments which differentiated them from the case he had put, where there were no rules, he must hold that the dismissal of the plaintiffs was not within the powers of the defendants. He was unable to accept the proposition made by counsel for the defendants that there could be implied from these rules a power to dismiss members of the staff if there were continued friction between them and other members of the staff. To justify on such a ground the defendants would have to prove misconduct, and as it seemed to him the defence had been very carefully drawn so as not to raise any question of misconduct. No doubt the plaintiffs had made certain charges against Dr. Dockrell, the senior physician at the hospital, some or all of which they might be unable to substantiate. But it was not suggested that they were not made bona fide, and in the supposed interest of the hospital and of themselves. He did not think that this making of complaints could be described as misconduct, nor did he think there was any misconduct which would justify the defendants' dismissal of the plaintiffs. It had been contended in effect on the part of the defendant that the plaintiffs held no position. His lordship then continued: "With this contention I cannot agree. It may well be that they were officers, but I think that they were in a contract of employment, and I think that they had property in the corporation, and that they cannot be dismissed from membership of the corporation without their cases being heard." Having considered the several rules and articles of association which had been put forward as justifying the action of the defendants, his lordship said he would make a declaration that the plaintiffs were entitled to remain members of the corporation. He should not grant an injunction as asked, but he thought the plaintiffs were entitled to damages, inasmuch as they had each lost an indirect pecuniary advantage. He could not assess the damages on any very strict principle as no figures had been given him, but he thought that £50 would be enough in each case. The plaintiffs would have costs.

A stay of execution in view of a possible appeal was granted.

Universities and Colleges.

UNIVERSITY OF OXFORD.

THE following candidates have been approved at the examinations indicated:

FIRST B.M. (*Organic Chemistry*).—F. L. Apperly, C. W. W. Armstrong, J. L. Dunstan, W. E. Hayes, M. H. Mackeith, J. L. Maddox, F. T. Maurice, B. G. von Brandis Mellé, R. A. C. Prevett, S. K. Wright. (*Human Anatomy and Physiology*).—F. L. Apperly, J. N. C. Blamey, J. H. M. Campbell, L. M. Davies, W. L. Dawson, H. K. Denham, A. G. East, G. I. Evans, J. M. Guilfoyle, F. G. Hobson, H. M. Oddy, G. H. Perkins, A. H. Plummer, J. Le Roy Shipley, A. Traill, N. L. Watt.

SECOND B.M. (*Materia Medica and Pharmacology*).—C. H. Carlton, E. W. Carrington, W. T. Collier, C. Dean, L. Gameson, M. R. Lawrence, C. W. B. Littlejohn, G. S. Robinson, M. O. Raven, J. A. G. Sparrow, B. E. Wall, W. W. Waller, J. F. West. (*Pathology*.—L. R. Broster, J. J. Conybeare, G. T. Herbert, R. J. Inman, G. A. Maling, E. E. Mather, C. P. Symonds, T. A. Townsend, J. F. West. (*Forensic Medicine and Public Health*).—J. C. Davies, P. G. Doyne, F. A. Hampton, E. W. N. Hobhouse, W. H. Ogilvie, A. L. Pearce-Gould, A. H. Southam, J. A. G. Sparrow, T. O. Thompson, C. W. Wheeler-Bennett. (*Medicine, Surgery, and Midwifery*).—P. G. Doyne, D. B. J. Hallett, N. F. Hallows, F. A. Hampton, W. H. Ogilvie, A. L. Pearce-Gould, T. O. Thompson, J. F. Venables, R. O. Ward.

M.CH.—E. L. Pearce-Gould.

D.P.H. (*Part I only*).—W. Brander, R. A. Deans, C. C. Morrell, H. K. Ward. (*Part II only*).—A. J. MacFarland. (*Both Parts*).—W. J. J. Arnold, F. B. Bana, J. N. Kilner.

UNIVERSITY OF CAMBRIDGE.

THE following degrees have been conferred:

M.D.—G. P. D. Hawker, E. H. Mayhew.
M.B.—A. J. McNair, E. E. Paget-Tomlinson, T. H. E. Watts-Silvester, A. M. Zamora.
B.C.—A. J. McNair, A. M. Zamora.

Examinations.

The following candidates have been approved at the examination indicated:

PRELIMINARY SCIENCE (*Part III, Elementary Biology*).—R. O. Bagnall, E. V. Beale, C. L. P. Biggar, G. E. Birkett, E. N. Bock, W. E. L. Brown, C. T. Cobbold, J. L. Cope, R. S. Corbett, H. T. Cubbon, F. N. V. Dyer, H. W. Eddison, C. W. S. Fernando, J. B. Foster, R. French, A. G. D. Gavin, G. H. Gidlow Jackson, C. I. C. Gill, H. H. Ginsburg, W. N. Goldschmidt, E. F. S. Gordon, W. B. Hathorn, G. G. Havers, L. G. Higgins, J. M. Higginton, J. S. La Fontaine, H. C. Langdale, F. G. Laurie, J. B. S. Lewis, W. B. A. Lewis, R. Lumsden, A. G. F. McArthur, H. H. Marten, J. H. Massey, O. G. Misquith, J. R. Mitchell, J. Norman, S. W. Page, A. V. Pegge, C. E. V. Porter, E. H. Powell, W. E. Rhodes, A. S. Richardson, J. A. W. Roberton, G. M. Shackel, G. H. Shakespeare, E. D. Spackman, A. T. Spoor, H. F. Squire, H. J. R. Surrage, G. D. Thomson, F. Whitaker, G. G. White, W. G. Woolrich.

SECOND M.B. (*Part I, Human Anatomy and Physiology*).—K. Atkin, G. A. Back, J. J. O. Beven, J. T. Bleasdell, A. L. Bodley, C. E. Bond, W. S. Brown, H. C. H. Bull, E. W. Carlton Williams, A. E. Clark-Kennedy, D. Crawford, L. Cunningham, I. de B. Daly, E. H. Dendy, D. D. Evans, H. W. Featherstone, E. A. Fiddian, L. S. Gathergood, A. A. Gemmell, F. H. S. Greenish, H. W. Hales, J. R. Harris, W. F. T. Haultain, N. S. Hewitt, F. E. Higgins, L. S. Holmwood, A. G. Irving, W. N. Leak, T. D. Morgan, M. K. Robertson, J. C. Russell, W. G. Schüddekopf, C. G. Schurr, G. B. Sellwood, E. W. L. Sharp, F. N. Sidebotham, B. H. Swift, W. T. Warwick, B. Whitehead, A. G. Williams, A. T. Woolward, R. T. Yolland.

THIRD M.B. (*Part I, Surgery and Midwifery*). (*New Regulations.*)—H. A. Bell, E. J. Bradley, E. J. Y. Brash, G. M. Chapman, H. P. Dawson, E. L. Dobson, A. N. Hooper, A. R. MacMullen, F. D. Marsh, C. F. Mayne, D. S. Page, N. S. Soden, A. V. Stocks, P. Stocks, E. S. Taylor, A. G. G. Thompson, H. F. W. Warden, E. Wordley.

M.C.—H. L. Attwater, L. Bromley.

UNIVERSITY OF LONDON.

LONDON SCHOOL OF MEDICINE FOR WOMEN.

THE annual distribution of prizes at the London (Royal Free Hospital) School of Medicine for Women was held on June 20th, when Queen Amélie of Portugal presented the prizes to the successful students. The chair was taken by Mrs. Garrett Anderson, M.D., president of the school, and, in the absence of the Dean, a short speech was made by the Vice-Dean (Miss Aldrich-Blake), who spoke of the work of the past year, and said that, although the number of students in the school had increased during the last twelve months, the opportunities for useful work afforded to qualified medical women were also increasing.

The Chairman then introduced Queen Amélie, whose interest in the school, she said, had been shown on more than one occasion. Queen Amélie, after thanking those present for the cordiality of the reception they had given her, said that she had visited the school a month previously, and had noted with the utmost pleasure the completeness of the arrangements and the devotion of the students to their work. She wished prosperity to the school and success to the students in the useful and beautiful career in life they had chosen.

The prizes, which numbered about thirty, and took the form of cheques ranging from one to five guineas, were then distributed, and the following scholarships and studentships were awarded: Awarded by the University of London, Gilchrist studentship, £100, Miss M. Forrestier-Brown; research studentship in physiology, £50, Miss C. Leetham. Awarded by the Fishmongers' Company, Girls' University exhibition, £60 a year for three years, Miss H. M. Halliday. Awarded by the school, St. Dunstan's exhibition, £60 a year for three or five years, Miss A. M. Kerr; school scholarship, £30, Miss E. M. Scarborough; Mabel Webb research scholarship, £30 a year for one year, extending to two or three years, Miss C. Leetham; Agnes Guthrie dental bursary, £60, Miss I. V. Vincent; Helen Prideaux prize, £40, Miss F. Edmonds.

UNIVERSITY OF LEEDS.

AT a meeting of the Council, on June 18th, Dr. H. S. Raper, D.Sc., M.B., Ch.B., was appointed Lecturer in Chemical Physiology. Dr. Raper, who graduated at Leeds in 1903, is at present Lecturer in Pathological Chemistry at the University of Toronto.

Mr. Littlewood's resignation of his position as Clinical Lecturer was received with regret.

UNIVERSITY OF EDINBURGH.

UNIVERSITY COURT.

THE Edinburgh University Court met on Monday, June 16th, and again on Friday, June 20th, Principal Sir William Turner in the chair.

Recognition of Teachers.

On the recommendation of the Senatus, recognition for purposes of graduation in medicine was granted to the following teachers in the Bradford Technical College: William West (Botany), J. A. Tomkins (Physics), B. North (Chemistry—inorganic courses of the college along with Part I of organic course, or equivalent courses).

D.T.M. and H.

The Court approved of a recommendation of the Senatus that the Diploma in Tropical Medicine and Hygiene, which, in accordance with the existing regulations, can only be awarded to graduates of this university, should in future be open also to registered practitioners in medicine who have resided abroad and acquired practical experience in tropical diseases, and who, on the recommendation of the Faculty of Medicine, receive the permission of the Senatus Academicus to become candidates for the diploma, and afterwards fulfil the regulations pertaining thereto.

Usher Institute.

A statement of the bacteriological work of the city performed in the Usher Institute of Public Health, and of the expenses incurred in connexion therewith during the year ended May 15th, was submitted.

Cunningham Prize and Medal.

It was intimated that the Executive Committee of the fund for a memorial to the late Professor D. J. Cunningham had transferred the balance of the fund to the University Court for the endowment of a prize and medal to be awarded annually to a medical student for distinction in anatomy.

GIFT TO THE UNIVERSITY.

The late Mr. Wm. McEwan's house, situated in Palmerston Place, Edinburgh, and looking out on the close round St. Mary's Cathedral Church, has been given by the Hon. Mrs. Greville (Mr. McEwan's daughter) to the University of Edinburgh.

ST. ANDREWS UNIVERSITY AND UNIVERSITY COLLEGE, DUNDEE.

THE following announcement was made officially at St. Andrews University on Saturday, June 21st:

> The University Court of St. Andrews and the Council of University College, Dundee, have now arranged the questions which were in dispute betwixt them.
>
> The arrangement come to practically leaves in the hands of the Council the entire transaction of financial business connected with University College, but subject to the sanction of the University Court in so far as concerns the regular expenditure upon the qualifying classes.
>
> A standing joint committee, consisting of four representatives from each body, has been appointed to advise and consult as to points of common interest.

The significance of this is that an end is now made to a dispute which became public in January, 1912. The fees of students attending University College, Dundee, had hitherto been collected in Dundee, but St. Andrews University put forward a claim which amounted not only to the collection of fees, but practically the financial administration of the college. Negotiations followed, but the Council of the Dundee College refused to give up its claim to collect the fees. Despite this the authorities of St. Andrews sent officials to Dundee at the opening of the session in October, and called upon the students to pay their fees to them rather than to the Dundee secretary and treasurer, intimation being made that unless the students agreed to do so, their attendance at classes, though their fees had been paid to the Dundee official, would not be recognized for graduation purposes. To save the students from any risk in that regard, the Council agreed temporarily to the students handing their fees to the St. Andrews officials, and there were cases of students having been obliged to ask their money back from the Dundee secretary in order that they might hand it to the St. Andrews secretary.

Legal advice was taken, and St. Andrews was advised to proceed by ordinance to make good its claim. Dundee College was equally strongly advised, and intimation was made that the proposed ordinance would be resisted. At one time Dundee suggested a friendly reference to the Court of Sessions, but this course was not taken. It is generally understood that the present decision has been brought about through the good offices of Lord Balfour of Burleigh, the Chancellor of the University.

QUEEN'S UNIVERSITY, BELFAST.

Lectureship on Ophthalmology and Otology.

AT the meeting of the Senate on June 20th Mr. James A. Craig, M.B., F.R.C.S.Eng., Senior Ophthalmic Surgeon to the Royal Victoria Hospital, was appointed Lecturer on Ophthalmology and Otology, in the room of the late Dr. Cecil Shaw.

Mr. Craig is an old student of the Queen's College, where he had a distinguished undergraduate course, and a graduate of the old Royal University. He obtained first place with first-class honours in the examination. The appointment will be most popular among the profession, who will join Mr. Craig's many friends in hearty congratulations.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

SURGERY.—*W. Alcock, †R. B. F. Frazer, †A. Y. Massey, †J. E. S. Sheppard Jones.
MEDICINE.—†J. E. S. Sheppard Jones.
FORENSIC MEDICINE.—H. V. Capon, T. H. Cresswell, T. B. Paul.
MIDWIFERY.—H. V. Capon, H. N. Eccles, W. S. Hughes.

* Section I. † Section II.

The diploma of the Society has been granted to Messrs. A. Y. Massey and J. E. S. Sheppard Jones.

Obituary.

SIR JONATHAN HUTCHINSON, F.R.C.S., F.R.S.,

CONSULTING SURGEON TO THE LONDON HOSPITAL, AND EMERITUS PROFESSOR OF SURGERY IN THE MEDICAL COLLEGE.

WE announce with deep regret, which will be shared by all members of his profession, the death of Sir Jonathan Hutchinson, F.R.S., F.R.C.S., which took place at his house, The Library, Inval, Haslemere, on the evening of June 23rd.

Jonathan Hutchinson, the son of Jonathan Hutchinson, a member of the Society of Friends, who married Elizabeth Massey, was born at Selby, Yorkshire, on July 23rd, 1828. He received his early education at Selby, and was then apprenticed to a surgeon at York, studying medicine at the same time at the York County Hospital and the York School of Medicine and Surgery. This was a small school, and Hutchinson tells us that he was the only member of some of the classes, so that he received the undivided attention of some of the lecturers. Dr. Thomas Laycock, afterwards professor of medicine at Edinburgh, was then lecturing in medicine at York, and he made a great impression on young Hutchinson, instilling into his mind the important part that heredity plays in the incidence of disease, and of the value of the general appearance of physiognomy of the patient as an indication of his physical condition.

In 1849 Hutchinson went to London and studied at St. Bartholomew's Hospital. He took the diplomas of M.R.C.S. and L.S.A. in the following year. Afterwards he was for a time physician's assistant at the City of London Hospital for Diseases of the Chest. In the early Fifties he was appointed surgeon to the Metropolitan Free Hospital, and soon afterwards became a member of the staff of the Royal London Ophthalmic Hospital, and of the Blackfriars Hospital for Diseases of the Skin, with both of which hospitals he maintained an official connexion for a long series of years. About 1859 he was appointed assistant surgeon to the London Hospital, and from 1862 was lecturer in the Medical College on the principles and practice of surgery, taking the additional subject of medical ophthalmology in 1863 when he became full surgeon. In 1873 he had become senior surgeon, and retired from the active staff of the hospital as long ago as 1883.

Another hospital to which he was attached was the Royal Lock Hospital, to which he was appointed assistant surgeon in 1862. After retiring from the active staff of the Royal Ophthalmic, the Blackfriars Skin, and the London Hospitals, he was appointed honorary consulting surgeon to them. He was also appointed Emeritus Professor of Surgery at the London Hospital Medical School, and delivered each year, for a time, a course of lectures. When he retired from active service at the London Hospital his friends founded the Hutchinson Triennial Prize Essay, in value £36, to commemorate his services, especially as a teacher there. It is open to the competition of members of the hospital school of not more than ten years' standing.

In 1865 he gained the Astley Cooper Triennial Clinical Prize of Guy's Hospital, the subject of his essay being "Injuries of the Head." He filled many offices at the Royal College of Surgeons. From 1879 to 1883 he was Hunterian Professor of Surgery and Pathology. He was elected to the Council in 1879, he was appointed to the Court of Examiners in 1880, and to the Board of Examiners in Dental Surgery in 1885. In 1888 he was Bradshaw Lecturer, in 1889 President, in 1891 Hunterian Orator, and in 1897 he was appointed one of the trustees of the Hunterian Collection. He served on the Royal Commission appointed in 1881 to inquire into the condition of the London hospitals for small-pox and fever cases, and into the means of preventing the spread of infection, and also on the Royal Commission on Vaccination (1890–96). In 1882 he was elected Fellow of the Royal Society, and in 1908 received the honour of knighthood for his distinguished services to medicine. He was honoured also by many learned bodies. He received honorary degrees from the universities of Glasgow (1887), Cambridge (1890), Edinburgh, Oxford, Dublin, and Leeds, and was a corresponding member of the Surgical Society of Paris.

He took an active interest in the work of most of the London medical societies, and held the office of President of the Royal Medical and Chirurgical, Pathological (1879–80), Hunterian (1869–70), Ophthalmological (1883), Medical, and Neurological Societies. He also acted as secretary of the New Sydenham Society during the whole of its existence, 1859–1907. At a meeting called to wind up the original, or "Old" Sydenham Society as it was called, Hutchinson proposed that the society should be continued for the purpose of publishing translations of the best modern Continental works. It was, however, decided by the meeting to wind up the original society, the chairman suggesting that if some of the young men thought the society's work was not finished they had better form a new one for themselves. This they did, and Hutchinson was appointed secretary. The good work done by the society need not be referred to here.

Hutchinson was an example of the naturalist who takes to medicine and pathology. He was curious about all natural phenomena, from the retention of their leaves through the winter by young beech trees—a fact noted by White of Selborne but observed independently by Hutchinson—to the exact significance of a doubtful eruption on the human skin. He evidently possessed a highly developed visual memory, and was easily able to recall the characters of cases which he had seen perhaps a quarter of a century before; usually the drawings he would presently find among his papers confirmed the accuracy of his recollection. During the many years in which he was a very regular attendant at the meetings of medical societies in London he became rather a terror to the young man with a "unique case"; in fact, he almost caused the word to disappear from papers read in London. It was felt to be a challenge to him to get up and relate how a score of years before he had seen a case very like it indeed; in fact, he thought quite the same. Before sitting down he would promise to produce a picture at a subsequent meeting, and usually did so, with, it is true, varying results, for sometimes he saw resemblances not obvious to others. Not a little good-natured fun was made some years ago of his plan of, so to say, pigeonholing in his memory certain very rare cases under the patient's initial as "Mrs. T.'s legs" or "Mr. J.'s nose." Hutchinson quite saw the humorous side of the matter, but was not on that account in the least deterred from continuing it. He was a great believer in recording rare cases, and had drawers full of pictures and notes of such cases. He began to accumulate this material, perhaps, partly from his innate love of anything curious or out of the way and because the collecting interest was strong in him, but he believed also, and would often express the opinion, that rare cases would eventually fall into their places and frequently help to give the clue to the pathology of the class to which they belonged.

He was also a great believer in the value of specimens and drawings in education, and, after retiring from the London Hospital, he organized in a studio attached to a house he took in Park Crescent, Portland Place, a clinical museum in which he stored his extensive collection of coloured drawings, charts, pathological and other specimens, and in which he held clinical lectures and gave demonstrations.

It is interesting to note, and affords a further example of Mr. Hutchinson's belief in the value of objective teaching, that the museum held in connexion with the Annual Meetings of the British Medical Association originated from a suggestion made by him in 1868. He proposed that an exhibition of objects invented or collected during the year—a museum which should, in fact, show "the cream of the year's progress" in medicine and surgery—could hardly fail to be of great practical value to visitors attending the meeting. The local officers of the Association at Oxford immediately took up the suggestion, and their efforts, aided by the prompt and active co-operation of Mr. Hutchinson himself, resulted in a fairly successful realization of his scheme. The exhibition was held in one of the lecture rooms of the University Museum. Every specimen was labelled with a clear, concise description. The objects contributed from various quarters on this occasion came under four heads: (1) Pathological drawings, preparations, wax models, etc.; (2) new instruments and appliances in medicine and surgery; (3) drugs and articles of medical diet; (4) new English and foreign medical works.



[*Walter Benington.*

SIR JONATHAN HUTCHINSON
(1828–1913).

The foundation of the Medical Graduates' College and Polyclinic in 1899 was warmly supported by Hutchinson, and he consistently befriended it in moments of difficulty. For the preceding six years attempts had been made to organize post-graduate instruction in London, but the organization had no local abiding place, and it was felt that success and permanence could only be achieved by providing a central home with lecture-rooms, museum, reading-room, laboratory, and, above all, a clinical department for the practical study of disease. Suitable premises were acquired at 22, Chenies Street, W.C., and added to. One great feature of the Polyclinic was to be the daily consultations to which patients unable to pay a specialist's fees could be taken for consultation by their usual medical attendants, and where the medical members of the Polyclinic would have the advantage of studying them and observing the effects of treatment. Post-graduate lectures and practical courses were to be given regularly, and the library and museum were to be special attractions. Hutchinson presented a large number of books and periodicals to the library, and edited the *Polyclinic*, the journal of the Medical Graduates' College and Polyclinic, for some years from 1900. It was, however, in the museum that he took the keenest interest. He arranged in it a very large number of his own drawings, photographs, and specimens. After giving up his house in Cavendish Square, when he practically retired from practice, he took a small house in Gower Street, near the Polyclinic so that he might the more easily continue to superintend, and indeed to a very large extent carry out with his own hands, the work of classification, description, and arrangement. Nothing pleased him better than to spend an hour with a sympathetic listener, explaining his methods, and displaying some of his treasures and curiosities. He was always on such occasions informing and stimulating—stimulating sometimes to opposition, a result which he seemed rather to desire, appearing anxious to note how a fact or a picture with which he had grown familiar might strike a fresh mind and eye. The collection, especially of drawings, grew out of all possibility of displaying the whole on walls or screens, and he adopted the system of holding special exhibitions during which for several weeks all the drawings and photographs illustrating some one subject were displayed. During these periods he would readily devote many hours, day after day, to demonstrating the objects in the exhibition and discussing their significance and interpretation with any visitor who appeared interested.

Hutchinson was a voluminous writer throughout his whole career. Thus when only 24 he wrote his first paper, on Infantile Iritis, and in 1853 he began to contribute weekly hospital reports to the *Medical Times and Gazette*, a custom which he kept up for several years. In 1869, when the late Mr. Ernest Hart withdrew from the Editorship of this JOURNAL, Hutchinson took his place, but relinquished the office to its previous occupant about eighteen months later. His most important and most enduring work was on syphilis. The subject of inherited venereal "taint" engaged his attention from his student days, when he saw his first case at York. After he went to London some further cases came under his observation from 1850–54 at the City of London Hospital for Diseases of the Chest, which opened his eyes to the fact that in young persons, in association with other symptoms, and with a peculiar physiognomy, it is not unusual to meet with evidence of past iritis. In 1852, in the paper referred to above, he suggested that infantile iritis was a more common disease than was usually supposed, because he frequently discovered synechiae in those too young to have suffered from acquired syphilis. In 1859 he read a paper at the Edinburgh meeting of the British Medical Association on "The Means of Recognizing, amongst Young Persons, the Subjects of Inherited Syphilis." For some years previously he had noticed in suspected cases the frequent occurrence of malformed teeth, of which he had several times taken models, and he had accumulated evidence which led him to consider the state of the upper incisor teeth by far the most reliable amongst the indications of inherited syphilis. His conclusions on these matters were communicated to the Pathological Society during the sessions 1857–8–9.

About the same time the fact that the disease hitherto known as "strumous corneitis" was in practice never met with except in conjunction with peculiarities of physiognomy and malformed teeth, came prominently before him. In 1858 he commenced a series of papers in the *Ophthalmic Hospital Reports* on the general subject of inherited syphilis in its relation to diseases of the eye, and in 1863 he reprinted and extended these papers in his book, *A Clinical Memoir on Certain Diseases of the Eye and Ear, consequent on Inherited Syphilis*, "with an appended chapter of commentaries on the transmission of syphilis from parent to offspring and its more remote consequences." In the preface of this book he points out that the disease then known as "strumous corneitis" was syphilitic keratitis. The principal assertions in the book are that "chronic interstitial keratitis" is essentially an heredito-syphilitic disease, and that dental peculiarities of a certain kind are, when cautiously examined, a reliable indication of inherited syphilis. The description which he gave of the characteristic teeth, now known as "Hutchinson's teeth," in the book (p. 117) is interesting:

> As diagnostic of hereditary syphilis, various peculiarities are often presented by the other teeth, especially the canines, but *the upper central incisors are the test teeth*. When first cut these teeth are usually short and narrow from side to side at their edges. In the edge is a crescentic portion, thinner than the rest, which after a time breaks away, leaving a broad, shallow, vertical notch, which is permanent for some years, but between 20 and 30 usually becomes obliterated, by the premature wearing down of the tooth. The two teeth often converge, but sometimes they stand widely apart. In certain instances in which the notch is either wholly absent or but slightly marked, there is still a peculiar colour, and a narrow squareness of form, which are easily recognized by the practised eye.

Since he learnt to look for the peculiarities of dentition he had not, he said, met with a single example of well characterized interstitial keratitis, occurring in both eyes, in which the teeth were of normal size and shape.

He began the publication of his *Archives of Surgery* in 1889. It was issued quarterly and was continued until, in 1899, ten volumes had been published; part of a volume appeared in 1890, and the publication was then discontinued. It was written by himself and will always be an enduring monument to his industry, persistency, and his capacity for observing. The journal appealed to the general practitioner, the surgeon, the physician, and the specialist, in spite of the limitations suggested by its title. Syphilis occupied its pages to a great extent and many interesting cases were recorded in it. One feature of it was its good illustrations.

He was one of the most distinguished syphilologists of his time, and he wrote innumerable articles on the subject, recording interesting cases, giving his own views on it, and the result of his experience of the various forms of treatment recommended for it. His well-known book on the subject was published in 1887 and reissued in a new and enlarged form in 1909. He wrote articles on syphilis in various systems of medicine. He also wrote articles on numerous other medical topics.

For many years he enjoyed a large and varied practice, residing first in Great Russell Street, then in Finsbury Circus, E.C., and afterwards in Cavendish Square. He was at once a general operating surgeon, an ophthalmologist, a dermatologist, a syphilologist, and a neurologist. He had made important contributions to all these departments of medicine, and his opinion was sought in consultation in respect of all of them.

One striking feature of his life was the work which centred round his home "Inval," Haslemere, where he collected together objects of all sorts of interest in a large museum. A very good description of this was written by Sir William Osler. The educational museum contained objects of interest to illustrate a very great variety of subjects: Rocks and fossils, with suitable charts and figures; animals, skeletons, plants and flowers, birds' nests and eggs, and innumerable miscellaneous specimens. The library there contained several thousand volumes, chiefly of general literature and science, and many charts, drawings, and pictures of historical events. One exhibit illustrated the history of the centuries, from the beginning of Egyptian to Victorian times. Sir Jonathan published this skeleton schedule, and also a more elaborate chronological synopsis of universal history called "The Centuries."

Besides the museum specimens there were live stock at Haslemere in an aviary and vivarium in which the chief birds and animals of the district were kept, including snakes and the common viper, and at the entrance of the museum were placed in little vases fresh wild flowers with information about them attached.

Sir Jonathan Hutchinson continued a member of the Society of Friends throughout his life, and always retained something of the staid demeanour and a trace of the peculiarities in dress usually associated with that remarkable community which has had an influence on the intellectual history of England and North America altogether out of proportion to the number of its members. Near the entrance to his house at Haslemere was a hall which was used for religious as well as for secular purposes, between which perhaps Jonathan Hutchinson did not draw any such sharp distinction as commonly exists in the popular mind. On Sunday afternoons, when residing there, he would lecture on some subject of popular interest. The variety of his teaching may be appreciated by mention of a few of the subjects taken at different Sunday afternoons. At one lecture the flower of the potato was described, and the reason why it did not produce seed explained; the formation of galls was discussed, and these subjects were followed by a discourse on whales, dealing with their habits, structure, and affinities. Other Sunday lectures were on "The Inner Light and the New Birth," "The Influence of Wordsworth's Poetry," "Tuberculosis and Leprosy as Social Problems." Occasionally well known specialists were invited to give popular lectures in the museum, where the audience was chiefly composed of residents and their children. In connexion with the museum and as a means of widening its influence, Hutchinson, with the help of members of his family, founded a "Home University," and published a monthly journal similarly named. The object of the university, so the preface of the first number of the journal said, was to offer to the home student the best substitute for university residence which the editors of the journal could devise. In that endeavour neither trouble nor expense was to be spared. The *Home University* was neither to be a school book, an encyclopaedia, nor a journal of science and literature, but it was to partake of the character of all three. It would deal with all subjects and be designed for all readers. Hutchinson contributed to it himself and wrote on or supervised the writing on a variety of topics—for example, Keats, a medical student-poet, Etruscan remains, a museum lecture on shells, a classification of insects, a conversation on the elephant, mammoth, and mastodon, the ascent of sap, Origen, Fénélon, spelling reform, Lady Mary Wortley Montagu, Hamilcar, the unity of Italy, etc., to quote from the contents of the earliest numbers only. He also founded a museum in the village of Haslemere and one in his native place, Selby.

His views on leprosy and fish eating caused a good deal of public interest at the time his book on the subject was published (*On Leprosy and Fish Eating, A Statement of Facts and Explanations*, 1906) as the book was written for the general reader as well as for the medical man. His special interest in the subject began in 1855, when he observed some cases of leprosy in London hospitals. He wrote a paper for the *London Hospital Reports* in 1863 in which he foreshadowed the conclusions announced in his book. A study which he made at that time of the geographical distribution of the disease convinced him that neither climate nor race could have anything to do with its cause, and the observation that it prevailed almost exclusively on islands, on the shores of continents, and along the courses of rivers led him to form a strong conviction that it must be in some way connected with the eating of fish. From that date onwards he became a firm believer in the "fish hypothesis," and he collected facts bearing on the subject over many years. In 1890 there appeared in a Government report on the occurrence of leprosy in Natal the definite statement that it was met with amongst Kaffirs who never tasted fish, either fresh or cured. He tried during the succeeding years to gain information on the matter by correspondence, but without much result; and in 1901, when his own health rendered it desirable that he should take a long holiday, he set out for South Africa to investigate on the spot. He found that cases had occurred in Kaffirs who had not eaten fish, but they were exceedingly few in number, and had all been associated with original cases which had been in Cape Colony and had there presumably eaten bad fish. He explained the non-fish-eating cases on the hypothesis that the leprosy bacillus had been introduced into the digestive system by food contaminated by a leper's hands, or by milk taken from the breast of a leprous mother. In this way he explained the occurrence of the disease in those people who had not eaten fish, and also the fact that the disease is apt to cling to certain families and to show itself in successive generations.

During the following winter he made a tour of parts of India where leprosy occurs, giving lectures at Colombo, Madras, Calcutta, Lahore, and Bombay. Discussions took place after each lecture, but nothing was brought forward then which in his opinion controverted the fish hypothesis, or supported that of direct contagion. He was unable to publish his observations in book form until 1906, but he discussed the subject in the periodicals, lay and medical, writing especially to the *Times*, but no serious answer to his contentions, he maintained, was attempted. As his opinions were widely published in the public press, he took great care to avert an anti-fish-eating scare by emphasizing the fact that true leprosy only arose, in his opinion, from eating decomposing fish, and that there could be no question of there being any risk of contracting the disease by the consumption of the fish supplied to the English market, whether fresh or salted.

Whilst the importance of the evidence supporting the fish-eating theory of the cause of leprosy thus collected and published by Hutchinson was fully recognized by leprologists and others, it was held that he had not proved his case. The present opinion on the subject may be gathered from the conclusion to the consideration of the etiology of leprosy in Allbutt's *System of Medicine:*

> We know by definite experimental proof and by clinical observations that tuberculosis—the first cousin of the disease under consideration—may be introduced into the body by more than one channel, through the respiratory and alimentary passages as well as through the skin, and we may reasonably suppose that leprosy likewise may be acquired in as many ways, although the paths of entry have not as yet been fully traced. (Article on leprosy by Dr. Abraham, Allbutt's *System of Medicine*, second edition, 1907, vol. ii, part ii, page 660.)

Further researches may show that an intermediary host is required before the bacillus will flourish in man, and then the fish-eating theory may be supported by further evidence. Excluding that on *Leprosy and Fish-eating*, his published books were for the most part of purely medical interest. That on *The Pedigree of Disease* (1884) reflected largely the influence of his first teacher of medicine, Professor Laycock.

In April (29th), 1911, he published a paper in this Journal (p. 976) on salvarsan and arsenic cancer. He reiterated his frequently made statement that he was a zealous, not to say enthusiastic, advocate of arsenic and mercury as remedial agents; but he had to confess that, in his later years of practice, he had reason to fear that arsenic might be a dangerous drug to use. About 1880 he pointed out that it was a cause of herpes zoster, and not long after this (1887) he also published his belief that it could originate, or intensify if already present, a proclivity to cancer—not always to the same form of cancer, but most frequently to epithelioma, and not only after prolonged use of the drug, but after a comparatively short course. He stated that he had used arsenic only in exceptional cases since he became aware of its dangers, and uttered a warning against the too general use of salvarsan, which depended for its action in syphilis on its arsenical content. He added that but little had been alleged respecting the curative effects of this new remedy which was not equally true of mercury and the iodides when properly and boldly used. The well-known Hutchinson's pill of grey powder need hardly be mentioned here. He had so strong an opinion of the curative effects of mercury when properly used that in a discussion on the eligibility of syphilitics for life assurance he said: "If a man came to me with a primary chancre and nothing more, and he were in good health, and if I knew he was a man likely to submit to judicious treatment, I should say to any insurance office I was concerned with, 'Take this man by all means, there are no extraordinary risks; there are some little risks associated

with him, but it is very probable he has a good sound constitution in other respects.'"

He was always very accessible, and was hospitable in a quiet way. After he had settled himself at Haslemere, where even before he gave up practice he was accustomed to spend much time, he was always glad to welcome his friends, young and old, and sometimes organized large parties, where Hutchinson the countryman, who would stroll along a hedgerow with a gun, ostensibly in quest of rabbits, but with his attention easily called away by some bit of natural history, was a contrast to Hutchinson the rather keen controversialist of the London societies. Haslemere, with its twin mounts of Hindhead and Blackdown, is the centre of one of the most beautiful districts within easy reach of London, and Hutchinson was one of the first to appreciate its beauties and to realize its possibilities. He, at one time at any rate, owned a good deal of land there, and if we remember right built himself more than one country home before he finally pitched upon Inval, which was his home in the later years of his life.

Sir Jonathan Hutchinson had a large family. One of his sons bears the same name and, like his father, is surgeon to the London hospital; another, Mr. Proctor Hutchinson, the laryngologist, died in early manhood; and a third is in practice at Haslemere.

The funeral took place at Haslemere on Thursday afternoon.

Sir JOHN BYERS (Belfast) writes:

Towards the close of the year 1878, immediately after graduating in medicine, I went to the London Hospital, where I had the rare good fortune to come under the magic spell and personal inspiration of Jonathan Hutchinson, and while no medical school in the United Kingdom had, at that time, an array of more brilliant teachers (Andrew Clark, Hughlings Jackson, Samuel Fenwick, Sutton, James Adams, Morell and Stephen Mackenzie, Couper, G. E. Herman, Thomas Barlow, and Frederick Treves (as surgical registrar), it is no disparagement to these most able men to say that Hutchinson was the *genius loci* who specially attracted outsiders.

First, he was an authority on so many diverse subjects: skin and eye diseases, syphilis, leprosy, diseases of women, nervous affections, all claimed his attention quite as much as general surgery.

Secondly, he was the most extraordinary observer I have ever come across, and, as a suggestive teacher, he was unrivalled. The simplest case was made to present affinities with other types of disease, and his pupils were inspired and encouraged to find out, if possible, its relationship with other forms of illness. In other words, Mr. Hutchinson constantly suggested to us that there were lines of observation and of thought about every disease still unknown that we might all try to work up.

Thirdly, Mr. Hutchinson, at the time I mention, occupied the curious position of medical and surgical referee (if I may use the word in such a sense) in obscure cases; hence, to his clinic were sent by the ablest men in the profession (Sir James Paget often sent examples of most out-of-the-way diseases) patients with rare complaints, for his opinion. These were brought into his little theatre, they were examined in turn by the students and doctors of all nationalities present, and then Mr. Hutchinson dictated his opinion, giving the reasons for his diagnosis. No method of clinical instruction could be more valuable. I have seen in one afternoon an example of Charcot's joint disease, a case of leprosy, a sarcoma of the sphenoid, ophthalmoplegia externa and interna, a congenital naevus of the tongue, pityriasis rubra, melanotic sarcoma, a congenital tumour of the sacrum, with a number of most obscure specific cases.

Fourthly, Mr. Hutchinson was an indefatigable worker. Not merely the London Hospital, but Moorfields Eye Hospital and the Skin Hospital at Blackfriars, all at times claimed his attention, and at each his work was done thoroughly. Not only did he keep a most careful record of his cases, but he employed artists (Mr. Burgess and others) to make coloured drawings of them, hence the value afterwards to the profession of his *Illustrations of Clinical Surgery*. Further, he found time, in the midst of all his pressing duties, to have a class once a week at his house in Cavendish Square, where those of us who attended had the rare advantage of seeing his wonderful wealth of plates and specimens, and of hearing his views on almost every form of disease. I shall never forget those most pleasant and instructive evenings.

Fifthly, personally Mr. Hutchinson was the most charming of chiefs for any one to work under, and the truest of friends. I am sure there are many who, like myself, feel how much they owe to his splendid example, his brilliant teaching, and his direct personal help on many an occasion. Others will speak of his wonderful work as an authority on museums, as an educationalist, and as one who has written on the most diverse subjects, but, personally, I shall always remember Jonathan Hutchinson as the very highest type of clinical teachers, and as one of the most interesting, inspiring, and honourable of men it has ever been my rare good fortune to have met.

FREDERICK WALLACE, M.R.C.S., L.R.C.P.LOND.,

FORMERLY OF UPPER CLAPTON, LONDON.

ON June 14th passed away, at the Manor House, Uppingham, Mr. Frederick Wallace, late of Upper Clapton, London. He received his early education at Merchant Taylors' School. He afterwards entered at Guy's Hospital, and all his life took the keenest interest in the welfare of that institution.

One of a medical family, he first continued with his brother, Dr. R. U. Wallace, his father's practice in Haggerston; but at a later date he removed to Upper Clapton, where the greater part of his professional life was spent. He was an able and popular practitioner, and the news of his death has been received with regret by many of his old patients.

During the whole of his professional life he was a loyal and active member of the British Medical Association. He was the second Secretary of the old East London and South Essex District of the Metropolitan Counties Branch of the Association. He acted in that capacity for several years, and it was largely to his untiring energy that the prosperity of that district was due. He did excellent work on the central committees of the Association, and was from 1885 to 1895 a representative of the Metropolitan Counties Branch on the Central Council. In 1897 he attained the great distinction of being elected President of that Branch. He took much interest in the reorganization of the Association, and was the first Chairman of the new City Division. He was also active in other work for promoting the welfare of the profession, and served on the executive committee of the Medical Sickness Assurance Society, of which he was a Vice-President, from 1884 to 1911.

Mr. F. Wallace's energies were not restricted to his own profession. For many years he took part in the public work of the borough of Hackney, and served his fellow citizens both on the board of guardians and borough council.

His death from heart disease, which was quite sudden, occurred in the 68th year of his age, while on a visit to his son at Uppingham.

The funeral took place at Highgate on June 19th. Dr. Major Greenwood attended on behalf of the Central Council of the British Medical Association, and Dr. C. F. Hadfield represented the City Division. Dr. J. W. Hunt was present, representing the Medical Sickness Assurance Society, and Dr. King Warry the Hackney Borough Council.

Mr. Frederick Wallace was twice married. By his first wife he leaves a son and a daughter. The former follows his father's profession, and the latter is married to a medical practitioner. His second wife survives him.

LIEUTENANT-COLONEL JAMES CROFTS, late of the Bengal Medical Service, died at Cork on May 7th. He was born on May 13th, 1854, educated at Queen's College, Cork, took the M.B., M.Ch., and L.M. in the Queen's University of Ireland in 1874, and entered the I.M.S. as surgeon on March 31st, 1877, passing in two places below his younger brother, now Surgeon-General A. M. Crofts, C.I.E., K.H.S. He became Surgeon-Major on March 31st, 1889, Surgeon-Lieutenant-Colonel on March 31st, 1897, and retired on July 15th, 1905. He served in the Afghan war of 1878–80, and was present in the affair at Ali Khel, receiving the

medal. Most of his service was spent in medical appointments under the Foreign Office.

BRIGADE SURGEON JOHN ALFRED ILLINGWORTH, late of the Army Medical Department, died at Reading on June 6th, 1913. After taking the M.R.C.S. and L.S.A. in 1859, he entered the army as Assistant Surgeon on June 13th, 1859. He became Surgeon-Major in 1873, and retired with a step of honorary rank on December 1st, 1880. He served in the New Zealand war of 1860–61, and on the North-West Frontier of India, with the 7th Foot, in the Yusufzai expedition of 1863–64, receiving the medals for these two campaigns.

Public Health AND POOR LAW MEDICAL SERVICES.

SMALL-POX.

Isolation and Maintenance of Contacts.

THE appearance of a single case of small-pox in the Metropolitan Borough of Poplar early in May has been followed by a special report from the Public Health and Housing Committee on the case in question, together with a report from the medical officer of health upon the isolation and maintenance of contacts. There are indications throughout the country of considerable anxiety on the part of Public Health authorities caused by the increasing neglect of infantile vaccination. The case of small-pox notified at Poplar occurred in a woman, aged 34, who had not been vaccinated. Prompt measures of vaccination and revaccination of the inmates in the infected house and the isolation of the case were taken, and there has been no spread of the disease. It is pointed out that there is no enactment which empowers a local authority to isolate and maintain contacts. Whenever maintenance is carried out by such authority upon the recommendation of the medical officer of health the circumstances must at once be reported to the Local Government Board and the reasons stated why such recommendation has been made. The medical officer for Poplar expresses the opinion universally accepted that a person who has been in contact with a small-pox case, and who is immediately vaccinated or revaccinated, and has had his or her clothing disinfected, is not dangerous to the public. Details are given of the cost of the isolation and maintenance of contacts in the borough of Poplar during the small-pox epidemic of 1901–2. The cost, exclusive of certain items, such as wages and the fitting up and furnishing of shelters, was over £1,500. Prompt vaccination measures would obviate the necessity for such expenditure. Without vaccination isolation and the costly maintenance of contacts may completely break down. Although the maintenance of contacts in Poplar was so extensively adopted in 1901–2 the report says: "The isolation of the inmates was not satisfactorily effected, as in some instances friends visited the houses and numbers of the residents of the houses did not remain isolated, for at night time many of them went out, and in some cases went to places of amusement." After very careful consideration of the question as to what means other than vaccination can be relied on in the place of vaccination the Royal Commission reported: "We can see nothing to warrant the conclusion that in this country vaccination might safely be abandoned and replaced by a system of isolation. If such a change were made in our method of dealing with small-pox, and that which had been substituted for vaccination proved ineffectual to prevent the spread of the disease (it is not suggested that it would diminish the severity in those attacked), it is impossible to contemplate the consequences without dismay" (503). The relaxation of authority by the Government and the invitation to exemption now so extensively accepted by parents have been brought about without any fresh inquiry into or impeachment of the conclusion quoted above. An example on a small scale of the possibilities which may result in an unvaccinated child community was afforded at Newhaven in January last, when three "exempted" children in one family died on successive days from haemorrhagic small-pox.

POOR LAW MEDICAL OFFICERS' ASSOCIATION.

THE annual general meeting of the Poor Law Officers' Association of England and Wales will take place at the rooms of the Medical Society of London, Chandos Street, W., on Thursday, July 3rd, at 3 p.m. After the completion of the usual business papers will be read on the Present and Future of the Poor Law Infirmary, by Dr. C. Thackray Parsons, Medical Superintendent to the Fulham Infirmary; and on the Poor Law Medical Service and the Insurance Act, by Mr. E. J. Mott, Clerk to the Fulham Guardians. Tea will be provided after the meeting, but the usual annual dinner will not be held.

THE Vienna Association of Medical Practitioners recently organized courses of lectures on medical ethics. The success of the experiment has been such that the lectures are to be continued.

Medical News.

DR. E. M. BROCKBANK, Honorary Physician to the Manchester Royal Infirmary, has been appointed Dean of its School for Clinical Instruction.

THE French Minister of War has decided that to each section of hospital orderlies shall be assigned dogs trained for military purposes, especially for finding wounded men in the field.

THE Medical Society of Giessen has voted a contribution of 100 marks to the Lister Memorial Fund. Subscriptions may be addressed to the Honorary Treasurers of the Fund, Royal Society, Burlington House, Piccadilly, London, W.

THE Insurance Commissioners having issued regulations whereby the membership of the London Insurance Committee is increased to eighty, the London County Council becomes entitled to appoint two additional members and one additional medical practitioner. On June 24th the Council appointed Dr. R. M. Beaton as a medical member.

A VERY successful reception and conversazione was given by the Royal Society of Arts at the Natural History Museum, South Kensington, on Tuesday, June 17th. Lord Sanderson and Sir Henry Trueman Wood received the guests in the Central Hall, where selections of music were played by the band of the Royal Artillery, whilst the band of the University of London Officers' Training Corps performed in the Reptile Gallery, and an excellent vocal and instrumental concert was given during the course of the evening in the Shell Gallery.

AT the annual meeting of the Medico-Psychological Association of Great Britain and Ireland, which, as already announced, will take place on July 16th and 17th at the rooms of the Medical Society of London, the morning of the first day, Wednesday, will be occupied by general business. At the afternoon session on that day a presentation will be made to Dr. H. Hayes Newington, a member for forty years, President in 1889, and Treasurer since 1894. Dr. James Chambers will then deliver his presidential address, which will be followed by papers on traumatic neurasthenia by Dr. H. Campbell Thomson, and on the clinical significance of katatonic symptoms by Dr. Henry Devine. The annual dinner will take place in the evening. On Thursday morning papers will be read on the interpretation of dreams by Dr. C. A. Mercier, on dysentery by Dr. Salter Gettings, and on the bacteriological examination of the urine in some cases of general paralysis by Dr. E. Barton White. The report of a special committee on the status of assistant medical officers and the position of psychiatry will also be discussed. In the afternoon the President and Mrs. Chambers will give a garden party at the Priory, Roehampton.

THE last meeting of the Royal Meteorological Society for the session was held on June 18th, Mr. C. J. P. Cave, President, in the chair. A paper by Mr. J. S. Dines was read on "Pilot Balloon Observations in Barbados, 1911–12." These balloon ascents were carried out by Professor J. P. d'Albuqyerque and other gentlemen, on behalf of the joint Upper Air Committee of the Royal Meteorological Society and the British Association. Mr. H. W. Braby, a graduate assistant in the Meteorological Office, read a paper on "The Harmattan Wind of the Guinea Coast." This is a north-east wind which blows during the winter months along the coast of Upper Guinea from French Guinea to the Cameroons. It is exceedingly dry, and brings with it fine sand with enters the crevices of doors and windows, covering everything with a film of dust. The sun is partially obscured, and distant objects become invisible. This wind, which blows intermittently from November to March, is locally known as "The Doctor." Its medical virtues seem problematical; at any rate this remarkable "doctor" would seem to have no faith in the therapeutic properties of light or ventilation. Dr. E. C. Snow read a paper prepared by himself and Mr. J. Peck on "The Correlation of Rainfall."

THE annual dinner of the Medico-Legal Society was held at the Holborn Restaurant on June 23rd. In the absence of Earl Russell, the president of the society, the chair was occupied by Sir William Collins. The toast of the society was proposed by Sir Frances Champneys, President of the Royal Society of Medicine, and Sir William Collins, in responding, gave an interesting survey of the history of the society, and paid a graceful tribute to the yeoman services rendered by Sir John Tweedy and Judge Walton. In the course of his remarks the chairman alluded to the valuable part played by the society in what might be termed the cross-fertilization of sciences, due to the fact that it embraced medical, legal, and lay members.

He expressed his earnest hope that the distinctive character of the society would be maintained, and that it would escape absorption by the Royal Society of Medicine, a body composed of and existing for the members of one profession only. The society might well be the means of directing the practical attention of the House of Commons to medico-legal questions, and become, in fact, the laboratory in which the raw material would be prepared for the legislator. Commenting upon the scanty recognition accorded to the science of medical jurisprudence in the report of the Royal Commission on University Education in London, Sir William expressed the opinion that the society could do a great deal to promote the organization of a really representative school of medical jurisprudence, which would place in a position worthy of it a great science that has been sorely neglected in the past. Sir John Tweedy proposed the health of the guests, and coupled with the toast the name of Mr. Ivor Eccles, who briefly responded.

THE Convalescent Homes Association has since last year changed its address to 14, Victoria Street, Westminster. It has also published a second edition of its list of convalescent homes and sanatoriums receiving London patients, copies of which (price 1s.) can be obtained on application. Containing as it does full particulars as to the terms of admission and special features of over a hundred institutions, it is a useful book. The main objects of the association are to co-ordinate the work of public convalescent homes receiving London patients, to disseminate information in regard to the needs of London in respect of convalescent relief, and to advise the authorities of homes on all points concerned in their management. Last year the association, out of an income of some £360, made grants aggregating over £140 to nine homes standing in need of assistance. The chairman of its executive committee is Sir William Church, and the honorary secretaries Mr. M. O. Fitzgerald and Dr. S. H. Habershon.

AT the annual meeting of the Royal National Sanatorium, Bournemouth, held on June 11th, Mr. D. H. W. Robson-Burrows, the Chairman, said that the institution was gradually undergoing a very considerable change. Down to June 5th a total of 97 people had been admitted to the institution during the year, or, roughly, an increase of 10 compared with the usual number. Out of the 97 no fewer than 71 came under the Insurance Act; 52 were insured persons and the remaining 19 were the dependants of insured people. Instead of 80 to 85 nominated patients, there were only 26 of that class. The annual donations and subscriptions had decreased, and, he had no doubt, would go on decreasing, as there was no reason why people should contribute towards what was now being done by the State. So far arrangements with local authorities had been limited to the counties of Hampshire and Dorset and the county borough of Bournemouth, although communications had been received from various parts of the country. The amount received from annual subscriptions showed a decrease of £78, and from donations of £375, while the amounts received from the Metropolitan Hospital Sunday Fund and from the Bournemouth Hospital Saturday and Sunday Funds showed a continuous falling off.

IT has already been announced in the JOURNAL that the third International Conference on Cancer Research is to be held at Brussels this year in August (1st to 5th). Fuller particulars of the programme have been published. The following subjects are proposed for discussion: (1) The use of physico-chemical measures in the treatment of cancer, and the use of chemical remedies after radical operations. The reporters are Professor Neuberg of Berlin, Professor Caspari of Berlin, Professor Freund of Vienna, Exzellenz Professor Czerny of Heidelberg, and Professor Bayet of Brussels. (2) Vaccine and serum treatment of tumours. The reporters are Dr. Odier of Geneva, Professor Daels and Dr. De Somer of Ghent, and Dr. William Koley of New York. (3) Statistics of cancer; its regional distribution. The reporters are Dr. Rosenfeld of Vienna and Professor Firket and Dr. Kramer of Liége. (4) Etiology of cancer. The reporters are Professor Joh. Fibiger of Copenhagen and Professor A. Marie. (5) Establishments for the care of cancer patients. The reporters are Professor Blumenthal of Berlin and Dr. Solé of Brussels. (6) The nursing of cancer patients and training in this special department of nursing. The reporter is Professor George Meyer of Berlin. (7) A report on the position of cancer research and anticancer campaigns in different countries, by means of pamphlets and monographs intended for doctors and leaflets for the instruction of the laity. The reporters are Professor Willems of Ghent and Dr. Odier of Geneva.

Letters, Notes, and Answers.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, Westrand, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, Westrand, London.*

TELEPHONE (National):—
2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

H. J. C. asks whether any effect on the nervous system or will power is likely to be produced by a habit of taking a drachm of paraldehyde every night for months or years.

MOTOR TYRE PAINT.

BETA wishes to know of a white paint for motor tyres that will not readily wash off nor injure the rubber. He asks whether ordinary whiting and water would be satisfactory and if so what should be added to make it adhere properly.

"EL KOSSAM."

DR. G. A. WILLIAMSON (Aberdeen) writes: On page 84 of that very interesting book, *Boyd Alexander's Last Journey*, the following occurs: "Induced José to take El Kossam. This medicine again had wonderful results. The next morning he was comparatively fit. I am very glad I brought some with me." The author is speaking of his treatment of an attack of dysentery acquired in San Thomé. Our correspondent asks whether Kossam is a common remedy on the West Coast of Africa.

*** According to the *United States Dispensatory*, nineteenth edition, the seed of *Brucea sumatrana*, a plant indigenous in China and Southern Asia, are known as Kossam seeds, and are asserted to be useful in menorrhagia, dysentery, and diarrhoea. A reference is given to the *Pharmaceutical Journal*, lxiv, p. 463. From *Brucea sumatrana* Roxburgh has obtained an alkaloid, brucamarine. There is another species, *B. antidysenterica*, which was at one time supposed to be one of those which yielded false angostura bark.

INCOME TAX.

J. A. B. held an appointment as an assistant during the three years ended April, 1913, and in May purchased a partnership from which he expects to receive £350 per annum. He inquires what sum should be returned for income-tax purposes.

*** The fourth rule, applying to Cases I and II, Schedule D, provides that the duty payable in respect of a partnership shall be computed according to the profits of the practice during the previous three years notwithstanding any change therein or succession to the practice, unless the partners prove that the profits have fallen short from some specific cause since the change took place or by reason thereof. Accordingly, in the case mentioned by "J. A. B." the firm's return for assessment should be made—by the precedent acting partner—on the basis of the full average profits of the practice during the past three years, and in any claim for abatement, etc., which he may make "J. A. B." should insert his share of the full return—for example, one-third of £1,050=£350. If, at the end of the year, it is found that the profits have fallen short from some specific cause, a claim for repayment should be preferred within six months.

ANSWERS.

GASTRIC ULCER.

IN answer to our correspondent's question as to the best book "on the treatment and after-treatment of gastric ulcer," we may refer him to the excellent article by Dr. Charles F. Martin on Gastric and Duodenal Ulcer in vol. v, p. 175, of Osler and Macrae's *System of Medicine*, published in 1909. A more specialized account may be found in Dr. George Herschell's *Non-Surgical Treatment of Duodenal Ulcer* (London: Henry J. Glaisher, 1910), or in the section under

this head in Professor Saundby's *Treatment of Diseases of the Digestive System* (London: Griffin and Co., 1906). If our correspondent reads German, we may refer him to Professor Matthes's *Die Behandlungsmethoden des chronischen Magengeschuers* in Professor Albu's Encyclopaedia (Karl Marhold, 1910), to Dr. M. Bamberger's Alverenga Prize Essay, *Die innere und die chirurgische Behandlung des chronischen Magengeschuers und ihre Erfolge*, and to Dr. Friedrich Craemer's *Vorlesungen über Magen-und Darmkrankheiten*, 5th part.

LETTERS, NOTES, ETC.

LIPODYSTROPHIA PROGRESSIVA.

DR. F. PARKES WEBER (London, W.) writes: In my article on the above subject, which appeared in the JOURNAL for May 31st, I referred at length to a case described by Dr. E. Holländer, of Berlin, in 1910, but I did not know that this, from the neurological point of view, was Dr. A. Simons's case, and was fully described by Dr. Simons, under the heading "Eine seltene Trophoneurose ("Lipodystrophia progressiva")," in the *Zeitschrift f. d. ges. Neurologie*, etc., Berlin, 1911, vol. v (originalien), p. 29. Hoping you will allow me thus to call attention to Dr. Simons's publication.

DOGS AND DOG OWNERS.

MISS SYLVIA S. LINTON (Cambridge) writes: In the BRITISH MEDICAL JOURNAL of June 21st (p. 1356) you speak of the appeal of Miss Bailey to dog owners not to chain their dogs, and you say "while condemning this inhumanity we think that her unreserved demand fails to take into account possible danger to human beings." I may, of course, be mistaken, but I imagine that it is the *chaining* of dogs to which Miss Bailey objects. I have kept and shown dogs for the last six or seven years and I know that chaining is one of the worst things for them. At the same time, however, I believe in discipline for dogs, and would suggest that they are shut up in a run for a certain portion of the day. Surely it is possible for every one to make a small run for his dog, and while thus disciplining him do away with the injurious chaining. A dog will be quite as good a watchdog in a run as on a chain; of this I have had practical experience. The vast majority of people who keep one or two dogs, but yet have little technical knowledge of them, do not seem to realize the advantages of a run in place of a chain.

SCARCITY OF SHIP SURGEONS.

BLUE PETER writes with reference to the letter under this heading published last week to state that a well-known shipping firm habitually defers handing instructions to their ship surgeons until after appointment. He adds: A friend recently was offered three different ships in quick succession by a prominent company, showing that just now, at least, doctors for sea service are not readily obtainable. Intending ship surgeons will be well advised to use discretion in their selection of the company for whom they sail.

INTRAVENOUS INJECTIONS OF IODOFORM IN PULMONARY TUBERCULOSIS.

DR. A. STEVENSON (Sunderland) writes: I hold no brief for Dr. Dewar, yet having followed his line of treatment in phthisis for some years I can fully endorse all that he says in its favour. Dr. J. B. Coleman, at the Royal Academy of Medicine, Ireland, has not made out his case against "intravenous injections of iodoform." Dr. Coleman states that iodoform is toxic to human beings. When 3 grains can be given by the mouth, how can half a grain injected do any harm? I have not yet had any bad effects following the intravenous use of iodoform. Can Dr. Coleman give any cases where haemoptysis or pneumothorax resulted from its use. If not, then the intravenous method of administering iodoform should not be condemned because certain risks might happen which really do not take place. The proof of the iodoform is in the injection of it.

THE DECLINING BIRTH-RATE.

DR. BINNIE DUNLOP (London, S.W.) writes: In your note on Dr. Rohleder's pamphlet, *Der Geburtenrückgang eine Kulturfrage*, you say (May 31st, p. 1179) that, "Given a fixed income anywhere near the poverty line, it is obvious that a parent can provide better housing, nourishment, and education for two children than for five." Then you ask two questions which you consider cannot be answered offhand or with much agreement by medical men, and which I hope you will allow me to comment upon. "Do the environmental advantages which thus accrue to the diminished numbers of the offspring outweigh the disadvantages of a slackening of the intensity of natural selection operating upon a larger number of children [in a family], some of whom must be 'weeded-out'?" Surely it is a most inhumane suggestion—and a totally indefensible one from a medical man whose mission is the saving of life—that a couple who can only afford to maintain two children should be encouraged or compelled to have more than two, in order that there may be some weeding out; in other words, in order to submit the children to a semi-starvation test as to which pair will prove the fittest. Besides, children are not born in litters, and the human tendency is to feed the delicate ones at the expense of the stronger ones. If a couple can—like the majority of our urban wage-earners—only do justice to two children, it seems to me the duty, as I heard Dr. Rohleder most ably contending at the great Dresden Hygiene Exhibition, of the family doctor to teach the parents the best means of family limitation. This brings me to your second question: "Again, are the effects upon the health and morals of a nation of the employment of artificial methods of restricting fertility so prejudicial as to counterbalance the individual advantages?" What evidence is there that "the effects" are "prejudicial" at all? The fact that death-rates fall with falling birth-rates, and not otherwise, seems to prove that "the employment of artificial methods" is not injurious to health. That it is also not injurious to morals is evidenced by the admitted and constantly-remarked-upon improvement in them that has been going on steadily in recent years, and by the progressive diminution of crime as seen in the statistics.

DR. H. B. HANSON (Hampstead, N.W.) writes: It is with great satisfaction that one sees Sir Thomas Oliver and others drawing attention to the harm a frequently ignorant public does itself by the use of lead as an abortifacient. There is, however, one point where the evidence is a little conflicting; it needs elucidation before the matter can be dealt with radically. Sir Thomas Oliver says: "It is the light-hearted manner in which unmarried and young married women, in their eagerness to avoid responsibilities and the assumption of tasks which interfere with their pleasure, resort to the use of diachylon, that calls for condemnation." Dr. Hall states that it is a period of trade depression that sends the number of cases up by leaps and bounds. If there are society women who take diachylon as a means to devote more time to bridge or to enable them to lead a life of immorality without unpleasant consequences, then, as Sir Thomas Oliver says, they deserve condemnation; but the fact that the numbers increase during trade depression points much more to its being employed not to leave the woman free to amuse herself, but in order to prevent her adding another hungry mouth to her already starving family. As has been well pointed out in a recent weekly, all the desirable reforms—of keeping the children longer at school, forbidding their half-time work or trading in the streets—have an adverse side, which falls almost invariably on the mother. There is no automatic increase of wages to compensate for these increases of expenditure, and it means that the mother has frequently to see her children underfed, herself starved and worked beyond her strength, in order to make both ends meet. The deplorably low state of health of married working women the Insurance Act is already revealing to those of us who did not know it before.

While, therefore, attempting to prevent by legislation this harmful means by which they sometimes seek in desperation to lessen their family cares, are we to fail to go to the root of the matter and to say either children are a valuable asset to the nation, their birth must be encouraged, and we will therefore give national support to the woman who, against her will, bears them beyond her means, or children are not a valuable asset, and should she so desire, the woman is entirely within her prerogative (not, indeed, in committing self-injury and destroying the child before birth), but, if her means are insufficient, in refusing to take the preliminary steps necessary for its birth at all.

It is (to quote Sir Thomas's words again) "the light-hearted manner in which unmarried and young married men, in their eagerness to avoid interference with their pleasure," continually increase their families regardless of consequences to all concerned, and by no means with a desire to serve their country, which "calls for condemnation."

Was it perhaps this complete lack of responsibility which led Miss Cobbe, regrettably I think, to speak of married men as being possibly one with the lower animals? This brings me to another point. Whether the above-quoted remark of hers was just or wise is certainly open to doubt, but I join with your correspondent last week in thinking your comments on her other remark that she loved her own kind only by grace somewhat uncalled for. When one reads antivivisection literature one thinks how poor their case must be to need the support of the various "terminological inexactitudes" they bring to it; but sometimes when one reads the BRITISH MEDICAL JOURNAL one would be tempted, were it not for first hand knowledge, to say how poor our case must be to need the support of the rather sarcastic personal abuse we sometimes indulge in. I have all the more pleasure in making this protest in that not even grace itself has enabled me to take the slightest interest in the animal creation.

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	£	s.	d.
Eight lines and under	0	4	0
Each additional line	0	0	6
A whole column	2	13	4
A page	8	0	0

An average line contains six words.

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NOTE.—It is against the rules of the Post Office to receive *poste restante* letters addressed either in initials or numbers.

THE

British Medical Journal.

THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

SUPPLEMENT

CONTAINING

PROCEEDINGS OF COUNCIL

REPORTS OF STANDING COMMITTEES

MEETINGS OF BRANCHES AND DIVISIONS

PROGRAMME OF ANNUAL MEETING

MEDICAL BILLS IN PARLIAMENT

PROCEEDINGS OF THE GENERAL MEDICAL COUNCIL

ETC.

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BRITISH MEDICAL ASSOCIATION.

NATIONAL INSURANCE ACT.

STATEMENT AS TO THE PRESENT POSITION AND POLICY WITH REGARD TO MEDICAL BENEFIT.

[IN accordance with the instructions of the Representative Meeting on December 23rd, 1912, to the effect that steps should be taken to correct the many misstatements and misrepresentations which have been made in the press and from the platform as to the attitude of the medical profession towards the National Insurance Act, the following statement to the public has been issued to the press:]

THE decision of the Representative Body of the British Medical Association that service under the National Insurance Act was impossible to self-respecting practitioners, and therefore must be declined, was the result of no hurried action, but the logical outcome of eighteen months' deliberation and negotiation. Some of the reasons which determined this resolution are here briefly set forth.

Under the final Regulations and conditions of service as published by the Commissioners the entire control and management of medical benefits are entrusted to the Local Insurance Committees, on which the representatives of insured persons are in a permanent majority, the directly elected representatives of the medical profession being two only, others being nominated by outside bodies so as to bring the total number up to one-tenth. By this body, practically a working class committee, all arrangements as to medical service are to be made and controlled and to it all complaints are to be referred, subject to final submission to the Commissioners. Any complaint by an insured person against a panel doctor is in the first place considered by a committee composed of three medical men, three representatives of insured persons, and a lay chairman nominated by the Insurance Committee from those of its members who do not directly represent the insured. The finding of this body is then submitted to the full Insurance Committee for their decision. This decision is subject to review by the Commissioners, another body with a minimum of medical representation. It is thus evident that professional questions, involving in many cases difficult technical and even scientific issues, which in many cases may affect the reputation of a practitioner, must be considered and decided by a number of persons who are neither by education nor training fitted for that office. It has been well said that "No intellectual industry can escape injury when placed under the control of inferior intelligences," and for this reason, if for no other, the Regulations under the Act are distasteful and impossible to the members of a scientific profession. On the other hand, should a doctor object to frivolous and unnecessary calls or any other sort of misbehaviour by an insured person, he has to put the same machinery in motion, and appear to prosecute his

complaint before the tribunal constituted as described above. No busy practitioner can afford the time or risk the unpopularity necessary to obtain redress in this fashion, and, so far as he is concerned, this provision will be a dead letter.

The whole risk of the insurance has to be undertaken by the medical profession. The State safeguards itself by excluding from sickness benefit sufferers from certain classes of illness caused by the patient's own misconduct, which entail a very long and exhaustive treatment, as well as aged persons over 70. The doctor, however, has to give attendance on such cases until they recover or die—and this for an insurance premium which is quite inadequate. A statement was submitted to the Chancellor of the Exchequer proving this, to which no answer, or attempt at an answer, has been made. The report of Sir W. Plender on the earnings of medical men showed that they received 4s. 2d. per annum for each of the population for 1.8 attendances. This gives 2s. 4d. per attendance. The latest offer of the Government would provide about 8½d. for each attendance on an insured person under average conditions of health.

This is indeed a small fee for a skilled opinion carrying the responsibility of life and death. For this sum a practitioner on the panel (should the 7s. per annum be paid as a pure capitation fee) undertakes services far beyond those required in ordinary club contract practice. Should he require the services of an anaesthetist for some painful operation he must pay him out of his own pocket. He gets no allowance for "extra" work or for mileage, unless in exceptionally sparsely populated districts, and (contrary to the promise of the Chancellor of the Exchequer given at the meeting at the Examination Hall in 1911) must agree to treat without further remuneration persons whose lives in an insurance sense are bad, and who have passed no previous medical examination. He also has to keep "records," and his work is to be subject to inspection.

The Government has definitely refused to enact that persons whose income exceeds a certain sum shall make their own arrangements for medical treatment, receiving from the Insurance Committees the sums due to them for medical benefit. This refusal is based, not on any contention that it is just and right, but that, according to the Chancellor of the Exchequer, it would lead to loss of votes at parliamentary elections. A large number of doctors make the greater part of their income from the moderate fees paid to them by persons somewhat better off than the ordinary club patient. Such persons being swept into the insurance net, those doctors would be on the verge of ruin. Under the Act an income limit can be fixed by the Local Insurance Committees, but the Chancellor frankly stated that there was no chance whatever that the committees, with their statutory majority of working-class representatives, would be content to fix one in the case of highly paid artisans, though one might perhaps be arranged for farmers and small tradesmen. From his statements it is clear that the amendment to the Act moved by Dr. Addison on this subject is more for show than use.

From the point of view of the insured person the outlook is not reassuring. As matters now stand he is called on to trust his health—in most cases his sole capital—to a medical service which can hardly be efficient. In certain areas, no doubt, some sort of a panel will be set up; in a large number of districts it will be impossible to do so. The number of practitioners willing to break their pledged word and accept service will be limited, and consequently the supply will fall short. To make the Act a success at least 10,000 doctors will be needed, taking country with industrial areas. To work it in some way about 8,000 might suffice, and any less number would spell disastrous failure. The service will therefore be deficient in numbers, and any attempt to work medical benefits under present conditions will be directly prejudicial to the health and best interests of the public.

The alternative scheme put forward by the British Medical Association is free from these objections. Under it the number of doctors willing to work will be limited only by the numbers who now practise among the industrial classes. All the best men will be available, and each of the insured will have absolutely free choice and can choose the practitioner by whom he wishes to be attended, the service being given freely and whole-heartedly and not "grudgingly or of necessity." Under these circumstances also, the doctors on the British Medical Association list will be able to work in full accord with specialists and consultants. The consultant and specialist, both in hospital and at his own consulting-rooms, exercises a boundless charity to those in need. He will not act in defiance of the interests of the bulk of his brethren, but will observe both the letter and spirit of the pledge which has been signed by the very great majority of those in consulting practice, and only treat insured persons, and co-operate with those doctors attending them in cases of urgent necessity, until the terms of service under the Act are accepted by the British Medical Association and the profession generally.

As soon, however, as this plan was sanctioned by the Representative Body of the British Medical Association and published a Government announcement was made that under no circumstances could assent be given to it. The Commissioners, for the Government, prefer to rely on the chance of establishing sufficient panels, obtaining enough "whole-time men" to give some sort of a service, and on the extension of branches of "Medical Institutes." The work of these Institutes has justly been stigmatized as "the very worst form of low-class contract practice." From this it is plain that quantity, not quality, is all the Government requires in its medical service, and that the health of the insured persons is but a "pawn in the game." There is no reason at all why assent should not be given to this alternative plan. The Act allows it, as definite provision is made in it for insured persons "to make their own arrangements" for medical treatment. The whole medical profession is ready and willing to work under such conditions, as they secure that freedom and independence which is demanded by the members of a scientific body. It will be to the best interests of the insured persons, as they will obtain the best possible attendance and treatment from the best possible men, each person freely choosing the doctor he wishes to look after him. It will be to the best interests of the State, as the medical service will be given heartily, and the individual practitioners will work as "doctors," and not as underpaid, overworked, unpensioned units in an uncovenanted branch of the Civil Service. The Government objections are incomprehensible, but the last word is neither with the Government nor with the doctors. It is the insured persons themselves who have to choose between an efficient and a non-efficient service, and, having made their choice, they must see that their decision is accepted.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

A MEETING of the State Sickness Insurance Committee appointed by the Special Representative Meeting on November 20th was held at the house of the Association, 429, Strand, on Monday, December 30th, 1912, Dr. J. A. MACDONALD in the chair. The members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. T. M. Carter (Bristol), Miss Frances Ivens M.S. (Liverpool), Mr. E. B. Turner (London), Mr. E. H. Willock (Croydon). *Ireland:* Dr. J. S. Darling (Lurgan). *Ex officio:* Mr. T. Jenner Verrall (Chairman of Representative Meetings), Bath.

APOLOGIES FOR ABSENCE.

Letters of apology for non-attendance were read from: Dr. J. Adams (Glasgow), Dr. Helme (Manchester), Dr. R. McKenzie Johnston (Edinburgh), Dr. Constance E. Long (London), Dr. E. O. Price (Bangor), Dr. D. G. Thomson (Norwich), Mr. D. F. Todd (Sunderland), the Treasurer (Dr. Edwin Rayner), and the President (Sir James Barr).

Dr. Price in his letter stated that he felt compelled to resign his membership of the Committee.

SPECIAL REPRESENTATIVE MEETING SUMMONED.

The Committee considered for some time the position which had arisen since the Representative Meeting on December 21st and 23rd, and the Chairman of Representative Meetings announced that he had received requisitions from constituencies in accordance with By-law 36 (1) for a Special Representative Meeting, and that he intended accordingly to call such a meeting at the earliest convenient date. After some discussion it was determined that the earliest possible date would be Friday, January 17th. The Committee thereupon adopted the following resolution:

> That a Special Representative Meeting be called to consider the desirability of releasing practitioners from the pledge and undertaking they have given in connexion with the National Insurance Act, and to consider the situation created by the attitude of the Government towards the decisions of the Representative Body.

THE ALTERNATIVE SCHEME AND FREEDOM FROM FRIENDLY SOCIETY CONTROL.

The Committee considered the following question (Minute 79) asked at the recent Special Representative Meeting by Dr. Durant (Consett, Gateshead):

> Inasmuch as the cardinal point, "Freedom from friendly society control," is by Minutes of the British Medical Association its declared policy, will medical practitioners entering into arrangements whereby any of such control exists, be breaking their pledges?

and the statement by the Chairman—

> That in his opinion, the cardinal points were originally adopted with a view to work under the Act, and that the alternative scheme is for working outside the Act, and that the remainder of the question was a matter for consideration by the State Sickness Insurance Committee.

The Committee endorsed the reply of the Chairman of Representative Meetings that the suggestion of dealing with friendly societies was for service outside, and not under, the Act, and considered that in any such dealings with friendly societies it was not suggested that the old control by the societies should be repeated, but that, on the contrary, the lines laid down in the alternative scheme of the Association precluded any such control being obtained.

LEGAL OPINION.

The Medical Secretary reported that in accordance with instructions he had submitted certain questions to the Solicitor and had received a reply. The correspondence was read as follows:

British Medical Association,
Medical Department,
429, Strand, London, W.C.,
December 18th, 1912.

Dear Mr. Hempson,

The following legal points arose in the Committee yesterday in connexion with the National Insurance Act and its Regulations, and I was instructed to place them before you and ask you to give them your early attention. If you think it necessary to take Counsel's opinion you will of course do so, but the Committee leaves discretion as to this in your hands.

I would direct your attention to the New Regulations issued by the Commissioners which I brought to your notice yesterday as published in the SUPPLEMENT to the JOURNAL of December 7th, first Schedule, part I, "Conditions of service for practitioners," and also to the Model Agreement on page 643 of that SUPPLEMENT.

The Committee would like to know, in the case of a practitioner who has signed this agreement, by which of the various people and bodies concerned an action for malpraxis or neglect, or failure to fulfil contract, could be brought. The contract is between the doctor and the Insurance Committee, but the doctor is only bound to attend those persons on his list. Could the Insurance Committee sue him for breach of contract or for alleged malpraxis, or would such action lie with the patient? Would an Approved Society, of which the patient was a member, have any *locus standi* in bringing an action? In your opinion, would the penalty for neglect of patient or malpraxis, if such were proved, be likely to be greater or less under a formal agreement signed as is contemplated than it is now under the informal contract which exists in private practice?

It is desired also that you should consider this matter in connexion with the proposed Medical Trust or any similar scheme where the contract was made between the Trust or the Local Medical Committee and the Insurance Committee. In the case above outlined of an action for breach of contract or malpraxis would the action here lie against the Committee of the Trust or the Local Medical Committee or against the individual doctor, and if against the former would that Committee have in its turn any claim against the medical practitioner concerned?

If an Approved Society were able to bring an action on the part of one of its members, and if the action were lost, could costs given against such a Society be recovered from the Society? You will note, in this connexion, that the Society may either be a Friendly Society, or a Trade Union, or one of the collecting Insurance Companies.

The Committee would be glad if you would carefully examine the Model Agreement of the Commissioners to which I have already referred, and give your opinion as to whether the interests of the practitioner signing it are thoroughly protected, and, if not, state the points in which you think it needs strengthening.

You will note that the Model Agreement on page 643 of the SUPPLEMENT of December 7th is for the period until April 14th, 1913. In the ordinary way it is probably intended that an Agreement shall be made for the period of one year. Supposing the doctors were dissatisfied with the conditions of service, would it be a breach of contract if they refused to continue during the period for which they had signed, what would be the method of procedure against the individual practitioner who refused to carry it out, and what, in your opinion, would be the probable penalty if the case were proved—that is, the breach of contract?

I am,
Yours faithfully,
ALFRED COX,
Medical Secretary.

W. F. Hempson, Esq.,
33, Henrietta Street, W.C.

Bedford House,
33, Henrietta Street, Strand,
London, W.C., 24th December, 1912.

State Sickness Insurance Committee.

Dear Dr. Cox,

I have now given careful consideration to your letter of the 18th inst., asking for my opinion on various points arising out of the National Insurance Act and its Regulations.

The model Agreement referred to by you appears to be a document which is required to be signed by the practitioner who is willing to serve upon the panel, addressed to the Insurance Committee for the district. Apparently there is to be no corresponding written assent by the Committee. Whether or not the Committee's assent to the document could be subsequently proved in any other way, as by their action with regard to it, cannot be definitely ascertained until work has been begun under the Act and it is seen what, if any, measures are to be taken by the Committee which may be regarded as an adoption on their part of the agreement.

If the Committee is not bound by the contract to the practitioner, I fail to see how the practitioner can be held to be bound to the Committee, as there can be no contract without mutuality.

It is a recognized principle of law that there can be no binding contract to give services without a corresponding obligation to employ.

As to malpraxis, I think it is clear that the Committee could have no cause of action against the practitioner on this ground. The only person who would have such cause of action would be the patient who had suffered. Also, there is no duty on the part of the doctor to the Approved Society, so the Society could bring no action for malpraxis against the practitioner.

I am of opinion, therefore, the liability of a doctor for neglect of a patient, or malpraxis, would be no greater if the proposed agreement were signed than if there were no such document.

With respect to the case which you put of a contract being entered into between a Local Medical Committee or Trust, as representing the individual practitioners, and the Insurance Committee, I am of opinion that it would be impossible for the Local Medical Committee or Trustees to be made liable for the malpraxis or neglect of the individual practitioner whom they represent.

As to an action for breach of contract, I am of opinion that, prima facie, no action would lie against the Local Medical Committee for a breach of contract by a medical practitioner unless by some document forming a contract they formally committed themselves to it. It is presumed they would not undertake such a liability.

The question whether a medical practitioner would be liable would depend upon his contract, if any, with the Local Medical Committee, but I have no information as to what form such a contract, if there were one, would take.

It is therefore impossible for me to express an opinion beyond saying that it *might* be possible for the Local Medical Committee to make an agreement with the practitioner that the latter should be liable to such Committee for breach of contract.

Your next point is as to an action by an Approved Society on behalf of one of its members. The Society, as I have previously stated, in my opinion could not bring an action on behalf of a member, therefore no costs could be given against it; the member suffering must bring the action in his own name, and the fact of his being supported by funds of the Society for that purpose (which seems an unlikely event) would not create a liability on the part of the Society for costs.

I have examined the two model agreements, one of which provides for "payment by attendance" and the other for "payment by capitation."

I observe their effect is to provide generally as to the mode of treatment by the doctor, the persons to be treated, the places where and times when the treatment is to take place, also the particulars to be furnished to the Commissioners (see Sections 1, 2, and 3).

No question of law arises on any of these and no opinion of mine upon them is called for. It will be for you to consider whether the requirements are too onerous.

Clause 8 refers to some account which may be required at the end of the term of engagement, but there is nothing to show what such account is intended to contain, in addition to what is contained in the particulars required by the schedules. Whether the word "account" is used in the ordinary acceptation of the word, and is intended to refer to figures for statistics, or whether it is used as synonymous with the word "report," I am unable to say.

Clause 10 refers to the remuneration, which would, of course, be agreed, for taking an appointment.

Clause 12 requires the practitioner "*shall*" supply such drugs as are mentioned therein, and the latter portion of it deals with the mode of paying for such drugs.

It is a matter for your consideration whether these terms are acceptable.

The first appointment is to be until 14th April, 1913.

Supposing the Committee shall be of opinion that the continuance of a doctor on the panel is prejudicial I think under Section 15 (2) (B) the Commissioners may remove him before the time, and that he would have no right of action unless he could prove malice.

On the other hand, in the event of the doctor declining to continue his service until the time named, I cannot see what (if any) action could successfully be brought against him; he could not be compelled to act by a mandatory injunction of a court, neither do I see that any person would suffer any damage by such discontinuance which would be recoverable by an action at law.

If any action lay against a practitioner for neglect or malpraxis, the insured person would recover as damages all the consequent expenses he had been put to, together with any loss sustained in his business, or otherwise, by reason of his illness, and, further, a solatium for the pain and trouble he has suffered.

There can be no penalty for any offence where not so provided by the Act, except by mutual agreement between the parties.

As the form of agreement stands at present it is a list of duties which the practitioner undertakes to perform rather than a mutual agreement, and in the event of his negligence or refusing to carry out these duties he can be struck off the panel.

There is no penalty provided, so none could be sued for.

I am, yours faithfully,
W. E. Hempson.

Dr. Cox.

THE VOLUNTARY HOSPITALS.

The Council of the British Hospitals Association met at St. Bartholomew's Hospital, London, on December 28th, 1912, to consider what steps should be taken by the managers of voluntary hospitals with regard to the treatment of insured persons after January 15th. Dr. D. J. Mackintosh, M.V.O., medical superintendent of the Western Infirmary, Glasgow, was in the chair, and the meeting was attended by representatives of voluntary hospitals both in London and in the country.

The honorary secretary, Mr. Conrad Thies, presented a memorandum founded on the returns received from a large number of voluntary hospitals throughout the United Kingdom. The returns were summarized in the following table showing the number of insured persons at the present time receiving treatment in voluntary institutions:

—	Per Cent.	Average Per Cent.
In-patients	From 24 to 80	49
Out-patients	From 18 to 72	47

The chairman said that the Chancellor of the Exchequer had made it quite plain that the provision made by the Act was for domiciliary treatment alone, and did not touch the important work which the voluntary hospitals had been carrying on in the past and which, it was hoped, they would be able to continue to carry on in the future. A great deal must depend upon the action which medical practitioners would take with regard to the working of the Act, but, whether they went on the panel or came to some other arrangement, the work of the voluntary hospitals, so far as in-patients were concerned, would not be lessened either in amount or importance. About 50 per cent. of the patients in all the voluntary hospitals were not insured persons. If the Act were properly worked, hospitals should be relieved of patients who were suffering from affections which could be equally well attended to by their own doctors at home. In that direction, therefore, the Act would be a distinct boon to the hospitals, for the time and attention of the medical staffs would be devoted entirely to the principal classes of work for which these hospitals existed—namely, the treatment of serious accidents, acute diseases, major surgical operations, etc., which could not be attended to in the patient's home, and which required skilled nursing. If it were made perfectly plain to the public that no provision whatever had been made for institutional treatment under the Act, it would be premature for the managers of voluntary hospitals to interfere at the present stage in any way with the treatment as in-patients of insured persons suffering from ailments which could not be efficiently treated in their own home.

The discussion was conducted in private, but it was announced that the Council had resolved to make the following recommendations to voluntary hospitals:

1. The British Hospitals Association is strongly of opinion that upon the medical benefit under the Insurance Act coming into force, insured persons should be examined by a medical officer, but, except for accidents, emergencies, or such special treatment as can only be given in a hospital, they should no longer be received in the out-patient or casualty department unless accompanied by a certificate or introduced personally by the medical practitioner who is in attendance. In such cases, after consultation, they should be referred back to their medical practitioner, with

an expression of the opinion of the hospital's physician or surgeon on the case, and a list of all such insured persons and the practitioners by whom they are sent should be forwarded to the Insurance Committee of the district periodically.

2. With reference to in-patients, insured persons whose cases are urgent and in need of hospital treatment should be admitted as heretofore, and hospitals should keep accurate records of all such persons admitted, and, if possible, the approved society to which they belong.

CAMPAIGN

SUGGESTED BY

LONDON MEMBERS OF THE CENTRAL COUNCIL.

AN emergency meeting of all the London members of the Central Council of the Association was held at 429, Strand, on Wednesday, January 1st, 1913.

This meeting discussed the present position of the profession under the Insurance Act, and was of opinion that the vast majority of the profession is still unwilling to serve on the Government panels, that such men as have gone on these panels have done so under pressure, and that the recognition by the Government of the principle of the insured "making their own arrangements" would result in the formation of free panels of willing practitioners. The meeting decided therefore to petition for an immediate meeting of the State Sickness Insurance Committee with a view to the inauguration of a campaign against the attempt to force an unwilling profession on to the Government panels.

The campaign involves a complete system of publicity, intelligence, press, and parliamentary departments, for all of which the materials are at hand. The present position of the panels in London is so unsatisfactory that no doubt was felt that the scheme of free and willing service will be accepted with enthusiasm throughout the metropolis. All the evidence goes to show that in the greater part of the country the same success will attend this campaign.

The Chairman has consented to call the urgency meeting of the State Sickness Insurance Committee for Thursday, January 2nd, and it is hoped that the campaign will be started forthwith.

(Signed) E. B. TURNER.
F. J. SMITH.
R. M. BEATON.
MAJOR GREENWOOD.
EVAN JONES.
M. G. BIGGS.
C. BUTTAR.

MEETINGS OF THE PROFESSION.

COUNTY OF LONDON.

A MEETING was held on December 30th, 1912, at the offices of the British Medical Association, of the Medical Committee appointed for the county of London. This committee is composed of medical practitioners directly elected in open meetings of the medical profession held in each metropolitan borough, to which each practitioner residing or practising in that borough was summoned, whether or not he or she was a member of the British Medical Association. The following resolutions were passed:

1. That this meeting agrees that it is preferable that the medical profession shall be free to work outside the existing Act and supply medical benefit to insured persons.
2. That this meeting is of opinion that the form of medical service outlined by the British Medical Association is the best method of promoting the good of the community and of maintaining the freedom and best interests of the medical profession.
3. That this meeting is of opinion that the form of medical service outlined by the British Medical Association is suitable in the present crisis and can be adopted provided that the insured community exercises its right to apply to make its own arrangements.
4. That this committee at once communicate with the Commissioners, the Insurance Committee for London, and all approved societies, stating the terms upon which it is prepared to treat the insured persons.

The following form of notice to the Clerk of the London Insurance Committee by insured persons desiring to make "their own arrangements" has been drawn up for use in Kensington, and has, we understand, been largely employed at the suggestion of medical men by insured persons in that metropolitan borough:

National Insurance Act.

The Clerk,
London Insurance Committee,
3, Pall Mall East, S.W.

Sir,

In pursuance of Section 15, Par. 3, of the above Act, I hereby apply to be allowed to make my own arrangements for Medical Benefits.

Name.....

Address.....

.....

Society.....

....., 1913.

CAMBERWELL.

A meeting of all medical men resident and practising in the borough of Camberwell was held at the Surrey Masonic Hall on December 27th, 1912. Forty-eight members of the profession were present. Dr. BATTEN was elected Chairman. The attitude which the local profession should adopt in consequence of the decision of the Representative Body of the British Medical Association was then discussed.

The Attitude of the Local Profession.—Dr. CAPES proposed, and Dr. LOWE seconded, the following proposition, namely:

That this meeting of medical practitioners resident in the borough of Camberwell considers it dishonourable to break the pledges given, and calls upon all the local practitioners to refrain from forming a panel under the National Insurance Act until the conditions are pronounced satisfactory by the British Medical Association.

Dr. CLITHEROW proposed, and Dr. WARD seconded, the following amendment:

That all the members of the profession resident and practising in the borough of Camberwell agree to sign the provisional agreement to accept service under the National Insurance Act.

This was carried by 28 votes to 15. On being put as a substantive proposition, Dr. CAPES proposed, and Dr. CLARK seconded, an amendment—namely, to add the words:

If we are released by the British Medical Association.

This was lost by 18 votes to 28. The original amendment was carried as a substantive motion by 31 votes to 17. Whereupon it was unanimously resolved to send up the following resolution to the State Sickness Insurance Committee:

That this meeting of Camberwell practitioners, having been compelled by force of circumstances to go on the panel, respectfully desire that the Association should release them from their pledges.

NEWPORT, ISLE OF WIGHT.

At a meeting of the medical profession held in Newport, Isle of Wight, on December 30th, 1912, when there were forty-eight present, the following resolution was carried:

That the members of the medical profession in the Isle of Wight are of opinion that it would be prejudicial to the best interests of the profession and of the insured for any practitioners to apply for service on the panel, and they hereby agree to abide by their undertaking and pledge, given not only to the British Medical Association but to each other.

A vote was taken by roll-call, with the following result: In favour of the resolution, 39; neutral, 5; against, 4. Those who were against and those who did not vote agreed to abide by the decision of the majority, and declined to apply for service on the panel.

Llandudno.

The following resolution was passed at a meeting (which was fully attended) of the medical practitioners of this town, held on December 28th, 1912:

That all the medical practitioners in Llandudno do stand by their pledges not to work the Insurance Act unless by instruction from the British Medical Association.

This was proposed by Dr. E. R. Woodhouse, seconded by Dr. R. Richards, and carried unanimously.

PROVISIONAL MEDICAL COMMITTEES.

County of Cheshire.

This Committee was formed by the Lancashire and Cheshire Branch Council on December 18th, 1912, and held its first meeting at the Onward Buildings, Deansgate, Manchester, on December 27th. Dr. Garstang, of Altrincham, was elected chairman, and Dr. Picton, of Holmes Chapel, secretary. To the Altrincham Division eight representatives were apportioned, to the Birkenhead Division (excluding the county borough of Birkenhead) three, to the Chester and Crewe Division (excluding the county borough of Chester) six, to the Stockport, Macclesfield, and East Cheshire (excluding the county borough of Stockport) seven, to the Ashton Division (so far as in Cheshire) four, to the Warrington Division (so far as in Cheshire) one, and to the South Manchester Division (so far as in Cheshire—comprising the Wilmslow area) one, making a total of thirty in all.

The second meeting was held on Monday, December 30th, 1912, at the Crewe Arms Hotel, Crewe.

Uninsured Persons.—It was resolved:

That, in accordance with the resolution of the Representative Meeting in November, uninsured persons, in areas of the county where no other arrangements have been made, may be accepted on contract terms obtaining hitherto until March 25th, 1913, or on any other terms that may be arranged by this committee; but that this shall not apply to uninsured persons provided for by the Act, namely, club members over 65, or ineligible for insurance through sickness at the commencement of the Act.

Cheshire Insurance Committee and the Question of Drugs.—The Committee subsequently attended in deputation at a meeting of the Cheshire Insurance Committee, and were invited by the Chairman of the latter to submit a supplementary list of drugs in addition to that submitted by the chemists. The deputation (Medical Committee) then withdrew, and after consideration resolved:

That it would be premature to intervene in the question of drugs whilst the larger question of service remains open.

The Chairman of the Medical Committee (Dr. Garstang) returned this reply to the Insurance Committee.

Practitioners and the Panel.—Subsequently the deputation was invited again to attend at the meeting of the Insurance Committee to discuss the larger question. The Chairman of the Insurance Committee announced that the clerk had sent out 410 invitations to join the panel, and only 12 replies had been received. He invited Dr. Garstang to state the position of the medical men in the matter. Dr. Garstang stated that he knew of a few others besides the 12 who were contemplating going on the panel, but that they would make no difference to the main issue—an effective panel would not be formed. The Cheshire doctors would *not* go on the panel. On the other hand, they were prepared to offer the Insurance Committee a good—indeed, a far better—service on practically identical terms to those offered, but not on the panel system, and not with the restrictions it imposed. Asked to state the terms on which the doctors would serve, he enumerated the following:

1. Any agreement before it becomes operative shall receive the confirmation of the State Sickness Insurance Committee of the British Medical Association.
2. Any proposals made by the Insurance Committee to be subsequently considered by the profession of the area.
3. The essential features of any arrangement must include:
   (*a*) Free choice of doctor from the *Medical Register*.
   (*b*) 8s. 6d. capitation fee, including medicine, as a minimum; or 2s. 6d. per visit as a minimum.
   (*c*) Income limit to be arranged.
   (*d*) No individual agreement between doctors and the Insurance Committee; but the Medical Committee to agree in the name of the local profession to give service.

The Insurance Committee welcomed these terms subject to the approval of them by the Commissioners, which it would endeavour to obtain. The question whether, assuming the general acceptance of the above principles, the profession would provisionally attend insured persons on the 2s. 6d. tariff from January 15th was answered in the affirmative.

The Question of Remuneration.—The Crewe area doctors desire payment by capitation. The rest of Cheshire, on the whole, is in favour of payment for "work done." Both systems would run concurrently. The scheme for payment for "work done" drafted by the Stockport, Macclesfield, and East Cheshire area (National Medical Union scheme) which has been approved by the State Sickness Insurance Committee, had, before the interview, been brought to the notice of members of the Insurance Committee and favourably received.

Coventry.

The following resolution was carried at a meeting held on December 18th, 1912:

That the Secretary circularize the medical men in the area to the effect that after January 15th, and as a temporary arrangement, insured persons may be admitted into private clubs, the public medical service, or new dispensary at a rate of 2d. per week, and uninsured persons at 1d. per week. It is hoped that this may be a guide to you in dealing with your patients individually or collectively as members of societies.

IRELAND.

Dublin.

As the result of the conference between representatives from the Irish National Foresters Friendly Society and certain other societies and the Dublin County Borough Local Medical Committee the following resolution was adopted by the Committee:

As several important societies have expressed a wish to enter into negotiations with this Committee, the Committee will sanction a provisional arrangement on present terms to January 31st, 1913, in the case of such societies, by agreement between each society and its medical officer.

The same extension which has been granted to the friendly societies represented at the conference will be given to other medical officers, should their respective societies be desirous of participating in future negotiations, on making application to the Committee.

SCOTLAND.

Aberdeen.

The Aberdeen, Banff, and Kincardine Division met on December 28th, 1912. There was a very large and representative attendance, about 100 members being present. We have not yet received any official report, but an account of the meeting, which appeared in the *Aberdeen Daily Journal* of December 28th, 1912, states that resolutions were passed to the effect that it was advisable that panels should be formed in the districts of the Division; that the Council be instructed to summon another Special Representative Meeting to reconsider the policy of the Association; and that the Provisional Medical Committees be recognized as Local Medical Committees.

Aberdeen Liberal Association.

Dr. Albert Westland, President of the Aberdeen Liberal Association, has resigned that position. The following is the text of the letter conveying the intimation of this decision to Mr. Scorgie, Secretary of the Association:

22, Albyn Place,
28th December, 1912.

Dear Mr. Scorgie,—I regret very much that I feel it necessary to tender my resignation of the office of president of the Aberdeen Liberal Association. An entirely new departure has been made by the present

Government. Upon a large and useful profession duties have been attempted to be imposed without any previous consultation with its recognized representatives, and conditions of work determined which are disliked and disapproved as inimical to its liberty and progress. And in regard to these duties under the conditions referred to, the remuneration offered has been fixed, not by mutual consent, but by arbitrary dictation by a member of the Government.

Both as a Liberal and as a member of the medical profession, I protest strongly against legislation of this character. I cannot believe that measures of social reform, when linked with, and to some extent dependent on, acts of despotic injustice to sections of the community, can be of real permanent value; and accordingly I must dissociate myself from any official tie with the party initiating such legislation.

In resigning, I would like to acknowledge with gratitude the kindness I have invariably received from yourself and the other officials, and the courtesy with which I have been treated by all members of the Association.

Believe me,

Yours very sincerely,

ALBERT WESTLAND.

Dr. Westland was in the chair at Mr. Lloyd George's recent meeting in Aberdeen.

SCHEME FOR MEDICAL SERVICE.

City Division.

A SCHEME for attendance on clubs or societies for insured or uninsured persons has been approved by the City Division Provisional Medical Committee, acting on instructions received from the meeting of the whole profession in the Division held on December 13th, 1912. The essential points in the scheme were published in the SUPPLEMENT of November 16th, 1912, p. 534. Full details and all necessary forms will be sent to any doctor residing in the neighbouring Divisions on application to the Honorary Secretary, Dr. W. Francis Roe, 12, Northampton Square, E.C. We are informed that the names of eighty practitioners in the City Division who are willing to act are already on the list.

POST OFFICE EMPLOYEES.

AT an extraordinary general meeting of the Postal Medical Officers' Association, the President announced that at an interview with the Secretary of the Post Office it was intimated that unestablished postal employees who are under the Insurance Act will be free to choose their medical attendant, and that the postal medical officer will be under no obligation to attend such by the department.

BRITISH MEDICAL ASSOCIATION LIBRARY.

BOOKS NEEDED TO COMPLETE SERIES.

THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Association of Genito-Urinary Surgeons. Transactions. 1906.
American Climatological Transactions. Vols. 1, 4, 5, 6.
American Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
American Journal of the Medical Sciences. New series, vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18-30, 1850; vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
American Journal of Ophthalmology. Vols. 1–9.
American Laryngological Association. Transactions. Vols. 1–6, 8–9.
American Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*, up to 1903 inclusive.
American Medico-Psychological Association. Transactions. Vol. 13, 1906.
American Otological Society. Transactions. Vol. 3, part 2, 1883.
American Public Health Association. Transactions. Any vols.
Analyst. Vols. 1–24.
Annals of Surgery. Vols. 13, 14, 26.
Archiv für Dermatologie und Syphilis. Bd. 24 and 25 (1892 and 1893).

CORRESPONDENCE.

[*It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor*, BRITISH MEDICAL JOURNAL, *429, Strand, London, W.C.*]

THE ASSOCIATION AND THE PROFESSION.

DR. J. CROMIE (Blyth, Northumberland) writes: Come! let us reason together in a calm judicial spirit; let us put aside our inflammatory speeches, our political biases, our chagrin, and our irritating "I told you so's," and let us face the situation fairly and squarely; above all, do not let us make the mess more messy and confusion worse confounded by mutual recriminations, but let us rather try to believe that those who have taken a different line of action to our own were actuated by motives as honourable as ours, and no one is infallible.

It is quite true that "someone has blundered." But one blunder does not lose or win any campaign, and the struggle is by no means over; there is still a lot of work to be done, in order that our interests may be safeguarded and that the points gained may be retained.

That work cannot be done by bluster and bounce, nor can it be done by despair and dissension; it can only be done by loyalty to ourselves, loyalty to each other, and loyalty to the British Medical Association, which has done good work for us in the past.

I have not in the past seen eye to eye with all that was done by the British Medical Association, nor am I likely to do so in the future, but that does not blind me to the fact that whatever the faults of its head its heart is all right, and in no other way and by no other organization can the profession be led in the paths of pleasantness and peace.

Let us, therefore, close up our ranks, stand shoulder to shoulder, learn the lesson all too plain before us, turn our backs on those who propose fresh combinations by whatever name they may be called, be tolerant, view all questions from other standpoints than our own, and all will yet be well.

DR. R. C. BUIST (Dundee) writes: As one who believes that the British Medical Association is the only organization at present existing or conceived that can be permanently serviceable to the profession, I crave permission to make an appeal to the individual members of the Association to stand by her at the present critical juncture. No matter how strongly individuals may feel, there is nothing to be gained by the movement of protest extending beyond those members of the Council who had imposed upon them a duty which they could not conscientiously discharge. It is not yet the time, nor have I the desire to write either a descriptive or a critical history of the past twelve months. It is, however, the duty of each member to consider how far he has himself contributed to the change from January to December. In January the Association had a declared policy, solidly based on the assent of 27,000 practitioners. In December the policy had so changed that the basis of consent has collapsed like a house of cards. How has it come about that those who were at the helm realized so little the real position that the profession has only won to safety at the cost of a shattering of the executive and a stunning shock to the Association? Till we have learnt the lesson of the new position I appeal to each man for confidence in the capacity of the new executive. Given time and avoidance of precipitation, they are able to bring the ship once more into a fair course.

Any personal regret over the step I felt called upon to take is lessened by the knowledge that the Association has at command men earnest and able, and that, even in a moment of stress, it has been able to select so wisely as it has done in appointing Dr. Evan Jones and Dr. Willock to fill the vacant posts. Again I appeal to the members not to act rashly and unwisely, but to stand by the ship.

DR. W. J. DURANT (Gateshead-on-Tyne) writes: The principle underlying the recommendation of the last Representative Meeting to medical practitioners to come to some arrangement with the representatives of insured

persons for attendance is undoubtedly, in my opinion, the giving up of the cardinal principle, "freedom from friendly society control." Because of this opinion I asked the Chairman of the recent Representative Meeting (Mr. Verrall) to give his ruling on a question which ran as follows: "Inasmuch as the cardinal point, 'freedom from friendly society control,' is by the minutes of the British Medical Association its declared policy, will medical practitioners entering into arrangements whereby any such control exists be breaking their pledges?"

Mr. Verrall referred the question to the State Sickness Insurance Committee. Has a chairman of Representative Meeting the power to refer such a question to that or any Committee? In my opinion by the laws of the Association he has not. He must either answer it or leave it to be answered by the Representative Meeting itself.

I take it that any such arrangement as recommended, if there is the vestige of control—such as any form of contract or even if the representatives of the insured persons hold the money—will undoubtedly abrogate the cardinal principle of "freedom from friendly society control" and so break the pledge which was given on the understanding that that principle was one of its chief bases.

Passing to another matter, namely, the desirability or otherwise of medical practitioners forming panels in certain special districts. I mean in:

1. Purely agricultural areas.
2. Combined town and agricultural areas where the latter largely predominate.
3. Certain seaside and other health resorts.

The moorland, mountainous, and fen districts are made workable by the special mileage fund. In my opinion, the medical men of the above three areas can force the Government or Commissioners to extend the special mileage fund to those areas. The medical men of those areas will be enormously strengthened in their resistance by the acceptance of the panel system by the doctors practising in industrial districts. There will be very few doctors left to "blackleg" their brethren practising in those special areas.

The three big points to be considered by the Representative Meeting on January 17th are:

1. To free men who believe they have given a personal and not a constitutional pledge.
2. To call upon all medical practitioners to remain or become members of the British Medical Association.
3. To ask for quarterly contributions to the defence fund for the purpose of providing the sinews of war for many fights which are sure to come, as we are only just beginning our campaign.

We may differ over the present situation, but we can have only one opinion as to the absolute necessity of consolidating and strengthening the only body—the British Medical Association—which, if properly led, can protect us.

We have received the following letter, dated December 30th, 1912, signed by the officers of the Provisional Medical Committee, Hastings Division of South-Eastern Branch:

At the request and on behalf of the Provisional Medical Committee of the Hastings Division, we desire to lodge an emphatic protest against the action of the Meeting of Representatives in discussing and recommending any scheme of medical service.

The Meeting of Representatives was called for a specific purpose, and might have performed its duty in twenty minutes. By means which we do not care to describe the discussion was prolonged preposterously, and when at last a decision was arrived at many Representatives seemed to have been so surprised and frightened at their own temerity that, without mandate, rhyme, or reason, they put forward and made public a suggestion for terms of medical service which at a blow upsets the work of many months in the Central and many of the Local Committees.

It has had a most disastrous effect on the most deserving of the Divisions—namely, those in which the men have laboured to secure the unity and solidarity of the members by providing a scheme of public medical service.

Just at the time that we were on the point of closing, on British Medical Association terms, with that portion of the public interested, we were thrown into confusion by the most unfortunate suggestion of 8s. 6d. introduced by Divisions which had simply "sat on the fence" waiting for something to turn up. It is maddening to learn that Divisions exist which have not held a single meeting during the year of struggle. It is galling to be paralysed on account of their laziness when we and the whole profession should have been rewarded on account of our industry. The suggestion has already met the fate such compromises deserve, for Mr. Lloyd George issued the next day, through the Commission, his refusal to accept it. It is therefore already dead.

The British Medical Association really deserves part of the obloquy which appears to be falling upon its head. Its policy has been weak and vacillating throughout, doubtless due to those members of the Council who have now shown their hand openly and gone over to the enemies of the medical profession. Let us hope that they may never return to the Council, and that there are no more of the same class left in it.

We know that we still have many traitors in our rank and file, but they also are becoming known, and it is to be hoped that their disingenuous counsel may be disregarded by those men who have their own welfare and that of the profession at heart.

J. P. Wills,
Chairman.
George Locke,
Divisional Representative.
H. G. L. Allford,
Honorary Secretary.

Dr. F. Broadbent (North Collingham, Newark) writes: I have been many years a member of the British Medical Association, and have been on the Branch Council. When the Chancellor made his final offer I used every effort to get the profession to accept it, and I feel that I have done nothing wrong. I think it would be most abominable and ungrateful conduct for any of us to leave the Association. The Association has done wonders: it has organized the profession, it has got us good terms, and the machinery is now in order for protecting the profession from underselling and other evils which at any time may arise. Why should we try to ruin our union because we have disagreed with it? I hope that by the time this letter is printed every man who wishes to go on the panel will be on it, and I hope he will remember that if it had not been for the Association he would be doing the work for half the money he is now getting.

Combined Action of Practitioners in Deptford.

We have received for publication the following statement issued by practitioners resident in the Metropolitan Borough of Deptford:

Sir,—We, the undersigned medical men practising in the Borough of Deptford, refuse to accept service under the National Insurance Act as at present constituted, or to enrol our names on the Government panel for the treatment of insured persons.

We consider the conditions of service to be detrimental to the public health, and to tend to destroy the confidential relations at present existing between patient and doctor.

The Act permits Insurance Committees to allow insured persons to choose their own doctor, even although he may not be on the Government panel. Now we, the undersigned, who are a majority of the medical men practising in the Borough of Deptford, are not going on the panel, and suggest that the insured should demand their right to free choice of doctor.

Further information can be obtained from any of the signatories.

A. Elmslie Crabbe, 166, Lewisham High Road.
H. Bernard Carter, 287, Lewisham High Road.
John Stanley Davies, 316, Queen's Road, New Cross.
A. Thomson Drake, 18, Wickham Road, Brockley.
J. J. Faraker, 44, Wickham Road, Brockley.
A. Fothergill, 281, Brockley Road.
Walter Groome, 281, Lewisham High Road.
C. P. Handson, 199, New Cross Road, New Cross.
William Pitt Payne, 135, Breakspeares Road.
H. S. Knight, 275, Lewisham High Road.
H. B. Kitchin, 188, Brockley Road.
A. Massey, 241, New Cross Road.
Charles J. Parke, 91, Breakspeares Road, Brockley.
Robert D. Muir, The Limes, New Cross Road.

WILLIAM J. THOMPSON, 90, London Street, Greenwich.
RICHARD H. TOWNEND, 21, Adelaide Road, Brockley.
HARRY BOWEN WILLIAMS, 26, Wickham Road, Brockley.
F. ERNEST WILSON, 1, Tressillian Crescent, Brockley.
J. J. STACK, 386, New Cross Road.
CHARLES G. WALLIS, 23, Pepys Road.
S. D. BHABBA, 8, Drakefield Road.
C. D. LEYDEN, 284, Brockley Road.
JOHN WOTHERSPOON, 220, Lewisham High Road.
THOMAS H. JACKSON, 73, Blackheath Road.

A CAMPAIGN OF LIES.

DR. W. GORDON (Exeter) writes: A more infamous campaign of lying than is now added to the tactics of our enemy has been rarely witnessed. On Saturday a full-page poster of the *Daily Chronicle* bore the legend, "Exeter doctors form a panel." Not a doctor in Exeter has joined a panel or means to, and to-day a great increase in the local guarantee fund for mutual defence is the reply.

Men must not be misled or frightened into surrender. Where are all these doctors coming from with whom we are threatened? Read the *Times* précis from different centres. London has not half its quota for the panel; neither has Glasgow. Half the reports in the Liberal press are absolutely false. Moreover, if whole-time men are imported, what sort of men will they be, willing to take for such small pay (£500 a year will not go far) the position of professional pariahs for the rest of their days? Will respectable citizens care to employ the dregs of the medical profession for their wives and families? And will they be any more anxious to do so when no consultants will meet them, no one assist them, give anaesthetics for them, operate for them? The consultant's position is clear and easy. He need refuse no patient, but insist on meeting some other doctor. If he does not, of course, he becomes a "blackleg" himself—and very properly.

The panels are not filling up by any means, and it seems to me the local leaders are enormously to blame wherever they do.

As to a whole-time medical service, it will need 10,000 men! These, at £500 a year apiece, work out at 5 millions a year! Five millions of good taxpayers' money to force inferior men—(if so many existed; they do not)—on the insured classes, and destroy for ever the most distinguished branch of the noblest profession in the world! The thing is absurd—unthinkable.

Let the profession pull itself together, organize itself more fully, so that each day every big centre knows the exact truth about all others, keep every centre constantly in communication with every other. Let its leaders rally their friends. Let all do as we have done here—build up a big fighting fund; it is a very cheap investment. Above all have a policy. It should be this:

That it is a public duty to refuse to place our profession under the control of insufficiently educated men.

That will be found to go home at once, right through the "joints of the harness," for it is truth itself, *the* solid insuperable objection to this Act.

As to the students being used, where are there enough of them? Their falling off has been "alarming." Sensible fathers will not risk the panel with its sordid, self-contemptuous degradation for boys who would be infinitely better off as the artisans, who will be "top dog" of the doctors!

We must win in the end. Let all self-respecting, honourable men stand fast.

LOCAL MEDICAL COMMITTEES.

DR. CHARLES J. COOKE (Plymouth) writes: Being one of the loyal majority in this town who have stuck to their pledges, I feel free to ask whether it is not a mistake for Local Medical Committees to refrain from obtaining statutory recognition.

We are pledged not to treat insured persons under the Act, and we are not going to do so until conditions are altered; but the fact remains that we are working under the Act so far as sanatorium benefit is concerned, and it seems to me that there could be no harm in becoming statutory committees—rather the reverse, because we shall be out of touch with the working of the Act, and that will be a very great mistake.

We ought to know what the pledge-breakers who have formed panels are doing and how the sanatorium benefit is being carried out.

THE PLEDGE: AN APPEAL.

DR. CHARLES F. HARFORD (Livingstone College, Leyton, E.) writes: I have not previously addressed you with reference to the Insurance Act, but as an ex-Chairman of what is now the South-West Essex Division of the Metropolitan Counties Branch of the British Medical Association, and as one who has consistently desired to support the Association during a membership of more than twenty years, I would like to make an appeal through your columns to my fellow members in the Association with reference to the present crisis. I can claim no special right to make this appeal, but in a democratic body like the British Medical Association even the rank and file may venture to express their opinion.

It is true that I am not likely to be affected in any way personally by the Insurance Act, but perhaps I may speak with a greater measure of impartiality than some others, whilst at the same time I am living in close touch with men in this Division who are likely to be keenly affected by the Act.

My purpose in writing is to support the view which is widely held that the pledge given under what very many of us consider to be totally different conditions to those which prevail to-day should not be regarded as binding, and that no charge of dishonourable conduct should be brought against those who, having thoroughly weighed the alternatives, have decided that it is their duty to go on the panels.

The vital clauses of the pledge are obviously the following: "Excepting such as shall be satisfactory to the medical profession, and in accordance with the declared policy of the British Medical Association." These clearly must be taken together. Certainly none of us would have been so foolish as to commit ourselves to a policy which had never been defined, and the declared policy was, of course, that contained in the six cardinal points. The Representative Meeting on December 21st abandoned the demand for an income limit which was contained in the first cardinal point, and have advocated direct treatment with the friendly societies in contravention of the third cardinal point. From this it appears that it is the Representative Body which has departed from that which was "the declared policy" of the Association at the time when the pledge was taken. I am not arguing at the moment against this action, but I do most emphatically say that the policy being changed, it is impossible to hold men to the support of a different policy to that which was referred to in their undertaking.

On the other hand, I note that in the appeal addressed to the profession it is suggested that "those who have signed a provisional agreement are at liberty to withdraw therefrom." Seeing that this agreement is a contract entered into in accordance with an Act of Parliament, and signed by the practitioner over a 6d. stamp, it is surely a more binding undertaking than a pledge signed in many cases at the close of a meeting, and with the idea that it was intended to obtain concessions from the Government such as those which have been already secured. Under any circumstances, the situation is a most unpleasant one; but it will shortly be disastrous, not only to the British Medical Association but to the profession, that charges and counter charges of dishonourable conduct should be bandied about. I earnestly hope, then, that the Representative Meeting on January 17th will, under the altered circumstances, release the members from their pledge. If not, there is only one result which can happen, and that is the utter disruption of the Association. A large number of those who would agree with me are those who have been the most consistent supporters of the British Medical Association, and who have joined no rival organization to coerce the British Medical Association to take one side or another. If it is intended to drive us from the Association we may be compelled to retire, but I trust that the present majority who control the policy of the Association may not find it necessary to take so extreme a course.

I should, perhaps, add that the men in this Division who think with me are in the minority, though that minority includes most of those who have done active

work for the Association during the years that have passed.

The Obligation of the Pledge.

Dr. J. H. Keay (Greenwich) writes: As there are a number of members who still persist in affirming that the undertaking which was signed refers to the general and not to the declared policy of the Association, perhaps you will allow me to refer to a letter dated December 11th, 1911, which I think should set the matter at rest. This circular letter, which was sent out in the name of the Association and signed by the Chairman of Representative Meetings and the Chairman of Council, begins by enumerating the six cardinal points, and stating that they are the adopted policy of the Association. The second paragraph I shall give in full:

"On June 15th the members of the profession were asked to pledge themselves, in the event of the bill becoming law, not to enter into any arrangements for the treatment of insured persons on terms inconsistent with the above declared policy of the Association."

That this was the meaning of the undertaking I never doubted, nor, so far as I know, has it ever been questioned by any who were then taking an active part in the work of the Association.

This being the case, several questions naturally arise. If, as some say, since that time the policy of the Association is changed, is the undertaking still binding? If, on the other hand, as some of the most prominent leaders of the Association now say, the policy has not changed, in what light are we to regard those who, at the Representative Meeting, discarded one point and definitely opposed another? As it has never been the custom of those who wish to work the Act to use any of the terms now in vogue, I do not answer this question, but leave it to each Representative who voted in the majority for his own conscience to decide.

A further question arises: What in the future is to be regarded as the duty of a Representative? For some time past the greater number of Divisions have given definite instructions to their Representatives, and seldom, if ever, has a Representative voted contrary to his instructions. This has necessitated not a few, like myself, who are Representatives, declining to attend meetings, and made us, perhaps, too willing to give place to deputies. When appointed Representatives our opinions were well known, and we could not alter them to suit the sudden changes in the Association and Divisions. A complete *volte-face* has now been performed. Representatives and Deputies, with no mandate from their Divisions and without consulting the profession, have supported a resolution which advises the inauguration of a new policy. If the resolution referred to is to be regarded as the policy of the Association, it seems quite evident that Representatives in future may take what course they choose without regard to instructions received from their Divisions.

Such is the state of anarchy at which we have now arrived. Notwithstanding all that has happened, I intend for my own part to cling to the Association so long as it is possible for me to do so, and urge all with whom I come in contact to take the same course. It is only at a very recent date that the present majority came into power, and the trend of events leads one to believe that its reign will be short-lived. Men who join panels can scarce be expected to show much enthusiasm for those who have urged them not to go upon panels, and judging from the fact that the term "blackleg" was hurled forth from the platform at the Representative Meeting, it would appear that among those who oppose the working of the Act there are still a few who have not yet abandoned their methods of intimidation and abuse. There are surely quite a sufficient number in the Association who, whatever their opinions, will not be content to see the medical profession still further degraded.

Dr. E. Rowland Fothergill (Brighton) writes: As a member of the original State Sickness Committee of the Association which drafted the form of undertaking signed by 27,000 doctors, might I state concisely certain facts? Possibly they may prove of assistance to some of my profession in their present state of uncertainty.

When this sentence in the undertaking was being drafted—"I will not enter into any agreement for giving medical attendance and treatment to persons insured under the Bill excepting such as shall be satisfactory to the medical profession and in accordance with the declared policy of the British Medical Association"—the question was raised whether the policy therein referred to was the policy arrived at at the Special Representative Meeting on June 1st, 1911, or whether it could be interpreted as having a binding effect as regards any modification or addition to that policy in the future. We were informed that the solicitor stated that the sentence in view of the words "shall be" would make the undertaking binding on the signee with regard to any future policy, providing it were arrived at in a constitutional manner.

The policy of the Association was arrived at on June 1st, 1911, and was reaffirmed in July, 1912, at Liverpool with the addition of a seventh principle having reference to professional control. One of the six original principles was "that the *administration* of medical benefits should be by Local Health (Insurance) Committees and not by approved societies."

Now the policy of the Association is defined in the articles and by-laws as being a decision of the Representative Meeting on any subject that has previously been before the Divisions for their consideration; which decision must be carried by a two-thirds majority; and must receive either the approval of the Council subsequently or be adopted by a majority of the votes of doctors called together specially to consider the decision in Division Meetings.

Also at a Special Representative Meeting (such as the December 21st one) no business can be dealt with "other than that for which it has been specifically convened."

At the special meeting in December a motion was proposed "that arrangements be made between doctors and insured persons or their representatives." This resolution was opposed to one of the principles of the policy (see quotation above), had never been before the Divisions for consideration, since it had been negatived in April, 1911, and was not specifically entered on the agenda, and therefore should have been ruled out of order on each of these three objections respectively.

The constitutional policy as reaffirmed in July, 1912, still stands. The undertakings signed apply to that policy. Attempts are now being made to make them apply to a bastard policy.

If any doctors require to be absolved from their undertakings in order to have a free hand it is those doctors who now propose to enter into arrangements with approved societies, and not those who propose to enter into arrangements with Insurance Committees, always providing that such arrangements are in accordance with the policy of the Association as confirmed at the Liverpool meeting.

Hospitals and the Treatment of Insured Persons.

Mr. H. A. Ballance (Norwich) writes: To remove any misapprehension which might arise with regard to the statement in your leading article on page 1764 of your issue of December 28th, 1912, to the effect that I am "in hearty agreement with the decision of the meeting to approve the regulations instituted by St. Bartholomew's Hospital," I should like to say in this connexion that I am nevertheless in agreement with a resolution moved by Dr. Buttar towards the end of the proceedings of the recent Representative Meeting, and recorded on page 728 of the Supplement, "that the approval of the scheme adopted by St. Bartholomew's Hospital with regard to the treatment of insured persons should not be taken to override the terms of the pledge which made 'urgent necessity' the sole condition under which an insured person could obtain through a voluntary medical charity the professional services of practitioners who had signed the pledge." Dr. Buttar's resolution has special reference to St. Bartholomew's Hospital regulation No. 3, from which may be inferred that a case requiring special treatment—that is, one which conceivably cannot "be treated by a general practitioner of ordinary competence"—would, in virtue of it being a special case, be given treatment at the hospital. The conclusion of the matter is that if a case is needing special treatment it must also be one of "urgent necessity," otherwise treatment would be refused.

THE LAST REPRESENTATIVE MEETING.

Dr. D. G. MACLEOD MUNRO (Honorary Secretary, Maidenhead Division) writes: It is to be hoped the Manchester "school of thought" in the counsels of the Association are now beginning to have a glimmering of the havoc their short-sighted and intemperate policy has brought about in the ranks of the Association. I should imagine that Mr. E. B. Turner, Dr. Helme, and the numerous lesser lights of the extreme school must have had considerable food for thought during these past few days. It was anticipated by those who favoured counsels of moderation and prudence that the pursuance of a policy of unreasoning hostility to the Insurance Act would only result in straining the loyalty of members of the Association to the breaking point, and so, unfortunately, it has turned out. The pathetic plea of Dr. Mark Taylor at the last Representative Meeting may not affect the gentlemen above-mentioned, but it has been echoed by many men all over the country. For myself, I confess I left that meeting with a sense of disgust, not only at the curious and fatal ineptitude of those who are supposed to be our leaders in not frankly recognizing the situation and facing it, but at the unseemly way in which the word "honour" was bandied about. Sir, it is not those who talk most loudly of "honour" who of necessity possess a monopoly of that lofty virtue, nor are they in this particular instance necessarily the most loyal members of the Association. If the Representative Meeting could not agree, while protesting against the inadequacy of the medical provisions of the Act, to give it a fair trial before final condemnation, in order to prove their case if necessary, then in my opinion—and I believe in the opinion of many loyal members of the Association—the autonomy of the Divisions ought to have been allowed free scope in view of the widely divergent conditions prevailing in different parts of the country. The refusal of local option was in my view a capital error on the part of the last Representative Meeting, and has rendered the task of those of us who wish to preserve the integrity of the Association doubly hard.

The necessity for another Representative Meeting surely proves, in spite of all assertion to the contrary, the unsatisfactoriness of the recent voting, and that there is an increasing body of opinion that the recent concessions of the Government are worthy at least of a provisional trial. It is to be hoped that at this forthcoming meeting saner counsels will prevail.

Dr. J. E. O'SULLIVAN (Liverpool) writes: In the report of the proceedings at the Representative Meeting it is stated: "Dr. O'Sullivan said that while it 'might be true' that consistency was the virtue of fools." I submit that such report is an error, and lays me open to grave misconception, as implying that I was of opinion that such statement might be true. I am not of that opinion.

What I said was that "some expedient philosopher was reported to have alleged that consistency was the virtue of fools." I went on to say that nevertheless, in spite of such dictum, I was willing to wear the fool's cap if my doing so was necessary to indicate that I was consistent in my action and true to my colours, having nailed them to the mast.

Those reports in the JOURNAL are, I presume, somewhat necessarily curtailed, but one cannot but feel that at such an important meeting, when men are sensible of the manner in which their remarks may be interpreted, accuracy of report is imperative, and it would not have been amiss if, under the circumstances, a more exhaustive statement of the proceedings had been given.

THE ELECTION OF REPRESENTATIVES.

Dr. W. B. PARSONS (Finchley, N.) writes: We shall soon be made aware of the success or failure of the considered policy of the Association. If the Representative Body really represents the views of the members at large, there ought to be an overwhelming majority who refuse to go on the panels of Insurance Committees. But I doubt very much the reality of the representation, and will, therefore, not be surprised to see full panels formed in most districts by January 1st, in spite of the fact that there must be many men who will respect their pledge and sacrifice their own interest. The Association policy may prove to be a colossal failure: it shows signs of being at least a considerable failure. Some will attribute this to the want of a sensible alternative scheme, some to the present reasonableness of the Government scheme, but the weakness will be found to lie deeper—namely, in our defective method of electing Representatives. When a man is elected by a vote of, say, 10 *nemine contradicente* in a Divisional meeting of 15, and, going up as a Representative, speaks with the voice of 180, is it a wonder that he finds himself once in a way out of his calculations? Lately many have taken an interest in Association doings who a few years ago would not have been bothered, but numbers will remember that there was at one time, not so long ago, an amount of very emotional controversy about the terms of our proposed charter, and that a great deal of it centred round the postal vote for Representatives. There were those who, thinking themselves the flower of the tree of medico-political knowledge, referred to us as leaves. They would not believe that any "leaf" could vote intelligently until he had heard their arguments. By this preposterous assertion they carried the point, and they have since had their way. I am aware that it is now permissible to take a postal vote, but this was a useless concession, for our contention was that it should be compulsory, as it was fundamental. If the British Medical Association can survive the present disaster, it will be necessary to look into this question of representation again.

THE GUARANTEE FUND.

Dr. ROBERT CAPES (Denmark Hill) writes: As a "looker-on" at the Representative Meeting (on December 21st) the following three points were constantly being reiterated, and are still reproduced in my mind when I look back upon the meeting: (1) Lack of confidence in the Council. (2) Direct promise of monetary support made by the Representatives at Liverpool and apparently not kept. (3) Entire absence of funds to help those who will undoubtedly suffer financially if they do not break their pledge. As regards the first, the Chairman of Council made it quite plain that the Council were to be trusted absolutely, and then he emptied the vials of his wrath upon the members of the Association who never raise a finger to help on the work of the Association; there may be some on the Council who talk of the beloved Association, and who, to show their love, preside at meetings where expressions of opinion are such that it is impossible to believe that the members present are for the Association, and therefore on scriptural authority they must be against the Association. As regards No. 2 it is a matter of deep regret that some effort has not been made to keep this promise, as the failure to do so must have affected very greatly the instructions given by various Divisions to their Representatives. My third point, I think, is still a living one, and ought not to require flogging. What it does require is that every one should do his utmost to help those who state that they have to choose between starvation and dishonour. I make the humble offer of £1 a week to go to a fund to help those who may require it until this crisis is over. I enclose my cheque for £4, and will send the same amount on the 23rd of each month so long as required, provided this scheme meets with approval and support. One pound a week is comparatively a very small sacrifice compared with sharing our last loaf or pawning our clothes and many other actions of which there have been innumerable examples amongst the working classes when they have seen their neighbours starving during what they considered an honourable struggle.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

Association Notices.

SPECIAL REPRESENTATIVE MEETING.

Notice is hereby given that a Special Representative Meeting of the Association will be held in the Connaught Rooms, Great Queen Street, London, W.C., on Friday, January 17th, 1913, at 9.30 in the forenoon, and the following day, if necessary, on the requisition of the Chesterfield, Cleveland, Derby, Glasgow North-Western, Newcastle-on-Tyne, Northamptonshire, West Cornwall, and Worcester Divisions, to consider the question of the desirability of releasing members of the profession from their undertakings and pledges in connexion with the National Insurance Act, and, further, to consider the situation created by the attitude of the Government towards the decisions of the Representative Body; also to elect a Member of Council in the place of Dr. E. J. Maclean, resigned.

BY ORDER OF THE CHAIRMAN OF REPRESENTATIVE MEETINGS,

GUY ELLISTON,
Financial Secretary and Business Manager.

ALFRED COX,
Medical Secretary.

January 1st, 1913.

SPECIAL MEETING OF COUNCIL.

A SPECIAL MEETING of the Representative Body has been summoned to meet in London on Friday, January 17th, next.

Under the Regulations the Council must meet to consider the decisions arrived at by that Meeting, and notice is hereby given that a Meeting of Council will be held immediately upon the conclusion of the business of the Special Representative Meeting.

By Order,

GUY ELLISTON,
Financial Secretary and Business Manager.

January 1st, 1913.

BRANCH AND DIVISION MEETINGS TO BE HELD.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL DIVISION.—The annual meeting of the Division will be held in the month of January. (Date will be announced later.) Business: (*a*) To receive annual report of the Executive Committee. (*b*) To elect officers. (*c*) To elect the Representatives of the Division on the Branch Council to take office after the next annual meeting of the Branch. (*d*) To elect the ordinary members of the Executive Committee. (*e*) To make new rules, or alter or repeal existing rules. (*f*) To transact any business that may be transacted at an ordinary meeting.—FRANCIS W. BAILEY, Honorary Secretary, 51A, Rodney Street, Liverpool.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will be held conjointly with the Aesculapian Society at the Metropolitan Hospital, Kingsland Road, on Friday, January 17th, at 4 p.m., when a clinical demonstration will be given by the visiting staff.—A. G. SOUTHCOMBE, Honorary Secretary.

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.—It has been decided that the Division shall meet every week for the present, in order that the developments of the National Insurance Act may be watched. The Division will next meet at the Victoria Hotel, Hardres Street, Ramsgate, on Saturday, January 4th, 1913, at 8.30 p.m.—HUGH M. RAVEN, Honorary Secretary.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BIRMINGHAM BRANCH:
CENTRAL DIVISION.

A SPECIAL meeting of the Central and Walsall Divisions was held on Friday, December 27th, 1912, at 3.30 p.m., at the Medical Institute, Edmund Street. Mr. LUCAS was in the chair, and 195 members were present.

Special Representative Meeting.—The report was presented by Dr. H. HOYLE WHAITE. Dr. FEATHERSTONE proposed and Dr. KIRBY seconded:

> That the report of the Representatives be received, approved, and adopted, and that the best thanks of the constituency be accorded the Representatives for the able manner in which they have represented the constituency.

This motion was supported by Drs. SPROAT, LINE, WOLVERSON, and others, and carried with acclamation.

Policy of the Association.—Dr. FEATHERSTONE proposed and Dr. SPROAT seconded:

> That the British Medical Association ought to grant local option in dealing with insured persons to Birmingham and similar industrial districts.

This was lost—47 for, 65 against. Dr. WOLVERSON proposed and Dr. GARBUTT seconded:

> That in the opinion of this meeting the action of the Representative Meeting in throwing over the cardinal points which were not granted releases every man from his pledge, and that the question of going on the panel be left to each individual practitioner.

This motion was discussed by Drs. ORMOND, HOLLINSHEAD, JORDAN, HALLWRIGHT, STEAD, MARSH, WHAITE, ALLEN, ABBOTT, and GIBBS. It was lost by a large majority. Dr. HALLWRIGHT proposed and Dr. BERNAYS seconded:

> That this meeting is of opinion that the finding of the Representative Meeting on December 21st does not represent the opinion of the majority of the profession, and desires to be relieved from the pledge—not to treat persons insured under the Act—and in case the British Medical Association after a further meeting of the Representatives decides that it cannot absolve from the pledge, the opinion of the profession should be ascertained by a postal vote (referendum).

This motion upon being put was lost—35 for, 55 against. Dr. NEVIN proposed and Dr. ORMOND seconded:

> That the members of this Division agree loyally to adhere to their pledges and to abide by the latest declared policy of the British Medical Association.

Drs. LYDALL, OAKES, ALDREN, KIRBY, and DONOVAN discussed this proposition. The resolution was carried by an overwhelming majority, there being only two or three dissentients.

Conference with Secretaries of Clubs and Friendly Societies.—The Executive Committee had a conference with some of the secretaries of the clubs, friendly societies, and approved societies earlier in the afternoon, to discuss with them the British Medical Association's alternative method of dealing with insured persons to be adopted if possible in the event of the Government failing to come to terms with the Association. No decision, however, was arrived at. A further conference will probably take place.

CAMBRIDGE AND HUNTINGDON BRANCH.

A SPECIAL meeting of the Branch, to which all medical practitioners in the area were invited, was held at the University Arms Hotel, Cambridge, on December 13th, 1912. Dr. TYLER, President, was in the chair, and there were 113 members and others present. Several letters were read from members unable to be present, all of them indicating that they were opposed to accepting service under the National Insurance Act.

The Proposals of the Government.—After some discussion, the question submitted to the Divisions by the Council was put to the meeting, and the voting resulted as follows:

Cambridge and Huntingdon Division:

Ayes:		Noes:	
Members ...	67	Members ...	11
Non-members	12	Non-members ...	2

Isle of Ely Division:

Ayes:		Noes:	
Members ...	16	Members ...	0
Non-members	2	Non-members ...	0

DUNDEE BRANCH:

DUNDEE DIVISION.

A MEETING of the Division was held in University College on December 26th, 1912, Dr. C. S. YOUNG in the chair. There were forty-eight present.

Special Representative Meeting.—Dr. C. S. YOUNG reported as Representative at the Special Representative Meeting, and was accorded the thanks of the meeting.

The Insurance Act.

The CHAIRMAN made a statement regarding the present position of the profession.

It was proposed by Dr. G. W. MILLER and seconded by Dr. LOW:

That this Division regrets that it is unable to accept the decision of the Representative Meeting to refuse service under the Insurance Act; that, in the opinion of this Division, the alternative scheme promulgated by the Representative Meeting renders absolutely invalid the pledges signed to support the former policy of the Association; and, further, that the said alternative scheme is unworkable, and that by its return to the negotiations with the approved societies it is derogatory to the medical profession.

A vote of the profession resulted: For, 43; against, 1; not voting, 4.

A vote of the Division resulted: For, 35; against, 2; not voting, 4.

It was proposed by Dr. KINNEAR and seconded by Dr. KERR:

That the Division recommends the medical profession in Dundee to place their names on the panel before December 31st.

The vote resulted:

For ... 46 Against ... 1 Not voting ... 1

It was proposed by Dr. R. C. BUIST, and resolved:

That the Provisional Local Medical Committee be empowered to apply for recognition.

It was proposed by Dr. MACKIE WHYTE, and resolved:

That the Division recommends that practitioners accept service on the Insurance Committee and the Advisory Committee.

It was proposed by Dr. LOW, and resolved:

That the Local Medical Committee be empowered to nominate members for the Insurance Committee, and make suggestions regarding the working of the Act.

Local Medical Committee.—Dr. GEORGE WHYTE read a report of the last meeting of the Local Medical Committee. The Committee advised no consultation on Sunday, consultation hours in the evening only, all messages to be sent in before 10 a.m. except in urgent cases, when proof would require to be submitted of urgency. The capitation system was recommended for adoption by the Division. The treatment of uninsured persons in friendly societies was receiving the consideration of the Committee. Dr. Whyte received the thanks of the meeting for his report.

FORFARSHIRE DIVISION.

A MEETING of the Division was held in Arbroath on December 26th, 1912. Dr. J. D. DEWAR presided, and twenty-seven practitioners were present.

Special Representative Meeting.—Dr. YULE gave a report of the Special Representative Meeting of the British Medical Association held in London on December 21st and 23rd, 1912. The report was accepted.

The Policy of the Association.—Thereupon Dr. MACALISTER (Forfar) proposed and Dr. BROOM (Kirriemuir) seconded:

That the Division adheres to the "pledge" given while the Act was in the bill stage, and refuses to work under the Act and present Regulations.

Whereupon an amendment was proposed by Dr. W. J. DEWAR (Arbroath) and seconded by Dr. CAMERON (Brechin):

That this Division disapproves of the "Future Policy" outlined by the Special Representative Meeting of the British Medical Association on December 21st and 23rd, 1912; that it considers arrangement of contract work directly with friendly societies to be a violation of the declared policy of the British Medical Association, and a step derogatory to the medical profession; and that in its opinion the scheme is unworkable in the Forfarshire Divisional area. It therefore calls upon its members to enter into provisional arrangements for giving service under the Act and present Regulations, up to April 14th, 1913.

The amendment was carried by 15 votes to 4. Thereafter Dr. CAMPBELL (Brechin) submitted a motion, which was seconded by Dr. GILRUTH (Arbroath):

That, inasmuch as the Division had decided to act contrary to the recommendation of the Special Representative Meeting, it is incumbent upon every member of the Division to resign his membership of the British Medical Association before December 31st, 1912.

Whereupon the direct negative was moved by Dr. YULE (Arbroath) and seconded by Dr. COLMAN (Broughty Ferry). The motion was lost, 3 voting for and 13 against it.

EAST ANGLIAN BRANCH:

NORTH SUFFOLK DIVISION.

A MEETING was held at the Lowestoft Hospital on December 10th, thirty-two practitioners being present, including three non-members of the Association.

The Proposals of the Government.—The vote on the question submitted to the Divisions resulted as follows:

Members refusing to accept service	25
Members agreeing to accept service	4
Non-members refusing to accept service ...	3
Non-members agreeing to accept service ...	0

Thus by 28 votes to 4 the Division decided not to accept service under the latest conditions.

The Pledge.—The following resolution was carried unanimously:

That this meeting reaffirms the pledge already given by members to refuse to give professional assistance to insured persons at the various hospitals in the area of the North Suffolk Division after January 15th, 1913, except in cases of extreme urgency, unless satisfactory arrangements are made by the Insurance Commissioners with the medical profession by that date.

It was also agreed that a copy of this resolution should be forwarded to the committee of each hospital in the Division.

Expenses of Representative.—It was agreed that an annual subscription of 5s. should be paid by each member to defray the expenses of the Representative at Representative Meetings, and that for this year an extra 5s. should be paid.

GLASGOW AND WEST OF SCOTLAND BRANCH:

DUMBARTONSHIRE AND ARGYLLSHIRE DIVISION.

A MEETING was held at Clydebank, on December 12th, 1912. Dr. JAMES WILSON, Dumbarton, presided. Twenty-five members and two non-members were present. Nine apologies for absence were received.

The Proposals of the Government.—A prolonged discussion took place, in which many joined. While some members were entirely opposed to giving service, others who thought the Act should now be given a trial were at the same time dissatisfied with it in various respects. The result of voting was:

Against refusal—		In favour of refusal—	
Members	16	Members	9
Non-members ...	1	Non-members ...	1
	17		10

Thereafter, on the motion of Dr. W. S. YOUNG, it was unanimously agreed to re-affirm the determination of the Division to stand by the decision of the Association.

Instructions to Representative.—On the motion of Dr. W. S. YOUNG, seconded by Dr. MCDOUGALL, of Kinlochleven, it was unanimously decided that the Representative should (on the question of refusal of service) vote in accordance with the vote of the majority of members of the Association. He was also instructed that the Division considered the proposed arrangements for mileage most unsatisfactory; that the right to decide the method of payment ought to be given to practitioners and not to

Insurance Committees; that practitioners should not have patients allocated to them against their wish; and that the method of checking unreasonable demands by patients was not satisfactory. Further, on the motion of Dr. McDOUGALL, seconded by Dr. GRANT (Ballachulish), it was agreed that the Representative should endeavour to have consideration given to the possibility of adopting some method of voting which would allow of every member taking part in important decisions such as those at present being made, as it was felt by all present to be an injustice that many members, owing to distance, professional duties, or illness, had no say in matters vitally affecting them.

LANCASHIRE AND CHESHIRE BRANCH:

BOLTON DIVISION.

A GENERAL meeting was held at the infirmary on December 10th, 1912, Dr. FLITCROFT in the chair. Dr. T. W. H. Garstang of Altrincham was present by invitation. There was an attendance of eighty.

Special Communications.—A letter from the Mitre Sick and Burial Society, asking if it were possible to re-engage their doctor, who had resigned, if the medical profession refused to work the Act. The meeting ruled that it was not possible. A letter from the Gillingham Division was read, stating their decision not to work the Act under present terms, and their reasons for refusing.

Defence Fund.—A letter from Mr. James Neal, the Deputy Medical Secretary, pointing out that several practitioners in this area had not paid the first call on their guarantee—namely, £1, or had only paid 5s. on same. The Honorary Secretary was instructed to write to these gentlemen, asking them to forward the balance.

Report of the Deputy Representative.—Dr. THORNLEY gave his report of the proceedings of the Representative Meeting at which he attended. A vote of thanks to Dr. Thornley was passed unanimously. Dr. FLITCROFT proposed, Dr. MALLETT seconded.

Address by Dr. Garstang.—Dr. GARSTANG, member of Council elected by the Lancashire and Cheshire Branch, addressed the meeting. He gave an account of the work of the Council, their negotiations and meeting with the Chancellor of the Exchequer, the reasons for the neutral attitude which the Council had always adopted in the report to the Divisions, and the factors which determined it to alter that policy in giving a lead to the profession at the present time. He thanked the Division for the honour it had done him by electing him to the Council. He advocated allowing the Representative some latitude in his voting at the next Representative Meeting. Dr. MACFIE proposed a vote of thanks to Dr. Garstang. This was seconded and passed unanimously. The CHAIRMAN then put the question of the Council to the meeting. A discussion followed. The CHAIRMAN impressed upon all present the great importance of the vote to be taken, and although the result could not be deemed to be binding upon the Association in the same sense as a "decision of the Association" was binding, such a "decision" could only be arrived at in a Representative Meeting by a majority of two-thirds of those present and voting. The vote was then taken by a show of hands, with the following result:

For:		Against:	
Members ...	57	Members ...	2
Non-members ...	13	Non-members ...	2

Dr. MALLETT moved:

> That it be an instruction to our Representative that the extras enumerated on page 618 of the BRITISH MEDICAL JOURNAL SUPPLEMENT of December 7th, 1912, be paid for out of a fund quite apart from the 6s. 6d., and that dispensing be at the option of the practitioner.

Dr. THORNLEY seconded, and it was passed.

Provisional Medical Committee. — The Provisional Medical Committee which was elected on April 25th, 1912, was then formally re-elected.

LIVERPOOL DIVISION.

A MEETING was held at the Medical Institution on December 13th, 1912, to which all medical practitioners residing in the Liverpool Divisional area had been invited to consider the revised and final offer of the Government in connexion with the medical service under the National Act.

The Proposals of the Government.—The meeting was well attended, and after the pledge had been read to the meeting by Dr. N. P. MARSH, Chairman of the Division, who occupied the chair, he proceeded to review the present situation, and gave a short summary of the results of the conference with the Chancellor of the Exchequer. The following specific question was then put from the Chair:

> Are you in favour of the Association calling upon the profession to refuse to enter into any agreement with the Local Insurance Committees to give service under the Act upon the terms and conditions now finally offered by the Government?

The meeting decided to take the vote by means of voting papers. Drs. Llewelyn Morgan, Parkinson, Warke, and Williams acted as scrutineers. The final result was declared as follows:

For refusal—		Against refusal—	
Members ...	243	Members ...	10
Non-members ...	64	Non-members ...	8
	307		18

Majority for refusal, 289.

Vote of Thanks to Dr. Helme.—Sir JAMES BARR proposed:

> That this Division thanks Dr. Helme for his letter of December 7th, 1912, addressed to the members of the Lancashire and Cheshire Branch of the British Medical Association, and for his summary of the results of the conference with the Chancellor of the Exchequer, accompanying the letter, and further places on record the appreciation of the work he had done, and the time he had given on behalf of the profession in reference to the National Insurance Act.

That was seconded by Dr. UTTING and supported by Dr. J. E. O'SULLIVAN, and carried unanimously.

Instructions to Representatives.—Mr. F. CHARLES LARKIN submitted the following resolution from the South Wales Branch:

> That in the event of a decision of the Association being come to refusing to undertake work under the National Insurance Act, the Representative Body shall, as the next item of its business, proceed to take the necessary steps for the immediate issue of a statement to the public of the reasons for the afore-mentioned decision.

It was agreed that the Representatives should support this resolution, and also vote for refusal to give service under the Act at the forthcoming Representative Meeting.

Letters of apology had been sent to the Secretary, Dr. Francis W. Bailey, for non-attendance from Dr. Moyles on account of illness; Drs. Waddy, Henderson, Clemmy, Orton, Street, W. A. Marsh, Mawson, Stevenson, and C. Davies owing to engagements, all expressing refusal to work the Act, and from Dr. John Hay who was out of town.

MANCHESTER (CENTRAL) DIVISION.

A MEETING was held at the Onward Buildings, Deansgate, on December 16th, Dr. BURY in the chair. There were present fifty-one members and ten non-members.

The Proposals of the Government.—The HONORARY SECRETARY (Dr. Tylecote) read a letter of apology for absence from Mr. Telford, who expressed his conviction in favour of refusal of the terms now offered by the Government. A vote was taken on the question contained in the Report of Council concerning the final proposals of the Government *re* the Insurance Act, the question being:

> Are you in favour of the Association calling upon the profession to refuse to enter into any agreement with Local Insurance Committees to give service under the Act upon the terms and conditions now finally offered by the Government?

The voting was as follows:

In favour of refusal—		Against refusal—	
Members ...	50	Members ...	0
Non-members ...	10	Non-members ...	0
	60		0

On the proposition of Dr. HELME, seconded by Dr. TYLECOTE, it was unanimously resolved:

> That our Representative to the Special Representative Meeting be instructed to vote for the refusal of service under the Act on the terms now proposed by the Government.

On the proposition of Dr. BOOTH, seconded by Dr. SCOTSON, who regretted that he was not in a fit state of health to be able to act, Dr. Helme, the Deputy Representative,

was unanimously appointed to be the Representative at the Special Representative Meeting.

Vote of Thanks to Dr. Helme.—On the proposition of Dr. BOOTH, seconded by Dr. REYNOLDS, it was unanimously resolved:

> That the best thanks of the Central Division be accorded to Dr. T. A. Helme for the valuable work he has done in the service of the profession, and for his special effort in sending out 10,000 copies of his letter to the Divisions where he considered it useful, and, further, that Dr. Helme's expenses be subscribed to by the Lancashire and Cheshire Branch of the Association.

Future Action.—On the proposition of Dr. HELME, seconded by Dr. REYNOLDS, it was unanimously resolved:

> That any resolution as to future action arrived at by the Representative Meeting be referred to the Divisions. And further, that this resolution be entered as a notice of motion on the agenda of the Special Representative Meeting, and be moved by our Representative.

SOUTHPORT DIVISION.

A SPECIAL meeting, to which all members of the profession resident in the area were invited, was held at the Masonic Room, Victoria Hotel, Southport, on December 27th, 1912. There was an attendance of forty-nine, and the chair was taken by Dr. MEWBURN BROWN.

Special Representative Meeting.—Dr. BAILDON reported his impressions of the Representative Meeting. The CHAIRMAN read the appeal to the profession published in the SUPPLEMENT of December 28th. A discussion on the situation followed, in which Drs. FENN, WEAVER, PRIDIE, SPEIRS, GILL, HENDERSON, LIMONT, MARTIN, REID, EDMISTON, DALL, SCHOFIELD, BENTALL, LEWIS, and HARRIS took part.

The Pledge.—Dr. PRIDIE moved and Dr. SCHOFIELD seconded:

> That this meeting is of opinion that the Association's pledge is binding under present conditions.

All present stood up in support of this resolution, with the exception of one, whose objection was that the members of the local infirmary staff had not satisfied him by the terms of their declaration as to their intentions of attendances on patients at the infirmary.

Schemes of Medical Service.—Dr. PENROSE, the Secretary of the Local Medical Committee, reported the result of the Committee's deliberation on schemes of medical service. Two schemes had been before the Committee: one a capitation scheme drawn up by Dr. Henderson, the other the scheme of the National Medical Union. The latter had been generally preferred, but Dr. Penrose pointed out that it was not likely to be adopted by the insured without much consideration, for which time would not be available before January 15th. He suggested, therefore, that the capitation scheme for insured persons only should be offered as a temporary measure. This view was adopted, and the following resolution:

> That the general terms of Dr. Henderson's modified scheme be approved as a temporary measure, and further detail and action be left to the Local Medical Committee,

was carried unanimously. A resolution

> That this scheme has the cordial co-operation and approval of all present

was carried unanimously, after amendment,

> That every man in active practice in the county borough be expected to put his name on the public service list,

had been rejected. It was then decided that it was desirable that the Local Medical Committee should meet again to rediscuss the scheme and submit it for approval to the Council of the Association, the next day being fixed for the purpose.

Proposed Meeting with Southport Insurance Committee.—An invitation from the Southport Insurance Committee to a meeting with the Local Medical Committee was reported. Its acceptance was approved. It was also decided that at the earliest suitable opportunity the scheme should be made known to the insured and through the press.

Election of Additional Local Medical Committeeman.—Dr. Baildon was unanimously elected an additional member of the Local Medical Committee.

METROPOLITAN COUNTIES BRANCH:

OLD LAMBETH DIVISION.

A MEETING was held at the Camberwell Town Hall on December 19th. Dr. CAPES was in the chair, and ninety-five members and six visitors were present.

Special Representative Meeting.—Dr. J. G. PORTER PHILLIPS then read his report of the action of the two Lambeth Representatives at the Representative Meeting held on November 19th and 20th. It was resolved that the report should be adopted, and at the same time a hearty vote of thanks was passed to Dr. Phillips and Dr. Peers, the two Representatives.

Instructions to Representatives.—Dr. HAMAND FRASER proposed and Dr. SHAPTER ROBINSON seconded:

> That it be an instruction to our Representatives to vote at the Representative Meeting in accordance with the total result of the votes given by members of the Association taken at the recent special meetings of members of the profession resident in the areas of the Camberwell and Lambeth Divisions.

Dr. VICTOR PARTRIDGE proposed as an amendment:

> That we instruct our Representatives to vote for the profession accepting service under the Act.

The amendment was defeated by 44 votes to 40. The original resolution, being put to the meeting, was declared carried by 47 votes to 33.

National Insurance Practitioners' Association.—Dr. CRIPPS proposed and Dr. HICKLEY seconded the following motion:

> That the Lambeth Division views with regret and grave disapprobation the attitude taken up by Dr. Lauriston Shaw in presiding at the meeting of the National Insurance Practitioners' Association, and calls upon him to resign his seat on the Council.

The motion was declared carried by 42 votes to 23.

Votes of Thanks.—The meeting concluded with a vote of thanks to the Chairman and the borough council.

SOUTH-WEST ESSEX DIVISION.

A SPECIAL meeting of the Division, to which all practitioners residing within its area were invited, was held on Friday, December 13th, at 4 p.m., in the Wesleyan Church School-room, High Street, Leyton, for the purpose of considering and voting upon the result of the negotiations between the deputation of the State Sickness Insurance Committee and the Chancellor of the Exchequer. Dr. PANTING presided, and 101 practitioners were present.

The Proposals of the Government.—The following spoke in the discussion upon the fresh proposals of the Government: Drs. TOMKINS, BONNEFIN, ELDRED, SHADWELL, C. WRIGHT, OWEN, IRVINE, SCOTT, BUTLER HARRIS, ORME, F. COLLINS, ARGLES, HARFORD, BERRILL, TODD-WHITE, GEO. COLLINS, HANCOCK, and WISE. The roll-call vote, taken at 5 p.m., was as follows:

Question: Are you in favour of the Association calling upon the profession to refuse to enter into any agreement with Local Insurance Committees to give service under the Act upon the lines and conditions now finally offered by the Government?

Ayes:		Noes:	
Members	57	Members	20
Non-members ...	17	Non-members ...	5
	74		25

Borough County Medical Committee.—The following were elected Representatives of this Divisional area to the County Medical Committee: Drs. Butler Harris, H. Tomkins, Bonnefin, Chas. Scott, A. Berrill, C. R. Dykes, Clarence Wright, and Margaret Rorke.

Papers Sent out by Insurance Committee.—It was proposed by Dr. W. G. NOBLE and seconded by Dr. SHADWELL:

> That no practitioner signs one or other of the papers sent by the Insurance Committee until after the decision of the Representative Meeting.

This was carried.

The Proposals of the Government.—It was proposed by Dr. TOMKINS and seconded by Dr. NOBLE:

> That this meeting, having repeatedly recorded its decision to refuse service, sees no reason for reversing that decision in the latest propositions of the Government, and therefore instructs its Representative to vote for refusal of service until our just requests are granted.

This was carried by a large majority, and the meeting

broke up without discussing the draft form of Public Medical Service.

Stratford Division.

A mass meeting of medical men within the area of this Division was held on December 27th, 1912, at West Ham Town Hall, Dr. Sanders presiding.

Special Representative Meeting.—Dr. Oxley (Representative) and Mr. Couzens (Deputy Representative) addressed the meeting, giving a short summary of what had been done at the Representative Meeting on December 21st and 23rd, 1912.

Insurance Act.—The following motion, which was ruled by the Chairman to be in order, was then proposed by Dr. Fairfax and seconded by Dr. Boyd Robson:

> That we disapprove of the scheme suggested by the British Medical Association as it cannot be made compulsory, and that the panel system is the only one practicable for this neighbourhood, and this meeting therefore feels compelled to advise the profession in this district to accept provisional service under the Act.

A long discussion ensued, and in the end the resolution was rejected by 93 votes to 11. Thereafter it was proposed by Dr. Oxley and seconded by Dr. Rose:

> That this meeting refuses service under the National Insurance Act.

On being put to the meeting, 96 voted in favour and 1 against the resolution.

Remuneration of a Tuberculosis Officer.—Dr. Graham then brought forward a matter in regard to the remuneration of a tuberculosis officer for West Ham, and the Chairman stated that it would be dealt with on a suitable occasion.

Willesden Division.

A special meeting of the Division was held at the Huddlestone Hall, Willesden Green, on December 17th, 1912, Dr. Coram James in the chair, and fifty-six members and sixteen non-members were present.

Local Medical Committee for Middlesex.—A letter from the National Insurance Committee of the Metropolitan Counties Branch was read, requesting the Division to call a meeting of the profession to elect four members for the Local Medical Committee for Middlesex in accordance with Section 62 of the National Insurance Act. It was agreed that one of the four should be a non-member of the Association. The following were nominated: Drs. Macevoy, Skene, Bindley, Macauley, Joy, Armitage, Wilson, Soden, and Felce. Dr. Felce being the only non-member nominated was declared elected, a ballot resulting in the election also of Drs. Macevoy, Skene, and Soden.

The Proposals of the Government.—The Chairman then put the question submitted by the Council to the meeting, namely:

> Are you in favour of the Association calling upon the profession to refuse to enter into any agreement with Local Insurance Committees to give service under the Act upon the terms and conditions now finally offered by the Government?

The following took part in the discussion, Drs. Macevoy Smurthwaite, Turner, Traylen, Snowman, Armitage Soden, Skene, Carson Smyth, Rawes, and Bindley for the affirmative, Drs. Marston and Crone for the negative. The result of the voting was as follows:

Members of the Association,	Yes	...	51	... No	... 4
Non-members „ „	Yes	...	13	... No	... 2

the result being received with applause.

Letter from Middlesex Insurance Committee.—The Secretary read a letter from the Chairman of the Middlesex Insurance Committee, requesting that the meeting should decide which method of remuneration would be preferred in the event of the district entering into provisional agreement to give service. It was agreed that the letter be referred to the Local Medical Committee for Middlesex.

Instruction to Representative.—Dr. Carson Smyth proposed and Dr. Rawes seconded:

> That the Representative be instructed to vote at the Representative Meeting on December 21st according to the voting to-day on the main question.

This was carried unanimously.

Treatment of Insured.—Dr. Armitage proposed and Dr. Clayton seconded:

> That any scheme for the treatment of the insured should be based on the "minimum demands."

This was carried unanimously.

The discussion of further matters was postponed to a further meeting.

North of England Branch:

Newcastle-on-Tyne and Hexham Divisions.

A joint meeting of these Division areas was held at the Royal Victoria Infirmary, Newcastle-on-Tyne, on December 27th, 1912, at 4.30 p.m. All registered practitioners in these areas, whether members or non-members of the Association, were invited to attend. Dr. Andrew Smith presided over an attendance of 120.

Special Representative Meeting.—Drs. J. W. Smith and R. A. Bolam, the Representatives of the constituency, gave their report on the recent Representative Meeting in London.

Contracting Out.—Dr. Hudson proposed and Dr. Farquharson seconded:

> That the scheme of contracting out as proposed by the British Medical Association is not practicable.

This was agreed to, with only two dissentients.

The Association and the Pledge.—Dr. Bunting proposed and Dr. Dagger seconded:

> That by its new policy the British Medical Association has violated the understanding on which the pledges were given, and that therefore the pledges are now void and members are free to join the panel immediately.

This was carried by 46 votes to 10.

Service under the Act.—Dr. Rutter proposed and Dr. Dagger seconded:

> That this meeting of the medical profession in Newcastle and district desires to express its strong disapproval of the way in which the just claims of the profession have been disregarded by the Government; but in view of the scheme of the British Medical Association having been vetoed by the Government, we reluctantly have come to the conclusion that it is our duty to the general public to accept provisional service under the Act as the less evil both to them and to ourselves.

This was carried by a very large majority.

The Question of Remuneration.—Dr. Campbell proposed and Dr. Spurgin seconded:

> That we recommend the medical men in Newcastle-on-Tyne to agree to the capitation system.

This was carried without a dissentient.

Requisition for a Representative Meeting.—Dr. Bunting proposed and Dr. Rutter seconded:

> That this constituency, consisting of the Newcastle-on-Tyne and Hexham Divisions, calls upon the Council of the British Medical Association to convene a Special Representative Meeting to consider the desirability of releasing members of the profession from their undertaking and pledge.

This was agreed to.

Local Medical Committee.—Dr. Bunting proposed and Dr. Rutter seconded:

> That the County Borough of Newcastle-on-Tyne Provisional Local Medical Committee now becomes the statutory Local Medical Committee, with power to co-opt, and that it apply for recognition from the Local Insurance Committee.

This was agreed to without a dissentient.

North Lancashire and South Westmorland Branch:

Furness Division.

A meeting of the Division was held in the Masonic Hall, Barrow, on December 27th, 1912. Dr. Sansom was in the chair, and twenty-seven members and three non-members were present.

Special Representative Meeting.

The Secretary, who was in London as Deputy Representative, gave a report of the Special Representative Meeting.

The Chairman introduced the discussion by saying they must come to a definite decision. They in Barrow had to

consider themselves. He thought the country districts could sit tight; but Barrow was in a different position. Three men were ready to go on the panel. The local affairs were run by a united body of Socialists; the Act was compact, contained a large number of insured persons, and could pay whole-timers. They must hang together and discuss what course to pursue. He thought country members should not vote on a purely Barrow question.

The SECRETARY (Mr. J. Livingston) pointed out that this was a Divisional meeting.

Dr. POOLEY said that unless the minority went with the rest there was no use in discussing anything.

Dr. CALLAGHAN proposed and Dr. COOK seconded a resolution calling on the Council to return the pledges. This was withdrawn when the SECRETARY said the pledges could only be returned by a Representative Meeting. In speaking to the motion, Dr. Callaghan said the British Medical Association handed them over to the friendly societies, and he preferred to be under Government. Dr. Cook thought the Association was not deserving of censure; it had done its best.

Dr. CARMICHAEL thought they should support the British Medical Association, as the fight was by no means over.

Dr. BOWMAN thought the position was more tense than ever. They should all agree to abide by the vote. He was not at all in favour of the Act, which perpetuated what had been their undoing—contract practice. They had the sympathy of the public, and he would prefer dealing with the friendly societies than with the Chancellor. They must all hold together to get better terms. He considered that if they agreed to work the Act they were dealing a deadly blow to the whole future of medicine.

Dr. J. A. REED said they had come to a crisis, and the Association was beaten; 14,000 did not vote, and what was far more serious a large number did not think it worth while to put their hands in their pockets to support the Guarantee Fund. He had voted out of loyalty. A good many of those who voted against the Act were specialists and whole-timers. 2,420 voted for working the Act. The British Medical Association had broken a cardinal point by handing them over to the friendly societies. The Act was bound to run for three years whatever Government was in power. He alluded to the predominating socialistic nature of the local committees; and he believed if they refused service whole-time men would be appointed. If they did not do something desperate they were beaten, as the position in Barrow was peculiar. The British Medical Association should have had an alternative scheme long ago. He then proposed:

That Barrow practitioners be allowed to go on the panel.

Dr. RUTHERFORD seconded the resolution and alluded to friendly society control.

Mr. LIVINGSTON said he considered he, personally, stood to lose as much as any one there. If Dr. Reed's resolution passed the British Medical Association was at an end in the Furness area, and with it went the unity of the profession. In time the Insurance Committees would dictate their own terms. It was essential that the meeting should know if the minority would agree to the ruling of the meeting. If they went on the panel they were going on through fear, and not because they thought the terms were good. No body of men ever gained anything unless they were prepared for sacrifices. He admitted that the guarantee fund was unsatisfactory, and this probably was due to distrust of some of those on the Council who had now resigned. The three men who were known to be going on the panel were not strong enough to count, but if others joined them it was a different story. He was prepared to go with the majority. He then proposed:

That this Division abides by the decision of the last Representative Meeting.

Dr. JOHNSTON seconded. He thought Dr. Reed looked at the question from a purely local point of view. He wished to know whether the pledge was or was not binding. He thought it was. He alluded to Mr. Ballance's letter in which he said he thought hospital men should resign as a protest and refuse to treat insured persons in hospitals. He suspected treachery in the Council for a long time. As usual, the traitors approached with the kiss of peace. Under the Act they would lose their independence. There were various reasons why men did not vote. He disagreed with Dr. Reed in saying they were being handed over to friendly societies.

Dr. PRATT supported the amendment. He joined the British Medical Association owing to the good fight they had put up, and he was shocked to hear old members proposing and supporting such a resolution as Dr. Reed proposed, carrying with it, as it did, the repudiation of pledges. He considered that he, a humble practitioner, knew more about honour than the late Chairman of the Ethical Committee.

Dr. DANIEL thought they had reached the limit of effective resistance. Where an area was safe it would be worth while resisting. The points between Mr. Lloyd George and them could be easily met.

Dr. E. REED considered they were beaten; 9s. was quite adequate, and they were only making a display of heroics.

Dr. THOMPSON objected to a remark made by Dr. Callaghan to the effect that club doctors did not give proper medicines. He hoped no one would use the argument that the latest proposal of the British Medical Association broke cardinal point No. 3 and therefore justified the repudiation of pledges. Those who proposed serving on the panel were prepared to break all the cardinal points. The severest blow the Association ever received was the resignation of the former Medical Secretary. Several consultants had sown dissension by their public speeches. He appealed to all to support the British Medical Association's policy and "play the game."

The amendment was carried. The voting was as follows: Drs. Reed, Coffey, Reed, Callaghan, and Sansom, against (that is, in favour of going on the panel). Dr. M'Gill did not vote. The remainder voted for the amendment. An earnest appeal was made by all present to those who were in the minority that they should withdraw from this position, and Dr. DANIEL proposed, and Dr. WILSON seconded, a resolution accordingly. Drs. REED and COFFEY voted against. Dr. CARMICHAEL then appealed to Drs. Reed and Coffey to postpone their decision to go on the panel until January 4th, 1913, pending the result of the conference of the Chancellor and the Insurance Committees to be held on January 2nd. This they agreed to do.

It was decided to hold a meeting of the Barrow practitioners on Friday, January 3rd, 1913, at 8.30 p.m.

OXFORD AND READING BRANCH:

OXFORD DIVISION.

A SPECIAL general meeting of this Division was held on December 28th, 1912, at the Radcliffe Infirmary, Oxford. Sir WILLIAM OSLER presided as chairman, and eighty members and non-members were present.

Mr. COUNSELL and Dr. EARLE made an offer to withdraw from the meeting, if the members present thought that they should do so, seeing that they had joined the local panel. The meeting conveyed that it was their pleasure that they should remain.

The Insurance Act.

The SECRETARY made a statement concerning press reports, and warned members against being misled by statements in certain organs of the lay press. He finally appealed for united action in the City and County of Oxford. At the request of the meeting he recited the words of both the "Undertaking" and "Pledge."

Dr. TURRELL (Member of Council) reviewed the whole course of the recent negotiation, explained the resolution of the Representative Body, and the terms of the pledge. He referred in detail to a small meeting recently held of medical men concerned in contract practice in Oxford, two of whom he understood had since joined the panel. He finally proposed the following resolution:

That this meeting reiterates its decision not to accept service under the Act except in accordance with the declared policy of the Association; and it further declares that those who have signed the "Undertaking" upon the strength of which the whole policy of the Association has been based, can only be released therefrom by a resolution of the Representative Body.

Dr. COLLIER, in seconding the resolution, read a portion of a letter he had written to Mr. Counsell, in answer to a request to take the chair at the meeting of medical men before referred to. He also referred to Mr. Counsell's

letter published in the *Times* of December 20th. He declared himself unable to understand Mr. Counsell's attitude, or his reasons for going on the panel. He made a strong plea for unanimous action, and called attention to the support which had been readily given by the Radcliff Infirmary staff.

Dr. HIGGS made a personal explanation of his attendance at Mr. Counsell's meeting, and emphatically denied that the meeting was one of men willing to go on the panel.

Dr. WYLIE made a similar explanation.

Mr. COUNSELL explained how and why the meeting was called, and also how mention of it had been made in the press. He considered that he was justified in going on the panel, seeing that it was the duty of all to obey an "Act of the King." He deprecated the growing inclination towards "passive resistance" to an Act of Parliament, merely because it was unpopular.

Further discussion took place, in which the following gentlemen took part: Dr. HODGES, Dr. BROOKS, Dr. JONES, Dr. HITCHINGS, Dr. SUMMERHAYES, Dr. BOISSIER, Dr. ALDEN, Dr. TURRELL, Mr. STYLE, Dr. MORETON, Mr. DREW, and Mr. COUNSELL.

The resolution was then put: For, 74; against, 2; Non-voting, 3.

Negotiation with Insured.—The meeting then discussed schemes for approaching the insured and their representatives.

Dr. HIGGS proposed the following scheme:

That the Oxford Medical Committee enter into negotiations with the Oxford Insurance Committee (as representatives of the insured members) for the treatment of insured persons.

That the Medical Committee form a panel of medical men who are willing to carry out the work.

That all arrangements and conditions shall be embodied in one agreement between the Medical Committee and the Insurance Committee.

That the Medical Committee shall have the right to make the arrangements with the individual medical men willing to carry out the above contract.

That no individual medical man shall make any separate agreement with the Insurance Committee, nor shall any medical man, except with the consent of his Committee, serve on the Insurance Committee.

Thus all arrangements for medical service would be carried out by the local Medical Committee as a body, and the Insurance Committee would be bound to deal with them in all medical matters.

Dr. TURRELL explained that he had no reply from the Central Office on this scheme.

It was eventually decided to summon a meeting of the City and County Medical Committees on December 31st, at which this scheme and others should be discussed; and if necessary, that the services of a solicitor should be requisitioned.

SOUTH-EASTERN BRANCH:

BRIGHTON DIVISION.

A LARGELY attended meeting of medical practitioners resident in the areas of the County Borough of Brighton and the administrative county of East Sussex was held at the Oddfellows Hall, Queen's Road, Brighton, on Monday, December 30th, 1912, at 4 p.m. Dr. RYLE was in the chair.

The Profession and the Insurance Act.—Dr. RYLE gave a short account of the present position of the medical profession with regard to the National Insurance Act, and stated that the meeting was being held to consider schemes proposed by the Brighton Medical Committee and by the East Sussex Medical Committee for attendance upon insured persons and others, otherwise than under the regulations of the National Health Insurance Commissioners.

Scheme for Attendance on Insured Persons.—Dr. TURTON then gave a brief outline of the Brighton scheme. The chief provisions of the scheme are that the administration should be in the hands of (*a*) the Local Medical Committee, who will provide medical attendance by means of lists of doctors and to whom all complaints against medical men are to be referred, and who will distribute the payments due to the various doctors; (*b*) the approved societies, who will prepare all lists of subscribers, undertake to collect all subscriptions and the necessary bookkeeping, and supply the Medical Committee with all necessary information; (*c*) Joint Committee, consisting of equal numbers of representatives of the Medical Committee and of the approved societies, with an independent chairman, to whom any matters may be referred by the approved society or the Local Medical Committee, and who shall decide in any matters of dispute between the approved society and the Local Medical Committee arising under the rules provided for the service. A tariff of payments is suggested, giving each medical practitioner the choice of capitation scheme or of payment by attendance, together with list of extras substantially the same as those in the scheme proposed by the British Medical Association in September last. The East Sussex Medical Committee proposed to adopt the Hastings scheme with certain additions, amongst others provision for giving the medical men the option of receiving payments by attendance, this branch of the scheme to be kept separate financially. This scheme is practically identical with the above-mentioned scheme of the British Medical Association. The meeting resolved:

That while approving administrative clauses of the Brighton scheme, refers the remainder of the two reports to the two committees for elaboration into one scheme.

This was carried with nine dissentients. A proposal by Dr. BENHAM as follows—

That the meeting of the medical practitioners resident in the areas of Brighton and East Sussex declines to approve service taken on the panels opened by the Insurance Committee under the terms and conditions of service offered until such time as the medical services to be submitted on our behalf to the insured persons or their representatives have been proved impossible of adoption; and that the Medical Committees are instructed, immediately upon the termination of negotiations, to call a general meeting of medical practitioners to receive their report and determine on their future action—

was met with an amendment by Dr. CHARLES FRASER as follows:

That inasmuch as in supporting a policy of opposing the working of the Act under the conditions now offered by the Government, the profession is in duty bound to see that members of the profession do not suffer financially for their professional loyalty, and that means to secure this are not forthcoming, this meeting is of opinion that no further obstacles should be placed in the way of practitioners who may be desirous of placing their names on the panel.

This amendment was lost by 53 votes to 15.

Proposed Negotiations with Local Committees.—Dr BENHAM's proposal was then carried with four dissentients. On Dr. TURTON's proposal the following resolution was approved:

That each approved society in the two areas be invited to appoint two representatives to meet the Brighton and East Sussex Local Committees respectively to negotiate with a view to adoption of the scheme approved by this meeting after elaboration as to details by these committees.

Vote of Thanks.—The meeting closed with a vote of thanks to Dr. Ryle for presiding.

SOUTH MIDLAND BRANCH:

BUCKINGHAMSHIRE DIVISION.

A MEETING of the medical men practising in Bucks was held at the Royal Bucks Hospital, Aylesbury, on December 24th, 1912. Sixty-four were present, and Dr. BENSON, Chairman of the Buckinghamshire Division, presided.

The Insurance Act.—Dr. CHURCHILL appealed to members to exercise a spirit of toleration and broad-mindedness in the matter of the Insurance Act, and to discuss the matter in a friendly spirit. Dr. BRADBROOK gave an account of the Representative Meeting. Dr. DURRAN then proposed the following resolution:

That the decision of the Representative Meeting be accepted and adhered to by the medical practitioners of this county, and that all medical men in the county be called upon to keep their pledge and not to go on the panels.

A long discussion took place, in which Dr. SHAW, who seconded the resolution, Drs. W. H. BULL, REYNOLDS, WHEELER, CHARSLEY, CHURCHILL, FLECK, DICKSON, ROSE, LONG, and LARKING took part. It was proposed "That the question be now put," and carried; 41 voted for the resolution and 15 against.

Local Medical Committee.—The Local Medical Committee was then elected as follows:—No. 1 District: Drs. Bradbrook, Buxton, and Deyns. No. 2 District: Drs. Churchill, Henderson, E. O. Turner, and Woolerton. No. 3 District: Drs. Baker, Perrin, F. A. Cooke, Shaw, and Rose. No. 4 District: Drs. Benson, Kennish, and Larking. No. 5 District: Drs. Reynolds, Wheeler, and Watson.

No. 6 District: Drs. A. H. Turner, Llewelyn Jones, and Clarke Cohen. North Bucks: Drs. Bull, Wickham, and Harvey. South Bucks: Drs. Charsley, Dickson, and Bailey.

Instruction to Committee.—Dr. WHEELER proposed a resolution that the policy of the Association should be carried out; and it was agreed that it be an instruction to the Committee to proceed on these lines.

STAFFORDSHIRE BRANCH.

THE first general meeting of the session was held at Stoke-on-Trent on November 21st, 1912. The chair was taken by Dr. J. A. CODD, Vice-President, and forty-four members were present.

Model Ethical Rules.—These rules, as recommended by the Central Council and by the Branch Council, were adopted as printed in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of September 21st, 1912, p. 325, and in substitution for all similar rules in vogue in the Branch.

Dinner.—The meeting was followed by a dinner at which twenty-six members were present.

Epsom College.—A collection in aid of Epsom College realized £1 5s.

STIRLING BRANCH.

A MEETING of this Branch was held in the Station Hotel, Larbert, on December 26th, 1912. Dr. Joss presided over an attendance of sixty-six members.

The Representative Meeting and the Profession.—The following resolutions were passed by a majority of 39 to 24:

1. This meeting is of opinion that the scheme of medical attendance proposed by the Representative Meeting contravenes the cardinal principle regarding freedom from friendly society control, and is unworkable in this area.
2. This meeting is of opinion that the objects of the undertaking and pledge have been substantially obtained in the National Insurance Act and Regulations; that under the altered conditions the pledge is no longer binding; and that the effect of the pledge would be completely reversed if utilized for making arrangements for medical treatment with friendly societies.
3. This meeting approves of practitioners entering into agreements with Local Insurance Committees through the Local Medical Committees and forming panels under the Act.
4. This meeting urges upon Local Medical Committees the duty of laying before Insurance Committees and the Commissioners the necessity of further provision for mileage and extras.

YORKSHIRE BRANCH:

HALIFAX DIVISION.

A MEETING of this Division was held at the Imperial Café, George's Square, Halifax, on December 27th, 1912. Dr. CROSSLEY WRIGHT was in the chair, and fifty-six other practitioners were present. On the motion of Dr. MARSHALL, seconded by Dr. HODGSON, Drs. Macaulay, J. Oakley, and Drury were elected as representatives of the British Medical Association on the Council of the Halifax and District Nursing Association for the coming year.

Insurance Act.—The CHAIRMAN announced that this meeting had been summoned in order finally to decide as to their course of action with regard to service under the Act. Dr. DRURY then read a statement as to the position of the British Medical Association and the proceedings at the Special Representative Meeting on December 21st and 23rd. Dr. PRIESTLEY LEECH explained that the choice now lay between service on the panels or a fight, with the prospect of salaried whole-time men being imported into the district. Dr. SHAW proposed, and Dr. BOND seconded, the following resolution:

> That this meeting desires to record its disapproval of the scheme suggested by the Representative Meeting as the only alternative to the panel system of the National Insurance Act. As it cannot be made compulsory for insured persons to contract out, the scheme cannot in any sense be a national scheme; and, further, that it subverts an essential cardinal principle in placing the profession under the direct control of approved societies. This meeting therefore feels compelled to advise the profession in this district to accept provisional service under the Act.

Dr. ROBINSON, seconded by Dr. STRICKLAND, proposed as an amendment:

> That no panel be formed;

but the CHAIRMAN ruled that this was a direct negative to the motion. Dr. J. OAKLEY reminded the meeting that in order to join the panel they must break the pledge given to the Association, and that this would be an unpleasant action the memory of which would remain with them as long as they lived. Several members spoke in favour of the motion, urging that the pledge was no longer binding, seeing that the Association could not help financially any member who suffered loss through his loyalty. On the motion being put, the voting was as follows: For the motion, 25; against, 16; 16 of those present did not vote.

Formation of a Local Medical Committee.—On the motion of Dr. PRIESTLEY LEECH, seconded by Dr. HUNT, the following were elected a Local Medical Committee for the Halifax Insurance area—namely: Drs. A. Drury, W. Shaw, D. J. Macaulay, J. Marshall, P. K. Steele, A. Robinson, A. H. Muir, E. W. S. Hughes, and W. M. Branson. On the motion of Dr. MACAULAY, seconded by Dr. PRIESTLEY LEECH, Dr. P. K. Steele was elected honorary secretary to the Local Medical Committee.

BOMBAY BRANCH.

A SPECIAL meeting of this Branch was held at the University Library on November 14th. Lieutenant-Colonel L. F. CHILDE, I.M.S., occupied the chair, and there were present about twenty-five members and three visitors.

Rules for the Reading of Papers.—The following rules for the reading of papers, etc., and discussions had been circulated amongst the members and accepted by a large majority:

1. Not more than twenty minutes be given to the reader of a paper or notes, unless a subject is chosen for general discussion and the Branch Council has decided to give more time, and then thirty minutes should be given.
2. No member should be given more than five minutes to discuss a paper or notes.
3. A member may speak for fifteen minutes while discussing a paper or notes, provided that the chairman of the particular meeting decides from personal knowledge or wish of the members present that such a discussion is likely to be supplementary to the paper or notes read at the meeting.

On the motion of Lieutenant-Colonel ASHTON STREET, I.M.S., seconded by Dr. SORAB NARIMAN, these rules were adopted with one dissentient.

Literature Received.—The receipt of Nos. 51, 52, and 53 of the Scientific Memoirs by the officers of the Medical and Sanitary Department under the Government of India, was announced, so also of the annual reports of the Government chemical analyst, the lunatic asylums, the Bombay Bacteriological Laboratory, and the Forty-eighth Annual Report of the Sanitary Commissioner of Bombay, as well as the Notes on Vaccination in the Presidency (1911–12).

RHODESIAN BRANCH.

PROPOSED MATABELELAND AND MASHONALAND DIVISIONS.

ON May 21st a meeting of local practitioners interested in the proposed formation of a Rhodesian Branch of the British Medical Association was held in the Library Buildings, Bulawayo. Dr. SMYTH was in the chair, and Drs. Acland, Copeland, Head, Major Martin, and Drs. Jameson, Strong, and Townsend were present. It was decided that steps should be taken forthwith for the formation of a Rhodesian Branch, to include both Northern and Southern Rhodesia.

Dinner.—In the evening a dinner was held at the Grand Hotel, Bulawayo, in connexion with the meeting.

Proposed Matabeleland Division.—A meeting of local practitioners interested in the formation of a Matabeleland Division, to form part of the Rhodesian Branch, was also held at Bulawayo on May 21st, 1912, when the same practitioners were present, with the addition of Dr. Macdonald of Inyati. Dr. SMYTH took the chair. Various preliminary matters received consideration, including questions in connexion with the rules for the proposed Division. A further meeting of promoters of the proposed Matabeleland Division was held in the Memorial Hall, Bulawayo, on July 29th, 1912, when there were present: Dr. EATON (in the chair), Drs. Forrester, Head, Jameson, Le Feuvre, Major Martin, and Drs. Strong, Townsend, and Vigne. Further questions in connexion with the rules for the Division were considered. Provisional nominations

were made of Representatives of the Division on the Rhodesian Branch Council. The meeting considered also questions in connexion with a proposed scale of minimum fees, and appointed two committees for their consideration—one in respect of town and one in respect of country areas.

Proposed Mashonaland Division.—A meeting of practitioners interested in the formation of a Mashonaland Division of the Association, to form part of the new Rhodesian Branch, was held at the Club, Salisbury, on July 15th, when there were present: Drs. APPLEYARD (in the chair), Mackenzie, Percy Peall, Guy Peall, Cheadle, Ellis, Harger, Huggins, Lillie, and Macnaughton. It was unanimously agreed to take steps for the formation of a Mashonaland Division of the new Rhodesian Branch, and that, if possible, meetings of the Division should be held quarterly in Salisbury on the first day of the High Court Sessions. Provisional nominations were made for the officerhips of the new Division, and decisions were arrived at as regards draft rules.

Formation of Rhodesian Branch.—As a result of the action initiated at these meetings, a Rhodesian Branch of the Association has been formed. A notice on the subject was published in the SUPPLEMENT to the JOURNAL of December 14th, 1912.

British Medical Association.

PUBLIC HEALTH COMMITTEE.

APPOINTMENT OF DISTRICT MEDICAL OFFICER FOR THE MICHELDEVER DISTRICT OF THE WINCHESTER UNION.

THE action of the Winchester Guardians in connexion with one of their district medical officers was brought to the notice of the Public Health Committee in April last. Under certain well-known Poor Law Orders a district medical officer when appointed to any district, if he lives in the same is entitled to be appointed to his office permanently, and not for a term of years. Nevertheless the Winchester Guardians appointed Dr. Todd, of Micheldever, Hants, for a term of three years only, although that gentleman was resident within his district and clearly entitled to the protection of the Poor Law Orders. This action, when challenged by the Poor Law Medical Officers' Association, was justified by the Local Government Board on the ground that Article 6 of the General Order of May 25th, 1857, provides that nothing contained in the Order "shall prevent the Guardians in any case of emergency, or in any special circumstances, from appointing one or more medical officers to act temporarily for such time and upon such terms as the Local Government Board shall approve."

The Public Health Committee from time to time gave instructions for communications to be addressed to the Local Government Board, but was unable to obtain a satisfactory answer. On the instructions of the Committee the correspondence is now published as follows:

British Medical Association,
429, Strand, London, W.C.,
April 30th, 1912.

Sir,

Appointment of District Medical Officer,
Micheldever District of Winchester Guardians.

The attention of the British Medical Association has been drawn to the recent appointment of Dr. P. E. Todd as Medical Officer for the Micheldever District of the Winchester Union for a period of three years only.

The Association has always understood that a District Medical Officer residing in the area for which he acts must, in accordance with the following Section of the Medical Appointments Order, May 25th, 1857, be appointed permanently:

> *Art. 2.*—Every district medical officer duly qualified as aforesaid at the time of his appointment, and then being, or within two months after his appointment becoming, resident within the district for which he shall be appointed to act, shall hold his office until he shall die, or resign, or be proved to be insane in the same manner as in the previous Article, or become legally disqualified to hold such office, or be removed by the said Board, or cease to reside within such district.

It is observed by the Association that the reply of the Board, dated March 15th, 1912, to the Honorary Secretary of the Poor Law Medical Officers' Association, states that the Board would not regard the action of the Winchester Guardians in making the appointment in question for a period of three years only as a contravention of the above mentioned Order, having regard to the provision contained in the following Article 6 of the Order.

> *Art. 6.*—Provided that nothing herein contained shall prevent the Guardians in any case of emergency, or under any special circumstances, from appointing one or more medical officers to act temporarily for such time and upon such terms as the Poor Law Board shall approve.

I am instructed to say that my Association is quite at a loss to understand this answer of the Board, or to perceive in what way the appointment in question can be said to be a case of "emergency." The press reports of the meetings of the Board of Guardians also fail to show any "special circumstances" which would seem to justify the Guardians in making an appointment for a limited time, or your Board in sanctioning such an appointment.

The British Medical Association looks upon this case as creating a grave precedent, and as undermining the confidence which the medical profession has always felt in the Medical Appointments Order and in your Board as a protection against capricious action on the part of Boards of Guardians. I am instructed, therefore, to ask if the Board will favour the Association with the nature of the "reasons brought forward by the Guardians" alluded to in the letter addressed by the Board to Dr. Major Greenwood on February 6th, 1912, and also to inquire whether the profession is to understand that in future Article 2 of the Medical Appointments Order, 1857, is to be regarded as having no binding force on guardians or upon your Board.

My Association would also inquire whether the importance of the bearing of such a precedent on the Poor Law Officers' Superannuation Act has been appreciated. If appointments are to be sanctioned for short periods, there is a distinct temptation offered to Boards of Guardians to make such limited appointments in order to escape responsibilities imposed upon them by this Act.

I am, Sir,
Your obedient Servant,
(Signed) ALFRED COX,
Acting Medical Secretary.

The Right Hon. John Burns, M.P.,
President of the Local Government Board,
Whitehall, S.W.

Local Government Board.
Whitehall, S.W.,
May 1st, 1912.

Sir,

I am directed by the Local Government Board to acknowledge the receipt of your letter of the 30th ultimo, relative to the appointment of Poor Law Medical Officer.

I am, Sir,
Your obedient Servant,
(Signed) H. C. MOWES,
Secretary.

A. Cox, Esq.,
Acting Medical Secretary,
British Medical Association.

Local Government Board,
Whitehall, S.W.,
May 13th, 1912.

Sir,

I am directed by the Local Government Board to advert to your letter of the 30th ultimo, relative to the terms of appointment of Dr. P. E. Todd as Medical Officer of the Micheldever District of the Winchester Union.

In reply, the Board direct me to state that they do not at present contemplate any general relaxation of the regulation in Article 2 of their General Order of the 25th May, 1857, as to the permanency of tenure of medical officers who are duly qualified and resident within the districts for which they are appointed.

I am, Sir,
Your obedient Servant,
(Signed) WALTER T. GERRARD.
Assistant Secretary.

The Acting Medical Secretary,
British Medical Association.

British Medical Association,
429, Strand,
London, W.C.,
May 15th, 1912.

(59,263B. 1912.)

Sir,

I beg to acknowledge receipt of your letter of the 13th inst. relative to the terms of appointments of Dr. P. E. Todd as Medical Officer of the Micheldever District of the Winchester Union.

I am, Sir,
Your obedient Servant,
(Signed) ALFRED COX,
Medical Secretary.

The Secretary,
Local Government Board,
Whitehall, S.W.

British Medical Association,
429, Strand,
London, W.C.,
June 1st, 1912.

Sir,

In reply to your letter of the 13th ult. (59,263B, 1912), relative to the terms of appointment of Dr. P. E. Todd as Medical Officer of the Micheldever District of the Winchester Union, I am instructed to say that the Association notes with satisfaction that the Board does not contemplate any general relaxation of the Regulation in Article 2 of their General Order of the 25th May, 1857. I am, however, instructed to point out that the Association has not yet been favoured with an answer to the question contained in the 4th paragraph of my letter of 30th April, namely, as to the circumstances which led your Board to regard the appointment in question as a case of urgency. You will no doubt appreciate the fact that the Association is looked to for advice in matters of this kind, and it would be a considerable advantage to the profession if we could have some statement from the Board which would enable us to allay the great apprehensions which have been aroused by the attitude of the Board as regards this appointment, which has seemed to many to be quite inconsistent with the terms of Article VI of the Medical Appointments Order, May 25th, 1857. I should feel obliged, therefore, if you will favour the Association with the nature of the "reasons brought forward by the Guardians" alluded to in the letter addressed by the Board to Dr. Major Greenwood on February 6th, 1912.

I am, Sir,
Your obedient Servant,
(Signed) ALFRED COX,
Medical Secretary.

The Secretary,
Local Government Board,
Whitehall, S.W.

Local Government Board,
Whitehall, S.W.,
June 3rd, 1912.

Sir,

I am directed by the Local Government Board to acknowledge the receipt of your letter of the 1st instant relative to the appointment of Medical Officer for the Micheldever District of the Winchester Union.

I am, Sir,
Your obedient servant,
(Signed) H. C. MOWES,
Secretary.

A. COX, Esq.,
Secretary to the British Medical Association.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held on December 19th, 1912, at Caxton House, Westminster, with Sir FRANCIS H. CHAMPNEYS in the chair.

False Certificate of Birth of Candidate.

The SECRETARY reported that a false and fraudulent certificate of birth had been tendered to him by a woman desirous of becoming a candidate for the examination of December 16th. The Board decided that the matter be referred to the Public Prosecutor.

Information against a Midwife.

A letter was considered from the Chief Constable of Windsor, suggesting that either the Board or the Matron of the Monmouthshire Training Centre should lay an information against a certified midwife under the Servants' Character Act of 1792, 32 Geo. III, c. 56, s. 4. The Board directed that the midwife in question be cited to appear before the Penal Cases Committee.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following appointments have been notified by the Admiralty: Fleet Surgeon HUGH S. BURNISTON, to the *Antrim*, vice Macleod, January 1st, 1913. Fleet Surgeon RICHARD W. STANISTREET, to the *Indomitable*, vice McElwee. January 1st, 1913. Fleet Surgeon JOHN MCELWEE, to the *King Alfred*, vice Stoddart, January 1st, 1913. Fleet Surgeon HENRY B. HALL, to the *Doris* and for group of ships of Third Fleet, vice Daw, December 13th, 1912. Fleet Surgeon HERBERT W. G. DOYNE, to the *Dreadnought* and for General Staff duties. Fleet Surgeon PERCIVAL M. MAY, to the *Albemarle*, on commissioning, December 17th, 1912. Fleet Surgeon EDWARD H. HODNET DE COURTMACSHERRY, M.D., to the *Victory*, additional, for duties in connexion with training for stokers, December 18th, 1912. Fleet Surgeon M. H. KNAPP to the *Minerva*, vice Walsh, December 18th, 1912. Staff Surgeon GEORGE E. MACLEOD, to the *Magnificent*, vice Stanistreet, January 1st, 1913. Staff Surgeon NOEL H. HARRIS, to the *Bellerophon*, temporarily, December 11th, 1912. Staff Surgeon W. H. DAW, to the *Forte*, vice Croneen, December 13th, 1912. Staff Surgeon WILLIAM L. HAWKINS, to the *Victory*, additional for disposal, December 10th, and to the *Egmont*, additional for the *Exmouth* for voyage to Malta, undated. Surgeon LOVEL MOSS, to the *Antrim*, December 11th, 1912. Surgeon RICHARD M. R. THURSFIELD, to the *Antrim*, vice Berry, December 11th, 1912. Surgeon JOHN P. BERRY, to the *Indomitable*, vice Harris, December 11th, 1912. Surgeon BASIL TAYLOR, to the *Albemarle*, on commissioning, December 17th, 1912. Surgeon SIDNEY W. GRIMWADE, M.B., to the *Dreadnought*, December 17th, 1912. Surgeon F. J. D. TWIGG, M.B., to the *Queen*, vice Eastment, December 18th, 1912. Surgeon W. G. EDWARDS to the *Victory*, additional for disposal, December 24th, 1912.

ROYAL NAVAL VOLUNTEER RESERVE.

The undermentioned have been appointed Surgeons: CHARLES JOSEPH GORDON TAYLOR, M.B., and LIONEL SPENCE ASHCROFT, M.B., December 9th, 1912.

DONALD W. RAY, M.A., M.B., F.R.C.S., has been appointed Surgeon unattached, December 13th, 1912.

ARMY MEDICAL SERVICE.

COLONEL H. O. TREVOR, Assistant Director of Medical Services at Belfast, has been appointed to Cork in the same capacity.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel G. G. ADAMS has been appointed to the command of the Station Hospital, Secunderabad.

Lieutenant-Colonel H. H. BROWN has been appointed Senior Medical Officer, North-Eastern Coast Defences, vice Lieutenant-Colonel H. M. Adamson.

Major N. FAICHNIE has been transferred from the 5th (Mhow) to the 7th (Meerut) Division.

Captain L. J. JONES has been appointed to command the Station Hospital, Calicut.

Major G. J. HOUGHTON has been ordered for duty in West Africa.

Major T. B. UNWIN has been ordered for duty in West Africa.

Major J. D. FERGUSON, D.S.O., has been appointed Recruiting Medical Officer in the Eastern Command.

Captain D. P. WATSON has been appointed Assistant Clinical Pathologist at Queen Alexandra Military Hospital, Millbank, during the absence of Captain Smallman in Bulgaria.

Captain H. H. BLAKE has been appointed Staff Surgeon to the Peshawur District.

The following officers have been granted leave of absence for six months out of India: Captains J. R. FOSTER, G. P. A. BRACKEN, G. F. RUDKIN, W. B. PURDON, and J. A. RENSHAW.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT ROBERT MAGILL, M.B., to be Captain, December 7th, 1912.

Lieutenant CHARLES G. H. MORSE and Lieutenant ROBERT C. DICKSON have been confirmed in their rank.

Lieutenant K. W. JONES, M.D., Third Lancashire Field Ambulance, Territorial Force, to be Lieutenant, No. 18 Field Ambulance, December 18th, 1912.

Cadet Lance-Corporal ARCHIBALD M. MCCUTCHEON, from the Glasgow University Contingent, Officers' Training Corps, to be Lieutenant on probation, November 26th, 1912.

Cadet Lance-Corporal WILLIAM O. TOBIAS from the Dublin University Contingent, Officers Training Corps, to be Lieutenant on probation, December 1st, 1912.

TERRITORIAL FORCE.

ARMY MEDICAL SERVICE.

COLONEL DAMER HARRISSON, K.H.S., F.R.C.S., retires under the conditions of paragraph 116 of the Territorial Force Regulations, and is granted permission to retain his rank and to wear the prescribed uniform, April, 1912.

Colonel PETER B. GILES, C.B., F.R.C.S., on completion of his period of service as an Assistant Director of Medical Services of a Territorial Division, is retired, and is granted permission to retain his rank and to wear the prescribed uniform, April 1st, 1912.

Eastern Mounted Brigade Field Ambulance.—CLAUDIUS GALEN K. SHARP, M.B., to be Lieutenant, November 5th, 1912.

First South Western Mounted Brigade Field Ambulance.—Major SAMUEL MACLEAN, M.B., resigns his commission, December 18th, 1912. Captain THOMAS H. HAYDON, M.B., to be Major, December 18th, 1912.

First East Lancashire Field Ambulance.—Major HERBERT G. PARKER, F.R.C.S.E., to be Lieutenant-Colonel, November 11th, 1912.

Attached to Units other than Medical Units.—Lieutenant ALBERT W. W. SWETTENHAM to be Captain, May 24th, 1912. Lieutenant HALDENSTEIN D. DAVIES to be Captain, October 16th, 1912. Lieutenant SAMUEL R. R. MATTHEWS to be Captain, November 1st, 1912.

Lieutenant DOUGLAS G. RICE-OXLEY, M.B., to be Captain, November 19th, 1912. Lieutenant THOMAS H. WARD, M.D., resigns his commission, December 18th, 1912. The commission of Lieutenant JOHN W. BELL, M.B., is cancelled, his present address being unknown, December 18th, 1912.

For Attachment to Units other than Medical Units.—JOSEPH H. CHURCHILL to be Lieutenant, November 13th, 1912. Lieutenant FRANCIS V. DENNE, from the Unattached List, to be Lieutenant, November 20th, 1912.

COLONIAL MEDICAL SERVICES.

THE following changes have been notified by the Colonial Office:

WEST AFRICAN MEDICAL STAFF.

Transfers.—E. W. GRAHAM, M.B., Ch.M.Glasg., Senior Medical Officer, Northern Nigeria, has been transferred to the Gold Coast. E. HOPKINSON, D.S.O., M.A., M.B., B.Ch.Oxon., M.R.C.S.Eng., L.R.C.P. Lond., F.Z.S., Medical Officer, Gambia, has been appointed a Travelling Commissioner.

Retirement.—J. P. FAGAN, F.R.C.S.Irel., L.R.C.P., L.M.Irel., D.P.H.Irel., Principal Medical Officer, Northern Nigeria, retires on pension.

New Appointments.—The following gentlemen have been selected for appointment to the Staff: E. F. WARD, M.B., B.Ch., B.A.O.Queen's University, Belfast, Sierra Leone; W. R. PARKINSON, F.R.C.S.Eng., L.R.C.P.Lond., Southern Nigeria; J. E. L. JOHNSTON, M.B., B.S.Lond., M.R.C.S.Eng., L.R.C.P.Lond., D.T.M. and H.Cantab., Northern Nigeria; S. L. BROHIER, M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Lond., L.M. and S.Ceylon, Gambia.

OTHER COLONIES AND PROTECTORATES.

J. GEOGHEGAN, M.B., Ch.B.Edin., has been selected for appointment as a Medical Officer in the Caicos Islands. L. D. NAPIER, L.R.C.P. Edin., L.R.C.S.Edin., L.F.P.S.Glasg., has been selected for appointment as a supernumerary Medical Officer in the Leeward Islands.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Army Medical Service have been officially reported to have taken place during November, 1912:

		FROM	TO
Surgeon General	H. G. Hathaway ...	—	India.
Lieut.-Colonel	A. E. Tate	Cherat	Allahabad.
,,	H. J. Fletcher, M.B. ...	Abbottabad ...	Sialkot.
,,	C. H. Melville, M.B. ...	R.A.M. Coll. ...	India.
,,	H. H. Brown, M.B. ...	Aden	Newcastle-on-Tyne.
,,	E. A. Burnside	Secunderabad	Bangalore.
,,	E. G. Browne	Delhi	Peshawar.
,,	A. J. Luther	Fermoy ...	Potchefstroom
Major	C. W. H. Whitestone, M.B. ...	Cherat	Peshawar.
,,	F. W. Begbie	Colchester ...	Kamptee.
,,	H. A. Bray	Woolwich ...	Egypt. Army.
,,	W. J. Taylor, M.B.	Colchester ...	Bedford.
,,	B. W. Longhurst	Ashton	Fleetwood.
,,	A. C. Fox	Curragh ...	Dublin.
,,	G. St.C. Thom, M.B.	Murree	Rawal Pindi.
,,	J. P. Silver, M.B.	Dublin	Cork.
,,	R. J. Blackham	Cherat	Peshawar.
,,	St. J. B. Killery	York	Bangalore.
,,	G. B. Riddick	Maymyo ...	Aldershot.
,,	M. P. Corkery	Nasirabad ...	Irish Commd.
,,	H. G. F. Stallard	Cherat	Peshawar.
,,	E. Brodribb	Shorncliffe ...	Dover.
,,	W. H. S. Nickerson, V.C., M.B	Murree	Rawal Pindi.
,,	P. H. Collingwood	Tregantle ...	Devonport.
,,	C. J. O'Gorman, D.S.O....	Peshawar ...	Calcutta.
,,	A. R. O'Flaherty	Devonport ...	India.
,,	J. G. Gill	Bangalore ...	Maymyo.
,,	D. E. Curme	Ewshott ...	Aldershot.
,,	H. K. Palmer	Ambala ...	Aden.
,,	J. J. W. Prescott, D.S.O. ...	Cosham ...	Portland.
,,	E. P. Connolly	Kuldana ...	Rawal Pindi.
,,	A. M. MacLaughlin, M.B. ...	Edinburgh ...	Secunderabad.
,,	A. H. Safford	Fyzabad ...	Lucknow.
,,	E. W. Siberry	Potchefstroom	Wynberg.
,,	J. W. West, M.B.	Murree	Rawal Pindi.
,,	R. L. Argles	Aden	Irish Commd.
,,	F. S. Walker, F.R.C.S.I. ...	Fermoy ...	Waterford.
,,	J. T. Johnson, M.D.	Chakrata ...	Meerut.
,,	E. W. Powell	Kilworth ...	Ballincollig.
,,	H. A. Bransbury	Ahmednagar ...	Belgaum.
,,	H. A. Davidson, M.B.	Curragh ...	Kildare.
,,	R. V. Cowey	Tidworth ...	Bulford.
,,	J. S. Bostock, M.B.	Meerut	Ranikhet.
,,	T. B. Unwin, M.B.	London ...	Caterham.
Captain	A. W. Gibson	Gibraltar ...	Poona.
,,	D. L. Harding, F.R.C.S.I. ...	Omagh	Belfast.
,,	M. C. Beatty, M.B.	Okehampton ...	Devonport.
,,	N. D. Walker, M.B.	R.A.M. Coll. ...	India.
,,	J. W. S. Seccombe	Devonport ...	Taunton.
,,	J. E. H. Gatt, M.D.	Benares ...	Cawnpore.
,,	D. G. Carmichael, M.B. ...	Ayr	Edinburgh.
,,	H. T. Stack, M.B.	Ranikhet ...	Bareilly.
,,	S. L. Pallant	Wedgnock Park Camp	Netley.
,,	D. P. Johnstone	Chester ...	India.
,,	S. C. Bowle	Dublin	Newbridge.
,,	P. C. T. Davy, M.B.	Jutogh	E. Command.
,,	R. C. Hallowes, M.B.	Armagh ...	Holywood.
,,	G. R. Painton	—	Colchester.
,,	A. T. Frost, M.B.	Galway ...	Dublin.
,,	J. P. Lynch	Shorncliffe ...	Canterbury.
,,	G. H. Richard	Colchester ...	Weedon.
,,	C. G. Browne	Lucknow ...	Netley.
,,	W. McConaghy, M.B. ...	Guildford ...	Woolwich.
,,	R. S. Smyth, M.D.	Ambala ...	Cosham.
,,	H. E. Priestley	Parkhouse Camp	Tidworth.
,,	A. A. Sutcliff, M.B.	Newport, Mon.	Chester.
,,	W. Egan, M.B.	Mandalay ...	Dublin.
,,	F. Forrest	Bangalore ...	Irish Commd.
,,	A. S. Williams	Khanspur ...	Nowshera.
,,	V. G. Johnson	Nowshera ...	E. Command.
,,	P. Sampson	Murree	Irish Comd.
Captain	J. W. L. Scott	Aden	S. Command.
,,	W. C. Smales	R.A.M. Coll. ...	Weymouth.
,,	A. H. Bond	Cork	Fermoy.
,,	D. De C. O'Grady	Barian	Rawal Pindi.
,,	E. J. Elliot, M.B.	Chester ...	Ashton.
,,	C. Scaife, M.D.	Colaba	Belgaum.
,,	J. J. O'Keefe, M.B.	R.A.M. Coll. ...	Meerut.
,,	H. G. Gibson	Malta	Queenstown.
,,	H. W. Farebrother	Rangoon ...	Meiktila.
,,	F. J. Stuart, M.B.	Chakrata ...	Agra.
,,	J. B. Hanafin, F.R.C.S.I. ...	Peshawar ...	Nowshera.
,,	H. W. Carson, M.B.	Cherat	Peshawar.
,,	R. F. O'T. Dickinson	Landour ...	Delhi.
,,	J. C. L. Hingston	Wellington ...	Rangoon.
,,	J. E. Ellcome	Kamptee ...	Nowgong.
,,	J. W. Houston, M.B.	Belgaum ...	Colaba.
,,	F. B. Dalgliesh	Mhow	Jubbulpore.
,,	A. L. Foster	Kalabagh ...	Rawal Pindi.
,,	W. H. S. Burney	Douard ...	Attock.
,,	C. H. O'Rorke, M.B.	Rurki	Allahabad.
,,	A. W. Byrne, M.B.	Lahore	Jullundur.
,,	W. H. O'Riordan	Barian	Ghangla Sali.
,,	P. S. Tomlinson	Meerut	Rurki.
,,	F. W. M. Cunningham, M.D.	Rawal Pindi ...	Kuldana.
,,	A. D. Stirling, M.B.	Alexandria ...	Cairo.
Lieutenant	A. G. Jones, M.B.	Tidworth ...	Rawal Pindi.
,,	J. M. Weddell	London ...	Lucknow.
,,	E. C. Stoney, M.B. ...	Secunderabad.	Meiktila.
,,	V. P. Hutchinson	Netley	Pretoria.
,,	C. H. H. Harold, M.D. ...	London ...	India.
,,	C. H. Stringer	Rollestone Camp	Netley.
,,	G. O. Chambers	Leicester	Lichfield.
,,	L. F. K. Way	Tidworth ...	Bloemfontein.
,,	B. Biggar, M.B.	Pirbright ...	London.
,,	J. S. Levack, M.B. ...	York	Bradford.
,,	W. T. Graham, M.B. ...	Durrington ...	Tidworth.
,,	W. L. E. Fretz, M.B. ...	Deepcut ...	India.
,,	P. Hayes, M.B.	Aldershot ...	,,
,,	H. S. Blackmore	Caterham ...	London.
,,	D. W. Bruce, M.B. ...	Aldershot ...	Ewshott.
,,	W. L. Webster, M.B. ...	Kilworth Camp.	Limerick.
,,	H. J. G. Wells, M.B. ...	Queenstown ...	Kinsale.
,,	E. C. Deane	Ross Camp ...	Seaforth.
,,	F. S. Tamplin	Sling Plantation Camp	Netley.
,,	W. Stewart, M.B.	Gt. Yarmouth	Colchester.
,,	R. K. Mallam, M.B. ...	Aldershot ...	Bordon.
,,	P. A. With	Curragh ...	Kilbride.
,,	H. R. L'Estrange	Cork	Curragh.

Lieutenant T. E. Osmond, appointed on probation July 28th, 1911, has been stationed in London.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-five of the largest English towns 8,149 births and 5,458 deaths were registered during the week ending Saturday, December 14th, 1912. The annual rate of mortality in these towns, which had been 15.0, 14.5, and 16.4 per 1,000 in the three preceding weeks, fell to 16.1 per 1,000 in the week under notice. In London the death-rate was equal to 16.3 per 1,000, against 15.6, 14.5, and 17.2 in the three preceding weeks. Among the ninety-four other large towns the death-rates in the week under notice ranged from 3.0 in Dudley, 7.8 in Eastbourne, 8.0 in Lincoln, 8.1 in Aberdare, 8.2 in Ilford, and 8.9 in Walthamstow to 22.2 in Preston, 22.8 in St. Helens and in South Shields, 23.3 in Swindon, 24.0 in Great Yarmouth, 27.9 in Stockton-on-Tees, and 31.7 in West Hartlepool. Measles caused a death-rate of 3.0 in East Ham, 3.1 in Birmingham, 3.3 in Coventry, 3.4 in Middlesbrough, 3.6 in Enfield, 3.9 in Newcastle-on-Tyne, 4.0 in Stockton-on-Tees, 4.1 in Grimsby, 4.8 in St. Helens, 4.9 in Preston, 5.7 in South Shields, 6.9 in Northampton, and 13.8 in West Hartlepool. The mortality from the remaining infectious diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 40, or 0.7 per cent. of the total deaths, were not certified either by a registered medical practitioner or by a coroner after inquest; of this number 9 were registered in Liverpool, 8 in Birmingham, 4 in Warrington, and 2 each in Stoke-on-Trent, St. Helens, Rochdale, Sunderland, and Newcastle-on-Tyne. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 2,336, 2,279, and 2,266 at the end of the three preceding weeks, had further fallen to 2,232 on Saturday, December 14th, 1912; 248 new cases were admitted during the week, against 296, 271, and 285 in the three preceding weeks.

In ninety-five of the largest English towns 8,488 births and 5,222 deaths were registered during the week ending Saturday, December 21st, 1912. The annual rate of mortality in these towns, which had been 14.5, 16.4, and 16.1 per 1,000 in the three preceding weeks, declined to 15.4 per 1,000 in the week under notice. In London the death-rate was equal to 14.4 per 1,000, against 14.5, 17.2, and 16.3 in the three preceding weeks. Among the ninety-four other large towns the death-rates ranged from 7.2 in Enfield, 7.5 in Ilford, 7.8 in Gillingham and in Eastbourne, 8.4 in Bournemouth, and 1.7 in Croydon to 21.0 in Stockton-on-Tees, 21.8 in Barrow-in-Furness, 23.1 in Newcastle-on-Tyne, 24.7 in South Shields, 26.8 in Sunderland, and 27.9 in Tynemouth. Measles caused an annual death-rate of 3.4 in West Ham, 4.0 in Northampton, 4.1 in West Hartlepool, 4.8 in St. Helens, 6.0 in Stockton-on-Tees, 6.2 in Preston, and 6.5 in Barrow-in-Furness; whooping-cough of 1.3 in Stoke-on-Trent; and diphtheria of 2.4 in Barrow-in-Furness. The mortality from enteric fever and scarlet fever showed no excess in any of the large towns and no fatal case of small-pox was registered during the week. The causes of 39, or 0.7 per cent. of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; of this number 6 were recorded in Birmingham, 5 in Liverpool, 3 in Stoke-on-Trent, and 3 in Sunderland. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 2,279, 2,265, and 2,232 at the end of the three preceding weeks, had further fallen to 2,108 on Saturday, December 21st; 193 new cases were admitted during the week, against 271, 285, and 248 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In eighteen of the largest Scottish towns 1,082 births and 867 deaths were registered during the week ending Saturday, December 14th. The annual rate of mortality in these towns, which had been 18.0, 17.1, and 22.0 per 1,000 in the three preceding weeks, declined to 20.7 in the week under notice, but was 4.6 per 1,000 above the rate in the ninety-five large English towns. Among the several Scottish towns the death-rates in the week under notice ranged from 13.5 in Kilmarnock, 14.0 in Ayr, and 14.2 in Coatbridge and in Kirkcaldy, to 23.3 in Glasgow and in Paisley, 24.0 in Greenock, and 24.5 in Falkirk. The mortality from the principal infectious diseases averaged 1.1 per 1,000, and was highest in Clydebank and Motherwell. The 351 deaths from all causes registered in Glasgow included 16 from whooping-cough, 6 from diarrhoeal diseases, and 1 from diphtheria. Two deaths from scarlet fever were recorded in Dundee; 3 from whooping-cough in Greenock, 2 in Motherwell, and 2 in Clydebank; and 1 from small-pox in Kirkcaldy.

In eighteen of the largest Scottish towns 1,115 births and 801 deaths were registered during the week ending Saturday, December 21st, 1912. The annual rate of mortality in these towns, which had been 17.1, 22.0, and 20.7 per 1,000 in the three preceding weeks, fell to 19.2 in the week under notice, but was 3.8 per 1,000 above the rate in the ninety-five large English towns. Among the several Scottish towns the death-rates ranged from 3.9 in Kirkcaldy, 9.0 in Kilmarnock, and 13.8 in Falkirk to 23.8 in Leith, 24.6 in Perth, and 26.4 in Ayr. The mortality from the principal infectious diseases averaged 1.5 per 1,000, and was highest in Clydebank and Motherwell. The 312 deaths from all causes registered in Glasgow included 15 from whooping-cough, 7 from diphtheria, 2 from infantile diarrhoeal diseases, and 1 from scarlet fever. Two deaths from measles occurred in Motherwell; 2 from diphtheria in Dundee; 3 from whooping-cough in Partick, 2 in Leith, 2 in Motherwell, and 2 in Clydebank; and 3 from infantile diarrhoea and enteritis in Dundee.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, December 14th, 1912, 509 births and 408 deaths were registered in the twenty-two principal urban districts of Ireland, as against 551 births and 486 deaths in the preceding week. The annual death-rate in these districts, which had been 18.5, 19.7, and 22.0 per 1,000 in the three preceding weeks, fell to 18.4 per 1,000 in the week under notice, this figure being 2.3 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 17.2 and 20.0 respectively, those in other districts ranging from 4.2 in Lisburn and 4.4 in Portadown to 35.7 in Dundalk and 36.2 in Wexford, while Cork stood at 17.0, Londonderry at 20.4, Limerick at 20.3, and Waterford at 20.9. The zymotic death-rate in the twenty-two districts averaged 2.2 per 1,000 as against 2.3 in the preceding week.

During the week ending Saturday, December 21st, 1912, 518 births and 457 deaths were registered in the twenty-two principal urban districts of Ireland, as against 509 births and 408 deaths in the preceding week. The annual death-rate in these districts, which had been 19.7, 22.0, and 18.4 per 1,000 in the three preceding weeks, rose to 20.6 per 1,000 in the week under notice, this figure being 5.2 per 1,000 higher than the mean average death-rate in the ninety-five English towns for the corresponding period. The figures in Dublin and Belfast were 20.8 and 23.5 respectively, those in other districts ranging from 4.2 in Drogheda and 6.4 in Queenstown, to 32.6 in Newtownards and 33.7 in Lisburn, while Cork stood at 17.0, Londonderry at 17.9, Limerick at 19.0, and Waterford at 20.9. The zymotic death-rate in the twenty-two districts averaged 2.7 per 1,000 as against 2.2 in the preceding period.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ACTON EDUCATION COMMITTEE.—Lady Assistant School Medical Officer and Assistant Medical Officer of Health. Salary, £250 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

BRADFORD EDUCATION COMMITTEE.—Woman Assistant to the School Medical Officer. Salary, £350 per annum.

BRISTOL ROYAL INFIRMARY.—(1) Resident Casualty Officer. Salary at the rate of £50 per annum. (2) Dental House-Surgeon. Salary, £100 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary, £100 per annum.

CARDIFF: KING EDWARD VII WELSH NATIONAL MEMORIAL.—Tuberculosis Physician. Salary, £450 per annum, increasing to £500.

CAPE TOWN: SOUTH AFRICAN COLLEGE.—Lecturer in Anatomy. Salary, £300 per annum.

GARTLOCH MENTAL HOSPITAL.—Junior Assistant Medical Officer. Salary, £150 per annum.

GUY'S HOSPITAL DENTAL SCHOOL.—Executive Officer. Salary, £200 per annum.

HAMPSTEAD GENERAL AND NORTH-WEST LONDON HOSPITAL.—Physician to Out-patients.

HELLINGLY: EAST SUSSEX COUNTY ASYLUM.—Third Assistant Medical Officer (Male). Salary, £175 per annum, increasing to £200.

HULL: ROYAL INFIRMARY.—Casualty House-Surgeon. Salary at the rate of £60 per annum for six months, or £80 for twelve months.

LANCASHIRE EDUCATION COMMITTEE, Preston.—School Medical Inspector. Salary, £250 per annum, rising to £400.

LISCARD: VICTORIA CENTRAL HOSPITAL AND WALLASEY DISPENSARY.—House Surgeon. Salary, £100 per annum.

LIVERPOOL MEDICAL MISSION.—Assistant Medical Officer.

LIVERPOOL: SOUTHERN HOSPITAL.—(1) Honorary Assistant Surgeon. (2) Honorary Consulting Gynaecologist.

LIVERPOOL UNIVERSITY.—Lectureship in Mental Diseases.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—(1) Assistant House Surgeon. (2) Pathologist and Bacteriologist. Honorarium at the rate of 100 and 50 guineas per annum respectively.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Senior House-Physician. Salary, £50 per annum.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon (Male). Salary, £170 per annum.

OXFORD COUNTY ASYLUM.—Junior Assistant Medical Officer (Male). Salary, £150 per annum, increasing to £175.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—(1) House Physician. Salary, £75 per annum. (2) Honorary Assistant Physician.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Junior Obstetric Assistant.

ROYAL NATIONAL ORTHOPAEDIC HOSPITAL.—Junior Resident House-Surgeon. Salary at the rate of £80 per annum.

ST. MARY'S HOSPITAL, Paddington, W.—Resident Assistant Anaesthetist. Salary at the rate of £100 per annum.

ST. PAUL'S HOSPITAL, Red Lion Square, W.C.—Honorary Surgeon to Out-patients.

STOKE-ON-TRENT: NORTH STAFFORDSHIRE INFIRMARY.—Pathologist (non-resident). Salary, £200 per annum.

TOXTETH PARK TOWNSHIP.—Assistant Resident Female Medical Officer of the Workhouse and Infirmary. Salary, £125 per annum.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C.—Physician in Charge of Out-patient Department for Mental Diseases.

VICTORIA HOSPITAL FOR CHILDREN, Chelsea, S.W.—House Physician and House Surgeon. Salary, £40 per annum.

WADSLEY: WEST RIDING ASYLUM.—Fourth Assistant Medical Officer (Male). Salary, £140 per annum, increasing to £160.

WAKEFIELD.—Assistant Medical Officer of Health. Salary, £250 per annum.

WEST BROMWICH UNION INFIRMARY.—Resident Assistant Medical Officer. Salary, £200 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary at the rate of £80 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointment: Welshpool (Montgomery).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

BUDD, A., M.B., B.S.Durh., Medical Officer of Health to the Launceston and Broadwoodwidger Rural District Council.

BURTON, Hugh L., M.B., B.S.Lond., Deputy Medical Officer to the Strangeways Gaol, Manchester.

CRAWLEY, Frank C., M.D.Dubl., F.R.C.S.I., Ophthalmic Surgeon to the Royal City of Dublin Hospital, vice A. H. Benson, deceased.

DUNCAN, David G., M.B., Ch.M.Sydney, Government Medical Officer and Vaccinator at Mullumbimby, vice Dr. Reisch, resigned.

GARDEN, D. S., M.B., B.S.Aberd., District Medical Officer of the Halifax Union.

KENNEDY, W. D., M.B., District Medical Officer of the Wantage Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

SUGARS.—On December 20th, 1912, at Kulim, Kedah, Malay Peninsula, the wife of H. S. Sugars, M.B., B.Ch., T.C.D., of a daughter. (By cable.)

HUTCHENS.—On December 30th, 1912, at Corbridge, Northumberland, the wife of H. J. Hutchens, D.S.O., of a son.

DEATHS.

CHAMBERS.—Dr. John Louis Chambers, on December 21st, 1912, after a short illness, at 249, Hackney Road, passed peacefully away. Deeply mourned by his sorrowing wife and sister Mary. Friends please accept this (the only) intimation.

COLBY.—On December 22nd, 1912, at The Mount, Malton, Yorkshire, William Taylor Colby, M.D., J.P., aged 85 years.

PHILPOTS.—On December 31st, 1912, suddenly at Silverdale, Harris Philpots, M.B., C.M., of Birkenhead. Interment at Silverdale. No flowers.

REDFERN.—On December 22nd, 1912, at Templepatrick House, Donaghadee, Peter Redfern, M.D.Lond., F.R.C.S.Eng., D.Sc., formerly Regius Professor of Anatomy and Physiology, Queen's College, Belfast, aged 91 years.

IN MEMORIAM.

IN ever loving memory of our dearly beloved and only son Phiroze (Ball), who departed this life in the 19th year of his life, whilst yet full of bright hopes and noble aspirations, on December 26th, 1910.

All tears are vain, we cannot now recall thee,
Gone is thy loving voice, thy sweetest face;
Gone from the home, where we so dearly loved thee,
Where none can ever fill thy place.

Inserted by his sorrowing parents, Dr. B. Horanavatty, F.R.C.S., and Mrs. B. Horanavatty, of Ahmedabad.

DIARY FOR THE WEEK.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Milroy Lecture, by Major R. McCarrison, M.D., I.M.S.: The Etiology of Endemic Goitre.

WEDNESDAY.

HUNTERIAN SOCIETY, St. Bartholomew's Hospital, 9 p.m.—Professor Arthur Keith:—The Second Hunterian Lecture: The History and Nature of the Napoleonic Specimens in the Museum of the Royal College of Surgeons, England.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 5 p.m.—Paper:—Lieutenant-Colonel G. D. Hunter, R.A.M.C.: The Tactical Employment of Field Medical Units.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.15 p.m.—(1) Annual Meeting and Election of Officers; (2) President's Address; (3) Smoking Concert.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Paper:—Mr. James Sherren: Gall Stones.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Milroy Lecture, by Major R. McCarrison, M.D., I.M.S.: The Etiology of Endemic Goitre.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 8.30 p.m.—Demonstration of Cases and Specimens.

SECTION OF LARYNGOLOGY, 4.30 p.m.—Demonstration of Cases and Specimens.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics. Monday: 12 noon, Throat, Nose, and Ear; 2.15 p.m., Surgery; 3 p.m., Operations; 3.15 p.m., Medicine; 4.15 p.m., Ear and Throat. Tuesday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Surgery; 3.15 p.m., Medicine. Wednesday: 11 a.m., Eye; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Eye Clinic; 4.30 p.m., Surgery. Thursday: 12 noon, Throat, Nose, and Ear; 2 p.m., Operations, Pathological Demonstration; 3.15 p.m., Medicine. Friday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Surgery. Saturday: 10 a.m., Radiography; 11 a.m., Eye. Special Lectures on Tuesday, 3.15 p.m.; and Wednesday and Thursday at 4.30 p.m.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week, at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Lectures, at 5.15 p.m. each day, will be given as follows:—Monday: The Work of a Tuberculosis Dispensary. Tuesday: Some Recent Advances in the Diagnosis, Prognosis, and Treatment of Heart Disease (illustrated by the polygraph). Wednesday, ditto. Thursday, ditto. Friday: Granuloma.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., Tuesday and Friday, 3.30 p.m.: Trauma in Relation to Nervous Disease.

SALFORD ROYAL HOSPITAL, Tuesday, 4.30 p.m.—Incontinence of Urine.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, X Rays, and Operations, 2 p.m. daily. Monday; Gynaecology, 10 a.m.: Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday. Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.

RECENT PUBLICATIONS.

Chemische Methodik für Aertze. By Professor Carl Oppenheimer. Second edition. Revised by Dr. W. Glikin. Leipzig; G. Thieme. 1912. (Cr. 8vo, pp. 100. M.2.40.)

Sets forth a number of chemical tests for clinical use and describes them in such fashion that general practitioners not specially trained in chemical analysis may perform them with ease. No methods requiring complicated or costly apparatus are included, and all quantitative work is performed by measurement instead of gravimetrically.

How to Become a Certified Midwife. By E. L. C. Appel, M.B., B.S., B.Sc. Revised and brought up to date by Victoria E. M. Bennett, M.B., B.S., D.P.H. London: The Scientific Press, Ltd. 1912. (F'cp. 8vo, pp. 64. Price 6d. net.)

Consists for the most part of summaries of the requirements of the Midwives Act and the Central Midwives Board, together with a copy of the regulations issued by the Board, a list of some of the institutions in which training can be obtained, and a short glossary.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. J. AND A. CHURCHILL will shortly issue *Practice and Problem in Abdominal Surgery*, by Mr. Alfred E. Maylard, Surgeon to the Victoria Infirmary, Glasgow. The book (it is stated in the preface) is the outcome of the practical experience of one who knew abdominal surgery at its inception, who has passed through its varied phases of development, and who at present is enjoying that apparent apotheosis which it seems almost to have reached.

Messrs. W. B. Saunders Company have in the press for immediate publication a work on *Psychanalysis* by Dr. A. A. Brill, Clinical Assistant in Psychiatry and Neurology, Columbia University Medical School.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		JANUARY, 1913.
1	Wed.	Subscriptions to the British Medical Association for 1913 become due (also to Central Defence Fund).
3	Fri.	London: Central Ethical Committee, 2 p.m.
4	Sat.	Isle of Thanet Division, Ramsgate, 8.30 p.m.
7	Tues.	London: Public Health Committee, 3.30 p.m.
8	Wed.	London: Medico-Political Committee, 2 p.m.
9	Thur.	London: State Sickness Insurance Committee, 10.30 a.m.
		Birmingham Branch, Medical Institute, 3.30 p.m.
10	Fri.	London: Journal Committee, 2 p.m.
14	Tues.	London: Metropolitan Counties Branch, 4 p.m.
		London: Organization Committee, 2.15 p.m.
15	Wed.	London: Hospitals Committee, 2.30 p.m.
17	Fri.	London: **Special Representative Meeting, 9.30 a.m.** Connaught Rooms, Great Queen Street, W.C.
		SPECIAL MEETING OF CENTRAL COUNCIL *immediately afterwards.*

Date.		Meetings to be Held.
		JANUARY (*continued*).
17	Fri.	City Division, Metropolitan Hospital, Kingsland Road, 4 p.m.
		Hampstead Division, Finchley Road, 8.15 p.m.
22	Wed.	Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
29	Wed.	London: Central Council.
31	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		FEBRUARY.
11	Tues.	London: Metropolitan Counties Branch, 4 p.m.
		South-West Essex Division, Whipps Cross Infirmary, 4 p.m.
13	Thur.	Birmingham Branch, Medical Institute, 3.30 p.m.
14	Fri.	Hampstead Division, Finchley Road, 8.15 p.m.
19	Wed.	Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.

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MEETING OF THE ADVISORY COMMITTEES.

THE following is the official report of the meeting of the Advisory Committees held on Thursday, January 2nd.

The cross headings have been introduced by us for the convenience of readers.

GENERAL STATEMENT BY THE CHANCELLOR OF THE EXCHEQUER.

The Right Hon. D. LLOYD GEORGE, Chancellor of the Exchequer, who was in the chair, said: Ladies and gentlemen, about ten weeks ago we met in this room to discuss the revised terms which the Government proposed to submit to the medical profession for working the medical benefits of the National Insurance Act. I think you will agree with me when I say that the public generally, without distinction of party, regarded those terms as being not merely fair, but liberal and generous. I think I could go beyond that, and say that the attitude of the medical profession since then is a tacit admission that, as far as at any rate the cash terms are concerned, they, on the whole, fairly meet the situation. It is true that the ground of controversy shifted largely, and almost entirely, from the question of remuneration on to something which was called lay control. Now I have only one or two words to say about that. No profession to my knowledge has ever objected to the administrative control of any lay body that was responsible for paying it. Take the learned profession of which my right hon. friend the Attorney-General is such a distinguished ornament, and the still more learned branch of the profession, or at any rate the still more serviceable branch, which I will call the working branch, of the profession to which I have the honour to belong. Whenever adequate remuneration has been offered to us, we have never objected to the administration of that cash by the people who found it. We regarded it as a business proposition. As there was cash at the end of it, lawyers naturally did not object to it. As town clerks, as clerks of the peace, as clerks to magistrates, the legal profession has always accepted lay control and almost purely lay control in the administration of the funds in which they were participating. Then take the teaching profession. The teaching profession has never objected to lay control. It has always pleaded for an appeal to a central authority, but that we have given to the medical profession. The teaching profession has never said, We will recognize the control of the parent and no one else. They have never said, We will not stand interference by county councils, town councils, school boards, and boards of education; those are boards of laymen and we cannot tolerate it: it is not consistent with our dignity. It has never entered their heads to put forward such a claim. The same thing applies to the medical profession. As medical officers of health, as officers in hospitals under general municipal or other control, they have always recognized the control of the town councils, the county councils, the Local Government Board, and the committees who dispense the patronage. Therefore this demand that the only business of the layman is to find the money is an absolutely new demand which has never been put forward before under any conditions, and I am very glad to find that, as a matter of fact, it is not seriously presented by the vast majority of the medical profession themselves. I shall have cleared the ground of one or two of these things before I come to the actual practical proposition which I have to submit to you.

The question which we shall have to discuss here to-day is, first of all, what is to be done in areas where the panels are adequate; in the second place, what our proposals are in reference to areas where the panels are incomplete, or where we have practically no panels at all. I need hardly tell you that we are fully prepared to meet every one of these contingencies. We have carefully thought them out, and we have thought them out not merely for weeks but for months. We have been very reluctant and slow to put into operation some of our plans, because we know they may inflict hardship, and severe hardship, upon individuals; and, believe me, in spite of everything that has been said to the contrary, we have been sincerely desirous to avoid doing that. As a matter of fact, we have waited so long that we were really almost endangering the immediate success of our medical benefit clauses; and I tell you in all sincerity that we did it because we wanted to exhaust every effort to arrive at a peaceable friendly settlement, that would make everybody feel that on the whole we had come to a satisfactory arrangement, and which above all would avoid inflicting hardship upon any hard-working, honest, local, professional man who could not quite see his way at once to accept our terms. No one can accuse us of impatience. For twenty months we have negotiated. I have attended innumerable interviews, conferences, no end of deputations, with a view to trying to effect a friendly arrangement for over twenty months. I think it is necessary that I should make that statement in order to make clear that we have ample justification now for any steps which we may think it necessary to take in areas where arrangements cannot be effected, where panels cannot be set up; and we have ample justification in the interests of the public, which must be paramount, in resorting to any fair plan, although it may inflict damage upon certain individuals.

Now it has been suggested to me from certain quarters that we ought to have made a bargain with the profession before ever introducing our bill. The events of the last few months show how utterly impossible that is as a business proposition. I have never met during the whole of these twenty months any body of medical men who claimed to have the power to enter into even a provisional bargain with the Government. They have had endless meetings. They have appointed negotiators time after time. I have never heard any of these negotiators who could tell me that they have had a right to enter into a provisional compromise with the Government. How could you under these circumstances bargain with the profession? What would have happened if I had taken that line before the bill was introduced? It would have been this: I should have met representatives of the British Medical Association; they would have expressed to me their individual views; I would have said to them, "Now, then, if I accept those proposals, can you guarantee that the profession will be behind you, that they will accept the Act?" They would have said, "No, certainly not, we cannot do anything of the kind." What would have happened? They would have reported it to the Council; the Council would have then reported it to the districts, the districts throughout the country would have been summoned, and every doctor would have come there and there would have been a debate in hundreds of districts; you would have had a full debate upon these proposals, and you would not have had any agreement amongst them; they would all have had conflicting suggestions; they would have met after that in a Representative Meeting; the Representative Meeting would have proposed something; they would have come to me again; they would have had to go back again; and the same process would have gone on. Meanwhile, I should have had to put the scheme before the gentlemen who represent the friendly societies and the trade unions, who at that time were the only organized bodies representing the insured class. What would have happened? I should have had a great debate going on in every town and village of the country about proposals that I have never submitted to the House of Commons at all. No Minister could inflict that indignity upon the House of Commons. The House of Commons would not have stood it. I should not have thought much of the House of Commons if it had. So that really to suggest that we could have come to an arrangement with the medical profession before submitting the bill in any shape to the House of Commons, is a perfectly grotesque proposition.

I therefore come to what happened. I did see representatives of the medical profession. I forget how many times before the bill was introduced. I gleaned from them, and from a very careful perusal of the reports of the BRITISH MEDICAL JOURNAL, which, I understand, is the official organ of the general practitioner, a general view of what the position of the profession was at that time. I saw representatives of the friendly societies and trade unions, and I tried to strike a sort of middle course which I thought on the whole fairly represented the justice of the case. I do not mind saying that the negotiations which have happened since, and discussions I have had, the facts that were brought before me have led me to modify my views in many respects, and when I was convinced on a subject I had no hesitation in saying so. I placed the matter before the Advisory Committee, and at the last meeting I got your general consent to the new proposal which the Government have submitted to the country.

Let me say another word. The greatest difficulties I have had with the negotiations has been due to the conflict of interests in the profession itself. It is a great mistake to imagine that what suits one general practitioner necessarily suits another. Even free choice of doctors does not suit them all. It suits some, but it is perfect poison to others, and I have even had my suspicion that some who have been opposing our terms for apparently other reasons were really moved to a very large extent by the fact that when free choice of doctor became part of the regulations under the Act, it would necessarily to a certain extent interfere with rather lucrative monopolies which they are enjoying at the present moment.

Then take another point, the separation of drugs and doctoring. This was pressed upon me by some of the ablest and most intelligent leaders amongst the doctors themselves. I was urged to do it in the interests of the insured class, and even in the interests of the profession it was pressed upon me, and I call your attention to this, that it has never been challenged by any representative body of medical men since then. Objection to it did not constitute one of the six cardinal points which are the basis of the pledge. I have received deputations. They have never demanded the restoration of the old position, and yet during the whole of the time I have not the faintest doubt from evidence which was brought to me that there were thousands of medical men who were moved much more by that than by anything which appeared in the six cardinal points of their pledge. That shows how very difficult it is to negotiate with those conditions, and it is only at the last moment—in fact, on December 21st—that for the first time the British Medical Association put forward a demand (and only then by implication) that the whole 8s. 6d. should be paid over to the medical profession. It is only by implication then, and of course the chemists were thrown over in a body. But mind you, this is after twenty months of negotiation—after I have met them innumerable times. They never put forward the demand until December 21st, within about three weeks of the time that medical benefit is coming into operation. How can you negotiate with them?

Let me say one other word about lay control. We have set up a special tribunal for the purpose of considering any questions affecting the fitness of a practitioner to remain on the panel. It is a tribunal consisting of two medical men with one lawyer. What better tribunal could you have than that—two medical men and one lawyer to keep them straight? That is the first time a tribunal of that kind has ever been set up for the consideration of complaints, either levelled against the medical profession, or by them where they are acting for a lay body. Town councils have no tribunals of that kind. I do not know that the Local Government Board have tribunals of that kind. But here we have set up a tribunal that they cannot possibly challenge as far as the profession is concerned, and that is the court of appeal which finally considers the matter and reports to the Insurance Commissioners.

I will now pass on to another point, and that is the very remarkable, the very startling, and the very inex-

plicable change which took place in the attitude of the profession at the very last moment towards the control of the approved societies. The first alternative constructive scheme ever set up by the British Medical Association was on December 21st last. Up to then we had general principles. We had criticisms, but no definite practical scheme showing how the profession thought they would like medical benefit administered. The very first was issued on December 21st. It has already been repudiated by large numbers of the medical profession throughout the country. It shows how much more easy it is to criticize than to set up a scheme of your own. It is very easy to pick holes, very easy to say this is wrong here and it is wrong there; it is very easy to lay down general principles, but every man who has ever had anything to do with framing an Act of Parliament and regulations, and putting any scheme through, knows how very difficult it is to set up any scheme which is free from some sort of criticisms—some of them good, some of them thoroughly bad, and most of them indifferent. The medical profession have discovered that for the first time. Their first constructive attempt was on December 21st, 1912, within three weeks of medical benefits coming into operation, and it was so bad that the moment it appeared in the press most of their own people ran away from it. And, of course, all their sauer leaders repudiated it on the spot, and I am very glad to find some of them here amongst us to-day.

Now let us see what their position was. As I introduced the bill into the House of Commons in May, 1911, the plan for the administration of medical benefit, as you recollect, was to allow the medical profession in every area to arrange their own terms within the cash limits and conditions of the bill with the approved societies. That was the plan. What happened? There was a wild vote against it in the medical profession. The tyranny of the friendly societies was depicted in language which has never even been applied to me, and that shows what a thoroughly bad opinion the medical profession had at that time. They met in their conferences, they passed resolutions, and as they said, this question of friendly society control was the key of the situation. Here is a special report of the meeting of the British Medical Association on May 31st, 1911: "The principle that medical practitioners should decline in any way to work for or under the friendly societies or some other bodies was emphatically affirmed, and the motions embodying and applying this principle were carried by acclamation, amidst scenes of great enthusiasm."

That was the opinion of May 31st, 1911. They came to me about it. The *Times* said: "Hardly less difficult is the demand that the administration of medical and maternity benefit should be removed from the friendly societies; but this is vital to the doctors, and public opinion will undoubtedly support them in it." That was their view then. I remember attending a Representative Meeting of the profession. That was in May, 1911, and the question was put to me in a very stern tone by the Chairman of that meeting on behalf of the delegates: "What I want to know here is this from the Chancellor of the Exchequer, if there is a proposal in the House of Commons for removing the control of medical benefit from the friendly societies to the Local Health Committees would he support it?" And he looked me straight in the eyes, and I said certainly I would. It was received with the most gratifying cheers. Then we had a discussion in the House of Commons. On behalf of the medical profession it was proposed that the profession should be liberated for ever from those shackles imposed upon them, and that they should be free men from that moment, and the House of Commons believed they were in earnest. They were sorry for them, trampled under foot as they were. Yes, and by an overwhelming majority of 390 to 17, struck off these chains from their legs. You could hear the clank of the falling irons. It resounded through the land. In order to show you how free from party bias this division was, I will just give you the numbers of those who voted for transferring the control of medical benefit from the approved societies to the Local Health Committees, now called Insurance Committees. There were 156 Liberals, 30 Labour, 33 Nationalists, but 171 Unionists. Of the 17 who supported the bill as it stood, the friends of tyranny and despotism, there were 8 Liberals, 5 Labour, 1 Nationalist, and 3 Unionists. Very well. That showed that the vote was completely free from any sort of party bias at all. There was no Government pressure, there were no Whips at all—none. There were 156 Liberals and 171 Unionists who voted for it. It was a vote of the House of Commons as a whole, a vote of the representatives of the people who acceded to the demand of the medical profession, and as you know it was accepted by the House of Lords as well.

There was one very remarkable speech delivered in the course of the Commons debate by a gentleman who represents a constituency which I think is very largely composed of doctors, and therefore I think he is entitled to say that he was speaking in a very special sense on behalf of the medical profession. He is a distinguished member of Parliament and a very able member of Parliament. I am referring to Sir Henry Craik, the member for the Glasgow and Aberdeen Universities. He put the case so well for the transfer, and the things which he said are such an answer to the present position adopted by certain representatives of the medical profession, that I make no apology for quoting that speech. This is what he said: "You must place them"—that means the administration of these benefits—"under some public body. The very fact that it is a public body secures permanency and a just tribunal in case of dispute, and I should also say secures a high standard of professional honour"—this is important—"and ousts from this important field of public beneficence any man who would lower the standard of that professional honour. It is only by a public body"—listen to this—"that you can maintain proper discipline, that you can impose a proper standard, and that you can insist upon publicity being given to every transaction in which the public is concerned," and then he goes on, and mark these words, because they are remarkable and interesting. "I am speaking in no narrow interests of the profession," he said, and I believe him. "I am speaking in the interests of the public health." There I believe him. "The doctors desire, and surely it is a fair, just and reasonable claim that they put forward, to be brought into immediate contact with the State, whose servants they are. They desire that there should be no intermediary in the shape of any private body, however trustworthy its efforts and its work may be, and however beneficial its actions may be. They desire, and rightly desire, as public servants, to be brought into immediate contact with a public and statutory body to which they can look for maintaining the standard that they think is necessary for the public health." Is not that a fair and complete exposition of the position which we have taken up? Is it not a complete refutation of the position which has been taken up, not by the profession, but by a certain number of leaders amongst them who have been repudiated during the last three weeks by their constituents throughout the country? I would, therefore, just point out what happened. After all their pressure to transfer the administration from the approved societies to the Local Health Committees, after persuading the House of Commons to do it, and the House of Commons acceding to their demand by an overwhelming majority, after negotiating for twenty months upon that basis, at the fag-end of a Saturday afternoon sitting, without consulting their constituents, in defiance of their own constitution, they trampled upon their cardinal points, and, with hardly any debate, reversed the whole of their policy. Without asking the Government in a single interview I ever had with them to do so, they abolished an Act of Parliament by a resolution of the British Medical Association; set aside King, Lords, and Commons, and voted six millions to themselves without control by anybody. I think I had better not tell you what I think about that. I do not want to use any language either to exasperate or irritate anybody. It stands by itself as a transaction. There has been nothing like it that I know in history. What has happened since? You must remember that only one-third of the profession voted for the rejection of our terms. I cannot discover that one-tenth of them ever voted for the alternative scheme; I cannot discover that it was submitted by them to their districts or that they ever discussed it; and one thing I know, that since then it has been rejected by large numbers of the profession of the country, even many of those who are standing out are not supporting the alternative scheme. Some of the

wisest, some of the ablest and most experienced men amongst their leaders, whose work and wisdom built up the British Medical Association until it had become one of the most powerful trades unions in Great Britain, had neither hand nor part in it. Many of them incidentally resigned their positions. This scheme is the work of men who, in the main, never added a brick to the edifice which has been shattered for the moment by their folly; and I am very glad to say that the profession, as a whole, have repudiated such an idea. It is making a fool of Parliament, first of all going to them in May, 1911, and saying, "We demand this; we entreat you to give this to us; we beg you to do it." Parliament listens, and in another eighteen months they turn round and say, "We will have nothing to do with it." You cannot treat the institutions of the country in that way.

You will forgive me if, even at this length, I have cleared the ground of these preliminary controversies, because it was quite necessary that it should be done, and now I will come to the actual present position. I can only tell you what the position was last night, because it is changing from day to day and from hour to hour, and the changes are all in one direction, I am glad to tell you. This morning there were adequate and sufficient panels set up for three-fourths of the insured population of this country. The whole of Scotland, except, I believe, Orkney and Shetland (and there there are special difficulties). The whole of Wales, with the possible exception of Radnor, which is the smallest county, and which also represents very substantial difficulties, because there are only 6,000 insured persons in that rather extensive area. As a matter of fact, the greater number of areas throughout England have already been covered by these panels, and we are expecting news in to-day in respect of the less satisfactory areas. Well now, what about the remaining one-fourth? This morning we have reckoned the number of doctors whose names have been returned to us as having been already on the panels. I think it was computed by the British Medical Association that you require 8,000 or 10,000 doctors to administer the Act for the whole country for England, Scotland and Wales. The last figures we have received, and they are by no means complete, show that they are now approaching 10,000. They were very well over 8,000, and since then we have had some other returns, and they are now nearly 10,000. That is the number of doctors whose names have already appeared on the panels of this country. Now I come to the one-fourth of England, Scotland, and Wales—Great Britain, where you cannot at the present moment declare that the panels are adequate. I divide this proportion into two separate areas.

You have got areas with panels that are incomplete, where you require a few more doctors in order to be able to declare a sufficient and a satisfactory panel, where you are just short of having a satisfactory panel. About one-eighth of the insured persons in Great Britain are included in such areas. Then you come to the remaining one-eighth, where we have no panels, or where the panels are not adequate at present. Now that is the position. The problem which I shall invite your attention to in the main to-day is the problem which is presented by Classes 2 and 3. As far as the first category is concerned, the category where you have got adequate and complete panels—and that refers to three-fourths of the insured population—there are no special difficulties to which I need call your attention to-day. With regard to the second, the incomplete panels, the difficulties have not been very great there. So you may say that at the present moment we are assured of seven-eighths of the insured population receiving adequate medical treatment on January 15th on the panel system. I must say a word about the places where you have got adequate panels, because this afternoon I have invited the chairmen and the clerks of the Insurance Committees throughout Great Britain to come here to discuss these problems with me. I must submit, first of all, to the Advisory Committee the line which I propose taking with them, so that if you have any criticisms to offer with regard to them, this is the opportunity. At the same time, if you will allow me to say so, I hope, as the time is limited and I have got this meeting this afternoon, if you have got to choose between two speeches, you will deliver the speeches which have reference to Classes 2 and 3 rather than the areas where you have got a panel at the present moment. That will assist me a good deal. However, I must submit to you the kind of line which I propose to take this afternoon. With regard to that, all I have got to say is this: The fact that the medical profession have, as regards three-fourths of the insured persons, come on to panels, does not, in my mind, conclude the questions which present difficulty to their minds. Their coming on may be in many districts an experiment; they are going to see how it works; they will have their difficulties in their minds now; I believe, in actual practice, they will find those difficulties will vanish. There is always an assumption, when you are dealing with people at first, that they are going to take an undue advantage in a contract of every regulation and condition which favours them. In actual practice that never takes place. People once they come together are much more anxious to work together and to co-operate than they are to secure their rights according to the letter of a contract. The best partnership is always the one where the partners never insist on the articles of association. Where one partner after another is always referring to Article 5 and Article 15, it is a partnership which it is far better should be dissolved. I believe you will find the same thing with the partnership between the Insurance Committees and the medical profession. Once they come together it is to the interest of both to work without friction. The medical profession have not the time to waste upon quarrels with committees. They are not interested in that. When they are roused I agree there is no profession in the world that could raise as many difficulties, and they do it well. But I think after all they are much more interested, like every other professional man, in their own professional work, and in getting on with that without interference, than they are in merely quarelling with clerks and chairmen and committees or approved societies. Now, on the other hand, the interest of the Insurance Committees is also to get on without friction. Their success depends upon the way in which medical benefit works, and, after all, it would work better if it were worked with the cordial co-operation of the profession. Therefore, the Insurance Committee that is always insisting on irritating conditions, and that is rigorously applying every little regulation is not the best Insurance Committee in the interests of the insured class.

The next thing is this: If the medical profession find as a result of their experiments that there is a nail that somehow has got through the shoe which is beginning to chafe and irritate, and that they cannot walk very well until it is attended to, let them send it up here for repairs at once. They may depend upon it that if they have any grievance, any complaint, if they find something which is chafing and makes it difficult for them to work freely and clearly in the interests of their patients, they will get a fair and considered hearing, and an examination of every point which they bring to our notice. I will guarantee that on my honour, and on the honour of the Commissioners and the Government. We will not take advantage of the fact that they have come in on the panel, and that they therefore must adhere to the rigid terms of their contract. It is our interest that the medical profession shall work with a whole heart, and they cannot do that unless they feel they are fairly treated. Well, now, the same thing applies to the regulations. I cannot promise more cash; I think the Government have been very generous. But when you come to the regulations—after all, this is a new experiment; this is a great experiment, but it is a new one, and I recognize the provisional character of regulations which deal with a new experiment. We shall gather experience in the course of the next twelve months. I shall be surprised if that experience does not teach us something in the way of improving, of broadening, of strengthening, and modifying the regulations. We shall be looking out for anything that is causing friction, and it will be our watchful interest and care to see that it is removed at the first possible moment. This applies to the regulations as well as to all the other terms of the contract except cash. I do not want to mislead the profession there. I cannot see my way, speaking as Chancellor of the Exchequer, to increase the burden on the taxpayer with regard to cash.

Now I come to the districts where the panels are incomplete. We have carefully considered our plans, and

we must appeal for the support and the co-operation of the approved societies especially. May I take this opportunity of specially thanking the friendly societies for the very loyal way they have behaved in spite of the very special temptations that were presented to them by the resolution a few weeks ago. They have made it perfectly clear from the start that they would have preferred to have the administration of the medical benefit in the hands of the friendly societies. They fought for it. It is no fault of theirs that it was altered. It was altered at the wish of the medical profession, but having been incorporated in the Act of Parliament they have accepted it. They fought valiantly against it, but they accepted it with equal valour. I must thank them for the way in which they have stood by the Act as a whole, realizing that if a certain number of societies were to break away in response to this rather insidious appeal it might have the effect of breaking down the machinery of the Act altogether. They have realized that with an intelligence which I should have expected from my previous experience of the way in which they have helped us in this matter, and I thank them on behalf of the Government for doing so.

We must in these areas where the panels are incomplete or where there are no panels, fall back on what is known as "other arrangements." I think I ought to explain here—and if my explanation is not complete my friend the Attorney-General will correct me on the spot, because here I have got to expound the law and I apologize for having to do so in his presence. It has been assumed by a certain number of medical men—not by the whole—that the insured person has got an absolute indefeasible right to make arrangements apart from the Local Insurance Committees or the Insurance Commissioners with any doctor he likes, whether he is on or off the panel. We had to issue a notice the other day to say that this was a completely erroneous idea. That right depends entirely upon the Insurance Committees, and they are subject to the regulations of the Commissioners. No insured person is allowed to make any bargain outside the panel unless it is allowed by the Local Insurance Committee. Let that be perfectly clear. What was the idea of these special arrangements? The idea of these special arrangements was to enable the Insurance Committee in a district where, for instance, you had an old works club, to make an arrangement in a case of that kind. It was also intended to cover a case of this sort: Supposing you had a medical man in a district who did not care to go on the panel, either because his practice did not quite lie in that direction or because he had a rooted prejudice to contract practice, but at the same time there was a workman who had great confidence in him, the doctor had been attending him and his family with great care and skill for years, and had pulled him through many troubles, and the workman said, "Well, I would rather stick to my own doctor, and I would rather stick to him even if I had got to pay myself."

It was felt that there ought to be a power given to allow the insured person to make special arrangements wherever you had a case which came within that description. But, mind you, these were intended for special cases. They were intended to be exceptional cases, and it never entered anybody's head that you should allow the provision which was made to cover a special case to be used as a weapon to break down the whole machinery of the Act, and we will not allow it.

It is not fair. When it was put to us by the British Medical Association, it was specifically put to us as merely an expedient to cover exceptional cases; and it is almost a breach of faith to attempt to use it for the purpose of destroying the whole machinery of the Act. Is that quite clear? If not you can cross-examine the Attorney-General.

DISCUSSION.

Persons Making Their Own Arrangements.

Dr. MACLEAN: May I make this further point clear, Sir? I understand you to say that this power of contracting out on the part of the insured person is subject to the approval of the Insurance Committee. Is that approval of the Insurance Committee subject further to the approval of the Commissioners?

Mr. DUNCAN: May I also ask a question? I remember very well in the earlier conversations we had on the bill, that it was not only the two cases you mentioned just now, but there were others where a person might be entitled or allowed to make his own arrangements; this is to say a person should not be compelled to take a practitioner from a particular school of medicine. I understand your point now is that for the purpose of bringing the Act into force there should not be a wholesale contracting out, but I hope the individual will be considered later on.

The CHANCELLOR: Mr. Duncan raised this point before, and he is perfectly right. There are men who prefer a certain special class of medical practitioner, and I remember Mr. Duncan putting the case to us whether contracting out would be allowed in cases of that kind; but, as he remembers, we made it clear as well that we could not allow wholesale contracting out, but that in order to meet exceptional cases of the kind he mentions it was intended to insert these provisions. Now to answer the very important point put to me by Dr. Maclean. You cannot contract out at all unless you are allowed to do so by the Insurance Committee; and the Insurance Committee is only allowed to do so subject to the regulations of the Insurance Commissioners as to payment; and as payment is entirely in the hands of the Insurance Commissioners, that is a very vital matter. Moreover, you may depend upon it that although we should raise no objection as to the 8s. 6d. to meet exceptional cases such as those mentioned by Mr. Duncan, we shall certainly not ask the House of Commons to vote £1,600,000 to enable any section to break down completely the machinery of an Act which we ourselves carried through the House of Commons.

Power to Close the Panel.

Now, there are three alternative methods of dealing with these cases, and I want your special attention to them. The first case I will deal with is the case where you have a panel which is all but complete—that is to say, where you have a certain number of doctors but not enough to enable you to declare that there is an adequate panel. The Insurance Commissioners can close the panel. The Insurance Committee could then go to the doctors on the panel and say to them, Will you undertake to engage a sufficient number of assistants or take a sufficient number of partners so that the incomplete panel may become a complete one? The panel will then be closed in that area for a limited period so as to enable them to establish their practice amongst the insured class, because you could not expect medical men to go to the expense of engaging assistants, nor could you expect men to go as assistants or as partners into an area unless there were some special opportunities offered to them. Therefore we should say to them, "We will close the panel in that area for a period, during which no other doctor could come in."

We have already thought of this, and in certain specific areas we are in a position to put it into operation at once. The doctors are quite willing to engage assistants if they can get the monopoly of the practice amongst the insured class for a period sufficient to enable them to establish themselves there and to make the insured class acquainted with the new men who come there to assist these doctors. We shall insist, not merely upon qualified men, but thoroughly qualified men. A good deal has been said about our depending upon indifferent practitioners in certain areas. It is absolutely untrue, and it is a very scandalous thing that this attack upon the men who have put their names upon the panels in certain areas should come from the quarters it does come from. We have made special inquiries in certain areas—I am not referring to areas where practically all the doctors have come in, but I am referring to areas where the panel is incomplete—and the men who have come on are very fair examples of the general practitioners in the neighbourhood. I do not want to say they are better, because that, on the other hand, would be an imputation upon the men who are outside, and I do not wish to cast that imputation, but they are quite equal to the names of those who are not on the panel. While I am on that subject I should like to say this. When the Bradford Committee advertised the other day for a whole-time service, or rather for a salaried service, they received three or four times as many applications as there were posts. Not only have they examined the qualifications of the men whose names were sent in; we have examined them; and I venture to say that we

could set up in Bradford one of the very best services that any country in the world has got. They were exceptionally well-qualified men. And we have a surplus for elsewhere. That is the first method. Is that clear to everybody?

A REPRESENTATIVE: Did I understand you to say that the Local Insurance Committee has power to close the panel, or is it subject to the approval of the Commissioners?

The CHANCELLOR: The Commissioners close the panels in consultation, of course, with the Insurance Committee; and that consultation is going to take place to-morrow.

Mr. SEYMOUR WILLIAMS: May I ask another question? Do assistants go on the panel, or only the principal?

The CHANCELLOR: For the time being the panel in the case we are considering is abolished; we have closed it; and this is a special arrangement; it is a special contract entered into with the doctors whose names are given in: it is not a panel system any longer; it has ceased to be a panel; and therefore the Insurance Committee will enter into a special contract with these doctors; that is what will happen in that case. Now I come to the second method. There are a certain number of doctors who have written to us to express their willingness to start practice in an area where we have not a sufficient number of doctors on the panel. I will tell you now the second alternative which I am going to suggest to the Insurance Committees this afternoon—this also involves closing the panel—that you should send a sufficient number of men to that district to make up the necessary complement for attending the insured population out of these men who are prepared to start practice in any area where their services are required. They will start practice on their own. There will not necessarily be assistants, there will not necessarily be partners. Supposing, for instance, you wanted twenty doctors in an area and you had only ten—I am taking any figure at random—we should then say to ten other doctors: "If you ten gentlemen will go there and start practice there, we will close the panel at twenty," and they will have the whole of the practice of the insured population for the period during which the panel will be closed.

A REPRESENTATIVE: Will the Commissioners send these men?

The CHANCELLOR: We must arrange that with the Local Insurance Committees; we are proposing to act through these Committees; we do not propose to override the Local Insurance Committees. These are proposals that we shall put before them; we shall be in constant consultation with them; we shall be working through them.

A REPRESENTATIVE: Might the panel be closed indefinitely?

The CHANCELLOR: We have power to close it; but we have power to unlock it later on if necessary, and if expedient.

Dr. NORMAN WALKER: You have said that you will close the panel, but you have omitted to say for how long a period.

The CHANCELLOR: I think you must allow that to depend on the bargain we make with the men who place their services at our disposal. That is a matter for arrangement between us and the gentlemen we get. We must get the best class of men. That is what we have made up our minds about. Whether it is one year, two years, or three years, depends upon the conditions which are likely to bring the best men to that area.

Mr. WARREN: You have just given us an illustration of what you propose to do in an area where you require twenty doctors and have only ten—you would bring ten from other parts of the country into that particular area. What about the local prejudice that exists in many parts of the country on the part of insured persons; if they refuse to accept that, what is to happen?

The CHANCELLOR: That is a question of debate later on. We shall certainly not do it without the consent of the Local Insurance Committees. My own opinion is that the only prejudice the workman has got is the prejudice he shares with every class of the community, and that is that he should get a good doctor. If he gets a good doctor, I do not think he cares whether it is Dr. Smith or Dr. Brown.

SALARIED SERVICE.

Then I come to the third and last alternative—that is, a salaried service. This was the recommendation which the Advisory Committee made at a very remarkable discussion we had about three or four months ago at the Caxton Hall meeting. There is a little misconception about this. It is not a State service. It will be a service under the Local Insurance Committee. It is not a whole-time service. You must allow private practice amongst the insured class. For instance, if the salaried officer is attending the head of the family, and giving satisfaction, I think, on the whole, the head of the family would like to have the same man attending his family. There might be difficulties. I do not say that any other doctor would refuse to attend the rest of the family; still it would be awkward to have the salaried man attending one member of the family, and the others being attended by somebody else. Therefore we propose that you should simply pay the salary for the attendance which is given to the insured persons, and that the doctor who is engaged should be free to attend any other member of the family, but not outside, and I think this is rather important—except other members of the same society. For instance, there will be members of friendly and other societies, who are not insured persons, and I think it would be absolutely essential that you should allow the salaried person upon terms which he can arrange to attend those persons. It is so important that we should get the attendance of these gentlemen for the insured persons and their relatives, and although I do not say they would neglect them, because they would get their salaries anyway—I am sure they would not—still I do not want them to be tempted by half-guineas and guineas from the work on which they are engaged. Therefore we propose as a condition of the salary that they should take no private practice outside what I call the insured class, and I am including there the members of approved societies.

I will show you what this means. We thought that we should have had an opportunity of setting up a service of this kind at Bradford. Bradford was very anxious for it. There was a real demand from the working classes for it. The doctors were very obdurate, and we worked up our plan. Now the doctors came in in time; so that there is no salaried service at Bradford. But I will just show you how it would have worked out within the money available. It is worth working this out. You have 100,000 insured persons in Bradford. That is our estimate. You have 7s. or 7s. 6d., as the case may be. That depends upon the debatable 6d. for drugs. That is 7s. or 7s. 6d. for each insured person. If you make it 7s., that is £35,000. If you make it 7s. 6d., that is £37,500. We proposed to engage fifty doctors at £500 a year. They were to attend to the insured persons for that salary: they were to be allowed to charge any member of the insured person's family whom they had attended in the course of their private practice on a scale to be agreed upon between the Committee and these doctors. They were not to be allowed to charge anything they liked. They were to be allowed to charge on a scale which was an agreed scale, and they were not to be allowed to attend anybody outside the insured class. Then we thought it would be necessary to have a certain number of consultants and specialist surgeons, so that it was proposed the service should include three specialist surgeons, one of them being an oculist, and that at the head of the service there should be a consulting physician, a superintendent at a salary of £1,200 a year. The specialist surgeons were to receive £1,000 a year. How much of the money have I spent now?

A REPRESENTATIVE: £29,200.

NURSING SERVICE.

The CHANCELLOR: I will tell you what it was proposed to do with the remaining £8,000. We proposed to get other assistance for the doctors. We proposed that the service should include a staff of skilled nurses. All of us who have been patients know what valuable help a nurse can give a doctor, and there is no doubt that the nursing staff would enormously increase the value of the service. I do not suggest, of course, that a nurse should be a substitute for the doctor, but to assist; and every one who

knows anything about this matter knows what invaluable assistance they can render. A nurse has a definite sphere of work, which is well recognized by both the medical and nursing professions, and within that sphere lies a field of useful service which is of inestimable value to the community. We proposed that there should be fifty nurses.

You would find that still there would be something to spare, especially on the 7s. 6d. basis, for the provision of aids to exact diagnosis which pathology and bacteriology have placed at the disposal of modern medical science. If you could not supply fifty, you would have to supply fewer and give them better salaries; but, at any rate, you have not a single nurse now in the panel service, and you would be able to supply, at any rate, thirty or forty nurses. That is what we could have done; fifty salaried doctors at £500 a year without any deduction for drugs, with an additional income to be derived from private practice amongst the insured class.

A REPRESENTATIVE: Without any bad debts.

The CHANCELLOR: No bad debts; no payment or collections as you have in Lancashire; no quarrels with your patients, and county court actions and judgement summonses; no worries about keeping accounts, and from what I know of both doctors and solicitors, they loathe that.

Mr. WARREN: Nor dispensing.

The CHANCELLOR: The dispensing will be entirely in the hands of the chemists. They will have no worries about that. They will be assisted by thirty or forty nurses, even if we could not afford fifty. You would have a staff which would include specialist surgeons, consultants, and bacteriological examination, and of special diagnosis in certain cases.

A REPRESENTATIVE: A couple of dentists.

The CHANCELLOR: That is an additional medical benefit. You could not do that until at the end of three years when you have your report upon the financial position. That is what we could have done at Bradford, and what we can do for other towns, and I do not mind saying I should like to see the experiment tried somewhere. Had it not been that we had promised the doctors that we would try the panel system, and give them every opportunity of working on that system, I should have tried it already. But however anxious I was to see this experiment tried, I thought it was imperative that we should keep absolute faith with those members of the medical profession who had kept faith with us. The 31st has passed, and our hands are now free. That salaried service, I think, in many cases would be better for a patient; I do not say in every case. For the approved societies it would be infinitely better from a financial point of view, because you would have a perfect check on malingering in those cases, for after all there is one weakness in the panel system, that if you allow a man to change his doctor it is very difficult for a doctor to be exceedingly stern in the matter of certificates. I think every doctor will admit that it is very difficult when a patient comes and practically pleads for a certificate in order to get an extra week or fortnight—well, the doctor takes an indulgent view of the matter. I do not say he will do anything unfair or dishonest—I am perfectly certain they are incapable of it—but they will err on the side of not quarrelling with their own patients, and that is very natural after all. But when you have a salaried service, the man is absolutely independent of the patient in that case. He is bound to do his best for him, because he has the Local Insurance Committee to look after him. Therefore, undoubtedly from the point of view of the finance of the societies, it would be an enormous advantage to them. Then there is no doubt, from the general point of view of public health, something can be said for it. You would get these doctors co-operating with other public medical services, and eventually we would be able to develop new methods and strengthen old methods for the purpose of not merely curing disease, but, what is still more important, preventing it.

IMMEDIATE CLOSURE OF PANELS.

I now come to what I shall have to put finally before the gentlemen who are good enough to be coming here this afternoon. We shall consult with the Insurance Committees, chairmen, and clerks in a body this afternoon. We shall consult with them individually and personally to-morrow, area by area, and where we are convinced on their report—and we mean to carry them along with us—that the doctors are obdurate in their areas, and have no intention of coming in on the terms which have been offered to them, and coming in in time, and especially where they are engaged in a conspiracy to break down the Act, we shall close the panels forthwith.

Mr. WARREN: You are speaking of 3, where there are no panels at all.

The CHANCELLOR: No, 2 and 3, where the panels are incomplete, and where there are no panels. That refers to what, last night at any rate, was one-fourth. It is probably considerably less now. The Government will do so with the deepest regret. We shall only do it when driven by the action of the doctors in that area. The responsibility must be entirely theirs, as no doubt the loss will be theirs; but they must not lay that loss at our doors. We are pledged to find medical benefit for 12 to 13 millions of the insured population of this country. We shall exhaust every resource at the disposal of the Government to redeem that pledge. We shall be genuinely sorry for the loss, it may be the ruinous loss, inflicted on individuals; but they must place that loss at the doors of the people who are responsible for it.

They must put the blame on the right shoulders, the shoulders of those who, from whatever motives, have misled hundreds and thousands of hard-working, industrious professional men. I have done my best to avert it, and if I fail the fault is not mine, nor that of the Insurance Commissioners. The Government have received a mandate from the House of Commons. As far as medical benefit was concerned, it was passed through the House of Commons as a whole, without distinction of party, that medical benefit should be given, and that it should be administered by the Insurance Committees. That mandate we are bound here, as officials, to carry out, and we mean to carry it out in the letter and the spirit.

A REPRESENTATIVE: You did not make it quite clear, Sir, when you said where there was no panel, that when you closed it you would supply the necessary staff to carry on the work. I think that is what you meant, but I did not take it as definite that you would supply a sufficient staff in that area where there was no panel.

The CHANCELLOR: In consultation with the Local Committees. It depends, of course, upon the Committees and the representatives of the approved societies on those Committees. It depends on them. The moment they tell us that they cannot prepare a panel and that they wish us to make the arrangements we shall certainly then close the panel and assist them to make the necessary arrangements. But it depends on them and the reports they give us to day and to-morrow.

Mr. DAVIES: I understand that the panels have not been made up, and the Commissioners have agreed to act on the proposal of the Chancellor to-day. That is what I understand by what the Chancellor has said.

The CHANCELLOR: That is so.

VIEWS OF THE FRIENDLY SOCIETIES.

Mr. WARREN: Might I say that we, as representing the friendly society portion of the approved societies, have listened with the very greatest possible attention to what you have had to say to us this morning, and we are delighted beyond measure that you have abandoned the idea, if ever you had it, of setting up a State medical service, because, whether rightly or wrongly, we who have had to do with the friendly society movement have never regarded that with any degree of favour whatever. We have always been opposed to what we should have regarded as a glorified system of parish doctor. But you have abandoned that to the extent that you only intend to find a substitute where panels do not exist in the form of a salaried service, and that removes any objection we could have had. We are delighted to find that that is in your mind, because we think it will go a long way towards settling the question, and it will afford us an opportunity we have been desiring and have been unable to accomplish, namely, to make adequate arrangements in respect of the very large number of our members who will not come under the Act, and therefore, whatever criticism we might have had to offer with regard to a State service has been removed, and I think that I may say, speaking for the friendly societies' representatives, that we shall accept

the idea of a salaried service with the greatest possible pleasure, throwing ourselves, as we have always done, upon a merciful medical profession to help us to make the necessary arrangements for the very large number of men who will not be under the Act because of infirmity and age limit. That you can perceive is a responsibility resting upon us, and it is up to the friendly societies to see that by the 15th of January we are in a position to give all those of our members the benefit we have contracted to give them, and which we thought we could not accomplish because we have received endless resignations all over the country. But in the service you have outlined we were glad that you mentioned that the salaried medical man would not only attend the insured person, but it would be up to him to make arrangements with us in respect of this large body of men, and women too, for whom we have the deepest consideration, and with whom we are desirous as honourable men to keep our contract by the time the medical benefit is due. Therefore I have no other word to say, Sir, than that of the highest possible approval of the system you have outlined to us.

A Representative: I hope you are not going to take it for granted from the remarks of the last speaker that the representatives of the working classes as a whole are opposed to a State medical service. I want to disabuse your mind of that entirely. I can tell you it is in the opposite direction, and some of us are looking for the time when we are going to have a State medical service as it ought to be.

Salaries of Nurses.

Miss Hughes: May I say one word, as the question of nurses has been introduced? and that is, it is most encouraging to know that this is the first Act of Parliament in which district nursing has been alluded to, and we have heard to-day that they are to be included amongst the benefits for insured persons and the members of their families.

The Chancellor: I do not want any misconception—that applies only where a salaried service is set up.

Miss Hughes: Yes, I quite gathered that, and it was a mistake in my words. What I want to plead for is that these nurses should have adequate remuneration. It is not fully realized that they are required to have three or four years' training, and this takes up a great part of a woman's life. Then she does not begin her career till 27 or 28 as a rule, and we are supposed to be too old at 40. May I therefore beg, owing to the increased rate of living, that any salaried service should not be less than £120 for the services of a fully qualified nurse. She has often to support her relations and lay by for old age. I therefore venture to plead this for the nurses who are ready and willing to assist in this great work.

Public Salaried Service.

Mr. Turner (General Union of Weavers and Textile Workers): I want to express my regret that the Bradford doctors have come in. That was a proper place for the experiment to be tried of a public service. A public service is what is required. The chief feature about everything should be the benefit to the insured person—to try and get a person who is ill well again as sharply as possible, and to try and prevent a person who is well from being ill at any time, and therefore it would be a sound business proposition had there been a chance for Bradford to try this on at the present time. You have shown it fully from the financial point of view, but it would pay ten thousand times more from a health point of view. You would have the doctor at the disposal of the family, and you would save the infantile death-rate being so high, and of course it would make the figures of the birth-rate look better. It would mean this—proper immediate attention to every person in an insured person's family. That is the feature, to get people well and keep them well. I am therefore sorry to see that Bradford have had the wisdom of coming into the system. The public service must come some time, and I hope you are firm, Mr. Chancellor, at this juncture, that where the doctors are still holding out for politics or something else, for one reason or another, you will put down a public service as sharp as you can. You have been patient too long. You have offered too much money. You have been kind to generosity, and even more than that. I want to say you have the full support of the working classes both in friendly societies and trade unions when you start a service of that sort for the poor people.

Mr. Twomey (Swansea): Dealing with the three suggestions of yourself, Mr. Chairman, as to the method of providing medical attendance where panels are not complete, the first method you suggest is to make an offer or suggestion to the doctors who are on the panel that they may take in partners or sufficient assistants when the panel will be closed. On that my mind is made up: it would create a monopoly that would not be good for the insured person. The second method, suggested by yourself again, is to send men into the area to complete a panel. I hope you will try and avoid having to do that, Mr. Chancellor. The last suggestion is by far the best, and that is a salaried service, where we hope there will be sufficient doctors procured to work the Act in those districts where doctors cannot be now obtained. In that respect may I back up the appeal of our lady friend here, that the nurses, who worked very hard at a very small salary, should receive at least £120 a year. There is not a nurse a member of my family, but I have acted on the committee of a nursing institution, and I have found that the work put in by these ladies is such that they deserve recognition. I fancy I voice the opinion of the large majority of the members present when I say that the third method suggested by yourself is the one that should be carried into effect if possible.

A Representative: I should like to ask a question with regard to the salaried service and the separation of drugs. You make it perfectly clear, Sir, that the drugs were absolutely distinct from the doctors?

The Chancellor: Yes.

The Representative: May I ask if in areas where you introduce a salaried medical officer—in rural areas where I think you have introduced the mile limit—whether the mile limit will hold good?

The Chancellor: You mean in a salaried service?

The Representative: Yes. I take it that the mile limit no longer holds good because the salaried medical officer is a whole-time officer apart from that.

Industrial and Collecting Societies.

Mr. Smith (for the industrial and collecting friendly approved societies): On behalf of the section of approved societies not represented by my friend, I desire to say that the proposals you have made this morning receive our very hearty support. We all recognize your exceeding patience in dealing with this matter, and I am sure that your explanation this morning will clear away a great deal of misunderstanding. I think you may take it that we heartily endorse the position taken up by yourself at this critical juncture. You have asked us to express our opinion on the three alternatives for dealing with the two-eighths. It appears to me there can be no valid objection to the first suggestion. I hear one or two of my friends argue that one of the three should be adopted, but I think we should agree that the Commissioners should bear in mind the whole of the three. I am extremely anxious that each of these experiments should have an opportunity of being tried. I am delighted to know that the friendly societies are in complete unison with the Commissioners and ourselves on the subject. We are all thrown together with a great deal of enthusiasm to make the Act work well. After all what we want is efficiency and the public health. I hope the Commissioners will try a salaried service somewhere. Being on the London County Council, and looking at the public service, and also taking a great interest in municipal work in London, I am perfectly sure there will be startling results if one or two experiments are tried in suitable places from the point of view of a salaried service. I confess that of the three alternatives I should give priority to the first, the incomplete panel. Then the third, the public salaried service, I should place second. Then lastly comes the starting of practices. I think that is the order in which the great bulk of those who are present put your suggestions. The information you have given to us is for the assistance of the Committee and we heartily and enthusiastically endorse the proposals you have made.

Mr. Appleton: Sir, may I join with the others in saying how pleased we are to have heard such a statement as you

have made this morning? As far as I myself and my friends are concerned, we want to emulate the conciliatory and kindly spirit that has animated you this morning, and that has really been at the back of all your dealings both with the medical profession and with ourselves. We have not agreed with you all the time, but that has not made any difference to your courtesy. We are disappointed at the fact that the doctors have changed their minds. We did hope for a public service. What we are pleased to know is that your patience is pretty well exhausted, and you have made up your mind there shall be no further delay. After all you have considered the doctors for six months, and we are glad to know you are going to consider those people who are going to administer the Act. Any further delay means serious expense. Within the next seven days we have got to get a mass of detail concerning administration, and we have got to assimilate it and understand it, and any further delay means very serious consequences to us. Most of these men are doing this without any payment at all. We do hope there will be no further delay in this direction. It means also increased cost. We shall clearly support everywhere any attempt to introduce a salaried service. Last time I spoke here my authority was challenged, but since then I have consulted the trade unions. I have secured the formal vote of my own committee, representing 900,000 trades unionists and 130,000 to 140,000 members of approved societies. That committee has taken the opinion of a conference at Manchester, and that opinion was practically unanimous that the salaried service would be the cheapest, the most efficient, and the best so far as the national health of this country was concerned,

A REPRESENTATIVE: Just a word, Sir, in the way of a question. At the present time I understand that where panels have been formed the Insurance Committees of various areas would have no right to introduce a salaried system. Am I right or am I wrong about that? What I wanted to suggest was this, Sir, that power be given to Insurance Committees to introduce a system of salaried service wherever they deemed it necessary. The reason I suggest that is this: in the friendly societies at the present moment there are thousands upon thousands of members who will not be insured members. Besides, if the doctors on the panels are allowed to go on, the families of the insured persons will not be attended to. Neither can we introduce a scale of payment for attending to the members themselves. Therefore I would suggest that whenever the Insurance Committees can introduce such a system they should be empowered to do so although the panels have not been formed at the present moment.

A REPRESENTATIVE: In the instance you gave of a district where there were twenty doctors required and there were only ten on the panel you said the panel would be closed and a conference would be held between the Insurance Committee and the doctors, but the point I would like to have made clear is this, Would it be possible for the Insurance Committee to have partly a panel and partly a salaried service? If the Commissioners could see their way to allow a thing like that it would be a very great service to insured persons.

EXTENSION OF TIME.

Mr. GORDON: I represent the National Federation of Merchant Tailors and also the Salford Insurance Committee. I should like to ask a question. You are meeting the chairmen and clerks of the Insurance Committees to-day and to-morrow. Will their decision be final with regard to the filling up of the panel? To-day's meeting has been looked forward to with anxiety by a considerable body of medical men throughout the country, and in the present *impasse* I hope there will be an extension of time, so that an opportunity may be afforded these men even at the eleventh hour to come in.

The CHANCELLOR: What do you suggest by way of an extension of time?

Mr. GORDON: Ere you decide to close the panel you should consult the Local Insurance Committees, and allow them the opportunity of sending up either a complete or incomplete panel.

The CHANCELLOR: Will the Insurance Committee take the responsibility as from January 15th if there are no doctors? There is no medical service until January 15th. Supposing on the 15th, after they have asked us to extend the time, there are no doctors, will they accept the responsibility for the insured class?

Mr. GORDON: It could be done this week. We could meet to-morrow night. My reason for asking is this: We had a meeting with the Local Medical Committee representing the medical gentlemen in the town on the eve of December 31st, and they are awaiting our decision. I want us to carry public feeling with us, and if possible to get the whole-hearted consent of the medical profession.

Mr. WHITLEY THOMSON: I personally am not only an employer, but I represent a great many employers connected with chambers of commerce. I should like to say how much we welcome the proposals you have made to-day so as to provide on the 15th of the month the medical benefits which have been so long promised. Many of us have in connexion with our works private benefit societies, and it has been a source of some anxiety to know whether, where the panels were not complete, or where there were no panels at all, medical benefits would be provided. You have now shown a way whereby this *impasse* will be got over. Speaking for myself, my own personal opinion would be that of the different methods you have shown a salaried medical service would commend itself most to those who are employers. Living as I do in Bradford, I had something to do with the proposals which emanated from Bradford, and perhaps in that case I am somewhat wedded to that scheme. I should very much urge upon you to lean, if possible, to a salaried medical service where it is necessary. On behalf of the employers I represent, I must thank you for the scheme you have so considerately and so well put before us.

Dr. MACLEAN: Sir, I want to make one or two remarks as to the time and spirit in which these alternative arrangements may be carried out. We, every one of us here to-day, must have been deeply impressed by the extent and character of the report which you have been able to put before us. The impression will not be confined to this meeting; it will create a very deep impression upon the country as a whole, and especially upon the doctors of the country. But, Sir, may I put it to this meeting through you that I venture to think that the report which you have made to us to-day, and I say it on behalf of the medical profession, proves that, notwithstanding rash and contrary advice, the heart of my profession is true to the country? Therefore I will especially advise those who are concerned not to be precipitate, not to be unduly harsh, in respect of setting up the alternative arrangements. My one further word is this, that the Government, the Commissioners, the Insurance Committees are strong enough not only to be just but to be generous.

Dr. BUIST: Sir, I should like to emphasize what Dr. Maclean has said. One has to remember that it is only ten days ago since 27,000 doctors throughout the country deemed themselves morally, and perhaps some thought legally, bound to the policy of the British Medical Association, and it has certainly required a flash of light from your alternative policy to show them where they were drifting. If that had not come I fear your report would not have been so favourable as it is to-day; and I am perfectly certain that the change which has taken place during the last week will continue if a certain amount of time is given for it; and the smooth working of things does to a certain extent depend upon the work being undertaken by the medical profession. I had the pleasure at a conference with the Local Insurance Committee of being able to say with the absolute unanimous support of the medical profession that we undertake as a debt of honour those duties to which Mr. Warren has referred; and I am sure if we can go along peacefully that will be recognized as a debt of honour by the whole profession.

Mr. BAGLEY: We as employers would be much more satisfied if this matter could be settled without so much friction. We want the medical profession to come into this insurance work with a free heart to work well so that we can get the best of their knowledge and service. We think every effort should be made in order to bring them in, and I believe if you use all your ingenuity—and that, I think, is limitless—it could be done. I do not know what will be your next move, but I say that in the best interests of public health we want the best of the

doctors' services, and as employers, those of us who are paying and contributing for the sinews of war, we want the thing settled so that the best of the Act can be administered to the people at large. I represent the glass bottle industry throughout Great Britain and Ireland, and also the workmen in connexion therewith, so that I am speaking in a form which I think will go a long way.

Mr. Seymour Williams: Is there any possible hope yet that, notwithstanding the lateness of the hour, an arrangement may officially be come to with the British Medical Association. I am not suggesting in the way of any serious concession on either side, but it certainly would be an advantage if the thing could be started in peace instead of war.

Reply by the Chancellor of the Exchequer.

The Chancellor: Ladies and gentlemen, if you will allow me I will now conclude the debate because we have to meet the Insurance chairmen and clerks later on in the course of the day.

I think I had better deal first of all with the observations made by the last three or four speakers. I think every one feels that the debate would have been very incomplete without the impressive speeches delivered on behalf of the medical profession by Drs. Maclean and Buist. We are very glad to have their assistance once more in fashioning our policy for this great Act. They have made an appeal on behalf of their profession and I should be very glad to be able to respond to it as far as it is practicable. Dr. Maclean has said that the very remarkable figures which I was in a position to give to the Committee in the course of my observations showing the number of medical men who have responded to the appeal shows that the heart of the profession is true to the country. I agree there. In spite of all appearances to the contrary, in spite of even certain menacing indications, when the time approaches for the profession to decide between taking its share in carrying out the law of the land, taking its part in carrying out what after all is a great experiment affecting the health of millions of people, the profession has been true to its better and nobler instincts. I gladly recognize that. The fact that we are in a position to announce to-day that very nearly 10,000 of the general practitioners of this country have volunteered, in spite of every difficulty that has presented itself to their minds, to take their share in this great work is in itself a remarkable tribute to the real patriotism of the profession of which Dr. Maclean and Dr. Buist are such distinguished ornaments. I gladly recognize that. But when an appeal for more indulgence, which means more delay, is made, I have seriously to consider after all the insured class. I have not been impatient. Dr. Maclean, I think, will be the first to recognize that. In spite of a good many temptations to throw up the negotiations, I think I may say I have kept my temper, too, under a good deal of provocation. That does not affect the question. Therefore, if we come to the conclusion that it is impossible for us to consent to any further delay, I can assure you that the decision of the Government is not prompted by any feeling against any section of the medical profession, but it is rather due to the obligation of honour we are under to provide a service on January 15th for twelve millions of people of this country. At the same time, if the doctors in a given area are coming in, and Local Insurance Committees feel confident about that, and if they are coming in in time (it is no use waiting for January 14th—it is a question of the next two or three days)—if any Insurance Committees report to us that within the next two or three days they think the doctors in a given area are coming in, that they have just some little difficulties which they want to adjust, I must say that I do not think it would be proper for us there to overrule the Insurance Committee and declare the panel closed and set up a salaried service. In fact, I think it would be too sharp. Therefore, I willingly respond to that suggestion. But if the Insurance Committee were to say: Well, we really cannot guarantee to you that the doctors are coming in, we think they might—we think probably it is likely, but we have no sort of guarantee that they will—I do not think we should be doing our duty if we allowed any further delay. That is my answer to the last suggestion.

Now, as far as I am able to sum up the debate, I think the Advisory Committee on the three alternatives that I have presented to them on the whole prefer the salaried service. I seem to have interpreted the feelings of the Committee in that respect. I am not at all surprised at their coming to that conclusion.

I shall come now to another point which was put to me of a totally different character—the question raised by Miss Hughes on behalf of the nurses. I agree that the functions of the nurses are very important. Their training costs them a good deal and their work is very hard, very onerous, and very honourable. I think their remuneration ought to be equally honourable. The figure is a matter which will have to be discussed with the Local Insurance Committees. I agree with you that the first consideration is, they must be well qualified, and they must be the very best that can be provided, and you certainly cannot do that without giving adequate remuneration. We should certainly confer with the body which represents the nurses before we came to any conclusion about the salaries which were to be paid.

With regard to the other point raised, as to whether you could run your panel and your salaried systems together, if it is a real panel you cannot. You will find it is impossible; you can only do it through institutes. The friendly society institutes do run a salaried service at the present moment. We propose to recognize those in the future. There you have a salaried service. Apart from that, you cannot. It depends entirely on there being a sufficient number of insured persons whose 6s. 6d. or 7s. will suffice to pay that particular doctor. You cannot run your salaried system and the panel system together, except where there are friendly society institutes. Then comes, perhaps, a rather different point from a speaker, who said: "Supposing you close a panel, could you then have a system, which I indicated, of assistants and partners and a salaried service running side by side?" The moment you have closed the panel, you can make any arrangements that the Insurance Commissioners approve, and when you are dealing with twenty or thirty men in a given area, it is a matter of the bargain you make and the plans you propose and the plans which are accepted by them. It might not be impossible to run a whole-time salaried service side by side with a closed panel. But it would be very difficult, and you could only do it by agreement with the doctors on the panel, because, after all, you have to stand by the men who have come on. You must not run a service that would deprive them of the practice, when they are facing a good deal of obloquy—I will not use the word persecution, but a good deal of worry from their professional brethren in that area. We must stand by them, and we propose to stand by the men who had stood by this Act.

I think that is everything. I thank you very much for your kindness in coming here.

The meeting then terminated.

INSURANCE ACT IN PARLIAMENT.

INSURED PERSONS MAKING THEIR OWN ARRANGEMENTS.

On the evening of Wednesday, January 1st, on the motion for the adjournment, Sir Philip Magnus, after thanking Mr. Sherwell (Huddersfield) for removing his blocking motion, and expressing his regret that the Chancellor of the Exchequer was prevented by indisposition from being present, said: We were very desirous of securing a statement from the Chancellor of the Exchequer on a very important point, but I understand that the Secretary to the Treasury is authorized to speak on his behalf and to give a definite reply to a question which at the close of my observations I shall put to him. What I am desirous of knowing is the exact meaning which the Chancellor of the Exchequer attaches to Subsection (3) of Section 15 of the Insurance Act, and what action he proposes to take with regard to it. In order that the

House may see exactly what that Section is I will read part of it:

The regulations made by the Insurance Commissioners shall authorize the Insurance Committee by which medical benefit is administered to require any persons whose income exceeds a limit to be fixed by the Committee—

This is the important part—

and to allow any other persons, in lieu of receiving medical benefit under such arrangements as aforesaid, to make their own arrangements for receiving medical attendance and treatment (including medicines and appliances).

This matter is one of very great importance to the millions of persons who, I understand, are now insured, and to the thousands of doctors, affecting as it does their position in relation to the Insurance Act. I must remind the House that on December 19th, I put this question to the Chancellor of the Exchequer. I asked:

Whether in the event of the doctors refusing to accept service under the National Insurance Act on the terms recently offered to them the Government intend as the only alternative open to them to propose a great extension of the system by which the societies employ their own doctors on a whole-time service.

The answer which the Chancellor of the Exchequer gave me in writing, because my question was not reached, and I was therefore unable to put any supplemental question, was:

As practitioners who desire to have their names placed on the first panel lists may make application up to December 31st, it will be premature to make any statement of the sort suggested.

I think the House will realize that that was no answer whatever to the question I put, and to the question on which the insured people and the doctors required information. That was so much the case that on the following day, the last day before the short recess, I sent in another question to the Chancellor of the Exchequer, and I received a letter from the Secretary to the Treasury begging me to postpone the question. The difficulty was that the answer to that question was urgently needed before the great meeting of the representative doctors which was to take place on the next day. The answer the Financial Secretary gave in the letter, speaking for the Chancellor of the Exchequer, was—

He is sorry, but it would be impossible for him to make any further statement on this subject during the winter.

The Chancellor of the Exchequer happened to be present on December 20th, and I put to him the question to which I have referred, and the answer which the Chancellor then gave me was—

I understand that several members wish to raise this question and discuss it in the afternoon. It is obviously impossible to give an answer to the question in the course of the minute or two at my disposal now.

I believe the Chancellor of the Exchequer was genuinely desirous of giving a full answer to the question, but he was prevented from doing so by the blocking motion. So far, therefore, we had no answer whatever to that important question. Now it so happened that only on December 30th Mr. Worthington-Evans asked the following supplemental question dealing with the same matter:

May I ask whether any objection will be made by the Insurance Commissioners to allowing Insurance Committees to permit private practitioners in counties to continue for individual patients under Section 15, Subsection (3), of the Act?

and the answer was—

I think that would depend entirely upon circumstances.

So far, therefore, it will be seen that no attempt has yet been made to give any answer to the important question which I have put down Indirectly all these questions have reference to a matter on which I have every reason to believe the Chancellor of the Exchequer has always felt very keenly, and that is that there should be a choice of doctors given to every patient. I might quote numerous passages from the many eloquent speeches delivered by the Chancellor of the Exchequer showing how desirous he was at that time that every insured person should have a free choice of doctors, and I need scarcely say that the whole success of this bill depends upon the insured persons being able to choose their own medical attendants. I do not wish to trouble the House with numerous quotations which I might make from the Chancellor of the Exchequer's speeches, but I cannot refrain from making this one. He said, after having spoken of medical benefit:

Free choice of doctors also will, to some extent, increase the charge. I, personally, have always been in favour of that. After all, confidence in your doctor is essential. No man who can afford to do otherwise would have a doctor prescribed for him by any club or society. He wants his own doctor to doctor him, a doctor in whom he has confidence.

According to the answer which the Financial Secretary will be able to give to the question I am about to put to him depends entirely the question whether insured persons will have any opportunity whatever of selecting their own doctors, or whether the doctors who have rushed into the panel as we have been told will be forced upon them. I might ask the Financial Secretary in his reply to state whether in the case of these doctors who have been admitted to the panel any inquiry has been made as to their qualifications, age, experience, or even their character. Owing to the extremely unsatisfactory character of the replies to which I have referred I wrote to the Chancellor of the Exchequer on December 31st telling him that I proposed on the following day to put to him a question a copy of which I enclosed. I stated in my letter that I thought it only right and proper to give him full notice of the question in order that he might, if necessary, seek the advice of the Law Officers of the Crown with the view to the answer he was proposing to give. From his replies it will be seen that he considered it was very difficult indeed to give a reply in a few words, although I personally should have thought that in one or two minutes a definite answer might have been given. At any rate, I will now ask the Financial Secretary to the Treasury, on behalf of the Chancellor of the Exchequer, to give me a clear and definite reply to the question which I am going to address to him. The question is, Whether under Section 15, Subsection (3), of the National Insurance Act a Local Insurance Committee is not required to allow any insured person to have the option of making his own arrangements for receiving medical attendance, including medicines and appliances, from the medical practitioner of his own choice? Surely there can be no difficulty in dealing with that question in the course of a verbal reply. As I desire to give the opportunity of speaking to other persons who wish to take part in this discussion, I hope the reply given to me by the Secretary to the Treasury will be as brief and concise as possible.

The Attorney-General (Sir Rufus Isaacs): I propose to answer the question put to the Secretary to the Treasury, the Chancellor of the Exchequer being unfortunately indisposed this evening. The answer to the question is very simple. Subsection (3) of Section 15 of the Act does not require the Insurance Committee to allow such arrangements to be made. What the subsection does is to require the Insurance Commissioners to make regulations authorizing the Insurance Committee to allow such arrangements. In other words, what the Insurance Commissioners have to do under these regulations is to vest discretion in the Insurance Committee, and the Insurance Committee can then exercise that discretion subject to regulations which will be made by the Insurance Commissioners. The Insurance Committee can then contribute out of the funds which are there for the purpose in order to provide the money necessary for medical benefit. That, I think, is a plain and direct answer to the question. The query, as I followed it, was whether they were not required. My answer is, No. The Insurance Commissioners are required to issue regulations to vest this discretion in the committee, but the committee are certainly not required to allow these arrangements to be made, but simply exercise their discretion in the matter.

Mr. Worthington-Evans: I confess I have nothing to complain of in the Attorney-General's interpretation of the Act. He said the Insurance Commissioners were required to make regulations. They have in fact made them, and under them the County Committee have got it in their discretion to give effect to Section 15, Subsection (3) of the Act. I will only note in passing that the question of my hon. friend was not merely on the construction of the Act; it was also directed to the administration of the Act by the Government. While the Attorney-General has, in my humble opinion, correctly described the actual legal position under the Act, I shall submit to the House

that for purposes which are fairly obvious the name of the Insurance Commissioners has been taken to issue press notices which are quite contrary not only to the Act itself but to the statement the Attorney-General has made to-night. I am extremely sorry the Chancellor of the Exchequer is indisposed, but I would wish that the Financial Secretary to the Treasury had answered this question, because it is not merely a legal question—indeed, it is not primarily a legal question; on the other hand, it is a question of administration.

The Financial Secretary to the Treasury (Mr. Masterman): I am quite prepared to give a reply if I have time.

Mr. Worthington-Evans: I will do my best to give the right hon. gentleman time. It is, in my view, quite desirable the public should understand the matter, because it is not, in my opinion, a doctor's question at all. (Hon. Members: "Hear, hear.") I am very glad there is assent to that observation. It is, in fact, this one simple point: Are the insured people to have the free choice of doctor which has been promised them for their money, or are they to have that choice limited by the action of the Government?

Mr. Booth: Limited by the doctors.

Mr. Worthington-Evans: Then I start with the assumption that the Government admits that under the Act the Insurance Commissioners are bound to make regulations which do give the Insurance Committees the right to allow the private individual, the insured person, to choose his own doctor, whether that doctor is on the panel or not. (Hon. Members: "No.") I do not think that the Attorney-General is going to dissent from that. He will admit, I fancy, that Subsection (3) applies to doctors whether they are on the panel or not. That is important. I do not want to speak to the House under a misapprehension. Is that admitted or not—whether doctors are on the panel or not the Insurance Committees may, if they choose, in their discretion permit of private arrangements?

Sir Rufus Isaacs: I have already stated, subject to regulations which the Insurance Commissioners make.

Mr. Worthington-Evans: We have got to this stage that private arrangements may be made either with doctors on the panel or doctors not on the panel, subject only to the Insurance Commissioners' regulations. (Hon. Members: "No.") These arrangements may not be made compulsorily, but it is in the discretion of the Insurance Committees to allow this arrangement, subject to the regulations of the Insurance Commissioners. That simplifies the question very much indeed; for the Insurance Commissioners have made a provision which is contained in Regulation 14, the words of which are these:

> The Committee may allow any insured person in lieu of receiving medical benefits under the arrangements made by the Committee, to make his own arrangements for receiving treatment, including medicine and appliances.

And in the next regulation it is provided that in such a case a cash payment would be made on account of that form of treatment equivalent to what would have been made had the man been treated by a panel doctor. If there had been the slightest dispute about that I could have referred to the memorandum 136 C and E—which I believe means "Customs" and "Excise," to which is added an explanatory memorandum which clearly sets out, for the purpose of insured persons, that the insured persons may receive medical benefit in one of several ways; first, on the panel system; secondly, through approved institutions; and, thirdly, by private arrangement. I will read the paragraph relating to private arrangements—

> The third method by which insured persons may obtain medical benefit is under their own private arrangements. Any insured person can make application to the Insurance Committee on the appropriate form to be obtained from the Committee: to be allowed to make his own arrangements for receiving treatment, and, if allowed, will receive a contribution from the Committee towards the cost of that treatment.

It seems to be quite clear, then, that whether the doctor is on the panel or not, a private arrangement can be made with him, or with the Insurance Committee—that is, the Local County Committee. That seems to me to be a matter of extreme importance. There is a large number of doctors who are willing and desirous of treating their old friends and patients. They may be elderly men, who are not prepared to run the risk of going on the panel, because if they go on the panel they may have apportioned to them the residue of patients. (Hon. Members: "No, no.") I would like to refer hon. members who say "No" to the Act. Let them read the Act. It is so under the Act. I have not had time to refer to it in detail, but I assert with confidence that under the Act this will happen, that the residue of patients in any county or insurance district who are not allotted to a doctor, who have not chosen a doctor, or who have not, also, been chosen by a doctor, will be apportioned either amongst the doctors on the panel or will otherwise be provided for by whole-time service or in some other way by the Insurance Committee. In one of those ways those patients have got to be dealt with, and the doctor who is willing to treat his own patients is not willing to run the risk—and it is a risk, no one can deny it—of having patients apportioned to him who have been rejected by the whole of the doctors on the panel. That is only one case. There is another case, that of the domestic servants, who in the past have been accustomed to receive treatment from the family doctor. [Hon. Members: "No, no."] They have had exactly the same treatment, but, if hon. members like, let them say that is only so in one case in ten that they will be deprived of that class of treatment in future, but that is the risk, because the family doctor may be quite likely not to go on the panel; and, unless the doctors not on the panel are also able to be chosen by the insured person, then those domestic servants, however few or however numerous, cannot get the same treatment that they have got in the past. That is a matter of some importance. Hon. members have some doubt about that. If they were really questioning it I would refer them to the report which appears in the *Times* to-day of exactly the same fear as I am now voicing that was expressed by some doctors who were present at a meeting of doctors yesterday who had agreed to serve on the London panel. It will be found in that report that some doctors immediately said that they would withdraw from the panel if they were to run the risk of having persons not chosen by themselves apportioned to them. The real point I want to get at in the short time at my disposal is, first, as to the action which has been taken by the Commissioners, or in their name, for at present I am not satisfied that they themselves have taken it. I believe the Attorney-General has stated the effect of the regulation correctly, and, if that is the case, how can the right hon. gentleman the Secretary to the Treasury justify the statement which has been issued to the press, on December 26th, which states this—and this is from the *Times* report of the Insurance Commissioners' circular?—

> The point is that in places where a panel of doctors is formed, in accordance with the Act and regulations, it is open to the Insurance Committee of that area, if it chooses, to permit individuals to make their own arrangements for receiving medical attendance and treatment, including medicines and appliances.

The Insurance Commissioners have issued to the press a statement which is absolutely misleading. It is not in places where a panel has been formed, it is in all places, whether a panel has been formed or has not been formed; and the deliberate intention of that statement is to stampede the doctors to make them go on panels from fear of losing their practice, or fear of having to desert their old patients, whom they are perfectly willing to consider and whom they wish to serve in the future. They have been told by the Insurance Commissioners, quite contrary to the view of the Attorney-General, that if the private patient is to be allowed to continue any private arrangement with his doctor, the doctor has got to be on the panel. I say that is false, and it has been stated in the press for the very purpose——

Mr. Masterman: If you will give me a moment I will reply.

Mr. Worthington-Evans: I have not the slightest doubt the right hon. gentleman would be to the point when he replied, but he has already had his opportunity, and he will have a further opportunity to-morrow night if he can persuade his hon. friend the member for Huddersfield to withdraw his blocking motion. The next press notice issued by the Insurance Commissioners on December 30th contained an equally inaccurate statement—that individual arrangements can only be made where they are allowed by the Insurance Committee, subject to the approval of the Insurance Commissioners. That statement is absolutely incorrect. There is no question of the approval of

the Insurance Commissioners. As the Attorney-General correctly said, the only thing the Insurance Commissioners have to do is to make regulations.

Sir Rufus Isaacs: I said that the statement is not incorrect, as the hon. member says, because the Insurance Commissioners must make regulations which provide for the contributions.

Mr. Worthington-Evans: The Attorney-General is quite right.

It being half an hour after the conclusion of Government business, the House adjourned.

Contribution Cards.

On January 1st, in reply to Mr. Holmes, Mr. Masterman said that persons who had been in insurance for twenty-six weeks, but through temporary unemployment or sickness had not had twenty-six weekly contributions paid in respect of them, might qualify for sickness benefit by paying up the omitted contributions. They could do this by putting stamps in the vacant spaces of their ordinary cards if the omissions had occurred in the current quarter; if they occurred in the previous quarter they should put the necessary stamps on "arrears" cards to be obtained from their societies. An employed person who had been in insurance for the necessary time might similarly qualify for maternity benefit by paying any omitted contributions so long as these were paid before the birth of the child. Medical benefit would be provided as from January 15th for insured persons independently of the time a person had been insured or the number of contributions paid. If the omissions in payment were due not to unemployment but to the fault of the employer, the insured person might, under Section 70 of the Act, recover by civil proceedings the value of any benefit lost. If prosecuted, the employer might, under Section 69 of the Act, in addition to any fine inflicted, be required to pay to the Insurance Commissioners a sum equal to the amount of the contribution he had failed to pay, which sum would be taken as a payment in satisfaction of such contributions.

Mr. Fell asked, on January 1st, what number of cards had now been received from the approved societies and from the deposit contributors under the National Insurance Act; if the approved societies had entered the names of the contributors in their books with the necessary particulars to enable the benefits to be given after January 15th; and if any delay in the matter was anticipated. Mr. Masterman said that about 480,000 cards had been received from deposit contributors. Approved societies were still sending in their cards, and the numbers could not therefore be given at present. The registers of members and contributions were filled in before the cards were returned, and the reports in the hands of the Commissioners showed that societies were completing this work satisfactorily, so that delay in the payment of benefits was not anticipated.

Mr. John Ward asked if it might be taken that 400,000 represented the total number of deposit contributors so far known both in the United Kingdom and Ireland. Mr. Masterman said that the total of 480,000 represented the number existing in October last, but he thought the number had very much decreased owing to deposit contributors joining approved societies.

Mr. Masterman, in reply to a question by Mr. Forster asking for the number of insured persons, said a large number of societies had sent their cards in, but others had not completed the arrangements necessary to be completed before they sent in their cards. As soon as they were received he would be very glad to give the information desired.

Mr. Worthington-Evans asked whether the societies did not make actual returns apart from the cards and receive payment on account in respect of their numbers. Mr. Masterman said he had no returns. He would endeavour to obtain the information required, but the Commissioners had no returns as to the actual numbers.

Contribution Cards of Approved Societies.

Mr. Masterman, in replying to Mr. H. W. Forster on January 6th, said that the number of cards received from approved societies (in addition to those received from deposit contributors) by the end of 1912 was 8,087,036. Several millions of further cards were expected from a few large societies, who would deliver in large quantities. In reply to a supplementary question he added that he would endeavour to ascertain how many of the insured were men and how many were women if a question was put down.

Collecting and Approved Societies.

Dr. Chapple asked the Prime Minister, on January 1st, whether he had any official information showing that the competition of collecting societies had forced all approved societies to bid for members by abolishing medical examination and by admitting to membership many who were afflicted with drinking habits, involving the certainty of sickness, accidents, and unemployment resulting therefrom; and, if so, would he endeavour to protect the National Insurance funds from this danger by bringing in a temperance bill without unnecessary delay, and thus correct as far as it was now possible the dislocation in the natural sequence of reforms? The Prime Minister said he had no official information upon the matters referred to in the first part of the question. He understood that immediately the Act was passed certain of the largest friendly societies decided to dispense with actual medical examination except in special cases, being satisfied with personal inquiry as to character and health of the applicants for membership. With regard to the last part of the question, he could add nothing to the reply which he gave on December 11th last to the deputation which presented a memorial from the National Temperance Convention.

Contracting Out.

Mr. Cassel, K.C., asked the Secretary to the Treasury, on January 6th, whether, under Section 15 of the National Insurance Act, 1911, and paragraphs 14 and 15 of the National Health Insurance (Administration of Medical Benefit Regulations, 1912), Insurance Committees had power to allow insured persons to make their own arrangements with any doctors they please without reference to the Insurance Commissioners; and whether, when such arrangements had been made, the Insurance Committees were bound to make to the persons who had made such arrangements the payments referred to in paragraph 15 of the said regulations without reference to the Insurance Commissioners.

Mr. Masterman, in reply, said that insured persons could not make their own arrangements for medical attendance and treatment unless they were allowed to do so by the Insurance Committees, and the contributions contemplated by the regulations would be paid subject to the possibility of deductions under regulation 14 (8). Those Committees, in exercising their discretion, would take into consideration the general interests of all the insured persons in their area, or any particular part of it. The Government and the Commissioners would take such measures as would prevent any attempt to break down the system contemplated by the Act as approved by Parliament either by the substitution of a general system of private arrangements outside the control of the Insurance Committees for that system or by the selection of a special class of picked lives affecting the ordinary average which a panel doctor had a right to anticipate in return for his remuneration; and when no panel had been declared adequate the Commissioners would make such other arrangements as they thought fit, or allow the Committee to make such arrangements as they approved for the medical attendance of insured persons.

Mr. Cassel asked if it was not the case that under the Act and Regulations as they stood at present the answer to both parts of his question was in the affirmative. Might not the Insurance Committee allow a person to make his own arrangements, and were they not bound to make payment without any further reference to the Insurance Commissioners? Mr. Masterman replied: Not until they had declared that the general medical service was adequate.

Mr. Cassel asked whether the London Insurance Committee could not now authorize persons to make arrangements with their own medical men. Mr. Masterman said that depended on how far they had made satisfactory arrangements for those who did not wish to contract out of the Act.

"Special Consideration."

Mr. Bigland asked the Chancellor of the Exchequer, on January 1st, whether Mr. H. G. Cowie and Mr. H. P. Orchard, Honorary Secretary of the National Insurance

Practitioners' Association, in a circular letter addressed to every member of the medical profession, dated December 27th, were authorized by him to make the promise contained in the circular that if a panel was not formed by December 31st, 1912, the Insurance Committee or Commissioners would be able to adopt a whole-time service or such other arrangements as they might think fit, regardless of the practitioners of the area, and that he had promised that in such case special consideration should be given to those who had applied by December 31st, 1912; and, if so, whether he would lay upon the table copies of what had passed between him and the authorities referred to in this paragraph. Mr. Masterman, who replied, stated that the paragraph in the circular letter referred to appeared to state the actual fact that, if panels were not formed in any areas, the panel system would be suspended, and a whole-time service or such other arrangements would be adopted as the Insurance Committees and the Commissioners decide. In response to questions received from the National Practitioners' Association during the holidays, the Chancellor of the Exchequer replied that priority of consideration would be given in the case of whole-time appointments to doctors who went on the panels, and he would lay on the table a copy of the letter which he wrote to the association, and which had already appeared in the public press.

Inclusive Terms.

On January 6th Sir J. D. Rees asked whether the doctors of Nottingham and Nottinghamshire had made a protest against the inclusion of attendance in cases of diseases due to misconduct, miscarriages, and abortion, the administration of anaesthetics, and the performance of operations in the conditions of service under the National Insurance Act; and, if so, what action the Government proposed to take. Mr. Masterman said he had received certain representations on the subject. There was, however, no power under the National Insurance Act to exclude such cases from medical benefit in so far as they were within the ordinary competence and skill of practitioners on the panel, and could, consistently with the best interests of the patients, be properly undertaken by such practitioners.

Medical Benefit.

On January 1st Mr. Cassel asked whether it was intended to obtain the sanction of the House of Commons before any arrangements were made by the Insurance Committees for the provision of medical benefit which involved the payment out of public funds of amounts in excess of those hitherto sanctioned by Parliament. Mr. Masterman said that the National Insurance Act did not impose any limit upon the amount which might be expended out of contributions in the provision of medical benefit. The effect of spending more than the amount allowed in the actuarial calculations upon which the scheme was based would, in the absence of a special grant, be to reduce the amount available for other benefits. It was proposed to ask Parliament for a special grant to defray the expenditure which might be incurred by Insurance Committees after the moneys actuarially available for the present calendar year had become exhausted. The agreements now being entered into with the doctors in no case ran for more than three months, and no public money would be expended without the previous sanction of Parliament.

Mr. Cassel asked if it was not the case that binding agreements would be entered into before Parliament was consulted, and what became of the control of that House over finance if binding agreements were entered into before the sanction of the House was obtained, when that sanction could be perfectly well asked for and obtained beforehand. Mr. Masterman replied that no binding agreement with the doctors, involving the expenditure of public money outside that provided by the National Insurance Act, would be entered into until Parliament had voted the money, if it did vote the money.

Mr. Cassel inquired, further, whether it was not the case that unless the additional money was found out of public money there would not be enough to provide for medical benefit. Mr. Masterman said that, as he had already stated, the agreements with the doctors were only for three months. Those agreements could be fully honoured out of the money already provided by Parliament.

Mr. Cassel asked if there was any special reason why the House should not be given an opportunity of considering the matter. Mr. Masterman replied that he hoped on the earliest appropriate occasion the House would be given an opportunity, but that rested with the Prime Minister. Mr. Cassel said that the question was addressed to the Prime Minister.

Sir J. D. Rees asked, on January 6th, whether the Chancellor of the Exchequer gave a pledge to the secretary of the Medical Association Alliance that the friendly societies should not be deprived of the right to administer their medical benefit. Mr. Masterman replied that Section 15 (4) provided for the administration of medical benefit through existing systems and institutions under conditions there defined. Promises had been made that such institutions as the Friendly Societies' Medical Alliance should be entitled to apply for approval subject to such conditions as might be required, and this right was secured by the subsection referred to.

Mr. Cassel asked whether it was proposed to close the panels of doctors in any areas at a fixed time; and, if so, how in such cases the right of every duly qualified practitioner to have his name placed on the panel would be secured. Mr. Masterman said that the right of a duly qualified practitioner to have his name on a panel was conditional upon an adequate medical service having been arranged in his area on the normal panel system. Where a panel could not be formed the Insurance Commissioners might, under the provision in Section 15 (2) authorize the Insurance Committee to make such other arrangements as the Commissioners might approve, or might themselves make such arrangements as they thought fit.

Mr. Cassel asked Mr. Masterman if he was aware that Clause 15, subsection (2), specially provided for the right of every duly qualified practitioner to go on the panel, and that in the case where no panel was formed Parliament had expressly secured them that right. Mr. Masterman replied, Certainly; but he had said that when the Commissioners after examination found there was no adequate panel. In that case it was evident there was no panel formed.

Mr. Cassel asked if the question had been considered whether, in the case where there was no panel at all, the Commissioners were not bound under the Act to admit every duly qualified practitioner. Mr. Masterman answered that where they had not declared the panel to be inadequate there was a right for every practitioner to go on.

Mr. Forster inquired under what section was there power to close a panel. Mr. Masterman replied under Clause 15, subsection (2), the Commissioners had power where there was no adequate panel to make any other arrangements they thought fit; declaring that the panel was inadequate, they could make what arrangements were suitable to the locality.

Mr. Forster inquired under what section of the Act. Mr. Masterman said they could suspend the normal panel system, and devise a system which might be known as the "close panel."

Mr. Forster: Under what section? Mr. Masterman: Clause 15, subsection (2).

Mr. Cassel: Did not that apply only where there was no panel at all? Mr. Masterman: No, it applied where the panel was declared to be inadequate.

Mr. Cassel asked what was the reason why arrangements for providing medical benefit which, according to statements made by the Chancellor of the Exchequer, would involve an additional charge upon public funds of more than one and a half millions a year, were not to be submitted to the House for its consideration before binding contracts had been entered into. The Prime Minister replied that no agreement with the doctors involving the expenditure of public money outside that provided by the National Insurance Act would be entered into without the sanction of Parliament.

Mr. Cassel asked if the right hon. gentleman was aware that the arrangement now proposed to be entered into contemplated the payment of 8s. 6d. per head for attendance and drugs; that when the bill was before Parliament it was contemplated that the payment would be only 6s. 6d. per head; that this increase would involve additional expenditure of moneys by Parliament, and that if the arrangement was once entered into Parliament would not

be absolutely free in giving its decision. The Prime Minister replied that the hon. and learned gentleman was quite wrong. Parliament would be absolutely free. The agreement was only entered into for three months, and the sum already provided was quite adequate for that purpose.

Mr. Cassel inquired if the right hon. gentleman was aware that if the arrangement was made for three months it practically carried with it an agreement for a longer time; he asked further why that House was prevented from discussing this matter. The Prime Minister replied that there would be free discussion. No arrangement had been or would be entered into except within the limits the House had already decided.

Mr. Worthington-Evans asked if it was not the case that if the 8s. 6d. was paid during the first three months there would be a deficiency during the other periods of three months, unless Parliament did grant an extra sum. The Prime Minister said that Parliament would have a full opportunity for determining that question when it arose.

Mr. Newman asked whether it was intended that whole-time sanitary and medical appointments in the gift of the Government were in the future to be reserved for candidates who had signified their intention of accepting service under the terms of the National Insurance Act as on December 31st, 1912. Mr. Fred Hall asked the Chancellor of the Exchequer if, with a view to securing the adhesion of members of the medical profession, he had undertaken that those doctors who agreed to work under the National Insurance Act should receive priority in filling medical appointments under the Act; how many such appointments would have to be created in order to attract a sufficient number of doctors; and whether he was in a position to give an undertaking which removed staff appointments from the control of the Insurance Commissioners or Insurance Committees under whom any such appointments would be held. The Chancellor of the Exchequer replied that the questions apparently referred to a letter which he issued with the concurrence of the Insurance Commissioners, and which had been laid on the table of the House, promising priority of consideration in connexion with whole-time appointments to doctors who had gone on the panels. Duly qualified practitioners had a statutory right to be included in the panels in their areas if such panels were formed. Those who were deprived of this right through the refusal of other doctors to come on panels must of necessity receive priority of consideration in connexion with any substituted system, as any not appointed would be excluded by a choice which was not their own fault from any opportunity of working under the National Insurance Act. The number of salaried appointments made would depend upon the number of doctors required to provide medical attendance and treatment in those areas, if any, in which sufficient doctors had not accepted service under the ordinary panel system, but there were very few areas where the possibility of such arrangements existed.

Sir Philip Magnus asked whether priority of consideration would be given quite independently of the qualifications of the doctors. Mr. Lloyd George replied, No. Certainly the qualifications would be taken into account.

Mr. Fred Hall asked for a reply to the last part of his question. Mr. Lloyd George said he could not give an undertaking of that kind. Mr. Fred Hall inquired when the Chancellor of the Exchequer would be in a position to reply to that part of the question. Mr. Lloyd George said he was in a position now, but he could not give a guarantee that the Insurance Commissioners would not exercise some control in the matter.

Mr. Newman asked the Chancellor of the Exchequer whether his attention had been called to an advertisement of the Bradford Insurance Committee asking for medical men to work the National Insurance Act at salaries of from £500 to £700; and whether, under the terms of service at present specified by the National Insurance Act, he could state how many insured persons it would be necessary for a medical practitioner to have on his list to assure for himself an income of £500. Mr. Masterman replied that he had seen the advertisement referred to in the first part of the question. A doctor not doing his own dispensing would earn £500 a year in respect of 1,429 insured persons, or, if the cost of drugs did not exceed 1s. 6d. a head, in respect of 1,333 persons. A doctor in a country district who did his own dispensing would earn the same sum in respect of 1,111 persons.

Mr. Newman asked if it was not a fact that the Chancellor of the Exchequer adumbrated a scheme for Bradford giving for its 100,000 insured persons fifty doctors. Mr. Masterman said, Certainly. In that case each one would look after the general health of 2,000 insured persons, and he was quite capable of doing so.

Mr. Newman asked the Chancellor of the Exchequer whether he had asked for and received assurance from adequate professional sources that 2,000 employed contributors could be adequately attended by a medical practitioner on a panel who would, in addition, be allowed to take private practice among the families of such insured contributors. Mr. Masterman said that, as already stated, it would be impracticable to fix 2,000 or any other figure as the maximum number of insured persons to be attended by a practitioner on the panel, as the number must necessarily vary according to the circumstances of each particular case. He was assured by adequate professional advice that, certainly in urban areas, a doctor would be able to be properly responsible for 2,000 persons (the majority of whom were, of course, not ill in any given year) without being debarred from any private practice he might obtain among the families of the insured, and that advice was confirmed by the experience of insurance schemes both here and abroad. It would be the duty of the Insurance Committee in each district to see that the arrangements were such as to secure that the insured persons in their district received adequate medical attendance and treatment.

Sir Henry Craik asked if the average number of 2,000 had been reached as the result of experience, and whether, as a matter of fact, it was not something like 800 or 900. Mr. Masterman replied that he would give the figures if a question was put on the paper.

Mr. Lawson asked if it was to be understood that any maximum number of insured persons would be fixed by the Insurance Committees. Mr. Masterman said that he thought the Insurance Committees would deal with the circumstances of each particular case as it arose. Mr. Newman asked whether, in the case of a salaried service being established by a Local Insurance Committee and consisting of ordinary medical practitioners, nurses, specialists, and superintendent, such Insurance Committee would be empowered out of public or other funds to establish and equip a hospital to receive for treatment insured persons who might be refused admission by any hospital supported by voluntary contributions. Mr. Masterman said he had no reason to believe that voluntary hospitals would refuse to treat cases of a kind which were outside medical benefit. The exact scope of a special medical service which might be arranged as an alternative to the ordinary panel system would be decided with reference to the requirements of the area affected.

Mr. Newman asked what would happen supposing the local hospitals refused to treat these insured people. Mr. Masterman said that it would be necessary to deal with each case as it arose.

Dr. Chapple asked the Chancellor of the Exchequer whether, in view of the statement made at a meeting of doctors in Stirlingshire, where the conditions imposed by the Insurance Commissioners had been accepted, that doctors attending insured persons requiring an anæsthetic would have to pay the fee for the anæsthetist, and of the very prevalent idea that this was the case, he would make a statement on the subject. Mr. Masterman said that the conditions under which payment was made in such cases were explained in detail in the memorandum of December 3rd, 1912, which is reprinted in Cd. 6530 (p. 26).

Dr. Chapple asked the Chancellor of the Exchequer whether, in view of the statement made by the chairman at Wednesday's conference with the London doctors to the effect that no patient would be forced on any doctor, and in view of Section 15, subsection (2) (*d*) of the National Insurance Act, he was prepared to state what arrangement had been made in this respect. Mr. Masterman said that any doctor on the panel had a preliminary right of refusing any particular insured person who applied to be placed on his list. It would be the duty of the Insurance Committee to make such

arrangements as were suitable for medical benefit for any patients who were thus refused by the doctor of their first choice; and these arrangements must be as far as practicable in agreement with the doctors themselves. Insurance Committees might ask the doctors in any district to agree each to accept a proportion of insured persons who might be refused attendance by the doctors of their first choice, or the insured person might be invited to make another choice of a doctor willing to accept him, or some other arrangement might be made by the Committee for his medical attendance and treatment.

Dr. Chapple asked if it was not the case that a number of insured persons might be rejected by all the doctors on the panel? What would be done with those who had been rejected? Did the subsection not contemplate that they should be distributed among the doctors? Mr. Masterman said that the Insurance Committee had made the arrangements suggested, and if a panel system was still in that district and kept in operation then it would be necessary to provide a doctor on the panel who would undertake the treatment of those patients.

Mr. Worthington-Evans asked whether a statement contained in the official explanatory statement as to medical benefit issued by the Insurance Commissioners to the doctors about December 16th last, to the effect that it would at any time be possible for a doctor to indicate his willingness to act on a panel, but unless indicated by December 31st the name would not be included in the first list, represented the policy of the Government; whether any warning had been given to doctors that the panel might be closed against new names for one, or two, or three years; and whether such closing was authorized by any, and which, of the existing regulations under the National Insurance Act. Mr. Masterman replied that the answer to all three parts of the question was in the affirmative, with the reservation that the right of a practitioner to be included upon a panel was conditional upon a panel being formed in his area. The Chancellor of the Exchequer announced so long ago as October 23rd that if no adequate panel could be formed in any area arrangements would be made for suspending the normal panel system, and that it would then be the duty of the Insurance Commissioners under the proviso to Section 15 of the Act to provide medical benefit by authorizing the Insurance Committees to make other arrangements, or by themselves making such other arrangements as they thought fit, as an alternative to the suspension of medical benefit. The regulations issued by the Commissioners were subject to the exercise by them of the powers reserved in the proviso to Section 15 (2).

Mr. Worthington-Evans inquired if the Insurance Commissioners could close the panel for one, two, or three years against the doctors who did not first go on the panel? Mr. Masterman said if a panel was declared by the Insurance Commissioners to be adequate, and so long as it was adequate other doctors might have their names added to the panel. If the Insurance Commissioners declared the panel inadequate, then they could make any arrangements they thought fit for the medical treatment of insured persons.

Mr. Rupert Gwynne asked if the Chancellor of the Exchequer was asked by the Insurance Commissioners to make arrangements that doctors should be kept off the panel for one, two, or three years? Mr. Masterman said he could not add anything to the answer he had already given. Every action taken in the matter had been taken by the Insurance Commissioners in conjunction with the Government. Mr. Gwynne inquired if the Chancellor of the Exchequer had their sanction when he made that statement. Mr. Lloyd George: Certainly. Mr. Gwynne asked if it was definitely sanctioned by the Insurance Commissioners. Mr. Lloyd George: Certainly.

Mr. Newman asked whether, in the case where a panel of medical practitioners was closed though incomplete by the Insurance Commissioners, and leave given to practitioners on such panel to engage assistants to complete the panel, on whom would devolve the duty of examining into the professional capabilities of such assistants; and whether any provision would be made for securing to them a minimum salary. Mr. Masterman said that the Insurance Committees would be responsible for securing that the service in their areas was adequate if the normal panel system was in operation, or if the panel system was suspended, and they were authorized to make such arrangements as they thought fit, subject to the approval of the Commissioners. If in the latter case the service were partly provided through partners and assistants of the original practitioners, it would therefore be the duty of the Insurance Committees to take any necessary steps to secure that the service provided by such persons was satisfactory. Mr. Newman inquired who would actually examine the doctor's qualifications—the Insurance Committee? Mr. Masterman said that if the work was entrusted to the Insurance Committee it would be done by them with the approval of the Insurance Commissioners, or the Commissioners might, if they liked, themselves make the arrangements. Mr. Harry Lawson asked who was to determine the standard of capacity. Mr. Masterman said he thought he had already answered that—if it was entrusted to the Committee, the Committee, and if the Commissioners did it themselves then the Commissioners.

Mr. Fred Hall asked if any qualifications with regard to age, medical reputation, and proficiency were imposed in regard to doctors whose names were placed on the panels under the National Insurance Act. Mr. Masterman replied that under Section 15 (1) (*b*) of the National Insurance Act every qualified practitioner had a right to be included in a panel list if a panel was formed in his area. The power of removal, which was provided for in the same section, was conditional upon subsequent inquiry showing that the continuance of a particular practitioner would be prejudicial to the efficiency of the medical service of the insured. In accordance with the request of the medical profession, the regulations with regard to such an inquiry required careful investigation by a specially constituted central body, including members of the profession.

Mr. F. Hall asked if any professional gentlemen who had sent in their names to be included on the panels had been refused? Mr. Masterman replied in the negative, and said that the committees had no right to refuse the names that were sent in to be on the panel if a panel was formed. Mr. F. Hall asked if the public were to understand that doctors would be placed on the panels, for whom they were paying, irrespective of whether or not they were competent to carry out the work. Mr. Masterman said that, as he had said, every duly qualified practitioner had a right to be included in the panel list when the panel was formed. That was not a resolution of the Commissioners, but a resolution of the House of Commons.

Mr. F. Hall asked if the Secretary to the Treasury was aware that there were plenty of duly qualified medical practitioners whom the insured persons would not be prepared to accept. Mr. Masterman replied that there was no reason why they should accept them if they did not want them. The hon. gentleman was really criticizing an action which was the almost unanimous action of the House of Commons.

Mr. Cassel asked if the right hon. gentleman was aware that that unanimous resolution was not being carried out? Mr. Masterman replied that it was being carried out, and in no case were the Commissioners doing anything but carrying it out.

Mr. Fred Hall asked the Secretary to the Treasury what was the number of insured persons which it was originally intended to allocate to each doctor under the National Insurance Act; and what sum would have been earned yearly on the basis of the latest terms offered to the doctors. Mr. Masterman said that the National Insurance Act did not contemplate any fixed number of insured persons being allocated to a practitioner. On the contrary, the system of free choice by the insured person, subject to the consent of the practitioners, involved considerable variation in the numbers and a corresponding variation in the total remuneration. The second part of the question did not, therefore, arise.

Sick and Maternity Benefit.

Mr. Beck asked the Financial Secretary to the Treasury on January 7th what was the earliest date on which an insured person could become entitled to maternity benefit under the Insurance Act; and could notice of the illness of an insured person be given before January 13th, and, if so, what could be the earliest date on which such insured person, if still ill, could become entitled to sickness benefit.

Mr. Masterman said that notice of illness of an insured person could be given before January 13th. If he was ill on Thursday, January 9th, or was taken ill before doing any effective work on Friday, January 10th, he would be entitled to sickness benefit (if he continued to be incapable of work) as from Monday, January 13th, provided that he had at the latter date been in insurance for twenty-six weeks, and twenty-six full contributions had been paid in respect of him. An employed contributor was entitled to maternity benefit in respect of a child born after midnight on Sunday, January 12th, if he had been in insurance twenty-six weeks, and if twenty-six full contributions had been paid.

Additional Benefits.

In reply to Sir J. D. Rees, Mr. Masterman said that the amount of friendly societies' reserves which were set free in consequence of the National Insurance Act depended upon the course taken by societies themselves, and in many cases on the choice made by individual members. In some cases the benefits of the Act were being substituted by those formerly provided by the society; in others members were choosing to continue their full contributions to and full benefits from the private side of the society in addition to the contributions and benefits of the Act. In the former case only were reserves released, and a considerable time must elapse before the individual decisions of some four million persons and the precise extent to which they would have the effect of releasing reserves could be ascertained. It must, however, be remembered that where an individual decision had the result of preventing any reserves from being released it was because the member had himself chosen to continue to enjoy the benefit in respect of which those reserves would have been released in addition to the similar benefits now provided for him under the Act. Sir J. D. Rees asked whether the Chancellor of the Exchequer was not at present in a position to make an estimate, and that his views had completely altered since he originally made one. Mr. Masterman said he was afraid that until there was more information as to the choice made by insured persons he could not give any reliable estimate.

Sanatorium Benefit.

Mr. Harry Lawson asked the Chancellor of the Exchequer on December 31st on what basis and on what actuarial calculation he arrived at the amount of £200, stated by him in his speech at Aberdeen, which he said the blacksmith, then under treatment at the London Hospital, would receive in return for his contribution of 4s. 8d. under the National Insurance Act. The Chancellor of the Exchequer replied that the amount referred to was calculated according to the average cost of sanatorium treatment paid up to that date by the Middlesex Insurance Committee and to the period of treatment estimated to be necessary in this particular case.

Mr. Harry Lawson asked if the Chancellor of the Exchequer was aware that the Middlesex Insurance Committee had not paid a single penny up to the present date, and that the only rate was 10s. a week? If that was so, what time would be required to work out the £200? Mr. Lloyd George said that the information, which he got from the Committee itself, was that they were contracting to pay 35s. a week.

Mr. Harry Lawson: Will the right hon. gentleman inquire of the London Hospital? Mr. Lloyd George replied that he never said it was paid to the London Hospital. What he said was that the patient could not be kept in the London Hospital much longer, and that other arrangements would have to be made. He reckoned that those arrangements would cost the same in that case as in other cases, and the cost in other cases was 35s. a week. As a matter of fact they had secured accommodation at less.

Mr. Worthington-Evans: Does the right hon. gentleman remember how long he expected this man to be under treatment? Mr. Lloyd George: Speaking without notice, I think it was two years.

State of the Panels.

Mr. F. Hall asked the Chancellor of the Exchequer on January 8th how many whole-time doctors would be required to complete the panels under the National Insurance Act; the total cost of the same; whether a special branch of the Commission would be required to direct and supervise their work, and, if so, what arrangements were proposed to be made in the matter. Mr. Masterman, who replied, said that the accession of doctors to the panels during the past few days had been so rapid as to make it impossible to state where, if at all, opportunities for the establishment of a salaried service would occur. It was possible that such a service would be instituted in three or four districts, but he could make no statement on the matter at present.

Mr. F. Hall asked, if the number of doctors who had rushed to the panels had been so rapid, how was the large deficiency in the London area to be accounted for? Mr. Masterman replied that he was not aware of any deficiency in the London area.

Mr. F. Hall inquired if the number of doctors on the panel in the London area was sufficient to carry out the duties under the Insurance Act. Mr. Masterman said he had not examined the numbers, but he should think, from what he had seen, that they were more than sufficient.

Post Office Medical Officers.

Mr. Fred Hall asked on January 7th if the circular dated December 31st, 1912, issued to Post Office medical officers was intended to imply that their services would be discontinued in the event of their not joining a panel under the National Insurance Act. The Postmaster-General said that the great majority of Post Office employees were not liable to compulsory insurance, and those persons would in any case remain under the charge of the Post Office medical officers. In Ireland also no question arose on that head. With respect to those Post Office employees who were insurable for medical benefit under the Act, he understood that the Insurance Commissioners were prepared to approve the present Post Office medical system as applicable and its officers as eligible to attend those insured persons. That, of course, did not prejudice the right of the insured persons to the attendance of some other doctor who was on the panel if they so preferred.

Mr. Hall asked if he was to understand clearly that in the event of the doctors not being on the panel the employees would still be allowed to have the services of the same medical gentlemen. Mr. Herbert Samuel said that if the question referred to Post Office medical officers who were not on the panel, they would.

Inspection of Drugs.

Mr. Wheler asked the Chancellor of the Exchequer, on January 7th, whether any arrangements had yet been made for the inspection of drugs under the National Insurance Act; if so, how many inspectors had been appointed, and at what salaries, and whether those appointed were fully qualified chemists? Mr. Masterman replied that no arrangements had been made, and that no inspectors had been appointed for the purpose.

Medical Relief in Ireland.

On January 7th Mr. William O'Brien asked the Chancellor of the Exchequer whether he had considered the right of Ireland, under the equivalent grant arrangement of 1888, to 9 per cent. of the amount of the additional charges for medical relief now proposed to be contributed under the National Insurance Act from the Imperial Exchequer; and whether he would consider the advisability, from the point of view of health and comfort of the poorest part of the Irish population, of applying the funds to which Ireland was thus entitled to contributing, in the same proportion as under the Irish Agricultural Labourers Acts, towards providing housing accommodation at 1s. a week for the labourers in the cities and towns of Ireland. The Chancellor of the Exchequer said that the question of making an Exchequer grant in connexion with the work to be performed by doctors in Ireland under the National Insurance Act was now under consideration. Pending a decision in the matter, it would be impossible to express any opinion upon the suggestion contained in the second part of the question.

Mr. W. O'Brien inquired if it might be taken for granted that the representatives of Ireland would have some opportunity of discussing the matter before the £1,600,000 was voted. Mr. Lloyd George replied that there would be representatives of every part of the United Kingdom. Mr. T. M. Healy: When may we hope for a statement in the present session? Mr. Lloyd George: So far as I have the leave of the House.

CORRESPONDENCE.

[It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor, BRITISH MEDICAL JOURNAL, *429, Strand, London, W.C.]*

THE ASSOCIATION AND THE PROFESSION.

DR. A. S. HEDLEY (Rothbury) writes: The solicitude of Dr. Durant, of Gateshead, for the rural practitioner, though somewhat belated, is very touching. He is of opinion that men practising in moorland, mountainous, and fen districts, can force payment for mileage. Many of us would be glad to know in what way a few isolated doctors can now apply this compulsion to the Government or Commissioners. Of course we have the statement of Mr. Lloyd George about the small fund for mileage in these districts, but many of us have not the same implicit faith in the statements of the Chancellor as Dr. Durant has. I think Dr. Durant must agree that men practising in such areas would have been still more strengthened in their resistance had the doctors in industrial districts stood firm. Unfortunately the town doctors—regardless of the terms of service—could not resist the temptation of hard cash and gave way: their neighbours on the outskirts had to do likewise in self-defence, and so the contagion spread. In other words, the country men have been swamped by their brothers in populous centres, and heroic appeals, such as we have this week from Dr. Cromie, are, at this time of day, simply ludicrous.

In this connexion I am glad to learn that a meeting has been called to try and unite the rural doctors of Northumberland, and I hope other counties will follow suit.

The last two paragraphs of the letter from the officials of the Hastings Division will be applauded by most of your readers. The Association has nothing to regret in those members it has lost.

DR. EMYR OWEN PRICE (Bangor) writes: The Representatives at their last meeting adopted a policy which, in my opinion, will so certainly lead to disaster that I cannot allow my pledge and undertaking to be used to help them, and, so far as allegiance to that pledge goes, I am proud to proclaim myself outlaw and rebel.

The Representatives chose to decide the important questions of taking service or not quite blindly, reckless of what might be the real strength of the chain supporting them. They refused the facts offered by the Medical Secretary. These would have exposed at once the "weak links."

The truth is, the concessions gained really provided tolerable conditions of service and terms fairly remunerative. Attempts to prove the contrary had been so unconvincing that the bulk of the opposition to taking service under the Act had become a hollow sham. Events have now proved this.

Many voted for prolonging the conflict, in the hope of securing further concessions and of working an independent medical service meanwhile at the expense of the State. Everybody knows now that the hope cannot be realized.

The Gilbertian absurdity of the proposals contained in the alternative or "constructive" policy of the Association has tickled the sense of humour of the whole kingdom. The profession to work a medical service "outside the Act," regardless of the Regulations, in defiance of them, and to get State pay! To get a Government reward for knocking the "bottom out of the Regulations"! When, during the debate, the possible financial difficulties were pointed out, the "dignity of the profession" was satisfied with the assurance that the Friendly Societies would intervene—would intercede with the Government and put the finance right. The Friendly Societies, forsooth, would do this—the bodies whom the Association has so flouted and scorned; these were to come to help make an impossible scheme possible.

No wonder the general practitioners, from John o' Groat to Land's End, are with contempt rejecting such a policy and preferring the county panels! No wonder men are repudiating pledges put to such uses and are breaking out in rebellion against the policy of the Association.

They realize, too, the inadequacy of the preparations for war—that there is no war fund worthy the name; that those who make the sacrifice will have to suffer. They know that the Association has been lured on in meeting after meeting, almost to its doom, by declamatory prophets declaring untruly that truculent resolutions would fill the Treasury. They know that though these prophets "cut themselves with knives" the altars are yet cold. They know all these things, and they therefore are in active rebellion.

The wise and moderate men, our guides in the past, many of them still with us, have given warnings enough that solid voting and solidarity are often two different things when the proposals voted on are put into operation. Time has now given proof of this. For the sake of the Association I hope our remaining tried leaders will take up the reins of government leadership more firmly, and re-establish its power and prestige.

THE SITUATION AND ITS SEQUEL.

DR. HARRY GREY (Bristol) writes: Recriminations and blame are, as Dr. Cromie says, useless and harmful, but nevertheless it is absolutely necessary now to review and appreciate the situation and the mistakes that have led to it. We are beaten, and it would be a great deal more dignified to admit the defeat and set to work to prepare for the next struggle which, if our contention is correct that the Insurance Act as it applies to us is unjust and degrading, must begin before another year has passed. We are beaten by our own misdeeds. Bristol may be taken as an example of the whole country. On Monday, December 23rd, we accepted with one or two dissentients the verdict of the Representative Meeting. On Tuesday, the 24th, several men went back on that decision; by the 30th the decision had been practically reversed, and Bristol plumped for the panel. One asks, why? Two or three men were satisfied with the Act, ten or twelve were determined against any self-sacrifice in the interests of the whole and got scared by the lies in the newspapers; 80 to 100 were afraid that any sacrifice they made would benefit no one except the defaulters; the remaining 100 or so had no personal interest in the matter, and allowed those who had to be the arbiters of their own destiny. The "Doctors' splendid rally to Insurance Act" (*Daily Chronicle*) would more truly be described as "doctors' pitiful stampede," having been brought about by internal weakness in the profession, and intimidation, bribery, and superior force from without.

But the internal weakness did not supervene at the last hour; the fight was really lost eighteen months ago when the Association, throwing over the anticontract party (actually a majority of the Association), formulated a policy which I showed at the time, and which events have since proved to be illogical, contradictory, and founded on no principle whatever. The six-point policy was also incomprehensible and antipathetic to the public; I have not yet met any layman who could understand or sympathize with it. The campaign since June, 1911, when we declared the fetters of the contract system acceptable, has been directed towards lightening, padding, and concealing our chains. As such lightening and padding interfered, from the Government's point of view, with the efficiency of the fetters, our efforts met, in the absence of public comprehension and sympathy, with resistance, and the struggle came to be one not of reason but of force. In the absence on our side of ample power to protect sufferers (the Guarantee Fund is a negligible quantity, and the Association lacks the power of a trade-union to call a levy), the Government has shown itself the stronger, and the only thing left us to do is to submit under protest to an interference with the liberty of labour such as one could not have believed possible under a Liberal Government.

The situation is not, however, to my mind, without hope. The weakness due to lack of a compensation fund may be made good by acquiring trade-union powers, and the other weakness due to the existence of a few (or many) who really believe that the conditions of service under the Act are tolerable, is fairly certain to be remedied by the experience of a year or two's working of the Act. Mr. Lloyd

George himself has indicated this source of present weakness and future strength in alluding to the divergence of opinion in our ranks. Some practitioners' club practice is good and some bad; in some districts private practice pays well, in some it does not; the old club system tied up a large body of patients to one man, who would hold it against his neighbours at any price and by any means. The Insurance Act will be a great leveller, and tend to make our individual interests equal; we must help it to do so by insisting on universal free choice of doctor; with equal interests our fight will be more united when we do take the field to improve our condition.

Meanwhile it behoves us to draw together for safety, perfect our organization, remedy the defects of constitution that could permit such a false move as the late ballot, depose those of the executive who have shown themselves unequal to the position they occupy (some of them have happily already abdicated), and try to forget the shame and bitterness that must be felt, I should think, by 95 per cent. of the 10,000 men on the panels. One glaring defect of our constitution I should like to press on your notice—the cumbrousness of the Representative system and the absence of a legal postal vote. Not less important is the question of paid secretaries of Divisions. A third urgent matter is the formation of central committees; these are largely composed of the *haut ton* of the profession; in this disastrous fight it is the general practitioner who alone was competent to understand and deal with the matter, and, unfortunately, the general practitioner is too overworked and underpaid to have been adequately represented. Payment for committee services is absolutely essential if such men are to take part in them, and unless they do take part it is difficult to see how their case can ever be properly understood.

DR. F. G. HAWORTH (Darwen) writes: In the last issue of the JOURNAL you discuss the question of the pledge, and you state that on December 30th, 1912, the State Sickness Insurance Committee "would have been glad to find some way out of the difficulty"; also that "they (the men) can only be released by the deliberate decision of the Representative Body." This shows the vacillating policy of the governing body of the Association. If the pledge is binding stick to it, or throw it overboard. One point has so far not been mentioned. When the pledge was taken it was under peculiar psychic conditions; the measure was a bill not an Act; it glistened with irregularities and hardships, the terms were considered impossible, and the control was entirely lay, a wave of enthusiasm passed over the medical world, and we signed the bond under its influence—at least, I did. From that time until the date when the Divisions gave their last vote many alterations had been made, the bill had become an Act, the Chancellor had improved the terms of remuneration and the control taken directly from the approved societies and given to local committees, on which we have as much representation as is consistent with policy of "the man who pays the money must call the tune." You say "the fact that only half the number of men voted at the Divisional meetings was because they thought the result was a foregone conclusion." This we do not know; at that time dissensions were creeping in; remember, it was late in December, and many were going on the panels. No, sir! I submit you were wrong; you were not in the thick of the conflict, and could not see what was going on in the country—as, for instance, at our last meeting in Blackburn, only four voted for the Act, yet a day or two afterwards thirteen had joined the panel. When I signed the pledge I did not understand the Insurance Bill, did not read it. I left my fate in the hands of the British Medical Association—a fatal policy: "the majority does not always stand for wisdom." When the bill became law I went through it very carefully and believed in it. There were faults, certainly; how could such a gigantic measure be constructed without such faults? If a doctor had conceived and built it up it would have been fuller of hardships, because he would have had in his mind's eye his competitor in the next street rather than the insured. Let that pass; I was in a dilemma: I was pledged against the working of the Act, and yet I fully believed in it. On the last Saturday in 1912 I was told "if we did not go on the panel men would be sent here to take our places," and incidentally our bread and butter with them. In the face of this, the same evening the majority of the Darwen Medical Society decided by vote not to go on the panel, and we in the minority had to abide by this decision, or at least we did so. As to my pledge to the Association, I do not care twopence for it. The conditions were altered. I was pledged against "club practice." The Act employs us under the Government, and our final court of appeal is the Government; but I do care for the good opinion of my fellow practitioners, and we in the minority, against our better judgement, succumbed. Now what is the result? We have stood out to the bitter end, until 10,000 men have gone on the panels, and we have to ask as a favour to be allowed to send in our names. Our loyalty has very nearly cost us dear. The Chancellor has made mistakes from our point of view. We ought to remember that he drew up the bill from two standpoints—ours and the insured. We should give him credit for having long patience with us. Have we made no mistakes? First, when we sent a deputation to him, we should have given it plenary powers, and instructions that only the Chairman should speak; Mr. Lloyd George did not permit any member of the Commission to speak except through himself (the Chancellor). Secondly, the votes of the Divisions should have been taken by post. If a pledge can be taken by post, surely a subsequent vote may be. Many men put up their hands for Yes from fear of ostracism.

DR. GILES F. GOLDSBROUGH (Herne Hill) writes under date January 4th: I enclose a copy of a letter I have to-day sent to the Clerk of the Insurance Committee of the County of London.

I should like to add that my desire not to enter into agreement with the Insurance Commissioners is not animated by any political bias. I have been a Liberal in politics all my life, but I disagree with the panel system, partly on the ground stated in the letter which follows, and partly that unless adopted universally for all general practitioners it cannot become a fair or just system of remuneration for the medical profession. I should like also to say I have not entered into any pledge not to work the Insurance Act or otherwise, because as a medical man in private practice before the final arrangements of the Act were settled, I disagreed with that mode of expressing opinion on such a subject. I shall be glad now, however, to support the British Medical Association in its endeavours to guard the interests of the profession, and in all efforts to maintain individual freedom consistently with the development of medical science and art.

(COPY.)

Churchside, Herne Hill, S.E.,
January 4th, 1913.

To the Clerk of the Insurance Committee
of the County of London.

Sir,

I duly received the circular of the Insurance Committee of the County of London, dated January 2nd, 1913, and addressed to "All Medical Practitioners," notifying that the Committee have adopted the capitation system of remuneration for medical men who undertake to treat insured persons, I judge, to the exclusion of other forms of remuneration. I notice that such arrangement is provisional until April 14th, 1913.

I beg to say that as a medical man who desires not to enter into any agreement with the Insurance Commissioners, the publication, in any form, by a Government Department, of lists of medical men willing to treat obligatorily insured persons at a capitation rate appears to me to be an infringement of the spirit at least if not the letter, of the Medical Act of 1858, which disallows such form of advertisement to medical men generally.

If, therefore, I find the names of persons who have hitherto been treated by me as patients allotted as possible patients to medical men whose names appear on any such list, I shall immediately take steps to test the legality of such procedure on the ground that undue influence has been used to such persons by the publication of the lists.

I beg that you will submit this letter to the consideration of the Committee.

I am, Sir,
Yours truly,
(Signed) GILES FORWARD GOLDSBROUGH.

Registered Qualification, M.D. Aberdeen, 1881.

FEE FOR GENERAL ANAESTHETIC.

The following correspondence has passed between the President of the General Medical Council and Sir Robert Morant, Chairman of Insurance Commissioners, with regard to the payment for the administration of a general anaesthetic under the regulations for medical benefit:

General Medical Council Office,
299, Oxford Street, W.,
December 13th, 1912.

[32116.]

Sir Robert Morant, K.C.B., Chairman of the National Health Insurance Commission (England), Buckingham Gate, S.W.

Dear Sir,

My attention has been called, by members of the National Health Insurance Act Committee of the General Medical Council, to an important point arising out of the National Health Insurance (Administration of Medical Benefits) Regulations 1912, and on behalf of the Committee I desire to submit the point to the Commissioners, in case they should desire to offer any official observation upon it.

Under the alternative forms of agreement, as between a Local Medical Committee and a practitioner on the panel, contained in Part II of the First Schedule to the Regulations, it is provided in forms B, C, D, and E that in respect of a given patient the practitioner is entitled to claim special payments for the following services: (*a*) "Surgical operation requiring local or general anaesthetic," and (*b*) "Administration of general anaesthetic for the purposes of any operation included under medical benefit."

These provisions taken together are by some of my colleagues understood to imply that both the payments in question can be claimed only in cases where the practitioner himself operates, and also administers the general anaesthetic; and that no payment can be claimed under (*b*) when the operating practitioner obtains the services of a qualified person to administer the anaesthetic to the patient.

On November 27th, 1909, the General Medical Council adopted the following resolution:

> That it is expedient in the public interest to provide that the person who administers the anaesthetic for the purpose of inducing unconsciousness during any medical, surgical, or dental operation or procedure, should not be the person who performs the said operation or procedure, due provision being made for cases of emergency.

The specific question I desire to put to the Commissioners is this: May an operating practitioner under any of the forms of agreement marked B, C, D, and E, who acts in accordance with the foregoing resolution of the Council, claim a separate payment in respect of the fee paid by him to another practitioner for administering the general anaesthetic?

I am,
Yours very faithfully,
DONALD MACALISTER,
President.

National Health Insurance Commission (England),
Buckingham Gate,
London, S.W.
16th December, 1912.

Dear Sir,

In reply to your letter of the 13th I have the honour to say that the answer to the question in its concluding paragraph is in the affirmative; that is to say, under any of the systems B, C, D, or E referred to in your question, the practitioner who performed an operation (itself within the scope of medical benefit) and employed another practitioner to administer an anaesthetic would be entitled to receive out of the medical benefit fund the stated fee for the anaesthetic, subject of course to such possible scaling down or up as under systems B, C, or E would apply to all such fees.

Under system A, the provision of the anaesthetist would be one of the services which the practitioner had contracted to render in consideration of the inclusive capitation fee, and he would, in those circumstances, have to pay the anaesthetist himself.

I am,
Yours truly,
ROBERT L. MORANT.

The President,
General Council of Medical Education
and Registration of the
United Kingdom.

THREATS TO CLOSE A PANEL AND UTILIZE ASSISTANTS.

A letter has been received from medical practitioners in Wisbech signed by Dr. H. C. Meacock (for Drs. Meacock and Lucas), by Dr. M. Tylor (for Drs. Tylor, Bullmore, and Butterworth), by Dr. C. H. Gunson, and Dr. P. Bateman, stating that they received the following communication on January 8th, to which they have replied adhering to their decision not to accept service under the present conditions of the Act:

THE NATIONAL INSURANCE ACT, 1911.
Isle of Ely Insurance Committee.

Post Office Lane, Wisbech,
8th January, 1913.

Dear Sir,

Borough of Wisbech—Medical Benefit.

I am directed by my Committee to inform you that at the meeting held yesterday it was resolved:

> That, inasmuch as the panel of medical practitioners for the borough of Wisbech and the immediate vicinity is still incomplete, the Committee invite Dr. William Groom and Dr. Harry Groom, the only practitioners on the panel, to engage a sufficient number of qualified assistants to complete the panel, but that before such invitation be forwarded, forty-eight hours notice of the intention of the Committee be given to each medical practitioner who is not on the panel and who practises in Wisbech and within a radius of four miles of Wisbech.

The forty hours* will expire at noon on Friday, the 10th instant.

Yours faithfully,
(Signed) J. H. DENNIS.

Dr. H. C. Meacock.

* This is possibly an error in transcription for forty-eight.

The incident seems to be an example of attempt by a Local Insurance Committee to carry out one of the threats Mr. Lloyd George made in his speech to the Advisory Committee on January 2nd (see p. 29 *et seq.* above). He said that where there was a panel which was "all but complete," that is to say, where there were a certain number of doctors on it, but not enough to enable it to be declared an adequate panel, then the Insurance Commissioners could close the panel, and invite the doctors on the panel to engage a sufficient number of assistants or take a sufficient number of partners, so that the incomplete panel might become a complete one. As there are only two practitioners on the panel at Wisbech, it would be interesting to know how many assistants each of them is to take in order to make the panel adequate.

The close questioning to which the Secretary of the Treasury was subjected by Mr. Cassel, K.C., in the House of Commons on Monday last (p. 37), and the evasive answers returned, show that the Insurance Committee cannot be prevented by the Government from exercising their right to allow insured persons to make their own arrangements, although Mr. Masterman contended that this could not be done until the general medical service in the district was declared to be inadequate, and accompanied this statement with the threat that the Government and the Commissioners would take measures to prevent what he described as any attempt to break down the system contemplated by the Act.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A list of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

NATIONAL INSURANCE.

REPORTS OF LOCAL ACTION.

LONDON.

LONDON MEDICAL COMMITTEE.

As the result of an interview with the State Sickness Insurance Committee on Wednesday, January 1st, reported elsewhere, the members of the London Medical Committee met at 429, Strand, on Friday, January 3rd, and resolved almost unanimously to start a vigorous campaign for the purpose of keeping the medical practitioners of London true to the pledge and of preventing the formation of panels under the Insurance Act.

The Committee resolved itself into subcommittees to deal with various departments of its work, appointing, for example, an Intelligence Subcommittee to keep in touch with and cordinate all work done, a Press Subcommittee, a Parliamentary Subcommittee, a Public Medical Service Subcommittee, and a Publication Subcommittee. The London members of Council were appointed a Special Committee with plenary powers to deal with questions of emergency. The work of the Subcommittees began at once and extremely good results have followed the efforts of the Public Meetings Subcommittee and of the Publication Subcommittee. Great enthusiasm prevails at meetings attended by speakers from the London Medical Committee, and many men resign from the panels after hearing the case properly explained to them.

PROTEST MEETING AT THE QUEEN'S HALL.

A mass meeting of medical practitioners, called by the Committee, was held on January 7th at the Queen's Hall, Langham Place, W., to consider the following resolution:

> That this meeting protests emphatically against the unfair methods of intimidation employed by the Chancellor of the Exchequer for the purpose of coercing medical practitioners to serve on the panels under the Insurance Act, and is convinced that these methods cannot result in a service satisfactory to the insured person.

Sir Thos. B. Crosby, M.D., ex-Lord Mayor of London, presided, and supporting him on the platform were Sir Bertrand Dawson, Sir Anthony Bowlby, Sir John Tweedy, Professor Howard Marsh, Mr. McAdam Eccles, Dr. G. Newton Pitt, Dr. Sidney Phillips, Dr. F. J. Smith, Mr. G. R. Turner, Dr. Ford Anderson, Dr. R. M. Beaton, Dr. M. G. Biggs, Dr. Buttar, Dr. A. E. Cope, Dr. D. H. Fraser, Dr. Major Greenwood, Dr. G. E. Haslip, Dr. T. A. J. Howell, Dr. Evan Jones, and Mr. C. B. Lockwood.

The body of the hall and the first gallery were used for the meeting and both were quite full. Before the speeches began patriotic tunes were played on the organ by Mr. Ross, and the proceedings throughout were very enthusiastic, the addresses being constantly punctuated with applause.

The Chairman, in opening the proceedings, expressed regret that the resolution before the meeting should be necessary. He would much rather put a resolution conveying the thanks of an honourable profession to the administrator of an important Act of Parliament, and he hoped that even yet this might come. It meant a great deal to the people of this country if the service rendered by the doctors was willing instead of reluctant.

Dr. P. C. Raiment, the Secretary of the Committee calling the meeting, stated that messages expressing sympathy with the objects of the gathering had been received from, amongst others, Sir Douglas Powell, the Chairman of Council of the British Medical Association (Dr. J. A. Macdonald), and Mr. T. J. Verrall, the Chairman of Representative Meetings. Mr. Verrall wrote to express his strong sympathy with the object of the meeting. This was to protest very firmly against the interference proposed under the National Insurance Act with the relations that had so long existed between many of the insured persons and their medical attendants. Whatever were in general the merits of a system of National Insurance, it was certainly incumbent in achieving a justifiable object to cause as little hardship and raise as little bitterness as possible. He could see no reason why the utmost facilities should not be given for the continuance of the present arrangements between patient and doctor when these were shown to be efficient and desired by both parties.

A telegram was also read from the non-panel doctors of Cambridge heartily supporting the resolution, and from Barnstaple, stating that the report in the daily papers that North Devon men had joined the panel was incorrect.

Mr. E. B. Turner, in moving the resolution, said that although he was honoured in having the motion entrusted to him he was nevertheless filled with a sense of deep shame and humiliation that a gathering of a scientific and learned profession should be necessary to impugn the action of a State department and the conduct of a Minister of the Crown. In its final form the Insurance Act was obnoxious to a great majority of the profession, and disastrous and ruinous to many. Some of the most reasonable demands of the profession had been refused, not because that refusal was just or right, but simply as a matter of political expediency. The profession having expressed by large majorities its determination not to accept service, it became necessary for the Government to deal with the question of getting panels formed. In doing this it had relied upon a policy of intimidation, misrepresentation, and falsehood. Amongst the methods employed was the formation of the National Insurance Practitioners' Association, which met at a time when the verdict of the profession as to working the Act or not was still in the balance. Aided and countenanced by some of those whom members of the Association hoped were working with them, it was decided, without waiting for the authoritative verdict of the profession, to accept service freely and willingly under the Act. These gentlemen entered upon an energetic propaganda, and in the last few weeks politicians also had served out a great many untruths and half-truths to the press. The statement went out wholesale that the panels were filled at places where not a single man intended to go on, and all kinds of means were adopted to create feelings of apprehension. Bribery and corruption had been used; in one division the Insurance Committee had offered to distribute among the men on the panel any surplus available at the end of the first quarter. There had been downright intimidation in the way in which Insurance Committees had received deputations of medical men. Passing over all, like a malign comet, was the Chancellor of the Exchequer himself, with a daily lengthening tail of inconsistent statements, repudiated utterances, and promises unfulfilled, both to the insured and to the medical profession. The Chancellor's methods were those of the bludgeon and the pressgang, and, if it were not such a serious thing, it would be amusing to see this protagonist of modern democracy reverting to the methods of two centuries ago to compel a reluctant service. Mr. Turner alluded to the Chancellor's earlier condemnation of medical institutes, and contrasted it with his present threat to use them as a weapon against the profession, restricting them if the profession proved amenable, and permitting their unlimited extension by means of branches if opposition were continued. To the Advisory Committee the Chancellor insisted that assistants to doctors must be strictly limited in number, and that attendance must be mainly personal. He now stated, however, that where the panels were not complete the doctors who had gone on the list would be directed to engage any number or assistants, and the panel would then be closed. Looking at this matter from the point of view of the insured person, was it possible to obtain satisfactory service from men pressed into the work by the methods he had outlined? He said it was not. The Chancellor was perfectly right when he said that, in order to make the Act a success, there must be the whole-hearted and cordial co-operation of the medical profession. To discover whether that had been obtained it was only necessary to read the resolutions passed all over the country by the men who had been forced by dire necessity and against their wills on to the panels. Mr. Turner mentioned some of the examples that had come to his knowledge of attempts to secure medical benefit to the insured by inviting retired army medical officers and recently qualified men to put down their names for whole-time services. As matters stood there would be good men on the panels, but there would also be the remainder. One of the results of the system would be to fix a great gulf between the private practitioner and

the insured person. The level of service in the insurance ranks would be the standard of the most poorly qualified men.

At the conclusion of Mr. Turner's speech there was great cheering, and the whole audience rose to its feet and sang "For he's a jolly good fellow." Mr. Turner briefly acknowledged the compliment before the next speaker was called upon.

Dr. Macnamara of Lewisham, in seconding the resolution, referred to his long struggles to make headway in the profession. He objected to the continual insults to his profession and to being made a State slave. Why should not the example of Southwark be followed in London generally? In that district the money for medical benefit had been paid into a pool, and the doctors were to be allowed to apportion it in their own way. As to the number of men on the panels, names had been duplicated and triplicated. If there were any present who had given in their names he urged them to recant.

Mr. W. McAdam Eccles, who spoke in support of the resolution, said the fight was for free choice of doctor for the insured person and for the honour of the medical profession. Mr. Lloyd George now denied what everybody thought was definitely settled—namely, that there was to be free choice of doctor by every insured person. The insured had been promised this in the plainest terms. In the official explanatory statement as to medical benefit issued on December 12th, 1912, it was stated that any insured person who desired might on application be allowed by the Insurance Committee to make his own arrangements, receiving a contribution towards the cost of treatment from the Insurance Committee. If that right was disallowed a test case must be brought before the courts for the sake of the insured. In spite of the alleged right of the doctor to refuse a patient not of his own choice, those who had gone on the panels had agreed to a clause in the agreements that they would accept "such other persons as were assigned to them."

Dr. W. H. Burnhill (Shepherd's Bush), who also spoke in support of the resolution, denied that the medical man's agitation was actuated by political motives, and proceeded to state that Mr. Lloyd George's methods were a disgrace to a Cabinet Minister. He said that one reason why the profession had lost the present fight was that some of its leaders had sacrificed their followers.

Dr. E. C. Montgomery-Smith (St. John's Wood) urged members of the profession not to resign from the British Medical Association, which was their own organization and would be urgently needed in the near future.

On the resolution being put to the meeting the whole audience rose to its feet and sang "Rule, Britannia," laying special emphasis on the last line: "Britons never shall be slaves." There was great cheering, renewed when, after having invited votes to the contrary, the Chairman announced the resolution to have been carried unanimously.

Dr. F. J. Smith proposed a vote of thanks to the Chairman, and expressed the hope that as a result of the meeting there would be a good many resignations from the panels. If they were sufficiently numerous in London they would render it impossible to work the Act.

Sir Thomas Crosby, in responding to the vote of thanks, which was carried with acclamation, mentioned that he had been a practitioner of medicine for over sixty years, and he accepted the invitation to preside because he believed he was one of the oldest general practitioners in the county of London.

The proceedings then terminated.

Insured Persons and Free Choice of Doctor.

A part of the campaign carried on by the London Medical Committee is the holding of public meetings of insured persons in various districts. On January 7th a large and enthusiastic meeting was held at the public baths, Caledonian Road. In some introductory remarks, Dr. Wilson, who was in the chair, said that as doctors they did not want to say a word against the Act as an Act, but came to explain the medical sections of the Act, especially as they had reference to the insured person. The meeting was, he said, entirely non-political, as was proved by the fact that doctors of all shades of political opinion were on the platform. He then called upon Dr. Beaton, who explained the force of Clause 15, subsection (3), of the Act, the proviso under Clause 15 (2), and the Regulations, combined with the answers of Ministers in the House of Commons. These, he said, showed that insured persons had a right to claim to be allowed to make their own arrangements and choose any doctor, whether he was on the panel or not. Dr. Sherry, Dr. Morison, Dr. Latham, Dr. Hands, and others emphasized the question of the free choice of doctor, and the following resolution was passed by an overwhelming majority of insured persons present:

> That we, insured persons under the National Insurance Act, demand our right to choose our own doctors to attend and treat us, whether they be on the Government panel of doctors or not.

Legal Opinion.

The London Medical Committee has, we are informed, taken the opinion of eminent counsel upon the question of the validity of the agreements entered into by the medical practitioners who have gone on the panels, and counsel have advised that, although such agreements are legally speaking in order, no actions or other proceedings to compel performance of the agreements would succeed, and that actions for damages for breach of such agreements—that is, for failing or refusing to carry them out—would be ineffective because no damage flowing from such failure or refusal could be proved.

Alternative Service.

The London Medical Committee has formulated the following alternative scheme of conditions and terms upon which the medical profession in London who refuse to join the panel will agree to attend insured persons:

1. Free choice of doctor by the insured patient and of patient by doctor.

2. An income limit of £104 per annum and a radius of two miles, but permission may be given by Local Medical Committee to raise the income limit to £160 per annum if, in their opinion, this course should be adopted in their area.

3. All arrangement to be made through the Local Provisional or Public Service Medical Committees that are working this scheme.

4. A list of doctors willing to act will be drawn up for each borough council area, its publication to be left to the Public Medical Service Committee or the Local Provisional Medical Committee, as the case may be.

5. The arrangements made between Committee and insured persons or their agents shall be terminable by not less than three months' notice on either side.

6. Any complaints to be made in writing to the Secretary of the Public Medical Service Committee, which undertakes to deal with them in a fair spirit.

7. The remuneration shall be:

(*a*) A capitation payment of 6s. 6d. for ordinary attendance, and 8s. 6d. to include medicines and dressings. Such capitation fee shall not include the following:
- Confinement. Miscarriage or illness resulting therefrom within one month.
- Vaccinations.
- Anaesthetics.
- Operations requiring local or general anaesthesia.
- Dentistry.
- Special examinations — for example, Refractions, *x* ray, etc.
- Tuberculous disease while in receipt of sanatorium benefit.
- Extra certificates and reports.
- Examinations and court attendance under workmen's compensation, employer's liability, and other statutes.

Should any Local Medical Service decide to admit insured persons as tariff fee members, under no circumstances should the fee charged per visit, whether with or without medicine, be less than 2s. 6d.

8. Each society shall supply at the commencement of each quarter a list in duplicate of the members it wishes each doctor to attend, and this list can be corrected on the first day of each of the succeeding two months; and at the end of each quarter the amounts due to the doctors shall be paid to the Treasurer of the Local Public Medical Service Committee or Local Provisional Medical Committee.

The Borough Panels.

The London Insurance Committee has issued a table showing the number of the practitioners in the several metropolitan boroughs who have consented to act upon the panels. In an accompanying memorandum it is stated that the list of names was completed on the evening of January 6th, but that it will not be available for distribution until January 13th. It is admitted that

the total number of practitioners within one or two areas points to a considerable number of insured persons to be treated by each medical practitioner, but it is calculated that the average number of insured persons who will have the choice of selecting a doctor on the panel is, on the whole, just over 1,500 per doctor; so that, while in some cases the number of persons will exceed this figure, in other cases it is just possible the number may be less. It is difficult to see how this average has been arrived at since on the figures given in the table the number of insured persons to each doctor on the panel is 1,973. The Insurance Committee goes on to state that in addition to the doctors who reside in the County of London a large number living in the adjoining counties have accepted service under the Act, and have agreed to treat insured persons living near the boundary. It is stated that the number of doctors may, therefore, be increased by an additional 100. This gives a total of 859 doctors, which affords an average of 1,743 insured persons to each.

Such an average for an area so large and populous as London is not very informing, and it will be observed that there is a great difference between the proportions in the various boroughs.

It is stated that since the compilation of the list was completed on Monday many additional agreement forms have been received, and also that several practitioners residing in London have not yet determined the boroughs in which they wish their names to be entered. It is further stated that a comparison of the names with the map of London shows that medical practitioners are very evenly distributed throughout the county, particularly in the thickly populated districts.

An inspection of the figures does not in all cases bear this out. The assertion would appear to be correct for some of the poorer districts, in Greenwich, Woolwich, Bermondsey, and Deptford, for example. It is certainly not correct in Lambeth, where the proportion is one doctor to over 2,000 insured persons; in St. Pancras, where it is 1 to over 2,400; in Islington, where it is 1 to 3,633; and in Hackney and Shoreditch, where it is 1 to over 5,000.

In the accompanying table the numbers in the columns headed "insured persons (approximate)," and "practitioners on panel," are those in the official list. We have added a third column giving the approximate number of registered medical practitioners in each borough.

Metropolitan Boroughs.	No. of Insured Persons (Approximate).	No. of Practitioners on Panel.	No. of Practitioners in Borough Approximate).
City of London ...	6,000	6	207
Battersea ... —	56,000	29	83
Bermondsey... ...	42,000	35	50
Bethnal Green ...	42,000	10	33
Camberwell	87,000	65	148
Chelsea	22,000	8	105
Deptford	36,000	28	62
Finsbury	29,000	[illegible]	40
Fulham	51,000	38	94
Greenwich	32,000	22	66
Hackney	74,000	14	129
Hammersmith ...	40,000	17	79
Hampstead	28,000	26	210
Holborn	16,000	11	114
Islington	109,000	30	229
Kensington (Royal Borough of)	57,000	28	361
Lambeth	99,000	48	197
Lewisham	53,000	31	162
Paddington	47,000	17	251
Poplar	54,000	28	55
St. Marylebone ...	39,000	7	1,069
St. Pancras	72,000	30	210
Shoreditch	37,000	7	20
Southwark	64,000	33	113
Stepney	93,000	39	150
Stoke Newington ...	16,000	8	32
Wandsworth	104,000	74	304
Westminster	53,000	19	556
Woolwich	40,000	42	68
	1,498,000	759	5,207

COMMITTEE OF PANEL PRACTITIONERS.

A Medical Committee has been elected from the doctors on the panels in London. Its first meeting was held on January 7th, when officials were elected as follows:

Chairman, Dr. J. H. Keay (Greenwich); Deputy-Chairman, Dr. Claude Taylor (Hampstead); Secretaries, Dr. B. A. Richmond (Rotherhithe) and Dr. Welply (Finsbury Park).

The following members were chosen to form, with these officers, the executive committee:

Dr. McBurney (Representing Chelsea, Fulham, and Hammersmith); Dr. Atteridge (Kensington and Westminster); Dr. Angus (Hampstead, Paddington, and Marylebone); Dr. Brenner (Finsbury, Holborn, and St. Pancras); Dr. Patch (Islington); Dr. Strong (City of London, Bethnal Green, and Shoreditch); Dr. Page (Hackney and Stoke Newington); Dr. Williams (Poplar and Stepney); Dr. Hogarth (Greenwich, Woolwich, and Deptford); Dr. Donnellan (Camberwell and Lewisham); Dr. Pring (Bermondsey and Southwark); Dr. Orchard (Lambeth); Dr. McMurtry (Battersea and Wandsworth); Dr. Ethel Bentham, and Dr. Elizabeth Adelaide Baker.

GREENWICH.

We have received for publication the following report from Dr. C. H. Hartt, member of the London Medical Committee:

A meeting of medical practitioners in Greenwich was held at the Greenwich Borough Hall on Monday in last week to consider the position, but out of sixty-eight in the borough there was only an attendance of about twenty-five. On the motion to support the policy of the British Medical Association, as expressed in its resolution dealing with the proposed arrangements with friendly societies, the voting was 10 in favour of standing by the British Medical Association and 7 for joining the panel. A few practitioners not present had, however, intimated their intention of going on the panel, and although it was suggested that the minority might fall in with the majority they declined to do so, it being pointed out that many men inclined to join the panel would naturally be absent from the meeting, and therefore that the result of the vote was not a true indication of the general feeling. In the result it was decided to take no action. The meeting was presided over by Dr. E. G. Annis, Medical Officer of Health for the Borough of Greenwich, who did not vote.

As the result of a further meeting of doctors in actual practice resident in the district of Greenwich, Charlton, and Blackheath, held at the Cottage Hospital, Shooter's Hill Road, on Wednesday, and attended by nineteen medical men, the following statement has been issued:

"In view of the difference of opinion that now exists amongst the members of the medical profession (in actual practice) in the district, it is thought desirable to inform 'insured persons' and the public generally that all those doctors present at the meeting cannot consent to their names being placed on the panel by virtue of their having signed a solemn pledge with the British Medical Association not to act as medical officers under the Act until such time as the Government alter or mitigate the Regulations, and so render them acceptable, and not derogatory, to their profession as medical men. They regard (and are reminded by the British Medical Association) the solemn pledge that was taken in the early part of the year, and was signed by 27,400 practitioners, as still binding on them. They therefore feel that they cannot break their word of honour, for by so doing they would consider themselves unfaithful to the majority of their professional brethren who have worked and thought with them. They are standing by an 'Association' that has in the past been entrusted with their needs and requirements, and they feel sure that the public and 'insured persons' will understand their reason for not joining those of their profession who at the last moment have consented to work the Act. They believe that the public (for whose benefit the Act is to be administered) is with them, and will not consider their action

wrong in still remaining true to their word of honour and loyal to those who have fought so successfully from the beginning of the contest, in gaining certain concessions for them."

DEPTFORD.

A meeting of medical men practising within the metropolitan borough of Deptford, and determined to keep the pledges and generally to support the policy of the British Medical Association, was held at the residence of Dr. Walter Groome on December 28th, 1912. The situation was considered. As a result it was determined by every possible means to spread among insured persons a knowledge of the provisions contained in Section 15, Subsections 3 and 4, of the National Insurance Act. The statement, or "manifesto," which appeared in the British Medical Journal Supplement of January 4th, 1913, was drafted and signed by twenty-four medical men practising in the borough.

At a second meeting held on December 31st, 1912, it was resolved that the twenty-five medical men present should form an association. Dr. C. J. Parke was elected chairman, Dr. Walter Groome treasurer, and Dr. C. P. Handson secretary. The manifesto issued at the previous meeting had already been published in the *Pall Mall Gazette*, the *Times*, and several other daily papers. It has now appeared in all the local papers with sympathetic editorial comments. It was resolved that reprints of this manifesto, with leaflets explaining in popular terms the attitude of the association, the notice to the Clerk of the London Insurance Committee by insured persons desirous of "making their own arrangements," as printed in the British Medical Journal Supplement of January 4th, 1913, together with detailed directions for filling in and posting the form, should be distributed to every house in Deptford. It was hoped that this would have been accomplished before Tuesday, January 7th. Posters, similar to those used by the practitioners of Kensington, calling upon insured persons to make their own arrangements and demand free choice of doctor, adorn the hoardings in the borough. In addition to the house-to-house distribution, large numbers of the form of application for "contracting out" have been supplied by individual practitioners to their patients. For the preliminary expenses a levy was made on the members who signed the manifesto, and when the total expenses are known a further levy will be made.

The main idea underlying the policy is that the Insurance Committee should be simply inundated with requests for "contracting out," so that, if it has any regard for the popularity of the Act, it must feel compelled to concede the applications.

Secretaries of approved societies will be approached, and it is hoped to call a meeting of insured persons and to explain to them the advantages of the scheme supported by the British Medical Association.

HAMPSTEAD.

A meeting was held on December 30th, 1912, at 41, Belsize Park. Dr. Ford Anderson was in the chair, and sixteen members were present.

Treatment of Insured Persons.—A letter from the medical staff of the Kilburn Provident Medical Institute was read, asking the approval of the Committee to their scheme for treatment of its members who are insured persons. It was moved by Dr. Jessop and seconded by Dr. Oppenheimer:

> That the Committee approve of the scheme.

This was carried unanimously. It was then moved by Dr. MacFadden and seconded by Dr. Oppenheimer:

> That the Committee approve similar schemes by the Hampstead Provident Dispensary and the Court Abbey Foresters.

This was also carried unanimously.

London Medical Committee.—Dr. Pritchard and Dr. Archer reported that action had been taken at the London Medical Committee held that afternoon. Details of the arrangements to circularize the practitioners concerned, with the aid of pamphlets and posters drawing the attention of insured persons to their ability to apply to the Insurance Committee to make their own arrangements, were discussed, and a subcommittee was appointed to draft a letter and make the necessary arrangements. The members of the subcommittee were Dr. Ford Anderson, Dr. MacFadden, Mr. Dorrell, and Mr. Archer. The members present contributed 5s. each towards the expense.

Another meeting was held at an hour's notice on January 3rd at Frognal Park. Mr. Adam Oakley was in the chair, and fourteen members were present.

Question about a Pamphlet.—Dr. Picard asked the Honorary Secretary the reason why a pamphlet that had been objected to by the Committee had been issued. The Honorary Secretary explained that the printers had sent it without instructions, and it had been issued with the others by the typist in his absence.

Kilburn Provident Medical Institute.—A letter from Dr. Winslow Hall asking the Honorary Secretary to confirm his request that the Kilburn Provident Medical Institute should apply to become an approved institution, by writing to the Clerks to the Insurance Committees of London and Middlesex to that effect, was read. Whereupon Dr. MacFadden made the following statement: That at a meeting of the Committee of the Hampstead Provident Dispensary it was proposed that the institute become approved under the Act for the administration of medical benefit; that he pointed out that if this were carried it would involve the resignation of members of the medical staff, and that in such an eventuality the institute would not only lose the services of the staff as far as insured persons were concerned, but also as far as uninsured, and that it might be difficult for them to obtain the services of a staff at all. It was ultimately resolved to postpone the application for the present. Whereupon Dr. Pritchard moved and Dr. Picard seconded, and it was carried *nemine contradicente*:

> That the Hampstead Provisional Medical Committee inform the London Insurance Committee and the Middlesex Insurance Committee that the Kilburn Medical Provident Institute is prepared to accept insured patients who are allowed to contract out of their medical benefits under the following terms: 8s. 6d. per annum inclusive of medicine; income limit of £2 per week; and treatment as indicated by the enclosed rules.

Whereupon Dr. Oppenheimer moved and Dr. Archer seconded, and it was carried *nemine contradicente*:

> That the Honorary Secretary be instructed to send Dr. Winslow Hall a copy of his letter to the Clerks of the Insurance Committees, and to inform him that this Committee does not approve of the Kilburn Provident Medical Institute applying to become an approved institution.

London Medical Committee.—The Committee then proceeded to discuss the means of carrying on the campaign of the London Medical Committee in Hampstead. A campaign fund was started, and £33 10s. was collected from members of the Committee, and it was agreed that the Honorary Secretary should send out a circular letter for subscriptions. It was moved by Dr. Pritchard, and seconded by Mr. Archer, that public meetings should be held as early as possible, and, on this being carried, it was arranged that two meetings should be held—one for the district of Hampstead and Fleet Road and the other for West Hampstead and Kilburn. Two subcommittees were appointed to carry out the details, one for each district. The subcommittee for Hampstead to consist of Dr. Ford Anderson, Dr. Jessop, and Dr. MacFadden; that for West Hampstead of Dr. Pritchard, Dr. Picard, and Mr. Archer; the Honorary Secretary being *ex officio* on both. A meeting of the profession was also arranged to be held on Thursday, January 9th, at 5 o'clock, immediately after the Divisional meeting.

Vote of Thanks.—A vote of thanks to Mr. Ware for entertaining the Committee was passed unanimously.

PROTEST OF A LIBERAL DOCTOR.

We have received the following letter for publication:

134, Mortimer Road, Kensal Rise, N.W.,
Jan. 5th, 1913.

Dear Mr. Hawkins,

I deeply regret that I am compelled to withdraw from the position of Vice-President of the Kensal Rise and Brondesbury Park Liberal Association, and to sever my connexion with the Liberal Party. I am driven into this position by the present Government forcing through Parliament a crude and unjust Act to the medical profession, and still further an Act that will prove highly detrimental to the public and will be a positive danger to the national health. From my experience in this neighbourhood during the past twenty years with private practice and club work, I am in a position to state that club work is most unsatisfactory both to the public and

medical profession, being literally nothing else but charity or sweated work.

The Insurance Act was rushed through Parliament without due consideration or arrangement with the parties most concerned, with the natural result that a complete deadlock has occurred. The cause of our dissatisfaction is that we have relied upon our private patients for our income, and have added a little club practice by way of charity. Now, under this Act, most of our paying patients are changed into club patients, for whom we may get a possible 1½d. per week, though not guaranteed, with the consequent extra work. Under these new conditions our income will be so lessened that to earn the same amount we shall have to work from twice to three times as hard, and cannot possibly give due consideration or properly diagnose the ailments of the State patients, and at the same time be harassed by numerous officials who will be receiving the money that ought to be paid to the doctors.

As a Liberal medical man I protest against this despotic legislation, and shall stand aloof from the party that promoted it. Thanking you for the great courtesy I have received from yourself and the whole of the party in the past,

I am, dear sir,
Yours truly,
THOS. E. SMURTHWAITE.

MIDDLESEX.

THE PANEL IN THE HARROW DISTRICT.

Dr. A. H. WILLIAMS (Harrow) writes under date January 7th:

I think it due to my colleagues in this district to explain our present position.

Yesterday (Monday) afternoon, some hours after the official closing of the panel "for the last time," we, the practitioners in Harrow, Wealdstone, Wembley, Stanmore, and Pinner, found ourselves in the position of being the only district in Middlesex in which no panels had been formed. Not one single man had given in his name from these areas. We had been left in glorious isolation by all our neighbours.

We were threatened by the Insurance Committee with the planting in our midst of a number of whole-time officers, who, in addition to attending the insured, would be able to undersell us in the attendance on uninsured persons, and who would be maintained by the Committee for a period of years. We recognized that this could easily be done with the whole force of the County Committee directed against one isolated district, which contained only some thirty-three practitioners.

Left for the time being without any sort of support from outside, we felt that we must, for the time at any rate, retreat from a position which had become untenable. If we persisted in our isolated resistance, it meant disaster, and even ruin, to some of those doctors who had stood loyally by us at grave risk to themselves. We therefore held further meetings, and decided that it would be advisable, as a tactical measure, to form panels temporarily in this district. Such an intimation was sent to the Insurance Committee, who accepted the position, even though the panels had been officially closed for some hours.

Recognizing the magnificent loyalty of those practitioners who had stood out valiantly till the last, but in the end found that they must go on the panels or starve, we felt that it would be a poor return for their splendid loyalty to leave them to form panels alone, and thus to allow any one to point the finger of scorn at them as being the doctors who were too hard up to stand out. The offer was therefore made by some of the senior practitioners, who would not otherwise have gone on the panels in any case, to take part with them in their detested sacrifice.

To-day we hear that men are dropping off the panels at Willesden, Hendon, and other districts round us. Why had this not been done before? Had we received any support from other parts of the county we could have felt justified in continuing an unbroken resistance. We must now have something more definite than reports that others are going off the panels they have so lightly joined, before we can feel any confidence in sufficient support from our neighbours to enable us to go back to the position of yesterday. Without that confidence we feel that the retreat we have made is the only thing that could give us a reasonable chance of success in the fight which we intend to continue at the earliest opportunity.

We feel that we have been grievously deserted by the rest of the county. If we could stand out till after the "final" closing of the panels, why could not others? We had felt bound by our pledges, but when we were deserted on all sides and stood alone, who could consider the undertaking any longer binding?

SALFORD.

SCHEME OF MEDICAL BENEFIT.

Special attention has been drawn to the scheme for the administration of medical benefit which has been adopted in Salford, because it is held to approach more nearly to the requirements of the profession than other schemes adopted in the rest of the country.

The original demands of the Salford Provisional Medical Committee, though they were received sympathetically by the Insurance Committee, were not accepted by the Commissioners, because they involved a suspension of some of the Regulations. Salford was, however, fortunate in having on the Insurance Committee several members, notably the chairman (Alderman Huddart), the clerk (Mr. Jackson), and the medical officer of health (Dr. Tattersall), who evidently realized the difficulties that would arise if it were found necessary to introduce a salaried service. Accordingly, they set themselves to devise a scheme which would embody as much as possible of what the profession desired, while keeping within the provisions of the Act and the Regulations. It is estimated that there will be about 70,000 insured persons in Salford, and that about 35 doctors would be required. Down to Saturday, January 4th, only about 18 practitioners had replied to the invitation of the Insurance Committee, expressing their desire to negotiate with a view to joining the panel, and 4 of these had afterwards withdrawn. As soon as possible after the interview between the Commissioners and the chairman and clerk of the Insurance Committee, the practitioners who still wished to join the panel were summoned to meet the Medical Subcommittee of the Insurance Committee. The meeting took place on the evening of January 4th, and the scheme given in detail below was then submitted. After some explanations it was at once accepted, the feeling being expressed that it was probably the best possible under the circumstances. It was also stated that the Insurance Committee would feel compelled, though with great reluctance, to advertise for salaried medical officers if a sufficient number of practitioners did not accept the scheme before the evening of Monday, January 6th. The practitioners present expressed their anxiety to avoid this.

A further conference was held on Sunday morning, January 5th, between the Insurance Committee and the Provisional Medical Committee, and again the scheme received unanimous approval. A general meeting of the whole profession was then summoned by telephone and messenger for Sunday afternoon. The meeting was very largely attended, and, after the whole position had been explained, it was resolved *nemine contradicente* to adopt the scheme and to advise all general practitioners to enter their names on the list as a provisional agreement until the end of April, details as to the scale of fees being left for subsequent arrangement. The following is the official text of the scheme, and up to Tuesday night over 100 practioners had accepted, which is considerably more than the whole of those resident in the borough itself.

Salford Scheme.

The Salford Insurance Committee are prepared to adopt, until April 30th, the following arrangement for the provision of medical benefit, in accordance with the Act and the Regulations:

The Committee undertakes that the total sums available for medical attendance and treatment, namely, the quarter's portion of the annual 6s. 6d. per head for each insured person, and of the 6d. per head for domiciliary treatment of insured persons suffering from tuberculosis, shall be distributed among the doctors giving medical treatment and attendance to insured persons in accordance with the scale of fees to be settled by a representative Committee of those doctors—or shall be handed to the Committee of those doctors to be by them distributed amongst the doctors in that way.

The amounts available shall be the total amount for which the Committee shall be responsible to the doctors, and each doctor must give an undertaking that he will not make any claim against either the Committee or an insured person for higher remuneration, or bring any action in respect of it.

If the total amount is insufficient to meet all the charges

of the doctors in accordance with the scale, there will be a *pro rata* reduction made in the charges.

The doctors must make an arrangement among themselves by which every insured person in the area shall receive adequate medical treatment and attendance.

The sum of 2s. per head for each insured person available for drugs and medical appliances shall in like manner be ascertained for each area, and so much of it as is assignable to the doctors for supplying drugs and medical appliances shall be distributed among them according to a scheme to be settled by the before-mentioned representative Committee, and the remainder of the fund shall be distributed in accordance with Regulations 43 and 45.

Each doctor shall undertake to give to the persons attended by him such certificates as are necessary to enable them to establish their claim for sickness and disablement benefit, and to keep a day-book in the form already settled by the Commissioners to be provided by the Committee.

Disputes to be referred to the Medical Service Subcommittee described in the Regulations. The doctors' names to be published in the first list, and their consent to this publication is to indicate their acquiescence in the arrangement above described.

MANCHESTER.

Scheme for Medical Benefit.

With regard to the provision of medical benefit under the Insurance Act, matters had arrived at a very critical stage in Manchester on Sunday last. The Insurance Committee had advertised for salaried officers, but it was at the same time announced that it was open to any practitioners to join the panel up to 10 a.m. on Monday, when the list was to be closed. At the general meeting of the profession on Sunday evening it appeared that the position was that if the panel proved to be sufficient, those doctors who refused to join it were in danger of losing any share in the treatment of the insured, while if the panel were insufficient, the whole of the resident practitioners would suffer through the introduction of strangers. It was reported to the meeting that an agreement had been reached in Salford, and the Salford scheme was explained by Dr. Pinder, the Chairman of the Salford Medical Committee. He said that under the Salford scheme (1) there was no signed contract, (2) there was no panel, but for the convenience of patients a list of doctors willing to give attendance under the scheme; (3) there was absolute free choice of doctor with payment for work done, so that, although all disputes were to be referred to the Medical Service Committee described in the Regulations, all risk of disputes would be done away, and the attendance on the insured would be conducted on the basis of private practice. (4) It would be possible for any doctor to arrange beforehand with any insured person for the payment of any higher fees that might be agreed between them (see par. 2 below). The Chairman of the Manchester Insurance Committee was communicated with and asked whether an arrangement similar to that of Salford could be made in Manchester. The Chairman of the Insurance Committee was not in a position to give a definite reply without consulting his committee, but he arranged for a meeting of that committee for 9 a.m. on Monday. The Commissioners were then communicated with, and a conference was arranged for Monday evening. It was stated that the Insurance Committee had received more than sufficient applications to form a salaried service, and that it was considered that in point of numbers the number of practitioners who had expressed their willingness to form a panel would have sufficed to attend to the 240,000 insured persons in the area. At the conference held on Monday evening there were present Mr. Claude Schuster, secretary of the English Commissioners, who came specially from London, Mr. W. Davies (Chairman), and Sir Charles Behrens, representing the Insurance Committee, and Dr. Helme and Dr. McGowan representing the doctors. The Chairman and Clerk of the Salford Insurance Committee and Dr. Hodgson (Secretary of the Salford Medical Committee) were also present to explain the Salford scheme. The Insurance Committee and the Commissioners seemed to realize that if an amicable arrangement could be arrived at, whereby a whole-hearted service of the profession, instead of a limited service from those willing to serve on the panel, its acceptance would be in the interests of the insured no less than of the doctors.

The following is the scheme arranged provisionally for three months:

Manchester Scheme.

The Manchester Insurance Committee are prepared to make the following arrangements with the doctors for the provision, in accordance with the Act and Regulations of the Commissioners, for medical benefit to insured persons in their area, and domiciliary treatment of such persons suffering from tuberculosis.

1. The committee will undertake that the total sums available for medical attendance and treatment—namely, 6s. 6d. per head for twelve months for each insured person, and the 6d. per head for twelve months for the domiciliary treatment of insured persons suffering from tuberculosis, shall be ascertained, and the total sum shall be pooled and distributed among the doctors giving medical treatment and attendance to insured persons in that area in accordance with a scale of fees or remuneration to be settled by the Manchester Insurance Committee and a committee of doctors selected by the doctors practising in this area who undertake to give the service.

2. The total sum available shall be the limit of the liability of the Insurance Committee (except for drugs and medical appliances), and each doctor accepting service must give an undertaking that he will not make any claim or bring any action against an insured person or this Insurance Committee for additional payment.

3. If the total pooled is insufficient to meet all the proper charges of the doctors in accordance with the scale, there will be a *pro rata* reduction for each doctor, and if it should be in excess of the amount required the balance will be distributed equitably at the discretion of the doctors in the list.

4. The account of each doctor for fees or remuneration shall be submitted to the committee of doctors, who must examine it and certify the amount of the account as passed by them, and then send the account to the Insurance Committee for payment out of the fund in accordance with the last preceding clause. The committee of doctors shall have power to reduce or disallow any item of an account submitted to them.

5. The doctors must undertake to afford such medical attendance and treatment as is required by the Regulations of the Commissioners to every insured person within the area to the satisfaction of the Insurance Committee, and, also subject to the conditions of Regulation No. 51, to old and disabled members of friendly societies. Every insured person shall have the free right to arrange with any doctor among those accepting service in the area to attend him during the continuance of this scheme. The committee of doctors shall arrange to the satisfaction of the Insurance Committee for medical attendance and treatment to be given to any insured person who has not made an effective selection of a doctor.

6. The sum of 2s. per head for each insured person available for drugs and medical appliances shall in like manner be ascertained, and so much of it as is assignable to the doctors for supplying drugs and medical appliances shall be distributed among them according to a scheme to be settled by the Insurance Committee and the before-mentioned committee of doctors, and the remainder of the fund shall be distributed in accordance with Sections 43 and 45 of the Regulations made by the Insurance Commissioners.

6*a*. The figures before given are for twelve months, but as this scheme is intended to be provisional for the quarter commencing January 15th, 1913, the sums available for distribution must be divided by 4.

7. Each doctor shall undertake to give to the persons attended by him such certificates as are necessary to enable them to establish their claim for sickness and disablement benefits or to stop such benefits, and to keep a day-book in the form already settled by the Commissioners, and to be provided by the Committee.

8. All necessary forms of certificates will be supplied by the Insurance Committee.

9. Any dispute arising under this scheme shall be determined in manner provided by the regulations 52, 53, 54, 55, and 56.

10. This scheme is a tentative one for the quarter commencing January 15th, 1913, and the Insurance Committee will be prepared after that date to discuss with the committee of the doctors who accept service any suggested amendments (not involving an infringement of the Act or the regulations of the Insurance Commissioners or increased payments) which circumstances may be considered to make desirable.

11. Each doctor desiring to accept service under this scheme must send a notice to that effect to the clerk to the

Manchester Insurance Committee not later than noon on January 10th, 1913.

The acceptance of service will be treated as provisional for the period ending April 14th, 1913, and any doctor selling his practice or removing from the area shall be released from this arrangement on the expiration of one month from the date of notice to that effect given to the Insurance Committee.

There was further an understanding that the Insurance Committee would provide the necessary clerical staff.

The form of notice to be given to the Insurance Committee by a doctor joining the scheme is as follows:

National Insurance Act, 1911.

I, the undersigned, being a registered medical practitioner, am prepared to treat insured persons in the area of the Manchester Insurance Committee until April 14th, 1913, on the terms set out in the Scheme accompanying the circular letter of the Clerk to the said Committee, dated 7th day of January, 1913.

Particulars of my address and days and hours of attendance are given below:

Private address .....

.....

Days and hours of attendance thereat .....

.....

Address of surgery, dispensary, or other place at which I shall be prepared to attend for the purpose of treating insured persons .....

.....

Days and hours of attendance thereat .....

.....

(Signed).....

The Chairman of the Manchester Insurance Committee (Mr. Davies) said that the arrangement had been entered into by Mr. Schuster as representing the National Insurance Commissioners, by Dr. Helme and Dr. McGowan as representing the doctors, and by himself and Sir Charles Behrens as representing the Manchester Insurance Committee. The panel as a panel would not exist because now the door was thrown open to every doctor in Manchester.

The scheme is understood as being identical with that accepted in Salford.

ADMINISTRATIVE COUNTY OF LANCASHIRE.

A scheme for medical benefit which more nearly resembles the Manchester than the Salford scheme, though differing from both in some respects, has been adopted by the Insurance Committee for the administrative county of Lancashire, and was submitted to a meeting at Preston on January 6th, attended by about 120 medical practitioners from various parts of the county. The following resolution was, it is stated, adopted at this meeting:

> That the scheme submitted is, in the opinion of the medical men present, one that is likely to be accepted by the medical profession in Lancashire.

The administrative county is divided provisionally into twenty-three districts and the total moneys available for each district are to be pooled for the district, the committees of doctors themselves in each district settling the scales of fees. As in Manchester, the accounts of each doctor must be examined and certified by the committee of doctors and the distribution made by the Insurance Committee. The doctors undertake to give such treatment "as is required by the Regulations" without the definite stipulation of the Manchester scheme that it must be "to the satisfaction of the Insurance Committee." The provision as to free choice of doctor is exactly as in the Manchester scheme, and the distribution of patients who make no choice or are refused is left entirely to the committee of doctors. The question of mileage in some of the sparsely populated rural districts is mentioned, but left for future arrangement between the Commissioners, the Insurance Committee, and the committees of doctors. There is the same provision as in Manchester that at the end of the three months the Insurance Committee will discuss amendments suggested by the doctors, provided that they do not involve any infringement of the Act or the Regulations, or any increased payment. An important addition is made which is not in the Manchester or Salford schemes, that any doctor may withdraw his acceptance if he gives one month's notice before the end of January, and in such case his remuneration shall be of such amount as the committee of doctors may determine.

LIVERPOOL.

The Pledge and the Panel.

Medical opinion in Liverpool seems to have been greatly influenced by a threat attributed to Mr. Lloyd George of making a special case of Liverpool, and introducing from outside some 200 medical men. At a meeting of the Provisional Medical Committee held on Saturday, January 4th, the following resolution was adopted by fifteen votes to twelve:

> We, the Liverpool Provisional Medical Committee, can no longer justly condemn those of our fellow practitioners who have hitherto loyally supported the British Medical Association, and are now compelled by force of circumstances to join the panel in order to save themselves from ruin.

When this became known, a meeting of general practitioners was summoned for Monday. The chair was taken by Dr. James C. Baxter of Everton, and Dr. McFall acted as secretary. The chairman said that it had not been intended to call such a meeting until after the Representative Meeting of the British Medical Association summoned for January 17th, but he had information from an official source that the Government intended at all cost to establish its scheme in Liverpool, and was, in fact, prepared to place 200 men there. He had no doubt at all about the correctness of the information. Further, it was known that a number of medical men in the city had decided to go on the panel. A meeting had taken place between the Emergency Committee, of which he was a member, and the local committee of the British Medical Association on Saturday, when it was thought better that the Emergency Committee should summon a meeting. The crisis had been brought about by the Chancellor of the Exchequer, who had given instructions to close the panel on January 15th. He concluded by pointing out that any arrangements which might be come to were provisional for three months. In reply to a question whether the action of the Liverpool Provisional Medical Committee had exonerated the members from their pledge, he stated that that was a matter for each individual to determine for himself.

Dr. J. E. O'Sullivan protested that nobody could absolve from the pledge save the Association, and that the resolution of the Provisional Committee was merely an expression of opinion, and could not be interpreted as a suggestion that men were absolved from their pledge. He contended that the meeting of the Provisional Medical Committee on Saturday was irregular, as the business taken was not stated on the summons. He believed that the statement with regard to 200 doctors ready to be brought into Liverpool was bluff.

Dr. Hughes stated that though the threat was coercive he believed that it had been made, and the Chairman said the person who made it was a representative of the Commissioners.

Dr. Dubourg said that though he felt that the profession owed a great debt of gratitude to the British Medical Association, he had in the circumstances placed his name on the panel.

In the course of further discussion Dr. Sugden, as the seconder of the resolution at the meeting of the Provisional Medical Committee, said that the resolution was passed not as binding on members of the profession or as freeing them from their pledges, but merely as an expression of the opinion of the meeting that men who went on the panel through stress of circumstances could no longer be blamed.

The following resolution was put to the meeting and carried by 60 votes to 27:

> To confirm and adopt the action of the Liverpool Provisional Medical Committee so as to make it possible for men to take up a position on the panel in Liverpool without being held to have infringed upon their honourable undertaking to the British Medical Association.

CHESHIRE.

An emergency meeting of the Provisional Local Medical Committee for the County of Cheshire was held at the Altrincham Hospital on January 5th, Dr. GARSTANG in the chair.

It was resolved that the action of the Secretary in summoning the meeting in emergency be approved. Information was laid before the meeting that the terms submitted by the Committee to the County Insurance Committee on the previous Monday had been rejected by the Commissioners who had instructed the Insurance Committee to fill the panels, and failing that, to advertise for whole time officers. The Insurance Committee had been further promised by the Commissioners an ample supply of doctors if their advertisement failed to secure enough. This information was thoroughly authentic. After a keen discussion it was resolved:

> That under strong protest and absolute compulsion the practitioners of Cheshire should agree to accept service on the panel.

Further it was resolved:

> That the Chairman and Secretary be empowered to act for the Committee until the next meeting.

These resolutions and this concession were communicated to each doctor in the administrative county.

On January 7th Dr. Garstang and the Secretary attended at the meeting of the Cheshire Insurance Committee. They were asked to explain the Stockport, Macclesfield, and East Cheshire scheme (National Medical Union scheme) to the Medical Benefit Subcommittee.

At the general committee Dr. GARSTANG suggested the capitation method of payment for the first three months, and also put in a plea for the consideration of the above scheme. The Insurance Committee resolved accordingly that for three months payment should be by capitation and that the National Medical Union scheme should be considered as an optional alternative method by which an insured person could receive his medical benefit and at the same time provide it for his dependants.

In response to an urgent request which had been telegraphed to the Commissioners on January 4th, a reply was received on January 6th, agreeing that provided the doctors collectively indicated that when released from the obligation of the pledge they would be willing to serve, the actual signing of agreements might be postponed to the day after the Representative Meeting.

Dr. C. ADOLPHE K. RENSHAW (Sale) writes under date January 7th: Yesterday the Provisional Local Medical Committee for the County of Cheshire passed the following resolution:

> That under strong protest and absolute compulsion the practitioners of Cheshire should agree to accept service on the panel.

These last shots in a rearguard action—fought in order to take up a stronger strategic position after faulty leadership had led to one quite untenable—were, I am convinced, unnecessary.

The profession combined and organized will be far more formidable manœuvring within the confines of the Act than by remaining outside. The German doctors obtained all their great victories after the Insurance Act came into action.

Every statesman will readily recognize that the simple concessions now needed are for the benefit of the nation, and that a profession harried by night work, vexatious demands, and mileage could not accomplish the result professedly aimed at by the author of the Act—the improvement of the health of the working classes.

But the methods needed to obtain such concessions must be diplomatic, there is no need to descend to the level of a trades union strike.

I repeat now what I wrote over a year ago on my return from Germany: "The Invalidity Insurance Bill now before this country, with all its faults, contains a germ from which may develop lasting good both to the community and to the medical profession."

BERKSHIRE

A meeting of the medical practitioners living in the county of Berkshire was held in the Hospital Library, Reading, on January 3rd. Dr. HOLDEN was in the chair, and some thirty-five others were present. The meeting proceeded to elect a Local Medical Committee for the county with regard to the National Insurance Act. Six names of men resident in the county but outside the Reading Division had been received from the Oxford and Maidenhead Divisions for North-west and East Berkshire respectively.

It was then proposed by Mr. NAPIER JONES and carried that the committee should consist of thirteen men, including a chairman and secretary, with power to co-opt two others, making a possible total of fifteen. The committee was elected as follows:

Dr. Gordon Paterson, Ascot (Chairman)	Dr. W. J. Susmann, Henley
	Dr. C. S. Patterson, Hungerford
Mr. J. H. Joy, Bradfield (Secretary)	Dr. G. M. Munro, Maidenhead
	Dr. Elgood, Windsor
Mr. P. Napier Jones, Sandhurst and Crowthorne	Mr. A. C. Birt, Wantage
	Dr. C. R. Scott, Abingdon
Mr. T. B. Bokenham, Wokingham	Mr. D. G. Kennard, Faringdon
	Mr. W. B. Nelson, Wallingford

At 4 o'clock, the Reading practitioners having joined, the meeting became an ordinary Division meeting. The minutes of the last Division meeting having been read and confirmed, the CHAIRMAN (Dr. Holden) stated that the profession in Reading was in a serious position. He pointed out that the Reading Insurance Committee were about to seek whole-time medical officers to treat insured persons and be allowed to practise privately in addition. There were 25,000 insured persons in the borough for whom the Insurance Committee would attempt to provide seven or eight doctors.

Mr. WALTERS thought the profession had been beaten and must do its best under the circumstances. He much regretted the Representative Body could not meet immediately to release men from their pledges. Dr. G. C. TAYLOR, who had been adviser to the County Insurance Committee, made the statement that there were 60,000 insured persons in the county, and that 25 medical men had joined the county panel. It was gratifying to observe that only three of these on the panel belonged to the Reading Division, two being at Pangbourne and one at Newbury. He pointed out that the moneys set aside for providing domiciliary treatment of tuberculosis would be transferred on January 15th, to the fund for providing medical benefit. Mr. N. H. JOY could only advise one thing—that men should put their names on the panel. He spoke with deep feeling, voicing the sentiments of the majority present. He thought the profession, and especially the Reading Division, had fought honourably and well—that they should admit defeat and take it like men. They had not been beaten by fair methods. He spoke well of the fair-mindedness of Mr. Bate, chairman of the County Insurance Committee.

Mr. P. N. JONES (Representative at Representative Meeting) stated that the Representative Body had practically granted power to each Division to choose for or against going on the panel, but that the pledges were not formally absolved. He thought they should look after the insured persons to the best of their ability, and keep strange doctors out if possible. He thought that with care they might get the Act amended.

Dr. ABRAM then fully explained the state of affairs in Reading. He read the letter sent to the Secretary, and the advertisement prepared for whole-time officers by the Insurance Committee. He agreed with previous speakers that as the majority of the Divisions of the Association had given way to the economic pressure brought to bear upon the profession, further resistance would be unwise in the interests of the junior members of the profession. On these grounds he proposed the following resolution:

> That the Local Medical Committees be empowered to make provisional arrangements with Insurance Committees to treat insured persons (declining to go on the panel if such course be found possible), but in any case only agreeing to work the Act for three months.

This was seconded and amended by the addition of the words:

> "These arrangements to be subject to the subsequent release from our pledges by the British Medical Association."

This motion, after being spoken to by Drs. GUILDING, S. GILFORD, and C. S. PATTERSON, was put to the meeting, and the vote taken by closed ballot resulted in 54 in favour, 2 against, 2 not voting.

Acting upon this motion the County Medical Committee left the meeting to confer forthwith with a County Insur-

ance Subcommittee in the Hospital board-room. They returned after an absence of some three-quarters of an hour to report the Insurance Committee could not agree to any arrangements being subject to release from the pledge. It was then proposed by Mr. WALTERS, seconded by Mr. N. H. JOY, and carried by 27 votes to 4:

That in view of the urgency of the situation the members of this Division collectively release individual practitioners from their pledges.

Further, it was proposed by Mr. P. NAPIER JONES, seconded by Mr. A. THOMPSON, and carried unanimously:

That the Local Medical Committees for the county of Berkshire be authorized to guarantee an adequate list of medical practitioners to attend insured persons for three months under the Act.

BRIGHTON AND HOVE.

We have received the following report for publication from Dr. Rowland Fothergill, who is, we understand, honorary secretary of a committee formed at the meeting here reported:

A meeting, convened at very short notice, was held at the Oddfellows' Hall, Queen's Road, Brighton, on January 6th, of those medical practitioners who had not sent in their names as willing to serve on the East Sussex and Brighton panels, and who resided and practised in Brighton and Hove. Over forty-eight were present. Dr. H. Gervis was elected Chairman, Dr. E. HOBHOUSE consenting to act during his absence.

Mr. J. TURTON proposed the following resolution and rider, which were carried unanimously:

That this meeting of medical practitioners resident in the county borough of Brighton and the administrative area of East Sussex, who have not accepted service under the National Insurance Act, protests in the strongest possible manner against the coercive methods applied by the Government to those of their professional brethren who have been driven by their necessities to accept such service under regulations to which they object. Such coercive methods are unworthy of the Government of a free country, are not calculated to promote the formation of an efficient medical service, and are, therefore, inimical to the best interests of persons insured under the National Insurance Act.

That a copy of the above resolution be forwarded to the Prime Minister, the Chancellor of the Exchequer, the Leader of the Opposition, and members of Parliament for Brighton and East Sussex.

Dr. HOBHOUSE proposed the following resolution, which was carried unanimously:

That this meeting of registered medical practitioners is unable to consider the question of placing their names on the panel until such time as they are relieved of their pledged word, or until the policy of the British Medical Association has been adopted by the Insurance Committees for the county and county borough areas.

It was the very strong opinion of the meeting that, having pledged their word to the Association, it was quite impossible to consider any conduct that would mean breaking a pledge on which the Association had depended throughout the campaign of the last eighteen months for any success at this moment. The meeting decided to send a copy of this resolution to the Insurance Committees for the county and county borough.

To Improve the Act.

Dr. HELEN BOYLE proposed the following resolution, which was carried by forty-seven to one.

That the registered practitioners present pledge themselves individually to use every possible means to strengthen the organization of the medical profession through the British Medical Association with a view to obtaining later, through an amending Act, such improvements of the National Insurance Act as will tend to make that Act a real benefit to the community, and one that will secure the cordial co-operation of the medical profession.

In order to carry this resolution into effect it was determined to elect a committee from those present, who were also given power to act generally on behalf of the meeting. The committee elected consisted of Drs. Helen Boyle, A. H. Buck, Gordon Dill, E. Rowland Fothergill, V. T. Greenyer, H. Gervis, E. Hobhouse, Rivaz Hunt, G. Howe, T. Johnston, Louisa Martindale, J. Martineau, A. J. Owen, R. J. Ryle, and R. Whittington. The committee met subsequently and adopted two resolutions, which it was decided to have placed on the agenda of the Representative Meeting of the British Medical Association to be held on January 17th, which has been called to consider the question of the desirability of releasing members of the profession from their undertakings and pledges in connexion with the National Insurance Act, and, further, to consider the situation created by the attitude of the Government towards the decisions of the Representative Body.

HASTINGS.

We have received the following letter from the Provisional Medical Committee of the Hastings Division:

29, Cornwallis Gardens, Hastings,
January 7th, 1913.

Sir,

In the interest of the general public, we hope you will publish the following correspondence, as showing how *very anxious* the National Insurance Commissioners are to establish a representative list of doctors and to secure free choice for both doctor and patient in the various insurance areas as set forth in the Act.

We were not invited by the Committee either to modify or discuss the scheme. The fact that they decided to keep the panel open till 3 p.m. the following day speaks for itself.

We understand that the Insurance Committee overruled a suggestion that we be invited to discuss any details that did not conform to the Regulations.

The scheme suggested had the whole-hearted co-operation of practically every doctor in the borough. In this way every insured person could have had the doctor of his choice.

Yours faithfully,
H. G. L. ALLFORD, Honorary Secretary.
OTHO TEAVERS.
WILLIAM DAUNT.
HARRY GABB.

Percy Idle, Esq., Secretary Hastings National Insurance Committee.

Dear Sir,

We submit the following for the consideration of your Committee:

The arrangement to be provisional for three months only from and including January 15th, 1913.

All available money to be pooled, and bills for medical attendance to be sent in to the Insurance Committee. Should the funds be inadequate to meet the bills they shall be paid *pro rata*.

Charges to be 2s. 6d. per consultation or visit within two miles of the doctor's house, including medicine. We waive the question of £2 a week limit.

Confinements, operations, etc., to be paid for as per the enclosed schedule taken from the Public Medical Service scheme.

Limitation of Benefits.—Subscribers shall not be entitled in consideration of their ordinary subscriptions:—

1. To medical service in respect of any of the following matters, except upon payment by the patient of the fees specified in the following minimum table:—

	£	s.	d.
(*a*) Confinements "within two miles" ...	1	0	0
(*b*) Miscarriages	0	10	6
(*c*) Vaccinations	0	3	6
(*d*) Fractures ... ... (and upwards)	0	10	6
(*e*) Dislocations (at discretion of attendant)			
(*f*) Consultations: Ordinary attendant ...	0	5	0
Consultant (at discretion of consultant)			
(*g*) (1) Administation of gas	0	5	0
(2) Administration of general anaesthetic ... (and upwards)	0	10	6
(*h*) Night visits—that is, visits made between 8 p.m. and 9 a.m., in response to calls received between these hours	0	2	6
(*i*) Special visits—that is, visits made in response to, and on the same day as, calls received after 10 a.m., at the desire of the subscriber	0	1	0
(*j*) Certificates, other than lunacy, except those which may be necessary for placing an insured person on, or removing him from, sickness or disablement benefit	0	1	0
(*k*) Reports	0	2	6

2. To medical service in respect of illness the consequence of personal misconduct, meaning thereby venereal diseases and acute alcoholic conditions.

3. To medical attendance in respect of—

(*a*) Illness arising from confinement or miscarriage within one month unless attended by their selected member in the confinement or miscarriage.

(*b*) Operations requiring local or general anaesthetics.

(*c*) Operative dentistry; the fees for which shall be specially arranged.

4. To cod liver oil, linseed meal, leeches, serum, vaccines, oxygen.
5. To bottles, jars, dressings or bandages (except for first dressings).
6. To special examinations, for example, refractions, *x* ray, bacteriological, etc.
7. To examinations, court attendances, etc., under common law, and Workmen's Compensation, Employers' Liability, and other statutes.
8. To medical attendance in respect of tuberculous disease when actually in receipt of sanatorium benefit under the National Insurance Act.

If your Committee will agree to this, we will guarantee an efficient medical service to insured persons.

The following gentlemen have signified their willingness to serve, and have signed their names to a document we hold to that effect:

Drs. Field, Frazer, Morgan, Manlove, Peck, Garard, Ballingall, Howe, G. A. Ticehurst, Vickerman Hewland, Headley Huckle, Farrant Fry, Richardson, Locke, Baker, Gabb, Daunt, Brodribb, Johnstone, Travers, Allford, Barber, Stallard, Weston.

This list is not complete, as, owing to the hurried nature of the meeting (called at 4 p.m. for 4.30 p.m.), many men who would gladly have signed were unable to be present. The above, however, is a fairly representative list.

Town Hall, Hastings,
January 7th, 1913.

Dear Sir,

I am instructed to inform you that at a meeting of my Committee held last night a scheme was submitted by Drs. Allford, Travers, and Daunt, and the following resolution was passed thereon, namely:

That, having regard to the facts that the Committee has ascertained from the Commissioners that the Salford arrangement was made subject to the Regulations of the Commissioners, that the scheme put forward by Drs. Allford, Travers, and Daunt is not subject to these Regulations, and includes medicine contrary to the rule established in the case of towns by the Commissioners, the Committee cannot recommend the scheme to the Commissioners for acceptance.

The following resolution was also passed:

That a salaried service be instituted by this Committee unless a sufficient number of local doctors have signified their intention of joining the panel by 3 o'clock to-morrow, Tuesday, January 7th.

The Committee estimates that the amount available for medical benefit in this borough is £5.000.

Yours faithfully,
PERCY IDLE,
Clerk *pro tem.*

PORTSMOUTH.

At a meeting of the profession of Portsmouth, held on January 1st, the following resolution was passed:

That this meeting of the medical profession in Portsmouth resolve that those members who wish may go on the panel for three months on the understanding that they are released from their pledge by the British Medical Association before the completion of that period.

Total number of members present, 75. Voting: For, 44; against, 6; not voting, 25.

SIDMOUTH.

We have received the following report, dated January 6th, from the Secretary (Dr. Colclough): A meeting of the medical practitioners of Sidmouth has just been held, at which it was unanimously resolved that they should not take service under the Insurance Act. As an alternative scheme the medical men in practice offer to treat all insured and uninsured persons (male and female) whose wages do not exceed £2 per week, and who live within a radius of three miles from the post-office, on the following terms:

8s. 6d. a year (to be paid quarterly), including medicine.
Juveniles up to the age of 16, the children of the above, 4s. 6d. per head, including medicine.
Conditions: Free choice both for doctor and patient.

These fees do not include attendance for major operations, maternity cases, anaesthetics, miscarriages, or misconduct cases.

IRELAND.

DUBLIN DOCTORS AND THE FRIENDLY SOCIETIES.

THE difficulty between the Dublin doctors and the friendly societies in connexion with the working of the Insurance Act has been got over. The Irish Medical Association put forward a scale of fees for attendance on members of approved societies and their families demanding a capitation grant of 12s. 6d. for members and their families, and 8s. 6d. for unmarried persons, exclusive of the supply of drugs. At the same time the doctors who were acting as medical advisers to the benefit societies gave notice to terminate their engagements on December 31st. The societies hitherto had being paying their doctors capitation fees ranging from 4s. to 7s., and in exceptional instances 7s. 6d.: but the average rate was between 4s. and 5s., which was the amount paid by bodies like the Irish National Foresters and the Ancient Order of Hibernians.

The fees demanded by the doctors were refused and steps were taken to appoint medical officers. Some appointments were made, but the doctors immediately resigned, and a union was formed by the friendly societies.

As a result of a meeting of this union held at the end of December it was announced that "arrangements were completed for a new and improved medical service, commencing after December 31st. Doctors and chemists were appointed and suitable arrangements made for the convenience of all members of affiliated societies." The Dublin doctors then agreed to hold a conference with the Friendly Societies' Union. This offer had been made some months earlier, but was then refused by the union. As a result of this conference the following official announcement has been made:

After considerable discussion, an agreement was arrived at pending the application of medical benefits to Ireland, on the following terms:

Societies approved for State insurance, a capitation grant of 7s. 6d., inclusive of drugs for a member, his wife, and family, the doctors supplying State and other medical certificates.

Benefit societies which are not State approved a capitation fee of 6s., to include drugs and certificates for the payment of sick benefits, but certificates required for State insurance purposes to be paid for extra.

Special arrangements were made regarding females and juveniles who are not the wives or dependants of insured members. It was further agreed that the doctors were not to accept any societies except those approved by the union, and an understanding was arrived at that the doctors would work the Act in Ireland on Mr. Lloyd George's terms, and would unite with the societies, if required, to improve and extend the measure as regards medical benefits. This was signed on behalf of the conference by Mr. Caleb J. Powell, Chairman of the conference; Mr. John D. Nugent, President, Benefit Societies' Union; Dr. Maurice R. Haynes, Honorary Secretary, Dublin County Borough Local Medical Committee; and Mr. Albert Chilton, Secretary, Benefit Societies' Union. In the case of juveniles, the rate has been laid down at 3s. per head.

In making these arrangements, the members of the Local Medical Committee have acted independently of the British Medical Association, owing to the defection which took place in England in connexion with that body.

Hospitals and Asylums.

THE "WAKEFIELD" TREATMENT OF ASYLUM DYSENTERY.

ON one or two previous occasions attention has been called to the apparently valuable results obtained at Wakefield Asylum in the treatment of asylum dysentery by the exhibition of saline aperients to the patients in general. Dr. Bevan Lewis showed in his successive annual reports the steady diminution, to practical extinction, of this disease, which so obstinately clings to most asylums. It is with disappointment, therefore, that we quote the following from Dr. Bolton's report: "Almost at the commencement of my duties here, I noticed that dysentery was endemic at the institution, 6 cases (of which 5 died) out of a total of 11 for the year 1910, occurring during November and December. During the year 1911, 35 cases have been detected and isolated, and of these 18 have died. As, in consequence of the systematic weekly exhibition of white mixture to all the patients in the asylum, dysentery has been regarded as a disease of the greatest rarity, the above facts are interesting. Though this 'Wakefield' treatment has been continued as usual on the male side of the institution, 15 of the 35 cases during the past year occurred in this section. On the female side last June I substituted the intelligent use of black draught, under the supervision of the medical officer, as a test of the efficacy of the white mixture, but without any conclusive result either way. This was to be expected, as it is hardly likely that an infectious disease can succumb to any treatment apart from general hygienic measures, systematic isolation, and, above all, expert bacteriological investigation. I am driven to the conclusion that the detection of endemic dysentery in this institution is due to my previous experience of this disease in other asylums, and to the introduction here of my constant practice of removing, slitting up, and systematically examining the intestines at all *post-mortem* examinations."

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

AN emergency meeting of the State Sickness Insurance Committee appointed by the Special Representative Meeting on November 20th was held at the house of the Association, 429, Strand, on Thursday, January 2nd, 1913, Mr. T. JENNER VERRALL, Chairman of Representative Meetings, in the chair. The members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. T. M. Carter (Bristol), Dr. T. A. Helme (Manchester), Miss Frances Ivens, M.S. (Liverpool), Dr. Constance E. Long (London), Mr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), Mr. E. H. Willock (Croydon). *Ex officio:* Dr. Edwin Rayner (Treasurer).

APOLOGIES FOR ABSENCE.

Apologies for absence were read from the Chairman, the President, Dr. J. S. Darling (Lurgan), Dr. T. B. Costello (Tuam), Dr. J. Adams (Glasgow), and Dr. D. G. Thomson (Norwich).

THE CAMPAIGN IN LONDON.

The MEDICAL SECRETARY reported that the London members of the Central Council, after discussing the present situation with regard to the Insurance Act on the previous day, had requested him to ask the Chairman of the Committee to convene an emergency meeting for the purpose of resuming the discussion of the proposals previously placed before the Committee by the Provisional Medical Committee for London.

Mr. TURNER, at the invitation of the CHAIRMAN, explained what had been done in London since the last meeting of the State Sickness Insurance Committee on Monday, December 30th, to carry into effect the resolutions passed by the London Committee, which desired that the State Sickness Insurance Committee should approve of similar steps being taken throughout the country. After reporting generally upon the position in London, Mr. Turner said that he thought that if a sufficient number of insured persons could be induced to request their Insurance Committees to allow them to make their own arrangements, both the Insurance Commissioners and the Insurance Committees would be compelled to agree, and that the alternative policy of the Association in connexion with the Act could be carried out; he proposed:

> That every practitioner in the country be informed that as many copies as he desires will be supplied him (for issue to his patients) of a request by insured persons to the Insurance Committees that they be allowed to make their own arrangements for medical attendance, and that he be urged to use his influence to this effect as widely as possible.

This was carried after discussion with one dissentient. In accordance with this resolution the following circular letter has been issued:

429, Strand, W.C.
January 3rd, 1913.

Sir or Madam,

National Insurance Act.

The State Sickness Insurance Committee of the British Medical Association has decided that the best way of giving effect to the recent decision of the Special Representative Meeting not to accept service under the present conditions of the National Insurance Act is to try to secure the interest and assistance of the insured persons themselves. In districts where there are no panels, or where the panels are not representative of the profession, it should be easy to convince insured persons that unless they are allowed to make their own arrangements outside the Act they will not be able to secure medical attendance from the doctors of their choice. Under Section 15 (3) of the National Insurance Act insured persons have the right to claim to be allowed to make their own arrangements for securing medical attendance, and in spite of the declaration of the Government that contracting out cannot be allowed on a large scale it is certain that if the insured persons themselves in large numbers demanded this right the Insurance Committees would be compelled to give it. I enclose a copy of a form which it is proposed you should hand to all insured persons who are your patients, urging them to send it at once to the clerk of the local Insurance Committee. If this is done at once, and the Insurance Committees are flooded with these requests there is no doubt a great impression will be made upon the Committees and upon the public. I shall be glad to supply you with as many copies of the form as you desire, upon receipt of the enclosed post-card, duly filled in.

In addition to your own personal action it is necessary that the local profession should be prepared to offer the alternate scheme of the Association for the provision of medical attendance, and a letter is being sent to all Division Secretaries bringing this matter before their notice, and asking them at once to take action. If success is to be attained, however, you must do your share in this campaign.

I am,
Yours faithfully,
ALFRED COX,
Medical Secretary.

National Insurance Act.

The Clerk,
——— Insurance Committee.

Sir,

In pursuance of Section 15, Par. 3, of the above Act, I hereby apply to be allowed to make my own arrangements for Medical Benefits.

Name.....
Address.....
.....
Society.....
....., 1913.

Thereupon the following resolution was adopted unanimously:

> That the Committee also urge on the Divisions that the most effective way of dealing with the present crisis is:
> (*a*) By organizing public meetings of insured persons for the purpose of informing them of their right to apply to make their own arrangements for medical attendance under the Act.
> (*b*) By interviewing the members of Parliament upon the subject.

A Press Committee, consisting of the Chairman, Mr. Turner, Dr. Beaton, and Mr. Willock, was appointed for the purpose of disseminating intelligence with regard to the medical crisis in connexion with the National Insurance Act, and it was authorized also to consult with any persons it might consider necessary for the purpose of giving effect to its reference.

At a later stage of the meeting the following members of the London Committee attended: Dr. C. Buttar, Dr. R. E. Crosse, Dr. Fraser, Dr. Major Greenwood, Dr. Howell, Dr. Herbert Jones, Dr. Mackeith, and Dr. Montgomery Smith. The deputation suggested that the State Sickness Insurance Committee (1) obtain a number of signed requests (say six) by insured persons resident in the area of two or three Insurance Committees that they be allowed to make their own arrangements for medical attendance; and (2) instruct the solicitor to the Association to (*a*) forward such requests to the respective Insurance Committees with a request for a definite answer within three days as to whether such permission will be granted, and asking in the event of the reply being in the negative for the reason for refusal; and (*b*) to advise as to the necessary steps to be taken to test the validity of such refusal.

The appointment of a series of subcommittees, including parliamentary, publicity, intelligence and publicity subcommittees, was also suggested.

The State Sickness Insurance Committee approved of the first suggestion, and resolved to provide a room in the offices of the Association for the use of the London Medical Committee on the understanding that that committee was alone responsible for any documents issued by it.

The Press Committee of the State Sickness Insurance Committee was authorized to undertake any of the following duties:

(*a*) Attending at the Houses of Parliament, instructing members of Parliament as to the wishes of the Association, arranging for questions to be asked in the House, and generally taking any parliamentary action that might be deemed necessary.

(*b*) Assisting Divisions in bringing to the notice of insured persons the decisions of the Association, either by public meetings or otherwise, arranging for Divisions to have the services of persons competent to speak on the subject, reasonable expenses of such lecturers being provided for by the Association, so far as London was concerned

Oxford Scheme for Medical Attendance upon Insured Persons.

A deputation, consisting of Dr. Turrell (Chairman of the Oxford Medical Committee), Dr. Duigan (Honorary Secretary of the Oxford Division of the British Medical Association), Dr. Higgs, and Dr. Boissier, waited upon the Committee, and submitted a scheme of provisional arrangements agreed to on the previous day at a conference between the Oxford Medical Committee and the Oxford Insurance Committee. The scheme was as follows:

Scheme suggested by the Oxford Medical Committee to the City Insurance Committee as a Temporary Arrangement.

All matters of medical benefit concerning the doctors shall stand referred to the "Conjoint" (or "Medical Service Sub-Committee"). This Committee to consist of five members on each side—that is, five from the Insurance Committee and five medical men elected by the Medical Committee, and an independent chairman. All complaints shall be settled by this Committee. Further, this Committee shall draw up all rules and regulations as applied to medical benefit; and that any alterations in the conditions of medical service shall be referred to them by the Insurance Committee. Complaints as regards medical men are first to be considered by the Local Medical Committee, and if not satisfactorily settled by that body shall be referred to the "Conjoint Committee."

The Medical Committee shall supply the Insurance Committee with a list of medical men willing to attend insured persons. No insured person shall be assigned to any individual medical man during the continuance of this temporary arrangement. During the continuance of this scheme no official panels shall be formed, nor agreements signed. When a satisfactory agreement shall be arrived at between the Association and the Government, the medical men on this list shall at once form a panel, and sign the required agreement. The method of payment shall be on the capitation system; provided that the temporary list is merged into a permanent panel, payment shall be made to the doctors in proportion to the number of patients on their lists at the end of the quarter.

In the event of no permanent arrangement being arrived at, the sum payable for medical benefit during such time as the temporary arrangement has been in existence, shall be paid to the Medical Committee, who shall assign it to the medical men on the list in such manner as they shall determine.

Special attention is drawn to the point that this scheme is entirely provisional; that it has for its object the provision of medical attendance upon the insured until such time as the British Medical Association and the Government have come to some permanent agreement.

After hearing the views of the deputation and discussing the scheme with them and making suggestions for its amendment, the Chairman informed the deputation that the Committee was unable to give official sanction to it, and that the responsibility for action in regard to it must rest with the Oxford Committee.

Edinburgh and Leith Scheme for Medical Benefit.

A provisional agreement submitted by the Edinburgh and Leith Medical Committee for the administration of medical benefit in those places was considered, but the Committee was unable to give its official sanction to the scheme.

Association Intelligence.

PROCEEDINGS OF COUNCIL.

A special meeting of the Council was held at the conclusion of the Special Representative Meeting on December 23rd, 1912, in accordance with the regulations, which require that a meeting of the Council should be held to consider the decisions of the Representative Meeting.

Present.

Dr. J. A. Macdonald, LL.D., Taunton, Chairman of Council, in the Chair.

Mr. T. Jenner Verrall, Bath, Chairman of Representative Meetings.

Dr. J. Grant Andrew, Glasgow
Dr. R. M. Beaton, London
Dr. M. G. Biggs, London
Dr. Charles Buttar, London
Professor Henry Corby, M.D., Cork
Mr. E. J. Domville, Exeter
Mr. T. W. H. Garstang, Altrincham
Dr. T. D. Greenlees, London (Cape of Good Hope Branches)
Dr. Major Greenwood, London
Mr. C. Courtenay Lord, Gillingham
Dr. J. Livingstone Loudon, Hamilton
Dr. Ewen J. Maclean, Cardiff
Dr. H. C. Mactier, Wolverhampton
Dr. James Metcalfe, Bradford
Dr. George Parker, Bristol
Dr. E. S. Reynolds, Manchester
Mr. E. B. Turner, London
Professor A. H. White, Dublin
Mr. D. J. Williams, Llanelly

Apologies.

Letters of apology for absence were read from the President, the President-elect, the Treasurer, Dr. David Ewart, Dr. T. Arthur Helme, Mr. F. C. Larkin, and Dr. C. G. D. Morier.

Minutes of Special Representative Meeting.

The Chairman presented the minutes of the Special Representative Meeting on December 21st and 23rd, and explained that it was necessary for the Council to consider the decisions in case it might desire to exercise its power of referendum. No exception being taken, the Council approved the minutes of the Special Representative Meeting, and those calling for action by the Council were referred to the appropriate committees.

Resignations.

The Chairman reported that the following had resigned their seats on the Council: Dr. J. Grant Andrew, Dr. Michael Dewar, Dr. A. C. Farquharson, and Mr. C. E. S. Flemming, being four of the twelve members of the Council elected by the Representatives in twelve groups of Branches and Divisions formed for this purpose, and Dr. R. C. Buist, Dr. Ewen J. Maclean, and Dr. Lauriston Shaw, three of the four Representatives elected by the Representative Meeting as a whole.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

GLASGOW AND WEST OF SCOTLAND BRANCH:

Glasgow North-Western Division.

A meeting of registered practitioners residing in the area of this Division was held in the Burgh Hall, Hillhead, on December 26th, 1912. Dr. A. T. Campbell occupied the chair. There were also forty-three members and eleven non-members present.

Special Representative Meeting.—The Representative (Dr. A. T. Campbell) submitted his report of the Special Representative Meeting, and was accorded a vote of thanks.

The Insurance Act.—Thereafter Dr. J. Lindsay moved and Dr. Adamson seconded the following motion:

> This Division expresses its regret that the resolution passed at the meeting of the Branch (held the previous day) does not express the finding of the Representative Meeting of the British Medical Association.

The previous question was moved by Dr. Angus Macphee, and seconded by Dr. Macleod. The result of the vote was: For the motion, 17; for the previous question, 18; majority for latter, 1.

The Pledge.—As no report had been received from the Council, the Chairman invited an expression of opinion regarding the action to be taken in the circumstances. The Secretary read the terms of the undertaking and pledge, whereupon Dr. Jas. Todd moved the following resolution:

> That the Government terms are not satisfactory, but in view of all the circumstances we do not consider there is any satisfactory alternative but to accept them in this area.

Dr. A. Macphee seconded the resolution, which was also supported by Dr. Ivy Mackenzie. Dr. J. Lindsay moved an amendment in the negative, which was seconded by Dr. J. Gracie. Thereafter Dr. W. S. Paterson proposed the following resolution, which was seconded by Dr. J. H. Campbell:

> This meeting is of opinion that, as the British Medical Association has adopted no satisfactory alternative to the working of the Act, we call on the Association forthwith to release the signatories from their pledges.

Another amendment was moved by Dr. J. Taylor as follows, which was not seconded:

> That in the opinion of this meeting the outstanding points of difference between the Government and the British Medical Association be submitted to arbitration.

Thereupon Dr. Todd withdrew his motion and Dr.

LINDSAY his amendment in favour of Dr. Paterson's proposal, which was adopted *nemine contradicente*.

Deputation to Local Insurance Committee.—It was resolved to appoint a deputation to interview Mr. Jones, the Secretary of the Local Insurance Committee, and, on the motion of Dr. INGLIS, the following were appointed: The Chairman, Secretary, and Drs. Todd, Erskine, and Paterson.

Further Special Representative Meeting.—The meeting approved the action of the Chairman and Secretary in assenting to the proposal of the Secretary of the Newcastle Division to co-operate with their Division in a requisition to the British Medical Association to convene a Special Representative Meeting

To consider the position created by the action of the Government in preventing the alternative framed at the recent Representative Meeting from being worked, and also the desirability of releasing members of the profession from the undertaking and pledge.

METROPOLITAN COUNTIES BRANCH:

HARROW DIVISION.

A MEETING of this Division, to which every medical man practising within the area of the Division was invited, was held in the Gayton Rooms, Harrow, on December 30th, 1912. Dr. A. H. WILLIAMS was in the chair, and thirty members and five visitors were present.

Special Representative Meeting.—Dr. WILLIAMS gave a short account of the Representative Meeting, and read the Appeal to the Profession issued in accordance with instructions of that body dated December 23rd, 1912.

Service under Insurance Act.—Arising from this, a discussion took place as to the policy of the Division with regard to medical men applying for service on the Government panels under the Act. In answer to a question, the HONORARY SECRETARY stated that to the best of his knowledge six doctors had either applied or were prepared to apply to serve on the panels. Of these, four were practising in Northwood, one at Harefield, and one at Ruislip. After several speeches, Dr. DAVIDSON proposed and Dr. PENNEFATHER seconded:

"That we refuse to serve on the panels set up by the Government until released from our pledge.

On a roll-call vote, thirty-three of those present voted in favour of the resolution, and two against.

Scheme for Public Medical Service.—The outline scheme for a public medical service drawn up by the Provisional Medical Committee was then considered, and adopted with some slight alterations. A subcommittee was then elected, composed of Drs. A. H. Williams, Muspratt, and Pennefather, to embody the salient points of this scheme in a condensed form, and to draft an explanatory letter, to be forwarded with the outline scheme to the secretaries of all clubs and friendly societies already resigned by practitioners in the Division (177 in number). Details of the scheme have been submitted to the State Sickness Insurance Committee.

Panels and the Pledge.

On January 4th meetings of medical men practising in the different sections of the Division were held to reconsider the attitude adopted by the Divisional meeting, in view of the number of doctors who had in the meantime joined the panels.

At the meetings held in Harrow, Wealdstone, Wembley, and Pinner, every doctor engaged in general practice attended, and the decision was unanimously passed at all three centres:

That it was impossible that the doctors should break their pledge given to the Association and to 2,700 of their colleagues until released therefrom by the Association, and that in consequence we will not apply for service on the Government panels.

WILLESDEN DIVISION.

A MEETING of the local profession was held at the St. Andrew's Schools, Willesden Green, on December 30th, 1912, Dr. CORAM JAMES in the chair. Sixty were present.

Letters.—Communications regretting inability to be present were received from Drs. Felce, Pratt, and Beresford expressing loyalty to the British Medical Association policy. The SECRETARY read letters from four men, intimating that they were going on the Government panel; from Dr. Snowman, suggesting that the British Medical Association should absolve men from their pledge.

Kilburn Provident Medical Institute.—A communication was read from Dr. Macevoy requesting permission for the Kilburn Provident Medical Institute to contract out under the "Harmsworth" clause of the Act. In reference to the last, Dr. CARSON SMYTH proposed, and Dr. MACLELLAN seconded, that permission should be given. This was carried *nemine contradicente*.

Local Medical Committee.—It was agreed that the Provisional Medical Committee as constituted should be empowered to act as the Local Medical Committee, and claim statutory recognition if necessary.

Special Representative Meeting.—The CHAIRMAN called on Dr. Macevoy to give his report of the last Representative Meeting. Dr. MACEVOY then gave a short account of the decisions come to at the meeting, his reference to the fact that the Representative Meeting considered the pledge to be binding being received with loud applause. The CHAIRMAN then moved a vote of thanks to Dr. Macevoy for his services and for his lucid statement. This was carried *nemine contradicente*.

Public Medical Service Scheme.—The HONORARY SECRETARY explained the chief points of the scheme as recommended by the Committee, which was based on that of the City Division, and, quoting the Act, Regulations, and Explanatory Statement, pointed out that the success of such a scheme was dependent upon the insured being able to "make their own arrangements," and that any scheme must receive the sanction of the Insurance Committee before any contribution could be made from the insurance funds, and that the Middlesex Insurance Committee and the Insurance Commissioners were opposed to "contracting out." After discussion, the Honorary Secretary was requested to write to the Middlesex Insurance Committee and to the Insurance Commissioners as to insured persons making their own arrangements, and to take steps to bring to the notice of the insured their rights under the Act by means of letters to the secretaries of the clubs which had been resigned. Failing a satisfactory reply the Honorary Secretary was instructed to request the member for the Harrow Division of Middlesex to ask a question in Parliament. Dr. X. made a personal statement as to the necessity of his joining the panel; his position was considered sympathetically, and Dr. CRONE proposed and Dr. PARR seconded that Dr. X.'s case be referred to the trustees of the guarantee fund for early and special consideration. This was carried by a large majority. Dr. Y. made a personal statement, stating that he had received an offer for a whole-time appointment under the Act, and desired to accept it in view of his application for a public appointment. His request was received by the meeting with marked disfavour. Dr. ARMITAGE proposed and it was seconded:

That the Public Medical Service scheme be accepted.

Dr. MACEVOY proposed, and Dr. STOCKER seconded, an amendment:

That this meeting records its continued loyalty to the British Medical Association, approves of the scheme suggested by the Local Medical Committee for the treatment of insured persons contracting out, and empowers the Local Medical Committee to write to the Local Insurance Committee to inform them of the conditions under which they will treat the insured.

This was carried unanimously, and also as a substantive motion.

Suspension of Standing Orders.—The HONORARY SECRETARY proposed that the Standing Orders for the session should be suspended and meetings arranged by the Committee as necessity arises. This was agreed to.

Withdrawal from Panel.—The Honorary Secretary was informed later in the day that one of those who had expressed his intention of joining the panel had reconsidered his position.

WIMBLEDON DIVISION.

A MEETING of this Division and of all practitioners in the area was held at the Town Hall, Wimbledon, on January 4th, Dr. POWELL EVANS in the chair. There was a large attendance.

Insurance Act.—The question of what should now be the attitude adopted *re* Insurance Act panels was the

business before the meeting. A long and animated discussion took place. A motion,

> That we adhere to our former decision not to join the panels,

was put and lost. The following resolution became the unanimous finding of the meeting—namely:

> That this meeting of the medical men of Wimbledon and district enter a strong protest against the methods adopted by the Chancellor of the Exchequer in forcing the profession to go on the panels against its best cherished traditions and against the best interests of the insured; but in the face of ruin which now threatens many of their members, they feel bound, although unwilling, to join the panels and to submit to conditions which they feel are derogatory and unjust.

MIDLAND BRANCH:

CHESTERFIELD DIVISION.

A MEETING was held at Chesterfield Hospital Board Room, on December 23rd, 1912, at which Dr. GREEN was in the chair, and forty-seven members and one non-member were present.

Sheepbridge Works Club.—A statement by Dr. TAYLOR as to temporary terms for Sheepbridge Works Club was deemed satisfactory.

Special Representative Meeting.—Dr. DUNCAN presented his report detailing the line of action he had taken, and the decisions come to by the meeting. Dr. GREEN stated that it had been his privilege to attend the meeting, and gave his personal impressions thereon. It was resolved unanimously:

> That the Representative be thanked for his attendance and report; and that this Division adheres to the declared policy of the Association.

Those present then handed in their panel invitations to the Honorary Secretary as requested.

Service on Insurance Committees.—It was resolved that the State Sickness Insurance Committee be asked to approve the medical representatives of the County Council taking their seats on the County Insurance Committee.

Treatment of Insured and Non-Insured.—The following matters were discussed:

Rate for insured persons to be the recognized adult rate in the Chesterfield Medical Service, namely, 8s. 8d. per annum.

New arrangements to be intimated by circular letter to clubs previously resigned.

Non-insured over 65: Local areas to arrange terms for those subject to approval of Service Subcommittees.

Colliery and Works Clubs: Rate to be maintained at 19s. 6d., and a telegram to that effect sent to Nottingham Division then sitting.

Juvenile lodges whose members are provided with medical attendance elsewhere: Rates referred to Central Committee of Public Medical Service.

Negotiation with Clubs: Previous holder may negotiate, but to demonstrate "open door" and adhesion to Public Medical Service, a member of local Public Medical Service Subcommittee should accompany any member so negotiating.

Guarantee Fund: Best means of establishing a satisfactory local fund referred to next meeting.

A meeting was held at Chesterfield Hospital Board Room on December 30th, 1912. Dr. GREEN was in the chair, and twenty-eight members and one non-member were present.

The CHAIRMAN addressed the meeting, detailing the circumstances under which it had been hurriedly called—namely: (1) Their own meeting on the 23rd, when all their papers were handed in to the Honorary Secretary's keeping. (2) The joint meeting with Derby Division on the 27th, where by a majority the Derby Division agreed to stand with the Chesterfield Division and wait the Representative Meeting then asked for. (3) The decision of the Nottingham Division on the 28th to go on the panel *en bloc*. (4) The decision, on the 29th, of various local areas in the Derby Division, and of two areas in their own, that they were compelled to go on the panel. (5) The information received on the 30th that the County Medical Committee had decided no longer to ask the men to remain off the panels. He recalled the fact that the Division had been consistently in favour of working the Act, and thanked the members for standing by the Association as they had done, but in view of the above circumstances he felt it his duty to call this meeting hurriedly and place the facts before them, so that they might decide whether: (*a*) Surrounding circumstances would compel their going on the panel; or (*b*) they would be able to adhere to their previous decision and wait.

The previous decision was rescinded by 17 votes to 8.

It was resolved by 17 to 4:

> That in view of the fact that the surrounding areas have gone on the panels, this Division of the Association feels compelled to accept service under the Insurance Act provisionally for three months, under protest against any conditions requiring service other than personal service—for example, the giving of certificates by another, also those requiring the treatment of abortions and miscarriages.

Payment by capitation was selected by the meeting.

NORTHERN COUNTIES OF SCOTLAND BRANCH:

INVERNESS-SHIRE DIVISION.

A MEETING of this Division was held at the Northern Infirmary, Inverness, on December 28th, 1912. Dr. MACFADYEN, Senior Chairman, presided, and twelve members attended.

Apologies for Non-attendance.—Apologies were read from Drs. de Sylva (Arisaig), Miller (Fort William), Mackenzie (Scolpaig), De Watteville (Kingussie), who each indicated the desirability of accepting service on the panel of the County Insurance Committee; also letters from Drs. Kerr, Grant, and Helen S. MacDonald definitely intimating their intention to accept service on the panel.

Scottish Insurance Provisional Medical Committee.—Dr. J. MUNRO MOIR gave a lucid account of the business at the meeting of the Scottish Insurance Provisional Medical Committee in Edinburgh on December 27th, 1912, and read a telegram received from Commissioner Leishman stating that a definite adequate Treasury grant was to be given for mileage in country districts, and that he expected the recommendations of the Dewar Committee would result in a further grant for the Highlands and Islands.

The Insurance Act and the Profession.—The business of the day was then gone into—namely, to consider the situation now existing as the result of the voting at the Representative Meeting in London on December 21st, 1912, and in consideration of the fact that the Scottish Insurance Commissioners had guaranteed a definite sum for mileage for country districts and that a further sum would be allocated for the Highlands and Islands; and, further, that the recommendation of the Representative Meeting of December 21st, asking practitioners in their respective areas to treat with insured persons direct, or their representatives, or with friendly societies, was a complete contradiction of their previous policy regarding friendly society control. Accordingly Dr. JAMES MURRAY moved the following resolution:

> That the most important of the demands of the British Medical Association having been met by the Commissioners of the National Health Insurance Act, the Inverness-shire Division of the British Medical Association agrees that members may give service under the Act provisionally. They do so, relying upon the assurance of the Scottish Commissioners that adequate provision has been made for mileage, as such provision is absolutely necessary in most areas of the northern Highlands, and they urgently request that detailed information upon this point should be provided by the Commissioners without delay.

Dr. GILLIES seconded this resolution, which was carried unanimously.

The Pledge.—Mr. LUKE moved:

> That as the British Medical Association, by the recent recommendation of the Representative Meeting of December 21st, 1912, has completely contradicted its previous policy regarding freedom from friendly society control and thereby altering the original conditions of the pledge, the members of the Inverness-shire Division of the British Medical Association hereby ask to be released from their pledge.

This was carried unanimously.

Extension of Time for going on Panels.—It was further agreed to ask the Commissioners, through the Local Insurance Committee, to get an extension of time for the country practitioners till January 6th for placing their names on the panel: also to take steps to get the Provisional Local Medical Committee recognized as a statutory body, and to meet the Burgh Insurance Committee to arrange the adoption of form of agreement for the burgh area, and that "capitation" should be adopted.

OXFORD AND READING BRANCH:
OXFORD DIVISION.

A SPECIAL general meeting was held on January 6th at the Radcliffe Infirmary, Oxford; Dr. TURRELL (member of Council) acted as Chairman (vice Sir William Osler, unavoidably absent), and sixty-five members and non-members were present.

Medical Service.—The CHAIRMAN reported the result of the informal negotiations between the Local Medical Committees and the County and City Insurance Committees. He read the terms of the provisional scheme drawn up by the Local Medical Committees, published in the SUPPLEMENT of this week, p. 56. He explained that its object was to enable a provisional service to be given without violation of the pledge. No official panels would be formed and no contracts signed until after January 17th, the date of the Representative Meeting. It had received the practically unanimous acceptance of both county and city Insurance Committees, and to a deputation waiting on it in London the State Sickness Insurance Committee had admitted its practicability, though unable to give it its official sanction. The "Medical Service List" for the county would remain open till Thursday, January 9th. Questions of detail would be supplied by the "Medical Service Committee" after official panels had been formed. Dr. NELSON (of Wallingford, Berks) gave an account of the meeting and decision of the Berkshire Medical Committee, which had unanimously voted:

> That medical men in their district be collectively released from their pledges, and shall collectively go on the panel.

Dr. COLLIER expressed the opinion that the Oxford Division was greatly indebted to the Chairman (Dr. Turrell), the Secretary, and others, for their labours in preparing this scheme and getting it accepted. He drew attention to the protest that the Cambridge Division had made in being forced on to the panel, and noted that other Divisions had made similar protests. Dr. DUIGAN hoped that Dr. Collier, as a Fellow of the Royal College of Physicians, would propose that similar expressions of protest be made by the Royal Colleges of Medicine and Surgery throughout the country at the mean and contemptible treatment of the profession by the Chancellor. He also expressed the hope that there would be no talk of resignations of membership of the Association during the present crisis. After some remarks by Dr. SUMMERHAYES, Dr. CRUICKSHANK, and Dr. BOISSIER on the position of affairs in contiguous counties, Dr. HIGGS proposed:

> That the scheme be accepted by this meeting.

This was seconded by Dr. BOISSIER and carried *nemine contradicente*. The CHAIRMAN then proposed:

1. That the scheme be adopted as far as the county of Oxon is concerned.

This was carried *nemine contradicente*.

2. That the scheme be adopted as far as the city of Oxford is concerned.

This was carried *nemine contradicente*.

Medical Service.—The meeting then proceeded to elect five members on to the Medical Service Committees of the county and city respectively. The following were elected for the county: Dr. Boissier, Dr. O'Kelly, Dr. Susmann, Dr. Jones, Dr. Caudwell. And for the city: Dr. Higgs, Dr. Woods, Dr. Rivers-Willson, Dr. Dickson, Dr. Seymour.

Instructions to Representative.—The following instructions were given to the Representative:

(1) That he shall support a motion for absolving members from their pledge.
(2) That if the question of means for a final settlement arise, he shall support a resolution in favour of appointing a deputation, with full plenipotentiary powers, to endeavour to come to a final settlement of the differences existing between the Government and the British Medical Association.

Votes of Thanks.—Dr. COLLIER proposed that a sincere vote of thanks be accorded to the Chairman of Representative Body, the Chairman of Council, and the Chairman and members of the State Sickness Insurance Committee. This was seconded by Dr. DUIGAN and carried *nemine contradicente*. It was proposed by Dr. SUMMERHAYES that a vote of thanks be accorded to the Chairman, the Secretary, Dr. Higgs, and others concerned in the recent negotiations. This was seconded by Dr. WYLIE and carried *nemine contradicente*.

Non-insured Members of Clubs.—Proposals for dealing with non-insured members of clubs and friendly societies, by Dr. JONES, and for dealing with the question of a tuberculosis officer, by Dr. GILLETT, were ruled out of order by the CHAIRMAN, these proposals not being on the agenda paper.

SOUTH EASTERN BRANCH:
ISLE OF THANET DIVISION.

THE sixty second meeting of the Division was held at the Victoria Hotel, Ramsgate, on December 28th, 1912. There were present thirty-one members and five non-members, all medical practitioners in the district having been invited.

Dartford Division.—A telegram was received as follows:

> Dartford Division unanimously refuse panel.

Special Representative Meeting.—Dr. HALSTEAD gave a report of the recent Representative Meeting, and indicated various decisions arrived at by that meeting, and specially laid stress upon the importance of the undertaking and the pledge.

The Pledge.—Dr. BRUNTON proposed, and Dr. SMYTHE seconded, the resolution:

> That the validity of the pledge already signed be reaffirmed.

The following members also spoke: Drs. BENNETT POWELL, PINNIGER, RAVEN, WOODS, ARCHIBALD, BRUNTON, STYAN, and HUNT. Dr. STREET, in winding up the debate, made a strong appeal to members to stand by their pledges, and to maintain the unity of the profession in Thanet. He then put the resolution, which was carried *nemine contradicente*, two not voting.

Adjournment to Watch Developments.—It was decided that the meeting should be adjourned for a week, in order that developments in relation to the National Insurance Act should be watched, and that a meeting of the medical officers of the Public Medical Service should decide if any alterations in the service were advisable.

Votes of Thanks.—A very hearty vote of thanks, proposed by Dr. NICHOL, seconded by Dr. BIDDLE, was unanimously passed to Dr. Halstead for his strenuous services to the Division; and a vote of thanks was also passed to the Chairman for presiding.

SOUTH MIDLAND BRANCH:
NORTHAMPTONSHIRE DIVISION.

A MEETING of this Division was held in the Board Room of the Northampton General Hospital on December 28th, 1912. Dr. BAXTER was in the chair, and sixty-seven members and non-members were present.

Special Representative Meeting.—Dr. BAXTER made a short speech on the business of the meeting, and Dr. DRYLAND then gave a report of the Representative Meeting. Dr. BAXTER proposed a hearty vote of thanks to Dr. Dryland, which was carried unanimously.

Service under Insurance Act.

Dr. GREENFIELD then spoke, and said that he hoped that, whatever was decided, there would be no bitterness of feeling between those who went on the panel and those who did not. He considered that for various reasons the British Medical Association scheme was nebulous and unworkable, and proposed:

> That this meeting, while not satisfied with the terms and conditions of the National Insurance Act, cannot advise the practitioners of the county to abstain from going on the panel.

This was seconded by Dr. CHURCHOUSE.

Dr. COOKE said that he considered his pledge binding, and that the town was solid against working the Insurance Act, but in the rural districts there was a *débâcle*. He thought, however, there should be no bitterness, and that members should stick to the Association even if they violently differed.

Dr. OLDACRES asked under what conditions they were justified in breaking their pledges, and said he felt he could not break his unless he were absolved from head quarters.

Dr. Harrisson spoke to the same effect.

Dr. Tolputt said he was prepared to go on the panel. The Association was defeated, and there was a point when defeat should be accepted. It was only a question of breaking their pledge now or a little later.

Dr. Roughton spoke to the same effect.

Dr. Ross announced that he intended to go on the panel.

Dr. Jacobs said that he considered the pledge absolutely binding.

Dr. Baxter said that those who lived in a position where every one was solid for not going on the panel should have some consideration for those who lived in a different area. The guarantee fee was totally inadequate. The pledge ought not to be broken except for good and solid reasons. The policy of the British Medical Association was hopeless and had already been countered by the Government, who would not permit it. He thought an honourable man was therefore free to vote as he liked, and he should therefore vote for Dr. Greenfield's proposition.

On a division 35 voted for Dr. Greenfield's proposition and 35 against it, and the Chairman refused to give a casting vote.

Dr. Hichens then read a communication from the Newcastle-on-Tyne Division asking the Northamptonshire Division to join with them in calling a Special Representative Meeting, and proposed the following resolution:

> That a Special Representative Meeting be called at once to release the members from their pledges.

He pointed out that unless this were done he was afraid that the Association would be rent in twain, and that all the good work of the last two years in bringing men into accord would be lost.

Dr. Linnell seconded the motion for the same reason, and it was supported by Dr. Oldacres.

The motion was carried with one dissentient.

Proposal to keep Panels Open.—Dr. Linnell proposed and Dr. Harrisson seconded:

> That the County and Rural Insurance Committees be approached not to close the panels for one month.

This was carried.

County and Rural Insurance Committee.—The following were elected as representatives on the County and Town Insurance Committee:—*County, South:* Drs. Terry, Linnell, and Hope; *Kettering:* Dr. Dryland and Roughton; *Mid:* Drs. Churchill and Darley; *East:* Drs. Baxter, Greenfield, Robb, and Arthur; *Northampton:* Drs. Cropley, Cooke, Cogan, Beatty, and Hichens. Dr. Dryland was elected Secretary. Dr. Hichens read a letter from the County Insurance Committee inviting a deputation to meet it. Dr. Greenfield proposed and Dr. Terry seconded:

> That the question of meeting the Insurance Committee be left to the County Medical Committee.

This was carried.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH:

Hereford Division.

A meeting of this Division, with the non-members in the Division, was held at Hereford on December 30th, 1912. Dr. Gerard Steel, the Vice-Chairman, occupied the chair in the absence of the Chairman (Dr. Herbert Jones). Forty-four practitioners were present.

National Insurance Act.—It was resolved by 43 to 1:

> That this meeting reaffirm its previous unanimous decision not to accept service under the National Insurance Act.

Subsequently the following proposition was carried by 41 to 3:

> That the meeting agree to accept the policy of the British Medical Association and to appoint a Local Medical Committee to carry it out.

Association Notices.

SPECIAL REPRESENTATIVE MEETING.

Notice is hereby given that a Special Representative Meeting of the Association will be held in the Connaught Rooms, Great Queen Street, London, W.C., on Friday, January 17th, 1913, at 9.30 in the forenoon, and the following day, if necessary, on the requisition of the Chesterfield, Cleveland, Derby, Glasgow North-Western, Newcastle-on-Tyne, Northamptonshire, West Cornwall, and Worcester Divisions, to consider the question of the desirability of releasing members of the profession from their undertakings and pledges in connexion with the National Insurance Act, and, further, to consider the situation created by the attitude of the Government towards the decisions of the Representative Body; also to elect a Member of Council in the place of Dr. E. J. Maclean, resigned.

BY ORDER OF THE CHAIRMAN OF REPRESENTATIVE MEETINGS,

GUY ELLISTON,
Financial Secretary and Business Manager.

ALFRED COX,
Medical Secretary.

January 1st, 1913.

SPECIAL MEETING OF COUNCIL.

A Special Meeting of the Representative Body has been summoned to meet in London on Friday, January 17th next.

Under the Regulations the Council must meet to consider the decisions arrived at by that Meeting, and notice is hereby given that a Meeting of Council will be held immediately upon the conclusion of the business of the Special Representative Meeting.

By Order,

Guy Elliston,
Financial Secretary and Business Manager.

January 1st, 1913.

ELECTION OF COUNCIL, 1912–13.

Notice is hereby given that nominations for a candidate for the election as a Member of Council by the Glasgow and West of Scotland (4 County Divisions), Border Counties, and Stirling Branches for the year 1912–13, must be forwarded to reach the Financial Secretary and Business Manager, at the Office of the Association, not later than Saturday, January 25th. Each nomination must be on the prescribed form, copies of which will be furnished by the Financial Secretary and Business Manager upon application.

Separate forms have been prepared:

(A) For a nomination by a Division, and

(B) For a nomination by any three Members of a Branch respectively.

Those applying are requested to state for which purpose the form is desired.

An announcement of the Nominations received will be made in the Journal of February 1st, 1913.

Election will be by voting papers. These papers will contain the names of all duly nominated candidates, and will be issued from the Central Office on Monday, February 3rd, and will be returnable not later than Saturday, February 8th.

The result of the election will be published in the Journal of February 15th, 1913.

By Order of the Council,

Guy Elliston,
Financial Secretary and Business Manager.

January 11th, 1913.

QUARTERLY MEETING OF COUNCIL.

THE Quarterly Meeting of the Council will be held at Two o'clock in the afternoon of Wednesday, January 29th, in the Council Room at 429, Strand, London, W.C.

By Order,
GUY ELLISTON,

January 9th, 1913. *Financial Secretary and Business Manager.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

BIRMINGHAM BRANCH: CENTRAL AND WALSALL DIVISIONS.—A constituency meeting of the Central and Walsall Divisions will be held at the Medical Institute, Edmund Street, on Wednesday, January 15th, at 3.30 p.m.: (1) To consider statement to be placed before the Divisions, as a result of reports from Divisional Secretaries, as to local position in regard to the pledge and formation of panels. (2) To instruct Representatives for Special Representative Meeting on January 17th.—ERNEST C. HADLEY, H. HOYLE WHAITE, Honorary Secretaries.

BIRMINGHAM BRANCH: NUNEATON AND TAMWORTH AND COVENTRY DIVISIONS.—A meeting of the Nuneaton and Tamworth and Coventry Divisions will be held at 4.15 p.m. on Tuesday, January 14th, at the Coventry Hospital. The object of the meeting is to instruct the Representative.—D. DAVIDSON, A. WOOD, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL DIVISION.—A special meeting of this Division will be held on Tuesday, January 14th, at 3.30 p.m., to instruct Representatives at the forthcoming Representative Meeting on January 17th. The annual meeting of the Division will be held on January 21st. Business: (*a*) To receive annual report of the Executive Committee. (*b*) To elect officers. (*c*) To elect the Representatives of the Division on the Branch Council to take office after the next annual meeting of the Branch. (*d*) To elect the ordinary members of the Executive Committee. (*e*) To make new rules, or alter or repeal existing rules. (*f*) To elect Representatives at the Representative Meeting. (*g*) To transact any business that may be transacted at an ordinary meeting. —FRANCIS W. BAILEY, Honorary Secretary, 51A, Rodney Street, Liverpool.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—A general meeting of the Division will be held on Monday, January 13th, at 10 p.m. prompt, at Balfour Hall, Kingsland Road (entrance in Dunston Street, near Canal Bridge), to consider the annual report to the Branch, the instruction to Representatives for Special Representative Meeting, and other business.—A meeting of this Division will be held conjointly with the Aesculapian Society at the Metropolitan Hospital, Kingsland Road, on Friday, January 17th, at 4 p.m., when a clinical demonstration will be given by the visiting staff.—A. G. SOUTHCOMBE, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: HAMPSTEAD DIVISION.—A meeting of the Hampstead Division will be held on Tuesday, January 14th, at 4 p.m., at the Central Library, Finchley Road. Agenda: Annual report for 1912; instructions to Representative for Special Representative Meeting, January 17th. Notice: The date of this meeting has been altered from January 17th to January 14th, on account of the Special Representative Meeting being called for the 17th.—E. ARTHUR DORRELL, Honorary Secretary, 7, Cannon Hill, N.W.

METROPOLITAN COUNTIES BRANCH: SOUTH-WEST ESSEX DIVISION.—A special meeting of the Division, requisitioned by ten members in accordance with Rule 12, will be held in the Wesleyan Church Schoolroom, Leyton High Road, on Thursday, January 16th, at 4 p.m. Agenda: (1) Elect Chairman and Vice-Chairman. (2) Minutes. (3) Correspondence. (4) To consider the question of the desirability of releasing members of the profession from their undertaking and pledges in connexion with the National Insurance Act, and further to consider the situation created by the attitude of the Government towards the decisions of the Representative Body. (5) To instruct Representative for Representative Meeting on January 17th. (6) Notice of motion, proposed by Dr B. C. Scott, seconded by Dr. Alfred Orme: "That we instruct our Representative to vote for and use his utmost endeavour to maintain the integrity of the pledge and undertaking." (7) Any other business.—A POTTINGER ELDRED, Honorary Secretary.

MIDLAND BRANCH: LINCOLN DIVISION.—A special meeting, to which all medical men residing within the area of the Division are invited, will be held in the Lindum Restaurant, Lincoln, at 3 p.m., on Thursday, January 16th. Agenda: (1) To consider the forthcoming statement of the State Sickness Insurance Committee as to the position of the profession with regard to the National Insurance Act. (2) To instruct the Representative as to the line he should take at the Special Representative Meeting on January 17th.—J. S. CHATER, Honorary Secretary, 10, Steep Hill, Lincoln.

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.—It has been decided that the Division shall meet every week for the present, in order that the developments of the National Insurance Act may be watched.—HUGH M. RAVEN, Honorary Secretary.

WEST SOMERSET BRANCH.—A special general meeting will be held at the Taunton and Somerset Hospital on Tuesday, January 14th, at 3.30 p.m. The chair will be taken by the President, Dr. Balfour Stewart. Agenda: To express an opinion on the future policy of the Association. To advise Dr. Macdonald as to the wishes of the Branch (in view of the meeting of Representatives to be held on January 17th) on the advisability or not of returning the pledges. Other business. In answer to inquiries as to future arrangements for the medical attendance on the non-insured persons in friendly societies, the Honorary Secretary calls attention to the following resolution passed at a meeting of the medical men in the Taunton district, which is very similar to others passed in many of the county districts: "That the secretaries of the friendly societies be informed that the medical men are prepared to attend the uninsured members of their societies at the present terms until March 25th, 1913, as a temporary arrangement only. In case the societies assist in bringing strange doctors into the district, or a panel is formed under the Act, this arrangement will immediately cease."—CHARLES FARRANT, Honorary Secretary.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-five of the largest English towns, 5,930 births and 5,121 deaths were registered during the week ending Saturday, December 28th, 1912. The annual rate of mortality in these towns, which had been 16.4, 16.1, and 15.4 per 1,000 in the three preceding weeks, fell to 15.1 per 1,000 in the week under notice. In London the death-rate was equal to 14.4, against 17.2, 16.3, and 14.4 per 1,000 in the three preceding weeks. Among the ninety-four other large towns, the death-rates in the week under notice ranged from 5.6 in Ealing, 5.8 in Eastbourne, 7.0 in Southend-on-Sea, 7.2 in Enfield, and 7.4 in Wimbledon and in Southport to 21.0 in Middlesbrough, 21.1 in Newcastle-on-Tyne, 22.6 in Barrow-in-Furness, 24.4 in St. Helens and in Sunderland, and 26.6 in Preston. Measles caused a death-rate of 3.1 in Edmonton, 3.3 in West Hartlepool, 4.1 in Grimsby, 4.8 in St. Helens and in Barrow-in-Furness, 5.0 in Stockton-on-Tees, 5.2 in South Shields, and 8.9 in Preston; and whooping-cough of 2.1 in Warrington and 2.7 in Lincoln. The mortality from the remaining infectious diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 55, or 1.1 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; of this number 13 were registered in Birmingham, 12 in Liverpool, and 3 in St. Helens. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 2,265, 2,232, and 2,108 at the end of the three preceding weeks, were 2,112 on Saturday, December 28th; 191 new cases were admitted during the week, against 285, 248, and 193 in the three preceding weeks.

The area of the City of Carlisle as recently extended having contained a population exceeding 50,000 persons at the date of the last census, this city will in future be included in the great towns of the Registrar-General's weekly returns. In these towns, which now number ninety-six, 9,774 births and 5,387 deaths were registered during the week ending Saturday, January 4th. The annual rate of mortality, which had been 16.1, 15.4, and 15.1 per 1,000 in the ninety-five towns in the preceding three weeks, was equal to 15.7 per 1,000 in the ninety-six towns in the week under notice. In London last week, the death-rate was equal to 16.2, against 16.3, 14.4, and 14.4 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 5.7 in Eastbourne, 5.9 in Southport, 6.1 in Enfield, 8.7 in Hastings, and 8.8 in Leyton and in Reading to 21.9 in West Hartlepool, 22.0 in St. Helens, 23.6 in Newcastle-on-Tyne, 24.2 in Dudley, 25.9 in Stockton-on-Tees, and 26.0 in Bootle. Measles caused a death-rate of 4.0 in Swindon, 4.1 in West Hartlepool, 4.2 in South Shields, 4.4 in Preston, 4.6 in Northampton and in Wigan, 5.2 in Bath, 6.4 in Barrow-in-Furness, and 6.8 in St. Helens; scarlet fever of 1.0 in Middlesbrough and in Rhondda; whooping-cough of 1.3 in Willesden, and 2.7 in Cambridge and in Wolverhampton; and diphtheria of 1.0 in Rhondda. The mortality from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 57, or 1.1 per cent. of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 8 in Liverpool, 7 in Birmingham, 5 in Stoke-on-Trent, and 3 each in Burnley, Sheffield, South Shields, and Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 2,232, 2,108, and 2,112 at the end of the three preceding weeks, had fallen to 1,964 on Saturday last; 170 new cases were admitted during the week, against 248, 193, and 191 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN eighteen of the largest Scottish towns 1,022 births and 714 deaths were registered during the week ending Saturday, December 28th. The annual rate of mortality in these towns, which had been 22.0, 20.7, and 19.2 per 1,000 in the three preceding weeks, fell to 17.1 in the week under notice, but was 2.0 per 1,000 above the rate in the ninety-five large English towns. Among the several Scottish towns the death-rates ranged from 4.7 in Ayr, 10.3 in Kirkcaldy, and 11.9 in Hamilton to 18.9 in Glasgow, 19.9 in Falkirk, and 20.8 in Dundee. The mortality from the principal infectious diseases averaged 1.0 per 1,000, and was highest in Motherwell and Clydebank. The 285 deaths from all causes registered in Glasgow included 7 from whooping-cough, 4 from scarlet fever, 3 from measles, 3 from diphtheria, 2 from infantile diarrhoeal

diseases, and 1 from enteric fever. Three deaths from whooping-cough were recorded in Edinburgh, 2 in Motherwell, and 2 in Clydebank; 2 deaths from diphtheria in Dundee; and 1 from small-pox in Kirkcaldy.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

[illegible] notified by the Admiralty: [illegible] to the Plymouth Hospital, [illegible] Surgeon P. H. M. Smith to the [illegible] of the Third Fleet, January 1st, 1913; [illegible] to the *Centurion*, and for general staff duties on transfer of flag. Fleet Surgeon Walter G. Oxford, to Chatham Hospital, vice Wildey, January 1st, 1913. Fleet Surgeon Henry W. Gordon-Green, to the *King George V.*, vice Hopkins, January 1st, 1913. Fleet Surgeon George R. MacMahon, M.B., to the *Drake*, vice Beatty, on transfer of flag. Fleet Surgeon Edward T. P. Eames, to the *Penguin*, additional for Sydney Dépôt, vice MacMahon, on transfer of flag. Fleet Surgeon W. J. Bearblock, to the *Bellerophon*, vice Harris. Fleet Surgeon A. W. B. Livesay, M.B., to the Cape of Good Hope Hospital, vice Chambers. Fleet Surgeon T. T. Jeans, M.B., to the *Princess Royal*, vice Keogh, January 1st, 1913. Fleet Surgeon R. W. Stanistreet, to the *Intrepid*, vice Facey, January 1st, 1913. Staff Surgeon Charles C. MacMillan, M.B., D.S.O., to the *Bristol*, vice Spicer, December 30th, 1912. Staff Surgeon P. F. Alderson, to the *Dublin*, on commissioning. Staff Surgeon A. W. Iredell, to Chatham Dockyard, vice Alderson. Staff Surgeon J. D. S. Mills, M.B., to the *Argyll*, vice Jeans, January 1st, 1913. Staff Surgeon E. T. Burton to the *Juno*, on recommissioning, January 20th, 1913. Staff Surgeon S. H. Facey, to the *Indomitable*, vice McElwee, January 1st, 1913. Staff Surgeon S. H. Woods, M.D., to the *Endymion*, January 6th, 1913. Staff Surgeon T. D. Little, M.B., to the *Thames*, January 7th, 1913. Staff Surgeon A. C. W. Newport, to the *Attacker*, and for group of ships of the Third Fleet, January 1st, 1913. Surgeon E. Moxon-Browne, to the *Victory*, additional, for disposal, January 1st, 1913. Staff Surgeon David H. C. Given, M.B., to the *Pembroke*, additional, for disposal. Surgeon George J. Carr, M.B., to the *Victory*, additional, for disposal.

ROYAL NAVAL VOLUNTEER RESERVE.

Frank Garratt has been appointed Surgeon, December 26th, 1912.

ARMY MEDICAL SERVICE.

Colonel Richard Jennings, M.D., Honorary Surgeon to the King, on completion of four years' service in his rank is placed on the half-pay list, December 31st, 1912, and placed on retired play, January 2nd, 1913.

Lieutenant-Colonel Alan E. Tate to be Colonel, vice R. Jennings, December 31st, 1912.

Colonel H. J. Barratt has been appointed Assistant Director of Government Medical Services, Bareilly, Garhwal and Dehra Dun Brigades, with effect from November 17th, vice Colonel L. E. Anderson promoted and transferred.

Colonel R. H. Firth is appointed Assistant Director of Medical Services, 1st (Peshawar) Division, with effect from December 1st, vice Colonel Robinson, retired.

Royal Army Medical Corps.

Lieutenant-Colonel Horace Cocks, M.B., retires on retired pay, January 4th, 1913.

Lieutenant-Colonel H. E. Cree has been appointed to the Medical Charge of the Cantonment, General Hospital, Subathu.

Lieutenant-Colonel R. J. Windle has been appointed to the command of the Station Hospital, Poona.

The undermentioned Majors to be Lieutenant-Colonels: John D. Ferguson, D.S.O., vice A. E. Tate, December 31st, 1912; John C. Connor, M.B., vice H. Cocks, January 4th, 1913.

Major G. B. Crisp has joined the London District for duty.

Major H. M. Nicholls has been granted six months' leave, *ex* India.

Captain M. B. H. Ritchie has been appointed Deputy Assistant Director, Medical Services (Mobilization), 5th (Mhow) Division.

Captain Thomas J. Potter to be Major, December 27th, 1912.

Captain F. A. McCammon has been posted to the Dublin District.

Captain P. S. Rodger (retired) has been appointed Officer in Charge of the Military Hospital, Warrington.

Captain R. H. MacNicol, from Woolwich, has joined the London District.

Captain C. R. Morris has been ordered to join the Southern Command.

Captain F. W. Lambelle, Surgical Specialist, 5th (Mhow) District, has been posted to Maymyo on permanent transfer.

Lieutenants W. B. Laird, H. J. S. Shields, R. C. Carlyle, E. B. Allnutt, A. G. Biggam, and J. L. Huggan, from Aldershot, have been appointed for duty in the London District.

Lieutenant L. C. Hayes has left the London District for duty in Bermuda.

Lieutenant W. A. Frost has been posted to India.

INDIAN MEDICAL SERVICE.

Major S. R. Godein, I.M.S., is appointed a Specialist in Advanced Operative Surgery, with effect from November 16th, 1912.

Captain A. Mc. D. Dick, I.M.S., appointed a Specialist in Advanced Operative Surgery, with effect from October 21st, 1912.

Captain W. T. McCowen has been promoted Brevet Major in recognition of his services during an attack on a squadron of his regiment in Persia.

Captain E. S. Phipson has been appointed to the Jail Department in the Madras Presidency.

SPECIAL RESERVE OF OFFICERS.

Royal Army Medical Corps.

Captain Denis Murphy, M.B., resigns his commission, January 4th, 1913.

Cadet Corporal Alan Cecil Perry, from the University of London Contingent, Officers' Training Corps, to be Lieutenant (on probation), December 2nd, 1912.

TERRITORIAL FORCE.

Royal Army Medical Corps.

South Wales Mounted Brigade Field Ambulance.—Josiah Browne, to be Lieutenant, November 23rd, 1912.

Second East Lancashire Field Ambulance.—Lieutenant Henry Bentley resigns his commission, December 21st, 1912.

Fourth Southern General Hospital.—Captain Joseph W. Gill, M.D., to be Major, January 29th, 1912.

Sanitary Service.—Captain Arthur B. Dunne, M.B., from the Notts and Derby Mounted Brigade Field Ambulance, to be Captain, whose services will be available on mobilization, December 21st, 1912.

Third East Lancashire Field Ambulance.—Lieutenant Kingsmill W. Jones, M.D., is borne as supernumerary to the establishment whilst serving with No. 18 Field Ambulance, R.A.M.C. Special Reserve, December 18th, 1912.

Attached to Units other than Medical Units.—Captain Thomas A. Walker resigns his commission, December 21st, 1912. Major Reginald G. Hann resigns his commission, December 21st, 1912. Captain William Bain, M.B., from the 6th London Field Ambulance, to be Captain, January 4th, 1913.

For Attachment to Units other than Medical Units.—Henry W. M. Strover, M.B., to be Lieutenant, October 31st, 1912. Arnold Morris, to be Lieutenant, November 10th, 1912. George Bruce Pearson, to be Lieutenant, December 1st, 1912. Captain D. S. Sutherland, attached to the 3rd London Royal Field Artillery Brigade, is to be attached to the Queen Alexandra Military Hospital till January 30th, 1913.

TERRITORIAL FORCE RESERVE.

Royal Army Medical Corps.

Lieutenant-Colonel Frederick J. Knowles, retired list, Territorial Force (lately commanding the 1st West Lancashire Field Ambulance, R.A.M.C.), to be Lieutenant-Colonel, December 25th, 1912.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ASHTON-UNDER-LYNE: DISTRICT INFIRMARY AND CHILDREN'S HOSPITAL.—Assistant House-Surgeon. Salary, commencing at £90 per annum.

BATH: ROYAL UNITED HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Resident Medical Officer (Male). Salary at the rate of £60 per annum.

BIRKENHEAD UNION INFIRMARY.—Senior Male Resident Assistant Medical Officer. Salary commencing at £120 per annum.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £200 per annum.

BIRMINGHAM: GENERAL HOSPITAL.—(1) Honorary Ophthalmic Surgeon. (2) House-Surgeon. Salary at the rate of £40 per annum for three months, increasing to £50 per annum for other six months.

BIRMINGHAM LYING-IN CHARITY.—House-Surgeon (Lady). Salary at the rate of £50 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—Radiographer. Salary, £100 per annum.

BLACKBURN AND EAST LANCASHIRE INFIRMARY.—Junior House-Surgeon. Salary, £85 per annum.

BLACKBURN BOROUGH EDUCATION COMMITTEE.—Male School Medical Inspector and Assistant to the Medical Officer of Health. Salary, £250 per annum.

BOURNEMOUTH: ROYAL VICTORIA AND WEST HANTS HOSPITAL.—House-Surgeon. Salary, £80 per annum, rising to £100.

BRADFORD ROYAL INFIRMARY.—Resident Surgical Officer. Salary, £150 per annum.

BRENTFORD UNION.—Second Assistant to the Medical Superintendent at the Infirmary, Workhouse, and Schools. Salary, £125 per annum.

BRISTOL ROYAL INFIRMARY.—Resident Casualty Officer. Salary at the rate of £50 per annum.

CARDIFF CITY COUNCIL.—Temporary Assistant to the Medical Officer of Health (Lady). Salary at the rate of £250 per annum.

CARDIFF: KING EDWARD VII'S HOSPITAL.—House-Surgeon. Honorarium, £30 per annum.

CARDIFF: KING EDWARD VII WELSH NATIONAL MEMORIAL.—Tuberculosis Physician. Salary, £450 per annum, increasing to £500.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—(1) Bacteriologist and Pathologist; honorarium, £50 per annum. (2) X-Ray Officer; small honorarium attached to post.

GARTLOCH MENTAL HOSPITAL.—Junior Assistant Medical Officer. Salary, £150 per annum.

HAMPSTEAD GENERAL AND NORTH-WEST LONDON HOSPITAL.—Physician to Out-patients.

HERTS COUNTY ASYLUM, Hill End, St. Albans.—Junior Assistant Medical Officer (Male). Salary, £170 per annum, increasing to £190.

HOSPITAL FOR CONSUMPTION, Brompton, S.W.—House-Physician. Honorarium of 30 guineas for six months.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Physician. (2) House-Surgeon. Salary for each £30 for six months and £2 10s. washing allowance. (3) Casualty Medical Officer. Salary, £200 per annum.

HOSPITAL FOR WOMEN, Soho Square, W.—Junior Resident Medical Officer. Salary at the rate of £30 per annum, increasing to £40 on promotion.

KING'S COLLEGE HOSPITAL, W.C.—Honorary Radiographer.

LABORATORIES OF PATHOLOGY AND PUBLIC HEALTH, New Cavendish Street, W.—Male Fourth Assistant Pathologist.

LEEDS GENERAL INFIRMARY.—(1) Resident Aural Officer. (2) Resident Ophthalmic and Aural House-Surgeon. (3) Three House-Physicians. (4) One House-Surgeon. Salary, £100 and £50 per annum respectively for (1) and (2).

LEICESTER ROYAL INFIRMARY.—Male Assistant House-Physician. Salary at the rate of £80 per annum.

LIVERPOOL UNIVERSITY.—Lectureship in Mental Diseases.

MAIDSTONE: KENT COUNTY COUNCIL.—Medical Officer of Health for the County. Salary, £800 per annum.

MAIDSTONE: KENT COUNTY OPHTHALMIC HOSPITAL.—House-Surgeon (Male). Salary, £100 per annum, and £2 10s. laundry allowance.

MIDDLESEX EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary, £370 per annum.

MIDDLESEX HOSPITAL CANCER RESEARCH LABORATORIES.—Third Assistant. Salary, £150 per annum.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Senior House-Physician. Salary, £50 per annum.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon (Male). Salary, £170 per annum.

OXFORD COUNTY ASYLUM, Littlemore.—Junior Assistant Medical Officer (Male). Salary, £150 per annum, rising to £175.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—(1) House-Physician. Salary, £75 per annum. (2) Honorary Assistant Physician.

POPLAR AND STEPNEY SICK ASYLUM DISTRICT.—Third Assistant Medical Officer to the Sick Asylum, Bromley. Salary, £120 per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—House-Physician (Male). Salary at the rate of £75 per annum.

PUTNEY HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

ROYAL DENTAL HOSPITAL, Leicester Square, W.C.—(1) Lecturer on Bacteriology. (2) Clinical Pathologist.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Radiographer and Medical Electrician. Salary, £100 per annum.

ROYAL NATIONAL ORTHOPAEDIC HOSPITAL.—Junior Resident House-Surgeon. Salary at the rate of £80 per annum.

SOUTH YORKSHIRE ASYLUM, Wadsley, near Sheffield.—Fourth Assistant Medical Officer (Male). Salary, £150 per annum, rising to £180.

SURREY DISPENSARY, Great Dover Street, Southwark, S.E.—Physician.

SWANSEA UNION.—Assistant Medical Officer to the Workhouse. Salary about £235 per annum, inclusive.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House-Physician (Male). Salary, £100 per annum.

WAKEFIELD.—Assistant Medical Officer of Health. Salary, £250 per annum.

WESTMORLAND CONSUMPTION SANATORIUM AND HOME, Grange-over-Sands.—Assistant Medical Officer. Salary, £200 per annum.

WESTRAY PARISH COUNCIL.—Medical Officer and Public Vaccinator. Salary, £75 per annum.

WEST RIDING ASYLUM, Menston.—Fourth Assistant Medical Officer. Salary, £150 per annum, rising to £180.

YORK DISPENSARY.—Resident Medical Officer. Salary, £140 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointment: Lanark (Lanark).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

ALLAN, Peter, M.D., Ch.B., D.P.H., Medical Superintendent of the Romsley Hill Home for Consumptives of the Birmingham Hospital Saturday Fund.

BRACEY, H. C. H., M.B., Ch.B.Birm., Assistant Medical Officer of the Dudley Royal Infirmary of the Birmingham Parish.

DENT, Howard H. C., M.B., F.R.C.S., L.R.C.P., Honorary Surgeon to the Wolverhampton and Staffordshire General Hospital.

JONES, T. W., M.B., Ch.B. (1st class honours), M.D., D.P.H., Medical Officer of Health for the Borough and Rural District of Wrexham, School Medical Officer, and Medical Superintendent of the Joint Fever Hospital.

KILLPACK, C. D., M.R.C.S., L.R.C.P., Assistant Medical Officer of the Workhouse and Infirmary of the Parish of Hammersmith.

MONAGHAN, P. J., M.R.C.S., L.R.C.P., Assistant Medical Officer of the Workhouse and Infirmary of the Parish of Hammersmith.

NORRIS, Athelstane, M.D., Divisional Surgeon to Police stationed at Putney, vice Dr. Sheppard, retired.

PLUMMER, E. Curnow, M.R.C.S.Eng., L.R.C.P.Lond., Medical Superintendent and Resident Licensee of Laverstock House, Salisbury.

ROPER, Charles, M.D.Camb., D.P.H., Chief Tuberculosis Officer to the Cornwall County Council.

SMYTH, J. G., M.B., Ch.B.Edin., Assistant Medical Officer, St. James's Infirmary of the Wandsworth Union.

SOUTTER, G. C., M.B., Ch.B.Aberd., Assistant Medical Officer, Camberwell Parish Infirmary.

STEVENSON, Dorothy W., M.B., Ch.B., Assistant Medical Officer at the Infant Consultations, Bradford Health Committee.

SWETTENHAM, A. W., L.R.C.P. and S.Edin., L.F.P.S.Glasg., District Medical Officer of the Leominster Union.

TALBOT, Norman C., M.B., B.S.Melb., Assistant Resident Medical Officer, Broken Hill Hospital, New South Wales, vice Dr. Thomas, resigned.

THOMSON, H. Hyslop, M.D., D.P.H., Tuberculosis Officer of the County of Hertford.

WARNER, Miss C. E., M.B., Ch.B.Vict., Assistant Medical Officer of the Oldham Union Workhouse.

WHITEHEAD, Arthur E., L.R.C.S., L.R.C.P.Edin., L.F.P.and S.Glasg., Medical Officer to the Workhouse; Medical Officer and Public Vaccinator, No. 1 District, Bridlington Union.

WU LIEN TEH (Gnoh Lean Tuck), M.A., M.D., B.C.Cantab., Director and Chief Medical Officer of the North Manchurian Plague Prevention Service, with head quarters at Harbin.

ROYAL MINERAL WATER HOSPITAL, Bath.—The following have been appointed Honorary Physicians: Richard Jones Llewellyn, M.B.Lond.; Rupert Waterhouse, M.D.Lond., M.R.C.P.; Frederick George Thomson, M.D.Lond., M.R.C.P.; James Lindsay, M.D. Edin., M.R.C.P.

UNIVERSITY COLLEGE HOSPITAL.—The following appointments have been made:

Obstetric Registrar: G. G. Alderson, B.A., M.B., B.C., F.R.C.S.
House-Surgeon: G. G. Johnstone, B.A., M.B.
Obstetric Assistant: A. C. S. Courts, M.B., B.S.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

BOWKER.—On January 4th, at 11, North Parade, Bath, the wife of George E. Bowker, M.D.Edin., of a son.

COLE.—On January 5th, at 25, Upper Berkeley Street, Portman Square, the wife of Robert Henry Cole, M.D., of a daughter.

DRUITT.—On December 27th, 1912, at Iyi Enu, Onitsha, the wife of Dr A. E. Druitt, of a daughter.

FRENCH.—On Tuesday, January 7th, 1913, at 62, Wimpole Street, Cavendish Square, W., to Dr. and Mrs. Herbert French, a son.

MARRIAGE.

HIBBERT—HARRISON.—On January 6th, at St. Agnes's, Birch, Manchester, Cecil Hibbert, M.D., F.R.C.S.E., of Greek Street, Stockport, to Margaret Vida Harrison, of Longsight, Manchester.

DEATHS.

CHAMBERS.—On December 21st, 1912, at 249, Hackney Road, Dr. John Louis Chambers, only son of the late John Chambers, Surgeon, and the dearly-loved brother of Mary A. Howell Chambers, of Buckhurst Hill. Friends kindly accept this (the only) intimation.

GASKELL.—On January 4th, at his residence, Glendwon, Huyton, Liverpool, Richard Allanson Gaskell, M.R.C.S., L.S.A., J.P., formerly of St. Helens, Lancashire, aged 84 years.

MONTGOMERY.—At 5, Clarence Place, Penzance, on Christmas Day, James Barclay Montgomery, M.D.Glasg., F.R.C.P.Lond., J.P., eldest surviving son of the late James Montgomery, Edinburgh, of The Braidley, Ayrshire, in his 84th year.

RECENT PUBLICATIONS.

The Year Book of Pharmacy. By J. O. Braithwaite and Horace Finnemore, B.Sc., F.I.C. London: J. and A. Churchill. 1912. (Crown 8vo, pp. 614.)

A composite, well-indexed volume containing a multiplicity of information on the subject of pharmacy. This includes abstracts of all papers relating to materia medica, specialized chemistry, and pharmacy which appeared in British and foreign journals during the year ending June, 1912, and a detailed account of the British Pharmaceutical Conference at its forty-ninth annual meeting.

Surgical Instruments and Appliances. By Harold Burrows, M.B., B.S.Lond., F.R.C.S. Fourth edition. London: The Scientific Press, Limited. 1912. (Cr. 8vo, pp. 103. Price 1s. 6d. net.)

A fourth and enlarged edition of a book to which we drew attention on its first publication. It supplies illustrated and classified lists, which cover most of the operations commonly practised, and may prove useful to house-surgeons as well as operation-room attendants.

Our Children's Health at Home and at School. Edited by Charles E. Hecht, M.A. London: National Food Reform Association. 1912. (Demy 8vo, pp. 467. Price 5s. net.)

A report of the conference on diet and hygiene in public, secondary, and private schools, held at the Guildhall in May last. Included are copies of press comments which appeared thereon and of correspondence in the papers on the same subject. It contains full information as to the dietaries of a great many public schools, their cost, and the results they are considered to give.

Daily Register. London: Parke, Davis, and Company. 1912. (Demy 8vo. Price 6d. net.)

The title covers a series of charts, on which it is intended that patients attending tuberculosis dispensaries or undergoing tuberculin treatment by private practitioners shall keep a full record of their history from day to day for the information of their medical attendant. It has been brought out, we are informed, at the suggestion of Dr. H. de Carle Woodcock, of Leeds, and might, no doubt, often prove useful.

The [illegible] and Natural Science. By Leonard Donaldson. London: Cassell, Limited. 1912. (Demy 8vo, pp. 88; with 25 illustrations. Price 2s. 6d.)

A volume setting forth some of the achievements of the producers of motion pictures and describing what appear to its author to be the possibilities of this modern art in connexion with the study and teaching of natural science. There is nothing in the pictures to differentiate them from ordinary photomicrographs of small objects, and the amount of actual information supplied on the subject of cinematography itself is somewhat meagre.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Papers:—(1) Mr. T. North: The Rise and Possibilities of the General Practitioner-Surgeon. (2) Dr. J. B. Mennell: The Treatment of Recent Injuries by Massage.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Milroy Lecture by Major Robert McCarrison, I.M.S.: The Etiology of Endemic Goitre.

ROYAL SOCIETY OF MEDICINE:
SECTION OF SURGERY, 5.30 p.m.—Papers:—(1) Dr. A. G. Haynes Lovell: Actinomycosis with Special Reference to Involvement of Bone, and an Account of a Case Primarily Involving the Inferior Maxilla. (2) Mr. T. H. Kellock: Some Clinical Manifestations of Actinomycosis. (3) Mr. A. G. R. Foulerton: Some Points in the Pathology and Diagnosis of Streptothrix Infections.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Fourth Milroy Lecture by Major Robert McCarrison, I.M.S.: The Etiology of Endemic Goitre.

ROYAL SOCIETY OF MEDICINE:
SECTION OF DERMATOLOGY, 5 p.m.—Demonstration of Cases and Specimens.
SECTION OF NEUROLOGY, 8 p.m.—Demonstration of Cases and Specimens.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:
SECTION OF ELECTRO-THERAPEUTICS, 8.30 p.m.—Paper:—Dr. Lewis Jones: The Use of Condenser Discharges in Electrical Testing.
SECTION OF OTOLOGY, 5 p.m.—Discussion on Meningitis, to be opened by Dr. Milligan.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION, S.W., Wednesday, 4.30 p.m.—Recent Investigations into Pathology of Tuberculosis.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics. Monday: 12 noon, Throat, Nose, and Ear; 2.15 p.m., Surgery; 3 p.m., Operations; 3.15 p.m., Medicine; 3.15 p.m., Ear and Throat. Tuesday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Surgery; 3.15 p.m., Medicine. Wednesday: 11 a.m., Eye; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Eye Clinic; 4.30 p.m., Surgery. Thursday: 12 noon, Throat, Nose, and Ear; 2 p.m., Operations, Pathological Demonstration; 3.15 p.m., Medicine. Friday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Surgery. Saturday: 10 a.m., Radiography; 11 a.m., Eye. Special Lectures: Tuesday, 4.30 p.m.; Wednesday, 2.15 p.m.; Thursday, 4.30 p.m.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Pneumothorax; Tuesday, Treatment of Puerperal Fever; Wednesday, The Early Recognition of Pulmonary Tuberculosis; Thursday, Mucous Channels and the Blood Stream as Routes of Infection (Lantern Demonstration).

MANCHESTER ANCOATS HOSPITAL POST-GRADUATE CLINIC, Thursday, 4.15 p.m.—Paralyses of Childhood.

MANCHESTER ROYAL INFIRMARY, Tuesday, 4.30 p.m.—Demonstration of Medical Cases. Friday, Surgical Demonstration.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Headache and Migraine.

SALFORD ROYAL HOSPITAL, Tuesday, 4.30 p.m.—Demonstration of Medical Cases (Children).

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, X Rays, and Operations, 2 p.m. daily. Monday, Gynaecology, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday, Gynaecological Operations, 10 a.m.; Surgical Registrar, 10.30 a.m.; Demonstration of Fractures, etc., 12 noon; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Medical Registrar, 10.30 a.m.; Lecture, Abdominal Diagnosis, 12 noon; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday, Gynaecological Demonstration, 10.30 a.m.; Lecture, Neurological Cases, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday, Gynaecological Operations, 10 a.m.; Lecture, Practical Medicine, 10.30 a.m.; Lecture, Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday, Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.; Surgical Registrar, 10.30 a.m.; Lecture, Surgical Anatomy of the Abdomen, 12 noon. Special Lectures at 5 p.m. daily.

DIARY OF THE ASSOCIATION.

Date.	Meetings to be Held.
	JANUARY, 1913.
1 Wed.	Subscriptions to the British Medical Association for 1913 become due (also to Central Defence Fund).
10 Fri.	London: Journal Committee, 3 p.m.
	London: Libel Actions Subcommittee, 2 p.m.
13 Mon.	City Division, Balfour Hall, Kingsland Road, 10 p.m.
14 Tues.	London: Metropolitan Counties Branch, 4 p.m.
	London: Organization Committee, 2.15 p.m.
	Coventry Division, Coventry Hospital, 4.15 p.m.
	Hampstead Division, Central Library, Finchley Road, 4 p.m.
	Liverpool Division, 3.30 p.m.
	West Somerset Branch, Taunton and Somerset Hospital, 3.30 p.m.
15 Wed.	Central and Walsall Divisions, Medical Institute, Edmund Street, 3.30 p.m.
16 Thur.	Lincoln Division, Lincoln, 3 p.m.
	South-West Essex Division, Wesleyan Church Schoolroom, Leyton High Road, 4 p.m.
	JANUARY (*continued*).
17 **Fri.**	London: **Special Representative Meeting, 3.30 a.m.**, Connaught Rooms, Great Queen Street, W.C.
	SPECIAL MEETING OF COUNCIL *immediately afterwards.*
	City Division, Metropolitan Hospital, Kingsland Road, 4 p.m.
	Hampstead Division, Finchley Road, 8.15 p.m.
21 Tues.	Liverpool Division.
22 Wed.	London: Finance Committee, 2.30 p.m.
	Richmond Division, Richmond, 8.30 p.m.
	South Middlesex Division, Twickenham, 8.30 p.m.
29 Wed.	London: Council Meeting, 2 p.m.
31 Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
	FEBRUARY.
11 Tues.	London: Metropolitan Counties Branch, 4 p.m.
	South-West Essex Division, Whipps Cross Infirmary, 4 p.m.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JANUARY 18TH, 1913.

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THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

A MEETING of the State Sickness Insurance Committee appointed by the Special Representative Meeting on November 20th, 1912, was held at the house of the Association, 429, Strand, on Thursday, January 9th, Dr. J. A. MACDONALD in the chair. The members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. T. A. Helme (Manchester), Miss Frances Ivens, M.S. (Liverpool), Mr. Herbert Jones (Hereford), Dr. Constance E. Long (London), Dr. D. G. Thomson (Norwich), Mr. D. F. Todd (Sunderland), Mr. E. B. Turner (London), and Mr. E. H. Willock (Croydon). *Scotland:* Dr. J. Adams (Glasgow). *Ex officio:* The President (Sir James Barr), Mr. T. Jenner Verrall (Chairman of Representative Meetings), and Dr. Edwin Rayner (Treasurer).

APOLOGIES FOR ABSENCE.

Apologies for absence were read from Dr. J. S. Darling (Lurgan) and Dr. T. M. Carter (Bristol).

PRESS COMMITTEE.

The Press Committee appointed at the previous meeting reported the information it had issued to the press, and the Committee was instructed to draft a letter, based upon the statements, to members of the House of Commons, and to forward copies to the honorary secretaries of Divisions requesting them to send copies to each member of the Local Medical Insurance Committee, and to urge members of Divisions to interview personally members of the Local Insurance Committees thereon.

CAMPAIGN OF THE LONDON MEDICAL COMMITTEE.

A deputation from the London Medical Committee, consisting of Dr. BUTTAR and Mr. EVAN JONES, attended and gave a brief account of the campaign of the Committee, and explained the scheme of conditions and terms of service upon which the medical men in London would attend insured persons. The deputation pointed out that the two objects which the London Medical Committee had in mind in its campaign were the welfare of the community and the maintenance of a free profession; it desired all the assistance the Association could give it in carrying out its objects.

PRESSURE UPON PRACTITIONERS TO JOIN THE PANEL.

The correspondence from Wisbech published in the SUPPLEMENT of last week, p. 44, was read, and the Committee approved of the insertion in the JOURNAL of a warning notice stating that further information with regard to the matter should be obtained from the Secretary of the Isle of Ely Division (Dr. A. C. S. Waters, High Street, March, Cambridgeshire).

POSITION AS REGARDS FORMATION OF PANELS.

It was reported that the information received from the Secretaries of Divisions with regard to the formation of panels was at present incomplete, and the Chairman was authorized to receive further information, and base upon it a report for the Representative Meeting.

THE MANCHESTER SCHEME.

A communication was received from a correspondent in Manchester inquiring whether the Manchester scheme (published in the SUPPLEMENT of last week, January 11th, p. 50) was within the policy of the Association. A resolution was proposed to the effect that the inquirer should be informed that, while the Committee recognized that the Manchester scheme was a distinct improvement on the Regulations issued by the Commissioners, it was not convinced that the arrangements were within the policy of the Association; an amendment by Dr. HELME, inviting the Committee to express the opinion that the acceptance of service under the Manchester scheme did not violate the pledge and undertaking, was lost, and the original motion was carried.

Compensation.

The Committee had before it several applications for compensation, but in one instance only found the information sufficiently complete to authorize it in making an offer of temporary assistance without prejudice.

National Insurance Practitioners' Association.

A communication was read from the National Insurance Practitioners' Association (1) drawing attention to an article appearing in the *Daily Chronicle* on January 9th, 1913, referring to certain action taken by practitioners to persuade a practitioner to withdraw from the panel formed for Willesden; (2) drawing attention to a certain leaflet issued by the "London Insurance Committee" from 429, Strand; (3) stating that many members of the Practitioners' Association who were also members of the British Medical Association resented the degradation of the latter body by its supposed responsibility for action of the kind referred to; (4) asking for an immediate disclaimer of any responsibility of the British Medical Association for such proceedings and a repudiation in the name of such body; and (5) stating that in the absence of such disclaimer it was proposed through the press to call the attention of members of the British Medical Association to the action being taken in London directed from the office of the Association.

The Committee resolved to reply, pointing out that the London Medical Committee acted entirely on its own authority and responsibility, and that, so far as the Willesden incident was concerned, that particular area was outside the jurisdiction of the London Medical Committee, and that there was no evidence that the action was taken under the aegis of the British Medical Association.

Attendance upon Aged and Disabled Club Members.

A communication was read from the honorary secretary of a Division stating that it was proposed locally to attend aged and disabled members of clubs at the old rates, and asking for advice. The Committee resolved to call the attention of the Division to the fact that an understanding was come to in October, 1911, between representatives of the Association and the friendly societies that the rates for insured persons should be paid also for attendance upon members of societies who at the time of the passing of the Act were over 65 years of age, or permanently disabled and thus debarred from medical benefit under the Act. It was resolved further to point out that such an understanding was in fact contained in Section 15 (2) (*e*), of the Act and in Regulation 51, which governed the question of the attendance upon such members.

Seamen's National Insurance Society.

The consideration of the question of the conditions of service of practitioners under the Seamen's National Insurance Society, arising out of communications from the Honorary Secretary (Dr. Morgan) of the Liverpool Provisional Local Medical Committee, and the President (Sir James Barr), was postponed.

National Medical Union.

The Committee resolved to communicate to the Council of the Association the following resolution passed by the General and Executive Committees of the National Medical Union:

> That the Executive and General Committees offer the hearty support of the National Medical Union to the Council of the British Medical Association in its attitude of opposition to the formation of panels under the National Insurance Act, and suggest co-operation between the two bodies.

Public Medical Service Schemes.

The Chairman reported that he had since the last meeting approved on behalf of the Committee the following public medical service schemes with certain reservations in some places, and the Chairman's action was approved: Folkestone and District, West Sussex (Chichester, Worthing, Horsham, etc.), Southport, Llanelly, North Bedfordshire, New Malden and Coombe, Tunbridge Wells.

The Chairman also reported that he had approved on behalf of the Committee of the scale of fees for domiciliary treatment and attendance of tuberculous persons submitted by the Burnley Division, and his action was approved.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

EAST ANGLIAN BRANCH:

South-East Essex Division.

A meeting of the medical practitioners of the district was held at Southend on January 6th, Dr. Harmon Morgan in the chair.

The Panels and the Pledge.—The following resolution was carried with five dissentients:

> That in the opinion of this meeting the action of nearly every Division in going on the panels, forced thereto by the intimidation and threats of the Government, has rendered further refusal to follow the same course inadvisable, looking to the fact that the alternative of a whole-time Government medical service would mean ruin to many loyal men in the Division. This meeting therefore advises all practitioners to temporarily join the panels subject to the removal of the pledge by the British Medical Association on January 17th next, and to consider themselves bound to resign from the panels by giving notice before January 31st next, should the pledge be not removed by the Association.

A further resolution, that all the committee should join the panel, was carried unanimously.

Local Medical Committee.—The Provisional Local Medical Committee was elected *en bloc* to form the Local Medical Committee, and a vote of thanks to the Executive Committee for their work concluded the meeting.

GLASGOW AND WEST OF SCOTLAND BRANCH:

Dumbartonshire and Argyllshire Division.

This Division met in Clydebank on January 3rd. Dr. Jas. Wilson presided, and thirteen members were present.

Previous Finding Rescinded.—It was unanimously agreed to rescind the motion passed at last meeting "to stand by the Association's decision on the question of refusing service under the Insurance Act."

Withdrawal of Undertaking and Pledge.—On the motion of Dr. W. S. Young, seconded by Dr. Cramb, it was decided to sign a formal notice of withdrawal—eleven of those present did so—and further to advise the Division as a whole to withdraw from the undertaking and pledge.

Representative's Report.—Dr. Cramb made a short statement and answered questions. Thereafter discussion took place.

Insurance Act.—The Secretary reported that panels were completed in every part of Dumbartonshire, and that Local Medical Committees were formed in Clydebank, Dumbarton, and the western district of the county. He had endeavoured to get information as to Argyllshire, but without success.

Instructions to Representative.—It was unanimously resolved that Dr. Cramb vote in favour of releasing the profession from the undertaking and pledge. It was also resolved unanimously that he express the Division's disapproval of the British Medical Association's alternative to service under the Act as decided upon at the last Special Representative Meeting. It was decided (one dissentient):

> That Dr. Cramb be instructed to support the position taken up by the great majority of members of the British Medical Association in accepting service, and not to support any proposal which would weaken that position.

Central Defence Fund.—It was unanimously agreed:

> That the profession in this Division adhere to the guarantees already given.

Contract Practice among the Uninsured.—It was decided unanimously that the Secretary be instructed to notify every member of the profession practising in the Division area that the Division have resolved:

> That no contract practice be undertaken at rates lower than those accepted under the Insurance Act in each area (on a capitation basis without deductions, equivalent to 7s. 6d. without, 9s. with medicines); and further, that in all cases

patients should have free choice of doctor, doctors the right to refuse patients, and the income limit be the same as under the Act in each area.

Attendance upon Juvenile Members of Societies.—Dr. STRANG reported that the Clydebank Medical Association had formed a scheme as follows: Visits, 2s. 6d. with, 2s. without, medicines; consultations, 1s. 6d. with, 1s. without, medicines—the societies to be responsible for payment. This provisional scheme was approved.

METROPOLITAN COUNTIES BRANCH:

GREENWICH DIVISION.

AT a meeting of the old Greenwich Division, held on January 13th, the following resolution was carried by 64 votes to 6:

That we desire to instruct the Representative of the old Greenwich Division, comprising Greenwich, Deptford, and Lewisham, to express our opinion at the forthcoming meeting of the Representative Meeting of the British Medical Association on January 17th that until agreement to treat insured persons under the National Insurance Act are satisfactory to the medical profession as voiced by the British Medical Association, the undertaking of the pledge must be considered binding on those who have subscribed to them.

KENSINGTON DIVISION.

A MEETING of the Division was held at Kensington Town Hall on Monday, January 13th, at 4 p.m. Mr. E. B. TURNER was in the chair, and eighty members were present.

Minutes.—The minutes of the last meeting were read. Arising out of the minutes, Dr. MATTHEWS asked if the cardinal points were dead, and said he had gone on the panel because the Association had abandoned them. The CHAIRMAN replied that the cardinal points were still alive, and contested Dr. MATTHEWS's arguments. Dr. BECKETT-OVERY questioned the Chairman's statement in the minutes that panel doctors were obliged to take residue patients on their lists, whether they wanted to or not. The CHAIRMAN maintained that his statement was correct. The minutes were then confirmed.

Resignation of Representative.—Dr. Beckett-Overy's resignation as Representative was received with regret, and a vote of thanks for his past great services to the Division was put from the Chair and carried by acclamation.

Instruction of Representatives.—The following resolution, recommended by the Executive Committee for adoption by the Division as an instruction to Representatives, was read by the CHAIRMAN:

That while expressing the deepest sympathy with, and declining in any way to blame, those members of the profession who, although they had expressed to their professional neighbours their reluctance to break a promise, felt themselves compelled by economic pressure and the defection of their fellows to go on the panels, the Representative Meeting expresses the opinion that, until agreements to treat insured persons under the Act are satisfactory to the medical profession and in accordance with the declared policy of the Association, the undertaking and pledge must be considered as still binding on those who have subscribed to them.

Dr. BECKETT-OVERY moved a direct negative, seconded by Dr. BUTLER. Dr. WALSH OWEN proposed as an amendment that the first part of the resolution be deleted as far as the word "panels." A discussion took place, in which Drs. CULVER JAMES, MATTHEWS, HEAD, GREENE, MURRAY, WRIGHT, RAIMENT, BURNHILL, and ALEX. DAVIDSON took part, and the amendment, seconded by Dr. KINGDON, was put to the meeting and carried with one dissentient. The amendment then became the substantive motion, and, being put to the meeting, was carried with one dissentient and became an instruction to Representatives, as follows:

Motion by Kensington.

That this Representative Meeting expresses the opinion that, until agreements to treat insured persons under the Act are satisfactory to the medical profession and in accordance with the declared policy of the Association, the undertaking and pledge must be considered as still binding on those who have subscribed to them.

The CHAIRMAN then put the following resolution by the Executive Committee for submission to the Representative Meeting:

Motion by Kensington.

That it being evident that a very large number of the doctors who have gone on to the panels have been compelled to do so by fear of injury to their practices, which in some cases might even amount to actual financial ruin, the Representative Meeting directs that a letter be sent to every member of the medical profession, asking (1) if he is on the panel; (2) if so, whether he has taken service willingly or against his inclination owing to coercion; (3) whether, if he be not satisfied with the conditions both as to service and remuneration, he is prepared to decline to renew his contract for panel service at the termination of the provisional three months, provided that the other practitioners who have been induced to take service by similar methods do the same; (4) if he be not on the panel, whether he wishes to go on; and (5) whether he would be willing to undertake any whole or part-time appointment to treat insured persons under the Act.

Dr. CRAWFORD THOMSON seconded. The resolution was put and carried, and became an instruction to Representatives.

Appointment of Deputy Representatives.—Dr. Herbert Tanner was appointed Deputy Representative in the place of Dr. Beckett-Overy, and Dr. Crawford Thomson as Deputy Representative if required.

London Medical Committee.—The London Medical Committee's scheme of service was provisionally adopted.

NORTH OF ENGLAND BRANCH:

SUNDERLAND DIVISION.

A MEETING of this Division was held on January 11th. In the absence of the Chairman, Dr. MORGAN took the chair.

The Undertaking and Pledge.—Dr. TODD moved and Dr. BOYD CUNNINGHAM seconded:

That, owing to circumstances over which the medical profession has no control, the majority of those who had signed the undertaking and pledge have been forced to take provisional service for three months under the National Insurance Act, and, taking into consideration the different constructions which have been placed upon the resolutions of the last Representative Meeting, this Division considers that all those who have signed the undertaking and pledge are absolved.

Dr. DIX moved and Dr. RUSSELL seconded the following amendment:

That all members who have signed the pledge and undertaking be forthwith released from such pledge.

The amendment was carried; on its being put as the substantive motion, Dr. MODLIN moved and Dr. NEILAN seconded an amendment:

That, inasmuch as the last Representative Meeting abandoned one of the six cardinal points in advising the profession to approach the friendly societies, this Division considers the pledge was no longer binding.

This amendment was lost. Dr. ROWSTRON moved and Dr. MODLIN seconded an amendment:

That, owing to the altered circumstances, the pledge is no longer binding.

This amendment was lost, and Dr. DIX's amendment was carried as the substantive motion.

Policy for the Future.—Dr. TODD moved and Dr. DIX seconded, and it was unanimously carried:

That all steps be taken by the Association to safeguard the interests of the profession in the future and to ascertain what are the necessary amendments to the National Insurance Act and alterations in the Regulations to make the Act acceptable, in the truest sense of the word, to the profession and in the welfare of insured persons.

Special Representative Meeting.—Dr. MODLIN moved, Dr. DILLON seconded, and it was carried:

That in any other matters which may come up before the Representative Meeting, the Representative be allowed a free hand to vote as he may consider most advisable.

Dr. DILLON moved, Dr. SMITH seconded, and it was carried:

That, should Dr. Todd be unable to attend the Representative Meeting, Dr. Modlin be appointed as his deputy.

OXFORD AND READING BRANCH:

Reading Division.

A meeting of the Division was held in the hospital library on Tuesday, January 14th, at 3.30 p.m. Dr. Gordon Paterson was in the chair, and thirty-nine other members were present. Notice was given of the absence of the Chairman and Vice-Chairman of the Division.

Compensation.—After the minutes of the last meeting had been read and confirmed the Secretary stated that a late medical officer to the Amalgamated Friendly Societies Institute had applied for compensation from the Guarantee Fund—that he had recommended an immediate grant of £100 down and, if circumstances indicated, a further grant in the latter half of the year. Of this action the meeting approved.

Voluntary Hospitals.—The meeting then considered the resolutions of St. Bartholomew's Hospital with regard to the treatment of insured persons and others. It was stated that the Board of Management of the Royal Berkshire Hospital had already adopted these resolutions. After some discussion, it was proposed by the Secretary, seconded by Mr. Bokenham, and resolved:

> That Clause 4 is not compatible with the previous ruling of the Division to the effect that the old out-patient system should be remodelled.

The meeting agreed that this resolution should be sent at once to the chairman of the medical staff of the hospital.

Arrangements Made for Attendance on Insured Persons.

Mr. N. H. Joy then reported, as Secretary of the County Medical Committee, how far arrangements had been made in the county of Berks for the treatment of insured persons. No income limit had yet been settled, but it was hoped that it would be fixed at £2. The matter, he said, would be settled on February 1st. In the meantime, steps would be taken to keep on good terms with the friendly societies and the insured persons and also for the appointment of medical representatives to the Insurance Committees. No details had been arranged as to supplying insured persons with drugs, although medical benefit was due on the following day.

Following this report numerous members asked questions as to how they should deal with insured persons, none of the county members having yet received the required forms for registering, prescribing, or making reports.

The meeting then invited the Clerk to the County Insurance Committee to answer the questions raised.

Mr. P. Napier Jones reported that members in the Crowthorne district had declined to go on the panel. They had been invited to meet the Chairman of the County Committee in Reading, but had declined. The Chairman had gone to Crowthorne, and after much argument arrangements were made for insured persons to be treated for three months in the way most convenient to the practitioners concerned.

Mr. Rowland then reported that in Reading an income limit of 50s. weekly had been agreed upon by the Insurance Subcommittee and the Local Medical Committee, and that those persons unallotted to any doctor should be distributed by a committee consisting of five practitioners and five others.

Dr. Joyce then reported a conference between the drug committee of the Medical Society and the Chemists' Association of Reading. A pharmacopoeia drawn up for the society had been submitted to the chemists.

Tea was then served, and soon after the Clerk to the Insurance Committee arrived. He was bombarded with questions, most of which he was quite unable to answer. He was expecting the various forms required every hour from head quarters; he could not on his own authority promise anything. He was, however, heartily thanked by the meeting for the very trying ordeal to which he had been subjected.

The Representative was then instructed as to how he should proceed at the forthcoming Representative Meeting. Only one instruction was given, in the limited time remaining, and that to the effect that the Representative Body should release unconditionally and absolutely those who had signed pledges.

It was agreed by several speakers that the Association had adopted too rigid a policy from the beginning, and that the signing of pledges based on such a policy had been a mistake.

SOUTH-EASTERN BRANCH:

Brighton Division.

At a special meeting of the Brighton Division, held on January 9th, Dr. Ryding Marsh in the chair, at which forty members and fourteen visitors were present, the following resolutions were passed for submission to the Special Representative Meeting on January 17th:

Instructions to Representatives.

That the Representative Meeting declares that every medical practitioner is absolved from his undertakings and pledge.

That, in view of the facts that (*a*) the St. Bartholomew's Hospital regulations *re* insured persons can be made to cover that part of the pledge having reference to staffs of hospitals; (*b*) that those Divisions who adopt the Bradford rules can for themselves decide as to professional recognition; and (*c*) that the remainder of the pledge is now obsolete, the pledges as a whole be considered to be cancelled.

Future Policy of the Association.

That it be an instruction to the Council to use every possible means to strengthen the organization of the medical profession through the British Medical Association with a view to obtaining later through an amending Act such improvements in the National Insurance Act as will tend to make that Act a real benefit to the community, and one that will secure the cordial co-operation of the medical profession.

1. That in the opinion of this Representative Meeting there is no reason for departure from an attitude of uncompromising hostility to the existing conditions of service under the Insurance Act.
2. That the Representative Body now proceed to formulate the conditions for future action which would be likely to secure the adherence of all medical practitioners dissatisfied with the Act.

That it be an instruction to the Council, by means of a campaign amongst the staffs of voluntary hospitals, similar institutions, and otherwise, to take such action as will induce the Government to provide an efficient medical and surgical service for those insured for medical benefits under the National Insurance Act.

WEST SOMERSET BRANCH.

A special general meeting was held at the Taunton and Somerset Hospital on Tuesday, January 14th, at which thirty-five members were present. The Honorary Secretary read a telegram from the President that he was prevented from attending owing to illness. Mr. W. B. Winckworth, Past-President, was elected to the chair.

Special Representative Meeting.—It was the general feeling of the meeting that the meeting of Representatives should return the pledges, and, after some discussion, the following resolution, proposed by Dr. A. E. Joscelyne and seconded by Mr. Watkins, was unanimously passed:

> That this meeting of the West Somerset Branch recommends the meeting of Representatives to adopt this resolution:
>
> "That this meeting recognizes that, by whatever means the Insurance Commissioners have obtained a sufficient number of men to supply medical benefits to the insured, and also that in the present circumstances the men who would be penalized are those who hold that their undertaking and pledge are still binding, now absolve the members of the profession from their pledge."

A motion, proposed by Dr. Meredith and seconded by Dr. Penberthy, that a circular signed by Dr. Lauriston Shaw and others be allowed to lie on the table, was passed unanimously.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A list of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list.

The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

MEMBERS ELECTED TO THE BRITISH MEDICAL ASSOCIATION

(AUGUST 16TH TO DECEMBER 31ST, 1912).

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Daly, W. A., Esq., Gisborne
Daniel, E. J., Esq., Archibald Street, Elsternwick
Denton-Fethers, P., Esq., 28, Collins Street, Melbourne
Douglas, R. O., Esq., St. Vincent's Hospital, Melbourne
Flanagan, P. J., Esq., Moonee Ponds
Gaffney, A. E. B., Esq., Bendigo
Garde, G. E., Esq., Maryborough
Glowrey, Mary, Eye and Ear Hos., Melbourne
Greenham, D. P., Esq., St. Vincent's Hospital, Melbourne
Green, H. F., Esq., Kyneton Hospital
Grindod, W. C., Esq., Mordialloc
Hill, A. M., Esq., Castlemaine
Hoogan, J. P., Esq., Yarrawonga
Howitt, G., Esq., Victoria Parade, Fitzroy
Hughes, A. H., Esq., 599, Elizabeth Street, North Melbourne
Jones, I., Esq., Trinity College, Parkville
Jones, R., Esq., Gower Street, Hawthorn
Langley, A., Esq., Sturt Street, Ballarat
Lee, H. B., Esq., St. Vincent's Hos., Melbourne
Lemon, R. D., Esq., Ballarat Hospital
Ley, G. J., Esq., Warragul
Lorimer, G. N., Esq., Camberwell
McArthur, G. A., Esq., Ballarat Hospital
McEniry, J. J., Esq., Kerang
Mackenzie, J. G., Esq., Kaneiva
McLaren, W. W., Esq., Melbourne Hospital
Maclure, A. F., Esq., 127, Collins St., Melbourne
Manly, R. A. A., Esq., Werribee
Marsden, C. E., Esq., 158, Victoria Street, N. Melbourne
Martin, F. B., Esq., Queen's College, Melbourne
Murdoch, D., Esq., Romsey
Nicholas, J. J., Esq., Melbourne Hospital
Parer, P. A., Esq., 37, Princes Street, Fitzroy
Pern, S., Esq., Yarram
Rail, W., Esq., Lancefield
Ratz, M. W., Esq., 220, Victoria Street N., Richmond
Reid, G. M., Esq., Branxholme

Roberts, T., Esq., Women's Hospital, Carlton
Robertson, Margaret, Eye and Ear Hospital, Melbourne
Roche, C., Esq., Melbourne Hospital
Rowan, J. L., Esq., Ultima
Salts, R., Esq., Kilmore
Sandison, A., Esq., Rochester
Shelton, P. G., Esq., Alfred Hospital, Prahran
Stewart, C. A., Esq., Wycheproof
Taylor, G. M., Esq., Wedderburn
Thompson, J. L., Esq., Castlemaine
Thomson, J., Esq., Williamstown
Webb, F. E., Esq., Williamstown
Welchman, J. A. C., Esq., Shepparton
Wilkinson, A. M., Esq., Glenferrie
Williams, H. J., Esq., St. Vincent's Hospital, Melbourne
Willis, J. R. L., Esq., Bendigo Hospital, Bendigo
Wilson, H. C., Esq., Foster
Wilson, N., Esq., Elmore
Wolfenden, J. H., Esq., Dunolly
Young, A. S., Esq., High Street, Northcote

Ulster Branch.

Acheson, David R., M.B., Broughshane
Anthonisz, E. G., Capt., R.A.M.C., 4, Ulsterville Avenue, Belfast
Beverland, J. H., M.B., Alexandra Park, Holywood, co. Down
Bryars, John S., Esq., 239, Mountpottinger Road, Belfast
Davison, Samuel H., M.B., Castleton Terrace, Antrim Road, Belfast
Dunbar, B. H. V., M.D., Capt., R.A.M.C., Military Hospital, Belfast
Elwood, F. B., Esq., 13, University Square, Belfast
Gardiner, C. E. R., Esq., Dungloe
Hillyard, W. H., Esq., Castlewellan
Irwin, W. K., M.B., Drumquin
Johnston, Joseph G., M.B., Lisburn
McWilliam, W. N., M.D., Banbridge
Manderson, H. D., M.B., 67, Cliftonpark Avenue, Belfast
Marshall, Robert, M.B., Derryvolgie Avenue, Belfast
Matson, Joseph, Esq., Bushmills
Walker, W. McN., M.B., Donaghadee
Wilson, William, M.B., Hampton Park, Belfast

Western Australian Branch.

Cameron, Donald, Esq., Leonora
Dean, E. C., Esq., Bridgetown
Flynn, Ignatius J., M.D., Bunbury
Frost, A. J., M.B., Northam
Hodgson, R. P., M.B., Malcolm
Joll, S. C., M.B., Bunbury
McColl, John, Esq., Gwalia
Walker, John, Esq., Kalgoorlie
Williams, D. E., Esq., Fremantle

West Somerset Branch.

Boyall, A. V., Esq., Porlock
Burke, J. G., M.B., Cotford Asylum, Norton Fitzwarren, Taunton

Worcestershire and Herefordshire Branch.

Abbott, W. F., Esq., Thing Hill, Hereford
Debenham, H. A., Esq., Warden Court, Presteigne
Passey, Dr., Rosslyn, Bodenham Road, Hereford

Yorkshire Branch.

Bastable, A. L., Esq., 28, King's Road, Harrogate
Blair, A., M.D., Helmsley
Dick, J. R., Esq., 20, Prince of Wales Terrace, Scarborough
Egerton, W. A. H., Esq., Lyra Na Grena, Headingley, Leeds
Gough, Alfred, F.R.C.S., 132, Woodsley Road, Leeds
Griffin, W. B., F.R.C.S., 1, Pavilion Terrace, Scarborough
Hardy, L. E., M.B., Wesley House, Bramley, Leeds
Harris, C. E. G., Esq., Horton House, Halifax
Harvey, R. S., Esq., Grove House, Luddendenfoot, Leeds
McCready, Violet, M.B., Swallownest, near Sheffield
Porter, J. F., M.D., Helmsley
Reid, A. G., M.B., Chatham House, Rotherham
Vallow, H., M.D., 1A, Howard Street, Bradford
Vasalli, J. S., Esq., 37, Barwick Street, Scarborough
Villy, F., M.D., 3, Park Avenue, Keighley

THE LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

THE following books were added to the Library between April and June, 1912:

Presented by the Authors.

Berkart, J.: Bronchial Asthma, third edition. 1912
Blumfeld, J.: Anaesthetics, third edition. 1912
Lockwood, C. B.: Clinical Surgery. 1911
McKisack, H. L.: Systematic Case Taking. 1912
Marshall, B.: Manual of Midwifery. 1912
Sawyer, Sir James: Insomnia, second edition. 1912
Shenton, E. W. H.: Bone Disease and its Detection by the X-Rays. 1911
Whitla, Sir William: Dictionary of Treatment, fifth edition. 1912

Presented by Dr. F. J. Allan, London.

Proceedings of the Royal Society of Edinburgh, vol. xxxii.

Presented by the Birmingham Medical Institute.

Handbook of Birmingham. 1911

Presented by Miss Bonns.

Alabone, E. W.: The Cure of Consumption. No date
Arbuthnot, J.: Essay concerning the Effects of Air upon the Human Body. 1751
Boyle, Robert: On the Reconcileableness of Specifick Medicines to the Corpuscular Philosophy. 1685
Bryant, Jacob: Observations upon the Plagues Inflicted upon the Egyptians. 1810
Catlin: Shut your Mouth. 1832
Copland, J.: Dictionary of Practical Medicine, 3 volumes. 1858
Davis, N. S.: Consumption. 1891
Fothergill, J. M.: Indigestion, Biliousness, and Gout. 1883
Gully, J. M.: The Water Cure in Chronic Disease. 1856
Hart, D. B.: Contributions to the Topographical and Sectional Anatomy of the Female Pelvis. 1885
Hayward, J. W.: Taking Cold the Cause of Half our Diseases. 1873
Holden, L.: Dissection of the Human Body. 1861
Lambe, W.: Additional Report on the Effects of a Peculiar Regimen in Cases of Scrofula, Cancer, etc. 1815
London Physician, A: Memorable Events in the Life of. 1863
McBride, P.: A Guide to the Study of Ear Disease. 1884
Marshall, John: Description of the Human Body, vol. i. 1860
Orfila, M. P.: General System of Toxicology. 1819
Remondino: History of Circumcision. 1891
Richardson, B. W.: The Field of Disease. 1883
Snell, S.: Guide to the Examination of the Eye. 1898
Wigan: Duality of the Mind. 1844
Wilkinson: The Human Body and its Connexion with Man. 1851
Wilkowski: Movable Atlas of the Human Body. No date

And other volumes, duplicates.

Presented by Mrs. K. H. Douty.

Centralblatt für Gynäkologie, parts. 1896
Combe, A.: l'Entérite. 1906
Combe, A.: l'Auto-intoxication intestinale. 1907
Journal of Physiology, vols. vii–xii.
Kocher: Chirurgische Operationslehre. 1894
Revue des sciences médicales, 1895, vi–vii.

Presented by Dr. M. D. Eder.

Transactions of the III Congrès International d'Hygiène Scolaire, Paris. 1910

Presented by Messrs. Headley Bros., Ashford.

Transactions of the Eighth Quinquennial International Homoeopathic Congress, London. 1911

Presented by the Medical Officer, Local Government Board.

Dr. Lane-Claypon's Report on the Value of Boiled Milk as Food for Infants. 1912
Dr. Mivart's Report on the General Sanitary Circumstances of Shaftesbury. 1912
Further Reports on Flies as Carriers of Infection. 1912
Statistics of the Incidence of Notifiable Infectious Diseases in each Sanitary District of England and Wales during the Year 1911. 1912

Presented by the Editor of the "British Medical Journal."

Baar, G: The Modern View of Syphilis and its Treatment. 1910
Begg, C.: Sprue, its Diagnosis and Treatment. 1912
Cantlie, James: The British Red Cross Society Training Manual. 1911
Cooper, A.: The Sexual Disabilities of Man, second edition. 1910
Daniels, C. W.: Tropical Medicine and Hygiene, part 1. 1909
Dickey, J. S.: Applied Anatomy of the Lungs and Pleural Membranes. 1911
Dornbluth: Die Arzneimittel des Heutigen Medizin, 2 Aufl. 1911
Fellner, O.: Die Therapie der Wiener Spezialarzte, 2 Aufl. 1912
Fremantle, F.: A Traveller's Study of Health and Empire. 1911
Fuchs: Textbook of Ophthalmology, fourth edition. 1911
Gerhartz: Die Registrierung des Herzschalles. 1911
Gray's Anatomy, seventeenth edition. 1909
von Hansemann, D.: Ueber das Konditionale Denken in der Medizin. 1912
Hart, D. B.: Phases of Evolution and Heredity. 1910
Hart and Barbour: Manual of Gynaecology, sixth edition. 1904
Hehir, P.: The Prevention of Disease and Inefficiency, second edition. 1911
Herz, M.: New Zealand—the Country and People. 1912
Kerr, R.: Morocco after Twenty-five Years. 1912
Kocher, Th.: Textbook of Operative Surgery (translated by Stiles and Paul), third edition. 1911
Mark, L. P.: Acromegaly—a Personal Experience. 1911
Moore, Sir John: Meteorology, second edition. 1910
Mulzer, P.: The Therapy of Syphilis. 1911
Oppenheimer, R.: Urologische Operationslehre. 1910
Paludism, being the Transactions of the Committee for the Study of Malaria in India, No. 4. 1912
Parker, H. C.: Handbook of Diseases of the Eye. 1910
Paterson, M.: Autoinoculation in Pulmonary Consumption. 1911
Pepler, D.: The Care Committee, the Child, and the Parent. 1912
Pye: Elementary Bandaging, twelfth edition. 1910
Sauerbruch and Schumacher: Technik der Thorax Chirurgie. 1911
Scheuer, O.: Taschenbuch für die Behandlung der Hautkrankheiten. 1911
Taylor, F.: The Practice of Medicine, ninth edition. 1911
Treves, Sir F., and Keith, A.: Surgical Applied Anatomy, sixth edition. 1911

Tuckett, I. Ll.: The Evidence for the Supernatural. 1911
Wechselmann: Treatment of Syphilis with Salvarsan; Introduction by Ehrlich; only authorized translation by A. Wolbarst, 4to. 1911
Woodhead, G. Sims: Practical Pathology, fourth edition. 1910

Calendars, Reports, and Transactions have been received from the following bodies:

American Climatological Association, Transactions, vol. xxvii. 1911
American Hospitals Association, Transactions, vol. xiii. 1911
American Pediatric Society, Transactions, vol. xxiii. 1911
Archaeological Survey of Nubia, Report for 1907-8. 2 vols. 1910
Bengal, Lunatic Asylum, Annual Report for 1910
Bengal, Sanitary Commissioner's Report. 1910
Bengal, Triennial Vaccination Returns. 1908-1911
Bengal, Veterinary College Report. 1909-1910
Bombay, Bacteriological Laboratory Report. 1910
Bombay, Notes on Vaccination. 1909-1910
Bombay, Report on Lunatic Asylums. 1910
Bombay, Report on Malaria. 1911
Bombay, Report of Municipal Commissioner. 1910-1911
Bombay, Report of Sanitary Commissioner. 1910
Bombay, Triennial Report on Vaccination. 1908-1911
British Guiana Medical Annual, xvii. 1910-1912
Burma, Notes on Lunatic Asylums. 1910
Burma, Report on Sanitary Administration. 1910
Burma, Triennial Report on Charitable Dispensaries. 1908-1910
Burma, Triennial Report on Hospitals. 1908-1910
Burma, Triennial Report on Vaccination. 1908-1911
Calcutta, Report of the Health Officer. 1910
Cape Town Corporation, Annual Report of the Medical Officer of Health. 1911
Central India Agency, Report on Dispensaries. 1910
Central Provinces and Bera, Annual Sanitary Report. 1909
Central Provinces and Bera, Notes on Hospitals and Dispensaries. 1909
Central Provinces and Bera, Notes on Lunatic Asylums. 1909
Central Provinces and Bera, Notes on Vaccination. 1909-1910
Ceylon, Administration Reports. 1910-1911
Ceylon, Hospital Returns. 1910-1911
Chief Inspector of Factories, Annual Report. 1911
Chief Inspector under the Inebriates Acts, Report for 1910
Columbia University College of Physicians, Studies, vol. xii. 1909-1911
Connecticut, Sixty-third Registration Report, 1910
Cremation Society of England, Transactions, vol xxv. 1911
Deutsche Schutzgebiete, Medizinal Berichte. 1906-7 and 1907-8
Dublin University Calendar. 1911-1912
Durban Corporation, Medical Officer's Report. 1911
Eastern Bengal and Assam, Annual Sanitary Report. 1910
Eastern Bengal and Assam, Statistical Returns on Lunatic Asylums. 1910
Eastern Bengal and Assam, Triennial Report on Dispensaries. 1908-1910
Eastern Bengal and Assam, Triennial Report on Vaccination. 1908-1911
Gibraltar, Annual Report on Public Health. 1910
Glasgow Obstetrical and Gynaecological Society, Transactions, vol. viii. 1910-1911
Grant Medical College, Annual Report. 1910-1911
Hong Kong, Medical and Sanitary Reports. 1910
International Plague Conference at Mukden, Report. 1911
Jamaica, Annual Report of Medical Officer of Health. March, 1910
Japan, Annual Report of the Central Sanitary Bureau for Home Affairs. 1909
London County Council, Report on Public Health. 1910
Madras Presidency, Annual Report on Civil Hospitals. 1909
Madras Presidency, Annual Report on Government Maternity Hospitals. 1909
Madras Presidency, Statistical Returns on Lunatic Asylums. 1910
Madras University Calendar. 1912
Malta, Annual Report on the Public Health Department. 1910-1911
Melbourne City, Health Committee Report. 1910
Melbourne University Calendar. 1912
Metropolitan Water Board, Eighth Research Report. 1912
National Conference on the Prevention of Destitution, Westminster, Report. 1911
New York Obstetrical Society, Transactions. 1910-1911
New Zealand, Report on Hospitals and Charitable Aid. 1910
North-West Frontier Provinces, Annual Report on Dispensaries. 1910
North-West Frontier Provinces, Report on Sanitary Administration. 1910
North-West Frontier Provinces, Report on Vaccination. 1910-1911
Ohio State Board of Health, Report. 1910
Ophthalmic Year Book. 1911
Pasteur Institute of India, Annual Report. 1910
Punjab, Report on Charitable Dispensaries. 1908-1910
Punjab, Report on Lunatic Asylums. 1910
Punjab, Report on Sanitary Administration. 1910
Punjab, Report on Vaccination. 1910-1911
Rangoon, Report of the Government Medical School. 1910
Registrar-General for Scotland, Reports of the Twelfth Decennial Census, parts 1-11. 1912
Rockefeller Institute for Medical Research, Reprints, vol. xiv. 1912
St. Bartholomew's Hospital Reports, vol. xlvii. 1911
Sanitary Commissioners with the Government of India, Annual Report. 1910
Scientific Memoirs by Officers of the Medical and Sanitary Staff of the Government of India, No. 50. 1912
Shanghai, Annual Report of the Health Department. 1911
Simla Government Central Branch Press, Paludism, No. 4. 1912
Society of Alumni, Sloane Hospital for Women, New York, Transactions, vol. ii. 1912
Society for the Study of Experimental Biology, Report. 1912
Straits Settlements, Annual Medical Reports. 1908-1911
Tasmania, Annual Report of the Department of Public Health, 1909-1910
Trinidad and Tobago, Annual Report of the Surgeon-General. 1911
United Provinces of Agra and Oudh, Annual Report of the Sanitary Commissioner. 1909-1910
United Provinces of Agra and Oudh, Report on Lunatic Asylums. 1909
United Provinces of Agra and Oudh, Triennial Report on Civil Hospitals. 1908-1910
United Provinces of Agra and Oudh, Triennial Report on Vaccination. 1908-1911
United States Marine Hospital Service, Report of the Surgeon-General. 1911
United States Marine Hospital Service, Hygienic Laboratory Bulletins:
No. 80: Schultz, Anaphylaxis. 1912
No. 82: Anderson and McClintic, On the Standardizing of Disinfectants. 1912
Western Australia, Report of the Inspector-General of the Insane. 1910

Association Notices.

QUARTERLY MEETING OF COUNCIL.

The Quarterly Meeting of the Council will be held at Two o'clock in the afternoon of Wednesday, January 29th, in the Council Room at 429, Strand, London, W.C.

By Order,

Guy Elliston,
Financial Secretary and Business Manager.

January 9th, 1913.

ELECTION OF COUNCIL, 1912-13.

Notice is hereby given that nominations for a candidate for the election as a Member of Council by the Cambridge and Huntingdon, East Anglian, and South Midland Grouped Branches for the year 1912-13, must be forwarded to reach the Financial Secretary and Business Manager, at the Office of the Association, not later than Saturday, January 25th. Each nomination must be on the prescribed form, copies of which will be furnished by the Financial Secretary and Business Manager upon application.

Separate forms have been prepared:

(A) For a nomination by a Division, and

(B) For a nomination by any three Members of a Branch respectively.

Those applying are requested to state for which purpose the form is desired.

An announcement of the Nominations received will be made in the Journal of February 1st, 1913.

Election will be by voting papers. These papers will contain the names of all duly nominated candidates, and will be issued from the Central Office on Monday, February 3rd, and will be returnable not later than Saturday, February 8th.

The result of the election will be published in the Journal on or before February 15th, 1913.

By Order of the Council,

Guy Elliston,
Financial Secretary and Business Manager.

January 18th, 1913.

NOTICE OF FORMATION OF A NEW DIVISION OF THE ASSOCIATION.

New Kesteven Division: Adjustment of Areas of Boston and Spalding and Lincoln Divisions.

THE following changes have been made in accordance with the Regulations of the Association, and take effect from the date of publication of this notice:

That a new Division of the Association be formed, to be known as the Kesteven Division, of area coterminous with the area of the County of Kesteven, Lincolnshire, and that the areas of the existing Boston and Spalding and Lincoln Divisions be modified accordingly. The new Division shall form part of the Midland Branch.

Representation in Representative Body: The question of the mode of representation of the new Division in the Representative Body has been left to the Council. It is intended to apply to the Council for independent representation.

BRANCH AND DIVISION MEETINGS TO BE HELD

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL DIVISION.—The annual meeting of the Division will be held on January 31st. Business: (*a*) To receive annual report of the Executive Committee. (*b*) To elect officers. (*c*) To elect the Representatives of the Division on the Branch Council to take office after the next annual meeting of the Branch. (*d*) To elect the ordinary members of the Executive Committee. (*e*) To make new rules, or alter or repeal existing rules. (*f*) To elect Representatives at the Representative Meeting. (*g*) To transact any business that may be transacted at an ordinary meeting. —FRANCIS W. BAILEY, Honorary Secretary, 51A, Rodney Street, Liverpool.

METROPOLITAN COUNTIES BRANCH: GREENWICH AND DEPTFORD DIVISION.—A meeting of the Division will be held on Monday, January 20th, to Report Progress.—W. H. PAYNE, Honorary Secretary.

Hospitals and Asylums.

MIDDLESBROUGH COUNTY BOROUGH ASYLUM.

THE annual redort of Dr. John W. Geddes, the Medical Superintendent of this asylum, shows that on January 1st, 1911, there were 417 patients in residence, of whom 253 were chargeable to Middlesbrough, and on the last day of the year also 417, of whom 251 were Middlesbrough cases. The proportion of insane to the population of Middlesbrough, Dr. Geddes says, was 1 to 417.5, or 24 per 10,000, as compared with 1 to 269, or 37.12 per 10,000, for the whole of England and Wales. The total cases under care during the year numbered 495, and the average number daily resident was 418. During the year 78 were admitted, those belonging to the borough (54) showing an increase of 3 on those of last year. Of the total number 70 were direct admissions, and of these the attacks were first attacks within three months in 37, and of less than twelve months' duration in 13 more; not-first attacks within twelve months in 8, and in the remainder, including 2 congenital cases, the attacks were of more than twelve months' duration on admission.

The direct admissions were classified according to form of mental disorder into:—Mania of all forms, 27; recent melancholia, 7; senile dementia, 3; delusional insanity, 4; general paralysis of the insane, 12; insanity with epilepsy, 9; less common forms, 6; and congenital mental defect, 2. As to causation, alcohol was assigned in 12, acquired syphilis in 3, and other toxins in 8; diseases of the nervous system in 13 (epilepsy, 11); critical periods in 8; physiological defects and errors in 4; bodily trauma in 2, and mental stress in 17. An insane heredity was ascertained in only 8, and of alcoholism in 1. During the year 27 were discharged as recovered, giving a recovery-rate on the direct admissions, and also in and on the direct admissions of 38.57 per cent.; also 2 were discharged as not improved, and 49 died. The deaths, which gave a death-rate on the average daily number resident of 11.72 per cent., were due in 17 cases to nervous diseases, including 12 deaths from general paralysis; in 14 to diseases of the heart and blood vessels; in 2 to respiratory diseases; in 2 to gastro-intestinal diseases; in 4 to genito-urinary diseases, and in the remainder to general diseases, including 6 from pulmonary tuberculosis. No inquest was held during the year, the general health was good, and no infectious disease occurred.

BARNWOOD HOUSE HOSPITAL FOR THE INSANE.

THE annual report for the year 1911 of Dr. J. G. Soutar, the Medical Superintendent of this large hospital for private patients, shows that on January 1st, 1911, there were 153 certified patients in residence, and on the last day of the year 149. The total cases under treatment during the year numbered 187, and the average number daily resident 150. These numbers show a slight falling-off on those of the previous year and a more marked decrease on those of the Nineties. Probably Barnwood House shares with other institutions of its kind the marked effect of increased provision for private patients in county and borough asylums—a matter commented upon by the Lunacy Commissioners in their recently issued annual report. We note also that only 34 patients were admitted during 1911, as compared with 39 for the previous year. Of the 34 admissions, 25 were direct admissions and 9 indirect. Were it not for these indirect admissions, transferred from other asylums, Dr. Soutar says there would have been many empty beds in the hospital.

Of the direct admissions 17 were first attack and 8 not-first attack cases. In 10 the attacks were first attacks within three and in 6 more within twelve months of admission; in 8 not-first attacks within twelve months, in the remaining case the attack being of between five and ten years' duration. The direct admissions were classified according to the forms of mental disorder into: Recent mania, 5; recent melancholia, 18, and chronic melancholia, 1; and delusional insanity, 1. As to causation, alcohol was assigned in none, syphilis in 1, tuberculosis in 2 and other toxins in 2; nervous diseases in 2; various bodily affections in 5; and puberty, child-bearing, and bodily trauma in 1 each. Mental stress was assigned in 11, whilst an insane heredity was ascertained in 8 and a neurotic heredity in 3 more.

During the year 11 were discharged as recovered, giving a recovery-rate on the direct admissions of 44 per cent., or of recoveries in and on the direct admissions of 36 per cent.; also 4 were discharged as relieved and 14 as not improved. During the year also 9 died, giving a death-rate on the average numbers resident of 6 per cent., as compared with the average death-rate for this institution of 5.4 per cent. All deaths, with one exception, were due to natural causes, the exception being an old lady who was moribund on admission from injuries sustained by a fall, and who died within twenty-four hours after reception. No accident of any kind occurred during the year, and the general health appears to have been satisfactory. It should be added that during the year 4 patients were maintained gratuitously and 74 at less than the average rate, at a cost to the hospital of £2,961 12s. 4d.

WORCESTERSHIRE ASYLUM, BARNSLEY HALL, BROMSGROVE.

THE annual report for 1911 of Dr. Percy T. Hughes, the Medical Superintendent of this asylum, shows that on January 1st, 1911, there were 528 patients in residence, and on the last day of the year 590. The total cases under care during the year numbered 711, and the average number daily resident 537. During the year 183 were admitted, of whom 104 were direct and 79 indirect admissions, including 5 statutory readmissions. Of the direct admissions, in only 31 were the attacks first attacks within three months and in only 20 more within twelve months of admission; in 19 not-first attacks within twelve months, and in 34 the attacks, whether first or not, were of more than twelve months' duration on admission. So far as duration of disorder, therefore, was concerned, the admissions were of unfavourable character.

As to the forms of mental disorder, the direct admissions were classified into: Recent mania 8, and recurrent 2; recent melancholia 22, and chronic 2; senile and secondary dementia, 28; primary dementia, 15; systematized delusional insanity, 8; insanity with epilepsy, 6; general paralysis and insanity with grosser brain lesions, 2 each; confusional insanity, 3; stupor, 1; and congenital defect, 5. Turning to causation, alcohol was assigned in 12, drug habits in 2, syphilis in 6, and other toxins in 14; diseases of the nervous system (including epilepsy, 7) in 33; various bodily affections, of which cardio-vascular degeneration (33) was the most important, in 78; critical periods in 39; physiological defects and errors in 10; bodily trauma in 2; and mental stress in 32. An insane heredity was ascertained in 23, an alcoholic heredity in 15, and of other neuropathies in 18 more. Also congenital mental defect not amounting to imbecility was recorded in 26. During the year only 11, or 10.5 per cent. of the direct admissions, were discharged as recovered, the recoveries in the direct admissions giving a recovery-rate calculated on the direct admissions of 9.6 per cent. Also 52 were discharged as relieved and 7 as not improved. The large number discharged as relieved was occasioned by the Greater Birmingham Act, in accordance with which all cases belonging to Greater Birmingham likely to be discharged as recovered or relieved were transferred to the Birmingham City Asylum at Winson Green. During the year 51 died, giving a death-rate on the average number resident of 9.4 per cent. The deaths were due in 12 to nervous diseases, including 6 from general paralysis; in 14 to diseases of the heart and blood vessels; in 6 to diseases of the respiratory organs; in 3 to diseases of the gastro-intestinal organs; and in the remainder to general diseases, with only 5 from tuberculous diseases. All deaths were from natural causes with the exception of one case, in which the patient died from perforation of the bowel by a small piece of wood which had been swallowed.

The general health was good throughout the year.

National Insurance.

REPORTS OF LOCAL ACTION.

LONDON AND MIDDLESEX.

LONDON MEDICAL COMMITTEE.

THE London Medical Committee has during the past week continued with increased vigour the campaign which it began on January 3rd against the conditions of service offered by the National Insurance Act. Its operations were at once directed to bringing to the notice of insured persons their right under Section 15 (3) of the Act to be allowed to apply to the Committee to make their own arrangements for medical benefit. To further this end the Committee has issued several thousand posters, over one million leaflets, and hundreds of thousands of forms to be filled in by insured persons and sent to the Insurance Committee. Public meetings of the insured have already been held all over London, and over 5,000 of the London insured have subscribed to resolutions calling upon the Government to allow them to contract out. Similar meetings are to be held nightly all this and next week. These meetings have been well attended, the speakers have been listened to with attention, and the resolutions have been carried by overwhelming majorities.

The Committee has also taken care to correct misstatements in the press, and feels confident that it has had a decided effect on the London panels; it draws attention to the fact that the list published on Monday last contained fewer individual names than the Insurance Committee stated it had on January 4th. If no more be added in the next few days the Committee is satisfied with its work, and will go forward with renewed courage.

The London Insurance Committee published on January 14th a list of the medical practitioners who have accepted service under the Act. The lists contained 1,897 entries.

The London Medical Committee has prepared the following analysis of the lists, which, so far as it can discover at present, indicates the true state of the official lists:

Number of men actually on panel (excluding six unclassified) but including many who appear in the Middlesex list 738

This total is inflated in the official list in the following manner:

							Making an Official Total of
2	names	appear	10	times	...	...	20
1	,,	,,	8	,,	...	...	8
13	,,	,,	7	,,	...	...	91
30	,,	,,	6	,,	...	...	180
46	,,	,,	5	,,	...	...	230
101	,,	,,	4	,,	...	...	404
135	,,	,,	3	,,	...	...	405
149	,,	,,	2	,,	...	...	298
261	,,	,,	1	,,	...	...	261
738							1,897

Mr. Masterman, in reply to Mr. Touche in the House of Commons on January 15th, stated that the total number of different doctors who had signed agreements to attend insured persons with the London Insurance Committee, and whose names had been issued on the borough lists, was 780. Some more names had been received since the lists were printed, and the number was nearly 800.

HAMPSTEAD.

MEETING OF THE INSURED.

A public meeting, one of a number being held in London for the purpose of explaining to insured persons the policy of the British Medical Association, took place at the Town Hall, Hampstead, on January 11th, under the auspices of the Provisional Medical Committee for the locality. Mr. HENRY CLARKE, a well-known resident, took the chair, and there was a considerable attendance of the public.

The CHAIRMAN spoke of the importance of free choice of doctor to the insured person, and quoted a speech by the Chancellor in the House of Commons last August in favour of the principle.

Dr. FORD ANDERSON moved the following resolution:

That this meeting is of opinion that those insured persons who apply for permission to make their own arrangements for medical benefit should be allowed to do so by the Insurance Committee, and thereby have secured to them free choice of doctor; and that a copy of this resolution be sent to the Chancellor of the Exchequer.

Dr. Ford Anderson stated the objections of the medical profession to the arrangements contemplated by the National Insurance Act to be that they involved loss of freedom, interference with conditions of service, and the absence of free choice of doctor. Medical men desired to see continued the system of medical attendance that had prevailed hitherto in this country by which the arrangement was a private one between doctor and patient. The British Medical Association had promulgated an alternative policy in regard to medical benefit. This having come to the ears of the authorities, many threats had been held out to cause the doctors to retire from the position they had taken up. As to the panels, there were 28,000 insured persons in Hampstead, and 26 doctors had gone on the panel; some of these did not reside in Hampstead, and, in his view, it was geographically impossible for them to attend to all the insured persons requiring treatment. Each man would have 1,077 patients allotted to him, but that was not so many as in Marylebone, where each doctor on the panel would be allotted 5,000 patients. He could imagine nothing more likely to benefit the community than that treatment under the Act should be given, not by doctors treating one class only, but by doctors attending all classes. The only way by which this could be accomplished was by adopting throughout the country the policy advocated by the British Medical Association. The best doctors in London would not go on the panel, but they had no objection to treating the insured under the scheme suggested by the Association.

The resolution was seconded by Mr. HEARD, who was introduced by the CHAIRMAN as an insured person.

Mr. E. B. TURNER, in supporting the resolution, spoke of the importance to a sick man of having a doctor he knew rather than one allotted to him; for that reason insured persons should do their utmost to see that the British Medical Association proposals were approved by the Commissioners and generally adopted. In order to obtain this consummation it was necessary for the insured to apply for permission to make their own arrangements. Mr. Turner emphasized the importance of sympathetic, individual treatment of patients, and urged that if medical men were on terms of freedom with the insured the attendance they gave would have far better results. He criticized some of the financial arrangements under the Act, and finally assured those present that there was no doubt that the money for medical benefit would be forthcoming even if they contracted out of the Act in the manner suggested by the British Medical Association.

Dr. BUTTAR declared that in London the panel was so limited it would not be possible to obtain free choice of doctor. If an insured person did choose a doctor on the panel, he would find that that medical man was so busy that he would not be able to give the attendance that the patient had the right to expect. On the other hand, the Insurance Committee said that if the insured person went to a non-panel doctor, that doctor would have to record the ailments of the patient, to keep accounts of all work done, and to submit to inspection of his methods to ensure that the treatment was not inferior to that which would be obtained from a panel doctor. As the medical profession would not tolerate that, the insured would be thrown back on panel doctors of whom they knew nothing. Dr. Buttar pointed out the difficult state of affairs that would arise if the insured desired the panel doctors to attend their dependants. In London there were 750 doctors on the panel and 1½ million insured persons. Dependants would probably bring the total to 3½ millions, and for the panel doctors to attend that number would mean 5,000 patients per man.

Questions being invited, a gentleman suggested that as all those on the list of any doctor would not require treatment, Dr. Buttar's figures should be modified to some extent. He also thought that the doctors should be allowed to engage assistants from college. He added

that if the medical profession as a whole would go on the panels the insured would have free choice of doctor. For his part, if he were an insured person and he found that his own medical man had not gone on the panel, he would say, "I am sorry, but if you will not do your duty by the State I must choose another doctor."

Mr. E. B. TURNER, replying to the points raised by the speaker, quoted from Mr. Lloyd George's speeches to show that he had expressed strong disapproval of the general employment of assistants. He also alluded to the Chancellor's initial error in not consulting the medical profession until the bill was just about to be introduced in Parliament.

After some further discussion the resolution was put to the meeting, and carried with only three or four dissentients.

MEETING OF THE PROFESSION.

A meeting of the profession was held at the Central Library, Finchley Road, on January 9th, at 4.30 p.m. Dr. FORD ANDERSON was in the chair, and thirty-one members were present. The minutes of the last meeting were read and confirmed.

Dr. FORD ANDERSON, in a speech from the chair, introduced the subject of the London campaign carried on by the Medical Committee for London, and he was followed by Dr. GORDON LANE, who informed the meeting of what had been done up to the present time. He described the organization of the Committee and the methods by which the Local Committee could keep in touch and carry on the work in Hampstead. He also answered various questions, and made clear the position of men who had gone on the panel and who were desirous of coming off, and gave the ruling of counsel on the questions of the agreements with the Insurance Committee and of the right of the insured to apply to contract out. It was moved from the chair:

> That we, the members of the medical profession in meeting assembled on January 9th at Hampstead, are of opinion that we should act in the best interests of the insured and also of the profession by adhering firmly to the attitude suggested to us by the Medical Committee for London.

This was carried unanimously, and also that it should be sent to the press.

Upon the information that Dr. Claude Taylor had been appointed Vice-Chairman of the London County Medical Committee, Dr. ARCHER moved and Dr. MACNAUGHTON-JONES seconded:

> That, whereas Dr. Claude Taylor has been appointed Vice-Chairman of the London County Medical Committee, a committee elected from doctors on the panels in London, and whereas his action is directly opposed to the interests of the profession in Hampstead, this meeting of medical practitioners in Hampstead calls upon him to resign his membership of the Hampstead Provisional Medical Committee.

This was carried, there being one dissentient.

A vote of thanks to Dr. Gordon Lane was carried by acclamation.

MEETING OF PROVISIONAL MEDICAL COMMITTEE.

A meeting of the Hampstead Provisional Medical Committee was held at 41, Belsize Park, on Thursday, January 9th, at 8.30 p.m. Dr. FORD ANDERSON was in the chair, and fourteen members were present. The confirmation of the minutes was deferred, as they were in the press.

A letter from Dr. Whitby was read referring to his position with regard to his relation with men on the panel in Coventry, and the Honorary Secretary was instructed to reply to the effect that he should wait until the Special Representative Meeting on January 17th.

On receiving the resignation of Dr. Claude Taylor, the Committee elected Dr. H. Sharman to fill the vacancy.

Upon information received that the Hampstead Provident Dispensary had applied to become an approved institution under Section 15, paragraph 4, of the Insurance Act, the medical staff were invited to attend and discuss the situation.

It was moved by Dr. OAKLEY, seconded by Dr. ARCHER, and carried unanimously:

> That this Provisional Medical Committee considers that any provident dispensary becoming an approved institution under Section 15, paragraph 4, thereby comes under the National Insurance Act, and the medical officers of such a dispensary cannot, compatibly with the policy of the Association, attend to insured persons.

It was moved by Dr. OPPENHEIMER, and seconded by Dr. ARCHER, that a copy of the resolution be sent to the Hampstead Provident Dispensary. This was carried unanimously.

The Public Medical Service Scheme approved by the London Medical Committee was considered, and paragraphs 1 to 7 were approved.

Dr. BARNETT moved, Dr. ARCHER seconded, and it was carried *nemine contradicente*, that paragraph 7 be amended as follows:

> That the list of exceptions be decided upon locally.

Paragraph 8 was then approved, whereupon it was resolved to proceed to the next business.

Dr. PURDIE, having been invited to attend, explained his reasons for going on the panel. The question of resignation from the panels was also discussed with Dr. PIDCOCK and Dr. TEBB, the two members of the medical staff of the Hampstead Dispensary who had gone on the panel in Hampstead.

WILLESDEN.

A special emergency meeting of the profession, arranged by the Willesden Division of the Metropolitan Counties Branch, was held at St. Andrew's Schools, Willesden Green, on Saturday, January 4th, at 9 p.m. Although less than twelve hours' notice of the meeting was given, sixty-one attended. Dr. CORAM JAMES was in the chair, and the minutes of the last meeting were taken as read.

Representative Meeting.

The notice that a Special Representative Meeting had been requisitioned for January 17th, to consider the question of releasing men from their pledge, was read, and it was decided to call a special meeting on Monday, January 13th, to instruct the Representative and to decide what motions, if any, should be sent to that meeting for decision or consideration.

Central Insurance Fund.

An appeal was made on behalf of the Central Insurance Defence Fund, and a very gratifying response was received.

Contracting Out.

The alternative policy of insisting on contracting out being allowed by the Commissioners, and by inducing the insured to demand their rights, was explained.

Interview with Chairman of Middlesex Insurance Committee.

Drs. MACEVOY, ARMITAGE, SKENE, and SODEN then gave an account of the interview they had had the previous evening with Mr. Glyn Jones, M.P., Chairman of the Middlesex Insurance Committee, and explained what had been decided by that Committee in the event of there being an inefficient panel in the district.

Dr. SNOWMAN moved and Dr. SKENE seconded *pro formâ*:

> That the Local Medical Committee be empowered to arrange forthwith with a sufficient number of members reluctantly willing to work under the Act, so as to ensure the formation of an adequate panel for Willesden.

The following amendment was moved by Dr. STOCKER and seconded by Dr. MACDONALD:

> That to save from absolute ruin many of our fellow practitioners, and to retain for them their just and legitimate rights which are threatened by the tyrannical abuse of political power, we can no longer justly condemn those who are forced in self-preservation to go on the panel; but we accept this attitude with feelings of bitter animosity against the Government's method in violating the liberty of action of our profession, and we pledge ourselves to take every opportunity to improve the position of our fellow practitioners unwillingly coerced to serve under the Act.

The original motion was by consent withdrawn, and the amendment put as a substantive motion. Sixteen of those present joined in the discussion, and on being put to the vote the motion was carried by 37 votes to 4.

TOWER HAMLETS.

Protest Meeting.

A meeting of the medical practitioners in the Tower Hamlets area was held in the Limehouse Vestry Hall, on January 10th, for the purpose of protesting against the methods of the Chancellor of the Exchequer *re* the Insurance Act. Dr. THOMAS occupied the chair, and nineteen

members and ten non-members were present. This small attendance was no doubt due to the fact that a meeting of the practitioners who had gone on the panel was summoned by telegram late on the previous night, to take place at the same time in Shoreditch Town Hall.

Dr. Paxton, who has gone on the panel, moved the following resolution:

> That this meeting of medical practitioners in Poplar and Stepney protests against the unfair statements made by the Chancellor of the Exchequer for the purpose of coercing medical practitioners to serve on the panels, which have resulted in many men in this district signing the agreement to take service under the Act against their better judgement and through fear of grave financial loss.

Dr. Tooker, who has also gone on the panel, seconded the resolution.

Mr. E. B. Turner, Drs. Evan Jones, Major Greenwood, F. J. Smith, and Beaton, who had been invited to address the meeting, spoke strongly in support of the motion. Drs. Michael, Chisnell, and Toland also addressed the meeting.

On the motion being put to the vote it was declared to be carried unanimously.

Panels and Contracting Out.

The following official statement has been issued by the London Insurance Committee:

In the whole of London south of the Thames the Committee are satisfied that the names which they have received of practitioners to be placed upon the panel are sufficient to provide a medical service adequate in every respect for the needs of the insured persons in that area. Over the greater part of the area north of the Thames adequate panels have been secured. But in certain areas there is some doubt whether the number of practitioners willing to place their names on the panel will be sufficient to secure a service adequate in all respects. In such areas the Committee propose to confer with those doctors who have already placed their names upon the panel, and, if necessary, after this consultation, will apply to the Commission for sanction to take any measures which may be necessary to ensure that every insured person in those areas will receive adequate medical attendance and treatment.

The Committee have received a certain number of printed forms purporting to express a wish on behalf of insured persons to be allowed to make their own arrangements with doctors outside the list of those doctors who are advertised as accepting service under the Act on the normal panel system. The intention of the Act is only to allow arrangements of this nature as exceptions to the general course, where the special circumstances of the insured person justify it. The Insurance Committee will, in due course, consider every application by an insured person to make his own arrangements upon its merits, and for that purpose it will be necessary for every such person to furnish the Committee, in order that they may be able to deal with the matter, with such information as to the special circumstances of his case as is necessary to satisfy them that the application should be granted. If in any case an insured person is allowed to make his own arrangements it will be necessary, as a condition of the making of any contribution by the Committee towards the cost of his treatment, that the doctor with whom the arrangement is made should furnish reports and give certificates similar to those given by the panel doctors, and that the Insurance Committee should have facilities for ascertaining that the conditions of service and medical treatment are not inferior to those given on the normal panel system. In order that insured persons should not be led into making arrangements which the Insurance Committee will be unable to regard as justifying a contribution from them, it will further be necessary that such doctor should furnish the Committee with evidence that he is prepared to, and can, comply with these conditions. In considering the matter generally, the Insurance Committee will take into consideration the general effect upon the administration of medical benefit in the area.

Manifesto by Approved Societies.

The following warning to members of approved societies has been issued. It is signed by representatives of the Prudential Approved Societies, General Federation of Trade Unions, National Conference of Friendly Societies, National Amalgamated Approved Society, Trade Union Congress, and the Liverpool Victoria Approved Society:

The undersigned representatives of approved societies, whose members comprise almost the whole body of insured persons, have had their attention called to the movement being organized by a London committee of medical men to obtain the control of medical benefit for doctors who decline to go on the panels, and who desire to have the work on their own terms.

The medical committee referred to endeavours to induce acceptance of its proposals by promising free choice of doctor, but this is guaranteed already by the Act, and it must be borne in mind that where there are exceptional cases requiring special treatment the approved societies would advise their members, and, when requested, make representation to the Insurance Committees. The special circumstances of the insured persons would thus be properly considered, and their interests amply safeguarded.

According to their own view of income limit these doctors would admit or exclude members from medical benefit, they would themselves decide all complaints, and the insured would be required to pay out of their own pockets any additional charges imposed upon them by the doctors, the members having no voice whatever in the matter. We warn our members against this attempt, which we consider injurious to their best interests and to those of the societies to which they belong.

Middlesex Insurance Committee.

The Middlesex Insurance Committtee is not finding the establishment of panels in its districts altogether plain sailing. A meeting of medical men who had up to that time consented to serve was held on December 24th, 1912, when a temporary medical committee was appointed. Another meeting was held on the afternoon of Friday, January 10th. It was a non-statutory meeting, and the invitation to attend was accompanied by a circular stating that the lists of medical practitioners on the County of Middlesex panel would be published in book form, containing a list of practitioners for the whole county arranged in alphabetical order, and a separate list for each of the districts. The recipient was informed that his name would appear on as many districts as he desired. At the meeting, which was private, a discussion took place, and we understand that the information elicited included the following statements made by the chairman of the Committee:

1. No list of insured persons available for the inspection of doctors whom they have chosen will be issued before March 31st.

2. The choice of doctor is subject to the consent of the doctor to accept the insured person. This consent can be given or withheld in every individual case.

3. The doctor's consent cannot be given until he has scrutinized the list of insured persons who have chosen him.

4. The doctor can withhold his consent from taking on every individual applicant if in his opinion he is undesirable.

5. An insured person cannot claim attendance from a doctor unless that doctor has endorsed his pink card.

6. The pink card promises to the insured person medical attendance (if required) to April 30th. The so-called agreement with the Middlesex Insurance Committee lapses on April 14th. Therefore for the sixteen succeeding days no medical attendance is provided for.

7. The Middlesex Insurance Committee believes that the so-called agreement is binding, but that such a contract would be more strictly in legal order and valid if (*a*) the signature were duly attested and countersigned by a witness; (*b*) the names and descriptions of the Middlesex Insurance Committee were given and attached as the other contracting party; (*c*) that two agreements were prepared, one for each of the contracting parties; (*d*) that the amount of the "consideration" money should be distinctly stated, and not left blank.

LIVERPOOL.

Northern Association of Medical Women.

At a meeting of the Northern Association of Medical Women at Liverpool on January 11th the following resolutions were passed unanimously:

1. That this meeting, while not condemning those practitioners who for economic reasons have gone on the panel, expresses its sympathy with those who would not break their pledge, and considers they should be released. This meeting further urges all its members to loyally support, both financially and otherwise, the British Medical

Association in the united action necessary for ultimate success.

2. That inasmuch as the patients of medical women are frequently scattered over a wide area, special facilities should be given by the Insurance Committees to such insured persons to make their own arrangements.

Dr. CATHERINE CHISHOLM, of Manchester, was in the chair, and representatives from Leeds, Manchester, Preston, Wrexham, Liverpool, and Birkenhead were present. Reports were also received from members in Bolton, Chester, Oldham, Hull, Sheffield, Buxton, Colwyn Bay, Kendal, Halifax, and Wakefield.

WEST BROMWICH.

At a meeting of the West Bromwich Insurance Committee on January 8th, under the chairmanship of the Mayor, it was announced that Drs. H. B. W. Plummer, Langley Browne, and Alexander had been elected to represent the medical men practising in the borough, and Dr. A. S. Underhill as the representative of the town council; their names were added to the Medical Benefit Subcommittee. A report from this subcommittee stated that agreements had been entered into for the period ending April 14th, 1913, with thirty-three medical practitioners, fourteen of whom were resident within the area and the remainder in areas adjacent thereto; three practitioners within the area and one residing outside had declined to accept service. The agreement had been entered into on a capitation basis, the scale of remuneration, including domiciliary treatment of insured persons suffering from tuberculosis, being fixed at 1s. 9d. for the quarter ending April 14th. Thirteen agreements had been entered into with chemists to supply drugs and appliances and three with contractors to supply drugs (other than scheduled poisons and medicines which require to be dispensed) and appliances. The committee accepted the sum of 6s. per insured person in respect of deposit contributors for the cost of medical benefit. A Medical Service Subcommittee for dealing with any disputes which may arise between insured persons and the practitioners attending was elected by the representatives of the insured persons.

IRELAND.

DUBLIN HOSPITALS AND MATERNITY BENEFIT.

It will be remembered that when the clauses of the Insurance Bill were first published considerable apprehension was felt by the maternity hospitals in Dublin lest their work would be interfered with by the provisions as to maternity benefits. Action was immediately taken, and a deputation from the three maternity hospitals explained the peculiar position of Dublin in this respect to the insurance authorities. These hospitals, by making use of the services of medical students and pupil midwives, are able to place at the service of every poor woman in or near the city the best possible advice, and nearly half the births in the Dublin metropolitan area are attended by one or other of these hospitals. These hospitals were recently informed that the Regulations about to be issued would safeguard their interests and prevent any interference with the education of medical students and midwives. Women will not lose any of the benefit by entering hospital, unless some arrangement has been made by the friendly society or Insurance Committee to pay a proportion of the benefit to the hospital. In such cases the balance will be paid to the husband or the woman herself. In the case of patients attended by the extern department the Regulations will not prohibit the payment of the full benefit.

HOSPITALS.

LONDON.

AT a meeting last week of the Central Hospital Council for London, attended by representatives of twelve of the principal London hospitals, it was decided to approve generally the system suggested by St. Bartholomew's Hospital for dealing with insured patients (SUPPLEMENT to the BRITISH MEDICAL JOURNAL, December 28th, 1912, p. 725), leaving it to each hospital to make any minor modifications that experience might show to be necessary.

The Committee of the London Hospital has issued the following rules:

On and after January 15th, 1913, no insured person suffering from ailments of such a nature as can be treated by "a general practitioner of average ability" will be treated at this hospital.

Should an "insurance doctor" desire consultative advice in the case of an insured person the House Committee agree to such advice being given, provided that the "insurance doctor" makes his request in writing. The patient subsequently will be referred back to the "insurance doctor" for treatment.

Should an "insurance doctor" consider that an insured person requires treatment which it is not in the power of a "general practitioner of average ability" to give (such as surgical operation, skilled nursing, *x*-ray treatment, etc.), and should the "insurance doctor" make a request in writing, the House Committee agrees that such treatment shall be given, in the event of the medical officer of the hospital considering it necessary.

All urgent emergency cases and accidents of a serious nature will be treated at once, whether the person is insured or not.

BRISTOL.

The committees of two of the medical charities have within the last few days had under consideration the treatment of insured persons in both the in-patient and out-patient departments, and the decision of the third may be expected soon; it may even be made before this notice appears in print.

The Bristol Royal Infirmary Committee has postponed its final decision on the matter for a month. As a matter of fact, little is to be gained by this delay, while some of the honorary staffs who have decided views on the question of doing work for which others are paid are not well satisfied.

The Committee of the Women and Children's Hospital has, on the other hand, taken a very decided view and decisive step. Possibly their action will give the lead which other institutions are waiting for. It has decided that each woman presenting herself in the out-patient department shall be asked if she is insured, and the fact or otherwise noted on the treatment sheet sent in to the physician or surgeon, who shall decide in the case of insured only, whether the patient shall be allowed to continue attending. There is no doubt that the out-patient staff will do this, but it gives them the opportunity of allowing attendance for special cases where outside treatment cannot be given. The only thing the committee would not do was to place a notice in the out-patient room that insured persons were not admitted, but the staff are quite willing to undertake the burden of responsibility in refusing. About thirty to forty insured women attend the out-patient rooms weekly, so that the attendances may be diminished by two or more thousand a year. This decisive action of the committee has caused considerable satisfaction to the members of the staff.

SALFORD.

Salford Royal Hospital.

The Board of Management of the Salford Royal Hospital, after consultation with the Medical Board, held a special meeting last week to consider the relation of the hospital to the Insurance Act. With regard to in-patients it was resolved that any patient whose condition was urgent and who was in need of indoor treatment should be admitted as heretofore, whether insured or not. In the out-patient department, accidents, emergencies, and cases requiring such special treatment as can only be given in a hospital, will be treated so long as their condition requires it. All insured persons applying to the out-patient department will be examined by a medical officer of the hospital and will receive immediate advice, and if a case is urgent and needs treatment which is not provided under the Insurance Act treatment will be given. All cases of really necessitous poor persons who, after inquiry into their circumstances, are found to be unable to pay for treatment and medicine, will be treated as heretofore. All patients, whether insured or not, who bring a doctor's certificate or are introduced personally by a medical practitioner, will be entitled to obtain the opinion of the hospital physicians and surgeons. The honorary staff will be entitled, if they think fit, to refuse to meet any practitioner in consultation, always provided that no patient shall be denied immediate advice and treatment, if that be requisite on medical grounds. Accurate records are to be kept by the hospital of all insured persons receiving treatment, whether as in-patients or out-patients. The Board of Management reserved for future consideration the question whether some payment towards the cost of maintenance within the hospital shall be required from insured persons in receipt

of maintenance payments from the National Insurance fund. The conditions for the treatment of tuberculous cases in the hospital were also reserved for consideration in conference with the Insurance Committee.

MANCHESTER.

Royal Infirmary.

Resolutions substantially the same as those adopted in Salford with regard to the treatment of insured persons have also been adopted by the Board of Management of the Manchester Royal Infirmary in consultation with the Medical Board, the practical effect being that all persons will be treated as heretofore, either as in-patients or out-patients, but insured persons after receiving first aid will be referred to their own medical attendant unless they require specialist treatment or treatment that can only be given at a hospital.

GLOUCESTER.

The committee of the Gloucester Royal Infirmary and Eye Institution reported to the last quarterly meeting of the governors that it was estimated that of every five patients attending the institution two were insured persons. The committee was determined that the resources of the institution should not be diverted from their legitimate objects, namely, the treatment of those who are poor and real objects of charity, and had arranged that the general practice of the infirmary for the present should go on as heretofore, with the following proviso:

That insured persons whose ailments can be treated at home, and who, in the ordinary course, would be treated by their own doctor, will not be treated at the infirmary. It may be urged that it is impossible to say beforehand whether a case is suitable for home treatment or not—the decision must be left to the physician or surgeon on duty. In the surgery casualties will receive first aid, but if further treatment is necessary which, in the opinion of the attending surgeon, can be equally well done by the patient's own medical practitioner, the case will not be further treated in the surgery.

THREATS TO CLOSE A PANEL AND UTILIZE ASSISTANTS.

UNDER this title last week a letter received by medical practitioners in Wisbech was published. The letter, which was from Mr. Dennis, Clerk to the Isle of Ely Insurance Committee, stated that the Committee had resolved to invite Dr. William Groom and Dr. Harry Groom, the only practitioners on the panel, to engage a sufficient number of qualified assistants to complete it, but that the invitation would not be fowarded for forty-eight hours, a period which expired on January 10th. The following letter has since been received from Dr. Harry Groom:

12, North Brink, Wisbech,
January 13th, 1913.

To the Secretary of the British Medical Association.

Sir,

As you have thought well to publish in your issue of January 11th in the BRITISH MEDICAL JOURNAL correspondence sent to you, with your attached comments, by Mr. C. H. Meacock, and in my opinion obviously with the intention of casting odium upon Dr. William Groom and myself, I must ask you to publish this letter, and my letter sent to the Clerk of the Isle of Ely Insurance Committee, just as conspicuously as you did the other correspondence; and I hope this letter may satisfy your interesting curiosity as to the number of assistants we have engaged to make the Wisbech panel complete: and I may add that we only joined the Isle of Ely panel, when some twenty others in North Cambridgeshire also did so.

The letter is as follows:

Wisbech, January 10th.

Dear Mr. Dennis,

My brother and I cannot accept the invitation of the Isle of Ely Insurance Committee to provide an adequate panel for Wisbech, by employing assistants.

All we desire to do is to give entirely satisfactory attendance to those of the insured who elect to have our services. As we do not wish to absorb the patients of any other doctor, these must be provided for by the Insurance Commissioners.

Very faithfully yours,
HARRY GROOM.

NOTICES BY THE INSURANCE COMMISSIONERS.

MEDICAL BENEFIT FOR MEMBERS OF APPROVED SOCIETIES.

ON January 15th the Insurance Commissioners issued the following notice:

The Insurance Commissioners have received a number of inquiries as to the conditions under which insured persons who are members of approved societies become entitled to medical benefit under the National Insurance Act. They accordingly desire to make it known that all insured persons who are members of approved societies (with the exception of certain special classes such as soldiers and sailors now serving) are now entitled to medical benefit under the Act, no matter when they entered insurance or whether they have since been out of employment.

The provision of medical attendance and treatment for those members who were over 65 years of age on 15 July, 1912, and who are not entitled to medical benefit at the expense of the State Insurance funds, can be arranged privately, as before, by their societies.

MATERNITY BENEFIT.

The Insurance Commissioners have issued provisional regulations governing cases in which a confinement is attended in the first instance by a midwife and a doctor is subsequently summoned in an emergency in pursuance of the rules of the Central Midwives Board. The fees prescribed are as follows:

Rates of Prescribed Fee.

	£	s.	d.
A. For attending the mother on a summons in an emergency at any time before, or within twelve hours after, the end of labour		15	0
B. For attending the mother on a summons in an emergency at any time subsequently		5	0
C. For attending the child on a summons in an emergency. If the practitioner attends between the hours of 8 p.m. and 8 a.m. in response to a summons received between those hours ...		5	0
In any other case		2	6

An accompanying memorandum indicates that the society is liable to pay these fees to the doctor for attending the summons, but is not liable to pay more than 15s. in any case. The doctor must give notice and claim his fee within twenty-four hours of the attendance.

INSURANCE ACT IN PARLIAMENT.

Administration of Medical Benefit.

ON Tuesday (January 14th) a debate in miniature arose out of a question put to the Chancellor of the Exchequer by Sir J. D. Rees, member for East Notts, who asked whether the Insurance Committee had been instructed not to allow people to make their own arrangements for medical treatment because the Government would not allow it; and, if so, by what authority the Insurance Committee had been urged to contravene the provisions of the Act to which they owed their existence. The Chancellor of the Exchequer said he did not know to which of the 235 Insurance Committees the hon. member referred, but in any case the answer to the first part of the question was in the negative; but with regard to the suggestion contained in the second part of the question, he pointed out that an Insurance Committee was not required by the Act to allow insured persons to make their own arrangements for medical treatment. Sir J. D. Rees asked the Chancellor of the Exchequer if he did not say they were so entitled. Mr. Lloyd George said he certainly did not. If he did the Act provided that they were not to be allowed.

Sir J. D. Rees further asked whether the Chancellor of the Exchequer had informed the secretaries of the National Insurance Medical Practitioners' Association that priority would be given to the doctors on the panels if whole-time appointments were necessary; and, if so, by what authority he offered this preference to doctors who accepted his views in preference to those who stood by the British Medical Association. Mr. Lloyd George replied by referring to the answer given by the Financial Secretary to the Treasury on January 1st (SUPPLEMENT, BRITISH MEDICAL JOURNAL, January 11th, p. 38) and to his own letter, dated December 18th, 1912, which had

been laid on the table of the House. Sir J. D. Rees asked if this would form a precedent for using public funds for breaking great industrial and other non-professional strikes. Mr. Lloyd George said it had nothing whatever to do with that. He simply proposed that course because doctors refused to place their services at the disposal of the State.

Sir J. D. Rees asked whether the Insurance Commissioners had approved of the action of the Middlesex Insurance Committee in agreeing that the sum payable in respect of insured persons who had not before March 31st selected a practitioner on the panels would be divided amongst the practitioners on the panels; and if the Government had sanctioned offering those practitioners who accepted its terms additions and emoluments at the expense of those who, maintaining their pledge, declined to accept such conditions. Mr. Lloyd George replied that Section 15 (2) (*d*) of the National Insurance Act and the regulations made by the Commissioners expressly provided for the distribution amongst the practitioners on the panel of insured persons who, after due notice, had failed to select a doctor, and the distribution was to be carried out, so far as practicable, under arrangements made by the practitioners on the panel themselves. Those practitioners were responsible for the medical treatment, if required, of such insured persons, and all money available to the committee for the medical treatment of insured persons obtaining treatment from the panel would be distributed among those practitioners in accordance with the Regulations.

Mr. Worthington-Evans asked whether a doctor who had gone on the panel could refuse to take his quota of the distributed insured persons. Mr. Lloyd George replied that there were special provisions in the Act dealing with cases of that kind. Mr. Worthington-Evans then inquired if a doctor, once he had gone on the panel, could refuse to take persons distributed by the Committee amongst the doctors on the panel, and Mr. Lloyd George said he could refuse in the first instance, but there were provisions dealing with those who had not been already distributed among the doctors. Mr. Worthington-Evans asked if the Chancellor of the Exchequer had not, in replying to a question, stated that those persons were to be distributed according to arrangements made with the doctors. He asked whether a doctor could refuse to treat those patients who were distributed. Mr. Gwynne asked if it was to be understood that although a doctor on a panel might refuse to attend a patient that same patient might be allotted to him by the committee. Mr. Lloyd George said he did not say that. He had said that there were special provisions in the Act for distributing those who had been refused by all the doctors, but it was a very improbable contingency that every doctor on the panel would refuse the patient.

Sir J. D. Rees asked the Chancellor of the Exchequer whether he organized or expressed his intention of organizing a service of State-paid doctors ready to proceed to any area in order to break down the opposition of the medical profession to working on the panel system. Mr. Lloyd George said that in any area where the panel might be found to be inadequate the duty was laid upon the Commissioners of making alternative arrangements, in conjunction with the Insurance Committee, for the medical treatment of insured persons, and of such alternative arrangements that of a salaried service appeared to be the one most acceptable to the insured persons themselves. Sir J. D. Rees then asked whether that formed a precedent for breaking down industrial and non-professional strikes, and Mr. Lloyd George replied that his answer was a specific answer to the question, which was whether a State service was to be organized in those cases. It was the duty of the Commissioners to see that adequate medical provision was made. There were two or three alternatives, and the one which was popular with insured persons was salaried service.

Mr. Worthington-Evans asked whether insured persons would have free choice of doctor in a district where a State service was organized and put into force. Mr. Lloyd George said that inasmuch as the insured person was fully represented upon the Insurance Committee which would be making the arrangements, he took it he would look after his own interest.

Mr. Worthington-Evans asked the Chancellor of the Exchequer whether he had altered his mind since October last, when he stated that in such a case a person would be entitled to free choice of his own medical man. Mr. Lloyd George said that he failed to see in what respect his answer differed from the answer he gave before.

A further question by Mr. Hodge, who wished to know how could there be free choice of doctor if the doctors refused to work under the Act, was not answered.

Disposal of Rejected Insured Persons.

Mr. Chancellor asked the Secretary to the Treasury, on January 13th, whether any doctor on the panel would be perfectly free to refuse any patient whom the Insurance Committee desired to allot to him, and whether such refusal could in any way operate to the detriment of such doctor. Mr. Masterman said that any doctor on the panel had a preliminary right of refusing any particular insured person who applied to be placed on his list. It would be the duty of the Insurance Committee to make such arrangements as were suitable for medical benefit for any patients who were thus refused by the doctor of their first choice, and these arrangements must be as far as practicable in agreement with the doctors themselves. Insurance Committees might ask the doctors in any district to agree each to accept a proportion of insured persons who might be refused attendance by the doctors of their first choice; or the insured person might be invited to make another choice of a doctor willing to accept him, or some other arrangement might be made by the Committee for his medical attendance and treatment. In ordinary circumstances, the results of a doctor refusing a particular insured person would be merely that he would not be responsible for and would not receive remuneration in respect of that insured person.

Employment of Assistants.

In reply to Mr. Newman, who asked a question on January 13th with regard to the action of the Wisbech Insurance Committee, referred to in the SUPPLEMENT of January 11th, p. 44, and this week (p. 80), Mr. Masterman said that the Isle of Ely Insurance Committee had reported that the panel was adequate to provide medical attendance for insured persons throughout their area except in the districts of Wisbech and Chatteris. In order that medical attendance might be provided for insured persons in these two districts they further invited all the practitioners in the neighbourhood to accept service under the Act, with an intimation that if they declined, other alternative arrangements would have to be made with the doctors who had accepted service. The Commissioners were awaiting a further report from the committee as to the exact position, and until that report had been received he was unable to state the number of practitioners required to complete the panel. It would be necessary that any assistants utilized by doctors on the panel should be duly qualified medical practitioners.

Mr. John Ward inquired if there was any way by which the Insurance Committees could decide upon the recompense that the assistants would receive from the medical men who employed them. Mr. Masterman said he was not sure what the arrangements were. If the assistants were on the panel in the ordinary way they would be selected in the ordinary way by the insured persons for treatment.

Mr. Worthington-Evans asked if it was necessary for the doctors' assistants who were to treat insured persons to be on the panel. Mr. Masterman replied that that depended upon the arrangement. If the panel were abolished there would be no panel for them to be put on. If the panel were maintained, then, he thought, they had to be on the panel. Mr. Worthington-Evans asked whether, in a case where the panel was considered adequate, would it be necessary for any assistant who treated an insured person to be on the panel. Mr. Masterman asked for notice of the question.

Allocation of Insured Persons.

Mr. Rupert Gwynne asked how many doctors per thousand of insured persons had the Insurance Commissioners decided to be necessary to secure an adequate medical service in rural and urban areas respectively in order to set up a panel in such areas; and on what day was the decision of the Insurance Commissioners on this

point taken. Mr. Masterman replied that the number of insured persons for whom a doctor on the panel could properly be responsible must necessarily vary according to the circumstances of each particular case, and it was therefore impracticable to fix any maximum number either for all areas or for urban and rural areas respectively. In deciding in each case whether adequate medical service had been secured the Commissioners had regard to all the circumstances, and they were, of course, guided to a great extent by the advice and recommendation of the Local Insurance Committee. According to the experience of contract practice of a similar character in the past, every 1,000 persons on a list would involve, on the average, thirteen attendances a day, of which eight or nine would be surgery calls and four or five visits at the patient's home for 300 days' work in the year.

Mr. Worthington-Evans asked if a panel would be adequate with one doctor for 5,000 people, or would some general idea of what would be considered adequate be given. Mr. Masterman said he could not give any general statement; but certainly he did not anticipate one doctor would have to have 5,000 patients in any case.

Sir Philip Magnus asked the Secretary to the Treasury whether his attention had been called to the case of a doctor who had only consented to join a panel on the understanding that he would be required to treat a small and strictly limited number of insured persons; and whether the Commissioners proposed to allow such a bargain to be made with a Local Insurance Committee. Mr. Masterman said that the answer to the first part of the question was in the negative. Every practitioner on the panel, however, had a right to select the insured persons whom he undertook to treat, subject, of course, to the distribution amongst, and so far as practicable, under arrangements made by, the several practitioners on the panel, of the insured persons who had failed to make any selection, or who had been refused by the practitioner whom they had selected.

Mr. Masterman, in reply to Colonel Yate on January 15th, said that in cases in which payment by attendance was adopted an insured person need not choose his doctor until he was ill. In cases in which the capitation system of payment was adopted, all insured persons in the area who had not already made the choice would be allocated to doctors on the panel after a given date, to be announced by the Insurance Committee. Each Committee would exercise its own discretion as to the date which it would fix. It was quite competent for an Insurance Committee, with the consent of the practitioners on the panel, to make at once a provisional allocation of all insured persons amongst the doctors on the panel, with the condition that any insured person so allocated might, if he pleased, within the period announced select one of the other doctors on the panel.

Sir Philip Magnus asked if a doctor on the panel might make a bargain to attend a certain number of insured persons and no more. Mr. Masterman said that depended entirely on the arrangements that he made with the Local Insurance Committee. He thought most Insurance Committees would allow doctors to do that.

The Panels.

In reply to questions, on January 15th, by Mr. Worthington-Evans and Sir Philip Magnus, asking whether the Commissioners would prevent approved societies from recognizing and acting on certificates of illness given by doctors not on the panel for the purpose of claims for maternity, sickness, or invalidity benefits, Mr. Masterman said that the sickness benefit of members of approved societies was administered by those societies, and not by the Insurance Committees; and in deciding the nature of the evidence they would demand the societies would take such steps as were necessary for the protection of their funds and the rights of their members. The evidence of sickness which a society would accept as sufficient for the purpose of giving sickness benefit depended on the rules of the society, and within those rules upon their discretion in the actual administration of the benefit.

Mr. Gwynne asked what was the position at present of an insured person who had been attended as a maternity patient by a doctor who was not on the panel. Would such persons be entitled to the maternity benefit? Mr. Masterman replied that the administration of the maternity benefit was entirely in the hands of the approved societies. The approved society having evidence that the benefit had been rightly earned would no doubt pay it.

Right to Form a Panel.

Sir A. Griffith-Boscawen asked the Secretary to the Treasury, on January 13th, whether a doctor who joined a panel under the National Insurance Act after the official list of the panel had been published could begin to undertake work immediately he joined, or whether he would have to wait till the next publication of the names on the panel; and whether a County Insurance Committee could refuse to pay him for services rendered under such circumstances. The Financial Secretary to the Treasury replied that in any district where the normal panel system was in force a doctor could join the panel at any time. His name would not be included in the published list until such time as the Insurance Committee issued a revised list of practitioners on the panel. He would be entitled to receive payment in respect of insured persons who elected to be treated by him, and whose treatment he undertook, as from the date on which he joined the panel. Those insured persons who did not express a wish to be attended by any particular doctor would be assigned by the Insurance Committee to doctors on the panel, and as far as possible, under arrangements made by the practitioners on the panel at that time.

Mr. Worthington-Evans asked if he understood the right hon. gentleman correctly, that the doctors who joined the panels late would also get their share of the insured persons who did not choose their own doctors? Mr. Masterman replied, Not necessarily for the first three months; but added in reply to a further question that they would receive payment in respect of insured persons whose treatment they undertook as from the date of joining the panel.

Mr. Cassel asked if the Act did not provide that every doctor should have the right to join the panel at any time. Mr. Masterman repeated that in any district where the normal panel system was in force a doctor could join the panel at any time.

Lists of Panel Doctors at Police Stations.

Mr. Glyn-Jones asked the Home Secretary whether, in view of the fact that insured persons might desire in an emergency to obtain at night time the services of a medical practitioner on the panels under the National Insurance Act, he would make arrangements whereby such lists of doctors, if supplied by the Insurance Committees, might be inspected at police stations within the metropolitan area. Mr. McKenna said he was glad to state that the Commissioner of Police was able to make tentative arrangements to carry out the suggestion.

Aged Members of Approved Societies.

Mr. Worthington-Evans asked whether approved societies or the Insurance Committees would be allowed to provide medical benefit for insured persons over 65 at the commencement of the Act; and, if so, whether the extra grant of 2s. 6d. would be payable in respect of them. Mr. Masterman said that by Section 49 (3) persons over 65 at the commencement of the Act who came under the special provisions of that section and were members of approved societies were entitled to such benefits as the society determined, and could provide out of their employers' and their own contributions and the State 2d. As far as he was aware, however, all the approved societies had chosen that this money should be devoted to the provision of sick pay rather than of medical treatment. Insurance Committees had the same powers and duties in the case of persons of this class who were deposit contributors as the societies had in the case of members of approved societies.

Mr. Worthington-Evans asked if two forms of alternative benefits had not been issued to societies, neither of which included medical benefits, directing the societies to choose one or the other. Mr. Masterman replied in the negative. They were purely optional for the guidance of societies, giving actuarial figures of what could be provided if they chose either of them.

Mr. Worthington-Evans asked whether the proposed extra grant of 2s. 6d. would be allowed to provide medical benefit for existing members of friendly societies who did not become insured persons because they were over 65

at the commencement of the Act. Mr. Masterman said that the answer was in the negative. Societies which had decided to devote the 9d. a week (or 8d. in the case of women), under Section 49 of the Act, to sick pay rather than to medical benefit would make their own arrangements for medical treatment of their members outside the Act.

Mr. Worthington-Evans asked whether the 2s. 6d.—the £1,650,000—would also be available for such benefits. Mr. Masterman replied: Not outside the Act.

Mr. Worthington-Evans asked why the Statutory Rules, Nos. 17 and 19, relating to the administration of medical benefit, dated December 5th, 1912, and the Forms 21 and 22, relating to persons desiring to make their own arrangements for medical treatment, were not sent to members of Parliament until January 8th, 1913. Mr. Masterman said that the Medical Regulations (S.R.O. 1719) were laid on the table on December 5th as H.C. 386, and were available to all members through the Vote Office on December 7th. The stock of forms Medical 21 and 22 (apart from some advanced copies) was only received from the printers on January 6th and 7th, and copies were immediately sent to members.

Persons making "their own Arrangements."

Mr. Newman asked the Secretary to the Treasury on January 13th whether, on behalf of the Insurance Commissioners, he was now in a position to state that, except under certain defined and special circumstances, insured persons were not entitled, under the terms of the National Insurance Act, to make arrangements with any medical practitioners not serving on the panel in the district in which they resided. Mr. Masterman referred the hon. gentleman to the answer he gave to a similar question by Mr. Cassel on January 6th (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, January 11th, p. 38).

In reply to questions by Mr. Touche and Mr. Arthur Strauss, on January 15th, Mr. Masterman said that the responsibility for deciding upon applications from insured persons to be allowed to make their own arrangements under Section 15 (3) of the National Insurance Act rested in the first instance with the several Insurance Committees to whom such applications were made. The committees would require to be satisfied as to the special circumstances of each particular case, and as to the acceptance by the doctor of the conditions required by the Regulations as to reports, certificates, and evidence of satisfactory service; and would also, in dealing with all applications in their area, have regard to the general interests of the insured persons in that area. The number of applications received by the committees could not be obtained without a special return from all the committees, which would involve considerable labour at a time of great pressure, and would possess no practical value.

Voluntary Contributors.

Mr. Masterman, in replying to Sir A. Griffith-Boscawen on January 13th, said that the total number of insured persons who were voluntary contributors would not be available until all the cards had been received from the societies and scheduled by the Commission.

Treasury Grant.

Mr. Cassel asked the Prime Minister on January 9th whether it was proposed that any additional grant out of public moneys should be made towards medical benefit in respect of the first three months from January 15th, 1913; and, if so, when it was proposed to obtain the sanction of the House thereto. The Prime Minister said that the answer was in the negative. The whole cost of the provision of medical benefit for the period referred to would be met out of funds available under the National Insurance Act.

Insurance Fund.

Mr. Carr-Gomm asked, on January 9th, what amount had been received in contributions and was now available for the payment of insurance benefit under the National Insurance Act. Mr. Masterman said that the amounts received through the sale of insurance stamps, etc., now amounted to about £8,000,000. As the State proportion was added as payment of benefit was made, that would represent a sum available for payments as required under the health insurance provisions of the Act of over £10,000,000, apart from any additional sum which Parliament may vote for medical remuneration.

General Medical Council and Disciplinary Powers.

In reply to Mr. Booth, on January 13th, Mr. Masterman said he did not believe that any doctors who had signed an agreement to treat insured persons for three months would break that agreement before the period of the contract was completed unless they were released from the obligation by the Committee with which such an agreement had been made. If they were to take any such action a serious situation would arise. The question of whether such conduct would be infamous in the professional respect would be for the General Medical Council to consider.

Sir Philip Magnus inquired if the Insurance Committees had entered into a binding agreement with the doctors. Mr. Masterman said: "Oh, certainly, and they would not break it without the doctors releasing them from that agreement."

Dispensers.

Mr. Newman asked on January 13th whether, under the terms of the National Insurance Act, a dispenser who might have been regularly employed by a general medical practitioner for a number of years, but who was unregistered and not actually in the employment of a doctor at the date of the passing of the Act, was debarred from going on the local panel for the supply of drugs, while a doctor's groom, occasionally employed as an assistant dispenser during the past three years, was entitled to be so placed; and, if so, whether it was intended to take steps to remedy this state of affairs. Mr. Masterman said that the hon. member was under a misapprehension. Neither of the classes of persons mentioned by him could be included on a panel for the purpose of supplying to insured persons medicines requiring to be dispensed. The question whether persons of the first class could dispense as assistants would depend in each case upon whether they had acted as dispensers to a medical practitioner or public institution for three years immediately prior to December 16th, 1911. Persons of the second class mentioned would in no case be qualified by such occasional services to themselves supply medicines requiring dispensing or to dispense as assistants.

In reply to a question by Mr. Touche, on January 14th, Mr. Wedgwood Benn said that Section 15 (5) (*b*) (iii) of the National Insurance Act clearly provided that in the case of insured persons medicines might be dispensed by a person who for three years immediately prior to the passing of the Act had acted as a dispenser to a doctor or a public institution.

Records.

Mr. King asked whether insured workers under the National Insurance Act must expect that records of their ailments, even of a delicate nature, would pass into the hands of local and State officials, as stated widely in certain quarters; and whether the Insurance Commissioners would take measures to prevent any infringements of the reticence and secrecy which the medical profession were supposed to observe concerning their patients' case. Mr. Masterman: The statements were absolutely incorrect. The only records which were to be kept were those which would be entered in the prescribed form of day-book. This day-book would be in the sole custody of the doctor. Nobody except the doctor could have access to it. Those leaves of the day-book which passed out of the doctor's hands were perforated, so that while the part containing the name and address of the patient and the attendances (but not the nature of the illness) was sent to the Insurance Committee, the other part, containing the nature of the illness and certain other particulars (but not anything by which the patient could be identified), would not go to the Committee, but would be used for statistical purposes only. In that way absolute secrecy would be secured, and any danger of breach of professional confidence entirely avoided.

Mr. Masterman, in reply to a further question by Mr. King suggesting that the facts stated should be circulated to approved societies and other steps taken to make them widely known, said that he thought the approved societies knew them, but he would see that was circulated.

Medical Benefit in Ireland.

Mr. John Redmond asked the Chancellor of the Exchequer, on January 9th, whether, in view of the additional grant which it was proposed to make in respect of medical benefit under the National Insurance Act in Great Britain, he would consider the question of devoting a sum of money towards making good the cost of certificates for sickness and invalidity benefits in Ireland; whether he was still of the view that the extension of medical benefits to Ireland was a matter to be decided by the wishes of the Irish people themselves; and whether he had considered the question of the appointment of a representative Committee to consider the latter question. Mr. Lloyd George said that the Government were certainly still of opinion that the question of extending medical benefit to Ireland was one to be decided according to the wishes of the Irish people; and he proposed at an early date to appoint a representative Committee to consider the matter. Meantime, the Government would submit proposals for the grant of a sum of £50,000 towards expenses incurred in Ireland in connexion with the National Insurance Act in consequence of the absence of medical benefit in that country, such sum to be expended in accordance with the scheme to be submitted to the Treasury by the Irish Insurance Commissioners.

German Scheme.

Mr. Worthington-Evans, on January 13th, asked when the paper dealing with the cost and scope of medical benefit in Germany and giving collections of agreements entered into by the German doctors and the association under the German insurance scheme, publication of which was promised in July last, would be issued; and what was the reason for the delay. Mr. Masterman said that, in accordance with the promise made on July 24th, 1912, an officer was sent to Germany in the autumn to conduct a detailed investigation with a view to the preparation of a report on medical benefit under the German state insurance legislation. The publication of the report had been postponed in consequence of the protracted illness of the officer in question. It would, however, be laid on the table of the House that day.

Highlands and Islands.

Mr. Cathcart Wason asked the Secretary to the Treasury, on January 13th, whether, in view of the medical and nursing necessities of the Highlands and Islands, disclosed in the Report of the Committee presided over by the hon. member for Inverness, he could make some temporary arrangement by which doctors would receive adequate remuneration for their attendance on insured persons. Mr. Masterman said that the extra grant for mileage in the case of sparsely populated districts was now receiving the attention of the Chancellor of the Exchequer, and an announcement as to the conditions of the grant would be made in due course.

Sanatorium Benefit.

In reply to Mr. Godfey Locker-Lampson, the President of the Local Government Board, on January 9th, said that the number of beds in isolation hospitals approved by the Local Government Board under the National Insurance Act for the treatment of tuberculosis was 1,732. Mr. G. Locker-Lampson asked what steps it was proposed to take supposing an epidemic broke out and those beds were wanted? Mr. Burns replied that in that case there would be beds for both classes of disease.

Isolation Hospitals (Tuberculosis).

In reply to Mr. Godfrey Locker-Lampson, on January 13th, the President of the Local Government Board said that the arrangements for the supply of beds for cases of tuberculosis in the event of the beds in isolation hospitals approved by the Local Government Board under the National Insurance Act being required in an outbreak of infectious disease varied in different cases. They had generally been made with a view to diminishing the likelihood of its being necessary to vacate the beds on an outbreak of disease. A large proportion of cases of tuberculosis which were receiving residential treatment could, however, be given other treatment should it be necessary at any time to remove them.

CORRESPONDENCE.

Persons Making their Own Arrangements.

Dr. J. Cuthbertson Walker (Acting Honorary Secretary, Rochdale Division, British Medical Association) writes: Mr. Worthington-Evans has already, in the House of Commons, insisted very strongly on the right granted by the National Insurance Act to Local Insurance Committees to allow insured persons to make their own arrangements for medical attendance.

I may perhaps be allowed to point to some official sources of information which support Mr. Evans's contention, in addition to Section 15 (3) of the Act, which forms the basis of the authority for such private arrangements.

1. A deputation from the British Medical Association waited upon the Chancellor of the Exchequer on November 25th and 26th, 1912, and asked his consideration of certain points in connexion with the administration of medical benefit. In reply, the Chancellor furnished the Association with a Memorandum, in which he stated (paragraph 22): "But it will still remain possible for any insured person, who so desires, to make his 'own arrangements' with an individual practitioner (whether on the panel or not) on terms under which he will be liable to pay to the doctor such amount, if any, as the doctor charges for attendance and treatment (apart from drugs), during the year, beyond the amount available from the medical benefit fund." Again, in paragraph 44 of the same memorandum it is stated: "The Act gives to the Insurance Committee power to decide whether they will allow insured persons to make their own arrangements. This power can be exercised by the Insurance Committee whether they have fixed an income limit or not, and has no reference to the question of whether an income limit prevails in the area." The full text of this memorandum will be found in the Supplement to the British Medical Journal of December 7th, 1912.

2. Paragraph 14 (7) of the Revised Regulations for the administration of medical benefit issued by the Commissioners states:

> The Committee may allow any insured persons resident in the county, whether individually or collectively, in lieu of receiving medical benefit under the arrangements made by the Committee, to make their own arrangements for receiving treatment (including medicines and appliances).

Paragraph 14 (8) lays down that where an Insurance Committee considers these arrangements satisfactory it shall contribute towards their cost.

3. Paragraph 49 of the Regulations states:

> All moneys available to the Committee for the purposes of insured persons who are required or allowed to make their own arrangements for obtaining treatment (including medicines and appliances) shall be carried to a fund to be called the Special Arrangements Fund.

Paragraph 49 proceeds to explain in great detail (the whole paragraph contains more than 500 words) the terms and conditions under which the Special Arrangements Fund is to be distributed.

4. Early in December, 1912, a circular of instructions respecting the administration of medical benefit was issued by the Commissioners to Insurance Committees. Paragraph 26 of this circular states:

> Model forms of notice by and to persons required or allowed to make their own arrangements for medical attendance and treatment will also be furnished.

5. In an "explanatory statement as to medical benefit as affecting medical practitioners," drawn up and sent by the Commissioners to all practising doctors, the following passages occur:

> 43. Cases of those who "make their own arrangements" for obtaining medical attendance and treatment fall under two heads—namely, first, those who make a private arrangement direct with a doctor for treatment on private practice lines; and, secondly, those who enter into some kind of contract for the purpose.
>
> 44. As regards those who obtain their treatment privately, the amount available will be paid into the pool; they will furnish to the Committee in due course their doctors' bills, made out according to a scale of fees laid down by the Committee, and the bills will be paid by the Committee as far as possible. If the amount of the bills exceeds the amount in the pool the amount paid towards each bill will be in proportion to the bill. In such cases, of course, the patient, having entered into a private arrangement with the doctor, will be liable to the

doctor, to the extent to which that arrangement renders him liable, for the amount of the doctor's bill over and above what is payable from the Medical Benefit Fund. The doctor will be under no obligation under the Act or Regulations to charge on the scale of fees laid down by the Committee. He may charge higher fees if the patient so agrees. As regards the supply of drugs, such arrangements are subject to the same restriction as the arrangements made with doctors on the panel—that is to say, an insured person cannot enter into an arrangement with the doctor to supply him with drugs unless the patient resides in an area in which the Committee has arranged for those insured persons who obtain attendance and treatment from doctors on the panel to be supplied with drugs by those practitioners.

45. If an insured person makes his own arrangements by way of contract, it will be the duty of the Insurance Committee to see that the contract affords reasonable security that he will obtain proper attendance and treatment, and that the money paid from the Medical Benefit Fund shall be applied solely to that object.

This paragraph also states the proportion which the amount allowed for medical attendance and treatment must bear to the amount allowed for the provision of drugs.

6. The medical benefit card issued to every insured person instructs him how to proceed should he desire to make his own arrangements.

Seeing that the Act and Regulations contain detailed provisions under which insured persons may make their own arrangements, why does the Government now describe the attempt to put these provisions in force, as an attempt to break down the machinery of the Act?

Insured persons who desire to make their own arrangements with their own doctor should at once apply to their Local Insurance Committee for permission to do so.

PRESENT DIFFICULTIES.

Dr. GEO. PARKER (Rock Ferry, Cheshire) writes: At the outset I would like to say that I, in conjunction with many others, am one of those unfortunate members of the British Medical Association who has been faithful to his pledges, and as a consequence will be deprived of a certain income from erstwhile patients of my own, plus that which would have been apportioned to me by the Insurance Committee where no choice of doctor is made. This money will now accrue to one or more of the disloyalists in my area who are panelites. The Council of the Association has lately declared disloyal those men who have been faithless to their pledges. Can any vote or resolution negative this, or absolve men from their pledges? If so, what necessity was there for any pledge, or what virtue or honour is there in loyalty?

The problem which looms large at present is: What security is there against just such another *débâcle* in the future, and it may be a very near future? A pledge is obviously and absolutely as so much waste paper to the panelite. It is therefore of paramount importance that some instrument should be quickly devised which shall secure absolute adherence by every medical man to a fiat of the British Medical Association, where a definite principle or policy is declared, if some such spectacle as now presents itself is to be averted. What that instrument is to be must soon occupy the serious attention of the Council and Representative Body.

The potent factor actuating those on the panels has been mistrust in his neighbours. Now if this contingency were obviated, the solidarity of those on the panels and the remainder—the great majority—would be secured. Every one would hail with satisfaction any device which would secure united action. It surely ought not to be impossible for such a solution to be evolved in conference.

Another question arises as to what counter-stroke there may be to the publication of lists of panelites in the press and at the various post offices in one's district. Are loyalists to remain in obscurity, and is it to be regarded as unprofessional or something worse, for a band of loyalists to club together and proclaim to the public through the local press, that they being still loyal to their Association and pledges, are in consequence not on the panel?

There can be no doubt whatever that the disgraceful tactics of renegades, politicians, and their emissaries, account for much of the stampeding of the profession. Nearly every man in my own Division who to-day is on the panel, is averse to the Act and its regulations, and is serving from fear, and not love. The threats of the Chancellor and other more occult devices, have proved too irresistible for most of them.

Between now and April 14th there ought to be ample time for a complete reorganization of forces, and for the inauguration of an adequate check to any future formidable secession from an approved policy of the Association.

Finally, it is now more imperative than ever that every medical practitioner should enrol himself a member of the British Medical Association. There will be much reorganization required in the near future. There will also doubtlessly be many an attempt at "wing clipping" of the profession. This can only be obviated by a properly and effectively organized body, properly represented, and properly led.

Dr. J. CHARSLEY MACKWOOD (Newick, Sussex) writes: I am in practice in a district of some 18,000 acres, which is worked by one other man, Dr. Orton, and myself. The position we have taken up is as follows: We decline to break our pledges by signing the contract with the Local Insurance Committee. We have offered to attend insured persons free of charge till after the Representative Meeting on January 17th. If then the pledge should be released—but not unless—we are prepared to sign the contract. If the pledge is held to be binding, we are prepared to attend free of charge insured persons till the Local Insurance Committee shall have made their arrangements for the district. This offer has been declined by the Clerk to the East Sussex Insurance Committee, who states that we must be prepared to sign our contracts when requested. This we have declined to do.

This evening I received the following letter. As I have not the writer's permission to publish it, I merely give his initials:

My dear Sir,

No one realizes more fully than myself the very shameful way in which Lloyd George has attempted to coerce the medical profession in the matter of the Insurance Act. I possibly ought not to write you on the subject, as I am not resident in your parish, but I think I would like you to know what is said in the distict on the subject of your not joining the panel. Will you therefore kindly excuse my writing to you? The universal feeling I hear expressed is regret that you have not joined. Am I right in the idea that by so doing the risk is run that some very second-rate man may be introduced into the district to the serious injury of the insured persons as well as, I should fear, to your own detriment? You have been here, I think, long enough to be much valued and esteemed, and as things now are would, I feel sure, be congratulated if you could see your way to join the panel. To myself, individually, it can make no difference, but to those insured under the Act I think it is a very important matter.

Kindly excuse my thus writing to you.

Yours faithfully,

M. S——.

Dr. Mackwood.

I think most readers will be inclined to agree that the importation of pariah medical men into an entirely new district may lead to serious results for insured persons. On January 6th the Foresters' Friendly Society passed a resolution *nemine contradicente* requesting the Clerk to the East Sussex Insurance Committee to see his way to accepting the names of Dr. Orton and myself on the panel subject to the terms of our letter to him. Friendly societies in the past have always looked out for the cheapest article with regard to medical attendance. Now that they are being assisted by the Chancellor of the Exchequer in the same direction they are inclined to alter their tune.

Dr. R. J. LEPER (Bamber Bridge) writes: I do not know what protection the medical practitioner who has to work under the Insurance Act by brute force will have in the future unless the British Medical Association is reorganized on trades union lines. The present policy is out of date in these materialistic days.

Dr. ARTHUR E. GLADSTONE (Newton Ferrers, Plymouth) writes: Now that the panic and stampede have taken place the profession should learn wisdom by experience, so as to avoid a repetition of such events in the future. Every doctor who has been frightened on to his panel by a threatened invasion by "outsiders" must know that such applications could only exist on paper. Presumably the same list of names did the trick in dozens of towns, for we all know that the number of employable

unemployed is very limited. Would it not be a simple matter for the British Medical Association to institute inquiries in every place, so as to actually find out the names of the pretended invaders? And when the facts have been established these methods should be exposed by a question in the House.

Dr. J. C. BARKER (Watford) writes: The medical and surgical treatment of the contract classes has been most unsatisfactory to all of us who have taken part in it, because modern methods have been out of our reach. This state of things has not been touched by the Insurance Act; no improvement in treatment has been introduced, and the old stagnation is perpetuated.

Now when the Government took a hand in providing medical treatment for the contract classes, it was our first duty to ourselves and the patient to take a high view of our responsibilities and see that we were enabled to give proper and efficient modern treatment. This would have involved free provision by the Government of laboratories, vaccines, etc., and a short measure to ensure an adequate supply of hospital beds in each district.

In other words, the first duty was to see that it was possible to treat patients properly under the Act; afterwards, if necessary, it could have combined to obtain adequate pay. Instead of this, the British Medical Association, on behalf of the profession, took up an entirely injudicious and wrong position. They attempted to modify the conditions of service, entirely regardless of the fact that the service could not be made satisfactory as far as the treatment of the patient was concerned.

The best thing we as a profession can do is to close down the present agitation, and try to obtain those modern methods of diagnosis and treatment which would render contract practice efficient and deserving of better pay.

PROTEST MEETING AT QUEEN'S HALL.

Mr. E. B. TURNER (London) writes: While I was speaking at the Queen's Hall meeting last week the name of a gentleman was mentioned. As a matter of fact my allusion was to others, and the gentleman in question (who is a personal friend of mine) informs me that he has never taken such action as that which I was discussing at the time.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In ninety-six of the largest English towns, 9,064 births and 5,285 deaths were registered during the week ending Saturday, January 11th. The annual rate of mortality in the ninety-five or ninety-six large towns, which had been 15.4, 15.1, and 15.7 per 1,000 in the three preceding weeks, fell to 15.4 per 1,000 in the week under notice. In London last week the death-rate was also equal to 15.4, against 14.4, 14.4, and 16.2 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 6.1 in Ealing, 7.0 in Wakefield, 7.8 in Ilford, 8.1 in Dudley, 8.3 in Hornsey, and 8.6 in Gillingham to 20.7 in Liverpool, 21.2 in South Shields, 22.2 in Sunderland, 24.1 in Wigan, 27.3 in St. Helens, and 29.1 in Preston. Measles caused a death-rate of 3.2 in Willesden and in West Hartlepool, 3.7 in Bath, 4.0 in Swindon, 4.2 in Acton, 4.6 in Wigan and in Northampton, 6.2 in Preston, and 6.8 in St. Helens; scarlet fever of 1.3 in Preston; and diphtheria of 1.1 in Stoke-on-Trent, 1.3 in York and 1.8 in Coventry and in Darlington. The mortality from enteric fever and from whooping-cough showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 54, or 1.0 per cent. of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 12 in Birmingham, 8 in Liverpool, 4 in London, 4 in Bootle, and 2 each in Warrington, Burnley, Preston, Sheffield, and South Shields. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 2,108, 2,112, and 1,954 at the end of the three preceding weeks, had further fallen to 1,889 on Saturday last; 202 new cases were admitted during the week, against 193, 191, and 170 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

THE Registrar-General's weekly return will from the beginning of this year relate to sixteen towns instead of eighteen, the towns of Partick and Govan having been incorporated in the City of Glasgow. In these sixteen towns 1,132 births and 763 deaths were registered during the week ending Saturday, January 4th. The annual rate of mortality in these towns, which had been 20.7, 19.2, and 17.1 per 1,000 in the three preceding weeks, rose to 17.6 in the week under notice, and was 1.9 per 1,000 above the rate in the ninety-six large English towns. Among the several Scottish towns the death-rate ranged from 9.1 in Kirkcaldy, 10.8 in Hamilton, and 12.2 in Ayr to 22.8 in Greenock, 23.3 in Dundee, and 24.0 in Leith. The mortality from the principal infectious diseases averaged 1.5 per 1,000, and was the highest in Coatbridge and Motherwell. The 334 deaths from all causes registered in Glasgow included 18 from whooping-cough, 5 from infantile diarrhoeal diseases, 4 from diphtheria, 3 from scarlet fever, 1 from measles, and 1 from enteric fever. Three deaths from whooping-cough were recorded in Edinburgh, 3 in Motherwell, 2 in Dundee, and 2 in Leith; 3 deaths from diphtheria in Dundee and 2 from enteric fever in Aberdeen.

HEALTH OF IRISH TOWNS.

COMMENCING with the first week of this year, the Registrar-General for Ireland has adopted a form somewhat different to that employed by him hitherto in his weekly returns regarding births and deaths. He now includes twenty-seven town districts instead of twenty-two, but gives full details concerning only seven, counting the Dublin registration area and Dublin city as two. Details concerning the other districts will be supplied in the quarterly return. In these twenty-seven districts 756 births and 504 deaths were registered as having occurred in the week ending Saturday, January 4th. Hence the estimated population being 1,199,150, the death-rate was equal to 22 per 1,000, and the birth-rate to 32.9. This death-rate was 5.8 higher than that for the same period in the ninety-six large English towns. In regard to the larger areas, the death-rate in the city of Dublin was 25.5, in Belfast 23.8, in Cork 27.2, in Londonderry 14.0, in Limerick 17.6, and in Waterford 30.4. The zymotic death-rate in the twenty-seven towns averaged 2.2 per 1,000.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following appointments have been notified at the Admiralty: Staff Surgeon HORACE B. HILL, M.B. to be lent to the *Victory*, additional, for Physical Training School for requalifying course, January 9th, 1913; Staff Surgeon GEORGE D. WALSH to the *Dominion*, vice Haydon, February 1st, 1913. Staff Surgeon CHARLES H. DAWE to the *Vivid*, additional for disposal, to be lent to the *Indus* temporarily, during absence of Surgeon Babington, undergoing course, February 1st, 1913. Staff Surgeon PERCY F. ALDERSON to the *Gloucester* on recommissioning. Staff Surgeon HAROLD J. CHATER to the *Dublin* on commissioning. Staff Surgeon ARTHUR C. W. NEWPORT to the *Terrible* and for group of ships of the Third Fleet, January 1st, 1913. Surgeon SHELDON F. DUDLEY to the *Pembroke*, additional for disposal, February 1st, 1913, and to the *Pembroke* for R. N. Barracks, vice Dawe, February 15th, 1913. Surgeon CECIL R. M. BAKER, M.B., to the *Victory*, additional for disposal, February 1st, 1913, and to the *St. George*, vice Drennan, February 15th, 1913. Surgeon HARRY M. LANGDALE to the *Victory*, additional for disposal, February 1st, 1913, and to the *Zealandia*, vice Bradbury, February 15th, 1913. Surgeon FRANCIS H. HOLL to the *Victory*, additional for disposal, February 1st, 1913, and to the *Ganges* for Shotley Training Establishment temporarily, during the absence of Surgeon Hearn, undergoing course, February 15th, 1913. Surgeon CHARLES H. L. PELCH to the *Victory* for disposal, February 1st, 1913, and to the *Excellent*, temporarily, during absence of Surgeon Hayes, undergoing course, February 15th, 1913. Surgeon JAMES H. WRIGHT, M.B., to the *Pembroke*, additional, for disposal, February 1st, 1913. Surgeon GEORGE A. S. HAMILTON, to the *Victory*, additional, for disposal, February 1st, 1913. Surgeon GEOFFREY P. ADSHEAD, M.B., to the *Pembroke*, additional, for disposal, February 1st, 1913. Surgeon GEORGE J. CARR, M.B., to the *Excellent*, vice MacMahon, February 1st, 1913. Surgeon FRANCIS J BURKE, M.B., to the *Pembroke*, for R.N. Barracks, temporarily, vice Murphy, February 1st, 1913. Surgeon ALFRED R. PRICE, M.B., to the *Vivid*, for R.N. Barracks, temporarily, vice Stone, February 1st, 1913. Surgeon HENRY M. BRAITHWAITE, M.B., to the *Hebe*, vice Vickery, February 1st, 1913. Surgeon ALFRED B. CLARK, M.B., to the *Skipjack*, vice Egan, February 1st, 1913 Surgeon FRANCIS C. ALTON, to Portland Hospital, February 1st, 1913. Surgeon ROBERT N. W. W. BIDDULPH, to the *Berwick*, vice Alton, February 1st, 1913. Surgeon JAMES P. SHORTER, to be lent to the *Vernon*, temporarily, during the absence of Surgeon Verry, undergoing course, February 1st, 1913.

The following Surgeons have been appointed to the *President*, additional, for five months' course of instruction at the Naval Medical School to join R.N. College, Greenwich, February 1st, 1913: WALTER G. EDWARDS, ROBERT F. MACMAHON, LIONEL C. E. MURPHY, HERBERT STONE, M.B., SAMUEL H. VICKERY, M.B., MAURICE W. HAYDON, HENRY D. E. DRENNAN, M.B., DAVID H. C. GIVEN, M.B., PERCY H. EGAN, M.D., SAMUEL BRADBURY, M.B.

The following Surgeons have been lent to the *President*, additional, for five months' course of instruction at the Naval Medical College to join R.N. College, Greenwich, February 1st, 1913: EDWARD M. W. HEARN, M.D., GUY T. VERRY, HAROLD H. BABINGTON, JOHN M. HAYES.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL SIR WILLIAM B. LEISHMAN, Kt., M.B., is appointed an Honorary Physician to the King, and is granted the brevet rank of Colonel, vice Surgeon-General G. D. Bourke, C.B., retired, October 15th, 1912.

Lieutenant-Colonel H. FORDE has been appointed to the charge of the Military Hospital, Bulford.

Lieutenant-Colonel D. V. O'CONNOR, from Shorncliffe, has been transferred to half-pay.

Lieutenant-Colonel GEORGE WILSON, M.B., is placed on retired pay, January 6th, 1913.

Major HUBERT A. BRAY is seconded for service with the Egyptian Army, and is granted the local rank of Lieutenant-Colonel while so employed, October 15th, 1912.

Major J. D. G. MACPHERSON is appointed to the command of the Station Hospital, Kamptee.

Major F. W. EGBBIE is appointed Specialist in Advanced Operative Surgeon to the Fifth Division.

Major A. D. WARING, from Hong Kong, has been posted to the Southern Command.

Captain CARLISLE KELLY, M.D., from the half-pay list, is restored to the establishment with precedence next below Walter H. S. Burney, January 5th, 1913.

Captain M. F. FOULDS has been promoted to Major, January 9th, 1913.

Lieutenant CHARLES C. JONES, M.B., from the seconded list, is restored to the establishment, January 1st, 1913.

INDIAN MEDICAL SERVICE.

THE KING has approved of the retirement of Lieutenant-Colonel CARRAPIET J. SARKIES, M.D., December 8th, 1912; and Lieutenant-Colonel JOSHUA CHAYTOR-WHITE, M.D., December 22nd, 1912.

The promotion of Colonel BLENMAN B. GRAYFOOT, M.D., to that rank dates from August 26th, 1912, and not August 25th, 1912, as notified in the *London Gazette* of November 19th, 1912.

The retirement of Colonel WILLIAM A. CORKERY has effect from August 26th, 1912, and not August 25th, 1912, as notified in the *London Gazette* of October 18th, 1912.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ABERDARE AND MOUNTAIN ASH EDUCATION COMMITTEE.—School Dentist. Salary, £240 per annum

BATH: EASTERN DISPENSARY.—Resident Medical Officer. Salary, £130 per annum.

BATH: ROYAL UNITED HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Resident Medical Officer (Male). Salary at the rate of £60 per annum.

BIRKENHEAD UNION INFIRMARY.—Senior Male Resident Assistant Medical Officer. Salary commencing at £120 per annum.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £200 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—Radiographer. Salary, £100 per annum.

BIRMINGHAM UNION.—Assistant Medical Officer to the Dudley Road Infirmary. Salary, £125 per annum.

BOURNEMOUTH: ROYAL VICTORIA AND WEST HANTS HOSPITAL.—House-Surgeon. Salary, £80 per annum, rising to £100.

BRADFORD POOR LAW UNION.—Assistant Resident Medical Officer (Male) for the Hospital and Workhouse. Salary, £130 per annum.

BRADFORD ROYAL INFIRMARY.—Resident Surgical Officer. Salary, £150 per annum.

BRISTOL ROYAL INFIRMARY.—(1) Resident Casualty Officer. (2) Dental House-Surgeon. Salary at the rate of £50 and £100 per annum respectively.

BUCKS COUNTY LUNATIC ASYLUM, Stone.—Assistant Medical Officer. Salary, £185 per annum.

BURNLEY: VICTORIA HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—House-Surgeon. Salary, £80 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Two House-Physicians (Male).

DAVOS PLATZ: QUEEN ALEXANDRA SANATORIUM.—Medical Superintendent. Salary, £200 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. Salary, £75 per annum.

HACKNEY UNION INFIRMARY.—Junior Assistant Medical Officer. Salary, £120 per annum.

HARROGATE: THE INFIRMARY.—Resident House-Surgeon. Salary, £75 per annum.

HERTS COUNTY ASYLUM, Hill End, St. Albans.—Junior Assistant Medical Officer. Salary, £170 per annum, increasing to £190.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Physician. (2) House-Surgeon. (3) Casualty Medical Officer. Salary for (1) and (2) £50 for six months and £2 10s. washing allowance, and for (3) £200 per annum.

LABORATORIES OF PATHOLOGY AND PUBLIC HEALTH, New Cavendish Street, W.—Male Fourth Assistant Pathologist.

LEEDS: GENERAL INFIRMARY.—House-Surgeon.

LEICESTER ROYAL INFIRMARY.—Male Assistant House-Physician. Salary at the rate of £80 per annum.

LEICESTERSHIRE COUNTY COUNCIL.—Tuberculosis Medical Officer. Salary at the rate of £500 per annum.

LEICESTERSHIRE AND RUTLAND COUNTY ASYLUM.—Male Junior Assistant Medical Officer. Salary, £150 per annum, rising to £180.

LIVERPOOL EDUCATION COMMITTEE.—School Medical Officer and Medical Officer to the Education Authority. Salary, £250 per annum.

LIVERPOOL INFECTIOUS DISEASES HOSPITAL.—Assistant Resident Medical Officer. Salary, £120 per annum.

LIVERPOOL UNIVERSITY.—Lectureship in Mental Diseases.

LONDON HOSPITAL, Whitechapel, E.—Assistant Surgeon.

LOWESTOFT HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

MAIDSTONE: KENT COUNTY COUNCIL.—Medical Officer of Health for the County. Salary, £800 per annum.

MAIDSTONE: KENT COUNTY OPHTHALMIC HOSPITAL.—House-Surgeon (Male). Salary, £100 per annum and £2 10s. laundry allowance.

MARGATE: ROYAL SEA BATHING HOSPITAL FOR SURGICAL TUBERCULOSIS.—Resident Surgeon. Salary at the rate of £100 per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) House-Surgeon. (2) Assistant House-Surgeon. Salary at the rate of £60 and £40 per annum respectively.

MILDMAY MISSION HOSPITAL, Bethnal Green, N.—House-Surgeon. Salary, £80 per annum.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £160 for first year, rising to £180.

NEWCASTLE-UPON-TYNE TUBERCULOSIS DISPENSARY.—Medical Officer (Male). Salary, £500 per annum.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon (Male). Salary, £170 per annum.

OXFORD COUNTY ASYLUM, Littlemore.—Junior Assistant Medical Officer (Male). Salary, £150 per annum, rising to £175.

PLYMOUTH: SOUTH DEVON AND EAST CORNWALL HOSPITAL.—House-Physician. Salary, £75 per annum.

PUTNEY HOSPITAL, S.W.—Resident Medical Officer. Salary, £100 per annum.

RAINHILL: COUNTY ASYLUM.—Assistant Medical Officer. Salary, £150 per annum, increasing to £250 and to £350 on promotion.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Clinical Assistant to the Radiographer.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Clinical Assistants.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Honorary Gynaecologist.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—Assistant Surgeon.

SWANSEA UNION.—Assistant Medical Officer to the Workhouse. Salary about £235 per annum, inclusive.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House-Physician (Male). Salary, £100 per annum.

WEST RIDING ASYLUM, Menston.—Fourth Assistant Medical Officer. Salary, £150 per annum, rising to £180.

WESTERN DISPENSARY, Rochester Row, Westminster.—Vacancy on Attending Medical Staff.

WESTMORLAND CONSUMPTION SANATORIUM AND HOME, Grange-over-Sands.—Assistant Medical Officer. Salary, £200 per annum.

WESTRAY PARISH COUNCIL.—Medical Officer and Public Vaccinator. Salary, £75 per annum.

WIGAN: ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Assistant Honorary Surgeon in the Eye, Ear, and Throat Departments.

YORK DISPENSARY.—Resident Medical Officer. Salary, £140 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Egremont (Cumberland), Kettering (Northants.), Llandyssil (Cardigan), Perranporth (Cornwall), Sandhead (Wigtown), Swinton (Lancs.).

MEDICAL REFEREE.—The Home Secretary announces a vacancy as Medical Referee under the Workmen's Compensation Act, 1906, for the Sunderland and Seaham Harbour County Courts.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

COMPTON, Alwyne, F.R.C.S., Honorary Assistant Surgeon to the German Hospital, Dalston, N.

CROSSLEY, Leonard, M.D., Tuberculosis Officer for the County of Wiltshire.

DIGGLE, Frank Holt, M.B., Ch.B.Manch., M.R.C.S., L.R.C.P., Assistant Resident Medical Officer to the Queen Charlotte's Lying-in Hospital, Marylebone Road, N.W.

FISHER, Edward Garlick, B.A.Cantab., M.R.C.S.Eng., House-Surgeon to the Ophthalmic and Special Diseases Departments of the Royal Infirmary, Liverpool.

FOSTER, Stanley, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Medical Officer of Health for the Borough of Newport, vice M. L. B. Coombs, L.R.C.P. and S.Edin.

GOODE, Miss C., M.B., B.S.Melb., Medical Officer of the Cottage Homes of the Hampstead Parish.

HASLUCK, E. Percy, L.R.C.P. and S.Edin., L.F.P.S.Glasg., District Medical Officer of the Wincanton Union.

HOLMES, Thomas, M.S., M.D.Lond., Honorary Surgeon to the Cheltenham General Hospital.

HUDSON, Arthur Cyril, M.A., M.D., B.C.Cantab., F.R.C.S.Eng., Assistant Surgeon to the Royal London Ophthalmic Hospital (Moorfields Eye Hospital).

INGRAM, John Dougall, M.B., Ch.B.Edin., D.P.H.Camb., Resident Medical Assistant to the City Hospital for Infectious Diseases, Newcastle-upon-Tyne.

MOYES, John Murray, M.B., Ch.B.Edin., D.P.M.Leeds, Second Assistant Physician, Crichton Royal, Dumfries.

PEARSON, Ellis, F.R.C.S., L.R.C.P.Edin., Medical Officer of Health to the Bideford Rural Council.

RHIND, Thomas, M.R.C.S., L.R.C.P., Medical Officer of Health for the Chipping Sodbury Rural District.

SMITH, Edmund Bertram, M.B., B.S., D.P.H., Medical Officer of Health for the Urban and Rural Districts of Braintree and Halstead and the Dunmow Rural Disrrict.

TISDALL, Charles J., M.B., Ch.B.Edin., Third Assistant Physician, Crichton Royal, Dumfries.

WOODMAN, E. Musgrave, M.S.Lond., F.R.C.S.Eng., Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuit No. 21, and to be attached more particularly to the Birmingham County Court, vice Dr. Woodward, resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

MARRIAGE.

GASTER—NATHAN.—On the 15th inst., at the residence of the bride's mother, Malsemore Mansions, Canfield Gardens, Anghel Gaster, M.D., M.R.C.P.Lond., of 68, Greencroft Gardens, Hampstead, to Mrs. Alice Nathan, widow of the late Henry Nathan.

DIARY FOR THE WEEK.

TUESDAY.

Chelsea Clinical Society, St. George's Hospital, 8.30 p.m.—Paper:—Mr. H. Wansey Bayly: Salvarsan: Its Place in Therapeutics.

London Dermatological Society, 49, Leicester Square, W.C., 4.30 p.m.—(1) Demonstration of Cases and Specimens. (2) A discussion on Bullous Eruptions, to be opened by Dr. J. L. Bunch.

Royal Society of Medicine:

Section of Pathology, 8.30 p.m.—Dr. Dennis Embleton: Preliminary communication on Pathogenicity and Virulence of Bacteria. Dr. E. Palier: Remarks on Tuberculous and Non-tuberculous Sputum.

Section of Therapeutics and Pharmacology, 4.30 p.m.—Discussion on the Non-operative Treatment of Malignant Disease, to be opened by Dr. T. J. Horder.

WEDNESDAY.

Hunterian Society, St. Bartholomew's Hospital, 9 p.m.—Clinical and pathological evening.

THURSDAY.

Royal Society, Burlington House, W., 4.30 p.m.—The following are among the list of probable papers for reading:—John Homans, M.D.: The Relation of the Islets of Langerhans to the Pancreatic Acini under Various Conditions of Secretory Activity. Edward Mellanby: The Metabolism of Lactating Women. F. W. Edridge-Green, M.D.: (1) Colour Adaptation; (2) Trichromic Vision and Anomalous Trichromatism. W. E. Agar: Transmission of Environmental Effects from Parent to Offspring in Simocephalus. H. O. Feiss and W. Cramer: Contributions to the Histo-chemistry of Nerve; on the Nature of Wallerian Degeneration.

FRIDAY.

Royal Society of Medicine:

Section of Epidemiology, 8.30 p.m.—Paper:—Dr. J. A. H. Brincker: Behaviour of Diphtheria in Schools.

Section for the Study of Disease in Children, 4.30 p.m.—(1) Cases and Specimens. (2) Papers:—Drs. Hugh Thursfield and H. W. Scott: A Case of Subaortic Stenosis. Dr. Crookshank: A Note on Mongolism.

POST-GRADUATE COURSES AND LECTURES.

Brompton Hospital for Consumption, S.W.—Wednesday, 4.30 p.m., The Treatment and Complications of Pulmonary Tuberculosis.

Cancer Hospital, Fulham Road, S.W.—Wednesday, 5 p.m., Cancer of the Rectum.

London School of Clinical Medicine, Dreadnought Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics. Monday: 12 noon, Throat, Nose, and Ear; 2.15 p.m., Surgery; 3 p.m., Operations; 3.15 p.m., Medicine; 4.15 p.m., Ear and Throat. Tuesday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Surgery; 3.15 p.m., Medicine. Wednesday: 11 a.m., Eye; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Eye Clinic; 4.30 p.m., Surgery. Thursday: 12 noon, Throat, Nose, and Ear; 2 p.m., Operations, Pathological Demonstration; 3.15 p.m., Medicine. Friday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Surgery. Saturday: 10 a.m., Radiography; 11 a.m., Eye. Special Lectures: Monday, 3.15 p.m.; Thursday, 4.30 p.m.

Manchester Ancoats Hospital Post-Graduate Clinic, Thursday, 4.15 p.m.—The Value of Various Symptoms, Physical Signs, and Methods of Examination in Dyspepsia.

Manchester Royal Infirmary.—Tuesday, 4.30 p.m., Demonstration of Medical Cases. Friday, 4.30 p.m., Surgical Demonstration.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Malingering: Accidents and Sickness; Tuesday, Tuberculin Treatment of Ambulant Cases of Phthisis Pulmonalis; Wednesday, Psycho-Analysis. Thursday, Myopia and its Treatment.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 p.m., Spinal Tumours. Friday, 3.30 p.m., Clinical Lecture.

North-East London Post-Graduate College, Prince of Wales's General Hospital, Tottenham, N.—Tuesday, 4.30 p.m., Opening Lecture of Spring Session by Dr. T. Lewis: Observations on Myocarditis. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Special Demonstration of Selected Medical Cases. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

Salford Royal Hospital, Tuesday, 4.30 p.m.—Spinal Caries.

West London Post-Graduate College, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Surgical Registrar, 10.30 a.m.; Demonstration of Fractures, 12 noon; Throat, Nose, and Ear, 2 p.m.: Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Medical Registrar, 10.30 a.m.; Lecture, Abdominal Diagnosis, 12 noon; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10.30 a.m.; Lecture, Neurological Cases, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture, Practical Medicine, 10.30 a.m.; Lecture, Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.; Surgical Registrar, 10.30 a.m.; Lecture, Surgical Anatomy of the Abdomen, 12 noon. Special Lectures at 5 p.m. daily.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		JANUARY, 1913.
17	Fri.	London: **Special Representative Meeting, 9.30 a.m.**, Connaught Rooms, Great Queen Street, W.C.
		Special Meeting of Council *immediately afterwards.*
		City Division, Metropolitan Hospital, Kingsland Road, 4 p.m.
20	Mon.	Greenwich and Deptford Division.
		Hampstead Division, Finchley Road, 8.15 p.m.
22	Wed.	London: Finance Committee, 2.30 p.m.
		Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
29	Wed.	London: Council Meeting, 2 p.m.
31	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		Liverpool Division.
		FEBRUARY.
11	Tues.	London: Metropolitan Counties Branch, 4 p.m.
		South-West Essex Division, Whipps Cross Infirmary, 4 p.m.

Date.		Meetings to be Held.
		FEBRUARY (*continued*).
13	Thur.	Birmingham Branch, Medical Institute, 3.30 p.m.
14	Fri.	Hampstead Division, Finchley Road, 8.15 p.m.
19	Wed.	Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
28	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		MARCH.
13	Thur.	Birmingham Branch, Medical Institute, 3.30 p.m.
		South-West Essex Division, Leyton, 4 p.m.
14	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
19	Wed.	Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
28	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.

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SPECIAL REPRESENTATIVE MEETING.

FRIDAY AND SATURDAY, JANUARY 17TH AND 18TH, 1913.

Friday, January 17th.

A SPECIAL Representative Meeting of the British Medical Association, held on the requisition of the Chesterfield, Cleveland, Derby, Glasgow North-Western, Newcastle-on-Tyne, Northamptonshire, West Cornwall and Worcester Divisions, took place at the Connaught Rooms, Great Queen Street, London, on Friday, January 17th. The business for which the meeting was summoned was to consider the question of the desirability of releasing members of the profession from their undertakings and pledges in connexion with the National Insurance Act, and, further, to consider the situation created by the attitude of the Government towards the decisions of the Representative Body; also to elect a member of Council in the place of Dr. E. J. Maclean, resigned. Mr. T. JENNER VERRALL, Chairman of Representative Meetings, took the chair at 9.30 a.m.

PRELIMINARY BUSINESS.

The notice convening the meeting was read, and the names of substitutes were announced.

The CHAIRMAN, with regard to the filling of four vacancies on the Council by Representatives of grouped Divisions, said that, whilst the actual selection lay with him, nomination papers had been circulated, and he would be guided by the views of the Representatives. The election of a member of Council to fill the vacancy created by the resignation of Dr. E. J. Maclean (Cardiff) lay entirely with the meeting. The Chairman also explained that a point had arisen with regard to Consett, which Division, in the unavoidable absence of Dr. Durant, desired to appoint as Representative a gentleman who was the actual Representative of another constituency, which, however, was represented by a substitute on account of the unwillingness of the Representative to act. The position thus created under the By-laws had been submitted to the Solicitor, Mr. Hempson, whom the Chairman took the opportunity of welcoming again to the meetings. (Applause.) The Solicitor's opinion was that Consett had selected a gentleman not eligible to act.

In response to an inquiry by Dr. R. E. HOWELL (Cleveland) as to whether it would be possible to nominate a Deputy Representative as a member of Council to fill one of the four vacancies created, the Solicitor expressed the opinion that the course suggested could be taken.

APOLOGIES FOR ABSENCE.

Apologies for absence were received from the following: Dr. J. Macnidder (East York), Dr. E. A. Clarke (Ashton-under-Lyne), Inspector-General Bentham, R.N., Dr. John Gordon (Aberdeen), Surgeon-General J. P. Greany, I.M.S.,

Dr. E. S. Reynolds (Manchester), Dr. J. R. Hamilton (Hawick), Mr. D. J. Williams (Llanelly), and Dr. Walter Brown (Ayrshire).

Report of the Agenda Committee.

On the reception of the report of the Agenda Committee as to the course of business,

Dr. W. Clow (Renfrewshire) interposed to say that his Division instructed him to move the following motion, which he submitted should take precedence of all others:

> That this meeting, recognizing that the unity of the Association is at stake, declines to discuss the undertaking and pledge and proceeds forthwith to formulate a new policy.

The Chairman said that the motion should have been in the hands of the Agenda Committee for consideration, but, apart from that, he felt strongly that the meeting was called on a requisition in proper form from more than seven Divisions to consider the question of the desirability of releasing members of the profession from their undertakings and pledges. When the motion directly indicating that the pledge should be held binding and should be continued was moved, Dr. Clow's motion could be moved as an amendment.

After further discussion, the recommendations of the Agenda Committee were approved.

After consultation with the Solicitor, the Chairman announced that, in order to discuss the status of the undertaking and pledge, it would be necessary to suspend Standing Order 29, which precluded the rescission of a resolution of the Representative Meeting without two months' notice to the Divisions. On the motion of Dr. O'Sullivan, the Standing Order was suspended.

Report of the State Sickness Insurance Committee.

The Chairman moved the reception of the Report of the State Sickness Insurance Committee as follows:

The State Sickness Insurance Committee reports that on January 3rd the Secretaries of all Divisions in England, Scotland, and Wales were asked to forward information as regards the formation of panels in their own areas.

The following is a *précis* of the information received:

Out of a total of 194 Divisions in England, Wales, and Scotland, 123 have replied, while 71 have not replied.

In 11 Divisions the panels are reported as not being complete. These areas are chiefly in London, where, at the present moment, a vigorous, and in some districts a successful, campaign is being carried on to persuade practitioners not to go on panels, and to induce those who have agreed to go on the panels to resign. This campaign is being carried on by a representative committee responsible to the profession in the County of London area. In 11 Divisions the panels are reported as being complete except in certain small districts. In 101 Divisions the secretaries report that arrangements for varying periods have been made with the Insurance Committees for the treatment of insured persons. In 52 Divisions the representatives of the insured are reported as having been approached in accordance with the alternative policy of the Association as defined at the Special Representative Meeting, December 21st, 1912. It is reported that in 17 of these instances the overtures of the profession were definitely rejected. In the other cases no conclusion has yet been reached. Forty-one Divisions are reported as having formally resolved either that practitioners should be released from their pledges, or that in their opinion the undertaking and pledge are no longer binding. One Division obtained legal advice to the latter effect.

The State Sickness Insurance Committee regrets that the official information at its disposal is so incomplete, and would remind the Divisions that the present official policy of the Association is the result of a vote passed by a very large majority of the Representatives after a similar vote had been carried in almost every Division in the kingdom. The responsibility for the present situation rests entirely therefore with the body of the profession. Having regard to the situation which has arisen throughout the country the constituencies are now requested to instruct their Representatives as to the lines they are to follow at the Special Representative Meeting on January 17th.

Dr. Keay (Greenwich) objected to the tenor of the last paragraph of the report. He thought that very few Divisions had given any instructions to abandon the £2 wage limit, and he did not know that the motion to reopen negotiations with friendly societies had been before any Division.

The Chairman of Council (Dr. Macdonald) pointed out that the report dealt with none of the points raised by Dr. Keay, but simply with the policy of the Association as a whole not to work the Act as at present constituted.

The report was approved.

Votes and Speeches of Representatives.

Dr. Bennett (East Leinster) moved:

> That the Representative Meeting is of the opinion that when Representatives have received definite instructions from Divisions their speeches as well as their votes should be in support of these instructions.

Dr. Bennett referred to incidents at the last Special Representative Meeting, and said that certain Representatives who had made speeches in one sense had been compelled by the instructions of the Divisions they represented to vote in the opposite. He ventured to think that had there been a large proportion of the members of that meeting possessed of freedom to vote the result might been influenced by the speeches, although they only expressed personal opinions.

The motion was carried without further discussion.

THE UNDERTAKING AND PLEDGE.

In reply to Dr. E. C. G. Daniel (Croydon) the Chairman said that he considered it would be advisable to deal with the pledge and undertaking as one whole.

Discussion on the National Insurance Act then proceeded in accordance with the recommendations of the Agenda Committee.

Dr. C. Buttar (Council) moved:

> That while expressing the deepest sympathy with, and declining in any way to blame, those members of the profession who, compelled by economic pressure and the defection of their fellows, have against their wills gone on to the panels, the Representative Meeting expresses the opinion that, until agreements to treat insured persons under the Act are satisfactory to the medical profession and in accordance with the declared policy of the Association, the undertaking and pledge must be considered as still binding on those who have subscribed to them.

Dr. Buttar expressed the opinion that the principal question before the meeting—that of the pledge—ought to be settled practically without debate, as the majority no doubt had received instructions to vote one way or the other. But serious as that question was, he wanted to call attention to a far more serious one—what the profession was going to do next. Therefore he desired the question of the pledge to be settled at once, and then for the meeting to proceed to consider what the Association should do in face of the conditions that now existed. He thought there were six classes of opinion among members of the profession in regard to the Act. First there were those who were largely responsible for the Act—a very small but energetic section—who were whole-heartedly anxious to see the profession under State control, and whose views might be described as socialistic. The second class were those who hoped to come in and take their neighbours' patients. They were again a small minority, and in his opinion a negligible quantity. The third class were those who were on the panels owing to economic pressure, the fear that their livelihood was being taken from them, and owing to the intimidation practised upon them by the Government and subsidiary bodies such as the Commissioners and the Chairmen of Insurance Committees. Those men had been coerced into going on the panels, and he had a great deal of sympathy with them. The fourth class were those who, in view of the possibility of losing their means of livelihood, and being perhaps faced with ruin, had stood loyally to the pledge and undertaking which they had given. Those were the men chiefly to be considered. (Applause.) The fifth class he might describe as the philosophic anti-collectivists—those who, thinking chiefly of the honour of their profession, were against the notion of State control, and who, regarding freedom as the natural heritage of every Englishman, desired that the profession should remain free and give its willing services to the community for the benefit of its health. The sixth and last class was a collection of men whom they might treat with contempt. They were those who were absolutely

indifferent to the whole matter. The motion was designed to deal primarily with classes three and four, and most especially with those in the fourth class who had remained loyal to the Association. He desired that every possible support should be given to them, and that they should know that the whole profession desired to support them in the fight they were making against the risk of losing their livelihood, and the iniquities to which it was attempted to subject them. His motion concerned also those who had been compelled to go on the panels against their will. To them the Association ought to extend its sympathy and do all it could to help them, recognizing that they were on the panels unwillingly, and formed, as he believed, the vast majority of those on the panels. It was lamentable to think the Association had not been able to hold these men in hand, because time and again throughout this business the game had been absolutely in the hands of the profession, and it could have obtained everything it wanted. A fortnight ago a campaign was started in London to deal with the conditions imposed by the Insurance Act, and in that time, so far as London and Middlesex were concerned, the whole situation had been changed. The Insurance Committees in those districts were now waiting in the expectation that the Representative Body would allow the pledge to be broken, and that then medical men generally would go on the panels. The panels both in Middlesex and London were absolutely inefficient and inadequate owing to the course that had been taken during the last fortnight. The statement of Mr. Lloyd George that, if men would not go on the panels, he would close them for one, two, or three years—the inference being that he would ruin them—had been the cause compelling the men to go on the panels. He believed that statement to be absolutely misleading. It had not been properly placed before the profession, and had had the unfortunate effect of driving them on to the panels absolutely unwillingly.

Dr. M. G. BIGGS (Council, London) seconded the motion. He thought the meeting was asked to do something which it had no competence to do. The pledges and undertakings were personal matters; the men who signed them pledged themselves not to take any position under the Act until the profession was satisfied that the conditions were right and were in accordance with the policy of the Association. No one could say that those conditions had been fulfilled; therefore it was perfectly clear that the pledge and undertaking still remained.

Dr. O'SULLIVAN (Liverpool) sympathized with the mover and seconder of the motion, but urged that the meeting had to view the facts as they were. It was perfectly obvious that the pledge and undertaking were given for the sake of unity. Did unity still exist? Why continue to live in a fool's paradise? If the Association did not release those loyal men who desired it, it would be holding over them the sword of Damocles. They felt at present that there was a moral obligation upon them, but the pledge had been torn asunder. It was not fair in those circumstances to ask the loyal men to continue in an impossible position. For these reasons he could not see his way to vote for the motion.

Mr. MONTGOMERY-SMITH (Marylebone) said that at one Representative Meeting the Association brought into being that very powerful weapon, the pledge, for the specific purpose of obtaining unity. If at a succeeding Representative Meeting the Association was to whitewash those men who had called the meeting, so that they might be released from their pledge, the Association would not be serving the profession to the best advantage.

Dr. C. H. BENHAM said that in Brighton he had conscientiously up to the present moment supported what had been known as the "die-hard" attitude, but he asked the meeting to consider very carefully the position in which the British Medical Association was placed. A large number of contract practitioners had given a pledge and undertaking, and the Association had asked them to resign appointments which were part of their livelihood, offering in return to raise a Defence Fund in order to guarantee them against loss. Those contract practitioners felt that the British Medical Association had not performed its side of the bargain. He complimented Dr. Buttar on the extremely conciliatory nature of his speech. If his motion had been couched in the same terms as his speech he thought it would have received a great deal more support. If Dr. Buttar's motion were passed a very large number of resignations were bound to come in from men who considered the Association had broken its part of the bargain. They would refuse to be ostracized because they were on the panel.

Dr. MAJOR GREENWOOD (City, London) supported Dr. Buttar's motion. He said that for London men the matter was very serious indeed. Acting on the result of the last Representative Meeting, they went to great expense and started a campaign, in doing which they thought that they were acting on the strength of what had been done at the last Representative Meeting. At the present time not more than 10 per cent. of the London men were on the panels.

Dr. J. PEARSE (Trowbridge) thought the meeting should deprecate any attack on the honour of members of the profession. It could not be suggested that the 10,000 men (approximately) who had gone on the panels were destitute of honour. In his opinion they had been driven on the panels, not by any sense of fright or lack of honour, but by reason of the alternative policy enunciated at the last Special Representative Meeting. He was sent up by his Division to the last Representative Meeting to vote against service under the Act. At the meeting of his Division after the Representative Meeting the men were asked to decide whether they considered service on the panel or the alternative scheme of the British Medical Association the better, and they decided in favour of the former. What had weighed very largely with them was that the British Medical Association had not formulated a sufficiently definite and coherent policy under which men could serve. The alternative policy evolved at the last meeting had never been before the Divisions, and he was quite sure that if, after the last Representative Meeting, the Divisions had been asked whether they would pledge themselves to continued opposition to the Act or to the alternative policy of the Association, the alternative policy of the Association would not have been carried.

The CHAIRMAN, in reply to a question by Mr. E. A. DORRELL (Hampstead), said he could not state how many of the 10,000 men on the panels were members of the Association, but there appeared to be a considerable number.

Dr. T. C. ASKIN (South Suffolk) thought that Dr. Pearse was quite wrong in saying that the question of the co-operation of lay bodies was sprung upon the Association as a surprise at the last Representative Meeting (December), and called attention to Minute 125 of the meeting on November 20th last.

The CHAIRMAN, on consulting the minute referred to, said that the question was not raised for the first time at the meeting in December last. Minute 125 of the meeting, November 20th, was as follows:

> That it be an instruction to the Council that in any public medical service scheme submitted for approval the inclusion of the principle of co-operation with contributing lay bodies in the administration shall not be ground for the withholding of such approval, providing that control of purely professional matters remain with the profession.

Dr. STRETTON (Worcester) said that the Worcester Division instructed its Representative at the last meeting to vote against accepting service under the Act, but at a meeting of the Division held immediately afterwards it appeared that a considerable number of men evidently intended to take service under the Act. He had explained that the question of the pledge was not a legal question but a question of honour. A resolution to stand by the pledge was carried by a majority of 25 to 15, yet within forty-eight hours a large number of men in the Division were on the panel, and within another forty-eight hours the panel was full. Was it right that a general who had been deserted by 90 per cent. of his army should lead the remnant to certain destruction? It was his duty to use every effort he possessed to save them from that destruction. In Worcester they were faced with the fact that about 10 per cent. of the members regarded the pledge as an honourable undertaking and were prepared to face financial ruin rather than break it. That was why the Worcester Division joined with the other Divisions in asking for this Special Representative Meeting, in order to absolve those men from their pledge and save them from ruin. They had been faced with another difficulty. They

were informed by the Chairman of the Insurance Committee for the county of Worcester that it had been decided to close the panels at once, and that when they were closed they would be kept closed for three or four years. It was added that another three days would be given before the panels were closed. The Division then met and it was felt that the men could not be sacrificed while they were waiting for the Representative Meeting. The Division therefore absolved them and allowed them to take service under the Act, and it now asked the Representative Meeting to confirm the action it had taken. The British Medical Association had suffered a reverse, but only a temporary reverse, and it was possible yet to win the battle; and when the history of this controversy came to be written he hoped there would be a clause in the final statement that the British Medical Association had secured terms which upheld the honour of the profession and secured adequate treatment to the insured.

Dr. C. G. Meade (Scarborough) maintained that there was a great difference between expediency and necessity. It was necessity that drove them on the panels; they were coerced, although they desired to be loyal to the pledge. The Association ought to know when it was beaten. The position was that the panels were worked because the men were bound to do it. He asked for reasonableness, and that they be absolved from the pledge.

Dr. Stanley Hodgson (Salford) asked the meeting to look at the matter from the national, and not from the parochial, point of view. He belonged to a Division where a method of working had been secured which it was maintained in no way violated the pledge. This Salford scheme (Supplement, January 11th, p. 49) was capable of being made a national scheme; but before going further it was of vital necessity that the pledge which was instituted by the Representative Meeting as a weapon, and which had thoroughly failed, should be laid aside. If the Association were to be ultimately successful, the first necessity was that everybody should be allowed with a clear conscience to attend insured persons under the Act, and to receive the money contributed by them and the State. If the stubborn attitude advocated by some members were maintained, the Association would be fatally weakened. No lead had been given in the matter, not because there were no men capable of leading, but because of the men who would not be led. The only way Salford had obtained its settlement was by insisting upon plenipotentiary powers being given to a committee, and that committee had limited all its negotiations to its chairman and himself. By that means an honourable arrangement had been come to.

Dr. Gordon (Exeter) said that the Exeter Division had sent him to support London, being in the same position as the metropolis—that is, there were not enough men on the panel in Exeter. It was said that the profession was beaten. That was not so; there was an unalterable determination to go on and win, but for that purpose the Association must present one solid phalanx. If the pledge were not rescinded, no one would be a penny the worse off; but, if it were rescinded, the Government organs infallibly would be given an opportunity of saying that the Association was beaten. The policy of the Association should be to hold members to the pledge in order to make it quite clear that it held to its resolution; and, secondly, to emphasize the fact that men must not leave their own districts to practise in other districts under the Insurance Act. For that purpose there should be a supplementary pledge enabling the truth to be found out about the number of blacklegs.

Dr. J. Sorley (Sheffield) thought that speeches devoted to allegations of intimidation, coercion, and so forth by the Government were futile and beside the question. The reason men had gone on the panel was not because the Government had forced them to do so, but because the pledge had been broken. If the pledge had been kept, no coercion or intimidation by the Government could possibly have obtained service under the Act. Sheffield asked for release from the pledge because the men who had broken the pledge were so sensitive that they wanted to be absolved from it and their action condoned. What was the objection to that? The objections to the Act would remain although the pledge were removed. Members of the Association should be absolved as far as possible from the pledge, and their action condoned, and the Association should devote itself to future action.

Dr. Haslip (Westminster) said that if the pledge were withdrawn it would be the signal of defeat, and the unfilled panels would receive great accessions. So far from its being defeated, however, the fight of the profession was only just beginning. Those who had gone on the panels would within six months wish to come off. To adhere rigidly to the pledge would be to act unfairly to loyal members, and nothing would be gained. In his judgement the only way to do deal with the matter was to formulate a new policy and appoint a committee with full power to prosecute that policy. He had no hesitation in saying that the constitution of the Association was wrong, because it did not give a full franchise to its members. He deprecated the idea of further pledges, because one had been too much already, and with the Chairman's permission he would presently move that the meeting proceed to the next business.

The Chairman indicated that if the meeting decided to proceed to the next business it would be expressing no opinion on the question of holding members to or releasing them from the pledge.

Dr. E. R. Fothergill (Brighton) said he spoke for those whom Dr. Buttar had referred to as loyal to the Association, but who had been forced on to the panels. It was suggested that the meeting should consider the pledge and undertaking still binding. He suggested that it would be far better to formulate a policy of war, and to send messages instilling courage in those districts which were holding firm in order to induce those who had fallen out to come into line again. They had been led away by Will-o'-the-wisps, and if induced to return they might assist in continuing the fight against this unjust Act, the unjust details of which they were only just realizing. Although they as individuals would pass away, the Act would go on for all time; and therefore it was a duty to alter the policy of the Association from time to time as the situation altered.

Dr. Bontor (West Herts) inquired if the pledge and undertaking entered into applied to the policy of the Association in force at the time it was sent out, or did it affect the present policy of the Association or the policy to be adopted in the future?

The Chairman said it was a very important question, and asked the Solicitor whether the undertaking and pledge, especially the undertaking, referred to the policy of the Association at the particular time the undertaking was given, or whether it referred automatically to the varying policy adopted by the Association from time to time.

The Solicitor (Mr. W. E. Hempson) said he was not responsible for the preparation of the pledge, and the question had been put to him by the State Sickness Insurance Committee whether the pledge needed to be strengthened to make it effective as pertaining to what was the declared policy of the Association—not at one time, but at all times. He had thought of introducing some such words into it as "from time to time," but had considered that this would probably create greater difficulty than by allowing it to stand in what he might call its naked simplicity. If it were read critically it would be found that the words "shall be" governed the two things which flowed from it: (*a*) "Except such as shall be satisfactory to the medical profession"; and (*b*) "in accordance with the declared policy of the British Medical Association." The pledge was intended to be, and it certainly was construed by him as being, a pledge that, whatever the declared policy of the Association was, the signatories were bound by it by the terms of this document.

Dr. Bontor further inquired what was the declared policy of the Association at the present moment.

The Solicitor replied that by the regulations the policy of the Association was declared by the Representative Body, whose resolutions went subsequently to the Council; and unless a referendum was decreed by the Council upon them they became binding upon the Association.

Dr. O'Sullivan (Liverpool) desired to know whether the resolution arrived at on December 21st by the Representative Body did not remain the policy of the Association until the Representative Body had altered it. On December 21st the Representative Body refused to work the Insurance

Act, and until that resolution was rescinded was not that the policy of the Association?

The CHAIRMAN replied that any resolution passed on December 21st, since a referendum had not been taken when it was submitted to the Council, was obviously a part of the policy of the Association. The last resolution passed governed that which was passed before, if it was done after valid discussion. Therefore the decisions arrived at at the last Representative Meeting, having been properly passed and approved by the Council, were the latest pronouncement on the subject.

Dr. J. H. KEAY (Greenwich) asked whether Mr. Hempson meant that the pledge had no reference to the six cardinal points that had been formulated just before it was signed.

Mr. HEMPSON (Solicitor) said if at one particular period the six cardinal points were the declared policy of the Association the pledge pertained to that, and if there were any variation of that policy properly arrived at in a constitutional manner, and that became the policy of the Association, according to the reading he had given the pledge would apply to that.

Dr. KEAY, speaking to the motion, said he was very much in sympathy with it. He could not quite follow Mr. Hempson that the declared policy of the Association which he had pledged himself to had no reference to the six cardinal points. He did not wish to reproach any man, but his opinion was that the Representatives who at the last meeting eliminated two of the cardinal points were the men who had broken the pledge.

Dr. BEATON (St. Pancras and Islington) said that at the meeting in November a resolution was carried that the profession refuse service under the National Insurance Act. That had been repeated less than a month ago in London, when by a vote of 182 to 21 they said that they would refuse service under the Act.

Dr. HELME (Manchester Central) asked the Chairman if it was correct to say that it was the declared policy of the Association to refuse to work the Act. Had not the meeting declined to give service under the Act and Regulations as then offered by the Government?

Dr. BEATON said the minute of the resolution at the last Representative Meeting was: "That the Representative Body rejects the proposals of the Government and adheres to its previous decision to decline service under the Act."

The CHAIRMAN OF REPRESENTATIVE MEETINGS said he had been asked to state the exact bearing of the motions passed respectively at the meetings in November and December. After the resolution passed in November a deputation of five members was appointed to wait on the Chancellor; the result was, certainly, a modification of the position. After that alteration, for what it was worth, on December 21st the Representative Meeting passed the resolution which Dr. Beaton had quoted.

Dr. BEATON (continuing) said that soon after that resolution had been passed some of the men had broken away in spite of the pledges they had given. A great deal had been said about the necessity that was put upon them, but what about the men who remained loyal? What about the men who stood out because 27,000 men had signed the pledge and undertaking? Was there nothing to be said for them? No good was served by recriminations about the past. The question was, What should be done? There was one bright example before the whole of the country, and that was London. (Applause.) If the country would only follow suit the profession would win. They might not win now, but between now and April 14th, if they stuck together, they would still have their own way. The only way to do it was to give plenary powers to a set of men who would meet the changes that happened from day to day, and who would fight with a trustful Association behind them. In London the names of those on the panels who were members of the Association had been got out for 17 boroughs. These had been examined, and 1,180 names appeared. Of the 1,180 only 339 were members of the British Medical Association, and altogether out of the 5,000 or 6,000 doctors in London only some 700 or 800 were on the panel. If Manchester, Edinburgh, and Glasgow did the same, the Association would win. (Applause.)

Dr. T. B. HEGGS (Canterbury) agreed with Dr. Beaton that the important work of the meeting was the future policy of the Association, and in order that it should be strong enough to formulate and carry through a proper policy he would ask that the men be released from their pledges. Many of the men on the panel in Kent had been compelled to go on through necessity, because they felt that it was not right to themselves and their families to take the risk of staying off. Those men who went on under threats were men of the highest standing, morally, socially, and professionally. It was very desirable to retain those men in the Association, but so long as they did not follow the official policy of the Association they considered that they ought not to take any hand in its work. Unless they were retained in the Association that body would not have strength in the future to obtain amendments. For the sake of the Association and the unity of the profession he asked the meeting to absolve those men from their pledges.

Mr. E. B. TURNER (Deputy Chairman of Representative Meetings) said that, to be logical, the meeting before passing any resolution absolving men from their pledges must pass a resolution altering the present declared policy of the Association and enunciating the principle that service under the Act and regulations as they at present stood was satisfactory to the medical profession. How many men would say that the position under the Act at present was satisfactory to the medical profession, or that it was in accordance with the declared policy of the Association? How could the meeting pass a resolution absolving from the pledge men who had already broken it? If a resolution were passed doing away with whatever vestige remained of the pledge they would be undoing all the good that had been done by the fight in London for the liberty of the people to make their own arrangements. This was the test fight, and if it was won in London it would be followed freely all over the country; but London could not win if all the backbone and steel were taken out of the fight. He had been sent from an absolutely consistent Division, and, whatever happened, he would vote against any abrogation of the pledge. But his Division had given him a free hand as to other matters, and he would therefore support Dr. Haslip's proposal. If men chose to go from their pledge out of compulsion, he would have the same pity for them as he had for hundreds of other men who had written to him.

Dr. HELME (Manchester Central) said he had the deepest sympathy with two classes of men in this matter—those members of the Association whose honour had been sufficiently strong to keep them loyal to the pledge, and who to-day were facing the possibility of ruin rather than go back upon it in any way, and those who by force of circumstances, by the treachery of those residing in their immediate neighbourhood—("Hear, hear")—and by the worse treachery of Dr. Lauriston Shaw—(Loud applause)—had been driven against their will, in the face of ruin to themselves, their wives and children, to give an unwilling service under the Act. He was sorry to say that the majority came under the second head. They must face the fact that the pledge as a fighting weapon had failed. The result was that if the pledge was adhered to the meeting would be deciding after deliberation to inflict ruin upon those very men who had the strongest sense of honour. That was the condition that had to be faced, and therefore he had been instructed by his Division to vote for a formal release of the signatories to the undertaking and pledge. The Association was not defeated; far from it. In Manchester they were of opinion that they had a way out, and it was in order to keep all those men within the folds of the Association he asked the meeting to give the release. They had succeeded in Manchester and in Salford through the fact that plenary powers were given to delegates to deal directly with the Insurance Committee. The Representative Meeting must invest its own Committee with greater powers than before, and must give it a national character.

The motion to proceed to the next business was then put and carried, whereupon the luncheon interval was taken.

AFTERNOON SESSION.

Dr. HEGGS (Canterbury and Faversham) moved:

That this Representative Meeting, recognizing the force of present circumstances and consulting the best interests of the Association and the unity of the profession, now releases from their pledge those practitioners whose loyalty has been so valuable.

He pleaded that the Association really needed those men who, with a revolver at their heads and under intimidation which every honourable man condemned most strongly, had felt that they must go on the panel, and had done so with the consent of the practitioners in their area. There were among them honourable men and men of the highest standing in their counties, and the Association must have them back to work with it in the future. For that reason he asked the meeting to release them from their pledges. The Association was the essence of democratic Government, and no policy which it formulated would carry weight unless it was supported by the majority of its members. Under these conditions he thought it would be fatal to bind a certain number to a policy that was not followed by the majority of the Association.

In reply to a question whether the words "those practitioners whose loyalty had been so valuable," in the motion included those men who had gone on the panels as well as those who had not, the CHAIRMAN expressed the view that there was obviously a certain amount of discrimination. An amendment by Brighton would answer the question, and possibly Dr. Heggs would accept it. This was to omit all words after the word "releases" and substitute the words "practitioners from their undertaking and pledge."

Dr. HEGGS accepted the amendment, which was moved by Dr. BENHAM (Brighton).

Dr. MAJOR GREENWOOD (Council) desired to know if the motion as now amended released those men who had already, as it were, released themselves.

The CHAIRMAN replied that, on the contrary, they had been informed that, whatever they had done, they had not been released.

Dr. O'SULLIVAN (Liverpool) inquired what was to be done with those Divisions which had used the machinery of the Association and its funds, and which had taken upon themselves to absolve men and give them advice upon this matter.

The CHAIRMAN observed that it was evident that the Agenda Committee understood what was meant by the resolution.

Mr. ROBINSON (Burnley), who supported the motion, said that his Division had been most loyal to the Association and determined in its opposition to the Insurance Act. Only ten days prior to January 5th they unanimously decided not to work under the present conditions, yet such were the altered circumstances and conditions that on January 5th, by a majority of nearly 2 to 1, it was decided to join what they denominated "lists" instead of panels, although as far as he was concerned he saw no difference between "list" and "panel." They also thought that the Insurance Committee would allow them to adopt the principal items in the Salford and Manchester scheme, but the difference between that scheme and going on to the panel and working under the Act was very small. A number of men against their own convictions and consciences had been compelled by circumstances to go on to the panel, and whether they liked it or not it was for the profession to acknowledge that under the present circumstances and conditions they were really beaten. The altered conditions and circumstances forced upon them at the end of December were the cause of a good many men going on the panels. The last Representative Meeting had abolished some of the principles of the cardinal points. (No, no.) It abolished the £2 limit and the 8s. 6d. without medicine, and it also asked members to negotiate with the friendly societies. ("No, no.") At any rate, that was the view of his Division. Personally he thought it was utterly wrong for the Representative Meeting now or at any time to alter matters decided at Divisional meetings without first consulting the Divisions. The alterations made at the last Representative Meeting were made without consulting the Divisions, and he thought those decisions were largely responsible for the condition of affairs which now existed.

Dr. MANKNELL (Bradford) represented a Division which was behind very few in the opposition it had made to the Insurance Act. It was his privilege a month ago to propose that as an Association they should decline service under the Act. Since then events had led to a great change of opinion, not only throughout the country but in his own constituency. After the Representative Meeting in December a meeting of the Division was held at which it was resolved by an overwhelming majority that the decision of the Representative Meeting should be supported. The next morning the Yorkshire papers contained advertisements from the Bradford Committee for whole-time men. In no other part of the country had that advertisement appeared before. The profession, by the terms of the Act and the Regulations, regarded the advertisements as *ultra vires*, but it was now known definitely that the Chairman of the Local Insurance Committee had been to London and had interviewed the Commissioners, and had received permission—if not orders—to put in this advertisement before the time for the panel had expired. This produced a feeling of unrest, and on the night before the panels could be formed a meeting was held in Bradford, not merely of the Division, but of the whole profession, when it was decided by 68 votes to 23 that members if they so desired could go upon the panel. They knew from the very first day after the advertisement for whole-timers appeared that sufficient applications were received to fill these posts three times over. What did that mean to the profession in Bradford? The population was 300,000, with an insured list of 100,000 people, which meant that every third person in the city was an insured person. The doctors were informed that these whole-time men were to have a salary of £500 per annum, and were to be allowed to practise throughout the whole area at a rate to be fixed by the Local Insurance Committee. That meant extinction for the local doctors. Further, they were told that the authorities were prepared to close the panels. If this was not intimidation, bludgeoning, holding a revolver to the heads of the men in Bradford, he would like to know what was.

Dr. DUNCAN (Derby) said he represented a Division which had been consistently in favour of working the Act, but was determined to uphold the integrity of the profession. The Derby Division found that at the Representative Meetings in November and December there was a great majority against working the Act. If there had not been a two-thirds majority for this course, Derby would have demanded local option. Although in the Derby Division the men by a large majority were pledged to stand by the policy of the Association, at the same time it condemned that policy. Nevertheless, because it was the policy of the Association, the members were ready to sacrifice their own convictions and attempt to work it. Then news came that Leicester, one of the best organized Divisions in the country, was turning round, that Bradford, the strongest town, had fallen, Bristol, which was stated by its chairman to be organized as was no other constituency in the country, had fallen, and then that Nottingham had also changed its position. In the face of all this the Derby Division had no option but to tell its members that they were at liberty to go on the panel. They were to receive 9s. a head for insured persons, and were at liberty to make private contracts with those who were outside, who consisted of the women and children. He contended that the policy formulated at the last meeting was illegal, and that the Chairman might have ruled it out of order.

Dr. F. J. SMITH (London) asked whether some *via media* might be found which would not have the effect of alienating the loyal men and giving a triumph to the disloyal men. The men who had been forced on to the panels were being used as pawns in the game of the primarily disloyal men to compel the Association to withdraw the pledge. He did not believe the statements which had been made to induce the Bradford men to go on the panel. Those were statements made by politicians, and had no basis of fact. He had very strong evidence that such was the case in the Isle of Wight, where the men had been told if they did not go on the panel whole-time appointments would be advertised. Within twenty-four hours of this being done orders came from London to withdraw the advertisements and open the panels. He did not believe any statesman would dare take into a town of the size of Bradford fifteen or twenty whole-time men, because he would lose too many votes. The campaign in London was entirely based on the support of the insured people, from whom within the last fortnight they had received much encouragement. He urged the meeting to adopt some *via media* which would allow the campaign in London to go on, for the profession in London would guarantee to carry on the fight and win.

The CHAIRMAN then announced that three amendments had been handed in, one by Dr. Todd, one by Dr. Haslip, and one by Dr. Staveley Dick. The first, by Dr. Todd, was as follows:

> That this Representative Meeting, while strongly of opinion that the National Insurance Act and Regulations as they at present exist must be amended before they can be loyally accepted by the profession, so as to work them in the best interests of the insured persons for whose benefit the Act has been passed, and as the meeting is well aware that the majority of medical practitioners who have taken provisional service under the Act have done so through necessity and circumstances over which they had no control, this meeting releases the men in such areas from their pledge, but strongly urges men in areas where they are able to hold out to do so, and that the Association concentrates its efforts both financial and otherwise on such areas to prevent capitulation and to ensure ultimate success.

The second amendment, by Dr. Haslip, was as follows:

> That the Representative Body, recognizing the economic and other forms of pressure under which many members of the Association considered themselves warranted in taking a certain action as regards the pledge and undertaking which they signed, and having regard to the strenuous fight which the profession in many respects is carrying on, does not consider the present an opportune time to express an opinion upon the action of those members; that therefore the Representative Body proceed to appoint a committee with plenary powers, such powers to include the releasing of members of the profession from the pledge and undertaking in such areas where it is so desired, and that such committee take all necessary action in connexion with the National Insurance Act.

The third amendment, by Dr. J. S. Dick (Manchester North) was as follows: To substitute for the words in the motion by Canterbury and Faversham "now releases from their pledge those practitioners whose loyalty has been so valuable" the following:

> Refrains from expressing an opinion as to whether or not the provisional arrangements entered into in many areas by Local Medical Committees are or are not contrary to the pledge, but this meeting is of opinion that the terms of the pledge require that any permanent arrangement contemplated in any area shall be submitted to and receive the approval of the Council of the Association.

The meeting expressed its preference for Dr. Haslip's amendment.

Dr. TODD (Sunderland) asked whether the Representative Meeting could legally carry out Dr. Haslip's amendment.

The SOLICITOR said that, in his opinion, the present position fell within the actual contemplation and competence of the Association's regulations. In support of his conclusion he referred to Article 38: "Committees may be appointed in such manner and having such powers as may be prescribed by the By-laws, or as the Representative Body or the Council, subject to the provisions of the By-laws, may think proper"; and By-law 64: "The Representative Body and the Council shall respectively have power to appoint committees with such powers as may to them seem necessary or convenient, and to fix the quorum thereof and lay down rules for regulating the proceedings of such committees." If the Representative Meeting agreed to appoint a committee with the powers proposed, in his opinion the meeting would be acting under the authority of the By-laws. The matter would then have to come before the Council to determine whether a referendum should be taken upon it as a matter which fell within the wishes of the Association generally.

Dr. TODD (Sunderland), having heard the opinion of the Solicitor, desired to withdraw his amendment and to second Dr. Haslip's in its place.

In reply to the CHAIRMAN, Dr. HASLIP said his proposal was that the Representative Body should advise the Association to decide as far as it could that the Association should put off all further decision as to its policy, and leave to the committee the question of pressing or not pressing for any points of policy. The release or partial release of the men from the pledge and undertaking in certain areas would depend on a definite expression of opinion from those areas that they so desired. The committee, if appointed, was to wait before releasing the men from the pledge and undertaking in any area until it had evidence from the particular area that they wished it. He would leave it to the meeting whether the committee would have an option to act or not on that information, as they chose.

Dr. FOTHERGILL (Brighton) thought that if the Representative Meeting adopted Dr. Haslip's amendment it would be handing over its powers for all time to a committee to be appointed to deal on its behalf.

Dr. HASLIP replied that he only meant till the next Representative Meeting, and he would be prepared to add the words, "until the holding of the next Representative Meeting."

The SOLICITOR, in reply to a question raised by Dr. MAJOR GREENWOOD as to the position of the Council under this proposal, said the Representative Meeting would not be handing over its powers. If it appointed a committee in pursuance of the powers which the regulations contained, it gave power to that committee within the terms of the motion which was proposed to be passed. More than that it did not do. It would be necessary to define more closely what powers were intended to be given. If the words "plenary powers" were used, some form of words must be adopted showing in what directions those powers might be exercised.

Dr. DARLING (Portadown and West Down) inquired whether it would be possible to give to a committee powers the Representative Meeting did not possess. That body had not plenary powers, and everything it did had to go to the Council, and was liable to a referendum being called. If the Representatives had no such powers, how could they give greater powers than they possessed?

The SOLICITOR, dealing with the first point, said the answer was in the negative. If the Representatives had not power they could not give it to other people. He did not follow Dr. Darling's further reference to giving greater powers than were possessed. He did not think that was proposed. There were certain things which it was felt required investigation at the hands of the proposed committee which would exercise a certain discretion with regard to them. The committee would be appointed for that purpose, and would have those powers given to it. The resolution appointing the committee would come before the Council who would block it if it thought fit and decree a referendum. If it did not do that it would give the hall-mark of its approval and the resolution would go forward as one the Council approved.

Mr. LARKIN (Liverpool) thought the meeting was on very delicate ground, and he asked whether the Representative Body had plenary powers. He contended it had not, but that its powers were very distinctly limited by the regulations. The power of the Representative Body was subject to certain restrictions, as, for instance, the referendum. If a body were given plenary powers, was it to be understood that its decision would go to the Council and be subject to referendum? If that were so the powers were not plenary. The powers of the Representative Body were certainly restricted in one direction by the Divisions, and in the other by the Council.

Mr. H. H. WHAITE (Birmingham Central) considered that many Representatives present had definite instructions, and if they voted for or against the proposition they would not be carrying out their instructions. Was he to understand that the proposed committee was to be empowered to absolve men from the pledge? In other words, if Representatives voted for the motion were they in effect carrying out instructions to vote for absolution from the pledge?

The CHAIRMAN thought if the committee were given the specific powers with regard to the pledge which the motion proposed it would be given powers with regard to the pledge and undertaking to absolve men in certain areas if and when it was found those areas desired to be absolved.

Mr. WHAITE maintained that the committee was not compelled to do it.

Dr. HASLIP preferred local option. The men to be appointed to the committee would be men to be trusted and possessed of common sense. The Association was in a dilemma. There were two opposing opinions, and each must give way a little. Those who were anxious to be absolved from the pledge should trust the committee that whatever they wished should be given to them.

Mr. WHAITE said that in Birmingham so many men had gone on the panels that there was a very small minority left. The result was that at the meeting in that city to instruct the Representatives a large majority of the men

on the panels stayed away. There was a possibility, therefore, of consultants and interested parties and a small loyal majority giving a vote which did not represent local views. That opened up a possibility of danger, and he could not carry out his instructions properly if he voted upon the motion.

The CHAIRMAN OF COUNCIL did not see so much difficulty with regard to the plenary powers proposed to be conferred on the committee as seemed to be present in the minds of some of the Representatives. What it came to was that with regard to the Insurance Act the committee would take the place for the time being of the Council. The idea was that the committee, being a small body, would meet more frequently than the Council. The Council could only act on instructions from the Representative Meeting, and the proposed committee would be in the same position; that was the length to which the term "plenary powers" went.

Dr. BICKERTON EDWARDS (Swansea) inquired whether it would be possible to release districts who wanted to be released from their pledges before the present meeting dissolved. There was an objection to the cumbrous method of having to get reports from the different Divisions. If the Representatives could be assured that their Divisions would be released through those of the Representatives who were there to ask for absolution, he thought the difficulty could be got over.

Dr. W. GORDON (Exeter) considered it very advisable to know exactly what the position of the proposed new body would be.

The CHAIRMAN thought the time had arrived when the vote should be taken to decide whether the question of releasing from the pledges or not releasing should be postponed in order that the matter might be approached on the terms of Dr. Haslip's motion. If it were desired to take a definite straight vote on releasing from the pledge in preference to appointing a committee with plenary power to deal with the Insurance Act, the best method would be to resume the discussion of the Canterbury and Faversham motion.

Dr. O'SULLIVAN (Liverpool) said he had been sent with definite instructions to vote for the release of loyal men, and he wanted that subject to be put as a plain and straight issue. He urged that the hitherto loyal members should be released from their pledges.

The CHAIRMAN thought that such members as had been instructed by their Divisions to vote on the question of releasing or not releasing, and who conscientiously believed they must give a straight vote on that issue, would obviously satisfy their instructions by voting against any postponement of that issue in the direction suggested by Dr. Haslip's proposal. If that proposal were lost the Canterbury and Faversham motion would remain as a straight issue.

Dr. MACDONALD (Chairman of Council) recognized that there were a number of men who had received instructions to vote in a certain direction on this matter. But there was a danger which they would appreciate when he told them that to make that vote a binding decision a two-thirds majority of the meeting would be required. That was the position. If Dr. Haslip's suggestion were accepted and power given to a committee to give this release, it would be an easier way out of the difficulty.

Dr. HASLIP was quite willing to divide the resolution into two parts, and to incorporate the Chairman of Council's suggestion. If the meeting gave the committee plenary powers to act for it, it must act quickly if it was to do any good.

Dr. E. O. PRICE (Carnarvon) asked, if this was done, was it not giving to a committee power to reverse the policy of the Association—in fact, to do what it required a two-thirds majority of the meeting to do?

The CHAIRMAN replied that, having suspended Standing Order 29, the meeting had power to make any alteration it thought necessary.

Dr. PRICE asked if the suspension of Standing Order 29 gave the meeting power to change the policy of the Association, which, he thought, was what this amounted to.

The CHAIRMAN said the Solicitor was of opinion that they were in order in doing that which was proposed.

In reply to Dr. ROBERTSON, the CHAIRMAN said that if he were a Representative, and had received from his Division instructions to vote either for or against on a straight vote for releasing or not releasing men from the pledge, he would not feel himself justified in accepting any other way out of the difficulty.

Dr. HELME (Manchester Central) said that he had received distinct and definite instructions from his Division to vote for a release from the pledge, and he was of opinion that the amendment proposed by Dr. Haslip was a means of providing for that formal release being given.

The meeting then decided to take Dr. HASLIP'S amendment in two parts.

Dr. HASLIP (Westminster) then in a few words moved his amendment in the following terms:

> That this meeting proceeds to appoint a committee which shall release from the pledge and undertaking practitioners in any Divisions which give to the committee satisfactory evidence that this action is there desired, such release only to be effective so far as regards service by practitioners in their own districts, parishes, and towns, and any acceptance of service outside involving a change of residence for the purpose of accepting such service will be regarded as conduct detrimental to the honour and interests of the profession.

He hoped to have a two-thirds majority in favour of it. When they heard that it would have the support of Derbyshire and Manchester, he trusted that those who came there with the same object as Dr. Robertson, of Glasgow, would see their way to support it also. They all wanted to leave that meeting united.

Dr. W. E. THOMAS (Glamorganshire), who seconded, said that he agreed that it was desirable to have unanimity. Although in his Division they had been compelled to surrender, that was no reason why others should be compelled to do so.

Dr. TODD (Sunderland), who spoke in support, said that the Association had had a reverse, but that reverse could be turned into a success by backing up the London Divisions and others which were still loyal, not only by their moral support, but also their financial support. If the Representative Meeting carried the motion by a majority of two-thirds it would do the best thing for the medical profession it had ever done.

On the motion of Mr. RUSSELL COOMBE (Exeter), seconded by Mr. DEARDEN (Manchester West), the following amendment of Dr. Haslip's motion was put and carried:

> That the words "or insurance areas which give to the committee satisfactory evidence that this action is desired in and by such Divisions or insurance areas" be substituted for the words "which give to the committee satisfactory evidence that this action is there desired."

The CHAIRMAN said that verbal alterations in the wording of the motion could be put after it had been carried and when it came up as a substantive motion. He had been asked whether, if those Representatives who were sent there to vote for the maintenance of the pledge voted for the motion, they would be voting for a procedure which would, in fact, enable any body of members to be released from the pledge who might so desire. His reply was that those who did not want any one to be released from their pledge at all would, of course, vote against any procedure which enabled people to be released.

On the amendment being put as a substantive motion, the following amendment, moved by Mr. WHAITE (Birmingham Central and Walsall), was carried:

> That the words "by a practitioner in an area where release has not been given" be substituted for the words "outside involving a change of residence for the purpose of accepting such service."

Mr. MONTGOMERY-SMITH (Marylebone) said he wished to define "satisfactory evidence," and he moved as an amendment to insert "satisfactory evidence being a two-thirds majority of the practitioners in the Division." If the motion were carried as it stood now it would be extremely unfair to the members in his Division, where they were fighting men all round them, as none of their members were on the panel. He thought they should have a two-thirds majority behind them in order to carry on that fight.

Dr. DAVID ROXBURGH (Marylebone) seconded.

The CHAIRMAN remarked that although he was bound to put the amendment, if he were a member of the committee he would be very loth to have his hands tied in the way suggested. In his opinion, it must be left to the committee to decide what "satisfactory evidence" was.

The amendment was put to the meeting and lost.

After further discussion as to the precise wording of Dr. Haslip's proposal, it was moved by Dr. HOWELL (Cleveland), seconded by Dr. JOHN BROWN (Bacup), and carried, that the word "shall" in the substantive motion be altered to "may."

Upon a show of hands the voting appeared to be equal, whereupon a division was taken, in which 86 voted for the word "may" and 78 for "shall," and the former was declared carried.

The motion as amended was then put in the following form:

> That the Representative Body, recognizing the economic and other forms of pressure under which many members of the Association considered themselves warranted in taking a certain action as regards the pledge and undertaking which they signed, and having regard to the strenuous fight which the profession in many respects is carrying on, does not consider the present an opportune time to express an opinion upon the action of those members; that therefore this meeting proceeds to appoint a committee which may release from the undertaking and pledge the practitioners in any Divisions or insurance areas which give to the committee satisfactory evidence that this action is desired in and by such Divisions or insurance areas, such release only to be effective so far as regards service by practitioners in their own districts, parishes, and towns, and any acceptance of service by a practitioner in an area where release has not been given will be regarded as conduct detrimental to the honour and interest of the medical profession.

A roll call was demanded and taken with the following result:

Ayes	80
Noes	91
Did not vote	5

MEMBER OF COUNCIL.

The CHAIRMAN announced that Dr. G. E. Haslip had been elected a member of Council in place of Dr. Maclean.

The meeting adjourned at 5.45 p.m. until the next day.

Saturday, January 18th, 1913.

The Representative Meeting resumed its proceedings at 9.30 a.m., when the minutes of the previous day's proceedings were read, amended, and confirmed.

MEMBERS OF COUNCIL FOR GROUPED BRANCHES.

The CHAIRMAN announced, with regard to the election of members of Council for Grouped Branches, that the voting had resulted as follows:

North of England Branch ... North Lancashire and South Westmorland Branch ... Yorkshire Branch	Dr. F. OLDHAM (Morecambe)
Bath and Bristol Branch ... Gloucestershire Branch ... West Somerset Branch ... Worcestershire and Herefordshire Branch ... ... Dorset and West Hants Branch South-Western Branch ...	Dr. D. E. FINLAY (Gloucester)
Aberdeen, Northern Counties, Dundee, and Perth Branches Edinburgh and Fife Branches	Dr. W. CLOW (Paisley)
Glasgow and West of Scotland Branch (four City Divisions) Glasgow and West of Scotland Branch (four County Divisions ... ... Border Counties and Stirling Branches	Dr. MUNRO MOIR (Inverness)

In the exercise of his constitutional power, he appointed those gentlemen.

THE POSITION OF THE MEETING.

The CHAIRMAN at the outset reminded the meeting that, having rejected the proposal that a committee should be appointed with power to release from the pledge, the definite resolution by Canterbury that members be released from their pledges was again before the meeting. It was obvious from the previous day's debate that not only was there very acute feeling on the subject, but it was feeling based in many cases on definite instructions, requests, and desires on the part of Divisions and areas. It would be a profound pity and a disappointment to the profession and the public if the meeting separated practically without coming to any useful decision at all. Having regard to the very full debate on the previous day, he thought, as business men anxious to come to a conclusion at the earliest date consistent with safety and reasonableness, that the meeting ought not to spend much more time if it intended adopting a certain line. He did not see the need for much further debate. If a straight vote were taken on the Canterbury and Faversham motion, the meeting would be guided by the fact whether the necessary two-thirds majority were obtained or not. It had been suggested to him that the only workable alternative to a straight vote on release or non-release from the pledge was to take the following motion as an amendment to the Canterbury and Faversham motion. It was a motion by Mid-Norfolk with an addition at the end.

> That the Council be instructed (*a*) to take all necessary steps to watch and protect the interests of the profession under the National Insurance Act; (*b*) to take any opportunity that may be afforded for placing the Representatives of the Association on the Advisory and Insurance Committees; (*c*) to obtain statutory recognition of Local Medical Committees in every insurance area; (*d*) to collect information as to defects in the Act and Regulations, and to take all possible opportunities of remedying them, and as for this purpose the undertakings and pledges are neither necessary or desirable, they be and are hereby cancelled.

That would be tantamount to saying that from the Association's side the pledges were a personal matter tendered to it and accepted as part of its working campaign. The adoption of the amendment would mean that no further use would be made of the pledge by the Association. The suggestion was more or less in the nature of a compromise.

RELEASE FROM THE PLEDGE.

After some further discussion it was agreed to take a direct vote on the motion by the Canterbury and Faversham Division, which was as follows:

> That this Representative Meeting, recognizing the force of present circumstances and consulting the best interests of the Association and the unity of the profession, now releases all practitioners from their pledges and undertakings.

A roll call having been demanded, the voting resulted as follows:

Ayes	115
Noes	35
Not voting	5

The CHAIRMAN OF REPRESENTATIVE MEETINGS declared the motion carried by the requisite two-thirds majority.

CHANGE OF RESIDENCE AND ACCEPTANCE OF SERVICE.

The CHAIRMAN then put the following amendment proposed by Dr. W. GORDON on behalf of the Exeter Division:

> That any acceptance of service outside a practitioner's own district, parish, or town involving a change of residence for the express purpose of accepting service will be regarded as conduct detrimental to the honour and interests of the medical profession.

This was agreed to without debate.

CONDEMNATION OF THE METHODS OF THE GOVERNMENT.

It was agreed to first take a resolution expressing the views of the profession with regard to the action of the Government in bringing medical benefit into operation, Dr. HELME (Manchester Central) moved:

> That this meeting records its emphatic protest against the discreditable methods adopted by the Government whereby a position of urgency was created under which many practitioners, finding themselves threatened with financial ruin, were compelled to give unwilling service under the National Insurance Act on terms which this meeting considers to be derogatory to the profession and against the public interest.

Dr. Helme said it had been desired to add the words "and others" to "the Government" in the motion. He was perfectly familiar with the facts, and thought it a reprehensible state of things when, as in one case, a wealthy mill-owner in a certain district, absolutely by threats, compelled all the doctors in a town to go on the panel, threatening them with ruin if they did not; but he thought the motion would be strengthened by limiting it to the Government. He preferred the expression "unwilling service"; it would be well understood in the

House of Commons, which had already passed a resolution that service must be given by a willing profession. If the profession were compelled to give unwilling service it would redound much more to its honour if medical men said they were going to give as good a service as they could, even though unwillingly. The latter part of the motion simply reiterated what had been so often repeated—namely, that, taken as a whole, the system devised by the Government was derogatory to the profession, and would eventually act harmfully to the profession, because it would lower its status and injure it in many other ways.

Mr. E. B. TURNER (Kensington) said that whilst it was impossible for him to speak with any great pleasure on any subject after what had happened, yet to a certain extent this feeling was modified by the fact that he was able to second the motion. He had been in the thick of the fight lately in London to maintain the position of the profession, and knew the discreditable nature of the methods that had been used. The Representative Meeting, which was practically the mouthpiece of the very great majority of the profession, should put on record some such motion as that proposed. From the beginning it had been said that the profession's fight against the Act was dictated by political motives. That was false to the core. In his own case he had been asked many times to speak on the Act at political meetings and by-elections, and he had always refused because he had said that the only weight his words would have over those of any other member of the profession would be due to the fact that he had been elected to official positions in the Association, and he had been elected to those positions by the votes of men who were of all shades of political opinion. The resistance of the Association and the medical profession had from the very beginning been non-political. But when it became apparent what the decision of the profession was going to be, the party machine was brought into action, and what had been before merely departmental became definitely political. The methods of the Government were discreditable, more especially the threat to plant subsidized interlopers in order to ruin local men. There had been a campaign of calumny and misrepresentation to coerce members of their profession unwillingly to go on to these panels.

Dr. FOTHERGILL thought that if the motion were adopted in its present form it would be taken as a condemnation of those members of the profession who had undertaken service. He moved to leave out the words after "on terms" and substitute the words:

> which are not calculated to permit the formation of an efficient medical service, and are, therefore, inimical to the best interest of the persons insured under the National Insurance Act.

Dr. BENHAM seconded.

The amendment was lost, 53 voting for and 62 against.

Dr. J. CLARKE (Dartford and Woolwich) informed the meeting that on January 16th there appeared in the Arsenal at Woolwich, a Government workshop employing 13,000 workmen, notices inviting the men to sign for the Arsenal doctors, who were commissioned officers in His Majesty's army. If this was not a form of Government pressure he did not know what was. This was done although there was a full panel, and its object must have been to show that the Government did not intend to give free choice of doctor to these men at any rate.

Dr. Helme's motion was put to the meeting and carried with one dissentient.

RESCISSION OF RESOLUTION.

It was then agreed to rescind the following minute passed at the Liverpool meeting:

> That the British Medical Association calls on all practitioners to refrain from applying for or accepting any post or office of any kind in connexion with the National Insurance Act (except in regard to sanatorium benefit, provided this is carried on in accordance with the wishes of the Association) until such time as the Government has satisfied the Association that its demand will be met.

FUTURE ACTION OF THE COUNCIL.

Dr. THOMSON (Mid-Norfolk) moved:

> That the Council be instructed (*a*) to take all necessary steps to watch and protect the interests of the profession under the National Insurance Act; (*b*) to take any opportunity that may be afforded for placing the representatives of the Association on the Advisory and Insurance Committees; (*c*) to obtain statutory recognition of Local Medical Committees in every Insurance area; (*d*) to collect information as to defects in the Act and Regulations and to take all possible opportunities of remedying them.

The motion was carried unanimously without discussion.

The CHAIRMAN pointed out that by the motion just passed the Council was instructed to take all necessary steps to watch the interests of the profession, and therefore it would be impossible to appoint another committee, as was suggested by a motion by the St. Pancras and Islington Division. He suggested that the matter be left to the State Sickness Insurance Committee to deal with, and this was agreed to.

Mr. MONTGOMERY-SMITH (Marylebone) moved:

> This meeting declares that it is of opinion that the Act is unsatisfactory, and that where men still hold out against the Act the Council will give them every assistance in its power.

Mr. Montgomery-Smith said that by passing the motion the meeting was expressing more than a pious opinion; it was giving a distinct indication to the Council that it would be its duty to give every assistance, financial and otherwise, to those areas that were not satisfied with the conditions existing, and that such areas would be justified in continuing the fight.

The motion was agreed to.

Mr. TURNER (Kensington) moved the following rider:

> That, it being evident that a very large number of the doctors who have gone on to the panels have been compelled to do so by fear of injury to their practices which in some cases might even amount to actual financial ruin, the Representative Meeting suggests the following as a means of giving effect to Section (*d*) of the motion by Mid-Norfolk (with regard to future action): That a letter be sent to every member of the medical profession asking (1) if he is on the panel; (2) if so, whether he has taken service willingly or against his inclination owing to coercion; (3) whether, if he be not satisfied with the conditions both as to service and remuneration, he is prepared to decline to renew his contract for panel service at the termination of the provisional three months, provided that the other practitioners who have been induced to take service by similar methods do the same; (4) if he be not on the panel whether he has any wish to go on; and (5) whether he has any intention of undertaking any whole or part time appointment to treat insured persons under the Act.

The inquiry should be made after an interval, and in this way useful information would, he said, be obtained.

The rider was agreed to, with the following addendum, moved by the CHAIRMAN:

> And also to draw the attention of the Council to a means of carrying out the motion by Mid-Norfolk by instructing Divisions to send up within three months a report of how the Act is working.

ORGANIZATION OF THE ASSOCIATION.

A series of suggestions designed to improve the organization of the Association, made on behalf of the Brighton Division, were referred to the Council for consideration, as was also the following resolution, moved by Dr. DOUGLAS on behalf of the Maidstone Division:

> That the Council be requested to consider in what way, if any, it is possible to obtain more quickly than at present the decision of the Association in cases of urgency, and how far it would be necessary to alter the rules and by-laws in order to do so.

On the motion of Dr. DEARDEN, seconded by Dr. BICKERTON EDWARDS, it was resolved:

> That the Council of the British Medical Association be requested to utilize the postal vote of the whole profession with a view to the adoption or otherwise of any line of policy suggested by the Representative Meeting.

INSURED PERSONS AND CONTRACTING OUT.

Dr. MUIR EVANS (East Norfolk, North Suffolk) moved, and it was agreed:

> That it be referred specifically to the Council to consider the question of facilities for insured persons to make their own arrangements for medical benefits, and, if the Council think it advisable, to ask the British Medical Association to take legal action to test the question of contracting out.

TUBERCULOSIS TREATMENT.

Dr. BICKERTON EDWARDS (Swansea) moved, and it was carried:

That it be a specific reference to the Council to consider the question of the attitude of the profession towards tuberculosis treatment, in view of the conditions as altered by the meeting.

Other motions of which notice had been given were referred to the Council for consideration.

RESIGNATIONS.

The CHAIRMAN OF COUNCIL moved and Mr. LARKIN (Liverpool) seconded:

That though there has been only a slight increase of resignations of membership of the Association during the last three months, as compared with the corresponding period last year, this meeting desires that those members who have tendered their resignations on account of their attitude to the National Insurance Act be invited to withdraw their resignations.

This was agreed to.

RECORD OF WORK DONE ON THE PANELS.

It was proposed by the CHAIRMAN OF COUNCIL, seconded by Mr. LARKIN (Liverpool), and agreed:

That all men going on the panels be specially requested to keep very full records of attendances and amount of work done during the next three months, to enable the Association to make representations to the Commissioners with regard to alteration of remuneration.

CONFIRMATION OF MINUTES.

The minutes were read, emended, and confirmed.

VOTES OF THANKS.

A vote of thanks having been passed to the Chairman for the able manner in which he had conducted the proceedings,

Mr. VERRALL, in reply, said he was glad to have presided at that meeting for two reasons: first, because the feeling of having done one's duty was a luxury that could not be enjoyed every day, and secondly, because it enabled him to make a record, which he hoped would remain a record indefinitely, namely, that of acting as Chairman of three Representative Meetings in three successive months.

A vote of thanks to the London Medical Committee terminated the proceedings.

PROCEEDINGS OF COUNCIL.

IMMEDIATELY after the conclusion of the Special Representative Meeting, on January 18th, a meeting of the Council was held.

Present.

Dr. J. A. MACDONALD, LL.D., Taunton, Chairman of Council, in the Chair.

Dr. W. AINSLIE HOLLIS, Hove, President-elect.

Mr. T. JENNER VERRALL, Bath, Chairman of Representative Meetings.

Dr. R. M. BEATON, London
Surgeon-General P. H. BENSON, I.M.S., Walmer
Dr. M. G. BIGGS, London
Dr. CHARLES BUTTAR, London
Dr. WM. CLOW, Paisley
Dr. D. E. FINLAY, Gloucester
Mr. T. W. H. GARSTANG, Altrincham
Dr. T. D. GREENLESS, London (Cape of Good Hope Branches)
Dr. MAJOR GREENWOOD, London
Dr. G. E. HASLIP, London
Mr. EVAN JONES, London
Mr. F. CHARLES LARKIN, Liverpool
Mr. C. COURTENAY LORD, Gillingham
Mr. ALBERT LUCAS, Birmingham
Dr. H. C. MACTIER, Wolverhampton
Dr. R. B. MAHON, Ballinrobe
Dr. J. MUNRO MOIR, Inverness
Dr. GEORGE PARKER, Bristol
Mr. D. F. TODD, Sunderland
Mr. E. B. TURNER, London
Mr. E. H. WILLOCK, Croydon

APOLOGIES.

Apologies for absence were read from the President, the Treasurer, Dr. John Adams, Inspector-General Bentham, R.N., Dr. John Gordon, Surgeon-General J. P. Greany, I.M.S., Dr. J. R. Hamilton, Dr. E. S. Reynolds, and Mr. D. J. Williams.

MINUTES OF SPECIAL REPRESENTATIVE MEETING.

The CHAIRMAN presented the minutes of the Special Representative Meeting of January 17th and 18th, and explained that it was necessary for the Council to consider the decisions in case it desired to exercise its powers of referendum. The minutes were then considered, and no objection being raised were, on the motion of the CHAIRMAN, approved and referred to the State Sickness Insurance Committee.

The CHAIRMAN OF REPRESENTATIVE MEETINGS and the CHAIRMAN OF COUNCIL were authorized to refer any other minutes to the appropriate committees.

PLEDGES.

The question was raised whether the pledges should be returned to members who so desired. The Solicitor having expressed an opinion against adopting this course, the Council resolved that it was in the meantime inadvisable to return the pledges.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

LANCASTER AND CHESHIRE BRANCH:

MANCHESTER (CENTRAL) DIVISION.

A MEETING of the Division was held at the Onward Buildings, Deansgate, on January 16th, at 4.15 p.m. Dr. J. FERGUSON was in the chair, and the other members present were Drs. Boyd, Bride, Burgess, Chisholm, Coogan, Dahms, Rayner, Shaw, and Tylecote (Honorary Secretary).

Minutes.—The minutes of the last meeting were read, confirmed, and signed, as correct.

The HONORARY SECRETARY reported (*a*) apologies for absence from Drs. Bury and Helme, (*b*) the resignation of Dr. Arnold Jones, and (*c*) arising out of the minutes, that Dr. Taylor had resigned from his offices on the Joint Committee.

Instructions to Representative.—It was resolved to instruct the Acting Representative (Dr. Helme) as follows: To vote to give formal release to the signatories of the undertaking and pledge (unanimous). In the Appendix of Notices of Motion to Agenda of Special Representative Meeting to vote against motions 20, 42, 43; to vote for motions 6, 18, 19, 21, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, and to vote for 17, suggesting as a rider to this:

That each Division be called on to issue a report to the Central Offices as to their opinion of the working of the Act at the end of the first quarter.

MANCHESTER (SOUTH) DIVISION.

A GENERAL meeting of the Division was held at Holy Innocents' Schools, Fallowfield, on Tuesday, January 14th, at 3.30 p.m.; Dr. GOODFELLOW presided, and there were thirty-four members present. The minutes of the last two members (December 30th, 1912, and January 3rd) were read and confirmed.

Chairmanship.—A letter was read from Dr. Edlin resigning the position of Chairman of the Division. Dr. DAVIE proposed and Dr. HOPKINSON seconded that Dr. Goodfellow take the chair, and this was carried unanimously.

Central Insurance Defence Fund.—A communication from the head office urging men to guarantee to the Central Insurance Defence Fund, and to keep up an active campaign in relation to the Insurance Act, was read, whereupon Dr. STOCKS proposed and Dr. HEATHCOTE seconded:

That it be a recommendation from this Division to the Joint Committee to take immediate steps to draw up a scheme, for the Manchester insurance area, for the inauguration of a public propaganda, with a view to explaining the medical objections to the Act and Regulations, and to induce the insured to insist upon their rights under Section 15, subsection 3, of the National Insurance Act.

This motion, after several members had spoken on it, was carried with one dissentient. The following motion, proposed by Dr. SAWERS SCOTT and seconded by Dr. GODSON, was carried *nemine contradicente*:

That the Joint Committee be requested to take such steps as may be necessary to call into existence some body which may legally represent, and act for, all medical men whose names are on the list for the service in connexion with the National Insurance Act.

Instructions to the Representative.—The meeting then discussed the question of instructing the Representative how to vote at the Representative Meeting on January 17th, on the desirability of the Representative Body granting official release to members from the British Medical Association pledge and undertaking. On this subject, Dr. Williams proposed and Dr. Broomhead seconded the following motion:

> That the Representative be given a free hand to vote on the question according to his own discretion.

Whereupon Dr. Edlin proposed and Dr. Gregory seconded the following amendment:

> That it is desirable to release members of the profession from their undertaking and pledge in connexion with the National Insurance Act, and that it be an instruction to the Representative to vote accordingly in the Representative Meeting.

This amendment was carried *nemine contradicente*, and also as the substantive motion. An amendment to this motion was proposed by Dr. Sawers Scott, and seconded by Dr. Sarjant:

> That, when in the Representative Meeting the question of releasing members from their pledge and undertaking is proposed, our Representative propose that the next business be proceeded with.

This was lost. On the motion by Dr. Williams, seconded by Dr. Salter, it was resolved *nemine contradicente*:

> That the Representative be given a free hand to vote at the Representative Meeting, according to his own discretion, on questions arising during consideration of the situation created by the attitude of the Government towards the decisions of the Representative Body.

Dr. Gregory proposed, and Dr. Godson seconded:

> That it be an instruction to the Representative to propose at the Representative Meeting the following resolution, provided the Representative Body decides to release members from their pledge and undertaking, namely:
>
> That the Council of the British Medical Association be asked to press upon the Commissioners the desirability of reopening the panels immediately, so that all practitioners, especially those who have hitherto held that they could not honourably break their pledge and undertaking, may have an opportunity of entering their names thereon.

This was carried *nemine contradicente*.

Resolution of Protest against Coercion.—On the motion of Dr. Salter, seconded by Dr. Heathcote, it was resolved:

> That this meeting record its sense of the injury done to the medical profession and the injustice to its members through their being forced, by a threat of ruin, to undertake service under the Insurance Act—a service whose conditions and terms are incompatible with the honour and welfare of the profession.

Organization of the Association.—The Secretary was instructed to forward this to the press. Dr. Rhodes, who could not attend the meeting, sent the following resolution, which was seconded by Dr. Steinthal:

> That this meeting, recognizing that the general practitioner is alone competent and able to deal with all legislative regulations relative to general practice—and yet that the general practitioner is too overworked and underpaid to have been adequately represented in the whole late transactions of the British Medical Association in connexion with the Insurance Act and all committees having reference thereto—urges on the British Medical Association and the Representative Meeting the necessity of providing for paid secretaries of Divisions, and such pecuniary means that general practitioners in all future legislation and regulations having reference to themselves, shall have the greatest, and not the least, influence in the councils of the nation with the British Medical Association.
>
> The meeting wishes also to record its belief that in this way alone can mistakes be avoided in the future and medical efficiency and the public health, which depends on general practitioners, be secured.

The resolution was not carried.

METROPOLITAN COUNTIES BRANCH:

Greenwich and Deptford Division.

A specially requisitioned meeting of this Division took place on January 20th. Dr. J. P. Purvis was in the chair. The agenda was as follows: To obtain a report of all proceedings connected with the Association since the last general meeting; to discuss the action of the Executive Committee during the present crisis; any other business, including correspondence. A report presented by the Executive Committee was read and adopted.

A vote of censure on Dr. W. H. Payne, the Honorary Secretary, for joining the panels before being released from his pledge and undertaking, was proposed and seconded, but an amendment postponing further consideration of the matter to the next meeting of the Division so that it might appear on the agenda was accepted by the proposer and seconder of the motion, and carried.

A proposal to circulate a list of those who had given guarantees to the Insurance Defence Fund, or increased their guarantees, was negatived.

Harrow Division.

A meeting, to which every practitioner within the area of the Division was invited, was held in the Gayton Rooms, Harrow, on January 16th. Dr. A. H. Williams took the chair, and there were thirty-two members and five non-members present.

Minutes.—The minutes of last meeting, held on December 30th, 1912, having been printed in the Supplement of the British Medical Journal of January 11th, were taken as read, and confirmed.

Accounts.—The Honorary Treasurer stated that, as agreed at the last meeting of the Executive Committee, the accounts had been audited by Dr. Wansborough Jones, who found them correct. The accounts showed that a deficit of £2 16s. 5d., brought up on December 31st, 1911, had been wiped out, and after the expenses of the Division had been met there remained a credit balance of £2 9s. 11d. The expenses of the Provisional Medical Committee amounted to £5 5s. 10d. The report was received.

Conference with Secretaries of Friendly Societies.—The Honorary Secretary reported that a conference had been summoned for Thursday, January 23rd, between secretaries of friendly societies and a subcommittee of the Division, in order to discuss a scheme for the treatment of uninsured persons and juveniles.

Letter from Chairman of Middlesex Insurance Committee.—The Honorary Secretary reported that he had written to the chairman of the Middlesex Insurance Committee, protesting against the inclusion of the names on the local panel lists of certain doctors who had not signified their willingness to serve, and read a letter of explanation from the chairman.

Question of which Dr. Jones had given notice to ask Dr. Hildesheim.—Dr. Jones stated that he had given notice to ask this question in view of certain statements that had been made with regard to Dr. Hildesheim. Since these statements had been made, they had been entirely withdrawn, and the Honorary Secretary had received two letters saying that the statements were incorrect. Dr. Jones said, therefore, that he now had no question to ask.

Future Action.—The following motion was proposed from the chair in order to define future action by medical men:

> That medical men be asked to continue attendance on aged members of friendly societies precluded from becoming insured persons on the old rates of payment.

The motion on being put to the meeting was lost by a unanimous vote.

The London Panels.—Dr. Williams introduced Dr. Gordon Lane (London Medical Committee), who made a spirited speech on the right of insured persons to make their own arrangements for medical treatment, and emphasized the inadequacy of the London panels. He urged the medical men present to support their London colleagues, either by resigning from the panels forthwith, or by refusing to reapply for service on the panels after the provisional three months. After discussion as to whether the members of the Division should resign or refuse to reapply for service on the panels, it was proposed by Dr. Jones, seconded by Dr. Harley, and carried unanimously:

> That, contingent on adequate support, especially from the other Divisions in Middlesex, the members of the Harrow Division would refuse to apply or reapply for service on the panels after April, 1913.

Instruction to Representative.—Dr. Muspratt proposed, and Mr. Brady seconded:

> That the Representative be instructed to vote in favour of the Association absolving medical practitioners from the pledge they had given.

Whereupon the following amendment was proposed by Dr. Barton, and seconded by Dr. Lock:

That, in view of the fact that the majority of practitioners in this Division had broken their pledge, the Representative be instructed not to vote on this question, which should be decided by the vote of Representatives representing practitioners who had adhered to their pledge.

The amendment was put to the meeting, when only the proposer and seconder voted in favour, and it was therefore lost. The original resolution was then put, and was carried, with two dissentients.

MARYLEBONE DIVISION.

A GENERAL MEETING was held in the rooms of the Medical Society of London, Chandos Street, W., on January 16th. Mr. ATWOOD THORNE, Chairman of the Division, was in the chair, and thirty-nine members were present.

Minutes.—The minutes of the preceding meeting were confirmed.

Letters.—(1) From the Medical Secretary, notifying that the Central Council had approved of the rules passed on April 25th, 1912, with the exception of Rule 7 (*b*). (2) Notification to hospitals of the St. Bartholomew's scheme, as passed by the Representative Meeting on December 21st: No action was taken, as the hospitals in the area had made arrangements on these lines. (3) Letter *re* pledge from Dr. Lauriston Shaw and others.

Instructions to Representatives at the Special Representative Meeting on January 17th, 1913.—Dr. DAVID ROXBURGH moved and Dr. HOWARD WISE seconded:

That, while expressing the deepest sympathy with and declining in any way to blame those members of the profession who, although they had expressed to their professional neighbours their reluctance to break a promise, felt themselves compelled by economic pressure and the defection of their fellows to go on the panels, the Representative Meeting expresses the opinion that until agreements to treat insured persons under the Act are satisfactory to the medical profession and in accordance with the declared policy of the Association, the undertaking and pledge must be considered as still binding on those who have subscribed to them.

Dr. KISCH moved and Dr. DYKE ACLAND seconded, "That all words up to the word 'the' in the sixth line be omitted." Drs. HAWTHORNE, POYNTON, Messrs. BISHOP HARMAN, MCADAM ECCLES, Drs. NEWTON PITT, MONTGOMERY-SMITH, WIRGMANN, PERCY SPURGIN, GORDON LANE, PEACOCKE, and Mr. H. J. PATERSON took part in the discussion. The amendment was carried *nemine contradicente*. Thereupon Dr. HAWTHORNE moved and Mr. BISHOP HARMAN seconded:

That the Representatives of the Division in the forthcoming Representative Meeting be instructed as follows:

(*a*) In the event of any discussion bearing on the application of the pledge to existing conditions, to move: That the Representative Meeting decline to record any finding on this subject until the opinion of members of the Association have been obtained by means of a referendum or postal vote.

(*b*) To propose that the Council shall, at a date not later than March 1st, obtain, by means of voting papers, the opinions of members of the Association on (1) the claims of the pledge in existing circumstances; (2) the policy of the Association in reference to the Insurance Act as defined by the Representative Meeting of December, 1912; that the results of this vote be communicated to a specially convened Representative Meeting.

(*c*) To propose that the Council be instructed to invite from each member of the Association who has declined to take service under the Insurance Act a private and confidential statement of any losses which such member believes himself to have suffered as a result of his adhesion to the declared policy of the Association.

Mr. DREW discussed the amendment. The amendment was lost. The amended motion was then carried *nemine contradicente* as follows:

That the Representatives be instructed to express the opinion that, until agreements to treat insured persons under the Act are satisfactory to the medical profession and in accordance with the declared policy of the Association, the undertaking and pledge must be considered as still binding on those who have subscribed to them.

The following motion by Mr. H. J. PATERSON, seconded by Dr. GORDON LANE, was then carried:

That the Representatives be instructed to urge that the future policy of the Association be concentrated on securing free choice of doctor and freedom from lay control.

Dr. DAVID ROXBURGH moved and Mr. BISHOP HARMAN seconded:

That the State Sickness Insurance Committee be discharged, and that a new Committee be elected by the Representative Meeting, and given the powers of plenipotentiaries to deal with all matters arising in connexion with the National Insurance Act until the Annual Representative Meeting.

This motion was lost. Dr. NEWTON PITT moved and Mr. WARREN LOW seconded:

That the meeting approves of local arrangements being accepted when the Local Insurance Committee of the profession of the district can agree on terms, subject to approval by the Council of the Association.

Dr. MONTGOMERY-SMITH discussed the motion, which was carried.

Election of Deputy Representative.—Mr. WARREN LOW proposed and Dr. DAVID ROXBURGH seconded that Dr. Montgomery-Smith be elected as Deputy for Mr. Maynard Smith, which was carried. The appointment of any other deputies was left in the hands of the Chairman.

The meeting then adjourned.

OLD LAMBETH DIVISION.

A MEETING of the Old Lambeth Division was held at the Surrey Masonic Hall on January 14th at 4 p.m. Dr. CAPES was in the chair and forty members were present.

Minutes.—The minutes of the previous meeting were read and confirmed.

Report of State Sickness Insurance Committee.—The report of the State Sickness Insurance Committee was read.

Special Representative Meeting.—Dr. PEERS then presented his report of the Representative Meeting in December. It was adopted unanimously, and a hearty vote of thanks passed to the Representatives for their work.

The Undertaking and Pledge.—The following resolution was then carried by 31 votes to 7:

That, while expressing the deepest sympathy with and declining in any way to blame those members of the profession who, although they had expressed to their professional neighbours their reluctance to break a promise, felt themselves compelled by economic pressure and the defection of their fellows to go on the panels, the Representative Meeting expresses the opinion that until the agreements to treat insured persons under the Act are satisfactory to the medical profession and in accordance with the declared policy of the Association, the undertaking and pledge must be considered as still binding upon those who have subscribed to them.

Vote of Thanks.—The meeting concluded with a hearty vote of thanks to Mr. E. B. TURNER, who attended to address the meeting, and to the CHAIRMAN.

WANDSWORTH AND WIMBLEDON DIVISIONS.

A MEETING of the profession summoned by these Divisions was held at Battersea Town Hall on Thursday, January 16th.

Instructions to Representatives.

1. Dr. BIGGS proposed, and Dr. MARTIN seconded, the following:

That the Representative Meeting expresses the opinion that until agreements to treat insured persons under the Act are satisfactory to the medical profession, and in accordance with the declared policy of the Association, the undertaking and pledge must be considered as still binding.

The motion on this voting resulted as follows:

Members of the B.M.A.	For	56
" " "	Against	9
All members of the profession present ...	For	69
" " " "	Against	9

2. Dr. STAMM proposed, and Dr. BARTON seconded, the following motion, which was carried unanimously:

That the Council be instructed to investigate the manner in which business has been carried on by the Central Office.

3. Dr. STAMM proposed, and Dr. ORR seconded:

That our Representatives be instructed to inform the Representative Meeting that in our opinion any resolution absolving members from their pledges will *ipso facto* also absolve members from fulfilling their guarantees.

This was carried with two dissentients.

WILLESDEN DIVISION.

A SPECIAL meeting of the Division, to which non-members were invited, was held at St. Andrew's Schools, Willesden Green, on January 13th, at 9 p.m., to instruct Representive, etc. Dr. CORAM JAMES took the chair, and forty-seven members were present.

Minutes.—The minutes of the last meeting were read and confirmed.

Letter from the Chairman of the Middlesex Insurance Committee.—The HONORARY SECRETARY read a letter from Mr. Glyn Jones, Chairman of the Middlesex Insurance Committee, stating that he was unable to give a definite reply to the question whether a practitioner on the panel could be allowed absolutely to limit his list of those patients whom he accepted, and would not be compelled to take also some of the "residue." Mr. Glyn Jones had already verbally stated that this was so.

Instruction to Representative.—Dr. JOY proposed, and Dr. ARMITAGE seconded:

That our Representative be instructed to vote in favour of any resolution to the effect that the pledge be solemnly confirmed.

This was carried by 32 votes to 2.

Dr. CRONE proposed, and Dr. SNOWMAN seconded, the following resolution, which was carried *nemine contradicente:*

That the special circumstances under which the members of the Willesden Division signed on to the panel be explained to the British Medical Association.

Rescission of Minute of Representative Meeting.—Dr. SODEN proposed and Dr. MACEVOY seconded:

That Minute 184 of the Annual Representative Meeting of 1912 be rescinded so as to allow practitioners to accept seats on Insurance Committees.

This was carried unanimously. It was agreed that these instructions should be sent for inclusion in the agenda of the Representative Meeting.

Withdrawal from Panel.—The position of those who had withdrawn their names from the panel was discussed, and Dr. SKENE proposed and Dr. STOCKER seconded, and it was resolved *nemine contradicente:*

That in the opinion of this meeting the men "starred" on the panel list are not on the panel.

SOUTH MIDLAND BRANCH:

NORTHAMPTONSHIRE DIVISION.

A MEETING was held in the Board Room of the Northampton General Hospital on January 16th. Dr. BAXTER was in the chair, and nineteen members were present.

Apology for Non-attendance.—An apology for non-attendance was received from Dr. Nourse.

Minutes.—The minutes of the preceding meeting were read and confirmed.

Special Representative Meeting.—A discussion then took place on the instructions to the Representative for the forthcoming Representative Meeting. Dr. LINNELL proposed and Dr. COOKE seconded that Dr. Dryland should support any resolution having the effect of releasing members from their pledges. This was carried unanimously. Dr. LINNELL proposed and Dr. OLDACRES seconded that, in the event of being defeated on the main question, a Division should have power to release members from their pledges. This was carried unanimously. Dr. LINNELL proposed, seconded by Dr. DARLEY, as an instruction to Representative:

That all subsequent communications with the Government or other body in connexion with the Insurance Act be entrusted to the Council or a committee with plenary powers.

This was carried unanimously. Dr. DRYLAND proposed and Dr. LINNELL seconded:

That if the Divisions are given autonomy to release members from their pledges, the Northamptonshire members shall be automatically immediately released.

This was carried unanimously.

Clerical Work under the Insurance Act.—A discussion then ensued on the manifold forms to be filled up under the Insurance Act, and the following resolution, proposed by Dr. GREENFIELD and seconded by Dr. CHURCHOUSE, was carried:

That in the opinion of those medical men who have gone on the panel the amount of secretarial work imposed on the profession is too much and the forms issued are altogether unsuitable.

The following rider, proposed by Dr. COOKE and seconded by Dr. Ross, was lost:

That this resolution be not forwarded for one month.

Nomination to Insurance Committee and Committee of Complaints.—Dr. DRYLAND read a communication from the Clerk to the County Insurance Committee asking for representatives to be nominated to the Insurance Committee and the Committee of Complaints, and Drs. Linnell, Darley, Baxter, Dryland, and Greenfield were selected.

Club Fees.—Dr. CHURCHOUSE reported that terms had been arranged with the Long Buckby clubs for the present, and that they had promised later to pay the same fees as were given in other parts of the county.

SOUTH-WESTERN BRANCH:

EXETER DIVISION.

A MEETING of the Exeter Division was held at the Exeter Hospital on January 15th. Mr. E. J. DOMVILLE occupied the chair, and there were forty members present.

Minutes.—The minutes of the previous meeting were confirmed.

Appointment of Deputy Representative.—Dr. DAVY proposed, and Dr. SHIRLEY PERKINS seconded:

That Dr. Gordon be appointed Representative as substitute for Dr. A. W. F. Sayres, who would be unable to act at the Representative Meeting.

This was carried unanimously.

Release from Pledge.—Mr. SHIRLEY PERKINS proposed, and Dr. O. CLAYTON JONES seconded, the following resolution, which was carried *nemine contradicente:*

That all members of the profession be released from the pledge to the extent of serving in their own districts, parishes, and towns, but that any acceptance of service outside be regarded as a breach of the pledge, and unprofessional.

Special Representative Meeting.—Dr. DAVY proposed, and Dr. AYSHFORD seconded:

That the Representatives of the Division be allowed a free hand to vote as they considered best in the interests of the profession after hearing the opinions expressed at the Representative Meeting.

This was carried by 27 to 3. Dr. HUDSON proposed, and Dr. DESPREZ seconded, the following rider, which was carried by 26 to 4:

But is of opinion that the pledge should be adhered to.

Insurance Guarantee Fund.—The following resolutions were put by the CHAIRMAN, and passed unanimously:

That the Honorary Secretary be authorized to make a call of 20 per cent. on all guarantors to the Local Divisional Defence Fund by instruction of and for purposes of the States Sickness Insurance Committee.

That the Honorary Secretary be authorized to pay the accounts of the Exeter Local Medical Provisional Committee from the Local Divisional Defence Fund.

YORKSHIRE BRANCH:

HALIFAX DIVISION.

A MEETING of this Division was held at the Mikado Café, Halifax, on Monday, January 13th, at 8.30 p.m. Dr. DRURY, the Vice-Chairman, took the chair in the unavoidable absence of the Chairman, Dr. Crossley Wright; twenty-seven other members were present.

Notice of Resignation of Membership.—The SECRETARY announced that four members had notified their intention of resigning the membership of the Association. Dr. PRIESTLEY LEECH proposed and Dr. HUGHES seconded the following resolution, which was carried unanimously:

That the four members who are resigning be approached with a view to asking them to reconsider their decisions.

The SECRETARY announced that he had written to all of the four members and it was arranged that they should be approached personally.

Communications from ex-Members of Council.—Communications were read from the six medical men who recently resigned their seats on the Council of the British Medical Association and from the London Medical Committee.

Proposed Pension, Sickness, and Disablement Fund.—The following resolution was then proposed by Dr. PRIESTLEY LEECH and seconded by Dr. GILL:

That the British Medical Association should proceed forthwith to consider the desirability of forming itself into a

trades union and of undertaking the establishment of a sickness disablement and pension fund.

The expression "trades union" being objected to by certain members, on the suggestion of Dr. BRANSON, it was agreed to drop this out of the resolution. The resolution so altered was then passed *nemine contradicente* as follows:

That the British Medical Association should proceed forthwith to consider the desirability of adding to its functions the establishment and administration of a pension, sickness, and disablement fund.

Vote of Condolence.—It was agreed, on the motion of the CHAIRMAN, that a vote of condolence be sent to Mrs. West Symes on the death of Dr. West Symes, who had been a member of the Division.

National Insurance Act.—On the motion of Dr. FRY, seconded by Dr. WELLBURN, the following resolution was carried *nemine contradicente*:

This Division regrets that the majority of its members, along with a majority of the profession generally, were obliged to join the panels through economic pressure and thereby to break the pledge which they had previously signed. It considers that the undertaking and pledge cannot be considered any longer binding. At the same time it is of the opinion that the defeat of the profession is chiefly due to the traitorous action of those members of the Council who, while holding office on the Council, took part in the formation of a rival association. This Division urges all members of the British Medical Association to decline to associate themselves in any way with the National Insurance Practitioners' Association.

Notifications to Patients.—A discussion then took place as to the kind of information which can be sent to patients without infringing the regulations against canvassing.

Uninsured Persons.— The question of clubs for uninsured women and juveniles then arose. Dr. FRY proposed, and Dr. WOODYATT seconded:

That no medical practitioner take any club outside the Insurance Act.

Dr. FRY remarked that the Act created a huge club, and it was desirable to keep as much private practice as possible. It was finally decided to refer the whole question of making arrangements for the treatment of uninsured persons to the Local Medical Committee.

EAST ANGLIAN BRANCH:

NORTH-WEST ESSEX DIVISION.

AT the meeting of this Division held at Bishop's Stortford on January 13th, Dr. BARTLETT in the chair, nine members and one visitor were present.

National Insurance Act.—It was unanimously resolved that the members of the North-West Essex Division of the British Medical Association wish to place it on record that they have been forced by irresistible pressure and against their will to go on the panel. They hereby reiterate their convictions that the conditions of service are dangerous to the national health and derogatory to the honour of the profession.

Division of Branch.—By a vote of 9 to 0 it was decided that it was desirable that the East Anglian Branch should be split into three county Branches.

County Medical Committee.—A letter was read from Dr. J. P. Atkinson, jun., resigning his post on the County Medical Committee, and it was unanimously decided to ask him to reconsider his decision, and thank him for his valued past services.

Association Notices.

QUARTERLY MEETING OF COUNCIL.

THE Quarterly Meeting of the Council will be held at Two o'clock in the afternoon of Wednesday, January 29th, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,
Financial Secretary and Business Manager.

January 9th, 1913.

ELECTION OF COUNCIL, 1913–14.

Hong Kong and China Branch, Malaya Branch.

NOTICE is hereby given that nominations for a candidate for election as a Member of Council by the Hong Kong and China and Malaya grouped Branches for a period not exceeding three years as prescribed by By-law 49 (2) must be forwarded so as to reach me not later than Monday, March 10th, 1913.

Nominations must be made either by any Division included in the group, or by any three Members of a Branch included in the group, in the form prescribed below.

Election will be by voting papers, and these will contain the names of all duly nominated candidates, and will be issued by me.

By Order of the Council,

OSWALD MARRIOTT,
Honorary Secretary, Hong Kong and China Branch, and Returning Officer.

Alexander Buildings, Hong Kong.
January 22nd, 1913.

Baluchistan, Bombay, Punjab, Burma, South Indian and Madras, Colombo Ceylon, Assam grouped Branches.

Notice is hereby given that nominations for a candidate for the election as a Member of Council by the Baluchistan, Bombay, Punjab, Burma, South Indian and Madras, Colombo Ceylon, and Assam grouped Branches for a period not exceeding three years, as prescribed by By-law 49 (2), must be forwarded so as to reach me not later than Saturday, March 8th, 1913.

Nominations must be made either by any Division included in the group, or by any three Members of a Branch included in the group, in the form prescribed below.

Election will be by voting papers, and these will contain the names of all duly nominated candidates, and will be issued by me.

By Order of the Council,

D. R. BARDI, F.R.C.S.I.,
Honorary Secretary, Bombay Branch, and Returning Officer.

Albert Building, Fort Bombay,
January 23rd, 1913.

FORM OF NOMINATION.

BY NOT LESS THAN THREE MEMBERS OF A BRANCH.

Branches included in Group—

.....

.....

We, the undersigned, hereby nominate

.....

of.....

.....

as a candidate for election by the Branches above named as a member of the Council of the Association.

Names and addresses of nominators, and Branches to which they belong.

Name.	*Branch.*
.....	.....
.....	.....
.....	.....

BRANCH AND DIVISION MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH: LIVERPOOL DIVISION.—The annual meeting of the Division will be held on January 31st. Business: (*a*) To receive annual report of the Executive Committee. (*b*) To elect officers. (*c*) To elect the Representatives of the Division on the Branch Council to take office after the next annual meeting of the Branch. (*d*) To elect the ordinary members of the Executive Committee. (*e*) To make new rules, or alter or repeal existing rules. (*f*) To elect Representatives at the Representative Meeting. (*g*) To transact any business that may be transacted at an ordinary meeting. —FRANCIS W. BAILEY, Honorary Secretary, 51A, Rodney Street, Liverpool.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will be held conjointly with the Finsbury Medical Society at the Manchester Hotel, Aldersgate Street, E.C., on Tuesday, February 11th, at 9.30 p.m., when Dr. Batty Shaw will give an address on Tuberculins.—A. G. SOUTHCOMBE, Honorary Secretary.

SOUTH-EASTERN BRANCH: ISLE OF THANET BRANCH.—The next meeting of the Division will be held at the Royal Seabathing Hospital, Margate, on January 28th, at 3.45 p.m., Dr. Nichol in the chair. Business: (1) Correspondence. (2) To consider the results of the recent Representative Meeting. (3) To consider certain alterations in the Rules of the Public Medical Service. (4) Any other business. All medical practitioners in Thanet are invited to this meeting.—HUGH M. RAVEN, Honorary Divisional Secretary, Barfield House, Broadstairs.

National Insurance.

REPORTS OF LOCAL ACTION.

LONDON.

LONDON MEDICAL COMMITTEE.

At the close of the Representative Meeting the Committee decided to continue its campaign, notwithstanding the release from the pledge. Despite that release, only about 70 or 80 extra men have joined the panel. The Committee decided at once to take a referendum from the 5,800 London practitioners. Up to date 2,000 replies have, we are informed, been received, and these show an overwhelming majority against service under the Act, many of those who are on the panels declaring their willingness to take their names off at the end of their three months' contract. The great majority of replies are from general practitioners who, had the conditions been reasonable, would have been on the panels.

Panel Doctor Overburdened by Clerical Work.

The following is quoted from the *Times* of January 21st:

Evidence as to the great amount of clerical work thrown upon doctors on the insurance panels was given at the inquest held at Lambeth yesterday by Mr. Ingleby Oddie on the body of Frederick Richard Townsend, aged 53, a builder's labourer, of Hotspur Street, Kennington, who died on Friday.

The widow, Louisa Townsend, said that on Monday, January 13th, her husband complained of abdominal pains. On the following day he felt ill, and could not go to work. He was insured under the National Insurance Act, and went to the nearest medical man available under the Act, Dr. Hickson. The doctor did not examine him, but gave him a powder, which he took but could not retain. On Wednesday morning he again saw Dr. Hickson, who gave him a prescription to be made up by a chemist. She went with her husband to see his foreman in Tottenham Court Road. He vomited on the way, but he did not say he felt worse. The next day he was able to go and be shaved, and she took him for a walk. He never went out again, however, and on Thursday night he became very restless, so she sat up with him.

The Coroner asked the witness why she did not send for the doctor on Thursday night. She replied that she did not know where he lived, though she knew it was at Battersea, and she thought he might not be in. His surgery was in Lambeth Walk, but he was not there at night.

Supposing your husband was very ill, as he in fact was, and you had wanted Dr. Hickson, you would not have known where to find him?—No, sir, because he lives at Battersea.

That is a long way off?—Yes.

The Coroner said he was not blaming the witness at all; he was thinking of the difficulty caused through the witness not knowing where the doctor could be found at night. "You had received no instruction from anybody," he added, "and the doctor did not say, 'If your husband is worse I live at so-and-so'"?—No, sir.

He is the doctor on the panel supplied under the Insurance Act?—Yes, Sir.

The witness added that her husband died very peacefully at 7 o'clock on Friday morning. They had been married thirty-two years. When they visited the doctor for the second time he said nothing about seeing her husband again; he merely gave him a prescription. She did not go into the surgery with her husband. She did not know that Dr. Hickson could be telephoned for.

Evidence of Dr. Hickson.

Dr. George B. Hickson stated that he was a physician and surgeon, and had a surgery in Lambeth Walk and a private practice at Battersea. He was one of the panel doctors under the National Insurance Act. Mrs. Townsend did not go into his surgery, or she would have been given his address at Battersea. She was a perfect stranger to him.

The Coroner: Are you given a district?—Anybody insured can call upon me. Some people come from Surbiton. There is no rule on the subject.

Are you having a busy time?—Perfectly dreadful. I have been signing cards until midnight; there has been a regular rush, and my private patients have been driven away. I have no time to attend to them.

Dr. Hickson added that on Wednesday he was engaged for six hours at a stretch signing cards, without doing anything else, when he might have been attending to his patients—doing clerical work instead of attending to his practice, and it was the same all the week. He was at his Lambeth Walk surgery at certain hours in the morning and the evening. There was a great crowd of insured people waiting for their cards to be signed on Tuesday, and Townsend went in and asked him to put his name on his list. He asked the man about himself and signed his card. Townsend said he felt sick, and asked for some medicine. He replied that Townsend was a little premature, but gave him a powder, and thought nothing more of it. The next morning, when Townsend called, he said he was still in pain, but he put the witness off thinking that anything serious was the matter because he waited for an hour and a half. There was a crowd of something like 200 or 300 persons waiting.

The Coroner: Really! It must have been like going into a theatre?—Yes.

And you had no time to examine the patients?—No; it was as much as I could do to sign the papers.

A Certificate Withdrawn.

The witness added that the people were not asking for treatment—they were simply asking to be put on his list. Townsend complained of pain, but he did not for a moment suspect anything of serious nature. He told the man to go home and take his medicine, adding, "If you do not improve let me know."

You had so much to do that you had no time to examine him?—No.

You are overworked?—No doubt. I did not think it was of importance, and I let him go away.

The deceased did not know how to get hold of you at night time?—My caretaker would have had to have gone to the public telephone to call me up at Battersea, but I am going to have the telephone installed in my surgery at Lambeth Walk.

You must inform these people.—It is up all over my place, but unfortunately these people did not see it.

Is it on their cards?—No.

Then it ought to be.—I have nothing to do with the printing of the cards.

The witness further stated that during the time he saw Townsend he did not examine his abdomen. Had he had time he would have done so. He made a "half-examination" for appendicitis, but he had no idea the man had a strangulated hernia.

The Coroner: What did you think was the matter?—Dyspepsia, or something of that kind.

Did you give a certificate of death?—Yes; Mrs. Townsend came to me, and I was astonished to hear of her husband's death, but she was anxious that there should not be a *post-mortem* examination, and I said I would give a certificate for enteritis, and did so. Afterwards I came to the conclusion that I was not justified, and sent for the certificate, which Mrs. Townsend brought back.

I hope you won't do that again, Dr. Hickson. You know, enteritis might be due to poison?—Yes. I thought better of it.

Your explanation for not examining this man, who was suffering from a grave and fatal disease, is that you had not time to do it?—I had not time to do it.

A Case for an Operation.

Dr. Robert S. Trevor, pathologist at St. George's Hospital, who made an autopsy, stated that he found a femoral hernia, which had become strangulated and was beginning to be gangrenous. Death was due to exhaustion.

What is the treatment?—Such a condition demands an immediate operation.

If that is done, what are the prospects of recovery?—Very good.

What do you think of this case? First of all, if this man had been examined properly. Assuming that he had gone to a hospital, and complained of abdominal pain and vomiting, what would have been done?—He would have been stripped and examined at once, and an urgent operation would have been done.

They would have seen the condition at once?—Yes, any one would have diagnosed the case on examination.

Would his life have been saved?—I think so, without doubt.

So if this man had gone to the hospital he would have been alive now?—Probably.

As it is, he went to his National Insurance doctor, and he is now dead?—Yes.

Do you think doctors ought always to examine a patient when there is a history of abdominal pain and sickness?—Personally I think certainly, if it is possible. I think every case of abdominal pain should be most carefully examined, and in this case the mischief could have been seen. The deceased was a healthy man, except for a slight thickening of the aortic and mitral valves, and there would have been no hesitation in placing him under an anaesthetic and operating upon him. No doubt that would have been done successfully.

COMMENTS OF THE CORONER.

The Coroner, in summing up, said this was a very sad case of a man of 53, who was at work a week ago. He was suddenly taken with abdominal pains and sickness, and he went to a doctor, who was overwhelmed with work and who had to contend with a long queue of insured people waiting to get their papers signed. The doctor did not think there was anything seriously the matter with the man, and gave him a simple remedy and sent him away without examination. Next morning, apparently, the patient was in a most serious condition, and one which was bound to kill him unless he had an operation. He went to see the doctor, who was again overwhelmed with patients, and had not time to examine him as he should have done. Although the man told him that he had a pain in the abdomen and was suffering from sickness, the doctor thought it was a case of indigestion or colic, and gave him a prescription, which the patient had made up. He never saw the patient again. The man went home, and on the Thursday he got so much worse and his symptoms became so grave that he must have been dying that night. His wife said she did not know where to go for Dr. Hickson, whose lock-up surgery was closed at night, and she naturally thought it was no use going there. The result was that nobody saw her husband till after death, when she called in the nearest doctor. All this time the man had been suffering from a complaint which could have been relieved by an operation which was almost invariably successful, and here was a case of a man whose life ought to have been saved, but owing to the unfortunate circumstance that the doctor did not examine him he did not diagnose what he was suffering from. The doctor had told them that he did not have time or he would have made a thorough examination, and this poor man's life had unfortunately been lost. If Townsend had gone to the hospital with his grave symptoms the doctors, who were always on the alert, would have recognized his condition and would have operated upon him. At St. Thomas's no doubt he would have been brought back to practically normal health, and his life would have been saved. It had been lost, however, and it was a very regrettable state of things. He sincerely hoped it would not occur again that a doctor representing the Government would be placed in such a position that he had no time to examine a case which might be a grave and fatal one. He hoped he should not have any more of those cases. It was a very painful thing to hold an inquest on a man whose life ought to have been saved. He said that deliberately.

The jury, after deliberating in private, returned a verdict of "Death from natural causes," and added a rider that more care should be exercised in future in the matter of examining insured persons by doctors under the National Insurance Act. They excused Dr. Hickson in this case "owing to the scandalous amount of work that was imposed upon him under the Act."

PADDINGTON.

THE public meeting held by the Local Provisional Medical Committee for Paddington was well attended in spite of very inclement weather. The chair was taken by the EX-MAYOR (Alderman Perring), who was supported by the Mayor and by several aldermen.

The CHAIRMAN stated that the meeting had been called to give insured persons an opportunity of expressing their opinion with regard to the action of the Government as to the free choice of doctor. It was of vital importance that patients should not be obliged to accept the services of a doctor merely because his name was on the panel.

Dr. HENRY STURGE, a councillor for the borough, explained the reasons why he and other medical men objected to take service under the Act; he disclaimed any political motive, and said that he was known to many of those present as a Liberal worker. The medical profession had shown itself willing to meet Mr. Lloyd George on several important points, including the general rate of remuneration, but the Chancellor of the Exchequer had refused to adjust relatively small and reasonable requirements.

Mr. HERBERT TANNER, who followed, appealed for the support of those of the audience who might be trade unionists. According to the Chancellor of the Exchequer any doctor would do for the insured, and it was evident that under existing conditions insured persons would not get the willing service and sympathy to be obtained from their own family doctor.

Dr. HOLMES also spoke, and the following resolution was then moved by Mr. E. WRIGHT, an insured member of the audience:

> That this meeting condemns the principle of depriving the insured people of the country of the advantage of retaining the service of their own doctor, and considers it a gross interference with the liberty of the subject.

The resolution was duly seconded and strongly supported by Alderman R. F. WHUR, Dr. GREEN, and Dr. WRIGHT. When put by the MAYOR to the meeting it was carried with six or seven dissentients.

HAMPSTEAD.

PROVISIONAL MEDICAL COMMITTEE.

A MEETING of the Hampstead Provisional Medical Committee was held on Saturday, January 18th, at 8.30 p.m., at 41, Belsize Park. Dr. FORD ANDERSON was in the chair, and fourteen members were present.

The minutes of the last meeting as published in the JOURNAL were confirmed.

Special Representative Meeting.

The HONORARY SECRETARY gave an account of the proceedings of the Representative Body and of the action taken by the London Medical Committee in consequence.

The committee decided to await the result of the inquiries to be made by the London Medical Committee before taking any action.

Income Limit.

It was moved by Dr. PRITCHARD and seconded by Mr. PEYTON BALY:

> That this committee approves the Public Medical Service scheme of the London Medical Committee as modified at the previous meeting, January 9th, and that the income limit shall be £104 per annum.

Thereupon Dr. OPPENHEIMER moved and Dr. MACFADDEN seconded an amendment:

> That the words "£104 per annum" be left out, and that the words "fixed later" be substituted.

This was carried by 6 votes to 4.

Being put as a substantive motion, it was carried *nemine contradicente*.

DEPTFORD.

THE INSURANCE ACT.

AT a meeting of the Deptford Medical Committee the following resolution was unanimously passed:

> That this meeting of the Deptford Medical Committee, after considering the resolutions passed by the Representative Body of the British Medical Association on January 18th, 1913, trusts those practitioners who have not accepted the National Insurance Act will reconsider their position, and place their names on the panels in order to restore the unity of the profession and to consolidate its position for future action.

QUESTIONS IN PARLIAMENT.

SIR J. D. REES asked the Chancellor of the Exchequer on January 21st whether it had been found that the 1,956 names printed and published as those of members of panels in London were reduced to 738 when names entered more than once were excluded, that names were entered without any regard to the place of residence of the doctors named, and that in some cases they were repeated as often as ten times; and, if so, whether such proceedings had his sanction. Mr. Masterman said that the list published by the London Insurance Committee on January 13th showed 759 doctors on the London panel. They were shown in lists for the different boroughs for the convenience of insured persons making their choice,

each doctor being named in the list of any borough in which he had stated that he desired to attend insured persons.

Sir J. D. Rees inquired if there was any difficulty in filling the panel when doctors' names were inserted without their permission, and repeated in various quarters. Mr. Masterman replied that no name was entered without the doctor's permission, and no doctor's name was put as serving on any panel except at his specific request.

Sir J. D. Rees offered to supply instances of that nature, not only in London, but in Middlesex, and Mr. Masterman said he would be glad to investigate any such allegations.

Mr. Touche asked the Secretary to the Treasury, on January 21st, how many of the practitioners whose names appeared on the doctors' panel for the county of London were resident outside the county of London. Mr. Masterman said he was informed by the London Insurance Committee that twenty-two of the doctors whose names appeared on the London panel resided outside the boundaries of the Administrative County of London.

Mr. Touche asked whether the London Insurance Committee supplied the information on which the statement, published by the press on January 15th, that 1,955 doctors had accepted service on the London panel, was based; and whether the actual number was 783; or, if not, what was the actual number. Mr. Masterman replied that the answer to the first part of the question was in the negative. The information supplied officially by the London Insurance Committee on January 8th showed 759 doctors. The list published by them on January 13th showed 780 doctors, and subsequent additions had brought the number to over 900.

Mr. Touche asked how many of the doctors whose names appeared on the London panel had resigned. Mr. Masterman said that four doctors on the London panel had withdrawn, one of them because he was leaving London.

Mr. Touche asked whether there were not, approximately, 200 medical practitioners resident in the borough of Islington, and how many of the seventy-three doctors on the London panel for the borough were resident within the borough. Mr. Masterman said he was informed by the London Insurance Committee that of the seventy-six doctors on the London panel who were prepared to attend insured persons in Islington, twenty-nine were actually resident in that borough, but some of the remainder had surgeries within the boundaries of the borough.

Sir C. Kinloch-Cooke asked the Chancellor of the Exchequer, on January 22nd, whether he was aware that in some districts in London the nearest doctor on the panel was resident several miles distant from the insured persons; and whether he was prepared to remove this disability by allowing insured persons to be attended by doctors not on the panels who were willing to comply with the provisions of Section 15 (3) of Part 1 of the National Insurance Act. Mr. Masterman, who replied, said that the answer to the first part of the question was in the negative. The second part did not therefore arise. Sir C. Kinloch-Cooke offered to produce evidence in the affirmative, and Mr. Masterman said he would be very pleased to receive it.

Sir C. Kinloch-Cooke asked the Chancellor of the Exchequer, on January 22nd, whether the Insurance Committees in London and elsewhere had any power to alter the policy stated by him when explaining the Government policy regarding the National Insurance Act at Whitefield's Tabernacle on October 14th, 1911, that under that measure any insured person could have the doctor of their own choice. Mr. Lloyd George said he adhered to the statement. Providing the doctor was prepared to serve under the conditions of the Insurance Act, an insured person was entitled to his services under that Act.

Replying to a supplementary question by the same hon. member, Mr. Lloyd George said any doctor had the right to go on the panel, and there was a free choice of doctors on the panel.

Mr. Fred Hall asked the Chancellor of the Exchequer to give his official confirmation in that House to the statement he made at Whitefield's Tabernacle that any insured person was allowed to have whatever doctor he or she required. Mr. Lloyd George said that was not the statement he made. He referred to doctors on the panels. If doctors refused to serve under the Insurance Act, of course there was no free choice of doctors.

Other members rose to ask further questions, but the Speaker said it was a matter of debate, and not of question and answer.

Mr. Touche asked the Financial Secretary to the Treasury, on January 20th, if his attention had been called to a resolution passed by the London Medical Committee protesting against the recent formation of what was termed the London County Medical Committee (from among the members of which an executive committee had been formed) on the ground that in no sense consistent with reason, or in pursuance of Section 62 of the National Insurance Act, could the Insurance Commissioners be satisfied that such a committee could be regarded as representative of the 5,500 duly qualified medical practitioners resident in the county of London; and what steps were proposed to be taken by the Commissioners to secure that any body which was recognized under the Act satisfied the provisions of the Act. Mr. Masterman said that the Committee referred to had not yet been recognized by the Commissioners under Section 62 of the Act. The Commissioners, when considering applications made to them by a medical committee for recognition under that Section, required full information as to its composition and the procedure by which it was brought into existence.

HOSPITALS.

GLASGOW.

A CONSULTATIVE COMMITTEE appointed by the Royal Western and Victoria Infirmaries of Glasgow to consider the question of the treatment of insured persons under the Insurance Act has advised the adoption of the two recommendations of the British Hospitals Association, with the proviso that action should be postponed till the middle of February. These recommendations were:

1. With reference to out-patients the council is strongly of opinion that upon medical benefit under the National Insurance Act coming into force, insured persons should be examined by a medical officer, but except for accidents, emergencies, or such special treatment as can only be given in a hospital, they should no longer be received in the out-patient and casualty departments unless accompanied by a certificate or introduced personally by the medical practitioner who is in attendance. In such cases, after consultation, they should be referred back to their medical practitioner with an expression of the opinion of the hospital physician or surgeon on the case. And a list of all such insured persons and the practitioners by whom they are sent should be forwarded to the Insurance Committee of the district periodically.
2. With reference to in-patients, insured persons, whose cases are urgent and in need of hospital treatment, not provided for under the National Insurance Act, should be admitted as heretofore, and the hospitals should keep accurate records of all such persons admitted, and if possible the approved society to which they belong.

Meetings of the governors of each of the infirmaries have since been held. The boards of the Western and Victoria Infirmaries have unanimously adopted the recommendations, while the board of the Royal Infirmary, after discussion, adjourned its decision.

INSURANCE ACT IN PARLIAMENT.

ADMINISTRATION OF MEDICAL BENEFIT.

The Panels.

MR. FRED HALL asked, on January 15th, what steps had been taken to ensure that Insurance Committees, in forming panels of doctors or otherwise, had consulted Local Medical Committees duly constituted as provided by Section 62 of the National Insurance Act. The Financial Secretary to the Treasury said that every duly qualified medical practitioner who was desirous of being included on any panel had a statutory right under Section 15 (2) (*b*) of the National Insurance Act to be so included. The formation of Local Medical Committees rested with doctors themselves. Their statutory right under Section 62 to be consulted by the Insurance Committees depended upon their applying to and satisfying the Commissioners that they were representative of the practitioners resident in the area for which the Committee was formed, and also upon their receiving recognition by the Commissioners.

On January 20th Dr. Esmonde asked whether some benefit societies had issued circulars to their members urging them to select particular doctors on the panel, and

had also sent canvassers to their members to inform them that they were required by the society to select certain doctors who were named; whether in the majority of cases that was being done with reference to members of those societies who only became members of any friendly society for the first time under the provisions of the National Insurance Act, and who were not patients of the particular doctors named; and whether, in view of the effect of such pressure or canvassing carried on with the connivance of the doctors who were favoured by the officials of those societies upon the other doctors who had gone on the local panels, and whose patients were thus interfered with, the Insurance Commissioners would have immediate steps taken to prohibit societies interfering in this manner. Mr. Masterman said that every insured person had a right to select the practitioner on the panel by whom he wished to be attended, and the issue of any circular which concealed this fact would be unjustifiable. If he were informed of any actual case in which a circular had been issued stating that members were required by the society to select certain doctors who were named, he would see if action should be taken.

Mr. William Thorne inquired if the panels were filled throughout the country. Mr. Masterman said he thought that with a few tiny exceptions the panels were now in operation in all districts.

Mr. W. Thorne asked how the insured persons were going to get medical benefits where the panels were not set up. Mr. Masterman replied that in every case doctors were provided for insured persons.

Mr. Hogge asked what steps had been taken to acquaint insured persons with the names and addresses of doctors on the panel; and whether lists of their names and addresses had been circulated to each insured person, or, failing that, whether their names and addresses had been advertised in the local press. Mr. Masterman said that lists of doctors on the panel had been set up in all post-offices, and in offices of the Customs and Excise officers, at police-stations, labour exchanges, and hospitals, and had also been sent to the local branches of approved societies who asked for them. Lists had not been supplied to individual insured persons, but certain newspapers had, he believed, published local lists. In reply to Mr. Fell, Mr. Masterman said that the lists were communicated to all the approved societies.

Mr. Newman asked whether, before admitting the name of any practitioner who might apply to have his name placed on a panel in its area, the Insurance Committees had been directed by the Insurance Commissioners to investigate the validity and worth of any foreign or American degree that such applicant might adduce as proof of ability to fulfil the duties required of him. Mr. Masterman said that he was not aware that any medical practitioners had been included on any panel except duly qualified medical practitioners—that was, practitioners for the time being registered under the Medical Acts. No foreign or colonial practitioner was entitled to be registered unless he possessed the qualifications prescribed by the Medical Act, 1886.

In reply to Mr. Newman, Mr. Masterman said that the question of the manner in which lists of doctors on the different panels were published was entirely a matter for the Insurance Committees themselves, acting in conjunction with the medical men on the panels. He believed there had been local variations in the procedure adopted, but he did not believe that they had caused any difficulties to insured persons making their choice.

Mr. Touche asked, on January 20th, how many of the doctors on the panel for the county of London were also on the panels of neighbouring counties? Mr. Masterman said he believed that some doctors resident near the border of the administrative county of London had arranged to continue to treat insured persons the other side of that border under the Insurance Act as formerly in private practice. A complete answer to the question would involve the separate examination and comparison of the panels of Middlesex, Surrey, Kent, Essex, West Ham, and Croydon.

Major White asked whether any doctors were entered on more than one panel under the National Insurance Act; if so, how many; and how many of them had been registered in more than two districts. Mr. Masterman replied that where a doctor living near the boundary between two contiguous areas had patients in both, he had, of course, placed his name on the panel of both. It would obviously have been detrimental to the interests not only of the doctors, but of insured persons, that any such artificial divisions as arose from Local Government boundaries should preclude insured persons from continuing to receive the services of their own doctors. The figure of 15,000, given as the number of doctors on panels in Great Britain, was arrived at after making a liberal discount for cases of that kind.

Major White asked how many duplicates were upon the panels, and Mr. Masterman said that to give an answer it would be necessary to examine all the boundaries of Great Britain. Major White then elicited the information that there was only one panel for the county of London; its division into lists for the separate boroughs was, Mr. Masterman said, for the assistance of the insured persons in their selection of a doctor within convenient distance of their homes. Doctors were asked what districts they wished to serve, and the lists were prepared accordingly. The number of doctors on the London panel in the first list was 780, and he had learnt that more than 100 new names had since been received.

Mr. W. Thorne asked if any steps had been taken to prevent a doctor from having more patients than he could attend. Mr. Masterman replied that he did not think any doctor had sent in any list of the number he had already received.

Mr. Bowerman asked the Chancellor of the Exchequer, on January 20th, whether, in view of the decision arrived at on January 18th at a Representative Meeting of members of the British Medical Association, it was intended to allow further time for the completion of the doctors' panels, and also when it was intended to set up the Local Medical Committees. The Chancellor of the Exchequer said that so far as he was aware the panels were still open throughout the greater part of the kingdom, and doctors might send in their names for addition to them to the Local Insurance Committee. The date of publication of those names rested with the local committees. Applications for recognition from Local Medical Committees could at any time be sent to the Insurance Commissioners for approval.

Certificates for Medical Benefit.

In reply to a question by Sir J. D. Rees, on January 21st, Mr. Masterman reiterated his statement with regard to medical certificates for the purpose of sickness benefit. It was, he said, for the societies to take such steps as were necessary for the protection of their funds and the rights of their members, and the question whether an insured person was really ill or not was one for the approved society.

Sir H. Craik: Is it understood that all benefits under the Insurance Act depended upon whether the insured person went to a doctor on the panel? Mr. Masterman said that he could not give an answer unless the hon. gentleman interpreted to him what he meant by the question, "Is it understood." Sir H. Craik: Is it a fact, then? To this no reply was given.

Assistants.

Mr. Worthington-Evans asked, on January 16th, whether, where a panel had been constituted, it was necessary for panel doctors' assistants to be also on the panel before they were permitted to treat insured persons; and whether the locumtenent of a panel doctor must be on the panel before he could look after the panel doctor's patients. Mr. Masterman, in reply, said that where a panel was constituted it was open to a qualified assistant or locumtenent (if his principal assented) to place his name on the panel. An assistant or locumtenent whose name was not thus on the panel might only treat insured persons on behalf of his principal when the latter was precluded by urgency of other professional duties, absence from home, or other reasonable cause, from giving personal attendance to an insured person under his care. Mr. Worthington-Evans inquired if the ordinary two or three weeks' holiday would be considered a reasonable cause. Mr. Masterman said, Yes, it would include a case of that sort.

Mr. John Ward asked the Secretary to the Treasury, on January 6th, whether doctors placed on the insured panels would be authorized to hand over their cases under the

National Insurance Act to qualified assistants, and, if so, what power would the representatives of the approved societies on the Insurance Committees possess to insist upon a proper salary being secured to such qualified medical assistants. Mr. Masterman said that it was the duty of the Insurance Committee to take any necessary steps to secure that the service provided by any assistants was satisfactory, but, subject to this, the salary of such assistants was a matter for their principals and themselves to determine.

Change of Residence of Sick Insured Person.

Colonel Rawson asked the Secretary to the Treasury if a member of an approved society was taken ill at such member's employer's house, and had medical attendance from a doctor at that place, in the event of the employer sending the member home, say to another county, and such member still requiring medical attendance, whether the member was entitled to have another doctor at the member's own home. Mr. Masterman replied: Yes, provided that the insured person notified the Insurance Committee in whose area his own home was situated.

Hours of Attendance.

Mr. Fred Hall on January 22nd asked if list doctors were entitled to prescribe and limit the hours during which they would attend insured persons, as in some cases doctors had intimated that their services were only available for insured persons between the hours of 9 and 10 a.m., and 5 and 6 p.m.; and what was the position of persons who could not attend during such restricted hours. Mr. Masterman replied that each doctor on the panel was required to see patients at his own residence or surgery, or other place appointed him at stated hours, such hours being agreed upon between the doctor and the Insurance Committee. Any patient whose condition so required must be visited by the doctor at the patient's own home.

Limiting Doctors' Lists.

Mr. Masterman, in reply to Mr. R. Gwynne on January 22nd, said no doctor ought to accept more insured persons upon his list than he considered he could properly be responsible for, and any insured person who had reason to believe that he was receiving inadequate attention from a doctor under the Act could bring his case before the Medical Service Subcommittee set up by the regulations. Mr. Fred Hall asked if an insured person could receive adequate treatment by doctors where each doctor on the panel had to attend 4,500 insured persons, as in Marylebone. Mr. Masterman began to reply, but the Speaker interrupted, and called on the member who had the next question on the paper.

Selection of Patients.

Mr. Worthington-Evans asked, on January 20th, whether a doctor might join the panel and by his agreement stipulate that he would give medical attendance and treatment only to patients who selected him, and not to patients who might be assigned to him without their wish and without his consent by the Insurance Committee. Mr. Masterman referred Mr. Worthington-Evans to the answers already given to similar questions (SUPPLEMENT to the BRITISH MEDICAL JOURNAL, January 11th, p. 39, and January 18th, pp. 81 and 82), to which he had nothing to add. Mr. Worthington-Evans asked for a specific answer to the question, stating that it had never really been answered before. Mr. Masterman replied that it had been answered three or four times. Mr. Worthington-Evans asked if a doctor could stipulate by the agreement that he should only attend his own patients and not those assigned to him. Mr. Masterman said that if the Insurance Committee accepted that agreement, certainly.

Aged Members of Approved Societies.

In reply to Mr. Clynes on January 15th Mr. Masterman said that employed persons who were over the age of 65 on July 15th last were insured under the special provisions of Section 49, under which their benefits were such as their society might determine and could provide out of their own and their employers' contributions and the State 2d. Societies had, in fact, preferred to use the funds available under the Act for giving sick pay, continuing any arrangements they had made in the past for medical benefit from the private funds of the society. Insured persons who entered insurance under the Act before the age of 65 were entitled to medical benefit till their death at whatever age; and he was not aware of any statement to the contrary issued by the Commissioners.

Compensation for Accidents.

The Marquis of Tullibardine asked, on January 21st, whether a doctor meeting with an accident or injury while attending to, or going to or from attending a case under the National Insurance Act received compensation for such injury. Mr. Masterman said that the answer was in the negative. He was advised that a doctor on the panel was not in the position of an employee of an Insurance Committee, and had no more title to compensation from that committee in case of accident than a doctor attending a private patient had from that patient.

The Marquis of Tullibardine inquired if a doctor under the Local Government Board could not get compensation. Mr. Masterman said he supposed in that case he was an employee of the Local Government Board. No doctor on a panel was an employee of the Insurance Committee.

Depreciation of Medical Practices.

Sir J. D. Rees asked, on January 16th, whether the Secretary to the Treasury was aware that a practice in Middlesex, worth £1,500 before the passing of the National Insurance Act, was now unsaleable; whether he was aware that doctors who, for reasons of health or otherwise, would only be able to perform consulting work in their own houses, and were unable to join the panels, would be ruined, since as many as 80 per cent. of their patients would become insured persons; and whether he would inquire into those effects of the National Insurance Act. Mr. Masterman referred Sir J. D. Rees to the reply he gave on January 1st, when he intimated that he was not aware that a practice for which £1,200 was offered before the National Insurance Act was in sight realized £900 soon after it was passed, and was now unsaleable, and that he was unaware that any scheme of compensation was required in connexion with an Act which he considered would greatly increase the remuneration of those who accepted service under it.

Sir J. D. Rees inquired if the Secretary to the Treasury noticed that the instance referred to was another case, and, as he doubted the generality of his statement, would he take into account the fact that there were many such cases, and make an inquiry. Mr. Masterman replied that it was far too early to make an inquiry. All he could say was that, as a result of the working of the National Insurance Act, the practices of many doctors would probably be doubled in value.

Sir J. D. Rees asked if the medical profession were no judges of their own business. Mr. Masterman replied that the members of the medical profession were coming in to work the Act in large numbers. The Speaker intervened by saying that the controversy could not be raised at question time.

PROPOSED GRANT TO IRELAND.

On January 21st the Chancellor of the Exchequer informed Mr. Fred Hall that the proposed grant of £50,000 to Ireland for the provision of insurance benefits was supplementary to the funds already provided by the United Kingdom for the working of the National Insurance Act in Ireland, but in the event of the extension of medical benefit to Ireland it would be merged in the grant for that purpose. The object of the special grant was to provide a contribution towards certain expenses arising in Ireland in connexion with national insurance owing to the absence of medical benefit in that country. There was therefore no corresponding grant in Great Britain where medical benefit existed.

Mr. W. O'Brien asked if the House would have an opportunity of discussing the matter this session, but Mr. Lloyd George declined to pledge himself.

Sanatorium Benefit.

Mr. Cassel asked the President of the Local Government Board, on January 15th, what sums had up to January 1st, 1913, been granted for the provision of sanatoriums and other institutions for the treatment of tuberculosis under the National Insurance Act, 1911, in England, Wales, Scotland, and Ireland, respectively. Mr. Burns said that the Local Government Board were only concerned with the distribution of the capital grant in England. No

capital grants had been actually distributed towards buildings, but the Board was negotiating with many local authorities in regard to schemes, and in some cases the arrangements had so far advanced as to enable the Board to promise grants subject to the concurrence of the Treasury.

Mr. C. Bathurst asked the Chancellor of the Exchequer, on January 16th, whether he realized that in Mr. Henry Hobhouse's letter written to him on behalf of the County Councils Association, in reference to sanatorium benefit, in July last it was stated that local authorities were prepared to bear 25 per cent. of the deficit arising from sanatorium maintenance schemes if the remainder were provided from other sources; that in his reply, published and circulated by the Local Government Board, the local authorities were by an error stated to be willing to contribute 25 per cent. of the whole annual cost of such schemes; that such authorities were, in fact, wholly unable to increase by this amount the already heavy burdens upon their ratepayers; and whether, under such circumstances he could see his way to increase the Exchequer grant so as to enable local authorities to provide sanatorium benefit to all persons within their areas seriously affected by tuberculosis. Mr. Lloyd George said he thought the hon. member was under a misapprehension. The exact terms of the memorandum forwarded by Mr. Henry Hobhouse were as follows:

> As regards the maintenance of insured persons, the association would desire to know what sums will be actually available for the county councils under Section 16 of the Act. They desire to express a strong opinion that such a sum should amount at least to 75 per cent. of the annual cost of maintenance of the institutions to be provided, and that a similar percentage should be provided by the Exchequer in respect of the maintenance of non-insured persons.

That was exactly consistent with his letter of July 31st last, which stated:

> I gathered that local authorities are prepared to bear 25 per cent. of the annual cost of schemes if the remainder were provided from other sources.

In both statements the percentage taken was explicitly a percentage of the annual cost of the schemes and not of the deficit arising if the remainder were provided from other sources.

Mr. Hugh Barrie asked the Chancellor of the Exchequer, on January 16th, the amount of the intended grant-in-aid to be given to Irish county councils to assist in providing sanatorium treatment for uninsured persons, and to meet the cost of providing sanatorium treatment for insured persons, in so far as insurance contributions would be insufficient for the purpose. Mr. Masterman said the intention was that the amount of the annual grant should be one-half of the total net cost incurred, within reasonable limits, by or on behalf of a county or county borough council, or combinations of those bodies, in the treatment, according to a scheme approved by the Irish Local Government Board, of tuberculosis in the area, of all persons, whether insured persons, dependants of insured persons, or persons who were neither themselves insured persons, nor their dependants, after deducting the amounts received from Insurance Committees out of the moneys available under the National Insurance Act for sanatorium benefit, and any sums received in respect of the treatment of non-insured persons or otherwise. A circular explaining the conditions of the grant in detail was now in draft, and would shortly be issued by the Irish Local Government Board.

Mr. Barnes asked, on January 20th, whether, in the case of an insured person who had been certified for sanatorium treatment, and for whom accommodation could not be found, the National Insurance Commissioners had any power to render that person financial or other assistance pending his entry into a sanatorium; if not, whether it was anticipated that there would be any such cases in the normal working of the Act; and, if such cases would be possible or probable, steps could be taken to secure the power referred to. Mr. Masterman replied in the affirmative, adding that if there should be any such cases both financial and other assistance would be provided; for during any period between an insured person becoming incapable of work and his actual entry into a sanatorium he would receive domiciliary treatment, including both medical attendance and the provision of medicines, and also extra nourishment, etc., ancillary to the treatment; and he would also be entitled, under the ordinary conditions, to sickness benefit, normally of 10s. a week.

CORRESPONDENCE.

[It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor, BRITISH MEDICAL JOURNAL, 429, Strand, London, W.C.]

SPECIAL REPRESENTATIVE MEETING OF JANUARY 17TH.

DR. HARDING H. TOMKINS (Vice-Chairman South-West Essex Division) writes: As suspicion fell upon me of having divulged proceedings to the press on account of my taking notes in the gallery at the Special Representative Meeting on January 17th, I feel an explanation is due to the Representatives. Not having broken my pledge I am equally incapable of violating the trust implied by my presence at the meeting, and the reason for note-taking was that as Secretary of the Local Medical Committee, Essex, I had to attend a meeting before the issue of the BRITISH MEDICAL JOURNAL, at which, I may now add, I was able to make a statement that went some little way towards carrying out an expression of opinion of the Representatives.

"CONTRACTING OUT."

DR. H. BRYAN DENSHAM (Stockton-on-Tees) writes: It is advisable that those general practitioners who have not placed their names upon the panels should act on similar and defined lines in dealing with the question of "contracting out."

In dealing with this question I shall confine myself to the case of those who contract out as private patients, and shall not deal with those who may desire to contract out on a capitation basis as members of works' clubs, etc.

It is clear from Clause 15, sec. 3, of the Insurance Act, and paragraphs 6, 43, 44, and 45 of the "Explanatory Statement as to Medical Benefit" issued by the Insurance Commissioners that both those responsible for the framing of the Act and those who will be responsible for its administration have regarded "contracting out" as a process they were prepared to accept, subject to the consent of the Local Insurance Committees. Until the last two or three weeks it has been generally understood that the extent to which "contracting out" would be allowed would depend only on the number of the insured who might desire to take this course.

Those in authority have changed their attitude towards this question, and now maintain that "contracting out" can only be allowed under very special circumstances in individual cases. Further, that any attempt to obtain "contracting out" on an extensive scale would be regarded as an attempt to defeat the purposes of the Act, and that those advocating this course would be regarded as enemies of the Act.

It is as absurd to regard those of us who have not placed our names upon the panel as therefore necessarily opposed to the Act, as it would be to regard those medical men who have placed their names upon the panels as therefore necessarily in favour of the Act.

I am a lifelong and active Liberal and a sincere admirer of the general principles of the Insurance Act. But I cannot place my name upon a panel, because I regard the administration of medical benefit as unjust to the medical profession, and therefore likely to prove unsatisfactory to those insured.

The medical profession as an organized body has no longer the ear of those responsible for administering the Insurance Act. But those insured under the Act possess a power which, if they assert, no Government can withstand. Therefore, those medical men who are standing out must have sufficient confidence in themselves and in the justice of their cause to hold firm until the question of "contracting out" has been fully solved. That is to say, until the insured have obtained their right to utilize their full medical benefit in any way they may regard as most to their advantage, subject to reasonable safeguards as to the efficiency of the medical treatment they obtain.

This is bound to come when those insured better understand the Act and the conditions of medical service. My experience of the working classes is that the bulk of them

profoundly distrust club or contract service. They realize that under this system you attempt to standardize the price of an article of varying value. The result is that the method is most profitable to the man who supplies the article of the least value, and *vice versa*.

The more intelligent of the working classes have only to realize that under a system of "contracting out" they can obtain the services of the doctor of their choice under conditions of private practice, and have the greater part, if not the whole, of the cost of their medical service paid for them from their "pooled" medical benefits, and they will demand this right and will not be denied.

It must take time for the insured fully to appreciate the situation, but we can shorten this period if we fully utilize our opportunities of informing our patients of their rights under the Act.

In the meantime we must go on in faith, and I have every confidence that those who stand firm by what they believe to be right will find before long that they have chosen the course which is not only most consistent with the preservation of their self-respect, but also the one which is to the advantage of their practice. It is to be hoped that in towns where all the men have gone on the panels the stronger men will reconsider their position, and so aid in increasing the demand for "contracting out."

Our proper course of action seems to be clear. We must explain to those of our patients who are insured that it is their right to be allowed to "contract out" if they so desire. They should assert that right, whether or no they themselves desire to take advantage of it.

If they are denied that right the situation will be:

1. Unjust to those insured, in that they are deprived of a choice expressly provided for them in the Act.

2. Unfair to those medical men who have not placed their names on the panels, and who should not be penalized for standing firm for what they believe to be right.

3. Not in the public interest, in that money contributed from the public purse will only obtain for those insured a needlessly restricted medical service.

The following leaflet issued here was drawn up before we had heard of Form Med. 21.

NATIONAL INSURANCE ACT.

What is Meant by "Contracting Out" for Medical Benefit.

All insured persons have a right under Clause 15. Sec. 3, to be allowed to "Contract out" for their Medical Benefits, and so retain the services of their present Doctor, whether he is on the Panel or not.

You may "Contract out" in Two Ways:

1. *If you are a Member of a Work's Club, Friendly Society, or other Club providing Medical Benefit*, you may continue to receive your Benefit in the same way as before.

Under this system the whole cost of your Medical attendance will be paid for you, and you will not be put to any additional cost.

2. *If you are a Private Patient of your Doctor*, this will probably be the system adopted:

All those who thus "Contract out" will have the amounts of their Medical Benefit placed together in a "Pool."

Their Doctor will attend them at the same Fees and under the same conditions as before.

All cost of Medical Attendance will be charged against this "Pool."

If the amount in the "Pool" is sufficient all Fees will be paid in full from it.

If the amount is not sufficient you will have to pay the balance.

It is not possible to say if the amount in the Pool will be sufficient to pay all Fees until the system has been tried.

If the estimates made prove correct, the amount in the Pool should be sufficient to pay in full.

How to Proceed if you decide to Contract Out.

Take your Red Card to your own Doctor who will sign it.

It should then be sent to the Clerk of the Insurance Committee either direct or through the Secretary of your Approved Society.

Threat to Close a Panel and Utilize Assistants.

Under this heading the action taken by the Isle of Ely Insurance Committee, contrary to the general consensus of opinion of the profession in and around Wisbech, was noticed in the Supplement of January 11th and 18th, pp. 44 and 80.

The following letter has since been forwarded to us for publication:

Wisbech,
January 21st, 1913.

Sir,—

Although the British Medical Association has released its members from the pledge and undertaking, we, the undersigned medical practitioners in the Isle of Ely, still considering that the conditions of service under the Act are unsatisfactory to the profession and against the best interests of the public, have resolved to adhere to the former policy of the British Medical Association and decline to take service until the conditions are acceptable.

Max F. Tylor.	Rupert Butterworth.
C. H. Gunson.	Jas. G. Burgess.
G. H. Lucas.	Oswald Horrocks.
P. Bateman.	R. E. Nix.
H. C. Meacock.	Robert H. Barrett.
E. A. Bullmore.	

Collective Withdrawal from Panel owing to Impossibility of Efficient Working.

Sir,—Having attempted to do the work under the Insurance Act as at present constituted after being stampeded on to the panel on account of the Chancellor's threats, we find it a physical impossibility to carry out the work.

We have asked that our names be withdrawn from the list. Further, we are refusing all applications from insured persons.

Having already accepted several names for treatment, we have notified those persons that we are willing to treat them in case of illness gratuitously if they so wish until April 30th, 1913.—We are, etc.,

Frederick B. Jefferiss.
Herbert J. Bryan.
H. A. Barnes.
Chatham, January 21st. W. R. S. Jefferiss.

Fee for General Anaesthetic.

The following correspondence has passed between Dr. E. Rowland Fothergill (Brighton) and the Insurance Commissioners:

January 11th, 1913.

Gentlemen,

Fee for General Anaesthetic.

In spite of replies sent by the Chairman of the English Commissioners and others which seem to convey the opinion that, in a case where a doctor has agreed to give himself, or to provide, medical attendance for an insured person for a period of time for a fixed payment, that doctor will be financially liable for the fee of any anaesthetist called in on his advice to assist him in a minor operation, there is still a great deal of confusion.

May I, therefore, by illustration place before you a typical case, ask for your opinion, and at the same time ask if that opinion can be taken as being based on the interpretation of the National Insurance Act and Regulations by the law officers of the Crown, or whether it is only the opinion of the Commissioners as a body?

Dr. A. agrees to attend for three months under the Act and Regulations Mr. B. for 1s. 9d. under system A.

Mr. B. so injures his finger as, in the opinion of Dr. A., to necessitate its amputation.

Dr. A. advises Mr. B. that a general anaesthetic is necessary; states that he has agreed to give all treatment personally (Sec. 9 of Agreement); that it is not expedient to operate and give the chloroform, but that he will do it if the patient, Mr. B., agrees to it; that if he does not agree, then Mr. B. must pay the fee of the anaesthetist.

Mr. B. agrees to pay the fee, and does so. The operation is performed.

Questions.

A. Can Mr. B. claim later, from or through the Insurance Committee, the return of the fee?

B. Can the Insurance Committee refund this fee, deducting the amount from the credit account of Dr. A.?

C. By what means can Mr. B. secure the advantage of a general anaesthetic, given by a second person, if Dr. A. declines to provide it unless Mr. B. pays the fee?

D. Who is to decide that a general anaesthetic given by a second person is expedient when Dr. A., to save his pocket, says that it is not, and Mr. B., to save his feelings, and possibly his life, says that it is?

As this question is coming up at a meeting to be held on Tuesday (14th) might I ask for a prompt reply?

Yours faithfully,
E. ROWLAND FOTHERGILL.

To the Commissioners,
Buckingham Gate.

[*Telegram.*]

Fothergill, 38, Dyke Road, Brighton.

Your letter 11th. Panel doctor on capitation system must in cases of minor operations provide anaesthetist free to patient.—Insurance Commission.

[*Reply.*]

January 15th, 1913.

I duly received your telegram at 11 p.m. yesterday too late by many hours to be of any use to the Committee.

Might I draw your attention to the fact that my letter of 11th inst. enclosed certain specific questions framed to meet the uncertainty in the minds of certain doctors here. Your telegram in no way answers any one of them.

May I, therefore, again press for a reply, and if received by Sunday it will be in time for next meeting.

Yours faithfully,
E. ROWLAND FOTHERGILL.

National Health Insurance Commission (England),
Buckingham Gate,
London, S.W.,
January 18th, 1913.

Sir,

In reply to your letters of the 11th and 15th instant, I am directed by the National Health Insurance Commission (England) to point out that under the terms of his agreement with the Insurance Committee a medical practitioner undertakes to give to his patients such treatment as is of a kind which can consistently with the best interests of the patient be properly undertaken by a general practitioner of ordinary professional competence and skill. Assuming therefore that the operation in question is one that is properly included in the range of services covered by medical benefit, it would not be open to a medical practitioner to require of his patient a fee in respect of services which by his agreement he had undertaken to render, or to suggest to him the adoption of a procedure which he considers inexpedient having regard to the best interests of the patient. Either course would constitute a breach of his agreement with the Committee. Your questions A and B do not therefore arise, while the answers to your questions C and D are to be found in Regulations 52 and 55 of the National Health Insurance (Administration of Medical Benefit) Regulations dated December 5th, 1912.

I am,
Sir,
Your obedient servant,
E. MACGOWAN.

Dr. E. Rowland Fothergill,
Ravenstonedale,
38, Dyke Road, Brighton.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BATH: ROYAL UNITED HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BIRMINGHAM EDUCATION COMMITTEE.—Dental Surgeon. Salary, £250 per annum.

BRADFORD ROYAL INFIRMARY.—Resident Surgical Officer. Salary, £150 per annum.

BRISTOL ROYAL INFIRMARY.—(1) House-Physician. (2) Dental House-Surgeon. (3) Obstetric and Ophthalmic House-Surgeon. (4) Resident Casualty Officer. Salary for (1) and (2), £100 per annum, for (3) £75 per annum, and (4) £50 per annum.

BURNLEY: VICTORIA HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CAMBRIDGE: COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £160 per annum, rising to £200.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Two Assistant Surgeons.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—House-Surgeon. Salary, £80 per annum.

DAVOS PLATZ: QUEEN ALEXANDRA SANATORIUM.—Medical Superintendent. Salary, £200 per annum.

FRENCH HOSPITAL, Shaftesbury Avenue, W.C.—Third Physician in the Out-patient Department.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. Salary, £75 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Physician. (2) House-Surgeon. (3) Casualty Medical Officer. Salary for (1) and (2) £30 for six months and £2 10s. washing allowance, and for (3) £200 per annum.

LEICESTERSHIRE COUNTY COUNCIL.—Tuberculosis Medical Officer. Salary at the rate of £500 per annum.

LIVERPOOL DISPENSARIES.—Head Surgeon. Salary, £170 per annum.

LIVERPOOL INFECTIOUS DISEASES HOSPITAL.—Assistant Resident Medical Officer. Salary, £120 per annum.

LONDON HOSPITAL, Whitechapel, E.—Assistant Surgeon.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer at the Queen Mary's Hospital for Children, Carshalton. Salary, £150 per annum, rising to £180.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) House-Surgeon. (2) Assistant House-Surgeon. Salary at the rate of £60 and £40 per annum respectively.

MILDMAY MISSION HOSPITAL, Bethnal Green, N.—House-Surgeon. Salary, £80 per annum.

NEWCASTLE-UPON-TYNE TUBERCULOSIS DISPENSARY—Medical Officer (male). Salary, £500 per annum.

NOTTINGHAM CITY ASYLUM.—Second Assistant Medical Officer. Salary, £200 per annum.

OXFORD COUNTY ASYLUM, Littlemore.—Junior Assistant Medical Officer (male). Salary, £150 per annum, rising to £175.

READING: ROYAL BERKSHIRE HOSPITAL.—Honorary Assistant Physician.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Curator and Librarian. Salary at the rate of £120 per annum.

ROYAL NAVY.—Six Dental Surgeons for the Naval Forces. Salary, £1 per diem for seven days a week.

ST. MARK'S HOSPITAL FOR CANCER, FISTULA, AND OTHER DISEASES OF THE RECTUM, City Road, E.C.—House-Surgeon. Salary, £80 per annum.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C.—(1) Honorary Surgeon to Out-patients. (2) Clinical Assistant.

SALFORD ROYAL HOSPITAL.—(1) Honorary Physician. (2) Honorary Assistant Physician.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—(1) Surgeon to the Department for Out-patients. (2) Assistant Medical Registrar.

SOUTHPORT INFIRMARY.—Resident Senior House-Surgeon. Salary at the rate of £100 per annum.

SOUTH YORKSHIRE ASYLUM, Wadsley.—Fourth Assistant Medical Officer (male). Salary, £150 per annum, rising to £180.

STAFFORD: STAFFORDSHIRE COUNTY ASYLUM.—Assistant Medical Officer. Salary, £210 per annum.

STOKE-ON-TRENT: NORTH STAFFORDSHIRE INFIRMARY.—House-Physician. Salary, £100 per annum.

WESTERN OPHTHALMIC HOSPITAL, Marylebone Road, W.—Second House-Surgeon (non-resident), rising to First after six months. Salary at the rate of £40 and £50 per annum respectively.

WEST RIDING ASYLUM, Menston, near Leeds.—Fourth Assistant Medical Officer. Salary, £150 per annum, rising to £180.

WIGAN: ROYAL ALBERT EDWARD INFIRMARY AND DISPENSARY.—Assistant Honorary Surgeon in the Eye, Ear, and Throat Departments.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Pathologist and Bacteriologist. Salary, £200 per annum.

WORCESTER GENERAL INFIRMARY.—House-Surgeon. Salary, £100 per annum.

YORK DISPENSARY.—Resident Medical Officer (male). Salary, £140 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Buckie (Banffshire), Moreton-in-Marsh (Gloucester).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

DEATH.

GARNER.—On January 20th, John Edward Garner, M.D., son of the late Captain John Garner, R.N., Aberdeen, aged 60 years. Was interred at the Preston Cemetery, January 23rd.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. CASSELL AND CO., LTD., will publish at the end of January a new and enlarged edition of Dr. Herman's *Diseases of Women*, revised by the author and by Dr. Drummond Maxwell.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Exhibition of Clinical Cases.

ROYAL SOCIETY OF MEDICINE:
SECTION OF ODONTOLOGY, 1, Wimpole Street, W., 8 p.m.—Discussion on Mr. Badcock's Paper on Orthodontics in Modern Practice, reopened by Mr. J. F. Colyer.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:
SECTION OF MEDICINE, 1, Wimpole Street, W., 5.30 p.m.—Paper:—Dr. Noel D. Bardswell: Records of King Edward VII Sanatorium.
SECTION OF PSYCHIATRY, 1, Wimpole Street, W., 8.30 p.m.—Paper:—Dr. F. W. Mott, F.R.S.: The Neuropathic Inheritance.

WEDNESDAY.

HUNTERIAN SOCIETY, Library of St. Bartholomew's Hospital, 9 p.m.—Clinical and Pathological Evening. The President (Mr. A. H. Tubby) will show Cases of Fracture, illustrated by Skiagrams. Dr. E. Maynard: Fractured Femur, with Skiagrams. Mr. F. S. Kidd: (*a*) A Case of Osteogenesis Imperfecta, with Unusual Features; (*b*) Some Results from Pyelography. Dr. Haldin Davis: (*a*) Case of Paget's Disease of the Nipple cured by Radium; (*b*) Microscopical Slides of Favus, Molluscum Contagiosum, etc. Dr. W. H. Kelson: Tumour involving the Larynx in a Middle-aged Man.

ROYAL SOCIETY OF MEDICINE:

SECTION OF THE HISTORY OF MEDICINE, 1, Wimpole Street, W., 6 p.m.—Dr. Steeves: Medical Allusions in the Writings of Francis Bacon. Dr. Raymond Crawfurd will show some Plague Banners by Lantern Slides and the Epidiascope. Mr. B. Glanville Corney, I.S.O.: Some Oddities in Nomenclature and Their Origins. Mr. Alban Doran will give a Demonstration of Some Eighteenth Century Obstetric Forceps by Means of the Epidiascope. Mr. D'Arcy Power will show, for Mr. Sidney Young, F.S.A., a Register of Sea Surgeons from 1707-1744.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, St. Mary's Hospital, Paddington, W.—Clinical Evening. The Chair will be taken by Dr. Leonard Guthrie at 8.45 p.m. Cases to be shown at 8 p.m.

ROYAL SOCIETY OF MEDICINE:

SECTION OF BALNEOLOGY AND CLIMATOLOGY, 1, Wimpole Street, W., 5.30 p.m.—Discussion on Fibrositis, opened by Dr. Llewellyn (Bath). Dr. Stockman (Glasgow) will deal with the Pathology of the condition. Mr. Kenneth W. Goadby will deal with the Bacteriology of the condition.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION, S.W.—Wednesday, 4.30 p.m., The Cardio-Vascular System in Pulmonary Tuberculosis.

CANCER HOSPITAL, Fulham Road, S.W.—Wednesday, 5 p.m., Tumours of the Kidney.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics. Monday: 12 noon, Throat, Nose, and Ear; 2.15 p.m., Surgery; 3 p.m., Operations; 3.15 p.m., Medicine; 4.15 p.m., Ear and Throat. Tuesday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Surgery; 3.15 p.m., Medicine; Skin, 4.15 p.m. Wednesday: 11 a.m., Eye; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Eye Clinic; 4.30 p.m., Surgery. Thursday: 12 noon, Throat, Nose, and Ear; 2 p.m., Operations, Pathological Demonstration; 3.15 p.m., Medicine. Friday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Surgery. Saturday: 10 a.m., Radiography; 11 a.m., Eye.

MANCHESTER: ANCOATS HOSPITAL, Thursday, 4.15 p.m.—Post-graduate Clinic: Relation of Appendicitis to Gastric Ulcer.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m., Rheumatoid Arthritis and Osteo-Arthritis. Friday, 4.30 p.m., Prostatectomy.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, Some Recent Advances in the Treatment of Scoliosis (Lateral Curvature of the Spine); Tuesday, The Value of Tuberculin in the Diagnosis and Treatment of Tuberculosis; Wednesday, Psycho-Analysis (continued); Thursday, Shock during Anaesthesia; Friday, Spirochaetes.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Intracranial Tumours. Friday, 3.30 p.m., Trigeminal Neuralgia.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Gynaecological Demonstration, illustrated by Clay Modelling. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Special Demonstration of Selected Skin Cases. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

SEAMEN'S HOSPITAL SOCIETY, London School of Tropical Medicine, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical Laboratory Work daily (Saturday excepted), 10 to 12 a.m. Practical Protozoology, 2 to 3.30 daily. Advanced Protozoology, 10.30 a.m. to 1 p.m. daily. Medical Clinics, Tuesday and Thursday, at 3 p.m. Operations, Friday, at 3 p.m.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics 2 p.m., *X* Rays 2 p.m., Operations 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Surgical Registrar, 10.30 a.m.; Demonstration of Fractures, etc., 12 noon; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Medical Registrar, 10.30 a.m.; Lecture: Abdominal Diagnosis, 12 noon; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10.30 a.m.; Lecture, Neurological Cases, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture: Practical Medicine, 10.30 a.m.; Lecture: Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.; Surgical Registrar, 10.30 a.m.; Lecture: Surgical Anatomy of the Abdomen, 12 noon. Lectures at 5 p.m. each day will be given as follows: Monday, Diseases of the Pituitary Body; Tuesday, Yellow Fever; Wednesday, Practical Medicine; Thursday, Diseases of the Pituitary Body; Friday, Anaesthetics.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		JANUARY, 1913.
28	Tues.	Isle of Thanet Division, Margate, 3.45 p.m.
29	Wed.	London: Council Meeting, 2 p.m.
31	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		Liverpool Division.
		FEBRUARY.
11	Tues.	City Division, Manchester Hotel, Aldersgate Street, E.C., 9.30 p.m.
		London: Metropolitan Counties Branch, 4 p.m.
		South-West Essex Division, Whipps Cross Infirmary, 4 p.m.
13	Thur.	Birmingham Branch, Medical Institute, 3.30 p.m.
14	Fri.	Hampstead Division, Finchley Road, 8.15 p.m.
19	Wed.	Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
28	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.

Date.		Meetings to be Held.
		MARCH.
13	Thur.	Birmingham Branch, Medical Institute, 3.30 p.m.
		South-West Essex Division, Leyton, 4 p.m.
14	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
19	Wed.	Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
28	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		APRIL.
11	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
		South-West Essex Division, Brook House, Clapton, 9.30 p.m.
23	Wed.	Richmond Division, Richmond, 8.30 p.m.
24	Thur.	South-West Essex Division, Walthamstow Hospital, 4 p.m.
25	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 1ST, 1913.

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THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

ON Thursday, January 23rd, a meeting of the State Sickness Insurance Committee appointed by the Special Representative Meeting in November, 1912, was held at the house of the Association, 429, Strand. Dr. J. A. MACDONALD was in the chair, and the other members present were: *England and Wales:* Dr. R. M. Beaton (London), Miss Frances Ivens, M.S. (Liverpool), Mr. Herbert Jones (Hereford), Dr. Constance E. Long (London), Dr. D. G. Thomson (Norwich), Mr. E. B. Turner (London), Mr. E. H. Willock (Croydon). *Scotland:* Dr. R. McKenzie Johnston (Edinburgh). *Ex officio:* Mr. T. Jenner Verrall (Chairman of Representative Meetings).

APOLOGIES FOR ABSENCE.

Apologies for absence were read from the President (Sir James Barr), Dr. J. Adams (Glasgow), Dr. T. B. Costello (Tuam), Dr. T. A. Helme (Manchester), and Mr. D. F. Todd (Sunderland).

VACANCIES ON THE COMMITTEE.

The resignation of Mr. Willock, of Croydon, on the ground that, having been appointed a member of the Council, he could not afford the time for both offices, was accepted with regret.

The CHAIRMAN stated that the Chairman of Representative Meetings was taking steps to fill the vacancies created by this resignation and by that of Dr. Price, of Bangor.

PRESS SUBCOMMITTEE.

It was reported that the Press Subcommittee had issued the draft letter to members of the House of Commons and the Honorary Secretaries of Division which it was instructed to prepare at the last meeting of the Committee.

LONDON MEDICAL COMMITTEE.

In reply to questions it was pointed out that the London Medical Committee, the full title of which is the "Medical Committee appointed for the County of London," was constituted in accordance with the wishes of the State Sickness Insurance Committee, as set forth in the circular letter to local secretaries, asking them to call meetings of the profession as to Local Medical Committees, and that Dr. Haslip, President of the Metropolitan Counties Branch, was its chairman. Many members of that Committee being desirous of carrying out the policy of opposition to the medical conditions of the National Insurance Act in a more energetic manner, had formed themselves into another committee, styled the "London Medical Committee," under the chairmanship of Dr. F. J. Smith; this arrangement was made with a view of not prejudicing the position of the "Medical Committee of the County of London," should that body claim recognition under the Insurance Act as the statutory local medical committee for London.

CONTRACTING OUT.

The Committee considered the advisability of acting on the proposal to obtain a legal opinion upon the right of insured persons to make their own arrangements, and decided that, having regard to the statement made by the London Insurance Committee on January 10th, 1913, and by the Insurance Commissioners on January 13th, 1913, the present was not a suitable time to press for a decision, but that the efforts of the Association should at present be directed to drawing the attention of insured persons to the necessity of insisting upon their rights. The decision as to the date of further action contemplated under this head was deferred until the next meeting of the Committee, February 6th.

RESOLUTIONS OF THE SPECIAL REPRESENTATIVE MEETING, JANUARY, 1913.

Minute 40 was noted, and Minute 41 was noted for the guidance of the Committee and Council in dealing with any such cases as might arise in the future:

Minute 40.—Resolved: That this Representative Meeting, recognizing the force of present circumstances and consulting the best interests of the Association and the unity of the profession, now releases all practitioners from their undertaking and pledge.

Minute 41.—Resolved: That any acceptance of service outside practitioners' own districts, parishes, and towns, involving a change of residence for the express purpose of accepting service, will be regarded as conduct detrimental to the honour and interests of the medical profession.

The minutes of the Special Representative Meeting with regard to the Central Defence Fund were also considered, and it was resolved to take the opinion of the Solicitor on certain points and to report to the Council.

Minute 45 of the Special Representative Meeting was also noted as follows:

> That this meeting records its emphatic protest against the discreditable methods adopted by the Government, whereby a position of urgency was created, under which many practitioners, finding themselves threatened with financial ruin, were compelled to give unwilling service under the National Insurance Act on terms which this meeting considers to be derogatory to the profession and against the public interest.

The Committee resolved to place on record its opinion that the decision of the Special Representative Meeting in January to rescind the resolution of the Annual Representative Meeting, 1912, allowed practitioners to apply for and accept appointments under the Act, due regard being had to the exceptions referred to in Minute 41 above.

Future Action.

The minutes of the Representative Meeting with reference to the future action of the Association and the sending out of an inquiry to all practitioners asking their opinion as to the conditions of service under the present provisional arrangements, and whether they would be willing to continue such arrangements, were considered, and the latter subject was deferred until the next meeting. The Committee noted the instruction contained in Minute 49 of the Representative Meeting, (*a*) to take all necessary steps to watch and protect the interest of the profession under the National Insurance Act; (*b*) to take any opportunity that may be afforded for placing the representatives of the Association on the Advisory and Insurance Committees; (*c*) to obtain statutory recognition of Local Medical Committees in every insurance area; (*d*) to collect information as to defects in the Act and Regulations, and to take all possible opportunities of remedying them.

Advisory Committees.

Dr. McKenzie Johnston stated that he had been invited to act upon the Scottish Advisory Committee, and the State Sickness Insurance Committee recommended him to accept the invitation, and expressed a general approval of practitioners accepting appointments upon Advisory Committees.

County Insurance Committees.

Dr. Thomson stated that the Local Medical Committee for Norfolk had forwarded to the Insurance Commissioners the names of practitioners suitable for appointment upon the County Insurance Committee under the provisions of Section 59 (2) (*c*) of the Act, and had been informed by the Commissioners that the election of those practitioners was subject to regulations to be made by the Commissioners, which it was hoped to issue at the earliest possible moment. The State Sickness Insurance Committee resolved to write to the Insurance Commissioners with reference to the delay caused in the appointment of medical practitioners upon Insurance Committees owing to the failure of the Commissioners to issue regulations governing this question, and to ask when the regulations would be issued.

It was reported to the Committee that action is being taken locally with respect to obtaining recognition of Local Medical Committees, and the Committee resolved to ask each Division before the expiration of three months to submit a report as to the local working of the Act.

Proposed Sickness, Accident, and Pension Fund.

The minutes of the Special Representative Meeting with reference to financial questions was referred to a special subcommittee, which was instructed to report after two weeks. The members of the subcommittee are the Chairman, Dr. Beaton, Dr. Carter, Mr. Todd, and Mr. Willock.

Expenses of Local Medical Committees.

The minute of the Representative Meeting under this head was considered, and the Committee expressed the opinion that no action should be taken by the Association to seek payment of the expenses of a Local Medical Committee from State funds, and advised the Council to consider the desirability of steps being taken by the Association to meet the expenses of these committees.

Methods of Obtaining the Opinion of the Association.

The minutes of the Representative Meeting asking the Council to consider in what way it would be possible to obtain more quickly than at present the decision of the Association in cases of urgency, and requesting the Council to utilize the postal vote of the whole profession on such questions, were considered.

The Medical Secretary reported that the question of the Association obtaining powers to take a postal vote of its members had been under the consideration of the Association for some years; that a report had been presented to the Annual Representative Meetings in 1911 and 1912; the subject had been referred back to the Council in 1912, and was under the consideration of the Organization Committee, which had, however, been unable to find time for the proper discussion of the subject.

The Committee resolved to make the following recommendations to the Council:

> That the Council refer to the appropriate committee to take into consideration what alterations in the constitution of the Representative Body can be made to enable the views of the profession to be obtained in a more effective and rapid manner than at present, and to consider whether a postal vote can be provided for under the constitution and should be sanctioned, and that the matter be considered to be one of urgency.

Fees for Uninsured Members of the Warehousemen and Clerks' Provident Association.

A letter was received from a medical officer of the Warehousemen and Clerks' Provident Association, informing the Committee that that association was endeavouring to secure medical attendance on its uninsured members at the old rate of 6s. a year, inclusive of medicines. It was pointed out that as a matter of fact the uninsured members were in many cases better off financially than the insured, for whom the sum of 7s. exclusive of medicines would now be received. The Committee gave instructions for a circular to be sent to all the medical officers of the Provident Association warning them against accepting such inadequate terms and promising any assistance the Association could give in the movement which had already been started to insist on not less than the insured rate for those members earning less than £160 per annum and 10s. 6d. for those earning more than that income.

Public Medical Service Schemes Approved.

The Chairman reported that he had since the last meeting approved, on behalf of the Committee, the following public medical service schemes, and the Chairman's action was approved: Fulham Sick Club, Lewisham Public Medical Service.

Meetings of Branches and Divisions.

METROPOLITAN COUNTIES BRANCH:

Lewisham Division.

A meeting of the medical practitioners of Lewisham was held at Sangley Hall, Catford, on January 19th. Dr. Comber was in the chair, and forty practitioners attended.

The Pledge.—Dr. Blue proposed and Dr. Macnamara seconded the following resolution:

> That we, the members of the medical profession in meeting assembled on January 19th, at Lewisham, while not condemning those who consider themselves forced in self-preservation to go on the panel, are of opinion that we should act in the best interests of the insured and also of the profession by adhering firmly to our determination to decline service under the National Insurance Act. We

pledge ourselves to take every opportunity to improve the position of our fellow practitioners unwillingly coerced to serve under the Act, after release from their pledge by the Association, and we urge all present to loyally support, both financially and otherwise, the British Medical Association in the united action necessary for ultimate success.

This was carried by 28 votes to 7. It was also decided to form a Lewisham Branch of the London Medical Committee, and a committee, consisting of Drs. Barnett, Bundey, Comber, Hudson Evans, Halliwell, Hemmans, Macnamara, and Wilson, was appointed to draw up a scheme to be considered at a subsequent meeting.

MARYLEBONE DIVISION.

A GENERAL MEETING of the Division was held in the rooms of the Medical Society of London, on January 27th. Mr. ATWOOD THORNE, Chairman of the Division, was in the chair, and forty-six members and two guests were present.

Minutes.—The minutes of the preceding meeting were confirmed.

Apologies for Non-attendance.—Letters of apology for non-attendance were received from Drs. Abercrombie, Hawthorne, Heywood, and Spon.

Special Representative Meeting.—The SECRETARY gave an account of the proceedings of the last meeting, and Mr. BISHOP HARMAN moved, and Mr. FLEMING BROWNE seconded, the adoption of the report, which was carried.

The Insurance Act.—Dr. DAVID ROXBURGH discussed the present position, with special reference to practitioners going on the panel, and moved:

> That this meeting of the Marylebone Division is of opinion that the Central Council of the British Medical Association should be requested without delay to inform the Divisions what amount is available for distribution to those practitioners who have suffered pecuniary loss by their loyal adherence to their pledges, and in what manner application for assistance should be made.

Dr. ACLAND seconded. Mr. E. B. TURNER was accorded permission to address the meeting, and gave an account of the present position as regards the Guarantee Fund and the position in London. After some remarks from Mr. HALLIDAY SUTHERLAND, the resolution was carried *nemine contradicente*. A discussion then took place, in the course of which Mr. MCADAM ECCLES congratulated the members of the Division on their loyal upholding of the decision of the Association. He stated that nearly 200 out-patients were being referred from St. Bartholomew's Hospital every day to the doctors on the panels, and discussed the loss which the members of hospital staffs would incur through the falling off of students. Mr. DREW raised the question of how nurses and servants in hospitals were to be treated, and Mr. WARREN LOW, Drs. ROXBURGH, GORDON LANE, FLEMING BROWNE, and DAVIS also spoke.

Vote of Thanks.—Dr. PERCY SPURGIN moved, and Dr. ACLAND seconded, a hearty vote of thanks to Mr. E. B. Turner for his speech. This was carried *nemine contradicente*, and the meeting then adjourned.

NORTH OF ENGLAND BRANCH:

SUNDERLAND DIVISION.

A MEETING of the Sunderland Division was held on January 21st. Dr. ADAMSON, Chairman of the Division, was in the chair, and twenty-four members were present. Dr. Middlemass wrote asking that his name be withdrawn from the Committee, and this was agreed to with regret.

Annual Report.—The annual report was read and adopted and ordered to be entered on the minutes. The financial report was postponed.

Payment of Personal Expenses of Representative.—It was resolved that a special Division fund be formed to pay the reasonable personal expenses of the Representative to Representative Meetings.

Clerical Assistance.—It was also agreed that clerical assistance be obtained for the Honorary Secretary of the Division and Honorary Secretary of the Medical Insurance Committee, and that only one Secretary be appointed for the Division.

Appointment of Chairman.—The CHAIRMAN moved and it was carried by acclamation that Mr. D. F. Todd be the Chairman for the ensuing year. Mr. TODD, in returning thanks, made reference to the Insurance Act. He also mentioned that he was the first Secretary of that Division, that at the first meeting seven members were present out of a roll of thirty-one, and that at the present moment the membership was 119. He also touched on several matters which he intended to press during his year of office in order to improve the organization of the Division, and pointed out that it would be necessary to increase the subscription to the Association to £2 2s. This he considered was a small amount considering the work which the Association had already done and was still doing for the profession, and also the excellence of the JOURNAL. He referred to the fact that he was the third successive Irishman to occupy the chair, and paid a glowing tribute to his two immediate predecessors, Drs. G. B. Morgan, sen., and J. Adamson, for the work done by them during their respective years of office. He concluded by proposing a vote of thanks to Dr. Adamson for his conduct in the chair during the past year.

This was carried unanimously, and Dr. ADAMSON suitably replied.

Election of Officers.—The following officers were elected for the ensuing year:

Vice-Chairman, Dr. Adamson.
Representative to Representative Meetings, Mr. D. F. Todd.
Honorary Secretary, Dr. Modlin.
Representative on Contract Practice Committee, Dr. Thompson.
Representatives on the Branch Council, Drs. Adamson, Dillon, Dix, Hubbersty, Middlemass, and Boyd Cunningham, the latter taking the place of Dr. Modlin, who as Honorary Secretary of the Division is *ex officio* a member of the Branch Council.
Executive Committee, Drs. Chalmers, Boyd Cunningham, Dillon, Dix, Hay, Hubbersty, Morgan, sen., Morison, Robertson, Rowstou, Thompson, and Wallace.

Model Ethical Rules.—The Model Ethical Rules of the British Medical Association (as printed in the SUPPLEMENT to the JOURNAL of September 21st, 1912) were adopted for the Division.

Standing Orders.—The Standing Orders of the Division were confirmed.

Annual Dinner of Division.—The HONORARY SECRETARY announced that Sir James Barr, the President of the Association, had kindly promised to address the Division on Rheumatoid Arthritis and its Treatment, on Friday, March 14th, 1913, and that the annual dinner of the Division will be held the same evening, with Sir James Barr as guest of the Division.

Vote of Thanks.—A vote of thanks was passed to the Chairman.

Association Notices.

NOMINATIONS FOR COUNCIL, 1912–13.

Glasgow and West of Scotland Branch (4 County Divisions), Border Counties, and Stirling Branches:

GEORGE ROBERT LIVINGSTON, M.D.,
47, Castle Street, Dumfries.

JAMES LIVINGSTONE LOUDON, M.D., D.P.H.,
Linnwood, Hamilton, N.B.

Cambridge and Huntingdon, East Anglian, and South Midland Branches:

BOSTON ELPHINSTONE FORDYCE, M.B., C.M.,
61, Chesterton Road, Cambridge.

LEWIS WILLIAM REYNOLDS, M.R.C.S., J.P.,
The Priory, High Wycombe.

NOTICE OF CHANGE OF NAME OF A DIVISION.

Greenwich and Deptford Division.

THE following change has been made in accordance with the regulations of the Association, and takes effect from the date of publication of this notice:

That the name of the Greenwich Division be altered to Greenwich and Deptford Division.

BRANCH AND DIVISION MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will be held conjointly with the Finsbury Medical Society at the Manchester Hotel, Aldersgate Street, E.C., on Tuesday, February 11th, at 9.30 p.m., when Dr. Batty Shaw will give an address on Tuberculins.—A. G. SOUTHCOMBE, Honorary Secretary.

National Insurance.

LOCAL MEDICAL COMMITTEES: RECOGNITION, DUTIES, AND POWERS.

The following analysis of the provisions of the Insurance Act and the Regulations for medical benefit, showing the manner in which recognition by the Insurance Commissioners is to be obtained and the duties and powers of such committees when recognized has been drawn up by the Medical Secretary for the convenience of members. The revised Regulations, to which frequent references are made below, were printed in the Supplement for December 7th, 1912, p. 627 *et seq.* The National Insurance Act (with Index) was printed in the Supplement for January 6th, 1912.

(A) Recognition by Insurance Commissioners.

Where a Local Medical Committee is formed for any County, County Borough, or District Insurance Committee area, and the Commissioners are satisfied that that Local Medical Committee is representative of the qualified practitioners in the area, they must recognize the Local Medical Committee (National Insurance Act, Section 62).

(B) Duties and Powers of Local Medical Committee when Recognized.

I. *General.*

It must, subject to regulations made by the Commissioners, be consulted by the Insurance Committee for the area on all general questions affecting the administration of medical benefit, including the arrangements made with practitioners for giving attendance and treatment to insured persons, and shall have such other duties and powers as may be determined by the Commissioners (Act, Section 62).

II. *Specific.*

(i) It must be consulted as to—

(*a*) Conditions of service of practitioners (Reg. 7 (1)).

(*b*) Method and rate of remuneration of practitioners (Reg. 7 (1)).

(*c*) Rules with regard to the administration of medical benefit (Reg. 9). (Model Rules have been published by the Commissioners; vide Supplement to British Medical Journal of October 5th, 1912, p. 372.)

(*d*) Fixing, varying, or abolition of an income limit (Reg. 14 (2)).

(*e*) Revision of prices of drugs and appliances (Reg. 35).

(ii) It has a right to make to the Commissioners, and to have considered by them, representations regarding any arrangements as to medical benefit submitted by the Insurance Committee to the Commissioners for approval (Regs. 8 to 11).

It is doubtful whether the Local Medical Committee could appeal to the Commissioners as regards the income limit. The statement as to income limit is to be furnished "for the information of the Commissioners," but apparently not for their approval. The Local Medical Committee must, however, be consulted by the Local Insurance Committee as above-mentioned, and the Commissioners must consider any representations made by the Local Medical Committee as to any arrangements "submitted" to them.

(iii) It has the power—

(*a*) To dispute the right of any insured person to receive medical benefit under the arrangements made by the Insurance Committee, on the ground of income limit (Reg. 14 (4)).

(*b*) (and, upon representation made to it by the Pharmaceutical Committee, the duty) of investigating into the question of whether the drugs or appliances ordered by any practitioner or practitioners on the panel are excessive in character or amount, and reporting thereon to the Insurance Committee (Reg. 46).

(*c*) To cause, by making representations to the Commissioners that the continuance of a practitioner on the panel will be prejudicial to the efficiency of the service, an inquiry to be made by the Commissioners on the subject (Reg. 54 (1)).

(*d*) To cause, by making representations to the Commissioners that the inclusion or continuance on the list of a chemist or other person will be prejudicial to the efficiency of the service, an inquiry to be made by the Commissioners on the subject (Reg. 56 (1)).

(*e*) To determine, in consultation with the Insurance Committee, what records, if any, additional to such simple records of disease and treatment as may be required as conditions of the payment of any Parliamentary grant, shall be kept by practitioners (1st Schedule, 8).

(iv) It appoints three of the seven members of the Medical Service Subcommittee, to which Subcommittee not only shall all complaints stand referred, but to which "any other question arising with reference to the administration by the Insurance Committee of medical benefit may be referred" (Reg. 52 (1) and (2)).

(v) It has a right to be represented at any inquiry before the Medical Service Subcommittee (Reg. 52 (4) (*c*)) or at any inquiry before the Enquiry Committee in which it is concerned (Reg. 54 (4)).

(vi) It has the duty—

(*a*) of considering any complaint by a practitioner on the panel against any other practitioner on the panel involving any question of the efficiency of the medical service of insured persons, and may apply to the Commissioners to remove the name of the practitioner against whom complaint is made from the panel, or may take such other action as it may deem proper in the circumstances (Reg. 53).

(*b*) of considering, on reference by a practitioner on the panel, any question as to whether an operation or other service is comprised in the treatment which he has by the agreement undertaken to give, and, if possible, coming to an agreement on the subject with the Insurance Committee, and failing such agreement, to be heard by the Referees, to whom the matter will be referred (Reg. 55 (1)).

RIGHT TO INSERTION OF NAME ON PANEL.

We have received copies of a correspondence which has passed between Dr. T. Ridley Bailey of Bilston (Chairman of the County of Stafford Medical Committee) and the County Insurance Committee. It appears that Dr. Bailey forwarded on January 3rd a signed and stamped agreement to the Clerk of the Staffordshire Insurance Committee accepting service under the Insurance Act. On January 6th Dr. Bailey received a letter signed by Mr. George E. Brown, as Chairman of the "County Medical Benefit Committee," informing him that the panel had been closed on December 31st, but that a supplementary panel would be issued to include the names of all doctors who had applied between December 31st, 1912, and 10 a.m. on January 6th, 1913. The letter went on to inform Dr. Bailey that his name would be on that supplementary list "subject to all the doctors whose names are on the first panel agreeing." Holding that this claim of the Committee to impose any condition before accepting his name was illegal and *ultra vires*, Dr. Bailey at once referred the matter to the Insurance Commissioners, who in a reply dated January 10th stated:

> Doctors applying to be placed on the panel at any time are entitled to have their names placed upon the lists republished by the committee after their application, and the inclusion of their names on any such republished list does not require any such consent as that indicated.

Further correspondence then ensued, from which it appears that the Staffordshire Insurance Committee published on January 13th in the local press a list of the first panel, from which Dr. Bailey's name was omitted, although the names of four or five other practitioners who had signed and forwarded agreements at the same time or later than Dr. Bailey appeared in this list. In concluding a letter addressed to the Clerk of the Staffordshire Insurance Committee on January 17th, Dr. Bailey wrote:

The matter is of such supreme importance to insured persons as affecting their right to "free choice of doctor," and concerns the community in regard to the impartial and independent administration of public business by public authorities that I am forwarding this correspondence to the press.

It appears, from a letter of January 16th from the clerk to the Committee, that Dr. Bailey's name was inserted, or was to be inserted, in a supplementary list issued on January 16th. With the observations quoted from Dr. Bailey's letter of January 17th we entirely agree. It is, as he says, most important in the public interest that no attempt should be countenanced to strain the provisions of the Act to the disadvantage of members of the profession who may have incurred the displeasure of any members of an Insurance Committee by their criticisms of the Act.

OFFICIAL PUBLICATIONS.

ADMINISTRATION OF SICKNESS AND MATERNITY BENEFITS. THE Insurance Commissioners have issued a *Handbook to the Administration of Sickness and Maternity Benefits by Approved Societies*, which is intended "to provide in a convenient form a summary of the information which must be in the possession of officials of approved societies to enable them to deal with the various matters which will arise in the course of their work." It begins with a summary of the routine duties of the secretary of a society and then deals at length with the proper entering up of the various classes of members in the membership register and the issue and verification of the appropriate contribution cards. The general conditions on which sickness benefit may be given are described for all the classes of members. Maternity benefit is next described in a similar way and full directions given for dealing with claims for either of these benefits. Special attention is given to the keeping of the society's accounts, investments and expenditure on administration, and various questions relating to the acceptance of members, transfers and withdrawals, rules and meetings of the societies, are dealt with. The complicated questions that may arise with regard to married women, and the special classes of insured persons are set forth with full explanations and a series of "Summary Tables" show the contributions, benefits and waiting periods for each class.

The book also contains a reprint of several circulars which have been issued separately by the Commissioners, and one of these (Circ. A.S. 73) dealing with maternity benefit, sets out some points of interest to medical men. It alludes, for instance, to the model rule of approved societies under which a society may require a woman in respect of whom maternity benefit is payable to be attended at her confinement by a medical practitioner or a certified midwife. Where a society has adopted this rule, fines may be inflicted on any member who breaks it, or, while allowing the mother to exercise her legal right to choose the doctor or midwife, the society may pay the fee of the doctor or midwife out of the 30s. benefit, and only hand the balance over to the insured person in cash or in kind. The proper application of the 30s. when the mother is in a hospital is described, but already the handbook is not quite up to date, as it does not contain the provisional regulations of the Commissioners prescribing the fee to be paid to doctors summoned to the assistance of midwives in accordance with the rules of the Central Midwives Board.[1] Circular A.S. 75 is also quoted dealing with questions that arise under medical benefit. Referring to Clause 15, 2 (*c*) of the Act, which deals with persons who were members of friendly societies on December 16th, 1911, but who were not eligible to become insured because on July 15th last they were either over the age of 65 or permanently disabled, it is pointed out that the Act gives the societies, if they so desire, the right to claim from the doctors on the panel medical attendance for these persons on the same terms as those arranged for insured persons. The circular then makes the following statement:

> This is, however, an option granted to societies, and the Act does not make it obligatory on a society to avail itself of this provision, nor does it either expressly or by implication require any payment made by a society in respect of this treatment to be on the same scale as in the case of insured persons, if the society can obtain treatment at a lower rate.

This interpretation of the Act by the Commissioners is distinctly open to doubt, and at any rate the essence of the understanding between the British Medical Association and the friendly societies, when this section of the Act was agreed on, was that the doctors on their side agreed to give medical attendance to these persons and the societies agreed to pay for it, on the same terms as were arranged for insured persons. The insured are not allowed to contract out so as to get medical attendance at a lower rate than the panel receives, and exactly the same ought to apply to the persons mentioned in Clause 15, 2 (*e*). It would, however, appear that the official view at present is that the doctors may be held to their side of the bargain but the societies may escape their side.

[1] SUPPLEMENT TO THE BRITISH MEDICAL JOURNAL, January 18th, p. 80.

COLLIERY AND WORKS PRACTICE.

SEVERAL correspondents have asked whether any deductions could be made from the 7s. grant for the maintenance of hospitals and nurses. We have every reason to believe that such a deduction cannot be made.

With regard to the question as to whether the poundage systems which exist in several colliery districts could be converted under Section 15 (4), commonly known as the Harmsworth amendment, into a whole-time service whenever and wherever such a change might be found convenient by the Insurance Committees and Commissioners, we have been informed that such a change could not take place.

We have been asked also whether, under Section 15 (4), it would be possible to institute a committee, in cases where one does not already exist, for receiving the money from the colliery company and then handing it over to the doctors. We are advised that in all probability such a new committee would be illegal.

The exact meaning of the application of Section 15 (3) appears to be a matter in which there is a good deal of difference of opinion, and it is very probable that it will require the decision of a court of law to settle definitely the interpretation of this subsection.

REPORTS OF LOCAL ACTION.

FINSBURY.

AT a general meeting of the Finsbury Medical Society on January 22nd, a resolution was unanimously adopted requesting those members of the society who had placed their names on the panel before the abrogation of the British Medical Association pledge, and so contributed to the temporary defeat of the profession, to resign their membership of the society.

MIDDLESEX.

The following resolutions were adopted at a meeting of the Middlesex County Medical Committee held on January 21st:

Local Medical and Insurance Committees.

Proposed by Dr. SODEN and seconded by Dr. BLUETT:

> That this Committee claim from the Insurance Commissioners statutory recognition under the Act.

This was carried unanimously.

On the motion of Dr. WILLIAMS, seconded by Dr. BLUETT, the following was carried unanimously as a rider:

> And ask for power to appoint two members on the Middlesex Insurance Committee.

Proposed by Dr. SODEN and seconded by Dr. BRACKENBURY:

> That each Provisional Medical Committee shall elect one member as "correspondent," whose duty shall be to inform the other Divisions, through the Honorary Secretary of this Committee, of any resolution passed or action taken by his Division which in any way affects the interests of the other Divisions of Middlesex, and that the Honorary Secretary of this Committee be instructed to request the Local Medical Committees of all the adjoining insurance areas to co-operate in a similar manner.

This was carried by 13 to 0.

COUNTY OF CHESHIRE.

Provisional Medical Committee.

The fourth meeting of this Committee was held on January 21st at the Onward Buildings, Deansgate, Manchester. Dr. GARSTANG was in the chair, and twenty-three members out of a total committee of thirty were present. After a general discussion, it was unanimously resolved:

That the profession should be relieved from the enormous amount of clerical work involved by the National Insurance Act; that there should be no repetition of the signing of cards at the end of the three months' trial period.

Incidentally it was mentioned that before the receipt of the sheets for the return of names of patients accepted many patients' cards had been signed, but that no record had been kept of them.

Dr. P. R. Cooper (Altrincham) and Dr. J. B. Hughes (Macclesfield) were elected by a unanimous vote to represent the medical profession on the County Insurance Committee. The committee also unanimously nominated Dr. Thomas Watts (Hyde) and Dr. Gray (Crewe) as the names of medical men to be submitted to the Insurance Commissioners for their appointment to the Insurance Committee; and Dr. Picton (Holmes Chapel) and Dr. McIntyre Brown (West Kirby) as the names of medical men to be submitted by the Chairman to the Cheshire County Council for appointment to the Insurance Committee.

As the medical members of the District Insurance Committees the following have been elected by the profession of the several areas:

Congleton.—Dr. Fern.
Crewe.—Dr. Gray.
Dukinfield.—Dr. Robertson.
Hyde Borough.—Dr. J. Bennett (Hyde).
Macclesfield.—Dr. Marsh.
Stalybridge.—Dr. Howie.
Altrincham and Bowdon District.—Dr. H. Cooper.
Bebington and Neston District.—Dr. Grant.
Congleton Rural Area.—Dr. Bennett (Sandbach).
Hoylake and West Kirby District.—Dr. McIntyre Brown.
Knutsford and Wilmslow District.—Dr. L. Fennell (Knutsford).
Lymm and District.—Dr. Burrowes.
Macclesfield and Hayfield Rural District.—Dr. Maine (Bollington).
Nantwich and Area.—Dr. Matthews.
Northwich and District.—Dr. Manwaring-White.
Sale and Ashton-on-Mersey District.—Dr. Adolphe Renshaw.
Tarvin District.—Dr. Moreton.
Malpas District.—Dr. Phillips.
Winsford and Middlewich District.—Dr. Hector Leak.

The names selected to represent the profession of the Wallasey Borough (of which the latter is entitled to two) and of the Ashton-under-Lyne and Stockport, the Chester Area (rural), the Runcorn Rural, and the Runcorn Urban Districts have not yet been received.

Drugs.

A subcommittee consisting of the following members was appointed to deal with the revision of and additions to the proposed drug list as issued by the Pharmaceutical Society: Drs. Hodgson, Marsh, Clarke, Matthews, and Picton.

This subcommittee held its first meeting on January 26th, at Dr. Hodgson's house at Crewe, all the members being present. Five drugs were starred, implying that they were to be physiologically standardized. The qualities of the drugs were specified in a number of instances. A considerable addition was made to the list. A note was made that the dressings should be supplied in small sealed packages, and picric acid gauze should be added, amongst other things, to the list of "appliances," and also some leg splints.

On the motion of the Secretary, it was resolved:

That the Insurance Committee should be requested to lay down definitely the principle that in rural areas where the doctors dispensed the payment should be by the full 9s. capitation fee, as stated in Reg. 47.

Administration of Medical Benefit.

Dr. Percy Cooper drew attention to an important series of points touching the rights, privileges, and duties of the medical profession in connexion with the insurance service. He advocated off-duty times, facilities for the appointment of a locumtenent, endowment of the means of locomotion — free trains and trams for doctors on duty and duty-free petrol.

On the motion of the Chairman it was agreed that these objectives should be borne in mind by the Committee in the negotiations of the future.

SCOTLAND.

The Voluntary Hospitals.

The Royal Infirmary, Edinburgh.

As was perhaps to be expected, January 15th did not pass at the Royal Infirmary without some friction developing in connexion with medical benefit under the Insurance Act. A workman applied for treatment on account of a slight injury to a finger received in the course of his work; the injury was regarded as trivial, and the man was informed that he should go to the insurance doctor for attention. The man's fellow-workmen took umbrage, and decided to discontinue their contributions to the funds of the infirmary pending inquiry. Inquiry was made, and the doctor who saw the man gave his account of the matter, with the result that the superintendent of the hospital (Sir Joseph Fayrer, Bart.) was able to send a full explanation of the circumstances to the firm in question. We now learn that the workmen have again considered the matter, and have agreed to continue their contributions to the infirmary as in the past. This is satisfactory so far as it goes, but there is appended to it a rather curious rider:

The men consider that some method should be adopted to ensure that no workman who requires treatment at the infirmary will be rejected, and they agree that the following will be the best way to attain this end: In the case of a workman meeting with an accident he will receive first aid here as usual, and be furnished with a ticket giving his name and place of employment, and an indication that in the opinion of the ambulance staff the case is one for treatment by the infirmary.

It will be interesting to note how this system works—if, that is to say, the infirmary managers accept it. It is conceivable that the ambulance staff at the works and the surgeons at the out-patient department to the infirmary may not apportion the like amount of gravity to each injury which may occur. The questions of urgency and emergency are evidently going to play no small part in the working of the hospitals in relation to the Insurance Act.

Glasgow Royal Infirmary.

At a meeting of the governors of the Glasgow Royal Infirmary held on January 20th, resolutions were adopted in substantially the same terms as those previously adopted by the Western and Victoria Infirmaries, and reported in the Supplement last week.

Scottish Miners and Medical Attendance.

At a meeting of the executive of the Scottish Miners' Federation held in Glasgow on January 24th, reports regarding medical attendance on the dependants of workmen at the collieries were considered. It was stated that in some districts doctors were not carrying out the recommendations from the joint meetings of coalowners, miners, and doctors. The executive agreed that, with the consent of the workmen at the collieries concerned, in the event of the doctors continuing their present attitude, they would arrange for doctors in order to secure adequate medical attendance.

The Stirlingshire Miners' County Union has completed arrangements with the employers in the county for insuring the wives and families of all miners who come under the Insurance Act. The scheme which has been adopted is for the purpose of providing medical attention and medicine to miners' families, the funds for this purpose being raised by a contribution of 2d. per week, which will be deducted from the wages of all insured workers. A lower scale of contributions has been fixed for those who desire medical attention only.

Edinburgh.

Humours of the Working of the Act.

The early days of the application of medical benefit in Edinburgh have not been without some humours, albeit of a somewhat sad kind. One doctor told a *Scotsman* representative that he had not been called upon to pay many visits, but he had given numerous consultations; some insured persons had come to be put on his list, but, not wishing evidently to make two bites of a cherry, had seized the opportunity of getting a consultation at the same time. Many people who had had influenza at some period anterior to January 15th had called for a tonic; "they wanted their money's worth." The giving of prescriptions in triplicate was a nuisance, most doctors being unaccustomed to working with carbons. Another doctor, in Dundee, had been working out the rate of remuneration he was receiving, and had found it to be on an average 4½d. a visit or consultation. A curious case is reported from Bathgate in which an employed person under 21 years of age receiving a small wage of 1s. 6d. a week is found to be bound to pay 3d. a week and her employer the same;

when she is 21 years old her liability will cease, and her employer's become 5d. This seems "pretty strange," as Pepys would have said.

IRELAND.

MEDICAL CERTIFICATES UNDER THE INSURANCE ACT.

AT its last meeting the Dublin Clinical Hospitals Standing Committee considered the question of granting certificates to hospital patients for insurance purposes, and decided that a charge of 2s. 6d. should be made for each certificate, provided it was found that this fee was not deducted from the patient's sick benefit money. That the senior member of the staff in charge of the case should sign the certificate, and that the fees obtained for the certificates should be pooled for the benefit of the medical staff of the hospital. It was also decided that the doctors of friendly societies should not be allowed to enter the hospitals for the purpose of seeing and giving certificates for insured patients who are under treatment. In connexion with sanatorium patients it was decided that 5s. a week should be paid to the medical man in charge of each tuberculous patient admitted to a general hospital for sanatorium benefit. As stated recently, with one exception the Dublin hospitals have not yet been recognized as capable of providing this sanatorium benefit, but steps are to be taken to have the hospitals recognized for this purpose.

MEDICAL ATTENDANCE.

The following resolution was passed by the Conjoint Committee of the British Medical Association and the Irish Medical Association at a meeting held in Dublin last week:

> This Committee regrets the decision of the Dublin Borough Medical Committee to give attendance to a man, his wife, and children for 7s. 6d. per annum, including medicines. The Conjoint Committee believe it is impossible to give an honest or efficient service at the terms suggested, and that, therefore, the public health will suffer.

DUBLIN INSURANCE COMMITTEE.

At the last weekly meeting of the County Borough of Dublin Insurance Committee it was decided that cases of dependants of insured persons should in future be considered for sanatorium treatment. A resolution was passed, calling for immediate steps to be taken to secure the extension to Ireland of the medical benefits under the National Insurance Act, and that copies of the resolution should be sent to the Prime Minister, to the Chancellor of the Exchequer, the Chief Secretary for Ireland, the Insurance Commission, the leaders of the Irish parliamentary parties, and the press.

LONDONDERRY COUNTY COUNCIL AND TUBERCULOSIS SCHEME.

For some time past the Londonderry County Council has been in communication with the Local Government Board regarding the formation of a tuberculosis scheme for the county. The Local Government Board in their last letter requested the council to appoint a medical superintendent for the proposed county tuberculosis dispensary, and advised them to levy a rate of 1d. in the £ for the coming year's expenditure under the Tuberculosis Act. The matter was discussed, and the opinion expressed that, though they were willing and prepared to undertake the financial burden of one half of the cost of providing treatment for the dependants of the insured, and also of non-insured persons, it was not equitable that they should be asked to bear any proportion of the cost of giving treatment to insured persons. A notice of motion to this effect was handed in, and the meeting adjourned.

INSURANCE ACT IN PARLIAMENT.

ADMINISTRATION OF MEDICAL BENEFIT.

Contracting Out.

MR. WATT asked the Secretary to the Treasury, on January 22nd, what steps he proposed to take to permit of insured persons making use of the services of their own doctor in the case where the doctor had conscientious objections to going on the panel.—Mr. Masterman replied that he did not understand to what kind of objection the question referred.

Mr. Watt also asked the Secretary to the Treasury whether his attention had been called to posters, leaflets, and pamphlets, issued and signed by medical practitioners in Scotland, dealing with the administration of the National Insurance Act, and advertising the terms on which they were willing to perform outside the panel similar duties to those undertaken by doctors on the panel in respect of insured persons; and, if so, whether it was proposed that payment be made from State funds to those doctors.—Mr. Masterman said that the answer to the first part of the question was in the affirmative. No contributions from insurance funds towards the cost of the medical treatment of persons who were attended by doctors not on the panel would be made except under the conditions stated in his answer to Mr. Cassel on January 6th (SUPPLEMENT, January 11th, p. 37).

Sir J. D. Rees asked, on January 22nd, whether it was laid down by Section 18 (1) of the National Insurance Act that a mother was to have free choice of doctor and midwife for her confinement; and, if so, whether he would explain why the Commissioners have issued Circular A.S., No. 73, paragraphs (1), (2), and (3), in which it was proposed that a limited list of doctors and midwives should be provided with whom the society administering the benefit had previously made arrangements, and that the mother should forfeit maternity benefit if she refused to employ one of such listed practitioners or midwives; and whether that circular had the approval of the Government, seeing that it did limit the choice of doctor and midwife.—Mr. Masterman said the provision in question was expressly recited in the second paragraph of the circular referred to. The circular did not contain, explicitly or by implication, any such statement as that which the hon. member attributed to it.

Mr. Touche asked, on January 27th, (1) what course an insured person ought to pursue when he had incurred expense by obtaining treatment from a doctor not on the list, and had failed to receive any reply to repeated applications to the Insurance Committee for permission to contract out, and was so placed that it was a matter of urgency to him to ascertain how far the expenses he had incurred and might incur would be met by the Insurance Committee; and whether the Government was aware that many insured persons in London were in this position; (2) whether an insured person under the National Insurance Act was acting in accordance with the instructions printed at the foot of the medical ticket issued by the Insurance Commissioners if he returned that ticket to the Insurance Committee with his application for permission to contract out, or whether he should only forward it when he had actually incurred the expense towards which he was claiming a contribution.—Mr. Masterman said that the National Insurance Act contemplated that permission to an insured person to make his own arrangements and receive a contribution towards the cost from the Insurance Committee would only be given in special circumstances. Insured persons were therefore not entitled to assume that their applications could be granted, and if in these circumstances they chose to incur expense by obtaining treatment from a doctor not on the panel they must be prepared to take the risk of receiving no contribution if their application were not acceded to. The medical ticket should be retained by the insured person until the Insurance Committee had directed him to forward it to them.

Sir C. Kinloch-Cooke inquired if the reply was not in direct conflict with what the Chancellor of the Exchequer said the other day.—Mr. Masterman replied in the negative, and added that it was a direct carrying out of the Act.

Choice of Doctor.

Mr. Orde-Powlett asked the Chancellor of the Exchequer, on January 27th, whether he was aware that an official of an assurance company was advising insured persons to select one particular doctor; that it was only after repeated inquiries that he admitted that they could choose for themselves; whether such a proceeding was in accordance with the regulations of the Insurance Commissioners; and whether he had sanctioned such a practice.—Mr. Masterman said that if a case were substantiated of an insured person being deliberately misled into thinking his choice of a doctor on the panel was in any way fettered the Commissioners would take a serious view of such

conduct, and would take the appropriate action with regard to all persons found to be responsible for it.

Mr. Newman asked the Secretary to the Treasury, on January 27th, whether he was aware that a majority of insured persons had failed to take steps to be placed on the list of any approved medical practitioner on the panel in their district, and that their failure to do so would be attended with discomfort and danger to themselves in the event of sudden illness or other emergency, and inconvenience to the medical practitioners on the panel; and whether the Insurance Commissioners would direct the Local Committees to notify insured persons of the obligation imposed on them to forthwith apply to be placed on the list of a medical practitioner on their local panel.—Mr. Masterman said he had no information to suggest that insured persons were not taking the necessary steps to select a doctor from the panel who would attend them in case of illness. All the evidence in his possession showed that not only the sick, but persons in good health had come with quite unexpected alacrity to have their names registered by panel doctors to be their patients in the event of possible future illness.

Panel Doctors' Agreements.

Mr. R. Gwynne asked the Chancellor of the Exchequer, on January 29th, if he would state which, if any, Insurance Committees had permitted doctors to join the panel and limit, by their agreements, the number of insured persons to be treated by them to those whom they agreed to treat without having others assigned to them.—Mr. Masterman said that the conditions under which insured persons in each area might be allotted to the doctors on the panel were laid down in Section 15 (2) (*d*) of the Act and the regulations of the Commissioners. It was within the discretion of the Insurance Committee, subject to those conditions, to make such arrangements as would limit the number of persons for whose treatment any particular doctor would be responsible. He was not aware which Insurance Committees had made arrangements with doctors on the panel granting such limitations.

Panel Doctors' Clerical Work.

In reply to Mr. Fell, who asked, on January 29th, whether the clerical work imposed upon panel doctors could not be carried out in some other manner, Mr. Masterman said that the Insurance Commissioners were anxious to receive suggestions from doctors on the panel for simplification or improvement of the methods of keeping records and returns. Inquiries were being carried out by officials of the Commission in various districts.

"Closing" Panels.

Mr. Bowerman asked the Chancellor of the Exchequer, on January 23rd, whether, where a panel of doctors was incomplete, it was the intention of the Insurance Commissioners to allow practitioners who had their names on the panel to undertake to engage a sufficient number of assistants so that the incomplete panel might become a complete one, and then to close the panel; or whether it was intended never to close panels, so that it might always be open to doctors to enter their names?—Mr. Masterman said that the course suggested in the first part of the question might be adopted in any area where the panel was inadequate, and where, therefore, other arrangements had to be made under the proviso to Section 15 (2) of the National Insurance Act. But, as a matter of fact, it had not yet been adopted in any case. Where the panel was inadequate it was always open to any duly qualified medical practitioner to join it.

The Panel in London.

In reply to Sir J. D. Rees, Mr. Masterman said that a revised list, which would include over 300 additional names of practitioners who had applied to be put on the London panel since the publication of the first, would be issued this week.

Appointments in the Isle of Ely.

In reply to Mr. Worthington-Evans, who asked where Dr. Morgan and Dr. Dimmock had practised prior to their appointment under the National Insurance Act in the Isle of Ely, Mr. Masterman said that Dr. Morgan had practised in London and Dr. Dimmock had held hospital appointments in London and the provinces. The Insurance Commissioners, upon the application of the Isle of Ely Insurance Committee and after inquiry, had been satisfied that the number of doctors in two districts was not such as to secure an adequate medical service, and had authorized the Committee to make special arrangements under which one doctor in Chatteris and three in Wisbech had undertaken complete responsibility for all the insured persons in those districts. Mr. Worthington-Evans then asked whether the panel system had been superseded in the district, and, if so, whether the supersession had been made by the Insurance Commissioners or the Insurance Committee.—Mr. Masterman said that the panel system, the list system, under Clause 15 of the Act had been suspended. The scheme put forward by the Insurance Committee had been accepted by the Insurance Commissioners, but he was unable to say for how long a period the arrangement had been entered into.

Remuneration of Medical Practitioners.

Mr. Newman asked, on January 27th, if the yearly remuneration or allowance due to a medical practitioner under any regulation made by the Insurance Commission in respect of any insured person who might apply and be accepted by him to be entered on his list, was held to date from January 15th, or the date on which the medical practitioner agreed to accept such insured person, or from the date on which he first professionally was required to attend on such person?—Mr. Masterman replied that payment was due in respect of the period commencing January 15th or whatever later date the doctor joined the panel. In reply to a further question, he added that the doctor was paid from the time he took responsibility. He was not paid before that time.

Women Doctors on Panels.

Mr. Snowden asked the Chancellor of the Exchequer, on January 22nd, how many women doctors had joined the insurance panels; and if insured women, who desired to be attended by a woman doctor where there was a resident woman doctor, but where no woman doctor was on the panel, could make their own arrangements with the woman doctor and receive the equivalent grant from the approved society.—Mr. Masterman said he could not answer the first part of the question until an examination had been made of the panel lists of 196 different committees, and he did not feel that the labour would be justified at the present time seeing that additional doctors were joining the panels every day. With regard to the second part of the question, it would be the duty, in the first instance, of the Insurance Committees upon application to consider the circumstances of each particular case.

Change of Residence of Insured Person.

Mr. John Ward asked, on January 27th, how the Insurance Commissioners proposed to allocate to the rural districts where he temporarily resided the medical contribution of an insured workman who changed his place of abode on an average of four or five times in a quarter. would the approved society have to notify the change of residence each time to the Local Insurance Committees or would it be sufficient to notify only that Local Insurance Committee where the approved member resided at the beginning of each quarter?—Mr. Masterman said that arrangements for the necessary notifications and adjustments of contributions in the special class of cases referred to were now being completed.

Week Ends and Holidays.

Mr. Masterman, as Financial Secretary to the Treasury and Chairman to the Joint Committee of Insurance Commissioners, has been peppered with questions about the administration of medical benefit under the Insurance Act, which he has answered with much skill and for the most part with good temper, although he has not always given the information asked for. On Tuesday he was presented with two conundrums: one was the case of a young man whose business was at Gravesend, but who spent his week ends at Chatham. Mr. Masterman was asked from which place the insured person should procure medical aid if taken ill, or whether he could claim medical attendance in both places. The reply was that he could not choose a doctor on the panel in both but only in one or other neighbourhood; if, having made his choice in one area, he fell ill in the other, he would have to notify the Committee, and the Committee would then have to make arrangements for his attendance by another doctor. This answer

seems tantamount to an admission that this special condition had not been foreseen. The other case put was that of a domestic servant whose employer lived part of the year in one place and part in another, and the answer was that the servant would have to notify the Insurance Committee in either area on the occasion of each change of address.

Aged Members of Approved Societies.

Mr. Worthington-Evans asked, on January 22nd, whether, in view of the fact that under Section 15 (2) (*c*) of the National Insurance Act there was an obligation on the Insurance Committees to provide medical benefit for old members of friendly societies who did not become insured persons on the same terms of remuneration as those arranged for insured persons, he would say whether arrangements were being made by the Insurance Committees to provide medical benefit for old members of friendly societies who did not become insured persons; whether those members would be charged not more than 6s. for their medical benefit; and whether the additional 2s. 6d. would be granted in respect of them.—Mr. Masterman replied that the answer to the first part of the question was in the affirmative, and to the second and third parts in the negative. The arrangements made gave an option to societies, and were not obligatory upon them. He had no evidence to show that the fact that doctors on the panels were receiving a larger remuneration than hitherto in respect of insured persons was necessitating an expenditure upon uninsured persons of a much higher fee than that for which they had been treated in the past.

Death of an Insured Person.

Major Gastrell asked the Secretary to the Treasury, on January 27th, whether his attention had been called to the circumstances of the death of Frederick Richard Townsend, an insured person under the National Insurance Act, and to the verdict of the jury who inquired into the cause of death, when the jury referred to the scandalous amount of clerical work required of a panel doctor; and the coroner, in summing up, said that the man's life ought to have been saved if the doctor, owing to his work, had not been prevented from examining the case, and what steps would be taken for limiting the number of insured persons any one doctor might agree to treat?—Mr. Masterman said that he was informed that the London Insurance Committee were conducting an inquiry into the allegations made at the inquest in the case referred to, that the amount of work imposed upon the doctor in attendance upon the patient by the Insurance Act, the regulations made thereunder, and the arrangements of the Insurance Committee were such as to preclude the doctor from a proper examination of or attendance upon his patients. Until that inquiry was completed, it would be improper for him to make any statement on the subject.

Major Gastrell asked if compensation would be paid to the relatives of the deceased, but Mr. Masterman said that the inquiry was more or less of a judicial nature, and he could not make any statement before receiving the report.

Postal Medical Officers.

Mr. Glazebrook asked the Postmaster-General, on January 22nd, whether his attention had been called to a circular issued by the Post Office authorities on December 31st, 1912, to medical officers of post offices to the effect that the conditions of their service hitherto in force would be superseded by the arrangements for medical benefit under the National Insurance Act; whether he was aware that a further circular was addressed to the same medical officers by the same authorities on January 13th, 1913, stating that the Insurance Commissioners were prepared to recognize the Post Office medical system as an institution in the sense defined by Section 15 (4) of the National Insurance Act, and indicating that the effect of this would be that, contrary to the statement of December 31st, the conditions of service of Post Office medical officers would continue as before, the only difference being that Post Office officials would, if they applied to exercise their right of free choice of doctor, be able to receive their medical benefit from another doctor, provided he was on the panel; would he say what was the object of sending these contradictory circulars; and whether the intention of applying for the recognition of the Post Office medical system as an institution was only conceived between the dates of the two circulars; and was the object of the first circular to force the Post Office medical officers to join the panels under the impression that the Post Office medical system, and with it the appointments thereto, was at an end?—Mr. Herbert Samuel said that in the circular of December 31st, 1912, Post Office medical officers were informed that the approval of the Insurance Commissioners was being sought for the Post Office medical system; and they were told that, if such approval were not forthcoming, insured Post Office servants would be limited in their choice of medical attendants to doctors on the panels. In the circular of January 13th medical officers were informed that the Insurance Commissioners were prepared to approve the Post Office medical system. He saw no contradiction between the two circulars. The answer to the last two parts of the question was in the negative.

Dispensers.

Several questions have been addressed to the Secretary of the Treasury raising the question of the position of persons who had been acting as dispensers to doctors, or having so acted are now employed as dispensers in shops, stores, etc., but were, it was alleged, precluded from going on the panels of persons authorized to supply drugs and appliances.—Mr. Masterman said that the Act gave effect to the pledge given on August 2nd, 1911, that no person should become disqualified for dispensing medicines through the passing of the Act. The conditions under which persons were allowed to arrange with Insurance Committees to supply medicines requiring dispensing, to dispense medicines for other persons or firms who were supplying them, and to supply drugs not requiring dispensing and appliances respectively, were laid down in explicit terms in Section 15 of the National Insurance Act, and in the other Acts determining the conditions under which medicines were supplied, and the Commissioners had no power to alter them by regulations. In reply to further questions, Mr. Masterman denied that any qualified dispenser was deprived of his living under the Act. On the contrary, he said a large number of persons not qualified got special qualifications under particular clauses of the Act.

Purveyors of Drugs and Medical Appliances.

On January 28th Mr. Newman raised the question as to a case in which on the list of firms from whom drugs and medical appliances could be obtained for insured persons was the name of a woman whose sole qualification was that of being a registered midwife.—Mr. Masterman said that the fact that the person was a registered midwife would not disqualify her from supplying drugs; she could not dispense drugs unless qualified under the Pharmacy Act.

Provision of Medical Attendance.

In reply to Mr. Grant, Mr. Masterman said on January 27th that he was not aware of any cases in which approved societies had failed to issue medical tickets to their members who were entitled to them, or that hospitals were refusing to give treatment to persons who were not in a position to apply for it under the Act, on the ground that they were insured.

MEDICAL MEMBERS OF INSURANCE COMMITTEES.

Sir J. D. Rees asked the Secretary to the Treasury on January 27th whether he was aware that, though the Rochdale Insurance Committee had been in existence for several weeks and medical benefit had actually been in operation for upwards of one week, the Commissioners had not yet issued the regulations necessary for the due election of the medical members of the Insurance Committee; and, if so, what explanation he could give of an omission so unsatisfactory to the medical profession.—Mr. Masterman said that when the Rochdale Insurance Committee was constituted, like the other Insurance Committees, in May last, the British Medical Association was invited to obtain from the medical profession throughout the country the names of medical practitioners suitable for appointment as representing the profession in each area, in the same way as central organizations representing approved societies obtained names of their representatives throughout the country. The Association

declined this offer, and in the ordinary course no new appointments would be made until new committees were appointed. The Commissioners had, however, decided to allow representation on the present committees, and were arranging for the election at the earliest possible date of direct representatives of the profession on the various committees, and also for the appointment of medical members of the committees by the county and county borough councils and the Insurance Commissioners.

Maternity Benefit.

Sir John Spear asked the President of the Local Government Board on January 23rd if persons entitled to maternity benefit under the National Insurance Act, and who would claim it in full, were entitled to midwifery orders at the hands of boards of guardians.—Mr. Burns replied that a person who was destitute was entitled to Poor Law relief. The question of destitution was one which must be determined by reference to the circumstances of each individual case.

Sanatorium Benefit.

The Exchequer Grant.

Mr. Lloyd George has been asked several questions with regard to the Exchequer grant for the treatment of tuberculous persons, but has declined to give any answer until after he has seen a deputation of the County Councils Association. One of the questions by Mr. Charles Bathurst implied that in the county of Gloucester the amount available for the institutional treatment of insured persons from central funds was estimated to be £3,433 per annum, leaving a deficit of £3,933 to be found from other sources for insured persons alone, or including dependants £6,679, or including the whole community £8,738.

Cost of Erection of Sanatorium.

Mr. Birrell, in replying to a question by Mr. Swift MacNeill on January 23rd regarding the erection of a sanatorium by the Tyrone County Council for twenty-five to thirty patients at the total estimated cost of £1,200, stated that the Local Government Board in Ireland recognized that a sanatorium complete in all its details could not be erected at such a low figure as £40 a bed.

Cost of Insurance Circulars and Leaflets.

In reply to an inquiry by Mr. C. Bathurst on January 23rd, Mr. Masterman said that the total expenditure of the Stationery Office to date upon leaflets, cards, printed regulations, etc., in connexion with both parts of the National Insurance Act was £127,000. Sir J. D. Rees on the same day asked the Chancellor of the Exchequer from what source the funds were provided for circularizing the medical profession throughout the country in favour of working under the panel system and breaking the doctors' strike.—Mr. Masterman said that the only document issued to the medical profession by the Commissioners was the explanatory statement sent out on December 7th to all registered medical practitioners in Great Britain describing the medical arrangements under the Act and Regulations, which has been laid on the table of the House. In a written answer to another question on January 22nd by Sir J. D. Rees, asking how many circulars were issued to medical practitioners containing the letter of December 18th from the Chancellor of the Exchequer to the National Insurance Act Practitioners' Association, Mr. Masterman said that he had no information as to any circulation which the recipients of the letter in question might have given to it.

Amendment of the Act.

In reply to Mr. Fred. Hall, who asked on January 28th when it was proposed to introduce legislation to amend the anomalies of the Insurance Act as promised at the time of the Edinburgh election, Mr. Lloyd George said that, as the main benefits of the Act had only been in operation for barely a fortnight, it would be premature to make any statement of the nature mentioned. The Chancellor of the Exchequer having quoted the exact words he used in Edinburgh, Mr. Hall inquired if it had not already been proved beyond doubt that the Act required much alteration with regard to many questions, and particularly that of freedom of choice of doctor.—The Speaker here intervened, stating that a series of contentious matters should not be raised at question time.

CORRESPONDENCE.

[*It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor*, BRITISH MEDICAL JOURNAL, *429, Strand, London, W.C.*]

The Present Situation and Future Policy.

DR. P. R. COOPER (Bowdon) writes: A majority of the medical practitioners throughout the country having agreed—albeit, in most instances, under stress of *force majeure*—to work the Act, at any rate during the provisional three months' period, the Representative Meeting has reluctantly released those of us who remained loyal to our pledges. For good or ill the medical profession is now launched upon contract practice on a far larger scale than ever existed before, and private practice—at all events amongst the working and lower middle classes—apparently is doomed. For this consummation we have to thank no one but ourselves. We have coquetted with contract terms too long. There are too many amongst us, even of our leaders, who are evidently wedded to contract work, at least their support of the principle of a fair wage for work actually done, which one would have thought incontestable, has been so feeble-hearted that an honest and earnest opposition would have been far better for the cause.

In my opinion, apart from the numerical strength of the capitationists in the profession, the chief cause of our recent *débâcle* is the absence of reliable data for testing the true worth of the Government's offer. The Government, of course, many of its supporters, most labourists and socialists, and apparently also some doctors consider it "most generous," and speak of the "endowment of the medical profession"! They allow themselves to be misled by its face value. They forget that what is given with one hand is, to a large extent, taken away with the other. The only data at present available are from the reports of friendly societies, dispensaries, and the Plender report—none of which are in my opinion fair criteria of the conditions as they will be under the Insurance Act in its present form. The whole question hinges upon what fee we are really going to receive per unit of work done, and my chief object in writing is earnestly to ask every medical man who is working under the Act to take the trouble to ascertain this amount for himself. The calculation will not involve a great deal of extra trouble. He will have to keep a record of each item of attendance for the Insurance Committee, therefore he has only, for his own information, to price these (theoretically, of course) according to the scale of fees agreed to in the British Medical Association scheme—namely, 2s. 6d. for an "ordinary visit," 3s. 6d. for a "special visit," 5s. to 7s. 6d. for a "night visit," 1s. per mile over one mile for "mileage," 1 guinea each for anaesthetics, fractures and dislocations, poisoning cases, 1 to 3 guineas for operations, etc.

To ascertain the amount actually received per ordinary visit one deducts the total amount of all the above "extras" from the total capitation fees received, and divides the remainder by the number of ordinary visits paid. If this be done, at the end of the three months' period we shall be in a position to say *positively* whether or not we are being adequately paid for our work. Should the amount work out at anything near 2s. 6d. per visit, we may safely continue for another three months, as the spring months are usually somewhat lighter in morbidity than the winter months. But should we find, as I fear will be the case, that the remuneraton works out at less than 1s. per ordinary visit—that is, after deducting legitimate "extras," then I say we must demand from the Government a higher capitation fee, or insist on payment for work done at a proper tariff of fees.

To those who think that the campaign is over, and that the doctors are hopelessly routed, I would say that the campaign has only just begun, and the loss of the first battle should only rouse us to renewed effort. We are fighting for the future of medicine in this country, and justice is bound to triumph in the end. The methods of the Chancellor are autocratic and mediaeval in the extreme. Liberty is too sturdy a flower in the English garden to be trampled out of existence by the heavy heels of the doughtiest of politicians.

Dr. GEORGE MCGREGOR (Southsea) writes: I think it can now be safely said that this contest is over, and that the medical profession can accept its most humiliating defeat with as good grace as possible. All the promised safeguards, all the ridiculous statements as to our cardinal points being obtainable by local bargaining, all the much talked of concessions are as so much chaff before the wind. The Local Insurance Committees, strongly backed up by the Commissioners, who, in turn, are the paid agents of the Chancellor of the Exchequer, have the medical men in their powerful grip, and evidently intend to hold them as close to the grindstone as possible without completely wearing them away. The Act is so framed that the laws are being made by the above-mentioned Commissioners, etc., as they go along, and no one can dispute them. The promise of free choice of doctor so magnificently dangled before the eyes of the public and the profession is, perhaps, the most empty of all the specious promises made. The statutory right of every medical man to go upon a panel is absolutely groundless. The concession (?) of 10 per cent. representation on Insurance Committees is so obviously absurd that one wonders that even any members of our profession could be dazzled by it. The Insurance Committees are practically made up of friendly society representatives, and we know enough of them in the past to be able to say how much bargaining will be allowed. In this town, at any rate, they have allowed the doctors on the panel to settle at what time of the day they will be in their surgeries to see insured persons and whether they will so see them on Christmas Day and Good Friday, but beyond that bargaining will not be listened to. It is as plain as anything can possibly be that this Act is but the thin end of the wedge to bring into this great national medical club not only the workers over 16 years of age, but also their dependants of all ages, at the expense of the medical profession. When the present Chancellor of the Exchequer gets his next lease of power the national medical club will be completed, and the greater bulk of private practice will be a thing of the past.

This being so, is it not well for us to look for the cause of our defeat and then so perfect our organization that we shall be in a position to make a real defence against the attack on our liberty? The cause of the defeat is not far to seek. Our Association is undermined by those who were apparently with us in our just demands, but were all the time working for the enemy. And this undermining extends from the Divisions right to the very Council of the Association. The great act of treachery was started at the beginning of the fight by the action of some members of the Council, and they have worked against us in a subtle manner ever since. A large number of the rank and file, not to be depended upon at the best of times, were only too glad to seize upon some feeble promise of increased remuneration to panic and stampede many others. And worst of all are those who have used their professional brethren as a means to further their own political schemes and their hopes of some very doubtful form of reward.

We must have a Council formed of the men who will suffer most from these attacks, and not of men who know absolutely nothing of the real general practitioner's position, and who are the so-called influential members of the profession. Their influence is with the wrong people, and we have been their dupes, instead of being strongly and clearly led by them.

Let every member of the Association do his utmost to secure a Council which will be clean and straightforward, and also do his best to secure that the officials of his own Branch and Division shall be those men he most can trust. His votes must not be given in an offhand, casual manner, or perhaps neglected altogether; he must interest himself in the business of the Association, and so be able to watch and find out for himself who are the men who are for us and who are those against us, and thus secure by his votes the men most able to uphold our cause. We must devise some means of penalizing those rebellious members of the ranks which are to be found in every army—the malcontents and defaulters.

The next battle is not far distant, and already the enemy have started their organizations; let us see to it at once, or we shall sustain another and a much greater defeat.

Dr. W. D. GIMSON (Chelmsford) writes: I see in the BRITISH MEDICAL JOURNAL for January 18th Dr. Leper advocates reorganizing the British Medical Association on trades union lines.

I believe it would be far better to organize a medical trades union, apart from the British Medical Association. I do not believe the bulk of the profession have any confidence left in the British Medical Association as a fighting machine.

If it is possible for us to run a proper trades union with the rights or privileges of a trades union, there are many good men and true in Harley Street and that district who would be trustees for the funds, and I feel sure the profession would support the scheme. With regard to men who have given up club appointments at the call of the British Medical Association, surely these appointments would have ceased automatically with "free choice of doctor."

Dr. E. H. WORTH (Streatham) writes: Eighteen months ago the profession was thought to be the soul of honour. We demanded our cardinal points and signed a pledge, and at our meetings again and again stated that we would stand firm. The result of the last four weeks has been to drag the honour of the profession to the dust (we lied when we said we would stand by our pledge), and has left a great stain on our character which must be wiped out, or the profession can never again hold up its head. In April next we must demand over again the cardinal point of £2 a wage limit, and the right to contract out if desired. From my very soul I ask the profession to play the man, and not leave us where we are now, among the people whose word is not to be trusted.

Dr. G. TOTTENHAM POSNETT (London, W.) writes: Like many others, I have been driven, by economic circumstances over which I have no control, on to the insurance panel. Why? The answer is easy. It is because the British Medical Association has never had a "grip" of the profession, and consequently when the day of tribulation dawned the medical profession was faced with a campaign which could only end, as it has, in our Waterloo. I am not a member of the British Medical Association, but have always looked on it as the guardian of the interests of the medical profession at large, both members and non-members, until the present time, when I see it is incapable of adopting that rôle—incapable through lack of "grip" of its members and the profession. I quite concede that traitors within the council of any body are capable, as we have had only too much proof, of disintegrating the policy of that body. Look to it in the future that the Council contains no Trojan horse!

In the past the British Medical Association has erred in that it has done nothing for the medical profession; it has been purely concerned with science and the publication of an excellent journal, but, as I have said, it has done nothing. To be the power it should be, and must be in the future, it must be all in all to the medical profession—it must be capable of earning money to a considerable extent for the benefit of its members, and it must make itself so essential to the medical practitioner that no medical man will be able, in his own interests, to remain outside its membership. What can it do to consummate this idea? It must first of all alter its whole management, its present machinery must be "scrapped," and in its place a much more businesslike Board of Control established. Let the present Association be wound up voluntarily, and let a union on trade union principles take its place, or, if that be not possible under law, then let another association be formed with a much more elastic constitution. This matter should have immediate consideration and some very definite action taken within the next few months, as there will be more than enough for it to do, as the last word has not yet been said about the Insurance Act.

When the new association or union is formed, the following business bureaus should be established for the benefit of the members and the welfare of the profession.

No. 1. Medical Agency.—To supply reliable locumtenents and assistants, and negotiate the sale and purchase of practices. The present medical agent business is carried on for the sole benefit of the proprietor of the

agency, and is most unsatisfactory to the medical profession in every way.

No. 2. Medical Defence.—This should be within the Association not without, as at present.

No. 3. Life, Sickness, Accident, and all other insurances through the Association. These could be arranged for through a good office which might be induced to take up present policies.

No. 4. Debt collecting, with interchange of information regarding patients between practitioners.

No. 5. Clinical Research.—Why should this be, as at present, in the hands of those making a business of it when it could legitimately be made to earn money for the Association—vide Virol, etc.?

The above are plain business propositions, each one capable of earning a considerable annual sum of money which should be utilized to form a reserve fund for the protection of the members, to annually reduce premiums on life insurance, and possibly to provide superannuation allowances, and annuities for widows and orphans.

Members on whom the gods have smiled might also be induced to remember, when making their wills, that gifts to the Association would be for the material benefit of some of their less fortunate brethren.

Contracting Out.

Dr. W. Coode Adams (Hampstead) writes: Those who are now advocating the application of the contracting-out clause of the Insurance Act scarcely appear to have realized the almost cataclysmal effects which would result from such a policy, and therefore the utter impossibility for the Insurance Commissioners to even contemplate such a proceeding except in rare instances.

The principle underlying the Act is that of the British Constitution, that is, "No taxation without representation and control." To expect the public to pay insurance tax and then to remove the money thus collected out of the control of the representatives of the payers would be a distinct infraction of this principle and would not be tolerated for a moment.

The second point is that this contracting-out clause would be utilized by the friendly societies in order to regain the appointment and control of their old club doctor, who then indeed would be subject to "lay control" in its grossest form. The old bargaining would begin again with the old abuses which this Act has put a stop to, and, besides, would be a reversal of the policy the profession fought so hard for at the commencement of the campaign—namely, "freedom from friendly society control." This attempted reversal by the Representative Meeting in December did more to hurry men on to the panel than anything else. We who did so felt then that all which the profession had gained was about to be thrown away, and that it behoved us to quickly grasp what had been won before it was too late.

Lastly, contracting out would break down "the panel," since it would be worth no one's while to belong to it, and thus rob the Government of that official connexion with the medical profession which it was one of the chief objects of the Act to initiate. No Government is likely to stultify itself thus, or to permit itself to be manœuvred out of a position it had deliberately taken up.

It is, therefore, somewhat sad to see so much money, time, energy, and temper expended in thus "crying for the moon."

Central Defence Fund.

Dr. Frederic H. Haynes (Leamington) writes: I think a vigorous effort should be made to raise a fund for the future, that the Association may be in a position at the end of three years to carry out any programme resolved upon to help such members substantially who may resign appointments, etc., in order to obtain better terms. The want of such a fund was, in my opinion, the cause of the collapse in the struggle between the Association and the Chancellor of the Exchequer. I think it would involve a personal canvass, or that each member should give a cheque or money to the canvasser for the year, with a promise of a similar amount for two years more—three years in all. Personally, if generally responded to, I would give £10 10s. a year for three years. In this way, a large sum (with interest accrued) would be raised. I think each member should be asked to give £10 10s. a year if possible.

Medical Certificates for Sickness Benefits.

Dr. W. B. Croskery (Eckington) writes: I wish to place before you and your readers the worries of a non-panel doctor, and the public who wish for his services, under the Derbyshire Insurance Committee. I am and was before January 15th attending as a private patient a case of scarlet fever in a lad belonging to the "Sons of Temperance" approved society, and he and his people—whom I have attended over twenty years—wish me to see him through his illness, and he is one of the insured. Meanwhile, after January 15th he required a medical certificate for benefit. When he became entitled to this I had a call from the panel doctor on whose list he had placed his name, who told me the approved society in which the patient was would not accept the certificate of a non-panel doctor, and that he could not give one from me, giving as his reason that the certificate begins, "I have examined so-and-so," etc. He had therefore been obliged, he said, to call on my patient and give it, and he would have to call weekly to give subsequent certificates. The patient partly confirms the point that the secretary of the approved society told him he must have a panel doctor's certificate. Well, this is rather hard on patient, non-panel doctor, and the public. There seems to be a needless exposure to infection, and a needless worry to the patient and his friends at an anxious time, not to speak of the slight to a registered medical practitioner. I should like to know if it is even legal.

Secondly, my housekeeper, who has been with me thirty years, applied to the Committee "to make her own arrangements." Asked by the Secretary of the Derbyshire Insurance Committee for her reasons, she said "she had had the same doctor for thirty years, that he had not gone on the panel, and that free choice of doctor was permitted by the Act and stated by Mr. George to be allowed." She received a final reply that permission would not be granted by the Committee.

A patient of mine insured under the Act wrote to the secretary of her approved society (the Domestic Servants' Insurance Society) asking if the certificate of her medical attendant, who was not on the panel, would be accepted by the society. The secretary has replied since the above was written. He wrote:

> In reply to your inquiry, we beg to inform you that the signature of any registered practitioner, whether on the panel or not, is sufficient in the case of an insured person who wishes to claim sickness benefit.

The So-called Free Choice of Doctor and the Red Card.

A Warning.

Dr. R. J. Ryle (Brighton) writes: Those who attempt to follow the advice of Dr. Bryan Densham (given on p. 110 of Supplement to the British Medical Journal for January 25th) are liable to a rude awakening. In at any rate one insurance area a doctor not on the panel who had signed the red card was promptly reprimanded by the secretary of the Insurance Committee, and was roundly told that only doctors on the panel had a right to sign the red card. In common fairness to the insured, who are given to understand that they have a free choice of doctor, it would have been kinder to tell them on the card that they have not a free choice of doctor, but that they are allowed to make selection from among the names on the panel. Such a proceeding, however, would have been not quite in keeping with the methods by which it is sought to introduce the Act to the country.

Two Points of Detail.

Dr. Robert R. Rentoul (Liverpool) writes: There are two conditions which should forthwith be collectively agreed to:

(*a*) The supplying and paying for a sixpenny stamp by the doctor who agrees to go on the panel. I wish to know if this action on the part of the Local Insurance Commissioners is lawful. It is a Government contract with an individual, and, if so, then the former should supply the stamp free to the panel doctor. It is surely a fact that if the Local Government Board make an agreement with a doctor to act as a Poor Law doctor, the former will pay for the stamp. If the panel doctor has to pay, then it reduces his 6s. 6d. to 6s. Another point is, If the panel doctor signs should not also the State agree to (that is, the Local Insurance Committee) also sign; and, further, should

not both signatures be witnessed? Suppose a doctor wishes to take an action he has no definite right to sue when the agreement is not signed by both parties to the contract.

(*b*) Has the panel doctor the right to first examine the insured person medically, and to refuse to so examine until he pays the examiner the fee of 2s. 6d. or 3s. 6d.? Our Local Insurance Committee Secretary, in reply to me, simply states that there "is no provision for a fee being paid by the patient." This means that the doctor can refuse to examine, and, therefore, refuse to accept the insured person unless he submits to a thorough medical examination.

Until the above points are decided I suggest that no doctor supplies the 6d. stamp nor examine any insured person until the latter pays the examination fee. By so doing we shall all the sooner find out how the Act is going to treat us.

DOMICILIARY TREATMENT OF TUBERCULOUS INSURED PERSONS.

Dr. J. P. WALKER, County Medical Officer, Isle of Wight, writes: Recently I wrote to the Insurance Commissioners to ascertain whether doctors on the panel now undertaking the domiciliary treatment of insured persons suffering from tuberculosis were still required to comply with the conditions laid down more especially in Sections 3, 4, 5, 6, and 7 of Article II of the Local Government Board's General Order, No. 59,221, of July 26th last, in addition to filling up their day books, giving a brief mention of the nature of the cases, together with the visits and attendances made.

I enclose a copy of their reply, which seems worthy of insertion in the JOURNAL, being a matter of general interest.

National Health Insurance Commission (England),
Buckingham Gate,
London, S.W.,
22nd January, 1913.

Sir,

In reply to your letter of the 16th instant, I am directed by the National Health Insurance Commission (England) to state that practitioners attending persons recommended for sanatorium benefit in the form of domiciliary treatment will be required to observe all the provisions of the Order of the Local Government Board dated the 26th July last, including paragraphs 3-7 of Article II of that Order.

I am to add that a record of visits, etc., made in connexion with the domiciliary treatment of a person recommended for sanatorium benefit should not be noted in the day book (Form 24), which is only required for the purpose of medical benefit.

I am, Sir,
Your obedient servant,
E. MACGOWAN.

J. P. Walker, Esq., M.D., D.P.H.,
Burghfield,
Dover Street, Ryde, Isle of Wight.

THE REPRESENTATIVE MEETING OF JANUARY.

Dr. A. MANKNELL (Bradford) writes: In your report of my remarks at the Special Representative Meeting, January 17th, I am reported to have said that a meeting was held in Bradford "on the night before the panels could be formed." Perhaps in the hurry of the three minutes' time limit I expressed myself badly. I meant on the night before the last day for forming a panel. The panel was to be closed next day—namely, December 31st. We had already interviewed the Insurance Committee, and had received a point-blank refusal upon the question of contracting out, by which means the Association scheme could be put into action. The scheme was explained to the Insurance Committee, and a guarantee was given, in the name of the local profession, that under it a full and efficient medical service would be assured for the insured of the city. This was unanimously rejected by them, and the decision to allow no contracting out whatever was also unanimously passed. Also we were definitely assured by the chairman of their committee that they had a number of applications for whole-time service sufficient to fill the necessary vacancies two or three times over, and that the applications were satisfactory in character. The meeting of the Bradford profession therefore decided that the policy of the Association had been followed to the last moment, and that the only course open was to fill the panels with as many as possible of local men, and so avoid the disaster of so large an importation.

THE DEPTFORD MEDICAL COMMITTEE.

Dr. C. P. HANDSON (New Cross) writes: In your issue of January 25th, SUPPLEMENT, p. 105, appears a resolution unanimously passed by the Deptford Medical Committee. I am requested by the Deptford Non-Panel Practitioners' Association to draw your attention to the fact that the members present at the committee meeting were all on the panel, and in no way represent the practitioners of Deptford, and that they were elected at a time when it was not known that they were likely to accept service under the Act. I hope you will be able to publish this disclaimer in your next issue.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following appointments have been notified at the Admiralty: Fleet Surgeon CHRISTOPHER L. W. BUNTON, M.B., to the *Ganges*, January 10th, 1913, and *Ganges* for Shotley Training Establishment, vice Browne, January 28th, 1913; Fleet Surgeon ROBLEY H. G. BROWNE, to the *King George V*, vice Gordon Green, January 28th, 1913; Fleet Surgeon HENRY W. GORDON-GREEN, to the Pembroke Dockyard, vice Colbourne, January 28th, 1913; Fleet Surgeon WILLIAM J. COLBOURNE, to the *Neptune*, and for general staff duties on recommissioning, January 28th, 1913; Fleet Surgeon J. MCELWEE, M.D., to the *Carnarvon*, on transfer of flag, January 28th, 1913; Fleet Surgeon ROBERT H. J. BROWNE to the *Hyacinth* on completing, and for general staff duties on transfer of flag; Fleet Surgeon JOSEPH A. MOON to the *President*, additional, for senior medical officers' course at Royal Naval College, Greenwich, April 1st, 1913; Fleet Surgeon CHARLES STRICKLAND to the R.M. Division, Portsmouth, vice Moon, April 1st, 1913; Fleet Surgeon MORRIS C. LANGFORD to the *Thunderer*, vice Strickland, April 1st, 1913; Fleet Surgeon ROBERT S. BERNARD to the *Royal Arthur* on recommissioning (for medical charge of voyage out) February 4th, 1913, and the *Tamar*, vice O'Leary, on arrival; Fleet Surgeon ELYSTAN G. E. O'LEARY, F.R.C.S Edin., to the *Royal Arthur* for medical charge of voyage home; Fleet Surgeon EDWARD H. HODNET DE COURTMACHERRY, M.B., to the *Indefatigable*, vice Bernard, February 4th, 1913; Staff Surgeon WILLIAM P. WALKER, M.B., to the *Queen*, additional, for Second and Third Fleets, January 13th, 1913; Staff Surgeon T. H. VICKERS, to the *Blanche*, on recommissioning, January 23rd, 1913; Staff Surgeon N. B. V. JACOB, to the *Vivid*, additional, on transfer of flag, January 28th, 1913; Staff Surgeon F. BOLSTER, M.B., to the *King Alfred*, on transfer of flag, January 28th, 1913, and to the *Hecla*, vice Fedarb, February 11th, 1913; Staff Surgeon DAVID W. HEWITT, M.B., F.R.C.S., to the *President*, additional, for Medical Department, Admiralty, and Medical Department, vice Langford; Staff Surgeon NOEL H. HARRIS to the *Egmont*, additional, for *Prosperine*, for medical charge of ratings on voyage to Malta, February 1st, 1913, and the *Prosperine*, on commissioning, undated; Surgeon JAMES L. BARFORD to the *Hyacinth*, on recommissioning, February 11th, 1913; Surgeon JOHN H. BURDETT to the *Neptune*, recommissioning, January 28th, 1913; Surgeon WALTER G. MOORE-ANDERSON, M.B., to the *President*, additional, for five months' course of instruction at Naval Medical School, to join Royal Naval College, February 1st, 1913; Surgeon GORDON V. HOBBS to be lent to Portsmouth Dockyard temporarily, vice Moore-Anderson, February 1st, 1913; Surgeon W. L. COWARDIN to the *Carnarvon*, on transfer of flag, January 28th, 1913; Surgeon CHARLES F. WILLES to the *Nightingale*, vice Garstin (to take passage in *Royal Arthur*), February 4th, 1913; Surgeon HENRY E. SCARGILL to the *Royal Arthur* on recommissioning for voyage out, February 4th, 1913, and the *Kinsha*, vice Stephens, on arrival; Surgeon WALTER E. LLOYD to the *Tamar*, vice Smith (to take passage in the *Royal Arthur*), February 4th, 1913.

INDIAN MEDICAL SERVICE.

CAPTAIN W. L. FORSYTH has been posted to the Jail Department in the Madras Presidency.

Captain H. STOTT has been nominated as Surgeon to his Excellency the Governor of Madras.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL J. FALLON has been appointed Director of Medical Service, Third (Lahore) Divisional Area.

Lieutenant-Colonel EDWIN ECKERSLEY, M.B., from supernumerary, is restored to the Establishment vice G. Wilson, M.B., retired, January 20th, 1913.

Major R. J. BLACKHAM has been placed on special duty till further orders as an addition to the medical staff in attendance upon His Excellency the Viceroy in India.

Major GEORGE B. STANISTREET, M.B., to be Deputy Assistant General at the War Office, vice Lieutenant-Colonel F. Eckersley, M.B., January 20th, 1913.

Captain A. S. WILLIAMS has been posted to the Dublin District for duty.

Captain J. C. HART has been posted to Woolwich.

Captain J. DE LA COUR has been posted to the Dublin District for duty.

Lieutenant H. W. L. ALLOTT has been posted to the Dublin District.

Lieutenant F. C. LANG has been posted to the Dublin District.

Lieutenant E. V. WHITBY has been posted to the Cork District.

Lieutenant R. E. PORTER has been posted to the Cork District.

Lieutenant R. B. PHILLIPPS has been posted to the Cork District.

Lieutenant J. HARE has been posted to the Belfast District.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

No. 18 Field Ambulance.—Lieutenant WILSON H. P. HEY to be Captain, December 12th, 1912.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

First Highland Field Ambulance.—Lieutenant JOHN D. FIDDES, M.B., to be Captain, December 10th, 1912.

First London Field Ambulance.—ARTHUR D. DOWNES, M.B., to be Lieutenant, December 12th, 1912.

Second North Midland Field Ambulance.—Lieutenant RICHARD M. WEST, M.D., to be Captain, December 9th, 1912.

First London (City of London) General Hospital.—Captain HENRY N. BURROUGHES, M.B., resigns his commission, January 8th, 1913.

First Home Counties Field Ambulance.—DUNCAN MATHESON JOHNSTON, M.B., to be Lieutenant, January 18th, 1913.

Third Scottish General Hospital.—GERALD CHARLES FREDERICK ROBINSON, F.R.C.S., to be Captain, whose services will be available on mobilization, December 3rd, 1912. Major THOMAS K. DALZIEL, M.B., to be Lieutenant-Colonel, December 16th, 1912. Captain WILLIAM MACLENNAN, M.B., to be Major, December 16th, 1912.

Third Wessex Field Ambulance.—Lieutenant EDMUND ALDERSON, M.D., to be Captain, December 16th, 1912.

Second Western General Hospital.—Major EDMUND T. MILNER, M.B., Major JUDSON S. BURY, M.D., and Captain JAMES L. SMITH, M.D., have resigned their commissions, January 22nd, 1913. Captain ARTHUR H. BURGESS, M.B., F.R.C.S., Captain JOHN H. RAY, M.B., F.R.C.S., and Captain GEORGE R. MURRAY, M.D., have been promoted to Majors, January 22nd, 1913.

Highland Mounted Brigade Field Ambulance.—Lieutenant ARCHIBALD C. BALFOUR resigns his commission, January 25th, 1913.

Sixth London Field Ambulance.—Lieutenant HENRY K. DAWSON, M.D., to be Captain, January 6th, 1913.

Fourth London General Hospital.—EDMUND SPRIGGS, M.D., F.R.C.P., to be Captain, whose services will be available on mobilization, January 9th, 1913.

First Scottish General Hospital.—Lieutenant JAMES MCKENZIE BOOTH, Retired List, Territorial Force, to be Lieutenant-Colonel, whose services will be available on mobilization, December 20th, 1912. The following gentlemen to be Captains whose services will be available on mobilization, December 20th, 1912: ALEXANDER MITCHELL STALKER, M.D., JOHN MACKIE WHYTE, M.D., ALEXANDER DON, M.B., F.R.C.S.Edin., CHARLES KERR, M.B., ALEXANDER PETRIE LOW, M.B., ARTHUR WELLESLEY FALCONER, M.D., GEORGE HERBERT COLT, M.B., F.R.C.S., ANGUS MCGILLIVRAY, M.B., GEORGE MELLIS DUNCAN, M.B., WILLIAM CLARK SOUTER, M.B., JOHN JOHNSTON, M.B., WILLIAM BROWN, M.B., and JAMES MILROY MCQUEEN, M.B.

Attached to Units other than Medical Units.—Lieutenant HENRY L. WADD resigns his commission, January 8th, 1913. Lieutenant JOHN TAIT to be Captain, December 30th, 1912. Lieutenant WILLIAM H. NEWTON resigns his commission, January 18th, 1913. Lieutenant THOMAS N. THOMAS to be Captain, December 17th, 1912. Lieutenant JOSEPH B. DAWSON resigns his commission, January 22nd, 1913.

For Attachment to Units other than Medical Units.—FRANK CLAYTON, M.D., to be Lieutenant, November 18th, 1913.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-six of the largest English towns 8,305 births and 5,657 deaths were registered during the week ending Saturday, January 18th. The annual rate of mortality in the ninety-five or ninety-six towns, which had been 15.1, 15.7, and 15.4 per 1,000 in the three preceding weeks, rose to 16.5 per 1,000 in the week under notice. In London last week the death-rate was also equal to 16.5, against 14.4, 16.2, and 15.3 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 7.5 in Tottenham, 8.6 in Gillingham, 8.9 in Darlington, 9.0 in Wimbledon, 9.1 in Great Yarmouth, and 9.5 in Eastbourne and in Walsall to 23.6 in St. Helens, 23.8 in Carlisle and in Aberdare, 24.1 in Ipswich and in Wigan, 27.3 in Dudley, 27.5 in Rotherham, and 27.6 in West Hartlepool. Measles caused a death-rate of 3.8 in Sheffield, 4.0 in Swindon, in Barrow-in-Furness, and in Stockton-on-Tees, 4.2 in St. Helens, 4.4 in Preston, 4.6 in Wigan, 5.3 in Edmonton, and 6.1 in South Shields; whooping-cough of 1.6 in Blackburn, 1.8 in Cambridge, 2.0 in Swindon, and 2.4 in Rotherham; and diphtheria of 1.3 in Portsmouth. The mortality from scarlet fever or enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 63, or 1.1 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 11 in Liverpool, 6 in Birmingham, 4 in St. Helens, and 4 in Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 2,112, 1,954, and 1,889 at the end of the three preceding weeks, had further fallen to 1,828 on Saturday last; 204 new cases were admitted during the week, against 191, 170, and 202 in the three preceding weeks.

In ninety-six of the largest English towns 8,850 births and 5,819 deaths were registered during the week ending Saturday, January 25th. The annual rate of mortality in these towns, which had been 15.7, 15.4, and 16.5 per 1,000 in the three preceding weeks, rose to 17.0 per 1,000 in the week under review. In London last week the death-rate was equal to 17.8, against 16.2, 15.3, and 16.5 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 7.5 in Gillingham, 9.1 in Edmonton, 9.5 in Hornsey, 10.3 in Croydon and in Gloucester, 10.5 in Enfield, and 10.6 in East Ham to 24.0 in Oldham, 24.3 in Sunderland, 24.5 in South Shields, 25.2 in Dewsbury, 26.0 in Bootle, and 26.7 in St. Helens. Measles caused a death-rate of 3.0 in Edmonton and in West Bromwich, 3.6 in Bootle, 4.0 in Swindon, in Wigan, in Preston, and in Sheffield, and 4.2 in St. Helens and diphtheria of 1.3 in Swansea. The mortality from the remaining infectious diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 54, or 0.9 per cent. of the total deaths, were not certified either by a registered medical practitioner or by a coroner after inquest, and included 10 in Birmingham, 7 in Liverpool, and 3 each in Stoke-on-Trent, Coventry, St. Helens, and Blackburn. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,954, 1,889, and 1,828, at the end of the three preceding weeks, had further fallen to 1,784 on Saturday last; 215 new cases were admitted during the week, against, 170, 202, and 204 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN sixteen of the largest Scottish towns 1,237 births and 748 deaths were registered during the week ending Saturday, January 11th. The annual rate of mortality in these towns, which had been 19.2, 17.1, and 17.6 per 1,000 in the three preceding weeks, fell to 17.3 in the week under notice, but was 1.9 per 1,000 above the rate in the ninety-six large English towns. Among the several Scottish towns the death-rates ranged from 7.6 in Ayr, 8.8 in Falkirk, and 12.2 in Paisley to 21.1 in Dundee, 22.3 in Perth, and 22.8 in Greenock. The mortality from the principal infectious diseases averaged 1.3 per 1,000, and was highest in Perth and Motherwell. The 341 deaths from all causes registered in Glasgow included 15 from whooping-cough, 4 from diphtheria, 3 from scarlet fever, 3 from infantile diarrhoeal diseases, and 2 from measles. Four deaths from whooping-cough were recorded in Edinburgh, 4 in Motherwell, 2 in Greenock, and 2 in Perth, and 3 deaths from diphtheria in Aberdeen and 2 in Hamilton.

In the sixteen largest Scottish towns 1,211 births and 802 deaths were registered during the week ending Saturday, January 18th. The annual rate of mortality in these towns, which had been 17.6 and 17.3 per 1,000 in the two preceding weeks, rose to 18.5 in the week under notice, and was 2.0 per 1,000 higher than the rate in the ninety-six large English towns. Among the several Scottish towns the death-rates ranged from 13.5 in Hamilton and in Kilmarnock, 15.3 in Motherwell, and 16.1 in Falkirk to 20.7 in Paisley, 25.5 in Greenock, and 27.5 in Ayr. The mortality from the principal infectious diseases averaged 1.5 per 1,000, and was highest in Clydebank and Motherwell. The 363 deaths from all causes registered in Glasgow included 26 from whooping-cough, 7 from diphtheria, 4 from scarlet fever, and 4 from infantile diarrhoeal diseases. Three deaths from whooping-cough were registered in Leith, and 5 from infantile diarrhoeal diseases in Dundee.

In the sixteen largest Scottish towns, 1,222 births and 875 deaths were registered during the week ending Saturday, January 25th. The annual rate of mortality in these towns, which had been 17.6, 17.3, and 18.5 per 1,000 in the three preceding weeks, rose to 20.2 in the week under notice, and was 3.2 per 1,000 above the rate recorded in the ninety-six large English towns. Among the several Scottish towns the death-rate ranged from 10.5 in Kilmarnock, 12.7 in Motherwell, and 13.2 in Falkirk to 24 6 in Leith, 25.5 in Greenock, and 26.5 in Coatbridge. The mortality from the principal infectious diseases averaged 1.8 per 1,000, and was highest in Glasgow and Leith. The 437 deaths from all causes registered in Glasgow included 30 from whooping-cough, 11 from infantile diarrhoeal diseases, 7 from diphtheria, 3 from scarlet fever, 1 from enteric fever, and 1 from measles. Three deaths from whooping-cough were recorded in Edinburgh, 2 in Paisley, and 2 in Leith; 2 deaths from scarlet fever in Leith; and 3 deaths from diphtheria in Aberdeen and 2 in Dundee.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 11th, 583 births and 484 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 756 births and 544 deaths in the preceding periods These deaths represent a mortality of 21 per 1,000 of the aggregate population of the districts in question, as against 22 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 5.6 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate on the other hand was equal to 25.4 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 22.8, as against an average of 20.2 for the previous four weeks, in Dublin city also 22 8 (as against 21.7), in Belfast 21.1 (as against 21.9), in Cork 19.7 (as against 20.1), in Londonderry 20.3 (as against 15.3), Limerick 12.2 (as against 13.6), and in Waterford 28.5 (as against 21.9). The zymotic death-rate was 2.3, as against 2.2 in the previous week.

During the week ending Saturday, January 18th, 631 births and 510 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 583 births and 484 deaths in the preceding period. These deaths represent a mortality of 22 per 1,000 of the aggregate population of the districts in question, as against 21 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 5.7 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 27.4 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 22.3, as against an average of 20.5 for the previous four weeks, in Dublin city 23.2 (as against 21.7), in Belfast 20.3 (as against 21.1), in Cork 25.2 (as against 22.1), in Londonderry 16.5 (as against 14.9), in Limerick 13.5 (as against 12.2), and in Waterford 32.3 (as against 21.7). The zymotic death-rate was 2.1, as against 2.3 in the previous week.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ABERDEEN SCHOOL BOARD.—Assistant School Medical Officer. Salary, £250 per annum.

AGRA: DUFFERIN HOSPITALS.—Lady Doctor on the Staff. Salary, Rs. 300 a month.

BERKSHIRE COUNTY COUNCIL, Reading.—Tuberculosis Officer. Salary, £500 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—Radiographer. Salary, £100 per annum.

BRISTOL ROYAL INFIRMARY.—(1) House-Physician. (2) Dental House-Surgeon. (3) Obstetric and Ophthalmic House-Surgeon. (4) Resident Casualty Officer. (5) Honorary Surgeon. (6) Honorary Assistant Surgeon. Salary for (1) and (2), £100 per annum, for (3) £75 per annum, and (4) £50 per annum.

BUCKS COUNTY LUNATIC ASYLUM, Stone, near Aylesbury.—Assistant Medical Officer. Salary, £200 per annum.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

CAMBRIDGE: COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £160 per annum, rising to £200.

CARDIFF: KING EDWARD VII'S HOSPITAL.—House-Surgeon (male). Honorarium, £30 for six months.

CARSHALTON: QUEEN MARY'S HOSPITAL FOR CHILDREN.—Senior Assistant Medical Officer. Salary, £250 per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—House-Surgeon. Salary, £80 per annum.

COLCHESTER: SEVERALL ASYLUM.—Senior Assistant Medical Officer. Salary, £300 per annum, rising to £400.

CROYDON BOROUGH.—Medical Officer to the Tuberculosis Dispensary. Salary, £450 per annum, increasing to £500.

DENBIGH: NORTH WALES COUNTIES ASYLUM.—Junior Assistant Medical Officer (male). Salary, £160 per annum, rising to £200.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Third Assistant Medical Officer (male). Salary, £175 per annum, increasing to £200.

ESSEX EDUCATION COMMITTEE, Chelmsford.—School Medical Inspector. Salary, £250 per annum, rising to £300.

EXETER: DEVON COUNTY EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary, £250 per annum.

GLOUCESTER: GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Remuneration at the rate of £80 per annum.

GROSVENOR HOSPITAL FOR WOMEN, Vincent Square, S.W.—Assistant Surgeon for Out-patients.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL—House-Surgeon. Salary, £75 per annum.

HERTS COUNTY ASYLUM, Hill End, St. Albans.—Junior Assistant Medical Officer (male). Salary, £170 per annum, rising to £190.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—(1) Casualty House-Surgeon. (2) Assistant Physician.

HUDDERSFIELD ROYAL INFIRMARY.—Senior House-Surgeon. Salary, £100 per annum.

KING EDWARD VII SANATORIUM, Midhurst.—Second Assistant Medical Officer. Salary, £150 per annum, rising to £200.

LAMBETH BOROUGH.—Assistant Tuberculosis Officer. Salary commencing at £300 per annum.

LEEDS CITY.—Assistant Medical Officer of Health and Chief Inspector of Nuisances. Salary, £300 per annum.

LEEDS PUBLIC DISPENSARY.—Honorary Assistant Dental Surgeon.

LEICESTERSHIRE COUNTY COUNCIL.—Tuberculosis Medical Officer. Salary at the rate of £500 per annum.

LIVERPOOL CITY.—Assistant Tuberculosis Officer. Salary, £400 per annum.

LIVERPOOL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Honorary Assistant Physician.

LIVERPOOL INFIRMARY FOR CHILDREN.—Resident House-Surgeon. Salary at the rate of £60 per annum.

LONDON COUNTY COUNCIL.—Two Medical Assistants in the Public Health Department. Salary, £400 per annum, rising to £500.

LONDON HOSPITAL, Whitechapel, E.—Assistant Surgeon.

LONDONDERRY DISTRICT LUNATIC ASYLUM.—Senior Male Assistant Medical Officer. Salary, £200 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Assistant Medical Officer for the Crossley Sanatorium. Salary, £100 per annum.

MILDMAY MISSION HOSPITAL, Bethnal Green, N.—House-Surgeon. Salary, £80 per annum.

NATIONAL DENTAL HOSPITAL, Great Portland Street, W.—Medical Superintendent. Salary, £120 per annum.

NORTHAMPTON: ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES.—Resident Medical Superintendent. Salary, £1,200 per annum.

NOTTINGHAM GENERAL HOSPITAL.—(1) Assistant Resident Surgeon (male). (2) Assistant Resident Surgeon for the Branch. Salary, £170 per annum each.

OXFORD: RADCLIFFE INFIRMARY AND COUNTY HOSPITAL.—(1) House-Surgeon. (2) Casualty House-Surgeon. Salary at the rate of £80 per annum each.

RICHMOND, SURREY: ROYAL HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Junior Obstetric Assistant (female).

ROYAL NAVY.—Six Dental Surgeons for the Naval Forces. Salary, £1 per diem for seven days a week.

ST. MARK'S HOSPITAL FOR CANCER, FISTULA, AND OTHER DISEASES OF THE RECTUM, City Road, E.C.—Two Clinical Assistants.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C.—(1) Honorary Surgeon to Out-patients. (2) Clinical Assistant.

SALFORD FEVER HOSPITAL.—Junior Resident Medical Officer at Ladywell Sanatorium. Salary, £150 per annum.

SOUTHPORT INFIRMARY.—Resident Senior House-Surgeon. Salary at the rate of £100 per annum.

STAFFORD: COTON HILL MENTAL HOSPITAL.—Assistant Medical Officer (male). Salary, £160 per annum, increasing to £190.

STAFFORD: STAFFORDSHIRE COUNTY ASYLUM.—Assistant Medical Officer. Salary, £210 per annum.

STOKE-ON-TRENT: NORTH STAFFORDSHIRE INFIRMARY.—(1) Honorary Surgeon in charge of Ear and Throat Department. (2) House-Physician; salary, £100 per annum.

SUNDERLAND: ROYAL INFIRMARY.—House-Physician (male). Salary at the rate of £80 per annum.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Physician.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Pathologist and Bacteriologist. Salary, £200 per annum.

YORK DISPENSARY.—Resident Medical Officer (male).

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointment: Monasterevan (co. Kildare).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

BRIDGE, R. H., M.B.Syd., Medical Registrar at the Sydney Hospital, New South Wales.

FREEMAN, W. T., M.D., F.R.C.S., L.R.C.P., Physician to the Royal Berkshire Hospital, Reading.

GRINDLAY, G., M.B., Medical Officer of the Stourbridge Union Workhouse.

KAY, W. E., M.B.Syd., Medical Registrar at the Sydney Hospital, New South Wales.

MACKLIN, Alex. Hepburn, M.B., Ch.B.Vict., Junior House-Surgeon at the Blackburn and East Lancashire Infirmary.

MORGAN, Conway, M.D., B.S.Lond., M.R.C.S., L.R.C.P., Honorary Assistant Physician to the East Sussex Hospital, Hastings.

NOALL, William Paynter, M.S.Lond., M.B.Lond., F.R.C.S.Eng., Honorary Consulting Surgeon to the Brooke Dispensary and Cottage Hospital, Selby.

PATRICK, J. King, M.B.Glas., D.P.H., Tuberculosis Medical Officer for Hampstead.

PENMAN, J. Forrest, M.B., Ch.B.Edin., Third House-Surgeon to the Birmingham and Midland Eye Hospital.

REA, S. P., M.B., B.Ch.R.U.I., Resident Medical Officer to the Infirmary, Lisburn Road, Belfast.

REES, E. D., M.R.C.S., L.R.C.P., District Medical Officer of the Newtown and Llanidloes Union.

SAYRES, A. W. Fortescue, M.D.Brux., M.R.C.S., L.R.C.P., D.P.H., Tuberculosis Officer to the Stonehouse District of the Devon County Council.

STEVENSON, Edgar, M.D.Aberd., Medical Referee under the Workmen's Compensation Act (1906) for the County Court Circuit No. 29, with a view to his being employed in all ophthalmic cases arising in the circuit.

THOMSON, Ruby, M.B., Ch.B.Edin., Assistant Resident Medical Officer of the Toxteth Park Workhouse and Infirmary, Liverpool.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

BROWN.—On January 27th, at The Uplands, Minchinhampton, Glos., the wife of Alfred Brown, M.D.Edin., a son.

MACEVOY.—On the 24th January, at 19, Mowbray Road, Brondesbury, N.W., the wife of H. J. Macevoy, M.D., B.Sc.Lond., of a son.

DEATHS.

HEAD.—On January 18th, at S. Peter's Hospital, Covent Garden, W.C., Robert Turner Head, M.R.C.S., L.R.C.P., of Oxcroft House, Balsham, Cambridge, aged 77.

JARVIS.—On January 13th, Henry Victor Jarvis, aged 9, the only child of Dr. and Mrs. Charles G. Jarvis, of 81, Boulevard Malesherbes, Paris.

LIVESAY.—On January 24th, at "The Pines," Bembridge, I.W., William Livesay, M.D.Edin., in his 68th year, after a prolonged illness.

ROBSON.—At 40, Cameron Road, Seven Kings, Ilford, on January 23rd, Christina Violet, wife of Dr. R. Boyd Robson, in her 25th year.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 9 p.m.—Mr. James Berry: Lettsomian Lecture on the Surgery of the Thyroid Gland, with special reference to Exophthalmic Goitre.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor K. Macfarlane Walker: On Paths of Infection in Genito-urinary Tuberculosis.

TUESDAY.

ROENTGEN SOCIETY, Institution of Electrical Engineers, Victoria Embankment, W.C., 8.15 p.m.—Mr. R. S. Wright: The Construction of Induction Coils. Mr. C. E. S. Phillips: Demonstration of a Simple Method for inserting Radium into lengths of Sterile Rubber Tubes.

ROYAL SOCIETY OF MEDICINE:
SECTION OF PATHOLOGY (Meeting postponed).

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor William Wright: The Comparative Anatomy of the Elephant.

ROYAL SOCIETY, Burlington House, W., 4.30 p.m.—List of probable papers to be read:—S. R. Wells and Leonard Hill, F.R.S.: The Influence of the Resilience of the Arterial Wall on Blood Pressure and on the Pulse Curve. A. A. Gray: A Ganglion in the Human Temporal Bone not hitherto described. J. A. Gunn and F. B. Chavasse: The Action of Adrenin on Veins. Captain H. S. Ranken: A Preliminary Report on the Treatment of Human Trypanosomiasis and Yaws with Metallic Antimony. Major W. B. Fry and Captain H. S. Ranken: Further Researches on the Extrusion of Granules by Trypanosomes and on their Further Development. With a note on Methods by H. G. Plimmer, F.R.S.

ROYAL SOCIETY OF MEDICINE:
SECTION OF OPHTHALMOLOGY, 1, Wimpole Street, W., 8 p.m.—Cases:—Mr. R. A. Greeves: Scleral Ectasia with Displacement of the Papilla. Mr. George Coats: Congenital Mesoblastic Strand adhering to and Penetrating the Cornea. Discussion, 8.30 p.m.: The Physiology of the Intraocular Pressure. The discussion will be continued by Mr. Martin Flack, Mr. Thompson Henderson, and Mr. J. Herbert Parsons.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Clinical meeting.

ROYAL SOCIETY OF MEDICINE:

SECTION OF OBSTETRICS AND GYNAECOLOGY, 1, Wimpole Street, W., 8 p.m.—Specimens:—Dr. Beckwith Whitehouse: (1) Early Sarcoma of Uterus; (2) Fibromyoma showing Unusual Characters. Dr. Arthur E. Giles: Diffuse Ovarian Fibroma with Central Cyst. Mrs. Mary Scharlieb: Tumour of Doubtful Nature Removed from Groin. Short Communication:—Dr. Bright Banister: Case of Extensive Rupture of the Utero-vaginal Junction with Escape of the Placenta into the Peritoneal Cavity. Papers:—Dr. Lorrain Smith (Edinburgh) and Dr. Fletcher Shaw (Manchester): Red Degeneration of Uterine Fibromyomata. Dr. James Young (Edinburgh): The Cause of Internal Rotation of the Fetal Head.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor William Wright: The Comparative Anatomy of the Elephant.

ROYAL SOCIETY OF MEDICINE:

SECTION OF ANAESTHETICS, 1, Wimpole Street, W., 8.30 p.m.—Mr. H. M. Page: Nitrous Oxide and Oxygen in Major Surgery. Demonstration of Apparatus.

SECTION OF LARYNGOLOGY, 1, Wimpole Street, W., 4.30 p.m.—Cases will be shown by Mr. Herbert Tilley, Mr. C. W. M. Hope, Mr. T. Bramley Layton, Mr. J. F. O'Malley, Dr. W. H. Kelson, and others.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION, S.W.—Wednesday, 4.30 p.m.: Pneumothorax.

CANCER HOSPITAL, Fulham Road, S.W.—Wednesday, 5 p.m.: Malignant Disease of the Colon.

LONDON HOSPITAL MEDICAL COLLEGE, E.—Friday, 4.30 p.m., Common Diseases of the Nervous System.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics. Monday: 12 noon, Throat, Nose, and Ear: 2.15 p.m., Surgery; 3 p.m., Operations; 3.15 p.m., Medicine; 4.15 p.m., Ear and Throat. Tuesday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Surgery; 3.15 p.m., Medicine; 4.15 p.m., Skin. Wednesday: 11 a.m., Eye; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Eye Clinic; 4.30 p.m., Surgery. Thursday: 12 noon, Throat, Nose, and Ear; 2 p.m., Operations, Pathological Demonstration; 3.15 p.m., Medicine. Friday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Surgery. Saturday: 10 a.m., Radiography; 11 a.m., Eye.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted), at 12 and 4 p.m. Practical laboratory work (Saturday excepted), 10 to 12 a.m. Practical Protozoology, 2 to 3.30 p.m. daily. Advanced Protozoology, 10.30 a.m. to 1 p.m. daily. Medical Clinics, Tuesday and Thursday, at 3 p.m. Operations, Friday, at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL.—Thursday, 4.15 p.m., Post-graduate Clinic: Demonstration of Medical and Surgical Cases by honorary staff.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m., Cerebral Syphilis. Friday, 4.30 p.m., Surgical Demonstration.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations will be held next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, The Question of Legal Responsibility in Some Forms of Mental Weakness; Tuesday, The Treatment of Acute Pneumonia with Vaccines: Results; Wednesday, The Treatment of Large Herniae; Thursday, Acute Inflammation of Bone.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m.—Clinical Cases.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.40 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture on the Abdominal Factor in Respiration. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture on Acute Otitis Media: its Causes and Treatment. Friday, 2.30 p.m., Operations; Clinics: Medical, Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

ROYAL EYE HOSPITAL, Southwark, S.E.—Tuesday, 4.30 p.m., Recent Work on Glaucoma and its Bearing on Treatment.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Monday, 4.30 p.m.: Heart Disease in Children. Thursday, 4.30 p.m., Haemoptysis and Pneumothorax.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the arrangements for next week: Daily arrangements—Medical and Surgical Clinics 2 p.m., *X* ray 2 p.m., Operations 2 p.m. Monday: Gynaecology, 10 a.m.; Medical Registrar, 10.30 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Surgical Registrar, 10.30 a.m.; Demonstration of Fractures, 12 noon; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Lecture: Abdominal Diagnosis, 12 noon; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10.30 a.m.; Lecture: Neurological Cases, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture: Practical Medicine, 10.30 a.m.; Lecture: Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.; Surgical Registrar, 10.30 a.m.; Lecture: Surgical Anatomy of the Abdomen, 12 noon. Lectures at 5 p.m.: Monday, The Use of Solid Carbon Dioxide Snow; Tuesday, Cholera; Wednesday, Pericarditis; Thursday, Practical Surgery; Friday, Clinical Pathology.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		FEBRUARY.
6	Thur.	London: State Sickness Insurance Committee, 10.30 a.m.
11	Tues.	City Division, Manchester Hotel, Aldersgate Street, E.C., 9.30 p.m.
		London: Metropolitan Counties Branch Council, 4 p.m.
		South-West Essex Division, Whipps Cross Infirmary, 4 p.m.
13	Thur.	Birmingham Branch, Medical Institute, 3.30 p.m.
14	Fri.	Hampstead Division, Finchley Road, 8.15 p.m.
19	Wed.	Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
28	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		MARCH.
5	Wed.	London: Finance Committee, Special Meeting.
11	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
13	Thur.	Birmingham Branch, Medical Institute, 3.30 p.m.
		South-West Essex Division, Leyton, 4 p.m.
14	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
19	Wed.	Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
28	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		APRIL.
8	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
11	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
		South-West Essex Division, Brook House, Clapton, 9.30 p.m.
23	Wed.	Richmond Division, Richmond, 8.30 p.m.
24	Thur.	South-West Essex Division, Walthamstow Hospital, 4 p.m.
25	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.

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TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 8TH, 1913.

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PROCEEDINGS OF COUNCIL.

A MEETING of the Council was held at 429, Strand, London, W.C., on Wednesday, January 29th, at 2 p.m.

Present.

Sir JAMES BARR, M.D., LL.D., Liverpool, President, in the Chair, afterwards Dr. J. A. MACDONALD, LL.D., Taunton, Chairman of Council.

Mr. T. JENNER VERRALL, Bath, Chairman of Representative Meetings.

Dr. EDWIN RAYNER, Stockport, Treasurer.

Dr. R. M. BEATON, London
Surgeon-General P. H. BENSON, M.B., I.M.S., Walmer (Indian Branches)
Dr. M. G. BIGGS, London
Dr. CHARLES BUTTAR, London
Dr. WM. CLOW, Paisley
Dr. J. S. DARLING, Lurgan
Dr. E. J. DOMVILLE, Exeter
Dr. E. FINLAY, Gloucester
Mr. T. W. H. GARSTANG, Altrincham
Dr. T. D. GREENLEES, London (Cape of Good Hope Branches)
Dr. MAJOR GREENWOOD, London
Dr. J. R. HAMILTON, Hawick
Dr. G. E. HASLIP, London
Dr. R. WALLACE HENRY, Leicester
Mr. R. J. JOHNSTONE, Belfast
Mr. EVAN JONES, London
Mr. F. CHARLES LARKIN, Liverpool
Mr. C. COURTENAY LORD, Gillingham
Dr. H. C. MACTIER, Wolverhampton
Dr. R. B. MAHON, Ballinrobe
Dr. C. H. MILBURN, Hull
Dr. H. FALCONER OLDHAM, Morecambe
Dr. GEORGE PARKER, Bristol
Dr. F. J. SMITH, London
Mr. D. F. TODD, Sunderland
Mr. E. B. TURNER, London
Dr. W. J. TURRELL, Oxford
Dr. W. J. TYSON, Folkestone
Mr. D. J. WILLIAMS, Llanelly

The PRESIDENT (Sir James Barr) took the chair pending the arrival of the Chairman of Council,

MINUTES.

The minutes of the ordinary meeting held on October 31st, 1912, the adjourned meeting, November 13th, 1912, and special meetings, November 21st, December 4th and 23rd, 1912, and January 18th, 1913, having been printed and circulated and no objection having been received, were signed as correct.

Apologies for absence were read from the President-elect, Dr. John Adams, Inspector-General R. Bentham, R.N., Dr. John Gordon, Surgeon-General J. P. Greany, I.M.S., Dr. T. Arthur Helme, Mr. Albert Lucas, Dr. J. Metcalfe, Dr. J. Munro Moir, Dr. C. G. D. Morier, Dr. E. S. Reynolds, and Mr. E. H. Willock.

RESIGNATIONS.

It was reported that at or since the Special Representative meeting, December, 1912, the following had resigned from the Council:

Andrew, Dr. J. Grant (grouped Divisions: Glasgow and West of Scotland).
Buist, Dr. R. C. (elected by Representative Body).
Davie Harris, Lieut.-Col. F. W. H., R.A.M.C. (Representative of the Army Medical Service).
Dewar, Dr. Michael (grouped Divisions: East of Scotland).
Durran, Dr. John G. (Cambridge and Huntingdon, East Anglian, and South Midland Branches).
Farquharson, Dr. A. C. (grouped Divisions: North of England).
Flemming, Mr. C. E. S. (grouped Divisions: West of England).
Loudon, Dr. J. Livingstone (Glasgow and West of Scotland, Border Counties and Stirling Branches).
Maclean, Dr. Ewen J. (elected by Representative Body).
Shaw, Dr. Lauriston E. (elected by Representative Body).

Certain of the vacancies thus created had been filled as follows:

Clow, Dr. W., vice Dr. J. Grant Andrew.
Finlay, Dr. D. E., vice Mr. C. E. S. Flemming.
Haslip, Dr. G. E., vice Dr. Ewen J. Maclean.
Jones, Mr. Evan, vice Dr. Lauriston Shaw.
Moir, Dr. J. Munro, vice Dr. Michael Dewar.
Oldham, Dr. H. F., vice Dr. A. C. Farquharson.
Willock, Mr. E. H., vice Dr. R. C. Buist.

Election to Central Council.

The following return to the Central Council, vice Dr. Pope, deceased, was announced:

Branch.	*Name of Representative.*
East York and North Lincoln and Midland Branches grouped.	R. Wallace Henry, M.D., 6, Market Street, Leicester.

Deaths.

The Chairman was authorized to address a letter of condolence to the family of the late Dr. C. W. Marriott, of Reading, a former member of the Council. Letters received in reply to condolences addressed by the Council to members of the families of the late Dr. Pope, of Leicester, and Dr. T. B. Moriarty, of Cork, were entered on the minutes.

Bacteria and Shellfish.

The Council referred to the Science Committee an application from the Fishmongers' Company, asking the Council to nominate three medical men from whom a special committee of the Company could nominate one to confer with them in regard to shellfish, particularly as to bacteria, and what other standards besides freedom from bacteria should be adopted to render shellfish suitable for human consumption.

A Resolution of Thanks.

The following resolution, adopted at a meeting of the profession held at Coventry, was received and entered on the minutes:

> That this meeting of the profession in Coventry records its hearty appreciation of the efforts the Council has made on our behalf in very difficult circumstances, and especially of its indefatigable labour, and also to express our abhorrence of those members who deserted us when we most needed help.

(Dr. J. A. Macdonald, Chairman of Council, in the Chair.)

Finance Committee.

The Treasurer, in presenting the statement of the accounts for the last quarter of 1912, said that it was important to bear in mind that the figures were merely a statement of cash disbursements and cash receipts, and was not a balance-sheet. At the same time, the figures it contained were significant, and foreshadowed the result that would be proved when the actual balance-sheet for the year 1912 was submitted to the Council in April next. Taking the figures for the twelve months, the facts were that in 1912 the Association had disbursed £11,300 more than in 1911. In 1911 it had spent £10,000 more than in 1910; and in 1910 it had spent £5,000 more than in 1909. It thus appeared that since 1909, the period antecedent to the introduction of the National Insurance Bill, the Association has spent approximately £36,000 of additional money. Of this sum, £5,000 to £6,000 must be discounted for litigation in which the Council was involved in 1912, but at a modest estimate the Association had had to find something like £30,000 to carry on the campaign, towards which it had received about £13,500 from the Insurance Defence Fund. With regard to the revenue it would be seen that, after discounting the grants made from the Insurance Defence Fund, the revenue for 1912 was insufficient by about £16,000 to meet the current expenses for the year. Going back to 1909, it would be seen that the increase in revenue did not exceed on an average £2,000 per annum. As to the sources of the revenue, practically every department showed progress. The Treasurer then commented on some of the details of expenditure; the increase shown in the cost of machining the Journal and Supplement, compositors' wages, paper, and postage was influenced by the increased circulation of the Journal. He called attention to the fact that the sum paid in compositors' wages showed an increase, notwithstanding the fact that the average number of pages was lower; this was due to the circumstance that during the quarter the Journal was often produced under abnormal conditions, involving the working of overtime, which meant extra expense. Reporting for the Journal also showed an increase, as there had been two Special Representative Meetings in the three months. The amount paid in railway fares to members of Council had increased considerably. In the quarter there were two Special Representative Meetings, and in round figures it was estimated that the railway fares alone for a Representative Meeting amounted to about £500. The cost of railway fares for Committees would have been lower had not the weekly meetings of the State Sickness Insurance Committee involved the Association in a heavy expenditure. The expenditure on miscellaneous printing was still high, but the Medico-Political Committee had spent £136 less; the State Sickness Insurance Committee, in spite of its frequent sittings, £411 less; and the Hospitals Committee £44 less.

Some conversation took place with regard to the relation of the Central Defence Fund to the general funds of the Association, and the Chairman of Council and Chairman of Representative Meetings pointed out that the Central Defence Fund had been drawn upon to defray part of the cost incurred by the Association in reference to the National Insurance Act, but that it was never intended that the Defence Fund should defray the whole of that cost, since the action taken had been part of the medico-political work of the Association, and it was therefore proper that a proportion of the cost should fall upon the general funds of the Association. The Central Defence Fund was intended to be applied also for the purpose of compensation. It was pointed out that if the Association was to continue to concern itself with political questions it must raise annually sufficient funds to deal with such questions adequately. Eventually a resolution approving the accounts for the quarter ending December 31st, 1912, and authorizing the Treasurer to pay those remaining unpaid, was agreed to.

State Sickness Insurance Committee.

A report from the State Sickness Insurance Committee arising out of its meeting of January 23rd was received.

Constitution and Duties of the Committee.

The Report quoted the two following resolutions of the Special Representative Meetings of November, 1912, and January 18th, 1913:

November, 1912 (Minute 54).—That a State Sickness Insurance Committee be appointed by the Representative Body to watch the interests of the profession in relation to the National Insurance Act and to report on the situation to the Council, and that the Committee consist of (*a*) twelve members elected by grouped Representatives in the same manner as members of Council under By-law 43 (*c*); (*b*) the *ex officio* members; and (*c*) two women medical practitioners, to be nominated, one by the Northern Association of Medical Women, and one by the Association of Registered Medical Women.

January, 1913 (Minute 50).—Resolved: That the meeting do not appoint a new Committee, and that the State Sickness Insurance Committee appointed in November, 1912, continue to act under instructions of the Council.

Some preliminary discussion took place with regard to the position of the Committee to the Council, and it was pointed out that the words of the minute of the Special Representative Meeting of January 18th were "continue to act under instructions of the Council." The Council finally decided to instruct the State Sickness Insurance Committee to exercise the same powers as heretofore.

The Council then proceeded to consider the report section by section, and in what follows the note on each section of the report and the recommendation made by the Committee are followed by an account of the decision of the Council with regard to it.

The Central Insurance Defence Fund.

The Report recalled that at the special meeting in December the following resolution was passed:

Minute 66.—Resolved: That the Representative Meeting instructs the Council to place the raising, management, and distribution of the Central Defence Fund under the control of the State Sickness Insurance Committee, granting also to that Committee such assistance from the business staff of the Association as it may require.

From this resolution the Committee had assumed that the Council had delegated to it the duties specified in that Minute, but it had been informed that questions had been raised as to the right of the Representative Body to instruct the Council on this matter, and as to the validity of the delegation to a Committee of the responsibilities of the Council in view of the fact that the Central Defence Fund was vested in the Council as

trustees. At the meeting of the Council on May 1st, 1912, the Finance Committee had been instructed to administer on behalf of the Council the Insurance Defence Fund. In view of the wishes of the Representative Meeting as expressed in Minute 66 quoted above, and of the obvious convenience of the management of the fund being in the hands of a committee, which met frequently, and had the most intimate knowledge of the circumstances likely to lead to claims upon the fund, the Committee recommended (*a*) that the Council should rescind the resolution passed on May 1st, 1912; (*b*) that the Council place in the hands of the State Sickness Insurance Committee the administration of the Insurance Defence Fund, and delegate to that Committee the power to raise, manage, and distribute the fund. The Committee also recommended the Council to take into consideration the policy to be pursued in making grants from the fund and how far steps should be taken to enforce the payment of guarantees.

THE COUNCIL heard a statement from the Solicitor on this subject, and after discussion finally resolved as follows:

> That the Council entrust the administration of the Central Insurance Defence Fund to the State Sickness Insurance Committee, subject to the approval of the Council, with power to make any such grants as may be urgently required if approved by the Chairman of Council acting on behalf of the Council.

Some general discussion then ensued with regard to the recommendation of the State Sickness Insurance Committee to take into consideration the question of the policy to be pursued in making grants from the fund, but the matter was postponed until the Council had discussed the future policy of the Association with regard to the Act.

Expenses of Statutory Local Medical Committees.

THE REPORT recalled that the Special Representative Meeting of January, 1913, had asked the Council to consider how far it was advisable in the interests of the committees and of the British Medical Association to seek payment from State funds of the expenses of Local Medical Committees. The State Sickness Insurance Committee pointed out that the Local Medical Committees had been set up at the request of the medical profession and were a purely optional part of the machinery of the Act, and that if these committees did receive State assistance there would be a danger of some of them developing into independent bodies. The Committee accordingly recommended the Council that steps should be taken by the Association to finance the Local Medical Committees.

THE COUNCIL debated this recommendation at some length, and eventually disapproved of it.

Contract Attendance upon Uninsured Persons.

THE REPORT recommended the Council that, having regard to the fact that in many localities schemes were already working or were upon the point of being put into operation for the treatment of uninsured persons upon contract terms, the question of fees and other conditions concerning attendance upon uninsured persons was a matter which should be settled in each locality, and not by a general scheme throughout the Association.

THE COUNCIL, after considering the recommendation, adopted the following resolution:

> That having regard to the fact that in many localities schemes are already working or upon the point of being put into operation for the treatment of uninsured persons upon contract terms, the question of fees and other conditions concerning attendance upon uninsured persons should be settled in each locality subject to the approval of the State Sickness Insurance Committee.

Canvassing.

THE REPORT recommended the Council to consider whether any further action, and if so what action, should be taken with regard to advertising by members of panels in order to secure insured persons on their lists.

THE COUNCIL referred this recommendation to the Central Ethical Committee.

London Medical Committee.

The Committee reported that in response to a circular sent out by the State Sickness Insurance Committee on November 19th, 1912, the practitioners resident in the County of London appointed a committee, representative of the whole area, which it was anticipated might become the statutory Local Medical Committee for London, if the profession decided to work the Act, and would protect the interests of the profession in that area if the profession continued to decline service. This Committee had been pursuing an active campaign on behalf of the majority of the profession in London who had declined to accept service under the Act, and had approached the State Sickness Insurance Committee in order to obtain its active support. The latter Committee was not able to entertain some of the suggestions put forward by the London Medical Committee involving an expensive campaign all over the country in favour of insured persons "contracting out" of the Act. The State Sickness Insurance Committee, however, had granted, free of charge, to the London Medical Committee office room in the house of the Association for the purposes of its campaign, upon the understanding that the London Medical Committee was alone responsible for any documents issued by it. One of the suggestions made by the London Committee was adopted, and a letter was circulated to every practitioner in the kingdom informing him that as many copies as he desired would be supplied, for issue to his patients, of a request by insured persons to the Local Insurance Committee that they be allowed to make their own arrangements for medical attendance. Practitioners were urged to use their influence to this effect as widely as possible, and the Division secretaries were also informed of the campaign of the London Committee, and were told that the help of the Association would be given to them in organizing public meetings of insured persons in their own areas and in interviewing members of Parliament upon the subject. About 700,000 of the "contracting out" forms had been supplied, mainly to practitioners outside London, as the London Medical Committee had been issuing a special form in London.

Appointment of Practitioners upon Insurance Committees.

The Committee reported that it had addressed a communication to the Insurance Commissioners protesting against the delay caused in the setting up of properly constituted committees by the failure of the Insurance Commissioners to publish the regulations governing such election, and asking when the regulations might be expected.

Treatment of Uninsured Members of a Society.

The Committee had been informed that a capitation fee of 6s. had been offered by the Warehousemen, Travellers, and Clerks Provident Association to their medical officers for attendance upon its uninsured members. It had been pointed out to the Committee that this fee was not only below the capitation fee paid for attendance upon insured persons, but was also objectionable because many of the uninsured members of the association were in receipt of higher wages than insured persons. The Committee were also informed that the great majority of the medical officers of this association had asked for the same rate as was given under the Insurance Act for those uninsured members below an income limit of £160, and 10s. 6d. per annum for those above that income limit. The Committee had communicated with all the medical officers to this association, stating the opinion of the Committee that the fees which it was understood had been demanded by the majority of the officers were perfectly reasonable, and promising every assistance at the disposal of the Association in securing these terms.

Facilities for Obtaining the Opinion of the Association, Postal Vote, etc.

THE REPORT stated that the Committee had considered the Minutes 57 and 58 of the Special Representative Meeting (January, 1913).

Minute 57.—That the Council be requested to consider in what way, if any, it is possible to obtain more quickly than at present the decision of the Association in cases of urgency, and how far it would be necessary to alter the regulations and by-laws in order to do so.

Minute 58.—That the Council be requested to utilize the postal vote of the whole profession on questions of urgency, or on the adoption or otherwise of any suggested future line of policy.

The Committee had also taken into consideration the following motion, of which the Brighton Division had given notice at the same meeting:

That it be an instruction to the Council to consider as soon as possible, and report to the Divisions, if there is any procedure which they can recommend which will allow of a very urgent and important matter being decided immediately instead of as at present having to wait two or three weeks.

With reference to this matter the Committee reported that the questions involved had been under the consideration of the Association for some years, and that a report was presented to the Annual Representative Meeting of 1912 giving counsel's opinion as to certain legal difficulties. The Committee, however, recognizing that recent events had shown the urgent necessity of proceeding with this matter without further delay, recommended the Council to refer it to the appropriate committee to consider (1) what alterations in the constitution of the Association could be made to enable the views of the profession to be obtained in a more effective and rapid manner than at present; and (2) whether the postal vote could and should be provided for under the constitution, and that the matter be dealt with as one of urgency.

THE COUNCIL, after discussion, referred this matter to the Organization Committee, with an instruction to consider the matter as one of urgency.

Future Action.

THE REPORT of the State Sickness Insurance Committee stated that it had under consideration the suggestion of the Special Representative Meeting of January for action on the lines indicated in the following extract from the minutes of that meeting:

Minute 52.—That a letter be sent to every member of the Medical Profession asking (1) if he is on the panel; (2) if so, whether he has taken service willingly or against his inclination owing to coercion; (3) whether, if he be not satisfied with the conditions both as to service and remuneration, he is prepared to decline to renew his contract for panel service at the termination of the provisional three months, provided that the other practitioners who have been induced to take service by similar methods do the same; (4) if he be not on the panel, whether he has any wish to go on, and (5) whether he has any intention of undertaking any whole or part time appointment to treat insured persons under the Act.

The Committee reported that it approved the course suggested, and proposed to take the action contemplated in about a fortnight.

THE COUNCIL debated this section of the report at considerable length. After many aspects of the matter had been put forward,

Dr. BUTTAR submitted a motion which, after slight verbal alteration, was put to the meeting in the following form:

That the Council proceed to define the attitude of the Association in relation to the present administration of the National Insurance Act. That, inasmuch as the Representative Body considers the Act unworkable and derogatory, the action of the Council and the State Sickness Insurance Committee shall continue to be in opposition to the Act and Regulations as at present constituted. That the interests of those not on the panels through loyalty to the Association shall continue to be paramount, and that steps be taken to assist those practitioners who wish to resign from the panels in April if the Association call on them to do so.

The London Medical Committee, he said, had sent out a circular with a form of questions to ascertain how far medical practitioners in London were in favour of the Act and regulations. It was anticipated that these questions would be answered only by a percentage of the members, and that therefore a great work of organization, which would take a considerable time, would be necessary. He believed that there was an increasing body of medical men who were growing dissatisfied with the terms of the Act, and he thought that a definite policy should be stated. He desired first to help those who had been loyal to the Association, and secondly, those who had gone on the panels unwillingly. He hoped it would be possible to establish the unity of the profession and restore the courage of men which had leaked away in the last few months.

The motion was seconded by Mr. EVAN JONES, who thought the Council should give a strong lead and carry out the idea of the Representative Meeting, which still was that the Act was unworkable and derogatory.

After a discussion, during which it was made plain that the motion did not imply any reflection on those who had been compelled to go on the panels owing to economic pressure, it was carried *nemine contradicente*.

Dr. BUTTAR then moved:

That the State Sickness Insurance Committee shall at once press for an amending Act, and define the conditions relating to the medical profession which should be embodied in such an Act.

This was seconded by Mr. TODD, and carried unanimously.

Dr. BUTTAR then moved:

That the Council give all possible support to any strong trade union that may be formed.

He pointed out that the idea was not a new one in the Association and had actually been mooted at the annual meeting at Liverpool. Many members had been long dissatisfied with the constitution of the Association, which, owing to the fact that many members lived at a distance from the centres made it difficult to carry out a strong policy.

Mr. TODD objected that the motion did not appear on the agenda, and that as it raised a new line of policy notice should have been given.

Dr. BUTTAR said that as the proposal had been made outside the Association it ought to be considered by the Council.

Mr. TURNER also urged that the feeling in London was very strong, and unless the Council adopted some definite line of action the Association would be injured.

Dr. HASLIP stated that there was a strong feeling also in the other direction, and the CHAIRMAN OF COUNCIL said that he must rule out of order the proposal for the Council to approve the formation of trade unions.

In reply to the CHAIRMAN OF COUNCIL, Dr. BUTTAR said that out of some 5,800 practitioners to whom the London Medical Committee had sent the circular of questions about 2,000 had at that time replied.

The CHAIRMAN OF COUNCIL agreed that an adequate response could not be expected unless a campaign was carried out in every Division to induce men to express their opinion. He believed the Council were in favour of prompt action, and it was resolved to take action upon the Minute of the Special Representative Meeting (Minute 52) quoted above by instituting a systematic inquiry. It was intimated that the matter would be fully considered by the State Sickness Insurance Committee at its meeting on February 6th.

(To be continued.)

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

LANCASHIRE AND CHESHIRE BRANCH:

LIVERPOOL DIVISION.

THE annual meeting of the Liverpool Division was held at the Liverpool Medical Institution on January 31st.

Election of Officers.—Dr. N. PERCY MARSH, who occupied the chair at the commencement of the proceedings, was thanked for his services as chairman during the year 1912, and his successor, Dr. R. I. Richardson, was unanimously elected. Dr. Damer Harrisson was elected Vice-Chairman, and the Secretary, Dr. Francis W. Bailey, was unanimously re-elected.

Report of Executive Committee.—The following report was presented on the work done during the year:

Report.

It is gratifying to find that there has been an increasing interest in the affairs of the Division, due, no doubt, to the campaign in connexion with the National Insurance Act, but for obvious reasons it would still be more encouraging if each member of the Division could induce every non-member of the Association resident in the Division to join the British Medical Association, and so strengthen the hands of the Association.

During the year ten meetings of the Division were held—one annual, three ordinary, and six special; to two of the latter

non-members were invited, 17 of whom attended one meeting and 72 the other, and on each occasion 253 members. The average attendance of members at the ten meetings was 102.9.

The Executive Committee met fifteen times during the year, and the number of times the following subcommittees met was as follows: Insurance Act Subcommittee, nine; Ethical Subcommittee, three; Ward Secretaries Subcommittee, three; Hospital Subcommittee, two; Medical Treatment of School Children, two; Guarantee Fund Subcommittee, three; and the Local Campaign Pledge Subcommittee several times; so that upwards of fifty meetings of the Division and its committees were held during the year.

The number of members on the list, December 31st, 1911, was 364, and December 31st, 1912, 406. The committee regrets the loss the Division has sustained by the death of three of its members—Dr. A. T. H. Waters, Dr. Finegan, and Dr. O. T. Williams.

The expenses of the Division have been unusually heavy, and there has been a great strain on the financial resources.

Election of Representatives.—Dr. J. E. O'SULLIVAN intimated that he had decided not to offer himself for re-election as Representative on the Representative Body; and Mr. F. CHARLES LARKIN proposed, and Sir JAMES BARR seconded, a proposition that Dr. O'Sullivan be thanked for his services during the past year, which on being put to the meeting was unanimously carried. The following were elected Representatives on the Representative Body: Dr. R. I. Richardson, Dr. J. Walker, Mr. Damer Harrisson, Dr. S. H. Shaw.

Representatives on Branch Council.—The Representatives on the Branch Council were elected as follows: Dr. T. R. Bradshaw, Dr. F. H. Barendt, Dr. Francis W. Bailey, Dr. E. T. Davies, Dr. A. Stookes, and Dr. Macleay.

Members of Executive Committee.—The result of the voting for ordinary members of the Executive was as follows:

Bootle Ward: Dr. J. Dunn and Dr. Claxton.
Central Ward: Dr. Heaney and Dr. Llewelyn Morgan.
Northern Ward: Dr. Owen Bowen and Dr. J. J. Tisdall.
Southern Ward: Dr. J. C. M. Given and Dr. W. B. Bennett.
Western Ward: Dr. K. Grossmann and Dr. W. T. D. Allen.

Central Guarantee Fund.—Dr. J. WALKER, Chairman of the Central Guarantee Fund Subcommittee, submitted a report stating that:

	£	s.	d.
301 Practitioners in the Division had guaranteed	2,911	7	0
Up to January 11th, 1913, 40 of these had increased their guarantee by	570	10	0
34 new guarantors had guaranteed	319	8	0
Thus the total amount now guaranteed by 335 guarantors was	£3,801	5	0
The work of the Committee represented an increase of	£889	18	0

They were unanimously thanked for their services and reappointed.

Payment of Expenses of Representatives.—It was resolved to support a resolution of the Branch Council agreeing to defray the expenses of Representatives, and on the motion of Dr. R. T. BAILEY, seconded by Dr. O. E. B. LIMRICK, a discussion took place as to whether a voluntary levy of at least 3s. per member should be made to defray the expenses of the Representatives on the Representative Body by the Liverpool Division; this matter was referred to the Executive Committee for further consideration.

METROPOLITAN COUNTIES BRANCH:

HAMPSTEAD DIVISION.

A MEETING of the Hampstead Division was held on January 14th at the Central Library, Finchley Road. Dr. PICARD was in the chair and nineteen members were present.

Minutes.—The minutes of the last meeting as printed in the JOURNAL were confirmed.

Apology for Non-attendance.—A letter regretting inability to attend was read from Dr. Jessop.

Resignations.—Letters resigning membership of the Association were read from Drs. Pidcock and Cohn.

National Insurance Act.—A communication was read from the Medical Secretary, dated January 3rd, regarding points arising under resolutions from the Representative Meeting and on matters which had arisen since the meeting.

The Local Panel.—The HONORARY SECRETARY gave an analysis of the local panel as follows: 43 names, of which 16 were Hampstead practitioners; of the remaining 27, 3 did not appear in the last-issued *Medical Register*; one gave as addresses for seeing patients an address in the City and an alternative address at Ealing.

Annual Report.—The annual report was read, and upon the motion of Dr. OPPENHEIMER, seconded by Dr. PRITCHARD, it was adopted. A hearty vote of thanks to the Honorary Secretary and Treasurer was passed.

Instructions to Representative to Special Representative Meeting, January 17th.—On the motion of Dr. PRITCHARD, seconded by Dr. COLDSTREAM, it was resolved by 17 to 2:

> That the Hampstead Representative be instructed to vote in favour of holding the profession to its pledge and undertaking.

Dr. HAWARD moved, and Dr. BARNETT seconded, the following resolution, which was carried by 10 to 1:

> That it be an instruction to our Representative to move the following resolution at the Representative Meeting:
>
> That permission be given by the British Medical Association for non-panel doctors to be represented on the Local Insurance Committees.

It was moved by Dr. OPPENHEIMER, seconded by Mr. DORRELL, and carried by 14 to 1:

> That in the opinion of this meeting continued membership of the Association is not compatible with a violation of its policy declared in constitutional forms.

It was moved by Dr. PRITCHARD, seconded by Dr. PECK, and carried unanimously:

> That on any other matters the Representative be allowed to use his own discretion.

Appointment of Deputy Representative.—It was also unanimously resolved to confirm the appointment of Mr. E. E. Ware as Deputy Representative.

SOUTH-EASTERN BRANCH:

BRIGHTON DIVISION.

A MEETING of the Brighton Division was held at the Lecture Hall, New Road, on January 28th, Dr. RYDING MARSH in the chair.

Secretary's Report and Financial Statement.—The Secretary's report and financial statement was received stating that the total expenditure for the year was £57 9s. 0½d., leaving a deficit of £4 16s. 8½d. Twenty-two Division meetings were held during the year, with an average attendance of forty-seven. Membership of the Division had increased from 209 to 217. The SECRETARY stated that in his opinion it would be impossible for the Brighton Division to continue to work at the present pressure and keep within the amount of the grant alloted by the Branch Council.

Special Representative Meeting.—The Representatives presented their report of the Special Representative Meeting, which was received and entered on the minutes.

Report of Brighton Medical Committee.—The report of the Brighton Medical Committee was presented by the CHAIRMAN (Dr. Turton), and contained the following scheme for attendance on women entitled to maternity benefit, proposed by the committee in conjunction with the committee of the West Street Hospital for Women:

Proposed Scheme for Attendance on Women entitled to Maternity Benefit in Conjunction with the West Street Hospital for Women.

1. The Hospital for Women is willing to undertake to attend in labour and to nurse during ten days only those *insured* women who bring evidence that they have engaged a doctor on the terms set out below.
2. The Hospital for Women to get £1 from the Local Insurance Committee in the case of deposit contributors, and £1 from the approved society in the case of other insured women.
3. This sum is to be allocated as follows:

> 10s. 6d. to be paid by the hospital to the doctor in every case.
>
> 8s. 6d. to be retained by the hospital for midwife and nurses.
>
> 1s. 6d. to form a fund for exceptional cases, for example, another doctor required to assist during labour, etc.

4. For this 10s. 6d. the doctor undertakes to attend *before or during labour only when summoned* by the midwife acting in compliance with the rules and regulations of the Central Midwives Board; but he undertakes to visit every case within twenty-four hours of delivery and to pay the necessary visits during the ten days of the puerperium.
5. The patient shall select any doctor she likes who agrees to these terms, whether he be on the panel or not.

6. The Hospital for Women have deputed Mr. Holmes, the Honorary Secretary, and Mr. Jacomb-Hood with power to negotiate with the authorities concerned, subject to the scheme being approved by the medical profession.

7. The Hospital for Women are anxious to apply to the Commissioners and to the Local Insurance Committee at the earliest possible date for approval of the scheme.

This scheme was discussed at some length, and an amendment was proposed by Dr. RAWDON WOOD, and seconded by Dr. GREENYER:

That the Division does not approve the scheme proposed by the West Street Hospital and recommends that the hospital confines itself to its proper sphere, namely, the attendance and treatment of indigent poor.

This amendment was lost, whereupon Dr. TURTON proposed the following resolution, which was carried by a large majority:

That the Brighton Division approves the scheme brought forward by the West Street Hospital with the approval of the Brighton Medical Committee, and refers it to that committee with power to negotiate with the authorities concerned and report to the Brighton Division.

Dr. TURTON then moved on behalf of the Brighton Medical Committee the following resolution, which was carried *nemine contradicente*:

That the Brighton Division strongly disapproves of any medical practitioner consenting, either singly or by placing his name on a list, to arrange with any approved society to give his attendance to any parturient woman entitled either directly or indirectly to maternity benefit under Section 18 of the National Insurance Act.

Local Medical Committee.—It was proposed by Dr. FOTHERGILL, and the meeting resolved:

That it be an instruction to the Executive Committee to consider what steps should be taken in order to harmonize the aims and objects of the Division with reference to the National Insurance Act with those of the various Local Medical Committees within the area and to report with recommendations to a special general meeting to be held at an early date.

The report of the East Sussex Medical Committee was presented by the CHAIRMAN (Dr. Benham), and was approved.

Report of Executive Committee.—The report of the Executive Committee was received and entered on the minutes.

Vice-Presidency of Section of Medical Sociology.—Dr. BROADBENT moved, and Dr. GREENYER seconded, the following resolution, which was carried with three dissentients:

That Dr. Lauriston Shaw be asked to resign the Vice-Presidency of the Section of Medical Sociology.

Vacancy on State Sickness Insurance Committee.—The SECRETARY read a communication from the State Sickness Insurance Committee with reference to a vacancy caused by the resignation of Mr. E. H. Willock. Dr. GREENYER proposed, Dr. BENHAM seconded, and it was resolved, that Dr. Fothergill be nominated by the Brighton Division.

ISLE OF THANET DIVISION.

THE sixty-third meeting of the Isle of Thanet Division was held at Ramsgate on January 4th. There were present twenty-two members and three non-members.

Minutes.—The minutes of the last meeting were read, confirmed, and signed.

Resignation of Membership.—Letters were received from Dr. Newell and Dr. Storar resigning membership of the Association.

Medical Attendance on Uninsured Members of Friendly Societies.—Dr. HALSTEAD read a letter which he had received from the Ramsgate and St. Lawrence friendly societies, asking for a conference between the Ramsgate doctors and themselves on the question of the treatment of uninsured members of friendly societies. On the motion of Dr. TAMPLIN, seconded by Dr. HALSTEAD, it was resolved to reply in the following terms:

That the medical men practising in Ramsgate are ready to meet the societies represented by Mr. Conconni on Tuesday, January 7th, at the Foresters' Hall, Ramsgate, at 8.30 p.m., but that the medical men prefer that all members of those societies should be invited to attend.

National Insurance Act.—Dr. ARCHIBALD, who had attended a meeting held at Maidstone that afternoon between the Kent Insurance Committee and the Kent Medical Committee, reported that the members of the Kent Medical Committee had agreed that further resistance to the Insurance Act was useless, and that in his opinion all the Divisions in Kent would agree to their members going on the panels, and that the panels were to be left open till Tuesday, January 7th. A prolonged discussion took place on the situation, and Dr. HICKS proposed and Dr. SUTCLIFFE seconded the resolution:

That those members of the Division who wish to join the panels should be permitted to do so.

Dr. HEMMING proposed an amendment which was seconded by Dr. HALSTEAD:

That the decision on this resolution be deferred to an adjourned meeting to be held at the Victoria Hotel, Ramsgate, at 5 p.m., January 6th.

The amendment was carried *nemine contradicente*.

Public Medical Service.—Dr. BRUNTON reported the proposed alterations in the rules of the Public Medical Service which were recommended by the Committee of the Service. These were:

Clause XXI (i): That the fee should be reduced to 2d., or 8s. 6d. a year, if the cost of collection of subscriptions were undertaken by approved societies; and that it further be reduced to 7s. a year if the doctors were not responsible for the supply of medicines and appliances.

Clause XXI (ii) was struck out.

Clause XXXIII (*c*): Extra charge for fractures not to be claimed.

Clause XXXVI: The charges to be 2d. a week for non-insured men and women, or 8s. 6d. per year if paid quarterly.

On the motion of Dr. NICHOL, seconded by Dr. WOODS, these alterations were provisionally agreed to by the meeting *nemine contradicente*, it being realized that proper notice for the alteration of rules of the Public Medical Service was necessary.

The meeting adjourned.

The sixty-fourth meeting of the Division was held at Ramsgate on January 6th, being adjourned from the previous meeting. There were present thirty-four members and eleven non-members.

Minutes.—The minutes of the last meeting were read, confirmed, and signed.

National Insurance Act.—The HONORARY SECRETARY read letter D 24 from the Medical Secretary, and also a circular letter, dated January 3rd, from the State Sickness Insurance Committee. He also read a telegram received from the Medical Secretary as follows:

Have received scheme offered by Kent Insurance Committee from Secretary of Kent County Medical Committee, together with urgent request that permission should be given for acceptance. Following is my reply to him: "Decisions of Representative Meeting prevent my giving official sanction to scheme, but you must take all circumstances into consideration, and take full responsibility for your action, doing what you think is best for the local profession."

Dr. HICKS proposed the following resolution, which was seconded by Dr. SUTCLIFFE:

That the action of those members of this Division who join the panel should be approved by the Division.

The following members also spoke: Drs. HALSTEAD, BRUNTON, ARCHIBALD, BENNETT-POWELL, TAMPLIN, and NICHOL. Dr. NICHOL proposed and Dr. TAMPLIN seconded an amendment:

That, in view of the serious injury which must result to the loyal members of our profession from continued resistance, this meeting no longer disapproves of the members of the Isle of Thanet Division of the British Medical Association accepting service on the panel, provided that the pledge be withdrawn by the Representative Meeting; and that, if the pledge be not withdrawn, they terminate their engagement at the end of three months.

After Drs. SAWERS, DUNDAS, RAVEN, and SMYTHE had spoken, Dr. STREET summed up the debate. The amendment was then put, and lost by 9 votes to 13. The original resolution was then put, and lost after a recount by 12 votes to 13. Dr. HALSTEAD proposed a resolution, which was seconded by Dr. HEMMING, to the effect:

That the meeting should take a show of hands, and ascertain those who were going on the panel (*a*) in spite of the decision of the Division, (*b*) in spite of the decision of the Representative Meeting.

This was carried by 14 votes to 6. It was, however, evident that some members did not realize the full meaning of the resolution, and a general conversation took place. Dr. NICHOL then proposed, and Dr. RICHARDS seconded, the following resolution, which was carried by 30 votes to 5, all practitioners present being asked to vote:

That in view of the serious injury which must result to the loyal members of our profession from continued resistance, this meeting no longer disapproves of their colleagues accepting service on the panel, provided that the pledge be withdrawn by the Representative Meeting.

The following resolution, proposed by Dr. Nichol, and seconded by Dr. Tamplin, was carried *nemine contradicente*, 22 members voting:

That our Representative be instructed to vote in favour of the withdrawal of the pledge and undertaking at the forthcoming Representative Meeting.

Dr. Halstead then stated that, as he was in entire disagreement with the majority of the members of the Division, he resigned his position as Representative. Dr. Nichol proposed and Dr. Woods seconded that this resignation be not accepted, and this was carried unanimously.

Mode of Payment under Insurance Act.—Dr. Archibald reported that the Kent Medical Committee were in favour of a scheme by which the whole county should work the Insurance Act on the basis of payment per attendance. He pointed out that this would be seriously deleterious to the Isle of Thanet, as did Dr. Brunton, and proposed that the Division should give its opinion that payment on the capitation basis should be the method adopted. This was seconded, and carried unanimously.

A letter was received from the Secretary of the Friendly Societies' Defence Association, stating that, owing to the circumstances which had arisen since the invitation of the Friendly Societies' Defence Association to the members of the Isle of Thanet Division of the British Medical Association to meet them on January 8th, the meeting was not immediately necessary.

Vote of Thanks.—A vote of thanks was passed to the Chairman for presiding.

SOUTHERN BRANCH:

Jersey Division.

The annual meeting of this Division was held on January 14th, Dr. Symons presiding.

Election of Officers.—The annual report of the Executive Committee having been approved, the following officers were elected for 1913: *Chairman*, Dr. E. O. B. Voisin; *Vice-Chairman*, Dr. Leask; *Honorary Secretary and Treasurer*, Dr. Wynne Walker; *Members of the Executive Committee*, Dr. Symons and Dr. Le Brocq; *Representative of the Division at Branch Councils*, Dr. Major.

National Insurance Act.—Dr. Symons proposed and Dr. Major seconded:

That since this Division is unaffected by the Insurance Act the Chairman and Secretary have the power to decide whether, on any matter related to the Act and referred to the Division, a special meeting should be called.

Association Notices.

NOTICE OF ALTERATION OF BOUNDARIES OF BRANCHES AND DIVISIONS.

The following change has been made in accordance with the Regulations of the Association, and takes effect from the date of publication of this notice:

That the parishes of Mitcham and Morden be transferred from the area of the Croydon Division of the South-Eastern Branch to the area of the Wimbledon Division of the Metropolitan Counties Branch, the area of the Wimbledon Division to be defined for the future as follows:

The Municipal Borough of Wimbledon, the Urban District of Merton, and so much of the Rural District of Croydon as is contained within the civil parishes of Mitcham and Morden,

and the definitions of the Croydon Division and Metropolitan Counties and South-Eastern Branches to be correspondingly modified.

Representation in Representative Body.—Unaffected.

ANNUAL REPRESENTATIVE MEETING, 1913.

DATE OF MEETING.

The Annual Representative Meeting of the Association, 1913, will be held at Brighton on Friday, July 18th, 1913, and following days, as may be required.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

Attention is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting at Brighton in July next, relating to questions affecting the honour and interests of the medical profession or of the Association (By-law 37), must be published in the British Medical Journal not later than the issue of April 19th, and for this purpose should be received by me not later than April 12th, 1913 Notices of Motion proposing to make any addition to, or any amendment, alteration or repeal of any Regulation or By-law, or to make any new Regulation or By-law (Article 31) must be published in the Journal not later than the issue of May 17th, and received by me not later than May 10th, 1913.

By Order,
Alfred Cox,
Medical Secretary.

February 4th, 1913.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Metropolitan Counties Branch: City Division.—The next meeting of the Division will be held conjointly with the Finsbury Medical Society at the Manchester Hotel, Aldersgate Street, E.C., on Tuesday, February 11th, at 9.30 p.m., when Dr. Batty Shaw will give an address on Tuberculins.—A. G. Southcombe, Honorary Secretary.

Metropolitan Counties Branch: South-West Essex Division.—The next meeting will be held on Tuesday, February 11th, at 4 p.m., at Whipps Cross Infirmary. Agenda: (1) Minutes. (2) Correspondence. (3) Clinical Demonstration by Dr. J. C. Muir. (4) Any other business. —A. Pottinger Eldred, Honorary Secretary.

North of England Branch: Newcastle-upon-Tyne Division.—The next scientific demonstration will be held at the Royal Victoria Infirmary on Friday, February 21st. Mr. F. C. Pybus: The Treatment of Tuberculous Glands of the Neck. Professor T. Beattie: Treatment of Pulmonary Tuberculosis. Dr. W. E. Hume: Some Points in the Diagnosis of Early Phthisis. Dr. George Hall: Cervical Ribs and their Results. Mr. R. J. Willan: Diagnosis and Treatment of Malignant Tumours of the Prostate Gland. The demonstration arranged by the Newcastle-upon-Tyne Division of the British Medical Association for March 21st will take place on March 14th, when Professor R. A. Bolam will lecture on Medico-legal Tests for Blood, in place of Dr. Arnison's paper on Local Treatment of Rheumatic Arthritis, as Dr. Arnison took Professor Bolam's place at the January meeting.—R. J. Willan, Honorary Secretary, Newcastle-on-Tyne.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

The following notices of appointment and promotion have been announced at the Admiralty: Fleet Surgeon Albert X. Lavertine to the *Good Hope*, and for group of ships of Third Fleet, February 1st, 1913. Fleet Surgeon John E. Coad, M.B., to the *Donegal* on transfer of flag. Staff Surgeon Edward E. Sawdy to the *Edgar* on recommissioning, February 4th, 1913. Staff Surgeon Frederick F. Mahon to the *Theseus* on recommissioning, February 4th, 1913. Staff Surgeon Walter H. O. Garde, F.R.C.S.Edin., to the *Gibraltar* on recommissioning, February 4th, 1913. Staff Surgeon William P. Walker, M.B., to the *Carnarvon*, additional for Second and Third Fleets, January 28th, 1913. Surgeon Edward Moxon-Browne to the *Good Hope*, and for group of ships of Third Fleet, February 1st, 1913. Surgeon William H. King to the *Victory*, additional for disposal. Surgeon Harry M. Langdale to the *Victory*, additional for disposal, February 1st, 1913.

Staff Surgeon David W. Hewitt, M.B., F.R.C.S., has been promoted to Fleet Surgeon for conspicuous professional merit, January 28th, 1913.

ARMY MEDICAL SERVICE.

Colonel Richard W. Ford, D.S.O., on completion of four years' service in his rank, is placed on the half-pay list, January 26th, 1913.

Colonel Robert J. S. Simpson, C.M.G., M.B., retires on retired pay, February 5th, 1913.

Lieutenant-Colonel Charles E. Faunce to be Colonel, vice R. W. Ford, D.S.O., January 29th, 1913.

Lieutenant-Colonel Robert J. Geddes, D.S.O., M.B., to be Colonel, vice R. J. S. Simpson, February 5th, 1913.

National Insurance.

OFFICIAL DOCUMENTS.

SPECIAL TREASURY GRANTS.

A WHITE PAPER (490), containing Supplementary Estimates for the year ending March 31st, 1913, was presented to the House of Commons on January 30th, and ordered to be printed.

Among the Estimates is the following:

Estimate of the Amount required in the Year ending 31st March, 1913, for Grants in Aid of National Health Insurance (United Kingdom) in addition to the sums payable under Section 3 of the National Insurance Act, 1911.

SPECIAL GRANTS IN AID.	£
A.—NATIONAL HEALTH INSURANCE FUND (ENGLAND)..	1,380,000
B.— ,, ,, ,, ,, (WALES) ...	101,000
C.— ,, ,, ,, ,, (SCOTLAND).	214,000

The grants in aid will be paid to special accounts in the National Health Insurance Funds for England, Wales, and Scotland respectively, and will be applied by the several Commissions in grants by way of additional payments at a rate not exceeding 2s. 6d. for each insured person for the cost of medical attendance and treatment, and not exceeding 1½d. for each insured person for the cost of administration of medical benefit. The grant in aid under Subhead C. includes £10,000 for mileage and other special charges in the Highlands and Islands of Scotland.

D.—NATIONAL HEALTH INSURANCE FUND (IRELAND)	50,000

The grant in aid will be paid to a special account in the National Health Insurance Fund, Ireland, and will be applied by the Irish Insurance Commissioners in grants towards the cost of medical certificates of sickness, and other expenses of administration arising owing to the absence of medical benefit in Ireland.

E.—SPECIAL DRUG FUND (GREAT BRITAIN)... ...	30,000
F.—MILEAGE FUND (GREAT BRITAIN, EXCLUDING THE HIGHLANDS AND ISLANDS OF SCOTLAND)	50,000

The grants in aid under Subheads E. and F. will be paid to special accounts administered by the National Health Insurance Joint Committee, and will be applied respectively by way of special grants towards the cost of drugs where epidemics or other abnormal conditions have caused an excessive demand upon the funds available for this purpose, and of special grants in respect of mileage in sparsely populated districts, exclusive of the Highlands and Islands of Scotland, for which provision is made under Subhead C.

Total ... £1,825,000

Note.—The grants in aid provided on this Estimate will be paid to the respective funds and accounts, and no part of the sums issued out of the Vote will be surrendered to the Exchequer at the close of the year, but any balances standing to the credit of the respective accounts at the end of any financial year will be taken into account in determining the amount of the grants for subsequent years. Expenditure out of the special accounts will be audited by the Comptroller and Auditor General.

The grants will be subject to such conditions, and calculated in such manner, as may be determined by schemes made by the several bodies of Commissioners or the Joint Committee as the case may be, subject to the approval of the Treasury.

The grants for which provision is made in this estimate are additional to the proportion of the cost of benefits and the administration thereof, which by Section 3 of the National Insurance Act, 1911, is payable out of moneys provided by Parliament. [This is the section which lays it down that the funds for providing benefits and the cost of administration shall be derived from the contributions of employed and employers and the remainder "from moneys provided by Parliament."]

ELECTION OF MEDICAL REPRESENTATIVES ON LOCAL INSURANCE COMMITTEES.

A CIRCULAR $\frac{8}{\text{I.C.}}$ has been issued by the National Insurance Commissioners in England stating that they have made regulations, entitled "The National Health Insurance (Insurance Committees Election of Medical Representatives) Regulations (England), 1913," for the purpose of providing for the election of two representatives of the medical practitioners resident in the area of each Insurance Committee to be members of that Committee in pursuance of paragraph (*c*) of Subsection (2) of Section 59 of the National Insurance Act. These Regulations, so far as we have been able to ascertain, have not yet been issued, but the circular states that the procedure for the election will be as follows:

Voters.

(1) The persons entitled to vote at the election of the two representatives of the profession on the Insurance Committee for any county or county borough are the registered medical practitioners who appear in the Medical Register on the 30th January, 1913, as having their address within the area of that county or county borough.

Nominations.

(2) Every practitioner entitled to vote in the election of a representative on an Insurance Committee is entitled under the Regulations to take part in nominating a candidate for election.

(3) A candidate for election need not necessarily be resident in the area for which the election is held. He must be nominated on a nomination paper. A copy of the nomination paper prescribed by the Regulations is enclosed. In order to be effective for the purposes of the election it must be signed by five practitioners resident in the County who must also state upon the paper their respective registered addresses. It must also be signed by the candidate as evidence that he consents to be nominated. The paper must be despatched by post in an envelope addressed to the Returning Officer, National Health Insurance Commission (England), Buckingham Gate, London, S.W. Any nomination paper will be considered as in time for the election if it is placed in the post before the latest time for despatch on Monday, the 10th February. Great care must be exercised in filling up and despatching the nomination paper, as any misnomer, or misdescription, or late despatch may invalidate the nomination.

Withdrawal of Nominations.

(4) Any person nominated as a candidate may withdraw his candidature by despatching by post to the Commissioners not later than the 12th day of February, 1913, a notice of his withdrawal signed by him.

Procedure for Election.

(5) The nomination papers received in respect of each county or county borough will be examined immediately after the 12th day of February. If two candidates and not more are nominated in respect of any area those two candidates will be declared forthwith to be elected. If not more than one candidate is so nominated that candidate will be declared forthwith to be elected, and the vacancy will be filled up after the expiration of one month as if it were a casual vacancy.

Ballot Papers.

(6) If the number of candidates nominated for any area exceeds two, the returning officer will, not later than the 18th day of February, despatch by post to the registered practitioners a ballot paper containing the names of all candidates duly nominated. The names of the nominators will not appear on the ballot paper. Every practitioner desiring to record his vote, must mark the ballot paper in accordance with the rules contained in Part I of the First Schedule to the Regulations, which are set out below, and return it by post to the Commissioners not later than the 21st day of February.

Counting of Votes.

(7) The election will be conducted on the principle of the single transferable vote.

Announcement of Result.

(8) The Commissioners will publish the result of the election for each county and county borough in such manner as they think necessary for the purpose of bringing the result to the knowledge of the practitioners resident therein.

FIRST SCHEDULE.

Part I.

METHOD OF VOTING.

1.—(*a*) Every practitioner shall record his vote by placing on his ballot paper the figure "1" in the place opposite to the name of the candidate who is his first choice.

(*b*) Every practitioner may also place upon his ballot paper the figure "2" opposite the name of the candidate who is his second choice, and the figure "3" opposite the candidate who is his third choice, and so on, numbering as many candidates as he pleases in the order of his choice.

2. Every practitioner—

(*a*) shall sign his name at the foot of the ballot paper in the place provided for the purpose;

(*b*) shall set not more than one figure opposite to the name of any one candidate, nor the same figure opposite the name of more than one candidate;

(*c*) shall so mark his paper that no uncertainty arises as to the candidate for whom he desires to record his vote.

3. Every ballot paper which does not comply with the provisions of these Rules shall be invalid.

VALIDITY OF CERTIFICATES OF NON-PANEL DOCTORS.

We understand that the question of the validity of medical certificates signed by non-panel doctors was recently brought before the National Health Insurance Commissioners by the Medical Defence Union, and that a communication has been received from the Commissioners stating that "there is nothing in the National Insurance Act, or any regulations thereunder, or in the rules of any approved society which would justify a society in declining to accept a medical certificate in connexion with a claim for sickness benefit on the ground that the certificate was not signed by a doctor on the local panel."

This statement should be read in the light of the reply by Mr. Masterman published under the Parliamentary Notes (p. 139).

REPORTS OF LOCAL ACTION.

SCOTLAND.

Edinburgh.

The Edinburgh Local Medical Committee, which met for the first time on Saturday, February 1st, consists of the following:

C. W. Cathcart, Chairman.
Robert Thin, Vice-Chairman.
John Darling, Secretary, 115, Marchmont Road.
A. M. McIntosh, Treasurer.

Sir James Affleck, E. Armour, J. Balfour, J. W. Ballantyne, D. M. Barker, L. F. Bianchi, John M. Bowie, E. Scott Carmichael, T. B. Darling, M. Dewar, J. S. Fowler, J. B. Jamieson, R. McKenzie Johnston, R. J. Johnston, D. Lorimer, Angus Macdonald, A. McKendrick, J. Maclaren, R. Maclaren, M. McLarty, W. L. Martin, A. A. Matheson, John Orr, Sir R. W. Philip, R. Robertson, T. R. Ronaldson, A. T. Sloan, J. W. L. Spence, A. Veitch, Chalmers Watson.

Two others (who have not yet accepted office) will be added; the list when thus completed will consist of 36 members, 18 on the panel, and 18 not on the panel.

Medical Guild.

The Medical Guild, which held a meeting on February 4th in the Goold Hall, Edinburgh, is a society of medical practitioners who have not joined the panel under the Insurance Act. It has been formed so that all insured persons may know:

1. That the certificate of any medical practitioner, whether he is on the panel or not, is sufficient to obtain sickness benefit.
2. That maternity benefit is paid to all women who are attended by medical practitioners, whether such practitioners are on the panel or not.
3. That the medical benefits for the insured who desire to make their own private arrangements are receiving the earnest attention of the guild.

It is reported that of the 372 members of the medical profession in the Edinburgh and Leith area, only 122 have joined the panel under the Insurance Act. It is believed that a certain number of the 122 will give up the work at the end of three months, as some of them have already had enough of it.

The Royal Infirmary, Edinburgh.

Reference was made in last week's issue to the difficulty which had arisen between the Royal Infirmary and the workmen of Messrs. Miller and Co., London Road Foundry, regarding the application made by one of the workmen for treatment at the out-patient department. It will be remembered (vide p. 118) that the accident was regarded as trivial, and the man was sent away to go to the insurance doctor; the workmen thereupon threatened cessation of their contributions to the infirmary. An investigation was made and an explanation offered by the superintendent of the infirmary; this was considered satisfactory by the men, but they suggested an arrangement which looked as if their ambulance staff were to have the right to decide what cases of injury were serious enough to be sent to the infirmary. It is satisfactory to learn that an arrangement has now been arrived at. At the meeting of the infirmary managers it was proposed to suspend for six months the resolution of the board as to the treatment of insured persons at the out-patient department, so as to allow time for the Act to get into working order, but finally the superintendent was instructed to write a reply to Messrs. Miller and Co.'s men forthwith. In this letter assurance was given "that treatment will invariably be given to all cases of accident arriving at the infirmary, but that it must be left for the examining medical officer to decide whether the case is one for admission to the wards, or for further treatment as an out-patient, or one to be referred for treatment to the medical officer of the society to which the patient belongs." The result has been that Messrs. Miller and Co.'s men are now satisfied, and their secretary, in his letter to this effect, added that the suggestion they had previously made regarding their ambulance staff "had been with the view of bringing forth a definite understanding, and not with the intention of arrogating to themselves the right to say what cases should be subject to treatment in the infirmary."

Another matter of difficulty at the Royal Infirmary in connexion with the Insurance Act is the question whether certain classes of employment in that institution are employment within the meaning of the first part of the Act. Three classes of employment are involved. There are, first, the resident physicians and resident surgeons, who receive no salary, but get board and lodging free, and an allowance of £2 10s. in lieu of laundry for the period of their engagement; in their case the value of the board and lodging, taken along with the allowance, does not exceed £160 a year. There are, secondly, the non-resident house-physicians and non-resident house-surgeons and clinical assistants, who are occupied with their duties for two or three hours daily; they also receive no remuneration, but some of them are allowed lunch. There are, thirdly, the supervisors for the administration of anaesthetics, who are occupied on an average for one or two hours a day, and receive an honorarium of £20 per annum. The Scottish Insurance Commissioners have presented a petition to the Court of Session to have it settled in what relation these various kinds of employment stand in respect to the Act.

It may be remembered that at the instance of the Medical Defence Union the Insurance Commissioners held an inquiry on October 22nd, 1912, to consider whether under Section 66 of the National Insurance Act resident medical officers of hospitals and similar institutions were employed under a contract of service bringing them within the provisions of the Act as insured persons. The Commissioners decided that such officers were not so employed, and were accordingly not required to be insured even though their rate of remuneration did not exceed in value £160 per year.

Hospital Rules.

The following regulations with reference to the treatment of insured persons were adopted at a recent meeting of the directors of the Northern Infirmary, Inverness:

Northern Infirmary, Inverness.

Regulations Adopted with regard to Persons Presenting Themselves for Treatment after January 15th, 1913.

1. All persons desiring to be admitted to the hospital must be provided with an admission form, on which it shall be shown whether they are, or are not, insured persons. In the case of insured persons, the name of the approved society to which they belong must be furnished in each case.
2. Each insured person shall be referred to the member of the medical staff on duty, or, in his absence, to a member of the acting or consulting staff, to decide whether his or her ailment is urgent or requiring special hospital treatment.
3. Urgent cases may be admitted at any time and without letters of admission. By urgent cases are meant persons who have met with dangerous accidents and those who require instant treatment.
4. In the case of an insured person with an ailment or an accident which can be treated by a general practitioner of ordinary competence, such insured person shall be told by a member of the medical staff that he or she must obtain treatment by a medical practitioner outside the hospital.
5. The treatment of the really necessitous uninsured poor shall remain as at present.

Notices to be Posted in Prominent Positions in the Hospital.

1. On and after January 15th, 1913, all persons applying for treatment will be required to state whether they are insured persons or not.
2. Insured persons with small ailments will not be treated at the hospital.

COUNTY OF CHESHIRE.

Provisional Medical Committee.

The fifth meeting of this Committee was held at the Onward Buildings, Deansgate, Manchester, on February 3rd, nineteen members being present and Dr. Garstang in the chair.

The election by this Committee of Drs. P. Cooper and J. B. Hughes to represent the profession on the Insurance Committee was referred to. Subsequent to it the practioners of the county had received direct from the Commission invitations to nominate representatives for the same posts. The SECRETARY reported that he had circularized the profession of the area, requesting them to support the nominees of this Committee. His action was approved.

Dr. McIntyre Brown, of West Kirby, raised (by letter) the question of the formation of District Medical Committees.

There are twenty-four insurance districts in the county (corresponding to the educational areas), as detailed in the BRITISH MEDICAL JOURNAL SUPPLEMENT of February 1st, p. 118. The Committee resolved, on the motion of Dr. P. COOPER:

> That where District Medical Committees had not been already formed the Secretary should request the medical representative on the District Insurance Committee to convene a meeting of the local profession of his area for the purpose of electing a District Medical Committee, and in the case of those areas where no representative had yet been selected that the Secretary should communicate the same request to the Secretary of the British Medical Association Divisions in which those areas are situated.

The question of fuller representation on the District Committees, raised by letter by a practitioner in Macclesfield, was postponed until statutory recognition of this committee should have been obtained.

The following were elected as the medical members of the Medical Service Subcommittee for the county: Dr. Garstang (Altrincham), Dr. Picton (Holmes Chapel), Dr. Marsh (Macclesfield).

Dr. GARSTANG then reported an interview between a deputation of this committee and the Medical Benefit Subcommittee of the Insurance Committee, at which the amended drug list was submitted. As the chemists took exception to the inclusion of vaccines, serums, animal extracts, and all appliances for the treatment of fractures of the lower extremity, the subcommittee had proposed, and it was agreed to by all parties, that the amended drug list, including the above, should be submitted to the Commissioners.

The question of the action to be taken in view of the decision arrived at on February 1st by the Medical Benefit Subcommittee of the Cheshire Insurance Committee, that dispensing for patients more than one mile from a chemist, though permitted to doctors if the patients so desire, should be paid for per item, and *not* by capitation, was discussed. (A capitation system for payment of medical attendance is in force.)

The Medical Secretary (British Medical Association) had wired that a similar decision in the North Riding had, he understood, after strong representations to committee and Commissioners, been reversed.

The "Explanation of Medical Benefit" clearly contemplates payment for dispensing in rural areas by capitation, but the Regulation (47) is only permissive. Dr. LIDDLE understood capitation payment for dispensing was part of the agreement in respect to rural patients. Dr. MARSH laid stress on Mr. Lloyd George's point that rural dispensing was to compensate for no payment for mileage. Drs. BENNETT and MATTHEWS also spoke. Dr. PERCY COOPER moved and Dr. MARSH seconded that strong representations on the subject should be sent to the Committee and the Commissioners.

The terms on which attendance should be given to old and disabled members of friendly societies were discussed, and the Committee resolved that the Act itself laid down the terms in Section 15 (2) (*c*)—namely, the same terms as those applicable to insured persons; and that this view of the matter should be communicated to the Insurance Committee accordingly.

The meeting was adjourned till Thursday.

LIVERPOOL.

The statutory Local Medical Committee has now been elected and awaits official recognition. It consists of twelve panel doctors, eight non-panel general practitioners, five consultants, and one medical woman.

The Municipal Council has selected its two medical representatives on the Insurance Committee, and the election (now in progress) of two representatives of the medical profession on the same body will bring the local machinery of the Act near to completion. The sooner the Local Medical Committee gets to work and makes its weight felt on the vexed question of "contracting out" the better. At the present moment officialdom is trying hard to stampede insured persons on to the panel system, just as a little time ago they stampeded the medical profession. Only the more daring among the insured are holding out in hopes of retaining their own doctor where that doctor does not happen to be on the panel.

NATIONAL MEDICAL UNION.

The Secretary of the National Medical Union, Mr. J. Webster Watts, 5, John Dalton Street, Manchester, informs us that at the annual general meeting of the union, held on January 28th, it was resolved to convert it into a permanent organization for medical men who decline service under the National Insurance Act as at present constituted.

Amongst the objects at which the union is aiming are the following:

1. The bringing together of all those whose convictions have led them to remain in opposition to the present Act.
2. Mutual assistance amongst members all over the country.
3. The guarding of the interests of the members in every possible way.
4. To endeavour to uphold the honour and interests of the profession, which have been—and still are—gravely imperilled by recent events.
5. To secure efficient medical attendance for the industrial classes at reasonable remuneration.

The annual subscription to the union is 10s. 6d.

INSURANCE ACT IN PARLIAMENT.

ADMINISTRATION OF MEDICAL BENEFIT.

Number of Insured Persons.

IN reply to Mr. Fred Hall, on January 29th, Mr. Masterman said that the approximate number of members of approved societies was 13¼ millions, and of deposit contributors 480,000. The numbers of men and women were about 10 millions and 3¾ millions respectively. The numbers of single and married women were not available, as the distinction was not required for immediate administrative purposes, but he hoped to obtain them.

Medical Institutions.

Mr. Duncan Millar asked the Secretary to the Treasury in how many instances existing medical institutions or associations had been approved under Section 15 (4) of the National Insurance Act; and in how many cases medical treatment was provided by the rules of such associations for dependants as well as for insured persons.—Mr. Masterman said that 109 systems and institutions had been approved. With one exception the rules provided for the treatment of dependants.

The Panel Lists.

On January 29th Mr. Masterman stated, in reply to Lord Ninian Crichton-Stuart, that the names of additional doctors joining the panels were kept at the offices of the Insurance Committees. Revised lists were published by the Insurance Committees at convenient intervals.

Contracting Out and Time Limit.

Mr. Gwynne asked, on January 29th, whether Local Insurance Committees were entitled to fix a limit of five days in which persons desirous of making their own arrangements for medical benefit had to apply for the form, thus excluding a large number of persons who had not received the medical benefit ticket, which in certain cases it had been stated must be brought when application was made, from availing themselves of the provisions of Section 16 (3) of the Act.—Mr. Masterman said he was not aware of any case in which such a time limit had been fixed, and offered to make inquiries if particulars of any case were supplied to him.

Mr. Worthington-Evans, on February 3rd, asked whether insured persons were allowed to make their own arrangements, under Section 15 (3) of the National Insurance Act, by the Insurance Committee of the Isle of Ely; and what limits of time within which applications for permission to make private arrangements could be made had been fixed by such Committee.—Mr. Masterman replied that the Isle of Ely Insurance Committee

would exercise the powers conferred on them by Section 15 (3) of the National Insurance Act in the same way as other Insurance Committees, except in the areas in which the panel system had been suspended. In those areas all the sums available for the medical treatment of insured persons would be paid by the Committee to the doctors who had undertaken complete responsibility for their treatment. He was not aware that any limits of time had been fixed by the Committee.

Mr. Worthington-Evans inquired if the insured persons were going to have any free choice at all in the matter. —Mr. Masterman said he thought they would have free choice amongst the doctors who were willing to act under the Act.

On February 3rd Mr. O'Grady asked the Secretary to the Treasury whether an insured person preferring to pay his doctor's bill in the usual way could claim from the Local Committee the sum allowed under the National Insurance Act for medical services.—Mr. Masterman said that in cases where the Insurance Committee allowed an insured person to make his or her own arrangements for medical attendance and treatment, a contribution towards the cost of that treatment would be made by the Committee, in accordance with Section 15 (3) of the Act.

Suspension of Panel System.

Mr. Worthington-Evans asked on what terms Drs. Morgan and Dimock had been engaged as doctors for the Isle of Ely under the National Insurance Act; and whether any assurance had been given to them that the panel would be closed or not adopted for two years or any other period. and by whom such assurance was given.—Mr. Masterman said that Dr. Morgan only rendered service pending the completion of the Committee's arrangements for medical service in the Chatteris district. Dr. Dimock and the other doctors who had undertaken the attendance and treatment of insured persons in the Chatteris and Wisbech districts would be remunerated on the same terms as panel doctors elsewhere, and they had entered into agreement with the Local Insurance Committee to take complete responsibility for the insured persons in those districts for a period of two years, subject to three months' notice on either side.

Mr. Worthington-Evans asked whether any assurance had been given to the doctors that the panel would be closed or not within the two years.—Mr. Masterman said that he understood that the arrangement was that the panel system was suspended for two years, subject to three months' notice on either side.

Domestic Servants.

Sir J. D. Rees asked the Secretary to the Treasury if a domestic servant got ill and went to his or her home, how his or her transfer was arranged from one to another panel practitioner.—Mr. Masterman said that any insured person who changed his residence, on giving notice to the Insurance Committee of the area to which he was going, would be able to obtain treatment from a doctor on the panel in that area.

In reply to Mr. Gretton, Mr. Masterman said that he could not give an indication of the amount of time that would be occupied in those transfers.

In reply to a question by Mr. Mildmay as to whether the regulation applied to servants moving back and forward in the course of a year, Mr. Masterman said that, if they were a really long period of time away from one place to another, it would. If they were continually moving from one place to another, he thought they would find it more convenient to take advantage of the special arrangements.

In reply to Mr. Gwynne, Mr. Masterman said they would require a ticket, but he did not think a separate ticket was necessary in each case.

Certificates of Non-panel Doctors.

Sir H. Craik asked, on February 4th, whether a domestic servant, being an insured person, who received medical attendance from the family doctor at the cost of her employer, might be deprived of sickness benefit because that doctor was not on the panel, and therefore his certificate might not be accepted by the Local Insurance Committee.—Mr. Masterman replied that the Local Insurance Committees had nothing whatever to do with sickness benefit for members of approved societies. The question of requiring satisfactory evidence of sickness, whether by certificates or otherwise, was entirely a matter for the committee of management of the approved society, subject to appeal to the Insurance Committee under Section 67 of the Act.

Aged Members of Approved Societies.

Mr. Glazebrook asked the Chancellor of the Exchequer, on January 29th, whether he would take steps that the old or infirm persons who were members of approved societies at the date of the passing of the National Insurance Act be put in possession of the vouchers entitling them to medical attendance and treatment on the same terms as to remuneration as those arranged with respect to insured persons, as required by Section 15 (2) (*e*) of the National Insurance Act.—Mr. Masterman, who replied, said that the Regulations issued by the Commissioners provided for the issue of the vouchers referred to.

Lord Ninian Crichton-Stuart asked, on February 3rd, if the Government were prepared to help, financially or otherwise, those members of friendly societies over 65 years of age who were insured persons, and therefore eligible for sickness benefit, to get medical benefit.—Mr. Masterman replied in the affirmative. He said the Supplementary Estimates included provision for a capitation grant of 2s. 6d. in respect of those insured persons whose societies elected to provide medical treatment as one of the benefits to be given under Section 49 of the Act.

Sir Ryland Adkins inquired whether any similar or analogous benefits would be given to those over 70, members of friendly societies, who under the Act got no benefit.—Mr. Masterman said that the provision was entirely limited to insured persons.

Payment to Doctors Who Dispense.

Mr. Wright asked, on February 4th, whether doctors in rural districts who undertook both medical attendance and the supply of drugs to insured persons on their lists were entitled to the whole of the 2s. allowed for such persons for drugs; if not, to what, if any, share of the floating 6d.; and whether any regulations, and, if so, what, had been drawn up in that respect.—Mr. Masterman said that a doctor in a rural district who did his own dispensing under the conditions laid down in Sections 45 and 47 of the Medical Benefit Regulations would receive on the capitation system the total capitation sum for medical treatment and drugs, namely 7s. (which includes the so-called floating 6d.) for general attendance, 6d. for attendance on tuberculosis patients, and 1s. 6d. for drugs, making a total of 9s. in all.

Mr. Wright asked whether in some counties the Local Insurance Committees were allowing only 1s. 6d., and not the 2s.—Mr. Masterman said that if any case was brought to his notice, he would see that it was immediately put right.

Income Limit.

Mr. Charles Duncan asked the Secretary to the Treasury, on February 3rd, whether the Perth Burgh Insurance Committee had fixed a £2 limit for medical benefit under the National Insurance Act on the ground that a panel of doctors could not otherwise have been set up; whether that action, which was causing dissatisfaction amongst insured persons in Perth, was in order, and what action he proposed to take in the matter.—Mr. Masterman said that under Section 15 (3) of the Act, the question of whether an income limit above which persons must make their own arrangements for receiving medical attendance and treatment and receive a contribution towards its cost, instead of receiving medical benefit under the ordinary arrangements, was one to be determined by the Insurance Committee. Paragraph 14 (2) of the Medical Benefit Regulations required that before such an income limit was fixed the Committee should give public notice of their intention, and should consider the representations of any societies with members resident in the area. He was informed that the Perth Insurance Committee had given public notice accordingly, and that a meeting would be held at which representatives of societies would have an opportunity of expressing their views before a final decision was arrived at.

Professional Secrecy.

Sir H. Craik asked, on February 4th, whether, considering that it was a breach of medical etiquette for

doctors to divulge the ailments of their patients, and that patients often objected to any specific statement in regard to that being made public, it was sufficient to enter on the sickness certificate that the insured person was disabled by illness or accident, as the case might be, leaving any specific statement which might be required for statistical purposes to be entered in the doctor's private day-book.—Mr. Masterman said that the arrangements for the keeping and furnishing of records by doctors secured that information which would connect the name of a patient with an entry as to a particular kind of disease could not be obtained by the Commissioners, committee, or society. The nature of the evidence which a society accepted in support of a claim to sickness benefit (which had no connexion with the form of record kept by the doctor for the purposes of the Medical Benefit Regulations) was primarily a matter for the society. If any question arose between such a claimant and his society as to the sufficiency of any certificate tendered by the claimant for this purpose, that question would have to be determined by the Commission under Section 67 of the Act. In reply to a further question by Sir Henry Craik, the Secretary to the Treasury stated that statistics which were taken for general statistical purposes were records which would be altogether independent of the names, and could not be attached to them.

District Nurses.

In reply to Sir Archibald Williamson, on January 30th, Mr. Masterman said that the Commissioners had no funds from which to make any grant for the support of district nurses. Under Section 21 of the Act an approved society or an Insurance Committee might subscribe for that purpose, and experience of the working of the Act was necessary to show what would be the effect of that provision.

Periods of Payment.

In reply to Mr. Cassel, on January 30th, Mr. Masterman said that the Regulations contemplated quarterly payments, but arrangements might be made by Insurance Committees whereby payments might be made on account during the quarter. The lists of patients sent in by the doctors would be checked by the Insurance Committees from the lists furnished by the societies, not from the medical tickets. The payments were due as from January 15th or whatever later date the doctor joined the panel.

Clerical Work.

In reply to Mr. Locker-Lampson, on February 5th, Mr. Masterman said that the principal pressure of clerical work on doctors on the panel had been due to the initial work in connexion with the selection of doctors and registration of patients at the starting of medical benefit, and would not recur. Proposals for simplifying the work were under the consideration of the Commissioners.

SANATORIUM BENEFIT.

Mr. Masterman, on January 30th, in reply to a question by Mr. Cassel, said that an Insurance Committee had no power to supply such articles as coal, but only such food and nourishment as were ancillary to the treatment of tuberculosis. The ordinary necessaries of life for the cost of which an insured person's sickness benefit was available did not fall within the definition.

Mr. Masterman, in replying to Mr. Leach on February 3rd, said he hoped that a return showing how many persons were under treatment for tuberculosis, and how many of them were receiving treatment in institutions, would be laid on the table of the House this week.

Mr. Wheler asked, on February 4th, whether insured persons suffering from tuberculosis could claim sanatorium treatment as a right; and, if not, what arrangements had been made for the treatment of those insured persons for whom doctors had stated that sanatorium treatment was absolutely necessary.—Mr. Masterman said that an insured person was entitled to such sanatorium benefit as the Insurance Committee recommended. The nature of the treatment was determined by the Committee, acting on the advice of the tuberculosis officer or other consulting medical man.

Mr. Wheler asked if there were not a large number of insured persons urgently in need of sanatorium treatment who had paid for it thinking they were going to get it.—Mr. Masterman said that if any case of people recommended for sanatorium benefit who had not received that benefit was brought before him he would have immediate inquiry made.

In reply to Sir Henry Craik, Mr. Masterman said he was not aware of any insured man or woman who had been recommended for sanatorium benefit who was not receiving some sanatorium benefit.

MATERNITY BENEFIT IN IRELAND.

On January 30th Mr. O'Shee asked the Secretary to the Treasury whether, in Ireland, in the case of a woman whose husband was an insured person, and who in her confinement procured the attendance of the dispensary doctor or dispensary midwife under the provisions of the Medical Charities Acts, there was any liability, under Section 18 of the National Insurance Act, to deduction from the maternity benefit of any payment for such doctor or midwife; and, if not, whether the entire sum of 30s. would be payable without deduction.—Mr. Masterman said that under the Medical Charities Acts only "poor persons" were eligible to receive a dispensary ticket from a guardian or relieving officer requiring the attendance of a dispensary medical officer free of charge. The question of whether a particular applicant was a poor person was one that would require to be determined by reference to the circumstances of the particular case, and though the receipt of maternity benefit might be a relevant consideration, no general answer which would apply to all cases could be given beforehand. He referred Mr. O'Shee to the answer given by the President of the Local Government Board on January 23rd with regard to a somewhat similar question under the English Poor Law (see SUPPLEMENT, February 1st, p. 122).

AMENDMENT OF THE ACT.

Mr. Lloyd George, when announcing the appointment, on February 4th, of the Commission on the extension of medical benefit to Ireland (see p. 306), stated that such extension would involve an amendment of the Act, and seemed to recognize that the occasion might be taken to make other amendments. Mr. Masterman, on February 5th, stated that the Government was prepared to introduce an amending Act when experience showed that such amendment was desirable. The Commissioners would be glad to receive at any time and from any quarter any suggestion for possible improvement; criticisms so far, however, had been barren of constructive suggestions.

CORRESPONDENCE.

RESULTS OF THE ACTION OF THE BRITISH MEDICAL ASSOCIATION AND FUTURE PROSPECTS.

DR. JOHN GAY (Putney) writes: May I, as one who is neither a political supporter of the Chancellor of the Exchequer nor a pledge-breaker, endeavour, with much diffidence, to pour oil on very troubled waters? Should we not, at this present time, face the results of our *mistakes* (for defeat we can hardly call it) with some philosophy and calm? We hear of attempts made to break up one association and to set up a multitude of others in its place in a spirit which savours of panic that is surely fraught with the possibility of disaster. Whatever action has been taken by the British Medical Association represents only the desires of its members. Every step has been taken after discussion in, and by the decision of, the Divisions; and if, unfortunately, we have failed to get at the real views of the profession on this occasion, we must see to it that such a result will be for the future impossible. Would it not be better, therefore, that a period of calm should precede the formation of new organizations, so that the probability of further failure shall be reduced to a minimum?

It may or may not be reasonable for us to suspect the Government of sinister motives, and no one knows better than ourselves how often the proffered spoonful of jam disguises the presence of a less pleasant powder. Some of us are suspicious of the composition of the Chancellor's jam, while others declare that they can detect in it the nauseous flavour of the medicine. But if we examine Mr. George's actions dispassionately, can we be so sure that he has been actuated by want of consideration for, or opposition to, our views? As a matter of fact we have scored on many points, as the following summary proves:

In the original bill we objected to the voluntary contri-

butor, and that objection was sustained. We declined to submit to the friendly societies as employers, and asked for a separate committee on which we should have representation, which was granted. We asked for a tenth representation of medical men on the committee, and this also was given us. We asked also for representation on the Insurance Commission, on statutory medical committees, for free choice of doctor among those willing to take up the work of the panel, for the open panel in place of whole-time medical officers, and all these were granted.

Had we accepted the terms offered in November last, as seems to have been the desire of a very large proportion of the profession, we should now have had representatives on the Insurance Committees while regulations were being made. And it should be remembered that there are statutory committees with whom the Insurance Commissioners were bound to have arranged for the services of medical men, instead of which men were obliged to go on the panels in a fashion which can only be described as a *débâcle*. Had these committees been properly constituted they would certainly, as shown in the Supplement just issued, have had considerable power. In any event we should have remained a united and independent body, and have had the whole thing in our own hands, even to the arrangement of income limits in different districts. All this we have lost, though perhaps not irretrievably.

There remain only in dispute the amount for capitation grant and the income limit. As regards the former, the Chancellor offered 4s. 6d. per head and some extras. We asked for 8s. 6d. and some extras. We were finally offered 7s. without extras, and 9s. in country districts, free of expense. Obviously many thought it a good offer. It meant £1,600,000 extra for our work. Even now it might be possible, if we work together through the organization in the Act, to get certain extras, such as anaesthetics and mileage, through the power of the county councils to raise a rate if needed for such purposes. Union is the only method to achieve this.

The income limit is a sore point, undoubtedly. But it is clear that during the passage of a bill a Minister is exposed to several lines of fire, and too much granted to one side is apt to wreck a bill by the action of the opposing party. Apparently a different arrangement from that in the Act would have had no support from either party.

If we have been defeated is it not by our own disunion? Is it not now to our best interest to stop the sort of guerrilla warfare now being carried on in London and to accept the position, which is evidently agreeable to a very large number of the profession; to elect on the Insurance Committee the best and most reasonable men we can—not politicians, but men whose opinions will carry weight with their lay colleagues; and to elect similarly the Medical Committees, and see how the Act works and how we can get such regulations framed as we may desire. There are many who believe that the Chancellor is really anxious for a satisfactory service and the good-will of the profession. I have endeavoured to point out the evidence of this desire. When the panels all over the country are practically complete is it wise for London to start the methods of warfare now threatened? It may lead to worse things than we have already experienced. There is time enough to arrange new organizations when we find out exactly what is wanted.

Dr. J. E. O'Sullivan (Liverpool) writes: The letter from Dr. G. McGregor in the Supplement of February 1st merits careful study and reflection, due to cogent remarks as to the future of the Association contained therein. After adverting to the causes of the recent *débâcle*, he proceeds to remark:

> Let every member of the Association do his utmost to secure a Council which will be clean and straightforward, and also do his best to secure that the officials of his own Branch and Division shall be those men he most can trust. We must devise some means of penalizing those rebellious members of the ranks—the malcontents and defaulters.

I am quite in agreement with those statements, but ask myself, Is there even a remote hope that they will be put into practice?

At the meeting of the Representative Body on January 17th I voiced the instructions of my Division—instructions given on my own and another's initiative—in order to defeat an attempt to give instructions to vote for a general release, including those who had violated the pledge, as to the advisability of releasing the men who had remained loyal to the bond given. At the same time I had a resolution on the agenda paper, in my own name, moving that the meeting should express condemnation of and censure on those who violated the pledge. I hoped to speak on the terms of my resolution when the motion of the Faversham Division was reached. Unfortunately, not feeling well, I could not remain until Saturday, and though I handed in a rider to the Faversham motion, and left it in charge of another Representative, it was not discussed.

The grotesque and farcical decision arrived at by the majority of the Representative Body to release from the pledge those who had distinctly violated it and gone against the declared policy of the Association was only worthy of a Gilbertian comic opera, and it was done without the slightest expression of censure upon the disloyal, or any tribute paid to the loyal, members of the Association. The public has received this farcical performance with indifference or with the contempt it merited and deserved.

I with others would quite willingly have viewed the wholesale resignations from the Association of those men who had acted disloyally, at the hour of peril, with perfect equanimity, purged of their presence, for when can such men be ever again depended on? The loyal men would have felt revivified, and would willingly have paid an increased subscription.

Had such line of action obtained the Association would now be in a far more creditable position than it at present occupies, alike in the opinion of its loyal members—many of whom at present are contemplating resigning—and in that of the public at large.

Apropos of Dr. McGregor's advice as to the men to elect on the Council, on the Branch Councils, and on the Executive of the Divisions—men, in future, to be relied on, let me explain the position here.

On January 31st the annual meeting of the Liverpool Division for the election of the Executive Committee of members to the Branch Council and of members to the Representative Body was held; out of over 400 members about 30 to 40 put in an appearance. Of the executive, the chairman elected and four other members went on the panel before released from the pledge, and the Chairman and Secretary of the late local Provisional Committee that issued the resolution which was promptly interpreted by many as signifying that they would be justified in going on the panel, and who themselves voted for sending out that resolution, were also elected. It would be interesting to know what Dr. McGregor thinks of those facts. What hope have we that we can rely and depend on men in the next battle, which he says is not far distant?

The Association is at present in a state of apathy and stupefaction as a result of our recent discreditable *volte face*. Honourable, well-meaning men hesitate, and thus affairs are suffered to drift.

After the decision of the Representative Body I am strongly of opinion that the only real hope for the Association (though I know that the words will stink in the nostrils of some: they cannot produce any possible worse effect than reference to the recent *débâcle*) is to turn itself into a trades union, and thus in some way fit itself for any future conflict.

Contracting Out.

Dr. H. Bryan Densham (Stockton-on-Tees) writes: In the Supplement of February 1st Dr. Coode Adams puts forward his views on this question. Opinions set out in your columns, however apparent may be their fallacies, cannot be ignored lest some may give them credence. Dr. Adams states:

1. That under "contracting out" the money set apart would be removed from the control of the representatives of the insured.

That is not so. The Insurance Committee would still have full control of the pooled medical benefits of those contracting out.

2. That "contracting out" would be used by the friendly societies to regain the appointment and control of their club doctors, and so renew the abuses which existed under this system.

The medical men who formerly lent themselves to such

abuse of contract service are all on the panels, and would not leave them to accept a lower rate of remuneration.

3. That a "contracting out system" would break down the "panel" system.

There is no justification for this statement. Both systems are essential features of the Insurance Act, and they are in no way incompatible.

Dr. Adams concludes by saying: "It is, therefore, somewhat sad to see so much money, time, energy, and temper expended on thus crying for the moon." It is still more sad to find a medical man making inaccurate statements with a view of discouraging those of his brethren who are striving to preserve some portion of the independence of their profession.

Dr. B. G. M. BASKETT (Thundersley, Essex) writes: There is surely a fallacy underlying Dr. Coode Adams's argument. What possible reason can there be for calling insurance premiums public money? An insurer qualifies for his insurance by punctual payment of his premiums. *Qua* insurance, the Insurance Commissioners have as much right to refuse sick benefit if the policy-holder does not deal with a grocer who is a member, say, of the local Liberal Association, as medical benefit pay to a man who does not deal with a doctor on a specified list. Plainly, if this be an Insurance Act, the insuring person has an indefensible right to his benefit without conditions.

If it is not an Insurance Act, but a Poor Law, Mr. George's attitude is justified. Dr. Adams seems to recognize that it is a Poor Law, inasmuch as he speaks of "insurance *tax*." But Ministers did not venture to use that term while the Act was yet a bill; on the contrary, the beneficiaries were taught to look on their contributions, not as a tax, but as a highly remunerative investment. Every one knows what fatal mischief the misuse of words may work in political matters; for example, this very Act is commended to us as a "Radical" measure, a claim which is enough to make Cobden and Bright turn in their graves; and if it is merely to produce an exact appreciation of the meaning of the Act, the effort which Dr. Adams deplores is worth making.

Secondly, even if the insurer's money is not a trust, but public money, and is as really a tax as the contribution which medical men must make towards their own remuneration, Dr. Adams's (and Mr. George's) objection *re* taxation and representation is not relevant. The amount to be paid for medical benefit is—between maximum and minimum limits—already fixed, as we hope, and fixed by what we conventionally regard as representative methods. The sole difference which contracting out makes is that the insurer, like a responsible being, receives into his own hands what otherwise would be paid over his head, as if he were a child.

Thirdly, in the face of the instructions issued on the insurance cards, it is idle to maintain that its composers did not so read their instructions from Parliament that they knew they were to expect large abstentions from the panel system. The card issued to fourteen million people is, in fact, proof that Mr. George's attitude differs now from what it was. The important thing now is Government control, rather than popular feeling; and the question before us is whether the Insurance Commissioners shall be the irresponsible rulers of one-third of the British people. The British Medical Association scheme proposes collective, not individual, bargaining with the benefit societies; but even the latter would be better ultimately than Mr. George's scheme, which involves the most grinding of all tyrannies.

The suggestion that we cannot do our duty to people who earn less than £160 a year without official supervision is derogatory not more to our integrity than to the manhood of that class. If the supervision is to be real it will necessarily be disastrous to the profession, and therefore to our patients; if, as seems probable, it is only nominal, why the insistence on the panel?

When trade enters on its next depression, and when the employers have been able to shift the burden of their taxation, so that real wages fall, we are certain (if my experience of the working class feeling is at all typical) to have the employed class with us in our objection to the Act, and under a Government which has the same regard for the liberty of the poorer as of the richer members of the community, it seems to me certain that we should be able to introduce the voluntary principle into the Act. Dr. Adams, again following Lloyd George, thinks that would be fatal to the Act. That such an Act should collapse, or the grant of freedom to the people should be its most damaging indictment, one thinks, to any Englishman, it certainly is the most hopeful reason why we should continue the effort to bring home to "employed" people's minds the degradation of the inferior status which has been thrust upon them.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-six of the largest English towns 8,632 births and 5,906 deaths were registered during the week ending Saturday, February 1st. The annual rate of mortality in these towns, which had been 15.4, 16.5, and 17.0 per 1,000 in the three preceding weeks, further rose to 17.2 per 1,000 in the week under review. In London last week the death-rate rose to 18.6, against 15.3, 16.5, and 17.8 per 1,000 in the three previous weeks. Among the ninety-five other large towns the death-rates last week ranged from 4.9 in Devonport, 7.2 in Ilford and in Southampton, 10.0 in Ealing, 10.3 in Southport, 10.5 in Wallasey, and 10.8 in Wimbledon to 24.5 in South Shields, 25.0 in Darlington, 25.6 in Barnsley, 25.9 in Wakefield and in Rotherham, 26.8 in Aberdare, and 31.5 in St. Helens. Measles caused a death-rate of 2.9 in Bootle, 3.2 in Barrow-in-Furness, 3.4 in Acton, 6.8 in St. Helens, and 6.9 in Wigan; and diphtheria of 1.0 in St. Helens, in Sunderland, and in Rhondda, and 2.0 in Walthamstow. The mortality from the remaining infectious diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 51, or 0.9 per cent. of the total deaths, were not certified either by a registered medical practitioner or by a coroner after inquest, and included 11 in Birmingham and in Liverpool, and 3 in Stoke-on-Trent and in St. Helens. The number of scarlet-fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,889, 1,828, and 1,784 at the end of the three preceding weeks, had further fallen to 1,738 on Saturday last; 209 new cases were admitted during the week, against 202, 204, and 215 in the three preceding weeks.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, January 25th, 714 births and 420 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 631 births and 510 deaths in the preceding period. These deaths represent a mortality of 21 per 1,000 of the aggregate population in the districts in question, as against 22 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 4.3 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 31.0 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 19.7 (as against an average of 21.9 for the previous four weeks), in Dublin city 21.7 (as against 23.3), in Belfast 24.5 (as against 22.4), in Cork 21.8 (as against 23.5), in Londondery 30.5 (as against 20.3), in Limerick 16.2 (as against 14.9), and in Waterford 19.0 (as against 27.5). The zymotic death-rate was 1.7, as against 2.1 in the previous week.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

AGRA: DUFFERIN HOSPITALS.—Lady Doctor on the Staff. Salary, Rs. 300 a month.

BARNSTAPLE UNION.—District Medical Officer for the Parishes of Bittadon, Ilfracombe, and West Down. Salary, £80 per annum.

BARROW-IN-FURNESS; NORTH LONSDALE HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

BATH: EASTERN DISPENSARY.—Resident Medical Officer. Salary, £130 per annum.

BEDFORD COUNTY HOSPITAL.—Male Assistant House-Surgeon. Salary, £80 per annum.

BIRKENHEAD UNION.—Senior Male Resident Assistant Medical Officer. Salary, £120 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BOOTLE BOROUGH HOSPITALS FOR INFECTIOUS DISEASES.—Resident Medical Officer. Salary, £120 per annum.

BRADFORD POOR LAW UNION: Assistant Resident Medical Officer for the Hospital and Workhouse. Salary, £130 per annum.

BRISLINGTON HOUSE PRIVATE ASYLUM, near Bristol.—Junior Resident Medical Officer. Salary commencing at £160.

BRISTOL ROYAL INFIRMARY.—(1) House-Physician. (2) Dental House-Surgeon. (3) Obstetric and Ophthalmic House-Surgeon. (4) Resident Casualty Officer. (5) Honorary Surgeon. (6) Honorary Assistant Surgeon. Salary for (1) and (2), £100 per annum, for (3) £75 per annum, and (4) £50 per annum.

BUCKS COUNTY LUNATIC ASYLUM, Stone, near Aylesbury.—Assistant Medical Officer. Salary, £200 per annum.

BURY INFIRMARY.—(1) Senior House-Surgeon. Salary, £110 per annum. (2) Junior House-Surgeon. Salary, £80 per annum, increasing to £90.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

CARDIFF: KING EDWARD VII's HOSPITAL.—House-Surgeon (male) for the Ophthalmic and Ear and Throat Departments. Honorarium, £30 for six months.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary, £150 per annum.

CHELSEA INFIRMARY, Cale Street, S.W.—Second Assistant Medical Officer. Salary, £120 per annum.

COLCHESTER: ESSEX COUNTY ASYLUM. — House-Physician. Salary, £80 per annum.

DAVOS PLATZ: QUEEN ALEXANDRA SANATORIUM. Resident Assistant Medical Officer. Salary, £100 per annum.

DENBIGH: NORTH WALES COUNTIES ASYLUM.—Junior Assistant Medical Officer (male). Salary, £160 per annum, rising to £200.

DEVON COUNTY ASYLUM, Exminster.—Fourth Assistant Medical Officer. Salary, £130 per annum, rising to £140, and £50 at the end of each year for pathological work.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Clinical Assistant.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Third Assistant Medical Officer (male). Salary, £175 per annum, increasing to £200.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

ESSEX EDUCATION COMMITTEE, Chelmsford.—School Medical Inspector. Salary, £250 per annum, rising to £300

GLOUCESTER: GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Remuneration at the rate of £80 per annum.

GLOUCESTERSHIRE: Rural Districts of East Dean, Gloucester, West Dean and Lydney and the Urban Districts of Awre, Newnham, Westbury-on-Severn and Coleford.—Medical Officer of Health and Assistant Medical Inspector of School Children. Salary, £500 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL. — House-Surgeon. Salary, £75 per annum.

HERTS COUNTY ASYLUM, Hill End, St. Albans.—Junior Assistant Medical Officer. Salary, £170 per annum, rising to £190.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W. — (1) Casualty House-Surgeon. (2) Assistant Physician.

KING EDWARD VII SANATORIUM, Midhurst.—Second Assistant Medical Officer. Salary, £150 per annum, rising to £200.

LANCASHIRE EDUCATION COMMITTEE, PRESTON. — School Medical Inspector. Salary, £250 per annum, rising to £400.

LEEDS CITY. — Assistant Medical Officer of Health and Chief Inspector of Nuisances. Salary, £300 per annum.

LEICESTERSHIRE AND RUTLAND ASYLUM, Narborough.—Male Junior Assistant Medical Officer. Salary, £150 per annum, rising to £180.

LIVERPOOL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Honorary Assistant Physician.

LIVERPOOL INFIRMARY FOR CHILDREN. — Resident House-Surgeon. Salary at the rate of £60 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Assistant Medical Officer for the Crossley Sanatorium. Salary, £100 per annum.

MANCHESTER: ST. JOHN'S HOSPITAL FOR EYE AND EAR.—Honorary Assistant Aural Surgeon.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN. House-Surgeon. Honorarium at the rate of £50 per annum.

MELROSE: ROXBURGH DISTRICT ASYLUM.—Assistant Medical Officer. Salary, £170 per annum.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Honorary Dental Surgeon.

NORTHAMPTON: ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES.—Resident Medical Superintendent. Salary, £1,200 per annum.

NOTTINGHAM CITY ASYLUM.—Second Assistant Medical Officer. Salary, £200 per annum.

NOTTINGHAM GENERAL HOSPITAL. — (1) Assistant Resident Surgeon (male). (2) Assistant Resident Surgeon for the Branch. Salary, £170 per annum each.

OXFORD COUNTY ASYLUM, Littlemore.—Junior Assistant Medical Officer (male). Salary, £150 per annum, rising to £175.

OXFORD: RADCLIFFE INFIRMARY AND COUNTY HOSPITAL. —(1) House-Surgeon. (2) Casualty House-Surgeon. Salary at the rate of £80 £80 per annum each.

PECKHAM L.C.C. CENTRE FOR TREATMENT OF SCHOOL CHILDREN.—(1) Four Dental Appointments. Salary at the rate of £50 per annum. (2) Anaesthetist. Salary, £25 per annum.

READING: ROYAL BERKSHIRE HOSPITAL.—Medical Registrar.

ROCHDALE INFIRMARY.—(1) Senior House-Surgeon (male). Salary, £100 per annum. (2) Junior House-Surgeon. Salary, £80 per annum, rising to £90 after six months.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C. — Junior Obstetric Assistant.

ROYAL NATIONAL ORTHOPAEDIC HOSPITAL, Great Portland Street, W.—Second Resident House-Surgeon. Salary at the rate of £100 per annum.

ROYAL NAVY.—Six Dental Surgeons for the Naval Forces. Salary, £1 per diem for seven days a week.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C.—(1) Honorary Surgeon to Out-patients. (2) Clinical Assistant.

SHEFFIELD UNION HOSPITAL. — Resident Assistant Medical Officer. Salary, £120 per annum.

SOUTHPORT INFIRMARY. — Resident Senior House-Surgeon. Salary at the rate of £100 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £100 per annum.

STOCKPORT INFIRMARY.—(1) Senior House-Surgeon (male). Salary, £120 per annum. (2) Junior House-Surgeon. Salary, £80 per annum.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SUNDERLAND: ROYAL INFIRMARY. — House-Physician (male). Salary at the rate of £80 per annum.

WARWICKSHIRE COUNTY COUNCIL.—Assistant County Medical Officer of Health. Salary, £250 per annum, rising to £300.

WISBECH: NORTH CAMBRIDGESHIRE HOSPITAL. — Resident Medical Officer. Salary, £150 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL. — Pathologist and Bacteriologist. Salary, £200 per annum.

YORK: THE RETREAT.—Junior Assistant Medical Officer. Salary, £175 per annum.

CERTIFYING FACTORY SURGEONS. — The Chief Inspector of Factories announces the following vacant appointments: Burton Latimer (Northants), Hatherleigh (Devon).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

CLARK, R. V., M.B., Ch.B., Medical Officer of Health for the Borough of Croydon, vice Dr. H. B. Arnold.

CLEGG, John Gray, M.D., B.S., F.R.C.S., etc., Honorary Ophthalmic Surgeon to the Children's Hospital, Manchester.

CROOKSHANK, F. C., M.D., M.R.C.P., Physician to Out-patients, the Hampstead General and North-West London Hospital.

CRUMP, J. A., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Welshpool District, co. Montgomery.

DALYELL, E. Jean, M.B.Syd., Resident Medical Officer for the Renwick Hospital for Infants, Sydney, N.S.W.

DELÉPINE, Professor Sheridan, Medical Referee under the Workmen's Compensation Act, 1906, for County Circuits Nos. 3, 4, 5, 6, 7, 8, 9, and 19 with a view to being employed in cases of industrial diseases (except ophthalmic cases and cases of beat-hand, beat-knee, and beat-elbow).

TULLOCH, F. L., M.B., B.S., Assistant Medical Officer of the Dudley Road Infirmary of the Birmingham Parish.

WALLACE, Arthur J., M.D.Edin., Honorary Consulting Gynaecologist to the Royal Southern Hospital, Liverpool.

WILLIAMS, Herbert, M.B., Ch.B., F.R.C.S.Edin., Honorary Assistant Surgeon to the Royal Southern Hospital, Liverpool.

WILLIAMSON, W. S., M.R.C.S., L.R.C.P., District Medical Officer of the Bradford Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

ROBERTS.—On January 26th, at 104, Midland Road, Bedford, to Dr. and Mrs. E. Cleaton Roberts, a son.

MARRIAGES.

BIRKS—MARSH.—On February 1st, at Holy Trinity, Bedford, Guy Thornton Birks, M.B., B.C., of Bedford, to Elsie Alice, daughter of Mrs. Marsh, of Bedford.

MORRISTON DAVIES-COURTNEY.—On January 31st, H. Morriston Davies, M.D., M.C Cantab., F.R.C.S., son of W. Morriston Davies, to Dorothy, daughter of W. L. Courtney, Esq.

SMITH-PORTER.—At the Presbyterian Church, Broad Street, Birmingham, on February 1st, by the Rev. D. Urquhart Crerar, William Maule Smith, M.D., Worcester County Asylum, Bromsgrove, to Mary Reid, youngest daughter of the late James Porter, Edinburgh.

DEATH.

LONGWORTH.—On February 3rd, at the Suffolk District Asylum, Melton, Stephen George, L.R.C.P. (Ireland), aged 36 years.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8.30 p.m.—Mr. Edmund Owen will open a discussion on Early Operation in Appendicitis. The following gentlemen will take part in the discussion: Mr. W. H. Battle, Mr. C. P. Childe, Sir George Beatson, Mr. A. M. Connell (Sheffield), Mr. G. Grey Turner, and Mr. Crawford Renton.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor J. E. Adams: Peritoneal Adhesions, dealing with their Clinical Aspect and their Pathology.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF SURGERY, 5.30 p.m.—Dr. Arthur F. Hertz: The Cause and Treatment of Certain Unfavourable After-effects of Gastro-enterostomy. Mr. Edred M. Corner: Inferences on Modern Treatment drawn from Histories of Patients who have Recovered from Perforation of a Gastric or Duodenal Ulcer.

WEDNESDAY.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 5 p.m.—Major Josiah Oldfield, R.A.M.C.(T.): Regimental and Field Ambulance Training.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Sir Rickman J. Godlee, Bart., F.R.C.S.: Hunterian Oration.

ROYAL SOCIETY OF MEDICINE:
CLINICAL SECTION, 8 p.m.—Discussion on Cervical Rib, particularly the Results of Operative Treatment. Dr. F. Wood Jones: Anatomical Demonstration. Mr. W. Thorburn: Surgical Treatment. Mr. Percy Sargent: Results of Operation. Dr. S. A. K. Wilson: Symptomatology. Cases will be arranged to illustrate: (1) Results of Removal of Rib; (2) Neuromuscular Features; (3) Vascular Features. Sir StClair Thomson: (1) Intrinsic Cancer of the Larynx in a Woman; Laryngo-fissure case in which complete Extirpation of the Growth was apparently effected through the mouth; (2) Lateral Rhinostomy or Moure's Operation; Case to illustrate the great advantage of this operation in malignant disease of the nose and accessory sinuses. Dr. Hale White: Retinal Haemorrhages in Secondary Anaemia. Dr. F. Parkes Weber: (2) Thoracic Aneurysm in a Woman; (2) Nephritis in Secondary Syphilis (Result); (3) Intermittent Claudication (Arthritis Obliterans).

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, S.W.—Wednesday, 4.30 p.m.: Diagnosis of Diseases simulating Laryngeal Tuberculosis.

CANCER HOSPITAL, Fulham Road, S.W. — Wednesday, 5 p.m.: Cancer of the Tongue.

LONDON HOSPITAL MEDICAL COLLEGE, E.—Monday, 4.30 p.m.: Lesions of the Peripheral Nervous System and Spinal Cord. Tuesday, 4.30 p.m.: Pathology of the Central Nervous System. Wednesday, 4.30 p.m.: Clinical Anatomy and Regional Diagnosis. Friday: Common Diseases of the Nervous System.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics. Monday: 12 noon, Throat, Nose, and Ear; 2.15 p.m., Surgery; 3 p.m., Operations; 3.15 p.m., Medicine; 4.15 p.m., Ear and Throat. Tuesday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Surgery; 3.15 p.m., Medicine; 4.15 p.m., Skin. Wednesday: 11 a.m., Eye; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Eye Clinic; 4.30 p.m., Surgery. Thursday: 12 noon, Throat, Nose, and Ear; 2 p.m., Operations, Pathological Demonstration; 3.15 p.m., Medicine. Friday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Surgery. Saturday: 10 a.m., Radiography; 11 a.m., Eye.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical laboratory work daily (Saturday excepted), 10 to 12 a.m. Practical Entomology, 2 to 3.30 daily. Special Entomology, 10.30 to 1 p.m. daily. Medical Clinics, Tuesday and Thursday at 3 p.m. Operations, Friday, at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL.—Thursday, 4.15 p.m.: Post-graduate Clinic: Diabetes.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m.: Diet in Diseases of the Stomach. Friday, 4.30 p.m.: Some Examples of Calculous Disease.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Some Common Mistakes in the Treatment of the Diseases of Women; Tuesday, Automatism; Wednesday, Some Points in the Localization of Cerebral Tumours; Thursday, Heart Disorders and the Gastro-intestinal Tract; Friday, Discharges.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m.: Sensory Conduction in the Spinal Cord. Friday, 3.30 p.m.: Sensory Types of Disseminated Sclerosis.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear: 3 p.m., Demonstration on Clinical and General Pathology. Tuesday: 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m., Lecture: Recent Investigations in the Treatment of Heart Disease, illustrated by polygraphic tracings. Wednesday: 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday: 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture: Ethyl Chloride Anaesthesia. Friday: 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Monday: 4.30 p.m., Tuberculins; 8 p.m., Tuberculin Demonstration. Tuesday, 4.30 p.m.: Immunity in Relation to Tuberculosis. Wednesday: 4.30 p.m., Indications for and Contraindications to Tuberculin Treatment. Thursday: 4.30 p.m., Practical Administration of Tuberculin for Diagnosis; 8 p.m., Tuberculin Demonstration. Friday, 4.30 p.m.: Practical Administration of Tuberculin for Treatment. Saturday, 10.30 a.m.: Demonstration of Tuberculous Cases.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Medical Registrar, 10.30 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Surgical Registrar, 10.30 a.m.: Demonstration of Fractures, etc., 12 noon; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Lecture, Abdominal Diagnosis, 12 noon; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10.30 a.m.; Lecture, Neurological Cases, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture, Practical Medicine, 10.30 a.m.; Lecture, Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.; Surgical Registrar, 10.30 a.m.; Lecture, Surgical Anatomy of the Abdomen, 12 noon. Lectures at 5 p.m.: Monday, Whitlow, Surgical Anatomy and Treatment; Tuesday, Clinical Pathology; Wednesday, Practical Medicine; Thursday, Practical Surgery; Friday, Cases of Skin Disease.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		FEBRUARY.
11	Tues.	City Division, Manchester Hotel, Aldersgate Street, E.C., 9.30 p.m.
		London: Metropolitan Counties Branch Council, 4 p.m.
		South-West Essex Division, Whipps Cross Infirmary, 4 p.m.
13	Thur.	Birmingham Branch, Medical Institute, 3.30 p.m.
14	Fri.	Hampstead Division, Finchley Road, 8.15 p.m.
19	Wed.	Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
21	Fri.	Newcastle-on-Tyne Division, Scientific Demonstration, Royal Victoria Infirmary.
28	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		MARCH.
5	Wed.	London: Finance Committee, Special Meeting.
11	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
13	Thur.	Birmingham Branch, Medical Institute, 3.30 p.m.
		South-West Essex Division, Leyton, 4 p.m.
14	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
		Newcastle-on-Tyne Division, Scientific Demonstration.
19	Wed.	Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
28	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		APRIL.
8	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
11	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
		South-West Essex Division, Brook House, Clapton, 9.30 p.m.
23	Wed.	Richmond Division, Richmond, 8.30 p.m.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, FEBRUARY 15TH, 1913.

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PROCEEDINGS OF COUNCIL.

(Continued from p. 139.)

THE LATE CHAIRMAN OF THE CENTRAL ETHICAL COMMITTEE.

THE Council considered certain communications brought before it with reference to the action of the late Chairman of the Central Ethical Committee (Dr. Lauriston Shaw) in taking the chair at a meeting of medical practitioners at the Holborn Restaurant on December 13th, 1912.

After discussion the Council adopted the following resolution *nemine contradicente*:

> That the Council of the British Medical Association places on record its deep condemnation of the action of the Chairman of the Central Ethical Committee of the British Medical Association in taking the chair at the meeting at the Holborn Restaurant on December 13th, 1912, and thus associating himself with a pamphlet which suggested that practitioners were at that time free to break their pledged word to the British Medical Association.

[The above resolution was transmitted to Dr. Lauriston Shaw, from whom the following letter has been received:

64, Harley Street, W.,
February 3rd, 1913.

Dear Sir,

I have to acknowledge the receipt of your letter of January 31st, quoting a resolution passed by the Council of the British Medical Association of January 29th concerning certain action taken by me on December 13th last.

I shall be obliged if you will convey to the Council my observations thereon as follows:

In as far as the resolution may be intended to criticize my action as a member of the Council, I would draw the attention of the Council to the fact that a Councillor in his official capacity is responsible to his constituents alone. On December 23rd my then constituents, the Representatives of the Association in Representative Meeting assembled, asked for and received from me an explanation of the action which the Council now criticizes, and, having received my explanation, passed to the next business.

In as far as the resolution might be construed as criticizing my conduct as a member of the profession or the Association, it can hardly have escaped the Council that there is a form of procedure laid down by the Association for the orderly investigation of all cases in which such conduct is challenged, and that the Council has a definite duty and responsibility in connexion therewith, which the resolution it has now passed would preclude it from exercising in this matter.

In the absence of any authoritative ruling, properly arrived at, upon my action, I must remain the judge of my own conduct in this matter, and I have no doubt that I acted rightly and in the best interests of the profession and of the Association.

If the Council has any intention of publishing the resolution—an action for which it must take entire responsibility and be prepared to defend—I would ask that this my answer be published in close contiguity.

I am,
Yours faithfully,
LAURISTON E. SHAW.

Guy Elliston, Esq.,
Secretary to the Council,
British Medical Association,
429, Strand, W.C.]

Arising out of one of the communications referred to above regarding the officers of the Medical Sociology Section a resolution was also passed *nemine contradicente*.

SCOTTISH COMMITTEE.

The report of the Scottish Committee stated that, owing to the resignation of Dr. Michael Dewar, Dr. J. R. Hamilton, of Hawick, had been appointed Chairman, and the Committee had placed on record and expressed to Dr. Dewar its deep sense of indebtedness to him for the many services

rendered by him on behalf of the profession in his capacity as Chairman. It was also reported that Dr. J. Grant Andrew, having resigned his membership of the Council, had ceased to be a member of the Committee.

The Committee stated that it had received reports from its members regarding the number of practitioners in various parts of Scotland who would probably join the panels.

The report was received and adopted.

IRISH COMMITTEE.

The quarterly report, which was presented by Dr. R. J. JOHNSTONE, stated that he had been reappointed Chairman for the year, Professor A. H. White had been reappointed Honorary Secretary, and the Committee had co-opted Drs. J. Power, Denis Walshe, and H. T. A. Warnock to be members.

Dr. JOHNSTONE said that last year the Council had made a grant of £100 to the Committee on condition that the Irish Medical Association gave £50, and that in the preceding year the grant had been £200 on condition that the Irish Medical Association gave £100. In that year only £100 of the £200 voted had been claimed. The Joint Committee in Ireland had practically exercised the same functions in Ireland as the State Sickness Insurance Committee in Great Britain. The question of medical benefit for Ireland had been remitted by the Government to a special committee, and there was reason to fear that an attempt might be made to pay a lower rate of remuneration to the medical profession in Ireland than in Great Britain. The position was extremely grave, and the Joint Committee in Ireland must be in a position to deal with it. The understanding was that if the Association made a grant of £200 for the year the Irish Medical Association would grant £100.

Dr. DARLING, in supporting the proposal, said that the fight in Ireland was beginning, and the work must be done through the Joint Committee.

After some further discussion, during which the CHAIRMAN OF THE ORGANIZATION COMMITTEE said that a record of the manner in which the money was disbursed should be supplied, the Council accepted the recommendation of the Irish Committee that a grant of £200 should be made towards the expenses of the Joint Committee from the Central Insurance Defence Fund on condition that the Irish Medical Association granted not less than £100.

ORGANIZATION COMMITTEE.

The quarterly report of the Organization Committee, presented by the CHAIRMAN (Mr. F. C. Larkin), stated that the Committee had co-opted Mr. R. E. Crosse, Honorary Secretary of the Metropolitan Counties Branch, to assist in the consideration of matters affecting London.

Formation of Constituencies.

The Committee recommended that separate representation be accorded to the Birmingham Central, Kingston-on-Thames, Richmond, Scarborough, and York Divisions in Representative Meetings for the year 1913–14; and that the Walsall Division be grouped with the West Bromwich Division for representation in Representative Meetings for that year. This was agreed to.

Shorter Period for Calling Special Representative Meetings.

The next recommendation of the Committee referred to By-law 36, which prescribes, *inter alia*, that at least fourteen days' notice of a Special Representative Meeting shall be given in the JOURNAL. The Maidstone Division had proposed at the Annual Representative Meeting, 1912, to add the words, "in the case of urgency the period of notice may be shortened at the discretion of the Council." The Organization Committee had considered the matter, and recommended the Council to report as follows to the Representative Meeting:

That it might be possible to shorten the period of notice now required for the calling of a Special Representative Meeting by giving ten instead of fourteen days' notice in the JOURNAL; the meeting could then be held in the middle of the second week after the notice was issued. But as the shortening of the period of the notice would entail a special meeting of the Council, and having regard to the manifold arrangements that must be made, and all the other circumstances, the Council is extremely doubtful if it would be found to be practicable, and therefore thinks it inadvisable to attempt the change.

At the suggestion of the CHAIRMAN OF COUNCIL, who recalled the fact that the question of increased rapidity of action had been referred to the Organization Committee, this recommendation was referred back to the Committee.

Officers of Divisions.

Mr. LARKIN reported that the Committee had considered certain amendments of rules submitted by the Isle of Thanet Division, and had reserved for the consideration of the Council a proposal that the Secretary of the Division should be elected annually at the annual meeting of the Division, but that the Chairman should be elected for one meeting only, and should be so elected at the previous meeting or by the Executive Committee. The Organization Committee had been informed by the Honorary Secretary that the Division had found it advantageous to be able to change its chairman for different meetings; in this way almost every member of the Division had been in the chair at one time or another, and interest was stimulated. Mr. Larkin said that he considered that the arrangements contained in the model rules under which the Chairman was elected annually, so that a Division had at least two standing officers, the Chairman and the Secretary, was more satisfactory. The Council resolved to inform the Isle of Thanet Division that it could not approve the rule proposed by the Division.

Resignations.

The Committee reported that from October 15th, 1912, to January 11th, 1913, resignations had been tendered by 638 members of the Association, as against 405 for the corresponding period of last year. In view of certain misleading statements in the lay press, the Committee had authorized the Financial Secretary and Business Manager to publish these figures in the newspapers.

Conference of Secretaries.

In accordance with the instructions of the Council of November 13th, 1912, nominations to a "Conference of Secretaries Subcommittee" to assist the Chairman had been invited from the committee appointed by the Conference of Secretaries at Liverpool. The Organization Committee had appointed a subcommittee to consist of the Chairman, Mr. Russell Coombe, Dr. A. H. Williams, members of the Organization Committee, with Mr. W. J. Greer, Dr. T. Barrett Heggs, and Mr. P. C. Raiment, nominated by the Conference of Secretaries.

Approval of Rules.

It was reported that rules submitted by the Dartford, Lambeth, and Lewisham Divisions, and alterations to existing rules by the Glasgow Southern and Newcastle-on-Tyne Divisions and the Isle of Thanet Division (with the exception mentioned above) had been approved by the Organization Committee during the quarter, and the action of the Committee was endorsed by the Council.

JOURNAL COMMITTEE.

Dr. BEATON, a member of the Journal Committee, presented the quarterly report and also a supplementary report.

The report contained a statement that Dr. Buist had reported to the meeting of the Committee on January 10th that he and Dr. Lauriston Shaw had resigned their seats on the Council, and that Dr. Biggs, having been elected Chairman of the Central Ethical Committee, was in attendance in the place of Dr. Shaw. The question of the appointment of Chairman was considered, and Dr. Buist pointed out that under the regulations the Chairman of a Standing Committee must be a member of the Council. The Committee decided to defer the question of appointing a chairman, and asked Dr. Buist to act as chairman of that meeting. The supplementary report stated that Dr. Buist had resigned his seat on the Journal Committee, but the further consideration of the position thus created was deferred, as there was a recommendation from the Central Ethical Committee on the general subject.

Editor's Report.

The Editor's quarterly report to the Committee stated that the publication of the full proceedings of the Sections

at the Annual Meeting at Liverpool, which occupied 542 pages of the JOURNAL, was completed in the issue of November 23rd, 1912.

The Editor's report contained the following table showing the number of pages in the JOURNAL and EPITOME and the SUPPLEMENT, excluding advertisements, for the past five years:

Year.	Pages in JOURNAL and EPITOME.		Pages in SUPPLEMENT.		Total.	Weekly Average of Total.
		Weekly Average.		Weekly Average.		
1908	2724	71	828	16	4552	87.5
1909	3604	69	828	16	4432	85.5
*1910	3836	72	928	18	4764	89.9
1911	3404	65	1232	24	4636	89.15
1912	3484	67	1552	30	5036	96.85

* Fifty-three weeks.

Weekly average for the five years: JOURNAL and EPITOME, 69 (68.8); SUPPLEMENT, 21 (20.8).

Proprietary Medicines.

The report contained a reference to a memorandum by the Medical Secretary on the questions which had been addressed to him when he gave evidence on behalf of the Association before the Select Committee at the House of Commons on Patent and Proprietary Medicines. Notes upon the subject by the Financial Secretary and Business Manager and by the Editor, the latter containing an abstract of the arrangements of the American Medical Association, had been considered by the Committee.

In reply to Dr. HASLIP, the MEDICAL SECRETARY stated that the Medico-Political Committee had appointed a special subcommittee, which interviewed the witnesses who were to appear for the Association before the Committee, and the evidence to be led was discussed. Various points, however, had arisen in examination which had not been discussed beforehand and had to be dealt with at the time. The report of the Committee, which was then approved, contained recommendations to the following effect:

1. That the general principles already in force regarding the control of advertisements be not modified at present.
2. That when any new advertisement is tendered the advertiser be asked to supply a sample of the preparation *as supplied to the public*.
3. That the acceptance of the renewal of the advertisement of certain preparations specified should in future be conditional upon the advertisement being withdrawn from the lay press.

CENTRAL ETHICAL COMMITTEE.

Dr. M. G. BIGGS, in presenting the report, stated that in consequence of the resignation of Dr. Lauriston Shaw the Committee had elected him as its chairman.

The Committee reported that it had been notified of the resignations from the Council of Drs. A. C. Farquharson, E. J. Maclean, and Lauriston E. Shaw, members of the Central Ethical Committee, but had received no formal notice from these gentlemen of their resignations as members of the Central Ethical Committee, and therefore desired the Council to consider whether a member of the Council, who was also a member of the Committee appointed by the Council or by the Representative Body, when resigning his membership of the Council *ipso facto* ceased to be a member of such Committee. The point did not appear to have arisen before, and was not provided for in the articles or by-laws. Dr. Biggs pointed out that the Council had occasionally appointed a member who was not on the Council to be a member of a committee, and that the Representative Meeting constantly did so.

Mr. TODD raised the point of a member of the Committee elected by the Representative Body, and contended that if he resigned as member of that body he ceased to be a member of the Committee also, and proposed that the Council should make a pronouncement to this effect.

The CHAIRMAN OF COUNCIL said that this would be out of order, and the Council adopted the following resolution:

That the Council is of opinion that a member of Council who is also a member of a Committee appointed by the Council, when resigning his membership of the Council *ipso facto* ceases to be a member of such Committee.

Warning Notices.

At the Annual Representative Meeting, 1912, it was decided that, with rare exceptions, warning notices should not be inserted for Divisions which had not adopted Rule Z; and, further, that where a case seemed to demand action in spite of this deficiency—as, for example, when some appointment was offered in opposition to the declared policy of the Association—a warning notice should only be issued on the instruction of the Chairman of the Ethical Committee after he had assured himself that the dispute would be conducted vigorously, and that the Division understood its responsibilities, and was prepared to take disciplinary measures against offenders. To this a rider was adopted to the effect that save in cases which only concerned a single Division no warning notice should be inserted except in accordance with the decision of the Association under Article 31, which is the article prescribing the manner in which a decision of the Association is to be reached after certain formalities.

The rider was referred to the Council for consideration, and by the Council to the Central Ethical Committee, which now reported that it would be inadvisable to adopt the suggestion in the rider, inasmuch as it was impossible at the commencement of a dispute to determine whether it would concern one particular Division only. The Council resolved to advise the Representative Body accordingly.

Model Ethical Rules.

When the model ethical rules, that is to say, the rules of procedure in ethical cases, submitted by the Council, were considered by the Annual Representative Meeting on July 23rd, 1912, a number of amendments were moved on behalf of the Brighton Division; some of these, not immediately dealt with, were referred to the Central Ethical Committee for consideration. The Committee now advised the Council that there would be no advantage in making the amendments suggested, and that until experience had shown that the rules now in operation were unsatisfactory, no change could be made. The Council accepted this recommendation.

ELECTION OF CANDIDATES.

The eight candidates whose names appeared on the notice convening the meeting were elected members of the British Medical Association.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

ON Thursday, February 6th, a meeting of the State Sickness Insurance Committee appointed by the Special Representative Meeting in November, 1912, was held at the house of the Association, 429, Strand. Dr. J. A. MACDONALD was in the chair, and the other members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. E. Rowland Fothergill (Brighton), Miss Frances Ivens, M.S. (Liverpool), Dr. Constance E. Long (London), Mr. Herbert Jones (Hereford), Mr. D. F. Todd (Sunderland), Mr. E. B. Turner (London). *Scotland:* Dr. J. Adams (Glasgow), Dr. R. McKenzie Johnston (Edinburgh). *Ex officio:* The President (Sir James Barr) and Mr. T. Jenner Verrall (Chairman of Representative Meetings).

APOLOGIES FOR ABSENCE.

Apologies for absence were read from the Treasurer (Dr. Rayner), Dr. T. H. Carter (Bristol), Dr. D. G. Thomson (Norwich), Dr. J. S. Darling (Lurgan), Mr. T. B. Costello (Tuam), and Dr. E. O. Price (Bangor).

NOMINATIONS TO THE COMMITTEE.

The CHAIRMAN OF REPRESENTATIVE MEETINGS reported that, after considering the recent voting by the Representatives of the groups concerned, he had appointed Dr. E. R. Fothergill a member of the Committee in the place of Mr. Willock, and that Dr. E. O. Price had been reappointed.

Medical Benefit in Ireland.

Attention was drawn to the appointment of a Treasury Committee to consider the advisability of extending the provisions of the National Insurance Act, 1911, with respect to medical benefit to Ireland. The Chairman pointed out that in the past matters connected with the administration of medical benefit in Ireland had been left in the hands of the Joint Committee of the Irish Committee of the British Medical Association and the Irish Medical Association, and the State Sickness Insurance Committee resolved to ask the Joint Committee what action it proposed to take in the matter.

Contract Attendance upon Uninsured Persons.

The Committee considered the resolution on this subject adopted by the Council on January 29th (Supplement, February 8th, p. 131), and resolved to formulate points to be included in any scheme for the treatment of uninsured persons before such a scheme could be approved by the Committee, and adopted the following general principles :

1. That in general, in considering the necessity for obtaining the approval of the State Sickness Insurance Committee for schemes for the treatment of uninsured persons upon contract terms, the following principles and conditions must be adhered to :

   (*a*) Free choice of doctor by patient and of patient by doctor.

   (*b*) Remuneration to be not less than that paid in respect of insured persons—that is, 9s. per annum, including medicines.

   (*c*) Persons earning over £160 not to be treated under contract terms at all.

   (*d*) Juveniles (under 16) to be treated at special rates.

2. That the Committee realizes that the conditions in certain areas will not allow of the above terms being obtained; and that in these circumstances the approval of the State Sickness Insurance Committee of a scheme involving a less payment may be given provisionally when the local profession can show that the economic conditions in the area demand it.

3. That one of the conditions necessary for the approval of schemes containing lower rates of payment shall be the inclusion in a prominent position amongst the rules of a statement that approval by the Association has been given to the rates only because of special economic conditions.

Compensation.

The Medical Secretary presented a report on applications for compensation from the Central Insurance Defence Fund, and the Committee resolved to make grants in three cases, and authorized the Chairman in any other cases demanding immediate action to act on behalf of the Committee, the Solicitor to the Association to be consulted in the settlement of the agreement in each case.

Future Action.

The Committee considered the terms of the letter to members of the profession asking for information with regard to their experience of the working of the medical benefit under the Insurance Act, drafted in accordance with Minutes 48 and 52 of the Special Representative Meeting (Supplement, February 8th, p. 132), and resolved that it should be issued as soon as possible to every member of the profession in Great Britain. It was further resolved to issue a letter to honorary secretaries of Divisions pointing out that the future policy of the Association would depend largely upon the information obtained from the answers to the questions attached to the above-mentioned letter, and asking them to use the machinery of the Divisions to its fullest extent in order to secure answers from every practitioner in the area, especially from those on the panel.

Proposed Sickness, Accident, and Pension Fund.

Dr. Carter having stated that he would be unable to accept appointment upon the special Subcommittee on a proposed Sickness, Accident, and Pension Fund, Dr. Fothergill was appointed in his place, and it was arranged that a meeting of the Subcommittee would be held this week. This Subcommittee was also instructed to consider and report generally upon the administration and present position of the Central Insurance Defence Fund.

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1913.

DATE OF MEETING.

The Annual Representative Meeting of the Association, 1913, will be held at Brighton on Friday, July 18th, 1913, and following days, as may be required.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

Attention is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting at Brighton in July next, relating to questions affecting the honour and interests of the medical profession or of the Association (By-law 37), must be published in the British Medical Journal not later than the issue of April 19th, and for this purpose should be received by me not later than April 12th, 1913. Notices of Motion proposing to make any addition to, or any amendment, alteration or repeal of any Regulation or By-law, or to make any new Regulation or By-law (Article 31), must be published in the Journal not later than the issue of May 17th, and received by me not later than May 10th, 1913.

By Order,

Alfred Cox,
Medical Secretary.

February 4th, 1913.

ELECTION TO COUNCIL, 1912-13.

A contest was necessary in the two following grouped Branches: Cambridge and Huntingdon, East Anglian and South Midland Branches; and Glasgow and West of Scotland (four County Divisions), Border Counties, and Stirling Branches. As a result, Dr. Boston Elphinstone Fordyce, of Cambridge, is elected for the former, and Dr. James Livingstone Loudon, of Hamilton, N.B., is re-elected for the latter.

Guy Elliston,
Financial Secretary and Business Manager.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Metropolitan Counties Branch: East Hertfordshire Division.—A meeting of this Division will be held at 3 p.m., on Wednesday, February 19th, 1913, at the Shire Hall, Hertford, when Dr. Hyslop Thomson, the County Tuberculosis Officer, will give an address on "The Problem of Tuberculosis, and the proposed plan of campaign in the County of Hertford." After the address Dr. Thomson will be pleased to answer questions, and a short discussion will follow. All medical practitioners resident in the area of the Division are invited to be present.—H. D. Ledward, Honorary Secretary, 123, Norton Way, Letchworth.

North of England Branch: Newcastle-on-Tyne Division.—The next scientific demonstration will be held at the Royal Victoria Infirmary on Friday, February 21st, 1913. Mr. F. C. Pybus: The Treatment of Tuberculous Glands of the Neck. Professor T. Beattie: Treatment of Pulmonary Tuberculosis. Dr. W. E. Hume: Some Points in the Diagnosis of Early Phthisis. Dr. George Hall: Cervical Ribs and their Results. Mr. R. J. Willan: Diagnosis and Treatment of Malignant Tumours of the Prostate Gland. The demonstration arranged by the Newcastle-on-Tyne Division of the British Medical Association for March 21st will take place on March 14th, when Professor R. A. Bolam will lecture on Medico-legal Tests for Blood, in place of Dr. Arnison's paper on Local Treatment of Rheumatic Arthritis, as Dr. Arnison took Professor Bolam's place at the January meeting.—R. J. Willan, Honorary Secretary, Newcastle-on-Tyne.

South-Eastern Branch: Isle of Thanet Division.—The next meeting of this Division will be held at the Royal Seabathing Hospital, Margate, on Friday, February 21st, 1913, at 3.45 p.m., Dr. Nichol in the chair. Tea will be served during the meeting. All medical practitioners in Thanet are invited to this meeting. Agenda: (1) Correspondence. (2) To arrange for the election of representative Medical Committees for the Ramsgate and Margate areas in relation to the National Insurance Act. (3) Any other business. The Public Medical Service

is meeting at the same time to make certain alterations in its rules. — HUGH M. RAVEN, Honorary Divisional Secretary, Broadstairs.

STAFFORDSHIRE BRANCH.—The Second General Meeting of the Session will be held at the Swan Hotel, Stafford, on Thursday, February 27th, 1913. The President, E. C. Stack, Esq., F.R.C.S.I., will take the chair at 5.15 p.m. Business: (1) Minutes of the last Ordinary General Meeting. (2) Correspondence. (3) Exhibition of Living Cases. (4) Papers: (i) "Mouth-breathing and Deafness," John Priestley; (ii) "Notes and Remarks on three Pathological Specimens removed by Abdominal Section," F. N. Cookson. (5) Exhibition of Pathological Specimens, etc. Dinner, 7 p.m.; charge, 5s.—HAROLD HARTLEY, Honorary General Secretary, Basford, Stoke-on-Trent.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

EAST ANGLIAN BRANCH:

WEST SUFFOLK DIVISION.

THE West Suffolk Division met in the Angel Hotel, Bury St. Edmunds, on February 7th.

Local Medical Committee.—The Local Medical Committee was constituted as follows: The office-bearers of the Division, Drs. Wood, Hinnell and Caie, and Drs. Batt, Mavor, Boswell, Wilkin, Ritchie, Trotter, and Everett.

County Insurance Committee.—The Secretary (Dr. Caie) was nominated for election by the county council to serve on the County Insurance Committee. Drs. Wood and Batt were nominated to represent the medical profession in the area of the County Insurance Committee.

METROPOLITAN COUNTIES BRANCH:

CAMBERWELL DIVISION.

London Insurance Committee.—The Executive Committee of the Camberwell Division met on Thursday, February 6th, 1913, and decided to nominate Mr. E. B. Turner and Mr. Evan Jones for service on the Insurance Committee of the County of London.

BORDER BRANCH, SOUTH AFRICA.

THE annual meeting of this Branch was held at East London, in the East London Club, on January 17th, at 8 p.m. Owing to the absence in England of the president for the year (Dr. K. B. Alexander), Dr. W. DUNCAN MILLER of Fort Beaufort was unanimously voted to act as chairman of the meeting. The members present were Drs. Miller, Cassidy, Grey, Ganteaume, Lownds, Roulston, Skinner, Wemble, and Anderson (Acting Secretary).

The "Transvaal Medical Journal."—Voting papers were received through the post to decide whether the Branch would contract for the *Transvaal Medical Journal* during 1913 were handed in, and after examination resulted in 14 for and 25 against the proposal. The large number of country members who failed to vote was commented on, and it was stated that most of the East London members were in favour of the proposal, but abstained from voting as they did not wish to force the hands of the country members in the matter. The following notice, proposed by Dr. LOWNDS and seconded by Dr. GANTEAUME, was, after discussion, carried unanimously:

> That the matter of the *Transvaal Medical Journal* being adopted as an official organ of the Branch do stand over for six months.

Dr. BARCROFT ANDERSON proposed and Dr. ROULSTON seconded:

> That this meeting of the Border Branch is in favour of the principle of having a medical journal subject to the absolute control of the members of the British Medical Association in South Africa (preferably by means of a weekly supplemental inset in the BRITISH MEDICAL JOURNAL), and that the other Branches be asked for their co-operation.

Dr. GANTEAUME objected to the part of the motion inserted here in brackets, and after discussion the motion with this part omitted was carried unanimously. The CHAIRMAN, as a country member, expressed the opinion that the country members who voted against the adoption of the *Transvaal Medical Journal* did so from lack of sufficient explanations having been given in its favour.

Election of Officers. — The following officers were elected: *President*, Dr. Miller of Fort Beaufort; *Secretary and Treasurer*, Dr. Tremble, R.M.O., Frere Hospital, East London; *Members of Branch Council*, Drs. Caiger, Knapp, Miller, Nicols, Paisley, Welsh, Anderson, Ganteaume, Grey, Lownds, Nangle, Skinner. *Representative on Central Council*, Dr. Greenlees.

Delegate to the Annual Meeting, Brighton. — The Branch Council was authorized to appoint a delegate to the Annual Meeting at Brighton.

Formation of Orange Free State Branch.—A letter from the Medical Secretary of the Association was read as to the formation of an Orange Free State Branch. After discussion it was agreed:

> That the Border Branch is strongly in favour of the formation of an Orange Free State Branch, and recommends that no member of the Border Branch be transferred to the proposed new Branch without such member's consent.

South African Committee. — Drs. Gantcaume and Anderson were elected members of the South African Committee.

Grants to Divisions.—It was agreed that the Branch Council be authorized to deal on a *pro rata* basis with any sums available for distribution to the Divisions.

HONG KONG AND CHINA BRANCH.

THE annual general meeting of the Hong Kong and China Branch of the British Medical Association was held at the Board Room of the Sanitary Department on November 14th, 1912; Dr. C. FORSYTH, President, was in the chair, and the other members present were: Dr. Sanders (Vice-President), Dr. Marriott (Honorary Secretary and Treasurer), Fleet Surgeon E. G. E. O'Leary, R.N., Major Fleury, R.A.M.C., Dr. F. Clark (members of Council); Lieutenant-Colonel A. C. Youman, I.M.S., Lieutenant E. C. Lambkin, R.A.M.C., Surgeon L. Hunt, R.N.; Dr. G. M. Harston, Lieutenant J. B. Tackaberry, I.M.S., Dr. Dalmahoy Allan, Dr. E. Martyn Lobb, Dr. F. Lindsay Woods, Deputy Surgeon-General D. T. Hoskyn, R.N., Lieutenant-Colonel J. M. Irwin, P.M.O. The minutes of the last meeting were read and confirmed.

Annual Report.—The annual report of the Branch Council, and the annual statement of accounts as agreed to by the Council, was read and adopted.

Election of President and Officers.—Colonel Irwin was elected President, and Dr. Marriott was re-elected Honorary Secretary and Treasurer, and the following members were elected to form the Council: Fleet Surgeon E. G. E. O'Leary, R.N., representing navy; Major Fleury, R.A.M.C., representing military members; Dr. W. B. A. Moore, representing Colonial Medical Service; Dr. G. M. Harston and Dr. F. Gröne, representing private practitioners.

Proposed Alteration of Rules.—The HONORARY SECRETARY read the proposed alterations to Rules 9 and 10 of the Branch, which had been printed and circulated to members, and stated the reasons for suggested alterations. The first section of No. 9 was, he said, now unnecessary, as the change in subscription was nearly ten years old. The alteration and addition to Rule 10 was required on account of applications for election to membership of Association from locally qualified practitioners, and was necessary to define their status, and also the privileges of such members, if elected, with regard to the library. The proposed alterations were moved by Dr. FORSYTH, seconded by Dr. MARRIOTT, and carried *nemine contradicente*.

Suggested Rules for Library.—The HONORARY SECRETARY read and explained the necessity for the suggested rules, which had been printed and circulated to members. A discussion took place on Rules 4 and 5. Drs. SANDERS and DALMAHOY ALLAN suggested that only one book be allowed out to each member at one time, and that the book should be returned within fourteen days. Dr. MARRIOTT said that experience showed that members had hitherto found it desirable to keep books out, on the

average, longer than one month. Dr. Sanders suggested that as several books had been reported as taken out without due entry, the clerk present in the library should be made responsible for having correct entry made of books borrowed and in return should be paid a salary for such duty. Dr. Clark suggested that it might be possible to move the library to more suitable quarters, where the books would be better looked after and where it would be possible to study them without taking the purely reference works out of the library. He suggested that the head of the Sanitary Department might be approached for permission to house the library in the board room. The other rules being agreed to, it was decided to hold the matter over for further consideration.

Vote of Thanks to Retiring President.—A vote of thanks to Dr. Forsyth for acting as President during the past twelve months was proposed by Dr. Marriott, seconded by Dr. Sanders, and agreed to unanimously. Dr. Forsyth replied, and, vacating the chair, asked Colonel Irwin to take the chair as President.

President's Address.—Colonel Irwin, after thanking the Branch for the honour conferred on him, remarked that he was probably the oldest member of the Association present, having been a member for thirty-one years, and gave a retrospect of his experiences. Starting with a description of the life and surroundings of medical students in the early Seventies as he knew them at Trinity College, Dublin, he compared them with the conditions prevailing at present. He referred to the great change that had taken place in the hospitals and their administration since his student days, and alluded to the condition of the nursing staff in earlier years, and to the rivalry between surgeons on the introduction of antiseptic treatment. He then compared the condition of the military medical service thirty-one years ago and at the present time, and dwelt on the necessity for military rank, title, and power for efficiency of service. Colonel Irwin also referred to the great advantage to the service from having adopted a properly qualified body of Nursing Sisters. On the motion of Dr. Marriott, a vote of thanks to Colonel Irwin was adopted.

Surgical Shock.—Dr. E. L. Martyn Lobb read a paper on surgical shock, setting himself first to define the condition of shock, how it arose, and what means could be taken to prevent and overcome it. Referring members to the recent Arris and Gale lectures by Tyrrell Gray and Leonard Parsons, he quoted their "law of inverse immunity," and discussed relative shock values of various tissues and the shock indices of various operations, and the conclusion that in every operation there must be a certain amount of shock present. Though shock was generally accompanied by low blood pressure, this was not, he said, always the case; he mentioned one case in which shock was at its highest when the blood pressure was also at its highest. Dr. Lobb also drew attention to the fact that in the first week of life the infant was practically free from effects of shock, and that this fact had been made use of in freely operating on such infants for malformations, such as cleft palate, during the first week, with great success. He also compared the male and female sex at various ages in their capacity for bearing shock, and discussed the effect of climate, altitude, and of difference in race of human beings. The various means available for avoiding or minimizing shock were next considered, such as careful anaesthesia, saline infusion, careful preparation of the patient preparatory to operation, methods available for raising blood pressure, and also the effect of morphine. The effect of brandy, adrenalin, pituitary extract, and ergot, also its preparations such as ernutin, and lastly strychnine, were discussed, and the uselessness or even danger of such in cases of extreme shock were insisted on. Colonel Irwin, in thanking Dr. Lobb for his valuable paper, mentioned his own experiences of shock from bullet wounds in South Africa. Lieutenant Tackaberry referred to its effect on different races of natives, and to the effect of saline infusion of ether. Dr. Delmahoy Allan referred to the condition of blood pressure in shock. Dr. Harston mentioned a case of death from shock after a gall stone had passed into the duodenum. Dr. Lobb replied. The President announced that the meetings would be held on the second Thursday of each month (December 12th, January 9th, February 13th, March 13th, and possibly April 10th).

THE LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

The following books were added to the Library between July and September, 1912:

First List.

Presented by the Authors.

Bond, C. J., and others: The Great State. 1912
Herringham, W. P.: Kidney Diseases. 1912
Porcher: Le lait desséché. 1912

Presented by Sir James Barr, LL.D., M.D.

Twenty-one volumes of the Liverpool Medico-Chirurgical Journal. 1888-1908

Presented by Lady Butlin.

Butlin, the late Sir Henry: Lectures on Unicellula Cancri. 1912

Presented by E. Harry Fenwick, Esq., F.R.C.S.

Deuxième Congrès de l'Association Française d'Urologie, procès verbaux, rapports et discussions. 1912

Presented by the Rev. G. R. J. Fletcher, M.R.C.S.

Harvey, William: Anatomical Exercitations Concerning the Generation of Living Creatures, to which are added Particular Discourses of Births and of Conceptions (with portrait). 1653

Presented by Dr. H. Hearsey, Nyasaland.

Nyasaland Sleeping Sickness Diaries, Nos. 1-16. 1910-1912

Presented by the Medical Officer of the Local Government Board.

Dr. Rees's Report on Mallwyd Urban District. 1912
Dr. Wheaton's Report on Enteric at Barnstaple. 1912

Presented by Dr. Norman Porritt, Hatch End.

The Phonographic Record. 1900 1911

Presented by Miss Charlewood Turner.

British Medical Journal. 1890-1899
Clinical Society of London, Transactions. 1882-1899
Guy's Hospital Gazette. 1894-1897
Guy's Hospital Reports. 1836-1896
Hunterian Society Reports. 1890-1897
International Medical Congress, Transactions. 1881
Journal of Pathology and Bacteriology. 1893-1898
Pathological Society Transactions. 1864-1899
Royal Medical and Chirurgical Society Transactions. 1874-1897

Presented by the Editor of the "British Medical Journal."

Abel, K.: Vorlesungen über Frauenkrankheiten. 1912
Anderson, S.: Hints to Dressers. 1910
Barié, E.: Traité pratique des maladies du coeur. 1912
Barnard, J. E.: Practical Photomicrography. 1911
Barnett, K. B.: Handbook on Military Sanitation. 1912
Battle, W. H.: Clinical Lectures on the Acute Abdomen. 1911
Baxter, C. P.: Hospital Service Book. No date
Bellevue Hospital Nomenclature of Diseases and Conditions 1911
Bingham, S.: Words to Wives on Pregnancy and Parturition. 1912
Bloch: Sexual Life of our Time. 1908
Bosanquet, W. C.: Spirochaetes. 1911
Browning and Mackenzie: Recent Methods in the Diagnosis and Treatment of Syphilis. 1911
Chapin and Pisek: Diseases of Infants and Children. 1912
Chassevant, A.: Hydrologie elémentaire a l'usage des médecines. 1912
Clarke, Jackson: The Cause of Cancer. 1912
Coleman and Hilliard: Anaesthetics in Dental Surgery. 1912
Colyer and Colyer: Dental Disease and its Relation to General Medicine. 1911
Collins J.: The Way with the Nerves. 1911
Costain, A. J.: The Life of Dr. Arthur Jackson. 1911
Cowen and Ruston: Smoke, a Study of Town Air.
Crispin, E. S.: Prevention and Treatment of Disease in the Tropics. 1912
Daniel, H. C.: Science and Empiricism. 1908
Daunreuther, W. T.: Minor and Emergency Surgery. 1911
Dorland: Illustrated Medical Dictionary, sixth edition. 1911
Eder, M.: The Endowment of Motherhood. 1908
Ehrlich-Hata: Experimental Chemotherapy of Spirilloses. 1911
Ehrlich and MacDonagh: 606 in Theory and Practice. 1911
Elliott, H. S. R.: Modern Science and the Illusions of Professor Bergson. 1912
Fernie, W. T.: Precious Stones for Curative Wear and Other Remedial Uses. 1907
Forel: The Sexual Question. Translated by C. F. Marshall. 1908
French, H.: An Index of Differential Diagnosis of Main Symptoms. 1912
Gastou, P.: L'ultra-microscope. 1910
Gilford, H.: Disorders of Post-Natal Growth and Development. 1911
Graucher, Comby: Traité des maladies de l'enfance. 1904
Heller: Die Vergleichende Pathologie der Haus. 1910
Johnson, G. Lindsay, and A. W. Head: Pocket Atlas of the Fundus Oculi. 1911
Jones, R. H.: Experimental Domestic Science. 1912
Kisch: The Sexual Life of Women. 1910

National Insurance.

DEBATE ON THE INSURANCE ACT.

The House of Commons spent the whole of the sitting on Friday, February 7th, in discussing the working of the Insurance Act. The debate arose on the Supplementary Estimate for £1,825,000 for the grants in aid of national insurance, details of which were published in the Supplement of last week (p. 136). At the outset the objection was raised that the proposal was irregular, as the vote was for money to be expended in the next financial year. A motion to reduce the vote by £500 was negatived on a division by 206 to 50, but the constitutional point has not been settled, and the Prime Minister has since acknowledged that special legislation will be necessary next session.

The general debate was opened by Mr. Booth (Pontefract), who estimated that 6,500 maternity and 36,000 sickness claims were being paid weekly, and showed the extent of his acquaintance with the facts of medical practice by saying that the medical attendance on persons not ill enough to claim sick pay "could not take a very large amount of time."

After this the debate, which lasted nearly six hours, was concerned chiefly with free choice of doctor.

Mr. Worthington-Evans said that there could be no dispute that the Insurance Act required the Insurance Commissioners to make regulations permitting Insurance Committees to allow any insured person to make private arrangements, and the Commissioners had in fact made such regulations. Administrative difficulties, however, had been put in the way of insured persons who tried to make their own arrangements, and a notice had appeared in the press of December 26th, 1912, stating that private arrangements were only possible where a panel had been formed; this had largely affected the procedure of Insurance Committees throughout the country. He contended that an Insurance Committtee which closed the panel was acting *ultra vires*. The Commissioners could supersede the panel system, and appoint a full-time medical man, but if once a panel were formed in any area other doctors could not be prevented from going upon it.

Mr. Masterman said that this was only the case if the lists were adequate; if inadequate, the Commissioners could adopt any system they pleased, including what was called closing the panel.

Mr. Worthington-Evans retorted that to allow the addition of the names of medical men to a list could not make it more inadequate. To allow imported doctors to take private practice was not in accordance with statements made by the Chancellor of the Exchequer. If the administration of medical benefit were to be successful, insured persons should be allowed freely to make their own arrangements; the ideal arrangement would be that every doctor should be working in the service of the National Insurance, and the creation of two classes of doctors, which was contrary to the interests of the doctor, would be still more contrary to the interest of the insured. The suggestion that the Government ought to consider was whether it was not possible to allow doctors to place their names on the list for limited practice, permitting them to specify that they were willing to treat either a certain class of patients or certain patients. In the case of aged and infirm members of friendly societies the Act provided that the Insurance Committee must, if asked to do so, supply medical benefit at a cost not greater than to insured persons, but in many cases they were being asked to pay several shillings a year more than they formerly paid. The arrangements of aged and sick members of friendly societies who were not insured under the Act had been disturbed by the Act, and he appealed to the Chancellor of the Exchequer to include them in the parliamentary grant of 2s. 6d. to provide them with medical benefit.

Dr. Addison, after quoting from Section 15, to show the powers given by the Act to the Insurance Commissioners to ensure an adequate service in any area where the panel was inadequate, went on to say that the truth of the statement of the Chancellor of the Exchequer that persons who made their own arrangements would have something provided for them under the Act to help them to pay their share was proved by the fact that, as was clearly stated in Regulation 49, a special fund was provided, out of which those who had made their own arrangements might draw to help them to pay the cost of the medical charges to which they had become subject. The whole intent and purpose of the agitation raised in London with regard to authorizing insured persons to make their own arrangements was to break down the Act. The draft scheme proposed to impose an income limit of £2, and it would be useless for a person who happened to have more than that weekly amount to make his own arrangements. Under the scheme persons making their own arrangements would have to pay a considerable amount for extras, which they got free under the Act. The main purpose of the agitation was, however, to obtain freedom from control. The hot-headed persons who had got the control of the agitation were acting to the detriment of their professional brethren, and, by ignoring the interests of the insured persons, had put every public authority in the country against them. The proposal really amounted to taking five million and a half, partly contributed by the Treasury and partly by the employers and the insured, and to hand it over, and say, "Make your own arrangements." This was contrary to anything that had ever been sanctioned by Parliament, and contrary to the whole intention and purpose of the Act. The Insurance Committees, therefore, were quite right in refusing to sanction these wholesale applications. The Insurance Committees, having this money in their control, were compelled, as self-respecting bodies, to see that the arrangements proposed were adequate before they consented to them. Further, to allow without careful scrutiny amalgamations of insured persons to make their own arrangements might not be in their best interests, or in the best interests of medical men. It had been stated that the Commissioners were going to send inspectors into surgeries to watch doctors examine their patients. This would not be tolerated by any self-respecting doctor or patient, and the Commissioners and their inspectors would not waste their time and energies in that way. No effort had been spared to discredit the whole medical service under the Insurance Act, and to keep medical men from going on the panel. Medical men were finding out that the amount of work they had to do was very much less than they anticipated. Some time ago he had ventured to prophesy that the basis of remuneration could be calculated on these lines—if there were 2,000 insured persons on his list, the medical man would receive an income of £750 for medical services without any deduction for drugs. From the facts at present brought to his knowledge, it appeared that eight visits and sixteen surgery attendances for six days a week were the services which the doctor would render for £750 if he had 2,000 insured persons on his list. It could not be said that that was inadequate payment. Some medical men he knew had from 2,000 to 3,000 insured persons on their lists, which was too large a number, but the fact that in certain crowded districts there was not one medical man to 5,000 of the inhabitants had brought this about. The people could not afford to maintain more, but as their means in this respect were now the same as those of the best workers there would soon be an improved service. Medical men were themselves finding that the service could be made attractive and good, and were making suggestions for the greater efficiency of the service by means of early accurate diagnosis and improved treatment. He firmly believed that the sincere efforts of the Government to make the service effective would very soon take away the bitterness of the recent strife and attract to the service the hearty co-operation of medical men from one end of the country to the other.

Sir Philip Magnus said that it was acknowledged that medical benefit under the Act could not be really successful unless the conditions were such that the doctors could throw themselves into their work with the same spirit and effect as if they were voluntarily employed. No one had been more emphatic with regard to the importance of allowing the patient free choice of his

medical man than the Chancellor of the Exchequer himself. It was the deliberate intention of the framers of the Act to allow this choice, and the card which had been issued to insured persons bore upon it the following statement:

> If you are arranging with the Insurance Committee to obtain your treatment from a doctor not on the list, and wish to claim contributions towards the cost of treatment, you must send this ticket to the Insurance Committee.

The form known as Medical Form 21 had been drawn up by the Insurance Commissioners to give this free choice of doctor. It had been printed in thousands, but had not been circulated. Every difficulty had been placed in the way of allowing persons to make their own arrangements, notwithstanding the statement on the card. He then referred to the subject of malingering, and asked the Chancellor of the Exchequer to consider the statistics of malingering in Leipzig. It was there found that 8,500 patients were reported to the confidential medical advisers to ascertain whether they were really unable to work. Of those, 1,259 did not come up for examination, 1,300 notified recovery before examination, and of the 5,800 who were examined 47 per cent. were declared able to work forthwith, 12 per cent. at the end of a week, 10 per cent. to be re-examined, and 31 per cent. declared unable to work. The very fact that under any contract system it was only to be expected that insured persons would seek assistance from the doctor more frequently than if they paid per visit meant that the amount of work thrown on the medical men would be very much greater than in the past. In his concluding observations he referred to the fact that medical men had been required to sign a form of agreement which did not specify the rate of remuneration, and that they had not received in exchange any reciprocal contract.

Mr. William O'Brien contended that the amount due to Ireland from the grant under consideration need not be devoted to medical benefit, and suggested that it should be applied to providing better housing.

Mr. H. W. Forster complained that there had been undue delay in issuing the regulations for the election of medical representatives on the Insurance Committee, and contended that their presence on the Committee was most desirable at the present moment when the arrangements were being got into order. In some parts of the country the Insurance Committees had replied to applications to make their own arrangements by a general refusal. The matter was one which should be approached from the point of view of the insured persons who had a right to decide for themselves.

Reply by Mr. Lloyd George.

Mr. Lloyd George, in opening his reply, contended that some of the difficulties which had arisen in bringing the Act into force were, in fact, due to the determination of the Government to safeguard the right of the free choice of doctor, and continued as follows:

The Act in Poor Town Districts.

One thing the Act has brought into prominence is that the poorer districts of this country are largely understaffed with doctors. Go to the well-to-do districts and suburbs, go to the districts where you have an industrial population earning good salaries, and you find a doctor for 500 or 1,000 of the population. I think you will find a doctor in Bradford for every 1,200 or 1,300. Go to the East End and you find there is one doctor for every 4,000 and 5,000, and barely that. What is happening? One result of the Insurance Act is that doctors are beginning to drift to those districts for the first time—well-qualified doctors. It is true that many of them are young men who see an opening; but why did not doctors start practising in those districts before? It was because unless you get thousands and thousands of patients you cannot make a living out of a threepenny attendance and a bottle thrown in. The medicine would cost something, and the water-rate would amount to something, and therefore that was the only way they could make a living. What happens now? The well-to-do artisan and the man who is only earning 10s. to 15s. a week are both getting the same payment from the insurance fund for their doctor. What is the result? The doctor in future, although he may dislike the neighbourhood, finds that from the point of view of payment there is no distinction between the well-to-do district and the district which is not well-to-do. The doctors are beginning to find that out. Take Finsbury alone—about a dozen doctors have already gone there and started a practice. They are good men. I am not comparing them with the men who were there before, but they are well-qualified men. That is the sort of movement that is going to take place, with the result that the poorer districts which have been neglected and thrown upon the threepenny and sixpenny doctor will in future have excellent doctors to attend to them. The hon. gentleman complains that things are not in perfect order. He gave no proof of it.

The Refusal of the Doctors.

I am not attacking the Unionist press, but there are two or three papers that have made a business out of this. They bring in every point, and they use these vague phrases, giving no case at all. But who is responsible? Up to the 21st of December the doctors did not come in. They had remained outside, and on the 21st of December, within about a fortnight or three weeks of the Act coming into operation for medical benefits, they started not an absolutely new scheme, but a scheme which they themselves rejected eighteen months before, and as to which they demanded unanimously that the House of Commons should make a statutory provision to prevent it ever coming into operation. Why should the Government be blamed for that? Is it because they projected this wild-cat scheme, at the instance of just one or two men who have led them very badly—and I think that all the doctors of the country admit that quite freely now.

That is the real reason why, if there is the slightest confusion, it exists. It is because they refused up to the last moment to accept the terms offered, and they put forward terms which they unanimously had rejected eighteen months before, and as to which they wished the Government to provide a statutory bar against their ever coming into operation. There was, he contended, no proof of overwork. The Chairman of the London Insurance Committee had stated that there were nearly 1,200 doctors already on the panels; the number of insured persons was 1,300,000; that meant about one doctor to 1,100 persons. In industrial districts a doctor attended about 5,000. One doctor attended between 3,000 and 4,000 persons—man, woman, and child—in districts like those in South Wales, in Durham, and in Northumberland. Eleven hundred persons, then, meant something like 2,500 at the outside—man, woman, and child—and that was far below the number attended by the colliery doctors in the mining districts of South Wales, Durham, and Northumberland. At any rate, it was infinitely better than the present system under which there was one doctor for every 4,000 or 5,000 poor people. He did not claim that it had been possible to establish a perfect system, but in three weeks a system had been established which must necessarily take years to perfect. Not merely a beginning, but an extremely successful beginning, had been made. As to the delay in the election of medical men on the Insurance Committees, that was the fault of the doctors. The British Medical Association had refused to supply a list of doctors in each district to represent the medical profession on the Advisory Committee and on the Insurance Committees of those districts.

Again, it was not, he said, accurate to assert that the regulations for the control of the medical profession had been prepared by laymen. Laymen were, of course, engaged in the drafting of the documents because the assistance of a lawyer was essential.

Whose fault is it, Mr. Lloyd George continued, that the medical profession did not have a share in framing these Regulations? We put representatives of the medical profession on our Advisory Committees for the purpose of settling these identical rules which are to control the medical benefits. What did they do? The representatives of the British Medical Association cleared out and withdrew every other man whom they possibly could.

Persons making their own Arrangements.

There have been a good many quotations giving many cases. I stand by them, and not only that: I have been better than my word on them. I am

not now giving the actual words, but I said that it would be possible in any district, if the insured persons did not care for the capitation system, to pool the whole of their money, and to draw upon that amount to the extent of as far as it went; and I went beyond that, and I said that the insured person would be liable for the balance. What happened in those cases? By this grant the balance has been wiped out, and we are now enabling the doctors and societies, where insured persons prefer the pooling arrangements, to enter into that arrangement on one condition: that this grant is to be paid, and not a penny piece is to be charged in respect of the balance against the insured persons. In Manchester the very arrangement I suggested in the Opera House has been carried out, and throughout the whole of the great county of Lancashire. What is the arrangement? The doctors there say, "We do not like the capitation system, and we do not care about treating people at 8s. 6d. per head, or whatever it may be, and we prefer that the 8s. 6d., or 6s. 6d., or 7s., should be put into a pool, and that each of us should attend, upon the old system, our patients, and at the end of a given period we should send in our bills, and that those bills should go as against that pool, and if it is insufficient we shall have a dividend." If it is more than sufficient in some districts they are going to make very good use of it. I am not quite sure if this is to be the case in Manchester, but I understand that in some districts where there is a balance, as they anticipate there will be, they propose to use it for the purpose of the setting up of laboratories and systems of that kind. That is the system I indicated at the Opera House, and not only have the Insurance Commissioners stood by the promise which I gave, but actually over the whole of Lancashire to-day, and I believe in several other parts of the country, that is the system which is in operation, and I say it is a very good system for those districts. I only want to point out that that system has been carried out.

The hon. gentleman asks, Why do you not allow people to make their own arrangements? Their own arrangements were never intended save in exceptional cases. The hon. member for St. Pancras speaks as though I were forcing the panel system upon insured persons. The panel system is the choice of the British Medical Association. My original idea, as hon. members will see if they read the first print of the bill, was to allow arrangements to be made between the approved societies and the doctors. That is how the bill was introduced. If that were the system at the present moment there would be no question of persons making their own arrangements. How was it altered? It was altered purely as the result of a great agitation by the British Medical Association. They said, "No, we will have nothing to do with the approved societies; we have had a wide experience of them; they are tyrannical." The hon. member for Glasgow University (Sir H. Craik), who represents, perhaps, more doctors than any other member, gave a reason of which I thoroughly approve. He said that it is only with a public authority you can get the necessary discipline and control. Those were words spoken on behalf of the medical profession. They insisted on the panel system, and now, when it does not suit them, they turn round and say, "This is an instrument of torture manufactured by the Chancellor of the Exchequer for tormenting an innocent profession." It is not my invention.

Mr. Worthington-Evans: But you are using it.

Mr. Lloyd George: Who put it into my hands? I am doing it for their own good, as they will realize by and by. They convinced me that the panel system is the best. It took weeks to do it. I had several interviews with them; I thought their reasons were sound, and I gave way. They convinced me so thoroughly that I cannot see my way to change again. What does the panel system mean? Any doctor on the *Medical Register* can go on the panel. No one can say him nay as long as he behaves. That means a free choice of doctors. There is no Act of Parliament that can compel a doctor to attend a man. I cannot compel a doctor to go on the panel. All I can do is what the medical profession asked me to do—leave an open door to the rest, without any qualification beyond those which they have won at their examinations and which they have retained. That is a free choice of doctors—a free choice of every doctor who chooses to come inside and say, "I am willing to serve." It is obviously impossible, if we set up an alternative service that involves a guarantee to anybody that comes into the district to ask for free choice of doctor. That is the fault of the profession in the district. If we had been driven to set up a national service in some of the large towns, the panel would have been closed, because that would be the only way in which our finance could be assured. The medical profession were wise; they did not give us the opportunity.

The Guarantee for Medical Attendance.

Mr. Lloyd George went on to allege that the demand for contracting out was not medical but political, and was due to the approaching London County Council elections. The movement had not come from the insured persons. It had come entirely from a certain section of the medical profession who had organized it. Probably 95 per cent. of the insured persons in London were either trade unionists, or members of friendly societies, or belonged to industrial insurance companies. There had been no demand from these bodies that represent insured persons. Insured persons could not be permitted to make their own arrangements on the scale on which it was demanded, because it would break down the Act. One advantage of the panel system was that it guaranteed medical attendance for every insured person. As to the question whether medical men could be allowed to go on the panel merely to attend a certain class of persons—so long as the panel as a whole guaranteed an efficient service for everybody, there would be no difficulty about it, and that was the advantage of the panel. To allow persons to make their own arrangements on a large scale would mean that the doctor would pick and choose his patients—the question of picked lives all over again. One doctor would say, "I will have certain people." A doctor getting 8s. 6d. would pick lives and leave the worst lives and the broken lives to the panel doctors. That would be grossly unfair, and could not be allowed. There would be no guarantee for effective medical attendance for the bulk of the population. Such a system would allow those who are in bad health, who are broken and very poor, to be attended by a section of the medical profession which may not be of the very best. Under the panel system there was real effective control to see that the doctor who was on the panel did render the services he had contracted to give.

A good many doctors, Mr. Lloyd George continued, would like to get away from that, but are we to pay the same money to the doctor who is prepared to carry out the regulations of the State, who is prepared to subject himself to State supervision, who enters into a contract which the State can enforce, and a doctor who can do as he pleases and has only got his own patients to control him?

Sir P. Magnus: You cannot enforce it in a good many cases.

Mr. Lloyd George: We can do a little more than we have done in the past in that respect. You can see that his name is not retained on the panel, and that is a very powerful sanction to carrying out medical benefit in this country. With regard to the doctors that have come on, we were assured that there would be no medical attendance on January 14th, or that if we had medical attendance it would be purely a sort of refuge for the profession. The British Medical Association issued a statement of what they regarded as a successful panel system. They said you must get 8,000 doctors at the very least to join your panels in order to work the Act. We have got 15,000. With regard to the quality of the doctors, practically throughout Great Britain almost all the doctors who have been engaged in industrial work are on the panels to-day. London may be a possible exception, but I do not deal with that. If you take all the great cities of this country—Glasgow, Liverpool, Manchester, Bradford, Newcastle, Birmingham, and Sheffield—the vast majority of the doctors who have been engaged in industrial practice are now on the list; and it is very remarkable that, although they have been working for three or four weeks under difficulties which would naturally come at the beginning, the number of complaints we have had up to the present are infinitesimal in the whole of those districts. We cannot guarantee the quality

of any doctor. There are good and bad doctors, and some in between; but that is the case in every profession, but you cannot guarantee them. Money does not always buy a good doctor. All we can say is that the medical profession such as it is—some of them first class, competent, and skilled men—we have got them on the list. We have got others, but, at any rate, they have been chosen by insured persons. If there are doctors on the list not competent the insured persons need not choose them; and if they choose them it is because they have faith in them, and I think faith very often makes up for works. So much for the number on the list. In London we have about 1,200 doctors, one in 1,100 of the insured population. There are many districts in the East End where the population is under-doctored, and I have no doubt that in the course of the next few months doctors will drift into those areas. They are beginning to do so. There is a great deal of hard work, but it is due very largely to the fact that in the past these poor people have not been attended at all. Half, if not two-thirds, of the population of these districts have never received medical attendance at all, except what they have got as out-patients of the hospitals. For the first time they can call in their own doctor. That undoubtedly increases the work of the doctors.

Clerical Work.

There is also another class of work which I have no doubt has increased the burden of the doctors at the beginning, and that is the filling up of the medical benefit cards. It does not take very long, it is true, but still if a doctor has 500 patients on his list it does take some time to fill in his name and address on each, and very often he has to fill in the name and address of his patient as well.

Mr. Worthington-Evans: And there is the book.

Mr. Lloyd George: I agree; and the trouble is threefold to people who are not in the habit of doing this sort of thing. But that is a burden which is passing away. They have only to do it once, and there is an end of it. In future they will only have to fill these cards in respect of new patients.

Sir P. Magnus: No, every time.

Mr. Lloyd George: No, the hon. gentleman is perfectly wrong. They have only got to fill the cards and send them in the first time. They have to send the names of those who accept them as doctors once to the Insurance Committee. Therefore, all this trouble which has taken place during the first fortnight, and of which most unfair advantage has been taken by some of the Press and by one or two hon. gentlemen who have seen in it an opportunity of putting questions to try and create the impression that all the trouble in this world is due to the Insurance Act, is passing away, and in the course of the next week or two there will be very much less. I should like to say one word about the keeping of books and papers by the medical profession. I think it is possible to simplify some of the documents they have to fill up, and we are looking into the matter. It is one of the things where experience, of course, will teach us how to work the Act. I was interested to hear what the hon. member for Sevenoaks (Mr. Forster) said about this. He said: "You cannot tell in advance what amendments you want to the Insurance Act. It is only experience which will show you." He quoted a letter which I wrote, I think to a Liberal candidate, and in which I said it was impossible to tell what amendments would be necessary, I have always admitted amendments would undoubtedly be necessary, and said that experience, and experience alone, would teach us what amendments would be required. This is one of the amendments in the Regulations which I think will have to be made. I think there will have to be some simplification of some of these documents.

Tuberculosis and the Sanatorium Grant.

I should like to say something in regard to a question about which I have had representations made to me, particularly from Scotland. It concerns what is called the "tuberculosis sixpence." The doctors earn 6s. 6d. or 7s. according to whether they simply get the medical grant or whether sixpence is added out of the tuberculosis grant. Complaints have been made about that, notably from Scotland. They do not want to see their sixpences go. They complain that the money is not paid out of this grant, but out of the sanatorium grant of 1s. 3d. I think it is rather important that I should say something about that. There are three claims upon the sanatorium grant of 1s. 3d. The first is the dispensary treatment, the second the domiciliary treatment, the third the sanatorium benefit or institutional treatment. The suggestion is that the whole of this domiciliary treatment should be provided out of this sum, and that we should not take it out of the 1s. 3d. It is true that up to the present most of the work that has been done in respect of the sanatorium benefit has been dispensary and not institutional, the dispensary being the clearing-house, and having also provided tuberculin and observation beds. It is part of the work of the dispensary to decide whether patients shall be passed on to an institution or shall receive treatment in their own homes. I am now concerned with that part dealt with in this vote, where the doctor is called upon to deal with a patient in his own home. We are criticized from both sides. The doctors say you are not paying enough, and the Scottish county councils say you are paying too much. I think I ought to explain to the House, first, why the proportion is so large. The number of insured persons who come up for treatment must of course at first be necessarily small. You are only dealing with persons who were employed in July last year, and who have developed consumption since then. They may have had the germs in them, but they only developed after they had paid their contributions, and filled up their cards, being employed persons. Well, the numbers have increased from week to week and month by month. In November there were about 5,000 cases which applied for sanatorium treatment. Of those, about half were dispensary cases and cases treated by doctors in their own homes, and about half went to sanatoriums. The figures received last week show that 5,000 have been sent to institutions. The number has increased to that extent. Remember that the doctor has not merely to examine the case before he sends it from the dispensary to the sanatorium, but it is his duty when on the panel to look after the patient when he returns from the sanatorium and to keep an eye upon him and see how he is getting on. Therefore I would point out to the Scottish county councils that this 6d., although a liberal grant, does cover a good deal of work which is not on the face of it apparent. I have no doubt that as time goes on there will be more and more of those poor people sent on to institutions. You cannot build sanatoriums in a day. The Act only came into operation in July. You cannot build sanatoriums all over the country in a few months, and I think it would be a great mistake to attempt to do so. You must proceed tentatively and experimentally, even with regard to the treatment of consumption. Some of the authorities still maintain that it is very much better to use tuberculin. The late leader of the Opposition (Mr. Balfour), in a speech on the subject, urged us not to put all our eggs into one basket, and not to go in wholly for institutional treatment. That was supported by the right hon. gentleman the member for East Worcestershire (Mr. Austen Chamberlain), who was very strong about tuberculin. I hope all these things will be tried. That is what we are doing. We are trying to send patients through the dispensaries from their own homes, and to treat them in increasing numbers in institutions. At the end of January we had 5,000 in these institutions. I only wanted to say that in order to make clear to the House why we are distributing the 1s. 3d. in that way.

Scotland.

After some observations from Mr. Lundon, Mr. Cathcart Wason said that, as one who from the first had been a consistent supporter of the Insurance Act, he must point out that there were serious difficulties to contend with in the Highlands and Islands of Scotland. In the two counties of Orkney and Shetland, which he had the honour to represent, there were many islands with a considerable number of inhabitants which were totally unprovided with medical benefit. In Shetland there were the following islands: Burra Isles, 889; Fan Isle, 139; Whalsay, 1,040; Skerries, 144; Papa Stour, 212; Fonta, 175. In Orkney they had Burra, 628; Eday, 529; Hoy Greensay, 393; North Ronaldshay, 436; Rousay Egelshay and Veira, 710. In all those places the position was that there was no medical service whatever. He under-

stood that the sum of £10,000 in the Supplementary Estimates under consideration was for medical service and mileage in those particular districts, and he expressed his gratitude for the action of the Government in the matter.

Major Hope said that under the conditions existing in many parts of Midlothian the Act was not working satisfactorily, and it had been impossible to obtain replies from the Scottish Insurance Commissioners and the County Insurance Committee to applications for information. Insured persons had failed to obtain medical benefit, and he contended that they would be within their rights under the proviso of Section 15 (2) if they made their own terms for individual visits, and then sought to recover the doctor's bill in full from the Insurance Commissioners.

Medical Benefit: Special Grants.

The conditions of medical benefit in Middlesex was discussed by Mr. Mallaby-Deeley and Mr. Glyn-Jones. Mr. T. M. Healy raised an objection to the constitutional procedure with regard to the vote. To this Mr. Lloyd George replied, and went on to say that the special grant of £10,000 to the Highlands need not necessarily be expended within the present financial year.

After some remarks from Mr. Butcher, Sir J. D. Rees rose to speak, when Mr. Lloyd George moved the closure, which was carried, and the vote was then passed without a division.

Another Discussion.

On Wednesday evening during the discussion of the Consolidated Fund Bill, upon which almost any subject may be brought forward, Mr. Cassel raised two points. The first was whether the records of diseases of insured persons required to be kept by doctors and sent to the Government departments were privileged; the second was the course taken by some Insurance Committees, which he said were at present merely the nominees of the Commissioners, in insisting on persons who wished to remain under their own doctor going to a doctor on the panel. This was part of a policy to force doctors on the panels, and he considered that the interests of the insured persons had been sacrificed with this object.

Mr. Masterman replied that it would be impossible by comparing the forms sent to the Insurance Committees with those sent to the Insurance Commissioners to trace the particular diseases of the particular individuals. Arrangements had been made under which the risk of medical attendance on insured persons who moved from place to place would be taken by the Insurance Committee in the district to which they removed. In London a difficulty had arisen with regard to those persons who lived outside London but worked in the City. It might, he said, be possible to divide the fee between the doctors in the two districts, in proportion to their risks, but nine out of ten cases of sudden illness in London were taken to hospitals. He hoped all the Insurance Committees would be fully appointed in a short time; the doctors were now electing their representatives. As to the point whether approved societies could accept certificates of doctors not on the panels, all that was necessary was that the societies should be satisfied, whether by a certificate or other means, that an insured person was suffering from a complaint entitling him to sickness benefit. He could not recommend approved societies all over the country promiscuously to accept certificates of non-panel doctors, as it might be worth while for a man to pay such doctors 1s., 2s. 6d., or 5s. a week for medical attendance if he could get from them certificates for 10s. a week sick pay, which the panel doctors would not give. The Government intended that Insurance Committees, if assured of adequate medical attendance on all persons within the area, should be able to allow under certain conditions arrangements with doctors not on the panel, and he believed the London Insurance Committee was granting a general exemption to nurses at hospitals. Permission to make their own arrangements, and arrangements allowing doctors to go on the panel to attend only a limited number of patients, must be qualified by the dominant consideration, which was that every insured person within the area must receive adequate medical attendance. In the case of a doctor who was willing to attend at the insurance rate servants in the houses he went to, the Chairman of the London Insurance Committee agreed that there was no objection to allowing doctors to go on the panel for a limited number of cases so long as that was done in agreement with the doctors that were on the panel, and the arrangement could be woven into a system whereby adequate medical attendance could be given to every insured person. Insurance Committees were, however, justified in preventing the attempt to break down the Act which had been encouraged by some persons connected with the party opposite.

Mr. H. W. Forster denied this insinuation. The object was, he said, to secure to people the real right of choice which had been promised.

Mr. Hamersley urged that it should not be required that medical certificates given for sickness benefit should state the nature of the illness.

QUESTIONS IN THE HOUSE.

Administration of Medical Benefit.

Financial Provisions.

In reply to Mr. Cassel, Mr. Masterman said, on February 5th, that the Government had proposed to proceed by way of supplementary estimate in order to obtain the sanction of the House at the earliest possible date to the incurring of expenditure upon medical benefit in excess of the amounts available out of contributions under the National Insurance Act. It was very desirable, regard being had to the provisions of Section 61 of the National Insurance Act, and in order that Insurance Committees might be in a position to enter into contracts for the whole year, that the whole amount available for medical benefit should be credited to the committees as soon as possible after the commencement of the calendar year, as indeed was contemplated by the financial provisions of the Act; and that could not be done unless the money was issued from the Exchequer before March 31st. The Act contemplated that the Insurance Committees would be credited on January 1st with the whole of the money required for medical benefits during the whole year, and in the present uncertainty that prevailed among the medical profession it was essential that the committees should be able to make these contracts for the whole year and have the money as soon as possible to meet the contracts.

Cost of Benefits.

Mr. Masterman, in replying to Mr. Worthington-Evans, on February 5th, said that the liability of the State in respect of charges accruing during the months of January, February, and March, 1913, for benefits other than medical and sanatorium benefits, and including the cost of administration, was estimated at £601,000; the expenditure on insured persons for benefits and the cost of administration during the months of January, February, and March, 1913, estimated as nearly as the circumstances of the case permit, was £3,970,000. The proposed new grants were outside the Act altogether. The obligation under the Act to pay two-ninths (or one-fourth) of the cost of benefits out of moneys provided by Parliament was combined with that of paying seven-ninths (or three-fourths) out of contributions. Where nothing was paid out of contributions, nothing was payable out of moneys provided by Parliament under the Section (Section 3).

Medical Remuneration.

Sir J. D. Rees asked the Secretary to the Treasury, on February 5th, whether the Government was in a position to guarantee to medical men who had gone on the panels not only 1s. 9d. for the quarter, but 7s. for the year as capitation fee; and whether insured persons had been warned that such selection of doctors as they had made were not of any avail beyond April 14th, 1913.—Mr. Masterman said that one of the purposes for which the special grants-in-aid were required was to make provision for additional payments for the cost of medical attendance and treatment, so that the amount available for the remuneration of doctors on the panel would be equivalent to a sum of 7s. a head per annum, including the 6d. payable in respect of the domiciliary treatment of tuberculosis. When that money was voted the Insurance Committees would be in a position to make contracts with the doctors on a 7s. basis for the remainder of the year.

On February 5th Mr. Wright asked the Secretary to the Treasury whether the taking of responsibility for an

insured person by a doctor who had joined the panel dated from the time when the doctor signed the insured person's card; whether he was aware that in some districts insured persons not in immediate need of treatment were taking no steps to have their cards signed and were unaware of any necessity to have them signed, and doctors were thereby suffering loss; and whether he would take the necessary steps to induce such insured persons to have their cards signed.—Mr. Masterman, in reply, said that the doctors upon a panel which was adequate had collectively taken responsibility for all the insured persons in the district, and unless any doctor's list was closed an insured person might come on it by selection and acceptance at any time before allocation by the Insurance Committee. The total amount available for insured persons, well or ill, in the area would be divided amongst the doctors who had thus accepted responsibility for them; and the allocation of patients would carry payment in respect of them as from January 15th.

Mileage.

In reply to Sir Hildred Carlile, Mr. Masterman said that Paragraph 50 of the Medical Benefit Regulations gave Insurance Committees powers to make arrangements for a payment for mileage in those cases where insured persons resided more than five miles from the nearest doctor, by agreement with the practitioners, out of the total capitation sums available. In addition, a sum of £50,000 had been voted in Committee of Supply for mileage grants in sparsely populated districts in Great Britain other than the Highlands and Islands.

Certificates.

Mr. Jowett asked the Chancellor of the Exchequer, on February 6th, if he was taking any action on the information given to him concerning certain insurance companies who were refusing to pay sick benefit to insured persons who were eligible for it unless the doctor's certificate showed the nature of the illness in each case, the doctors in the Bradford district being unwilling to conform to that requirement in the interests of the patients concerned.—Mr. Masterman said that the nature of the evidence which a society accepted in support of a claim to sickness benefit was primarily a matter for the society. If any question arose between such a claimant and his society as to the sufficiency of any certificate tendered by the claimant for that purpose, that question would have to be determined by the Commission under Section 67 of the Act. The general question of the form of the certificates required in connexion with claims for sickness benefit was receiving consideration.

Hours of Consultation.

Mr. Frederick Hall asked, on February 6th, if a panel doctor was empowered to prescribe the hours during which he would receive applications from insured persons to call upon them at their own homes; and, if so, whether steps would be taken to remedy an arrangement likely, under the present congested conditions, to have serious results in cases of dangerous illness.—Mr. Masterman said that a doctor on a panel was under the same conditions as doctors in ordinary private practice. He might give notice of a time within which he would receive requests to call upon patients for ordinary attendance, and he was under obligation to attend them at any hour in cases of urgency.

Operations.

Mr. Masterman informed Mr. Fred. Hall, on February 11th, that no regulations had been made as to arrangements to be followed for the performance of operations on insured persons who could not be dealt with at hospitals. Whether an operation should be performed at the patient's home, or at the doctor's surgery, or at a hospital, must depend upon the circumstances of each particular case.

Refusals by Selected Doctors.

Mr. Masterman stated, in reply to a question by Major Hope, on February 11th, that if an insured person had been refused by the doctor whom he had selected, he was entitled to be allotted to some doctor on the panel. The allotment, however, was not a matter for the approved society or the Insurance Commissioners, but for the Insurance Committee of the area in which he resided.

Mr. Touche inquired if an insured person was not refused by a doctor, but the doctor was too busy to attend him, and if after much delay a doctor not on the panel had to be called in, would the insured person be entitled to claim the fee necessary for the other doctor.—Mr. Masterman said that the insured person certainly was not entitled to claim the fee, but whether any fee could be allowed would depend on the circumstances of the particular case.

Emergency Medical Attendance.

In reply to questions by Mr. Godfrey Locker-Lampson and Mr. F. Hall, on February 6th, Mr. Masterman said that though it was open to an insured person to obtain the services of another doctor in an emergency, the Act did not contemplate any insured person having the services of more than one doctor at a time, and there was no power to recover any expenditure incurred, although reciprocal arrangements could probably be made between the panel doctors themselves for such cases.

Number of Patients and Employment of Assistants.

Mr. Edmund Harvey asked, on February 6th, whether it was permissible for a doctor to accept more insured persons on his list than he could possibly attend himself in illness, with a view to engaging assistants to attend them instead of himself.—Mr. Masterman, in reply, said that no doctor ought to accept more insured persons upon his list than he considered he could personally be responsible for. An assistant not on the panel might only treat insured persons on behalf of his principal when the latter was precluded by urgency of other professional duties, absence from home, or other reasonable cause from giving personal attendance to an insured person under his care. If the assistant was on the panel, the insured person might choose either the assistant or the principal, or might express his willingness to be attended by either.

Mr. F. Hall inquired if the Government intended to make any regulation as to the number of insured persons that any doctor on the panel might take.—Mr. Masterman said it was the duty of the Insurance Committee to see that no doctor took more patients than he could adequately attend.

Allotment of Insured Persons.

On February 11th, Mr. Masterman, in replying to Captain Craig, said that if an insured person failed to exercise his right of choosing a doctor, he thereby left to the Insurance Committee the duty of allotting him to one of the doctors on the panel. If the doctor who had undertaken the treatment of an insured person was precluded by urgency of other professional duties, absence from home, or other reasonable cause from personally attending, he was required to the best of his ability to provide that when he was so precluded from personal attendance some other doctor would give attendance as his deputy on his behalf.

Panels Closed.

In reply to Mr. Godfrey Locker-Lampson, Mr. Masterman, on February 6th, said that the Shropshire Insurance Committee had made special arrangements—which were generally similar in character to those adopted in the Wisbech and Charteris districts in the Isle of Ely—in one district, that of Bridgnorth, in which there was not a sufficient number of doctors available for the panel system, and another district was now under consideration by an insurance committee.

"Contracting Out."

On February 6th Mr. Godfrey Locker-Lampson asked whether any Insurance Committees under the National Insurance Act had refused to send Form Medical 21 to insured persons who had applied for it, and, if so, which? Sir William Bull also asked whether the Form Medical 21, issued by the Insurance Commissioners, had been withdrawn; if so, upon what ground they had withdrawn it; and, if not, where compulsorily insured persons could obtain copies of this form on applying for it.—Mr. Masterman said he was informed that some Insurance Committees had not issued Form Medical 21, pending the publication of an alternative form dealing more fully with the conditions under which applications for permission to make their own arrangements under the provisions of Section 15 (3) of the Act would be entertained.

Sir John Randles asked the Secretary to the Treasury, on February 11th, whether he could take any steps to make it quite clear, in accordance with Section 15 (3) of the National Insurance Act, that it was intended that

committees should allow the sum for medical services, so that any insured person might freely select his own doctor and use such sum as the committee would have expended in payment of medical services towards the payment of his own doctor in the usual way.—Mr. Masterman said that the Commissioners proposed to issue to Insurance Committees a memorandum dealing with the question of application under Section 15 (3) of the National Insurance Act.

Mr. G. Locker-Lampson asked, on February 11th, whether the Insurance Committees in the county of Middlesex, the Isle of Ely, and Sheffield had refused free choice of doctor outside the panels unless exceptional circumstances were proved; and whether any definition of exceptional circumstances had been laid down by them.—Mr. Masterman said he was not aware that the three Insurance Committees mentioned had acted differently from other committees. The Act only contemplated permission being given to an insured person to make his own arrangements in exceptional circumstances. It was for the committee to decide upon each application whether the circumstances of the case were or were not exceptional. It was left by the Act to the discretion of the committee to permit or not to permit any case of what was ordinarily called "making their own arrangements." Every insured person had the right to choose his own doctor among all the doctors willing to serve him and willing to serve under the Insurance Act.

Mr. Godfrey Locker-Lampson asked, on February 6th, whether any Insurance Committees under the National Insurance Act had refused to allow insured persons to make their own arrangements for receiving medical attendance and treatment?—Mr. Masterman said he was not aware of any general refusal of any Insurance Committee to grant permission to insured persons to make their own arrangements when the panel system was working, though he believed some Committees had suspended the granting of such permission until they were satisfied that a panel system sufficient to provide adequate attendance for all insured persons was assured.

Mr. Newman asked, on February 6th, the Secretary to the Treasury whether his attention had been drawn to a recommendation of the General Purposes Subcommittee of the Middlesex Insurance Committee, that under no circumstances should an insured person be allowed to make arrangements with a medical practitioner who had withdrawn from a local panel, and that only under exceptional circumstances should insured persons be allowed to make their own arrangements, each case to be dealt with on its merits; and whether he would explain why this Insurance Committee proposed thus to penalize a medical practitioner on the ground that he had reconsidered a decision to serve on a local panel.—Mr. Masterman said he understood that the Middlesex Insurance Committee recognized that it was impossible to allow doctors who had made contracts for a definite period and had not been released, to break these contracts and yet undertook the attendance of insured persons within the same period upon different terms.

The Selection of Doctors.

Mr. G. Locker-Lampson asked on February 5th whether the Prudential Assurance Approved Society was advising its members not to select a doctor on the panel until they actually fell sick; and to what fund the money would be put which was thus saved in medical capitation fees.—Mr. Masterman said that he was informed by the society referred to that there was no foundation for the suggestion in the first part of the question. On the contrary, in a circular letter the society had instructed all their agents to urge upon every member entitled to medical benefit the imperative need for promptly selecting the doctor they desired should attend them in case of illness.

Works Doctors.

Mr. Pointer asked the Secretary to the Treasury, on February 5th, if he was aware that many employers were approaching the Insurance Committees with a view to obtaining the right to themselves to provide the medical man for their employees, and in return were demanding from the Insurance Committees the money which had been allocated to the committees by the societies for the medical treatment of their members; and whether that action would, in the best interests of the men, be sanctioned, seeing that the doctor would then be virtually in the employ of the employer.—Mr. Masterman said that it would be contrary to the spirit and intention of the National Insurance Act and the Regulations for an Insurance Committee to allow insured persons to make their own arrangements for medical attendance and treatment and to contribute towards the cost thereof in circumstances such as those referred to. He asked to be informed of any cases of the kind.

Isle of Ely Insurance Committee.

Mr. Masterman informed Major Hope on February 5th that the four doctors engaged by the Isle of Ely Insurance Committee to give medical treatment to insured persons in the district of Chatteris and Wisbech were also permitted to take private practice. He added, in reply to Mr. Worthington-Evans, that members of friendly societies who were not insured persons were entitled to receive medical attendance and treatment from the doctors who were working under the Act, and they had the option of selecting those doctors for treatment on the same terms as to remuneration as insured persons.

West Riding Insurance Committee.

Mr. Lane-Fox asked the Secretary to the Treasury, on February 11th, whether the regulations of the West Riding Insurance Committee, by which a doctor doing his own dispensing in a rural area had to make out in triplicate all prescriptions, and had to work out from the official tariff the exact cost of all items in them without any payment for the labour involved, had his sanction; whether the official tariff gave prices for drugs, dressings, etc., which were considerably below the prices at which doctors could obtain them, though they might be those at which they were supplied to large wholesale chemists; and why no answer to these simple questions, beyond a printed acknowledgement, had yet been received by the doctors in the Wetherby district, though the questions were addressed to the Chancellor of the Exchequer on January 15th.—Mr. Masterman said that the letters received from the doctors referred to raised questions of a somewhat complex character, depending not only upon the regulations, but also upon the policy of the West Riding Insurance Committee. The Commissioners were communicating with the Insurance Committee, and a full reply would be sent to the doctors as soon as possible.

Surgical Appliances.

In reply to the Marquess of Tullibardine, on February 5th, Mr. Masterman said that the splints prescribed in the list of appliances were not restricted to arm splints, and the bandages were not restricted as to length. He was advised that the surgical dressings included in the list were adequate for the treatment of the surgical cases which fell within the scope of medical benefit. All splints and apparatus could be got which would be required for surgical cases which fell within the scope of medical benefit.

In reply to a further question by the Marquess of Tullibardine, on February 10th, Mr. Masterman said that the second schedule to the medical benefit regulations issued by the Insurance Commission had provided that any kind of splints and of cotton and wood wools properly required as part of medical benefit could be claimed.

Mr. Masterman stated in reply to a subsequent question that he was not aware that a certain committee had ruled that if medicated wool was required the patient would have to pay for it, and offered to inquire into any such case brought to his knowledge.

In replying to Mr. Newdegate, on February 11th, Mr. Masterman said that the prescribed list of appliances was subject to such revision as might be found advisable when more experience had been gained after working of the Act. The suggestion that kidney belts or appliances for the relief of cases which were a source of trouble without that assistance should be included would receive due consideration.

Drugs and Dressings.

In reply to the Marquess of Tullibardine, on February 10th, who asked what steps would be taken to ensure that the quality of drugs and dressings supplied under the Insurance Act would be good, and whether an inferior quality was known as "insurance quality," Mr.

Masterman stated that the agreements with the chemists stipulated explicitly that all drugs and appliances should be of good quality.

Homœopathy.

Mr. Masterman informed Mr. Keir Hardie on February 10th that if an insured person were unable to obtain from a chemist on the panel the drugs prescribed as part of medical benefit by a homœopathic doctor on the panel, the Insurance Committee of the area had power under Section 30 of the Medical Benefit Regulations to make special arrangements for the doctor himself to supply the drugs to the patient.

Mr. Masterman, in replying to Sir J. D. Rees on February 11th, said that duly qualified medical practitioners alone had the right to be included in a panel list. It was, however, open to persons who belonged to an unorthodox school of medicine to apply to their Insurance Committee for permission to make their own arrangements for medical attendance and treatment, and if such permission was given the committee would make a contribution towards the cost of the treatment.

Change of Residence.

Mr. Masterman informed Mr. G. Locker-Lampson on February 5th that if an insured person moved from the area of one Insurance Committee to that of another he could, by giving notice to the second Committee, obtain medical attendance and also such certificates as were required to be furnished in connexion with any claim for sickness benefit from a doctor on the panel in the second area. He promised to give publicity to that statement, but could not undertake to issue it to every insured person.

Domestic Servants.

Mr. Masterman, in reply to Mr. MacCallum Scott, on February 11th, said that in the case of a domestic servant who had selected a doctor on the panel for the district in which she was employed but who, in the event of serious illness, would have to return to her home in another district, notice should be given on the servant's return to her home to the Insurance Committee of the area in which it was situated, and it would then be the duty of the Insurance Committee to make arrangements as soon as practicable for her medical attendance and treatment there.

Local Medical Committees.

In reply to Mr. Hills, Mr. Masterman said, on February 6th, that seventy-one Local Medical Committees had been recognized by the Insurance Commissioners in accordance with Section 62 of the National Insurance Act. The Commissioners required to be satisfied that the Local Medical Committee before it was recognized was fully representative of the medical practitioners in the area.

Pathological and Bacteriological Investigations.

In reply to Mr. Godfrey Locker-Lampson, who asked on February 6th whether medical benefit under the National Insurance Act included modern methods of exact diagnosis such as pathological and bacteriological investigations, Mr. Masterman said that pathological or bacteriological investigations of an expert character were not services demanded of a doctor working under the Act, who was only required to give such treatment as was of a kind which could consistently with the best interests of the patient be properly undertaken by a general practitioner of ordinary professional competence and skill; although, of course, such a practitioner would utilize any facilities placed at his disposal (without expense to himself) for obtaining expert assistance.

Admiralty Works at Crombie and Medical Benefit.

The Secretary to the Treasury on February 10th informed Mr. John Ward that no complaint had been received by the Scottish Insurance Commissioners as to the administration of the medical benefit of the men employed at the Admiralty works, Crombie, Fife, but added that inquiries would be made.

Highlands and Islands.

Mr. Masterman informed the Marquess of Tullibardine on February 10th that the population of the island of Harris was 5,449; the insured population was estimated to be between 100 and 150, for whom two panel doctors were available, one being resident at Obbe and the other on Berneray Island. A population of 100 could not support a doctor, nor had they ever had a doctor resident in the island. What had happened was that the doctors who had been attending the people up till now had gone on the panel. As to the island of Canna, it contained 29 inhabitants, of whom probably less than 10 would be insured persons. It would, of course, be impossible to provide a special doctor resident in the island for that number of persons. The men on the island would have the same right to a doctor and the same possibility of a doctor as they had ever had, with the additional advantage that they would now have money to pay for a doctor, which some of them did not have before. The whole question of the special circumstances of the Highlands and Islands was under consideration.

SANATORIUM BENEFIT.

Provision of Sanatoriums.

Mr. Burns, in replying to Mr. Chiozza Money, said that plans had been approved for the erection of new buildings or the extension of existing buildings in England in twelve cases, and in about twenty other cases plans were under consideration.

Delay in Providing Benefit.

Mr. Harry Lawson asked, on February 6th, whether arrangements would be made to prevent consumption patients in the East End of London from being kept nearly eight weeks before any decision was given as to whether they could obtain sanatorium benefit, seeing that under the present circumstances more harm than good was in many cases done by preventing alternative treatment? — Mr. Masterman said he was not aware of any such delay before decision as was suggested, although some patients had been kept waiting a short period while the accommodation for them was being completed. Patients who remained at home until accommodation was ready in sanatoriums, so far from being prevented from receiving alternative treatment, were provided with it; medical attendance, medicines and articles ancillary to their treatment, such as extra food, all being supplied to them at the expense of the insurance funds. He was informed that the Downes School at Carshalton, which was being equipped as a sanatorium for over 300 cases, would commence receiving patients from the London Insurance Committee in a few days' time, and so relieve any waiting list at present existing.

Travelling Expenses for Examination.

Mr. Masterman informed Mr. Newton, on February 5th, that the payment of travelling expenses incurred by an insured person ordered to attend a town some miles distant for the purpose of being medically examined in connexion with a claim for medical benefit might properly be treated as expenses incurred for the purpose of administering sanatorium benefit, and might, if the circumstances of the applicant warranted it, be defrayed by the Insurance Committee. With regard to the question of the examination of insured persons claiming sanatorium benefit by a local doctor, it rested with the Insurance Committee to decide what arrangements should be made to ascertain whether applicants were in fact suffering from tuberculosis

MATERNITY BENEFIT.

Mr. O'Shee asked the Secretary to the Treasury, on February 5th, whether, in Ireland, in the case of a woman whose husband was an insured person, and who, in her confinement, was legally entitled to the attendance of the dispensary doctor or dispensary midwife under the provisions of the Medical Charities Acts, there was any liability, under Section 18 of the National Insurance Act, to deduction from the maternity benefit of any payment for such doctor or midwife: and, if not, whether the entire sum of 30s. will be payable without deduction.— Mr. Masterman said that if the wife of an insured person had received attendance on confinement from a dispensary doctor or midwife free of charge under the provisions of the Medical Charities Acts, the maternity benefit in respect of her husband's insurance under the National Insurance Act would be payable, under the ordinary conditions, without deduction.

Mr. O'Grady asked the Secretary to the Treasury whether the widow of a man deceased, who had paid the first quarter's insurance premium fully, was entitled to maternity benefit for the birth of a posthumous child. —Mr. Masterman replied that maternity benefit in respect

of the husband's insurance was not payable unless and until the husband had been insured twenty-six weeks and twenty-six contributions had been paid by or in respect of him. In the case mentioned, if the widow were herself an employed contributor she would be entitled to sickness benefit on the usual conditions in respect of the incapacity caused by the confinement.

NURSES' INSURANCE SOCIETY.

In reply to Mr. Astor, Mr. Masterman said that the Nurses' Insurance Society had submitted a scheme to the Insurance Commission whereby nurses would be given the option of receiving, in lieu of the sickness benefit provided under the National Insurance Act, a largely increased sickness benefit commencing at the end of the first six weeks of illness. The Commissioners had been unable to accept the scheme in the form in which it was submitted, but forwarded a suggested alternative to the society, and were now in communication with it as to the form of substituted benefits which would best meet the needs of the particular class of insured persons in this society.

SICKNESS BENEFIT IN IRELAND.

Mr. Masterman, in reply to Mr. O'Donnell, on February 11th, said he was informed by the Irish Commission that a certain amount of difficulty had arisen in Ireland in connexion with sickness certificates. A sum of £50,000 was being taken in the Supplementary Estimate, which would be to a large extent available for defraying the reasonable cost of such certificates. Societies, however, could adopt alternative methods of obtaining evidence of illness if excessive fees were charged for medical certificates; and the Irish Commissioners had issued to all societies and branches transacting business under the National Insurance Act in Ireland a circular pointing out that societies might, if they thought fit, obtain evidence of illness by the adoption of a system of lay visitors, by the inspection of medical relief registers, or by the acceptance of a written statement from a clergyman, magistrate, or other responsible person who could testify to the claimant's incapacity for work.

REPORTS OF LOCAL ACTION.

LONDON.

FORMATION OF DISTRICT INSURANCE COMMITTEES IN LONDON.

IN accordance with Section 59 (4) of the National Insurance Act, the Insurance Committee has prepared a scheme for the formation of District Insurance Committees for each of the metropolitan boroughs. The District Committees are to consist of not less than 25 nor more than 40 members, the representation of interested bodies to be in the proportions specified in a schedule, and increased proportionately in the case of Committees of over 25 members. Each Committee is to have not less than 3 women members. The schedule provides for the constitution of District Committees as follows: Borough Council, 5 representatives, of whom one shall be a medical practitioner, and one the medical officer of health if willing to serve, and subject to the consent of the local authority; friendly societies, 4 representatives; collecting societies, 4; trade unions, 3; dividing societies, 2; the Local Medical Committee recognized by the Insurance Commissioners, 1 representative; a committee representative of chemists in the area, 1 representative.

COUNTY OF CHESHIRE.

Provisional Local Medical Committee.

The sixth meeting of this Committee, being an adjourned meeting from February 3rd, was held, on February 6th, at the Onward Buildings, Deansgate, Manchester, Dr. GARSTANG being in the chair, and fifteen members present.

Letters sent by the Secretary to the Insurance Committee and the Commissioners protesting against the proposal by the Medical Benefit Subcommittee of the County Insurance Committee to pay for dispensing by doctors in rural areas per item, and not by capitation, were approved.

The former, which also dealt with the question of the remuneration for attendance on aged and infirm club members, was ordered to be printed and circulated to the profession of the county. The view expressed was that the Act itself, Sec. 15 (2) (*e*), lays down the terms.

Treatment of Uninsured.

Dr. HODGSON informed the meeting that the friendly societies in Crewe were dissatisfied with the offer of the local profession to accept patients at the same rates as paid in respect of the insured, and stated that they were advertising for doctors at lower rates. He added that a warning notice had been sent to the JOURNAL in this connexion. It was proposed by Dr. H. COOPER and seconded by Dr. MARSH that this warning notice should apply to the whole county.

The Committee ventilated the subject of attendance on the uninsured, but registered no new decision. Dr. THOMAS WATTS informed the meeting that the practitioners in Hyde had declined to attend uninsured persons on a contract basis, and had raised their visiting fees. A visit without medicine was still 2s. 6d., but the fee for a visit with medicine had been raised from 3s. 6d to 4s. 6d. Consultations were to be 2s. 6d., with or without medicine; visits betwen 8 p.m. and 10 p.m., 3s. 6d., without medicine, and between 10 p.m. and 8 a.m., 5s. Operations and fractures as in Poor Law scale. Mileage was not a question with them, but he suggested the scale paid under the Factory Acts—6d. extra for each half-mile beyond one mile. Dr. HUGHES pointed out that, in accordance with a resolution of this Committee and of the Representative Meeting of the British Medical Association November meeting, which was quoted, the Macclesfield practitioners had decided to make no change until after March 25th. Dr. MARSH laid stress on the importance of having a tariff generally fixed and agreed. He thought the terms mentioned by Dr. Watts too high for Macclesfield, and suggested 3s. 6d. with medicine as an appropriate charge per visit. The general feeling of the meeting, which accorded with the views expressed by Dr. Marsh, was that the scale should be based on 2s. 6d. a visit, and that other items should be on a proportionate scale, on the general lines already laid down by the British Medical Association, but to be finally decided locally.

Model Rules.

The Committee resolved:

That the hours during which a patient should not summon a practitioner except in serious emergency should be between 8 p.m. and 8 a.m.

That they should press for the hour in the morning by which messages should be delivered at the surgery requesting a practitioner to visit patients during the course of the day should be fixed as the termination of the morning surgery hour, whatever that might be. This system would be much more elastic than an uniform hour of 10 a.m. as proposed by the Insurance Committee.

The seventh meeting of the Committee was held on February 10th at the Onward Buildings, Deansgate, Manchester, Dr. GARSTANG in the chair, and twelve members being present. A letter from Dr. Barclay, of Macclesfield, was read announcing that, in accordance with the policy of the British Medical Association, he had declined after March 25th next to attend the members of a club on contract terms, unless as part of a general service open to all the doctors who care to join. He asked if it would be possible for the County Medical Committee to suggest such a service to the committee of the club before it took any definite or irremediable steps. The Secretary was instructed to write to the club pointing out that a solution of the present difficulty would be reached by the formation of a Public Medical Service with free choice of doctor, and to send a copy of the letter with a suitable covering letter to the other societies in the town and to their medical officers.

Representations were received by the Committee that the practitioners of the Eddisbury district of the western portion of the Chester and Crewe Division had not had an opportunity of voting at a Divisional meeting for the appointment of the six representatives on this Committee to which that Division is entitled. These representations emanated from the Commission and from a leading practitioner in West Cheshire. The Secretary was instructed to communicate with the Secretary of the Chester and Crewe

Division, asking him to summon a meeting to carry out the election with all convenient speed.

An announcement was received from the practitioners of the Runcorn rural area that they had withdrawn their offer to continue to attend the aged and infirm members of friendly societies on the old terms, as that offer had been made without appreciation of the fact that the Act itself (Section 15 (2) (*c*)) provides for their treatment on the same terms as the insured.

Simplification of Records.

Dr. Picton was instructed to attend the interview with the Insurance Commissioners *re* simplification of records.

The Committee discussed many detailed suggestions for facilitating keeping the required records.

Local Panel Lists.

It was agreed that there should be complete freedom of individual choice as to what local lists the names of practitioners should appear upon.

Allocation of Patients who have made no Choice of Doctor.

The Secretary was instructed to remind the Clerk to the Insurance Committee that an understanding had been arrived at that this should be done "in agreement with the Local Medical Committee."

Contract Attendance on Uninsured Persons.

In the report of the Representative Meeting of January it should have been stated that the following motion by the Stockport, Macclesfield, and East Cheshire Division with regard to contract attendance on uninsured persons was referred to the Council for consideration:

That where medical attendance on insured terms is desired for the families of insured persons it should be based on the following principles:

1. Free choice of doctor from the *Medical Register* subject to the doctor's consent.
2. Payment for work done on a standard tariff. No insurance risk to be borne by the profession.
3. It should be to the patient's financial interest not to receive over-attendance.
4. There should be provision for the higher and special forms of medical work, and general practitioners should assist therein for payment.
5. The dependants of the insured should be included in medical benefit for an extra payment in proportion to the income of the insured, and irrespective of the number of the dependants, but the payment to the doctors for their treatment should be on the same standard tariff as applies to the insured persons.

COUNTY OF STAFFORD.

The County of Stafford Local Medical Committee has been recognized by the Insurance Commissioners and the Joint Committee in accordance with Section 62 of the Insurance Act. The Committee consists of thirty-one members chosen by meetings held in each administrative insurance district of the county; such meetings also constituted Provisional District Medical Committees, which will apply for recognition when the scheme for constituting District Insurance Committees is promulgated. The committee is made up as follows:

Insurance District.	Representatives.
Bilston... ...	T. Ridley Bailey (Chairman)
Brierley Hill ...	Dr. Taylor, Dr. Plant
Brownhills ...	Dr. Wolverson
Cannock ...	Dr. Butter, Dr. Nock
Cheadle ...	Dr. Mitchell Smith
Coseley ...	Dr. Johnson, Dr. Clendinnen
Leek	Dr. Somerville
Lichfield ...	Dr. T. D. S. Shaw, Dr. R. Freer
Newcastle ...	Dr. Sowry, Dr. Webster
Rowley Regis ...	Dr. Mitchell, Dr. McQueen
Seisdon	Dr. Burd
Smallthorne ...	Dr. Steele, Dr. Leys
Stafford ...	Dr. Cookson, Dr. Hodder (Hon. Sec.)
Stone	Dr. Dixon
Tamworth ...	Dr. Lowson
Tipton... ...	Dr. Mason, Dr. Brown
Uttoxeter ...	Dr. Fletcher
Wednesbury ...	Dr. Magrane, Dr. Morris
Willenhall ...	Dr. Scott, Dr. Stockwell
Wolstanton ...	Dr. Daly

The Committee is prepared to assist the County Insurance Committee in all matters relating to medical benefit as laid down by Section 62 of the Act.

BOLTON.

A meeting of the Local Medical Committee was held on February 4th at the Infirmary, Dr. Flitcroft in the chair, and there was an attendance of eighteen.

Local Insurance Committee.

On the motion of Dr. Rolland the following eight members of the profession were selected from which two could be appointed by the local profession: Drs. Mothersole, Mallett, Thornley, Flitcroft, Johnstone, Swainson, Beesley, and Rolland.

Medical Service Subcommittee.

The following were selected to act on the Medical Service Subcommittee: Drs. Wright, Macfie, and Mallett.

Administrative Details.

The following resolutions were also adopted:

That in respect of insured persons and after the provisional period has elapsed the medical profession of the County Borough of Bolton hold no formal consultations on Wednesday night except by appointment.

That any mixture prescribed for a patient be not repeated except by rewriting in detail.

That the Committee urge upon the profession the importance of placing upon the day-book every item of work done.

A Subcommittee consisting of Drs. Robinson, Thornley, Rees, and O'Neill was appointed to suggest to the Commissioners an improved form of day-book.

Canvassing.

Dr. Thornley stated that he had reason to believe that canvassing for insurance medical tickets had been active in certain quarters of the town and that if direct evidence of such could be obtained prompt measures for its repression should be taken.

SCOTLAND.

EDINBURGH.

The Medical Guild.

The Medical Guild, to the action of which in drawing the attention of insured persons to the fact, among others, that sickness and maternity benefit would be granted on the certificate of any medical practitioner, was formed at a meeting held in the house of the Royal College of Physicians of Edinburgh on January 7th. The constitution and rules adopted are as follows:

I. The aim of this guild is to bring together for conference and for mutual support and encouragement the members of the medical profession who approve of and accept the policy of the guild; and to take whatever further steps may be determined on to use them more closely into one body.

II. The policy of the guild is:

1. To maintain the freedom of the profession in its professional and personal relations with the public.
2. To encourage the public to maintain a corresponding freedom.
3. To oppose the method of administration of the medical benefits under the National Insurance Act in so far as it interferes with the complete freedom of relationship between patient and doctor.
4. To accept as members only those who are not engaged in "contract practice" on a capitation basis.

Any doubt regarding 4 to be referred to the committee. Any alteration in the constitution only to take place at a special meeting called for the purpose; one month's notice of such meeting to be given.

The Secretary, Dr. Frederick Porter (65, Morningside Road, Edinburgh), informs us that an explanatory note of the fundamental principles of the constitution will shortly be published. A levy of 2s. is at present being made for initial expenses.

Medical Benefit Subcommittee.

The Medical Benefit Subcommittee of the Edinburgh Burgh Insurance Committee had a meeting, presided over by Councillor Robertson, on February 6th, in the City Chambers. The subject under consideration was the position of insured persons who have made application to be allowed to make their own arrangements in regard to medical benefit. The Local Medical Committee, recently elected, was represented by Mr. C. W. Cathcart (its president) and others; they also had considered the matter and their views were stated; and thereafter the subcommittee met in private and came to some important conclusions.

For instance, in regard to applications from institutions, the general principle was adopted that where medical treatment is provided free to the staffs of an institution of a charitable nature, permission be granted them to make their own arrangements. Under this heading would come institutions such as the Royal Infirmary, the Royal Edinburgh Asylum, the Royal Victoria Hospital for Consumption, the Royal Maternity Hospital, and others. With institutions, however, which are not on a charitable basis, permission to make their own arrangements is to be refused; bodies such as the Edinburgh Industrial Brigade Home for Working Lads, John Watson's Institution, and also hotels and clubs would come under this rule. The next question was in regard to the 3,880 insured persons who had made application for permission to make their own medical arrangements because their family doctor was not on the panel. By a majority it was decided not to give this permission, but to leave them to make application to a panel doctor in the usual way. Permission to make their own medical arrangements was, however, granted to persons at present ill and under treatment by a non-panel doctor, to persons in the employment of or resident in the house of a non-panel doctor, to persons undergoing homœopathic treatment by a non-panel doctor, and to persons under treatment by specialists not on the panel. Permission to make their own arrangements was refused to female insured persons desiring treatment by a lady doctor not on the panel and to commercial travellers who spent week-ends only or part of their time in Edinburgh.

IRELAND.

Proposed Extension of Medical Benefit.

Last week the question of Ireland's position in relation to medical benefit under the Insurance Act was raised in the House of Commons on the vote for special grants in connexion with National Insurance. It appears that Ireland has a right to a percentage of all sums spent in the United Kingdom on medical relief. Now a part of the funds expended upon medical benefit in Great Britain under the Insurance Act is a State contribution, and Ireland is therefore entitled to an equivalent grant in due proportion. This sum is estimated at something between £150,000 and £200,000 per annum. Of this sum the Chancellor of the Exchequer has announced that £50,000 is to be devoted towards the cost of medical certificates of sickness and other administrative expenses arising out of the absence of medical benefit in Ireland. The question of the destiny of the remainder is still undecided. Mr. William O'Brien suggested that it should be used for the creation of a "housing benefit" by providing contributions to build cheaply-rented cottages for urban labourers who are now forced to live in single-room tenements in unhealthy neighbourhoods. The Committee which has been appointed to inquire into the subject of extension of medical benefit to Ireland is, in the first instance, to take evidence to decide whether a demand for this extension exists, and it is proposed to issue an interim report dealing with that one question. There are obvious difficulties in reconciling the administration of medical benefit with the existing dispensary system. Another point apparently not fully appreciated is that the extension would involve raising the rate of contributions to the English level, and the Act, even as it stands, is notoriously unpopular all over Ireland.

OFFICIAL DOCUMENTS.

Election of Medical Representatives on Local Insurance Committees.

The Provisional Regulations, bearing date January 31st, 1913, as to the election of medical representatives to serve upon Insurance Committees in England, have been issued (London, Wyman and Sons, price 1d.) The general scope of the Regulations is indicated in the abstract issued by the Commissioners last week and published in the Supplement of February 8th, p. 136.

Medical Benefit for Members of Approved Societies Aged from 65 to 70.

The National Health Insurance Commission (England) has prepared, for the assistance of societies, the following further table of benefits suitable for members over 65 years of age on July 15th last. The arrangements to be adopted for the provision of medical attendance and treatment to such members are to be given in a subsequent document. Provision has been made for a capitation grant of 2s. 6d. in respect of those insured persons whose societies elect to provide medical treatment as one of the benefits to be given.

Table of Benefits.

(1) Medical attendance and treatment up to the age of 70.			
(2) Sick pay:—*Men*:	First 13 weeks ...	...	4s. 6d.
	Second 13 weeks ...	...	4s. 0d.
Women:	First 13 weeks ...	...	3s. 6d.
	Second 13 weeks ...	...	3s. 0d.

The conditions of payment are those set out in Table F (Alternative A). The table does not apply to Ireland.

CORRESPONDENCE.

Result of the Action of the British Medical Association and Future Prospects.

Dr. M. G. Biggs (London, S.W.) writes: Kindly allow me space to criticize the last paragraph of Dr. Gay's able letter in the Supplement of February 8th.

In that letter the question is asked whether it is not better to stop "the sort of guerilla warfare" now being carried on in London, and to accept the position, which is evidently agreeable to a very large number of the profession.

It is not clear, to my mind, that the campaign now being carried out by the London Medical Committee is properly to be described as "guerilla," but as these differences are generally based on want of proper definition I will leave it to my friend to give his definition of such a term.

The next point is to accept "the position." What position? In London there are, roughly, between 6,000 to 7,000 practitioners, and in the parliamentary discussion on the supplementary grant the *Times* reports the panel doctors as numbering 1,169—not one-fifth of the whole—the position, therefore, in London cannot by any stretch of imagination be said to be "evidently agreeable to a very large number of the profession." But it is also not correct if we take the whole country, for if Dr. Gay will kindly read Motions 45, 51, 52, of the Special Representative Meeting, held at the Connaught Rooms, January 17th and 18th, 1913, he will realize that far from being agreeable to a "very large number," it was so to none, for these motions were passed by men who had already gone on the panel or were going to do so immediately the meeting was over, and that such men were in a large majority at such meeting, and yet these men distinctly declare that, owing to the discreditable methods employed by the Government, a position of urgency was created, under which many practitioners, finding themselves threatened with financial ruin, were compelled to give *unwilling service* under the National Insurance Act on terms which this meeting considers to be derogatory to the profession and against the public interest (Motion 45).

> *Motion 51.*—That this meeting declares that it is still of opinion that the Act is unsatisfactory, and that where men still hold out against the Act the Association will give them every assistance within its power.

This is what Dr. Gay refers to as guerilla warfare.

> *Motion 52.*—That, it being evident that a very large number of the doctors who have gone on the panels have been compelled to do so by fear of injury to their practices, which in some cases might even amount to financial ruin, etc.

Take also the figures which roughly may be stated as follows:

London	6,480
Provinces	17,735
Wales	1,370
Scotland	3,982
	29,567

If we accept the statement of the Commissioners that they have 15,000, still that is only barely over the half, and does not justify the statement, "a very large number."

With regard to Mr. Lloyd George's motives, of course Dr. Gay may be right, but to those who judge by actions it is impossible to believe anything of the kind now, after what the Chancellor has done during the last few weeks.

Dr. Gay's proofs are merely surrenders in answer to the action of the British Medical Association and the union of the profession. Dr. Gay also overlooks the fact that there are other areas besides London still holding out—such as Gillingham, Isle of Ely, etc.

It is evidently a case of fancies *versus* facts, and Dr. Gay has allowed his feelings to run away with him, and so to neglect the important duty of collecting the facts on which to build his theory. In contradistinction to this, the London Medical Committee is carrying out a personal appeal to all London practitioners, including all on the panel, with a view to a most careful collection of all the evidence and its implications. If the evidence points to the fact that those on the panels like the work and mean to go on with it, the Committee will take no further steps on their behalf. On the contrary, however, some evidence of dissatisfaction and decision to give up in April has been obtained from those already on the panel, through the pressure of the causes mentioned in the minutes quoted above.

Friendly Societies and Their Aged and Infirm Members.

Dr. H. Cameron Kidd (Bromsgrove) writes: Your article on this subject (February 8th, p. 295) fails, I think, to make clear where the responsibility for the present difficulty lies. You very fairly excuse Mr. Lloyd George, but fix it upon the friendly society which, you say, "has received for many years the contributions of the unfortunate member and now . . . calmly informs him that he must shift for himself," but the fact of the matter is, as the letter which you quote from a club secretary clearly shows, that it is the doctor, and not the friendly society, who has for years been taking the annual contribution of the present old member, the doctor's fee having always been an extra, simply passed through the hands of the club secretary, for medical attendance, apart from all the other benefits offered by the society.

Most of these old members are men who originally founded their local branch of friendly society, and at a time—forty to fifty years ago—when thrift was not so common, set the best of examples to their fellows, and for from forty to forty-five years they have been paying, *separately from their ordinary lodge contribution*, 4s. or 5s. a year to the doctor with a view to having medical attendance in their old age when their healthy working years were passed. One of these members came in to me last night. He has been paying me for twenty-five years, and my predecessor in this practice for twenty years before that, 4s. per annum regularly, during all which time he has drawn two weeks' sick pay (in the second year of his membership) and he is one of the original members of his lodge. He is not an isolated example by any means, for there are many such as he.

Now, is it fair that these men, who have been paying me all these years a sum which I and my predecessor accepted, should now in their old age be asked to double their contribution because the Insurance Act has been introduced and has fixed 8s. 6d. as the annual premium payable by mixed lives of all sorts? In this town, at any rate, we all feel that it is not fair, and at a meeting with the local friendly societies we have agreed to take 5s. 6d. per annum from all these old members, which I think is a fair amount. The men themselves acknowledged that they did not think 4s. per annum was a sufficient premium for what they received in return; but whose fault can we say it is that this sum was cheerfully accepted by us medical men in the past?

We did accept it, and it has been paid for forty years to us—not to the friendly societies—with the definite object of providing for medical attendance in old age, and to ask for it to be doubled, and more than doubled, during the few years that remain to these old members, because of the introduction of the Insurance Act is, in my opinion, not a defensible proceeding.

Contracting Out.

Dr. W. Coode Adams (Hampstead) writes: May I crave a few lines in answer to those gentlemen who have done me the honour to take notice of my letter? Dr. Densham refers to my "opinions" "which cannot be ignored." But later on he calls these opinions "statements," and lastly, "inaccurate statements." Now, an opinion may be erroneous, but I cannot see how an opinion, however erroneous, can be termed an "inaccurate statement."

He there says that after contracting out "the Insurance Committee would still have full control of the pooled medical benefits." Is this true? The committees are given no powers of arranging how much medical service is to be rendered in exchange for these pooled benefits. This is not full control. If a man is obliged to spend a sovereign, but has no right to see that he gets his money's worth in exchange, he cannot be said to have full control over the sovereign.

Again, he writes "medical men on the panel would not leave it to accept a lower rate" (from the friendly societies). Why not? If an increase on the aggregate sum were offered a lower rate might conceivably be preferable. Besides, other conditions might be added, such as examination on admission, etc.

His third objection is to my opinion that the panel system would break down. I still adhere to this opinion. If the number of the insured on the panel doctors' lists is seriously reduced by contracting out, the remuneration for the panel doctor will be proportionately diminished, and no one would care to be on it. The two systems are, in my opinion, incompatible. This is the hopeless part of the position. The Association fought hard to gain the panel system, and is now striving to abolish it.

Dr. Basket objects to the term "public money" as applied to the insurance premiums, and cavils at the word "tax." But facts are facts, nevertheless. He also expresses the opinion that "the insuring person has an indefensible right to his benefit without conditions." I do not know where he gets this from, and I do not think he can instance any practice among insurance companies in support of this view. Under contracting out the insured does not receive medical benefit, but only a sum of money, which may or may not be equivalent to medical benefit. This is the "sole difference."

I do not share his opinion that supervision will be disastrous to the medical profession. The General Medical Council already exercises supervision, and there is a more defined supervision in the services, but no disaster has been experienced.

As regards the voluntary principle, it is well known that the *raison d'être* for the Act was that the voluntary principle had been tried and had failed.

CENTRAL MIDWIVES BOARD.

A special meeting of the Central Midwives Board was held on December 21st, 1912, at Caxton House, Westminster, with Sir Francis H. Champneys in the chair.

Midwives Struck Off the Roll.

The Board considered the following charges amongst others against the midwives whose names are given below, and ordered them to be struck off the roll:

Sarah Camps, that being in attendance as a midwife at a confinement, the patient suffering from rigors with raised temperature, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 20 (4).

Hannah Hope, that she was not scrupulously clean in her person and house, as required by Rule E 1, that she did not possess the appliances and antiseptics required by Rule E 2, that she did not when in attendance at the confinements of her patients adopt the antiseptic precautions prescribed by Rules E 3 and 7, and that she was unable to make use of a clinical thermometer or to take the pulse of her patients, as required by Rule E 13.

Mary Ellen Jones, that being in attendance as a midwife at a confinement the patient being seriously ill, and having collapsed after the confinement, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 19, and that she did not keep a register of cases as required by Rule E 23.

Mary Sutton, that she did not possess the whole of the appliances required by the rules and that she was ignorant of the use of antiseptics.

Sarah Ann Tunstall, that, being in attendance as a midwife at a confinement, the patient suffering from rigors with raised temperature, she did not explain that the case was one in which

the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 20 (4), and a registered medical practitioner having been sent for, she failed to notify the fact to the local supervising authority, as required by Rule E 21 (1).

Marion Bristow, that, being in attendance as a midwife at a confinement, she did not on any occasion take the patient's pulse or temperature, contrary to Rule E 13.

Maria Cleverly, that she did not possess the antiseptics required by the rules, that she was unable to make use of a clinical thermometer, and consequently could not take the temperature of her patients, as required by Rule E 13, and that she did not keep a register of cases, as required by Rule E 23.

Eliza Mercer, that being in attendance as a midwife at a confinement, a registered medical practitioner having been sent for, she failed to notify the local supervising authority thereof, as required by Rule E 21 (1), and she made use of flannel for bathing the patient contrary to Rule E 7.

Annie Payne, that being in attendance as a midwife at a confinement she visited the patient on three days only during the lying-in period, she did not adopt the antiseptic precautions required by Rules E 3 and 7, she bathed the patient with water in which the baby had been washed, and she did not at any time take the patient's pulse or temperature, as required by Rule E 13.

Margaret Pemberton, that she did not possess the appliances and antiseptics required by Rule E 2, that she did not possess a register of cases as required by Rule E 23, and that she did not wear a clean washable dress and apron, as required by Rule E 1.

Elizabeth Soden, that being in attendance as a midwife at a confinement, the baby suffering from inflammation of the eyes, she did not explain that the case was one in which the attendance of a registered medical practitioner was required, nor did she hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 20 (5).

Ellen Strickland, that being in attendance as a midwife at a confinement, she neglected to take the pulse and temperature of the patient as required by Rule E 13, she did not attend to the comfort and cleanliness of the patient, as required by Rule E 11, and she made false entries as to the temperature of the patient in her register of cases.

Alice Swain, that being in attendance as a midwife at a confinement, the child suffering from a malformation or deformity, she did not hand to the husband or the nearest relative or friend present the form of sending for medical help, properly filled up and signed by her, in order that this might be immediately forwarded to the medical practitioner, as required by Rule E 20 (5).

Midwives Censured.

The following midwives were censured after charges against them had been considered: *Emma Lange* and *Lily Jane Reynolds.*

Midwives Cautioned.

Jane Cox and *Sarah Ellen Gamble* were cautioned after charges against them had been considered.

A meeting of the Central Midwives Board was held at Caxton House, Westminster, on January 16th, with Sir FRANCIS H. CHAMPNEYS in the chair.

Lectures for Pupils Entering for Examination of Central Midwives Board.

A letter was considered from the matron of the Maternity Nursing Association, Myddelton Square, E.C., stating that the Executive Committee of the association was prepared to accommodate not more than eight outside pupils at the lectures held for candidates entering for the examination of the Central Midwives Board on certain conditions.

A letter was also considered from the secretary of the Royal Maternity Charity of London, suggesting that the Board might utilize the existing training school of the charity in connexion with the proposal that all lectures for pupils in London entering for the examination of the Central Midwives Board should be held at one of the training institutions.

The Board directed that the secretary of the Royal Maternity Charity be thanked for his letter, and that it be considered when the list of lecturers is revised.

Pulmonary Tuberculosis.

A letter was considered from Dr. W. J. Howarth, county medical officer for Kent, asking the Board's opinion as to whether pulmonary tuberculosis should not now be regarded as an infectious disease, and consequently within the prohibition contained in Rule E 17 (*b*) as to laying out the dead. The Board directed that Dr. Howarth be informed that the answer to the question will be found in Rule E 17 (*b*), which is as follows:

No midwife shall (except under the circumstances hereinafter mentioned) undertake the duty of laying out the dead. In no case must a midwife lay out the body of any patient on whom she has not been in attendance at the time of death, or a body upon which a *post-mortem* examination has been made. A midwife will not transgress this rule if (*a*) she prepares for burial the body of a lying-in woman, a stillborn child, or an infant dying within ten days; or if (*b*) she lays out a dead body in a case of non-infectious illness, provided that she is not prohibited from doing so by any general rule of the local supervising authority, and is not attending a midwifery case at the time. After laying out a dead body for burial she must notify the local supervising authority, and undergo adequate cleansing and disinfection in accordance with Rule 5.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following notices of appointment and retirement have been announced at the Admiralty: Fleet Surgeon H. SPICER, M.B., to the *Cornwallis*, vice Bell, February 4th, 1913. Fleet Surgeon JOHN W. CRAIG, M.B., to the *Agamemnon* on recommissioning, February 19th, 1913. Fleet Surgeon A. G. S. BELL has been placed on the retired list at his own request, February 1st, 1913. Staff Surgeon S. ROACH to the *Devonshire* on completing, vice McKenna, February 12th, 1913. Staff Surgeon N. B. V. JACOB to the *Roxburgh* on completing, February 12th, 1913. Staff Surgeon ARCHIBALD D. SPALDING to the *Agamemnon* on recommissioning, February 19th, 1913. Staff Surgeon EDWARD C. SAWDY to the *Hawke* on recommissioning, February 4th, 1913. Surgeon LEONARD WARREN, M.B., to the *Halcyon* additional for the *Leda* on recommissioning, February 26th, 1913. Surgeon G. A. S. HAMILTON to the *Devonshire* on completing, February 12th, 1913. Surgeon HARRY M. LANGDALE to the *Devonshire* on completing, February 12th, 1913.

ARMY MEDICAL SERVICE.

COLONEL ROBERT J. S. SIMPSON, C.M.G., M.B., has retired on retired pay, February 5th, 1913.

Lieutenant-Colonel ROBERT J. GEDDES, D.S.O., M.B., to be Colonel, vice R. J. S. Simpson, February 5th, 1913.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL H. P. G. ELKINGTON has been ordered to Shorncliffe for duty.

Lieutenant-Colonel A. R. ALDRIDGE has been posted to the Eastern Command at Woolwich.

Major DANIEL D. SHANAHAN, to be Lieutenant-Colonel, vice R. J. Geddes, February 5th, 1913.

Major HENRY A. BERRYMAN, retires on retired pay, February 5th, 1913.

Major S. G. BULLEN has been appointed Specialist in Operative Surgery at Curragh.

Major E. McDONNELL has been posted to the Eastern Command.

Major WM. POWER has been posted to the Eastern Command.

Vital Statistics.

VITAL STATISTICS OF LONDON DURING THE FOURTH QUARTER OF 1912.

IN the accompanying table (p. 164) will be found summarized the vital statistics of the metropolitan boroughs and of the City of London, based upon the Registrar-General's returns for the fourth quarter of 1912. The mortality figures in the table relate to the deaths of persons actually belonging to the several boroughs, and are obtained by distributing the deaths in institutions among the boroughs in which the deceased persons had previously resided. The 26,940 births registered in London were equal to an annual rate of 23.9 per 1,000 of the population, estimated at 4,519,754 persons in the middle of last year; in the corresponding quarters of the three preceding years the rates were 25.0, 24.7 and 24.0 per 1,000 respectively. The lowest birth-rates last quarter were 12.2 in the City of Westminster, 13.5 in Hampstead, 16.3 in Chelsea, 16.4 in Kensington, 18.5 in Paddington, and 18.8 in Stoke Newington; among the highest rates were 29.4 in Bermondsey, 30.3 in Shoreditch, 31.5 in Poplar, 32.3 in Stepney, and 37.7 in Finsbury.

During the last quarter the deaths of 16,900 London residents were registered, equal to an annual rate of 15.0 per 1,000, against 14.4, 15.8 and 14.3 per 1,000 in the corresponding periods of the three preceding years. The death-rates last quarter ranged from 10.5 in Wandsworth, 11.2 in Lewisham and in Woolwich, 11.5 in Hampstead and 12.6 in the City of Westminster, to 16.5 in Bermondsey, 17.5 in Southwark, 18.7 in Bethnal Green, 18.8 in Poplar, 18.9 in Stepney, 21.2 in Finsbury, and 23.4 in Shoreditch.

The 16,900 deaths from all causes included 30 from enteric fever, 788 from measles, 50 from scarlet fever, 152 from whooping-cough, 115 from diphtheria, and 318 from diarrhoea and enteritis among children under 2 years of age. Enteric fever was proportionately most fatal in Hammersmith, St. Marylebone, Islington, Hampstead, and Poplar; measles in Finsbury, Shoreditch, Bethnal Green, Stepney, Poplar, and Battersea; scarlet fever in St. Marylebone, Stepney, Southwark, Bermondsey, and Greenwich; whooping-cough in Kensington, Hammersmith, Finsbury, Bethnal Green, Battersea, Deptford, and Greenwich; diphtheria in Islington, Holborn, Stepney, Deptford, Greenwich, and Lewisham. The mortality from diarrhoea and enteritis among children under 2, measured in proportion to the registered births, was greatest in Kensington, the City of Westminster, Finsbury, Shoreditch, and Southwark.

The deaths from phthisis last quarter among London residents numbered 1,656, and were equal to an annual rate of 1.47 per 1,000; in the corresponding quarters of the three preceding years the rates were 1.44, 1.41, and 1.40 respectively. The death-rates from this disease last quarter ranged from 0.68 in Lewisham, 0.75 in Hampstead, 0.90 in Paddington, and 0.93 in Wandsworth to 1.86 in Bermondsey, 1.87 in Stepney, 1.91 in Finsbury, 2.11 in Southwark, 2.15 in the City of London, and 2.40 in Shoreditch.

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the Fourth Quarter of 1912.

Boroughs.	Estimated Population middle of 1912.	Births.	Deaths.	Annual Rate per 1,000 Living.		Deaths from								Deaths of Children Under 1 Year of Age to 1,000 Registered Births.
				Births.	Deaths.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping-cough.	Diphtheria.	Diarrhœa and Enteritis (Under 2 Years).	Phthisis.	
COUNTY OF LONDON ...	4,519,754	26,940	16,900	23.9	15.0	30	—	788	50	152	113	318	1,656	103
Paddington	142,362	658	471	18.5	13.3	—	—	13	—	4	1	8	32	138
Kensington	171,746	701	623	16.4	14.5	1	—	17	—	9	1	12	50	135
Hammersmith	122,750	624	431	20.4	14.1	3	—	8	1	5	1	7	47	119
Fulham	155,402	964	554	24.9	14.3	—	—	26	1	5	2	9	67	122
Chelsea	65,397	266	230	16.3	14.1	—	—	12	1	2	1	4	18	85
City of Westminster ...	157,248	477	492	12.2	12.6	1	—	6	1	2	3	12	46	122
*St. Marylebone ...	116,155	1,000	455	34.5	15.7	2	—	14	4	2	—	8	40	54
Hampstead	85,966	289	246	13.5	11.5	1	—	5	—	—	1	—	16	90
St. Pancras	216,145	1,167	808	21.7	15.0	—	—	14	1	5	5	9	95	102
Islington	326,398	1,825	1,293	22.4	15.9	5	—	69	5	6	12	26	121	102
Stoke Newington ...	50,581	237	176	18.8	13.9	—	—	3	—	1	—	—	14	63
*Hackney	222,986	1,319	773	23.7	13.9	2	—	6	3	2	2	16	89	86
*Holborn	48,026	322	194	26.9	16.3	—	—	5	—	1	4	4	21	71
*Finsbury	86,130	810	456	37.7	21.2	—	—	89	—	7	3	18	41	116
City of London	18,695	105	62	22.5	13.3	—	—	—	—	—	1	1	10	19
Shoreditch	110,430	833	645	30.3	23.4	—	—	107	1	5	3	19	66	141
Bethnal Green	127,985	886	598	27.8	18.7	—	—	65	1	8	4	14	56	150
*Stepney	277,315	2,231	1,309	32.3	18.9	3	—	133	6	10	11	32	129	132
Poplar	161,597	1,267	758	31.5	18.8	2	—	68	2	2	3	11	72	120
Southwark	190,017	1,305	829	27.5	17.5	1	—	10	4	3	6	25	100	108
Bermondsey	125,260	919	515	23.4	16.5	1	—	13	3	5	1	9	58	110
*Lambeth	297,550	1,966	1,110	26.5	15.0	3	—	21	3	9	8	21	117	81
Battersea	167,589	974	614	23.3	14.7	—	—	43	1	15	3	7	47	105
Wandsworth	321,881	1,545	840	19.2	10.5	2	—	29	5	2	4	7	75	77
Camberwell	261,591	1,463	909	22.4	13.9	1	—	2	—	15	7	19	91	99
Deptford	109,377	731	367	26.8	13.5	—	—	2	1	9	4	8	43	93
Greenwich	95,994	562	334	23.5	14.0	1	—	4	5	16	7	2	33	110
Lewisham	165,249	803	463	19.5	11.2	—	—	1	1	2	8	7	28	65
Woolwich	121,932	691	345	22.7	11.2	1	—	3	—	—	7	3	31	64

* No correction is made for births in lying-in institutions; the boroughs principally affected are marked thus (*).

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 103 per 1,000 last quarter, against 116, 128, and 113 in the fourth quarter of the three preceding years. The lowest rates recorded last quarter were 19 in the City of London, 63 in Stoke Newington, 64 in Woolwich, and 65 in Lewisham; the highest rates were 132 in Stepney, 135 in Kensington, 138 in Paddington, 141 in Shoreditch, and 150 in Bethnal Green.

HEALTH OF ENGLISH TOWNS.

In ninety-six of the largest English towns 9,082 births and 5,896 deaths were registered during the week ending Saturday, February 8th. The annual rate of mortality in these towns, which had been 16.5, 17.0, and 17.3 per 1,000 in the three preceding weeks, fell to 17.2 per 1,000 in the week under notice. In London the death-rate was equal to 17.3, against 16.5, 17.8, and 18.6 per 1,000 in the three previous weeks. Among the ninety-five other large towns the death-rates ranged from 4.2 in Ilford, 8.6 in Gillingham, 9.8 in Wolverhampton, 10.0 in Ealing, 10.2 in East Ham, and 10.3 in Walthamstow to 23.0 in Preston, 24.0 in Barrow-in-Furness, 24.7 in Wigan, 24.9 in Wakefield, 26.0 in South Shields, 26.4 in Bury, 30.9 in St. Helens, and 41.9 in Stockton-on-Tees. Measles caused a death-rate of 2.3 in Edmonton and in Sheffield, 2.4 in West Hartlepool, 2.8 in South Shields, 3.4 in Wigan, 3.8 in West Bromwich, 4.0 in Stockton-on-Tees, 4.2 in Acton, 5.2 in St. Helens, and 5.7 in Eastbourne; enteric fever of 1.3 in Preston; diphtheria of 1.4 in Coventry, and scarlet fever of 1.0 in Rhondda. The mortality from whooping-cough showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 52, or 0.9 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 7 in Liverpool, 5 each in Stoke-on-Trent, in Birmingham and in Sheffield, and 3 in Barrow-in-Furness. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,828, 1,784, and 1,738 at the end of the three preceding weeks, had further declined to 1,735 on Saturday last; 209 new cases were admitted during the week, against 204, 215, and 239 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In sixteen of the largest Scottish towns, 1,199 births and 874 deaths were registered during the week ending Saturday, February 1st. The annual rate of mortality in these towns, which had been 17.3, 18.5, and 20.2 per 1,000 in the three preceding weeks, was again 20.2 in the week under review, and was 2.9 per 1,000 in excess of the rate in the ninety-six large English towns. Among the several Scottish towns the death-rates ranged from 9.0 in Kilmarnock, 14.6 in Falkirk, and 14.8 in Greenock to 26.5 in Coatbridge, 31.2 in Perth, and 31.7 in Clydebank. The mortality from the principal infectious diseases averaged 1.7 per 1,000, and was highest in Perth and Motherwell. The 444 deaths from all causes registered in Glasgow included 38 from whooping-cough, 3 from diphtheria, 2 from infantile diarrhoeal diseases, 1 from scarlet fever, and 1 from enteric fever. Three deaths from whooping-cough were recorded in Edinburgh, in Leith, in Coatbridge, and in Motherwell, and 2 in Paisley.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, February 1st, 614 births and 470 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 714 births and 490 deaths in the preceding period. These deaths represent a mortality of 20 per 1,000 of the aggregate population in the districts in question, as against 21 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 2.8 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 26.7 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 18.8, as against an average of 20.9 for the previous four weeks, in Dublin city 19.8 (as against 21.9), in Belfast 22.9 (as against 22.2), in Cork 32.6 (as against 24.8), in Londonderry 19.1 (as against 21.6), in Limerick 17.6 (as against 14.9), and in Waterford 7.6 (as against 21.8). The zymotic death-rate was 1.3, as against 1.7 in the previous week.

ENGLISH URBAN MORTALITY IN THE FOURTH QUARTER OF 1912.

In the accompanying table (p. 165) will be found summarized the vital statistics of ninety-five of the largest English towns, based upon the Registrar-General's weekly returns for the fourth quarter of the year. The 105,598 births registered in these towns during the quarter under notice corresponded to an annual rate of 24.0 per 1,000 of the population, estimated at 17,639,881 persons in the middle of last year. In London the birth-rate last quarter was 23.9 per 1,000, while among the other large towns it ranged from 12.1 in Bournemouth, 13.8 in Southport, 14.1 in Eastbourne, 14.6 in Hornsey, 15.0 in Hastings and 15.4 in Blackpool to 30.0 in Liverpool and St. Helens, 30.4 in Rotherham, 30.6 in Stoke-on-Trent, 31.1 in Stockton-on-Tees, and 33.0 in Rhondda.

The 63,973 deaths registered in these towns were equal to a rate of 14.5 per 1,000; in London the death-rate was 15.0 per 1,000, while among the other large towns the lowest rates were 7.7 in Ilford, 8.3 in Wimbledon, 8.6 in Enfield, 9.0 in Gillingham, 9.5 in Bournemouth, and 9.8 in Eastbourne; the highest rates were 18.0 in Stockton-on-Tees, 18.1 in Preston and in Sunderland, 18.5 in Bootle, 18.6 in Tynemouth, 19.2 in Middlesbrough, 19.3 in Liverpool, and 19.8 in South Shields.

The deaths from all causes included 205 from enteric fever, 1 from small-pox, 3,433 from measles, 333 from scarlet fever, 558 from whooping-cough, 613 from diphtheria, and 1,231 (among children under 2 years of age) from diarrhoea and enteritis. The fatal case of small-pox belonged to Wolverhampton. The 205 deaths from enteric fever were equal to an annual rate of 0.05 per 1,000; in London the death-rate from this disease was 0.03 per 1,000, while among the other towns the highest rates were 0.15 in Stoke-on-Trent, in Barnsley, and in Middlesbrough, 0.17 in Hull, 0.19 in Rotherham, and 0.31 in Wigan. The 3,433 fatal cases of measles corresponded to a rate of 0.78 per 1,000; in London the death-rate from this cause was 0.70 per 1,000, while it ranged upwards in the other towns to 2.01 in South Shields, 2.12 in Birmingham, 2.21 in St. Helens, 2.24 in Barrow-in-Furness, 2.37 in Newcastle-on-Tyne, 2.38 in Stockport, 2.48 in Middlesbrough, 2.63 in West Hartlepool, 3.00 in Preston, and 3.05 in West Ham. The 333 deaths from scarlet fever were equal to 0.08 per 1,000; in London the scarlet fever death-rate was 0.04, while among the other large towns the highest rates were 0.20 in Preston, 0.22 in Eastbourne and in Dewsbury, 0.23 in Rhondda, 0.25 in West Hartlepool, 0.26 in Middlesbrough, 0.29 in Birmingham and in St. Helens, 0.33 in Huddersfield, and 0.54 in Aberdare. The 558 fatal cases of whooping-cough were equal to a rate of 0.13 per 1,000, which was also the death-rate from this disease in London; in the other large towns the highest rates were 0.31 in Nottingham, 0.32 in Rotherham, 0.33 in Warrington and in Burnley, 0.39 in Swindon, 0.40 in Wigan, 0.62 in Lincoln, 0.66 in Stoke-on-Trent, and 0.71 in Cambridge. The 613 deaths from diphtheria corresponded to a rate of 0.14 per 1,000; in London the rate was 0.10 per 1,000, while among the other large towns it ranged upwards to

Analysis of the Vital Statistics of Ninety-five of the Largest English Towns during the Fourth Quarter of 1912.

Towns.	Estimated Population middle of 1912.	Births.	Deaths.	Annual rate per 1,000 Living.		Deaths from							Deaths of Children under 1 year of age to 1,000 Births.	Rate per Cent. of Uncertified Deaths.
				Births.	Deaths.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping-cough.	Diphtheria.	Diarrhœa and Enteritis (under 2 years of age).		
95 Towns	17,639,881	105,598	63,973	24.0	14.5	206	1	3,433	333	558	613	1,231	111	0.9
London	4,519,754	26,940	16,900	23.9	15.0	30	—	788	50	152	113	318	103	0.1
Croydon	174,273	888	448	20.4	10.3	2	—	2	1	—	4	10	69	—
Wimbledon	56,729	259	117	18.3	8.3	2	—	—	—	—	1	2	58	—
Ealing	64,955	314	163	19.4	10.1	—	—	1	—	3	1	1	73	—
Acton	60,113	349	171	23.3	11.4	1	—	12	1	2	2	4	69	—
Willesden	159,432	908	453	22.8	11.4	1	—	26	—	7	2	5	94	—
Hornsey	86,252	314	234	14.6	10.9	—	—	2	—	—	—	—	76	—
Tottenham	142,015	921	411	26.0	11.6	—	—	17	—	—	3	11	77	—
Edmonton	67,167	424	176	25.3	10.5	—	—	15	—	2	2	1	68	—
Enfield	58,139	310	125	21.4	8.6	—	—	14	—	—	1	1	71	—
West Ham	291,900	2,149	1,258	29.5	17.3	4	—	222	5	15	4	23	125	0.1
East Ham	138,450	833	424	24.1	12.3	—	—	40	3	7	2	1	89	—
Leyton	128,155	712	355	22.3	11.1	1	—	9	—	5	4	4	62	—
Walthamstow	128,480	735	346	22.9	10.8	1	—	11	1	8	7	3	98	—
Ilford	83,080	354	159	17.1	7.7	—	—	3	—	—	1	1	59	—
Gillingham	53,511	344	120	25.8	9.0	1	—	—	1	—	1	2	49	4.2
Hastings	60,565	227	207	15.0	13.7	—	—	1	—	—	2	2	48	—
Eastbourne	53,730	189	131	14.1	9.8	—	—	2	3	—	2	—	58	—
Brighton	132,265	564	369	17.1	11.2	4	—	—	—	2	—	7	55	—
Portsmouth	236,731	1,295	699	21.9	11 8	7	—	—	11	3	42	15	87	0.9
Bournemouth	81,178	245	193	12.1	9.5	1	—	—	—	—	—	—	61	—
Southampton	120,891	688	409	22.8	13.6	2	—	5	—	1	4	5	76	0.2
Reading	88,603	487	247	22.0	11.2	—	—	—	1	4	—	5	88	1.6
Oxford	53,540	239	170	17.9	12.7	—	—	—	—	1	—	1	80	—
Northampton	90,467	438	333	19.4	14.8	—	—	44	—	2	1	3	98	0.6
Cambridge	56,522	266	162	18.9	11.5	—	—	—	1	10	6	—	90	—
Southend-on-Sea	67,196	334	184	19.9	11.0	1	—	—	—	1	1	2	48	4.9
Ipswich	74,899	391	258	20.9	13.8	—	—	—	—	2	1	1	100	—
Great Yarmouth	56,513	342	218	24.3	15.5	1	—	2	—	3	2	2	117	—
Norwich	122,479	677	373	22.2	12.2	3	—	—	—	2	4	3	100	1.3
Swindon	51,512	276	141	21.5	11.0	—	—	8	—	5	1	6	76	—
Plymouth	112,612	590	405	21.0	14.4	3	—	3	1	1	1	6	100	—
Devonport	83,167	516	245	24.9	11.8	3	—	7	2	—	4	5	87	—
Bath	69,599	309	263	17.8	15.2	1	—	16	2	5	1	3	71	—
Bristol	359,432	1,869	1,082	20.9	12.1	1	—	11	1	17	10	9	89	—
Gloucester	50,310	264	184	21.0	14.7	1	—	1	1	1	1	4	110	1.6
Stoke-on-Trent	237,159	1,812	969	30.6	16.4	9	—	5	4	39	24	34	144	1.9
Wolverhampton	95,479	575	311	24.2	13.1	—	1	4	3	2	5	7	101	0.3
Walsall	92,868	676	287	29.2	12.4	1	—	2	—	—	—	9	95	—
West Bromwich	68,750	505	230	29.5	13.4	1	—	3	1	1	3	4	129	2.2
Dudley	51,390	330	159	25.8	12.4	—	—	—	1	2	—	3	103	5.0
Birmingham	850,947	5,449	3,430	25.7	16.2	14	—	450	62	15	42	75	136	3.4
Smethwick	72,833	473	203	26.0	11.2	—	—	5	3	1	5	2	108	—
Coventry	111,166	696	370	25.1	13.3	—	—	47	3	3	11	3	66	1.6
Leicester	229,294	1,218	839	21.3	14.7	2	—	58	1	1	2	14	135	0.1
Lincoln	58,411	305	211	20.9	14.5	—	—	24	—	9	—	5	134	0.9
Grimsby	76,185	471	283	24.8	14.9	—	—	33	2	4	2	3	140	1.4
Nottingham	262,574	1,579	960	24.1	14.7	5	—	2	6	20	8	24	132	0.1
Derby	124,544	674	336	21.7	10.8	—	—	5	—	—	1	3	67	—
Stockport	110,781	576	363	20.9	13.1	2	—	3	1	—	3	4	108	0.6
Birkenhead	133,427	923	523	27.7	15.7	1	—	38	1	3	4	20	118	0.4
Wallasey	81,805	446	225	21.9	11.0	—	—	10	3	2	1	—	67	1.3
Liverpool	752,021	5,625	3,611	30.0	19.3	7	—	312	19	44	28	127	139	2.1
Bootle	71,153	517	329	29.1	18.5	1	—	34	—	1	1	5	132	4.0
St. Helens	98,159	735	414	30.0	16.9	[illegible]	—	54	7	1	6	11	136	5.1
Southport	70,444	243	205	13.8	11.7	—	—	—	—	—	[illegible]3	3	54	1.5
Wigan	90,042	600	338	26.7	15.1	7	—	24	—	9	2	5	122	—
Warrington	73,215	510	248	27.9	13.6	1	—	—	1	6	1	6	98	0.5
Bolton	182,524	961	573	21.1	12.6	5	—	3	5	6	5	12	101	0.3
Bury	59,106	286	188	19.4	12.8	1	—	—	1	—	—	3	94	3.7
Manchester	723,531	4,271	2,748	23.7	15.2	11	—	37	22	12	33	81	137	0.3
Salford	232,734	1,439	867	24.8	15.0	2	—	3	[illegible]	10	6	30	129	0.5
Oldham	148,839	855	568	23.0	15.3	—	—	—	1	3	1	14	124	—
Rochdale	92,529	413	317	17.9	13.7	—	—	13	3	—	5	4	104	2.8
Burnley	108,012	534	407	19.8	15.1	3	—	1	—	9	3	13	184	1.0
Blackburn	133,560	608	499	18.3	15.0	2	—	2	—	9	—	16	146	1.4
Preston	117,631	630	531	21.5	18.1	—	—	88	6	5	13	13	137	3.2
Blackpool	59,831	230	173	15.4	11.6	2	—	2	—	—	2	3	96	2 9
Barrow-in-Furness	64,589	385	242	23.9	15.0	—	—	36	2	—	13	2	100	4.5
Huddersfield	109,513	500	381	18.3	13.9	1	—	14	9	1	3	3	102	—
Halifax	101,104	453	357	18.0	14.2	—	—	—	2	—	2	2	75	—
Bradford	289,609	1,316	1,020	18.2	14.1	7	—	—	3	6	14	5	110	—
Leeds	447,746	2,498	1,595	22.4	14.4	5	—	33	7	6	20	17	104	0.1
Dewsbury	53,630	302	188	22.6	14.1	—	—	12	3	1	—	3	119	—
Wakefield	51,942	282	144	21.8	11.1	—	—	—	—	—	2	2	71	—
Barnsley	51,876	353	165	27.3	12.8	2	—	8	—	2	3	4	108	—
Sheffield	466,408	3,162	1,761	27.2	15.1	5	—	158	11	5	21	38	127	0.5
Rotherham	63,560	481	237	30.4	15.0	3	—	2	1	5	4	3	146	1.7
York	82,860	477	249	23.1	12.1	1	—	—	—	1	7	2	75	—
Hull	282,988	1,886	1,180	26.7	16.7	12	—	85	—	4	7	19	108	0.8
Middlesbrough	106,550	786	510	29.6	19.2	4	—	66	7	1	3	11	172	0.4
Darlington	57,104	340	181	23.9	12.7	1	—	2	3	—	1	1	79	5.0
Stockton-on-Tees	52,244	405	235	31.1	18.0	—	—	31	—	3	2	1	106	1.3
West Hartlepool	64,095	392	278	24.5	17.4	—	—	58	4	—	6	5	130	1.4
Sunderland	151,832	1,117	687	29.5	18.1	1	—	29	1	7	7	11	151	1.9
South Shields	109,678	802	542	29.3	19.8	1	—	55	2	5	3	8	172	3.9
Gateshead	117,848	772	455	26.3	15.5	1	—	[illegible]	1	1	5	8	124	7.3
Newcastle-on-Tyne	269,196	1,676	1,149	25.0	17.1	5	—	159	11	9	6	15	142	0.6
Tynemouth	59,803	436	278	29.2	18.6	—	—	23	1	3	—	6	160	3.6
Newport (Mon.)	85,866	543	258	25.4	12.1	—	—	3	1	—	2	3	99	1.2
Cardiff	184,633	1,101	585	23.9	12.7	1	—	—	1	2	8	10	96	—
Rhondda	157,952	1,299	564	33.0	14.3	4	—	61	9	11	7	15	125	0.7
Merthyr Tydfil	82,548	590	303	28.7	14.7	1	—	16	3	3	5	6	98	0.3
Aberdare	51,819	365	192	28.3	14.9	—	—	2	7	3	1	1	110	0.5
Swansea	117,328	754	389	25.8	13.3	1	—	28	1	1	10	8	94	0.3

0.34 in York and in Swansea, 0.38 in West Hartlepool, 0.40 in Coventry, 0.41 in Stoke-on-Trent, 0.43 in Cambridge, 0.44 in Preston, 0.71 in Portsmouth, and 0.81 in Barrow-in-Furness. The fatal cases of diarrhoea and enteritis among children under 2 years of age numbered 1,231, and were in the proportion of 11.66 per 1,000 to the births registered during the quarter; the highest proportions recorded were 20.63 in Preston, 20.85 in Salford, 21.67 in Birkenhead, 21.74 in Swindon, 22.58 in Liverpool, 24.34 in Burnley, and 26.32 in Blackburn.

Infant mortality measured by the proportion of deaths among children under 1 year of age to registered births was equal to 111 per 1,000; in London the rate was 103 per 1,000, while among the other large towns it ranged from 48 in Hastings and in Southend, 49 in Gillingham, 54 in Southport, 55 in Brighton, 58 in Wimbledon and in Eastbourne, and 59 in Ilford, to 144 in Stoke-on-Trent, 146 in Rotherham and in Blackburn, 151 in Sunderland, 160 in Tynemouth, 172 in Middlesbrough and in South Shields, and 184 in Burnley.

The causes of 0.9 per cent. of the deaths registered in the ninety-five towns last quarter were not certified either by a registered medical practitioner or by a coroner. In thirty-nine of the towns the causes of all the deaths were certified; the highest proportions of uncertified deaths recorded were 4.2 per cent. in Gillingham, 4.5 in Barrow-in-Furness, 4.9 in Southend, 5.0 in Darlington, 5.1 in St. Helens, and 7.5 in Gateshead.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

AGRA: DUFFERIN HOSPITALS.—Lady Doctor on the Staff. Salary, Rs. 300 a month.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BEDFORD COUNTY HOSPITAL.—(1) House-Surgeon. (2) Assistant House-Surgeon. (3) Male Assistant House-Surgeon. Salary for (1) £100, for (2) and (3) £80 per annum.

BIRKENHEAD: BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

BIRKENHEAD UNION.—Senior Male Resident Assistant Medical Officer. Salary, £120 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM: GENERAL HOSPITAL.—House-Surgeon to Obstetric Department. Salary at the rate of £50 per annum.

BIRMINGHAM UNION.—Chief Medical Officer. Salary, as non-resident, £750 per annum, increasing to £1,000; as resident, £600 per annum, increasing to £850.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

BRADFORD ROYAL INFIRMARY.—Two Male House-Surgeons. Salary, £100 per annum.

BRENTFORD UNION.—Second Assistant to the Medical Superintendent of the Infirmary, Workhouse, and Schools. Salary, £150 per annum, rising to £185.

BRIGHTON, HOVE AND PRESTON DISPENSARY.—Resident Medical Officer. Salary, £160 per annum.

BRISLINGTON HOUSE PRIVATE ASYLUM, near Bristol.—Junior Besident Medical Officer. Salary commencing at £160.

BRISTOL ROYAL INFIRMARY.—(1) Honorary Surgeon. (2) Honorary Assistant Surgeon.

BURY INFIRMARY.—(1) Senior House-Surgeon. Salary, £110 per annum. (2) Junior House-Surgeon. Salary, £80 per annum, increasing to £90.

CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary to commence £140 per annum.

CARDIFF: KING EDWARD VII'S HOSPITAL.—House-Surgeon (male) for the Ophthalmic and Ear and Throat Departments. Honorarium, £30 for six months.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary, £150 per annum.

CHELSEA HOSPITAL FOR WOMEN, Fulham Road, S.W.—Clinical Assistant.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—Honorary Assistant Ophthalmic Surgeon.

COLCHESTER: ESSEX COUNTY HOSPITAL.—House-Physician. Salary, £80 per annum. (The name of this institution was accidentally printed as Essex County Asylum last week.)

COVENTRY: COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary, £90 per annum, rising to £100 after six months.

CROYDON BOROUGH HOSPITAL FOR INFECTIOUS DISEASES.—Assistant Resident Medical Officer. Salary, £120 per annum.

DAVOS PLATZ: QUEEN ALEXANDRA SANATORIUM.—Resident Assistant Medical Officer. Salary, £100 per annum.

DEVON COUNTY ASYLUM, Exminster.—Fourth Assistant Medical Officer. Salary, £130 per annum, rising to £140, and £50 at the end of each year for pathological work.

DUBLIN: MERCER'S HOSPITAL.—Honorary Anaesthetist.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—House-Physician. Salary at the rate of £75 per annum.

FIJI: LEPER ASYLUM, Makogai Island.—Assistant Medical Officer. Salary, £400 per annum, rising to £500.

GRAVESEND HOSPITAL.—House-Surgeon. Salary, £100 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. Salary, £75 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—House-Surgeon. Salary, £30 for six months, and £2 10s. washing allowance.

HUDDERSFIELD ROYAL INFIRMARY.—Male Junior Assistant House-Surgeon. Salary, £60 per annum.

KING EDWARD VII SANATORIUM, Midhurst.—Second Assistant Medical Officer. Salary, £150 per annum, rising to £200.

LANCASHIRE EDUCATION COMMITTEE, Preston.—School Medical Inspector. Salary, £250 per annum, rising to £400.

LINCOLN GENERAL DISPENSARY.—Male Resident Medical Officer. Salary, £300 per annum.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—(1) House-Physician. (2) Three House-Surgeons. Salary at the rate of £60 per annum.

LIVERPOOL ROYAL INFIRMARY.—(1) Two Honorary Assistant Physicians. (2) Honorary Laryngologist.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—(1) Two House-Physicians. (2) Three House-Surgeons. Salary at the rate of £50 per annum.

LONDONDERRY DISTRICT LUNATIC ASYLUM.—Senior Male Assistant Medical Officer. Salary, £200 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

MANCHESTER: ST. JOHN'S HOSPITAL FOR MANCHESTER AND SALFORD FOR THE EAR AND EYE.—Honorary Assistant Aural Surgeon.

MIDDLESEX HOSPITAL MEDICAL SCHOOL, W.—Senior Demonstrator of Anatomy. Salary at the rate of £100 per annum.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—Five Honorary District Medical Officers.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Honorary Dental Surgeon.

NEWCASTLE-ON-TYNE DISPENSARY.—Four Visiting Medical Assistants. Salary, £160 for first year, rising to £180.

NOTTINGHAM CITY ASYLUM.—Second Assistant Medical Officer (male). Salary, £200 per annum.

NOTTINGHAM GENERAL DISPENSARY.—(1) Assistant Resident Surgeon (male); salary, £170 per annum. (2) Resident and Assistant Resident Surgeons for Branch; salary, £180 and £170 per annum respectively.

PRESTON ROYAL INFIRMARY.—Senior House-Surgeon (male). Salary, £80 per annum.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham.—Junior House-Physician and Assistant Pathologist. Salary at the rate of £60 per annum.

ROCHDALE INFIRMARY.—(1) Senior House-Surgeon (male). Salary, £100 per annum. (2) Junior House-Surgeon. Salary, £80 per annum, rising to £90 after six months.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Senior House-Surgeon. Salary at the rate of £100 per annum.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C.—(1) Honorary Surgeon to Out-patients. (2) Clinical Assistant.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon (male). Salary at the rate of £80 per annum.

STAFFORD: COTON HILL MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £170 per annum, increasing to £200.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—(1) House-Physician. Salary, £100 per annum. (2) House-Surgeon. Salary, £120 per annum, increasing £10 yearly for two years.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

SUFFOLK DISTRICT ASYLUM, Melton.—Second Assistant Medical Officer (male). Salary commencing at £180 per annum.

WALSALL AND DISTRICT HOSPITAL.—Assistant House-Surgeon. Salary, £90 per annum.

WARWICKSHIRE COUNTY COUNCIL.—Assistant County Medical Officer of Health. Salary, £250 per annum, rising to £300.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Surgeon-Accoucheur.

WORKSOP DISPENSARY AND VICTORIA HOSPITAL.—Medical Officer and House-Surgeon. Salary, £150 per annum.

YORK: THE RETREAT.—Junior Assistant Medical Officer. Salary, £175 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Bideford (Devonshire), Christchurch (Hants), Colne (Lancs.), Loanhead (Edinburgh).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

BOTT, S., M.R.C.S., L.R.C.P., District Medical Officer of the Caistor Union.

BOYCE, J. G., L.R.C.P.&S.Irel., District Medical Officer of the Tenterden Union.

BROMHALL, C. H., M.B., Ch.B.Vict., District Medical Officer of the Nottingham Parish.

BUCKHAM, Thomas, M.B., B.S.Durh., Medical Officer of the Lanchester Rural District Council, vice Dr. J. Wilson, resigned.

CROOKSHANK, F. G., M.R.C.P.Lond., appointed Physician to Out-patient to the Hampstead General and North-West London Hospitals.

DAVID, A. S., M.R.C.S.Eng., L.R.C.P., District Medical Officer of the Ongar Union.

DONALDSON, J. E., M.B.Syd., Junior Resident Medical Officer at the Royal Hospital for Women, Glenmore Road, Sydney, N.S.W.

EDMONSTON, C. G., M.B., Ch.B.Edin., District Medical Officer of the Dartford Union.

EEDLE, E. J., M.R.C.S., L.R.C.P., Assistant Medical Officer to the Bristol Parish Workhouses.

ENNION, O. R., M.R.C.S., L.R.C.P., District Medical Officer of the Newmarket Union.

FOGARTY, Joseph, M.B., B.S.Melb., Junior Medical Officer at the Ballarat Hospital, Victoria, vice Dr. McArthur, appointed Senior Medical Officer.

GOADBY, K. W., M.R.C.S., Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuits Nos. 35, 37, 38, 40, 41, 42, 43, 44, 45, 47, 48, 49, and 50, with a view to being employed in cases of industrial diseases (except ophthalmic cases and cases of beat-hand, beat-knee, and beat-elbow).

HARNETT, William George, M.D.Dub., Divisional Surgeon to Metropolitan Police stationed at Barnet.

HIRD, R. Beatson, M.D., Ch.B.Birm., F.R.C.S.Edin., M.R.C.S.Eng., L.R.C.P.Lond., Honorary Ophthalmic Surgeon to the General Hospital, Birmingham, vice D. C. Lloyd-Owen, F.R.C.S.I., resigned.

HOLTHUSEN, A. W., M.B., B.S.Lond., Medical Officer of the Schools of St. George-in-the-East Parish.

HOWELL, C. M. Hinds, M.D., F.R.C.P., Medical Registrar to St. Bartholomew's Hospital.

HUDSON, E. P., L.D.S.Eng., Dental Surgeon to St. Marylebone Home for Incurables.

INKSTER, J., M.B., B.S.Aberd., Assistant Medical Officer to the Bethnal Green Union Infirmary.

KAUFFMANN, O. J., M.D., Medical Referee under the Workmen's Compensation Act for County Court Circuits Nos. 22 and 27, with a view to being employed in cases of industrial diseases (except ophthalmic cases and cases of beat-hand, beat-knee, and beat-elbow).

LYONS, W. C., M.B., B.S.Edin., Resident Medical Officer to the Eastby Sanatorium of the Bradford Union.

MCADOO, H. M., L.R.C.P.&S.Irel., District Medical Officer of the Wolstanton and Burslem Union.

MCDONALD, W. A., L.R.C.P.&S.Edin., District Medical Officer of the Newcastle-under-Lyme Union.

MCRAE, R., M.B., B.S.Aberd., Second Assistant Medical Officer to the Paddington Parish Workhouse and Infirmary.

MARKS, Herbert J., M.D., M.R.C.S., L.R.C.P., Honorary Surgeon for Diseases of the Ear, Nose, and Throat at the Royal Prince Alfred Hospital, Sydney, N.S.W.

MITCHELL, J. R., M.B., Honorary Junior Assistant-Physician to the Newcastle-on-Tyne Skin Hospital.

MORRISON, F. S., F.R.C.S.I. Certifying Factory Surgeon for the Medbourne District, co. Leicester.

MORRISON, W. H., M.B., District Medical Officer of the Escrick Out-Relief Union.

ORTON, D. C. Leyland, L.R.C.P.Lond., M.R.C.S., L.D.S.R.C.S.Eng., Honorary Anaesthetist and Dental Surgeon to the Eye and Ear Infirmary, Liverpool.

PATRICK, J. King, M.B., Ch.B., B.Sc.Glasg., D.P.H., Tuberculosis Medical Officer for the Metropolitan Borough of Hampstead.

PICKUP, J. C., M.B., B.S.Glas., District Medical Officer of the Barnsley Union.

POOLEY, G. H., F.R.C.S., Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuits Nos. 13 and 16, with a view to being employed is ophthalmic cases.

PRATT, Lieutenant-Colonel J. J., F.R.C.S., I.M.S.(ret.), Lecturer on Tropical Diseases at the Westminster Hospital Medical School, vice Lieutenant-Colonel A. Duncan, M.D., F.R.C.P., F.R.C.S., I.M.S.(ret.), deceased.

PRIESTLEY, R. F., M.B., B.C., D.P.H., Assistant School Medical Officer to the Reading Education Committee.

PRINGLE, G. L. Kerr, M.D.Edin., Honorary Physician to the Royal Bath Hospital, Harrogate.

RANKIN, Thomas T., M.D., Resident Medical Officer at the Constance Road Workhouse, Camberwell.

ROBERTS, J. F., M.B., Assistant Medical Officer of the West Derby Union Infirmary.

ROUGVIE, Miss M., M.B., B.S.Edin., Assistant Medical Officer to the Halifax Union Poor Law Hospital.

SCHLINK, H., M.B., Ch.M.Syd., Honorary Assistant Gynaecological Surgeon to the Royal Prince Alfred Hospital, Sydney, N.S.W.

SCHOLBERG, H. A., M.B., Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuits Nos. 24, 28, 30, 31, and 54, with a view to being employed in cases of industrial diseases (except ophthalmic cases and cases of beat-hand, beat-knee, and beat-elbow).

SELLERS, Arthur, M.D., Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuits Nos. 3, 4, 5, 6, 7, 8, 9, and 19, with a view to being employed in cases of industrial diseases (except ophthalmic cases and cases of beat-hand, beat-knee, and beat-elbow).

WESTMACOTT, Fredk. H., F.R.C.S., Assistant Surgical Officer to the Aural Department of the Manchester Royal Infirmary (reappointment).

WHEELER-O'BRYEN, J., M.D.Ver., L.R.C.P.&L.M.Ed., L.R.C.S.&L.M.Ed., L.A.H.Dub., District Medical Officer and Public Vaccinator for Sydenham.

WILLIAMSON, Oliver K., M.A., M.D.Cantab., F.R.C.P.Lond., Fourth Assistant Physician to the Westminster Hospital.

WOODALL, A. E., M.Sc., M.D.Vict., Medical Officer at the Central Branch of the Manchester Royal Infirmary (reappointment).

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—The following appointments have been made:

Radiographer and Medical Electrician, E. U. Williams, M.R.C.S., L.R.C.P.
Assistant Anaesthetist, Miss F. R. Bousfield, M.B., B.S.
Clinical Assistant to Skin Department, Mrs. Addison, M.B., B.S.
Clinical Assistant to Mr. Cunning, Miss Hunt, M.D., B.S.Lond., D.P.H.Camb., M.A., B.Sc.

UNIVERSITY COLLEGE HOSPITAL.—The following appointments have been made:

Casualty Surgical Officer, A. A. Henderson, M.R.C.S., L.R.C.P.
House-Surgeon, R. L. Horton, M.R.C.S., L.R.C.P.
House-Physician, J. Taylor, M.B., B.S., M.R.C.S., L.R.C.P.
Physician in Charge of the Out-patient Department for Mental Diseases, Bernard Hart, M.D.Lond.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

BOLTON.—February 5th, at the West Riding Asylum, Wakefield, the wife of Joseph Shaw Bolton, M.D., D.Sc., F.R.C.P., of a son.

DARKE.—On February 9th, at 3, Pownall Gardens, Hounslow, the wife of Sydney J. Darke, M.B., B.S., of a son.

HALL.—At 1, North Gill Crescent, Fence Houses, co. Durham, on 11th inst., the wife of J. Robertson Hall, M.B., Ch.B.Edin., of a daughter.

DEATHS.

MCHARDY.—On February 8th, in Dumfries, Malcolm Macdonald McHardy, F.R.C.S., in his 61st year.

SUTCLIFFE.—On January 29th, at "Lea Loyd," Boscombe, Hants, Henry Sutcliffe, M.R.C.S., Consulting Surgeon to the West Bromwich District Hospital, aged 74.

IN MEMORIAM.

IN ever loving memory of our dearly beloved and only son Phiroze (Ball), who departed this life in the 19th year of his life, whilst yet full of bright hopes and noble aspirations, on December 26th, 1910.

All tears are vain, we cannot now recall thee,
Gone is thy loving voice, thy sweetest face:
Gone from the home, where we so dearly loved thee,
Where none can ever fill thy place.

Inserted by his sorrowing parents, Dr. B. H. Nanavatty, F.R.C.S., and Mrs. B. H. Nanavatty, of Ahmedabad.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 9 p.m.—Second Lettsomian Lecture by Mr. James Berry: The Surgery of the Thyroid Gland, with Special Reference to Exophthalmic Goitre.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Upright Posture: Its Evolution and Diseases.

TUESDAY.

CHELSEA CLINICAL SOCIETY, Club Rooms of the Medical School, St. George's Hospital, 8.30 p.m.—Agenda: Papers: Dr. V. B. Orr: The Work of a Tuberculin Dispensary. Dr. Halls Dally: The Use of Tuberculin in Diagnosis and Treatment. A discussion will follow, in which Dr. Barcroft, Dr. L. A. Clutterbuck, Dr. F. N. Griffiths, Dr. Campbell McClure, and others will take part.

LONDON DERMATOLOGICAL SOCIETY, St. John's Hospital, 49, Leicester Square, W.C., 4.30 p.m.—(1) Demonstration of Pathological Specimens. (2) Cases sent for Consultation. (3) Exhibition of Clinical Cases as follow: (*a*) Dr. Sibley: (1) Leucodermia; (2) Scrofulodermia. (*b*) Dr. Bunch: A Case for Diagnosis. (*c*) Dr. Dockrell: (1) Acne Varioloformis; (2) Syphilide on a Tuberculous Base. (*d*) Dr. Griffith: (1) Persistent Erythrodermia: (2) Ichthyosis. 5.15 p.m.—Discussion on the Sociological Aspect of Syphilis will be opened by Dr. Prosser White (Wigan).

MEDICO-LEGAL SOCIETY, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Medico-Legal Specimens: By F. W. Mott, M.D., F.R.S.: (1) Case of Needle embedded in the Septum Ventriculorum for Twenty-nine Years. (2) Case of Acute Mania of General Paralysis with Ununited Fracture of the Femur. By F. J. Smith, M.A., M.D., F.R.C.P., F.R.C.S.: (1) Brain showing Track of a Bullet. Wound self-inflicted, query Accident? (2) Skull with Knife sticking in it. (3) Intestine with many Bullet Wounds. (4) Stomach — Acute Poisoning.

ROYAL SOCIETY OF MEDICINE:

SECTION OF PATHOLOGY, 1, Wimpole Street, W., 8.30 p.m.—Dr. H. Warren Crowe: A New Method for the Differentiation of certain Streptococci. Dr. Alfred A. Lendon: Ovarian Cystoma with Splenic Metastasis. Dr. Arthur Hall: Obliterative Cholangitis with Dilatation of the Hepatic Ducts.

SECTION OF THERAPEUTICS AND PHARMACOLOGY, 1, Wimpole Street, W., 4.30 p.m.—Discussion (adjourned from January 21st), The Non-operative Treatment of Malignant Disease. The Discussion will be resumed by Dr. R. Knox, Mr. C. Rowntree, Dr. Finzi, Dr. Iredell, Dr. Haig, Dr. R. Bell, Dr. O. F. F. Grünbaum, Dr. Shaw Mackenzie.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Upright Posture: Its Evolution and Diseases.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W.—Discussion on the Diagnosis of Acute Abdominal Conditions in Children will be opened by Mr. Corner and Dr. Cautley, and continued by Sir James Goodhart, Mr. Warren Low, Dr. Still, and others.

ROYAL SOCIETY OF MEDICINE:

SECTION OF DERMATOLOGY, 1, Wimpole Street, W., 5 p.m.—Demonstration of Cases.

SECTION OF NEUROLOGY, 1, Wimpole Street, W., 8.30 p.m.—In place of the February meeting, a combined meeting of the Sections of Ophthalmology and Neurology will be held on Wednesday, March 5th, at 8 p.m.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Upright Posture: Its Evolution and Diseases.

ROYAL SOCIETY OF MEDICINE:

SECTION OF ELECTRO-THERAPEUTICS, 1, Wimpole St., W., 8.30 p.m.—Discussion to consider the Use of *X* Rays in the Diagnosis of Pulmonary Tuberculosis.

SECTION OF OTOLOGY, 1, Wimpole Street, W., 5 p.m.—Casual Specimens and Communications: Mr. Arthur Cheatle: Both Temporal Bones from 120 Individuals, with lantern slides. Mr. E. B. Waggett and Mr. F. D. Davis: Osteoma of Mastoid. Dr. Watson-Williams: A Periosteal Flap to Line the Bone Cavity in the Radical Mastoid Operation. Dr. Dan McKenzie: Otitic Abscess of Pterygoid Region: Drainage through External Auditory Meatus; Recovery. Mr. R. Lake: Cyst of Concha, Section and Report. Mr. G. N. Biggs: Specimen of Auricular Epithelioma. Mr. H. J. Davis: (1) Boy, aged 5; Progressive Bilateral Deafness following Attack of Epidemic Cerebro-spinal Meningitis Three Years ago; Boy now become mute. (2) Woman, aged 32; Sudden Deafness following Scald to Membrana Tympani by Steam; Recovery. (3) Man, aged 55; Epithelioma of Middle Ear involving Middle and Posterior Fossae of the Skull; with photographs.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION, Wednesday, 4.30 p.m.—Demonstration of Cases.

CANCER HOSPITAL, Fulham Road, S.W., Wednesday, 5 p.m.—Diagnosis of Cancer of the Stomach.

LONDON HOSPITAL MEDICAL COLLEGE, E.—Monday, 4.30 p.m.: Lesions of the Peripheral Nervous System and Spinal Cord. Tuesday, 4.30 p.m.: Pathology of the Central Nervous System. Wednesday, 4.30 p.m.: Clinical Anatomy and Regional Diagnosis. Friday, 4.30 p.m.: Common Diseases of the Nervous System.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m.; Medical and Surgical Clinics. Monday: 12 noon, Throat, Nose, and Ear; 2.15 p.m., Surgery; 3 p.m., Operations; 3.15 p.m., Medicine; 4.15 p.m., Ear and Throat. Tuesday: 12 noon, Skin; 2 p.m., Operations: 2.15 p.m., Surgery: 3.15 p.m., Medicine; 4.15 p.m., Skin. Wednesday: 11 a.m., Eye; 2 p.m., Operations: 2.15 p.m., Medicine; 3.15 p.m., Eye Clinic; 4.30 p.m., Surgery. Thursday: 12 noon, Throat, Nose, and Ear; 2 p.m., Operations, Pathological Demonstration; 3.15 p.m., Medicine. Friday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Surgery. Saturday: 10 a.m., Radiography, 11 a.m., Eye.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical Laboratory Work daily (Saturday excepted), 10 to 12 a.m. Practical Entomology, 2 to 3.30 daily. Special Entomology, 10.30 to 1 p.m. daily. Medical Clinics Tuesday and Thursday at 3 p.m. Operations Friday at 3 p.m.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m.: Some Varieties and Causes of Ataxia. Friday, 4.30 p.m.: Tuberculosis of Bone.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 pm.: Enlargements of the Thyroid Gland, including Exophthalmic Goitre.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Eye. Lectures at 5.15 p.m. each day will be given as follows: Monday, An Efficient Ambulance Service for Accidents and other Casualties in London Streets and other Places; Tuesday, Asthma in Children; Wednesday, Gastro-Intestinal Medicine; Thursday, Gait in Nervous Disease.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C., Tuesday, 3.30 pm., Friday, 3.30 p.m.—Syphilis of the Nervous System.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration of Clinical and General Pathology. Tuesday, 2.30 p.m. Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics: *X* Rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations; 4.30 p.m., Special Demonstration of Selected Cases of Children's Disease. Thursday, 2.30 p.m., Gynaecological Operations. Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient; 4.30 p.m., Lecture on the Diagnosis and Treatment of Scoliosis. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration.

ROYAL EYE HOSPITAL, St. George's Circus, S.E., Tuesday, 4.30 p.m.—Inflammation of the Uveal Tract.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Monday, 4.30 p.m.: Some Points in the Surgery of the Thorax. Thursday, 4.30 p.m.: Myocarditis. Friday, 4.30 p.m.: Special Clinical Demonstration on Bronchiectasis, illustrated by the Epidiascope.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily arrangements: Medical and Surgical Clinics, 2 p.m.; *X* Rays 2 p.m.; Operations 2 p.m. Monday: Gynaecology, 10 a.m.; Medical Registrar, 10.30 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Surgical Registrar, 10.30 a.m.; Demonstration of Fractures, etc., 12 noon; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Lecture, Abdominal Diagnosis, 12 noon; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10.30 a.m.; Lecture, Neurological Cases, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture, Practical Medicine, 10.30 a.m.: Lecture, Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.; Surgical Registrar, 10.30 a.m.; Lecture, Surgical Anatomy of the Abdomen, 12 noon. Lectures at 5 p.m.: Monday, Abdominal Injuries; Tuesday, Types of Insanity; Wednesday, Practical Medicine; Thursday, Practical Surgery; Friday, Administration of Anaesthetics.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		FEBRUARY.
14	Fri.	Hampstead Division, Finchley Road, 8.15 p.m.
18	Tues.	London: Standing Ethical Subcommittee. 2 p.m.
19	Wed.	East Hertfordshire Division, Hertford, 3 p.m. Richmond Division, Richmond, 8.30 p.m. South Middlesex Division, Twickenham, 8.30 p.m.
20	Thur.	London: State Sickness Insurance Committee, 10.30 a.m.
21	Fri.	Isle of Thanet Division, Margate, 3.45 p.m. Newcastle-on-Tyne Division, Scientific Demonstration, Royal Victoria Infirmary.
27	Thur.	Staffordshire Branch, Stafford, 5.15 p.m.; dinner, 7 p.m.
28	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		MARCH.
5	Wed.	London: Finance Committee, Special Meeting.
11	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
13	Thur.	Birmingham Branch, Medical Institute, 3.30 p.m. South-West Essex Division, Leyton, 4 p.m.

Date.		Meetings to be Held.
		MARCH (*continued*).
14	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m. Newcastle-on-Tyne Division, Scientific Demonstration.
19	Wed.	Richmond Division, Richmond, 8.30 p.m. South Middlesex Division, Twickenham, 8.30 p.m.
28	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		APRIL.
8	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
11	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m. South-West Essex Division, Brook House, Clapton, 9.30 p.m.
23	Wed.	Richmond Division, Richmond, 8.30 p.m.
24	Thur.	South-West Essex Division, Walthamstow Hospital, 4 p.m.
25	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.

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British Medical Association.

HOSPITALS COMMITTEE.

THE Hospitals Committee publishes for the information of members the following report by a Committee on Out-patient Departments appointed by the King Edward's Hospital Fund for London, together with minutes of the evidence given on behalf of the British Medical Association.

KING EDWARD'S HOSPITAL FUND FOR LONDON.

Report of the Committee appointed to Inquire into the System prevailing in the London Hospitals with regard to the Admission of Out-patients.

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[National Insurance (Local Medical Committees), Association Notices, etc., pp. 197-208.]

REPORT OF COMMITTEE.

PART I.

DISCUSSION OF EVIDENCE: WITH RECOMMENDATIONS.

I. INTRODUCTION.

1.—In January, 1911, H.H. the Duke of Teck, Lord Iveagh and the Speaker of the House of Commons, Governors of King Edward's Hospital Fund for London, appointed us, together with the late Lord Northcote, as a Committee to undertake the inquiries indicated in the following terms of Reference:—

> To consider and report generally as to the circumstances and conditions under which patients are admitted to the Casualty and Out-patient Departments of the London Voluntary Hospitals, and especially as to what precautions are taken to prevent the admission of persons who are unsuitable, and as to whether adequate provision is made for the admission of such persons as are suitable; and to make such recommendations as may seem to them desirable.

2.—We have the honour to submit the following Report of our proceedings and the result of our inquiries under the foregoing Reference.

3.—It is with deep regret that we record the lamented illness and death of our colleague the late Lord Northcote, which deprived us of his most valuable assistance during the receipt of about one-half of the evidence and during the whole of the consideration of our Report.

4.—We have held 27 meetings, and have received oral evidence from 48 witnesses. Of these 27 attended in response to invitations addressed to particular Hospitals, the number of separate Institutions thus represented being 21. Of these Hospital witnesses, six were medical men, and 21 laymen, while of the other witnesses 11 were medical and 10 lay. In addition to the oral evidence we received written statments from 44 other Hospitals as well as from four personal witnesses.

5.—We find that the word "admission" is often used at Hospitals in a technical sense, as meaning admission to the wards for In-patient treatment. In this sense it would mean, when applied to an Out-patient, admission from the Out-patient Department into the wards. In the terms of Reference set out above the word is used in the non-technical sense of admission to the Out-patient or Casualty Departments themselves, and throughout our Report we have followed the same practice.

II. THE OUT-PATIENT SERVICE OF LONDON: ITS NATURE, EXTENT, AND DISTRIBUTION.

6.—The following statement will show the nature and extent of the Out-patient service of London within a radius of nine miles from Charing Cross.

A. Hospitals.

7.—The number of Hospitals with Out-patient Departments from which detailed returns have been received amounts to 65, classified as follows[1]:

Class.	Number.
General Hospitals with Medical Schools ...	12
General Hospitals without Medical Schools ...	16
Children's Hospitals	7
Hospitals for Special Diseases	30

Besides these there are Out-patient Departments at 23 smaller General Hospitals and Special Hospitals from which no detailed returns have been obtained.[2]

8.—These Hospitals are all comprised within the radius of nine miles from Charing Cross, but they are by no means regularly distributed within that area.[3] Of the 12 General Hospitals with Medical Schools no less than nine lie within one and a half miles of Charing Cross, and of these all but two are north of the river. Taking the 28 General Hospitals together, six lie within the E.C. and W.C. postal districts, 10 more lie round these districts but still within three miles of Charing Cross, making 16 within that radius. Nine more lie between three and six miles distance, while only three (besides 10 Cottage Hospitals taking but few Out-patients) lie beyond the six-mile radius, an area which includes some of the most populous parts of Outer London.[4]

In the case of the Special Hospitals the concentration towards a centre is still more marked. Out of the 37 Children's and Special Hospitals only four lie outside the three-mile radius, and of the 33 which lie within, 21 are situated in the Central and Western postal districts.

9.—This distribution is due to historical causes. It arises partly from the fact that the growth of the outer parts of London is of comparatively recent date, and partly also, particularly in the case of the Special Hospitals, from the same forces which have made the Harley Street area the home of the medical consultant, upon whose services the Hospitals depend. Its effects, so far as the convenience of Out-patients is concerned, are to some extent modified by recent developments of travelling facilities[5]; and the striking lack of Hospital accommodation in South London will be greatly reduced when the removal of King's College Hospital to South London is complete.[6]

10.—But the disparity between the distribution of population and that of Hospital accommodation remains an important factor, and renders any organization of Out-patient Departments on a basis of locality extremely difficult.[7]

11.—The numbers of Out-patients, including Casualties, treated at these Hospitals in the year 1910 were as follows[8]:—

Class (see paragraph 7).	Number of Hospitals.	Total Out-patients.
General Hospitals with Schools ...	12 ...	884,634
General Hospitals without Schools	16 ...	355,589
Children's Hospitals	7 ...	156,352
Hospitals for Special Diseases ...	30 ...	276,916
Other smaller General and Special Hospitals	28 (about)	102,000
	Total ...	1,775,491

12.—No conclusions,[9] however, can be drawn from the total figure, unless the following considerations are taken into account.

13.—The Out-patients can be divided into various classes, some of which, at all events, would have to be Hospital patients under any system of Out-patient organization.

14.—One of these various classes is that known as "Casualties."[10] The term has no fixed definition common to all Hospitals, but it usually includes cases which are either too urgent or too trivial to be referred to the Out-patient Department proper at the hours of attendance of the visiting staff, and it thus includes cases as to whose suitability there is least doubt, and cases to whose suitability there is most doubt. It is said that there is a tendency for the Casualty Department to grow until it becomes a duplicate Out-patient Department, differing from the Out-patient Department proper in being subject to less regulation as regards hours of attendance and inquiry into circumstances.[11] True Casualties, however, if their numbers were recorded, would stand in a class by themselves for the purpose of this inquiry. They comprise injuries by accident and sudden attacks of illness which require immediate attention and treatment.[12]

15.—Another class of Out-patients is made up of those who have already been, or who subsequently become,

[1] Statistical Appendix, Sec. A.
[2] Ibid, Sec. D.
[3] Holland, 63; Davis, 958/7; Sandhurst, 1114; Michelli, 1789/25; Gray, 2842; Johnson, S., 3191/90; Heron, 3380/36; Shaw, H. B., 3717; Statistical Appendix, Sec. D.
[4] Holland, 69.
[5] Royal Westminster Ophthalmic; App. 56/1 (d); Prior, 2053.
[6] Davis, 958/7, but cf. Capes, 4084-6.
[7] Buckle, 276; Thies, 432/30; Shaw, H. B., 3773; Nunn, 3855-3867.
[8] Statistical Appendix, Sec. A, col. 2.
[9] Cf. Loch, 680 95; Gray, 2928-31; Montefiore, 2474/9.
[10] Statistical Appendix, Sec. A, col. 3.
[11] See par. 51.
[12] Cf. Thies, 450-53.

In-patients.[1] The available statistics indicate that in themselves these cases do not form more than about 4 per cent. of the Out-patients. But they illustrate one of the important uses of the Out-patient Department as a channel for the admission of serious cases to the wards.[2]

16.—A third class which stands by itself is that of Out-patients attending special departments.[3] These grow in number with the growth of special treatments.

They are represented partly by the patients of Special Hospitals and partly by the special Out-patients at General Hospitals. These appear to form about 30 per cent. of the whole number.

17.—Yet another class consists of patients who are recommended by medical men.[4] No complete records are available, but at some of the Hospitals they form a not inconsiderable proportion of the whole.

18.—In estimating the proportion which these various classes taken together bear to the total number of Out-patients, allowance must be made for the fact that some of those recommended by doctors may also be counted among the special cases, or among those who have been or subsequently become In-patients, or sometimes among both classes successively.

19.—Other facts must also be noted before drawing conclusions from the total number of Out-patients, *e.g.*: (i) the fact that many patients attend more than one Hospital for the same ailment[5]; (ii) the fact that the same person attending the same Hospital at different times of the same year for different ailments, or for different attacks of the same ailment, is counted as so many different patients; and (iii) the fact that a large number come from the Home Counties, or even from distant parts of the country.[6]

20.—But after making allowance for all these factors, there is no doubt that the total number of Out-patients treated in a year by the Hospitals is very large,[7] and that any system of charitable assistance offering benefits on such a scale requires careful organization if abuse is to be avoided.

21.—Various methods are in force for the control of the admission of these vast numbers to the Out-patient Departments. (i) Sometimes subscribers' letters have to be produced by patients.[8] (ii) Sometimes payments are taken either of a fixed sum per head, with exemption in case of inability to pay, or on a scale varying with the means of the patient.[9] (iii) At most Hospitals there is some system of inquiry into the suitability of those applying for assistance.[10] The scope and efficiency of the systems vary. In many of the largest and best-managed Hospitals a special class of inquiry officers, called "Almoners" (usually ladies), have been introduced. These Almoners are trained in charitable as distinct from merely detective work, and they aim not only at preventing abuse but at bringing the Hospital into relation with other forms of medical and charitable assistance, wherever this is thought necessary either to render the treatment complete, or to prevent overlapping. At many Hospitals this side of their work is facilitated by the existence of a special fund for the non-medical assistance of patients, known as a Samaritan Fund.[11] (iv) Some Hospitals limit the number of new patients selected in any one day for treatment by the visiting staff in proportion to the number of physicians and surgeons in attendance.[12]

These methods will be more fully discussed in later sections of this Report.

22.—Although the terms of reference appear to limit the inquiry to the circumstances and conditions of admission to the Out-patient Departments and not to extend it to the medical treatment of the patients when once admitted, it is obvious that the inquiry must involve some reference to the staffing and equipment of the Departments themselves. The suitability of a case for admission depends largely on the nature of the ailment; and thus the medical staff has to assist in determining the question of admissibility.

23.—The Out-patient staff usually consists of two grades: (i) the honorary visiting staff, who are physicians and surgeons in consulting practice and of established repute; and (ii) assistants[1] of various kinds, sometimes paid and sometimes unpaid—resident medical officers, casualty officers, house physicians, and house surgeons—for the most part picked men, but at the same time more or less newly qualified, whose experience has been limited to Hospital practice in the Out-patient Departments and the wards. At some Hospitals, particularly in Special Hospitals or in special departments of General Hospitals, there are also qualified "clinical assistants"—sometimes in general practice—working for the sake of experience.[2] At the Hospitals with Schools the work of examining and treating the patients is combined with that of teaching medical students, and the students assist the doctors in various ways.[3]

24.—There is no question as to the high efficiency of the Hospital staffing and equipment. But witnesses have differed as to the extent to which this efficiency is actually brought to bear upon the large crowds of patients—what proportion are actually seen by the visiting staff, and how far the assistant staff are able, in the circumstances under which the work has to be done, to give sufficient attention to the cases which remain under their care.[4]

B. Dispensaries.

25.—In addition to the Out-patient Departments of the Hospitals there are within the nine-mile radius some 52 Provident Dispensaries, about 54 Non-Provident Dispensaries, and 43 Poor Law Dispensaries.[5]

The Provident Dispensaries supply medical treatment for a given period in return for the payment of a fixed sum.[6] The medical staff consists of general practitioners, who are paid. But unless the Dispensary is very large the contributions do not cover the cost, and the charitable element enters in.[7]

26.—The Non-Provident Dispensaries supply treatment either free or for a small payment per attendance. They are charitable institutions differing from Hospitals, so far as Out-patients are concerned, chiefly in the fact that they are usually staffed by general practitioners and equipped only for ordinary treatments.

27.—Both the Provident and the Non-Provident Dispensaries differ from the Hospitals in that they have no In-patient provision for serious cases. But, on the other hand, all the Provident Dispensaries and many of the Non-Provident (unlike the Hospitals) supply attendance in patients' own homes where necessary.

28.—The Poor-Law Dispensaries also supply medical treatment by general practitioners. But their sphere is at once narrower and wider than that of the other institutions mentioned. Access to them involves application to the relieving officer and contact with the Poor Law machinery, and though it does not bring with it disfranchisement it is said to be often a step towards pauperism.[8] On the other hand, the Poor Law can supply food and other forms of non-medical assistance where these are needed, and can admit to the Infirmary cases requiring indoor treatment.

C. Private Doctors.

29.—Besides the Hospitals and Dispensaries the needs of the poor are supplied by a very large number of private doctors. Many of these have clubs whose members they contract to treat for a fixed payment not unlike that charged by Provident Dispensaries. Some of them are said to charge their private patients quite small fees, 6d. per visit to the surgery, or even 3d. And it is well known that whatever their normal charge may be the medical

[1] Statistical Appendix, Sec. A, col. 5.
[2] Cf. Thies, 539; B.M.A., 1481/26; Butlin, 3505/26, 3673; Tirard, 4330.
[3] Statistical Appendix, Sec. A, col. 6.
[4] Statistical Appendix, Sec. A, cols. 7 and 8.
[5] Thies, 43*/20.
[6] Thies, 432/20; B.M.A., 1481/55; Johnson, S., 3191/14; Butlin, 3505/24 (c); Shaw, H. B., 3773.
[7] Currie, 889; Gray, 2928–2931; Butlin, 3676.
[8] See par. 108.
[9] See pars. 55, 110, etc.
[10] See pars. 113, etc.
[11] Loch, 744.
[12] See pars. 72, 127.

[1] The term "assistant" is here used in the ordinary sense. Technically the members of the visiting staff who have charge of Out-patients are often known as "assistant physicians" and "assistant surgeons."
[2] Bland, 2237; Jennings, 2613; Betteridge, App. 19.
[3] Cf. Buckle, 165; B.M.A. (Shaw, L.), 1675; (Macdonald), 1675.
[4] See pars. 65, etc.
[5] Statistical Appendix, Sec. D.
[6] *E.g.*, 6d. to 1s. 6d. a month according to the size of family: Warren, 1189/8, or from 1d. a week; Buchanan, 1982; Capes, 4134.
[7] B.M.A. (Whitaker), 1586–88; Michelli, 1829; Buchanan, 1880–84; Capes, 4088, 4137.
[8] Cf. Report by Miss Roberts: Royal Commission on Poor Laws. Appendix, vol. xxii, par. 45.

profession of all grades supplies a very large amount of treatment in many cases without thought of fee or reward, and in many others without reasonable anticipation of receiving payment.

III. CLASSES SUITABLE FOR ADMISSION TO HOSPITAL OUT-PATIENT DEPARTMENTS.

30.—Out-patient Departments may be abused or their work unduly restricted if proper precautions are not taken:

(A) Patients may be admitted who are financially unsuitable for the particular form of charitable assistance offered.

(B) The special resources of the Hospital may be wasted by a confusion of the functions of the Hospital with those of other medical agencies, leading to the admission of patients who are medically unsuitable.

(C) Suitable patients may be unable to gain admission, or may fail on admission to obtain the assistance they need, or may be deterred from applying at all by fear of the inconveniences they may suffer. This may be the direct result of the admission of unsuitable cases.

To form an opinion on these points it is necessary to determine what classes are suitable as Out-patients, and to see what provision is made for their treatment.

Original Objects.

31.—In the charters, trust deeds and Acts of Incorporation creating the Hospitals, their object is usually defined in some such words as these: "to afford medical and surgical relief to sick and necessitous persons." In some cases the relief must be "gratuitous."[1]

32.—The question, however, arises as to who are the "necessitous." Mr. Sydney Holland's definition is as good as any:—"A legitimate Hospital patient is a person who is a wage earner who is unable to pay for that medical or surgical advice which he requires in order to keep him in health, and of the greatest value to the community."[2]

This definition, however, needs to be extended so as to include pensioners, dependants and other persons who, though not wage earners, are, except for sickness, independent of outside help.

In applying the definition to any particular case, regard must be had to the kind of relief needed, and to the question whether the Hospital is the most suitable agency for supplying it.

Later Widening Tendencies.

33.—The conception of the function of Hospitals has widened in recent years in some directions, while in other ways it has narrowed. Among the widening tendencies are the following:—

(A) The development of costly special treatments and methods of diagnosis. This has raised the whole idea of the standard of medical treatment which a Hospital should afford. It has also raised the financial level below which a patient needing these costly treatments is "necessitous."

(B) The recognition of the fact that medical treatment is often inadequate unless associated with other forms of assistance. This idea has widened the conception of the duty of a Hospital as a charitable institution, especially as the ideals of organized charitable administration tend to grow higher.

(C) Hospitals have become centres of ever more and more elaborate medical education and the advancement of medical science. This side of their work will sometimes require that the rules restricting admission should be relaxed so as to permit patients who may not come within the definition of the necessitous poor to enter, and by their presence enable the Hospitals to fulfil these functions.

Later Narrowing Tendencies.

34.—In other directions, however, the Hospitals, as their work expands, find themselves liable to compete with agencies whose operations tend to narrow Hospital work. Among such agencies are

(A) The Provident organizations, which are designed to enable a whole section of the poorer population to raise themselves above the necessity of applying for charitable assistance, and which find their development hampered by the unlimited offer of free treatment at the Hospitals to those who can afford to make provision for their needs.

(B) The Poor Law medical service, which offers a special means of treatment to those who may be said to come within the pauper class.

(C) Other forms of public medical assistance, such as the Public Health Departments of the municipalities and the medical care of school children by the Education Authorities. And in this connexion regard must be had to the possible developments of National Insurance.

(D) The private doctor, whose interests would not be affected by the establishment of a charity to deal with the very poor, but who finds occasion for anxiety when the great Hospital, with its Out-patient Department, attracts, as it does, patients of the class which contributes to his practice.

35.—It becomes more and more necessary, therefore, for the Hospitals to consider what position they should take up with regard to these agencies: whether they should compete with them, or co-operate with them, or attempt to confine their work to spheres not touched by them.

Wage Limits.

36.—When all the factors are taken into consideration it is not surprising that there is a general agreement among witnesses that no very definite line can be drawn between the suitable and the unsuitable, so far as financial circumstances are concerned. Only in a few Hospitals is a wage limit laid down as a test of suitability, and in these only for the purpose of affording a guide to the inquiry officer—all cases above that limit being specially investigated, in order to see whether the number of dependants, the expenses of illness, or other circumstances, justify the admission of the patient. Provided, however, that this is borne in mind, the wage limit may be taken as "crystallizing" the definition of financial suitability, and it thus forms a convenient basis for its discussion.

37.—Examples of such wage limits for ordinary ailments are:

For single men: London Hospital—15s. to 19s. for the labour class, 20s. for a class above;[1] Great Northern Hospital—25s.;[2] Middlesex Hospital—30s.[3]

For married patients the limit varies with the number of children, beginning either at 25s., 30s., or 35s., and ending usually[4] with 40s.

Special Hospitals naturally tend to have higher limits.[5]

It is interesting to compare these with the wage limits for Provident Dispensaries affiliated to the Metropolitan Provident Medical Association, viz., 30s. for single men, 40s. for married.[6] This comparison shows that the general Hospitals, so far as wage limits are any evidence, recognize in the case of single men that the offer of free assistance should be confined to a class below those for whom the Provident Dispensaries cater. The only exception is the Middlesex Hospital, and there the wage limit of 30s. is admitted by witnesses to be too high.[7] But in the case of married patients it seems that the Hospitals tend to recognize no such distinction, but to adopt as their limit for free medical advice the same figure as the Dispensaries adopt for treatment at Provident rates. It is worth noting that the Secretary of the Hospital Saturday Fund supports the Hospitals in the 40s. limit,[8] while the medical representative of the Charity Organization Society would put it as low as 30s.[9] The Provident

[1] Sandhurst, 1174.
[2] Holland, 15; quoted by Loch, 697, 794.

[1] Holland, 2/8.
[2] Glenton-Kerr, 622/6.
[3] Thomson and Johnson, App. 12/6.
[4] London, 35s. for labour class, 40s. class above; Holland, 2/8; G.N.C., 40s.; Glenton-Kerr, 622/6; London Homœopathic 40s. App. 55/6; Prince of Wales's 40s. App. 48/7; Belgrave (Ch.) 30s. App. 21/5; New H. for Women, 40s. App. 45/3; Royal Waterloo Wom. and Ch., 35s. App. 55/4; St. Mark's (Rectal), 35s. App. 58/5.
[5] London Throat, £200 p.a. App. 37/3; National (Paralysed), over 60s. App. 44/3; Samaritan Free (Wom.), 60s. App. 61/5; cf. par 53.
[6] Warren, 1189/7 except for Friendly Societies and Clubs.
[7] Thomson, 2671-4, and cf. Warren, 1331.
[8] Davis, 958/2.
[9] Gray, 2946.

Dispensary attached to the Metropolitan Hospital and the Camberwell Provident Dispensary have 35s. as their limit.[1]

It must be remembered, however, that, while the Provident Dispensary wage limit is fixed with reference to earnings during a period of health,[2] certified by a medical examination, the Hospital wage limit has reference to a time of illness, when perhaps the patient's earnings have been diminished and his expenses increased.[3]

Provident Dispensary Class.

38.—In spite of this overlapping in wage limits, it is held by a large number of witnesses, both within the Hospitals and outside them, that those able to make provision for ordinary ailments by means of Provident Dispensaries, clubs, and other forms of insurance, are not suitable for admission to Out-patient Departments for such ailments.[4] Some apparently would do no more than urge such patients to make provision,[5] but others go further, and (at all events in some cases) hold that even where it is necessary to treat them when they first present themselves, they should be given to understand that if they apply at some future time for another similar illness they will not be admitted.[6]

Many of the witnesses who accept this view in theory maintain, however, that in the absence of a sufficient supply of Provident Dispensaries it cannot be adopted in practice.[7]

Poor Law Class.

39.—There is also a difference of opinion as to the point at which the lower limit of suitability should be drawn.

On the one hand it is held by a large number of witnesses that the Out-patient Departments should not be opened indiscriminately to all those who are poor, without reference to the question whether they are in receipt of Poor Law relief, or are in such a state of destitution as to be unable to benefit by the treatment the Hospital can supply.[8] It is contended that to do this is a waste of the special resources of the Hospitals.

On the other hand the practice of some of the large Hospitals indicates that this view is not held by them, and that they do not refuse assistance on this ground.[9]

Intermediate Class.

40.—But assuming that those able to make provision for themselves should be excluded, as also those too destitute to profit by Hospital treatment, the question remains whether there is not an intermediate class suitable for Out-patient treatment. The view held by the British Medical Association is that there is no such intermediate class,[10] their argument being that all sick people are able to secure the attendance of general practitioners, either privately or through a Provident Dispensary or through the Poor Law, and that the Hospitals should be reserved for cases sent for consultation by such general practitioners. The ordinary subscriber to Hospitals, even where prepared to exclude the Provident Dispensary class, probably takes the other view, and considers that it is for just such an intermediate class that the Hospital exists.[11]

Some witnesses who admit the existence of this class hold that a patient who is unable to pay the small fees of Provident Dispensaries when in health really needs in sickness the help of general charity rather than mere medical attendance,[12] and it is suggested that the help given might, in suitable cases, include the payment of Provident Dispensary fees.[1] But, bearing in mind two facts: first, that no general organization of charitable and public assistance yet exists, and, second, that however carefully prospective patients are classified, there will always be many individual cases whose circumstances render classification difficult, we are not prepared to say that the Provident Dispensary class and the Poor Law class cover between them all those who cannot pay a private doctor's ordinary fees. The intermediate class is, however, being continually narrowed by the development of Poor Law medical assistance on the one hand and of charitable and public assistance on the other.[2]

IV. EVIDENCE AS TO EXISTENCE OF ABUSE.

41.—All the factors mentioned above affect the question whether the Out-patient Departments are abused or misused.

As Regards those Able to Pay.

42.—The first question is whether patients are treated who can afford to pay private doctors. This charge is frequently brought by general practitioners, although for reasons which can easily be appreciated, there is great reluctance to vouch specific instances.[3] It does not appear that there is any appreciable abuse by really well-to-do people.[4] The scrutiny of officials and doctors, to say nothing of expert inquiry officers, is sufficient to prevent this. But there is probably good ground for the feeling on the part of general practitioners that many patients who could without hardship afford the small charge made by them for ordinary ailments are treated at the Hospitals.[5] It would often be impossible to detect such cases at sight. They can only be discovered by the investigations of trained inquiry officers. But there are large areas not covered by such investigation. At some Hospitals the inquiry is little more than nominal,[6] and even where it is most thorough it is liable to be evaded by false statements.[7] At most Hospitals the Inquiry Officer or Almoner only investigates a portion of the total numbers of Out-patients,[8] and often the Casualty Department is not touched at all. There is thus ample room for minor abuse of this kind. Very few witnesses have gone so far as to deny its existence altogether.[9] As to its amount, however, the evidence has varied. Some Hospitals deny its importance on the ground that their Inquiry Officers find so few cases[10]; but there would seem to be more reason for confidence in those whose Almoners do detect and exclude a good many.[11] One Hospital admits that though its present inquiry discovers but little abuse, a more efficient system would find a considerable amount.[12] The statistics seem to show that where the inquiry is thorough, a not inconsiderable number of cases are discovered, and probably at least as much escapes detection where the inquiry is not thorough.[13] Doubtless the abuse differs in different neighbourhoods,[14] but even in the poorest districts there are comparatively prosperous streets within reach, and abuse by the inhabitants of such streets, though small in proportion to the number of patients, may constitute a greater hardship to local doctors than an equal amount of abuse elsewhere.

As Regards those Suitable for Provident Dispensaries.

43.—There is much stronger evidence that the Out-patient Departments are used on a large scale by the class

[1] Buchanan, 1871/7; Capes, 4132.
[2] Ryan 2414; Tirard, 4173/20. There are special rates for persons not in good health. Warren, 1189/8, 9; Ryan, 2416-7.
[3] Cf. Holland, 2/9; Davis, 1015.
[4] Davis, 976; Kemp, 1348/1 (3); B.M.A., 1481/17; B.M.A. (Whitaker), 1510.
[5] Holland, 2/24; Alvey, 331/11; Glenton-Kerr, 622/6; Michelli, 1789/10.
[6] Thies, 549-53; Buchanan, 1919-20; Ryan, 2333/8, 2420; West, 3365-72; Tirard, 4173/20; Roberts, 4411/9; cf. B.M.A. (Whitaker), 1689.
[7] Currie, 897; Sandhurst, 1108A; Church, 3108; West, 3349/5-9; cf. Warren, 1332; B.M.A., 1481/55.
[8] Holland, 9, 15; Alvey (Charing Cross), 331/15; Buchanan, 1931; Ryan (St. Mary's), 2333/12; Montefiore, 2500, 2551; Gray, 2835, 2909, 2944-5; Church, 3119; West (St. George's), 3251/5; Nunn, 3918; Roberts (St. Thomas's), 4411/3, 17; Royal Chest, App. 53/13.
[9] Glenton-Kerr (Great Northern), 622/11; Thomson (Middlesex), 2762; Shaw, H. B. (Univ. Coll.), 3705; Guy's, App. 28/16; see also Statistical Appendix, Sec. B, col. 13.
[10] B.M.A. (Whitaker), 1620-1625, 1768; (Shaw, L.), 1768; cf. also Prior, 2188; Montefiore, 2524-6, 2530, 2542-4; Gray, 2817/9b, 2909; cf. Ryan, 2430.
[11] Church, 3114; cf. Montefiore, 2536, 2544.
[12] Montefiore, 2546-7; Nunn, 3929-30.

[1] Kemp, 1433, 1447; Montefiore, 2474/15, 2528; the British Medical Association apparently admits the possibility of such cases; B.M.A. (Whitaker), 1588; cf. Roy. Com. on Poor Laws, Majority Report (Part V, ch. 3, par. 237/18) in certain cases.
[2] Cf. Barnett, App. 66/2.
[3] Heron, 34/9; cf. Gray, 2820.
[4] Holland, 65; Glenton-Kerr, 622/7; Currie, 890; Sandhurst, 1049-50; Michelli, 1799; Ryan, 2333/1, 2411-3; Montefiore, 2505; Gray, 2873-4; Church, 3047; but cf. B.M.A. (Whitaker), 1509.
[5] Thies, 432/17, 588; Glenton-Kerr, 641; Loch, 702; Warren, 1189/16; Prior, 2046; Gray, 2875-6.
[6] Gray, 2885.
[7] B.M.A., 1481/37; Butlin, 3657; Tirard, 4294; Royal Waterloo App. 55/11.
[8] Statistical Appendix, Sec. B, cols. 2 and 9, and cf. pars. 115 and 121.
[9] But cf. Tirard, 4284-94.
[10] Sandhurst (St. Bartholomew's) 1062A; Church (do.) 3036; cf. Herringham (do.) quoted by Sandhurst, 1104.
[11] Statistical Appendix, Sec. B, col. 10; cf. Butlin (St. Bartholomew's), 3505/34, 3635-9.
[12] Betteridge (West London) 4369, 4376-80 (July, 1911).
[13] Statistical Appendix, Sec. B, cols. 10 and 11.
[14] Holland, 65; Wilcox, 3132, 3140; cf. Gray, 2877-83.

of patients able to make provision for ordinary ailments by means of Provident Dispensaries or clubs. In the first place, there is the evidence already quoted from the wage limits,[1] which goes to show that many Hospitals draw the line between patients suitable for free treatment and patients unsuitable at the very point where the Provident Dispensaries draw the line between those suitable for treatment on the provident or contract system and those who should pay ordinary fees according to the number of attendances. In the second place, there is the evidence from the statistics of the Hospitals which endeavour to exclude the Provident Dispensary class, showing that a considerable number are so excluded.[2] There is no reason to believe that a similar percentage of cases would not be excluded from the other Hospitals if the same standard were universally applied. In the third place, a good many witnesses have expressed the opinion that the Hospitals are largely used by those who could have made provision, and that this form of misuse is far more common than abuse in the sense of the treatment of those actually able to pay at the time.[3]

44.—The argument that the admission of such cases is not an abuse because there are not enough Provident Dispensaries is met by other witnesses with the contention that the absence of Provident Dispensaries is due to the fact that the Out-patient Departments offer free treatment to cases suitable for a Dispensary.[4]

As Regards Cases Suitable for the Poor Law.

45.—The allegation that the Out-patient Departments are used for ordinary ailments by persons who are either too poor to benefit by them, or who are actually in receipt of poor relief, is supported by evidence of the same general character. Some Hospitals do not consider this to be misuse at all.[5] Others do; and the statistics of their partial inquiries made with a view to excluding this class make it certain that considerable numbers would be found if the inquiries at all Hospitals were complete.[6] There is the direct evidence of witnesses that it would be wise to refer to the Poor Law many cases which are not now referred.[7] And there is also on this point the detailed evidence published by the Poor Law Commission to the effect that 11 per cent. of the Out-patients at certain Hospitals were actually in receipt of Poor Law relief, while 38 per cent. might be described as destitute.[8]

46.—On the other hand there is much evidence to the effect that even where the desirability of referring such cases to the Poor Law is recognized, a difficulty often arises from the side of the Poor Law. Not only are the conditions attached to medical relief often deterrent,[9] but the Poor Law authorities are said to resist the reference of cases to them by the Hospitals.[10] These difficulties seem to indicate that, in dealing with the destitute and the very poor, the improved organization of the Out-patient Departments should be met by some change in the character and scope of Poor Law administration, and some co-ordination of Poor Law and charitable agencies.[11]

As Regards the Medically Unsuitable—Trivial Cases.

47.—In the case of all these classes we have used the phrase "for ordinary ailments." As already noted, the question of the nature of the ailment bears on the question of suitability, and therefore of abuse or misuse; and this for two reasons. First, the nature of the ailment and of the treatment required affects the question of the ability of the patient to pay for the necessary medical attendance. One ailment differs from another in its effect on the earning capacity of the patient, in the number of attendances which it would entail on the part of a private doctor, or in the necessity for costly drugs or appliances. Secondly, the nature of the ailment affects the question whether the necessary treatment can be supplied by the general practitioner, or whether it requires the special skill or special appliances available at the Hospital. There is, therefore, a further question to be taken into account in considering whether the Out-patient Departments are abused or misused—the question of medical suitability.

48.—It is generally agreed that the Hospitals are specially adapted by personnel and equipment for the diagnosis and treatment of difficult cases and those needing costly drugs or appliances.[1][2] It follows, therefore, that the admission of such cases (often, though loosely, called "consultative cases") to the Out-patient Departments should be facilitated wherever the patient cannot obtain the special advice or treatment which he needs, even though he is, privately or through a Provident or Poor Law Dispensary, already able to obtain the services of a general practitioner for ordinary ailments. And many witnesses contend that the work of the Out-patient Department should be confined to such cases,[2] and that patients suffering from ordinary ailments should be either excluded or discouraged from attendance on the ground of medical unsuitability. More especially is this policy advocated in the case of what are termed "trivial" ailments.[3] It is held that the admission of such cases is itself a waste of the elaborate resources of the Hospital, and that it hampers the efficient discharge of the true function of the Hospitals in three ways: First, that the crowd of trivial cases leaves insufficient time for the diagnosis and treatment of the serious cases;[4] second, that many serious cases are deterred from coming to the Hospitals by the fear of crowding, waiting, and insufficient attention in the end;[5] third, that proper inquiry into the financial suitability of patients is rendered impossible by the large numbers that present themselves when trivial cases are admitted.[6]

49.—There seems to be little doubt that a great many of the cases now treated, especially in the Casualty Departments, are trivial and should not be admitted. The difficulty arises when the possibility of an alternative is considered. Some witnesses argue that it is as easy to treat a trivial case as to inquire into its suitability.[7] Others maintain that if the Hospitals were to state publicly that trivial cases would not be treated, such cases would soon cease to present themselves.[8] Others lay stress upon the difficulty of defining a medically trivial case so as to insure that no danger of hidden complications is overlooked,[9] upon the risk of turning away any case untreated,[10] upon the fact that from the patient's point of view minor ailments are often serious,[11] or upon the value of trivial cases for teaching purposes.[12] The degree to which exclusion would be right depends very largely upon the extent to which the alternative of treatment by a general practitioner is practicable, and is thus intimately connected with the question of financial suitability already discussed.

In Different Departments.

50.—It is obvious that the line between abuse and non-abuse will be different in Casualty Departments, Out-patient Departments proper, and Special Departments respectively.

51.—In the Casualty Departments are treated emergency cases of a serious character, which must be dealt with, once at all events, without reference to financial suitability, and without the delay involved in transfer to the Out-patient Department proper. But the Casualty

[1] See par. 37.
[2] Statistical Appendix, Sec. B, col. 12.
[3] Warren, 1189/16; B.M.A., 1481/7; Ryan, 2333/4, 2413; Montefiore, 2484; Gray, 2873-4; Butlin, 3636-8; Nunn, 3846-8; Capes, 4087; Robe ts, 4450; Thomson and Johnson, App. 12/33; but cf. Johnson, S., 3191/28; Tirard, 4296.
[4] See pars. 85-6.
[5] See par 39.
[6] Statistical Appendix, Sec. B, col. 13.
[7] Thies, 432/17; Loch, 702; B.M.A., 1481/7, 16; Montefiore, 2483-4; Church, 3054-7; Thomson and Johnson, App. 12/31.
[8] Report by Miss Roberts (Report of Royal Commission, Appendix, Vol. XXII, par. 56).
[9] Holland, 9; Montefiore, 2557; Johnson, S., 3191/44-5; Prince of Wales's Hosp., App. 48-9.
[10] Holland, 9; Thies, 585; Glenton-Kerr, 622/20; Loch, 831; Kemp, 1456; Church, 3027/23; West, 3337-41; Roberts, 4411/17; cf. Miss Roberts' Report as above, pars. 49 to 54, for an account of the reasons on both sides.
[11] Buchanan, 1967; Johnson, S., 3191/43; West, 3251/23; cf. Royal Commission on Poor Laws Majority Report, Part IX (4), (9), (17), (22), (23); Part V, chap. 3, par. 237.

[1] Glenton-Kerr, 622/16; Loch, 781; Kemp, 1348/4; Michelli, 1803-6 Ryan, 2433-5; West, 3328/9.
[2] Thies, 432/19, 591; Warren, 1189/22; Kemp, 1432-3; B.M.A., 1481/13; Buchanan, 1871/20, 26; Montefiore, 2474/15; Gray, 2817/7; Butlin, 3556-62; Nunn, 3778/14, 3898; Capes, 4047/5 (2); Lyster, App., 9/2.
[3] Glenton-Kerr, 654; Heron, 3380/11; Butlin, 3505/24e; Nunn, 3897; Capes, 4047/2 (12).
[4] Glenton-Kerr (Great Northern Central), 622/24, 60 % not seriously ill, hampers the treatment of the other 40 %; Loch, 738; Shaw, H. B., 3687-8.
[5] B.M.A. (Shaw, L.), 1730.
[6] Montefiore, 2534.
[7] Holland, 120.
[8] Gray, 2903; Butlin, 3549, 3586-94.
[9] Church, 3052; West, 3330.
[10] Holland, 120.
[11] Shaw, H. B., 3684-6; Tirard, 4250.
[12] Shaw, H. B., 3764; Tirard, 4253.

Departments are frequently called upon to deal with a large number of trivial cases, which individually require only a very small amount of attention. For these two reasons it is rare for the Casualty Department to be included in the inquiry system, even where an efficient system is in force in the Out-patient Department. If, as is frequently the case, the Casualty Department also deals with Patients who happen to come outside the ordinary Out-patient hours, or with such cases as the Casualty medical officers (many of whom are often newly-qualified men eager for experience) may choose to retain in their own hands,[1] the liability of the Department to abuse is increased. At certain Hospitals the rules are specially designed to prevent this particular danger.[2] Unless, however, great care is exercised, there is a general tendency for the Casualty Department to become a centre of abuse and disorganization, and the more so when the Out-patient Department proper is well organized and protected by inquiry.[3]

52.—In the Out-patient Department proper there will be found mingled the trivial, the ordinary, and the serious, except in Hospitals where this Department is first reached through a receiving room or Casualty Department. In these instances the trivial cases will have been already sifted out. As regards the other two classes, the Inquiry Officer or Almoner has to take into consideration the nature of the ailment and the circumstances of the patient, and as a general rule no case is excluded or referred elsewhere without the concurrence of a medical man.[4]

53.—In the Special Departments there will naturally be a large proportion of cases needing special diagnosis or treatment, and the average financial level below which abuse need not be guarded against is accordingly higher.[5] In these Departments, as with the more serious of the cases in the general Out-patient Department, the question usually is not whether the patient can afford a general practitioner's fee, but whether he can pay a consultant's fee, which is normally £2 2s., and, even when reduced to meet inability to pay, rarely falls below £1 1s.[6]

54.—When once, however, the higher level is fixed, it is just as necessary as in ordinary cases to make sure by inquiry that all the patients treated come within the limit. With the majority of cases this will be easy, but in borderline cases it may be specially difficult, while abuse will often involve greater cost to the charity and loss to the medical profession than in the case of ordinary Out-patients.

As Affected by Patients' Payments.

55.—At some Hospitals the question of abuse or non-abuse is complicated by the existence of a system of patients' payments.[7] These sometimes take the form of a fixed payment of a few pence to cover the cost of drugs and dressings required of all ordinary Out-patients who do not give proof of inability to pay it. Sometimes, at special Hospitals, payment is asked not of any fixed sum but of the amount which the patient is supposed to be able to pay, although he cannot afford a consultant's minimum fee. In either case the system amounts to this, that the offer of assistance is modified to meet variations in the financial circumstances of the patients. The elasticity thus introduced may reduce the risk of abuse from the point of view of cost to the charity, but witnesses have differed as to its effect on the risk of unfair competition with private practitioners.[8]

As affected by Medical Education.

56.—Finally, in all discussions as to financial or medical suitability, the question of medical education and the advancement of medical science must be kept in mind, for, within reasonable limits, the medical staff must be entrusted with the power to retain, for these purposes, cases which might otherwise be deemed unsuitable.[9]

This necessity has been used as an argument against any considerable restriction of admission.[1] But, on the other hand, it is by no means clear that unrestricted admission produces the conditions most favourable to medical education, and we have evidence from medical witnesses that a reduction in the number of trivial cases and a proportionate increase in consultative cases would be a gain from this point of view.[2]

V. EVIDENCE AS TO DEFECTS OTHER THAN ABUSE.

57.—Passing from the question of admission of persons who are unsuitable to that of the adequacy of the provision for those who are suitable, we find considerable evidence of defects.

Distance from Homes of Patients.

58.—The first defect is the want of proportion between the distribution of Out-patient accommodation and the distribution of population,[3] and the long distances which have frequently to be travelled by patients.[4] This is not only a physical hardship in cases of serious illnesses but also a source of expense, both in loss of work and in fares, and may go far to reduce the benefit of free treatment. South London is the worst off in this respect, and generally the outlying districts suffer while the centre is over-supplied.[5]

The development of Suburban Hospitals, often with a staff of West End Consultants, and such transfers as that of King's College Hospital to South London, are doing something to remedy this defect. But the defect is not likely to be completely removed.[6]

Overcrowding.

59.—Next to the question of distance comes that of overcrowding.[7] As a rule this is complained of not so much as an evil in itself as because of the evils which it is said to produce[8]—long hours of waiting, inadequate inquiry, danger of infection, and overwork on the part of the medical staff, resulting in hurried diagnosis and treatment. For except in a few instances[9] the evidence points not to overcrowding in relation to the cubic capacity of the waiting halls, but to overcrowding in relation to the means available for dealing efficiently with the crowd of patients. Since the days of the House of Lords Inquiry in 1890–2 a great many of the waiting halls have been enlarged;[10] and such actual overcrowding as remains is attributed largely to the congregation of persons who, in the opinion of the witnesses, are unsuitable for admission,[11] and even of persons who attend the Out-patient Department mainly as a kind of social meeting place.[12] But generally speaking the question of overcrowding and its prevention is bound up with the questions of hours of waiting and overwork of staff, and is best discussed in connexion with them.[13]

Waiting.

60.—From the point of view of the patients, the question of long hours of waiting is, perhaps, that which gives rise to most general complaint.[14] That it should do so is not surprising: whether the waiting is avoidable, and is, therefore, a legitimate ground for criticizing the management of the Hospitals, is another matter.

61.—On the question of the actual hours of waiting, as on the question of abuse, it has proved difficult to get from the complainants detailed evidence which could be

[1] Montefiore, 2487-9; B.M.A. (Shaw, L.), 1644.
[2] Thies (Royal Free), 468; App. 3 (a).
[3] Kemp, 1432; B.M.A. (Shaw, L.), 1644; Montefiore, 2492; Gray, 2897.
[4] See par. 120.
[5] Church, 5027/7; West, 5275.
[6] Bland, 2234, 2237; Jennings, 2590-1; Johnson, S., 3214.
[7] Statistical Appendix, sec B, col. 6.
[8] See pars. 110-12; Roberts, 4411/36.
[9] Thies, 432/12; Loch, 737-8.

[1] Cf. Thies, 432/13, 490; B.M.A., 1481/26; Shaw, H. B., 3714-17; Tirard, 4330.
[2] B.M.A.—(Whitaker), 1656; (Ker), 1554, 1670, 1676; (Shaw, L.), 1659, 1675-6; Thomson, 2768-74; Gray, 2817/6b; Butlin, 3562; cf. 3670 (note), but cf. Shaw, H. B., 3764-67; Tirard, 4253.
[3] See par. 8.
[4] B.M.A., 1481/59b; B.M.A. (Shaw, L.), 1787.
[5] Holland, 69; Davis, 958/7; Michelli, 1789/25; Johnson, S., 3191/90; Heron, 3 80/36.
[6] B.M.A. (Shaw, L.), 1595.
[7] Gray, 2923; Capes, 4117.
[8] B.M.A.—(Whitaker), 1757-60; (Macdonald), 1758; (Shaw, L.), 1758, 1760. Gray, 2933.
[9] *E.g.*, Thies (Royal Free) 432/10; Johnson (Middlesex), 2712; Roberts (St. Thomas's), 4411/19 and several suburban and special Hospitals. (For particulars as to individual Hospitals see final paragraphs of statements of evidence); cf. Davis, 958/7.
[10] Montefiore, 2474/9.
[11] Johnson, S., 3191/88-9; Heron, 3380/37; James, 4542; Thomson and Johnson App. 12/33.
[12] Buchanan, 1923; Capes, 4063; cf. Barnett, App. 66/5.
[13] See pars. 60–63 and 65–73.
[14] Currie, 949; Davis, 958/5A; 1013; James and Gasson, 4482/6 (1).

verified.[1] From Hospital witnesses we have a few particulars, ranging from an average of two and a half hours to three and a half hours and even four or five hours.[2] Other Hospital witnesses (though not without exceptions)[3] admit that waiting occurs as an undesirable result of present methods.[4] It is said to cause the patients much loss of time, thus producing in some cases a loss of earnings, which (like expenditure of time and money on travelling) may often nullify the financial benefit of free treatment; in other cases either loss to employers or neglect of homes, besides, in many instances, considerable suffering and increased risk of infection.[5] It also deters from applying for Hospital treatment those cases whose seriousness renders them physically unfit to endure the long hours.[6]

62.—At the same time it seems probable that this waiting cannot be avoided under the present system of Out-patient organization. It does not appear to be due, as a general rule, to any maladministration in detail. The process through which patients must necessarily pass is inevitably a lengthy one. They must be assembled, registered, sorted, and provided with cards before they are ready for the doctors,[7] their prescriptions must be made up after the doctor has seen them,[8] and the inquiries of the Almoner take time. At each of these stages, however, it is possible for unnecessary delay to take place, and undoubtedly it is the duty of the Hospital managers to take all practicable steps to shorten the waits.[9]

63.—But it seems to be generally admitted that the real cause of the waiting is to be found in the large numbers that attend, and is hardly avoidable under the present system.[10] Any increase in the staff or accommodation designed to deal with the excessive waiting is said to have the effect of attracting still larger numbers.[11] Such improvements may increase the liability to abuse, for if waiting keeps away cases which are medically suitable it also deters many which are financially unsuitable.[12] If this is so, it can only be remedied by some plan which, while admitting the suitable, will reduce the numbers by excluding the unsuitable.[13]

Danger of Infection.

64.—As an incidental result of the crowds of patients and the hours of waiting, there is said to be considerable danger of infection,[14] especially in the case of minor and non-notifiable diseases,[15] and sometimes even of scarlet fever or diphtheria.[16] The Central Hospital Council specifically mention danger from chicken-pox, mumps, whooping-cough and tuberculosis, and suggest that all these should be compulsorily notified.[17] This is evidently a question, first, of the prompt and adequate inspection by doctor or nurse of all patients admitted to the waiting hall, and, second, of sufficient provision for the isolation of suspected cases or their reference to some agency specially designed for the treatment of infectious disease.[18] Thus the danger, so far as it exists, is an additional proof of the importance of the reduction of numbers by the exclusion of unsuitable cases, and of co-ordination between the different agencies for the treatment of disease.

Hurried Diagnosis and Treatment.

65.—It is also alleged that as a result of overcrowding the patients often fail to receive thorough medical examination and treatment.[19] The criticism is usually made in quite general terms, but it may mean (A) that some of the patients who need the special skill of a consultant fail to reach the visiting staff at all by reason of the junior assistants omitting to distinguish them, either from inexperience or from want of time; or (B) that the remaining patients, suffering only from ordinary ailments, fail to receive proper attention because their excessive numbers make it impossible; or (C) that the consultant staff themselves are overworked and cannot give sufficient time even to the serious cases.

66.—It is not possible for the visiting staff to see all the patients attending the Out-patient Department. The patients must be medically sorted by someone, and only those who need the special skill of the consultant, or whose cases are useful for teaching or research must be reserved for the visiting staff. This duty falls upon the assistant staff.[1]

67.—With the positive qualification of the assistant[2] medical staff of the Out-patient Departments for this work our inquiry is not directly concerned, but we have no doubt that the Hospitals take every care to confine responsible appointments to the best available men. At the same time, we have evidence that the practice as regards the Casualty Departments differs materially at different Hospitals, the Casualty officers being sometimes newly qualified men working with or under house-physicians or house-surgeons;[3] sometimes men who are themselves holding these appointments,[4] working under the supervision of members of the visiting staff;[4] and sometimes men who have already held such appointments and are directly responsible to the Hospital itself.[5]

68.—The question of the qualification of the Hospital staff for this work as compared with that of the general practitioner is, however, of importance having regard to the alternative proposal to entrust the sifting of patients to the outside medical man. On this question of comparison witnesses differ.[6] It turns largely upon the value of the experience of the general practitioner, on the one hand, and on the other hand upon the advantages and knowledge which the recently qualified members of a medical school derive from their frequent contact with the leaders of the profession, their access to modern or costly appliances, and their acquaintance with the newest methods of examination and treatment.

69.—There is, however, a considerable amount of evidence to the effect that the work of the assistant staff is impaired by the pressure under which it has to be done.[7]

70.—Estimates of the average time given to each case have been furnished by some witnesses. The different estimates include one minute, less than two minutes,[8] and three minutes,[9] while one witness finds as the result of a special calculation that the average for minor cases is two minutes.[10] In the Casualty Department, especially, the complaint is made by both medical and Hospital witnesses of hurried diagnosis,[11] and very serious consequences have been attributed to this cause.[12] But on the other hand it is claimed that experienced casualty medical officers as a rule possess great skill in rapid diagnosis[13] and make very few mistakes, in spite of the pressure under which they work.[14] So long, therefore, as this pressure remains, it is most important that Casualty Officers should be men with experience, for even where senior men are available for cases of difficulty, time frequently does not permit of consultation with them.[15]

71.—But the evidence points to the desirability of reducing the pressure if possible by lessening the overcrowding of the departments where patients are sorted,

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[1] James, 4617 and 4619-20; Gasson, 4616-4620.
[2] Johnson, S. (H. Sick Ch.), 3223; Thies (Royal Free), 463; Glenton-Kerr (Great Northern), 656-9; cf. James and Gasson, 4482/6 (1); James, 4620.
[3] Cf. Sandhurst (St. Bartholomew's), 1152.
[4] Thomson and Johnson, App. 12/31.
[5] [illegible] 1925; B.M.A., 1481/59*b*; Gray, 2817/4*b*, *c*.
[6] B.M.A., 1481/60; B.M.A.—(Whitaker), 1760; (Shaw, L.), 1760.
[7] Sandhurst, 1155; Gasson, 4532-34.
[8] James and Gasson, 4482/4; Gasson, 4596.
[9] Refreshments are generally available, Theis, 467.
[10] James and Gasson, 4482/6; Dawson, 4746; Thomson and Johnson, App. 12/31.
[11] B.M.A. (Shaw, L.), 1758; Dawson, 4746.
[12] Thies, 464; B.M.A. (Shaw, L.), 1758; Gray, 2924, 2935
[13] B.M.A. (Whitaker), 1633; James, 4534, 4595; cf. Gray, 2824-7.
[14] B.M.A., 1481/52, 53, 59*c*; Gray, 2817/4; Heron, 3380/25; James and Gasson, 4484/6; Butlin, 3505/24*a*; Barnett, App. 66/5.
[15] West, 3251/25.
[16] Heron, 3403.
[17] West, 3349/10.
[18] Thies, 585; West, 3251/27.
[19] Loch, 738-9; B.M.A., 1481/59*a*; B.M.A. (Ker), 1577; Buchanan, 1871-25; Montefiore, 2509; Johnson, S., 2761; Gray, 2817/4*a*, 2937-41; Heron, 3380/30; Nunn, 3983.

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[1] Alvey, 420 (*note*); Glenton-Kerr, 622/5; B.M.A., (Macdonald) 1675; (Shaw, L.) 1675; West, 3251/3; Heron, 3419; Capes, 4111; Roberts, 4411/2.
[2] See note on page 5.
[3] Butlin, 3505/29 33.
[4] Butlin, 3505/14, 8.
[5] Butlin, 3505/37; Roberts, 4411/2; 4447; cf. Montefiore, 2474/11.
[6] B.M.A., (Shaw, L.) 1660, (Kerr) 1670, 1672, (Macdonald) 1675; Michelli, 1807, 1844, 1861-2; Buchanan, 1952, 2013; Montefiore, 2474/11, 2568; Church, 3059-60; Heron, 3415-29; Butlin, 3505/31; Tirard, 4265; Barnett, App. 66/1, cf. par. 135.
[7] B.M.A., (Macdonald) 1662, (Shaw, L.) 1758.
[8] Heron, 3380/30.
[9] Gray, 2941.
[10] Thies (Royal Free), 609.
[11] Butlin, 3505/24 (*f*); Glenton-Kerr, 622/23.
[12] Butlin, 3505/24 (*f*), cf. B.M.A. (Ker), 1577, 1670.
[13] Glenton-Kerr, 622/23.
[14] Butlin, 3505/37.
[15] Butlin, 3505/33.

and this can only be done by preventing the attendance of unsuitable cases.[1]

72.—With regard to the work of the visiting physicians and surgeons there is little evidence of hurry in either diagnosis or in treatment. For one thing, the highly skilled consultant staff possess great powers of rapid diagnosis.[2] Again, at the teaching Hospitals, plenty of time is necessarily given, for the sake of the students, to the cases reserved for the visiting staff.[3] In many Hospitals the number of new cases reserved for each physician or surgeon is strictly limited. That such limits have been found necessary is evidence that the staff are otherwise liable to be either hurried or overworked, or obliged to depute the actual treatment of some cases to their assistants.[4] The numbers, however, are not the same at different Hospitals, varying, for example, from 12 medical or 15 surgical at the Royal Free,[5] and 15 at St. George's[6] to 19 (admitted to be a heavy number) at St. Thomas's.[7] At Hospitals without schools there are wider variations, ranging from 10 to 20 and even 25.[8]

Different witnesses have given the maximum number that could be treated by one man, at a teaching Hospital, at 12, 12 to 15, and 20 respectively.[9] At one general Hospital with a post-graduate college, on the other hand, the average number per medical officer (including clinical assistants) is said to amount to 30.[10]

73.—Generally speaking the evidence points to the conclusion that in the case of patients who actually reach the visiting staff the danger is not that of hurried diagnosis or treatment, but that of long hours and overwork for the doctors.[11] This difficulty is a serious obstacle to the development of consultative work in the true sense of the word, for such work involves the labour of reporting to the general practitioner who is in charge of the case and for whose guidance the opinion of the consultant is sought.[12]

Detachment from Home Conditions and Past History.

74.—A further alleged defect of the Out-patient system lies in its detachment from the home conditions of the patient and his past history, both of which may affect not only the diagnosis of his disease, but also the method and prospects of cure.[13] This is put forward as a strong argument in favour of the treatment of ordinary ailments, not at the Out-patient Departments, but by the general practitioner acting, privately or through Dispensaries, more or less as a family doctor.[14]

75.—Assuming that the general practitioner can be relied on to give full attention to the home conditions and past history of patients attending at his surgery or at the Dispensary, this argument is a strong one. We have evidence, for instance, of a case of a boy attending two hospitals for bronchitis without it being discovered that his bed at home was beneath a leaking roof.[15] The fact that at some Hospitals an Out-patient is frequently seen by different doctors on successive visits[16] makes the occurrence of such misfortunes not improbable.

76.—The practice of relying on Hospitals rather than on private doctors is also said to lead to a neglect of preventive precautions and early treatment.[17] The dangers arising from this might be lessened if the hospitals were in closer touch with general practitioners, and thus able to recommend domiciliary treatment.[18] At the same time it must be recognized that many of the Hospitals themselves, through their Almoners, are endeavouring to secure a means of keeping in touch, at all events in selected cases, with home conditions or with agencies that know the homes.[1] In this connexion mention ought to be made of the excellent work begun by the Tuberculosis Dispensaries towards supplementing the Out-patient Departments in the specially important case of pulmonary consumption.[2] It seems highly desirable that the practice of co-operating with such Dispensaries, already adopted by some Hospitals, should be extended as far as practicable in the interests both of the patients and of those who are living within the range of their infection.[3]

77.—Another way in which this detachment from home conditions is said to reduce the value of Out-patient treatment lies in the absence of specific advice not only as to ordinary home hygiene or special care in diet or the like, but also as to the method of applying the prescribed remedies between the dates of successive visits to the Hospital.[4] This is attributed to the pressure under which the medical work is carried on. It is due, therefore, partly to overcrowding, and partly to the absence of touch with home conditions. Akin to this is the difficulty of ensuring that the patient carries out at home such instructions as are given him at the Hospital.[5]

Separation from other Charitable Assistance.

78.—The tendency to treat an application to the Out-patient Department as an isolated incident in the patient's life shows itself also in the separation of medical relief from other forms of charitable or public assistance. This has not always been, and is not always now, recognized as a defect.[6] The first instinct of the charitable man is to treat the immediate symptom of distress, and in the case of Hospital charity, where the immediate symptom is illness, this tendency is strengthened by the view naturally taken by the medical man.[7] But from a wider standpoint it has been argued that illness is often a symptom of general distress, sometimes involving a whole family, and therefore only curable if the whole problem of the patient's circumstances is attacked.[8] This is akin to the modern view that the Hospital as a curative agency should no longer be looked upon as a separate unit, but as a link in the chain of charitable agencies.[9] The growth of the almoner system shows the extent to which this view is spreading amongst the Hospitals themselves.

79.—There is plenty of evidence, however, that the co-operation is at present very incomplete, for while many Hospitals make considerable use of a large number of charitable agencies, in addition to their own Samaritan Funds, others make no effort at all in this direction, or certainly no systematic effort.

The question whether such co-operation should be organized by the Hospitals themselves, through Almoners or otherwise, or whether it should be attained by the establishment of some external organization, is one which will arise during the discussion of remedies.[10]

80.—In this connexion the Poor Law may be considered as a special kind of public assistance, co-operation with which involves problems of its own. But the idea of co-ordination between the Poor Law and charitable agencies is gaining ground, and finds its completed expression in the recommendations of the Majority Report of the Poor Law Commission.[11] So far as Hospitals are concerned, however, the fact that the Poor Law has its own medical branch makes it a question of the co-ordination of medical agencies rather than of other forms of assistance, and it will, therefore, be dealt with in the next section.[12]

Separation from other Medical Agencies.

81.—The arguments against the isolation of medical relief from other forms of charitable assistance point also to the desirability of co-ordination between different agencies for the provision of medical assistance itself, the absence of which causes much overlapping, waste, and

1 See par. 63.
2 Buchanan, 1963; Montefiore, 2568; Butlin, 3574.
3 Butlin, 3574; Capes, 4116.
4 Cf. Buckle, 156–166; Alvey, 335 (*note*).
5 Thies, 432/3.
6 West, 3251/3, but cf. 3556.
7 Roberts, 4412, 4419.
8 Michelli (Dreadnought), 1790; Buchanan (Metropolitan), 1962; City (West), App. 24/2; Queen's (Ch.), App. 49/4 (*d*); New Hosp. (Wom.), App. 45/2, 5; Royal Waterloo (Wom. and Ch.), App. 55/3; cf. Tirard, 4237.
9 Capes, 4110; Thies, 469; Tirard, 4237–4240.
10 Betteridge (West London), App. 19.
11 Sandhurst, 1158; Johnson, A. E., 2712; Thomson and Johnson, App. 12/31 (*c*); West End Hosp. (Nervous), App. 63/3.
12 Johnson, S., 3191/26; Still, 3248 (*note*); Tirard, 4262; Roberts, 4411/26; Dawson, 4770.
13 Loch, 738, 741; B.M.A., 1481/23, i, 59; Gray, 2817/4 (*a*), 2938; Nunn, 3778/2 (*b*).
14 B.M.A. (Shaw, L.), 1595; Montefiore, 2497; Nunn, 3778/13.
15 Nunn, 3778/2B.
16 Jnennell, 2739; Gray, 2817/4 (*a*); Butlin, 3505/31.
17 B.M.A., 1481/59 (*a*); Gray, 2817/5 (*c*).
18 B.M.A. (Shaw, L.), 1787.

1 Loch, 741; Kemp, 1387–89; Queen's (Ch.), App. 49/9.
2 Loch, 814, 822; Gray, 2846; McGaw, 2962, etc.; Heron, 3467; Shaw, H. B., 3747; Nunn, 3971; Dawson, 4676, etc.
3 Ryan (St Mary's), 2333/11 (1); McGaw, 2971, 2979–80; Nunn, 3778/12; Dawson, 4694.
4 James and Gasson, 4482/2; cf. Barnett, App. 66/4.
5 Loch, 738; Kemp, 1391–2.
6 Currie, 95–6.
7 Loch, 825.
8 Loch, 738, 824–5.
9 Kemp, quoting Morris, 1348/3.
10 See pars. 145 and 156.
11 See par. 142.
12 See par. 87.

confusion.[1] The principal medical agencies outside the Hospitals are the three kinds of Dispensaries (Provident, Non-Provident, and Poor Law) and the general practitioners. The relations of the Hospitals *inter se* must also be considered.

Non-Provident Dispensaries.

82.—With the Non-Provident Dispensaries we do not propose to deal in any detail. So far as their place amongst medical agencies is concerned, they appear to be analogous to the Out-patient Departments,[2] differing only in two ways. On the one hand, they are usually staffed by general practitioners instead of consultants, and their equipment is less elaborate.[3] On the other hand, they sometimes provide domiciliary treatment as well as treatment at the Dispensary.[4] Without a special inquiry we can express no opinion on their merits. We must therefore leave open the question how far they can be used to supplement the work either of the Hospitals or of the private practitioners.[5] At present the relation of the Non-Provident Dispensaries to the Hospitals and to the Provident Dispensaries is said to be one of competition rather than co-operation.[6]

Provident Dispensaries.

83.—With regard to the relations between Provident Dispensaries and Out-patient Departments, the object to be aimed at by co-operation should be, on the one hand, for the Hospital to refer to the Provident Dispensary for future treatment cases of ordinary ailments in which the patient can afford to make provision by periodical payments, and, on the other hand, for the Provident Dispensary to refer to the Hospital cases requiring special diagnosis, advice, or treatment. The extent to which the former method of co-operation is carried out has already been considered.[7] The latter appears to be rare.[8] The desirability of some such system of co-operation was recognized by the Central Hospital Council, which in 1905–6 joined with the Metropolitan Provident Medical Association in drawing up a definite scheme for the purpose.[9] The scheme has, however, not yet been brought into operation. The Hospitals were not unanimous on the subject, some suggesting difficulties in practice; while up to the present time it has proved impossible to prepare a list of a sufficient number of Dispensaries for a general scheme.[10]

84.—From the side of the Hospitals complaints are sometimes made that the Provident Dispensaries are not really competent to treat their members properly, or to pay enough for efficient medical attendance and drugs.[11] It is said that they consequently send on to the Hospitals cases that seem likely to be troublesome or expensive,[12] while failing to detect those which need specialist advice.[13] It has been argued that for an efficient system of co-operation the Provident Dispensaries should be affiliated to the Hospitals, so as to benefit by close relations with their consultants.[14] Under such a system it is suggested that the students of the Medical Schools might receive part of their training in Provident Dispensaries thus affiliated, and that this would compensate the teaching Hospitals for any loss of opportunities for medical education that might result from the exclusion of trivial cases from the Out-patient Departments.[15]

85.—There is strong evidence that the effect of the competition of the Out-patient Departments with the Provident Dispensaries has been disastrous. The Dispensaries are injured by the offer of free medical treatment for ordinary ailments to the class from which their members come.[1] This is proved by the evidence that they flourish in districts remote from Hospitals but fail in their immediate neighbourhood.[2]

Cases are reported of Provident Dispensaries which have suffered a marked falling off of numbers after the opening of an Out-patient Department in the same district,[3] but have begun to recover when a stricter system of inquiry, by the agency of local medical men, has been introduced by the Hospital.[4]

86.—It is essential to the success of Provident Dispensaries that they should have a large number of members not requiring very prolonged or expensive treatment. They cannot, therefore, prosper so long as the Hospital Out-patient Departments offer free treatment to trivial cases. On the other hand, the Hospitals cannot refuse to treat trivial cases on the ground that they ought to go to Provident Dispensaries, so long as Provident Dispensaries do not exist in the neighbourhood. The British Medical Association lays particular stress on this alleged "vicious circle."[5]

Poor Law Medical Service.

87.—The question of co-operation with the Poor Law medical service depends in like manner on the reference to the Poor Law of cases unsuitable for Hospital treatment, and the reference by the Poor Law authorities to the Hospitals of cases on which a specialist or consultative opinion is needed.[6]

88.—We have already dealt with the question of the unsuitability for Hospital treatment, in respect of ordinary ailments, of those actually in receipt of Poor Law relief and of those too poor to benefit.[7] We have also noted the fact that many of these are actually treated at the Hospitals,[8] because of the inadequacy of the inquiry system at the Hospital, or because of the omission to co-operate with the Poor Law authorities.[9]

89.—At present the friction already alluded to between the Hospitals and the Poor Law appears to hamper the reference to the Hospitals of Poor Law cases needing specialist treatment.[10] A considerable number of such cases are no doubt treated by the Hospitals.[11] But there is no organized system for the reference of such patients to the Hospitals.[12]

90.—Besides preventing overlapping, co-operation between the Hospital and Poor Law authorities might, according to some witnesses, lead to the opening of the Poor Law infirmaries to the students of the medical schools.[13] This would give opportunities for the study of chronic cases in the infirmaries, to the advantage, it is urged, both of the patients and of the students.[14] It would also improve Out-patient organization by removing the inducement to keep the Out-patient Department open to destitute cases for the sake of medical education,[15] and it would help to compensate the schools for the loss of teaching material which would result from the exclusion of trivial cases.

Other Voluntary Hospitals.

91.—There is also evidence of serious defects arising from the absence of co-operation between one Hospital Out-patient Department and another. Sometimes criticism is directed to the mere fact that patients attend more than one Hospital at the same time, or pass successively from one to another, or prefer a Hospital far from their homes to one near at hand.[16] Some Hospitals endeavour to prevent this by the reference back of cases which either are or have been attending another Hospital.[17] Some

[1] Thies, 432/22; B.M.A., 1481/16; Montefiore, 2481; Shaw, H. B., 3762.
[2] B.M.A., 1481/46.
[3] Thies, 536; Currie, 934; Sandhurst, 1128.
[4] Alvey, 331/15; Thomson, 2735.
[5] Cf. Alvey, 331/13; Spicer, 2191b/10–11, 2310; Thomson, 2733; James, 4547; Barnett, App. 66/2.
[6] Warren, 1299; B.M.A., 1481/55*d*; Roberts, 4411/28.
[7] See par. 43.
[8] Glenton-Kerr, 622/17, 645–6; Michelli, 1818; Buchanan, 1983; Roberts, 4411/13; Guy's, App. 28/12; Statistical Appendix, Sec. A., col. 8.
[9] B.M.A. (Shaw, L.), 1611; West, 3349/6.
[10] B.M.A. (Shaw, L.), 1612; West, 3349/6. 8, 9.
[11] Holland, 125; Currie, 906–7; Michelli, 1832–38; Buchanan, 1958; Nunn, 3502.
[12] Holland, 125; Currie, 907; cf. Glenton-Kerr, 622/17, but cf. Warren 1347; B.M.A., 1481/57.
[13] Michelli, 1832; Buchanan, 1951.
[14] Buchanan, 1951; Church, 3027/9 10.
[15] Thies, 432/22; B.M.A., 1481/29, 1663-6 (Whitaker), 1657 9, 1665; (Macdonald), 1665; (Shaw, L.), 1665; Gray, 2959; Church, 3027/11, 3079–82, but cf. Shaw, H. B., 3770.

[1] Montefiore, 2474/8 (3); Capes, 4085.
[2] Warren, 1189/17 18, but cf. 1401; B.M.A., 1481/55*b*; (Ker), 1781; (Whitaker), 1781; (Shaw, L.), 1782 6; Nunn, 3778/4, 3905, 3954/5, 3979.
[3] Warren, 1333; Capes, 4047/4 (2).
[4] Capes, 4146–8; cf. B.M.A. (Shaw, L.), 1785 6; (Ker), 1786.
[5] B.M.A., 1481/32.
[6] B.M.A., 1481/49.
[7] See par. 39.
[8] See pars. 45-6.
[9] B.M.A., 1481/7; Poor Law Commission, Majority Report, Part V, ch. 2, par. 188.
[10] Kemp, 1456.
[11] Cf. Alvey (Charing Cross) 331/15.
[12] Loch, 798; Montefiore, 2484.
[13] Thies, 432/22, 575-78; Michelli, 1789/23, 1849.
[14] Michelli, 1858; Ryan, 2444; Gray, 2961; cf. Dawson, 4750-1
[15] Buchanan, 1871/26; Gray, 2959.
[16] Buckle, 135/13; Thies, 584; Currie, 892, 947; Sandhurst, 1111; Royal Waterloo, App. 55/9.
[17] Alvey (Charing Cross), 331/12; Ryan (St. Mary's) 2421; Roberts (St. Thomas's), 4411/11; Statistical Appendix, Sec. B., col. 14.

Hospitals refer to a nearer Hospital (if efficient) those coming from a distance.[1] Many, however, regard these simple forms of overlapping as no great evil. They are attributed to the desire for a change of doctor, to the attraction of a new building, or to a preference for some feature in the management of a particular Hospital;[2] and strict localization is held to be very difficult, if not impossible, in London, owing to the unequal distribution of Hospitals in relation to population.[3] But some restriction on this wandering is desirable as an aid to Out-patient organization.

92.—Far more serious evils result when migration from one Out-patient Department to another is due to want of uniformity in the rules for admission or in the efficiency of the inquiry systems.[4] If cases refused at one Hospital can readily obtain relief at another, attempts at organization are largely frustrated. In the first place, the reference of unsuitable patients to a more appropriate agency is less likely to be acted upon; and, in the second place, individual Hospitals are reluctant to adopt stricter rules of admission than are generally in force, lest the consequent reduction of numbers, as compared with other Hospitals, should injuriously affect either their appeal to public sympathy or the interests of their medical schools.[5]

93.—As a preventive of either of these forms of migration, the Hospitals have been invited by the Charity Organization Society to co-operate in the Society's scheme for the mutual registration of cases assisted.[6] This proposal is approved by many witnesses,[7] and it has been adopted in varying degrees by several Hospitals.[8] Most witnesses, however, recognize the difficulties arising from the vast numbers of Out-patients,[9] and some consider these difficulties insuperable.[10] The principle of mutual registration can, however, be applied to a limited extent with comparative ease and yet with considerable advantage. Thus, some Hospitals take part in local systems of registration, such as those in operation in Chelsea, Hampstead, and St. Pancras.[11] Others report the cases that receive supplementary assistance through the Almoner or the Samaritan Fund.[12] But a very useful modification, and one which could probably be applied without great difficulty, would be to report to the Registrar cases rejected or referred to other agencies.[13] These are comparatively few in number, and a record of them in a central register would greatly facilitate the adoption of uniform standards of admission. Further extensions of the principle might well be practicable as the numbers of Out-patients became reduced by improved organization.[14]

General Practitioners.

94.—Great stress has been laid by many witnesses upon defects in the relations between the Out-patient Departments and general practitioners. It is said that at present the Hospitals compete with the private doctor in the treatment of ordinary cases, thus injuring him financially and professionally; whereas under a system of co-operation the Hospitals might to a greater extent than at present leave ordinary cases to the general practitioner and encourage him to send up to them difficult cases needing specialist advice or treatment. By thus developing the consultative side of their work, it is urged, the Hospitals would raise, instead of lowering, the standard of medical attendance on the poor in their neighbourhood.

95.—The question whether the Out-patient Departments actually compete with the general practitioners is, to a great extent, only another aspect of the question whether they are abused through the admission for ordinary ailments of patients able to pay for their treatment. We have already stated that, in our opinion, competition with respect to well-to-do patients is rare;[1] but that in the case of patients able to pay small fees or to join Provident Dispensaries, the competition is not inconsiderable where no complete system of inquiry exists.[2] It is recognized by the British Medical Association that this is due to the "glamour" of the Hospitals rather than to any spirit of competition in the Hospital itself.[3]

96.—Very serious results are attributed by witnesses to this competition. In the first place, it is said to compel the private doctor to lower his fees in order to retain patients.[4] Witnesses have spoken of fees being reduced from 2s. 6d. to 1s., to 6d., and even to 3d. a visit.[5] In order to make a living out of such charges the doctor is obliged to see a very large number of patients and can give but little attention to each,[6] quite apart from the question of giving time to study. Under these circumstances his professional status and efficiency degenerate, to the great disadvantage of the poor.[7]

97.—Other witnesses, however, deny that under the present inquiry system there is any serious competition between Hospitals and general practitioners.[8] It is maintained that competent doctors find no difficulty in making a reasonable income, even in the neighbourhood of Hospitals;[9] and that where low fees exist they are due to purely economic causes—to competition within the profession, to the demand for a cheap form of doctoring, and to the profits to be made out of it.[10] But it seems impossible to doubt that the competition which we have already found to exist, as the result of the incompleteness of the inquiry systems, must have, to some extent, the effect attributed to it.

98.—Again, Hospital competition is said to affect injuriously the medical treatment of the poor by general practitioners, in that it makes the latter reluctant to send difficult cases to the Out-patient Departments for a second opinion. They are said to find that the Hospital often retains such cases, so that the private doctor loses not only the individual patient but also the connexion of his family and friends.[11] Such reluctance would be largely removed if active co-operation were substituted for competition.[12]

99.—As a matter of fact a good deal has been done in recent years to reduce competition and encourage co-operation. This is one of the results of the employment of Hospital Almoners.[13] But, taking the Hospitals as a whole, there is as yet no organized system of co-operation either in regard to the reference to general practitioners of ordinary patients suspected of not being suitable for Hospital treatment, or in regard to the method of dealing with cases coming to the Out-patient Departments with recommendations from medical men.

100.—A good many Hospitals communicate with general practitioners in certain cases either as part of the inquiry into the patient's circumstances or as the result of such inquiry. At some this takes place in the case of all patients who are discovered to have been under the care of a private doctor.[14] Sometimes the patient objects to this, preferring that his own doctor should not know he has sought a second opinion;[15] but the system is found to have the great advantage of encouraging private doctors to send up difficult cases.[16] It does not appear that where there is reasonable ground for the patient's wish to have

[1] Holland (London), 2/25.
[2] Holland, 77; Thies, 432/20; Sandhurst, 1111, 1116; Quennell, 2798-9; Butlin, 3620; Shaw, H. B., 3717; Thomson and Johnson, App. 12/24.
[3] Buckle, 135/15; Thies, 432/20-1; Sandhurst, 1110; Johnson, S., 3191/36; Shaw, H. B., 3773.
[4] Alvey, 403; Glenton-Kerr, 622/17, 18; B.M.A. (Whitaker), 1602, (Shaw, L.), 1724; Buchanan, 1928; Spicer, 2324-6; Nunn, 3984.
[5] B.M.A. (Whitaker) 1606 1618-9; Tirard, 4337; cf. Glenton-Kerr, 655.
[6] Loch, 870; B.M.A. (Whitaker), 1731-34.
[7] Thies, 432/15, 582, 598; Glenton-Kerr, 622/18, 647-8; Buchanan, 1975-6; Ryan, 2454-59; Johnson, S., 3191/37, 84; West, 3251/22; Nunn, 3953.
Ryan (St. Mary's), 2333 11 (6) Jennings (Chelsea Hosp. for Women), 2582/9; Tirard King's College), 4173/26.
[8] Thies, 604; Glenton-Kerr, 648, Buchanan, 1975-6; Ryan, 2454, 2459; Johnson, S., 3191/84.
[9] Holland, 76; Spicer, 2329-32.
[10] Jennings (Chelsea H.), 2582/9. 20; Nunn, 3953; cf. Thies, 583-4.
[11] Tirard (King's College), 4173/26; Paddington Green (Ch.), App. 46/5.
[12] Glenton-Kerr, 622/18, 648.
[13] Loch, 870, 873; cf. B.M.A. (Whitaker), 1731-4.

[1] See par. 42.
[2] See par. 43; Loch, 727-730 Michelli, 1861; Roberts, 4436.
[3] B.M.A., 1481/55 (b); (Whitaker), 1749.
[4] Loch, 760; Gray, 2894; Heron, 3380/27.
[5] Montefiore, 2516; Tirard, 4265, 4328; Church, 3027/25, 3052; cf. Buchanan, 2014.
[6] Gray 947; Tirard, 4265; Dawson, 4740.
[7] Montefiore, 2516; Church, 3027/23; Barnett, App., 66/5.
[8] Holland, 115-7; Currie, 919, 925; Sandhurst (quoting Herringham), 1104; Tirard, 4267, 4284; cf. Quennell, 2797.
[9] Holland, 117; Currie, 925.
[10] Holland, 115; Sandhurst quoting Herringham), 1104; Tirard, 4273, 4280; cf. Gray, 2939; Loch, 758-60.
[11] B.M.A., 1481/51; (Shaw, L.), 1744; Montefiore, 2509; Gray, 2952; Butlin, 3606; Tirard, 4173/17.
[12] Jennings, 2618; Tirard, 4173/17; Gray, App. 13.
[13] Kemp, 1348/1 (5).
[14] Alvey (Charing Cross), 331/10; Buchanan (Metropolitan), 1871/12; Ryan (St. Mary's), 2333/7; West (St. George's), 3251/15; Tirard (King's), 4173/17; Roberts (St. Thomas's), 4421/12; Belgrave (Ch.), App. 21/5; West Ham, App. 65/6; Paddington Green, App. 46/3; Central London Throat, App. 23/3, Hospital Epilepsy, App. 31/7.
[15] Alvey, 422-3; Jennings, 2694.
[16] Jennings, 2618; Tirard (King's College), 4173/17; Central London Throat, App. 23/3, 5.

a second opinion, the doctor refuses to concur, except from fear of Hospital competition.[1]

101.—At many Hospitals an inquiry of the patient's doctor (if any) is a regular part of the process of investigation into financial circumstances, the patient being referred back to the doctor if ultimately found to be able to pay.[2] Sometimes reference to a private doctor takes the place of inquiry—the rule being that all doubtful cases are told that they can only be treated if they bring a recommendation from some general practitioner.[3]

102.—One Hospital states that of the patients referred to their own doctor for an introduction the majority do not return though an appreciable number do;[4] another finds that more than half return with an introduction from the doctor.[5]

103.—With reference to cases recommended by general practitioners there is no uniformity of procedure. At a good many hospitals such recommendations admit the patient without inquiry. At some they give him preference over other patients. At St. Thomas's, where the recommendations ensure access to the visiting staff, nearly one-fourth of the out-patients proper are sent by private doctors.[6] The numbers thus recommended seem to vary considerably at different Hospitals,[7] this form of co-operation being specially encouraged at Hospitals with almoners;[8] while at teaching hospitals former students often send up interesting or difficult cases.[9] It is probable that the records are not complete, and that, for instance, a good many patients recommended by firms or other subscribers are sent on the advice of a doctor;[10] but after allowing for this it is evident that there is not as much co-operation in this way as there might be. The private doctors' reluctance has already been alluded to. From the Hospital point of view it is doubtful whether a doctor's recommendation should excuse inquiry. It is alleged that general practitioners sometimes send on any case which involves more than the simplest form of treatment;[11] or that, in their desire to oblige private patients, they do not pay sufficient attention to the question whether the patient they recommend can afford the reduced fee of a private consultant.[12] But there is no reason why such cases should not be inquired into.[13]

From the doctor's point of view, the reluctance to co-operate might be expected to diminish with every step towards the prevention of the existing competition.

104.—It has been suggested by medical witnesses that from the point of view of medical education closer co-operation with general practitioners would be an advantage in two ways: first, that it would increase the proportion of interesting cases sent to the Hospitals;[14] and, second, that it would continue the education of the private doctor by keeping him in touch with the Hospital consultant.[15]

VI. GENERAL OBJECTS TO BE AIMED AT IN REFORM.

105.—The foregoing discussion of the various defects of the existing Out-patient system points to the conclusion that any scheme of reform should aim at the following general objects:—

(i) The reduction of numbers, partly by the exclusion of those able to pay for medical treatment or to make provision for it by provident methods, and of those too poor to benefit by it; and partly by the discouragement of the attendance of trivial cases.

(ii) The development of the consultative side of Hospital work, and the encouragement of co-operation with general practitioners and other agencies for medical assistance.

(iii) The co-ordination of Hospital assistance with general charitable work and with the Poor Law and other forms of public assistance.

(iv) The provision of adequate safeguards for the interests of medical education and the development of medical science.

The various remedies suggested by witnesses will be considered in relation to these objects.

VII. EVIDENCE AS TO SUGGESTED REMEDIES.

106.—Safeguards against abuse and remedies for the other defects mentioned may be sought in two directions: first, in the internal organization of each Hospital; and second, in the external organization of medical assistance. Under the first class of remedies free access to the Out-patient Departments would be permitted to all patients, the Hospital providing within its own walls, and having under its own control the machinery for sifting the patients, and for co-operating with other agencies. Under the second class the sifting would be done by some external agency, on whose recommendation alone patients would be admitted to the Out-patient Department.

107.—Of the various safeguards and remedies at present in operation in the Out-patient Departments of different Hospitals, the following are the most important:—

(1) Admission by subscribers' letters;
(2) Payment by patients who can afford it;
(3) Inquiry into patients' circumstances;
(4) The limitation of the numbers selected for the visiting staff in any one day; and
(5) Admission only on the recommendation of an outside general practitioner.

SUBSCRIBERS' LETTERS.

108.—Subscribers' letters have been abandoned at most of the Out-patient Departments, and where they are retained it is usually on the plea that they are valued by subscribers, and so assist in raising funds.[1] Since, however, at some Hospitals they confer privileges, such as exemption from inquiry into patients' circumstances, a remission of patients' payments, or a guarantee of access to the visiting staff,[2] it is evident that they are still used as a test of medical or financial suitability.[3]

109.—But the general opinion is in favour of their abolition.[4] The trouble of obtaining them frequently constitutes a hardship on the patient.[5] They are often given without adequate knowledge of patients' circumstances, and thus lead to the admission of unsuitable cases.[6] We therefore recommend the abolition of the use of such letters.

PATIENTS' PAYMENTS.

110.—Patients' payments may be regarded as a precaution against abuse in two ways. In the first place unsuitable persons who might be attracted by an offer of free treatment may not be attracted by any less favourable offer. Against this, however, must be set the risk that unsuitable persons who would not care to accept charity may have less hesitation when they are paying something towards the cost. In the second place, persons unsuitable for free treatment may yet be suitable for treatment at a rate of payment below that charged by private doctors. Theoretically the question may seem merely one of amount. So long as the payment at the Hospital does not approach that asked by private doctors, it may lessen the risk of pauperizing the patient, and yet not increase the risk of competition with the general practitioner. Thus it is claimed by some witnesses that

[1] Alvey (Charing Cross), 422; Quennell, 2813; Butlin, 3602; but cf. Jennings, 2605.
[2] Holland (London), 2/23; Glenton-Kerr (Great Northern), 622/6; Buchanan (Metropolitan), 1871/7; Jennings (Chelsea), 2582/10; Wilcox (East London), 3188; West (St. George's), 3251/9; Thomson and Johnson (Middlesex), App. 12/11; Queen's (Ch.), App. 9/9; Grosvenor (Wom.), App. 27/7.
[3] Michelli (Dreadnought), 1789/5; cf. Prince of Wales's App. 48/5.
[4] Ryan (St. Mary's), 2353/7.
[5] West (St. George's), 3291.
[6] Roberts, 4411/12, 4452/55.
[7] Statistical Appendix, Sec. A, col. 7.
[8] Kemp, 1470-1.
[9] Church, 3027/8.
[10] Buckle, 208.
[11] Gray, 2947.
[12] Heron, 3380/14; Roberts, 4411/12, 26; 4456.
[13] B.M.A., 1481/22; cf. Alvey, 425.
[14] B.M.A. (Ker), 1554, 167; (Whitaker), 1656; (Shaw, T.), 1659, 1673-4, 1787; Thomson, 2772; Butlin, 3574; but cf. Still, 3248 (*note*).
[15] B.M.A., 1481/23; Nunn, 3988; Barnett, App. 66/2; cf. Montefiore, 2500, 2663.

[1] Currie, 635-940; B.M.A., 1481/38; Collins, 4019; Marshall, 4348; Miller Hosp., App. 40/2; cf. Thies, 505; Johnson, S., 3215; Shaw, H. B., 3737-40; Capes, 4055-6.
[2] Statistical Appendix, Sec. B, col. 5.
[3] Buckle (Univ. Coll.), 135/8, 20; 219-221, 263; Marshall and Betteridge (W. Lond.), 4347/3; Leyton Hosp., App. 34/5, 6; but cf. Shaw, H. B. (Univ. Coll.), 3729-35; Betteridge, 4376-8.
[4] Holland, 102; Thies, 501; Loch, 707-710; Warren, 1189/22; B.M.A., 1481/38; Church, 3073; Johnson, S., 3218; Butlin, 3621-3; Nunn, 3778/14; Capes, 4047-5 (4).
[5] Holland, 98; Thies, 508; Loch, 709.
[6] Holland, 100, 105; Thies, 502-4; Loch, 708, 725; Currie, 935; B.M.A. (Whitaker), 1514-20; Capes, 4053-4; Tirard, 4173/15; cf. Sandhurst (quoting Herringham), 1104; Roberts, 4411/31.

a payment of 3d. per attendance does not compete with the charges of a private doctor,[1] although others admit that a charge of 6d. in respect of ordinary ailments might do so.[2] The narrowness of the line thus drawn shows how dangerous the principle may be, even when it is fully understood that the payment is only for medicines and dressings,[3] that all other expenses are borne by the Hospital,[4] and that the medical attendance is for the most part honorary. But it is said that there is a tendency amongst patients to believe that the payment covers medical attendance and other expenses as well, and that they are in no sense recipients of charity[5]; and many witnesses hold that in these circumstances even a 3d. payment competes unfairly with the charges of local doctors,[6] and discourages provident methods.[7] On this subject the members of the Central Hospital Council were equally divided.[8]

111.—At special Hospitals, where the comparison is between the patients payments and the minimum fee of the specialist, and a higher charge can be made without risk of competition, a system of payment according to the means of the patient is sometimes in force.[9] But the same general arguments for or against patients' payments apply also to these, and the objections on the part of medical witnesses have been equally strong.[10]

112.—On the whole, we are of opinion that the system of payments might advantageously be abolished.

Inquiry Officers and Almoners.

113.—Inquiry into patients' circumstances by officers of the Hospital is the principal method at present in force of controlling the admission of patients by means of internal organization.

114.—There are two principal methods of investigation, one by means of an Inquiry Officer whose energies are directed solely to the prevention of abuse; the other by an Almoner (usually a lady) whose inquiries have the additional object of ascertaining whether supplementary assistance is needed, and of putting the patient in the way of obtaining such assistance.[11]

115.—Of these two types the Inquiry Officer pure and simple is the earlier, the Almoner representing a later development.[12] Of the 12 general Hospitals with schools, three have Inquiry Officers only (and of these, one leaves the ultimate decision to the secretary), six have Almoners only, another has "Lady Out-patient Visitors," and two have both Almoners and Inquiry Officers. Of the 16 other general Hospitals without schools, four have Almoners, two have Inquiry Officers, four entrust the investigations to their secretaries, one to a resident medical officer, one to a nurse, and one to a registration officer. Three report that they have no inquiry system, but of these one admits Out-patients solely on the recommendation of private doctors.[13]

116.—In the special Hospitals the inquiry systems are less well developed. Amongst 37 Hospitals only four have Almoners, of whom three are at Children's Hospitals, while no fewer than 21 entrust the decision in doubtful cases to the secretary, with or without the assistance of clerks or Inquiry Officers.[14]

117.—The extent to which an unorganized system of inquiry is necessary at any particular Hospital depends on the size of its Out-patient Department. It is undesirable that the duty of deciding as to the suitability of patients, whether for free or for part-pay treatment, should be in the hands of any officer who is concerned with the raising of funds for the Hospital, or whose business it is to consider the effect of Out-patient statistics, or of patients' payments, on the financial prospects of the institution.[1]

118.—The qualifications of the "Inquiry Officer" vary at different Hospitals. At some he is little more than a registering clerk,[2] at others he is a skilled investigator, sometimes with the general experience of an ex-police inspector[3]; sometimes with a special knowledge of the immediate neighbourhood of the Hospital, which is of the greatest value.

119.—The "Almoner" is usually a lady,[4] trained by the "Hospital Almoners' Council" upon definite and uniform lines.[5] This Council, like the Almoner system itself, was founded by the Charity Organization Society,[6] but it has recently been reorganized on a representative basis.[7] The training is partly theoretical, consisting of lectures on sociology, hygiene and physiology; and partly practical, consisting of general charitable work in a district office of the Charity Organization Society, and of Hospital work in the office of a Hospital Almoner.[8] But when the training is completed, the Almoner becomes responsible solely to the Hospital which employs her.[9]

120.—The principles upon which Almoners are trained to work include: (1) the prevention of abuse by referring unsuitable cases to an appropriate agency, (2) the supplementing of Hospital treatment by securing the aid of other charities and the co-operation of the patient himself, (3) the encouragement of thrift in the form of provision against future sickness, (4) the development of the consultative side of Hospital work.[10] In all her work the Almoner is expected to act in close touch with the medical staff of the Hospital, no case being refused or referred elsewhere without medical sanction.[11]

121.—With regard to the relative merits of "Inquiry Officers" and "Almoners," it seems to be more and more recognized, so far at least as the larger Hospitals are concerned, that the merely negative investigations of the former are insufficient, and that the positive activities of the latter are necessary.[12] This is admitted even by such witnesses as dislike the methods of the present Almoners.[13]

It is evident that the Almoner system is well adapted to the prevention of many of the defects already discussed, bringing, as it does, the Hospital work into touch with home conditions, with the past history of the patients, with other charitable and medical agencies, and with general practitioners.[11] Some witnesses, however, have expressed the fear that the side of the Almoner work which deals with the prevention of abuse is liable to be hampered by the more positive side,[15] and to be less efficiently performed than it would be by ordinary Inquiry Officers. On the other hand, we have instances of an Almoner having discovered abuse which had been passed over by an Inquiry Officer;[16] and we find that amongst the great Hospitals with schools, the numbers of cases excluded are comparatively small at those without Almoners.[17] It should be remembered that the principle of the reference of unsuitable cases to more appropriate agencies, which is the special work of Almoners, prevents abuse by enabling a stricter standard of suitability to be applied without hardship to patients. Again, the exclusion of cases too poor to benefit by Out-patient treatment is better enforced after it has first been ascertained that it is impossible to supplement the Hospital treatment by other appropriate charitable assistance.

In both these directions therefore the twofold function of the Almoner actually assists in the exclusion of the unsuitable.

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[1] Holland, 113; Dawson, 4735.
[2] Buckle, 243-249; but cf. Dawson, 4736.
[3] Holland, 115, 118; Buckle, 250
[4] Statistical Appendix, sec. A, cols. 10-11; cf. B.M.A. (Shaw, L.), 1746-8, (Whitaker), 1750.
[5] Sandhurst, 1171-6; Church, 3027/24; Roberts, 4411/36; but cf. Wilcox, 3186.
[6] Sandhurst, 1171-6; B.M.A., 1481/39; Church, 3062-4; Capes, 4047/2(3); cf. Loch, 833; Quennell, 2776-16.
[7] B.M.A., 1481/39.
[8] West, 3349/4.
[9] Statistical Appendix, Sec. B, col. 6.
[10] B.M.A., 1481/39; B.M.A. (Macdonald), 1590; (Whitaker), 1645-6; (Ker), 1646; Heron, 3490-3507; Butlin, 3660-3670; Capes, 4047/2(3), 4093-97; but cf. Loch, 832, 837-840.
[11] The term "Almoner" does not appear to indicate the nature of the work of the official so named. It suggests rather the distribution of relief than the prevention of abuse or even the promotion of co-operation between charitable agencies. Nevertheless its meaning is well understood by those who use the word.
[12] Currie, 886; Montefiore, 2474/6.
[13] Statistical Appendix, Sec. B, col. 7. These particulars relate to the year 1911
[14] Ibid.

[1] Church, 3097; cf. B.M.A., 1481/39; West, 3349/2.
[2] Cf. West, 3286.
[3] Bland, 2243.
[4] Buchanan, 1933-40.
[5] Kemp, 1348, etc.
[6] Kemp, 1350.
[7] Kemp, 1348/9, Appendix 6 B.
[8] Kemp, 1348/7.
[9] Kemp, 1348/8.
[10] Kemp, 1348/1.
[11] Kemp, 1348/4; Buchanan, 1921; Montefiore, 2474/14 (a); Tirard, 4173/13; Roberts, 4411/11, etc., etc.
[12] Loch, 744-5; Kemp, 1382; Montefiore, 2497; cf. West, 3278
[13] Shaw, H. B., 3701, 3774; cf. Davis, 989-994; James and Gasson, 4482/5.
[14] Kemp, 1348/3; Montefiore, 2497.
[15] Ryan, 2451; Capes, 4139; cf. West, 3273, but cf. Kemp, 1461; B.M.A., 1481/56.
[16] Johnson, S., 3199, 3207
[17] Statistical Appendix, Sec. B, cols. 7 and 10.

122.—On the whole the evidence seems to prove that the system of inquiry through Almoners (either alone or supplemented by ordinary Inquiry Officers) has been very useful both in preventing the abuse of the Out-patient Departments and in remedying some of their other defects, and the question arises whether all that is necessary is to extend the system till the whole field is covered.

123.—As to the possibility of a sufficient extension of the system, it is evident that a large increase in the number of Almoners would be required, and that the expense would be considerable.

124.—Thus the London Hospital, which has at present five Almoners, besides an Inquiry officer and an Out-patient Superintendent, estimates that 15 would be necessary, at a total cost of £3,000 a year, and that even then the Casualty Department would be untouched.[1] At St. Thomas's, where the Casualty Department is partly investigated and the number of Out-patients proper is limited, there is a staff of nine, besides voluntary workers.[2] Charing Cross has one, and states that it would require three if the Casualty Department as well as the Out-patient Department was to be covered.[3] The Metropolitan would want four.[4] St. Bartholomew's[5] and the West London[6] find the cost of Almoners the chief obstacle to reorganization—the salary being usually £100 or £120, rising to £200.[7] St. Mary's, in order to investigate the Casualty Department, feels the need not only of more Almoners, but also of more accommodation,[8] and the latter difficulty occurs at the Royal Free and to some extent at St. Thomas's.[9] Some increase of expenditure would therefore be unavoidable in most cases, but it would appear that the Hospitals with Almoners consider them well worth their cost, partly because of what they save by the prevention of abuse, and partly because of the increased value of Hospital treatment when supplemented by the various other forms of assistance which the trained Almoner knows how to secure.[10]

125.—The chief difficulty in establishing a complete inquiry system lies in the large number of patients that present themselves. It is estimated that one Almoner cannot satisfactorily deal with more than about 25 cases a day.[11]

But the mere presence of an Almoner tends to deter unsuitable cases from applying, and so diminishes the work to be done.[12]

126.—The preliminary investigations of an experienced Inquiry Officer would reduce the pressure on the Almoner's Department. Sufficient particulars to justify the exclusion of the more obviously unsuitable cases can often be obtained by an officer moving about amongst the patients in much less time than is required for the private interviews with the Almoner, and there is therefore a good deal to be said for this form of "double sieve."[13]

Limitation of Numbers.

127.—We have already described the system,[14] adopted at several hospitals, of limiting the numbers of new patients reserved for the visiting physicians and surgeons in attendance, on any one day. The cases selected for these purposes are, of course, the most serious of those presenting themselves. The cases not so selected are, according to their seriousness, either treated by the resident or junior staff, or given a preferential chance of selection for the visiting staff next day.[15]

128.—The advantage claimed for this system is that it draws a clear distinction between patients that need the consultant and patients that do not. Provided that the selection is in the hands of fully competent medical officers, it ensures that all serious cases come under the direct care of the consultant himself,[1] relieves them of much of the liability to long hours of waiting, and enables the Almoner to give them special attention. As evidence that it does not cause any hardship, we are told that at St. Thomas's the maximum number (19) is seldom reached.[2] But it does not in itself relieve the crowding of the receiving room and the pressure on the staff responsible for selecting the more serious cases and treating the less serious,[3] or facilitate the inquiries of the Almoner into ordinary cases, except in so far as the knowledge that only the more serious cases will be attended to by the consultant may deter the more trivial from applying unnecessarily.[4]

External Sifting by General Practitioners.

129.—There are many witnesses, however, who are doubtful whether the extension of the system of inquiries by "Almoners," accompanied or not accompanied by a limitation of numbers, would be adequate to secure the necessary reforms. The alternative plan is therefore put forward, of entrusting the sifting of patients to some external agency, and thus limiting the applicants to the Hospitals to those who are *prima facie* suitable either medically or financially or on both grounds.

130.—In support of this policy it is urged that the Almoners alone are not successful in preventing abuse,[5] and that it is extremely difficult to turn away patients when once they passed the doors of the Hospital.[6] It is also suggested that the Almoner tends to decide too much on financial grounds, and therefore to admit patients who are medically unsuitable, while excluding patients requiring Hospital treatment.[7]

131.—The proposal usually takes the form that admission to the Out-patient Departments should, except in cases of emergency, be confined to patients recommended by medical practitioners, including private doctors, dispensary doctors, and Poor Law medical officers.[8] Under this system, as put before us by the British Medical Association, every one would have access to a general practitioner, either privately or through a provident or Poor Law Dispensary, who would treat all ordinary or trivial ailments;[9] while in cases presenting difficulty in diagnosis or requiring special treatment the general practitioner would send the patient to the Hospital for consultative advice.[10] The Hospital would report on the case to the private doctor, and would not retain it for treatment except where special skill or expensive apparatus was required.[11] In all other cases it would be left to the general practitioner to see to the carrying out of the treatment advised by the Hospital consultant.[12]

132.—The arguments in favour of the proposal for external sifting by general practitioners may be summed up as follows:

(1) That abuse would be prevented, because no general practitioner would recommend any one, at all events in respect of an ordinary ailment, who was able to pay a private doctor or join a Provident Dispensary, or was already provided for by the Poor Law. It is admitted,[13] however, that the Hospital would still have to protect itself by means of Almoners against the recommendation of patients able to pay consultant's fees.

(2) That overcrowding would be prevented together with the other evils that result from the admission of ordinary or trivial cases.

That the treatment of patients for ordinary ailments would be conducted by doctors familiar with their home conditions and past history, and that in special cases the same doctors

[1] Holland, 27, 38; cf. Currie, 925
[2] Roberts, 4421/5
[3] Alvey, 416.
[4] Buchanan, 1940.
[5] Sandhurst, 1055.
[6] Marshall, 4376.
[7] Thies, 485; Kemp, 1396-7.
[8] Ryan, 2375-6.
[9] Thies, 485; Roberts, 4411/20; cf. Tirard (King's Coll.), 4338.
[10] Holland, 47-49; Currie, 928-930; Buchanan, 1942; Johnson, S., 3197/65; West, 3277-79.
[11] Tirard, 4173/9; Thies, App. 3, C.
[12] Thies, 488-490; Glenton-Kerr, 622/7; Currie, 930; Kemp, 1428-1431, but cf. Sandhurst, 1055; Thomson and Johnson, App. 42/32.
[13] Holland, 89; Johnson, S., 3199-3202, 3207; West, 3285.
[14] See par. 72.
[15] West (St. George's), 3251/3; Roberts (St. Thomas's), 4414-5; Queen's (Ch.), App. 49/4 (*d*); Roy. Waterloo (Women and Ch.), App. 55/3; cf. Tirard, 4230.

[1] Kemp, 1432; B.M.A., 1481/20; Butlin, 3556; Roberts, 4413.
[2] Roberts, 4417.
[3] Gray, 2942; West, 3362, but cf. Loch, 870, 873.
[4] West, 3355; cf. Capes, 4110.
[5] B.M.A., (Whitaker) 1643, (Shaw, L.) 1644; Gray, 2896; Capes, 4139.
[6] Warren, 1189/20; Montefiore, 2481; Butlin, 3586; Gray, 4122.
[7] Barnett, App. 66/3.; cf. Michelli, 1801.
[8] Warren, 1189/22; Kemp, 1432-3; B.M.A., 1481/20, 22, etc.; Buchanan, 1871/26; Prior, 2024, etc; Montefiore, 2474/15; Gray, 2817/9 (*b*); Butlin, 3556-62; Shaw, B., 3694-5; Nunn, 3778/14; Capes, 4047/2 (6); Lyster, App. 9/2; Barnett, App. 66/2; Poor Law Commission Majority Report, Pt. V, ch. 2, par. 189, quoted by B.M.A., 1481/7.
[9] B.M.A., 1481/21; B.M.A., (Whitaker) 1685.
[10] B.M.A., 1481/22.
[11] B.M.A., 1481/43, 63 (2); Gray, 2919; Butlin, 3557; Capes, 4070.
[12] B.M.A., 1481/17, 27, 30.
[13] B.M.A., 1481/22; Gray, 2817/9 (*b*) and (*d*); Capes, 4047/2 (14); cf. Tirard, 4338, but cf. Prior, 2029-31.

would be able to see that the treatment advised by the Hospital was duly carried out.

(4) That co-operation with general practitioners would take the place of competition, and the reluctance of the private doctors to send difficult cases to the Hospitals would disappear.

(5) That a great step would thus be taken towards the co-ordination of the whole medical service of the poor. The Hospital would fulfil its most valuable function as a consultative centre, to the great benefit of the patients, both directly, through the provision of the special advice or treatment they might need, and also indirectly through the increased efficiency of the general practitioners, who would be kept in touch with the leaders of their profession and the most recent advances of science.

133.—It is obvious that the attainment of these ends by this means depends upon the soundness of certain assumptions.

134.—The first assumption is that all patients would be in a position without undue hardship[1] to obtain access to a general practitioner, either privately or through dispensaries, or through the Poor Law.

This assumption involves the existence, as part of the scheme, of a sufficient number of Provident Dispensaries to meet the needs of all who cannot afford ordinary fees.[2] It further presupposes either the non-existence of any class intermediate between those able to join Provident Dispensaries and those suitable for the Poor Law,[3] or else the existence of charitable or public agencies by whose assistance the members of that class will be enabled to make provision.[4]

Should there be an absence of sufficient Provident Dispensaries, the advocates of the scheme would meet the difficulty by allowing free access to the Out-patient Departments for a time, though with preference to recommended cases, and subject to strict inquiry by Almoners. This would give time for the Provident Dispensaries to be developed on a scale adequate to their function under the scheme.[5]

135.—The second assumption is that the general practitioner could be relied upon to detect the cases which required a second opinion or special treatment, and send them to the Hospital.[6]

In so far, if at all, as the general practitioners accessible to the poor may be at present less reliable in this respect than the Casualty Officers at the Out-patient Departments,[7] it is argued that their competence would improve under the system.[8] Here again the suggested transitional period might assist in preventing hardship,[9] but some witnesses would provide permanently for a means of appeal from the decision of the private doctor either to the Hospital[10] or to some representative authority representing non-medical interests.[11]

136.—The third assumption is that the general practitioners could be relied on to determine on uniform principles the best means of dealing with patients, whether from the medical, the financial, or the sociological point of view. For it would be to the general practitioners that the control of the future policy would be entrusted, in many of the matters in respect of which reforms are at present urged upon the Hospitals. They would in effect be responsible for determining the kind of cases, medically speaking, which should be admitted to the Out-patient Departments; the financial level which should distinguish the classes suitable for provident, charitable or Poor Law agencies respectively; and the extent to which the administration of medical assistance should keep in view collateral objects such as the encouragement of thrift, co-ordination with other forms of charitable work, or the interests of medical education and the advancement of medical science.

This statement must, of course, be modified to some extent in the case of those witnesses who would associate with the scheme some representative authority for the co-ordination of medical assistance.[1]

137.—Satisfactory assurances on all these points would seem to be necessary, from the point of view of the Hospitals, of the patients, and of the charitable public, before any proposal could be accepted to transfer from the Hospitals to an outside agency the sifting and selection of patients. We are not satisfied that the case for entrusting the selection to general practitioners has been made out.[2]

138.—Our doubts on these points have not been removed by a study of the evidence as to the Bolingbroke Hospital, which is referred to by advocates of the system as an example of its operation in practice.[3] Here the Out-patient department is purely consultative; patients are seen only on the recommendation of a medical man, and even then they are not treated at all unless special skill or apparatus is required, but are referred back to the general practitioner with a report from the Hospital doctor.[4] We have evidence that, as far as it goes, this system works well; that it satisfies the local doctors, the subscribers, and the patients who belong to friendly societies and clubs[5]; that the system is favourable to the development of Provident organizations; and generally that this Hospital is free from many of the abuses and other defects to which open Out-patient Departments are liable. But it does not appear that the Bolingbroke system comprises any provision for securing to patients access to other charitable agencies. The attitude of the Hospital itself, so far as this aspect of the question is concerned, is purely passive. It makes no inquiry as to the financial suitability of the patients;[6] the question whether a particular patient should join a Provident Dispensary is looked upon as a personal matter between patients and individual private doctors,[7] who may or may not decide such questions on uniform principles. It is assumed that all patients who are ineligible as having no private or dispensary doctor are proper subjects for the Poor Law;[8] but it is admitted that they may go to other Hospitals.[9]

The Hospital Out-patient Department acts (apart from casualties and operations) merely as a consultant centre for patients who are unable to pay for specialist advice, but are able to secure the services of a general practitioner to carry out that advice. We have no reason to suppose that it does not perform this function usefully and efficiently. But in the absence of any system of local co-ordination, and of any evidence as to the method by which those who are excluded from the Bolingbroke Out-patient Department obtain their treatment for ordinary ailments, there is nothing to show that it meets the whole of the legitimate Hospital requirements of all classes in its district, or that the introduction of similar methods into all Hospitals would not leave large classes unprovided for. The fact that St. Thomas's Hospital, with its comparatively well-developed Almoner system, treats as many cases from the Bolingbroke district as does the Bolingbroke itself,[10] is alone sufficient to render this extremely doubtful.

Co-ordinating Agencies.

139.—Several witnesses have expressed the opinion that for any effective organization of the Out-patient Departments the establishment of some agency for the co-ordination of medical assistance is required. Such an agency

[1] But cf. Alvey, 331/22; Johnson, A. E., 2758; Church, 3108-3114; Tirard, 4336.

[2] Kemp, 1444-52; B.M.A., (Macdonald) 1557, (Whitaker 1685 6; cf. Church, 3108.

[3] B.M.A., (Whitaker) 1620-2, 1768, (Ker) 1696; Montefiore, 2526; Gray, 2903, 2945; cf. Ryan, 2430; Church, 3067-9, 3074, and see par. 40.

[4] Kemp, 1432-3, 1447; B.M.A. (Whitaker), 1686; Montefiore, 2550-52; Nunn, 3918-3930. Some witnesses, however, would deal with such cases at Non provident Dispensaries. Warren, 1300; James, 4547; Barnett, App. 66/2; cf. Alvey, 331/13; Thomson, 2732-3.

[5] B.M.A., 1481/33-4, (Macdonald), 1557 (Whitaker), 1685 1693.

[6] B.M.A. (Ker) 1666-73, (Macdonald), 1675, (Shaw, L.), 1675 6; Montefiore, 2568; Gray, 2939; Capes, 4058, 4116; cf. Church, 3059-60.

[7] Michelli, 1895; Buchanan, 1951; Spicer, 2191 3/4-5; Ryan, 2461; Montefiore, 2509, 2518, 2563, 2572; Jennings, 2607-9; Johnson, A. E., 2759; Tirard, 4265, 4327-8; Dawson, 4739-40; Hosp. Epilepsy, App. 31/9; Barnett, App. 65/1; cf. Church, 3027/25.

[8] B.M.A., 1481/23; B.M.A. (Shaw, L.), 1673-4; Montefiore, 2509, 2520, 2560; Nunn, 3988; Barnett, App. 66/2.

[9] B.M.A., 1481/33; B.M.A. (Whitaker), 1685.

[10] B.M.A. (Shaw, L.), 1675; cf. Loch, 781.

[11] Butlin, 3603-4; Nunn, 3981-88.

[1] Loch, 794; Kemp, 1432; Butlin, 3604; Nunn, 3984-5; Barnett, App. 66/4; Poor Law Commission Majority Report, Pt. IX. (22), and Pt. V., chs. 3, par. 237.

[2] Cf. Holland, 132-3; Alvey, 331/22; Still, 3248 (*note*); Tirard, 4344; Roberts, 4411/26; Dawson, 4758-62.

[3] B.M.A., 1481/54; Ker) 1552-71, 1574-5, 1786; (Whitaker), 1571-4; (Shaw, L.) 1575-7; cf. Lowrie and Prior, 2022-2190; Lyster, App. 9.

[4] Lyster, App. 9/2.

[5] B.M.A., 1481 38, 54; Lyster, App. 9/3.

[6] Prior, 2029, 2035, 2142.

[7] Prior, 2144.

[8] Prior, 2110, 2188.

[9] Prior, 2113, 2146/7.

[10] Prior, 2145, but cf. 2052-2056; Roberts 4411/1(*a*) and (*b*) and Statistical Appendix, Sec. A, col. 2.

would, it is said, supply a remedy for the want of uniformity now existing between one Hospital and another, for overlapping, and for the isolation of medical agencies from other forms of charitable or public assistance.[1]

140.—At present no such co-ordinating agency exists. There are, however, various bodies which perform, either directly or incidentally, some of the functions of such an agency.

141.—From time to time there have been conferences between the various Hospitals,[2] and between Hospitals and other bodies such as the British Medical Association,[3] and quite recently a British Hospitals Association has been formed, part of whose function it is to organize conferences on Hospital matters.

In 1892 the formation of a Central Body was recommended by the Select Committee of the House of Lords,[4] and in 1897 a Central Hospital Council was formed representing 18 of the leading Hospitals.[5] This Council has made recommendations on such subjects as the appointment of inquiry officers, and the definition of the term "Casualty patients"; and in conjunction with the Metropolitan Provident Medical Association it drew up in 1905–6 a scheme of co-operation between Hospitals and Provident Dispensaries.[6]

The three Hospital Funds—the King's Fund, the Hospital Sunday Fund, and the Hospital Saturday Fund—have used their influence in the past to secure uniform statistics of Out-patients,[7] and, in the case of the two first mentioned, the appointment of inquiry officers.[8]

142.—In the sphere of general charity a co-ordinating agency already exists in the Charity Organization Society,[9] whose services in the initiation of the Almoner system, the training of Almoners, and the organization of the mutual registration of assistance, have already been referred to. Agencies of a more generally representative character have been established in certain districts of London in the form of Councils of Social Welfare,[10] and there is a Central Association of Councils of Social Welfare for the promotion of this movement.[11] The Majority Report of the Poor Law Commission contemplates the establishment of Central and Local Voluntary Aid Committees[12] to work in co-operation with the Public Assistance Authorities which under their scheme would take the place of the present Poor Law Authorities.[13] In association with these authorities, the scheme also proposes Central and Local Medical Assistance Committees representing Hospitals, Poor Law Infirmaries, Provident Dispensaries, General Practitioners, Public Health Authorities and the Public Assistance Authority.[14] The Majority Report, therefore, contemplates the machinery for a complete co-ordination of medical and charitable assistance.[15]

143.—At present, however, the work of co-operation between one Hospital and another, and between Hospitals and other agencies, lies chiefly in the hands of the Almoners, acting in concert with the medical staffs; and the reconstitution of the Hospital Almoners' Council, on a representative basis, is a further step along this line of co-ordination.[16] The Council is to consist of representatives of Hospitals, of the medical staffs of Hospitals, of the Charity Organization Society, and of the trained Almoners and other persons interested in the work of Hospitals or kindred charities.

VIII. CONCLUSIONS AS TO REMEDIES.

Development of Almoner System.

144.—The evidence leads us to the conclusion that the most practicable method of remedying the defects of the Out-patient Departments lies in the development of the Almoner system. This development should have in view three main ends. First, the reference to appropriate agencies, of cases unsuitable for the Out-patient Departments; second, co-ordination with other forms of medical and charitable assistance; third, co-operation with general practitioners so as to encourage the use of the Hospitals for consultative purposes.

145.—A question arises as to whether the Almoners themselves should undertake all this work, or whether they should utilize existing agencies. It seems to us that there might be some danger of the Almoner travelling beyond the province of the Hospital as an institution for medical relief,[1] if he or she did all the work personally. It seems preferable that the Almoner should utilize existing agencies,[2] especially where there is any local machinery of co-ordination in existence.[3] As the co-ordination of charitable or public assistance in any area develops, the Hospitals will thus be ready to take their place in the organization. The Almoners' aim should be to provide a link between the Hospital and general charity.

146.—Co-operation between Hospitals and general practitioners, with the consequent encouragement of the use of the Hospital as a consultant centre, can, we believe, be developed to a very considerable extent through the agency of the Almoners. We have been struck with the way in which the existing Almoner system has been utilized for the purpose at some Hospitals. It is part of the regular practice of the Almoner to communicate with the doctor if the patient has one, and the case is often referred back to him (subject to the consent of the Hospital doctor) if he is in a position to treat the ailment. At King's College Hospital the Almoner keeps a card index of patients recommended by medical men,[4] and no future application from such a patient, or from his family, is knowingly entertained without reference to the medical man. This is stated to have led to an increase in the number of cases sent up by private doctors for special advice or treatment.[5] It seems to us that good results might be expected from an extension of this practice.

147.—This co-operation should be effected by three methods, which between them would cover all the cases where the general practitioner could have any grievance:

(i) In the case of a patient who has no doctor:—by referring the patient to a private doctor, Provident Dispensary or Poor Law dispensary, whenever the financial circumstances, combined with the nature of the ailment, rendered such a course appropriate.

(ii) In the case of a patient who has a doctor, and comes without a recommendation from that doctor:—by communication with the doctor. Such communication would take the form of a reference back to the doctor if the case was one which could be adequately dealt with by him, and a report to the doctor if the case needed special diagnosis, advice, or treatment.

(iii) In the case of a patient who comes with a doctor's recommendation:—by reporting to that doctor on the case; and keeping a record of the fact that the patient has a doctor, for use in the event of the patient subsequently attending without a recommendation.

The carrying out of these methods would be the work partly of the Almoner and partly of the Hospital doctor or his assistants, but (as at present) no action should be taken by the Almoner without the knowledge and consent of the Hospital doctor.

148.—The interest of the patients would be safeguarded, as well as those of the Hospital and of the general practitioners, if the actual arrangements took the following form:

(1) In cases where the Hospital doctor advised treatment at the Out-patient Department, the Hospital to inform both the patient and the general practitioner of this fact. The patient

[1] Thies, 432/22; Loch, 794; B.M.A. (Whitaker), 1607-9; Montefiore, 2556; Shaw, H. B., 3762 cf. Davis. 997.
[2] Cf. Davis, 997.
[3] B.M.A., 1481/8-9; B.M.A. (Whitaker), 1521-25.
[4] Sandhurst, 1109; B.M.A. (Shaw, L.), 1709.
[5] West, 3349.
[6] B.M.A. (Shaw, L.), 1611; West, 3349/5
[7] Ryan, 2472; cf. Thies, 432/21.
[8] Church, 3096-9; cf. Evelina, App. 25/1d; Currie, 886; the Hospital Saturday Fund has its own system of inquiry so far as its members are concerned. Davis, 976-989; cf. Roberts, 4474.
[9] Holland, 57, 131; Kemp, 1403-6; Montefiore, 2532.
[10] Holland, 1/27, 29; Jennings, 2627-8; Nunn, 3778/1 (iii).
[11] Holland, 57; cf. Nunn, 3951.
[12] Poor Law Commission Majority Report, Pt. IX (23); Pt. V, ch. 3; par. 237; B.M.A. Whitaker), 1697-9; Buchanan, 1871/26, 1964.
[13] Majority Report, Pt. IX. (8) to (12).
[14] Ibid., Pt. IX. 22 and Pt. V.; Loch, 790.
[15] Montefiore, 2474/15, 2552; Nunn, 3778/8, 10, 3907-17.
[16] Kemp, App. 6 (B).

[1] Buckle, 283; Glenton-Kerr, 668-9; cf. Kemp, 1374.
[2] Komp, 1375 1383, 1386-92.
[3] Rolland, 49, 53; Loch, 745.
[4] Tirard, 4173/11, 12, 14, 17.
[5] Tirard, 4173/17.

then to be at liberty to come again for treatment if he wished to do so, until such time as he was well enough to be referred back to the general practitioner.

(2) In cases where the Hospital doctor considered that the patient could be adequately treated by the general practitioner, the Hospital also to inform both the patient and the general practitioner of the fact; but the patient would then not be admitted to the Out-patient Department.

149.—The development of the Almoner system, on a scale sufficient for the application of these principles throughout the Hospitals of London, is largely a question of finance. We consider that expenditure in this direction would be so beneficial that it would give the Hospitals an added claim on the charitable public.

150.—The work of the Almoners, however, if it is to be successful, requires to be supplemented by two other reforms—first a reduction of numbers through the exclusion, by the Hospital doctors, of those unsuitable on medical grounds for Hospital treatment; and, second, the provision of sufficient Provident Dispensaries or other means of securing medical attendance for ordinary ailments by provident methods. In addition to these, some further development of general co-ordination between Hospitals and other agencies is desirable; while finally it is essential that the interests of medical education and the advancement of medical science should be safeguarded.

Limitation of Numbers.

151.—The reduction of numbers by the exclusion on medical grounds of cases unsuitable for Hospital treatment would, in our opinion, be both practicable and beneficial. It would require the adoption of a deliberate policy, both in the Out-patient Department proper and in the Casualty Department. In the Out-patient Department proper, we recommend the extension of the practice already described as being in operation at some Hospitals,[1] where fully qualified medical officers select each day a limited number of the more serious cases, in proportion to the number of members of the Visiting Staff in attendance. In selecting such cases regard would naturally be paid to recommendations from general practitioners,[2] which should of course be the subject of inquiry by the Almoner.

152.—The cases not so reserved will naturally be less serious, and therefore more likely to be within the capacity of the ordinary general practitioner. They may have to be treated by the medical officer of the Hospital, but the attitude of both Almoner and medical officer to them should be that unless there is good reason to the contrary they should for continuous treatment be referred to a general practitioner. This, it should be noted, amounts to a reversal of the usual attitude at present, which is to retain them at the Hospital unless there is clear evidence to the contrary. This change of attitude would itself greatly conduce to good relations with general practitioners.

153.—There will remain the cases which are now usually treated in the Casualty Department, namely, the emergency cases that cannot wait for the visiting staff, and the trivial cases which can be disposed of so quickly that they are, as a rule, neither reserved for the visiting staff nor inquired into by the Almoner. The former must, of course, be treated once at all events. The latter, however, should, in our opinion, be sent away untreated,[3] except where there is any element of urgency or risk, in which case "first aid" must, of course, be given.[4] This class of case, we consider, is unsuitable for Hospital treatment for two reasons: In the first place, the resources of a great Hospital should not be employed upon an utterly trivial ailment when they are already strained to the utmost to cope with more important work.[5] In the second place, such an ailment can be treated by a private doctor at so small a cost that the patient who is unable to meet that cost must be practically destitute, and should be provided for by the Poor Law.[6] The extra work involved in ascertaining whether the patients should be treated or be sent away would soon be saved by the reduction of numbers that would follow when the practice became generally known.[1] Cases where there is any doubt, either as to the triviality of the ailment or as to the financial position of the patient, should be referred to the Out-patient Department proper, where they would come within the cognizance of the Almoner.

154.—It will be seen that this suggestion implies a rather more detailed, but, at the same time, a much clearer subdivision of patients, than the present haphazard classification into Casualties and Out-patients proper. Whatever the nomenclature adopted, or whatever the number of separate departments provided for in the Hospital building, four classes of patients should be recognized instead of two:—

(1) The emergency cases, or true casualties.
(2) The trivial cases.
(3) The cases of ordinary ailments, not trivial, but not serious enough for the visiting staff.
(4) The serious or otherwise special cases selected, up to a limited number per day, as needing a consultant's advice or treatment.

The first would be treated once as emergencies, and would subsequently fall into one of the other classes.

The second would, wherever possible, be sent away by the medical officer untreated.

The third would be treated once, if necessary, in the Out-patient Department, but would not be retained unless the Almoner, acting in concert with the medical officer, was convinced that access to a competent private or dispensary doctor was impossible.

The fourth would be reserved for the thorough examination both of the medical staff and of the Almoner.

Development of Provident Agencies.

155.—The provision of adequate Provident Dispensaries is undoubtedly a necessary condition of any effective reform of the Out-patient Departments. But there is little doubt that the comparative scarcity of such provision at present is largely due to the competition of the Out-patient Department as now organized, and this competition would be greatly reduced if the reforms we have recommended were put into operation. We feel confident that a general recognition of the advantages, both to the patients and to the Hospitals, of a transfer of a great deal of the present out-patient work to provident agencies would lead to the provision of the necessary facilities. Certainly such provision, whether it resulted from professional or charitable effort or from some scheme of National Insurance, would greatly assist in the reform of the Out-patient Departments.

Development of Co-ordination.

156.—For successful out-patient reform there is also required some better general co-ordination than at present exists amongst the Hospitals themselves and between the Hospitals and other agencies of assistance, both medical and non-medical. Co-ordination between Hospitals is required in order to secure uniformity as regards the standard of suitability of patients. It is useless for some Hospitals to adopt a standard for admission which other Hospitals ignore. Co-ordination between Hospitals and other medical agencies is necessary in order that exclusion may not be a mere refusal of assistance, with the risk of injury to the patient, but may take the form of reference to a more appropriate agency; and also to secure that all classes of case are provided for. Finally, co-ordination between Hospitals and other charitable agencies is necessary for the purpose of supplementing the mere medical treatment wherever illness is caused or accompanied by other forms of distress, and in order to ensure that reference to the Poor Law is only resorted to in cases that are beyond the reach of voluntary assistance. We consider, therefore, that Hospitals should co-operate as far as possible with any well-considered movement in the direction of co-ordination either amongst themselves or amongst the agencies for charitable or public assistance generally.

Safeguards for Medical Education.

157.—In any system of out-patient organization it is essential that the interests of medical education and the advancement of medical science should be safeguarded.

[1] See pars. 72 and 127.
[2] Kemp, 1468-9; Roberts, 4411/12, 4452-55.
[3] Cf. Glenton-Kerr, 655; B.M.A., 1481/63 (1); Gray, 2901; Heron, 3132; Butlin, 3553, 3584, 3589; but cf. 3541-5, 3586, 3593, and Capes, 4126.
[4] Holland, 120; B.M.A. (Whitaker), 1652; Montefiore, 2563; Capes, 4017/8 (12).
[5] Loch, 723-4.
[6] Church, 3053-4; Thies, App. 3 (c); cf. Holland, 120.
[1] Gray, 2903; Butlin, 3559, 3588.

PART II.

GENERAL CONCLUSIONS.

1.—Consideration of the original objects of the Out-patient Departments leads to the following conclusions as to their function, the classes suitable for admission, and their relation to other agencies:

(A) The Out-patient Department is and has always been intended for the provision of effective medical attendance for persons unable to pay for the particular form of treatment required by the ailment from which they are suffering.

(B) The modern Out-patient Department, while available for patients unable to provide for ordinary ailments, is specially fitted for three functions:

(i) To provide (in the Casualty Department) immediate treatment for sudden and serious accident or illness.

(ii) To provide (in the Out-patient Department proper) special diagnosis, advice or treatment where these are necessary.

(iii) To assist medical education and the advancement of medical science.

2.—The chief alternative agencies for affording relief of the kind supplied by the Hospitals are the following:

(i) Private Consultants.
(ii) Private general Practitioners.
(iii) Provident Dispensaries.
(iv) Non-provident Dispensaries.
(v) Poor Law Dispensaries.

The question what classes of persons should be discouraged from attending the Out-patient Department must be considered in relation to these various alternative agencies.

3.—Use of the Out-patient Departments by the well-to-do is not common. When it is attempted, the existence of inquiry officers and the vigilance of the medical staffs prevent it at the majority of the Hospitals.

4.—Use of the Out-patient Departments for ordinary ailments by persons able to pay small fees to doctors is in some degree prevented by the inquiry system, but it probably exists to quite an appreciable extent, owing to the fact that the inquiry systems reach only a small proportion of the total number of applicants, and that patients excluded from one Hospital on this ground can often obtain admission at another.

5.—The use of the Out-patient Departments for the treatment of ordinary ailments by a class able to make provision for such ailments by joining Provident Dispensaries is common. This is proved by the experience of the Hospitals which try to detect and exclude this class.

6.—The use of the "Casualty" Department by persons not well-to-do but able to pay or make provision for the one or two treatments required, is not uncommon. This is due to several causes:—

(1) Many of the cases are emergencies and must be treated at once, without reference to financial circumstances.

(2) The large numbers make inquiry difficult.

(3) It is often easier to treat cases outright than first to ascertain medically that they are not urgent, and then to ascertain whether they are financially suitable.

(4) There is a tendency to extend the Casualty Departments to cases obviously not emergencies, either by a loose definition of "casualty," or by a desire on the part of junior medical officers to retain cases for practice, or by a desire on the part of patients to avoid the inquiry systems in force in the Out-patient Department proper.

7.—These three forms of misuse—the admission of patients able to pay small fees, the admission of the Provident Dispensary class, and the admission of the pseudo-casualties—may well be in themselves sufficient to account for the various defects which are attributed to the Out-patient system, viz.:—

(A) Unfair competition by the Hospitals with doctors on the one hand, and with Provident Dispensaries on the other—with a consequent deterioration of general practice through loss of patients. This competition has the effect of deterring medical practitioners from using the Hospitals for consultative purposes; it also discourages thrift, and tends to pauperization, and it substitutes Out-patient treatment for treatment by the family doctor who is acquainted with the past history and home conditions of the patient.

(B) The overcrowding of the Casualty and Out-patient Departments with minor cases—with consequent waiting, and in some instances hurried diagnosis, and superficial treatment.

(C) The departure of the Hospitals from their most appropriate function as specialists and consultative agencies, and the comparative waste of their resources in the way of personnel and appliances.

8.—Assuming that adequate provision, Provident or otherwise, is possible elsewhere for the pseudo-casualties, and for the Provident Dispensary class, the admission of these classes to the Casualty Out-patient Department for the treatment of ordinary ailments is detrimental to the Hospitals, to the general practitioners, and to the patients themselves.

9.—The admission of the class able to pay small doctors' fees could be greatly reduced, if not prevented, if the inquiry system now in force in the most highly organized Out-patient Departments were adopted throughout all Hospitals.

10.—The pseudo-casualty class might be largely excluded if a stricter definition of casualty were universally adopted, and if the medical officers in charge of the Casualty Departments were instructed to carry out a policy of refusing to treat (at all events more than once) cases which are not emergencies. Any additional labour which this might cause at first would be soon compensated for by the reduction of numbers that would result when the practice became generally known amongst the class from which the patients are drawn, and the time and trouble now wasted on trivial cases could be devoted to the more thorough treatment of the suitable.

11.—In cases which are neither urgent nor trivial, the refusal of treatment would not amount to an absolute rejection, but would consist of a reference to the Out-patient Department proper at the usual fixed hours, as is now the practice at Hospitals which use their Casualty Department as a receiving and sorting room for all applicants. The patients so referred would then come within the range of the inquiry system in force in the Out-patient Department proper.

12.—The Provident Dispensary class could presumably be largely excluded if the inquiry systems were developed, and brought up to the level of the best system now in force at some Hospitals. The exclusion of this class from the Out-patient Departments would require as a corollary the development of provident medical organizations outside the Hospitals, but at the same time it would remove the chief obstacle to that development.

13.—The use of the Out-patient Departments for ordinary ailments by a class unsuitable by reason of extreme poverty is also proved by the statistics of the Hospitals which exclude such cases. This class consists of two grades:

(A) Those actually in receipt of Poor Law relief, estimated in Miss Roberts's report to the Poor Law Commission at 11 per cent. of all Out patients.

(B) Those who are beyond the reach of charitable assistance and can only be dealt with effectively by the Poor Law.

There is no reason to suppose that this class would not be found amongst the Out-patients who are not at present subjected to a system of inquiry. The exclusion of the Poor Law class, where it is practised, is not the outcome of any desire to limit the sphere of Hospital usefulness, but of the belief that it is a waste of the resources of a Hospital to provide medical treatment for persons unable to benefit by it for want of the ordinary necessaries of life.

14.—Above the Poor Law class, however, there is a class which, though not destitute, cannot profit by medical treatment unless it is supplemented by other forms of charitable assistance, but can profit when it is so supplemented. In such cases the resources of the Out-patient Department are wasted if the further assistance cannot be secured. To secure this assistance involves some organized co-operation between the Hospital and other charitable agencies.

15.—It is desirable to secure a ready access to the Out-patient Department for patients who are under the charge of other medical agencies for ordinary ailments, but who require the specialist diagnosis, advice, or treatment which can only be obtained by attendance at the Hospital. This can best be effected by means of organized co-operation between the Hospital and other medical agencies.

16.—To organize an Out-patient Department on these lines—distinguishing between the different classes of applicant, and co-operating with other medical and charitable agencies, both in referring patients to them and in accepting patients from them—demands the employment of Inquiry Officers capable of something more than the mere prevention of abuse. Such officers already exist in the Hospital Almoners.

17. Further, such an organization of the Out-patient Department falls in with a just conception of the proper sphere of Hospital assistance in relation first to other agencies for medical assistance, and, secondly, to public charitable assistance generally, which is of comparatively recent growth. This conception is itself in fact part of the recent development of ideas on the proper function and methods of charitable and public assistance generally. This development, at first largely the work of the Charity Organization Society, has recently found more general expression in the formation of Councils of Social Welfare, and in the Majority Report of the Poor Law Commission. In connexion with Hospitals it has taken shape in the Almoner system, and in the growing support given to that system by Hospital Committees.

18.—The extension of the Almoner system to cover all the Out-patient Departments is the readiest method of improving the means of inquiry, and of securing the co-ordination of Hospital assistance with other forms of medical and charitable assistance. It helps to exclude from the Out patient Departments the class able to pay for medical attendance, the Provident Dispensary class, and the Poor Law class. It supplements Hospital assistance, where necessary, by the aid of other charitable agencies; and it encourages the reference to the Hospital by other agencies (including private practitioners) of cases needing specialist diagnosis, advice, or treatment.

19.—A large number of witnesses have advocated an alternative plan by which access to the Out-patient Departments should, except in the case of the first attendance of true casualties, be permitted only on the recommendation of some sifting agency external to the Hospital. The agency suggested is usually the general practitioner, either in private practice, or acting as medical officer of a Provident or Poor Law Dispensary; but sometimes some more representative organization to form part of a general scheme of charitable and public assistance is mentioned. The chief arguments for this outside sifting are, first, the difficulty of turning away patients once allowed to come, and, secondly, the difficulty of inquiry with the large numbers who do come. But whatever may be the theoretical advantages of this alternative it would be preferable, at all events in the first instance, to try the development of the existing methods. For the alternative presents two initial difficulties. It would not be possible to close free access to the Hospitals or to entrust the sifting of patients to any outside agency until (i) some general conception of the functions of the Hospital in relation to other agencies had been sufficiently developed to be acceptable to the Hospital and to the public, (ii) some suitable agency had been devised or developed to which the sifting could be safely entrusted.

20.—None of the agencies mentioned by witnesses, and likely to be available in the near future, provides adequately for all the requirements of such a conception and such a sifting agency. The Almoner system is doubtless itself defective at present in some respects, but it clearly meets in many points the needs of the case.

21.—One of the main objects of Out-patient organization should be to promote co-operation between the Hospital and general practitioners, so as to encourage the general practitioners to use the hospitals as consultant centres in difficult cases, and to avail themselves of the educational advantages of contact with the Hospital staffs.

22.—The general adoption through the Almoners of co-operation with general practitioners would go far to remove the grievance which at present so often deters the private doctor from sending cases to Hospitals for a second opinion or for special treatment. It would also be to the advantage of the Hospitals, for they would be enabled to fulfil their proper function of consultative agencies, and it would benefit the poor generally through the improvement of medical practice that would result from the frequent contact of the private doctor with the Hospital consultant.

23.—The removal of the reluctance of the general practitioner to send cases to Hospitals would also very largely remove the injury to medical education that might result from a reduction in the number of Out-patients, especially if arrangements could be made for the admission of Hospital students to the practice of Provident and Poor Law Dispensaries in suitable cases.

24.—If Out-patient practice could be localized, *e.g.*, by the reference of patients to the Hospital nearest to their homes, or by mutual arrangements for the allocation of different districts to different Hospitals, or otherwise, the organization of the Out-patient Departments on these lines would be greatly assisted. The Hospital doctors would become better acquainted with the local general practitioners, and the Almoners with the local medical and charitable agencies.

25.—It is most important that a general uniformity in the principles and methods of Out-patient administration should be adopted in all the Hospitals of London. Without this there would either be injustice as between one Hospital and another and between one locality and another, or else the whole system would be likely to relapse into the former condition of disorganization.

26.—It is evident that a thorough system of Out-patient organization would involve a temporary increase in total expenditure and a permanent increase in the cost per patient—the first due to the cost of the Almoners' Department and the cost of reporting to general practitioners, the second to the reduction of numbers and the more specialized character of the cases. But the same arguments which justify expenditure upon improved methods of medical treatment may be used to justify expenditure upon improved methods of charitable administration.

27.—Out-patient organization on these lines would be greatly facilitated by the reduction of numbers to manageable proportions which might be expected to ensue; especially if the system were put into operation simultaneously with the establishment of fresh provident agencies on a large scale.

28.—In making these recommendations we have not considered the possible effect of the National Insurance Act on the Out-patient Departments of the London Hospitals. It appeared to us that such an inquiry did not fall within the terms of the reference made to us; and further, that even if it did, an inquiry before the Act had come into operation would be of no real value.

29.—We desire (in conclusion) to place on record our high appreciation of the work done by Mr. H. R. Maynard, who throughout the Inquiry has acted as Secretary. He brought to bear on the subject an extensive and accurate knowledge of Hospitals and their methods. He has been indefatigable in providing and placing at our disposal the statistics required for our work. His suggestions have guided us to much of our most valuable evidence, and helped the course of our investigations. He has rendered invaluable assistance in collecting and shaping the material for our Report. It is hardly necessary to add that all this has been done with a willingness and a courtesy that have greatly facilitated the task entrusted to us.

Our thanks are also due to Mr. F. M. Fry for his constant attendance during the Inquiry, and for his valuable assistance in framing the Report.

MERSEY.
H. L. STEPNEY.

H. R. MAYNARD,
Secretary,
July 5th, 1912.

MEMORANDUM

OF

EVIDENCE ON OUT-PATIENT DEPARTMENTS TO BE PLACED BEFORE THE SPECIAL ENQUIRY COMMITTEE OF KING EDWARD'S HOSPITAL FUND FOR LONDON.

Introductory.

1. The British Medical Association gladly avails itself of the invitation to give evidence before the Out-patient Enquiry Committee of King Edward's Hospital Fund for London. From its study of the Questions to which witnesses are desired by the Committee specially to direct their attention, the Association recognizes that the scope of the enquiry must include matters to which it has from time to time been compelled, in view of representations made by many members of the profession, to give most anxious consideration.

2. The Association submits, as desired, preparatory to the attendance of its witnesses, a Memorandum of the substance of its evidence. This Memorandum comprises an indication of the position and authority of the Association, a general explanation of its views on the broader questions of public policy involved, and categorical answers to the Questions stated by the Committee of Enquiry.

Constitution and Status of the British Medical Association.

3. The British Medical Association is a voluntary Society, formed in the year 1832, membership of which is open, subject to election, to any medical practitioner registered in the United Kingdom. The Association has at present a membership of about 22,200, the total number of medical practitioners shown by the current Medical Register being 40,558.

4. The Association is essentially a Federation of local Medical Societies called Divisions, which are grouped for certain purposes into larger local bodies called Branches. The government of the Association is vested in a Representative Body which is composed of delegates elected annually by the Divisions, and meets once a year, and oftener if required. The Agenda of the Representative Body is discussed previously in Meetings of the Divisions, which instruct their Representatives thereon, and every member is thus enabled to take part in determining the policy of the Association.

5. This representative constitution and the large membership of the Association give it a status possessed by no other body for voicing the opinion of the medical profession in the United Kingdom on questions of public policy such as are dealt with in this enquiry.

Previous Action of the Association: Evidence before Poor Law Commission.

6. The question of the reforms necessary in the constitution and working of Out-patient Departments has been under the consideration of the Association for many years, and in connexion with former public inquiries the Association has given what assistance it could to enable those responsible for the investigation to form sound conclusions. In this connexion, the Association would specially mention the fact that this subject was included among those upon which the Association gave evidence before the Royal Commission on the Poor Laws and the Relief of Distress. As there is reason to believe that this evidence carried weight with the Commissioners it may be convenient at this point to quote from the (Majority) Report of the Royal Commission the passage in which this subject is especially dealt with.

(Extract from Report of Poor Law Royal Commission.)

7. The Royal Commissioners state (Majority Report, Part V, chap. 2):

REVIEW OF THE SYSTEM OF MEDICAL ASSISTANCE TO THE POOR.

(f) Overlapping of Agencies Providing Non-Institutional Medical Assistance.

Par. 188. . . . We desire to draw attention to the question of what is the right sphere of the voluntary hospital in regard to out-patients. This problem, in our opinion, lies at the very entrance to any radical reform of the system of medical assistance. . . .

In the first place, the out-patient departments are dealing with a large number of cases for whose treatment the Poor Law authorities are, or should be, responsible. . . .

In the second place, it is for consideration whether the Public Assistance Authorities should not also deal with the two following classes of cases which, at present, receive treatment from the out-patient departments:

(*a*) Persons who are suffering from chronic ailments.

(*b*) Persons whose home conditions will not allow them to reap any commensurate benefit from such treatment.

In the third place, the benefits of the out-patient departments are being extended to:

(*a*) The well-to-do who can afford to pay private practitioners.

(*b*) Persons sufficiently able to join a provident institution.

Par. 189. Until, therefore, the work of the out-patient department is delimited in such a way as to prevent overlapping between its sphere and that of the Public Assistance Authority, and to leave full scope for private practice and provident effort, any endeavour to reform the system of public medical assistance will be locally thwarted. Indeed, all attempts to create order out of the present chaos will be disappointing. Even in the interest of the out-patient departments themselves a reform appears to be expedient in order to secure the greatest benefits from the treatment which they so lavishly bestow, and to prevent those benefits from being abused by the well-to-do. Suggestions for remedying the abuses of the out-patient departments have been laid before us by many witnesses, but by none more fully than the representatives of the British Medical Association. We are convinced with them that a strenuous effort should be made to circumscribe the work of the out-patient departments. They should be used almost exclusively for:—

(1) Casualties.

(2) Consultations.

(3) Cases requiring expensive equipment for the treatment of special diseases and defects.

To this end the "letter" system should be thoroughly reformed or abolished, and, except for casualties, the recommendation of a medical officer or private practitioner substituted.

Steps taken to ascertain the opinion of the Hospital Authorities generally.

8. In addition to such public action as has been above stated, the British Medical Association has in recent years made efforts to obtain a consensus of opinion among all directly concerned in Hospital work. With this object it has taken the initiative in promoting Conferences of representatives of Boards of Management of Hospitals, throughout the country, with representatives of the medical profession. At such a Conference, held in March, 1905, certain definite conclusions, based upon suggestions of the Association, were adopted, and a Committee was appointed which circulated these conclusions to all Hospitals throughout the country, invited their criticisms, and requested them to appoint representatives to take part in a further Conference. At a second Conference, held in December, 1906, to which 156 hospitals, including most of the leading Metropolitan Hospitals and County Hospitals in England and Wales, appointed representatives, these conclusions were finally approved. With the assistance of the indications thus obtained of the views of Hospital Authorities throughout the country, the Association has drawn up a statement of principles upon which in its opinion Hospital administration should be based as regards those aspects with which the medical profession is specially concerned. A copy of these principles, so far as they relate to the administration of out-patient departments, is appended to this Memorandum. (See Appendix A.)

Conferences of Representatives of Medical Staffs of Metropolitan Hospitals.

9. For the purpose of considering the application of these general principles to the special conditions of

Medical Charity in the Metropolis, the Association through its local organization in London, the Metropolitan Counties Branch, has within the last few months convened a Conference to which the medical staffs of all the Hospitals in London which receive grants from the King Edward's Hospital Fund, or have Medical Schools, were invited to send Delegates. The staffs of 38 of these Hospitals appointed representatives to take part in the Conference, the findings of which have received careful consideration in the preparation of this Memorandum.

10. The Association is therefore able to submit its evidence to the King Edward's Fund Committee with confidence that it is representing not only the opinion of members of the profession fully conversant with the local conditions prevailing in the Metropolis, but also the preponderating opinion of those directly concerned, whether from the administrative or medical standpoint, in hospital work throughout the country.

Action in Support of Reform.

11. The Association deems it proper to advert to another aspect in which the Committee of King Edward's Hospital Fund may regard the position and action of the Association as specially meriting consideration—namely, in relation to the prospect of such reforms as the Committee may recommend being carried into effect. It is a matter of common experience that reforms recommended by important Royal and other Commissions and Committees, the desirability of which on public grounds is generally recognized, fail nevertheless to be carried into execution, partly because of the resistance of bodies or individuals interested, and partly because the reforms receive no organized support. The resistance mentioned may be due to the want of recognition of the desirability of the proposed changes, but it is also due frequently to a fear, on the part of some who recognize the desirability, that if such changes are made by some only and not by others, those who carry them out will suffer in competition. The Association has reason for believing that the reforms advocated in this Memorandum are of the character described. They are generally in accordance with what has been recommended by successive Committees and Commissions who have investigated the subject from the standpoint of the public interest, including not least the Royal Commission on the Poor Law. But the Association has been definitely informed by at least one important London hospital that the Hospital authorities, while recognizing the intrinsic desirability of certain proposals of the Association, fear that it would be prejudicial to the interests of the Hospital to carry them into effect unless all other Hospitals of a like character could be induced to make the same changes simultaneously. If, as the result of the present inquiry, the King Edward's Hospital Fund should, on the recommendation of the Special Committee, throw its powerful influence on the side of such reforms, the Association believes that the Fund could rely upon receiving effective support from the medical profession, through the organized and steady co-operation of the large majority of the members of that profession, both in the Metropolis and throughout the United Kingdom.

General Review of Out-patient Reform.

12. In presenting, as must be done in this Memorandum, a general review of the existing conditions of Out-patient Departments at the Metropolitan Hospitals, of the causes which underlie the present unsatisfactory state of affairs, and of the methods of reform by which such causes can be overcome, the Association recognizes that the arrangements at the different Hospitals vary very greatly, and that individual institutions may not improbably contend that the general principles stated and reforms advocated are inapplicable to their respective cases. The Association would submit, however, that its recommendations are capable of being applied in detail to every Out-patient Department, provided that the will to apply them is present, and whether the existing defects are already firmly established or only in an early stage of development.

Preliminary Definition: the terms "Casualty" and "Out-patient."

13. A preliminary definition of terms is necessary. The separation at certain Hospitals of the cases which are treated without being admitted to the wards into two groups of "Casualties" and "Out-patients," may, unless care is taken, lead to confusion and waste of time in the present enquiry. It would appear that originally the term "Casualty" was intended to designate an accident or sudden illness presenting such acute symptoms as to require immediate surgical or medical treatment. It might be supposed that a "Casualty Department" dealt with such cases only, but in many Hospitals this is by no means the fact. Unclassified cases; cases that come each morning before a certain hour, often in large numbers, and are not selected as technically "Out-patients" (twelve hundred is the number stated as attending on certain days in this way at one large Hospital); cases that come at altogether irregular hours; cases that are too trivial to be sent to the "Out-patient" Department, and cases, on the other hand, that are too seriously ill to be sent to that Department; cases which the Casualty Officer would himself like to see again; cases, generally, that are treated by the resident staff and not by the visiting staff; all these, in varying proportions, according to the particular arrangements of the individual hospital, make up the "Casualty" Department. The number attending in the "Casualty" Department generally varies inversely as the number attending the "Out-patient" Department proper, and it has invariably been found that the former Department becomes the more crowded, and the more resistant of order and control, in direct proportion to the firmness with which the regulations are enforced for the proper selection and restriction of the cases admitted to the Out-patient Department, officially so-called.

14. The importance in this investigation of the relation between the "Casualty" and "Out-patient" Departments of Hospitals will readily be recognized. It is mentioned at this point with the object of stating, at the outset of the evidence of the Association, that throughout that evidence the word "Out-patient" must, except when otherwise clearly indicated, be taken to mean any patient treated at a Hospital who is not occupying a bed in one of the wards, and the words "Out-patient Department" must be understood, in the evidence, as including any room or place where such patients are received, either for preliminary investigation or for diagnosis or treatment.

A Reformed Out-patient Department.

15. The views of the Association on the general subject of reform of Out-patient Departments can perhaps be indicated most clearly by a statement of the conception presenting itself to the Association of the organization of an Out-patient Department fulfilling its proper purposes for the benefit of the community in a great city like London. For the explanation of this conception it is necessary, first, to make some observations on the general question of the proper relation of Hospitals to other agencies for the relief of the poor.

Existing Confusion as to Scope of Medical Charities including Out-patient Departments.

16. The Royal Commission on the Poor Law has demonstrated the evils of overlapping of such agencies with consequent waste of money, waste of effort, and general inefficiency, which have flowed chiefly from the past want of clear thinking upon this subject, and of proper co-operation among those concerned. The Association states, therefore, propositions which may appear to the Committee to be obvious, in order, if possible, to secure that firm foundation of a common understanding as to the meaning of terms and fundamental principles without which progress in this matter seems unattainable. The Association assumes that the object of a Hospital or other Medical Charity is to provide special medical and surgical treatment for those who cannot meet the cost of such treatment out of their own resources. The provision for such treatment is made partly by subscribers and donors, who furnish the resources necessary for meeting the cost of buildings, material, equipment, and paid staff, and partly by the Honorary Medical Staff, who undertake gratuitously, or for a nominal honorarium, the actual treatment of the patients. In considering the question of overlapping it is to be observed, first, that many persons who cannot afford the cost of their own treatment and may, therefore, properly in many cases be treated at Hospitals, are also able, under certain conditions, to

obtain treatment at the public expense through the Poor Law Authorities, Sanitary Authorities, Education Authorities, and other public bodies; secondly, that many persons who cannot afford to obtain, at their own expense, treatment requiring special medical or surgical skill, can, nevertheless, afford to pay for their own treatment in ordinary illnesses; and, thirdly, that many persons who, under existing conditions, find themselves unable to pay for the cost of medical attendance at the time when need arises, could have made provision for the purpose through provident or insurance agencies had the necessary facilities been afforded, or had they availed themselves of such facilities as exist. Through a want of common understanding, and a consequent want of co-ordination of effort, among all concerned, all the various agencies have overlapped, and cases which, had any such understanding existed, would certainly have been treated by one, have, in fact, been treated by another, and not uncommonly by two or more at the same time. The burden of treatment has been thrown to an excessive degree upon medical charities, which have experienced the greatest difficulty in obtaining the financial resources necessary to carry on their legitimate work. The development of provident or insurance agencies for the provision of medical treatment has been greatly retarded, especially in London, and particularly through the operations of the Out-patient Departments.

Suggested definition of general scope of Out-patient Department.

17. The Special Enquiry Committee may possibly consider that it is beyond its province, when dealing with the one subject of the reform of the Out-patient Departments of London Hospitals to attempt to lay down a precise definition of the proper sphere of medical charity in this country among all the agencies for the provision of medical attendance. The Association trusts, however, that the Committee will recognize that such action as may be taken by the King Edward's Hospital Fund on their recommendation, with respect to the work of Out-patient Departments, is not unlikely to have a profound influence in advancing or retarding a satisfactory solution of the general question. It may, therefore, be thought desirable to adopt, at all events for the purpose of the present enquiry, a provisional definition of the proper sphere of the Out-patient Department, both in its relation to other agencies for affording medical relief at the expense of others than the persons treated, and also in its relation to those agencies through which persons at present obtain treatment at their own expense. As a contribution towards such a definition the Association suggests (i) that the Out-patient Department should not afford treatment of a kind which the patients requiring it can obtain at their own expense by joining a provident medical organization if in no other way: (ii) that the treatment of cases which do not require special medical or surgical skill should be regarded as outside the province of Out-patient Departments, and should be left, according to the means of the patient, either to private medical practitioners, to provident medical organizations, or to the Poor Law, the Education or other public authorities.

Organization of Out-patient Departments.

18. Bearing this definition in mind the Association suggests the following scheme for a reformed Out-patient Department.

Staff and General Equipment.

19. Attached to a hospital where scientific medicine in all or some of its various branches is being practised, and where all kinds of investigations for the improvement of treatment are being carried out in the interests of the patients, the Out-patient Department should be able to attract to its staff men of high professional attainments willing to restrict their work to certain branches of practice. This staff should have put at their disposal the use of all necessary scientific apparatus and appliances, the help of qualified practitioners and medical students, the assistance of trained laboratory and clerical staffs, and the co-operation of the resident medical officers.

Selection of Cases.

20. A Department thus equipped should be placed in a position to deal in orderly sequence with a strictly limited number of cases which have already been carefully selected by medical practitioners as needing, and as likely to be benefited by, such skilled investigation and treatment as the Department affords. Such selection will doubtless be carried out in part by special officers of the institution. If, however, the hospitals, through their Out-patient Departments, are to take their proper place in the general scheme of agencies affording medical care to the section of the community concerned, they must avail themselves systematically of the co-operation of medical practitioners outside their own walls—namely, of those private practitioners, officers of provident medical organizations, or medical officers of public authorities, under whose care the patient would be when not receiving treatment from the hospital itself.

Co-operation in Treatment.

21. Every case thus dealt with in an Out-patient Department should, at the same time, be under the professional care of some independent medical practitioner who is (i) cognizant of all that is being done for or learnt about his patient at the hospital, (ii) able to carry out any treatment that may not, in the opinion of the Out-patient Staff, necessitate attendance at the hospital, and (iii) prepared to give such treatment in the patient's own home if found advisable.

Criteria of Admission.

22. To such a Department the admission of a patient should be determined by the following criteria: first, that some medical practitioner who is not attached to the hospital but co-operating with the hospital authorities, and who is in medical charge of the case, vouches for the need of further professional advice or treatment; second, that the hospital authorities have ascertained by enquiry of their own that the patient is unable to provide such advice and treatment at his own expense; third, that the advice and treatment is of a kind which the Out-patient Department is in a position to supply.

Benefits to be Expected from the Proposed Reforms.

23. Such a system of organization of Out-patient Departments, co-operating with external agencies, both as regards selection of cases for admission and as regards the continuous treatment of the case in the hospital and outside, would, in the first place, secure the maximum benefit to the patients. Under the present system the condition in respect of which a patient receives treatment at a hospital is dealt with in the institution in many respects as though it were an isolated episode in his life, bearing no relation to his past or his future physical career. To such a degree is this carried that often there is no practical recognition of the fact that the condition treated in the Out-patient Department forms merely an incident in a continous illness. As a necessity for the scientific treatment of disease, as well as for other reasons, those who treat the case at the Institution should be in the closest possible touch with those who are to carry on the treatment elsewhere. Not only, however, would the rearrangements recommended by the British Medical Association be thus advantageous to the patients, which, of course, is the matter of primary concern—they would also tend to fulfil the secondary, but important, object of affording more valuable experience and more sound instruction to all those who come in contact with the case at the hospital. Lastly, such arrangements would keep members of the medical profession outside the hospital in touch with the most modern scientific methods of diagnosis and treatment, and by thus increasing their professional efficiency and adding to the scientific interest of their daily work, would tend to the benefit of all their patients and of the community as a whole.

Explanations of Existing Defects.

24. That this ideal is very far from being realized will be made clear to the Committee by many witnesses. Existing conditions will doubtless, however, be defended by some who will put forward various explanations, such as have been urged in the past, concerning the necessity for maintaining that system of free access to the Out-patient Department by all patients demanding its services, which has led to the present condition of overcrowding with unsuitable cases and the associated evils.

Use of Department as an Advertisement for obtaining Subscriptions.

25. From the point of view of the Hospital Manager, endeavouring to attract subscriptions, it will perhaps be urged that the ability to advertise that "No sick person is ever turned from the doors," and to publish statistics of Out-patient attendances in tens or hundreds of thousands per annum, is necessary to gain financial support.

Use of Department as a Field for Selection of Instructive Cases.

26. From the point of view of the In-patient Staff it will not improbably be urged that the enormous Out-patient and Casualty attendance forms the best ground from which instructive cases for admission to the wards can be selected, whilst the Staff of the "Out patient" Department proper will point to the crowded "Casualty" Department as the means of providing a selection of cases for affording clinical instruction for the students.

Use of Department for Necessitous Cases of Ordinary Illness.

27. Even medical practitioners outside the hospital, who are keenly alive to the evils of hospital abuse by patients able to pay fees, may, nevertheless, by implication if not avowedly, maintain the necessity of an Out-patient Department carrying on the continuous and independent treatment of all classes of poor patients, in order that to it may be drafted those patients who, after long illnesses, become unable to continue payment for private medical services, and those club patients whose prolonged treatment has become a difficulty to the club doctors.

Replies to Foregoing Arguments.

28. The argument of the Hospital Managers, stated in paragraph 25, rests entirely on the imperfect education of the public as to the actual working and needs of hospitals. There would be no permanent falling off of subscriptions, but rather the reverse, under the new system, after it became clear to the public, from the pronouncements of an independent authority (as, for example, from the result of the present inquiry) that although the aggregate number of attendances of patients recorded in the books of the Hospital was reduced, the actual work of the Hospital was in fact enhanced, both in amount and efficiency, by the change. Any temporary falling off in public subscriptions, such as might at first ensue, would be more than compensated for by the increased sympathy of private practitioners, who can, and do, often exercise considerable influence with well-to-do members of the community who desire their advice as to suitable medical objects to which to devote their subscriptions.

29. As to the argument from the point of view of the Medical Staff, the Association believes that the number of cases meriting the attention of the specially skilled staff of a hospital, and available for treatment by them, would be increased by the more satisfactory system of selection herein proposed. As regards the opportunity afforded in hospitals having medical schools for the instruction of students in cases of ordinary illness, such as they may be expected to have to deal with in general practice, such instruction could be given more satisfactorily in provident dispensaries if suitable arrangements were made with them. Instruction given there would have the collateral advantage of benefiting also the medical officers of the provident dispensaries.

30. Concerning the treatment of those who at present come to hospitals, not because their cases require special medical or surgical skill, but because, having come to the end of their resources, they can no longer afford to pay for ordinary treatment, the question is one of proper organization of the agencies outside the hospital which afford medical relief. The chief reasons why such organization has not been satisfactorily developed is because, as the Poor Law Commissioners have pointed out, it has been choked by the competition of the Out-patient Departments.

31. Thus, whilst recognizing that the considerations above stated have been chiefly responsible for bringing about the existing condition, the British Medical Association would maintain that the unchecked influence of such considerations defeats the objects which those actuated by them have had in view. The resulting overcrowded departments make the best work impossible; they bring discredit upon the institution, which must ultimately lessen financial support; they introduce real dangers, physical and moral, to the patients attending; they alienate the sympathy of the general body of medical practitioners, from whom, if proper co-operation were encouraged, a constant supply of suitable cases would be forthcoming; and they entirely prevent or check the development of various forms of provident medical agencies, such as in other parts of the country are successfully organized by the medical profession, but have been found very difficult to promote in London.

32. The Association would lay special stress upon the influence of the Out-patient Department in checking the development of other agencies for providing ordinary medical treatment for patients of the class which might reasonably look to the Out-patient Department for providing further assistance on special occasions. A vicious circle has now been created in many parts of London, to escape from which the help of some such body as King Edward's Fund is required. On the one hand, the hospitals are unable to refuse direct access to unselected trivial cases because provident dispensaries or public medical services do not exist in sufficient numbers to deal with the large proportion of such patients who are unable to pay private practitioners. On the other hand, it is impossible to promote, with any prospect of success, agencies based on the provident system, in face of the competition of Out-patient Departments carried on as at present.

33. This consideration will make some interim arrangement necessary before it becomes possible to secure in full working the ideal Out-patient Department as indicated above.

34. The consultative and independent forms of Out-patient practice might for a time be carried on side by side, whilst, if a clear indication were afforded that after a certain date the independent system would be abandoned, opportunity would be afforded and encouragement given for the development of provident or insurance systems outside the hospital. In the interval it would probably be desirable, by putting obstacles in the way of independent access, to encourage patients to seek, of their own initiative, the advantages of a consultative system. All patients coming without professional recommendation should be submitted to complete methods of inquiry into economic fitness and into former efforts to obtain advice, whilst to the consultative cases priority of attention and facilities for making definite appointments should be afforded.

35. In drafting the answers to the questions submitted by the Committee of Enquiry the possibility of these two forms of Out-patient practice existing side by side during a limited period has been before the Association, and must be taken into account in order to avoid an occasional appearance of contradiction.

36. The Association would draw attention separately to three questions affecting the administration of Out-patient Departments to which reference has not been made in the general review of the subject contained in the foregoing paragraphs. These are (i) the employment of almoners; (ii) the use of subscribers' letters, and (iii) the system of making charges to Out-patients.

Employment of Almoners.

37. The Association has already indicated its opinion that, quite apart from the assistance given by outside medical practitioners in the selection of suitable patients, the hospital should make enquiries of its own into the economic fitness of applicants for Out-patient treatment. For this purpose the employment of suitably trained and competent almoners in sufficient numbers is essential. With a view to securing such competence, and securing also uniformity in the application of tests as to economic fitness at the various hospitals in the Metropolis, it appears to the Association that some uniform central system of training and testing the suitability of persons for the office should be adopted. It must at the same time be recognized that the work of Almoners will not entirely meet the difficulty. The abuse of Out-patient Departments has continued to increase at some hospitals at which Almoners have been appointed.

In New York the Board of Charities prosecutes persons who obtain medical or surgical treatment on false representations as to their means. If every applicant for treatment were compelled to sign a sufficiently definite statement as to his financial circumstances, and if prosecutions were undertaken in flagrant cases of false statements, abuse would be materially checked.

Subscribers' Letters.

38. The use of subscribers' letters has been abandoned by most of the principal hospitals in London, but is still maintained by many of the smaller institutions. The admission of patients on the sole recommendation of subscribers is entirely inconsistent with the principles advocated in this Memorandum. Conferences of representatives of hospitals, and the replies of hospitals to the inquiries addressed to them by the Committee of those Conferences in 1905 and 1906, show that the majority of those responsible for hospital administration recognize the great objections to the system, and hospitals have stated definitely that they retain it only because they see no way of recouping themselves for the serious loss of income which they anticipate would be the immediate result of the discontinuance of the system. Although the example of the Bolingbroke Hospital, in which no falling off of subscriptions has resulted from the abolition of subscribers' letters, may be taken as showing that such fears are illusory, nevertheless they still exercise powerful influence. With the help of the King Edward's Hospital Fund this difficulty could in London be entirely overcome, and the Association ventures to hope that the Special Enquiry Committee will include, among its recommendations to the Fund, one for the discontinuance of subscribers' letters for the admission of Out-patients, and for giving any necessary financial assistance to Hospitals which abandon the system until the first effects of such discontinuance have passed off.

Payments by Hospital Patients.

39. Attention must be drawn to a practice which is fortunately not universal, but tends to become more common, that, namely, of charging patients either for treatment or for materials supplied. In many of the special hospitals a small charge is made for actual treatment. Such payment is not unnaturally, and perhaps in some cases not unreasonably, regarded by the patient as the pecuniary equivalent of the services rendered to him. Thus the so-called charity, subsidized by contributions of subscribers and central Hospital Funds, and enabled thereby to charge fees similar to, and even lower than, those charged by private practitioners, enters into direct competition with them for paying patients. Some such institutions actually advertise in a way which can only be regarded as intended to attract not charitable subscribers but paying patients. Even in some of those hospitals which do not avowedly charge for treatment a small charge is made for medicines, and for other materials supplied. Such a system is tantamount to making the charity one given solely by the honorary officers, the institution relieving itself as far as possible of any charge upon its funds. Yet the very numerous patients who are charged in this way, and constitute little if any burden upon the hospital funds, are included indiscriminately with all other patients in compiling the statistics of persons treated at the Institution which are used as a basis of appeals for subscriptions. Such a system appears to the Association to be both unfair to the medical profession and unsound from the standpoint of public policy. The argument advanced in its favour is that it affords an inducement to thrift. Its operations, however, are in actual discouragement of the true thrift of the patient who endeavours to pay not only for his medicines but also for the professional services of which he obtains the benefit. In other words, these payments are diverted from the truly provident organizations to which they would otherwise be paid. The Association entirely agrees that all those who can afford to pay any part of the cost of their treatment should be encouraged to meet such cost, but such payments should be made to properly organized provident institutions working in co-operation with the charities. No charge should be made by a charity to a patient in consideration of treatment given.

ANSWERS TO THE SPECIFIC QUESTIONS STATED BY THE OUT-PATIENT ENQUIRY COMMITTEE.

(NOTE.—The Association has not attempted to compile statistics in support of the statements of fact contained in the following answers to questions. The fullest possible evidence as to the existence of overlapping and abuse is afforded by the Reports of the Royal Commission on the Poor Law, and to attempt to collect the same material again would be a waste of labour. The main facts are not seriously controverted except in so far as the authorities of any given hospital may contend that what they regard as abuse does not exist to an appreciable degree at their own institution. Evidence will doubtless be given before the Committee by many members of hospital staffs as to their own experience of the effects of the existing system on the work of the Out-patient Departments, and by private practitioners as to the effect, as observed by them, upon the public. The Association will nominate a number of individual witnesses, both members of hospital staffs and medical practitioners, who will be glad to give evidence of these kinds.)

QUESTION 1.—**What classes of persons should be considered to be suitable for admission (whether as casualties, general out-patients, or special out-patients) to the Out-patient Departments of the London Voluntary Hospitals?**

Casualties.

ANSWER:

1 (*a*). Under the head of "Casualties" should be admitted only cases of serious accident and of sudden severe illness, and such cases should receive in the Out-patient Department "first aid" only, *i.e.*, such immediate treatment as the emergency demands.

Other Cases.

1 (*b*). Apart from casualties, a patient should not be admitted who (i) is not accompanied by a medical practitioner, or does not bring a recommendation from one, stating that the case is, in his opinion, suitable medically and economically for investigation or treatment at the hospital, and that he would resume the care of the patient; or (ii) does not sign a form giving sufficient particulars of economic position to satify the Almoner that he is unable to pay for adequate treatment. The practicability of such a procedure is exemplified by the Regulations laid down by the New York Board of Charities which have been in operation for a number of years. (See Appendix B.)

QUESTION 2.—**What should be the relation of the hospitals (in respect of the admission of out-patients) to other agencies for the treatment of disease, e.g.,**

(a) Medical practitioners,
(b) Provident dispensaries,
(c) Other voluntary hospitals.
(d) Free dispensaries.
(e) Other charitable or provident agencies,
(f) The Poor Law,
(g) Other public authorities.

ANSWER:

2 (*a*) *To Private Medical Practitioners.*

The relation of Hospitals (in respect of the admission of Out-patients) to private medical practitioners should be that of affording a means whereby patients under the care of such practitioners may obtain gratuitously the advice of specially skilled physicians or surgeons, or investigation or treatment of a special kind, for which they are unable to pay. The private practitioner should be regarded as still responsible for the care of the case, and the medical staff of the institution should act in co-operation with him. Continuous treatment, of a kind which the ordinary medical attendant can give, should not be given in the Out-patient Department.

2 (*b*) *To Provident Dispensaries.*

The same relations should exist between Hospitals and medical officers of Provident Dispensaries as between Hospitals and private practitioners, as stated in the answer to Question 2 (*a*).

2 (*c*) *To other Voluntary Hospitals.*

The relations of a Hospital to other Voluntary Hospitals should be regulated by the adoption of uniform rules of admission of patients and of a definite system of co-operation,

so that (i) a patient who has been refused treatment at one hospital on the ground that, economically or medically, he is unsuitable for hospital treatment shall not be admitted to another; (ii) that cases which a Hospital is unable to treat through the Department being already full, or which require treatment of a kind that can more suitably be given at some other Hospital, shall, with the least possible delay, be referred to, and enabled to obtain treatment at, the institution best adapted to their requirements.

2 (*d*) *To Free Dispensaries.*

Free Dispensaries should be regarded as analogous in their character to Out-patient Departments of Hospitals, and the relations of any Hospital Out-patient Department to a Free Dispensary should be the same as to the Out-patient Department of another Hospital.

2 (*e*) *To other Charitable and Provident Agencies.*

The questions of the relations of Hospitals to other "charitable," and to other "provident," organizations are most conveniently considered separately; and as regards charitable institutions, a distinction must be made between (i) those, such as Convalescent Homes, Sanatoriums, or Epileptic Colonies, which provide treatment, (ii) Societies which exist for the provision of mechanical appliances or other material requirements, and (iii) the Charity Organisation Society and similar bodies which exist for the co-ordination and provision of charitable relief of all kinds.

Charitable Organizations.

(i) *Sanatoriums, etc.*

The machinery of reference of patients to such institutions should be through the private practitioner, or medical officer of a provident organization, who has care of the patient. The Out-patient Department should be prepared to advise as to the kind of institution to which the patient should be sent.

(ii) *Societies for Supplying Material Requirements.*

To facilitate the work of such Societies, the Hospitals should co-operate with them in supplying what the patient requires, or should give the necessary advice and information to the medical attendant.

(iii) *Charity Organization Society and Similar Bodies.*

The hospital should obtain such co-operation as it needs from such organizations in securing that the objects of the charity are properly carried out and that its resources are not misapplied, and should also co-operate with such societies in order that proper provision may be made in suitable cases for affording relief supplementary to that of the hospital.

Provident Organizations.

The hospitals should co-operate with the medical officers of Friendly Societies, Works' Clubs, Medical Aid Societies, and other provident medical organizations, in the same manner as with the medical officers of Provident Dispensaries or with private medical practitioners.

2 (*f*) *To the Poor Law (as at present constituted).*

The Hospital should undertake, under existing conditions, the treatment of those Poor Law cases only which require the advice of specially skilled physicians or surgeons, or special investigation or treatment of a kind which the Authority cannot itself supply. All the arrangements should be made by or through the Poor Law Medical Officers, namely, the district Medical Officer of the district in which the patient resides, or the Medical Officer of the Institution in which he has been previously an inmate. The relation of the Out-patient Department to such Poor Law Medical Officers, as regards the admission of Out-patients, should be the same as to private medical practitioners or to medical officers of provident organizations.

2 (*g*) *To other Public Authorities.*

The relation of the Hospital to other public Authorities giving medical relief should be the same as to the Poor Law Authority as described in 2 (*f*).

QUESTION 3.—**To what extent do the hospitals at the present admit suitable cases and exclude unsuitable cases?**

ANSWER:

3. Proper methods of selection, with a view to the admission of suitable cases, and the exclusion of the unsuitable, are in operation only to a very small extent. The consequence is that in the large majority of the Hospitals the Out-patient and Casualty Departments are overcrowded with unsuitable cases, while suitable cases are deterred from seeking admission.

Not the least evil resulting from this defect is the spreading of infectious disease by the close aggregation in the Casualty and Out-patient rooms, often for hours at a time, of people awaiting attention who ought not to have been admitted.

It not infrequently occurs that cases of Ringworm, Scarlatina, Measles, Diphtheria, and Small-pox are admitted to such rooms, and remain there for some time before they are seen by one of the Staff and the nature of the case detected.

At two Hospitals, the Bolingbroke and the New Dreadnought Hospital, Greenwich, the plan of consultations, in the case of Out-patients, with certificate of a private practitioner has been adopted, has prevented abuse, has created cordial co-operation between the staffs and general practitioners in the neighbourhood of these Hospitals, and thus ensures that the practitioners in charge of suitable cases experience no reluctance in introducing them to the Out-patient Departments.

QUESTION 4.—**To what extent do the relations which should exist between the out-patient departments and other agencies for the treatment of disease exist at present?**

ANSWER:

4. Speaking broadly, the relations which should exist between Out-patient Departments and other agencies for the treatment of disease ought to be based on the principle of co-operation; practically they are to-day in most instances based on the principle of competition. Relations based upon co-operation exist to a very small extent, and the degree to which they prevail seems to be in proportion to the degree to which the competitive element can in special instances be eliminated.

(*a*) As far as private medical practitioners are concerned, cases are sent for consultative purposes to the Out-patient Departments more freely by those resident some distance from the hospital than by those in its immediate neighbourhood. Some cases sent to hospital Out-patient Departments in London come from provincial towns where there are hospitals of excellent repute.

(*b*) Except in the case of hospitals having special provident dispensaries attached to them, only a small proportion of out-patient cases are received for second opinions from such dispensaries. The glamour of the hospital and the absolutely free treatment undermine the loyalty of the patients to their provident institution.

(*c*) Co-operation between the Out-patient Department of one voluntary hospital and another is conspicuous by its absence. Obviously, to send on cases from one hospital to another on the ground of excessive work would arouse at the second hospital a suspicion that the cases were uninteresting or in some other way unsuitable. Superfluous work is dealt with by trusting that the patients will be tired out by long waiting, or, alternatively, by putting on an additional medical officer or clinical assistant to deal with the excess. The other co-operative relation, of referring cases of special diseases to special hospitals, or cases of non-special diseases to other hospitals, is rarely if ever resorted to.

(*d*) The conditions of attendance at free dispensaries and Out-patient Departments are so similar that any recognition by the staff of the free dispensary that more skilled advice could be obtained at the Hospital would be fatal to successful competition. If cases are ever sent it is in hope of securing admission to the In-patient Department, or because the distance between the two institutions is so great that competition can be neglected.

(*e*) Other charitable agencies and other provident agencies are more conveniently treated separately.

Charitable Agencies.

With regard to other charitable or provident agencies in which the treatment of disease is only a subsidiary feature proper relations more frequently obtain. Charity Organization Committees not rarely send cases to the Out-patient Departments for expert opinions as to the ideal method of treatment or as to ultimate prognosis. Reciprocally, cases attending the Out-patient Department and needing charitable assistance other than medical are occasionally referred to the Charity Organization Society, or other charitable agencies. The press of work in the majority of Out-patient Departments makes it extremely difficult to carry out this work of reference effectively, and the Almoner who recognizes the value of such work is generally precluded from putting it in practice by the stress of special duty of endeavouring to check the attendance of patients economically unfit to receive the benefits of the charity.

Provident Agencies.

The relations which, in the opinion of the Association, should prevail between Hospitals and such organizations as Friendly Societies, Works' Clubs, and the like, do not at present exist. The laxity of the rules of admission to Out-patient Departments affords a great inducement to medical officers of Friendly Societies, and similar bodies, to relieve themselves, at the expense of the Hospitals, of giving prolonged and perhaps irksome medical attendance, which strictly they are under contract to provide. A satisfactory adjustment of responsibilities between medical officers of provident organizations and medical charities is unattainable so long as the doors of the Out-patient Department are thrown so widely open as at present.

(*f*) and (*g*) Co-operative relations between the Poor Law and other Public Authorities and Out-patient Departments can hardly be said at present to exist at all.

QUESTION 5.—**Do any, and if so, what, undesirable effects result from the methods at present prevailing in regard to the admission of out-patients?**

ANSWER:

5. The undesirable effects resulting from methods of admission of Out-patients may be classified under the following heads:

I. To the patients attending.
II. To the patients who ought to attend and do not.
III. To the Medical Profession.

I.—*To the Patients Attending.*

(*a*) Even the patient whom all would recognize as an ideal Out patient has frequently suffered, before admission, through the methods at present prevailing. But for these methods his condition might never have become sufficiently severe to require treatment. The opportunity of an easy cure, which simple treatment by his private practitioner or club doctor might have effected at an earlier stage, is lost. The patient, trained by present hospital methods to rely upon hospital help, makes no provident provision for ordinary sickness, is unable or unwilling to pay medical fees, does not care to apply to the hospital while his ailment is simple, and waits until it is sufficiently severe.

Arrived at the hospital he still suffers from present methods, because he runs the risk of being exhausted by long waiting, or of being attacked by infectious disease from contact with patients unwittingly attending while suffering from contagious disorders. Finally, he may fail to receive the fullest attention his case deserves because of the overworked state of the officers in the department. Even as a new patient he may fail to receive adequate attention, but when he reaches the state of "an old case," the great number of others in similar condition renders effective re-examination extremely difficult to carry out.

(*b*) Many cases attending Out-patient Departments receive more harm from their weekly journeys to and fro than can be compensated for by such advice, medicine, or surgical treatment as they obtain. The competition of the hospital prevents the development of provident institutions providing domiciliary treatment for such of their patients as need it, though the hospital itself gives nothing corresponding to it, except actual admission to its wards, and this it cannot possibly give to all those Out-patients who are too ill safely to travel to and fro. Any attempts to dissuade such patients from attending are met by assurances that they cannot possibly afford to pay for medical advice and urgent entreaties to be saved from the necessity of applying for Poor Law help.

(*c*) A very large number of cases with quite trivial ailments waste much time in attending Out-patient Departments, and develop a morbid taste for drugs and for the interesting rôle of invalidism, whilst they lose their sense of independence, and acquire idle and thriftless habits.

(*d*) Certain indirect consequences of the system need mention. The loss of time of patients, and of those who accompany patients, or attend for medicine and the like on their behalf, is a cause of serious economic loss to themselves and to the country generally. Not only workmen but their employers suffer from time wasted by such workmen in obtaining treatment at Out-patient Departments which, under a proper system, they would obtain elsewhere with less expenditure of time, and in other respects more satisfactorily. Similarly, homes are neglected and children suffer while women are waiting in Out-patient and Casualty Rooms, whose attendance there results in little if any benefit to themselves or to anyone else. The hygienic and economic consequences of such defective arrangements obviously spread from those immediately affected to the community in general, and constitute a public evil.

II.—*To the Patients who ought to Attend and do not.*

There are many patients under the care of private practitioners in clubs or dispensaries, or paying small fees, who are quite unable to pay fees for consultative opinions and for whom the special resources of the hospital in skilled officers and appliances would be welcomed by their medical attendants on account of some special difficulty in diagnosis or treatment. Under existing conditions, however, they are kept from the hospital by the want of systematic arrangements for this purpose, and by the crowd of trivial cases attending. Even were extra accommodation provided for this specific purpose, general practitioners would be deterred by consideration of the effect upon their private practice of introducing patients to institutions which compete with them in treating all comers.

III.—*To the Medical Profession.*

The undesirable effects of present methods upon the profession are felt both by practitioners outside the hospital and by the medical staff.

(*a*) An outside practitioner loses not only remunerative practice, but also valuable experience, whenever an unsuitable patient attends a hospital, whether it would have become his duty or privilege to attend such patient as a private practitioner, or as the medical officer of a provident or other agency. An outside practitioner also suffers whenever a poor patient under his care is unable to secure the special services of an Out-patient Department for help in diagnosis or treatment. In such a case he loses, not pecuniarily, but in reputation and scientific experience. The injuries thus occasioned to private practitioners are a matter of public, and not merely of private or professional, concern. The public must rely upon the private practitioner as their first line of defence against disease, and must suffer from any impairment of his efficiency and status.

(*b*) The staff of the hospital suffer under existing conditions whenever they are called upon to deal with trivial cases which afford little opportunity of increasing their special experience, or to deal with an excessive number of cases, which on the one hand leads to a loss of health, and on the other hand deprives them of the opportunity of doing justice to their scientific work, and of maintaining and extending their reputation amongst their professional colleagues.

QUESTION 6.—**Would any, and if so, what, changes in the methods at present prevailing at the hospitals be desirable?**

ANSWER:

6. The aim of all changes in the Out-patient arrangements must be:

(*a*) That admission shall be on such terms as may lead to the most rapid and perfect development of all those agencies with which the Department should co-operate.

(*b*) That its own resources should be so developed as to make all such agencies desire to seek its co-operation and not to fear its competition.

With these objects in view, the following changes should be brought about:

1. The fullest written and signed particulars should be required of all applicants for admission, except (i) in the case of really severe and sudden urgent casualties, and (ii) in the case of those on whose behalf application is made by a medical practitioner actually in medical charge of the case. From the latter, hereinafter called "consultative" cases, a general statement as to economic fitness should be accepted provisionally from the medical attendant, but inquiries should also be made independently by the almoner, and a signed statement obtained from the patient whenever it appears desirable.

Consultative cases should receive priority of treatment, and as far as possible appointments should be made so as to avoid delay. Non-consultative cases should thus be encouraged to join the consultative class, should be refused treatment if their cases are trivial, and, if unable to pay private practitioner's fees, should be recommended to join a provident dispensary or similar institution. The declaration forms of the non-consultative cases should be kept and classified, so that cases coming a second time without making suitable provision for private non-hospital treatment could be at once refused.

2. The fullest development of Out-patient Departments should be carried out to fit them for the duty of reporting on cases that are returned to the practitioner as well as for treating cases that are retained. The habit of entrusting Out-patient Departments to resident medical officers and clinical assistants should be discouraged. The appointed member of the staff should have adequate assistance in investigating the cases, but he should in all cases be responsible for conferring with the general practitioner, if he attends, or of reporting to him if he is unable to do so. Shorthand clerks and typewriters should be provided to deal with the correspondence. The extra cost of salaries of such officers would be covered by economies otherwise effected.

QUESTION 7.—**Is the accommodation at present existing, whether at the Out-patient Departments or elsewhere, adequate to the admission of the cases suitable for treatment by the respective agencies?**

(Indicate the area upon a consideration of which this part of the evidence is based.)

ANSWER:

7. So far as the Association is competent to judge, the existing Out-patient Department accommodation in London would suffice for the proper work of these Departments if organized upon the lines recommended by the Association. The premises would, however, require reconstruction. The very large halls at present used for Out-patients waiting for attention would no longer be required for this purpose, and should be converted into suitable suites of smaller rooms, fitted up with all modern equipments for those special methods of diagnosis and treatment for the application of which it will be one chief function of the Department to provide.

As regards agencies external to the Hospital, there does not at present exist in London an adequate system of provident medical organizations for the treatment of those persons who now frequent Out-patient Departments, but who could and would make provision for their treatment in ordinary illness by subscription to provident organizations if such existed, and if the Out-patient Departments were rendered less readily accessible. The medical profession in certain parts of London have undertaken, or have under consideration, the organization of "Public Medical Services" based on the principles of (i) small periodic payment by the patient; (ii) freedom of every reputable practitioner in the district for which the Service provides to act upon the staff; (iii) free choice of doctor by patient from among the Staff of the Service. The success of such attempts is at present greatly prejudiced by the operations of the Out-patient Departments of the Hospitals.

APPENDIX A.

HOSPITAL OUT-PATIENT DEPARTMENTS.

CLASSIFIED COLLECTION OF PRONOUNCEMENTS OF THE BRITISH MEDICAL ASSOCIATION (1905 TO 1909 INCLUSIVE) ON QUESTIONS OF INTEREST TO THE MEDICAL PROFESSION AFFECTING THE ORGANIZATION AND MANAGEMENT OF HOSPITAL OUT-PATIENT DEPARTMENTS AND THE EMPLOYMENT OF THE HOSPITAL STAFF.

A.—SUITABILITY OF PATIENTS FOR ADMISSION.

1. *General Principle of Discrimination.*—That inability to pay for adequate treatment shall be the consideration for the admission of all patients for hospital treatment. This shall not apply to Poor Law cases.

2. *Subscribers' Letters.*—That the production of subscribers' letters shall cease to be compulsory, and that, where possible, the system shall be abolished.

3. *Evidence of Suitability.*—That, except in emergencies, sufficient evidence shall be obtained on two points: (*a*) That the patient is not in a position to pay for adequate treatment; (*b*) that the case is, from a hospital point of view, suitable for treatment.

4. *Investigation as to Economic Suitability.*—That some means of investigation into the circumstances of the applicants for relief, by means of an almoner or other agent, shall be employed in all medical charities.

5. *Medical Certificates of Suitability.*—That a medical certificate of suitability for hospital treatment be required as a condition of hospital treatment, except in a case of casualty at its first attendance.

6. *Contributions to Hospitals by Employers of Labour and by Employees.*—That contributions to Hospitals by employers of labour or by employees should not be considered as the payment of premiums of insurance against the cost of treatment of sickness or accident, nor as entitling the contributors to claim hospital treatment either for themselves or for persons nominated by them, but as charitable contributions to be expended at the discretion of those to whom the management of the hospital is entrusted.

B.—PROCEDURE AT HOSPITAL.

7. *Medical Inspection of all Cases.*—That, on the first visit, no patient be permitted to leave a hospital without having been seen by a registered medical practitioner.

8. *Urgent Cases.*—That all cases of serious accident and severe sudden illness shall be attended to on their first application, and, if deemed eligible for further treatment, shall be referred to the appropriate department of the hospital, but, if ineligible, shall then be referred for treatment elsewhere.

9. *Trivial Cases.*—That all cases of trivial accident or illness deemed ineligible for the casualty department shall, after having been seen, be referred for treatment elsewhere.

10. *Scope of Out-patient Departments.* — That the primary object of an out-patient department should be for consultation.

11. *Reference elsewhere of Unsuitable Cases.*—That all cases not suitable for hospital treatment shall be referred in general terms to a medical practitioner, to a public medical service,* an approved provident dispensary, or to the relieving officer under the Poor Law.

12. *Limitation of Work of Medical Officers.*—That, where possible, the number of new cases to be seen on any one day by an honorary medical officer shall be limited.

C.—Co-ordination of Hospitals with One Another and with other Forms of Medical Services.

13. *Co-operation of Hospitals with One Another.*—That hospitals operating in the same area should confer with the object of securing approximately uniform regulations for the prevention of abuse.

14. *Co-ordination of Hospitals with Public Medical Services and Provident Dispensaries.*—That there shall be a system of co-ordination between hospitals, on the one hand, and public medical services and provident dispensaries on the other, so that the hospitals shall refer to the public medical services and provident dispensaries cases unsuitable for hospital treatment (see paragraph 11 foregoing), and the public medical services and provident dispensaries shall refer to the hospitals cases for consultation, as well as those requiring hospital treatment and nursing, or specially suitable for purposes of clinical instruction.

15. *Notices to Facilitate Co-operation.*—That notices be posted in Out-patient and Casualty Departments of Hospitals calling attention to public medical services or approved provident dispensaries in the neighbourhood.

16. *Reference of Cases for Special Advice.*—That a member of a public medical service or provident dispensary, or other patient referred to a hospital for consultation, with a private note or personally by a general practitioner in attendance, should be referred back to such medical attendant with a statement of the opinion of the hospital physician or surgeon on the condition of the patient.

17. *Relation of Hospitals to the Poor Law Medical Service.*—That cases of obvious destitution or cases already in receipt of Poor Law Relief shall, after they have been once seen in the casualty or out-patient department, be referred to the Poor Law Relieving Officer, unless they should be retained for hospital treatment, and Poor Law patients should be referred to hospitals for consultation, as in the case of public medical service and provident dispensary patients. In these cases payment might be required from the Poor Law Guardians if deemed advisable.

18. *Reference of School Children to Charities.*—That the Association should oppose the reference of School Children, found upon medical inspection to be defective, to public medical charities for treatment, whether or not accompanied by payments or subsidies.

APPENDIX B.

RULES AND REGULATIONS OF DISPENSARIES UNDER THE NEW YORK STATE BOARD OF CHARITIES.

I.—*Posting a Public Notice.*

There shall be posted and permanently maintained in a conspicuous place in the reception room for applicants a notice as follows:

> This dispensary has been licensed under the laws of the State of New York by the State Board of Charities, to furnish medical or surgical relief, advice, or treatment, medicine or apparatus to the sick poor who are unable to pay for the same. The law provides as follows:
>
> (Section 25, Chapter 368, Laws of 1899).
>
> "Any person who obtains medical or surgical treatment on false representations from any dispensary licensed under the provisions of this Act, shall be guilty of a misdemeanour, and on conviction thereof shall be punished by a fine of not less than ten dollars and not more than two hundred and fifty dollars."
>
> (Imprisonment until fine be paid may be imposed.—Code Crim. Pro., s. 718).

II.—*The Registrar.*

(As amended October 10th, 1900.)

There shall be an Officer to be known as "the Registrar," whose duties shall be to supervise the work of the dispensary, and either personally, or by a competent deputy selected by him for that purpose, to make and preserve all records, receive all applicants, and to see that all rules and regulations are enforced.

III.—*The Admission of Applicants.*

(As amended October 10th, 1900.)

1. It shall be the duty of the Registrar to examine all applicants to determine the question of their admission, and the following rules shall guide his actions:—

> (*a*) All emergency cases shall be admitted and receive prompt treatment and care.
>
> (*b*) Every applicant who is, in the opinion of the Registrar, after examination and personal inquiry, poor and needy, shall be admitted.
>
> (*c*) Every applicant, either personally or by the parent or guardian of such applicant, in regard to whose ability to pay for medical or surgical relief, advice or treatment, medicine or apparatus, or either, in whole or in part, the Registrar is in doubt, shall be admitted to a first treatment on signing a card containing the "representation" or statement of the applicant, but the Registrar shall forthwith cause an investigation of his or her ability to pay either personally or by parent or guardian; the results of such investigation shall be filed among the permanent records of the dispensary. Any such applicant who declines to sign the required "representation" or statement shall be refused admission.

2. Such "representation" or statement shall be in the following form:

(Card of Admission on "Representation" or Statement of Patient.)

Name..... Date.....

Dr.....No. in Family.....

Nationality.....Address.....

Occupation, Man.....Woman.....

Income..... Rent.....

This is my ..... application to this Dispensary in the year.....

I have been an applicant to no other Dispensary in the year..... (or to the following Dispensaries.. ....)

The foregoing statement is in all respects true.

Signature of Applicant.....

Admitted ..... Refused.....

3. The Registrar shall issue to every applicant who is admitted for treatment a pass card on one side of which shall be printed the usual information in regard to attendance upon the class to which he or she is assigned, and on the other side the card shall be in the following form:

Penalty for False Representations.

(Section 25, Chapter 368, Laws of 1899.)

"Any person who obtains medical or surgical treatment on false representations from any dispensary licensed under the provisions of this Act shall be guilty of a misdemeanour, and on conviction thereof shall be punished by a fine of not less than ten dollars and not more than two hundred and fifty dollars."

(Imprisonment until fine be paid may be imposed.—Code Crim. Pro., s. 718.)

* The term "public medical service" has been applied in certain districts to organizations for providing medical attendance and medicine for certain sections of the community, in which the service is under the direct control of the medical profession. In other districts services of exactly the same general type have been established under the title of "provident medical associations," but the general designation of "public medical service" is preferable, as avoiding confusion with organizations under non-medical control.

National Insurance.

LOCAL MEDICAL COMMITTEES: INSURANCE COMMITTEES.

THE State Sickness Insurance Committee, at its meeting on February 20th, adopted the following resolutions:

I.

That a communication be sent to Honorary Secretaries of Divisions,

(*a*) referring to the work of Local Medical Committees,

(*b*) asking for information as to

(i) The names of the Secretaries and Chairmen of Local Medical Committees;

(ii) The names and addresses of the directly-elected medical practitioners upon the Local Insurance Committees, and also of the medical practitioners elected thereto in any other capacity;

(iii) Information generally as to the action that is being taken by Local Medical Committees;

and

(*c*) intimating that the columns of the JOURNAL are open for the reports of meetings of the Local Medical Committees.

II.

That it be an instruction to the Special Subcommittee to consider and report as to what steps should be taken in order to co-ordinate the action of the Divisions with reference to the National Insurance Act with that taken by the various Local Medical Committees within their areas.

THE CLERICAL WORK IN CONNEXION WITH MEDICAL BENEFIT.

ENGLAND.

THE Secretary of the Insurance Commission (England) has supplied us with the following report of conferences with the Insurance Commissioners on the clerical work and other matters affecting medical practitioners who have undertaken to give medical attendance and treatment under the Insurance Act.

Memorandum by the Commissioners.

The Insurance Commissioners have given careful consideration to the subject of the clerical work required from medical practitioners in connexion with the administration of medical benefit, as to which they have received many suggestions from practitioners on the panels, based on their personal experience.

On February 4th the Commission received a deputation from the National Insurance Practitioners' Association, who submitted the results of inquiries which that Association had made among doctors engaged in the work. The deputation urged that the forms of records should be simplified, and stated that, so far as they could ascertain, a card system for the keeping of records would be generally preferred by the profession to the day-book at present in use, or indeed to any record in book form. Amendments in the prescription form were suggested, and the deputation pressed for the substitution of duplicate, or even single, forms for the triplicates at present in use. They urged that the doctor should not be required to furnish to the patient a copy of the prescription for retention by the chemist (in addition to the one which the chemist would send to the Insurance Committee as a voucher for payment), and that it should be left to the doctor's own discretion whether he should retain a copy for his own use.

The deputation raised the questions also as to the methods to be adopted for allocation of insured persons among practitioners on the panel, the possibility of Insurance Committees making payments on account before the end of the quarter to practitioners in respect of the insured persons already on their list, and the simplification of the forms of certificates required by some approved societies in connexion with the administration of sickness benefit.

These subjects were further considered at a conference held by the Insurance Commissioners at the Civil Service Commission, Burlington House, on February 11th, to which every Local Medical Committee recognized by the Commissioners under Section 62 of the Act, and also every Committee which had applied for recognition, had been invited to send a representative. About eighty were present.

The first subject discussed was the procedure and forms in connexion with the acceptance of an insured person by a doctor for inclusion in his list. It was stated on behalf of the Commissioners that there would not be another general issue of the red tickets, the use of which was a temporary measure required by the special circumstances incidental to the bringing into operation of medical benefit on January 15th. The only clerical work required of a doctor in future, in connexion with the acceptance of an insured person on his list, would be the filling up of a form of acceptance, and this would not be required in respect of any insured person already accepted by him. In other words, after the completion of the first general assignment, the filling up of forms of acceptance will only be necessary in the case of insured persons changing from one doctor to another, those coming into a district, and those entering for the first time into insurance.

It was further stated that each Insurance Committee would send to each doctor on the panel, in respect of each insured person notified by him as accepted on his list, a card containing that person's name, address, and other particulars. These cards would constitute the doctor's list of the insured persons for the time being recognized by the Committee as under his care. After some discussion, in which some of those attending expressed preference for a single continuous list, it was clear that the proposed card system was preferred by the majority of the conference.

On the subject of records there were marked differences of opinion. A few favoured the continuance of the present day-book, simplified by the omission of the patient's society and number and reduced in size, while some urged that the record should be kept in a book retained by the patient which he should produce each time he was attended by the doctor. It was clear, however, that a large majority considered a card system the best. A form of card was placed before the conference and was generally approved, subject to modifications in detail. Some speakers urged that the records should be confined to those cases in which sick pay was received, but the preponderating feeling was in favour of such records as were required being obtained in respect of all cases treated.

Objections were raised to the triplicate prescription form, and also to the requirement that drugs not included in the list adopted by the Committee must be ordered on a special form. On the former subject the Commissioners stated that they had decided not to require the triplicate and to leave the keeping of a duplicate to the discretion of the doctor. Note was taken of the suggestion that when a special drug was ordered some distinctive mark might be made on the ordinary form, instead of using a special form. Suggestions were also made for detailed modifications of the prescription forms with a view to the convenience of the prescriber.

In addition to these questions of clerical work members of the conference were invited to raise any other points to which they desired to draw attention with a view to facilitating the work of doctors in connexion with medical benefit. Points were brought forward as to the method to be adopted for the distribution of those insured persons who made no choice or were rejected by the doctors of their choice, the method of distribution of the medical benefit fund where a capitation system was adopted, and the grant for mileage.

It was explained that the method of distribution of insured persons among the doctors on the panel was one primarily for consideration by those doctors themselves, who could draw up a scheme for the purpose. It would be

possible, under a scheme approved by them, to permit a doctor to take on his list only a small number of insured persons, or to confine his list to persons of a defined class. The Insurance Committee would require to be satisfied that the scheme was such as to secure that every insured person was provided with medical attendance, that an excessive number was not assigned to any one doctor, and that an insured person was not unreasonably assigned to a doctor living at a distance from him. It was also explained that the method of distribution of the capitation allowance in cases in which the allocation of insured persons was not completed before the end of the quarter, was also a matter for the consideration primarily of the doctors on the panel, who should make arrangements with the Insurance Committee. Where desired, Insurance Committees would be able to make payments to doctors on account (for example, at the end of the first month) in respect of the insured persons already accepted on their lists.

As to the mileage grant, it was stated that the Insurance Committees were collecting information as to the cases in their own areas in which special circumstances justifying a claim appeared to exist. The Committees would report to the Commissioners, who would distribute the grant after due consideration of all the claims.

SCOTLAND.

On February 14th a meeting took place in Edinburgh between the representatives of forty-four Local Medical Committees in Scotland and the Scottish Insurance Commissioners. Some representatives of the Pharmaceutical Standing Committee (Scotland) were also present. Among the questions discussed were the modifications of the medical day-book now in use, and the possible employment of a card system of medical records, the medical prescription book, and the carbon copies, the use of the medical ticket for identification purposes, and the utility of a uniform medical certificate. The conference lasted for more than four hours, and the Commissioners promised to give consideration to the various suggestions made.

DEBATE ON THE INSURANCE ACT.

On the last day of the session, February 14th, another discussion was raised on the National Insurance Act by Mr. Godfrey Locker-Lampson, who gave instances in which an Insurance Committee had told applicants that free choice of doctor could be allowed only in exceptional circumstances, and that each case would have to be judged on its merits and a proper reason given for the permission. The speeches of the Chancellor of the Exchequer, the Lord Advocate, and other members of the Government while the bill was in the House contained, he said, no references to exceptional circumstances, nor was there any such reference on the red ticket or on Form Medical 21. He complained that in some districts no inquiries were made as to the condition of applicants, or as to the existence of exceptional circumstances in their cases. He also complained that Insurance Committees were telling people that certificates for sick pay could not be received unless given by a doctor on the panel. When challenged by Mr. Masterman he quoted a case in which an applicant from a district in Leicestershire, where there was no doctor on the panel, had been told to apply to Dr. ——, who "will now practise in your village from to-day."

Dr. Dawes, who is the Chairman of the London Insurance Committee, asked whether the reasonable request of a doctor to be put on the panel for a limited number of patients, when in view of his private practice he was unable to deal with an unlimited number or any very large number, would be granted. He also asked whether what might be called a clinical inspection would be made on behalf of the Insurance Commissioners.

Mr. Bridgeman inquired as to the exact position of persons over 65 in respect of medical benefit.

Sir John Jardine and Sir John Barran raised the question of mileage in certain southern counties of Scotland in which a number of insured persons resided at considerable distances from any doctor: in no fewer than 200 cases in Roxburghshire the distance was as great as ten miles.

Sir Henry Craik said that whereas the Chancellor of the Exchequer had spoken eloquently upon the free choice of doctor, and how there ought to be the fullest confidence between doctor and patient, the Act as it was being worked did not afford such free choice. Many Insurance Committees were refusing to consider even the assignment of the ordinary sickness benefit and other benefits to those who were not able to produce a certificate from a medical man on the panel.

Mr. Sherwell said there had been delay in some cases in extending medical benefit to insured persons in Huddersfield, owing to the failure of the Insurance Commissioners to issue Form Medical 21.

Mr. W. Thorne said that, in his experience, free choice was limited by the fact that some doctors had so many people on their list that they refused to sign any more forms. There was already overcrowding, and in such cases during surgery hours two or three hundred people could be seen waiting in file in the road, as if they were going into a music-hall; there ought to be some limit to the list of any particular doctor. He also mentioned a case in which an insured person who went to the doctor before 8 p.m. found the shop of the nearest chemist, which was three miles away, closed when he got there, and asked, Would it not be possible where the chemists lived so far away for the doctor to supply the medicine?

Sir George Younger complained that to one doctor who resided at the seaside some miles away a great many servants in the west-end of Edinburgh had been assigned.

Mr. Masterman's Reply.

Mr. Masterman, in general reply, said that, in spite of the strenuous opposition of the friendly societies, the bill was transformed when it was passing through the House. The old friendly societies system, in which all the members of a society went to one doctor, was swept away.

Free Choice.

The system of free choice was approved by the House by an overwhelming majority; it allowed every doctor who agreed to work under the Act to have his name put upon the list, and all members to have free choice from that list of any doctor they wished to attend them. Those responsible for the administration of the Act had been fighting for the application of that principle. Throughout the greater part of England and through almost the whole of Scotland practically every doctor engaged in industrial practice was on the panel. He believed that, taking the counties of England and Scotland, the resident registered practitioners on the panels were nearer 90 than 80 per cent. There was the freest possible choice of those doctors among the insured persons.

Persons Making their own Arrangements.

With regard to persons making their own arrangements, he said that no kind of obstacle would be put in the way of Insurance Committees exercising their discretion in any exceptional cases so long as this application of Section 15 (3) did not interfere with the general responsibility of the Insurance Committee to give medical benefit to all persons under the Act and so long as the committee acted in conjunction with the panel doctors. If certain doctors wished for a limited number of patients it was desirable, if compatible with the general interests of the insured persons, that they should be permitted to go on the panel for that limited number, but it would not be fair to allow such doctors to select lives: they ought to take a fair average sample of lives. An Insurance Committee could only give its consent to this limitation acting in conjunction with, and with the approval of, those doctors who had taken a general risk in that respect. With regard to Mr. Dawes's second question, there was no intention to bring any inspectors to examine either the method of diagnosis or the treatment of the patient by the doctor on the panel. The only reservation was that in cases of definite complaint by the insured of the treatment he had received, that complaint was referred to a committee established by the regulations, a committee on which both the medical profession and insured persons were represented. It was, he said, a libel to suggest that an inspector was suddenly to descend from the Insurance Committee upon a panel doctor to investigate his day-book, to ask why he gave medicine in one case and not in another, and why he treated one man one way and not in another way. Any such suggestion was utterly remote from the conception of the Insurance Act.

Persons over 65.

With regard to insured persons over 65, he said that there were two classes. There were the persons who, being over 65, were working and were employed when the Act came into force last July. They became insured persons, but were insured in a separate fund; they received nine pennyworth of insurance for the fourpence of their contribution; to that ninepence there was now being added 2s. 6d. a head for those who selected medical benefit, and they would therefore receive something over tenpence a head of insurance for the fourpence they paid down. Under a system calculated either by the friendly societies or according to tables prepared by Insurance Commissioners they could receive any benefit within the limit of tenpence which their approved society might select for them. At first the approved societies only asked for tables of sick pay, but there was now a strong demand for medical benefit on the part of persons over 65, who felt very much the fact that they would not receive medical benefit, and said that they would prefer that some portion of the 10d. should be allocated for medical benefit, and consequently less for sick pay. The Insurance Commission had now issued actuarial tables which would enable any society to give to these persons medical attendance and treatment and a certain amount of sick pay. In respect of such persons the extra 2s. 6d. now voted for medical benefit would be paid to the society in respect of that person, so that if medical benefit was given there would actually be paid in respect of that person somewhat more than if medical benefit was not given and only sick pay given. In reply to a question by Mr. Albert Smith, Mr. Masterman stated that a trade union could make up the sick pay of a person over 65 to 6s. a week, and then give the medical benefit out of the National Insurance Fund. They would then undoubtedly receive the extra 2s. 6d. out of this particular fund. The second class of persons were those who did not become insured persons under the Act but were insured in friendly societies, and it was urged that if those persons who expected medical benefit for their lives were now deprived of it, it would be a hard case. The answer was twofold. If they had been accumulating funds in accumulating societies up to that age (65), then, as the funds were released by the passing of the Act, the societies ought to make arrangements for the continuance of medical benefit, and should give special attention to the interests of old members; they should be a first charge on any funds liberated. The second answer had reference to a clause in the Act which stated that Insurance Committees must arrange for the medical attendance of those persons over 65 at a rate not less than a general rate for insured persons; that was intended for the protection of persons who might find doctors charging an extra amount. The difficulty had not arisen in connexion with that particular clause. There would, he thought, be no difficulty in securing attendance on persons over 65 who were not insured at the same rate for which insured persons were attended. But, owing to the extra grant, the price for the medical attendance on insured persons had increased. In country districts it had increased from an average of 4s. to an average of 9s., and Mr. Masterman thought it would be unfair if doctors receiving 9s. a week capitation for patients for whom they had only received 4s. a year before the Act was passed, also turned round on persons not insured and over 65 years of age, and asked from them 9s. for the same services which they used to give for 4s. In the town districts also there would be a very considerable increase. He hoped that as the Act came to be understood the doctors would see that the matter affected a small and rapidly diminishing number of persons. It would not be possible to give the extra 2s. 6d. except in respect of persons who came under the Insurance Act. He was making inquiries, and hoped that the result would show that the majority of doctors working under the Act were willing to accept the old figures for those persons.

Mileage in Scotland.

With regard to mileage in certain districts in Scotland the Government recognized that the point had to be met. The grant that the House was making contained a sum of £40,000 for special services in Great Britain outside the Highlands, and a separate grant of £10,000 for dealing with the special problems of the Highlands. The proposal was that the distribution of the £50,000 should be worked out in conjunction with the Insurance Committees. When the scheme was completed the mileage money would be paid as from the commencement of the Act. With regard to the question of certificates for sick pay Mr. Masterman said that it was entirely a question for the managing bodies of the approved societies subject to the provision that an insured person could appeal to the Insurance Commissioners. It had been explained during the debate in the previous week why it was believed that it would be unwise for the managing bodies of approved societies promiscuously to announce that they would receive certificates from any doctor, panel or non-panel.

QUESTIONS IN THE HOUSE.

Amending Bill.

Mr. Godfrey Locker-Lampson asked the Prime Minister, on February 13th, (1) whether he would give the House an adequate opportunity of discussing amendments to the National Insurance Act at an early date, and (2) whether he would give facilities for a bill to amend the National Insurance Act so that an insured person could recover from the Insurance Fund the expenses of emergency medical treatment which he might have incurred outside the district in which his panel doctor operated. The Prime Minister said that it would be premature at that time to make any further announcement with regard to the business of next session.

The Prime Minister, in reply to Mr. Harry Lawson, said he would certainly consider whether an opportunity might not be given to discuss the amendment of the Act.

Administration of Medical Benefit.

Income Limit.

Mr. Masterman stated, in reply to Sir J. D. Rees on February 12th, that in accordance with Section 62 of the Act, the regulations provided that an Insurance Committee should consult the Local Medical Committee, if one had been recognized in its area, before fixing, varying, or abolishing an income limit.

Contracting Out.

On February 14th the Secretary to the Treasury stated, in reply to Sir Philip Magnus, that a circular letter had been forwarded by the London Insurance Committee to all hospitals which had applied to that Committee for leave to make their own arrangements. A special form of notice of application applicable to these cases would be issued for use by such hospitals as soon as possible.

Closing of Panels.

On February 12th Mr. Hunt asked why the panel in the Bridgnorth area of Shropshire was closed from January 15th, and was still to be closed for a period of three years.—Mr. Masterman said that as the number of practitioners available for the panel system in the urban and rural areas of Bridgnorth was not adequate for treatment of insured persons, the Commissioners dispensed with the necessity for the adoption of the panel system for the period named, and authorized the Insurance Committee to make other arrangements under Section 15 (2) of the Act.

Aged Insured Persons entitled to Medical Benefit.

Mr. Cassel asked, on February 12th, whether the special grant-in-aid for medical benefit would be made in respect of insured persons who after the age of 70 still remained entitled to medical benefit; and, if not, from what source would the extra cost of medical benefit in such cases be defrayed.—Mr. Masterman replied that the special grant-in-aid would be paid in respect of all insured persons entitled to medical benefit irrespective of age.

Limitation of Lists and the Residue of Insured Persons.

Sir Philip Magnus asked the Secretary to the Treasury, on February 12th, whether, in the case of a doctor having joined a list or panel on the understanding that he contracted to attend only a limited number of insured persons,

he might be required later on, as a condition of his remaining on the list or panel, to attend such additional number of insured persons as might be allotted to him as his share of the residue of persons to whom no doctor had been previously assigned.—Mr. Masterman replied that the distribution of insured persons who had not been assigned to any doctor was to be carried out so far as practicable under arrangements made by the doctors on the panel. If such arrangements allowed of a doctor attending only a limited number of patients, there was no reason why it should be made a condition of his remaining on the panel that he should attend an additional number of insured persons, so long as the arrangements were in force.

Assistants.

In reply to Mr. F. Hall, on February 13th, Mr. Masterman said that a practitioner on the panel might depute an assistant to act on his behalf when he was precluded by urgency of other professional duties, absence from home, or other reasonable cause, from giving personal attendance to an insured person under his care. It was the duty of the Insurance Committee to take any necessary steps to secure that the service provided by any assistants was satisfactory, but, subject to this, the remuneration of such assistants was a matter for their principals and themselves to determine.

Drugs and Appliances.

Mr. Newdegate asked, on February 13th, whether, in view of the inconvenience suffered by patients, he could now state whether kidney belts would be included among appliances supplied under the National Insurance Act.—Mr. Masterman said that the suggestion was receiving consideration. The whole question of the schedule, including the suggestions, was under consideration. He had no doubt there would be some speedy result.

On February 14th Mr. Needham asked whether a doctor who was working under the National Insurance Act, in addition to giving a prescription and advice, could also sell medicine to the insured person to be paid for by the insured person.—Mr. Masterman said that, except in the special circumstances where a doctor was allowed to dispense under the Act in accordance with paragraph 30 of the Medical Benefit Regulations, no payment could be made to him out of the insurance funds for any drugs supplied by him to insured persons, who were entitled to obtain them free from any chemist on the panel. He did not think it would be proper for such an arrangement to be made as was described in the question.

Records: Repetition of Prescriptions.

Mr. Masterman, in reply to Captain Knight, said that both doctors on the panel and approved institutions were required to send to the Insurance Committee notices of acceptance of insured persons. The arrangement by which, at the commencement of medical benefit, insured persons desiring treatment from a doctor on the panel could obtain such treatment by presenting their medical tickets would not be appropriate to insured persons entitled to receive medical attendance and treatment through an approved institution, in respect of whom definite evidence was necessary that they were, or desired to become, members of the institution.

Captain Knight asked why a patient, being a member of an approved institution, could not obtain a second supply of medicine without having a further interview with the medical officer and obtaining a second prescription.—Mr. Masterman said that this requirement must have been imposed by the rules of the institution to which the insured person belonged. It had not been imposed by any regulation of the Commissioners. The institutions might, however, reasonably consider that it was in the best interests of the patient that the decision as to repeating a medicine should rest with the medical attendant of the patient rather than with the patient himself, and that a prescription should not be repeated without a written statement to that effect by the medical attendant.

Professional Secrecy: Records of Illness.

Mr. Cassel asked, on February 12th, whether it would be possible to ascertain the diseases from which any insured person had suffered or was suffering by comparing the records in the hands of the Insurance Commissioners with those in the hands of the Insurance Committees; and, if so, how far would such records be kept secret; would privilege from production in any court of law be claimed; and had or would any information from such records be supplied to the Treasury or any other Government Department.—Mr. Masterman said that the answer to the first part of the question was in the negative. As he had stated in reply to previous questions, the arrangements for the keeping and furnishing of records secured that information which would connect the name of a patient with an entry as to a particular kind of disease could not be obtained by the Commissioners, the Insurance Committee, or the society. The particulars of illnesses and certain other particulars (but not anything by which the patient can be identified) would be used for statistical purposes.

Mr. Cassel asked if Mr. Masterman was aware that the half of the form filled up by the doctors containing the disease was sent to the Insurance Commissioners, and the other half, containing the name of the patient suffering from the disease, was sent to the Insurance Committees, and that they could be identified together by the numbers which were on them. If it were proved that this was the case, would he take steps to see that proper secrecy was preserved.—Mr. Masterman said he was informed that the forms were so arranged that it was quite impossible to identify them even if they were kept together.

Mr. Staveley-Hill asked the Secretary to the Treasury, on February 14th, if he would explain how, having regard to the wording of Form 240 A.G.D. and Form 240a A.G.D., the nature of the illness of an insured person was alone known to the doctor when the forms mentioned state the nature of the illness and had to be signed by a secretary of an approved society in which the person is insured.—Mr. Masterman replied that the forms referred to were forms to be used by approved societies for the purpose of keeping a continuous record of the duration of every illness which incapacitated a member from work. Where the societies had knowledge, from whatever source, of the nature of the illness, they could, if they thought fit, fill up the space in the form which was left for that purpose. These forms had no connexion with the records kept by doctors.

Change of Residence.

A number of questions have been put to Mr. Masterman with regard to insured persons who change their residence temporarily during the year, as, for instance, to convalesce at the seaside after an illness, or in such cases as those of domestic servants, who either go with their employers to some other place, or change their situations during the year. Mr. Masterman's replies were generally to the effect that the insured persons must, on change of residence, notify the Insurance Committee of the new district, but he admitted that the committees must make arrangements with their permanent officials to meet cases occurring in the intervals between the meetings of the committee, and eventually said that he would be glad to receive any suggestions for making the regulations on this point more simple and convenient. Sir William Bull called attention to cases in which relieving officers had admitted domestic servants to the infirmary or workhouses when they had no homes to go to and could not provide board and lodgings and all the extras out of the sick pay. He asked that the ratepayers should, after contributing to the National Insurance Act, be protected from being compelled to support these young women. Mr. Masterman could only say that he was not aware of any cases of the kind, but was ready to receive particulars.

SANATORIUM BUILDINGS.

In a written reply the President of the Local Government Board stated on February 14th that so far as England was concerned new buildings to contain 214 beds were being erected at Birmingham, Bolton, Derby, Ford, Meathop, and Winsley, at an estimated cost of about £41,000, and existing buildings at Liverpool, Sutton, and Wakefield containing about 390 beds were being adapted for use as sanatoriums or extended at an estimated cost of £4,900; 172 sanatoriums and hospitals containing about 6,300 beds had already been approved under the National Insurance Act.

REPORTS OF LOCAL ACTION.

NORTHERN ASSOCIATION OF MEDICAL WOMEN.

A MEETING of the Northern Association of Medical Women was held on February 15th at the Women's Union, Manchester University. Dr. DRINKWATER (Wrexham) took the chair.

Dr. CLAYDON (Oldham) gave an account of the interview between the representatives of the medical practitioners on the panel and the Commissioners, held in London during the course of the week.

The following resolutions were passed unanimously:

1. That in those areas where the Local Insurance Committees refuse permission to make their own arrangements to the insured patients of women doctors, the Commissioners should be respectfully asked to intervene.
2. That in any insurance area where one or more women doctors are practising, it is advisable that they should be directly represented on the Local Medical Committee.

COUNTY OF CHESHIRE.

A SCHEME TO INCLUDE DEPENDANTS.

ON February 18th a meeting was held at the Town Hall, Macclesfield, under the chairmanship of Colonel BROCKLEHURST, M.P., between the representatives of all the friendly, burial, and other sick benefit societies and the medical profession of the town to consider the proposed East Cheshire medical system. This system was formulated some time ago by the Stockport, Macclesfield, and East Cheshire Division of the British Medical Association, and has received the endorsement of the central authority of that Association. The main principles of the scheme have been advocated also by the National Medical Union.

Its chief feature is that a working man entering under the system ensures medical attendance for his family as well as himself for a small payment, proportionate to his wages, in addition to his statutory payment under the National Insurance Act.

The basis of the scheme consists in pooling the sum of 9s. per annum allotted to medical benefit by the State, or, in case of non-State members, paid as a premium by individuals joining, and the establishment in respect of each family of a deposit payable in very small weekly or monthly instalments. The deposit would first bear the cost of illness up to a strictly limited liability, and any further claim would be borne by the pool. The balance of the deposit above the amount of the liability would form a kind of savings bank account, upon which the beneficiary could draw, and the balance of the pool would be payable to the deposits in the form of bonuses. The deposits would, of course, bear interest, and at death would form a death benefit. There would be free choice of doctor, and the doctor would be paid according to a standard tariff.

Mr. J. WEBSTER WATTS, F.C.A., who has been closely identified with the scheme, was present, and endorsed the actuarial side of the proposals, pointing out that a considerable balance would be available in normal years, a portion of which might be used to assist the formation of the requisite deposits of those members who were near the poverty line.

The approval of the Commissioners would be a necessary condition precedent to the final adoption of any such scheme.

On the motion of Mr. SOMERVILLE, the senior practitioner of the town, a Committee was appointed to thresh out the scheme to consist of nine representatives of the Sick Benefit Societies and four representatives of the medical profession nominated by the Local Medical Committee. Dr. MARSH agreed to act as honorary secretary *pro tem.* and to convene the first meeting.

IRELAND.

DEPUTATION TO MR. REDMOND.

A DEPUTATION from the County Waterford Medical Association had an interview with Mr. John Redmond, M.P., on February 10th. Dr. POWER, who acted as spokesman, put forward various points, and among others inquired if the special grant of £50,000 was the sole amount available for certification purposes in Ireland. Mr. REDMOND, in reply, said that the whole of that sum could not be applied for certification, and that its disposal rested with the Irish Insurance Commissioners. Various other points were raised, to which Mr. Redmond made reserved answers. He concluded by advising the medical men in Ireland to give evidence before the Treasury Commission, adding that the system of medical benefit in England could only be applied to big centres in Ireland, such as Dublin and Belfast; some other method would have to be devised to deal with areas of smaller population.

THE TREASURY COMMITTEE ON MEDICAL BENEFIT.

It was originally intended that the Treasury Committee appointed to inquire into the advisability of applying to Ireland the provisions of the National Insurance Act of 1911 with reference to medical benefits should meet in Belfast on February 17th and 18th, but the sitting has been postponed to March.

A general meeting of all the profession summoned by the Belfast Division and the Belfast Medical Guild was held in the Medical Institute on the afternoon of February 13th. Sir JOHN BYERS was elected Chairman, and a very large number of medical men were present. Dr. George Elliott acted as Secretary. A report of the subcommittee lately appointed to consider the matter was submitted and discussed, and, after a spirited debate, Dr. R. J. Johnstone, Dr. Geo. Elliott, Dr. MacIntosh, Dr. Stanley B. Coats, and Dr. O'Doherty were appointed by ballot to appear before the Commission and give evidence. Much interest was shown in the proceedings, and the speaking was full of matter and to the point; the Chairman's tact, fairness, and firmness brought a difficult task to a successful issue, and the profession seemed to have every confidence that, despite the numerous minor clefts, the interests of all will be well looked after by the gentlemen selected, and a firm and united front shown.

THE INSURANCE ACT IN CASHEL.

The Cashel Board of Guardians have come to the conclusion that it would be much to the advantage of the various benefit societies under the Insurance Act if they agreed to pay for their members' maintenance in hospital. The guardians could refuse to admit the insured persons to hospital if the societies refused to pay. If the patients remained outside they might be drawing 10s. sick benefit for six months, whereas they might be only a week or so in the hospital, and this would be a considerable advantage to the societies. Accordingly it was unanimously resolved to pass the following:

That the relieving officers be directed to demand from persons of the tramp class seeking relief his or her insurance card, and to refuse admission to the workhouse unless the card is produced, and to inform the master in every instance whether the applicant is an insured person, and to name the society.

CORRESPONDENCE.

THE INQUIRY ADDRESSED TO THE REGISTERED MEDICAL PRACTITIONERS BY THE ASSOCIATION.

Dr. HENRY DICKMAN (Sheffield): I trust the Association's circular will be answered by every medical man. I believe if certain modifications are introduced we shall be more satisfied than we are at present, and these to my mind are:

1. That the dispensing should be given to us—at all events, it should be made optional. Every medical man should be given the 9s. per head. If he prefers the dispensing to be done by the chemist, the cost of his prescriptions should be deducted from his 9s. It seems out of the question that 2s. per head would cover the cost of the chemist. As 9s. a head is all that could be got for medical benefits, it is evident that this sum will be divided between chemist and doctor to the detriment of the latter. It is therefore necessary, for other reasons as well, that we keep the dispensing in our own hands.
2. The treatment of venereal diseases should be paid for by patient.
3. That all minor operations and anaesthetics be paid for by patients as before under the club system; patients too poor to do so have the hospitals.

We cannot very well object to some public control when we are paid out of public money, and it seems to me that

the regulations are fairly reasonable for the investigation of complaints. Of course the most ideal system is abolition of the panel system and payment for work done per scale, so that all are private patients.

The Present Situation and Future Policy.

Dr. Harford Edwards (Markyate, near Dunstable) writes: I do not know whether my opinion and experience so far as it goes—and it seems to me too soon for a definite opinion—is of any value, but if it is you are welcome to it. I am not sure either whether it will apply to many or most country practitioners, but I should say it does. I have at present something over 900 insured persons on my list.

1. Of these a certain number formerly were private patients who paid, and included in this section are two or three employers of labour who, one would suppose, must be making a gross income of more than £160. To me this is immaterial, as there are so few.

2. There are, of course, a large number—the largest—of people who were formerly "club" patients, paying 4s. per annum.

3. In my practice there are included a considerable number who though not club members, and who did not get a "parish" order (I am a Poor Law doctor) have never (*a*) paid anything whatever, or (*b*) have only paid in driblets, or by employing a collector, or by "county courting" them.

From the purely financial standpoint this seems to point to an improvement, and on the same side must, I think, be put a possible improvement in one's relations with patients—that is, the question of payment does not come in.

I mention these points as I cannot help thinking there must be many in like circumstances, who therefore would not be inclined to leave the panels without some very definite and positive alternative policy. A mere return—if it were possible—to the old conditions would not appeal.

I may say I have always voted against going on the panel, though I am on now.

Dr. Fitz-James Molony (Porlock, Somerset) writes: Some of the letters appearing in the British Medical Journal seem to show a spirit of needless panic. The profession has been outwitted in the first fight simply because it was not ready, but if the present panic leads to proper organization it will have done some good.

The proposals by Dr. P. R. Cooper and others that payment for work actually done should be adopted are absolutely futile. This is clear from the fact that a panel doctor living in a large town, with his thousand or more insured patients living near him, could run up accounts to an unlimited extent. The patients would not have to pay, and would be gratified by the frequent visits, but the payment would come from the pooled funds as far as they went, and out of the pockets of the other panel doctors. It would mean a scramble for the pooled money, and would lead to no end of trouble.

I do not suppose it is seriously suggested that the State should provide for fifteen millions of workers by payment per attendance in the ordinary sense, and pay their medical bills, whatever the amount. This being so, the capitation system is the only possible one, and if the fees were increased, and the mileage question settled, it would work fairly enough. Surely all this has been threshed out before.

The British Medical Association deserves well of the profession for the fight it made, but the machinery of a scientific body is not adapted to fight a Government. It has been suggested that every medical man should join the British Medical Association, but this does not meet the case of those who take the *Lancet* or some other medical paper. I would suggest that the Journal be dissociated from the British Medical Association, that the Supplement be called "The Proceedings of the British Medical Association," and be issued with all the medical periodicals. Alternatively, a small fee might be charged each member for enrolment in the British Medical Association, entitling him to a copy of "The Proceedings," and he could make his own arrangements about a medical paper.

The British Medical Association of the future will have strenuous fighting work in addition to its scientific work, and the machinery will have to be altered. For one thing, it is idle to expect that competent men, such as we want on our Insurance Medical Committees, will work or attend meetings without being paid for it. Directors of companies are paid, and there is nothing derogatory in the idea. Reward sweetens labour, and it would all make for efficiency. The Medical Committees must be such as can be relied on to safeguard medical interests, and it will probably be necessary to provide permanent legal help to enable them to meet Insurance Committees on anything like even terms.

Dr. G. McGregor (Southsea) writes: In Dr. O'Sullivan's letter in the Supplement of February 8th he gives figures which show that only about 10 per cent. of the members of his Division took the trouble to be present at the annual meeting of the Division when important elections were to be decided, and he also shows how leading members of the Executive violated the pledge. Although I am not surprised to read that account of a Division, the facts are none the less deplorable, and it was because I knew that such a state of affairs existed that I felt it to be my duty to endeavour to urge men to take a more lively interest in the real business affairs of the Association, instead of leaving it to the few. I believe that the state of things shown by Dr. O'Sullivan exists in the large majority of the Divisions and except some very exciting business is on hand, such as the immediate loss of our liberty and all we hold dear, members are content to pay their subscriptions and scan the Journal, and that is the extent of their interest in the Association. If these conditions are to go on it is useless for members to look to the Association to help them fight their battles, and although it does almost seem hopeless that we shall be able to rely on the men to hold closer together in the future, we must not give in without a further attempt to rouse our colleagues to a sense of their danger. The Association could have gained every single point in the late struggle and will be able to do so in the future if every single member will only show a reasonable interest in its affairs instead of putting them aside to be the very last matter to be attended to. Is the profession content to stand idly by and see itself plundered and broken? If not, then in the name of all that is reasonable, let us act like sensible men and use our Association—call it trade union if you will—to the best possible advantage, and *at once*.

Dr. Arthur King (Bow, North Devon) writes: True there is promise of some amelioration, but at present the more one tries to work the Insurance Act the more it seems to resemble an insanity. Just as in madness there is probably an underlying perversion of idea on which the whole superstructure of conduct is built, so in the National Insurance Act a stupendous fallacy supports all its fearful and wonderful unworkable complexity and detail. The framers forgot that the people for whom they were legislating are by nature human—not nine-pins—and react to surroundings. It was a similar simple calculation and omitting the human factor that lost to us the United States.

In commerce it is recognized—though the principle is apparently unknown to the Government—that when strawberries are half the price the consumption is doubled, putting it roughly; and yet the Minister responsible fondly imagines, when medicine is given for the asking, the demand will remain the same.

Be that as it may, the doctor is asked, or rather compelled, to accept the remuneration calculated on conditions previously existent. At best, contract practice is the illegitimate offspring of charity degraded into a catchpenny trade, and has become the curse of the profession. It is a matter of regret, in the interests of the profession and the public, that the General Medical Council cannot take steps in regard to it similar to those towards advertising, which is, compared with contract practice, in its remote effects a minor sin. It lowers the status, lessens the weight of medical opinion on matters vital to the nation, and affects evilly the moral and physical character. It is the last straw of the medical wastrel and a drag and hindrance to the painstaking practitioner.

Anxious to get their own back, for every trivial ailment the insured seeks sick and medical benefit. This eventually grows into a habit and custom. There should be some restraining influence to protect the doctor against these

frivolous calls which absorb his time, and leave the less for the investigation of honest sickness.

The Government have plunged into a vast experiment without consulting those well qualified to inform them how good can best come out of it. The Act abolishes all those natural checks of individual responsibility which kept the clamour for assistance within reasonable bounds, and then the Government calmly plants the burden on the shoulders of the profession, and charges them with trying to wreck the Act because they find it unworkable. Every benefit is tainted with an injustice to the sweated doctor. Labourers it appears have rights, and are entitled to consideration—doctors not. One hundred hours a week and night work is not excessive for us, whereas half that for them is slavery and bondage.

There should be no longer any sentiment in the matter. The Government has undertaken the care of the sick and its duty is plain—to see to it and give proper remuneration.

The doctor when he has paid his poor rates has done his part like the ordinary citizen who is not again called on to supply, say, tea and sugar to pink cards at below cost price.

Is there a trade or profession, save ours, that would have been subjugated by threats of vengeance, to ruin our livings and practices by the importation of doctors? Is there a trade or profession that would accept a closely-calculated capitation to supply necessities *ad libitum?* Would railways or tailors supply free travelling or trousers for, say, 10s. a year because statistics showed this was the average sum spent per head before?

If Mr. Lloyd George is sincere in his spoken word he might still make amends for the harm and the wrong he has done the doctors and the people. "Doctors differ." Many like myself object to the introduction of a gamble into professional work. I desire to receive fees for the patients I treat and not for the people I do not treat. Surely this is not peculiar, nor does it constitute a specialist.

When a Government tries to grapple with big questions it might well bear in mind that of the things we see the most important part is that which we do not see.

Contracting Out.

Dr. B. G. M. Baskett (Thundersley, Essex) writes: I do not "cavil at the word 'tax'"; on the contrary, I think it is the proper term. But it should not be used in connexion with the word "insurance." If it is a tax, the employee's contribution is not an insurance premium; if it is a premium, it is not a tax, but a trust, and the addition of a Government bonus makes no difference to the sanctity of the trust. Therefore the insurer plainly has an *indefeasible* right (not "indefensible," as printed) without conditions to his benefit. For, *pace* Dr. Adams, it is not possible that any insurance company for the richer classes should make conditions as to the way their insurers spend their money when earned by their premiums. Any conditions are known and agreed to before the contract is made. The absence of contract makes this law a Poor Law and justifies the imposition of conditions after the "policy" is taken out. But it would have been fatal to the bill to have said so, and may yet be fatal to the Act when once the people most concerned realize that Ministers have despaired of their ever reaching a position in which they can pay for what they get without help from taxes. If the relief came from the rates, no incubation period would have been needed for the realization.

That real supervision by a lay committee must be fatal to any scientific body hardly needs arguing, especially if the Insurance Committees, like the guardians of the poor and other non-political bodies, come, as inevitably they will, to be elected on political platforms. This is notoriously the case in Germany. Dr. Adams's reference to the services is unfortunate, because the disastrous results of subordination of the profession in the army have been confessed and remedied by the recent changes.

I do not know whether he means himself to justify the Act or is merely quoting others when he says that its *raison d'être* is the failure of the voluntary principle. But that is what the authors of the Elizabethan Poor Law said; and, legislating for the moment, they multiplied the evil tenfold for the future. Dr. Adams must needs admit that the voluntary principle in England has been followed by the lowest death-rate of any industrial community in the world, with the doubtful exception of two where individualism has conspicuous sway, while in Germany, where State meddling has reached its triumphant apotheosis, the sickness-rate—explain it how you will—has greatly increased, and the progress against tuberculosis is acknowledgedly far behind our own.

Rome was not built in a day; our progress, though necessarily seeming slow to us while watching, has been immense. There is no evil against which the Act is directed which would not have been ameliorated by raising wages and the standard of living. By relieving taxation Ministers could have raised the wages of every man and woman in the country and left them free; instead they have chosen to increase taxation and to impose what must ultimately come to be an appalling burden. Personally I have not yet come across a medical man of long experience who does not see in the Act a menace as well as an indignity to the class it hopes to benefit. We shall do our duty by that class, as we did before; but I hope that every man who sees clearly the real meaning of this measure will do his utmost to educate the people with whom he comes in contact with a sense of the invidiousness of imposing special laws on a man because he has less than £160 a year.

Voluntary Payments to Panel Doctors by Insured Persons.

Dr. J. Cuthbertson Walker (Rochdale) writes: As a considerable number of insured persons are desirous of ignoring the medical benefit provisions of the National Insurance Act, and have intimated to their doctor that they wish to be attended by him in the ordinary way, in spite of the fact that he has accepted them as panel patients, I have taken legal opinion on the following question, and have received the reply which is given below:

Question.—Is it open to a practitioner on the panel to receive payment voluntarily made for treatment (such treatment being within the competence of a general practitioner) rendered to an insured person under his care, such an insured person not being a person who has made his "own arrangements" in the manner provided by the Regulations?

Answer. As the Regulations stand, I think it is open to a practitioner on the panel to receive voluntary payments for treatment within the competence of a general practitioner.

Mileage.

Dr. L. L. Thain (Ewyas Harold, Hereford) writes: Already we can see one great mistake we made. Mileage does not affect the town medical man at all, but it does the rural very seriously. We rural men must combine. It was the mass of the town votes which dragged us down. I propose that rural practitioners combine. We already know that the number of insured in each practice (rural) is but few. There are only 1,200 in Dore Union, with five resident and three just extra-resident. We could afford to do without it. We should combine and force mileage. It is quite certain that Mr. Lloyd George could not import medical men at £300 a year—who would live a most uncomfortable life, and often not find a place for his motor or horses—to earn only about £60. The rural areas could not be grouped, because sick people cannot walk very far.

A pledge from the others also to resign *en masse* if a man is imported to prevent just mileage, and the thing is done. We must get mileage guaranteed after two miles. It can easily be done; but we must not be overweighted with the votes of the pleased town doctor, for whom miles have no terror and where it would be possible for Mr. Lloyd George to import. The Act is a poor matter to the rural doctor.

Friendly Societies and their Aged and Infirm Members.

Dr. Charles E. Morris (Holywell, N. Wales) replies to Dr. Kidd's letter (SUPPLEMENT, February 15th, p. 162) as follows: His kindly feelings are to be commended and raise our admiration; but would do so still more if he offered to treat these old friends for, say, the same rate as before, or still greater height of altruism would he attain if he attended them for nothing, having taken their contributions for so many years.

Does not Dr. Kidd know that the State has by statute imposed on the Insurance Committee the duty of making arrangements with duly qualified medical practitioners, under regulations made by the Insurance Commissioners,

and being such as to secure the provision of medical attendance and treatment on the *same* terms as to remuneration for uninsurable aged members of friendly societies as for insured persons? The benevolent intention being, no doubt, that as some compensation for the segregation inflicted upon them by the State, these veterans of labour should, when ill, be not attended at any different rate to their fellows who are insured, and thus they escape invidious treatment.

Where the money is to come from is not clear, and, if the aged member cannot provide it, it becomes the duty of his lodge, or his Order, or of the Insurance Committee, or of Parliament, to find the money to carry out the very explicit terms of the statute.

LOCAL MEDICAL COMMITTEES.

Under this heading it is proposed to publish regularly reports of the meetings of Local Medical Committees. The honorary secretaries of committees are invited to send reports, which it is suggested should deal as far as possible with matters of general interest to the profession throughout the country to the exclusion of details mainly of local concern. Reports should be received not later than the first post on Tuesday in each week.

BOOTLE.

AT a meeting of the members of the profession resident in the County Borough of Bootle held on January 20th, a Local Medical Committee was elected consisting of ten members. Application was made to the National Insurance Commissioners for recognition under the Act. This has now been granted, and the first meeting of the Committee was held on the evening of February 15th, when eight members were present. Dr. McCormack was elected Chairman, and Dr. Walker (29, Merton Road, Bootle) Secretary.

Meetings of Branches and Divisions.

METROPOLITAN COUNTIES BRANCH:
WILLESDEN DIVISION.

A SPECIAL meeting of the Division, to which non-members were invited, was held on February 4th. Twenty-nine were present. In the absence of Dr. James, Dr. MACAULEY was elected to the chair.

Report of Representative.—Dr. MACEVOY gave his report as Representative and answered questions, and was unanimously accorded a vote of thanks.

Report of Provisional Medical Committee.—The HONORARY SECRETARY reported that the committee had applied for recognition, but had not yet received a reply. On the question of expenses, the Honorary Secretary was instructed to write for further information.

Report of Middlesex Medical Committee.—Dr. MACEVOY reported that the committee had (1) applied for recognition; (2) had decided that each Division should elect a "correspondent" for the purpose of informing the other Divisions of any resolution passed and action taken by his Division affecting the interests of other Divisions, etc.; (3) had recommended that steps be taken to canvass the medical practitioners in all Divisions of Middlesex with a view to ascertaining whether they will or will not apply or reapply for service on the panel after April 15th if more satisfactory terms are not offered. The meeting expressed sympathy with the action of the Middlesex Medical Committee, left to that committee the nomination of candidates for the Insurance Committee, and appointed Dr. Skene correspondent.

MIDLAND BRANCH:
KESTEVEN DIVISION.

THE inaugural meeting of the Kesteven Division was held at Grantham on February 11th, when the officers were elected.

Chairman, Dr. G. W. Shipman (Grantham); *Vice-Chairman*, Dr. T. P. Greenwood (Stamford); *Honorary Secretary and Treasurer*, Dr. C. H. D. Robbs (Grantham); *Executive Committee*, Dr. H. T. Benson (Market Deeping); Dr. J. C. Ellis (Metheringham, Lincoln); Dr. J. Galletly (Bourne); Dr. O. Giles (Sleaford); Dr. J. A. Macdonald (Woolsthorpe).

The rules of organization were adopted and the ethical rules in their entirety.

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1913.

DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1913, will be held at Brighton on Friday, July 18th, and following days, as may be required.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting at Brighton in July next, relating to questions affecting the honour and interests of the medical profession or of the Association (By-law 37), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 19th, and for this purpose should be received by me not later than April 12th, 1913. Notices of Motion proposing to make any addition to, or any amendment, alteration or repeal of any Regulation or By-law, or to make any new Regulation or By-law (Article 31), must be published in the JOURNAL not later than the issue of May 17th, and received by me not later than May 10th, 1913.

By Order,
ALFRED COX,
Medical Secretary.

February 4th, 1913.

ELECTION OF COUNCIL, 1913–14.

NOTICE is hereby given that nominations for a candidate for the election as a Member of Council by the New Zealand Branch for a period not exceeding three years as prescribed by By law 49 (2) must be forwarded so as to reach me not later than Tuesday, April 15th, 1913.

Nominations must be made either by any Division, or by any three Members of the Branch, in the form prescribed below.

Election will be by voting papers, and these will contain the names of all duly nominated candidates, and will be issued by me.

By Order of the Council,
H. E. GIBBS,
Honorary Secretary, New Zealand Branch, and Returning Officer.

123, Willis Street, Wellington, New Zealand.
February 22nd, 1913.

NEW ZEALAND.

NOMINATION FORM.

BY A DIVISION OR BY NOT LESS THAN THREE MEMBERS OF THE BRANCH.

We, the undersigned, hereby nominate

.....

of.....

.....

as a candidate for election by the New Zealand Branch above named as a member of the Council of the Association.

Names and addresses of nominators, and Branches to which they belong.

Name.	*Branch.*
.....	.....
.....	.....
.....	.....

This form should be returned to Dr. H. E. Gibbs, 123, Willis Street, Wellington, New Zealand, not later than Tuesday, April 15th, 1913.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The fourth ordinary meeting of the session will be held at the Museum, Bath, on Wednesday, February 26th, Dr. Roxburgh, President, in the chair. A discussion will be opened at 8 p.m., by Dr. Mervyn Gordon, on "The Present Prospect and Limitations of Treatment by Specific Measures in the Commoner Bacterial Infections."—W. M. BEAUMONT and NEWMAN NEILD, Honorary Secretaries, Bath.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—A meeting of this Division will be held at the Coventry Hospital on Tuesday, March 4th, at 8.30 p.m. (1) To discuss the ethical procedure in regard to the Coventry Dispensary. (2) To discuss the new Ethical Rules as recommended by the Association. (3) To receive communications. (4) Dr. Wynne will read a paper on "The Rôle of Tuberculin in Treatment of Pulmonary Tuberculosis."—DUNCAN DAVIDSON, 15, Priory Row, Coventry.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will be held at the Manor Lodge, Upper Clapton (by invitation of Dr. C. F. Hadfield), on Tuesday, March 12th, at 9.30 p.m. Clinical evening: Cases and discussion. The Honorary Secretary will be glad to receive notice from members desiring to show cases or read short abstracts by February 28th.—A. G. SOUTHCOMBE, 83, Sidney Road, Homerton, N.E.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of the Division will be held at the Royal Infirmary, Leicester, on Wednesday, February 26th, at 4 o'clock. Agenda: Minutes of the last meeting. Clinical cases. Other business.—R. WALLACE HENRY, Honorary Secretary, 6, Market Street, Leicester.

NORTH OF ENGLAND BRANCH: NEWCASTLE-ON-TYNE DIVISION.—It has been found necessary to again alter the date of the demonstration arranged by the Newcastle-on-Tyne Division to March 28th, when Professor R. A. Bolam will lecture on Medico-legal Tests for Blood.—R. J. WILLAN, Honorary Secretary, 25, Ellison Place, Newcastle-on-Tyne.

STAFFORDSHIRE BRANCH.—The Second General Meeting of the Session will be held at the Swan Hotel, Stafford, on Thursday, February 27th, 1913. The President, E. C. Stack, Esq., F.R.C.S.I., will take the chair at 5.15 p.m. Business: (1) Minutes of the last Ordinary General Meeting. (2) Correspondence. (3) Exhibition of Living Cases. (4) Papers: (i) "Mouth-breathing and Deafness," John Priestley; (ii) "Notes and Remarks on three Pathological Specimens removed by Abdominal Section," F. N. Cookson. (5) Exhibition of Pathological Specimens, etc. Dinner, 7 p.m.; charge, 5s.—HAROLD HARTLEY, Honorary General Secretary, Basford, Stoke-on-Trent.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following notices of retirement and appointments have been announced at the Admiralty: Deputy Surgeon-General JOHN J. DENNIS, M.D., to the *President*, additional, for temporary service in the Medical Department, February 15th, 1913. Staff Surgeon WILLIAM C. B. SMITH to the *Royal Arthur* for medical charge of voyage home. Staff Surgeon ELIJAH R. L. THOMAS to the *Excellent* temporarily, February 15th, 1913. Surgeon A. FAIRLEY, M.B., to the *Victory* for Royal Naval Barracks.

Fleet Surgeon ARTHUR SYDNEY GORDON has been placed on the retired list at his own request, February 1st, 1913.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

Major E. F. Q. L'ESTRANGE to command the Station Hospital, Cannanmore.

Major FREDERICK W. HARDY, M.B., to be Lieutenant-Colonel, vice C. E. Faunce, January 26th, 1913.

The following Captains to be Majors: GEORGE F. SHEEHAN and EUGENE RYAN, JOHN H. BARBOUR, M.B., January 29th, 1913; Captain RICHARD C. WILSON, M.B., February 3rd, 1913.

Captain A. H. T. DAVIS to command the Station Hospital, Malapuram.

Captain J. H. GURLEY has been posted to Netley Hospital as Specialist in Ophthalmology.

Major E. B. STEEL has been appointed to the Medical Charge of Troops at Exeter, vice Lieutenant-Colonel H. P. Elkington.

The undermentioned Lieutenants to be Captains, January 31st, 1913: GILBERT H. DIVE, LIONEL C. HAYES, M.B., ROBERT GALE, M.B., ALFRED G. JONES, M.B., KENNETH COMYN, FREDERICK B. LAING, M.B., ARTHUR S. CANE, JOHN M. WEDDELL, CHARLES M. NICOL, M.B., ARTHUR P. O'CONNOR, M.B., THOMAS H. DICKSON, M.B., HUGH G. ROBERTSON, M.B., HERBERT V. STANLEY, M.B., PHILIP C. FIELD, RONALD M. DAVIES, M.B., RICHARD C. G. KINKEAD, M.B., EDWARD C. STONEY, M.B., THEODORE W. STALLYBRASS M.B., VICTOR P. HUTCHINSON.

Lieutenant W. B. LAIRD has taken up duty in the London District.

Lieutenant R. C. CARLYLE has taken up duty in the London District.

Lieutenant J. H. S. SHIELDS has taken up duty in the London District.

The undermentioned Lieutenants from the Seconded List are restored to the establishment: WALKER W. PRATT, M.B., and EDWARD P. A. SMITH, January 26th, 1913. CUTHBERT J. H. LITTLE, M.B.; FRANK C. COWTAN, ARTHUR A. M. DAVIES, and LESLIE DUNBAR, M.B.

The undermentioned Lieutenants are confirmed in their rank: WILLIAM B. LAIRD, FRANCES R. B. SKRIMSHIRE, EDWARD B. ALLNUTT, HARRY C. TODD, M.B., MAURICE BURNETT, GILBERT A. BLAKE, M.B., ROBERT W. VINT, M.B., HAROLD W. L. ALLOTT, JOHN HARE, M.B., ROBERT A. FLOOD, M.B., ERIC C. LANG, M.B., LEOPOLD T. POOLE, M.B., THOMAS H. BALFOUR, M.B., REGINALD E. PORTER, M.B., HUGH J. S. SHIELDS, PIERCE M. J. POWER, EDWARD V. WHITBY, M.B., EDMUND U. RUSSELL, NORMAN W. STEVENS, M.B., RICHARD B. PHILLIPPS, JAMES C. SPROULE, GEORGE F. ALLISON, ROBERT C. CARLYLE, M.B., JOHN E. HEPPER, HENRY F. PANTON, M.B.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

First Home Counties Field Ambulance.—Captain JAMES S. WARRACK, M.D., to be Major, January 29th, 1913. Captain ARTHUR T. FALWASSER resigns his commission, February 8th, 1913.

Third South Midland Field Ambulance.—Captain PERCY MOXEY from the list of officers attached to Units other than Medical Units to be Captain, February 1st, 1913.

Third Anglian Field Ambulance.—WILLIAM R. M. TURTLE, M.B., to be Lieutenant (to be supernumerary), January 13th, 1913.

Third East Lancashire Field Ambulance.—Lieutenant WILSON H. G. HEY, M.B., F.R.C.S., to be Captain, December 12th, 1912.

Third Northumbrian Field Ambulance.—Captain WILSON RANSON, F.R.C.S., Special Reserve, to be Lieutenant-Colonel, February 8th, 1913.

First Northern Field Hospital.—Captain FREDERICK CHARLES PYBUS, M.B., F.R.C.S., from the list of officers whose services will be available on mobilization, to be Captain in the permanent personnel, February 8th, 1913. Captain FREDERICK C. PYBUS, M.B., F.R.C.S., to be Major, February 8th, 1913.

Attached to Units other than Medical Units.—Lieutenant PERCY T. TOLPUTT, to be Captain, December 18th, 1912. Captain DANIEL O. KERR, M.B., and Lieutenant ALFRED J. SHEPHEARD-WALWYN, M.D., have resigned their commissions, February 5th, 1913. THOMAS BROWN, M.B., October 3rd, 1912. ALBERT A. GUNN, M.B., December 16th, 1912. Lieutenant EDWARD C. RYALL, F.R.C.S.I., has resigned his commission, February 8th, 1913.

For Attachment to Units other than Medical Units.—GEORGE HENRY WATSON to be Lieutenant, January 6th, 1913. THOMAS WILLIAM S. HILLS to be Lieutenant, January 24th, 1913.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Army Medical service have been officially reported to have taken place during December, 1912:

		FROM		TO
Surg.-Gen.	L. E. Anderson	Lucknow	...	Irish Command.
,,	H. G. Hathaway	—	...	Lucknow.
Colonel	H. J. Barratt	Allahabad	...	Bareilly.
Lieut.-Col.	A. T. I. Lilly	Belgaum	...	Colaba.
,,	C. C. Reilly	Colaba	...	Belgaum.
,,	J. S. Green, M.B.	Bangalore	...	Fermoy.
,,	J. S. Davidson, M.B.	Allahabad	...	Agra.
,,	J. Fallon	Dalhousie	...	Lahore.
,,	R. J. Windle, M.B.	Dublin	...	Poona.
,,	J. Ritchie, M.B.	Dalhousie	...	Ferozepore.
,,	H. I. Pocock	Murree	...	Campbellpore.
,,	J. W. Bullen, M.D.	Agra	...	Meerut.
,,	W. T. Mould	Barrackpore	...	Fyzabad.
,,	A. W. Bewley	Ranikhet	...	Meerut.
,,	R. J. Copeland, M.B.	Newcastle-on-Tyne	...	York.
,,	R. J. W. Mawhinny	—	...	Jullundur.
Major	F. W. Hardy, M.B.	Colchester	...	Lucknow.
,,	N. Faichnie, M.B.	Mhow	...	Delhi.
,,	F. W. Begbie	Kamptee	...	Mhow.
,,	J. Hennessy, M.B.	Cosham	...	India.
,,	D. J. Collins, M.D.	Dublin	...	Bangalore.
,,	S. F. St. D. Green, M.D.	Aldershot	...	Quetta.
,,	G. T. K. Maurice	Tidworth	...	Reading.
,,	J. D. G. Macpherson, M.B.	Pachmarhi	...	Kamptee.
,,	R. S. H. Fuhr, D.S.O.	Woolwich	...	Colchester.
,,	G. J. S. Archer, M.B.	Maymyo	...	S. Command.
,,	S. O Hall	Fermoy	...	Karachi.
,,	G. B. Crisp	Mhow	...	London.
,,	W. B. Winkfield	Ambala	...	Maymyo.
,,	J. G. Gill	Maymyo	...	Rangoon.
,,	G. J. A. Ormsby, M.D.	Landour	...	Meerut.
,,	F. J. Palmer	Meerut	...	Jutogh.
,,	H. C. R. Hime, M.B.	Madras	...	Bangalore.
,,	A. A. Seeds, M.D.	Kasauli	...	Rawal Pindi.
,,	A. M. MacLaughlin, M.B.	Secunderabad	...	Madras.
,,	F. W. Cotton	Fleetwood	...	India.
,,	F. S. Walker, F.R.C.S.I.	Waterford	...	Fort Camden, Queenstown Harbour.
,,	J. H. Robinson	Calcutta	...	Peshawar.
,,	J. H. Brunskill, M.B.	Curragh	...	Dublin.
,,	J. S. Bostock, M.B.	Ranikhet	...	Agra.
,,	H. F. Shea, M.B.	Dagshai	...	Ambala.
,,	T. B. Unwin, M.B.	Caterham	...	London.
,,	J. L. Jones	Secunderabad	...	Calicut.
Captain	J. H. Barbour, M.B.	Nowgong	...	Kamptee.
,,	J. McKenzie, M.B.	Pirbright	...	Caterham.
,,	J. W. S. Seccombe	Taunton	...	Devonport.
,,	R. J. Franklin	—	...	Fort Camden, Queenstown Harbour.
,,	F. W. W. Dawson, M.B.	Kasauli	...	Ambala.
,,	B. G. Patch	York	...	Bradford.
,,	N. E. Dunkerton	Bradford	...	Pontefract.
,,	J. Fairbairn, M.B.	Dublin	...	West Africa.
,,	M. D. Ahern	Sheerness	...	Bermuda.
,,	C. Ryley	Shoeburyness	...	..
,,	P. C. T. Davy, M.B.	Jutogh	...	Chatham.
,,	G. A. D. Harvey	London Dist.	...	R. A. M. Coll.
,,	G. R. Painton	Colchester	...	Mill Hill.
,,	A. W. Gater	Portsmouth	...	Winchester.
,,	G. B. F. Churchill	Meiktila	...	Bulford.
,,	M. B. H. Ritchie, M.B.	Campbellpore	...	Mhow.
,,	W. J. Weston	—	...	Haulbowline Island, Queenstown
,,	A. E. F. Hastings	Chatham	...	Sheerness.

		FROM		TO
Captain	H. Stewart, M.B.	Solon	...	Ferozepore.
,,	A. A. Sutcliffe, M.B.	Chester	..	Carlisle.
,,	F. A. McCammon, M.B.	Colaba	...	Irish Comm'd.
,,	F. Forrest	Bangalore	...	Curragh.
,,	N. G. Johnson	Nowshera	..	Dover.
,,	C. R. M. Morris, M.B.	Sialkot	..	S Command.
,,	E. W. M. Paine	Calicut	..	W. Command.
,,	J. B. Grogan			Cobham.
,,	E. M. O'Neill, M.B.	Jhansi	...	Cork.
,,	G. H. Stevenson, M.B.	Ambala	..	North. Coud.
,,	J. H. Spencer, M.B.	Upper Topa	..	Ambala.
,,	W. Mitchell, M.B.	Sabathu	..	..
,,	E. B. Lathbury	Nasirabad	..	Farcilly.
,,	E. C. Phelan, M.B.	Darjeeling	..	Barrackpore.
,,	A. H. Jacob	Rawal Pindi	..	Curragh.
,,	R. D. O'Connor	Cliffden	..	Lahore.
,,	M. O. Wilson, M.B.	Dagshai	...	Aden.
,,	H. V. B. Byatt	Poona	..	Purandhur.
,,	J. B. Hanafin, F.R.C.S.I.	Nowshera	..	Peshawar.
,,	F. H. Bradley, M.B.	Lucknow	..	Allahabad.
,,	B. Varvill	Quetta	..	Nasirabad.
,,	F. M. Howson	Hyderabad	..	Karachi.
,,	T. S. Eves, M.B.	Allahabad	..	Lucknow.
,,	T. J. Mitchell, M.B.	Dalhousie	..	Lahore.
,,	H. Gall	Gharial	..	Sialkot.
,,	C. G. Sherlock, M.D.	Dalhousie	..	Bakloh.
,,	W. H. O'Riordan	Ghangla Sali	..	Rawal Pindi.
,,	F. W. M. Cunningham, M.D.	Kuldana	..	Sialkot.
Lieutenant	L. C. Hayes, M.B.	London	...	Bermuda.
,,	A. S. Cane	..	..	Kirkee.
,,	J. M. Weddell	Lucknow	...	Fyzabad.
,,	E. C. Stoney, M.B.	Meiktila	..	Bhamo.
,,	R. F. Bridges, M.B.	Dover	..	Rawal Pindi.
,,	C. H. Stringer	Netley	..	Jamaica.
,,	J. S. Levack, M.B.	Bradford	..	India.
,,	W. T. Graham, M.B.	Tidworth	..	..
,,	W. Bisset, M.B.	Woolwich	..	..
,,	T. A. Weston, M.B.	Aldershot	..	..
,,	P. M. J. Brett, M.B.	Winchester	..	Cosham.
,,	B. H. H. Spence, M.B.	Woolwich	..	R.A.M. Coll.
,,	J. M. Elliott, M.B.	Hilsea	..	Portsmouth.
,,	H. J. G. Wells, M.B.	Kinsale	..	Cork.
,,	E. C. Deane	Seaforth	..	Preston.
,,	P. A. With	Kilbride	..	Curragh.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In ninety-six of the largest English towns, 8,672 births and 5,886 deaths were registered during the week ending Saturday, February 15th. The annual rate of mortality in these towns, which had been 17.0, 17.3, and 17.2 per 1,000 in the three preceding weeks, was again 17.2 per 1,000 in the week under notice. In London last week the death-rate was equal to 18.1, against 17.8, 18.6, and 17.3 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 7.0 in Enfield, 7.4 in Southend-on-Sea, 7.9 in Bootle, 8.0 in Wallasey, 9.0 in Wimbledon, and 9.1 in Cambridge to 24.3 in Merthyr Tydfil, 24.9 in West Bromwich, 25.0 in Swindon, 28.2 in Wigan, 29.4 in St. Helens, and 29.9 in Stockton-on-Tees. Measles caused a death-rate of 4.0 in Swindon and in Barrow-in-Furness, 5.2 in St. Helens, 6.3 in Wigan, and 7.5 in West Bromwich; whooping-cough of 3.5 in Warrington; and diphtheria of 1.2 in Birkenhead and in Newport (Mon.). The mortality from enteric fever and scarlet fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 42, or 0.7 per cent. of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 13 in Birmingham, 5 in Liverpool, 3 in Coventry, and 2 each in Southport, Blackpool, Sheffield, Sunderland, and Tynemouth. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,784, 1,738, and 1,736 at the end of the three preceding weeks, had further fallen to 1,701 on Saturday last; 196 new cases were admitted during the week, against 215, 209, and 209 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In the sixteen largest Scottish towns 1,165 births and 900 deaths were registered during the week ending Saturday, February 8th. The annual rate of mortality in these towns, which had been 20.2 per 1,000 in each of the two preceding weeks, rose to 20.8 in the week under notice, and was 3.6 per 1,000 above the rate in the ninety-six large English towns. Among the several towns the death-rates last week ranged from 10.5 in Kilmarnock, 11.7 in Kirkcaldy, and 14.6 in Clydebank, to 24.9 in Falkirk, 25.3 in Perth, and 29.0 in Ayr. The mortality from the principal infectious diseases averaged 2.0 per 1,000, and was highest in Hamilton and Coatbridge. The 434 deaths from all causes registered in Glasgow included 34 from whooping-cough, 4 from infantile diarrhoeal diseases, 3 from measles, 3 from scarlet fever, 3 from diphtheria, and 2 from enteric fever. Seven deaths from whooping-cough were recorded in Edinburgh, 4 in Leith, 2 in Aberdeen, and 2 in Motherwell; 4 deaths from diphtheria in Aberdeen; and 2 deaths from scarlet fever in Coatbridge.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, February 8th, 654 births and 481 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 614 births and 470 deaths in the preceding period. These deaths represent a mortality of 20.9 per 1,000 of the aggregate population in the districts in question, as against 20.4 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 3.7 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 28.4 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 17.7, as against an average of 19.6 for the previous four weeks: in Dublin city, 18.1 (as against 20.7); in Belfast, 23.2 (as against 22.7); in Cork, 22.4 (as against 23.5); in Londonderry, 20.3 (as against 21.6); in Limerick, 16.2 (as against 15.9); and in Waterford, 26.6 (as against 21.4). The zymotic death-rate was 1.8, as against 1.3 in the previous

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

AGRA: DUFFERIN HOSPITALS.—Lady Doctor on the Staff. Salary, Rs. 300 a month.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BATH: EASTERN DISPENSARY.—Resident Medical Officer. Salary, £130 per annum.

BEDFORD COUNTY HOSPITAL.—(1) House-Surgeon. (2) Assistant House-Surgeon. Salary for (1) £100, for (2) £80 per annum.

BIRKENHEAD: BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—Radiographer. Salary, £100 per annum.

BOURNEMOUTH: ROYAL VICTORIA AND WEST HANTS HOSPITAL.—House-Surgeon. Salary at the rate of £80 per annum, rising to £100.

BRADFORD CHILDREN'S HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

BRADFORD POOR LAW UNION.—Assistant Resident Medical Officer (lady) for the Hospital and Workhouse. Salary, £130 per annum.

BRADFORD ROYAL INFIRMARY.—Two Male House-Surgeons. Salary, £100 per annum.

BRADFORD TUBERCULOSIS DISPENSARY.—Assistant Medical Officer. Salary, £300 per annum.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRISLINGTON HOUSE PRIVATE ASYLUM, near Bristol.—Junior Resident Medical Officer. Salary commencing at £160.

BURY INFIRMARY.—(1) Senior House-Surgeon. Salary, £110 per annum. (2) Junior House-Surgeon. Salary, £80 per annum, increasing to £90.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum

CAIRO: SCHOOL OF MEDICINE.—Assistant to the Professor of Biology and Parasitology. Salary, £400 per annum.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—House-Physician. Salary £80 per annum.

CAMBRIDGE UNIVERSITY PATHOLOGICAL LABORATORY.—John Lucas Walker Studentship. Annual value, £200.

CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary to commence, £140 per annum.

CARDIFF: KING EDWARD VII's HOSPITAL.—(1) House-Surgeon (male); (2) House-Surgeon (male) for Ophthalmic and Ear and Throat Departments. Honorarium, £30 for six months in each case.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officer (male) to act as House-Physician and House-Surgeon for six months each. Salary at the rate of £80 and £100 per annum respectively.

COVENTRY: COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary, £90 per annum, rising to £100 after six months.

DARLINGTON HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £120 per annum.

DOUGLAS: NOBLE'S ISLE OF MAN HOSPITAL.—Resident House-Surgeon. Salary, £90 per annum.

DURHAM COUNTY COUNCIL.—Three Assistant Tuberculosis Medical Officers. Salary, £300 per annum.

ESSEX COUNTY COUNCIL.—Three Tuberculosis Officers. Salary, £500 per annum each.

GLASGOW MATERNITY AND WOMEN'S HOSPITAL.—(1) Two Indoor House-Surgeons. (2) Two Outdoor House-Surgeons. (3) Outdoor Surgeon at the West End Branch.

GLASGOW: VICTORIA INFIRMARY.—Visiting Physician.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. Salary, £75 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Resident Medical Superintendent. Salary, 100 guineas per annum, and £5 washing allowance. (2) House-Surgeon. Salary, £30 for six months, and £2 10s. washing allowance.

HUDDERSFIELD ROYAL INFIRMARY.—Male Junior Assistant House-Surgeon. Salary, £60 per annum.

LEEDS: HOSPITALS FOR INFECTIOUS DISEASES AND TUBERCULOSIS.—Medical Officer as Third Assistant. Salary at the rate of £120 per annum.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum

LINCOLN GENERAL DISPENSARY.—Male Resident Medical Officer. Salary, £300 per annum.

LISTER INSTITUTE OF PREVENTIVE MEDICINE, Chelsea Gardens, S.W.—Second Research Assistant in the Biochemical Department. Salary commencing at £200 per annum.

LIVERPOOL: DAVID LEWIS NORTHERN HOSPITAL.—(1) House-Physician. (2) Three House-Surgeons. Salary at the rate of £60 per annum.

LIVERPOOL INFIRMARY FOR CHILDREN.—(1) Resident House-Surgeon. (2) Resident House-Physician. Salary, £30 for six months.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—(1) Two House-Physicians. (2) Three House-Surgeons. Salary at the rate of £60 per annum.

LONDON LOCK HOSPITAL, Harrow Road, W.—Assistant House-Surgeon. Salary, £80 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY.—Honorary Assistant Aural Surgeon.

MIDDLESEX HOSPITAL MEDICAL SCHOOL, W.—Senior Demonstrator of Anatomy. Salary at the rate of £100 per annum.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—Junior House-Surgeon. Salary at the rate of £85 per annum, and £100 per annum on election as Senior.

NESTING AND LUNNASTING PARISH COUNCIL.—Medical Officer. Salary, £50 per annum.

NEWCASTLE-ON TYNE DISPENSARY—Four Visiting Medical Assistants. Salary, £160 for first year, rising to £180.

NOTTINGHAM GENERAL DISPENSARY.—(1) Assistant Resident Surgeon (male; salary, £170 per annum. (2) Resident and Assistant Resident Surgeons for Branch; salary, £180 and £170 per annum respectively

NOTTINGHAM WORKHOUSE INFIRMARY.—Two Resident Assistant Medical Officers. Salary, £150 per annum rising to £170.

PAISLEY DISTRICT ASYLUM, Riccartsbar.—Assistant Resident Medical Officer. Salary, £130 per annum, increasing to £160.

PAISLEY INFECTIOUS DISEASES HOSPITAL.—Resident Medical Officer. Salary, £150 per annum.

PRESTON ROYAL INFIRMARY.—Senior House-Surgeon (male). Salary, £80 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer for Out-patient Department. Salary at the rate £60 per annum.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—Pathologist and Curator. Honorarium, £50.

ST GEORGE'S DISPENSARY AND SCHOOL CLINIC, Surrey Row, Blackfriars, S.E.—(1) Junior Medical Officer. Salary, £100 per annum. (2) Surgeon to the Nose, Throat, and Ear Clinic. Salary at the rate of £20 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Surgeon to Out-patients.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon (male). Salary at the rate of £80 per annum.

SHEFFIELD UNION HOSPITAL.—Resident Assistant Medical Officer. Salary, £120 per annum.

SOUTHAMPTON FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

STAFFORD: COTON HILL MENTAL HOSPITAL.—Assistant Medical Officer (male). Salary, £170 per annum, rising to £200.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—(1) House-Physician. Salary, £100 per annum. (2) House-Surgeon. Salary, £120 per annum, increasing £10 yearly for two years.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £80 per annum.

STOCKPORT UNION.—Resident Assistant Medical Officer at Stepping Hill Hospital Salary, £150 per annum

SUFFOLK DISTRICT ASYLUM, Melton.—Second Assistant Medical Officer (male). Salary commencing at £180 per annum.

SUNDERLAND: CHILDREN'S HOSPITAL.—Resident Medical Officer Salary at the rate of £80 per annum.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Assistant Resident Medical Officer. Salary, £100 per annum.

VICTORIA HOSPITAL FOR CHILDREN.—Surgeon to Out-patients.

WALSALL AND DISTRICT HOSPITAL.—Assistant House-Surgeon. Salary, £90 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Two House Physicians. (2) Three House-Surgeons.

WEST RIDING ASYLUM, Menston.—Fourth Assistant Medical Officer. Salary, £150 per annum, increasing to £180.

YORK DISPENSARY.—Resident Medical Officer Salary, £140 per annum.

MEDICAL REFEREE.—The Home Secretary announces a vacancy as Ophthalmic Specialist Medical Referee under the Workmen's Compensation Act (1906) for County Court Circuits Nos. 21, 22, and 56.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Castletown, Berchaven, co. Cork; Hoylake, co. Cheshire.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

CHAMBERS, R., M.B., B.S.Melb., Resident Medical Officer to the Melbourne Hospital, Victoria, vice A. J. Fargie, M.B., B.S.Melb., resigned.

CROWE, J. T., L.S.A.Lond., L.M.S.S.A.Lond., Tuberculosis Medical Officer to the County of Leicestershire

HILEY, B. Melville, Tuberculosis Physician to Pontypridd and the Rhondda Valleys under the Welsh National Memorial.

MCDONNELL, R. V., M.B., Resident Medical Officer, Newcastle Hospital, New South Wales.

MAXWELL-ADAMS, D. V., M.B., Ch.B.Edin., Certifying Factory Surgeon for the Lanark District, co. Lanark.

MAYNE, Nathaniel, L.R.C.P. and S.Irel., Medical Referee under the Workmen's Compensation Act (1906), and to act for the County of Longford, vice Dr. F. J. Myles, deceased.

OSMOND, Barnard B., M.B., C.M.Edin., Medical Officer of Health to the Bedwas and Machen, Mon., District Council.

PATERSON, James V., M.B., C.M., F.R.C.S.Edin., Ophthalmic Surgeon to the Royal Infirmary, Edinburgh.

ROWLAND, L. T. A., M.R.C.S., L.R.C.P., District and Workhouse Medical Officer of the Lampeter Union.

SMITH, Miss Lucy E., M.D., R.U.I., D.P.H., has been appointed Visiting Physician to the Female Prison, Cork.

SUNDERLAND, R. A. S., Medical Officer of the Kingston-upon-Hull Incorporation Workhouse.

WINGFIELD, Rudolph Charles, B.A., M.B., B.Ch.Oxon., Medical Officer in charge of the Tuberculosis Department at St. Thomas's Hospital.

ST. THOMAS'S HOSPITAL.—The following gentlemen have been selected as House Officers:

Casualty Officers and Resident Anaesthetists.—P. H. Mitchener, M.B., B.S.Lond., M.R.C.S., L.R.C.P.; W. A. Russell, B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P.; W. W. Wagstaffe, M.A., B.M., B.Ch.Oxon., M.R.C.S., L.R.C.P.; F. J. Humphrys, M.B., B.S.Lond., M.R.C.S., L.R.C.P.; E. Rayner, B.A., M.B., B.C.Cantab.; J. R. A. D. Todhunter, B.A.Cantab., M.R.C.S., L.R.C.P.; D. S. Bryan-Brown, B.A.Cantab., M.R.C.S., L.R.C.P.; C. H. L. Rixon, M.R.C.S., L.R.C.P.

Casualty Assistants.—E. Wordley, B.A.Cantab., M.R.C.S., L.R.C.P.; S. G. Askey, B.A.Cantab., M.R.C.S., L.R.C.P.

Resident House-Physicians.—Ff. Roberts, B.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P.; A. L. Sutcliffe, B.A.Cantab., M.R.C.S., L.R.C.P.; W. J. Hart, B.A., B.M., B.Ch.Oxon., M.R.C.S., L.R.C.P.; E. N. Butler, B.A.Cantab., M.R.C.S., L.R.C.P.

Resident House-Surgeons.—F. McG. Loughnane, M.R.C.S., L.R.C.P.; M. J. Petty, B.A.Cantab., M.R.C.S., L.R.C.P.; W. B. Foley, M.B., B.S.Lond., M.R.C.S., L.R.C.P.; H. C. Attwood, B.A.Cantab., M.R.C.S., L.R.C.P.

House-Surgeon to Block 8.—W. M. Oakden, B.A.Cantab., M.R.C.S., L.R.C.P.

Obstetric House-Physicians.—(Senior) A. K. Hamilton, M.B., B.S.Lond., M.R.C.S., L.R.C.P.; (Junior) W. G. Marsden, B.A., B.C.Cantab., M.R.C.S., L.R.C.P.

Ophthalmic House-Surgeons.—P. Verdon, B.A.Cantab., M.R.C.S., L.R.C.P.

Clinical Assistants.—Throat: F. E. Daunt, M.R.C.P., L.R.C.P. Skin: C. D. H. Corbett, M.A., M.D., B.Ch.Oxon., M.R.C.S., L.R.C.P.(Ext.). Ear: W. J. T. Kimber, M.R.C.S., L.R.C.P.; T. E. Banister, B.A.Cantab., M.R.C.S., L.R.C.P.; Children's Surgical: G. H. Roberts, M.R.C.S., L.R.C.P.; W. J. F. Symons, B.A.Cantab., M.R.C.S., L.R.C.P. Children's Medical: P. G. Doyne, B.A.Oxon., M.R.C.S., L.R.C.P.; W. J. T. Kimber, M.R.C.S., L.R.C.P.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

JORDAN.—On February 19th, at 11, Bentinck Street, W., to Dr. and Mrs. Alfred C. Jordan, a son.

SEDGWICK.—On February 15th, at Erlaforde, Doncaster Road, Rotherham, the wife of G. H. Sedgwick, M.R.C.S., L.R.C.P., of a daughter.

DEATH.

BURNEY.—On January 31st, at 34, Hardy Road, Blackheath, Walter Charles Skardon Burney, after a very short illness, aged 64.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—(1) Unilateral Renal Lesions, Mr. Ralph Thompson, to be followed by Mr. Thomson Walker and others. (2) Some Experiments on the Urinary Excretion of Potassium Iodide, and Their Clinical Significance, Dr. O. Kauffmann.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Upright Posture: Its Evolution and Disease.

ROYAL SOCIETY OF MEDICINE:

ODONTOLOGY SECTION, 1, Wimpole Street, W., 8 p.m.—Mr. G. H. Berwick: Restoration after Surgical Operations. Casual Communications:—Mr. A. E. Ironside: Hypertrophy of Gums in Child, patient present. Mr. L. Stanley Kettlewell: Fibroma of Maxilla. Mr. H. J. Relph: Odontome. Mr. F. J. Smyth: Misplaced Mandibular Canine.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Goulstonian Lecture by Dr. A. J. Jex-Blake: Death by Lightning and Electric Currents.

ROYAL SOCIETY OF MEDICINE:

MEDICAL SECTION, 1, Wimpole Street, W., 5.30 p.m.—Papers:—Dr F. Parkes Weber: The Prognostic Significance of Secondary Polycythaemia in Cardio-pulmonary Cases. Dr. Gordon R. Ward: Some Cases of Polycythaemia.

WEDNESDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Upright Posture: Its Evolution and Disease.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Goulstonian Lecture by Dr. A. J. Jex-Blake: Death by Lightning and Electric Currents.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Arthur Keith: The Upright Posture: Its Evolution and Disease.

ROYAL SOCIETY OF MEDICINE:

EPIDEMIOLOGICAL SECTION, 1, Wimpole Street, W., 8.30 p.m.—Papers:—Dr. William Butler: Measles. Mr. B. Glanville Corney, I.S.O.: A Note on an Epidemic of Measles at Rotunda, 1911.

Royal Society of Medicine:

Study of Disease in Children Section.—1, Wimpole Street, W., 4.3 p.m.—Cases:—Dr. F. Parkes Weber: Flexion and Ulnar Deflexion of the Fingers. Dr. F. G. Crookshank: Mongoloid Child of European Descent. Mr. J. E. Adams: Two Cases in the same Family of Congenital Coalescence of Radius and Ulna. Mr. Douglas Drew: (1) Plastic Operation for Contraction after Burn of the Hand: (2) Plating for Separation of Lower Epiphysis of Femur, done three years ago, plate not removed; (3) Large Lymphangeioma removed from an Infant of 9 months. Mr. E. M. Corner: (1) Costo-transversectomy, done three and a-half years ago; (2) Congenital Absence of Fibula. Dr. E. Cautley: Chronic Albuminuria with Hepatic Enlargement. Paper:—Dr. H. Charles Cameron: Summer Diarhœa and Summer Heat.

Society of Tropical Medicine and Hygiene, 11, Chandos Street, W., 8.30 p.m.—Dr. Sandwith will open a discussion on Pellagra, and read a paper entitled "Can Pellagra be One of the Diseases Due to Deficiency of Nutrition?" Paper: Fatal Pellagra in Two English Boys, with the results of Pathological Investigation of one Case. Communicated by Drs. Charles R. Box and F. W. Mott, F.R.S.

POST-GRADUATE COURSES AND LECTURES.

Brompton Hospital for Consumption and Diseases of the Chest.—Wednesday, 4.30 p.m.—The Aid of Radiography in the Diagnosis of Intrathoracic New Formations.

Cancer Hospital, Fulham Road, S.W., Wednesday, 5 p.m.—Treatment of Inoperable Cancer.

London School of Clinical Medicine, Dreadnought Hospital, Greenwich.—Daily arrangements: Out-patient Demonstration, 10 a.m., Medical and Surgical Clinics. Monday: 12 noon, Throat, Nose, and Ear; 2.15 p.m., Surgery; 3 p.m., Operations; 3.15 p.m., Medicine; 4.15 p.m., Ear and Throat. Tuesday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Surgery; 3.15 p.m., Medicine; 4.15 p.m., Skin. Wednesday: 11 a.m., Eye; 2 p.m., Operations: 2.15 p.m., Medicine; 3.15 p.m., Eye Clinic; 4.30 p.m., Surgery. Thursday: 12 noon, Throat, Nose, and Ear; 2 p.m., Operations, Pathological Demonstration; 3.15 p.m., Medicine. Friday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Surgery. Saturday: 10 a.m., Radiography; 11 a.m., Eye.

London Hospital Medical College, E.—Monday, 4.30 p.m.: Lesions of the Peripheral Nervous System and Spinal Cord. Tuesday, 4.30 p.m.: Pathology of the Central Nervous System. Wednesday, 4.30 p.m.: Clinical Anatomy and Regional Diagnosis. Friday, 4.30 p.m.: Common Diseases of the Nervous System.

London School of Tropical Medicine, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical laboratory work daily (Saturday excepted), 10 to 12 a.m. Practical Entomology, 2 to 3.30 daily. Special Entomology, 10.30 to 1 p.m. daily. Medical Clinics, Tuesday and Thursday at 3 p.m. Operations, Friday at 3 p.m.

Manchester: Ancoats Hospital Post-Graduate Clinic, Thursday, 4.15 p.m.—Mitral Stenosis.

Manchester Royal Infirmary.—Tuesday, 4.30 p.m.: Abdominal Radical Operation for Carcinoma of the Cervix Uteri. Friday, 4.30 p.m.: Surgical Demonstration.

Medical Graduates' College and Polyclinic, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follows: Monday, Abdominal Injuries. Tuesday, Late Puerperal Complications. Wednesday, Acquired Mental Defect. Thursday, Deformities of the Penis and their Treatment. Friday, The Tonsils.

National Hospital for the Paralysed and Epileptic, Queen Square, W.C.—Tuesday, 3.30 p.m.: Treatment of Motor Paralysis. Friday, 3.30 p.m.: Treatment of Ataxia.

North-East London Post-Graduate College, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m.; Lecture: Some Conditions Simulating Appendicitis. Wednesday, 2 p.m., Throat Operations; 2.3 p.m., Medical Out-patient; Skin and Eye Clinics; X rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration; 4.30 p.m., Lecture: Chronic Glaucoma and the New Operations for its Cure.

Royal Hospital for Diseases of the Chest, City Road, E.C.—Monday, 4.30 p.m.: Climate in Relation to Pulmonary Tuberculosis. Thursday, 4.30 p.m.: Valvular Disease of the Heart.

West London Post-Graduate College, Hammersmith Road, W.—The following are the arrangements for next week: Medical and Surgical Clinics, X Rays, and Operations, 2 p.m. daily. Monday: Gynaecology, 10 a.m.; Medical Registrar, 10.30 a.m.; Pathological Demonstration, 12 noon: Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Surgical Registrar, 10.30 a.m.; Demonstration of Fractures, etc., 12 noon; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m.; Lecture, Abdominal Diagnosis, 12 noon; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10.30 a.m.; Lecture, Neurological Cases, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Demonstration at Victoria Park Hospital, 10.30 a.m.; Lecture, Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.; Surgical Registrar, 10.30 a.m.; Lecture, Surgical Anatomy of the Abdomen, 12 noon. Lectures at 5 p.m.: Monday, Operations for Hernia; Tuesday, Clinical Lecture (Urinary Surgery); Wednesday, Granular Kidney; Thursday, The Mouth as a Source of Infection, Local and General; Friday, Cases of Skin Disease.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		FEBRUARY.
21	Fri.	Isle of Thanet Division, Margate, 3.45 p.m.
		Newcastle-on-Tyne Division, Scientific Demonstration, Royal Victoria Infirmary.
26	Wed.	Bath and Bristol Branch, Bath, 8 p.m.
		Leicester and Rutland Division, Leicester, 4 p.m.
27	Thur.	Staffordshire Branch, Stafford, 5.15 p.m.; dinner, 7 p.m.
28	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		MARCH.
4	Tues.	Coventry Division, Coventry Hospital, 8.30 p.m.
5	Wed.	London: Finance Committee, Special Meeting.
11	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
		City Division, Manor Lodge, Upper Clapton, 9.30 p.m.
13	Thur.	Birmingham Branch, Medical Institute, 3.30 p.m.
		South-West Essex Division, Leyton, 4 p.m.
14	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.

Date.		Meetings to be Held.
		MARCH (*continued*).
19	Wed.	Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
28	Fri.	London: Journal Committee, 2 p.m.
		Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		Newcastle-on-Tyne Division, Scientific Demonstration.
		APRIL.
8	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
11	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
		South-West Essex Division, Brook House, Clapton, 9.30 p.m.
23	Wed.	Richmond Division, Richmond, 8.30 p.m.
24	Thur.	South-West Essex Division, Walthamstow Hospital, 4 p.m.
25	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 1st, 1913.

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National Insurance.

LOCAL MEDICAL COMMITTEES.

Under this head it is proposed to publish regularly reports of meetings of Local Medical Committees. The State Sickness Insurance Committee, at its meeting on February 20th, directed a communication to be addressed to the honorary secretaries of Divisions intimating that the columns of the JOURNAL *would be open for this purpose, and at the same time asking for information as to the names of the chairmen and secretaries of Local Medical Committees and of the medical practitioners elected upon the Local Insurance Committees of counties and other areas.*

ABERDEENSHIRE.

A LOCAL Medical Committee for the county of Aberdeenshire has been constituted as follows:

Dr. Rorie (Cults), Chairman.
Dr. Rannie (Culter), Vice-Chairman.
Dr. Bruce (Cults), Secretary.
Dr. Forbes (Inverurie).
Dr. Henry (Kemnay).
Dr. Hendry (Ballater).
Dr. Nicol (Alford).
Dr. Beddie (Fraserburgh).
Dr. Trail (Fraserburgh).
Dr. Trail (Strichen).
Dr. Wilson (Huntly).
Dr. Skinner (Skene).
Dr. Cockburn (Oldmeldrum).
Dr. Crarer (Turriff).
Dr. Middleton (Peterhead).
Dr. Smith (Peterhead).
Dr. Cran (Banchory).
Dr. Christie (Woodside).

A subcommittee appointed to consider various points reported to a meeting summoned by the Local Medical Committee of the doctors on the panel held on January 24th at the Medico-Chirurgical Society's Hall, Aberdeen.

This meeting arrived at a number of conclusions, and the Local Medical Committee subsequently had a conference with the County Insurance Committee, when an agreement was reached on many of the questions. The points raised included the supply of drugs and appliances, which, in the unanimous opinion of the Medical Committee, should be governed by Paragraph 30 of the Regulations. That paragraph provides that in a rural area the committee may make arrangements for the supply to an insured person of drugs and appliances by the practitioner attending him at a distance of more than one mile from the place of business of a chemist who is on the list. It was agreed that Sunday surgery hours for insured persons should be discontinued, and that the Insurance Committee, when issuing its local regulations, should minimize all Sunday work. It was further arranged that all notices of visits requested should be left before 10 a.m., except in cases of genuine emergency. The Local Medical Committee has made further representations, including an offer that visits within one mile should be free from mileage, which was considered a more fair offer than the three miles free from mileage proposed by the Commissioners. The Local Medical Committee has also decided that as dentistry is not a legal obligation under the Act, the minimum fee for extracting should be 1s. 6d., exclusive of local anaesthetics. It also resolved that

the rate for attendance on uninsured club members should be 7s. a head, exclusive of medicine, within a radius of three miles, insured persons over 65 to be taken at the same rate. The Committee considered the probability that a demand would be made in time for the treatment of all dependants of insured persons at a capitation rate, and adopted the following tariff as the basis for subsequent arrangement and calculation:

Minimum Tariff for Attendance on Dependants of Insured Persons.

Ordinary visit, 2s. 6d., *plus* suitable mileage above one mile.
Consultation at home, 2s. 6d.
Tooth extraction, 2s. 6d., with local anaesthetic when required.
Visit between 8 p.m. and 8 a.m., double fee.
Sunday visit, fee and a half.
Certificate, 2s. 6d.
Midwifery, £1 1s.; with anaesthetic, £1 5s.
Abortion with operative interference, as confinement.
Abortion without operative interference, at ordinary visit rates.
Fractures and dislocations—setting or reducing without anaesthetic, 10s. 6d.; with anaesthetic, £1 1s.
Minor operations with local anaesthetic, 5s.
(In all cases with suitable mileage.)

Expenses of Committee.

It was unanimously resolved that a levy of 2s. 6d. be made on each medical man on the panel to cover current expenses for printing, postage, etc.

County Insurance Committee.

The Commissioners for Scotland have accepted the nominations of the Local Medical Committee of members of the County Insurance Committee as follows:

Representatives of Practitioners.—Dr. Rorie (Cults), Dr. Beddie (Fraserburgh).
Representatives of Commissioners. — Dr. Bruce (Cults), Dr. Skinner (Skene).
Representatives of County Council.—Dr. Maver (Bucksburn), Dr. Trail (Fraserburgh).

PLYMOUTH.

The following is a list of members of the Plymouth Local Medical Committee:

Robert Jaques, F.R.C.S., Chairman
Paul Swain, F.R.C.S.Eng.
E. L. Fox, M.D.Lond.
E. B. Thomson, M.D.
R. B. Burke, L.R.C.P. and S.
H. R. Corbett, M.B., B.Ch.
H. H. Parsloe, M.R.C.S.
Robert Simpson, L.R.C.P. and S.
R. H. Wagner, M.D., M.Ch.
Fielding Whitmore, M.R.C.S.
T. B. P. Wilkinson, M.B., B.Ch.
W. L. Woolcombe, F.R.C.S.Ed.
H. B. Palmer, L.R.C.S.
Rosa Bale, L.R.C.P. and S.
W. F. MacCarthy, M.D.
C. J. Cooke, M.D. (1, Sussex Terrace, Plymouth), Honorary Secretary
E. J. Donbavand, M.R.C.S., *ex officio.*

The medical representatives elected by the profession to serve on the Insurance Committee are Drs. Robert Simpson and R. H. Wagner. Those elected to the Medical Service Subcommittee are Drs. E. L. Fox and E. B. Thomson and Mr. W. L. Woolcombe.

BOSTON.

A meeting of the Local Medical Committee was held on February 7th, when there were present Dr. Smith (in the chair), Drs. White, Pilcher, W. H. Smith, R. Tuxford, and the Secretary (Dr. Wilson).

Statutory Recognition.—It was resolved to apply for statutory recognition, and the Secretary was instructed to take the necessary steps.

Election to Local Medical Committee.—The Committee, having power to add to its number, unanimously elected Dr. S. H. Perry of Spalding.

Election of Representatives on Insurance Committee.—It was resolved to leave the matter of the election of representatives to the Holland Insurance Committee to the special meeting of the Division.

CONSTITUTION OF OTHER COMMITTEES.

Information as to the constitution of other local medical committees will be found in the report of the Reigate and Brighton Divisions of the South-Eastern Branch, and in that of the East Hertfordshire Division of the Metropolitan Counties Branch (pp. 223, 224, 225).

LOCAL INSURANCE COMMITTEES.

The Insurance Commissioners have declared the following medical practitioners to have been elected to serve on Insurance Committees in England by the medical practitioners resident in the several areas shown below in accordance with the Regulations made by the Commissioners under Section 59 (2) (c) of the National Insurance Act, 1911.

County Insurance Committees.

Bedfordshire.
Bone, John W., Luton

Berkshire.
Joy, N. H., Bradfield
Jones, P. Napier, Crowthorne

Buckinghamshire.
Baker, J. C., Aylesbury
Dickson, J. Dunbar, Great Marlow

Cambridgeshire.
Deighton, F., Cambridge
Ennion, O. R., Burwell

Cheshire.
Cooper, Percy R., Bowdon
Hughes, J. Brierley, Macclesfield

Cornwall.
Permewan, A. E., Redruth
Webb, J. E., Looe

Cumberland.
Crerar, J. W., Maryport
Fisher, J. B., Whitehaven

Derbyshire.
Court, J., Staveley, nr. Chesterfield
Tobin, J. J., Ilkeston

Devonshire.
Coombe, Russell, Exeter
Pearson, Ellis, Bideford

Dorsetshire.
Le Fleming, E. K., Wimborne
Miller, J., Weymouth

Durham.
Todd, D. F., Sunderland
Farquharson, A. C., Bishop Auckland

Essex.
Clowes, W. F. A., Colchester
Salter, J. H., Witham

Gloucestershire.
Condor, A. F. R., Cheltenham
Waddy, H. E., Gloucester

Herefordshire.
Morris, E. F., Hereford
Williams, E. G. H., Colwall, Malvern

Hertfordshire.
Boyd, A. J., Ware
Fisher, F. C., Kings Langley

Huntingdonshire.
Grove, W. R., St. Ives
Robertson, A. S., Peterborough

Isle of Ely.
Meacock, H. C., Wisbech
Nix, R. E., Chatteris

Isle of Wight.
Davis, J. D., Ryde
Wood, G. B., Sandown

Kent.
Heggs, T. B., Sittingbourne
Potts, G., Maidstone

Lancashire.
Helme, T. A., Manchester
Oldham, H. F., Morecambe

Leicestershire.
Burkitt, J. C. S., Whitwick
Harris, G. J., Anstey

Lincolnshire—Holland.
Perry, S. H., Spalding
Wilson, A. E., Boston

Lincolnshire—Kesteven.
Frier, C., Grantham
Macdonald, J. A., Woolsthorpe-by-Grantham

Lincolnshire—Lindsey.
Behrendt, M. R. J., Scunthorpe
Ffrench, W. J. L., Barnetby, Lincoln

London.
Turner, E. B.
Jones, Evan

Middlesex.
French, G. W. H., Hornsey
Lowry, E. W., Brentford

Norfolk.
Belding, D. T., East Dereham
Manby, Sir A. R., M.V.O., East Rudham

Northamptonshire.
Baxter, S. E., Woolaston, Wellingborough
Dryland, L. W., Kettering

Northumberland.
Campbell, W. S., Monkseaton
Dickie, H., Morpeth

Nottinghamshire.
Appleby, F. H., Newark-on-Trent
Houfton, E. H., Mansfield

Oxfordshire.
Jones, George H., Deddington

Salop.
Exham, A. R. F., Market Drayton
Urwick, R. H., Shrewsbury

Soke of Peterborough.
Cane, L. B., Peterborough
Hay, W. P., Peterborough

Somerset.
Bristowe, H. C., Wrington
Temple, G. H., Weston-super-Mare

Southampton.
Godwin, H. J., Winchester
Stephens, L. E. W., Emsworth

Staffordshire.
Bailey, T. R., Bilston
Hodder, A. E., Stafford

Suffolk, East.
Askin, T. Cuming, Woodbridge
Evans, H. M., Lowestoft

Suffolk, West.
Batt, B. E. A., Bury St. Edmunds
Wood, O. R. M., Woolpit, Bury St. Edmunds

Surrey.
Cowie, G., Wimbledon
Lyndon, A., Haslemere

Sussex, East.
Benham, C. H., Hove
Young, B. M., Hassocks

Sussex, West.
Eustace, G. W., Arundel
Milbank-Smith, H. J. M., Worthing

Warwick.
Greene, R. L., Stratford-on-Avon
Relton, B., Rugby

Westmoreland.
Cockill, W. B., Kendal
Haswell, J. F., Penrith

Wiltshire.
Haydon, T. H., Marlborough

Worcestershire.
Hawkins, C. L., Bromsgrove
Moore, H. E., Stourport

Yorkshire, East Riding.
Soutter, J., Hedon
Gillespie, A., Sutton-on-Hull

Yorkshire, North Riding.
Baigent, W., Northallerton
Mills, T. I., Easingwold

Yorkshire, West Riding.
May, R., Wakefield
Russell, J., Batley

COUNTY BOROUGH INSURANCE COMMITTEES.

Barrow-in-Furness.
Livingston, J.
Reed, J.

Bath.
Fraser, F.
Marsh, C. A.

Birkenhead.
Brewer, C.
Grimshaw, J.

Birmingham.
Aldren, B. C. R. (Edgbaston)
Dain, H. G. (Selly Oak)

Blackburn.
Greeves, F. J.
Rigby, W.

Blackpool.
Barton, H. T.
Butcher, T. W.

Bolton.
Mallett, F. R.
Mothersole, R. D.

Bootle.
Macleay, A. R.
Saunders, J. C.

Bournemouth.
Davidson, W.
Vernon, A. H.

Bradford.
Allan, J. F.
Shackleton, H.

Brighton.
Fothergill, E. R.
Jacomb-Hood, C. J.

Bristol.
Moore, L. A.
Wallace, J. W.

Burnley.
Scott, T. M.
Robinson, H. J.

Burton-on-Trent.
Stack, E. C.
Thompson, C.

Chester.
Rutherfoord, H. E.

Coventry.
Hawley, A.
Lowman, W. H.

Croydon.
Wayte, J.
Willock, E. H.

Derby.
Barber, H.
Smiley, G. K.

Devonport.
McCulloch, E.

Dudley.
Higgs, T. F.
Messiter, M. A.

Eastbourne.
Ewart, J. H.
Smith, W. M.

Exeter.
Coombe, Russell
Steele-Perkins, J. S.

Gateshead.
Stewart, C. R.
Durant, W. J.

Gloucester.
Goss, J.
Finlay, D. E.

Great Yarmouth.
Gilmour, P. G. (Gorleston)
Potts, H. (Great Yarmouth)

Grimsby.
Bruce, J.
Rowell, W. H.

Halifax.
Drury, A.
Steel, P. K.

Huddersfield.
McCully, A. L.
Tansley, H. G.

Ipswich.
Heath, H. L.
Young, A. C.

Kingston-on-Hull.
Divine, J.
Milburn, C. H.

Leeds.
Bell, T. D.
Ewing, J.

Leicester.
Henry, R. W. W.
Holmes, W. M.

Lincoln.
Daman, T. W. A.
Lambert, F. S.

Liverpool.
Bennett, W. B.
Larkin, F. C.

Manchester.
Helme, T. A.
McGowan, R. G.

Middlesbrough.
Donaldson, J.
Jackson, H. W.

Newcastle-on-Tyne.
Russell, F.
Rutter, H. L.

Northampton.
Cropley, H.
Percival, G. H.

Norwich.
Bremner, J. M.
Crook, A.

Nottingham.
Charlton, A.
Fulton, A.

Oldham.
Henderson, R. G.
Pochin, P. L. (Werneth)

Oxford.
Higgs, E. W. M.

Plymouth.
Wagner, R. H.
Simpson, R.

Portsmouth.
Milne-Thomson, A. (Portsea)
Wright, A. (Southsea)

Preston.
Moony, A. P.
Pimblett, W. H.

Reading.
Holden, G. H. R.
Rowland, E. W. S.

Rochdale.
Bateman, W. H.
Carse, W. H.

Rotherham.
Pickin, J.
Slack, P.

St. Helens.
Graham, A.
Unsworth, J.

Salford.
Garrard, C. D. O. (Pendleton)
Hodgson, S.

Sheffield.
Forbes, A.
Sorley, J.

Southampton.
Aldridge, N. E.
Saunders, C. H.

Southport.
Littler, R. M.
Penrose, G. R.

South Shields.
Gowans, W.
McNab, L.

Stockport.
Goulden, E. A.
Marriott, H.

Stoke-on-Trent.
Day, G. (Hanley)
Russell, J. (Burslem)

Sunderland.
Dix, jun., R. H.
Wallace, H. K.

Tynemouth.
Harrison, J.
Mears, F. C.

Walsall.
Hawley, S. H.
Martin, A. J. (Bloxwich)

Warrington.
Fox, E. J.
Naden, J. B.

West Bromwich.
Morris, H. G.
Plummer, H. B. W.

West Ham.
Beadles, H. S. (Canning Town)
Dayus, F. H. (Forest Gate)

West Hartlepool.
Davis, E. H.
Gray, W.

Wigan.
Angior, T. M.
Blair, J.

Wolverhampton.
Craig, T. C.
Mactier, H. C.

Worcester.
Coombs, S. W.
Crowe, G. W.

York.
Craig, J. G.
Evelyn, W. A.

Dr. OLDHAM (Calton Cottage, Morecambe) telegraphs his thanks to the profession of Lancashire for the honour conferred upon him by his election to represent them on the County Insurance Committee. He will be glad to hear from any of his constituents in difficulties with the Insurance Act and its administration.

MEETINGS OF INSURANCE COMMITTEES.

LONDON INSURANCE COMMITTEE.

THE first public meeting of the London Insurance Committee was held on February 20th at the County Hall, Mr. J. A. DAWES, M.P., Chairman of the Committee, presiding. About forty of the eighty members of the Committee were present.

Inquiry as to the Death of an Insured Patient.

Almost the first business dealt with was a report by the Medical Service Subcommittee, which had been instructed to inquire into allegations made at an inquest on January 20th last that the amount of work imposed on the doctor in attendance, in consequence of the arrangements made under the Insurance Act, was such as to preclude the doctor from properly attending his patients. The subcommittee reported that it had considered the details of the case, and had been able to supplement the information before it by evidence furnished by Dr. G. Blake Hickson, the medical practitioner concerned, who had attended the meeting of the subcommittee.

The subcommittee had come to the conclusion that the circumstances attending the case were unprecedented and unlikely to recur; that the patient on the second day did not make any statement to Dr. Hickson which would lead him to believe that the man was seriously ill, and that Dr. Hickson, owing to the crowd of persons in his consulting-room, did not proceed as far in his investigation of the case as he might have done in ordinary circumstances. The subcommittee considered that arrangements made by the Insurance Committee for supplying the necessary forms to medical practitioners were the best that could be made in the circumstances. At the same time the subcommittee considered it a matter of regret that the inevitable pressure put on medical men during the inception

of the Act was aggravated by the necessity of putting into effect at a very late stage temporary arrangements involving great additional work on all concerned. The period of uncertainty due to the prolonged negotiations with the medical profession was probably responsible for this; the effect was that it was not possible for the medical profession to estimate the amount of work that would be necessary.

The amount of work imposed upon doctors by the Act and Regulations and the arrangements of the Committee was not such as to preclude them from giving proper attendance under ordinary conditions, and the pressure at the inception of the Act was due to the rush of persons desiring to have their medical tickets endorsed.

Increased Sanatorium Accommodation.

With reference to the arrangements entered into with the London County Council and the Metropolitan Asylums Board for the reception at the Downs Sanatorium, Sutton, of 300 male patients suffering from tuberculosis, the Insurance Committee decided, on consideration of a detailed report as to the number of cases of tuberculosis within its jurisdiction, to ask the County Council to provide accommodation for 200 further cases as soon as possible (100 women, 50 advanced cases and 50 observation cases) and to inform the Council that further accommodation might be required at a later date.

Inadequacy of Funds for Sanatorium Benefit.

The Sanatorium Benefit Subcommittee submitted a long report with regard to the cost of tuberculosis treatment and the provision made by the Act. It was pointed out that of the 1s. 3d. per insured person allotted to sanatorium benefit, 6d. was earmarked for paying medical practitioners on the panel in respect of domiciliary treatment. Out of the total amount remaining—9d. per insured person—the Committee was required to provide drugs and accessories for insured persons receiving domiciliary, dispensary and out-patient hospital treatment, and treatment in sanatoriums and other institutions, and, in addition, to meet the administrative expenses. The cost of 500 beds at 30s. a week would be £39,000 a year, and after deducting this amount and the sum due to medical practitioners in respect of domiciliary treatment, very little would remain to cover the cost of other forms of treatment. The subcommittee therefore advised the Committee not to incur further expenditure by providing dispensary and out-patient hospital treatment, pending the receipt of definite information from the County Council as to the general scheme proposed for dealing with tuberculosis throughout the county. The attention of the Treasury should be drawn at once to the fact that the funds now available for defraying the whole cost of sanatorium benefit were inadequate, and that the sums originally available for all forms of treatment should be placed at the disposal of the Committee.

The Chairman said the suggestion of the subcommittee was that as the Treasury had originally allocated a larger sum than 9d. per head for this purpose, it should give a larger grant before Section 17 (2) of the Act was enforced enabling the Committee to call upon the County Council to contribute.

Mr. Cyril Jackson thought it a very serious thing that such a position as this should have arisen so soon after the passing of the Act. He hoped very strong representations would be made to the Treasury.

It was agreed that representations be made to the Treasury, and that the attention of the Insurance Committees of the principal cities of the country be called to the matter.

Domestic Servants and Contracting Out.

Some discussion then took place on a motion by Lady St. Helier that in view of the fact that domestic servants were being deprived of the services of the medical practitioners attending the family engaging them, it be referred to the Medical Benefit Subcommittee to consider arrangements for giving facilities to domestic servants to select their own doctors.

Mr. Kingsley Wood thought that if this proposal were adopted, the co-operation of a thousand medical men in London not now concerned in working the Act would be secured.

Mr. F. Coysh, Chairman of the General Purposes Subcommittee, regarded this as an insidious attempt to pledge the Committee to the policy of contracting out. He hoped the Committee would lay it down definitely and absolutely that it was opposed to contracting out, except in special cases which it would consider on their merits.

Mr. O. E. Warburg, Chairman of the Medical Service Subcommittee, did not think it desirable to limit the co-operation of the medical profession to the 1,200 men on the panel. He agreed with a remark made by Mr. Lloyd George that it was undesirable to have any distinction between panel doctors and others. The tone of some members who had taken part in the debate suggested that a doctor was to be hounded out of service under the Act unless he was prepared to go on the panel. There were many medical men who were prepared to co-operate in working the Act but who were not willing to go on the panel, and to make that a *sine qua non* was the likeliest way of wrecking any possibility of a settlement with the profession. The panel system was not appropriate to the treatment of the domestic servant and some other classes of workers. In the case of a domestic servant who went to her own home when ill, the panel doctor of that place would come under the clause which allowed him 1½d. a week for attending the patient. He saw no objection to handing over to the approved society the 7s. a head to which servants were entitled and allowing the society to make special arrangements with the medical profession.

The Chairman remarked that the matter might be covered by the form just issued by the Insurance Commissioners, which seemed to permit almost every conceivable form of contracting out. He also remarked that this question was under the consideration of a subcommittee.

The motion was lost by 29 votes to 9.

OFFICIAL DOCUMENTS.

PERSONS MAKING THEIR OWN ARRANGEMENTS.

The Insurance Commissioners have issued a memorandum (143/I.C.) with regard to the conditions which they will require to be fulfilled in respect of insured persons desiring, under Section 15 (3) of the Insurance Act, to make their own arrangements for medical attendance and treatment.

The document is as follows:

Applications under Section 15 (3) of the National Insurance Act, 1911, from Insured Persons Desirous of Making their own Arrangements for Medical Attendance and Treatment.

1. The Insurance Commissioners understand that Insurance Committees have experienced some difficulty with regard to applications from insured persons under Section 15 (3) of the National Insurance Act, and the following Memorandum is intended to assist Committees in dealing with such applications.

2. The Act does not contemplate arrangements under Section 15 (3) as an alternative to the normal panel system, but only as a provision to meet the exceptional cases of insured persons for whom, owing to their individual circumstances or to the circumstances of their occupation, special arrangements are more suitable than the arrangements made by the Committee.

3. Moreover, in considering applications from insured persons to be allowed to make their own arrangements for medical attendance and treatment, Insurance Committees will doubtless have regard not only to the special circumstances of each case, but also to the effect of their decision upon the general arrangements for the administration of medical benefit in their area.

4. Special circumstances in which an insured person may desire to obtain medical attendance and treatment otherwise than under the arrangements made by the Committee with practitioners on the panel include the following:

(*a*) Special disabilities arising out of the nature of the occupation which prevent the insured person from getting full advantage from the panel system (*e.g.*, commercial travellers, actors);

(*b*) Special advantages arising out of the nature of the occupation which enable insured persons to obtain a more convenient or more extensive medical service than that provided by the panel system (*e.g.*, nurses, hospital and asylum staffs);

(*c*) Circumstances in which the insured person desires a particular system of treatment not undertaken by doctors on the panel.

5. The majority of the applications with which Committees have to deal are received, it is understood, from insured persons desiring to obtain medical attendance and treatment from a particular practitioner who is not on the panel. Special discrimination must be exercised in dealing with such applications.

6. Some of the cases in which applications are made under Subsection (3) of Section 15 can be more suitably met by the Committee allowing the doctor whose services are desired to come on the panel for a limited number of insured persons or for particular insured persons only, as for instance in certain cases of domestic servants desiring to be attended by the doctor who attends the household. But this should only be done where the Committee have carefully satisfied themselves (1) that provision has already been made for all insured persons, (2) that the other doctors on the panel agree to the proposed arrangement, and (3) that the arrangement will not, at all events without the consent of the other doctors on the panel, result in the doctor who is admitted to the panel on these terms having on his list an undue proportion of selected lives.

7. With regard to the majority of applications received from persons desiring to obtain medical attendance from a practitioner not on the panel, it will be within the knowledge of the Committee that an attempt has been made by a section of the medical profession in certain districts to utilize the provisions of Subsection 3 of Section 15 of the Act for the purpose of setting up an alternative service in substitution for the normal system contemplated by Subsection 2. This would defeat the clear intention of the Act, which is that medical benefit should be administered by the Insurance Committee, and that the doctors who attend insured persons should as a rule do so under the arrangements made by the Committee, and not under private arrangements made with the insured persons directly. If a medical practitioner is prepared to attend any substantial number of insured persons, the proper course is for the practitioner to come on the panel.

8. On the other hand, there will doubtless be isolated cases in which the insured person desires to be attended by a practitioner who does not ordinarily undertake practice among the insured class and whose ordinary fees are possibly on a higher scale than the amount available from the Medical Benefit Fund would afford. Cases may also arise in which an insured woman desires to be attended by a practitioner of her own sex, and is willing, if necessary, to pay more than the ordinary rate of remuneration. Such cases as these would appear to fall within the class for which Subsection 3 was intended to provide. But before granting the application the Committee should ascertain that the insured person fully recognizes and accepts the liability for any excess of the doctor's charges beyond the amount which the Committee would be able to contribute.

Contribution.

9. The Act provides that the Insurance Committee shall, *subject to the Regulations*, make a contribution towards the cost of medical attendance and treatment in those cases in which they have allowed an applicant to make his own arrangements. The Regulations which have been made are concerned with four main points:

(1) The separation of medical attendance from the supply of medicines.

(2) The Committee's duty to the insured person, and indirectly to his approved society, as to the efficiency of the medical treatment arranged for;

(3) The enforcement of the conditions of the Exchequer Grant;

(4) The pooling arrangements necessary to carry out the provisions of the Subsection as to the Committee contributing "sums not exceeding in the aggregate the amounts which the Committee would otherwise have expended in providing medical benefit for them."

10. As these provisions are prescribed by the Regulations as conditions of contribution, it is desirable that the Committee should satisfy themselves that these conditions will be observed when considering an application, instead of allowing the insured person to incur expense under a misapprehension, only to find out later that through his non-observance of the conditions the Committee are unable to contribute.

11. Further, as already stated, it is desirable that the Committee should call the attention of applicants to the fact that they are liable to the doctor for any margin on his bills in excess of the Committee's contribution. There is reason to believe that this fact is not generally appreciated.

12. Except in cases in which the insured person has contracted to obtain treatment at a fixed rate, it will be necessary for the Committee, in pursuance of Regulation 49 (2) (*b*), to fix a scale of fees in accordance with which the expenditure of the insured person will require to be calculated by them.

Forms of Application.

13. In order to bring to the notice of applicants, as well as of doctors with whom they desire to make special arrangements, the conditions which must be complied with, and to enable the Committee at the same time to satisfy themselves both as to the presence of special circumstances and as to the efficiency of the service arranged for, the Commissioners have prepared the enclosed model form (43/I.C.) for the convenience of the Committee. This form, as will be seen, provides for a statement by the applicant of the special circumstances which prompt him to make application, and for an undertaking by the doctor by whom he proposes to be attended that the necessary conditions will be observed.

14. In the case, however, of persons who by reason of their occupation change their residence at such frequent intervals that they are unable to make arrangements with any single doctor, this form will be inapplicable. Such persons will be unable to obtain an undertaking from the doctor in advance; and the Committee will require to satisfy themselves as to the observance of the conditions when application is made for a contribution. The enclosed form (43 A/I.C.) has been prepared for issue in these special cases by the Committee to the applicant when they notify him of their consent to his application, and is intended to enable the insured person both to account to the Committee for that expenditure to which a contribution is desired, and at the same time to satisfy them that the necessary conditions have been complied with.

15. In the case of nurses or other insured persons employed in a hospital or similar institution to whom treatment would normally be given by doctors on the staff a further form of application will be found convenient.

16. The enclosed form (43 B/I.C.) provides for a collective application over the individual signatures of all the applicants, and for a general undertaking by the institution itself to comply with the necessary conditions of contribution by the Committee.

17. Regulation 49 (2) of the Medical Benefit Regulations provides as follows:

> "There shall be paid to every insured person required or allowed to make his own arrangements by way of contribution to the cost of his treatment (including medicines and appliances) an amount equal to that expended by him in obtaining treatment, medicine and appliances. Provided that
>
> (*a*) in the case of a person who has contracted to obtain treatment (including medicines and appliances) for the year, the sum to be paid shall be a sum equal to the amount contracted to be paid by him or a sum equal to the aggregate amount standing to the credit of the fund divided by the number of persons making their own arrangements, whichever is the less."

18. At the same time Regulation 49 (2) (*c*) expressly lays down that "it shall be a condition of any payment that the medicines and appliances supplied to any person required or allowed to make his own arrangements shall be supplied otherwise than by or at the profit of the practitioner who is attending him," except in certain circumstances.

19. It will be clear, therefore, that no insured person can make an inclusive contract to the expense of which the Committee would contribute for medical attendance and medicines with a doctor; and that for this reason inclusive contracts such as those implied in the terms of Regulation 49 (2) (*a*) must necessarily be made with some intermediate person or body by whom both doctor and dispenser are employed. The position of a Hospital or Asylum, however, as employing doctors and dispensers, enables it to make inclusive contracts with insured persons upon its staff; and, if this course is followed, the Insurance Committee will be enabled by Regulation 49 (2) (*a*) to make a contribution to the expense incurred by the insured person under such contract within the limits set forth in that Regulation.

20. It would, of course, be possible to arrange for hospital employees to be treated by the doctors on the staff otherwise than under the provisions of Section 15 (3) of the Act, if the doctors on the panel consented to the hospital doctors being placed on the panel for the treat-

ment of insured members of the staff only. This alternative course might conveniently be considered, especially in circumstances in which, owing to the local situation of the institution, it would be permissible for the insured employees to receive their medicines from the doctor in attendance under the provisions of Regulation 30.

National Health Insurance Commission (England),
Buckingham Gate, London, S.W.
February 18th, 1913.

Appended to the document is the following form (43 I.C.) for the use of insured persons desiring to make their own arrangements embodying an undertaking to be signed by the doctor, and instructions to insured persons:

(Page 1.)

NATIONAL INSURANCE ACT, 1911.

County
Insurance Committee for the ——— of .....
County Borough

(Address).....

If you desire to be allowed to make your own arrangements for medical attendance and treatment (including medicines and appliances) you must answer the following questions and obtain your doctor's signature to the accompanying undertaking (*see page* 2).

Before doing so you should carefully read the instructions set out overleaf (*see page* 3).

Question.	*Answer.*
(1) What are the special circumstances which cause you to desire to make your own arrangements for medical attendance and treatment, instead of receiving medical benefit under the arrangements made by the Insurance Committee?	
(2) By what doctor do you desire to be attended?	
(3) Has he attended you or your family previously? If so, for how long?	
(4) If you do not wish to arrange with a particular doctor, what arrangements do you desire to make?	

Name of Approved Society (or Branch)† .....
Number.....
Usual Signature.....
Address.....
Date.....

† If you are a Deposit Contributor, write here "Deposit Contributor."

Notice.—When you have filled up this form send it *together with your Medical Ticket* to the Clerk to the Insurance Committee at the above address.

(Page 2.)

Undertaking to be Signed by Doctor.

I, ——— of ——— undertake to give to ——— an insured person living at ——— medical attendance and treatment not inferior in nature quality or extent to that provided under the arrangements made by the Insurance Committee, and I undertake to comply in other respects with any conditions which, by reason of any scheme for the distribution of Parliamentary grant, must be complied with in the case of treatment provided otherwise, including—

(1) The keeping and furnishing of records,‡ in the form prescribed by the Insurance Commissioners, of the diseases of the insured person attended by me, and of any treatment of him, and of such further records as may at any time hereafter be agreed between the Insurance Committee and the Local Medical Committee;

(2) The furnishing, at the request of the insured person, of such certificates as are required to be furnished by him for the purposes of the National Insurance Act in connection with any claim for sickness or disablement benefit made by him in pursuance of the rules of the Society of which he is a member, or of the Committee, as the case may be, and

(3) The giving of any domiciliary treatment which may be required in the event of the insured person being recommended for Sanatorium Benefit.

I agree to give such reasonable facilities as may be necessary to enable the Insurance Committee or the Insurance Commissioners to satisfy themselves that the above conditions are being duly carried out in order that the insured person may be entitled to receive from the Insurance Committee a contribution towards the cost of the attendance and treatment given by me.

My remuneration for treatment of the insured person under the arrangement which I have made with him (*a*) will be calculated at a rate of ——— per quarter during the period ending ———

or†

(*b*) will be calculated on the basis of fees per attendance in accordance with the following scale:

	s.	d.
(1) Attendance on the patient at the practitioner's residence, surgery or dispensary		
(2) Visit to the patient's residence		
(3) Special Visit, *i.e.*, visit paid by the patient's desire on the same day as a call received after a.m., or on Sunday		
(4) Night Visit, *i.e.*, visit made between the hours of 8 p.m. and 8 a.m. in response to a call received between those hours		
(5) Surgical operation requiring local or general anaesthetic, or case of abortion or miscarriage ...		
(6) Administration of general anaesthetic ...		
(7) Setting of fracture		
(8) Reduction of dislocation		

and I agree to furnish quarterly a statement of attendances and treatment given during the preceding quarter under the foregoing heads.

I understand that it is a condition of any contribution by the Insurance Committee towards the cost of the insured person's treatment by me that I comply with the terms of this undertaking, and that any contribution will be limited in the manner described in the instructions below.

Signature.....

Date.....

‡ To obviate any danger of a breach of professional confidence, the prescribed form (which will be supplied by the Committee) will be perforated. The portion containing the name and address of the insured person and the attendances is to be sent to the Committee, and the other portion containing the nature of the illness, etc., to the Commissioners.

† Strike out either (*a*) or (*b*), whichever is inapplicable.

* The scale of fees should be completed by the doctor by the insertion in the appropriate spaces of the fees which he proposes to charge the insured person. If these fees are in excess of the scale of fees fixed by the Committee the excess would have to be borne by the insured person.

(Page 3.)

Instructions.

1. The Insurance Committee in considering an application from an insured person to be allowed to make his own arrangements for medical attendance and treatment will require to be satisfied that there are special circumstances affecting the applicant which justify them in granting the application and in making a contribution from the Fund out of which medical benefit is payable towards the cost of attendance and treatment obtained under such arrangements. They will also require to be satisfied that the treatment obtained will be of a nature quality and extent not inferior to that obtained by insured persons who are attended under the arrangements made by the Committee, and that the conditions are complied with upon which a Parliamentary Grant is made to the Committee for the purpose of the provision of medical benefit to insured persons. It is accordingly necessary that an undertaking in the form annexed should be signed by the doctor who undertakes the treatment of any insured person allowed to make his own arrangements.

2. The Committee in considering applications from persons who desire to be allowed to make their own arrangements will also have regard to the effect of such arrangements upon the general scheme of provision of medical benefit for insured persons in their area.

3. Subject to the necessary conditions being fulfilled, a contribution will be made by the Committee to the cost of attendance and treatment obtained by the person who is allowed to make his own arrangements.

4. The amount which an insured person can thus obtain as a contribution from the Insurance Committee towards the cost of his attendance and treatment is strictly limited. Sums not exceeding in the aggregate what it would have cost the Committee to provide medical benefit for all the insured persons in their area required or allowed to make their own arrangements will be carried annually to a fund called the Special Arrangements Fund, and the amount which can be contributed towards the cost of medical attendance and treatment including medicines and appliances of all insured persons in the area making their own arrangements cannot exceed the amount of this Fund, *plus* a sum eqnivalent to 6d. per head of all such insured persons in respect of the domiciliary treatment of tuberculosis.

5. Contributions towards the cost of obtaining medicines and appliances must be considered separately from contributions towards the cost of obtaining medical attendance and treatment.

6. No contributions can be made by the Insurance Committee towards the cost of medicines and appliances supplied by or at the profit of the doctor undertaking the treatment of the insured person except in the following cases:

(*a*) If the medicine is a medicine which is ordinarily administered by the doctor to the person or if the medicine or appliance is required immediately or before a supply can conveniently be obtained from the chemist.

(*b*) If the insured person is living in the country at a distance of more than one mile from a chemist, or if, owing to

special difficulties of communication, the insured person has received permission from the Insurance Committee to obtain medicines and appliances from the doctor attending him.

7. The arrangement with the doctor for giving medical attendance and treatment (excluding medicines and appliances) may be made either by contract, under which he agrees for a fixed sum per annum to provide all necessary attendance and treatment, or on the basis of payment by fees for service actually rendered.

(Page 4.)

8. If the doctor enters into a contract to give medical attendance and treatment (excluding medicines and appliances) for a fixed sum, the Insurance Committee will contribute a sum not exceeding the amount agreed to be paid under the contract and not exceeding thirteen-seventeenths or, if the Commissioners so allow, fourteen-seventeenths of the aggregate amount of the Special Arrangements Fund divided by the total number of persons making their own arrangements, plus a proportion of the sum set aside in respect of the domiciliary treatment of tuberculosis.

9. If the arrangement made with the doctor is for payment by the insured person of fees per attendance in respect of services actually rendered, *the insured person will be required to submit a detailed account of the services rendered and the charges incurred, and the amount expended by the insured person will then be calculated in accordance with the scale of fees fixed by the Committee* applying to all persons in its area who make their own arrangements in this way. The bills of the doctors calculated on this scale will be paid in full if the total amount of the bills does not exceed the total amount available in the pool. If the total amount of the bills exceeds the total amount in the pool the bills will be paid so far as the pool permits, the same proportion being paid on each bill, and the insured person in the absence of any special arrangements to the contrary will be liable to the doctor for the payment of the balance.*

10. In the exceptional circumstances in which a contribution can be made towards the cost of drugs supplied by the doctor the arrangement will be made by the patient with him for including the supply of drugs in the contract, if the arrangement be on the contract basis, or for his charging in his account for medicines actually supplied, and payment will be made in accordance with the same principle as in cases where the doctor provides medical attendance and treatment only.

11. In the cases in which the doctor does not supply medicines or appliances the insured person will present to the Committee the chemist's account, and the Committee will contribute to the cost so far as the amount available in the appropriate pool permits, and if the aggregate accounts exceed the total amount in the pool the same proportion will be paid on each.

PERSONS IN THE EMPLOYMENT OF HOSPITALS.

Another form (43 (b) /I.C.) is for the use of insured persons employed at hospitals, asylums, and other institutions making application under Section 15 (3). It authorizes the governing body of the institution to receive on behalf of signatories the contributions payable by the Insurance Committee toward the cost of medical treatment, and contains a form of acceptance of these responsibilities of the governing body.

CHANGE OF ADDRESS.

Another form (43 (a) /I.C.) consists of instructions to insured persons making their own arrangements for medical attendance who, by reason of the nature of their occupation, changed their residence too frequently to make arrangements with a single doctor. It is as follows:

Instructions to Insured Persons making their Own Arrangements for obtaining Medical Attendance, who by Reason of the Nature of their Occupation change their Residence too frequently to make Arrangements with a Single Doctor.

1. It is the duty of the Insurance Committee to satisfy themselves before making a contribution towards the expense incurred by a person making his own arrangements that the treatment obtained under such arrangements is in nature quality and extent not inferior to that obtained by insured persons who are attended under the arrangements made by the Committee, and that the conditions upon which a Parliamentary Grant is made to the Committee for the purpose of the provision of medical benefit to insured persons are complied with, including—

(1) the keeping and furnishing of records, in the form prescribed by the Insurance Commissioners, of the diseases of the insured person attended, and of any treatment of him, and of such further records as may at any time hereafter be agreed between the Insurance Committee and the Local Medical Committee;

(2) the furnishing, at the request of the insured person, of such certificates as are required to be furnished by him for the purposes of the National Insurance Act in connection with any claim for sickness or disablement benefit made by him in pursuance of the rules of the Society of which he is a member, or of the Committee, as the case may be, and

(3) the giving of any domiciliary treatment which may be required in the event of the insured person being recommended for Sanatorium Benefit.

2. In normal circumstance, in order to protect the insured person from incurring expense under a misapprehension, only to discover subsequently that in consequence of non-compliance with the necessary conditions, the Committee are unable to contribute, the Committee have taken steps to satisfy themselves upon the matters referred to before allowing the insured person to make his own arrangements, by requiring an undertaking from the doctor by whom the applicant proposes to be attended that the requisite conditions will be observed. In the case, however, of those insured persons who, by reason of the nature of their occupation, change their residence so frequently as to be unable to make arrangements with any single doctor, it will presumably not be possible for them to satisfy the Committee in advance, and it will therefore rest with the insured person to afford evidence of compliance with the conditions at the time when he applies for a contribution from the Committee.

3. Subject to the necessary conditions being fulfilled, a contribution will be made by the Committee to the cost of attendance and treatment obtained by the person who is allowed to make his own arrangements.

4. The amount which an insured person can thus obtain as a contribution from the Insurance Committee towards the cost of his attendance and treatment is strictly limited. Sums not exceeding in the aggregate what it would have cost the Committee to provide medical benefit for all the insured persons in their area required or allowed to make their own arrangements will be carried annually to a fund called the Special Arrangements Fund, and the amount which can be contributed towards the cost of medical attendance and treatment, including medicines and appliances of all insured persons in the area making their own arrangements, cannot exceed the amount of this Fund.

5. Contributions towards the cost of obtaining medicines and appliances must be considered separately from contributions towards the cost of obtaining medical attendance and treatment.

6. No contributions can be made by the Insurance Committee towards the cost of medicines and appliances supplied by or at the profit of the doctor undertaking the treatment of the insured person except in the following cases:—

(*a*) If the medicine is a medicine which is ordinarily administered by the doctor to the person, or if the medicine or appliance is required immediately or before a supply can conveniently be obtained from the chemist; *or*

(*b*) If the insured person is living in the country at a distance of more than one mile from a chemist, or if, owing to special difficulties of communication, the insured person has received permission from the Insurance Committee to obtain medicines and appliances from the doctor attending him.

7. The arrangement with the doctor for giving medical attendance and treatment (excluding medicines and appliances) may be made on the basis of payment by fees for services actually rendered; and it is presumed that this method will be usually adopted by persons frequently changing their place of residence.

8. If the arrangement made with the doctor is for payment by the insured person of fees per attendance in respect of services actually rendered, *the insured person will be required at the end of the year to submit a detailed*

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* *Scale of Fees Fixed by the Committee.*

	s.	d.
(1) Attendance on the patient at the practitioner's residence, surgery, or dispensary ...		
(2) Visit to the patient's residence		
(3) Special Visit, *i.e.*, visit paid by the patient's desire on the same day as a call received after a.m., or on Sunday		
(4) Night Visit, *i.e.*, visit made between the hours of 8 p.m. and 8 a.m. in response to a call received between those hours		
(5) Surgical operation requiring local or general anaesthetic, or case of abortion or miscarriage		
(6) Administration of general anaesthetic ...		
(7) Setting of fracture		
(8) Reduction of dislocation		

account of the services rendered and the charges incurred, and the amount expended by the insured person will then be calculated in accordance with the scale of fees fixed by the Committee applying to all persons in its area who make their own arrangements in this way. The bills of the doctors calculated on this scale will be paid in full if the total amount of the bills does not exceed the total amount available in the pool. If the total amount of the bills exceeds the total amount in the pool, the bills will be paid so far as the pool permits, the same proportion being paid on each bill, and the insured person, in the absence of any special arrangements to the contrary, will be liable to the doctor for the payment of the balance.

10. In the exceptional circumstances in which a contribution can be made towards the cost of the drugs supplied by the doctor arrangements will be made by the patient with him for his charging in a separate account for medicines actually supplied, and payment will be made in accordance with the same principles as in cases where the doctor provides medical attendance and treatment only.

11. In the cases in which the doctor does not supply medicines or appliances the insured person will present to the Committee the chemists' accounts, and the Committee will contribute to the cost so far as the amount available in the appropriate pool permits. If the aggregate accounts exceed the total amount in the pool the same proportion will be paid on each.

Appended are schedules. The first is a form of which the amounts in the scale of fees to be fixed by the Committee are to be entered, the second the form of application for a contribution towards the expense incurred by the insured person obtaining medical attendance and treatment, setting out in detail the number of each kind of service given and the charge made in respect of each item verified by the secretary or the doctor, and a form to be forwarded for statistical purposes to the National Health Insurance Commissioners in England.

UNINSURED PERSONS.

CANNOCK CHASE.

FROM a report in the *Midland Evening News* of February 18th we learn that a meeting of the local lodge of the Ancient Order of Oddfellows, Cannock, at which the attendance was unusually large, had been held on the previous evening. This report contained the following paragraph:

It was also decided to agree to the following terms with the doctors for uninsured persons:

Adults, 3s. per head.
Juveniles, 2s. per head.
"Exempts," 6s. per head.

A considerable amount of discussion took place with reference to two matters as to whether it was not possible to bring all in under the 3s. and 2s. basis, but eventually the terms were agreed to unanimously, on the recommendation of the corresponding secretary.

Another newspaper—*The Advertiser*—in its issue of February 25th, contains a paragraph on the subject, from which we quote the following:

The competition between the local doctors for the treatment of the members of friendly societies who are not covered by the National Health Insurance Act, has been ended by their acceptance of the scale of charges offered by the Friendly Societies' Council. From the financial point of view, the medical men are now worse off than they would have been if they had adhered to the original scale agreed upon between themselves. The friendly societies and their members, on the other hand, have gained considerably, not the least of the gains being that all classes of club members in the district have now free choice of doctor. The club doctor, in the old sense of the term, no longer exists, and there is now no restriction on any members as to which doctor they shall call in in cases of sickness, provided the doctor in question has accepted them as prospective patients. Another matter of considerable importance, which was brought up and decided as an indirect result of the doctors' disagreement, concerns the method of payment of fees. It has now been agreed that secretaries and doctors shall have no individual financial dealings with each other, and that the money owed by clubs for medical treatment shall be forwarded to the executive body of the local association of doctors for distribution. This will mean less labour for secretaries, and it will not make any appreciable addition to the work of the doctors, so that the arrangement should give satisfaction to both sides.

In spite of this explanation we find some difficulty in understanding the position. We do not understand what is meant by "exempts," but if the facts with regard to adults and juveniles are correctly stated by the *Midland Evening News*—and we have good reason to believe they are—the doctors in Cannock Chase appear not only to have failed in defending their own interests, but have set a very bad example to the rest of the country.

REPORTS OF LOCAL ACTION.

GILLINGHAM, KENT.

THE failure to form an adequate panel in Gillingham, a municipal borough of over 50,000 inhabitants on the south-east side of Chatham, has led the Kent Insurance Committee to appoint a special subcommittee to endeavour to make arrangements. This subcommittee, having failed to convince the medical practitioners in Gillingham of the advantages of joining the panel, resolved to ask the Kent Insurance Committee to authorize it to apply to the Insurance Commissioners to appoint three whole-time doctors. It would appear that the Kent Medical Committee has arranged a scheme for the county with the Kent Insurance Committee; but that it has not been accepted in Gillingham, as is shown by the following letter addressed to the Kent Insurance Committee by Dr. Courtenay Lord, writing on behalf of the Gillingham practitioners:

Gillingham, Kent,
February 9th, 1913.

Gentlemen,—We are in receipt of your resolutions through Dr. Potts of the Kent County Medical Committee.

Resolution No. 1 expresses regret that we have not fallen in with the Kent County scheme. Our chief reason for the attitude adopted is that the scheme is merely the Government scheme under a new name, and involves accepting a state of affairs which we still consider will end in the lasting degradation of our profession. A further reason is that the scheme is on your own showing financially unsound, as you state that you only propose to pay us a proportion of our earnings in any given year.

We have no wish to place the insured of this town under any disability, but we would remind you that our services were promised to them by Mr. Lloyd George without our consent, and we therefore decline to accept any blame for the present state of affairs. We are, as you know, fully prepared to undertake the attendance of insured persons on the lines laid down in my previous letter, but we absolutely decline to forfeit our independence by signing any contract, and we also decline to undertake the enormous amount of clerical work involved.

Resolution No. 2 implies the threat of a whole-time service. To this we reply that such a threat would be quite obviated by allowing the insured their legal right to contract out.

Our present position is that we have declined an offer which we cannot accept with self-respect, and this, as free men in a free country, we have a perfect right to do. We would point out to you that there is nothing in the Act or in the Regulations to compel any man to accept this service if he does not wish to do so. The only compulsion is the threat of financial ruin, which has been somewhat freely made use of, and which scarcely redounds to the credit either of the author of the Act, or those concerned with the administration of it.

As men who have striven in the past to do our duty to those of the public who have been our patients, we view with deep concern the application of the pernicious system of cheap contract practice to about one-third of the population of this country, and we decline to have any hand in furthering a movement which must lower the whole status of the medical profession and have a detrimental effect on the health of the insured classes.

Signed on behalf of the Gillingham practitioners,
C. COURTENAY LORD, M.R.C.S., L.R.C.P.

The Insurance Committee advertised for three medical men to set up in Gillingham subject, as it is understood, to a promise from the Committee to guarantee them a minimum emolument for the first year; it is stated that three medical men have been selected. We understand that there are altogether fifteen practitioners in Gillingham, and that of these two are salaried officers of an institute and three have gone on the panel; the remaining ten are those who have adhered to their decision not to join the panel. The position would therefore appear to be this: that the Insurance Committee considered the panel of three inadequate, in spite of the circumstance that, as we are led to understand, the number of insured persons on the lists of these three medical men is quite small, and very far from enough to occupy their time. Nevertheless, the Insurance Committee, rather than accept the conditions desired by the large majority of the profession in Gillingham, which we presume would merely require that the Insurance Committee should allow insured persons who so wished to

make their own arrangements, have determined to carry on a war in the bitterest way, without regard to the interests of the insured persons or of the medical profession, and therefore without regard to the public health. It proposes to introduce three practitioners who are willing to act in opposition to the wishes of the local members of the profession to which they belong. Matters seem, therefore, to have come at present to a deadlock, and the key, we judge, can only be found by the insured persons themselves insisting upon their rights.

SCOTLAND.

SCOTTISH MINERS AND MEDICAL ATTENDANCE.

BRIEF references to the position in the mining districts of Scotland have been published in earlier issues, but it may be interesting to members of the Association generally to have some further information.

At the request of the Mining Federation, the Colliery and Public Works Surgeons Committee for Scotland had an interview with representatives of the Federation in Edinburgh on January 10th, and, after discussion, it was agreed to recommend the following provisional arrangements for three months :—

1. That there be a minimum flat rate of
   1½d. per worker per week without medicine, or
   2d. per worker per week inclusive of medicine.
2. Medicine or not to be given according to the custom that at present prevails in each district.
3. Money to be collected by owners by deduction from wages at the works offices and lodged in bank in the names of an equally constituted committee of doctors and workmen.

The entire money so lodged in bank to be distributed by cheque to the doctors, according to the number of patients on each doctor's list. Cheques to be signed conjointly by representatives of doctors and miners.

The terms expressed above have not met with the unanimous approval of colliery and works doctors. It was contended that no uniform flat rate could be absolutely fixed as applicable to all colliery districts in Scotland, and that in the less populous and more scattered districts a higher rate than 1½d. a week a worker without medicine, or 2d. inclusive of medicine, must be arranged to make contract practice possible in such areas. This contention was not accepted by the Scottish Miners' Federation in spite of the fact that the majority of the workmen in various districts in Scotland have agreed to the rates of 2½d. or 3d. a worker a week inclusive of medicine. A joint meeting of representatives of the Colliery and Public Works Surgeons Committee of Scotland, the Scottish Midland and Western Medical Association, the executive council of the Lanarkshire Division of the British Medical Association, the Midlothian General Practitioners' Association, and a committee of Lanarkshire colliery surgeons, was held in Glasgow on February 14th. It was largely attended, and the following recommendation was unanimously approved :

> That immediate steps be taken to have county medical associations organized, with paid legal secretaries, to safeguard the interests of all members concerned in such contract practice.

We are informed that the method proposed for disbursing the medical fees to each doctor does not find favour either with the doctors or the employers, as both would prefer the old method by which payments were made direct from the works offices, and not through the medium of committees of doctors and workmen.

IRELAND.

MEDICAL BENEFIT.

A SPECIAL meeting of the conjoint committee of the Irish Committee of the British Medical Association and the Irish Medical Association was held at the Royal College of Surgeons, Dublin, on February 14th. Dr. ROBERT H. WOODS, President of the Irish Medical Association, and subsequently Dr. R. J. JOHNSTONE and Dr. F. W. KIDD, occupied the chair. Twenty-four members were present, together with Dr. M. R. J. Hayes (Medical Secretary) and Mr. C. H. Gick.

The Treasury Committee on the Extension of Medical Benefit to Ireland.

It was reported that in response to a request made to the Chancellor of the Exchequer that representatives of the medical profession in Ireland should be appointed on the Committee which is about to inquire into the advisability of extending medical benefit to Ireland, a reply had been received to the effect that the Committee was composed entirely of members of the Houses of Parliament and of departmental officials, and that no interest affected had direct representation, but that all interests affected would have full opportunity in giving evidence to make any representations they might care to submit.

It was resolved to postpone the delegates' meeting already summoned for February 20th until the report of the Commission had been published. The Medical Benefit Subcommittee reported that it understood that at present evidence would only be taken with reference to the extension of medical benefit to the urban areas, and that if it was ascertained that a demand existed in those areas, it was possible that medical benefit would be extended to those areas forthwith, leaving the wider question of rural areas for further consideration.

A summary of evidence was prepared, and the committee having been notified that only a few witnesses would be required, representatives from the principal towns in the four provinces, with Dr. M. R. J. Hayes, Medical Secretary, were selected.

The following resolutions were adopted :

> That the Conjoint Committee is of opinion that medical benefits or their equivalent should be now extended to rural areas on terms satisfactory to the medical profession.
>
> That this meeting condemns the practice of appointing lay inspectors to visit and report on the condition of insured persons entitled to sickness benefit, and that inspection by such persons is not in the best interest of the patient, as it would be an unwarrantable intrusion on the privacy of the patient and dangerous to the public health in cases of infectious illness, and it is not within the power of lay persons to determine the presence or absence of disease.

CONFERENCE BETWEEN INSURANCE COMMISSIONERS AND SOCIETIES.

A conference took place last week between the Insurance Commissioners of Ireland and representatives of approved societies. It was decided that the Commissioners should communicate with the Local Government Board, requesting it to circularize Poor Law Boards and district councils, asking that the district maternity nurses should attend insured members or insured members' wives for maternity cases at a fee of 5s., or in cases where a doctor attends, a fee of 7s. 6d., but no cumulative fee to be paid. The question of certificates was discussed, and after a division it was agreed that the Commissioners should arrange for doctors of the County Committees to form a panel under the County Insurance Committees, and to be paid a capitation fee for supplying all certificates to approved societies.

DUBLIN INSURANCE COMMITTEE.

At the last meeting of the County Borough of Dublin Insurance Committee it was intimated that the Insurance Commission had sanctioned the proposed payment of £150 to the Public Health Committee to cover the cost of treatment of insured persons sent to the Collier Memorial Dispensary during the period ending April 12th, 1913. Correspondence was submitted from the Honorary Secretary of the Local Medical Committee transmitting a copy of a resolution passed by that committee agreeing to the scale of fees suggested for domiciliary attendance, and stating that it was hoped shortly to form a panel of medical practitioners in Dublin for that purpose. The resignation of Dr. J. T. Crowe, Medical Superintendent of the Collier Memorial Dispensary, and expert adviser to the Committee, on his appointment as chief tuberculosis officer for the counties of Leicestershire and Rutlandshire, was accepted with regret.

MATERNITY BENEFIT.

The Longford Board of Guardians have agreed, on the application of their medical officer, to consider the cancelling of red tickets in maternity cases where the husband is proved to have at least 30s. a week. He mentioned a case where recently he was called out at midnight on a red ticket to the home of a big farmer, and in another case he found that his patient had left £500 to her relations.

The Fermanagh Board of Guardians has decided that where a person is entitled to the 30s. maternity benefit, she is to be granted no relief at the expense of the rates.

CORRESPONDENCE.

The Present Situation and Future Policy.

Drs. Henry J. Cardale (41, Glengall Road, Cubitt Town, E.), W. H. F. Oxley, and John Paxton (Poplar, E.) write: Reading the correspondence in your columns week by week, it is evident that the profession recognizes: (1) The urgent need for a business organization devoted entirely to the defence of its interests; (2) the fact that the British Medical Association, from every point of view, is unsuitable for such a purpose. To quote from letters in your current issue:

> The profession has been outwitted . . . because it was not ready, but, if the present panic leads to better organization, it will have done some good.
>
> We must not give in without a further attempt to rouse our colleagues to a sense of their danger.
>
> *Re* British Medical Association:
>
> The machinery of a scientific body is not adapted to fight a Government.

Finally, to quote from Dr. Arthur Brock's letter:

> It must be obvious to any one that the insurance doctors will now have no option but to form some big central combine to defend their economic interests. . . . This is not the object for which the British Medical Association exists.

Any one who has read Mr. Hempson's statement at the Liverpool meeting must realize that, even if it were desirable, it is impossible to register the British Medical Association as a trade union. No; let us retain the British Medical Association in the capacity for which it was originally constituted—namely, the advancement of medical science, and form a union whose sole function shall be the conservation of the interests of the general practitioner. Such an institution is urgently needed not only by panel doctors, but equally by non-panel men. It is quite unnecessary to dwell on the dangers that face all of us in the immediate future; they are sufficiently obvious.

With a view to being prepared and not being again found unready, the Poplar Medical Union has under consideration the formation of such an organization as I have mentioned above, which should take advantage of the protection and other advantages afforded by the Trades Union Acts, and register as a trade union. We intend in the immediate future to communicate with other districts in London with a view to concerted action. In the meantime we should be glad to hear from any individual or organized body interested in the matter, for the sooner the general practitioner has such a body devoted entirely to his interests, the sooner shall we feel prepared to face the future with something approaching equanimity.

Dr. Garratt (Chichester) writes: Dr. Arthur King raises the old controversy of contract *versus* private practice, and uses violent language, which calls for some reply. Contract practice under capitation involves two parties; let us consider first the beneficiary. To him it is an insurance, strictly comparable to that against death, accident, fire, or other mishap. It is, indeed, but an extension of one of the most beneficient inventions that civilization has evolved, and is, in respect to persons of very limited income, from their point of view, wholly desirable and to be commended. The doctor may regard the matter either commercially or ethically. Commercially all depends on the rate of pay, the ability of the beneficiary to afford visiting fees, the incidence of sickness among his class, and, last but not least, the personal influence of the doctor in controlling unnecessary calls. Some classes are more profitable under the one system, some under the other, agricultural labourers being suitable for contract rather than private practice. Ethically, payment under contract is payment by salary, the method on the whole characteristic of a profession; whilst payment by the piece, or for work done, is on the whole characteristic of a trade. Now I have nothing to say against honest trade, and consider it in no way derogatory; I have, indeed, some sympathy with Dr. King in his evident desire to get his money for all he undertakes, but, in confessing this weakness, I consider myself inferior and not superior to him who has it not, and to precisely this degree—the more of a trader and the less of a professional man than he. Comparisons are notoriously odious, but when I frankly concede that, as a rural practitioner, I prefer on commercial, practical, and ethical grounds to treat agricultural labourers as contract rather than private patients, I do not on that account regard myself as "a wastrel," a "drag and a hindrance" to my fellows, one "evil in moral and physical character," or—with bated breath be it said—as in any respect inferior to, let us say for example, Dr. Arthur King of Bow.

Dr. A. C. Farquharson (Spennymoor) writes: A few years' experience of the British Medical Association in Council, Representative Meeting, and in perusal of the columns of the British Medical Journal, go a long way towards rendering one insult-proof and immune to the stings of venomous verbiage, but occasionally one gets a reminder that the top-storeyed pachyderm which intimacy with the ways of the British Medical Association develops is not always impenetrable. In your issue of February 22nd a person writing in the Supplement (p. 202, column 2) refers to contract practice as "the last straw of the medical wastrel."

Now, I am not very much concerned with this person's impressions of contract practice, but that a gross libel should be published in the British Medical Journal regarding a class of practitioners, the majority of whom are members of the Association, is a circumstance which ought not to pass unnoticed.

If this person's bravery of conviction will allow him to write and you will publish a statement to the effect that *every* person engaged in contract practice is a "medical wastrel," I will know how to deal with him and the publishers of the British Medical Journal.

The person who spits his venom at a class and thus in a measure obtains legal refuge from his libellous statements is not one from whom I, as a contract practitioner, would care to take my professional ethics, but I do think, Mr. Editor, that you, inspired by the recent display of exceptional courage on the part of the Council, might have viewed the line to which I take exception with "deep condemnation" and—blue-pencilled it.

An Experience of the Panel and some Deductions.

Dr. Rosa Ford (New Cross Gate, S.E.) writes: It may be useful to doctors who are considering whether they will remain on the panels in April or join them then, to note the following figures, given me by and taken from the actual practice of a panel doctor during the period January 16th to February 15th inclusive. If the following calculations are correct—and any panel doctor can judge of this by a comparison with his own figures—he receives roughly 1s. per patient seen, whatever the attention he may have to give him:

> In 31 days, including 4 Sundays, 332 attendances were made—that is, an average of 10.7 patients a day were seen. During the same period the average number of insured on the books was 413.6. The percentage of insured requiring treatment averaged, therefore, 2.6 a day.
>
> With 1,000 patients this means that 26 would require treatment every day, including Sundays. Suppose that in summer only 13 required treatment per day, the average for the year would then be $\frac{26 + 13}{2} = 19.5$.
>
> The remuneration for 1,000 patients is 230 pence a day. The fee per patient would, therefore, be $\frac{230}{19.5} = 11.8$ pence. Allow that in the above figures 1 patient a day came out of curiosity, the remuneration, excluding these, would then be $\frac{230}{18.5} = 12.4$ pence.

It is therefore clear that with panel work, unless a man has done a cheap practice before, he must be prepared for one of two things—either to work harder for the same money or to receive less money for the same work.

Previously one often gave one's best work for a low fee because of the known poverty of the patient; now a panel doctor is often called upon to give the same work to patients who, he knows, can afford, and indeed formerly paid, a reasonable fee.

The above figures correspond pretty accurately to an estimate which has been quoted that an average of eight days' treatment per insured person must be reckoned with in the year. That means 8,000 treatments in the year with 1,000 on the books, and this, divided by 365, gives 21.9 patients to be seen daily, very near the 19.5 obtained by the above calculations.

There is another point that should influence doctors in deciding their action in April. One of the fruits of the Act in its working so far has been the trampling by the Insurance Commissioners on one of the best traditions of the profession. Hitherto we have regarded our fellows as colleagues, and as such have refused to take one another's patients. Panel doctors are now forced to take other men's patients against all their best instincts. This crushing of a man's moral instincts cannot but tend to weaken his moral standard. That men have been found to take whole-time positions under such a condition is a proof that a blow has been struck at the high moral standard hitherto set before the profession. That the Insurance Commissioners have even unwittingly trampled on this condition merely shows the danger of any community meddling with what it does not understand. An Act, one of whose first fruits is the degradation of the profession it seeks to control, can hardly be better than its fruit. The Chancellor will tell us that not he but the non-panel doctors are responsible for this fruit. As well may the stomach be blamed for the indigestion following upon the hasty ingestion of ill-considered food, as the non-panel doctors be blamed for the insurrection following upon hasty legislation.

Let the Chancellor tell a learned profession what it is he wants done, and let him then courteously consider the method whereby its representatives propose to execute the measure. A firm of engineers called in to perform a certain task would not submit to conditions imposed upon it by an employer ignorant of engineering. The heads of the firm will submit a scheme, and, if this is accepted, they will then proceed to carry out the work in their own way. If the scheme is unsatisfactory to the employer he is at liberty to reject it, or, if the execution of the work displeases him, he is at liberty in future to dispense with their services. He is *not* at liberty to hold a pistol at their heads and thus endeavour to enforce his methods of work.

THE INQUIRY ADDRESSED TO THE REGISTERED MEDICAL PRACTITIONERS BY THE ASSOCIATION.

Mr. CHARLES E. S. FLEMMING (Bradford-on-Avon) writes: In this week's JOURNAL there is an annotation urging medical men to answer the questions issued about ten days ago by the State Sickness Insurance Committee, but I doubt whether the answers to this inquiry will have the results for which you express a desire. When I read the questions—the report of the January Representative Meeting (SUPPLEMENT, p. 98), the report of the Council meeting (SUPPLEMENT, p. 132), and of the State Sickness Insurance Committee (SUPPLEMENT, p. 148), I cannot but feel regret at the waste of time, money, and opportunity, and an impression that the end aimed at is not the improvement of the conditions under which the Act is worked, but the prevention of its working; not a desire to make the Act satisfactory, but to rake up dissatisfaction. The questions as to whether men are working the Act willingly, whether they intend to continue to work it, and others in the same spirit, are not of any practical value, and show a surprising want of appreciation of the fact that the great majority of the men likely under any conditions to do insurance practice are already doing so, and will and must continue to do so. Of those directing our affairs, one is tempted to say, as was said of the Bourbons, "They have learnt nothing and forgotten nothing."

In the report of the State Sickness Insurance Committee (SUPPLEMENT, p. 148), it is stated that "the future policy of the Association would depend largely upon the information obtained from the answers," and in the report of the Council above referred to there is a resolution containing the following words: "The action of the Council and the State Sickness Insurance Committee shall continue to be in opposition to the Act and Regulations as at present constituted," and further on is another resolution: "That the State Sickness Insurance Committee shall at once press for an amending Act." Truly with a vengence is the Council knocking the head of the Association against a stone wall. In neither report do I see any proposal to make careful and prompt inquiries as to the alterations required for the more convenient and advantageous working of the Act. In only one of the eight questions is this subject dealt with, but so subsidiary is it in position and so little emphasis is laid upon it that many will not attach sufficient importance to it, especially as the tenor of the questions makes it appear that the object of the inquiry is to find out whether there is yet an off-chance of damaging the Act.

As to the questions themselves, how can men yet, after only five weeks' experience, say whether they are or are not satisfied with the working of the Act, a new Act, new and untried machinery, much of it admittedly tentative? Answers now given must have reference to the work as actually experienced and not as it will be when the new arrangements as to clerical work take effect. The signing of red tickets, which gave so much trouble, will probably influence many decisions. It is as if ten years ago motorists were asked to give a decision as to the satisfactory working of motor cars, and whether they intended to continue to use them. When the rider embodying these questions was introduced at the Representative Meeting, the mover said that the inquiry would be made "after an interval." If these words meant anything they meant such an interval as would enable well-founded and useful answers to be given. No doubt the sooner inquiry was made the more likely was dissatisfaction to be expressed; and yet on the answers given under these circumstances does the State Sickness Insurance Committee intend the future policy of the Association to be founded.

It may be said that the Committee was bound by the resolution of the Representative Meeting to ask these questions, but it was not bound to ask them at this particular time, or all at the same time. A resolution (SUPPLEMENT, p. 98) was passed instructing the Council "to collect information as to defects in the Act and Regulations and to take all possible opportunities of remedying them." This might have been done first, but the work appears to have been left to the National Insurance Practitioners' Association to carry out. It was not pleasant for members of the British Medical Association reading the Commissioners' report on alterations in the clerical work to see that the place that ought to have been occupied by their own Association was taken by the National Insurance Practitioners' Association. I have not a word to say against the latter society, which is doing most excellent work; but why didn't we do it ourselves?

We are looking to the Council not only to collect information as to faults and remedies, but through the Branches and Divisions to give advice and make suggestions to the Local Medical Committees.

I notice in this week's SUPPLEMENT (p. 197) that an instruction has been given to a subcommittee of the Insurance Committee "to consider and report as to what steps should be taken in order to co-ordinate the action of the Divisions with reference to the National Insurance Act with that taken by the various Local Medical Committees within their areas." I have referred so often to this subject that I would not again were it not that I consider it to be at the present time one of the most urgent and important matters for the Association to consider. I believe that the only practical procedure is to rearrange our Divisions and Branches so that they may be coterminous with the areas of the Insurance Committees. A very short experience has sufficed to show that for medico-political work the most useful division, the most efficient organization, is that of the Local Medical Committee and the corresponding Medical Union set up for the purpose of dealing with the Insurance Act. In many districts the work of the Divisions of the Association as such is at present almost negligible, especially as regards this Act, but there is a great amount of other and important work that Divisions or Branches with these areas could do—work that cannot be conveniently or well done by very many existing Divisions—the work of negotiating with county or borough councils, dealing with health authorities, the various pressing questions as to the inspection and treatment of school children, the work of district nurses and midwives, etc.

MILEAGE.

Dr. W. W. NOCK (Penkridge) writes: I am in entire agreement with Dr. Thain on the question of mileage, and think that the rural practitioners should combine, though I believe that the Commissioners are genuinely anxious to be fair, and that if representations without threats were made to them something would be done. The rural doctor with a list one quarter the size of the man in industrial centres

has to spend as much time on visiting and more money for one quarter the payment. His surgery work is of course much less. The payment should take the form of an extra capitation grant per mile for every mile more than two from the nearest practitioner.

Dr. J. R. Hamilton (Hawick, N.B.) writes: Dr. Thain, in the Supplement of the 22nd, suggests rural practitioners combining to secure a mileage rate. The real combination would be their co-operating in every county in clearly showing the amount of mileage in that county. The British Medical Association has all the machinery necessary to have figures submitted to the proper quarter if reliable figures were obtained. We have every reason to believe that reasonable mileage will be granted when the Association can obtain reliable figures to place in the hands of the Treasury. Unfortunately, those of us interested in the mileage question have not hitherto been able to present a complete enough statement. We need have no fear of the town votes dragging us down; on the contrary, we may reasonably calculate on their full support.

There are already far too many ephemeral combinations, which all tend to weaken our just cause. Let that enthusiasm be directed towards enlisting every respectable member of our profession into the British Medical Association; then we might expect greater respect.

The Stockport Insurance Scheme.

Dr. James Brassey Brierley (Old Trafford) writes: In your report of a meeting of some Divisions of Cheshire at Macclesfield a very grave error has crept in. The scheme as now evolved has *not* been approved by the National Medical Union.

Others as well as myself protested against it from the first, because it was designed to work under the Act and also that it was philanthropic. The only approval as far as I know was on the understanding that the principle of the National Deposit Friendly Society be adopted.

It is difficult to know how Mr. Walls, who is the secretary of the National Medical Union, could have given such "information." The "general principles" were *not* approved, and very obviously—the Union disapproves of the Act, and will have no share in club (or, what is practically identical with it, panel) practice. Please understand I do not write officially, but as a member of the executive I cannot allow such a grave error to pass unnoticed.

Friendly Societies and their Aged and Infirm Members.

Dr. Herbert C. Jonas (Barnstaple) writes, in answer to Dr. H. Cameron Kidd (Supplement, February 15th, p. 162):

Dr. Kidd brings forward an instance of one man who was paid 4s. per annum for forty-five years, and has had only two weeks' sickness benefit (not medical attendance, be it noted). Instead of pitying this man, one can only regard him as one of fortune's favourites; and the facts as stated have absolutely no bearing on the question under discussion. If Dr. Kidd will have another conversation with his old friend, I am quite sure he will discover that the man in question joined his friendly society with the proper views of mutual help to one another. He paid yearly his insurance of 4s., and yearly he got his money's worth; and, if he was not sick, I am quite sure that some one else used up his 4s. in every single year of the forty-five.

When some doctor can come forward and say that the whole sum derived from any one friendly society in the past has been more than sufficient to pay adequately for all the medical attendance required by the society as a whole, then, and only then, will a case be made out for taking the aged and infirm at less rates than the insured.

I entirely agree with Dr. Kidd that it is unfair to ask these men individually to pay this increased rate now. But we (the doctors) do not do so; we state that the Government says we are to be paid so much, and it is for the friendly societies to say where the money is to come from, and to my mind there is one source from which they have absolutely no right to ask it, and that is from the pockets of these old men. On the other hand, I must protest against the final paragraph of the letter. These people did not cheerfully pay 4s. per annum for forty years simply to provide against sickness in old age—that is to say, piling up money against a certainty, as one does in life insurance. The payment was a yearly contract; 4s. was to cover the man's risk against a doctor's bill for twelve months; and Dr. Kidd gives away his own case when he admits that the insured themselves say that "they did not think 4s. per annum was a sufficient premium for what they received in return."

Hospitals and Asylums.

Croydon Mental Hospital, Warlingham, Surrey.

In his annual report for the year 1911 the Medical Superintendent (Dr. E. S. Pasmore) after alluding to the great loss of time in securing the treatment of the insane, the illness in the majority of his admissions having existed for over twelve months without expert treatment and advice, suggests that "a hospital mental clinic presided over by the medical officers of the local asylum—they being specialists in this branch—be instituted at every local hospital in the country, near which there is an asylum, but so as not to clash with the other out-patient departments. The cost of such a clinic could be borne by an arrangement between the lunacy authorities of the borough and the local hospital committee. The medical officers in turn from the asylum could attend on one or two mornings a week. People might then be attracted to bring their friends to such a clinic, on the first sign of any mental aberration manifesting itself, to seek the special advice provided. By this means cases in the earliest stage might be detected, and there would be a chance of immediate cure, while those who became chronically insane could be at once drafted to the local asylum. Clinics of the kind I suggest are not uncommon on the Continent. They exist in Bavaria, at Munich, in Switzerland, at Berne, and elsewhere. At some of the large London hospitals such clinics have been commenced, mental specialists from asylums being in charge of them." Dr. Pasmore's proposal is one which would doubtless prove beneficial in certain places, but medical superintendents are as a rule already fully occupied with their multifarious duties as directors, and it might fall to the junior medical staff to work the clinics. Continental clinics are university clinics presided over by university professors who are not engaged in the direction of asylums, and it is obvious that these differ *toto coelo* from the departments of local hospitals proposed by Dr. Pasmore. There are, however, out-patient departments at certain asylums—for example, the West Riding Asylum at Wakefield—which work well and to whose institution elsewhere there is no insuperable obstacle. To what extent the West Riding Out-patient Department fulfils Dr. Pasmore's ideal of catching and treating early cases of insanity it would be interesting to know.

Turning to the Croydon statistics, Dr. Pasmore's report shows that on January 1st, 1911, there were 557 patients in the asylum and on the last day of the year 685. There was thus a considerable numerical increase at this asylum, and this increase was found to give also a considerable increase relatively to population, the general population since 1900 having increased by 69 per cent. and the insane population by 200 per cent. The total cases under care during the year numbered 801 and the average number daily resident 651. During the year 244 were admitted, of whom 207 were first admissions. As to duration of disorder, in 76 the attacks were first attacks within three and in 24 more within twelve months of admission; in 48 not-first attacks within twelve months; in 88, whether the attacks were first or not, the illness was of more than twelve months' duration, and 8 were congenital cases.

Considering the large proportion—unhappily paralleled in most other asylums—of cases in which the illness was already of long standing on admission, it is little wonder that Dr. Pasmore and others should seek all ways to secure earlier treatment. The admissions were classified according to the forms of mental disorder into: Recent mania, 27, chronic and recurrent, 17; recent melancholia, 57, chronic and recurrent, 13; senile and secondary dementia, 37; primary dementia, 6; general paralysis, 8; insanity with epilepsy, 2; delusional insanity, 48; confusional insanity, 10; and congenital defect, 19. Taken altogether, an unfavourable class of admissions.

Turning to probable causation, alcohol was assigned in 24, syphilis in 20, and other toxins in 12; diseases of the nervous system in 14; other bodily infections in 46; child-bearing in 10; critical periods in 68; bodily trauma in 6; and mental stress in 39. An insane heredity was ascertained in 58, and of other neuropathies in 9, whilst congenital defect not amounting to imbecility existed in 22.

During the year 50 were discharged as recovered, giving a recovery-rate on the direct admissions of 33.78 per cent.; also 22 were discharged as relieved and 2 as not improved.

During the year also 42 died, giving a death-rate on the average number resident of 6.45 per cent. The deaths were due in 5 to general paralysis, and in 1 to hemiplegia; in 13 to diseases of the heart and blood vessels; in 2 to chronic Bright's disease; in 8 to lobar pneumonia, and 2 to bronchopneumonia; and in 11, or 26 per cent. of the total deaths, to pulmonary tuberculosis.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

ON Thursday, February 20th, a meeting of the State Sickness Insurance Committee appointed by the Special Representative Meeting in November, 1912, was held at the house of the Association, 429, Strand. Dr. J. A. MACDONALD was in the chair, and the other members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. T. M. Carter (Bristol), Dr. E. Rowland Fothergill (Brighton), Miss Frances Ivens, M.S. (Liverpool), Mr. Herbert Jones (Hereford), Dr. Constance E. Long (London), Dr. E. O. Price (Bangor), Dr. D. G. Thomson (Norwich), Mr. E. B. Turner (London). *Scotland:* Dr. J. Adams (Glasgow), Dr. R. McKenzie Johnston (Edinburgh). *Ex officio:* Sir James Barr (President), Mr. T. Jenner Verrall (Chairman of Representative Meetings, Dr. Edwin Rayner (Treasurer).

APOLOGIES FOR ABSENCE.

Apologies for absence were read from Dr. T. B. Costello (Tuam), Dr. J. S. Darling (Lurgan), Dr. T. A. Helme (Manchester), and Mr. D. F. Todd (Sunderland).

LOCAL INSURANCE COMMITTEES.

The first subject considered by the Committee was the election of direct representatives of the local medical profession on Insurance Committees, and the provisional regulations issued by the Commissioners in relation to the mode of election. It was reported that the Chairman of the Committee had caused a letter to be addressed to the Honorary Secretaries of Divisions calling attention to the matter, and his action was approved.

LOCAL MEDICAL COMMITTEES.

It was resolved to send a communication to the honorary secretaries of Divisions in the terms of the resolutions reported in the SUPPLEMENT of February 22nd, p. 197.

The first resolution asked that honorary secretaries would supply to the Committee information as to the action that was being taken by Local Medical Committees, the names of the chairmen and secretaries of such Committees, the names of the medical practitioners upon the Local Insurance Committees, and invited reports for publication in the JOURNAL of the meetings of Local Medical Committees.

A further resolution, also published last week, instructed a special subcommittee to report on the steps that should be taken to co-ordinate the action of the Divisions with reference to the Insurance Act with that taken by the various Local Medical Committees within their areas.

The point whether Provisional Medical Committees should be continued was raised by an inquiry. The State Sickness Insurance Committee expressed the opinion that until the Local Medical Committee for an area had been recognized by the Commissioners the Provisional Medical Committee should continue.

INQUIRY ADDRESSED TO REGISTERED MEDICAL PRACTITIONERS.

The circular letter with questions to all registered medical practitioners in Great Britain and a circular letter to Honorary Secretaries of Divisions and Branches in Great Britain on the same subject issued on February 11th were approved.

LONDON MEDICAL COMMITTEE.

Dr. FOTHERGILL moved the suspension of Standing Orders to move to rescind the resolution of the Committee of January 2nd, 1913, approving of the London Medical Committee being granted office room in the house of the Association free of charge for the purpose of its Insurance Act campaign upon the understanding that the London Medical Committee was alone responsible for the documents issued by it. The motion to suspend the Standing Orders was seconded by Dr. CARTER, and in the discussion which followed the propriety of rescinding the resolution of January 2nd was discussed. On the motion to suspend the Standing Orders being put, 7 voted Aye and 4 No; and the CHAIRMAN ruled that the motion was lost, as it had not been carried by the necessary two-thirds majority of those present and voting.

CENTRAL INSURANCE DEFENCE FUND.

Compensation.

Applications for compensation from the Central Insurance Defence Fund were considered; the suggested amount and method of grant was approved in three cases, and instructions were given that the details of the agreements should be settled by the Solicitor.

Subscription from Colonial Division.

The Committee adopted a resolution expressing cordial appreciation of the action of the Durban Division in forwarding a subscription of £50 from that Division to the Central Insurance Defence Fund.

Principles Guiding Distribution.

A communication was read from the Secretary of a Division asking for certain information concerning the Central Insurance Defence Fund. It was resolved to inform the inquirer (*a*) that no part of the Central Insurance Defence Fund had been used for financing the campaign of the London Medical Committee; (*b*) that part of the Fund had already been used for the purposes of compensating certain practitioners who had suffered loss through resigning whole-time appointments out of loyalty to the policy of the Association; (*c*) that it was the intention of the Committee to forward as soon as possible to the Divisions a statement as to the expenditure in connexion with the Fund.

PAYMENT FROM LOCAL FUND TO LOCAL MEDICAL COMMITTEE.

A communication was received from the Honorary Secretary of a Branch stating that it was desired to hand over an amount in hand for the local fund to the Local Medical Committee, as the money had been subscribed by the local profession for the purposes in connexion with the National Insurance Act. The Committee advised the Branch Treasurer to transfer the sum in question to the Local Medical Committee.

RIGHT OF INSURED PERSONS TO MAKE THEIR OWN ARRANGEMENTS.

Arising out of a communication from the Honorary Secretary of a Branch with regard to the action of the County Insurance Committee in refusing to allow insured persons to make their own arrangements, the Committee resolved to take the opinion of Mr. Danckwerts, K.C., upon the particular case, and at the same time to submit the following points with regard to the general question:

(*a*) Whether, granting the right of Insurance Committees under the Act to refuse to allow insured persons to make their own arrangements, Insurance Committees, as incidental to such right have power to formulate general conditions applicable to all cases, or whether they are bound to give each individual case consideration *per se*, or

(*b*) Whether the Insurance Commissioners have exceeded their powers under the Act in formulating general conditions for issue by Insurance Committees applicable to all cases.

TREATMENT OF UNINSURED PERSONS.

Information which the Committee viewed with grave concern was received with regard to the position in a certain area in respect to the fees for the treatment of uninsured persons. The Committee suggested that a meeting of the medical profession in the area should be held, and that the Medical Secretary or Deputy Medical Secretary should attend the meeting if so desired.

TEMPORARY RESIDENTS.

The question of the payment of medical practitioners in health resorts who were called upon to attend insured persons temporarily absent from their own homes was considered, and it was resolved to notify the Insurance Commissioners that the State Sickness Insurance Committee had evidence that the problem of how to deal with persons who were transferred temporarily from their own homes to health resorts, both inland and seaside, was becoming acute, and to ask the Commissioners to call, at an early date, a conference of Local Medical Committees in the towns and districts interested.

INSURED PERSONS OVER 65 YEARS OF AGE.

It was resolved to forward a strong protest to the Insurance Commissioners with regard to the misleading statements by Mr. Masterman in the House of Commons, and to draw attention to the terms of Section 15 (2) (*c*) of the Insurance Act and to the conditions in which it was inserted—that is to say, as a bargain between the friendly societies and the doctors, under which the profession would not charge more for the treatment of old and disabled members of friendly societies than for ordinary insured persons.

ACCEPTANCE OF SERVICE IN OTHER DISTRICTS.

Dr. BEATON raised the question of the interpretation of Minute 41 of the Special Representative Meeting of January, 1913, and asked for a definite interpretation.

Minute 41.—That any acceptance of service outside practitioners' own districts, parishes, and towns involving a change of residence for the express purpose of accepting service, will be regarded as conduct detrimental to the honour and interests of the medical profession.

After discussion the Committee adopted the following resolutions:

(*a*) That the State Sickness Insurance Committee is of opinion that where practitioners merely go into a neighbourhood to join a panel which, in the opinion of the local Division, is effective, such intrusion is not an offence under Minute 41 of the Special Representative Meeting (January, 1913).

(*b*) That where in the opinion of the local Division the local panel is not effective and it is believed that circumstances justify their standing out against working the Act, the intrusion of practitioners into that neighbourhood to defeat the object which the local Division has in view is an offence under Minute 41, and

(*c*) That the word "intrusion" should be interpreted so as to cover not only cases in which practitioners remove their places of residence, but also cases in which they open branch surgeries.

FEES TO PRACTITIONERS CALLED IN ON THE ADVICE OF MIDWIVES.

The Committee resumed the consideration of the Provisional Regulations issued by the Insurance Commissioners as to fees to medical practitioners summoned by midwives in accordance with the rules of the Central Midwives Board, and to the circular letters A. S. 73 and 78 issued by the Insurance Commissioners to approved societies in relation to this matter. Dr. CARTER gave an account of a scheme now under consideration at Bristol, and the Committee also had information from the honorary secretary of the Newcastle-on-Tyne Local Medical Committee with reference to the position in towns where there were midwifery teaching schools. The Committee, after a short discussion, decided to consider the matter further at its next meeting on March 6th, when it was anticipated that further information on the general question would be available.

THE LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

SECOND LIST.

THE following books were added to the Library between July and September, 1912:

Presented by the Editor of the "British Medical Journal."

Laurance, L.: General and Practical Optics. 1908
Leipoldt: Common Sense Dietetics. 1911
Leipoldt: The School Nurse, Her Duties and Responsibilities. 1912
Leslie and Shipley: The Grouse in Health and Disease, popular edition. 1912
Lowe, P.: A Naturalist on Desert Islands. 1911
Mann: Atlas of Killian's Tracheo-Bronchoscopy. 1911
Mendel and Tobias: Die Tabes der Frauen. 1912
Meyer and Pfeiffer: Das Klima von Schomberg. 1912
Middleweek, F. F.: Medical Gymnastics and Massage. 1912
Moore, B.: The Dawn of the Health Age. 1911
Morton, W. C.: Principles of Anatomy; the Abdomen. 1911
Munk, H.: Hirn und Ruckenmark. 1909
Osler, Sir William: Man's Redemption of Man. 1910
Parsons, F. G.: Practical Anatomy, 2 volumes. 1912
Pearson, Karl: The Grammar of Science, third edition, part I. 1911
Pickerill: Prevention of Dental Caries. 1912
Poppi, A.: l'Ipofisi Cerebrale Faringea e la Glandola Pinéale in Patologia 1911
Rawling, L. B.: Muscles and Nerves. 1906
Rolleston, H. D.: On Writing Theses. 1911
Rumpel, O.: Cystoscopy as Adjuvant in Surgery. 1910
Sheffield, H. B.: Modern Diagnosis and Treatment of Diseases of Children. 1911
Short, A. R.: The New Physiology in Surgical and General Practice. 1912
Smith, G. C.: What to Eat, and Why. 1911
Stephens, G. A.: The Hospitals of Wales. 1912
Thomas, W. H.: Life, Death, and Immortality. 1911
Thorpe, Sir E.: Dictionary of Applied Chemistry, vols. I and II. 1912
Tidswell: The Tobacco Habit, its History and Pathology. 1911
Verworn, M.: Narkose. 1912
Walker, C. E.: Hereditary Characters and their Modes of Transmission. 1910
Wells, E. A.: Emergency, Medical, and Surgical Aid. 1910
Wolff, Jakob: Die Lehre von der Krebskrankheit, 2 Teil. 1911
Woodcock, H.: The Doctor and the People. 1912
Wrench, G. T.: The Mastery of Life. 1911

Calendars, Reports, and Society Transactions have been received from the following bodies:

American Hospitals Association, Transactions, vol. xiii. 1911
American Urological Association, Transactions, vols. v and vi. 1911–1912
Bombay Bacteriological Laboratory Report. 1911
Bristol University Calendar. 1912–1913
Calcutta University Calendar. 1912–1913
Durham University Calendar. 1912–1913
Edinburgh University Calendar. 1912–1913
Harvard University Medical School, Department of Surgery, Bulletin No. 7. 1912
Home Office Annual Return of Experiments on Animals. 1911
Imperial Cancer Research Fund, Fifth Scientific Report. 1912
Johannesburg Municipal Council, Report of the Medical Officer of Health.
London Hospital Medical College Calendar. 1912–1913
Lunacy Commissioners' Sixty-sixth Annual Report. 1912
Metropolitan Asylums Board, Annual Report. 1911
Metropolitan Water Board, Reports. 1911–1912
Middlesex Hospital Archives, Clinical Series, No. 10. 1912
Middlesex Hospital Archives, vol. xxvii, containing eleventh Report of the Cancer Research Laboratory. 1912
Middlesex Hospital Medical School Calendar. 1912–1913
National Association for the Prevention of Consumption and Other Forms of Tuberculosis, Transactions of the First and Fourth Conferences. 1909 and 1912
New South Wales, Metropolitan Water Supply and Sewerage Report. 1910
New Zealand University Calendar. 1912–1913
Philadelphia General Hospital Reports, vol. viii. 1910
Registrar-General for Scotland, Reports of the 1911 Census, parts 12–19.
Registrar-General of Births, Deaths, and Marriages for England and Wales, Seventy-third Annual Report (1910). 1912
Registrar-General for Ireland, Annual Report for 1911. 1912
Report on Isolation Hospitals issued by the Medical Officer of the Local Government Board. 1912
Rockefeller Institute for Medical Research, Studies, vol. xv. 1912
Royal Academy of Medicine in Ireland, Transactions, vol. xxx. 1912
United States Marine Hospital Service, Hygienic Laboratory Reports, Nos. 83 and 84. 1912

BOOKS NEEDED TO COMPLETE SERIES.

THE Librarian will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Association of Genito-Urinary Surgeons. Transactions. 1906.
American Climatological Transactions. Vols. 1, 4, 5, 6.
American Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
American Journal of the Medical Sciences. New series, vols. 4, 5, 1842–3; vols. 14, 15, 1847–8; vols. 18–30, 1850; vol. 33, 1857; vol. 46, 1864–5; vol. 59; or any parts of these vols.
American Journal of Ophthalmology. Vols. 1–9.
American Laryngological Association. Transactions. Vols. 1–6, 8–9.
American Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*, up to 1903 inclusive.
American Medico-Psychological Association. Transactions. Vol. 13, 1906.
American Otological Society. Transactions. Vol. 3, part 2, 1883.
American Public Health Association. Transactions. Any vols.
Analyst. Vols. 1–24.
Annals of Surgery. Vols. 13, 14, 26.
Archiv für Dermatologie und Syphilis. Bd. 24 and 25 (1892 and 1893).
Archives générales de médecine. Third new series 7–8 (1839–40); 4th series, 10–17, 20–25, 1852–55, 1858–64, 1872–1897; 1846–55 inclusive; 1857–64 inclusive; 1871.
Archives of Ophthalmology. Vols. 1–3, 6, 7, 14, 15, 16 and 20.
Archives of Otology. Vols. 1–7, and 20–22.

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.*]*

METROPOLITAN COUNTIES BRANCH:

EAST HERTFORDSHIRE DIVISION.

A MEETING of this Division was held at the Shire Hall, Hertford, on February 19th, to which all practitioners resident within the area were invited. Dr. GILBERTSON presided, and eleven members and one non-member were present.

County Medical Committee.

The HONORARY SECRETARY reported:

1. That the County Medical Committee had received statutory recognition.

2. That Dr. Boyd had been duly nominated as the Representative of the Division on the County Insurance Committee in accordance with the Provisional Regulations of the Insurance Commissioners (January 31st), and that Dr. Fisher (King's Langley) had been nominated by the West Herts Division.

3. That the names of Drs. Shelly and Gilbertson (East Herts) and Drs. Evill and Wells (West Herts) had been forwarded as the recommendations of the County Medical Committee for the four other medical seats on the Insurance Committee.

4. That Drs. Berry (Watford), Evill (Barnet), and Shelly (Hertford) had been elected at the first meeting of the County Medical Committee as the medical members of the Medical Service Subcommittee.

5. That the medical representatives on three District Insurance Committees had been elected as follows:

Bishop's Stortford.—Drs. Collins and Newman.
Cheshunt.—Drs. Clark and McClymont.
Buntingford.—Drs. Ewing and Fell.

Address by County Tuberculosis Officer.

Dr. HYSLOP THOMSON, the County Tuberculosis Officer, then gave a short address on "The Problem of Tuberculosis and the Proposed Plan of Campaign in the County of Hertford," which was followed by questions and a lengthy discussion. The members present cordially thanked Dr. Thomson for his most interesting paper and for his answers to the various questions raised.

GREENWICH AND DEPTFORD DIVISION.

A MEETING of the Greenwich and Deptford Division was held on February 12th. Dr. J. P. PURVIS was in the chair.

Dr. A. T. DRAKE proposed, and Dr. A. E. CRABBE seconded, a vote of censure on the Honorary Secretary for his conduct in joining the panel before being released from the undertaking and pledge. After some discussion, and after a statement had been made by Dr. W. H. PAYNE, Dr. ANNIS proposed and Dr. MUIR seconded the following amendment:

> That this meeting of the Greenwich and Deptford Division, having heard the full explanation of the whole circumstances as outlined in the report of the Executive Committee presented at the last meeting, also a further statement made by the Honorary Secretary, showing that all that has been done by him was with the full concurrence of the Medical Secretary of the Association, realizes that no good purpose will be served by further discussing or pursuing this matter, and therefore do now proceed to the next business.

This was carried by 19 to 12, and also as a substantive resolution.

Another motion of which notice had been given, expressing want of confidence in Dr. Keay (representative of the old Greenwich Division), was, in the absence through illness of the member who had given notice of the motion, not proposed.

HAMPSTEAD DIVISION.

A MEETING of the Hampstead Division was held on February 14th, when Mr. ERNEST WARE occupied the chair and fifteen members were present.

The CHAIRMAN reported that Mr. Dorrell had resigned the membership of the Association, and consequently ceased to be Secretary and Representative. It had not, he said, been possible to arrange for the appointment of a successor, and the Executive Committee had undertaken to carry on the work of the Division so far as it applied to making arrangements for those scientific meetings that had already been fixed. After some discussion, the Chairman expressed his willingness to undertake the secretarial duties with regard to the scientific work for the rest of the current year; this offer was unanimously accepted, and the action of the Executive Committee approved.

Mr. RICHARD LAKE then read a paper on chronic middle ear disease, which was full of interest and was followed by a discussion in which many members took part. A cordial vote of thanks to Mr. Lake terminated the meeting.

MIDLAND BRANCH.

BOSTON AND SPALDING DIVISION.

A SPECIAL meeting of this Division was held on February 7th. Dr. WHITE was in the chair, and eleven members were present.

Attendance on Uninsured Persons.—The question of medical attendance on uninsured members of friendly societies over 65 years of age and not disabled from working by injury or disease was considered and the following scale of fees was agreed to:

Uninsured Men.—Members of friendly societies over 65 years of age and not disabled from working by injury or disease. *Wage Limit.*—£2 a week or £104 a year for those attended under capitation system. Dr. MASON proposed, and Dr. R. TUXFORD seconded, that it be 8s. 6d. a head, with *extra fees* as follows:

	s.	d.
Certificates for other clubs	0	6 each.
Certificates for the purposes of Workmen's Compensation Act	2	6 minimum.

Mileage.—Three miles out. One shilling a mile *out* beyond this distance.

Diseases due to misconduct.
Administration of anaesthetics outside hospitals, 10s. 6d.
Major operations outside hospitals.
Consultations, vaccines, serums, surgical instruments and appliances.
Free choice of doctor by patient and patient by doctor. Contract to last one year.

In the event of payment per attendance being chosen then the following tariff to be adopted, applying to those whose income *do not exceed* £160 a year:

Scale of Fees.	s.	d.
Ordinary visit and medicine, distant one mile and a half from Town Bridge	3	6
Ordinary visit, distant one mile and a half from Town Bridge	2	6
Night visits (for calls received and paid from 8 p.m. to 8 a.m.)	5	0
Consultation with medicine at surgery	2	6
Consultation without medicine	1	6

Consultations of minor importance *may* not be charged for.

Mileage.—One shilling a mile *out* beyond one mile and a half from Town Bridge. Extra fees would be charged for general anaesthetics, major operations, consultations, fractures, dislocations, vaccines, serums, surgical instruments, and appliances.

It was decided to accept women and children under the same scheme, with extra fees beyond those above mentioned for confinements, miscarriages, and abortions.

Juvenile Clubs.—Boys, ages 5 to 16: 5s. a head, with extra fees as mentioned above for uninsured men, wage-limit of parent the same.

Women and Girls.—No capitation scheme, only payment per attendance.

Nominations to Insurance Committee.—It was resolved *nemine contradicente*, that Dr. Wilson represent the North of the Holland Division and Dr. S. H. Perry (Spalding) the South on the Holland Insurance Committee.

NORTHERN COUNTIES OF SCOTLAND BRANCH:

INVERNESS-SHIRE DIVISION.

A MEETING of the Division was held at Inverness on February 14th for the purpose of constituting an Ethical Committee for the Division. The Ethical Rules recommended by the Representative Meeting in Liverpool were adopted as rules of the Division.

The following were elected members of the Ethical Committee: Dr. John MacDonald (M.O.H. Inverness), Mr. James Luke (Inverness), Dr. J. Munro Moir (Inverness), Dr. T. C. Mackenzie (District Asylum, Inverness),

Dr. Thos. Macdonald (Beauly), Dr. Miller (Fortwilliam), Dr. Balfour (Aviemore), Dr. Macdonald (Uig, Skye), Dr. Tolmie (Obbe, Harris), Dr. M. Mackenzie (Scolpaig), Dr. Reardon (South Uist), with the Chairman and Secretary of the Division as *ex officio* members.

OXFORD AND READING BRANCH:

OXFORD DIVISION.

A SPECIAL general meeting of the Division was held on February 21st at the Radcliffe Infirmary, Oxford. Dr. TURRELL was in the chair, and about fifty members were present.

Central Defence Fund.—Dr. COLLIER, on behalf of the Local Guarantee Fund Committee, made an appeal to all who had not yet subscribed to the Central Fund, explaining that the liabilities of the Association were very large, and that the Oxford Guarantee Fund Committee had undertaken to assist in defraying them by opening a subscription list.

Attendance on Aged and Infirm Members of Friendly Societies.—The question of attendance on aged and infirm members of friendly societies was discussed, and after various propositions had been made, the CHAIRMAN, in order to make the position quite clear, read an extract from the BRITISH MEDICAL JOURNAL of February 1st, and moved the following resolution, which was carried *nemine contradicente*:

That aged and infirm members of approved societies be not attended at lower rates than 8s. 6d. per member. (This to include medicine.)

Contract Attendance on Uninsured Persons.

The subject of contract attendance on uninsured persons was then dealt with. Mr. DREW stated that the staff of the Cutler Boulter Dispensary, Oxford, had agreed only to attend members on Insurance Act terms.

Dr. HEEP, speaking for practitioners of the Islip and Bicester District, said that the rates agreed upon for members of friendly societies were: Men 10s., women 8s. 6d., juveniles (from 5 to 16) 6s., and payment for "extras."

Dr. JONES, speaking for Deddington, Steeple Aston, and Aynho, said that the terms there were the same as the above, but that a few would prefer fees at National Friendly Deposit Society rates.

Dr. SUMMERHAYES (Thame and South Oxon) said the terms there settled were: Adults, from 16 to 60, 8s. 6d.; children, from 1 to 16, 4s. for one, 6s. for two, and 8s. for three or more, with extras.

Dr. SUSSMAN, of Henley, gave a detailed account of the "Berkshire Scheme" now in force throughout the whole of Berks. This was based on a sliding scale, according to wages, and was under the control of a central committee, co-ordinating the work of local district committees.

Dr. BRUNYATE stated that the Woodstock club fees would in future be raised to 8s. 6d. a member.

Mr. STYLE outlined the Gloucestershire scheme: Adults 2d. a week, two children 1d. a week, juveniles 4s. 4d. (with extras).

Finally the CHAIRMAN proposed the following motion, which was carried by 19 to 5:

That no contract attendance on uninsured persons and juveniles be undertaken at lower rates than the following:

	Per Annum. s.	d.
Males	10	0
Females	8	6
Juvenile members of friendly societies ...	5	0
Children (not more than two to be charged for)	4	4
"Nurse children"	10	0

It was explained that these were minimum rates, and that "extras" should be charged for.

Subsequently, on the motion of Mr. DREW, it was agreed to appoint a subcommittee, consisting of the City and County Medical Committees, to consider a scheme for contract attendance on the uninsured on the lines of the Berkshire scheme.

Contract Midwifery.—It was unanimously decided to refuse all midwifery on contract terms.

Free Choice of Doctor.—Mr. STYLE raised the question of free choice of doctor for all uninsured members of benefit societies, and it was unanimously decided that there should be free choice.

RHODESIAN BRANCH:

MATABELELAND DIVISION.

THE third meeting of the Matabeleland Division of the Rhodesian Branch was held at the Memorial Hospital on November 4th, 1912, when there were present Drs. Eaton, Sutherland, Townsend, Head, Acland, and Jameson. The SECRETARY reported that the Transvaal, the Griqualand West, and the Cape of Good Hope Eastern Province and Western Province Branches had written expressing their approval and wishing the society success. The Transvaal Medical Society's tariff was discussed; the Chairman, Secretary, and Drs. Acland and Strong were requested to make certain additions, and the tariff so amended was directed to be incorporated in the minutes and circulated and brought up to the next meeting.

The following resolutions as to club practice, signed by all the practitioners in Bulawayo, were adopted:

1. That to tender, being unprofessional, we cannot do so.
2. That we will not engage in club practice.
3. That, while we are aware of the fact that certain civil servants cannot afford to pay full fees, and consequently have always been charged at a reduced rate, we do not see any reason to charge special fees for professional services to all members of the Matabeleland Civil Service Co-operative Society, Limited.

MASHONALAND DIVISION.

At the second meeting of the Mashonaland Division it was reported that the following cable had been sent to the British Medical Association in London:[1]

All Mashonaland practitioners unite with those in Matabeleland desiring formation of Rhodesian Branch of the Association.

Resolutions with regard to club practice identical with those passed by the Matabeleland Division were adopted.

The SECRETARY reported that a number of practitioners in Northern Rhodesia desired to join the Branch, but no Division had been started in the district, and on the motion of Dr. TOWNSEND, seconded by the SECRETARY, it was resolved that North Rhodesia should be part of the Matabeleland Division until such time as a separate Division was formed.

On the motion of Dr. EATON, seconded by Dr. TOWNSEND, it was resolved that the *Transvaal Medical Journal* should be the organ of the Division.

The following resolution, proposed by Dr. SUTHERLAND, seconded by Dr. JAMESON, was carried:

That the subscription be £2 2s., payable on or after December 1st, for the year 1913. This to include the BRITISH MEDICAL JOURNAL and the *Transvaal Medical Journal*.

It was resolved that the next meeting be held at the Memorial Hospital at 8.30 p.m. during the next High Court Session. It was left to the Chairman and Secretary to settle the actual day, and to arrange a clinical evening, to include ten minutes' papers on cases.

It was decided to send copies of the minutes to all practitioners in Matabeleland and N. Rhodesia, and that sufficient copies be sent to the Secretary of the Mashonaland Division for all members of that Division, as it was felt that if a common tariff scale could be arranged for Rhodesia it would be better than to have different scales in the three Divisions. It was hoped that reference by the Divisions to the Branch Council might achieve this.

SOUTH-EASTERN BRANCH:

BRIGHTON DIVISION.

AN ordinary meeting of the Brighton Division was held on February 18th at the Lecture Hall, New Road, Dr. RYDING MARSH in the chair. Thirty-one members were present.

Local Medical Committees.—The proceedings of the Brighton and East Sussex Medical Committees were reported by their respective CHAIRMEN. Both committees have now received statutory recognition under the Act.

Ethical Committee.—The Ethical Committee made a report. After some discussion the consideration of the report was adjourned until such time as the Executive Committee decided to put the matter on the agenda for a Division meeting.

[1] The notice recognizing the Rhodesian Branch was published in the SUPPLEMENT of December 14th, 1912, p. 677.

New Members Subcommittee.—Dr. FOTHERGILL reported the proceedings of the New Members Subcommittee, which has already obtained twelve new applications for membership. An active canvass is to be carried on amongst all non-members in the Division area, and adjoining Divisions are being invited to carry out a similar canvass.

Medical Certificates under the Insurance Act.—The following resolutions were carried without a dissentient:

(a) That the certificate of any medical practitioner whose name appears on the *Medical Register* should be accepted by an Insurance Committee, approved society, or other body until it has been clearly proved, after due investigation, that such certificate is not to be relied upon.

(b) That in all insurance areas where an adequate medical service has been provided under the Act for insured persons, the request of individual insured persons to be allowed to contract outside the Act with a registered medical practitioner should be granted subject to withdrawal of the permission later, should it be proved, after due investigation, that the medical attendance given has been unsatisfactory.

REIGATE DIVISION.

A MEETING of the Reigate Division was held at the White Hart Hotel on February 19th, at 4 p.m. Mr. A. R. WALTERS took the chair, and twenty-three members and one non-member were present.

Local Medical and Insurance Committees.

The CHAIRMAN described the working arrangements of the Insurance Act with regard to Local Medical and Insurance Committees.

Dr. SPENCER PALMER read the report of the Provisional Medical Committee, which had held 17 meetings, with an average attendance of 11 out of the 15 members. The report dealt with the work of the committee with regard to the various aspects of the Insurance Act and in relation to the question of the medical treatment of school children. Dr. PALMER pointed out that the work of the Provisional Committee came to an end with the election of a Local Medical Committee. The report was adopted.

Medical Treatment of School Children.

Dr. WALTERS gave an account of the negotiations with the Surrey County Council with regard to the medical treatment of school children found to be defective, and described the schemes proposed.

A memorandum from the Clerk to the Education Committee of the County Council was read. It was resolved to continue negotiations on the lines of the scheme suggested by the county authorities, with the addition of certain riders of the Provisional Committee.

Aged and Infirm Members of Friendly Societies.

A discussion followed upon the question of attendance upon aged and infirm members of approved societies, and contract attendance upon uninsured persons generally. Dr. PRINCE moved the following resolution, which was seconded by Dr. WEIR, and carried:

That no further contract work be accepted at terms below the full insurance rate of 9s. per annum.

Contract Attendance upon Uninsured Women.

The consideration of the question of contract attendance upon uninsured women was deferred.

Election of Representatives on Insurance Committee.

The CHAIRMAN referred to the candidature of Dr. Arnold Lyndon, of Haslemere, and Dr. George Cowie, of Wimbledon, as medical representatives on the Surrey Insurance Committee, and strongly urged those present to support these gentlemen.

Election to Executive Committee.

The name of Dr. Ogle was added to the Executive Committee of the Division.

MEETING OF MEDICAL MEN RESIDENT IN THE INSURANCE DISTRICT.

The Divisional meeting was followed by a meeting of medical men resident in the Reigate Insurance District. Dr. WALTERS presided.

The first business was the consideration of the offer made by the Surrey Insurance Committee to introduce the Salford scheme or some similar arrangement in districts in which there was a unanimous demand for such a method of attendance and remuneration. The CHAIRMAN outlined such a plan, and the following motion, proposed by Dr. WEIR and seconded by Dr. FRENCH, was carried unanimously:

That we in this district emphatically oppose any such plan as the Salford scheme.

Local Medical Committee.

On the motion of Dr. PALMER it was agreed that the constitution of the Local Committee be that of the Provisional Committee: representatives from Chipstead taking the place of those from Bletchingley, and that the committee should be elected for one year. The following gentlemen were then elected:

Borough of Reigate.—Messrs. Walters, Ogle, Palmer, Hewetson, Thornton, and Gayner.

Dorking.—Messrs. Mackenzie, G. A. A. Robertson, and Sebastian.

Horley.—Messrs. S. A. Clark, Pagden, and Williamson.

Kingswood, Chipstead, and Merstham.—Messrs. French, Binney, and Weir.

A vote of thanks was accorded to Dr. Palmer for his services as Chairman of the Provisional Committee.

Drugs.

The following were appointed as a subcommittee to act with the local Pharmacists' Society in the preparation of a list, with formulae, of stock mixtures: Drs. Spencer, Palmer, Mackenzie, and Watson.

Vote of Thanks.

The meeting closed with a vote of thanks to the Chairman.

SOUTH-WESTERN BRANCH.

EXETER DIVISION.

Special Meeting.

A SPECIAL meeting of the Exeter Division was held at the Royal Devon and Exeter Hospital on February 19th. Mr. E. J. DOMVILLE was in the chair, and thirty members were present. The meeting was summoned to consider certain resolutions, of which notice had been given. Mr. RUSSELL COOMBE moved, and Dr. T. J. STEELE PERKINS seconded, a resolution to the effect that no negotiation or agreement for contract practice (except with regard to persons insured under the National Insurance Act) should be entered into by any practitioner in Exeter otherwise than through the Secretary of the Exeter Medical Committee, or, outside Exeter, save through the Secretary of the District Medical Committee of his area, and that no medical practitioner should continue practice of such nature except with the sanction of such Committee.

After considerable discussion, in which Drs. DAVY, DUNCAN, PEREIRA and others took part, a resolution approving the principle of the resolution was carried by more than a two-thirds majority, and a committee was formed to settle the wording in consultation with the mover of the resolution.

Mr. RUSSELL COOMBE proposed the two following motions, which were carried unanimously:

That this Division, acting under the ethical rules, requests the Branch Council to obtain the adhesion of the other Divisions of the Branch to the following, or some similar, resolution:

That for all purposes under the National Insurance Act, members of the Branch practising in the County of Devon, the County of Cornwall, the County Borough of Exeter, the County Borough of Plymouth, and the County Borough of Devonport shall, as regards their practice within these respective areas, be bound by the decisions of the recognized Medical Committees for these areas.

That any members practising in the counties of Somerset and Dorset shall similarly be bound by the decisions of the recognized Medical Committees for those Counties.

That it be the duty of the Division Secretary to keep a separate book (provided with an index) wherein shall be inscribed all resolutions of the Division, together with a reference to the minutes of the meeting at which they were adopted.

ANNUAL MEETING.

The annual meeting of the Division was held after the conclusion of the special meeting.

Annual Report.

The HONORARY SECRETARY read the annual report, which contained the following statement as to membership:

Membership on December 31st, 1911		156
Increases:		
(*a*) New members...	6	
(*b*) Through change of address ...	24	
Total additions		30
Aggregate		186
Losses:		
(*a*) Deaths	3	
(*b*) Resignations	6	
(*c*) Through change of address ...	14	
Total deductions		23
Net membership on December 31st, 1912 ...		163

Five meetings had been held during the year, with an average attendance of 54; the largest attendance at any one meeting was 87. The chief subject of interest during the year was the National Insurance Act, and it was due to the interest taken in this subject that the meetings had been so exceptionally well attended.

Election of Officers.—The following were elected officers for the ensuing year:

Chairman, Mr. A. C. Roper; *Vice-Chairman*, Mr. H. Andrew; *Honorary Secretary*, Mr. Robert Worthington; *Representatives*, Mr. Russell Coombe and Dr. W. Gordon; *Representatives on Branch Council*, Drs. R. V. Solly, W. H. Evans, G. G. Gidley, M. Cutcliffe, H. H. Serpell, J. Cock, A. M. Braund, and Mr. Robert Worthington; *Executive and Ethical Committees* (the same members were elected to serve on these committees as were elected Representatives on the Branch Council); *Representatives on District Nursing Association*, Messrs. Russell Coombe and J. T. Steele Perkins.

Local Defence Fund.—Dr. DUNCAN gave an account of the Local Defence Fund, and remarked that members were responding very satisfactorily to the recent 20 per cent. call. On the motion of Mr. RUSSELL COOMBE, seconded by Mr. ROPER, it was unanimously resolved to make a grant of £20 from the Local Defence Fund to assist in defraying the heavy expenses of the Division during the past year.

Vote of Thanks to Mr. E. J. Domville.—Mr. H. ANDREW proposed a vote of thanks to Mr. Domville for the able manner in which he, as Chairman, had conducted the business of the meetings of the Division during the past three years, and expressed regret that he was leaving. Mr. A. C. ROPER seconded, and the vote was carried with acclamation. Mr. DOMVILLE replied.

Vote of Thanks to Retiring Secretary.—Dr. J. T. STEELE PERKINS proposed a vote of thanks to Dr. A. W. F. Sayres on his retirement from the Honorary Secretaryship of the Division, and for his work on behalf of the Division during the three strenuous years just past. This was seconded by Dr. W. GORDON, supported by Mr. RUSSELL COOMBE, and carried unanimously. Dr. SAYRES expressed his thanks.

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1913.

DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1913, will be held at Brighton on Friday, July 18th, and following days, as may be required.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting at Brighton in July next, relating to questions affecting the honour and interests of the medical profession or of the Association (By-law 37), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 19th, and for this purpose should be received by me not later than April 12th, 1913.

Notices of Motion proposing to make any addition to, or any amendment, alteration or repeal of any Regulation or By-law, or to make any new Regulation or By-law (Article 31), must be published in the JOURNAL not later than the issue of May 17th, and received by me not later than May 10th, 1913.

By Order,

ALFRED COX,
Medical Secretary.

February 4th, 1913.

ELECTION OF COUNCIL, 1913–14.

NOTICE is hereby given that nominations for a candidate for election as a Member of Council by the New South Wales and Queensland Grouped Branches for a period not exceeding three years as prescribed by By-law 49 (2) must be forwarded so as to reach me not later than Thursday, April 24th, 1913.

Nominations must be made by any three Members of the grouped Branches, in the form prescribed below.

Election will be by voting papers, and these will contain the names of all duly nominated candidates, and will be issued by me.

By Order of the Council,
R. H. TODD,
Honorary Secretary, New South Wales Branch, and Returning Officer.

Northfield Chambers, Phillip Street, Sydney, N.S.W., March 1st, 1913.

NEW SOUTH WALES AND QUEENSLAND.

NOMINATION FORM.

BY NOT LESS THAN THREE MEMBERS OF THE GROUPED BRANCHES.

We, the undersigned, hereby nominate

.....

of.....

.....

as a candidate for election by the New South Wales and Queensland grouped Branches above named as a member of the Council of the Association.

Names and addresses of nominators, and Branches to which they belong.

Name.	*Branch.*
.....	.....
.....	.....
.....	.....

This form should be returned to Dr. R. H. Todd, Northfield Chambers, Phillip Street, Sydney, N.S.W., not later than Thursday, April 24th, 1913.

BRANCH AND DIVISION MEETINGS TO BE HELD.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—A meeting of this Division will be held at the Coventry Hospital on Tuesday, March 4th, at 8.30 p.m. (1) To discuss the ethical procedure in regard to the Coventry Dispensary. (2) To discuss the new Ethical Rules as recommended by the Association. (3) To receive communications. (4) Dr. Wynne will read a paper on "The Rôle of Tuberculin in Treatment of Pulmonary Tuberculosis."—DUNCAN DAVIDSON, 15, Priory Row, Coventry.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will be held at the Manor Lodge, Upper Clapton (by invitation of Dr. C. F. Hadfield), on Tuesday, March 12th, at 9.30 p.m. Clinical evening: Cases and discussion. The Honorary Secretary will be glad to receive notice from members desiring to show cases or read short abstracts by February 28th.—A. G. SOUTHCOMBE, 83, Sidney Road, Homerton, N.E.

NORTH OF ENGLAND BRANCH: NEWCASTLE-ON-TYNE DIVISION.—It has been found necessary again to alter the date of the demonstration arranged by the Newcastle-on-Tyne Division to March 28th, when Professor R. A. Bolam will lecture on Medico-legal Tests for Blood.—R. J. WILLAN, Honorary Secretary, 25, Ellison Place, Newcastle-on-Tyne.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on February 20th, with Sir FRANCIS H. CHAMPNEYS in the chair.

Certificates of Candidates.

A letter was considered from the mother of a candidate who had tendered a false and fraudulent certificate of birth when endeavouring to enter for examination. The falsification of the certificate was regarded as having been done without the candidate's knowledge, and in these circumstances the Board resolved that the candidate should be allowed to present herself at the next examination after her 21st birthday according to the birth certificate from Somerset House, and that the mother be informed that a person falsifying a certificate renders himself or herself liable to a penalty of twelve months' hard labour. It was resolved to advise training schools to satisfy themselves that the dates on the birth certificates of pupils had not been tampered with.

Payment of Midwives.

A letter was considered from the Medical Officer of Health for Leicester suggesting that a midwife's remuneration should be a first charge upon the maternity benefit payable to her patient. The Board directed that the Medical Officer of Health for Leicester should be informed that the Board has no power to deal with the payment of midwives.

Uncertified Midwives.

The Board considered a letter from the Secretary of the Wigan and District Guild of Midwives calling attention to the frequency of midwifery practice by uncertified women in the borough of Wigan, and decided to reply that an amendment of the Midwives Act by the omission of the words "habitually and for gain" was highly desirable, and that the Board had made repeated suggestions to this effect. A letter was also considered from the Clerk of the Cheshire County Council forwarding an extract from the minutes of a meeting of that council with reference to proceedings contemplated against an uncertified woman practising as a midwife. The Board resolved to send a similar reply in this instance, and to add that if its suggestion were carried out prosecutions under the Act would probably be undertaken within the time limit of the Summary Jurisdiction Act.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following appointments have been announced at the Admiralty: Staff Surgeon GERALD M. EASTMENT to the *Alacrity* on recommissioning, February 27th, 1913. Surgeon G. J. CARR to Royal Naval Hospital, Plymouth, vice Wilson, February 18th, 1913. Surgeon A. C. WILSON to the *Excellent*, vice Carr, February 18th, 1913.

ARMY MEDICAL SERVICE.

COLONEL A. E. TATE has been appointed Assistant Director of Medical Services, Allahabad and Fyzabad Brigade, from December 31st, 1912, vice Colonel H. J. Barratt transferred.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel DAVID V. O'CONNELL, M.D., is placed on the retired list, February 13th, 1913.

Major CHARLES W. H. WHITESTONE, M.B., to be Lieutenant-Colonel vice D. V. O'Connell, M.D., February 13th, 1913.

Major S. G. BUTLER is posted to the Curragh as Specialist in Operative Surgery.

Major E. B. STEEL has been appointed to the Medical Charge of troops at Exeter.

Major W. J. TAYLOR has been ordered to Sierra Leone.

Major T. C. MCKENZIE has been appointed to the Eastern Command.

Major R. MCK. SKINNER has been appointed to Dublin for duty.

Major H. E. STADDON has been appointed to India.

The undermentioned to be Lieutenants on probation, January 24th, 1913: SUMNER HUGH SMITH, FRANCIS JAMES CAIRNS, M.B., SIDNEY BEDDINGFIELD, M.B., FRANCIS C. DAVIDSON, M.B., JOHN F. O'CONNELL, M.B., WILLIAM O. W. BELL, M.B., late Cadet, Dublin University Contingent, Officers' Training Corps; JOHN CROCKET, M.B., HUMFREY N. SEALY, JOHN ROWE, M.B., STANLEY D. LARGE, late Cadet, Edinburgh University Contingent, Officers' Training Corps; EDWARD C. BEDDOWS, GEORGE E. DYAS, late Cadet, Inns of Court, Officers' Training Corps; ARTHUR H. BRIDGES, CONYNGHAM V. THORNTON, M.B., CYRIL HELM, late Cadet, London University Contingent, Officers' Training Corps; WILLIAM P. CROKER, M.B., late Cadet, Dublin University Contingent; Officers' Training Corps; Lieutenant AUBREY G. BROWN, M.B., from Royal Army Medical Corps Special Reserve; PERCIVAL D. WARBURTON, ROBERT HELMPHILL, M.B., ALBERT JACKSON.

The following Lieutenants are seconded under provisions of Article 300 Royal Warrant for Pay and Promotion, January 24th, 1913: FRANCIS J. CAIRNS, M.B., GEORGE E. DYAS, PERCIVAL D. WARBURTON.

Lieutenant T. H. BALFOUR, having completed his probationary period at Aldershot, has proceeded to the Scottish Command and taken up duty.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL JAMES JOHN PRATT has retired December 27th, 1912.

Lieutenant-Colonel W. J. BUCHANAN and Major W. G. LISTON have been appointed Companions of the Most Eminent Order of the Indian Empire.

Lieutenant-Colonel J. CHAYTOR-WHITE has been permitted to retire from the service with effect from December 22nd, 1912.

Major V. G. DRAKE-BROCKMAN is posted as Civil Surgeon, Dera Ismail Khan.

Major P. P. ATAL, I.M.S., is appointed to the substantive medical charge of the 129th Duke of Connaught's Own Baluchis.

The promotion of Major THOMAS STODART, M.B., to that rank is antedated from July 29th, 1905, as notified in the *London Gazette* of May 15th, 1906, to January 30th, 1905.

The promotion of Major ARMSTRONG WILLIAMS, D.S.O., M.B., to that rank is antedated from January 27th, 1912, as notified in the *London Gazette* of March 22nd, 1912, to July 27th, 1911.

Major HERBERT J. R. TWIGG, M.B., has retired, January 13th, 1913.

Captain J. ANDERSON is posted as Civil Surgeon, Hazara.

Captain N. S. SIMPSON has been appointed to plague duty in the United Provinces.

Captain M. A. NICHOLSON has been appointed Medical Officer, Lawrence Military Asylum, Sanawar, vice Captain N. S. Simpson.

Captain J. S. O'NEILL has been transferred from plague duty in the United Provinces to ordinary civil employment in the same province.

Captain W. S. MCGILLIVRAY, I.M.S., is appointed a Specialist in Otology, Laryngology, and Rhinology, with effect from November 6th, 1912.

Captain J. O. S. PHILLIPS, I.M.S., is appointed to the substantive medical charge of the 12lst Pioneers.

Captain D. M. C. CHURCH, I.M.S., is appointed to the substantive medical charge of the 25th Cavalry (Frontier Force).

Captain W. J. SIMPSON, I.M.S., is appointed to the substantive medical charge of the 34th Prince Albert Victoria Own Poona Horse.

Captain A. G. TRESIDDER, I.M.S., is appointed to the substantive medical charge of the 87th Punjabis.

Captain F. S. SMITH, I.M.S., is appointed to the subordinate medical charge of the 120th Rajputana Infantry.

The Kaisar-i-Hind Medal of the First Class for public service in India has been awarded to Majors E. R. ROST and E. L. WARD.

Captain C. H. BARBER has been granted leave on medical certificate for one year.

Captain D. G. R. S. BAKER, I.M.S., is appointed a Specialist in Ophthalmology with effect from January 1st, 1913.

The promotion of Captain MADAN LAL PURI to that rank is antedated from March 8th, 1911, to February 1st, 1911.

INDIAN SUBORDINATE MEDICAL DEPARTMENT.

Senior Assistant Surgeon and Honorary Captain JAMES FRASER has retired, September 23rd, 1912.

Senior Assistant Surgeon and Honorary Captain JOSEPH BRANDON has retired, December 7th, 1912.

Senior Assistant Surgeon THOMAS BALDRY, with the honorary rank of Lieutenant, to be Senior Assistant with honorary rank of Captain, December 7th, 1912.

The following First Class Assistant Surgeons to be Senior Assistant Surgeons with the honorary rank of Lieutenant, December 7th, 1912: JAMES FRANCIS FLEMING, EDWIN JOSEPH MURPHY, ROBERT GUNN BARONEAU, HENRY GEORGE CHARLES MILLS, and EDWARD GERALD ALFRED PRINS.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

THE undermentioned Lieutenants to be Captains, February 11th, 1913: WILLIAM DARLING, M.B., JORN M. DARLING, M.B.

The undermentioned Lieutenants are confirmed in their rank: HENRY B. PARKER, ROBERT D. GOLDIE, M.B.

Captain WILSON RANSON is seconded for service with the Territorial Force, February 8th, 1913.

Lieutenant JAMES B. A. WIGMORE, from the seconded list, is restored to the establishment, February 1st, 1913.

TRAVIS HAMPSON, M.B., to be Lieutenant on probation, January 14th, 1913.

ROYAL MALTA ARTILLERY.

SURGEON CAPTAIN ROBERT VELLA, to be Surgeon-Major, January 2nd, 1913.

TERRITORIAL FORCE.

First South Midland Field Ambulance.—Lieutenant HANS F. W. BOEDDICKER, M.B., to be Captain, January 1st, 1913.

Fourth London General Hospital.—HERBERT S. CLOGG, M.B., F.R.C.S., to be Captain, whose services will be available on mobilization, February 3rd, 1913. ERNEST ROCK CARLING, M.B., F.R.C.S., to be Captain, whose services will be available on mobilization, January 31st, 1913.

Third Northern General Hospital.—Lieutenant-Colonel WILLIAM DYSON, M.D., and Lieutenant-Colonel RUTHERFORD J. PYE-SMITH, F.R.C.S., are retired, February 22nd, 1913.

Second Southern General Hospital.—Captain JOHN A. NIXON, M.B., F.R.C.P., has resigned his commission, February 22nd, 1913.

Attached to Units other than Medical Units.—Captain JAMES G. MILLAR, M.B., and Lieutenant ALFRED E. A. CARVER have resigned their commissions, February 22nd, 1913.

For Attachment to Units other than Medical Units.—ALEXANDER KENNETH MACLACHLAN, M.B., to be Lieutenant, January 3rd, 1913. JOHN ORLANDO SUMMERHAYES, late Lieutenant 4th Battalion the Oxfordshire and Buckinghamshire Light Infantry, to be Lieutenant, February 8th, 1913.

Supernumerary for Service with the Officers' Training Corps.—Lieutenant (Provisional Captain) ROBERT DAVIES-COLLEY (serving with University of London Contingent, Second Division, Officers' Training Corps), resigns his commission, February 19th, 1913.

Notts and Derby Mounted Brigade Field Ambulance.—Captain ALEXANDER T. MULHALL, F.R.C.S.I., and Captain FRANCIS B.

MITCHELL HEGGS, from the list of officers attached to units other than medical units, to be Captains, February 15th, 1913.
Fifth London Field Ambulance. — Lieutenant-Colonel SIDNEY F. ST. J. STEADMAN to be Captain, August 19th, 1912.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Army Medical Service have been officially reported to have taken place during January:

		FROM	TO
Colonel	R. H. Firth, F.R.C.S.	Simla	Peshawar.
,,	C. E. Faunce	Chatham	Woolwich.
Lieut.-Colonel	A. T. I. Lilly	Colaba	Belgaum.
,,	C. C. Reilly	Belgaum	Colaba.
,,	C. H. Melville, M.B.	R.A.M. Coll.	Lucknow.
,,	E. Eckersley, M.B.	War Office	India.
,,	S. Macdonald, M.B.	London	Salisbury.
,,	L. Way	Chakrata	Bareilly.
,,	B. Forde, M.B.	Deepcut	Bulford.
,,	F. W. Hardy, M.B.	Lucknow	Allahabad.
,,		Peshawar	Lahore.
Major	C. W. H. Whitestone, M.B.	—	War Office.
,,	G. B. Stanistreet, M.B.		
,,	W. E. Hardy	Caterham	Cawnpore.
,,	H. W. K. Read	Pontefract	India.
,,	W. J. Taylor, M.B.	Bedford	Bury St. Edmunds.
,,	E. B. Steel, M.B.	Muttra	London.
,,	S. J. C. P. Perry, F.R.C.S.I.	Belgaum	Colaba.
,,	G. T. K. Maurice	Reading	Tidworth.
,,	M. P. Corkery	Nasirabad	Fermoy.
,,	A. H. O. Young	Strensall	India.
,,	E. A. Bourke	Cape Town	W. Command.
,,	G. J. S. Archer, M.B.	Maymyo	Cosham.
,,	A. R. O'Flaherty	Devonport	Ambala.
,,	S. G. Butler	Pretoria	Curragh.
,,	H. M. Morton, M.B.	,,	Cape Town.
,,	E. McDonnell, M.B.	Bermuda	E. Command.
,,	B. R. Dennis, M.B.	Straits Settlements	London.
,,	W. Bennett, M.B.	Calcutta	Maymyo.
,,	A. D. Waring, M.B.	Hong Kong	S. Command.
,,	W. L. Bennett, M.B., F.R.C.S. Edin.	Bermuda	N. Command.
,,	R. L. Argles	Aden	Cahir.
,,	A. C. Adderley	Harrismith	Wynberg.
,,	W. S. Crosthwait	Fermoy	India.
,,	W. M. Power	Jamaica	E. Command.
,,	A. H. McN. Mitchell	Netley	,,
,,		Mhow	Maymyo.
Captain	F. W. Lambelle, M.B.	—	S. Command.
,,	H. W. Long, M.B.	R.A.M. Coll.	Quetta.
,,	N. D. Walker, M.B.	Glasgow	India.
,,	F. A. H. Clarke	Devonport	Plymouth.
,,	J. W. S. Seccombe	Dublin	S. Africa.
,,	W. D. C. Kelly, M.B.	Fort Camden, Queenstown Harbour	India.
,,	E. J. Franklin	—	Tientsin.
,,	A. E. B. Wood, M.B.	Dover	Brighton.
,,	J. B. Meldon, M.B.	Edinburgh	Glencorse.
,,	D. G. Carmichael, M.B.	Chatham	R.A.M. Coll.
,,	F. M. M. Ommanney	Pontefract	Aldershot.
,,	N. E. Dunkerton	Curragh	Dublin.
,,	C. H. Turner	Glencorse	Glasgow.
,,	E. C. Whitehead, M.B.	Aldershot	India.
,,	H. Harding, M.B.	Halifax	E. Command.
,,	D. P. Johnstone	Chester	Jhansi.
,,	E. H. M. Moore	Chatham	Shoeburyness.
,,	G. R. Painton	Mill Hill	Colchester.
,,	P. A. Lloyd Jones, M.B.	London	Aldershot.
,,	A. S. Littlejohns	Simonstown	Irish Comnd.
,,	F. A. McCammon, M.B.	Colaba	Dublin.
,,	G. De la Cour, M.B.	Bangalore	Dublin.
,,	A. S. Williams	Nowshera	Irish Comnd.
,,	E. W. M. Paine	Calicut	Pembroke Dk.
,,	F. D. G. Howell	Lahore	W. Command.
,,	P. Sampson	Murree	Dublin.
,,	J. W. L. Scott	Aden	Netley.
,,	W. C. Smales	Weymouth	Portsmouth.
,,	A. H. Bond	Fermoy	Queenstown.
,,	T. W. O. Sexton	Wynberg	E. Command.
,,	T. T. H. Robinson, M.B.	Nasirabad	N. Command.
,,	G. H. Stevenson, M.B.	Ambala	Strensall.
,,	W. H. Forsyth, M.B.	Pretoria	S. Command.
,,	R. D. O'Connor	Lahore	Multan.
,,	J. C. Hart, M.B.	Peking	Hounslow.
,,	J. H. Gurley	Chatham	Netley.
,,	J. B. Hanafin, F.R.C.S.I.	Peshawar	Nowshera.
,,	H. P. Hart, M.B.	Rangoon	Wellington.
,,	J. W. Houston, M.B.	Colaba	Peshawar.
,,	C. Kelly, M.D.	—	Woolwich.
,,	C. McQueen	Pretoria	W. Command.
,,	A. M. Pollard	Bloemfontein	,,
,,	C. G. Sherlock, M.D.	Bakloh	Lahore.
,,	R. C. Priest, M.B.	Lebong	Allahabad.
,,	W. Mathieson	Potchefstroom	Pretoria.
Lieutenant	G. H. Dive	Tientsin	Peking.
,,	C. H. Harold, M.B.	London	Rawal Pindi.
,,	E. L. Fyffe, M.B.	Cork	Poona.
,,	R. F. Bridges, M.B.	Rawal Pindi	Peshawar.
,,	G. O. Chambers	Lichfield	Egypt.
,,	B. Biggar, M.B.	London	Windsor.
,,	E. G. S. Cane	Dublin	India.
,,	F. A. Robinson, M.B.	Curragh	,,
,,	C. D. K. Seaver	,,	,,
,,	W. L. E. Fretz, M.B.	Deepcut	Rawal Pindi.
,,	P. Hayes, M.B.	Aldershot	Secunderabad.
,,	P. M. J. Brett, M.B.	Cosham	India.
,,	J. M. Elliott, M.B.	Portsmouth	Hilsea.
,,	A. G. J. MacIlwaine	Aldershot	Deepcut.
,,	C. M. Ingoldby	Cork	Kilkenny.

COLONIAL MEDICAL SERVICES.

WEST AFRICAN MEDICAL SERVICE.

THE following notification has been issued by the Colonial Office:
New Appointments.—The following gentlemen have been selected for appointment to the staff: W. Telfer, M.B., Ch.B.Glasg., Gold Coast; J. F. Corson, Ch.B., M.D.Manch., D.P.H.Cantab., Gold Coast; H. Fleming, M.B., B.Ch., B.A.O.Dubl., Sierra Leone; W. Allan, M.B., Ch.B.Aberd., D.P.H., Sierra Leone.

OTHER COLONIES AND PROTECTORATES.

J. L. Pawan, M.B., Ch.B.Edin., and H. C. Swertz, M.B., B.Ch., B.A.O. (R.U.I.) have been selected for appointment as Supernumerary Medical Officers in Trinidad; T. H. Massey, L.R.C.S., L.R.C.P.Irel., has been selected for appointment as a Medical Officer in the East Africa Protectorate; M. Anthony, L.R.C.S., L.R.C.P.Irel., has been selected for appointment as Second Assistant Medical Officer, Lunatic Asylum, Jamaica; A. H. B. Pearce, L.R.C.S., L.R.C.P.Edin., L.F.P.S.Glasg., L.M.Dubl., Medical Superintendent of the Holberton Hospital and Health Officer, Antigua, has been selected for appointment as Colonial Surgeon in the Falkland Islands; J. F. Hoare, M.R.C.S., L.R.C.P., has been selected for appointment as a Medical Officer, Gilbart and Ellice Islands; J. G. Watson, M.R.C.S.Eng., L.R.C.P.Lond., has been selected for appointment as Medical Officer for Grand Cayman; W. S. Mitchell, M.R.C.S., L.R.C.P.Lond., L.S.A., has been selected for appointment as Assistant Resident House-Surgeon at the Colony Hospital, Grenada.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-six of the largest English towns 8,364 births and 5,931 deaths were registered during the week ending Saturday, February 22nd. The annual rate of mortality in these towns, which had been 17.3 17.2, and 17.2 per 1,000 in the three preceding weeks, rose to 17.3 per 1,000 in the week under notice. In London last week the death-rate was equal to 18.2, against 18.6, 17.3, and 18.1 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rate ranged from 5.4 in Hornsey, 9.5 in Walthamstow, 9.8 in Edmonton, 10.3 in Tynemouth, 10.5 in Eastbourne, and 11.0 in Southend-on-Sea, to 23.2 in Newport (Mon.), 23.5 in Wolverhampton, 23.8 in Bootle, 25.7 in West Bromwich, 28.2 in Wigan, and 29.4 in St. Helens. Measles caused a death-rate of 2.4 in Barrow-in-Furness, 2.8 in Sheffield, 3.0 in Stockton-on-Tees, 3.3 in Wolverhampton, 6.0 in Swindon, 7.3 in St. Helens, 7.5 in Wigan, and 8.3 in West Bromwich; whooping-cough of 1.2 in Birkenhead, 1.6 in Rotherham, 1.7 in Wigan, 1.8 in Lincoln, and 2.5 in Acton; and diphtheria of 1.5 in Portsmouth. The mortality from enteric fever and scarlet fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 48, or 0.8 per cent. of the total deaths, were not certified either by a registered medical practitioner or by a coroner after inquest, and included 10 in Liverpool, 7 in Birmingham, 4 in Coventry, 4 in Warrington, and 2 each in Manchester, Burnley, Darlington, and Sunderland. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,738, 1,736, and 1,701 at the end of the three preceding weeks, had further fallen to 1,667 on Saturday last; 180 new cases were admitted during the week, against 209, 209, and 196 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN sixteen of the largest Scottish towns 1,177 births and 883 deaths were registered during the week ending Saturday, February 15th. The annual rate of mortality in these towns, which had been 20.2 and 20.8 per 1,000 in the two preceding weeks, declined to 20.4 in the week under notice, and was 3.2 per 1,000 above the rate in the ninety-six large English towns. Among the several Scottish towns the death-rates ranged from 13.5 in Kilmarnock, 14.6 in Paisley, and 17.6 in Hamilton, to 25.2 in Dundee, 26.1 in Kirkcaldy, and 26.7 in Motherwell. The mortality from the principal epidemic diseases averaged 1.5 per 1,000, and was highest in Falkirk and Motherwell. The 406 deaths from all causes registered in Glasgow included 20 from whooping-cough, 6 from infantile diarrhoeal diseases, and 5 from diphtheria. Four deaths from whooping-cough were recorded in Motherwell, 4 in Falkirk, and 3 in Edinburgh; 2 from measles in Motherwell, and 3 from infantile diarrhœa in Dundee.

In the sixteen largest Scottish towns 1,120 births and 808 deaths were registered during the week ending Saturday, February 22nd. The annual rate of mortality in these towns, which had been 20.2, 20.8, and 20.4 per 1,000 in the three preceding weeks, fell to 18.7 in the week under notice, but was 1.4 per 1,000 above the rate recorded in the ninety-six large English towns. Among the several Scottish towns the death-rate last week ranged from 11.5 in Motherwell, 11.7 in Kirkcaldy, and 13.2 in Coatbridge, to 21.4 in Ayr, 23.6 in Dundee, and 24.1 in Kilmarnock. The mortality from the principal infectious diseases averaged 1.8 per 1,000, and was highest in Clydebank and Falkirk. The 388 deaths from all causes registered in Glasgow included 37 from whooping-cough, 4 from diphtheria, 4 from infantile diarrhoeal diseases, 3 from measles, 1 from enteric fever, and 1 from scarlet fever. Four deaths from whooping-cough were registered in Edinburgh, and 3 in Clydebank; and 2 deaths from measles in Dundee, and 2 in Falkirk.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, February 15th, 635 births and 490 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 654 births and 481 deaths in the preceding period. These deaths represent a mortality of 21.3 per 1,000 of the aggregate population in the districts in question, as against 20.9 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 4.1 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 27.6 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 21.7, as against an average of 19.5 for the previous four weeks, in Dublin city 21.0 (as against 20.2), in Belfast 19.9 (as against 22.6), in Cork 29.2 (as against 26.5), in Londonderry 19.1 (as against 22.2), in Limerick 17.6 (as against 16.9), and in Waterford 26.6 (as against 20.0). The zymotic death-rate was 1.6, as against 1.8 in the previous week.

During the week ending Saturday, February 22nd, 620 births and 554 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 635 births and 490 deaths in the preceding period. These deaths represent a mortality of 24.1 per 1,000 of the aggregate population in the districts in question, as against 21.3 per 1,000 in the previous period. The mortality in these Irish areas was therefore 6.8 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 27.0 per 1,000 of the population. As for mortality of individual localities, that in the Dublin registration area was 24.1 (as against an average of 20.8 for the previous four weeks), in Dublin City 25.9 (as against 21.2), in Belfast 25.4 (as against 22.8), in Cork 23.8 (as against 27.0), in Londonderry 19.1 (as against 19.4), in Limerick 17.6 (as against 17.3), and in Waterford 20.9 (as against 20.4). The zymotic death-rate was 1.6, or the same as in the previous week.

EPIDEMIC MORTALITY IN LONDON.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

THE accompanying diagram shows the prevalence of the principal epidemic diseases during the fourth quarter of the year. The fluctuations of each disease and its relative fatality compared with the average in the corresponding periods of recent years can thus be readily seen, except for diarrhœa and enteritis among children under 2 years of age, for which the average mortality is not available.

Enteric Fever.—The fatal cases of enteric fever, which had been 31, 28, and 29 in the three preceding quarters, rose to 30 last quarter, but were 38 below the corrected average number in the corresponding period of the five preceding years; this disease showed the highest proportional mortality in Hammersmith, St. Marylebone, Hampstead, Islington, and Poplar. The number of enteric fever patients under treatment in the Metropolitan Asylums Hospitals at the end of the quarter was 37, against 52, 32, and 49 at the end of the three preceding quarters; 85 new cases were admitted during the quarter, against 93 in each of the two preceding quarters.

Small-Pox.—No death from small-pox was recorded last quarter, and no case of this disease was under treatment during the quarter in the Metropolitan Asylums Hospitals.

Measles.—The deaths from measles, which had been 202, 433, and 376, rose last quarter to 786, and were 435 in excess of the average number in the fourth quarters of the five preceding years. This disease was proportionally most fatal in Finsbury, Shoreditch, Bethnal Green, Stepney, Poplar, and Battersea.

Scarlet Fever.—The fatal cases of scarlet fever, which had been 23, 42, and 44 in the three preceding, further rose last quarter to 50, but were fewer than half the corrected average number. The greatest proportional mortality from this disease was recorded in St. Marylebone, Stepney, Southwark, Bermondsey, and Greenwich. There were 2,088 scarlet fever patients under treatment in the Metropolitan Asylums Hospitals at the end of last quarter, against 1,296, 1,380, and 1,845 at the end of the three preceding quarters; 3,542 new cases were admitted during the quarter, against 2,051, 2,039, and 2,856 in the three preceding quarters.

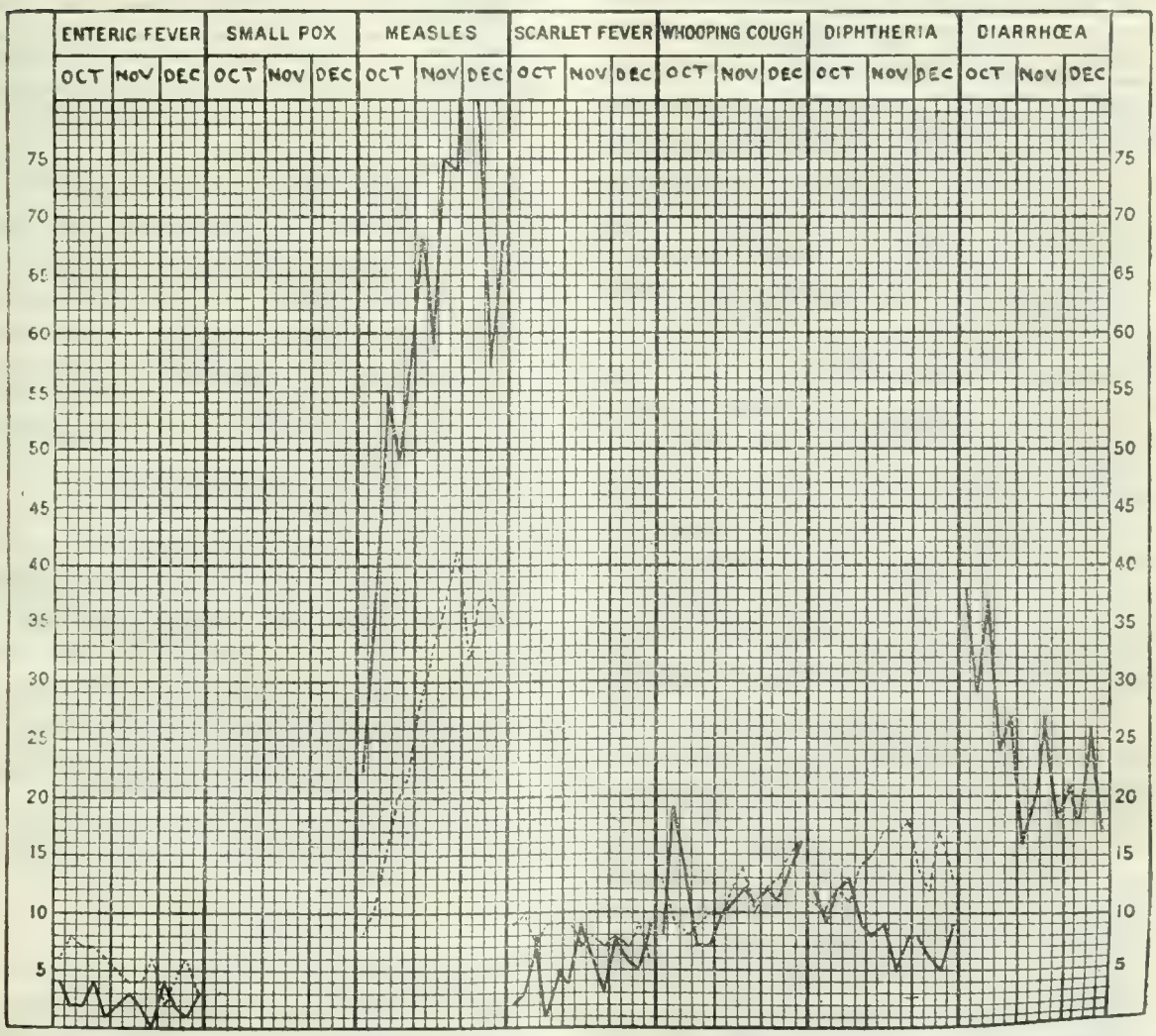
Whooping-Cough.—The deaths from whooping-cough, which had been 283, 354, and 182 in the three preceding quarters, further declined last quarter to 152, and were almost equal to the corrected average number. Among the several metropolitan boroughs this disease was proportionally most fatal in Kensington, Hammersmith, Finsbury, Bethnal Green, Battersea, Deptford, and Greenwich.

Diphtheria.—The fatal cases of this disease, which had been 133, 99, and 108 in the three preceding quarters, rose again to 113 last quarter, but were 68 below the corrected average in the corresponding period of the five preceding years. The highest death-rates from diphtheria last quarter were recorded in Islington, Holborn, Stepney, Deptford, and Greenwich. The Metropolitan Asylums Hospitals contained 999 diphtheria patients at the end of last quarter, against 1,045, 877, and 941 at the end of the three preceding quarters; 1,525 cases were admitted during the quarter, against 1,706, 1,440, and 1,513 in the three preceding quarters.

Diarrhœa.—The 318 deaths under this heading are those attributed to diarrhœa and enteritis among children under 2 years of age; measured in proportion to the births registered in the several boroughs during the quarter, the mortality from this cause was greatest in Kensington, the City of Westminster, Finsbury, Shoreditch, and Southwark.

In conclusion, it may be stated that the aggregate mortality last quarter from these epidemic diseases was 32 per cent. above the average.

DEATHS FROM EPIDEMIC DISEASES IN LONDON DURING THE FOURTH QUARTER OF 1912.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the five preceding years, 1907–11. Under the heading "Diarrhœa" are given the deaths from diarrhœa and enteritis among children under 2 years of age; the corrected average number of these deaths is not available.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

AGRA: DUFFERIN HOSPITALS.—Lady Doctor on the Staff. Salary, Rs. 300 a month.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BARNSLEY: BECKETT HOSPITAL AND DISPENSARY.—Second House-Surgeon. Salary, £100 per annum.

BARNSTAPLE; NORTH DEVON INFIRMARY.—House-Surgeon. Salary, £100 per annum.

BEDFORD COUNTY HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

BIRKENHEAD: BOROUGH HOSPITAL.—(1) Senior House-Surgeon; (2) Junior House-Surgeon. Salary, £100 and £80 per annum respectively.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN.—Honorary Surgeon and Registrar.

BRADFORD ROYAL INFIRMARY.—Two Male House-Surgeons. Salary, £100 per annum.

BRADFORD TUBERCULOSIS DISPENSARY.—Assistant Medical Officer. Salary, £300 per annum.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRISLINGTON HOUSE PRIVATE ASYLUM, near Bristol.—Junior Resident Medical Officer. Salary commencing at £160.

BRISTOL ROYAL INFIRMARY.—Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £75 per annum.

BURY INFIRMARY.—(1) Senior House-Surgeon. Salary, £110 per annum. (2) Junior House-Surgeon. Salary, £80 per annum, increasing to £90.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum.

CAIRO: SCHOOL OF MEDICINE.—Assistant to the Professor of Biology and Parasitology. Salary, £400 per annum.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—House-Physician. Salary, £80 per annum.

CAMBRIDGE UNIVERSITY PATHOLOGICAL LABORATORY.—John Lucas Walker Studentship. Annual value, £200.

CARDIFF: KING EDWARD VII'S HOSPITAL.—House-Surgeon (male) for Ophthalmic and Ear and Throat Departments. Honorarium, £30 for six months.

CARLISLE: CUMBERLAND INFIRMARY.—Resident Medical Officer (male) to act as House-Physician and House-Surgeon for six months each. Salary at the rate of £80 and £100 per annum respectively.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's Inn Road, W.C.—Honorary Pathologist.

COVENTRY: COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary, £90 per annum, rising to £100 after six months.

DOUGLAS: NOBLE'S ISLE OF MAN HOSPITAL.—Resident House-Surgeon. Salary, £90 per annum.

DOVER: ROYAL VICTORIA HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DURHAM COUNTY COUNCIL.—Three Assistant Tuberculosis Medical Officers. Salary, £300 per annum.

EALING: KING EDWARD MEMORIAL HOSPITAL.—Honorary Ophthalmic Surgeon.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—(1) Senior Resident, (2) Junior Resident (females). Honorarium, £25 and £18 per annum respectively.

ESSEX COUNTY COUNCIL.—Three Tuberculosis Officers. Salary, £500 per annum each.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. Salary, £75 per annum.

HEREFORD COUNTY AND CITY ASYLUM.—Assistant Medical Officer (male). Salary, £150 per annum, increasing to £170.

HEREFORD COUNTY COUNCIL.—Assistant (Tuberculosis) Medical Officer. Salary, £300 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—Assistant Medical Officer and Pathologist. Salary, £100 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) Resident Medical Superintendent. Salary, 100 guineas per annum, and £5 washing allowance. (2) House-Surgeon. Salary, £30 for six months, and £2 10s. washing allowance.

HOSPITAL FOR WOMEN, Soho Square, W.—Junior Resident Medical Officer. Salary at the rate of £50 per annum, rising to £40 on appointment as Senior.

HUDDERSFIELD ROYAL INFIRMARY.—Male Junior Assistant House-Surgeon. Salary, £60 per annum.

HULL: VICTORIA CHILDREN'S HOSPITAL.—Assistant House-Surgeon. Salary, £40 per annum.

LEEDS GENERAL INFIRMARY.—Resident Obstetric Officer. Salary at the rate of £50 per annum.

LISTER INSTITUTE OF PREVENTIVE MEDICINE, Chelsea Gardens, S.W.—(1) Assistant Bacteriologist. (2) Second Research Assistant in the Biochemical Department. Salary, £250 and £200 per annum respectively.

LIVERPOOL INFIRMARY FOR CHILDREN.—(1) Resident House-Surgeon. (2) Resident House-Physician. Salary, £30 for six months.

LIVERPOOL: ROYAL SOUTHERN HOSPITAL.—(1) Two House-Physicians. (2) Three House-Surgeons. Salary at the rate of £60 per annum.

LIVERPOOL STANLEY HOSPITAL.—Resident Medical Officer. Salary, £150 per annum.

MACCLESFIELD GENERAL INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum.

MAIDSTONE: WEST KENT GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

MANCHESTER CHILDREN'S HOSPITAL, Pendlebury.—Male Resident Medical Officer. Salary at the rate of £100 per annum for six months, rising to £120 per annum.

MANCHESTER: HULME DISPENSARY.—House-Surgeon. Salary, £160 per annum.

MIDDLESBROUGH: NORTH RIDING INFIRMARY.—Junior House-Surgeon. Salary at the rate of £80 per annum.

MILDMAY MISSION HOSPITAL, Austin Street, E.—(1) Assistant Physician. (2) Assistant Surgeon. (3) Anaesthetist.

NOTTINGHAM GENERAL DISPENSARY.—(1) Assistant Resident Surgeon (male); salary, £170 per annum. (2) Resident and Assistant Resident Surgeons for Branch; salary, £180 and £170 per annum respectively.

NOTTINGHAM WORKHOUSE INFIRMARY.—Two Resident Assistant Medical Officers. Salary, £150 per annum, increasing to £170.

PRESTON: COUNTY ASYLUM, Whittingham.—Assistant Medical Officer. Salary, £150 per annum, increasing to £250.

READING: BERKSHIRE EDUCATION COMMITTEE.—Assistant Medical Inspector of Schools. Salary, £300 per annum.

ROTHERHAM HOSPITAL.—Senior House-Surgeon (male). Salary, £110 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon for Out-patients.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—(1) Senior House-Surgeon; salary, £100 per annum. (2) Lang Clinical Research Scholarship; salary at the rate of £120 per annum.

ST. THOMAS'S HOSPITAL, S.E.—Resident Assistant Surgeon.

SALFORD ROYAL HOSPITAL.—(1) Junior House-Surgeon. (2) Casualty House-Surgeon. Salary at the rate of £65 per annum each.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £60 per annum.

SHEFFIELD UNION HOSPITAL.—Resident Assistant Medical Officer. Salary, £120 per annum.

SOUTHAMPTON FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £100 and £90 per annum respectively.

STAFFORD: COTON HILL MENTAL HOSPITAL.—Assistant Medical Officer (male). Salary, £170 per annum, increasing to £200.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—House-Physician. Salary, £100 per annum.

STOCKPORT INFIRMARY.—Junior House-Surgeon (male). Salary, £100 per annum.

STOCKPORT UNION.—Resident Assistant Medical Officer at Stepping Hill Hospital. Salary, £150 per annum.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SUNDERLAND: CHILDREN'S HOSPITAL.—Resident Medical Officer. Salary at the rate of £80 per annum.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Assistant Resident Medical Officer. Salary, £100 per annum.

VICTORIA HOSPITAL FOR CHILDREN.—Surgeon to Out-patients.

WALSALL AND DISTRICT HOSPITAL.—Assistant House-Surgeon. Salary, £90 per annum.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £100 per annum.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Physician.

WEST LONDON HOSPITAL, Hammersmith Road, W.—(1) Two House-Physicians. (2) Three House-Surgeons.

WEST RIDING OF YORKSHIRE.—Assistant to the County Medical Officer. Salary, £300 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

YORK DISPENSARY.—Resident Medical Officer. Salary, £110 per annum.

MEDICAL REFEREE.—The Home Secretary announces a vacancy for the appointment of Medical Referee under the Workmen's Compensation Act (1906) for the Greenock District of the Sheriffdom of Renfrew and Bute.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Dufftown (Banffshire), Poulton-le-Fylde (Lancs.), Westray (Orkney).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

ALLISON, J., M.D., F.R.C.S.Edin., Certifying Factory Surgeon for the Kettering District, co. Northampton.

ANDERSON, H. Graeme, M.B., Ch.B., F.R.C.S., Senior Assistant Surgeon to St. Mark's Hospital for Cancer, Fistula, and other Diseases of the Rectum; also Assistant Surgeon to the Belgrave Hospital for Children.

BAKER, G. W. J., L.R.C.P. and S.Edin., L.F.P.S.Glasg., District Medical Officer of the Walsall Union.

BEAN, W. P., L.S.A., District Medical Officer of the Leeds Union.

BRAITHWAITE, E. A., M.B., C.M.Edin., Certifying Factory Surgeon for the Egremont District, co. Cumberland.

BURRA, L. T., M.B., Ch.B.Oxon., Tuberculosis Officer for Buckinghamshire.

COOMBS, Harold Martin McCulloch, M.B., B.C.Cantab., L.R.C.P.Lond., M.R.C.S.Eng., House-Surgeon to the Bedford County Hospital, Bedford.

COX, G., Lissant, M.A., M.B.Cantab., M.R.C.S., L.R.C.P., Tuberculosis Medical Officer to the County Palatine of Lancaster.

COTTER, P., Assistant Medical Officer of the Toxteth Park Township Workhouse.

CRUMP, J. A., M.R.C.S., L.R.C.P., Medical Referee under the Workmen's Compensation Act, 1906, for the County Court Circuit, No. 28, and to be attached more particularly to the Llanfyllin and Welshpool County Courts, vice Mr. Hawksworth, resigned.

DEERY, G., M.B., R.U.I., District Medical Officer of the Plymouth Incorporation.

DOBRASHIAN, Miss G. R., M.B., B.S.Lond., Third Assistant Medical Officer to the Islington Union Infirmary.

DOUBBLE, M. S., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Perranporth District, co. Cornwall.

DUGUID, W. R., M.B., C.M.Aberd., Certifying Factory Surgeon for the Buckie District, co. Banff.

DUIGENAN, P. S., L.R.C.P.Edin., L.R.C.S.I., District Medical Officer of the Ashton-under-Lyne Union.

DUNLOP, J., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Certifying Factory Surgeon for the Sandhead District, co. Wigtown.

EVANS, A. T., M.B., C.M.Edin., Certifying Factory Surgeon for the Llandyssil District, co. Carmarthen.

GORDON, J. A., M.B., District Medical Officer of the Leeds Union.

HENRY, F. J., M.B., Ch.B.Glasg., Tuberculosis Medical Officer to the Middlesbrough Sanitary Committee.

HEYWOOD, C. Christopher, M.A., M.B., B.C.Cantab., M.R.C.P.Lond., M.R.C.S.Eng., Honorary Physician to the Salford Royal Hospital, vice Dr. A. M. Edge.

LEA, C. Edgar, M.D.Vict., M.R.C.P.Lond., Honorary Assistant Physician to the Salford Royal Hospital.

LINDSEY, Colin D., M.D.Lond., Assistant Physician, South Devon and East Cornwall Hospital, Plymouth.

HINDS, H. A., M.R.C.S., L.R.C.P., District Medical Officer of the East Ashford Union.

LOWER, C. A., L.S.A., District Medical Officer of the Escrick (York) Out-Relief Union.

MARLE, S., M.R.C.S., L.R.C.P., District Medical Officer of the Totnes Union.

MEADEN, Captain, R.A.M.C., Clinical Assistant to the Chelsea Hospital for Women.

MELVIN, K. S., M.B., Ch.B.Aberd., District Medical Officer of the Settle Union.

MITCHELL, B., M.B., District Medical Officer of the Whitehaven Union.

MUNRO, J. R., M.D.Edin., District and Workhouse Medical Officer of the Spalding Union.

OLLERENSHAW, Robert, M.D.Vict., F.R.C.S.Eng., Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuit No. 13, and to be attached more particularly to the Glossop County Court, vice Dr. Pomfret, deceased.

OWEN, Ambrose W., M.B., B.S.Lond., House-Surgeon to King Edward VII's Hospital, Cardiff.

RASHLEIGH, H. G., M.R.C.S., L.R.C.P., District Medical Officer of the Bridge Union.

RENTZSCH, S. H., M.R.C.S., L.R.C.P., Honorary Surgeon, Launceston Infirmary and Rowe Dispensary, Launceston, Cornwall.

ROBINSON, W. H., M.B., B.C.Cantab., Medical Officer of the Skipton Union Workhouse.

SMITH, G. F.R., M.B., Ch.B.Liverpool, M.B., B.S.Lond., Honorary Anaesthetist to the Infirmary for Children, Liverpool.

SOOTHILL, V. F., M.R.C.S., L.R.C.P., Assistant Medical Officer to the Poplar and Stepney District Sick Asylum, Bromley.

TAYLER, F. E., M.R.C.S., L.R.C.P., District Medical Officer of the Westbury and Whorwellsdon Union.

THOMPSON, Herbert P., M.C., Ch.B.Edin., F.R.C.S.Edin., Assistant Physician to the Harrogate Infirmary.

WHITE, Clifford, M.D.Lond., F.R.C.S.Eng., Surgeon to Out-patients at the Samaritan Hospital, London.

WHITESIDE, J. H., M.B., C.M.Edin., District Medical Officer of the Driffield Union.

WYLDE, R. P., L.M.S.S.A.Lond., District Medical Officer of the Ashton-under-Lyne Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

HEDLEY.—On February 24th, 1913, at 11, John Street, Berkeley Square, W., the wife of John Prescott Hedley, M.C.Cantab., F.R.C.S.Eng., of a son.

RORIE.—At 163, Princes Street, Dundee, on February 20th, to Dr. and Mrs. G. A. Rorie, a son.

YOUNG.—On February 25th, at 57, Harley Street, W., the wife of R. A. Young, M.D., B.Sc., F.R.C.P., of a son.

MARRIAGES.

BLACK—CHARLES.—At the Gardens, Presbyterian Church, Capetown, on February 25th, by the Rev. Dr. McClure, James Black, M.D.Edin., Springs, Transvaal, to Mary Gaff, younger daughter of Mr. and Mrs. Pringle Charles, 2, Cobden Crescent, Edinburgh. (By cable.)

WILDMAN—BROWN.—On February 20th, 1913, at Ruyton-Eleven-Towns, Salop, William Stanley Wildman, F.R.C.S.Eng., of 1, Highfields, Doncaster Road, Rotherham, to Margaret Elizabeth Mary Brown.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W., 9 p.m.—Third Lettsomian Lecture by Mr. James Berry: The Surgery of the Thyroid Gland.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Wilfred Trotter: Operative Treatment of Malignant Disease of the Mouth and Pharynx.

TUESDAY.

MIDLAND OBSTETRICAL AND GYNAECOLOGICAL SOCIETY, Royal Infirmary, Leicester, 3.30 p.m.—Specimens and Instruments:—Mr. J. Furneaux Jordan: Myoma complicating Pregnancy. Dr. N. J. Spriggs: Ligaturing Forceps for Pelvic Surgery. Short Communications:—Dr. H. T. Hicks: Localizing Septic Peritonitis of Puerperal Origin. Dr. Cecil Marriott: Cases of Hysteropexy; Dr. T. Clare: A Case of Dysmenorrhoea and Sterility. Paper;—Dr. N. J. Spriggs: Congenital Intestinal Occlusion.

ROENTGEN SOCIETY, Institution of Electrical Engineers, Victoria Embankment, W.C., 8.15 p.m.—Papers:—Dr. H. Lewis Jones: The Physiological Effects of the Magnetic Field. Dr. Howard Humphris: The Rationale of the Static Current.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Goulstonian Lecture by Dr. A. J. Jex-Blake: Death by Lightning and Electric Currents.

ROYAL SOCIETY OF MEDICINE:

SECTION OF PATHOLOGY.—Laboratory Meeting at the Pathological Department, London Hospital, 8.30 p.m.

UNITED SERVICES MEDICAL SOCIETY (Portsmouth Branch), Alexandra Hospital, Cosham, 4.15 p.m.—Fleet Surgeon F. H. A. Clayton, R.N.: Notes on three unusual Cases. Major G. J. Stoney Archer, R.A.M.C.: The Treatment of General Peritonitis due to Appendicitis. Captain J. B. Grogan, R.A.M.C.: Three Cases of Malarial Fever contracted in England.

WEDNESDAY.

HUNTERIAN SOCIETY, London Hospital, 4 p.m.—Clinical Afternoon. Exhibition of Cases:—Sir Bertrand Dawson: Splenic Anaemia after Splenectomy. Dr. Robert Hutchison: (1) A Case of Acromegaly; (2) A Case of Acute Myeloid Leukaemia with Infiltration of the Parotids. Dr. Lewis Smith: Example of Congenital Morbus Cordis, and another interesting Case. Mr. James Sherren: Unusual Specimen of a Duodenal Ulcer, and patients to illustrate the Results of Operative Treatment in Duodenal Ulcer. Mr. Hugh Lett: Cervical Rib. Dr. J. H. Sequeira: Remarkable Care of Multiple Lupus. Dr. S. Gilbert Scott: Radiograms of Bone Diseases, Innocent and Malignant; Pituitary Tumour, etc. Dr. P. N. Panton will demonstrate some Rare Forms of Leukaemia, with Cases and Microscopic Preparations.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Professor Wilfred Trotter: Operative Treatment of Malignant Disease of the Mouth and Pharynx.

ROYAL SOCIETY OF MEDICINE:

SECTION OF THE HISTORY OF MEDICINE, 1, Wimpole Street, W., 5 p.m.—Mr. Joseph Offord (Honorary Member of the Archaeological Association of Rome): (1) The Reissner Medical Papyrus; (2) Restrictions upon Circumcision under the Romans. Mr. H. Barlow-English.: Herbals, 1525–1640 (examples will be shown). Dr. Leonard Guthrie: The Lady Sedley's Receipt Book, 1686. Mr. J. D. Marshall will show some examples of Old Drug Pots by means of the Epidiascope.

SECTIONS OF OPHTHALMOLOGY AND NEUROLOGY, 1, Wimpole Street, W., 8 p.m.—Discussion on Disease of the Pituitary Body, to be opened by Professor Schäfer, F.R.S., and Mr. J. Herbert Fisher. Illustrative Cases and Specimens will be shown by Dr. H. L. Eason, Dr. Grünbaum, Dr. Gordon Holmes, Dr. Grainger Stewart, Dr. W. H. Willcox, and others.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Clinical Meeting.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—First Lumleian Lecture by Dr. F. de Havilland Hall: Intrathoracic Aneurysm.

ROYAL SOCIETY OF MEDICINE:

SECTION OF BALNEOLOGY AND CLIMATOLOGY, 1, Wimpole Street, W., 5.30 p.m.—Resumed Discussion on Fibrositis, introduced by Dr. Ackerley in a Paper entitled, Daily Habits in Civilized Life as Factors in the Causation of Fibrositis: with Suggestions for its Prevention and Cure. The following will take part in the Discussion: Dr. Luff, Dr. Bain, Dr. Leonard Williams, Dr. Fortescue Fox, Dr. Wainwright, Dr. Pagan Lowe, and others.

SECTION OF OBSTETRICS AND GYNAECOLOGY, 1, Wimpole Street, 8 p.m.—Discussion on Ventrifixation: (1) Indications for the Operation, to be opened by Dr. W. S. A. Griffith; (2) Technique of the Operation, to be opened by Dr. H. Briggs; (3) After-results of the Operation, to be opened by Dr. A. E. Giles.

FRIDAY.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Dr. C. G. Seligmann: The Hamitic Element in the Population of Anglo-Egyptian Sudan.

ROYAL SOCIETY OF MEDICINE:

SECTION OF ANAESTHETICS, 1, Wimpole Street, W., 8.30 p.m. —Mr. H. Bellamy Gardner: Technique in General Anaesthesia for Nasal Operations. Mr. Buckston Browne: A brief eulogy of Mr. Clover. Mr. Norbury and Dr. Morcom: Hedonal Alone and in Conjunction with General Anaesthetics.

SECTION OF LARNGOLOGY, 1, Wimpole Street, W., 4.30 p.m. —Cases, etc., will be shown by Mr. Herbert Tilley, Mr. George N. Biggs, Mr. W. G. Howarth, Mr. T. Jefferson Faulder, Mr. E. D. Davis, Dr. H. L. Whale, and others.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION, S.W.—Wednesday, 4.30 p.m., The Problem of Infection and Predisposition in Pulmonary Tuberculosis.

CANCER HOSPITAL, Fulham Road, S.W.—Wednesday, 5 p.m., Cancer of the Breast.

LONDON HOSPITAL MEDICAL COLLEGE, E.—Monday, 4.30 p.m., Lesions of the Peripheral Nervous System and Spinal Cord. Tuesday, 4.30 p.m., Pathology of the Central Nervous System. Wednesday, 4.30 p.m., Clinical Anatomy and Regional Diagnosis. Friday, 4.30 p.m., Common Diseases of the Nervous System.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—Daily arrangements; Out-patient Demonstration, 10 a.m., Medical and Surgical Clinics. Monday: 12 noon, Throat, Nose, and Ear; 2.15 p.m., Surgery; 3 p.m., Operations; 3.15 p.m., Medicine, 4.15 p.m., Ear and Throat. Tuesday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Surgery; 3.15 p.m., Medicine; 4.15 p.m., Skin. Wednesday: 11 a.m., Eye; 2 p.m., Operations; 2.15 p.m., Medicine: 3.15 p.m., Eye Clinic; 4.30 p.m., Surgery. Thursday: 12 noon, Throat Nose, and Ear; 2 p.m., Operations. Pathological Demonstration; 3.15 p.m., Medicine. Friday: 12 noon, Skin; 2 p.m., Operations; 2.15 p.m., Medicine; 3.15 p.m., Surgery. Saturday; 10 a.m., Radiography; 11 a.m., Eye.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical laboratory work daily (Saturday excepted) 10 to 12 a.m. Practical Helminthology, 2 to 3.30 p.m. daily. Medical Clinics, Tuesday and Thursday at 3 p.m. Operations, Friday at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Cervical Adenitis.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m., A New Operation for Prolapse of the Uterus Complicated by Hypertrophy of the Cervix. Friday, 4.30 p.m., The Surgical Aspects of Infantile Paralysis.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. each day will be given as follow: Monday, Clinical Enlargements of the Spleen in Children; Tuesday, Some Points in the Treatment of Spasmodic Asthma. Wednesday, The Treatment of Neuralgia and Spasm by Nerve Injections. Thursday, Irregularities of the Pulse in Toxic Conditions: their Clinical Recognition and Significance. (Lantern Demonstration.)

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Infantilism. Friday, 3.30 p.m., Polyglandular Syndromes.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Monday, Clinics: 10 a.m., Surgical Out-patient; 2.30 p.m., Medical Out-patient, Nose, Throat, and Ear; 3 p.m., Demonstration on Clinical and General Pathology. Tuesday, 2.30 p.m., Operations; Clinics: Surgical, Gynaecological; 3.30 p.m., Medical In-patient; 4.30 p.m.; Lecture: Pain and Lesions of and Around the Umbilicus. Wednesday, 2 p.m., Throat Operations; 2.30 p.m., Medical Out-patient; Skin and Eye Clinics; X rays; 3 p.m., Pathological Demonstration; 5.30 p.m., Eye Operations. Thursday, 2.30 p.m., Gynaecological Operations; Clinics: Medical and Surgical Out-patient; 3 p.m., Medical In-patient. Friday, 2.30 p.m., Operations; Clinics: Medical Out-patient, Surgical, Eye; 3 p.m., Medical In-patient; Pathological Demonstration; 4.30 p.m., Lecture: Bacterial Infections of the Blood.

ROYAL EYE HOSPITAL, Southwark, S.E.—Tuesday, 4.30 p.m., Senile Cataract with Especial Reference to Difficulties in Treatment.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Monday, 4.30 p.m., The Diagnosis and Treatment of Pulmonary Tuberculosis in Childhood. Wednesday, 4.30 p.m., Pulmonary Tuberculosis in Relation to Life Insurance. Friday, 4.30 p.m., Special Clinical Demonstration on Osteo-Pulmonary Arthropathy, illustrated by the Epidiascope.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—The following are the arrangements for next week: Medical and Surgical Clinics, 2 p.m.; X Rays, 2 p.m.; Operations, 2 p.m. Monday: Gynaecology, 10 a.m.; Medical Registrar, 10.30 a.m.; Pathological Demonstration, 12 noon; Eye, 2 p.m. Tuesday: Gynaecological Operations, 10 a.m.; Surgical Registrar, 10.30 a.m.; Demonstration of Fractures, etc., 12 noon; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Wednesday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Demonstration of Minor Operations, 11 a.m. Lecture, Abdominal Diagnosis, 12 noon; Eye, 2 p.m.; Gynaecology, 2 p.m. Thursday: Gynaecological Demonstration, 10.30 a.m.; Lecture, Neurological Cases, 12.15 p.m.; Eye, 2 p.m.; Orthopaedics, 2 p.m. Friday: Gynaecological Operations, 10 a.m.; Lecture, Practical Medicine, 10.30 a.m.; Lecture, Clinical Pathology, 12.15 p.m.; Throat, Nose, and Ear, 2 p.m.; Skin, 2 p.m. Saturday: Diseases of Children, 10 a.m.; Throat, Nose, and Ear Operations, 10 a.m.; Eye, 10 a.m.; Surgical Registrar, 10.30 a.m.; Lecture, Surgical Anatomy of the Abdomen, 12 noon. Lectures at 5 p.m.: Monday, Radio-Therapeutics; Tuesday, The Medical Treatment of Early Insanity; Wednesday, Practical Medicine; Thursday, Practical Surgery; Friday, Clinical Lecture (Gynaecology).

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		FEBRUARY.
28	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		MARCH.
4	Tues.	Coventry Division, Coventry Hospital, 8.30 p.m.
5	Wed.	London: Finance Committee, Special Meeting.
6	Thur.	London: State Sickness Insurance Committee, 10.30 a.m.
11	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
		City Division, Manor Lodge, Upper Clapton, 9.30 p.m.
13	Thur.	Birmingham Branch, Medical Institute, 3.30 p.m.
		South-West Essex Division, Leyton, 4 p.m.
14	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
19	Wed.	Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
28	Fri.	London: Journal Committee, 2 p.m.
		Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.

Date.		Meetings to be Held.
		MARCH (*continued*).
28	Fri.	Newcastle-on-Tyne Division, Scientific Demonstration.
		APRIL.
1	Tues.	London: Public Health Committee, 3.30 p.m.
4	Fri.	London: Ethical Committee, 2 p.m.
5	Sat.	London: Science Committee, 11 a.m.
7	Mon.	London: Colonial Committee.
		London: Naval and Military Committee.
8	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
		London: Organization Committee, 2.15 p.m.
9	Wed.	London: Hospitals Committee.
11	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
		South-West Essex Division, Brook House, Clapton, 9.30 p.m.
23	Wed.	Richmond Division, Richmond, 8.30 p.m.
24	Thur.	South-West Essex Division, Walthamstow Hospital, 4 p.m.
25	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 8TH, 1913.

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National Insurance.

LOCAL MEDICAL COMMITTEES.

ESSEX.

A LOCAL MEDICAL Committee for the county of Essex has been elected in the proportion of one representative for every twenty practitioners in Essex. The Committee is now constituted as follows:

Dr. Leigh Day, Colchester, Chairman
Dr. J. D. Wells, Billericay, Vice-Chairman
Dr. Harding H. Tomkins, 492, Lea Bridge Road, Leyton, Secretary
Dr. R. V. Brews, North Woolwich
Dr. L. A. White, Manor Park
Dr. James Dunlop, Upminster
Dr. A. Mitchell, Ilford
Dr. J. Ross Steen, Ilford
Dr. J. P. Atkinson, jun., Saffron Walden
Dr. J. A. White, Harlow
Dr. Butler Harris, Loughton
Dr. H. Bonnefin, Stratford
Dr. Bernard C. Scott, Leytonstone
Dr. A. R. Dykes, Buckhurst Hill
Dr. Clarence Wright, Leytonstone
Dr. A. Berrill, South Woodford
Dr. Margaret Rorke, Leytonstone
Dr. W. F. A. Clowes, Colchester
Dr. C. G. Roberts, Halstead
Dr. P. Coleman, Clacton-on-Sea
Dr. S. Campbell, Dovercourt
Dr. F. B. Caudwell, Coggeshall
Dr. Reynolds Brown, Maldon
Dr. Arthur Quennell, Brentwood
Dr. Simpson, Southchurch
Dr. W. D. Watson, Leigh-on-Sea
Dr. J. B. Maxwell, Southend-on-Sea
Dr. J. Walker, Southend-on-Sea
Dr. G. F. White, Stanford-le-Hope

The Committee has held three meetings and has appointed the following subcommittees: Conference, Drugs, Standing Orders, and Finance. Conferences have been held with the Local Insurance Committee and the Commissioners.

Application was made for the statutory recognition of the committee after its first meeting on January 6th, but the authorities at first desired to limit the members of the statutory committee to panel doctors only. It was pointed out to the authorities that as the Act requires the Committee to be representatives of all the profession, and as there were non-panel doctors in Essex the committee must contain non-panel doctors. It has now been duly recognized.

The Committee nominated members of the profession upon the Local Insurance Committee, but the nominations were refused on the ground that the Committee was not a duly appointed association of practitioners for that purpose as referred to in the Regulations. The Commissioners issued circulars to all practitioners in the county requesting them to nominate representatives, and an election was held which resulted in the selection of the candidates nominated by the Local Medical Committee—namely, Dr. W. F. A. Clowes (Colchester) and Dr. J. H. Salter (Tolleshunt d'Arcy). Dr. Butler Harris, one of the practitioners selected by the Committee for appointment by the Commissioners upon the Local Insurance Committee, has also been appointed.

Various matters to which the profession in the county takes exception have been brought under the notice of the Insurance Committee and the Commissioners by resolutions and by interviews; among these matters are the useless and irksome details of bookkeeping, prescription forms, etc. Strong representations have also been made concerning the refusal to allow persons to make their own arrangements.

The Local Medical Committee, while ready to assist in elucidating the difficulties of drug arrangements, expressed its inability to favour a flat rate for charges, or to meet representatives of the pharmacists to consider prices, as the Committee considered the difficulties of the former insurmountable, and the latter likely to raise objections on the part of chemists to doctors interfering with their arrangements.

The Commissioners having expressed their inability to assist in meeting the expenses of the Committee, these have been so far defrayed by members of the Committee, but the Secretary will welcome any suggestions on this head from other secretaries of statutory Local Medical Committees.

EAST SUSSEX.

At a meeting of medical practitioners resident in the parliamentary division of East Sussex held at Lewes, on December 5th, 1912, which was attended by about one hundred, an East Sussex Medical Committee was elected on a territorial basis. The Committee was instructed to obtain recognition from the Insurance Commissioners if and when the Council of the British Medical Association sanctioned this course, to report to the Council of the South-Eastern Branch on questions of policy, and to submit draft agreements for approval to the Council of the British Medical Association and Branch Council and Division, and to report quarterly to the Branch Council and Division. It was also authorized to fill casual vacancies.

The Committee was constituted as follows:

C. H. Benham, M.D.Lond., Hove, Chairman
C. E. Collins, M.R.C.S., East Grinstead, Vice-Chairman
H. Vallance, M.R.C.S.Eng., Lewes, Honorary Secretary
Alice H. A. Boyle, L.R.C.S. and P.Edin., Hove
Walter Broadbent, M.D.Camb., Hove
Arthur M. Daldy, M.D.Lond., Hove
Thomas Johnston, M.R.C.S. Eng., Hove
John C. Mackwood, M.R.C.S. Eng., Newick
J. R. Steinhaeuser, M.D.Lond., Lewes
Fredk. Wm. Apthorp, M.R.C.S. Eng., Burgess Hill
Bertram M. Young, M.R.C.S. Eng., Hassocks
R. Dymoke Pennefather, L.R.C.S.I., Hayward's Heath
James McGlashan, M.B.Glasg., Newhaven
W. Pringle Morgan, M.B.Dub., Seaford
H. M. Langdale, M.R.C.S.Eng., Uckfield
E. Cornelius Garman, M.R.C.S. Eng., Hailsham
Thos. S. Taylor, B.S.Camb., Hailsham
Thos. Burfield, M.R.C.S.Eng., Hailsham
T. E. Holman, L.S.A.Lond., Cross-in-Hand
H. Cameron Taylor, Bexhill
J. R. Skinner, M.B.Aberd., Winchelsea
Ernest W. Skinner, M.B.Edin., Rye
H. H. H. Huckle, M.R.C.S., Ore
Wm. Wallis, M.R.C.S., Groombridge
Gardiner W. Trouton, M.D. Dub., Rotherfield
Chas. H. Fazan, M.R.C.S., Wadhurst
H. S. Basden, M.R.C.S., Crowborough
Fritz S. Eschwege, M.R.C.S., Crawley Down

A letter was received from the Insurance Commission on February 3rd stating that the Commissioners, with the concurrence of the Joint Committee, recognized the Committee until April 30th, and suggesting that before that date the Committee would consider the desirability of arranging for the election of a permanent committee on the basis of separate representation for each district in proportion to the number of practitioners resident therein. A reply had been sent to the Commissioners pointing out that the Committee has been elected in the manner suggested.

The Committee held its first meeting on December 23rd, 1912, when the following minute (44 of the Special Representative Meeting of December 21st, 1912) was considered:

That the Association advises the profession to express its willingness to treat insured persons on condition that each insured person shall have free choice of doctor subject to the consent of the doctor to act; that where a capitation system is adopted, the basis of remuneration shall be a minimum of 8s. 6d. per annum inclusive of drugs; that where a system of payment by attendance is adopted, such payment be on a scale of fees to be drawn up by a Local Medical Committee, subject to the approval of the Council of the Association, the minimum fee per visit being 2s. 6d.; that the general arrangements be made between the insured or their representatives and a committee of local doctors, and that all other details be left to the doctors of the local areas affected; that this arrangement be carried on until such time as the profession adopts some uniform scheme. The arrangement of a minimum basis of remuneration is not considered to include the treatment of tuberculosis.

A small committee was appointed to draw up and circulate a letter to all medical practitioners and to representatives of the insured with a view to carrying out the advice contained in the minute.

At the second meeting, held on December 28th, the Committee considered a scheme for a public medical service. At the third meeting on January 7th, 1913, the Honorary Secretary was instructed to send a circular letter to every practitioner in the area asking for a subscription of 5s. towards the necessary expenses. An Executive Committee was appointed and two members were nominated to the Local Insurance Committee. The method of remuneration adopted was by capitation.

At the fourth meeting, held on January 23rd, it was reported that representations had been made to certain practitioners with regard to canvassing and circularizing, and that the practitioners had desisted.

At the fifth meeting, held on February 19th, the proceedings of the Executive Committee, which had met on January 29th and February 12th, were received and approved. They involved the adoption of the Hastings and district scheme for medical attendance on uninsured persons, and it was resolved to submit this scheme to the Council of the Association, and if approved to forward a copy to every practitioner in East Sussex.

The following resolutions passed by a meeting of practitioners of Brighton and Hove were adopted:

That the certificate of any medical practitioner whose name appears on the *Medical Register* should be accepted by an Insurance Committee, approved society, or other body until it has been clearly proved, after due investigation, that such certificate is not to be relied upon.

That in all insurance areas where an adequate medical service has been provided under the Act for insured persons, the request of individual insured persons to be allowed to contract outside the Act with a registered medical practitioner should be granted, subject to withdrawal of the permission later should it be proved, after due investigation, that the medical attendance given has been unsatisfactory.

DORSET.

A Local Medical Committee for the county of Dorset was formed on December 26th, 1912, as follows:

Dr. P. W. Macdonald, Dorchester, Chairman
Dr. T. MacCarthy, Sherborne, Vice-Chairman
Dr. James Miller, Weymouth, Secretary
Dr. Colmer, Yeovil
Dr. Cosens, Dorchester
Dr. Courtenay, Wareham
Dr. Edwards, Bridport
Dr. Good, Dorchester
Dr. Le Fleming, Wimborne
Dr. Manning, Weymouth
Dr. Milner, Parkstone
Dr. Daniell, Blandford
Dr. Tuthill, Parkstone
Dr. Sanderson-Wells, Weymouth
Dr. Whittingdale, Sherborne

Dr. Le Fleming (Wimborne) and Dr. James Miller (Weymouth) were appointed direct representatives on the Insurance Committee. Dr. Kitson has been appointed by the County Council, and Dr. MacCarthy's name has been suggested by the Commissioners for appointment by them on the Committee.

Drs. Macdonald, Cosens, and Miller were elected to the Medical Service Subcommittee.

NORFOLK.

The Local Medical Committee for the county of Norfolk has been constituted as follows:

Chairman, Dr. B. D. Z. Wright, Coltishall
Vice-Chairmen, Dr. Back, Acle; Dr. Colvin-Smith, Cromer; Dr. Steele, Stoke Ferry
Honorary Secretary, Dr. D. G. Thomson, Thorpe, Norwich

Members.

Practitioners Resident in the Mid-Norfolk Division of the British Medical Association.

Dr. W. E. Cooper, East Harling
Dr. A. Davidson, Thorpe St. Andrew
Dr. S. Harrison, North Walsham
Dr. R. J. Horn, St. Faith's
Dr. W. Howard, New Buckenham
Dr. J. K. Howlett, East Dereham
Dr. G. S. Keeling, Attleborough
Dr. G. Lowe, Wymondham
Dr. J. D. McKelvie, Blofield
Dr. C. A. O. Owens, Long Stratton
Dr. A. R. Rackham, North Elmham
Dr. B. B. Sapwell, Aylsham
Dr. A. L. Vaughan, Diss
Dr. H. F. Skrimshire, Melton Constable

Practitioners Resident in the West Norfolk Division.

Dr. A. Gardiner, King's Lynn
Dr. S. M. Hamill, Burnham Market
Dr. W. H. Fisher, Fakenham
Ar. A. W. Thomas, Swaffham
Dr. J. R. Kingdon, Nelson Street, King's Lynn
Dr. W. B. Wraywood, King's Street, King's Lynn
Dr. J. L. Forrest, Terrington St. John, Wisbech
Dr. A. G. Minns, Thetford
Dr. H. E. Rowell, East Rudham
Dr. E. G. Wales, Downham Market.

Practitioners Resident in the East Norfolk Division (Rural Subdivision).

Dr. B. Boake, Ormesby
Dr. E. B. Cutting, Stalham
Dr. L. T. McClintock, Loddon.

At a meeting of the Committee held at the Medical Library, Norwich, on February 25th, when seventeen members were present, the Secretary announced that he had received notice of the statutory recognition of the Committee by the Commissioners. The matters raised

by Circular 10/I.C. issued by the Commissioners (see p. 239) were considered, but in view of their importance it was decided that copies of the circular must be in the hands of each member of the Committee before further discussion could take place thereon.

The election of the medical members of the Medical Service Subcommittee was then carried out. Dr. ROWELL proposed and Dr. HARRISON seconded and it was agreed that one member be chosen from each of the three Divisions of the British Medical Association in the county, whereupon Drs. Back, Rowell, and Sapwell were duly elected.

Medical representation on the District Insurance Committees was then discussed. Norfolk has been divided into nine districts, in areas corresponding to the Poor Law unions, grouped in couples; the total membership of these District Committees is twenty, and of these two in each Committee are medical practitioners. The following were elected to serve on these District Committees: Drs. Hamill, Rowell, Forrest, Gardiner, Steele, Wales, Skrimshire, Sapwell, Thomas, Howlett, Minns, Keeling, Owens, McClintock, Horn, Back, Harrison, Boake.

The Special Mileage Fund was then considered, and the Secretary was instructed to arrange for a deputation from the practitioners practising in the Fen Districts of West Norfolk and the Marshlands of East Norfolk to have an interview with the Clerk to the Insurance Committee on the matter.

The circular letter of the British Medical Association which referred to the expenses of the Committee was read, and the Secretary was authorized in the meantime to incur necessary expenditure on printing and postage, etc., to be refunded to him later on by a levy on the practitioners on the panel. Other matters in this circular were considered, namely, as to attendance on aged and disabled members of friendly societies and due note was made of the 2s. 6d. per head subsidy by the Government, which it was considered totally removed any excuse for not charging such persons the same rates as insured persons.

A resolution passed at a previous meeting of the Committee, that with a view to economy of time and trouble a subcommittee be formed with the aid of the chemists to compile a "formulary of prescriptions in common use," was reviewed in the light of the report of the subcommittee presented by Drs. Harrison and Howlett, whereupon Dr. COLVIN-SMITH moved, Dr. DAVIDSON seconded, and it was carried that, in the meantime, at all events, no formulary be compiled.

The CHAIRMAN reported that he had attended a conference in London by the invitation of the Commissioners relative to the simplification of records, and that it had been decided to abolish the day book and substitute the card system, and also to abolish the writing of prescriptions in triplicate.

The Secretary was instructed to write to the Secretary to the Insurance Committee asking that insured persons be notified to select their doctor, as the friendly societies had not been very successful in this direction or in pointing out the right to "free choice of doctor."

OXFORD.

OXFORD MEDICAL COMMITTEE.

A MEETING of the Oxford Medical Committee was held on February 27th at the Radcliffe Infirmary, Oxford, at 2.45 p.m., when Dr. TURRELL (Chairman) and ten members attended.

The Ethical Committee's report concerning the conduct of one of the members of the Division on the panel was received and adopted.

Dr. HIGGS explained the position of the Medical Service Subcommittee, which had power only to deal with complaints, or matters referred to it by the Insurance Committee.

The SECRETARY read a notice received from the Secretary of the Insurance Committee, stating its intention to adopt an income limit of £160 per annum. He was instructed to inform the Secretary that a limit of £2 10s. a week had been accepted by the Berks Insurance Committee, and that this limit was desired by both the City and County of Oxford Medical Committees.

Dr. Rivers Willson's nomination paper being rendered invalid by the fact that one of the signatory's registered address was not "Oxford," he was duly elected by the committee as one of its two representatives on the Insurance Committee. Meanwhile he could, by the consent of the Commissioners, act on the committee as their temporary representative.

A letter received from the Secretary of the Insurance Committee, dealing with the question of allocation of panel patients and method of quarterly payments, was read. On the motion of the CHAIRMAN, it was agreed that these matters be referred to the five medical members on the Medical Service Subcommittee.

CONJOINT MEETING OF CITY AND COUNTY MEDICAL COMMITTEES.

The County Medical Committee then sat with the City Committee and discussed the advisability of adopting the "Berkshire Scheme" for dealing with uninsured persons. After some discussion the following resolution was carried *nemine contradicente*:

> That the Berkshire Scheme be reconsidered after the expiration of one year, as this would enable a comparison to be made between the working of this scheme and that of the local schemes under the "minimum scale" adopted at the last meeting of the Division.

The SECRETARY read a letter received from the Secretary of the Oxfordshire Juvenile Friendly Society, protesting against "the minimum scale of 6s. per head per annum for juveniles" adopted by the Oxford Division. The Secretary was instructed to point out that 5s. was the sum and not 6s.

The subject of midwifery fees was discussed and the following motion was carried *nemine contradicente*:

> That no medical man accept less than one guinea when called in to a maternity case within ten days of confinement.

With regard to attendance on aged and infirm members of friendly societies, it was resolved *nemine contradicente*:

> That the medical representatives on both Insurance Committees be asked to raise the question of the arrangements for attendance on aged and infirm members of friendly societies, under the agreement made between representatives of the profession and of approved societies at the meeting with the Chancellor in October, 1912; and that the fee be 9s. per head, the same as that paid for insured persons.

On the motion of the CHAIRMAN, the representatives on the Insurance Committees were requested to secure as large a measure of "contracting out" as possible.

Dr. BOISSIER (Secretary of County Medical Committee) stated that certain medical men in the bordering counties were accepting lower rates for the uninsured than those accepted by the Oxford Division. He was instructed to write protests to the doctors, if known, and also to the Secretaries of the neighbouring Divisions.

LIVERPOOL.

AT a general meeting of the medical profession resident in the Liverpool insurance area, on January 28th, the following were elected to the Liverpool Local Medical Committee:

Mr. F. C. Larkin, Chairman	Dr. F. S. Heaney
Dr. T. Clarke, Vice-Chairman	Miss F. Ivens, M.S.
Dr. W. T. D. Allen, Honorary Secretary	Dr. W. Macdonald
	Dr. J. E. W. McFall
Dr. F. W. Bailey	Dr. Llewelyn Morgan
Dr. F. W. Barendt	Mr. G. P. Newbolt
Dr. W. B. Bennett	Dr. R. Paterson
Dr. T. R. Bradshaw	Dr. A. H. Pinder
Dr. T. Bushby	Dr. R. J. Richardson
Dr. D. Donnelly	Dr. S. H. Shaw
Dr. J. H. Dubourg	Dr. R. G. Sheldon
Dr. W. J. R. Dunn	Dr. M. T. Stack
Dr. F. M. Gardner-Medwin	Dr. Tweedale Thomson

BURY.

THE only county borough in the Bury Division of the British Medical Association is the county borough of Bury. The Local Medical Committee for the county borough was constituted for the year 1913 of all medical men living and practising within the borough. There are twenty-nine members, including those engaged in public and hospital practice. The Committee was recognized

by the Commissioners on January 22nd, and the officers for the year are as follows:

Chairman.—Dr. Baird.
Honorary Secretary.—Dr. Turnbull.
Executive Committee.—Chairman and Secretary (*ex officio*), Dr. Johnson, Dr. Cook, Dr. Greenhalgh, Dr. Nuttall, Dr. Vine, Dr. Cruickshank, Dr. Lucas.

The expenses of the Committee will be met by a subscription of 2s. 6d. per member, with an additional levy of 1s. per 100 insured persons on each member's list.

Drs. Johnson and Cook have been nominated as the representatives of the Committee on the Local Insurance Committee, but owing to a technical error in the nomination their election will be delayed for a month. Dr. Greenhalgh has been elected as the town council representative, and the Secretary as the Commissioners' representative.

Drs. Johnson, Cook, and Nuttall have been elected to the Medical Service Subcommittee.

WEST RIDING OF YORKSHIRE.

AT a meeting attended by over 200 doctors from all parts of the West Riding, held in the County Hall, Wakefield, on January 6th, under the chairmanship of Dr. R. MAY, of Wakefield, a Local Medical Committee was elected to represent the medical profession throughout the area of the West Riding Insurance Committee. One member of the committee was elected to represent each of the various districts of the Insurance Committee area, and the committee was given power to add to its number. The officers of the committee, which has been recognized by the Insurance Commissioners as the Statutory Medical Committee for the West Riding, are:

Chairman.—Dr. R. May (Wakefield).
Vice-Chairman.—Dr. G. B. Hillman (Castleford).
Honorary Secretary.—Dr. W. Eardley, 50, Burlington Crescent, Goole.
Assistant Honorary Secretary.—Dr. Percy V. Fry, Ryburn House, Sowerby Bridge.

The committee elected Dr. Russell (Batley) and Dr. May (Wakefield) the medical members of the Insurance Committee, and, as may be seen by reference to the list published last week, the election of these gentlemen has been formally recognized. The Committee also resolved to recommend the names of certain practitioners to the Commissioners for appointment.

The second meeting of the Committee was held on January 9th, when an Emergency Subcommittee was appointed, consisting of the officers with Dr. Russell to interview the Medical Benefit Subcommittee as might be required.

At the third meeting on January 20th it was agreed that the full capitation fee of 9s. should be paid to doctors who did their own dispensing for insured persons residing more than a mile from a panel chemist, and that a fixed standard payment of 6d. should be made for all emergency dispensing and dressings to simplify book-keeping and prescribing. It was also agreed that attendance and medicine should be supplied at the same rate as for insured persons to those who were members of approved societies at the time of the passing of the Act, and were 65 years old and upwards on July 15th, 1912, and who are employed contributors under the Regulations.

It was reported that at a conference of the Medical Benefit Subcommittee it had been agreed that the medical representation on the district insurance committees should be not less than one-tenth of the total number of such committees, that the administration of tuberculin and various vaccines should be considered special treatment not within the medical benefits of the Act, that nothing should be done at present with regard to domiciliary treatment of tuberculosis in non-insured persons who are dependants on insured persons.

The Medical Benefit Subcommittee agreed to pay an inclusive capitation fee of 8s. 6d. *plus* the floating 6d. if this latter sum was available. The chairman of the Medical Benefit Subcommittee stated that medical men had the right to charge a patient possessing a signed medical ticket who insisted on remaining a private patient and "going on as before."

At the fourth meeting, held on January 30th, it was resolved that any operation requiring a general anaesthetic should be considered outside the scope of medical benefit under the Act; and with regard to certificates to be furnished for sickness benefit, to ask the Medical Benefit Subcommittee of the Insurance Committee to inform the various societies that the official certificate issued by the Commissioners was all that was required. It was also resolved to inform the Insurance Committee that the term "vaccine" was held to include tubertulin, stock and autogenous vaccines, various serums, and vaccine lymph, and that the administration of these should be considered outside medical benefit. It was also arranged to give medical attendance to members of approved societies over 65 at the same rate as to insured persons—namely, 9s. per head, and it was arranged with the representative of the Insurance Committee that the giving of an anaesthetic for a dentist was not included under medical benefit, as dental work was entirely outside the Act.

A Medical Service Subcommittee—consisting of Dr. R. May (Wakefield), Dr. G. B. Hillman (Castleford), and Dr. James Russell (Batley)—has been appointed.

PLYMOUTH.

THE list of members of the Plymouth Local Medical Committee was published last week, and it was reported that Drs. Robert Simpson and R. H. Wagner had been elected by the profession to serve on the Local Insurance Committee. At the meeting of the Insurance Committee on February 28th these gentlemen were welcomed by the Chairman on the occasion of their first attendance. Certain resolutions of the Local Medical Committee were brought up. The first was a request to the Insurance Committee to fix an income limit for the purpose of the administration of medical benefit, such limit to be £2 a week; another resolution suggested that a radius of two miles from the recognized residence or surgery of a practitioner should be the limit of his sphere of work under the Insurance Act. The CHAIRMAN of the Medical Benefits Subcommittee brought up a report, in the course of which it was stated that a number of applications had been received from persons desirous of making their own arrangements, and that the Subcommittee would have shortly to deal with the matter of the allocation of those insured persons who had not yet chosen their doctors. Dr. R. SIMPSON moved an amendment to add to the report of the Subcommittee certain paragraphs contained in the Memorandum 143/I.C. of the Insurance Commissioners. The Memorandum of the Commissioners, he said, went a great deal further than the minute of the Medical Benefit Subcommittee. The minute only dealt with cases of sick persons who had been attended by a medical practitioner on or before January 15th. The memorandum included in addition commercial travellers and actors who, by reason of their occupation, were travelling about; also persons requiring special treatment, not carried out by doctors on the panel, and insured persons who desired to be attended by a practitioner who did not ordinarily undertake practice among the insured class. It was the aim and intention of the Commissioners to allow persons a more generous method of making their own arrangements than was contemplated in the Committee's minute. The amendment was seconded, and after some discussion, during which the CHAIRMAN said that the memorandum referred to by Dr. Simpson was not in the hands of the Subcommittee at the time it made the report, Dr. SIMPSON accepted the suggestion that the whole matter, including the allocation of patients, should be referred to the Medical Benefit Subcommittee.

FALKIRK.

AT a meeting of the Local Medical Committee held on February 25th, a deputation from the Falkirk and District United Trades Council was received, and expressed the view that the time had come when the doctors should make a reduction in the rate charged for club patients. The rate in the district had hitherto been 3d. a week for each workman who joined a club, and this contribution carried with it medical attendance upon the worker himself, his wife, and family. In view of the fact that the breadwinner was now nationally insured, the deputation urged a reduction of the rate from 3d. to 2d. per week, and pointed out that in some cases two or three members of a family were insured under the Insurance Act.

The members of the Committee indicated the difference between the custom prevailing in the district and that obtaining in other districts, where it was compulsory for

every worker to be in a club. The result was that the members of local clubs did not represent more than 25 per cent. of the working population, whereas in compulsory areas the doctors drew contributions from both married and single men, and consequently were able at the present juncture to consider the reduction of the rates. It was pointed out also that in this district it was left to each man to determine what steps in the way of obtaining medical attendance were in his best interests, and that he need not join a club. The CHAIRMAN said that the deputation would see that the doctors were disinclined to make any change in their terms.

A deputation was also received from the Local Federation of Friendly Societies. It was submitted by the deputation that the rates asked by the doctors—namely, 7s. each—for the treatment of members permanently ill and those over 65 years of age, also of ordinary members whose living was precarious, and who had not enrolled as State members, were too high, and would ultimately bring about an increase in the premiums of these members. It was thought that these classes of members had a grievance if their rate of contribution to their friendly societies was increased by the operation of the Insurance Act. While recognizing that this was so, the doctors present did not see their way to indicate any prospect of reduced terms, as most of the doctors concerned were absent. They stated, however, that the matter might be discussed at a subsequent meeting.

In the course of the discussion the deputation urged the doctors to exercise more caution in granting or continuing certificates of ill health, in order to put down malingering as far as possible. It was stated that, unless this was done, the friendly societies could not hope to survive the present crisis in their history.

In response to a request from the Secretary of the County Insurance Committee regarding the provision of a consulting hour in the morning, it was decided to intimate that attendance would, as far as possible, be given in the consulting-rooms at 9 a.m.

MEETINGS OF INSURANCE COMMITTEES.

MIDDLESEX INSURANCE COMMITTEE.

THE monthly meeting of the Middlesex Insurance Committee was held at Caxton Hall, Westminster, on March 3rd, Mr. GLYN JONES, M.P., presiding.

Capitation Payment.

The Committee agreed to accept the principle of Circular 10/I.C. as to calculating the remuneration of doctors on the panel on a capitation basis.

Discussion on "Contracting Out."

After consideration of Memorandum 43/I.C., dealing with the making of their own arrangements by the insured, the General Purposes Subcommittee recommended that the scheme proposed by the Insurance Commissioners be adopted, and that the special circumstances in which arrangements other than those contemplated by the Act be those stated by the Commissioners in Memorandum 43 with respect to commercial travellers, actors, nurses, and persons desiring a particular system of treatment not undertaken by doctors on the panel.

Dr. W. E. LOWRY (Brentford) moved the reference back of the recommendation in order to urge upon the Committee the desirability of permitting a wide interpretation of Clause 15 (3) of the Act as to insured persons making their own arrangements. He considered that a liberal measure of contracting out would be of immense advantage to all concerned, and this point had been entirely overlooked by the Committee. It would save them from the rock on which he was sorry to say the Insurance Act would split; he meant the difficulties that would arise when the assignment to the various doctors of the residue of insured persons who had not selected a medical man came to be dealt with. The residue would be found to consist of persons who keenly resented the injustice of being forced to take any form of contract practice; they were old members of clubs, and they felt how completely bad contract practice was. By allowing contracting out the Committee would do away with the necessity of a Committee of Complaints, because if people had free choice and freedom to change their doctor as often as they liked, difficulties between doctor and patient would be avoided. An advantage to the insured person would be that he would be able to obtain a very much wider range of medical treatment than the Act could give. If a man's case were beyond the competence of a local practitioner he could go to a hospital or to one of the many doctors not on the panel who specialized in operative work. If the Committee succeeded in forcing all medical men on to the panel, one dead level would be established; he did not think it would be the lowest level, but was certain it would not be the highest level.

Mr. MORTON DAVIS, who seconded, thought it would be advisable to reconsider the matter in view of the fact that 130,000 people in Middlesex had not yet selected their doctor. The reason probably was that they could not make the arrangements they desired.

Mr. WARREN, as a representative of the approved societies, welcomed Dr. Lowry's remarks, which he took to indicate a recognition on the part of the medical profession that a mistake had been made in removing medical benefit from administration by the approved societies. He regretted that the medical profession did not decide many months ago to adopt its present position. There would be no satisfaction until the administration of medical benefit was restored to the approved societies.

Mr. WM. REGESTER remarked that as the Committee had permitted insured persons to contract out and be attended by herbalists and homœopaths, there could be no objection to their going to doctors not on the panel.

The CHAIRMAN deprecated any assumption that a doctor on the panel was any less competent to perform, for instance, an amputation, than a doctor who was not on the panel. It really was not fair to make any classification of medical men and to assume that some were not as fully qualified as others.

The amendment was lost by a large majority, only five voting in favour.

Dr. H. B. BRACKENBURY (Finsbury Park), continuing the discussion of the main question, thought Dr. Lowry had implied a distinction between one class of doctors and another. From his own knowledge he could say that doctors with large operative practices were on the panel for Middlesex, and in some districts all the doctors were on the panel.

Dr. LOWRY said he did not intend to imply any inferiority of panel doctors to others not on the panel.

The recommendations of the subcommittee with reference to the attitude of the Insurance Committee on the question of contracting out were then approved.

Scale of Medical Fees.

The General Purposes Subcommittee submitted a scale of fees to medical practitioners which, the CHAIRMAN explained, was based on a scheme for a public medical service promoted by the Ealing Division of the British Medical Association. The scale was as follows:

	s.	d.
1. Attendance on patients at practitioners' residence or surgery	1	0
2. Visit to patient's residence	2	0
3. Special visit	2	6
4. Night visit	2	6
5. Surgical operation	10	6
6. Administration of general anaesthetic ...	10	6
7. Setting of fracture	10	6
8. Dislocation	10	6

The CHAIRMAN said that these figures were only units on which the payments to the medical men would be computed. The bills would be paid from a pool, and if they amounted to too large a sum they would have to be cut down. In the course of some comments on the figures one member mentioned that the police paid 7s. 6d. for night calls, and another said that 3s. was usually paid by friendly societies for night visits. It was also suggested that 10s. 6d. was relatively too much to pay for administering an anaesthetic if that sum was allowed for surgical operations.

It was agreed that the General Purposes Subcommittee should confer with the Statutory Medical Committee with reference to the scale of charges.

British Medical Association.

FRIENDLY SOCIETIES AND THEIR AGED AND INFIRM MEMBERS.

COPIES of the following letter, addressed to the National Insurance (Joint) Committee on the instructions of the State Sickness Insurance Committee of the British Medical Association, have been forwarded to Mr. Masterman, M.P., Chairman of that Committee, and to all the representatives of the Friendly Societies present at the conferences held October 9th and 16th, 1911:

Offices of the British Medical Association,
Medical Department,
429, Strand, London, W.C.
February 28th, 1913.

Sir,

The attention of the British Medical Association has been drawn to two statements which were made by Mr. Masterman, Secretary to the Treasury, in the House of Commons on February 14th last, relating to the question of the provision of medical attendance for members of friendly societies who are over 65 and who are not entitled to medical benefit under the National Insurance Act. The first statement, which appears on p. 954 of the Parliamentary Debates for February 14th, was a written reply to a question, and was to the following effect:

I know no reason why the fact that a doctor is receiving higher remuneration than hitherto in respect to insured persons should prevent him continuing to treat the small and diminishing number of his own aged and infirm patients who are not insured on the same, or approximately the same, terms as before.

The second statement was made by Mr. Masterman in the course of his speech on the same date, and appears on pages 1004-5-6-7 of the same number of the *Parliamentary Debates*. In this speech the Secretary to the Treasury virtually repeated the statement above quoted, and suggested that there is something unfair and mean in doctors expecting the same rate of remuneration for members of friendly societies who are over 65 and who are not insured so far as medical benefit is concerned, as is being obtained for attendance on insured persons.

The Association desires to protest in the strongest manner against these insinuations, which can only be based upon ignorance of the real facts of the case, and I am instructed to express the hope that the Commissioners will take some steps to prevent such misstatements being made, and such aspersions being cast upon the profession. I am instructed to draw your attention to the history of this matter. This will be found in the document, marked "Private and Confidential," which is a verbatim report of a conference on the National Insurance Bill on October 16th, 1911, between representatives of the British Medical Association and representatives of the friendly societies, at which it is noted that Mr. Masterman was present. A perusal of pages 24, 28, 29, 30, 31, 32, 33, 34, and 43 and 44 will convince the Commissioners of a fact which is clearly within the recollection of those of our representatives who were present at the conference, namely, that there was no thought at that time of dividing the aged and infirm members of approved societies into two classes—namely, those who would become insured but who would not be entitled to receive medical benefit under the Act, and those who would not become insured and would therefore receive none of the benefits of the Act. The friendly societies made an appeal to the representatives of the Association on behalf of their members who would not receive medical benefit under the Act, but for whose medical attendance the societies were responsible. They naturally feared that the profession would be unwilling to accept these persons at the same rate as they would accept the ordinary insured person, and they thankfully accepted the promise of the representatives of the Association to co-operate with them "in maintaining the medical attendance of those already members of friendly societies who may unfortunately be shut out under the bill by reason of ill health or of being over 65 years of age" (see speech by Mr. Moffrey, page 43 of report mentioned above). In return for this concession, the representatives of the friendly societies promised to do their best to prevent any reopening of the campaign for replacing the administration of medical benefit in the hands of the approved societies. The Chancellor of the Exchequer, who was in the chair, congratulated both sides on having arrived at this understanding. It is true that at that time the representatives of the friendly societies were under the impression that the rate of payment for medical benefit was to be 6s. per annum, but it is quite certain that, irrespective of the cost, they realized that their societies would be called upon to provide medical attendance for their aged and infirm members, for whom, quite reasonably, a special rate could be demanded by the medical profession. The Association is unable to find, in the course of that debate, any suggestion of a division of the aged and infirm members into the two classes specified by Mr. Masterman, namely, those who became insured under the Act and those who did not. It seems obvious to the Association that the division of these persons into these two classes as regards the provision of medical attendance is an after-thought, suggested by the fact that the Government finds itself able to provide an extra grant for the insured who may be over 65; but has not, so far, been able to provide a grant for the others.

Judging from the evidence before the Association the profession throughout the country resents strongly the insinuations of meanness on its part in asking for a rate of payment which is in fact laid down in Section 15 (2) (*e*) of the Act. In this section the responsibility is laid upon the Insurance Committee of providing medical attendance, "*on the same terms* as to remuneration as those arranged with respect to insured persons," to members of friendly societies which become approved societies, who are not entitled to medical benefit, either because they were 65 or upwards at the date of the commencement of the Act, or that, being subject to permanent disablement at that date, they were not qualified to become insured persons. The method by which Mr. Masterman sought to discriminate between these persons is quite incomprehensible to the Association. He argued that it would be unfair for doctors who had been attending a club for many years to ask for the same rate of remuneration all round, and that these old persons who are excluded from the benefits of the Act, not by any action on the part of the profession, but by the deliberate action of Parliament, had a claim on the charity of the profession which it was mean in resisting. In answer to this the Association would point out that the medical profession is perfectly willing to fulfil the bargain it entered into with the friendly societies which is embodied in Clause 15 (2) (*e*) of the Act; but it submits that the responsibility for finding the extra money for the payment for this small and diminishing class of members of the friendly society falls, not on the medical profession which has for years been attending not only these members but the rest of the friendly society members on semi-charitable terms, but on the societies which undertook to insure them for medical attendance, have taken their contributions on this understanding for many years, and are, according to the repeated statements of members of the Government, owing to liberation of certain of their funds, now in a much better position to meet the claims made upon them than they were before.

I am instructed to send a copy of this letter to Mr. Masterman, as the Association thinks that he should have the earliest possible opportunity of removing the misconceptions to which his answer and speech have given rise. I am also instructed to send a copy to those representatives of the friendly societies who were present at the conference referred to early in this letter, in order that they may be reminded that any hardship to which their old and infirm members may be put is due not to any unfairness on the part of the medical profession, but to their own forgetfulness of a bargain freely made with representatives of the profession.

In conclusion, the Association would be glad if the Commissioners will do something to impress upon the

Insurance Committees their obligations under Clause 15 (2) (*e*) of the Act, and also to remedy the discrepancy which occurs between that clause and Regulation 51 (2). In this regulation, doubtless by inadvertence, it is stated that the agreement between the Committee and a practitioner on the panel shall include the condition that he shall attend the old and infirm members of friendly societies above alluded to at a rate of remuneration *not exceeding* the amount which would be available for the medical treatment of that member if he was an insured person. Clause 15 (2) (*c*) of the Act states that the provision of medical attendance for this class of persons shall be *on the same terms* as to remuneration as those arranged with respect to insured persons. It appears to the Association that the words of the Regulations tend to weaken the force of the relevant clause in the Act.

I am,
Your obedient servant,
(Signed) ALFRED COX,
Medical Secretary.

The Secretary,
National Health Insurance (Joint) Committee,
Buckingham Gate, S.W.

ARRANGEMENTS FOR DISPENSING.

APPOINTMENT OF DEPARTMENTAL COMMITTEE.

A COMMITTEE has been appointed consisting of Mr. James Smith Whitaker, M.R.C.S., L.R.C.P., of the National Health Insurance Commission (England), Chairman; Mr. Walter Davies, Mr. James Crawford Ledlie of the Privy Council Office, Mr. Claud Schuster of the National Health Insurance Commission (England), Dr. Lauriston E. Shaw, to inquire and report whether, having regard to the interests of insured persons in obtaining an efficient and rapid supply of drugs, medicines, and appliances, and to the conditions under which those articles were supplied before the passing of the National Insurance Act, 1911, any alteration is necessary in the conditions laid down by Section 15 (5) (iii) of the National Insurance Act in respect of the matter.

The paragraph is as follows:

(iii) Subject to the regulations made by the last foregoing proviso the regulations shall prohibit arrangements for the dispensing of medicines being made with persons other than persons, firms, or bodies corporate entitled to carry on the business of a chemist and druggist under the provisions of the Pharmacy Act, 1868, as amended by the Poisons and Pharmacy Act, 1908, who undertake that all medicines supplied by them to insured persons shall be dispensed either by or under the direct supervision of a registered pharmacist or by a person who, for three years immediately prior to the passing of this Act, has acted as a dispenser to a duly qualified medical practitioner or a public institution.

The note in *National Insurance* by Carr, Garnett, and Taylor is as follows:

"*Acted as a dispenser.*"—This safeguards the large number of dispensers to medical men who have no legally recognized qualifications for dispensing.

All communications in regard to the Committee should be addressed to the Secretary, James Rae, Esq., at the National Health Insurance Commission (England), Buckingham Gate, S.W.

OFFICIAL DOCUMENTS.

ADMINISTRATION OF MEDICAL BENEFIT.

THE Insurance Commissioners (England) have issued, under date of February 18th, 1913, the following circular (10/I.C.) with regard to the administration of medical benefits by Insurance Committees:

Method of Calculating the Remuneration on a Capitation Basis of Doctors coming on the Panel prior to and during the currency of the First Quarter.

1. Where the Committee have adopted for the remuneration of doctors on the panel a system of payment either in whole or in part by capitation, they may desire some assistance as to the most convenient method of calculating the remuneration due both to those practitioners who placed their names upon the panel at the commencement of the present quarter, and to those who joined the panel at a later date.

2. The Fourth Schedule to the Model Form of Agreement with doctors on a capitation basis (which form it is assumed has been adopted by Committees with little or no modification as regards that Schedule) specifies a fixed rate of remuneration *per quarter* in respect of each person included in the practitioner's list at the end of the quarter. Doctors coming on the panel at any time after the beginning of the quarter will be remunerated for the period to the 14th April next in respect of each person on their lists in proportion to the period of their service. For the purpose of ascertaining the sum to be credited in respect of each person on the doctor's list, it is recommended that the period of the doctor's service during the quarter should be reckoned in weeks, any portion of a week being regarded as a complete week, and that the sum to be credited to him in respect of persons on his list should bear such proportion to the full quarterly amount as the period of his service bears to the full quarter.

3. Doctors coming on the panel during the quarter should be apprised of the method proposed to be adopted by the Committee for ascertaining the actual rate applicable to the period of their service.

4. The net result of the arrangements explained above will be that such portion of the amount available for the treatment of insured persons on the lists of doctors coming on the panel during the quarter as may be regarded as applicable to the period prior to those doctors' acceptance of service will be mainly distributed among the doctors who were already on the panel during that period, and upon whom the collective responsibility for the treatment of all the insured persons in the area devolved during that period.

5. The following Table illustrates the proportionate amounts to be credited to doctors coming on the panel before the commencement of and at different dates during the quarter in cases in which an inclusive rate of 1s. 9d. per quarter has been fixed:

Date of Doctor's acceptance.	*Amount to be Credited.*
Any date up to and including 21 January	21.0d.
,, ,, 28 January	19.38d.
,, ,, 4 February	17.77d.
,, ,, 11 February	16.15d.
,, ,, 18 February	14.54d.
,, ,, 25 February	12.92d.
,, ,, 4 March	11.31d.
,, ,, 11 March	9.69d.
,, ,, 18 March	8.08d.
,, ,, 25 March	6.46d.
,, ,, 1 April	4.85d.
,, ,, 8 April	3.23d.

It will, of course, be understood that the amounts shown in the above Table do not represent the actual amounts payable, but are credit rates for the purpose of the distribution of the fund.

6. The necessity for an apportionment of remuneration in the manner described will not, of course, be restricted to the provisional or initial period, but will arise in normal circumstances whenever a doctor places his name upon the panel or ceases to practise in the area during the medical year. A similar method might suitably be adopted in such cases.

Allocation of Insured Persons who have not selected, or been accepted by a Doctor on the Panel.

7. In areas in which the capitation system has been adopted the question of the principle upon which those insured persons are to be assigned who have not selected or been accepted by doctors should receive careful consideration at an early date. It will not be possible for a Committee to proceed with the allocation of individual insured persons until the index register is complete; but they should determine the basis upon which each doctor's quota of such persons is to be ascertained, if this has not already been done, without delay.

8. Subject to what is stated in the following paragraphs, the unassigned residue might be distributed in any of the following ways:

(*a*) In equal shares.
(*b*) In proportion to the number of accepted persons already on each doctor's list.
(*c*) In proportion to the number of patients already treated by each doctor as ascertained from the day-book or in any other way.

9. With regard to the relative merits of these methods, it may be observed that basis (*a*) would to some extent operate to the disadvantage of those doctors who served the whole quarter and accepted insured persons who were ill when they applied to them, inasmuch as such doctors would only receive an equal share of the healthy residue with the doctors who, by reason of their joining the panel at a later date, have fewer sick persons on their lists.

10. Basis (*b*) would secure an approximately equitable distribution. But in areas in which it is believed that

any considerable number of healthy insured persons have exercised their choice of doctor by presenting their medical tickets for endorsement, basis (*c*) would perhaps secure a more equitable distribution of healthy and unhealthy persons.

11. The basis of allocation to be adopted should be the subject of discussion, both with the Local Medical Committee and with the practitioners on the panel, and should, of course, be determined with full regard to any understanding which may have been arrived at with the doctors on the panel prior to their accepting service.

12. Whatever arrangements may be arrived at must be subject to considerations as to the maximum number of insured persons for whose treatment an individual practitioner can reasonably accept responsibility. It appears to the Commissioners that no absolute limit can usefully be fixed, but that regard must be had to the circumstances of each case after consultation with the Local Medical Committee and the practitioners on the panel. The arrangements will also be subject to considerations as to the local distribution of the unassigned residue, and as to what number of individual insured persons can be allotted to any individual doctor, having regard to the distance of their residences from his house or surgery, without hardship to the insured persons so allotted.

13. There would be no objection to the adoption by the Committee, should they so desire, of one basis of allocation for the first quarter and a different basis for the subsequent period. Where this course is followed, the basis adopted for the first quarter would not presumably require to be given effect to by the individual assignment of insured persons, but would apply only to the method of distribution of the available moneys among doctors on the panel.

Advance Payments to Doctors on the Panel.

14. Arrangements have been made whereby Committees will be enabled, should they so desire, to make advance payments to doctors on the panel on account of the sums due to them at the end of the quarter. Where a capitation system is in force the Commissioners are of opinion that advances might safely be made to each doctor as soon as he has completed a month's service to the extent of a rate of 7d. (one-third of 1s. 9d.) in respect of the number of insured persons whose names are contained in the schedules of acceptances received from him during the month.

15. Committees who have adopted a capitation system should include the amount required to enable them to make advance payments to doctors on the above basis in their monthly application for issue of Funds (Form 273 Revised A.G.D.).

16. Committees who have adopted an attendance system, and who are desirous of making advance payments to doctors, should submit their proposals in that connexion to the Commissioners by letter.

Applications for Grants from the Special Mileage Fund.

17. Those Committees who are desirous of making application for a grant from the Special Mileage Fund should apply without delay, if they have not already done so, in order that the Commissioners may have before them all the facts necessary to enable them to determine the basis of distribution of the grant.

18. Grants from the fund in question will only be made in respect of those parts of the country which are exceptionally sparsely populated and in which there are special difficulties of access (such as mountainous districts, moorlands, and fens); and any application should be accompanied by particulars in support of the claim of the localities concerned to be included in that category.

19. Further, the Commissioners will require to have before them, in considering the method of distribution to be determined, an approximate estimate of the numbers of insured persons in the localities concerned for whose treatment doctors on the panel ought, in the opinion of the Committee, to receive additional remuneration out of any grant received. This estimate might conveniently take the form of a statement of the number of insured persons resident at a distance from the house or surgery of the nearest doctor of more than three miles, subdivided into the number of persons so resident at a distance of between three and four miles, four and five miles, and so on. It is essential that estimates should be submitted at an early date in order that the Commissioners may be in a position to review the whole situation so as to apportion the funds available in the most equitable manner.

Arrangements for dealing with Removals during the Provisional Period.

20. For the purpose of dealing with the question of removals during the provisional period, and pending the establishment of the arrangements referred to in paragraph 37, insured persons entitled to medical benefit may be divided into three classes:

(*a*) Those who have arranged to receive treatment from panel doctors.
(*b*) Those who receive treatment through Institutions.
(*c*) Those who have been allowed to make their own arrangements.

21. Insured persons falling under class (*a*) are required under the Medical Benefit Regulations to give notice on removing into a new area to the Committee for that area; and it then devolves upon that Committee to make arrangements for his medical benefit. This will necessitate the issue of a new medical ticket, inasmuch as the ticket already in the possession of the insured person will bear the signature of the doctor accepting, and will therefore not be available in a new area.

22. In the case of the removal of such a person from the area of Committee A to that of Committee B, the latter Committee, on receipt of a notification of removal, should require the surrender of the old medical ticket, and ascertain the date on which the removal took place. During the provisional period the production of the medical ticket may be accepted as proof that the insured person is entitled to medical benefit, and is not receiving the benefit otherwise than through a doctor on the panel. A fresh ticket may then be issued forthwith. Committee B should immediately notify Committee A, stating the date of removal; and Committee A should transmit to Committee B the appropriate index or suspense slip, and at the same time notify the doctor concerned (whose name should be on the back of the slip) that the insured person in question is no longer on his list for treatment, and has been removed therefrom as from the date of change of residence.

23. In some cases the notification of removal may not reach Committee B until an interval has elapsed. The actual or approximate date on which the removal took place must, however, always be regarded as the date when Committee A ceased to be responsible for the medical benefit of the insured person: and the necessary financial adjustments will be made on that basis.

24. Where the removal is within a Committee's area, the procedure will be similar except that reference to another Committee for the index or suspense slip will, of course, be unnecessary.

25. With regard to persons falling into classes (*b*) and (*c*) above, such persons by selecting an Institution or by making their own arrangements exercise their option for the whole of the currency of the medical year; and the responsibility of Committee B for their medical treatment will only commence from the beginning of the medical year following the date of removal. Where application is made for the index or suspense slip of a person falling under classes (*b*) or (*c*), Committee B should be informed that the person falls under class (*b*) or (*c*) and that the slip will be transferred at the end of the medical year.

26. An insured person on removal may only obtain treatment under the arrangements made with practitioners on the panel. The new medical ticket issued should therefore bear the name of the Committee, in order to avoid the risk of an insured person whose removal is temporary using it to obtain treatment on return to his former address; and it should be filled up by the Committee by whom it is issued with the name of the insured person and the address in their area. A supply of medical tickets will be furnished to Committees in due course.

Supply of Medicines, etc., by Doctors on the Panel.

27. Numerous inquiries have been received as to the effect of paragraph 30 of the Regulations; and the following statement is intended to assist Committees in dealing with various matters arising in connexion therewith.

The paragraph in question sets out the circumstances in which a doctor on the panel is entitled to enter into arrangements with the Committee to supply medicines himself to insured persons. The expression "rural area" has no technical construction, such as the expression "rural district"; and accordingly the question as to whether any given locality is "rural" is one of fact for the decision of the Committee, as well as the question whether insured persons will have difficulty in obtaining medicine from the nearest chemist on the list by reason of distance or inadequacy of means of communication.

28. The arrangements for the payment of doctors for the supply of medicines, etc., under Regulation 30 will vary according to the method of their remuneration for medical attendance.

(*a*) Where a capitation system is in force, it is open to the Committee to arrange for payment in respect of medicines in accordance with Regulation 47. This Regulation

provides for the doctor receiving in respect of the supply by him of drugs a capitation rate per annum of 1s. 6d. *plus* the average amount per head transferred from the Drug Suspense Fund to the Drug Fund; but it will be borne in mind that the average sum per head of the unexpended balance of the Drug Suspense Fund passes to him in respect of medical attendance. Thus, in effect, he will be credited with 7s., *plus* 1s. 6d., *plus* the whole of the 6d. credited to the Drug Suspense Fund, the total credit amounting to 9s. per annum in respect of each person on his list to whom he is entitled to supply medicines, etc.

(*b*) In areas in which an attendance system is in force, the necessity of requiring a detailed account in respect of the supply of medicines and appliances may be avoided if an arrangement can be made whereby the doctors will supply medicines, etc., as an additional service at a flat rate for each prescription, thus enabling the charge in respect of each prescription to be entered and accounted for in the same manner as services in connexion with medical attendance. The actual amount of the rate to be paid should, however, be arrived at in consultation with the chemists, who have, of course, a considerable interest in the amount determined upon.

29. It will be borne in mind that where payment to doctors for the entire supply of medicines, etc., to certain insured persons has been arranged under the provisions of Regulation 30 (1), no separate or additional payments will fall to be made to them for the supply of medicines or appliances in the circumstances contemplated in Regulation 30 (2), inasmuch as the payments under Regulation 30 (1) will cover the entire responsibility for the supply of any drugs or prescribed appliances which the condition of the patient may require.

Lost Medical Tickets.

30. During the provisional period it will devolve upon Committees to issue medical tickets, not only in the circumstances referred to in paragraphs 20 to 25, but also in certain other cases where it may be necessary, viz., where the original ticket has been lost, or where it has been mutilated or otherwise rendered unavailable.

31. In these cases it will be necessary for the Committee to satisfy itself that the applicant is entitled to a fresh ticket. The Commissioners have accordingly prepared a form for use where the insured person concerned is a member of a Society. A copy is enclosed and a supply will be sent in a few days, together with a supply of medical tickets. If a Deposit Contributor requires another ticket the Committee should forward the application to the Accountant and Comptroller-General, National Health Insurance Commission (England), Delaware Road, Maida Hill, London, W.

32. Where a ticket has been lost after being signed by a doctor on the panel the insured person must present the fresh ticket to the same doctor for signature.

33. All tickets issued by a Committee should be stamped with the name of the Committee, and should be marked "Duplicate."

Recommendations for Sanatorium Benefit.

34. In view of the arrangements as to Medical Benefit which have now come into operation, and of the general allocation in conjunction therewith of 6d. per insured person for the domiciliary treatment of tuberculous insured persons recommended for sanatorium benefit, the procedure hitherto adopted for securing special treatment for tuberculosis among the insured appears to the Commissioners to admit of being simplified.

35. As indicated in their Circular 6 I.C. the Commissioners consider that an application for Sanatorium Benefit should continue to be made on Form Medical 1 or a similar form, but that evidence as to the applicant being an insured person will no longer be needed if he is at the time of his application eligible for medical benefit. This form will as before be accompanied by a brief statement signed by the medical practitioner that the person is in his opinion suffering from tuberculosis. On receipt of this application the Commissioners think that the Committee may at once recommend the applicant for Sanatorium Benefit in the form of domiciliary treatment pending further consideration of the case. The practitioner will then assume charge of the case, and will carry out treatment in consultation with the "consulting officer," that is, either the Tuberculosis Officer or the Medical Officer of Health, as the case may be, in accordance with the Order of the Local Government Board. If in the course of such treatment it is made apparent to the consulting officer, who is also Medical Adviser to the Committee, that the case is one in which treatment in a sanatorium or hospital or at a dispensary would be more suitable, it will be his duty to represent the facts to the Committee, who may thereupon make a further recommendation for the necessary treatment to be provided.

36. On the above method a formal medical report for the information of the Committee as a preliminary to the grant of Sanatorium Benefit will become unnecessary.

Doctors' Lists of Insured Persons, Day Books, and Prescription Books.

37. In view of the objections which have been raised in various quarters to the amount of clerical work entailed upon doctors on the panel by the provisional arrangements now in force relating to the medical ticket and the schedules of acceptance, the Commissioners desire to point out that the necessity for those arrangements is initial and temporary only. There will be no reissue of the medical ticket; and no repetition will be necessary of the clerical work entailed upon doctors on the panel by the preparation of their schedules of acceptance. It will be the duty of each Committee adopting a capitation system to furnish each doctor with a list of the insured persons for whose treatment he is responsible; and such lists, once compiled from the schedules of acceptance and by the allocation of the residue, will be permanent, subject, of course, to the right of individual insured persons to change their doctor and of the doctor to discontinue the treatment of individual insured persons at the dates appointed for revision. These arrangements will enable a simple card system of records to be substituted for the Day book. A memorandum dealing with the whole subject will be issued shortly.

38. It is also proposed to discontinue the issue of Prescription Books in triplicate, and to make it optional for the doctor to retain a duplicate for his own use.

Future Arrangements for the Administration of Medical Benefit.

39. Committees should take into consideration as soon as they are in a position to do so the arrangements to be made for the provision of Medical Benefit after the expiration of the current quarter on April 14th next. They should, therefore, expedite their negotiations with doctors and chemists, with a view to the early settlement of any outstanding difficulties and the adoption of arrangements for the future. In considering these matters they must consult any Local Medical Committee recognized for the area, or, if no Local Medical Committee has been recognized, the doctors on the panel.

REPORTS OF LOCAL ACTION.

LONDON.

TUBERCULOUS PATIENTS MAKING THEIR OWN ARRANGEMENTS.

IN the *Times* of March 1st, Mr. G. A. Touche, M.P. for North Islington, called attention to the case of Mr. F. W. Eeles in illustration of the difficulty encountered by insured persons in obtaining treatment for tuberculosis under the present administration of the Insurance Act in London. The facts of the case appear to be that the patient had been suffering from consumption for two years, and that on October 15th, 1912, Dr. G——, his club doctor, decided to treat him by tuberculin injections. The treatment was commenced on November 4th, and was given as part of the medical attendance arranged for by his club. Application for sanatorium benefit was made in the middle of October, and on November 25th the London Insurance Committee agreed to pay Dr. G—— to continue the treatment until further notice. Mr. Dawes, M.P., chairman of the London Insurance Committee, states that on February 13th that committee was informed by the Insurance Commissioners that it must insist upon all such cases being treated by panel doctors, and a circular was accordingly sent to the patient and doctor stating that unless the patient obtained permission to make his own arrangements the best course for him to adopt would be to submit his medical ticket to a doctor whose name was on the London medical panel, with a view to obtaining domiciliary treatment from him. It appears that early in January the patient had applied for permission to make his own arrangements, and was asked either to reconsider his decision or to make his request on "Form Med. 21, which may be received upon application." This reply was received on January 27th, but recent inquiry at the office of the London Insurance Committee brought the reply that Form Med. 21 was not yet printed.

A special appeal was then made to the Clerk, who replied that the case would be considered on its merits and would be dealt with in due course, and that there was nothing to add to the circular. After the publication of Mr. Touche's letter on March 1st the Chairman of the London Insurance Committee stated (on that day) that on February 24th a communication had been received from the patient stating that he could not obtain treatment from a panel doctor, and that a letter had been prepared, but had not been posted, informing the patient that as he had been receiving injections of tuberculin from Dr. G—— the Committee had decided to allow him to receive for the present domiciliary treatment from him as the patient of the Committee. Mr. Dawes, in defence of the Insurance Committee, stated that in no case brought to its notice in which a man had been treated by tuberculin by his own doctor had permission to allow him to go on with it been refused, although there was actually no fund out of which the Committee could pay a non-panel doctor. Permission had been given in about a dozen cases. Mr. Dawes gave the assurance that if new cases demanding tuberculin treatment arose the Committee would allow the patients to make their own arrangements if special circumstances justified it in doing so, but difficulties would not arise in the future. Copies of Form Med. 21 had, he said, only been received from the Insurance Commissioners during the previous week.

SCOTLAND.

Edinburgh Insurance Committee.

At a meeting of the above Committee held on February 27th, Councillor Robertson presiding, it was intimated that the Commissioners had appointed Dr. John Bowie, Dr. F. W. N. Haultain, and Dr. W. L. Martin members of the Committee. Further, in room of three members resigned, the Town Council had appointed Dr. Alexander Veitch, Baillie Richardson, and Councillor Barrie.

The Medical Guild.

The following note in explanation of the Medical Guild's formation, adopted at a meeting of the Guild held in Edinburgh on February 24th, has been forwarded by the Secretary, Dr. Frederick Porter (65, Morningside Road, Edinburgh):—

The Medical Guild.

The Reason for its Formation.

As about one half of the members of the medical profession in Britain are not on the medical panels constituted under the National Insurance Act, this Association has been formed to draw together those of them practising in Scotland with a view to mutual support, encouragement, and conference. The Guild is also intended to act as a centre to which medical men who decide to give up service under the National Insurance Act will be able to turn for sympathy and fellowship.

The motives which brought together those who initiated this movement are expressed in those two sentences; but when the question is asked—Why did they not join medical panels?—the answer is as follows:

1. They are uncompromisingly opposed to a State controlled system of medical practice under the control and supervision of lay bodies with no special knowledge of medical matters.

2. They resent their private patients being taken from them by State compulsion and put under a contract system.

3. They hold that contract practice, save under special circumstances and safeguards, is prejudicial to the public health, and is unfavourable to the development of that care and skill in the individual practitioner of medicine upon which valuable service depends.

Moreover, they have in the past valued personal freedom and liberty in their professional dealings with the public, and have appreciated the excellent relations which subsisted between them and the persons who have selected them as their medical attendants. The selection was usually made on professional and personal grounds, with the result that there existed mutual confidence and personal interest between them and the members of the families they attended. Many of these families had little confidence in contract medical practice and selected a family medical attendant, although they were entitled to such attendance through a friendly society. This section of the community has a special claim at this time, and the members of the Guild are in a position to give them the same care and attention they have hitherto required and received. The members of the Guild stand for the freedom of the individual to choose his own doctor, and for the maintenance of the spirit of confidence and trust between doctor and patient which is universally regarded as desirable.

If you approve of these objects, it is hoped that you will join the Guild and aid in the maintenance of the higher relations of the medical profession with the public.

IRELAND.

Committee on Extension of Medical Benefit.

Sittings in Belfast.

The Committee of Inquiry appointed by the Treasury, with Lord Ashby St. Ledgers as Chairman, to consider the question of the proposed extension of medical benefit under the Insurance Act to Ireland, held its first sitting in Belfast on March 4th.

In opening the proceedings the Chairman said that the Belfast Linen Merchants' Association had expressed the opinion that in view of the elaborate system of medical relief already available the extension of medical benefit to Ireland was unnecessary, and that an increased charge would have a prejudicial effect on the cottage industries. The Belfast Chamber of Commerce had pointed out that more than one-half of the population was engaged in agriculture, an occupation in which there was a relatively low percentage of sickness, and urged that the extension of medical benefit would practically involve a duplication of medical relief agencies at an increased cost to the community and without compensating results. Similar opinions had, the Chairman said, been expressed unanimously at a conference of Irish Chambers of Commerce in Dublin on October 24th and November 9th, 1911.

Evidence given on behalf of the Orange and Protestant Friendly Societies, by Mr. R. H. Noble, was to the effect that the members had voted by about 3 to 1 in favour of the provision of medical benefit if administered by the societies, but against it by more than 2 to 1 if administered by Insurance Committees.

The Rev. P. Kerlin, of Magilligan, Derry, was in favour of the abolition of the present dispensary system and the institution of medical benefit administered by Insurance Committees for insured persons and their dependants, inasmuch as many would thus benefit who were now unwilling to avail themselves of the provisions made by the Poor Law.

Dr. R. J. Johnstone, who gave evidence on behalf of the Conjoint Committee of the British and Irish Medical Associations, stated that, with the drawbacks existing in England obviated as far as possible, the extension of medical benefit to Ireland would prove acceptable to the medical profession, if for no other reason than that it would go a long way towards getting rid of the present abuses of the Poor Law and club practice. For insured persons the same capitation fee as in England (7s.) was asked, and, if dependants were included, one guinea. The assertion that Irish working men were healthier than the English could not, he said, be accepted: it was contrary to the experience of doctors who had practised in both countries, and the mortality statistics of English and Irish towns were totally opposed to such a view. In reply to Mr. Lardner, Dr. Johnstone stated that the object of the doctors was to remove the pauper taint from insured persons attending the dispensaries, and to prevent the abuse of the Poor Law service.

Mr. Devlin asked why because the State had carried a great scheme for the health of the community the doctors asked 17s. a head more from these poor people when they had been willing to accept them previously at 4s. a head.

Dr. Johnstone replied that the doctors were not asking 17s. from the poor people, but from a large organization which included not only those poor people but a great many working men who earned a large income. The doctors had withdrawn from contracts with friendly societies because they wished free choice of doctor introduced.

Mr. Glynn, a member of the Committee, said that there were 122,000 insured persons in Belfast, and that of this number about 50,000 were married; at the terms mentioned by Dr. Johnstone this would involve the provision of 50,000 guineas and 75,000 sums of 7s. to provide medical benefit in Belfast.

Refusal of Medical Evidence.

On February 10th an application was made to the Secretary of the Irish Insurance Commissioners by Dr. George Elliott, Honorary Secretary of the Belfast Division of the British Medical Association, on behalf of that Division and the Belfast Medical Guild, two Associations which comprise all the members of the medical profession in the borough, stating that the medical practitioners in the Belfast district were desirous of facilitating the inquiry of the Committee in every way possible, and were prepared to tender evidence. No reply beyond a formal acknowledgement having been received to this communication, a further letter was written by Dr. George Elliott on February 20th, stating that Dr. S. B. Coates, Dr. George Elliott, Dr. R. J. Johnstone, Dr. John Macintosh, and Dr. John O'Doherty had been nominated to give evidence on behalf of the medical practitioners in Belfast and the surrounding parts of Antrim and Down. A very unpleasant impression has been produced not only by the refusal of the Committee to take evidence from these witnesses, but also by the manner in which the Secretary of the Committee had expressed this refusal. He transmitted a letter addressed by him to Dr. Hayes, the Secretary of the Conjoint Committee of the British Medical and Irish Medical Associations in Ireland, in which he stated that the sittings the Committee proposed to hold in Ireland during the week beginning March 4th were intended to be not more than a preliminary inquiry in order to ascertain generally the trend of Irish opinion in the matter so far as the two classes primarily affected, namely, insured persons and their employers, were concerned. While recognizing the importance of giving the medical profession in Ireland a full opportunity of making representations from their point of view with regard to the question of medical benefits the Committee considered that the opportune time for such representations would be rather when the question of extending medical benefits to Ireland was definitely settled. The Secretary added that the Chairman of the Committee had no objection to taking evidence from a representative of the Conjoint Committee in each of the three centres at which the preliminary inquiry would be held—namely, Dublin, Belfast, and Cork. The receipt of this letter led Dr. Elliott to write a letter of remonstrance, in which he pointed out that on a matter with regard to which, from the very nature of their life's work, no other section of the community was so well qualified to express an opinion as the medical profession, it would be wise for the Committee to have that advice and information from the beginning. This letter brought a mere acknowledgement, and at a special meeting of the profession, held in Belfast on February 27th, the following resolution was unanimously adopted:

> This meeting of the medical profession of Belfast and district has heard with great regret and surprise that the Commission has refused to hear the members selected on the 13th inst. by the local practitioners to give evidence. The meeting would again tender the names of the medical witnesses, and would urge that it is essential that they be heard, as representing the various views of medical men in the largest industrial centre of Ireland. The meeting would also urge that the Commission should receive evidence from doctors in other urban and rural areas of the North of Ireland.

The Committee sat again in Belfast on the following day, and arranged to meet in Dublin on March 6th.

MATERNITY BENEFITS.

The question of maternity benefit is still in a state of great confusion in Ireland. At the conference held recently in Dublin between the approved societies (106 of which were represented from all parts of Ireland) and the Insurance Commission, the CHAIRMAN said that the Commissioners desired, first of all, to impress upon the societies the duty of seeing that the 30s. was properly administered for the benefit of the mother and the child. It need not be paid in one lump sum; the society might spread the payments over a few weeks to enable the mother to get proper attention during the four weeks that followed confinement. A society could arrange, with the consent of the mother, for the attendance of a qualified maternity nurse in all cases, and could provide a fee from the 30s. for that nurse. In addition, the societies had power to make grants from their funds towards nursing associations which would look after the mother and child in the period following confinement. With regard to fees he mentioned five classes of patients, in two of which he said fees might be paid to doctor and nurse, (1) cases of women who were themselves insured and whose husbands were insured and in employment, and (2) cases of women who were not insured, but whose husbands were and had employment. The Commissioners proposed to communicate with the Local Government Board with the object of getting societies and boards of guardians to agree to a uniform system, whereby the class of case for which a fee ought to be paid would be defined. In all other cases the guardians would issue tickets as before. In rural districts it was proposed that the fee for the doctor should be 7s. 6d. or for the nurse 5s. The maternity hospitals in Dublin had arranged with the societies to recommend their insured women to go into the hospital, where they would get treatment for nine days for 5s., and also certificates. If the woman preferred to be attended in her own home, she would be attended for the same period for a fee of 5s., getting all the facilities from the hospital, together with the attendance of students under the proper supervision of a doctor. The following resolution was passed unanimously:

> That the Commission be empowered to make arrangements with midwives and doctors in Ireland to attend members or insured members' wives in maternity cases for a maximum fee of 5s. for nurses, and 7s. 6d. for doctors, such fees not to be cumulative, and not to apply to cases where medical relief tickets are, or ought to be, granted. Societies to be at liberty to adopt these arrangements or not as they decide.

Both the Commissioners and the societies apparently entirely overlook the fact that the "maternity benefit" was introduced into the Insurance Act to enable poor women to have skilled attention during confinement, and that therefore the fees of both doctor and nurse are a first call on this 30s., and were not intended, as is now suggested, to be paid out of anything that may be left over in the case of fairly well-to-do patients. Mr. Lloyd George himself explained this in Parliament in the following words:

> Women of the working classes in critical cases are neglected sadly, sometimes through carelessness, but oftener through poverty, and that is an injury, not only to the woman herself, but to the children born. We therefore propose that there should be a 30s. benefit in these cases, which would cover doctoring and the nursing, but only conditional upon those who are women workers not returning to their work for four weeks.

TREATMENT OF TUBERCULOUS PATIENTS.

At the last quarterly meeting of the Kildare County Council a deputation from the County Kildare Medical Committee attended to discuss the treatment of tuberculous patients. It was stated that there was no place provided for the treatment of hopeless cases, and domiciliary treatment of these cases was a failure. The doctors had decided to charge a fee of 5s. for a domiciliary visit, and 1s. a mile after the first mile. A charge of 2s. 6d. would be made if the patients came to the doctors. As matters were at present, no nourishment could be given to domiciliary cases, and they were not allowed into the workhouse. It was decided that a subcommittee should interview the Local Government Board and place the doctors' views before them.

At the last weekly meeting of the Dublin County Borough Insurance Committee a circular with regard to sanatorium benefit was submitted, intimating that it is competent for Insurance Committees, if satisfied, in consultation with the medical adviser, that the provision of special articles of clothing is a necessary part of the treatment, to make arrangements for the supply of such outfits by the persons or local authorities undertaking the treatment. A resolution was passed appointing Dr. J. T. Daniel, of the P. F. Collier Memorial Dispensary, temporary medical adviser to the Committee pending action by the Public Health Committee with regard to the appointment of a successor to Dr. J. T. Crowe.

At the quarterly meeting of the Sligo County Council Dr. P. J. Burke was appointed tuberculosis officer for the county at a salary of £450 a year and an allowance of £50 a year for travelling expenses. A subcommittee was appointed to select a suitable building or site in the town of Sligo for a central dispensary. Dr. Irwin, who attended on behalf of the Women's National Health Association,

urged the council to take advantage of the Peamount sanatorium scheme, and gave a guarantee that the capital cost would not exceed £70 a bed and that the maintenance charge would only be £1 a week while the beds were occupied. Sir Acheson MacCullagh, who attended on behalf of the Local Government Board, strongly urged the council to join with some other neighbouring counties in building a sanatorium. The council decided to arrange for a conference with the other counties of the province with a view to making some joint arrangement.

CORRESPONDENCE.

Persons Making their Own Arrangements.

Dr. H. D. Ledward (Letchworth, Hertfordshire) writes: In your leading article (March 1st, p. 458) the serious consideration of the restrictions which should be put on the right to "contract out" is urged; may I be allowed to present a point of view which appears to be entirely disregarded by the Commissioners in their recent Memorandum?

It is true that a majority of the profession prefer contract arrangements for dealing with insured persons, but there is an important minority who will always refuse to undertake any work on contract terms, although they have no objection to private practice among the insured class at ordinary working-class fees. The practitioners who form this minority are not the least intelligent of our profession, and their work compares not unfavourably with that of their fellows; whether they are right or wrong in their views as to contract practice need not be argued; that they hold these views with all sincerity will be readily acknowledged. It would appear to be the intention of the Commissioners either to force such men to take contract work or to deprive the insured of their services except in "special circumstances." Even if an insured person desires to "make his own arrangements" he is apparently expected to go and make a bargain with his doctor (unless he be a commercial traveller or an actor) and inform the Insurance Committee of the result, giving the name of his doctor, whether he has had past experience of him, and the fee per quarter or per attendance for which the doctor is prepared to treat him. As you, sir, remark, it is difficult to perceive any advantage from the practitioner's point of view over the ordinary panel arrangement.

Another fact that the Commissioners ignore is that a large number of the more intelligent members of the working classes strongly object to receive medical attendance under a contract arrangement. They may be wrong, but they imagine that they do not receive quite the same consideration if the doctor is paid whether he sees them or not, and they prefer the more independent relationship of private practice.

Surely one reason why Section 15 (3) of the Act was inserted was to enable such persons to continue to receive medical attendance under the conditions which they consider most satisfactory to themselves. Why should not an insurance committee be allowed to sanction "own arrangements" if an insured person states that he prefers the relationship of private practice between himself and his doctor? To adopt such a course in any area is not going to upset the panel system. Obviously the number of the insured who are willing to incur the possibility of extra payment out of their own pockets is limited; the vast majority will prefer to make sure of getting all the doctoring they require without any personal liability. Why should the acceptance of this personal liability be so discouraged, almost refused by the Commissioners? An insured person who prefers that his doctor should be paid, and paid in full, for what he does for him, and so asks the Committee to put his medical benefit contribution into the Special Arrangements Fund, is a wise man. He knows that this will ensure that he gets the best value for his money, because all who, like himself, accept some personal liability will be careful how they draw on this fund. Under the ordinary panel arrangement the man who takes care of his health knows that he is paying for attendance upon his less careful neighbours and upon those who rush to the doctor on every conceivable excuse; but the contributors to the Special Arrangements Fund have all a direct incentive to take care of their health and to brush aside minor ills, with great advantage to themselves and to the quality of the attention they receive when they do require it.

One of the most serious criticisms of the "normal system" of providing medical benefit is that it is economically wasteful. Most panel doctors will agree, I think, that during the past few weeks they have been spending a considerable amount of time attending to trivialities which would have got quite well without their ministrations, time better spent in the more careful investigation of more serious illness. Apart from wasting the doctors' time, unlimited facilities for free doctoring may have a most undesirable effect upon those who enjoy such facilities; minor ailments, better forgotten, are apt to become exaggerated and dwelt upon. In Mr. Gibbon's able sociological study of the experience of Germany and Denmark in relation to medical benefit, published last October (*Medical Benefit in Germany and Denmark*, by I. G. Gibbon; P. S. King and Son), this aspect of medical insurance is discussed and the very remedy proposed—namely, some small personal financial interest, which our own authorities seem so determined to discourage.

In the political strife that has raged round this question of "own arrangements" the legitimate desires and true interests of the insured are being lost sight of; one would like to know why this need be.

Dr. H. Bryan Densham (Stockton-on-Tees) writes: The medical benefits under the Insurance Act have now been in force for six weeks. This period is too brief to yield much information, but it is long enough to give us some idea how our interests will be affected, and also to some extent how far the benefits meet with the approval of those insured. It is therefore desirable that wherever a number of general practitioners in any district have declined service on the local panels, they should publish their experiences for the help of others.

This parliamentary borough includes Stockton, Thornaby, and Norton, with a population of 85,000 almost entirely industrial in character. Twenty-nine general practitioners reside in this district, of whom fifteen with three assistants are giving service on the local panels, and eleven have declined service.

Contract practice is the dominant type of practice in the county of Durham, and the overwhelming majority of the men in practice in the county are serving on their local panels. Therefore those of us in this district who have declined service are holding our position without much encouragement from our immediate surroundings, and our experience (brief as it is) has its value.

We meet frequently to consider our common interests, and I am glad to say that we are all still of opinion that in declining service on the panels we have not only done what is right in the interests of our patients, but also what is best in our own interests. We shall not be content until those insured are allowed to use their full medical benefit as they think best in their own interests, subject to certain reasonable conditions.

Our District Committee has not yet been formed. When it is constituted we shall ask for an opportunity of laying our views before it, and we hope to have its help in our efforts to obtain for those insured the right to "contract out" if they so desire.

Our County Insurance Committee has not yet come to a decision on this question, and so far has not acceded to our request for an opportunity of laying our views before it. If it declines to permit "contracting out" under reasonable conditions, we shall then consider the best steps to take in order to give expression to the views of the insured on this question.

I have every hope that organized labour will ultimately be found to be largely on our side.

Some weeks since nearly 800 applications from those desiring to "contract out" had been sent in from Stockton alone, and this number has since been largely increased. In addition to these, a large number—probably some thousands—have not yet taken any step to secure their medical benefit, and a great proportion of these desire to "contract out."

Most of these insured persons represent, either directly or indirectly, a parliamentary vote, and they will most strongly resent any attempt by regulations to deprive them of a right reserved to them in an Act of Parliament.

I hope our experience here will be an encouragement to men practising in other districts.

In country districts there is no scope for differentiation in type of practice; but wherever a number of medical men are practising in a centre of population, it is to be hoped that the stronger men will refuse service on the panels, and so increase the demand by the insured to be allowed to "contract out."

It is only by these means that the medical profession can be saved from the "levelling down" effects of contract practice and the insured be enabled to obtain the best the profession has to offer.

To get this result efficient local organization is necessary. The strength of our position here is due to the fact that as a Division we have always been united in our decisions on important questions. Both panel and non-panel men still meet frequently, and so remain in close touch. We all realize that our interests are still essentially the same.

An Experience on the Panel and Some Deductions.

Dr. G. A. WYON (Bow) writes: May I be allowed to give my own figures by way of contrast with Dr. Rosa Ford's figures, and then point out where there is an apparent fallacy in the latter?

In forty-five days—January 15th to February 28th—981 attendances were made—an average of 21.8 per day. The number of persons accepted up to February 28th was 1,375—it is now a few more. Therefore the percentage attendance was 1.58 a day. With 1,000 patients, this means that 15.8 would require treatment per day in winter, or $\frac{15.8 + 7.9}{2} = 11.9$ throughout the year, using the same method of estimation as Dr. Ford. The remuneration for 1,000 persons is 230 pence a day. The fee per patient would therefore be $\frac{230}{11.9} = 19.4$ pence, compared with Dr. Ford's 11.8 pence.

Now, it is possible that two practices should show such a marked difference, but I think it very unlikely.

A source of fallacy seems to be present in Dr. Ford's statement: "The *average* number of insured persons on the books was 413.6." The number at the *end* of the period is not stated, but it is this, or something larger than this, if acceptances are still being made, which ought to be used as the figure for the population being attended. This in her case would probably be 800 or 900, and, if so, our figures agree. In fact, I believe I am now treating an insured population of about 1,500, because I am still accepting four or five a day, and there is sure to be a surplus in April to be allotted by the Insurance Committee, and yet my *work done* for insured persons is not increasing from week to week, as it ought to be, if my reading of Dr. Ford's letter is right, and if her theory is more true than mine.

If my theory is correct, the fee for work done is about 10 per cent. more than my figures show.

Dr. A. C. E. PARR (Feltham) writes: In further elucidation of the interesting question discussed in the letter of Dr. Rosa Ford, may I be allowed to quote figures derived from my own experience during the period extending from January 15th to February 28th?

The number of patients on my list is 330. In the forty-five days comprised I have paid 56 visits and there have been 208 attendances at the surgery—a total of 264. The remuneration for 330 patients for forty-five days works out at 284.76 shillings. Taking the visits at 1s. 6d. each (that is, 84 shillings), there remain 200.76 shillings for 208 attendances at the surgery—that is, 11.58 pence per attendance. Thus, so far I am getting, roughly, 1s. 6d. per visit and 1s. per attendance at surgery. It is obvious, however, that the rate of attendance will be much less during the summer months—let us say, one-half. Then during a period of equal length the average number of visits, calculated on the yearly average, would be $\frac{(56 + 28)}{2} = 42$, and the attendances at surgery $\frac{(208 + 104)}{2} = 156$. The visits might be thus reckoned to produce 2s. (=84 shillings), and the attendances at surgery would then yield 1.28 shillings, or 1s. 3d. each.

When we take into consideration that we do not supply medicine (which may be reckoned at a minimum cost of 3d. per bottle, a modest enough estimate) we are getting the equivalent of at least 2s. 3d. per visit and 1s. 6d. per attendance at surgery.

In addition there is still to be taken into account our portion of the "floating" sixpence (if any) and our share of the money accruing from unallotted contributors.

Taking all these things into consideration my figures go to show that we shall not be far off the usual fees of 2s. 6d. per visit and 2s. per attendance at surgery for this class of practice.

One swallow does not make a summer, and I do not wish to dogmatize on the figures of one man during a period of six weeks, but I should be greatly interested to hear the experiences of a few more of our colleagues in different parts of the country.

The Present Situation and Future Policy.

Dr. C. E. EVANS (Clapton) writes: In the belief that the profession as a whole, not to mention the decent working man, is averse to contract practice, we in Hackney are endeavouring to prevent its further extension, especially amongst juveniles, and with some success too, the only argument yet advanced against us being, "If I don't, some one else will."

It was, then, with some alarm that I read in last week's issue that certain Divisions, of their own free will, are extending contract practice to juveniles—4s. a head, with a reduction for quantity, being the latest quotation. To say the least, is it not dangerous in view of our past experience? When the Act does include juveniles, will this "penny a week" be considered a "fair case for increase," seeing it is fixed by ourselves and not by the clubs?

Surely, the socialistic tendency of the Act—for is it not socialistic to eliminate private gain and to pay the same fee whatever the "nature, quality, or extent" of medical services rendered, if not to be philanthropic at the expense of others?—surely it is patent enough without the profession helping to forward a cause in which we have nothing to gain. Cannot the aforesaid Divisions reconsider the matter, and will other Divisions be strong enough not to follow their example?

Friendly Societies and their Aged and Infirm Members.

Dr. GARRATT (Chichester) writes: The letter of Dr H. Cameron Kidd has been almost completely answered, notably by that of Dr. Herbert C. Jonas. There remains, however, some uncertainty as to how the extra sum required in order to bring the contribution of the aged and infirm up to that of the insured member should be raised. May I supply this information? I quote from a leaflet issued by the Insurance Commission:

> *Questions and Answers for Members of Friendly Societies.*
>
> *Q.* As a member of a friendly society I am anxious to know if I shall benefit by my thrift in the past?
>
> *A.* Yes, certainly. Every society that becomes "approved" will receive a new reserve for all its present members who come under the State scheme. This will set free reserves which friendly societies have accumulated in the past, and which are estimated to amount to *at least £10,000,000 for the country as a whole.*

The italics are mine. Comment is superfluous.

The Stockport Insurance Scheme.

We have received the following letter for publication:

2nd March, 1913.

Sir,

Our attention has been called to a report, in your SUPPLEMENT issued on February 22nd last, of a meeting held in Macclesfield to consider a scheme to include dependants of insured persons on the lines of the Stockport scheme; also to a letter from Dr. Brassey Brierley, which appeared in your last issue.

Though wishful to avoid any controversy, we feel that the following facts should be stated:

The principles of the "Stockport scheme" were approved by the National Medical Union in December, 1912, *on the following understanding:* First, that there should be no panel, but that the services of all practitioners on the *Medical Register* willing to serve should be available for beneficiaries; and, secondly, that the insurance risks (on the lines of reasonable payment per visit) should be taken by the Government and county councils, and not by the

profession. We are not aware whether at the present time these conditions are absolutely adhered to by those who are furthering the scheme.

Moreover, the National Medical Union is now a reorganized body, consisting of members united to oppose service under the Act as it now stands, and its attitude towards the "Stockport scheme" has not again been considered.—We are, Sir, your obedient servants,

William Coates, *Chairman.*
J. Skardon Prowse, *Honorary Secretary.*

National Medical Union Offices, 5, John Dalton Street, Manchester.

Dr. Lionel Jas. Picton (Holmes Chapel) writes: In your report of a recent meeting of friendly society representatives and doctors in Macclesfield to consider this scheme it was correctly stated that the principles of the scheme had not only been approved by the State Sickness Insurance Committee, but also endorsed by the National Medical Union. Dr. Brassey Brierley in his letter which you printed last week takes exception to this. Does he forget that after very careful examination by a subcommittee, and slight modification, the scheme was submitted by the general committee to a postcard referendum of the National Medical Union members, and as over 90 per cent. of the replies received were favourable, it was sent under the heading, "Proposals by the National Medical Union" to every Representative, to the members of Council, to every member of both Houses of Parliament, to every secretary of a British Medical Association Division, etc.? Dr. Brierley speaks of the endorsement by the union of the National Deposit Friendly Society's principle. I think, however, if he will refer to the archives of the Union he will find that the general committee last spring adopted a report in which the principle of that society was examined, and though approved in some respects, was condemned on the ground that it afforded no real insurance. The policy of the National Medical Union is now not the same as it was when the actions I have mentioned were taken; but these remain on record, and the secretary, Mr. Webster Watts, cannot be open to criticism if he refer to them.

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1913.

DATE OF MEETING.

The Annual Representative Meeting of the Association, 1913, will be held at Brighton on Friday, July 18th, and following days, as may be required.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

Attention is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting at Brighton in July next, relating to questions affecting the honour and interests of the medical profession or of the Association (By-law 37), must be published in the British Medical Journal not later than the issue of April 19th, and for this purpose should be received by me not later than April 12th, 1913. Notices of Motion proposing to make any addition to, or any amendment, alteration or repeal of any Regulation or By-law, or to make any new Regulation or By-law (Article 31), must be published in the Journal not later than the issue of May 17th, and received by me not later than May 10th, 1913.

By Order,
Alfred Cox,
Medical Secretary.

February 4th, 1913.

ELECTION OF COUNCIL, 1913-14.

Notice is hereby given that nominations for a candidate for election as a Member of Council by the South Australian, Victorian, Western Australian, and Tasmanian Grouped Branches for a period not exceeding three years as prescribed by By-law 49 (2) must be forwarded so as to reach me not later than Thursday, May 1st, 1913.

Nominations must be made by any three Members of the grouped Branches, in the form prescribed below.

Election will be by voting papers, and these will contain the names of all duly nominated candidates, and will be issued by me.

By Order of the Council,
A. E. R. White,
Honorary Secretary, Victorian Branch, and Returning Officer.

88, Spring Street, Melbourne.
March 8th, 1913.

SOUTH AUSTRALIAN, VICTORIAN, WESTERN AUSTRALIAN, AND TASMANIAN BRANCHES.

NOMINATION FORM.

By not less than Three Members of the Grouped Branches.

We, the undersigned, hereby nominate

.....

of.....

.....

as a candidate for election by the South Australian, Victorian, Western Australian, and Tasmanian Grouped Branches above named as a member of the Council of the Association.

Names and addresses of nominators, and Branches to which they belong.

Name.	*Branch.*
.....	.....
.....	.....
.....	.....

This form should be returned to Dr. A. E. R. White, 88, Spring Street, Melbourne, not later than Thursday, May 1st, 1913.

NOTICES OF ALTERATION OF AREAS OF BRANCHES AND DIVISIONS.

The following changes have been made in accordance with the Regulations of the Association, and take effect from the date of publication of these notices:

(1) *East Anglian and Metropolitan Counties Branches: Mid-Essex, South Essex, and Stratford Divisions.*

That the area of the Stratford Division of the Metropolitan Counties Branch be re-defined, to be as follows:

> County Borough of West Ham, Municipal Borough of East Ham, Urban Districts of Barking Town, Ilford (except Claybury Asylum) and Romford, and Rural District of Romford;

and that the areas of the East Anglian and Metropolitan Counties Branches, and of the Mid and South Essex Divisions of the East Anglian Branch, respectively, be adjusted accordingly.

Representation in Representative Body: Unaffected.

(2) *Bromley and Croydon Divisions of South-Eastern Branch.*

That the Urban District of Penge be transferred from the Croydon to the Bromley Divisional area.

Representation in Representative Body: Unaffected.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Metropolitan Counties Branch: City Division.—The next meeting of the Division will be held at the Manor Lodge, Upper Clapton (by invitation of Dr. C. F. Hadfield), on Tuesday, March 11th, at 9.30 p.m. Clinical evening: Cases and discussion. Members desiring to show cases or read short abstracts are requested to notify the Honorary Secretary by March 8th.—A. G. Southcombe, 83, Sidney Road, Homerton, N.E.

Metropolitan Counties Branch: South-West Essex Division.—The next meeting of the Division will be held in the Wesleyan Church Schoolroom, Leyton High Road, on Thursday, March 13th, at 4 p.m. (1) Minutes. (2) Correspondence. (3) Lantern Demonstration, Surgical Affections of the Tongue, by J. Howell Evans, M.A., F.R.C.S., Assistant Surgeon, Cancer and Tumour Hospital. (An exhibition of coloured drawings illustrating lesions of the tongue will be on view half an hour before the demonstration.) (4) Any other business.—A. Pottinger Eldred, Honorary Secretary.

NORTH OF ENGLAND BRANCH: NEWCASTLE-ON-TYNE DIVISION.—It has been found necessary again to alter the date of the demonstration arranged by the Newcastle-on-Tyne Division to March 28th, when Professor R. A. Bolam will lecture on Medico-legal Tests for Blood.—R. J. WILLAN, Honorary Secretary, 25, Ellison Place, Newcastle-on-Tyne.

NORTH OF ENGLAND BRANCH: SUNDERLAND DIVISION.—Sir James Barr, President of the Association, will deliver an address on Rheumatic Arthritis and Its Treatment, at the Subscription Library, Sunderland, on March 14th, at 4 p.m. The annual dinner of the Division will be held the same evening at the Grand Hotel, Sunderland, at 7 p.m.—J. G. MODLIN, Honorary Secretary, 148, Roker Avenue, Sunderland.

Meetings of Branches and Divisions.

METROPOLITAN COUNTIES BRANCH:
CAMBERWELL DIVISION.

A MEETING of the whole profession resident in the area of the above Division was held at the Surrey Masonic Hall on February 27th, at 4 p.m., to consider the position of the medical officers of the Camberwell Borough Council Employees Sick Benefit Society, who had been dismissed when they requested the advance of the capitation fee from 4s. per member to 8s. 6d. Dr. CAPES was in the chair, and announced that a warning notice had been placed in the JOURNAL as to the above appointments, and that a letter had been sent to the Town Clerk protesting against the fact that a circular letter had been sent to the local profession inviting them to make tenders for the the posts. After the matter had been fully discussed the following resolution was unanimously carried:

That this meeting pledges itself not to apply for any of the appointments resigned, and will furthermore do all in its power to dissuade any other practitioner from doing so.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ALNWICK INFIRMARY.—House-Surgeon. Salary, £140 per annum.

BARNSTAPLE: NORTH DEVON INFIRMARY.—House-Surgeon. Salary, £100 per annum.

BEDFORD COUNTY HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—(1) Assistant Physician. (2) Junior Resident Medical Officer (male), salary at the rate of £40, increasing to £60 on appointment as Senior.

BIRKENHEAD: BOROUGH HOSPITAL.—(1) Senior House-Surgeon; (2) Junior House-Surgeon. Salary, £100 and £80 per annum respectively.

BIRKENHEAD UNION.—Senior Male Resident Assistant Medical Officer. Salary commencing at £130 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Resident Surgical Officer. Salary at the rate of £80 per annum.

BIRMINGHAM CITY HOSPITAL.—Assistant Resident Medical Officer. Salary, £150 per annum.

BRECON AND RADNOR ASYLUM, Talgarth.—Assistant Medical Officer. Salary, £170 per annum.

BRIGHTON COUNTY BOROUGH.—Tuberculosis Officer. Salary, £500 per annum.

BRISLINGTON HOUSE PRIVATE ASYLUM, near Bristol.—Junior Resident Medical Officer. Salary commencing at £160.

BRISTOL EYE INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BRISTOL GENERAL HOSPITAL.—Honorary Physician or Surgeon to the Throat and Ear Department.

BRISTOL ROYAL INFIRMARY.—(1) Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £75 per annum. (2) Honorary Surgical Registrar.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum.

CAIRO; SCHOOL OF MEDICINE.—Assistant to the Professor of Biology and Parasitology. Salary, £400 per annum.

CAMBRIDGE COUNTY ASYLUM.—Junior Assistant Medical Officer. Salary, £160 per annum, rising to £200.

CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Honorary Surgeon.

CHELSEA INFIRMARY, Cale Street, S.W.—Second Assistant Officer (male). Salary commencing at £140 per annum.

DUNDEE ROYAL INFIRMARY.—(1) Resident Medical Officer. (2) Outdoor Obstetric Assistant; salary, £70 per annum.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—(1) Senior Resident, (2) Junior Resident (females). Honorarium, £25 and £18 per annum respectively.

EDINBURGH: THE HOSPICE.—Medical Woman to act as Resident. Honorarium, £25 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—House-Physician. Salary at the rate of £40 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. Salary, £75 per annum.

HAMPSTEAD GENERAL AND NORTH-WEST LONDON HOSPITAL.—(1) House-Physician and House-Surgeon to In-patients' Department. Salary at the rate of £70 per annum each. (2) Assistant Casualty Officer to Out-patients' Department. Salary at the rate of £60 per annum.

HEREFORD COUNTY AND CITY ASYLUM.—Assistant Medical Officer (male). Salary, £150 per annum, increasing to £170.

HEREFORD COUNTY COUNCIL.—Assistant (Tuberculosis) Medical Officer. Salary, £300 per annum.

HUDDERSFIELD ROYAL INFIRMARY.—Male Junior Assistant House-Surgeon. Salary, £60 per annum.

ISLINGTON: L.C.C. CENTRE FOR TREATMENT OF SCHOOL CHILDREN.—(1) Four Dental Appointments; salary at the rate of £50 per school year each. (2) Anaesthetist; salary, £25 per school year.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

LEWES: COUNTY COUNCIL OF WEST SUSSEX.—County Medical Officer of Health. Salary, £600 per annum.

LIVERPOOL STANLEY HOSPITAL.—Resident Medical Officer. Salary, £150 per annum.

LONDONDERRY DISTRICT LUNATIC ASYLUM.—Junior Male Assistant Medical Officer.

MACCLESFIELD GENERAL INFIRMARY.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £100 and £80 per annum respectively.

MANCHESTER CHILDREN'S HOSPITAL, Pendlebury.—Male Resident Medical Officer. Salary at the rate of £100 per annum for six months, rising to £120 per annum.

MANCHESTER: HULME DISPENSARY.—House-Surgeon. Salary, £160 per annum.

MANCHESTER ROYAL EYE HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

MARGATE: ROYAL SEA-BATHING HOSPITAL.—Resident Surgeon. Salary at the rate of £120 per annum.

MIDDLESBROUGH: NORTH RIDING INFIRMARY.—Junior House-Surgeon. Salary at the rate of £80 per annum.

MIDDLESEX COUNTY COUNCIL.—Five Tuberculosis Medical Officers. Salary, £500 per annum each.

MILDMAY MISSION HOSPITAL, Austin Street, E.—(1) Assistant Physician. (2) Assistant Surgeon. (3) Anaesthetist.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—Junior House-Surgeon. Salary at the rate of £85 per annum, with prospect of election to senior post. Salary, £100 per annum.

NOTTINGHAM GENERAL DISPENSARY.—(1) Assistant Resident Surgeon (male); salary, £170 per annum. (2) Resident and Assistant Resident Surgeons for Branch; salary, £180 and £170 per annum respectively.

PARIS: BRITISH HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

PRESTON: COUNTY ASYLUM, Whittingham.—Assistant Medical Officer. Salary, £150 per annum, increasing to £250.

PRESTON ROYAL INFIRMARY.—Senior House-Surgeon (male). Salary at the rate of £80 per annum.

READING: BERKSHIRE EDUCATION COMMITTEE.—Assistant Medical Inspector of Schools. Salary, £300 per annum.

RHONDDA URBAN DISTRICT COUNCIL.—Medical Examiner of School Children. Salary, £250 per annum, rising to £300.

ROCHDALE INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum, rising to £90.

ROTHERHAM HOSPITAL.—Senior House-Surgeon (male). Salary, £110 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon for Out-patients.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—(1) Two Physicians. (2) Physician-Accoucheur.

ST. GEORGE'S UNION INFIRMARY, Fulham Road, S.W.—Second Assistant Medical Officer. Salary, £130 per annum.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C.—Honorary Assistant Surgeon.

SALFORD ROYAL HOSPITAL.—(1) Junior House-Surgeon. (2) Casualty House-Surgeon. Salary at the rate of £65 per annum each.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £80 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £60 per annum.

SHEFFIELD ROYAL INFIRMARY.—Male House-Surgeon. Salary, £70 per annum.

SHEFFIELD UNION HOSPITAL.—Resident Assistant Medical Officer. Salary, £120 per annum.

SHOREDITCH: PARISH OF ST. LEONARD.—Resident Senior Assistant Medical Officer for the Infirmary and Workhouse. Salary, £175 per annum.

SHREWSBURY: SALOP INFIRMARY.—House-Physician. Salary at the rate of £90 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

SOUTHPORT INFIRMARY.—Resident Junior House and Visiting Surgeon (male). Salary at the rate of £80 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £100 and £90 per annum respectively.

STAFFORD: COTON HILL MENTAL HOSPITAL.—Assistant Medical Officer (male). Salary, £170 per annum, rising to £200.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—(1) House-Surgeon; salary, £120 per annum, increasing to £140. (2) House-Physician; salary, £100 per annum.

STRACHUR AND STRATHLACHLAN PARISH COUNCILS.—Medical Officer and Poor Law Vaccinator. Salary, £80 per annum, and £14 towards rent of house.

SURREY EDUCATION COMMITTEE.—Assistant Medical Officer. Salary, £250 per annum.

TAUNTON: SOMERSET AND BATH ASYLUM, Cotford.—Assistant Medical Officer. Salary, £150 per annum, increasing to £180.

TIVERTON: THE HOSPITAL.—House-Surgeon and Dispenser. Salary, £80 per annum.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House-Physician (male). Salary, £100 per annum.

TYRONE ADMINISTRATIVE COUNTY.—Tuberculosis Medical Officer. Salary, £400 per annum, rising to £500.

WANDSWORTH UNION INFIRMARY, St. John's Hill, S.W.—Male Junior Assistant Medical Officer. Salary at the rate of £120 per annum.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £100 per annum.

WEST RIDING OF YORKSHIRE.—Assistant to the County Medical Officer. Salary, £300 per annum.

WHITECHAPEL UNION.—Second Assistant Resident Medical Officer. Salary, £100 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Donaghmore (co. Down), Sevenoaks (Kent), Stevenage (Herts.).

APPOINTMENTS.

ALDOUS, George F., F.R.C.S.Edin., Consulting Surgeon to the Tavistock Hospital, South Devon.

BEATTIE, Professor J. M., M.A., M.D., Honorary Consulting Bacteriologist to the Royal Southern Hospital, Liverpool.

MANCHESTER ROYAL INFIRMARY.—The following appointments have been made:

House-Physicians: G. C. Dixon, M.B., Ch.B.Vict.: L. W. Sparrow, M.B., Ch.B.Vict.

Senior House-Surgeons: C. F. White, M.B., Ch.B.Vict.: P. H. Midgley, M.B., Ch.B.Vict.

Junior House-Surgeons: G. B. Buckley, M.R.C.S., L.R.C.P., T. W. Martin, M.B., Ch.B.Vict.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

MARRIAGE.

FLEMING—GRAHAM.—At Shanghai, on February 25th, William Fleming, M.B., Ch.B., F.R.C.S.E., Baptist Missionary Society, Tsing Chow Fu, son of Councillor Thomas Fleming, Walton, Liverpool, to Euphemia Cargill, daughter of William Graham, Manager of the Union Bank, Edinburgh. (By cable.)

DEATHS.

BRAND.—At Invery, Driffield, East Yorks., on March 3rd, Amelia Ferguson, wife of A. T. Brand, M.D., and daughter of the late W. B. Ferguson, Esq., Aberdeen.

JAMES.—On March 3rd, at St. Andrews, Biggleswade, Alfred James, Surgeon, aged 60.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, W., 8.30 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Arris and Gale Lectures (I), Dr. W. Blair Bell.

ROYAL SOCIETY OF MEDICINE, 1, Wimpole Street, W., 5 p.m.—Discussion on Alimentary Toxaemia, its Sources, Consequences, and Treatment. (To be continued on April 14th.)

TUESDAY.

CHELSEA CLINICAL SOCIETY, St. George's Hospital Medical School, 8.30 p.m.—Annual Clinical Debate on Neurasthenia. Dr. J. S. Risien Russell, Dr. T. B. Hyslop, Dr. Gordon Holmes, Dr. Lloyd Smith.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Second Lumleian Lecture by Dr. F. de Havilland Hall: Intrathoracic Aneurysm.

ROYAL SOCIETY OF MEDICINE:

SECTION OF PSYCHIATRY, Clinical and Pathological Meeting at Claybury Asylum, 4.30 p.m.

SECTION OF SURGERY, 1, Wimpole Street, W., 5.30 p.m.

WEDNESDAY.

HUNTERIAN SOCIETY, St. Bartholomew's Hospital (Library), 9 p.m.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, Lincoln's Inn Fields, W.C., 5 p.m.—Arris and Gale Lectures (II), Dr. W. Blair Bell.

ROYAL SOCIETY OF MEDICINE:

SECTIONS OF OPHTHALMOLOGY AND NEUROLOGY, 1, Wimpole Street, W., 8 p.m.—Discussion on Disease of the Pituitary Body will be reopened by Dr. H. G. Turney and Dr. Grünbaum.

UNITED SERVICES MEDICAL SOCIETY, Royal Naval Medical College, Greenwich, 5 p.m.—Fleet Surgeon Launcelot Kilroy, R.N.: Salvarsan in the Navy.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Third Lumleian Lecture by Dr. F. de Havilland Hall: Intrathoracic Aneurysm.

ROYAL SOCIETY OF MEDICINE:

SECTION OF DERMATOLOGY, 1, Wimpole Street, W., 5 p.m.—Cases.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 1, Wimpole Street, W., 8.30 p.m.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION, S.W.—Wednesday, 4.30 p.m., Climatic Treatment of Consumption.

CANCER HOSPITAL, Fulham Road, S.W.—Wednesday, 5 p.m., Cancer of the Uterus.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn Road, W.C.—Tuesday, 3.45 p.m.

LONDON HOSPITAL MEDICAL COLLEGE, E.—Monday, 4.30 p.m. Tuesday, 1 p.m., 4.30 p.m. Wednesday, 4.30 p.m. Friday, 4.30 p.m.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m.—Enteroptosis.

MANCHESTER ROYAL INFIRMARY.—Tuesday, 4.30 p.m., Demonstration of Cases illustrating Diseases of the Eye.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—Clinical demonstrations, daily (Saturday excepted) at 4 p.m. Lectures, at 5.15 p.m., Monday, Tuesday, Wednesday, and Thursday.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Progressive Muscular Atrophy in Childhood. Friday, 3.30 p.m., Clinical Cases.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Daily except Saturday.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Tuesday and Thursday, 4.30 p.m.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Daily.

DIARY OF THE ASSOCIATION.

Date.	Meetings to be Held.
	MARCH.
11 Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
	City Division, Manor Lodge, Upper Clapton, 9.30 p.m.
13 Thur.	Birmingham Branch, Medical Institute, 3.30 p.m.
	South-West Essex Division, Wesleyan Church Schoolroom, Leyton High Road, 4 p.m.
14 Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
	Sunderland Division, Sunderland, 4 p.m.; Annual Dinner, 7 p.m.
	MARCH (*continued*).
19 Wed.	Richmond Division, Richmond, 8.30 p.m.
	South Middlesex Division, Twickenham, 8.30 p.m.
28 Fri.	London: Journal Committee, 2 p.m.
	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
	Newcastle-on-Tyne Division, Scientific Demonstration.
	APRIL.
1 Tues.	London: Public Health Committee, 3.30 p.m.
2 Wed.	London: Medico-Political Committee, 2 p.m.
4 Fri.	London: Ethical Committee, 2 p.m.

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 15TH, 1913.

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National Insurance.

LOCAL MEDICAL COMMITTEES.

MIDDLESEX.

THE Local Medical Committee for the County of Middlesex has been recognized; it is constituted as follows:

Dr. E. Ward Lowry, Brentford, *Chairman*
Dr. H. Priest Shanks, 59, Abbott's Road, Southall, *Honorary Secretary*
Dr. Gilbert French, Chiswick
Dr. Bott, Brentford
Colonel Barrow, Ealing
Dr. James, West Ealing
Dr. Hope, Hanwell
Dr. Shuter, Chiswick
Dr. Woodbridge, Acton
Dr. Soden, Brondesbury
Dr. Macevoy, Brondesbury
Dr. Felce, Brondesbury
Dr. Skene, Willesden
Dr. Camps, Teddington
Dr. Christian, Hounslow
Dr. Haslett, Sunbury
Dr. Morris, Feltham
Dr. Davidson, Uxbridge
Dr. Bluett, Harrow
Dr. Williams, Harrow
Dr. Hatch, Pinner
Dr. Hicks, East Finchley
Dr. Baron, Child's Hill
Dr. North, New Southgate
Dr. Fuller, Crouch End Hill
Dr. Brackenbury, Finsbury Park
Dr. Barnes, Tottenham
Dr. Plaister, Tottenham
Dr. Burton, Lower Edmonton
Dr. Shaw, Upper Edmonton
Dr. Distin, Enfield
Dr. Tresilian, Enfield
Dr. Porter, Wood Green
Dr. Wood, Wood Green
Dr. Bower, Hendon
Dr. G. W. H. French, Hornsey

At a meeting on March 6th the following resolutions were adopted:

1. That due notice be given to all insured persons who have not yet chosen their doctor that they must do so by a given date or apply to contract out.
2. That no moneys of persons who have made application to "make their own arrangements" should be dealt with in allocating the capitation fees of those insured persons who have not selected a doctor on the panel.

Three members were elected to the Medical Service Subcommittee of the Middlesex Insurance Committee as follows—Drs. Haslett, G. W. H. French, and Williams.

BERKSHIRE.

THE fourth meeting of the Berkshire Local Medical Committee was held at the Royal Berks Hospital on February 6th, 1913, when nine members were present.

THE HONORARY SECRETARY read a letter from the Insurance Commissioners, stating that they would recognize the Local Medical Committee as elected for a year, and also that Drs. P. Napier Jones and N. H. Joy had been duly elected on the Berks Insurance Committee.

The question of a homœopath dispensing his own drugs for insurance patients, as the local chemists were unwilling to do so, was referred back to the Medical Service Subcommittee.

The Honorary Secretary was instructed to send the following resolution to all the doctors on the Berkshire panel:

> That doctors on the panel shall not treat insured persons who have migrated (temporarily or permanently) from another district, except as private patients, until the doctor has received a notification from the Insurance Committee of the county that such person has been transferred to his list.

The medical members of the Insurance Committee were requested to bring forward the following motion at the next meeting of the Insurance Committee:

> That when a person whose average yearly income from all sources exceeds £104 has been refused by the doctor of his choice on these grounds, he shall be called upon to make his own arrangements for medical benefit.

Dr. Gordon Paterson was elected on the Medical Service Subcommittee, the other members of which are Drs. P. Napier Jones, N. H. Joy (Honorary Secretary of the Local Medical Committee), Munro, C. S. Patterson.

BUCKINGHAMSHIRE.

A MEDICAL COMMITTEE has been formed for the County of Buckingham, and has been recognized by the Commissioners. It has held meetings at Aylesbury on January 30th and February 25th. Dr. Arthur E. Larking (Buckingham) is acting as secretary until the end of the quarter, when permanent arrangements will be made. The Committee has adopted and forwarded to the

County Insurance Committee resolutions on the following matters:

That any medical man resident in the county, whether on the panel or not, be eligible to serve on this Committee.

That the Local Medical Committee send up a request to the Insurance Committee that the income limit for the county should be fixed at £2 10s. a week from all sources.

That the fee for attending midwifery cases should always be a matter of arrangement between the patient and the doctor. That the statutory monetary grant should be guaranteed by the approved societies, and the doctor be assured that he gets the fee. That the fee of 15s., fixed by the Commissioners to be paid to a doctor when called in by a midwife, is not sufficient.

That the model rules for insured persons should be adopted by the Insurance Committee and a copy supplied to each insured person and to each medical man.

That the Insurance Committee be asked to notify in the press and otherwise the necessity of each insured person selecting a doctor at once, and that the secretaries of societies be requested at the end of the quarter to notify each insured person that those who have not already been accepted and placed on a doctor's list should intimate to him in writing the name of the doctor they wish to be attended by.

That the Tuberculosis Medical Officer and the Clerk to the Insurance Committee be asked to issue a memorandum as to what arrangements have been made with regard to tuberculosis cases in the County.

That to meet the cases of removal of insured persons from one part of the county to another part, or to another county, the "give and take" principle be adopted for one year.

That, as a rule, domestic servants and employees should be on the list of the doctor who practises at their home address.

That the Drug Tariff be accepted and signed by Chairman and Secretary.

That, with reference to the granting of certificates, the Bucks Local Medical Committee will advise the practitioners of the county not to sign future agreements with the Insurance Committee except on the understanding that the Approved Societies will require, in respect of each patient, only one "on" and one "off" certificate in addition to the initialling of the weekly continuation certificate. This Medical Committee also presses for a uniform simple type of certificate to be adopted by all societies. All further certificates shall be paid for.

That it be a recommendation to the Insurance Committee to appoint a consultant, to whom all cases of suspected malingering can be referred, and that his fees be paid by the Insurance Committee.

That if any insured person has consulted or placed themselves under the treatment of a bonesetter or other unqualified person, the medical man in attendance should refuse to sign any certificates.

The committee at its meeting on January 30th made a remonstrance with regard to the amount of clerical work, and informed the Insurance Committee that the medical men could not again undertake it.

With regard to the right of chemists to dispense, the Medical Committee has been informed by the Clerk to the Insurance Committee as follows:

1. That a chemist has a right to dispense in all urban districts.
2. That with regard to areas outside urban districts they have a right to dispense where the insured person is resident within one mile of the place of business of the chemist.
3. That outside the above areas the medical practitioners are entitled to dispense.

The distance is to be calculated by the carriage road.

Drs. Baker and Dunbar Dickson have been elected representatives of the profession on the County Insurance Committee.

With regard to the expenses of the committee, it was resolved to invite each medical man on the panel for the county to contribute one farthing for each patient on his list to cover the expenses of the first quarter; it was also suggested that the third-class railway fares of members attending the committee should be paid.

The committee will meet at 2.45 on each Friday previous to the meeting of the County Insurance Committee.

COUNTY OF BEDFORD.

At a meeting of the practitioners of the county, held at the Bedford County Hospital on December 12th, 1912, the following twenty-five practitioners were elected to represent them on the County Medical Committee, with power to co-opt additional members to the number of three:

Bedford (7 Members).

A. F. Goldsmith	E. C. Roberts
A. C. Hartley	S. J. Ross
H. D. Pollard	W. A. Sharpin
A. S. Phillips	

Luton (7 Members).

J. W. Bone	J. Robertson
A. Hamilton	W. D. Rose
F. S. Lloyd	W. G. H. M. Verdon
J. M. O'Meara	

Rural Districts (11 Members).

G. Butters, Kempston	T. D. Holmes, Woburn Sands
J. G. Durran, Leighton Buzzard	J. Rollings, Leagrave
	W. K. Parbury, Sharnbrook
G. F. Dixon, Potton	A. E. Street, Cranfield
W. L. Garner, Ampthill	J. Waugh, Toddington
K. Roberts, Shillington	C. E. Winckworth, Shefford.

A meeting of the Medical Committee was held at the Bedford County Hospital on December 31st, 1912, when the following officers were elected:

Chairman, Dr. J. W. Bone
Honorary Treasurer, Dr. S. J. Ross
Honorary Secretary, Dr. F. S. Lloyd.

THE second meeting of the Medical Committee was held at the Bedford County Hospital on January 9th, Dr. J. W. BONE in the chair.

Finance.—The CHAIRMAN announced that as no arrangements were made under the Act to finance the Medical Committees, the formation of a sufficient fund was necessary to pay for: (1) Travelling expenses of members; (2) printing and stationery; (3) postage; (4) hire of rooms for meetings when necessary. It was decided that this end might be best met by a voluntary levy of ½ per cent. (10s. in every £100) of the receipts of each practitioner from his panel work, and it was suggested that it would greatly facilitate matters if such a levy could be collected "at the source." The Honorary Secretary was empowered to circularize every panel practitioner in the county to this effect, and to request an early reply on a form enclosed.

The Duties and Powers of the Medical Committee.—The CHAIRMAN read a paper on the duties and powers of the Medical Committee under the Act, and it was agreed unanimously that the paper be printed and a copy sent to every practitioner in the country. The following recommendations of the Committee to the County Insurance Committee were then formulated:

1. *Income Limit.*—That there be an income limit of £2 per week, with "the right to challenge."
2. *Rules for the Administration of Medical Benefit.*—That the model rules be adopted by the Committee with the inclusion of the following additions:

Rule (e) to read: He shall not summon the practitioner to visit him between the hours of 6 p.m. and 9 a.m., except in cases of serious emergency.

Rule (f) to read: He shall, when his condition requires a home visit, give notice to the practitioner, if the circumstances of the case permit, before 10 a.m. on the day on which the visit is required.

The meeting was also strongly of opinion that there should be no consultations at the surgery on Sundays.

Recognition of Committee. — Formal application was made to the Commissioners for the recognition of the Committee, and a reply was received dated February 8th, granting temporary recognition until April 30th, 1913, and questioning the sufficiently representative constitution of the Committee as elected, on the ground that the eastern part of the county was not adequately represented, no representative having been appointed for Stotfold, Arlesey, Langford, and Biggleswade.

At a meeting of the Committee held at the County Hospital, Bedford, on March 6th, the reply of the Commissioners was discussed, and the Secretary was empowered to answer the Commissioners' letter to the following effect:

1. That in the opinion of the meeting, the constitution of the Committee, as elected, was sufficiently representative.
2. That owing to the power of the Committee to co-opt additional members to the number of three, it was thereby prepared to consider the claim of any area or locality which was of opinion that it had not received adequate representation on the Committee.
3. With regard to the eastern part of the county—

(*a*) In the case of Biggleswade, the Chairman had some days before written to one of the medical men practising there suggesting that the three medical men resident in Biggleswade should meet and choose a representative, notifying the fact to the next meeting of the Committee, who would take steps to co-opt him as a member. No reply being forthcoming, it would appear that the medical men

of Biggleswade are not enthusiastic for special representation.

(*b*) In the case of Arlesey, three out of the four medical men are whole-time officers of the Three Counties Asylum.

(*c*) In the case of Stotfold and Langford, no medical man is resident in either locality.

Taking these circumstances into consideration, the Commissioners were requested—

1. To accept the present constitution of the Committee as adequately representative of the practitioners of the county.
2. To grant it permanent recognition.

County Insurance Committee.—A letter was read from the Commissioners announcing that Dr. J. W. Bone was formally elected Medical Representative on the County Insurance Committee, but that the nomination of Dr. A. Stanbury Phillips was invalid owing to insufficiency of signatures. The Commissioners, however, were prepared, at the request of the Secretary, to recognize Dr. Phillips as their own nominee for a period of five weeks, after which the Medical Committee could appoint him as their second representative. Dr. Stanbury Phillips was then elected by unanimous vote of the Committee. The Committee recommended to the Commissioners Dr. J. Rollings of Leagrave to fill Dr. Phillips's place as their own nominee.

Medical Service Subcommittee.—The following were elected to serve on the Medical Service Subcommittee:

Dr. S. J. Ross.
Dr. T. D. Holmes.
Dr. H. Sworder.

The subcommittee (Drs. J. W. Bone and S. J. Ross) presented a list of operations to be undertaken under the Act by panel doctors, and the medical members were requested to present it to the County Insurance Committee with a view to its adoption as the official list for the county.

Finance.—The CHAIRMAN announced that 73 of the 95 medical men on the county panel had signified their willingness to contribute to the levy, and that doubtless many of the remainder would reply similarly; the County Insurance Committee be requested to collect the sum "at the source."

Mileage for Country Practitioners.—After considerable discussion, a decision on this question was deferred to the next meeting of the Division.

Panel Pharmacopoeia.—Dr. S. J. Ross announced that he had been approached by a firm of chemists with regard to the formation of a panel pharmacopoeia for the county. He had replied that it was for the medical men to decide this point rather than the chemists. In the discussion which followed Drs. H. P. POLLARD, J. WAUGH, J. G. DURRAN, and the CHAIRMAN took part. The general feeling appeared to be against the formation of a panel pharmacopoeia, but no decision was reached.

BOURNEMOUTH.

A LOCAL Medical Committee was elected at an open meeting of the practitioners of Bournemouth, held on December 20th, 1912. It was decided that the Committee should consist of fifteen members, with power to add to their number, and that the Committee and officers be elected for the year 1913. At the end of 1913 one third of the members of the Committee should retire, but should be eligible for re-election.

Of those originally elected, Drs. E. C. Bond and B. W. Nankivell resigned, after the decision of the meeting, held on December 28th, to work the Act; Dr. W. Johnson-Smyth, who was co-opted by the Committee, resigned for the same reason. Dr. H. G. Lys, who was elected to fill one of the vacancies, has also resigned. The Committee is now constituted as follows:

Dr. A. Heygate Vernon, *Chairman*	Dr. W. Davidson
	Dr. F. C. Forster
Dr. E. Hyla Greves, *Vice-Chairman*	Dr. F. Fowler
	Dr. H. P. Jervis
Dr. C. R. Willans, *Honorary Secretary*	Dr. T. Martland
	Dr. A. G. S. Mahomed
Dr. W. Alexander	Dr. F. Winson Ramsay
Dr. F. C. Bottomley	Dr. H. Simmons
Dr. C. W. Branson	Dr. C. F. Spinks

The Committee has been formally recognized by the Commissioners as the statutory Medical Committee under the Act. Messrs. A. Heygate Vernon and W. Davidson have been appointed as the representatives of the medical profession on the Bournemouth Insurance Committee. Messrs. F. Fowler, F. W. Ramsay, and A. H. Vernon have consented to act as the medical members of the Medical Service Subcommittee.

At the last meeting of the Local Medical Committee the difficult question of insured persons who come to Bournemouth as visitors and require treatment was discussed. It was decided to advise the practitioners on the panel to refuse to treat these patients except on an arrangement for payment of fees for attendance.

The Local Medical Committee is calling a meeting of the whole panel for Wednesday, March 19th, at 8.30 p.m., at the Medical Society's Rooms, Bournemouth. Seventy medical men have joined the Bournemouth panel.

ISLE OF WIGHT.

THE Local Medical Committee for the Isle of Wight has been constituted as follows:

Chairman.—Dr. K. W. Ingleby-Mackenzie (Chairman, Isle of Wight Division, British Medical Association) *ex officio.*
Honorary Secretary.—Dr. J. W. Pridmore, 40, George Street, Ryde.

Newport:	Ventnor:
Dr. Hutton Castle	Dr. H. F. Bassano
Dr. C. J. Thompson	Dr. R. J. Roberts
Dr. Stanley Foster	Shanklin:
Dr. S. V. H. Underhill	Dr. J. L. Jeaffreson
Ryde:	Dr. J. Hammond
Dr. F. J. Wadham	Sandown:
Dr. P. D. Turner	Dr. H. M. Barker
Dr. L. L. Purton	Dr. R. W. Collis
Cowes:	Rural Districts:
Dr. G. R. Denton	Dr. W. J. Jolliffe
Dr. T. A. Mayo	Dr. R. H. Armstrong
Dr. L. P. Gibson	Dr. E. F. Potter
	Dr. S. L. O. Young,

together with Dr. G. Benington Wood (Sandown) and Dr. J. D. Davies (Ryde), members of the Isle of Wight Insurance Committee.

A permanent deputation of representatives of the various districts was appointed as follows:

Newport: Dr. Thompson	Rural Districts: Drs. Jolliffe, Armstrong, Potter, S. L. O. Young
Ryde: Dr. Pridmore	
Cowes: Dr. L. P. Gibson	
Ventnor: Dr. Roberts	Isle of Wight Insurance Committee: Drs. J. D. Davies, G. B. Wood
Shanklin: Dr. Jeaffreson	
Sandown: Dr. Collis	

Drs. J. D. Davies, G. B. Wood, and J. W. Pridmore have been elected to represent the Local Medical Committee on the Medical Service Subcommittee.

A meeting of the Local Medical Committee was held at Ryde on March 4th; the proceedings of a meeting of the Permanent Deputation with the Finance Subcommittee of the Isle of Wight Insurance Committee on February 20th were reported.

The Insurance Committee was asked to distribute the disciplinary model rules for administration of medical benefit, recently adopted at a meeting of the Permanent Deputation of this Committee with the Finance Subcommittee of the Isle of Wight Insurance Committee, and the Honorary Secretary was asked to write to the Clerk of the Insurance Committee presupposing that the elected members of the medical profession on that body had been elected members of all subcommittees. Bearing in mind the necessity of frequent meetings, the Committee resolved to ask the Commissioners to defray the expenses incurred by members of this Committee in attending these meetings, including travelling expenses, rent of room, and other attendant expenses. The Secretary was also instructed to inquire whether the Commissioners had drawn up any model rules which could be used as a guide in constituting this Committee on a permanent basis.

EAST SUFFOLK.

MEETINGS of the Committee were held on February 19th and March 4th with Dr. MUIR EVANS (Lowestoft) in the chair.

Medical Service Subcommittee.—The following were elected to serve on this Committee: Drs. Evans, E. Barnes, and T. C. Askin.

Touting for Patients.—It was reported that the Secretary of the Lowestoft Institute was collecting insured medical tickets and taking them to the institute to be signed by the doctors, and the opinion was expressed that this constituted touting. It was decided to protest against this to the Insurance Committee.

Non-insured.—It was agreed that the same fees should be demanded as in Norfolk—namely, 8s. 6d. for adults and 4s. for children up to three children—with the exception of Lowestoft, where persons should be allowed to make their own arrangements.

Itinerants.—The following resolution was sent to the Insurance Commissioners and the Insurance Committee:

> That no system for the treatment of visitors can be considered equitable to the profession in connexion with the panel system unless every insured person visiting outside their own insurance area be compulsorily bound to notify their intention of doing so to the Insurance Committee of the area they intend to visit, and that inasmuch as it would be impracticable to enforce this provision the treatment of insured visitors must be met by a separate central fund, and payment be made per attendance upon a fixed scale.

Form of Payment.—It was agreed that after April 15th payment per capita pure and simple be adopted, including the 6d. allowed for domiciliary treatment of tuberculosis.

Allocation of Unassigned Persons.—It was suggested that the doctors in each district be asked to allot these amongst themselves as far as possible, and that any residue left over should be allotted by the Insurance Committee.

Insurance Subcommittee.—The Committee decided to ask the Insurance Committee to allow two doctors to serve on the above Committee, and nominated Dr. E. Barnes and Dr. Evans.

Mileage.—It was decided to collect evidence of excessive distances and difficult country, and to press the case before the Insurance Committee to obtain payment for such for the country practitioner.

NORTH RIDING OF YORKSHIRE.

THE statutory Local Medical Committee for the North Riding of Yorkshire has been formed as follows, and has been recognized by the Insurance Commissioners:

Dr. Robert Cuff, J.P., C.C., *Chairman*, Scarborough
*Dr. Mills, *Honorary Secretary*, The Old Vicarage, Easingwold
Dr. Hime, Aysgarth
Dr. Woodsend, Catterick
Dr. Meade, Flaxton
Dr. Shand, Guisborough
Dr. Tetley, Kirbymoorside
Dr. de Mirimonde, Malton
*Dr. Baigent, Northallerton
Dr. McKinley, Coatham
Dr. Eyres, Richmond
Dr. Murray, Scarborough
Dr. Giles, Scarborough
Dr. Fawcett, Thornaby-on-Tees
Dr. Godfrey, Scarborough
Dr. Scott, J.P., Thornton Dale
Dr. Mitchell, Topcliffe, near Thirsk
Dr. Dougall, Welburn, near York
Dr. Candler-Hope, West Ayton
Dr. Ross, Whitby

* Practitioners' representative on the National Insurance Committee, North Riding of Yorkshire.

In the letter recognizing the Committee the Commissioners state that the recognition will hold good until October 31st, and have asked that before the end of that time a scheme for constituting the committee on a permanent basis may be formulated and submitted to them.

NORTH LANCASHIRE.

AT a largely attended meeting of the medical men resident in Lancashire Area No. 2, held at Lancaster on January 7th, it was decided to form a Local Medical Committee, to consist of twelve members, to be elected in proportion to the numbers of insured persons in the various parts of the area. The Committee was constituted as follows:

Dr. F. H. Oldham, *Chairman*
Dr. William George, *Honorary Secretary*
Dr. Barrow
Dr. Edmondson
Dr. Gibson
Dr. Mannix
Dr. Parker
Dr. Ashton
Dr. Hogarth
Dr. Barwick
Dr. Falkner
Dr. Jackson

At the first meeting of the Committee, held on February 7th, Dr. Oldham was elected representative on the Local Medical Committee for the County. He was also nominated for the Lancashire Insurance Committee.

It was decided to write to the Lancashire Insurance Committee, pointing out, in view of the approach of the Easter holidays, the urgent necessity of an early settlement with regard to the treatment of insured persons temporarily resident in the area.

It was decided to offer to attend all members of friendly societies, over 65 years of age, and all other members, who were members prior to June 30th, 1912, and who for various reasons were uninsured under the Act on the following terms: (1) 8s. 6d. per member per annum; (2) free choice of doctor. It was further decided that no clubs in the area be accepted except through the Local Medical Committee and on the above terms.

At a further meeting held on March 6th it was decided to recommend all medical men practising in the area: (1) When issuing certificates for medical benefit under the Act to use only the forms supplied by the Lancashire Insurance Committee; and, further, to charge for all certificates for private clubs at a rate of 6d. per certificate. (2) In accordance with the proviso attached to their agreement to work the Act for the first three months, to treat insured persons only temporarily resident in the area as private patients only, until such time as satisfactory arrangements are made for their treatment as insured persons by the Commissioners.

After a discussion on the question of the inclusion of the families of workmen at the Iron Works at Carnforth in a club, it was recommended that the same should be attended at a rate of 8d. per fortnight with free choice of doctor, and that after the medical men in the area had been communicated with and their assent to the proposed terms obtained, the offer should be forwarded to the sick club at Carnforth. The Honorary Secretary subsequently received the assent of all the medical men, and has acted in accordance with the Committee's instruction.

The Honorary Secretary was instructed to write to every medical man in the area, and request him to supply a list of all those insured persons accepted by him for treatment who reside outside the three-mile limit, giving in every case the distance of the insured person's residence from that of the nearest practitioner, such lists to be used as evidence in support of the Committee's claim to a grant from the Special Mileage Fund.

NEWPORT.

THE following members were elected on the Newport (Mon.) Local Medical Committee, which has recently been given statutory powers by the Welsh Insurance Commission:

O. E. B. Marsh, M.R.C.S., *Chairman*
S. Hamilton, M.D., D.P.H. (184, Commercial Road, Newport (Mon.), *Honorary Secretary*
J. Lloyd Davies, M.R.C.S.
J. Hurley, L.R.C.S.
J. Cook, M.R.C.S.
J. Lane, M.B.
Reginald Brewer, M.R.C.S.
J. F. Neville, L.R.C.S.
T. M. Thomas, M.D.
W. J. Greer, F.R.C.S.I.
C. B. Gratte, M.R.C.S.
T. G. Lewis, M.B.
W. M. James, M.R.C.S.
W. Basset, M.R.C.S.

COUNTY OF GLAMORGAN.

THE Local Medical Committee formed for the county of Glamorgan has been recognized by the Welsh Insurance Commissioners for the year 1913. The committee was chosen to represent the insurance areas into which the county is divided and is constituted as follows:

Dr. W. E. Thomas, Ystrad, *Chairman*
Dr. J. Shaw Lyttle, Creigiau, *Honorary Secretary*
Dr. T. R. Llewellyn, Penygraig
Dr. D. Naunton Morgan, Gilfach Goch
Dr. Ieuan G. Thomas, Hirwain
Dr. Arthur T. Jones, Mountain Ash
Dr. A. J. Griffith, Abercynon
Dr. A. Lloyd Jones, Mumbles
Dr. J. Owen, Cwmllynfell
Dr. Trafford Mitchell, Gorseinon
Dr. P. J. O'Donnell, Barry
Dr. W. J. M. Barry, Penarth
Dr. John Arthur, Llandaff
Dr. D. J. Thomas, Nantymoel
Dr. E. J. Parry, Pontycymmer
Dr. R. M. Moynan, Cowbridge
Dr. C. Reidy, Bargoed
Dr. T. W. Thomas, Caerphilly
Dr. J. P. T. Burke, Abertridwr
Dr. E. Vernon Pegge, Briton Ferry
Dr. J. M. Morris, Neath
Dr. W. Bickerton Edwards, Seven Sisters
Dr. Howard Davies, Pontypridd
Dr. J. Morgan Rees, Pontypridd
Dr. W. Naunton Davies, Llantrisant
Dr. Walter Kirkby, Maesteg
Dr. Henry Davies, Blaengwynfi
Dr. J. Arnallt Jones, Aberavon

At a meeting of the Committee, held on February 8th, a subcommittee, consisting of Drs. Pegge, O'Donnell, D. N. Morgan, J. Morgan Rees, W. N. Davies, with the Chairman and Secretary, was appointed. This subcommittee met the Insurance Committee on February 26th, when various matters were discussed, including stock mixtures, of which the Local Medical Committee did not approve; the supply of dressings and emergency drugs and the supply of dressings for patients being treated at their own homes and in cottage hospitals; canvassing by doctors and the representatives of approved societies; an income limit and certificates.

ROXBURGH.

A MEETING of the Committee was held at Newtown St. Boswells on March 5th, being convened in accordance with the regulations of the Insurance Commissioners for Scotland. Dr. W. L. CULLEN, St. Boswells, presided.

The SECRETARY read the minutes of the last meeting, on January 10th, and the regulations of the Insurance Commissioners for the election of a Local Medical Committee. The meeting then proceeded to constitute the Local Medical Committee in accordance with the provisions of the regulations, and adopted a constitution. Dr. W. L. Cullen was elected Chairman, Dr. Oliver (Hawthorndene, St. Boswells), Honorary Secretary (*pro tem.*), and the election of Drs. S. Davidson, C. J. W. Dixon, William Blair, R. E. Evans, A. Rodgers, and J. Carlyle-Johnstone at the previous meeting as an Executive Committee, was ratified.

The SECRETARY then read the regulations regarding the appointment of representatives on the County Insurance Committee; and the meeting ratified the election of Drs. A. D. Fleming and C. J. W. Dixon, made at the previous meeting.

The meeting considered a letter from the County Insurance Committee referring to complaints that had been made of the conduct of practitioners, and instructed the Secretary to reply.

The agenda for a conference to be held between the Medical Benefit Subcommittee and the Local Medical Committee was considered.

ELGIN AND NAIRN.

AT meetings of the medical practitioners resident in Elgin and Nairn on December 31st, 1912, and January 15th, 1913, the following were elected to the Local Medical Committee:

Dr. Taylor, Elgin, *Chairman*
Dr. James A. Stephen, Murrayfield, Elgin, *Honorary Secretary*
Dr. Alexander, Elgin
Dr. Campbell, Elgin
Dr. Brander, Lossiemouth
Dr. Hutchison, Grantown-on-Spey
Dr. Rennie, Forres
Dr. Millar, Forres
Dr. Lee, Nairn
Dr. Johns, Nairn

The committee has been recognized by the Scottish Commissioners provisionally till March 31st, 1913.

A statutory meeting of the duly-qualified medical practitioners in Elgin and Nairn was held in Elgin on February 15th, for the purpose of electing two representatives to serve on the Insurance Committee for Elgin and Nairn, when Dr. Taylor and Dr. Stephen were unanimously elected. The constitution and procedure of the Local Medical Committee as suggested by the Insurance Commissioners for Scotland, was formally adopted, and it was also agreed to form an association to be called the Practitioners' Association of Elgin and Nairn, for the purpose of dealing with matters concerning the Insurance Act.

Model rules for the conduct of insured persons, etc., were submitted and were agreed to, with the suggestion of an additional rule, namely:

> Insured persons shall not summon a practitioner to visit him or her, and shall not attend at his surgery, on Sundays unless in cases of urgent necessity.

The Secretary was instructed to request the Local Insurance Committee to supply copies of these model rules to each insured person.

Drs. Taylor and Stephen (Elgin) and Dr. Brander (Lossiemouth) have been unanimously elected by the Local Medical Committee to the Medical Service Subcommittee of the Local Insurance Committee.

MEETINGS OF INSURANCE COMMITTEES.

LONDON INSURANCE COMMITTEE.

THE fortnightly meeting of the London Insurance Committee was held on March 5th.

Payments on Account to Medical Practitioners.

The Committee approved payments on account to medical practitioners at the rate of 9d. per insured person for the period ending February 28th. As 800,000 insured persons had been accepted by practitioners on the panel the sum to be expended would be £30,000.

Medical Members of the Committee.

It was reported that Mr. E. B. Turner and Dr. Evan Jones had been elected under Section 59 (2) (*c*) of the Insurance Act by the qualified medical practitioners resident in the county, to serve on the Insurance Committee, and that the Insurance Commissioners, under Section 59 (2) (*e*) of the Act, had appointed Mrs. Florence Willey, Dr. Lauriston E. Shaw, and Dr. H. H. Mills to be members of the Committee.

Constitution and Powers of the Medical Service Subcommittee.

Pending the receipt of a communication from the Insurance Commissioners as to the reference to the Medical Service Subcommittee of questions arising between insured persons and chemists, the Committee decided that the constitution and powers of the subcommittee be as follows:

The subcommittee shall consist of:

(i) Three persons to be appointed by and from the members of the committee who represent insured persons.

(ii) Three persons to be appointed by the Local Medical Committee, or if no Local Medical Committee exists, by the practitioners on the panel; and

(iii) A chairman to be selected from those members of the committee appointed respectively by the London County Council and by the Commissioners, who are neither insured persons nor practitioners, the selection to be made by the six persons appointed as above-mentioned, or in default of selection being made by those persons, by the members of the committee appointed respectively by the London County Council and by the Commissioners;

provided that if in the opinion of the chairman any member of the Medical Service Subcommittee is interested, or in the case of a practitioner is partner or assistant to a practitioner interested in a question referred to it, that member shall take no part in the hearing thereof, but another member shall be appointed in the manner aforesaid by the persons by whom that person was appointed.

The subcommittee shall consider and report upon every question arising between an insured person and a practitioner attending him under arrangements made by the Committee in respect of the treatment rendered by the practitioner, or the conduct of the insured person while receiving that treatment, and upon any other question referred to them by the Committee arising with reference to the administration of medical benefit.

Powers of District Insurance Committees.

The Insurance Commissioners having approved a revised scheme for the appointment and constitution of district insurance committees, the Committee approved a report specifying the powers to be exercised by the district insurance committees. The powers comprised: Making investigations into applications for sanatorium benefit in consultation with medical officers of health and practitioners, supplying information to insured persons and issuing forms, and submitting to the Insurance Committee proposals for distribution amongst medical men on the panels of persons who had failed to make any selection or who had been refused by the practitioner whom they selected.

Benefits of Deposit Contributors.

The Deposit Contributors Subcommittee reported that the number of deposit contributors in London was: Men, 42,876; women, 22,220; total, 65,096. The Subcommittee recommended that in the cases of deposit contributors between the ages of 65 and 70 entitled to sickness benefit, the benefit be as follows: If the funds to their credit at the beginning of the year permitted, first thirteen weeks, men 6s., women 5s.; second thirteen weeks, men 5s., women 4s.

A member pointed out that the funds would not permit of anything like the sum suggested by the Subcommittee being paid to deposit contributors who were ill. He asked if the possibility of giving medical benefit as an alternative had been considered.

No answer was given, and the Committee approved the report.

Insured Persons who have not Selected a Doctor.

In connexion with the question of the arrangements to be made in the case of insured persons who had not selected or been accepted by doctors, the Medical Benefit Subcommittee stated that before adopting either of the three alternative methods suggested by the Insurance Commissioners, it had decided to ask the Committee representing the doctors on the panel for its views as to the method it would prefer the Committee to adopt, and

had issued a notice drawing the attention of insured persons to the advisability of arranging for their medical tickets to be signed as soon as possible.

When cases of illness arose amongst persons who had not yet selected their doctor difficulties occurred from time to time, but so far provision had been made for all such cases, and the Subcommittee proposed that medical practitioners who accepted as urgent cases persons requiring treatment in such circumstances should be granted special consideration in connexion with the distribution of the amount available for the doctors on the panel during the first quarter.

Persons Making Their Own Arrangements.

The Committee adopted the following scale of fees to doctors in respect of persons making their own arrangements (Form 431 I.C.):

	s.	d.
1. Attendance at practitioners' residence or surgery	2	0
2. Visit to patient's residence	2	0
3. Special visit	3	0
4. Night visit (between 8 p.m. and 8 a.m.) ...	4	0
5. Surgical operation requiring local or general anaesthetic, or case of abortion or miscarriage	21	0
6. Administration of general anaesthetic ...	21	0
7. Setting of fracture—		
(*a*) Femur	21	0
(*b*) Others	10	6
(Subsequent attendances at "visit" rate.)		
8. Reduction of dislocation—		
(*a*) Hip	21	0
(*b*) Others	10	6
(Subsequent attendances at "visit" rate.)		

The bills of the doctors calculated on this scale would be paid in full if the total amount of the bills did not exceed the total amount available in the pool. If it did, a proportion would be paid on each bill, and the insured person, in the absence of any special arrangements to the contrary, would be liable to the doctor for the payment of the balance.

Aged and Infirm Members of Friendly Societies.

On a report as to arrangements to be made for the treatment of members of approved societies over 65 years of age who were not qualified to become insured persons, Mr. E. B. TURNER said that it was agreed at a conference between the friendly societies and the British Medical Association that in consideration of the doctors undertaking their treatment they should be paid for by the societies at not less than the general insurance rates. There seemed to be an inclination to shirk this and to obtain treatment of these old persons, who were more likely to be invalided, at a lower rate than now paid by the societies. The medical profession regarded it as a matter of honour that the societies should stand by that arrangement.

A member representing the approved societies, replying to Mr. Turner, said that at the time the arrangement he mentioned was made no one had any idea that the agitation of the medical profession would have extracted an extra half-crown from the Government. That half-crown had caused a difficulty. If the doctors, from a sense of good feeling, would take these cases at 6s. the societies would have no objection to doing their part.

The Committee sat *in camerâ* to consider a report by the Medical Service Subcommittee relative to a complaint in regard to the treatment of an insured person.

BRISTOL.

Appointment of Medical Adviser.

THE Insurance Commissioners have sanctioned the appointment of a medical adviser to the Insurance Committee, to be selected with the advice of the Medical Service Subcommittee. This is regarded as a very important decision, and it is believed that Bristol is the only city that has arranged for such an appointment. The functions of the medical adviser are laid down in a circular letter issued to all medical men on February 25th, and are, briefly, to examine and check any certificate referred to him by the Insurance Committee and to decide in cases of suspected malingering by visiting the insured person at his own discretion or at the request of the Medical Committee or the Insurance Committee. As the withholding of a sickness certificate might offend a patient and prejudice the future position of the practitioner, the referring of the decision to the medical adviser removes all the onus from the doctor. The adviser's duties are essentially for the safeguarding of the sickness benefit's funds, as with freedom of choice of doctor the societies have no claim on the practitioner to watch their interests. It is particularly pointed out that his duties are not those of a clinical consultant, and have no reference to the treatment of the patient. The Insurance Committee has sought and obtained the services of Dr. Bertram Rogers, who will hold the appointment for three months on certain terms, after which the question of duties and remuneration may be reopened.

AGED AND INFIRM MEMBERS OF FRIENDLY SOCIETIES.

THE friendly societies of Manchester and Salford are evidently feeling acutely the position in which they are placed by the provisions of Clause 15 (2) (*e*) of the Insurance Act to which reference is made in the letter of the State Sickness Insurance Committee quoted in the SUPPLEMENT last week. The clause in question states that the regulations shall require the adoption by every Insurance Committee of such a system as will secure the provision of medical attendance and treatment on the same terms as to remuneration as those arranged with respect to insured persons for the members of approved societies who were such members on December 16th, 1911, but who, owing to their being over 65 years of age or permanently disabled on July 15th, 1912, were not qualified to become insured persons; and the district secretaries of twelve friendly societies in Manchester and Salford having a membership of over 60,000 have recently adopted a memorandum which has been presented to the Chancellor of the Exchequer, calling his attention to the very serious position in which the societies are placed by this clause. The memorandum states that the societies have been paying for medical benefit at a considerably less rate than the amount which has now been arranged to be paid to the doctors for insured persons under the Act; and it appears that if the difference between the old rate and the new rate must be borne by the societies it will very seriously affect the solvency of their voluntary funds. And, further, if the excess must be made up by the societies it will be very difficult for many societies to comply with Section 72, which insists upon their solvency being absolutely ensured before any further provisions can be made for their members (that is, in the way of additional benefits). The secretaries say that unless something is speedily done to relieve the situation, a severe blow will have been delivered to the voluntary work of the friendly societies, and they express the opinion that some steps should forthwith be taken by the Government to relieve the societies from the serious liabilities which the demands of the doctors have created in respect to their uninsured members, and which many of them are unable to meet or undertake. Similar representations have been made before, and it is probable that the reply of the Government will be that while the doctors on the panels cannot as part of their contract under the Act be compelled to treat the persons in question, except on the same terms of remuneration as those arranged for the insured; on the other hand, the societies are not compelled to offer this amount if they can escape their liabilities or obtain treatment for those persons in a different or a cheaper manner. The fact is that the societies had expressed their willingness to increase the payment for treatment and medicines from the old average of 4s. up to 6s., but when they asked for the embodiment of the clause in question into the Act, they never for one moment thought that the British Medical Association would be able to induce the Chancellor of the Exchequer to increase the amount for medical benefit from 6s. to 8s. 6d., and they now practically tell the Chancellor that as his giving way even so far to the doctors has put the societies into a difficulty, he ought to get them out of it by making another grant for their aged and uninsurable members.

REPORTS OF LOCAL ACTION.

LONDON.

INSURED PERSONS MAKING THEIR OWN ARRANGEMENTS.

THE Memorandum 143/I.C., together with the attached form 43/I.C., which were printed in the SUPPLEMENT of March 1st, p. 212, and commented upon in an article under this title, published at p. 459 of the same issue, have been considered by the Local Medical Committee, which has passed the following resolutions:

Inasmuch as the signing of Form 43 by medical men is tantamount to joining the panel for a few patients only, medical men should be strongly urged on no account to sign it.

That the London Medical Committee also appoints a Sub-committee to endeavour to define conditions within the four corners of the Act under which proper treatment to insured persons could be given with satisfaction to the medical profession.

IRELAND.

COMMITTEE ON EXTENSION OF MEDICAL BENEFIT.

Final Sitting in Belfast.

THE proceedings of the first meeting of the Committee in Belfast were reported in the SUPPLEMENT of last week, p. 242. At the second day's sitting on March 5th the following evidence was taken:

Mr. CHAS. W. GORDON, representing the Derry Chamber of Commerce, and Chairman of the Derry Federation of Benefit Societies, said that the societies numbered 10,000 members from all the workers, without distinction. The demand for doctor and medicine on the weekly payment system was general, and suited an industrial community best. The Act as applied to Ireland put the workers in the position of private patients or of dispensary patients. The workers objected to the newly organized public medical service, as the rates were higher than they had been accustomed to. At present they were attending as dispensary patients or being sent by societies as private patients to doctors. As the sickness average was lower in Ireland and as living was cheaper, it was thought 6s. 6d. in Ireland to the doctor would be the equivalent of 8s. 6d. in England. It was proposed to discriminate between the fairly-paid and the ill-paid labourer; the latter could not afford any taxation; those whose wages were over 12s. weekly should pay 1d. a week; those with wages under 12s. weekly should be allowed to go to the dispensary. Medical benefit was an essential and inseparable part of a National Insurance scheme; without medical advice the approved societies could not discharge their sick fund duties. Even with medical benefits, it would still be necessary to maintain the dispensary system.

Dr. W. J. MCNULTY, representing the Londonderry Trades Council, expressed himself in favour of the extension of medical benefits to Ireland, and added that the dependants of the insured persons should be included. The societies should have control of the doctors, and not the Local Insurance Committees; the dispensary system ought to be abolished in towns. A full meeting of the workers of Derry had not been called to express an opinion on the subject. He considered that a man earning £1 a week should not be called upon to pay anything.

The Rev. T. MCCOTTER, trustee of the Down and Connor Catholic Benefit Society, which embraced Belfast, part of Down, Antrim, and Derry, and had a membership of 20,000, was in favour of the extension of medical benefit; it would revolutionize the Poor Law dispensary system. The benefit ought to be extended to the dependants of the insured. A respectable but not exorbitant fee (8s. 8d.) should be given to the medical officer. The administration should be in the hands of insurance societies.

Miss GALWAY, Irish Textile Operatives' Society, said there was a general desire that medical benefit should be extended to Ireland. The dependants should be included and the Poor Law medical system abolished, and the money spent on it devoted to the Insurance Act.

Mr. JOHN MURPHY, Secretary to the Belfast Trades Council, said that the council was unanimous in favour of the inclusion of medical benefits, and that, if possible, the dependants should be included. He thought 4s. for the insured and 4s. for the dependants, making a total of 8s., would be a proper payment, medicines to be supplied by the chemist. If extended to large cities, he would wipe out the dispensary system in them. The Trades Council felt that the Insurance Act in Ireland would be a dead letter unless medical benefits were extended.

Dr. GEORGE ELLIOTT, Honorary Secretary to the Belfast Division and to the Belfast Medical Guild, asked to be allowed to make a few remarks, but the CHAIRMAN replied in the negative.

Sittings in Dublin.

The committee took evidence in Dublin on March 6th and 7th. The NATIONAL SECRETARY of the Ancient Order of Hibernians said that in the urban districts there was practically a unanimous opinion in favour of the extension of medical benefits to Ireland. The only difference of opinion was that while the officers of the various societies, to secure efficiency and solvency, desired medical benefits, irrespective of whether it included the dependants of the insured, the vast majority of the members of the various societies did not want an increased contribution, unless the dependants were included. As to the rural districts, at least 98 per cent. of the insured persons were entitled to medical treatment under the Medical Charities Act (1851), and these people could not realize the necessity of paying an increased contribution of 1d. per week per insured member to be attended by the same doctor, because in the majority of the rural districts there was only the dispensary doctor. He thought even the employers' opposition would be tempered if the wife and dependants were included in the attendance, as ultimately it would cause a reduction in the cost to them as ratepayers, for supporting the dispensary system, both as regarded the salaries of the doctors and the cost of drugs. In answer to questions, he stated that in the rural districts the people were not in favour of the extension of medical benefits, except in a few, and in those if medical certificates were provided he did not think that the people would be in favour of the extension.

Mr. M. J. O'LEHANE, representing the Parliamentary Committee of the Irish Trades Union Congress and also the Irish Drapers' Assistants' Association, explained the apparent change in Irish opinion, when he said that various public bodies opposed the extension of the Act altogether to Ireland but did not request to have Ireland excluded from medical benefits.

Dr. M. HAYES, representing the Conjoint Committee of the Irish Medical Association and the British Medical Association, stated that the profession as a whole had not declared for or against the extension of medical benefit to Ireland. It was waiting until they saw what scheme the Committee proposed. When asked if he did not think it the duty of the doctors to advise a Committee of such a character as to the proper spirit in which to approach this question, he pointed out that the profession in Ireland had not been asked to advise, but was merely requested to give the evidence that might be required. If the Committee was prepared to formulate a scheme it would have the whole-hearted co-operation of the profession. When asked what would be a reasonable remuneration by way of capitation grant for attending an insured patient and his family, Dr. Hayes said that the Government when providing medical benefit for its own employees fixed a rate of 8s. 6d. on selected lives; the Dublin Metropolitan Police paid £1 for attendance upon the policeman and the members of his family. Inasmuch as the sum for an individual had been fixed at 7s. and the average number in a family was five, and that women and children required far more medical attendance than men, he thought 21s. would be a fair amount as a family rate. He further stated that he did not object to the system of payment by capitation, and was in favour of the panel system. Medical benefit should in all cases be administered through the Insurance Committees and not through the friendly societies, and the medical profession should have a direct representation of 1 in 10 on such committees. If medical benefits were extended to Ireland there must be free choice of doctor by patient and patient by doctor, and medical benefit should be extended only to insured persons having an income of less than £2 a week.

The PRESIDENT of the Dublin Chamber of Commerce said that he considered that it would be most unwise to decide on the extension of medical benefits to Ireland

until it was seen how medical benefit worked in England for a year at least. The question was not urgent; there was no suggestion that between the Poor Law medical relief and the voluntary hospitals the needs of the poor were not fairly provided for. No new system of medical relief would be satisfactory which did not embrace all the people of small earnings with their families, whether they were insured or not, and whether they belonged to friendly societies or not, as the present Poor Law system did. Any new scheme should take account of hospital treatment, which was entirely ignored in the National Insurance Act. The equivalent grant in the meantime should be put to Ireland's credit, until it was decided to what purpose it could be devoted. It would prove more effective in the interest of public health if it was devoted to aiding the urban authorities in housing the poor than by appropriating it to medical benefits under the Insurance Act.

The REGISTRAR-GENERAL said that there was less sickness in Ireland than in England. The disease amongst insurable classes in Ireland that showed the greatest mortality-rate was tuberculosis. In Ireland there were no county medical officers of health, no compulsory notification of tuberculosis, and no medical school inspectors. These facts, he considered, influenced the death-rate in Ireland as compared with England. Further, the strongest amongst the population emigrated from Ireland, leaving the weaklings behind; these factors probably to a large extent co-operated to produce the smaller sickness-rate from industrial diseases.

Sitting in Cork.

The Committee sat in Cork on March 8th for the purpose of hearing witnesses from Cork, Limerick, Waterford, Queenstown, and other centres in Munster. The evidence was conflicting, especially as to rural districts, but the majority of those examined favoured the extension of medical benefits to urban areas. Representatives of trade bodies were of opinion that their members, if it became necessary, would be ready slightly to increase their contributions in order to extend the benefits to the insured person and his dependants, particularly the latter. Dr. PHILIP LEE gave evidence on behalf of the Conjoint Committee of the British Medical Association and the Irish Medical Association, and of the Cork medical profession. He said that £1 would be a fair capitation grant for medical service, to include insured persons and their dependants, but that without dependants 8s. would be a fair sum. Dr. Lee objected to the contract system because medical men would suffer scientifically, for men of highest rank would not go on with it, and also because they would suffer socially and financially.

Protest on behalf of the Medical Profession.

Dr. George Elliott, who was refused a hearing by the Committee at Belfast, has written to the daily press to state that his desire was to protest against the unfair and one-sided way in which the inquiry was conducted in allowing incomplete and misleading evidence to be placed before the Committee and the public; the profession was denied an opportunity of giving any reply. He desired also to protest against the attack made on the profession in Derry against the evident animus towards the profession displayed all through the proceedings by at least two members of the Commission and the sneering manner in which one of them referred to the Derry doctors. It seemed, he added, to be assumed by those who spoke for the trades union, that doctors were the only class not allowed to combine for their own protection. Dr. Elliott quoted one witness, the Rev. T. McCotter, and, altering the application, asked the Commission to ponder over the words: "My answer to that is that mean systems, like mean streets, breed mean men." The system the reverend gentleman was advocating was, in Dr. Elliott's view, "the essence of meanness": it would breed mean patients and mean doctors.

The general impression is that Dr. Elliott voices the views of most if not of every medical man in Ulster in his letter. To ask a medical man to attend a family —a father, mother, perhaps half a dozen children, and any bed-ridden parent or aunt—for 8s. 6d. a year is astounding. Members of the Royal Irish Constabulary pay 24s. a year for this service, and they are a healthy body of men.

The evidence of the Registrar-General, Sir W. J Thompson, seemed to disprove completely the suggestion that, as Ireland was healthier than England, there would be less sickness and so less work for the doctor, and so a smaller remuneration was justifiable. The death-rate in Ireland in 1910 was 17.1 per 1,000, in England 13.5, and in Scotland 15.3; in 1912, Ireland 16.5, England 13.3, and Scotland 15.3. He qualified this statement by saying there was a lower death-rate among children under 1 year and between 15 and 65. Still it would appear that, no matter what a patient's age was, a doctor's services would be required, and, whether aged 1 or aged 70, a doctor would have work to do if death threatened.

MEDICAL CERTIFICATES UNDER THE INSURANCE ACT.

As already mentioned, £50,000 has been assigned to Ireland towards the cost of medical certificates of sickness and other expenses of administration; negotiations are now in progress between the Conjoint Committee of the British Medical Association and Irish Medical Association and the Insurance Commissioners as to the rate of payment for certificates. The Commissioners absolutely refused to consider the question of payment for certificates, on the grounds that they had no statistics of the number of certificates that would be required. They have suggested three schemes to the Conjoint Committee, all on a capitation basis, in which Ireland is divided into different districts according to number and accessibility of the population, the capitation fee varying in the different areas from 9d. to 2s. According to these schemes panels of certifying doctors would be formed in each area. The Commissioners state that no certificate will be required in the case of hospital in-patients, and for out-patients they propose to set aside a small sum, not less than £2,000 and probably not as much as £3,000, to be divided among the general hospitals of the larger cities to pay for certificates. This would mean that the sum for each hospital would probably be somewhere between £70 and £100. It is very hard to estimate the number of certificates that will be required, but it is quite evident that the proportion of £2,000 out of the whole sum is ridiculously small when the number of insured persons attending the large city hospitals, both as intern and extern patients, is considered. In one of the large Dublin hospitals over 25 per cent. of the intern patients since January 15th have been insured persons, and as the extern patients are, taken as a whole, of a lower class than the intern, probably at least 40 per cent., if not more, are insured persons. Considering these facts, the Standing Committee of the Clinical Hospitals, at a meeting last week, expressed its strong disapproval of the suggested schemes, and a deputation from it waited on the Conjoint Committee on March 6th. After considerable discussion two resolutions were carried. The first recommended that a certain sum of money should be provided to pay for medical certificates of sickness for intern insured patients, as the Conjoint Committee did not approve of certification by lay visitors; and, secondly, that the staffs of the hospitals should give no certificates for extern patients except at the request of the patient's panel doctor, and that in that case a suitable recompense should be provided for the member of the hospital staff. The Conjoint Committee finally agreed to accept one of the schemes of capitation payment for certificates recommended by the Insurance Commissioners.

SCOTLAND.

HOSPITAL RESIDENTS AND THE INSURANCE ACT.

ALLUSION was made in the SUPPLEMENT (February 8th, 1913, p. 137) to a petition for the Scottish National Insurance Commissioners which was coming before the First Division of the Court of Session for the opinion of the court on some questions related to the employment at the Royal Infirmary of resident physicians and surgeons, of non-resident house-physicians and surgeons, and clinical assistants, and of supervisors of the administration of anaesthetics. The Royal Infirmary stated that the persons referred to were not employed within the meaning of Part I of the Insurance Act, and also contended that there was not a contract of service between the respondents and these persons within the meaning of the Act. Counsel were heard on March 7th, before the Lord President and Lords Kinnear and Johnston; and the Court upheld the contentions of the respondents. The Lord President, after

defining the duties of the various persons referred to above, stated that in carrying out their work these persons were either themselves the judges of what was the proper course of treatment to be carried out at the moment if they happened to be the head person present, or, if they were not, were under the orders of whoever was the head physician or surgeon present at the moment. In no case were they, or could they be, interfered with by the managers of the infirmary in their treatment of patients. He was of opinion that they were not employed under a contract of service; he thought it was a contract for services, but not a contract of service. Lords Kinnear and Johnston concurred.

LEITH HOSPITAL SUBSCRIPTIONS AND THE INSURANCE ACT.

At the annual meeting of subscribers of Leith Hospital, on March 1st, it was stated by Mr. W. Kirk, in submitting the treasurer's accounts and balance sheet, that the collectors' receipts were less by £51, and that this was entirely due to subscriptions being withheld on account of the Insurance Act. He hoped that the old subscribers who had refused to renew their contributions would change their minds when they considered that the Insurance Act in no way covered the ground the hospital covered. The Chairman (Mr. E. Berry) added that if the people who did not need the hospital were to cease to subscribe, then those who required it ought to make up the difference so far as was in their power. Reference was made to the clinical department for the ear, nose, and throat, which had proved of great service to the hospital.

CORRESPONDENCE.

OTHER EXPERIENCES OF THE PANEL.

DR. ROSA FORD (New Cross Gate) writes: May I point out to Drs. Wyon and Parr that in their calculations they have supposed the number of insured on their books at the end of the forty-five days to have been there the whole time? Had they really been so, the number requiring treatment would have been larger and the remuneration, consequently, smaller. By taking the average of the insured, one can calculate with a number which may be supposed to have been on the books *each* day throughout the period.

To illustrate this point, let us suppose a medical man only signed cards on Mondays, and on the first Monday signed on 500. During each day of that week he has 500 on his books. Let us say he sees an average of 10 a day during that week, the percentage of insured requiring treatment will then be 2. On the next Monday he signs on another 500; he then has 1,000 on the books each day during the second week. He now sees, we will say, 20 a day, and the percentage remains the same. Suppose we now adopt Drs. Wyon and Parr's method of calculating. The average number of patients seen during the fortnight is 15 a day, and the number on the books at the end of the period is 1,000; the percentage will then appear to be 1.5, which is obviously incorrect. If we follow my method the average number seen per day is 15, and the average on the books is 750, and the percentage is 2, which we have seen to be correct for each week taken separately.

It is, of course, not safe to speak certainly with the figures of only thirty-one days. My estimate of 2 per cent. throughout the year is, however, confirmed in a letter in the *Daily News*, in which Dr. E. Claude Taylor states that, as far as he can gather, 2 per cent. is a fairly general rate—that is, 20 patients to be seen daily with 1,000 on the books, with a remuneration of 1s. for each, whatever the treatment they may require.

DR. F. B. HULKE (Deal) writes: It may be of interest to some of the profession to know how the work under the Insurance Act and its remuneration will come out in figures per annum. The four weeks of February make a very good base-line for calculation. I find I have signed for 500 exactly. I had 95 of these sick during the twenty-eight days. I paid 173 visits, and had 167 attendances at my surgery—making 340 in all. This would give 4,420 per annum for £175—or just about 9½d. per visit or attendance. After trying to do good work for over twenty-five years I am now compelled by circumstances, too strong to fight singlehanded, to descend to 9½d. per visit, with, of course, all its attendant evils. No wonder the Association considers the work derogatory, as it undoubtedly is. It may be contended that the month of February is not a fair sample from which to strike an average, but I do not think in this town the season of the year makes much difference. I find my work keeps almost the same throughout the year.

DR. JOHN PRATT (Millom, Cumberland) writes: Having noticed some letters in the SUPPLEMENT giving experiences of work on the panel, I would like to state that my experience has not been as fortunate as that of any of your correspondents so far. Taking the month of February the amount for each attendance and each visit which I may expect is less than 6d. (with my present number of insured persons). Even allowing that I have a fair number allotted to me at the end of the quarter, the amount per visit and attendance is likely to work out well under 8d.

THE PRESENT SITUATION AND FUTURE POLICY.

DR. C. JEROME MERCIER (East Ham) writes: Dr. Garratt (Chichester) in his letter (SUPPLEMENT, March 1st, p. 218) on "Contract *versus* Private Practice" criticizing Dr. Arthur King, of Bow, makes one or two remarks which provoke reply. Contract arrangements with a doctor are not comparable with insurance against death, accident, fire, or other mishap. In these cases a corporation takes the risk and pays when it loses. In the former the doctor takes the risk and pays in cheaper services when he loses. To make the situation comparable and equitable there should intervene between doctor and beneficiary a corporation which administers the pooled premiums and pays the doctor his fair charges per item. Payment per item is just as dignified and just as common in professions as payment by salary—for example, the legal profession, architects, engineers, etc. Where the demand on the time of the employee is unlimited payment by the piece is more satisfactory and more conducive to zealous work.

As to the reason why some men do not mind making contract arrangements with their poor patients, why should we blink the fact that to a doctor with good income from wealthy patients the escape from small monetary transactions with poor people is welcome? But this happy man should see that he purchases his dignity at the expense of his colleague whose whole living is from the poor, and who cannot grasp in its true inwardness the sarcasm implied in the description of a brother practitioner as Dr. X. of Bow.

Adverting to a definition of trade and profession given in your correspondence of March 1st, it is interesting and instructive to note that the medical man receiving good fees from well-to-do patients is, in this, a tradesman paid by the piece, while he is a professional man to his finger tips in his relations with the poor whom he condescends to treat in the intervals—on a salary.

Perhaps the tradesman in him nicely adjusts the degree of greeting and salutation necessary to satisfy every grade of his paying clientèle. The friendly nod and wave of the hand shows the freedom and the *bonhomie* felt in professional relations—with the poor.

FRIENDLY SOCIETIES AND THEIR AGED AND INFIRM MEMBERS.

DR. HERBERT C. JONAS (Barnstaple) writes: The report of the parliamentary debate on February 14th is fuller in the SUPPLEMENT than any daily paper, and it appears from it that Mr. Masterman quite realizes the duty of the Insurance Committees in the matter of the old and uninsured members of clubs, and then goes out of his way to ask for medical charity for them.

The Act clearly lays down that regulations shall require the Insurance Commissioners to adopt a system which shall provide medical attendance on the same terms as to remuneration (as for insured) for members of friendly societies who remain uninsured by reason of old age or disablement. Uninsured members of clubs consist of the following classes:

1. All over 65 years of age.
2. All permanently disabled.
3. Workers who were unemployed on July 15th, 1912.
4. Men who are their own masters.
5. Those whose income is over £160 a year.

Every argument brought forward in support of lower rates, and every appeal to sentiment refers to Classes 1 and 2, the two classes for which the Act makes provision as above. These two include the majority of the uninsured. Of the remaining three classes, Class 5 has no right to contract rates suitable for workers.

The members of Class 4 have had the chance of availing themselves of the voluntary part of the Act. There are, however, individual cases of hardship, which should be dealt with locally by the profession.

Class 3 is so small in numbers that they also should be, and for certain will be, dealt with by the charity of the profession. By the terms of the definition, this class ceases to exist when each individual becomes employed, and therefore State insured.

The JOURNAL reports Mr. Masterman to have stated, in answer to questions relating to medical benefit for these persons: The answer was twofold. The first was that the friendly societies should pay out of accumulated funds. The second had reference to a clause in the Act which stated that Insurance Committees must arrange for the medical attendance of those over 65 at a rate not less than a *general* rate for insured persons. It would appear that Mr. Masterman has inserted the word "general" to suit his own argument later. Then he gives his personal views on the subject, and tries to argue that when the clause was passed it was anticipated that insured persons would be attended at 6s. a head per annum.

The same argument was brought forward here at a meeting of friendly society representatives and doctors. They were asked, in reply, "Did any one in this room ever believe at any time during the last twelve or eighteen months that medical benefit could be got for 6s.?" Not a single representative could be found bold enough to say "Yes," and Mr. Masterman is far too clever a man to have believed anything of the sort himself.

Supposing for a moment that he or any one did believe it at the time, does it make the slightest difference to the medical position? A Chancellor of the Exchequer is, before all things, the tightener of the purse-strings, and no one would insult the present holder of the office by suggesting that he agreed to the extra grant for medical benefit until he was persuaded that it was a fair and just charge. If, then, Mr. Masterman's 9s. is right for the insured, by what process of reasoning does he evolve a fair capitation rate of 6s. for the old and permanently disabled? I say 6s., because he must mean 6s. (not 4s.) by the expression "The old figures," or else his whole argument is rendered ridiculous.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

ON Thursday, March 6th, a meeting of the State Sickness Insurance Committee appointed by the Special Representative Meeting in November, 1912, was held at the house of the Association, 429, Strand. Mr. T. JENNER VERRALL (Chairman of Representative Meetings) was in the chair, and the other members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. E. R. Fothergill (Brighton), Miss Frances Ivens, M.S. (Liverpool), Mr. Herbert Jones (Hereford), Dr. Constance E. Long (London), Dr. E. O. Price (Bangor), Mr. D. F. Todd (Sunderland), Mr. E. B. Turner (London). *Scotland:* Dr. J. Adams (Glasgow), Dr. R. McKenzie Johnston (Edinburgh). *Ex officio:* Dr. Edwin Rayner (Treasurer).

APOLOGIES FOR ABSENCE.

Apologies for absence were read from the Chairman (Dr. J. A. Macdonald), the President (Sir James Barr), Dr. T. M. Carter (Bristol), Dr. T. B. Costello (Tuam), Dr. J. S. Darling (Lurgan), and Dr. D. G. Thomson (Norwich).

PROPOSED SICKNESS, ACCIDENT, AND PENSION FUND.

The Subcommittee on a proposed sickness, accident, and pension fund presented a report. The discussion of this report was not concluded, and will be resumed at the next meeting of the Committee.

COMPENSATION.

The MEDICAL SECRETARY presented reports upon applications for compensation from the Central Insurance Defence Fund. In one instance, the Committee made a grant, in another it informed the applicant that it would be prepared to consider at the end of the year any loss he might be able to prove as being due to action taken out of loyalty to the policy of the Association, and in a third, the applicant was invited to supply further information.

EXPENSES OF LOCAL MEDICAL COMMITTEES.

A communication was received from the Honorary Secretaries of the Manchester Medical Committee stating that that Committee was of opinion that its administrative expenses should be defrayed by the State. The State Sickness Insurance Committee adopted a resolution reaffirming the opinion that this was not a desirable course.

UNIFORM CERTIFICATES.

A communication was read from the Honorary Secretary of a Local Medical Committee transmitting a resolution expressing the opinion that it was necessary that a uniform medical certificate for declaring on sickness benefit should be applicable to all insured persons under the Act. The Committee decided by a majority to ask the Insurance Commissioners to take action to secure the adoption by the approved societies of a uniform medical certificate.

PUBLIC MEDICAL SERVICES.

It was resolved to inform a Local Medical Committee which had submitted schemes for a public medical service in two districts that the State Sickness Insurance Committee could not consider any scheme for the treatment of uninsured persons unless or until it had been approved by the Divisions concerned.

NEXT MEETING.

It was arranged to hold the next meeting of the State Sickness Insurance Committee on Thursday, March 13th, at 10.30 a.m.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BATH AND BRISTOL BRANCH.

THE fourth meeting of the session was held at Bath, Dr. ROXBURGH, President, in the chair. There were forty-two members and visitors present.

Specific Measures in Bacterial Infections.—Dr. MERVYN GORDON opened a discussion on The Present Prospect and Limitations of Treatment by Specific Measures in the Commoner Bacterial Infections. The PRESIDENT, Mr. PAGAN LOWE, Dr. MICHELL CLARKE, Mr. FRASER, Dr. NEWMAN NEILD, Mr. BENSON, Dr. WATERHOUSE, Mr. CLUCKIE, and Dr. WALKER HALL took part in the discussion. A vote of thanks to Dr. M. Gordon was moved by Dr. CAVE, seconded by Mr. FORBES FRASER, and carried unanimously.

BORDER COUNTIES BRANCH.

A MEETING of the Border Counties Branch was held on February 27th, at Maryport, when there were present Dr. CRERAR, President (in the chair), Dr. Livingston (Secretary), and thirteen other members.

Proposed Alteration of Division Area.—Dr. FISHER drew attention to the necessity for altering the English Division area to make it correspond with the county insurance area, and it was resolved:

> That the Secretary be instructed to write to the Central Council of the Association emphasizing the necessity of the Division area being altered to correspond with the county insurance area.

Thereafter Dr. CRERAR introduced Professor CAIRD, of Edinburgh, who gave an address on Peritoneal and Intestinal Tubercle.

SCOTTISH DIVISION.

A MEETING of the Division was held in the County Buildings, Dumfries, on February 28th. Dr. T. R. RODGER was in the chair. Twenty members were present.

Midwives (Scotland) Bill.—The principal business of the meeting was to discuss the provisions of the Midwives (Scotland) Bill as affecting the medical men in the various areas, and the following recommendations and amendments were submitted and approved:

> The Division, having considered the Midwives (Scotland) Bill, is of opinion that the provisions of the bill are not applicable to the conditions of practice in the South-West of Scotland, believes that they are not generally applicable to Scotland, and desires to record its opinion that if the bill is required in any district, Section 2 thereof should be so amended as to make the Act adoptive by the local authority of the district, subject to the approval of the Local Government Board, who shall take into consideration any representations from the medical practitioners of the district before granting such approval.

The meeting authorized the Honorary Secretary to send the resolution to the other Divisions of the British Medical Association in Scotland and to the Scottish Committee of the Association with a request for support in taking steps to have the section amended. The Division further considered certain sections of the bill, and was of opinion that Section 5, dealing with the constitution of the Central Board, should be amended so as to give direct representation to general practitioners upon it; that Section 19 should be amended to make it clear that the officer of the local supervising authority should be the medical officer of health, if holding a full-time appointment, otherwise there would be a danger that the supervising officer would also become the consulting practitioner called in by midwives for emergencies; that in Section 20 it should be made clear that no other officer than the medical officer of health should have entry to premises. The Division was further of opinion that Section 24 should be deleted altogether, and Section 25 so amended as to secure payment of fee from approved society or Insurance Committee in all cases in which maternity benefit is payable, and from the local supervising authority where such benefit is not payable.

CAPE OF GOOD HOPE—EASTERN PROVINCE BRANCH.

AN ordinary meeting of the above Branch was held on January 31st, at 8 p.m., at Dr. Saunders's residence. Dr. A. COWPER was in the chair, and Drs. F. A. Saunders, E. P. Dru Drury, G. C. Purvis, E. A. Seale, R. T. Harrison were present.

The Citizen Army.—A letter from Dr. Campbell Watt, containing a copy of correspondence between the Secretary of the South African Committee and the Minister for Defence (Union) as to medical officers for the citizen army and the examination of candidates was read, and the following resolution was carried unanimously:

> That this, the Eastern Province Branch of the British Medical Association, is satisfied with the reply of the Minister for Defence, and approves the principle laid down by the South African Committee—that is, that any arrangement proposed by Government under the Defence Act which will affect the medical profession should be communicated to this committee prior to its final adoption.

The Fees of Expert Witnesses.—The matter of the new tariff of fees for expert witnesses was discussed, and the following resolution was unanimously adopted:

> That the Eastern Province Branch of the British Medical Association requests the South African Committee to consider the new tariff of fees for expert evidence, and is of opinion that the allowance for travelling and maintenance is inadequate. Further, with regard to civil cases, this Branch questions whether the limit placed on fees is not an infringement of the right of individuals to make contracts, and suggest that, if necessary, the opinion of learned counsel be taken on this point.

The late Dr. Fitzgerald.—This being the first meeting of the Branch since the death of the late Dr. G. E. Fitzgerald, the following resolution was passed without a division:

> That this Branch deeply deplores the loss which it has sustained through the death of the late Dr. G. E. Fitzgerald, who had practised for upwards of twenty years in Grahamstown and twice had been President of the Branch, and always had the best interests of the profession at heart. The loss to this Branch is the more severe in that he was to have been President of the next South African Medical Congress. This Branch begs to thank the Witwatersrand and Western Province Branches for their kind telegrams of sympathy, and confirms the Secretary's action in writing a letter of condolence to the widow and family.

Vote of Thanks.—A vote of thanks was passed to Dr. Saunders.

LANCASHIRE AND CHESHIRE BRANCH:

SOUTHPORT DIVISION.

A SPECIAL meeting of the Division, to which non-members were invited, was held in the Masonic Room of the Victoria Hotel, on February 25th, to consider matters arising out of the Insurance Act. Twenty-seven were present. Dr. S. MEWBURN BROWN occupied the chair.

Sickness Certificates.—A reply to a letter addressed by the Secretary to the Town Clerk as Secretary of the Insurance Committee was read, in which he said that the question of acceptance of certificates from doctors not on the panel so as to enable their patients to obtain sickness benefit was one for the approved societies, but that, so far as the Southport Insurance Committee was concerned, it was prepared to accept such certificates.

Inquiry Addressed to Registered Medical Practitioners.—The circular addressed by the Association to all members of the profession asking them to reply to certain questions with regard to the working of the Insurance Act was considered, and it was admitted by many present that they had not replied.

Local Medical Committees.—The arrangements which should be made to meet the expenses of the Local Medical Committee were discussed, and the following resolution was submitted:

> That the expenses of the Local Medical Committee to the extent of £5 be defrayed from the balance to date of the Local Defence Fund, and that after the £5 is exhausted the Secretary of the Local Medical Committee should appeal to the local profession for funds to defray further expenses.

This was carried *nemine contradicente* after an amendment by Dr. HENDERSON:

> That the expenses of the Local Medical Committee be borne by a percentage of the amounts drawn by each member of the panel,

had failed for want of a seconder. The meeting approved a suggestion that the Town Council should be requested to grant the use of a room for the meetings of the Local Medical Committee.

Contract Midwifery Attendance.—The following resolution was carried unanimously:

> That this Division is of opinion that it is undesirable that, pending further instructions, any arrangements be made by practitioners with approved societies for contract attendance in midwifery cases.

Attendance on Aged and Infirm Members of Approved Societies.—The following resolution was carried:

> That this Division advises that no arrangement be made for attendance on aged and infirm members of approved societies at a less rate than that charged for insured persons.

Contract Attendance upon Uninsured Persons.—The following resolution was moved and seconded:

> That this meeting of the profession approves of the decision of the Local Medical Committee that no contract practice, adult or juvenile, be taken at a less fee than 8s. 6d. per head per annum.

Dr. HENDERSON moved an amendment:

> That uninsured persons be attended at 2d. per week, medicine included, but that juveniles be attended at the rate of 1d. per week, medicine included, in terms of our medical service scheme approved by the State Sickness Insurance Committee.

This was seconded by Dr. WEAVER. There were only two votes for the amendment, and the original motion was then carried *nemine contradicente*.

METROPOLITAN COUNTIES BRANCH:

WILLESDEN DIVISION.

A MEETING of the Division, to which non-members were invited, was held at St. Andrew's Schools on February 27th, when twenty-six were present, and Dr. MACEVOY took the chair in the absence of Dr. Coram James.

Tuberculosis Contacts.—Drs. Anderson Smith, Macevoy, and Miller were appointed as a deputation to meet

Dr. Buchan, Medical Officer of Health for Willesden, and Mr. Riley, to confer as to fees to be paid in respect of the examination of tuberculosis contacts under the Public Health Tuberculosis Regulations.

District Medical Committee.—It was decided that the Committee should consist of twenty members, including the Chairman and Honorary Secretary, and that the election should be by ballot. Twenty-four nominations were received, and the ballot resulted in the election of Drs. Macevoy, Skene, Armitage, Soden, Moore, Traylen, Anderson Smith, Stocker, Macauley, Smurthwaite, Macdonald, Müller, Turner, Mechan, Felce, Carson Smyth, Rawes, Cardinall, Joy, and Whitehall Cooke.

Contract Treatment of Uninsured. — Dr. Macevoy reported that the Subcommittee appointed to prepare a scheme for the contract treatment of uninsured persons suggested (1) that contract treatment of uninsured should be worked through institutions or dispensaries; (2) that the subscription should be 2d. for adults and 1½d. for children, with a maximum of 8d. for a family, to include one adult; (3) that "extras" should be charged for; (4) that the management should be on the lines of the British Medical Association Public Medical Service, Scheme B; (5) that if possible the institutions should be subsidized from charitable funds.

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1913.

DATE OF MEETING.

The Annual Representative Meeting of the Association, 1913, will be held at Brighton on Friday, July 18th, and following days, as may be required.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

Attention is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting at Brighton in July next, relating to questions affecting the honour and interests of the medical profession or of the Association (By-law 37), must be published in the British Medical Journal not later than the issue of April 19th, and for this purpose should be received by me not later than April 12th, 1913. Notices of Motion proposing to make any addition to, or any amendment, alteration or repeal of any Regulation or By-law, or to make any new Regulation or By-law (Article 31), must be published in the Journal not later than the issue of May 17th, and received by me not later than May 10th, 1913.

By Order,

Alfred Cox,
Medical Secretary.

February 4th, 1913.

QUARTERLY MEETING OF COUNCIL.

The Quarterly Meeting of the Council will be held at Two o'clock in the afternoon of Wednesday, April 23rd, in the Council Room at 429, Strand, London, W.C.

By Order,

Guy Elliston,
Financial Secretary and Business Manager.

March 13th, 1913.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Metropolitan Counties Branch: Camberwell Division.—A special meeting will be held at Southwark Infirmary, East Dulwich Grove (Station, East Dulwich Elevated Electric), on Thursday, March 27th, at 4 p.m. Agenda: Alteration of the rules of the Division as suggested by the Central Organization Committee and recommended by the Executive Committee of the Division. An ordinary meeting will be held at the conclusion of the special meeting, when Dr. Hector Cameron will read a paper on "The Uses and Abuses of Patent Foods in Infancy."—J. H. Clatworthy, 145, Denmark Hill, S.E.

North of England Branch: Newcastle-on-Tyne Division.—It has been found necessary again to alter the date of the demonstration arranged by the Newcastle-on-Tyne Division to March 28th, when Professor R. A. Bolam will lecture on Medico-legal Tests for Blood.—R. J. Willan, Honorary Secretary, 25, Ellison Place, Newcastle-on-Tyne.

GENERAL MEDICAL COUNCIL.

EXECUTIVE COMMITTEE.

A meeting of the Executive Committee of the General Medical Council was held on February 24th, the President (Sir Donald MacAlister) in the chair.

University of Hong Kong.

An application received through the Privy Council from the Governor of Hong Kong respecting the recognition by the General Medical Council of degrees in the medical faculty conferred by the University of Hong Kong was considered, and the Executive Committee resolved to inform the Lord President of the Privy Council that the conditions of practice in Hong Kong appeared to be equitable, and to afford a just basis for establishing relations of reciprocity with regard to medical practice between the colony and the United Kingdom, and that, therefore, if His Majesty in Council declared that Part II of the Medical Act, 1886, applied to the colony of Hong Kong, the Council would be prepared to consider the question of the recognition of degrees in medicine granted in the colony.

Medical Ordinance, Uganda.

A draft medical registration Ordinance for Uganda was received from the Colonial Office, and the Committee, on behalf of the Council, expressed entire concurrence with the Ordinance as now amended, and observed with satisfaction that provision was made, as in other parts of the empire, to protect the public from unqualified practice. The persons entitled to medical registration are:

(*a*) The holder of any British, British Indian or British Colonial degree, diploma, or licence entitling him to registration in the United Kingdom.

(*b*) The holder of a degree, or licence in medicine and surgery of any medical school in Europe, the United States of America, or the Empire of Japan, the degrees, diplomas and licences of which are recognized as entitling to registration by the General Council of Medical Education and Registration in the United Kingdom.

Canada Medical Act.

A copy of an Act amending the Quebec Medical Act was also received from the Colonial Office. The Act deals with the application of the Canada Medical Act to Quebec.

University of Calcutta.

On the application of the India Office the Committee agreed to recognize the degrees of Master in Surgery, and Master of Obstetrics of the University of Calcutta, but informed the Secretary of State for India in reference to a further application for the recognition of the diploma of public health of the same university that the Council had no power to recognize any qualifications in public health except those granted in the United Kingdom.

Insurance Act.

A memorandum by the National Insurance Act Committee of the Council was received and entered on the minutes. The memorandum contained the correspondence with reference to the regulations made by the Insurance Commissioners which was published in the Supplement of January 11th, 1913, p. 44.

The memorandum of the Committee went on to say that it was gratifying to observe that practical effect had been given to all the suggestions for the amendment of the draft regulations offered in the Council's memorandum of September 19th, 1912 (Supplement to the British Medical Journal, November 9th, 1912, p. 504), with one exception. The exception related to the provision of hospital or institutional treatment for insured persons requiring "services beyond the competence of an ordinary medical practitioner." Upon this the Committee made the following observation:

> The Committee continue to hold the opinion that the system of the National Health Insurance now established will remain incomplete until proper arrangements for making such provision have been brought into operation; and that if necessary, fresh powers for the purpose should be conferred on the Commissioners by the Legislature.

Sir Robert Morant, in his letter of December 16th (Supplement to the British Medical Journal, January 11th, 1913, p. 44) stated that:

> Under System A (pure capitation) the provision of the anaesthetist would be one of the services which the practitioner had

contracted to render in consideration of the inclusive capitation fee, and he would, in those circumstances, have to pay the anaesthetist himself.

Upon this the Committee makes the following comment:

The Committee observe that the practitioner agrees to "give to all persons who are for the time being entitled to obtain treatment from him . . . such treatment as is of a kind which can consistently with the best interests of the patient be properly undertaken by a general practitioner of ordinary professional competence and skill." The Committee desire to raise the question of whether the terms of Agreement A can properly be held to impose on the practitioner the duty of providing the services of a second qualified person to administer the anaesthetic, in the case of an operation to be performed by the practitioner himself. The forms of Agreement B, C, D, and E, as now officially interpreted, recognize the importance, in "the best interests of the patient," of providing that a qualified anaesthetist, other than the practitioner operating, shall be employed. The Committee having regard to the terms of the resolution of the Council cited in the President's letter of December 13th, 1912, would urge the desirability of intimating officially to Insurance and Medical Committees that local arrangements should be made for securing that qualified assistance shall be provided in cases of operation under general anaesthesia undertaken by practitioners who have accepted the capitation system of payment.

The Committee further expressed the opinion that the proposals in Circular A. S. 73 (SUPPLEMENT to the BRITISH MEDICAL JOURNAL, February 1st, 1913, p. 117), on the administration of maternity benefit issued by the Commissioners for the guidance of approved societies appeared to obviate most of the difficulties apprehended by the Council and set forth in its memorandum of June 18th, 1912. The Committee trusted that, in the interests alike of their members, of the institutions for obstetrical training, and of the public at large, the approved societies would give full effect to the arrangements proposed by the Commissioners.

Canvassing.

The Committee considered certain inquiries received by the Registrar with reference to alleged cases of advertising and canvassing by medical practitioners in relation to the National Insurance Act, and resolved as follows:

That the President be requested to communicate with the Chairman of the National Insurance Commission asking him to forward to Insurance Committees, to Local Medical Committees, and to Approved Societies a copy of the Council's Warning Notice in regard to advertising and canvassing for patients.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following appointments have been announced at the Admiralty: Staff Surgeon HAROLD J. CHATER to the *Vivid*, additional for the *Dublin* (for trials), March 3rd, 1913. Staff Surgeon ALFRED J. HEWITT to the *Pegasus* on recommissioning, March 11th, 1913. Staff Surgeon JOHN N. ROBERTSON, M.B., to the *Blake*, temporarily, vice Hewitt, March 11th, 1913. Staff Surgeon HENRY M. BRAITHWAITE, M.D., to the *Imogene*, additional and for medical charge on passage out, February 27th, 1913, and on recommissioning, undated. Staff Surgeon WILLIAM N. L. CHERRY to the *Victory*, additional for disposal, March 12th, 1913. Staff Surgeon HENRY C. WHITESIDE to the *Suffolk*, temporarily, February 28th, 1913. Staff Surgeon R. HUGHES, to the *Andromache*, vice Forrest, March 22nd, 1913. Staff Surgeon J. A. FORREST, M.B., to the *Berwick*, vice Osborne, March 22nd, 1913. Staff Surgeon JOHN ST. J. MURPHY, to the *Carnarvon*, additional, for Second and Third Fleets, March 3rd, 1913. Surgeon FREDERICK G. HITCH, M.B., to the Portland Hospital, vice Cherry, March 12th, 1913. Surgeon JAMES H. WRIGHT, M.D., to the *Hebe*, vice Braithwaite, February 27th, 1913. Surgeon JOSEPH A. O'FLYNN, M.B., to the *Thunderer*, vice Macintosh, March 5th. Surgeon HERBERT R. B. HULL, to the *Fantome*, additional, for medical charge on voyage out, March 5th, and the *Fantome* on recommissioning, undated. Surgeon GEORGE D. MACINTOSH, M.B., to the *Sealark*, additional, March 5th, and the *Sealark*, on recommissioning, undated.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL F. R. NEWLAND has been appointed to the Military Hospital, Dover.

Lieutenant-Colonel S. MACDONALD has been appointed Medical Inspector of Recruits of the Southern Command.

Captain JAMES H. R. WINDER, M.D., to be Major, February 27th, 1913.

Lieutenant WILFRED W. TREVES, M.B., is seconded for service under the Foreign Office, January 7th, 1913.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Sanitary Service.—Captain ROBERT BURNET, M.B., from the 2nd Wessex Field Ambulance, to be Major, February 26th, 1913. Lieutenant-Colonel FREDERICK M. WILLIAMS, Sanitary Officer of the Wessex Territorial Division, resigns his commission, February 26th, 1913. Major ROBERT BURNET to be Sanitary Officer of a Territorial Division, February 26th, 1913.

Eastern Mounted Brigade Field Ambulance.—Major EDWARD J. CROSS, M.D., to be Lieutenant-Colonel, December 7th, 1912.

First Lowland Field Ambulance.—WILLIAM COOPER GUNN, M.B., to be Lieutenant, January 31st, 1913.

First Northumbrian Field Ambulance. — Lieutenant EDWARD BAINES KITCHING, from the list of officers attached to units other than medical units, to be Lieutenant, March 5th, 1913.

Second London Sanitary Company.—Lieutenant JOHN MUIR, M.B., to be Captain, December 7th, 1912.

Attached to Units other than Medical Units.—Lieutenant-Colonel ROBERT B. GRAHAM, F.R.C.S.Edin., has resigned his commission and is granted permission to retain his rank and to wear the prescribed uniform, March 5th, 1913. Captain JOHN A. ANGUS has resigned his commission, March 5th, 1913.

For Attachment to Units other than Medical Units.—HAROLD WILLIAM READ, late Lieutenant 8th Isle of Wight (Princess Beatrice's) Battalion, the Hampshire Regiment, to be Lieutenant, February 26th, 1913. THOMAS ALBERT FISHER to be Lieutenant, January 20th, 1913. Squadron Sergeant-Major GEORGE FAWCETT WHITE, M.D., from the Essex Yeomanry, to be Lieutenant, March 8th, 1913.

Vital Statistics.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

THE Registrar-General has just issued his return relating to the births and deaths in the fourth quarter of last year, and to the marriages during the three months ending September last. The marriage-rate during that period was equal to 18.1 per 1,000, or 1.0 per 1,000 more than the mean rate in the ten preceding third quarters.

The 212,856 births registered in England and Wales during the three months under notice were equal to an annual rate of 23.1 per 1,000 of the population, estimated at 36,539,636 persons in the middle of the year; this birth-rate is 2.4 per 1,000 below the average for the corresponding quarters of the ten preceding years, but is slightly above the rate for the fourth quarter of 1911. The birth-rates in the several counties ranged from 17.0 in Sussex, 17.1 in Hertfordshire, 17.8 in Carnarvonshire, 18.5 in Somersetshire, and 18.7 in Dorsetshire to 26.5 in Northumberland, 26.9 in Staffordshire, 28.7 in Monmouthshire, 28.8 in Glamorganshire, and 29.8 in Durham. In ninety-five of the largest towns the birth-rate averaged 24.0 per 1,000, and ranged from 12.1 in Bournemouth, 13.8 in Southport, 14.1 in Eastbourne, and 14.6 in Hornsey to 30.0 in Liverpool and in St. Helens, 30.4 in Rotherham, 30 6 in Stoke-on-Trent, 31.1 in Stockton-on-Tees, and 33.0 in Rhondda; in London the birth-rate was 23.9 per 1,000.

The excess of births over deaths during the quarter was 87,995, against 92,147, 86,280, and 85,492 in the corresponding quarters of the three preceding years. From a return issued by the Board of Trade it appears that the passenger movement between the United Kingdom and places outside Europe resulted in a net balance outwards of 45,336 passengers of British nationality and of 1,525 aliens; between the United Kingdom and the Continent of Europe there was a net balance outward of 19,886 persons.

The deaths registered last quarter in England and Wales numbered 124,861, and were equal to an annual rate of 13.6 per 1,000; this rate is 1.5 per 1,000 below the mean rate for the ten preceding fourth quarters, and is equal to the lowest on record for that period of any year. The lowest county death-rates last quarter were 10.4 in Surrey and in Middlesex, 10.8 in Dorsetshire, 11.0 in Buckinghamshire, and 11.2 in Wiltshire; the highest rates were 15 3 in Lancashire, 15.4 in Warwickshire, 15.8 in Durham, 16.5 in Northumberland, and 17.0 in Cumberland. In ninety-five of the largest towns the rate averaged 14.5 per 1,000; in London the rate was 15.0 per 1,000, while among the other towns it ranged from 7.7 in Ilford, 8.3 in Wimbledon, 8.6 in Enfield, 9.0 in Gillingham, 9.5 in Bournemouth, and 9.8 in Eastbourne to 18.1 in Preston and in Sunderland, 18.5 in Bootle, 18.6 in Tynemouth, 19.2 in Middlesbrough, 19.3 in Liverpool, and 19 8 in South Shields.

The 124,861 deaths from all causes last quarter included 5,265 that were attributed to measles, 1,903 to diarrhoea and enteritis (among children under 2 years of age), 1,131 to diphtheria, 1,113 to whooping-cough, 617 to scarlet fever, 412 to enteric fever, and 1 to small-pox. The average mortality from diarrhoea and enteritis among children under 2 is not available for comparison; the rate for each of the other diseases except measles was below the average.

The rate of infant mortality, measured by the proportion of deaths among children under one year of age to registered births was equal to 98 per 1,000, or 33 per 1,000 less than the average for the ten preceding fourth quarters. This rate is much the lowest recorded in the fourth quarter of any year since 1870, when quarterly records of infantile mortality were first kept. Among the several counties the rates of infantile mortality last quarter ranged from 45 in Dorsetshire, 51 in Sussex, and 58 in Hertfordshire to 123 in Lancashire, 128 in Northumberland, 129 in Cumberland, and 130 in Durham. In ninety-five of the largest towns the rate averaged 111 per 1,000, and ranged from 48 in Hastings and in Southend, 49 in Gillingham, 54 in Southport, and 55 in Brighton to 151 in Sunderland, 160 in Tynemouth, 172 in South Shields and in Middlesbrough, and 184 in Burnley.

The deaths among persons aged 1 to 65 years were at the rate of 7.6 per 1,000 of the population estimated to be living at this group of ages. In the ninety-five large towns the rate averaged 8.5 per 1,000, and ranged from 4.0 in Ilford, 4.6 in Wimbledon, in Enfield, and in Bournemouth, and 5.0 in Hornsey to 11.4 in St. Helens and in Middlesbrough, 11.6 in South Shields and in Stockton-on-Tees, 11.7 in Bootle, 11.9 in Preston, and 12.3 in Liverpool.

Among persons aged 65 years and upwards the death-rate was 91.3 per 1,000; in the ninety-five towns the death-rate at this age-group averaged 103.8 per 1,000, and ranged from 54.7 in Wakefield, 66.9 in Ealing, 67.0 in Edmonton, 68.5 in Lincoln, and 69.7 in Coventry to 134.5 in Hornsey, 134.8 in South Shields, 137.2 in Burnley, 140.4 in Bootle, 141.0 in East Ham, and 158.8 in West Hartlepool.

The mean temperature of the air last quarter was above the average, the excess in the country as a whole being 0.8°. The rainfall during the quarter was rather above the average, but was much less than in the corresponding quarter of 1911. The duration of bright sunshine was just equal to the average over the country generally.

HEALTH OF ENGLISH TOWNS.

IN ninety-six of the largest English towns 8,894 births and 6,178 deaths were registered during the week ending Saturday, March 1st. The annual rate of mortality in these towns, which had been 17.2, 17.2, and 17.3 per 1,000 in the three preceding weeks, rose to 18.0 per 1,000 in the

week under notice. In London the death-rate was equal to 18.8 per 1,000, against 17.3, 18.1, and 18.2 in the three previous weeks. Among the ninety-five other large towns the death-rates ranged from 5.6 in Walthamstow, 9.6 in Ilford, 10.0 in Ealing, 10.1 in Acton and in Great Yarmouth, 10.5 in Smethwick, and 10.8 in Grimsby to 24.8 in Blackpool, 27.6 in West Hartlepool, 30.9 in Stockton-on-Tees, 32.0 in Swindon, 32.5 in St. Helens, and 33.2 in West Bromwich. Measles caused a death-rate of 2.0 in Sheffield, 2.2 in Bath and in Bootle, 2.9 in Eastbourne, 4.6 in Plymouth and in Wigan, 9.1 in West Bromwich, and 10.5 in St. Helens; whooping-cough of 2.4 in Rotherham; and diphtheria of 1.0 in Rhondda, 1.2 in Merthyr Tydfil, 1.6 in West Hartlepool, and 2.4 in Barrow-in-Furness. The mortality from enteric fever and scarlet fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 46, or 0.7 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 14 in Birmingham, 10 in Liverpool, and 2 each in London, Stoke-on-Trent, Warrington, Sunderland, South Shields, and Tynemouth. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,736, 1,701, and 1,667 at the end of the three preceding weeks, had further fallen to 1,659 on Saturday, March 1st; 183 new cases were admitted during the week under notice, against 203, 196, and 180 in the three preceding weeks.

In ninety-six of the largest English towns 8,444 births and 5,950 deaths were registered during the week ending Saturday, March 8th. The annual rate of mortality in these towns, which had been 17.2, 17.3, and 18.0 per 1,000 in the three preceding weeks, fell to 17.4 per 1,000 in the week under notice. In London last week the death-rate was equal to 18.3, against 18.1, 18.2, and 18.8 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates last week ranged from 6.6 in Southend-on-Sea, 6.7 in Willesden, 8.1 in East Ham, 8.7 in Enfield, 10.5 in Reading, and 11.3 in Edmonton and in Huddersfield to 24.1 in Ipswich, 25.6 in Preston, 27.0 in Wigan, 28.3 in Dudley, 28.7 in West Bromwich, and 30.9 in Stockton-on-Tees. Measles caused a death-rate of 4.7 in St. Helens, 5.2 in Wigan, and 10.6 in West Bromwich. The mortality from the remaining infective diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 41, or 0.7 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 8 in Birmingham, 6 in Liverpool, 6 in Gateshead, and 2 each in London, Stoke-on-Trent, West Bromwich, Preston, and South Shields. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,701, 1,667, and 1,659 at the end of the three preceding weeks, had further declined to 1,617 on Saturday last; 160 new cases were admitted during the week, against 196, 180, and 183 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In the sixteen largest Scottish towns 1,124 births and 895 deaths were registered during the week ending Saturday, March 1st. The annual rate of mortality in these towns, which had been 20.8, 20.4, and 18.7 per 1,000 in the three preceding weeks, rose to 20.7 in the week under notice, and was 2.7 per 1,000 above the rate recorded in the ninety-six large English towns. Among the several Scottish towns the death-rates last week ranged from 15.0 in Kilmarnock, 15.6 in Leith, and 16.3 in Perth to 22.9 in Ayr, 23.9 in Dundee, and 24.1 in Aberdeen. The mortality from the principal infectious diseases averaged 1.8 per 1,000, and was highest in Falkirk and Motherwell. The 425 deaths from all causes registered in Glasgow included 41 from whooping-cough, 4 from measles, 3 from infantile diarrhoeal diseases, 2 from enteric fever, 2 from scarlet fever, and 2 from diphtheria. Five deaths from whooping-cough were recorded in Edinburgh, 2 in Leith, 2 in Motherwell, and 2 in Clydebank; and 2 deaths from diphtheria in Aberdeen.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, March 1st, 693 births and 532 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 620 births and 554 deaths in the preceding period. These deaths represent a mortality of 23.1 per 1,000 of the aggregate population in the districts in question, as against 24.1 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 5.1 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 30.1 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 26.9, as against an average of 22.8 for the previous four weeks, in Dublin city 28.4 (as against 23.3), in Belfast 23.4 (as against 23.0), in Cork 28.6 (as against 26.0), in Londonderry 10.2 (as against 17.2), in Limerick 16.2 (as against 16.9), and in Waterford 13.3 (as against 21.9). The zymotic death-rate was 1.8, as against 1.6 in the previous week.

Hospitals and Asylums.

VOLUNTARY INSTITUTIONS FOR IMBECILES.

EARLSWOOD ASYLUM.

THE annual report of this institution (the pioneer charity for the mentally deficient) gives interesting particulars of the work of the institution during the year 1911. The board of management are still financially hampered by the large expenditure necessitated by extensive structural restorations, but report an increase of £1,000 in the purely charitable income, notwithstanding a decrease of £50 in the annual subscriptions. They express the earnest desire for legislation with regard to the care and control of the feeble-minded considered from the national standpoint, urging at the same time the claims of the voluntary institutions for imbeciles to participate in whatever State grants may be made, and the need for preserving and extending the powers of local authorities to contract with existing institutions for the care of cases chargeable to them. From the balance sheet it appears that no less a sum than £15,422 10s. 8d. was derived last year from payments for patients out of a total revenue (inclusive of legacies, subscriptions, farm rent, and receipts) of over £37,000.

The Medical Superintendent (Dr. Charles Caldecott) reports that during the year 1911 55 cases had been admitted, 28 discharged, and 14 had died, the number remaining in the asylum on December 31st, 1911, being 499 (356 males, 143 females). The average number resident was 491, and the percentage death-rate calculated thereon was 2.8. Tuberculosis, in one of its forms, was responsible for 6 deaths, equivalent to 42.85 per cent. of the total mortality, and of these 2 occurred in connexion with an epidemic of scarlet fever, in the course of which 14 patients and 1 nurse were attacked. The board were responsible for the life-long care of 39 life-election cases, and of 33 others received on life payment, and the average age of these was between 50 and 60. Dr. Caldecott points out that the average life of an imbecile under suitable and continuous care is probably nearer 50 years than 30, which latter figure has been assumed under the actuarial scheme of the late Royal Commission. The work of the schools, industrial training shops, and farm and garden is described in some detail; and it would appear from the balance sheet that while nearly £600 profit was made from the sale of goods manufactured in the shops (including printing), the farm account shows a deficit of £204, attributable mainly to the drought of 1911.

THE ROYAL ALBERT INSTITUTION, LANCASTER.

The forty-eighth annual report of this institution (for the feeble-minded of the Northern Counties) contains particulars of its operations during the twelve months terminating June 30th, 1912. The central committee states that since the admission of patients in December, 1870, 3,231 have passed under its care. The records show that of these about 28 per cent. have been greatly improved, whilst 55 per cent. have improved in less degree. The receipts (exclusive of legacies and life interest payments) during the year had amounted to over £30,000, £15,782 8s. 11d. of this being derived from payments for patients. The average weekly cost of maintenance had been reduced from 13s. 11d. to 13s. 8½d. per patient, showing economy of management. The necessity of permanent care in a large number of cases has always been recognized, and practical steps have been taken to increase the facilities for this purpose by the erection of a new farm colony building for the accommodation of 40 inmates, which it was hoped would be the forerunner of several similar buildings upon the estate, which now consisted of 208 acres. It is stated that over 10 per cent. of those discharged after full training in the institution are capable of maintaining themselves wholly or partially by their own exertions, a percentage which might be considerably increased were a larger proportion retained under suitable care.

The Medical Superintendent (Dr. Archibald Douglas) reports that, during the twelve months under review, 80 cases had been admitted, 57 discharged, and 13 had died, the number remaining in the institution on June 30th, 1912, being 714 (467 males, 247 females). The average number resident was 699, and the percentage death-rate calculated on this average was 1.86 (a percentage which, we may remark, is exceptionally low for this class of patients). Some form of tuberculosis is stated to be the cause of death in 9 out of the 13 patients. One case of diphtheria and 1 of erysipelas are the only infectious diseases recorded. There were, however, a large number of delicate and feeble cases in the institution, especially amongst the later admissions, and the infirmary accommodation had been severely strained, so that the reception house had had to be used as an auxiliary hospital, the desirability of a separate infectious hospital being under such circumstances obvious. The work of the schools and workshops had proceeded satisfactorily, increased attention having been given to industrial training in the former, and lace-making having been introduced as an occupation for the girls. The farm and garden continued to be a source of profitable employment, having supplied to the institution produce to the value of nearly £5,000 during the year.

An interesting address by Sir James Crichton-Browne is appended to the report, in which he quotes statistics furnished to him by Dr. Douglas as to the bearing of heredity upon mental defect. It would appear that in the records of 2,339 cases a definite pathological hereditary taint had been noted in 886, while no such definite taint had been ascertained in 1,453. In 1,716 cases the parents were presumably normal, while in 531 cases one parent was described as abnormal, imbecile, weak-minded, epileptic, insane, defective, or neurotic, and in 92 cases both were described as abnormal. In 1,793 of the cases in the institution the patient was the only defective in the family, in 256 cases there were other defectives in the family, and in 133 cases all the living brothers and sisters were defective. In 155 cases the patient was the only living child. Dr. Douglas estimates that in 250 cases parental alcoholism "seemed to be either the actual or predisposing cause of the amentia." Sir James Crichton-Browne concludes that, while much more information than we at present possess as to the transmission of character is necessary before we can exercise any extensive control over human mating, figures like the above justify careful consideration of the ethics of marriage in the light of eugenics.

THE SANDLEBRIDGE COLONY FOR THE FEEBLE-MINDED.

The fourteenth annual report of the Incorporated Lancashire and Cheshire Society for the Permanent Care of the Feeble-Minded gives interesting particulars of the progress of this colony (nowhere, however, designated by name in the report) during the year 1912. The opening of a new house, called the Brook House Home, for the separate accommodation of the older male inmates, is referred to as the crowning stage of the work, and its twenty beds are now all filled by "men"—that is, male patients beyond 18 years of age. The property formerly known as Norbury House Farm, previously rented, has also been made over as a gift to the society, which, with Warford

Hall (used for older girls), must now possess a considerable landed property, though a larger acreage is desired. At the date of the report (September 30th, 1912) there were 261 inmates—151 males and 110 females; and, of these, 87 were over 16 years of age, an aggregate increase of 29 since September 30th, 1911. The number of fresh admissions during the year is nowhere stated, but 7 have been discharged, 2 "transferred," and 6 removed by parents; and there has been 1 death. This, Dr. McIlraith, the medical officer, tells us, in his brief annual report, was due to erysipelas occurring in a debilitated boy who suffered from hydrocephalus. The general health is stated to have been very good, but 20 cases of influenza, a mild case of pleurisy, and one of bronchopneumonia are mentioned, in addition to cases of tonsillitis and 2 of severe quinsy. About a dozen cases of ringworm occurred at Warford Hall. We trust that before long the infirmary, to be raised as a memorial to the late Dr. Ashby, will become *un fait accompli*, as with the increased number of colonists, the majority of whom are children, there must be pressing need for such an establishment. This would seem to be a more important and serviceable adjunct to a colony professedly for the "feeble-minded" than would be "a house especially for low grade cases" (mentioned in the report as desirable), bearing in mind the fact that for many years an admirable asylum for imbeciles has existed in the Northern Counties.

The establishment at Sandlebridge, consisting as it does of residential schools for mentally deficient children under 16 and of permanent industrial homes for those above that age, presents a model which, we trust, will be widely imitated when dealing with this class has been facilitated by the passing of the Mental Deficiency Bill, as the report tells us is already contemplated in Yorkshire and Nottinghamshire. The comparatively few instances of children received by their parents during the year (six only), speaks well for the growing appreciation of the need of life-long care, though compulsory powers of detention, under proper safeguards, may in some cases be required to save these innocents from the tender mercies of their parents, which are cruel! As regards the colonists themselves, juvenile and adult alike, there can be no doubt that they are contented with their lot and desire nothing better than the cheerful surroundings and beneficial occupations which Miss Dendy and her associates provide for them at Sandlebridge. No less than twenty-five boys and youths work on the farms and gardens, and the profits on these industries is estimated at £538 13s. 5d., after deducting a rent of £180. The total income of the society for 1912 is stated to be £7,499 13s. 6d., and the Endowment Fund stands at £7,368 towards the £8,200 appealed for.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—(1) Assistant Physician. (2) Junior Resident Medical Officer (male). Salary at the rate of £40, increasing to £60 on appointment as Senior.

BETHLEM HOSPITAL.—Two Resident House-Physicians. Honorarium, £25 per quarter each.

BIRKENHEAD: BOROUGH HOSPITAL.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £100 and £80 per annum respectively.

BIRKENHEAD UNION.—Senior Male Resident Assistant Medical Officer. Salary commencing at £130 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—(1) Resident Surgical Officer; salary, £100 per annum. (2) First, Second, and Third House-Surgeons, salary, £90, £80, and £75 per annum respectively.

BIRMINGHAM GENERAL HOSPITAL.—(1) House-Surgeon to Special Departments. (2) Obstetric House-Surgeon. (3) House-Surgeon. Salary for (1) and (2) at the rate of £50 per annum, and for (3) at the rate of £40 per annum for two months, rising to £50.

BIRMINGHAM: QUEEN'S HOSPITAL.—House-Physician. Salary at the rate of £50 per annum.

BLACKBURN COUNTY BOROUGH.—Medical Officer of Health and School Medical Officer. Salary, £750 per annum.

BOOTLE BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

BRECON AND RADNOR ASYLUM, Talgarth.—Assistant Medical Officer. Salary, £170 per annum.

BRIDGE OF WEIR: CONSUMPTION SANATORIUMS OF SCOTLAND.—Lady Assistant Medical Officer. Salary, £75 per annum.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL GENERAL HOSPITAL.—Honorary Physician or Surgeon to the Throat and Ear Department.

BRISTOL ROYAL INFIRMARY.—Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £75 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum.

CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £80 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

COLCHESTER: ESSEX COUNTY HOSPITAL.—House-Surgeon (male). Salary, £80 per annum.

DOUGLAS, ISLE OF MAN: NOBLE'S HOSPITAL.—Resident House-Surgeon. Salary, £90 per annum.

DREADNOUGHT HOSPITAL, Greenwich.—Assistant Pathologist. Salary, £100 per annum.

DUNDEE ROYAL INFIRMARY.—Anaesthetist to the Infirmary and Instructor in Anaesthetics in the University of St. Andrews. Salary, £200.

EDINBURGH: THE HOSPICE.—Medical Women as (1) Senior Resident, (2) Junior Resident. Honorarium, £25 and £18 per annum respectively.

GROSVENOR HOSPITAL FOR WOMEN, Vincent Square, S.W.—Registrar.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. Salary, £75 per annum.

HUDDERSFIELD ROYAL INFIRMARY.—Male Junior Assistant House-Surgeon. Salary, £60 per annum.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

LANCASHIRE COUNTY ASYLUM, Winwick.—Pathologist and Assistant Medical Officer. Salary, £200 per annum, rising to £250.

LEAMINGTON SPA: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—(1) House-Surgeon. (2) House-Physician. Salary, £100 and £85 per annum respectively.

LEICESTER ROYAL INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

LIVERPOOL INFIRMARY FOR CHILDREN.—(1) Two Resident House-Physicians. (2) Resident House-Surgeon. Salary, £30 each for six months.

LONDONDERRY DISTRICT LUNATIC ASYLUM.—Junior Male Assistant Medical Officer.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—(1) Assistant Resident Medical Officer; honorarium, £40 for six months. (2) Medical Registrar; honorarium, 40 guineas per annum.

MACCLESFIELD GENERAL INFIRMARY.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £100 and £80 per annum respectively.

MANCHESTER VICTORIA MEMORIAL JEWISH HOSPITAL.—Resident Medical Officer (female). Salary at the rate of £80 per annum.

MIDDLESBROUGH: NORTH RIDING INFIRMARY.—Junior House-Surgeon. Salary at the rate of £80 per annum.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—Junior House-Surgeon. Salary at the rate of £85 per annum.

NOTTINGHAM GENERAL DISPENSARY.—(1) Assistant Resident Surgeon (male); salary, £170 per annum. (2) Resident and Assistant Resident Surgeons for Branch; salary, £180 and £170 per annum respectively.

NOTTINGHAM WORKHOUSE AND INFIRMARY.—Two Resident Assistant Medical Officers. Salary, £150 per annum, rising to £170.

OLDHAM ROYAL INFIRMARY.—Third House-Surgeon. Salary at the rate of £80 per annum.

PARIS: BRITISH HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

PORTSMOUTH PARISH.—Second Assistant Resident Medical Officer for the Workhouse Infirmary, etc. Salary, £120 per annum, rising to £130.

PRESTON ROYAL INFIRMARY.—Senior House-Surgeon (male). Salary at the rate of £80 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—House-Physician. Salary at the rate of £80 per annum.

RICHMOND: ROYAL HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum.

ROCHDALE INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum, rising to £90.

ROTHERHAM HOSPITAL.—Senior House-Surgeon (male). Salary, £110 per annum.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiner in Dental Surgery.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon for Out-patients.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Senior House-Surgeon. Salary at the rate of £100 per annum.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street, W.—Honorary Surgeon.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C.—Honorary Assistant Surgeon.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon (male). Salary at the rate of £80 per annum.

SCOTTISH PRISON SERVICE.—Assistant Medical Officer for Perth Prison and Criminal Department. Salary, £250 per annum.

SHEFFIELD: ROYAL INFIRMARY.—(1) Ophthalmic House-Surgeon. (2) Aural House-Surgeon. (3) Assistant House-Physician. Salary, £70 per annum each.

SHREWSBURY: SALOP INFIRMARY.—House-Physician. Salary at the rate of £90 per annum.

SIERRA LEONE: PRINCESS CHRISTIAN HOSPITAL, Freetown.—Resident Medical Officer. Salary, £250 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

SOUTHPORT INFIRMARY.—Resident Junior House and Visiting Surgeon (male). Salary at the rate of £80 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £100 and £90 per annum respectively.

STAFFORDSHIRE: COUNTY MENTAL HOSPITAL, Burntwood.—Junior Assistant Medical Officer (male). Salary, £210 per annum.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—(1) House-Surgeon; salary, £120 per annum, increasing to £140. (2) House-Physician; salary, £100 per annum.

SUNDERLAND: ROYAL INFIRMARY CHILDREN'S HOSPITAL.—Resident Medical Officer. Salary at the rate of £80 per annum.

SURREY EDUCATION COMMITTEE.—Assistant Medical Officer. Salary, £250 per annum.

TAUNTON: SOMERSET AND BATH ASYLUM, Cotford.—Assistant Medical Officer. Salary, £150 per annum, increasing to £180.

TIVERTON: THE HOSPITAL.—House-Surgeon and Dispenser. Salary, £80 per annum.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House-Physician (male). Salary, £100 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Lisbellaw (co. Fermanagh), Littleborough (Lancs.).

MEDICAL REFEREES.—The Home Secretary gives notice of vacancies of Medical Referees under the Workmen's Compensation Act, 1906, for the Dunoon and Inverary District of the Sheriffdom of Argyll and for the Dumbarton District of the Sheriffdom of Stirling, Dumbarton, and Clackmannan.

APPOINTMENTS.

BOSANQUET, W. Cecil, M.D., F.R.C.P., Physician to the Hospital for Consumption and Diseases of the Chest, Brompton, S.W.

BROWNING, S. H., M.R.C.S., L.R.C.P., Bacteriologist to the Central London Ophthalmic Hospital.

COCKAYNE, Edward Alfred, D.M.Oxon., M.R.C.P., Assistant Physician to the Middlesex Hospital.

GREEVES, R. Affleck, M.B., B.S.Lond., F.R.C.S.Eng., Curator and Librarian to the Royal London Ophthalmic Hospital.

MURRELL, G. F., M.B.Lond., Assistant Physician to the Royal Berkshire Hospital, Reading.

RAMBAUT, D. Frederick, M.D.Dubl., Medical Superintendent of the St. Andrew's Hospital for Mental Diseases, Northampton, vice Dr. Bayley, deceased.

TRAQUAIR, H. M., M.D., F.R.C.S.Edin., Assistant Ophthalmic Surgeon to the Edinburgh Royal Infirmary.

WETHERED, Frank J., M.D., F.R.C.P., Fourth Physician to the Middlesex Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

ASHWIN.—On March 11th, at Waldyve House, Market Weighton, the wife of Richard Hamilton Ashwin, M.D.Lond., of a son.

CRICHTON MILLER.—On March 9th, at Bowden House, Harrow-on-the-Hill, wife of Hugh Crichton Miller, M.D., of a daughter.

DEATH.

SEDGWICK.—On March 9th, at Eslaforde, Doncaster Road, Rotherham, Agnes Marion Sedgwick, aged 3 weeks.

DIARY FOR THE WEEK.

TUESDAY.

LONDON DERMATOLOGICAL SOCIETY, St. John's Hospital, 49, Leicester Square, W.C., 4.30 p.m.—Specimens and Cases will be shown, and Mr. E. H. Ross (Lister Institute) will open a discussion on the Intracellular Parasites in Syphilis and in Allied Conditions in Animals, and will give a demonstration of the organisms.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, W., 8.30 p.m.—Professor Harvey Littlejohn: The Determination of Minute Traces of Blood. Dr. B. H. Spilsbury: Note on Two Cases of Cut Throat.

ROYAL SOCIETY OF MEDICINE:

SECTION OF PATHOLOGY, 1, Wimpole Street, W., 8.30 p.m.—Dr. H. H. Dale: Anaphylaxis. Dr. J. A. Braxton Hicks: Organism Isolated from a Case of Septicaemia. Dr. H. R. Dean: Permanent Preservation of Haemolytic Complement.

SECTION OF THERAPEUTICS AND PHARMACOLOGY, 4.30 p.m.—Adjourned Discussion on Non-Operative Treatment of Malignant Disease. Professor A. R. Cushny, F.R.S.: The Action of Drugs on Respiration.

WEDNESDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF ELECTRO-THERAPEUTICS, 8.30 p.m.—Adjourned Discussion on *X* Rays in the Diagnosis of Pulmonary Tuberculosis.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION, S.W.—Wednesday, 4.30 p.m., Dyspnoea.

CANCER HOSPITAL, Fulham Road, S.W.—Wednesday, 5 p.m., Radium Treatment of Cancer.

LONDON HOSPITAL MEDICAL COLLEGE, E.—Neurology Course, Monday, Tuesday, Wednesday, Friday, 4.30 p.m.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Daily except Saturday; Medical Clinics, Tuesday and Thursday, 3 p.m.; Operations, Friday, 3 p.m.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—Monday, Tuesday, Wednesday, and Thursday, Demonstrations at 4 p.m., Lectures at 5.15 p.m.

ROYAL EYE HOSPITAL, St. George's Circus, S.E.—Tuesday, 4.30 p.m., Senile Cataract.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Monday and Wednesday, 4.30 p.m.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics daily; Lectures, Monday, Tuesday, Wednesday, and Thursday, at 5 p.m. Operations—Gynaecology, Tuesday and Thursday, 10.30 a.m.; Throat, Nose, and Ear, Wednesday, 10 a.m.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		MARCH.
14	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
		Sunderland Division, Sunderland, 4 p.m.; Annual Dinner, 7 p.m.
19	Wed.	London: Metropolitan Counties Branch Council (adjourned), 4 p.m.
		Richmond Division, Richmond, 8.30 p.m.
		South Middlesex Division, Twickenham, 8.30 p.m.
27	Thur.	Camberwell Division, Southwark Infirmary, 4 p.m.
28	Fri.	London: Journal Committee, 2 p.m.
		Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		Newcastle-on-Tyne Division, Scientific Demonstration.
		APRIL.
1	Tues.	London: Public Health Committee, 3.30 p.m.
2	Wed.	London: Medico-Political Committee, 2 p.m.
4	Fri.	London: Ethical Committee, 2 p.m.

Date.		Meetings to be Held.
		APRIL (*continued*).
5	Sat.	London: Science Committee, 11 a.m.
7	Mon.	London: Colonial Committee.
		London: Naval and Military Committee.
8	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
		London: Organization Committee, 2.15 p.m.
9	Wed.	London: Hospitals Committee, 3 p.m.
		London: Joint Medico-Political and Hospitals Subcommittee, 1.30 p.m.
11	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
		South-West Essex Division, Brook House, Clapton, 9.30 p.m.
16	Wed.	London: Finance Committee, 3 p.m.
23	Wed.	London: Council Meeting, 2 p.m.
		Richmond Division, Richmond, 8.30 p.m.
24	Thur.	South-West Essex Division, Walthamstow Hospital, 4 p.m.
25	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

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National Insurance.

ADVERTISING, CANVASSING, AND TOUTING.

DECLARATION BY THE GENERAL MEDICAL COUNCIL.

THE following communication has been addressed to the National Insurance Commission Joint Committee and to the Commissions for England, Scotland, and Wales:

GENERAL MEDICAL COUNCIL.

299, Oxford Street, London, W.,
March 14th, 1913.

To the Chairman of the National Insurance Commission.

Dear Sir,—The attention of the Executive Committee of the General Medical Council has been called to a number of communications, in which it is alleged that objectionable methods of advertising and of canvassing have been employed in various parts of the country, with the object of procuring the enrolment of insured persons or their dependants as the patients of particular medical practitioners. In some instances it is stated that the advertisements were so framed as to suggest that they were issued with the cognizance of the Insurance Commission or of local insurance authorities; in other instances touting or canvassing for patients is said to have been practised in the supposed interest of approved societies and institutions, and of medical practitioners associated with the National Health Insurance service.

The General Medical Council has repeatedly taken steps to inform practitioners themselves of the grave liability they incur by resorting to practices of the kind, and has more than once had to exercise its disciplinary functions in restraint of wilful offenders. It appears, however, to the Executive Committee that some of the local authorities, institutions, and societies concerned with the administration of medical benefit under the National Insurance Act may have acted in ignorance of the principles which guide professional conduct in relation to advertising and canvassing, and have thereby seriously endangered the position of practitioners who are professionally associated with them. The Executive Committee is accordingly of opinion that it would subserve the public interest, and conduce to the proper administration of the National Insurance Act by the bodies in question were the Commissioners to call the special attention of all Insurance Committees, Local Medical Committees, and approved societies and institutions to the appended Warning Notices, which were published by the General Medical Council on June 6th, 1899, and December 1st, 1905, and are still operative.

I am, Sir, yours faithfully,
DONALD MACALISTER, *President.*

Resolutions of the General Medical Council.

The General Medical Council considers that, in the interests of the medical profession, it is advisable to bring to the notice of its members certain resolutions which have from time to time been adopted as expressing the views of the Council upon certain forms of professional misconduct which have been or may be dealt with as amounting to "infamous conduct in a professional respect" within the meaning of Section 29 of the Medical Act, 1858. The Council, however, wishes it to be distinctly understood that these resolutions are not exhaustive of the forms of professional misconduct which may be dealt with by the General Medical Council under its disciplinary powers, and that the Council is not in any way precluded from considering and dealing with any form of professional misconduct outside the scope or precise language of the following resolutions:

(1) That the Council strongly disapproves of medical practitioners associating themselves with medical aid associations which systematically practise canvassing and advertising for the purpose of procuring patients. (June 6th, 1899.)

(2) Whereas it has from time to time been made to appear to the General Medical Council that some registered medical practitioners have, with a view to their own gain and to the detriment of other practitioners, been in the habit of issuing or sanctioning the issue of advertisements of an objectionable character, or of employing or sanctioning the employment of agents or canvassers for the purpose of procuring persons to become their patients: And whereas in the opinion of the Council such practices are contrary to the public interest and discreditable to the profession of medicine: The Council hereby gives notice that any registered medical practitioner resorting to such practices thereby renders himself liable to be charged under the 29th Section of the Medical Act, 1858, with "infamous conduct in a professional respect," and if after due inquiry he is judged by the Council to have been guilty of such conduct the Council may, if it sees fit, direct his name to be erased from the *Medical Register.* (December 1st, 1905.)

British Medical Association.

FRIENDLY SOCIETIES AND THEIR AGED AND INFIRM MEMBERS.

In the Supplement to the British Medical Journal of March 8th, p. 238, a letter addressed to the National Insurance Joint Committee by the Medical Secretary, acting on the instructions of the State Sickness Insurance Committee of the British Medical Association, was printed, and it was stated that a copy had been forwarded to Mr. Masterman, M.P., Chairman of the National Insurance Joint Committee, and to all the representatives of the friendly societies present at the conferences held on October 9th and 16th, 1911. The following reply has been received from Mr. Masterman through his private secretary:

National Health Insurance Joint Committee,
Buckingham Gate, London, S.W.,
March 17th, 1913.

Sir,

Mr. Masterman desires me to reply to your letter sent to the National Health Insurance Joint Committee and to himself on 28th February and printed in the British Medical Journal of the 8th March, with respect to the medical attendance of existing aged and infirm members of Friendly Societies.

The members in question are persons who are not insured under the National Insurance Act; and it is their societies, and not the Insurance Committees, the Commissioners, or the Government, who are responsible for securing them medical attendance. The whole cost of such attendance must come out of the societies' Funds, and must therefore result either in a reduction of their benefits or in an increase of their contributions. The terms on which the attendance is secured are a matter between these members and their societies and their doctors, and have nothing whatever to do with the Government or the Insurance Act.

The only extent to which this position is modified is by the provisions of Section 15 (2) (*e*) of the Act, which require Insurance Committees to make arrangements under which societies may, if they desire, secure attendance for these uninsured members on the same terms as for insured persons.

This is, however, an option granted to societies; the Act does not make it obligatory upon a society to avail itself of these provisions nor does it, either expressly or by implication, oblige societies to make payment on as high a scale. The Commissioners, therefore, have absolutely no power, even if they desired, to compel societies to pay out of their own Funds for people who are not insured under the Act, on a scale which is not only much higher than that which they have hitherto been paying, but also much higher than that which was contemplated when this particular section was inserted in the Bill.

Moreover, the whole position with regard to this option has been altered since the passing of the Act by the voting of a large supplementary Treasury grant for Medical Benefit. In the understanding arrived at the conference between the representatives of the medical profession and the Friendly Societies on October 16th, 1911, the amount of money available for medical remuneration was not only understood to be, but was explicitly referred to in the discussion as being 6s. per head. It was on the assumption that the Friendly Societies would be willing to increase the average remuneration for their members from about 4s. to 6s. per head that the agreement was arrived at; and Mr. Masterman understands that Societies generally are willing to pay this sum for these uninsured members.

The fact that the doctors are receiving a much higher remuneration than was assumed at that conference in respect of insured persons, through the addition of a Treasury grant, would seem to be a reason rather for reduction than for increase in the remuneration they should demand for those of their old patients who are prevented by age or infirmity from becoming insured under the Act. The increase of about 5s., that is from 4s. to 9s. (largely from State sources), in the amount provided for the medical benefit of the insured members of societies (who, of course, form the great majority) should in any event enable the doctors to accept an increase of about 2s. for the treatment of the small and diminishing number of their own aged and infirm patients, many of whom have contributed through many years of good health for a medical attendance which they have only recently begun to require.

Yours faithfully,

J. A. Salter,
Private Secretary.

The Medical Secretary,
British Medical Association.

CENTRAL INSURANCE DEFENCE FUND.

THE APPEAL FOR NEW SUBSCRIBERS.

The following appeal is being issued:

British Medical Association,
Medical Department, 429, Strand,
London, W.C.

An Appeal to those Members of the Medical Profession who have not subscribed to the Central Insurance Defence Fund.

Dear Sir or Madam,

Frequent appeals, as you know, have been made by the Council of the British Medical Association on behalf of the Central Insurance Defence Fund. This fund was instituted, with the Council as its trustees, for the following objects:

1. To assist in defraying the heavy administrative expenses necessarily incurred in organizing such combined action of the members of the profession as will enable them either (*a*) to enforce their demands upon the National Health Insurance Commissioners, (*b*) to establish a public medical service entirely under the control of the profession, or (*c*) to take such other action as may be found necessary.
2. To provide, when and where necessary, compensation or pecuniary assistance for practitioners who incur loss or require support because of their loyalty to the policy recommended by the British Medical Association.

Up to the present 13,472 members of the profession out of a total of over 32,000 in the United Kingdom have guaranteed sums amounting to £134,397 to this fund. On these guarantees two calls have been made, one of £1 per head for the purpose of meeting the administrative expenses, and another, mainly for the purposes of compensation, of 20 per cent. of the sum guaranteed.

During the past two years roughly £30,000 have been spent in this campaign, and whatever may be said as to its success on other grounds, it is certain that so far as money is concerned the medical profession, as a direct result of that campaign, has now got a million and three quarters per annum more, or 2s. 6d. more for each insured person, for its work under the Insurance Act than it would have got but for the work done by the Association.

Of the £30,000 spent, about one-half has been provided by the Guarantors to the Central Insurance Defence Fund. The other half has come from the funds of the Association upon which naturally a great strain has been placed. It is felt to be most unfair that the cost of this work should fall entirely upon the Association and upon the minority of the profession who have subscribed to the Insurance Defence Fund, and I am instructed therefore to ask you, who up to the present have neither guaranteed nor subscribed anything to this fund, to take your share of the responsibility either by giving a guarantee in the ordinary way, of as much as you feel you can afford, or at least by giving a donation of £1 for the purpose of helping to defray the administrative expenses of the campaign. This does not allude to any new campaign to be undertaken, but is in respect of obligations already incurred.

I trust you will not attempt to excuse yourself for inaction on the ground that there is no necessity now for any more money. There is every necessity. The fund has now to meet claims the extent of which it is impossible as yet to gauge, and some of the money which has been spent from the funds of the Association ought to be repaid. As this work has been done in the interest of every member of the profession—that is, in *your* interest—it is hoped that you will not be content to allow other people to bear your share of the burden.

I enclose a form of guarantee which you can easily alter into a form of donation if you so prefer. Whether you send a donation or guarantee, please forward cheque for at least £1 and *make it payable to the British Medical Association.*

I am, yours faithfully,
ALFRED COX,
Medical Secretary.

We are requested to publish the following correspondence arising out of the above letter:

112, Fernhead Road, Paddington, W.,
March 15th, 1913.

To the Medical Secretary,
British Medical Association.

SIR,—I am in receipt of your circular letter dated 12th March, 1913, asking for subscriptions to the Defence Fund. If I may say so, the British Medical Association is very unfortunate, not to say ill advised, in the wording and tone of this appeal—the dictatorial manner (I had almost said discourteous) is more calculated to estrange than to annex sympathisers.

Moreover, in addressing some of us, the British Medical Association again shows a great lack of knowledge as to how much many of the members have suffered by their allegiance to the Association. It may interest you to learn that, personally, I have lost much more than the £10 guarantee which I promised your representative last year. I have fought tooth and nail against what I consider the degrading conditions which the Act imposes on my profession, and in support of my convictions I have, whilst my neighbours—*some* most unwillingly, I gladly proclaim—joined in the *débâcle*, by keeping off the panel, virtually ruined my local practice. Yet the British Medical Association calmly says that some of us have not taken our share in the responsibility! I do not for a moment consider that I am under any obligation to the British Medical Association. Some of her members, in whom we trusted, sadly failed us.

I could conscientiously make a claim on this same Defence Fund, for I have suffered seriously during the past three months. I have been urged again and again to do so by my colleagues. And yet I am now classed as one who has not upheld the cause.

Sir, from the volume of opinion which I have heard since your letter was circularized you have done more harm than good by the wording of it.

For myself, it lets me see how hopeless it is to trust any longer to those who at present are supposed to be acting for the good of my honoured profession, and unless a change is shortly affected, I may have to reconsider my membership.

Truly yours,
ALEX. M. ELLIOT, M.D.

March 17th, 1913.

SIR,—I am sorry that my circular letter in reference to the Central Insurance Defence Fund has offended you. Its language was not intended to be offensive though it certainly was designed to pierce, if possible, the indifference of members of the profession who have up to now taken no notice of the repeated appeals made on behalf of this fund.

I have made careful inquiries as to the £10 guarantee which you say you promised to "our representative" last year, but no record of it can be found in this office. If there had been such a record you would simply have been asked to fulfil your guarantee in the ordinary way.

While regretting that the language of the circular should have offended you, may I point out the great difficulty of framing a letter which should appeal with equal force and justice to nearly 19,000 members of the profession for whom the circular was intended? In some few cases we have been informed that subscriptions have been given locally, and in these cases of course the letter would not have been sent had we known of this. But the great majority of the 19,000 have failed to respond to the various appeals either through carelessness or a want of appreciation of their duty to the profession. The letter was a final attempt to bring their duty home to them, and I am glad to say that in many cases it has had the desired effect.

I am sorry to hear that you have lost through the operation of the National Insurance Act; but for that we are not responsible. The Association made the best fight it could with the material at its disposal, and I would remind you that one of the most important factors in the breakdown of the resistance of the profession was that practitioners had not responded to our appeals for money in a way which would enable us with perfect confidence to urge them to stand firm. The responsibility for the lamentable position of the profession in January last lies to a great extent at the doors of those who failed to assist at the proper time in building up a large fighting fund. It is now too late for them to remedy the disaster they helped to cause, but it is not too late for them to assist the Association in meeting claims made on it by those who have suffered appreciably by their loyalty to its policy. If you are among these you may be sure that your claim would receive the most careful consideration.

I am asking the Editor, as requested by you, to print this correspondence in the BRITISH MEDICAL JOURNAL.

I am, yours faithfully,
ALFRED COX,
Medical Secretary.

Dr. A. M. Elliot,
112, Fernhead Road,
Paddington, W.

We have also received the following letter:

SIR,—A number of the subscribers to the Guarantee Fund are desirous of knowing how far the guarantee is affected by the late change of policy of the British Medical Association. In a recent letter which I have seen the Medical Secretary suggests that these subscribers are merely desirous of a plausible excuse for not paying—a suggestion full of that tact and diplomacy to which we owe the insurance *débâcle*. The Guarantee Fund was commended to us by the Council as "a necessary corollary of the pledge"; it follows that the release from the pledge carries with it the release from the guarantee.

If we take the words of the guarantee, compensation was to be provided for those who "incurred loss or required support because of their loyalty to the policy recommended by the British Medical Association." At the time when the guarantee was given that policy was that no medical man should engage in contract practice under the Insurance Act or otherwise until the cardinal points had been granted. Now, these cardinal points have not been granted, yet some 15,000 or more men have undertaken insurance work with the concurrence and acquiescence of the Association. The policy of the Association has been changed fundamentally, and it seems quite clear that the trustees of the Guarantee Fund cannot legitimately call upon the guarantors for pecuniary support for the results of a policy to which they did not originally give their sanction.

But there is another aspect of the question which deserves consideration. The fight put up by the British Medical Association was only made possible by the Guarantee Fund: the Association claims, and the claim may be allowed, that by its action the amount set aside by the Insurance Commissioners for medical benefit was raised from 6s. to 8s. 6d. per head. Thanks, then, to the guarantors, the panel doctors are receiving an addition of £1,750,000 a year, and it is not creditable to them that they have not at once refunded the money expended on their behalf and in their interests by the Association and taken upon themselves any responsibilities which may still attach to the guarantors. Some men may lose a part of their income, a few a large part, owing to the introduction of the Insurance Act; but nearly twice the amount they have lost is paid to their neighbours in respect of these men's patients; and

it is only just that those who have gained should devote some part of their gains to compensate their unfortunate brethren who have suffered loss. It would not be possible to assess for each panel doctor the actual amount by which he has benefited at the expense of his non-panel neighbours, but it is quite easy by a capitation levy on the number on his insured list to replace the Guarantee Fund which has lapsed. A levy of ½d. per quarter per head would provide each quarter £25,000, for there are 12,000,000 insured, and that sum would repay the expenses of the Association and provide ample compensation for those who have suffered. More than that, the continuance of that levy would put the profession in such a position that in two or three years it could, if united, compel the Government to grant terms in accordance with the cardinal points. Such a levy of ½d. a quarter would entail a payment of 5s. for every 120 insured—that is, the panel doctor would receive £11 instead of £11 5s., and proportionately for any larger number. Some men are said to have 3,000 insured on their lists; the quarterly income of such a man would be reduced from £281 5s. to £275; but that is a mere trifle compared with what he has gained and what he may expect to gain in the future.

It may be, of course, that men are only waiting for a lead in this matter, and I would suggest to them that each should send his share to the trustees of the Guarantee Fund without waiting to be invited to do so, those who are guarantors notifying the trustees that their contributions take the place of the lapsed guarantees. In some such way only can the panel doctors pay their debt of honour due to the guarantors.

I should like to emphasize the point that there is no desire for a plausible or any excuse for non-payment; I believe every guarantor would willingly devote his contribution to some definite object for the good of the whole profession. But I am sure that many, if not all of us, hold that the guarantee rested on the pledge, and would never have dreamt of guaranteeing a penny if we had conceived it possible that a large number of men would go over to the enemy as soon as they found it to their own individual advantage. Whether this be a right or a wrong view, it is not open to dispute that the release of the guarantors by the profit-taking panel doctors is an act which cannot be omitted without loss of honour. By such an act also the question at issue here is solved.

I am, yours faithfully,

DONALD F. SHEARER.

Exeter.

LOCAL MEDICAL COMMITTEES.

ESSEX.

AT a meeting of the Local Medical Committee on March 13th, Dr. Stuart Ryall Blake, of Forest Gate, who had been elected in due form by his area to complete the number of representatives, took his seat on the Committee. Dr. T. G. King was recommended for appointment by the Commissioners on the Local Insurance Committee, and Dr. Pottinger Eldred, who had been strongly supported for election as a representative upon the Local Insurance Committee by the Walthamstow district, was co-opted as a member of the Local Medical Committee to represent Walthamstow.

Dr. Shadwell, Dr. Ross Steen, and Dr. Clarence Wright, previously temporary representatives upon the Medical Service Subcommittee, were elected as permanent representatives in accordance with the standing orders previously confirmed.

Certificates.—The matter of certificates was considered, the feeling of the meeting being that uniform certificates, "on" and "off" respectively, were all that should be required.

Allocation of Patients.—It was decided to recommend the Local Insurance Committee to refer the allocation of patients to the doctors in the panel areas or committees where formed.

Income Limit.—The question of an income limit was referred to the medical representatives on the Local Insurance Committee.

Conference with Commissioners. — The SECRETARY referred to the unsatisfactory conference on March 5th with the Commissioners on the matter of temporary removals to seaside, etc., which resulted in no very definite conclusion. The Commissioners pointed out the hopelessness of expecting any further financial aid, or any new fund, and objected to the idea of patients paying for attendance, though agreeing that it was practically impossible to expect people in sound health to notify removal for a holiday. The Local Medical Committee felt that injustice would result to doctors called upon to treat an influx of patients at 1½d. per week, while in some districts thousands of healthy holiday makers absenting themselves would leave only the sick to be treated by urban doctors. it was felt that no injustice to patients on holiday would result from charging fees as private patients, which they had readily paid heretofore.

Co-ordination of Medical Bodies.—A scheme for co-ordinating the various medical unions and societies and trades unions of practitioners springing up throughout the country, and bringing them into harmonious relations with the British Medical Association, was discussed. Among other propositions was one to appoint eight whole-time organizers to attend meetings (each taking a suitable group of counties), collect information which could be communicated to other groups and to the British Medical Association's central office, with a view to correspondence of policy and unity of action throughout the three kingdoms. It was decided to place a sketch of the scheme before the Secretary of the British Medical Association with a request to bring it under the notice of the State Sickness and Organization Committees, which, the Secretary (Dr. Tomkins) understood, was, at the instance of the Representative Body, considering several points similar to those of the scheme, such as the re-arrangement of all British Medical Association Branches and Divisions so as to make them coterminous with panel areas and subareas.

WEST SUFFOLK.

THE Local Medical Committee for West Suffolk has received official recognition from the Commissioners, and held its first meeting on March 14th, when the following officers were elected:

Chairman, Dr. Wood.
Honorary Secretary, Dr. Batt (6, Abbey Hill, Bury St. Edmunds).
Medical Service Subcommittee, Drs. Batt, Trotter, and Wilkin were appointed.
Special Medical Subcommittee, Drs. Batt, Caie, and Stiff were appointed.

Conference with Insurance Committee.—Subsequently the Committee held a joint meeting with a Special Subcommittee of the County Insurance Committee. After a free discussion of all the matters in question, the joint meeting passed the following resolutions:

1. *Domiciliary Treatment of Tuberculosis.*—That the payment of 6d. per annum for the domiciliary treatment of tuberculosis, which shall include only medical attendance by the practitioner, be on a capitation basis of 1½d., paid quarterly, dating from January 15th, 1913.

2. *Method of Recording after April 14th, 1913.*—The Committee being of opinion that the card index is impracticable as a day-book, and would cause unnecessary clerical work to the practitioner, would ask the National Health Insurance Commissioners to approve a weekly daybook, which could be used in such a capacity, and would be of the character of those in common use among practitioners.

3. *Method of Remuneration after April 14th, 1913.*—The Committee unanimously decided that after April 14th payment for medical benefit should be on a capitation basis without any payment for mileage.

4. *Method of Quarterly Payment to Account.*—The Committee resolved:

(1) That the attendance of patients from January 15th to March 31st be made the index for calculating the proportion due to each practitioner on the panel of the whole medical benefit pool for the quarter ending April 14th, 1913, and that the payment of this proportion include the attendance by the practitioner to April 14th.

(2) That 50 per cent. of the medical benefit pool for payment by attendance for the first quarter be paid on a capitation basis, based on Form Med. 20, as the payment to account to each practitioner on the panel, and that the remainder of the pool for this quarter be allocated on or before July 14th, 1913. Provided that in the event of any practitioner not being entitled to a payment for attendance on a proportion of 50 per cent. of such capitation basis based on Form Med. 20, any such surplus payment which shall

be made to him for the first payment to account shall be deducted from payments made in the ensuing quarter.

(3) That in future, after April 15th, 75 per cent. of the amount due by payment on a capitation basis shall be paid at the end of each quarter.

5. *Method of Payment for Insured Persons from other Areas.*—The Committee instructed the Clerk to ask the Commissioners to rule "that payment for attendance on an insured person requiring medical benefit in an area other than that to which his index slip has been sent shall be according to a scale of fees fixed by the Commissioners after consultation with the British Medical Association, and that such payments shall be a first charge on the medical benefit pool in every area."

6. *Drugs.*—With regard to payment for drugs when working on a capitation basis, the Clerk was instructed to ask the Commissioners to inform the Committee as to the proper method of paying doctors in rural areas more than one mile from a chemist for the drugs supplied by them. Proposed alterations in the drug tariff were referred to the Medical Service Subcommittee and Pharmaceutical Committee jointly, and a letter from the Secretary of the local chemists' committee regarding "repeat mixtures" was also referred to the same joint committee.

The second meeting of the Committee was held on March 17th, when Drs. Wood, Lucas, Hinnell, and Batt were present. The following appointments were made:

Medical Special Subcommittee.—Dr. Hinnell was appointed in place of Dr. Caie, who was unable to accept service.

Representatives on the Seven Local District Insurance Committees which are in process of formation:

District 1 ...	Dr. Batt	District 5 ...	Dr. Wilkin
District 2 ...	Dr. Wood	District 6 ...	Dr. Ritchie
District 3 ...	Dr. Barwell	District 7 ...	Dr. Everett
District 4 ...	Dr. Maund		

The Secretary was given instructions as to obtaining a substitute in the event of any of the above being unable to accept service.

BIRKENHEAD.

THE Local Medical Committee for the county borough of Birkenhead has been recognized; it is constituted as follows:

Dr. Harris, J.P., *Chairman*	Dr. Caine
Dr. Pearson, J.P., *Vice-Chairman*	Dr. Fardon
	Dr. Grimshaw
Dr. Ratcliff-Gaylard, *Honorary Secretary*	Dr. Dawson
	Dr. Crampton
Dr. Brewer	Dr. Robinson

Members of Medical Service Subcommittee, Drs. Harris, Ratcliff-Gaylard, and Robinson.

Two meetings held prior to recognition and one since have dealt with the model rules, certificates, and relations of practitioners and chemists. The drug schedule has been amplified and modifications suggested in connexion with appliances. The Committee will shortly meet the Medical Benefits Subcommittee with reference to the allocation of persons who have not availed themselves of right of choice of doctor; and to question of certification. So far the Act is working smoothly.

SHEFFIELD.

AT a general meeting of the local profession, held on February 14th, a Local Medical Committee, consisting of forty members (panel and non-panel practitioners), was elected, and was a few days later approved by the Insurance Commissioners. Dr. Gordon was elected chairman, Dr. Cuff vice-chairman, and Dr. F. J. Birks, Middlewood Road, Hillsborough, honorary secretary. At meetings of this committee, held on February 28th and March 10th, it was resolved:

1. That the Local Insurance Committee should bring pressure to bear on the Commissioners to insist on the friendly societies issuing a uniform form of certificate for continuation of illness.
2. That this committee cannot see its way to take any steps with regard to practitioners coming on the panel for a limited number of patients.
3. That the Insurance Committee be strongly advised that those persons with an income of over £160 per annum be allowed to make their own arrangements.
4. That this committee request payment for work done—January 15th to March 14th forthwith, and afterwards that payments be made monthly.
5. That a request be made for allocation for payments only, and such allocation shall be disbursed in equal shares.
9. Memorandum 43/I.C. The following fees were arranged:

	£	s.	d.
(1) Attendance on the patient at practitioner's residence...	0	2	6
(2) Visit to patient's residence... ...	0	3	6
(3) Special visit by call after 10 a.m. on Sunday	0	5	0
(4) Night visit between 8 p.m. and 8 a.m.	0	7	6
(5) Surgical operations	1	1	0
(6) Administration of general anaesthetic	1	1	0
(7) Setting of fracture	1	1	0
(8) Reduction of dislocation	1	1	0

10. That a subscription be paid by each practitioner of 5s. per annum for the purpose of defraying the expenses of the Local Medical Committee.
11. That the number of insured persons on the list of any practitioner on the panel should ordinarily be limited to 2,000, and should under no circumstances be allowed to exceed 2,500 without the ascertained concurrence of a majority of practitioners on the panel.

At meetings held previously to February 28th by the Provisional Medical Committee it was decided:

1. That distilled water be not used by the chemists unless specially ordered by the doctors, with the exception of lotions for the eye and mixtures containing bismuth, silver, and lead.
2. That practitioners be allowed to dispense medicines for patients who live more than a mile from the nearest chemist on the panel and receive the full capitation fee (9s.).
3. That a uniform charge of 1s. 6d. as a flat rate be made for emergency medicines, etc., and a charge of 6d. for first dressings be made (agreed to by the Commissioners).

BOLTON.

THE second meeting of the Bolton Local Medical Committee was held at the Bolton Infirmary on March 11th, 1913, when fifteen members were present.

The Committee adopted and forwarded resolutions to the Local Insurance Committee on the following matters:

Allocation of the Residue of Insured Persons.—The distribution of the residue of insured pessons is to be in accordance with their nearness to the doctors who are willing to take them, and if any question arises as to cases where persons are as near one doctor as another, they will be allocated to the man with fewest on his list, an exception to be made in the case of those persons who wish to contract out.

Contracting Out.—The Committee expressed the belief that the Insurance Act conferred on the assured the right to contract out, and that in so far as the Act conferred this privilege it should be accorded.

A Supply of Drugs in Rural Areas.—It was decided that a medical man practising in a rural area may accept a capitation fee of 9s. for every patient residing one mile from a chemist.

Expenses of Local Medical Committee.—A levy of 5s. a head per annum having been made for extraordinary expenses of the Bolton Division, it was decided to ask the Division at its next meeting whether this fund could be drawn upon to meet the expenses of the Local Medical Committee.

Certificates.—A communication to the effect that an insured person having received a certificate of unfitness for work from a practitioner not on the panel was informed by an agent of the Prudential Insurance Company that such certificate could not be accepted unless given by a panel doctor, and that in all cases the name of the complaint must be recorded, was forwarded to the Local Insurance Committee.

DEVONPORT.

A MEETING was held in Devonport on December 14th, 1912, upon a notice sent to each medical practitioner resident and practising in the town by the Honorary Secretary of the Plymouth Division of the British Medical Association.

It was resolved that the Local Medical Committee for Devonport should consist of all registered practitioners of medicine resident and practising in the County Borough of Devonport.

Office-bearers elected for one year from the date of this meeting were:

Chairman.—Dr. G. A. Rae, J.P., 1, Outram Terrace.
Honorary Secretary.—Dr. E. McCulloch, 4, Clarendon Terrace.
Honorary Treasurer.—Dr. G. Ll. Lander, 14, Mount Edgcumbe Terrace.
Representatives on Insurance Committee.—Drs. Lander and McCulloch were elected.

Dr. J. E. C. Wilson was recommended to the Insurance Commissioners as their medical nominee.

Medical Members of Medical Service Subcommittee.—The Chairman, Secretary, and Dr. J. E. C. Wilson.

Executive Subcommittee.—The Chairman, Secretary, Treasurer, and Drs. Bolus, Fleming, and Wilson.

Since its formation the Committee has held, in all, seven meetings. Amongst the more important of its resolutions have been the following:

That only two sessions a day (Sundays and general holidays excepted for any but urgent cases) be given for seeing insured patients at house or surgery.

This was agreed to by Insurance Committee.

That dental extractions and anaesthetics for dental purposes are outside work required to be done under the Act.

That all certificates demanded on first day of illness, being for the voluntary side of friendly societies, be charged for (1s.).

It has been decided to recommend that the panel fund be divided amongst the members of the panel in direct proportion to the number of acceptances they have registered at the end of the current quarter (for first quarter only).

Also that the unallotted residue of insured persons be allocated among such members of the panel as desire to have them and have less than 1,000 already on their list. Allotment to be in direct proportion to the numbers already accepted.

A resolution in favour of allowing any practitioner to come on the panel for a limited number of patients has also been passed.

The Committee has been recognized by the Commissioners for the period to the end of 1913.

COUNTY OF BUTE.

A meeting of this Committee was held in the Victoria Hospital, Rothesay, on March 10th.

County Insurance Committee.

Dr. Marshall (Rothesay) presided. Drs. Marshall and J. S. Hall (representing the Island of Arran) were unanimously elected to serve on the County Insurance Committee. It was agreed to recommend the Commissioners to appoint Dr. Lawson (Rothesay) as their medical representative on the Bute County Insurance Committee.

Holiday Makers and Convalescents.

Relating to the question of summer visitors on holiday, the Secretary read the following letter, dated December 26th, 1912, which he had received from the Commissioners:

Sir,

Medical benefit regulations make provision for an apportionment of capitation fee only in case of change of the usual permanent place of residence from one Insurance Committee area to another, and do not so provide in case of temporary absence from home. Insured persons on holiday in Buteshire will therefore require, in case of illness, to arrange privately with medical men there for attendance and treatment, or to return home to obtain medical benefit.

John Jeffrey,
Secretary.

It was resolved that before signing any new agreement with the Commissioners a satisfactory arrangement be come to concerning the treatment of holiday visitors, and also the question of mileage.

Sunday Attendances: Income Limit.

It was agreed to recommend to the County Insurance Committee that Sunday attendances should be put in the same category as night attendances in the model rules.

This has been agreed to by the County Insurance Committee, and the rules will be distributed to all insured persons. The £2 income limit was agreed to some time ago by the Insurance Committee for Bute.

REPORTS OF LOCAL ACTION.

LONDON.

The members of the Crystal Palace District Non-Panel Practitioners' Association still adhere to their decision not to join the panel nor to sign the agreement set out on Form 43/I.C., and desire to express the hope that practitioners on the panel will give the question of renewing their agreement with the Government very careful consideration, seeing that the question is of the utmost importance to the whole profession.

SCOTLAND.

Midlothian County Insurance Committee.

Dr. Inch, Gorebridge, and Dr. William Young, West Calder, have agreed to represent the county on the Midlothian County Insurance Committee.

Maternity Benefit.

At a meeting of the City of Edinburgh Insurance Committee held on March 13th, Councillor F. J. Robertson presiding, it was remitted to the Administration Sub-Committee to consider the whole question of maternity benefit in relation to the Royal Maternity Hospital and other institutions. We understand that the managers of the Royal Maternity Hospital, after conference with the Medical Board, are proposing that the hospital should receive fifteen shillings for every insured person delivered either in the hospital itself or in connexion with the out-patient department, and we understand further that several of the large friendly societies view the proposal favourably.

Leith Burgh Insurance Committee.

At a meeting of the Leith Burgh Insurance Committee on March 12th, Mr. D. W. Kemp presiding, it was announced that there were about 25,000 insured persons in Leith, of whom over 22,000 had made arrangements with doctors on the panel. There were, however, about 300 persons who wished to make their own arrangements for medical benefit. The reason of enormous clerical work was adduced for not allowing them to do so; but Baillie Lindsay moved approval of the subcommittee's recommendation that these persons be allowed to make their own arrangements till April 15th; Dr. Allan Gray seconded, and the recommendation was adopted. Of course the plan adopted is temporary, but it introduces elasticity in working, which is a matter of great moment.

IRELAND.

Maternity Benefit.

A Dangerous Proposal.

At the last Committee meeting of the Nurses' Insurance Society of Ireland the following resolutions were carried unanimously:

1. That, in the opinion of the Nurses' Insurance Society of Ireland, now numbering over 600, the present proposal to pay a fee of 5s. to a Poor Law maternity nurse, provided she conducts a case without the attendance of a doctor, is open to grave abuse. Thus, it is proposed to pay the nurse in a simple confinement case which can be conducted safely by herself, but she must forfeit her fee in a difficult and anxious case which requires the presence of a medical man, and where delay in doing so may endanger the life of the patient.
2. That the maternity nursing service should be constituted a State service, that nurses so employed should be paid a proper living wage. The service should be periodically inspected, and employment in it should terminate with the marriage of the nurse.

Medical Certificates under the Insurance Act.

A member of the Conjoint Committee of the British Medical Association and Irish Medical Association informs us that the statement in the concluding sentence of the paragraph under this head (Supplement, March 15th, p. 256) to the effect that the Conjoint Committee finally agreed to accept one of the schemes of capitation payment for certificates recommended by the Insurance Commissioners is incorrect. He states that the Committee merely approved of the "*principle*" of a certain ratio of division as suggested by the Irish Commissioners, but as the amount of money available was not sufficient to meet the demands laid down at the different delegate meetings the Conjoint Committee declined to accept the terms offered, and unanimously passed the following resolution:

That while in sympathy with the efforts of the Irish Insurance Commissioners to settle the question of medical certification, we regard the amount of money available for this purpose as insufficient, and we express the opinion that it will be necessary for the societies or Treasury to supplement the arrangement proposed by the Commissioners before the present difficulties of medical certification are removed.

DUPLICATION OF CERTIFICATES.

THE State Sickness Insurance Committee on March 8th addressed to the National Health Insurance Joint Committee a letter, stating that irritation is being caused to practitioners serving on the panel in various parts of the country by the duplication, by the approved societies, of forms of medical certificates. The correspondence received from all over the country showed that this duplication was not only an inconvenience to the members of the profession, but that they could see no good reason for its perpetuation. The Committee in its letter expressed the hope that the Commissioners would be able to induce the approved societies to arrive at some common form of certificate. A reply, dated March 11th, has been received stating that the National Insurance Commission (England) had discussed the matter with the representatives of some of the leading approved societies, and that it was hoped that a solution of the difficulty, which the Commissioners appreciate, would shortly be found.

INSURANCE ACT IN PARLIAMENT.

AMENDING BILL.

MR. MASTERMAN informed Mr. Locker-Lampson on March 17th that, as the Prime Minister had already stated, a bill was now being prepared and would be introduced this year in order to bring within insurance legislation the grants-in-aid voted by Parliament. Other minor changes or additions might be proposed, but he was unable at present to say whether any such proposals would involve an increase in expenditure.

ADMINISTRATION OF MEDICAL BENEFIT.

Itinerant Workers.

Mr. Ingleby asked, on March 12th, what provision, if any, the National Insurance Commissioners had made to enable the 20,000 to 30,000 persons employed by the showmen of Great Britain to obtain medical benefit.—Mr. Masterman said that the Commissioners had recently issued a memorandum pointing out that where insured persons belonged to a profession which was constantly moving about from one place to another, and staying in each of them for a very short time, they would appear to be among those to whom Section 15 (3) contemplated that permission might be given to make their own arrangements for medical attendance and treatment, and to receive a contribution towards the cost of the same.

In reply to subsequent questions by Mr. Ingleby, Mr. Masterman said that he thought that the arrangement suggested was the only practical way in which medical attendance could be given to the persons referred to. They would receive money towards any medical attendance they received. It was contemplated that the money would be paid towards medical benefit from the amount available from the funds provided by those who made special arrangements.

Proposed Extension to Ireland.

Mr. Masterman informed Mr. William O'Brien on March 17th that the evidence taken by the Committee in reference to the extension of medical benefit to Ireland would be presented to Parliament in due course.

The Limitation of Medical Treatment.

Mr. Touche asked, on March 13th, by what authority the Insurance Commissioners made regulations restricting medical benefit to treatment of a kind which could be undertaken by a practitioner of ordinary professional competence and skill.—Mr. Masterman said that the Act under Section 15 conferred upon an insured person the right to choose from a panel, which any general practitioner might join, the particular practitioner from whom he desired to receive medical attendance and treatment. The Commissioners had framed regulations to carry this out by providing that every doctor on the panel shall give to the insured person for whose treatment he is responsible such treatment as is of a kind which can, consistently with the best interests of the patient, be properly undertaken by a general practitioner of ordinary professional competence and skill.

Mr. Cassel: Is it not the case that Section 8 of the Act is perfectly general in its terms, and entitles the insured person to medical treatment and attendance, whatever his illness may be, even in cases which require special treatment?—Mr. Masterman: I think that is a question rather of legal interpretation. I think there is no doubt that the Act clearly sets out in Section 15 that the insured person shall choose his own practitioner to attend upon him, and that practitioner shall give the best attendance he can give.

Supply of Medicines.

Mr. Hicks Beach asked the Secretary to the Treasury, on March 17th, why insured persons who made their own arrangements for treatment by doctors off the panel were not allowed to receive medicine free from chemists on the panel in the same way as other insured persons who were treated by doctors on the panel.—Mr. Masterman said that Section 15 (3) contemplated that when insured persons were allowed to make their own arrangements for medical attendance and treatment they should also make their own arrangements for the supply of medicines and appliances. It would obviously be unfair to require chemists on the panel whose remuneration was based on a capitation system, and accordingly limited to the sums available, to supply medicines to an unlimited extent on the prescriptions of doctors who had not, like those on the panel, a collective responsibility with regard to the arrangements made for medical benefit in the area. Mr. Hicks Beach inquired whether it was not a fact that all insured persons paid through the contributions, of themselves, their employers, and the State, for benefits which included doctors and medicine; and if so, was it not very unfair that a person who paid in addition out of his private sources for the services of a doctor off the panel should lose the benefit of free medicine to which he was otherwise entitled. Mr. Masterman replied that they received a full equivalent for what they would obtain if they were attended by a doctor on the panel for drugs as well as for doctors.

Holiday Makers.

Several questions with regard to the case of holiday makers have been addressed to Mr. Masterman, who has not given any very definite reply. He has said that the question is difficult, has expressed his readiness to receive any suggestion towards its solution, and has admitted that the present regulations, requiring any insured person who moved from the area of one Insurance Committee to that of another to give notice, did not provide for a satisfactory working as a permanent system.

SANATORIUM BENEFIT.

Tuberculin.

In reply to Mr. Chancellor, who, on March 12th, asked a question as to tuberculin, Mr. Masterman said that no regulations had been published on the subject, but it was provided in Section 14 (2) (*e*) of the Act that no rule made by an Insurance Committee with regard to the administration of sanatorium benefit should prescribe any penalty, nor should any insured person be subject to any penalty, whether by suspension of benefit or otherwise, on account of the refusal by any such person to submit to inoculation of any kind.

Deposit Contributors.

Mr. Hicks Beach asked the Secretary to the Treasury, on March 17th, whether a deposit contributor who had received treatment in a sanatorium, and was discharged from there owing to his or her condition being unsuitable for further treatment in the sanatorium, was entitled to receive any other kind of medical relief in his or her home.—Mr. Masterman replied that a deposit contributor discharged from a sanatorium in the circumstances mentioned would be eligible for sanatorium benefit at home,

including medical treatment and the supply of medicines and other articles ancillary to such treatment. He would also draw sickness benefit from the money standing to his account.

Aged Members.

Mr. Touche asked the Secretary to the Treasury if he would recommend the Insurance Commissioners to make the provision for aged members compulsory on all friendly societies, and the cost a first charge on the released reserves.—Mr. Masterman replied that the Commissioners had no power to prescribe the application of any part of any reserve funds of a registered friendly society which might be released by the operation of Section 72 of the National Insurance Act.

Mr. Touche asked the Secretary to the Treasury if he was aware that many friendly societies which had become approved societies were receiving applications from aged members for medical benefit under the provisions of Clause 15 (2) (*c*) of the National Insurance Act, and complained that effective provision had not been made by the Insurance Committees to meet such cases.—Mr. Masterman said that every Insurance Committee had adopted arrangements whereby doctors on the panel were bound to give medical attendance and treatment to the persons referred to on the same terms as to remuneration as those arranged with respect to insured persons, if their society so desired.

Mr. Butcher asked whether, in the case of a person insured under the National Insurance Act, who, upon or after attaining the age of 65 years, retired from his employment on pension or otherwise, and ceased to pay further contributions under the Act, such persons would be entitled to sick or disablement benefits under the Act, and, if so, to what amount.—Mr. Masterman replied that on permanently ceasing to be employed the person in question would cease to be insured, and would not be entitled to the benefits referred to.

Maternity Benefit.

On March 13th Mr. MacCallum Scott asked whether a married woman, who is herself an insured person and who has duly paid all contributions, is entitled to maternity benefit if her husband is not insured, but is deprived of maternity benefit if her husband is insured but has not paid twenty-six contributions; whether in the absence of any definition of an insured person, doubt has arisen as to whether a man who had not paid twenty-six contributions was an assured person for the purposes of Section 18 of the National Insurance Act; and whether any steps would be taken to secure a decision on this point.—Mr. Masterman said: Under Section 18 of the National Insurance Act the maternity benefit payable in respect of the confinement of an insured married woman whose husband is not insured is paid from the funds of her own society, and is conditional upon the required number of her own contributions having been duly paid before the birth of the child; if the husband is insured it is paid out of the funds of his society, and is conditional upon the required number of his contributions having been paid. In the latter case no maternity benefit would be payable if less than twenty-six contributions had been paid by or in respect of the husband. If his contributions had been paid, maternity benefit would be payable however much the wife's contributions might be in arrear. In the case put in the question maternity benefit would not be payable, but the wife would be entitled to 7s. 6d. a week sickness benefit. I am advised that the provisions of Section 18 of the National Insurance Act on the point are not open to doubt, and that the meaning of the words "insured person" cannot be restricted in the manner suggested in the second part of the question.

Mr. MacCallum Scott: Does the right hon. gentleman recognize that there is a serious anomaly here?—Mr. Masterman: There is liberality shown to the wife of a person who is uninsured, I agree.

Mr. MacCallum Scott: Does the right hon. gentleman recognize that a woman who is married to a man who is not insured is entitled to double benefit in every case, whereas the woman married to a man who is insured may be deprived of maternity benefit?—Mr. Masterman: Of her husband's maternity benefit.

CORRESPONDENCE.

Other Experiences of the Panel.

Dr. A. W. Harrison (Merton) writes: It seems strange that Dr. Rosa Ford does not appreciate the fundamental error in her figures. Surely it should be obvious that during the first three months a doctor's list of accepted patients, in any given community, will contain the names of *all* those who are ill, but *not all* those who will be paid for; the average number on one's list has really nothing to do with it. Until the final distribution any calculations as to the remuneration per attendance must be fallacious, since a very large number of insured persons have not been accepted. At the end of February, for the London district, only 800,000 had been accepted out of an estimated insured population of nearly a million and a half.

Dr. G. A. Wyon (Bow) writes: Dr. Rosa Ford says that I have supposed the number of insured on my books at the end of the forty-five days to have been there the whole time. I used that figure as a basis for calculation: but as a matter of fact I hold the true figure will be that which I will have at the end of the quarter. That is the figure which will be used to calculate remuneration from, and I can hardly think Dr. Ford's friend will be prepared to be paid only proportionately to the time an insured person has been on his books—he will want payment as from January 15th for each and all.

Dr. Ford's attempted proof of her point is, of course, a *petitio principii*. She says in effect: Let us *say* I see 2 per cent. of those accepted in the first week and 2 per cent. ditto in the second week, then the average percentage is 2 per cent." Of course; but what is wanted is *fact*, and I have since worked out from my daybook my actual figures of work done in the first six weeks. The attendances were 122 for the first week and 155 for the second, 67 (a rate of 154 per week) for January 29th to 31st, and 157, 156, 144, 174 for the four weeks of February. My acceptances at the ends of the corresponding periods were 705, 1,097, 1,189, 1,255, 1.298, 1,331, 1,375. The curve of acceptance is very steep for the first ten days, and after that very gradual. The curve of attendances ought, on Dr. Ford's theory, to be parallel to the former, and its ordinates to be about 2 per cent. of the ordinates of the former curve. As a matter of fact it is *roughly level*, and its ordinates vary from 25 per cent. on the first day to 1.7 per cent. on the seventeenth day. I can give more detailed figures if desired, but I think those above are enough to absolutely dispose of Dr. Ford's theory.

Systems of Payment.

Dr. Lionel Jas. Picton (Holmes Chapel, Cheshire) writes: In your issue of March 8th the three systems of payment for medical work are curiously contrasted. In your editorial you quote Mr. Sidney Webb in his advocacy of a salaried service; Dr. Ledward in his letter in the Supplement urges the claims of payment for work done; whilst you, Sir, appear in the unexpected rôle of an advocate of contract practice.

Certainly Dr. Ledward appears to have the most statesmanlike grounds for the faith that is in him. You utter a warning against prophecy without knowledge. He, writing in the light of Gibbon's study of the German experience, points to the valetudinarianism which, more serious, more extensive, and more insidious than gross malingering, has arisen to detract from the value of the German insurance law.

What is the remedy? Gibbon points to it at once—namely, that the patient should bear some part of the cost of attendance.

That this is impossible under the present Act is beside the mark. The Irish are already asking that the medical benefit shall be extended to them only on the condition that their dependants shall be included. In arranging for the further payments which that inclusion would require—whether here or in Ireland—the responsibility of the patient to bear a moiety could be inserted as one of the features of the arrangement.

The Stockport, Macclesfield, and East Cheshire Division have shown how such a method can be adapted as a voluntary system under the existing Act.

As a correction of valetudinarianism, however, no contracting out system would fulfil the requirements.

An amending Act would be essential.

THE PRESENT SITUATION AND FUTURE POLICY.

Dr. ARTHUR KING (Bow, Devon) writes: Out of some remarks of mine in a letter in the SUPPLEMENT of February 22nd there has arisen, it seems, a little annoyance and also some controversy in respect of the meaning of terms. For the first part I am sorry; but probably those who indulged this feeling have by this time discovered their error and the way they fell into it.

May I now, by your courtesy, try to explain what I conceive to be the essential differences between a trade and profession, and especially in regard to ours?

The cleavage lies not along the lines of money, quantity, social formularies, or even education, but in something far deeper—in ideals.

Of course both trades and professions have aims and exoteric laws which are common property. Both barter their wares for a livelihood and must be honest in their dealings. But the esoteric code is the distinguishing feature of the professional calling, in which, I take it, the interest of the client or patient must be the paramount consideration when giving advice or rendering a service from a highly trained and specialized knowledge or experience, although this may conflict with the material interests of the professional man. In other words, he might derive bigger fees from other advice. In the case of a man engaged in trade he is ethically under no such obligation, and, in fact, the best business man is he who sells the greatest amount of goods at the largest profit.

The Hippocratic oath has, I believe, no equivalent in trade circles, and, though the various guilds exercise a control over commercial morality, there is no real lofty human sentiment as the first principle of their organization. Dr. George Surbled, in his *Medical Etiquette* (London: Sherratt and Hughes), epitomizes the oath thus: "The doctor must be learned, skilful in his art, and honest in every action of life." Contract practice as we know it kills the very soul of medicine. This is the chief basis of my objections from the professional standpoint.

FRIENDLY SOCIETIES AND THEIR AGED AND INFIRM MEMBERS.

Dr. J. PIRIE (Leamington Spa) writes: For insured persons over 65 at the commencement of the Act, the same contributions are paid by the employees until they reach the age of 70, and in addition a special parliamentary grant is made of 2d. a week. In the case of all other insured persons, the State 2d. goes to swell the fund out of which benefits are to be paid; but not so where these veterans of labour are concerned. In their hard case it is credited to their approved society, and the only benefits they are entitled to are just such as their approved society decides they are to have. In the majority of cases the societies have decided that they are to receive no medical benefit. In effect the approved societies have apparently captured the State 2d. for their other members although it was paid into them in respect of those over 65. And once again the cry is going out over the land, "We appeal to the charity of your noble profession not to be hard on these poor old people."

HOLIDAY MAKERS AND CONVALESCENTS.

Dr. J. W. PRIDMORE (Honorary Secretary, Isle of Wight Local Medical Committee) writes: As one of the deputation present at the recent meeting with the Commissioners held to discuss the provision of medical attendance upon insured persons temporarily absent from home upon holidays or for other reasons, I cannot endorse the statement that "the net result of the conference would seem to be that the matter, so far as health and holiday resorts on the one hand and industrial centres on the other are concerned, could only be settled by a financial adjustment between the two groups" of practitioners concerned. To my mind the net result was that the medical members present largely upheld the view that it was the Government alone who should bear the onus of the situation, as it was solely due to their action that difficulty had arisen. Had they consulted the profession in the first instance they would never have been led to promise benefits which they find it so difficult to provide. I fail to see why the representatives of the British Medical Association present should have ignored this most manifest temper of the medical deputation in their report or summary in the JOURNAL of March 8th.

I should like to repeat my suggestion made at this meeting that the sum of one penny per month for every insured person should be subscribed by those of them who desire to "pay in" for medical benefit while holiday-making. In this way a very large sum would be raised from which to settle any possible doctor's bill according to a stipulated tariff. Of course I know that such a scheme may not be possible under the existing Act, but it might be kept in view in order that it may be inserted in an amending Act which is certain to come before long.

The tacit lying-down policy of the British Medical Association, as shown in their comments on the meeting, is not likely to improve their position in the eyes of the rank and file of the profession.

*** Our correspondent, by omitting the first words of the sentence he quotes, has, we think, formed a wrong impression, which is reflected in his letter. These words were, "The Commissioners undertook to consider the views expressed, but the net result of the conference," etc. Various aspects of the matter have been discussed again and again in the JOURNAL, and it will receive further attention from the Association. The paragraph was not a report by the representatives of the British Medical Association, and did not contain, and was not meant to contain, any comment. After Mr. Schuster's speech, it was clear that the conference could have no other result than that indicated, since Mr. Schuster, speaking for the Commissioners, made it plain that there was no other source than the Local Insurance Fund in the localities concerned. We may refer our correspondent to the report of the meeting of the State Sickness Insurance Committee held on March 13th, published in the SUPPLEMENT for this week, p. 275.

Hospitals and Asylums.

BUCKS COUNTY LUNATIC ASYLUM.

THE annual report for the year 1911 of Dr. H. Kerr, Medical Superintendent, shows that on January 1st, 1911, there were 676 patients on the asylum registers, and 699, the highest number yet recorded, on the last day of the year. The total cases under care during the year numbered 874 and the average number daily resident 697. The increase of Buckinghamshire cases, Dr. Kerr says, during the past two years has been much above the average, and the proportion of the insane to general population has also increased. This ratio in 1911 was 3.3 per 1,000 as compared with 2.7 per 1,000 in 1891. This increase Dr. Kerr attributes in part to the larger number of congenital and senile cases, formerly taken to the workhouse, now admitted to the asylum under certificates, and also to an increasing accumulation of chronic cases in the asylum.

During the year 198 were admitted, of whom 183 were direct and 15 indirect admissions. Of the direct admissions, in 62 the attacks were first attacks within three, and in 28 more within twelve months of admission; in 43 not-first attacks within twelve months, and in the remainder, including 22 congenital cases, the attacks were of more than twelve months' duration on admission. The direct admissions were classified, according to the forms of mental disorder, into: Recent mania 36, recurrent 28; recent melancholia 21, chronic and recurrent 17; senile dementia, 22; general paralysis, 12; delusional insanity, 10; insanity with gross brain lesions, 7; insanity with epilepsy, 3; primary dementia, 3; not insane, 1; and congenital defect, 22. The large number of cases of mental disease of unfavourable prognosis is notable. As to probable causation, alcohol was assigned in 15, syphilis in 11, and influenza in 4; diseases of the nervous system in 14; other bodily diseases in 4; child-bearing in 2; critical periods in 30; bodily trauma in 2; and mental distress in 16. An insane heredity was ascertained in 56 and of other neuropathies in 5, whilst congenital defect not amounting to imbecility existed in 4. During the year 69 were discharged as recovered, giving a recovery-rate on the direct admissions of 37.7 per cent., or of recoveries in and on the direct admissions of 12.3 per cent.; also 12 were discharged as relieved and 17 as not improved.

During the year 77 died, giving a death-rate on the average number resident of 11.1 per cent. The deaths were due in 35 to diseases of the nervous system, including 9 from general paralysis; in 12 to diseases of the heart and blood vessels; in 3 to respiratory diseases; in 1 to pyonephrosis; in 1 to fracture of skull (sustained before admission), and in the remainder to general diseases, including 4 from senile decay, and 12 from tuberculous diseases.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

On Thursday, March 13th, a meeting of the State Sickness Insurance Committee appointed by the Special Representative Meeting in November, 1912, was held at the house of the Association, 429, Strand, W.C. Mr. T. Jenner Verrall (Chairman of Representative Meetings) was in the chair, and the other members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. E. R. Fothergill (Brighton), Mr. Herbert Jones (Hereford), Dr. Constance E. Long (London), Dr. E. O. Price (Bangor), Mr. E. B. Turner (London). *Scotland:* Dr. R. McKenzie Johnston. *Ex officio:* Dr. Edwin Rayner (Treasurer).

Apologies for Absence.

Apologies for absence were read from the Chairman (Dr. Macdonald), the President (Sir James Barr), Dr. J. Adams (Glasgow), Dr. T. B. Costello (Tuam), Mr. D. F. Todd (Sunderland), and Dr. D. G. Thomson (Norwich).

Expenses of Legal Action.

The Committee continued from previous meetings the consideration of an application from a Division asking that certain legal expenses incurred by it should be defrayed out of the Central Insurance Defence Fund. Having fully considered the facts and the explanations given, the Committee resolved to sanction the payment in this case, but to notify that the Committee did not approve of legal expenses, which it was intended to charge to the Association or any fund administered by it, being incurred without the previous consent of the central organization.

Persons Making their own Arrangements.

The position with regard to the permission under the Insurance Act authorizing the Insurance Committees to allow persons to make their own arrangements for medical attendance and treatment was considered in connexion with an application from a member for advice. The Committee expressed the opinion that, in view of the uncertainty of the legal position and of the stringent regulations issued by the Commissioners with regard to contracting out, it could not take the responsibility of recommending the practitioner to remain off the panel.

Position in the Eastern Valleys of Monmouthshire.

The Medical Secretary reported that, in accordance with the instructions of the Committee, he had visited South Wales and had attended a meeting of the profession at Pontypool, and that he found the present state of affairs to be as follows:

That the miners had in the past paid their medical attendants a poundage of 3d. for attendance upon themselves and their families; that it had been agreed between the profession and the workmen that under the new conditions, in addition to the allowance for medical benefit under the Act, the latter should pay a twopenny poundage in respect of their families; that some of the men had considered the present a good opportunity for endeavouring to get control of the profession, and had insisted on the poundage being paid through a Workmen's Committee, but that the practitioners would not agree to that arrangement; that the workmen had also demanded the inclusion of "free midwifery" for the poundage instead of attendance on "emergency midwifery" as before, which demand the profession refused; that they were now attempting to set up a scheme for the whole district employing six whole-time medical officers of the fund, but so far had only obtained one; that the meeting had asked for an assurance of the financial support of the Committee if it were found to be necessary.

The Medical Secretary stated that he had expressed the opinion that the Committee would give such an undertaking.

The Committee instructed the Medical Secretary to assure the practitioners in the Eastern Valleys of its sympathy with them in their fight, and to inform them that, so far as the funds placed at its disposal would allow, it would be prepared to consider claims rendered necessary by their fight.

Position in Forest of Dean.

The Medical Secretary further reported that he had attended a meeting of the profession in the Forest of Dean and found the following to be the state of affairs in that district:

That in the past the colliery and works surgeons had been obviously underpaid, having only received on an average 13s. for workers and families as against, in other parts of the country for a similar class of practice, 19s.; that upon the passing of the Act the profession had decided to endeavour to raise the general fees, and had after considerable discussion demanded the same general rate as before, *plus* the insurance payment which the workmen had declined to give; that the workmen were now endeavouring to form a medical aid association for the dependants, employing medical officers on the panel, and that they had already obtained one medical officer and threatened to introduce more; that the profession was absolutely united in its demands; and that the meeting had asked for a similar indication of the effective support of the Association as had been requested at Pontypool, to which he had given a similar answer.

The Committee gave instructions that a similar answer should be sent to the Forest of Dean practitioners as had been given to the profession in the Eastern Valleys.

Treatment of Insured Persons over 65 Years of Age.

A letter forwarded to the Commissioners, Mr. Masterman, and certain representatives of friendly societies, in accordance with the instructions of the Committee (see Supplement, March 1st, page 222), was submitted, and Mr. Turner stated that at a meeting of the London Insurance Committee (of which he was a member) held on March 5th a discussion had taken place concerning this question, during the course of which Mr. Moffrey and another representative of the friendly societies had stated that so long as their societies had the money the same fees would be paid for members over 65 as for insured persons in accordance with the arrangements entered into at the conference with representatives of the British Medical Association.

Future Action.

A report by the Medical Secretary on the replies received from practitioners in answer to questions issued to them and to the Divisional Secretaries with regard to their experiences of the working of the Insurance Act, together with a note of the chief objections to panel service, with suggestions for alterations based upon these replies, were referred to a subcommittee consisting of the Chairman, Mr. E. B. Turner, Dr. Beaton, Dr. McKenzie Johnston, Dr. E. R. Fothergill, Mr. C. E. S. Flemming, Mr. E. H. Willock, Dr. W. Courtenay Milward, and Dr. H. H. Tomkins, for report.

Proposed Sickness, Accident, and Pension Fund.

The report of the subcommittee on a proposed sickness, accident, and pension fund was further considered, together with reports by the Financial Secretary and Business Manager, Dr. Beaton and Mr. Herbert Jones, on inquiries made since the last meeting of the Committee. A special subcommittee, consisting of the Chairman, Dr. Beaton, Dr. Biggs, Dr. Fothergill, Mr. Herbert Jones, Mr. D. F. Todd, and Dr. McKenzie Johnston, was appointed to make a further report on the subject.

Relation of Division to Insurance Areas.

The subcommittee had recommended that the Divisions should be immediately consulted as to the desirability of their boundaries being made coterminous with those of the Insurance and District Committee areas, and the State Sickness Insurance Committee expressed the opinion that, other things being equal, it would be a distinct advantage if the areas of the Divisions were made coterminous with insurance areas. The Committee further resolved to ask the opinion of the Organization Committee.

The Committee further adopted certain recommendations to the Council bearing on the subject of the co-operation between the Divisions and the corresponding Local Medical Committees.

IMPROVEMENT TO BE OBTAINED BY AGREEMENT BETWEEN LOCAL MEDICAL COMMITTEES.

After considering another recommendation of the sub-committee the Committee resolved as follows:—

That it be recommended to the Council:

(*a*) That efforts be made by Local Medical Committees in every area to obtain the adoption by the Insurance Committees (in exercise of the power conferred upon them by Medical Regulation 52 (1)) of a Standing Order to the effect that *all* matters connected with the administration of medical benefit be referred, in the first place, to the Medical Service Subcommittee.

(*b*) That Insurance Committees be urged to provide by Standing Order that all matters which are considered in private by the Medical Service Subcommittee should, on report to the Insurance Committee, be considered in private by that Committee.

(*c*) That all matters concerning the question of the right of insured persons being "allowed to make their own arrangements" should, by resolution or Standing Order of Insurance Committees, stand referred, in the first instance, to the Medical Service Subcommittee.

(*d*) That the form of contract between medical practitioners and Insurance Committees should be referred to the Local Medical Committee for consideration before being sent for signature to the practitioners concerned, and should be returned to the Local Medical Committee after signature.

(*e*) That no agreement between practitioners and Insurance Committees should be entered into for more than one year.

(*f*) That in the event of the appointment of consulting medical officers they should be whole-time officers, and opportunity should be given to the Local Medical Committees to make nominations for such appointments.

SEAMEN'S NATIONAL INSURANCE SOCIETY.

The Provisional Regulations issued by the Insurance Commissioners modifying, as regards members of the Seamen's National Insurance Society, the provisions of the Act so far as concerned the administration of medical and sanatorium benefit, and the Provisional Regulations for the administration of such benefits with a memorandum by the Medical Secretary thereon, were considered. The Committee resolved to consider the matter further, but in the meanwhile adopted the following resolution:

That a communication be addressed to the Honorary Secretaries of Divisions and Branches connected with seaports, drawing attention to the successful action taken by the Southampton profession in respect of the right of "free choice of doctor," and asking them to urge the local profession to take similar action in connexion with the acceptance of service under the Seamen's Insurance Society.

HOLIDAY MAKERS AND CONVALESCENTS.

It was reported that, in response to an invitation, Dr. Fothergill and the Deputy Medical Secretary, at the request of the Chairman of the Committee, had attended the conference on March 5th between representatives of various Local Medical Committees and the Insurance Commissioners for the purpose of discussing the question of payment of practitioners for attendance upon persons temporarily absent from their homes. Dr. Fothergill reported that about thirty representatives of the profession from both inland and seaside health resorts, and from towns from which numbers of insured persons periodically went for a holiday, had been present at the conference with the Commissioners. He stated that the medical practitioners present were unanimous that payment for attendance on this class of insured persons must be upon a payment per attendance scheme; that suggestions were made for the formation of a fund for the payment of bills incurred in treating such persons by means of a payment from every insured person, and also by means of a deduction from the payments due to each doctor on the panel; that he himself had suggested that any fund formed should not be liable in respect of the treatment of persons away from their own homes for a period of less than one week; that every insured person should insure by paying an annual sum of 1d.; that the fund thus formed should be divided upon a payment per attendance system among the doctors actually treating people; that the Commissioners' representatives had listened to all the suggestions made, had stated that these would be carefully considered, and had thanked the representatives for their attendance.

PUBLIC MEDICAL SERVICE SCHEMES.

It was reported that the Chairman had, on behalf of the Committee, approved schemes for the treatment of uninsured persons at the following places: Harrow, Oxford, North Manchester.

A scheme for the treatment of uninsured persons submitted by the Torquay Division was approved. Certain other schemes submitted by Provisional Committees and similar bodies were approved subject to sanction by the Divisions concerned.

CERTIFICATES FROM PANEL DOCTORS.

A letter was read from the Chairman (Dr. Macdonald), who was unavoidably absent, drawing attention to a communication from the Commissioners published in the lay press, to the effect that a panel practitioner by the terms of his agreement must furnish such certificates "as are required to be furnished by that person in connexion with any claim for sickness or disablement benefit under the National Insurance Act made by him in pursuance of the rules of the society of which he is a member, or of the Insurance Committee, as the case may be. This includes not merely certificates 'on' and 'off' benefit, but also such other certificates during the intervening period as may be required under the rules of the society or the committee."

The Commitee resolved:

That, in the opinion of the Committee, notwithstanding any statement to the contrary, panel doctors are not required to give certificates during the course of an illness for any other purposes except those in connexion with a claim for sickness or disablement benefit under the Insurance Act.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

BIRMINGHAM BRANCH:

COVENTRY DIVISION.

A MEETING of the Coventry Division was held on March 4th, Dr. HAWLEY being in the chair.

Ethical Rules.—After certain ethical matters had been discussed, it was resolved to take the necessary steps to adopt the new ethical rules.

Paper.—Dr. W. H. WYNNE read a paper on tuberculin in the treatment of pulmonary tuberculosis. Many questions were afterwards asked, all the speakers joining in expressing their appreciation of Dr. Wynne's kindness in giving such a clear account of a subject still controversial.

BOMBAY BRANCH.

THE ordinary meeting of the Bombay Branch was held in the University Library on February 20th, when Dr. SORAB NARIMAN occupied the chair, and twenty other members were present.

Elections and Appointments.—It was announced that seven new members had been elected by the Council of the Branch. Lieutenant-Colonel C. H. L. Meyer, I.M.S., was nominated a member of the Central Council for the grouped Indian, Assam, Burma, and Ceylon Branches, and was also appointed a substitute representative in place of Major S. C. Evans, I.M.S., till the next annual meeting.

Pathological Specimens.—Major E. F. GORDON TUCKER, I.M.S., showed the following pathological specimens: (1) Ossifying chondroma of the thyroid gland; (2) horns from a warty growth on the breast of a male; (3) aneurysm in the heart of a European who died in sleep; (4) an unusually large stone removed from the human bladder in 1832 after breaking with a cephalotribe; (5) aneurysm of the transverse aortic arch which had undergone spontaneous cure; (6) aneurysms of the right innominate and left common carotid in one patient. Major S. C. EVANS, I.M.S., showed: (1) A ureteral stone he had removed successfully after abdominal section in a girl who was operated on for a supposed haematoma; (2) sarcoma of the ovary. Lieutenant-Colonel ASHTON STREET sent a fatty tumour weighing 36 lb. which he had removed from the back of a Hindu female aged 42.

CAMBRIDGE AND HUNTINGDON BRANCH:
ISLE OF ELY DIVISION.

A MEETING of the above Division was held at March on March 11th, when there were present Dr. H. C. MEACOCK (Chairman), Drs. Tylor, Nix, Horrocks, Martin, Hendley, Harding, Stephens, Curl, Beckett, Burgess, Fegan, and Waters.

It was unanimously resolved:

That this Division is of opinion that a medical union should be started throughout the country on the lines of a trades union, and registered as such; that this union should not interfere with the British Medical Association, which should continue to discharge the duties connected with the scientic and social life of the profession.

That this Division looks to the British Medical Association to take the initiative in establishing this union.

It was resolved to write to neighbouring Divisions asking particulars of their arrangements with uninsured persons, and stating those adopted in this Division.

It was resolved that a letter be sent to the Honorary Secretary of the West Norfolk Division with regard to the inclusion of Upwell and Outwell within the area of this Division.

CORRECTION.—In the report of the meeting of the Boston and Spalding Division published on March 1st, p. 223, the word "over" in the paragraph headed "Uninsured Men" should have been "under."

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1913.

DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1913, will be held at Brighton on Friday, July 18th, and following days, as may be required.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting at Brighton in July next, relating to questions affecting the honour and interests of the medical profession or of the Association (By-law 37), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 19th, and for this purpose should be received by me not later than April 12th, 1913. Notices of Motion proposing to make any addition to, or any amendment, alteration or repeal of any Regulation or By-law, or to make any new Regulation or By-law (Article 31), must be published in the JOURNAL not later than the issue of May 17th, and received by me not later than May 10th, 1913.

By Order,
ALFRED COX,
Medical Secretary.

February 4th, 1913.

QUARTERLY MEETING OF COUNCIL.

THE Quarterly Meeting of the Council will be held at Two o'clock in the afternoon of Wednesday, April 23rd, in the Council Room at 429, Strand, London, W.C.

By Order,
GUY ELLISTON,
Financial Secretary and Business Manager.

March 13th, 1913.

BRANCH AND DIVISION MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: CAMBERWELL DIVISION.—A special meeting will be held at Southwark Infirmary, East Dulwich Grove (Station, East Dulwich Elevated Electric), on Thursday, March 27th, at 4 p.m. Agenda: Alteration of the rules of the Division as suggested by the Central Organization Committee and recommended by the Executive Committee of the Division. An ordinary meeting will be held at the conclusion of the special meeting, when Dr. Hector Cameron will read a paper on "The Uses and Abuses of Patent Foods in Infancy."—J. H. CLATWORTHY, 145, Denmark Hill, S.E.

NORTH OF ENGLAND BRANCH: NEWCASTLE-ON-TYNE DIVISION.—It has been found necessary again to alter the date of the demonstration arranged by the Newcastle-on-Tyne Division to March 28th, when Professor R. A. Bolam will lecture on Medico-legal Tests for Blood.—R. J. WILLAN, Honorary Secretary, 25, Ellison Place, Newcastle-on-Tyne.

Vital Statistics.

HEALTH OF SCOTTISH TOWNS.

IN the sixteen largest Scottish towns 1,108 births and 862 deaths were registered during the week ending Saturday, March 8th. The annual rate of mortality in these towns, which had been 20.4, 18.7, and 20.7 per 1,000 in the three preceding weeks, fell to 19.9 in the week under notice, but was 2.5 per 1,000 above the rate recorded in the ninety-six large English towns. Among the several Scottish towns the death-rates ranged from 11.7 in Falkirk and 14.0 in Paisley and in Motherwell to 20.9 in Kirkcaldy, 21.8 in Glasgow and in Aberdeen, and 22.1 in Leith and in Greenock. The mortality from the principal infective diseases averaged 2.0 per 1,000, and was highest in Clydebank and Motherwell. The 427 deaths from all causes registered in Glasgow included 30 from whooping-cough, 8 from infantile diarrhoeal diseases, 7 from diphtheria, 3 from measles, 1 from enteric fever, and 1 from scarlet fever. Six deaths from whooping-cough and 3 from infantile diarrhoeal diseases were recorded in Edinburgh; 3 from diphtheria and 2 from whooping-cough in Aberdeen; and 3 from whooping-cough in Motherwell, 2 in Leith, and 2 in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 8th, 574 births and 533 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 693 births and 532 deaths in the preceding period. These deaths represent a mortality of 23.2 per 1,000 of the aggregate population in the districts in question, as against 23.1 per 1,000 in the previous period. The mortality is these Irish areas was, therefore, 4.8 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date The birth-rate, on the other hand, was equal to 25.0 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 23.0, as against an average of 24.2 for the previous four weeks, in Dublin city 24.5 (as against 24.9), in Belfast 23.3 (as against 23.0), in Cork 24.5 (as against 26.5), in Londonderry 14.0 (as against 15.6), in Limerick 19.0 (as against 17.6), and in Waterford 34.2 (as against 23.7). The zymotic death-rate was 1.7, as against 1.8 in the previous week.

ENGLISH URBAN MORTALITY DURING 1912.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

IN the accompanying table will be found summarized the vital statistics of ninety-five of the largest English towns for the fifty-two weeks ending December 28th, 1912. The 437,364 births registered in these towns during that period were equal to a rate of 24.9 per 1,000 of the population, estimated at 17,639,881 persons in the middle of the year. In London the birth-rate was 24.7 per 1,000, while among the other towns it ranged from 14.4 in Bournemouth and in Southport, 15.0 in Hastings, 15.9 in Hornsey and in Blackpool, 16.2 in Eastbourne, 16.7 in Bath, and 17.6 in Ilford to 30.4 in South Shields, 30 5 in Stockton-on-Tees, 31.3 in Stoke-on-Trent, 31.4 in Sunderland, 31.7 in St. Helens and in Middlesbrough, and 33.0 in Rhondda.

The 242,689 deaths registered in these towns were equal to a rate of 13.8 per 1,000; in London the death-rate was 13.6 per 1,000, while among the other towns the lowest rates were 7.5 in Ilford, 8.9 in Southend, 9.1 in Wimbledon, 9.3 in Hornsey, 9.5 in Ealing, and 9.7 in Enfield, in Gillingham, and in Eastbourne, and the highest rates were 15.8 in Stoke-on-Trent and in Bootle, 16.0 in Manchester. 16.1 in Oldham, 16.5 in Salford, 16.6 in Preston, 17.2 in Middlesbrough, and 18.1 in Liverpool.

The deaths included 780 which were attributed to enteric fever, 7 to small-pox, 8,193 to measles, 1,136 to scarlet fever, 4,594 to whooping-cough, 2,249 to diphtheria, and 4,758 to diarrhoea and enteritis (among children under 2 years of age). The 7 fatal cases of small-pox included 3 in Bristol and 1 each in London, Wolverhampton, Manchester, and Huddersfield. The 780 deaths from enteric fever were equal to a rate of 0.04 per 1,000; in London the death-rate from this disease was 0.05; in the other towns the highest rates were 0.09 in Portsmouth, 0.10 in Merthyr Tydfil, 0.12 in Warrington and in Hull, 0.14 in Wigan, 0.16 in Devonport and in Rotherham, and 0.17 in Bradford. The 8,193 fatal cases of measles were equal to a rate of 0.47 per 1,000; the measles death-date in London was 0.40 per 1,000, and the highest rates in the other towns were 0.85 in West Ham, 0.89 in Bootle, 1.06 in Salford, 1.10 in Cardiff, 1.15 in Liverpool and in Warrington, 1.42 in Merthyr Tydfil, 1.51 in Rotherham, and 1.70 in Middlesbrough. The 1,136 deaths from scarlet fever corresponded to a rate of 0 06 per 1,000; in London the death-rate from this cause was 0.04 per 1,000, while among the other towns the rates ranged upwards to 0.17 in Coventry and in St. Helens, 0.18 in Birmingham and in Huddersfield, 0.19 in Barnsley, in Middlesbrough, and in Darlington, 0.27 in Aberdare, and 0.31 in Preston. The 4,594 fatal cases of whooping-cough were equal to a rate of 0.26 per 1,000; the mortality from this disease in London was equal to a rate of 0.22 per 1,000; in the other towns the highest rates were 0.47 in Grimsby, 0.48 in St. Helens, 0.50 in Barrow-in-Furness, 0.51 in Rhondda, 0.55 in Salford, 0.57 in West Bromwich, 0.85 in Walsall, and 1.02 in Merthyr Tydfil. The 2,249 deaths from diphtheria corresponded to a rate of 0.13 per 1,000; in London the death-rate from this disease was 0.10 per 1,000, while it ranged upwards in the other towns to 0.27 in West Hartlepool, 0.28 in Swansea, 0.30 in Gillingham, 0.34 in Preston, 0.40 in Barrow-on-Furness, 0.53 in Portsmouth, and 0.88 in Cambridge. The 4,758 deaths attributed to diarrhoea and enteritis among children under 2 years of age were in the proportion of 10.88 to 1,000 of the births registered during the year; the highest proportions recorded in the several towns were 15.25 in Walsall, 15.63 in Wigan, 16.17 in Burnley, 17.02 in Stoke-on-Trent, 17.29 in Birkenhead, and 20.42 in Liverpool.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 101 per 1,000; in London the rate of infant mortality was 90 per 1,000, while among the other towns the rates ranged from 55 in Southend, 63 in Ilford, 65 in Cambridge, 67 in Hastings, 68 in Wimbledon, and 69 in Acton and in Gillingham to 125 in Liverpool and in Middlesbrough, 128 in Stoke-on-Trent, in Wigan, in Salford, in Rhondda, and in Merthyr Tydfil, and 133 in Walsall.

The causes of 2,041, or 0.8 per cent. of the deaths in the ninety-five towns last year, were not certified either by a registered medical practitioner or by a coroner. The highest proportions of uncertified deaths per cent. of the total deaths were 4.1 in Gillingham, 4.5 in Dudley, 4.6 in South Shields, 5.6 in Gateshead, 5.7 in Darlington, and 6.0 in Southend; in twenty-three of the towns the causes of all the deaths were duly certified.

Analysis of the Vital Statistics of Ninety-five of the Largest English Towns during 1912.

Towns.	Estimated Population middle of 1912.	Births.	Deaths.	Annual rate per 1,000 Living.		Deaths from							Deaths of Children under 1 year of age to 1,000 Births.	Rate per Cent. of Uncertified Deaths.
				Births.	Deaths.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping-cough.	Diphtheria.	Diarrhœa and Enteritis (under 2 years of age).		
95 Towns	17,639,881	437,364	242,689	24.9	13.8	780	7	8,193	1,136	4,594	2,249	4,758	101	0.8
London	4,519,754	111,551	61,100	24.7	13.6	117	1	1,799	159	970	452	1,371	90	0.1
Croydon	174,273	3,834	1,845	22.1	10.6	7	—	31	1	11	25	47	76	—
Wimbledon	66,729	1,095	516	19.4	9.1	2	—	—	1	10	3	16	68	—
Ealing	64,955	1,306	618	20.2	9.5	1	—	3	3	10	4	8	70	0.5
Acton	60,113	1,476	622	24.6	10.4	1	—	12	5	11	8	13	69	0.3
Willesden	159,432	3,914	1,600	24.6	10.1	3	—	34	1	27	10	18	84	0.4
Hornsey	86,252	1,367	816	16.9	9.3	2	—	5	3	2	1	14	77	—
Tottenham	142,015	3,687	1,576	26.0	11.1	6	—	23	1	43	15	30	82	—
Edmonton	67,167	1,826	669	27.3	10.0	1	—	15	1	23	13	16	81	—
Enfield	58,139	1,364	564	23.5	9.7	2	—	16	2	10	7	11	75	—
West Ham	291,900	8,564	4,116	29.4	14.1	16	—	246	17	124	34	101	104	0.1
East Ham	138,450	3,428	1,435	24.8	10.4	3	—	42	6	39	10	20	74	—
Leyton	128,155	2,933	1,349	23.0	10.6	4	—	12	5	40	22	22	76	—
Walthamstow	128,480	3,105	1,257	24.2	9.8	2	—	22	2	35	22	23	79	—
Ilford	83,080	1,459	622	17.6	7.5	—	—	4	1	16	6	6	63	0.2
Gillingham	53,511	1,293	518	24.2	9.7	1	—	—	3	12	16	3	69	4.1
Hastings	60,565	908	760	15.0	12.6	1	—	1	—	—	2	4	67	—
Eastbourne	53,730	870	518	16.2	9.7	—	—	2	8	1	9	2	70	0.4
Brighton	132,265	2,492	1,670	18.9	12.7	7	—	24	5	3	3	17	76	—
Portsmouth	236,731	5,605	3,044	23.7	12.9	22	—	95	29	52	124	56	82	0.8
Bournemouth	81,178	1,162	798	14.4	9.9	2	—	3	3	1	3	6	70	—
Southampton	120,891	2,801	1,567	23.2	13.0	8	—	18	2	35	17	31	85	0.2
Reading	88,603	1,869	982	21.2	11.1	2	—	15	2	6	6	16	85	0.2
Oxford	53,540	1,018	626	19.1	11.7	—	—	14	1	6	—	4	70	—
Northampton	90,467	1,934	1,085	21.4	11.8	2	—	46	1	12	12	9	72	0.3
Cambridge	56,522	1,042	670	19.9	12.8	1	—	3	6	17	46	3	66	—
Southend-on-Sea	67,196	1,272	597	19.0	8.9	1	—	2	2	1	6	5	55	6.0
Ipswich	74,899	1,729	1,118	23.1	15.0	—	—	51	1	32	15	8	113	—
Great Yarmouth	56,513	1,315	832	23.3	14.8	3	—	2	1	25	5	7	105	0.4
Norwich	122,479	2,663	1,548	21.8	12.7	7	—	18	13	4	20	26	104	0.7
Swindon	51,512	1,205	528	23.5	10.3	—	—	11	2	6	4	14	76	—
Plymouth	112,612	2,438	1,669	21.7	14.9	9	—	6	1	28	20	28	107	0.1
Devonport	83,167	1,949	923	23.5	11.1	13	—	14	3	18	12	17	85	—
Bath	69,599	1,158	888	16.7	12.8	2	—	17	3	10	1	12	77	0.3
Bristol	359,432	7,672	4,779	21.4	13.3	5	3	156	9	69	46	56	103	—
Gloucester	50,310	1,126	679	22.4	13.5	4	—	1	3	13	4	8	103	1.0
Stoke-on-Trent	237,159	7,403	3,744	31.3	15.8	26	—	54	29	72	58	126	128	1.9
Wolverhampton	95,479	2,410	1,271	20.8	13.4	1	1	11	7	19	11	21	88	0.1
Walsall	92,868	2,688	1,395	29.0	15.1	1	—	17	—	79	3	41	133	—
West Bromwich	68,750	2,014	982	29.4	13.5	4	—	8	2	39	5	20	121	2.5
Dudley	51,390	1,401	739	27.3	14.4	2	—	5	1	7	—	6	116	4.5
Birmingham	850,947	22,201	11,924	26.2	14.1	31	—	565	153	330	98	230	112	3.3
Smethwick	72,833	1,819	858	25.0	11.8	—	—	12	5	24	8	9	112	0.1
Coventry	111,166	2,952	1,325	26.6	12.0	—	—	52	19	34	28	13	76	1.5
Leicester	229,294	5,062	3,060	22.1	13.4	6	—	97	11	49	21	45	110	0.4
Lincoln	58,411	1,373	719	23.6	12.3	1	—	24	2	12	3	12	102	1.0
Grimsby	76,185	2,037	931	26.8	12.3	3	—	33	5	36	14	15	104	1.7
Nottingham	262,574	6,203	3,779	23.7	14.4	14	—	163	23	71	27	76	117	0.3
Derby	124,544	2,920	1,501	23.5	12.1	2	—	8	3	17	13	21	79	—
Stockport	110,781	2,503	1,614	22.7	14.6	6	—	52	5	36	14	21	107	0.2
Birkenhead	133,427	3,759	1,904	28.3	14.3	5	—	53	11	48	20	65	97	0.4
Wallasey	81,805	1,751	898	21.4	11.0	3	—	20	6	15	9	3	78	0.7
Liverpool	752,021	22,231	13,608	29.6	18.1	20	—	864	86	267	104	464	125	2.2
Bootle	71,153	2,094	1,122	29.5	15.8	1	—	63	1	16	6	26	110	3.8
St. Helens	93,159	3,104	1,481	31.7	15.1	8	—	58	17	47	18	35	123	3.8
Southport	70,444	943	812	14.4	12.4	2	—	7	—	3	10	8	72	3.0
Wigan	90,042	2,559	1,394	28.5	15.5	13	—	30	1	30	9	40	128	—
Warrington	73,215	2,082	1,040	28.5	14.2	9	—	84	10	7	11	25	92	3.4
Bolton	182,524	4,085	2,447	22.4	13.4	10	—	34	10	39	21	35	98	0.4
Bury	59,106	1,226	805	20.8	13.7	2	—	8	4	20	—	12	107	3.1
Manchester	723,531	18,332	11,573	25.4	16.0	46	1	489	52	298	93	260	121	0.4
Salford	232,734	6,134	3,833	26.4	16.5	19	—	245	10	128	32	91	128	0.5
Oldham	148,839	3,419	2,395	23.0	16.1	—	—	65	7	64	12	43	117	0.0
Rochdale	92,529	1,839	1,351	19.9	14.6	4	—	29	9	25	10	21	110	2.0
Burnley	108,012	2,473	1,580	23.0	14.7	7	—	24	3	36	6	40	145	1.4
Blackburn	133,560	2,716	1,890	20.4	14.2	6	—	54	3	26	9	35	118	2.1
Preston	117,631	2,731	1,947	23.3	16.6	8	—	92	36	45	40	33	123	3.0
Blackpool	59,831	947	742	15.9	12.4	4	—	3	1	3	4	6	83	3.4
Barrow-in-Furness	64,589	1,694	918	26.3	14.3	6	—	37	3	32	26	11	104	3.3
Huddersfield	109,513	2,060	1,489	18.9	13.6	2	1	21	20	25	9	11	96	0.3
Halifax	101,104	1,841	1,478	18.2	14.7	4	—	15	8	8	5	9	81	0.3
Bradford	289,609	5,592	4,145	19.4	14.4	50	—	50	12	14	57	25	99	0.1
Leeds	447,746	10,367	6,328	23.2	14.2	18	—	159	40	52	92	102	101	0.1
Dewsbury	53,630	1,201	809	22.5	15.1	2	—	27	13	15	4	5	104	—
Wakefield	51,942	1,155	707	22.3	13.6	—	—	27	—	13	7	7	90	0.1
Barnsley	51,876	1,535	723	29.7	14.0	5	—	17	10	24	6	13	100	0.3
Sheffield	466,408	12,782	6,597	27.6	14.2	40	—	180	34	191	48	137	106	0.6
Rotherham	63,560	1,873	997	29.5	15.7	10	—	96	7	13	11	15	120	2.1
York	82,860	1,886	1,105	22.8	13.4	7	—	26	4	1	17	15	95	0.2
Hull	282,988	7,828	4,063	27.7	14.4	33	—	149	1	26	21	83	101	0.6
Middlesbrough	106,550	3,364	1,824	31.7	17.2	8	—	181	20	7	8	33	125	0.9
Darlington	57,104	1,454	690	25.5	12.0	2	—	13	11	15	4	4	82	5.7
Stockton-on-Tees	52,244	1,590	779	30.5	15.0	2	—	31	—	8	9	12	91	1.4
West Hartlepool	64,095	1,781	925	27.9	14.5	3	—	60	6	13	17	9	104	0.8
Sunderland	151,832	4,754	2,403	31.4	15.9	4	—	67	2	43	21	30	115	2.2
South Shields	109,678	3,321	1,709	30.4	15.6	3	—	64	6	49	6	21	106	4.6
Gateshead	117,848	3,232	1,811	27.5	15.4	2	—	112	[illegible]	50	24	26	103	5.6
Newcastle-on-Tyne	269,196	7,213	3,805	26.9	14.2	16	—	164	35	39	29	48	101	2.3
Tynemouth	59,803	1,743	927	29.2	15.5	4	—	32	2	10	2	25	100	2.6
Newport (Mon.)	85,866	2,312	1,088	27.0	12.7	4	—	52	10	11	9	15	109	1.5
Cardiff	184,633	4,610	2,524	25.0	13.7	14	—	202	8	57	31	50	110	—
Rhondda	157,952	6,197	2,123	33.0	13.5	16	—	127	18	81	18	60	128	0.4
Merthyr Tydfil	82,548	2,392	1,290	29.1	15.7	3	—	117	4	84	11	19	128	0.3
Aberdare	51,819	1,508	710	29.2	13.7	—	—	10	14	15	4	5	115	0.4
Swansea	117,328	3,233	1,554	27.6	13.3	1	—	71	6	33	33	35	100	0.5

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following appointments have been announced at the Admiralty: Fleet Surgeon THOMAS T. JEANS, to the *Swiftsure*, on recommissioning, March 25th, and for general staff duties on becoming flagship, undated. Fleet Surgeon FREDERICK FEDARB, M.B., to the *Princess Royal*, vice Jeans, March 25th. Fleet Surgeon GEORGE GIBSON, to the *Albemarle*, vice May, April 1st, 1913. Fleet Surgeon HERBERT H. GILL, to the *Irresistible*, on recommissioning, March 27th. Fleet Surgeons RICHARD A. FITCH, JOHN A. KEOGH, M.B., PERCIVAL M. MAY, to the *President*, additional, for three months' course of instruction for senior medical officers at the Royal Naval Medical School, Greenwich, April 1st, 1913. Staff Surgeon JOHN MARTIN to the *Formidable*, temporary, vice Cameron, April 1st, 1913. Staff Surgeon CHRISTIAN B. FAIRBANK, to the *Hecla*, vice Bolster, April 1st, 1913. Staff Surgeon WARREN G. WESTCOTT, to the *Liverpool*, on recommissioning, March 14th, 1913. Staff Surgeon JOHN P. H. GREENHALGH, M.B., to the *Ganges*, for Shotley Training Establishment, temporarily, March 10th. Staff Surgeon FREDERICK COCK, to the *Swiftsure*, on recommissioning for voyage out, March 25th, and the *Sphinx*, vice Kennedy, undated. Staff Surgeon JOHN S. DUDDING, to the *Irresistible*, on recommissioning, March 27th. Staff Surgeon JAMES A. FORREST, M.B., to the *Berwick*, on recommissioning, March 27th. Staff Surgeons MALCOLM CAMERON, M.B., ALFRED WOOLLCOMBE, FRANCIS BOLSTER, M.B., ALAN G. EASTMENT, FRANCIS J. L. P. MCKENNA, M.B., to the *President* for three months' course of instruction for senior medical officers at the Royal Naval Medical School, Greenwich, April 1st, 1913. Surgeon GEOFFREY P. ADSHEAD, M.B., to the *Swiftsure*, on recommissioning, March 25th. Surgeon HORACE E. R. STEPHENS, M.B., to the *Vivid*, additional, for disposal, and *Vivid*, for Royal Naval Barracks, vice Cock, March 7th. Surgeon ROBERT N. W. W. BIDDULPH, to the *Berwick*, on recommissioning, March 27th.

ROYAL NAVAL VOLUNTEER RESERVE.

JAMES R. H. TURTON, M.B., F.R.C.S., appointed Surgeon, March 7th, 1913.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL SIR RICHARD HAVELOCK CHARLES, G.C.V.O., retired pay, is granted the temporary rank of Surgeon-General while employed as President of the Medical Board at the India Office, February 28th, 1913.

Colonel G. W. P. DENNEYS, Inspector-General of Civil Hospitals, Central Provinces, has been granted eight months' combined leave, with effect from February 27th, 1913.

Lieutenant-Colonel H. E. BANATVALA has been appointed to officiate as Inspector-General of Civil Hospitals, Central Provinces, during the absence on leave of Colonel G. W. P. Denneys.

Major A. G. MCKENDRICK, Secretary to the Director-General, Indian Medical Service (Sanitary) *s.p.t.*, has been granted two years' combined leave, with effect from February 24th, 1913.

Major S. P. JAMES has been transferred to foreign service under the Government of Ceylon for a period of one year, with effect from January 23rd, 1913.

Captain F. N. WHITE has been appointed to officiate as Secretary to the Director-General, Indian Medical Service (Sanitary), during the absence on leave of Major A. G. McKendrick.

Lieutenant-Colonel and Honorary Colonel S. J. RENNIE (Lieutenant-Colonel, R.A.M.C., ret.), Commandant, Northern Regiment, United Provinces Horse, to be Honorary A.D.C. to H.E. the Commander-in-Chief in India.

The following Majors to be Lieutenant-Colonels from January 13th, 1913.—CHARLES MILNE, M.B., VIVIAN G. DRAKE-BROCKMAN, WILLIAM YOUNG, M.B., F.R.C.S.E., JOHN J. BOURKE, M.B., BERNARD R. CHATTERTON, M.D., F.R.C.S.I., CEDRIC B. PRALL, CHARLES E. WILLIAMS, M.D., JOHN N. MACLEOD, C.I.E., M.B., F.R.C.S.E., WALTER H. OGILVIE, M.B., RICHARD HEARD, M.B., EDGAR R. PARRY, M.B., PAXTON ST. C. MORE, M.B., GEORGE BIDIE, M.D., F.R.C.S.E., CECIL R. STEVENS, M.D., F.R.C.S., LEONARD ROGERS, C.I.E., M.D., F.R.C.P., F.R.C.S., ERNEST A. R. NEWMAN, M.D., GORDON T. BIRDWOOD, M.D., REGINALD G. TURNER, F.R.C.S., JAMES DAVIDSON, D.S.O., M.D., PATRICK P. KILKELLY, M.B., ERIC H. SHARMAN, BHOLA NAUTH, THOMAS H. FOULKES, F.R.C.S.

Captains to be Majors: dated December 27th, 1912.—ANDREW G. MCKENDRICK, M.B., OWEN ST.J. MOSES, M.D., F.R.C.S.E., JOHN W. LITTLE, M.B., HAROLD R. NUTT, M.D., F.R.C.S., NORMAN E. H. SCOTT, M.B., CHARLES E. SOUTHON, M.B., JAMES HUSBAND, M.B., F.R.C.S.E., HENRY B. FOSTER, M.D., HENRY W. ILLINS, F.R.C.S.E., EDWARD W. BROWNE, SATIS BOSE, M.B.; *dated January 29th, 1913:* NORMAN S. WELLS, M.B., EDMUND H. B. STANLEY, ROBERT MCL. DALZIEL, M.B., JAMES J. ROBB, M.B., SHAIK ABDUR RUZZAK.

Lieutenants on probation, January 25th, 1913.—RICHARD R. M. PORTER, M.B., ROBERT SWEET, M.B., EDWARD CALVERT, PATRICK J. WALSH, M.B., JOHN R. D. WEBB, FRANCIS PHELAN, ARTHUR H. C. HILL, NAWIN CHAND KAPUR, JOSEPH F. HOLMES, ARCHIBALD C. MACRAE, M.B., HAJI SULAIMAN GULAMEUSSEIN HAJI, NARAYAN KRISHNA BAL.

The commissions of the following Lieutenants have been confirmed, with effect from July 27th, 1912: JOHN D. WILSON, M.B., LAURENCE A. P. ANDERSON, WILLIAM C. PATON, M.B., JAMES B. HANCE, M.B., STEPHEN GORDON, HAROLD K. ROWNTREE, M.B., GRAHAM Y. THOMSON, M.B., BASIL F. EMINSON, M.B., ANTHONY KENNEDY, SORAB DHUNJIBHOY RATNAGAR, COLIN MCIVER.

INDIAN SUBORDINATE MEDICAL DEPARTMENT.

The following retirements have been approved: Senior Assistant Surgeon and Honorary Captain SERVULO JOSEPH PAIS, December 23rd, 1912; Senior Assistant Surgeon and Honorary Captain FREDERICK GEORGE FOX, February 16th, 1913; Senior Assistant Surgeon and Honorary Lieutenant NORBERT H. CARLOS, January 1st, 1913.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Lowland Mounted Brigade Field Ambulance.—ANDREW R. MUIR, M.B., to be Lieutenant, February 7th, 1913.

Third West Lancashire Field Ambulance.—Lieutenant RICHARD COFFEY to be Captain, December 4th, 1912; Lieutenant FRANK HAUXWELL, M.B., from the Lowland Mounted Brigade Field Ambulance, to be Lieutenant, March 12th, 1913.

Third South Midland Field Ambulance.—Lieutenant-Colonel ARTHUR W. PRICHARD, on completion of his period of service in command of a field ambulance, is retired, and is granted permission to retain his rank and to wear the prescribed uniform, March 5th, 1913; Major JAMES YOUNG, M.D., to be Lieutenant-Colonel, March 5th, 1913.

Third London General Hospital.—Lieutenant-Colonel and Honorary Surgeon-Colonel JOHN ADAMS, on completion of his period of service in command of a general hospital, is retired, and is granted permission to retain his rank and to wear the prescribed uniform, March 12th, 1913.

First London (City of London) Field Ambulance.—Captain CHARLES S. BREBNER, M.D., from the Second West Lancashire Field Ambulance, to be Captain, November 28th, 1912.

Third London (City of London) Field Ambulance.—Lieutenant BERNARD E. POTTER, M.B., to be Captain, November 12th, 1912.

Fifth London Field Ambulance.—FRANK COLEMAN to be Lieutenant (to be supernumerary), February 6th, 1913.

Sixth London Field Ambulance.—Supernumerary Lieutenant EDWARD P. MINETT to be Captain (to remain seconded), February 11th, 1913.

First Home Counties Field Ambulance.—CHARLES WM. GREENE to be Lieutenant, March 15th, 1913; ARTHUR P. DRAPER (late Cadet, Dublin University Contingent, Senior Division, Officers' Training Corps) to be Lieutenant, March 15th, 1913.

Attached to Units other than Medical Units.—Captain JAMES SCOTT, M.B., to be Major, January 21st, 1913.

For Attachment to Units other than Medical Units.—EDWARD C. B. PAUL, M.B., F.R.C.S.Edin., to be Lieutenant, February 4th, 1913; Lieutenant PERCY W. KENT, from the Second Welsh Field Ambulance, to be Lieutenant, March 12th, 1913.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

THE undermentioned to be Lieutenants on probation: Cadet-Sergeant WELLINGTON JOHN A. LAIRD, from the Belfast University Contingent Officers' Training Corps, January 23rd, 1913. JAMES GOSSIP, M.B., late Edinburgh University Contingent Officers' Training Corps, January 30th, 1913. WILLIAM S. HYDE, late Cadet, London University Contingent Officers' Training Corps, February 20th, 1913. Cadet JOHN A. PRIDHAM, from the London University Contingent Officers' Training Corps, February 6th, 1913.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Army Medical Service have been officially reported to have taken place during February, 1913:

		FROM	TO
Colonel	R. Kirkpatrick, C.M.G., M.D.	Bloemfontein	Sialkot.
Lieut.-Col.	H. P. G. Elkington	Exeter	Shorncliffe.
"	A. R. Aldridge, C.S.I., M.B.	Aldershot	Woolwich.
"	R. Holyoake	Sheerness	Chatham.
"	R. H. Penton, D.S.O.	Poona	Muttra.
"	A. W. Bewley	Meerut	York.
Major	F. M. Mangin	Aldershot	India.
"	W. J. Taylor, M.B.	Bury St. Edmunds	West Africa.
"	C. E. P. Fowler, F.R.C.S.	Gibraltar	Aldershot.
"	E. B. Steele, M.B.	London	Exeter.
"	E. W. W. Cochrane, M.B.	Bermuda	Aldershot.
"	A. L. Scott	Aldershot	Deepcut.
"	A. L. A. Webb	—	Scottish Comd.
"	T. C. MacKenzie, D.S.O.	Egypt. Army	E. Comd.
"	J. Matthews	Karachi	Secunderabad.
"	F. W. Cotton	Fleetwood	Nasirabad.
"	G. J. Houghton	London	W. Africa.
"	A. D. Waring, M.B.	Hong Kong	Hilsea.
"	C. H. Furnivall	Quetta	Karachi.
"	W. L. Bennett, M.B., F.R.C.S.Edin.	Bermuda	Pontefract.
"	R. L. Argles	Cahir	Tralee.
"	J. T. Johnson, M.D.	Meerut	Bareilly.
"	W. M. Power	Jamaica	Chatham.
"	R. McK. Skinner	Straits Settlements	Curragh Camp.
"	A. H. McN. Mitchell	Netley	Dover.
"	E. F. Q. L'Estrange	Wellington	Cannanore.
"	T. B. Unwin, M.B.	London	W. Africa.
"	R. F. M. Fawcett	Jhansi	Dublin.
Captain	W. Davis	Naini Tal	Meerut.
"	A. B. Smallman, M.B.	London	Aldershot.
"	J. W. S. Seccombe	Plymouth	Devonport.
"	W. W. Browne	Colchester	India.
"	J. B. Meldon, M.B.	Brighton	Dover.
"	D. G. Carmichael, M.B.	Glencorse	India.
"	A. L. Otway, M.B.	Londonderry	Salisbury.
"	H. Harding, M.B.	Halifax	Colchester.
"	P. C. T. Davy, M.B.	Chatham	Gravesend.
"	P. Farrant	Topsham	W. Africa.
"	A. A. Sutcliff, M.B.	Carlisle	Chester.
"	A. S. Littlejohns	—	Dublin.
"	W. Egan, M.B.	Dublin	Curragh.
"	F. Forrest	Curragh	Birr.
"	A. S. Williams	Nowshera	Dublin.
"	C. R. M. Morris, M.B.	Sialkot	Netley.
"	F. D. G. Howell	Lahore	Preston.
"	A. H. Bond	Queenstown	Limerick.
"	G. H. Stevenson, M.B.	Strensall	Sheffield.
"	J. H. Spencer, M.B.	Ambala	Calcutta.
"	D. Coutts, M.B.	Ranikhet	Bareilly.
"	A. H. Jacob	Curragh	Dublin.
"	F. H. M. Chapman	Calcutta	Meerut.
"	D. F. Mackenzie, M.B.	Darjeeling	"
"	F. J. Stuart, M.B.	Agra	Muttra.
"	R. F. O'T. Dickinson	Delhi	Barcilly.
"	A. E. B. Jones, M.D.	Wellington	Bangalore.
"	A. L. Stevenson, M.B.	Peshawar	Nowshera.
"	A. H. T. Davis	Secunderabad	Malappuram.
"	C. McQueen	Pretoria	Aldershot.
"	A. T. J. McCreery, M.B.	Indore	Mhow.
"	R. H. Nolan	Rawal Pindi	Scottish Comd.
Lieutenant	G. Wilson, M.B.	Aldershot	Secunderabad.
"	J. S. Levack, M.B.	Bradford	Rawal Pindi.
"	W. T. Graham, M.B.	Tidworth	Lucknow.
"	W. Bisset, M.B.	Woolwich	Rawal Pindi.
"	T. A. Weston, M.B.	Aldershot	Lucknow.
"	E. C. Deane	Preston	Carlisle.
"	W. Stewart, M.B.	Colchester	Weedon.
"	D. T. M. Large, M.B.	Glasgow	Glencorse
"	J. H. M. Frobisher, M.B.	York	Leeds.
"	C. M. Ingoldby	Kilkenny	Buttevant.

The undermentioned Lieutenants appointed on probation on dates mentioned, have been respectively stationed as follows:

Appointed on probation, July 28th, 1911, W. B. Laird and E. B. Allnutt, London; F. R. B. Skrimshire, Aldershot; H. C. Todd, M.B., Woolwich.

Appointed on probation, January 26th, 1912, M. Burnett, South Command; G. A. Blake, M.B., and R. W. Vint, M.B., Aldershot; H. W. L. Allott, Irish Command.

Appointed on probation, July 26th, 1912, I. Hare, M.B., E. C. Lang, M.B., R. E. Porter, M.B., E. V. Whitby, M.B., and R. B. Phillips, Irish Command; R. A. Flood, M.B., Woolwich; L. T. Poole, M.B., and G. F. Allison, York; T. H. Balfour, M.B., Scottish Command; H. J. S. Shields, and R. C. Caryle, M.B., London; P. M. J. Power, J. C. Sproule, I. E. Hooper, and H. F. Ponton, M.B., South Command; E. U. Russell, Eastern Command; N. W. Stevens, M.B., Shorncliffe.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BARNSTAPLE: NORTH DEVON INFIRMARY.—House-Surgeon. Salary, £100 per annum.

BELFAST: ANTRIM COUNTY COUNCIL.—Tuberculosis Medical Officer. Salary, £500 per annum.

BETHLEM HOSPITAL.—Two Resident House-Physicians. Honorarium, £25 per quarter each.

BLACKBURN COUNTY BOROUGH.—Medical Officer of Health and School Medical Officer. Salary, £750 per annum.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—House-Surgeon (male). Salary at the rate of £75 per annum.

BRECON AND RADNOR ASYLUM, Talgarth.—Assistant Medical Officer (male). Salary, £200 per annum.

BRENTFORD UNION.—Second Assistant to the Medical Superintendent of the Infirmary Workhouse and Schools. Salary, £140 per annum, rising to £150.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRIGHTON: ROYAL SUSSEX COUNTY HOSPITAL.—Two Assistant House-Surgeons (males). Salary, £80 per annum each.

BRISTOL EYE HOSPITAL.—House-Surgeon. Salary, £80 per annum.

BRISTOL GENERAL HOSPITAL.—(1) Assistant Anaesthetist. (2) Honorary Physician or Surgeon to the Throat and Ear Department.

BRISTOL ROYAL INFIRMARY.—Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £75 per annum.

BURY ST. EDMUNDS: WEST SUFFOLK COUNTY COUNCIL.—Assistant Medical Officer of Health. Salary, £250 per annum, rising to £300.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum.

CANTERBURY: CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CARDIFF: KING EDWARD VII's HOSPITAL.—House-Surgeon or House-Physician (male). Honorarium, £30 for six months.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £80 per annum.

CHORLEY; RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DARLINGTON HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £120 per annum.

DOUGLAS, ISLE OF MAN: NOBLE'S HOSPITAL.—Resident House-Surgeon. Salary, £90 per annum.

DUBLIN: ROYAL COLLEGE OF SURGEONS IN IRELAND SCHOOLS OF SURGERY.—Senior Assistant and Junior Assistant to the Professor of Anatomy. Salary, £200 and £100 per annum respectively.

DUNDEE CITY.—Tuberculosis Medical Officer (male). Salary at the rate of £500 per annum.

DUNDEE ROYAL INFIRMARY.—Anaesthetist to the Infirmary and Instructor in Anaesthetics in the University of St. Andrews. Salary, £200.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Ten Clinical Assistants to Out-patient Departments.

GRIMSBY AND DISTRICT HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

GUILDFOND: ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. Salary, £75 per annum.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

KEIGHLEY AND BINGLEY FEVER HOSPITAL AND SANATORIUM.—Lady Resident Medical Officer. Salary, £125 per annum, rising to £150.

KENSINGTON AND FULHAM GENERAL HOSPITAL, Earl's Court, S.W.—Resident Medical Officer. Remuneration, £75 per annum.

KIRKBEAN, COLVEND, AND SOUTHWICK PARISHES.—Medical Officer. Salary, £70 per annum.

LEAMINGTON SPA: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—(1) House-Surgeon. (2) House-Physician. Salary, £100 and £85 per annum respectively.

LEICESTER ROYAL INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

LIVERPOOL INFIRMARY FOR CHILDREN.—(1) Two Resident House-Physicians. (2) Resident House-Surgeon. Salary, £30 each for six months.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—(1) Assistant Resident Medical Officer; honorarium, £40 for six months. (2) Medical Registrar; honorarium, 40 guineas per annum.

MANCHESTER: VICTORIA UNIVERSITY.—(1) Lecturer in Diseases of Children. (2) Lecturer in Diseases of the Skin.

MIDDLESEX HOSPITAL, W.—Medical Registrar.

NOTTINGHAM GENERAL DISPENSARY.—(1) Assistant Resident Surgeon (male); salary, £170 per annum. (2) Resident and Assistant Resident Surgeons for Branch; salary, £180 and £170 per annum respectively.

NOTTINGHAM WORKHOUSE AND INFIRMARY.—Two Resident Assistant Medical Officers. Salary, £150 per annum, rising to £170.

OCHILTREE PARISH COUNCIL.—Medical Officer. Salary, £40 per annum.

OLDHAM ROYAL INFIRMARY.—Third House-Surgeon. Salary at the rate of £80 per annum.

PADDINGTON PARISH.—Medical Superintendent of the Infirmary, and Medical Officer of Workhouse. Salary, £400 per annum.

PAISLEY DISTRICT ASYLUM, Riccartsbar.—Assistant Resident Medical Officer. Salary, £150 per annum, rising to £200.

PRESTON: COUNTY ASYLUM, Whittingham.—Assistant Medical Officer. Salary, £150 per annum, rising to £250.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—House-Physician. Salary at the rate of £80 per annum.

RAINHILL: COUNTY ASYLUM.—Assistant Medical Officer. Salary, £150 per annum, rising to £250, and further increasing to £350 on promotion.

ROCHDALE INFIRMARY.—Junior House-Surgeon. Salary, £80 per annum, rising to £90.

ROTHERHAM HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Third House-Surgeon. Salary at the rate of £50 per annum.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C.—Honorary Assistant Surgeon.

SALOP COUNTY AND WENLOCK BOROUGH LUNATIC ASYLUM, Bicton Heath.—Medical Superintendent. Salary, £650 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—(1) Surgeon to Out-patient Department (2) Medical Registrar.

SEAMEN'S HOSPITAL SOCIETY.—At Dreadnought Hospital, Greenwich: (1) Assistant Pathologist; (2) Two House-Physicians; (3) House-Surgeons; salary for (1), £100, and for (2) and (3) £50 per annum. At Albert Dock Hospital: (4) Senior House-Surgeon; (5) House-Surgeon; salary, £100 and £50 per annum respectively.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Assistant House-Surgeon. Salary, £60 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £60 per annum.

SHEFFIELD: ROYAL INFIRMARY.—(1) Ophthalmic House-Surgeon. (2) Aural House-Surgeon. (3) Assistant House-Physician. Salary, £70 per annum each.

SHEFFIELD UNION HOSPITAL.—Resident Assistant Medical Officer. Salary, £120 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary £100 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—(1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £100 and £90 per annum respectively.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—(1) House-Surgeon; salary, £120 per annum, increasing to £140. (2) House-Physician; salary, £100 per annum.

STAFFORDSHIRE: COUNTY MENTAL HOSPITAL, Burntwood.—Junior Assistant Medical Officer (male). Salary, £210 per annum.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SUNDERLAND: ROYAL INFIRMARY.—Junior House-Surgeon (male). Salary at the rate of £80 per annum.

SUNDERLAND: ROYAL INFIRMARY CHILDREN'S HOSPITAL.—Resident Medical Officer. Salary at the rate of £80 per annum.

TAUNTON: SOMERSET AND BATH ASYLUM, Cotford.—Assistant Medical Officer. Salary, £150 per annum, increasing to £180.

WEST LONDON HOSPITAL AND POST-GRADUATE COLLEGE, Hammersmith Road, W.—Clinical Assistants.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointment: Newbury (Berks).

APPOINTMENTS.

CLAYTON, H. J., M.B., Ch.M.Syd., Assistant Medical Superintendent to the Royal Prince Alfred Hospital, Sydney, N.S.W.

COLEMAN, Frank, L.R.C.P., M.R.C.S., L.D.S., Lecturer on Dental Materia Medica at the Royal Dental Hospital, Leicester Square, W.C.

CRAVEN, R., M.B., District Medical Officer of the Wigton Union.

CREGAN, G. T., M.B., Ch.B.Vict., Assistant Medical Officer to the Crumpsall Workhouse, Manchester.

CROMPTON, E., M.R.C.S., L.R.C.P., Medical Officer to the Workhouse of the Newmarket Union.

DATE, W. Horton, M.R.C.S.Eng., L.S.A.Lond., D.P.H.R.C.S.P.I., Assistant School Medical Inspector for Devon, vice H. E. Goulden, M.D.Durh., D.P.H.Camb., resigned.

DOYLE, W., M.B., C.M.Glas., Certifying Factory Surgeon for the Colne District, co. Lancaster.

EVERSHED, A. Reginald F., M.R.C.S., Honorary Ophthalmic Surgeon to the London Association for the Blind.

GARLICK, G. H., M.R.C.S., L.R.C.P., Assistant Medical Officer to the North Infirmary of the Parish of St. Pancras.

HACKER, H. Pollard, M.B., B.Sc.Lond., House-Physician at the Hospital for Consumption and Diseases of the Chest, Brompton.

HARPER, Margaret H., M.B., to the Honorary Staff of the Royal Hospital for Women, Sydney, N.S.W.

Harris, T. A. B., L.R.C.P.and S.Edin., L.F.P.S.Glas., Certifying Factory Surgeon for the Burton Latimer District, co. Northampton.

Henry, F. J., M.B., Ch.B.Glas., Tuberculosis Medical Officer for Middlesbrough.

Hewetson, John T., M.D., M.Ch., F.R.C.S., Assistant to the Chair of Midwifery and Diseases of Women in the Birmingham University.

Higgins, Thomas Twistington, M.B., Ch.B.Vict., F.R.C.S.Eng., Resident Medical Superintendent to the Hospital for Sick Children, Great Ormond Street, W.C.

Hooton, W. H., M.R.C.S., L.R.C.P., Honorary Radiologist to the Batley Hospital.

Howarth, W. J., M.D., D.P.H.Vict., Medical Officer of Health for the City of London, vice William Collingridge.

Johnston, Alexander R., M.B., Ch.B., Medical Officer of Health for the Burgh of Montrose, vice Middleton Connon, M.D.Aber., resigned.

Kirkby, Thomas L., M.R.C.S., L.R.C.P., Anaesthetist to the Queen's Hospital, Birmingham.

Mackay, James Forbes, M.D.Edin., D.P.H., Honorary Medical Superintendent of the X-Ray and Electrical Department, Royal Mineral Water Hospital, Bath.

Matthew, Edwin, M.D.Aberd., F.R.C.P.Edin., Senior Physician to the Leith Hospital, vice Dr. Eason, retired.

Maund, J. H., M.R.C.S., L.R.C.P.Lond., D.P.H.Camb., District Medical Officer of the Newmarket Union.

Mitchell, W. F., L.R.C.P.and S.Edin., L.F.P.S.Glas., Certifying Factory Surgeon for the Hatherleigh District, co. Devon.

Mottram, M., M.R.C.S., L.R.C.P., District Medical Officer of the Banbury Union.

O'Bryen, J. W., L.R.C.P.and S.Edin., District Medical Officer of the Lewisham Union.

Oram, Walter C., M.D., B.Ch., B.A.O., D.S.M., B.A., Medical Officer for the Treatment of Ringworm, Liverpool Corporation.

Patterson, D. Wells, M.B., B.S.Dunelm, Honorary Assistant Physician to the Royal Victoria Infirmary, Newcastle-on-Tyne.

Pearson, E., L.R.C.P., F.R.C.S.Edin., Certifying Factory Surgeon for the Bideford District, co. Devon.

Penfold, W. J., M.B., C.M.Edin., M.R.C.S.Eng., L.R.C.P., B.Hy., D.P.H., Lecturer on Bacteriology and Clinical Pathologist to the Royal Dental Hospital, Leicester Square, W.C.

Renshaw, Arnold, M.B., B.S.Lond., Honorary Pathologist to Ancoats Hospital, Manchester.

Richardson, E. D., L.M.S.S.A., District Medical Officer of the Battle Union.

Ryan, D. J., M.B., B.Ch.R.U.I., Certifying Factory Surgeon for the Monasterevan District, co. Kildare.

Smith, Kenneth, M.B., Ch.M.Syd., Medical Superintendent to the Royal Prince Alfred Hospital, Sydney, N.S.W., vice Dr. Schlink.

Thomson, J. H., M.B., District Medical Officer of the Pickering Union.

Webb, H. W., M.B., Ch.B., Resident Medical Officer to the Convalescent Home of the Edinburgh Royal Infirmary, Murrayfield.

Wilson, William, M.D., B.Sc.Manch., Honorary Assistant Aural Surgeon to the St. John's Hospital of Manchester and Salford for the Ear and Eye.

Wood, A. Murray, M.D.Edin., Junior Physician to the Leith Hospital.

Wooster, F. C., M.B., Ch.M.Syd., Resident Medical Officer to the Women's Hospital, Sydney, N.S.W.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

Clark.—On March 13th, at 2, Spital Square, Bishopsgate, E., the wife of Percy J. Clark, M.R.C.S., L.S.A., of a daughter.

MARRIAGE.

Suckling—Shearburn.—On March 14th, at St. Paul's Church, Beckenham, by the Rev. the Hon. Maurice B. Peel, John Jerome Suckling, M.B., B.S.Lond., of 5, Marine Terrace, Margate, elder son of C. W. Suckling, Esq., M.D.Lond., M.R.C.P., and Mrs. Suckling, of Beech Lawn, Edgbaston, Birmingham, to Ethel Dagmar, second daughter of A. D. Shearburn, Captain, R.E., of The Oaks, Aldersmead Road, Beckenham.

DEATHS.

Macgregor.—On March 13th, at Victoria, British Columbia, Joseph Johnston Macgregor, M.D., F.R.C.S., of 222, Castellain Mansions, Maida Vale, London, youngest son of the late Rev. G. D. and Mrs. Macgregor. (By cable.)

Tannahill.—At Gibraltar, on March 9th, John Roy Tannahill, M.B., Ch.B.Edin., eldest son of J. A. Tannahill, Greenock.

DIARY FOR THE WEEK.

WEDNESDAY.

Hunterian Society, Library, St. Bartholomew's Hospital, 9 p.m.—Discussion on "The Uses of Tuberculin," to be opened by Dr. Arthur Latham. Discussion will be resumed on April 9th.

FRIDAY.

Royal Society of Medicine:

Section for the Study of Disease in Children, 1, Wimpole Street, W., 4.30 p.m.—Dr. F. J. Poynton: (1) An Interesting Cardiac Irregularity in an Infant; (2) A Case of Rheumatic Carditis Commencing in Very Early Life. Dr. Langmead: (1) A Case of Congenital Tremor; (2) Case of Defective Ossification of the Cranial Vault. Dr. Crookshank and Mr. Sidney Boyd: Congenital Deficiency of the Chest Wall; and other cases.

POST-GRADUATE COURSES AND LECTURES.

Cancer Hospital, Fulham Road, S.W., Wednesday, 5 p.m.—Laboratory Diagnosis of Cancer.

London Hospital Medical College, E.—Neurology Course: Monday, Tuesday, Wednesday, and Friday, 4.30 p.m.

West London Post-Graduate College, Hammersmith Road, W.—Medical and Surgical Clinics daily (except Monday). Operations: Gynaecology, Tuesday and Friday, 10 a.m.; Throat, Nose, and Ear, Wednesday and Saturday, 10 a.m.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		MARCH.
27	Thur.	Camberwell Division, Southwark Infirmary, 4 p.m.
28	Fri.	London: Libel Actions Subcommittee, 2 p.m. London: Journal Committee, 3 p.m. Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m. Newcastle-on-Tyne Division, Scientific Demonstration.
		APRIL.
1	Tues.	London: Conference of Secretaries' Subcommittee, 11.30 a.m. London: Grants Subcommittee, 2.30 p.m. London: Public Health Committee, 3.30 p.m.
2	Wed.	London: Medico-Political Committee, 2 p.m.
4	Fri.	London: Ethical Committee, 2 p.m.
5	Sat.	London: Science Committee, 11 a.m.
7	Mon.	London: Colonial Committee. London: Naval and Military Committee.
8	Tues.	London: Metropolitan Counties Branch Council, 4 p.m. London: Organization Committee, 2.15 p.m.
9	Wed.	London: Hospitals Committee, 3 p.m. London: Joint Medico-Political and Hospitals Subcommittee, 1.30 p.m.
11	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m. South-West Essex Division, Brook House, Clapton, 9.30 p.m.
16	Wed.	London: Finance Committee, 3 p.m.
23	Wed.	London: Council Meeting, 2 p.m. Richmond Division, Richmond, 8.30 p.m.
24	Thur.	South-West Essex Division, Walthamstow Hospital, 4 p.m.
25	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
		MAY.
9	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
13	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
21	Wed.	Richmond Division, Richmond, 8.30 p.m.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MARCH 29TH, 1913.

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National Insurance.

LOCAL MEDICAL COMMITTEES.

BURNLEY.

THE Local Medical Committee for the county borough of Burnley has been recognized and is constituted as follows:

Chairman, Dr. Robinson.
Secretary, Dr. T. M. Scott, Thursby Square, Burnley.

Burnley.

Dr. Anderson	Dr. Gardner
Dr. Beggs	Dr. Glashan
Dr. Bird	Dr. Haworth
Dr. Black	Dr. Holden
Dr. Callam	Dr. Marsden
Dr. Clegg	Dr. Pullon
Dr. Crossley	Dr. Purves
Dr. Crump	Dr. Rodgers
Dr. Edmondson	Dr. Whitham
Dr. Ferguson	Dr. Wilson ("Brierfield")

Padiham.

Dr. Agnew	Dr. Bromley

Nelson.

Dr. Normington	Dr. Stewart

Representatives on Burnley Insurance Committee.—Dr. Robinson, Dr. Scott.

Medical Service Subcommittee.—Drs. Pullon, Gardner, and Marsden.

Doctors' Accounts Committee.—Drs. Crossley, Ferguson, and Rodgers.

Dispute Charge Committee.—Dr. Purves.

The business done at the meetings of the Committee has included the following matters:

1. Arrangements were made with the chemists to dispense all medicines both night and day. To dispense repeat prescriptions when the date of previous prescription was mentioned. To supply the doctors with dressings in bulk for use in their surgeries. To open their premises on Tuesday evenings 7 to 8 p.m. To open on Sundays, 12 to 1 p.m. and 7 to 8 p.m.

2. The model rules governing insured persons were considered, and with certain amendments were adopted by the Burnley Insurance Committee.

3. Certificates for insured persons obtaining benefit were considered and it was decided not to mention the nature of the illness or accident.

4. That one form of certificate should be sufficient for all the different approved societies.

5. Various complaints of insured persons with regard to:
   (*a*) Delay in obtaining the medicine prescribed.
   (*b*) Wrong dose put in the medicine bottle.
   (*c*) Wrong drugs used in dispensing.
   (*d*) Inability of chemist to supply the drugs required for several days.
   (*e*) Difficulty in obtaining some ordinary appliances without special permission of the clerk of the Insurance Committee.
   (*f*) The quality of the dressings used by the doctors in contradistinction to those used before the Act came into force. These dressings are supplied now to the doctors when ordered for insurance purposes.

6. Advertising and touting for patients was discussed, and communications to the Medical Secretary of the British Medical Association and to Dr. Bateman, of the Medical Defence Union, were sent.

7. Attendance upon boys under 16 years of age and men 65 years of age who work at the collieries but who do not come under the insurance medical benefits for accidents arising out of their employment.

8. The cumbersome nature of the "record of attendance" and the enormous amount of extra clerical work entailed.

It was resolved to make a levy of 5s. upon each member giving service in the Burnley area to meet the expenses of the Committee.

COUNTY OF CHESHIRE.

THE eighth meeting of the Provisional Local Medical Committee was held on March 14th at Crewe, when Dr. GARSTANG was in the chair and sixteen members were present. An invitation had been sent to each of the newly constituted medical committees of the twenty-four insurance districts into which the county is divided to send representatives to the meeting, and twelve gentlemen attended in that capacity, most of the other districts being represented by committeemen.

The CHAIRMAN referred to the error in the representation on this Committee of the practitioners residing in

one of the seven divisions which enter into the area of the administrative county (see Supplement, February 15th, p. 159). He announced that the matter had been arranged, and he understood that the Division would shortly be correctly represented. No doubt statutory recognition would then be given.

Extension of Contracts.

The business of the meeting was to consider an invitation received by the panel doctors of the county on March 10th to extend their contracts for a further period. Most of the District Medical Committees had held preliminary meetings on March 12th and 13th, at which they had handed in their signed agreements to the medical secretaries. These agreements were placed in the hands of the County Medical Committee on the understanding that they were to be sent to the Insurance Committee on certain conditions. The conditions to be attached to the agreements had been drafted, prior to the meeting, in a memorandum, which was amended and adopted as follows:

Memorandum.

In response to the invitation of the Insurance Committee to the members of the medical profession of the county to continue service under the Insurance Act, the majority of the members feel that in concluding the further agreements it is desirable that their views should be laid before the Insurance Committee, and that certain points which they regard as essential should be secured.

They would place in the forefront of their demands that so long as payment is by capitation the remuneration for dispensing by doctors in rural areas should also be by capitation. They have already laid before the Committee a reasoned statement on this point, and would now merely add that they regard it as vital.

The medical profession generally has found the burden of clerical work imposed by the Act almost intolerable.

The proposed simplification is quite insufficient, and clerical work should be abolished altogether.

The view taken by the profession on the subject of contract medical attendance on the uninsured old and infirm club members has already been brought to the notice of the Insurance Committee. That view is that the Act definitely imposes upon Insurance Committees the duty of providing medical attendance for those persons on the same terms as the insured.

[The position in Crewe and elsewhere was discussed, and it was stated that attempts were being made to import a doctor who would accept aged and infirm club members at lower terms than the insured. Legal advice had been taken by Crewe practitioners, which confirmed the opinion of the Committee as to the obligation of the Insurance Committee to provide attendance for these persons on the same terms as the insured.]

Certificates.—The Insurance Committee will recognize that the less non-medical work is imposed upon doctors the less they will be distracted from their proper duties. The form of certificate should therefore be (1) brought to the doctor by the patient; (2) printed in some uniform manner for all approved societies.

Mileage.—Certain areas on the eastern and south-eastern borders of Cheshire are mountainous and inaccessible, especially in winter, notably Mow Cop and Rainow. The practitioners attending patients in these areas should receive extra payment out of the mileage grant.

Persons Away from Home.—The profession is dissatisfied with the position as to the treatment of insured persons away from home. On the one hand has been the assurance that practitioners would receive the full minimum payment of 7s. per patient per annum; on the other is Mr. Schuster's statement at a recent conference that these same fees would be the only source from which payment for patients away from home would be forthcoming. At that conference payment by a tariff for these cases was discussed; but a fund to pay an adequate tariff could only be created by a serious and probably uniform deduction from the capitation fees of the whole of the doctors. The profession of the county would be glad to have some definite understanding on this matter.

Income Limit.—The fixation of an income limit is regarded by the profession of the county as a step which might go far towards the smooth working of the medical benefit of the Act. They would suggest that the family income limit be fixed at £2 a week, and that insured persons with incomes above that amount should be required to make their own arrangements for medical attendance. Insured persons not dependent upon their own earnings but living mainly upon persons who are income tax payers should also be required to make their own arrangements.

All the subjects mentioned above appear to the profession matters upon which an understanding should be reached before a general agreement for a further limited period is entered upon.

Rural Areas.—Turning now from the requirements of the immediate present and looking to the ultimate relation of the profession in this county to the National Insurance scheme, the inequality resulting from the same payment being made to doctors in rural areas, who have heavy motoring expenses, as to those whose practice is concentrated in densely populated districts must eventually be removed. If the payment be adequate in the latter case, it is clearly inadequate in the former, the difference of sickness incidence not reducing the two cases to one level and the additional duty of dispensing imposed upon rural doctors at rates which they regard as wholly inadequate constituting no set-off against their travelling expenses, but, on the contrary, an added burden.

Holiday Makers and Migrants.—On the main question a strong body of medical opinion in Cheshire holds that the difficulty now being experienced in settling the question of the payment for visitors to the seaside, gangs of navvies and labourers, domestic servants, actors, canal men, commercial travellers, and other persons of a peripatetic occupation is of the essence of the problem. The system of payment for work done required to solve it would be so extensive as to be practically universal. But where there is no check to the demand for attendance, a system of payment for work done out of a limited and inadequate fund sets a premium on over-visiting. On this ground, and other still more important grounds, some check to an excessive demand for attendance suggests itself as essential. Such a check would prevent malingering and a more serious abuse still, valetudinarianism. The Cheshire profession thinks that the check can only be found when some arrangement has been arrived at which renders it to the patient's financial interest not to be excessively attended—in other words, which places some part of the responsibility for payment (at any rate, in the earlier stages of illness) upon the patient directly.

The profession is convinced that the quality of the attendance must seriously suffer if the present unnecessary strain and overwork continue.

A further list of points desired by the profession was appended as follows:

(*a*) That three months' notice of resignation from the panel should suffice. This was important where a doctor with a small practice broke down in health, otherwise he would be tied to find a locumtenent.

(*b*) That the fee for the anaesthetic should be paid by the patient.

(*c*) That the fee for maternity benefit be paid direct to the doctor by the society.

(*d*) That the profession have 10 per cent. representation on the District Insurance Committees.

(*e*) That the Insurance Committee should contribute to the expenditure of the Local Medical Committee.

(*f*) That no tickets entitling to medical benefit should be issued to voluntary contributors above the income limit.

(*g*) That the regulations respecting the insured, and the plain information that they have the right to free choice of doctor, should be published in the local press.

(*h*) That there should be a fixed fee for first attendances in accidents to cover average cost of appliances used.

(*i*) That the administration of anaesthetics, the treatment of serious accidents, and the treatment of abortions and miscarriages be counted and paid for as extras.

(*j*) That, pending favourable consideration of items (*h*) and (*i*), only temporary agreements as for a further period of three months be signed.

We are informed by the Honorary Secretary of the County of Cheshire Provisional Local Medical Committee that at the meeting of the Cheshire Insurance Committee on March 15th it was resolved:

1. That dispensing by doctors in rural areas should be paid for by capitation and not as had been proposed by the Medical Benefit Subcommittee according to detailed accounts of each item, in the same manner as the chemists.
2. That the time up to which messages requesting attendance upon the same day should be brought to the surgery

should be the end of the morning surgery hour of each doctor, as desired by the profession, *not* the uniform time of 10 a.m. as proposed by the Medical Benefit Subcommittee.

3. That the Committee do proceed to make arrangements for the treatment of the aged and infirm members of approved societies (who were members at the time of the passing of the Act) on the same terms as the insured, such treatment to be available on application.

At a meeting of the Chester and Crewe Division held at Chester on March 19th, the following were elected to represent the Division on the County Medical Committee:

Dr. Phillips, Malpas	Dr. Gray, Crewe.
Dr. Matthews, Nantwich.	Dr. Foster, Great Barrow.
Dr. Hodgson, Crewe.	Dr. Briant, Helsby.

This election completes the personnel of the County Medical Committee.

KESTEVEN.

THE Local Medical Committee for the Kesteven Division of Lincolnshire has been recognized. It is as follows:

Dr. Frier, Grantham, *Chairman.*	Dr. Greenwood, Stamford.
	Dr. Macdonald, Woolsthorpe.
Dr. Stanton, Folkingham, *Vice-Chairman.*	Dr. Pim, Sleaford.
	Dr. Ellis, Metheringham.
Dr. G. A. C. Shipman, 23, St. Peter's Hill, Grantham, *Honorary Secretary.*	Dr. Poole Berry, Grantham.
	Dr. Elliott, Stamford.
	Dr. Pretty, Grantham.
Dr. Gilpin, Bourne.	

Medical Representatives on the Local Insurance Committee.—Drs. C. Frier, J. A. Macdonald, and G. A. C. Shipman.
Medical Service Subcommittee.—Drs. C. Frier, W. J. Gilpin, and J. C. Ellis.

At a meeting held at Sleaford on February 18th, the following resolutions were adopted:

1. That the minimum fee for attending a confinement be one guinea.
2. That a minimum fee of sixpence be demanded for all "additional" sick pay certificates.
3. That the Commissioners be again urged to make a grant in respect of mileage in Fen districts.
4. That the methods adopted by the Grantham Medical Institute in touting for patients be brought before the notice of the Commissioners.
5. That the Local Insurance Committee be again asked to sanction a wage limit in Kesteven.
6. That practitioners not engaged in whole-time appointments be invited to subscribe six shillings to meet the current expenses incurred by the Committee.

WORCESTER.

THE Local Medical Committee for the county of Worcester has been recognized. It is constituted as follows:

Mr. J. Lionel Stretton, Kidderminster, *Chairman*	Dr. James Pierce, Redditch
	Dr. B. Addenbrooke, Kidderminster
Dr. A. O. Holbeche, Great Malvern, *Vice-Chairman*	Dr. H. L. Miles, Kidderminster
Dr. H. E. Moore, Oakleigh, Stourport, Worcester, *Honorary Secretary*	Dr. J. Wilkinson, Droitwich
	Dr. M. Johnston, Bewdley
	Dr. Dickinson, Tenbury
Dr. W. Horton, Great Malvern	Dr. H. C. Kidd, Bromsgrove
Dr. G. B. Buttery, Oldbury	Dr. F. W. Coaker, Bromsgrove
Dr. H. Clarke, Stourbridge	Dr. D. G. Dykes, Great Witley
Dr. W. Kirkpatrick, Stourbridge	Dr. S. W. Coombs, Worcester
	Dr. E. H. Corder, Worcester
Dr. H. B. Emerson, Pershore	Dr. T. B. Young, Halesowen
Dr. G. E. Harthan, Evesham	Dr. C. L. Hawkins, Bromsgrove
Dr. James Montford, Upton-on-Severn	
	Dr. L. A. Taylor, Brierley Hill
Dr. J. Stevenson, Redditch	Dr. Neville Crowe, Worcester

At a meeting held at Kidderminster Infirmary, on March 6th, the report of the subcommittee appointed to draw up a series of questions to be submitted to all the doctors in the county who were on the panel, in order to ascertain, if possible, the feelings of the majority on various points, was adopted.

The three medical members of the Medical Service Subcommittee were re-elected on the advice of the Commissioners, who stated that the previous election was void, as the Local Medical Committee had not been recognized at the time of election. Mr. J. Lionel Stretton (Kidderminster), Dr. A. O. Holbeche (Malvern), Dr. Kirkpatrick (Stourbridge) were elected.

Medical Representatives on District Committees.—The following were appointed:

Bromsgrove.—Drs. C. L. Hawkins and H. C. Kidd.
Droitwich.—Drs. J. Wilkinson and Curtis.
Evesham and Shipston.—Drs. G. N. Harthan and N. C. Harry.
Halesowen.—Drs. T. B. Young and McKay.
Hundred House.—Drs. D. C. Dykes.
Kidderminster.—Drs. M. Johnston and B. Addenbrooke.
Malvern.—Drs. A. O. Holbeche and W. Horton.
Oldbury.—Drs. Broughton (Langley) and Cooke (Oldbury).
Pershore.—Drs. H. B. Emerson and J. G. Rusher.
Redditch.—Drs. J. Stevenson and Prothero Smith.
Stourbridge.—Drs. W. Kirkpatrick and C. J. Dudley.
Stourport.—Drs. E. S. Robinson and J. Brocket.
Tenbury.—Drs. Dickinson (Tenbury) and Blaquiere (Pensax).
Upton-on-Severn.—Drs. Jas. Montford and Burd.
Worcester (Rural).—Drs. Bunting (Worcester) and Gent (Ombersley).

Calculation of Remuneration on a Capitation Basis.—The circular of the Insurance Commissioners (England) (10/I.C.) on a method of calculating the remuneration on a capitation basis of doctors coming on the panel prior to and during the currency of the first quarter was discussed, and the following resolutions adopted:

1. The remuneration should be calculated by the number of weeks that each person was on the doctor's list, and not by the number of persons on each list at the end of the quarter.
2. That a wage limit of £2 a week should be fixed.
3. That the mileage in terms and conditions of service should be three miles and not five miles as settled by the Insurance Committee in January.
4. That a uniform certificate should be adopted for all societies.
5. That the Insurance Committee should notify every insured person who had not already selected his doctor that he must do so at once, otherwise he would have no choice in the matter, but would be allocated by the Committee.

WOLVERHAMPTON.

THE Local Medical Committee for the Borough of Wolverhampton has been recognized by the Commissioners, and consists of the following twenty-one members:

Dr. A. H. Carter, *Chairman*	Dr. J. O'Meara
Dr. E. H. Coleman, *Honorary Treasurer*	Dr. W. R. Somerset
	Dr. A. M. Bankier
Dr. H. C. Mactier, 33, Tettenhall Road, Wolverhampton, *Honorary Secretary*	Dr. Ridley Bailey
	Dr. J. A. Codd
	Dr. E. Deanesly
Dr. W. Bates	Dr. F. Edge
Mr. W. F. Cholmeley, F.R.C.S.	Dr. J. Grout
	Dr. H. Malet
Dr. T. C. Craig	Dr. S. Poole
Dr. F. A. Cooke	Dr. J. F. Stockwell
Dr. T. H. Galbraith	Dr. J. A. Wolverson
Dr. V. J. Magrane	

A meeting of the committee was held at the General Hospital, Wolverhampton, on March 6th, when Dr. CARTER was in the chair.

It was decided to make a levy of 2s. 6d. per annum on all the practitioners whose names appear on the Wolverhampton panel and on all those practising in the area of the committee to defray the expenses of the committee, and Dr. E. H. Coleman was appointed Honorary Treasurer.

Dr. MACTIER gave a short report of the conference with the Commissioners on February 11th, and showed samples of the cards and prescription forms it was proposed to adopt. He also reported that the Commissioners were in favour of the adoption of a pharmacopoeia for the use of the practitioners on the panel and the chemists in the area. After discussion a resolution was adopted recommending the doctors on the panel to adopt a pharmacopoeia, preferably that already adopted by the Birmingham Local Medical Committee.

The committee then considered a complaint made by an insured person, and unanimously resolved:

That it is no part of the duty of a practitioner on the panel to prescribe glasses.

COUNTY OF STAFFORD.

A MEETING of the County of Stafford Local Medical Committee was held at Stafford on March 18th, when the Chairman (Dr. RIDLEY BAILEY) presided, and twenty-three members were present.

Correspondence.—Specimens of prescription books received from the Clerk to the Insurance Committee were handed round, and the choice of the meeting fell on Form Med. 13 (*b*) for adoption in the county area.

Executive Committee.—The following were appointed members: Messrs. Burd, Butter, Cookson, Daly, Smith, and Taylor, with the Chairman and the Honorary Secretary *ex officio*. Dr. Cookson was appointed Treasurer. The Executive Committee was requested to report to the next meeting on the method of collection and allocation, etc.,

of funds. The drafting of rules was also referred to the executive for consideration and report.

Proposed Pharmacopoeia.—The meeting decided that matters should be left as at present, and that no steps in regard to a pharmacopoeia be taken.

Medical Service Subcommittee.—The Chairman, Treasurer, and Secretary were appointed to act as the medical representatives.

Vacancies on the Insurance Committee.—The Committee decided to recommend Dr. Taylor (Brierley Hill) for appointment by the county council, and Dr. Steele (Kidsgrove) for appointment by the Commissioners.

WEST RIDING OF YORKSHIRE.

At the meeting of the Local Medical Committee on March 3rd, when Dr. May was in the chair and twenty-four representatives were present, it was announced that the Committee had been recognized by the Commissioners. It was reported that thirty-six districts of the West Riding Insurance Committee area were now represented on the Local Medical Committee. Dr. May, Dr. Hillman, and Dr. Russell were appointed members of the Medical Service Subcommittee, and it was noted that they should act with the assistance of the Secretary or other officer of the Local Medical Committee as provided in Section 4 (*c*) of Regulation 52.

Mileage.—The consideration of further claims from various districts was postponed, but the Committee adopted the following principle:

That it be a recommendation from this Committee to the West Riding Insurance Committee that a further capitation fee be granted of (*a*) half a crown (2s. 6d.) a head per annum for all insured persons resident between three and five miles from the nearest panel doctor, and of (*b*) five shillings (5s.) for all those more than five miles distant.

Allocation of Patients.—A letter from Mr. Dixon (the Clerk to the West Riding Insurance Committee) was read with regard to the allocation of patients who have not selected a doctor, and the honorary secretary was directed to write and say that in the opinion of the Committee the moneys available for the present quarter in respect of the unassigned residue of insured persons should be distributed equally amongst the doctors on the panel. It was considered that this would be the fairest and most equitable method of distribution.

Aged and Infirm Members of Friendly Societies.—It was reported that a letter from the clerk had stated that the rate of remuneration for attendance upon old and disabled members of friendly societies would be from 6s. 6d. to 7s. (not including drugs), the actual sum depending on the amount of the unexpended balance in the Drug Suspense Fund available for the remuneration of doctors.

Certificates.—As the Commissioners are considering the question of the form of certificate to be used by doctors, the honorary secretary of the Committee was directed to communicate with them suggesting a simple method of certification which might be applicable to the whole country.

Distilled Water.—It was resolved to notify chemists that, unless prescribed, distilled water should not be used.

Rules for Medical Benefit.—It was resolved to request the Insurance Committee to supply to each doctor one or two copies of the cards containing the rules for the administration of medical benefit suitable for hanging up in waiting rooms.

EAST SUFFOLK.

We have ascertained that the statement in the report of the meetings of the East Suffolk Local Medical Committee, published in the Supplement to the British Medical Journal of March 15th, p. 251, to the effect that the Secretary of the Lowestoft Institute was collecting insured medical tickets and taking them to the institute to be signed by the doctors, was incorrect. The Lowestoft Friendly Societies' Medical Institute informs us that it has never done any touting and does not permit such a practice. We therefore desire at once to withdraw the statement and to express our regret for its publication.

HAMPSTEAD.

A meeting of the Hampstead Provisional Medical Committee was held at 41, Belsize Park on March 17th, at 9.30 p.m., under the chairmanship of Dr. Ford Anderson.

A letter from the Clerk to the London Insurance Committee in reply to a communication from the Honorary Secretary of January 4th in reference to the treatment of insured persons at the Kilburn Provident Dispensary was read.

It was agreed to apply for recognition as the Statutory Local Medical Committee for the borough of Hampstead, and on obtaining recognition to appoint a representative upon the District Insurance Committee, Dr. Archer being chosen by the votes of those present for this office.

FALKIRK.

On March 21st the Falkirk Medical Committee met to adopt the constitution drafted by the Insurance Commissioners, Dr. G. C. Stewart being in the chair. Dr. A. E. Hunter moved, and Dr. Brown seconded, a motion to decline to adopt the constitution, and to discontinue working under the Act after the period expiring on April 14th. The Chairman ruled that the motion was out of order; and thereafter the constitution was adopted on the motion of Dr. G. Gardner, seconded by Dr. J. Smith. Dr. Stewart was reappointed Chairman of the Committee.

MEETINGS OF INSURANCE COMMITTEES.

East Suffolk.

At the meeting of the Subcommittee of the East Suffolk Insurance Committee, held at Ipswich on March 18th, some matters of medical interest were dealt with.

Mileage.—From the report in the *East Anglian Daily Times* of March 19th, we learn that Dr. Barnes stated that the Medical Committee had discussed the question of practitioners' mileage in rural districts, and that with Dr. Gutch he had made inquiries which led him to suggest that the Insurance Committee should make application for a grant from the special mileage fund. It was found that there were eighty-seven parishes with a population of 29,081 between three and four miles from a doctor, and thirty-six with a population of 10,395 more than four miles away. From the replies he had received from a certain number of doctors, it appeared that there were 2,731 insured persons between three and four miles distant, 1,405 between four and five miles distant, 936 between five and six miles, and 154 over six miles. In addition he pointed out that in some parts rivers made places apparently close a good distance away by road; many roads were in a very bad state, and there were large tracts of very sparsely populated land. The Committee thanked Dr. Barnes, and decided that a claim should be made.

Lowestoft Medical Institute.—From the same report it appears that the following communication was read from the Insurance Commissioners under date March 11th:

I am directed by the National Health Insurance Commissioners (England) to state that complaints having been received by us of irregularities in connexion with the issue of medical tickets to insured members of societies affiliated to the Lowestoft Friendly Societies' Medical Institute, and in connexion with the collection of the tickets from such persons, the Commissioners have caused inquiries to be made in the matter. As a result of such inquiries it appears that the form of notice to receive medical attendance and treatment through the Institute has been sent in some cases by insured persons under a misapprehension, and with grave interference with the right of insured persons of free choice of doctors has occurred in connexion therewith. The Commissioners are of opinion that the Committee would be well advised to require a new form, Med. 19, together with a new medical ticket to be issued to each of the members of the Institute who is an insured person. The new medical tickets would be issued by the Commissioners to the secretaries of the societies concerned on receipt by the Commissioners of the tickets which had been declared invalid. An intimation, drawing the attention of each member to his right of free choice of doctor, and allowing him a reasonable period from the receipt by him of the form and of the medical ticket for the purpose of considering his decision with regard to medical benefit under the Insurance Act, should be sent in each case. The new medical tickets should be sent to your Committee duly signed by the insured person, but without any signature or endorsement on behalf of the Institute.

The Committee decided to send a copy of the letter to the Institute.

PETERBOROUGH.

At the meeting of the Peterborough Insurance Committee on March 12th it was stated that medical men not on the panel did not intend to make any formal arrangements with insured persons who might be allowed to make their own arrangements, whereupon the Committee decided not to consider any requests for permission to contract out. A list of medical men on the panel, and the number of patients (varying from 1,500 to 42) accepted by them, was received by the Committee, and is fully set forth in the local newspapers. The publication of such a detailed list seems likely to be attended with inconvenience; the practice has been adopted elsewhere of referring to medical men in all such documents issued by the Insurance Committee by numbers instead of by names. The Committee agreed to allocate the unassigned residue of insured persons in proportion to the accepted names already on the doctors' lists, having regard to the distance of the insured persons' residences from the doctors' surgeries.

EAST RIDING OF YORK.

The administration of sanatorium benefit in the East Riding of Yorkshire is being much hampered financially because the number of insured persons is 11,000 less than the Government estimate of one-third of the population. In some cases accommodation for tuberculous patients has had to be found outside the county. The Committee has refused all requests for permission to contract out. The Local Medical Committee suggests payment of 1s. a head a mile, or a capitation fee of 1s. 6d. a mile in respect of all insured persons over the three-mile limit.

FRIENDLY SOCIETIES AND THEIR AGED AND INFIRM MEMBERS.

THE following letter has been addressed by instructions of the State Sickness Insurance Committee of the British Medical Association to Mr. Masterman, M.P., Chairman of the National Insurance Joint Committee, in reply to his communication dated March 17th (published in the SUPPLEMENT of March 22nd, p. 266):

Offices of the British Medical Association,
Medical Department,
429, Strand, London, W.C.,
March 27th, 1913.

Sir,

The British Medical Association is unwilling to continue a correspondence which seems unlikely to have the effect of making clear to you a position which to the Association seems perfectly simple; but there are some statements in the letter of the 17th instant written by Mr. J. A. Salter on your behalf which the Association feels were written under an evident misconception of the facts, and to these I am instructed to reply.

You state that "the terms on which the attendance" on existing aged and infirm members of friendly societies "is secured is a matter between those members and their societies and their doctors and have nothing to do with the Government or the Insurance Act." Surely this is not the case. When the Chancellor of the Exchequer convened the conference between the representatives of the friendly societies and representatives of the Association on October 9th and 16th, 1911, he did so because certain questions were exercising the minds of the friendly societies in regard to their future relations to the medical profession, and he wished, if possible, to help the two bodies to an understanding. One of these questions was the position of the societies as regards their aged and infirm members. As Mr. Moffrey explained (page 6 of verbatim report), "we cannot expect medical men to take them on at the same rate as the younger ones, because they are at a time of life when the attendance of the doctors would be frequent." As a result of that conference, the British Medical Association undertook that this class of persons should be attended on the same terms as the ordinary insured person, and the undertaking was embodied in Section 15 (2) (*e*) of the National Insurance Act. The Association cannot agree that the terms thus arranged had nothing to do with the Government or the Insurance Act. The bargain then arrived at was a means of allaying some of the objections of the friendly societies to the terms of the bill. The Chancellor himself congratulated the two parties on coming to this understanding, and the friendly societies thought so much of it that they urged that it should be embodied in the Act so that they should be secure of the medical attendance on this class of their members "on the same terms as to remuneration" as insured persons. If your memory does not serve you as to what occurred at this conference the Association would respectfully suggest that Mr. J. Smith Whitaker, Vice-Chairman of the English Commission, who at that time strenuously fought the question from the professional point of view, would be able to confirm our impression.

You state, further, that the agreement was arrived at on the assumption that the amount of money to be paid for medical attendance on insured persons was to be 6s. A careful reading of the verbatim report shows that the actual amount of remuneration was generally carefully avoided. It is true that the sum of 6s. suggested by the Government was mentioned in the course of the discussion, but obviously because that sum was the only concrete amount which had up to that time been mentioned by any one in authority. As you are aware, the Association never lost an opportunity of declaring its opinion that such a sum was inadequate and would never be accepted by the profession—an opinion which the Government has since endorsed in the most practical manner. The Association must strongly protest against your suggestion that because the profession, by reason of the Treasury grant, is receiving a higher remuneration than the 6s. which the Government quite unjustifiably assumed would be accepted, that is a reason rather for a reduction than an increase in the rate of payment for these old and disabled people. This view of the case appears to the Association to be due either to a total misconception of the real position or to wilful perversity, and, as the Association would rather accept the former explanation, it makes one more attempt to explain the position as it has always presented itself to the medical profession.

When the bill was upon the point of being passed the friendly societies grew alarmed at the possibility of their aged and infirm members being charged at an exceptional rate, as they felt they might well be if the matter were dealt with as a strictly business proposition. The Association met them on this point and agreed to accept an all-round rate. A provision for this was embodied at the request of the friendly societies in the bill, and the profession has always been willing to carry out its side of the bargain arrived at under the auspices of the Government itself. The profession is now told that because the Government raised the rate from the 6s., which no professional body ever dreamt of accepting, to 9s., the profession should take a lower rate of payment for a class whose status from the health insurance point of view is such that the Government excluded them from the ordinary benefits of the Act. That is to say, the medical profession is asked to take a risk which the Government declined, and is told in nearly so many words that it is guilty of meanness when it refuses to accept such a risk. The profession strongly resents the implication of meanness made by you in your letters and in several answers in the House of Commons. It is undeserved, as the history of the relation between the medical profession and the friendly societies proves, and in the opinion of the Association, if it had not been for the unnecessary complication of a very simple question caused by the answers given by you in the House of Commons, the profession and the friendly societies would have settled down before now to the ordinary businesslike fulfilment of the bargain made in 1911.

I am instructed to draw attention to a misunderstanding which is embodied in your statement that, because this class of friendly society members has been paying for medical attendance during years when they probably seldom required it, they should now receive it at the old rate because they are more likely to require it, rests on an entire misconception of the nature of the contract which obtained between the medical practitioner and the friendly society. It was, in fact, a form of insurance in which the good lives helped to pay for the bad, and the Association is unaware of any insurance company which takes the view as regards its business that is contained in your statement just mentioned. The medical profession is not a business corporation, but it knows of no reason outside political

exigencies for asking it to make an arrangement of this kind.

In conclusion, the Association would press the Insurance Commissioners to take immediate steps to amend Clause 2 of Regulation 51, which, as pointed out in the final paragraph of my letter of February 28th last, is inconsistent with the relevant clause of the Act.

I am, Sir,
Your obedient servant,
(Signed) ALFRED COX,
Medical Secretary.

The Right Hon. C. F. G. Masterman, M.P.,
Chairman, National Health Insurance (Joint)
Committee, Buckingham Gate, S.W.

REPORTS OF LOCAL ACTION.

IRELAND.

COMMITTEE ON EXTENSION OF MEDICAL BENEFIT.

Sitting in Dublin.

EARLIER proceedings of this Committee in Dublin were reported in the SUPPLEMENT of March 15th, p. 255. Lady ABERDEEN, who gave evidence on March 14th, said that she had sent out a list of questions to a great many people interested on the point whether medical benefits were desired by the wage-earning classes. The replies were 57 per cent. for, 25 per cent. against, and 18 per cent. doubtful. Of the 57 per cent., many replies indicated that medical benefit could not be satisfactorily applied to the towns only. Practically everybody among the superior classes of workers expressed themselves in favour of the extension of medical benefit. Where the question was understood the workers in rural districts seemed as eager as those in towns. There was not much division of medical opinion on this question. In reply to Dr. Maguire, Lady Aberdeen said that the doctors who expressed themselves in favour of medical benefit resided in rural districts. They numbered about half a dozen altogether. In reply to Mr. Lardner, the witness agreed that those agricultural labourers who would pay nothing were in favour of medical benefit, but those who would have to pay were generally against it. She added that if there were a general application of medical benefit there would have to be a considerable alteration in the Poor Law relief system and a rearrangement in regard to workhouses in order to provide the necessary hospital accommodation. The inclusion of dependants would be essential in order to make the scheme acceptable. Lady Aberdeen having stated in the course of her evidence that persons attending dispensaries who wished for better attendance often gave the doctor a fee, Dr. STAFFORD, a member of the Committee, remarked that he would like to examine the facts about that. It is unfortunate that this statement should have been made without being supported by any particular instances, especially at the present time, when there is quite sufficient cause for friction between the medical profession and the insurance authorities and public over the question of medical certificates under the Insurance Act.

At a meeting of the Committee in Dublin on March 26th evidence was given by Dr. D. A. MCCURDY with regard to friendly societies in Londonderry and district. Some of the societies, he stated, had been started long ago, and the rates had not been varied since; they ranged from ½d. to 3d. a week. He had been informed by one doctor that, although he worked fourteen hours a day for some of the societes, he was unable to make £200 a year, and was often harassed by being brought before the committee to answer complaints. In Derry respectable working people did not like to be seen attending the dispensaries, and very few earning a wage had attended down to the end of last year. He was informed that since then there had been a considerable addition to the number so attending, and he believed that some of the societies had advised their members to go to the dispensary and get free medical attendance. Evidence was also given by Dr. ALLSOM of Cork, who said that in his experience in that city the poorer classes did not regard the dispensary as having a pauper taint.

MEDICAL CERTIFICATES.

Conferences have taken place recently between the Insurance Commissioners on the one part and the chairmen of County Insurance Committees on the other. A conference also took place between the Commissioners and representatives of the Conjoint Committee of the British and Irish Medical Associations. The Irish Commissioners have since put out a statement to the effect that they had arrived at an agreement with the Conjoint Committee under which the Exchequer grant of £50,000 is, subject to certain deductions, to be distributed on a capitation basis by the Insurance Committees among the medical practitioners who would undertake to provide all medical certificates required by approved societies and insurance committees. The statement went on to say that the country would be divided into four subdivisions: (1) The six county boroughs and urban districts with a population of over 10,000; (2) the most inaccessible areas like the counties of Donegal and Leitrim and portions of counties like Clare, Kerry, and Galway; (3) the counties with net acreage per person of less than 7; (4) counties with a higher net acreage, except the portions included in subdivision (2). We are given to understand that the Conjoint Committee had agreed to the principle of a capitation fee varying according to the population of different areas, but the Commissioners further go on to state that the respective capitation grants in the four areas will be 9d., 2s., 1s. 4d., and 1s. 6d., and that the Conjoint Committee has agreed to these rates. We understand that this gives an incorrect impression of the present position, and that, on the contrary, the Conjoint Committee has declined to accept these terms on the ground that the fees are insufficient. It decided to accept either 2s. 6d. for each certificate or a capitation fee of 3s. A further meeting of the Conjoint Committee is to be held this week to consider the matter, and meanwhile it would appear to be unwise for medical practitioners in Ireland to sign the forms of undertaking which have been issued by the Insurance Commissioners, and are stated to be returnable by April 1st.

ADVISORY COMMITTEE FOR IRELAND.

The following gentlemen, who had resigned their seats on the Advisory Committee for Ireland, have at the request of the Conjoint Committee of the British Medical and Irish Medical Associations been reappointed: Dr. P. T. O'Sullivan (Cork), Dr. Thomas Donnelly (Dublin), Dr. Thomas Costello (Tuam), Dr. J. S. Darling (Lurgan).

INSURANCE ACT IN PARLIAMENT.

ADMINISTRATION OF MEDICAL BENEFIT.

Aged Members of Friendly Societies.

SIR C. KINLOCH-COOKE asked, on March 20th, whether the Treasury was aware that members of friendly societies who were 65 years of age and upwards on July 15th last, or who through permanent disablement at that date were unable to become insured persons under the Act, were called on to pay increased contributions for medical attendance and treatment, and that doctors were refusing to accept such members except at a fee at least equal to that paid for insured members; and whether the possibility of paying the difference out of moneys provided by Parliament would be considered. Mr. Mount asked a similar question.—Mr. Masterman said he was aware that while some societies had been able to make satisfactory arrangements for the medical attendance of their uninsured members, in some districts the doctors were demanding higher rates of remuneration than the societies were prepared to give. He could not understand why the fact that doctors were receiving an additional grant in respect of insured members should make them demand not only the increase of about 50 per cent. (which societies were generally prepared to give), but an increase of nearly 100 per cent. in the rates they had hitherto been receiving for their uninsured patients.

Sir C. Kinloch-Cooke: Will the right hon. gentleman take the opportunity of bringing this matter before the doctors?—Mr. Masterman: I have been doing so. A letter of mine appears in the BRITISH MEDICAL JOURNAL this week.

Assistants and the Panel.

Mr. Keir Hardie asked, on March 20th, whether doctors who were engaged as assistants and had covenanted with

their employers not to open a practice within a given radius during a certain term of years were thereby debarred from serving on the national health insurance panels within the areas specified in their contracts.—Mr. Masterman: Unless debarred by the terms of the private contract, the doctors referred to would be entitled to be placed on the panel.

Deposit Contributors.

Mr. Masterman stated, in reply to Mr. Lane-Fox, on March 19th, that he was not aware that any difficulty in obtaining medical tickets was being experienced by deposit contributors who were entitled to medical benefit, but there had been numerous applications for tickets from deposit contributors, to whom, owing to failure to notify their change of address or to furnish the necessary particulars, it had been impossible to deliver tickets until application was made.

Free Choice of Doctor.

Mr. Lane-Fox asked the Secretary to the Treasury, on March 19th, whether the National Health Insurance Commissioners had received many complaints from insured persons who were now prohibited from employing their favourite doctor under the National Insurance Act because such doctor had not seen his way to join the panel; and how long it was proposed to restrict the free choice of doctor in such cases.—Mr. Masterman said that the answer to the first part of the question was in the negative. With regard to the second part of the question, he had nothing to add to the full statement which he made on the subject on February 12th.

MATERNITY BENEFIT.

Mr. Watt asked, on March 25th, whether in Scotland, and particularly in Edinburgh, maternity benefit was not being paid to the women themselves, but to male relatives representing themselves as authorized to receive such; whether that was according to the Act, or whether the Insurance Committees had power to alter this method of payment.—Mr. Masterman said that the Scottish Commissioners were not aware that maternity benefit, either in Edinburgh or elsewhere in Scotland, was being paid to persons other than the insured persons entitled to it without proper authority from the latter. Section 18 (1) of the Act provided that where the husband was insured the maternity benefit was payable in respect of his insurance and by his society, and was to be treated as his benefit, though the society had power to administer it in cash or otherwise as they thought fit. Insurance Committees administered under similar conditions the maternity benefit of deposit contributors, but they had no powers with regard to the maternity benefit of members of approved societies.

Colonel Lockwood asked whether the maternity money should not be paid directly to the doctor or the nurse.—Mr. Masterman said that the present system was in conformity with the opinion of the House; and in reply to a further question Mr. Masterman said that the husband was exposed to prosecution and conviction if the wife was neglected during this period.

INSPECTION OF PHARMACIES INSPECTORS.

Mr. Tyson Wilson has been informed by Mr. Masterman that the question of appointing inspectors of pharmacies was under consideration.

DOCTORS AND INCOME TAX.

Mr. Malcolm asked the Chancellor of the Exchequer, on March 24th, whether he could see his way to permit doctors earning incomes under the National Insurance Act to bank such moneys free of income tax.—Mr. Lloyd George said that he did not see his way to the granting of differential income-tax treatment to doctors who might be deriving income under the National Insurance Act.

SCOTTISH CLERKS' ASSOCIATION.

In reply to Mr. James Hogge, Mr. Masterman said, on March 20th, that the special medical scheme of the Scottish Clerks' Association was an arrangement whereby the member called in his own doctor, who rendered his bill in the usual way to the patient; the association refunded the amount of the bill in so far as it did not exceed a certain fixed sum per visit. The Commissioners were legally advised that this scheme was not a system within the meaning of Section 15 (4) of the National Insurance Act. The association formally applied for approval of the scheme as a system on December 20th last, and was informed on January 8th that the application could not be considered as the scheme was not a system within the meaning of the subsection. He thought there were suggestions, which might fructify, of the desire of the Scottish Clerks' Association to be in combination with the ordinary system.

REPETITION OF MIXTURES.

THE Secretary of the Glossop and District Pharmaceutical Association a short time ago raised with the Insurance Commissioners the question of the use by medical practitioners working under the Insurance Act of the common form "Rept. Mist." It was objected that a prescription should be complete in itself, inasmuch as the Act declared free choice of doctor, chemist, and insurance society, and a proprietary right might thus be given to the chemist who first made up the mixture. The reply of the Insurance Commissioners was published in the *Chemist and Druggist* of March 8th, stating that "they would offer no objection to the adoption of a system enabling doctors to order medicines already supplied to insured persons by reference to the person's prescriptions. The system adopted should, however, be such as will enable the chemist readily to identify the prescription to which reference is made."

CORRESPONDENCE.

THE PRESENT SITUATION AND FUTURE POLICY.

DR. E. H. WORTH (Streatham, S.W.) writes: Your editorial remarks from time to time in the JOURNAL would lead one to suppose that the so-called fight about the Insurance Act is over and that we are beaten.

It may be that the country as a whole has given in without firing a shot, to the everlasting shame of our profession; but we London men are made of sterner stuff—three-quarters of our members are not on the panel, and, as far as I can see, never will be unless the conditions offered are improved.

I venture to draw up a few terms which I think may be acceptable to them:

1. The service to be called the Limited Medical Service of London, and limited to 500 insured people.
2. Wage limit to be £2 a week.
3. Doctor's name not to be advertised locally.
4. Capitation grant for insured to be pooled, and the fees to be as stated on Form 43 for payment for work done.
5. Statistics and records to be reduced to a minimum.
6. All control to be administered by a Local Medical Committee, except in cases of misconduct.

CENTRAL INSURANCE DEFENCE FUND.

Dr. W. F. MACDONOGH (Twickenham) writes: The latter part of Dr. Donald F. Shearer's letter on page 267 of the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 22nd contains a very valuable and practical suggestion which I should like to see carried out, more to put the profession in a position to defend its interests than to give compensation.

That compensation, and to a very large extent, will have to be given unless grave injustice is to follow is quite certain. Many men gave up their clubs to be loyal to their brethren, and now find that they have lost not only their clubs but the panel patients they were entitled to expect, because the clubs have appointed other doctors and are continuing in the same old way, except that they have clearly intimated to their members that for club purposes they will accept no certificates except such as are issued by their own club doctor.

Traction companies which have their own approved society are the worst in this respect; their members are well paid, so go on paying the old club rate over and above what they have deducted from their wages under the Insurance Act. These men cannot be troubled to go to the doctor of their choice for treatment and then to their

club doctor for certificates, so they make their club doctor their panel doctor too, knowing quite well things may not be so pleasant if they did otherwise.

Dr. W. G. DICKINSON (Portishead) writes: I wish most heartily to endorse Dr. Shearer's suggestion. As one of the many who were obliged to join a panel owing to the action of my neighbours, I shall be delighted to contribute at the rate of 5s. per 120 panel patients. I hope the matter will be taken up by the Branches and a fund raised without delay. Not the least advantage would be that we should be forcing the Government to pay for the organization of the profession. I quite agree with Dr. Shearer that when members were released from their pledge they were *ipso facto* released from their guarantee. But what I am waiting for is the publication of the actual amounts hitherto paid as compensation, and on what grounds the grants were made.

BRISTOL.

Appointment of Medical Adviser.

Dr. THOS. M. CARTER (Chairman, Bristol Local Medical Committee) writes: In the SUPPLEMENT to the JOURNAL of March 15th (p. 254) there appears an annotation respecting the appointment of Medical Adviser to the Bristol Insurance Committee which is somewhat misleading, in that it does not indicate the manner in which the interests of the general practitioner have been safeguarded.

It does not appear from your statement that the opinion of the Medical Adviser is sought in almost all cases by the general practitioner himself; and where application is made by the approved society official communication is in every case made with the doctor in attendance before the patient is seen. Only in very rare cases—none of which has yet arisen—is it provided that the Medical Service Subcommittee shall direct the Medical Adviser to visit a patient without reference to the medical attendant. The Insurance Committee and the approved societies have not the right to do so.

In a circular letter addressed on March 3rd to the local profession by the Local Medical Committee the following statements are made:

It is very desirable that insured persons in receipt of sickness benefit should become generally aware of the fact that such an officer will be called in should there be any tendency to prolong the period of sickness benefit unnecessarily, and this knowledge will be quickly spread by his being applied to in a few cases in which the slightest doubt arises; even if his decision should be that sick benefit should continue, the beneficial result of his appearance in the case would follow.

There is no need for the patient to know that the practitioner has applied for the visit of the Medical Adviser; the whole purpose being to spare the practitioner having to make a decision unwelcome to the insured person which might prejudice his future position with that patient.

A general use of the services of the Medical Adviser must tend not only to reduce definite malingering, but also to diminish that liability to invalidism which is so pronounced a result of National Insurance in Germany. (Vide article by Sir John Collie in *Practitioner* for March, 1913.)

The circular letter from the Insurance Committee to panel doctors on February 25th states:

He will act as referee in all cases that may occur in connexion with your treatment of insured persons in which his services are required.

He should be referred to whenever there is the slightest doubt as to malingering, and in all cases where there is any question whether the patient is capable of working without detriment to his health or convalescence.

As the withholding of a sickness certificate might offend a patient, and prejudice the future position of the practitioner, if the Medical Adviser is appealed to, he will bear the onus of the decision in all such cases.

His duties are essentially for the safeguarding of the sickness benefit funds, as with freedom of choice of doctor the societies have no claim on the practitioner to watch their interests.

The advisability of close co-operation between the Medical Adviser and the practitioners must be apparent, lest, as is the case in Germany, the societies should be compelled in the interests of their funds to apply to the Commissioners for the establishment of a routine inspection of all certificates by medical inspectors, not under the control of the Medical Service Subcommittee whose appointment, therefore, would not be so much for the assistance of practitioners as for overlooking their work.

Obviously it will be to the advantage of practitioners to discourage invalidism as much as possible, and it is hoped they will avail themselves freely of this assistance.

It should be noted, however, that the duties of the Medical Adviser are not those of a clinical consultant, and have no reference to any treatment you may consider necessary for your patients.

Although only a few weeks have elapsed since this appointment was made, the benefit to the profession is already apparent; and, through the tactful manner in which the duties are carried out by Dr. Rogers, no friction whatever has arisen.

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1913.

DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1913, will be held at Brighton on Friday, July 18th, and following days, as may be required.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting at Brighton in July next, relating to questions affecting the honour and interests of the medical profession or of the Association (By-law 37), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 19th, and for this purpose should be received by me not later than April 12th, 1913. Notices of Motion proposing to make any addition to, or any amendment, alteration or repeal of any Regulation or By-law, or to make any new Regulation or By-law (Article 31), must be published in the JOURNAL not later than the issue of May 17th, and received by me not later than May 10th, 1913.

By Order,

ALFRED COX,
Medical Secretary.

February 4th, 1913.

QUARTERLY MEETING OF COUNCIL.

THE Quarterly Meeting of the Council will be held at Two o'clock in the afternoon of Wednesday, April 23rd, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,
Financial Secretary and Business Manager.

March 13th, 1913.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—A special meeting of the Division will be held at the Coventry Hospital on Tuesday, April 8th, at 8.30 p.m. (1) To discuss, and if approved, adopt the new ethical rules. (2) To receive the report and recommendation of the committee on an ethical matter. (3) To receive communications. (4) The rest of the evening will be devoted to clinical matters, and any member having anything of interest is requested to arrange with the Honorary Secretary —D. DAVIDSON, 15, Priory Row, Coventry.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at Colchester on Wednesday, April 30th. Members wishing to read papers or to show cases or specimens should communicate at once with me.—B. H. NICHOLSON, Colchester.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—The next meeting of the Division will be held conjointly with the South-West Essex Division on Friday, April 11th, at 9.30 p.m., at Brooke House, Upper Clapton, by invitation of Dr. Gerald Johnston, when Dr. Hugh Walsham will give an address, with lantern demonstration, on Roentgen Rays in Diseases of the Chest.—A. G. SOUTHCOMBE, Honorary Secretary, 83, Sidney Road, Homerton, N.E.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—A meeting of the Division will be held at the Leicester Royal Infirmary on Wednesday, April 9th, at 4 o'clock. Agenda: Minutes of the previous meeting. Election of Representatives and Deputy Representatives. The following resolution will be proposed: "That it be an instruction to the Council to take the necessary steps to form a union of medical practitioners registered under the Trade Union Acts, for such of the members of the Association and other medical practitioners as may desire to join such a union." Discussion on the proposed "Baby's Welcome" in Leicester. A discussion on "Malingering" will be opened by Mr. C. J. Bond. The following among others have promised to take part: Drs. A. V. Clarke, Moffat Holmes, McAllister-Hewlings, and C. W. Moore. Other business.—R. WALLACE HENRY, Honorary Secretary, 6, Market Place, Leicester.

MEMBERS ELECTED TO THE BRITISH MEDICAL ASSOCIATION

(JANUARY 1ST TO MARCH 13TH, 1913).

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Vaughan, A. P., Esq., Box Hill
Walker, H. F., Esq., Beechworth
Watkins, A. M., Esq., Wonthaggi
Webster, E. E., Esq., Boort
Woinarski, G. H. S. Z., Esq., Hospital for Insane, Kew

West Somerset Branch.

Peck, Major E. S., M.B., I.M.S., Ferndale, Porlock, Taunton

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.*]*

EAST YORK AND NORTH LINCOLN BRANCH:

NORTH LINCOLNSHIRE DIVISION.

THE following resolutions have been passed at the last two meetings of this Division:

Attendance on Non-insured Members of Clubs and Societies.

It was resolved that any arrangement for attendance on non-insured persons collectively be made with the Association, and be on a per item basis, with free choice of doctor, and an income limit of £160 per annum. The scale of fees submitted by the Seamen's National Insurance Society was approved, and was adopted for submission to other societies requiring attendance. It is as follows:

	£	s.	d.
One visit and medicine for two days	0	2	6
Each intermediate visit in dangerous cases (including medicine, if prescribed)	0	2	6
If beyond two miles and under three miles (outward) extra	0	0	6
If beyond three miles and under four miles (outward) extra	0	1	0
Over four miles, extra per mile	0	1	0
One attendance at surgery and medicine for two days	0	1	6
One fresh supply of medicine for two days ...	0	1	0
Extra per visit between the hours of 9 p.m. and 8 a.m. the following day, in response to call between those hours	0	1	6
Extra per attendance at surgery between the same hours	0	0	6
Special report, if required, after six weeks' illness	0	2	6
Treatment of fracture of clavicle or ribs	1	0	0
Treatment of dislocation of lower jaw	0	10	6
Treatment of other dislocations or simple fractures	1	0	0
Other minor operations with anaesthetic (teeth extraction excepted)	1	1	0
Passing catheter	0	2	6
Passing catheter, if at patient's house, extra ...	0	2	6

In accordance with the understanding come to between the British Medical Association and the friendly societies when the National Insurance Act was passing through the House of Commons, aged and infirm members of friendly societies may be attended on a capitation fee the same as that paid for insured members (9s., including medicine), with free choice of doctor and an income limit of £160 per annum.

Contract Midwifery Attendance.

It was resolved that no contracts be made with friendly societies or other bodies for midwifery attendance.

Certificates.

It was resolved that all certificates for club benefits outside the National Insurance Act be charged 1s., first initialling of pay sheet to count as a certificate unless a certificate for the benefit involved had been previously given. Signing off certificates to be charged 1s., but no charge to be made for signing off on the usual form provided by most clubs.

Workmen's Compensation Act.

The workman is not legally required to supply certificates under the Workmen's Compensation Act of inability to work, and where the employer insists on his getting one it was suggested that a form, of which copies have been supplied to members of the Division, should be sent for signature, with an intimation that the fee for supplying such a certificate is 2s. 6d. (as settled by the Representative Meeting of the British Medical Association).

EDINBURGH BRANCH:

SOUTH-EASTERN COUNTIES DIVISION.

A MEETING of the South-Eastern Counties Division was held at Newtown St. Boswells on March 21st. Dr. J. S. MUIR, Chairman of the Division, presided, and fourteen members were present. After full discussion the following resolutions were passed:

Ethical Rules.—That the Ethical Rules, as printed in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL, under heading A, "Rules for a Division not itself a Branch," be adopted.

Central Emergency Fund.—That the present time is not favourable for a canvass in support of this fund.

Insurance Defence Fund: First Call.—That the Secretary be instructed to issue circulars to any members whom he may be informed have not met their obligations.

Expenses of Provisional Medical Committee.—The Secretary intimated that the Berwickshire Committee had not forwarded to him any claim for expenses; and the Chairman of that Committee, who was present, announced that no claim would be made.

Contract Midwifery Attendance.—That pending further instructions, no arrangements with approved societies be made by any practitioner for contract attendance in midwifery cases.

Aged and Infirm Members of Approved Societies.—That no member should undertake to attend such persons at less than insurance rates.

Contract Attendance on Uninsured Persons.—That no adult non-insured person, either male or female, should be accepted by any practitioner at less than insurance rates, and that 16 be adopted as the minimum age for an adult.

Contract Attendance on Juveniles.—That children under 5 years of age should not be accepted. That the fee for contract attendance on juveniles should not be less than half the rate for adults, namely, 3s. 6d., exclusive of medicines, and that in the case of patients residing beyond a radius of two miles mileage should be charged as an extra.

New Form of Agreement between Insurance Committees and Practitioners.

The Standing Orders were suspended for the discussion as a matter of urgency of the new forms of agreement between Insurance Committees and practitioners recently issued by the National Insurance Commission. It was pointed out that while conditions of service, such as mileage, were referred to in the circular accompanying the stamped form of agreement, there was no reference in the agreement itself to any obligations on the part of Insurance Committees. It was also pointed out that there was no necessity for any hurry in signing, and that members were in a stronger position while giving service without an agreement than with one. It was evident that no Insurance Committee could decline to pay for work done except by risking the immediate withdrawal of practitioners' services. It was decided that another meeting should be convened shortly, and in the meantime a circular has been issued to practitioners inviting them to postpone the signature of the draft agreement, and expressing the unanimous opinion of the Division that all conditions of service should be stated clearly in the stamped agreement, the omission of any reference to mileage being particularly noted. Practitioners were recommended, in acknowledging the receipt of the communication from the County Insurance Committee, to point out: (1) That the proposed agreement was not in order, in that it does not conform to the provisions of Section 62 of the Insurance Act, whereby the Local Medical Committee must be consulted on all general questions affecting the administration of medical benefit, including the arrangements made with medical practitioners giving attendance and treatment to insured persons; (2) that there are no provisions in the agreement with respect to the conditions of service, such as referred to in the above circular letter; and (3) that the stamped agreement as drafted would only bind the medical men to service, and that it would be more satisfactory if the obligations of both parties to it were clearly stated therein. At the same time it is suggested that the practitioner should state his willingness to enter into the agreement as a temporary measure for a period of one month only in order to prevent any possible inconvenience to the public.

LANCASHIRE AND CHESHIRE BRANCH:

ROCHDALE DIVISION.

A MEETING of the Rochdale Division was held at Rochdale on March 20th. Dr. GEDDES was in the chair, and fifteen other members were present.

Model Ethical Rules.—The Model Ethical Rules were considered, and, after a short discussion, the following resolution, moved by Dr. KILROE and seconded by Dr. MCKENDRICK, was carried:

> That we adopt the Model Rules for Ethical Procedure, as approved by the Representative Body, without modification, and in substitution for all such rules now in use by the Divisions and Branches respectively.

SOUTH-EASTERN OF IRELAND BRANCH.

A SPECIAL meeting of this Branch was held at Waterford on March 4th, when the chair was taken first by Dr. MORRIS and subsequently by the President (Dr. MORRISSEY). Thirteen other members were present.

Annual Report.—The annual report of the Branch was submitted and adopted.

National Insurance Act.—Dr. POWER made a statement regarding the distribution of the £50,000 grant for certificates, and also a new offer regarding the domiciliary treatment of consumption. The following resolutions were adopted:

1. While in sympathy with the efforts of the Irish Insurance Commissioners to settle the question of medical certification, seeing the amount of money available is insufficient, the South-Eastern of Ireland Branch of the British Medical Association expresses the opinion that it will be necessary for the societies or the Treasury to supplement the proposed arrangement before the present difficulties are removed.
2. That the South-Eastern of Ireland Branch of the British Medical Association strongly protest against any medical committee or individual members of the medical profession propounding policies in relation to the Irish Insurance Act which are in opposition to the policy adopted by the delegates' meeting of January, 1913.
3. That this Branch absolutely refuses to accept the proposed fee of 7s. 6d. per case for attendance at midwifery recently offered by the Insurance Commissioners for insured persons.
4. That the Commissioners' proposal to allocate 4½d. for domiciliary treatment of tuberculosis patients is highly objectionable, and we adhere to the original arrangement of a fee per visit.
5. That this Branch has resolved to fix the minimum consultation fee for attendance on Poor Law cases of midwifery at £2 2s.

At a meeting of the Branch Council, held subsequently, Dr. W. H. O'Brien was elected a member of the Branch, and it was decided to hold the next meeting in Carlow on April 2nd, instead of Waterford.

SOUTH-WESTERN BRANCH:

TORQUAY DIVISION.

A MEETING of the Torquay Division was held at the Torquay Hospital on March 13th, when twenty members were present.

Uninsured Members of Clubs.—A letter from a local friendly society official was read stating that the friendly societies had taken exception to the terms laid down at a previous meeting of the Division as to the uninsured members of clubs, and inquiring whether the Division would entertain a proposal to meet the friendly societies in conference. A general discussion ensued, and it was resolved to call a conference with the societies. The following were appointed members of the deputation:

Dr. Goodwyn.	Dr. Nisbet.
Dr. King.	Dr. Williams.
Dr. Winter.	Dr. Hatfield.
Dr. Lacey.	Dr. Nichols.
Dr. Eales.	Dr. Tivy.
Dr. Cosens.	Dr. Steele.

The deputation was instructed to adhere to the following terms:

1. 9s. per head per annum, including medicine.
2. An income limit of £2 per week.
3. Free choice of doctor, and patient by doctor.
4. That children be accepted on the terms laid down by the British Medical Association's Public Medical Service Scheme A.

It was resolved that the above terms should apply after the June quarter, and that the existing private clubs should be at once discontinued unless the terms conformed with those required by the Division.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following appointments have been announced at the Admiralty: Fleet Surgeon WALTER J. BEARBLOCK, to the *Bellerophon*, on recommissioning, April 1st. Fleet Surgeon MATTHEW L. M. VAUDIN, M.B., to the *Cochrane*, on recommissioning, April 9th. Staff Surgeon FREDERICK M. V. SMITH, to the *Victory*, additional for disposal, April 9th. Staff Surgeon EDMUND COX, M.B., to the *Ariadne*, vice Biddulph, March 19th. Staff Surgeon WALTER P. DYER, to the *Bellerophon*, on recommissioning, April 1st. Staff Surgeon WILLIAM L. HAWKINS, to the *Cochrane*, on recommissioning, April 9th. Staff Surgeon SAMUEL H. WOODS, M.D., to the *Endymion*, on recommissioning, March 18th. Staff Surgeon ROBERT B. SCRIBNER, to the *Endymion*, additional for *Edgar*, on recommissioning, March 18th. Surgeon RICHARD M. R. THURSFIELD, to the *Victory*, additional for disposal, March 13th. Surgeon WILLIAM H. KING, to the *Pomone*, additional for Royal Naval College, Dartmouth, vice Cox, March 19th.

Staff Surgeon HENRY C. ADAMS has been allowed to withdraw from the service with a gratuity, March 19th.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL D. M. O'CALLAGHAN has been appointed to the charge of the Military Hospital at Hilson.

Lieutenant-Colonel J. D. FERGUSON, D.S.O., has been appointed to the Straits Settlement.

Major C. E. P. FOWLER has been appointed Instructor in Army Sanitation at the Training School, Royal Army Medical Corps School of Instruction, Aldershot.

Major T. E. FIELDING has been appointed to the Southern Command.

Captains to be Majors: PATRICK G. HYDE, M.B., March 22nd, 1913; FREDERIC W. LAMBELLE, M.B., MARTYN C. BEATTY, M.B., THEODORE F. RITCHIE, M.B., ALEXANDER J. WILLIAMSON, M.B., ERNEST V. AYLEN, WILLIAM DAVIS, March 27th, 1913. Captain JAMES A. CLARKE, M.B., is seconded for service with the Egyptian Army, February 15th, 1913.

Captain W. B. PURDON has been appointed to Devonport.

Lieutenant B. BIGGAR has left London for service in Egypt.

INDIAN MEDICAL SERVICE.

THE Government of India have been pleased to nominate Major JAMES CURRIE ROBERTSON to be an Additional Member of the Legislative Council of the Governor-General in India, vice the Hon. Sir Charles Stewart-Wilson, K.C.I.E., resigned.

The services of Captain H. H. G. KNAPP have been placed permanently at the disposal of the Government of Burma for employment in the Jail Department.

Major A. T. GAGE has been granted one year and eight months' combined leave with effect from March 12th, 1913.

Lieutenant-Colonel J. J. PRATT has been permitted to retire from the service with effect from December 27th, 1912.

The Hon. Surgeon-General Sir C. P. LUKIS has been granted combined leave for seven months with effect from April 10th, 1913.

Surgeon-General A. M. CROFTS, C.I.E., has been appointed to officiate as Director-General, Indian Medical Service, during the absence on leave of the Hon. Surgeon-General Sir C. P. Lukis.

Major F. D. BROWNE died at Nowshera on February 19th, 1913, from pneumonia.

The services of Captain H. C. BROWN have been placed temporarily at the disposal of the Government of the United Provinces.

Lieutenant-Colonel C. H. L. MEYER has been permitted to retire from the service with effect from March 15th, 1913.

Lieutenant-Colonel J. M. CADELL has been permitted to retire from the service with effect from March 5th, 1913.

Major T. E. WATSON has been permitted to retire from the service with effect from March 15th, 1913.

Major H. J. B. TWIGG has been permitted to retire from the service with effect from January 15th, 1913.

Captain M. L. PURI, I.M.S., is appointed to the substantive medical charge of the 112th Infantry.

Captain S. C. PAL, I.M.S., is appointed to the substantive medical charge of the 108th Infantry.

Captain G. I. DAVYS, I.M.S., is appointed a Specialist in Prevention of Disease with effect from February 1st, 1913.

Captain F. S. SMITH, I.M.S., has been selected to undergo a course of training in serological work under Lieutenant-Colonel W. D. Sutherland, I.M.S.

Lieutenants to be Captains: MOZAFFER DIN AHMED KUREISHI, dated October 24th, 1912; RUSTAM HORMASJI BHARUCHA, FRAMROZE JAMSETJEE KOLAPORE, EDWARD G. KENNEDY, M.B., ROBERT F. D. MACGREGOR, M.B., ARTHUR L. SHEPPARD, M.B., PAUL K. GILROY, M.B., JOSEPH A. A. KERNAHAN, MAURICE L. O'G. KIRWAN, M.B., JOHN V. MACDONALD, M.B., GEORGE L. DUNCAN, M.B., ANATH NATH PALIT, F.R.C.S.E., HUBERT A. H. ROBSON, M.B., KALYAN KUMAR MUKERJI, dated January 29th.

The King has approved of the resignation of JOHN F. H. MORGAN March 10th.

INDIAN SUBORDINATE MEDICAL DEPARTMENT.

Senior Assistant Surgeon with the honorary rank of Lieutenant to be Senior Assistant Surgeon with the honorary rank of Captain: JOSEPH AMOR, December 23rd, 1912.

To be Senior Assistant Surgeon with the honorary rank of Lieutenant: First Class Assistant Surgeon LOUIS XAVIER DE SILVA, December 23rd, 1912.

TERRITORIAL FORCE.

ARMY MEDICAL SERVICE.

COLONEL THOMAS M. DAWSON, on vacating the appointment of an Assistant Director of Medical Services of a Territorial Division, resigns his commission and is granted permission to retain his rank and to wear the prescribed uniform, March 19th.

Lieutenant-Colonel ROBERT JACKSON, M.B., from the Third West Lancashire Field Ambulance, to be Colonel on appointment as an Assistant Director of Medical Services of a Territorial Division, March 19th.

ROYAL ARMY MEDICAL CORPS.

Third West Lancashire Field Ambulance.—Major WILLIAM B. COCKILL, M.D., to be Lieutenant-Colonel, March 19th.

Lieutenant-Colonel NATHANIEL E. ROBERTS, M.B., Sanitary Officer of a Territorial Division, resigns his commission and is granted permission to retain his rank and to wear the prescribed uniform, March 19th.

Major DAVID SMART, M.B., from the List of Officers attached to Units other than Medical Units, to be Major on appointment as Sanitary Officer to a Territorial Division, March 19th.

Welsh Border Mounted Brigade Field Ambulance.—Lieutenant WILLIAM SMITH resigns his commission, March 22nd.

Second Northumbrian Field Ambulance.—The following Lieutenants to be Captains: ARTHUR C. H. MCCULLAGH, M.B., GEORGE R. ELLIS, M.B., December 3rd, 1912.

Fourth London General Hospital.—THOMAS C. ENGLISH, M.B., F.R.C.S.Eng., to be Captain, whose services will be available on mobilization, March 4th.

Attached to Units other than Medical Units.—Lieutenant WILLIAM E. ALSTON, M.D., to be Captain, January 1st.

For Attachment to Units other than Medical Units.—WILLIAM E. L. ELLIOTT, M.D., to be Lieutenant, February 1st.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In ninety-six of the largest English towns 8,672 births and 5,817 deaths were registered during the week ending Saturday, March 15th. The annual rate of mortality in these towns, which had been 17.3, 18.0, and 17.4 per 1,000 in the three preceding weeks, further fell to 17.0 per 1,000 in the week under notice. In London the death-rate was equal to 17.6, against 18.2, 18.8, and 18.3 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 8.3 in Edmonton, 8.4 in Leyton, 10.2 in Ilford, 10.3 in Walthamstow, 10.5 in Eastbourne, and 10.8 in Wimbledon to 23.4 in West Bromwich, 23.9 in Stockton-on-Tees, 24.4 in Plymouth, 24.8 in Stoke-on-Trent, 25.1 in Walsall, and 25.9 in Wigan. Measles caused a death-rate of 1.6 in Birmingham, 1.7 in Walsall, 2.2 in Wolverhampton, 2.4 in Barrow-in-Furness, 2.9 in Wigan, 3.0 in Swindon, 4.2 in Newport (Mon.), 4.7 in St. Helens, and 8.3 in West Bromwich; scarlet fever of 1.6 in St. Helens; whooping-cough of 1.3 in Stoke-on-Trent and 1.4 in Bootle; and diphtheria of 1.3 in Swansea. The mortality from enteric fever showed no marked excess in any of the large towns and no fatal case of small-pox was registered during the week. The causes of 50, or 0.9 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 15 in Birmingham, 5 in Liverpool, 3 in Warrington, and 2 each in Dudley, St. Helens, Southport, Blackburn, Sheffield, South Shields, and Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,667, 1,659, and 1,617 at the end of the three preceding weeks, had further fallen to 1,556 on Saturday, March 15th; 164 new cases were admitted during the week, against 180, 183, and 160 in the three preceding weeks.

In ninety-six of the largest English towns 7,794 births and 5,636 deaths were registered during the week ending Saturday, March 22nd. The annual rate of mortality in these towns, which had been 18.0, 17.4, and 17.0 per 1,000 in the three preceding weeks, further fell to 16.5 per 1,000 in the week under notice. In London the death-rate was equal to 17.2, against 18.8, 18.3, and 17.6 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 7.1 in Hornsey, 7.7 in Smethwick, 8.1 in Bournemouth, 9.6 in Ilford and in Willesden, and 10.0 in Croydon and in Coventry to 23.6 in Wigan, 23.8 in Stoke-on-Trent, 24.2 in West Bromwich and in Dewsbury, 24.4 in Plymouth, and 26.7 in Rotherham. Measles caused a death-rate of 2.2 in Walsall, 2.3 in Plymouth, 2.4 in Barrow-in-Furness, 2.7 in Wolverhampton, 3.4 in Wigan, 3.7 in St. Helens, and 9.1 in West Bromwich; whooping-cough of 1.3 in Stoke-on-Trent and in York; and diphtheria of 2.4 in Barrow-in-Furness. The mortality from enteric fever and scarlet fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 47, or 0.8 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 9 in Birmingham, 5 in Darlington, 4 in Liverpool, 4 in Gateshead, and 3 in Southend-on-Sea. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hopitals and the London Fever Hospital, which had been 1,659, 1,617, and 1,556 at the end of the three preceding weeks, had further fallen to 1,514 on Saturday, March 22nd: 156 new cases were admitted during the week, against 183, 160, and 164 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In the sixteen largest Scottish towns 1,207 births and 816 deaths were registered during the week ending Saturday, March 15th. The annual rate of mortality in these towns, which had been 18.7, 20.7, and 19.9 per 1,000 in the three preceding weeks, further declined to 18.8 in the week under notice, but was 1.8 per 1,000 above the rate in the ninety-six large English towns. Among the several Scottish towns the death-rates ranged from 7.8 in Kirkcaldy, 8.8 in Falkirk, and 8.9 in Perth to 20.6 in Glasgow, 24.1 in Coatbridge, and 25.7 in Hamilton. The mortality from the principal infectious diseases averaged 2.0 per 1,000, and was highest in Leith and Glasgow. The 404 deaths from all causes in Glasgow included 39 from whooping-cough, 7 from infantile diarrhoeal diseases, 6 from measles, 4 from diphtheria, and 3 from scarlet fever. Four deaths from whooping-cough were recorded in Leith and 2 in Edinburgh; 4 from diphtheria in Aberdeen; and 4 from infantile diarrhoeal diseases in Dundee and 3 in Paisley.

In the sixteen largest Scottish towns 1,032 births and 795 deaths were registered during the week ending Saturday, March 22nd. The annual rate of mortality in these towns, which had been 20.7, 19.9, and 18.8 per 1,000 in the three preceding weeks, fell to 18.4 in the week under notice, but was 1.9 per 1,000 above the rate recorded in the ninety-six large English towns. Among the several Scottish towns the death-rate ranged from 4.1 in Hamilton, 9.8 in Clydebank, and 12.0 in Kilmarnock to 20.1 in Greenock, 20.5 in Aberdeen, and 20.8 in Leith. The mortality from the principal infective diseases averaged 2.0 per 1,000, and was highest in Falkirk and Leith. The 382 deaths from all causes registered in Glasgow included 33 from whooping-cough, 8 from infantile diarrhoeal diseases, 4 from measles, 3 from scarlet fever, and 1 from diphtheria. Seven deaths from whooping-cough were registered in Edinburgh, 6 in Leith, 3 in Aberdeen, and 2 in Greenock; and 2 deaths from diphtheria and 4 from diarrhoeal diseases in Aberdeen.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, March 15th, 646 births and 539 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 574 births and 533 deaths in the preceding period. These deaths represent a mortality of 23.4 per 1,000 of the aggregate population in the districts in question, as against 23.2 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 6.4 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 28.1 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 23.5, as against an average of 24.6 for the previous four weeks; in Dublin City, 25.0 (as against 25.9); in Belfast, 23.7 (as against 23.9); in Cork, 27.9 (as against 26.2); in Londonderry, 17.8 (as against 15.3); in Limerick, 19.0 (as against 18.0); and in Waterford, 26.6 (as against 23.7). The zymotic death-rate was 1.7, or the same as in the previous week.

During the week ending Saturday, March 22nd, 546 births and 499 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 646 births and 539 deaths in the preceding period. These deaths represent a mortality of 21.7 per 1,000 of the aggregate population in the districts in question, as against 23.4 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 5.2 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 23.7 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 21.6 as against an average of 23.7 for the previous four weeks, in Dublin city 22.8 (as against 25.2), in Belfast 25.0 (as against 23.8), in Cork 21.1 (as against 25.5), in Londonderry 11.4 (as against 13.4), in Limerick 20.3 (as against 18.6), and in Waterford 3.8 (as against 19.5). The zymotic death-rate was 1.6 as against 1.7 in the previous week.

Hospitals and Asylums.

WEST RIDING ASYLUM, WAKEFIELD.

THE introduction of outdoor treatment during the summer months, Dr. Shaw Bolton, the Medical Superintendent, says, has been the most important new measure for the improvement of the general health introduced at this asylum during the year (1911) under review. Over 100 patients spent each day in bed out of doors, and upwards of 1,000 left the wards directly after breakfast and only returned indoors at bedtime. In the case of the remainder of the patients, for whom the necessary provision could not be made, the airing-court hours were extended to the fullest extent possible. The results, Dr. Shaw Bolton says, exceeded his highest expectations. The wards, instead of being close and stuffy, became relatively healthy and hygienic. Side-room treatment became rare. The amount of sedative medicine became much less and the general health much more satisfactory.

On January 1st, 1911, there were 2,037 patients on the registers, and on the last day of the year 2,023. The total cases under treatment during the year numbered 2,594, and the average number daily resident 2,023, the latter being the highest numbers yet recorded at this asylum.

During the year 557 were admitted, of whom 467 were direct and 90 indirect admissions. Of the direct admissions, in 174 the attacks were first attacks within three, and in 84 more within twelve months of admission; in 95 not-first attacks within twelve months, as also in 12 in whom it was not known whether the attacks were first or not; and in all the remainder—that is, in 62, including 44 congenital cases—the attacks were of more than twelve months' duration.

The direct admissions were classified according to the forms of mental disorder into: Recent mania 79, chronic and recurrent 8; recent melancholia 106, chronic and recurrent 6; senile and secondary dementia, 40; delusional insanity, 49; general paralysis, 69; insanity with epilepsy, 22; confusional insanity, 23; less common forms, 21; and congenital defect, 44. It may be convenient here to draw attention to what Dr. Bolton says about the character of these direct admissions. The probably or entirely incurable—that is, the general paralytics, imbeciles, senile cases, severely debilitated, epileptic, and cases already chronic on admission—numbered 274, leaving only 193 as possibly or probably recoverable. "From the point of view of friends of patients and those who regard asylums as hospitals for the cure of insanity, the facts contained in the above table must necessarily be disappointing. From the aspect, however, of those who consider the prevention rather than the *cure* of mental disease to be one of the most important of present day social problems, such facts point rather to the urgent need of legislative measures to arrest the mental deterioration of the race." Turning to probable causation, alcohol was assigned in 44 and syphilis in 54 (unusual proportions of these two factors), and other toxins in 4; diseases of the nervous system in 34, various bodily affections in 42, child-bearing in 18, critical periods in 153, physiological defects and errors in 33, bodily trauma in 21, and mental stress in 85.

An insane heredity was ascertained in 91, an alcoholic heredity in 8, an epileptic heredity in 5, and one of marked eccentricity in 5, whilst congenital mental defect not amounting to imbecility existed in 22.

During the year, 97 were discharged as recovered, giving a recovery-rate on the admissions of 20.77 per cent., or of recoveries in and on the direct admissions of 20.34 per cent.—both very low recovery-rates. Also 17 were discharged as relieved, and 204 as not improved. During the year, 253 died, giving a death-rate on the average numbers resident of 12.50 per cent.

The deaths were due in 76 to neuro-cerebral diseases, almost entirely (71 or 27.6 per cent. of the total deaths) from general paralysis; in 44 to diseases of the heart and blood-vessels, in 4 to ulceration of bowel, in 10 to genito-urinary diseases, in 1 to rupture of spleen, and in the remainder to general and local diseases, including 30 from pneumonia, 12 from dysentery, and in 43, or just under 17 per cent. of the total deaths, from tuberculous diseases. If, however, the numbers in which tuberculosis was contributory to death be included, the proportion of tuberculous to total deaths rises to 21 per cent.

THE RETREAT, YORK.

THE annual report for 1911 of Dr. Bedford Pierce, the Medical Superintendent, shows that this institution was full during the whole year. Nevertheless, Dr. Pierce says, there is reason to think that when the accounts are completed for the financial

year it will be found that the income was less than in the previous year, although there was no material reduction in expenditure. The present tendency in legislation, the Asylum Officers' Superannuation Act and the Insurance Act, seem likely, in his view, to increase the cost of maintenance. From the statistical tables, compiled by Dr. H. J. MacKenzie, we see that on January 1st, 1911, there were 178 certified patients and 5 voluntary boarders on the registers, and on the last day of the year 172 certified patients and 5 voluntary boarders. The total certified cases under treatment during the year numbered 224, and the voluntary boarders 27, whilst the average number daily resident certified cases was 178.58.

During the year 46 were admitted, of whom 42 were direct admissions. Of the total admissions, 30 were first attack and 16 not-first attack cases. Of the direct admissions, in only 8 were the attacks first attacks within three months and in 5 more within twelve months of admission; in 12 not-first attacks within twelve months; and in the remaining 17 the attacks were of more than twelve months' duration on admission. The direct admissions were classified according to the forms of mental disorder into: Recent mania 4, chronic 3; recent melancholia 8, chronic 4; senile and secondary dementia, 4; general paralysis, 1; primary dementia and alternating insanity, 4 each; confusional insanity, 5, and acute delirium, 1. As to causation, hereditary predisposition was surmised, in 24 on account of bad family history; alcoholic intemperance was assigned in 5; and in 8 no distinct cause could be ascertained. Recovery was deemed probable in 20 of the direct admissions, doubtful in 15, and in 11 impossible.

During the year 21 were discharged as recovered, giving a recovery-rate on the direct admissions, and also in and on the direct admissions of 50.0 per cent.; also 12 were discharged as relieved and 10 as not improved. During the year 9 died, 6 of whom were over 70 years of age. All deaths were from natural causes, and do not call for special mention. The deaths give a death-rate on the average numbers resident of 5.04 per cent. Among the voluntary boarders, however, an accident occurred which cast a gloom over the household, the patient escaping from Throxenby Hall, the convalescent home at Scarborough, through an open window, and being found drowned four miles away. Such accidents happen from properly managed institutions of this kind, and cannot be avoided without reverting to what Dr. Pierce calls "the comparatively easy path of safety, involving few risks; a path bounded by walls and fences, wearisome but secure." At the inquest on this case the jury recommended that the windows should be barred or the doors should be locked, notwithstanding the protest entered by Dr. Pierce. The course recommended by the jury cannot be followed without inflicting serious deprivation and unhappiness upon the whole of the inmates of the home affected, and we have no hesitation in warmly supporting Dr. Pierce's protest against such a retrograde movement.

CUMBERLAND AND WESTMORLAND ASYLUM.

THE annual report for 1911 of Dr. W. F. Farquharson, the Medical Superintendent, shows that on January 1st, 1911, there were 842 patients on the registers and on the last day of the year, 834. The total cases under care during the year numbered 995 and the average number daily resident 846. During the year 153 were admitted, as compared with 179 in 1910, 175 in 1909, 179 in 1908, and 227 in 1907. The number of admissions was, in fact, the lowest for twenty years. Dr. Farquharson does not hazard any explanation of this low admission-rate and doubts its continuance. The census returns, however, show a decrease in the population of the two counties served by this asylum, which may have had some effect.

Of the 153 admissions 147 were direct admissions, and of these latter in 53 the attacks were first attacks within three and in 23 more within twelve months of admission; in 38 not-first attacks within twelve months; and in the remainder, including 6 congenital cases, the attacks were of more than twelve months' duration on admission. The direct admissions were classified according to the forms of mental disorder into: Recent mania 53, chronic and recurrent 17; recent melancholia 35, chronic 6; senile and secondary dementia, 5; delusional insanity, 12; insanity with epilepsy, 5; general paralysis, 4; less common forms, 4; and congenital defect, 6. As to probable causation alcohol was assigned in 17 (11½ per cent.), syphilis in none, and other toxins in 3; diseases of the nervous system in 8; other bodily affections in 8; critical periods in 9; and mental stress in 9. An insane heredity was ascertained in 43 and an epileptic heredity in 1. During the year 75 were discharged as recovered, giving a recovery-rate on the direct admissions of 51 per cent., or of recoveries in and on the direct admissions of 50.3 per cent; also 8 were discharged as relieved and 8 as not improved. During the year 70 died, giving a death-rate on the average numbers resident of 8.3 per cent. The deaths were due in 14 to neuro-cerebral diseases, including 7 from general paralysis; in 13 to diseases of the heart and blood vessels; in 4 to diseases of the lung; in 1 to Bright's disease; and in the remainder to general diseases, including 10 from lobar pneumonia, 6 from tuberculous disease, and 16 from senile decay. All deaths were due to natural causes, verified in every case by *post-mortem* examination. The comparatively small proportion of deaths from tuberculous disease (8.3 per cent. of total deaths) in an asylum of this size is satisfactory, and is attributed by Dr. Farquharson to the improved facilities for open-air treatment. There were 7 cases of asylum dysentery, 4 of whom died, but otherwise the institution was free from zymotic disease and the general health was good.

STIRLING DISTRICT ASYLUM.

THE annual report of Dr. Robert B. Campbell, the Medical Superintendent of this asylum, which serves the counties of Stirling, Dumbarton, Linlithgow, and Clackmannan, shows that on May 15th, 1911, there were 727 patients in the asylum, and on the corresponding day of 1912 there were 746; in addition, 8 were absent on probation or pass at the beginning of the twelve months, and 9 at the end of the twelve months. The total cases under care during the year numbered 989, and the average number daily resident 748.8. During the year 254 were admitted, of whom 192 were first and 62 not-first admissions. This number of admissions has been only twice exceeded in the history of the asylum. In 100 the attacks were first attacks within three, and in 39 more within twelve, months of admission; in 67 not-first attacks within twelve months, and in the remainder—including 12 congenital cases—the attacks, whether first or not, were of more than twelve months' duration on admission. The admissions were classified according to the forms of mental disorder into: Simple mania, 43; acute mania, 37; and chronic mania, 1; simple melancholia, 26; acute melancholia, 37; secondary senile and organic dementia, 28; general paralysis, 17; delusional insanity, 21; confusional insanity, 20; acute delirium, 8; and congenital mental defect, 12. As to causation, alcohol was assigned in 45; general paralysis in 17, epilepsy in 27, and organic brain disease in 7; child-bearing in 10, critical periods in 100, bodily trauma in 3, and mental stress in 11. An insane heredity was ascertained in 83, and congenital defect existed in 12. During the year 102 were discharged as recovered, giving a recovery-rate on the admissions of 40.1 per cent.; also 59 were discharged as relieved and 1 as not improved. During the year 72 died, giving a death-rate on the average numbers resident of 7.4 per cent. The deaths were due in 28 to nervous diseases, including 12 from general paralysis; in 25 to thoracic disease, including 5 from phthisis; in 6 to abdominal diseases: in 1 to injury, and in 12 to general diseases. The general health was good throughout the year, and no illness of an epidemic nature occurred.

NORFOLK COUNTY LUNATIC ASYLUM.

THE annual report for the year 1911 of Dr. D. G. Thomson, the Medical Superintendent of this asylum, shows that on January 1st, 1911, there were 1,034 patients on the asylum register, and on the last day of the year 1,036. The total cases under care during the year numbered 1,262, and the average number daily resident 1,037. All of these numbers show substantial increases on those of previous years. During the year 228 were admitted, of whom 196 were first and 32 not-first admissions. The usual table as to duration of disorder on admission does not appear in the statistical tables, but Dr. Thomson says that of the 206 Norfolk cases admitted, 56, or 24 per cent., had at some previous time been of unsound mind. The total admissions were classified according to the forms of mental disorder into: Recent mania, 77, chronic and recurrent, 54; recent melancholia, 21, chronic and recurrent, 9; senile and secondary dementia, 30; general paralysis, 7; insanity with epilepsy, 5; delusional insanity, 2; insanity with gross brain lesions, 3; less common forms, 7; and congenital defect, 13.

As to causation, alcohol was assigned in 15, syphilis in 6, influenza in 9, and other toxins in 2; nervous diseases in 14; other bodily affections in 7; child-bearing in 8; critical periods in 39; bodily trauma in 4, and mental stress in 52. An insane heredity was ascertained in 91, and of other neuropathies in 11, whilst congenital defect or eccentricity was assigned in 8. During the year 77 were discharged as recovered, giving a recovery-rate on the admissions of 35.98 per cent.; also 13 were discharged as relieved, and 22 as not improved. During the year 114 died, giving a death-rate on the average numbers resident of 10.99 per cent. The deaths were due in 26 to diseases of the nervous system, including 8 from general paralysis; in 18 to diseases of the heart and blood vessels; in 6 to respiratory diseases; in 2 to diseases of the alimentary system; in 1 to pyonephrosis; in 1 to suicide by hanging, and in the remainder to general diseases, including 22 from senile decay, and 26, or 22.7 per cent. of the total deaths, from tuberculous diseases.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary, £80 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM: RUBERY HILL ASYLUM.—Junior Assistant Medical Officer (male). Salary, £150 per annum.

BIRMINGHAM UNION.—Two Assistant Resident Medical Officers at the Dudley Road Workhouse. Salary, £125 per annum.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—House-Surgeon (male). Salary at the rate of £75 per annum.

BRECON AND RADNOR ASYLUM, Talgarth.—Assistant Medical Officer (male). Salary, £200 per annum.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRIGHTON: ROYAL SUSSEX COUNTY HOSPITAL.—Two Assistant House-Surgeons. Salary, £80 per annum each.

BRISTOL GENERAL HOSPITAL.—Assistant Anaesthetist.

BRISTOL ROYAL INFIRMARY.—Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £75 per annum.

BURY ST. EDMUNDS: WEST SUFFOLK COUNTY COUNCIL.—Assistant Medical Officer of Health. Salary, £250 per annum, rising to £300.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—House-Physician. Salary, £80 per annum.

CANTERBURY BOROUGH ASYLUM, Canterbury. — Assistant Medical Officer (male), salary £160 per annum, or a Locumtenent Assistant Medical Officer, salary 4 guineas a week.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DARLINGTON HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £120 per annum.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £100 per annum.

DURHAM COUNTY COUNCIL.—Deputy and Assistant Medical Officer of Health. Salary, £400 per annum, rising to £500.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon (male). Salary at the rate of £75 per annum.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Junior Resident (female). Honorarium, £18 per annum.

EDINBURGH: THE HOSPICE.—Medical Woman to act as Resident. Honorarium, £25 per annum.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

GRIMSBY AND DISTRICT HOSPITAL.—Junior House-Surgeon. Salary, £80 per annum.

GUILDFORD: ROYAL SURREY COUNTY HOSPITAL.—House-Surgeon. Salary, £75 per annum.

HALIFAX ROYAL INFIRMARY.—Third House-Surgeon. Salary, £80 per annum.

HASTINGS: EAST SUSSEX HOSPITAL.—Assistant House-Surgeon (male). Salary at the rate of £75 per annum.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

HULL: ROYAL INFIRMARY.—Casualty House-Surgeon. Salary at the rate of £60 per annum for six months or £80 per annum for twelve months.

HULL: VICTORIA CHILDREN'S HOSPITAL.—House-Physician. Salary, £45 per annum.

KEIGHLEY AND BINGLEY FEVER HOSPITAL AND SANATORIUM.—Lady Resident Medical Officer. Salary, £125 per annum, rising to £150.

LEAMINGTON SPA: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—(1) House-Surgeon; (2) House-Physician. Salary, £100 and £85 per annum respectively.

MANCHESTER TOWNSHIP. — Assistant Medical Officer at the Workhouse, Crumpsall. Salary, £110 per annum.

MONTREAL: McGILL UNIVERSITY.—Arthur A. Browne Fellowship. Annual stipend, $1000.00.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Northwood.—House-Physician. Salary, £75 per annum.

NOTTINGHAM GENERAL DISPENSARY.—(1) Assistant Resident Surgeon (male); salary, £170 per annum. (2) Resident and Assistant Resident Surgeons for Branch; salary, £180 and £170 per annum respectively.

NOTTINGHAM WORKHOUSE AND INFIRMARY.—Two Resident Assistant Medical Officers. Salary, £150 per annum, rising to £170.

OCHILTREE PARISH COUNCIL.—Medical Officer. Salary, £40 per annum.

OLDHAM COUNTY BOROUGH.—Assistant Schools Medical Officer. Salary, £260 per annum.

PADDINGTON GREEN CHILDREN'S HOSPITAL. — (1) House-Physician; (2) House-Surgeon. Salary at the rate of £52 10s. each.

PINEWOOD SANATORIUM, near Wokingham.—Resident Medical Superintendent. Salary, £400 per annum.

PORTSMOUTH PARISH.—Second Assistant Resident Medical Officer (male) for the Workhouse Infirmary, Workhouse and Children's Home. Salary, £120 per annum, rising to £130.

PRESTON: COUNTY ASYLUM, Whittingham.—Assistant Medical Officer. Salary, £150 per annum, rising to £250.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—(1) House-Physician; (2) House-Surgeon. Salary at the rate of £80 per annum each.

ROCHDALE INFIRMARY.—Junior House-Surgeon. Salary, £60 per annum, rising to £90.

ROTHERHAM HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Junior Obstetric Assistant (female).

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Third House-Surgeon. Salary at the rate of £50 per annum.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Honorary Surgeon.

ST. MARYLEBONE PARISH INFIRMARY, Notting Hill.—Second and Third Assistant Medical Officers. Salary at the rate of £100 and £50 per annum respectively

ST. PANCRAS BOROUGH COUNCIL.—Medical Officer of Health. Salary, £600 per annum, rising to £800.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C. — Honorary Assistant Surgeon.

SALOP COUNTY AND WENLOCK BOROUGH LUNATIC ASYLUM, Bicton Heath.—Medical Superintendent. Salary, £650 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Medical Registrar.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Junior House-Surgeon (male). Salary at the rate of £80 per annum.

SEAMEN'S HOSPITAL SOCIETY. — At Dreadnought Hospital, Greenwich: (1) Assistant Pathologist; (2) Two House-Physicians; (3) House-Surgeons; salary for (1), £100, and for (2) and (3) £50 per annum. At Albert Dock Hospital: (4) Senior House-Surgeon; (5) House-Surgeon; salary, £100 and £50 per annum respectively.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN. — Assistant House-Surgeon. Salary, £60 per annum.

SHEFFIELD ROYAL HOSPITAL. — Assistant House-Physician. Salary, £60 per annum.

SHEFFIELD: ROYAL INFIRMARY. — (1) Two House-Surgeons; (2) Junior House-Surgeon; (3) Assistant House-Physician. Salary for (1) £80 per annum, and for (2) and (3) £70 per annum.

SHEFFIELD UNION HOSPITAL.—Resident Assistant Medical Officer. Salary, £120 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL. — House-Surgeon. Salary, £100 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

SOUTHWARK UNION INFIRMARY, East Dulwich.—Third Assistant Medical Officer (male). Salary, £120 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY. — (1) Senior House-Surgeon. (2) Junior House-Surgeon. Salary, £100 and £90 per annum respectively.

STAFFORD: STAFFORDSHIRE GENERAL INFIRMARY.—(1) House-Surgeon; salary, £120 per annum, increasing to £140. (2) House-Physician; salary, £100 per annum.

STAFFORDSHIRE: COUNTY MENTAL HOSPITAL, Burntwood.—Junior Assistant Medical Officer (male). Salary, £210 per annum.

STIRLING DISTRICT ASYLUM, Larbert, N.B.—Third Assistant Medical Officer (lady). Salary, £100 per annum.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £120 per annum.

SUNDERLAND: ROYAL INFIRMARY. — Junior House-Surgeon (male). Salary at the rate of £80 per annum.

THAKEHAM UNION.—Medical Officer for Workhouse and District. Salary combined, £100 per annum and fees.

UNIVERSITY COLLEGE HOSPITAL, Gower Street, W.C.—Tuberculosis Officer.

WAKEFIELD: WEST RIDING OF YORKSHIRE COUNTY COUNCIL.—Tuberculosis Officers. Salary, £400 per annum.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £100 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL.—Junior House-Surgeon. Salary at the rate of £75 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

WORKSOP DISPENSARY.—Medical Officer and House-Surgeon. Salary, £150 per annum.

YORK DISPENSARY AND MATERNITY HOSPITAL.—Resident Medical Officer (male). Salary, £140 per annum.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

APPOINTMENTS.

ALMOND, G. Hely-Hutchinson, M.A., B.M., B.Ch.Oxon., M.R.C.S.Eng., L.R.C.P.Lond., Honorary Pathologist to the Royal Mineral Water Hospital, Bath.

BOREHAM, H. W., M.B., Ch.B., Clinical Tutor to the Senior Ophthalmic Department, The Royal Infirmary, Edinburgh.

CONNON, Middleton, C.M., M.D., D.P.H.Aberd., Medical Officer to Aberdeen Dispensary.

DAWSON, Henry G. W., M.B., Ch.B.Sheffield, Honorary Assistant Ophthalmic Surgeon to the Chesterfield and North Derbyshire Hospital.

DYSON, William, M.D.Vict., Honorary Assistant Physician to the Manchester and Salford Hospital for Skin Diseases.

FISHER, R. H. W., M.A., M.R.C.S., L.R.C.P., D.P.H.Camb., School Medical Inspector to the Lancs County Council.

FLEETWOOD, W. H., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Hoylake District, co. Chester.

GRAVES, T. C., B.Sc., M.B., B.S., Obstetric Assistant to University College Hospital.

GUTHRIE, Thomas, M.B., B.C Camb., F.R.C.S.Eng., Honorary Laryngologist to the Liverpool Royal Infirmary.

HICK, Pantland, M.D.Lond., Assistant Physician to the Liverpool Royal Infirmary.

JULER, Frank A., M.B., F.R.C.S., Assistant Surgeon Central London Ophthalmic Hospital.

KELLIE, Kenneth, M.B., M.R.C.P., Physician to the Belgrave Hospital for Children.

KIRK, John L., B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., Medical Officer of Health for Pickering Urban District.

MACGILLYCUDDY, A. R. N., M.R.C.S., L.R.C.P., House-Surgeon to University College Hospital.

MACKAY, James Forbes, M.D.Edin., D.P.H., Honorary Medical Superintendent of the *X*-Ray and Electrical Department at the Royal Mineral Water Hospital, Bath.

MCVAIL, Miss Elizabeth, M.B., Ch.B.Glasg., Medical Assistant in the Public Health Department of the London County Council.

MUNRO, J. H. M., D.Sc.Lond., M.R.C.S.Eng., L.R.C.P.Lond., Honorary Pathologist to the Royal Mineral Water Hospital, Bath.

SANDISON, Alexander, M.B., B.C., B.A.Cantab., B.Sc.Lond., Medical Officer to the Tuberculosis Dispensary for the County Borough of Croydon.

SHORT, A. Rendle, M.D., B.S., B.Sc.Lond., F.R.C.S.Eng., Assistant Surgeon to Bristol Royal Infirmary.

STACK, E. H. E. S., B.A., M.B., B.C.Cantab., F.R.C.S.Eng., Surgeon to Bristol Royal Infirmary.

TEMPLE SMITH, E. C., D.D.Oxon., F.R.C.S.Edin., M.B., Ch.B., R.U.I., Honorary Assistant Ophthalmic Surgeon to St. Vincent's Hospital, Sydney, N.S.W.

WARRINGTON, W. B., M.D.Lond., Assistant Physician to the Liverpool Royal Infirmary.

ROYAL FREE HOSPITAL, Gray's Inn Road.—The following appointments have been made:

Senior Resident Medical Officer.—Mr. C. A. Joll, F.R.C.S.
Senior Obstetric Assistant.—Miss Rawlins, M.B., B.S.
Clinical Assistant to Dr. Phear.—Mrs. Westlake, M.B., B.S.

EDINBURGH ROYAL INFIRMARY.—The following appointments have been made:

Clinical Tutor.—H. W. Boreham, M.B., Ch.B., to Dr. Sym.

Resident Physicians.—W. A. Alexander, M.B., Ch.B., to Professor Sir Thomas R. Fraser; F. J. Henderson Begg, M.B., Ch.B., to Professor Wyllie; Thos. P. Herriot, M.B., Ch.B., to Sir R. W. Philip; Alex. W. Mather, M.B., Ch.B., to Dr. Lovell Gulland; and J. E. Snodgrass, M.B., Ch.B., to Dr. F. D. Boyd.

Resident Surgeons.—S. B. Boyd Campbell, M.B., Ch.B., to Mr. Hodsdon; George M'Connell, M.B., Ch.B., to Mr. Miles; Edwin D. Pullon, B.Sc., M.B., Ch.B., to Mr. Dowden; and W. Q. Wood, M.B., Ch.B., to Dr. Barbour.

Non-resident House-Surgeon.—Alan W. Sichel, M.B., Ch.B., to Dr. W. G. Sym.

Clinical Assistants.—George M. Elliott, M.B., Ch.B., and Austin N. Smith, M.B., Ch.B., to Professor Sir T. R. Fraser; W. Moir Shepherd, M.B., Ch.B., to Professor Wyllie; Harry Evans, M.B., Ch.B., to Sir R. W. Philip; H. F. W. Adams, M.B., Ch.B., to Dr. Lovell Gulland; Andrew A. Rutherford, M.B., Ch.B., to Dr. F. D. Boyd; H. L. Watson-Wemyss, M.D., M.R.C.P., to Dr. Harry Rainy (M.W.R.); A. G. Ritchie, B.Sc., M.B., Ch.B., to Dr. Edwin Bramwell (M.W.R.); John L. Annan, M.B., Ch.B., to Dr. Eason (M.W.R.); and W. S. Lindsay, M.B., Ch.B., to Mr. Miles.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

MARRIAGES.

SLATER—BEALES.—On March 24th, at St. Michael's Church, Berkhampstead, Benjamin Holroyd Slater, B.A., M.B., B.C.Camb., F.R.C.S.Eng., of Bradford, to Ella Beales, M.B., B.S.Lond., younger daughter of Henry Francis Beales, Esq., of Ickleton, Essex.

URQUHART—MACONOCHIE.—At St. James's Church, Inverleith Row, Edinburgh, on March 26th, by the Rev. A. C. Buchanan, B.A., B.D., George Hector Urquhart, F.R.C.S., 7, Clifton Drive, St. Annes-on-the-Sea, younger son of William Urquhart, Esq., St. Helens, Eskbank, to Constance Elizabeth, youngest daughter of the late D. S. D. Maconochie and Mrs. Maconochie, Edinburgh.

DEATH.

LARDER.—On February 21st, at Dakar, West Africa, Herbert Larder, of 10, Waldgrave Gardens, Upminster, late Medical Superintendent of the Whitechapel Infirmary, aged 61.

DIARY FOR THE WEEK.

MONDAY.

ROYAL SOCIETY OF MEDICINE;

SECTION OF ODONTOLOGY, 1, Wimpole Street, W., 8 p.m.—(1) Casual Communications. (2) Papers:—Mr. J. G. Turner: The Mouth in relation to Surgical Operations; Mr. Gordon Shiach: An Echo of the Past.

TUESDAY.

ROENTGEN SOCIETY, Institution of Electrical Engineers, Victoria Embankment, W.C., 8.15 p.m.—Papers:—Professor Saubermann, Berlin: The Physiological Principles of Internal Radium Therapy. Dr. Cotton: The Radiographic Episcope, a new instrument for the utilization of the single *X*-ray print.

ROYAL SOCIETY OF MEDICINE:

SECTION OF PATHOLOGY, Pathological Department, Guy's Hospital, 8.30 p.m.—(1) Annual General Meeting. (2) Laboratory Meeting.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Paper:—Mr. H. D. Gillies: Chronic Middle-ear Disease and its Treatment.

ROYAL SOCIETY OF MEDICINE:

SECTION OF OBSTETRICS AND GYNAECOLOGY, 1, Wimpole Street, W., 8 p.m.—(1) Demonstration of Specimens. (2) Short Communications. (3) Paper:—Dr. V. Zachary Cope and Dr. Kettle: Chorion-Epithelioma of the Fallopian Tube following Extrauterine Gestation.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF EPIDEMIOLOGY, 8.30 p.m.—Paper:—Dr. A. K. Chalmers: The House as a Contributory Factor in the Death-rate.

SECTION OF LARYNGOLOGY, 1, Wimpole Street, W., 4.30 p.m.—Demonstration of Cases and Specimens, etc.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, West London Hospital.—8 p.m., Demonstration of Cases; 9 p.m., Discussion of Cases and Specimens.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Thursday. Radiography: Saturday.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Cervical Adenitis.

ROYAL EYE HOSPITAL, St. George's Circus, S.E.—Tuesday, 4.30 p.m., Sympathetic Inflammation.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Monday and Thursday, 4.30 p.m.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, daily. Gynaecology: Monday, Tuesday, Wednesday, and Friday. Eye: Monday, Wednesday, Thursday, and Saturday. Throat, Nose, and Ear: Tuesday, Wednesday, and Saturday. Skin: Tuesday and Friday. Children: Wednesday and Saturday.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		APRIL.
1	Tues.	London: Conference of Secretaries' Subcommittee, 11.30 a.m.
		London: Grants Subcommittee, 2.30 p.m.
		London: Public Health Committee, 3.30 p.m.
2	Wed.	London: Medico-Political Committee, 2 p.m.
4	Fri.	London: Ethical Committee, 2 p.m.
5	Sat.	London: Science Committee, 11 a.m.
7	Mon.	London: Colonial Committee.
		London: Naval and Military Committee.
8	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
		London: Organization Committee, 2.15 p.m.
		Coventry Division, Coventry Hospital, 8.30 p.m.
9	Wed.	London: Hospitals Committee, 3 p.m.
		London: Joint Medico-Political and Hospitals Subcommittee, 1.30 p.m.
		Leicester and Rutland Division, Leicester Royal Infirmary, 4 p.m.
11	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.

Date.		Meetings to be Held.
		APRIL (*continued*).
11	Fri.	City Division, Brooke House, Upper Clapton, 9.30 p.m.
		South-West Essex Division, Brooke House, Clapton, 9.30 p.m.
16	Wed.	London: Finance Committee, 3 p.m.
23	Wed.	London: Council Meeting, 2 p.m.
		Richmond Division, Richmond, 8.30 p.m.
24	Thur.	South-West Essex Division, Walthamstow Hospital, 4 p.m.
25	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
30	Wed.	East Anglian Branch, Colchester.
		MAY.
9	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
13	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
21	Wed.	Richmond Division, Richmond, 8.30 p.m.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 5TH, 1913.

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National Insurance.

LOCAL MEDICAL COMMITTEES.

BIRMINGHAM.

THE Local Medical Committee for Birmingham has been recognized, and consists of the following thirty members:

Mr. Albert Lucas, General Hospital, *Chairman*.
Dr. G. A. Wilkes, Aston, *Deputy-Chairman*.
Dr. E. Osborne, Ashted Row, *Honorary Secretary*.
Dr. B. C. R. Aldren, Edgbaston.
Dr. W. E. Alldridge, West Birmingham.
Dr. J. F. Atkins, Handsworth.
Dr. Norrys D. Best, Balsall Heath.
Dr. H. F. W. Boeddicker, Deritend.
Dr. F. A. L'E. Burges, Hockley.
Dr. Helen Fairley, Gravelly Hill.
Dr. W. B. Featherstone, Erdington.
Mr. L. P. Gamgee, General Hospital.
Dr. W. Gordon, Sparkhill.
Dr. F. R. Greenwood, Sparkhill.
Mr. George Heaton, General Hospital.
Dr. Claude Johnson, King's Heath.
Dr. W. T. Lydall, Yardley.
Dr. L. G. J. Mackey, Queen's Hospital.
Mr. Christopher Martin, Women's Hospital.
Dr. John Notley, Small Heath.
Dr. J. H. Ormond, Lozells.
Dr. E. W. Parsey, King's Norton.
Dr. C. E. Purslow, Queen's Hospital.
Dr. J. R. Ratcliffe, Moseley.
Dr. W. R. Reith, Erdington.
Dr. T. Salt, Saltley.
Dr. O. B. Trumper, Aston.
Mr. B. J. Ward, Children's Hospital.
Dr. E. Whichello, Edgbaston.
Dr. E. Wilkinson, Bordesley.

Representatives on the Birmingham Insurance Committee.

Appointed by Insurance Commissioners.—Dr. J. B. Brash, Handsworth; Mr. J. F. Jordan, Women's Hospital.

Appointed by City Council.—Dr. J. R. Ratcliffe, Moseley; Dr. Thomas Wilson, General Hospital.

Elected by Practitioners.—Dr. B. C. R. Aldren, Edgbaston; Dr. H. G. Dain, Selly Oak.

At the first meeting of the Committee, on January 8th, 1913, a subcommittee was appointed, consisting of Drs. Helen Fairley, Greenwood, Ormond, Osborne, and Wilkinson, to compile a pharmacopœia of stock mixtures, etc. This was done in co-operation with the Midland Pharmaceutical Committee, and the *Pharmacopœia*[1] was issued on February 1st, and has since proved very useful.

The Committee, at a meeting on February 10th, appointed Dr. Wilkinson its representative to attend the conference in London with the Commissioners on February 11th, and he ably carried out his instructions to get the clerical work reduced.

Income Limit.—At a meeting on March 26th, it was agreed that all persons who are not dependent on their work for their income ought to be exempt from medical treatment.

CHESHIRE.

THE Local Medical Committee for the county of Cheshire has been recognized.

The reply of the Commissioners to the memorandum by this committee on the modifications of the conditions of service it desires (printed in the BRITISH MEDICAL JOURNAL SUPPLEMENT of March 29th, pp. 281–2) was given verbally in an interview which the Commissioners had with the chairman and clerk of the Cheshire Insurance Committee.

MEDICAL BENEFIT SUBCOMMITTEE.

The points of the reply were conveyed to a meeting of the Medical Benefit Subcommittee held at Crewe on March 29th, as follows:

1. Payment by capitation for dispensing by doctors in rural areas has already been agreed by the Insurance Committee.

2. *Clerical Work.*—The request for its abolition was refused, and Mr. Schuster urged that the Commission desired the uniform card system.

[The Subcommittee resolved to *again* press the Commissioners to accept the substitution of a loose-leaved pocket-book interleaved with alphabetical index sheets, in place of the card system. Each leaf would be a miniature of the pasteboard card desired by the Commissioners, but on India paper.]

[1] BRITISH MEDICAL JOURNAL, March 8th, p. 526.

3. *Uninsured Old and Infirm Club Members.*—The Committee has already agreed to provide medical attendance for these according to Regulation 51, that is, on demand. The Commission declined to accede to the view of the profession that Section 15 (2) (*e*) of the Act is mandatory, and expressed its readiness to sustain its reading of the clause in a test case in the courts.

[The Clerk informed the Subcommittee of a few applications for this benefit (but most of the friendly societies continue to desire to obtain it outside the Act on lower terms).]

4. *Certificates.*—The Commissioners pointed out that this was a matter for decision by friendly societies. They proposed, however, to urge upon a conference of the latter, to be held shortly, the desirability of adopting a uniform form of certificate.

[A suggestion by the medical representative present at the Subcommittee that the objection of the profession in many areas to stating the diagnosis could be overcome by the use of a form stating that the patient was suffering "from illness not due to misconduct and not due to accident entitling him to compensation under the Workmen's Compensation Act" and that such form would fulfil every practical purpose for which the diagnosis was desired, was rejected by the friendly society representatives, who stated that they desired to know the actual diagnosis for the purpose of preventing malingering and estimating the probable duration of illness.]

5. *Mileage.*—The application for payment from the Extra Mileage Fund for certain hilly districts in South-East Cheshire will be entertained by the Commissioners.

6. *Holiday Makers and others away from Home.*—The Commission regarded the obligation on a given panel doctor under the capitation system to attend these as balanced by the relief to him when persons whom he has contracted to attend are taken ill away from his area. There was no fund on which to draw for any further payment.

[Should the profession desire to form, say, a penny pool from the panel receipts for this purpose no doubt the Insurance Committee would undertake the labour of administering it.]

7. *Income Limit.*—The Commissioners pointed out that this is entirely a matter for the Committee.

[The Subcommittee resolved to adhere to its decision to have no income limit. They declined to entertain even the suggestion of a £3 a week limit (which would rule out some of the gravest abuses). The motive for refusal appeared to be that it was thought a limit would operate harshly in the case of older men who had been below the limit for a large portion of their life.]

(*a*) The Commission declined a three months' contract.
(*b*) The anaesthetic fee was included in the contract.
(*c*) Maternity benefit could not be interfered with by Insurance Committees. It was a matter for the societies.

The Subcommittee resolved to reconsider the demand for 10 per cent. medical representation on District Insurance Committees favourably later in the year.

The chemists have informed the Insurance Committee that they will decline to extend their contracts on the drug list prepared by the County Medical Committee (to which it was understood by the Insurance Committee that a deputation from the chemists had assented, and which has been, with five slight exceptions, approved by the Commissioners). They make the acceptance of a new tariff prepared by the Pharmaceutical Society a condition of their continuance. They also object to dispense "repeat" medicines unless the whole prescription is re-written, and demand a fee of one penny for copying each prescription if not provided with a duplicate, and if a copy be required.

The District and County Medical Committees are being summoned to consider these various matters. The position is that the clerk to the Insurance Committee holds about 200 acceptances by doctors of unconditional continuance of service. About 150 other doctors have agreed to continue on the panel till May 15th, but withhold their agreements pending a satisfactory settlement of the conditions of service.

NORTH RIDING OF YORKSHIRE.

A MEETING of the North Riding practitioners was held at York on March 15th, when the question of mileage affecting the 200 panel doctors working under the capitation system of the National Insurance Act was thoroughly discussed.

Dr. ROBERT CUFF (Scarborough), Chairman of the Local Medical Committee of the North Riding of Yorkshire, who presided, pointed out that the Committee was working at a disadvantage owing to the fact that it was not aware of the exact regulations under which medical benefits were being administered, since the circular issued in December last by the Insurance Commissioners seemed to be at variance with the methods adopted, and yet no intimation of its withdrawal or of the issue of any subsequent instruction had been received. He stated that on January 21st a circular letter was sent out by the North Riding Local Medical Committee to every medical man practising in the area, dealing with a proposal to ask the Chancellor of the Exchequer for 1s. a mile over three miles, and 2s. 6d. a mile for walking after leaving a road, as had been formulated by the Wigtownshire practitioners. The circular asked doctors in the North Riding to furnish the total mileage cost per annum on the above basis in their practices. On March, 11th, 1913, a postcard vote was requested by Drs. Baigent and Mills, the two practitioners' representatives, of all panel doctors practising in the North Riding of Yorkshire on the following questions:

1. Do you want mileage—Yes or No? If so, by which of the two following methods:
   (*a*) Mileage by increased capitation—Yes or No?
   (*b*) Mileage by rate of 1s. per return mile after the second mile—Yes or No?

2. Will either of the above methods, (*a*) or (*b*) meet with your satisfaction as regards field practice—Yes or No?

If you think it necessary state nature of country in which you practise—flat, hilly, mountainous, or moorland.

The Honorary Secretary, Dr. Mills (Easingwold), had received 131 cards (and with partners signing 138 votes); the majority were in favour of mileage by capitation after the second mile. The replies established beyond a doubt that the mileage question was a very important one for a large number of doctors in the North Riding.

Dr. BAIGENT criticized the printed list of questions sent out to practitioners on the panel of the North Riding, by the Clerk of the Insurance Committee, and pointed out that it was impossible to arrive at any conclusion as to the cost of mileage which would be in the least accurate from the replies received to these questions. One question asked the practitioner to state the number of patients on his list at two, three, four, and five miles from his house, but no question as to patients beyond five miles. The replies made it evident that large numbers of patients living more than five miles distant had been included in the five miles group, but it was impossible from the figures to know how many patients were nearer another doctor. The whole subject required more accurate and detailed inquiry, and it was hoped that all practitioners on the panel would furnish the information when asked for.

Dr. R. SEDGLEY ELVINS said that it was assumed that in the event of the patient being called upon to pay mileage he would only be responsible for the difference between the nearest doctor and the one he selected. That if, for example, a patient lived five miles from one doctor and seven miles from another, and chose the latter, he would only be called upon to pay the difference between the mileage of five and seven miles.

The CHAIRMAN asked the meeting to decide by its vote the system of mileage desired—(*a*) capitation, or (*b*) mileage at the rate of 1s. per return mile after the second mile—and urged those present carefully to scrutinize both methods, pointing out that the former would give less trouble to the clerk to the Insurance Committee and to the doctors.

It was unanimously resolved to adopt the capitation system with a two-mile limit to start from, that there should be a uniform capitation fee of 4s., with more favourable treatment in specially difficult conditions, and that an extra fee of 2s. 6d. per full walking mile be asked for field practice and moorland districts. It was also resolved that, when a convenient opportunity arose, each panel doctor be asked to agree to an annual subscription of 5s. towards the expenses incurred by the North Riding of Yorkshire Local Medical Committee. It was also resolved that the tariff of the York Division of the British Medical Association for non-insured persons should be adopted in the North Riding, and that the charge of 8s. 6d. a head per annum be made for each man, woman and child.

HERTS.

The Herts Medical Committee, which has received official recognition, consists of the following:

Dr. Shelly, *Chairman*	Dr. Fisher
Dr. Bontor, *Vice-Chairman*	Dr. Fothergill
Dr. Sidney Clarke, 12B, London Road, St. Albans, *Secretary*	Dr. Gilbertson
	Dr. Grellet
Dr. Addison	Dr. Hatrick
Dr. Berry	Dr. Kinloch
Dr. Boyd	Dr. Lawson-Smith
Dr. Brittain	Dr. Ledward
Dr. Cheese	Dr. Shackleton
Dr. Clark, Cheshunt	Dr. Francis Smith
Dr. Cleveland	Dr. Smyth, Shenley
Dr. Day	Dr. Sturge
Dr. Dockray	Dr. Stewart
Dr. Edwards	Dr. Wells
Dr. Evill	Dr. Windsor
Dr. Fell	Dr. Williams

The following are the medical members on the committees indicated:

County Insurance Committee.—Drs. Boyd and Fisher (elected by practitioners), Shelly, Dockray, and Burnett-Smith.

Medical Service Subcommittee.—Drs. Berry, Evill, Shelly, and panels of Drs. Boyd, Clark (Cheshunt), Dockray, Fisher, Gilbertson, C. H. Hall, Lipscomb, Smyth, and Windsor.

District Committees.—Barnet: Drs. Nunn and Hatrick; Berkhamsted: Drs. Bontor and O'Keefe; Bishop's Stortford: Drs. Collins and Newman; Cheshunt: Drs. Clarke and McClymont; Hatfield: Dr. Brittain; Hempsted: Drs. Holtzman and Gilroy; Hitchin: Drs. Macfadyen and Gilbertson; St. Albans: Drs. Clarke and Smith; Watford Rural: Drs. Fothergill and Shackleton; Watford Urban: Drs. Berry and C. H. Hall; Ware: Drs. Boyd and Sturge.

At a meeting in London on March 26th, when eighteen members were present, it was decided to ask the County Insurance Committee to add to its number a practitioner representing the large industrial area of West Herts, and the name of Dr. Wells was submitted. It was pointed out that there were at present only five practitioners upon the Committee, but that a promise had been given that the number should be six.

The following recommendations were made to the County Insurance Committee:

(*a*) That all ordinary splints may be provided by the doctor attending the injury, and that a duplicate of that splint should be obtainable by the doctor from the chemist upon prescription. Splints to be returned to the chemist upon recovery by the patient. Doctors contracting to supply appliances will furnish the necessary splints without additional payment.

(*b*) A uniform charge of 6d. for first dressings and 1s. 6d. for emergency medicines supplied by a practitioner be accepted by the County Committee.

(*c*) Allocation of residue. All insured persons residing in any town or village who have not selected a doctor to be assigned to the doctors who have accepted insured persons in such town or village in proportion to the number of accepted persons there residing who are already on each doctor's list. That an opportunity be afforded after the allotment for an exchange of patients by mutual arrangements between the practitioners concerned.

(*d*) Migratory patients. A provisional agreement to a system of mutual obligation so far as attendances are concerned upon insured persons moving temporarily from one part of the county to another for the present financial year. Should the "temporary" residence be of any length of time the patient must be transferred. Regarding those persons on a doctor's list outside the county the Medical Committee could only suggest that these should be treated as private patients upon a scale of fees.

(*e*) A card of identity should be furnished by every insured person when seeking treatment in the future as in the past.

It was resolved to request practitioners to furnish further particulars with regard to patients in isolated districts, with a view to making a claim for a grant from the central fund. Attention was drawn to letters sent to certain practitioners by the County Insurance Committee offering to allot all patients in certain districts to them. As the matter is under negotiation and a reply from the Commissioners is awaited, the Medical Committee learnt with surprise that these letters had been sent and practitioners were asked not to accept the offer pending the negotiations.

To meet the expenses of the Committee it was suggested that every practitioner should consent to a general levy; particulars of a scheme will be given in due course. The Committee, being statutory, has no claim for its expenses from the British Medical Association.

The County Committee has agreed to the term "repeat mixture," provided the practitioner asks if the patients go to the same chemist.

A scale of fees has been adopted for those insured persons who make their "own arrangements."

A subcommittee was appointed to meet members of the Committee of the Midwives Association. It was pointed out that there was no obligation upon any practitioner to sign the agreement which may have been brought by the midwife to attend an emergency call upon the fees named, and the Medical Committee advised that if any practitioner had signed under a misunderstanding the consent should be withdrawn pending the negotiations.

The Medical Committee will be pleased to hear of any matter requiring adjustment.

SOMERSET.

The Somerset Local Medical Committee has been recognized.

The county of Somerset is divided into twelve insurance districts, each having its district medical committees and representatives on the Somerset Medical Committee.

The following is a list of the Committee showing the districts they represent:

Chairman, John Wallace (Weston-super-Mare).

Vice-Chairman, C. Farrant (Taunton).

Honorary Secretary, C. P. Crouch (Villa Rosa, Weston-super-Mare).

Districts.

Taunton.—Drs. C. Farrant (Honorary Secretary) (Taunton), E. E. Frossard (Bishop's Lydeard), J. A. Macdonald (Taunton), G. F. Sydenham (Dulverton).

Bridgwater.—Drs. R. H. F. Routh (Honorary Secretary) (Bridgwater), and C. B. Stewart (Huntspill).

Yeovil.—Drs. C. J. Marsh (Honorary Secretary) (Yeovil), P. A. Colmer (Yeovil), and C. D. Ingle (Somerton).

Weston-super-Mare.—Drs. G. H. Temple (Honorary Secretary) (Weston-super-Mare), H. C. Bristowe (Wrington), B. C. Kelly (Burnham), E. H. Openshaw (Cheddar), E. G. D. Pineo (Langford, near Bristol).

Clevedon, Portishead, Long Ashton, and Keynsham.—Drs. F. T. B. Logan (Southville, Bristol) (Chairman), E. Newsome (Honorary Secretary) (Pill, near Bristol), W. G. Dickinson (Portishead), C. B. Humphrys (Clevedon), G. Willett (Keynsham).

Clutton.—Drs. G. S. Pollard (Honorary Secretary) (Midsomer Norton), R. H. Brew (Chew Magna), T. Martin (Temple Cloud).

Frome.—Drs. R. de V. King (Honorary Secretary) (Frome), H. Bramwell (Nunney), J. M. Dupont (Frome).

Wincanton.—Dr. C. W. Edwards (Honorary Secretary) (Wincanton).

Wells and Glastonbury.—Drs. H. W. Allan (Chairman) (Wells), C. Heath Gee (Honorary Secretary) (Evercreech), C. R. Bishop (Shepton Mallet), D. Lawrie (Glastonbury).

Chard.—Drs. C. E. Alford (Chairman) (Crewkerne), J. G. Sibbald (Honorary Secretary) (Crewkerne), F. J. Gomez (South Petherton).

Wellington.—Drs. W. Spettigue (Honorary Secretary) (Wellington), W. Penberthy (Wiveliscombe).

Williton.—Drs. T. H. Ollerhead (Honorary Secretary) (Minehead), J. G. Graham (Watchet).

PLYMOUTH.

At a meeting of the Plymouth Local Medical Committee held on March 26th, the following matters were discussed:

Allocation of Insured Persons.—A letter from the Clerk to the Insurance Committee was read stating that no immediate allocation was contemplated of those insured persons who had not arranged with any doctor on the panel.

Income Limit.—It was stated that the recommendation by the Committee that a £2 income limit should be fixed had met with strong opposition in the Insurance Committee, and several members urged that the Committee, representing as it did both panel and non-panel doctors, should not allow the Insurance Committee to negative its proposal without a strong protest; a resolution was accordingly passed to the effect that the Committee was still of opinion that a £2 limit ought to be fixed for the Plymouth area, and the Honorary Secretary was instructed to send a copy of the resolution to the Clerk to the Insurance Committee.

Extension of Contracts.—The Committee learnt with great regret that most of the medical men on the panel had signed new agreements without waiting to see that matters outstanding with the Insurance Committee had been settled.

Division of Panel Fund.—As regards division of the first quarter's fund the Committee recommended an even proportional division irrespective of length of service on the panel.

Reciprocity between Neighbouring Local Medical Committees.—It was resolved to invite the Devonport Local Medical Committee to send a representative as a visitor to the meetings of this Committee.

DENBIGHSHIRE.

THE Denbighshire Local Medical Committee has been duly recognized by the Commissioners and is constituted as follows:

Chairman, Dr. Medwyn Hughes, Ruthin.
Honorary Secretary, Dr. Rowland, 9, Bridge Street, Wrexham.

Abergele.—Dr. Peter Jones
Brymbo.—Dr. R. Owen
Cocdpoeth.—Dr. Vaughan Griffith
Colwyn Bay.—Drs. Butterworth Wilks and Venables Williams
Denbigh.—Dr. David Lloyd
Gresford.—Dr. Harrison
Llangollen.—Dr. F. Drinkwater
Llanrwst.—Dr. Hill
Ruabon.—Dr. R. Lawton Roberts
Ruthin.—Dr. Byford
Wrexham.—Drs. Moss, Edwards-Jones, R. Williams, and J. Davies

A meeting, to which all practitioners on the panel were invited, was held at Chester on March 27th, when Dr. MEDWYN HUGHES was in the chair. The object of the meeting was to ascertain the views of the general body of the practitioners working under the Act, and to bring these views to the notice of the County Insurance Committee. Discussions on the following matters took place:

Remuneration for Future Services.—It was decided to ask for the full sum of 7s. or 9s. per caput, and to discontinue the system at present in vogue of deducting 6d. per caput to form a mileage fund for visits over three miles.

Allocation of Residue of Insured Persons.—It was resolved to recommend that those persons who had not yet chosen their medical attendant should be allocated in accordance with the proportion of cards already signed by each doctor.

Payments in Advance.—The meeting unanimously resolved to request the payment of two-thirds of moneys due for the current quarter's work, as early as possible.

Attendance on Migratory Insured Persons.—An animated discussion took place on this subject, the seaside practitioners present pointing out the hardship which the non-settlement of the clause entailed. The Chairman explained that the matter had received attention at the Cardiff conference with the Commissioners, and it was finally decided to leave the matter in the hands of the Local Medical Committee.

Excess Mileage.—Reference was made to the special grant for difficult country, and it was decided to apply for a share of this grant to compensate practitioners in the mountainous parts of the county.

Maternity Fees.—A promise has already been given by the County Committee to the effect that everything possible will be done to secure payment of medical men attending cases under the Act.

Representation on County Committee.—The SECRETARY explained that he had applied to the Commissioners for the full representation of the profession on the County Committee as allowed by the Act. As a result the committee had co-opted two medical men (Dr. Butterworth Wilks, Colwyn Bay, and the Secretary). Much dissatisfaction was expressed that no directly elected representative had been added to the Committee, and it was decided to make further application to the Commissioners.

Expenses of Local Medical Committee.—The Secretary was authorized to request each panel practitioner to contribute the sum of 2s. 6d. for payment of clerical expenses and hire of rooms.

ROSS AND CROMARTY.

A SPECIAL meeting of the Ross and Cromarty Local Medical Committee, which has been recognized provisionally, was held on March 27th, Dr. MCLEAN presiding, and eight other members were present.

At a previous meeting it was agreed that all medical practitioners in the county should act on the Local Medical Committee. Dr. W. McLean (Conon Bridge) was appointed Chairman, and Dr. E. H. Duncan (Strathpeffer), Secretary.

Constitution A (Scotland) was adopted, and the Commissioners were asked to give the Committee liberty to elect one or more medical practitioners on the county panel, but not resident in the county, as members of the Committee.

An executive subcommittee was appointed, consisting of the Chairman and Secretary, and Drs. Adam, Smith, Ross, Mackenzie, Brodie, Cameron, and Somerville.

The meeting resolved unanimously to protest against the action of the Insurance Committee in sending Form 305/I.C. Scotland to the medical men on the panel desiring the renewal of their contracts to attend insured persons for the ensuing year without the following specific points being dealt with:

1. Allocation of insured persons not having chosen a doctor.
2. Arranging for attendance to temporary residents.
3. No settlement as to method or amount of mileage.

It was pointed out that there was a hardship in asking for signatures one month before the expiration of the previous contract, while the conditions still remained as indefinite and unsatisfactory as they were at the outset.

The meeting also expressed its hearty support of the reasonable demands of the chemists as embodied in their schedule.

MEETINGS OF INSURANCE COMMITTEES.

DERBYSHIRE.

Charges for Additional Certificates.

COMPLAINTS having been made to the Derbyshire Insurance Committee as to charges by medical men for certificates given to insured persons, the Clerk to the Committee has stated that by the agreements entered into doctors had undertaken to give free of charge all certificates required by the approved society of the insured person. The trouble appeared to have arisen through some persons being members of several lodges, doctors being asked to give three or four certificates. The medical man was only required to give those needed by the approved society; for others there must be an arrangement between patient and doctor.

KESTEVEN.

Night Calls.

THE Kesteven Insurance Committee has adopted as one of the rules governing the administration of medical benefit the following:

An insured person shall not summon a medical practitioner to visit him between the hours of 8 p.m. and 8 a.m. When his condition requires a home visit he shall give notice to the practitioner, if the circumstances of the case permit, before 9.30 a.m. on the day on which the visit is required. Fine for first breach of rules 2s. 6d., and for repeated breaches 10s., and suspension of benefit for a period not exceeding one month.

OLDHAM.

Multiplication of Visits.

COMPLAINT was made at the last meeting of the Oldham Insurance Committee that insured persons were going to the doctors for ridiculous and trifling ailments. One member, Mr. HOLDEN, said he had heard of people visiting a doctor four times in one week with a different complaint each time, whereupon Dr. POCHIN remarked that the doctors considered themselves lucky if they did not get a person complaining of three or four different ailments at one time.

NEWCASTLE-UPON-TYNE.

Complicated Certificates.

THE Newcastle Insurance Committee at its last meeting decided to send to the Insurance Commissioners copies of the complicated certificates issued by some of the approved societies, in support of a request made by the Honorary Secretary of the Local Medical Committee that a uniform form of certificate should be adopted.

On the question of the assignment to medical men of the residuum of insured persons who had not chosen a doctor, the Local Medical Committee asked

that all those medical men with 1,500 insured persons and over on their list have none of the residuum allocated to them, but that it be allotted to the other doctors on the panel in inverse ratio to the number upon the doctors' lists.

A MEMBER suggested that by adopting this plan the popular doctor would be penalized, but the CHAIRMAN remarked that it was the doctors' own request. He also mentioned that some doctors who had only forty or fifty

people on their lists asked that no more might be allocated to them, whilst others had agreed to act for as many as 3,000.

The Committee agreed to adopt the course suggested by the Local Medical Committee.

READING.

Suggested Variation of the Income Limit.

DR. NAPIER JONES and DR. N. H. JOY were given the opportunity of addressing the Reading Insurance Committee, at its last meeting, in support of a proposal that it be left to the doctors to decide whether they should accept insured persons earning between £104 and £160 a year. Dr. Joy said that medical men realized that a man earning £2 or £3 a week might not be any better off than a man earning £1 a week. Doctors knew the whole conditions of a family, and could judge better than any one else on the income question. Dr. Napier Jones urged that the proposal involved the important questions of principle, that it was an abuse of public funds to give any man that for which he was well able to pay the market price, and that to put insured persons in such a position would sap their independence. It was intimated that protests had been received from approved societies against the proposed income limit, and ultimately the Committee carried, by 15 votes to 4, an amendment fixing the income limit at £160 a year.

SURREY.

Contracting Out.

THE Surrey Insurance Committee received 2,300 applications from persons desirous of making their own arrangements for medical benefit, but on Form 43 I.C. being forwarded to them, only 93 of the applicants persisted. Expressions of dissatisfaction with the nature of the form, however, reached the Committee, the suggestions being that it was intended to force doctors on to the panel, or to force insured persons to go to doctors on the panel. The Insurance Committee has decided to hold a conference with the Local Medical Committee on the whole question.

SHROPSHIRE.

Approved Societies and Free Choice of Doctor.

DR. EXHAM, of Market Drayton, brought to the notice of the Shropshire Insurance Committee allegations that representatives of certain approved societies were handing to insured persons medical tickets already signed by medical men, thus annulling free choice of doctor. The CHAIRMAN stated that this was a very serious matter. If the publicity given to the circumstance did not cause such irregular practices to be stopped, drastic measures would be taken. The Committee decided to seek the advice of the Insurance Commissioners as to the most effective method of dealing with the matter.

WEST SUSSEX.

THE West Sussex Insurance Committee, on March 31st, considered a letter from the Local Medical Committee stating that at a meeting to which all medical practitioners in West Sussex, and others whose names appeared on the panel for the district, were invited, the following resolutions were carried *nemine contradicente*:

Re new agreement. "That we are prepared to give service as soon as the outstanding points between the Insurance Committee and the practitioners of West Sussex have been settled—namely: (*a*) Income limit; (*b*) mileage in inaccessible places over three miles; (*c*) arrangements for medical attendance on aged and disabled members of friendly societies; (*d*) unification and limitation of certification; (*e*) acceptance of certificates given by a non-panel doctor."

Re allocation. "That we are unable to suggest any form of allocation until the index register is completed."

In the course of debate it was explained that the local profession attached most importance to the question of an income limit. The CHAIRMAN of the Committee said the Commissioners had stated that the matter of aged members of friendly societies was one for the approved societies and not for the Insurance Committee. The Committee then adopted the following resolution:

That this Committee approves of the principle of extra payment for mileage in respect of inaccessible places over three miles.

Dr. EUSTACE moved:

That it is desirable to fix an income limit above which insured persons shall be required to make their own arrangements for medical treatment and medicine.

Dr. Eustace said the profession was anxious to give a full and complete service, but it could not while this question was outstanding. By accepting the principle of an income limit the Committee would secure the hearty goodwill of the profession.

The motion was defeated by 10 votes to 9.

The following motion was then proposed:

That, failing the acceptance of the present agreement by the doctors within the present week, a sufficient number of salaried doctors shall be appointed to administer the Act.

Mr. VERNON, on behalf of the Local Medical Committee, promised to let the Committee know the intentions, and the motion was withdrawn, the question of the action to be taken after the reply of the profession had been received being left to the Medical Benefit Subcommittee.

FLINTSHIRE.

Income Limit of £2 for Voluntary Contributors.

THE Flintshire Insurance Committee, in response to representations by the medical profession, has adopted an income limit of £2 a week in respect of medical benefit for voluntary contributors.

INSURANCE NOTES.

NATIONAL INSURANCE PRACTITIONERS' ASSOCIATION.

AT a conference called by the National Insurance Practitioners' Association in London on March 27th, resolutions were adopted recommending practitioners to give the suggested card system a trial while considering methods for limiting clerical work which are compatible with the provision of accurate records as to the amount of medical services rendered; that the allocation of insured persons who fail to choose and be accepted by a practitioner should be carried out by a subcommittee appointed for each district by the practitioners on the panel; that medical representatives on insurance committees and on the Advisory Committee be urged to use their influence to limit the number of institutes and dispensaries recognized, to prevent recognition without full local inquiry and medical inspection, and to secure that wherever recognition is given there shall be constant supervision by the insurance committees in order that the conditions laid down in the Regulations shall be complied with; that insured persons going into any district on a holiday or during illness or convalescence should be required to give notice, and that no deduction should be made from the funds at present available for medical benefit to meet any deficiency arising in particular cases, but that a separate additional fund should be provided by the Government for the payment of medical attendance on migratory insured persons.

Drs. Lauriston Shaw, Cowie, and Mills were appointed to a committee which is to develop a scheme to form a pension fund by means of contributions deducted at the source.

ALLEGED MALINGERING BY WOMEN.

A Labour correspondent of the *Blackburn Weekly Telegraph* writes that since the Insurance Act came into operation absence through sickness amongst married women in Lancashire mills has assumed not only record but even alarming proportions. Malingering is suspected in a large number of cases, and steps are being taken to test bona fides with a view to the prosecution of any who are imposing upon the insurance funds. The absence of the women has caused a shortage of hands and a stoppage of machinery in some districts. If the present sickness rates are maintained, deficiencies in the funds of approved societies, rendering necessary a levy on members or a reduction of benefits, appear imminent.

The secretary of a Lancashire approved society, interviewed by the *Manchester Dispatch* on this matter, expressed the opinion that doctors would have to deal more strictly with insured persons. He even put the proportion of malingerers at as high a figure as 90 per cent., adding that the well-to-do operative was behaving in this way because he could afford to leave work. The poorer class, for whom the Act was chiefly intended, could not afford to lose wages for the sake of insurance benefits; they returned to work before they were really better, often having to come off again.

NORTHUMBERLAND MINERS.

The miners at Ashington, a very large colliery in the south-east of Northumberland, have objected to continue to pay 9d. a fortnight in respect of medical attendance and the dispensing of medicines for miners' families. The miners offered 6d. a fortnight, in view of the fact that they pay 4d. a week under the Insurance Act. The medical profession declined this proposal, on the grounds that the work and responsibilities of the profession are increased by the Act, whereupon the miners' society advertised, and from a long list of candidates selected two doctors who agreed to accept 6d. a fortnight in respect of miners' families. The report states that the two doctors will receive the support of the men under the Insurance Act, and as about 8,000 men are concerned, they will have a busy time. The names of the selected doctors are given by the *Northern Echo* as Dr. Valentine of Salisbury and Dr. Thompson of Clydebank.

REPORTS OF LOCAL ACTION.

MANCHESTER.

THE INSURANCE ACT IN MANCHESTER AND SALFORD.

It has been decided by the medical profession in both Manchester and Salford to continue the present system of payment per attendance under the Insurance Act for another three months—that is, to July 15th. It cannot, however, be assumed from this that the profession is at all enamoured with either the Act in general or with this special system under it. The feeling has been expressed that the present system lends itself to certain abuses which are extremely difficult to deal with, and perhaps one of the worst features is a feeling of mutual suspicion among medical men may be engendered. The cases in which there is over-attendance merely to obtain a greater share in the pool will be few and far between, but unfortunately, if they occur at all, they cannot generally be known and inquiry cannot be undertaken into them until a month or perhaps several months after the patient has been discharged and returned to work, when satisfactory evidence of over-attendance can hardly be obtained. Nevertheless, if a Local Medical Committee had simply to deal with unnecessary and fraudulent over-attendance, its duty, odious as it might be, would only rarely have to be exercised, as none but the veriest outcasts of the profession would condescend to defraud his brother practitioners. By far the greatest difficulty arises in quite a different way, where there is nothing like unfair attendance ever contemplated. With the best intentions in the world it may be the practice of Dr. X. in a particular class of case to see his patients daily, while Dr. Y. considers it quite sufficient to see exactly similar cases only every two or three days; but when Dr. X. sends in his bill to the Insurance Committee for an amount which is two or three times as much as Dr. Y.'s bill, and, still further, when Dr. Y. finds that even his modest bill has to be discounted because his neighbour is claiming so large a proportion of the pool, which is insufficient to pay all bills in full, the feeling arises either that Dr. X. ought not to attend so frequently, or that Dr. Y. might just as well in the future attend oftener than has been his custom, as he has a perfect right to just as much of the pool as his neighbour for the same number of similar patients. The difficulty that may then face the Local Medical Committee is extremely great. It is not wholly theoretical, for several cases have already arisen of two practitioners practising in the same neighbourhood with about an equal number of patients and on the average a similar class of illness to deal with, where the bills sent in to the Committee by one practitioner have been almost double those sent in by the other, though no one would suggest for a moment that there has been anything in the nature of unscrupulous dealing. It is not held to that the case can be met by saying that the doctor who has given most frequent attendances should receive the greater amount for his services actually rendered, as the other doctor, with the same number of patients of a similar class on the average, naturally claims that his responsibility has been just as great and his results just as good, and he regards it as unfair that he should receive less simply because his method of dealing with his patients has been different though equally efficient. It is evident that the Local Medical Committees will find it no easy task to adjust these cases. The idea of taking an average from the total attendances and allowing each doctor to charge only for a fixed number of attendances for each patient, or, going still further into detail, of fixing an average for each class of illness, is now receiving careful consideration. If some such plan were carried out any doctor whose attendances per patient on his list were above the average would have his bills cut down, and only those attendances which were within the average would rank for participation in the pool. No one, however, suggests that the system of averages is anything more than a very rough and ready method of dealing with the difficulty, and it is freely acknowledged that to introduce such a dead uniformity into medical practice would be most obnoxious and detrimental to efficiency. Nevertheless, it is thought that, with proper safeguards, which the Local Medical Committees are contemplating, the method of averages deserves a fair trial.

The reason for continuing the present system for another three months in Manchester and Salford is due, not to an objection to the capitation system, but to the feeling that the present system cannot have had a fair trial yet. The novelty of free medical attendance has induced a large number of patients to seek advice for mere trifles which in the future may be disregarded. Moreover, January to March are normally perhaps the busiest months of the year for general practitioners, and a pool that may be quite insufficient for the last three months may possibly be sufficient for the next three months.

That there will have to be a very considerable discounting of the doctors' bills for the last three months is now practically certain. The enormous rush of work in January, and to a slightly less degree in February, has distinctly lessened in March, but as the bills are not yet sent in for March it is impossible to say as yet what the final result will be. The tariff rate is 2s. 6d. a visit and 2s. for a consultation at the surgery; but if 1s. 9d. and 1s. 3d. respectively are actually obtained for the last three months from the pool it will almost surpass the highest hopes. Considering that the pool will be just the same in total amount for April to July as for January to March, while it is possible that the work may be little more than half as much, it is just within the range of possibility that the next three months may make up for the loss of the last three months, and it was with this hope that the decision was arrived at to continue the present system.

PRESTON.

AT a special meeting of the profession of the Preston district held on March 12th, when Dr. RIGG presided and thirty-one members were present, the following motion was proposed by Dr. ARTHUR E. RAYNER:

> That owing to the unsatisfactory conditions of work and remuneration the medical men of Preston refuse further service on the panel unless contracting out is allowed and an income limit of £2 per week is established.

A long and interesting discussion took place, and in reply Dr. RAYNER said that in accordance with the resolution passed in January, when it was decided to go on the panel, it was necessary to hold a meeting of the profession to decide whether or not further service should be given; he referred to the fact that in the old days holding a club appointment was purely voluntary, now it was practically compulsory; that nearly all clubs had their members medically examined before admission; that the Government had allowed the Harmsworth amendment and not allowed the Addison amendment to be put in force, and also referred, amongst other points, to the great disadvantage that country practitioners were under with regard to mileage.

The CHAIRMAN then put the resolution, when 6 voted for and 16 against, a number refraining from voting.

Dr. WALKER then moved that the Local Medical Committee be asked to consider the question of the formation of a trade union, and to get into communication with other medical committees working on the subject.

This was considered inopportune, and no seconder was obtained.

Dr. Rayner then moved the following resolution, which was carried unanimously:

The Preston Division of the British Medical Association regards the conditions of service under the Insurance Act as unsatisfactory to both doctor and patient. It accounts the disregard of the clauses in the Act for the allowance of "contracting out" and for the institution of an income limit as a deliberate breach of faith on the part of the Commissioners and the Insurance Committees. And since an adequate panel for this district is assured, it calls upon the Preston Insurance Committee to abide honourably by its obligations and to give proper facilities for the concessions embodied in these clauses.

SCOTLAND.

Edinburgh.

Edinburgh Burgh Insurance Committee.

The Scottish Insurance Commissioners have appointed Dr. A. A. Matheson and Dr. John Orr members of the Burgh Insurance Committee. This Committee, which is now complete, includes seven medical men.

Medical Arrangements of Institutions.

A good many matters have recently been discussed by the Medical Benefit Subcommittee of the Burgh of Edinburgh Insurance Committee. The subcommittee has agreed to recommend that permission be given to the Chalmers Hospital to make its own arrangements for medical treatment of insured persons in its employment and resident in the institution, but not to accord that permission to the Orphan Hospital, Donaldson's Hospital (for the deaf and dumb), the Scottish Liberal Club, and the North British Station Hotel. The subcommittee delayed consideration of the applications of the Royal Hospital for Sick Children, the Episcopal Training College, Mackenzie House (Edinburgh Academy boarding-house), a nursing home, and the Church of Scotland Deaconess Hospital until further information had been obtained regarding the medical service in these institutions. With regard to a number of letters from Christian Scientists asking permission to make their own medical arrangements with Christian Science practitioners, the subcommittee resolved to recommend the committee to decline to grant the permission asked. The case of the Royal Blind Asylum and School was also considered; the suggestion had been made by the Insurance Commission that Dr. Melville Dunlop, the medical officer, might apply to the Insurance Committee to be placed on the panel for the treatment of insured members of the staff of the institution only, and the subcommittee recommended that Dr. Dunlop be allowed to have his name placed on the panel for this purpose, provided the doctors on the panel agreed to the arrangement.

Chemists and the Insurance Act.

At a meeting of the Edinburgh Insurance Committee on March 28th, the complaints of the chemists who are working under the Act found utterance. The present contract expires on April 14th, and a new one was to be signed on or before March 25th. The chemists asked for delay and for some information on various matters before contracting for a second term of service. They made the our following claims:

(1) A dispensing fee for every prescription, except for prescriptions for appliances; (2) all dispensing fees to be raised; (3) flat rates for infusions, tinctures, spirits, and waters to be abolished, and a price substituted commensurate with the intrinsic value of the preparation; (4) the price of containers not to be charged on the drug fund.

The Committee received the letter in which these claims were made, and remitted it to the Medical Benefit Subcommittee with power to receive a deputation from the Pharmaceutical Committee of the Edinburgh and District Chemists' Trade Association. An element which cannot be left out of the consideration of the matter is that the making up of some drugs—for instance, those containing phosphorus—is not a simple matter of time or even of ordinary training, but requires special skill and caution and imposes considerable responsibility. Further, the simple prescriptions of pre-insurance days, which could be made up in bulk, will not, it is thought, meet the needs or at least the demands of the insured person.

Forfarshire.

The Three Miles Limit.

At a meeting of the Forfarshire Insurance Committee on March 15th it was stated that 6,000 persons within the area had not yet selected a doctor, and that this was partly due to the refusal of medical men to attend insured patients residing beyond the three miles limit. Mr. Cumming, a member of the Committee, said that from inquiries he had made this statement appeared to be incorrect. The Committee should be careful how it accepted statements before making full inquiry. The Chairman (Provost Marshall) said the doctors could select their own patients, but, at the same time, those who went on the panel had agreed to attend patients not only within the three miles limit, but outside it. The matter was referred to the Medical Subcommittee.

IRELAND.

Belfast.

The Local Medical Committee for Belfast was elected on April 25th, 1912. Application for recognition was made to the Irish Insurance Commission in September, 1912, who replied that owing to the non-extension of medical benefits to Ireland they could not then recognize it. A further application was made in January, 1913, and a reply has been received that the Committee is now officially recognized. The Committee consists of sixty members, representative of all branches of the profession. The following are the office-bearers: *President*, Sir John W. Byers, M.D.; *Vice-President*, Dr. T. C. D. Cathcart; *Convener and Honorary Secretary*, Dr. Thomas A. Davidson, 6, Carlisle Terrace, Crumlin Road, Belfast.

Committee on Extension of Medical Benefit.

Last week the Committee appointed to inquire into the desirability of extending medical benefits to Ireland held two more sittings in Dublin, and it is understood that for all practical purposes it has completed its inquiry. The inquiry seems to have convinced the Irish public that the extension of medical benefit is unnecessary. So far as the rural districts are concerned, it was a foregone conclusion that this extension was not wanted; it appears that there is less sickness in Ireland than in Great Britain, and the provision of medical relief is already guaranteed by the existing dispensary system. The evidence tended to show that there was no room for two systems of public medical relief, and that it would be impossible to do without the Poor Law Medical Service. At the same time, it is generally recognized that this service stands in urgent need of reform, but it is thought that to superimpose the insurance system upon the present system would aggravate the problem and present another, and probably an insuperable, barrier to any hope of reform of the Poor Law. It would appear that the Committee has decided to abandon any hope of forcing medical benefits upon the rural districts, but there remains the alternative proposal that the benefits should be extended to the six county boroughs where there is some evidence that the extension is desired. But this compromise was condemned last week by no less an authority than the Actuary to the Irish Insurance Commissioners, who, when he was asked whether such partial administration of medical benefit was actuarially possible, declared that it would be "the last straw," and would "break down the working of the Act."

Medical Certificates Deadlock.

The Secretary of the Conjoint Committee published in the press last week a letter which he had sent to the Insurance Commissioners on March 17th stating that the Conjoint Committee wished to point out that, in connexion with the scheme for medical certificates, it had made the following suggestions:

1. That its approval of the scheme could at best be on the understanding that the Commissioners will make an endeavour to increase the amount at present available by the end of the year if it is found insufficient to be a reasonable rate of remuneration.

2. That the demand of the medical profession for 2s. 6d. per certificate in urban areas and 3s. per caput in rural districts was arrived at at a general meeting of the delegates of the whole profession held in Dublin on June 11th, 1912, and that the Conjoint Committee has no power to bind the profession

to accept anything less without the authority of a similar meeting.

3. That the acceptance by the Conjoint Committee of any scheme giving less remuneration could only bind its members individually, and as it is open to any doctor to accept or refuse the capitation fee offered, the approval of the Conjoint Committee will be superfluous if the majority of the profession accept this scheme, and it will be vain if medical men refuse to go on the panels.

4. That the Conjoint Committee believe that the scheme under proper conditions will be accepted by the majority of the profession as a provisional arrangement for the remainder of this year, but further than this the Committee cannot bind itself.

A meeting of the Poor Law medical officers was held on March 27th, in the Royal College of Surgeons, Dublin, when the following resolutions were passed with enthusiasm:

That this meeting of Irish Poor Law medical officers consider that the Secretary of the Conjoint Committee acted *ultra vires* in his letter to the Irish Insurance Commissioners when he informed them that he believed the scheme (proposed by the Insurance Commissioners for medical certification) "will be accepted by the majority of the profession as a provisional arrangement for the remainder of this year"; and we further state that, when the Conjoint Committee approved, by a majority, of their secretary's letter containing this extract, they exceeded their functions as executive to the delegates' meetings of June, 1912, and January, 1913, which laid down a much higher scale of fees for medical certificates, which for districts (excepting urban areas of 10,000) was in accordance with the amount offered by the Insurance Committee of the Irish Parliamentary Party—namely, a *minimum* fee of 2s. 6d. *per caput* insured, and, if possible, a *maximum* capitation fee of 3s.

That we, as Poor Law medical officers, repudiate the action of the Conjoint Committee, and refuse to go on the panel until a fee is offered to us, such fee being not less than the 3s. the June, 1912, meeting of delegates instructed them to accept for rural areas.

That as the additional grant of £1,825,000 to the medical profession in Great Britain, for the purposes of the satisfactory working of the Insurance Act, renders available a proportionate grant for the medical profession in Ireland of £120,000, which is entirely sufficient to meet the expenses of medical certification and other demands of the Irish medical profession, therefore we consider it an unwarrantable injustice to place on friendly societies and other approved societies the necessity of refusing sick pay altogether, or for several weeks, to insured persons, who are for the most part entirely dependent for the maintenance of themselves and their families on their sick pay during their incapacity to work.

At a meeting of the Limerick medical practitioners held last week the following resolution was passed unanimously:

Having the communication from the Insurance Commissioners *re* certification before us, we consider the remuneration offered quite inadequate for the work done, and we therefore refuse to accept it, or to form a panel, until such provision is made as to satisfy our demands already expressed through the Conjoint Committee.

Benefits for Insured Persons in Workhouse Hospitals.

At a meeting of the Lismore Board of Guardians a resolution was passed calling on the Government to have the National Health Insurance Act amended so that insured persons in Ireland, without dependants, who become inmates of union hospitals, may receive benefits other than medical in return for their and their employers' contributions.

Sanatorium Benefit.

The Insurance Commissioners have published the following orders with a view to simplifying the procedure in applying for sanatorium benefit. The present arrangement for payment to medical practitioners of 5s. for each examination and report on an insured person applying for sanatorium benefit will cease, and the following procedure is to be adopted:

1. An application for sanatorium benefit will still continue to be made on Form Med. 1, or similar form, which should contain satisfactory evidence that the applicant is an insured person, and be accompanied by a brief statement, signed by the medical practitioner, that the person is, in his opinion, suffering from tuberculosis. On receipt of this application, the Committee may at once recommend the applicant for sanatorium benefit in the form of domiciliary treatment, pending further consideration of the case. The practitioner will immediately assume charge of the case, and will carry out treatment in consultation with the Tuberculosis Medical Officer, in accordance with the Order of the Local Government Board indicating the manner of undertaking such treatment. If in the course of such treatment it is made apparent to the Tuberculosis Medical Officer that the case is one in which treatment in a sanatorium or hospital or at a dispensary would be more suitable, it will be his duty to represent the facts to the Committee, who may thereupon make a further recommendation for the necessary treatment to be provided.

By adopting the above method a formal medical report for the information of the Committee as a preliminary to the grant of sanatorium benefit will become unnecessary, thus entailing the least possible delay in extending treatment to the applicant. A further advantage will result from the fact that the medical practitioner is thus kept in touch with the patient from the very beginning, and is brought into consultation with the tuberculosis medical officer at the earliest opportunity, both thereby working in friendly co-operation for the benefit of the patient.

2. An approved society will have the right to challenge the bona fides of a certificate, and the question will then be decided by the Committee of Complaints or by the Insurance Commissioners, as the case may be.

3. Where there is a doctor in attendance on the patient, only that doctor is to give the certificate.

4. Accounts are to be settled quarterly, and the proposed arrangements will begin on April 13th, 1913, and continue till January 14th, 1914, inclusive, or such longer time as may be agreed upon between any medical practitioner and any Insurance Committee, subject to the approval of the Commission.

The Conjoint Committee has written to the Commissioners stating that it prefers that the present provisional arrangement in connexion with the domiciliary treatment of insured persons suffering from tuberculosis shall continue.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

On Thursday, March 27th, the State Sickness Insurance Committee appointed by the Special Representative Meeting in November, 1912, was held at the house of the Association, 429, Strand, W.C. Dr. J. A. Macdonald was in the chair, and the other members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. E. R. Fothergill (Brighton), Miss F. Ivens, M.S. (Liverpool), Dr. E. O. Price (Bangor), Dr. D. G. Thomson (Norwich), Mr. D. F. Todd (Sunderland), Mr. E. B. Turner (London). *Scotland:* Dr. John Adams (Glasgow), Dr. R. McKenzie Johnston. *Ex officio:* Sir James Barr (President), Mr. T. Jenner Verrall (Chairman of Representative Meetings), Dr. Edwin Rayner (Treasurer).

Advisory Committees.

It appears that various members of the Association who had resigned from the Advisory Committees in accordance with the decision of the Association last autumn had recently received invitations to rejoin the committees, and the Chairman pointed out that in accordance with the minute adopted by the Special Representative Meeting on January 18th it was the policy of the Association that reappointments should be accepted if offered.

Compensation.

Six applications for compensation for loss suffered by medical practitioners in consequence of their loyal adherence to the decision of the Association were considered and in four instances pecuniary assistance was granted; in the other two cases it was decided to make further inquiries.

Treatment of Insured Persons over 65 Years of Age.

The reply from Mr. Masterman, published in the Supplement of March 22nd, p. 266, in reply to the letter addressed to him on February 28th, was read, and a draft reply was emended and approved. This reply was published in the Supplement of March 29th, p. 285.

Conditions of Panel Practice.

The State Sickness Insurance Committee considered replies received from practitioners to the questions issued by the Association recently concerning various matters connected with the panel system. It appeared that many panel practitioners strongly disapproved of the conditions of practice, but after full consideration the Committee came to the conclusion that no good purpose would be

served by the Association calling on practitioners to leave the panel.

Amendment of the Act and Regulations.

The Amendments Subcommittee brought up its minutes which were discussed seriatim, and the following resolutions were adopted by the State Sickness Insurance Committee for report to the Council:

Records, etc.

That while so far as can be seen at present the new form of a prescription book and the card register are to a certain extent less irksome and laborious than the original prescription and day books, the amount of clerical work required of a panel practitioner still seriously encroaches upon the time and attention which he should give to his patients.

Mileage.

That as it appears that the question of mileage will have to be worked out in those areas affected, no opinion be expressed in this matter until it is seen how the special mileage grant is applied, but that in the meantime Divisions be requested to urge upon any Local Medical Committees in the areas concerned in the question of mileage to take immediate steps to obtain a grant from the Special Mileage Fund.

Anaesthetics.

That the Association entirely concurs in the opinion expressed by a very large number of panel practitioners that it is not to the best interest of insured persons that the administration of an anaesthetic should be included under medical benefit, and that steps be taken to exclude it therefrom.

Income Limit.

That the Association is of opinion that every effort should be made to obtain by amendment of the Act or Regulations a satisfactory income limit in each area, in view of the fact that the present provisions in this respect have so far proved singularly inefficient, and that in the meantime (*a*) Divisions be requested to urge Local Medical Committees in their areas to continue to make every endeavour to obtain a satisfactory income limit; (*b*) steps be taken to amend the Regulations so that the income limit shall be one of the items in the agreement with the practitioners which must be submitted under Regulation 8 for the approval of the Commissioners, and upon which the Commissioners must consider any representations made by the Local Medical Committee.

Certificates.

That the Association considers it essential that there should be one common form of medical certificate required by approved societies under the Act, and notes that the English Insurance Commissioners are considering this question as a matter of urgency.

That the certificate of any duly qualified medical practitioner should be accepted for any purpose in connexion with the Act.

That there should be a uniform fee in respect of all extra certificates required by the approved societies.

That attention having been drawn to the question of the desirability or otherwise of medical certificates given for the purposes of the Act stating the nature of the disease, the Association considers that this is a question affecting insured persons rather than the medical profession, and that it is for the insured persons to make representations to their approved societies if any change is considered necessary; that, in order to safeguard the position of the practitioner, any certificate bearing the name of the disease should only be handed to the insured person concerned or to his or her accredited representative.

Rules as to the Conduct of Persons in Receipt of Medical Benefit.

That attention be drawn to the desirability of the adoption and adequate circulation by Insurance Committees of rules as to the conduct of persons in receipt of medical benefit, as a means of remedying the very large number of calls which are being made upon panel practitioners to attend cases of a trivial character.

Night Calls.

That the Association press for an amendment of the Act or Regulations so as to enable practitioners to make a small charge to insured persons in respect of night calls, such being preferable as a deterrent to any system of fines.

Venereal Diseases.

That the Association press for an amendment of Section 14 (4) of the Act so as to provide that medical practitioners shall receive extra payment for treating cases of venereal diseases.

Miscarriages and Abortions.

That the treatment of cases of miscarriage, or any condition arising therefrom within twenty-eight days, should not be included in the treatment given under the ordinary capitation payment.

Deputies.

That the Insurance Commissioners be requested to urge upon Insurance Committees the fact that their work would be greatly facilitated by the appointment of deputies for the directly elected medical practitioners on Insurance Committees.

That Divisions be requested to urge Local Medical Committees to make similar representations to the above to Insurance Committees.

Increased Representation on Insurance Committees.

That representations be made to the Commissioners to suggest to Insurance Committees the desirability of having medical representatives on all subcommittees, and that it be pointed out to the Commissioners that this desirability is a reason for an amendment of the Act increasing the representation of the medical profession on Insurance Committees.

That Divisions request Local Medical Committees to urge upon all Insurance Committees the appointment of medical representatives on all subcommittees.

Whole-time Service.

That the Association strongly oppose any effort to institute a whole-time service of practitioners for the purpose of treating insured persons.

Dressings and Emergency Medicines.

That Divisions be requested to draw the attention of Local Medical Committees to the fact that in some areas provision has already been made by certain Insurance Committees whereby chemists are providing panel practitioners with a supply of medicine for use in emergency cases and dressings for surgery use.

Medical Referees.

That, with a view to protection against malingering, consulting medical referees should be appointed by the Insurance Commissioners.

Functions of Medical Service Subcommittees.

That the latter portion of Regulation 52 (1) be amended by the substitution of the word "shall" for the words "may if they think fit" so as to provide for the consideration in the first instance by the Medical Service Subcommittee of all questions arising with reference to the administration of medical benefit.

That the Regulations be so amended as to provide that all matters which are considered in private by the Medical Service Subcommittee shall, on report to the Insurance Committee, be considered in private by that Committee.

Local Medical Committees and "Contracting Out."

That the Regulations be so amended as to provide that all matters concerning the right of insured persons being "allowed to make their own arrangements" shall stand referred, in the first instance, to the statutory Medical Service Subcommittee.

Seamen's National Insurance Society.

That the Regulations be so amended as to secure that the scheme of administration of medical benefit by the Seamen's National Insurance Society shall give absolute free choice of doctor by patient and of patient by doctor; and that the remuneration of medical practitioners for treatment of members of that society shall be upon a fixed tariff of fees.

That the Act be amended so as to allow of a similar representation upon the Management Committee of the Seamen's National Insurance Society, provided for in Section 48 (7) of the Act, as is accorded the profession in respect of Insurance Committees.

Termination of Agreements.

That the Regulations be so amended as to allow of the agreement between Insurance Committees and practitioners being terminable by three months' notice on either side.

Public Medical Service Schemes.

The Committee approved the schemes for the treatment of uninsured persons submitted by the following places: East Norfolk, Reading, North Lincolnshire, Kingston-on-Thames, and Stockton.

INSURANCE ACT IN PARLIAMENT.

Administration of Medical Benefit.

Holiday Makers.

In reply to Mr. Ronald McNeill, Mr. Masterman stated that the question of making satisfactory arrangements for providing medical benefit for insured persons resident at the seaside for holidays or otherwise was to be considered by the Advisory Committee at their meeting on March 27th.—It is understood that a prolonged discussion then took place on this subject and on the general question of the provision of medical benefit for insured persons who move from place to place; but no announcement has yet been made on the subject.

Sanatorium Benefit.

In reply to Mr. Weigall, Mr. Masterman stated that in the Lindsey division of Lincolnshire forty-eight applications had been received for sanatorium benefit to March 1st. Twenty-one of these cases were sent to sanatoriums situated in Lincoln, Whithernsea, Horsforth, and Ipswich, and twenty-seven persons had received domiciliary treatment.

Cost of Administration.

Total Treasury Grant.

In reply to Mr. Worthington-Evans, Mr. Masterman said that the percentage cost of administration in the case of old age pensions was slightly under 4, and in the case of health insurance (out of the voted expenditure) it was about 27. He stated, however, that the comparison was misleading owing to the fact that in the case of insurance the whole cost of the central administration was borne on the votes, whilst the greater part of the cost of the benefits fell on the contributions. The total Treasury estimate in respect of insurance was £6,991,844, of which the cost of central administration was £855,659, and the grants in aid of the estimated administrative expenses of societies and committees £974,750.—In reply to a further question on this subject by Mr. Cassel, Mr. Wedgwood Benn stated, on behalf of Mr. Masterman, that the £974,750 for the administrative expenses of societies and committees was made up as follows:

	£
Two-ninths of estimated expenses in respect of male members	606,200
Two-ninths of estimated expenses in respect of female members	282,950
Special grant to Insurance Committees in respect of the cost of the administration of medical benefit	85,600

Maternity Benefit in the Case of an Aged Husband.

In reply to Mr. Meagher, Mr. Masterman stated that in the case of a woman at Kilmanagh, co. Kilkenny, who had paid insurance in her husband's name, maternity benefit was not granted on the birth recently of her eighteenth child on the ground that her husband was over 65 years of age. He explained that it was due to the fact that the benefits to insured men over 65 years of age were determined by their societies, according to the value of the premiums paid for that age, and that they had in this case decided not to devote any of it to the payment of maternity benefit. He added that in this case a grant of £3 had been made from the King's privy purse.

CORRESPONDENCE.

Dr. C. Courtenay Lord (Gillingham, Kent) writes: Judging by the dearth of letters in the Journal, and by the general lack of interest in things concerning the Act, the profession seems once more to have relapsed into that somnolence from which it was so rudely awakened about two years ago. And yet the greatest, the most serious crisis in the whole history of the profession will occur during the next three weeks. Within three weeks from the present day the provisional agreements with Insurance Committees terminate, and permanent agreements will be submitted in their place. Those of us who have watched in vain for some move on the part of our great fighting organization have looked in vain.

There has been no move, and there will be none. Our hoary, hidebound constitution might have been specially designed by our enemies with the set purpose of rendering nugatory any of our efforts to escape from a persecution which has no parallel in the annals of our profession. Can it be fate or design that causes our Central Council to meet just a week after such a momentous decision has to be made? Beaten in the first round, owing to the action of members of the profession who were in no danger of ever having to be panel doctors, and who have political axes to grind, many had hoped that the three months before the permanent agreements came up would serve as a breathing space during which we might rally our temporarily demoralized forces and make another bid for the freedom of action which we enjoyed in the past. But what do we see? Except in a few bright instances, apathy everywhere. On all sides grumbling and dissatisfaction. But no organized effort either to escape from the tyranny of the Committee or to attempt to really tangibly ameliorate the onerous conditions of service. No doubt with the object of advertising its power, our organization made a great puff in the press of having done away with the farcical daybook. But on closer examination this effort seems to have ended in changing one system to another or in producing a state of affairs which is merely a distinction without a difference, even if it ever matures.

Surely the profession cannot seriously be going to allow this new state of affairs to remain as it is; surely some effort will be made to retrieve a defeat which has lowered the profession so disastrously in the eyes of the public—a defeat due largely to the empty threat of the whole-timer, the almost non-existent whole-timer. Can it be possible that hundreds—nay, thousands—of established medical men are to be permanently frightened into a service which they hate and abominate by the fear of being ousted by the class of man who has come so low as to lightheartedly become the servant of a lay body with the express object of pilfering his medical neighbour's livelihood on terms of grossly unfair competition? Surely, with assistants unobtainable, with the locumtenentes market dried up, and with strings of hospitals vainly striving to obtain resident officers, it must be that the "importation" bogey is laid. The statement that so long as a man can call himself a doctor the public do not mind is a gross misstatement of fact and an insult to their intelligence. This idea is one that is going in the near future to cause some sleepless nights to some of those committees which are exercising in a very high-handed manner their newly acquired power as employers of sweated medical labour. Granted that in districts where little but contract practice was ever done, certain men may be making more money than they were before. But, on the other hand, there are whole areas where very little club work was done, and in these areas men have been compelled against their will and against their higher ideals to convert their carefully built up practices into clubs. It will, of course, be advanced that any one can retain his independence by taking payment on the work done principle; but here, again, comes in the autocratic committee, which in order to save itself trouble refuses to let the individual choose his method of payment, but hurls one or other method at his head with a polite intimation that he can take it or leave it. I will make so bold as to say that if in any single large town the medical men would take their courage in both hands and leave the panels in a body, the

task of successfully replacing them would be impossible of accomplishment.

What is our position to-day? Absolutely committee-ridden. The Commissioners will not even trust us with the election of our own representatives on the County Committee, but simply run the election for us, and do not even inform us of the details of the result. We have to go hat in hand quarterly to ask the Committee how much of our earnings they will be gracious enough to pay us, while they keep our balance at usury for three, six, or nine months, as the case may be. Surely this is sufficiently degrading to make any one reconsider his position before it is too late. Can any one in his senses believe that he is going to get sympathetic consideration either from Government Commissioners or Committees after the gross breaches of faith in connexion with sanatorium benefit and the fees for uninsured members of friendly societies? No, most assuredly not. Remember that the present state of affairs is only the first step towards the complete subjugation of the profession and the complete effacement of private practice. Do not deceive yourselves with the idea that the roping in of women and children is going to be delayed for a definite period. It is on the threshold to-day; it will come like a thief in the night. It will begin insidiously and will spread like wild-fire. It is an accepted fact that some one has to pay for cheap club practice. It does not pay for itself, and can only produce a bare living by the doctor undertaking much more work than he can do properly. That this is not wide of the mark is proved by the desperate efforts that are being made—at any rate, in this town—to compel dependants to go to the panel men. What is to happen when all England is one huge club? The profession alone can stop it by acting now. The time for action has come. It will never come again. It is not yet too late to reassert ourselves. If the Government wants a service it can have it, and a good one too, but it will have to pay for it, and not compel the unfortunate medical profession to do so. To-day the money is being found by taking from him that hath and handing it over to him that hath not. This can only result in dragging every one down to a common level. If the panel system remains, there is a real danger that a great gulf will be fixed between the doctor and the panel doctor. This would be most regrettable, but, silly as it may appear to us, the public take a very different view. Let us, then, be stirring. There is not a day to be lost. If we are to be free, we must make up our minds at once. It is, I suppose, too late to expect any one to give us credit for having any thought for the good of the insured. It should, however, be somewhat in our favour that many scores of men are to-day facing stark ruin rather than countenance a scheme which must be detrimental both to the public health and to the morale of the profession. All honour to these men. The public will one day realize what a debt of gratitude they owe to them.

*** Dr. Courtenay Lord's assumption in the earlier part of his letter, that this matter has not received attention, is not borne out by a reference to the report of the proceedings of the State Sickness Insurance Committee on March 27th, published in this week's Supplement, p. 304. This will show that after a careful consideration of the replies received to the recent questions issued to the profession in regard to the working of the panel system the Committee formed the opinion, and is reporting to the Council, that no good purpose would be served by the Association calling on practitioners to leave the panel. The dates of the quarterly meetings of the Council are settled at the annual meeting in each year, but means are open to members of the Council for calling a special meeting.

The Present Situation and Future Policy.

Dr. Garratt (Chichester) writes: Had Dr. Arthur King's first letter been in the style of his second, I had not criticized it. I adhere, however, to my statement that payment for work done is not on the whole characteristic of professions—witness the Church, the army, the navy, the civil services, the teaching profession, the highest branches of the law, and those most honoured of ourselves. The honorary staff serving in our great hospitals—men of European reputation—are not paid by the piece for this their finest work yet it is absurd to pretend that they are not paid at all. They profit greatly by these coveted appointments, and are under contract, too. The essential difference between the two modes of payment is that under contract or salary the worker is expected to do his best, regardless of whether there be profit or loss on the particular task in hand, while under payment for work done it is not so. The former is widely regarded as the higher ideal. What Dr. Bow and others fail, as it seems to me, to recognize is that it is not contract service that has degraded our profession, but we who have degraded contract service, which in other professions is highly esteemed. This we have done, partly, indeed, as a result of charity or mere apathy, but far more, I regret to say, through mutual distrust and pitiful underselling of one another. Until, therefore, we reform ourselves and pull together, no improvement will or can occur. I have always strongly opposed extension of contract service beyond the really necessitous, because it is extremely difficult then to settle terms fair to both parties or to prevent abuse. I am also opposed to any doctor accepting more than he can honestly undertake. Thus restricted, the service is a genuine insurance to the beneficiary, who, though unable to afford visiting fees, may yet retain his self-respect. This is my only reply to Dr. Jerome Mercier. Finally, I would remind Dr. King that of sixty-nine Divisions of the Association but one failed, in 1905, to see the necessity for contract practice. There would seem, therefore, to be a great preponderance of "wastrels" in our ranks. Dr. King had been better advised had he withdrawn this and similar expressions unreservedly.

An Appeal to Practitioners who have not Joined or intend to Leave the Panel.

We have received the following letter:

The National Medical Union.

Sir,

There are many practitioners who, having served on the panel during the "trial period" of the working of the National Insurance Act, are now determined to give up that work.

We desire, through your columns, to remind all who have reached this decision, and are not already enrolled, that membership of the National Medical Union is limited to doctors who decline to take up work of any kind under the Act until the conditions of service are acceptable and in conformity with the dignity and honour of the profession.

As the purpose of the union is the protection of the interests of its members, and of those of their brethren who retire from service under the Act; and, in addition, the maintenance of the right of the insured people to freedom in their choice of doctor, it is earnestly hoped that all who are in sympathy with these objects will assist in the effort to attain them by becoming, if possible, members of the union; and that they will, in any case, communicate at once with the honorary secretaries.

Those practitioners who are in a position to supply concrete examples of injustice and other evils consequent on the working of the Act are requested to forward details to the officers of the union, together with any suggestions they may wish to make in connexion with them.

The National Medical Union, it should be noted, is not a trade union, and its members are opposed to the suggestion that the defence of the medical profession should be undertaken on trade union lines.

We are, Sir,

Yours, etc.,

J. S. Prowse,
E. W. Floyd,
Honorary Secretaries, National Medical Union.

5, John Dalton Street, Manchester, April 2nd, 1913.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A list of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list. The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1913.

DATE OF MEETING.

The Annual Representative Meeting of the Association, 1913, will be held at Brighton on Friday, July 18th, and following days, as may be required.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

Attention is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting at Brighton in July next, relating to questions affecting the honour and interests of the medical profession or of the Association (By-law 37), must be published in the British Medical Journal not later than the issue of April 19th, and for this purpose should be received by me not later than April 12th, 1913. Notices of Motion proposing to make any addition to, or any amendment, alteration or repeal of any Regulation or By-law, or to make any new Regulation or By-law (Article 31), must be published in the Journal not later than the issue of May 17th, and received by me not later than May 10th, 1913.

By Order,

Alfred Cox,

February 4th, 1913. *Medical Secretary.*

QUARTERLY MEETING OF COUNCIL.

The Quarterly Meeting of the Council will be held at Two o'clock in the afternoon of Wednesday, April 23rd, in the Council Room at 429, Strand, London, W.C.

By Order,

Guy Elliston,

March 13th, 1913. *Financial Secretary and Business Manager.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

Birmingham Branch: Coventry Division.—A special meeting of the Division will be held at the Coventry Hospital on Tuesday, April 8th, at 8.30 p.m. (1) To discuss, and if approved, adopt the new ethical rules. (2) To receive the report and recommendation of the committee on an ethical matter. (3) To receive communications. (4) The rest of the evening will be devoted to clinical matters, and any member having anything of interest is requested to arrange with the Honorary Secretary.—D. Davidson, 15, Priory Row, Coventry.

East Anglian Branch.—The spring meeting of this Branch will be held at Colchester on Wednesday, April 30th. Members wishing to read papers or to show cases or specimens should communicate at once with me.—B. H. Nicholson, Colchester.

Metropolitan Counties Branch: City Division.—The next meeting of the Division will be held conjointly with the South-West Essex Division on Friday, April 11th, at 9.30 p.m., at Brooke House, Upper Clapton, by invitation of Dr. Gerald Johnston, when Dr. Hugh Walsham will give an address, with lantern demonstration, on Roentgen Rays in Diseases of the Chest.—A. G. Southcombe, Honorary Secretary, 83, Sidney Road, Homerton, N.E.

Midland Branch: Leicester and Rutland Division.—A meeting of the Division will be held at the Leicester Royal Infirmary on Wednesday, April 9th, at 4 o'clock. Agenda: Minutes of the previous meeting. Election of Representatives and Deputy Representatives. The following resolution will be proposed: "That it be an instruction to the Council to take the necessary steps to form a union of medical practitioners registered under the Trade Union Acts, for such of the members of the Association and other medical practitioners as may desire to join such a union." Discussion on the proposed "Baby's Welcome" in Leicester. A discussion on "Malingering" will be opened by Mr. C. J. Bond. The following among others have promised to take part: Drs. A. V. Clarke, Moffat Holmes, McAllister-Hewlings, and C. W. Moore. Other business.—R. Wallace Henry, Honorary Secretary, 6, Market Place, Leicester.

North Wales Branch.—The spring meeting of the Branch will be held at Rhyl on Tuesday, April 15th. Members having papers to read, cases to show, or any other matters to bring forward, will please notify the Honorary Secretary before April 5th.—H. Jones Roberts, Llywenarth, Penygroes, S.O., Honorary Secretary.

South Midland Branch: Buckinghamshire Division.—The next meeting of the Division will be held at the Royal Bucks Hospital, Aylesbury, on Friday, April 11th, at 3.30 p.m., when Dr. Burri will read a paper on tuberculosis. The subject of the treatment of uninsured persons will also be discussed.—A. E. Larking, Castle Street, Buckingham.

South Midland Branch: Northamptonshire Division.—A meeting of the Division will be held in the Board Room of the Northampton General Hospital at 2.30 on Thursday, April 10th. A meeting of the Divisional Executive will be held at 1 o'clock in Franklin's Restaurant. Agenda: Minutes of previous meeting. Report of Representative Meeting from Dr. Dryland. Consideration of fees for uninsured persons. Adoption of Model Ethical Rules. Any other business.—P. S. Hichens, Honorary Secretary.

West Somerset Branch.—The spring meeting will be held at the Taunton and Somerset Hospital on Tuesday, April 8th, at 3.30 p.m., Dr. Balfour Stewart in the chair. Agenda: Minutes of the last meeting. The election of a Representative. Report on the work of the county provisional meeting. The following clinical cases and specimens will be shown:—Dr. Birkbeck: A case of genu recurvatum, a specimen of calcified thyroid, an unusual fibroid tumour of the uterus. Mr. A. J. H. Iles: Some radiograms of rare conditions. Dr. A. E. Joscelyne: The notes on a case of bacilluria (*Coli communis*). Mr. Farrant: A stone removed from the kidney, a stone passed per urethram, two specimens of prostates removed suprapubically. Mr. Penrose Williams: Resection of bowel (1 for intussusception, 1 strangulated femoral hernia). Specimens of a parenchymatous goitre and acute torsion of a parovarian cyst, simulating appendicitis.—Charles Farrant, Shrapnels, Taunton, Honorary Secretary.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

EAST ANGLIAN BRANCH:
West Suffolk Division.

A meeting of the Division was held on March 17th.

Election of Officers.—The following officers were elected.—*Chairman*, Dr. Wood; *Vice-Chairman*, Dr. Caie; *Honorary Secretary*, Dr. Bernard E. A. Batt.

Vote of Thanks.—A very hearty vote of thanks to Dr. Caie for his services as Honorary Secretary to the Division since 1903 was carried unanimously.

Attendance on Juvenile Club Members.—The rate of remuneration for attendance on juvenile club members was discussed, and the Secretary was instructed to bring to the notice of every practitioner in the district the decision:

> That the Division does not depart from the resolution of November 7th, 1912—namely, that 4s. per annum be the capitation basis for juveniles.

Incorporation of Private Medical Clubs.—Dr. Wood introduced the question of the incorporation of all private medical clubs in the Suffolk County Medical Club, the rates of which have been revised as a result of the Insurance Act. After a general discussion, the matter was dropped for the present, Dr. Wood undertaking to ask the Secretary of the County Medical Club to inform all practitioners in the county of its present rates.

SOUTH-EASTERN BRANCH:
Brighton Division.

A meeting of the Brighton Division was held on March 28th. Dr. Marsh presided, and thirty-five members and one visitor were present.

Honorary Secretaryship.—The resignation of Dr. Benham as Honorary Secretary was received, and upon the proposition of Dr. Marsh, seconded by Dr. Ryle, the Division expressed its sense of the invaluable services rendered by Dr. Benham and its regret at his resignation. Dr. Burchell was appointed Honorary Secretary until the annual meeting.

Ethical Committee.—A report of the Ethical Committee for the Division was referred to a special committee.

Warning Notices.—The matter of a medical aid society proposed to be started at Shoreham was discussed, and it was decided to continue the warning notice in the British Medical Journal.

Public Medical Service.—The report of the Brighton Medical Committee was received, and, in connexion with it,

the report of a special subcommittee of the Executive Committee, recommending the immediate starting of a medical service, to include the Boroughs of Brighton and Hove, for giving medical attendance upon uninsured persons. A committee was appointed to draw up a detailed scheme, and submit it at the very earliest moment to a meeting to be called.

East Sussex Medical Committee.—The report of the East Sussex Committee was also received.

DARTFORD DIVISION.

A MEETING of this Division was held at Dartford on March 29th. Dr. CHAS. FIRTH presided.

Correspondence. — A letter was received from Dr. Courtenay Lord, Representative on the Council of the South-Eastern Branch, as to the retention of his position on the Council. On the motion of Dr. SHUTE, seconded by Dr. MURISON, and supported by the CHAIRMAN, it was unanimously resolved:

That a vote of confidence in Dr. C. Courtenay Lord be accorded by this Division.

Divisional Report. — Dr. CHISHOLM WILL read the Divisional report, which had been forwarded to the Central Office and the South-Eastern Branch Council, and drew attention to the deficit on the year's accounts and to the inability of the Branch Council to give any grant to the Divisions in the present financial condition of the Branch. The following resolutions were passed unanimously:

1. That all members of the Division be requested to pay a levy of 5s. each to provide for the deficit on the year's accounts and the future working expenses.
2. That the resolution also apply to non-members in the Division.
3. That the levy be collected by the members of the executive in their respective areas.

Kent County Medical Committee.—The HONORARY SECRETARY gave a short account of the work of this Committee, on which the Division is represented by the Chairman and Secretary. Dr. WILL reported that the Committee had received statutory recognition by the Commissioners, had recently elected Dr. Maude of Westerham as Chairman in place of Dr. Tyson resigned, and had decided to levy a subscription of 5s. from all medical men in Kent on the panel to meet the expenses of the Committee. He also detailed some of the work done, and that which lay before it in the immediate future. He strongly urged all men in the Division to refrain from signing any agreement until that document had received the careful consideration of the Kent County Medical Committee. The discussion was continued by the CHAIRMAN, Drs. MURISON, GREENWAY, RENTON, FARTHING, and others. Several important points were put forward for consideration by the Kent County Medical Committee, and the further consideration postponed until the new agreement was in the hands of the members. On the motion of Dr. RENTON, seconded by Dr. MURISON, it was unanimously resolved:

That this meeting strongly advises medical practitioners to have no fixed hours for consultation on Sundays.

Attendance on Non-insured Persons.—A discussion on this question took place, and a large number of those present expressed their views as to the minimum rate to be charged, but owing to the lateness of the hour the discussion was adjourned.

GUILDFORD DIVISION.

A MEETING of the Division was held on February 14th at the Royal Surrey County Hospital. Dr. KINGSFORD took the chair and there were eighteen present.

Treatment of the Uninsured Members of Clubs.

This subject was discussed and resolutions were passed in favour of the following minimum terms. The Secretary was instructed to circulate these to all the medical practitioners in the Division and urge them not to undertake treatment of such members on any lower terms:

Aged and Uninsured Members of Clubs.

1. On capitation basis: 9s. per head per annum for ordinary medical attendance and medicine.
2. On payment per attendance basis: According to scheme of the London United District of Ancient Order of Foresters (practically that of the National Deposit), with extra for mileage.

Juvenile Members of Clubs from Ages of 3 to 16.

1. On capitation basis:
   If only one child member in a family, 2s. per head per annum.
   If only two child members in a family, 8s. for first and 6s. for second.
   If more than two child members in a family, 8s. for the first, 6s. for the second, 4s. for each of others.
2. On payment per attendance basis: Similar to that of adults.

In all cases it is understood that there must be free choice of doctor, and that fractures, dislocations, major operations, and anaesthetics are not included in the above terms.

The above terms have since been approved by the State Sickness Insurance Committee.

SOUTH AFRICAN COMMITTEE.

A MEETING of the South African Committee, British Medical Association, was held at Kimberley on February 11th, 1913, when six members were present.

Medical Examination of Citizen Defence Force Recruits.

Dr. Stock, temporarily attached to the Defence Department, was present to confer with the Committee on this subject.

A letter was read from the Under Secretary for Defence stating, in reply to an invitation, from this Committee, that the Minister "will be very glad to discuss the subject (of medical organization) with the representatives of the medical profession in the Union at the stage when a scheme for creating such an organization is more fully developed."

The Committee resolved, in view of the importance of giving every facility to the Government in organizing a defence force for South Africa, to advise the various Branches and Divisions of the British Medical Association in South Africa to conduct the medical examinations of recruits during the initial stage free of charge; and a Subcommittee was formed to consult with the Government. The Committee further resolved to point out to all the Branches the necessity of their members loyally supporting its decisions and recommendations in this matter.

Draft Regulations of Congress.

This draft, prepared by the Natal members of Committee, having been previously supplied to each member, was discussed, revised, and approved with certain minor alterations, and referred to the Branches for revision. It will finally be presented to the next congress for adoption.

Club and Contract Practice.

A communication from the Transvaal Branch was considered and the opinion expressed that no general set of regulations could be formulated in view of the varying conditions in different centres, and that for the present the question should be dealt with by the local Divisions.

Annual Meeting.

It was agreed to hold this meeting at East London during the sitting of congress in July.

Fees at Court.

In view of the alteration made by Government in the scale of court fees for medical evidence, and of the varying conditions of medical practice and fees in different localities, the Committee decided that local Divisions and Branches should take up the question of a more equitable scale suitable for their own districts.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following appointments are announced by the Admiralty: Fleet Surgeon J. CHAMBERS, M.B., to the *President*, additional, for three months' senior medical officers' course at Naval Medical School, Greenwich, April 1st. Staff Surgeon E. R. L. THOMAS to the *Vivid*, additional, for Plymouth Hospital, temporarily, March 20th. Staff Surgeon J. ST. J. MURPHY to the *Minerva*, temporarily, March 18th. Staff Surgeon C. R RICKARD to the *Bulwark*, March 25th. Staff Surgeon H. R. H. DENNY to the *Vivid*, additional, for the *Amphion* for trials, March 19th, and on recommissioning, undated. Staff Surgeon J. THORNHILL, M.B., to the *Endymion*, April 6th. Staff Surgeon H. WOODS, M.B., to the *Vivid* for Royal Naval Barracks.

April 6th. Surgeon C. H. L. PETCH to the *Excellent*, temporarily, March 20th. Surgeon G. CARLISLE to the *Victory*, additional, on expiration of foreign service leave, undated.

ARMY MEDICAL SERVICE.

COLONEL EDMUND J. E. RISK is placed temporarily on the half-pay list on account of ill-health, March 27th, 1913. Lieutenant-Colonel HENRY M. SLOGGETT, from the R.A.M.C., to be Colonel, March 27th, 1913.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel J. THOMPSON has been appointed to the London District for duty at the Queen Alexandra Military Hospital.

Major J. F. M. KELLY has been posted to the Eastern Command.

Major J. POE has been posted to the Eastern Command.

Major H. A. HINGE has left London for duty at Aldershot.

Captain A. E. IRVINE on arrival in Ireland is posted to Belfast.

Captain C. J. W. WYATT has been ordered to Sierra Leone.

Lieutenant C. H. H. HAROLD has been appointed Specialist in Dermatology, Third (Lahore) Division.

Lieutenants restored to the established from the seconded list, April 1st, 1913: ROBERT G. SHAW, M.B., ALEXANDER L. URQUHART, M.B., and AVENELL F. C. MARTYN.

The date of restoration to the establishment of Lieutenant CUTHBERT J. H. LITTLE, M.B., is January 26th, 1913, and not as stated in the *Gazette* of February 4th, 1913.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT A. H. HABGOOD to be Captain, March 22nd.

Cadet IVAN LINDLEY WADDELL, from the London University Contingent, Officers' Training Corps, to be Lieutenant on probation, February 14th.

WILLIAM H. JOHNSTON, late Cadet Sergeant, Royal College of Surgeons in Ireland Contingent, Officers' Training Corps, to be Lieutenant on probation, February 26th.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Second South Midland Field Ambulance.—Major SEYMOUR G. BARLING and Lieutenant SAMUEL G. WEBB, M.D., have resigned their commissions, March 29th; Captain GEORGE W. CRAIGH to be Major, March 29th.

Attached to Units other than Medical Units.—Captain ALFRED A. HINGSTON, M.B., from the Second South Middlesex Field Ambulance, to be Captain, February 18th.

For Attachment to Units other than Medical Units.—JOHN T. SHAW, M.D., to be Lieutenant, March 29th.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-six of the largest English towns 8,620 births and 5,792 deaths were registered during the week ending Saturday, March 29th. The annual rate of mortality in these towns, which had been 17.4, 17.0, and 16.5 per 1,000 in the three preceding weeks, rose to 16.9 per 1,000 in the week under notice. In London last week the death-rate was equal to 17.4 per 1,000, against 18.3, 17.6, and 17.2 in the three previous weeks. Among the ninety-five other large towns the death-rates ranged from 7.6 in Eastbourne, 9.3 in Wallasey, 9.6 in Enfield and in Gillingham, 9.9 in Willesden, and 10.0 in Ealing to 22.3 in Dewsbury, 22.6 in West Bromwich, 23.1 in Stoke-on-Trent, 23.9 in Wakefield, 24.5 in Wolverhampton, and 24.6 in Bootle. Measles caused a death-rate of 2.6 in Bolton, 2.7 in Wimbledon, 2.8 in Smethwick, 3.0 in Edmonton and in Stockton-on-Tees, 3.1 in St. Helens, 3.5 in Bury, and 4.1 in Gloucester. The mortality from the remaining infective diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 51, or 0.9 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 13 in Birmingham, 7 in Liverpool, 4 in Darlington, 3 in Bootle, and 2 each in London, Sheffield, Preston, and Hull. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,617, 1,556, and 1,514 at the end of the three preceding weeks, had further fallen to 1,455 on Saturday last; 168 new cases were admitted during the week, against 160, 164, and 156 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN the sixteen largest Scottish towns 1,218 births and 744 deaths were registered during the week ending Saturday, March 29th. The annual rate of mortality in these towns, which had been 19.9, 18.8, and 18.4 per 1,000 in the three preceding weeks, further fell to 17.2 in the week under notice, but was 0.3 per 1,000 above the rate in the ninety-six large English towns. Among the several Scottish towns the death-rate last week ranged from 0.9 in Kilmarnock, 9.2 in Ayr, and 13.4 in Perth to 20.1 in Greenock, 22.1 in Aberdeen, and 24.7 in Leith. The mortality from the principal infective diseases averaged 1.9 per 1,000, and was highest in Leith and Falkirk. The 344 deaths from all causes registered in Glasgow included 29 from whooping-cough, 9 from infantile diarrhoeal diseases, 4 from measles, 3 from diphtheria, 2 from scarlet fever, and 1 from enteric fever. Four deaths from whooping-cough were recorded in Leith, 3 in Edinburgh, 3 in Greenock, 2 in Aberdeen, and 2 in Motherwell; and 2 deaths from measles and 2 from diphtheria in Aberdeen.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, March 29th, 683 births and 547 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 546 births and 499 deaths in the preceding period. These deaths represent a mortality of 23.8 per 1,000 of the aggregate population in the districts in question, as against 21.7 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 6.9 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 29.7 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 24.2, as against an average of 23.1 for the previous four weeks, in Dublin city 25.0 (as against 24.3), in Belfast 24.5 (as against 24.1), in Cork 22.4 (as against 24.0), in Londonderry 20.3 (as against 15.9), in Limerick 27.1 (as against 21.4), and in Waterford 32.3 (as against 24.2). The zymotic death-rate was 2.1, as against 1.6 in the previous period.

Hospitals and Asylums.

GLAMORGAN COUNTY LUNATIC ASYLUM.

THE annual report for 1911 of Dr. D. Finlay, Medical Superintendent, shows that on January 1st, 1911, there were 1,684 patients in the asylum, and on the last day of the year 1,700. The total cases under care during the year numbered 2,074, and the average number daily resident 1,655.5. At the time of his report Dr. Finlay said that the male dormitories were overcrowded to the extent of 74. Additional accommodation for males, contemplated for long, is now to be seriously considered.

During the year 390 were admitted, of whom 337 were direct and 53 indirect admissions. Of the total admissions, 302 were new and 88 relapsed cases. Of the direct admissions, in 124 the attacks were first attacks within three, and in 68 more within twelve months of admission; in 65 not-first attacks within twelve months, and in the remainder, including 25 congenital cases, the attacks were of more than twelve months' duration on admission. The direct admissions were classified according to forms of mental disorder into: Recent mania, 120, chronic, 17; recent melancholia, 64, chronic, 5; senile and secondary dementia, 31; delusional insanity, 16; general paralysis, 18; insanity with epilepsy, 19; insanity with grosser brain lesions, 11; confusional insanity, 9; primary dementia and moral insanity, 1 each; and congenital defect, 25.

As to causation, in the direct admissions alcohol was assigned in 68, syphilis in 19, and other toxins in 15; diseases of the nervous system in 46 (epilepsy 31); various other bodily affections in 18; child-bearing in 25; critical periods in 53; injuries in 10; and mental stress in 61. An insane heredity was ascertained in 81, an alcoholic heredity in 47, and of the other neuropathies in 8. It will be noticed that alcohol was assigned as cause in 20 per cent. of the admissions.

During the year 108 were discharged as recovered, giving a recovery-rate on the direct admissions of 32.0 per cent., or of recoveries in and on the direct admissions of 31.4 per cent.; also 35 were discharged as relieved and 44 as not improved.

During the year 187 died, giving a death-rate on the average numbers resident of 11.2 per cent. The deaths were due in 39 to nervous diseases, including 25 from general paralysis, in 23 to diseases of the heart and blood vessels, in 6 to respiratory diseases, in 3 to diseases of the digestive system, in 26 to nephritis, in 2 to suicide, and in the remainder to general diseases, including 21 from senile decay and 38, or 20 per cent., from tuberculous diseases. Of the two deaths by suicide, one not previously considered suicidal hanged himself while absent on trial, and the other, a patient recognized as suicidal, succeeded in getting her clothing on fire, burning herself so severely that she died in nine hours. Save for influenza and some cases of diarrhoea during the hot weather, the general health was good throughout the year.

JOINT COUNTIES ASYLUM, CARMARTHEN.

YEAR by year the annual reports of this asylum have revealed a great overcrowding, due to the perpetuation of a long-standing dispute between the several county authorities concerned. In February, 1911, a conference of county representatives was held at the Home Office; Sir Henry Cunynghame, who presided, made an award, with the consent of all parties, settling, as was supposed, the matters in controversy, and the Lunacy Commissioners believed that at last the hatchet was buried and over its grave the much-needed improvements and extensions would be carried out. Alas for such hopes! At the end of 1911 the dispute was burning as briskly as ever; peace still on the distant horizon, and the asylum 95 patients in excess of provided accommodation. Notwithstanding this—to describe it very mildly—unfortunate state of affairs, the inmates of the asylum, under Dr. Richard's administration, do not appear to be suffering much harm, for in 1911 the death-rate decreased and the recovery-rate increased.

Turning to the statistics, on January 1st, 1911, there were 690 patients on the asylum registers, and on the last day of the year 695. The total cases under care during the year numbered 803, and the average number daily resident 695. During the year 113 were admitted, of whom 105 were direct admissions. Of the direct admissions, in 43 the attacks were first attacks within three, and in 14 more within twelve months of admission; in 20 not-first attacks within twelve months, as in 3 more in whom it was not known whether the attacks were first or not; and in the small remainder, including 5 congenital cases, the attacks were of more than twelve months' duration on admission. The direct admissions were classified according to the forms of mental disorder into: Recent mania, 28, chronic and recurrent, 15; recent melancholia, 27, chronic and recurrent, 3; senile and secondary dementia, 10; general paralysis, 6; insanity with epilepsy, 3; stupor, 5; delusional insanity, 1; insanity with grosser brain lesions, 2; and congenital defect, 5.

As to probable causation, alcohol was assigned in 18, syphilis in 5, and influenza in 3; diseases of the nervous system in 7; child-bearing in 6; critical periods in 19; bodily trauma in 6, and mental stress in 48. An insane heredity was ascertained in 29, and of other neuropathies in 5 more. During the year

40 were discharged as recovered, giving a recovery-rate on the direct admissions or of recoveries in and on the direct admissions of 38.0 per cent.; also 23 were discharged as recovered, and 3 as not improved. During the year also 42 died, giving a death-rate on the average number resident of 6.04 per cent., as compared with the average death-rate for this institution of 8.6 per cent. The deaths were due in 5 to nervous diseases, with 4 from general paralysis; in 10 to diseases of the heart and blood vessels; in 2 to congestion of lungs; in 3 to kidney disease; in 1 to volvulus, in 1 to asphyxia from drowning, and in the remainder to local and general diseases, including 10, or 23.8 per cent., of the total deaths from tuberculous diseases. The death from drowning was that of a farm patient who appeared to have fallen face downwards in a shallow ditch during a faint. An outbreak of epidemic diarrhoea occurred in the autumn, 18 male patients being affected, with no deaths. Otherwise the general health was satisfactory, and serious non-fatal casualties were small in number.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary, £80 per annum.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Salary at the rate of £70 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM: RUBERY HILL ASYLUM.—Junior Assistant Medical Officer (male). Salary, £150 per annum.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—House-Surgeon (male). Salary at the rate of £75 per annum.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRIGHTON AND HOVE HOSPITAL FOR WOMEN.—House-Surgeon. Salary, £80 per annum.

BRISTOL: COSSHAM MEMORIAL HOSPITAL, Kingswood.—House-Surgeon (male). Salary, £50 per annum.

BRISTOL GENERAL HOSPITAL.—(1) House-Physician; (2) Second House-Physician; (3) Casualty House-Surgeon. Salary, £80 per annum. (4) Assistant Anaesthetist.

BRISTOL ROYAL INFIRMARY.—Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £75 per annum.

BURY ST. EDMUNDS: WEST SUFFOLK COUNTY COUNCIL—Assistant Medical Officer of Health. Salary, £250 per annum, rising to £300.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum.

CAMBRIDGE: ADDENBROOKE'S HOSPITAL.—House-Physician. Salary, £80 per annum.

CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £80 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DARENTH INDUSTRIAL COLONY FOR THE FEEBLE-MINDED, near Dartford.—Male Third Assistant Medical Officer. Salary, £150 per annum, rising to £170.

DEVON COUNTY ASYLUM, Exminster.—Fourth Assistant Medical Officer (male). Salary, £130 per annum, rising to £140, and honorarium of £50 for pathological work.

DORSET COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £200 per annum, rising to £250.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £100 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Surgeon (male). Salary at the rate of £75 per annum.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Third Assistant Medical Officer (male). Salary, £200 per annum, rising to £225.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Senior Resident and Junior Resident (females). Honorarium, £25 and £18 per annum respectively.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

GREAT YARMOUTH HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

HASTINGS: EAST SUSSEX HOSPITAL.—Assistant House-Surgeon (male). Salary at the rate of £75 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—House-Physicians. Honorarium, 30 guineas for six months.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Assistant Casualty Medical Officer. Salary, £30 for six months, and £2 10s. washing allowance.

HULL: ROYAL INFIRMARY.—Casualty House-Surgeon. Salary at the rate of £60 per annum for six months or £80 per annum for twelve months.

ITALIAN HOSPITAL, Queen Square, W.C.—Honorary Anaesthetist.

KENSINGTON AND FULHAM GENERAL HOSPITAL, Earl's Court, S.W.—(1) Physician; (2) Resident Medical Officer; salary, £75 per annum.

LEYTON, WALTHAMSTOW, AND WANSTEAD CHILDREN'S AND GENERAL HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

LINCOLN COUNTY HOSPITAL.—Junior Male House-Surgeon. Salary at the rate of £100 per annum.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—Senior and Junior House-Surgeons. Salary, £120 and £100 respectively.

METROPOLITAN ASYLUMS BOARD.—Male Assistant Medical Officers in the Infectious Hospitals Service. Salary, £180 per annum, rising to £240.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) House-Physician; (2) House-Surgeon; (3) Assistant House-Physician; (4) Assistant House-Surgeon. Salary for (1) and (2) at the rate of £60 per annum, and for (3) and (4) £40 per annum.

MONTREAL: McGILL UNIVERSITY.—Arthur A. Browne Fellowship. Annual stipend, $1000.00.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistants. Salary, £160 per annum, rising to £180.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Resident Medical Officer. Salary, £80 per annum for first four months, rising to £120 per annum for third four months.

NORTHAMPTON COUNTY BOROUGH.—Tuberculosis Officer (junior). Salary, £350 per annum.

NOTTINGHAM GENERAL DISPENSARY.—(1) Assistant Resident Surgeon (male); salary, £170 per annum. (2) Resident and Assistant Resident Surgeons for Branch; salary, £180 and £170 per annum respectively.

NOTTINGHAM WORKHOUSE AND INFIRMARY.—Two Resident Assistant Medical Officers. Salary, £150 per annum, rising to £170.

OLDHAM COUNTY BOROUGH.—Assistant Schools Medical Officer. Salary, £260 per annum.

ORMSKIRK UNION.—District and Workhouse Medical Officer and Public Vaccinator. Salary, £260 per annum and fees.

PADDINGTON GREEN CHILDREN'S HOSPITAL.—(1) House-Physician; (2) House-Surgeon. Salary at the rate of £52 10s. each.

POPLAR HOSPITAL FOR ACCIDENTS, E.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

PRESTON ROYAL INFIRMARY.—Senior House-Surgeon (male). Salary at the rate of £80 per annum.

PRESTWICH: COUNTY ASYLUM.—Assistant Medical Officer. Salary, £150 per annum, increasing to £200, and subsequently to £350 on promotion.

READING: ROYAL BERKSHIRE HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

RICHMOND: ROYAL HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum.

ROCHDALE INFIRMARY.—Two House-Surgeons (unmarried). Salary, £80 and £100 per annum respectively.

ROTHERHAM HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—(1) Physician-Accoucheur; (2) Assistant Physician.

ST. PETER'S HOSPITAL FOR STONE, ETC., Henrietta Street, W.C.—Junior House-Surgeon. Salary at the rate of £50 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—(1) Senior House-Surgeon; (2) Junior House-Surgeon (males). Salary at the rate of £100 and £80 per annum respectively.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Assistant House-Surgeon. Salary, £60 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £60 per annum.

SHEFFIELD: ROYAL INFIRMARY.—(1) Two House-Surgeons; (2) Junior House-Surgeon; (3) Assistant House-Physician. Salary for (1) £80 per annum, and for (2) and (3) £70 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £60 per annum.

SOUTHWARK UNION INFIRMARY, East Dulwich.—Third Assistant Medical Officer (male). Salary, £120 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE INFIRMARY.—Senior and Junior House Surgeons (males). Salary, £100 and £90 per annum respectively.

STIRLING DISTRICT ASYLUM, Larbert, N.B.—Third Assistant Medical Officer (lady). Salary, £100 per annum.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £120 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—(1) Physician to In-patients; (2) Physicians to Out-patients.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary at the rate of £100 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL.—Junior House-Physician. Salary at the rate of £75 per annum.

WORKSOP DISPENSARY.—Medical Officer and House-Surgeon. Salary, £150 per annum.

YORK DISPENSARY AND MATERNITY HOSPITAL.—Resident Medical Officer (male). Salary £140 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Chatham (Kent), Dover (Kent), Halstead (Essex), Malton (Yorkshire), Rathkeale (co. Limerick), Swords (co. Dublin).

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

APPOINTMENTS.

BACK, H. H., M.B.Lond., Certifying Factory Surgeon for the Acle District, co. Norfolk.

BADGEROW, G. W., M.B., F.R.C.S., Consulting Surgeon for Disease of the Ear, Nose, and Throat to the Reedham Orphanage, Purley.

BICKNELL, A., M.D., District Medical Officer of the Wirral Union.

EVANS, D. Gordon, M.B., B.S., Assistant Resident Medical Officer to the Queen Alexandra Sanatorium, Davos Platz, Switzerland.

LYNE, D. J., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the Castletown District, co. Cork.

THOMAS, L. Kirkby, M.R.C.S., L.R.C.P., Anaesthetist to the Queen's Hospital, Birmingham.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

BATTERSBY.—At 616, Great Eastern Road, Glasgow, on March 20th, the wife of James Battersby, F.R.C.S.Eng., of a son.

BOLUS.—On March 25th, at 5, St. Aubyn Street, Devonport, the wife of Dr. P. R. Bolus, of a daughter.

CARMICHAEL.—At 4, Wellington Crescent, Manchester, on March 25th, the wife of Captain J. C. G. Carmichael, R.A.M.C., of a daughter.

ELLIS.—On March 30th, at 3, Maple Road, Bournville, Birmingham, the wife of F. W. Ellis, M.D., F.R.C.S., of a son.

PORTEOUS.—On March 24th, at Newbury House, Weston-super-Mare, the wife of Dr. H. B. Porteous, of a daughter. Scottish papers, please copy.

MARRIAGE.

STEWART—EGLINGTON.—At St. John's, Hammerwich (Staffs.), on March 27th, by the Rev. F. Ashwall, uncle of the bride, and the Rev. C. E. Frossard, Matthew J. Stewart, M.B.Glas., M.R.C.P. Lond., elder son of W. R. Stewart, Dalmellington, Ayrshire, to Clara Eglington, M.B., B.S.Lond., eldest daughter of E. H. Eglington, of Hammerwich, near Lichfield.

DEATHS.

APPLETON.—On March 28th, Henry Appleton, M.D., Fell. Roy. Soc. Med., at 22, Albion Street, Hull (late of Queen Square, London), aged 72 years.

BUCKNALL.—Thomas Rupert Hamden Bucknall, M.D., M.S.Lond., F.R.C.S., late of University College Hospital, London, aged 39, died at "Restholme," Bexhill, Tuesday, March 18th.

CARRUTHERS.—On April 1st, at Moody Hall, Congleton, Edward John Walter Carruthers, M.D., aged 45.

PUBLISHERS' ANNOUNCEMENTS.

MESSRS. J. AND A. CHURCHILL have ready for publication vol. vii of the new edition of Allen's *Commercial Organic Analysis*. This volume has been rewritten under the editorship of Mr. W. A. Davis, B.Sc., and Mr. S. S. Sadtler, S.B. The subjects and authors are as follows: Vegetable alkaloids, ptomaines, or putrefaction bases, by G. Barger; glucosides, by E. Frankland Armstrong; non-glucosidal bitter principles, by G. C. Jones: animal bases, by A. E. Taylor; animal acids, by J. A. Mandel; lactic acid, by W. A. Davis; cyanogen and its derivatives, by Herbert Philipp.

Amongst their spring publications the same firm announces: *Liquid Air Oxygen and Nitrogen*, by Mr. Georges Claude, Engineer Laureate of the Institute of France, translated from the French by Mr. H. E. P. Cottrell; a second amplified edition of Dr. J. C. Thresh's *Examination of Waters and Water Supplies*; and a *Laboratory Textbook of Chemistry*, Part I, by V. S. Bryant, Assistant Master at Wellington College, intended for use in schools.

DIARY FOR THE WEEK.

TUESDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Professor A. D. Waller:—First Oliver Sharpey Lecture: The Electrical Action of the Human Heart.

WEDNESDAY.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., at 5 p.m.—Paper:—Major Howard Ensor, D.S.O., R.A.M.C.: The Duties of an Officer of the Royal Army Medical Corps attached to an Infantry Battalion on Active Service.

THURSDAY.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, Pall Mall East, S.W., 5 p.m.—Professor A. D. Waller: Second Oliver Sharpey Lecture.

ROYAL SOCIETY, Burlington House, 4.30 p.m.—Probable Papers:—A. D. Waller, F.R.S.: The Various Inclinations of the Electrical Axis of the Human Heart. Professor J. H. Priestley and R. C. Knight: On the Nature of the Toxic Action of the Electric Discharge upon *Bacillus coli communis*, communicated by Professor J. B. Farmer, F.R.S. Surgeon-General Sir D. Bruce, F.R.S., Majors D. Harvey and A. E. Hamerton and Lady Bruce: (1) Morphology of Various Strains of the Trypanosome causing Disease in Man in Nyasaland. (2) The Wild Game Strain. (3) The Wild *Glossina morsitans* Strain. (4) Infectivity of *Glossina morsitans* in Nyasaland.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 8.30 p.m.—(1) Demonstration of Cases and Specimens. (2) Paper:—Mr. Lockhart Mummery: Ulcerative Colitis.

POST-GRADUATE COURSES AND LECTURES.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, 2 p.m.; X Rays and Operations daily. Gynaecology: Monday, Tuesday, Wednesday, and Friday. Eye: Monday, Wednesday, Thursday, and Saturday. Throat, Nose, and Ear: Tuesday, Wednesday, Friday, and Saturday. Skin: Tuesday and Friday. Pediatrics: Saturday.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Thursday. Radiography: Saturday. Special lectures each week.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m.: Some Points in X-Ray Examination.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Monday, Thursday, and Friday, 4.30 p.m.

[For further particulars of Lectures consult Index to Advertisements.]

DIARY OF THE ASSOCIATION.

Date.	Meetings to be Held.
	APRIL.
5 Sat.	London: Science Committee, 11 a.m.
7 Mon.	London: Colonial Committee.
	London: Naval and Military Committee.
8 Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
	London: Organization Committee, 2.15 p.m.
	Coventry Division, Coventry Hospital, 8.30 p.m.
	West Somerset Branch, Taunton and Somerset Hospital, 3.30 p.m.
9 Wed.	London: Hospitals Committee, 3 p.m.
	London: Joint Medico-Political and Hospitals Subcommittee, 1.30 p.m.
	Leicester and Rutland Division, Leicester Royal Infirmary, 4 p.m.
10 Thur.	London: State Sickness Insurance Committee, 10.30 a.m.
	Northamptonshire Division, Northampton General Hospital, 2.30 p.m.
11 Fri.	Buckinghamshire Division, Aylesbury, 3.30 p.m.

Date.	Meetings to be Held
	APRIL (*continued*).
11 Fri.	City Division, Brooke House, Upper Clapton, 9.30 p.m.
	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
	South-West Essex Division, Brooke House, Clapton, 9.30 p.m.
15 Tues.	North Wales Branch, Rhyl.
16 Wed.	London: Finance Committee, 3 p.m.
23 Wed.	London: Council Meeting, 2 p.m.
	Richmond Division, Richmond, 8.30 p.m.
24 Thur.	South-West Essex Division, Walthamstow Hospital, 4 p.m.
25 Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
30 Wed.	East Anglian Branch, Colchester.
	MAY.
9 Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
13 Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
21 Wed.	Richmond Division, Richmond, 8.30 p.m.

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TO THE
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National Insurance.

LOCAL MEDICAL COMMITTEES.

BERKSHIRE.

AT a meeting of the Local Medical Committee on March 27th at Reading eight members were present.

Homœopaths and Dispensing.—The question of a homœopath living in a town being allowed to dispense his own medicines because the chemists refused to keep his particular drugs in stock was again discussed, and the following resolution was passed:

> That power to dispense should not be granted to a doctor solely on the ground that he prescribes drugs and preparations which are not included in the schedule.

Payments for Patients already Ill.—A letter was read from the Clerk of the Insurance Committee asking the Local Medical Committee to consider the matter of the payment of the doctor attending a patient who has moved into his district while ill, and the following resolution was passed:

> This Committee is prepared to adhere for the present to the terms of the resolution passed on March 6th (SUPPLEMENT, p. 249), which is strictly in accordance with the terms of the Act; but it would suggest that the only way out of the difficulty is that the Act should be amended, and that a special fund should be formed out of which payment per attendance can be made in cases of temporary removal.

Levy for Administrative Purposes.—The District Representatives were instructed to collect a levy of 2s. 6d. from all the doctors on the Berkshire panel in this district for administrative purposes.

BUCKS.

A MEETING of the Bucks Local Medical Committee was held on March 28th. Dr. BAKER was in the chair, and seventeen other members were present.

Allocation of Patients.—Dr. BAKER stated that over 20,000 persons in Bucks had not yet selected a doctor and the secretaries of the societies had been written to. Circular 10 I.C. was read. Finally Dr. KENNISH proposed, and Dr. LARKING seconded:

> That for purposes of payment the money payable on account of those insured persons who have not chosen a doctor at the end of the first quarter be divided among the doctors on the panel in direct proportion to the number on the lists sent in by each individual doctor.

It was thought that the allocation of patients would lead to great difficulties and that it was far better to wait and let them select a doctor for themselves. The number would become less and less. An amendment that this method be carried out by districts was lost and the resolution carried unanimously.

Payments for the Quarter.—The following resolution was adopted:

> That this Committee expresses the unanimous opinion that those practitioners who did not join the panel on account of a conscientious objection should be paid as from January 15th for the patients on their lists, and that every medical man on the panel should be asked to agree to this.

Uniform Certificates.—A letter was read from the Clerk to the County Insurance Committee, stating that it had requested the societies to use a simple uniform type of certificate, and also that the County Insurance Committee had no funds to pay a consultant.

Drug Tariff.—Replying to a letter from the pharmacists as to increasing the price of certain drugs and other suggestions, it was resolved:

> That the Bucks Local Medical Committee considers that there is no necessity to alter the drug tariff at present, or the dispensing fee, and also that they object to the abolition of the mile radius.

Model Rules.—It was resolved to print the Model Rules on a single sheet, and to send a copy to each medical man to put up in his surgery and other copies for distribution to patients.

Continuation Agreement.—It was proposed by Dr. WEAVER ADAMS, seconded by Dr. HENDERSON, and carried unanimously:

> This Committee regrets that the new form of agreement 47 I.C. was issued to medical practitioners before consulting

the collective views of the profession in the county which this Committee is entitled to represent (see page 14, paragraph 50 of the Explanatory Statement), and further regrets that the issue was accompanied by a note of urgency which may have led practitioners to sign without time to obtain advice from this Committee. This Committee would like to suggest several alterations and additions to the form of agreement sent.

Appointment to Committee.—It was resolved that Dr. Deyns, who had been appointed by the Commissioners to the Insurance Committee, ought to be put on the Medical Benefits Subcommittee instead of the Finance.

Administration of the Act.—It was resolved that a circular on the present position be issued to all practitioners, and that a meeting of the medical men should be called about the beginning of May to discuss the whole matter of the administration of the Act.

COUNTY OF NOTTINGHAM.

THE following are the members of the Local Medical Committee for the Administrative County of Nottingham:

Mr. F. H. Appleby, Newark-on-Trent
Mr. H. E. Belcher, West Bridgford
Dr. J. M. Bennett, Ruddington
Mr. C. E. Brooks, Lowdham
Dr. A. Campbell, Radcliffe-on-Trent
Mr. F. Dixon, Eastwood
Mr. O. Eaton, Bingham
Dr. H. Francis, Arnold
Dr. A. Fulton, Old Basford
Dr. W. Garstang, Hucknall
Dr. T. C. Garrett, Worksop
Dr. A. Hunnard, Mansfield
Dr. E. H. Houfton, Mansfield
Mr. J. W. M. Hunter, Ruddington
Mr. R. M. Hamilton, Annesley Woodhouse
Dr. F. H. Jacob, Nottingham
Dr. G. L. Kemp, Worksop
Mr. J. Mackie, Nottingham
Dr. R. W. Nairn, Farnsfield
Mr. R. Nesbitt, Sutton-in-Ashfield
Mr. C. J. Palmer, Mansfield Woodhouse
Dr. E. Ringrose, Newark-on-Trent
Dr. W. R. Smith, Beeston
Mr. A. E. M. Smith, Retford
Dr. J. W. Scott, Nottingham
Dr. J. C. Teasdale, Retford
Dr. G. T. Tate, Mansfield
Dr. F. K. Tweedie, Sutton-in-Ashfield
Mr. J. F. D. Willoughby, Southwell
Mr. C. E. Whitington, Tuxford

NOTTINGHAM.

THE following comprise the Local Medical Committee for the County Borough of Nottingham:

Mr. A. R. Anderson
Dr. C. H. Allen
Mr. W. B. Blandy
Dr. J. F. Blurton
Mr. J. H. Cox
Dr. A. Charlton
Mr. T. J. Dabell
Dr. A. Fulton
Dr. W. Hunter
Dr. O. H. Isard
Dr. F. H. Jacob
Mr. J. Mackie
Mr. E. D. Marriott
Dr. C. S. Miller
Mr. A. T. Mulhall
Dr. F. R. Mutch
Dr. H. J. Neilson
Mr. E. Powell
Mr. R. M. Rendall
Dr. A. C. Reid
Mr. E. Snell
Dr. J. B. Sim
Dr. W. Stafford
Dr. J. W. Scott
Dr. J. H. Thompson
Mr. P. E. Tresidder
Mr. W. M. Willis.

NEWCASTLE-ON-TYNE.

THE Local Medical Committee for the County Borough of Newcastle-on-Tyne has been recognized until December 31st, 1913. It is constituted as follows:

Chairman, Dr. James Don.
Vice-Chairman, Dr. H. L. Rutter.
Honorary Secretary, Mr. R. J. Willan, 25, Ellison Place, Newcastle.
Assistant Honorary Secretary, Dr. J. Leslie Wilson.

Other Members.

Dr. H. B. Angus
Dr. R. A. Bolam
Dr. A. C. Burnell
Dr. T. L. Bunting
Dr. A. Campbell
Dr. R. Dagger
Dr. J. T. Dunlop
Dr. J. D. Farquharson
Dr. G. Foggin
Dr. W. S. Fraser
Dr. F. Hawthorn
Dr. A. H. Hobbs
Dr. James Hudson
Dr. J. MacRae
Dr. J. S. McCracken
Dr. H. J. Mathews
Dr. J. R. Morison
Dr. E. F. Pratt
Dr. W. G. Richardson
Dr. F. Russell
Dr. W. L. Ruxton
Dr. R. W. Simpson
Dr. Ethel Williams

Medical Representatives on Local Insurance Committee.

Dr. Adam Wilson
Sir Thomas Oliver
Dr. F. Russell
Dr. R. P. Dawson
Dr. W. Tiplady.

Medical Members of Medical Service Subcommittee.

Dr. James Don
Dr. R. Dagger
Mr. R. J. Willan.

Income Limit.—The profession decided to press for a £2 income limit. This was discussed by the Local Insurance Committee on January 14th, and its consideration was postponed for three months. Efforts were made to get the Local Insurance Committee to further consider the matter before the renewal agreements were signed but without avail.

Operations.—The following list was drawn up by the Local Medical Committee after consultation with a subcommittee of the staff and a similar subcommittee of the of the House Committee of the Royal Victoria Infirmary.

Excluding all operations requiring a general anaesthetic excepting:

1. Incisions of superficial cellulitis, abscess, or suppurating haematoma.
2. Incisions of acute abscess in:
   Perineum
   Vulva
   Groin
   Palm, or dorsum of hand or foot
   Olecranon bursa
   Patella bursa
   Finger or toe (whitlow)
   Breast
   Jaw
   Tonsil
   Lacrymal sac
   } Excepting in dangerous cases
3. Removal of foreign bodies, when superficial, palpable or visible.
4. Scraping sinuses and ulcers when superficial, anywhere.
5. Excision of portions of tissue for microscopic examination, when superficial.
6. Application of cautery
   Passive movements of joints
   Abdominal diagnosis
   Rectal ,,
   Vaginal ,,
   Painful examination of any part
   } Under an anaesthetic.
7. Catheterization for:
   Retention of urine.
   Enlargement of the prostate gland.
8. Urethral caruncle.
9. Fissure in ano.
10. Hydrocele: Tapping.
11. Phimosis:
    Dilatation.
    Circumcision, in uncomplicated cases under the age of 40.
    Slitting up, for oedema in syphilis, gonorrhoea, or sepsis.
12. Paraphimosis:
    Reduction.
    Circumcision, in uncomplicated cases under the age of 40.
    Slitting up, for oedema in syphilis, gonorrhoea, or sepsis.
13. Sterilizing, suturing, and dressing:
    All superficial wounds.
    Crushed fingers and toes.
    Lacerated wounds of hands and feet.
    Scalp wounds.
14. Removal of necrosed bone in fingers or toes.
15. Reduction of dislocation of:
    Fingers or toes (both simple and compound).
    Wrist (simple).
    Elbow (simple).
    Shoulder (simple).
    Lower jaw (simple).
16. Amputation of fingers and toes, for any lesion.
17. Removal of ring from finger.
18. Ligature of divided superficial arteries and veins.
19. Removal of ingrowing nails.
20. Incision of simple carbuncle.
21. Setting, splinting, and treatment of fractures of:
    Fingers or toes (simple or compound)
    Metacarpal bones (simple or compound)
    Metatarsal bones (simple or compound)
    Radius, Colles's (simple)
    Radius ,,
    Ulnar ,,
    Radius and ulnar ,,
    Forearm ,,
    Humerus ,,
    Clavicle ,,
    Tibia ,,
    Fibula ,,
    Tibia and fibula ,,
    Rib ,,
    N.B.—
    a. *X* rays in all cases excluded.
    b. Operative treatment of any fracture excluded.
    c. Pott's fracture excluded.
22. Setting and treatment of separated epiphysis (simple), *x* rays excluded.
23. Treatment by rest and splints of chronic tuberculous joints.
24. Simple aspirations of any cavity.

N.B.—All the above conditions are liable on occasions to be dangerous and beyond the competence of the general practitioner.

Allocation of Residue of Patients.—It was resolved with regard to the insured persons who have not chosen a doctor that none of them be allotted to doctors with 1,500 or more on their lists, and that they be allotted to the remaining doctors in inverse ratio to the numbers already on their lists. The capitation money from unallocated insured persons at April 15th, 1913, living in the east area of the borough of Newcastle-upon-Tyne is to be divided equally among the panel doctors practising in that area, and similarly for the central and western areas.

Contracting Out and Making Own Arrangements.—The Local Insurance Committee has not yet agreed to this, but has issued a new form to be filled in by insured persons wishing to avail themselves of this provision of the Act. The scale of fees recommended is:

Scale of Fees.

	£	s.	d.
Visit to patient at patient's house or attendance on patients at doctor's consulting rooms	0	2	6
Special visit, in response to messages left between 10 a.m. and 8 p.m.	0	3	6
Night visit, in response to calls received between 8 p.m. and 10 a.m.	0	5	0
Surgical operations requiring general anaesthetic or case of abortion or miscarriage	1	1	0
Administration of general anaesthetic	1	1	0
Setting of Fractures—			
Femur	1	1	0
All other fractures	0	10	6
Subsequent attendance at visit rates.			
Reduction of Dislocations—			
Hip	1	1	0
Others	0	10	6
Subsequent attendance at visit rates.			

Friendly Societies.—It was resolved that a fee of 2s. 6d. be charged for examination of a person joining a friendly society; that the payment for attendance on members of friendly societies who do not come under the Insurance Act, and whose total income is under £2 a week, be either by a capitation grant of 9s. a member per annum, or at the rate of 2s. 6d. per attendance, including medicine; and that where the total income is over £2 a week attendance be charged for work done.

Midwifery Fees.—It was decided that the doctor's minimum fee be 1 guinea, except in cases where he has been called in by the midwife. With regard to the fees in colliery practice, it was resolved that the doctors residing in the county borough of Newcastle-upon-Tyne adhere to the decision come to in the county regarding their contract practice.

Certificates.—The charge for each additional certificate beyond the ones required by the Act is to be 1s. Initialing of an approved society's card does not constitute a "certificate."

Finance.—To meet the expenses of carrying on the work of the Local Medical Committee the doctors on the panel have agreed that each contribute immediately the sum of 3s. for every one hundred insured persons on his list. About £75 has been received to date.

Pharmacopœia.—Drs. Farquharson, Hudson, Fraser, and Pratt were appointed a subcommittee to meet a subcommittee of the Newcastle-upon-Tyne chemists to draw up a list of stock formulae. This has been issued as a small bound volume, for which the sum of 1s. is charged.

Hypodermic Injections.—The fee for a hypodermic injection given by a doctor (vaccines excluded) was fixed and agreed to by the Insurance Committee at 6d.

Renewal Agreements with Insurance Committee.—The profession refused to sign the renewal agreement until the Local Insurance Committee had fulfilled its promise of first discussing controversial matters. Therefore, on March 11th, an interview with the Medical Benefit Subcommittee was held, with the following results:

1. The Local Insurance Committee refused to discuss the income limit until April 14th, although it required each doctor to sign the agreement now, and stated that the doctor will not be allowed to retire from the panel should he wish to do so when the decision is given on this point on April 14th.
2. The Local Insurance Committee will recommend that the friendly societies adopt a uniform certificate on the lines of that used by the Rechabite Society.
3. It is a matter for the approved societies whether they will accept certificates of non-panel doctors.
4. The Insurance Committee have agreed to reconsider the question of contracting out, but only with doctors not on the panel.

The results of the interview were not regarded as satisfactory, and it is expected that several doctors will retire from the panel at the end of the present quarter.

The renewal agreements were eventually sent in to the Local Insurance Committee, under protest, at the end of March.

National Fund for War Fund, Superannuation, etc.—Dr. E. F. Pratt proposes that each doctor contribute ¾d. quarterly for each patient on his list, and that this money be deposited with an insurance company at compound interest till April 14th, 1916, to form a war fund, the expenses of the Local Medical Committees to be meantime defrayed out of the fund, and the contributions of any member dying to be returned in full with compound interest. The insurance company would do all the work of collection, etc. At April 14th, 1916, the fund would amount to over half a million pounds, and if it were not then required as a fighting fund it would form the nucleus of a sickness, accident, and pension fund. It is held that to be successful the scheme must be a national and not a local one. It was decided to refer the matter to the Council of the British Medical Association for early consideration.

STOCKTON-ON-TEES.

THE Local Medical Committee for the Stockton area has been recognized, and the following are the members:

Chairman: Dr. F. T. Talbot.
Secretary: Dr. Henry A. Collinson, Rosslyn Terrace, Stockton-on-Tees.
Committee: Drs. Ross, Wilkin, Dickson, L. J. Blandford, Beatty, Hughes, Densham, and Brydon.

BOOTLE.

A MEETING of the County Borough of Bootle Medical Committee was held on March 19th.

Local Insurance Committee.—The SECRETARY reported the election of Drs. Saunders and Macleay as representatives of the profession on the Local Insurance Committee.

Administration of Medical Benefit.—The Committee considered several questions in connexion with the administration of medical benefit, which had been submitted to it by the Insurance Committee. No opinion was expressed on several of the questions which applied to doctors on the panel only, but, on the question of persons who desired to make their own arrangements for medical attendance, the Committee resolved unanimously:

> That all persons who desired to do so, should be allowed to make their own arrangements.

It was unanimously resolved:

> That a suggestion should be made to the Local Insurance Committee "that a wage limit of £2 per week should be applied to the Bootle area, and that insured persons having incomes above that amount should be required to make their own arrangements for medical attendance and treatment."

Copies of these resolutions have been sent to the Clerk of the Insurance Committee.

The Committee met again on April 3rd, when eight members out of a total number of ten attended. In response to an invitation from the Local Insurance Committee requesting the Medical Committee to nominate three medical members of the Medical Service Subcommittee, as provided in Clause 52 of the medical benefit regulations, Drs. Macleay, Roberts, and Walker were nominated.

COUNTY OF CHESHIRE.

THE ninth meeting of the Local Medical Committee for the administrative county of Cheshire was held on March 28th in Manchester. Dr. GARSTANG was in the chair, and nineteen members were present.

Friendly Societies' Medical Remuneration.—The situation at Crewe and Sandbach, where the friendly societies are endeavouring to engage doctors at terms lower than those approved by the British Medical Association, was discussed, and certain decisions taken.

Allocation of Patients.—The allocation of patients who have not chosen a doctor in equal shares to doctors on the panel (excluding those who desire a limited panel), subject to considerations of distance and to grouping by the District Medical Committees, was approved, but it was resolved to leave the representatives of the profession on the Insurance Committee a free hand as to how to embody

these principles in resolutions by that Committee. The right of a District Medical Committee to allocate a larger number to one individual practitioner whom it was desired to compensate for loss of practice sustained in connexion with the operation of the Act was agreed.

The tenth meeting of this Committee was held on April 7th in Manchester, Dr. GARSTANG being in the chair, and twenty members present.

Medical Benefit.—The reply of the Commissioners to the demands of this Committee (see SUPPLEMENT, April 5th) was considered, and it was resolved:

That this Committee recommends to the District Committees of Cheshire:

1. That the new panel agreements should be sent in subject to the condition that the Insurance Committee consents to urge the Commissioners to arrange with the approved societies at the forthcoming conference (between the Commissioners and the representatives of approved societies) that it should be sufficient for printed medical certificates stating that the patient is unable to work owing to illness—(*a*) not due to misconduct; (*b*) not due to accident arising in the course of his employment—to be merely signed and dated by the doctor.
2. That the new panel agreements should be sent in subject to Regulation 49 for incomes over £160 per annum.
3. That the list of drugs drawn up by this Committee and approved by the Commissioners is the list on which the medical profession is prepared to accept.
4. That the attention of the Insurance Committee should be drawn again to the grave objections to the making the panel doctor responsible for paying the fee for the anaesthetic.

The Chairman was of opinion that doctors who have already sent in their agreements may inform the Clerk that any conditions decided on by the profession of the county shall attach to them.

ISLE OF WIGHT.

A MEETING of the Local Medical Committee was held at Ryde on April 3rd. Dr. MACKENZIE (Chairman) presided, and six others were present.

Attendance on Insured Persons Temporarily Resident at Seaside Resorts.—The HONORARY SECRETARY reported that he attended the meeting held in London on March 5th to discuss this question with the Commissioners. That meeting did not arrive at any satisfactory conclusion, but it was urged that the solution of the difficulty rested more with the Commissioners and the Government who created the situation than with the medical profession. The suggestion he made to the Commissioners was that a clause should be inserted in an amending Act to secure a monthly or yearly sum being paid by all insured persons who wished to insure against sickness when away from their homes. It was generally agreed that payment must be according to a stipulated tariff, and that payment per caput would prove unsatisfactory and unworkable.

The Payment of Expenses of the Local Medical Committee.—A letter from the Honorary Secretary of the Local Medical Committee, Essex, was read suggesting that all medical committees should be co-ordinated under one head in order to safeguard the interests of the profession under the Act, and also suggesting that the expenses of Local Medical Committees should be met by means of a contribution by doctors on the panel of 1d. a head per annum on all panel patients, *plus* a proportionate amount on profits made by private practice by all practitioners.

It was unanimously agreed that these expenses should not be met by a levy on the medical profession, but by a fund to be provided by the Insurance Commissioners. The opinion was expressed that the British Medical Association should adopt a more fighting policy than heretofore.

The HONORARY SECRETARY read replies to his letter to the Medical Secretary of the British Medical Association asking whether that part of the Guarantee Fund which had been earmarked at the time of guarantee for local use by the guarantors would be available for defraying the expenses of the Local Medical Committee. The reply was in the negative.

Anaesthetics.—The Honorary Secretary was instructed to write to the Insurance Commissioners complaining of the unfairness of expecting medical men on the panel to undertake this responsible duty of administering anaesthetics for operations on insured persons without payment, and drawing attention to the fact that there is no guarantee that any one practitioner would consent gratuitously to give an anaesthetic for another except in cases of special urgency.

Disciplinary Rules.—A letter was read from the Clerk to the Isle of Wight Insurance Committee as regards the distribution of the disciplinary model rules for the administration of medical benefit among insured persons. It was understood that 10,000 copies were to be printed for distribution by the larger approved societies and the doctors on the panel. The Honorary Secretary was instructed to reply that this number was considered insufficient in view of the fact that there were estimated to be at least 22,000 insured persons in the island, and it was considered important that all these persons should receive a copy.

Representation of the Medical Profession on Subcommittees of the Insurance Committee.—A letter was read from the Clerk of the Isle of Wight Insurance Committee stating that, as there were three doctors on the Insurance Committee, Dr. Robertson (representing the Commissioners) and Drs. Davies and Wood (representing the Local Medical Committee), one should serve on each Committee—Finance, Sanatorium, and General Purposes. A resolution was proposed by Dr. PRESTON and seconded by Dr. JEAFFRESON:

That the representation proposed of the medical profession on subcommittees is insufficient, and that the two *elected* representatives should be on all subcommittees.

This resolution was carried unanimously, and the Honorary Secretary was instructed to write to the Clerk of the Insurance Committee to that effect.

Election on the Local Medical Committee.—Dr. DAVIES proposed and Dr. WOOD seconded that Dr. R. ROBERTSON of Ventnor be elected a member of the Committee. This was carried unanimously.

Attendance on Uninsured Members of Friendly Societies.—It was notified that the Ventnor friendly societies had decided to advertise for a medical man to attend their members, and it was stated that a Warning Notice had been inserted in the JOURNAL.

DUMBARTONSHIRE.

A MEETING, which all duly qualified medical practitioners resident in the Dumbarton county insurance area were invited to attend, was held in Glasgow on March 27th. Ten responded, and Dr. W. S. Young was appointed Chairman and Dr. A. W. Sutherland Clerk of the meeting.

It was agreed to form a Local Medical Committee for the county, to consist of all practitioners on the county panel who reside in the county area, and to apply for statutory recognition. Constitution "B" was adopted with certain modifications.

The Local Medical Committee thereafter met and elected the following:

Chairman.—Dr. W. S. Young.
Secretary.—Dr. A. W. Sutherland (Barbain, Cardross).
Executive.—The Chairman, the Secretary, Drs. R. Anderson, C. L. Kerr, R. Blyth, John Young, John Reid, and W. B. Armstrong.
County Insurance Committee.—Drs. W. S. Young (Helensburgh) and A. W. Sutherland (Cardross) were elected to serve on the County Insurance Committee, and it was resolved to ask the Commissioners to appoint Drs. Armstrong (Kirkintilloch) and John Reid (Milngavie). Dr. Gilmour (Duntocher) has been appointed a member by the county council.
Medical Service Subcommittee.—Drs. Armstrong, W. S. Young, and A. W. Sutherland were elected to serve on this committee for the county.

Discussion took place on various matters, and it was decided (1) to ask the Insurance Committee to allocate those insured persons who have made no choice of doctor equally among those on the panel, with right of refusal in the first instance, and taking into consideration residence and distance from doctor; (2) to request issue of "Model Rules" to insured persons as soon as possible, with addition of a rule forbidding consultations or demands for visits on Sundays except in cases of serious emergency; (3) to request payment for the first quarter to be made immediately it terminates; (4) to have payment for any future period based on the average of the numbers on each doctor's list at the beginning and end of the period; (5) to observe the weekly half-holiday in each locality under the same conditions as apply to Sunday; (6) to indicate a preference for the "reduced day-book" at present, with the opinion that records are still too elaborate; (7) to ask that insured persons making a

permanent change of address and persons becoming insured be required to select a doctor without delay.

It was unanimously decided that dentistry (including extractions) is outwith the range of insurance work; also that all holiday makers and temporary residents are to be treated as private patients meanwhile.

Drs. W. S. Young, J. Gilmour, C. L. Kerr, and A. W. Sutherland were appointed to meet the Medical Benefit Subcommittee of the County Insurance Committee, and this meeting took place on March 29th, when the views of the Local Medical Committee as given above were explained and generally approved by the Medical Benefit Subcommittee. At the same time, the deputation had the opportunity of considering alterations in the drug tariff and dispensing charges suggested by the county chemists. As it was not likely that the suggested alterations would materially alter the financial position, no objection was raised.

MEETINGS OF INSURANCE COMMITTEES.

LONDON.

Improvement of Medical Service under the Act to be Considered.

AT the meeting of the London Insurance Committee on April 3rd, discussion took place on the following motion:

> That it be referred to the Medical Benefit Subcommittee to consider and report as to whether the present system of medical benefit provided under the Insurance Act to insured persons in London can be improved, and if so, to submit recommendations to give effect to its suggestions.

Mr. HARRIS, who moved the resolution, said that not one in a thousand of the complaints that arose under the present system came before the Committee. Was there an adequate medical service for the insured people of London at the present moment? Prior to January last there were in London not less than 1,500 medical men engaged in contract practice. There were now 1,258 medical men attending insured persons, who probably outnumbered by four to one those who were previously treated on a contract basis. There was no reason to believe that the number of doctors on the panel would be greatly increased at the end of the first quarter. Nevertheless there must be about 3,000 medical men in London available for the treatment of insured persons, and the Medical Benefit Subcommittee should consider whether a conference with medical men who were not on the panel would be useful in furthering the objects the Committee had in view. If a better service was not obtained than was the case at present the funds of the approved societies would suffer considerably; the tendency at present was for members to go on the fund much too easily and to come off much too slowly.

Mr. E. B. TURNER seconded. He said the time had come when the Committee must consider how within the four corners of the Act the conditions of service could be so modified as to attract a large proportion of the men who ought to be on the panels if the scheme was to be a success. A great number of complaints relative to the working of the Act had reached him from both sides, and made it clear that the service was not now what it ought to be. He was sure the Committee could do something to improve it. He had fought the medical sections of the Act from the beginning, not because he was opposed to the principle of insurance or of thrift, but because he did not think the conditions were such that members of his profession should be asked to serve under them, or that the remuneration originally offered was nearly sufficient. Although he had not changed his opinions to any appreciable extent, he was prepared, and those gentlemen who thought with him were prepared, if possible, to meet the Committee and see what could be done, and whether concessions could be mutually arranged.

Dr. H. H. MILLS supported the resolution, although he thought Mr. Turner took an unduly pessimistic view. In three months' working only three, or possibly four, serious complaints had come before the Committee. The working of the Act had made clear the inadequacy of medical provision in the whole of the east-end of London and in all industrial districts.

Dr. EVAN JONES mentioned that of the 1,258 medical men on the London panel a considerable number were resident outside the county. [A member: One-tenth.] He thought that an efficient service for insured persons was possible under the Act if the Committee approached the matter in the right spirit. He was not satisfied with the panel system; the history of the panel in Finsbury alone was a contradiction of everything that had been said in favour of the working of the panel in London.

The resolution was carried by a large majority.

Return as to Number of Patients per Doctor.

A motion by Mr. ROCKLIFF in the following terms was also adopted:

> That it be referred to the Medical Benefit Subcommittee to prepare and circulate to members of the Committee only a return showing in the case of doctors on the panel with more than 1,000 insured persons as patients, the name and address of such doctor, and the number of such patients so far as can be ascertained from the records of the Committee, and the amount of the cheques already paid on account of medical fees.

Non-publication of Names.

The Committee approved the principle that in view of the confidential character of reports dealing with complaints, the names of medical practitioners, chemists, and insured persons referred to therein should not appear in the agenda paper or other public documents of the Committee.

Medical Representation on the Sanatorium Committee.

Some opposition was raised by friendly society representatives to a proposal by the Sanatorium Benefit Subcommittee that its numbers should be enlarged to include seven instead of five medical members of the Insurance Committee. It was urged that if this were done medical interests would be over-represented.

Mr. E. B. TURNER urged that this was not a matter of medical men seeking representation from any ulterior motive. It would be to the benefit of the administration of sanatorium benefit that there should be represented on the subcommittee every form of practice and medical work. From Sir Shirley Murphy and Sir John Collie the subcommittee would have valuable aid when administrative questions arose; Dr. Lauriston Shaw had hospital treatment at his fingers' ends: Dr. Evan Jones and himself were representative of two classes of individual general practice; Dr. Mills represented the practitioners on the panel; and Mrs. Willey represented the women doctors.

The proposal was carried by a large majority.

MIDDLESEX.

Medical Service in Ealing.

THE Middlesex Insurance Committee on April 7th had under consideration a letter from Dr. F. M. W. James, stating that at a meeting of the Non-Panel Doctors' Association, to which every practitioner in the Ealing Division whose name did not appear on the Middlesex panel was invited, it was decided to decline an offer of the Insurance Committee to allow medical men in Ealing to place their names on the panel for a limited class or number of insured persons. The association offered instead to establish a public medical service on the lines of the Ealing scheme, with no wage limit other than that in the Act. Payment would be made out of a pool—not by capitation, but on a scale of fees for services rendered. The General Purposes Subcommittee recommended that the proposed service be not approved, and that full power be delegated to the subcommittee to deal—after consultation with the Insurance Commissioners—with any situation that might arise in the Ealing district after April 15th.

The Chairman (Mr. W. S. GLYN-JONES, M.P.) suggested that this proposal should be modified by the addition of the words:

> Provided that if the subcommittee recommend the appointment of a full-time officer or officers, a special meeting of the Insurance Committee will be summoned to confirm such resolution.

On a division, however, it was decided to omit the suggested additional clause on the ground that it would weaken the position of the Committee in dealing with the situation in Ealing.

Statistics.

It was stated that the number of doctors on the panel in Middlesex was 520, and that 445 had signed renewal

agreements. There were 347 chemists on the list, and 305 had signed renewal agreements. Of 313,809 insured persons, 218,151 had selected their doctors.

Bournemouth.

At a meeting of medical practitioners on the panel, called on March 19th, it was decided to defer signing the new medical agreement until the Local Medical Committee had had an opportunity of asking the Insurance Committee,

1. To fix an income limit.
2. To make arrangements for the payment of adequate fees for attendance upon insured persons who go to Bournemouth as visitors or convalescents and who require medical treatment while staying there.
3. To deal with the question of providing a fee for anaesthetics.

The Honorary Secretary of the Local Medical Committee in transmitting these representations intimated that his Committee took strong objection to the way in which the new agreement had been sent out with the demand that it should be signed at short notice without giving the Local Medical Committee preliminary notice, or sending it a copy of the agreement for its consideration. The Committee and the practitioners on the panel had thereby been prevented from properly considering the terms of the new agreement.

Insurance Commissioners and Medical Treatment of Visitors.

The letter from the Honorary Secretary of the Local Medical Committee, and a letter received from the Insurance Commissioners, were considered by the Local Insurance Committee on March 31st. The letter from the Insurance Commissioners referred to par. 22 of the Medical Benefit Regulations, and, according to the report in the *Bournemouth Visitors' Directory*, continued as follows:

The Commissioners are aware that complaints have been made regarding the present method of financial adjustment as liable to produce an inequitable distribution of medical benefit funds, by reason of the fact that insured persons removing at very frequent periods will not take the trouble to give notice, and that accordingly the transfer of funds consequent upon notifications actually given may not augment the funds of the Committee to whose area the removals take place to a sufficient extent to defray the cost of medical treatment for which that Committee becomes responsible.

The extent to which the present arrangement may prove inequitable, however, has been exaggerated in some quarters, inasmuch as it appears to be believed that doctors on the panel are required to attend sick persons who have removed into the area served by them for the precise amount transferred by the notification of each such person. But this is not the case. The sums transferred by the notification of removal fall into the medical benefit funds of the Committee, out of which the doctor on the panel will receive remuneration at the same rate in respect of removals as in respect of permanent residents; and if it be the case that present arrangements result in an adequate transfer of funds, the net effect would be to reduce by a trifling amount the remuneration of all the practitioners on the panel for the area.

It may assist the Committee in its negotiations with doctors on the panel for the extension of their agreements to be in a position to clear up the misapprehension referred to, and to assure them that the question of any inequity in the present method of financial adjustment is receiving the careful attention of the Commissioners, with the object of making arrangements at an early date to secure that doctors should be remunerated in respect of the treatment of any cases of removals at a rate not lower than that paid in respect of other classes of insured persons.

The Insurance Committee undertook to consider the various points raised by the Local Medical Committee; as to the allocation of insured persons, the committee promised to consult the medical men on the panel, without binding itself to take any particular line of action.

£2 Income Limit Refused.

Dr. Davidson proposed a resolution that it be in the power of any medical man on the panel to refuse acceptance of any insured person whose income exceeded £104 per annum. It was urged in opposition to this that to lower the income limit of £160 would be to go behind an Act of Parliament, but the Chairman pointed out that it was within the power of an Insurance Committee to adopt an income limit of its own. The proposal, however, was defeated by 18 votes to 5.

Meeting of Practitioners.

A full meeting of medical men on the panel, who number sixty-nine, has been called for April 12th, when the whole position will be discussed. So far, we are informed, only eleven of the medical practitioners on the panel have signed the new agreement, and two of these have done so subject to the approval of the Local Medical Committee.

Blackpool.

Income Limit.

At the monthly meeting of the Blackpool Insurance Committee on April 2nd, the chief subject discussed was the £2 a week income limit for ordinary medical benefits.

Dr. Barton, in urging its adoption, stated that the scheme for administering medical benefits under the Act was founded on the club system; that the clubs had come into existence for the benefit of the poor man, and that it was never intended that those capable of earning £2 or £3 a week should take advantage of them.

Dr. Godley gave statistics of work on the panel.

Alderman Heap opposed on the grounds that harsh, inquisitorial methods of ascertaining a man's income would be introduced.

In answer to this and other objections, Dr. Barton stated that medical men would not make use of any income limit regulation where it was likely to cause hardship in any individual case, and that doctors had means of ascertaining the incomes of patients without having to resort to such unpleasant methods as those suggested by the Committee.

After a full description it was resolved to defer the matter for further consideration.

Coventry.

Basis of Quarterly Payments.

The Coventry Insurance Committee last week considered a proposal that at the end of the first quarter of the operation of medical benefit each doctor on the panel should be paid the sum of 1s. 9d. in respect of each insured person on his list, and 1s. 9d. calculated on a proportion of insured persons who had not chosen a doctor on an agreed date.

Dr. Orton, on behalf of the Local Medical Committee, objected that no provision was made for the payment of doctors in respect of patients who were on the lists at the beginning of the quarter, and who died during the quarter. He also complained that the Insurance Committee had sent back to various doctors medical tickets that did not give the full particulars of the insured persons, and had stated that if the correct information was not forthcoming these cases would be treated on the same lines as those where no choice of doctors had been made. The doctors protested against this, because they held that the fact of the details being inadequate or incorrect was the fault of the approved societies.

The Clerk to the Committee stated that for the quarter under consideration doctors would be paid for all members mentioned in their schedule of acceptances. In future quarters an average would be taken between the numbers on the doctors' books at the beginning of the quarter and at the end.

East Suffolk.

Capitation Payment Adopted.

The East Suffolk Insurance Committee at its last meeting accepted the proposal of the Local Medical Committee that after April 15th payment by the capitation system be adopted, the sixpence allowed for domiciliary treatment of tuberculosis to be included.

East Sussex.

Income Limit Rejected.

A discussion on the question of an income limit of £2 per week was initiated at the last meeting of the East Sussex Insurance Committee by Dr. C. H. Benham, who declared that if the Act was to be worked smoothly, and the best men were to be attracted to the panels, an income limit must be fixed that would be satisfactory to the medical profession, or the payments under the Act must be increased. Only four members voted for the proposed income limit.

Hull.

Allocation of Patients.

Some discussion took place at the meeting of the Hull Insurance Committee on the question of the arrangements to be made for the medical treatment of those insured persons who had not selected a doctor. The Committee adopted the recommendation of the Medical Benefit Sub-

committee that, in accordance with the wishes of the local medical profession, the allocation of insured persons who had not selected a doctor, or been accepted by doctors, should be in equal shares, subject to the following provisos: (1) The allocation to be carried out by areas, with the advice and assistance of resident practitioners; (2) the wishes of practitioners asking not to have any more patients allotted to them to be respected; (3) practitioners desiring only a limited number of additional patients to have such number allocated, the remainder to be divided amongst the remaining practitioners in equal shares.

SHEFFIELD.

No Limitation of Numbers on Doctors' Lists.

AT the last meeting of the Sheffield Insurance Committee it was announced by the Chairman that about 20,000 people in the city had not yet selected a doctor. The medical practitioners suggested that at the end of the provisional period the Committee should distribute the funds in respect of the 20,000 persons in equal shares amongst the practitioners on the panel. As those doctors had been the guarantors of the Committee for the working of the Act it was felt that this should be done.

Dr. SORLEY moved the reference back of a recommendation of the Medical Benefit Subcommittee:

> That this Committee does not at present contemplate any limit being placed on the number of persons accepted by a practitioner.

The CHAIRMAN said the Clerk advised that the Committee had no power to limit the number on any doctor's list. To attempt to do so would be to destroy the free choice of doctor. Even if the Committee had power to limit the number of patients, he did not know by what process it would decide which persons should remain on a doctor's list and which had priority of acceptance by him. If the Committee asked the Insurance Commissioners to restrict the numbers on the lists it would be asked what experience it had to suggest that doctors could not deal adequately with more than the specified number of persons. The Committee had no information which would show that medical men with large lists were not giving adequate service.

The amendment was lost and the recommendation of the Committee approved.

MIDDLESBROUGH.

Limitation of Patients.

THE Middlesbrough Insurance Committee has adopted the principle that before considering the allocation of insured persons who have not selected a doctor, a maximum number of patients be fixed beyond which no allocation would be made to any individual doctor, and that the number be 1,750. It was agreed to adopt a recommendation reached at a conference with the Local Medical Committee, that the allocation be made in equal shares amongst practitioners on the panel actually resident in the insurance area, with the exception of those who joined the panel for a special purpose.

LINDSEY (LINCS.).

Whole-time Service Proposed.

No medical man having accepted service on the panel for the districts of Coningsby, Revesby, and Mareham, Lincolnshire, the Lindsey (Lincs.) Insurance Committee decided at its last meeting to inform the Insurance Commissioners and ask them to make arrangements for sending down a doctor to undertake medical treatment in the districts mentioned, and to close the panel in respect of them.

READING.

Income Limit Abandoned.

AN income limit of 50s. for medical benefit was established by the Reading Insurance Committee during the first three months of the operation of medical benefit; a recommendation was considered at the last meeting of the Committee to discontinue this limit.

Dr. ABRAM moved that the income limit be continued for a further nine months. He said that at a conference recently held between the Local Medical Committee and the Medical Benefit Subcommittee no definite reasons were adduced for the abolition of the income limit. On the contrary, it was shown that the Act had worked so far without friction. The doctors, having undertaken service on condition that a 50s. income limit was established, felt aggrieved when it was proposed to discontinue it.

Mr. W. E. COLLIER suggested that it was hardly worth while retaining the 50s. income limit, because only twenty people in Reading were affected by it.

Dr. Abram's amendment was lost by 14 votes to 9, and the proposal to abolish the income limit was adopted.

DEVONSHIRE.

District Insurance Committees Established.

THE Insurance Commissioners having objected to a proposal to establish twenty-two district insurance committees in Devonshire, the County Insurance Committee, on March 31st, adopted an amended scheme providing for twelve district committees. It was urged, nevertheless, that the areas under the amended scheme would be most unwieldy, and that some members would have to travel fifty miles to attend meetings.

INSURANCE NOTES.

THE FACULTY OF INSURANCE.

A CONFERENCE promoted by the newly formed "Faculty of Insurance" was held at the Central Hall, Westminster, on April 5th, under the chairmanship of Mr. HANDEL BOOTH, M.P., who said that the object of the Faculty was to collect statistics, spread information, and possibly train officials by means of lectures and classes. The conference was attended by about 500 persons from friendly and insurance societies throughout the kingdom, and passed a resolution to the effect that the sum allowed for administrative expenses was inadequate and that approved societies should be exempt from stamp duty.

Malingering.

In opening a discussion on administrative difficulties, Mr. H. KINGSLEY WOOD contended that the amount of malingering had been greatly exaggerated and was really small. He added that it had been found that women were remaining chargeable to the sickness fund for an average period 50 per cent. longer than men. The societies looked upon the doctors as the first line of defence against malingering. At present, particularly in London, some doctors had so many insured persons on their lists that it was impossible for them to check the claims, and it might be necessary to follow the example of the Bristol Insurance Committee by appointing a medical referee. He concluded by stating that out of twenty-five patients sent by one society to a medical referee twenty-four were found fit to work.

Sir JOHN COLLIE said that he did not believe that either of the methods of punishment prescribed by the Act to follow the triennial valuation would be sufficient to protect the societies against improper inroads upon their funds. The people responsible for these inroads were those who more or less honestly considered themselves incapable of work although really capable, and those who knew they were fit for work but remained on the funds as long as they could. Both were difficult to deal with, and the remedy was the appointment of medical referees. Doctors would object to medical inspectors, who, moreover, would not be able to do what was wanted. The duty of the medical referee would be not to interfere with the doctors, but to protect the funds of the societies.

Mr. J. BUYERS BLACK (Glasgow) spoke in favour of a national medical service and of the extension of the Act to include an additional ten million members of the working classes. He considered that malingering might best be checked by authorizing the Chairman of an Insurance Committee, assisted by an independent doctor, to investigate all alleged cases, with power to withhold sickness benefit for a certain period.

Sanatorium Benefit.

Mr. BROWN (Hearts of Oak) said that the societies were receiving large numbers of applications for treatment in sanatoriums, but were unable to deal with them owing to lack of funds. He thought that a further grant from the Treasury was necessary.

A Member of the Middlesex Insurance Committee stated that it had found the funds at its disposal insufficient to give treatment in sanatoriums, and had in consequence been obliged to give domiciliary treatment only.

A resolution was adopted in favour of making application

to Insurance Committees or to Parliament for an extra grant.

Mr. Masterman.

At an inaugural dinner of the Faculty held in the evening Mr. WORTHINGTON EVANS, M.P., proposed the toast of the Joint Committee of Insurance Commissioners and the members of Insurance Committees. Mr. MASTERMAN, who replied, after thanking the proposer for the praise he had bestowed upon the Chancellor of the Exchequer, said that 95 per cent. of insured persons had chosen an approved society through which to receive their benefit. Out of thirteen and a half millions, six millions and a quarter remained in or had chosen membership of friendly societies; one and a half million persons were insured through trade unions, or more than double the number previously insured for sick benefit through such unions, and four and a half million insured persons had been so insured through industrial companies. He concluded by saying that an amending Act would be introduced this year, and it might be that life insurance would eventually be added to sickness benefit.

BRISTOL.

Under the heading of "Friendly Society Gossip" a very partisan account was published in the *Bristol Evening News* on April 1st of the recent rejection of a scheme brought forward to take the place of the panel system in Bristol. It is unfortunate that such a one-sided statement should have been put out, for not only does it tend to foster in the minds of those working the friendly societies the idea of antagonism between the medical profession and the societies, but there are grave inaccuracies of fact. Perhaps "Gossip" is an unintentionally fair word to use, for information received through that source is renowned for its inaccuracy. Every one knows that the panel system was on trial for three months, and that the Commissioners had the power at the end of that time to accept any scheme proposed by the medical profession, provided the general principles of the Act were observed. Such an alternative scheme was suggested to the medical men of Bristol by the Local Medical Committee, and though it was not generally acceptable a very considerable minority voted in its favour, and were prepared to work it. What is implied by the comment in the "Gossip" by the statement that several members of the Local Medical Committee were also members of the Medical Federation is difficult to fathom, for there is no reason why they should not be. There can be no harm in belonging to any society created to look after the interests of the medical profession, and we believe that friendly societies perform the same function for the laity, and particularly for those who benefit under the Insurance Act.

The criticism that "the new scheme was a direct inducement for prolongation of illness" is not founded on facts, and we can only conclude from this statement that the writer of the "Gossip" has not mastered even the outlines of the scheme, for even those who spoke against its acceptance could not bring this charge against it. The doctor "who cured his patients quickly would receive the lowest remuneration and vice versa" again shows how shallow has been the attention which the writer has given to the details, for the essence of the proposals was that the payments were made on sickness incidence and not for attendance. The principle was that each patient was to be counted once whether one or any number of visits were paid him, and that at the end of the quarter each doctor sent in his list of names and the payments were made in proportion to the number of names. It is obvious that with a small number of days of sickness the doctor would get more than he would if the incidence were heavy. The suggestion in the "Gossip" is the exact opposite of what would really happen. As a matter of fact this scheme has been worked in the Midlands for a long time, and, it is believed, satisfactorily. An attempt is also made to make capital out of the suggestion that the doctors should have the overlooking of their records by the Local Medical Committee, a body, it will be remembered, elected by the local practitioners, on the plea that doctors do not always agree. Inspection of records at all will be very distasteful, but it would be infinitely more satisfactory to be tried by one's peers than by a person whose knowledge has been gathered from popular works on medicine, or by persons who rely on gossip or even by the official of the friendly society, who only too often in the past has shown himself none too friendly. Another misstatement is "that the money which these methods would cost was to come out of the doctors' pockets—they were to pay for their detective supervision," for the medical men were told that the Local Insurance Committee had undertaken to defray the cost if they desired it.

Articles of this type, full of inaccuracies and of the spirit that creates a feeling of distrust between the doctors and the societies, are much to be deprecated; they do no good, and are often, as in this case, written in a tone that tends rather to discord than co-operation.

REPORTS OF LOCAL ACTION.

LONDON.

CONFERENCE OF PRACTITIONERS ON THE LONDON PANEL.

A CONFERENCE of medical practitioners on the panel, called by the Local Medical Committee for London, was held at the Caxton Hall, Westminster, on April 8th. Several hundred medical men attended, the large hall being well filled. Mr. J. A. Dawes, M.P., the Chairman of the London Insurance Committee, who had promised to preside, having been detained by parliamentary duties, Sir SHIRLEY MURPHY was voted to the chair.

At the outset a critical element made itself felt in the meeting, and questions were directed to the chair from various parts of the hall inquiring the name of the body calling the meeting, its mode of constitution, and whether it had been recognized officially as the Local Medical Committee for London. Dr. B. A. RICHMOND, one of the honorary secretaries, referred questioners to a report to be presented as an answer to the inquiries, and said the committee had not been recognized as the Local Medical Committee for London. There was considerable interruption of the speakers throughout the meeting.

Report as to Action Taken.

The report of the honorary secretaries stated that the Committee was elected at two conferences held at the County Hall on December 31st and January 1st last, to which those medical practitioners who expressed their willingness to negotiate as to the terms of service under the Insurance Act were invited by the County Insurance Committee. The first meeting was held on January 7th, when the Committee decided to apply for statutory recognition under Section 62 of the Act. The medical representatives on the District Insurance Committees were chosen by the Committee, and their names submitted to the London Insurance Committee.

The question of the appointment of the medical service subcommittee was referred to the newly-elected body by the Insurance Committee at an early date. The advantages of such a committee had been already clearly demonstrated. A pharmaceutical subcommittee was appointed, and agreed upon a Pharmacopoeia of useful mixtures. Copies were available for the use of practitioners in the county and elsewhere. Various matters were discussed with the London Pharmacists Association in connexion with the dispensing of medicines to insured persons. The Committee, at the request of the Insurance Committee, considered the model rules for the administration of medical benefit, and finally decided upon the form which appeared in the panel list. The question of fixing an income limit was submitted to the Committee by the Insurance Committee, and it was resolved to fix the income limit at £160.

The Committee made representations as to the simplification of book-keeping, and had interviewed the Commissioners with regard to obtaining statutory recognition. The Committee desired to acknowledge the consideration and co-operation it had always received from the County Insurance Committee.

The Committee had always had in mind the question of increasing its numbers so as to make it fully representative of all the medical interests in the county. It had been suggested that the medical men of each of the twenty-nine boroughs be asked to elect one representative from each district; that the general hospitals be asked to elect one member of their staffs, and that a number of general practitioners not on the panel should be co-opted on to the Committee.

The very important question of the allocation of the balance of monies in the medical benefit fund and the allocation of insured persons who had not chosen their doctor had been recently considered. The Committee had made strong representations to the Insurance Committee. The balance of money undivided would be allocated at the end of the quarter, but the allocation of insured persons to doctors would be carried out after consultation, and in the manner laid down by the Local Medical Committee, which would act in co-operation with the District Medical Committee.

Relations with the Insurance Committee.

Dr. J. H. KEAY (Greenwich), as Chairman of the Committee, introduced the report. He thought that any

doubts as to the status or influence of the Committee would be set at rest when he stated that the Insurance Committee had consulted the Committee in everything appertaining to medical benefit, and in every instance had accepted the advice tendered. The Committee had proceeded on the basis that the Act would be worked and that a panel would be formed; it had laboured diligently, hoping that ultimately a sadly disunited profession would become reunited. Unity would never be achieved by depreciating the character and capability of those members of the profession who were on the panel, or by demanding differential treatment for those outside the panel. Dr. Keay claimed that after experience of the working of the Act, medical opinion in London was now less hostile. The profession must set aside differences and work unitedly to secure the best possible terms for its members under the insurance service and in the new amending Act.

The report was received.

Arrangements for the Future.

Dr. CODE ADAMS moved the following resolution:

That this meeting of London medical practitioners tenders its hearty thanks to the Committee appointed in January last for the very valuable work done, and hereby requests the Committee to continue to act for the present.

Dr. Adams urged that it was essential to continue the work of the Committee until permanent arrangements were made, in order that the interests of the profession on questions arising in connexion with the working of the Act might be protected.

Dr. BRACKENBURY seconded. He said the profession would have to resist a tendency to smooth away difficulties in working the Act by whittling down the rights of doctors.

Dr. CARDALE moved an amendment:

That the Committee be not continued in office, but that a new committee be appointed to consist of representatives to be elected locally by the Local Medical Committee of each borough council, or—if no such committee existed—by the practitioners on the panel resident in and practising in such borough, the number for each borough being one for each 50,000 insured persons, or part thereof.

Dr. T. F. KEENAN seconded.

Dr. GORDON LANE declared that the Local Medical Committee as at present constituted did not represent more than one-tenth of the practitioners of London. He criticized the methods of nomination at the conference which appointed the Committee.

Dr. B. A. RICHMOND said the Committee fully realized its unrepresentative character; this was due to the fact that at the time it was formed only a comparatively small number of practitioners had decided to work the Act and took any part in the election. He denied that there was anything underhand in the conduct of the election or the nominations. The present organization left itself entirely in the hands of the meeting with regard to the election of a new committee.

The amendment was carried with the addition of the proviso that the election of the new committee should take place in May. The motion as amended was then adopted.

Financial Proposals.

The Finance Committee proposed that to defray the expenses of the Committee every medical man on the panel should be asked to give his written consent to a deduction of 1d. in the pound from the sums paid to him under the Act, the maximum payment in any year to be £1, and the deduction to be made by the Insurance Committee. This was accepted, a motion to fix a minimum of 10s. being rejected.

Address by Dr. Addison, M.P.

The prearranged business having been concluded, the CHAIRMAN invited Dr. Addison, M.P., to address the meeting.

Dr. ADDISON said the public interest in regard to the Insurance Act could be best served by making the conditions of medical service attractive. It would be his constant endeavour in Parliament to promote that object, and to secure the removal of every legitimate grievance. The system of the panel list had only been inserted in the Act by the Government at the request of the British Medical Association. He did not think at the time that it was the best system, but as the medical profession had asked for it, he put his own opinions on one side. He believed the Act would provide better security for the profession, and that out of it might grow an insurance and superannuation scheme for every medical man taking service under the Act. A more efficient nursing organization could also be provided, and this would lessen the labours of the medical profession.

Renewals of Service by the Profession.

It was announced by Dr. RICHMOND that on April 8th there were 1,282 medical men on the London panel. The renewals so far numbered 1,074 and only 9 withdrawals had been received.

A vote of thanks to the Chairman concluded the proceedings.

SCOTLAND.

MILEAGE.

THE Intelligence Department of the National Health Insurance Commissioners has sent out the following statement:

The end of the three months' provisional period for which medical men joined the panels of Insurance Committees is approaching, and practitioners all over Scotland are now considering the question of a further term of service. It is believed that to the majority of doctors the problem presents no obstacle; in the towns especially the results of the trial engagement have been satisfactory. County doctors, however, while ready in most cases to concede that the calls upon their time by insurance patients have not as a whole been unreasonable, and that the modification in clerical work proposed by the Commissioners is likely to lighten their labours, have felt that they were still confronted by a most palpable difficulty from which the paths of their city brethren are free. That difficulty is mileage.

From a statement issued to medical practitioners on December 20th last it may be gathered that the Scottish Insurance Commissioners have been fully mindful of this important problem. On that date they wrote as follows:

We have received numerous representations from rural practitioners in Scotland as to the difficulties which they experience in visiting patients at a distance. We have carefully considered the whole question, and have made communications to the Government, as a result of which a Special Committee was appointed to deal with the Highlands and Islands. We understand that the Committee's report is on the point of being submitted to the Government.

At the same time, through our own staff, we have inquired into the conditions prevailing in rural Scotland generally, with the view of estimating a reasonable allowance towards the cost which mileage entails. Our inquiries are approaching completion. They will shortly be placed before the Government, who have already made it known that a Treasury grant will be available for the payment of mileage. The basis of payment and the total amount payable will be made known in due course. It will suffice in the meantime to say that the special grant for Scotland will be substantial, and may be expected to be sufficient to meet all reasonable demands.

The Treasury grant is to be applied in sparsely populated areas. There is scarcely a county in the whole of Scotland but has districts which may be so described. Thus the counties of Aberdeen, Forfar, Perth, Lanark, Roxburgh, Berwick, Dumfries, Kirkcudbright, Wigtown, and others would all be open to receive in due course their share of the mileage allowance. Where difficulties are greatest the grant will be of most service. It will help to indemnify the country doctors for the distances which they travel and the hardships which they undergo in visiting their remoter patients.

Subsequent events would appear to show that the representations made to the Government by the Commissioners have met with a favourable reception. In the supplementary estimate for 1912–13, under the heading "National Insurance Special Grants in Aid," the following items occur:

Highlands and Islands (for mileage and other special services)	£10,000
Mileage fund (Great Britain, excluding Highlands and Islands)	50,000
	£60,000

With reference to the Highlands and Islands two points should be noted:

1. That the £10,000 is for insured persons only. It is irrespective of any grant which may be forthcoming as a result of the report of the Highlands and Islands Medical Service Committee, of which Sir John Dewar was chairman.

2. That it is not for mileage only, but also for special services, which will enable the Commissioners, by whom the fund is to be distributed, to take into account any exceptional difficulties which doctors may have to encounter in reaching their patients.

With reference to the mileage fund of £50,000 for the United Kingdom, excluding the Highlands, it is a substantial sum, and will, no doubt, be welcome to the medical profession. But it stands as a total figure, and Scottish doctors have been in suspense to know whether their claims will receive due recognition, as against the claims by English and Welsh doctors, in the division of the grant between the countries. The Scottish Commissioners have announced that the momentous partition has now been made, and that Scotland's share will be £16,000. That is to say, £16,000 will be available to defray the cost of mileage in the Scottish Lowlands in each year. This must be held to be an ample, and indeed a generous, allowance.

Highlands and Islands.

The £10,000 for the Highlands and Islands will fall to the share of the counties of Shetland, Orkney, Caithness, Sutherland, Ross and Cromarty, Inverness, Argyll, and possibly part of Perth. In distributing the amount among doctors, the Commissioners will have to deal with conditions of the utmost diversity. It is understood that they have detached a staff of inspectors, who are now hard at work in all the Highland counties computing the distances to be travelled by doctors, noting the facts as to routes by road or foot track, journeys by moor and mountain, ferry crossings over lochs and straits, and sea passages to the scattered islands of Orkney and Shetland and the Inner and Outer Hebrides. It is stated that a number of special cases have already come under notice, such as ferrying motor cars over lochs, visiting sick persons at high altitudes, crossing to certain solitary islands, and other comings and goings on the perilous seas of the remote North and West.

From the questions which are being put by the Commission's officers it would appear that miles over three from the doctor's house are to be taken for ordinary mileage, while any sea journey, whether within or without the three-mile limit, is to count as a separate claim. But though such standards are doubtless necessary as a primary basis for distribution, it should be noted that the grant to the Highlands is for special services as well as for mileage. It should therefore be open to the Commissioners to deal with each case on its merits within the limits of the fund, and to take account of the exceptional circumstances apart from the rigid rule of distance.

Meantime, it remains to be seen how the distribution will work out. To this end, detailed calculation will be required, and the results can scarcely be forthcoming immediately; but, in view of the small population of the Highland counties, as a whole, the relatively large population in Inverness, Campbeltown, Oban, and other townships, for whom no mileage will be payable, and the relatively small proportion of insured persons to population in the area generally, there are grounds for the expectation that the £10,000 will provide a most substantial recompense to Highland doctors for the distance, outlay, and expenditure of time and energy involved in visiting their insured patients.

Lowlands.

The grant to the Lowlands—that is to say, to the rest of Scotland excluding the Highlands—is £16,000. The word Lowlands may be used in this case for the sake of brevity and convenience. It is, in fact, a misnomer, for it includes such places as Strathdon, in Aberdeenshire, where people travel in sleighs in winter; Tomintoul, in Banff, where also the winter is most rigorous; and the Island of Arran, whose rugged contours are essentially Highland in character. Indeed, the highest peak in the British Isles, excepting Ben Nevis, is situated in the Lowlands, as above defined.

Such an area may be expected to present the most varied conditions. Outside the towns the population is in general sparse. This point is of importance, for the grant is payable in sparsely peopled areas.

The counties of Banff, Aberdeen, and Bute have already been referred to. The uplands of Nairn, Elgin, Kincardine, and Forfar are beyond question sparsely peopled. Some parts of Fife are thinly inhabited, and Kinross and Clackmannan, where they lie on the Ochils, have similar features. Great areas of the Lothians could clearly come under the same description.

The population of Peebles, Selkirk, Berwick, and Roxburgh is essentially sparse in distribution. In Roxburgh it is understood that there are considerable villages without a proper access road. In Perth, Stirling, and Dumbarton there are wide tracts of moor and mountain. Lanark, Renfrew, and Ayr, though locally populous, include much lonely upland. Portions of Dumfries are remote and isolated, and Wigtown and Kirkcudbright contain the Southern Highlands, where roads are few and railways far off. It would appear that country doctors in all the counties named might properly advance a claim to share in the grant in respect of their patients who reside more than the stated distance from the nearest panel doctor.

The inquiry now in progress in the Highlands will presumably be extended in due course to the Lowlands, with a view to the distribution of the fund among the doctors on a basis which will help those whose need is the sorest.

Here, again, it will remain to see how the figures will work out. But it is understood that in course of a preliminary investigation made by the Commissioners last year with respect to the Lowland counties, the total mileage which emerged was such as to justify the expectation now that the sum of £16,000 will prove to be sufficient to meet all reasonable demands.

In conclusion, the financial position may be looked at in another way. Of a total sum of £60,000 per annum to be devoted to defraying mileage in the United Kingdom, Scotland is to receive £26,000, or nearly one-half. Even after allowance has been made for the special conditions of the country as compared with England and Wales, it seems that country doctors in Scotland have good reason for satisfaction in that their claims have received such full recognition. They should carefully note further that all the sums named in these remarks are over and above the 2s. 6d. added by the Treasury to their capitation fee.

Conference of Panel Chemists.

A largely attended meeting of panel chemists from all parts of Scotland was held in the Pharmaceutical Society's Hall, Edinburgh, on March 31st. Mr. J. P. Gilmour, Glasgow, Chairman of the Pharmaceutical Standing Committee (Scotland), presided. Mr. James Leishman, Chairman of the Scottish Insurance Commissioners, addressed the meeting and answered a large number of questions. After awarding thanks to Mr. Leishman, the meeting considered what action should be taken in view of a request from Insurance Committees to sign an extension of the agreement for the supply of drugs and appliances for insured persons for a further period of nine months, so as to complete the first medical year. Ultimately the following resolution was unanimously adopted:

> This general meeting of Scottish panel chemists adheres to the protest formerly made that the existing drug tariff is not sufficiently remunerative to secure an efficient pharmacy service. In view, however, of the incompleteness of the evidence and the difficulties in the way of an adequate adjustment of terms for the remaining nine months of the first medical year, and of the concessions contained in the letter of March 29th from the Insurance Commissioners and supplemented verbally by the Chairman of the Commissioners, and of a proposed conference with medical practitioners to consider the whole case, this meeting resolves to recommend Scottish panel chemists to sign an extension of the agreement for nine months, subject to the aforesaid concessions being approved by Insurance Committees and without prejudice to the claim for more adequate remuneration in any future agreements.

It was reported to the meeting that Scottish pharmacists strongly objected to the regulation transferring the dispensing of medicines to medical practitioners in the case of persons residing more than one mile from a chemist's shop, and the following resolution was unanimously adopted:

> This meeting of Scottish panel chemists protests against the alteration of Regulation 30 (1) subsequent to its approval by the Pharmaceutical Standing Committee on Insurance, and without again conferring with them. Further, this meeting demands the repeal of that portion of the regulation added under the aforesaid circumstances which allows a medical practitioner to claim to supply medicines for all insured

persons residing more than one mile from a chemist's shop at a capitation fee of 2s. This provision is contrary to the principle of free choice of chemist secured to insured persons by Regulation 34, is a hardship to sick insured persons, inconsistent with the promises of the Chancellor and the provisions of the Insurance Act as to the separation of the prescribing from the dispensing of medicines, and particularly in Scotland, a great injustice to chemists on the panel who had contracted to supply medicines and appliances to insured persons, many of whom had been regular customers for years, and desire to remain so.

IRELAND.

Medical Certificates.

Last week the Insurance Commissioners of Ireland issued further circulars to the medical profession throughout the country, enclosing a copy of a resolution of the Conjoint Committee recommending the scheme of the Commissioners as regards the distribution of the £50,000 to be approved of provisionally, also stating that in accordance with a request from the Conjoint Committee the constitution of the Committee of Complaints had been changed in order to correspond with the method adopted in England, and that the date for notification of consent to join the panel had been extended to April 8th.

Throughout the whole country meetings of the Local Medical Committees and of the medical practitioners of the various counties have been held, at which resolutions have been passed unanimously refusing the offer of the Insurance Commissioners relative to payment for certificates as totally inadequate, and refusing to form panels until the demands made by the profession last summer in Dublin are acceded to. In Queen's County the doctors passed a resolution drawing attention to the great increase in the work and duties of the vast majority of Irish medical practitioners, owing to the repeated visits at long distances which they are obliged to pay to many insured persons, not for the object of affording them medical relief, but solely for the purpose of certification required by the various approved societies. So far it is only in a few of the city districts that it has been decided to form panels.

Resolutions refusing to form panels have already been passed in Carlow, Dublin, Galway, North and South Tipperary, Tralee, Tyrone, and Wexford. In the city and county of Cork the position is not clear.

A meeting of the Dublin County Borough Local Medical Committee was held in the Royal College of Surgeons on April 2nd, at which it was stated that only eleven doctors had signed the agreement to form a panel for Dublin; as there are some 80,000 insured persons in Dublin, it is quite evident that this number would be totally inadequate to form an efficient panel for the purposes of certification. The meeting was large and representative, and the following resolutions were passed:

1. That we reject as being totally inadequate the terms offered by the Irish Insurance Commissioners for certification, and decline to put our names on the panel unless, and until, the minimum terms agreed to at the general meeting of the profession in Ireland be conceded; and that we call upon all medical practitioners in this district to loyally adhere to this resolution, and any who have put their names on the panel to withdraw therefrom.
2. That this meeting of the profession in Dublin expresses its fullest confidence in the Conjoint Committee, and is of opinion that it acted to the best of its abilities under difficult conditions.

Meetings of the Dublin Medical Committee were held during the week at the Royal College of Physicians, and it was unanimously decided to refuse to grant certificates for any purpose under the National Insurance Act. Of the eleven Dublin doctors who have signed the agreement to go on the panel, it is understood that some at least did so under a misapprehension, and will at once resign and fall into line with the majority of the profession. It was stated that the Commissioners may decide to pay medical practitioners according to the number of certificates issued instead of according to the number of persons insured.

At a meeting of the Poor Law Medical Officers' Subcommittee of the Irish Medical Association, held on April 3rd, the following resolutions were passed unanimously:

1. That the Poor Law Medical Committee regard the invitation of the Irish Insurance Commissioners to Irish medical practitioners to go on a panel for medical certification as quite unnecessary since medical benefits do not apply to Ireland, and since the principle is recognized that it is only the medical attendant can certify on the terms agreed upon at the delegates' meeting. Since the panel system under these circumstances is adopted by the Commissioners for intimidatory purposes, we strongly condemn their action, and promise it our strongest opposition.
2. That we congratulate the Irish medical practitioners in their response to the Poor Law delegates' meetings in refusing to go on the panel.
3. That, in the case of a dispute arising between a friendly society and its medical officer on a question of fees, we pledge ourselves not to apply for or accept the position. An agreement to be signed to that effect.

FRIENDLY SOCIETIES AND THEIR AGED AND INFIRM MEMBERS.

The following letter has been received in reply to the further communication addressed by the State Sickness Insurance Committee on March 27th to Mr. Masterman, Chairman of the National Insurance Joint Committee, and published in the Supplement of March 29th, 1913, p. 285:

National Health Insurance Joint Committee,
Buckingham Gate, London, S.W.
April 2nd, 1913.

Sir,

Mr. Masterman asks me to reply to your letter of the 27th March, as to the medical attendance of uninsured members of Friendly Societies.

Mr. Masterman agrees that no useful end would be served by prolonging the correspondence on this subject. The position seems to be quite clear. Take for instance, a doctor who has been attending 1,000 club members for whom he has received about 4s. per head for both medical attendance and medicines. As a result of the contributions from the Exchequer for insured persons he will now be receiving 7s. to 7s. 6d. a head for the medical attendance only for say 950 of these same persons who are insured. That would appear to be no adequate reason for his demanding an increase of about 4s. a head in respect of the remaining 50 who are not insured and whose medical attendance is therefore a charge falling either upon the private funds of their societies at the expense of their other benefits or directly upon themselves.

As I said in my last letter Section 15 (2) (*c*) of the National Insurance Act only contemplates an option to Societies and does not in any way expressly or by implication make it obligatory for them to pay as high a rate for these uninsured members as for insured persons.

Yours faithfully,
J. A. Salter,
Private Secretary.

The Medical Secretary,
British Medical Association,
429, Strand, W.C.

INSURANCE ACT IN PARLIAMENT.

An Insurance Act Amending Bill.

As announced by Mr. Masterman at the dinner of the Faculty of Insurance, a measure is under consideration for amending the Insurance Act in certain particulars. We understand that an important item in the projected measure will be altered arrangements for dealing with casual labour and for avoiding the hardships which the Act occasions in many of these cases. With a view to avoiding workers putting stamps on at their own expense in order not to be prejudiced in obtaining employment after the beginning of the week, a scheme for the institution of a day stamp has, we believe, been under consideration. It is doubtful whether opinion is yet sufficiently crystallized as to be able to say in what respect the medical provisions require amendment with a view to promoting smooth working of the Act and removing grievances. The powers of the Commissioners, without alteration of the Act, are very wide in certain directions. The elaboration of a scheme for providing medical attendance for insured persons who move from one part of the country to the other and which will also be satisfactory to medical men at the seaside and other places, has been the subject of detailed consideration by the Commissioners before and since the recent meeting of the Advisory Committee; but we are not able to say whether it has been determined that it would require any amendment of the Act. It has been contended that the formation of a pool in respect of these persons out of which

payments could be made on a payment for attendance system would probably operate most fairly on the whole.

Insurance Committee (Minutes).

In reply to Mr. Worthington-Evans as to whether the minutes of Insurance Committees are open to the inspection of any insured person in the same way as the minutes of municipal bodies are open to the inspection of ratepayers, Mr. Robertson said that the committees are not required to allow inspection of their minutes, but their meetings are usually open to the public, and the minutes are read and the proceedings generally open to those present, and might be reported in the press.

Administration of Medical Benefit.

Post Office Servants.

In reply to Mr. Wardle, who inquired whether the Postmaster-General would consider the advisability of permitting a choice of doctors to postal employees from the panel in the various districts, Mr. Herbert Samuel said that Post Office employees who were insured persons might, if they so desired, select as their medical attendant any doctor on the local panel. He saw no reason for making any change in the rule that uninsured Post Office servants who were granted free medical attendance should receive it at the hands of the Post Office medical officer.

Persons Making their own Arrangements.

Mr. MacCallum Scott asked the Secretary to the Treasury: (1) Whether, in the opinion of the Insurance Commissioners, the system of medical benefit successfully worked for the past ten years by the Scottish Clerks' Association, whereby members called in their own doctors and had refunded to them by the society the doctors' fees and cost of medicine up to 4s. per visit, is a suitable one through which to permit insured persons to make their own arrangements under Section 15, Subsection (3), of the National Insurance Act, and whether the Commissioners consider that this is a suitable subject on which to make suggestions to the Local Committees; and (2) whether he is aware on what grounds the Glasgow Insurance Committee has refused to permit insured members of the Scottish Clerks' Association to make their own arrangements for medical attendance under Section 15, Subsection (3), of the Act, in accordance with the system of medical benefit successfully worked by that society for the past ten years; and, if so, will he state what are the grounds of objection?—Mr. Masterman: As I stated in answer to my hon. friend on March 27th, it is primarily the duty of the Insurance Committees concerned to consider whether, in view of these arrangements and of any other local circumstances, members of the association could properly be allowed to make their own arrangements under Section 15 (3) of the Act, and the Scottish Commissioners, after considering all the circumstances, do not feel justified in interfering with the discretion of the Insurance Committeees in the matter. I understand that a number of members of the association have, in fact, received permission from the Glasgow Insurance Committee to make their own arrangements with doctors not on the panel under Section 15 (3) of the Act, and that the period of application was extended for them from January to April 14th.

Certificates from Doctors not on a Panel.

In reply to Sir William Bull, Mr. Robertson said that the acceptance or refusal of a certificate of a particular medical man whether on the panel or not was in the first instance for the approved societies to decide; otherwise he said there was nothing to add to the previous answers on this subject, but he stated that the Government auditors would not look to the secretary to refund money paid on certificates of non-panel doctors as having been unlawfully paid.

Chemists (Convictions).

In reply to Mr. King, who inquired whether if an offence was proved against a firm of chemists for not supplying insured persons with medicine in accordance with the prescription, the Insurance Commissioners had power to remove such a firm from the panel, and whether they would take steps occasionally to test the drugs supplied. Mr. Robertson, answering for Mr. Masterman, said that the Insurance Commissioners had power after inquiry to remove a chemist from the panel if his continuance thereon was likely to be prejudicial to the efficiency of the service and could receive representations in respect of complaints from any responsible source. He also said that it was the duty of the Insurance Committee to take such steps as were necessary to insure a proper and sufficient supply of drugs and medicines.

Value of Medical Practices.

In reply to Mr. King, who enquired whether he was aware that medical practices had increased in value owing to the National Insurance Act, and if he would consider the propriety of imposing an increment duty on transferred medical practices in the forthcoming Budget, Mr. Lloyd George replied that he was aware of the facts referred to, but was unable to adopt the suggestion.

Maternity Benefit.

In reply to Mr. Watt as to whether any approved societies in Scotland were administering the maternity benefit otherwise than in cash, Mr. Masterman said that no full information was yet available, but that the matter was within the discretion of the societies as approved by the Act, and he believed that some of the societies were giving a part of the benefit otherwise than in cash, as, for instance, by payment to a doctor or in providing necessities.

Sanatorium Benefit.

Tuberculosis (Wales and Monmouthshire).

In reply to Mr. Haydn Jones, Mr. Masterman stated that the Exchequer grants for Wales and Monmouthshire could be pooled by the Welsh Commissioners, and that it was open to the Commissioners to approve of a conjoint scheme as applied to Wales as a whole.

CORRESPONDENCE.

Dr. Charles Buttar (London, W.) writes: I wish that it were possible to rebut Dr. Courtenay Lord's accusations of apathy, somnolence and lack of interest in things concerning the Insurance Act, and to offer him assistance in the splendid fight that he and his friends are waging in Gillingham. But I fear that many facts combine to render difficult the strong action required for success. The medical profession has always been at heart individualistic; hence it was unprepared to meet a collectivist attack based on the principle of so-called State control of everything. The only body in existence to deal with the attack was an impossible democracy without a leader; and the members of this democracy probably would not have recognized a leader even if one had been forthcoming. Medical men are too much occupied in their own struggles for existence to be able to devote the necessary time to organizing a proper campaign; they are not wealthy enough to find the money for their defence; their democratic body is without any really strong business man to guide and control the various departments, and to keep in touch with the outer world; infinite time is wasted in reforming or in revising rules, or in producing voluminous reports which nobody reads; and a large income is spent in filling wastepaper baskets.

So nebulous is the policy of the Association that probably no one could say definitely at the present moment whether the Association represents those who still maintain their freedom and those who are unwilling servants under the Act, or whether it ought not to be regarded rather as a branch of the National Insurance Practitioners' Association.

At a recent Representative Meeting I divided the profession into six groups, so far as concerns the Insurance Act:

1. Those honestly in favour of the Act and Regulations. These men, I pointed out, are Socialists, and few in number, but entitled to the respect due to honest convictions, though regarded by most people as misguided enthusiasts.

2. Practitioners openly out "on the make." This group also, in my innocence, I suggested was not numerous. I regret to say that the suggestion was received with some incredulity.

3. Those absolutely against the Act and Regulations as they stand at present, but forced, through economic pressure and the methods of deceit and intimidation employed by various authorities, to take service.

4. Those loyal persons affected by the Act, whom no threats or personal loss will induce to abandon the attitude they have taken up.

5. Certain persons whom I described as philosophic anticollectivists, whose loathing for systems of government that take away all sense of responsibility and independence from the community, and that deprive an honourable profession of its freedom, is so great that they will sacrifice time and money in the fight.

6. Those members of the profession who are indifferent (because unaffected personally) or indolent. To this class, I fear, belongs the majority of those whom we are accustomed to regard as the heads of the profession, men of light and leading, who by their supine attitude have allowed the prestige of the General Medical Council, of the universities, and of the councils of the colleges to be seriously lowered.

The time has come, perhaps, when we must recognize the formation of a seventh group, drawn chiefly from that which stands third on my list. Many of the men who protested most loudly against the Act, who urged the economic pressure under which they succumbed as an excuse for sympathy, have now tasted the sweets of increased remuneration for third-rate contract work, and, being as yet unharassed by lay control, are growing content with selling their freedom for a supposed guaranteed income. These men seem likely to forget the principles for which they fought, they are incapable of looking forward to the troubles that are bound to come, and they are content to go to sleep until another battle begins, when once more they will be loudest in their denunciation of want of preparation. I strongly suspect that some of these men are taking on insured persons of the better class, whom they may never have had as patients before, feeling that the unsuitability of such persons for contract treatment is mitigated by the fact that they have dependants from whom money is to be made. Meanwhile, it seems to escape their notice that this insured person and his dependants used to be patients of some neighbour of greater loyalty and steadfastness than themselves, and that if economic pressure was their sole reason for going on the panel, the honourable course would have been to decline all insured persons except their own patients. I am afraid that, after all, my seventh group is not new; it may be simply a rather more contemptible section of the second division.

To those of us who are possessed by some quixotic obsession that the dignity of our profession is worth fighting for there must come at times a feeling of doubt whether the struggle is worth continuing—a thought that it may be well to revert to our individualistic attitude; in other words, join Group 6.

But, before doing so, it is perhaps worth while trying to combine the better men, both on and off the panels, into some strong body animated by the desire to stir up a feeling of self-respect in the community, and to maintain a consistent and honourable attitude on the part of the profession. At the present moment the British Medical Association is incapable of being such a body, owing to the hide-bound constitution of which Dr. Lord speaks. In two or three years it may have been possible to carry through such reforms as will enable the Association to do better work than manufacturing waste paper. Until that time arrives would it not be well to support the formation of a more active body, primarily devoted to Insurance Act questions, and untrammelled by a constitution that permits of no leadership and of no satisfactory organization? Such a body, having done its work, might then resign its functions to a rejuvenated and strengthened British Medical Association.

Dr. A. E. Larking (Buckingham) writes: Gillingham is one of the very few towns where the medical men have resisted the Insurance Act to the present time. Those of us who read the *Lancet* as well as the British Medical Journal are familiar with the report of the Special Commissioner appearing in the issue of March 15th. Dr. Courtenay Lord, of this place, writes a very able letter complaining of the attitude of the Association and the "general lack of interest in things concerning the Act." But let him make no mistake—it is only apparent. Judging by the attendance at the meetings of the Local Medical Committees, I venture to say that the interest is really increasing, and, as the effects of the Act are becoming better known, the powers of the Commissioners more fully realized and the attitude of the various Insurance Committees ascertained, such a body of opinion is being formed among medical men that if the time ever comes for the profession to assert its claims there will be a very different result to that in January last.

Even now, we are all quite willing to put our hands into our pockets to recompense Dr. Lord and others if they suffer loss from their adhesion to the policy of the December Representative Meeting, although we disagreed with it and regretted that hasty decision. It was obvious to onlookers at that meeting that its members were being misled by inexperienced and impractical enthusiasts. I well remember when Dr. Todd was putting the case for moderation how he was interrupted and heckled by a young member. I sincerely trust that a different spirit will prevail next July. The result showed that Dr. Todd was right and the majority of 187 were wrong, and that it would have been far better to have claimed a victory in getting the extra grant and then used all our influence to secure better conditions in the future. However, it was decided to fight, and we were beaten, humiliated, and forced on the panel.

As in nearly all other wars, when the main army is vanquished, isolated conflicts still continue in various parts; and so it is at Gillingham.

The question is, Are they wise in still resisting? Can they hope for success when all the others are beaten? My opinion is that it would have been far better for all the doctors there to go on the panel and endeavour to smash the institution existing there, and not play into its hands by forcing the Commissioners to put in whole-time men, or the Committee to engage special medical officers. In a place where ½d. a week clubs abound, one would have thought that the doctors would have welcomed being absolved from the bonds of medical aid society committees, would have accepted the 6s. 6d. or 7s. for the workers, and started a public medical service for the wives and families. But they apparently prefer an uncompromising resistance. Let us hope they may do good, and succeed in their object; they know the local conditions best, and we trust theirs is not a forlorn hope.

But there are a few points in Dr. Lord's letter that lead one to think he is taking an unduly optimistic view of the conditions, especially as to men not being available to take on the work. Dr. Lord says the locumtenents market is dried up, assistants unobtainable, and hospitals vainly striving to get resident medical officers. Now is this a fact or not?

It is the ignorance existing on this particular point that is influencing many of us. We read Dr. Lord's statement and then we turn to other parts of the Journal and we see actual instances of men having been obtained, we see other instances of a large adverse vote when it is suggested to go off the panel. What we all want to know is, Do these men exist or not? Are they bogeys invented to frighten us, or are there hundreds of men waiting for work? It is quite time that we had some information on this point from the central office. We also want to know whether the sale value of practices is diminishing or not, and whether the money invested in our practices is lost or must be written down or "off."

In the locality in which I practise, a semi-rural one, all the medical men are on the panel. We went on after January 1st only because our neighbours did. The experience seems to be that we shall get more income than before. It is true that we have had more work but it is falling off. What a pity the Act did not come into force in July instead of January! We are getting on very well with the Insurance Committee. It has acceded to our wishes as to certificates, model rules, allocation of those not selecting a doctor, etc., and has courteously replied to other requests. The Insurance Committee is inclined to resent the frequent interference of the Commissioners and to take our side. The policy of the Local Medical Committee is to work amicably with the Insurance Committee. We believe we shall, by tactful and diplomatic dealing, obtain more than by adopting an antagonistic attitude. We intend to give the Act a fair trial. Three months is quite an inadequate time to judge it.

Let us give it at least six or nine months' trial, and then, if it is found to be "unworkable and derogatory to the profession," we shall have such a body of opinion behind us that nothing can withstand our demands.

FUTURE ACTION.

DR. W. E. BARTON (Streatham) writes: I sincerely hope all the members of our profession have read Dr. Courtenay Lord's letter in your issue of April 5th. It is not only a correct statement of the present situation, but is also, I feel perfectly sure, a true prophecy of the future of the profession if the present situation is unaltered or made worse by more men going on the panels.

Beyond this it is a distinct "call to arms" which all of those who are fighting against the degradation of the profession must thoroughly appreciate. We applaud and honour Dr. Lord and his Gillingham confrères for the noble stand they have made against tyranny.

Perhaps, however, the profession has not relapsed into somnolence so much as it seems, and it may even be that this apparent somnolence is only a "calm before the storm," and that the profession means to make another fight for freedom during this month. If this is not the case, its fate will be that of the sleeping Sisera, a fate that it will richly deserve.

Dr. Lord has pointed out what a futile bogey the "full-time man" has turned out to be. This has been proved at Gillingham and elsewhere, and has been proved to the hilt by the admission of Mr. F. G. Harris at a meeting of the Insurance Committee on April 3rd, when he said that after three months' working they had to ask themselves whether they had really got a sufficient and adequate medical service for London; that prior to last January there were no less than 1,500 medical men engaged in contract practice attending club or friendly society members in London, but that now there were only 1,258 doctors on the London panels to attend four times the number of those who had been attended as friendly society members by the 1,500 doctors. Think of it—1,258 doctors to do four times the work that required 1,500 to do!

Now, the large majority of the profession have agreed and still agree that the terms and conditions offered by the Government are degrading and derogatory to the profession and against the interests of public health. The panel doctors generally are clamouring for alteration and amendment: some have already stated their intention of resigning, and no doubt many will do so. The consequence will be that the service will become more unworkable than it is at present, and the Government will have to climb down and offer terms and conditions which can be honourably accepted. The profession will then be in a position to work the medical part of the Insurance Act with dignity and honour.

I appeal now to all who have steadfastly refrained from going on the panel to still refrain, and I appeal to all those who are dissatisfied with panel practice to resign.

We all know that many of those men who are on the panel at the present time could well afford to resign, and that their sacrifice would be a very small one. Let us be united once again now that the "importation bogey" is laid.

Even if we have been beaten in the first round, are we not ready to fight again? Some lines written by Edmund Vance Cooke in the *Windsor Magazine* a few years ago ought to appeal to all of us just now:

> You are beaten to earth, well, well what's that?
> Come up with a smiling face;
> It's nothing against you to fall down flat,
> But to lie there, that's disgrace.
> The harder you're thrown, why the higher you bounce,
> Be proud of your blackened eye,
> It isn't the fact that you're licked that counts,
> But how did you fight, and why?

Let us, then, make one more stand for the independence honour, and liberty of our profession—one more stand against the tyranny brought to bear against ourselves and our patients—let us prove that the profession has not relapsed into apathy or somnolence. Let us back up those who have carried on the fight and are still doing so. London has set a good example already, Gillingham has set a better. Let the London doctors now show the stuff they are made of by strengthening their majority of non-panelites and by backing up the London Committee and the National Medical Guild, and so win the day.

Association Notices.

ANNUAL REPRESENTATIVE MEETING, 1913.

DATE OF MEETING.

THE Annual Representative Meeting of the Association, 1913, will be held at Brighton on Friday, July 18th, and following days, as may be required.

NOTICES OF MOTION: LAST DAY FOR RECEPTION.

ATTENTION is drawn to the fact that Notices of Motion from Divisions and Branches for the consideration of the Annual Representative Meeting at Brighton in July next, relating to questions affecting the honour and interests of the medical profession or of the Association (By-law 37), must be published in the BRITISH MEDICAL JOURNAL not later than the issue of April 19th, and for this purpose should be received by me not later than April 12th, 1913. Notices of Motion proposing to make any addition to, or any amendment, alteration or repeal of any Regulation or By-law, or to make any new Regulation or By-law (Article 31), must be published in the JOURNAL not later than the issue of May 17th, and received by me not later than May 10th, 1913.

By Order,

ALFRED COX,
Medical Secretary.

February 4th, 1913.

QUARTERLY MEETING OF COUNCIL.

THE Quarterly Meeting of the Council will be held at Two o'clock in the afternoon of Wednesday, April 23rd, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,
Financial Secretary and Business Manager.

March 13th, 1913.

BRANCH AND DIVISION MEETINGS TO BE HELD.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at Colchester on Wednesday, April 30th. Members wishing to read papers or to show cases or specimens should communicate at once with me.—B. H. NICHOLSON, Colchester.

METROPOLITAN COUNTIES BRANCH: EAST HERTFORDSHIRE DIVISION.—A meeting of the Division will be held at 3 p.m., on April 16th, at the Shire Hall, Hertford, to discuss the adoption of Ethical Rules. This Division at present has no rules governing ethical procedure, and it is hoped, in view of the great importance of the subject, that all will make a special effort to be present. A copy of the Model Rules issued by the Central Ethical Committee of the Association appears in the SUPPLEMENT of September 21st, 1912; if necessary, I can supply a reprint of the same to any member on application. Agenda: Minutes. Correspondence. Receive reports from the various districts in regard to contract arrangements for attendance upon the uninsured. Letter from the Honorary Secretary of the Hertfordshire Medical Committee in reference to various matters connected with the administration of medical and maternity benefits. Consider the Model Ethical Rules (SUPPLEMENT, September 21st, 1912). Any other business. —H. D. LEDWARD, Honorary Secretary, 123, Norton Way, Letchworth, Hertfordshire.

METROPOLITAN COUNTIES BRANCH: SOUTH-WEST ESSEX DIVISION.—The next meeting of this Division will be held, conjointly with the City Division, on Friday, April 11th, at 9.30 p.m., at Brooke House, Upper Clapton, by invitation of Dr. Gerald Johnston, when Dr. Hugh Walsham will give an address with lantern demonstration on "Roentgen Rays in Diseases of the Chest."—A. POTTINGER ELDRED, Honorary Secretary.

NORTH WALES BRANCH.—A meeting of the Branch will be held at the Westminster Hotel, Rhyl, on April 15th, 1913, at 2.15 p.m. Luncheon at 1.15 p.m., tickets 3s. The Branch Council will meet at 2 p.m. Agenda: (1) Minutes of the last regular meeting and of the special meeting. (2) Correspondence. (3) Receive the report of the Branch Council. (4) Read financial statement for 1912. (5) To consider, with the view to adoption, the Ethical Rules, as approved by the Representative Body, July, 1912. (6) Dr. Emyr O. Price will move "That all provisions made, and terms arranged between medical practitioners within the area of this Branch and the friendly societies, for the treatment of their disabled and aged members (over 65), shall be provisional only, until the end of the year." (7) Dr. C. E. Morris will move (1) "That this meeting of the North Wales Branch of the British Medical Association is of opinion that free choice of doctor should be allowed to patients in voluntary hospitals in North Wales, that facilities ought to be given in these institutions whereby patients could receive

treatment by their own doctor if so desiring." (2) That the Branch Secretary be asked to send this resolution to all the voluntary hospitals in North Wales, respectfully requesting the managements to give it their sympathetic attention." The following papers will be read: Mr. J. Hill Abram, "Cervical Glands in Abdominal Cancer"; Dr. J. E. Gemmell, "Ectopic Pregnancy"; Mr. K. W. Monsarrat, "Appendix Dyspepsia"; Dr. W. Permewan, "Two Cases of Acute Otitic Infection of the Brain without Perforation of Membrana Tympani"; Dr. W. B. Warrington, "Case of Landry's Paralysis Terminating in Recovery"; Dr. F. P. Wilson, "The Use of Crude Coal Tar in the Treatment of Eczema."—H. JONES ROBERTS, Honorary Secretary, Llywenarth, Penygroes, S.O.

STAFFORDSHIRE BRANCH: MID-STAFFORDSHIRE DIVISION.—A meeting of the Division will be held at the North-Western Hotel, Stafford, at 3.15 p.m., on Tuesday, April 15th. Agenda: (1) Minutes of last meeting. (2) The Chairman will propose and Dr. Hodder will second: "That the Annual Representative Meeting, 1913, rescind that portion of Minute 21 of the Special Representative Meeting held December 21st, 1912, in which the opinion is expressed that the regulations of and conditions of service under the National Insurance Act are unworkable and derogatory to the profession." (3) The Chairman will propose a resolution as to the appointment of Medical Officer to the Rugeley and District Amalgamated Friendly Societies.—A. E. HODDER, Acting Honorary Secretary, Stafford.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—(1) Assistant Physician. (2) Junior Resident Medical Officer (male). Salary at the rate of £40 per annum, rising to £60 on appointment as senior.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary, £80 per annum.

BIRMINGHAM AND MIDLAND EAR AND THROAT HOSPITAL.—House-Surgeon. Salary at the rate of £70 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £200 per annum.

BIRMINGHAM GENERAL HOSPITAL.—(1) Surgical Casualty Officer; salary, £50 per annum. (2) House-Surgeon; salary for first three months at the rate of £40 per annum, rising to £50.

BIRMINGHAM: QUEEN'S HOSPITAL.—House-Surgeon. Salary at the rate of £50 per annum.

BIRMINGHAM: RUBERY HILL ASYLUM.—Junior Assistant Medical Officer (male). Salary, £175 per annum.

BOURNEMOUTH: ROYAL VICTORIA AND WEST HANTS HOSPITAL.—Assistant Surgeon to the Nose, Throat, and Ear Department.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRIGHTON AND HOVE HOSPITAL FOR WOMEN.—House-Surgeon. Salary, £80 per annum.

BRISTOL: COSSHAM MEMORIAL HOSPITAL, Kingswood.—House-Surgeon. Salary, £50 per annum.

BRISTOL GENERAL HOSPITAL.—(1) House-Physician; (2) Second House-Physician; (3) Casualty House-Surgeon. Salary, £80 per annum.

BRISTOL ROYAL INFIRMARY.—(1) Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £75 per annum. (2) Resident Casualty Officer. Salary at the rate of £50 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum.

CANTERBURY BOROUGH ASYLUM, Canterbury.—(1) Assistant Medical Officer (male). Salary, £160 per annum. (2) Locumtenent Assistant Medical Officer. Salary, £4 4s. a week.

CARLISLE: CUMBERLAND AND WESTMORLAND ASYLUM.—Junior Assistant Medical Officer (male). Salary, £150 per annum.

CHARING CROSS HOSPITAL, W.C.—Anaesthetist.

CHESHIRE COUNTY ASYLUM, Parkside.—Temporary Assistant Medical Officer. Salary, £4 4s. per week.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £80 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DARENTH INDUSTRIAL COLONY FOR THE FEEBLE-MINDED, near Dartford.—Male Third Assistant Medical Officer. Salary, £150 per annum, rising to £170.

DENBIGH: DENBIGHSHIRE INFIRMARY.—House-Surgeon. Salary, £100 per annum.

DEVON COUNTY ASYLUM, Exminster.—Fourth Assistant Medical Officer (male). Salary, £130 per annum, rising to £140, and honorarium of £50 for pathological work.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £75 per annum.

DORSET COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £200 per annum, rising to £250.

DUBLIN: COMMISSIONERS OF IRISH LIGHTS.—Medical Officer in Kingstown District.

DUDLEY: GUEST HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £100 per annum.

DURHAM COUNTY HOSPITAL.—House-Surgeon. Salary, £120 per annum.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Third Assistant Medical Officer (Male). Salary, £200 per annum, rising to £225.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Senior and Junior Residents (females). Honorarium, £25 and £18 per annum respectively.

EDINBURGH SCHOOL BOARD.—Assistant Medical Officer. Salary, £300 per annum.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

GREAT YARMOUTH HOSPITAL.—House-Surgeon (male). Salary, £100 per annum.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon. Salary, £80 per annum.

HASTINGS: EAST SUSSEX HOSPITAL.—Senior and Assistant House-Surgeons. Salary at the rate of £100 and £70 per annum respectively.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

HOLBORN UNION INFIRMARY.—Second Assistant Medical Officer. Salary, £100 per annum.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—House-Physicians. Honorarium, 30 guineas for six months.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Maida Vale, W.—Resident Medical Officer. Salary at the rate of £50 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—Assistant Casualty Medical Officer. Salary, £30 for six months, and £2 10s. washing allowance.

HUDDERSFIELD ROYAL INFIRMARY.—Male Junior Assistant House-Surgeon. Salary, £60 per annum.

LEAMINGTON SPA: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE HOSPITAL.—House-Physician. Salary, £85 per annum.

LEEDS GENERAL INFIRMARY.—(1) Resident Obstetric Officer; salary at the rate of £50 per annum. (2) Two House-Surgeons.

LEICESTER ROYAL INFIRMARY.—(1) Honorary Surgeon. If a member of present assistant staff is appointed there will be a vacancy for an Assistant Honorary Surgeon. (2) Assistant House-Surgeon; (3) Assistant House-Physician. Salary, £80 per annum for (2) and (3).

LEYTON, WALTHAMSTOW, AND WANSTEAD CHILDREN'S AND GENERAL HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

MANCHESTER CORPORATION.—Third Medical Assistant at the Monsall Fever Hospital. Salary £100 per annum.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—Senior and Junior House-Surgeons. Salary, £120 and £100 respectively.

MANCHESTER ROYAL INFIRMARY.—Assistant Surgical Officer in the Aural Department. Salary, £35 per annum.

MANCHESTER TOWNSHIP.—Junior Resident Assistant Medical Officer for the Workhouse at Crumpsall. Salary, £110 per annum.

METROPOLITAN HOSPITAL, Kingsland Road, N.E.—(1) Physician; (2) Assistant Physician; (3) Pathologist and Registrar; (4) House-Physician; (5) House-Surgeon; (6) Assistant House-Physician; (7) Assistant House-Surgeon. Salary for (3), £120 per annum and £10 on completion of annual report; for (4) and (5), £60 per annum; and (6) and (7), £40 per annum.

NATIONAL SANATORIUM, Benenden, Kent.—Medical Superintendent. Salary, £300 per annum.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistants. Salary, £160 per annum, rising to £180.

NEWCASTLE-ON-TYNE: HOSPITAL FOR SICK CHILDREN.—Junior House-Surgeon. Salary, £80 per annum.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Resident Medical Officer. Salary at the rate of £80 per annum for first four months, rising to £120.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—(1) Casualty Officer and House-Surgeon for Septic Wards. (2) House-Surgeon. Salary at the rate of £60 and £80 per annum respectively.

NOTTINGHAM GENERAL DISPENSARY.—(1) Assistant Resident Surgeon (male); salary, £170 per annum. (2) Resident and Assistant Resident Surgeons for Branch; salary, £180 and £170 per annum respectively.

NOTTINGHAM: THE COPPICE.—Resident Medical Superintendent. Salary, £750 per annum.

OLDHAM COUNTY BOROUGH.—Assistant Schools Medical Officer. Salary commencing £260.

OXFORD: WARNEFORD MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

PORTSMOUTH PARISH.—Second Assistant Resident Medical Officer (male) for the Workhouse Infirmary, Workhouse, and Children's Home. Salary, £120 per annum, rising to £130.

PRESTON: COUNTY ASYLUM, Whittingham.—Assistant Medical Officer. Salary, £150 per annum, increasing to £250.

PRESTON ROYAL INFIRMARY.—Senior House-Surgeon (male). Salary at the rate of £80 per annum.

READING: ROYAL BERKSHIRE HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

RICHMOND: ROYAL HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum.

ROCHDALE INFIRMARY.—Two House-Surgeons (unmarried). Salary, £80 and £100 per annum respectively.

ROTHERHAM HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—(1) Examiners in Anatomy and Physiology for the Fellowship. (2) Examiners under the Conjoint Examining Board in England.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Third House-Surgeon. Salary at the rate of £50 per annum.

SALFORD EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary, £250 to £300 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—(1) Senior House-Surgeon; (2) Junior House-Surgeon (males). Salary at the rate of £100 and £80 per annum respectively.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Senior and Assistant House-Surgeons. Salary, £60 and £80 per annum respectively.

SHEFFIELD ROYAL HOSPITAL. — Assistant House-Physician. Salary, £60 per annum.

SHEFFIELD: ROYAL INFIRMARY.—(1) Two House-Surgeons; (2) Junior House-Surgeon; (3) Assistant House-Physician. Salary for (1) £80 per annum, and for (2) and (3) £70 per annum.

WEST BROMWICH AND DISTRICT HOSPITAL.—Assistant Resident House-Surgeon and Anaesthetist. Salary, £75 per annum.

WEST HARTLEPOOL: CAMERON HOSPITAL.—House-Surgeon. Salary, £120 per annum.

WORCESTERSHIRE ASYLUM, Bromsgrove.—Second Assistant Medical Officer (male). Salary, £150 per annum.

WILLESDEN URBAN DISTRICT EDUCATION COMMITTEE.—Medical Man familiar with *X*-ray Treatment of Ringworm. Honorarium, £100 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Surgeon (male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer.—Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Clwtybont (Carnarvon), Lochee (Forfar), Sileby (Leicester).

MEDICAL REFEREE.—Medical Referee under the Workmen's Compensation Act, 1906, for the Counties of Elgin and Nairn.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

APPOINTMENTS.

BUCKLEY, W. H., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Poulton-le-Fylde District, co. Lancaster.

CAMERON, J., L.R.C.P. and S.Edin., Certifying Factory Surgeon for the Loanhead District, co. Edinburgh.

CORFIELD, H. O., M.D.Edin., Medical Officer of the Workhouse of the Long Ashton Union.

EVANS, George, M.B.Lond., Senior Assistant Medical Officer at the New Essex and Colchester Asylum, Severalls.

JOLL, C. A., F.R.C.S., Senior Resident Medical Officer to the Royal Free Hospital, Gray's Inn Road, W.C. (reappointment).

WESTMACOTT, Frederic Hibbert, F.R.C.S.Eng., L.R.C.P.Lond., B.Sc.Vict., Honorary Assistant Aural Surgeon to the Manchester Royal Infirmary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

BROTHERSTON.—At 11, Merchiston Bank Gardens, Edinburgh, on March 29th, the wife of William Brotherston, W.S. (Margaret Merry Smith, M.B., Ch.B., D.P.H.), of a son.

CLEMENTS.—On April 4th, at Middleton-on-the-Wolds, East Yorkshire, the wife of Dr. Ernest Clements, of a son.

HIGHET.—At Bangkok, Siam, on April 3rd, the wife of H. Campbell Highet, M.D., D.P.H., Principal Medical Officer, Local Government, of a son.

MACKENZIE.—On April 5th, at 9, Rose Hill, Dorking, the wife of S. Morton Mackenzie, M.B., of a son.

ROGERS.—On April 8th, at 188, Holton Road, Barry, to the wife of William Rogers, M.D., a daughter.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8 p.m.—Demonstration of Cases and Specimens.

ROYAL COLLEGE OF SURGEONS, Lincoln's Inn Fields, W.C., 5 p.m.—Museum Demonstration:—Mr. Shattock: Specimens Illustrating Hypertrophy.

ROYAL SOCIETY OF MEDICINE, 1, Wimpole Street, W., 5 p.m.—Special Meeting of Fellows of the Society. Discussion on Alimentary Toxaemia, Its Sources, Consequences, and Treatment, to be reopened by Mr. J. B. Lawford.

TUESDAY.

CHELSEA CLINICAL SOCIETY, Medical School, St. George's Hospital, 8.30 p.m.—Papers:—Dr. V. B. Orr: The Work of a Tuberculin Dispensary. Dr. Halls Daily: The Use of Tuberculin in Diagnosis and Treatment.

LONDON DERMATOLOGICAL SOCIETY, 49, Leicester Square, W.C.—4.30 p.m., Cases and Specimens. 5.15 p.m.: Discussion on Electrical Procedures in Diseases of the Skin and Mucous Membranes, to be opened by Dr. W. Knowsley Sibley.

ROYAL SOCIETY OF MEDICINE:

SECTION OF THERAPEUTICS AND PHARMACOLOGY.—4.30 p.m., Discussion on the Use of Salvarsan and Neosalvarsan in Diseases other than Syphilis, to be opened by Dr. Byrom Bramwell. 5 p.m., General Meeting of Fellows: Election of Candidates for Fellowship.

THURSDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF BALNEOLOGY AND CLIMATOLOGY, 5.30 p.m.—Papers:—Dr. Edgecombe: The Significance, Treatment, and Prognosis of High Blood Pressure. Dr. A. Mantle: The Undesirability in Confirmed Cases of High Blood Pressure of Actively Applying Therapeutic Means to Reduce it.

SECTION OF DERMATOLOGY.—5 p.m., Demonstration of Cases and Specimens. 8.30 p.m., Special Evening Meeting. Subject: Malignant and Doubtfully Malignant Tumours of the Skin, with Drawings, Lantern Slides, and Microscopical Sections.

SECTION OF NEUROLOGY, 8.30 p.m.—Demonstration of Cases and Specimens.

FRIDAY.

ROYAL COLLEGE OF SURGEONS, Lincoln's Inn Fields, W.C., 5 p.m.—Museum Demonstration:—Professor Keith: Specimens Illustrating Congenital and Acquired Deformities of the Foot.

ROYAL SOCIETY OF MEDICINE:

SECTION OF ELECTRO-THERAPEUTICS, 8.30 p.m.—Papers:—Dr. A. C. Jordan: *X* Rays in the Diagnosis of Gastric Ulcer. Dr. A. E. Barclay: The Etiology of Gastric Ulcer.

SECTION OF OTOLOGY, 5 p.m.—Discussion on Functional and Simulated Affection of the Auditory Apparatus, to be opened by Mr. T. Mark Hovell.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Thursday. Radiography: Saturday. Special lectures each week.

MANCHESTER ANCOATS HOSPITAL POST-GRADUATE CLINIC, Thursday, 4.15 p.m.—The Application and Interpretation of the Wassermann Reaction.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—Clinical Demonstration as follows have been arranged for next week at 4 p.m. each day: Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Eye. Special lectures at 5.15 p.m.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Monday and Friday, 4.30 p.m.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, 2 p.m.; *X* Rays and Operations daily. Gynaecology: Monday, Tuesday, Wednesday, and Friday. Eye: Monday, Wednesday, Thursday, and Saturday. Throat, Nose, and Ear: Tuesday, Wednesday, Friday, and Saturday. Skin: Tuesday and Friday. Pediatrics: Saturday.

[For further particulars of Lectures consult Index to Advertisements.]

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		APRIL.
11	Fri.	City Division, Brooke House, Upper Clapton, 9.30 p.m. Hampstead Division, Central Library, Finchley Road, 8.15 p.m. South-West Essex Division, Brooke House, Upper Clapton, 9.30 p.m.
15	Tues.	Mid-Staffordshire Division, Stafford, 3.15 p.m. North Wales Branch, Rhyl, 2.15 p.m.; Luncheon, 1.15 p.m.; Branch Council, 2 p.m.
16	Wed.	London: Finance Committee, 3 p.m. East Hertfordshire Division, Hertford, 3 p.m.
23	Wed.	London: Council Meeting, 2 p.m.
23	Wed.	Richmond Division, Richmond, 8.30 p.m.
24	Thur.	South-West Essex Division, Walthamstow Hospital, 4 p.m.
25	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
30	Wed.	East Anglian Branch, Colchester.
		MAY.
9	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
20	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 19TH, 1913.

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SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

ANNUAL REPRESENTATIVE MEETING AT BRIGHTON.

JULY 18TH, 1913, AND FOLLOWING DAYS.

NOTICES OF MOTION.

THE following Notices of Motion have been received for consideration by the Annual Representative Meeting of the Association, to be held at Brighton, July 18th, 1913, and following days:

A.—AFFECTING ARTICLES OF ASSOCIATION.

Eligibility for Membership.

BY NATAL BRANCH:

(1) That the Council of the Association be instructed to take the necessary steps to have Section 4 of the Articles of Association of the British Medical Association deleted, and the following substituted:

"Any Medical Practitioner registered in any portion of the British Empire shall, subject to the By-laws, be eligible for admission as an ordinary Member of the Association."

(2) That By-law 17 (2) (v) be deleted, and that any other By-law in conflict with the foregoing new Section of the Articles be deleted or so altered as to be in conformity therewith.

(3) That in applications for membership a declaration should be made that the applicant is registered in a certain portion of the Empire.

Postal Vote in Questions of Urgency.

BY LEIGH:

That power be obtained to provide for a postal vote in questions of urgency.

B.—AFFECTING BY-LAWS OF ASSOCIATION.

Election of Members.

BY BUCKINGHAMSHIRE:

That the election of members be by the Divisions and not, as heretofore, by the Branch Council.

Subscription.

BY SOUTH-EASTERN BRANCH:

That the time has arrived when the Representative Body should seriously consider the advisability of raising the annual subscription.

Amount of Notice required for Special Representative Meetings.

BY MAIDSTONE:

That the following words be added at the end of Paragraph (2) of By-law 36:

In case of urgency the period of notice may be shortened at the discretion of the Council.

Mode of Election of Council.

BY BUCKINGHAMSHIRE:

That the mode of election of the Council be altered so that more notice is given of any vacancy and an opportunity given of publishing the addresses of candidates in the JOURNAL.

Mode of Election of Members of Council by Groups in United Kingdom.

By West Suffolk:

That By-law 45 be altered to read as follows:

45. (1) The election of twenty-four members of Council by the Branches or groups of Branches and Divisions in the United Kingdom shall be carried out as follows:

(2) Candidates shall be nominated either (*a*) by a Division or (*b*) in writing signed by not less than three members of any such Branch.

(3) Such nominations shall be sent to the Association at the Head Office on or before an appointed day, of which not less than fourteen days' notice has been given in the Journal, and to the Secretary of each Division of the Branches concerned.

(4) Voting papers, containing the names of those candidates who have been nominated, together with the names of the Division or members by whom they were nominated, and such other particulars as the Council may from time to time prescribe, shall be sent by post by the Association from the Head Office to each member of every Branch comprised in the Group.

(5) The said voting papers shall be returned to the Association at the Head Office within such time as the Council may from time to time prescribe by notice given as aforesaid.

(6) The expenses of the said election shall be borne by the Association.

Mode of Election of Members of Council by Groups not in United Kingdom.

By Bombay Branch:

That no alterations be effected in By-law No. 46 (1), (2), (3), (4), and (5), as the present arrangements have worked very satisfactorily.

Reform of the Present Constitution of the Association.

By Metropolitan Counties Branch:

That the following Report of the Committee of the Metropolitan Counties Branch appointed to consider the reform of the present constitution of the Association be received and considered:

REPORT OF THE COMMITTEE OF THE METROPOLITAN COUNTIES BRANCH APPOINTED TO CONSIDER THE REFORM OF THE PRESENT CONSTITUTION OF THE ASSOCIATION.

Divisions.

(i) The Divisions would consider all matters of local interest and all matters referred to them by the Representative Body and Council. In matters of purely local interest the Divisions should report their decisions to the Branch Council and the Branch Council shall have power to forward reports received direct to the Central Authority, otherwise to consider them from the point of view of its Divisions collectively, and then report upon the whole question to the Central Authority.

(ii) The powers of a Division in ethical matters brought before its notice be limited to the making of necessary preliminary inquiries, and to forwarding complaints to the Branch Council.

(iii) Arrangements to be made for the enlargement of scientific and social meetings, to which non-members resident in the Division would be as far as possible invited.

(iv) The system of wards to be encouraged in each Division.

(v) *Election to Branch Council.*—That each Division be allowed to have one Representative up to 200 members, and an extra Representative for every 200 members in addition or to the nearest 100 over 150 members.

(vi) *Election to Representative Body.*—The Representative Body to be elected directly by the Divisions or group of Divisions in the proportion of one Representative for every complete 200 members.

Branch Councils.

(i) To deal, as at present, with finance and boundaries of Divisions.

(ii) To deal with all questions that concern their areas, and to co-ordinate their constituent Divisions, reporting upon the questions involved to the Representative Body or Council, when it is necessary or desirable or when so directed by either of these bodies.

(iii) To deal with ethical matters arising in the Divisions; the power to go direct to the Central Ethical Committee, and the right of appeal, being preserved as at present.

(iv) *Composition of Branch Council.*—(*a*) To be composed of one Representative up to 200 members from each Division, and an extra representative for every 200 members in addition or to the nearest 100 over 150 members.

That the President, President-elect, Treasurer, and two Honorary Secretaries of the Branch be *ex officio* members of this Council.

The Representative Body.

(i) *Composition.*—To be composed of Representatives elected directly by the Divisions by postal vote or otherwise, as determined by the Divisions.

(ii) *Duties.*—(*a*) To meet at least once in every year, but the existing machinery to be altered to enable meetings to be called at shorter notice than is at present possible.

(*b*) To be an assembly with full deliberative powers, and to be responsible for formulating the policy of the Association.

(*c*) To appoint the Council.

(*d*) To be empowered to delegate specific powers to the Council to take action upon its behalf until the next meeting of the Representative Body.

(Note.—The calling together of the Representative Body in a crisis may be very disadvantageous to the Association owing to the impossibility of keeping the transactions in any way private, thus involving the disclosure of the opinions and future plans of the Association to those to whom for the time being it finds itself in opposition.)

The Council.

Election.—The Council shall be composed of the President of the Association, the President-elect, the Past-President, the Chairman of Representative Meetings, the Chairman of Council, the Past Chairman of Council, and Treasurer *ex officio*.

(i) To be elected by the Representative Body, and at least five-sixths to be members of the Representative Body. Special provision to be made for Colonial Representatives.

(ii) *Duties.*—(*a*) To carry out the duties assigned to it by the Representative Body.

(*b*) To appoint standing Committees as at present, such to be reduced in size as far as is compatible with efficiency, and to be composed in the proportion of two members of the Council to three or four members elected by the Representative Body.

(Note.—This course would tend to shift some of the burden of work from members of the Council.)

(*c*) *The Scottish and Irish Committees.*—More use to be made of these Committees, which should, in fact, co-ordinate their respective Branches.

The Scottish and Irish Committees shall have power to co-opt members for local purposes.

(Note.—Many questions could thus be speedily dealt with on the spot by those competent to do so, and loss of time and the expense of journeys to London avoided.)

(iii) *The Institution of New Committees.*—(*a*) To appoint a Parliamentary Committee, with power to co-opt additional members, to maintain and increase the influence of the Association in the Houses of Parliament, to keep in touch with all legislation, existing or proposed, that affects the medical profession, and to perform all such duties as at present are entrusted to the Parliamentary Subcommittee of the Medico-Political Committee.

(*b*) To appoint a new Committee to organize and control systematic endeavour to awaken and keep awake interest in the Association, and to devise means to make it more attractive.

(Note.—Such a Committee should always have ready to date lists of speakers on various subjects, whether medico-political or scientific, who would be willing and able to address meetings in all parts of the country, and it would be part of the duties of this Committee to arrange for interesting and attractive meetings to which non-members would be largely invited. Under the auspices of this Committee a new and valuable special department might be established to deal with all such questions of development, and, in addition, to undertake on behalf of members of the

Association only, the transference of practices, the supply of "locumtenents" and all business of that kind. If this were done at a charge for out-of-pocket expenses only, as might have to be the case, it would be a great boon to many members, and might attract others to join an Association which would be of practical use to them.)

(*c*) To appoint for the purposes of each lawsuit in which the Association may be engaged, a special small Committee to represent the Association in the matter of conferring with and instructing the Solicitor with regard to the preparation and presentation of the case.

Points to be Considered with Regard to General Reorganization.

(*a*) The Committee draws attention to the supreme necessity of economy before any question of raising the subscription is entertained.

(*b*) To consider the appointment of a chief to the Central Office, to supervise and co-ordinate the work, and to ensure that the services of each department shall be readily available for the other departments, and to place the whole office upon a business basis.

(NOTE.—The Committee recognizes the difficulties of such a step at the present time, and offers the suggestion that such difficulties might be overcome, for the time being, by the establishment of a small House Committee to supervise generally.)

(*c*) The establishment of definite departments and the more definite allocation of duties in the Medical Department, thus abolishing the present system under which all business goes through the hands of one official, and which cramps the development of the department, and throws more work upon the shoulders of one man than is wise or desirable.

The Branch Council is of opinion that it is undesirable to alter the Articles of Association, and the above plan has been proposed in accordance with this view.

C.—AFFECTING ADMINISTRATION OF ASSOCIATION.

Question of Reorganization of Branch and Divisional Areas in United Kingdom.

By SOUTH-EASTERN BRANCH:

That the Association be reorganized into Branches coinciding with the areas of administrative Counties.

By SOUTH-EASTERN BRANCH:

That the present Divisions shall as far as possible be preserved, subject to such alterations in boundaries as will make each Division be contained in a single Branch, and such other alteration as may be required by consideration of administration.

By NEWCASTLE-ON-TYNE:

That the Council be instructed to take such steps as are requisite to make the Divisions of the Association where necessary coterminous with the insurance areas under the National Insurance Act.

By CHESTERFIELD:

That the areas of the respective Divisions of the Association be made co-ordinate or to correspond with the areas of the respective Insurance Committees under the National Health Insurance Act, 1911, and for convenience in carrying on the work of the Divisions and to secure a better attendance at Divisional and Sub-Divisional Meetings that such subdivisions of the respective Divisions as shall prove to be necessary be formed.

Grouping of Branches Outside United Kingdom for Election of Council.

By BOMBAY BRANCH:

That the Colombo, Ceylon, Branch be grouped with the Far Eastern Branches, leaving Indian Branches grouped into one.

Question of Payment for Assistance in Organization and Clerical Work of Divisions.

By CHESTERFIELD:

That Divisions be authorized to engage and pay for assistance in organization and clerical work, and that such payments be made out of the funds of the Association.

D.—AFFECTING POLICY OF ASSOCIATION.

Question of Advisability of Formation of a Trade Union of Medical Practitioners.

By LEICESTER AND RUTLAND:

That it be an instruction to the Council to consider the advisability of forming a union of medical practitioners, registered under the Trade Union Acts, for such of the members of the Association and other medical practitioners as may desire to join such a union.

NATIONAL INSURANCE ACT.

Proposed General Purposes Fund.

By EAST CORNWALL:

1. That the Association take steps to form a fund for general purposes (for example, protective and fighting), on the basis of a scheme suggested in a letter from Dr. Donald F. Shearer (SUPPLEMENT, March 22nd, 1913, page 267).
2. That, in view of the fact that the efforts of the Association were successful in raising the amount set aside by the Commissioners for medical benefit from 6s. to 8s. 6d., each practitioner on the insurance panel should contribute a certain sum per head of insured persons on his list per annum to form and maintain such a fund.
3. That also, if such a fund be inaugurated, those practitioners who have guaranteed to the Central Insurance Defence Fund be exempted from their guarantees.

Amendment of Act.

By LEIGH:

That steps be taken in any amending Act which is brought before Parliament to secure that trade accidents, industrial diseases, misconduct, and miscarriage be deleted from medical benefit under the Insurance Act.

Certificates for Purpose of Sickness Benefit.

By LEIGH:

That no condition be inserted on any certificate issued for the purpose of sickness benefit under the Insurance Act.

By direction of the Chairman of Representative Meetings,

ALFRED COX,
Medical Secretary.

April 16th, 1913.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

NORTH OF ENGLAND BRANCH:

NEWCASTLE-ON-TYNE DIVISION.

AT a meeting of the Division, held on March 7th, Dr. J. Leslie Wilson (Newcastle-on-Tyne) was appointed Assistant Honorary Secretary.

Treatment of School Children.—At a meeting of the Division, held on March 27th, Drs. Dagger, Hawthorn, Watson, Farquharson, Andrew Smith, and R. J. Willan were appointed the accredited representatives of the profession to inspect the treatment centres for the treatment of school children at the clinics of the Newcastle-upon-Tyne Education Authority at any time to prevent abuses.

Contracting Out under the Insurance Act.—There was a long discussion with regard to contracting out under the Insurance Act. Dr. RUTTER stated that he intended to bring up the matter of panel doctors not being allowed to contract out at an early date before the Local Insurance Committee. Dr. HUDSON urged that the best means of attaining the desired end was by way of an income limit, as the income limit was at the discretion of the Insurance Committee, whereas contracting out was in the hands of

the Commissioners. The following resolutions were carried:

That the Division urges the Council of the British Medical Association to use every effort to induce the Commissioners to freely allow contracting out and making own arrangements to all insured persons under the National Insurance Act, and with doctors whether they are upon the panel or not.

The Newcastle-on-Tyne Division of the British Medical Association regrets that the harmonious and efficient working of the Insurance Act is being jeopardized by the harsh and, in our opinion, unjust interpretation put on Clause 15, Paragraph 3, of the Insurance Act by the Insurance Commissioners, and asks the Insurance Committee to use their influence with the Commissioners to have this difficulty removed.

At a meeting of this Division, held on April 7th, the following resolutions were carried:

That with reference to those members of friendly societies who do not come under the National Insurance Act, that where the total income is under the sum of £2 per week, the sum of 9s. per head, including medicine, be charged, but where the total income is over £2 per week, that attendance be charged for work done.

That where payment is to be by attendance, the sum of 2s. 6d. per attendance is to be charged, including medicine.

With reference to a medical examination of a person entering a friendly society, that the profession charge a fee of 2s. 6d. for such examination.

That the minimum midwifery fee, where the parent is in receipt of maternity benefit, to be charged by medical men in the Newcastle-upon-Tyne insurance area, be £1 1s., excepting in the case of colliery doctors, where the county resolutions regarding colliery practice are to be followed.

MIDLAND BRANCH:

Leicester and Rutland Division.

A meeting of the Division was held at the Royal Infirmary, Leicester, on April 9th, when Dr. Gibbons was in the chair, and forty-one members were present.

Election of Representatives.—Drs. Wallace Henry and R. R. Young were elected Representatives of the Division to the Representative Meeting, and Dr. T. Arnold Johnston as Deputy Representative.

A Medical Trade Union.—Dr. Henry proposed, and Dr. Holyoak seconded the following resolution:

That it be an instruction to the Council to take the necessary steps to form a union of medical practitioners registered under the Trade Union Acts, for such of the members of the Association and other medical practitioners as may desire to join such a union.

Whereupon Dr. Burkitt proposed, and Dr. Pike seconded, the following amendment:

In place of "take the necessary steps to form" insert "consider the advisability of forming."

With the consent of his seconder the mover of the resolution accepted the amendment, explaining that it was only desired to again bring the matter up for discussion at the Representative Meeting. The resolution as amended was carried—in favour 41, against 0, neutral 1.

Voluntary Inspection of Infants.—A discussion then took place upon a proposed "baby's welcome." Dr. Spriggs having explained the proposed arrangements, Drs. Henry, Burkitt, Stracey, Holyoak, Pike, C. H. Clarke, and Davies spoke, and in order to test the feeling of the meeting Dr. Spriggs proposed, and Dr. Foster seconded the following resolution:

That this meeting sees no objection to voluntary medical inspection of babies at the schools for mothers under the Leicester Health Society.

Dr. A. V. Clarke and Dr. Davies having spoken, the resolution was lost, 4 voting in favour thereof, and 38 against.

Discussion on Malingering.—Mr. C. J. Bond opened a discussion on malingering. His observations are published at page 810. Drs. A. V. Clarke, C. W. Moore, R. R. Young, Horron Davies, Burkitt, Pike, and the Secretary took part in the discussion. Nearly all the speakers laid stress on the importance of the appointment of medical referees, in view of the probable increase of malingering under the National Insurance Act, not merely to act as a deterrent, but to prevent friction between patients and doctors. The Secretary intimated that the Local Medical Committee had laid the matter before the Local Insurance Committee, which had viewed the proposal favourably, but had deferred a decision for further inquiry as to ways and means.

SOUTH MIDLAND BRANCH:

Bedford Division.

A meeting of the Bedford Division was held at the Bedford County Hospital on March 13th. Dr. Holmes was in the chair, and nineteen others were present.

Mileage.—Dr. Ross opened a discussion on allowance for mileage. He pointed out that mileage was a first charge on the capitation fund, that many present undertook town as well as country work, and if these obtained a mileage allowance it would mean that they would get more for country work and less for town work, that the allowance would be calculated on the basis of the number of patients on the practitioner's list who resided beyond a certain radius, and of the distance of each patient from the residence of the nearest available doctor. Dr. Ross expressed the opinion that this would greatly complicate the working of the Act and create ill feeling between the county and town practitioners. After a discussion, in which Drs. Kilham Roberts, Nash, Bone, Butters, Holmes, Parbury, Sanders, Rollings, Milburn, and Clark took part, it was decided *nemine contradicente* that no extra allowance be made out of the capitation grant for mileage payment.

Certificates.—Dr. Ross proposed, and Dr. Bone seconded, the following resolution, which was carried *nemine contradicente*:

That certificates other than those required for the approved society through which the patient draws his sick benefit shall be paid for at the rate of 1s. per certificate.

The Panel.—Dr. Ross brought forward the question of the action of the Insurance Committee in fixing so early a date for doctors to decide whether it was their intention to remain on the panel. Dr. Bone thought there was no hurry, and pointed out that the Insurance Committee had never met to consider the wishes of the medical men upon matters affecting their interests.

Local Medical Committee.—Dr. Bone brought up the method of financing the Bedfordshire Local Medical Committee which he had suggested, and to which the majority of the members of the Division had agreed. This was a levy of ½ per cent. of the panel receipts upon each member of the Division. Two members who had not signed the undertaking promised to do so.

The Working of the Act.—Various questions concerning doubtful points in the working of the Act were raised and discussed, notably the case of male nurses earning £3 3s. a week; the attendance on patients over 65; the treatment of domestic servants taken ill in one place and claiming attendance in another during convalescence.

STAFFORDSHIRE BRANCH:

South Staffordshire Division.

Contract Practice among Non-insured Persons.

The Executive Committee of the Division met on March 26th to consider the reference contained in the minutes of the last general meeting on February 18th, namely:

That all arrangements for contract practice among non-insured persons be referred to the Executive Committee of the Division.

The Honorary Secretary reported that he had sent out circulars to the members of the Division setting forth the resolutions passed at the last meeting, and read several letters from practitioners commenting thereon.

The Executive Committee, after a long discussion, came to the conclusion that the extension of contract practice among the dependants of the insured, the non-insured, and juveniles was not desirable. The committee therefore recommended as follows:

(*a*) That such contract practice be undertaken only where it is desired by any organization already in existence and is accepted by the Executive Committee of the Division, and it must include free choice of doctor by the individual, and be subject to an income limit of £160 per annum.

(*b*) That no new organization be started by any practitioner without the consent of the Division.

(*c*) That owing to diversity of opinion on the subject of the fees laid down by the last meeting of the Division, the former resolution be rescinded and the following substituted, since by this means only can unanimity be obtained:

That non-insured members of friendly societies and other clubs who were members before July 15th, 1912, and whose incomes are under £160 per annum, be charged at the capitation rate of 8s. 6d. per annum, or if they elect to pay by fees (having pooled their capitation) on a scale equivalent to 8s. 6d. per annum; that all dependants, whether adult or juveniles, be charged 6s. 6d. per annum.

(*d*) The Executive Committee, having fully considered all the circumstances, and feeling that the terms could easily be made

known to secretaries of existing organizations by the practitioners who formerly held appointments under them, recommend—

That any advertising of these terms by practitioners, either individually or collectively by circular, shall be deemed an attempt to extend contract practice contrary to the desire of the Division, and will be considered a breach of the ethical rules.

It was decided that from 1913 there should be free choice of doctor by non-insured as well as by insured persons, subject to the doctor's consent.

The Secretary was instructed to communicate these resolutions to the secretaries of neighbouring Divisions, in order that practitioners resident therein should not infringe the terms when practising in the area of the Division, and also to all medical practitioners in the area of the South Staffordshire Division.

Association Notices.

QUARTERLY MEETING OF COUNCIL.

THE Quarterly Meeting of the Council will be held at Eleven o'clock in the forenoon of Wednesday, April 23rd, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,
Financial Secretary and Business Manager.

March 13th, 1913.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list. The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

BRANCH AND DIVISION MEETINGS TO BE HELD.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at Colchester on Wednesday, April 30th. Members wishing to read papers or to show cases or specimens should communicate at once with me.—B. H. NICHOLSON, Colchester.

DORSET AND WEST HANTS BRANCH.—The annual meeting will be held at Bournemouth on May 21st. Notices of motion should be sent to the Honorary Secretary by May 7th. The President-elect has very kindly invited members to luncheon at his house.—FRANK FOWLER, Honorary Secretary, 29, Poole Road, Bournemouth.

METROPOLITAN COUNTIES BRANCH: CAMBERWELL DIVISION.—Dr. J. H. Clatworthy, Honorary Secretary, 145, Denmark Hill, S.E., gives notice that the annual general meeting will take place at the Camberwell Infirmary, Brunswick Square, S.E., on Thursday, May 1st, at 4 p.m., when the executive officers for the session 1913-14 will be elected. The executive have nominated officers, but further nominations will be received by the Honorary Secretary before or at the meeting. The Honorary Secretary will make his annual report, and the meeting will consider the motions for the Annual Representative Meeting at Brighton and instruct the Representatives. Dr. W. J. C. Keats, Medical Superintendent of the Camberwell Infirmary, will demonstrate cases in the wards.

METROPOLITAN COUNTIES BRANCH: SOUTH-WEST ESSEX DIVISION.—At a meeting of this Division to be held at the Walthamstow Hospital on Thursday, April 24th, at 4 p.m., a paper on Enlarged Tonsils, Reasons for their Removal, and Methods of Operation, will be read by Mr. Frank Rose, M.A., F.R.C.S.—A. POTTINGER ELDRED, Honorary Secretary.

MIDLAND BRANCH: LINCOLN DIVISION.—The annual meeting of the Division will be held in Lincoln on May 1st.—J. S. CHATER, Honorary Secretary, 169, Monk's Road, Lincoln.

NORTH OF ENGLAND BRANCH: NEWCASTLE-UPON-TYNE DIVISION.—Mr. R. J. Willan, F.R.C.S., Honorary Secretary, 25, Ellison Place, Newcastle-upon-Tyne, gives notice that the annual meeting will be held at the Royal Victoria Infirmary, Newcastle-upon-Tyne, on Wednesday, May 7th, at 8.30 p.m. The business of the meeting will be to elect a Chairman, Vice-Chairman, Honorary Secretary, two Representatives and two Deputy Representatives at Representative Meetings, eight Representatives on the North of England Branch Council, and twelve ordinary members of the Executive Committee; to receive the annual report; to consider the business of the Annual Representative Meeting; to elect Representatives entitled to inspect the Newcastle Education Treatment Centres; and to propose a new rule making the Honorary Secretaryship of the winter scientific meetings of the Division a separate appointment, and to provide that the incumbent shall be an *ex officio* member of the Executive Committee of the Division.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting of the South-Eastern of Ireland Branch will be held in Kilkenny Victoria Hotel on Wednesday, May 7th, at 5.15 p.m., for the installation of President-elect, the election of officers of the Branch for the ensuing year, and any other business.—P. GRACE, Honorary Secretary.

STAFFORDSHIRE BRANCH.—The third general meeting of the session will be held at the Victoria Hotel, Wolverhampton, on Thursday, April 24th. The President, E. C. Stack, Esq., F.R.C.S.I., will take the chair at 5.35 p.m. Living cases will be shown and pathological specimens exhibited, and the following papers will be read:—(1) W. Spencer Badger: The Nutrition of Elementary School Children. (2) Frederick Edge: Thrombosis and Embolism after Pelvic Operations. (3) Edward Deanesly: Intestinal Obstruction. Dinner 7 p.m.; charge 5s.—HAROLD HARTLEY, Honorary General Secretary, Basford, Stoke-on-Trent.

ANNUAL MEETING AT BRIGHTON, 1913.

THE PATHOLOGICAL MUSEUM.

THE following is a list of the Pathological Museum Committee:

Chairman.—Dr. Hobhouse (Hove).
Honorary Secretaries.—Dr. Broadbent and Dr. H. M. Galt (Hove).

Brighton.

Dr. C. F. Bailey
Mr. D. E. N. Caush, L.D.S.
Dr. W. A. Griggs
Dr. E. R. Hunt
Dr. H. Langton
Dr. G. Morgan
Dr. G. W. Stone
Mr. Toms (Museum and Fine Arts Gallery)
Dr. A. W. Williams
Dr. T. S. Worboys

Hove.

Dr. W. C. Chaffey
Dr. R. A. Clapham
Dr. A. Griffith
Dr. W. P. Harrison
Mr. R. F. Jowers, F.R.C.S.
Dr. E. J. Spitta

Lewes.

Dr. J. R. Steinhaeuser
Dr. H. Vallance

Ex officio Members.

The President-Elect.—Dr. W. Ainslie Hollis (Hove).
The Local Honorary Treasurer.—Dr. H. H. Taylor (Hove).
The Local Honorary Secretary.—Dr. L. A. Parry (Hove).

The Committee appointed to organize the Pathological Museum in connexion with the Annual Meeting in Brighton, 1913, proposes to arrange the material under the following heads:

(i) Exhibits bearing on discussions and papers in the various Sections.
(ii) Specimens and illustrations relating to any recent research work.
(iii) Instruments relating to clinical diagnosis and pathological investigation.
(iv) Individual specimens of special interest, or a series illustrating some special subject.

It is also proposed to make an effort to gather together a series of exhibits relating to Neurology; illustrations referring to Heredity, Mental and Physical Deterioration; series of *x*-ray and other photographs.

The Committee wishes it to be understood that the above are only suggestions, and if there is any subject of special interest of which specimens can be supplied they will be welcomed.

The Museum will occupy a central position in the same building as that in which the sectional work is carried on, and will be easy of access.

The Committee desires to enlist the hearty co-operation of members, and the Honorary Secretary will be glad to hear from those who are able to make an exhibit. Every care will be taken of specimens, and the contents of the Museum will be insured.

It is hoped that it will be possible for arrangements to be made whereby exhibitors may have an opportunity of demonstrating their specimens.

All communications should be addressed to Dr. H. M. Galt, Honorary Secretary, Pathological Museum Committee, 14, North Street, Brighton.

National Insurance.

NATIONAL INSURANCE ACT, 1911.

PROVISION OF MEDICAL BENEFIT TO TEMPORARY RESIDENTS.

THE following Memorandum, 161 I.C., was issued by the Insurance Commissioners, England, on April 17th, 1913:

1. Numerous representations have been received by the Commissioners to the effect that the system of financial adjustment between Committees involved in the present administrative machinery of medical benefit is inequitable in its application to the case of persons changing their residence for a short period or for a temporary purpose only. To these representations the Commissioners have given very close attention; and, after careful consideration of the general experience of Committees and doctors derived from the actual working of the system during the first quarter, they have decided to introduce a modification of the present method of adjustment which will secure strict equity in the necessary apportionment of funds between Committees, and consequently in the amount of remuneration available for doctors undertaking the medical treatment of such persons.

2. The system at present in operation provides for a transfer of funds from one Committee to another upon notice given by the person removing. The amount transferred is such fraction of 9s. as is proportionate to the period during which the person so removing remains in the area of the new Committee; and as experience has shown that insured persons cannot be induced to give notice unless they are ill or expect to be ill at the time of removal, the result has been that the notice given by such persons alone does not carry with it a transfer of funds adequate to defray the cost of their treatment.

3. In considering this problem the Commissioners have had the advantage of discussing the matter at a specially convened conference of representative medical men from the areas mainly affected, and at a full meeting of the Joint Advisory Committee. In arriving at the method which they now propose to adopt they have profited by the suggestions and representations put forward not only at the conferences referred to above, but also on the occasion of the numerous deputations which they have received both from doctors and from Insurance Committees. The method described below will, it is believed, meet the objections which have been brought against other schemes, and will secure an equitable adjustment of funds with proper regard to the divergent interests of practitioners in different parts of the country. It will at the same time afford adequate facilities for obtaining treatment not only to insured persons in general, but to certain classes of insured persons in particular for whom it has hitherto been difficult to make satisfactory arrangements.

4. As from the 15th instant the treatment of all "temporary residents" by doctors on the panel will be paid for on an attendance basis at the scale of fees on p. 335, or such other scale as may be substituted for it after consultation by the Commissioners with Local Medical Committees. This scale will be a scale of credits, as in the ordinary case of payment per attendance, payable out of a Central Fund to be constituted by the Commissioners by transfers of funds in respect of "temporary residents" actually attended.

5. The Central Fund must contain such a sum as will afford a rate of remuneration, in respect of the fees charged against it, equivalent to the average rate of remuneration received by doctors all over the country in respect of the treatment of other insured persons. To secure this object the sum to be transferred in respect of every "temporary resident" from the funds of the Committee of his previous residence will be a "case-value" ascertained by calculating the average sum paid to doctors and chemists in respect of every person actually treated in that Committee's area.

6. The remuneration for the treatment of any given insured person actually attended is derived not only from the amount available for the treatment of that insured person, but also from the sums payable in respect of other insured persons who have not fallen ill or required treatment. The fewer the insured persons who fall ill, the higher will be the rate of remuneration in respect of those actually treated, and conversely. Thus, while the sum of 9s. a year is available for medical attendance and drugs in respect of every insured person (ill or well) in a given Committee area, the average remuneration in respect of each person actually attended will be 9s. multiplied in the proportion of the number of the total insured population to the number of persons attended during the year; for example, if one-third of the insured population fall ill, the average rate of remuneration in respect of each person attended will be 9s. × 3, or 27s. for both medical attendance and medicines. This figure will, of course, be increased or diminished according as there is less or more sickness during the year in the area in question.

7. The proposal is therefore to look to the cases of "temporary residents" who actually require treatment, and to the circumstances of the Committee areas whence they respectively come, and to transfer from each Committee's funds to the Central Fund in respect of each temporary resident receiving treatment a sum calculated on the principle illustrated above by reference to the actual degree of sickness in the area of his usual residence. *In this way no Committee will suffer a reduction of their funds by way of transfer at a higher rate than the actual rate of remuneration in their area.* In the case of a Committee area labouring under a heavy sickness rate, the rate of transfer will be automatically reduced. *On the other hand, the Central Fund will contain a sum which will be sufficient to afford remuneration to doctors attending temporary residents at a rate equal to the average rate of remuneration prevailing throughout the country.*

8. These arrangements, while complex in exposition, do not present any considerable difficulties from the point of view of actual administration. The procedure on the part of Insurance Committees, doctors, and insured persons will be simple; and the only operations of any complexity will be performed by the staff of the Commission in connexion with the administration of the Central Fund.

9. In the case of occasional removals for a temporary purpose the procedure, as affecting doctors on the panel, will be as follows:

Some evidence will obviously be required of a temporary resident before he can obtain medical benefit outside his own Committee's area to the effect that he is an insured person entitled to medical benefit, and that he is on the Register of the Committee from whose area he comes and whose funds will be subject to deduction in respect of his treatment. For this purpose a green voucher has been prepared, in the form shown on page 335, to be issued to the applicant by the Committee for his usual place of residence. Applications for a voucher will not be normally entertained by Committees unless they are made before the actual removal of the applicant; and the Committee when issuing the voucher will insert the place and period for which it holds good.

10. In no case will the special method of adjustment apply to a period of temporary residence longer than three months. If the insured person remains in the new Committee area beyond that period, he will be placed on the list of the doctor in the ordinary manner, as from the end of the three months' period, at the rate and according to the normal method of remuneration adopted in that area; and as from the end of that period the financial adjustment in respect of the insured person will be carried out according to the normal method as in respect of a permanent or semi-permanent removal.

11. On the insured person presenting himself for treatment the doctor will retain the voucher and enter upon it from time to time particulars of the services rendered by way of account in respect of the fees to be credited to him. Drugs and appliances must be prescribed for temporary residents on prescription forms specially marked or distinguished; and separate accounts will require to be presented by chemists in respect of such prescriptions.

At the conclusion of the treatment the doctor will forward the voucher to his own Committee. The vouchers so collected will be checked by a committee of practitioners on the panel; and at the end of the year the Committee will render returns to the Commissioners to enable the latter to make the requisite credit of funds to the Committee in respect of the treatment of temporary residents.

12. At the end of the year the Commissioners will proceed to make the necessary transfers to constitute the Central Fund out of which the attendance fees are to be paid. For the purpose of ascertaining the number of cases of illness in the area of each Committee they will utilize the lower portions of the record cards which are required to be forwarded to them for statistical purpose; *and it is therefore essential, to avoid delay in the payment of these attendance fees, that the statistical portions of record cards should be forwarded to the Commissioners by the doctor immediately after the end of the year to which they relate.*

13. On the conclusion of the necessary bookkeeping operations the final credit of Medical Benefit funds to any Committee will be reduced to the extent of any transfers, and increased to the extent of fees credited to the Committee. The Commissioners will declare a uniform dividend on the uniform scale of fees adopted, and the Committee will pay their doctors at the rate declared, and their chemists either in full, or, in the event of a deficiency in the Central Drug Fund, at a dividend which will also be declared by the Commissioners.

14. Doctors should inform any of their insured patients who are being sent away for purposes of health as to the necessity of obtaining a voucher before departure from the area.

15. The following scale has been adopted for calculating the remuneration in respect of the medical attendance of temporary residents, subject, as explained above, to any revision which may be decided upon by the Commissioners in consultation with Local Medical Committees, who have been requested to advise in the matter:

		£	s.	d.
a.	Attendance on the patient at the practitioner's residence, surgery, or dispensary	0	2	0
v.	Visit to the patient's residence	0	2	6
s.v.	Special visit, that is, visit paid by the patient's desire on the same day as a call received after 10 a.m. or on Sunday	0	3	6
n.v.	Night visit—that is, visit made between the hours of 8 p.m. and 8 a.m. in response to a call received between those hours	0	5	0
op.	Surgical operation requiring local or general anaesthetic, or case of abortion or miscarriage	1	1	0
an.	Administration of general anaesthetic ...	1	1	0
fr.	Setting of fracture	0	10	6
ds.	Reduction of dislocation	0	10	6

APPENDIX.—FORM OF VOUCHER (reduced in size).

"Green Voucher."

Obverse.

NATIONAL INSURANCE ACT, 1911.

THIS VOUCHER, issued by the ——— Insurance Committee, entitles (*Name*) ——— (*Society and Branch*) ——— *Number* ——— to Medical Benefit at ——— under the arrangements made by the ——— Insurance Committee to the ——— 191.

Signature of Clerk to Insurance Committee issuing Voucher.

When medical treatment is required this Voucher should be presented. The doctor to whom the Voucher is presented should *retain* it, and enter the date and nature of each service rendered in the appropriate columns overleaf.

FORM Med. 28(b).

——— INSURANCE COMMITTEE.

——— *Panel Area.*

Doctor's Signature ———

Date ——— 191

Form Med. 28b.

Reverse.

Signature of Doctor .....

Date.	Service.	Date.	Service.	Date.	Service.	Date.	Service.	Date.	Service.

AGE. SEX. OCCUPATION.

Quarter Ending	Illnesses.	Attendances.
31 March		
30 June		
30 Sept.		
31 Dec.		

LOCAL MEDICAL COMMITTEES.

ESSEX.

THE fifth general meeting was held on April 10th in London, when twenty-five members were present. A plan for rearranging all the Divisions and Branches of the British Medical Association so as to be coterminous with the (lay) District Insurance Committee areas, and the co-ordination of the Divisions of the British Medical Association with all medical unions and other medico-political bodies (see report, SUPPLEMENT, March 22nd), was discussed.

According to a "provisional scheme" issued by the Insurance Committee (Essex) the District Insurance Committees will number twenty-one, the possible number of committeemen in each being twenty-one or more. The scheme provides for only one medical representative on each committee. The Local Medical Committee (Essex)

decided to send copies of the subjoined resolutions to the Commissioners and Insurance Committee:

1. That representation be made to the Commissioners and the Insurance Committee that the medical representation of one medical practitioner per committee is totally inadequate.

It was considered that the Government and Commissioners had definitely agreed to a 10 per cent. representation.

2. That the Insurance Committee be requested to appoint two medical men out of the additional number to be chosen by that body on each District Insurance Committee in accordance with paragraph 2, page 1, of the scheme.
3. That the Insurance Committee be requested from time to time and as early as possible to keep the Local Medical Committee for the County of Essex informed of all matters affecting the interests of the medical practitioners in the county, and, in accordance with the Act and Regulations, consult the Local Medical Committee on all such matters before taking any definite action.

It was felt that the Insurance Committee should have consulted the Local Medical Committee before drawing up and publishing the Provisional Scheme. The Local Medical Committee further instructed the Secretary to ask practitioners in the various prospective District Insurance Committee areas "to take all necessary steps for the election of medical representatives on these District Insurance Committees."

In view of the fact that the Secretary held a letter from Dr. Cox informing him that a scheme, including practically all the points in the Local Medical Committee's plan for rearranging the Divisions and co-ordinating the profession, was being discussed by the State Sickness Insurance Committee, it was agreed that while the plan was advisable, all details should be left till the publication of the British Medical Association's scheme.

As it was felt impossible to carry on the work of the Local Medical Committee at the expense of its members, the following propositions were made with the intention of submitting them to every practitioner in Essex:

That a minimum subscription of £2 be asked for from every qualified medical man in Essex. That a subscription of 4d. per insured person per annum from each practitioner upon the panel be asked for. If the sum from this source prove to be less than the minimum subscription, it should be counted part of that subscription, but if in excess then the £2 should be counted as part of the total subscription from panel sources. The money thus obtained to defray expenses of a permanent secretary (preferably medical), and the third class railway fares of committeemen, hire of rooms, stationery, printing, postage, etc., and all the expenses of the twenty-one committees.

At the time that the direct representatives were being elected, some practitioners in London over the border thought that their districts were not being represented. The Secretary wishes to point out that as early as January 21st the Local Medical Committee had elected upon the most important Medical Service Subcommittee Dr. St. Clair B. Shadwell (Walthamstow), Dr. Ross Steen (Ilford), and Dr. Clarence Wright (Leytonstone), all living in London over the border. The County Council elected Dr. J. P. Atkinson (Saffron Walden) and Dr. Gidley Moore (Ongar). The Commissioners appointed (by recommendation of Local Medical Committee) Dr. Butler Harris (Loughton), Dr. J. F. Walker (Southend), and there is reason to hope that the third practitioner recommended (Dr. King, Ilford) will also be appointed. Dr. Salter (Tolleshunt D'Arcy) and Dr. W. F. A. Clowes (Colchester) are the directly elected representatives.

HERTS.

THE Executive met on April 15th, and had an interview with the County Insurance Committee.

A new chemists' tariff was agreed to, but the "copying fee of 1d." was withdrawn by the Pharmacists' Association since the Medical Committee agreed to still supply the chemist with two prescriptions as hitherto.

A strong protest was made as to the exceedingly short notice to the Medical Committee of the alteration of the tariff, for it was quite impossible at the time of the meeting to consider all the alterations.

The scheme for final payment to practitioners as suggested by the Insurance Commissioners was not accepted by the Medical Committee, for it was felt that certain practitioners would suffer rather heavily. The final payment will be based upon the ultimate numbers upon each practitioner's list after the allocation of the residue is completed. The Medical Committee urged that steps be taken to complete this as soon as possible.

The scheme suggested by the Midwives Association for the payment of practitioners for an emergency call has been dropped. Practitioners are requested to acquaint themselves of the scale of fees to which they are entitled to be paid by the approved society when they are called in by a midwife in an emergency. The payment of the remainder of the fee, if any, depends upon the arrangement made between the practitioner and patient.

OXFORD.

THE following are the members of the Oxford Local Medical Committee:

Dr. Ormerod (M.O.H.), *Chairman*	Mr. A. J. Drew (Representative at Representative Meetings, B.M.A.)
Dr. Higgs, 88, St. James's Street, Oxford, *Secretary*	Dr. Alden
Sir William Osler (Chairman of the Oxford Division, B.M.A.)	Dr. Collier
Dr. Duigan (Secretary of Oxford Division, B.M.A.)	Dr. Dickson
Dr. H. T. Gillett (Assistant Secretary of Oxford Division, B.M.A.)	Dr. Mallam
	Mr. Parker
	Dr. Prowse
	Dr. Rivers-Willson
	Dr. Seal
	Dr. Thompson
	Dr. Wood

Representatives on Insurance Committee.—Dr. Higgs and Dr. Rivers-Willson.

Dr. Ormerod represents the City Council on the Insurance Committee.

EAST SUFFOLK.

AT a meeting held on April 8th, the following resolution was adopted:

That in the opinion of this Statutory Committee the post of chief tuberculosis officer should not be held by a medical officer of health, and that we consider the scheme of the East Suffolk County Council for the treatment of tuberculosis unsuitable and likely to produce unnecessary friction.

DARLINGTON.

THE Local Medical Committee for the Darlington district has been recognized, and consists of the following:

Dr. W. J. Carmichael.	Dr. J. Hern.
Dr. G. G. Farquhar.	Dr. J. Lawrence.
Dr. D. L. Fisher.	Dr. H. C. Pearson.
Dr. D. C. Gray.	Dr. A. P. Steavenson.

Joint Honorary Secretaries.—Dr. D. V. Haig (Stanhope Road, Darlington) and Dr. J. D. Sinclair (Wellington College, Grange Road, Darlington).

NEWCASTLE-ON-TYNE.

THE name of Dr. H. L. Rutter was accidentally omitted from the list of medical representatives on the Local Insurance Committee printed in the report of the Newcastle-on-Tyne Local Medical Committee last week, p. 314.

LANARKSHIRE.

THE Medical Committee of the County of Lanark, which has received official recognition, consists of practitioners from all parts of the county, the object being to make the Committee as representative as possible. The Committee consists of—

Dr. W. G. MacPherson, Bothwell, *Chairman.*	Dr. J. B. Miller, Bishopbriggs.
Dr. D. V. M. Adams, Lanark.	Dr. Jas. Muir, Bellshill.
Dr. R. Davidson, Shettleston.	Dr. D. McKinlay, Tollcross.
Dr. A. Gibson, Baillieston.	Dr. J. C. McKenzie, Douglas Water.
Dr. J. Goff, Bothwell.	Dr. J. McMillan, Shotts.
Dr. W. Grant, Blantyre.	Dr. T. McNay, Larkhall.
Dr. J. Harrison, Lesmahagow.	Dr. R. B. Macpherson, Cambuslang.
Dr. T. D. Laird, Cambuslang.	Dr. T. D. Newbigging, Abington.
Dr. A. M. Lindsay, Kirkmuirhill.	Dr. R. Paterson, Law.
Dr. W. M. Lindsay, Biggar.	Dr. J. Reid, Forth.
Dr. J. Lithgow, Cleland.	Dr. D. L. Stevenson, Larkhall.
Dr. J. W. Little, Newmains.	Dr. R. Thomson, Uddingston.
Dr. A. Maguire, Stepps.	Dr. A. Watt, Strathaven.
Dr. J. Mains, Longriggend.	

The Secretary is Mr. W. S. McKenzie, solicitor, Larkhall.

Representatives on Insurance Committee.—Dr. W. G. MacPherson (Bothwell) and Dr. J. Lithgow (Cleland).

Representatives on Medical Service Subcommittee.—Dr. D. V. M. Adams (Lanark), Dr. W. Grant (Blantyre), and Dr. T. D. Laird (Cambuslang).

A committee has also been appointed to check chemists' accounts should occasion require it.

INSURANCE NOTES.

Change of Doctor.

In some parts of the country misunderstandings appear to have arisen as to the frequency with which insured persons can change their doctor. The fact that agreements between medical men and Insurance Committees have been for a provisional period of three months only is held to warrant the opinion that at the end of three months there could be a re-sorting of patients between medical men on the panel.

Northampton Insurance Committee.

The Northampton Insurance Committee has issued a statement on this matter to the effect that the facts that the medical ticket, adopted by the Commissioners as a temporary expedient in view of the incomplete state of the medical index register, expires on April 30th, and that the original contract between medical men and the Insurance Committee was for three months only, have no bearing upon the question of transferring from one medical list to another. The Committee considers that under the regulations for medical benefit a change of doctor can (subject to certain exceptions) only take place at the end of the current medical year.

Leeds.

The Clerk to the Leeds Insurance Committee, interviewed on the question by a press representative, declared that a general reshuffling of patients at the end of April was impossible, although he knew that the assumption that it would occur was very general. It would mean that the Insurance Committee would have to do all its work over again.

Dr. James Ewing, one of the medical representatives on the Leeds Insurance Committee, has pointed out that the question is a serious one to medical men who did not go on the panel at once because they felt they ought first to be released from their pledge. Hundreds of his patients had been waiting until, as they thought, their pink tickets expired to come back to him, and a number of his medical colleagues had said they would hand over the patients at the end of the quarter.

The Isle of Ely.

Discussion of the same matter arose at the last meeting of the Isle of Ely Insurance Committee. There it appeared that agreements had been entered into for periods of two years with doctors accepting service on the panel. Dr. Stephens said the local doctors refrained from going on the panel because they thought there would be another arrangement in three months. Meanwhile the Insurance Committee appointed men at Chatteris and Wisbech for two years. Dr. Meacock said the practitioners in Wisbech stood out because they believed that contracting out would be allowed. The Act could never be worked in a friendly way in Wisbech unless the panel were reopened. The doctors had been relying on the terms of the Act, the words on the medical tickets, and the speeches of the Chancellor in support of their view that contracting out would be allowed. The Chairman having refused to put to the vote a proposition by Dr. Stephens that the right of the Commissioners to sanction appointments to the panel for two-year periods be questioned, the discussion ended.

Mileage.

The Isle of Ely Insurance Committee has decided to apply to the Commissioners for a special grant in connexion with medical benefit in the Fen country. The draft application, which, it is explained, was drawn up by a member of the County Council Highways Committee, will be recognized by those familiar with the Fenlands of the Eastern Counties as a faithful picture of the conditions there existent. It is stated that a large number of houses are only approachable by unmetalled roads, often droves, grass roads, the banks of the channels that drain the Fens, or mere tracks across fields. These are impracticable for motor cars and cycles, and in many cases for horse-drawn vehicles. In winter day journeys are difficult, and night journeys dangerous by reason of the deep, unfenced drains on both sides of the tracks. The innumerable watercourses and inadequate number of bridges are mentioned, and it is pointed out that it is impossible even in daylight to take a bee-line across country, as it is necessary to go from bridge to bridge in zigzag fashion. In arriving at a scale of remuneration for mileage, distances should not be calculated from the doctor's house, as it would be impracticable for him to return there after each isolated visit. It would also be unfair to apportion the special grant in proportion to the number of insured persons living outside a radius of three miles from the doctor's residence, as by so doing a benefit would be conferred on those practitioners who had a large group of patients in one comparatively populous hamlet at the expense of those doctors who had to attend patients in many isolated houses.

Northumberland Miners.

In the Supplement for April 5th, p. 302, it was stated that the *Northern Echo* had reported that the name of one of the doctors selected by the miners' society at Ashington was Dr. Thomson, of Clydebank. We are informed that this statement is incorrect and that Dr. Thomson has not accepted, and has no intention of accepting, any such appointment. We regret that the incorrect statement should have appeared in our columns.

Bournemouth.

A meeting of the Bournemouth panel was held on April 12th to decide whether the new medical agreement should be signed as it stood or whether a clause should be added reserving the right to refuse to treat temporary patients on the present system of payment. The following resolutions were passed:

> That we (the members of the Bournemouth panel) decline to attend visitors except as private patients until satisfactory arrangements have been made between the Commissioners and the Local Medical Committee.
> That this resolution, or words to the same effect, be embodied in the new agreement.
> That the new agreement be endorsed, "Temporary agreement for three months only."
> All signed agreements to be sent in through the Local Medical Committee.

The result of this meeting is that all the members of the panel, except the few who had signed the agreement before they could be communicated with, are abiding by the decision of the meeting.

East Suffolk.

Tuberculosis Treatment.

Dr. E. G. Barnes (Eye), Dr. H. M. Evans (Lowestoft), and Dr. T. C. Askin (Alderton) attended as a deputation from the East Suffolk Insurance Committee the meeting of the Public Health Committee of the East Suffolk County Council last week, to discuss questions arising out of the provision of tuberculosis treatment.

Dr. Evans said the local medical practitioners were practically unanimous that, as regards dispensary treatment, the head of the dispensary must be a medical man specially trained in the diagnosis and treatment of tuberculosis. Dr. Evans quoted the Local Government Board in support of this contention, and said it was exceptional for medical officers of health to be able to perform the necessary clinical work, or to claim to be experts in this matter. All the official declarations on this subject indicated that it was inadvisable to appoint medical officers of health as chief tuberculosis officers. Tuberculosis officers must be consultants; if it were thought that men of large clinical experience, who knew their patients and their work, would be content to act as the house-physicians of a tuberculosis officer, however high his standing, the hope was vain.

Dr. Barnes emphasized the necessity of some form of domiciliary treatment being incorporated in the general scheme.

A subcommittee of the Public Health Committee was appointed, with instructions to meet a subcommittee of the Insurance Committee in conference upon the details of the county council's proposals.

Staffordshire.

Protest Meetings of the Insured.

A largely attended meeting was held in Stafford on April 11th to protest against the action of the Staffordshire Insurance Committee in refusing permission to insured persons to select doctors who were not on the

panel. The Chairman said that the meeting was absolutely unpolitical, and had been organized entirely by insured persons. On the pink cards issued early in the year there was a statement which led insured persons to conclude that they could make their own medical arrangements outside the panel, and in consequence a large number of insured persons in Stafford had made application. Recently the majority of such applicants had received a curt note stating that their applications had been refused. The meeting had been called because those present felt it a great injustice that insured persons should be called upon to change their medical men at the behest of a committee which was in no sense representative, and had not been elected by the people. A resolution of protest having been duly moved and seconded, Dr. F. M. Blumer said that the opposition of the medical men was one of principle. A previous speaker had said that the Local Insurance Committee had stated that it was acting upon instructions from London, and Dr. Blumer said that the Commissioners' object appeared to be to drive every doctor on the panel. The Chancellor of the Exchequer had objected to allowing insured persons to make their own arrangements, as that plan might be used as a means of breaking down the panel system; but there was no risk of that in Stafford. The medical men in Stafford not on the panel were prepared to give service on private practice lines and to look to the pool for the payment of their bills. The resolution, which was as follows, was unanimously adopted, and a deputation was appointed to present it to the Insurance Committee:

> That this meeting of insured persons, desirous of contracting out for medical benefits under Section 15 (3) of the National Insurance Act, hereby protests in the strongest possible manner against the action of the Staffordshire Insurance Committee in refusing to grant permission to such persons. It is of opinion that the wholesale refusal of applications by the Committee without giving any reasons and apparently upon no recognized general principle is a grave abuse of the power delegated to it; and this meeting pledges itself to use every effort within its power to obtain for all insured persons their right to free choice of doctor whether on the panel or off, as is allowed them under the Act.

A similar protest meeting of insured persons was held in Hanley last week, when, as at Stafford, the action of the Insurance Committee was denounced as an interference with the liberty of the subject, and, after hearing an address from Dr. Blumer, arrangements were made for organizing a formal protest against the allocation without their consent of persons who had not yet selected a doctor.

SCOTLAND.

Holiday-makers, Convalescents, and other Migrants.

A conference summoned by the Scottish Insurance Commission by invitation addressed to the Medical Committees, clerks of Insurance Committees, and others to consider the question of migrants and summer visitors was held in Edinburgh on April 11th. The Commissioners stated that it was proposed to form a general pool and to pay for medical attendance by way of fees for services rendered. Two schemes for the formation of a pool were proposed: (1) A deduction of 1d. a quarter; (2) a deduction based on a so-called "illness value," a system recommended as being fairer in its incidence. The point was at once raised whether, doctors having already signed the contract agreeing to serve under published regulations, the Commissioners had any legal power or right to make any deductions from the 7s. After some observations from the chairman and deputy-chairman, Mr. Fraser, the legal adviser, stated, we are informed, that the Commissioners had no legal power to make any such deductions. The point was raised not for the purpose of wrecking any reasonable scheme to overcome a pressing difficult but to establish the fact that every doctor's agreement with an Insurance Committee was a contract binding on both parties, and only to be varied by the consent of both parties. The scheme or schemes, it is understood, will shortly be communicated to the Local Medical Committees in Scotland, and they will no doubt bear in mind that it is acknowledged that the Commissioners have no legal right to vary the regulations this year without the consent of those doctors who have signed contracts. Some at least of those who attended the conference considered that, apart from this, the scheme might be considered a reasonable attempt to overcome a pressing difficulty; but it is pointed out that it contains no attempt to make arrangements for those moving within the limits of a single area, for example, from one side of a county to another. The method of deduction to form a pool, the institution of checks on irregularities, and the fees for services rendered are all matters which call for careful consideration by the Local Medical Committees.

MEETINGS OF INSURANCE COMMITTEES.

BRISTOL.

Reappointment of the Medical Referee.

THE Bristol Insurance Committee, on April 7th, received a report on the work of the medical referee. The Medical Service Subcommittee stated that a number of letters had been received from approved societies expressing appreciation of the appointment of the officer (Dr. Bertram Rogers). It was stated that the Insurance Commission had expressed approval of the appointment, and the Committee decided to renew it for a further period of three months.

NORWICH.

IN the course of a discussion on contracting out, at the Norwich Insurance Committee, the CHAIRMAN of the Medical Benefit Subcommittee said that about 260 applications had been received from persons desiring to make their own arrangements. Where any good reason was advanced the application was granted, "but not where mere sentiment was the reason."

Mrs. REEVES suggested that in the selection of a doctor sentiment was a very important factor and that the Subcommittee ought to have given due weight to it. The number of applications was comparatively small, and she thought all might have been granted. Many people felt very strongly on the question of the choice of their doctor. Mrs. Reeves moved an amendment to refer the matter back, and this was seconded by Dr. CROOK. The CHAIRMAN said that the Committee had felt that it could not ignore the memorandum of the Insurance Commissioners directing that insured persons should not be allowed to contract out except in very special circumstances. The amendment was lost and the report was adopted by 15 votes to 2.

ISLE OF WIGHT.

The recommendations of the Isle of Wight Local Medical Committee as to payment for visitors and medical representation (SUPPLEMENT, April 12th, p. 316) came before the Isle of Wight Insurance Committee at its meeting last week, but were not accepted, the opinion being expressed that the treatment of visitors was a problem which the medical profession and the Insurance Commissioners must solve rather than any one Insurance Committee. The Local Medical Committee also asked that the two elected representatives of the profession should be appointed on all the subcommittees, instead of one of the three doctors on the Committee being appointed on one subcommittee each as proposed by the Insurance Committee. After a debate, in which some heat was manifested, the request of the Local Medical Committee was refused, and one medical man was appointed to each of the subcommittees.

REPORTS OF LOCAL ACTION.

CHISWICK.

A MEETING of non-panel doctors practising in Chiswick was held at the house of Dr. Shuter on April 12th. We are informed that in Chiswick the medical men have consistently refused to work the Act under present conditions. The present state of matters was laid before the meeting under the following heads:

1. The alternative scheme has been definitely refused by the Middlesex County Insurance Committee.
2. "Contracting out" has been practically universally refused.
3. Outsiders are, if necessary, to be imported into the district.
4. There is a possibility of the certificates of doctors not on the panel being refused.

A vote was taken on the question, "Should the non-panel doctors in Chiswick continue a policy of resistance by remaining off the panel?" The voting was confined to those resident in Chiswick; the motion to remain off the panel was carried.

IRELAND.

Medical Certification.

The date (April 8th) for the closure of the panels for doctors willing to grant certificates for the purposes of the Insurance Act has passed, and in only about half a dozen districts have the medical men consented to form panels. Among these are Belfast, Derry, co. Donegal, and Cork City. In Belfast it would seem that the societies will seek to specify the doctors on the panel from whom they will receive certificates, and this, of course, must have the effect of limiting the free choice of doctor, for which the British Medical Association has always contended. It may be assumed that the local profession will object to any such exclusive system.

In Dublin the profession decided not to form a panel; eleven doctors originally signed the agreement to go on a panel, but of these three have since withdrawn their names. As there are computed to be about 80,000 insured persons in Dublin, this means that each of the eight remaining men will have about 10,000 names on his list. Even devoting their whole time to certification, they will have to work hard for the £400 a year which they would receive according to the scheme put forward by the Irish Insurance Commissioners. Among the papers sent out by the Commissioners along with the agreement to go on the panel was an "identification note," on which the following was printed:

> A panel of doctors has been formed in each county and county borough in Ireland for the purpose of granting to insured persons (free of cost to them) the medical certificates which are required before sickness or sanatorium benefit can be obtained. A list of the names of the doctors on the panel for the county or county borough in which insured persons live may be seen at any post office in the county or county borough, or can be obtained on application from the Secretary, Irish Insurance Commissioners, Dublin.

The *Irish Times* of April 10th described these sentences as "a barefaced misstatement of fact." The Commissioners have published the following "explanation":

> Amongst the papers issued to medical practitioners for the purpose of explaining their duties under the panel system, a specimen copy of what is called an identification note was circulated. It ought to be clear from the fact that this note is to be filled by the insured person, and the doctor, that it naturally only comes into operation when the panels have been formed. In other words it presupposes the fact that doctors have sent in their names to the various Insurance Committees, and is the particular part of the machinery that enables the insured person to exercise his choice of doctor, and the medical practitioner to exercise his choice of insured persons. The statement, therefore, in this note in the form of a notice, that a panel of doctors has been formed for each county and county borough of Ireland, can in no sense be regarded as a statement by the Commissioners that panels had actually been formed. It is, therefore, hardly a legitimate criticism to charge the Commissioners with a misstatement of fact on these grounds. Moreover, the fact that the Commissioners only fixed the 8th inst. as the last day for joining the panels, and that this identification note was sent out for the information of medical practitioners over a week ago, shows in itself how utterly misleading is the comment in the editorial article.

The first letter of the Commissioners to the medical profession accompanying the agreement contained the following statement: "The Committees (Insurance Committees of the thirty-nine counties and county boroughs of Ireland) have agreed to set up for the purpose what is known as the panel system of doctors in the area of each Committee, and have authorized the Commission to invite you to join the panel for the particular county or county borough in which you reside or any county or county borough adjoining." This statement was clearly inaccurate, as the paper was printed and circulated before the Committees had met to consider the scheme.

The position in Dublin is curious in the extreme. Last week, on the morning of the day on which the Insurance Committee was to meet and have before it the agreements to go on the panel of those doctors who had signed them, the Insurance Commissioners demanded that they should be given up to them, saying, when this demand was at first refused, that the agreement was between the doctors and the Insurance Commissioners and not the Insurance Committees. The form of agreement is headed, "Agreement between Medical Practitioner and Insurance Committee, for the period from April 13th, 1913, to January 14th, 1914, inclusive," and commences: "To the County (Borough) of . . . Insurance Committee." The agreements were handed to the Commissioners under protest.

The Commissioners have only themselves to blame if their proceedings have given rise to the impression that they have tried to bluff the medical profession in Ireland to accept the panel scheme. So far as can be made out from the apparently self-contradictory announcements that have been made, they have stated that the Insurance Committees had agreed to the scheme and authorized them to make the agreements when they had not done so, that the Conjoint Committee of the British and Irish Medical Associations had agreed to the scheme and approved of it when it had not done so, and, finally, have sent out a circular in which it was said that the panels had been formed before the date of closing the panels had arrived. It is strange that the Commissioners should have supposed that any body of their countrymen should fail to see through such methods, and it is to be hoped that the profession in Ireland will continue firm in its decision, in spite of the threat, already made by the Commissioners, to appoint whole-time men for certification purposes. Meanwhile, the insured patients encounter difficulty and delay in getting their sick money paid to them by the societies.

The question of the extension of medical benefit to Ireland is still unsettled, and the Poor Law Medical Service is left in a most mischievous state of uncertainty and suspense. Another danger is arising. The Commissioners have allowed a large number of societies to be enrolled — there are nearly a hundred small societies in Ireland to-day. The next few months will, it is thought, see a "shake out" of small societies. If this happens the result will be general confusion and the concentration of the whole national insurance scheme in the hands of half a dozen great "Orders" and two or three huge commercial organizations. The Ancient Order of Hibernians is said to have secured at least 115,000 members for the Government benefits in Ireland, and it is asserted that the influence of this society in the administration of the Act in Ireland is supreme; it is estimated that it will receive an annual grant of at least £25,000 for purposes of "organization."

At a meeting of the Advisory Committee of the Irish Insurance Commission held in Dublin on April 15th, the Chairman said that the Act was on the whole working well except in the county of Cork and the north-west corner of Ulster. The difficulty was in dealing with the grant of £50,000 for the payment of medical certificates; nevertheless, the panels had been filled in twelve counties.

Sanatorium Benefit.

A difficulty has arisen with regard to the admission of persons entitled to sanatorium benefit into the Heatherside Sanatorium which is under the control of the Cork Joint Hospital Board. The resident medical officer desired to admit only early cases likely to benefit by sanatorium treatment, but the Insurance Committees for the counties of Cork, Limerick, and Tipperary objected to this, and were supported by the Insurance Commissioners. The Cork Joint Hospital Board at its meeting on October 5th adopted the following resolution:

> That inasmuch as the Cork Sanatorium was erected for the treatment of early cases of consumption, it is not advisable that advanced cases should be admitted, but in so far as we have had applications from Cork County, Limerick County, Tipperary and Waterford County Borough Insurance Committees to waive the veto of the Medical Superintendent we hereby agree to do so; but if the patient does not respond satisfactorily to the treatment within a reasonable time the Medical Superintendent has power to discharge him.

PRESCRIBING AND THE DRUG FUND.

In spite of the numerous complaints made by chemists in Manchester and Salford that the dispensing under the Insurance Act does not pay, they have decided, like the doctors, to continue as at present for another three months, and probably very few, if any, of those now on the chemists' panel will withdraw their names. It is expected that for the three months, January to April, not only will the whole of the floating sixpence have to be given to the Drug Fund, but that even with this there will have to be a *pro rata* reduction in the chemists' bills of from 20 to 30 per cent.; in other words, the cost of drugs

and appliances for the quarter will approach a rate of about 3s. a year. The chemists realize, however, that the past quarter is not only about the heaviest in the year, but that the novelty of being able to obtain free medicines has probably induced many insured persons to go to a doctor for a prescription for trifling complaints, which in the future they may be inclined to neglect, and, like the doctors, they expect that the coming quarter may compensate them for the past quarter. It is alleged by chemists that some of the doctors have neglected the suggestions of the Local Medical Committees that attention should be paid to economy in prescribing so far as it is consistent with efficiency. One chemist, for example, states that he has had to dispense a prescription for a liniment containing 3 oz. each of liniment of belladonna, liniment of aconite, and liniment of chloroform, the cost of which at wholesale prices would be 2s. 7d. In other cases it is alleged that drugs have been ordered under proprietary names which might have been ordered, at less than one-third the cost to the drug fund, under their chemical name. This has no doubt often been done quite inadvertently by doctors who have not recognized that they have it in their power to effect a very considerable saving in the drug fund without any sacrifice of efficiency. There seems, too, to be little doubt that the greatest watchfulness is needed to prevent abuse by insured persons in the matter of drugs. Instances are given in which an insured person has obtained medicine for a slight cough which he really thought of no account, and, instead of taking the medicine himself, has given it to his wife or some member of his family who was not insured but was suffering from a severe cough. This not only deprived some doctor of a private patient, but was an imposition on the chemists' drug fund. It is further alleged that attempts are made by insured persons to induce chemists to repeat medicines without a fresh prescription from the insurance doctor; if the chemist complied with such requests where the system in force was for payment by attendance, he would be depriving a doctor of a consultation fee. In some cases the request arises merely from a desire to save the time taken up in a visit to the doctor, but in other cases it is believed that there has been an attempt to obtain in this way medicine for some other member of the family who was not insured. In some cases the chemists have received offers of payment if they will dispense the same medicine for an uninsured member of the family as an insured member is taking on the prescription of the insurance doctor. Evidently the chemists have it in their power in this way seriously to injure private practice, and the temptation is all the more because, if they refuse, the medicine would probably be supplied by the private medical attendant who would have to be called in. It is, however, distinctly noticeable that the effect of working of the Act so far has been to bring about a better state of feeling between doctors and chemists than formerly existed. It is seen that there is now a community of interests that did not formerly exist. The doctors are regularly asked by insured patients to what chemist they should take their prescription, and, while the chemists have obtained the dispensing which they have long regarded as their right, they have acknowledged this in not a few cases by refraining from the counter prescribing which was doing such a serious injury to many practitioners in Lancashire.

In Liverpool, we are informed, it is fairly certain that the cost of prescriptions for the first quarter will materially exceed the fourth part of 2s. a head of insured persons, but the chemists expect that the Commissioners, having sanctioned the drug tariff, will see that their bills are paid in full. Within the limits of efficient prescribing the doctors are making every effort to economize on the drug bill, and, with this end in view, a formulary has been drawn up by the Local Medical Committee. This attempt at economy does not, it is said, meet with the approval of the chemists. Further, apparently with a view to making sure of the "floating sixpence," the chemists have put forward claims for clerical fees and night fees, and have lodged an objection to the doctors sending out prescriptions in the form of "repeat mixture." It is to be hoped that an effort at compromise which is now on foot will be successful.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

On Thursday, April 10th, the State Sickness Insurance Committee appointed by the Special Representative Meeting in November, 1912, was held at the house of the Association, 429, Strand, W.C. Dr. J. A. MACDONALD was in the chair, and the other members present were: *England and Wales:* Dr. R. M. Beaton (London), Dr. E. R. Fothergill (Brighton), Miss F. Ivens, M.S. (Liverpool), Dr. Herbert Jones (Hereford), Dr. Constance E. Long (London), Dr. E. O. Price (Bangor), Dr. D. G. Thomson (Norwich), Mr. D. F. Todd (Sunderland), Mr. E. B. Turner (London). *Scotland:* Dr. John Adams (Glasgow), Dr. R. McKenzie Johnston. *Ireland:* Dr. J. S. Darling (Lurgan). *Ex officio:* Mr. T. Jenner Verrall (Chairman of Representative Meetings), Dr. Edwin Rayner (Treasurer).

RESIGNATION.

The resignation from the Committee of Dr. Carter (Bristol), owing to the fact that he was unable to give the time necessary for attending the Committee, was received with regret, and in order to fill the vacancy thus created the Chairman of Representative Meetings was requested to follow the procedure adopted in the case of vacancies occurring in the Council owing to the resignation of a member elected by grouped representatives.

CERTIFICATES.

Attention was again directed to the question of medical certificates required by approved societies under the Act. At its preceding meeting the Committee had recommended that, in order to safeguard the position of the practitioner, any certificate bearing the name of the disease should only be handed to the insured person concerned or to his or her accredited representative. It was now pointed out that this might not be sufficient to obtain the desired end. Dr. ADAMS stated that at the last meeting of the Advisory Committee the suggestion had been made that if the medical certificate did not state the nature of the disease from which the insured person was suffering the society concerned should apply direct to the doctor. He was advised that under Scottish law this would be a highly dangerous proceeding for a medical practitioner to adopt. The Committee resolved to address a communication to the Insurance Commissioners upon the subject.

TREATMENT OF INSURED PERSONS OVER 65 YEARS OF AGE.

The reply of Mr. Masterman, published in the SUPPLEMENT to the JOURNAL of April 12th, p. 323, to the letter addressed to him by instruction of the Committee, was considered, and, as the Committee was not satisfied with the position, it decided to take the opinion of leading counsel.

COMPENSATION.

Four applications with reference to compensation for loss suffered by medical practitioners in consequence of their loyal adherence to the decision of the Association were before the Committee. In one case a grant was made; in another the matter was postponed till the end of the year in order that the actual amount of loss could be ascertained; in a third it appeared that the Local Executive Committee had already taken action to meet certain expenses incurred by the applicant, and that it was probable that no call would be made upon the Central Insurance Defence Fund; in the fourth case the applicant suggested that he should be excused the payment of the remainder of his guarantee to the Central Insurance Defence Fund, being himself prepared to stand by the loss incurred. The Committee recommended this course to be taken.

Letters of thanks from four gentlemen whose applications were granted at previous meetings were read.

CONFERENCE OF REPRESENTATIVES OF THE ASSOCIATION AND OF THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

The Committee had before it reports of the decision of the Public Health and Medico-Political Committees at recent meetings as to holding a conference of representatives of the Public Health and Medico-Political Committees

and of the State Sickness Insurance Committee with representatives of the Society of Medical Officers of Health, and expressed approval of the proposal subject to satisfactory arrangements being made.

Payment of Chemists for Copies of Prescriptions.

Communications were received calling attention to the following note appearing in the published tariff drawn up by the Pharmaceutical Standing Insurance Committee:

Where a duplicate prescription is not supplied a fee of 1d. will be charged for copying it.

A communication on the matter, received by Dr. H. G. Morris, of West Bromwich, from the Insurance Commissioners (England), was read. The letter, after pointing out that the modification of any existing tariff is a matter for local negotiation and one upon which the Insurance Committee would, of course, consult the Local Medical Committee, continued as follows:

In considering any suggested revision which provides for a fee for the copying of prescriptions the Commissioners would require to have before them the views of the Local Medical Committee concerned.

The Committee resolved to draw the attention of Local Medical Committees to the matter, to address a protest to the Insurance Commissioners, and to suggest to Local Medical Committees that they should take the same course.

The following letter has accordingly been addressed to the National Insurance Joint Commissioners:

April 14th, 1913.

Sir,

National Insurance Act: Charges by Chemists.

It was reported to the last meeting of the State Sickness Insurance Committee that the revised tariff of drugs and dispensing charges drawn up by the Pharmaceutical Standing Insurance Committee contains the following paragraph:

"Where a duplicate prescription is not supplied a fee of 1d. shall be charged for copying."

The Committee understands that this revised tariff has not yet been under the consideration of the Commissioners, and that in considering the modification of any existing tariff the Commissioners would require to have before them the views of the Local Medical Committees concerned. It is understood, however, that in some areas the particular drug tariff above referred to has not been submitted to the Local Medical Committees concerned, though the local pharmacists are presenting the revised tariff as if it had official sanction.

The State Sickness Insurance Committee, on the evidence before it, believes that the imposition of such a charge is unnecessary, and would be unjustifiable deduction from the moneys due to the medical practitioners, and is convinced that if the tariff is allowed to come into force the profession will suffer a serious injustice.

I am instructed, therefore, to urge that the Insurance Commissioners will not approve of the proposed charge in respect of copying prescriptions.

I am, Sir,
Your obedient servant,
Alfred Cox,
Medical Secretary.

Secretary, National Health Insurance (Joint) Commissioners.

Hospital Resident Officers on the Panel.

A case in which a hospital proposed that the senior resident medical officer should place his name on the panel for the purpose of attending the resident staff under the Insurance Act was considered, and the Committee resolved as follows:

That in the opinion of the Committee all hospitals, asylums, and other similar institutions, should be allowed to "make their own arrangements" for the provision of medical attendance and treatment (including medicines and appliances) under Section 15 (3) of the Act and Regulation 49, but that whatever system may be adopted the proper proportion of moneys received from the Insurance Committee by any such institution for medical attendance and treatment of members of its staffs should be paid to the medical officer of the institution who actually carries out such attendance or treatment.

Co-ordination of Medical Bodies.

A sketch of a scheme for the co-ordination of medical bodies in an area submitted by Dr. H. H. Tomkins, Vice-Chairman of the South-West Essex Division and Secretary of the Essex Local Medical Committee, was received. The Committee considered that as most of the ideas underlying Dr. Tomkins's scheme were already being considered by a special subcommittee, Dr. Tomkins should be invited to join the Special Fund Subcommittee.

Proposed Sickness, Accident and Pension Fund.

Certain proposals made by the Subcommittee on a proposed Sickness, Accident and Pension Fund were fully considered, but a final decision postponed pending a further report from the Subcommittee.

INSURANCE ACT IN PARLIAMENT.

Administration of Medical Benefit.

Contracting Out.

In reply to Mr. Newman, Mr. Robertson said that Insurance Committees were not required to explain in each individual case their reasons for refusing an application from an insured person for permission to make his own arrangements for receiving medical attendance and treatment. The general policy was guided by the Memorandum already issued on the subject.

Certificates.

In reply to Mr. Thomas, who asked whether an insured person claiming insurance benefit and declaring sickness on a Monday and declaring off on the following Saturday, and thereby being entitled only to three days' pay, was required to provide three certificates for this period, Mr. Robertson said that the arrangements for providing sick benefit were primarily determined by the societies administering the benefit; but he saw no reason in any case why in such circumstances three medical certificates should be required.

Medical Referees.

In reply to Mr. C. Bathurst, Mr. Robertson said that the appointment of medical referees, as in Bristol, with a view to checking malingering, was receiving the careful attention of the Commissioners.

Contracting Out in London.

In reply to Mr. Touche, who inquired whether every person who had made application for permission to contract out in London had received Form 43/I.C. and if many of these forms had been returned to the Committee, Mr. Robertson stated that all the forms in question had been issued to those applying for them, and that between 2,000 and 3,000 had been returned, and that in some cases the doctors had declined to sign the undertaking in Part II. He added that the sums available for the medical treatment of insured persons making their own arrangements were the same as for other insured persons, and that he did not see any reason at present to suggest any modification of the conditions at present existing.

Medical Committee for London.

In reply to a further question by Mr. Touche, Mr. Robertson stated that no Local Medical Committee for the County of London had yet been recognized by the Insurance Commissioners.

Scottish Clerks' Association.

In reply to Mr. Charles Price, Mr. Robertson stated that the Scottish Insurance Commissioners had had a conference with the representatives of the Scottish Clerks' Association and arranged for the association to issue medical tickets to their members. At the same time the Commissioners agreed to suggest to Insurance Committees that members of the association might, if practicable, be allowed an extension of time for the choice of a doctor.

Herbalists.

Mr. Frederick Hall asked whether, under the National Insurance Act, arrangements could only be made with duly qualified medical practitioners for the administration of medical benefit; whether, in some instances, Insurance Committees had accepted and placed on their panels the names of herbalists and other unauthorized persons; and if so, whether this had been done with the sanction of the National Health Insurance Commisioners. Mr. Robertson said the answer to the first part of the question was in the affirmative; the answer to the second part was in the negative; the third part, therefore, did not arise.

Mr. F. Hall asked whether all medical men who applied were put upon the panel irrespective of their capabilities. Mr. Robertson said that that did not enter into this question. Mr. F. Hall suggested that it arose out of the question, but the Speaker supported Mr. Robertson, and the matter was not pursued.

MATERNITY BENEFIT.

In reply to Mr. Jowett, who asked whether married men in the navy were required to give three months' notice of the approximate date of the expected confinement of their wives in order to comply with the rules governing the payment of maternity benefit, Mr. Lambert said that such notice was not an essential condition of payment, but it was solely in the interest of the men and their wives as being, under the exceptional conditions of naval service, a means of insuring that the benefit should be paid promptly after the confinement had taken place.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In ninety-six of the largest English towns 9,353 births and 5,337 deaths were registered during the week ending Saturday, April 5th. The annual rate of mortality in these towns, which had been 17.0, 16.5, and 16.9 per 1,000 in the three preceding weeks, fell to 15.6 per 1,000 in the week under notice. In London in the week under notice the death-rate was equal to 16.3 per 1,000, against 17.6, 17.2, and 17.4 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 5.7 in Rotherham, 6.6 in Southend-on-Sea, 7.0 in Enfield, 7.7 in Ealing, 7.8 in Portsmouth, and 8.8 in Bournemouth to 20.8 in Preston, 20.9 in Stoke-on-Trent, 21.2 in Plymouth, 22.2 in Middlesbrough, 23.1 in St. Helens, and 24.9 in Stockton-on-Tees. Measles caused a death-rate of 2.8 in Plymouth and in Smethwick, 3.3 in Wolverhampton, 3.5 in Bury, 3.9 in Walsall, 6.0 in West Bromwich, and 7.3 in St. Helens; and whooping-cough of 1.3 in Stoke-on-Trent, 1.5 in Southend-on-Sea, and 2.1 in Warrington. The mortality from the remaining infective diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 27, or 0.5 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 5 in Birmingham, 3 in Liverpool, 3 in Warrington, 3 in Sheffield, 2 in Stoke-on-Trent, 2 in Preston, and 2 in Sunderland. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospital and the London Fever Hospital, which had been 1,556, 1,514, and 1,455 at the end of the three preceding weeks, had further fallen to 1,410 on Saturday, April 5th; 167 new cases were admitted during the week, against 164, 156, and 168 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In the sixteen largest Scottish towns 1,256 births and 744 deaths were registered during the week ending Saturday, April 5th. The annual rate of mortality in these towns, which had been 18.8, 18.4, and 17.2 per 1,000 in the three preceding weeks, was again 17.2 in the week under notice, but was 1.6 per 1,000 above the rate in the ninety-six large English towns. Among the several Scottish towns the death-rates in the week under notice ranged from 9.1 in Kirkcaldy, 9.2 in Ayr, and 11.0 in Paisley to 19.5 in Kilmarnock, 20.8 in Leith, and 24.8 in Greenock. The mortality from the principal infectious diseases averaged 1.7 per 1,000, and was highest in Leith and Greenock. The 367 deaths from all causes registered in Glasgow included 22 from whooping-cough, 8 from infantile diarrhoeal diseases, 4 from measles, 3 from diphtheria, 2 from scarlet fever, and 1 from enteric fever. Seven deaths from whooping-cough were recorded in Edinburgh, 5 in Leith and 4 in Greenock; 4 deaths from infantile diarrhoea and enteritis, and 3 from diphtheria in Dundee; and 2 from measles in Falkirk.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, April 5th, 746 births and 535 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 683 births and 547 deaths in the preceding period. These deaths represent a mortality of 23.3 per 1,000 of the aggregate population in the districts in question, as against 23.8 per 1,000 in the previous period. The mortality in these Irish areas was therefore 7.7 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 32.4 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 27.9 as against an average of 24.3 for the previous four weeks, in Dublin city 28.1 (as against 25.2), in Belfast 21.2 (as against 23.6), in Cork 18.4 (as against 22.5), in Londonderry 22.9 (as against 18.1), in Limerick 14.9 (as against 20.5), and in Waterford 24.7 (as against 21.9). The zymotic death-rate was 1.8 as against 2.1 in the previous period.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

The following appointments, etc., have been announced by the Admiralty: Surgeon-General ARTHUR W. MAY, C.B., to the *President*, for additional service at the Admiralty Medical Department, April 21st. Surgeon-General ALEXANDER J. J. JOHNSTON to the *Pembroke*, additional for Chatham Hospital April 12th, Chatham Hospital vice May, April 21st. Fleet Surgeon GEORGE R. MACMAHON, M.B., B.A., to the *Formidable*, vice Martin, May 8th. Fleet Surgeon FREDERICK W. PARKER to the *Victory*, additional for Portland temporarily, April 9th. Fleet Surgeon ANTHONY KIDD to the *Aboukir* on recommissioning, and for group of ships of Third Fleet, April 15th. Fleet Surgeon HENRY E. TOMLINSON, to the *Victory*, additional for Portland Depôt, temporary, on the *Imperieuse* paying off, April 12th. Staff Surgeon WILLIAM P. WALKER, M.B., to the *Gibraltar* for the *Crescent*, undated. Staff Surgeon ARTHUR S. BRADLEY, M.B., to the *Excellent*, additional for the *Dido* on recommissioning, April 9th. Staff Surgeon DONALD P. CHAPMAN, to the *Gibraltar*, additional for the *Grafton* on recommissioning, April 9th. Staff Surgeon A. R. SCHOFIELD, M.B., to the *Vivid*, additional for disposal, April 9th. Staff Surgeon W. H. DAW, to the *Astraea*, undated. Staff Surgeon ELIJAH R. L. THOMAS to the *Vivid*, additional for disposal, April 28th. Staff Surgeon JOHN P. H. GREENHALGH, M.D., to the *Victory*, additional for Yarmouth Hospital, temporary. Staff Surgeon JOHN MARTIN to the *Dolphin*, additional for Submarine Depôt, May 8th, and *Dolphin*, vice Dartnell, June 19th. Staff Surgeon W. P. WALKER, M.B., to the *Gibraltar* for the *Crescent*, undated. Surgeon VERNON L. MATTHEWS, to the *Victory*, additional for disposal, undated, and R.M.A. Division, Eastney, vice Chapman, April 9th. Surgeon R. M. R. THURSFIELD, to the *Astraea* on recommissioning, April 22nd. Surgeon ROBERT M. RIGGALL to the *Halcyon*, additional for the *Spanker* on recommissioning, April 15th. Surgeon GORDON V. HOBBS to the *Research*, on completing, undated. Surgeon GEOFFREY CARLISLE to the Portsmouth Dockyard, undated.

Staff Surgeon W. N. HORSFALL has been allowed to withdraw from the service with a gratuity, undated.

The undermentioned Acting Surgeons have been confirmed in the rank of Surgeon, October 12th, 1912: ALBERT E. MALONE, M.B., B.A., HAMLET M. WHELAN, ROBERT F. P. CORY, B.A., HENRY ST. CLAIR COLSON, GEORGE A. FINEGAN, JOHN T. D. S. HIGGINS, M.B., B.A., JACKSON G. BOAL, M.B., FREDERICK ST. BARBE WICKHAM, SIDNEY PUNCH.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

Major W. P. GWYNN has been granted eight months' leave ex India.

Major H. A. HINGE has taken up duty at Aldershot.

Captain A. W. BEVIS has been posted to the Belfast District.

Captain B. JOHNSON has been granted six months' leave ex India.

Captain JOHN H. SPENCER, M.B., resigns his commission, April 12th.

Captain J. A. CLARK, M.B., has been selected for service with the Egyptian Army.

Captain A. DAWSON has been appointed to Dublin for duty.

Captain V. C. HONEYBOURNE has been appointed to the Belfast District.

Captain A. M. BENNETT has been appointed Staff Surgeon at Mhow.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Third East Lancashire Field Ambulance.—Major WILFRED M. STEINTHAL to be Lieutenant-Colonel, March 1st.

Lowland Mounted Brigade Field Ambulance.—HUGH FORREST, M.B., to be Lieutenant, March 12th.

London Mounted Brigade Field Ambulance.—Lieutenant ALEXANDER FINDLATER, M.D., to be Captain, December 7th, 1912.

Third North Midland Field Ambulance.—CRICHTON S. LEE to be Lieutenant, February 19th.

Third Highland Field Ambulance.—Lieutenant HENRY J. GORRIE to be Captain, March 10th.

First London (City of London) General Hospital.—Major WALTER A. ATKINSON, M.D., from the list of officers attached to units other than medical units, to be Major in the permanent personnel, March 17th.

Sanitary Service.—Lieutenant JAMES DUNDAS, M.B., from the Second Home Counties Field Ambulance, to be Captain, whose services will be available on mobilization, April 9th.

For Attachment to Units other than Medical Units.—Surgeon-Major JOSEPH ROBINSON, M.D. from the 7th Battalion, the Worcestershire Regiment, to be Major, with precedence as in the Volunteer Force, March 5th.

Attached to Units other than Medical Units.—Lieutenant HAROLD R. MOXON to be Captain, December 18th, 1912; Lieutenant ARTHUR H. NORRIS to be Captain, December 21st, 1912.

The King has bestowed the Territorial Decoration upon the following members of the Royal Army Medical Corps of the Territorial Force: Lieutenant-Colonel WILLIAM B. COCKILL, M.D., Third West Lancashire Field Ambulance; Major HUGH KELLY, M.D., attached to the Lanarkshire (Queen's Own) Royal Glasgow and Lower Ward of Lanarkshire Yeomanry; and Major DAVID LEE TODD, attached to the Third Northumbrian (County of Durham) Brigade Royal Field Artillery.

Supernumerary for Service with the Officers' Training Corps.—Lieutenant GEORGE A. WILLIAMSON, M.D., is appointed to serve with the Aberdeen University Contingent, Senior Division, Officers' Training Corps, July 13th, 1912.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

ABERYSTWYTH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House-Surgeon and Secretary. Salary, £150 per annum.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BARNSLEY: BECKETT HOSPITAL AND DISPENSARY.—Second House-Surgeon. Salary, £100 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary, £80 per annum.

BIRKENHEAD UNION.—Senior Male Resident Assistant Medical Officer. Salary, £130 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM CITY.—(1) Medical Superintendent for the West Heath Hospital and Sanatorium; salary, £300 per annum. (2) Senior and Junior Assistant Medical Officers for the Yardley Road Sanatorium; salary, £250 and £200 per annum respectively.

BIRMINGHAM: RUBERY HILL ASYLUM.—Junior Assistant Medical Officer (male). Salary, £175 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—House-Surgeon. Salary at the rate of £50 per annum.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Resident Medical Officer to Northern Branch. Salary, £160 per annum.

BRISTOL: COSSHAM MEMORIAL HOSPITAL, Kingswood.—House-Surgeon. Salary, £50 per annum.

BRISTOL GENERAL HOSPITAL.—First House-Physician, Second House-Physician, and Casualty House-Surgeon. Salary, £80 per annum.

BRISTOL ROYAL INFIRMARY.—(1) Obstetric and Ophthalmic House-Surgeon; salary at the rate of £75 per annum. (2) Resident Casualty Officer: salary at the rate of £50 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum.

CANTERBURY: BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CARDIFF: ROYAL HAMADRYAD SEAMEN'S HOSPITAL.—Medical Superintendent. Salary, £250 per annum.

CARLISLE: CUMBERLAND AND WESTMORLAND ASYLUM.—Junior Assistant Medical Officer (male). Salary, £150 per annum.

CHARING CROSS HOSPITAL, W.C.—Anaesthetist.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CHORLEY: RAWCLIFFE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

DEVON COUNTY ASYLUM, Exminster.—Fourth Assistant Medical Officer. Salary, £130 per annum, rising to £140, with honorarium of £50 at the end of twelve months for Pathological work.

DEVONPORT ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £75 per annum.

DORSET COUNTY ASYLUM.—Third Assistant Medical Officer. Salary, £200 per annum, rising to £250.

DUBLIN: PEAMOUNT SANATORIUM, Hazelhatch.—Resident Medical Superintendent. Salary, £400 per annum, rising to £500.

DURHAM COUNTY HOSPITAL.—House-Surgeon. Salary, £120 per annum.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Third Assistant Medical Officer. Salary, £200 per annum, rising to £225.

EDINBURGH SCHOOL BOARD.—Assistant Medical Officer. Salary, £300 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—House-Surgeon. Salary at the rate of £75 per annum.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon. Salary, £80 per annum.

HASTINGS: EAST SUSSEX HOSPITAL.—Senior and Assistant House-Surgeons. Salary at the rate of £100 and £70 per annum respectively.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

HUDDERSFIELD ROYAL INFIRMARY.—Male Junior Assistant House-Surgeon. Salary, £80 per annum.

HULL AND SCULCOATES DISPENSARY.—Resident Surgeon. Salary, £220 per annum.

JARROW-ON-TYNE: PALMER MEMORIAL HOSPITAL.—House-Surgeon. Salary, £170 per annum.

LANCASHIRE COUNTY ASYLUM, Winwick.—(1) Pathologist and Assistant Medical Officer: salary, £200 per annum, rising to £250. (2) Locumtenent Medical Officer; salary, 4 guineas per week.

LEAMINGTON SPA: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE HOSPITAL.—House-Physician. Salary, £80 per annum.

LEICESTER ROYAL INFIRMARY.—(1) Assistant House-Surgeon. (2) Assistant House-Physician. Salary, £80 per annum.

LINCOLN COUNTY HOSPITAL.—Junior Male House-Surgeon. Salary at the rate of £100 per annum.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Medical Registrar. Honorarium at the rate of 40 guineas per annum.

LONDON UNIVERSITY.—Graham Scholarship in Pathology. Value £200 per annum.

MANCHESTER CHILDREN'S HOSPITAL.—Assistant Medical Officer for Out-patient Department. Salary, £25 for six months.

METROPOLITAN ASYLUMS BOARD.—Male Second Assistant Medical Officer at the Leavesden Asylum, King's Langley. Salary, £180 per annum, rising to £200.

NATIONAL SANATORIUM, Benenden, Kent.—Medical Superintendent. Salary, £300 per annum.

NESTING AND LUNNASTING PARISH COUNCIL.—Medical Officer. Salary, £50 per annum.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—Qualified Medical Woman as Anaesthetist.

NEWPORT AND MONMOUTHSHIRE HOSPITAL.—Resident Medical Officer. Salary at the rate of £80 per annum for first four months, rising to £120.

NOTTINGHAM GENERAL DISPENSARY.—(1) Assistant Resident Surgeon (male): salary, £170 per annum. (2) Resident and Assistant Resident Surgeons for Branch; salary, £180 and £170 per annum respectively.

NOTTINGHAM: THE COPPICE.—Resident Medical Superintendent. Salary, £750 per annum.

OLDHAM ROYAL INFIRMARY.—Third House-Surgeon. Salary, £80 per annum.

OXFORD: WARNEFORD MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—Two House-Surgeons. Salary, £75 per annum each.

PRESTON: COUNTY ASYLUM, Whittingham.—Assistant Medical Officer. Salary, £150 per annum, increasing to £250.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—(1) House-Physician, (2) House-Surgeon. Salary at the rate of £80 per annum each.

RHONDDA URBAN DISTRICT COUNCIL.—Assistant Medical Officer of Health. Salary, £250 per annum, rising to £350.

ROCHDALE INFIRMARY.—Two House-Surgeons (unmarried). Salary, £80 and £100 per annum respectively.

ROTHERHAM HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Third House-Surgeon. Salary at the rate of £50 per annum.

ROYAL PARKS.—Medical Officers to attend park-keepers.

ST. PETER'S HOSPITAL FOR STONE, etc., Henrietta Street, W.C.—Junior House-Surgeon. Salary at the rate of £50 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—(1) Senior House-Surgeon; (2) Junior House-Surgeon (males). Salary at the rate of £100 and £80 per annum respectively.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Senior and Assistant House-Surgeons. Salary, £80 and £60 per annum respectively.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £60 per annum.

SHOREDITCH: PARISH OF ST. LEONARD.—Senior Assistant Medical Officer for the Workhouse and Infirmary. Salary, £175 per annum.

STIRLING DISTRICT ASYLUM, Larbert.—Assistant Medical Officer (woman). Salary, £100 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £80 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon (male). Salary, £90 per annum.

WEST BROMWICH AND DISTRICT HOSPITAL.—Assistant Resident House-Surgeon and Anaesthetist. Salary, £75 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL.—(1) Assistant Honorary Physician, (2) Junior House-Physician. Salary, £75 per annum.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Physician.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Surgeon (male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces the following vacant appointment: Portree (Inverness).

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

APPOINTMENTS.

ATKINSON, F. R. B., M.D., C.M.Edin., Tuberculosis Officer to the County of Middlesex.

FINDLAY, J. S., M.B., C.M.Aberd., Certifying Factory Surgeon for the Dufftown District, co. Banff.

HUNT, Arthur Douglas, M.D., Ch.B., Liverpool, additional Honorary Anaesthetist to the Derbyshire Royal Infirmary.

RADLEY, S. R., M.B., B.S.Lond., Assistant Medical Officer of the Bethnal Green Parish Infirmary.

EDINBURGH ROYAL INFIRMARY.—The following appointments have been made:

Resident Surgeons.—William F. M'Lean, to Professor Caird; Alister F. Cowan, to Mr. Cathcart; Russell E. Walker, to Mr. Wallace; D. O. Fairweather, to Mr. Brewis; R. Whitson Walsh, John M. Gillespie, and G. Maxwell Brown, Surgical Out-patient Department.

Non-Resident House-Physician.—A. Fergus Hewat, to Dr. Chalmers Watson (Ward 3).

Non-Resident House-Surgeons.—J. K. Milne Dickie, to Dr. Logan Turner; Andrew Campbell, to Dr. Malcolm Farquharson.

Clinical Assistant and Supervisor of the Administration of Anaesthetics.—Walter W. Carlew, to Surgical Out-patient Department.

Clinical Assistants.—Spence D. Reid, to Dr. Fleming (Wards 23 and 24); J. H. H. Pearson, to Dr. Chalmers Watson (M.W.R.); A. Ninian Bruce, to Dr. Edwin Matthew (M.W.R.); Gideon Walker, to Professor Caird; G. G. Marshall, to Dr. Hodsdon; John Honeyford, to Dr. Logan Turner; J. L. Houlton, to Dr. Logan Turner (for three months only); Miss Ara G. Murchison, to Medical Electric Department.

Resident Physicians.—S. J. Linzell, to Dr. R. A. Fleming (Wards 23 and 24); W. G. Thwaytes, to Dr. Russell; Alban Andrews, to Dr. Graham Brown.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

RANKINE.—On April 10th, the wife of J. L. Rankine, M.R.C.S., Rowletown, Carlisle, of a daughter.

MARRIAGES.

HARRIS—SANDBACH.—On April 3rd, at S. Cuthberts Church, Kensington, by the Rev. Henry Westall, Frederic Rosenberg Harris, M.R.C.S., L.R.C.P., of Otterbourne, Hampshire, to Norah, youngest daughter of the late Andrew Sandbach, Esq., of Ipswich.

RIGGALL—MOORE.—At Malew Parish Church, Isle of Man, on April 8th, by the Rev. Canon Spicer, Robert Marmaduke, Surgeon, Royal Navy, son of the Rev. M. Riggall, of Alford, Lincs., to Mary Douglas, eldest daughter of Lieutenant-Colonel Moore, of The Great Meadow, Castletown, Isle of Man.

DEATHS.

MILWARD.—On April 9th, suddenly, at 5, Glossop Terrace, Cardiff, W. Courtney Milward, aged 41.

STIRLING.—On the 13th inst., at Belfield Lodge, Fallowfield, Manchester, Elizabeth Ferguson, wife of William Stirling, M.D., Professor of Physiology, Victoria University of Manchester.

DIARY FOR THE WEEK.

MONDAY.

ROYAL COLLEGE OF SURGEONS, Lincoln's Inn Fields, W.C., 5 p.m.—Museum Demonstration:—Mr. Shattock: Specimens illustrating Atrophy.

ROYAL SOCIETY OF MEDICINE.—5 p.m. Discussion: On Alimentary Toxaemia: its Sources, Consequences, and Treatment (Third Meeting); to be reopened by Mr. Lockhart Mummery and continued by Professor Arthur Keith.

TUESDAY.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, W., 8.30 p.m.—Paper: W. A. Brend, M.A., M.B.: The Futility of the Coroner's Inquest.

ROYAL SOCIETY OF MEDICINE:

SECTION OF MEDICINE, 5.30 p.m.—Papers:—Dr. Lyon Smith: Gout and Chronic Rheumatism; Dr. T. D. Lister: Ambulatory Treatment by Means of Tuberculin.

WEDNESDAY.

HUNTERIAN SOCIETY, St. Bartholomew's Hospital Library, 8.30 p.m.—Dr. A. Graham-Stewart (annual medallist): Raised Arterial Pressure and Arterio-Sclerosis.

KING'S COLLEGE, W.C., 4 p.m.—Dr. William Brown: Abnormal Psychology.

THURSDAY.

HARVEIAN SOCIETY OF LONDON, Stafford Rooms, Titchborne Street, Edgware Road, W., 8.30 p.m.—Paper:—Dr. T. J. Horder: Infections Due to the *Bacillus coli*.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 1, Wimpole Street, W., Annual Meeting.—10.30 a.m., Papers:—Mr. Frank Juler: Treatment of Keratitis in Cases of Exophthalmic Goitre; Mr. Osmond: Permanent Hemianopia following Migraine; Drs. Taylor and Gordon Holmes: Heredity and Family Optic Atrophy; Mr. Bishop Harman: Myopia. 2.30 p.m.—Papers:—Mr. Angus Macnab: Excision of Conjunctival Sac and Lid Margins; Mr. Dorrell: Tobacco Amblyopia; Mr. Treacher Collins and Mr. Hudson: Congenital Staphyloma; Mr. Treacher Collins: Visible Vessels on the Surface of the Iris.

ROYAL SOCIETY, Burlington House, W., 4.30 p.m.—Cecil Revis: The Value of *B. coli* in Soil and Production of Two Permanent Varieties.

FRIDAY.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM, 1, Wimpole Street, W.—10.30 a.m., Discussion on Vascular and other Retinal Changes in Association with General Disease. 2.30 p.m., at the Royal London Ophthalmic Hospital.—Demonstration and Discussion of Cases.

ROYAL COLLEGE OF SURGEONS, Lincoln's Inn Fields, W.C., 5 p.m.—Museum Demonstration:—Professor Keith: Specimens illustrating Congenital and Acquired Deformities of the Spine.

ROYAL SOCIETY OF MEDICINE:

SECTION OF DISEASES OF CHILDREN, 4.30 p.m.—Demonstration of Cases and Specimen. Communications:—Mr. Anglin Whitelocke: (1) Operation for strangulated hernia in an infant 18 days old. (2) Case simulating meningitis.

SECTION OF EPIDEMIOLOGY AND STATE MEDICINE, 8.30 p.m.—Dr. T. Shadick Higgins: The Diphtheric Bacillus and Scarlatinal Infection. Surgeon McCowen, R.N.: Sleeping Sickness in Principe Island and Angola, West Coast of Africa.

POST-GRADUATE COURSES AND LECTURES.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC, Thursday, 4.15 p.m.—Demonstration of Medical and Surgical Cases by the Members of the Honorary Staff (Post-Graduate Clinic).

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Thursday. Radiography: Saturday. Special lectures each week.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Ear, Nose, and Throat. Special Lectures at 5.15 p.m. daily.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Thursday, 4 p.m.: The Common Eye Disease of Childhood—Phlyctenulosis.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Monday and Thursday, 4.30 p.m.; Friday, 3.30 p.m.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, 2 p.m.; *X* Rays and Operations daily. Gynaecology: Monday, Tuesday, Wednesday, and Friday. Eye: Monday, Wednesday, Thursday, and Saturday. Throat, Nose, and Ear: Tuesday, Wednesday, Friday, and Saturday. Skin: Tuesday and Friday. Pediatrics: Saturday.

[For further particulars of Lectures consult the Index to Advertisements.]

RECENT PUBLICATIONS.

A Compendium of Aids to First Aid. By N. Corbet Fletcher, B.A., M.B., B.C.Cantab. London: John Bale, Sons, and Danielsson. 1913. (Medium 16mo, pp. 40. Price 6d. net.)

A booklet containing a number of tips, of a kind familiar to medical and other students, for the benefit of first aid workers. The author is lecturer to the Broad Street Division of the ambulance department of the London and North-Western Railway, and a brief preface is supplied by Mr. J. Cantlie.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		APRIL.
23	Wed.	London: Council Meeting, 11 a.m. Richmond Division, Richmond, 8.30 p.m.
24	Thur.	South-West Essex Division, Walthamstow Hospital, 4 p.m. Staffordshire Branch, Wolverhampton, 5.35 p.m.; Dinner, 7 p.m.
25	Fri.	Birmingham Branch, Pathological and Clinical Section, Medical Institute, 8 p.m.
30	Wed.	East Anglian Branch, Colchester.
		MAY.
1	Thur.	Camberwell Division, Annual Meeting, Camberwell Infirmary, 4 p.m. Lincoln Division, Lincoln.
3	Sat.	**Nominations for Election to Council to be forwarded to the Financial Secretary and Business Manager.**
7	Wed.	Newcastle-on-Tyne Division, Annual Meeting, Newcastle-on-Tyne, 8.30 p.m. South-Eastern of Ireland Branch, Kilkenny, Victoria Hotel, 5.15 p.m.
9	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
17	Sat.	Last day for receipt of Nominations for Members of Council.
20	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
21	Wed.	Dorset and West Hants Branch, Annual Meeting, Bournemouth. Richmond Division, Richmond, 8.30 p.m.
24	Sat.	List of Nominations for Election on Council will be published in the JOURNAL of this date.
		JUNE.
4	Wed.	South Middlesex Division, Annual Meeting, Twickenham, 8.30 p.m.
6	Fri.	Hampstead Division, Annual Meeting.
7	Sat.	Date of issue of Voting Papers for Council Election from Head Office.
14	Sat.	Last day for receipt of Voting Papers at Head Office *re* Council Election.
28	Sat.	Announcement of result of Election of Members to Council.

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, APRIL 26TH, 1913.

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National Insurance.

LOCAL MEDICAL COMMITTEES.

HACKNEY.

THE following are the names of practitioners in the borough of Hackney elected to form the District Medical Committee:

Dr. Rowland Smith, J.P., *Chairman*	Dr. H. Christoffers Powell
	Dr. Geo. C. Slimon
Dr. C. Wyndham Gittens, 38, Powerscroft Road, Clapton, N.E., *Secretary*	Dr. J. Gundlach
	Dr. F. T. Keenan
	Dr. W. J. Deighan
Dr. A. G. Southcombe	Dr. A. T. Swan
Dr. C. E. Evans	Dr. W. Brander
Dr. Montague Smith	Dr. H. C. Dixon
Dr. T. Rushbrooke, J.P.	Dr. C. F. Hadfield
Dr. A. W. Miller	Dr. J. M. Laughton
Dr. Myer Cohen	Dr. D. Petty
Dr. A. W. Vardon	Dr. S. Wilson
Dr. E. J. T. Moore	

Representatives on the District Insurance Committee.—Dr. T. Rushbrooke, J.P., Dr. A. W. Miller.

Application has been made to the Insurance Commissioners for recognition.

BOURNEMOUTH.

THE Bournemouth Local Medical Committee met again on April 19th to give further consideration to the scheme formulated by the Commissioners for the treatment of temporary residents. It was decided to advise the panel to accept it provisionally, and to sign the new agreement for three months from April 15th. The Committee considered the scheme to be a genuine attempt to solve this very difficult problem, and was therefore willing to give it a fair trial, but it has pointed out to the Commissioners that if it results in the practitioners on the panel having to accept anything less than the very moderate fees set out in para. 15 of Form 161/I.C., it will point to a very grave defect in the Act and a very serious injustice to the profession generally. The Committee therefore reserved the right to raise the question again, if necessary.

The Secretary was instructed to write to the Insurance Committee strongly objecting to the suggested charge on the part of the chemists of 1d. for each prescription copied. The panel would prefer to continue giving a duplicate prescription rather than allow this charge to be made.

BRADFORD.

THE following is a list of the members of the Bradford Local Medical Committee:

Dr. Manknell, *Chairman*	Dr. Dunlop
Dr. J. F. Allen, 39, Whetley Lane, Bradford, *Secretary*	Dr. Hope
	Dr. Mitchell
Dr. Bell	Dr. Naylor
Dr. Campbell	Dr. Sharpe
Dr. Carroll	Dr. Shackleton
Dr. Clow	Dr. Wheatley
Dr. Dunsmore	Dr. Willson

Representatives on Insurance Committee.—Elected by the profession: Drs. J. F. Allen and H. Shackleton. Appointed by the Commissioners: Drs. Campbell and Enrich.

Representatives on the Medical Service Subcommittee.—Drs. Carroll, Mitchell, and Sharpe.

NORTHAMPTON.

A MEETING was held at the General Hospital on April 15th. Dr. BUSZARD was in the chair, and seventeen other members were present.

A letter was read from the Northampton Insurance Committee approving of the scale of fees suggested by the Medical Committee for insured persons who temporarily resided in the area. The meeting agreed to the recommendation of the Insurance Committee that:

> Money available for the period ending April 14th from those persons who have not selected a doctor be distributed in equal shares among medical men on the panel.

The Honorary Secretary was directed to write to the Insurance Commissioners asking that a uniform certificate be issued for all approved societies, and that not more than one "declaring on" certificate be required.

Dr. BEATTY announced his resignation from the Insurance Committee.

Dr. Ross was elected Honorary Treasurer, and Mr. Cooke re-elected Honorary Secretary.

Drs. Milligan, Cairns, and Sanders were selected to serve on the Medical Service Subcommittee.

LEICESTER.

THE Local Medical Committee for the Borough of Leicester has been recognized and is constituted as follows:

Dr. R. Wallace Henry, *Chairman.*
Dr. E. W. Holyoake, 2, Tower Street, Leicester, *Honorary Secretary.*

Dr. Astley Clarke	Dr. Martin
Dr. C. H. Clarke	Dr. Lilley
Dr. Crosfield	Dr. Peake
Dr. Ewnes	Dr. Salomon
Dr. L. K. Harrison	Dr. Shearer
Dr. Higgs	Dr. P. E. Snoad
Dr. Moffat-Holmes	Dr. Waite
Dr. MacAllister Hewlings	Dr. Williams

Representatives on the Local Insurance Committee.—Drs. R. Wallace Henry and Moffat-Holmes.

The Pharmacopoeia of the Leicester Public Medical Service, with a few minor alterations, has been accepted, and is now being used throughout the town in prescribing not only for insured but also for non-insured persons. The Oddfellows and Foresters have "contracted out" under the Harmsworth amendment, and arrangements have been made whereby the members of these societies may be attended by any of the staff of the Public Medical Service.

The Local Insurance Committee has agreed to postpone for two months the date of allotment of those persons who have not yet chosen a doctor, and it has been decided to divide the money due on account of those persons in direct proportion to the number of persons on each practitioner's list.

As the result of representations made to the Local Insurance Committee, a letter has been sent by it to the Commissioners urging that anaesthetics, diseases due to misconduct, miscarriages, and abortions be treated as extras.

Representations have been made to the Local Insurance Committee to the following effect: (1) That the "Model Rules" be adequately circulated among insured persons; (2) that it is advisable to appoint deputies for the directly elected representatives on the Insurance Committee; (3) that it is advisable to appoint medical referees with a view to the prevention of malingering.

An improved form of prescription book has been decided on which does away with the use of the carbon paper, and in which the prescriptions are written in duplicate.

WEST SUFFOLK.

AT a meeting of the Local Medical Committee on April 5th the Secretary was instructed to send a report of the meeting to all practitioners on the panel, to draw their attention to the powers of Local Medical Committees, and to request them not to sign any papers referring to medical or sanatorium benefit, should such be issued by the Insurance Committee, without consultation with the Local Medical Committee, and, further, to request practitioners to refer all matters of doubt or dispute to the Local Medical Committee.

It was agreed to undertake to continue service to May 31st, 1913.

The proposed new contract (Form Med. 29) was discussed in conjunction with the recommendations of the State Sickness Insurance Committee of the British Medical Association, and further recommendations were drawn up and adopted for consideration at a joint meeting with the Emergency Medical Benefit Subcommittee of the County Insurance Committee.

At the joint meeting held subsequently Dr. WOOD, on behalf of the Local Medical Committee, protested against the issue of Circulars M.B., 23 and 26, without reference to the Local Medical Committee, which had the right to be consulted on all matters relating to medical benefit. The CHAIRMAN and CLERK of the Medical Benefit Subcommittee having explained the circumstances in which the circulars were issued, gave an unqualified assurance that in future all such matters would be referred to the Local Medical Committee. A discussion of the recommendations of the Local Medical Committee followed, and the members of the Insurance Committee expressed their readiness to meet the profession to the full extent of their powers.

MEETINGS OF INSURANCE COMMITTEES.

CAMBRIDGESHIRE.

Illnesses and Village Gossip.

AT the last meeting of the Cambridgeshire Insurance Committee the Medical Benefit Subcommittee recommended that certificates with regard to sickness benefit should be uniform for all societies and should specify the nature of the illness. Dr. B. E. FORDYCE said that patients had complained that the illnesses from which they were suffering were becoming public property and the subject of gossip. It was most desirable that friendly society officials should use great discretion in this matter. Miss BRISCOE remarked that people's illnesses should not be the subject of discussion in small villages. The CHAIRMAN said the friendly societies must have the information, but if anything leaked out through officials there was a possibility of their being discharged. The recommendations of the subcommittee were approved.

SURREY.

Contracting Out.

It was reported to the Surrey Insurance Committee last week that 225 applications for permission to make their own arrangements had been received from insured persons, and of these 220 had been granted, 143 being in respect of persons who desired to continue their present medical attendant. General ELLES, who moved the adoption of the report, remarked that there was not a discordant note throughout a conference held with medical men, although only one of the doctors was on the panel and one or two had been pronounced opponents of the Act. He added that the scale of fees fixed in connexion with contracting out were higher as regards attendance at home or surgery and for special visits than the scales fixed in Kent and London, but the Committee did not see any disadvantage in this. There was only so much money, and it had all to go to the doctors. The report was adopted.

DERBY.

Objections to Publicity regarding Sanatorium Benefit.

Strong objection was taken at the last meeting of the Derby Insurance Committee to the publication in the printed agenda sent to members of the names, addresses, and occupations of recipients of sanatorium benefit. It was mentioned that persons had been deterred from applying for sanatorium benefit by the knowledge that the fact would become so widely known.

A motion that in future the cases should be designated by numbers was defeated by 13 votes to 9. It may be pointed out that in London and Middlesex, to mention two cases, the system rejected in Derby has been adopted without question from the outset.

NORTHUMBERLAND.

Mileage Rate in Inaccessible Districts.

The Northumberland Insurance Committee having approved a mileage rate of 2s. 6d. for distances over three miles in those districts of the county coming under the description of "mountain and fell," the medical men concerned asked that the limit of distance should be two miles instead of three. The Chairman, Mr. GERALD FRANCE, M.P., at a meeting of the Committee last week, said he had put the matter before the Insurance Commission, which would raise no objection to any alteration that satisfied the Committee as being fair. Medical men in other parts of the county raised no objection to the limit of two miles asked for by their colleagues, and he proposed that the request be granted. There was some opposition, but ultimately the motion was carried by 22 votes to 9.

INSURANCE NOTES.

THE ALLOCATION OF THE "RESIDUE."

THE period during which insured persons might select a doctor having expired, questions connected with the allocation of the residue who have not made a selection are now occupying the attention of many Insurance Committees. In the larger cities it appears that many clerks and others in similar occupations, whose incomes are near the income limit of £160, not only have not chosen a doctor but are unlikely to call in the doctor to whom they are allotted. They will continue to be attended by their own medical man. This point has come before the Bristol Insurance Committee, and it is stated that as the Insurance Fund cannot make a saving in respect of these cases, the usual payment will go to the doctor to whom the insured person is allotted, whether that person goes to him or not when ill.

As has been the case in regard to other matters involving questions of principle, widely differing decisions have been arrived at by various Insurance Committees in the matter of allocation.

The Paisley Committee has approved the principle, with regard to allocation, that no doctor shall have more than 1,800 names on his list until each has at least 1,800, and that any balance of a doctor's share remaining after bringing his total up to that number shall fall into a common pool for division equally among the others. Women doctors will only have female insured persons allocated to them.

The Dundee Committee on April 16th decided that no doctor whose list exceeded 1,800 (there were fourteen doctors with lists in excess of this number) would share in the allocation, and a process of levelling up would be adopted. Any doctor with 1,200 to 1,700 was to have his list increased to 1,800; those with 800 to 1,100 were to be increased to 1,550, those with 500 to 700 were to be increased to 1,300, and those with 100 to 300 were to be raised to 1,000. It was suggested that the Local Medical Committee should deal at a future date with those cases in which doctors have a very large number on their lists.

The arrangements of the Walsall Committee were criticized by Dr. Martin and Dr. Hawley on the ground that the method of allocating would penalize the doctors who had done all the work during the quarter. Objection was raised, particularly, to the money accrued during the quarter in respect of the "residue" being handed over to the doctors to whose lists the names would be added for the quarters to come. The suggestion was that this money should be divided equally among all the doctors on the panel.

At the last meeting of the Brighton Insurance Committee Dr. Rylo moved and Dr. Fothergill seconded a motion to instruct the Medical Service Subcommittee to consult the Local Medical Committee on the principles to be adopted in the allocation of insured persons who had not chosen a doctor. The motion was lost after debate, and the Insurance Committee subsequently decided as follows:

> That for the purposes of allocation the borough be divided into districts; that the clerk ascertain from the doctors on the panel the number of insured persons in addition to those already on their lists for whose medical treatment they are prepared to be responsible; and that the Medical Benefit Subcommittee on receipt of that information be authorized to carry out the allocation in such a manner as may be deemed most expedient by it.

INSURED PERSONS AND HERBALISTS.

The West Riding Insurance Committee having decided not to recognize for the purposes of medical treatment under the Insurance Act any but duly registered medical practitioners, a protest meeting was held on April 17th at Sowerby, where (the *Yorkshire Observer* states) a medical herbalist has an extensive practice. A resolution was passed protesting against discretion being refused to insured persons to make their own arrangements for treatment, whether orthodox or unorthodox.

NATIONAL MEDICAL UNION.

A meeting of the Executive Committee of the National Medical Union was held at 5, John Dalton Street, Manchester, on April 16th. The present position under the National Insurance Act as it affects those practitioners who have not taken service was discussed. It was reported that inquiries with regard to membership had been received from doctors all over the country. Many of them had retired from the panel, while others had expressed their determination to do so at the first available opportunity. Twelve men from the Salford area had notified that, having removed their names from the lists, they wished to join the Union. The Honorary Treasurer reported that the finances of the association were in a satisfactory condition. It was decided that a general meeting of the Union should be held shortly, and a subcommittee was appointed to deal with the organization of the Union with a view to concerted action in the future.

We are informed that the following medical men resident and practising in Broughton and Prestwich districts within the area of the Salford Division have decided to refuse to attend patients under the National Insurance Act: Drs. G. H. Pinder, D. MacMillan, A. M. Kinghorn, J. W. Grange, G. W. Beesley, W. C. Johnson, S. Yeoman, F. Stephenson, D. P. Paul, A. C. Clarke, E. T. Larkam, T. P. Allen, C. Politachi, and J. Rust.

REPORTS OF LOCAL ACTION.

IRELAND.

National Insurance Act.

A MEETING of the Advisory Committee to the National Health Insurance Commissioners was held in Dublin on April 15th. Mr. J. A. GLYNN, Chairman of the National Insurance Commissioners, who was in the chair, said that the Commissioners had, through the Insurance Committee Branch and Medical Branch, recognized locally twenty-six Medical Committees which were set up by the doctors under Section 62 of the Act, and although Ireland had not medical benefits the Commissioners had acquiesced in the desire of the doctors to appoint those Medical Committees, and to consult them in all questions which affected the medical profession in the counties in which they were set up. There were thirteen of these still to be set up, and as soon as the nominations were received for those areas Medical Committees for them would be approved. Practically all the county councils had taken in hand the matter of sanatorium benefits, and were erecting either alone or in conjunction with other county councils their own sanatoriums or making provision with existing sanatoriums for the indoor treatment of their patients. Mr. Glynn then gave a history of the negotiations with the societies and the Conjoint Committee of the British Medical Association and Irish Medical Association with regard to the grant of £50,000 for certification. The Conjoint Committee, he said, had recommended that for the six county boroughs and larger towns the capitation fee of 1s. suggested by the Commissioners should be reduced to 9d., and that the capitation rates in the county areas should be correspondingly increased. Up to April 14th acceptances had been received from 610 doctors in Ireland to act on the panel; of these, 14 had since withdrawn. The panels in Belfast, Cork, and Londonderry were filled in these cities, having respectively 117 out of 260 doctors, 37 out of 96, and 17 out of 40. The panels in Dublin, Limerick, and Waterford had not been filled. The panels were completed in twelve counties, by which he meant that the number of doctors who had joined the panels in these counties was sufficient for every insured person in the county. The counties that had filled were Antrim, Armagh, Clare, Cork, Donegal, Down, Fermanagh, Londonderry, Longford, Mayo, Monaghan, and Sligo. Some of the other counties had got a reasonable number of doctors, but not a sufficient number to cover the whole of the areas. The Commissioners had guaranteed to doctors working on the panels that they would get the preference in any scheme that was formulated or in any arrangements that might be come to. In only eight counties and county boroughs had no application been received. In those counties where panels had not filled the Insurance Commissioners were determined that, so far as in them lay, the people would be provided with efficient medical certification. The following resolution and addendum were passed:

That in certain insurance areas, where the panels have failed to fill, the Commissioners, after consultation with the approved societies and Insurance Committees of these areas, appoint medical practitioners for purposes of certification.

That in the case of societies which already have medical officers certificates from these officers will be accepted and paid for per capita in accordance with the number of members of these societies in those areas covered by the first part of the resolution.

The following members dissented: Dr. Power, Dr. Donnelly, Dr. Darling, and the Right Hon. M. F. Cox, P.C., M.D.

The Honorary Secretary of the Longford Local Medical Committee has since written to the daily press expressing amazement at hearing that the panel in that county had been filled. He states that, on making inquiries at the post office, nothing is known about it there; he thinks that possibly one doctor in the whole county has accepted the position. At a meeting of the medical practitioners of the county, held on April 5th, it was unanimously decided to refuse to form a panel. With regard to co. Down also there seems to be some doubt as to the correctness of Mr. Glynn's statement.

County Councils and the Extension of Medical Benefits.

At a meeting of the County Councils General Council held in Dublin on April 18th, the question of the extension of medical benefits to Ireland was considered. One of the speakers said that the friendly societies desired this extension because they already gave medical benefit to their members, and that some of the higher wage-earners in the cities would be willing to pay increased contributions for medical benefit, but that this was the beginning and the end of the argument for extension. A resolution was passed declaring that medical benefits should not be extended to Ireland, except in county boroughs, unless accompanied by a revision of the Poor Law medical system. As the Actuary to the Irish Insurance Commissioners has stated that extension to the county boroughs and not to the rest of the country is "actuarially impossible," this would seem to be a resolution directly against the extension to Ireland unless accompanied by a revision of the Poor Law system. It is admitted that a very large number of the people receive benefits under the Medical Charities Act who would never come under the National Insurance Act; therefore it is not enough merely to abolish the Poor Law system to make way for the extension of medical benefit. The question of the amalgamation of the two systems, even if possible, presents many difficulties, and would demand prolonged deliberation before it could be attempted.

Derry Doctors and the Friendly Societies.

As a result of the failure of the Federation of Derry Benefit Societies to arrange terms with the local doctors, it has been decided to import a number of medical men to the city. The dispute has gone on since the doctors resigned their contract appointments in January last. At a meeting of the Federation last week, a deputation which had waited on the city doctors in the hope of being able to settle the dispute, reported that the doctors had rejected their terms. A proposal to bring to the city a number of doctors who had applied for appointments was carried unanimously.

SCOTLAND.

Local Medical Committee for Midlothian.

The Local Medical Committee for Midlothian consists of Dr. Andrew Douglas Ramsay Thomson, Musselburgh, and of Dr. Alexander Maitland Easterbrook, Gorebridge, representing the practitioners; of Dr. Simson Carstairs Fowler, Juniper Green, and Dr. James Cameron, Loanhead, representing the Commission; and of Dr. Robert Inch, Gorebridge, and Dr. William Young, West Calder, representing the County Council.

Edinburgh Medical Guild.

The Medical Guild (Edinburgh), which, it will be remembered, is an association of medical practitioners who have not joined the panel under the Insurance Act, at its meeting on April 17th, when Dr. Playfair was in the chair, adopted the following motion unanimously:

That it is against the policy of the Guild for members to sign the private arrangements circulars which have been issued by the Edinburgh and Leith Insurance Committees.

It was recommended that any members who had signed those circulars should apply to the clerks of the committees for permission to withdraw their signatures. The Secretary was instructed to circularize the members regarding this motion.

Change of Doctor.

The Secretary to the Scottish Insurance Commissioners (Mr. John Jeffrey) has replied (April 17th) as follows to a correspondent who made inquiry as to change of doctor:

The transference of an insured person from the list of one doctor to that of another on the same panel cannot take place in the course of the year except under the following circumstances: (1) With the written consent of the two doctors affected and of the insured person on the appropriate form obtainable from the Insurance Committee; (2) upon a change of residence within the area of the Committee rendering it impossible for the insured person to obtain treatment from the doctor selected, in which case the Insurance Committee should be notified; (3) as the result of an inquiry arising between the insured person and his panel doctor where the Insurance Committee consider a change of doctor desirable; or (4) upon a doctor ceasing to practise within the area or being removed from the panel. In all other cases the insured person remains on the list of the doctor who accepted him or to whom he has been assigned till the end of the medical year. A change of doctor may be arranged for the following year by the insured person giving notice to the Insurance Committee not later than one month before the date of revision of the medical list, of which public notice will be given by the Insurance Committee. Special provisions apply in the case of an insured person changing his residence from the area of one Insurance Committee to that of another.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

On Thursday, April 17th, the State Sickness Insurance Committee appointed by the Special Representative Meeting in November, 1912, was held at the house of the Association, 429, Strand, W.C. Mr. T. Jenner Verrall (Chairman of Representative Meetings) was in the chair, and the other members present were:—*England and Wales:* Dr. R. M. Beaton (London), Dr. E. R. Fothergill (Brighton), Miss F. Ivens, M.S. (Liverpool), Dr. Herbert Jones (Hereford), Dr. Constance E. Long (London), Dr. E. O. Price (Bangor), Dr. D. G. Thomson (Norwich), Mr. E. B. Turner (London). *Scotland:* Dr. John Adams (Glasgow), Dr. R. McKenzie Johnston.

Apologies for Absence.

Apologies for absence were read from the Chairman and Mr. D. F. Todd (Sunderland).

Report to Council.

The greater part of the time of the Committee at this meeting was given up to the consideration of the recommendations which it should make for the consideration of the Council at its meeting on April 23rd. The decision of the Council with regard to these recommendations will be embodied in the annual report of the Council to be published in the next issue of the Supplement.

Dispensing.

The Committee adopted the following resolution with regard to practitioners dispensing:

That the present is not an opportune time for the Association to take action in pressing that medical practitioners should be allowed to dispense medicines for those of their patients who are insured persons.

Dispensers Holding Apothecaries' Society's Certificate.

On consideration of a communication from the Society of Apothecaries the Committee resolved that as the matter was not one directly affecting the medical profession, the Association should not press for amendment of the Insurance Act to protect the interests of persons holding the certificate in dispensing from the Society of Apothecaries.

Transfer of Patients.

A communication from the Honorary Secretary of the Tower Hamlets Division, drawing attention to the fact that the form of application issued by the London Insurance Committee for transfer from one practitioner to another required a statement by the insured of his reason for changing, and pointing out that the Regulations authorized the patient to change his medical attendant subject to the consent of the two practitioners concerned, was received and discussed. The Committee resolved to address the following letter to the Insurance Commissioners:

April 21st, 1913.

Sir,

The attention of the State Sickness Insurance Committee of the Association has been drawn to Form M.B. 3 issued by the Insurance Committee for the County of London. This is a form issued to insured persons desiring to be transferred from one practitioner to another under Regulation 26 (*a*). The form requires a statement from the insured as to his reasons for desiring to so change his doctor.

I am instructed to state that the State Sickness Insurance Committee is unable to find anything in Regulation 26 which requires such a statement to be made. In fact, according to the final paragraph of that Regulation, a transfer may actually have taken place seven days before a practitioner need give notice of the transfer to the Insurance Committee. Form M.B. 3, on the other hand, would lead any one reading it to believe that the consent of the Committee was necessary to the transfer, and, furthermore, that any transfer could not take place until that consent had been obtained.

The State Sickness Insurance Committee is unable to find anything in Regulation 26 bearing that colour, and, moreover, is of opinion that any demand for the reasons for change on the part of the Insurance Committee is not only an infraction of the Regulation, but will place serious obstacles in the way of a procedure which seemed quite simple, and was accepted as satisfactory by the medical profession.

My Committee trusts that the Commissioners will at once draw the attention of the Insurance Committee for the County of London to the fact that the form in question goes beyond the terms of the Regulations.

I am, Sir,
Your obedient servant,
Alfred Cox,
Medical Secretary.

The Secretary,
National Health Insurance (Joint) Committee,
Buckingham Gate, S.W.

A letter was addressed to the London Insurance Committee in identical terms, except that in place of the last paragraph of the letter to the Commissioners it was asked whether the London Insurance Committee had received authority from the Commissioners to issue the form.

Public Medical Service Schemes.

Schemes for the treatment of uninsured persons submitted by the Woolwich Division and by the West Herts (Watford Ward) Division were approved, subject in the second case to the clearing up of one point in doubt.

INSURANCE ACT IN PARLIAMENT.

Amending Bill.

In reply to Mr. Worthington-Evans, the Prime Minister stated that he could not yet give a date for the introduction of the bill to amend the National Insurance Act.

Medical Benefit to Temporary Residents.

As anticipated in our notes in a recent issue, the Commissioners have decided to establish a Central Fund to be managed by the Commissioners for the purposes of paying for the medical attendance and treatment of insured persons who either remove occasionally for a temporary purpose, as, for instance, seaside visitors, or move frequently in the course of their occupation from place to place, as, for instance, members of theatrical companies.

The proposals of the Commissioners are explained in the Memorandum 161/I.C. which was printed in our issue last week.

It is laid down that the Central Fund "must contain such a sum as will afford a rate of remuneration in respect of the fees charged against it equivalent to the average rate of remuneration received by doctors all over the country in respect of the treatment of other insured persons." To secure this object the sum to be transferred in respect of every "temporary resident" requiring treatment from the funds of the committee of the district of his previous residence will be at an ascertained "case-value." The "case-value" is ascertained by calculating the average sum paid to doctors and chemists in respect of every insured person actually treated in that committee's area—for example, if one-third of the insured population is ill, the average rate of remuneration in respect of each person requiring treatment would yield a "case-value" of 27s., being 9s. × 3, for the provision of medical attendance and drugs.

The distribution of the Central Fund in respect of persons moving from one Committee area to another is to be managed by the Commissioners, and the notification of the removals and the provision of the vouchers is substantially the only work which will fall on the Local Insurance Committee.

In order to take advantage of this arrangement, the insured person who makes a temporary move must obtain a voucher in the form of a green card, similar to the one now issued for medical men's records. This voucher will be presented by the insured person to the medical man whom he may require to call in when temporarily away from his ordinary abode.

In the case of the second class—namely, those persons who habitually move from place to place, it is proposed that the whole of the money for medical benefit (9s. for each insured person) shall be pooled in a central fund, out of which the payments will be made. In this case there is no "case-value" attached to the individual insured person, as the whole of the moneys are pooled in respect of the whole class.

Out of the Central Fund the Commissioners will credit to the different societies the amount which represents their share of the pool to pay the medical men's accounts in the area—in other words, the system is that of payment for attendance out of a pool applied to these classes of persons.

Representatives of Insured Persons on Insurance Committees.

In reply to Mr. Snowden, Mr. Robertson stated that Regulations had been issued by the Scottish Commissioners with regard to the election of the representatives of insured persons on Insurance Committees, and the corresponding Regulations for England, Ireland, and Wales were now under consideration. The Regulations of the Scottish Commissioners were so framed as to take into account the number of members of each society operating in each committee area.

Estimated Cost of Administration.

Mr. Jesse Collings asked the Secretary to the Treasury the total cost, including every item, of administering the National Insurance Act for the year 1912–13, and the total estimated cost of the same for the year 1913–14.—Mr. Robertson replied as follows: The figures of actual expenditure for 1912–13 are not yet available. The estimated figures for 1913–14, as I have explained in my reply to previous questions, are:

Central administration	£ 855,659
Approved societies and Insurance Committees	2,615,200
	£3,470,859

The sum of £2,615,200 includes the aggregate of the maximum amounts allowed to be carried by societies to their administration account. Any sums saved within these maximum amounts will ultimately be available after valuation for additional benefits.

Mr. Schuster's Appointment.

In reply to Mr. J. D. Rees, Mr. Robertson stated that Mr. Claud Schuster had been appointed legal member of the Health Insurance Commission as from May 13th next without extra remuneration as compared with his former post of secretary and legal adviser. He stated that the separation of the posts of secretary and legal adviser would entail the addition of £1,000 a year on the administrative side in repect of the salary of the new secretary, but that a saving of about the same amount on the legal

side would be made in view of the additional time which Mr. Schuster would be able to devote to that side of the work.

Marriage Certificates.

In reply to Mr. Stanier, Mr. Masterman stated that the question of enabling insured persons who require copies of their marriage certificates in connexion with a claim for benefits under the National Insurance Act being able to obtain them at a reduced rate was receiving consideration.

Number of Lowly Paid Contributors.

In reply to Mr. Worthington-Evans, Mr. Masterman stated that the number of employed contributors of 21 and over whose rate of remuneration did not exceed 2s. a day, and in respect of whom claims had been made for the first quarter for the payment of the State contribution of 1d. were as follows:

Men	...	...	...	85,000
Women	...	...	...	326,000

These figures applied to all parts of the United Kingdom.

Medical Benefit.

Dispensing by Country Practitioners.

In reply to Mr. Fitzroy, who inquired as to whether in rural districts where a medical man dispenses his own drugs to insured persons he is entitled to have inserted in his agreement a clause securing to him the right to receive the additional 2s., and whether he was aware that county Insurance Committees, whilst assuring rural doctors that they were entitled to the money, had stated that they had no authority to insert a clause in the agreement to that effect, but that the medical men must rely on their undertaking only, Mr. Robertson said it was open to an Insurance Committee to make a special agreement to the effect suggested in the question, but it was not necessary, as the security desired was afforded by the terms of the agreement as it stood and did not depend simply on an undertaking of the committee.

Limiting Medical Lists.

Mr. Wardle called attention to a resolution of the medical men for South Shields limiting the number of patients to 800, and allocating those insured persons who had not selected their medical adviser on March 22nd, 1913, to those doctors who had less than 800 persons on their lists, and inquired whether such practice was contrary to the provision of the National Insurance Act, which guaranteed free choice of doctor, and what it was proposed to do in face of the local dissatisfaction which had been caused by this resolution. Mr. Robertson stated in reply that he understood that the method of allocation proposed had been recommended by the Local Medical Committee and by a majority of the practitioners on the panel present at a meeting held to consider the question, but that the Insurance Committee had not yet arrived at any decision. The proposed allocation only applied to those insured persons who had failed to exercise their right of choosing, and therefore it could not if adopted have the result of preventing more than 800 persons choosing a particular doctor.

Scottish Clerks' Association.

In reply to Mr. Watt, Mr. Robertson stated that it was proposed to issue within a short time a full statement with regard to the position of the Scottish Clerks' Association and the arrangements for medical benefit.

In reply to a further question by Mr. Watt, who inquired whether it was necessary for an approved society itself to employ and pay medical attendants or whether it was possible for the individual members to employ and pay where they made their own arrangements and to be refunded by the society, Mr. Robertson said that the answer of the first part of the question was in the negative, and that medical benefit would be administered by the Insurance Committees and not by the approved societies, and that persons who were allowed by Insurance Committees to make their own arrangements would receive contributions from the committees towards the cost of such attendance and treatment through the committees and not through the societies.

Scottish Insurance Committees.

In reply to Major Hope, Mr. Robertson stated that the new Scottish Insurance Committees would be constituted by July 14th at the latest, and, in answer to a further question, stated that the Scottish Insurance Commissioners had received no objections from approved societies and insured persons to the present Insurance Committees making contracts for medical attendance beyond July 14th next.

Ireland.

Sir John Lonsdale asked the Chancellor of the Exchequer if he was aware that the Conjoint Committee of the Irish Medical Association and British Medical Association received a definite pledge that a minimum capitation rate of 2s. 6d. would be provided for certification in the event of medical benefits for Ireland being deleted from the National Insurance Act; and if, in redemption of this pledge, he intends to make a further grant to enable the Irish Commissioners to meet the financial difficulties in the way of the efficient working of the Act in Ireland? —Mr. Masterman: The answer to the first part of the question is in the negative. The second does not therefore arise.

CORRESPONDENCE.

Future Action.

Dr. E. T. Larkam (Prestwich, Manchester) writes: Most medical men must agree with Drs. Courtenay Lord and Buttar that the present apathy of the profession is most unsatisfactory and may spell disaster in the future.

Many men seem quite happy and content in the knowledge that, on the panel, they will get any sum varying from 6d. to 1s. 6d. a visit or consultation, but seem totally oblivious of the fact that when the Government has them in complete subjection they will lose practically all their independence; then, indeed, will they lament their present supineness, especially when they are compelled to submit to the indignity of answering complaints, mostly trivial and vexatious, before the tribunal set up by the Act. Will life then be worth living? Surely now is the time to refuse further work, more particularly as the number of medical men and the entries at the medical schools are stated to be decreasing.

There is little doubt that, for the present, the Commissioners are causing all complaints to be shelved, with the view of placating the profession and of allowing it to fall into a false sense of security, but this will only last for a time.

It would be a good move for the many associations of non-panel men throughout the United Kingdom to form one strong combination with local branches with the view of mutual help and defence, and of endeavouring to induce the unwilling workers to leave the panels. It must not be forgotten that there are vast numbers of medical men not on the panel, and in many districts more than half the local profession is so situated.

In conclusion, we must all applaud the consistent and firm attitude taken up by Dr. Courtenay Lord and the Gillingham stalwarts.

Dr. Hector Leak (Winsford, Cheshire) writes: The fact that at present about half the work done by the medical profession is contract work is forcing us to consider the necessity of acquiring the organization best calculated to secure that this contract work will not be undertaken at a price and under conditions which are neither satisfactory to the profession nor to the advantage of the public.

That the British Medical Association as at present constituted is not the best organization for the purpose seems to be admitted. The question that arises is whether it is better for the British Medical Association to alter its organization so as to meet satisfactorily the new conditions of steadily increasing contract work, or whether a new society should be formed for the purpose. It is evidently difficult to adjust the British Medical Association to the new conditions, and it would appear to be both easier and better for the British Medical Association to form a new society for this special purpose.

If this latter method were adopted, the British Medical Association should hand over to the new society the "maintenance of the honour and interests of the medical profession," including the ethical and political work, so that the new society should not merely be one for securing

fair conditions of service as between medical men and their patients or the public, but should also help to regulate the behaviour of medical men to one another, and by political action help to secure that the health of the community should be properly cared for, as well as the interests of the profession efficiently guarded. The British Medical Association would then become a purely scientific body most helpful to the advancement and dissemination of medical knowledge.

To the new society would become affiliated the societies which exist for the protection of the interests of special groups of medical men, as the Poor Law Officers' Association, the Association of Public Vaccinators, etc., and these would have representatives on the governing body. It would probably take over the work of the medical defence societies and benevolent and other work for the benefit of the profession.

It would be necessary for such a society to build up a large fund in order to compensate those members who might suffer from adherence to its policy, and to form a bond of union amongst its members. For this purpose a much larger subscription would be necessary—at all events at the commencement—than the subscription to the British Medical Association; and with advantage it might be made to include membership of the British Medical Association, or at least the receipt of the Journal, the Supplement of which would constitute the organ of the new society. Such a society would in a very short time justify its existence and its cost by improved conditions of service, including remuneration, and be helpful to the public by maintaining the proper status of medicine and public health.

Dr. A. E. Brown (Lady Grey, Aliwal North, C.P.) writes: Please find enclosed cheque for £3 3s., being first contribution to Central Insurance Defence Fund. I wish the fund every success, and trust there will be a wide and generous response to it from all parts of the world.

I, as a humble unit, have been following with close interest the action taken by the British Medical Association in the United Kingdom in defence of the honour and interests of the medical profession and in defence of scientific progress.

I am of opinion that the Insurance Act in its present form will affect most unfavourably the welfare of those it is calculated to benefit—namely, the insured—and can have but the most disastrous consequences on the morale of the medical profession and on the progress of medical science. It is but a glorified form of "club practice" on a large scale, and carries with it all the evils of this form of contract practice.

It is to be regretted that we did not maintain to the end the *esprit de corps* evinced in the earlier stages of the campaign, and to a man refuse to work the Insurance Act in its present form. The British Medical Association needs to be reorganized on a trade union basis, and the contribution of members considerably raised to meet emergencies of this description as they arise in the United Kingdom and elsewhere. A substantial defence fund will greatly assist to maintain the much needed *esprit de corps*, would work for the benefit of the general public, our material benefit, our honour and self-respect. I am for one quite willing to subscribe £5 5s. or more annually to secure respect for our profession if others will do the same.

Co-ordination of Medical Bodies.

Dr. Harding H. Tomkins (Vice-Chairman, South-West Essex Division) writes: Under the above heading, in the Supplement of April 19th, p. 341, my name is mentioned in connexion with a "scheme for co-ordination of medical bodies in an area." While thanking the State Sickness Insurance Committee for giving me an opportunity to lay the matter before them by appointing me upon the Special Fund Subcommittee, I would like to say the scheme is for the co-ordination of *every medical body with all the Divisions of the Association* by means of whole-time paid medical organizers. I have hopes they might be recognized as Representatives, and so present the accumulated knowledge of the opinions of members and non-members to that body in a very much shorter time than is taken by the usual routine, and more concisely, since in the past fight many Divisions did not even discuss some of the points sent down for their consideration, which fact afterwards formed the basis for the repudiation of policy adopted at the Representative Meeting. They would actually present all important points to the meetings personally throughout the kingdom, as each being responsible for a definite group of counties, could arrange meetings to fall consecutively so that he could be present. This is an idea I have had for some years, and Dr. Ross Steen presented one to my Local Medical Committee (Essex) almost identical, with a suggestion for financing it, and other details which as secretary I was asked to propose to the central authorities of the British Medical Association. I do not desire to claim the scheme as my own.

At a meeting of members of medical unions of east and north-east London and other bodies, at which I was present, a resolution was passed asking the British Medical Association, "in view of the coming Representative Meeting at Brighton, to call a meeting of chairmen and secretaries of all Local (statutory) and Provisional Medical Committees, and all other bodies interested in medical organization, to consider the national organization and consolidation of the entire medical profession."

Medical Treatment of Temporary Residents.

Dr. J. W. Pridmore (Honorary Secretary, Isle of Wight Local Medical Committee) writes: I must apologize for writing again, and plead the importance of the subject as my excuse. The memorandum which we have all received within the last few days, on the medical treatment of temporary residents who are insured persons, should be received with a burst of indignation by the whole of the medical profession, more especially those members of it who are resident in health resorts and the larger manufacturing centres from which this class of beneficiaries is largely drawn.

The National Health Insurance Commissioners, with Mr. Lloyd George at their back, appear to excel all other bodies—past, present, or, it is to be hoped, future—in their barefaced way of transferring the contents of one trouser-pocket into its fellow on the opposite side. They calmly ask the doctors in health resorts to pay their professional brethren in manufacturing districts, and vice versa.

The system on which the memorandum is founded is the formation of a central fund from which medical accounts are to be paid. So far, so good. But the method of its formation is the deduction from the minimum 6s. 6d. originally promised of a sum in inverse proportion to the excellence of the public health in each particular district. It is thus self-evident that practitioners in health resorts will have to pay heavily for the privilege of having the accounts of visitors settled under the Insurance Act.

Twelve months ago such juggling with figures would have raised a veritable storm of protest; let us hope that the same spirit will be in evidence now. It remains therefore to be seen whether we shall accept this system, whereby we are allowed meekly to pay our own bills, or insist on payment on an equitable and more satisfactory basis.

Maternity Benefit.

Dr. T. Randolph Hunter (Cardenden, Fife, N.B.) writes: It seemed to come as a great surprise that maternity benefit forms are being signed at least in Fife by persons unskilled and uncertificated. The space left to be signed by person who attends the case has distinctly printed "Name of doctor or certified midwife." In our district "next door neighbours" are often called in, and after giving what attention they can, sign the maternity benefit form. The maternity benefit was provided so that women who are going to be confined should be attended by a person possessed of proper skill. In the present state of affairs it is only too evident the doctors will be called in only in difficult cases, or when the inexperienced persons fail. Surely this cannot be to the advantage of the patient, who more than likely is contaminated by the dirty fingers of an inexperienced woman. Another point: We are called in about the third day because the person who was confined is not keeping well. We attend for the remainder of the period until the patient has recovered, and get no fee.

This is unfair to medical men. Unless the medical

profession take some kind of stand to prevent being imposed on, it is difficult to know what we may be asked to submit to. It seems regrettable that now Scotland has adopted a national basis for attendance on miners' dependants that a national tariff cannot be drawn up to regulate maternity fees, vaccinations, and other branches of medical or surgical work. Some years ago Burnley, I know, had a uniform list of charges drawn up, and it was a decided boon, binding all medical men in the town to the same charges. Undercutting is no doubt the great drawback to the welfare of our profession.

I trust some one will be able to suggest some remedy for the above complaints.

Hospitals and Asylums.

KENT COUNTY LUNATIC ASYLUMS.

Barming Heath.

The feature of the administration of this asylum during 1911 was the improvement of the conditions under which the staff live. The bedrooms were refurnished and decorated, and mess-rooms and recreation rooms provided. As the Medical Superintendent, Dr. H. Wolseley Lewis, points out, the noticeable improvement of the behaviour of insane patients which has occurred in the last half century so marked that "furious mania," has become practically extinct, is due in no small degree to the altered attitude to the patients of their attendant staff, and everything that conduces to the comfort and well-being of the staff helps to secure the service of a higher class of attendants, and thus at the same time directly benefits the asylum patients.

The year 1911 was also characterized by the lowest admission-rate for twenty years, the highest recovery-rate for nineteen years, and the lowest death-rate ever recorded at this institution. On January 1st, 1911, there were 1,629 patients in the asylum, and on December 31st, 1911, there were 1,952, and the average number daily resident was 1,607. During the year 323 were admitted, of whom 296 were direct and 27 indirect admissions. Of the direct admissions, in 95 the attacks were first attacks within three, and in 52 more within twelve months of admission; in 80 instances the attacks were not the first, and in 4 it was not known whether the attacks were first attacks or not; and in the remainder, including 22 congenital cases, the illness was of more than twelve months' duration on admission.

The direct admissions were classified according to the forms of mental disorder into: Recent mania 43, chronic and recurrent 16; recent melancholia 85, chronic and recurrent 26; senile and secondary dementia, 18; delusional insanity, 19; insanity with epilepsy, 21; general paralysis, 15; primary dementia, 12; alternating insanity, 8; insanity with gross brain lesions, 4; less common forms, 7; and congenital defect, 22. As to causation, and still considering only the direct admissions, alcohol was assigned in 35, syphilis in 16, and other toxins in 10; diseases of the nervous system in 55; various bodily diseases in 9; critical periods in 73; child-bearing in 19; bodily trauma in 16; and mental stress in 82. An insane heredity was ascertained in 105, an epileptic heredity in 4, a neurotic heredity in 10, and an alcoholic heredity in 25.

During the year 142 were discharged as recovered, giving a recovery-rate on the direct admissions of 47.9 per cent., or of recoveries in and on the direct admissions of 44.5 per cent. Also 20 were discharged as relieved and 47 as not improved. During the year 124 died, giving a death-rate on the average number resident of 7.7 per cent. The deaths were due in 19 to diseases of the nervous system, including 15 from general paralysis; in 17 to heart disease and in 14 to diseases of the blood-vessels; in 11 to respiratory diseases; in 4 to diseases of the alimentary system; in 5 to genito-urinary diseases; in 1 to suicide; and in the remainder to general diseases, including 6 from senile decay, 7 from dysentery, and 26, or 20 per cent. of the total deaths, from tuberculous diseases.

There were 2 cases of scarlet fever among the female patients both of whom recovered, and 24 cases of dysentery, of whom 7 died. The mortality (20.8 per cent.) among the cases of dysentery was an improvement on the previous year.

GLASGOW EYE INFIRMARY.

The report presented to the annual meeting of contributors to the Glasgow Eye Infirmary, over which Sir Hector Cameron presided, stated that the number of house-patients during the year was 1,641. The average daily number was 79.7, as against 73.7 in the previous year. Of the total cases 981 were cured, 536 improved, 56 were unchanged or left before completion of treatment, and 68 remained in the house at the end of the year. The total number of new cases attending the dispensaries in Berkeley Street and Charlotte Street was 28,548. The total ordinary income amounted to £4,533, and a sum of £513 was collected by special appeal. The ordinary expenditure was £5,775, as against £5,164 in the previous year. The chairman, in moving the adoption of the report, emphasized the need for more liberal support from the public, and pointed out that, having regard to the special services which it rendered, the Eye Infirmary would not be affected by the National Insurance Act, and that its claim on the charity or generosity of the public was quite as great, and even greater, than before the Act was passed. The report was adopted.

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the Journal.*]*

LANCASHIRE AND CHESHIRE BRANCH:

Rochdale Division.

The annual meeting of the Division was held on April 16th, when Dr. Geddes occupied the chair, and thirteen other members were present.

Annual Report.—The annual report showed that there had been added to the members—who at the end of 1911 numbered 53—three members who had moved into the area from other districts, and 2 new members, making a total of 58; there had been 1 death, 2 resignations, and 1 member had ceased owing to arrears, so that the net membership at the end of 1912 was 54. The financial statement showed a balance in hand slightly larger than at the end of the previous year, and it was stated that the expenses of the Local Provisional Committee had been defrayed from head quarters.

Election of Officers.—The following officers were unanimously elected for the ensuing year: *Chairman*, Dr. Geddes (Heywood); *Vice-Chairman*, Dr. Lord (Castleton); *Secretary and Treasurer*, James Melvin (Rochdale); *Representative to Representative Meeting*, Dr. Walker (Rochdale); *Deputy Representative*, Dr. Lord (Castleton). The following with the officers were elected to form the Executive Committee: Drs. Carse, Grant, Harris, and Walker.

Expenses of Representatives, Councillors, and Committees.—On the motion of Dr. Bateman, seconded by Dr. Standing, it was unanimously resolved:

> That a voluntary levy of 5s. be made by each member of the Division.

Dr. Carse moved, and Dr. Grant seconded, the following motion, which was carried unanimously:

> That our Representative be paid £2 2s. per day for expenses at the Representative Meeting.

Votes of Thanks.—Dr. Hitchon moved, and Dr. Kilroe seconded, and it was unanimously resolved:

> That the best thanks of this meeting be given to Dr. Brown, of Bacup, for his services for the past years as our Representative.

On the motion of Dr. Hitchon, seconded by Dr. Bateman, it was unanimously resolved:

> That a hearty vote of thanks be passed to the officers for their services during the past year.

Chemists and the Insurance Act.—A letter was read from head quarters on the chemists' new tariff, and, on the motion of Dr. Kilroe, seconded by Dr. Hartley, it was referred to the Medical Committee. Dr. Grant moved, and Dr. Walker seconded:

> That a committee be formed to draw up a minimum medical tariff.

This was carried, and the following were elected as the committee: Drs. Chadwick, Cox, Forbes, Geddes, Grant, Henry, Kerr, Lord, Melvin, Standing, Stanwell, H. Thorp, and Walker. The first meeting to be held on Wednesday, April 30th.

METROPOLITAN COUNTIES BRANCH:

Camberwell Division.

A special meeting was held on March 27th at Southwark Infirmary, East Dulwich Grove, to consider the alteration of certain rules of the Division. Dr. Capes was in the chair, and nine members and two visitors were present.

Rules of Division.—Certain alterations in the rules of the Division as passed on November 14th, 1912, were unanimously agreed upon.

At the conclusion of the special meeting an ordinary meeting was held.

Camberwell Borough Council's Employees' Sick Benefit Society.—The Honorary Secretary read a letter from Dr. D. M. Sergeant stating that in the case of the medical appointments under the Camberwell Borough Council's

Employees' Sick Benefit Society, the original holders of the posts had been reinstated in their position at a capitation fee of 8s. 6d.

Paper.—Dr. Hector Cameron, Physician in Charge of the Department for Diseases of Children at Guy's Hospital, then read a paper (see page 872 of this issue) on "The Uses and Abuses of Patent Foods in Infancy," at the conclusion of which an interesting discussion took place in which Messrs. Capes, Esler, Clark, Langford, Clitherow, Batten, and Partridge took part.

Treatment of School Children.—A communication was read from the Honorary Secretary of the Metropolitan Counties Branch as to the appointment of a medical officer to undertake the treatment of school children under the London County Council suffering from minor ailments by a district nursing association. After the matter had been discussed, Dr. Partridge proposed and Dr. Batten seconded the following resolution, which was carried unanimously:

> That when public money is expended, nominations for medical appointments should be made either by a body of medical men or by a duly elected body representative of the ratepayers.

Votes of Thanks.—Votes of thanks to Dr. Cameron for his very interesting paper, and to Dr. Bruce, Medical Superintendent of the Infirmary, for his hospitality, were carried unanimously.

East Hertfordshire Division.

A meeting of this Division was held at the Shire Hall, Hertford, on April 16th. Dr. Boyd was in the chair, and seventeen members were present.

Insurance Act.—Arising out of the minutes of the last meeting the Honorary Secretary reported:

1. That the scheme proposed by the Hertfordshire Midwives Association for guaranteeing payment to doctors called to the assistance of midwives would be dropped, as the suggested fees were in the opinion of the County Medical Committee quite inadequate.
2. That three more medical practitioners had been appointed to the County Insurance Committee, making five in all, namely, Dr. Burnett Smith nominated by the County Council, and Drs. Shelly and Dockray by the Insurance Commissioners.
3. That further nominations to District Insurance Committees were as follows:—*Ware:* Drs. Boyd and Sturge. *Hertford:* Drs. Shelly and Lawson Smith. *Hitchin:* Drs. Gilbertson and Macfadyen. *Hatfield:* Dr. Brittain.

Contract Terms for Uninsured Members of Friendly Societies.—Reports were received from the various districts which showed that the societies for the most part had agreed to pay 8s. 6d. a year, and in one district 10s. The only exception appeared to be in Hitchin, where it was reported that two societies had succeeded in making arrangements for 5s. a year. The Honorary Secretary was instructed to make inquiries in regard to this, and if the report proved to be correct to make a strong protest.

Local Insurance Committee.—A letter was received from the Honorary Secretary of the County Medical Committee in reference to various points in connexion with the administration of medical and maternity benefits. The views of the Division being invited as to the best means of providing funds for the expenses of the Medical Committee, it was resolved (*nem. con.*) that a levy should be made of one farthing for each insured person on a practitioner's list.

Ethical Rules.—The question of the adoption of ethical rules by the Division was then discussed, and it was finally agreed to adopt the model rules as issued by the Central Ethical Committee.

OXFORD AND READING BRANCH:

Oxford Division.

A special general meeting of the Division was held on April 4th at the Radcliffe Infirmary, Oxford. In the absence of Sir William Osler, Dr. Turrell took the chair. About thirty members attended.

Contracting Out.

Mr. H. Freeborn addressed the meeting on the subject of his application, on behalf of the Great Western Railway men, to the City Insurance Committee that they should be allowed to contract out under him. He understood that the panel doctors had informed the Committee that they were against any doctor coming on the panel for a restricted class of patient, but he had no wish to join the panel at all. He had held the railway club for twenty-nine years, and wished to retain it, and argued for the free choice of doctor which the Act promised. Dr. Rivers-Willson, a representative on the Insurance Committee, said that Mr. Freeborn's application came before the Committee in the form of an application to join the panel for this special class of railway men alone. So far as contracting out was concerned, he informed the Committee that he had been instructed by the Medical Committee to apply for as large a measure of contracting out as possible, and that was his own wish. Dr. Higgs, also a representative on the Insurance Committee, pointed out that the question of contracting out was outside the province of the panel doctors; what did concern them, and what they were empowered by the Commissioners to express an opinion on was the question of a doctor joining the panel for a restricted class of patients without taking his share of allocated patients. To this proposal the panel doctors were hostile. In the course of further discussion it appeared that the panel doctors were not in favour of special communities, other than those already specified by the Commissioners, being allowed to contract out, as it was thought such a course would leave an unfair proportion of undesirables to be attended by the panel doctors.

Constitution of the Committee.

The Secretary, Dr. Duigan, raised the question of the relative position of the Medical Committee and of the doctors on the panel. There seemed to be some danger of their adopting mutually hostile attitudes on such a subject as contracting out.

Dr. Higgs said that there were only five panel doctors on the Medical Committee out of fifteen members, and that they did not consider that sufficient representation.

Dr. Turrell, Chairman, said that any cleavage was to be deprecated; the Medical Committee had endeavoured to represent the views of men on and off the panel.

After some further discussion, a proposal by Dr. Collier to appoint a subcommittee to organize the Medical Committee on a better representative basis was adopted *nemine contradicente.* Drs. Collier, Higgs, Duigan, Rivers-Willson, and Mallam were chosen to serve on it.

Tuberculosis Officer.

A letter from Sir William Osler, Chairman, was read, in which he expressed an opinion in favour of the appointment of a whole-time tuberculosis officer for city and county, the work to be carried on in connexion with the Infirmary. After the matter had been discussed at some length, a resolution approving the appointment of a whole-time clinical tuberculosis officer (or officers) for the city and county of Oxford was adopted, with two dissentients.

SOUTH-EASTERN OF IRELAND BRANCH.

An ordinary meeting of the Branch was held at Carlow on April 2nd. Six members were present, and Dr. Colgan was elected to the chair.

A vote of sympathy and condolence with the relatives of the late Dr. Carey was adopted, and Dr. J. V. Ryan (Carlow) was elected in Dr. Carey's place to represent the Branch on the Irish Committee.

SOUTH MIDLAND BRANCH:

Buckinghamshire Division.

A meeting of the Bucks Division was held on April 11th, at the Royal Bucks Hospital. The weather was very inclement, a heavy snowstorm prevailing, and this accounted for the small attendance. In the absence of the Chairman and the Vice-Chairman, Dr. Baker was voted to the chair, and eleven other members and two visitors were present.

Paper.—Dr. Burra read a paper on the diagnosis of early tuberculosis. A discussion took place in which Drs. Bradbrook, Henderson, Kennish, Larking, Perrin, and Baker took part. A hearty vote of thanks was passed, and a wish was expressed that Dr. Burra would read another paper on treatment.

Motions for the Representative Meeting.—The following motions to be brought forward at the Representative Meeting were passed:

1. That the election of members be by Divisions, and not, as heretofore, by the Branch Councils.
2. That the mode of election of the Central Council be altered so that more notice is given of any vacancy, and an

opportunity given of publishing an address on candidates in the Journal.

A third motion referring to a proposed election of associate members at a reduced subscription who should receive the Supplement only and be allowed the other privileges of members was lost by 5 votes to 4.

Treatment of Uninsured Persons.—The question of the treatment of uninsured persons was discussed, and a letter read from Mr. Tunks, Secretary of a body called the Bucks Friendly Society Council asking that a deputation from the Division should meet them. The Secretary was instructed to reply to this letter, and it was decided that a report should be submitted to the next meeting of the Division.

Ethical Procedure.—The Secretary reported an ethical case, with regard to which a recommendation had been made, that he had not carried out all the procedure detailed in the new ethical rules. It would have cost a good deal for postage and printing. The meeting decided that the complainant be asked if he wished the case to go on, considering the expense it would entail, and whether he would be satisfied if the decision of the Committee were communicated to the defendant and the matter allowed to drop. It was pointed out that a member who had been censured by the vote of a Division incurred the risk of being refused to be met in consultation, etc.

Northamptonshire Division.

A meeting of this Division was held at the Northampton General Hospital on April 10th. Dr. Baxter was in the chair and twenty-one other members were present.

Dr. Dryland gave a short report of the last Representative Meeting, and a hearty vote of thanks was accorded to him for his services.

Fees for Uninsured Persons.—Dr. Hichens read a communication from the Medical Secretary of the Association urging that the Local Medical Committees should not take the place of the Association, and emphasizing the importance of obtaining proper fees for uninsured persons. He also read letters from Dr. Boissier of Banbury and Dr. Larking, Secretary to the Buckinghamshire Division, emphasizing the latter point. In the general discussion which followed Dr. Baxter urged that the fees must on no account be lowered and ought to be increased where the friendly societies had the 2s. 6d. a head promised to them, Dr. Cooke spoke of the fees in Northampton, Dr. Dryland of those in Kettering, Dr. Robb and Dr. Hollis of those in Wellingborough, and Dr. Darley and Dr. Churchouse of those in the Mid Division of the county.

Model Ethical Rules.—The model ethical rules were adopted.

Certificates.—On the proposition of Dr. Baxter, seconded by Dr. Robb, the following motion was carried:

> That the forms of certificates of the various approved friendly societies by their variety, and in many instances by their unsuitability, interfere seriously with the legitimate work of panel doctors. This Committee is of opinion that the best way to deal with this question is by the Commissioners issuing approved forms for general adoption by the societies.

Medical Referee under the Insurance Act.—Dr. Baxter raised the question of appointing a medical referee to prevent malingering under the Insurance Act.

Expenses of Medical Committee.—It was unanimously resolved that a deduction of 5s. per cent. from the quarterly payments to panel doctors should be made to defray the secretarial expenses of the Medical Committee and for medical charity.

STAFFORDSHIRE BRANCH:

Mid-Staffordshire Division.

A meeting of the Division was held at Stafford on April 15th. The chair was taken by Dr. Cooper, and twenty-three other members were present.

Appointment of Secretary.—Dr. T. D. S. Shaw (Lichfield) was appointed Honorary Secretary.

Contract Practice.—A resolution relating to contract practice at Rugeley was then considered and adopted.

National Insurance Act.—The Chairman proposed—"That in view of the fact that probably some 10,000 members of the Association are now acting on the panels under the National Insurance Act, it is evident that the Act is not 'unworkable,' and that it is a reflection on them to say that they are taking part in something which is 'derogatory' to the profession, the Representative Body rescinds Minute 21 of the Special Representative Meeting of December, 1912 and Minute 45 of the Special Representative Meeting of January, 1913, and resolves that the policy of the Association in regard to the Act is as contained in Minute 48 of the Special Representative Meeting, January, 1913, namely—

> That the Council be instructed: (*a*) To take all necessary steps to watch and protect the interests of the profession under the National Insurance Act. (*b*) To take any opportunity that may be afforded for placing the representatives of the Association on the Advisory and Insurance Committees. (*c*) To obtain statutory recognition of Local Medical Committees in every insurance area. (*d*) To collect information as to defects in the Act and Regulations and to take all possible opportunities of remedying them."

The motion was seconded by Dr. Hodder. The following members also spoke: *Pro.*—Drs. Stack and Lowe; *Con.*—Drs. Reid, Rowland, Priestley, Miller, Blumer, Freer, McVittie. On a vote being taken there voted for the resolution, 3; against, 16. The Chairman and four members did not vote.

WEST SOMERSET BRANCH.

The spring meeting was held at the Taunton and Somerset Hospital on April 8th, at 3.30. Dr. Balfour Stewart took the chair, fifteen in all being present.

Election of Representative.—Dr. Macdonald was re-elected Representative of the Branch by acclamation. Dr. Macdonald briefly thanked the Branch for his re-election, and made a short reference to the amount of work the post had entailed in the past year. He also referred to the work being done by the County Medical Committee, and said that there was a decided danger in these committees causing difficulties, owing to the inclination to enter upon work which was no part of the duties for which they had been appointed.

Ethical Rules.—The rules governing procedure in ethical matters of a Branch, as approved by the Representative Body, July, 1912, were unanimously adopted, and on the motion of Dr. Gomez, seconded by Mr. Williams, it was resolved that a copy be sent to each member of the Branch.

Clinical Cases and Specimens.—The following clinical cases and specimens were exhibited:—Dr. Birkbeck: A case of genu recurvatum; a specimen of a calcified thyroid cyst; an unusual fibroid tumour of the uterus. Mr. Farrant: A stone removed from the pelvis of a kidney, evidently formed by the deposit of oxalates on an old blood clot; two stones (phosphatic) which had been passed per urethram; two specimens of prostates which had been removed suprapubically. Mr. Penrose Williams: Three specimens of resections of the bowel; a parenchymatous goitre; a parovarian cyst, which by acute torsion had simulated a case of appendicitis. Mr. A. J. H. Iles showed some interesting radiograms of some rare conditions.

BOMBAY BRANCH.

The annual meeting of the Bombay Branch was held in the University Library on March 14th. Dr. Sorab K. Nariman occupied the chair, and about twenty members were present.

Branch Council.—The Branch Council was then elected according to Rules 5, 6, and 9 of the Branch as follows:

President, Surgeon-General H. W. Stevenson, I.M.S., C.S.I.; *Vice-Presidents*, Lieutenant-Colonel C. H. L. Meyer, I.M.S., and Dr. Sorab Nariman, M.D.; *Honorary Secretary and Treasurer*, D. R. Bardi, Esq., F.R.C.S.I.; *Members of the Branch Council*, Lieutenant-Colonel Ashton Street, I.M.S., Dr. R. Row, M.D., D.Sc., Major E. F. Gordon Tucker, I.M.S., Dr. Sorab Engineer, M.R.C.P.Edin., Miss A. M. Benson, M.D., Assistant Surgeon Eruch Bharucha.

Annual Report and Financial Statement.—The report of the Branch Council and the statement of accounts were received and adopted.

Election of Representative.—On the motion of Dr. Sorab Nariman, seconded by Dr. D. R. Bardi, it was unanimously resolved to elect Lieutenant-Colonel C. H. L. Meyer, I.M.S., as the Representative in Representative Meetings for the year 1913–14.

Election of Members.—It was announced that the following members had been elected by the Branch Council: Drs. A. K. Dalal, J. S. Shah, D. P. Karaka, and N. B. Mehta.

Vote of Thanks.—After a hearty vote of thanks, proposed by Major GORDON TUCKER, I.M.S., and seconded by Dr. SORAB NARIMAN, had been passed unanimously for the successful and good work done by the Honorary Secretary (Dr. Bardi), which was suitably acknowledged by him, the meeting was dissolved.

HONG KONG AND CHINA BRANCH.

THE third meeting of the Session 1912–13 of the Hong Kong and China Branch of the British Medical Association was held at the offices of the Sanitary Board at 9 p.m. on March 7th. Colonel J. M. IRWIN, President, was in the chair, and twenty other members were present. Dr. J. Mitford Atkinson was nominated to represent the Hong Kong and Malaya Branch on the Central Council, Dr. Forsyth was elected Representative at the Annual Representative Meeting, and Dr. O. Marriott (Honorary Secretary) was appointed to represent the Branch at the meeting of secretaries.

Association Notices.

ADJOURNED COUNCIL MEETING.

THE Council not having concluded its business at 11.15 p.m. on April 23rd, the meeting stood adjourned to 2 o'clock in the afternoon of Wednesday next, April 30th.

GUY ELLISTON,
Financial Secretary and Business Manager.

April 24th, 1913.

NEW BRANCH: CHANGE OF NAME OF A DIVISION.

THE following changes have been made in accordance with the Regulations of the Association, and take effect from the date of publication of these notices:

1. FORMATION OF A NEW BRANCH OF THE ASSOCIATION.

Orange Free State Branch.

THAT a new Branch of the Association be formed, to be known as the Orange Free State Branch, and that the Branch area consist of the combined areas of (1) the Orange Free State Province and (2) Basutoland.

Representation in Representative Body.—Under the general principle adopted by the Council with regard to the representation in the Representative Body of Branches outside the United Kingdom, the new Branch will be entitled to separate representation in the Representative Body for 1914–15, to return one Representative.

2. CHANGE OF NAME OF A DIVISION.

Rochester and Chatham Division.

That the Rochester and Chatham Division be henceforth designated the "Rochester, Chatham and Gillingham Division."

BRANCH AND DIVISION MEETINGS TO BE HELD.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

BATH AND BRISTOL BRANCH.—Mr. W. M. Beaumont and Dr. Newman Neild, Honorary Secretaries, give notice that the sixth ordinary meeting of the session will be held at the Museum, Bath, on Wednesday, April 30th, at 8 p.m., Dr. Roxburgh, President, in the chair. The following communications are expected: (1) C. E. S. Flemming: Acute Oedema of the Lung. (2) G. H.-H. Almond, M.B.: The Urinary Products of Intestinal Intoxication. (3) T. Pagan Lowe: A Note on the Physiological Action of Radio-active Water. (4) R. Waterhouse, M.D.: A Case of Cervical Rib.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The Honorary Secretaries, Dr. Ernest C. Hadley, Burbury Street, Lozells, Birmingham, and Dr. H. Hoyle Whaite, Elsinore, Gravelly Hill, Birmingham, give notice that nominations for the following officers must be in the hands of the Honorary Secretaries by the first post on Monday, May 5th, in order that the names may be inserted in the notice convening the annual meeting of the Division to be held shortly: (1) Four Representatives on the Representative Body, (2) Chairman, (3) Vice-Chairman, (4) Honorary Secretaries.

EAST ANGLIAN BRANCH.—The spring meeting of this Branch will be held at Colchester on Wednesday, April 30th. Members wishing to read papers or to show cases or specimens should communicate at once with me.—B. H. NICHOLSON, Colchester.

DORSET AND WEST HANTS BRANCH.—The annual meeting will be held at Bournemouth on May 21st. Notices of motion should be sent to the Honorary Secretary by May 7th. The President-elect has very kindly invited members to luncheon at his house.—FRANK FOWLER, Honorary Secretary, 29, Poole Road, Bournemouth.

DORSET AND WEST HANTS BRANCH: BOURNEMOUTH DIVISION.—Dr. Eleanor C. Bond, Honorary Secretary, gives notice that the annual meeting of the Division will be held at the Medical Library, 74, Old Christchurch Road, Bournemouth, on Wednesday, April 30th, at 4 p.m., to elect officers for the ensuing year and to transact other business.

LANCASHIRE AND CHESHIRE BRANCH: ALTRINCHAM DIVISION.—Dr. H. G. Cooper, Honorary Secretary (Foye, Manchester Road, Altrincham), gives notice that the general meeting of the Division will be held at the Lion and Railway Hotel, Northwich, on Wednesday, April 30th, at 4.30 p.m. A dinner will be held after the meeting if sufficient names be received by the Honorary Secretary before April 28th.

METROPOLITAN COUNTIES BRANCH: CAMBERWELL DIVISION.—Dr. J. H. Clatworthy, Honorary Secretary, 145, Denmark Hill, S.E., gives notice that the annual general meeting will take place at the Camberwell Infirmary, Brunswick Square, S.E., on Thursday, May 1st, at 4 p.m., when the executive officers for the session 1913–14 will be elected. The executive have nominated officers, but further nominations will be received by the Honorary Secretary before or at the meeting. The Honorary Secretary will make his annual report, and the meeting will consider the motions for the Annual Representative Meeting at Brighton and instruct the Representatives. Dr. W. J. C. Keats, Medical Superintendent of the Camberwell Infirmary, will demonstrate cases in the wards.

MIDLAND BRANCH: LINCOLN DIVISION.—The annual meeting of the Division will be held in Lincoln on May 1st.—J. S. CHATER, Honorary Secretary, 169, Monk's Road, Lincoln.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH: FURNESS DIVISION.—Dr. John Livingston, Honorary Secretary, 18, Hartington Street, Barrow-in-Furness, gives notice that the annual meeting of the Division will be held on Friday, May 16th. (By a printer's error the postcard issued gave a wrong date.)

NORTH OF ENGLAND BRANCH: NEWCASTLE-UPON-TYNE DIVISION.—Mr. R. J. Willan, F.R.C.S., Honorary Secretary, 25, Ellison Place, Newcastle-upon-Tyne, gives notice that the annual meeting will be held at the Royal Victoria Infirmary, Newcastle-upon-Tyne, on Wednesday, May 7th, at 8.30 p.m. The business of the meeting will be to elect a Chairman, Vice-Chairman, Honorary Secretary, two Representatives and two Deputy Representatives at Representative Meetings, eight Representatives on the North of England Branch Council, and twelve ordinary members of the Executive Committee; to receive the annual report; to consider the business of the Annual Representative Meeting; to elect Representatives entitled to inspect the Newcastle Education Treatment Centres; and to propose a new rule making the Honorary Secretaryship of the winter scientific meetings of the Division a separate appointment, and to provide that the incumbent shall be an *ex officio* member of the Executive Committee of the Division.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting of the South-Eastern of Ireland Branch will be held in Kilkenny Victoria Hotel on Wednesday, May 7th, at 5.15 p.m., for the installation of President-elect, the election of officers of the Branch for the ensuing year, and any other business.—P. GRACE, Honorary Secretary.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on April 17th, with Sir FRANCIS H. CHAMPNEYS in the chair.

National Insurance Act.

A letter was considered from the Town Clerk of Birmingham with regard to the effect of the National Insurance Act on the work and future training of midwives. The Board decided to inform the Town Clerk (*a*) that the question does not come within the scope of the duties of the Board, and (*b*) that the correspondence will be forwarded to the Privy Council.

Nurses' Case Book.

A letter was considered from the clerk of the Flintshire County Council suggesting that the Board should adopt "a simpler form of case book . . . for the use of nurses." The Board decided to reply that it sympathized with the difficulty of the Flintshire County Council, but that the register had been carefully thought out, and it was hoped that the education of the midwives might so greatly improve as to render any alteration of it unnecessary.

Attendance of Midwives with Pupils.

A letter was considered from the Clerk of the Middlesex County Council inquiring as to the extent to which "approved" midwives should themselves attend with their pupils (*a*) at the time of the confinement, (*b*) during the lying-in period. The Board decided to reply that it holds each "approved" midwife directly responsible for the cases attended, and for any neglect in supervising the training of pupils, but did not specify the number of visits which must be paid, as this must vary greatly in different cases.

Vital Statistics.

VITAL STATISTICS OF METROPOLITAN BOROUGHS DURING 1912.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

IN the accompanying table will be found summarized the vital statistics of the City of London and of each of the metropolitan boroughs based upon the Registrar-General's returns for the year 1912. The mortality figures relate to the deaths of persons actually belonging to the several boroughs, the deaths occurring in public institutions having been distributed among the boroughs in which the deceased persons had previously resided.

The 111,551 births registered in London during 1912 were equal to a rate of 24.7 per 1,000 of the population, estimated at 4,519,754 persons in the middle of the year. The lowest birth-rates last year in the several boroughs were 13.6 in the City of Westminster, 14.3 in Hampstead, 17.8 in Chelsea, 18.0 in Kensington, 19.5 in Paddington, and 19.7 in Stoke Newington; among the highest rates were 30.1 in Poplar, 30.4 in Bermondsey, 30.6 in Shoreditch, 32.4 in Stepney, and 36.7 in Finsbury.

The deaths of 61,100 London residents registered during the year were at the rate of 13.6 per 1,000 of the population, the rates in the three preceding years having been 14.0, 12.7, and 15.0 per 1,000. Among the several boroughs the death-rates ranged from 9.8 in Hampstead, 10.2 in Wandsworth, 10.4 in Lewisham, 11.6 in Woolwich, and 12.1 in Stoke Newington and in Hackney to 16.4 in Poplar, 16.7 in Southwark, 16.8 in Bermondsey, 18.1 in Shoreditch, and 18.8 in Finsbury.

During last year 4,869 deaths were referred to the principal infectious diseases; of these 117 resulted from enteric fever, 1 from small-pox, 1,799 from measles, 159 from scarlet fever, 970 from whooping-cough, 452 from diphtheria, and 1,371 (among children under 2 years of age) from diarrhoea and enteritis. The mortality from each of these diseases, except diarrhoea, was below the corrected average for the five preceding years; in the case of diarrhoea the average is not available for comparison.

The greatest proportional mortality from enteric fever was recorded last year in Fulham, St. Marylebone, Shoreditch, Poplar, Bermondsey, Lambeth, and Lewisham. The number of enteric fever patients admitted into the Metropolitan Asylums Hospitals during the year was 381, against 539, 745, and 552 in the three preceding years; 37 cases remained under treatment at the end of the year, against 62, 88, and 76 at the three preceding years. The highest death-rates from measles were recorded last year in Finsbury, Shoreditch, Bethnal Green, Stepney, Poplar, Southwark, and Bermondsey.

Scarlet fever was proportionally most fatal in St. Marylebone, Finsbury, Bermondsey, Deptford, and Greenwich; the number of scarlet fever patients admitted into the Metropolitan Asylums Hospitals during the year was 10,488, against 16,185, 9,889 and 9,631 in the three preceding years; 2,088 cases remained under treatment at the end of the year, against 2,329, 1,574, and 1,878 at the end of the three preceding years.

The highest death-rates from whooping-cough last year were recorded in Fulham, Finsbury, Shoreditch, Stepney, Poplar, Bermondsey, and Greenwich. Diphtheria was proportionally most fatal in Hampstead, Holborn, Finsbury, Shoreditch, Greenwich, Lewisham, and Woolwich; 6,184 diphtheria patients were admitted into the Metropolitan Asylums Hospitals last year, against 5,799, 4,882, and 6,336 in the three preceding years; 959 cases remained under treatment at the end of the year, against 904, 827, and 1,294 at the end of the three preceding years. The mortality from diarrhoea and enteritis among children under two years of age, measured in proportion to the births registered during the year was greatest in Paddington, the City of Westminster, Shoreditch, Stepney, Southwark, and Bermondsey.

The 6,069 deaths from phthisis were equal to a rate of 1.35 per 1,000, the rates in the three preceding years having been 1.31, 1.14, and 1.35 per 1,000. The rates last year ranged from 0.64 in Hampstead, 0.70 in Lewisham, 0.87 in Paddington and in Stoke Newington, and 0.93 in Wandsworth to 1.75 in Bermondsey, 1.87 in Southwark, 1.92 in Finsbury, 1.98 in the City of London, 2.07 in Holborn, and 2.19 in Shoreditch.

Infant mortality, measured to the proportion of deaths among children under 1 year of age to registered births, was equal to 90 per

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during 1912.

BOROUGHS.	Estimated Population middle of 1912.	Births.	Deaths.	Annual Rate per 1,000 Living.		Deaths from								Deaths of Children Under 1 Year of Age to 1,000 Registered Births.
				Births.	Deaths.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping-cough.	Diphtheria.	Diarrhoea and Enteritis (Under 2 Years).	Phthisis.	
COUNTY OF LONDON	4,519,754	111,551	61,100	24.7	13.6	117	1	1,799	159	970	452	1,371	6,069	90
Paddington	142,362	2,774	1,751	19.5	12.3	1	—	31	3	20	6	43	124	107
Kensington	171,746	3,079	2,226	18.0	13.0	4	—	27	5	24	6	37	183	98
Hammersmith	122,750	2,752	1,606	22.6	13.1	4	—	29	4	17	13	29	165	94
Fulham	155,402	4,079	1,985	26.3	12.8	8	—	65	6	45	15	33	209	97
Chelsea	65,397	1,160	949	17.8	14.6	1	—	22	2	14	5	8	85	72
City of Westminster	157,248	2,132	1,942	13.6	12.4	4	—	37	4	16	11	38	183	93
*St. Marylebone	116,155	4,050	1,602	35.0	13.8	5	—	40	11	19	8	26	146	52
Hampstead	85,966	1,224	842	14.3	9.8	1	—	11	1	4	17	1	55	65
St. Pancras	216,145	5,008	3,148	23.2	14.6	3	—	95	5	44	25	37	341	94
Islington	326,398	7,789	4,662	23.9	14.3	8	—	151	9	57	39	90	441	91
Stoke Newington	50,581	995	611	19.7	12.1	—	—	5	—	3	—	3	44	74
*Hackney	222,986	5,424	2,691	24.4	12.1	3	—	19	8	33	19	60	303	78
*Holborn	48,026	1,248	733	26.0	15.3	1	—	25	—	7	7	8	99	58
*Finsbury	86,130	3,143	1,612	36.7	18.8	1	—	129	5	29	13	44	165	94
City of London	18,695	407	251	21.8	13.5	—	—	2	—	1	1	4	37	37
Shoreditch	110,430	3,365	1,997	30.6	18.1	4	—	116	5	47	19	94	231	130
Bethnal Green	127,985	3,700	1,954	28.9	15.3	3	—	91	2	32	12	48	216	102
*Stepney	277,315	8,956	4,211	32.4	15.2	9	—	170	13	96	26	153	465	100
Poplar	161,597	4,848	2,635	30.1	16.4	7	—	112	3	64	17	68	243	112
Southwark	190,017	5,252	3,164	28.4	16.7	4	—	139	8	49	27	104	354	112
Bermondsey	125,260	3,802	2,098	30.4	16.8	5	—	102	8	36	16	67	218	113
*Lambeth	297,550	8,167	3,950	27.5	13.3	13	—	97	9	55	29	98	406	74
Battersea	167,589	4,030	2,042	24.1	12.2	2	—	55	6	40	15	50	195	89
Wandsworth	321,881	6,581	3,265	20.5	10.2	8	—	50	11	61	19	73	297	78
Camberwell	261,591	6,280	3,362	24.1	12.9	6	—	81	8	51	21	65	339	85
Deptford	109,377	2,807	1,432	25.8	13.1	2	—	23	6	25	11	29	147	92
Greenwich	95,994	2,367	1,254	24.8	13.1	2	—	28	9	30	15	25	135	85
Lewisham	165,249	3,320	1,714	20.2	10.4	6	—	11	6	24	27	26	115	71
Woolwich	121,932	2,812	1,411	23.2	11.6	2	1	31	4	27	20	10	128	71

* No correction is made for births in lying-in institutions; the boroughs principally affected are marked thus (*).

1,000 last year, against 102 and 128 in the two preceding years. Among the lowest rates were 37 in the City of London, 58 in Holborn, 65 in Hampstead, and 71 in Lewisham and in Woolwich; while the highest rates were 107 in Paddington, 112 in Poplar and in Southwark, 113 in Bermondsey, and 130 in Shoreditch.

HEALTH OF ENGLISH TOWNS.

In ninety-six of the largest English towns 8,293 births and 5,195 deaths were registered during the week ending Saturday, April 12th. The annual rate of mortality in these towns, which had been 16.5, 16.9, and 15.6 per 1,000 in the three preceding weeks, further fell to 15.2 per 1,000 in the week under notice. In London the death-rate was equal to 14.9 per 1,000, against 17.2, 17.4, and 19.3 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 7.5 in Tottenham and in Edmonton, 7.7 in Coventry, 7.9 in Carlisle, 8.2 in Croydon, and 8.3 in Willesden and in Hornsey to 22.5 in Warrington, 22.7 in Gloucester and in Stoke-on-Trent, 24.3 in Halifax, 26.7 in St. Helens, and 27.9 in Stockton-on-Tees. Measles caused a death-rate of 2.0 in Bolton and in Stockton-on-Tees, 2.1 in Smethwick, 2.2 in Wolverhampton, 2.3 in West Bromwich and in Wigan, 2.4 in Newport (Mon.), 3.1 in St. Helens, and 5.2 in Gloucester. The mortality from the remaining infective diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 42, or 0.8 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 4 in Birmingham, 3 each in Stoke-on-Trent, in Liverpool, and in Gateshead, and 2 each in Gloucester, in Bury, and in Newcastle-on-Tyne. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,514, 1,455, and 1,410 at the end of the three preceding weeks, had further fallen to 1,357 on Saturday, the 12th inst.; 148 new cases were admitted during the week, against 156, 168, and 167 in the three preceding weeks.

In ninety-six of the largest English towns 8,960 births and 5,420 deaths were registered during the week ending Saturday, April 19th. The annual rate of mortality in these towns, which had been 16.9, 15.6, and 15.2 per 1,000 in the three preceding weeks, rose to 15.8 per 1,000 in the week under notice. In London the death rate was equal to 16.4, against 17.4, 16.3, and 14.9 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 4.6 in Ealing, 6.1 in Enfield, 6.6 in Ilford, 7.2 in Leyton, 7.5 in Bournemouth, and 8.6 in Northampton and in Wallasey to 21.6 in Preston, 21.7 in Hastings, 21.8 in Stoke-on-Trent and in Carlisle, 21.9 in Stockton-on-Tees, 22.3 in Dewsbury, and 24.0 in Wolverhampton. Measles caused a death-rate of 1.9 in Willesden, 2.3 in Wigan, 2.6 in Bolton, 2.9 in Southend-on-Sea, 3.1 in St. Helens, 3.3 in Wolverhampton, 3.8 in West Bromwich, and 6.2 in Gloucester; diphtheria of 3.0 in Stockton-on-Tees; and whooping-cough of 1.9 in Merthyr Tydfil and 2.2 in Southend-on-Sea. The mortality from the remaining infective diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 50, or 0.9 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; of this number 9 were registered in Birmingham, 7 in Liverpool, 4 in Stoke-on-Trent, 4 in Warrington, and 3 each in Bootle, in St. Helens, and in Sheffield. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,455, 1,410, and 1,357 at the end of the three preceding weeks, had further declined to 1,334 on Saturday last; 215 new cases were admitted during the week, against 168, 167, and 148 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In the sixteen largest Scottish towns 1,196 births and 746 deaths were registered during the week ending Saturday, April 12th. The annual rate of mortality in these towns, which had been 17.2 per 1,000 in each of the two preceding weeks, was again 17.2 in the week under notice, and was 2.0 per 1,000 above the rate in the ninety-six large English towns. Among the several towns the death-rates ranged from 10.7 in Ayr, 11.9 in Perth, and 12.0 in Kilmarnock, to 20.8 in Greenock, 21.6 in Coatbridge, and 22.0 in Dundee. The mortality from the principal epidemic diseases averaged 1.9 per 1,000, and was highest in Aberdeen and Greenock. The 352 deaths from all causes registered in Glasgow included 25 from whooping-cough, 5 from measles, 5 from diphtheria, 5 from infantile diarrhoea, and 1 from scarlet fever. Eight deaths from whooping-cough were recorded in Edinburgh, 4 in Greenock, 2 in Leith, 2 in Motherwell, and 2 in Hamilton; and 4 deaths from measles and 3 from diphtheria in Aberdeen.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, April 12th, 716 births and 517 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 746 births and 535 deaths in the preceding period. These deaths represent a mortality of 22.5 per 1,000 of the aggregate population in the districts in question, as against 23.3 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 7.3 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 31.3 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 27.2 as against an average of 25.2 for the previous four weeks, in Dublin city 29.9 (as against 26.4), in Belfast 19.6 (as against 22.6), in Cork 24.5 (as against 21.6), in Londonderry 14.0 (as against 17.2), in Limerick 19.0 (as against 20.3), and in Waterford 20.9 (as against 20.4). The zymotic death-rate was 1.7, as against 1.8 in the previous week.

During the week ending Saturday, April 19th, 661 births and 481 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 716 births and 517 deaths in the preceding period. These deaths represent a mortality of 20.9 per 1,000 of the aggregate population in the districts in question, as against 22.5 per 1,000 in the previous period. The mortality in these Irish areas, was, therefore, 5.1 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate on the other hand was equal to 28.7 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 24.1 as against an average of 25.8 for the previous four weeks, in Dublin city 25.2 (as against 27.0), in Belfast 16.9 (as against 20.6), in Cork 22.4 (as against 21.9), in Londonderry 12.7 (as against 17.5), in Limerick 29.8 (as against 22.7), and in Waterford 11.4 (as against 22.3). The zymotic death-rate was 1.9, as against 1.7 in the previous week.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

The following appointments and resignation have been announced by the Admiralty: Fleet Surgeon HERBERT H. GILL, M.B., to the *Centurion*, on recommissioning, undated. Fleet Surgeon GEORGE GIBSON, to the *Irresistible*, vice Gill on the *Centurion*, recommissioning, undated. Fleet Surgeon ERNEST A. PENFOLD, to the *Excellent*, additional for the *Albemarle* on recommissioning, May 15th. Staff Surgeon MAURICE T. MALE, M.B., to the *Egmont*, additional for service with T.B.D. Flotilla, temporary, April 18th. Staff Surgeon THOMAS W. MYLES, M.D., B.A., to the *President*, additional for R. F. A. Marine, vice Male, April 18th. Staff Surgeon RICHARD F. CLARK, to the *Diana* and for group of ships of Third Fleet on *Diana* becoming parent ship, undated. Staff Surgeon ARTHUR L. SCHOFIELD, M.B., to the *Centurion*, on recommissioning, undated. Staff Surgeon THOMAS E. BLUNT, to the *Rosario*, vice Rutherford, April 18th. Surgeon JAMES H. WRIGHT, M.B., B.A., to the *Wildfire*, additional for Sheerness Yard and Barracks, vice Myles, April 18th. Surgeon FRANCIS J. BURKE, M.B., to the *Hebe*, vice Wright, April 18th. Surgeon WILLIAM C. CARSON, to the *Pembroke* for R.N. Barracks, vice Burke, April 18th. Surgeon BASIL TAYLOR, M.B., to the *Excellent*, additional for the *Albemarle*, on recommissioning, May 15th. Surgeon ARCHIBALD FAIRLEY, M.B., to the *Merlin*, vice Blunt, April 18th. Acting Surgeon P. L. GIBSON, M.A., to the *Victory*, additional, for course of instruction at Greenwich and Haslar, April 30th.

Surgeon JOHN MCCUTCHEON, M.B., has been allowed to retire from the service with a gratuity, April 13th.

ARMY MEDICAL SERVICE.

COLONEL H. M. SLOGGETT has been appointed Assistant Director of Medical Service at Belfast.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel F. R. NEWLAND has been appointed Senior Medical Officer, South-Eastern Coast Defence.

Lieutenant-Colonel G. H. BAREFOOT has been appointed to the London District for duty at the Queen Alexandra Military Hospital.

Captain A. G. WELLS has been appointed a Specialist in Operative Surgery, Third (Lahore) Division.

Captain E. J. KAVANAGH has been appointed to the Eastern Command.

Captain DAVID S. RUIST, M.B., is seconded for service with the Egyptian Army, February 26th.

FREDERICK BISSELL, late Captain, R.A.M.C. Special Reserve, to be Captain, April 16th.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL JOHN M. CADELL, M.B., has retired, March 5th.

Lieutenant-Colonel J. T. CALVERT has been granted combined leave for nine months, with effect from March 8th, 1913.

Lieutenant-Colonel B. H. DEARE has been appointed to officiate as Principal and Professor of Medicine, Medical College, Calcutta, and First Physician to the College Hospital, vice Lieutenant-Colonel J. T. Calvert.

Major D. MCCAY has been appointed to officiate as Professor of Materia Medica, Medical College, Calcutta, and Second Physician to the College Hospital, vice Lieutenant-Colonel B. H. Deare.

The promotion of Major WILLIAM HENRY KENRICK to his present rank is antedated from January 28th, 1909, as notified in the *London Gazette* of March 26th, 1909, to July 29th, 1908.

Major THOMAS E. WATSON, M.B., has retired March 15th.

The promotion of Major WILLIAM LAPSLEY, M.B., to his present rank is antedated from June 28th, 1912, as notified in the *Gazette* of August 23rd, 1912, to December 28th, 1911.

The services of Captain T. C. MCCOMBIE YOUNG have been placed permanently at the disposal of the Government of Assam with a view to his confirmation in the Sanitary Department of that Province, with effect from November 6th, 1909.

The services of Captain F. W. SUMNER have been placed permanently at the disposal of the Government of the United Provinces.

Captain J. W. S. BABINGTON, I.M.S., is appointed a Specialist in Ophthalmology, with effect from March 20th, 1913.

Captain J. W. BARNETT, I.M.S., is appointed to the substantive medical charge of the 34th Sikh Pioneers.

Lieutenant CHARLES H. L. MEYER, M.D., has retired, March 15th.

Captain GEORGE FOWLER has been appointed Major.

INDIAN SUBORDINATE MEDICAL DEPARTMENT.

Senior Assistant Surgeon and Honorary Captain GEORGE HYNES has retired, January 11th.

Senior Assistant Surgeon and Honorary Captain FREDERICK GEORGE FOX has retired, February 16th.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN FREDERICK E. BISSELL, M.D., resigns his commission, April 16th.

The following to be Lieutenants on probation: EDMUND TYTLER BURKE, late Cadet, Glasgow University Contingent, Officers' Training Corps, February 25th; Cadet Corporal GERALD FRANCIS P. GIBBONS, from the London University Contingent, Officers' Training Corps, March 29th.

Lieutenant MARK ANTHONY resigns his commission, April 2nd.

Lieutenant ALEXANDER D. D'AVRAY is confirmed in his rank.

Cadet HARRY C. S. SINDERSON, from the Edinburgh University Contingent, Officers' Training Corps, to be Lieutenant on probation, March 6th.

HARRY EVANS, M.B., late Cadet Edinburgh University Contingent, Officers' Training Corps, to be Lieutenant on probation, February 15th.

Cadet Staff Sergeant WALTER TENNYSON MCCURRY, from the Belfast University Contingent, Officers' Training Corps, to be Lieutenant on probation, March 11th.

The name of Lieutenant HARRY CHAPMAN SINDERSON is as now described, and not as stated in the *Gazette* of April 1st.

TERRITORIAL FORCE.

Second Welsh Field Ambulance.—JOHN SYDNEY ROWLANDS, M.B., to be Lieutenant, March 12th.

Attached to Units Other than Medical Units.—GEORGE F. ROWDON SMITH, M.B., late Company Sergeant Major, Cheshire Field Company, Welsh Divisional Engineers, Royal Engineers, to be Lieutenant.

February 12th; JOSIAH WALKER, M.B., to be Lieutenant, March 18th; Captain FREDERIC W. KENDLE to be Major, February 21st; Lieutenant GEORGE B. GILL, M.B., to be Captain, February 25th; Major JAMES A. WADSON, M.D., resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform, April 16th.

For Attachment to Units Other than Medical Units.—HENRY F. SHEPHERD to be Lieutenant, March 4th.

TERRITORIAL FORCE RESERVE.

Major WILLIAM ERNEST MILES, F.R.C.S., from the Third (City of London) Field Ambulance, to be Major, March 13th.

CHANGES OF STATION.

THE following changes of station amongst the officers of the Army Medical Service have been officially reported to have taken place during March:

		FROM	TO
Lieut.-Colonel	H. J. Fletcher, M.B.	Sialkot	Rawal Pindi.
,,	H. E. Cree	Sabathu	Sialkot.
,,	E. Eckersley, M.B.	War Office	Delhi.
,,	D. M. O'Callaghan	Aldershot	Hilsea.
,,	F. R. Newland, M.B.	York	Dover.
,,	R. Holyoake	Chatham	Sheerness.
,,	R. H. Penton, D.S.O.	Muttra	Ranikhet.
,,	J. Thomson, M.B.	Harrismith	London.
Major	J. E. Brogden	Gibraltar	Malta.
,,	N. Faichnie, M.B.	Delhi	Meerut.
,,	J. Hennessy, M.B.	Cosham	Colaba.
,,	J. F. M. Kelly, M.B.	Potchefstroom	Colchester.
,,	H. A. Hinge	London	Aldershot.
,,	G. Dansey-Browning	Aldershot	Gibraltar.
,,	J. P. Silver, M.B.	Cork	Fort Camden, Queenstown Harbour.
,,	H. E. Staddon	Dover	India.
,,	R. J. Blackham	Peshawar	Jutogh.
,,	J. Poe, M.B.	Bloemfontein	E. Commd.
,,	E. T. Inkson, V.C.	Bangalore	Wellington.
,,	A. L. A. Webb	—	Edinburgh.
,,	T. C. MacKenzie, D.S.O.	Egypt. Army	Dover.
,,	J. H. R. Bond	Nowgong	Naini Tal.
,,	E. McDonnell, M.B.	Bermuda	Lydd.
,,	T. E. Fielding, M.B.	London	S. Command.
,,	R. T. Brown, M.D.	Maymyo	Darjeeling.
,,	E. W. Siberry	Wynberg	London.
,,	J. P. J. Murphy, M.B.	Capetown	Potchefstro'm.
,,	R. L. Argles	Tralee	Cork.
Captain	H. W. Long, M.B.	—	Bodmin.
,,	J. W. S. Seccombe	Devonport	Topsham.
,,	W. D. C. Kelly, M.B.	Dublin	Pretoria.
,,	J. B. Meldon, M.B.	Dover	Shorncliffe.
,,	N. E. Dunkerton	Aldershot	London.
,,	A. L. Otway, M.B.	Salisbury	Cosham.
,,	G. E. Cathcart	Aldershot	Jubbulpore.
,,	H. Harding, M.B.	Colchester	Gt. Yarmouth.
,,	J. A. Turnbull	Tidworth	Worcester.
,,	A. E. S. Irvine	Simonstown	Irish Commd.
,,	A. Dawson, M.B.	Aden	,,
,,	A. S. Williams	Dublin	Kilbride Camp.
,,	V. C. Honeybourne	Aden	Irish Commd.
,,	E. M. O'Neill, M.B.	Cork	Youghal.
,,	T. W. O. Sexton	Wynberg	Woolwich.
,,	A. C. Vidal	,,	Aldershot.
,,	T. T. H. Robinson, M.B.	Nasirabad	Sheffield.
,,	G. H. Stevenson, M.B.	Sheffield	Lichfield.
,,	W. H. Forsyth, M.B.	—	Netley.
,,	M. J. Lochrin	Bellary	Bangalore.
,,	E. D. Caddell, M.B.	Karachi	Aden.
,,	W. F. M. Loughnan	Bareilly	,,
,,	C. H. Denyer	Jubbulpore	Agra.
,,	E. M. Middleton	Kyra Gali	Rawal Pindi.
,,	F. J. Stuart, M.B.	Muttra	Agra.
,,	R. G. S. Gregg, M.B.	Lucknow	Karachi.
,,	J. James, M.B.	Potchefstroom	E. Commd.
,,	C. Ryles, M.B.	Karachi	Naini Tal.
,,	D. S. Buist, M.B.	Quetta	Egypt.
,,	T. B. Nicholls, M.B.	Cairo	Cyprus.
,,	A. D. Stirling, M.B.	,,	Khartoum.
,,	A. W. Bevis	Bloemfontein	Irish Commd.
,,	M. J. Williamson, M.B.	,,	Potchefstroom
,,	P. G. M. Elvery	Cyprus	Cairo.
,,	R. H. Nolan	Rawal Pindi	Glencorse.
,,	K. Comyn, M.B.	Shorncliffe	Gibraltar.
,,	F. R. Laing, M.B.	Bordon	India.
Lieutenant	C. H. H. Harold, M.D.	Rawal Pindi	Ambala.
,,	T. J. Hallinan, M.B.	Dublin	India.
,,	J. D. Bowie, M.B.	Aldershot	Egypt.
,,	G. O. Chambers	Lichfield	Cairo.
,,	B. Biggar, M.B.	Windsor	Egypt.
,,	C. M. Finny, M.B.	Dublin	India.
,,	J. D. Kidd, M.B.	Curragh	,,
,,	W. S. R. Steven, M.B.	Hounslow	,,
,,	W. A. Frost, M.B.	Devonport	,,
,,	D. Reynolds, M.B.	Limerick	,,
,,	C. D. K. Seaver	Curragh	Rawal Pindi.
,,	J. S. Levack, M.B.	Rawal Pindi	Nowshera.
,,	W. Bisset, M.B.	,,	Lahore.
,,	W. L. E. Fretz, M.B.	,,	Ambala.
,,	W. B. Laird	London	Caterham.
,,	J. M. Elliott, M.B.	Hilsea	Cosham.
,,	W. Stewart, M.B.	Weedon	Colchester.
,,	A. G. J. MacIlwaine	Deepcut	India.
,,	D. T. M. Large, M.B.	Glencorse	Glasgow.
,,	E. A. Strachan, M.B.	Edinburgh	Fort George.
,,	J. L. Ritchie, M.B.	York	Lichfield.
,,	C. M. Ingoldsby	Buttevant	Cork.
,,	S. J. Higgins	Fermoy	Fethard.
,,	B. J. Barry	Woolwich	Guildford.

COLONIAL MEDICAL SERVICES.

THE following changes have been notified by the Colonial Office:

WEST AFRICAN MEDICAL STAFF.

New Appointments.—The following gentlemen have been selected for appointment to the staff: N. A. D. Sharp, M.R.C.S.Eng., L.R.C.P. Lond., Gold Coast; J. O. C. Hogan, M.D., B.Ch., B.A.O., L.M.Dub., Northern Nigeria; J. A. Beattie, M.D., B.Ch.Aberd., D.T.M.and H. Cantab., Northern Nigeria.

Retirements.—A. W. Atkinson, M.B., Ch.B.Edin., Medical Officer, Gold Coast, retires with a gratuity; St. G. Gray, M.D., B.Ch.Dub., Senior Medical Officer, Southern Nigeria, retires on pension.

OTHER COLONIES AND PROTECTORATES.

W. W. Martin, M.B., Ch.B.Vict.; J. W. Adams, M.R.C.S.Eng., M.R.C.P.Lond., M.B., B.C.Cantab.; and J. London, M.B., Ch.B.Liverpool, have been selected for appointment as Medical Officers in the Straits Settlements. J. M. G. Ewing, L.R.C.P., L.R.C.S.Edin., L.F.P.S. Glas., has been selected for appointment as a District Medical Officer, St. Vincent. W. N. A. Paley, M.R.C.S.Eng., L.R.C.P.Lond., has been selected for appointment as a Medical Officer, Fiji; W. S. Coffey, L.R.C.P., L.R.C.S.Irel., has been selected for appointment as a Medical Officer in the Federated Malay States.

Vacancies and Appointments.

VACANCIES.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

ABERYSTWYTH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House-Surgeon and Secretary. Salary, £150 per annum.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary, £80 per annum.

BIRKENHEAD EDUCATION COMMITTEE.—Assistant School Medical Officer. Salary, £300 per annum, rising to £350.

BIRKENHEAD UNION.—Senior Male Resident Assistant Medical Officer. Salary, £130 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM CITY.—(1) Medical Superintendent for the West Heath Hospital and Sanatorium; salary, £300 per annum. (2) Senior and Junior Assistant Medical Officers for the Yardley Road Sanatorium; salary, £250 and £200 per annum respectively.

BIRMINGHAM: RUBERY HILL ASYLUM.—Junior Assistant Medical Officer (male). Salary, £175 per annum.

BRADFORD EDUCATION COMMITTEE.—Two Assistants (one male and one female) to the School Medical Officer. Salary, £350 per annum each.

BRIDGE OF WEIR: CONSUMPTION SANATORIUM OF SCOTLAND.—Assistant Medical Officer (lady). Salary, £75 per annum.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRISTOL: COSSHAM MEMORIAL HOSPITAL, Kingswood.—House-Surgeon. Salary, £50 per annum.

BRISTOL GENERAL HOSPITAL.—First House-Physician, Second House-Physician, and Casualty House-Surgeon. Salary, £80 per annum.

BRISTOL ROYAL INFIRMARY.—Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £75 per annum.

BURTON-ON-TRENT INFIRMARY.—House-Surgeon. Salary, £120 per annum.

BURY ST. EDMUNDS: WEST SUFFOLK GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum.

CANTERBURY: CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CARDIFF: ROYAL HAMADRYAD SEAMEN'S HOSPITAL.—Medical Superintendent. Salary, £250 per annum.

CHELTENHAM GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

CHICHESTER: WEST SUSSEX COUNTY ASYLUM.—Locumtenent Medical Officer. Salary, 4 guineas a week.

DENBIGH: DENBIGHSHIRE INFIRMARY.—House-Surgeon. Salary, £100 per annum.

DENBIGH: NORTH WALES COUNTIES ASYLUM.—Medical Superintendent. Salary, £500 per annum, rising to £700.

DERBYSHIRE ROYAL INFIRMARY.—House-Physician. Salary, £100 per annum.

DEVON COUNTY ASYLUM, Exminster.—Fourth Assistant Medical Officer. Salary, £130 per annum, rising to £140, with honorarium of £50 at the end of twelve months for Pathological work.

DUBLIN: PEAMOUNT SANATORIUM, Hazelhatch.—Resident Medical Superintendent. Salary, £400 per annum, rising to £500.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Physician and Assistant Casualty Officer (male). Salary at the rate of £75 per annum.

EAST SUSSEX COUNTY ASYLUM, Hellingly.—Third Assistant Medical Officer. Salary, £200 per annum, rising to £225.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

GLASGOW ROYAL ASYLUM.—Junior Assistant Physician. Salary at the rate of £150 per annum.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon. Salary, £80 per annum.

HASTINGS: EAST SUSSEX HOSPITAL.—Senior and Assistant House-Surgeons. Salary at the rate of £100 and £70 per annum respectively.

HEMEL HEMPSTEAD: WEST HERTS HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

HULL AND SCULCOATES DISPENSARY.—Resident Surgeon. Salary, £220 per annum.

JARROW-ON-TYNE: PALMER MEMORIAL HOSPITAL.—House-Surgeon. Salary, £170 per annum.

LANCASTER: ROYAL LANCASTER INFIRMARY.—House-Surgeon. Salary, £110 per annum.

LEAMINGTON SPA: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—House-Physician. Salary, £85 per annum.

LEEDS HOSPITALS FOR INFECTIOUS DISEASES AND TUBERCULOSIS.—Fourth Assistant Medical Officer. Salary at the rate of £120 per annum.

LEICESTER ROYAL INFIRMARY.—(1) Assistant Honorary Surgeon. (2) Assistant House-Surgeon. (3) Assistant House-Physician. Salary at the rate of £80 per annum for (2) and (3).

LIVERPOOL: PARK HILL SANATORIUM. — Resident Medical Superintendent. Salary, £350 per annum, rising to £400.

LONDON COUNTY ASYLUMS.—Junior Assistant Medical Officer at the Banstead Asylum, Sutton, and at the Claybury Asylum, Woodford. Salary, £170 per annum each.

LONDON TEMPERANCE HOSPITAL, Hampstead Road, N.W.—Medical Registrar. Honorarium at the rate of 40 guineas per annum.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL. — Male Resident House-Surgeon. Salary, £120 per annum.

MANCHESTER CHILDREN'S HOSPITAL. — Assistant Medical Officer for Out-patient Department. Salary, £25 for six months.

MANCHESTER ROYAL INFIRMARY. — Honorary Assistant Physician.

MANCHESTER: VICTORIA MEMORIAL JEWISH HOSPITAL. Two Surgeons and one Physician.

MIDDLESEX COUNTY ASYLUM, Napsbury. — Junior Assistant Medical Officer. Salary, £200 per annum.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—Junior House-Surgeon. Salary at the rate of £85 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Surgeon-Laryngologist.

NESTING AND LUNNASTING PARISH COUNCIL.—Medical Officer. Salary, £50 per annum.

NORDRACH-UPON-MENDIP SANATORIUM. — Assistant Medical Officer. Salary, £150 per annum, rising to £200.

NOTTINGHAM GENERAL DISPENSARY.—(1) Assistant Resident Surgeon (male); salary, £170 per annum (2) Resident and Assistant Resident Surgeons for Branch; salary, £180 and £170 per annum respectively.

OLDHAM ROYAL INFIRMARY.—Third House-Surgeon. Salary, £80 per annum.

OXFORD: RADCLIFFE INFIRMARY AND COUNTY HOSPITAL. —House-Physician. Salary at the rate of £80 per annum.

OXFORD: WARNEFORD MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—Two House-Surgeons. Salary at the rate of £75 per annum each.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Assistant Resident Medical Officer. Salary, £50 per annum, rising to £60 on appointment as Senior.

READING: ROYAL BERKSHIRE HOSPITAL. — Second House-Surgeon. Salary, £80 per annum.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum.

RICHMOND: ROYAL HOSPITAL. — Assistant House-Surgeon. Salary, £70 per annum.

ROCHDALE INFIRMARY.—House-Surgeon (unmarried). Salary, £100 per annum.

ROTHERHAM HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

ROYAL LONDON OPHTHALMIC HOSPITAL, City Road, E.C.—Third House-Surgeon. Salary at the rate of £50 per annum.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—Chief Assistant in the *X*-Ray Department.

ST. MARYLEBONE PARISH.—First and Second Assistant Medical Officers at the Infirmary. Salary, £150 and £100 per annum respectively.

ST. MARY'S HOSPITAL, Paddington, W. — Senior Ophthalmic Clinical Assistant. Salary at the rate of £50 per annum.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C.—(1) Honorary Assistant Surgeon. (2) Clinical Assistant.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior House-Surgeon (male). Salary, £100 per annum.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Senior and Assistant House-Surgeons. Salary, £80 and £60 per annum respectively.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £60 per annum.

SIERRA LEONE: PRINCESS CHRISTIAN HOSPITAL, Freetown. —Resident Medical Officer. Salary, £250 per annum.

SOUTH AFRICA UNION: LUNATIC AND LEPER ASYLUM SERVICE.—Junior Medical Officer. Salary, £280, rising to £360.

SOUTHAMPTON: FREE EYE HOSPITAL. — House-Surgeon. Salary, £100 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £80 annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon (male). Salary, £90 per annum.

STIRLING DISTRICT ASYLUM, Larbert.—Assistant Medical Officer (woman). Salary, £100 per annum.

STOCKTON AND THORNABY HOSPITAL.—House-Surgeon (male). Salary, £180 per annum.

STROUD GENERAL HOSPITAL.—House-Surgeon. Salary, £120 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Surgeon. Salary, £75 per annum.

TRURO: ROYAL CORNWALL INFIRMARY. — House-Surgeon. Salary, £100 per annum.

TYNEMOUTH COUNTY BOROUGH.—Clinical Tuberculosis Officer and Assistant Medical Officer of Health. Salary, £350 per annum.

WEST BROMWICH AND DISTRICT HOSPITAL.—Asssistant Resident House-Surgeon and Anaesthetist. Salary, £75 per annum.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS, AND EPILEPSY, 73, Welbeck Street, W.—(1) Resident House-Physician; salary at the rate of £50 per annum. (2) Clinical Assistants to the Out-Patients' Physicians.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Physician.

WEST HAM AND EASTERN GENERAL HOSPITAL. — Junior House-Physician. Salary at the rate of £75 per annum.

WEST SUSSEX AND CHICHESTER JOINT EDUCATION COMMITTEE.—Temporary Assistant School Medical Officer. Salary at the rate of £250 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Surgeon (male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

YORK DISPENSARY AND MATERNITY HOSPITAL. — Resident Medical Officer (male). Salary, £140 per annum.

CERTIFYING FACTORY SURGEON. — The Chief Inspector of Factories announces the following vacant appointment: Clonaslee (Queen's County).

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

APPOINTMENTS.

ASHMORE, P. W., M.B., Ch.B.Vict., District Medical Officer for the Hunslet Union.

BOREHAM, H. W., M.B., Ch.B., Assistant Ophthalmic Surgeon to the Eye, Ear, and Throat Infirmary, Edinburgh.

BRUCE, O., M.R.C.S., L.R.C.P., Tuberculosis Officer to the Essex County Council.

BUDD, H. H., L.M.S.S.A., District Medical Officer of the Poole Union.

BUTLER, T. Harrison, M.A., M.D.Oxon., M.R.C.S., L.R.C.P., Honorary Ophthalmic Surgeon to the Royal Midland Counties Home for Incurables, Leamington Spa.

CAMPBELL, Colin, M.B., B.S.Melb., Resident Medical Officer of the Alfred Hospital, Melbourne.

COMRIE, John D., M.D., F.R.C.P.E., Assistant Physician to the Edinburgh Royal Infirmary.

GRAHAM, Lewis, M.B., M.S.Lond., Honorary Surgeon to the Birmingham and Midland Hospital for Women.

GRIFFITHS, E. J., M.B., Ch.B.Edin., D.P.H., Medical Officer of Health to the Pontypridd Urban Council.

LAMBIE, John, M.D., Medical Officer of Health to the Mansfield Town Council.

LLOYD-EVANS, V., M.B., Ch.B.Edin., District Medical Officer of the Tenbury Union.

MCNAIR, A. J., M.B., B.C., Clinical Assistant to the Chelsea Hospital for Women.

MACNALTY, A. S., M.D., Tuberculosis Officer to the Essex County Council.

MANSFIELD, P. A., M.B., B.Ch.Oxon., Certifying Factory Surgeon for the Sevenoaks District, co. Kent.

PARKIN, Alfred, M.D., M.R.C.P., F.R.C.S., Honorary Physician, Royal Victoria Infirmary, Newcastle-on-Tyne.

RENTON, H. F., M.B., B.S., Assistant Medical Officer of the Bradford Union.

ROBERTS, W. R. S., M.B., Ch.B., M.R.C.S.Eng., L.R.C.P.Lond., Tuberculosis Medical Officer, Essex County Council.

ROWNTREE, Cecil, M.B., B.S., F.R.C.S., appointed Surgeon to the St. Marylebone General Dispensary.

RUDDOCK-WEST, T., M.B., B.S.Durh., D.P.H.Camb., House-Surgeon to Special Departments (Eye, Ear, Nose, and Skin) to Birmingham General Hospital.

SACHS, Alfred L., M.A., M.D., B.C.Cantab., M.R.C.S., L.R.C.P., Registrar to the Grosvenor Hospital fer Women, Vincent Square, Westminster.

STEPHENSON, John, M.B., Ch.B.Edin., Junior Assistant Medical Officer for the Sheffield City Hospitals.

STEPHENSON, Sydney, D.O.Oxon., Ophthalmic Surgeon to King Edward Memorial Hospital, Ealing, W.

STUART, W. L., M.D., District Medical Officer of the Farnham Union.

SUTCLIFFE, W. H., M.B., B.S.Dub., Certifying Factory Surgeon for the Lisbellow District, co. Fermanagh.

WALKER, E., M.B., Certifying Factory Surgeon for the Westray District, co. Orkney.

WALLER, A. B., M.B.Lond., District Medical Officer of the Basford Union.

WATSON, J. K., M.B., Certifying Factory Surgeon for the Stevenage District, co. Hertford.

WHITAKER, H., M.B., Assistant Medical Officer of the Birmingham Parish Infirmary.

WILLIAMS, K. T., M.R.C.S., L.R.C.P., District Medical Officer of the Gainsborough Union.

WILSON, Ivan S., M.D., F.R.C.S., Clinical Assistant to the Chelsea Hospital for Women.

WRIGHT, A. J., M.B., B.S., Surgeon to the Nose and Throat Department of the Bristol General Hospital.

HAMPSTEAD GENERAL AND NORTH-WEST LONDON HOSPITAL.—The following appointments have been made:
House-Physician (Hampstead).—Mr. A. Bloom, M.B., Ch.B.Edin.
House-Surgeon (Hampstead).—Mr. James Erlank, M.B., Ch.B. Edin.
Assistant Casualty Officer (Camden Town).—Mr. J. M. Wallace, M.A.Cantab., M.R.C.S., L.R.C.P.

SALFORD ROYAL HOSPITAL.—The following appointments have been made:
Resident Surgical Officer.—J. A. Tomb, M.B., Ch.B.Edin.
House-Physician.—R. Berry, M.B., Ch.B.Manch.
Senior House-Surgeon.—T. A. Houston, L.R.C.S., L.R.C.P., B.A.O.
Junior House-Surgeon.—H. G. Peake, M.B., Ch.B.Manch.
Casualty House-Surgeon.—Oswald Pitt, M.R.C.S.Eng., L.R.C.P. Lond.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

EMRYS-JONES.—On April 5th, at 322, Alcester Road, Moseley, Birmingham, the wife of F. Emrys-Jones, B.A., L.M.S.S.A., of a son.

GLAISTER.—On Wednesday, April 16th, at 96, Upper Street, N., the wife of J. Norman Glaister—a daughter.

ROWNTREE.—On April 10th, at 20, Richmond Road, Islington, N., the wife of Sidney J. Rowntree, M.R.C.S., L.R.C.P., of a daughter.

SINGTON.—On April 21st, at 167, Gloucester Terrace, Hyde Park, W., to Dr. and Mrs. H. S. Sington—a daughter.

MARRIAGES.

ADAMS—DOBRÉE.—On April 19th, at St. Augustine's, Birmingham, by the Rev. T. S. Dunn, John Adams, M.B., Ch.B., of Church Stoke, Montgomeryshire, third son of Mr. and Mrs. David Adams, Edgbaston, Birmingham, to Irene Winifred, eldest daughter of Lennox Dobrée, Esq., of Estancia Duraique, S. America, and Ryde, Isle of Wight.

CREW—DYKES.—At Greyfriar's, Dumfries, on April 10th, by the Rev. J. Bryce Jamieson, B.D., assisted by the Rev. Thos. Stonely (uncle of the bridegroom), Frank Eley Crew, M.B., Ch.B.Edin., son of Thos. Crew, J.P., C.C., Clent, Worcestershire, to Helen Campbell Dykes, M.B., Ch.B.Edin., elder daughter of Thos. Dykes, L.D.S., Dumfries; Hartland, North Devon.

MCKENDRICK—MARTIN.—On April 17th, at Antrim Road Baptist Church, Belfast, by the Rev. J. T. Wilson, William McKendrick, M.B., Ch.B., Rochdale, third son of George McKendrick, Queen's Park, Glasgow, to Eva, youngest daughter of the late John Martin, Ballynahinch, co. Down.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—Discussion on The Treatment of Arterio-sclerosis and High Tension, to be introduced by Dr. F. de Havilland Hall, followed by Sir Lauder Brunton, Bart., F.R.S., and others.

ROYAL COLLEGE OF SURGEONS, Lincoln's Inn Fields, W.C., 5 p.m.—Museum Demonstration:—Mr. Shattock: Specimens illustrating Lipomata.

ROYAL SOCIETY OF MEDICINE, 1, Wimpole Street, W.—Special Meeting of Fellows, 5 p.m. Resumed Discussion on Alimentary Toxaemia: Its Sources, Consequences, and Treatment. (Fourth Meeting.) To be reopened by Dr. William Hunter.

SECTION OF ODONTOLOGY, 8 p.m.—Casual Communication:—Mr. Warwick James: The Cure of Mouth-breathing. Paper:—Professor Arthur Keith, F.R.S.: The Teeth of the Earlier Forms of Prehistoric Man.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF MEDICINE, 8.30 p.m.—Demonstration by Dr. Gustav Monod of Vichy in regard to the Possibilities of Teaching Biology with the Help of the Cinematograph.

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Clinical Meeting.

ROYAL SOCIETY OF MEDICINE:

SECTION OF OBSTETRICS AND GYNAECOLOGY, 8 p.m.—(1) Annual Meeting. (2) Demonstration of Cases and Specimens. (3) Short Communications:—Dr. Napier Burnett: Placenta and Membranes, showing Bacterial Infection of the Chorion. Dr. Arnold Lea: Case of Puerperal Venous Thrombosis occurring after a Normal Labour. Dr. Russell Andrewes: An Unusual Case of Rupture of the Uterus.

FRIDAY.

ROYAL COLLEGE OF SURGEONS, Lincoln's Inn Fields, W.C., 5 p.m.—Museum Demonstration:—Professor Keith: Specimens illustrating the Formation of Peritoneal Adhesions and Bonds before and after Birth.

ROYAL SOCIETY OF MEDICINE:

CLINICAL SECTION, 8.30 p.m.—(1) Annual Meeting. (2) Demonstration of Cases and Specimens.

SECTION OF LARYNGOLOGY, 4.30 p.m.—Discussion on Recurrent Paralysis, to be introduced by Dr. de Havilland Hall, Sir David Ferrier, and Dr. W. Permewan.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Thursday. Radiography: Saturday. Special lectures each week.

MANCHESTER: ANCOATS HOSPITAL.—Post-graduate Clinic, Thursday, 4.15 p.m., Pernicious Anaemia.

MEDICAL GRADUATES' COLLEGE AND POLICLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Eye. Special Lectures at 5.15 p.m. daily, except Friday and Saturday.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Clinical Importance of the Sympathetic Nervous System.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Monday, 4 p.m., Some Common Disorders of Nutrition in Infancy.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, 2 p.m.; *X* Rays and Operations daily. Gynaecology: Monday, Tuesday, Wednesday, and Friday. Eye: Monday, Wednesday, Thursday, and Saturday. Throat, Nose, and Ear: Tuesday, Wednesday, Friday, and Saturday. Skin: Tuesday and Friday. Pediatrics: Saturday.

[For further particulars of Lectures consult the Index to Advertisements.]

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		APRIL.
30	Wed.	London: Adjourned Meeting of Council, 2 p.m. Altrincham Division, Northwich, 4.30 p.m. Bath and Bristol Branch, Bath, 8 p.m. Bournemouth Division, Annual Meeting, Bournemouth, 4 p.m. East Anglian Branch, Colchester.
		MAY.
1	Thur.	Camberwell Division, Annual Meeting, Camberwell Infirmary, 4 p.m. Lincoln Division, Lincoln.
3	Sat.	**Nominations for Election to Council to be forwarded to the Financial Secretary and Business Manager.**
6	Tues.	London: Standing Ethical Subcommittee, 2 p.m.
7	Wed.	Newcastle-on-Tyne Division, Annual Meeting, Newcastle-on-Tyne, 8.30 p.m. South-Eastern of Ireland Branch, Kilkenny, Victoria Hotel, 5.15 p.m.
8	Thur.	London: State Sickness Insurance Committee, 10.30 a.m.

Date.		Meetings to be Held.
		MAY (*continued*).
9	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
17	Sat.	Last day for receipt of Nominations for Members of Council.
20	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
21	Wed.	Dorset and West Hants Branch, Annual Meeting, Bournemouth. Richmond Division, Richmond, 8.30 p.m.
24	Sat.	List of Nominations for Election on Council will be published in the JOURNAL of this date.
		JUNE.
4	Wed.	South Middlesex Division, Annual Meeting, Twickenham, 8.30 p.m.
6	Fri.	Hampstead Division, Annual Meeting.
7	Sat.	Date of issue of Voting Papers for Council Election from Head Office.
14	Sat.	Last day for receipt of Voting Papers at Head Office *re* Council Election.
28	Sat.	Announcement of result of Election of Members to Council.

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 3RD, 1913.

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SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

ANNUAL REPORT OF COUNCIL, 1912-13.

(A) Preliminary.

THE BRIGHTON MEETING.

1. In presenting its Report for 1912-13, on the occasion of the 81st Annual Meeting of the British Medical Association, at Brighton, the Council considers it is a matter of congratulation that such a centre should have been chosen, as Members are promised a warm welcome from the President, Dr. Ainslie Hollis, and his colleagues, who are leaving no stone unturned to assure a Meeting worthy of the best traditions of the Association.

THE SCIENTIFIC WORK OF THE ANNUAL MEETING.

2. The Address in Medicine will be given by Dr. George R. Murray, of the Royal Infirmary, Manchester, and the Address in Surgery by Sir Berkeley Moynihan, of the University, Leeds. There will be also a Popular Lecture, which will be delivered by Mr. Edmund J Spitta, of Brighton.

The remainder of the Scientific work has been divided into sixteen Sections.

THE ANNUAL MEETING, LIVERPOOL, 1912.

3. This is a fitting occasion to again refer to the success of the Liverpool Meeting, under the Presidency of Sir James Barr. The thanks of the Association are also due to all the Members of the Liverpool Executive who worked so well for the success of the Meeting, and especially to Professor Thelwall Thomas, the Honorary Local Secretary, for the admirable arrangements made.

LORD ILKESTON.

4. By the death of Lord Ilkeston the British Medical Association has lost an earnest and valued friend, and the medical profession has no longer a representative in the House of Lords. Throughout his professional career he exhibited the deepest interest in the work of the Association and occupied from time to time many posts of trust. As far back as 1897 it was a special pleasure to the Association to present Lord Ilkeston then Sir Walter Foster) a Gold Medal for Distinguished Merit for services rendered to the British Medical Association and to the medical profession in many official positions during a period extending over more than a quarter of a century, for his work as one of the direct Representatives of the profession on the General Medical Council from 1886 to 1896, and for his assistance in Parliament and at the Local Government Board as the first member of the medical profession selected for Ministerial office in the Government of this country. The deep interest Lord Ilkeston exhibited throughout his career in the welfare of the Association never flagged up to the day of his death.

GROWTH OF THE ASSOCIATION.

5. It must be a matter of general satisfaction that the steady growth of the Association continues. At the close of 1912 the membership stood at 26,568. It is instructive to compare these figures with the membership of 11,600, when in 1886 the Association last met at Brighton.

ATTENDANCES OF COUNCIL AND COMMITTEES: HONORARY WORKERS FOR THE ASSOCIATION.

6. Owing to stress of work in connection with the National Insurance Act several additional Meetings of the Council have been necessary, but Committee work has been concentrated more especially on matters arising out of the working of the Act. The Council desires to remind Members how much they are indebted to those who so unselfishly devote their time to

the Committee work of the Association, and desires also to take the opportunity of the close of a period of exceptional difficulty and strenuous work to express its special thanks to the Honorary Secretaries of Divisions and Branches for their untiring and devoted service. No praise can be too warm for those who have so generously expended their time and strength in the service of the profession during this critical period.

Medical Benevolence.

7. During the year amounts have been collected through the Central Office for Medical Benevolent purposes, as follows:—The Royal Medical Benevolent Fund, £656; Royal Medical Foundation of Epsom College, £434; Royal Medical Benevolent Fund Society of Ireland, £33.

The Council is glad of this opportunity to again commend these splendid charities as deserving of generous support.

The Chairman of Council.

8. At the Brighton Meeting Dr. J. A. Macdonald will complete his three years as Chairman of Council, during which period as the Chief Executive Officer he has devoted endless time and trouble to further the interests of the British Medical Association. His term of office has coincided with the greatest crisis in the history of the medical profession and the Association. Throughout, his ripe experience and sound judgment have been of the utmost value. During the heated discussions incidental to the passing of the National Insurance Act, the confidence of the Association in Dr. Macdonald never wavered. It is no exaggeration to state that since the reconstruction of the Association he has made on behalf of the medical profession personal sacrifices never surpassed. The Council in particular is deeply conscious of how much the Association owes to his sound and practical statesmanship.

The Treasurership.

9. Dr. Rayner was appointed Treasurer of the Association at Exeter in 1907 and will complete a second term of service at Brighton this year. His acceptance of re-election at London in 1910 was due to a special desire in the Association that during a time of great anxiety in the matter of its finances the Association might rely on the continued help of the Treasurer's valued experience.

The Council wishes to emphasise how much the Association is indebted to Dr. Rayner for the close attention he has given to the duties of his office and to tender him a cordial vote of appreciation and thanks for the same.

Instructions of Annual Representative Meeting, 1912, and of Special Representative Meeting, January, 1913.

10. Lists of the resolutions of the Annual Representative Meeting at Liverpool and of the Special Representative Meeting, London, January, 1913, containing instructions to the Council, will be found in Appendices I and II, respectively, to the present Report, together with references to the paragraphs of this Report in which the various subjects are dealt with.

(B) Finance.

Financial Statement.

11. The Finances of the Association continue to be a grave anxiety to the Council, and it is a matter of deep concern that for the first time during the last forty years the expenditure should have exceeded the revenue, and the reserve, so carefully built up, has had to be encroached upon to the extent of £8,849. The large increased expenditure is primarily due to the National Insurance Act, the increased circulation and size of the Journal referred to later, and litigation in which the Association was involved. Apart from the expenses of litigation, a constant risk so long as the law of libel remains unaltered, the Council feels that unless substantial economies can be effected without seriously curtailing the activities of the Association, there is no alternative but to increase the amount of subscription.

In the Balance Sheet itself, the Loan from the Bank has had to be increased and the outstanding liabilities are about £1,400 more than in the previous year.

Revenue, or Profit and Loss Account.

12. The total increased expenditure for the year 1912 is something like £14,000, while the Revenue shows a *bona fide* increase of about £4,400. To meet these heavy additional charges arising out of the National Insurance Act the Insurance Defence Fund contributed £600 more than the previous year, and £8,834 was drawn from reserve.

General Association Expenses.

13. The Interest on the Loan has cost £200 more. Money has been more expensive and a larger amount has been on loan. It is urged that the earliest steps possible be taken so that the Association may have power to create a mortgage, and thus obviate the risk of paying a varying rate of interest.

Legal expenses show an increase of £7,400 consequent upon litigation and damages awarded against the Association.

Central Meeting Expenses.

14. These are recited in Abstract B. Although the Representative and Council Meetings expenses were heavy in 1911, it will be noticed that for the year 1912 they have increased again by £1,300. The Committee expenditure has been rather less. Many ordinary Meetings have not been held, while in 1911 the State Sickness Insurance Committee spent large amounts in circularizing the Members of the Association and the medical profession in general. The total increase in expenditure for Central Meeting Expenses has been about £200.

Central Premises Expenses.

15. These remain normal with the exception of general repairs and upkeep. During the year it became necessary to do certain outside painting on the roof and east side of the building.

Printing, Stationery and Postages.

16. Expenses show a slight diminution as compared with 1911, but even now they are nearly £400 more than in 1910.

Central Staff Expenses.

17. These represent an increase of £656. The financial department is £123 and the Medical Department £625 more, owing to pressure of work in connection with the National Insurance Act. The travelling expenses of the Medical department were less by £111.

Library Account.

18. This shows practically no variation on last year's working

Journal Account.

19. The Editorial expenses show little variation from 1911. The amount spent on Analyses is less, but since the publication of the book "More Secret Remedies" fewer Analyses have been undertaken. Managerial expenses show an increase of close on £5,000. Of this amount nearly £1,000 were spent on the books "Secret Remedies" and "More Secret Remedies," an expenditure which is reflected in the receipts. The remaining £4,000 increased expenditure is caused by the increase in the circulation of the Journal, the increased size of the Journal and Supplements, involving more composition, machining, and paper, while for the despatch of the Journal the postage has increased by over £400, or nearly £8 per week. In 1912 the total number of Journals issued was 1,529,688 against 1,416,139 in 1911.

There has again been an increase in the number of pages published. The manner in which this increase was distributed among the several parts of the Journal is shewn in the following table:—

	1911	1912	Increase. Pages.	Increase. per cent.
Journal and Epitome ...	3,506	3,596*	90	2·5
Advertisements	3,876	3,940	64	1·6
	7,382	7,536	154	2·0
Supplement	1,300	1,628	328	25·2
Grand Total ...	8,682	9,164	482	5·5

* Reports of Annual Meeting in 1912 occupied 102 pages more than in 1911.

It will be seen that the number of pages in the Supplement increased by 25 per cent. The increase in the number of pages in the literary matter of the Journal, excluding the Supplement is rather more than accounted for by the greater amount of matter received for publication from the Annual Meeting in 1912. There has been for many years a tendency to increase the number of sections at the Annual Meeting. It seems desirable that this tendency should be carefully watched in order to take care that it does not exceed legitimate needs nor make an undue call on the resources of the Association.

The average increase in the pages is 10½ per week, which with the additional 113,549 copies required during the year explains the increase in the amount of paper consumed. Any average Journal and Supplement during the year would represent over 150,000 words. Incidentally in order to convey what such a number of words represents, it may be stated that an ordinary six-shilling novel would rarely exceed 85,000 words. The Council hopes that as the pressure on the Journal owing to the National Insurance Act becomes less it will be possible to curtail the number of pages each week and thereby materially reduce the cost of production.

British Medical Association.

Balance Sheet 31st December, 1912.

Dr. **Cr.**

LIABILITIES.

	£ s. d.	£ s. d.
To Subscriptions paid in advance	527 14 5	
,, Advertisements ditto	1,683 5 5	
,, Contributions	684 7 11	
		2,215 7 9
,, Reporting	320 13 4	
,, Engraving	161 3 1	
,, Printing Journal	566 16 6	
,, Paper for Journal	1,344 7 3	
,, Miscellaneous Printing	1,164 4 1	
,, Stationery	151 14 8	
,, Repairs	21 11 8	
,, Legal Charges	666 12 8	
,, Rates and Taxes, Insurance and Electricity	482 4 2	
,, Plant and Type	21 13 6	
,, Sundries	19 4 6	
,, Library Books	77 19 9	
,, Central Emergency Fund	600 0 0	
		5,991 5 2
,, London County and Westminster Bank—Amount of Loan at December 31st, 1912, on Account of New Building, secured by Deposit of Deeds of Freehold Property		45,650 0 0
,, Subscriptions due to Branches, December 31st, 1912		103 1 9
,, Amount overdrawn on December 31st, 1912...		851 11 1
TOTAL LIABILITIES		57,456 5 9
,, OFFICE STAFF SUPERANNUATION FUND—		
Amount Invested per contra		4,622 10 7
,, **Surplus Account**—		
Balance on January 1st, 1912	106,701 17 0	
Less Excess of Expenditure over Income for 1912 brought from Revenue Account	8,584 10 3	
Balance being total of Excess of Assets over Liabilities		97,667 6 9
		£159,746 3 1

ASSETS.

	£ s. d.	£ s. d.
By Subscriptions in arrear		3,159 11 8
,, Advertisements ,, ...		2,928 17 7
,, Sundry Sales		802 12 7
,, Furniture and Fixtures		194 6 8
,, Library		2,027 4 8
,, Plant and Type		2,056 0 9
,, Stock of Paper in hand for printing Journal		583 16 6
,, Accrued Rent, &c.		413 0 0
,, Cash at Office		21 15 7
,, Cash at London County and Westminster Bank (being Branch Subscriptions in hand, December 31st, 1912)		108 1 9
,, INVESTMENTS—		
,, Freehold Site, 429, Strand, Agar Street, and Harvey's Buildings		35,345 0 0
,, Amount Expended on New Building to December 31st, 1912		45,231 6 9
,, £3,200 Bank of England Stock @ 242½	7,760 0 0	
,, £6,400 Midland Railway Consolidated 2½% Perpetual Guaranteed Preferential Stock @ 65½	4,192 0 0	
		11,952 0 0
,, OFFICE STAFF SUPERANNUATION FUND—		
Investments as per Separate Account	4,572 0 0	
Cash at Bank	50 10 7	
		4,622 10 7
		£159,746 3 1

(The above Assets do not include the unexpended balances of Capitation Grants held by the various Branches).

Revenue or Profit and Loss Account for the Year ending 31st December, 1912.

		1911.		1912.	
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
General Association Expenses	*Abstract A* ...	3,870 14 9			11,421 2 0
Central Meeting Expenses	,, *B* ...	11,185 0 11			11,486 11 4
Central Premises Expenses	,, *C* ...	1,599 9 5			1,621 12 9
Printing, Stationery, and Postage Expenses ...	,, *D* ...	1,713 18 10			1,688 11 3
Central Staff Expenses	,, *E* ...	5,998 8 6			6,654 9 9
Library Account	,, *F* ...	330 17 8			333 6 4
Journal Account Expenses	,, *G* ...	37,832 4 7			42,487 1 9
Capitation Grant to Branches	... ...	2,604 11 0			3,770 15 7
Subscriptions Written off for Deaths	... ...	64 16 6			73 4 0
Arrears	... ...	1,200 0 6			1,076 3 6
Reserve for Discounts	... ...	150 0 0			—
		£66,550 2 8			£80,612 18 3
Library—Written off towards Depreciation ...		200 0 0		200 0 0	
Plant and Type—Ditto		500 0 0		500 0 0	
Furniture and Fittings—Ditto		200 0 0		200 0 0	
Investments—Ditto		272 0 0		283 0 0	
			1,172 0 0		1,183 0 0
		£67,722 2 8			£81,800 18 3
Balance of Income over Expenditure carried to Balance Sheet ...		207 10 7			*Nil.*
		£67,929 13 3			£81,800 18 3

	1911.	1912.
	£ s. d.	£ s. d.
Subscription	30,239 16 11	33,200 7 5
Journal Account, Total Receipts ... ... See *Abstract G* ...	28,379 6 5	29,854 14 4
Interest on Investments	438 13 4	438 13 4
Rent received and accrued	2,350 0 0	2,350 0 0
Returned Scientific Grants	76 7 4	68 2 2
Transferred from Insurance Defence Fund	6,145 9 3	7,054 10 9
Excess of Expenditure over Income drawn from Surplus Account ...	*Nil.*	8,834 10 3
	£67,929 13 3	£81,800 18 3

Abstract A.

General Association Expenses.

	1911. £ s. d.	1912. £ s. d.
Auditors' Fee	105 0 0	105 0 0
Bank Charges	67 4 11	74 10 8
Interest on Loan	1,613 12 9	1,815 13 3
Legal Expenses	352 8 9	7,984 6 10
Research Scholarships	650 0 0	650 0 0
Scientific Grants	350 0 0	290 0 0
Office—Petty Cash	197 4 10	171 9 3
New Typewriter Machines, Repairs and Hire	52 11 0	165 19 2
Sundries	272 2 6	173 12 10
Donation to Charing Cross Hospital	10 10 0	10 10 0
	£3,870 14 9	£11,421 2 0

Abstract B.]

Central Meetings Expenses.

	1911. £ s. d.	£ s. d.	1912. £ s. d.	£ s. d.
ANNUAL MEETING—*Daily Journal*	218 13 2		150 0 0	
" " Section Expenses	100 1 0		69 10 7	
		348 14 2		219 10 7
REPRESENTATIVE MEETINGS—				
Railway Fares	1,083 14 6		1,841 16 10	
Printing	1,336 16 6		1,446 14 10	
Sundries	176 8 10		165 9 7	
Postage	—		38 9 2	
		2,576 19 10		3,492 10 5
COUNCIL—				
Railway Fares	818 5 5		967 15 7	
Printings	709 3 0		882 15 2	
Reporting	98 4 7		203 4 6	
		1,625 13 0		2,053 15 3
Railways Fares, Secretaries' Conference		33 4 8		65 2 0
		4,614 11 8		5,831 18 3

Committees.

Arrangements Committee—				
Railway Fares	31 18 10		20 7 5	
Printings	15 2 6		12 11 6	
		47 1 4		32 18 11
Central Ethical Committee—				
Railway Fares	95 3 10		83 4 2	
Printings	105 6 0		75 4 6	
		200 9 10		158 8 8
Chloroform Committee—				
Report of Committee (1,000 copies)	157 0 0		—	
		157 0 0		
Colonial Committee—				
Railway Fares	17 10		3 0 4	
Printings	1 3 0		3 9 0	
		2 0 10		6 9 4
Election Returns Committee—				
Printings	56 8 6		25 13 6	
		56 8 6		25 13 6
Finance Committee—				
Railway Fares	111 7 4		72 5 8	
Printings	81 3 7		85 0 6	
		192 10 11		157 6 2
Fractures Committee—				
Railway Fares, &c.	130 16 9		231 18 2	
Printings	60 11 6		213 1 2	
		191 8 3		444 19 4
Hospitals Committee—				
Railway Fares	94 17 4		39 6 5	
Printings	52 4 9		14 17 1	
		147 2 1		54 3 6
Iris Committee—				
Railway Fares	278 9 3		118 6 1	
Printings	17 8 0		39 0 0	
		295 17 3		157 6 1
Journal Committee—				
Railway Fares	39 13 9		41 17 1	
Printings	34 5 2		33 6 9	
		73 18 11		78 3 10
Carried forward		£5,978 9 7		£6,947 7 7

Committees—*continued.*

	1911. £ s. d.	£ s. d.	1912. £ s. d.	£ s. d.
Brought forward		5,978 9 7		6,947 7 7
Medico-Political Committee—				
Railway Fares	285 16 7		200 14 8	
Printings	292 9 6		124 6 0	
		578 6 1		325 0 8
Naval and Military Committee—				
Railway Fares	5 14 10		2 15 3	
Printings	9 5 0		2 16 0	
		14 19 10		5 11 3
Organisation Committee—				
Railway Fares	103 8 8		60 15 6	
Printings	174 8 6		288 0 0	
		277 17 2		348 15 6
Poor Law Reform Committee—				
Railway Fares	71 9 0			
Printings	157 5 9			
		228 14 9		
Premises Committee—				
Printings	3 11 6			
		3 11 6		
Public Health Committee—				
Railway Fares	31 3 2		30 12 1	
Printings	35 15 0		31 4 0	
		66 18 2		61 16 1
Science Committee—				
Railway Fares	33 4 6		19 6 6	
Printings	154 11 3		251 9 0	
		187 15 9		270 15 6
Scottish Committee—				
Railway Fares	74 1 6		61 6 2	
Printings	4 10 6		14 12 0	
Special Grant re Insurance Work	—		250 0 0	
Hire of Rooms and Stationery	—		11 5 11	
		78 12 0		337 4 1
Special Executive Organisation—				
Printings	—	—	2 2 0	2 2 0
State Sickness Insurance Committee—				
Brend, Dr.—Salary	100 0 0		—	
Copying and Assistance	67 16 9		102 16 0	
Irish Committee	25 1 0		—	
Printings	1,159 16 2		868 17 0	
Reporting	15 19 10		—	
Parliamentary Papers	27 3 9		30 15 0	
Postages	700 7 2		192 17 9	
Railway Fares	441 0 0		1,776 18 3	
Stationery	112 16 9		120 10 0	
Sundries	28 18 10		8 4 0	
Dr. C. A. Renshaw—Special Information supplied			10 0 0	
Dr. L. Freeman Marks re Deputation to Parliament			15 15 7	
Lothians Special Canvass Campaign			10 5 4	
		3,734 19 6		3,064 17 11
Superannuation Committee—				
Printings	1 7 0	1 7 0		
Therapeutic Committee—				
Railway Fares	98 0 10		6 5 3	
Printings	13 18 3			
Special Report and Research Work	—		60 0 0	
		111 19 1		66 5 3
Paper for Committee Printings	—	41 10 6	—	56 15 6
		£11,185 0 11		£11,486 11 4

Abstract C.]

Central Premises Expenses.

	1911.	1912.
	£ s. d.	£ s. d.
Cleaning Offices	313 0 0	353 14 9
Coals, Coke and Wood...	112 2 0	105 4 2
General Repairs and Upkeep	119 17 10	174 3 5
Rates, Taxes, Insurance, and Electricity	1,054 9 7	988 10 5
	£1,599 9 5	£1,621 12 9

Abstract D.]

Central Printing, Stationery and Postage Expenses.

	1911.	1912.
	£ s. d.	£ s. d.
General Printing	219 19 2	300 15 7
Office—General Postage :—		
Financial Department	409 8 8	426 17 5
Medical Department	312 15 0	279 0 0
Stationery	711 16 0	621 18 3
	£1,713 18 10	£1,688 11 3

Abstract E.]

Central Staff Expenses.

	1911.		1912.	
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Financial Secretary and Business Manager	900 0 0		900 0 0	
Assistant Secretary	400 0 0		400 0 0	
Clerical Staff, General Office, Journal, Subscription and Advertisement Departments	2,833 10 3		2,906 11 9	
		4,133 10 3		4,206 11 9
Less Proportion of Salaries debited to Journal Account		2,049 2 6		2,039 6 0
		2,084 7 9		2,207 5 9
Medical Secretary	900 0 0		800 0 0	
Deputy Medical Secretary	600 0 0		300 0 0	
Assistant Medical Secretary	300 0 0		325 0 0	
Temporary Medical Assistance	130 0 0		530 0 0	
Clerical Staff, Medical Department	1,329 12 0		1,929 5 0	
		3,259 12 0		3,884 5 0
TRAVELLING EXPENSES :—				
Finance Department		71 0 9		90 2 3
Medical Department		283 8 0		172 16 9
Vote to Office Staff Superannuation Fund		300 0 0		300 0 0
		£5,998 8 6		£6,654 9 9

Abstract F.]

Library Account.

		£ s. d.		£ s. d.	£ s. d.
1912.			1912.		
Jan. 1.	To Balance	2,078 3 5	Dec. 31. By Librarian's Salary	250 0 0	
Dec. 31.	,, Purchase of Books	149 13 8	,, Librarian's Clerk's Salary	78 3 6	
	,, Binding Books	39 7 7	,, Printing and Posting of Circulars, &c.	5 2 10	
	,, Librarian's Salary	250 0 0			333 6 4
	,, Librarian's Clerk's Salary	78 3 6	Amount written off for Depreciation		200 0 0
	,, Printing and Postage of Circulars, &c.	5 2 10	Balance carried to Balance Sheet		2,027 4 8
		£2,560 11 0			£2,560 11 0

JOURNAL ACCOUNT.

Income and Expenditure Account for the year ending 31st December, 1912.

	1911. £ s. d.	1911. £ s. d.	1912. £ s. d.	1912. £ s. d.
EDITORIAL.				
Salaries—Editor	1,000 0 0		1,000 0 0	
,, Assistant Editor	750 0 0		750 0 0	
,, ,, Honorarium	105 0 0		—	
,, Sub-Editor	400 0 0		400 0 0	
,, Clerical Staff	508 6 4		678 4 6	
Contributions and Reporting	3,429 4 2		3,598 14 3	
Engraving	233 14 3		221 10 5	
Legal Expenses	198 11 3		50 13 0	
Postage	76 11 3		76 0 0	
Analyses	186 9 6		38 16 0	
Travelling Expenses, Papers, &c.	254 17 0		258 9 7	
Advance Slips circulated to the Press	16 11 6		19 4 6	
		7,159 5 3		7,091 12 3
MANAGERIAL.				
JOURNAL—Compositors' Wages, Machining, &c.	9,158 13 1		9,710 2 9	
,, Paper	10,092 18 1		11,796 8 10	
SUPPLEMENT—Compositors' Wages, Machining, &c.	1,446 5 0		1,739 19 0	
,, Paper	1,456 0 0		2,080 0 0	
Postage for dispatch of JOURNAL	5,133 5 4		5,571 0 1	
Address Bands for JOURNAL	547 4 3		604 2 0	
Proportion of Manager's and Clerks' Salaries	2,049 2 6		2,089 6 0	
General Postage	160 10 3		177 10 3	
Printings	81 5 0		96 10 0	
Reprints	208 6 8		244 8 8	
"Secret Remedies"	133 2 10		244 19 10	
"More Secret Remedies"	—		829 0 7	
Stationery (Ledgers, Letter Books, &c.)	145 10 6		155 4 0	
Travelling	11 12 5		11 10 2	
Compositors' Sick Fund	10 10 0		—	
Sundries	38 10 6		45 7 4	
		30,672 19 4		35,395 9 6
		£37,832 4 7		£42,487 1 9

	1911. £ s. d.	1911. £ s. d.	1912. £ s. d.	1912. £ s. d.
Advertisements	23,593 0 4		24,100 3 5	
Sundry Sales—Journals	2,652 12 6		2,757 12 6	
,, Reading and Binding Covers, &c.	81 0 4		72 18 0	
,, Reprints	286 17 9		356 15 6	
,, "Secret Remedies"	487 14 2		513 11 2	
,, "More Secret Remedies"	—		690 0 10	
Sale of Waste, &c.	53 12 8		140 15 10	
Discounts on Machining, Paper, &c.	1,224 8 8		1,222 17 1	
		28,379 6 5		29,854 14 4
Balance from Subscriptions for the cost of production and issue of the JOURNAL	9,452 18 2		12,632 7 5	
	£37,832 4 7		£42,487 1 9	

New Premises Account.

1912.	£ s. d.	1912.	£ s. d.
Jan. 1. To Balance	£45,231 6 9	Dec. 31. By Balance	£45,231 6 9

Stewart Fund.

£579 Caledonian Railway 4 per cent. Debenture Stock.

1912.	£ s. d.	1912.	£ s. d.
Jan. 1. To Balance brought over from 1911	43 12 9	Dec. 31. By Balance	65 17 11
Dec. 31. ,, Interest	22 5 2		
	£65 17 11		£65 17 11

Middlemore Fund.

£606 13s. 4d. North British Railway 3 per cent. Debenture Stock.

1912.		£ s. d.	1912.		£ s. d.
Jan. 1.	To Balance brought over from 1911	40 13 10	Dec. 31.	By Advertising	0 15 0
Dec. 31.	,, Interest	19 14 10	,,	Balance	59 13 8
		£60 8 8			£60 8 8

Francis Fowke Bequest.

£700 Midland Railway Consolidated 2½% Perpetual Guaranteed Preferential Stock.

1912.		£ s. d.	1912.		£ s. d.
Dec. 31.	To Interest	£16 9 8	Dec. 31.	By Balance	£16 9 8

Office Staff Superannuation Fund.

Dr. **Cr.**

1912.		£ s. d.	£ s. d.	1912.		£ s. d.
Jan. 1.	To Balance brought over from 1911	4,204 7 0		Dec. 31.	By Balance carried down—	
	,, Less amount written off Investments	135 10 6	4,068 16 6		Cash at Bank	50 10 7
	,, Payments by Members of Staff		107 2 11		INVESTMENTS—	
	,, Vote from General Funds		300 0 0	,,	£600 Cape of Good Hope 3 per cent. Stock @ 84	504 0 0
	,, Interest on Investments		146 11 2	,,	£100 Bristol Corporation 3½ per cent. Redeemable Stock, bought 1906, @ 94½ ...	94 10 0
				,,	£1,250 Midland Railway 2½ per cent. Consolidated Perpetual Guaranteed Preferential Stock @ 65⅝	818 15 0
				,,	£200 New Zealand 4 per cent. 1929 Stock @ 101...	202 0 0
				,,	£400 New Zealand 3 per cent. Stock @ 80	320 0 0
				,,	£200 Furness Railway Consolidated 4 per cent. Preferential Stock @ 89	178 0 0
				,,	£250 Bank of England Stock @ 242½	606 5 0
				,,	£400 India Stock 3 per cent. @ 77¾	311 0 0
				,,	£450 Stockton-on-Tees Corporation 3 per cent. Redeemable Stock @ 84 ...	378 0 0
				,,	£900 North Eastern Railway Company 3 per cent. Debenture Stock @ 78	702 0 0
				,,	£600 Lancashire and Yorkshire Railway 3 per cent. Consolidated Preferential Stock @ 76½	457 10 0
		£4,622 10 7				£4,622 10 7

Having examined the Balance Sheet, dated 31st December, 1912, and Accounts with the books and vouchers of the Association, and having received all the information and explanations we have required, we report that the Balance Sheet is, in our opinion, properly drawn up so as to exhibit a true and correct view of the state of the affairs of the Association according to the best of our information and the explanations given to us and as shown by the books of the Association.

We have verified the Investments of the Association on General Account and on account of the Trust Funds shown and of the Office Staff Superannuation Fund, and we have verified the possession by the Bankers of the Association of the Deeds of the Freehold Property.

PRICE, WATERHOUSE & CO.,

8, Frederick's Place, Old Jewry, E.C.,

April 7th, 1913.

EDWIN RAYNER,
Honorary Treasurer.

GUY ELLISTON,
Financial Secretary and Business Manager.

REVENUE.

20. In Revenue, the Advertisements in the JOURNAL have produced some £500 more than in 1911, which is satisfactory as far as it goes. During the year many advertisements, which would have produced considerable revenue, have been refused insertion on the ground that they are being published elsewhere in a misleading and exaggerated manner, while others have been declined as not conforming to the requirements of the Association. The diminution of revenue due to this refusal cannot be exactly estimated from the value of the advertisements actually declined, since in many instances the advertisement so declined would have been repeated, and probably have been the first of a series extending possibly over several years. The keeping up of Revenue from Advertisements is a matter of some anxiety. The general sales of the JOURNAL have gone up by £100, or £2 per week. Reprints also show an increase, while for the book "Secret Remedies" there continues a steady demand, and the book "More Secret Remedies" has already attained a substantial circulation.

SUMMARY.

21. The Council trusts that the serious demands made upon the resources of the Association during the past two years will not be continued. At the same time, in striking a balance the Council would urge Members to remember that the attitude and outlay by the Association in connection with the National Insurance Act has resulted in large pecuniary benefits to the medical profession. Had not the Association taken a determined stand the additional one and three-quarter millions would certainly never have been available for annual distribution to those accepting service on the panels under the Act. It is hoped that those outside the Association will realise that it was left to the Association to take up the fight on behalf of the whole medical profession and will show their appreciation of what was accomplished by becoming members and consummating the ambition that membership of the profession and of the British Medical Association shall be co-terminous.

Apportionment of Member's Subscription.

22. The following table shows how a Member's subscription of £1 5s. has been apportioned towards defraying the expenses of the Association during the year ending December 31st, 1912:—

	£	£ s. d.
General Association Expenses ...	11,421	0 8 8
Central Meeting Expenses	11,486	0 8 9
Central Premises Expenses ...	1,621	0 1 2
Printing, Stationery, and Postages	1,688	0 1 2
Central Staff Expenses	6,654	0 5 0
Library Account	333	0 0 3
"Journal" and Supplement ..	42,487	1 11 11
Subscriptions Written off	1,159	0 0 11
Written off for Investments, Plant, and Type	1,188	0 0 11
Grants to Branches and Divisions	3,770	0 2 10
Total Expenditure per Member		3 1 7

To arrive at the net expenditure it is necessary to deduct the Receipts from the "Journal" Account amounting to £29,859, the sums derived from Investments and Rents, the Insurance Defence Fund, and the Reserve. This is shown as follows:—

	Receipts. Total.	Per Member.
"Journal" Account. Receipts from Advertisements and Sales	£29,859	£1 2 6
Investments and Rent	2,788	2 1
From Insurance Defence Fund ...	7,054	5 4
From Reserve	8,834	6 8
	48,535	1 16 7
From the Members' Subscriptions to the Association	33,200	1 5 0
	£81,735	£3 1 7

The total expenditure on the production and distribution of the "Journal" and Supplement was £42,487. Of this amount the Association was recouped £29,859 from receipts from advertisements and sales, leaving £12,632, which is equivalent to 9s. 6d. per member, to be provided out of the subscriptions of members, which amounted to £33,200.

23. Estimate of Expenditure and Receipts for 1913.

EXPENDITURE.

	£
General Association Expenses	3,000
Central Meeting Expenses	10,000
Central Premises Expenses	1,600
Printing, Stationery and Postages	1,600
Central Staff Expenses	6,100
Library	300
"Journal" Account	42,500
Capitation Grants	4,000
Arrears of Subscriptions	1,000
Depreciation	1,000
Estimated total expenditure for 1913	£71,100

RECEIPTS.

	£
Subscriptions	33,500
Advertisements	24,000
Sundry Sales of "Journal," etc.	4,000
Investments	400
Rents	2,400
Discounts on Purchase of Paper	1,200
	65,500
Estimated deficit for 1913 ..	5,600
	£71,100

It is well that members should fully appreciate that if the demands are not considerably reduced the Association must cripple itself financially. For the year 1912 it was calculated that there would be a deficit of £8,500, and the actual amount was £8,834. Now again, for 1913, it is estimated there will be another deficit of £5,600 unless considerable reductions are effected, and in this direction the Council already has taken steps to curtail expenditure. Central Meeting Expenses will have to be reduced when a diminution of expenditure will follow all round. Further, it is with the JOURNAL that considerable saving can be effected; it is not commercially sound to turn out each week a JOURNAL and Supplement which together aggregate not far short of 96 pages of literary matter. It would be difficult, probably impossible, to find any other publication with such a bulk of literary matter being issued each week.

The Council recommends:

Recommendation A.—That the Minutes of the Representative Meeting issued at the end of the Representative Meeting to Members of the Representative Body shall be the daily Minutes corrected and collected together. That Honorary Secretaries of Divisions and Branches who are not members of the Representative Body also be supplied with a copy.

Recommendation B.—That the taking of verbatim shorthand notes of the Representative and Council Meetings is unnecessary and should be discontinued. In order to minimise the risk of any inaccuracy occurring in the preparation of the Minutes, the Chairmen of these bodies respectively be requested to enforce that a written copy of a Motion or Amendment to be submitted to the Meeting be furnished for the information of the Chairman.

Recommendation C.—That the Representative Body rescind Resolution No. 187, passed at Leicester, 1905, which authorises the sending of a bound volume of the Supplement to the Secretaries of all Divisions, viz.: That the Supplements be bound and sent down twice annually to Secretaries and Representatives of Divisions, and that such volumes remain the property of Divisions.

24. The Council has also decided to discontinue the practice of sending to each Honorary Secretary, Chairman and Representative a separate copy of all reports to Divisions which appear in the Supplement. The attention of the Secretaries of Divisions and Branches will be specially drawn to reports as they appear in the Supplement.

(C) Organisation.

MEMBERSHIP OF ASSOCIATION.

25. The total membership of the Association on December 31st, 1912, was 26,568 as compared with 25,301 on the corresponding date of 1911. The increase numbers 1,267, as compared with the increase of 2,853 in 1911, and 1,043 in 1910.

1911.		1912.		
New Members	3,784	New Members	2,500	
Resignations	484	Resignations	715	
Deaths	232	Deaths	264	
Arrears	211	Arrears	250	
Expulsions	4	Expulsions	3	
	931	Removed from Medical Register..	1	
			1,233	
Increase ...	2,853	Increase ...	1,267	

Membership on December 31st, 1912 ... 26,568
,, ,, December 31st, 1911 ... 25,301

OBITUARY.

Name.	Offices held in the Association.
Dr. Charles Henry Allfrey ...	A former President of the South Eastern Branch.
Dr. Frederic Bagshawe ...	A former President of the South Eastern Branch.
Sir Thomas Frederick Chavasse	President, Section of Surgery, 1911.
Dr. W. R. Duguid	A former President and Representative of the Banff, Elgin and Nairn Division.
Mr. Henry Eales	President, Section of Ophthalmology, 1911.
Dr. Alfred Lewis Galabin ...	Vice-President of the Section Obstetric Medicine, 1887 (Dublin), and President of the same Section in 1892 (Nottingham).
Dr. T. Fred. Gardner ...	President of the Dorset and West Hants Branch.
Dr. John Edward Garner ...	Representative of the Preston Division at the time of his death.
Dr. George Alexander Gibson	Vice-President, Section of Medicine, 1898; Address in Medicine, 1912
Dr. Charles Edward Hutt ...	A former Chairman of the North Middlesex Division.
The Right Hon. Lord Ilkeston	Secretary of the Birmingham Branch and of the Annual Meeting, 1872; Vice-President, Section of Medicine, 1878; President of the Birmingham Branch, 1883-1884; President of the Council, 1884; Elected on the General Medical Council, 1886; President, Section of Public Medicine, 1892; President, Section of State Medicine, 1910.
Dr. C. G. Knight	Honorary Secretary of the Manchester West Division at the time of his death.
Mr. Jordan Lloyd	A former Member of Council; Address in Surgery, 1911.
Dr. W. Courtenay Milward ..	Secretary of the Cardiff Division up to the time of his death.
Dr. Charles Orton	President, Staffordshire Branch, 1883-1884.
Dr. Frank M. Pope	Late Chairman of Science Committee; Senior Member of Council, and a Member of many Committees at the time of his death; Secretary, Section of Medicine, 1892; President, Section of Medicine, 1905.
Dr. John Rand	A former Representative of the Norwood Division.
Dr. E. D. Ritchie	A former Chairman of the Winchester Division.
Dr. John Roberts	A former President of the North Wales Branch.
Sir William Japp Sinclair ...	Address in Obstetrics at Montreal in 1897, and Manchester in 1902.
Sir Henry R. Swanzy	Vice-President of Section, Ophthalmology, 1880; President, 1887 and 1908.
Dr. Cecil E. Shaw	Member of Council of Ulster Branch, 1901-07; Hon. Sec. Ulster Branch, 1905-10; Member of the Council of the Association, 1904-09; Member of Science Committee, 1906-10; Vice-President of Section, Laryngology and Otology, at Oxford, in 1904, and of the Section, Ophthalmology, in London, 1910; Secretary, Annual Meeting, held in Belfast, 1909.
Dr. George Christopher Tayler	A former President of the Bath and Bristol Branch.
Dr. Alderman Thomas Houghton Waters	President of the Association at the Liverpool Meeting, 1883.
Dr. Henry Waters	Late Secretary and Representative of the Bootle Division.
Dr. James Waterston ...	A former Chairman of the Sunderland Division.

Dr. John Theodore Abbott, Dr. Michael Ahern, Dr. Charles Allan, Mr. Sidney Bertram Axford, Mr. E. B. Aylward, Mr. Gilbert Lacy Barritt, Dr. Alfred Augustus Beeks, Dr. David George Bennet, Dr. Arthur Henry Benson, Dr. Walter Bernard, Mr. Leonard A. Bidwell, Dr. John S. Billings, Mr. Edward Stanmore Bishop, Dr. Graham T. B. Blick, Dr. John Bligh, Dr. Campbell Boyd, Dr. Daniel Catlin Burlingham, Dr. Charles Skardon Burney, Dr. J. F. Butler-Hogan, Dr. James Chalmers Cameron, Dr. Donald Campbell, Dr. William Hodgson Carruthers, Dr. Edward John Walter Carruthers, Dr. William Carter, Dr. John Louis Chambers, Dr. W. Wake Clark, Mr. Albert Bleckly Clarke, Dr. William Taylor Colby, Dr. Albert Coppinger, Mr. James Couldrey, Fleet-Surgeon Alfred H. Lissant Cox, R.N. (retd.), Dr. David George Davidson, Dr. J. Stuart Dickie, Lt.-Col. Andrew Duncan, M.D., I.M.S., Mr. William Frederick Bailey Eadon, Sir Herbert Mackay Ellis, K.C.B., late Medical Director-General, R.N., Dr. John Henry Evans, Dr. V. ffrench-Mullen, Dr. J. Herbert Finegan, Mr. Gerald Eustace Fitzgerald, Dr. George Forbes, Dr. Philip Frank, Mr. Richard Allanson Gaskell, Professor Samson Gemmell, Dr. James Hill Gibson, Sir James Graham, M.D., Dr. George Taylor Guild, Dr. Robert Nightingale Hartley, Mr. Robert Turner Head, Dr. James Gilpin Houseman, Mr. Albert Henry Hughes, Mr. Robert Hunt, Mr. Alfred James, Dr. Herbert Stanley Jenkins, Mr. John T. Jones, Surg.-General M. W. Kerin, C.B., Dr. Thomas Kirkwood, Dr. Charles George Lee, Dr. E. Mellor Light, Dr. William Livesay, Mr. Stephen George Longworth, Dr. Frank Harrison Low, Dr. Thomas McClure, Dr. Alexander Minto McDonald, Dr. James McIlroy, Dr. Philip Oscar Malabre, Dr. David Menzies, Dr. J. F. M. Miles, Dr. James Miller, Dr. Pembroke Minns, The Honourable Charles Benjamin Mosse, C.B., C.M.G., Deputy Surg.-General, A.M.D. (ret.), Surgeon-General H. Skey Muir, C.B., Dr. William Murrell, Mr. Leonard Noon, Mr. Charles O'Farrell, Mr. William F. N. O'Loughlin, Dr. Richard Paramore, Dr. Harris Philpots, Dr. C. Adolphe Renshaw, Dr. Thomas Rennie, Dr. W. Richardson Rice, Deputy Surg.-General S. B. Roe, C.B., Dr. Andrew Scott-Smith, Dr. Herbert Dunbar Shepherd, Dr. John E. Simpson, Sir William Thornley Stoker, Bart., M.D., Dr. Thomas Edmund Stuart, Dr. John Frederick Joseph Sykes, Dr. John Roy Tannahill, Dr. George Templeton, Dr. William Thyne, Dr. Arthur John Wallace, Sir Frederick Wallis, C.B., Dr. Ernest Westbrook, Dr. Howell White, Dr. Charles Theodore Williams, M.V.O., Dr. Owen T. Williams, Dr. W. H. Williamson, Dr. Frederick Wright, J.P.

QUESTION OF NEW COMPANY.

26. As reported to the Annual Representative Meeting at Liverpool, representatives of the Association waited upon the new Comptroller of the Companies Department of the Board of Trade on May 1st, 1912, with reference to the alteration of the proposed new Memorandum of the Association suggested by the Board of Trade, namely, the addition of words (to clause 3 (g)) to provide as follows:—

> "The Association shall not support with its funds or endeavour to impose on or procure to be observed by its Members or others any regulation, restriction or condition, which, if an object of the Association, would make it a Trade Union."

The Comptroller stated that he could not see his way to recommend that the above addition should not be insisted upon, and pointed out that even if it were not inserted in the Memorandum the Association would nevertheless be subject to its provisions.

On consideration of the draft Memorandum, Articles and By-laws as thus settled by the Board of Trade, it was decided to ask Counsel to furnish (i.) a statement of the powers which would be vested in the Association under the proposed new Memorandum of Association, as amended, as compared with the powers under the present Memorandum, (ii.) an estimate of the probable cost of winding up the present Company and forming the new Company, and (iii.) an opinion as to whether it would be possible for the present Company to acquire power to borrow money otherwise than by winding up the present Company and forming the new Company. The Council submits (see Appendix III.) Counsel's opinion on the above questions, together with (see Appendix IV.) additional information received through the solicitor to the Board of Inland Revenue as regards the question of the probable cost of the formation of a new Company.

On consideration of the whole matter the Council arrived at the following

Conclusions.

(1) That the winding up of the present Company and the formation of a new Company would necessitate the expenditure of approximately £400 to £600.

(2) That the extension of the present Memorandum of Association to enable the Association to borrow money on mortgage or otherwise, including submission of the proposed alteration to the Board of Trade, and an application to the High Court, entailing the attendance of Counsel, would necessitate the expenditure of approximately £100.

(3) That the most urgently needed and important power sought by the Association is the power to borrow money.

(4) That the additional powers obtainable by the formation of a new Company are not commensurate with the additional expense involved.

The Council is of opinion, therefore, that the proposed formation of a new Company should not, for the present at least, be further proceeded with. The Council recognises that this proposal will give rise to feelings of disappointment that the long and expensive work done by the Association in connection with the matter has had so little result. Especially may this be so in the case of those Overseas Branches which have been more particularly anxious to obtain certain new powers. It is now evident, however, that those powers (promotion of candidatures for Parliament, provision of medical benevolence and individual medical defence) cannot be obtained through any new Company which shall effectively preserve the identity of the present Association. The powers which can be obtained in this way are all, with the exception of the establishment of a medical benevolent fund and the borrowing of money, powers which are already exercised by the Association, though the legal right of the Association to do so as regards some of them is not specifically stated in the present Memorandum of Association, and can only be inferred therefrom. In view of the fact that the Overseas Branches would in any case probably prefer to start separate Benevolent Funds of their own, which they can do at present under Trusts, and that the power of borrowing money can be obtained by the cheaper method of application to the High Court, the Council recommends this plan in preference to that of forming a new Company.

The Council recommends :—

Recommendation A.—That the Association do not proceed further at present with the proposed formation of a new Company.

Recommendation B.—That the Representative Body instruct the Council to take the necessary steps to obtain an extension of the Memorandum of the present Company to include the power of borrowing money on mortgage or otherwise.

QUESTION OF MODE OF ELECTION OF MEMBERS OF COUNCIL BY BRANCHES OUTSIDE UNITED KINGDOM.

27. Being of opinion that the present procedure for election of members of Council by Overseas Branches, as provided for under present By-law 46, is unnecessarily cumbersome, and that it would be possible and advantageous to apply to these Branches with necessary modifications the procedure adopted, under By-law 45, with regard to Branches in the United Kingdom, whereby these elections are carried out as far as possible through the Head Office, the Council has prepared and now submits to the Representative Body alterations in the By-laws to provide accordingly.

The Council recommends :—

Recommendation C.—That the following new By-law 46 be adopted by the Annual Representative Meeting, 1913, in substitution for existing By-law 46 :—

Mode of Election by Groups not in United Kingdom.

46.—(1) The election of seven Members of Council by the Groups of Branches not in the United Kingdom shall be conducted in the manner prescribed by this By-law.

(2) All nominations of candidates shall be in writing sent to the Association so as to be received at the Head Office on or before such day, not being later than the 15th February in each year, as shall be specified for the purpose by a notice published in the JOURNAL during the second or third week of October in the preceding year, and no nomination paper received after the day so specified shall be valid.

(3) The said notice shall prescribe a form in which the nominations are to be made, and the nominations shall be made in the form so prescribed, or in a form to the like effect. Nomination papers may be signed by not less than three members of any Branch comprised in the group.

(5) As soon as may be after the 15th day of February in each year :—

(a) In the case of any Group for which one candidate only has been duly nominated, there shall be published in the JOURNAL a notice that such candidate has been elected as Member for that Group ; and—

(b) In the case of any Group for which more candidates than one have been duly nominated, a voting paper shall be sent by post from the Head Office to each Member of every Branch comprised in that Group.

(5) Every voting paper shall contain a statement that the same must be returned to the Association so as to be received at the Head Office on or before a specified day (not being later than the succeeding 15th day of May), and no voting paper received after the day so specified shall be counted.

(6) Not later than the 2nd week in the succeeding month of June, a notice of the result of the elections shall be published in the JOURNAL.

[*Existing By-law* 46.

Mode of Election by Groups not in the United Kingdom.

46.—(1) The election of seven Members of Council by the Groups of Branches not in the United Kingdom shall be by voting papers sent by post by the Secretary of each Branch comprised in the Group to each Member of that Branch.

(2) The said voting papers shall contain the names of those candidates who have been nominated either (*a*) by a Division or (*b*) in writing, signed by not less than three Members of any such Branch on or before an appointed day, of which such notice shall have been given in the JOURNAL as the Rules of the Branch may prescribe.

(3) The said voting papers shall contain such other particulars (if any), and shall be sent to such one of the said Secretaries (hereinafter called "the Returning Officer"), and within such time as the Council may from time to time prescribe by notice given as aforesaid.

(4) It shall be the duty of the Returning Officer to count the votes given for each candidate and to make a return of the result of the election to the Association at the Head Office.

(5) The expenses incurred by each Branch in respect of the election shall be borne by the Association.]

ELECTION BY BRANCHES OF MEMBERS OF COUNCIL FOR 1913-14.

(a) *Grouping of Branches in United Kingdom for* 1913-14.

28. Pursuant to the decision of the Annual Representative Meeting, 1912 (Minute 43), the Branches in the United Kingdom are grouped for the election of Members of Council for the year 1913-14 in the same way as for the year 1912-13.

(*Note.*—For the Scheme of Grouping for 1913-14 see Appendix V.)

(b) *Grouping of Branches not in United Kingdom for* 1913-14.

The Council has considered the following Minutes of the Annual Representative Meeting, 1912 :—

Minute 73.—Resolved : That it be an instruction to the Council to settle the grouping of Branches outside the United Kingdom for election of members of Council for the year 1913-14 on consideration of the views of the Branches concerned.

Minute 74.—Proposed : That the new arrangement of grouping of Branches not in the United Kingdom, whereby the Hong Kong and China Branch is grouped with the various Branches in India, Burma, Ceylon and Malaya for the purpose of electing one member of the Council of the Association does not give that Branch adequate representation and seriously curtails the rights

and privileges of the Members of the Branch, that therefore one Member of Council should be alloted to the Hong Kong and China Branch, together with the Malaya Branch and another Member of Council allotted to the Branches in India, Burma and Ceylon, which Branches have interests more or less in common ; and that, in the event of this proposal being approved by the Representative Body, the Member of Council representing the Hong Kong and China and Malaya Branches should be elected from Members of each of the two Branches alternately.

Minute 75.—Whereupon an amendment: That the matter be referred to the Council for consideration and report, and such amendment of the regulations, if any, as may in the opinion of the Council be desirable. The amendment was carried; also as a substantive motion ;

and has also considered replies by the Branches outside the United Kingdom on the question of their grouping. The Council now submits to the Representative Body the Scheme of Grouping of Branches not in the United Kingdom for the election of members of Council, 1913-14, as decided upon by the Council pursuant to the instruction of the Representative Body. The Council has also recommended the Branches outside the United Kingdom to exercise their powers under By-law 29 (2), so that Members of Council elected by these Branches be appointed to serve for a period of three years. In connection with Minute 74 of the Annual Representative Meeting at Liverpool, the Hong Kong and China Branch has been informed that there is no objection to arrangements being voluntarily made between that Branch and the Malaya Branch, now grouped with it, whereby the Member of Council representing these Branches shall be elected from each of the two Branches alternately.

(*Note.*—For the Scheme of Grouping of Branches outside United Kingdom for 1913-14, see Appendix VII.)

ELECTION BY BRANCHES OF MEMBERS OF COUNCIL FOR 1914-15.

(a) *Grouping of Branches in United Kingdom for 1914-15.*

29. The Council recommends :

Recommendation D.—That the Branches in the United Kingdom be grouped for election of Members of Council for the year 1914-15 in the same way as for the year 1913-14.

(*Note.*—For the Scheme of Grouping for 1913-14, *see* Appendix V.)

(b) *Grouping of Branches outside United Kingdom for 1914-15.*

30. The Council recommends :

Recommendation E.—That the Branches outside the United Kingdom be grouped for the election of Members of Council for the year 1914-15 in the same way as for the year 1913-14.

(*Note.*—For the Scheme of Grouping for 1913-14, *see* Appendix VII.)

QUESTION OF PAYMENT OF EXPENSES OF REPRESENTATIVES.

31. The Council has considered the following Minutes 22-5 of the Annual Representative Meeting, 1912 :—

Minute 33.—Proposed: That, in the opinion of this Meeting, the time has now come when the Council should take into consideration the payment of the necessary out-of-pocket expenses of Representatives at Representative Meetings.

Minute 34.—Whereupon an amendment: That the question of the payment of the personal expenses of the Representatives at Meetings of the Representative Body be postponed for twelve months, on account of the heavy expenditure caused by the National Insurance Act. The amendment was carried. Also as a substantive motion.

Minute 35.—Resolved: That in the meanwhile the Council point out to each Division the possibility of opening a Special Fund which can be supported by practitioners resident in the area, and out of which such expenses of the Representatives as the Division may determine could be paid.

In accordance with Minute 35 of the Representative Body at Liverpool, the Council has pointed out to the Divisions that it is within the power of each Division to open a Special Fund to be subscribed to by members and other practitioners voluntarily, from which such expenses of the Representative or Representatives as the Division may decide, can be paid.

The Council recommends :

Recommendation F.—That, having regard to the existing state of the finances of the Association, the time is still inopportune for acceding to the proposal that the out-of-pocket expenses of Representatives at Representative Meetings, other than their travelling expenses as at present, be paid out of the funds of the Association.

FORMATION OF CONSTITUENCIES: GENERAL PROCEDURE.

32. The Council has considered the following resolution of the Annual Representative Meeting, 1912 :—

Minute 77.—Resolved: That the Council take into consideration the question of fixing a date after which alterations of constituences shall not be effective as regards election of Representatives for that year's Representative Meetings ;

and has adopted a Standing Order whereby, in forming constituences in accordance with By-law 30, the Council shall have regard only to the Divisions as they existed at the time of making up of the Annual List for the year. Thus any changes made in the list of, or boundaries of Divisions, subsequent to the publication of the Annual List in May of each year, which may, in the opinion of the Council, necessitate alteration of constituences, shall not be taken into account by the Council until the following year.

CONSTITUENCES, 1913-14.

33. The Constituences formed by the Council for the purpose of the election of the Representative Body for 1913-14, are, provisionally, the same as those for 1912-13, except that independent representation has been given to the following Divisions :—Birmingham Central, Kingston-upon-Thames, Richmond, Scarborough, York ; and that Walsall and West Bromwich, Woolwich and Greenwich and Deptford (or Lewisham), Kesteven and Boston and Spalding, and Rotherham and Sheffield, have been grouped.

The Scheme of Constituencies will be finally determined when the Annual List, 1913, figures are available.

ELECTION OF MEMBERS BY BRANCHES.

34. The Council has considered the following resolution of the Annual Representative Meeting, 1912 :—

Minute 253.—Proposed: That the following Sub-section (3) be added to present By-law 5 of the Association :—

(3) Where a candidate for election has been recently domiciled within the territory of an oversea Branch, election of such candidate by a Branch in the United Kingdom or another oversea Branch shall be provisional until the Council of the Branch in the previous place of domicile has been communicated with.

Minute 254.—Resolved: That this Meeting approve the principle involved in the above Motion, and that it be referred to the Council for consideration.

The Council regrets that, for the reasons given below, it is unable to agree with the suggestion of the Victorian Branch the principle of which was approved by the Representative Body (Minute 253 of A.R.M., 1912), that where a candidate for election has been recently domiciled within the territory of an oversea Branch the election of such candidate by a Branch in the United Kingdom or other oversea Branch shall be provisional until the Council of the Branch in the previous place of domicile has been communicated with: (a) It would entail asking every candidate in the United Kingdom whether he had recently been domiciled in the area of an oversea Branch ; (b) it would raise difficulties as to the exact meaning of "domiciled"; (c) it would entail the holding up of all applications for membership pending enquiry, which would in many cases be vexatious to intending members ; (4) the principle, if adopted, would have to be extended generally, and before a member could be elected by a Branch outside the United Kingdom an enquiry would have to be made as to whether he had recently been domiciled in the United Kingdom or in any Branch, and so forth.

The Council is of opinion that the evidence at its disposal as regards the grievance which the proposal of the Victorian Branch was intended to remove does not justify the proposed change in view of the manifest difficulties of the proposed procedure.

The Council therefore recommends :

Recommendation G : That the regulations as to election of members remain as at present.

TIME OF HOLDING ANNUAL REPRESENTATIVE MEETINGS.

35. The Council has considered Minute 257 of the Annual Representative Meeting, 1912, namely :—

Minute 257.—Resolved : That the following Motion by Chelsea, with the Amendment by Birmingham Central, be referred to the Council :—

That the Annual Representative Meeting shall commence on the third Tuesday in July.

Amendment by Birmingham Central :—That the Annual Representative Meeting shall commence on the Thursday immediately preceding the Annual Meeting.

and reports as follows :—

(1) That general experience has shown that the most convenient week for the Annual Meeting, and one which is now fixed by custom, is the third week in July;

(2) That it has been found necessary to keep clear of the week immediately preceding August Bank Holiday, on account of the difficulty of arranging excursions on the Saturday;

(3) That, accordingly, the Friday which falls on July 15th or 21st, or between these dates, is, in the opinion of the Council the best date for the commencement of the Annual Meeting;

(4) That the desire for an extension of the time required for the business of the Annual Representative Meeting, expressed in the proposals of the Chelsea and Birmingham Central Divisions, has probably only arisen out of the circumstances of the past two years, which were admittedly exceptional, and that, in the opinion of the Council, the necessity for such an extension of time is not now likely to arise.

Representatives and Deputy-Representatives.

36. The following Minute 258 of the Annual Representative Meeting, 1912, has been considered by the Council:—

Minute 258.—Resolved: That the following motion, with amendments and riders thereto, be referred to the Council for consideration:—

Motion by Westminster: That the Council be instructed to frame alterations in the Regulations of the Association, carrying out the principles contained in the following Motion, and submit them to the next Representative Meeting, Special or Annual:—

That it should be possible for a Representative to resign his position and for the post to be filled up at any time; that it should be possible for a Division to dismiss a Representative by a majority of those present at a Special Meeting of the Division called for the purpose; that in the event of a Representative being able only to attend part of a Representative Meeting it should be possible for a Division to appoint a Deputy to act during such time as the Representative is unable to attend.

Amendment by Hampstead: That the words "of two-thirds" be inserted after the word "majority" in line 4.

Amendment by Cardiff: That the words "three-fourths majority of those present and voting" be substituted for the words "majority of those present" in lines 4 and 5.

Amendment by Manchester (South): That the words "the Chairman and Secretary" be substituted for the word "Division" in the eighth line.

In the opinion of the Council,

(1) The Representative of a Constituency should be able to resign his position.

(2) Any vacancy arising should be filled by the Constituency in accordance with the Rules of the Division or Divisions forming the Constituency.

(3) If a Representative be permitted to resign, the Constituency should not be empowered to dismiss a Representative, but should be able, at a special meeting called for the purpose and by a three-fourths majority of those present and voting, to call upon a Representative to resign.

(4) It would be inadvisable to allow a Deputy to act for a Constituency during such portion only of a Meeting as the Representative might be unable to attend.

The Council therefore recommends:

Recommendation H.—That the Council be instructed to prepare the alterations in the Regulations of the Association necessary to carry out the above suggestions.

Question of Appeals to Council in connection with Ethical Decisions of Councils of Branches outside United Kingdom.

37. The Council has considered Minute 256 of the Annual Representative Meeting, 1912, to the effect that words be added to the statement of the duties and powers of the Central Ethical Committee in the Schedule to the By-laws, to provide that where an ethical complaint has been dealt with by the Council of a Branch outside the United Kingdom, an appeal to the Council of the Association shall not be allowed except by permission of the Council of the Branch.

The Council recommends:

Recommendation I.—That in order to carry out the proposal contained in Minute 256 of the Annual Representative Meeting, 1912, the following words be added by the Annual Representative Meeting, 1913, to the definition of the "Duties, Powers, etc." of the Central Ethical Committee, contained in the Schedule to the By-laws:—

"Provided that notwithstanding the foregoing provisions the Committee shall not adjudicate in or entertain any such matter of dispute as aforesaid which has arisen in a Branch not in the United Kingdom having a membership of not less than thirty, except upon the request of the Council of that Branch."

Co-ordination of Action of Divisions and Local Medical Committees.

38. As will be seen from paragraph 102 of this Report in the State Sickness Insurance Section, the Council is of opinion that it would be to the advantage of the profession if it were within the power of the Branches and Divisions to secure that certain medical members of Insurance Committees and of Local Medical Committees, being also members of the Association, should be members *ex officio* of the Councils of the Branches, and of the Executive Committees of the Divisions concerned. In the event of the opinion of the Council being endorsed by the Representative Body the Council suggests that By-laws 16 and 18 be amended to make this possible.

The Council recommends:—

Recommendation J.—That By-laws 16 and 18 of the Association be amended to read as follows, respectively (words proposed to be inserted are printed in italics):—

By-law 16.

Local Management: Branches.

16. The management of the affairs of each Branch shall, save as otherwise provided in the By-laws, be vested in a Branch Council, composed of the following Members:—

(a.) Those Members of the Council who are elected (as hereinafter provided) by the Branch or by any group of Branches to which the Branch belongs, or (wholly or in part) by Representatives of Constituencies comprised in the Branch.

(b.) The Members elected to represent on the Representative Body the Divisions comprised in the Branch.

(c.) Such Officers of the Branch as the Branch shall declare to be members ex officio of the Branch Council.

(d.) *Such Members (if any) of any Local Medical Committee formed under the National Insurance Act, 1911, and such Medical Members (if any) of any Insurance Committee formed under that Act, being (in either case) ordinary Members of the Association resident within the area of the Branch as the Branch may declare to be Members ex officio of the Branch Council.*

(e.) In the case of a Branch comprising more Divisions than one, Members elected by such Divisions in such manner that the number to be elected by each Division shall be as nearly as possible proportionate to the Membership of such Division.

By-law 18.

Local Management: Divisions.

18. The management of the affairs of each Division shall, save as otherwise provided in the By-laws, be vested in an Executive Committee composed of the following Members:—

(a) The Member or Members representing the Division on the Representative Body;

(b) The Member or Members representing the Division on the Branch Council;

(c) *Such Members (if any) of any Local Medical Committee formed under the National Insurance Act, 1911, and such Medical Members (if any) of any Insurance Committee formed under that Act, being (in either case) ordinary Members of the Association resident within the area of the Division as the Division may declare to be Members ex officio of the Executive Committee.*

(d) Such other Members elected by the Division as the Division may determine.

Annual Reports of Divisions and Branches.

(a) *Reports of Divisions in United Kingdom for 1912.*

39. Satisfactory Reports have been received from most of the Divisions in the United Kingdom in respect of the year 1912. From the following Divisions, however, no Report has up to the present been received:—

Aberdeen, Ashton-under-Lyne, Ayrshire, Belfast, Blyth, Bradford, Carlow, Derry, Dublin, Ealing, East Leinster, Hendon and Finchley, Hexham, Kendal, Mid-Connaught, Mid-Essex, Mid-Leinster, Monaghan and Cavan, North-west Leinster, Rotherham (formed, December, 1912), Sevenoaks, Shetland, South Connaught, South Shields, South Munster, Waterford, West Cornwall.

In addition, the following Divisions are unorganised; that is to say, have no Officers and have held no meetings during the year:—

Consett, Enniskillen, Isle of Man, Kilkenny, North Connaught, North Leinster, North Munster, Omagh, Orkney, South-East Leinster, West Munster.

Under the By-laws every Division should report in January. The Council desires to impress upon the Divisions the importance of these Reports being duly made, as they constitute a valuable means of information respecting the activities of the Divisions.

(b) *Reports of Branches in United Kingdom for 1912.*

40. Annual Reports for 1912, due on March 15th, have also been received from, and found satisfactory in the case of the majority of the Branches in the United Kingdom. The following Branches, however, have not yet reported:—

Aberdeen, Connaught, Glasgow and West of Scotland, Leinster, North of England, Ulster.

The Council desires again to emphasise the fact of the unnecessary delay and difficulty caused in connection with the accounts of the Association by non-receipt or delayed receipt of the Annual Reports. It is obviously difficult for the Council to arrange for grants to Branches for any year in the absence of a satisfactory Report from the Branch for the previous year, and the Council has accordingly adopted a Standing Order that no grant shall be made unless a satisfactory Report for the previous year has been furnished. An analysis of the Reports of the Branches in the United Kingdom for 1912 in respect of membership, finances and meetings will be found appended.

(*Note*—For the Analysis see Appendix VI.)

(c) *Reports of Branches outside United Kingdom for* 1912.

41. Reports from a considerable number of these Branches have already been received, but owing to the distances involved the Reports of some Branches which ordinarily report are still outstanding. The Reports of the Branches outside the United Kingdom will therefore be dealt with in the Supplementary Report of Council.

Grants to Branches for 1913.

(a) *Branches in United Kingdom.*

42. Grants for 1913 varying from 2s. to 4s. per member have been made by the Council to those Branches in the United Kingdom which required grants and have furnished satisfactory Reports for 1912. No grant has been made to Branches which had a balance of over 5s. per head in their possession as at December 31st, 1912.

(b) *Branches outside United Kingdom.*

43. Grants for 1913 have as in previous years been made to Branches outside the United Kingdom at the rate of 4s. per member who has paid the full subscription for the year, and 2s. per member, elected after July 1st, who has paid half the ordinary subscription.

Rules.

44. Notwithstanding repeated requests for the adoption of such Rules, the Council regrets to find that there are still 82 Divisions and 4 Branches in the United Kingdom which have not adopted ordinary Rules of Organisation. The attention of these bodies is again drawn to the urgency of their being equipped with Rules. Copies of the Model Rules drawn up for the purpose by the Council are obtainable on application to the Medical Secretary. Without Rules of the kind, and Ethical Rules, it is impossible properly to conduct the ordinary business of a Division or Branch, still less to conduct successfully disputes in which the Division or Branch may at any time become involved. The attention of the defaulting Divisions and Branches above referred to is further drawn to the fact that, under Article 17, Rules do not become operative until their adoption by the Division or Branch has been notified to and approved by the Council.

Question of Relation of Division and Insurance Areas.

45. On consideration of the relation between Division and Insurance areas, the Council is of opinion that, other things being equal, it would be of distinct advantage for the Division areas to be made co-terminous with Insurance areas. The question, however, presents considerable difficulties, and before taking any steps to secure such a readjustment of areas throughout the country, the Council thinks it well that the matter should be laid in detail before the Divisions for their consideration. This will be done at an early date.

Annual Conference of Secretaries.

46. The Conference of Secretaries at Liverpool, 1912, appointed a Committee of nine to consider matters referred to it by the Conference. The Council, fearing that there might be a risk of the work of the Conference overlapping the work of the Standing Committees of the Association, and also having in view the undesirability of the setting up of fresh large and therefore expensive Committees at a time when economy is imperative, came to the conclusion that the organisation of the Conference had better be left as before to the Organisation Committee. The Council has accordingly arranged for the Conference of Secretaries Sub-committee of the Organisation Committee to include three of the nine members appointed by the 1912 Conference, and for future Conferences being invited to nominate three members for co-option to that Sub-committee.

The Annual Conference of Secretaries at Brighton has been fixed for Wednesday, July 23rd, 1913, at 4 p.m., and the Secretaries' Dinner at 7 p.m.

Division and Branch Areas.

(1) *New Divisions and Branches.*

47. The following new Divisions and Branches have been formed since the Council reported to the Annual Representative Meeting, 1912:—

(a) In United Kingdom:

Divisions.

Camberwell, Chesterfield, Isle of Ely, Kingston-upon-Thames, Kesteven, Lewisham, North-West Essex, Rotherham, Tower Hamlets.

(b) Outside United Kingdom.

Branches.

East Africa and Uganda, Orange Free State, Rhodesian.

(2) *Other changes.*

48. Other less important changes of boundaries have been caried out, including some changes of name. All such were duly published in the Supplement.

Resignations.

49. Certain misleading statements having been made in the lay press as to the number of resignations of membership of the Association about the end of the year 1912, the Council authorised publication in the lay press of the fact that resignations from the Association in the period October 15th, 1912, to January 11th, 1913, numbered only 638, as against 405 for the corresponding period in the previous year. The Council desires to call special attention to the figures of the resignations for the year, and though regretting that so many practitioners have thought fit to withdraw from the Association, is of opinion that the comparatively small number is a proof that the profession as a whole recognises the urgent necessity of maintaining the organisation of the Association in view of future necessities.

Compilation of pronouncements of Association: Preparation of Secretaries' Handbook.

50. The work of compilation of the various pronouncements of the Association, and the preparation of a Secretaries, Handbook, are well advanced, but are temporarily in abeyance owing to considerations of expense as regards the amount of printing involved.

Under consideration.

51. (a) Minutes 40 and 42 of A.R.M. 1912, as to Referendum and Postal Vote, as to which the Council hopes to report in its Supplementary Report.

(b) Proposed alteration of Regulations of Association as to change of address of members and amenability of members to Rules of Divisions in the area of which they practise but of which they are not members.

(c) Proposal for shortened period of notice of Special Representative Meetings.

(D) Journal.

British Medical Journal.

52. It is satisfactory to note that the circulation continues to grow, and that in 1912 the total issue was 1,529,688 copies, or an increase of 113,549. Not only has the circulation increased, but the number of pages has been more. To issue weekly so large a publication and catch the Mails to all parts of the World, is a constant source of anxiety. That this is accomplished with constant regularity, and with comparatively rare complaint as to the Journals going astray, must be a matter of general satisfaction, and reflects no small credit on those concerned.

Supplements.

53. As pointed out elsewhere, the pages of the *Supplement* increased during 1912 by 328 pages to an average of over 31 pages per week. The issue of so large a *Supplement*, nearly half an average Journal, involves heavy expense, and it is hoped to arrange that the *Supplement* shall not exceed an average of 16 pages each week.

LIBEL ACTIONS.

54. The Council has carefully considered what steps should be taken in the event of any further Libel Actions being threatened against the Association, and it is believed that the procedure laid down will tend to reduce the risk of future litigation. The Council refrains from entering into the matter of the possibility of the prevention of the recovery of damages against the Association by the registration of the Association as a Trade Union, as under the terms of Minute 68 of the A.R.M. Liverpool, the whole question is to be reconsidered at Brighton.

ADVERTISEMENTS.

55. Throughout the year greater stringency has been exercised as to what advertisements shall or shall not be accepted for insertion in the BRITISH MEDICAL JOURNAL, and the principle now laid down is that no advertisement shall be accepted which is also being issued to the general public in an exaggerated or misleading fashion. Further, no advertisements are accepted if they do not comply with the requirements formulated from time to time by the Association.

"SECRET REMEDIES" AND "MORE SECRET REMEDIES."

56. The book "Secret Remedies" continues to have a steady sale and it is hoped in the course of time that the issue of the book "More Secret Remedies" will rival that of the first publication. The books have been constantly referred to before the Select Committee of the House of Commons, and some of the analyses have been called into question, but in no instance has any witness been able to prove any material defect in the analyses given. It is gratifying in this respect to report that the Commonwealth of Australia requested permission to reprint as a Parliamentary Paper the whole of the two volumes, a request which the Council at once complied with. It is hoped that the circulation of the information contained in these volumes will have a salutary effect on the traffic in secret and proprietary remedies.

(E) Science.

SPECIAL COMMITTEE ON TREATMENT OF SIMPLE FRACTURES.

57. The Special Committee on Treatment of Simple Fractures, appointed by the Council in 1911 at the suggestion of the Section of Surgery of the London 1910 Meeting, has completed its inquiry. The complete Report of the Committee was published in the BRITISH MEDICAL JOURNAL of November 30th, 1912.*

The Council is pleased to report that a most gratifying expression of appreciation of the work of the Fractures Committee has been received from the American Surgical Association, which is proposing to set up a similar Committee and has asked for advice and assistance.

SCIENTIFIC WORK OF ANNUAL MEETING, 1913.

58. The Scientific work of the forthcoming Annual Meeting of the Association at Brighton is being organised in sixteen Sections, namely:—

Bacteriology and Pathology; Climatology and Balneology; Dermatology; Diseases of Children, including Orthopaedics; Electro-Therapeutics; Gynaecology and Obstetrics; Laryngology, Rhinology and Otology; Medical Sociology; Medicine; Navy, Army and Ambulance; Neurology and Psychological Medicine; Opthalmology; Pharmacology, Therapeutics and Dietetics; State Medicine; Surgery; Tropical Medicine.

SCIENTIFIC WORK OF DIVISIONS AND BRANCHES.

59. The Council has under consideration the question of the best means of developing and organising the scientific work of the Divisions and Branches. A communication will shortly be addressed to those bodies as to the question of co-operation between them and the Science Commtitee in the matter.

STANDING THERAPEUTIC SUB-COMMITTEE.

60. Owing to the demands upon the time and energies of the Association in connection with the National Insurance Act the Standing Therapeutic Sub-Committee has not met during the year 1912-13, but certain researches commenced under its auspices are being steadily prosecuted. One of its reports, on a research on the action of Salicylic Acid and chemically allied bodies in Rheumatic Fever, by Professor Stockman, appeared in the BRITISH MEDICAL JOURNAL of March 22nd, 1913.

INTERNATIONAL CONGRESS ON DISEASES OF OCCUPATION.

61. The Council has arranged for the Association to be represented at the Third International Congress on Diseases of Occupation, to be held in Vienna in 1914.

STEWART PRIZE.

62. The Stewart Prize, for work in connection with the origin, spread and prevention of epidemic disease, will be awarded during the current year.

* Reprints of the Report can be obtained on application at the Central Office, price 6d. post free.

THE FISHMONGERS' COMPANY AND SHELLFISH.

63. A Special Committee of the Fishmongers' Company has approached the Association with reference to an enquiry proposed to be carried out by that Committee in regard to shellfish, particularly in reference to bacteria, and as to what other standards, besides freedom from bacteria, should be adopted to render shellfish suitable for human consumption. In response to the wish of the Fishmongers' Company, names have been suggested of gentlemen possessed of special knowledge of the subject with whom the Special Committee might confer. From these the Fishmongers' Company has selected Dr. J. C. G. Ledingham.

UNDER CONSIDERATION.

64. (a) Minute 102 of Annual Representative Meeting, 1912, as to methods in which researches in connection with scholarships and grants awarded by the Association are carried out.

(b) Award of Middlemore Prize in 1914.

(F) Medical Ethics.

WARNING NOTICE REGULATIONS.

(a) *Continuation of Warning Notices.*

65. The Council has considered the question of those Warning Notices which have been published regularly for more than a year, and has made application for fuller information as to the necessity for their continuance to the Divisions and Branches concerned. Of these only a quarter replied. In the opinion of the Council the responsibility attached to Warning Notices is so great that it is essential that Divisions and Branches inserting them should understand that unless they are willing to keep the Central Office in constant touch with the progress of the dispute in connection with which the Notice is inserted, the Association will decline to continue publication. The Council has accordingly given a standing instruction that Divisions and Branches which have Warning Notices inserted in the JOURNAL, and do not reply to a request for information as to the progress of the dispute, be given notice that, failing the receipt of such information within seven days, the Notice will be discontinued.

(b) *Insertion of New Warning Notices to depend on adoption of Ethical Rules.*

66. Still further to safeguard the position, the Council has made it a standing instruction that Divisions and Branches for which Warning Notices are being inserted, but which have not adopted the new Model Ethical Rules, be informed that the Notice has been inserted as a matter of favour, and that, in future, a Notice will be inserted only if the Model Ethical Rules are adopted. In order that Branches and Divisions may not be taken unawares this instruction will not take effect until after July 31st, 1913.

(c) *Warning Notices as to Ship Surgeoncies.*

67. The Council has noted the decision of the Representative Body at Liverpool (Minute 158) that the remuneration of Ship Surgeons shall not be less than £10 per month, and instructions have been given accordingly for the exclusion from the columns of the JOURNAL of advertisements proposing to offer a smaller salary. In view of the possibility that Warning Notices may at any time be required in connection with cases where a less salary is offered, the Council has amended the Regulations with regard to the publication of Warning Notices, by providing that in the case of a ship surgeoncy a Warning Notice may be sanctioned upon the application of the Chairman of the Standing Ship Surgeons' Sub-Committee of the Medico-Political Committee.

EXPULSION.

68. The Council regrets to have to report that it has been found necessary to remove from membership of the Association a member who accepted and continued to hold an appointment, the holding of which was in opposition to the declared views of the Division and Branch complaining.

POSITION OF PRACTITIONERS EXAMINING PATIENTS WHO ARE UNDER THE CARE OF OTHER PRACTITIONERS.

69. The Report on the position of practitioners examining, on behalf of interested persons, patients who are under the care of other practitioners, has been amended in accordance

with the instructions contained in Minutes 105 and 106 of the Annual Representative Meeting, 1912, and instructions have been given for the circulation of the amended Report to Divisions and Branches for their information.

CASES SUBMITTED TO GENERAL MEDICAL COUNCIL.

70. In the Annual Report of last year the case of a practitioner in which the Association acted as prosecutor before the General Medical Council, was mentioned. The practitioner in question had employed an unqualified assistant to attend and treat patients, and the General Medical Council, having found the case proved, postponed judgment from its May to its November, 1912, Sessions in order to give the offending practitioner an opportunity of submitting evidence as to his practice and conduct in the interval. After long deliberation the Council finally decided not to direct the Registrar to erase the practitioner's name from the Medical Register.

CANVASSING AND TOUTING FOR PATIENTS IN CONNECTION WITH THE NATIONAL INSURANCE ACT.

71. Many cases of advertising and touting for patients in connection with the National Insurance Act have been reported to the Association. Some of the offenders were warned direct, some were reported to the Registrar of the General Medical Council, who communicated with them, while in one flagrant case the Association decided to prosecute before the General Medical Council. Information was received, however, that the cases reported to the General Medical Council had been so numerous that that Council would be quite unable to deal with them in the usual way, and, taking a lenient view of the circumstances, had decided to issue a general warning to the profession. In these circumstances the Council felt that it would be useless to prosecute any individual case until the warning had been issued and its effect seen. The Council will act promptly in any case reported to it in which canvassing or touting are proved to have occurred subsequent to the issue of the warning of the President of the General Medical Council, and Divisions are urged to take immediate steps to expose and punish future cases of conduct which has been a scandalous breach of the traditions of the profession.

(*Note.*—For warning issued by the President of the General Medical Council, see Supplement to BRITISH MEDICAL JOURNAL of March 22nd, 1913.)

ETHICAL RULES OF DIVISIONS AND BRANCHES.

72. The Council has considered certain suggestions made by the Brighton Division as to alteration of the Model Ethical Rules of Divisions and Branches which were referred by the Annual Representative Meeting at Liverpool for consideration. The resolutions of the Representative Body were as follows :—

> *Minute* 112.—Resolved : That the suggestions, contained in items 3, 5, 6, 7, 8 and 9 (Minute 109), be referred to the Central Ethical Committee for consideration.
>
> *Minute* 118.—Resolved : That all Divisions and Branches in the United Kingdom be urged to adopt the Model Rules for Ethical Procedure, as approved by the Representative Body, without modification and in substitution for all such Rules now in use by the Divisions and Branches respectively.

In the opinion of the Council no advantage would accrue from making the amendments in the Model Ethical Rules, suggested by the Brighton Division, referred to in Minute 112 above. The Council is further of opinion that until experience has shown that these Rules, as now in operation in the case of many Divisions and Branches, are unsatisfactory in any respect, no change should be made, it being of the utmost importance that there should be uniform ethical Rules of procedure in operation throughout the United Kingdom. The Rules, in the form approved by the Representative Body at Liverpool, were published in the Supplement of September 21st and 28th, 1912, and in accordance with the instruction of the Representative Body the Divisions and Branches in the United Kingdom have been urged to adopt them without modification and in substitution for all such Rules previously in use. As mentioned in connection with Organisation Rules, the Council regards this question of the adoption of Rules (both Ethical and Organisation) by Divisions and Branches as an important and urgent one, inasmuch as experience has repeatedly shown the impossibility of a Division or Branch dealing effectively with disputes when these have arisen, if not in possession of satisfactory Rules. Up to the present, however, only 95 Divisions and 12 Branches (out of the 219 Divisions and 38 Branches in the United Kingdom) have adopted the Model Ethical Rules, as follows :—

(a) *Divisions.*

Barnstaple, Bath, Bedford, Belfast, Birmingham Central, Blackburn, Blackpool, Bolton, Bournemouth, Brighton, Buckinghamshire, Camberwell, Cambridge and Huntingdon, Cardiff, Chelsea, Chesterfield, Chichester and Worthing, City, Cleveland, Darlington, Dartford, Derby, Derry, Dover, Dumbartonshire and Argyllshire, Dundee, Eastbourne, East Cornwall, East Norfolk, Exeter, Forfarshire, Glasgow Eastern, Glasgow North-Western, Greenwich and Deptford, Guildford, Harrow, Hastings, Hereford, Inverness, Isle of Ely, Isle of Thanet, Isle of Wight, Kesteven, Kingston-on-Thames, Lambeth, Leicester and Rutland Lewisham, Lincoln, Liverpool, Maidenhead, Manchester (Central), Manchester (North), Manchester (South), Mid-Norfolk, Mid-Staffordshire, Monmouthshire, Newcastle-on-Tyne, North Lincoln, North Glamorgan and Brecknock, North Staffordshire, Nottingham, Nuneaton and Tamworth, Portadown and West Down, Plymouth, Reigate, Richmond, Rochdale, Rochester and Chatham, St. Helens, Scarborough, Scottish, Southport, South Middlesex, South Staffordshire, South Suffolk, South-West Essex, South-West Wales, Southampton, Stockport, Macclesfield and East Cheshire, Stockton, Sunderland, Swansea, Torquay, Tower Hamlets, Tynside, Walsall, Wandsworth, Warrington, West Bromwich, Cornwall, West Norfolk, West Suffolk, Willesden, Winchester, York.

(b) *Branches.*

Dorset and West Hants, Dundee, Fife, North of England, Northern Counties of Scotland, Southern, South-Western, Staffordshire, Stirling, Ulster, West Somerset, Yorkshire.

MACHINERY OF ASSOCIATION IN CONNECTION WITH DISPUTES.

73. The following Minute, which was referred to the Council by the Annual Representative Meeting, 1912, has been duly considered :—

> *Minute* 62.—Proposed : That unless in cases which concern only a Division, no Warning Notice shall be inserted except in accordance with a decision of the Association under Article 31.

In the opinion of the Council it would be inadvisable to adopt the suggestion contained in Minute 62, inasmuch as it is impossible at the commencement of a dispute to determine whether such dispute will concern a particular Division only.

UNDER CONSIDERATION.

74. (a) Question of conference between consultants and general practitioners.
(b) Question of medical practitioners advertising in lay press.

(G) Medico-Political.

NURSES REGISTRATION BILL.

75. This Bill, which is intended to regulate the qualification of trained nurses and to provide for their registration, was reintroduced into Parliament on March 18th, 1913. It has been prepared at the instance of the Central Committee for the State Registration of Trained Nurses, which represents, by delegation, the British Medical Association, the Matrons' Council of Great Britain and Ireland, the Royal British Nurses' Association, the Society for the State Registration of Trained Nurses, the Fever Nurses Association, the Association for the Promotion of the Registration of Nurses in Scotland, the Scottish Nurses' Association, and the Irish Nurses' Association. The object of the Bill is to ensure that the community shall have a guarantee that the nurses they employ are skilled in their professional duties, and, through standardisation, to give security to the public that the services of fully qualified nurses shall be readily obtainable. The Bill establishes a "General Council for the Registration of Nurses in the United Kingdom," consisting of persons appointed by the Privy Council, Local Government Boards in the United Kingdom, British Medical Association, Medico-Psychological Association, medical superintendents of Fever Hospitals recognised as training schools under the Bill, and registered nurses themselves. The General Council will consist of 21 persons, of whom 3 will be appointed by the British Medical Association, 8 by the registered women nurses, and 1 by the registered male nurses. The Bill was introduced by Mr. Munro Ferguson, and is backed by Dr. Addison, Mr. Alden, Mr. Bryce, Mr. Duncan Millar, Mr. Scott Dickson, Mr. Remnant, Viscount Wolmer, Sir George Younger, Mr. Ramsay Macdonald, Mr. Field, and Mr. Kerr-Smiley. In the Bill as introduced a printer's mistake has been made in Sub-clause 4 (d) which was meant to provide for the appointment on the General Nursing Council of 3 representatives of the British Medical Association. The mistake,

however, will be rectified to make clear that the Association shall have three representatives. The Council has expressed to the Prime Minister the Association's approval of the Bill and has urged that it be given facilities. A deputation from the Central Committee for the State Registration of Trained Nurses, including two representatives of the Association, has waited upon the Prime Minister in connection with the Bill and the proceedings are duly reported in the BRITISH MEDICAL JOURNAL of May 3rd, 1913.

MENTAL DEFICIENCY BILL OF THE GOVERNMENT.

76. The Government re-introduced on March 25th, 1913, its Mental Deficiency Bill, which, owing to demands on Government time, had been withdrawn in the 1912-13 Session. As re-introduced, the Bill is substantially the same measure as the previous Bill, which was approved by the Association last year except in so far as it proposed to set up a new central authority, the policy of the Association in this respect being that there should be only one authority dealing with the whole subject. The proposal for a new central authority ("Board of Control") is retained in the new Bill, while the former Clause forbidding marriage with a defective has been omitted.

ELEMENTARY EDUCATION (DEFECTIVE AND EPILEPTIC CHILDREN) BILL OF THE GOVERNMENT.

77. The Council has approved on behalf of the Association the Elementary Education (Defective and Epileptic Children) Bill, introduced by the Government in the House of Commons on March 31st, 1913. The Bill imposes on education authorities the duty of providing for the education of mentally defective children over seven years of age.

AMENDMENT OF INDECENT ADVERTISEMENTS ACT: SALE OF PREVENTIVES OF CONCEPTION, ETC.

78. The Annual Representative Meeting at Liverpool approved the action of the Council in forwarding a Memorial to the Home Secretary urging legislation to give effect to the recommendations of the Select Committee of 1908 of both Houses of Parliament on Lotteries and Indecent Advertisements. The Council has since received a communication from the Home Secretary stating that he is fully alive to the importance of the subject, which was dealt with in a Bill which he had caused to be drafted. Up to the present no Bill of the kind has been introduced into Parliament, and the Council understands that no steps will be taken pending publication of the Report of the Select Committee upon Patent Medicines, which Committee is dealing with the subject. The matter is being watched.

CERTIFICATES AND REPORTS UNDER WORKMEN'S COMPENSATION ACT.

79. The Council has considered Minutes 142-4 of the Annual Representative Meeting, 1912, as to certificates and reports in cases under the Workmen's Compensation Act, including the suggestion that a simple form of request from employer to doctor should be drafted at the Central Office and sent to Divisional Secretaries. The following form of request has accordingly been prepared and the Council has directed that it be issued to Honorary Secretaries:—

> I require .....to submit himself for examination by you in accordance with the provisions of paragraph 4 (or 14) of the first schedule of the Workmen's Compensation Act, 1906.
>
> Please report to me as to his condition. I will be responsible for the payment of your fee.
>
> Signed .....
>
> Address..... .....
>
> .....

PAYMENT OF CORONERS' FEES TO NAVAL SURGEONS.

80. The Annual Representative Meeting, 1912, approved of the action taken by the Council with reference to the question of the payment of Coroners' fees to naval surgeons. This matter was first brought to the notice of the Association in 1908, when attention was drawn to a recent Order of the Admiralty prohibiting naval surgeons from accepting fees from coroners for evidence given at inquests, while leaving these officers under the statutory obligation to give such evidence and make post-mortem examinations when so ordered by a coroner. Repeated representations were made by the Association to the Admiralty, asking their Lordships to consider the desirability of withdrawing the Order in question.

The Council is glad to report that these representations have at length had the desired result, the Council having received in February, 1913, a communication to the effect that, while the Admiralty were advised that the Coroners' Act, 1887, did not apply to Naval Medical Officers serving on board his Majesty's ships, the Lords of the Admiralty had decided to re-issue the Order in question in the following form:—

> "When called upon under the Coroners' Act of 1887 to act at an inquest a naval medical officer may accept the usual fees tendered to him by the Coroner for his services."

Naval surgeons are thus now placed on exactly the same footing as regards their evidence at inquests as other medical practitioners. The Council has evidence that this decision of the Admiralty has given great satisfaction to the Royal Navy Medical Service.

ISSUE OF ORDER BY GOVERNMENT OF MADRAS AUTHORISING GRATUITOUS MEDICAL TREATMENT, IRRESPECTIVE OF THEIR CIRCUMSTANCES, FOR ALL PATIENTS ATTENDING HOSPITALS SUPPORTED FROM PUBLIC FUNDS.

81. Frequent representations have been made by the Council to the Secretary of State for India concerning the terms of an Order issued in September, 1908, by the Government of Madras to the effect that the medical services of state hospitals were to be placed at the disposal of all members of the community irrespective of means or social position. In view of the long delay in receiving a satisfactory reply on the subject, Sir J. D. Rees, M.P., on the initiative of the Association, questioned the Government on the matter in the House of Commons in November, 1912, and was informed that the Secretary of State was considering the question in consultation with the Government of India. Subsequently (March 20th, 1913) the Council received a letter from the India Office, forwarding a copy of a resolution, dated February 19th, 1913, of the Government of India on the question of discrimination between the various classes of patients visiting hospitals and dispensaries in India maintained or assisted by public funds. The resolution in question, a copy of which has been forwarded by the Government of India to local governments and administrations for their information and guidance, lays down the principle of discrimination as that to which all provinces should work; further, that every patient who can afford to pay for separate accommodation should be charged a reasonable sum, in addition for attendance and medicines; that care should be taken not to undersell private nursing homes and chemists' shops or to compete with private medical practitioners; and states, finally, that it is the wish of the Government of India that the object to be secured, namely, that persons should not be treated at the public expense who can afford to pay, should be consistently kept in view and action gradually taken, as circumstances permit, to attain this end. The Council has expressed to the Secretary of State for India its gratification at the adoption by the Government of India of the only sound principles on which in its opinion hospital attendance should be given.

QUESTION OF PUBLICATION IN JOURNAL OF ADVERTISEMENTS FOR APPOINTMENTS IN WHICH APPLICANTS ARE REQUESTED TO STATE SALARY.

82. The Council has decided that, in future, advertisements of vacant appointments tendered for insertion in the JOURNAL in which applicants are requested to state the amount of the salary they would require or accept, shall not be accepted for publication.

QUESTIONS CONNECTED WITH PUBLIC HEALTH AND THE MEDICAL PROFESSION SUITABLE FOR SUBMISSION TO CANDIDATES AT COUNTY, COUNTY BOROUGH, MUNICIPAL BOROUGH AND OTHER LOCAL ELECTIONS.

83. Under the instructions of the Council, memoranda and questions in connection with the policy of the Association on matters affecting the public health and the medical profession, suitable for submission to candidates at County, County Borough and Municipal Borough and District Council elections have been prepared. The preoccupation of the profession with matters connected with the National Insurance Act made it inexpedient to issue these documents during the past Session, but they are in readiness and will be forwarded to Division and Branch Secretaries on application to the Medical Secretary. (*Note.*—For the Memoranda and Questions, *see* Appendix VIII.)

UNDER CONSIDERATION.

84. (a) Minute 101 of A.R.M., 1911, as to treatment of school children in hospitals.

(b) Questions as to coroners' law and death certification.

(c) Questions as to status and remuneration of ship surgeons, including Minute 158 of A.R.M. 1912.

(d) Question of fees for medical examinations for life insurance, including Minute 161 of A.R.M., 1912.

(H) State Sickness Insurance.

85. Meetings and Attendances (from January 23rd to April 17th, 1913, inclusive).

	Committee.		Sub-Committee.	
	Possible.	Actual.	Possible.	Actual.
Sir James Barr	8	4		
Mr. T. Jenner Verrall ...	8	8		
Dr. J. A. Macdonald	8	5	8	1
Dr. E. Rayner	8	5		
Dr. John Adams	8	6		
Dr. R. M. Beaton	8	8	9	8
Dr. T. M. Carter	7	1		
Dr. T. B. Costello	8	0		
Dr. J. S. Darling	8	1		
Dr. E. R. Fothergill	8	7	9	7
Dr. T. A. Helme	8	0		
Miss F. Ivens	8	7	2	2
Dr. R. McKenzie Johnston ...	8	8	5	5
Mr. Herbert Jones	8	7	3	2
Dr. Constance E. Long ...	8	8		
Dr. E. O. Price	6	6		
Dr. D. G. Thomson	8	5		
Mr. D. F. Todd	8	4	5	3
Mr. E. B. Turner	8	8	2	2
Mr. E. H. Willock	1	1	4	4
Mr. C. E. S. Flemming ...	—	—	2	2
Dr. C. Milward	—	—	1	1
Mr. H. H. Tomkins	—	—	2	2

Reference to, and Appointment of, Committee.

86. The Committee was appointed at the Special Representative Meeting, November, 1912, with the following reference :—

Minute 54.—That a State Sickness Insurance Committee be appointed by the Representative Body to watch the interests of the profession in relation to the National Insurance Act and to report on the situation to the Council, and that the Committee consist of (a) twelve Members elected by Grouped Representatives in the same manner as Members of Council under By-law 43 (c); (b) the "*ex-officio*" Members; and (c) two women medical practitioners to be nominated, one by the Northern Association of Medical Women and one by the Association of Registered Medical Women.

Minute 60.—Resolved: That the Society of Medical Officers of Health be requested to nominate a member of the State Sickness Insurance Committee.

The reference was renewed at the Special Representative Meeting, January, in the following Minute :—

Minute 50.—Resolved: That the Meeting do not appoint a new Committee, and that the State Sickness Insurance Committee appointed in November, 1912, continue to act under instructions of the Council.

On consideration of this reference the Council, at its January Meeting, instructed the Committee to proceed as heretofore, namely, dealing itself in the intervals between Council Meetings with such matters as could not be delayed, and reporting to the Council.

Vacancies upon Committee.

87. Drs. T. M. Carter and E. O. Price and Mr. E. H. Willock having resigned their membership of the Committee, the Chairman of Representative Meetings appointed, upon the recommendation of the Representatives of the grouped Branches concerned, Mr. C. E. S. Flemming, Drs. E. O. Price (re-elected) and E. R. Fothergill in their places.

ACTION UNDER MINUTES OF THE SPECIAL REPRESENTATIVE MEETING, JANUARY, 1913.

88. The principal references to the Council by the Special Representative Meeting, January, were those contained in the following Minutes 48 and 52 :—

Minute 48.—Resolved: That the Council be instructed (a) to take all necessary steps to watch and protect the interests of the profession under the National Insurance Act; (b) to take any opportunity that may be afforded for placing the representatives of the Association on the Advisory and Insurance Committees; (c) to obtain statutory recognition of Local Medical Committees in every insurance area: (d) to collect information as to defects in the Act and Regulations and to take all possible opportunities of remedying them.

Minute 52.—Resolved: That, it being evident that a very large number of the doctors who have gone on to the Panels have been compelled to do so by fear of injury to their practices, which in some cases might even amount to actual financial ruin, the Representative Meeting suggests to the Council the following as a means of giving effect to Section (d) of Minute 48 :—

That a letter be sent to every member of the Medical Profession asking (1) if he is on the Panel; (2) if so, whether he has taken service willingly or against his inclination owing to coercion; (3) whether, if he be not satisfied with the conditions both as to service and remuneration, he is prepared to decline to renew his contract for Panel service at the termination of the provisional three months, provided that the other practitioners who have been induced to take service by similar methods do the same; (4) if he be not on the Panel whether he has any wish to go on, and (5) whether he has any intention of undertaking any whole or part-time appointment to treat insured persons under the Act.

Collection of Information as to Defects in Act and Regulations

89. In accordance with the instructions contained in Minutes 48 (d) and 52, the Council, on February 11th, 1913, issued to all medical practitioners in Great Britain a circular letter containing a series of questions relative to the National Insurance Act, and asking for information as to their experience of the work on which the future action of the Association could to some extent be based. A circular letter (D.32) was at the same time issued to the Honorary Secretaries of Divisions and Branches asking them to bring all the machinery of their Divisions and Branches to bear in urging practitioners in their area to return an early answer to the questions forwarded to them. Practitioners were requested to reply not later than March 1st, 1913. Up to that date replies were received from only 8,040 practitioners out of 28,867 to whom it had been addressed. The Council, after consideration of an analysis of the replies, came to the following conclusions:

General Conclusions.

Conditions of Service under Act.

(a) That as the replies received from practitioners to the questions issued by the Association concerning various matters connected with the panel sytem are so few, no useful conclusions can be drawn from them as to the opinion of the profession as a whole.

Practitioners coming off Panels.

(b) That while the replies received show that many insurance service practitioners strongly disapprove of the conditions of practice, there is also evidence of a great deal of mutual distrust among practitioners generally, and that therefore no good purpose would be served by the Association calling on practitioners to leave the panels.

Records, etc.

(c) That while so far as can be seen at present the new form of prescription books and the card register are to a certain extent less irksome and laborious than the original prescription and day books, the amount of clerical work required of an insurance service practitioner still seriously encroaches upon the time and attention which he should give to his patients.

90. The Council has noted the opinions expressed by many practitioners in regard to the possibility of a whole-time Insurance Service, and thinks it well to reiterate what it believes to be the general opinion of the profession on this subject, namely :—

Whole-time Service.

(d) That the Association should strongly oppose any effort to institute a whole-time service of practitioners for the purpose of treating insured persons.

MATTERS ON WHICH EARLY ACTION SHOULD BE TAKEN.

Mileage.

91. The Divisions have been informed of the following expressions of opinion and have been urged to make representations, in regard to some of the paragraphs, to the Insurance Committees through the Local Medical Committees. The earliest opportunity will be taken to approach the Commissioners as regards the proposed amendments of Regulations, and to table appropriate amendments of the Act when the promised Government Amending Act is introduced.

(a) That as it appears the question of mileage will have to be worked out in those areas affected, no opinion be expressed in this matter until it is seen how the special mileage grant is applied, but that in the meantime Divisions be requested to urge upon any Local Medical Committees in the areas specially concerned in the question of mileage to take immediate steps to obtain a grant from the Special Mileage Fund.

Payment.

(b) That as the information contained in the replies of practitioners to the questions sent to them does not afford a sufficient basis upon which to form an opinion upon the question of payment of medical practitioners under the Act, decision upon this matter be postponed, but that in the meantime the Association considers that it is very essential that insurance service practitioners should keep proper records of their attendances upon insured persons for assistance in arriving at definite conclusions on the matter.

Anæsthetics.

(c) That the Association entirely concurs in the opinion expressed by a very large number of insurance service practitioners that it is not to the best interest of insured persons that the administration of an anæsthetic should be included under medical benefit, and that steps be taken to exclude it therefrom,

Income Limit.

(d) That the Association is of opinion that every effort should be made to obtain by amendment of the Act or Regulations a satisfactory income limit in each area, in view of the fact that the present provisions in this respect have so far proved singularly inefficient, and that in the meantime (a) Divisions be requested to urge Local Medical Committees in their areas to continue to make every endeavour to obtain a satisfactory income limit; (b) steps be taken to amend the Regulations so that the income limit shall be one of the items in the agreement with practitioners which must be submitted under Regulation 8 for the approval of the Commissioners, and upon which the Commissioners must consider any representations made by the Local Medical Committee.

Certificates.

(e) That the Association considers "essential that there should be one common form of medical certificate required by Approved Societies under the Act, and notes that the English Insurance Commissioners are considering this question as a matter of urgency.

(f) That the certificate of any duly qualified medical practitioner should be accepted for any purpose in connection with the Act.

(g) That there should be a uniform fee in respect of all extra certificates required by the Approved Societies.

(h) That attention having been drawn to the question of the desirability or otherwise of medical certificates given for the purposes of the Act stating the nature of disease, the Association considers that this is a question affecting insured persons rather than the medical profession, and that it is for the insured persons to make representations to their Approved Societies if any change is considered necessary.

(i) That in order to safeguard the position of the practitioner, any certificate bearing the name of the disease should only be handed to the insured person concerned or to his or her accredited representative.

NOTE.—*The question of the legal bearings of the above safeguard (i.) in all parts of the United Kingdom is being referred to the solicitor of the Association.*

Rules as to the Conduct of Persons in receipt of Medical Benefit.

(j) That attention be drawn to the desirability of the adoption and adequate circulation by Insurance Committees of rules as to the conduct of persons in receipt of medical benefit, as a means of preventing the very large number of calls which are being made upon insurance service practitioners to attend cases of a trivial character.

Deputies.

(k) That the Insurance Commissioners be requested to urge upon Insurance Committees the fact that their work would be greatly facilitated by the appointment of deputies for the directly elected medical practitioners on Insurance Committees.

(l) That Divisions be requested to urge Local Medical Committees to make similar representations to the Insurance Committees.

IMPROVEMENTS IN LOCAL ADMINISTRATION OF ACT.

92. The Council having considered the question as to the improvements in the local administration of the Act which it might be possible to obtain by agreement between Local Medical Committees and Insurance Committees, and apart from any amendment of Act or Regulations, has arrived at the following decisions which have been conveyed to the Divisions:

(a) That efforts be made by the Local Medical Committees in every area to obtain the adoption by the Insurance Committees (in exercise of the power conferred upon them by Medical Regulation 52 (1)) of a Standing Order to the effect that *all* matters connected with the administration of medical benefit be referred, in the first place, to the Medical Service Sub-Committee.

(b) That Insurance Committees be urged to provide by Standing Order that all matters which are considered in private by the Medical Service Sub-Committee should, on report to the Insurance Committee, be considered in private by that Committee.

(c) That all matters concerning the question of the right of insured persons being "allowed to make their own arrangements" should, by resolution or Standing Order of Insurance Committees, stand referred, in the first instance, to the Medical Service Sub-Committee.

(d) That the form of contract between medical practitioners and Insurance Committees should be referred to the Local Medical Committee for consideration, before being sent for signature to the practitioners concerned, and should be returned to the Local Medical Committee after signature.

(e) That no agreement between practitioners and Insurance Committees should be entered into for more than one year.

AMENDMENTS OF ACT OR REGULATIONS.

93. The Council has adopted the following suggestions as to amendments of the Act and Regulations, which will be pressed forward at the earliest opportunity, and has instructed the State Sickness Insurance Committee to take the necessary action on its behalf;—

(i.) That since an amending Act is shortly to be brought into the House of Commons, steps be taken to obtain such amendments to the National Insurance Act as will secure:

Free Choice.

(a) That an effective free choice of doctor by patient be secured to every insured person whether the doctor chosen be on the panel or not.

Income Limit.

(b) That an Insurance Committee be required, after consulting the Local Medical Committee, to fix an income limit for its area for all insured persons and to submit it for the approval of the Insurance Commissioners; and that in determining the income of an insured person his income from all sources should be included.

Composition of Insurance Committees.

(c) That the composition of Insurance Committees be so altered as to prevent the representatives of any one interest being given a permanent majority over all the other interests.

Medical Representation on District Insurance Committees.

(d) That the medical representation on all District Insurance Committees shall be the same as is accorded the profession on Insurance Committees.

Night Calls.

(*e.*) An amendment of the Act or Regulations so as to enable practitioners to make a small charge to insured persons in respect of night calls, such being preferable, as a deterrent, to any system of fines.

Venereal Diseases.

(*f.*) An amendment of Section 14 (4) of the Act so as to provide that medical practitioners shall receive extra payment for treating cases of venereal diseases.

Miscarriages and Abortions.

(*g.*) That the treatment of cases of miscarriage or any condition arising therefrom within twenty-eight days should not be included in the treatment given under the ordinary capitation payment.

Medical Referees.

(*h.*) That in the event of the appointment of consulting medical officers the question of whether they shall be whole or part time officers shall be referred to the Local Medical Committees who shall make nominations for such appointments; and that any such officer appointed in connection with the National Insurance Act shall be appointed by the Commissioners, and shall (a) be removable by the authority by whom he is appointed with the consent of the National Health Insurance Joint Committee and not otherwise, and (b) shall not be appointed for a limited time only.

ADVISORY AND INSURANCE COMMITTEES.

94. With respect to the instructions contained in paragraph (b) of Minute 48 of the Special Representative Meeting, January, 1913, namely, that the Council should take any opportunity that might be afforded for placing the representatives of the Association on the Advisory and Insurance Committees, the Council reports as follows:—

Advisory Committees.

95. All the practitioners nominated by the Association and appointed in April, 1912, to the various Advisory Committees have been invited by the Commissioners concerned to accept re-appointment and have, the Council understands, with the exception of Mr. Neal, accepted re-appointment.

The Deputy Medical Secretary (Mr. Neal) was a private practitioner at the time of appointment and was nominated by the Association and resigned office with the rest of the Association's nominees. He was also invited to rejoin the Joint and English Advisory Committees and submitted the invitation to the State Sickness Insurance Committee. The Committee, however, felt that the question of an official of the Association serving upon the Advisory Committees was a matter which should be decided by the Council, and accordingly submitted the matter to the Council for decision. The Commissioners having been asked whether they were aware of Mr. Neal's official position, and having replied that that fact made no difference so far as their invitation was concerned and that the Association was at liberty to submit another nomination in his place, the Council approved of an official of the Association being appointed on the Advisory Committees, and has left the matter in the hands of the State Sickness Insurance Committee.

Insurance Committees.

96. The Council made representations to the Commissioners as regards the delay caused in the appointment of medical practitioners upon Insurance Committees owing to their failure to issue Regulations governing the question, and when the Regulations were issued urged the Divisions to take action at once to secure the appointment of direct representatives on the Insurance Committee. This has now been carried out in the large majority of the Insurance areas, and the Council is glad to report that in a very large number of instances the places have been filled by prominent workers for the Association.

LOCAL MEDICAL COMMITTEES.

"Recognition."

97. The Divisions have been urged to furnish full information to the Central Office as regards the medical personnel of the Local Medical Committees and Insurance Committees, and this has been done in a considerable number of cases. It is hoped that information will be supplied as regards all these Committees as it is most important that the Association should be able to get into touch at once with all medical representatives on the various Committees operating the Act. The Committee has intimated that the columns of the Supplement to the JOURNAL are open for the reports of meetings of Local Medical Committees, and this opportunity has been freely taken advantage of. The reports are found to be of the greatest value to the profession.

Administrative Expenses.

98. The Council has given careful consideration to the following Minute 56 of the Special Representative Meeting (January), 1913:—

> *Minute* 56.—Resolved: That the Council be requested to consider how far it is advisable in the interests of the Local Medical Committees and of the British Medical Association, to seek payment from State funds of the expenses of Local Medical Committees,

and is of opinion that no action should be taken by the Association to seek payment of the expenses of Local Medical Committees from State funds, because these Committees were set up at the request of the British Medical Association, are a purely optional part of the machinery of the Act, and the profession should be willing to support them for its own advantage.

99. The Council after consideration of the desirability of steps being taken by the Association to finance Local Medical Committees, decided that it could not recommend the application of the general funds of the Association to that purpose.

100. Requests having been received from one or two Local Medical Committees that the Association should sanction the payment of the administrative expenses of these Committees out of that portion of guarantees to the Central Insurance Defence Fund earmarked for local use, the Council expressed the opinion that the guarantees to that fund had been obtained for certain defined objects of which this was not one, and it was not certain that if called up the money could be used for any other purposes without the express sanction of every guarantor.

CONTINUANCE IN OFFICE OF PROVISIONAL LOCAL MEDICAL COMMITTEES.

101. The advice of the Association having been sought as to whether Provisional Medical Committees should continue or cease to exist, the Council expressed the opinion that the Provisional Local Medical Committees should no longer continue after a Local Medical Committee has been recognised for the area.

CO-ORDINATION OF ACTION OF DIVISIONS AND LOCAL MEDICAL COMMITTEES.

102. The Council has considered the question of the manner in which the action of Local Medical Committees could best be brought into line with that of the Divisions of the Association and for this purpose submits the following suggestions:—

A. That where necessary, the Rules of Divisions and Branches be so amended as to allow of the following being *ex-officio* Members of the Executive Committees and Branch Councils as the case may be:—

(i.) one or more members of the Local Medical Committee who are resident in the area of the Division or Branch,

(ii.) all medical members of the Insurance Committee who are resident in the area of the Division or Branch,

provided that they are members of the British Medical Association.

B. That, as regards London, until such time as the medical profession in that area decides to co-operate in working the Act, only the directly elected medical members of the Insurance Committee shall be permitted to be *ex-officio* members of the Executive Committee of the Division or of the Branch Council in whose area they reside, provided they are members of the British Medical Association.

C. That the rules adopted by Local Medical Committees should include the following provisions:—

(i.) that the *ex-officio* members of the Committee include one or more representatives of the Executive Committee of the local Division or Divisions of the British Medical Association, and all medical practitioners on the Insurance Committee, provided that (as regards

London) until the medical profession in that area decides to co-operate in the working of the Act only directly elected medical members of the Insurance Committees should be *ex-officio* members of the Local Medical Committee ;

(ii.) that the election of Members of the Committee shall take place annually, either by voting papers or such other method as may be decided ;

(iii.) that there shall be an Annual Meeting of the constituents of the Committee ;

(iv.) that a Special Meeting of the Committee may be convened upon the requisition of per cent. of the Committee ;

(v.) that a Special Meeting of the profession may be convened upon a demand by per cent. of the profession of the area ;

(vi.) that the Members of the Committee shall hold office for one year and at the end of that time shall be eligible for re-election, unless they have served for six consecutive years, in which case they shall for one year be ineligible for re-election ;

(vii.) that the method of appointment of the three medical members of the Medical Service Sub-Committee of the Insurance Committee shall be specified.

103. As it would not be possible to carry out the suggestion contained in Section A of the above without alteration of By-laws 16 and 18, which define the composition of Branch Councils and Division Executive Committees respectively, the Council is recommending that if its suggestion be approved certain amendments be made in these By-laws, which will be found in paragraph 38 of this Report under the head "Organisation."

Work of Divisions and local Medical Committees.

104. The Council desires to impress on the Divisions the importance of their retaining their own work in their own hands and not delegating to Local Medical Committees any work not directly connected with the National Insurance Act. This applies more especially to the arrangements for medical attendance and treatment of uninsured persons.

REPORT OF ACTION TAKEN WITH A VIEW TO REMEDYING DEFECTS IN THE ACT AND REGULATIONS.

105. The action reported in the following Section has been taken under the following Section (d) of Minute 48 of the Special Representative Meeting of January, 1913 :—

Minute 48.—Resolved : That the Council be instructed .....(d) to collect information as to defects in the Act and Regulations and to take all possible opportunities of remedying them.

RIGHT OF INSURED PERSONS TO BE ALLOWED TO "MAKE THEIR OWN ARRANGEMENTS."

106. The question of the interpretation of Section 15 (3) of the National Insurance Act under which insured persons are given the right to apply to the Insurance Committees to be allowed to make their own arrangements for medical attendance and treatment has come very prominently before the profession and the public during the past three months.

107. The subject was given special publicity by the action of the London Medical Committee, a Committee which was elected in the first instance as a Provisional Local Medical Committee representative of every Division area in the County of London and which, had the profession in London as a whole been prepared to take service under the Act, would doubtless have become the Local Medical Committee for London. This Committee took up a distinctly fighting attitude and initiated a campaign urging insured persons to claim the right to "make their own arrangements." The London Medical Committee sought the support of the Association, but the Council did not see its way to accept the responsibility for the work of the London Committee nor the financing of it, and limited its help to providing a room in the office of the Association from which the propaganda of the London Committee was directed. Many thousands of a form for use by insured persons in making the request to be allowed to "make their own arrangements" were circulated in London and were filled in by insured persons and sent to the London Insurance Committee.

108. The Council issued a circular to all Division Secretaries offering to supply them with copies of a similar form of application on the part of insured persons to be allowed to make their own arrangements, and some 600,000 were distributed. The result throughout the country was to draw special attention to the relative section of the Act, to make Insurance Committees extremely chary of granting permission even in cases which seemed eminently suitable for such exceptions to be made, and to cause a great deal of dissatisfaction on the part of the public with this high-handed attitude.

POSITION IN WALES AS REGARDS SECTION 15 (3) OF THE ACT

109. Section 15 (3) of the Act is capable of another application of equal importance to the medical profession which in Wales has met with the strongest disapprobation of the medical profession.

110. Combinations of workmen and their dependents, formed for the purpose of employing medical practitioners either whole or part time have failed in many instances to secure recognition under Section 15 (4) (Harmsworth Amendment), on the ground that they were not in operation at the time of coming into force of the Act, but, encouraged by the Welsh Commissioners they have proceeded to ask permission of the Insurance Committees to make their "own arrangements" collectively under Section 15 (3) and have succeeded in getting the approval of some of the Insurance Committees to a number of schemes, which, if approved by the Commissioners and successful in finding practitioners willing to be employed, will have the effect of exploiting the local medical profession and bringing them under lay control to a far greater extent than anything possible under the panel system.

111. It remains to be seen whether these Schemes will be allowed by the Welsh Commissioners. If they are, the effect will be to raise to exasperation the feelings of the medical men of South Wales at what is regarded by them as a distinct breach of faith with the medical profession on the part of the Commissioners and the Government. It is considered that where the profession is willing to provide an efficient panel service it has a right to expect the first claim upon the Insurance Committees and Commissioners, and that the action of the Insurance Committees in stretching this Section of the Act to approve what is really a new creation of "Harmsworth institutions" is disastrous to the interests both of the public and of the medical profession.

112. The Council is taking the opinion of eminent Counsel on the question of the right of the Insurance Committees to sanction these "schemes" in which dependents are included, under Section 15 (3), and more particularly as to their right to take part in encouraging them, and has assured the Welsh practitioners of all the support the Association can give them in their fight against a kind of practice which is considered to be pernicious for the patients and most derogatory to the profession.

TREATMENT OF AGED AND DISABLED MEMBERS OF APPROVED SOCIETIES.

113. The Council has given considerable attention to statements made by Mr. Masterman, Financial Secretary to the Treasury, in the House of Commons concerning the medical treatment of two classes of members of Friendly Societies, namely, those who, being over 65 years of age and employed at the time of the passing of the Act, came into Insurance in the ordinary manner, but were excluded from medical benefit; and, secondly, those persons who, being disabled at the time the Act came into force, did not become insured persons. The statements were to the effect that the doctors were dealing unfairly with the Friendly Societies in expecting the same remuneration for these persons as for insured persons.

114. The Council has made strong protests against these unjust aspersions and entered into a correspondence with Mr. Masterman which was published in the Supplements to the JOURNALS of March 8th (p. 238), 22nd (p. 266), 29th (p. 285) and April 12th, 1913 (p. 323). The replies of Mr. Masterman were unsatisfactory, he still adhering to his opinion that the profession should have consented to attend these persons on lower terms than those arranged with respect to insured persons. The Council is firmly of opinion that Section 15 (2) (e) of the Act, which was inserted at the request of the Friendly Societies as the result of a bargain between them and the Association, definitely fixes the remuneration and other conditions of attendance on these persons on the same terms as those arranged for insured persons. The Council would urge on Divisions and on Local Medical Committees that it is their duty to insist that this class of persons shall not be attended at less than the Insurance rate.

115. The Council considers this matter of great importance, not so much as regards the financial interests involved, as because of the aspersions on the honour and humanity of the profession implied in Mr. Masterman's statements, and is taking steps to assure itself as to the legal position.

Payment under Act for Medical Attendance upon Insured Persons Temporarily Absent from their own Homes.

116. As was foreseen by the Representative Body, the question of the arrangements for the payment for medical attendance upon insured persons temporarily absent from their homes, has proved to be an exceedingly difficult problem. The practitioners in various seaside places and other health resorts have made strong representations to the Association and also to the Commissioners as to the grievances under which they labour in being compelled under the terms of the Regulations to give medical attendance to all insured persons temporarily resident in their neighbourhood, who have notified their intention of removing, both to their own Insurance Committee and to the seaside or health resort Insurance Committee. These practitioners feel that it is most unjust to ask them to accept such payment as could be obtained from a fund made up of those fractions of the 6s. 6d. per annum due for the medical attendance on each temporarily transferred insured person which would be available for them, seeing that they will be attending persons a large proportion of whom will be ill on arrival and will need attention all the time of their stay. The Commissioners invited two representatives of the Association to be present at a conference they held with representatives of certain Local Medical Committees on March 5th, 1913, and Dr. E. R. Fothergill and the Deputy Medical Secretary attended. In view of the statement made by Mr. Schuster on behalf of the Commissioners that whatever scheme was evolved for the payment for medical attendance on this class of insured persons the money must come from the sum already allotted for medical benefit, the Council awaits with interest the production of a scheme by the Commissioners which will carry this out without unfairness to the general body of insurance service practitioners while paying the health-resort practitioners at an adequate rate.

117. As this report was on the point of publication the Council received the new scheme of the Commissioners, but was unable to consider it in the time at its disposal. The result of its consideration of this document must be deferred to the Supplementary Report of Council.

Medical Certificates under the Act.

118. Many representations have been made to the Association as to the urgent necessity for the adoption by Approved Societies of a uniform form of medical certificate for the purposes of the Act. The varying forms at present in use have exacted quite unnecessary clerical labour from the profession and, together with the large amount of similarly unnecessary labour called for by the medical bookkeeping, have aroused considerable feeling, even in those areas most favourable to the panel system. The Association made representations to the Commissioners on the subject and has been assured that the matter is being discussed with some of the leading Approved Societies, and that it is hoped that a solution of the difficulty will shortly be found.

Extra-Act Certificates.

119. The Council would call attention in this connection to the fact that in some areas Societies are demanding certificates gratuitously for which they have no claim. It was distinctly understood that the only certificates the practitioner on the panel would be bound to provide are :—

(i.) a certificate entitling insured persons to claim sickness or disablement benefit,
(ii.) "continuing" certificates,
(iii.) a "declaring off" certificate.

120. If other certificates are required for other benefits outside the Act the practitioner is entitled to demand a fee, and the Council desires to impress upon Local Medical Committees and practitioners generally the desirability of a uniform payment for these extra certificates.

Statement of Nature of Disease in Certificates.

121. Several Divisions have taken exception to the nature of the disease being stated on the form of certificates under the Act. While realising the objections which are felt to what may in some cases seem to be a breach of professional secrecy the Council is of opinion that this is a question which primarily concerns the insured person and not the medical profession. The requirements of the certificate are a matter for the Approved Societies, and if any hardship is felt it is surely the duty of the members of those societies who feel themselves aggrieved to take steps to alter the rules of their societies, or to transfer to others whose requirements are less onerous. It is believed, however, that this subject is receiving the attention of the Commissioners and Approved Societies in considering the question of a uniform medical certificate. Certain legal matters connected with this question have been referred to the Solicitor of the Association.

Seamen's National Insurance Society.

122. The Council has considered the Provisional Regulations issued by the Insurance Commissioners modifying as regards the members of the Seamen's National Insurance Society the administration of medical and sanatorium benefit. The conditions of the administration of medical benefit for sailors are by Section 48 of the Act placed in the hands of this Society, which may be taken as fulfilling, as regards sailors, the same duties as an Insurance Committee performs for the insured persons in its area. The Seamen's Society has decided, in view of the peculiar conditions of employment and domicile of seamen, that it will pay for their attendance on a scale of fees which on the whole appears to the Council to be a very reasonable scale, especially when it is remembered that these fees are being paid in full and that there is no intention on the part of the Seamen's Society to discount them. The Society has also decided, however, that as the sailors in some of the great ports cannot be said to have a domicile or any family doctor, it cannot allow free choice of doctor in these cases, as the risk of undue demand on its funds would be too great. The Seamen's Society has, therefore, allowed absolute free choice of doctor in certain ports, such as Southampton and Lowestoft, where the marine population is comparatively fixed and domiciled, and has selected a list of medical men in other ports, such as London, Liverpool, and Hull. Exception was taken by several Divisions to the setting up of such a selected list of doctors, and the Council drew the attention of the sea-board Divisions to the successful action taken by one of the Divisions, Southampton, in obtaining free choice for members of the Seamen's Society among all the members of its Public Medical Service.

123. The Council is of opinion that steps should be taken for the recognition of the medical profession on the management of the Seamen's National Insurance Society, which is at present composed only of representatives of the Board of Trade, of shipowners, and of members of the Society, and the Council recommends :—

Recommendation A.—That steps be taken to so amend Section 48 (5) of the National Insurance Act as to allow of a similar representation upon the Committee of the Seamen's National Insurance Society, as is accorded the profession on Insurance Committees.

Payment of Chemists for Duplicate Prescriptions.

124. It was reported to the Council that the revised Tariff of Drugs and Dispensing Charges drawn up by the Pharmaceutical Standing Insurance Committee contained a statement to the effect that where a duplicate prescription was not supplied a fee of one penny should be charged by chemists for copying the prescription. The Council caused a letter to be issued to Local Medical Committees (M 1) drawing their attention to the subject. The letter in question stated that it was understood that the revised tariff had been prepared and published in many instances without being previously submitted to the Local Medical Committee concerned; that after full consideration of the circumstances which have led to the suggested innovation it had been decided to address a communication to the Insurance Commissioners strongly protesting against any such charge, but that if a charge were made the suggested fee was an exorbitant one; that it was understood that the drug tariff referred to had not yet been under the consideration of the Commissioners, and that, in considering the modification of any existing tariff the Commissioners would require to have before them the views of the Local Medical Committees concerned; that Local Medical Committees should address a strong protest to the Insurance Commissioners, urging them not to approve of the proposed charge; that it was important that such steps should be carried out immediately as unless a vigorous protest was made before the Tariff was allowed to come into force the profession might suffer a serious injustice.

125. The Council is glad to report that its communication seems to have had the desired effect of stimulating many of the Local Medical Committees to insist more strongly on their right to be consulted about such matters by the Insurance Committees.

QUESTION OF PLACING RESIDENT MEDICAL OFFICERS OF HOSPITALS AND OTHER INSTITUTIONS ON PANELS.

126. The attention of the Council has been drawn to the proposal of a voluntary hospital to place the name of its resident medical officer upon the local panel for the purpose of attending those members of the resident staff who are insured persons. In this case it was proposed that the institution while drawing the sum of about £50 from the Insurance Committee should increase its medical officer's salary by about £10. The Council is of opinion that the best way of meeting the circumstances of these institutions is that hospitals, asylums and other similar institutions should be allowed to "make their own arrangements" on behalf of insured persons in their direct employ for the provision of medical attendance and treatment, under Section 15 (3) of the Act, but that whatever system may be adopted, the proper proportion of the moneys received by the institutions should be paid to the medical officer or officers who carry out the attendance or treatment.

FEES OF MEDICAL PRACTITIONERS FOR ATTENDANCE UPON CONFINEMENTS IN RESPECT OF WHICH MATERNITY BENEFIT IS RECEIVED.

127. The Council has carefully considered the question of the prescribed fees allowed under the Insurance Commissioners' Provisional Regulations to medical practitioners in connection with attendance upon maternity cases to which they are summoned in pursuance of the Rules made under the Midwives Act, 1902, and refers the following expressions of opinion to the Divisions for consideration:—

(a) That the maximum fee of 15s. allowed to medical practitioners under the Provisional Regulations for attendance upon those maternity cases to which they are summoned by a midwife is entirely inadequate.

(b) That pending reconsideration of the Provisional Regulations by the Insurance Commissioners, or the adoption of suitable local schemes, Divisions are recommended not to accept the fees and conditions laid down in the Provisional Regulations, but to continue to hold each patient attended privately responsible for a suitable fee.

(c) That the Council realises that the arrangements adopted in any area for attendance by medical practitioners upon midwifery cases in connection with the National Insurance Act must depend upon the local conditions of that area and the desire of the local profession as regards the retention of the midwifery as far as possible in the hands of the profession.

(d) That every endeavour should be made by the medical profession to keep the practice of midwifery whether by medical practitioners or by midwives as far as possible under the control of the profession.

(e) That in some of the areas where midwifery practice is to a considerable extent in the hands of midwives, the interests of the patients and of the profession, and the principle enunciated in Recommendation 5 would be best conserved by the adoption of some contract scheme of co-operation between the Approved Societies, doctors and midwives.

(f) That the Council having considered various schemes put forward, is of opinion that any scheme adopted at the present time should be of a purely provisional character, and should not be for a longer period than six months.

(g) That in order that information should be collected as to the best way of dealing with this subject and to prevent bad precedents being established, all schemes for contract midwifery attendance by medical practitioners should be submitted for the approval of the Council of the Association in the same manner that Public Medical Services and arrangements for the treatment of uninsured persons on a contract basis are being submitted.

(h) That under no circumstances would the Council approve schemes embodying any of the following principles:—

(i.) the control of professional matters in relation to midwifery arrangements by a lay body;

(ii.) the setting up of a midwifery panel, except by the organised local profession itself;

(iii.) arrangements between practitioners and midwives whereby the latter insure with the Midwives Institute, which pays over to the doctor the fee prescribed in the Regulations.

(i) That where a contract arrangement is preferred the following scheme is suggested as suitable for adoption by any Local Medical Committee, Public Medical Service, or Provident Dispensary:—

(a) Arrangements to be made by which Approved Societies or Local Insurance Committee pay to the Local Medical Committee, Public Medical Service, or Provident Dispensary a sum of £1 on each maternity case, to be divided between doctor, midwife, and a special fund to be formed for the payment of second opinions, or anæsthetist, in such proportions as may be approved by the Service or Dispensary.

(b) For the information of Local Medical Committees, Public Medical Services, and Provident Dispensaries the following division of this £1 is suggested as a basis of discussion:—

Doctor	6s. 6d.
Midwife	12s. 6d.
Special Fund	1s.

(c) Formation of lists of doctors and midwives practising in the area of the Service or Dispensary, who desire to be upon such lists

(d) Patients to select beforehand both midwife and doctor from the lists, subject to the consent of doctor and midwife.

(e) Midwife to attend each case as usual under Rules of Central Midwives Board.

(f) Doctor to attend when sent for by midwife, and in every case to see the patient within 24 (or 36 hours) after delivery.

In such a scheme as outlined above:

A. The advantages to the patient would be:

(i.) Fixed inclusive financial liability of patient and Approved Society;

(ii.) Supervision of each case by doctor at ordinary visit;

(iii.) Reduction of the risks of future illness, owing to supervision by doctor through the confinement.

B. The advantages to the medical profession would be:—

(i.) Increased remuneration and security of payment;

(ii.) Regain of control of midwifery practice without the burden of the routine work which can be done by midwife.

128. The Insurance Commissioners will be informed of the opinion of the Council as to the inadequacy of the fee allowed under their Provisional Regulations, and urged not to make these Regulations permanent pending the ascertainment of the considered opinion of the Divisions of the Association, after which further representations will be made to them on the whole subject.

TREATMENT OF CASES IN RECEIPT OF MATERNITY BENEFIT BY MATERNITY HOSPITALS.

129. The Council has carefully considered the matter of the treatment of maternity benefit cases conducted under the ægis of a maternity hospital "recognised" for the teaching of medical students of pupil midwives,

The Council has noted the following Minute 246 of the Annual Representative Meeting, 1912:—

Minute 246.—Resolved: (i.) That inability to pay for adequate treatment, or the recommendation of a medical practitioner, shall be the consideration for the participation of parturient women in the benefits of maternity and voluntary hospitals and other charitable institutions; (ii.) that women in receipt of Maternity Benefit under the National Insurance Act, should not be regarded as eligible for charitable treatment except in cases of difficulty and danger, and on the recommendation of a medical practitioner,

The Council has also given consideration to the following expression of opinion by the Hospitals Committee following on its consideration of the subject, which it will be noted is in opposition to the principles approved in Minute 246 of the Annual Representative Meeting, 1912, namely:—

That it be reported to the Representative Body that after careful consideration of Minute 247 of the Annual Representative Meeting, 1912, the Council is of opinion that provided the Association's Model Rules for the Management of Hospitals and as to the admission of patients to charitable institutions are adhered to, there is no objection to a charge being made to insured persons for maintenance.

Minute 247.—Resolved: That the following motion be referred to the Council for consideration:—

That no Maternity or Voluntary Hospital, or other charitable institution, shall receive fees from any woman who is entitled to Maternity Benefit, either directly or indirectly;

In connection with this subject the Council has ascertained from enquiries made of various teaching hospitals that a considerable number of such institutions are already making charges, varying from 5s. to 15s., on behalf of insured women and the wives of insured men receiving maternity assistance at such institutions.

In view of the conflicting views on this subject and especially regarding the practice already obtaining in certain teaching hospitals,

The Council recommends—

Recommendation B.—That the Representative Body, in view of the above stated differences of opinion, consider the question of the desirability or otherwise of the amendment of the policy as laid down in the above quoted Minute 246 of the Annual Representative Meeting, 1912.

Fees and Conditions for Provision of Medical Attendance and Treatment of Uninsured Persons.

130. The question of the fees and conditions upon which members of the profession should offer to undertake the provision of medical attendance and treatment of uninsured persons having been raised in various parts of the country, the Council upon consideration of the following Minute 122 of the Special Representative Meeting, November, 1912, and Minute 59 of the Special Representative Meeting, January, 1913:—

Minute 122.—Resolved: That until some general scheme of contract or other form of medical service is approved by the Association, the members of the British Medical Association decline, after 25th March, 1913, to undertake or conduct any form of contract practice for non-insured persons, except upon such terms as shall be approved in Great Britain by the Council of the Association and in Ireland by the Conjoint Committee.

Minute 59.—Resolved: That the Council be requested to consider the following motion by Stockport, Macclesfield and East Cheshire:—

That where medical attendance on insured terms is desired for the families of insured persons it should be based on the following principles:—

1. Free choice of doctor from the Medical Register subject to the doctor's consent.

2. Payment for work done on a standard tariff. No insurance risk to be borne by the profession.

3. It should be to the patient's financial interest not to receive over attendance.

4. There should be provision for the higher and special forms of medical work, and general practitioners should assist therein for payment.

5. The dependents of the insured should be included in medical benefit for an extra payment in proportion to the income of the insured, and irrespective of the number of the dependents, but the payment to the doctors for their treatment should be on the same standard tariff as applies to the insured persons,

passed the following resolution at its Meeting on January 29th, 1912:—

Minute 490.—That, having regard to the fact that in many localities schemes are already working, or upon the point of being put into operation, for the treatment of uninsured persons upon contract terms, the question of fees and other conditions concerning attendance upon uninsured persons is a matter which should be settled in each locality, subject to the approval of the State Sickness Insurance Committee, and not by a general scheme throughout the Association.

131. The State Sickness Insurance Committee, upon consideration of the above decision of the Council, drew up certain conditions which it considered to be essential to any scheme submitted for its approval, and these were:—

Minute 281.—Resolved: That, in general, in considering the necessity for obtaining the approval of the State Sickness Insurance Committee for schemes for the treatment of uninsured persons upon contract terms, the following principles and conditions must be adhered to:—

(a) Free choice of doctor by patient and of patient by doctor;

(b) Remuneration to be not less than that paid in respect of insured persons, *i.e.*, 9s. per annum including medicines;

(c) Persons earning over £160 not to be treated under contract terms at all;

(d) Juveniles (under 16) to be treated at special rates.

Minute 282.—Resolved: That the Committee realises that the conditions in certain areas will not allow of the above terms being obtained; and that in these circumstances the approval of the State Sickness Insurance Committee of a Scheme involving a less payment may be given provisionally when the local profession can show that the economic conditions in the area demand it.

Minute 283.—Resolved: That one of the conditions necessary for the approval of schemes containing lower rates of payment shall be the inclusion amongst the rules, in a prominent position, of a statement that the approval of the Association has been given to the rates only because of special economic conditions.

132. The above decisions of the Council and Committee were issued to Divisions and Branches in a circular letter (D. 32), with the result that a number of scales of charges for the treatment of uninsured persons have been submitted to, and in a number of cases approved by, the Committee.

133. The Council, however, feels that in view of the necessity for safeguarding the future position of the profession when attempts may be made to extend medical benefit to the dependents of insured persons, the time has now come for the Representative Body to lay down a definite line of policy upon this question, and, therefore, recommends:—

Recommendation C.—That the Representative Body adopt the following principles as essential to the formation of any schemes for the provision of medical attendance and treatment of uninsured persons:

(1) That, in general, in considering the necessity for obtaining the approval of the Council for schemes for the treatment of uninsured persons upon contract terms, the following principles and conditions must be adhered to:

(a) Free choice of doctor by patient and of patient by doctor;

(b) Remuneration to be not less than that paid in respect of insured persons, i.e., 9s. per annum including medicines;

(c) Persons earning over £104 not to be treated under contract terms at all.

(2) That the Representative Body realises that the conditions in certain areas will not allow of the above terms being obtained, and that in these circumstances the approval of the Council may be given provisionally to a scheme involving a less payment when the local profession can show that the economic conditions in the area demand it.

(3) That one of the conditions necessary for the approval of schemes containing lower rates of payment shall be the inclusion amongst the rules, in a prominent position to a statement that approval by the Association has been given to the rates only because of special economic conditions.

Central Insurance Defence Fund.

Present Position of the Fund.

134. The following Resolutions were passed by the Special Representative Meeting of December, 1912:—

Minute 65.—That the question of the amount of the guarantee to be called up be left to the Council, and that the Divisions be again urged to support the Central Defence Fund, especially by obtaining fresh guarantees.

Minute 70.—That every member of the Profession in the British Isles and Colonies be requested to subscribe £1 in January, 1913, to be added to the General National Insurance Campaign Funds of the Association.

Acting on these instructions the Council called up 20 per cent. of the total amount of the guarantees to the fund. The result up to 15th April, 1913, was that a total of £13,488 was received, whereas the call should have produced a sum of £27,672.

135. The Council desired that the practitioners in those areas where a separate local fund existed should have the opportunity of subscribing their fair share to the central expenses, seeing that the local funds would now probably not be required. The Honorary Secretaries of these Funds were therefore asked to make a 20 per cent. call on all their guarantors, with the exception of those who had also guaranteed to the Central Fund, and forward the total amount collected to the Central Office after deducting the necessary local expenses. It was estimated from the information in the Council's possession that the total local funds amounted to £37,484. A 20 per cent. call on these should have realised £7,496 As the guarantors to the Local Funds have, in the majority of cases, also guaranteed to the Central Fund, and only 7 out of 23 Divisions have, up to 15th April, 1913, intimated that they are willing to make any call on their local funds, the proceeds from this application cannot possibly approach the figure stated. The amount received up to 15th April, 1913, was £137.

136. A similar policy was pursued as regards those practitioners who had ear-marked their guarantees for local purposes, and they were asked to ignore this ear-marking as the money would probably not now be required for local purposes.

137. The Council proposes to set aside the money received from this 20 per cent. call, mainly for purposes of compensation.

Calls for Administrative Purposes.

138. Minute 70 of the Special Representative Meeting of December, 1912, was an instruction that every member of the profession both in the United Kingdom and the Colonies be requested to subscribe £1 to the Central Fund for administrative purposes. In view of a 20 per cent. call being made on guarantors to the Fund, the Council felt that it would be unwise to make a double call on these practitioners, but the request for £1 has been made to all Members of the Association residing outside the United Kingdom, and up to 15th April, 1913, had resulted in the sum of £63 being collected.

139. The Council is glad to report that the Durban Division on its own initiative forwarded the sum of £50 for the purposes of the Fund before the special application was made, therefore this item is not included in the above total. At the same time the Division expressed its sympathy with the efforts of the Association for the protection of the profession.

140. An urgent request for a donation of at least £1 in respect of administrative expenses, was also sent to some 18,000 members of the profession resident in the United Kingdom, who had not guaranteed to the Central Fund. To this appeal the sum of £458 had been received up to 15th April, 1913.

Arrangements with regard to administration of the Fund.

141. In Minute 70 of the Special Representative Meeting of December the Council was instructed to place the management and distribution of the Central Insurance Defence Fund under the control of the State Sickness Insurance Committee. It had apparently escaped the notice of the Representative Body that the Council is acting as trustees of this Fund, which is not Association money, and that technically speaking therefore the Representative Body had no control over it, and could not instruct the Council in regard to it. The management of the Fund had previously been placed in the hands of the Finance Committee, but having regard to the wishes of the Representative Body the Council at its meeting in January, 1913, placed the administration in the hands of the State Sickness Insurance Committee subject to the approval of the Council of its action.

Grants from Fund.

142. Important matters at once arose as to the policy to be pursued in making grants from the Fund, and this was left entirely in the hands of the State Sickness Insurance Committee, guided by the following decisions of the Council as to general policy:—

Resolved (*nem. con.*): (a) That inasmuch as the Representative Body considers the Act unworkable and derogatory the action of the Council and the State Sickness Insurance Committee shall continue to be in opposition to the Act and Regulations as at present constituted;

(b) That the interests of those practitioners not on the panel, out of loyalty to the Association, shall continue to be paramount; and

(c.) That steps be taken to assist those practitioners who wish to resign from the panels in April next if the Association calls upon them to do so.

143. Appended will be found a statement as to the present position of the Fund. (*See* Appendix IX.) The Council has not thought it necessary to give the names of the practitioners to whom grants have been made, but the following is a general statement on the subject:

144. Five practitioners who resigned positions as whole time Medical Officers of Friendly Society Institutes at the request of the Association, and who, by the terms of their appointments were unable to commence practice in the neighbourhood, have received sums varying from £100 to £660 to enable them to buy practices or shares in practices, thus placing them in a position financially equal to those they had resigned. In three of these cases, part of the grants are on loan to be repaid over a term of years. Two whole time Medical Officers were not under bonds preventing them starting practice in the same town, but grants of £200 and £100 respectively were given to tide them over the difficult time of commencing practice and to pay expenses of removal, furnishing, etc.

145. In making these grants the Council was guided by a special feeling of responsibility towards those practitioners who had at the call of the Association given up appointments which afforded a certain annual salary, and which in every case they might have retained, generally at an increased salary. There are still one or two cases of this kind which will probably need compensation.

146. Compensation varying from £5 to £75 has been given to five practitioners who resigned club appointments at the bidding of the Association, and who have sustained loss by either (a) not accepting service on the panel (3 cases), or (b) holding out until after the abrogation of the Pledge and Undertaking though their neighbours did not wait until then.

147. In each case the Secretary of the Division concerned has been consulted and the amount granted has in every case (exclusive of those of whole time officers) been more in the nature of an acknowledgment of the loyalty of the practitioner concerned, than a pecuniary equivalent of the loss sustained.

148. Many other applications have been received, but the Council, not feeling satisfied that the loss at present experienced might not be made up in various ways before the end of the year, has intimated that the consideration of these claims is postponed until later.

149. The Council has made the following arrangements for the future administration of the Fund:—

A. The Central Insurance Defence Fund is now vested in the names of the Chairman of Representative Meetings and the Chairman of Council for the time being.

B. All cheques drawn upon the Central Insurance Defence Fund are signed by the Chairman of Representative Meetings or the Chairman of Council for the time being and counter-signed by the Financial Secretary and Business Manager.

C. All moneys received on behalf of the Central Insurance Defence Fund are paid into a Suspense Account pending allocation by the State Sickness Insurance Committee at regular intervals between an Administration and a Compensation Account.

D. All moneys received on behalf of the Central Insurance Defence Fund in respect of applications for subscriptions or calls upon guarantees, for compensation purposes, are paid, upon allocation by the State Sickness Insurance Committee, into a Compensation Account.

150. Acting on the above principles the Council has, of the moneys received up to April 15th, allocated to the Administration Fund the sum of £1,501. 18s. 5d. and to the Compensation Fund the sum of £12,556. 6s. 5d.

PROPOSED SPECIAL FUND.

151. The Council has carefully considered the following Minutes 54, 55 and 60 (7) of the Special Representative Meeting, January, 1913, and has arrived at certain provisional decisions concerning the formation of such a Special Fund as is suggested in those Minutes:—

Minute 54.—That in order to carry Minute 48 into effect, it be an instruction to the Council to put into operation the following proposals amongst others:—

(1) That the funds placed at the disposal of the Council as Trustees for the proposed campaign be augmented by such a voluntary quarterly levy during the next three years on each member of the Association in the United Kingdom as will, with the annual subscription, amount to not less than £3 a year per member.

(2) That through the local Medical Committees or otherwise a quarterly levy of one farthing per insured person on each practitioner's list be made for three years on each such practitioner, which shall be used by the Council to provide efficient local, clerical and professional assistance to these Committees and to the Divisions and generally in forwarding the aims and objects of the campaign.

(3) That the Central Office organisation be developed so as to allow the Medical Staff visiting every Division in the United Kingdom and interviewing each local Medical Committee at least once in each year.

(4) That out of this Special Campaign Fund an honorarium, on a scale to be determined by the Council, be paid to the members of the medical profession who devote time to the campaign or who have to absent themselves from their district attending Representative, Committee, Deputation and other Meetings.

(5) That the aims and objects of the campaign be kept prominently before Members of Parliament, County and County Borough Councils and other Bodies as well as the laity generally by means of the press and otherwise, as also the reasons for the position taken by the profession from time to time during the campaign.

(6) That the Medical Staff be placed at the disposal of Divisions in the United Kingdom and of Local Medical Committees, in order to assist them in interviews with Lay Bodies, more often than has been the case in the past.

(7) That the Divisions be consulted as to the desirability of their boundaries being made co-terminous with those of Insurance and District Committee areas, and in those cases where the proposal is approved it be carried into effect, if practicable, at the earliest possible moment.

(8) That it be an instruction to the Council by means of a campaign amongst the Staffs of Voluntary Hospitals, similar Institutions and otherwise to take such action as will induce the Government to provide an efficient medical and surgical service for those insured for medical benefits under the National Insurance Act.

Minute 55.—Whereupon an amendment by Mr. W. F. Dearden (Manchester West), seconded by Dr. J. Sorley (Sheffield);

That it be an instruction to the Council to consider the advisability of giving effect to the above proposals.

The amendment was **carried.**

Minute 60.—Resolved: That the motions appearing on the printed and stencilled Agenda not dealt with by this Meeting (except Motion 59 by Hampstead [withdrawn]) be referred to the Council.

. . . . . .

(7) *Motion* by Newcastle-on-Tyne Division: That the Council be instructed to consider the advisability of a National Fund being raised on such lines as the following:—

(a) There be (compulsory) deducted from each quarterly cheque of each doctor on the panel the sum of 3d. for each person on that doctor's list.

(b) This sum be deposited each quarter at compound interest with some Insurance Company.

(c) The expenses of the Local Medical Committees be defrayed out of this fund.

(d) In the event of the death of a Member, his contributions be returned to his executors plus 3 per cent. compound interest.

(e) The rest of the money so deducted each quarter remain on deposit at compound interest till April 14th, 1916.

(f) On that date, if it be necessary, the total sum be available for use as a War Fund.

(g) If at that date a War Fund be unnecessary, a sum of at least £200,000 be placed to a Special Reserve to be used at any time solely as a War Fund; and that this sum be added to each year.

(h) The balance be placed with an Insurance Company, to provide a nucleus for a Sickness, Accident and Pension Fund.

(i.) The contributions be national, and be continued so long as the Insurance Act is in operation.

152. The question of the formation of a Special Fund to provide for certain objects which are outside the legal powers of the Association is receiving the careful consideration of the Council, and the Council, while not being in a position to report fully at this juncture, mentions the following as objects which the Fund if established might include:—

(a) the provision of legal and clerical assistance to and payment of administrative expenses of Local Medical Committees;

(b) the provision of the services of the British Medical Association in protecting the interests of medical practitioners as affected, directly or indirectly, by the National Insurance Act, not only in contract medical work, but in all other forms of medical practice;

(c) the provision of a reserve for the support of medical practitioners affected by action undertaken by the Association in pursuit of any future policy adopted by it;

(d) the organisation and development of the British Medical Association so as to allow the medical staff visiting every Division in the United Kingdom and interviewing each Local Medical Committee at regular intervals, and otherwise assisting the profession in any locality as and when required;

(e) the payment out of the Special Fund of honorariums on a scale to members of the medical profession absenting themselves from their practices in performance of any of the following duties:—

(i.) for attendance at Representative Meetings;

(ii.) for attendance at Central Council and Committee Meetings.

The feasibility of including certain other important benefits, such as medical defence, insurance against law costs of lost actions, sickness and accident insurance, and pensions, is also being inquired into, and upon this a report will shortly be made to the Divisions.

(I.) Public Health and Poor Law.

SALARY FOR COMBINED WHOLETIME APPOINTMENT OF MEDICAL OFFICER OF HEALTH AND SCHOOL MEDICAL OFFICER.

153. Advertisements having been proffered by a Town Council for a combined wholetime appointment as Medical Officer of Health and School Medical Officer at a salary of £300, the Council approved action taken in refusing publication of the advertisement in the British Medical Journal, and informed the Town Council and Division concerned that no advertisement would be accepted for insertion for such an appointment at a less salary than £400.

The Council is aware that up to the present there has been no declaration of policy by the Representative Body with regard to the salary for these combined appointments. The terms of the following declarations of policy, however, afford ample ground for believing that the present policy of the Association is inconsistent with approval of such a salary as £300 for the combined wholetime appointments in question:—

Assistant Medical Officers of Health.

Minute 225 (*A.R.M.*, 1909).—Resolved: That the Association considers that the minimum salary of wholetime Assistant Medical Officers of Health should be £250 a year.

Wholetime Principal Medical Officers of Health.

Minute 241 (*A.R.M.*, 1912).—Resolved: That the Association support, wherever possible, the recommendation of the Local Government Board that the salary of Medical Officers of Health, debarred from private practice, be not less than £500 per annum; and that in no case where a less salary than £250 is offered for a wholetime Medical Officer of Health, whether principal or assistant, should an advertisement be accepted for publication in the Journal.

Wholetime Principal and Assistant School Medical Officers engaged in Medical Inspection of School Children.

Minute 151 (*A.R.M.*, 1912).—Resolved: That paragraph 3 (i.) of the Report on Medical Inspection and Treatment of School Children as approved by the Annual Representative Meeting, 1909, and amended by the Annual Representative Meeting, 1912 (Minute 87), be amended to read as follows:—

"On the subject of salaries the Association has already approved the suggestions of the Medico-Political Committee, namely, that for whole time junior or Assistant Medical Officers the commencing salary should not be less than £250 per annum, and that for more experienced whole time School Medical Officers, the commencing salary should not be less than £500 per annum. These sums are to be understood as exclusive of travelling expenses, clerical assistance, cost of stationery, postage, etc. Also that in any appointments of this kind, provision should be made that the salaries of both officers should rise automatically."

Wholetime Principal and Assistant School Medical Officers engaged in Treatment of School Children.

Minute 89 (*A.R.M.*, 1911).—Resolved: That as regards remuneration of whole time Medical Officers engaged in the treatment of school children, the scale already approved by the Association for School Medical Officers engaged in inspection should be applied, namely, that for Junior or Assistant Officers the salary should not be less than £250 per annum, and that for more experienced Officers the salary should not be less than £500. These sums to be understood as exclusive of travelling expenses, clerical assistance, postage, etc. Also that in any appointments of this kind provision should be made that the salaries of both officers should rise automatically.

154. The Council is of opinion that the time has now come when a definite decision should be arrived at as to the minimum salary for the combined appointment of Medical Officer of Health and School Medical Officer.

The Council recommends:

Recommendation: That in no case where a less salary than £400 is offered for a combined wholetime appointment as Medical Officer of Health and School Medical Officer should the advertisement be accepted for insertion in the JOURNAL.

MEDICAL OFFICERS OF HEALTH (SUPERANNUATION) BILL.

155. The Medical Officers of Health (Superannuation) Bill of the Association was re-introduced into the House of Commons on March 13th, 1913, by Sir Philip Magnus, supported by Sir Henry Craik, Mr. Lough, Mr. Charles Bathurst, Sir Henry Norman, Mr. Godfrey Locker Lampson, and Mr. Glyn Jones, and was down for second reading on April 18th. The whole of the time of the House was, however, occupied by another Bill, and the Superannuation Bill was not reached. Sir Philip Magnus has kindly promised to do everything in his power to press the Bill forward, and the thanks of the Association are due to him for his valuable assistance in this and other matters in which the Association is interested.

156. The object of the Bill is to enable all Medical Officers of Health by definite contributions from their salaries to provide themselves with superannuation allowances as a provision for old age and in case of permanent infirmity. As statutory provision of a similar nature has already been made for Poor Law Medical Officers by the Poor Law Medical Officers Superannuation Act, 1896, and for the officers of asylums by the Asylums Officers Superannuation Act, 1899, it is hoped that Parliament and the Government will deal sympathetically with this proposed legislation for an important body of public officials. Steps are being taken in co-operation with the Society of Medical Officers of Health to obtain the sympathy and support of the Local Government Board and of individual Members of Parliament.

MILK AND DAIRIES BILL OF THE GOVERNMENT.

157. The Government introduced late in the last Session of Parliament (December 10th, 1912) and has reintroduced in the present Session, a Milk and Dairies Bill, to make adequate provision as to the sale of milk and the regulation of dairies. The main objects of the Bill are stated as follows:—

(1) The more effective registration of dairies and dairymen.

(2) The inspection of dairies and the examination of cows therein and the examination of milk.

(3) The prohibition of the supply of milk from a dairy where such a supply has caused or would be likely to cause infectious disease, including tuberculosis.

(4) The prevention of the sale of tuberculous milk.

(5) The regulation of the importation of milk so as to prevent danger to public health arising therefrom.

(6) The issue of regulations for securing the supply of pure and wholesome milk.

(7) The establishment by local authorities in populous places of milk depots for the sale of milk specially prepared for infants.

158. The Council has expressed to the Local Government Board the Association's approval of the Bill, subject to the following sub-clause as regards the application of the Bill to London, contained in the previous Bill, being included in the present Bill:—

"The provisions of this Act shall apply to London subject to such modifications as may be made by regulations of the Local Government Board, and such regulations may provide for any of the powers and duties of sanitary authorities and their medical officers of health under those provisions with respect to dairies being exercised and performed by the London County Council and the medical officer of health for the London County Council."

159. The Council has asked that support be given to amendments which will be moved having for their object the conferring of security of tenure on the Medical Officers of Health, upon whom further responsible and delicate duties will be imposed by the Bill in co-operation with the Society of Medical Officers of Health, has arranged for the tabling of the amendments necessary.

REMUNERATION OF MEDICAL OFFICERS OF HEALTH.

160. Many recent legislative and administrative enactments have considerably added to the duties devolving upon Medical Officers of Health, without in any way increasing their remuneration. The special hardship entailed by some of these enactments is that Medical Officers of Health are required to make considerable outlays for out-of-pocket expenses, especially in regard to travelling, such as were not contemplated at the time the salaries of the majority of Medical Officers of Health were fixed. The Council understands that representations are being made to the Local Government Board on the subject by a deputation of District Medical Officers of Health, and in order to strengthen the hands of the deputation the Council, on behalf of the Association, has represented to the Board its sympathy with and support of this claim of Medical Officers of Health.

DEFENCE OF VACCINATION.

161. As foreshadowed in the Report of the Council on the subject, approved by the Annual Representative Meeting at Liverpool, the Council has appointed a Standing Sub-Committee of the Public Health Committee for the purpose of taking any necessary action in the matter of the defence of vaccination. Enquiries made of the relatives of the late Dr. Bond, Honorary Secretary of the Jenner Society, have elicited the fact that they will welcome the continuation by the British Medical Association of the work of the late Dr. Bond and of the Jenner Society, and the pamphlets and other documents in defence of vaccination belonging to that Society have been handed over by Dr. Bond's relatives to the Standing Sub-Committee above referred to. The Council has accordingly made arrangements for a part of a room in the Office of the Association to be occupied by the vaccination literature and pamphlets of the Jenner Society, the collection to be styled "The Jenner Collection." Dr. Arthur Drury, of Halifax, who has done such yeoman service in connection with this subject, has kindly consented to act as Honorary Secretary of this Sub-Committee.

RELATION OF MEDICAL OFFICERS OF HEALTH TO GENERAL PRACTITIONERS.

162. The Council has already reported to the Representative Body as to the Conference of representatives of the Association with representatives of the Society of Medical Officers of Health, held on November 12th, 1912, and a report of the proceedings of that Conference was published in the Supplement of November 23rd (page 575). As there are many questions of mutual interest to general practitioners and Medical Officers of Health at present requiring consideration, a further conference of representatives of, as before, the Public Health, Medico-Political and State Sickness Insurance Committees, on behalf of the Association, with representatives of the Society of Medical

Officers of Health, has been arranged for an early date, and the Council hopes to report the result in its Supplementary Report for the year.

PUBLIC HEALTH AND POOR LAW APPOINTMENTS AS TO WHICH ACTION TAKEN.

163. Action has been taken by the Council with regard to the following Public Health and Poor Law Appointments:—

Isle of Wight (County Medical Officer of Health and School Medical Officer); Winchester, Micheldever District (District Medical Officer); Ilford Urban District Council (Medical Officer of Health); Cheltenham (Assistant Medical Officer of Health and School Medical Officer); Chorley (Medical Officer of Health, etc.); West Suffolk (County Medical Officer and School Medical Inspector); Southampton (Assistant Medical Officer of Health); Hartlepool (School Medical Officer and Medical Officer of Health); Burnley (District Medical Officers); Honiton (Medical Officer of Health); Wrexham Rural District (Medical Officer of Health); Wrexham Borough (School Medical Officer and Medical Officer of Health); Yeovil (Medical Officer of Health and School Medical Officer).

(J) Hospitals.

REPORT OF SPECIAL COMMITTEE OF KING EDWARD VII. HOSPITAL FUND ON HOSPITAL OUT-PATIENT DEPARTMENTS.

164. The Council reported to the Divisions and Annual Representative Meeting, 1912, that in response to an invitation received from the Special Committee appointed by the King Edward's Hospital Fund for London, the Association had given evidence on the question of out-patient departments before that Committee. The Report of the Special Committee of the King Edward's Hospital Fund has now been published and the Council has pleasure in reporting that that Committee has adopted to a large extent the views of the Association as to the proper scope and method of management of Hospital out-patient departments. The conclusions of the Special Committee are strongly in favour of the development of the out-patient department on consultative lines and in favour of restricting admission to this department. The Special Committee has not adopted the view of the Association that the only means of admission, except for emergency cases, should be by recommendation by a private practitioner, though agreeing that co-operation with the private practitioner should be encouraged. The Special Committee is in favour of an extensive development of the almoner system in addition.

165. The report of the Special Committee of the King Edward's Hospital Fund for London and the Memorandum of Evidence by the Association on out-patient departments, were published in the Supplement to the JOURNAL of February 22nd, 1913.

166. The Council has expressed its appreciation of the recognition by the Special Committee of the principles put forward by the Association with regard to out-patient departments, and its hope that the Council of the King's Fund will take steps to secure the adoption of these principles by those Hospitals to the funds of which they contribute.

MATERNITY AND VOLUNTARY HOSPITALS AND OTHER CHARITABLE INSTITUTIONS CHARGING FEES FOR MIDWIFERY CASES.

167. The Council has noted the two principles contained in the following Minute 246 of the Annual Representative Meeting, 1912, as declarations of policy of the Association, for its guidance in dealing with matters in connection with the management of hospitals, and has given instructions that both principles be included in the Association's Model Rules for the Management of Hospitals:

> *Minute* 246.—Resolved: (i) That inability to pay for adequate treatment or the recommendation of a medical practitioner shall be the consideration for the participation of parturient women in the benefits of maternity and voluntary hospitals and other charitable institutions; (ii.) That women in receipt of Maternity Benefit under the National Insurance Act should not be regarded as eligible for charitable treatment except in cases of difficulty and danger and on the recommendation of a medical practitioner.

(*See, however, paragraph 129 under heading "State Sickness Insurance."*)

ADMISSION TO CASUALTY OR OUT-PATIENT DEPARTMENTS OF VOLUNTARY HOSPITALS.

168. The following motion, referred to it by Minute 248 of the Annual Representative Meeting, 1912, has been considered by the Council:

> *Minute* 248.—Motion: That it be an instruction to the Council to take such steps as are necessary in order to obtain the approval of Staffs of Hospitals for the principle "that no person be seen in the casualty or out-patient department of a Voluntary Hospital except in emergency or on the introduction of a medical practitioner."

In the opinion of the Council it is not desirable to take steps in the sense of the above proposal at the present time, for the following reasons:—

> (i.) The Association recently laid its views on the subject before an important Committee of the King Edward's Hospital Fund.
>
> (ii.) These views have been to a considerable extent adopted by that Committee and it is desirable to await the action of the Fund, as, if such action is in the direction of the recommendations of its Committee it must prove of the very greatest assistance to the policy of the Association.
>
> (iii.) Many Hospital authorities have recently considerably restricted the access to their out-patient departments in consequence of the operation of the National Insurance Act. It is desirable to wait until the effects of this step can be more accurately estimated.

UNDER CONSIDERATION.

169. Minute 224 of A.R.M., 1910, as to advisability of all members of Staffs of Voluntary Hospitals being paid.

(K) Naval and Military.

QUESTION OF REDUCED RAILWAY FARES FOR OFFICERS OF ROYAL ARMY MEDICAL CORPS AND INDIAN MEDICAL SERVICE.

170. The Council has addressed an enquiry to the Secretary of State for India as to the present position in connection with the complaint, previously lodged by the Association, regarding the ruling of the Government of India that the concession of reduced railway fares in certain circumstances to regimental captains and subalterns, notified in India Army Order No. 162, 1911, does not apply to Officers of the Royal Army Medical Corps or Indian Medical Service.

VACANCY IN COUNCIL.

171. A vacancy upon the Council has occurred by the resignation of Lt.-Col. Davie-Harris, R.A.M.C., who was appointed a Member of Council by the Representative Body to represent the Army Medical Service on the Council for the term 1911-14. The Council considers it of importance that the vacancy should be filled by the Representative Body, since otherwise that Service would be unrepresented upon the Council until the end of the period stated.

In accordance with By-laws 43 and 52, the Council submits the name of Lt.-Col. Waller Barrow, R.A.M.C., for election by the Representative Body as representative of the Army Medical Service upon the Council, in place of Lt.-Col. Davie-Harris, resigned, to hold office until the close of the Annual Representative Meeting, 1914.

(L) Scotland.

ORGANISATION OF PROFESSION IN SCOTLAND.

172. The Council has considered the question of the organisation of the profession in Scotland, having regard to the difficulties that arise partly from differences of the law of Scotland from that of the rest of the Kingdom, partly from difficulties of communication by post and rail with London, and also from the changes consequent upon the National Insurance Act. Being of opinion that the work of the organisation of the profession in Scotland would be carried out more efficiently by the transfer to the Scottish Committee, so far as Scotland is concerned, of some of the duties at present carried out by central Committees, the Council has made the following changes in the detailed organisation of the Association as affecting Scotland:—

> 1. The Scottish Committee has been empowered to arrange for its clerical work being done in Scotland by the appointment of a part-time clerk at the cost not exceeding £75 per annum.

2. The holding of a conference once a year of representatives of the Scottish Local Medical Committees with the Scottish Committee has been authorised, special conferences to be held subject to the approval of the Council, at a probable total cost of £75 per annum.

3. A grant of £200 has been made to the Scottish Committee for meeting the above and its ordinary expenses.

173. The question of the extension of the duties of the Scottish Committee to include the organisation of Branches, Divisions and Local Medical Committees in Scotland is under consideration.

NATIONAL INSURANCE ACT.

(a) *Financial Position in connection with work of Scottish Medical Insurance Council.*

174. The Council has received from the Scottish Committee a report as to the financial position of the Scottish Medical Insurance Council, which, it will be remembered, consisted of representatives of the Scottish Committee of the Association and of the Scottish Medical Corporations. A grant of £250 was made last year to the Scottish Committee in connection with the work which was thus jointly undertaken in connection with the National Insurance Act. The expenses to date having been paid, a balance of £14 of the £250 grant made is being returned by the Scottish Committee to the Association. It has been decided that the Scottish Committee shall now withdraw from membership of the Scottish Medical Insurance Council.

(b) *Medical Officers of Health and Sanatorium Benefit under the Act.*

175. The Scottish Committee has had under its consideration the question of the position of medical officers of health in connection with the administration of Sanatorium Benefit under the National Insurance Act, and has issued a communication to the Scottish Branches and Divisions advising them that, without interfering with the administrative work of medical officers of health, it is essential for the successful organisation of a tuberculosis service that the Chief Tuberculosis Officer should be independent of the Public Health Department.

(c) *Assistance by Members of Parliament.*

176. The thanks of the Association have been conveyed by the Scottish Committee to Sir John Barran, M.P., and Sir John Jardine, M.P., for their kind assistance in advancing in Parliament the claims of the Medical Profession in Scotland in connection with the National Insurance Act.

MEDICAL TREATMENT OF DEFECTIVE SCHOOL CHILDREN.

177. A communication has been forwarded by the Scottish Committee to the Divisions and Branches in Scotland, drawing their attention to the grants for medical treatment of school children which are being made to the various School Boards, and urging them to use every endeavour to secure that such treatment is carried out in accordance with the declared policy of the Association, namely, by general practitioners either by means of part-time appointments, or by establishing a rota, and not by whole-time medical officers.

(M) Ireland.

NATIONAL INSURANCE ACT.

178. The Council has received from the Irish Committee a report of the work done by the Conjoint Committee of the Irish Committee and the Irish Medical Association, and has granted a sum of £200 from the Central Insurance Defence Fund towards the expenses of the Conjoint Committee, on condition that the Irish Medical Association contributed not less than £100 for the same purpose.

179. The position of Ireland in connection with the National Insurance Act being different from that of the rest of the United Kingdom, the work of the Association for the profession in Ireland in connection with the Act has necessarily devolved almost entirely upon the Irish Committee and Conjoint Committee named. Valuable work has been done during the year, as to which the Council will report in the Supplementary Report of Council.

(N) Branches Outside United Kingdom.

TITLE OF COLONIAL COMMITTEE.

180. The Council has had under consideration the advisability of altering the name of the Colonial Committee, in view of the nomenclature now used in Imperial matters.

The Council recommends:—

Recommendation:—That steps be taken to alter the title of the Colonial Committee to that of "Dominions Committee," and that it be referred to the Council to carry out the necessary alteration of the By-laws.

MEDICAL AND DENTAL REGISTRATION IN UGANDA.

181. The Council has received from the Secretary of State for the Colonies a Draft Ordinance for the Registration of Dental and Medical Practitioners in the Uganda Protectorate, with a request for the comments of the Association thereon. Approval by the Association of the proposed Ordinance has been intimated to the Secretary of State, inasmuch as the Ordinance corresponds with similar Ordinances already approved by the Association locally and centrally.

SUBSCRIPTIONS TO BRANCHES OUTSIDE UNITED KINGDOM.

182. The question has been raised by the Council of a Branch outside the United Kingdom as to whether any member of a Branch outside the United Kingdom which has under the By-laws by Rule required each member to pay an annual subscription in addition to the ordinary Association subscription, can legitimately forward, to the Central Office or otherwise, the ordinary annual Association subscription and claim to receive the full privileges of membership of the Branch although not paying the full local subscription. A reply has been addressed to the Branch to the effect that, under By-law 14, members of such a Branch must pay the special Branch subscription duly authorised in accordance with the Regulations of the Association, in addition to the ordinary Association subscription. Directions have been given by the Council that payments of any less amount than the total subscription, received by the Central Office, must be regarded and acknowledged as payments on account merely.

SOUTH AFRICA.

183. The work of organisation of the profession in South Africa now largely devolves upon the South African Committee, a body representative of all the South African Branches, the constitution of which was approved by the Council in October, 1909. This Committee has proved of the greatest use to the profession in that country and its constitution will probably be followed, with the necessary modications, in Australia. The Council is glad to note increasing interest in the affairs of the Association, as shown by the formation of Rhodesian and Orange Free State Branches, and the proposal to constitute the two Divisions of the Natal Branch as two separate Branches.

184. The Council has had an invitation to send Representatives to the South African Medical Congress in July, 1913. The time of meeting, so near to that of the Annual Meeting of the Association, added to the usual difficulty of distance and expense, makes the acceptance of the invitation almost impossible. The Council desires in the name of the Association to wish the Congress every success.

AUSTRALASIA.

185. The Council is pleased to report great activity in the Australasian Branches, in great part due to threatened legislation which will bring the profession much more closely under the supervision and control of the State. Affairs at home have therefore been closely followed by a profession which feels that its turn is coming and that it must be prepared. It is hoped that the suggested formation of an Australian or Australasian Federal Committee representative of all the Branches (*see* Minute 259 of A.R.M., 1912) will soon become an accomplished fact.

FEES OF MEDICAL WITNESSES IN NEW HEBRIDES.

186. A complaint has been received from a practitioner in the New Hebrides as to the inadequacy of the fees given to expert medical witnesses in the New Hebrides. On consideration of the matter, a communication has been addressed to the Secretary of State for the Colonies pointing out the inadequacy of these fees and urging that they be increased to a proper amount.

MEDICAL CERTIFICATES AS TO GOVERNMENT OF CEYLON EMPLOYEES' INABILITY TO WORK.

187. At the request of the Colombo, Ceylon, Branch, representations have been made to the Secretary of State for the Colonies for the rescission of the present rule by which medical practitioners in Ceylon, other than Government Medical Officers, are debarred from issuing certificates of ill-health in respect of Government servants.

J. A. MACDONALD,
Chairman of Council.

30th April, 1913.

APPENDIX I.

LIST OF MATTERS (OTHER THAN IN CONNECTION WITH NATIONAL INSURANCE ACT) REFERRED TO COUNCIL BY ANNUAL REPRESENTATIVE MEETING, LIVERPOOL, 1912.

Minute of A.R.M., 1912.	*Subject.*	*Para. of present Report.*
28	Increase of Subscription	11
35	Special Fund for Payment of Expenses of Representatives	31
40, 42	Referendum and Postal Vote	51
61-62	Machinery of Association in connection with Disputes	73
72	Time of Annual Conference of Secretaries	46
73-5	Grouping of Branches not in United Kingdom for 1913-14	28 (b)
77	Constituencies	33
102	Scholarships and Grants	64
105-6	Position of Practitioners examining Patients who are under care of other Practitioners	69
107a	Co-operation of Divisions in Ethical Cases	72
112-21	Model Ethical Rules of Divisions and Branches	72
143-4	Certificates and reports on cases under Workmen's Compensation Act and Members of Hospital Staffs	79
158	Remuneration of Ship Surgeons	84
161	Fee for Life Insurance Examinations ...	84
246-8	Maternity and Voluntary Hospitals and other Charitable Institutions charging Fees for Midwifery Cases ...	129, 167
253-4	Election of Members by Branches	34
256	Duties, Powers, etc., of Central Ethical Committee	37
257	Time of Annual Representative Meetings	35
258	Representatives and Deputy-Representatives	36
259	Local Autonomy for Australian Branches...	185
260	Place and time of A.R.M., 1913	1, 2

APPENDIX II.

LIST OF MATTERS, IN CONNECTION WITH NATIONAL INSURANCE ACT, REFERRED TO COUNCIL BY SPECIAL REPRESENTATIVE MEETING OF JANUARY, 1913.

Minute of S.R.M., 1913.	*Subject.*	*Para. of present Report.*
48	Protection of interests of Profession in connection with Act	88-9
52-5	Future Action of Association	88, 89, 151, 152
56	Expenses of Local Medical Committees ...	98
57-8	Question of greater facilities for obtaining Opinion of Association	51
59	Contract Attendance on Uninsured ...	130
60	Various Matters for Consideration...	51, 151
61	Attendance on Insured Persons by Non-panel Doctors	89
62	Facilities for Insured Persons making their own Arrangements	106-8
63	Tuberculosis Treatment	—
65	Question of enforcing Guarantees ...	134-41
67	Resignations of Membership ...	25, 49
68	Record of Work of Panel Doctors	—

APPENDIX III.

OPINION OF COUNSEL ON QUESTIONS IN CONNECTION WITH PROPOSED FORMATION OF A NEW COMPANY.

1. If the New Company were registered with a Memorandum of Association in the form which has now been approved by the Board of Trade, certain definite powers not possessed by the existing Company would be acquired. These are :—

Power to promote and oppose legislation affecting the public health or the profession.

Power to take part in certain legal proceedings affecting the profession.

Power to establish, endow and manage benevolent funds (with the restriction that no grant may be made directly to a member of the Association, a member may if indigent be benefited indirectly by a grant to his relatives or dependents).

Power to borrow and mortgage.

In addition clear powers would be obtained and all doubts removed as to certain other matters which probably come within the scope of the objects of the existing Company, but are not clearly provided for in the existing Memorandum. These are :—

Power to provide libraries and places for social intercourse.

Power to undertake trusts for the benefit of the profession.

General powers of management of and dealing with property.

2. A fee of £20 would be paid on the registration of the new Company (Companies (Consolidation) Act, 1908, First Schedule, Table B).

The Stamp Duty on the transfer of the Property from the old to the new Company, would, if exacted, be very heavy. £1 per cent. on the value of the property transferred. See Finance (1909-10) Act, 1910, ss. 73, 74.

But in the case of a reconstruction of a Company where the members of the old and the new Company are the same and there is no alteration of their rights, it has been the practice of the Inland Revenue Authorities not to exact the ad valorem duty and to require only the deed stamp of 10s. to be affixed to the instrument.

But this practice may have been altered since the enactment of s. 74 of the Act of 1910 above referred to. Probably the Inland Revenue Authorities would answer a question as to what their practice now is or as to what Stamp Duty would be required in the circumstances of the present case.

The Duty if payable would be so heavy that the matter ought not to be left in doubt until after irrevocable steps have been taken as to winding up.

3. Power to borrow on mortgage or otherwise could be obtained by the existing Company (without winding up) by a Special Resolution altering the Memorandum in this sense and confirmed by the Court on Petition (Companies (Consolidation) Act, 1908, S. 9.).

If this is contemplated the consent of the Board of Trade should be obtained. The Board are not likely to object since they have allowed the desired power in the Draft Memorandum of the new Company.

I presume that there are no creditors who would object, and if this be so, I see no reason why the Court should not allow the alteration.

(Signed) T. R. COLQUHOUN DILL,
Lincoln's Inn,
11th July, 1912.

APPENDIX IV.

INFORMATION OBTAINED FROM SOLICITOR TO BOARD OF INLAND REVENUE AS TO COST OF FORMATION OF A NEW COMPANY.

"The Agreement for transfer by the old Association of all the real and personal estate of the old Association would be chargeable for duty as a Conveyance in Sale on the amount of the liabilities of the old Association, which liabilities would be taken over by the new Association, and would form the principal consideration for the transfer of the property to the new Association.

"Therefore the Duty would be at the rate of £1 for every £100 of the liabilities of the old Association.

"The same rate of Duty would also be payable on the amount of the costs of carrying out the entire arrangement, because the Agreement by the new Association to pay such costs would form part of the consideration for the transfer of the property. This would only be a small sum.

"In addition there would be a very small sum for Duty payable in respect of other Covenants in the transfer which probably would not exceed £2 or £3."

APPENDIX V.

GROUPING OF BRANCHES IN UNITED KINGDOM FOR REPRESENTATION ON COUNCIL (1913-14).

COLUMN 1. Branches in the Groups, with Membership, 1912.	Groups shown by Brackets. COLUMN 2. 24 Members of Council elected by Grouped Branches by voting paper.			COLUMN 3. 12 Members of Council elected by grouped Representatives.			Members in the Group
England and Wales.							
North of England Branch, 798	929	...	1	...	1	...	2,043
North Lancashire and South Westmorland Branch, 131							
Yorkshire Branch	1,114	...	1				
Lancashire and Cheshire Branch	2,078	...	2	...	1	...	2,078
East York and North Lincoln Branch, 202	942	...	1	...	1	...	1,992
Midland Branch, 740							
Cambridge and Huntingdon Branch, 199							
East Anglian Branch, 539	1050	...	1				
South Midland Branch, 312							
Birmingham Branch, 671	930	...	1	...	1	...	1,973
Staffordshire Branch, 259							
North Wales Branch, 231							
Shropshire and Mid-Wales Branch, 150	1043	...	1				
South Wales and Monmouthshire Branch, 662							
Metropolitan Counties Branch, 3,892:							
North and East Metropolitan Group:							
City, Stratford, South West Essex, North Middlesex, St. Pancras and Hampstead Divisions	1,235	...	4	...	1	...	2,190
Central Metropolitan Group:							
Marylebone and Westminster Divisions	955						
West Metropolitan Group:							
Richmond, Ealing, Chelsea, Kensington, and Watford Divisions	928						
South Metropolitan Group:				...	1	...	1,571
Lambeth, Norwood and Wandsworth Divisions	643						
Bath and Bristol Branch, 463	874	...	1	...	1	...	1,666
Gloucestershire Branch, 153							
West Somerset Branch, 91							
Worcestershire and Herefordshire Branch, 167							
Dorset and West Hants Branch, 225	792	...	1				
South-Western Branch, 564							
Oxford and Reading Branch, 343	848	...	1	...	1	...	2,182
Southern Branch, 505							
South-Eastern Branch	1,334	...	1				
Scotland.							
Aberdeen, Northern Counties, Dundee, and Perth Branches	516	...	1	...	1	...	1,138
Edinburgh and Fife Branches	622	...	1				
Glasgow and West of Scotland Branch (4 City Divisions)	486	...	1		1	...	1,079
Glasgow and West of Scotland Branch (4 County Divisions)	593	...	1				
Border Counties and Stirling Branches		...					
Ireland.							
Connaught and South-Eastern of Ireland Branches	124	...	1	...	1	...	420
Leinster Branch	296	...	1				
Munster Branch	114	...	1	...	1	...	[illegible]
Ulster Branch	423	...	1				

APPENDIX VI.

ANALYSIS OF BRANCH REPORTS (U.K.) FOR 1912.

(Paragraph 40 of Annual Report of Council.)

Branch.	Membership.		Financial Statement.							Meetings.					
	On December 31st, 1911.	On December 31st, 1912.	Balance (if any) from 1911.	Deficit (if any) from 1911.	Receipts (if any) 1912.	Expenditure, 1912.	Balance (if any) to 1913.	Deficit (if any) to 1913.	Outstanding Liabilities as at December 31st, 1912.	Branch.	Scientific.	Medico-Political, Ethical, &c.	Social Functions.	Average Attendance.	Branch Council.
(A) BRANCHES IN UNITED KINGDOM.			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.						
(1) Aberdeen	194		11 17 10½			(No Report)									
(2) Bath and Bristol	457		14 2 4½			42 17 11½		28 15 7		6	6	1	1	40	18
(3) Birmingham	684	698	68 14 5		134 4 0	124 13 0	78 5 5		108 0 5	7	6	1	1	36	9
(4) Border Counties	148			24 15 5	30 0 0	54 19 10		49 15 3		2	1		1	24	3
(5) Cambridge and Huntingdon...	198	158	3 7 4½		39 16 0	12 5 0	30 18 4½		8 3 0	7	1	6	1	60	5
(6) Connaught	52					(No Report)									
(7) Dorset and West Hants ...	227	252	29 12 6		45 12 0	65 2 0	10 2 6		2 1	3	3		3	49	6
(8) Dundee	120	110	14 3 8		23 0 2	36 17 1	6 9			4		4		23	7
(9) East Anglian	512	575		41 5 5	107 16 0	135 0 5		68 9 10		3	3	3	3	35	5
(10) East York and North Lincoln	199		10 4 2		40 14 0	38 13 8	12 4 6			1		1	1	39	4
(11) Edinburgh	486	515	66 5 8		103 4 0	99 4 10	70 4 10			2	1	1	1	80	8
(12) Fife	106	102	2 13 11		31 4 0	39 3 10		5 5 11		2	1	1	1	80	8
(13) Glasgow and West of Scotland	812		57 19 4			(No Report)									
(14) Gloucestershire	156		12 3 4		35 12 0	32 15 2½	15 0 1½		6 17 2	18	8	10	9	28	18
(15) Lancashire and Cheshire ...	2,056	2,192	336 1 2		421 14 0	276 12 6	481 2 8		126 9 1	2	1	2	1	186	5
(16) Leinster	281					(No Report)									

Branch.	Membership.		Financial Statement.							Meetings.					
	On December 31st, 1911.	On December 31st, 1912.	Balance (if any) from 1911.	Deficit (if any) from 1911.	Receipts (if any), 1912.	Expenditure, 1912.	Balance (if any) to 1913.	Deficit (if any) to 1913.	Outstanding Liabilities as at December 31st, 1912.	Branch	Scientific.	Medico-Political, Ethical, &c.	Social Functions.	Average Attendance.	Branch Council.
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.						
(17) Metropolitan Counties ...	3,850	4,089	240 16 7		778 8 0	751 18 3	267 6 4		198 0 0	1		20			11
(18) Midland	732	723	75 10 1		149 1 4	91 11 5	133 0 0		4 1 3	1		1		114	5
(19) Munster	116		30 6 4			6 10 7	23 15 9		4 6 8	4		4			2
(20) North of England	767			89 19 0	(No Report)										
(21) Northern Counties of Scotland	124	146		4 18 0	28 12 0	35 17 11		12 3 11		5		5		30	2
(22) N. Lancashire and S. Westmorland	129		56 6 2		0 12 7	23 3 0	33 15 9			1		1		35	2
(23) North Wales	233		11 18 2		46 10 11	48 19 6	9 9 7			4	1	4	2	69	4
(24) Oxford and Reading	343	354	16 6 2		68 12 0	18 16 5	66 1 9			1		1	1	90	1
(25) Perth	56	58	6 2 9		11 11 0	17 10 6	0 3 3			10		10		26	4
(26) Shropshire and Mid-Wales ...	154		8 9 2		30 0 0	25 16 3	12 12 11			10	2	8	1	59	2
(27) South-Eastern	1,331	1,391	315 15 10½		6 2 2	314 3 6	7 14 6½		73 9 3¾	1		1	1	69	5
(28) South-Eastern of Ireland ...	63	66	3 18 2		10 7 0	12 17 6	1 7 8			9		5	5	3	2
(29) Southern	490	521	55 14 0		75 15 0	108 12 6	22 16 6			2	1	1	1	37	6
(30) South Midland	314	283	26 13 7		16 6 6	50 0 6		7 0 5		2	2		1	30	3
(31) South Wales and Monmouthshire	640	729	93 14 1		66 6 6	159 17 6	0 3 1		41 17 8	4	3	1	1	49	7
(32) South-Western	558		51 2 7		113 6 6	103 15 5	60 13 8		89 9 8	3		3		66	7
(33) Staffordshire	245	270	80 7 7			63 2 1	17 5 6		11 7 9	4	3	1	4	26	6

Branch.	Membership.		Financial Statement.							Meetings.						
	On December 31st, 1911.	On December 31st, 1912.	Balance (if any) from 1911.	Deficit (if any) from 1911.	Receipts (if any), 1912.	Expenditure, 1912.	Balance (if any) to 1913.	Deficit (if any) to 1913.	Outstanding Liabilities as at December 31st, 1912.	Branch.	Scientific.	Medico-Political, Ethical, &c.	Social Functions.	Average Attendance.	Branch Council.
			£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.						
(34) Stirling	91	92	11 1 6	4 19 10	13 10 11	23 4 7	1 7 10		2 4 1	8		8		39	3
(35) Ulster	428		49 18 11		(No Report)										
(36) West Somerset	91	95	32 15 6½		6 17 1		25 18 5½			8	2	6		70	
(37) Worcestershire & Herefordshire	170	162			32 5 11	174 11 4	10 2 3			2	1		1	16	3
(38) Yorkshire	1,081	1,130	122 13 6		56 19 10		5 2 0			3		2			4
Totals (*Branches in United Kingdom*)	—	—	1,916 7 6½	165 17 8	2,532 6 5	3,027 17 1	1,397 2 0	171 10 11	674 8 1½	—	—	—	—	—	—

APPENDIX VII.

GROUPING OF BRANCHES NOT IN UNITED KINGDOM FOR REPRESENTATION ON COUNCIL, 1913-14.

(Branches bracketed are grouped.)

Branch and Membership, January, 1913.		Membership of Group, (Jan., 1913).	Member of Council to be elected.
Melbourne and Victoria	728	1134	1
South Australian	205		
Tasmania	75		
Western Australian	126		
Brisbane and Queensland	225	1120	1
Sydney and New South Wales ...	895		
New Zealand	496	496	1
Barbados	32	622	1
Bermuda	10		
British Guiana	45		
Halifax, Nova Scotia	52		
Jamaica	49		
Leeward Islands	20		
Montreal	55		
St. John, New Brunswick	25		
Saskatchewan	38		
Toronto	274		
Trinidad and Tobago	22		
Assam	17	714	1
Baluchistan	12		
Bombay	220		
Burmah	70		
Colombo, Ceylon	172		
Punjab	70		
South Indian and Madras	153		
Hong Kong and China	145	267	1
Malaya	122		
Cape of Good Hope (Border) ...	106	818	1
Cape of Good Hope (Eastern) ...	54		
Cape of Good Hope (Western) ...	141		
East Africa and Uganda	15		
Egyptian	41		
Gibraltar	17		
Griqualand West (including Orange River Colony)	38		
Malta and Mediterranean	27		
Natal	131		
Rhodesian	40		
Transvaal	208		

APPENDIX VIII.

MEMORANDA AND QUESTIONS DEALING WITH MATTERS AFFECTING PUBLIC HEALTH AND THE MEDICAL PROFESSION FOR SUBMISSION TO CANDIDATES AT COUNTY, COUNTY BOROUGH, MUNICIPAL BOROUGH, AND DISTRICT COUNCIL ELECTIONS.

1.—*Payments to Voluntary Hospitals and Sanatoriums in order to provide Accommodation for the use of the Inhabitants of their Districts.*

The voluntary hospitals and many of the existing sanatoriums are institutions in which provision is made through the contributions of benevolent private individuals, and through the gratuitous services of members of the medical profession, for persons who are unable to provide at their own expense such treatment as they require.

The Public Health Act, 1875, allows these local authorities to contract for the use of any hospital or part of a hospital for the reception of the sick inhabitants of their districts on payment of such annual or other sum as may be agreed on.

Section 12 (2) (c) of the National Insurance Act provides that in the case of members of approved societies who have no dependants and who become inmates of "a hospital, asylum convalescent home or infirmary supported by a charity or by voluntary subscriptions," an agreement may be made between these institutions and an approved society or Insurance Committee by which payments may be made out of sickness, disablement or maternity benefit towards the maintenance of such persons in these voluntary and charitable institutions.

Section 16 (1) compels Insurance Committees to make arrangements for the treatment of tuberculosis and the other diseases to be scheduled by the Local Government Board, with the managers of sanatoriums or other institutions, regardless of the fact that many of them are voluntary and charitable institutions.

Section 21 allows "an approved society or Insurance Committee to grant such subscriptions or donations as it may think fit to hospitals, dispensaries or other *charitable* institutions," such grants presumably being made in return for the treatment of insured persons in such charitable institutions.

Thus it is probable that most of the hospital treatment and a considerable part of the sanatorium treatment of insured persons may be obtained through hospitals and sanatoriums which have been established as voluntary and charitable institutions, to which the medical profession has hitherto given its services gratuitously.

The British Medical Association would submit that the proposed provision relating to hospitals and other charitable institutions is wrong in principle, and is an improper application of public funds. If contracts are entered into with these institutions for the treatment of persons the expense of whose treatment is rightly chargeable to public funds, they cease to that extent to be charitable institutions and the whole basis of their constitution is altered.

Question: Would you oppose contracts with or payment to voluntary hospitals and sanatoriums being made by public authorities to secure medical treatment until the medical staffs are remunerated for such State service?

Question: Are you in favour of the Local Medical Committees being consulted with reference to the arrangements for giving sanatorium benefit?

2.—*Election of Medical Practitioners by County and County Borough Councils on Local Insurance Committees.*

Section 59 (2) (d) of the National Insurance Act lays down that County and County Borough Councils shall elect duly qualified medical practitioners, in certain proportions, to the local Insurance Committees.

Question: Are you in favour of the local Medical Committees being consulted by these Councils with a view to nomination by the Committee of suitable registered medical practitioners as candidates for election?

3.—*Treatment at Voluntary Hospitals of School Children found upon Medical Inspection to be defective.*

The Association considers that the making of arrangements for the treatment at voluntary hospitals of school children found upon inspection to be defective involves a confusion between State services and charitable institutions which must tend to undermine the present charitable basis of those institutions and also involves injustice to the private medical practitioner who is a ratepayer and is perfectly competent to undertake the work.

As the result of a very careful investigation of the whole subject, the Association believes that the only satisfactory system will eventually be found to be the treatment of children by medical practitioners directly employed by the Education Authority working at convenient treatment centres (clinics) established by the Authority.

Questions: (a) Would you oppose arrangements being made with Voluntary Hospitals for the systematic treatment of school children?

(b) Would you support the treatment of school children in their own districts by local medical practitioners adequately paid, with other suitable provision for treatment when local medical practioners are not available?

4.—*Separation of the Medical Inspection of School Children from the Medical Treatment of those Children found upon inspection to be defective.*

The British Medical Association has repeatedly urged that the medical inspection of school children should be separated from the medical treatment, which should be carried out by local registered medical practitioners. The reasons for the adoption of this principle are:—

(1) Medical practitioners who are engaged in general private practice have a wider experience of the detection and treatment of disease than those whose work is confined to the treatment (or the treatment and inspection) of school children.

(2) The treatment of diseases of children gives those who carry it out opportunities of obtaining valuable experience. Unless this treatment is entrusted to the local practitioners they will lose this special experience and the authorities will lose the advantage of the experience gained by private practitioners who are engaged, apart from their school work, in treating members of the general public.

(3) The employment of private practitioners gives the Education Authority a wider field of choice than if the work is carried out by school medical officers.

(4) The treatment of school children may be expected to develop into a great national undertaking, the value of which will be enhanced in proportion to the number of persons who are interested in it. From this point of view, it is better that as many as possible of the medical profession should have a personal interest in the work, than that it should be confined to a small class of public officials.

(5) At the outset the employment of private practitioners has a special advantage, in that it does not create any vested interest. The necessity of dismissing a special staff would, on the other hand, create serious difficulties for an authority desirous of changing its system.

(6) The separation of treatment from inspection gives the opportunity for a second opinion on each case, namely, the opinion of the private practitioner, in addition to that of the medical inspector. If this second opinion were given and the treatment carried out, by local practitioners whom the public knew and had confidence in, the advantages of the treatment offered would be far more appreciated by the parents of the children.

Question: Are you in favour of the treatment of school children being carried out by those local registered medical practitioners who are able and willing to act, a rota of such practitioners being formed for the purpose where desired?

APPENDIX IX.

REPORT ON PRESENT POSITION OF CENTRAL INSURANCE DEFENCE FUND.

The Council presents the following report to the Divisions and to the subscribers to the Central Insurance Defence Fund.

The fund was inaugurated in July, 1911, with the following objects:—

(i.) To assist in defraying the heavy administrative expenses necessarily incurred in organising such combined action of the members of the profession as will enable them either (a) to enforce their demands upon the National Health Insurance Commissioners, (b) to establish a Public Medical Service entirely under the control of the profession, or (c) to take such other action as may be found necessary.

(ii.) To provide when and where necessary compensation or pecuniary assistance for practitioners who incur loss or require support because of their loyalty to the policy recommended by the British Medical Association.

Appended is a balance sheet from which it will be seen that from July, 1911, to April 15th, 1913, the sum received was £29,849. 7s. 10d. from 14,033 supporters. This, with bank interest of £63. 18s. 2d., gives a total revenue of £29,913. 6s. The total amount guaranteed to the fund was £138,361. 4s. 8d. The amount received is in respect of five calls:—

(i.) £1 per head on all guarantors.

(ii.) 20 per cent. of the whole amount guaranteed.

(iii.) £1 per Member of Foreign and Colonial Branches.

(iv.) Special appeal to all non-supporters in the British Isles for donations of £1 or more.

(v.) A call of 20 per cent. on Local Fund guarantors who had not guaranteed to Central Fund.

The first call (with donations) produced £15,702. 6s. 4d., the second £13,488 8s. 11d., the third £63. 5s. 11d., the fourth £458 1s. 2d., and the fifth £137 5s. 6d. If the second call had been responded to by all the guarantors it should have produced £27,672 4s. 11d.

The administration of the Fund has been considerably complicated by (a) the establishment in some areas of Local Funds which competed with the Central Fund; (b) by the earmarking by many subscribers of part of their guarantees for local purposes. Both these complications have reduced the income of the Central Fund. Some Local Funds have, however, made the two first calls locally on their guarantors, and have forwarded the amounts collected, less local expenses, *en bloc* to the Central Office. In other cases the guarantors to the Local Funds have contributed nothing to the central expenses.

As regards earmarking for local purposes, the Council on ascertaining that no local call was likely to be made, has asked the guarantors to ignore the earmarking and forward 20 per cent. of their total guarantee to the Central Fund, thus taking the same share in central liabilities as the other guarantors have done. In many cases this request has been refused or ignored.

The money is banked in the names of the Chairman of Representative Meetings and the Chairman of Council for the time being, acting on behalf of the Council, the trustees of the Fund.

Expenditure.

It will be seen from the Balance Sheet and from the statement of approximate extraordinary expenditure incurred by the British Medical Association in connection with the National Insurance Act, that the Fund has paid to the Association the sum of £13,500 as a contribution to the extraordinary expenditure of £20,606 incurred by the Association on objects similar to those for which the Fund was established.

Of the remainder of the money expended, some £2,000 has been paid in respect of claims for compensation, principally those made by practitioners who had given up whole-time appointments at the request of the Association in pursuance of its policy. Advances amounting to £1,860 have been made to them to enable them to establish themselves in positions equal to those resigned. Of this sum it has been agreed that £1,100 shall be returned to the Fund over a period of years. Five practitioners, who proved to the satisfaction of the Committee that they had suffered loss through loyalty to the Association, have also been paid compensation.

A sum of £100 has been paid to the Irish Committee of the Association to assist it in its work of protection of the interests of the Irish profession in connection with the National Insurance Act. This work is being done in co-operation with the Irish Medical Association, which is finding a share of the expenses. The rest of the expenditure shown is in connection with the expenses of the Provisional Local Medical Committees, and with the direct administration of the Fund itself.

Encouraged by a donation of £50 made by the Durban Division, and in accordance with the instructions contained in Minute 70 of the S.R.M., December, 1912, Members of the Association residing outside the United Kingdom have been asked for a donation of £1 each towards the Fund. It is believed that many of these members will be glad to give such a donation.

An appeal has also been sent to those practitioners in the United Kingdom who, up to the present, had not subscribed to the Fund. It was pointed out to them that they were allowing the financial burden of a fight, which had been waged on behalf of the whole profession, to fall on the minority. They were asked to guarantee such sum as they could afford, or failing that to send a donation of at least £1.

Future Expenditure.

It will be seen that there was on April 15th, 1913, a balance at the bank of £12,518. 4s. 10d. There is still a possibility of claims being made by other practitioners who have given up whole-time appointments. There are also claims under consideration (*a*) by practitioners who did not go on the panel until after the pledge was abrogated and who by their delay incurred loss (*b*) by practitioners who have not gone on the panel up to the present. The extent of these claims cannot yet be estimated by the Council, but each case will be decided on its merits after loss has been clearly shown.

In addition to the ordinary administrative expenses connected with the Fund, there are still outstanding the accounts of several Provisional Local Medical Committees. It is hoped that it will be possible to make another grant to the Association as a contribution to its extraordinary expenses in connection with the objects of the Fund.

STATEMENT OF ACCOUNTS FROM JULY, 1911, TO 15TH APRIL, 1913.

1911.	£ s. d.		£ s. d.	£ s. d.
By Contributions ..	6,704 7 7	To Bank Charges ..	6 15 6	
1912. Do. ..	8,338 0 8	,, Postages	299 5 6	
1913. Do. (April 15th)	14,806 19 7	,, Unpaid cheques and returns ..	18 19 6	
Interest on Deposit Account	63 18 2	,, Irish Committee	100 0 0	
		,, Provisional Medical Committees	1,439 17 8	1,864 18 2
		,, Vote by Council to Association Funds*		13,500 0 0
		,, Compensation ..		2,005 0 0
		,, Legal Expenses (arising out of Compensation Claims)		25 3 0
		,, Balance at Bank		12,518 4 10
	£29,913 6 0			£29,913 6 0

* For details as to approximate expenditure of the B.M.A. in connection with the National Insurance Act *see* following statement.

HEADS OF APPROXIMATE EXPENDITURE INCURRED BY THE BRITISH MEDICAL ASSOCIATION IN CONNECTION WITH THE NATIONAL INSURANCE ACT FROM ITS INTRODUCTION (1911) TO 15TH APRIL, 1913.

1911-12.	£
Railway fares	2,635
Printings	3,850
Addressing, Hire of Typewriting Machine, Parliamentary Papers, etc.	707
Dr. C. A. Renshaw for information *re* Germany ...	15
Despatching Parcels of Pledges to Divisions ...	12
Scottish Committee. Special Grant	250
Irish Committee	80
Legal Charges	150
Council Meetings, Railway Fares and Printings...	555
Lists of Non-Members	500
Additional Cost of Producing JOURNAL and Supplement	2,500
Salaries and Wages	2,200
Postages	1,350
Stationery	300
5 Special Representative Meetings	5,057
Sundries	35
Medical Secretary, Travelling Expenses	200
Reporting	200
	£20,606

Association Notices.

ELECTION OF CENTRAL COUNCIL, 1913-1914.

Notice is hereby given that nominations of candidates for election as Members of Council by Branches or Groups of Branches in the United Kingdom for the year 1913-14 must be forwarded to reach the Financial Secretary and Business Manager, at the Office of the Association, not later than Saturday, May 17th, 1913. Each nomination must be on the prescribed form, copies of which will be furnished by the Financial Secretary and Business Manager upon application.

Separate forms have been prepared:

(A) For a nomination by a Division, and

(B) For a nomination by any three Members of a Branch respectively.

Those applying are requested to state for which purpose the form is desired.

An announcement of the Nominations received will be made in the Journal of May 24th, 1913.

Election will be by voting papers. These papers will contain the names of all duly nominated candidates, and will be issued from the Central Office on Saturday, June 7th, and will be returnable not later than Saturday, June 14th.

The result of the election of Members to the Central Council will be published in the Journal of June 28th, 1913.

BY ORDER OF THE COUNCIL,

GUY ELLISTON,

Financial Secretary and Business Manager.

May 3rd, 1913.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list. The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The Honorary Secretaries, Dr. Ernest C. Hadley, Burbury Street, Lozells, Birmingham, and Dr. H. Hoyle Whaite, Elsinore, Gravelly Hill, Birmingham, give notice that nominations for the following officers must be in the hands of the Honorary Secretaries by the first post on Monday, May 5th, in order that the names may be inserted in the notice convening the annual meeting of the Division to be held shortly: (1) Four Representatives on the Representative Body, (2) Chairman, (3) Vice-Chairman, (4) Honorary Secretaries.

DORSET AND WEST HANTS BRANCH.—The annual meeting will be held at Bournemouth on May 21st. Notices of motion should be sent to the Honorary Secretary by May 7th. The President-elect has very kindly invited members to luncheon at his house.—FRANK FOWLER, Honorary Secretary, 29, Poole Road, Bournemouth.

LANCASHIRE AND CHESHIRE BRANCH.—Mr. F. Charles Larkin, Honorary Secretary, 54, Rodney Street, Liverpool, gives notice that a meeting of the Organization and Finance Committee of the Branch will be held at the Liverpool Medical Institution on May 14th at 4.30 p.m., and that a meeting of the Branch Council will be held at the same place on May 21st at 4 p.m.

LANCASHIRE AND CHESHIRE BRANCH: PRESTON DIVISION.—Dr. Walter Sykes, Honorary Secretary (31, Winckley Square, Preston) gives notice that the Annual Meeting of this Division will be held at the Crown Hotel, Wednesday, May 7th, at 8.45 p.m.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH: FURNESS DIVISION.—Dr. John Livingston, Honorary Secretary, 18, Hartington Street, Barrow-in-Furness, gives notice that the annual meeting of the Division will be held on Friday, May 16th. (By a printer's error the postcard issued gave a wrong date.)

NORTH OF ENGLAND BRANCH: NEWCASTLE-UPON-TYNE DIVISION.—Mr. R. J. Willan, F.R.C.S., Honorary Secretary, 25, Ellison Place, Newcastle-upon-Tyne, gives notice that the annual meeting will be held at the Royal Victoria Infirmary, Newcastle-upon-Tyne, on Wednesday, May 7th, at 8.30 p.m. The business of the meeting will be to elect a Chairman, Vice-Chairman, Honorary Secretary, two Representatives and two Deputy Representatives at Representative Meetings, eight Representatives on the North of England Branch Council, and twelve ordinary members of the Executive Committee; to receive the annual report; to consider the business of the Annual Representative Meeting; to elect Representatives entitled to inspect the Newcastle Education Treatment Centres; and to propose a new rule making the Honorary Secretaryship of the winter scientific meetings of the Division a separate appointment, and to provide that the incumbent shall be an *ex officio* member of the Executive Committee of the Division.

SOUTH-EASTERN OF IRELAND BRANCH.—The annual meeting of the South-Eastern of Ireland Branch will be held in Kilkenny Victoria Hotel on Wednesday, May 7th, at 5.15 p.m., for the installation of President-elect, the election of officers of the Branch for the ensuing year, and any other business.—P. GRACE, Honorary Secretary.

British Medical Association.

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships as follows:

1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.

3. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the causation, prevention, or treatment of disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1913. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of Research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1913-14 must be made not later than Tuesday, June 10th, 1913, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

ALFRED COX, *Medical Secretary.*

429, Strand, London, W.C.

National Insurance.

THE POSITION IN SOUTH WALES.

Resolutions and Recommendations of the South Wales and Monmouthshire Branch.

At a meeting of the South Wales and Monmouthshire Branch of the British Medical Association, held at Cardiff on April 24th, the following resolutions were unanimously adopted:

In respect to the position of the Medical Aid Associations in certain areas of the Branch, it having been ascertained that such associations have already been established in certain areas since the passing of the National Insurance Act, and have been sanctioned by the Medical Benefit Subcommittees, we feel that such action is inimical to the interest of the whole profession, and constitutes a breach of faith on the part of the insurance authorities.

The Branch, therefore, calls upon the Divisions to take immediate and drastic steps to counteract the evil, and suggests, *inter alia*, that they should call upon the staffs of the various hospitals in South Wales to refuse professional recognition to medical practitioners who accept such appointments, and to decline to attend in general and cottage hospitals members of such associations or schemes except in circumstances of grave emergency.

Action of the Medical Staff of the Swansea Hospital.

We have already on several occasions given accounts of the steps by which the present position has been brought about, and have reproduced the resolution in which the honorary medical staff of the Swansea Hospital defined its attitude and expressed its strenuous determination to do all in its power to maintain the solidarity of the profession in South Wales. The resolution was as follows:

Recognizing that underpaid medical work is equally as bad for the patient as for the doctor, the hon. medical staff have decided that in the event of the establishment of any society or association having for its object the employment of medical men under conditions not approved of by the medical profession, they will under no circumstances meet in consultation or have any professional dealings with any medical man holding office under such society or association in connexion with a patient either privately or at the hospital, and, moreover, they will decline, except in cases of the gravest emergency, to treat in hospital any member of such society: also that the staff adopt the same attitude towards medical men undertaking contract work at terms below those decided upon by the medical profession of any district.

The following letter from the Chairman of the Medical Board brings the story down to the latest date, and should be read in conjunction with the above resolution, the occasion for which it will help to explain:

Sir,

Our profession is at close quarters with a calamity of the gravest kind, and we must face the trouble resolutely and without delay.

In the district immediately around Swansea, as probably in many other places, the working classes are hard at work forming medical aid societies, and every pressure is being put, through their labour organizations and otherwise, to bring all insured persons into the fold.

Medical men are imported into the town or district, they join the panel, they become whole-time servants of these societies, and are paid a fixed salary in addition to being provided with a residence and a fully equipped surgery.

The Local Insurance Committees, controlled as they are by an easy working majority of the labour element, under Section 15, subsection 3 (own arrangements clause), have agreed to hand over to these medical aid societies the annual sum of 9s. reserved under the Insurance Act for medical attendance. These payments are pooled, and the medical man is required to attend not only the insured persons but also their wives and families, and possibly also their dependants.

These are the facts. It seems hardly necessary for me to point out the inevitable sequence unless we take some strong action to prevent such a state of affairs.

The partial control of the profession by the friendly societies in the past was bad enough, but that degradation fades into insignificance compared with what now threatens us. Medical aid societies will be formed in any and every place where there are sufficient insured people, the funds for medical attendance will be handed over to them by the Insurance Committees, and in an incredibly short space of time the members of our profession who seek a living from contract practice will be absolutely under the thumb of the working classes, who will have control of ample funds to enable them to enforce their own terms and to sweat and browbeat the profession in a way we never thought to be possible.

The Vice-Chairman and the Secretary of the Welsh Insurance Commission met our Local Medical Committee a few days ago, and much to the surprise and indignation of the meeting we were told, in particularly plain language, that it will be futile to look to them for redress. The Commissioners would, in fact, not attempt to interfere with the Local Insurance Committee in their methods of disposing of medical funds; we must fight these medical aid societies as best we can without any help from them.

As a member of the staff of the Swansea Hospital I would like to take this opportunity of making it known that we are taking the strongest steps we possibly can to stop this business. We are refusing to have any professional dealings with any medical man who so debases himself and his profession as to work under such conditions as I have indicated, and, further, we are refusing, except in cases of the very gravest emergency, to treat their patients either in the wards or the out-patient departments of the hospital. On behalf of my colleagues on the staff I would like to express the hope that the staff of any other hospital in the country that is faced with similar conditions will take action in some such way as we have done.

At a recent meeting of the Board of Governors of our hospital we were taunted with the fact that the staff of no other hospital in the kingdom had acted as we have done, and that we were not justified in bringing a charitable institution into any fight we might have with the working classes. But we feel that our position on the staff constitutes our best, if not our only, defence, and is too powerful a weapon to neglect. It is surely absurd for us to extend our charity within the walls of the hospital to those who are doing their utmost to ruin our professional brethren outside. No one has a right to demand that our charity should be abused in this way.

It is inconceivable that the Government can be aware of what is going on, but if they intend to allow insurance funds to be handed over direct to combinations of insured persons for them to make what arrangements they choose for medical attendance, then I say they are guilty of downright treachery to our profession, and this must be met by every self-respecting medical man withdrawing from the panel.

In conclusion, it may be pointed out that this question is one that does not concern us alone.

A nation does well to be served in health and sickness by men and women of the highest intellectual and moral type. The practice of medicine has hitherto not called in vain for such recruits, for a fair share of the best men of the age have continually found in medicine an attractive calling which has afforded full scope for their talents, and has provided them with opportunities, such as is given to no other profession, to work for the good of the community.

Any factor which tends to render a medical career less attractive and to produce an inferior type of doctor is assuredly a menace to our national welfare—it is a danger that our politicians and others concerned in public affairs should take into earnest consideration.

R. L. Stevenson says of the physician:

He is the flower of our civilization; he will be thought to have shared as little as any in the defects of the period and most notably exhibited the virtues of the race. Generosity he has such as is possible to those who practise an art, never to those who drive a trade; discretion tested by a hundred secrets; tact tried in a thousand embarrassments; and what are more important, Heraclean cheerfulness and courage. So that he brings air and cheer into the sick room, and often enough, though not so often as he wishes, brings healing.

Is that the type of man who will enter the medical profession and become the slave of a medical aid society?—I am, etc.,

EDGAR REID,
Chairman of the Honorary Medical Staff of the Swansea General and Eye Hospital.

INTERVIEW WITH THE WELSH INSURANCE COMMISSIONERS.

On April 29th Mr. W. J. Greer and Dr. W. E. Thomas, honorary secretaries of the South Wales and Monmouthshire Branch of the British Medical Association; Dr. Cox, Medical Secretary of the Association, and Dr. D. Naunton Morgan, honorary secretary of the South Wales and Monmouthshire Works Surgeons' Association, had an interview with the Welsh Insurance Commissioners, and laid before them the views of the profession with regard to the two Subsections of Section 15 of the Insurance Act above referred to—namely, Subsection 3 and Subsection 4, and an early answer is expected from the Commissioners on the points submitted to them.

LOCAL MEDICAL COMMITTEES.

BUCKS.

AT a meeting of the Bucks Local Medical Committee held at Aylesbury on April 25th, with Dr. BAKER in the chair, it was decided to ask the County Insurance Committee to postpone the allocation of patients who had not yet selected a doctor as long as possible, and to express the opinion that patients might be allotted to medical men in proportion to the numbers already on their lists, subject to agreement between the medical men in the various districts.

A motion in favour of forming an association of Bucks panel practitioners was, after discussion, withdrawn.

The question of the proposals for providing medical attendance for insured persons temporarily resident in another locality was discussed, but postponed for further consideration.

It was resolved to request a Financial Committee consisting of Drs. Baker, Doyne, Henderson, Larking, Rose, and E. O. Turner to submit the financial statement drawn up by the Secretary (Dr. Larking) to a meeting of the whole of the medical men practising in Buckinghamshire which is to be held in Aylesbury this month.

COUNTY OF CHESTER.

A MEEEING of this Committee was held at Crewe on April 12th, when Dr. GARSTANG was in the chair, and fifteen members were present.

Representations to the Insurance Committee.

It was reported that the twenty-three District Committees had been consulted with regard to the conditions which should be insisted upon before agreeing to a further term of panel service beyond the extended period (May 14th). After full consideration the Committee drew up certain recommendations, which were submitted to the Insurance Committee at Crewe on Saturday, April 25th, by the Vice-Chairman of the Medical Committee, Dr. Marsh. The following is a summary of the results of the negotiations:

1. *Capitation Payment for Dispensing by Doctors in Rural Areas.* Agreed.

2. *Simplification of Clerical Work:* loose leaf pocket-book instead of card index cabinet. Agreed and sanctioned by Commissioners.

3. *Old and Infirm Members of Societies.* To be provided with medical benefit if their societies ask for it. As a matter of fact in the great majority of cases the societies are not claiming it, hoping to obtain it cheaper "outside the Act."

4. *Certificates.* The Committee *declines* to press the Commission to urge upon approved societies the adoption of a simple form of certificate which obviates the need for stating the diagnosis.

5. *Mileage.* The claims of mountainous districts are approved, and are being submitted to the Commission.

6. *Holiday Makers and others away from Home.* The Insurance Committee has not dealt with this matter.

7. *Income Limit.* Dr. Marsh advocated a uniform limit of £160, but the Committee *declined* to fix any limit.

8. *Additions to Drug List.* The Committee decided to maintain the additions (already sanctioned by the Commission) which were proposed by the Medical Committee, in spite of the objections of the chemists.

9. *Anaesthetic Fee.* The Committee instructed the Clerk (by a narrow majority on a vote) to write to the Commission urging that the anaesthetic fee should be paid out of a special fund and not by the panel doctor.

10. "*Rep. Mixt.*" The Committee agrees that this may be used within any one quarter.

11. *Duplicate prescriptions* will not be necessary.

[10 and 11 were agreed subject to the assent of the pharmacists, which it is understood was intimated, to the arrangement that the original prescriptions should be filed by the chemists, submitted quarterly to audit by the Insurance Committee, which undertook to return them for preservation by the chemist as required by the Pharmacy Act.]

12. *Allocation of persons who have not chosen a doctor.* As requested by Medical Committee, namely, in equal shares to the nearest doctor or doctors, all the doctors residing in one parish to be regarded as equidistant. District medical committees to finally allot according to doctor's customary rounds; and to have right to vote by a two-thirds majority that a given number be deducted from the share of each doctor in favour of any doctor who may be considered to have suffered hardship by the operation of the Act.

[Allocation is not thought likely to be made for some months to come. About one-tenth of the insured have not yet chosen a doctor. The money for the medical benefit of this one-tenth will be kept in hand by the committee to the end of the year, and it is considered likely to suffice for the claims of other counties and county boroughs in respect of temporary residents coming from Cheshire.]

13. *Quarterly payments* will be made at the rate of 1s. 9d. per name on a doctor's list, plus 6d. extra for rural patients for whom he dispenses. The first payment should be made this week.

[Attention is called to the fact that the deduction which will be made from the capitation fees in respect of persons absent from home will not be apparent until the balance of the annual capitation income in respect of the whole of the insured class comes to be paid at the end of the year.]

The result of the negotiations as set out above will be considered at the approaching meetings of the District Medical Committees, which will be asked to decide whether doctors shall or shall not continue on the panel, or whether they shall endorse their agreements to the effect that they will only attend insured persons with incomes of over £160 if they are required to make their own arrangement under Regulation 49. It is suggested that any doctor who may already have signed his agreement unconditionally and now desires to withdraw it, or to endorse it as above, should write to the Clerk of the Insurance Committee to return the document at once, as the present conditions of service expire on May 14th.

Permanent Organization of the Committee.

The Committee met again in Manchester on April 22nd, sixteen members being present. Dr. MARSH, of Macclesfield, who took the chair in the unavoidable absence of Dr. Garstang, was elected Vice-Chairman. With regard to the expenses of the District Committees, it was arranged that each member of the profession should contribute 2s. 6d. a quarter to the County Committee, and that of this amount 2s. should be paid by the treasurer appointed by the Committee (Dr. Hodgson) into a deposit account for the purpose of accumulating a fund to be available in times of emergency for legal and other expenses incurred in the general interests of the profession in the county. The remaining 6d. it was arranged should be used for current expenses. The meeting approved the following principles embodied in a scheme for the permanent organization of the Committee, drawn up by Dr. Garstang:

1. That each district (there are twenty-three) should contribute one member to the Committee. That the district with the greatest number of doctors resident in the area should have two extra representatives, and that five with the next greatest number should each have one extra (total 30).

2. That the six nominees of the profession on the Insurance Committee should be *ex officio* members.

3. That the Chairman (if not already a member) should be directly elected by the Committee from the profession of the county (grand total 37).

It was further resolved that only doctors resident in the area should be eligible for the District Medical Committee of that area.

Medical Benefit to Temporary Residents.

The memorandums of the Commissioners (SUPPLEMENT, April 19th, p. 334) with reference to medical attendance on insured temporary residents were considered, and the Secretary was instructed to draft a letter to the Commissioners on the subject. The following is the text of the letter:

Saddler's Close,
Holmes Chapel, Cheshire,
April 26th, 1913.

Cheshire County Local Medical Committee.

Sir,

The memoranda of the Commission (159/I.C. and 161/I.C.) referring to the method of payment for medical attendance on persons away from their home area have been considered by this Committee, and, in response to the invitation to Local Medical Committees to state their views in this connexion, which is contained in paragraph 15 of 161/I.C., I am instructed to address the following observations and inquiries to the Commission:

1. The matter which is particularly referred to in paragraph 15 of 161/I.C. as a subject in which Local Medical Committees may be heard is the tariff of charges. My Committee is of opinion that for fractures and dislocations the charges of the Poor Law scale form a better basis of remuneration than those laid down in the tariff proposed by the Commission. It also notes that there is no mention of mileage. Otherwise it would endorse the tariff as a reasonable rate of remuneration.

2. My Committee, however, gathers that the tariff charges are not those which it is actually proposed to pay, but that they are only counters with which to reckon the share each doctor shall receive of the total fund available for temporary residents. It is clear therefore that the element of chance enters largely into the question of the amount of money which the doctor will receive for his services, even though rendered upon an agreed tariff. My Committee regards such a method of payment as unsound.

3. After a careful review of the memoranda, it is not clear to this Committee whether the Commission proposes to pay to the central fund the case value for a whole year of each insured person who makes use of a "green voucher"; or, on the other hand, whether the intention is only to take a moiety of it proportionate to the length of absence from home. As the proposal for Class A only deals with temporary residence of three months or less, such a moiety would never be more than one-quarter of the annual case value.

(*a*) If the intention of the Commission be the former of these alternatives, my Committee would observe that it opens up the possibility of a distribution of money very disproportionate to services. A single attendance upon a convalescent at a health resort would result in a withdrawal from the medical fund of his home area of several times the amount of his whole annual capitation fee, despite the fact that his illness itself had been treated at home.

My Committee fails to see why the whole case value for twelve months should be paid out of the funds of the home area in respect of a patient who is away from home for less than three months, and often only for one or two weeks. Contrasting the case of those away from home for less than one-quarter with that of those who are permanently wandering this anomaly is to be noted; that the former contributes the central fund its case values, or perhaps three times as much as the latter, which only contributes its capitation fees.

To illustrate the Commission's proposal in the light in which it appears to my Committee, allow me to assume that of 30 insured persons 10 will fall ill during the year, one of whom will apply for and use a "green voucher." The gross medical benefit fund in respect of those persons will be (30 × 7s.) = 210s. The case value will be $(\frac{3}{12}ths) = 21s.$ The net medical benefit fund will be (210s. — 21s.) 189s. The net capitation fee will therefore be $(\frac{1}{30}ths) = 6s.\ 3\frac{1}{2}d.$

The dividends of the central fund will be a poor set-off against this deduction of $8\frac{1}{2}d.$ from the capitation fee of 7s. in areas which are not health resorts.

(*b*) But if the Commission only intends to pay to the central fund a fraction of the case value proportionate to the length of the absence of the insured person from his home area the central fund would probably be inadequate even approximately to meet the tariff charges.

4. My Committee is concerned, and especially if the former of these two interpretations be the correct one, with the deductions from the ordinary capitation fee of doctors on the panel which the proposals set forth in the Commissioners' memoranda imply.

It has been understood generally that remuneration of at least 7s. per head was promised by the Government. The "Explanatory Statement as to Medical Benefit" issued in December last by the Commission definitely sanctions that anticipation. "If the object desired is that each practitioner shall know as exactly as possible the income on which he can rely . . . the method to be adopted," it runs, "is obviously that of simple capitation, under which he will know definitely that if he has 1,000 insured persons on his list for the year he will receive . . . at least £325. With the 6d. for treatment of tuberculosis and 6d. from the Drug Suspense Fund (when the cost of drugs does not exceed 1s. 6d. per head) it will be £375." . . . . "The expression 'on his list for the year' obviously cannot mean on his list at any one moment . . . . The payment for each quarter shall be on the average of those on his list on the first day of the quarter and those on his list on the last day of the quarter. Subject to these small adjustments the practitioner . . . may confidently rely upon receiving at least 7s. . . . ."

From the recent memoranda of the Commission the profession may gather that it may no longer "confidently rely" on 7s., but that that sum will be subject to a deduction, uniform throughout each area, greatest in industrial and business neighbourhoods, less when there is less sickness incidence, and with little compensation in the way of fee-paid attendance on visitors, except in health resorts.

The figure of 7s. in the controversy last winter was constantly contrasted favourably with the capitation payments which the profession had hitherto accepted. The latter, however, including that paid by the Post Office, were subject to no deductions for the temporary absence of beneficiaries, but were fixed annual sums.

A payment per head which is subject to an unknown and variable deduction is not a capitation payment as hitherto understood.

My Committee, while recognizing that the Commissioners themselves have endeavoured in their memoranda to meet the difficulties of the problem in a spirit conciliatory to the profession, ventures to think that the promise of a minimum capitation fee of 7s., absorbing the whole sum estimated, is incompatible with the provision of a form of medical benefit which adheres to an insured person during a temporary removal.

It is of opinion that payment by a capitation fee of fixed value, or according to the actual terms of a standard tariff, are the only methods of remuneration to which the profession as a whole can look with any permanent satisfaction; and it recognizes that such a basis of payment can only be realized by amending legislation.

I am, Sir,
Your obedient servant,
(Signed) LIONEL JAS. PICTON,
Honorary Secretary.

The Secretary,
National Health Insurance Commission (England),
Buckingham Gate,
London, S.W.

CONGLETON.

The District Medical Committee for the Congleton area has received statutory recognition and is constituted as follows:

Dr. C. Bennett (Sandbach), *Chairman and Representative on the District Insurance Committee*; Dr. M. J. H. Savers (Alsager), *Honorary Secretary*; Dr. H. Crutchley (Alsager), Dr. J. C. Furness (Kidsgrove), Dr. A. B. Greatrex (Kidsgrove), Dr. H. F. Kingston (Alsager), Dr. G. W. Lloyd (Alsager), Dr. W. A. McDonald (Talk-o'-th'-Hill), Dr. L. J. Picton (Holmes Chapel), Dr. R. Riddell (Sandbach), Dr. J. Steele (Kidsgrove), and G. Jefferson (Talk-o'-th'-Hill).

DENBIGHSHIRE.

A MEETING of the Denbighshire Local Medical Committee was held at Chester on April 23rd to meet Drs. Meredith Richards (Deputy Chairman) and Llewellyn Williams (Medical Officer) of the Welsh Commission.

The CHAIRMAN (Dr. Medwyn Hughes, Ruthin) offered a hearty welcome to Drs. Meredith Richards and Ll. Williams, and spoke of the great advantages to be gained by a direct conference between the medical members of the Welsh Commission and the Local Medical Committee.

Dr. MEREDITH RICHARDS, in addressing the meeting, said that migratory persons came under two classes: (1) Those whose occupation entailed constant travelling, such as actors, contractors, workmen, etc.; (2) those who were away from their permanent residence occasionally, such as seaside visitors, servant girls, etc. The whole of the 9s. available from the first class would be paid into a central fund, and medical attendance would be paid for at tariff rates (see SUPPLEMENT, April 19th, p. 334). For the second class payment would also be given per item of attendance, the funds to come from the localities in which the patients permanently resided. The latter scheme might reduce by a few pence the capitation fee now received of 7s. or 9s. On the question of excess mileage he said that unless the Denbigshire panel practitioners decided to continue the scheme promulgated last quarter of deducting 6d. a head per annum, no extra payments would be received for journeys over three miles, except in the case of a few practitioners who practised in mountainous districts, who would receive a share of the £3,000 allotted to the whole of Wales. As regards certificates, he announced that a simple form, making provision for "going on," "continuing on," and "going off" the sick list would shortly be issued for use in all cases. The question of malingering was, he said, largely a matter for the approved societies, but, if necessary, a medical referee would be appointed. The new drug tariff, he considered, differed very little from the old one, the average prices being the same. The 1d. asked for by the chemist for copying a prescription could be saved by giving prescriptions in duplicate as at present.

In reply to questions, Dr. Richards stated that in the

case of migratory persons staying in hospitals or convalescent homes, where the inmates usually received gratuitous medical attendance, no payments would be given under the Act. If practitioners desired, arrangements could be made with the Insurance Committee to fix uniform hours of attendance at surgery for insured persons. Materials for dressings could be obtained from the chemist on prescription for each case, but the Commissioners would not sanction the supply of dressings in bulk to be kept at the surgery. On being reminded of the injustice to the profession in that it had no directly elected representatives on the County Committee, Dr. Richards stated that this matter would be rectified after July 31st.

Dr. LLEWELLYN WILLIAMS detailed the methods of applying sanatorium benefits and the domiciliary treatment of tuberculosis in conjunction with the Consulting Medical Officer of the Welsh National Memorial Association.

The meeting accorded a hearty vote of thanks to Drs. Meredith Richards and Ll. Williams for their attendance and addresses, and the courteous manner in which they had replied to the numerous questions asked of them.

This was suitably acknowledged by these gentlemen.

Complaints having been received from the Pharmaceutical Committee with regard to excessive prescribing, it was resolved to appoint a subcommittee of three to investigate these complaints.

Owing to the lateness of the hour, the appointment of the medical members of the Subservice Committee was again deferred.

WEST SUFFOLK.

THE fourth meeting of the West Suffolk Local Medical Committee was held at Bury St. Edmunds on April 22nd.

Temporary Residents.—Memo. 159/I.C. was discussed, and the Committee concluded that no better solution of the problem could be found at present.

Proposed Rules for Insured Persons in Receipt of Medical Benefit.—The CHAIRMAN and SECRETARY submitted the following rules for consideration:

An insured person in receipt of medical benefit shall comply with the following rules:

(*a*) He shall obey the instructions of the practitioner attending him.

(*b*) He shall not conduct himself in a manner which is likely to retard his recovery.

(*c*) He shall not make unreasonable demands upon the professional services of the practitioner attending him.

(*d*) He shall, whenever his condition permits, attend at the surgery or place of residence of the practitioner attending him on such days and at such hours as may be appointed by the practitioner.

(*e*) He shall not summon the practitioner to visit him between the hours of 8 p.m. and 8 a.m. except in cases of serious emergency.

(*f*) He shall, when his condition requires a home visit, give notice to the practitioner, if the circumstances of the case permit, before 10 a.m. on the day on which the visit is required.

(*g*) He shall not take a railway journey or sleep away from home without the consent of the practitioner attending him.

(*h*) He shall not summon the practitioner to visit him on a Sunday except in cases of urgency.

These rules were approved, and the Secretary was instructed to forward them to the Clerk to the Insurance Committee for consideration by the Medical Benefit Subcommittee. The Clerk to the Insurance Committee then reported to the meeting the replies to the recommendations put forward at the joint meeting held on April 15th as follows:

Recommendation: (1) *Records.*—Commissioners can not allow the adoption of any alternative to the card index at present. Suggestions may be considered later if experience shows any widespread desire for change.

(2) *Anæsthetics.*—Recommendation refused.

(3) *Income Limit.*—No decision yet.

(4) *Certificates.*—Approved by Medical Benefit Subcommittee, but the Committee states that it cannot interfere with friendly societies' rules.

(5) *Rules: accepted*; (6) *Night Calls*, (7) *Miscarriages*, (8) *Deputies*, (9) *Representation.*—Refused by the Commissioners.

(10) *Dressings.*—Withdrawn at joint meeting of Medical Special and Pharmaceutical Committees.

(11) *Medical Referees.*—Medical Benefit Subcommittee considered it not at present expedient to appoint one.

Dispensing in Rural Areas.—Medical Benefit Subcommittee agreed to the capitation payment of 9s. per annum to practitioners who dispense.

Pharmacopœia.—A Subcommittee was appointed to prepare a pharmacopœia for use in the area.

WEST RIDING OF YORKSHIRE.

THE seventh meeting of the Local Medical Committee for the West Riding of Yorkshire was held on April 11th; Dr. MAY occupied the chair, and twenty representatives were present.

Mileage.—It was reported that the Medical Benefit Subcommittee had approved the recommendation that mileage should be paid on the capitation system.

Rules for Administration of Medical Benefit.—It was resolved to ask that the rules for the administration of medical benefit should be supplied not only to doctors, but also to insured persons where desired.

Conference with Chemists.—It was reported that a conference between representatives of the Insurance Committee, the West Riding County Pharmacists' Association, and the Local Medical Committee had been held and agreements arrived at on the points considered. Drs. Eames, Fry, and Gabriel were appointed a subcommittee to draw up a pharmacopœia.

Income Limit.—After discussion, the following resolutions were carried unanimously and directed to be sent to the Insurance Committee:

That all insured persons whose incomes reach £160 per annum should be regarded as outside the receipt of medical benefit.

That the onus of reporting those insured persons whose incomes reach £160 should be removed from the medical attendant.

District Insurance Committees.—The scheme for the appointment of District Insurance Committees, together with a letter from the Clerk to the Insurance Committee requesting that the appointment of medical members should be made through the Local Medical Committee, was received, and it was agreed:

That each Representative shall call the doctors together in his own district as soon as possible to make the required nominations, which are to be forwarded to the Honorary Secretary.

HAMPSTEAD.

A MEETING of the Hampstead Provisional Medical Committee was held on April 23rd. Dr. FORD ANDERSON was in the chair, and seven members were present.

A letter was read from the Secretary to the Insurance Commissioners, England, stating that the scheme for the formation of a District Insurance Committee for the borough of Hampstead had not yet been sanctioned. A communication from the Medical Secretary of the British Medical Association with reference to charges by chemists for copying prescriptions was read, and the Honorary Secretary instructed to ask for more definite information as to the nature and source of the imposition.

EDINBURGH.

AT a meeting of the medical practitioners resident in the Edinburgh area, on April 23rd, the Statutory Local Medical Committee for the purposes of the National Insurance Act was elected as follows:

Dr. D. M'F. Barker	Dr. A. A. Matheson
Dr. L. F. Bianchi	Dr. R. M. Matheson
Dr. J. M. Bowie	Dr. W. Morrison Milne
Dr. Wilson Buchanan	Dr. J. Murray
Dr. J. Aitken Clark	Dr. John Orr
Dr. John Craig	Sir R. W. Philip
Dr. W. J. Crow	Dr. R. Robertson
Dr. J. M. Darling	Dr. R. M'D. Robertson
Dr. M. Dewar	Miss E. Selkirk
Dr. T. Finlay	Dr. J. W. Senter
Dr. F. W. N. Haultain	Dr. J. A. Shoolbread
Dr. R. J. Johnston	Dr. A. T. Sloan
Dr. Angus Macdonald	Dr. R. Thin
Dr. A. M. M'Intosh	Dr. A. Veitch
Dr. J. M'Laren	Dr. Norman Walker
Dr. R. M'Laren	Dr. Chalmers Watson
Dr. M. M'Larty	Dr. A. Wilson
Dr. W. L. Martin	Dr. James Wilson

MEETINGS OF INSURANCE COMMITTEES.

LONDON.

Extension of Medical Ticket.

AT the meeting of the London Insurance Committee on April 24th the Medical Benefit Subcommittee recommended the extension of the medical ticket until July 14th, in order that the medical register might be completed and insured persons given a further opportunity of selecting their doctors.

Mr. Rockliffe desired to move that doctors with more than 2,000 patients on their lists should be required not to accept any more, but was ruled out of order by the Chairman, who said that the question was too important to be discussed as a matter of urgency. Mr. Rockliffe then moved the adjournment, and in the course of his remarks said that a circular recently issued purported to show that no fewer than eighty doctors had over 2,000 patients, a score had over 3,000, and some had over 4,000, 5,000, and even 6,000 patients. He added that 400,000 persons in London, or nearly one-third of the total, had not yet selected their doctors, and it would be monstrous to allow practitioners with an excessive list to go on accepting additional patients. The motion was lost by a narrow majority.

[At a meeting of the Medical Benefit Subcommittee, on April 30th, a return showing the number of insured persons on the lists of eighty doctors was considered, and the subcommittee made certain recommendations, but it was pointed out that the three doctors on the panel with over 5,000 patients each had partners who shared in the work. The statement made by Mr. Dawes, Chairman of the Committee, in the House of Commons on the same day, is noted elsewhere.]

Acceptance of a Limited Number of Patients.

The subcommittee also reported that it had had under consideration representations from medical men who expressed willingness to join the panel if they were permitted to limit the total number of persons whose treatment they were expected to undertake. It appeared that the extent of the private practices of a number of medical men was a bar to their unconditional consent to join the panel. In this connexion the subcommittee quoted an answer given in the House of Commons on February 14th by the Financial Secretary to the Treasury, to the effect that if an Insurance Committee allowed doctors to accept a limited number of lives these must be an "average sample" of lives, and the approval of other doctors on the panel must be obtained. The subcommittee understood that the suggested limitation would enable a large number of medical practitioners to join the panel. The Insurance Commissioners had stated that there would be no necessity to include names of medical practitioners in the lists of doctors supplied for use in each metropolitan borough, provided that their names were included in the alphabetical list for the whole county, and that this list was publicly exhibited. The medical practitioners on the panel had already agreed to a proposal to allow a doctor to limit the number of insured persons accepted by him.

The subcommittee recommended that doctors should be permitted to join the panel for the purpose of treating a limited number of persons, and this was approved.

A Complaint.

At the meeting of the Committee, on April 3rd, the Medical Service Subcommittee reported that a complaint had been made of a medical practitioner on the panel that when asked to attend a patient he said he wanted "live men, not dying ones." The doctor denied absolutely the whole of the circumstances, but the subcommittee, after careful inquiry, reported that it was satisfied the statements made by the complainant were correct. A recommendation that a copy of the report be forwarded to the practitioner was referred back to the subcommittee on the ground that more stringent action should be taken.

The matter again came before the Committee on April 24th, when Mr. R. C. K. Ensor said that under the Regulations the Committee had no middle course between the extreme measure of reporting to the Commissioners with a view to removal of the doctor from the panel and doing nothing.

Mr. E. B. Turner asked if it was not possible for the Committee to do something more definite than pass a vote of censure. It was very necessary that it should have some method of marking its view of such conduct.

Mr. O. E. Warburg, the Chairman of the Subcommittee, remarked that the punishment in this case was not contained in the fact that a transference of the patient to another medical man was proposed. That was merely incidental; the subcommittee felt that in conveying to the doctor on the authority of the Insurance Committee that, after hearing his evidence in full, the Committee had come to the conclusion he was not speaking the truth, a penalty of some severity was being inflicted. This expression of opinion would be on record, and it was tantamount to a reprimand.

The Committee approved of the action taken by the subcommittee.

Selkirkshire.

The practitioners' representatives on the Insurance Committee for Selkirkshire are Dr. Muir of Selkirk and Dr. Tyrrell of Galashiels. These two gentlemen are respectively Chairman and Secretary of the Local Medical Committee. The Commissioners' representative is Dr. Henderson, Galashiels, and the County Council Representative is Dr. Wilson, Selkirk.

REPORTS OF LOCAL ACTION.

MANCHESTER AND DISTRICT.

The Lancashire County Insurance Area.

The practitioners of Area No. 22 of the Lancashire County Insurance Committee, which comprises many of the districts immediately outside Manchester and Salford on the west, have apparently come to the conclusion that the system of payment by attendance which was in force for the first three months' trial is not, on the whole, satisfactory. The system adopted in January was in most respects similar to that adopted in Manchester and Salford, the quarter's income for medical benefit being pooled and payment by attendance being made out of the pool, as far as it went, according to an agreed scale of fees. The Manchester and Salford practitioners have decided to continue this system until July, as it was thought that it had hardly had a fair trial in the first three months, which are always the busiest in the year. The county practitioners, on the other hand, seem to have made up their minds that, on the whole, the system of payment by attendance lends itself to certain abuses, especially the risk of over-attendance, which are absent from the capitation system, and it has accordingly been decided to adopt the capitation system. Probably the labour involved in checking all the separate bills of each doctor has had something to do with this decision. It was felt, too, that, even at its best, the system of payment by attendance from a pool places every doctor to some extent at the mercy of any particular doctor whose custom may be to attend patients more frequently than the average, and to have to cut down any doctors' bills showing attendances above the average, before allowing them to rank for the division of the pool, was felt to be a most invidious task which, however carefully performed, would be certain to cause dissatisfaction in some quarters. In spite, however, of these disadvantages there still remain a considerable number of practitioners who would prefer to have continued the system of payment by attendance as approximating more nearly to private practice than the capitation system, and it is possible that the reduction in the number of practitioners on the new panel may partly be due to this cause. On the panel issued in February 168 names appeared, but in the April list just issued there are only 134 names. Three or four names appear for the first time, leaving between thirty and forty who have refused, or possibly in some cases neglected, to give in their names for the new list under the capitation system. On looking over those who have dropped off the panel a considerable number are seen to be practitioners not residing in the county area, but in Manchester or Salford or other areas, in some cases residing several miles away from the nearest part of the area in question. These probably joined the county panel in January in the hope of retaining individual patients whom they had previously attended privately, while others, perhaps, joined on the bare chance of obtaining county patients. But there still remain a number of practitioners actually residing in the county area who have deliberately refused to continue on the panel from dissatisfaction on various grounds with the insurance system. In order as far as possible to lessen the number of unnecessary calls on the doctors and calls out of hours, the Lancashire Insurance Committee has just distributed a large number of circulars giving the rules for the conduct of persons in receipt of benefit, and drawing attention to the penalties

that may be inflicted for breach of the rules. It may be noted that the Salford Division of the British Medical Association comprises not only the borough of Salford, but a large part of the county area, so that many of the Salford practitioners are now under two systems—payment by attendance in the borough, and capitation system for any patients residing outside the borough in the county area. The same applies to a less degree to some of the Manchester Divisions.

IRELAND.

The Certification Grant.

As showing the inadequacy of the grant of £50,000 for medical certification in Ireland, the figures for King's County may be taken. It was estimated that about £600 would be available, to be divided among about twenty doctors, giving each of them £30 a year. One of the smaller dispensary districts is some 70 square miles in extent, and another is as much as 144 square miles. It can at once be seen that £30 would not go far towards paying the travelling expenses involved in signing certificates for patients in such scattered districts, without taking into consideration the time and trouble expended. It is not much wonder that the doctors of the county refused to form a panel. These figures are more or less typical of many country districts in Ireland—in fact, in many counties the areas are much larger and the population scantier, so that the amount of money available for each medical man would probably be less. £50,000, of course, looks large as a lump sum, and it has been skilfully and seductively dangled before the eyes of the notoriously overworked and underpaid Poor Law medical officers of Ireland, but at their meeting in Dublin, on April 21st, they showed that they had not allowed themselves to be dazzled by the magnitude of the sum, and definitely refused this dole from the £120,000 which is said to be Ireland's proper due.

Dublin.

At the last weekly meeting of the Insurance Committee for the County Borough of Dublin a Subcommittee of Inspection was appointed to visit sanatoriums and report upon patients sent by the Committee and the conditions of treatment generally. The following resolution was passed:

> That the Insurance Commission be requested to allocate to this Committee the amount available for purposes of medical certification in the County Borough of Dublin, in order that the Committee may be in a position to negotiate with the medical profession in that area for the formation of a panel of doctors on terms to be arranged, subject to the approval of the Commission.

Clogheen Guardians and Outside Doctors.

The Clogheen Board of Guardians have passed a resolution strongly disapproving of outside doctors being employed by the Insurance Commissioners to certify in the cases of insured persons treated under the Medical Charities Act, adding:

> We believe such a proposal to be objectionable for the reason that it will mean two sets of doctors in antagonism visiting the patients, and in this way cause much disagreeableness to the sick, and possibly retard their recovery. We are also of opinion that since there is about £120,000 of a proportionate grant due to Ireland, owing to the additional grant made to England for medical benefits, the just demands of the Irish Poor Law medical officers should be conceded.

SCOTLAND.

The Medical Ticket.

THE Scottish Insurance Commissioners have received a number of representations that it is desirable that a medical ticket or other voucher should be in the hands of insured persons as an aid to identification. It has been pointed out that in many cases insured persons are not yet personally known to practitioners on whose list they will be placed, and that at certain times many insured persons will not be in possession of either a contribution card or an insurance ticket. In order to save the expense and trouble which would be caused to approved societies and insurance committees if a new medical ticket or voucher were to be issued to insured persons on the expiry of the existing medical ticket on April 30th, the Commissioners have proposed to continue the currency of the red medical ticket for the remainder of the present year—that is to say, until January 14th, 1914. The question of a more permanent medical voucher and the method of supplying it to insured persons is under consideration.

Medical Grant to the Highlands and Islands.

The Secretary to the Treasury, at an interview with the members of Parliament for the Highland constituencies, announced that the Government had decided to give effect to the recommendations of Sir John Dewar's Committee on the Medical Condition of the Highlands and Islands. The announcement had been delayed owing to the difficulty of deciding whether the administration of the scheme should be entrusted to the Scottish Local Government Board, the Scottish Insurance Commissioners, or to a specially created body, as the Dewar Committee proposed. The last course has now been adopted. The new body will consist of representatives of the Local Government Board, the Scottish Education Department, the Board of Lunacy, and the Insurance Commissioners, with a chairman nominated by the Secretary for Scotland. The intention is to introduce a bill at an early date, and after its second reading to refer it to the Scottish Grand Committee.

The fact that the Government has adopted the proposals of the Committee may be taken as an indication that it is prepared to find the money declared to be necessary to carry out the scheme—£40,000 a year. It was at first thought that the money would enable the scheme to be started without legislation, but Mr. Masterman's announcement disposes of this idea.

Representatives of Insured Persons on Insurance Committees.

It has been felt, at least by medical men who serve on Insurance Committees, that the insured person has not been fully represented. The approved societies have been represented chiefly by paid officials, as, for example, by district superintendents of the different insurance societies in an insurance area. The Commissioners have issued regulations as to the manner of the appointment of representatives of insured persons on Insurance Committees, which will require careful study by the clerks of the different Insurance Committees, as the machinery seems rather cumbersome. Regulation 5 provides that the "Clerk shall ascertain the total number of insured persons resident within the area of the Committee," and then fix an "electoral unit," by dividing the total number of insured persons by the total number of representatives on the Committee to be appointed to represent insured persons; the resulting figure is to be the "electoral unit" for insured persons for that area. For electoral purposes all approved societies are divided into two classes. All approved societies having resident within the area of the Committee, as disclosed by the index slips, a number of members less than the figure representing the electoral unit will be classified by the clerk as B societies, and all approved societies having resident a number of members equal to a greater figure than that representing the electoral unit will be classified as A societies. From these electoral units delegates are to be appointed who meet with the clerk as returning officer; and the delegate in attendance from that B society having the largest number of members resident in the area, as shown by the return, will be called by the clerk to the chair, and will call on the delegates to nominate and elect the required number of representatives on the Committee. Election will be by the vote of the delegates in attendance, and each delegate will have a number of votes equal to the required number of representatives on the Committee. The election of representatives of A societies is to be made by the clerk sending a notice to each A society asking that a representative be appointed on the Committee.

INSURANCE ACT IN PARLIAMENT.

PAYMENTS TO MEDICAL AID ASSOCIATIONS.

CAPTAIN KNIGHT asked the Secretary to the Treasury whether there was any obligation on county committees to make payments, in advance or otherwise, to medical aid associations, approved under the Act, on account of members of approved societies who desired to take their medical benefit through such associations; and, if so, whether such payments ought to be made on the same

dates as those made to panel doctors?—Mr. Masterman said that an Insurance Committee might contribute towards the expenses of the treatment furnished by any approved institution to insured persons who were members of the institution. Before making any contribution towards the expenses of the treatment furnished by any approved institution the Insurance Committee would have to satisfy itself as to the cost of the treatment furnished by the institution, by inspection of the audited accounts or such other evidence as might be considered necessary. Subject to this and to a guarantee that the rules of the institution complied with the Medical Regulations and the conditions of the Parliamentary grant, it would be open to the Insurance Committee to make payments on account of the sum to be ultimately contributed to the institution on any date that might be convenient.

Leicestershire Insurance Committee.

In reply to Mr. Cautley, who inquired as to the conditions under which medical benefit was given in the parishes of Woodhouse Eaves and Woodhouse, in Leicestershire, and as to the importation of a doctor from outside (Dr. Cullen), whilst, as stated in the question, about 200 insured persons had had their cards signed by a former medical officer and desired to be attended by him, Mr. Masterman said that as the Leicestershire Insurance Committee were unable to secure an adequate medical service in the parishes referred to they were authorized by the Commissioners, under the proviso to Section 15 (2) of the Act, to dispense with the panel system and to make a special arrangement whereby Dr. Cullen undertook to attend and treat all the insured persons in those parishes on condition that he was given the exclusive right of practising amongst the insured persons in that area for a period of three years from January 15th last. Dr. Cullen had the right possessed by every other duly-qualified medical practitioner of being included on a panel where the panel system existed. The Committee stated that the other doctor referred to in the question did not sign the medical tickets (with the exception of fifteen) until after the panel system in Woodhouse and Woodhouse Eaves had been dispensed with.

In further reply to Mr. Worthington Evans, Mr. Masterman said, so far as he understood, the reason for the action of the Leicestershire Insurance Committee was that otherwise it was unable to provide medical benefit for insured persons in that area.

Choice of Doctor.

Viscount Valentia asked the Chancellor of the Exchequer whether he was aware that much indignation was felt by a considerable number of railway employees resident in Oxford who were unable to avail themselves, under the provisions of the Insurance Act and Regulations, of the services of a doctor who had for years attended them, and who, though willing to go upon the panel in respect of these patients and having obtained the consent of the Insurance Committee to do so, was precluded by the intervention of the panel doctors. Mr. Masterman said that acceptance of a limited number of insured persons by a doctor on the panel was only possible where attendance by doctors on the panel was assured for all insured persons in the area, and therefore could only be granted by an Insurance Committee with the consent of the doctors on the panel. The responsibility for treatment of the insured persons must be collective, and no one doctor could be allowed to select good lives amongst insured persons with the same remuneration per head as those who accepted a general average. In further reply to Mr. Worthington Evans, who inquired as to whether in this case there could be any question of choosing good lives, and whether Mr. Masterman would not make some effort to give the insured persons in question the doctor they wish to employ, Mr. Masterman said that the Insurance Committee must have the consent of the doctors on the panel before they could allow contracting out.

Mr. John Taylor asked the Secretary to the Treasury whether he was aware that a certain number of insured persons connected with lodges of the Durham Miners' Association were desirous of changing their doctor; that, when they signed for their present doctors, it was on the understanding that it held good for three months only; and that objection was now taken by the Insurance Commissioners to the transfer on the ground that the present arrangements held good for twelve months; and whether he would inquire into the matter with a view to the initial understanding being adhered to and the men being allowed to make the change of doctor desired.—Mr. Masterman replied that the matter was being investigated. In general insured persons might change their doctors within the year either by consent of doctor and patient or by consent of the Insurance Committee on complaint of the medical treatment received.

Duties of Medical Men on the List.

In reply to Mr. Newdegate—who inquired whether panel doctors were not required by the Insurance Act to pay a visit to a patient at his or her own house, however ill that patient might be, during any twenty-four hours, if not requested to do so before 10 a.m.; and whether this regulation had been made owing to the immense load of work placed in many cases on panel doctors—Mr. Masterman said that the rule required the insured person to give notice to the doctor before some time, fixed by the Committee, in the morning of the day on which the visit was required, if, but only if, the circumstances of the case permitted. The rule therefore obviously did not apply to a case of urgency. In further reply, Mr. Masterman said that the conditions would be the same as prevail now and as had prevailed heretofore in ordinary private practice.

Herbalists and Christian Scientists.

In reply to Sir J. D. Rees, Mr. Masterman said that he had no information that any Insurance Committee had allowed any insured persons to make their own arrangements with herbalists or Christian Scientists. In reply to another question by Mr. F. Hall, Mr. Masterman said that, as he had explained on many previous occasions, only qualified medical practitioners registered under the Medical Acts were entitled to be included on a panel list.

Insured Persons in Hospital.

Mr. Worthington Evans asked whether, in the case of an insured person without dependants having to pay 5s. a week for her maintenance in a hospital during a time when she was otherwise qualified for sick benefit, the fact that she was in a hospital prevented her society paying her sick benefit, although the society had made no arrangement for any payment to the hospital.—Mr. Masterman replied that under Section 12 of the Act, the sickness benefit was not payable directly to the insured person in the circumstances referred to, but the sum which would ordinarily have been payable might be applied by the society in the provision of surgical appliances or otherwise for the benefit of the insured person.

Irish Labourers and Medical Benefit.

In reply to Major M'Calmont as to how Irish labourers coming to England, and paying the increased contributions which would make them entitled to medical benefit, could obtain that benefit, Mr. Masterman said that such a labourer should apply to the clerk of the Insurance Committee of the area to which he went, who would give him the necessary instructions; that he could always obtain the information as to whom application should be made from his approved society, and that generally he (Mr. Masterman) thought that an application addressed to the municipal offices of the borough or county to which he had moved would secure it for him. Mr. Masterman added that such a worker would have to make a contribution of an extra amount, as he would not previously have been paying for medical benefit in Ireland.

Value of Medical Practices.

Mr. Chiozza Money asked the Secretary to the Treasury if he had observed that advertisements were now appearing pointing out the enhanced value of medical practices through the operation of the Insurance Act; and if he had been able to form any estimate of the total increase in the actual value of medical practices owing to the Act. Mr. Masterman said that his attention had been called to such advertisements, but he had no means of providing any estimate of the total increase in the value of medical practices.

Sanatorium Benefit.

Mr. O'Grady asked the Secretary to the Treasury whether he had received a statement from the Leeds Insurance Committee showing that the estimated income

for sanatorium benefits is £9,893 15s.; and that on the year's working, if the provisions of the Insurance Act are to be fully carried out, the amount required will be £37,836 17s. 6d., showing a deficiency of £27,943 2s. 6d.; if so, what steps, if any, the Treasury intend taking to meet this case.—Mr. Masterman replied that the figures in the estimates of the Committee were being carefully considered, and he hoped that a conference would shortly take place, after which it would be easier to see what steps, if any, were needed to supplement the present provision for sanatorium benefits. He thought the estimates were excessive, as they were based on the assumptions that all applicants required institutional treatment, that all applicants admitted to the institutions required to stay there through the whole of a year, and that the number of beds required in this area would be about seven times the number required on the basis of the recommendations of the Astor report. Mr. Masterman has informed Mr. Cooper that a return supplementing that of February 12th of the number of insured persons suffering from tuberculosis who had applied for and were receiving treatment would be issued in the course of a few weeks.

Amendment of the Act.

In reply to Sir J. D. Rees, who inquired whether the Amending Bill would provide for free contracting out, for real choice of medical attendant, and for exclusion of married women outworkers, Mr. Masterman said that the first and third proposals of the hon. member were open to the gravest objections; the second was already provided for in the present Act.

In reply to Lord Henry Cavendish-Bentinck, who inquired as to whether any amendment could not be introduced into the Insurance Act with a view to preventing the exploitation of juvenile labour, that is, of children between 14 and 16 in various confectionery, fruit-preserving, pickle making, tea packing, and other trades in the East End of London, Mr. Masterman said he thought it was a matter which might be dealt with by other legislation, but he did not think it could be met by an amendment of the Insurance Act.

Debate on the Administration of the Insurance Act.

On Wednesday, April 30th, a debate took place on the administration of the National Insurance Act. Colonel Chaloner, who had been successful in the ballot for motions which private members are entitled to bring on on Wednesday evenings, selecting their own subject, moved a general resolution to the effect that the administration of the National Insurance Act should be brought into harmony with the speeches of the Chancellor of the Exchequer before and during the passage of the Act. The Government whip issued indicated that it was regarded as tantamount to a vote of censure, and as a result there was a large attendance on the ministerial side.

Colonel Chaloner, in introducing his motion, complained for the most part of the position taken up by Insurance Committees in disallowing contracting out and thereby restricting the free choice of doctor to those whose names were on the medical list.

Mr. G. Locker-Lampson seconded the motion. He dealt first with the reserve funds of the friendly societies, but his speech was mainly directed to a criticism of the administration of medical and sanatorium benefits. He complained that the provision of laboratory aids for diagnosis was not regarded as a part of medical benefit, and instanced further cases of insured persons being refused contracting out of the lines suggested by Colonel Chaloner. He suggested that the disallowance of contracting out had resulted in a number of doctors on the panel having a much larger number of persons on their lists than they were able properly to attend, and he quoted three cases in the London district which, he thought, supported his contention.

Mr. Dawes, the Chairman of the London Insurance Committee, deprecated the use in debate of the names of individual men of high qualifications and of a private and confidential document. He showed that in the three cases quoted by Mr. Locker-Lampson he had either been misinformed or was under a wrong impression. Dr. Salter of Bermondsey, who had 6,017 insured persons on his list, had four partners, all of whom were on the panel, and all of whom by arrangements had no insured persons in their own names, but their names were good with Dr. Salter as one firm. The second case quoted—that of Dr. Young—was similar, for Dr. Young and his four partners had 6,929 insured persons on their list. The third case—that of Dr. Madden, with 5,560 insured persons—was also similar; he had one partner. The average per doctor, therefore, in the case of Dr. Salter and his partners was about 1,200 each. In the case of Dr. Young 1,400 each, in the case of Dr. Madden 2,780 each. With regard to the allegation that a large number of complaints had been lodged, and demands made to be allowed to contract out, he said that in London there were 1,430,000 insured persons, but up to the present only 19 complaints and 2,900 applications to be allowed to make their own arrangements had been received; of these 293 had been granted. The Committee was willing to grant exceptions to persons whose occupation rendered it impossible for them to secure the services of a particular doctor, to those who desired a special form of treatment, to those suffering from special ailments (including all cases of tuberculosis and heart disease), and to women who desired a woman doctor where there were none on the panel within a reasonable distance; the Committee was very willing that medical officers of hospitals and general practitioners should come on the list for a limited number of insured persons so long as there was no selection between good and bad lives. He said that of the nineteen complaints in London the actual number against doctors was only 8; several of the complaints related to certificates and such like matters. There were now 1,250 qualified medical practitioners on the London panel, and the number was increasing every day; the Committee was only too anxious to deal with every real complaint, and was receiving considerable assistance in making the Act acceptable from gentlemen who had been prominently associated with the British Medical Association. As to the complaint of the inefficiency of the sanatorium treatment, he described the difficulties in obtaining beds, and said that at the present moment 1,425 people for whom the London Committee was responsible were undergoing treatment for tuberculosis: 557 were in sanatoriums, 113 in the hospitals, and 267 at dispensaries: 24 were attending hospitals as outpatients, and 464 were receiving domiciliary treatment.

Mr. Arnold Ward, in continuing the debate, criticized the restriction of the free choice of doctor, and asked for the facts as to the grant on capital expenditure for sanatoriums.

Mr. J. Thomas (Derby), an officer of the Amalgamated Society of Railway servants, generally expressed his satisfaction with the experience so far, and said that the difficulties were less than they anticipated. He, however, seriously complained as to the expenses of administration, and suggested that great economies could be effected by the issue of six-monthly cards instead of quarterly cards, and that some arrangement should be made for paying the expenses of members who attended the work of Insurance Committees.

Mr. Masterman, in reply, expressed his readiness to consider the question of a six-monthly card in connexion with the forthcoming amending Act, and said that the Government was desirous of removing any real difficulties that could be dealt with in an amending Act. The places where people had been deprived of free choice of doctor owing to the suspension of the panel system were few and small, containing in all 27,000 insured persons out of 14,000,000 insured persons. The numbers of doctors on the panels on April 14th was 18,584, which he thought was between 80 and 90 per cent. of the doctors engaged in industrial practice. In fifty-eight Insurance Committees out of ninety-eight, over 80 per cent. of the practitioners were on the panel. In a large number of big towns and counties, in consequence of medical men outside the area putting their names on the panel, more than 100 per cent. of the doctors resident in the area were on the panel. He described the difficulty of dogmatizing as to the number which any given medical man could with proper organization deal with, and instanced the case of Swindon, where the average number of persons for each doctor was over 5,000. He contended that in the poorer districts of the cities there had not hitherto been a sufficient staff of medical men. Over 99½ per cent. of the insured population had complete free choice of doctor in consequence of

the large proportion of medical men who were on the panels. He paid a compliment to the work of the Insurance Commissioners, and expressed the anxiety of the Government to deal with real difficulties. He hoped the controversial spirit on this subject might be abandoned; the Government would be glad to receive the co-operation of the Opposition.

Mr. H. W. Forster, who concluded the debate for the Opposition, agreed with Mr. Masterman in his compliment to the Commissioners, and expressed his desire to co-operate in making the administration acceptable and successful. He complained that the Insurance Committees had taken the line they had with respect to contracting out largely in consequence of pressure from the Chancellor of the Exchequer, and maintained that an attempt had not been made in a sufficiently liberal spirit to give effect to the Chancellor's undertakings. He brought forward the case of the Scottish Clerks' Society, and outlined their scheme for providing medical benefit for their members, which was likely to be destroyed by the action of the Commissioners, and, without asking for a reply at that stage, invited the Government to give consideration to the case he put before it. (The Chancellor was understood to assent to this.) He said that notwithstanding the rosy picture presented by Mr. Masterman, there were serious and well-grounded dissatisfaction in many parts of the country as to the conditions under which medical benefit was being administered, and it was making the Act seriously unpopular. The motion had been brought forward in the hope that good would result to the insured people and that the benefits would be improved.

On a division the motion was rejected by 270 to 77.

CORRESPONDENCE.

Future Action.

Dr. E. H. Worth (Streatham) writes: The idea of Dr. Larkham that the non-panel men all over the country should form a combination is an excellent one.

May I suggest that we should all join the National Medical Guild? This is really the old London Medical Committee, which is the only body that helped the London men to stick to their pledge. I freely grant that the name of "trade union" is an unpleasant one, but when we have to deal with men like Mr. Lloyd George, who refused to take the advice of the profession, a trade union is about the only society that can hold its own with them.

We have to fight the good fight with all our might, counting financial loss as next to nothing so long as the honour and dignity of the profession of medicine is upheld.

The worst feature of this Act, to my mind, is the driving away of poor people who have looked upon their doctor as a friend for a number of years.

I trust there is a time of reckoning coming both for the politicians and also for the late members of the Council who have caused their weaker brethren to fall.

Medical Benefit to Temporary Residents.

Dr. W. G. Bennett (Worcester) writes: It is strong evidence of the state of lethargy into which our profession appears to have fallen that the latest memorandum of the Insurance Commissioners relative to the treatment of temporary residents has been received in almost absolute silence. With the exception of a letter from Dr. Pridmore, of the Isle of Wight, and some meagre notices in the Journal, we apparently think that the matter is too trivial for notice.

Do you, Sir, and the profession generally realize that this is far and away the most important matter which has arisen since the Insurance Bill became law, as far as our interests are concerned? It is nothing less than an attempt to cut down our capitation fees of 7s. by an indefinite amount, which we are wholly unable to check. We do not now know whether we shall receive 5s. 6d. or 6s. or what per head.

The scale of fees which are suggested seem reasonable as such (although nearly double that which I receive per attendance on insured persons), but they should be paid out of a separate fund, not out of the pockets of other practitioners.

We must resist the latest attempt to popularize the Insurance Act at our expense. If people can afford to go to the seaside for holidays they can pay for their own medical attendance, as heretofore.

If our committee are firm we ought to win on this particular point, as the proposed action would constitute a violation of contract and be apparently illegal.

Dr. T. Cuming Askin (Woodbridge, Suffolk) writes: I opened my Journal this morning hastily, anxiously, expecting to find some definite action had been taken in connexion with Memorandum 161/I.C., which was merely printed in last week's Supplement without any comment.

Apart from Dr. Pridmore's excellent letter, this supremely important matter is practically not mentioned this week. What is the State Sickness Insurance Committee doing?

Is the Association absolutely helpless? Is this vital matter not worth even a leading article? The apparent apathy and indifference of the profession is appalling, and the attitude of the so-called leaders of the profession is and has been positively wicked. They seem quite unconcerned, and yet this Act will kill scientific medicine if not amended. As far as general practice is concerned, it will be a case of one huge, hateful club.

Dr. J. Cuthbertson Walker (Rochdale) writes: Most members of the profession will heartily agree with the remarks made by Dr. Pridmore in your issue of April 26th. The novel proposals of the Commissioners for dealing with the question of the medical treatment of temporary residents constitute the first nibble of the Government at our inadequate capitation fee. One cannot help wondering whether the next bite will be for the support of medical referees.

In the first place, the assumption contained in Memo. 161/I.C., that temporary residents in any locality are provided for in respect of medical attendance by the Revised Regulations, is entirely unwarranted. Regulation 22 reads:

Insured Person Applying during Year.

22. Where an insured person who has elected to receive treatment under the arrangements made by the Committee with practitioners on the panel changes his residence to the area of another Committee, he shall upon arriving in that area give notice to the last-mentioned Committee, and thereupon that Committee shall make arrangements whereby he can receive treatment including drugs and appliances in that area, and such adjustment shall be made between the two Committees as is equitable in the circumstances, regard being had to the proportion of the year spent by the insured person in the area of each of the Committees respectively, and the arrangements made by each of the Committees with the practitioners on the panel in their respective areas shall be so adjusted as to conform with the adjustments so made.

The heading of the foregoing paragraph, the expression "changes his residence" (which cannot fairly be held to mean going to the seaside for a week or a month), and the whole tenor of the Regulation show clearly that the question of providing temporary residents with medical attendance was not contemplated for a moment. If it were otherwise, the statement in the circular that "insured persons cannot be induced to give notice" is a confession of incompetence on the part of the Commissioners to insist on the carrying out of their own regulations.

The whole procedure, as affecting the practitioners on the panel, is not calculated to inspire confidence in the methods of the Insurance Commissioners. But by far the most serious matter, and one which has apparently escaped general attention, is the studied ignoring of the British Medical Association as the mouthpiece of, and proper channel of communication with, the panel practitioners. This has been observable ever since the coming into force of medical benefit, and calls for prompt action by the Association. If it is to be permanently ignored, there is little hope for any concerted action by the profession. No official negotiations with the Commissioners should be countenanced, except such as are carried on through the British Medical Association.

Medical Referee.

Dr. Shepherd Boyd (Harrogate) writes: Under the new conditions of medical work it will be absolutely necessary to have the proper men appointed for the work of medical referee. Men of experience who have worked amongst and understand the ways of the working man will be of enormous advantage to the Government.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

BARNSLEY: BECKETT HOSPITAL AND DISPENSARY.—Second House-Surgeon. Salary, £100 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary, £80 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—Honorary Surgeon.

BRADFORD EDUCATION COMMITTEE.—Two Assistants (one male and one female) to the School Medical Officer. Salary, £350 per annum each.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRISTOL: COSSHAM MEMORIAL HOSPITAL, Kingswood.—House-Surgeon. Salary, £50 per annum.

BRISTOL GENERAL HOSPITAL.—(1) First House-Physician. (2) Second House-Physician and Casualty House-Surgeon. Salary, £80 per annum.

BRISTOL ROYAL INFIRMARY.—(1) Obstetric and Ophthalmic House-Surgeon. (2) Resident Casualty Officer. Salary at the rate of £75 and £50 per annum respectively.

BURY ST. EDMUNDS: WEST SUFFOLK GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum.

CANTERBURY: BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CARDIFF: KING EDWARD VII'S HOSPITAL.—Two Honorary Physicians.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £90 per annum.

DENBIGH: NORTH WALES COUNTIES ASYLUM.—Medical Superintendent. Salary, £500 per annum, rising to £700.

DERBY: DERBYSHIRE ROYAL INFIRMARY.—House-Physician. Salary at the rate of £100 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—(1) House-Surgeon; salary, £50 for first six months, £75 for second, and £150 during second year of service. (2) Assistant House-Surgeon; salary at the rate of £75 per annum.

DUNDEE ROYAL INFIRMARY.—House-Surgeon.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House-Physician and Assistant Casualty Officer (male). Salary at the rate of £75 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Clinical Assistant.

EDMONTON UNION INFIRMARY.—Second Assistant Medical Officer. Salary, £120 per annum.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

FARRINGDON GENERAL DISPENSARY, Etc., 17, Bartlett's Buildings, E.C.—(1) Honorary Ophthalmic Surgeon. (2) Honorary Gynaecologist. (3) Resident Medical Officer; salary, £100 per annum.

GLASGOW PARISH COUNCIL.—Resident Junior Male Assistant Medical Officer for the Stobhill General Hospital. Salary, commencing £120 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N. House-Physician. Salary at the rate of £40 per annum.

GREENWICH UNION.—Junior Assistant Medical Officer of the Infirmary and Workhouse. Salary, £100 per annum.

GUY'S HOSPITAL DENTAL SCHOOL.—Radiographer. Remuneration, £50 per annum.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon. Salary, £80 per annum.

HASTINGS: EAST SUSSEX HOSPITAL.—Senior and Assistant House-Surgeons. Salary at the rate of £100 and £70 per annum respectively.

HULL AND SCULCOATES DISPENSARY.—Resident Surgeon. Salary, £220 per annum.

IPSWICH: EAST SUFFOLK HOSPITAL.—House-Physician. Salary, £80.

ITALIAN HOSPITAL, Queen Square, W.C.—Honorary Anaesthetist.

LANCASTER: COUNTY ASYLUM.—Assistant Medical Officer (male). Salary, £150 per annum.

LANCASHIRE COUNTY ASYLUM, Winwick.—Locumtenent Medical Officer. Salary, 4 guineas per week.

LEAMINGTON SPA: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—House-Physician. Salary, £85 per annum.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LEICESTER ROYAL INFIRMARY.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

LINCOLN MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

LIVERPOOL EYE AND EAR INFIRMARY.—House-Surgeon. Salary, £80 per annum.

LIVERPOOL: PARK HILL SANATORIUM.—Resident Medical Superintendent. Salary, £350 per annum, rising to £400.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL.—Male Resident House-Surgeon. Salary, £120 per annum.

MANCHESTER CHILDREN'S HOSPITAL.—Assistant Medical Officer for Out-patient Department. Salary, £25 for six months.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—House-Surgeon. Honorarium at the rate of £50 per annum.

MONTREAL: MCGILL UNIVERSITY.—Robert Reford Chair of Anatomy.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon (Male) for Branch. Salary, £180 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Locumtenent. Salary, £3 3s. per week.

OXFORD: RADCLIFFE INFIRMARY AND COUNTY HOSPITAL.—House-Physician. Salary at the rate of £80 per annum.

READING: ROYAL BERKSHIRE HOSPITAL.—Second House-Surgeon (Male). Salary, £80 per annum.

ROCHDALE INFIRMARY.—House-Surgeon (unmarried). Salary, £100 per annum.

ROTHERHAM HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum.

ROYAL EAR HOSPITAL, Soho, W.—House-Surgeon (non-resident). Honorarium, £40 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Clinical Assistants in Out-patients' Department.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—Assistant Surgeon.

ST. GILES AND BLOOMSBURY PARISHES.—Assistant Medical Officer and Dispenser at the Infirmary, Cleveland Street, W. Salary, £130 per annum, increasing to £150.

ST. PANCRAS PARISH.—District Medical Officer of No. 7 Ward. Salary, £50 per annum.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C.—(1) Honorary Assistant Surgeon. (2) Clinical Assistant.

ST. PETER'S HOSPITAL FOR STONE, Etc., Henrietta Street, W.C.—Junior House-Surgeon. Salary at the rate of £75 per annum.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior House-Surgeon (male). Salary, £100 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £50 per annum.

SHEFFIELD: ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £70 per annum.

SHOREDITCH: PARISH OF ST. LEONARD.—Medical Superintendent of the Infirmary, Hoxton Street, and adjacent Workhouse. Salary, £500 per annum.

SIERRA LEONE: PRINCESS CHRISTIAN HOSPITAL, Freetown.—Resident Medical Officer. Salary, £250 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £80 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon (male). Salary, £90 per annum.

SOUTHWARK UNION.—Second and Third Assistant Medical Officers at the Infirmary. Salary, £120 per annum each.

STOCKTON AND THORNABY HOSPITAL.—House-Surgeon (male). Salary, £180 per annum.

SURREY COUNTY COUNCIL.—Two Tuberculosis Medical Officers. Salary, £500 per annum each.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Surgeon. Salary, £75 per annum.

TAUNTON: SOMERSET AND BATH ASYLUM, Cotford.—Assistant Medical Officer. Salary, £180 per annum, rising to £200.

TRURO: ROYAL CORNWALL INFIRMARY.—House-Surgeon. Salary, £100 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL.—Junior House-Physician. Salary at the rate of £75 per annum.

WESTMINSTER HOSPITAL, S.W.—Physician.

WHITTINGHAM: COUNTY ASYLUM.—Assistant Medical Officer. Salary, £150 per annum, increasing to £250.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Surgeon (male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary at the rate of £100 per annum.

WORCESTER GENERAL INFIRMARY.—House-Physician. Salary, £100 per annum.

WORCESTERSHIRE ASYLUM, Bromsgrove.—Second Assistant Medical Officer (male). Salary, £200 per annum.

YORK DISPENSARY AND MATERNITY HOSPITAL.—Resident Medical Officer (male). Salary, £140 per annum.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces the following vacant appointment: Gortin (co. Tyrone).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

BOUCHIER-HAYES, J. T., M.D.Dub., D.P.H., Certifying Surgeon for the Rathkeale District, co. Limerick.

BROWNE, E. Hamilton, M.B., Ch.M., Medical Officer, Newington Hospital for Women, Parramatta River, N.S.W.

CARTER, Mr. F. Bolton, M.D., M.S.Lond., F.R.C.S.Eng., Honorary Surgeon of the Leicester Royal Infirmary, promoted from Assistant Honorary Surgeon.

JAKINS, Percy S., M.D.Durh., M.R.C.S., Honorary Laryngologist and Aural Surgeon to the National Children's Home and Orphanage, at Bonner Road and Harpenden.

LOCKYER, Cuthbert, M.D., B.S.Lond., F.R.C.S.Eng., Surgeon to In-patients' Samaritan Free Hospital for Women, London.

MOFFATT, May, M.B., B.S.Adel., Resident Medical Officer at the Queen Victoria Memorial Hospital for Women and Children, Melbourne.

PEARMAN, T. E. A., M.R.C.S., L.R.C.P., District Medical Officer of the Edmonton Union.

RIGG, V. J., M.R.C.S., L.S.A., Certifying Factory Surgeon for the Littleborough District, co. Lancaster.

ROWNTREE, Cecil, M.B., B.S., F.R.C.S., Surgeon to St. Barnabas Home, Lloyd Square.

VICKERS, Wilfred, M.B., Ch.M.Syd., Honorary Medical Officer to the Royal Alexandra Hospital for Children, Sydney.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

EYRE.—On April 29th, 1913, at The Warren, Tulse Hill, S.W., to Dr. and Mrs. John Eyre, a daughter.

MARRIAGES.

GARRETT—GRAHAM.—At the Station Hotel, Ayr, on April 24th, by the Rev. Hugh Macluskie, M.A., West U. F. Church, Thomas Cleator Garrett, M.B., C.M., Worksop, Notts, to Katherine Bruce, youngest daughter of the late J. D. Graham, Esq., M.A., and of Mrs. Bruce, Hamilton Villa, Ayr. At home, Westbourne House, Worksop, June 17th and 18th.

LEA—MCTAGGART.—Dr. Arnold William Warrington Lea, of Manchester, to Lillias Thompson, daughter of the late Captain William McTaggart, of Whithorn, Wigtonshire, N.B., on Monday, April 14th, 1913, at St. Peter's Church, Cranley Gardens, South Kensington, London, S.W.

LOCKERBIE—RICHARDSON.—On April 26th, at Annan Parish Church, by the Rev. Neil McCaig, B.D., and the Rev. R. G. Paterson, B.D., Erskine U. F. Church, William Lockerbie, M.B., Ch.B.Edin., Annan, to Florence, daughter of the late Captain Richardson, Liverpool.

MONTGOMERY—MUIRHEAD.—At Edinburgh, on April 26th, by the Rev. Alexander Fiddes, B.D., William M. Montgomery, M.B., C.M., D.P.H., Messina, Transvaal, South Africa, to Winifred Muirhead, L.R.C.P., L.R.C.S.Edin., daughter of the late Charles Muirhead, Edinburgh.

DIARY FOR THE WEEK.

MONDAY.

ROYAL SOCIETY OF MEDICINE, 1, Wimpole Street, W.—Special Meeting of Fellows, 5 p.m. Discussion: On Alimentary Toxemia: Its Sources, Consequences, and Treatment (fifth session). To be reopened by Professor H. J. Hutchens and continued by Sir James Goodhart and others.

TUESDAY.

RÖNTGEN SOCIETY, Institution of Electrical Engineers, Victoria Embankment, W.C., 8.15 p.m.—Agenda:—Paper: Dr. Hernaman Johnson, Darlington: Theory and Practice in Ray Therapeutics. Demonstration: Dr. Hampson: A New X-Ray Couch.

ROYAL SOCIETY OF MEDICINE:

SECTION OF SURGERY, 5.30 p.m.—(1) Annual Meeting. (2) Papers: Mr. J. Hutchinson: The Symptoms produced by Aberrant Renal Arteries, and a Clinical Study of the Indications and Results of Operation. Mr. H. S. Pendlebury: Two Cases of Excision of Spleen. Mr. F. Kidd: Two Cases of Splenectomy—(*a*) for Banti's Disease, (*b*) for Enlarged Spleen (? cause). Mr. J. Hutchinson: Case of Splenic Anaemia after Operation.

WEDNESDAY.

ROYAL SOCIETY OF MEDICINE, 1, Wimpole Street, W.—Special Meeting of Fellows, 5 p.m. Discussion: On Alimentary Toxaemia: Its Sources, Consequences, and Treatment (final meeting). To be reopened by Dr. H. D. Rolleston and summed up by the President and Dr. W. Hale White.

SECTION OF OPHTHALMOLOGY, 8.30 p.m.—Demonstration of Cases and Specimens.

THURSDAY.

ROYAL SOCIETY, Burlington House, W., 4.30 p.m.—The following are among the probable papers for reading:—A. D. Waller, F.R.S.: The Various Inclinations of the Electrical Axis of the Human Heart. Surgeon-General Sir D. Bruce, F.R.S., Majors D. Harvey and A. E. Hamerton, and Lady Bruce: *Trypanosoma pecorum* (Nyasaland). S. Russ, D.Sc., and Helen Chambers, M.D.: On the Action of Radium Rays upon the Cells of Jensen's Rat Sarcoma.

POST-GRADUATE COURSES AND LECTURES.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Wednesday. Radiography: Saturday. Special lectures each week.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical Laboratory work daily (Saturday excepted), 10 to 12 a.m., 2 to 4 p.m. Medical Clinics, Tuesday and Thursday at 3 p.m. Operations, Friday at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL.—Post-Graduate Clinic, Thursday, 4.15 p.m., Chronic Joint Disease: Diagnosis and Treatment.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Ear, Nose, and Throat. Special Lectures at 5.15 p.m. each day except Friday and Saturday.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m.: Treatment of Neurasthenia.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Wednesday, 4 p.m.: Demonstration of Skin Cases.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, 2 p.m.; X Rays and Operations daily. Gynaecology: Monday, Tuesday, Wednesday, and Friday. Eye: Monday, Wednesday, Thursday, and Saturday. Throat, Nose, and Ear: Tuesday, Wednesday, Friday, and Saturday. Skin: Tuesday and Friday. Pediatrics: Saturday.

[*For further particulars of Lectures consult the Index to Advertisements.*]

DIARY OF THE ASSOCIATION.

Date.	Meetings to be Held.
	MAY.
3 Sat.	**Nomination papers for Election to Council are now ready. Applications for these should be made to the Financial Secretary and Business Manager.**
6 Tues.	London: Special Meeting Organization Committee, 10.30 a.m.
	London: Standing Ethical Subcommittee, 2 p.m.
7 Wed.	Newcastle-on-Tyne Division, Annual Meeting, Newcastle-on-Tyne, 8.30 p.m.
	Preston Division, Annual Meeting, Crown Hotel, 8.45 p.m.
	South-Eastern of Ireland Branch, Kilkenny, Victoria Hotel, 5.15 p.m.
8 Thur.	London: State Sickness Insurance Committee, 10.30 a.m.
9 Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
14 Wed.	Lancashire and Cheshire Branch, Liverpool Medical Institution, Organization and Finance Committee, 4.30 p.m.
17 Sat.	Last day for receipt of Nominations for Members of Council.

Date.	Meetings to be Held.
	MAY (*continued*).
20 Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
21 Wed.	Lancashire and Cheshire Branch, Liverpool Medical Institution, Branch Council, 4 p.m.
	Dorset and West Hants Branch, Annual Meeting, Bournemouth.
	Richmond Division, Richmond, 8.30 p.m.
24 Sat.	List of Nominations for Election on Council will be published in the JOURNAL of this date.
	JUNE.
4 Wed.	South Middlesex Division, Annual Meeting, Twickenham, 8.30 p.m.
6 Fri.	London: Ethical Committee, 2 p.m.
	Hampstead Division, Annual Meeting.
7 Sat.	Date of issue of Voting Papers for Council Election from Head Office.
14 Sat.	Last day for receipt of Voting Papers at Head Office *re* Council Election.
17 Tues.	London: Organization Committee, 2.15 p.m.
28 Sat.	Announcement of result of Election of Members to Council.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 10TH, 1913.

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SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

MATTERS REFERRED TO DIVISIONS.

British Medical Association.

Annual Representative Meeting, Brighton, 1913.

THE Annual Representative Meeting of the British Medical Association will be held in Brighton on Friday, July 18th, 1913, and following days as may be necessary.

PROVISIONAL AGENDA.

I.—RECEPTION OF RETURN OF REPRESENTATIVES.

1. **Motion:** That the return of election of Representatives of Constituencies for the year 1913-14 be received and entered on the minutes.

2. **Motion:** That the notices (if any) of appointment of substitutes for Representatives under By-law 34 be received and entered on the minutes.

II.—STANDING ORDERS.

3. **Motion:** That the Standing Orders submitted by the Chairman be adopted as Standing Orders of the Meeting.

The Chairman will submit the Standing Orders as adopted at Liverpool, 1912 (see page 416 of this SUPPLEMENT*), subject to such additions and alterations as may hereafter be notified to the Representatives.*

III.—ANNUAL REPORT OF COUNCIL.

(For Annual Report of Council, 1912-13, *see* B.M.J. SUPPLEMENT of May 3rd, page 361.)

4. **Motion:** That the Annual Report of Council for the year 1912-13, Balance Sheet and Financial Statement for the year 1912, and Estimate of Income and Expenditure for the year 1913, be received.

5. **Motion** (by the CHAIRMAN): That all Motions by Divisions and Branches which relate to matters dealt with in the Annual Report of Council be considered as amendments or riders to the Recommendations, if any, to which they are relevant, or to the motion: "That the remainder of the Report under the heading . . . be approved."

(A) Preliminary.

6. **Motion:** That paragraphs 1-10 of the Annual Report of Council ("Preliminary") be approved (*see* page 361 of B.M.J. SUPPLEMENT of May 3rd, 1913).

(B) Finance.

Minutes of Representative Meetings.

7. **Motion:** That the following Recommendation A of Council be adopted (paragraph 23, page 369 of B.M.J. SUPPLEMENT of May 3rd, 1913):

> That the Minutes of the Representative Meeting issued at the end of the Representative Meeting to Members of the Representative Body shall be the daily Minutes corrected and collected together. That Honorary Secretaries of Divisions and Branches who are not members of the Representative Body also be supplied with a copy.

8. **Motion:** That the following Recommendation B of Council be adopted (paragraph 23 of Annual Report of Council, page 369):

That the taking of verbatim shorthand notes of the Representative and Council Meetings is unnecessary and should be discontinued. In order to minimize the risk of any inaccuracy occurring in the preparation of the Minutes, the Chairmen of these bodies respectively be requested to enforce that a written copy of a Motion or Amendment to be submitted to the Meeting be furnished for the information of the Chairman.

Proposed Rescission of Minute 187 of A. R. M., 1905, as to Bound Volumes of Supplements.

9. **Motion:** That the following Recommendation C of Council be adopted (paragraph 23 of Annual Report of Council, page 369):

That the Representative Body rescind Resolution No. 187, passed at Leicester, 1905, which authorizes the sending of a bound volume of the Supplement to the Secretaries of all Divisions, namely: "That the Supplements be bound and sent down twice annually to Secretaries and Representatives of Divisions, and that such volumes remain the property of Divisions."

Remainder of Report under heading "(B) Finance."

10. **Motion:** That the remainder of the Annual Report of Council under heading "(B) Finance" (paragraphs 11 to 24, see pages 362–9) be approved.

Subscriptions.

11. **Rider** (arising out of paragraph 11, "Financial Statement") by South-Eastern Branch:

That the time has arrived when the Representative Body should seriously consider the advisability of raising the annual subscription.

(B.M.J. Supplement, April 19th, 1913.)

(C) Organization.

Question of New Company: Question of Advisability of Association becoming a Trade Union.

12. **Motion:** That the following Recommendation A of Council (paragraph 26, page 371) be adopted:

That the Association do not proceed further at present with the proposed formation of a new Company.

13. **Motion:** That the following Recommendation B of Council (paragraph 26, page 371) be adopted:

That the Representative Body instruct the Council to take the necessary steps to obtain an extension of the Memorandum of the present Company to include the power of borrowing money on mortgage or otherwise.

14. **Motion** (by the Chairman): That the question raised in the following Minutes 66–8 of the Annual Representative Meeting, 1912, be further considered:

66. Proposed: That it be an instruction to the Council of the Association to seek to obtain the opinion of the Divisions as to the desirability of the Association becoming a registered trade union.

67. Whereupon an amendment:

That it be an instruction to the Council of the Association to report to the Divisions on and obtain their opinion as to the desirability of the Association becoming a registered trade union.

The amendment was carried.

68. On being put as a substantive motion, an amendment was moved:

That the consideration of this subject be postponed to the next Annual Representative Meeting.

The amendment was carried; also as a substantive motion.

15. **Motion** by Leicester and Rutland:

That it be an instruction to the Council to consider the advisability of forming a union of medical practitioners, registered under the Trade Union Acts, for such of the members of the Association and other medical practitioners as may desire to join such a union.

(B.M.J. Supplement, April 19th, 1913.)

Question of Mode of Election of Members of Council by Branches outside United Kingdom.

16. **Motion:** That the following Recommendation C of Council (paragraph 27, page 371) be adopted:

That the following new By-law 46 be adopted by the Annual Representative Meeting, 1913, in substitution for existing By-law 46:

Mode of Election by Groups not in United Kingdom.

46.—(1) The election of seven Members of Council by the Groups of Branches not in the United Kingdom shall be conducted in the manner prescribed by this By-law.

(2) All nominations of candidates shall be in writing sent to the Association so as to be received at the Head Office on or before such day, not being later than the 15th February in each year, as shall be specified for the purpose by a notice published in the Journal during the second or third week of October in the preceding year, and no nomination paper received after the day so specified shall be valid.

(3) The said notice shall prescribe a form in which the nominations are to be made, and the nominations shall be made in the form so prescribed, or in a form to the like effect. Nomination papers may be signed by not less than three members of any Branch comprised in the group.

(4) As soon as may be after the 15th day of February in each year:—

(*a*) In the case of any Group for which one candidate only has been duly nominated, there shall be published in the Journal a notice that such candidate has been elected as Member for that Group; and—

(*b*) In the case of any Group for which more candidates than one have been duly nominated, a voting paper shall be sent by post from the Head Office to each Member of every Branch comprised in that Group.

(5) Every voting paper shall contain a statement that the same must be returned to the Association so as to be received at the Head Office on or before a specified day (not being later than the succeeding 15th day of May), and no voting paper received after the day so specified shall be counted.

(6) Not later than the second week in the succeeding month of June, a notice of the result of the elections shall be published in the Journal.

[Existing By-law 46:

Mode of Election by Groups not in the United Kingdom.

46.—(1) The election of seven Members of Council by the Groups of Branches not in the United Kingdom shall be by voting papers sent by post by the Secretary of each Branch comprised in the Group to each Member of that Branch.

(2) The said voting papers shall contain the names of those candidates who have been nominated either (*a*) by a Division or (*b*) in writing, signed by not less than three Members of any such Branch on or before an appointed day, of which such notice shall have been given in the Journal as the Rules of the Branch may prescribe.

(3) The said voting papers shall contain such other particulars (if any), and shall be sent to such one of the said Secretaries (hereinafter called "the Returning Officer"), and within such time as the Council may from time to time prescribe by notice given as aforesaid.

(4) It shall be the duty of the Returning Officer to count the votes given for each candidate and to make a return of the result of the election to the Association at the Head Office.

(5) The expenses incurred by each Branch in respect of the election shall be borne by the Association.]

17. **Amendment** by Bombay Branch:

That no alterations be effected in By-law 46 (1), (2), (3), (4), and (5), as the present arrangements have worked very satisfactorily.

(B.M.J. Supplement, April 19th, 1913.)

Election by Branches of Members of Council for 1914-15.

(a) Grouping of Branches in United Kingdom for 1914-15.

18. **Motion:** That the following Recommendation D of Council (paragraph 29, page 372) be adopted:

That the Branches in the United Kingdom be grouped for election of Members of Council for the year 1914-15 in the same way as for the year 1913-14.

(NOTE.—For the scheme of grouping for 1913-14 see Appendix V to Annual Report of Council, page 391.)

(b) Grouping of Branches outside United Kingdom for 1914-15.

19. **Motion:** That the following Recommendation E of Council (paragraph 30, page 372) be adopted:

That the Branches outside the United Kingdom be grouped for the election of Members of Council for the year 1914-15 in the same way as for the year 1913-14.

(NOTE.—For the scheme of grouping for 1913-14 see Appendix VII to Annual Report of Council, page 394.)

20. **Amendment** by BOMBAY BRANCH:

That the Ceylon Branch be grouped with the Far Eastern Branches, leaving Indian Branches grouped into one.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

Question of Payment of Expenses of Representatives.

21. **Motion:** That the following Recommendation F of Council (paragraph 31, page 372) be adopted:

That, having regard to the existing state of the finances of the Association, the time is still inopportune for acceding to the proposal that the out-of-pocket expenses of Representatives at Representative Meetings, other than their travelling expenses as at present, be paid out of the funds of the Association.

Election of Members by Branches.

22. **Motion:** That the following Recommendation G of Council (paragraph 34, page 372) be adopted:

That the regulations as to election of members remain as at present.

Representatives and Deputy-Representatives.

23. **Motion:** That the following Recommendation H of Council (paragraph 36, page 373) be adopted:

That the Council be instructed to prepare the alterations in the regulations of the Association necessary to carry out the following suggestions contained in paragraph 36, subparagraph 2, of the Annual Report of Council:

(1) The Representative of a Constituency should be able to resign his position.

(2) Any vacancy arising should be filled by the Constituency in accordance with the Rules of the Division or Divisions forming the Constituency.

(3) If a Representative be permitted to resign, the Constituency should not be empowered to dismiss a Representative, but should be able, at a special meeting called for the purpose and by a two-thirds majority of those present and voting, to call upon a Representative to resign.*

(4) It would be inadvisable to allow a Deputy to act for a Constituency during such portion only of a Meeting as the Representative might be unable to attend.

Question of Appeals to Council in connexion with Ethical Decisions of Councils of Branches outside United Kingdom.

24. **Motion:** That the following Recommendation I of Council (paragraph 37, page 373) be adopted:

That in order to carry out the proposal contained in Minute 256 of the Annual Representative Meeting, 1912, the following words be added by the Annual Representative Meeting, 1913, to the definition of the "Duties, Powers, etc.," of the Central Ethical Committee, contained in the Schedule to the By-laws:

"Provided that, notwithstanding the foregoing provisions, the Committee shall not adjudicate in or entertain any such matter of dispute as aforesaid which has arisen in a Branch not in the United Kingdom having a membership of not less than thirty, except upon the request of the Council of that Branch."

[*Minute 256 of A. R. M., 1912, referred to:*

256. Resolved: That the following words be added at the end of the statement of duties, powers, etc., of the Central Ethical Committee in the Schedule to the present By-laws:

Where an ethical complaint has been dealt with by the Council of a Branch outside the United Kingdom, an appeal to the Council of the Association shall not be allowed except by permission of the Council of the Branch.

[Extract from present Schedule to By-laws:

Duties, Powers, etc., of Central Ethical Committee.

To advise the Council on questions connected with Rules of Divisions and Branches relating to professional conduct, to investigate and report to the Council upon the cases of members whose conduct is to be considered by the Council on the representation of Divisions or Branches pursuant to the Regulations, and generally to advise and, where so directed, act for the Council on all questions of professional conduct; also to adjudicate in matters of dispute as to professional conduct arising between members of the Association or members of the profession, or at the discretion of the Committee to refer any question arising in connexion with such a dispute to any Division or Branch, or to any Divisions or Branches jointly, for investigation or for adjudication subject to an appeal to the Committee; and so that any person directly concerned in such a dispute shall have a right of appeal to the Council from the decision of the Committee, and that the decision of the Committee subject to such appeal, and the decision of the Council upon any such appeal shall be binding upon the parties and upon all members of the Association.]

Co-ordination of Action of Divisions and Branches with Action of Local Medical Committees and Medical Members of Insurance Committees.

25. **Motion:** That the following Recommendation J of Council (paragraph 38, page 373) be adopted:

That By-laws 16 and 18 of the Association be amended to read as follows respectively (words proposed to be inserted are printed in italics):

By-law 16:

Local Management: Branches.

16. The management of the affairs of each Branch shall, save as otherwise provided in the By-laws, be vested in a Branch Council, composed of the following members:

(*a*) Those Members of the Council who are elected (as hereinafter provided) by the Branch or by any group of Branches to which the Branch belongs, or (wholly or in part) by Representatives of Constituencies comprised in the Branch.

(*b*) The Members elected to represent on the Representative Body the Divisions comprised in the Branch.

(*c*) Such Officers of the Branch as the Branch shall declare to be members *ex officio* of the Branch Council.

(*d*) *Such Members (if any) of any Local Medical Committee formed under the National Insurance Act, 1911, and such Medical Members (if any) of any Insurance Committee formed under that Act, being (in either case) ordinary Members of the Association resident within the area of the Branch as the Branch may declare to be Members ex officio of the Branch Council.*

(*e*) In the case of a Branch comprising more Divisions than one, Members elected by such Divisions in such manner that the number to be

* The Recommendation of Council contemplated a "two-thirds" majority, and the words "three-fourths" were printed in the Annual Report of Council by an inadvertence.

elected by each Division shall be as nearly as possible proportionate to the membership of such Division.

By-law 18:

Local Management: Divisions.

18. The management of the affairs of each Division shall, save as otherwise provided in the By-laws, be vested in an Executive Committee composed of the following Members:

(*a*) The Member or Members representing the Division on the Representative Body;

(*b*) The Member or Members representing the Division on the Branch Council;

(*c*) *Such Members (if any) of any Local Medical Committee formed under the National Insurance Act, 1911, and such Medical Members (if any) of any Insurance Committee formed under that Act, being (in either case) ordinary Members of the Association resident within the area of the Division as the Division may declare to be Members ex officio of the Executive Committee.*

(*d*) Such other Members elected by the Division as the Division may determine.

Remainder of Report under heading "(C) Organization."

26. **Motion:** That the remainder of the Annual Report of Council under heading "(C) Organization" (paragraphs 25–51, pages 369–74) be approved.

Question of Payment for Assistance in Organization and Clerical Work of Divisions.

27. **Rider** (arising out of paragraph 39, "Annual Reports of Divisions and Branches") by CHESTERFIELD:

That Divisions be authorized to engage and pay for assistance in organization and clerical work, and that such payments be made out of the funds of the Association.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

Question of Reorganization of Branch and Divisional Areas in United Kingdom.

28. **Rider** (arising out of paragraph 45, "Question of Relation of Division and Insurance Areas") by SOUTH-EASTERN BRANCH:

That the Association be reorganized into Branches coinciding with the areas of administrative counties.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

29. **Rider** (arising out of same paragraph) by SOUTH-EASTERN BRANCH:

That the present Divisions shall as far as possible be preserved, subject to such alterations in boundaries as will make each Division be contained in a single Branch, and such other alteration as may be required by consideration of administration.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

30 **Rider** (arising out of same paragraph) by NEWCASTLE-ON-TYNE:

That the Council be instructed to take such steps as are requisite to make the Divisions of the Association where necessary coterminous with the insurance areas under the National Insurance Act.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

31. **Rider** (arising out of same paragraph) by CHESTERFIELD:

That the areas of the respective Divisions of the Association be made co-ordinate or to correspond with the areas of the respective Insurance Committees under the National Health Insurance Act, 1911, and for convenience in carrying on the work of the Divisions and to secure a better attendance at Divisional and Sub-Divisional Meetings that such subdivisions of the respective Divisions as shall prove to be necessary be formed.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

(D) Journal.

32. **Motion:** That the Annual Report of Council under heading "(D) Journal" (paragraphs 52–6, pages 374–5) be approved.

(E) Science.

33. **Motion:** That the Annual Report of Council under heading "(E) Science" (paragraphs 57–64, page 375) be approved.

(F) Medical Ethics.

34. **Motion:** That the Annual Report of Council under heading "(F) Medical Ethics" (paragraphs 65–74, pages 375–6) be approved.

(G) Medico-Political.

35. **Motion:** That the Annual Report of Council under heading "(G) Medico-Political" (paragraphs 75–84, pages 376–7) be approved.

(H) State Sickness Insurance.

Seamen's National Insurance Society.

36. **Motion:** That the following Recommendation A of Council (paragraph 123, page 382) be adopted:

That steps be taken to so amend Section 48 (5) of the National Insurance Act as to allow of a similar representation upon the Committee of the Seamen's National Insurance Society as is accorded the profession on Insurance Committees.

Treatment of Cases in Receipt of Maternity Benefit by Maternity Hospitals.

37. **Motion:** That the following Recommendation B of Council (paragraph 129, page 384) be adopted:

That the Representative Body, in view of the differences of opinion as to the treatment by Maternity Hospitals of cases in receipt of Maternity Benefit, stated in paragraph 129 of the Annual Report of Council, consider the question of the desirability or otherwise of amendment of the policy laid down in the following Minute 246 of the Annual Representative Meeting, 1912:

Minute 246.—Resolved: (i.) That inability to pay for adequate treatment, or the recommendation of a medical practitioner, shall be the consideration for the participation of parturient women in the benefits of maternity and voluntary hospitals and other charitable institutions; (ii.) that women in receipt of Maternity Benefit under the National Insurance Act should not be regarded as eligible for charitable treatment except in cases of difficulty and danger, and on the recommendation of a medical practitioner.

Fees and Conditions for Provision of Medical Attendance and Treatment of Uninsured Persons.

38. **Motion:** That the following Recommendation C (1) of Council (paragraph 133, page 384) be adopted:

That the Representative Body adopt the following principles as essential to the formation of any schemes for the provision of medical attendance and treatment of uninsured persons:

(1) That, in general, in considering the necessity for obtaining the approval of the Council for schemes for the treatment of uninsured persons upon contract terms, the following principles and conditions must be adhered to:

(*a*) Free choice of doctor by patient and of patient by doctor;

(*b*) Remuneration to be not less than that paid in respect of insured persons—that is, 9s. per annum including medicines;

(*c*) Persons earning over £104 per annum not to be treated under contract terms at all.

39. **Motion:** That the following Recommendation C (2) of Council (paragraph 133, page 384) be adopted:

(2) That the Representative Body realizes that the conditions in certain areas will not allow of the above terms being obtained, and that in these circumstances the approval of the Council may be given provisionally to a scheme involving a less payment when the local profession can show that the economic conditions in the area demand it.

40. **Motion:** That the following Recommendation C (3) of Council (paragraph 133, page 384) be adopted:

(3) That one of the conditions necessary for the approval of schemes containing lower rates of payment shall be the inclusion amongst the rules, in a prominent position, of a statement that approval by the Association has been given to the rates only because of special economic conditions.

Remainder of Report under heading "(H) State Sickness Insurance."

41. **Motion:** That the remainder of the Annual Report of Council under heading "(H) State Sickness Insurance" (paragraphs 85–152, pages 378–86) be approved.

Certificates for Purpose of Sickness Benefit.

42. **Rider** (arising out of paragraph 91 (*e*), "Certificates") by LEIGH:

That no condition be inserted on any certificate issued for the purpose of sickness benefit under the Insurance Act.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

Amendment of National Insurance Act.

43. **Rider** (arising out of paragraph 93, "Amendments of Act or Regulations") by LEIGH:

That steps be taken in any amending Act which is brought before Parliament to secure that trade accidents, industrial diseases, misconduct, and miscarriage be deleted from medical benefit under the Insurance Act.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

Proposed General Purposes Fund in connexion with National Insurance Act.

44. **Rider** (arising out of paragraphs 151–2, "Proposed Special Fund") by EAST CORNWALL:

1. That the Association take steps to form a fund for general purposes (for example, protective and fighting), on the basis of a scheme suggested in a letter from Dr. Donald F. Shearer (SUPPLEMENT, March 22nd, 1913, page 267).
2. That, in view of the fact that the efforts of the Association were successful in raising the amount set aside by the Commissioners for medical benefit from 6s. to 8s. 6d., each practitioner on the insurance panel should contribute a certain sum per head of insured persons on his list per annum to form and maintain such a fund.
3. That also, if such a fund be inaugurated, those practitioners who have guaranteed to the Central Insurance Defence Fund be exempted from their guarantees.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

(I) Public Health and Poor Law.

Salary for Combined Whole-time Appointment of Medical Officer of Health and School Medical Officer.

45. **Motion:** That the following Recommendation of Council (paragraph 154, page 387) be adopted:

That in no case where a less salary than £400 is offered for a combined whole-time appointment as Medical Officer of Health and School Medical Officer should the advertisement be accepted for insertion in the JOURNAL.

Remainder of Report under heading "(I) Public Health and Poor Law."

46. **Motion:** That the remainder of the Annual Report of Council under heading "(I) Public Health and Poor Law" (paragraphs 153–63, pages 386–8) be approved.

(J) Hospitals.

47. **Motion:** That the Annual Report of Council under heading "(J) Hospitals" (paragraphs 164–9, page 388) be approved.

(K) Naval and Military.

Vacancy in Council.

48. **Motion** (by CHAIRMAN):

That the Annual Representative Meeting consider the question of the filling of the vacancy upon the Council created by the resignation of Lieutenant-Colonel Davie-Harris, R.A.M.C., who was appointed to represent the Army Medical Service on the Council for the period 1911–14, and in connexion therewith consider the name of Lieutenant-Colonel Waller Barrow, R.A.M.C., submitted to the Representative Body by the Council in accordance with By-laws 43 and 52 as suitable for election by the Representative Body to represent the Army Medical Service upon the Council for the remainder of the period in question, terminating with the close of the Annual Representative Meeting, 1914. (*See* Standing Order 49 of Representative Body, p. 419, of this Supplement.)

Remainder of Report under heading "(K) Naval and Military."

49. **Motion:** That the remainder of the Annual Report of Council under heading "(K) Naval and Military" (paragraphs 170–1, page 388) be approved.

(L) Scotland.

50. **Motion:** That the Annual Report of Council under heading "(L) Scotland" (paragraphs 172–7, pages 388–9) be approved.

(M) Ireland.

51. **Motion:** That the Annual Report of Council under heading "(M) Ireland" (paragraphs 178–9, page 389) be approved.

(N) Branches outside United Kingdom.

Title of Colonial Committee.

52. **Motion:** That the following Recommendation of Council (paragraph 180, page 389) be adopted:

That steps be taken to alter the title of the Colonial Committee to that of "Dominions Committee," and that it be referred to the Council to carry out the necessary alteration of the By-laws.

Remainder of Report under heading "(N) Branches outside United Kingdom."

53. **Motion:** That the remainder of the Annual Report of Council under heading "(N) Branches outside United Kingdom" (paragraphs 180–7, page 389) be approved.

GENERAL APPROVAL OF ANNUAL REPORT OF COUNCIL.

54. **Motion:** That, subject to the amendments and other resolutions adopted by the Meeting with reference thereto, the Annual Report of Council be approved as a whole.

IV.—SUPPLEMENTARY AND ANY OTHER SPECIAL REPORTS OF COUNCIL.

(NOTE.—The Supplementary Report of Council will be published in the B.M.J. SUPPLEMENT on or about July 5th, 1913.)

V.—REPORTS OF COMMITTEES (IF ANY).

VI.—PROPOSED ALTERATION OF ARTICLES OF ASSOCIATION.

Eligibility for Membership.

55. **Motion** by NATAL BRANCH:

(1) That the Council of the Association be instructed to take the necessary steps to have Section 4 of the Articles of Association of the British Medical Association deleted, and the following substituted:

"Any Medical Practitioner registered in any portion of the British Empire shall, subject to the By-laws, be eligible for admission as an ordinary Member of the Association."

(2) That By-law 17 (2) (v) be deleted, and that any other By-law in conflict with the foregoing new Section of the Articles be deleted or so altered as to be in conformity therewith.

(3) That in applications for membership a declaration should be made that the applicant is registered in a certain portion of the Empire.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

[Existing Article 4 and By-law 17 (2) (v):—

ARTICLE 4.

Eligibility.

4. Any Medical Practitioner registered in the United Kingdom under the Medical Acts, and any Medical Practitioner residing within the area of any Branch of the Association situate in any part of the British Empire other than the United Kingdom, who is so registered or possesses such medical qualification as shall, subject to the By-laws, be prescribed by the Rules of the said Branch, shall be eligible as an ordinary Member of the Association. Subject as aforesaid the mode and conditions of election to membership shall from time to time be determined by or in accordance with the By-laws.

BY-LAW 17 (2) (*v*), relating to Special Powers of Branches not in the United Kingdom:

17 (2). A Branch not in the United Kingdom shall be competent from time to time to adopt by the vote of a General Meeting of the Branch, and without the approval of the Council, Rules dealing with all or any of the following matters, which Rules shall be binding upon the Members of the Branch:—

* * * * * *

(v) The eligibility of practitioners not registered in the United Kingdom for election by the Branch as Members of the Association.]

Postal Vote in Questions of Urgency.

56. **Motion** by LEIGH:

That power be obtained to provide for a postal vote in questions of urgency.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

VII.—PROPOSED ALTERATIONS OF BY-LAWS OF ASSOCIATION.

(See also Items 16, 23, 24, and 25 above.)

Election of Members.

57. **Motion** by BUCKINGHAMSHIRE:

That the election of members be by the Divisions and not, as heretofore, by the Branch Council.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

[Existing By-laws 5 and 6:—

Election by Branches.

5. (1) In the case of a Branch in the United Kingdom the mode of election of new members shall be as follows:—Every candidate who resides within the area of a Branch shall forward his application to the Secretary of such Branch. Notice of the proposed election shall be sent by the Branch Secretary to the Association at the Head Office, and to every member of the Branch Council, and the candidate, if not disqualified by any Regulation of the Association, may be elected a member of the Association by the Branch Council at any meeting thereof held not less than seven days (or such longer period as the Branch may by its Rules prescribe) after the date of the said notice. A Branch may require that each candidate for election shall furnish a certificate signed by two Members (either of the Association, or of the Branch, or of the Division in which he resides, as the Rules of the Branch may prescribe) stating that from personal knowledge they consider him a suitable person for election.

(2) In the case of a Branch not in the United Kingdom the mode of election shall be such as may, with the consent of the Council, be prescribed by the Rules of the Branch.

Election by the Council.

6. Every candidate who does not reside within the area of any Branch shall forward his application to the Association at the Head Office, together with a certificate signed by three Members of the Association stating that from personal knowledge they consider him a suitable person for election. Notice of the proposed election shall be sent by the Association from the Head Office to every Member of the Council, and the candidate, if not disqualified by any of the Regulations or the By-laws, may be elected a Member of the Association by the Council at any Meeting thereof held not less than one month after the date of the said notice.]

Amount of Notice required for Special Representative Meetings.

58. **Motion** by MAIDSTONE:

That the following words be added at the end of Paragraph (2) of By-law 36:

"In case of urgency the period of notice may be shortened at the discretion of the Council."

(B.M.J. SUPPLEMENT, April 19th, 1913.)

[Existing By-law 36:

Special Representative Meetings.

36.—(1) Representative Meetings, other than the Annual Representative Meeting, shall be styled Special Representative Meetings, and shall be convened at any time by the Chairman of Representative Meetings on the requisition of the Council, or on the requisition of not less than seven Constituencies.

(2) At least fourteen days' notice of such meeting shall be given in the JOURNAL, and such notice shall indicate the object for which such meeting is convened.

(3) No business shall be dealt with by a Special Representative Meeting other than that for which it is specifically convened.]

Mode of Election of Council.

59. **Motion** by BUCKINGHAMSHIRE:

That the mode of election of the Council be altered so that more notice is given of any vacancy and an opportunity given of publishing the addresses of candidates in the JOURNAL.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

[Existing By-law 52:

Casual Vacancies.

52. Any casual vacancy occurring in the Council not less than four months before the Annual Representative Meeting amongst the Members of Council elected by Representatives of Constituencies shall be filled by the Chairman of Representative Meetings. Any other vacancy which may so occur shall be filled by the body which appointed the Member of Council whose place shall have become so vacant, and the election to fill such last-mentioned vacancy shall be conducted in the same manner as the annual election. Any person so chosen shall retain his office so long only as the member in whose office such casual vacancy shall have occurred would have retained the same if such vacancy had not occurred.]

Mode of Election of Members of Council by Groups in United Kingdom.

60. **Motion** by WEST SUFFOLK:

That By-law 45 be altered to read as follows:

45. (1) The election of twenty-four Members of Council by the Branches or groups of Branches and Divisions in the United Kingdom shall be carried out as follows:

(2) Candidates shall be nominated either (*a*) by a Division or (*b*) in writing signed by not less than three members of any such Branch.

(3) Such nominations shall be sent to the Association at the Head Office on or before an appointed day, of which not less than fourteen days' notice has been given in the JOURNAL, and to the Secretary of each Division of the Branches concerned.

(4) Voting papers, containing the names of those candidates who have been nominated, together with the names of the Division or members by whom they were nominated, and such other particulars as the Council may from time to time prescribe, shall be sent by post by the Association from the Head Office to each member of every Branch comprised in the Group.

(5) The said voting papers shall be returned to the Association at the Head Office within such time as the Council may from time to time prescribe by notice given as aforesaid.

(6) The expenses of the said election shall be borne by the Association.

(B.M.J. SUPPLEMENT, April 19th, 1913.)

[Existing By-law 45:

Mode of Election by Groups in the United Kingdom.

45.—(1) The election of twenty-four Members of Council by the Branches or Groups of Branches and Divisions in the United Kingdom shall be by means of voting papers sent by post by the Association from the Head Office to each member of every Branch comprised in the group.

(2) The said voting papers shall contain the names of those candidates who have been nominated either (*a*) by a Division or (*b*) in writing signed by not less than three members of any such Branch and sent to the Association at the Head Office on or before an appointed day, of which not less than fourteen days' notice has been given in the JOURNAL.

(3) The said voting papers shall contain such other particulars (if any), and shall be sent to the Association at the Head Office within such time as the Council may from time to time prescribe by notice given as aforesaid.

(4) The expenses of the said election shall be borne by the Association.]

Reform of Present Constitution of Association.

61. **Motion** by METROPOLITAN COUNTIES BRANCH:

That the following Report of the Committee of the Metropolitan Counties Branch appointed to consider the reform of the present constitution of the Association be received and considered:

REPORT OF THE COMMITTEE OF THE METROPOLITAN COUNTIES BRANCH APPOINTED TO CONSIDER THE REFORM OF THE PRESENT CONSTITUTION OF THE ASSOCIATION.

DIVISIONS.

(i) The Divisions would consider all matters of local interest and all matters referred to them by the Representative Body and Council. In matters of purely local interest the Divisions should report their decisions to the Branch Council and the Branch Council shall have power to forward reports received direct to the Central Authority, otherwise to consider them from the point of view of its Divisions collectively, and then report upon the whole question to the Central Authority.

(ii) The powers of a Division in ethical matters brought before its notice be limited to the making of necessary preliminary inquiries, and to forwarding complaints to the Branch Council.

(iii) Arrangements to be made for the enlargement of scientific and social meetings, to which non-members resident in the Division would be as far as possible invited.

(iv) The system of wards to be encouraged in each Division.

(v) *Election to Branch Council.*—That each Division be allowed to have one Representative up to 200 members, and an extra Representative for every 200 members in addition or to the nearest 100 over 150 members.

(vi) *Election to Representative Body.*—The Representative Body to be elected directly by the Divisions or group of Divisions in the proportion of one Representative for every complete 200 members.

BRANCH COUNCILS.

(i) To deal, as at present, with finance and boundaries of Divisions.

(ii) To deal with all questions that concern their areas, and to co-ordinate their constituent Divisions, reporting upon the questions involved to the Representative Body or Council, when it is necessary or desirable or when so directed by either of these bodies.

(iii) To deal with ethical matters arising in the Divisions; the power to go direct to the Central Ethical Committee, and the right of appeal, being preserved as at present.

(iv) *Composition of Branch Council.*—(*a*) To be composed of one representative up to 200 members from each Division, and an extra representative for every 200 members in addition or to the nearest 100 over 150 members.

That the President, President-elect, Treasurer, and two Honorary Secretaries of the Branch be *ex officio* members of this Council.

THE REPRESENTATIVE BODY.

(i) *Composition.*—To be composed of Representatives elected directly by the Divisions by postal vote or otherwise, as determined by the Divisions.

(ii) *Duties.*—(*a*) To meet at least once in every year, but the existing machinery to be altered to enable meetings to be called at shorter notice than is at present possible.

(*b*) To be an assembly with full deliberative powers, and to be responsible for formulating the policy of the Association.

(*c*) To appoint the Council.

(*d*) To be empowered to delegate specific powers to the Council to take action upon its behalf until the next meeting of the Representative Body.

(NOTE.—The calling together of the Representative Body in a crisis may be very disadvantageous to the Association owing to the impossibility of keeping the transactions in any way private, thus involving the disclosure of the opinions and future plans of the Association to those to whom for the time being it finds itself in opposition.)

THE COUNCIL.

Election.—The Council shall be composed of the President of the Association, the President-elect, the Past-President, the Chairman of Representative Meetings, the Chairman of Council, the Past Chairman of Council, and Treasurer *ex officio*.

(i) To be elected by the Representative Body, and at least five-sixths to be members of the Representative Body. Special provision to be made for Colonial Representatives.

(ii) *Duties.*—(*a*) To carry out the duties assigned to it by the Representative Body.

(*b*) To appoint standing Committees as at present, such to be reduced in size as far as is compatible with efficiency, and to be composed in the proportion of two members of the Council to three or four members elected by the Representative Body.

(NOTE.—This course would tend to shift some of the burden of work from members of the Council.)

(*c*) *The Scottish and Irish Committees.*—More use to be made of these Committees, which should, in fact, co-ordinate their respective Branches.

The Scottish and Irish Committees shall have power to co-opt members for local purposes.

(NOTE.—Many questions could thus be speedily dealt with on the spot by those competent to do so, and loss of time and the expense of journeys to London avoided.)

(iii) *The Institution of New Committees.*—(*a*) To appoint a Parliamentary Committee, with power to co-opt additional members, to maintain and increase the influence of the Association in the Houses of Parliament, to keep in touch with all legislation, existing or proposed, that affects the medical profession, and to perform all such duties as at present are entrusted to the Parliamentary Subcommittee of the Medico-Political Committee.

(*b*) To appoint a new Committee to organize and control systematic endeavour to awaken and keep awake interest in the Association, and to devise means to make it more attractive.

(NOTE.—Such a Committee should always have ready to date lists of speakers on various subjects, whether medico-political or scientific, who would be willing and able to address meetings in all parts of the country, and it would be part of the duties of this Committee to arrange for interesting and attractive meetings to which non-members would be largely invited. Under the auspices of this Committee a new and valuable special department might be established to deal with all such questions of development, and, in addition, to undertake on behalf of members of the Association only, the transference of practices, the supply of "locumtenents" and all business of that kind. If this were done at a charge for out-of-pocket expenses only, as might have to be the case, it would be a great boon to many members, and might attract others to join an Association which would be of practical use to them.)

(*c*) To appoint for the purposes of each lawsuit in which the Association may be engaged, a special small Committee to represent the Association in the matter of conferring with and instructing the Solicitor with regard to the preparation and presentation of the case.

Points to be Considered with Regard to General Reorganization.

(*a*) The Committee draws attention to the supreme necessity of economy before any question of raising the subscription is entertained.

(*b*) To consider the appointment of a chief to the Central Office, to supervise and co-ordinate the work, and to ensure that the services of each department shall be readily available for the other departments, and to place the whole office upon a business basis.

(NOTE.—The Committee recognizes the difficulties of such a step at the present time, and offers the suggestion that such difficulties might be overcome, for the time being, by the establishment of a small House Committee to supervise generally.)

(*c*) The establishment of definite departments and the more definite allocation of duties in the Medical Department, thus abolishing the present system under which all business goes through the hands of one official, and which cramps the development of the department, and throws more work upon the shoulders of one man than is wise or desirable.

The Branch Council is of opinion that it is undesirable to alter the Articles of Association, and the above plan has been proposed in accordance with this view.

(B. M. J. SUPPLEMENT, April 19th, 1913.)

VIII.—ELECTION OF OFFICERS.

62. (*a*) Elect a President of the Association under By-laws 57 and 57 and Standing Order 34 (see page 418 of this SUPPLEMENT).

63. (*b*) Elect a Chairman of Representative Meetings under By-laws 37 and 58 and Standing Order 34 (see page 418 of this SUPPLEMENT).

64. (*c*) Elect a Deputy-Chairman of Representative Meetings under By-law 37 and Standing Order 34 (see page 418 of this SUPPLEMENT).

65. (*d*) Elect a Treasurer under By-law 60 and Standing Order 34 (see page 418 of this SUPPLEMENT).

66. IX.—ELECTION OF VICE-PRESIDENTS AND HONORARY MEMBERS (IF ANY),

Under By-laws 62, 8, and 37, and Standing Order 35 (see page 418 of this SUPPLEMENT).

X.—ELECTION OF MEMBERS OF COUNCIL.

67. (*a*) Election of 12 Members of Council by Grouped Representatives under By-law 43 (c) and Standing Order 36 (see page 418 of this SUPPLEMENT).

68. (*b*) Elect 4 Members of Council under By-law 43 (d) and Standing Order 37 (see page 419 of this SUPPLEMENT).

XI.—ELECTION OF MEMBERS OF COMMITTEES.

69. Elect 4 Members of Finance, 3 of Organization, 3 of Journal, 6 of Central Ethical, 6 of Medico-Political, 4 of Public Health, 6 of Hospitals, 2 of Naval and Military, and 2 of Colonial Committee, and other Committees, if any, under By-law 66 and Schedule thereto, and Standing Orders 38–48 (page 419 of this SUPPLEMENT).

XII.—STANDING ORDERS.

70. Consider proposed amendments, if any, of Standing Orders, other than relating to Order of Business.

71. XIII.—ANY OTHER BUSINESS.

72. XIV.—CONFIRM MINUTES.

By Order,

ALFRED COX,

Medical Secretary.

May 7th, 1913.

STANDING ORDERS

RELATIVE TO

BUSINESS AT REPRESENTATIVE MEETINGS.

As adopted at Liverpool, July, 1912.

I.—ORDER OF BUSINESS.

(A)—*Annual Representative Meeting.*

1. Except as may be otherwise determined in the manner prescribed by the Standing Orders, the order of business shall be as follows:—

i. **Election Returns.**—Receive the return of the Election of Representatives of Divisions for the year, and receive notices, if any, of the appointment of substitutes for Representatives under By-law 34.

ii. **Standing Orders.**—Adopt Standing Orders.

iii. **Annual Report of Council.**—Receive the Annual Report of the Council with the Balance Sheet and Financial Statement for the past year, and the Estimate of income and expenditure for the current year presented under Article 40, and consider motions relating to the adoption thereof in whole or in part.

iv. **Special Reports of Council.**—Receive Special Reports of the Council, if any, in the order in which the Council shall submit them for consideration, and consider motions for the adoption thereof in whole or in part.

v. **Reports of Committees (if any).**—Receive Reports of Committees, if any, and consider motions for the adoption of the same in whole or in part.

vi. **Consider By-laws.**—Consider, in such order as the Meeting shall determine, any motions placed upon the Agenda of the Meeting, by which it is proposed to make By-laws or to alter or repeal existing By-laws.

vii. **Consider other Motions by Divisions or Branches.**—Consider, in such order as the Meeting shall determine, any other motions placed upon the Agenda of the Meeting by Divisions or Branches.

viii. **Election of Officers.**—Elect at such time as the Meeting shall determine:—

(*a*) President of the Association under By-law 57.

(*b*) Chairman of Representative Meetings, under By-law 58.

(*c*) Deputy-Chairman of Representative Meetings, under By-law 37.

(*d*) Treasurer (if the office be vacant), under By-law 61.

xi. **Election of Vice-Presidents and Honorary Members.**—Consider, at such time as the Meeting shall determine, nominations, if any, by the Council of:—

(*a*) Vice-Presidents, under By-law 62.

(*b*) Honorary Members, under By-law 8.

x. **Election of Members of Council.**—Elect at such time as the Meeting shall determine:—

(*a*) Twelve Members of Council, under By-law 43 (*c*);

(*b*) Four Members of Council, under By-law 43 (*d*);

(*c*) Three Members of Council, under By-law 43 (*e*).

xi. **Election of Members of Committees.**—Elect Members of Standing Committees in accordance with the By-laws, and such Members of other Committees and Conferences, if any, as it falls to the Representative Meeting to elect.

xii. **Amendment of Standing Orders.**—Consider proposed amendments of Standing Orders, other than those relating to the order of business.

2. **General Order of Daily Sessions: Confirmation of Minutes.**—The matters described in Clause 1 shall be considered in the order therein prescribed, or as otherwise duly determined, from day to day until the completion thereof or until the expiration of four days from the first day of the Meeting, whichever shall first occur; provided that at each

daily session after the first, the Meeting shall, before proceeding to the consideration of the matters aforesaid, (A) confirm the Minutes of the Proceedings of the previous daily session; (B) consider motions, if any, relating to the order of business of the day. At the conclusion of the business of the last daily session the Meeting shall confirm the Minutes thereof for presentation to the Council.

3. Hours of Daily Sessions.—All Representative Meetings not concluded by 6.30 p.m. shall stand adjourned either to 8 p.m. of the same day, or to the next day, as may be decided by a show of hands. All such Meetings shall stand adjourned at 10 p.m.

4. Varying Order of Business.—The order of business may be varied at any time by the vote of two-thirds of those present and voting.

5. Precedence of Motions of which Notice Given.—Motions and amendments of which notice shall have been given to the Secretary of the Meeting in time for them to be circulated with the Minutes of the previous day's proceedings, shall have precedence, in the order in which such notice shall have been given, over those relating to the same subject, or otherwise having a like claim to precedence in the order of business, of which such notice has not been given.

6. Motions on the Same Subject.—If two or more of the motions placed on the Agenda of the Meeting by the Council and by Divisions and Branches shall appear to the Chairman to relate to the same subject, he shall ascertain the will of the Meeting in respect of the consideration of one of such motions as an original motion, and of the others as amendments thereto, in such order as the Meeting may determine.

7. Motions on Subjects dealt with in Reports.—If any motion placed upon the Agenda shall in the opinion of the Chairman relate to the same subject as a recommendation or other portion of a Report submitted by the Council or by a Committee, the Chairman shall ascertain the will of the Meeting as to whether the said Motion shall be considered as an Amendment or Rider to the adoption or approval of the said Recommendation or other portion of a Report.

8. Resolutions Involving Special Expenditure.—The Meeting shall not proceed on any motion involving special expenditure which has not previously been considered by the Finance Committee.

(B)—*Special Representative Meetings.*

9. Read Authority for Convening Meeting.—Read the Resolution of Council, or the requisition from Divisions, in pursuance of which the Meeting is convened.

10. Notice of Substitutes.—Receive notices, if any, of the appointment of substitutes for Representatives.

11. Order of Business.—If the Meeting is convened to consider more than one matter, determine the order in which such matters shall be considered.

12. Special Business.—Consider the matters which the Meeting is specifically convened to consider, in order determined by the Meeting.

13. Minutes.—Confirm the minutes of the Meeting for presentation to the Council.

II.—COMPOSITION AND ARRANGEMENT OF THE MEETING.

14. Composition.—The Persons constituting the Meeting, hereinafter called members of the Meeting, shall be those duly elected Representatives of Divisions, or substitutes duly appointed under By-law 34, of whose election or appointment the Secretary of the Meeting shall have received due notice, together with Members of Council for the time being in office, or elected to take office at the conclusion of the Meeting.

15. Arrangement.—Distinctive seats shall be provided for the following groups of persons respectively, namely:

(A) Representatives of Divisions.

(B) Members of Council who are not Representatives of Divisions or Officers of the Association.

(C) Officers of the Association, present in virtue of their office, or at the request of the Meeting, for the assistance thereof.

(D) Members of the Association who are not Representatives of Divisions or Members of Council.

(E) Reporters representing such journals as may be authorised by the Chairman, subject to the approval of the Meeting.

16. Withdrawal of Strangers.—It shall be competent at any time for a member of the Meeting to move that persons who are not members of the Meeting be requested to withdraw, or that persons who are not Members of the Association be requested to withdraw, but it shall rest in the discretion of the Chairman to submit or not to submit such motion to the Meeting.

III.—PROCEDURE.

17. Temporary Chairman.—In the absence of the Chairman of Representative Meetings, the Deputy-Chairman shall preside; or, if he be also absent, the Chairman of Council or the Treasurer, if present, shall take the chair, and call upon the Meeting to appoint a temporary Chairman.

18. Minutes.—Minutes shall be taken of the proceedings of the Meeting, and the same shall be duly entered in a book provided for the purpose. The Minutes of each daily session of the Annual Representative Meeting shall be printed and circulated to the Members of the Meeting. Minutes (if) (when) printed in the Daily Journal of the Annual Meeting shall be deemed thereby to have been circulated as required by this order.

19. Attendance.—No Representative shall leave the Meeting without permission obtained personally from the Chairman at the time of leaving. If during any daily session of a Representative Meeting it shall at any time appear to the Chairman that a quorum is not present, the roll shall be called of Representatives appointed to attend the Meeting, and those Representatives who are found to be then absent, not having previously obtained leave from the Chairman, shall be deemed to have been absent from the said session. A list of Members reported as absent from any daily session or sessions of a Representative Meeting shall be supplied at the close of such Meeting to the Chairman and shall by him be transmitted to the Council, together with such explanations of the cause of absence as any Members so reported may have furnished to him in writing.

20. There shall be an Agenda Committee of the Representative Body to consider and report to each Meeting of the Representative Body on the method of dealing with the Agenda of such Meeting, and such Committee shall consist of the Chairman of Representative Meetings, the Chairman of Council, and the four members of Council elected by the Representative Body under By-law 43 (*d*), then in office.

21. Reports: Notice.—Subject as herein provided, no Report by the Council, or by a Committee, to the Representative Meeting shall be considered by the Meeting unless it shall have been sent to the Divisions and published in the JOURNAL at least one month before such Meeting. The exceptions to this rule shall be—

(A) That the Council shall submit, in addition to their Annual Report, a Supplementary Report dealing with those matters of importance, arising subsequent to the issue of the Annual Report in which action has been taken, or action by the Representative Meetings is recommended.

(B) That any Special Committee appointed by the Representative Meeting shall report in accordance with the terms of the instructions given to such Committee by the Meeting.

22. Form of Reports.—Reports of Council and Reports, if any, of Standing Committees, to the Representative Meeting, shall comprise the following:—

(i.) A list of matters referred by the Representative Meeting to the Council or Committee.

(ii.) Reports with specific recommendations upon all matters in which the Council or Committee considers that action should be taken involving a new declaration of policy or expenditure not already authorised.

(iii.) A short report of all action taken by the Council or Committee in accordance with instructions of the Meeting.

(iv.) A list of matters under consideration but not completed.

23. Presentation of Reports.—The report of the Council or of a Committee shall be presented by the Chairman, or, in

his absence, by a Member, of the body submitting such Report, who shall move—

(i.) That the Report be received.
(ii.) That the Recommendations, if any, be adopted.
(iii.) That the rest of the Report be approved.

The adoption of each recommendation shall be the subject of a separate motion. The approval of the rest of the Report shall be moved as a whole, unless the Chairman rule or the Meeting resolve that the approval of each paragraph, or of any specified paragraph, be the subject of a separate motion.

24. Amendments and Riders—

(i.) To a Motion that the Report be received, no amendment shall be moved.

(ii.) To a motion that a Recommendation be adopted amendments may be moved.

(iii.) To a motion that a Report, or a specified paragraph of a Report, be approved, an amendment may be moved to the effect that the Meeting do disagree with, or do refer back to the Council or Committee, any specified portion thereof, or that with reference thereto the meeting do express an opinion in terms stated.

25. Procedure as to Other Motions.—Motions placed on the Agenda of the Meeting by a Branch shall be introduced by a Member of Council elected by the Branch, and Motions so placed by a Division shall be introduced by the Representative thereof.

26. Absence of Authorised Mover of Adoption of Report or Other Motion.—In the absence of any Member authorised to make any motion referred to in Standing Order 23 or 25, any other Member deputed by such Member may make such motion on his behalf, and if no Member shall have been so deputed, such motion shall be made formally by the Chairman.

27. Seconding Motions.—No seconder shall be required for any of the motions referred to in Standing Order 23 or 25. All other motions and all amendments shall be required to be moved and seconded.

28. References to Central Executive.—Each motion or amendment which is of the nature of an instruction or reference to any central executive body, other than a Committee, specially appointed by the Representative Meeting, shall be moved in the form of an instruction or a reference to the Council.

29. Rescission of Resolutions.—No motion to rescind any Resolution of a Representative Meeting, arrived at after due consideration of the Divisions, shall be in order at any subsequent Representative Meeting, unless at least two months' notice of such proposed motion shall have been given to the Divisions through the Supplement to the JOURNAL.

30. Time Limits of Speeches.—(A) A member of the Meeting shall be allowed to speak for fifteen minutes in moving a resolution which does not require seconding, and for ten minutes in moving any other resolution, or any amendment. Except as aforesaid, no speech shall exceed five minutes

31. Reducing Time Limit.—(B) The Meeting may at any period of any session reduce the time to be allowed to speakers, whether in moving resolutions or otherwise, during the remainder of such session.

32. Voting.—Only Representatives of Divisions shall vote on any question before the Meeting.

33. Mode of Voting.—Voting shall be by show of hands, except in the cases following, namely :—

(i.) **Vote by Card.**—(A) If, upon the Chairman proceeding to take the vote of the Meeting upon any motion or amendment, any Representative of a Constituency shall move that the said vote be taken by card, and twenty Representatives rise in their places in support of such motion, the vote shall be taken by card, and the names of those voting for and against such motion or amendment, of those not voting, and of the Constituencies which they severally represent, shall be entered on the minutes.

(ii.) **Division.**—(B) If the Chairman, after taking a vote by show of hands upon any motion or amendment, shall be of opinion that the numbers of members voting for and against such motion or amendment are not thereby ascertained with sufficient accuracy, he shall have power to direct that the Meeting shall divide upon the said motion or amendment.

(iii.) **Vote by Roll Call.**—(C) If, upon the Chairman proceeding to take the vote of the Meeting upon any motion or amendment, it shall be moved and seconded that the said vote be taken by roll call, and ten Representatives rise in their places in support of such motion, the vote shall be taken by roll call, and the names of those voting for and against such motion or amendment, of those not voting, and of the Constituencies which they severally represent, shall be entered on the minutes and published in the Supplement.

34. Election of Officers of the Association:

NOMINATION.

(i.) Nominations for the offices of President of the Association, Chairman of Representative Meetings, Deputy Chairman of Representative Meetings, and Treasurer, shall be handed in writing to the Secretary of the Meeting not later than one hour after the commencement of the second day's proceedings. Each nomination shall be signed by the nominator, and shall contain a declaration that the candidate nominated has agreed to serve.

(ii.) If only one candidate be nominated for any office, such candidate shall at once be declared by the Chairman to be elected.

VOTING.

(iii.) If more than one candidate be duly nominated, the names of all such candidates shall be duly placed in a voting paper, which shall be issued and collected at such times as the Meeting shall direct. Each voter shall number the names of the candidates for each office in the order of his preference.

The Scrutineers shall proceed as follows:

(a) On the first count each candidate shall be credited with the number of votes given by those voters who have numbered him (1), and if any candidate be found to have received an absolute majority of votes cast he shall be declared to be elected.

(b) If no candidate be thus elected, that candidate who has received fewest votes shall be excluded, and his votes shall be transferred to the candidates respectively numbered as next preference on his voting papers, and any candidate now found to have an absolute majority shall be declared to be elected.

(c) If after the first transfer, no candidate be declared to be elected, the procedure of exclusion and transfer shall be repeated, and so on until one candidate is declared to be elected.

(d) If on a count between three candidates no candidate be found to be elected, and the candidates who have fewer have an equal number of votes, the preferences on the voting papers of the highest candidate shall, for the time being, be credited to the other two candidates, and that candidate who has fewer votes shall be excluded.

(e) If on a count between two candidates, after the others have been excluded, the votes are equal, that candidate who has the larger number of first preference votes shall be declared to be elected.

(f) In any case of equality subsisting after this procedure, one of the candidates shall be excluded by lot.

(g) Any voting paper shall become invalid if its preferences be exhausted before a candidate is declared elected.

ENTRANCE INTO OFFICE.

(iv.) Except with regard to *ex-officio* membership of Council and Committees, the Chairman and Deputy Chairman so elected shall not assume their functions until the close of the Annual Meeting.

35. Election of Vice-Presidents and Honorary Members.—The name of any person nominated by the Council for election as a Vice-President or an Honorary Member shall be submitted to the Meeting from the Chair.

36. Election of Twelve Members of Council by Grouped Representatives under By-law 43 (c)—

(i.) The election shall take place at the time of the Annual Representative Meeting.

(ii.) Nominations for a Member of Council to be elected by any group of Representatives shall be required to be made by a Division (through its Representative)

or by a Representative of a Division included in the group.

(iii.) Nominations shall be required to be on the prescribed form.

(iv.) Nominations shall be received up to the end of the first hour of the third days' session of the Annual Representative Meeting.

(v.) There shall be issued to each Representative or Deputy Representative of a Constituency in the United Kingdom in attendance at the Meeting a voting paper containing the names of all candidates duly nominated for election as Members of Council by the group to which such Representative belongs.

(vi.) The voting paper shall be in the prescribed form.

(vii.) Each Representative shall number the candidates on the list in the order of his preference. The voting papers shall be collected at such time as the Meeting shall direct.

(viii.) The votes shall be counted in accordance with the method of the Single Transferable Vote. In the event of two candidates being found at any stage in the counting to have the same number of votes in their favour, each voter shall be credited with the number of votes which he would be entitled to give on a vote by card, and the candidate who shall then be found to have received the greatest number of votes shall have the preference.

(ix.) The details of the voting shall be placed before, and verified by, the Chairman before being declared.

37. Election of 4 Members of Council under By-law 43 (d)—

(i.) Nomination of candidates for election as Member of Council by the Representative Meeting under By-law 43, Sub-paragraph (d), shall be handed to the Secretary of the Meeting not later than the end of the first hour of the morning session, on the fourth day of the Annual Representative Meeting.

(ii.) Any Member of the Association may be nominated for election.

(iii.) A nomination may be made by any person entitled to take part in the meeting. Each nomination shall be on the prescribed form, which shall contain a statement of the candidate's experience in the Central Executive work of the Association, and shall contain, or be accompanied by, a statement by the candidate that he is willing to serve if elected.

(iv.) Voting papers containing the names of all candidates duly nominated, with such particulars as to their previous official experience as are stated in the nomination papers, shall be distributed to all Representatives or Deputy-Representatives in attendance at the Meeting, at the commencement of the afternoon session on the fourth day of the Annual Representative Meeting.

(v.) Each voter shall number the names of candidates in the order of his preference—one, two, three, etc., and sign the Voting Paper.

(vi.) The votes shall be counted and the result of the Election ascertained by the method of the single transferable vote.

(vii.) The details of the voting shall be submitted to, and verified by, the Chairman before the result is declared.

Election of Members of Standing Committees.

38. There shall be an Election Returns Committee of the Representative Meeting, which shall consist of the Chairman of Representative Meetings, the Chairman of Council, the Deputy-Chairman of Representative Meetings, the Chairmen of those Standing Committees of which under the By-laws Members are appointed by the Representative Meeting and the Chairman of the Scottish and Irish Committees.

39. The Committee shall prepare a Return showing for each Committee, Members of which are elected by the Meeting: (1) the Members of such Committee for the past year (those not appointed by the Representative Meeting being specially indicated); (2) the years of service on the Committee; (3) their possible and actual attendances at (i.) Meetings of the full Committee, and (ii.) Meetings of its Sub-Committees, held up to three weeks before the commencement of the Annual Meeting. The Return shall be issued to each Representative with the Agenda of the Meeting.

40. With regard to the Finance, Journal, and Organisation Committees, only Representatives of Divisions shall be eligible for appointment.

41. After the commencement of the Annual Representative Meeting, the Committee shall prepare a list of nominations for the various Committees. In this list it shall indicate which of those nominated are Representatives, and which, if any, are Members of Council for the ensuing year.

42. In preparing the list the Committee shall have regard to (A) geographical representation on Committees where this is important; (B) the previous attendance of Members on Committees; (C) the declarations of Members as to the Committees on which they are prepared to serve.

43. With the Agenda of the Representative Meeting nomination papers for Committees shall be issued to all Members of the Meeting.

44. Each Member of the Meeting shall be entitled to nominate not more than one Member for each Committee.

45. Nomination papers by Members of the Meeting shall be handed to the Secretary of the Meeting.

46. No Representative shall be eligible for election by the Representative Meeting as a Member of more than two Committees, and no person not a Representative shall be eligible for election by the Representative Meeting as a Member of more than one Committee. If any Representative be nominated as a Member of more than two Committees, the Committee shall ascertain from him on which he prefers to serve, or, if this be impracticable, shall decide which nomination shall stand; and if any person, not a representative, be nominated for more than one Committee, the Committee shall decide which of such nominations shall stand.

47. Voting papers, containing the names of all candidates duly nominated, shall be circulated to all Representatives at the commencement of the fourth day's proceedings, and shall be collected before 1 p.m. that day.

48. The word "Representative" in these Standing Orders shall be taken as meaning the duly appointed Representative of a Constituency, or, in his absence, the Deputy duly appointed in his stead, in attendance at the Meeting.

49. Election of Service Members of Council.—The election of Members to represent the Royal Naval Medical Service, the Army Medical Service, and the Indian Medical Service on the Council shall be conducted as follows:—

(i.) In addition to Members nominated by the Council, it shall be open to any Member of the Representative Body to nominate a candidate for election as a Service Member of Council.

(ii.) Voting papers containing the names of all candidates duly nominated shall be circulated to the Representatives and be collected at the same time as the voting papers for the election of the Chairman and Deputy-Chairman of Representative Meetings.

(iii.) The votes shall be counted and the result of the election ascertained by the method of the single transferable vote.

(iv.) The details of the voting shall be submitted to the Chairman of Representative Meetings and verified by him before the result is declared

Committee of the whole Representative Body.

50. Upon it being resolved that any item or items of the Agenda of a Representative Meeting be considered in Committee of the whole Representative Body, the following shall be the procedure:—

(i.) The consideration of the business in Committee shall take place at such time as the Representative Meeting shall determine.

(ii.) In Committee of the Representative Body, Representatives of Divisions and Members of Council respectively shall have the same rights of voting and speaking as in a Representative Meeting, and the rules of debate shall be the same as for a Representative Meeting, except that a Member may, subject to the consent of the Chairman, speak more than once on the same motion or amendment.

(iii.) On the conclusion of the consideration of the business referred to the Committee, the Committee shall confirm its Minutes as the Report of the Committee to the Representative Body, and the Representative Meeting shall thereupon resume.

(iv.) The proceedings of the Committee may be temporarily suspended at any time by a resolution that the

Committee be adjourned, whereupon the Representative Meeting shall resume. The business of the Committee shall be resumed at such time as shall be fixed by the Committee, unless otherwise determined by a vote of the Representative Meeting.

IV.—RULES OF DEBATE.

51. Every member shall be seated except the one who may be addressing the Meeting, and when the Chairman rises, no one shall continue to stand, nor shall any one rise until the Chair is resumed.

52. A member of the Meeting shall stand when speaking and shall address the Chair.

53. A member who speaks shall direct his speech strictly to the motion under discussion, or to a motion or amendment to be proposed by himself, or to a question of order.

54. A member shall not address the Meeting more than once on any motion or amendment, but the mover of a resolution or amendment may reply, and in his reply shall strictly confine himself to answering previous speakers, and shall not introduce any new matter into the debate; provided always that a member may speak to a point of order, or, by consent of the Meeting, in explanation of some material part of a speech made by him, which he believes to have been misunderstood.

55. A motion or amendment once made and seconded shall not be altered or withdrawn without the consent of the Meeting.

56. An amendment shall be either—

To leave out words;

To leave out words and insert or add others;

To insert or add words;

or in such form as shall be approved of by the Chairman, provided always that the amendment be relevant to the motion on which it is moved, and be not equivalent to the direct negative thereof.

57. No notice of motion, or amendment to any motion before the Meeting, not already published, shall be considered by the Meeting until a copy of the same with the name of the proposer has been handed in in writing to the Chairman.

58. Whenever an amendment upon an original motion has been moved and seconded no second or subsequent amendment shall be moved until the first amendment shall have been disposed of, but notice of any number of amendments may be given.

59. If any amendment be rejected, other amendments may be moved on the original motion. If an amendment be carried, the amendment or motion as amended shall take the place of the original motion, and shall become the question upon which any further amendment may be moved.

60. If it be proposed and seconded that the Meeting do now adjourn, or that the debate be adjourned, or that the Meeting do proceed to the next business, or that the question be now put, such motion shall immediately be put to the vote without discussion, except as to the time of adjournment, provided always that the Chairman shall have power to decline to put to the Meeting the motions that the Meeting do proceed to the next business, or that the question be now put.

61. A motion that the Meeting do now adjourn, or that the Meeting do now proceed to the next business, or that the debate be now adjourned, or that the question be now put, shall not be made within a period of one hour after a previous motion to the like effect, unless, in the opinion of the Chairman, the circumstances are materially altered.

62. Smoking shall not be allowed during such time as the Chairman is in the Chair.

V.—SUSPENSION OF STANDING ORDERS.

63. Any one or more of the Standing Orders, in any case of urgency, or upon motion made on notice given through the Daily Journal, may be suspended at any Meeting, so far as regards any business of such Meeting, provided that three-fourths of those present and voting shall so decide.

Association Intelligence.

PROCEEDINGS OF COUNCIL.

A meeting of the Council was held at 429, Strand, London, W.C., on Wednesday, April 23rd, at 11 a.m.

Present:

Dr. J. A. Macdonald, LL.D., Taunton, Chairman of Council, in the Chair.
Sir James Barr, M.D., LL.D., Liverpool, President.
Dr. W. Ainslie Hollis, Hove, President-elect.
Mr. T. Jenner Verrall, Bath, Chairman of Representative Meetings.
Dr. Edwin Rayner, Stockport, Treasurer.

Dr. John Adams, Glasgow
Dr. R. M. Beaton, London
Surgeon-General P. H. Benson, M.B., I.M.S., Walmer (Indian Branches)
Dr. M. G. Biggs, London
Dr. Charles Buttar, London
Dr. Wm. Clow, Paisley
Professor Henry Corby, Cork
Dr. J. Singleton Darling, Lurgan
Mr. E. J. Domville, Exeter
Dr. D. E. Finlay, Gloucester
Dr. B. E. Fordyce, Cambridge
Mr. T. W. H. Garstang, Altrincham
Surgeon-General J. P. Greany, I.M.S., Ealing (Indian Medical Service)
Dr. T. D. Greenlees, London (South African Branches)
Dr. J. R. Hamilton, Hawick, N.B.
Dr. G. E. Haslip, London
Dr. R. Wallace Henry, Leicester
Mr. R. J. Johnstone, Belfast
Mr. F. Charles Larkin, Liverpool
Mr. C. Courtenay Lord, Gillingham
Dr. J. Livingstone Loudon, Hamilton, N.B.
Mr. Albert Lucas, Birmingham
Dr. H. C. Mactier, Wolverhampton
Dr. James Metcalfe, Bradford
Dr. C. H. Milburn, Hull
Dr. J. Munro Moir, Inverness
Dr. H. Falconer Oldham, Morecambe
Dr. George Parker, Bristol
Dr. F. J. Smith, London
Mr. E. B. Turner, London
Dr. W. J. Turrell, Oxford
Mr. D. J. Williams, Llanelly
Mr. E. H. Willock, Croydon

THE WORK OF THE COUNCIL.

Owing to the amount of business on the agenda for the quarterly meeting, although the Council sat from 11 in the morning until 11.15 at night, it was unable to complete its business on April 23rd, and stood adjourned until April 30th. The attention of members is specially directed to the appended report of the transactions at these two meetings, but it must be borne in mind that a large amount of business transacted at these meetings is embodied in the Annual Report of Council already published in the Supplement of May 3rd.

ELECTIONS TO THE COUNCIL.

The Chairman reported that Dr. J. Livingstone Loudon (Glasgow and West of Scotland, Border Counties and Stirling Branches) and Dr. B. E. Fordyce (Cambridge and Huntingdon, East Anglian, and South Midland Branches) had been appointed members of the Council, and extended a welcome to both gentlemen, who were present.

CONDOLENCES.

The Council resolved to convey to the families of the late Dr. Cecil E. Shaw (Belfast) and Mr. Jordan Lloyd (Birmingham) an expression of sincere sympathy in their bereavement.

Replies to resolutions of condolences passed at the previous meeting upon the deaths of Lord Ilkeston and Dr. Marriott were received from the Dowager Lady Ilkeston and Mrs. Marriott.

REPORT OF FRACTURES COMMITTEE.

A letter was received from the Chairman of the Committee of Fractures of the American Surgical Association expressing the high appreciation which the members of his committee felt for the work done by the Fractures Committee of the British Medical Association, and asking for suggestions with regard to the constitution of its work by the Committee of the American Surgical Association. The Chairman of Council was requested to inform the American Surgical Association that the British Medical Association valued this expression of opinion, and would be glad to assist in the manner suggested.

AUSTRALASIAN MEDICAL CONGRESS.

The CHAIRMAN reported that a letter had been received from the Executive Committee of the Australasian Medical Congress confirming the invitation to members of the Association to attend the meeting of the Congress in Auckland in February, 1914 (9th to 14th), which had been given by Dr. Barrett, of Melbourne, during the annual meeting at Liverpool. The Council resolved that any member of the Council desirous of attending the Congress should be requested to communicate with the Chairman with a view to being appointed a representative of the Association.

REFORM OF THE PRESENT CONSTITUTION.

The report of a committee of the Metropolitan Counties Branch appointed to consider the reform of the present constitution of the Association was communicated to the Council by the Honorary Secretary of the Branch. The report was published in the SUPPLEMENT of April 19th, p. 330, as one of the notices of motion for the Annual Representative Meeting at Brighton. After a short discussion, during which several members of the Council pointed out the importance of the changes proposed, the report of the Metropolitan Counties Branch was referred to the Organization Committee with instructions to report to the Council at an early date on this and several cognate subjects. It was also resolved that the Council should hold a special meeting for the consideration of this report on a sufficiently early date to enable it to make a report to the next Annual Representative Meeting. It was left for the Chairman of Council to decide the most convenient date for this meeting.

PROPOSED JOINT MEETING WITH THE AMERICAN MEDICAL ASSOCIATION.

A letter was received from the Chairman and Board of Trustees of the American Medical Association stating that that Association, at its annual meeting in June, 1912, had appointed a committee with a view to finding out whether a joint meeting of the British Medical and American Medical Associations was desirable and possible. The Council resolved to appoint a special committee consisting of the officers of the Association to consider this suggestion.

FINANCES OF THE ASSOCIATION.

The Finance Committee reported that at its meeting on January 22nd it had appointed a special Subcommittee, consisting of the Chairman of Representative Meetings, the Chairman of the Organization Committee, Dr. Buttar, Dr. F. J. Smith, and Mr. D. F. Todd, to consider (*a*) the proposed increase in the subscription, (*b*) to inquire into the number and quantity of printings issued by the Association, (*c*) the advisability of the Finance Committee meeting more frequently, (*d*) to prepare a return of the duties and salaries of the office staff of the departments of the Editor, Financial Secretary and Business Manager, and the Medical Secretary.

The Finance Committee had held a special meeting to receive the report of this Subcommittee, and submitted a series of recommendations which were received and discussed by the Council, and the findings were embodied in the Annual Report of Council published in the last SUPPLEMENT.

JOURNAL COMMITTEE.

The quarterly report of the Journal Committee was presented by the Chairman, Mr. ALBERT LUCAS.

Threatened Actions for Libel.

It was resolved that a standing subcommittee be appointed to deal with threatened actions for libel arising out of matters published in the JOURNAL and other publications of the Association.

Ethical Inquiries.

The Council approved the recommendation of the Committee that ethical inquiries with respect to which a pronouncement of the Association cannot be quoted should be referred by the Editor to the Ethical Committee.

Advertisements Excluded.

A list of advertisements excluded from the JOURNAL from December 31st, 1912, to March 15th, 1913, was submitted by the Committee and directed to be entered upon the minutes.

SCIENCE COMMITTEE.

Middlemore Prize.

The quarterly report of the Science Committee was presented by the Chairman, Dr. F. J. SMITH. The Middlemore Prize of the Association will be awarded in the year 1914 for an essay on a subject to be determined by the Committee.

Scientific Work.

The Committee reported that, in accordance with instructions, it had considered the question of the best means of organizing the scientific work of the Association in the Divisions and Branches, and had appointed a Subcommittee to elicit the opinion of Divisions and Branches as to the most useful way in which the Committee could co-operate with them in carrying out this object.

Shellfish for Human Consumption.

The Committee reported that it had, as instructed, suggested to the Fishmongers' Company the names of three medical men from which a selection could be made of one for election on the special committee nominated by the Fishmongers' Company to report on the subject of shellfish, particularly in reference to bacteria, but also as to other standards which should be adopted to ensure that shellfish used for human consumption was in a suitable condition. At the adjourned meeting of the Council it was reported that the Fishmongers' Company had accordingly appointed Dr. J. C. G. Ledingham, of the Lister Institute, to be a member of its Committee.

ORGANIZATION COMMITTEE.

Referendum and Postal Vote.

The quarterly report of the Organization Committee presented by the Chairman, Mr. F. C. LARKIN, stated that the Committee had had under consideration the question of what alterations could be made in the constitution of the Association to enable the views of the profession to be obtained in a more effective and rapid manner than at present, and whether a postal vote could and should be provided for under the constitution. On the advice of the Committee the Council resolved to take the opinion of counsel on certain points, and requested the Organization Committee to hold a special meeting to consider *inter alia* the question of the postal vote with a view to advising the Council on the tenor of the report it should make to the Annual Representative Meeting.

Annual Conference of Secretaries.

It was arranged that the annual conference of secretaries should be held on Wednesday, July 23rd, at 4 p.m., and the dinner of the secretaries at 7 p.m.

CENTRAL ETHICAL COMMITTEE.

Warning Notice and the Model Ethical Rules.

The quarterly report of the Central Ethical Committee was presented by the Chairman, Dr. M. G. BIGGS, who stated that the Committee had considered the question of warning notices, especially those which had been published regularly for long periods, and advised that the Council should authorize the Committee to discontinue the publication of a warning notice if the Division or Branch on whose initiation the notice was published failed to reply promptly to inquiries. The Committee also recommended that it should have authority to insert as a matter of favour a warning notice at the request of a Division or Branch which had not adopted the new model ethical rules, but that the notice should not be repeated, and that those Branches and Divisions which had not adopted the model rules should be notified that they were expected to do so before July 31st next.

The Committee reported that it had approved the adoption of the model rules governing procedure in ethical matters adopted by three Branches and forty-three Divisions.

MEDICO-POLITICAL COMMITTEE.

The quarterly report of the Medico-Political Committee was presented by the Chairman, Mr. T. W. H. GARSTANG, who had been elected in the vacancy caused by the resignation of Mr. C. E. S. Flemming.

Elementary Education (Defective and Epileptic Children) Bill.

On the recommendation of the Committee the Council adopted the following resolution:

That the Council approve the Government Elementary Education (Defective and Epileptic Children) Bill (60) which imposes on Education Authorities the duty of providing for the education of mentally defective children over seven years of age; and that the President of the Board of Education be informed accordingly.

Mental Deficiency Bill.

The Committee reported that it had considered the Government Mental Deficiency Bill, read for the first time in the House of Commons on April 2nd, and the matter was left in the hands of the Committee to report to a future meeting of Council.

State Registration of Nurses.

The Committee recalled that the Council in 1909 appointed five representatives to a Central Committee then formed to promote the State registration of nurses. The work of this Central Committee had been for some time in abeyance, but renewed efforts were now being made to advance the subject, and a communication had been received from the Central Committee asking the Association to again appoint five members, nominating one for appointment on the Executive Committee and two to take part in a deputation to the Prime Minister. The Medico-Political Committee had accordingly appointed its Chairman (Mr. Garstang), Mr. Domville, Mr. T. Jenner Verrall, Sir Victor Horsley, and the Medical Secretary to be representatives of the Association upon the Central Committee, and Sir Victor Horsley and the Medical Secretary to act upon the deputation to the Prime Minister. [The proceedings at this deputation were reported in the British Medical Journal of May 3rd, p. 944.] The Chairman of the Committee had nominated Mr. Verrall to act on the Executive Committee of the Central Committee.

The Medico-Political Committee reported further that the Nurses Registration Bill introduced into the House of Commons by Mr. Munro Ferguson, and read a first time on March 18th, was the same bill as that to which the Association had given so much time and attention, and recommended the Council, on behalf of the Association, to forward to the Prime Minister an expression of its approval of the Nurses Registration Bill (41) urging that, if possible, facilities should be given for its proper discussion in Parliament, subject to Clause 4 (c) being amended so as to make it clear that three members of the Council to be set up were to be appointed by the British Medical Association, one resident in England, one in Scotland, and one in Ireland. The Council approved this recommendation.

Advertisements requesting Applicants to State Salary.

Certain difficulties were reported by the Medical Secretary in connexion with advertisements tendered for insertion to the Journal for appointments in which the applicants were asked to "state salary," and the Council resolved that the following should be added to the regulations in respect to the acceptance of advertisements:

That advertisements of a vacant appointment tendered for insertion in the Journal, in which applicants are requested to state the amount of salary they would require or accept, be not accepted.

Milk and Dairies Bill.

Reports upon this bill made by the Medico-Political and Public Health Committees were presented by Mr. Domville, Chairman of the latter. The Public Health Committee stated that, after consultation with the Society of Medical Officers of Health, it had decided to recommend the Council to forward a communication to the Local Government Board stating that the Association approved the Milk and Dairies Bill (62) generally, but urging the acceptance by the Government of amendments having for their object the security of tenure of medical officers of health.

The Council approved this course, and also a recommendation from the Medico-Political Committee that the approval should be subject to the inclusion of the following clause contained in the Government bill of last session, which would tend to promote uniformity of procedure and efficiency of work:

The provisions of this Act shall apply to London, subject to such modifications as may be made by regulations of the Local Government Board, and such regulations may provide for any of the powers and duties of sanitary authorities and their medical officers of health under those provisions with respect to dairies being exercised and performed by the London County Council, and the medical officer of health of the London County Council.

PUBLIC HEALTH COMMITTEE.

The quarterly report of this Committee, presented by its Chairman, Mr. E. J. Domville, in addition to the above matter, dealt with the following points:

Medical Officers of Health Superannuation Bill.

The Committee reported that it was taking all possible action to press forward the Association's Medical Officers of Health Superannuation Bill introduced into the House of Commons by Sir Philip Magnus, and read a first time on March 13th. It was in communication with the Local Government Board and hoped to enlist its sympathy.

Analysis of Water Supplies.

The resolution of the Section of State Medicine at the Annual Meeting of 1912, as to analysis of water supplies, had been carefully considered by the Committee, but it did not recommend the Council to take any further action.

Conference with Society of Medical Officers of Health.

In view of the fact that many questions interesting both to general practitioners and medical officers of health, called for attention, the Committee, after consulting the Medico-Political and State Sickness Insurance Committees, had resolved to promote a further conference at an early date with representatives of the Society of Medical Officers of Health, and had nominated as its representatives its Chairman (Mr. Domville), Dr. T. B. Heggs, Dr. R. A. Lyster, Dr. Courtenay Lord, and Mr. F. E. Wynne.

The Jenner Collection.

The Council approved the arrangements which had been made for housing the Jenner collection of vaccination literature, which had belonged to the late Jenner Society. Several inquiries for vaccination literature had been received and had been dealt with by the Vaccination Subcommittee during the quarter.

District Medical Officers of Health.

The Committee advised the Council to give its support to a deputation of district medical officers of health, which proposed to make representations to the Local Government Board with regard to the increased duties imposed upon medical officers of health by recent legislative and administrative changes. No corresponding provisions had been made for increasing the remuneration of the officers, who, moreover, were called upon to make a considerable outlay in out-of-pocket expenses, especially in regard to travelling. The recommendations of the Committee were approved by the Council.

FINANCE COMMITTEE.

Annual Financial Statement.

The Treasurer submitted the financial statement for the year ending December 31st, 1912. It was approved, and directed to be presented to the Annual General Meeting and Annual Representative Meeting. It was published in the report of the Council printed in the Supplement to the Journal of May 3rd.

Size of Journal.

The Council, on the recommendation of the Finance Committee, resolved that efforts should be made to restrict the average size of the weekly issue of the Journal to 152 pages. [The allocation of pages contemplated would be—Journal and Epitome 64, Supplement 16, advertisements 72.]

Accounts for the Quarter.

The accounts for the quarter ending March 31st, 1913, amounting to £13,896 11s. 7d., were received and approved, and the Treasurer empowered to pay those remaining unpaid, amounting to £4,096 4s. 6d.; the sum of £25 was voted to the office staff annual excursion.

COLONIAL COMMITTEE.

The report of the Colonial Committee was presented by the Chairman, Dr. T. D. GREENLEES.

Election of Members of the Council.

The Committee reported that it approved the proposed grouping of Colonial Branches for election of members of the Council.

South Africa.

The Committee had considered various matters raised on behalf of the Border Branch, South Africa, and had expressed the opinion to the Branch that the existing regulations of the Association determined in a satisfactory manner the choice of a practitioner living on the border-line of two Branches in selecting the Branch to which he would prefer to belong.

The Committee had not been able to advise the Council to arrange that a representative of the Central Office should be present at the fourteenth South African Medical Congress in July next. It wished every success to the Congress, but felt that the proposal could not be entertained on the ground of the expense involved, and the exceptionally large demands made on home practitioners recently in the way of service to their profession.

The Committee had intimated to the Organization Committee that it saw no objection to the proposal of the Natal Branch for the rearrangement of its boundaries.

STATE SICKNESS INSURANCE COMMITTEE.

The quarterly report of the State Sickness Insurance Committee was presented by its Chairman, Dr. J. A. MACDONALD, and considered paragraph by paragraph. The decisions and recommendations of the Council upon this subject were embodied in the paragraphs of its report referring to State Sickness Insurance (see SUPPLEMENT, May 3rd, p. 378).

NAVAL AND MILITARY COMMITTEE.

The report of the Naval and Military Committee was presented by Dr. T. D. GREENLEES, in the unavoidable absence of Surgeon-General J. P. Greany, I.M.S. On the recommendation of the Committee, the Council nominated Lieutenant-Colonel Waller Barrow, R.A.M.C., for election by the Representative Body upon the Council as representative of the Royal Army Medical Corps, in place of Lieutenant-Colonel Davie Harris, R.A.M.C., resigned.

The Committee had had under consideration the desirability of taking action with regard to certain matters affecting the Royal Army Medical Corps (T.F.), and had been in communication with the late Territorial Forces Special Committee. The Committee, however, was not prepared to recommend the Council to take action at present.

SCOTTISH COMMITTEE.

Organization of the Profession in Scotland.

Dr. J. R. HAMILTON, Chairman of the Committee, reported that the Committee had considered the question of the organization of the profession in Scotland. Having regard to the difficulties which arise, partly from the differences between the law of Scotland and that of the rest of Great Britain, partly from difficulties of communication with London, and partly from the changes consequent on the passage of the Insurance Act, the Committee had come to the conclusion that the work of organization in Scotland would be accomplished much more efficiently if the Council transferred to the Scottish Committee, so far as Scotland is concerned, some of the duties at present performed by central committees, and made a financial allowance for the necessary clerical assistance. The Committee did not consider that the present constitution required any alteration, but held that its efficiency would be greatly enhanced if it had the power on special occasions to secure conferences with representatives of Local Medical Committees. The Committee concluded its report with certain recommendations, after the consideration of which the Council adopted the following resolutions carrying out the changes desired by the Scottish Committee:

That the duties of organizing the Branches, Divisions, and Local Medical Committees in Scotland be transferred to the Scottish Committee.

That the Organization Committee be instructed to prepare and submit the alterations of the By-laws necessary to carry out the foregoing resolution.

That the Scottish Committee be empowered to arrange for its clerical work being done in Scotland by the appointment of a part-time clerk at a cost not exceeding £75 per annum.

That a conference of representatives of the Scottish Local Medical Committees with the Scottish Committee of the British Medical Association be authorized to be held once a year, and that special conferences may be held subject to the approval of the Finance Emergency Subcommittee, at a probable cost of £75 per annum.

That the Scottish Committee be empowered to make all necessary arrangements for the holding of annual or special conferences of the Committee with Representatives of the Scottish Local Medical Committees.

That the sum of not more than £200 per annum be granted to the Scottish Committee for the above-mentioned and other expenses of the Committee, it being understood that this sum includes the ordinary expenses of the Committee.

The Scottish Committee further reported that it had adjusted its liability with the Treasurer of the Scottish Medical Insurance Council, and proposed to return the balance of £14 of the grant of £250 received from the Council. It also reported that it had appointed a subcommittee to carry out the arrangements for the conference with representatives of Scottish Local Medical Committees.

HOSPITALS COMMITTEE.

At the adjourned meeting of the Council on April 30th Dr. BIGGS presented the report of this Committee for the Chairman, Mr. R. J. Johnstone (Belfast), who found himself unable to attend the adjourned meeting.

Vacancy on the Committee.

The Committee was instructed to fill the vacancy caused by the resignation of Dr. Lauriston Shaw.

Proposed Weir Hospital.

With regard to the matter of the proposed Weir Cottage Hospital, the Committee stated that it proposed to report fully thereon at a later date.

LISTER MEMORIAL FUND.

A letter was received from Sir John Rose Bradford, Honorary Secretary of the Lister Memorial Fund Committee, asking the Association to appoint a representative to serve on the Committee, and the Council appointed the President, Sir James Barr, accordingly.

ANNUAL REPORT OF COUNCIL.

The annual report of Council was considered clause by clause, and approved for publication in the form in which it appeared in the SUPPLEMENT to the JOURNAL of May 3rd.

SOLICITOR TO THE ASSOCIATION.

The Council reappointed Mr. W. E. Hempson to be Solicitor to the Association for the ensuing twelve months.

MR. ANDREW CLARK.

The Council accepted with thanks the gift by Mr. Andrew Clark of a portrait of himself to be hung in the offices of the Association.

ELECTION OF CANDIDATES.

Twelve candidates whose names had appeared on the notice convening the meeting were elected members of the British Medical Association.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list. The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* Journal.]

DORSET AND WEST HANTS BRANCH:
West Dorset Division.

The annual meeting of this Division was held at Dorchester on April 24th.

Presentation to Honorary Secretaries. — Before the meeting there was a luncheon at the King's Arms Hotel, at which twenty-four members were present, Dr. P. W. Macdonald presiding. After luncheon, a presention of solid silver tea services was made to Dr. T. MacCarthy and Dr. J. Miller. In making the presentation Dr. Macdonald referred in graceful terms to the services rendered by the Honorary Secretaries during trying times, and pointed out that the gifts were not only tokens of appreciation for services rendered, but also of the goodwill of the profession of West Dorset.

Election of Officers.—The following officers were elected for the ensuing year: *Chairman*, Dr. P. W. Macdonald; *Vice-Chairman*, Dr. J. F. L. Whittingdale; *Honorary Secretary*, Dr. J. Miller; *Representative at Representative Meetings*, Dr. Decimus Curme; *Representatives on Branch Council*, Drs. Edwards, Macdonald, Morrice, Unwin, Whittingdale; *Members of Executive Committee*, Drs. Cosens, Daniell, Drury, Marsh, MacCarthy.

Ethics.—The Ethical Rules were passed and the Ethical Committee for the Division was duly elected.

LANCASHIRE AND CHESHIRE BRANCH:
St. Helens Division.

A well-attended meeting of this Division was held on April 24th, Dr. Reid, the Chairman, presiding.

Payment of Representatives.—The meeting unanimously approved the payment of Representatives when attending Committee, Council, or Representative Meetings, and agreed to a voluntary levy on all members of the Division for this purpose.

Treatment of Insured Persons.—It was agreed for the present not to enter into negotiations with regard to family clubs or friendly societies. It was reported that serious efforts had been made in the neighbourhood to form a large family club at a lower rate than 8s. 6d. a person, and that a whole-time surgeon had been engaged. Partly on representation being made to those concerned as to the possible action which might be taken by the local Division of the British Medical Association, the attempt was abandoned. It was agreed, considering the somewhat exceptional position of Prescot (in the St. Helens Division) with regard to friendly society members not insured under the Insurance Act, that the present practitioners be permitted to accept those persons at a rate of not less than 8s. 6d. a head, a wage limit of £160, and the free choice of doctor. It was resolved to draw the attention of all local practitioners by special circular letter to the necessity of keeping a full and complete record in the day-books, particularly so in the light of the memorandum relating to "provision of medical benefit to temporary residents."

Certificates.—It was resolved that certificates should be characterized by simplicity and uniformity, and should be accepted by all approved societies from non-panel as well as panel doctors.

Dispensing.—The meeting resolved that representation should be made to the effect that in any amended Insurance Act, dispensing should be made optional on the practitioner's part.

Rules for Insured Persons.—It was decided to ask the Local Insurance Committee to bring to the notice of all insured persons the "model rules for the conduct of persons in receipt of medical benefit," etc., which were recently approved and adopted.

Medical Referees.—It was also resolved that when and where medical referees were appointed (*a*) they should be "whole-time" men, (*b*) nominated by the Local Medical Committee, (*c*) appointed centrally.

METROPOLITAN COUNTIES BRANCH:
Camberwell Division.

The annual meeting of the Camberwell Division was held at Camberwell Infirmary, S.E., on May 1st. Dr. Capes was in the chair.

National Insurance Act.—Communications from the State Sickness Insurance Committee *re* the National Insurance Act were referred to the Provisional Medical Committee for the County of London.

Annual Report of Division.—The Honorary Secretary presented his annual report, which stated that the inaugural meeting was held on November 14th, 1912, when the rules for the Division were adopted, and had since received the sanction of the Council of the Association. The principal work of the Division had been in connexion with the Insurance Act. A matter of considerable interest had been dealt with in connexion with the capitation rate for uninsured persons. The four medical officers of the Camberwell Borough Council Employees' Sick Benefit Society resigned their posts, as they did not consider 4s. an adequate remuneration. The Town Clerk of Camberwell sent a circular to all local practitioners inviting them to tender for the vacant posts. The Executive Committee at once addressed a letter of remonstrance to the Town Clerk, placed a Warning Notice in the British Medical Journal, and circularized every local practitioner, explaining the circumstances of the case, and convening a meeting at which a resolution was passed that no one should apply for the vacant posts. The committee of the society passed a resolution reinstating the original holders of the posts in their position, and left the question of remuneration open for a short time. One meeting had been held at which a scientific paper had been read and the ordinary business of the Division transacted. A school clinic had been successfully started in the area of the Division at 412, Old Kent Road, and was working very smoothly. There was a balance in hand of £1 17s. out of a grant of £5. It was resolved that the report be adopted.

Election of Officers.—The following were appointed officers for the ensuing year: *Chairman*, Dr. G. B. Batten; *Vice-Chairman*, Dr. W. T. Partridge; *Representative on Branch Council*, Dr. J. T. Clark; *Representative in Representative Meetings*, Dr. F. C. Langford; *Executive Committee*, Dr. R. Capes, Dr. H. G. Clitherow, Dr. R. Esler, Dr. W. Cooper Keates, Dr. B. A. Richmond, Dr. R. Tilbury, Dr. E. Archer Wood; *Honorary Secretary and Treasurer*, Dr. J. H. Clatworthy consented to take on the work until a successor could be found.

Vote of Thanks.—Dr. Batten, on taking the chair, thanked the Division for the honour done him, and at the same time proposed a very hearty vote of thanks to Dr. Capes for his past chairmanship. This was seconded by Dr. Partridge and carried by acclamation. Dr. Capes suitably responded. It was resolved to thank Dr. Sergeant for the trouble he had taken in connexion with the dispute with the Camberwell Borough Council's Employees' Society.

Instruction of Representative.—It was resolved that it be left to the discretion of the Representative as to how he should vote at the coming Representative Meeting unless a special meeting of the Division was called for the purpose of instructing him.

The meeting concluded with a hearty vote of thanks to Dr. W. J. C. Keats for his hospitality and to the guardians for the use of the infirmary.

NORTH WALES BRANCH.

A meeting of the Branch was held at Rhyl on April 15th. In the absence of the President, Dr. Emyr O. Price was voted to the chair. Thirty-six members attended.

Report of the Branch Council.—The Honorary Secretary (Dr. H. Jones Roberts) read the report of the Branch Council held that day, and on the proposal of Dr. Richard Jones (Blaenau Festiniog), seconded by Dr. J. E. Thomas (Bangor), the report was adopted.

Financial Statement for 1912.—The balance sheet which had been printed and circulated showing a balance credit of £9 9s. 7d. in the general fund, and of £6 16s. 9d. in the private fund, was received and adopted.

Adoption of Ethical Rules.—The Ethical Rules as approved by the Representative Body, July, 1912, copies of which had been circulated, were, on the proposal of the

HONORARY SECRETARY, seconded by Mr. J. W. ROWLANDS, adopted.

Insurance Act.—Dr. EMYR O. PRICE proposed, Dr. MARION MCKENZIE (Beaumaris) seconded, and it was resolved:

That all provisions made and terms arranged between medical practitioners within the area of this Branch and the friendly societies for the treatment of their disabled and aged members (over 65) shall be provisional only until the end of the year 1913.

The following proposal of Mr. C. E. MORRIS (Holywell), seconded by Mr. J. TUDOR GRIFFITH (Prestatyn), was referred to the Branch Council for report to the next meeting:

That this meeting of the North Wales Branch of the British Medical Association is of opinion that free choice of doctor should be allowed to patients in voluntary hospitals in North Wales, that facilities ought to be given in these institutions whereby patients could receive treatment by their own doctor if so desiring.

Letters were read from the Honorary Secretaries of the South Wales and Monmouthshire Branch, and from the Medical Secretary, with reference to the action of the Welsh Insurance Commissioners and the working in South Wales of Sec. 15 (3) of the Insurance Act. Dr. RICHARD OWEN (Brymbo) proposed, Dr. J. MEDWYN HUGHES (Ruthin) seconded, and it was resolved:

That this meeting of the North Wales Branch of the British Medical Association is of opinion that it is contrary to the honour and interests of the medical profession for any medical man to accept appointments under schemes, institutes, or systems formulated under Sec. 15 (3) of the National Insurance Act.

The HONORARY SECRETARY proposed, Mr. H. W. FOX (Bettws-y-coed) seconded, and it was resolved:

That the British Medical Association be asked to use all its influence and power to oppose the formation of such schemes, as being derogatory to the medical profession.

Papers.—The following papers were read: Dr. J. HILL ABRAM, Cervical Glands in Abdominal Cancer; Dr. J. E. GEMMELL, Ectopic Pregnancy; Dr. W. B. WARRINGTON, Case of Landry's Paralysis, terminating in recovery; Dr. F. P. WILSON, The Use of Crude Coal Tar in the Treatment of Eczema. A vote of thanks was accorded to the readers of the papers and to the President.

Luncheon.—Prior to the meeting the members lunched together at the Westminster Hotel.

SOUTH-WESTERN BRANCH:

TORQUAY DIVISION.

AN ordinary meeting of the Torquay Division was held at the Torbay Hospital on April 17th, when sixteen members were present.

The HONORARY SECRETARY read a report of a conference between a deputation of friendly society officials and a deputation of medical men on April 11th. The friendly society officials read a resolution offering 6s. for medical attendance on adults and 4s. for attendance on juveniles, to include medicine.

After Dr. EALES had given some further information, a general discussion ensued, and it was decided that the above terms could not be accepted by the Division, and it was resolved:

That the original terms for adults should now be altered from 9s. to 8s. 8d. per annum, or 2d. per week.

That in the case of children those persons should be accepted on the following terms:

One child	1½d. per week,	or 6s. 6d.	per ann.
Two children	2d. ,,	8s. 8d.	,,
Three or more children	3d. ,,	13s.	,,

That an income limit of £2 from all sources should apply, and that there should be free choice of doctor and patient by doctor.

That these terms shall take effect from June 24th next, and that if not accepted by the persons applying for contract attendance, that all present holders of club appointments shall cease to attend uninsured persons after June 24th.

That the Honorary Secretary notify all medical men practising in this Division of the terms and conditions of contract attendance permitted by this Division, and that private clubs must conform with the above terms or be terminated.

The CHAIRMAN explained the new arrangements to be made for mileage above the two-mile limit demanded by the profession, namely, 2s. a person for distance beyond two miles by road from the nearest doctor's residence.

Association Notices.

ANNUAL GENERAL MEETING.

Notice is hereby given that the 1913 Annual General Meeting of the British Medical Association will be held in the Hove Town Hall, Hove, Brighton, on Tuesday, July 22nd, 1913, at Two o'clock in the Afternoon.

BY ORDER OF THE COUNCIL,

GUY ELLISTON,
Financial Secretary and Business Manager.

May 8th, 1913.

BRITISH MEDICAL ASSOCIATION.

ANNUAL MEETING IN BRIGHTON.

Masonic Meeting.

THE Worshipful Master, Wardens, and Brethren of the Hova Ecclesia Lodge, No. 1466, extend a cordial welcome to all medical Masons to attend a special lodge which has been summoned for the purpose of giving a Masonic greeting to all Masons attending the Annual Meeting.

Reception and Tea at the Old Ship Hotel (to follow the Church Service) at 4.30 p.m. on Wednesday, July 23rd, 1913. The lodge will be opened at 5.15 and closed at 5.45 p.m. Morning dress.

Brethren who cannot be vouched for must either bring their Grand Lodge certificates or be prepared to give proofs.

All brethren who wish to be present are asked to communicate with Bro. C. H. Benham, 14, North Street, Brighton, as early as possible, and in any case not later than Monday, July 21st.

NOTICE OF ALTERATION OF BOUNDARIES OF DIVISIONS.

Horsham and Reigate Divisions.

THE following change has been made in accordance with the Regulations of the Association, and takes effect from the date of publication of this notice:

That the Civil Parish of Crawley be transferred from the area of the Reigate Division of the South-Eastern Branch to the area of the Horsham Division of that Branch, and that the definitions of these Divisions be modified accordingly.

Representation in Representative Body: Unaffected.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The Honorary Secretaries, Dr. Ernest C. Hadley (Burbury Street, Lozells, Birmingham) and Dr. H. Hoyle Whaite (Elsinore, Gravelly Hill, Birmingham), give notice that a special meeting of this Division will be held in the Medical Institute, Edmund Street, on Wednesday, May 21st, at 3.30 p.m., for the purpose of electing four Representatives and one Deputy Representative for this Division upon the Representative Body of the Association. The annual meeting of this Division will be held in the Medical Institute, Edmund Street, on Wednesday, June 25th, at 3.30 p.m., for the purpose of electing a Chairman, Vice-Chairman, two Honorary Secretaries, Representatives of the Division in the Branch Council, and members of the Executive Committee. Nominations for officers of the Division must be in the hands of one of the Honorary Secretaries not later than Tuesday, June 3rd.

DORSET AND WEST HANTS BRANCH.—The Honorary Secretary, Dr. Frank Fowler (29, Poole Road, Bournemouth), gives notice that the annual meeting will be held at the Bourne Hall Hotel, Bournemouth, on Wednesday, May 21st, at 3.30 p.m. The reports of the Branch and Divisions will be presented and the Ethical Committee will be elected. Dr. H. G. Lys will deliver the presidential address. Dr. W. Johnson Smyth will read notes on a case of abdominal section. The President-elect, Dr. H. G. Lys, very kindly invites members to luncheon at his house, Southbrook, Poole Road, at any time between 1.30 and 3 o'clock.

LANCASHIRE AND CHESHIRE BRANCH.—Mr. F. Charles Larkin, Honorary Secretary, 54, Rodney Street, Liverpool, gives notice that a meeting of the Organization and Finance Committee of the Branch will be held at the Liverpool Medical Institution on May 14th, at 4.30 p.m., and that a meeting of the Branch Council will be held at the same place on May 21st, at 4 p.m.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—Dr. A. G. Southcombe, Honorary Secretary (83, Sidney Road, Homerton, N.E.), gives notice that the eleventh annual general meeting of the Division will be held in Balfour Hall, Dunstan Street, Kingsland Road, on Friday, May 30th, at 3.30 p.m.

METROPOLITAN COUNTIES BRANCH: MARYLEBONE DIVISION.—The Honorary Secretary, Dr. Francis W. Goodbody, gives notice that a meeting of the practitioners of the borough of Marylebone will be held at 11, Chandos Street, W. (Medical Society of London), on Monday, May 19th, at 4.45 p.m., when a Local Medical Committee for the year 1913-14 will be elected. The Committee consists of twenty practitioners, ten in general and ten in consulting practice. Nominations signed by two practitioners, and accompanied by the signed consent of the nominee to serve, should reach Dr. Roxburgh, 30, Seymour Street, W., by Friday, May 16th. The annual general meeting of the Division will be held at the same place at 5 p.m., or at the conclusion of the meeting called for 4.45 p.m., to receive the Annual Report of the Executive Committee, to elect officers of the Division for the ensuing year, and to consider questions of which due notice has been given.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—Dr. R. Wallace Henry, Honorary Secretary (6, Market Street, Leicester), gives notice that the annual meeting of the Division will be held at the Royal Infirmary, Leicester, on Wednesday, May 21st, at 4 p.m., for the election of Vice-President and Representatives of the Division on the Branch Council, and of officers and members of the Executive Committee of the Division. The annual report of the Executive Committee will be presented.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH: FURNESS DIVISION.—Dr. John Livingston, Honorary Secretary (18, Hartington Street, Barrow-in-Furness), gives notice that the annual meeting of the Division will be held on Friday, May 16th. (By a printer's error the postcard issued gave a wrong date.)

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—Dr. P. S. Hichens, Honorary Secretary, gives notice that the annual meeting of the Division will be held in the Board Room of the Northampton General Hospital on May 29th, at 2.30 p.m. The meeting will be preceded by a luncheon at Franklin's Restaurant, Guildhall Road, at 1.30 p.m. Those wishing to attend the luncheon should notify the Honorary Secretary two days beforehand. Agenda: Election of officers for the ensuing year. Annual report of the Division. Consideration of agenda for the Representative Meeting. Consideration of other memoranda sent down from the Association. If time permits some clinical cases will be shown.

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships as follows:

1. AN ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.

3. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the causation, prevention, or treatment of disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1913. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of Research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1913-14 must be made not later than Tuesday, June 10th, 1913, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

ALFRED COX, *Medical Secretary.*

429, Strand, London, W.C.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-six of the largest English towns 9,013 births and 5,052 deaths were registered during the week ending Saturday, April 26th. The annual rate of mortality in these towns, which had been 15.6, 15.2, and 15.8 per 1,000 in the three preceding weeks, fell to 14.8 per 1,000 in the week under notice. In London the death-rate was also 14.8, against 16.3, 14.9, and 16.4 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 5.0 in Tottenham, 5.2 in Southend-on-Sea, 6.6 in Ilford, 7.2 in Leyton, 8.6 in Wallasey, and 8.7 in Enfield to 19.5 in Bootle, 20.3 in Middlesbrough, 21.9 in West Bromwich and in Stockton-on-Tees, 22.3 in Walsall, and 26.2 in St. Helens. Measles caused a death-rate of 1.6 in Wolverhampton and in St. Helens, 1.7 in Hastings, 2.2 in Walsall, 2.3 in West Bromwich, and 2.6 in Bury; whooping-cough of 1.3 in Gateshead, 1.6 in West Hartlepool, and 2.0 in Stoke-on-Trent and in Aberdare; and diphtheria of 1.3 in Portsmouth. The mortality from scarlet fever and enteric fever showed no marked excess in any of the large towns. A fatal case of small-pox was registered in Liverpool, but not one in any other of the ninety-six towns. The causes of 38, or 0.8 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; of this number, 7 were recorded in Liverpool, 6 in Birmingham, 4 in St. Helens, 3 in Bootle, 3 in Preston, and 2 in South Shields. The number of scarlet fever patients in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,410, 1,357, and 1,334 at the end of the three preceding weeks, were 1,339 on Saturday, April 26th; 185 new cases were admitted during the week, against 167, 148, and 215 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN the sixteen largest Scottish towns 1,265 births and 768 deaths were registered during the week ending Saturday, April 19th. The annual rate of mortality in these towns, which had been 17.2 per 1,000 in each of the three preceding weeks, rose to 17.7 in the week under notice, and was 1.9 per 1,000 above the rate in the ninety-six large English towns. Among the several Scottish towns the death-rates ranged from 9.0 in Kilmarnock, 10.8 in Hamilton, and 13.4 in Clydebank to 21.4 in Ayr, 21.7 in Dundee, and 26.7 in Perth. The mortality from the principal infective diseases averaged 1.7 per 1,000, and was highest in Motherwell and Leith. The 339 deaths from all causes registered in Glasgow included 23 from whooping-cough, 8 from measles, 6 from infantile diarrhoeal diseases, 2 from enteric fever, 2 from diphtheria, and 1 from scarlet fever. Eight deaths from whooping-cough were recorded in Edinburgh, 3 in Leith, 3 in Greenock, and 2 in Motherwell; 3 deaths from measles in Aberdeen, and 2 from diphtheria in Dundee.

In the sixteen largest Scottish towns 1,283 births and 751 deaths were registered during the week ending Saturday, April 26th. The annual rate of mortality in these towns, which had been 17.2 and 17.7 per 1,000 in the two preceding weeks, fell to 17.3 per 1,000 in the week under notice, but was 2.5 higher than the rate in the ninety-six large English towns. Among the several Scottish towns the death-rate ranged from 7.4 in Perth, 10.8 in Coatbridge and in Hamilton, and 11.0 in Clydebank to 19.0 in Glasgow, 21.4 in Ayr, and 23.8 in Paisley. The mortality from the principal infective diseases averaged 1.8 per 1,000, and was highest in Aberdeen and Motherwell. The 372 deaths from all causes in Glasgow included 18 from whooping-cough, 9 from infantile diarrhoeal diseases, 8 from measles, 2 from scarlet fever, 2 from diphtheria, and 1 from enteric fever. Three deaths from whooping-cough were recorded in Edinburgh, 3 in Paisley, 3 in Motherwell, and 2 in Greenock; 9 deaths from measles in Aberdeen, and 3 from infantile diarrhoeal diseases in Dundee.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, April 26th, 673 births and 491 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 661 births and 481 deaths in the preceding period. These deaths represent a mortality of 21.3 per 1,000 of the aggregate population in the districts in question, as against 20.9 per 1,000 in the previous period. The mortality in these Irish areas was therefore 6.5 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 29.3 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 2.45 as against an average of 25.9 for the previous four weeks, in Dublin city 26.9 (as against 27.5), in Belfast 20.4 (as against 19.5), in Cork 23.8 (as against 22.3), in Londonderry 17.8 (as against 16.9), in Limerick 16.2 (as against 20.0), and in Waterford 17.1 (as against 18.5). The zymotic death-rate was 1.2 as against 1.9 in the previous week.

VITAL STATISTICS OF LONDON DURING THE FIRST QUARTER OF 1913.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

IN the accompanying table will be found summarized the vital statistics of the metropolitan boroughs and of the City of London based upon the Registrar-General's returns for the first quarter of the year. The mortality figures in the table relate to the deaths actually belonging to the several boroughs, and are obtained by distributing the deaths in institutions among the boroughs in which the deceased persons had previously resided. The 28,946 births registered during the quarter were equal to an annual rate of 25.7 per 1,000 of the population, estimated at 4,518,191 persons in the middle of the year; in the corresponding quarters of the three preceding years the rates were 26.4, 26.0, and 25.8 per 1,000 respectively. The lowest birth-rates last quarter were 12.6 in the City of Westminster, 13.7 in Hampstead, 18.5 in

Analysis of the Vital Statistics of the Metropolitan Boroughs and of the City of London after Distribution of Deaths occurring in Public Institutions during the First Quarter of 1913.

Boroughs.	Estimated Population middle of 1913.	Births.	Deaths.	Annual Rate per 1,000 Living.		Deaths from								Deaths of Children Under 1 Year of Age to 1,000 Registered Births.
				Births.	Deaths.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping-cough.	Diphtheria.	Diarrhoea and Enteritis (Under 2 Years).	Phthisis.	
COUNTY OF LONDON	4,518,191	28,946	19,699	25.7	17.5	29	—	844	52	300	113	298	1,748	115
Paddington	142,210	720	631	20.3	17.8	—	—	20	1	23	3	8	50	128
Kensington	171,284	789	817	18.5	19.1	1	—	47	1	21	2	10	46	161
Hammersmith ...	123,745	747	552	24.2	17.9	—	—	34	2	33	3	18	37	150
Fulham	157,117	1,036	605	26.5	15.4	1	—	26	1	11	3	6	70	105
Chelsea	64,598	319	293	19.8	18.2	—	—	12	1	2	—	4	27	119
City of Westminster ...	154,810	488	614	12.6	15.9	—	—	12	2	4	2	9	64	113
*St. Marylebone ...	114,532	1,013	538	35.5	18.8	2	—	22	3	3	3	6	36	76
Hampstead	86,346	294	271	13.7	12.6	—	—	16	—	1	1	2	15	83
St. Pancras	214,350	1,334	987	25.0	18.5	3	—	25	2	9	7	10	109	97
Islington	325,585	1,988	1,493	24.5	18.4	4	—	53	7	15	9	30	117	139
Stoke Newington ...	50,518	265	207	21.0	16.4	—	—	6	1	—	1	—	13	53
*Hackney	223,353	1,404	929	25.2	16.7	—	—	48	4	9	1	10	83	104
*Holborn	46,949	295	198	25.2	16.9	—	—	5	—	3	1	—	35	92
*Finsbury	84,679	762	451	36.1	21.4	—	—	26	1	7	3	8	48	121
City of London ...	17,916	93	81	20.8	18.1	1	—	—	1	—	—	—	10	108
Shoreditch	109,654	897	647	32.8	23.7	1	—	39	1	7	—	23	63	185
Bethnal Green	127,824	935	635	29.4	19.9	2	—	42	1	10	2	15	70	134
*Stepney	275,300	2,167	1,223	31.6	17.8	1	—	64	2	6	9	30	146	114
Poplar	160,913	1,279	755	31.9	18.8	—	—	36	3	7	5	12	70	111
Southwark	188,487	1,507	948	32.1	20.2	2	—	40	1	12	3	10	100	103
Bermondsey	124,759	1,010	616	32.5	20.8	—	—	31	—	13	5	12	64	118
*Lambeth	297,139	2,183	1,255	29.5	16.9	2	—	45	5	13	8	20	110	91
Battersea	167,464	1,057	758	25.3	18.2	1	—	71	1	10	5	7	53	149
Wandsworth	330,395	1,716	1,139	20.8	13.8	2	—	72	4	8	6	16	74	114
Camberwell	261,805	1,626	1,133	24.9	17.4	2	—	28	2	28	7	21	95	128
Deptford	109,280	759	499	27.9	18.3	1	—	3	1	23	8	3	35	115
Greenwich	96,015	653	406	27.3	17.0	—	—	10	—	13	6	3	27	129
Lewisham	163,822	879	521	20.9	12.4	3	—	8	2	7	7	2	34	86
Woolwich	122,332	731	467	24.0	15.3	—	—	3	2	2	3	3	47	92

* No correction is made for births in lying-in institutions; the boroughs principally affected are marked thus (*).

Kensington, 19.8 in Chelsea, and 20.3 in Paddington; among the highest rates were 31.9 in Poplar, 32.1 in Southwark, 32.5 in Bermondsey, 32.8 in Shoreditch, and 36.1 Finsbury.

During last quarter the deaths of 19,699 London residents were registered, equal to an annual rate of 17.5 per 1,000; in the corresponding quarters of the three preceding years the rates were 15.4, 17.2, and 15.3 per 1,000. The death-rates last quarter ranged from 12.4 in Lewisham, 12.6 in Hampstead, 13.8 in Wandsworth, 15.3 in Woolwich, and 15.4 in Fulham to 19.1 in Kensington, 19.9 in Bethnal Green, 20.2 in Southwark, 20.8 in Bermondsey, 21 4 in Finsbury, and 23.7 in Shoreditch.

The 19,699 deaths from all causes included 29 from enteric fever, 844 from measles, 52 from scarlet fever, 300 from whooping-cough, 113 from diphtheria, and 298 among children under 2 years of age from diarrhoea and enteritis. Enteric fever was proportionally most fatal in St. Marylebone, St. Pancras, Islington, Bethnal Green, and Lewisham; measles in Kensington, Hammersmith, Finsbury, Shoreditch, Bethnal Green, and Battersea; whooping-cough in Paddington, Hammersmith, Kensington, Bermondsey, Camberwell, Deptford, and Greenwich; and diphtheria in Bermondsey, Deptford, Greenwich, and Lewisham. The 52 deaths from scarlet fever included 7 in Islington, 5 in Lambeth, 4 in Hackney, 4 in Wandsworth, 3 in St Marylebone, and 3 in Poplar. The mortality from diarrhoea and enteritis among children under 2 years of age in proportion to the births registered during the quarter was greatest in Hammersmith, the City of Westminster, Islington, Shoreditch, Bethnal Green, and Stepney.

The deaths from phthisis among London residents last quarter numbered 1,748, and were equal to an annual rate of 1.55, against 1.52 in the corresponding quarters of each of the two preceding years. The death-rates from this disease last quarter ranged from 0.70 in Hampstead, 0.81 in Lewisham, 0.90 in Wandsworth, 1.03 in Stoke Newington, and 1.08 in Kensington to 2.13 in Stepney and in Southwark, 2.20 in Bethnal Green, 2.24 in the City of London, 2.27 in Finsbury 2.30 in Shoreditch, and 2.99 in Holborn.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 116 per 1,000 last quarter, against 101, 108, and 95 in the corresponding quarters of the three preceding years. Among the lowest rates recorded last quarter were 53 in Stoke Newington, 86 in Lewisham, 88 in Hampstead, 91 in Lambeth, and 92 in Holborn and in Woolwich; the highest rates were 134 in Bethnal Green, 139 in Islington, 149 in Battersea, 150 in Hammersmith, 161 in Kensington, and 185 in Shoreditch.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following appointments and resignation are announced by the Admiralty: Deputy Surgeon-General J. J. DENNIS, M.D., has been promoted to the rank of Surgeon-General with seniority of May 11th, and appointed to Haslar Hospital, vice Todd, June 5th. Fleet Surgeon JOHN E. H. PHILLIPS to the *Superb* on recommissioning, May 6th. Fleet Surgeon SIDNEY T. REID to the *Goliath* on becoming parent ship, undated. Fleet Surgeon F. W. PARKER to the *Prince of Wales*, vice Ward, May 7th. Fleet Surgeon E. C. WARD to the *Aboukir* and for group of ships of the Third Fleet, vice Kidd, May 7th. Staff Surgeon RICHARD S. OSBORNE to the *Hermes* on commissioning, May 7th. Staff Surgeon DUNCAN G. ADDISON-SCOTT, M.B., to the *Dreadnought*, vice Grimwade, May 22nd. Staff Surgeon EDWARD A. G. WILKINSON, B.A., to the *Exmouth* for voyage home, undated. Surgeon SIDNEY W. GRIMWADE, M.B., to Malta Hospital, vice Staff Surgeon Wilkinson, May 1st. Staff Surgeon DOUGLAS D TURNER to the *Virid* for R. N. Barracks, vice McCutcheon, May 18th. Surgeon WILLIAM W. D. CHILCOTT to the *Superb* on recommissioning, May 6th. Surgeon ALEXANDER S. PATERSON, M.B., to the *Goliath*, on becoming parent ship, undated.

The following Acting Surgeons have been appointed to the *Victory*, additional, for course of instruction at the Naval Medical School, Royal Naval College, Greenwich, and Haslar Hospital, April 11th: A. M. HENRY, G. F. B. PAGE, M.B., A. J. PATTERSON, D. G. ARTHUR, R. E. P. SAYERS, W. A. S. DUCK, P. B. WALLIS, M. MECHAN, H. E. Y. WHITE, M.B., A. SIMPSON, M.B., F. C. WRIGHT, I. S. GABE, A. G. TOZER, D. V. H. PEARSON.

Fleet Surgeon ANTHONY KIDD has been placed on the Retired List at his own request, April 22nd.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

MAJOR P. S. O'REILLY has been granted eight months' leave out of India.

Captain DANIEL L. HARDING to be Major, April 26th.

Lieutenant-Colonel F. P. S. TAYLOR has been appointed to Dover.

Lieutenant-Colonel L. WAY has been appointed to the command of the Station Hospital, Ferozepore.

Major A. CHOPPING has been appointed Registrar at the Royal Victoria Hospital, Netley, vice Major J. R. MacMunn.

Major F. J. PALMER has been granted five months' and three days' leave, ex India.

Major A. W. N. BOWEN has been granted 185 days' leave, ex India.

Major G. J. BUCHANAN has been appointed Medical Inspector of Recruits, Eastern Command, vice Lieutenant-Colonel J. D. Ferguson, D.S.O.

Major R. S. H. FUHR, D.S.O., has been selected for appointment at the Royal Arsenal, Woolwich.

Captain E. C. WHITEHEAD has been appointed Clinical Pathologist at Queen Alexandra Military Hospital, vice Captain A. B. Smallman.

Captain T. E. HARTY has been posted to York for duty as specialist in Dermatology.

Captain R. J. FRANKLIN has been appointed to the charge of the Cantonment Hospital at Solon.

Captain R. G. S. GREGG appointed to the charge of the Brigade Laboratory at Karachi.

Captain A. W. A. IRWIN has been appointed to Cork.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

Sixth London Field Ambulance.—Major (Honorary Major in the Army) WILLIAM M. O'CONNOR, M.D., to be Lieutenant-Colonel, March 31st.

Highland Mounted Brigade Field Ambulance.—Lieutenant JOHN M. GRANT, M.B., resigns his commission, May 3rd.

First South Midland Mounted Brigade Field Ambulance.—Lieutenant DOUGLAS M. SPRING, M.B., to be Captain, April 30th.

Fifth London Field Ambulance.—Lieutenant JOHN P. GRAINGER resigns his commission, May 3rd.

Attached to Units other than Medical Units.—Lieutenant WILLIAM A. VALENTINE, M.D., to be Captain, May 24th.

For Attachment to Units other than Medical Units.—HARRY L. GAUNTLETT to be Lieutenant, April 1st.

Captain NORMAN DUNKERTON to be Adjutant to a School of Instruction, vice Major Thomas E. Fielding, vacated March 31st.

National Insurance.

LOCAL MEDICAL COMMITTEES.

MANCHESTER.

A MEDICAL Committee for Manchester was elected at a meeting, on February 8th, to which every practitioner in Manchester was invited. It consists of eight representatives from each district (North, South, West, and Central), of all the medical practitioners appointed for the Insurance Committee and of two representatives of medical women in Manchester, and is constituted as follows:

Chairman.—Dr. T. A. Helme, Victoria Park.
Vice-Chairmen.—Dr. C. G. L. Skinner, Harpurhey, and Dr. A. W. Chapman, Hulme.
Honorary Treasurer.—Dr. J. D'Ewart, Moss Side.
Honorary Secretaries.—Dr. R. G. McGowan, 1, Thomas Street, Cheetham Hill, and Dr. A. E. Cotterill, 42, Brook Road, Fallowfield.

Dr. W. A. Booth	Dr. A. W. B. Loudon
Dr. Catherine Chisholm	Dr. J. McGrath
Dr. J. Cryer	Dr. R. McF. Marshall
Dr. R. A. S. Daly	Dr. C. Melland
Dr. G. H. Grant Davie	Dr. A. M. Mitchell
Dr. J. S. Dick	Dr. J. C. Mockler
Dr. W. Elwood	Dr. R. W. Morrow
Dr. F. Farrow	Dr. H. H. Rayner
Dr. J. Ferguson	Dr. Florence Robinson
Dr. Alex. Fraser	Dr. L. E. Scanlon
Dr. T. J. G. Garrett	Dr. W. Sawers Scott
Dr. T. A. Goodfellow	Dr. John Scott
Dr. W. A. Helm	Dr. W. P. Stocks
Dr. H. Holt	Dr. F. E. Tylecote
Dr. W. F. Jackson	Dr. F. J. Webb
Dr. E. Johnstone	Dr. Brockbank

Medical Representatives on the Manchester Insurance Committee.—(Elected by the profession) Dr. T. A. Helme and Dr. R. G. McGowan. (Appointed by the Manchester City Council) Dr. A. W. Chapman and Dr. J. Stavely Dick. (Appointed by the Insurance Commissioners) Dr. E. Johnstone and Dr. Brockbank.
Members of the Profession on the Medical Service Subcommittee.—Dr. T. A. Helme, Dr. C. G. L. Skinner, and Dr. A. E. Cotterill.

Scale of Fees.

The following is the scale of fees agreed upon with the Manchester Insurance Committee:

	£	s.	d.
1. Attendance on the patient at the practitioner's residence, surgery, or dispensary...	0	2	0
2. Visit to the patient's residence	0	2	6
3. Special visit, that is, a visit paid the same day *in response to a call received* after 10 a.m.	0	3	6
4. Night visit, that is, a visit made between the hours of 9 p.m. and 9 a.m., *in response to a call received* between those hours	0	5	0
5. Surgical operation requiring local anaesthesia (other than incision of abscess)	0	10	6
6. Cases of abortion and miscarriage to be treated at ordinary rates.			
7. Administration of a general anaesthetic ...	1	1	0
8. Setting of fracture or reduction of dislocation	0	10	6
9. Sanatorium benefit report, Med. 2	0	5	0
Ordinary fees for succeeding visits or consultations.			

A Subcommittee has been appointed to report whether certain procedures requiring a local anaesthetic are to be entered as operations under Section 5 of the above scale. It may be found desirable to arrange for a revised scale with a schedule dividing the operations commonly undertaken in general practice under local anaesthesia into groups at different fees. In the meantime practitioners are advised to follow as closely as possible the lines of ordinary practice, and book as operations under local anaesthesia only such procedures as have hitherto been usually charged at the rate of 7s. 6d. or more in addition to the ordinary visiting or consultation fee.

Extension of Provisional Agreement.

On March 11th the Committee was informed that the Commissioners desired the Insurance Committee to enter into arrangements for a permanent service after April 14th, and to issue immediately to the practitioners on their list forms of agreement, to be signed and returned by March 15th. The Medical Committee informed the Insurance Committee that it could make no recommendation to the profession to renew the agreement or otherwise without further consideration. On March 18th the Committee decided that, in view of the lack of necessary information, its only course was to obtain a further period of consideration, during which such information might be collected, circulated, and discussed, so as to afford every medical man reasonable grounds on which to base his ultimate decision as to giving service. At a meeting of the Insurance Committee on the same evening this suggestion was accepted, subject to the condition that the Medical Committee would at once recommend to the profession a three months' extension of the existing agreement in order that the Insurance Committee should be assured of an efficient service during the extended period. This condition appeared so reasonable and the alternative of immediate settlement of a permanent arrangement so objectionable that it was accepted by the medical members of the Insurance Committee, and their action was unanimously approved by the Medical Committee at its next meeting.

Remuneration.

It was pointed out that the amount available for medical benefit being limited, the Insurance Committee will only be able to pay a proportion of each practitioner's account for the first few months. Unpaid balances will be carried forward, and taken into account at subsequent settlements. The amount available for the first six weeks is equivalent to a payment of over 11s. in the £ on the total accounts sent in. How far the diminution of sickness during the healthier months of the year and the consequent lowering of the total medical attendance, whilst the amount available for medical benefits remains fairly constant, will lift that equivalent, and enable the Insurance Committee to reduce the unpaid balances, cannot at present be determined, but the arranged extension of the provisional agreement for a further period of three months should produce facts and figures which will enable the profession to form an approximately accurate opinion.

Organization.

The Committee recognizes the necessity of establishing a system of ready and effective intercommunication between itself and individual members of the profession, and has decided to divide the insurance area into convenient districts, in each of which it will be the duty of a member, or members, of the Committee to keep in touch with resident practitioners by means of meetings, correspondence, personal interviews, or in other ways. Postal votes will be taken, or general meetings held if it appears advisable, and the Committee has invited suggestions.

Expenses.

To meet the immediate expenses of the Committee it has been decided to make a levy of 5s. on each practitioner, and every medical practitioner in the area has been asked to forward that sum to the Honorary Treasurer, or alternatively his written permission for the deduction of that amount from the sum due to him from the Insurance Committee. It has been suggested that a proportional deduction from insurance accounts should be arranged, and some such scheme will probably be submitted for consideration at a later date, as offering a more equitable and business-like solution of the problem; but for the present the Committee considers that the simple expedient of collecting so small a sum from each member of the profession, to be used in the protection of the common interests of all, should not only meet with no opposition, but be received with unanimous approval and immediate response.

Treasurer's Report.

The Accounts Subcommittee has presented a first report on the work done in the city of Manchester under the Insurance Act. The number of practitioners making returns for January was 260 and for February 256 out of a medical population of about 520—that is, about 50 per cent., and the amount of work done by these practitioners was:

	Consultations.	Visits.	Special Visits.	Night Visits.	Operations.	Anæsthetics.	Fractures and Dislocations.	Patients.
January...	44,887	14,829	345	110	114	5	20	24,675
February	97,024	27,389	426	158	154	6	12	39,598

Upon these figures the TREASURER makes the following observations:

The most noticeable feature of these figures is the fact that in January 24,675 and in February 39,598 insurance patients out of 240,000 consulted doctors "on the list" in Manchester. This gives a daily average of 1,451 in January and 1,414 in February. The remarkably small drop in the daily average in February seems to dispose of the idea that there was a considerable rush in the early days of the medical benefit. Even if we do not add those numerous insured persons who consulted doctors *not* "on the list," these astounding figures support very strongly the assertions of the profession as to the incidence of disease, and dispose very effectively of the inept optimism of Mr. Masterman as to the amount of sickness to be expected. As a consequence of this huge incidence the amounts of the bills reach for January £6,505 16s., and for February £13,333 10s. 6d., a total of £19,839 6s. 6d. Since the estimated income for the forty-five days is £11,500, this is equal to 11s. 1d. in the £. It was immediately seen that drastic reductions must be made. Obviously the easiest plan for the Committee was to adopt a *pro rata* distribution, when 11s. 1d. in the £ would have been the dividend, disposing of Lloyd George's dictum that bad debts would be much reduced under the new régime. A cursory glance at the accounts speedily showed that this method would be eminently unfair, and your Subcommittee decided to proceed on other lines. First, the average cost per patient for each month was determined, being for January 5s. 4d. and for February 6s. 9d. Accounts below these averages were examined for the common errors and passed. Each account above these averages was scrutinized twice by two different pairs of members of the Subcommittee, and reduced either to the average or an allowance made when satisfactory explanations were given for the excess by the practitioner. The accounts above the average for which no explanations were forthcoming were then reduced to a general average.

Your Subcommittee wish it to be definitely and distinctly understood that the reductions they have made do not carry in any sense a reflection on the bona fides of the practitioner whose account is reduced. The reduction is a regrettable necessity owing to the lack of funds and not a condemnation. A few errors in book-keeping have occurred, as was to be expected, but in subsequent accounts these will no doubt be eliminated.

The total amounts to submit to the Insurance Committee for payment now came to, for January £5,981 9s. 4d., and for February £12,968 7s. 3d., giving on the reduced accounts a dividend of 12s. 2d. in the £, and on those amounts the Insurance Committee will proceed to pay a sum on account. The balance of the amounts due will then be carried forward to the next month, when, if the amount required does not reach the amount available, a further distribution will be made. This will continue to the termination of the year, when the accounts will be balanced and a final dividend declared. By this method a practitioner's easy months will help to balance his busy months, and there will result the most equitable distribution. Your Subcommittee are unanimously of the opinion that under present methods of working the amount available for distribution during the whole twelve months—probably about £84,000—will by no means meet the twelve months' bills. They are glad to report that in the months under review the work appears to have been carried on according to the ordinary lines of the practitioner's practice, and they regret to point out that if the remuneration is to meet the work done a distinct differentiation must be made between the treatment of insurance patients and ordinary private patients. For the guidance of practitioners your Subcommittee estimate roughly that the remuneration offered will not pay for three-quarters of the attention given to private patients. In other words, practitioners will either have to reduce by at least one-quarter their attendance on their insurance patients, or they must continue to exercise their charity by facing the alternatives of an account considerably reduced by the Medical Committee, or a reduced *pro rata* distribution by the Insurance Committee

Finally, your Subcommittee desire to point out how much more accurate was the profession's estimate of 8s. 6d. as the minimum amount *per caput* on which the scheme could efficiently be worked than the estimate of 6s. 6d. of the Chancellor of the Exchequer. If the 8s. 6d. had been granted it is probable that, for work on the lines of ordinary private practice, approximately 20s. in the £ would have been paid.

BLACKPOOL.

A JOINT meeting of panel practitioners and members of the Blackpool Medical Committee was held on April 30th.

Temporary Residents.—The following resolution was carried unanimously, and the secretary was instructed to forward a copy to the Commissioners with a covering letter explaining the case of the local profession in respect of work among visitors:

> That this meeting demands a definite guarantee from the Insurance Commissioners that the Central Fund for treatment of temporary residents shall be large enough to ensure payment of all doctors' fees for attendance without discount; that a payment on account be made within three months of such attendance; and that until such guarantee is received the panel declines to attend insured persons under the regulations and conditions embodied in Memo. 161, I.C.

STAFFORDSHIRE.

A MEETING of the Local Medical Committee for the county of Staffordshire was held on May 2nd.

The SECRETARY presented an interim report of the Executive Committee, and the following recommendations were adopted:

(*a*) That for the current year a levy of 5s. be made on every doctor on the county panel and every doctor resident in the area of the administrative county, whether on the panel or not.
(*b*) That out of the funds so provided, if adequate, third-class return railway fare be paid to members attending meetings of the committee or subcommittees.
(*c*) That the expenses of District Medical Committees to be defrayed out of such fund be printing, stationery, postage, and hire of a room for meetings where necessary.

Prescription Books and Provision of Duplicate Prescriptions.—A correspondence which had passed between the Secretary to the Committee and the Clerk to the Insurance Committee on the matter of the adoption by the latter of a form of book other than that selected by the Local Medical Committee and without consulting it, was read, and it was agreed that the present form should stand for the time being, subject to the matter being reopened before a fresh supply of books was ordered. The SECRETARY also read a reply from the Insurance Commissioners to a letter protesting against the proposed charge of one penny for copying a prescription in cases where such copy was not furnished by the medical man; the reply stated that the proposal had not come before the Commissioners, and had not been approved by them. Such modification should be considered by the Insurance Committee after consultation with the Local Medical Committee, and its views on the question submitted to the Commissioners, together with the comments of the Local Medical Committee. The meeting then after discussion decided that the doctors should no longer furnish a duplicate of a prescription for the use of the chemist, on the ground that they were under no legal obligation to do so, and that, as the chemist required the copy solely for his own purposes, he should make it for himself and at his own expense, if expense there were.

Medical Representation on Insurance Committees.—The Secretary was instructed to write to the Medical Secretary, British Medical Association, requesting that body to use its influence to insure that in any Act for amending the National Insurance Act the right be given to the medical profession to choose all its representatives on the Insurance Committee up to the 10 per cent. representation.

HOLLAND (LINCOLNSHIRE).

A MEETING of the Local Medical Committee was held on April 30th at Boston. Dr. WHITE was in the chair, and five other members were present.

Confinement Fees.—It was resolved to ask the Holland Insurance Committee or the approved society to guarantee the payment of these.

Wage Limit.—It was resolved to urge the Holland Insurance Committee most emphatically to fix this at £2 or £2 10s.

Allotment of Those who have not Chosen a Doctor.—It was resolved that the allotment should be in proportion to those already on each doctor's list.

Duplicate Prescriptions.—It was resolved to ask the Insurance Committee not to agree to the proposed charge by chemists for copying prescriptions.

LEICESTER.

The name of Dr. P. Southam was accidentally omitted from the list of the Local Medical Committee for the Borough of Leicester published on April 26th, p. 346, and the name of Dr. Emms was incorrectly printed.

NORFOLK.

A meeting of the Local Medical Committee for Norfolk was held at Norwich on May 3rd. Dr. B. D. Z. Wright was in the chair, and twenty-one other members and Dr. D. G. Thomson, honorary secretary, were present. The business of the meeting was chiefly concerned with communications received from the County Insurance Committee.

Attendance on Asylum Staff.—The Committee notified to the Insurance Committee its approval of the application of the Medical Superintendent of the Norwich City Asylum to go on the panel with a view to giving medical attendance to the staff of that asylum only.

Free Choice of Doctor.—A complaint by a layman alleging that a medical practitioner had interfered with the provisions of the Act with regard to the free choice of doctor would, it was stated, be referred to the Medical Service Subcommittee.

Drug Tariff.—A revised drug tariff was considered, the chief point of difference being a proposal by the chemists to charge a fee of one penny for the prescriptions not sent in duplicate, a proposal against which the honorary secretary stated the State Sickness Insurance Committee had protested. A conference then took place with representatives of the chemists, who exhibited an improved form of prescription book issued by the Pharmaceutical Society. The Medical Committee agreed that practitioners in Norfolk should write their prescriptions in triplicate as requested, and the revised tariff was then approved, after the chemists' committee had been notified that unless distilled water was specified in prescriptions it should not be charged for.

Old and Disabled Members.—A letter from the Clerk to the Insurance Committee was read stating that the Committee was being pressed to make arrangements for the medical attendance on old and disabled members of approved societies under Section 15 (2) (*c*) of the Insurance Act, and that, providing the medical practitioner did the dispensing to which such persons were accustomed, the remuneration would be 8s. 6d. a head per annum. The suggestion was accepted, and satisfaction was expressed that this long-discussed matter was in sight of settlement in a way consonant with the original demands of the profession so long and ably urged by the British Medical Association.

Payment of Medical Practitioners.—It was notified that the Insurance Committee intended to pay 75 per cent. of the capitation grant to every doctor at once, but that the drug payment would be held over pending fuller information from the doctors as to the insured persons for whom they had dispensed. It was pointed out that the doctors should claim not merely for those for whom they had actually dispensed but also for those for whom they were entitled to dispense.

Allocation of Insured Persons.—It was notified that the Insurance Committee had decided to delay the allocation of those insured persons who had not yet made their choice of doctor until July 31st, the pink ticket remaining valid until that date. The Committee, however, agreed to the suggestion of the Insurance Committee that all insured persons placed on the doctor's list after April 14th should be considered for the purposes of payment as having been on the doctor's list for the first quarter. The Medical Committee decided to abide by its previous decision that insured persons who had not yet selected a doctor should be put on the list of the nearest practitioner. An instance was mentioned in which an insured person had been refused by all the doctors in a small town, and it was agreed that this was one of those rare cases in which the District Committee would have to appoint one of the local panel to attend the patient.

BERKSHIRE.

A meeting of the practitioners on the Berkshire panel was held on May 2nd, at the Royal Berkshire Hospital. Dr. Gordon Paterson was in the chair, and the total attendance numbered thirty. The following resolutions were passed:

It is inadvisable at present to fix a maximum number of insured persons which may be accepted by any medical practitioner.

With regard to the allocation of insured persons who have not chosen their doctor, their yellow cards shall be sent to the District Secretaries, and allotted by the doctors in each district.

KENT.

A meeting of the Kent County Medical Committee was held at Ashford on April 30th. Dr. A. Maude, Chairman, and sixteen other members being present.

The Committee adopted a resolution to the effect that the nurses and other insured persons of hospitals and infirmaries, whether voluntary or rate-aided, were fit and proper persons to contract out.

It was resolved to co-opt as representatives of non-members of the British Medical Association Drs. Randell and Fairweather, and to receive other names at the next meeting.

As representatives of general and special hospitals, Messrs. Fairweather, Travers, Wacher, and Potts were co-opted.

A subcommittee consisting of Drs. Starling, Hulke, Parr, Dudley, Heggs, Fairweather, and Coke, with the Chairman, Vice-Chairman, and Secretary as *ex officio* members, were appointed to organize the profession in the county on practical lines, especially as regards finance.

The following motion was also carried:

That the District Insurance Committees should hand over the allocation of insured persons to the District Medical Committees; such allocation will be subject to the approval of the District Insurance Committee.

The Honorary Secretary was empowered to employ clerical assistance at a cost not exceeding £25 per annum.

REIGATE.

At a joint meeting of the Reigate Division of the British Medical Association and of practitioners resident in the Reigate insurance area, convened by the Executive Committee of the British Medical Association, and held at Reigate on February 19th, the following were elected to form the Local Medical Committee under the Insurance Act:

Reigate and Redhill.—Drs. Hewetson, Gayner, Palmer, Ogle, Thornton, and Walters.
Dorking.—Drs. Mckenzie, G. A. Robertson, and Sebastian.
Horley.—Drs. Clarke, Pagden, and Williamson.
Chipstead.—Drs. Binney, French, and Weir.

At a further joint meeting held under the same auspices on April 25th the following appointments were made:

Chairman of Meetings.—Dr. A. R. Walters, Reigate.
Chairman of Committee.—Dr. Spencer Palmer, Redhill.
Secretary.—Dr. Thornton, Springfield House, Reigate.
Representatives on the Surrey Medical Committee.—Drs. A. R. Walters, Gayner, and Clarke.
Representatives on the Local Insurance Committee.—Drs. Spencer Palmer and Mackenzie.

Finance.—It was proposed by Dr. Watson, seconded by Dr. Prince, and carried unanimously:

That ½d. in the £ be contributed by all doctors on the panel to meet the expenses of the Committee, and the secretary be instructed to make application for such sums to be deducted centrally.

Midwifery Fees.—On a discussion arising out of regulations issued by the Insurance Commissioners, fixing midwifery fees under maternity benefit, it was proposed by Dr. Crichton, seconded by Dr. Prince, and carried unanimously:

That the fees proposed are inadequate, and that no midwifery work should be undertaken at a lower fee than 1 guinea.

ISLE OF WIGHT.

A meeting of the Isle of Wight Local Medical Committee was held at Newport on April 30th, when Dr. K. W. Ingleby-Mackenzie was in the chair and seventeen others were present.

Anæsthetics.—A letter from the Secretary of the Insurance Commissioners was read stating that there were

no funds available from which extra payments for the administration of anaesthetics could be made. The meeting adopted the following resolution, which the Honorary Secretary was instructed to send to the Insurance Commissioners and to the State Sickness Insurance Committee of the British Medical Association:

> That this meeting of the Isle of Wight Local Medical Committee strongly protests against the administration of anaesthetics to insured persons without provision for the payment of an adequate fee.

Medical Representation on Committees.—The Honorary Secretary was instructed to write to the Local Insurance Committee asking it to reconsider its decision not to appoint the two elected medical representatives on all subcommittees, or to allow a deputy to act in the case of a member of a subcommittee who was prevented from attending.

Allocation of Insured Persons.—A deputation of four members was appointed to meet a corresponding number of the Insurance Committee to discuss the question of allocating insured persons who had not yet chosen their medical attendant.

Temporary Residents.—The following resolution was adopted, and the Honorary Secretary was instructed to forward it to the Insurance Commissioners and to the State Sickness Insurance Committee of the British Medical Association:

> That inasmuch as each practitioner serving on the panel was promised a minimum 7s. (including payment for treatment of insured persons suffering from tuberculosis) any deduction therefrom is a breach of contract, and that this meeting of the Isle of Wight Local Medical Committee strongly protest against Memo. 161/I.C.[1]

Medical Service Subcommittee.—The Honorary Secretary was instructed to write to the Insurance Committee suggesting that it should adopt a standing order (in exercise of the power conferred upon them by Medical Regulation 52 (1)) to the effect that all matters connected with medical benefit should in the first place be referred to the Medical Service Subcommittee, and pointing out that such a course would obviate many misunderstandings which might arise if the matter were first debated by the full Insurance Committee; the Honorary Secretary was also asked to urge that all matters considered in private by the Medical Service Committee should afterwards be also considered in private by the Insurance Committee, and that a standing order should be adopted to that effect; and, further, to suggest that in future forms of contract should be referred to the Local Medical Committee before being sent to the practitioners on the panel for signature, and should be returned to the Insurance Committee through the Local Medical Committee. On the question of certificates, he was instructed to suggest that a common form of medical certificate should be employed for use under the Act.

Tariff of Drugs.—The revised tariff of drugs was accepted, and it was resolved to recommend practitioners to supply duplicate prescriptions. The Committee expressed the opinion that where duplicate prescriptions were not supplied to the chemist the clerical fee of 1d. should be charged to the individual practitioner who supplied the prescription.

ROXBURGH.

A MEETING of the Roxburgh Local Medical Committee was held at Newtown St. Boswells on May 1st. Dr. W. L. CULLEN, Chairman, presided, and nine members were present.

Dr. W. L. JOHNSTONE communicated a report of proceedings at a conference with the Medical Benefit Subcommittee of the County Insurance Committee, and the meeting appointed the following representatives on the subcommittee, subject to their consent to serve: Drs. W. Blair, A. D. Fleming, and W. T. Barrie.

The circular from the Insurance Commissioners relating to payment for services rendered to temporary residents was considered.

Practitioners were recommended to sign the continuation agreement for a period of three months only, until such time as terms for service were satisfactorily adjusted with the Insurance Committee. It was reported that with few exceptions this course is being taken by all the practitioners on the panel.

It was resolved that all matters hitherto under the consideration of the Local Medical Committee should be remitted to the Executive Committee with powers, and also such new and urgent matters as might in its opinion require immediate settlement.

The Secretary was instructed to make inquiries as to the feasibility and arrangements necessary for the appointment of a member of the legal profession as a permanent secretary to the Local Medical Committee.

Model rules for patients, submitted by the Insurance Committee, were considered and approved with few alterations.

[1] SUPPLEMENT to the BRITISH MEDICAL JOURNAL, April 19th, p. 334.

MEETINGS OF INSURANCE COMMITTEES.

BOURNEMOUTH.

Conference Promised on the Question of Income Limit.

AT the meeting of the Bournemouth Insurance Committee a month ago, a resolution in favour of a £2 income limit was rejected (SUPPLEMENT, April 12th, p. 318). The matter was referred to again last week, when Dr. HEYGATE VERNON said that the Medical Committee was statutory, and had a right to negotiate with the Insurance Committee on matters of this kind. It asked the Insurance Committee to confer, and the only reply was that the Insurance Committee could not consider the question at all. An amicable settlement of this matter would go a long way towards getting the profession to accept service on the panel permanently; until it was settled amicably he did not believe the agreements would be signed.

The Committee passed a resolution agreeing to appoint four members to meet the doctors. It was suggested that the doctors' representatives should be men on the panel, and Dr. Vernon promised to convey the suggestion to the Local Medical Committee.

Publication of Doctors' Names.

Doubtless through inadvertence, the Bournemouth Insurance Committee has permitted to be published in the local newspapers its Finance Committee's statement of the precise amounts paid to medical men on the panel, the names of the doctors being also given. The practice of referring to doctors by a number, adopted elsewhere, would prevent undesirable publicity of this kind.

MANCHESTER.

At the last meeting of the Manchester Insurance Committee the Chairman, Mr. WALTER DAVIS, gave some interesting figures in regard to the Insurance Act in Manchester. He stated that the number of insured persons in Manchester is at present 254,7000. The number of cases which had received medical treatment in January was 24,675, in February 39,598, and in March 39,320; the aggregate cost to the Committee from January 14th to March 31st was £31,479. The Committee has decided to pay at once to the doctors two-thirds of this amount, and cheques to the amount of £20,986 had been drawn, the balance being retained for the present. The total amount available for the whole year for distribution among the medical men would probably be about £84,000, and at this rate the amount available for the three months (January 14th to April 14th) would be about £21,000 to defray the actually incurred cost of over £31,000. It was thus evident that if the average amount of work for the year was anywhere near what it has been in the three months the total amount of money available would be very considerably below what the doctors would have earned. As the Medical Committee had pointed out, this proved how much more accurate was the profession's estimate of 8s. 6d. as the minimum amount per caput on which the scheme could efficiently be worked than the estimate of 6s. 6d. of the Chancellor of the Exchequer. If the 8s. 6d. had been granted, it was probable that for work on the lines of ordinary private practice approximately 20s. in the £ could have been paid. As to the chemists, their bills for medicines and appliances supplied to the prescriptions of the doctors up to the middle of April amounted to about £6,000, and the Insurance Committee issued orders that 50 per cent. of this should be

paid at once. Mr. Davis further stated that over 500 cases of consumption were actually receiving treatment, and the committee had under consideration a more extended scheme for the working of sanatorium benefit.

COUNTY OF LANARK.

At a meeting of the Insurance Committee of the County of Lanark, held on April 30th, the CHAIRMAN reported on the work of the Medical Subcommittee for the past quarter. He said that, while all matters had not been finally adjusted, the major difficulties had been overcome, and, so far as the Committee could ascertain, no difficulty had been experienced in providing for insured persons within the county the medical treatment and medicines promised them under the Act. The number of insured persons within the county was 83,346, and altogether £2,000 forms had been received from the doctors. It was evident, however, that over 16,000 persons, or 20 per cent., would have to be allocated among the doctors. At the present time there are 201 doctors and 131 chemists on the panel for the county, and, almost without exception, every doctor and every chemist within the county was on the panel. The question of mileage was a difficult one, and it was not known yet what sum would fall to the county of Lanark. The doctors within the county had, however, arranged that a deduction should be made from the sum due to them of 2d. an insured person. This would amount to £700 per annum, and would be called the "mileage fund." The grant from the Treasury would be applied to meet the demand for mileage, and, so far as it was not sufficient, the balance would be paid out of the special mileage fund. At the end of the year any balance in the mileage fund will be repaid to the doctors. The Convener of the Sanatorium Benefit Committee reported that up to date 134 applications had been received, and that the great majority had been met.

REPORTS OF LOCAL ACTION.

IRELAND.

Medical Certification under the Insurance Act.

AT a recent meeting of the Conjoint Committee of the British and Irish Medical Associations in Dublin the following resolutions were passed unanimously:

That this Committee protest against the endeavour of the Insurance Commission to appoint medical men who are not in attendance on patients to certify for sickness benefits, such action being in contravention of all canons of medical ethics, and the Committee appeal to all medical men to refuse to accept such appointments.

That having heard the statement of Dr. Thomas Hennessy, supported by letters to him from Messrs. J. C. Lardner, M.P., J. Cullinan, M.P., and Surgeon M'Ardle, this Committee is satisfied that the Irish Parliamentary party is definitely pledged to procure a minimum fee of 2s. 6d. per caput for the notification of insured persons in Ireland under the National Insurance Act.

Last week the Insurance Commissioners notified the Insurance Committee of Dublin, in reference to the proposed arrangement for the medical certification of insured persons, that, as a sufficient number of practitioners had not agreed to join the panel in the area of the Committee, it had been decided to convene a conference immediately to determine the means that should be adopted to secure adequate facilities for the provision of certificates, having regard to all the circumstances and the funds available at the appropriate capitation rates. The Commissioners also sent a list of eight medical men who had agreed to join the panel, and pointed out that whatever arrangements might eventually be come to, the claims of these gentlemen must receive prior consideration. It was requested also that the conference should furnish the names and addresses of any other doctors recommended for appointments and who would be willing to act. A conference was accordingly held between the County Borough of Dublin Insurance Committee and the approved societies operating in the area. The Secretary reported that another medical man had intimated his intention of sending forward his name for inclusion on the panel. After considerable discussion as to the panel system and its alternatives, including the appointment of whole or part-time medical referees, the following resolution was adopted:

That the local medical profession be requested to reconsider the question of fees and arrangements for certification, and to appoint a delegation, with full powers to enter into negotiations with this conference and with the National Health Insurance Commission. Failing action by the profession within eight days, this conference hereby recommends that the Commission allocate to the approved societies their appropriate share of the amount available for the provision of medical certificates, and that the societies be left to make their own arrangements in that regard.

A general meeting of the whole medical profession in Dublin on May 2nd, summoned by the Dublin County Borough Local Medical Committee, decided to send seven representatives to the conference, with power to make arrangements for certification under the following conditions:

1. The administration of the money for certificates to be in the hands of the Insurance Committee, and not the friendly societies.
2. If a panel is formed it must be open, and there must be no preferential treatment given to the medical men whose names are already on it.
3. That the fee should be 2s. 6d. per certificate, or a 1s. 6d. capitation fee.
4. That the certificate must be signed by the doctor in attendance on the case.

It is suggested that as the money available is already not enough to pay for certificates, advantage might be taken of a section of the Act to the effect that where there is not enough to pay for the costs of administration the balance in excess may be defrayed half by a Treasury grant, and half by a local rate. If this were done it would be easy to come to an agreement with the doctors by substituting a capitation rate of 1s. 6d. for the absurd 9d. offered by the Commissioners.

County Longford and the Panel.

At a meeting of the County Longford Medical Committee a resolution was unanimously adopted disagreeing with the statement of the Chairman of the Insurance Commission, as given in the press and in Parliament, regarding the formation of a panel of doctors in County Longford. The resolution further stated that all the men practising in the county had given a written pledge not to go on such a panel, that they awaited with interest the production of the chairman's panel, and that they could not avoid giving expression to their surprise at the statements by the Insurance Commissioners and their officials as to their relations with the profession. Though the above statement was published in the daily press early last week, no explanation has so far been offered by the Insurance Commissioners, and the panel in question has not been published.

County Down.

A large and representative meeting of the medical men of South Down, representing the districts of Warrenpoint, Rathfriland, Kilkeel, and Rostrevor, held in the last-named town on May 2nd, passed the following resolutions unanimously:

1. That we approve of the resolutions passed at the meeting of Poor Law medical officers on March 27th, 1913, and refuse to be bound by the recommendations of the Conjoint Committee to accept the terms offered for certification of insured persons.
2. That we regret to observe that the Insurance Commissioners have withdrawn from the arrangement entered into with the medical profession for examining and certifying for sanatorium treatment tuberculous cases and their domiciliary treatment, necessitating—as their ill-judged parsimony will—the suspension of the fight against the white plague; and that in order to minimize as much as possible this fatal error on the part of the Commissioners we are prepared, as a temporary measure, to examine and report on such cases for the fee of 5s. and to give them domiciliary treatment at 2s. 6d. and mileage per visit.
3. That those of us who are members of the Irish Medical Association call on that body to request their nominees to retire from the Conjoint Committee, as that Committee has forfeited the confidence of Irish rural doctors.
4. That pending the settlement of the dispute we bind ourselves not to give certificates at a lesser fee than 2s. 6d. in urban and 3s. in rural districts.

INSURANCE NOTES.

NURSES FOR INSURED PATIENTS.

THE Leicester Insurance Committee at its last meeting decided to arrange a conference with representatives of approved societies and local nursing associations with a view to engaging nursing to supplement medical benefit to insured persons. Mr. C. J. Bond expressed the opinion that the services of a trained nurse would tend to shorten the period of illness and also help to check malingering. Mr. Brake, the insurance inspector for the district, expressed the opinion that there was a great deal of malingering in Leicester. Dr. Wallace Henry supported the holding of a conference, remarking that the success of medical treatment depended upon the doctor's instructions being properly carried out.

SANATORIUM TREATMENT.

Having found the funds at its disposal for sanatorium benefit inadequate, the Westmorland Insurance Committee consulted the Insurance Commissioners, and in reply received a letter suggesting that the sanatorium should be used for educative purposes and that the period of residence should be shortened. Several members expressed disagreement with the suggestion of the Commissioners, and it was decided to appoint a special subcommittee to consider the question.

MEDICAL BENEFIT IN REMOTE VILLAGES.

At an inquest on a labouring man who died from pneumonia at West Hougham, Kent, it was stated that there was no doctor on the panel for the villages of Hougham and Capel. The coroner remarked that presumably, as the two villages were out of the way places, the Insurance Committee had not been able to get doctors who were prepared to go on the panel in respect of these places. However, the Insurance Act provided for dealing with such a case, and the Commissioners might suspend the right to medical benefit in respect of the insured persons, paying instead to each person a sum equal to the estimated cost of his medical benefit. He did not know that the price would be a very tempting one to the doctor; it worked out at something between 8d. and 9d. a visit. That being the case, it would be understood that there would be a difficulty in getting a professional man to come from either Folkestone or Dover to that rather inaccessible place. The jury, in passing a verdict of death from natural causes, asked the coroner to call the attention of the Insurance Committee to the position at Hougham and Capel.

DEPOSIT CONTRIBUTORS.

At the last meeting of the Aberdeen Insurance Committee it was reported that an attempt to convene a meeting of deposit contributors, for the appointment of their representatives to the Insurance Committee, had been unsuccessful, only two people attending. A letter from the Insurance Commissioners for Scotland was read stating that the Commissioners, while in sympathy with the desire of Committees to reduce the number of deposit contributors as much as possible, did not approve of personal canvassing of insured persons.

The Lynn (Norfolk) District Insurance Committee last week decided to obtain the names of deposit contributors, so that an impartial committee might be appointed with a view of inducing these insured persons to become members of approved societies.

MILEAGE IN NORFOLK.

The Norfolk Insurance Committee has asked medical men on the panel to supply information with regard to conditions in their respective areas, with a view to an application to the Insurance Commission for a special mileage grant.

THE POSITION IN SOUTH WALES.

SOME account was given last week of the tension which has arisen in South Wales owing to the action of combinations of workmen who are seeking to take advantage of Subsection 3 of Section 15 of the Insurance Act, commonly called the Addison amendment, for the purpose of contracting to obtain medical attendance and treatment for themselves and their dependants upon terms and conditions which the profession in the district cannot accept. As was stated last week, representatives of the South Wales and Monmouthshire Branch of the British Medical Association and of the South Wales and Monmouthshire Works Surgeons' Association accompanied by the Medical Secretary of the British Medical Association had an interview with the Welsh Commissioners. We now learn that the Chancellor of the Exchequer has consented to receive shortly after the Whitsuntide recess a deputation of practitioners from South Wales to discuss the situation which has been brought about. In regard to this matter we have received the following letter from Dr. H. A. Latimer, Direct Representative on the General Medical Council:

Sir,

The letter published in the SUPPLEMENT of last week's JOURNAL appearing above the signature of Dr. Reid, the Chairman of the Honorary Medical Staff of the Swansea General and Eye Hospital, is of a most urgent nature, and may be aptly described as a call to arms on the part of all hospital staffs in the kingdom, who, through the action of this body of practitioners living in a district which is particularly subject to labour disputes, have been forced into the forefront of a struggle with the friendly societies.

The issue has been so clearly set forth in that letter that I feel it will be superfluous for me to add to it; but as one who was long resident in Swansea, and who has been an active member of its hospital staff, I ask leave to put some further considerations of the matter before your readers.

It is desirable, in the first place, to recognize that although hospitals are ostensibly charities their character as such has been altered of late years owing to the fact that in many districts, and notably in Swansea, their funds have been derived from two sources. As hitherto, the charitably minded well-to-do, and fairly well-to-do classes, have given annual subscriptions for their maintenance without any expectation or desire of receiving any medical or surgical assistance in return. Such gifts are true charity. Their donors, recognizing the inestimable value of such assistance, and knowing that poverty or faulty surroundings of its working class recipients prevent them from paying professional fees for the same, give of their substance so that the latter may be provided with these necessities. And the medical staffs of the hospitals, in their turn, spend long hours of anxious labour in furtherance of this charitable work absolutely without any payment for such services. It is true that in return for this work they acquire experience and reputation, and that in this way they are partly recompensed; but every one must acknowledge that hospitals cannot be carried on without their services, and that if they were paid for the same they would still acquire skill and reputation as they now do by their unpaid work.

But of late years a new class of subscribers to these charities has come on the scene, and these new-comers no longer claim the benefits of hospital relief on a charitable basis but demand them as a right. This class consists of working men. In the aggregate their contributions amount to a considerable sum. In return for these contributions they have secured a large representation on the board of management of the Swansea Hospital, and, as is the custom wherever they gain a power, they are determined to make their influence felt on that board. Many of them are members and officials of friendly societies, and as such they are irritated at the action of the medical staff, who intimated some months ago that when the National Health Insurance Act would come into force they would cease to give ordinary attendance on insured persons who would be provided for under the provisions of this enactment.

For my own part, I should have thought that the board of management would have immediately seen the reasonableness of this action. All hospital authorities have a continual struggle to obtain funds for carrying on their work, and surely there can be no reason for using moneys given to a charity for people who are already provided with medical attendance as a right. By adopting the course laid down by the hospital honorary staff expenses would be lessened by a diminution of the amount spent in administration, and justice would be done to those who are provided for by the State. But, from the first, this action of the staff met with the strongest opposition of the labour and friendly society representation on the hospital committee, and this opposition assumed the form of threats to withhold future contributions from the workmen if the medical recommendations were adopted and put in force.

Now, the subject of medical attendance on insured persons and their dependants has advanced one stage further. Resisting the doctors' claims for certain payments for attendance on the dependants of insured persons, the local friendly societies, as stated by Dr. Reid, have decided on starting medical aid societies, in which they will employ imported medical men as whole-time officers, to the exclusion of those practitioners who have accepted service under the panel system, and they demand that their people shall have hospital relief as heretofore, where they consider that such is necessary; and they demand what, as trade unionists they refuse to allow in labour disputes—namely, the recognition of men brought in from outside to cope with and break down a combination of men engaged in another form of labour to whom they are opposed.

There is no new feature in this action on their part. All members of our profession who have practised in South Wales, and the British Medical Association as a whole, have realized the fact that trade unionists, when they become employers, throw their most cherished principles of collective bargaining to the winds; the Ebbw Vale dispute is a standing illustration of this fact.

The amusing thing in the Swansea Hospital dispute is to read the remarks made by some speakers at the Swansea Hospital board of management meeting, as reported in the local press. It is reported in the *South Wales Daily Post* of April 30th last that one speaker, addressing himself to a motion calling for the deletion of a recommendation by the House Committee that the use of the board room should be allowed to the Local Medical Committee on two Thursdays monthly, and for occasional meetings, said "the workers objected to the hospital being used as the fighting ground for a medical trade union." It is indeed sad to think of the outraged feelings of these poor people. They only are the workers in the community. They only are entitled to combine for the purpose of coercing those who do not agree with them. All unions of men not engaged in certain defined forms of labour are to be opposed, and are to be condemned as being trade unions! What with them is a term of honour, when applied to themselves, becomes a term of reproach when applied to people who are opposed to them.

The practical lesson of this dispute is that Swansea must be supported all along the line of hospitals throughout the kingdom. If the statement made at the meeting that there are seventy-five large towns where medical aid associations have been established (and the doctors there are working in harmony with the other doctors of the town) be correct, the medical profession is faced with a return to the former unsatisfactory bondage to the friendly societies which all its well-wishers have so earnestly sought to see done away with. Labour trade unionists refuse to allow employers to introduce alien labour into districts where there is a strike, and they also refuse—and notably in South Wales—to allow the employment of non-unionists alongside of them. In the *Standard* I see that "a huge strike is in progress in the South Wales coalfield. Over 52,000 men are idle because they object to the employment of some 3,000 non-unionists." Although we have no trade union operating in our profession, we have union amongst ourselves; and if we are content to give professional courtesy, sympathy, and assistance to medical men who have been imported into various towns for the purpose of defeating our just combination for proper terms of remuneration for our work, then good-bye to all our hopes of obtaining the same. Do not let us shelve this issue or fall into a panic, as happened recently when we accepted service under the Insurance Act against our own inclinations. Hospital staffs are for the most part composed of high-minded and well-established men of good repute. Let them stand shoulder to shoulder with Swansea in the stand which its hospital staff is making in this dispute, bearing well in mind that "united we stand, divided we fall.—Yours faithfully,

H. A. Latimer.

Tunbridge Wells, May 3rd, 1913.

NATIONAL INSURANCE ACT, 1911.

Provision of Medical Benefit to Temporary Residents.

As indicated in the Memorandum 161/I.C.—received by us on April 17th and published in the Supplement of April 19th, p. 334—temporary residents are divided into two classes: (A) Persons occasionally removing for a temporary purpose, and (B) those frequently moving from place to place. This memorandum was extended in certain respects by another memorandum, No. 159/I.C., received on April 18th.

(A) *Persons Occasionally Removing for a Temporary Purpose.*

The paragraph in 161/I.C., which describes the green voucher reproduced on page 335 of the Supplement of April 19th, is expanded by the addition of the following paragraph, now numbered 11:

11. If the insured person bearing such a voucher falls ill in the area in which the voucher entitles him to treatment, he will proceed in accordance with such local arrangements as may be made by the Committee for that area, due notice of which must be given on the panel lists in Post Offices and in such other way as may be convenient. In small county boroughs it will be possible for the Committee to require the production of the voucher at the Committee Offices, in order that any necessary instructions may be given to the insured person. In the case of larger areas, however, it will be necessary for the Committee to make an announcement on the Post Office Notice that vouchers may be presented direct to doctors on the panel.

The concluding paragraphs of this part (A) of the memorandum have been amplified in the following form:

14. Having constituted the Central Fund out of similar debits against every Committee whose vouchers have been used to obtain treatment, the Commissioners will subdivide it into a Central Panel Fund and Central Drug Fund, containing respectively fourteen-eighteenths and four-eighteenths of the whole. They will then proceed to aggregate the special chemists' accounts; and if the aggregate sum due is within the amount in the Central Drug Fund, they will credit to the Drug Fund of each Committee the amount of the chemists' bills for that area. If the aggregate chemists' bills exceed the amount in the Central Drug Fund, the credits to the Drug Funds of individual Committees will be proportionately reduced. Any balance left in the Central Drug Fund not exceeding one-eighteenth of the total Central Fund will be transferred to the Central Panel Fund; but any balance in excess of that amount will remain in the Central Drug Fund to meet future drug charges.

15. The Commissioners will then proceed to aggregate the total attendance fees returned, and ascertain what dividend the Central Panel Fund (augmented by any balance of the Central Drug Fund) will provide. Having declared this dividend they will then credit the funds of each Committee with the amount necessary to defray the attendance fees earned in respect of temporary residents in their area on the basis of the declared dividend.

16. The net effect of the operations described above will be that the final credit of Medical Benefit funds to any Committee will be reduced to the extent of any "case value" tranfers, and increased to the extent of fees credited to the Committee. The Commissioners will declare a uniform dividend on the uniform scale of fees adopted, and the Committee will pay their doctors at the rate declared, and their chemists either in full, or, in the event of a deficiency in the Central Drug Fund, at a dividend which will also be declared by the Commissioners.

17. If an insured person falls ill outside his own Committee area without being in possession of a voucher, and then makes application for a voucher, the Committee from whose area he comes may comply with his application in cases of urgency or of special circumstances. Doctors on the panel should be requested to inform any of their insured patients who are being sent away for purposes of health as to the necessity of obtaining a voucher before departure from the area.

(B) *Persons Frequently Moving from Place to Place.*

The text of this part of the memorandum is as follows:

18. Such persons will be permitted, if they can substantiate a claim to the satisfaction of the Committee to be regarded as persons frequently moving from place to place, to derive the whole of their medical benefit during the year under these "temporary resident" arrangements. A form of application and further instructions will be issued in due course. In such cases the Committee, if they consent to the application, will forward it to the Commissioners, expressing their consent, and enclosing the applicant's Index Slip. The whole 9s. will then be credited to the Central Fund instead of to the Committee; and a voucher similar to that enclosed will be issued by the Commissioners to the insured person. As far as concerns Committees in whose area such a person may receive treatment, the procedure will be identical with that described above; but as the whole 9s. has been carried to the Central Fund there will be no "case value" transfer in respect of him.

PROVISION OF MEDICAL ATTENDANCE AND TREATMENT TO INSURED PERSONS OVER 65 ON JULY 15TH, 1912.

THE Insurance Commission for England has issued the following Memorandum (155/A.S.), dated April, 1913, on this subject. A reference to this matter will be found in the body of the JOURNAL, p. 1015.

1. The Exchequer Grant of 2s. 6d. per annum is payable in respect of every insured person receiving medical attendance and treatment, including insured persons over 65 on July 15th, 1912.

2. This latter class may be subdivided as follows:

1. Insured persons over 65 on July 15th, 1912, for whom their society has decided to provide medical attendance and treatment wholly out of State funds as one of the benefits provided under Section 49 of the National Insurance Act.

2. Insured persons over 65 on July 15th, 1912, for whom medical attendance has been provided out of the private funds of the society and for whom their society has decided not to provide medical attendance and treatment as one of the benefits under Section 49 of the Act.

3. In the case of both classes it is proposed that the Exchequer Grant should be paid direct to the society. In both cases the medical treatment will be administered by the society and not by the Insurance Committee.

CLASS 1.—WHERE MEDICAL ATTENDANCE IS PROVIDED WHOLLY OUT OF STATE FUNDS.

4. The maximum amount available for medical attendance and treatment will be a sum of 8s. 6d. a year, including the grant of 2s. 6d. It will, however, be open to societies to make inclusive contracts with doctors for the provision of both medical attendance and medicines, and should they be able to make arrangements at a lower inclusive rate than 8s. 6d. per annum, they will be able to give the contributor the advantage of the amount saved in the form of an addition to his sick pay, which would be increased at the rate of 3d. a week for every shilling saved.

CLASS 2.—WHERE MEDICAL ATTENDANCE IS NOT PROVIDED WHOLLY OUT OF STATE FUNDS.

5. With regard to insured persons over 65 on July 15th, 1912, for whom medical attendance has been provided at the expense of the private funds of the society, the grant of 2s. 6d. per annum may be paid into those funds towards recouping the society for the expenses so incurred. If the whole 2s. 6d. is not required to meet the increased cost of providing medical attendance the saving will be available towards reducing the contributions which would otherwise have been payable by this class of member for such attendance and treatment.

Method of Claiming the Grant.

6. Societies which have insured members who were over 65 on July 15th, 1912, will in due course be furnished with forms on which to claim the grant.

ARRANGEMENTS MADE UNDER SECTION 15 (2) (*c*).

7. A friendly society which finds it impossible to make an arrangement with a doctor within the maximum amount available in the year may, in the case of those of its members to whom Section 15 (2) (*c*) of the Act applies, call upon the Insurance Committee for the area in which the members reside to put into operation the provisions of that section.

8. This section requires Insurance Committees to make it a condition of their arrangements with doctors on the panel that the latter shall be willing, if required, to afford medical attendance to members of friendly societies in the classes referred to in that section at the same rate of remuneration as that payable in the case of insured persons entitled to medical benefit. It must be pointed out that the section refers to medical attendance only, and not to the provision of medicine, etc., and that it merely affords a maximum rate of remuneration at which, if no lower rate can be arranged by private negotiation, doctors on the panel can be *required* to attend insured persons of the classes in question. Further, the section, and the paragraphs in the Medical Benefit Regulations giving effect to the section, in no way involve Insurance Committees in the administration of the medical treatment concerned; their duties are limited to enforcing upon doctors upon the panel, if called upon to do so, one of the conditions of those doctors' contract with the Committee, and to declaring the rate of remuneration (namely, a figure between 6s. 6d. and 7s.) at which doctors on the panel can be required to agree with societies for the treatment of their members in these classes.

9. It should not, however, save in rare circumstances, be necessary for the machinery of Section 15 (2) (*c*) and Regulation 51 to be put into operation. It is not anticipated that any doctor on the panel will actually require the Committee to call upon him formally to accept the rate of remuneration prescribed under Regulation 51 by declining to do so in private negotiation. But, for the exceptional circumstances in which it may be necessary for a Committee, at the request of a friendly society, to require a doctor to fulfil this condition of his agreement, arrangements have been made which are described in paragraph 11 below.

10. Section 15 (2) (*c*) applies, however, not only to insured members of friendly societies who by reason of age are not entitled to medical benefit—that is, to members in Classes 1 and 2 above-mentioned—but also to uninsured members of friendly societies, which have become approved or have established separate sections, who were prevented from becoming insured under the National Insurance Act because of permanent disablement. For the reasons already explained it will probably be more convenient to a society to make a private inclusive contract with a doctor for the medical attendance and medicines of these persons than to put Section 15 (2) (*c*) into operation for the provision of medical attendance only; and it will probably be unnecessary for societies to resort to Section 15 (2) (*c*) except in the rare circumstances referred to above. There should presumably be little difficulty on the part of the society in inducing a doctor on the panel to accept any inclusive terms for medical attendance and medicines which are more profitable to him than the prescribed rate for medical attendance only.

11. For the exceptional cases in which societies call upon Insurance Committees to put into operation the provisions of Section 15 (2) (*c*) the enclosed Form of Undertaking and Voucher has been prepared. This Form provides for an undertaking by the society in accordance with paragraph 51 of the Medical Benefit Regulations to pay the prescribed fee, and for a request by the society to the Committee to allot the member specified to a doctor on the panel. On receipt from the society of the form, with the undertaking duly filled in, the Committee will fill in the name of the doctor selected by them, and forward the form to that doctor for his signature, at the same time notifying the member of the doctor who has become responsible for his attendance. The doctor in question will then sign the document and return it to the society.

References in this Memorandum to Societies will, of course, apply to registered branches also.

Form Med. 33.

NATIONAL HEALTH INSURANCE.

The _____ Society.

MEDICAL TREATMENT.

We, the undersigned, being the Secretary (Treasurer) and three members of the above-named society, on behalf of the society hereby request the Insurance Committee of the county (borough) of _____ (hereinafter called the Committee) to provide medical treatment under the arrangements made by them for the treatment of insured persons to _____ of _____ who was on the 16th December, 1911, and still is a member of the above-named Society, and is not entitled to medical benefit under the National Insurance Act, 1911, by reason that he was on the 15th July, 1912 *~~subject to permanent disablement~~ ~~of the age of 65 or upwards~~, and we hereby undertake to pay to any medical practitioner on the panel for the said county (borough), in consideration of his undertaking the medical treatment of the above-named member, remuneration at the rate and upon the terms and conditions hereinafter mentioned:

1. The treatment given by the practitioner shall be not inferior in nature, quality or extent to that provided by him for insured persons under his agreement with the Committee, save that it shall not include any treatment included in sanatorium benefit under the Act, nor the provision of any medicines or medical or surgical appliances.

2. The remuneration of the practitioner in respect of treatment for each year shall be such amount as the Committee may determine to be the sum available for the medical treatment (exclusive of medicines and appliances) in that year under the arrangements made by the Committee of an insured person entitled to medical benefit and resident in the said county (calculated on the basis of payment by capitation fees), and a proportionate amount in respect of treatment for any part of a year.

3. Payment shall be made to the practitioner not later than seven days after the date of the determination by the Committee of the amount available for the medical treatment of an insured person entitled to medical benefit under the arrangements made by the Committee.

* Strike out the words which are not applicable.

4. The society may at any time, by giving two calendar months' notice in writing to the practitioner and to the Committee, determine the agreement as from the end of that period.

5. If at any time the Committee give notice to the society of their intention to assign the above-named member to another practitioner on the panel this agreement shall upon the date specified in that notice determine.

6. For the purposes of this agreement the word "year" means the period fixed by the Insurance Commissioners for the purposes of medical benefit under the said Act as the medical year.

Signature of Secretary or Treasurer. .....

Signatures of Three Members of the Society. .....

.....

.....

Date .....

The Insurance Committee of the County (Borough) of request Dr. to undertake the medical attendance and treatment of the above-named member in accordance with the provisions of Section 15 (2) (*e*) of the National Insurance Act, 1911, and Paragraph 51 of the Medical Benefit Regulations.

Signature of Clerk to the Insurance Committee. .....

Date .....

I agree to undertake the medical attendance and treatment of the above-named member upon the terms offered by the above-named society.

Signature of medical practitioner. .....

Date .....

INSURANCE ACT IN PARLIAMENT.

Medical Benefit.

Medical Lists and Transfers.

In reply to Mr. Hunt, Mr. Masterman stated that no medical man in London had as many as 7,000 insured persons on his list, as had been stated, and that a misapprehension had arisen owing to the fact that in a large number of cases the large lists publicly credited to individual medical men really belonged to medical men and their partners, and not to a single medical man only. With regard to transfer from one medical man to another, he said if any insured person failed to obtain adequate medical attendance and treatment from the doctor he had selected, the Insurance Committee, on the case being brought to its attention by himself or his approved society or otherwise, would arrange for his transfer to another doctor.

Medical Tickets: Change of Doctor.

Major Hope asked the Secretary of the Treasury whether, owing to the statement on the medical tickets and accompanying leaflets issued in December, 1912, that these tickets were only valid until April 30th, 1913, many insured persons were led to believe that their selection of a doctor by means of the medical ticket only held good until April 30th, 1913; whether these insured persons would be permitted to choose, if they wished another doctor from the panel to attend them after April 30th; or whether they would only be permitted to make a change subject to the consent of the first doctor.—Mr. Masterman, in reply, said neither the medical tickets nor the accompanying leaflets contained any statement implying that the selection of a doctor at the beginning of the year only held good until April 30th; but, as he had stated in reply to previous questions, insured persons might change their doctors within the year, either by consent of doctor and patient, or by decision of the Insurance Committee if the committee considers transference desirable on any question arising between an insured person and the doctor attending him.

Medical Referees.

Mr. Tyson Wilson asked the Secretary to the Treasury how many Insurance Committees had appointed medical referees; and whether he would state what the duties of the referees were and from what fund they were paid. Mr. Masterman said that if medical referees who would determine questions as to the scope of medical benefit under paragraph 55 of the Medical Regulations were referred to, no such referees had yet been appointed, as no such questions had yet arisen for decision in that manner. One or two medical advisers had been appointed in connexion with the checking of sickness certificates, etc. He would send the hon. member a memorandum setting out in detail the terms of appointment of those officers.

Representatives of Insured on Insurance Committees.

In reply to Mr. Tyson Wilson, Mr. Masterman said that the Commissioners were that day discussing with the Advisory Committee the method of appointing the representatives of insured persons on Insurance Committees (Section 59, Subsection (2) (*a*)), and the appointments would be made as soon as possible thereafter.

Aged and Disabled Persons.

In reply to Mr. Montague Barlow, Mr. Masterman said that a special grant at the rate of 2s. 6d. a head had been voted by Parliament towards meeting the cost of the provision of medical benefit under the National Insurance Act for all insured persons entitled to that benefit, and a similar amount was also available towards meeting the cost of providing medical attendance and treatment for persons insured under the Act who were between 65 and 70 years of age at the date of their entry into insurance and who were not entitled to medical benefit, but for whom their societies were providing medical attendance and treatment, either as one of the benefits under Section 49 of the Act, or out of their private funds under arrangements made prior to the passing of the Act. The grant out of parliamentary funds towards the cost of benefits was limited to persons insured under the Act.

Contracting Out.

Mr. F. Hall asked the Secretary to the Treasury how many insured persons had employed doctors not on the panel in order to ensure prompt and efficient attention, and whether the cost of medical attention so obtained or any proportionate part thereof was refunded.—Mr. Masterman said that as insured persons could obtain prompt and efficient attention from doctors on the panel, there was no need for them to employ other doctors on that account, nor had he any evidence that this course was being taken. In any case of complaint of neglect the insured person should communicate with the Insurance Committee, whose duty it was to investigate the matter.

Small Societies.

In reply to Mr. Charles Bathurst, Mr. Masterman said the number of registered friendly societies of all sizes in England and Wales on December 31st, 1910, was 6,310; no information was available as to the number of unregistered societies. Of these, 1,318 registered friendly societies and 700 unregistered had been approved under the National Insurance Act; 955 registered friendly societies had been dissolved and the registry of 74 had been cancelled since the above date. During the same period 309 new societies had been registered. If desired information as to Scotland would be obtained. Societies had not been classified in the records as large or small.

In further reply to Mr. Bathurst, Mr. Masterman said that a number of associations, with functions mainly advisory in character, had been formed to assist small societies in their work under the Act. In England the information in the possession of the Insurance Commissioners showed that such associations had been formed or were in the course of formation in eleven counties or groups of counties. In Wales also eleven associations of small societies had been formed under Section 22 of the Friendly Societies Act. Many of those associations would doubtless be used for the purpose of Section 39 when the time arrived.

It may be explained that Section 39 relates to associations of small societies for the special purpose of partly pooling any surpluses or deficiencies disclosed by a valuation.

Ireland.

In reply to Mr. Bridgeman, the Chancellor of the Exchequer, on behalf of the Prime Minister, said that the Government was anxious that an opportunity should be given for the discussion of the appointment of the Treasury Committee on this subject, and that an oppor-

tunity would arise on the Temporary Commissions Vote. He thought it would be better not to have the discussion until the Committee had reported.

Orkney and Shetland Committees.

In reply to Mr. Cathcart Wason, Mr. Masterman stated that a return obtained by the Scottish Insurance Commission showed about 3,144 and 4,570 insured persons in Orkney and Shetland, but the return was not yet complete and those figures were subject to some increase. He was afraid that the money voted for mileage and other special charges in the Highlands and Islands of Scotland in the Supplementary Estimates of 1912-13 could not be used to defray the expenses of members of Insurance Committees.

SANATORIUM BENEFIT.

Provision of Sanatoriums.

In reply to Mr. Chiozza Money, who inquired as to the number of public authorities which had availed themselves of the provisions of the capital grant of £1,500,000 towards the building of institutions for the treatment of tuberculosis; and how much of that sum had yet been granted to or earmarked for particular authorities, the President of the Local Government Board said that the Board had been in communication with all the county councils and county borough councils in England, and in the majority of cases had promised capital grants towards the cost of providing institutions. Some small grants had already been paid, but in most of the cases the schemes had not been matured in sufficient detail to enable him to say what grants would be given. Practically all those authorities had already indicated that they proposed to avail themselves of the capital grant, and the whole of the English share of the grant has been provisionally earmarked in proportion to the population of the several areas.

Tuberculosis Administration in London.

In reply to Mr. Astor, Mr. Burns said that the Local Government Board proposed to recognize the London County Council as the central organizing body for the provision of institutional treatment. The London County Council had already been informed to that effect, and the Board understood that the Council had such a scheme in preparation.

CORRESPONDENCE.

THE BRITISH MEDICAL ASSOCIATION AND A PRACTICAL POLICY.

DR. JAMES PEARSE, Honorary Secretary, Wilts Local Medical Committee (Trowbridge), writes: There are several points connected with the administration of the National Insurance Act on which it is very essential that Local Medical Committees should have guidance from the central authority, and in which co-ordinated action should, if possible, be taken. The following instances may be given:

(*a*) *The Definition of the Term "Rural Area."*—The regulations provide for dispensing by medical men in rural areas where the insured person lives more than a mile from a chemist. But they give no definition of the term. In a circular issued by the Commissioners they expressly state that the term has no technical meaning as "rural district," but the interpretation is left to each Insurance Committee. In this county the opinion of the Local Medical Committee was sought and a definition given as applying "to insured persons who live outside an urban district and are more than a mile from a chemist." To this the chemists have taken exception, and the Insurance Committee will arrive at its own interpretation after hearing both sides. But I do not think that our official Association has taken cognizance of a point which is obviously of great importance to rural practitioners, and it would seem that the matter is one which might well have been discussed between the Association and the Commissioners.

(*b*) *The Drug Schedule.*—This again is a matter which is brought under the consideration of each Local Medical Committee, and on which it is very advisable that they should have some authoritative central opinion, but there is no evidence that it has received detailed attention.

(*c*) *Fees Payable under Maternity Benefit.*—This may raise acute difficulties. The clause in the Act which authorizes the payment of "the prescribed fee" to the medical attendant when called in by a midwife was inserted during the passage of the bill through the House of Lords, and was, I believe, intended in the interests of the medical profession. But it was obviously impossible for the Commissioners from the limited sum of 30s. to prescribe an adequate fee, and at the same time provide for the payment of the midwife and the needs of the mother. Thus we are faced with the prospect of a prescribed fee of 15s. recoverable from maternity benefit for the major complications of midwifery, and the opinion has been expressed that it may not be possible to recover more from the patient. This is obviously a point on which direct communications should take place between the Association and the Commissioners.

Dr. Walker, in his letter in the SUPPLEMENT of May 3rd, draws attention to the "studied ignoring of the British Medical Association" by the Commissioners. I agree with him that it is very essential that official communications should take place on such points as he mentions and others to which attention might be drawn. But I am not sure that the fault is wholly that of the Commissioners. The difficulty is that there are two contradictory policies before the Association at the present time. The last Representative Meeting resolved (Minute 48): "That the Council be instructed to take all necessary steps to watch and protect the interests of the profession under the National Insurance Act; (*b*) to take any opportunity that may be afforded for placing the representatives of the Association on the Advisory and Insurance Committees; (*c*) to obtain statutory recognition of Local Medical Committees in every insurance area; (*d*) to collect information as to defects in the Act and Regulations and to take all possible opportunities of remedying them." The last clause would seem to include an instruction to approach the Commissioners. On the other hand, the Report of Council, page 142, contains the following resolution:

> That inasmuch as the Representative Body considers the Act unworkable and derogatory, the action of the Council and the State Sickness Insurance Committee shall continue to be in opposition to the Act and Regulations as at present constituted.

It would seem impossible under this resolution for the Association to approach the Commissioners officially, and equally impossible for the Commissioners to approach the Association. At the same time, without such negotiation it would be impossible for the Association *per se* to take opportunity to remedy defects in the Regulations, and Local Medical Committees must work out their own salvation. It is very essential that before the next Representative Meeting the Association should make up its mind which of these two contradictory policies is to be pursued.

THE MEMORANDUMS ON "TEMPORARY RESIDENTS."

DR. J. W. PRIDMORE (Honorary Secretary, Isle of Wight Local Medical Committee) writes: My excuse for again writing to you is to expose what appears to me to be a flagrant piece of sharp practice on the part of the Insurance Commissioners. In order to do this, I must go back as far as the week before last, when I, in common with all other practitioners on the panel, received Memorandum 161/I.C. on the subject of "Provision of Medical Benefit to Temporary Residents." This document was, I presume, perused and discussed by individual practitioners and various Local Medical Committees; some concluded they were in a fool's paradise, others a paradise lost, others a paradise regained, but it has, at any rate, been discussed. The general opinion formed, as far as I can ascertain, is that it is a document very carefully drawn up in order to befog us, with a statement at the conclusion that we shall be paid according to certain stated rates. The view the Isle of Wight Local Medical Committee took at its meeting on April 30th will be recorded in this week's SUPPLEMENT, and can thus be easily referred to.

To return to the main point, yesterday morning (Sunday) I received another document Memorandum 159/I.C., with a covering letter, which I opened and studied, at first under the impression that it was 161/I.C. in duplicate to be used for official purposes by Local Medical Committees. On further examination I found that this was not so. [Dr. Pridmore then quotes paragraphs 15 and 16 (see page 434) and continues:]

I look in vain for any guarantee on behalf of the Commissioners that the Central Panel Fund will be sufficient to pay the doctors' fees in full; it appears to me that they will merely declare a dividend.

But the question of payment is, after all, a minor matter; the thing which stands out is that the principle of cutting down our capitation fee by an indefinite amount is involved, as pointed out by Dr. Bennett in last week's Supplement. This should not be tolerated by our profession.

What I want to ascertain is, Why were these paragraphs in 159/I.C. omitted in 161 I.C., which was received by us a fortnight or so before the former memorandum although presumably it was issued later.

May I venture to suggest an explanation of what has happened as regards the publication of these two pamphlets? In the first instance 159/I.C. was published, and on perusal the above-quoted paragraphs were taken exception to as being likely to upset the doctors, after which the boiled-down edition 161/I.C. was published and circulated to make the way clear for the original and more dangerous article.

Dr. C. Courtenay Lord (Gillingham) writes: I am not surprised to see that financial wails are beginning to be heard in the land. On the same analogy that medical benefit is being financed by taking from him that hath and giving it to him that hath not, so are the temporary dwellers by the sad sea wave to be paid for by sweating the earnings of the unfortunate inland town doctor. Dr. Bennet is shocked at the apathy manifest, Dr. Askin is aghast! Dr. Pridmore is furiously indignant at the very latest trick. All honour to him, for is he not one of those who stand to gain by it? But do they not see the game? "Get the profession nicely divided and you can do what you like with them." Somebody's advice to somebody else, not so very long ago. Why will nothing be done? Because a very large number will stand to gain and a very large number will lose, and the two large numbers will never unite for common justice. Was not this the very cause of our defeat on the main issue? Many stood to gain a little, many stood to gain a lot, but it recked them little that an enormous number must lose to supply that gain. I have always maintained that the profession was financing this venture by the conversion of paying patients to clubbites. With all the force at my command I tried to make the Representative Meeting see that the 7s. was only a basis of payment, and that as a capitation fee the profession would never see it. I roundly denounced those who said that every thousand patients was a certain £350. But my words fell on deaf ears. Form 161 I.C. is only another of the financial juggles that dressed up 6s. 6d. so as, to the casual observer, to look like 8s. 6d. Now my words seem to be coming true. In Lancashire, I read, 12s. 6d. in the £ is to be paid on the "work done" scheme, while a dole of 30 per cent. of earnings is to be tossed to the capitation fraternity. In the doctors' El Dorado, which lies all around me as I write, no doctor has seen a single sixpence. Mr. Rockliff also is reported as having said that the average payment to doctors will be 6s. 8d. Is it too much to hope that the profession in the health resorts will rise as one man and refuse to accept a scheme of payment which is financed by the robbery of their inland brethren? Here is a fine chance of recovering some of our lost prestige.

Dr. S. L. Craigie Mondy (Tottenham, N.) writes: One is not surprised to read in the Journal the indignant protests against the latest action of the Insurance Commissioners—that is, their stated intention to deduct from our capitation fee in order to pay for sickness during holidays when any of our panel patients go away. That this is robbery cannot be denied. Having signed to attend patients at a definite fee per annum in our own districts it appears to me to be illegal to deduct anything, especially when patients cannot change their doctor without that doctor's consent.

What is "our representative" (Mr. Smith Whitaker) on the Commission doing for the profession? It would be interesting to know his opinion on this point. Perhaps it is asking too much to expect him to fight for us now that he has left us. It is very evident, whatever he may say or think, that the interests of the profession are quite a secondary consideration with the Commissioners.

*** Resolutions on this matter adopted by the Local Medical Committees of Blackpool and Isle of Wight will be found at pp. 429, 430.

Choice of Doctor.

Dr. E. W. M. Higgs, Honorary Secretary, Oxford Medical Committee and Panel (Oxford), writes: As Secretary to the Oxford Medical Committee and Panel I feel that it is my duty to the medical men forming the panel for this city to point out to your readers the inaccurate information supplied to Viscount Valentia, on which he based his question to the Chancellor of the Exchequer *re* the Great Western men and their old doctor; the question, as given in the Supplement of May 3rd, p. 404, was:

Whether the Chancellor was aware that much indignation was felt by a considerable number of railway employees resident in Oxford, who were unable to avail themselves, under the provisions of the Insurance Act and Regulations, of the services of a doctor who had for years attended them, and who, though willing to go upon the panel in respect of these patients, and having obtained the consent of the Insurance Committee to do so, was precluded by the intervention of the panel doctors.

As you, Sir, are aware, the Insurance Committee could not give their consent to any medical man joining the panel for a limited number of patients without first having obtained the consent of the panel doctors; therefore, the panel doctors could not intervene and refuse to allow what the Insurance Committee had already granted. The Insurance Committee had not given any such consent, for when the question was brought before the Insurance Committee the clerk read a communication from the panel expressing their refusal to agree to the proposal, and the Committee at once passed to the next business.

But after-events put an entirely different complexion on the whole affair. As reported in the Supplement of April 26th, a special general meeting of the Oxford Division was held to discuss this very matter, and Dr. Freeborn addressed the meeting on the subject of his application, and during his speech stated that he had never been on the panel, had never applied to go on the panel, and never meant to go on the panel. As I pointed out at that meeting, Dr. Freeborn's own statement removed all cause of complaint against the panel doctors, for we have no power to interfere with the Insurance Committee on the question of contracting out; and if Dr. Freeborn, as he himself says, never applied to go on the panel (the only point on which we have any authority), it seems to me very unfair that it should go out to all your readers that Dr. Freeborn was willing to go on the panel, that the Insurance Committee had agreed to his doing so, that the railway men were delighted at retaining their old doctor, and then those jealous panel doctors suddenly come on the scene and put an end to this happy arrangement.

We have every sympathy with Dr. Freeborn in this matter, and if the Insurance Committee allow these men to contract out we have absolutely no power to interfere, neither do we wish to do so; and I am sure Dr. Freeborn, after his statement at the meeting that he would not go on the panel, would be the last to suggest that it is the panel doctors who are preventing these men remaining his patients.

Prometheus.

Dr. J. Nesfield Cookson (Stafford) writes: The concluding paragraph of the letter by Dr. Walker in the Supplement of May 3rd (p. 406) is of great interest to me. He draws attention in that paragraph to the "studied ignoring of the British Medical Association as the mouthpiece and proper channel of communication with the panel practitioners;" and also that this "calls for prompt action by the Association." As Chairman of the Division in which I reside, I have been impressed by both these points, and it was with these very points in mind that I proposed a resolution at the last Divisional meeting to recommend the Representative Body to rescind both Minute 21 of the December Special Representative Meeting and Minute 45 of the January Special Representative Meeting, in both of which the Act is said to be derogatory to the profession, and more besides. In view of those minutes I feel it is futile to expect the Council or the State Sickness Insurance Committee, hard as they have worked, to be successful in increasing the influence of the Association, and that only through helping Local Medical Committees

can they do anything at all to carry out Minute 48 of the January Special Representative Meeting. I regret the support my resolution met with was small, but, on reading through the Report of Council, I find a paragraph (142) which to me fully explains the position now occupied by the Association in regard to the Act, as set out in Dr. Walker's letter, and also fully justifies such a resolution as proposed by myself. In that paragraph we are told that both the Council and the State Sickness Insurance Committee feel bound by Minutes 21 and 45 to "continue to be in opposition to the Act and Regulations as at present constituted," and also consider the interests of those not on the panel paramount. I would ask, How can either the Council or the State Sickness Insurance Committee, feeling that Minutes 21 and 45 bind them in that way, act "as the mouthpiece of, and proper channel of, communication with the panel practitioners"? The Act is now the law of the land, and will be administered by whatever Government may happen to be in power. It will be amended, but, in face of the interpretation which the Council has been bound to put on those minutes, it is futile to expect that those who have the power to make amendments will consider the Association to be the mouthpiece of the panel practitioners.

Considering the large proportion of those in general practice and members of the Association who are panel practitioners, Dr. Walker's contention that "prompt action to restore the power of the Association" is necessary cannot be controverted. Minute 48 instructs the Council to do certain things which will certainly tend to strengthen and improve the Act, but by the previous minutes it says in effect that any one doing so will be degrading the profession of which he is a member. As long as such a Gilbertian policy is adopted, so long will the Association be useless "as the mouthpiece of the panel practitioners."

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ABERYSTWITH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House-Surgeon and Secretary. Salary, £150 per annum.

BARNSLEY: BECKETT HOSPITAL AND DISPENSARY.—Senior and Junior House-Surgeons. Salary, £120 and £100 per annum respectively.

BELFAST: HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS, AND EPILEPSY.—Honorary Physician.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary, £80 per annum.

BIRKENHEAD UNION.—Senior Male Resident Assistant Medical Officer. Salary, £130 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—Two House-Surgeons. Salary at the rate of £50 per annum each.

BIRMINGHAM: RUBERY HILL ASYLUM.—Junior Assistant Medical Officer (male). Salary, £200 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM UNION.—Assistant Medical Officer to the Dudley Road Infirmary. Salary, £125 per annum.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—Gynaecologist.

BRADFORD EDUCATION COMMITTEE.—Two Assistants (one male and one female) to the School Medical Officer. Salary, £350 per annum each.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRIGHTON: ROYAL SUSSEX COUNTY HOSPITAL.—House-Physician (male). Salary, £100 per annum.

BRISTOL: COSSHAM MEMORIAL HOSPITAL, Kingswood.—House-Surgeon (male). Salary, £100 per annum.

BRISTOL GENERAL HOSPITAL.—(1) First House-Physician. (2) Second House-Physician and Casualty House-Surgeon; salary, £80 per annum. (3) Honorary Surgeon. (4) Honorary Assistant Surgeon.

BRISTOL ROYAL INFIRMARY.—Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £75 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum.

CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CARDIFF: KING EDWARD VII HOSPITAL.—Two Honorary Physicians.

CARDIFF: KING EDWARD VII WELSH NATIONAL MEMORIAL ASSOCIATION.—Medical Officer to the Tuberculosis Hospital. Salary, £200 per annum.

CARNARVON EDUCATION COMMITTEE.—Dentists. Salary, £100, with travelling expenses.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—(1) Senior House-Surgeon. Salary, £120 per annum. (2) House-Physician. Salary, £90 per annum.

DENBIGH: DENBIGHSHIRE INFIRMARY.—House-Surgeon. Salary, £100 per annum.

DERBY: DERBYSHIRE ROYAL INFIRMARY.—House-Physician. Salary at the rate of £100 per annum.

DEVONPORT: ROYAL ALBERT HOSPITAL.—(1) House-Surgeon; salary, £50 for first six months, £75 for second, and £150 during second year of service. (2) Assistant House-Surgeon; salary at the rate of £75 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—House-Surgeon. Salary at the rate of £75 per annum.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

FARRINGDON GENERAL DISPENSARY, ETC., 17, Bartlett's Buildings, E.C.—(1) Honorary Ophthalmic Surgeon. (2) Honorary Gynaecologist. (3) Resident Medical Officer; salary, £100 per annum.

GLASGOW DISTRICT MENTAL HOSPITAL, Lenzie.—Junior Assistant Medical Officer. Salary, £150 per annum.

GUY'S HOSPITAL DENTAL SCHOOL.—Radiographer. Remuneration, £50 per annum.

HASTINGS: EAST SUSSEX HOSPITAL.—Senior and Assistant House-Surgeons. Salary at the rate of £100 and £70 per annum respectively.

KING'S COLLEGE FOR WOMEN.—Lecturer in Hygiene. Salary, £150 per annum.

LEAMINGTON SPA: WARNEFORD, LEAMINGTON, AND SOUTH WARWICKSHIRE GENERAL HOSPITAL.—House-Physician. Salary, £85 per annum.

LINCOLN MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

LIVERPOOL EYE AND EAR INFIRMARY.—House-Surgeon. Salary, £80 per annum.

LIVERPOOL: PARK HILL SANATORIUM.—Resident Medical Superintendent. Salary, £350 per annum, increasing to £400.

MANCHESTER: ANCOATS HOSPITAL.—(1) Assistant House-Surgeon. (2) Assistant House-Physician. Salary, £70 and £80 per annum respectively. (3) Honorary Dental Surgeon.

MANCHESTER VICTORIA MEMORIAL JEWISH HOSPITAL, Cheetham.—Two Surgeons and one Physician.

MANCHESTER: VICTORIA UNIVERSITY.—Lecturer in Observation of Children and School Hygiene.

MIDDLESEX COUNTY ASYLUM, Napsbury.—Junior Assistant Medical Officer. Salary, £200 per annum.

MONTREAL: McGILL UNIVERSITY.—Robert Reford Chair of Anatomy.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon (male) for Branch. Salary, £180 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Locumtenent. Salary, £3 3s. per week.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—(1) Honorary Surgeon to the Eye Department. (2) House-Surgeon. Salary at the rate of £52 10s. per annum.

POPLAR DISPENSARY FOR THE PREVENTION OF CONSUMPTION, Bow Road, E.—Assistant Tuberculosis Officer. Salary, £300 per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—House-Physician. Salary at the rate of £75 per annum.

PRESTWICH: COUNTY ASYLUM.—Locumtenent.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon (male). Salary, £100 per annum.

ROYAL EAR HOSPITAL, Soho, W.—House-Surgeon (non-resident). Honorarium, £40 per annum.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William Street, W.C.—Clinical Assistants.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £50 per annum.

SHEFFIELD CITY TUBERCULOSIS DISPENSARY.—Assistant Medical Officer. Salary, £300 per annum.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Assistant House-Surgeon. Salary, £60 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £60 per annum.

SHEFFIELD: ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £70 per annum.

SIERRA LEONE: PRINCESS CHRISTIAN HOSPITAL, Freetown.—Resident Medical Officer. Salary, £250 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon (male). Salary, £90 per annum.

STOKE-ON-TRENT: NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—House-Surgeon. Salary, £100 per annum.

SUNDERLAND: MONKWEARMOUTH AND SOUTHWICK HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SURREY COUNTY COUNCIL.—Two Tuberculosis Medical Officers. Salary, £[illegible]0 per annum each.

TAUNTON: SOMERSET AND BATH ASYLUM, Cotford.—Assistant Medical Officer. Salary, £180 per annum, rising to £200.

WEST HAM COUNTY BOROUGH.—Assistant School Medical Officer. Salary, £250 per annum, rising to £400.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—(1) Honorary Physician. (2) Honorary Dentist.

WHITTINGHAM: COUNTY ASYLUM.—Assistant Medical Officer. Salary, £150 per annum, increasing to £250.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

WORCESTERSHIRE ASYLUM, Bromsgrove.—Second Assistant Medical Officer (male). Salary, £200 per annum.

MEDICAL REFEREE.—Medical Referee under the Workmen's Compensation Act, 1906, for Blackburn and Darwen, Haslingden and Accrington, Bacup and Rawtenstall, and Clitheroe County Courts.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

AUSTIN, J. A., M.D.Aberd., Medical Officer of the Workhouse of the Westbury and Whorwellsdown Union.

ADDENBROOKE, B., M.D.Durh., District Medical Officer of the Kidderminster Union.

BARRON, W. N., M.R.C.S., L.R.C.P., District Medical Officer of the Easthampstead Union.

BELL, Robert Gordon, M.D.Glasg., F.R.C.S.Edin., Medical Referee under the Workmen's Compensation Act for County Court Circuit No. 2, and to be attached more particularly to Sunderland and Seaham Harbour County Courts, vice A. E. Morison, M.B., C.M.Edin., resigned.

BISHOP, G. S. A., M.B., Ch.B.Liverp., District Medical Officer of the Melton Mowbray Union.

CHALLENOR, L. T., M.R.C.S., L.R.C.P., Second House-Surgeon to the Royal Infirmary, Leicester.

COGHILL, H., M.R.C.S., L.R.C.P., Tuberculosis Officer to the County of Middlesex.

COULDREY, T. R., M.R.C.S., L.R.C.P., District Medical Officer of the Glanford Brigg Union.

CROFTON, J. H., M.B., B.C.Camb., District Medical Officer of the Oswestry Incorporation.

DAWNAY, A. H. Payan, F.R.C.S.Eng., Full Surgeon to the Western Ophthalmic Hospital, Marylebone Road, W.

SMITH, Wilberforce, M.B., B.S., F.R.C.S., Honorary Gynaecologist to the St. Marylebone General Dispensary, and Surgeon-Accoucheur to the Western General Dispensary, W.

SIMPSON, George C. E., M.B., B.C.Lond., F.R.C.S., Honorary Surgeon to the Northern Hospital, Liverpool.

THACKER, W. S., M.D.Dub., F.R.C.S.Edin., First House-Surgeon to the Royal Infirmary, Leicester.

WARBURTON, W., M.B., Medical Officer of the Workhouse and Children's Home of the Chorley Union.

WATKINS, J. P., M.R.C.S., L.R.C.P., District and Workhouse Medical Officer of the Romsey Union.

DIARY FOR THE WEEK.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF ELECTRO-THERAPEUTICS, 8.30 p.m.—(1) Annual General Meeting. (2) Demonstration of Cases and Specimens.

SECTION OF OTOLOGY, 5 p.m.—(1) Annual General Meeting. (2) Demonstration of Cases and Specimens.

POST-GRADUATE COURSES AND LECTURES.

DUBLIN: ROTUNDA HOSPITAL.—Wednesday, 10 a.m., Obstetrical Lecture, The Induction of Labour; Friday, 10 a.m., Gynaecological Lecture, Pelvic Infection. Major Operations: Tuesday and Thursday, 10 a.m. Minor Operations: Wednesday and Friday, 11 a.m. Classes in Gynaecological Diagnosis, Tuesday and Friday at 4 p.m.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Wednesday. Radiography: Saturday. Special lectures each week.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following clinical demonstrations have been arranged for next week at 4 p.m. each day: Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear, Nose, and Throat. Lectures at 5.15 p.m. on Tuesday, Wednesday, and Thursday.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Friday, 3.30 p.m., Forced Movements.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Medical and Surgical Clinics and Operations at 2.30 p.m. daily. Also Monday, Throat; Tuesday, Gynaecology; Wednesday, Skin, Eye, Children, X Rays; Friday, Eye. Special Lectures and Demonstrations as announced.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Friday, 4 p.m., Rectal Diseases in Children and Infants.

SEAMEN'S HOSPITAL SOCIETY, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical laboratory work daily (Saturday excepted) 10 to 12 a.m. Practical Protozoology, 2 to 3.30 p.m. daily; Advanced Protozoology, 10.30 a.m. to 1 p.m. daily, Medical Clinic, Thursday, at 3 p.m. Operations, Friday, at 3 p.m.

[For further particulars of Lectures consult the Index to Advertisements.]

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

BYRNE.—On May 4th, 1913, the wife of Eugene Byrne, L.R.C.P. and S.I., Slane, co. Meath, of a son.

COLT.—At 12, Bon Accord Square, Aberdeen, on May 5th, the wife of G. Herbert Colt, F.R.C.S., of a daughter.

CYRIAX.—On April 30th, the wife of Richard J. Cyriax, M.D.Brux., M.R.C.S., L.R.C.P., of 4, Craven Hill, Lancaster Gate, W., of a daughter.

MARRIAGE.

RUTHERFORD—NORTON.—On May 1st, at St. Mary's, Ilford, by the Rev. Alan Campbell Morris, B.A., Alexander Rutherford, M.B., C.M.Edin., of 46, South Park Parade, Seven Kings, Essex, eldest son of the late James Rutherford, M.D., Mountainhall, Dumfries, to Edith Maud Noonan, eldest daughter of Stephen Norton, Esq., 6, Avonmore Terrace, Seven Kings, Essex.

DEATHS.

GROSVENOR.—On May 6th, at 72, Priory Road, West Hampstead, Alfred Octavius Grosvenor, M.D. Funeral Saturday (10th), at 12 noon, St. Mary's, West Hampstead, and at Hampstead Cemetery.

MANLEY.—On May 4th, at New Street, West Bromwich, Herbert Manley, M.D., D.P.H., Barrister-at-Law, aged 57. Cremation at Perry Barr, Wednesday, 1 p.m. No flowers. Kindly accept this the only intimation.

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		MAY.
9	Fri.	Hampstead Division. Central Library, Finchley Road, 8.15 p.m.
14	Wed.	Lancashire and Cheshire Branch, Liverpool Medical Institution, Organization and Finance Committee, 4.30 p.m.
17	Sat.	Last day for receipt of Nominations for Members of Council.
19	Mon.	Marylebone Division, 11, Chandos Street, W., 4.45 p.m.; Annual Meeting, 5 p.m.
20	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
21	Wed.	Central Division, Medical Institute, Edmund Street, 3.30 p.m. Dorset and West Hants Branch, Annual Meeting, Bournemouth, 3.30 p.m.; Luncheon, 1.30 p.m. Lancashire and Cheshire Branch, Liverpool Medical Institution, Branch Council, 4 p.m. Richmond Division, Richmond, 8.30 p.m.
24	Sat.	List of Nominations for Election on Council will be published in the JOURNAL of this date.

Date.		Meetings to be Held.
		MAY (*continued*).
29	Thur.	Northamptonshire Division, Northampton General Hospital, 2.30 p.m.; Luncheon, 1.30 p.m.
30	Fri.	City Division, Annual Meeting, Balfour Hall, Kingsland Road, 3.30 p.m.
		JUNE.
4	Wed.	South Middlesex Division, Annual Meeting, Twickenham, 8.30 p.m.
6	Fri.	London: Ethical Committee, 2 p.m. London: Journal Committee, 2 p.m. Hampstead Division, Annual Meeting.
7	Sat.	Date of issue of Voting Papers for Council Election from Head Office.
14	Sat.	Last day for receipt of Voting Papers at Head Office *re* Council Election.
17	Tues.	London: Organization Committee, 2.15 p.m.
25	Wed.	London: Finance Committee, 2.30 p.m. Central Division, Annual Meeting, Medical Institute, Edmund Street, 3.30 p.m.
28	Sat.	Announcement of result of Election of Members to Council.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 17TH, 1913.

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British Medical Association.

EIGHTY-FIRST ANNUAL MEETING, BRIGHTON, JULY, 1913.

PROGRAMME OF BUSINESS.

President: Sir JAMES BARR, M.D., LL.D., F.R.S.E., Consulting Physician, Royal Infirmary, Liverpool.

President-elect: WILLIAM AINSLIE HOLLIS, M.A., M.D., F.R.C.P., Consulting Physician, Sussex County Hospital, Brighton.

Chairman of Representative Meetings: THOMAS JENNER VERRALL, M.R.C.S., L.R.C.P., Consulting Surgeon, Sussex County Hospital, Brighton.

Chairman of Council: JAMES ALEXANDER MACDONALD, M.D., LL.D., M.Ch., R.U.I., Honorary Physician, Taunton and Somerset Hospital, Taunton.

Treasurer: EDWIN RAYNER, M.D.Lond., B.A., F.R.C.S. Eng., Consulting Surgeon, Stockport Infirmary, Stockport.

The Eighty-first Annual Meeting of the British Medical Association will be held in Brighton in July, 1913. The President's Address will be delivered on Tuesday, July 22nd, and the Sections will meet on the three following days. The Annual Representative Meeting will begin on Friday, July 18th, at 10 a.m.

The Address in Medicine will be delivered by Professor GEORGE R. MURRAY, M.D., F.R.C.P., Physician, Royal Infirmary, Manchester, on Wednesday, July 23rd.

The Address in Surgery will be delivered by Sir BERKELEY MOYNIHAN, M.S., F.R.C.S., Surgeon, Leeds General Infirmary; Professor, Clinical Surgery, University, Leeds, on Thursday, July 24th.

The Popular Lecture will be delivered by EDMUND JOHNSON SPITTA, L.R.C.P.Lond., M.R.C.S.Eng., Hove, Brighton, on the evening of Friday, July 25th.

THE SECTIONS.

The scientific business of the meeting will be conducted in sixteen Sections, which will meet on Wednesday, July 23rd, Thursday, July 24th, and Friday, July 25th.

The President, Vice-Presidents, and Honorary Secretaries of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

With the object of encouraging useful debates, it is proposed, as in previous years, to publish in the BRITISH MEDICAL JOURNAL early in June an abstract or syllabus of the remarks intended to be made in introducing each discussion arranged in any Section. Such publication serves as a guide to members who may desire to take part in the discussion. It is particularly requested that the introducer of each discussion will send an abstract or syllabus of his remarks to one of the honorary secretaries of the Section in which the discussion is to take place not later than Monday, May 26th.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

The following sixteen Sections have been authorized by the Council:

BACTERIOLOGY AND PATHOLOGY.

President: J. W. H. EYRE, M.D., M.S., London. *Vice-Presidents:* G. MORGAN, F.R.C.S.Edin., Brighton; MYER COPLANS, M.D., Leeds; Professor E. J. MCWEENEY, M.D., F.R.C.P.I., Dublin. *Honorary Secretaries:* H. MILLER GALT, M.B., F.R.F.P.S., Sussex County Hospital, Brighton; J. A. BRAXTON HICKS, M.D., Westminster Hospital, London, S.W.; C. H. BENHAM, M.D., M.R.C.P., 27, Sackville Road, Hove.

The following is the provisional programme:

Wednesday.—Papers:

Farrant, Mr. R. (London). Hyperthyroidism.
McWeeney, E. J., Crofton, W. M., and Moore, H. F. On Paratyphoid Infection.
Galt, Mr. Miller. On the Value of the Blood Count in Obscure Bacterial Infections.

Thursday.—Joint discussion with the Section of Pharmacology, Therapeutics, and Dietetics on Anaphylaxis: To be opened by Professor W. E. Dixon; followed by Professor G. Sims Woodhead (General Pathological Aspects), Drs. Thiele and Embleton (Special Bacteriological Aspects), E. W. Goodall (Clinical Aspects), H. H. Dale (General Experimental Point of View), Myer Coplans (Leeds) (On the Action of Asbestos and other Finely Divided Substances on certain Toxins, Ferments, Protein, and other Materials), Myer Coplans and Mr. W. Gibbs Lloyd (On the Action of Asbestos on certain Physiological Substances).

Friday.—Papers:

The Staff of the John Howard McFadden Research Fund. Some Researches on the Jelly Method of Staining Cells Alive.
Buchanan, Dr. R. M. (Glasgow). On *Empusa Muscae* as a Trajector of Bacterial Infection.
Lyons, Mr. W. C. On the Specific Diagnostic and Therapeutic Value of Proteose-free Tuberculin.
Galt, Mr. Miller. Microscopical Demonstrations on Haematology.

SECTION OF CLIMATOLOGY AND BALNEOLOGY.

President: F. J. Paley, M.D., Hove. *Vice-Presidents:* R. Whittington, M.D., B.Ch., Brighton; W. Gordon, M.D., F.R.C.P., Exeter; R. Ackerley, M.B., B.Ch., Llandrindod Wells. *Honorary Secretaries:* A. H. Copeman, M.D., Pavilion Parade, Brighton; D. Durward Brown, M.R.C.S., L.R.C.P., Norfolk Lodge, Leeds Road, Harrogate.

The following programme has been adopted:

Wednesday.—Discussion on Sea Bathing: To be opened by Dr. W. J. Tyson.

Thursday.—Discussion on International Aspects of British Health Resorts: To be opened by Dr. Neville Wood.

Friday.—Papers.

DERMATOLOGY.

President: J. H. Sequeira, M.D., F.R.C.P., London. *Vice-Presidents:* A. W. Williams, M.B., Brighton; F. H. Barendt, M.D., F.R.C.S., Liverpool; W. Griffith, M.B., M.R.C.P., London. *Honorary Secretaries:* A. M. Dalby, M.D., F.R.C.S., 17, Palmeira Square, Hove; F. Gardiner, M.D., F.R.C.S.Edin., 60, George Square, Edinburgh.

The following subjects have been chosen for discussion on two of the days of the meeting:

(1) The Fungous Affections of the Glabrous Skin: To be opened by Dr. H. G. Adamson. (2) The Nature, Varieties, Causes, and Treatment of Lupus Erythematosus: To be opened by Dr. J. M. H. Macleod.

The exhibition and demonstration of cases will be an important feature of the Section, and arrangements will be made for the demonstration of cases on the Thursday and Friday.

DISEASES OF CHILDREN, INCLUDING ORTHOPAEDICS.

President: G. F. Still, M.D., F.R.C.P., London. *Vice-Presidents:* W. C. Chaffey, M.D., Hove; L. A. Parry, M.D., F.R.C.S., Hove; A. F. Voelcker, M.D., F.R.C.P., London; P. N. Blake Odgers, F.R.C.S., Northampton. *Honorary Secretaries:* A. G. Bate, M.B., F.R.C.S.Ed., 8, Palmeira Avenue Mansions, Hove; A. E. Naish, M.B., M.R.C.P., 5, Clarkehouse Road, Sheffield.

The following discussions have been arranged:

Wednesday.—Affections of the Heart in Childhood: To be opened by Dr. F. J. Poynton and Dr. Carey Coombs.

Thursday.—The Choice of Methods in dealing with Paralytic Deformities in Children: To be opened by Mr. T. H. Openshaw, C.M.G.

Friday.—The Diagnosis and Treatment of Acute Inflammatory Conditions of the Abdomen in Children: To be opened by Mr. C. B. Lockwood.

Thursday.—Paper:

Professor Foerster (Breslau): Posterior Root Section in the Treatment of Spastic Paralysis.

ELECTRO-THERAPEUTICS.

President: W. Deane Butcher, M.R.C.S., London. *Vice-Presidents:* C. F. Bailey, M.D., M.R.C.P., Brighton; A. F. Hertz, M.D., F.R.C.P., London; W. Ironside Bruce, M.D., London. *Honorary Secretaries:* W. B. Prowse, M.R.C.S., 31, Vernon Terrace, Brighton; L. E. Creasy, M.R.C.S., L.R.C.P., 36, Weymouth Street, London, W.

The following is the preliminary programme:

Wednesday.—Papers and discussions on Roentgen Diagnosis.

Thursday.—Papers and discussions on Electro-diagnosis and Electro-therapeutics.

Friday.—Papers and Discussions on Roentgen Therapy and Radium.

There will be an exhibition of radiographs (negatives, prints, and lantern slides), and of photographs of cases treated by electro-therapeutic methods, *x* rays, and radium. Members desirous of exhibiting are requested to communicate with Dr. Prowse.

GYNAECOLOGY AND OBSTETRICS.

President: R. Sanderson, M.B., Hove. *Vice-Presidents:* Constance E. Long, M.D., London; T. H. Ionides, M.B., F.R.C.S., Hove; R. J. Johnstone, M.B., F.R.C.S., Belfast; Professor Benjamin P. Watson, Toronto. *Honorary Secretaries:* Louisa Martindale, M.B., B.S., 10, Marlborough Place, Brighton; W. Ritchie, M.B., 10, St. James Terrace, Glasgow.

The following is the preliminary programme:

Wednesday.—Discussion on the Best Methods of dealing with Malpositions of the Uterus, especially with reference to Retrodisplacements and Prolapse.

Thursday.—Discussion on Affections of the Urinary Tract complicating Pregnancy.

Friday.—Short Papers and Pathological Demonstrations.

LARYNGOLOGY, RHINOLOGY, AND OTOLOGY.

President: A. J. Hutchison, M.B., Brighton. *Vice-Presidents:* H. S. Barwell, F.R.C.S., London; C. E. Woakes, London. *Honorary Secretaries:* A. J. Martineau, F.R.C.S.Edin., 22, Cambridge Road, Hove; W. S. Syme, M.D., 10, India Street, Glasgow; E. D. Darelan Davis, F.R.C.S., 81, Harley Street, London, W.

The following programme has been arranged:

Wednesday.—Discussion: The Technique and After-Treatment of the Radical Mastoid Operation.

Thursday.—Discussion: The Care of Patients after Operations on the Nose and Naso-Pharynx.

Friday.—Papers.

Arrangements have been made to exhibit preparations, specimens, drawings, or any instruments or apparatus appertaining to the work of the Section in the Annual Pathological Museum. Such exhibits should be sent to Mr. A. J. Martineau, 22, Cambridge Road, Brighton.

MEDICAL SOCIOLOGY.

President: R. J. Ryle, M.D., M.A., J.P., Brighton. *Vice-Presidents:* G. E. Haslip, M.D., London; H. Gervis, M.B., J.P., Brighton. *Honorary Secretaries:* E. R. Fothergill, M.B., B.S., 38, Dyke Road, Brighton; H. D. Ledward, M.A., M.B., 123, Norton Way, Letchworth, Herts.

The following subjects have been chosen for discussion:

1. Crime and Punishment. Dr. Charles Mercier, Sir Bryan Donkin, M.D., and Dr. James Scott will read papers on different aspects of this subject as an introduction to a general discussion.

2. Hospitals in Relation to the Stage, the Public, and the Medical Profession. Sir Henry Burdett, K.C.B., and Mr. I. G. Gibbons, D.Sc., will read papers on this subject, and their discussion will, it is hoped, prove valuable in helping to elucidate the problems involved in providing hospital accommodation for insured persons under the National Insurance Act.

3. Eugenics. It is expected that the discussion on this subject will be introduced by Professor Bateson, and that he will be followed by Dr. Stewart Mackintosh (Hampstead) and Mr. Benedict Davenport (New York).

MEDICINE.

President: E. HOBHOUSE, M.D., F.R.C.P., Hove. *Vice-Presidents:* J. F. GORDON DILL, M.D., M.R.C.P., Hove; R. HUTCHISON, M.D., F.R.C.P., London; W. BROADBENT, M.D., M.R.C.P., Hove; A. P. BEDDARD, M.D., F.R.C.P., London. *Honorary Secretaries:* DONALD HALL, M.D., M.R.C.P., 29, Brunswick Square, Hove; T. FRASER, M.B., 45, Elmbank Terrace, Aberdeen; W. LANGDON BROWN, M.D., F.R.C.P., 60, Welbeck Street, London, W.

The following programme has been adopted:

Wednesday.—Discussion on Non-diabetic Glycosuria. To be opened by Dr. A. E. GARROD, F.R.S.

Thursday.—Discussion on Fibrositis and Muscular Rheumatism. To be opened by Dr. A. P. LUFF.

Friday.—Papers.

NAVY AND ARMY, AND AMBULANCE.

President: Colonel J. TURTON, V.D., F.R.C.S., late Assistant Director of Medical Service, T.F., Brighton. *Vice-Presidents:* Lieutenant-Colonel C. J. JACOMB-HOOD, R.A.M.C.T.F., Brighton; Deputy Surgeon-General P. B. HANDYSIDE, R.N., Plymouth; Major E. T. BIRRELL, R.A.M.C., Queen Alexandra Military Hospital, Grosvenor Road, S.W.; Colonel C. H. MILBURN, V.D., Hull. *Honorary Secretaries:* Lieutenant J. R. STEINHAEUSER, M.D., T.F., St. Andrew's Place, Lewes; Captain J. A. ROOTH, R.A.M.C.T.F., 1, Goldsmid Road, Brighton.

The arrangements so far made are as follows:

Wednesday.—Papers: (1) Major BIRRELL, R.A.M.C., Notes on the Work of a British Red Cross Unit with the Bulgarians. (2) Lieutenant-Colonel DONEGAN, R.A.M.C., The Relation of and Utility of Aeroplanes in connexion with Medical Services in the Field.

Thursday.—Papers: (1) Dr. LOUIS DUREY, French Army Service. Study of the Use of Kinesitherapy in the After-Treatment of Injuries received in War. Lieutenant D. G. KENNARD, R.A.M.C.T.F., A proposed Light Ambulance for Yeomanry Regiments. Major J. W. HOUGHTON, R.A.M.C., Spinal Analgesia in Military Service.

The following subjects are also suggested for discussion:

The Medical Service in the Tropics.
Hospital Ships.
Disinfection and its Application in Ships.
Diet of the Soldier.
Sanitation on the Line of March.
Water Supply on Field Service.

NEUROLOGY AND PSYCHOLOGICAL MEDICINE.

President: J. TAYLOR, M.D., F.R.C.P., London. *Vice-Presidents:* A. W. MACKINTOSH, M.D., Aberdeen: W. H. B. STODDART, M.D., F.R.C.P., London; HELEN BOYLE, M.D., Hove. *Honorary Secretaries:* J. L. BASKIN, M.D., New Church Road, Hove; T. G. STEWART, M.B., 54, Queen Anne Street, London, W.

The following is the preliminary programme:

Wednesday.—Discussion on Sleep and the Treatment of Sleeplessness: To be opened by Sir GEORGE H. SAVAGE, followed by Dr. W. H. Butter Stoddart.

Thursday.—Discussion on Vertigo: its Significance and Treatment. To be opened by Dr. RISIEN RUSSELL.

Friday.—Papers.

Members are invited to contribute any preparations, specimens or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that arrangements may be made to form a special exhibit of such objects.

OPHTHALMOLOGY.

President: T. H. BICKERTON, M.R.C.S., Liverpool. *Vice-Presidents:* H. H. TAYLOR, F.R.C.S., Hove; W. W. GRIFFIN, F.R.C.S., Hove; A. NICHOLSON, M.B., Hove; J. H. PARSONS, F.R.C.S., London. *Hon. Secretaries:* W. B. INGLIS POLLOCK, M.D., F.R.C.P.S., 276, Bath Street, Charing Cross, Glasgow; W. H. BRAILEY, M.D., 21, Lansdown Place, Hove.

The following subjects have been chosen for special discussion:

The Question of Excision in cases of Injury of the Eye.
School Clinics and the Prevention of Myopia.
The Treatment of Chronic Dacryocystitis.

PHARMACOLOGY, THERAPEUTICS, AND DIETETICS.

President: W. HALE WHITE, M.D., F.R.C.P., London. *Vice-Presidents:* J. C. UHTHOFF, M.D., Hove; H. BATTY SHAW, M.D., F.R.C.P., London; H. C. CAMERON, M.D., M.R.C.P., London. *Honorary Secretaries:* V. COW, M.D., The Bridge House, Great Shelford, Cambridge; E. R. HUNT, M.D., 3, Goldsmid Road, Brighton.

The following subjects have been selected for discussion:

Wednesday.—Urinary Antiseptics: To be opened by Mr. J. W. THOMSON WALKER, F.R.C.S.

Thursday.—Anaphylaxis: To be opened by Professor W. E. DIXON. (Joint discussion with Section of Bacteriology and Pathology. For a list of those taking part in the discussion see p. 442.)

Friday.—The Use and Abuse of Hypnotics: To be opened by Dr. W. H. WILLCOX.

STATE MEDICINE.

President: E. W. HOPE, M.D., D.Sc., Liverpool. *Vice-Presidents:* A. GRIFFITH, M.D., Hove; G. V. BENSON, M.R.C.S., Lewes; W. A. BOND, M.D., M.O.H., London. *Honorary Secretaries:* G. W. STONE, M.R.C.S., L.R.C.P., Cumnor, Dyke Road, Brighton; T. B. HEGGS, M.D., Town Hall, Sittingbourne.

The following subject has been selected for discussion:

Port Sanitary Administration and the Importation of Disease: To be opened by Dr. HERBERT WILLIAMS, M.O.H. Port of London.

Other subjects suggested are: (*a*) The need for Popular Education in matters affecting the Public Health. (*b*) Maternity Benefit under the Insurance Act and its Connexion with the Midwives Act. (*c*) Treatment of School Children; Arrangements recently adopted for. (*d*) Prevention and Treatment of Tuberculosis; the need for an Exact Comparison of the Methods at present used in. (*e*) Measles and Whooping-cough; the Need of Laboratory Investigation into the Means of Prevention.

SURGERY.

President: W. THELWALL THOMAS, F.R.C.S., Liverpool. *Vice-Presidents:* R. F. JOWERS, F.R.C.S., Hove; W. TAYLOR, F.R.C.S.I., Dublin; STANLEY BOYD, F.R.C.S., London; J. W. BATTERHAM, F.R.C.S., St. Leonard's-on-Sea; W. FURNER, F.R.C.S., Hove. *Honorary Secretaries:* H. J. WALKER, F.R.C.S., The Priory, Springfield Road, Brighton; C. A. R. NITCH, F.R.C.S., 69, Harley Street, W.; F. K. SMITH, M.B., 207, Great Western Road, Aberdeen.

The following subjects have been selected for discussion:

1. The Diagnosis and Treatment of Injuries of the Knee-joint other than Fractures and Dislocations: To be opened by Mr. A. M. MARTIN (Newcastle-on-Tyne).

2. The Diagnosis and Treatment of Primary Carcinoma of the Stomach: To be opened by Mr. G. H. MAKINS, C.B.

TROPICAL MEDICINE.

President: Lieutenant-Colonel Sir WILLIAM LEISHMAN, M.B., F.R.S., R.A.M.C., London. *Vice-Presidents:* E. IRWIN SCOTT, M.D., Hove; Professor W. J. R. SIMPSON, C.M.G., M.D., F.R.C.P., London; Major W. S. HARRISON, R.A.M.C., Royal Army Medical College, Grosvenor Road, S.W. *Honorary Secretaries:* E. CURWEN, M.A., M.B., B.C., 1, St. Aubyn's, Hove; F. W. O'CONNOR, M.R.C.S., London School of Tropical Medicine, Royal Albert Dock, E.

The following subjects have been selected for discussion:

Wednesday.—The Causes of Invaliding in the Tropics: To be opened by Dr. CURWEN.

Friday.—Filariasis: To be opened by Dr. Low.

PROVISIONAL PROGRAMME.

The following is the provisional time table for the Brighton meeting:

FRIDAY, JULY 18TH.
10 A.M.—Annual Representative Meeting.

SATURDAY, JULY 19TH.
9.30 A.M.—Representative Meeting.

MONDAY, JULY 21ST.
9.30 A.M.—Council Meeting.
10 A.M.—Representative Meeting.

TUESDAY, JULY 22ND.
9.30 A.M.—Representative Meeting.
2 P.M.—Annual General Meeting.
8.30 P.M.—Adjourned General Meeting, President's Address.

WEDNESDAY, JULY 23RD.
9 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Medicine.
3 P.M.—Religious Services.
4 P.M.—Secretaries' Conference.
7 P.M.—Secretaries' Dinner.

THURSDAY, JULY 24TH.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Surgery.
7.30 P.M.—Annual Dinner.

FRIDAY, JULY 25TH.
9 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
8 P.M.—Popular Lecture.

SATURDAY, JULY 26TH.
Excursions.

Honorary Local Treasurer—
H. H. TAYLOR, F.R.C.S.,
36, Brunswick Square, Hove.

Honorary Local Secretary—
LEONARD ARTHUR PARRY, M.D., F.R.C.S.,
83, Church Road, Hove.

THE PATHOLOGICAL MUSEUM.

THE following is a list of the Pathological Museum Committee:

Chairman.—Dr. E. Hobhouse (Hove).
Honorary Secretaries.—Dr. W. Broadbent and Dr. H. M. Galt.

Brighton.

Dr. C. F. Bailey
Mr. D. E. N. Caush, L.D.S.
Dr. W. A. Griggs
Dr. E. R. Hunt
Dr. H. Langton
Dr. G. Morgan
Dr. G. W. Stone
Mr. Toms (Museum and Fine Arts Gallery)
Dr. A. W. Williams
Dr. T. S. Worboys

Hove.

Dr. W. C. Chaffey
Dr. R. A. Clapham
Dr. A. Griffith
Dr. W. P. Harrison
Mr. R. F. Jowers, F.R.C.S.
Dr. E. J. Spitta

Lewes.

Dr. J. R. Steinhaeuser
Dr. H. Vallance

Ex officio Members.

The President-Elect, the Local Honorary Treasurer, and the Local Honorary Secretary.

The Committee appointed to organize the Pathological Museum in connexion with the Annual Meeting in Brighton, 1913, proposes to arrange the material under the following heads:

(i) Exhibits bearing on discussions and papers in the various Sections.
(ii) Specimens and illustrations relating to any recent research work.
(iii) Instruments relating to clinical diagnosis and pathological investigation.
(iv) Individual specimens of special interest, or a series illustrating some special subject.

The Committee wishes it to be understood that the above are only suggestions, and if there is any subject of special interest of which specimens can be supplied they will be welcomed.

The Museum will occupy a central position in the same building as that in which the sectional work is carried on, and will be easy of access.

The Committee desires to enlist the hearty co-operation of members, and the Honorary Secretary will be glad to hear from those who are able to make an exhibit. Every care will be taken of specimens, and the contents of the Museum will be insured.

It is hoped that it will be possible for arrangements to be made whereby exhibitors may have an opportunity of demonstrating their specimens.

All communications should be addressed to Dr. W. Broadbent or Dr. H. M. Galt, Honorary Secretaries, Pathological Museum Committee, 14, North Street, Brighton.

Meetings of Branches and Divisions.

DORSET AND WEST HANTS BRANCH:
BOURNEMOUTH DIVISION.

THE annual meeting of this Division was held on April 30th, at the Library of the Medical Society, Bournemouth. The chair was taken by Dr. LE FLEMING, and twenty-four members were present.

Election of Officers.—The following officers were elected for the ensuing year:

Chairman.—Dr. W. H. L. Marriner.
Vice-Chairman.—Dr. Harold Simmons.
Honorary Secretary.—Dr. Eleanor C. Bond.
Representative.—Dr. Johnson Smyth.
Representatives on Branch Council.—Drs. Alexander, Badley, Bond, Le Fleming, Marriner, Milner, Montgomery, Simmons, Johnson Smyth, Spinks, and Willans.
Executive Committee.—The Representatives on the Branch Council and Drs. Ramsay, Forster, and Haylock.
Ethical Committee.—Drs. Batterbury, Davidson, Greves, Milner, Muspratt, Ramsay, and Vernon. *Ex officio:* The Chairman and Honorary Secretary.

Treatment of Uninsured Persons.—It was reported that in the Bournemouth area the rate paid was 8s. 6d. for adults and 6s. for children; in Parkstone 9s. was being paid for adults and 1s. weekly for children.

Ethics.—The report and recommendation of the Ethical Committee, a copy of which had been sent to each member, was unanimously approved and adopted.

LANCASHIRE AND CHESHIRE BRANCH:
LIVERPOOL DIVISION.

A MEETING of this Division was held at the Medical Institution, Liverpool, on May 9th, when Dr. R. J. RICHARDSON, J.P., occupied the chair.

Waters Testimonial Fund.—A letter was read by the Divisional Secretary (Dr. FRANCIS W. BAILEY) from Dr. J. Walker in reference to the Testimonial Fund in recognition of the work done by the late Dr. Henry Waters, of Trinity Road, Bootle, as Divisional Secretary and Representative on the Representative Body. It was pointed out that the appeal to the members of the Liverpool Division had resulted in the addition of £60 13s. 6d. to the amount already subscribed, the total contributions being £240 15s.

Election to Central Council.—The meeting unanimously agreed that Mr. F. Charles Larkin be nominated by the Division as a candidate for election to the Central Council at the forthcoming election.

Matters Referred to Divisions.—Regarding the matters referred to Divisions and published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL, April 19th, it was agreed to instruct the Representatives at the Representative Meeting to vote against the motion by the Natal Branch; to leave discretion to the Representatives on the motion of the Leigh Division; and to vote against the motions by the Buckinghamshire Division.

Expenses of Representatives.—It was agreed to support the resolution of the Branch Council regarding a voluntary levy to meet the expenses of the Representatives, members of Council, and members of Committee, and to ask each individual member of the Division to contribute his proportion to a levy of £101 10s.

Nominations to County Medical Committee.—It was agreed to nominate Dr. J. Dunn and Dr. Pendlebury as candidates for election on the County Medical Committee of Lancashire for No. 19 and No. 10 district insurance areas respectively.

Divisional and Insurance Areas.—Consideration of the readjustment of the Divisional area to coincide with the Insurance Act area was postponed, pending the report of the Council of the Association on this matter.

METROPOLITAN COUNTIES BRANCH:
HAMPSTEAD DIVISION.

A MEETING of the Hampstead Division was held at the Central Library, Finchley Road, on the evening of May 9th. Mr. WARE was in the chair, and fourteen members were present. The recommendations of the Committee in regard to possible amendments of the National Insurance Act or Regulations contained in a letter from the Medical

Secretary dated April 19th, and the report of the State Sickness Insurance Committee in SUPPLEMENT to BRITISH MEDICAL JOURNAL, April 5th, were carried unanimously. An interesting paper was read by Mr. E. LAMING EVANS on the detection and treatment of scoliosis in its initial stages. A short discussion followed. Mr. Evans answered the points raised, after which a hearty vote of thanks was proposed by Dr. PRITCHARD, seconded by Mr. HILLS, and carried by acclamation.

MIDLAND BRANCH:
LINCOLN DIVISION.

THE annual meeting of the Lincoln Division was held at Lincoln on May 1st, when nine members were present.

Election of Officers.—The following were elected Divisional officers for the ensuing year:

President-elect.—Dr. Genney.
Representative on Branch Council.—Dr. Purves.
Ordinary Members of Executive Committee.—Drs. Denny (East Barkwith), Lowe, Barlow.
Chairman.—Dr. Clements.
Vice-Chairman.—Dr. Watkins.
Honorary Secretary.—Dr. Rainforth.
Representative.—Dr. McFarland.

Annual Report and Financial Statement.—The annual report of the Executive Committee and financial statement was read and approved.

Fees to Practitioners Called in to Assist Midwives.—The following motion was adopted:

That it is desirable that practitioners, when called in to assist a midwife, do not accept a less fee than one guinea, and that all medical men practising in the city be informed of this resolution.

NORTH OF ENGLAND BRANCH:
NEWCASTLE-UPON-TYNE DIVISION.

THE tenth annual meeting of the Newcastle-upon-Tyne Division was held at the Royal Victoria Infirmary, Newcastle-upon-Tyne, on May 7th. Dr. ANDREW SMITH, sen., occupied the chair.

Election of Officers.—The following officers were appointed for the ensuing year:

Chairman.—Dr. A. Campbell.
Vice-Chairman.—Dr. James Hudson.
Honorary Secretary.—Dr. J. Leslie Wilson.
Representatives at Representative Meetings.—Dr. J. W. Smith, sen., Dr. R. A. Bolam.
Deputy Representatives at Representative Meetings.—Dr. Andrew Smith, sen., Dr. James Don.
Representatives on North of England Branch Council.—Drs. W. C. Beatley, R. Dagger, J. Don, Rutherford Morison, W. G. Richardson, A. Smith, sen., J. S. McCracken, H. L. Rutter; *ex officio:* Drs. A. Campbell, Leslie Wilson, J. W. Smith, R. A. Bolam.
Ordinary Members of Executive Committee.—Mr. H. B. Angus, Drs. A. C. Burnell, J. J. Campbell, J. T. Dunlop, G. Foggin, W. S. Fraser, E. F. Pratt, R. W. Simpson, A. H. Hobbs, J. D. Farquharson, W. L. Ruxton, T. C. Hunter; *ex officio*: Mr. R. J. Willan.

Annual Report for the Year 1912.—The annual report showed that forty meetings had been held during the year. The number of members was 204, an increase of 24. The sum of £1,591 had been guaranteed to the Defence Fund in connexion with the National Insurance Act up to December 31st, 1912, and £159 had been paid up in calls. The principle of school clinics had been established in Newcastle-on-Tyne, but the Local Education Committee had stated that it had no intention of undertaking treatment on a large scale; that strict care would be taken not to include patients whose parents could afford to pay a doctor; and that accredited representatives of the profession would be allowed to inspect the treatment centres at any time.

Winter Scientific Meetings.—It was agreed that an honorary secretary of the winter scientific meetings carried on by the Division should be appointed, and should be an *ex officio* member of the Executive Committee. Mr. R. J. Willan was appointed.

Inspection of School Treatment Centres.—Drs. R. Dagger, F. Hawthorn, G. E. Watson, J. D. Farquharson, A. Campbell, and Leslie Wilson were appointed the accredited representatives of the profession to inspect the centres for the treatment of school children.

Votes of Thanks.—A very hearty vote of thanks was accorded to Dr. Andrew Smith, the retiring chairman, and Mr. R. J. Willan, the retiring honorary secretary, and also to Dr. J. W. Smith, sen., and Dr. R. A. Bolam, the Representatives at Representative Meetings. The House Committee of the Royal Victoria Infirmary was thanked for its kindness in affording facilities for holding all the various meetings at that institution, as was the matron of the Royal Victoria Infirmary for her kindness in supplying teas to the winter scientific meetings and committee meetings.

SOUTH-EASTERN OF IRELAND BRANCH.

THE annual meeting of the South-Eastern of Ireland Branch of the British Medical Association was held at Kilkenny on May 7th, Dr. MORRISSEY, President, in the chair, and thirteen others were present.

Election of Officers.—The following were elected for 1913–14:

President.—Dr. P. O'Gorman (Cowran, co. Kilkenny).
President-elect.—Dr. Thomas O'Connell (Fethard, co. Tipperary).
Secretary.—Dr. P. Grace (Kilkenny).
Treasurer.—Dr. Jellett (Waterford).
Representative at the Representative Meetings.—Dr. Laffan (Cashel, co. Tipperary).
Deputy Representative at the Representative Meetings.—Dr. J. Power (Ardfinnan).
Nominated for Election on the Central Council.—Dr. Denis Walshe (Graigue).
Representative on the Irish Committee.—Dr. J. Ryan (Carlow).
Representatives on the Branch Council.—Drs. James, Shee, Walsh, Grace (Kilkenny); Drs. Morrissey, Morris, Mackesy, Jellett (Waterford); Drs. J. V. Ryan and H. Kidd (Carlow); Dr. Thomas O'Connell (Fethard, co. Tipperary).

Votes of Condolence.—Votes of condolence were passed with Dr. G. Mackesy on the death of his son, and with Dr. Shee (Callan) on the death of his brother.

STAFFORDSHIRE BRANCH:
SOUTH STAFFORDSHIRE DIVISION.

THE annual meeting of the Division was held at Wolverhampton on May 6th. Dr. CRAIG was in the chair, and fourteen members were present.

Election of Officers for 1913–14.—The following officers were elected:

Chairman.—Dr. T. H. Galbraith.
Vice-Chairman.—Dr. T. Connell Craig.
Honorary Secretary.—Dr. H. C. Mactier.
Three Representatives on Branch Council.—Dr. Craig, Dr. Hartill, and Dr. Malet.
Six Members of Executive of Division.—Dr. Ridley Bailey, Dr. Bankier, Dr. Cooke, Dr. A. H. Carter, Dr. Deanesly, and Dr. Grout.

Annual Report of Council.—The annual report of Council was then considered, and the Representative, Dr. Mactier, was instructed thereon.

Amendment of Insurance Act.—On the motion of Dr. MALET, seconded by Dr. SPAIN, it was resolved:

That in the Act to amend the Insurance Act provision should be made that all the representatives of the profession on the Insurance Committees should be elected by the profession itself in the respective areas.

Votes of Thanks.—A vote of thanks to Dr. Craig for his conduct of meetings during his year of office was moved by Dr. MACTIER, seconded by Dr. RIDLEY BAILEY, and carried by acclamation. Dr. CRAIG, in replying, expressed his pleasure that the members were satisfied with his efforts during a most strenuous year.

YORKSHIRE BRANCH:
HALIFAX DIVISION.

A MEETING of this Division was held on April 23rd at 8.30 p.m. In the absence of Dr. Crossley Wright, the chair was taken by Dr. A. DRURY, the Vice-Chairman, and sixteen other members were present.

Emergency Visits to the Workhouse.—The SECRETARY read correspondence with reference to the refusal of the Halifax Guardians to pay Dr. F. E. Wayte, a member of the Division, for an emergency visit to the workhouse made at the request of the master, the workhouse medical officer not being available. The meeting resolved to recommend Dr. Wayte to sue the guardians, and that he should have the support of the Division.

Fee for Medical Certificates.—The case of a medical man in the Division was reported to the meeting, who continued

to give medical certificates required for admission to clubs and societies for the fee of 1s., contrary to the decision of this Division a year ago to raise the fee to 2s. 6d. The Secretary was directed to write to the medical man in question.

Insurance Act.—The recommendations of the State Sickness Insurance Committee were read, and for the most part approved. The Secretary was instructed to transmit them to the Secretary of the Halifax Medical Committee, and to request that copies be sent to representatives of Local Medical Committees outside Halifax, but in the Division.

Model Rules for Ethical Procedure.—The Model Ethical Rules were adopted after some discussion, with the exception of Rules 12 and 22. On the motion of Dr. P. K. STEELE, seconded by Dr. PRIESTLEY LEECH, it was decided that any appeal should go from the Divisional Ethical Committee direct to the Central Ethical Committee, and not through the Branch Council, as proposed in the rules. Notice of adoption of the rules was ordered to be placed on the agenda of the next Division meeting.

Contract Practice.—The question as to whether contract practice should be allowed in the Division outside the Insurance Act was discussed at considerable length. The Executive Committee had consented to a member of the Division resuming a club which he had resigned at the request of the Association during the controversy as to the Insurance Act. This was severely criticized, and on the motion of Dr. D. J. MACAULAY, seconded by Dr. MCWILLIAMS HENRY, the following resolution was carried unanimously, and ordered to be placed on the agenda of the next Division meeting in order that it might be binding on all the members:

> That this Division does not approve of contract practice outside the Insurance Act.

Medical Men and Coroners' Inquests.—The question of the discussion at inquests of the conduct of medical men who were not given the opportunity of defending themselves was then considered, but it was decided to take no official action in the matter at present.

Association Notices.

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list. The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: CENTRAL DIVISION.—The Honorary Secretaries, Dr. Ernest C. Hadley (Burbury Street, Lozells, Birmingham) and Dr. H. Hoyle Whaite (Elsinore, Gravelly Hill, Birmingham), give notice that a special meeting of this Division will be held in the Medical Institute, Edmund Street, on Wednesday, May 21st, at 3.30 p.m., for the purpose of electing four Representatives and one Deputy Representative for this Division upon the Representative Body of the Association. The annual meeting of this Division will be held in the Medical Institute, Edmund Street, on Wednesday, June 25th, at 3.30 p.m., for the purpose of electing a Chairman, Vice-Chairman, two Honorary Secretaries, Representatives of the Division in the Branch Council, and members of the Executive Committee. Nominations for officers of the Division must be in the hands of one of the Honorary Secretaries not later than Tuesday, June 3rd.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—Drs. Laurence E. Price and Duncan Davidson, Honorary Secretaries (15, Priory Row, Coventry), give notice that the annual meeting of the constituency of the Nuneaton and Tamworth and Coventry Divisions will be held at 3.30 p.m. on Thursday, June 5th, at the Coventry Hospital, to elect a Representative for the Brighton Meeting, and any other business. At the conclusion of this meeting the annual meeting of the Coventry Division will be held for the election of officers, to consider a proposed alteration of date of meetings, and to receive the report of the Executive Committee.

DORSET AND WEST HANTS BRANCH.—The Honorary Secretary, Dr. Frank Fowler (29, Poole Road, Bournemouth), gives notice that the annual meeting will be held at the Bourne Hall Hotel, Bournemouth, on Wednesday, May 21st, at 3.30 p.m. The reports of the Branch and Divisions will be presented and the Ethical Committee will be elected. Dr. H. G. Lys will deliver the presidential address. Dr. W. Johnson Smyth will read notes on a case of abdominal section. The President-elect, Dr. H. G. Lys, very kindly invites members to luncheon at his house, Southbrook, Poole Road, at any time between 1.30 and 3 o'clock.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—Dr. A. G. Southcombe, Honorary Secretary (83, Sidney Road, Homerton, N.E.), gives notice that the eleventh annual general meeting of the Division will be held in Balfour Hall, Dunstan Street, Kingsland Road, on Friday, May 30th, at 3.30 p.m.

METROPOLITAN COUNTIES BRANCH: MARYLEBONE DIVISION.—The Honorary Secretary, Dr. Francis W. Goodbody, gives notice that a meeting of the practitioners of the borough of Marylebone will be held at 11, Chandos Street, W. (Medical Society of London), on Monday, May 19th, at 4.45 p.m., when a Local Medical Committee for the year 1913-14 will be elected. The Committee consists of twenty practitioners, ten in general and ten in consulting practice. Nominations signed by two practitioners, and accompanied by the signed consent of the nominee to serve, should reach Dr. Roxburgh, 30, Seymour Street, W., by Friday, May 16th. The annual general meeting of the Division will be held at the same place at 5 p.m., or at the conclusion of the meeting called for 4.45 p.m., to receive the Annual Report of the Executive Committee, to elect officers of the Division for the ensuing year, and to consider questions of which due notice has been given.

METROPOLITAN COUNTIES BRANCH: TOWER HAMLETS DIVISION.—Dr. W. H. E. Oxley, Honorary Secretary (119, East India Road, E.), gives notice that the annual meeting of the Tower Hamlets Division will be held on Tuesday, May 20th, at the Public Health Offices, White Horse Street, Stepney.

MIDLAND BRANCH: BOSTON AND SPALDING DIVISION.—Dr. E. A. Wilson, Honorary Secretary (Boston), gives notice that a special meeting of the Division will be held on Wednesday, May 21st, at the White Hart Hotel, Boston, at 3.30 p.m., to meet the Medical Secretary (Dr. Cox) to discuss the provision of medical treatment for all uninsured persons.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—Dr. R. Wallace Henry, Honorary Secretary (6, Market Street, Leicester), gives notice that the annual meeting of the Division will be held at the Royal Infirmary, Leicester, on Wednesday, May 21st, at 4 p.m., for the election of Vice-President and Representatives of the Division on the Branch Council, and of officers and members of the Executive Committee of the Division. The annual report of the Executive Committee will be presented.

SOUTH MIDLAND BRANCH: NORTHAMPTONSHIRE DIVISION.—Dr. P. S. Hichens, Honorary Secretary, gives notice that the annual meeting of the Division will be held in the Board Room of the Northampton General Hospital on May 29th, at 2.30 p.m. The meeting will be preceded by a luncheon at Franklin's Restaurant, Guildhall Road, at 1.30 p.m. Those wishing to attend the luncheon should notify the Honorary Secretary two days beforehand. Agenda: Election of officers for the ensuing year. Annual report of the Division. Consideration of agenda for the Representative Meeting. Consideration of other memoranda sent down from the Association. If time permits some clinical cases will be shown.

SOUTH-EASTERN BRANCH.—Dr. E. A. Starling, Honorary Secretary (Chillingworth House, Tunbridge Wells), gives notice that the sixty-ninth annual meeting of the Branch will be held on Wednesday, June 11th, at 1.30 p.m., at the Lion Hotel, High Street, Guildford. Dr. Arthur M. Mitchell (President-elect) invites members to lunch at the Lion Hotel, High Street, at 12.45 p.m. sharp. Agenda: In addition to the business of an ordinary meeting, (1) to receive the report of the election of officers for 1913-14; (2) to receive the annual report of the Council and financial statement, and (3) the ethical rules presented by the Council; (4) to consider the following resolution: "The South-Eastern Branch Council advise the Branch to request the Council of the Association to consent to the division of the unwieldy South-Eastern Branch into three Branches, corresponding with the three counties of Kent, Sussex, and Surrey." An excursion is arranged for the afternoon, to view the Lord Mayor Treloar's Cripples' Home at Alton, where Dr. and Mrs. Gauvain kindly invite the members to tea. The special train leaves Guildford Station at 2.40 p.m., returning about 5.30 p.m. Tickets for the return journey, 3s. 6d. each. The annual dinner will be held at the Lion Hotel, at 6.30 p.m. Members intending to be present at the lunch, excursion, or dinner wishing hospitality for the night are requested to signify their intention to Cecil P. Lankester, Esq., 1, Rectory Place, Guildford, not later than Saturday, June 7th.

National Insurance.

LOCAL MEDICAL COMMITTEES.

ABERDEENSHIRE.

A MEETING of the Aberdeenshire Local Medical Committee was held in the Medico-Chirurgical Hall on May 2nd, Dr. RORIE, Chairman, presiding.

Temporary Residents.—After considering the question of medical benefits for temporary residents, Memorandum 159/I.C., it was unanimously agreed to inform the Commissioners that the Committee could sanction no scheme involving a deduction from the 7s. contracted for, as it would operate unfairly in the area.

Charges by Chemists.—The letter from the Medical Secretary of the British Medical Association as to charges of chemists was considered, and it was agreed to protest against the neglect to consult the Local Medical Committees in the matter as being contrary to the purview of the Act.

Payment of Expenses.—The Secretary (Dr. BRUCE) reported that the Committee had already communicated with the Commissioners, the Local Insurance Committee, and the local members of Parliament on the matter of the expenses of Local Medical Committees, and it was agreed to press that this question should be settled in the forthcoming amending Act.

Uninsured Club Members.—The secretary was instructed to remind certain members of the profession by letter of the arrangement previously arrived at—namely, that no contract be entered into for this purpose at a less rate than 7s. a head exclusive of medicine.

Specification of Disease on Sick Certificate.—Correspondence was read from a friendly society demanding the insertion of the disease in all cases on sick certificates. It was unanimously agreed that nothing further than "illness" or "accident," as the case might be, should be used, the doctor's signature being an adequate guarantee of the genuineness of the case. Comment was made on the delay by the Commissioners in issuing a uniform sick certificate, and the inconvenience at present caused by the multiplicity existing, according to the taste and fancy of the different societies.

Mileage.—The question of mileage was again discussed, and it was unanimously agreed to press forward the point that the proposed "three miles free" was absolutely unfair to the average country doctor, and that one mile free was a fair offer on the part of the practitioners. It was pointed out that while practitioners in the Highlands and Islands and the sparsely populated areas might ultimately receive some help, the country practitioner with a radius of three to seven miles was being most unfairly treated as compared with his town brother.

The Scottish Committee of the British Medical Association.—The Local Medical Committee expressed its cordial approval of the proposed devolution of purely Scottish medical affairs to this Committee, and of the steps being taken to secure that it can speak as a national representative body in putting forward the claims of the medical profession in Scotland.

KIRKCALDY.

THE Local Medical Committee for the Burgh of Kirkcaldy has been recognized, and is composed of all practitioners resident or practising in the burgh and willing to act. The office-bearers are:

Chairman.—Dr. A. Lesslie Curror.
Secretary. — Dr. J. Isdale Greig, 23, Townsend Place, Kirkcaldy.
Medical Representatives on Insurance Committee.—Dr. John Smith, Dr. W. T. M. Wallace.
Medical Members of Medical Service Subcommittee.- Dr. A. Lesslie Curror, Dr. H. A. Laing, Dr. W. T. M. Wallace.

Several meetings have been held and various questions connected with the Insurance Act discussed. A deputation from the various friendly societies desired to know if the medical profession could not modify its terms of 7s. a head for aged members of friendly societies, and would be willing to enter into contracts for attending juveniles between the ages of 12 and 14 at the rate of 2s. 6d. per annum exclusive of medicine. After discussing the matter the CHAIRMAN informed the deputation that the terms could not be modified and that juveniles could not be contracted for.

Allocation of Patients.—It was suggested that a three-mile limit should be observed, and that those doctors having under 1,000 on their panel should receive twice as many as those having over 1,000.

Excessive Ordering of Drugs.—The Insurance Committee has informed the Committee that the chemists' accounts for the first quarter amounted to £374, while the Drug Fund and the Drug Suspense Fund together amounted to £340. After discussion, it was resolved to ask for further information before reporting.

Attendance on Temporary Residents.—Memorandum 159 was discussed, and it was decided that the "case-value" method was the better alternative.

Supply of Emergency Drugs and Appliances.—It was decided to recommend that each doctor should notify what he was likely to require, to an amount not exceeding 10s. a quarter.

Objectionable Inspection.—A letter was read from a member complaining of the methods of a person who represented herself to be an inspector under the Act, and invited complaints, inspecting the medicine, etc. The Secretary was instructed to write to the Commissioners and also the Insurance Committee on the matter.

NORTH RIDING OF YORKS.

A MEETING of the North Riding of Yorks Local Medical Committee was held at York on April 30th. Dr. ROBERT CUFF (Scarborough), Chairman of the Committee, presided.

Expenses of Committee.—It was pointed out that it had been found impracticable for the subscriptions towards the Local Medical Committee's expenses to be collected by the Clerk to the Insurance Committee, and each practitioner in the North Riding was therefore asked to send 5s. direct to Dr. Mills, who had consented to add to his duties as Honorary Secretary those of Treasurer also.

Proposed Fee for Copying Prescriptions.—It was resolved to protest against the proposed charge by chemists of 1d. for copying prescriptions—first, as being disproportionate to the work done, and secondly, because the charge was being introduced without consultation with the Local Medical Committee.

Allocation of Patients.—The CHAIRMAN suggested that the Insurance Committee should be asked to send to each insured person who had not agreed with a doctor a reply paid post-card asking him without delay to name the doctor of his choice. The request should be accompanied by an explanation in simple language of the necessity of gaining the doctor's consent to act. Dr. Cuff also alluded to the reasonable action of the Surrey Insurance Committee in allowing contracting out, and hoped that the example would be endorsed by the Commissioners and followed by other Committees.

Mileage.—Dr. BAIGENT said that the question of mileage could not be settled until all the patients were allotted and details obtained from each practitioner on the panel of the number of patients at varying distances and the nature of the country over which he had to travel. Dr. TETLEY gave his experiences of a moorland district, and informed the Committee that he had refused several patients who lived in inaccessible parts, owing to the absence of a mileage arrangement. It was decided that the question of drawing up a circular letter requiring particulars on which a mileage claim might be made should be left in the hands of Drs. Baigent, Meade, and Mills, three members of the Insurance Committee, who would act in conjunction with the officials of that Committee in this matter.

Emergency Subcommittee.—A subcommittee of three was appointed to deal with any urgent business which might arise between the ordinary meetings of the Committee, which it was suggested should as a rule take place once a quarter.

Major Operations.—It was suggested that a major operation would be one necessitating the administration of a general anaesthetic; and the CHAIRMAN pointed out that the Regulations provided that any case in doubt should be referred to the Local Medical Committee.

Anaesthetics.—The Committee decided that general anaesthetics, except nitrous oxide, should be paid for as an extra.

BOOTLE.

AT a meeting of the Bootle Local Medical Committee, held on May 9th, the Secretary was instructed to write to the Insurance Commissioners protesting against the proposed charge for copying prescriptions. It was further resolved that the scale of fees proposed for payment of services rendered to temporary residents was satisfactory to the Committee, and the Secretary was instructed to reply to the letter of inquiry to that effect.

ROCHDALE.

Temporary Residents.

A LETTER has been addressed to the Insurance Commissioners (England) by Dr. James Melvin, Honorary Secretary of the Local Medical Committee, in reply to the circular letter covering the memoranda on medical attendance on temporary residents. The letter states that the Committee is unanimously of opinion that as medical benefit for temporary residents is not provided for in the present Regulations it cannot discuss the scale of fees laid down by the Commissioners in the novel scheme now promulgated for the first time. The letter concludes as follows:

> Regulation 22, entitled "Insured Person Applying during Year," refers to an insured person who "changes his residence to the area of another Committee." The word "temporary" is not used at all in this Regulation; and the expression "changes his residence" can reasonably be held to refer only to a permanent removal. As at present advised, my Committee is of opinion that they cannot, on behalf of the practitioners on the Rochdale panel, discuss the spending of moneys subtracted without their consent from the capitation fees legally due and accruing to such practitioners.

SHEFFIELD.

AT a meeting of the Local Medical Committee for Sheffield, held on May 6th, it was resolved:

> That our Medical Representative shall raise the question at the next meeting of the Local Insurance Committee that those insured persons with incomes over £160 a year be required to make their own arrangements for medical benefit.
>
> That the following resolution be forwarded to the Local Insurance Committee:
>
> > That the Local Medical Committee regrets that, so far, no Medical Representative has been placed on appropriate subcommittees, and suggests that it is desirable that at least one such representative shall be placed on such subcommittees as deal with matters affecting the interests of the medical profession and wherever their special knowledge is likely to be useful.
>
> That the following resolution be forwarded to the National Health Insurance Commissioners:
>
> > That the Sheffield Local Medical Committee protests strongly against the method proposed in Memo. 159 I.C. for providing medical benefits for insured persons who are temporarily resident in any part of the country.
>
> That the Sheffield Local Medical Committee request the State Sickness Insurance Committee to insist that a card be issued by the Local Insurance Committees to each insured person to show name, address, age, and occupation of the insured person and name of doctor, such card to replace the red medical ticket, and to be produced when attendance is required.

COUNTY OF CHESHIRE.

THE thirteenth meeting of this Committee was held on May 8th at Manchester; Dr. GARSTANG was in the chair, and sixteen members were present.

The Committee resolved, in the light of the decisions received from the District Committees, to hand in agreements for a further period of panel service till January 14th, 1914, accompanied by a strong protest against the failure of the Insurance Committee to fix an income limit, with regard to the obligation to state the diagnosis in certificates, and against the deduction from the capitation fees for persons away from home. The Insurance Committee will be informed that these questions will be raised again prior to accepting a further term of service.

DERBY.

Temporary Residents.

As a result of the consideration of the Memorandum 159 I.C. by the Derby Borough Medical Committee, the honorary secretary was directed to reply to the following effect:

1. The Central Fund suggested in the Memorandum is to be made up by certain (variable) deductions from the capitation fee at present due to panel doctors.
2. The amount of this fee, after being promised in a circular from the Commissioners, was finally established by being embodied in the stamped and signed agreements entered into between the various Insurance Committees and the individual doctors.
3. Speaking for the doctors whom it represents, this Committee cannot possibly consent to any such breach of contract as would be caused by the reduction in the capitation fee proposed by this Memorandum.

DENBIGH.

A CONFERENCE with the County Insurance Subcommittee was held at Wrexham on May 1st.

Mileage.—During the first quarter a deduction of 1½d. a head was made to pay for excess mileage above three miles, but this arrangement was vetoed by a substantial majority at the next meeting of the panel practitioners. The result was conveyed to the Subcommittee, who declined to accept this finding on the grounds of the sparse attendance at the general meeting, and asked that another vote should be taken. A postal vote of the 96 "panel" men in the county was taken, and the Secretary reported that, of the 60 replies received, 14 were for the deduction and 46 against. Notwithstanding the large majority, the Subcommittee decided to accede to the wishes of the minority, and continue the deduction for this year; this has caused much indignation, and the panel practitioners of Colwyn and Colwyn Bay have addressed the following letter to the Insurance Committee:

> We, the panel practitioners of Colwyn Bay and district, representing a population of close upon 20,000, and composed of practitioners who have both town and country practice, at a specially convened meeting held this day, May 6th, protest in the strongest possible manner against the decision of the County Insurance Subcommittee to whittle down a promised minimum fee of 7s. per head per annum to 6s. 6d. Apart altogether from the breach of faith involved in the matter, we consider it most unjust that this decision should have been arrived at in face of a 3 to 1 majority against it in a postal vote taken on the specific question. We trust that the County Committee will see their way to allocate the minimum 7s. provided by the Government in accordance with the expressed wishes of the overwhelming majority of panel practitioners conveyed through the Local Medical Committee.

Allocation of Patients.—The CLERK stated that it would not be possible to issue the new register cards for several weeks, and it was decided to continue the use of the red cards until the register was complete. Owing to this delay no allocation could be made, but it was agreed that the moneys due in respect of persons not allocated should be divided among practitioners in proportion to their lists of accepted persons.

Excessive Prescribing.—An inquiry into an alleged case of excessive prescribing on the part of a practitioner was held, and after hearing the doctor concerned the Committee resolved that the case constituted a breach of the Regulations (Clause 46), and left the Insurance Committee to decide what penalty should be enforced.

ISLE OF WIGHT.

AT a meeting of the Local Medical Committee at Newport on May 8th, Dr. CASTLE was in the chair, and eleven others were present.

Allocation of Insured Persons.—The report of the meeting of the deputation of this Committee with a deputation of the Isle of Wight Insurance Committee on the question of allocating those insured persons who had not yet chosen their doctor was received, it having been decided that the allocation should not take place until after May 31st, and that an advertisement should be inserted in the local press stating that if the cards were not signed before that date the persons holding them would be distributed by the Insurance Committee. The Insurance Committee would ask each doctor by circular to state how many of the unallotted he would be willing to take in the area in which he practised, and allocation would be in equal shares among those doctors willing to accept them.

Temporary Residents.—The report of the meeting of medical practitioners serving on the panel on the subject of temporary residents was received and adopted. It embodied the following resolution which has been sent to the Commissioners:

> That inasmuch as the medical profession has been guaranteed a minimum capitation fee of 7s. per head per annum by the National Health Insurance Commissioners, we (the medical practitioners serving on the panel in the Isle of Wight) decline to accept 159 and 161/I.C. as a fair solution of the question of payment for medical attendance on temporary residents as it must involve the reduction of the amount of the capitation fee in other areas, but we are of opinion that persons who can afford to go to health resorts can afford to pay a reasonable fee to the medical men in practice there.

The Honorary Secretary was instructed to write to the Commissioners in reply to their letter asking whether the scale of fees proposed in Memoranda 159 I.C. and 161/I.C. were acceptable, stating that although the committee approved the scale of fees submitted as adequate, it strongly disapproved of the manner in which the central fund was to be raised, and pointing out the promise held out to practitioners about to join the panel in the official Explanatory Statement, Section 22, published in December, 1912:

> If the object desired is that each practitioner shall know as exactly as possible the income on which he can rely in respect of his liability to give attendance under the head of Medical Benefit during the year, the method to be adopted is obviously that of simple capitation, under which he will know definitely that if he has 1,000 insured persons on his list for the year he will receive in a district in which he does not dispense at least £325.

PLYMOUTH.

AT a meeting of the Plymouth Local Medical Committee on April 24th and an adjourned meeting on May 8th the following matters came up for discussion:

Reciprocity between Neighbouring Local Medical Committees.—An arrangement was made between Plymouth and Devonport Local Medical Committees by which the Honorary Secretary or another member was invited to attend as a visitor the meetings of the Local Medical Committees in the neighbouring town.

Copying Fee for Chemists.—This matter having been referred to a committee of doctors on the panel, the following arrangement was decided upon and assented to by this Committee:

1. That after a date (to be fixed by the Insurance Committee) the panel doctors must issue a duplicate for all original prescriptions.
2. A single copy to suffice for repetitions.
3. The single copy to contain no additions to the original.
4. Chemists to be paid 1d. copying fee from April 14th till the above regulations come in force.

Maternity Fees in Midwife Cases.—It was decided to urge all medical men to refrain from making contracts; the fee was considered inadequate.

Medical Referee.—The feeling was strongly in favour of the principle of appointment of an independent referee if not a paid officer of the friendly and insurance societies.

Scale of Fees.—The following scale of fees was recommended for persons making their own arrangements (Form 43/I.C.):

	£	s.	d.
Visit or consultation	0	2	6
Special visit	0	3	6
Night visit	0	7	6
Surgical operation from	1	1	0
Anaesthetic from	1	1	0
Fracture or dislocation from	1	1	0

WESTMINSTER AND HOLBORN.

AT a meeting held under the auspices of the Provisional Medical Committee for Westminster and Holborn on April 24th, with Dr. BERNARD O'CONNOR in the chair, the Provisional Medical Committee was dissolved and two Medical Committees for Westminster and Holborn respectively elected as follows:

Westminster.—Drs. Barlet, A. E. Cope, Dutch, Haslip, Hay, Maitland, Pennington, Starkie, Miss D. A. Stepney (Honorary Secretary).

Holborn.—Drs. Barton, Bolton (Honorary Secretary), Colquhoun, Geoghan, Gould, Longinotto, Kennard, McLeod, and O'Connor.

The Committees include members who have joined as well as others who have not joined the panel.

REPORTS OF LOCAL ACTION.

IRELAND.

Proposed Arrangement for Medical Certification.

LAST week a conference was held at the offices of the County Borough of Dublin Insurance Committee between representatives of the Committee and of the approved societies for the further consideration of the proposed arrangements for the medical certification of insured persons, with a view to determining the means to be adopted to secure adequate facilities for the provision of certificates, consequent on the failure to form a panel of practitioners in Dublin at the capitation rate fixed by the Commissioners. A deputation, consisting of Dr. Robert J. Rowlette, Dr. Thomas Donnelly, Dr. W. J. Delaney, Dr. L. Farrell, Dr. Thomas G. M'Grath, Dr. M. Vaughan, and Dr. William Doolin, attended on behalf of the medical profession, and stated the terms which had been agreed to at the meeting of the profession on May 2nd, reported last week. After the retirement of the deputation, the conference discussed the question of payment by certificate as an alternative to the capitation grants, and it was pointed out that the only funds available for the purpose in Dublin amounted to about £3,500. It was suggested that the Treasury be asked to supplement the £50,000 grant. The representative of the Irish Transport Workers said that the experience of his society was that the panel system in operation in Belfast was absolutely useless, owing to certificates being given without examination of the patients. The following resolution was adopted:

> That the Commission adopt a capitation rate of 1s. 6d. per insured person for the purpose of medical certification in the county borough of Dublin, an open panel of doctors to be formed, and certificates to be accepted only from the medical men in actual attendance, the administration to be in the hands of the Insurance Committee.

A further inaccuracy of the Insurance Commissioners has come to light. A doctor writes from Castlebar, co. Mayo, to say that on casually asking in the local post-office for a list of panel doctors for Mayo, he was amazed to find his own name second on the list. He states that he never joined the panel or signified his intention of doing so, nor has he ever signed or promised to sign any form whatsoever. It will be interesting to see if this method of forming panels has been adopted to a large extent.

SCOTLAND.

MEDICAL SERVICE IN THE HIGHLANDS.

THE Argyll County Council has unanimously adopted a resolution approving generally of the policy recommended in the report of the Highlands and Islands Medical Service Committee, but strongly opposing the suggestion to create a new central authority. The council was of opinion that the control of the medical service in the Highlands should be entrusted solely to the Local Government Board, acting through the local public health authorities with the addition of one or two co-opted members. The council resolved to communicate with the other Highland county councils with a view to united action.

INSURANCE NOTES.

ALLEGED BOYCOTT OF DOCTORS IN SALFORD.

AT the last meeting of the Salford Town Council, Councillor Dr. Pinder, who is chairman of the Watch Committee, said he wished to ask a question of the chairman of the Health Committee, Alderman Huddart, who is also chairman of the Salford Insurance Committee. It appears that Dr. Pinder and his two partners, who were on the Salford panel from January to April, have refused to continue on the panel for a further period of three months up to July 15th, and Dr. Pinder alleged that certain doctors, including himself and partners, had been boycotted by an approved society under the Insurance Act. The society in question had refused to accept their certificates or to pay their patients the sickness benefit unless a doctor on the panel were employed. Over a third of the population of Salford were insured persons, and he wanted an assurance from the chairman of the Health Committee that insured persons were at liberty to employ any doctor they liked and to receive a certificate from him

whether he were on the panel or not. A large proportion of the public thought they could not go to a private doctor but were bound to go to a panel doctor in order to get a certificate to draw insurance money. Alderman Huddart said he felt a good deal of sympathy with the doctors in this matter. A case such as Dr. Pinder had mentioned had been before the Court of Appeal, where a society had refused a certificate given by a doctor who was not on a panel, and he was pleased to see that the court had decided in favour of the doctor. He promised that he would do all that he could to correct the injustice.

THE POSITION IN SOUTH WALES.

With regard to the difficulty in Swansea, owing to the action of combinations of workmen who are seeking to use Subsection 3 of Section 15 of the Insurance Act for the purpose of contracting to obtain medical attendance and treatment for themselves and their dependants on terms and conditions repugnant to the local profession, the Mayor of Swansea has recently made another attempt to arrange a conference. The *South Wales Daily News* of May 10th states that the medical men at once assented to this proposal, but the labour and friendly society representatives unanimously decided at a meeting to proceed with their present policy and to advertise for doctors. The representatives discussed a proposal to withhold subscriptions towards the local hospital in consequence of the attitude of the honorary medical staff in strongly supporting the profession generally in this matter. It was agreed, in order that the funds of the institutions should not suffer, to continue the subscriptions for the first half of the present year, leaving any further action for future consideration.

A clear and forceful statement of the medical point of view has been sent to the local press under the signatures of Dr. H. E. Quick (Honorary Secretary of the Swansea Division of the British Medical Association) and Dr. Edgar Reid (Chairman of the staff of the Swansea Hospital).

OFFICIAL PUBLICATIONS.

CONSTITUTION OF INSURANCE COMMITTEES.

THE National Health Insurance Commission for England has issued regulations for the election of representatives of insured persons on Insurance Committees, and with them an explanatory circular numbered 18/I.C. At the date of the first formation of the committees elections could not be held, since no definite information was available as to the number of persons who would become insured in such area, or as to their distribution between the various approved societies. The Commissioners, acting under Section 78 of the Act, made temporary appointments of representatives, which terminate on July 15th. The Regulations now made provide that the number of representatives of insured persons on any Insurance Committee must be three-fifths of its total membership. Such membership must, under the Act, be not less than 40, nor more than 80, and the Commissioners intend to vary the scale already obtaining in various areas only to the following extent: Committees numbering 50 members will be raised to 60, and those numbering 70 to 80. The representatives of insured persons will fall into three classes—direct representatives of members of approved societies, indirect representatives of members of approved societies, and representatives of deposit contributors; the proportion of each class is likely to vary in every area. Nowhere will there be anything in the way of local elections, for both classes of representatives of approved societies must be chosen by the societies themselves, not by their branches; the appointment of representatives of deposit contributors is subject to restrictions of like effect. The number of direct representatives will depend upon the number of societies which in any given area have a sufficient number of members to constitute an electoral unit; one representative will be appointed for each such complete unit. The electoral unit is the figure given by dividing the total number of insured persons in the area by the total number of representatives of insured persons to be placed on the committee. For instance, if in a given area the insured persons number 48,000 and the committee numbers 40, then three-fifths of this committee will be 24 and the electoral unit will be 48,000 divided by 24—namely, 2,000.

The number of indirect representatives will be the balance left after deducting from the total number of representatives the direct representatives and the representatives of deposit contributors. Each society working in an area but having an insufficient number of members to form an electoral unit is entitled to nominate two persons to serve as indirect representatives—one man and one woman—and when all the nominations have been received they will be invited to decide between them by a ballot conducted on the principle of the transferable vote. Two of the indirect representatives in each area must be women.

Deposit contributors will have not less than one representative in every committee area. If in such an area an association of deposit contributors has been recognized by the Commissioners, then the appointment of a representative will be left in its hands; in the alternative the appointment will be made by the members of the existing committee appointed by the Commissioners, by the local authority, and by the medical profession acting together. Stress is laid on the desirability of choosing a woman as representative, since, in the case of deposit contributors, committees will have to administer maternity benefit. In any case, if there is more than one representative, one at least must be a woman.

Persons elected as representatives need not necessarily be resident in the area they are to represent, nor insured persons; and in the case of representatives of members of approved societies they need not be members of the society. But the Commissioners point out that it is not desirable that members should be appointed who live such a distance from an area as to make their regular attendance at committee meetings a matter of difficulty.

Provision is made for completion of the elections by June 29th. The persons elected will serve for three years.

SCOTLAND.

The Scottish Insurance Commission has issued a *Handbook to the Administration of Sickness and Maternity Benefits by Approved Societies in Scotland*.[1] The handbook contains a list of the members of the Insurance Commission, and of inspectors, with addresses, and the names of the clerks of Insurance Committees in Scotland. There is a short introduction dealing mainly with the general duties of the secretary of an approved society; thereafter follows seven chapters dealing with the membership register, the contribution ledger and cards, sickness and maternity benefit, and the method of dealing with claims, and with various difficulties and special classes of members, and with financial matters. In the appendix a number of circulars, forms, etc., are given, together with a list of sanatoriums and other institutions approved by the Local Government Board for Scotland down to March 20th, 1913.

FRIENDLY SOCIETIES AND THE INSURANCE ACT.

THE administration of the Insurance Act was the principal topic of discussion at various friendly society conferences held during the Whitsuntide holiday, when strong views on the working of the measure were expressed.

The Manchester Unity of Oddfellows met at Scarborough, when the Grand Master of the Order, Mr. J. R. Bailey of Norwich, mentioned the huge increases of membership, especially on the female side, but remarked that the most encouraging feature was that the Order had 600,000 members independent of the State. He wished that the State could have supplemented friendly society work instead of attempting to replace it; the tendency of legislation to discourage individual effort and create a sense of dependence on the community was to be deprecated. He regretted that the administration of medical benefit had been taken away from the friendly societies; "in order to appease the British Medical Association the House of Commons had deliberately sacrificed the friendly societies." Friendly society workers should demand the restoration of the provision of medical service to the societies for their own members, and make it a test question at every election.

[1] Price 4d., to be obtained from H.M. Stationery Office, Scottish Branch, 23, Forth Street, Edinburgh, or through any bookseller.

Mr. Lister Stead, an Insurance Commissioner, addressing a conference of secretaries of the Order of Rechabites at Bristol, commented on the fact that the number of deposit contributors had proved to be only about 3 per cent., and attributed this to the efficiency of the friendly societies. There had been conferences between the approved societies and the medical profession, and a point had been reached when a form of certificate or certificates could be recommended which would be satisfactory to the societies. In this matter the medical profession had dealt very fairly indeed with the Commission, and had shown no unwillingness to help the friendly societies.

At this conference, Mr. S. A. Scarlett, of Norwich, the president of the Order, declared that medical men were unduly lenient in the matter of sickness certificates, and prescribed too readily "a holiday without medicine." He complained, also, that the demands of the profession in respect of treatment of uninsured members were excessive, and said that in taking up its present attitude the profession was treading on dangerous ground.

At Keighley, Mr. Milne, the Chief Shepherd of the Loyal Order of Ancient Shepherds, declared that deadly formalities had almost killed the working of the Act. He advocated combination of approved societies to press for amendments, and for complete severance of the voluntary and State sections.

Mr. T. W. Mills (London), addressing the delegates of the Hearts of Oak Benefit Society in London on May 15th, said that the Insurance Act, with its multitudinous regulations, had placed an incubus on the voluntary work of the friendly societies, and had retarded rather than helped the principle of mutual co-operation. Nevertheless, there was so much that was good in the measure that friendly societies must assist the progress of the insurance scheme in every way possible. Mr. Mills made the suggestion that the treatment of tuberculosis should be quite separate from the insurance scheme, as it could only be dealt with effectively as a separate problem.

INSURANCE ACT IN PARLIAMENT.

MEDICAL BENEFIT.

Non-Insured Members of Friendly Societies.

MR. GODFREY LOCKER-LAMPSON asked whether, as a result of the National Insurance Act, the North London district of the Manchester Unity of Oddfellows had found it necessary, in order to continue medical benefit for members not falling under the Act, to form a special medical fund, the contributions to which were 8s. 8d. a year, or double the amount charged to members for medical benefit prior to the passing of the National Insurance Act.—Mr. Masterman said that he did not possess information as to the arrangements which particular societies, or local branches of societies, made for the medical attendance of those of their members who were not insured under the Insurance Act. As he had often stated, he could not understand why the fact that doctors were receiving an additional grant in respect of insured members should make them demand not only the increase of about 50 per cent. (which societies were generally prepared to give), but an increase of 100 per cent. in the rates they had hitherto been receiving for those of their old patients who were not insured, and whose medical attendance was therefore a charge falling either upon the private funds of their societies at the expense of their other benefits or directly upon themselves.

Responsibility of Assistants.

Mr. Godfrey Locker-Lampson asked whether the assistants of doctors on the London Insurance Committee panel were responsible to any one but their medical employers; and whether all such assistants were themselves on the panel.—Mr. Masterman replied: Under the regulations it is open to any duly qualified assistant to place his name on the panel, and if he joins the panel he is directly responsible to the Insurance Committee. If he does not join the panel he can only treat insured persons on behalf of his principal when the latter is precluded by urgency of other professional duties, absence from home, or other reasonable cause from giving personal attendance to the insured persons under his care; and in these exceptional cases his principal is responsible for him to the Insurance Committee.

Certificates.

In reply to Mr. John Ward, who called attention to a circular issued by the Chairman of the Newcastle-upon-Tyne Medical Committee, in which it was stated that 1s. would be charged for each certificate given to sick insured persons over and above one to be given free, Mr. Masterman said that the 1s. referred to certificates required for purposes other than for claiming sickness benefit under the Act, and that where the 1s. had been charged for certificates necessary for obtaining sick benefit the money had been refunded to the insured persons.

Inadequate Panels.

Mr. Lane-Fox asked Mr. Masterman whether, in addition to Selby, the towns of Huddersfield and Holmfirth were included in the "obscure villages" in which alone free choice of doctor under the National Insurance Act was not now enjoyed. In reply, Mr. Masterman said that the panel system was in operation in all three of the districts named. In Selby five out of eight doctors were on the panel, in Holmfirth three out of six, and in Huddersfield fifty-six out of sixty-eight; there was free choice of doctor from among all those who had accepted service under the Act.

Contracting Out.

In reply to Mr. George Terrell, Mr. Masterman said: I am informed by the Wiltshire Insurance Committee that between January 13th and the end of March they received applications from about 100 insured persons (mostly from the neighbourhoods of Colerne and Box) for permission to make their own arrangements for medical attendance and treatment. These applications were on identical printed forms, and gave no reasons and no indication of what arrangements the applicants proposed to make. The Committee were of opinion that there was an organized attempt to break down the panel system, and accordingly decided not to grant the applications.

Persons Making their Own Arrangements.

In reply to Mr. F. Hall, Mr. Masterman explained that persons who were allowed to make their own arrangements for receiving medical attendance and treatment would be required, as a part of it, to make their own arrangements for obtaining the necessary drugs and medicines, and that chemists on the panel could not supply them as a part of the arrangement entered into for the supply of drugs to patients being attended by medical men on the ordinary lists.

Scottish Clerks' Association.

In reply to Sir J. D. Rees and Mr. Watt, Mr. Masterman said that he did not think any promises were made to this association which had not been fulfilled, and in his written reply he said:

> So far as I am aware there is nothing to prevent the association from working a scheme for additional medical benefit on the private side with free choice of their members for ordinary attendance among panel doctors or (where the Local Insurance Committee permits it) amongst non-panel doctors also, of whom in Scotland in most districts there are very few. The Commissioners are advised that the special medical scheme of the association could not legally be approved as a system or institution under Section 15 (4) of the National Insurance Act.

POST OFFICE DEPOSITORS.

On May 8th, in reply to Mr. Booth, Mr. Masterman stated that there were 489,757 Post Office depositors and 13,109,520 members of approved societies which were distributed as in the accompanying table:

Approved societies formed by friendly societies	6,275,258
Approved societies formed by industrial insurance companies (including a society formed by an amalgamation of industrial companies and collecting societies)	4,469,873
Approved societies formed by trade unions ...	1,468,968
Approved societies formed by collecting societies	823,496
Other approved societies	71,925
	13,109,520

SALE OF INSURANCE STAMPS.

In reply to Mr. Hicks Beach, Mr. Masterman said that the total amount received by the sale of insurance and unemployment stamps issued to the public through the Post Office or otherwise for the period from July 15th, 1912, to March 31st, 1913, had been £13,130,000 and £1,232,920 respectively.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

A MEETING of the State Sickness Insurance Committee appointed by the Special Representative Meeting in November, 1912, was held at the house of the Association, 429, Strand, W.C., on Thursday, May 8th. Dr. J. A. MACDONALD (Chairman) was in the chair, and the members present were:—*England and Wales:* Dr. R. M. Beaton (London), Mr. C. E. S. Flemming (Bradford-on-Avon), Dr. E. R. Fothergill (Brighton), Dr. Herbert Jones (Hereford), Dr. Constance E. Long (London), Dr. D. G. Thomson (Norwich), Mr. D. F. Todd (Sunderland), Mr. E. B. Turner (London). *Scotland:* Dr. John Adams (Glasgow), Dr. R. McKenzie Johnston (Edinburgh).

APPOINTMENT TO VACANCY.

It was reported that the Chairman of Representative Meetings, after consulting the wishes of the Representatives of the grouped Divisions, had appointed Mr. C. E. S. Flemming, of Bradford-on-Avon, to fill the vacancy caused by the resignation of Dr. T. M. Carter.

INSURANCE ADVISORY COMMITTEE.

The CHAIRMAN made a report as to communications which had passed with the Insurance Commissioners in regard to the appointment of an official of the Association to be a member of the Joint and English Advisory Committees, and it was resolved to nominate Dr. Alfred Cox, Medical Secretary.

CERTIFICATE FOR SICKNESS BENEFIT IN MATERNITY CASES ATTENDED BY MIDWIVES.

The Committee, having considered a reference from the Council, resolved to inform the Insurance Commissioners that it had, after careful consideration, come to the opinion that it was outside the duty of insurance service practitioners under the terms of their agreement to visit maternity cases under the care of midwives for the purpose of giving certificates for sickness benefit.

DELIMITATION OF DIVISION AND INSURANCE AREAS.

A minute of the Organization Committee referred to the State Sickness Insurance Committee by the Council with regard to making the boundaries of insurance areas coincide with areas recognized by the Association was considered. The State Sickness Insurance Committee found itself in agreement with the recommendations of the Organization Committee, and hoped that the latter would take all necessary action in the matter as early as possible. The Organization Committee, after considering a letter received from Dr. A. H. Williams of Harrow, had arrived at the following conclusion:—

It is advisable:

That the boundaries of the Branches should be so arranged that each insurance area should fall wholly within the territory of a single Branch—that is, that there should be no insurance area (county or county borough) lying partly within one Branch and partly in another Branch.

That the boundaries of Divisions should be so arranged that each insurance *district* should fall wholly within the territory of a single Division, or that a Division should include two or more complete insurance areas.

TEMPORARY RESIDENTS.

The State Sickness Insurance Committee considered Memorandums 159[1] and 161[2] issued by the Insurance Commissioners concerning the provision of medical benefit to temporary residents. The Committee disagreed with the principle involved in the proposal contained in the memorandums to the effect that the fund from which practitioners were to be paid for medical attendance upon temporary residents should be formed by deduction from the money due to the practitioners on whose list they were when at home. With a view to removing the difficulties connected with the provision of medical attendance and treatment of insured persons temporarily absent from their homes, the Committee expressed the following opinion:

(i) That concerning that class of insured persons temporarily changing their residence for holiday or health purposes, the Regulations should be so amended as to provide that "medical benefit" shall not be understood to include medical attendance and treatment on such class while so temporarily resident.

(ii) That insured persons temporarily resident by reason of the nature of their occupations should be "required to make their own arrangements."

It was resolved to communicate the above expression of opinion to the Commissioners and to urge that the Act shall be so amended as to allow the formation of a special fund, entirely apart from any moneys already allocated for medical benefit, to provide for the medical attendance and treatment of insured persons temporarily resident on account of ill health. It was further resolved to notify the Divisions, Branches, and Local Medical Committees of the foregoing decision, and to suggest that they should urge all practitioners in their area:

(*a*) Not to agree to any deduction of the moneys due to them under the Act for the purposes of the scheme outlined in Memorandum 161; and

(*b*) To treat the above-mentioned classes of insured persons only as private patients until such time as suitable arrangements are provided by the Commissioners.

CO-ORDINATION OF LOCAL MEDICAL COMMITTEES.

The CHAIRMAN reported that, in view of the necessity for immediate action, he had authorized the issue of a circular to the honorary secretaries of Divisions and of Local Medical Committees

(i) Stating that a national scheme for the co-ordination of all Local Medical Committees and for the payment of their expenses is at present under the consideration of the Association.

(ii) That such scheme, though under the aegis of the Association, is intended to appeal to all members of the profession, whether members of the Association or not.

(iii) That the Association, being informed that many Local Medical Committees are considering local schemes of organization, would urge that no steps be taken with regard to such schemes pending the issue of the scheme of the Association; and

(iv) Suggesting that for the present a small local levy be made to cover the expenses of the Committee to the end of the present year.

The action of the Chairman in causing the circular to be issued was approved.

PAYMENT OF CHEMISTS FOR COPIES OF PRESCRIPTIONS.

In the report of the meeting of this Committee on April 10th (SUPPLEMENT, April 19th, p. 340), it was reported that the Committee had instructed the Medical Secretary to send a communication to the Commissioners expressing the opinion that the imposition of a charge of 1d., to be paid to the chemist for copying a prescription where a duplicate was not supplied by the doctor, was unnecessary, and would be an unjustifiable deduction from the moneys due to medical practitioners. The Committee was now informed that a reply had been received, dated April 25th, from the Insurance Commissioners containing the following paragraphs:

Any modification in the existing terms of the chemists' contract is primarily a matter for local negotiation between the Insurance Committee, the Local Medical Committee, and the Pharmaceutical Committee. Proposed alterations in existing drug tariffs must, however, be submitted by the Insurance Committee to the Commissioners for their approval, and before approving any material alteration, such as the insertion of a fee for the copying of prescriptions, the Commissioners would require the Insurance Committee to consult the Local Medical Committee and submit to the Commissioners details of the proposals, stating the views of the Local Medical Committee thereon.

In considering any such proposal the Commissioners will give due weight to any representations that may be made on behalf of the practitioners in the particular area concerned.

TRANSFER OF PATIENTS.

It was noted in the report of the meeting of the Committee on April 17th, published in the SUPPLEMENT of April 26th, p. 349, that a letter had been addressed to the Insurance Commissioners and the London Insurance Committee pointing out that the request on the form of application issued by the London Insurance Committee for transfer of an insured person from one practitioner to

[1] SUPPLEMENT to the BRITISH MEDICAL JOURNAL, April 19th, p. 334.
[2] SUPPLEMENT to the BRITISH MEDICAL JOURNAL, May 10th, p. 455.

another, which required a statement by the insured of his reasons for changing, was not in accord with the regulations for medical benefit made under the Insurance Act. It was now reported that a reply had been received from the Clerk to the London Insurance Committee to the following effect:

. . . the intention of including in the form a space for a statement by the insured person as to his reasons for desiring to change a doctor is in order that both medical practitioners concerned in the transfer may be thus satisfied as to the reasonableness of the insured person's application. It was in no way intended to convey that the consent of the Committee would be necessary to the transfer, as it is clear under the Regulations and as pointed out in your letter that any transfer may be effected with the consent of the three parties concerned—namely, that of the two medical practitioners and of the insured person. The Committee have no desire to place any obstacles in the way of a person changing his or her doctor, and the form was really framed for the purpose of facilitating such transactions, and for the convenience of the practitioners. So far as the Committee are concerned, it would save trouble if the form were withdrawn altogether, but in that case I am afraid that it would give the doctors considerable additional trouble, as a form of some kind is required by the Regulations to be sent in by the doctor to whom the insured person is transferred.

The Committee considered and approved the reply the Medical Secretary had made to this communication, and instructed him to inform the London Insurance Committee to this effect, and to add that the Committee, while fully appreciating the reasons of the London Insurance Committee for inserting the request for the statement in question, was of opinion that the interests of everybody concerned would be better served if such statement were deleted from the form, especially in view of the fact that the Commissioners themselves had now issued a form (Med. 23) in which no such statement was required.

Statement of Nature of Disease upon Certificate.

The Committee had before it an opinion of the Solicitor with regard to the legal aspect of the question of stating upon a medical certificate the nature of the disease from which the patient was suffering. The CHAIRMAN stated that at a meeting of the English Advisory Committee held the previous week a form of certificate to get over the difficulty had been considered and settled, and would, it was understood, be issued at an early date. The Commissioners had, however, expressed the opinion that both under the English and Scottish law practitioners would not be liable in respect of giving any certificate demanded from them under an Act of Parliament.

Dispensing in Rural Areas.

A letter was read from Dr. James Pearse, honorary secretary of the Wiltshire County Union of Medical Practitioners, pointing out the importance, particularly as regards dispensing, of the question of the definition of "rural areas." The Committee resolved to endeavour to secure the right of dispensing by practitioners in all cases where the patient was more than a mile from a chemist.

Publication of Amounts Paid to Insurance Service Practitioners.

In consequence of representations received the Committee resolved to ask the Insurance Commissioners to require that Insurance Committees should not supply to the lay press details of the amount paid to the insurance service practitioners. At the same time it was recognized that the members of an Insurance Committee were entitled to receive the information in the minutes of the Committee.

Diminution of Clerical Work.

Dr. E. O. Price (Bangor), who was unable to attend the meeting, transmitted a letter he had received from the Welsh Insurance Commission stating that no objection would be raised to medical practitioners stamping their names on record cards with rubber stamps instead of writing them.

Compensation Cases.

Three applications for compensation were considered. In one case it was resolved to seek further information, but to authorize the Chairman to make an emergency grant if necessary. In another the Chairman was given discretion to make a loan of £200 without interest, and in the third, the applicant was informed that the Committee was prepared to assist him, but desired further details as to the form which such assistance might best take. A letter of thanks from a recipient of compensation in another case was read.

Treatment of Tuberculosis in Voluntary Hospitals.

A communication was received from the Medico-Political and Hospitals Joint Committee as to the payment of staffs of voluntary hospitals in respect of treatment of cases of tuberculosis. The State Sickness Insurance Committee agreed with the suggestion that the Representative Body should be invited to reaffirm Minute 194 of the Annual Representative Meeting, 1912, as follows:

That no tuberculosis dispensary should be opened or beds be provided for treatment of those in receipt of sanatorium benefit at a voluntary hospital or infirmary, except on the condition that the organization is entirely independent of that of the voluntary hospital or infirmary, the accounts of the departments being kept separate, and that the services of all medical practitioners are paid for.

The State Sickness Insurance Committee also concurred with the suggestion that the Representative Body should be recommended to adopt the following resolution:

That any arrangements whereby the staffs of hospitals and other consultants arranged to give consulting service at the homes of insured persons on the introduction of the medical attendant, for an agreed honorarium, would be a highly objectionable extension of contract practice.

Schemes for Treatment of Uninsured Persons.

The CHAIRMAN reported that since the last meeting he had approved the scale of fees for treatment of uninsured persons submitted for approval by the Torquay Division. In another case the Committee resolved to advise the Division to reject the proposal of a friendly society's council to pay 3s. per annum for juvenile members. Another case submitted raised a matter of principle, since it appeared that approval of the system proposed locally would involve the Association in approving the principle of the further extension of contract medical practice to dependants of insured persons. The State Sickness Insurance Committee took note of the fact that though the subject had twice been before the Representative Body it had not been fully considered, and therefore recommended the Council to advise the Representative Body that it should, in view of the importance of the matter, give it careful consideration.

The Position in South Wales.

The MEDICAL SECRETARY made a report upon the position in South Wales, and as to the interview which in company with the representatives of the South Wales and Monmouthshire Branch and the South Wales Colliery and Works Surgeons' Association, he had had with the Welsh Commissioners at Cardiff on April 29th (see SUPPLEMENT, May 3rd, p. 399).

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In ninety-six of the largest English towns 8,700 births and 4,866 deaths were registered during the week ending Saturday, May 3rd. The annual rate of mortality in these towns, which had been 15.2, 15.8, and 14.8 per 1,000 in the three preceding weeks, further fell to 14.2 per 1,000 in the week under notice. In London the death-rate was also equal to 14.2, against 14.9, 16.4, and 14.8 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rate ranged from 4.2 in Acton, 4.3 in Devonport, 5.5 in Cambridge, 6.2 in Lincoln, 6.3 in Bournemouth, 6.8 in Edmonton, and 7.6 in Leyton to 20.9 in Stoke-on-Trent, 21.6 in Sunderland, 22.8 in Aberdare, 23.0 in Burnley, 24.8 in Gloucester, and 27.9 in Stockton-on-Tees. Measles caused a death-rate of 1.6 in St. Helens and in Salford, 1.8 in Newport (Mon.), 2.3 in West Bromwich, and 3.9 in Walsall, and whooping-cough of 1.2 in Leyton, 1.4 in Bootle, 2.0 in Dudley and in Stockton-on-Tees, 2.2 in Stoke-on-Trent, and 2.7 in Brighton. The mortality from the remaining infective diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 40, or 0.8 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest, and included 10 in Birmingham, 7 in Liverpool, 4 in Stoke-on-Trent, 4 in Preston, and 2 in Warrington. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,357, 1,334, and 1,339 at the end of the three preceding weeks, had risen to 1,375 on Saturday, May 3rd; 216 new cases were admitted during the week, against 148, 215, and 185 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In the sixteen largest Scottish towns 1,259 births and 746 deaths were registered during the week ending Saturday, May 3rd. The annual rate of mortality in these towns, which had been 17.2, 17.7, and 17.5 per 1,000 in the three preceding weeks, further fell to 17.2 in the week under notice, but was 3.0 per 1,000 above the rate recorded in the

ninety-six large English towns. Among the several towns the death-rates ranged from 7.6 in Ayr, 11.5 in Motherwell, and 12.3 in Leith to 18.3 in Paisley, 19.1 in Glasgow, and 20.3 in Hamilton. The mortality from the principal infective diseases averaged 2.4 per 1,000, and was highest in Falkirk and Aberdeen. The 373 deaths from all causes registered in Glasgow included 24 from whooping-cough, 16 from measles, 6 from infantile diarrhoeal diseases, 5 from scarlet fever, 5 from diphtheria, and 1 from enteric fever. Five deaths from whooping-cough were recorded in Edinburgh, 4 in Paisley, and 3 in Leith; 10 from measles in Aberdeen, 2 in Edinburgh, and 2 in Dundee; and 2 from scarlet fever in Aberdeen.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 3rd, 725 births and 425 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 673 births and 491 deaths in the preceding period. These deaths represent a mortality of 18.5 per 1,000 of the aggregate population in the districts in question, as against 21.3 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 4.3 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 31.5 per 1,000 of population. As for mortality in individual localities, that in the Dublin registration area was 16.8 as against an average of 23.1 for the previous four weeks, in Dublin city 16.6 (as against 24.6), in Belfast 18.7 (as against 18.9), in Cork 26.5 (as against 24.3), in Londonderry 16.5 (as against 15.3), in Limerick 14.6 (as against 20.0), and in Waterford 17.1 (as against 16.6). The zymotic death-rate was 0.9, as against 1.2 in the previous week.

Naval and Military Appointments.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL JAMES J. C. DONNET retires on retired pay, May 7th.

Lieutenant-Colonel J. DONALDSON has been appointed to the command of the Station Hospital, Jubbulpore.

Major MASTER has been appointed for duty at Windsor.

Captain N. E. DUNKERTON has been appointed Adjutant of the 2nd London Division R.A.M.C. School of Instruction, vice Major T. E. Fielding.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

THE following have been appointed Lieutenants on probation: Cadet Corporal SYDNEY F. M. CESARI, from the Edinburgh University Contingent, Officers' Training Corps, April 8th; JAMES RAFTER, M.B., April 9th; Cadet Colour-Sergeant FRANCIS G. FOSTER, from the Edinburgh University Contingent, Officers' Training Corps, April 12th; Cadet Corporal WALTER E. ELLIOTT, M.B., from the Glasgow University Contingent, Officers' Training Corps, April 12th; Cadet Corporal ROBERT G. MCELNEY, from the Belfast University Contingent, Officers' Training Corps, April 15th. FRANCIS O. L. MORE, M.B., April 22nd.

INDIAN MEDICAL SERVICE.

SURGEON-GENERAL AYLMER MARTIN CROFTS, C.I.E., officiating Director-General, Indian Medical Service, has been appointed Additional Member of the Legislative Council of the Governor-General of India, vice the Honourable Surgeon-General Sir Pardey Lukis, K.C.S.I. resigned.

Colonel G. F. A. HARRIS, C.S.I., V.H.S., has been granted combined leave for seven and a half months, with effect from April 10th, 1913.

Lieutenant-Colonel W. R. EDWARDS, C.M.G., has been appointed to officiate as Inspector-General of Civil Hospitals, Bengal, during the absence on leave of Colonel G. F. A. Harris.

Lieutenant-Colonel V. G. DRAKE-BROCKMAN officiates as Residency Surgeon, Mewar.

Major R. MCCARRISON has been placed on special duty, under the order of the Director-General, Indian Medical Service, for the study of Endemic Goitre and Cretinism in India.

Major A. A. GIBBS has been granted combined leave for eight months, with effect from April 14th, 1913.

Major W. R. BATTYE has been granted combined leave for seven months, with effect from March 31st, 1913.

Major H. M. MACKENZIE has been granted combined leave for one year and seven months, with effect from April 1st, 1913.

Major J. M. WOOLLEY has been granted combined leave for eight months, with effect from March 30th, 1913.

Major J. HUSBAND has been posted as Civil Surgeon, Dera Ismail Khan.

The services of Captain BAKER have been replaced at the disposal of the military authorities.

The services of Captain M. R. C. MACWATTERS and C. H. REINHOLD, I.M.S., have been placed at the disposal of the United Provinces Government for officiating civil employment.

The services of Captain H. M. BROWN have been placed temporarily at the disposal of the Government of Bihar and Orissa for employment in the Sanitary Department.

The services of the undermentioned officers have been placed permanently at the disposal of the Government of Madras: Captain L. HIRSCH, Captain D. S. A. O'KEEFFE, Captain A. C. INGRAM.

The services of Captain A. M. JUKES have been placed permanently at the disposal of the Government of Bengal for employment in the Sanitary Department.

Captain R. S. KENNEDY and Lieutenant J. V. MACDONALD have been appointed temporarily for duty on the North-East Frontier as Medical Officers with the Military Police.

Captain C. F. MAHR has been appointed to officiate as Medical Store Keeper to Government, Lahore Cantonment, during the absence on leave of Major A. A. Gibbs.

Captain A. C. MUNRO, I.M.S., is appointed to the substantive medical charge of the 128th Pioneers.

Captain W. E. MEARNS, I.M.S., is appointed to the substantive medical charge of the 69th Punjabis.

Captain J. H. MURRAY has been appointed to act as Senior Medical Officer, Port Blair, during the absence on leave of Major J. M. Woolley.

Captain H. P. COOK has been posted as Civil Surgeon, Wana.

Lieutenant J. F. H. MORGAN has been permitted to resign the service, with effect from March 10th, 1913.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ABERYSTWITH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House-Surgeon and Secretary. Salary, £150 per annum.

ALNWICK INFIRMARY.—House-Surgeon. Salary, £140 per annum.

ASHFORD URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary, £80 per annum.

BELFAST: HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS, AND EPILEPSY.—Honorary Physician.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary, £80 per annum.

BIRKENHEAD UNION.—Senior Male Resident Assistant Medical Officer. Salary, £130 per annum.

BIRKENHEAD AND WIRRAL CHILDREN'S HOSPITAL.—House-Surgeon. Honorarium, £100 per annum.

BIRMINGHAM CITY.—Assistant Medical Officer of Health. Salary, £250 per annum.

BIRMINGHAM EDUCATION COMMITTEE.—(1) Assistant School Medical Officer. Salary, £260 per annum, rising to £310. (2) Aural Surgeon. Salary, £100 per annum. (3) Anaesthetist. Salary, £1 1s. per half-day; minimum £40.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—Two House-Surgeons. Salary at the rate of £50 per annum each.

BIRMINGHAM: RUBERY HILL ASYLUM.—Junior Assistant Medical Officer (male). Salary, £200 per annum.

BIRMINGHAM UNION.—Assistant Medical Officer to the Dudley Road Infirmary. Salary, £125 per annum.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—Gynaecologist.

BRENTFORD UNION.—Medical Superintendent of the Infirmary and Medical Officer of Workhouse and Schools. Salary, £400 per annum and certain fees.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRIGHTON: ROYAL SUSSEX COUNTY HOSPITAL.—House-Physician (male). Salary, £100 per annum.

BRISTOL: COSSHAM MEMORIAL HOSPITAL, Kingswood.—House-Surgeon (male). Salary, £100 per annum.

BRISTOL ROYAL INFIRMARY.—Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £75 per annum.

BUXTON: DEVONSHIRE HOSPITAL.—Assistant House-Physician. Salary at the rate of £100 per annum.

CAMBERWELL: PARISH OF ST. GILES.—Second and Third Assistant Medical Officers of the Infirmary. Salary, £150 and £140 per annum respectively.

CANTERBURY: BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Resident Medical Officer. Salary, £90 per annum.

CARDIFF: KING EDWARD VII WELSH NATIONAL MEMORIAL ASSOCIATION.—Medical Officer to the Tuberculosis Hospital. Salary, £200 per annum.

CARMARTHENSHIRE INFIRMARY.—Resident Medical Officer. Salary, £100 per annum.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—(1) Senior House-Surgeon. Salary, £120 per annum. (2) House-Physician. Salary, £90 per annum.

CHICHESTER: WEST SUSSEX COUNTY ASYLUM.—Locumtenent Medical Officer. Salary, 4 guineas a week.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary, £90 per annum, rising to £100.

DENBIGH: DENBIGHSHIRE INFIRMARY.—House-Surgeon. Salary, £100 per annum.

DEVON COUNTY ASYLUM, Exminster.—Third and Fourth Assistant Medical Officers. Salary, £200 per annum, rising to £250 and £220 respectively, with further increase on promotion to £350.

DEVONPORT: ROYAL ALBERT HOSPITAL.—(1) House-Surgeon; salary, £50 for first six months, £75 for second, and £150 during second year of service. (2) Assistant House-Surgeon; salary at the rate of £75 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Clinical Assistant.

ECCLES AND PATRICROFT HOSPITAL.—House-Surgeon. Salary, £70 per annum.

EDINBURGH HOSPITAL FOR WOMEN AND CHILDREN.—Medical Woman to act as Resident.

EDINBURGH: THE HOSPICE.—Medical Woman to act as Resident Honorarium, £25 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—House-Surgeon. Salary at the rate of £75 per annum.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway Road, N.—Honorary Medical Officer in charge of Electrical Department.

GROCERS' COMPANY.—Two Scholarships, each of £300 a year.

GUY'S HOSPITAL DENTAL SCHOOL.—Dental Travelling Scholarship. Value, £100.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon (male). Salary, £80 per annum.

HERTS COUNTY ASYLUM, St. Albans.—Locumtenent Assistant Medical Officer. Salary, 4 guineas a week.

KENT EDUCATION COMMITTEE.—Medical Inspector of School Children. Salary, £250 per annum.

LANCASTER: COUNTY ASYLUM.—Assistant Medical Officer. Salary, £150 per annum, increasing to £250.

LEEDS: GENERAL INFIRMARY.—(1) Honorary Surgeon. (2) Assistant Honorary Surgeon.

LINCOLN MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

LIVERPOOL: PARKHILL SANATORIUM.—Assistant Resident Medical Officer. Salary, £150 per annum, increasing to £200.

LONDON HOSPITAL, E.—Two House-Surgeons in the Dental School.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—Dr. Edith Pechey Phipson Post-Graduate Scholarship. Value, £40 per annum.

LONDON UNIVERSITY.—(1) Graham Scholarship in Pathology: £200 per annum for two years. (2) University Studentship in Physiology, value £50.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Male Resident House-Surgeon. Salary, £120 per annum.

MANCHESTER: NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—Junior House-Surgeon (male). Salary, £100 per annum.

MANCHESTER TOWNSHIP.—Junior Resident Medical Officer of the Workhouse. Salary, £110 per annum.

MIDDLESEX COUNTY ASYLUM, Napsbury.—Junior Assistant Medical Officer. Salary, £200 per annum.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—(1) House-Physician. (2) Two House-Surgeons. (3) Obstetric Assistant. (4) Assistant Pathologist.

NEWCASTLE-UPON-TYNE DISPENSARY.—Vacancies on Visiting Medical Staff. Salary, £200 per annum.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon (male) for Branch. Salary, £180 per annum.

NOTTINGHAM GENERAL HOSPITAL.—Locumtenent. Salary, £3 3s. per week.

PAISLEY: ROYAL ALEXANDRA INFIRMARY.—Junior Resident House-Surgeon. Salary, £80 per annum.

PORTSMOUTH PARISH.—First and Second Assistant Resident Medical Officers of the Workhouse, etc. Salary, £150 and £130 per annum, increasing to £160 and £140 respectively.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—(1) Honorary Physician or Surgeon to the X-Ray and Electric Department. (2) Clinical Assistants.

READING: ROYAL BERKSHIRE HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon (male). Salary, £100 per annum.

ROYAL EAR HOSPITAL, Soho, W.—House-Surgeon (non-resident). Honorarium, £40 per annum.

ROYAL NATIONAL MISSION TO DEEP SEA FISHERMEN.—Medical Man for service on Hospital ships. Salary, 4 guineas a week.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion Square, W.C.—(1) Honorary Assistant Surgeon. (2) Clinical Assistant.

ST. PETER'S HOSPITAL FOR STONE, ETC., Henrietta Street, W.C.—Junior House-Surgeon. Salary at the rate of £75 per annum.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £50 per annum.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—Assistant Surgeon at the Dreadnought Hospital.

SHEFFIELD: EAST END BRANCH OF CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £75 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £80 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £80 per annum.

SOUTHPORT INFIRMARY.—Junior House and Visiting Surgeon (male). Salary, £80 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon (male). Salary, £90 per annum.

STOKE-ON-TRENT: INFECTIOUS DISEASES HOSPITAL, Bucknall.—Resident (Lady) Assistant Medical Officer. Salary, £100 per annum.

STOKE-ON-TRENT: NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—House-Surgeon. Salary, £100 per annum.

SUNDERLAND: MONKWEARMOUTH AND SOUTHWICK HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Surgeon. Salary, £75 per annum.

TAUNTON: SOMERSET AND BATH ASYLUM, Cotford.—Assistant Medical Officer. Salary, £180 per annum, rising to £200.

THREE COUNTIES ASYLUM, near Hitchin.—Junior Assistant Medical Officer. Salary, £150 per annum, rising to £200.

TRURO: ROYAL CORNWALL INFIRMARY.—House-Surgeon. Salary, £100 per annum.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Locumtenent. Salary, £3 3s. per week.

WAKEFIELD GENERAL HOSPITAL.—Second House-Surgeon (male). Salary, £100 per annum.

WARRINGTON COUNTY BOROUGH.—Assistant Medical Officer of Health. Salary, £250 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician.

WESTMINSTER HOSPITAL, S.W.—Resident Obstetric Assistant.

WILLESDEN: PASSMORE EDWARDS HOSPITAL.—Three Members of Honorary Medical Staff.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

WORCESTER GENERAL INFIRMARY.—House-Physician. Salary, £100 per annum.

MEDICAL REFEREE.—An additional Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuit No. 24, to be attached more particularly to the Cardiff and Barry County Courts.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces the following vacant appointments: Fishguard (Pembrokeshire), Muirkirk (Ayrshire).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

BROWN, W. Langdon, M.D.Cantab., F.R.C.P., Assistant Physician to St. Bartholomew's Hospital.

BERRY, William A., M.B., B.S.Lond., D.P.H.Oxon., Deputy Medical Officer of Health, Deputy Medical Superintendent of the Isolation Hospital, and Assistant School Medical Officer for the Borough of East Ham.

CHAMPTALOUP, Sydney T., M.B., B.S., B.Sc.Edin., Medical Officer to the Port of Dunedin, New Zealand.

CLAPHAM, H., M.R.C.S., L.R.C.P., District Medical Officer of the Peterborough Union.

COX, A. Neville, M.B., B.S.Lond., Tuberculosis Officer for Brighton.

DICKIE, David, M.B., F.R.C.S.Edin., Lecturer on Surgery in the Western Medical School, Glasgow.

DOBSON, J. R. B., M.R.C.S., L.R.C.P., M.B., B.S.Lond., Tuberculosis Officer to the County of Middlesex.

FETTERTON, R. H., M.D.Edin.and Melb., Surgeon to the In-patient Women's Hospital, Melbourne.

HANCOCK, F. T., M.R.C.S., L.R.C.P., District Medical Officer of the Alton Union.

HAYWARD, A. W., M.R.C.S., L.R.C.P., District Medical Officer of the Christchurch Union.

HIBBERT, J. Coote, M.D.Lond., Medical Officer of Health for Blackburn.

HOPKINS, H. L., M.B., B.S.Lond., Assistant County Medical Officer for Suffolk (West).

HUGHES, William Stanley, M.B., B.S.Lond., M.R.C.S., L.R.C.P., Medical Superintendent of the Salop County and Wenlock Borough Asylum.

LANCASHIRE, G. H., M.D.Brux., M.R.C.S., L.R.C.P., Lecturer in Dermatology to the Manchester University.

LONGDEN, E. W., L.R.C.P. and S.Edin., L.F.P.S.Glasg., District Medical Officer of the Linton Union.

MCKENNA, J., M.D., Honorary Assistant Physician, Brisbane General Hospital.

MAY, Miss M. E., M.B., Ch.B.Vict., Assistant Medical Officer of the Ashton-under-Lyne Union Workhouse.

MARTYN, V. C., M.R.C.S., L.R.C.P., Assistant Resident Medical Officer at the Croydon Borough Hospital.

MOLAN, C., L.R.C.P. and S.Irel., Assistant Medical Officer, Stepping Hill Hospital, of the Stockport Union.

MUNRO, D. G. Macleod, M.D.Edin., D.P.H.Lond., Tuberculosis Officer to the County of Middlesex.

NORTON, E. E., M.D.Durh., D.P.H.Lond., Tuberculosis Officer to the County of Middlesex.

OWEN, John, M.D.Lond., Honorary Physician to the Northern Hospital, Liverpool.

ROBERTSON, J. F., M.R.C.S., L.R.C.P., District Medical Officer of the Thorne Union.

SHAW, W. V., M.D.Oxon., Certifying Factory Surgeon for the Malton District, co. York.

SIMPSON, George C. E., B.A., M.B.Cantab., F.R.C.S.Eng., Honorary Surgeon, David Lewis Northern Hospital, Liverpool.

SINCLAIR, T. W., M.D.Melb., Health Officer for the City of Melbourne.

SLADDEN, Arthur F. S., B.M., B.Ch.Oxon., Pathologist and Registrar at the Metropolitan Hospital, N.E.

STALKER, W. S., M.B., B.S.Glas., Certifying Factory Surgeon for the Swinton District, co. Lancaster.

SUTTON, C., M.B., Ch.B.Melb., Honorary Midwifery Surgeon to the Women's Hospital, Melbourne, vice H. Cairns Lloyd, M.D., F.R.C.S.Edin., resigned.

WATKIN, Arthur C., M.R.C.S., L.R.C.P., D.P.H., Tuberculosis Officer to the County Council of Salop.

WHITE, Hill Wilson, M.B., B.Ch., B.A.O.Nat.Univ.Irel., Second Assistant Medical Officer at the City of Westminster Infirmary, Fulham Road, S.W.

WILLETT, J. Hayward, M.D.Liverp., Honorary Surgeon to the Hospital for Women, Shaw Street, Liverpool, vice Dr. Wallace, deceased.

YELF, R. E. B., M.B., C.M.Edin., Certifying Factory Surgeon for the Moreton-in-Marsh District, co. Gloucester.

ROYAL FREE HOSPITAL, Gray's Inn-road, W.C.—The following appointments have been made:

Assistant Surgeon.—C. A. Pannett, B.Sc., M.D., B.S.Lond., F.R.C.S.

House-Physicians.—P. W. Ransom, M.R.C.S., L.R.C.P.; Miss C. V. Turner, M.B., B.S.

House-Surgeons.—B. Whitchurch Howell, M.R.C.S., L.R.C.P.; Miss M. M. Richards, M.B., B.S.

Junior Obstetric Assistant.—Miss Lyon-Mercado, L.R.C.P.and S. Edin.

UNIVERSITY COLLEGE HOSPITAL.—The following appointments have been made:

House-Physicians.—Beevor, C. F., B.A., M.B., B.Ch.; Pearson, W. J., B.A., M.B., B.Ch.

House-Surgeon.—Martin, L. A., M.R.C.S., L.R.C.P.

Tuberculosis Officer.—Khan, M. M., M.R.C.S., L.R.C.P., M.B., B.S.Lond.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

HUBERT.—On May 13th, at "Rosehill," Billingshurst, Sussex, the wife of W. A. Hubert, M.R.C.S.Eng., L.R.C.P.Lond., of a daughter.

DEATHS.

BULLOCK.—On the 10th inst., at Parklands, Braduinch, Devon, Henry Maurice Bullock, M.R.C.S., L.R.C.P., second son of the late Henry Bullock, F.R.C.S., Overtown House, Isleworth, aged 52.

TYLER.—On the 12th inst., at 32, Cambridge Street, Hyde Park Square, W., Sir John William Tyler, C.I.E., late Inspector-General of Prisons, N.W.P., and Oudh, India, in his 74th year. Indian papers please copy. No flowers, by special request. Friends kindly accept this (the only) intimation.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W.—8 p.m., General Meeting. 8.30 p.m., A discussion on a Clinical Study of the Chief Function of the Peritoneum, to be introduced by Mr. John Howell.

TUESDAY.

CHELSEA CLINICAL SOCIETY, Medical School, St. George's Hospital, 8.30 p.m.—(1) Annual General Meeting. (2) A demonstration on the preparation and standardization of the different kinds of tuberculin.

LONDON DERMATOLOGICAL SOCIETY, St. John's Hospital, 49, Leicester Square, W.C.—4.30 p.m., Demonstration of Cases and Specimens. 5.15 p.m., Discussion on Electricity in Some Diseases of the Skin, to be opened by Dr. F. H. Humphris.

MEDICO-LEGAL SOCIETY, 11, Chandos Street, W.—Adjourned discussion: The Futility of the Coroner's Inquest. Sir Frederic Hewitt, Sir John Collie, Mr. G. C. Gardiner, and Dr. J. Scott will take part.

ROYAL SOCIETY OF MEDICINE:

SECTION OF BALNEOLOGY AND CLIMATOLOGY, 5.30 p.m.—Dr. William Gordon: The Place of Climatology in Medicine (Samuel Hyde Memorial Lectures).

SECTION OF PATHOLOGY, Cancer Research Laboratories, Middlesex Hospital, 8.30 p.m.—Laboratory Meeting.

SECTION OF THERAPEUTICS AND PHARMACOLOGY, 4.30 p.m.—(1) Annual General Meeting. (2) Paper:—Dr. Mervyn H. Gordon: Sensitized Vaccines.

WEDNESDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF BALNEOLOGY AND CLIMATOLOGY, 5.30 p.m.—Dr. William Gordon: The Place of Climatology in Medicine (Samuel Hyde Memorial Lectures).

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., at 5 p.m.—Paper:—Major E. B. Waggett, R.A.M.C.(T.): The Medical Problems of Mobilization of the Territorial Force.

THURSDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF DERMATOLOGY, 5 p.m.—Demonstration of Cases and Specimens.

SECTION OF NEUROLOGY, 8.30 p.m.—(1) Annual General Meeting. (2) Demonstration of Cases and Specimens.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF DISEASES OF CHILDREN, 4.30 p.m.—Annual General Meeting.

SECTION OF EPIDEMIOLOGY AND STATE MEDICINE, 8.30 p.m.—(1) Annual General Meeting. (2) Paper:—Dr. F. W. Eurich: Anthrax in the Woollen Industry, with special reference to Bradford.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL.—Wednesday, 4.30 p.m., Lecture on Tuberculin in the treatment of Febrile Cases of Pulmonary Tuberculosis.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Wednesday. Radiography: Saturday. Special lectures each week.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical laboratory work daily (Saturday excepted), 10 to 12 a.m. Practical Protozoology, 2 to 3.30 daily. Advanced Protozoology, 10.30 a.m. to 1 p.m. daily. Medical Clinics, Tuesday and Thursday at 3 p.m. Operations, Friday, at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL.—Post-graduate Clinic, Thursday, 4.15 p.m., Some Points in Heart Disease.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week, at 4 p.m. each day:—Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Ear, Nose, and Throat. Special Lectures at 5.15 p.m. on Monday, Tuesday, Wednesday, and Thursday.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Paraplegia; Friday, 3.30 p.m., Clinical Lecture.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Medical and Surgical Clinics and Operations at 2.30 p.m. daily. Also Monday, Throat; Tuesday, Gynaecology; Wednesday, Skin, Eye, Children, *X* Rays; Friday, Eye. Special Lectures and demonstrations as announced.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Thursday, 4 p.m.—Difficulties in Diagnosis in Diseases in Children.

ROTUNDA HOSPITAL, DUBLIN.—Continuation of the Post-graduate Course on Obstetrics and Gynaecology daily throughout the week except Saturday.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, 2 p.m. *X* ray and Operations daily. Gynaecology: Monday, Tuesday, Wednesday, and Friday. Eye: Monday, Wednesday, Thursday, and Saturday. Throat, Nose, and Ear: Tuesday, Wednesday, Friday, and Saturday. Skin: Tuesday and Friday. Pediatrics: Wednesday and Saturday. Special Lectures at 5 p.m. daily except Saturday.

[*For further particulars of Lectures consult the Index to Advertisements.*]

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		MAY.
17	Sat.	Last day for receipt of Nominations for Members of Council.
19	Mon.	Marylebone Division, 11, Chandos Street, W., 4.45 p.m.; Annual Meeting, 5 p.m.
20	Tues.	London: Metropolitan Counties Branch Council, 4 p.m. London: Special Meeting Organization Committee, 9.30 a.m. London: State Sickness Insurance Amendments Subcommittee, 2 p.m. Tower Hamlets Division, Annual Meeting, Public Health Offices, Stepney.
21	Wed.	Boston and Spalding Division, Boston, 3.30 p.m. Central Division, Medical Institute, Edmund Street, 3.30 p.m. Dorset and West Hants Branch, Annual Meeting, Bournemouth, 3.30 p.m.; Luncheon, 1.30 p.m. Lancashire and Cheshire Branch, Liverpool Medical Institution, Branch Council, 4 p.m. Richmond Division, Richmond, 8.30 p.m.
		MAY (*continued*).
22	Thur.	London: State Sickness Insurance Committee, 10.30 a.m.
24	Sat.	List of Nominations for Election on Council will be published in the JOURNAL of this date.
29	Thur.	Northamptonshire Division, Northampton General Hospital, 2.30 p.m.; Luncheon, 1.30 p.m.
30	Fri.	City Division, Annual Meeting, Balfour Hall, Kingsland Road, 3.30 p.m.
		JUNE.
4	Wed.	South Middlesex Division, Annual Meeting, Twickenham, 8.30 p.m.
5	Thur.	Coventry, Nuneaton, and Tamworth Divisions, Annual Meeting, Coventry Hospital, 3.30 p.m.
6	Fri.	London: Ethical Committee, 2 p.m. London: Journal Committee, 2 p.m. Hampstead Division, Annual Meeting.
7	Sat.	Date of issue of Voting Papers for Council Election from Head Office.

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin's-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 24TH, 1913.

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National Insurance.

British Medical Association.

REPRESENTATIONS TO THE JOINT INSURANCE COMMITTEE.

IN accordance with the decisions of the State Sickness Insurance Committee at its meeting on May 8th (published in the SUPPLEMENT of May 17th, p. 452), the following letter has been addressed to the National Health Insurance Joint Committee:

May 16th, 1913.

Sir,

The State Sickness Insurance Committee, on behalf of the Association, has instructed me to communicate with you concerning the following matters, to which attention has been drawn by representations from several parts of the country.

Certificates for Sickness Benefit in Respect of Cases Attended by Midwives.

The rules of the majority of approved societies require that an insured person shall produce a certificate from a medical practitioner when claiming sickness benefit. The Committee understands that this requirement is adhered to by many societies as regards those cases of confinement in which sickness benefit can be claimed. In cases in which the confinement has been attended by a midwife, it is the custom to call on the medical practitioner on whose list the insured woman is to give a certificate for sickness benefit purposes.

It appears to the Committee to be unfair that the medical practitioner should be called upon in these cases to make a special visit, often at considerable trouble, merely for the purpose of making a statement that the woman has been confined, for which he will receive no payment.

The Committee, therefore, desires to urge the Commissioners to make it quite clear that under the terms of the agreements of practitioners with Insurance Committees it is no part of their duty to visit maternity cases which have been attended by midwives for the purpose of certifying the fact of confinement, and thereby enabling insured women to obtain sickness benefit.

Temporary Residents.

Memorandum 159 and 161 of the Commissioners, having reference to the question of the provision of medical benefit to temporary residents, received the careful consideration of the Committee at its last meeting. The Committee found itself unable to agree with the principle involved in the proposals contained therein—namely, that the fund from which practitioners would be paid for medical attendance upon temporary residents should be formed by deductions from moneys due to practitioners on whose lists such insured persons appear when at home.

The Committee being fully aware of the difficulties surrounding this question, desires, with a view to assisting in the removal of those difficulties, to suggest the following for the consideration of the Commissioners:

(*a*) That concerning that class of insured persons temporarily changing their residence for holiday or health purposes, the Regulations should be so amended as to provide that "medical benefit" shall not be understood to include medical attendance and treatment on such class while so temporarily resident; and

(*b*) That insured persons temporarily resident by reason of the nature of their occupations should be "required to make their own arrangements."

In making these suggestions for the consideration of the Commissioners, the Committee desires at the same time to urge that in the forthcoming amending Act provision should be made for the formation of a special fund, entirely apart from any moneys already allocated for medical benefit, to provide for the medical attendance and treatment of insured persons temporarily resident on account of ill health.

As regards proposal (*a*) above, it may be pointed out that no real hardship is entailed thereby, so far as concerns those insured persons simply away from home on holiday,

This class has always, in the past, been quite content to take its chance of having to provide for any sudden illness occurring at these times, and it is quite in a position to do so.

Those insured persons whose temporary residence is occasioned by ill health are, of course, the real difficulty, and the Committee appreciates that any Act having for its object the provision of insurance against loss of health and for the prevention and cure of sickness must of necessity make provision for this class. The Committee would, however, point out that in the past this class also has been recognized as outside the ordinary contributory contract medical practice arrangements, and provision, either individually or collectively, has always been made against sickness in the circumstances above described. Therefore, to place the cost of the treatment of either of these two classes, when temporarily resident, upon the medical profession (which the proposal of Memorandum 161, if carried out, would do) is imposing a burden upon the profession which it has never before borne, and which the amount of the remuneration provided for ordinary medical attendance does not justify.

Proposal (*b*) above is of course merely carrying out arrangements that have held good in the past, and the principle of which has already been recognized by the Commissioners in making provision for actors, travellers, etc., being allowed to make their own arrangements.

In connexion with this question of medical benefit for temporary residents the Committee, impressed by many urgent representations received on this point, feels that it is its duty to point out to the Commissioners that no arrangements will be acceptable to the profession which entail any deduction from the limited amount of money already available for medical benefit.

Publication of Details of Amounts Paid to Insurance Service Practitioners.

The attention of the Committee has been drawn to the practice obtaining in various parts of the country of publishing in the press details of the amounts due to individual practitioners for attendance under the Insurance Act upon the insured persons upon their lists. The Committee fully realizes that members of Insurance Committees are entitled in their official capacity to have this information, but it cannot perceive what good object can be served by publication in the local papers. It will be appreciated that from the point of view of the medical profession such a practice is to be strongly deprecated, and I am instructed to express the hope that the Insurance Commissioners will use their influence with the Insurance Committees in order that they shall not publish, or allow to be published, details of the amounts paid to insurance service practitioners.—I am, Sir,

Your obedient servant,
ALFRED COX,
Medical Secretary.

The Secretary,
National Health Insurance Joint Committee,
Buckingham Gate, S.W.

MEDICAL CERTIFICATES FOR SICKNESS BENEFIT.

OBJECTIONS TO INSERTING MEDICAL DETAILS AS TO NATURE OF DISEASE.

THE following statement has been forwarded to the Lancashire County Insurance Committee on behalf of the medical practitioners of Leigh (Lancashire County area 21) by Dr. G. H. Shaw, Honorary Secretary to the Leigh Medical Committee and to the Leigh Division of the British Medical Association.

The statement was drawn up for use at a conference between representatives of the Local Medical Committee and of the Lancashire County Insurance Committee. In the covering letter Dr. Shaw pointed out that medical practitioners could not follow the argument that an insured person who refuses to disclose his illness *ipso facto* agrees that he is not entitled to the benefits provided for him by the Act. The letter further pointed out that the male insured alone in the area who have corporately expressed their strong wish for non-insertion numbered over 12,000; their contention was that a certificate of incapacity was sufficient evidence, and that on producing such evidence they were entitled to their benefit as the money is not provided by the approved societies. The contract being a direct one between the State and the insured, they hold that a third body, not concerned in the contract but acting as the agent from one to the other, cannot arbitrarily withhold the benefit, as it is a statutory obligation on the one hand and a statutory right on the other.

Statement.

It is asserted freely that the medical profession in this and other areas, by their action in this matter, are wilfully and maliciously embarrassing the approved societies in the performance of their duties, and so obstructing the working of the Act. We think we may be absolved from the charge of such a stupid and foolish action.

We have undertaken to do our part in the administration of medical benefit, and we earnestly desire that this administration shall run smoothly and efficiently, so that the insured shall receive to the full the benefits the Act provides, without moral or material damage to their common rights.

It is said that we are not keeping our contract.

We desire that this point shall be made quite clear and beyond dispute.

Before we undertook service we had certain documents and statements placed in our hands. These are as follows:

1. Explanatory statement as to medical benefit as affecting medical practitioners, issued by the Insurance Commissioners, it is stated there under the heading "Records," page 5, "In this way any risk of violation of professional secrecy will be obviated."
2. Memorandum as to medical benefit, furnished to the British Medical Association by the Chancellor of the Exchequer. In Section VI, Records and Reports, Clause 30, we find the following: "Thus secrecy will be secured, and any danger of breach of professional confidence entirely avoided." Both these paragraphs refer to the elaborate precautions taken by the Chancellor and the Commissioners in the day books, and later in the cards, to avoid any risk of breach of confidence.
3. Statements repeated by the Chancellor and Mr. Masterman in the House of Commons that there is no possibility of any one knowing what a person is suffering from, and that professional secrecy is fully secured.

If words mean anything at all, this is a very precise and definite undertaking securing professional secrecy. In the words of the Chancellor, "Thus secrecy will be secured, and *any danger* of breach of professional confidence *entirely* avoided."

This undertaking, therefore, is the foundation and basis of our agreement with the Commissioners, through your Committee, as far as this subject is concerned. The only other contract we have entered into is a personal one—to give proper and adequate medical attention to the insured on our lists. We have not entered into any contract with any approved society, and we are not directly concerned with their rules.

Obviously the professional secrecy of the Commissioners and the Chancellor's "any danger of breach of which is entirely avoided" is not compatible with the disclosure of the patient's illness to a society through a collector.

It is suggested in a leaflet issued from the County Office on April 15th that it is a matter of opinion as to whether such disclosure is a breach of secrecy. We wish to understand each other and not to use phrases the words of which mean one thing, whilst the suggested meaning is something else.

Professional secrecy means respecting the knowledge we acquire in the intercourse with our patients and not disclosing that information to a third party; it does not mean, and can never mean, the exact opposite.

Moreover, if one can use comparisons of degree in such a matter, the requested breach of confidence takes place at its very worst point.

The disclosure takes place, not to impartial and non-interested bodies, such as the Commissioners or even the County Committee, but it takes place in the immediate surroundings of the insured, often to people or bodies who may have a direct interest in the insured. Thus the moral or material damage to the insured may be very considerable and affect their daily life.

The Act is a simple contract by the State to provide the insured, if they have paid certain sums, with certain benefits. We cannot find it suggested or contemplated in any part of the Act that such benefits would carry with them certain possible disabilities.

It has been heard on appeal, before the Lord Justices Vaughan Williams and Hamilton, and Mr. Justice Bray, that the approved societies could not impose conditions affecting the statutory rights of the insured, and "that

the right of a man to give satisfactory evidence, and certainly in the form of a medical certificate, was not a matter to be decided by the arbitration body of the society, but by the courts."

The ethical objections to such disclosures need only be considered by each of us in a personal way to be fully realized, especially in the case of females, the large proportion of whose ailments are connected with the sexual apparatus.

People generally object to such disclosures, and very rightly, as privacy in such matters is a right established by common consent and usuage for the protection of us all, and females intensely object.

That this is so, we may state in proof that none of us in this area have met a patient who voluntarily desires to have his ailments disclosed, nor do we know of any medical man who has. The only reason the insured ask for insertion of a condition is the threat of non-payment by the society.

We have here resolutions from the following bodies strongly supporting this statement—namely, National Union of Railwaymen, Cloggers, Engineers, Spinners, Wagon and Carriage Makers, Wheelwrights and Carpenters, Carpenters and Joiners, all the branches of the Miners' Federation, and the Labour party, numbering over 11,000 members.

All these are men's organizations; the females have no official mouthpiece, but we ask you to accept our statement on their behalf, as we have ample evidence from our patients.

We now come to the question which is the cause of the dispute between ourselves and the approved societies (a dispute which we consider ought to be a friendly one, without imputation of motives, other than on the one hand the protection of our patients and on the other the protection of funds), that is, the protection against malingering.

We spend all our lives amongst conditions which the approved societies have now for the first time to deal with, and we think the societies ought to realize that the medical profession are in no way responsible for these conditions. They are inherent to the problem itself, just so much as human nature is inherent to the problem. They are one and the same thing. How can we deal with the matter?

We ask the societies to believe us when we say that the insertion of a condition is no solution. What proof have we?

The reply is simple. The medical profession have a fuller knowledge of the conditions of our patients than ever the approved societies can hope to have, yet this has not solved the problem for us, and we have to deal with such cases every day of our lives. Some of the older and more powerful societies realize this, and do not demand the condition.

The solution—and this we are afraid will not be complete from the very nature of the case—can only be obtained by the willing and friendly co-operation of the profession and the societies. It should be obvious to every thinking person that, still respecting each other's rights, our interests are largely in agreement.

The work of the profession under the Act is laborious enough in all conscience without the profession suicidally adding to its labours by keeping people on our lists and on the funds who are not entitled to be on, if by any means we can possibly prevent it.

We can in many cases help each other, and if any society has doubts about any cases, we shall be only too glad to receive any information which may help us to decide many of these difficult cases and serve our mutual interests in lightening a little our daily toil and protecting the funds of the Act.

LOCAL MEDICAL COMMITTEES.

LIVERPOOL.

SINCE its formation on February 7th, 1913, the Liverpool Local Medical Committee has met fifteen times, the average attendance being 17 members out of a total of 26.

A standing subcommittee consisting of six panel practitioners was appointed to consider and report upon any points of detail arising out of administration of medical benefit.

A formulary has been adopted by the Committee for the use of medical men on the panel. It has been approved and will shortly be published under the auspices of the Liverpool Insurance Committee.

The following tariff was adopted by the Committee and approved by the Liverpool Insurance Committee for insured persons permitted to make their own arrangements for medical benefit, provided that the statutory sum allotted be sufficient for this purpose:

	£	s.	d.
For visit at patient's home	0	2	6
For consultation at doctor's surgery	0	2	0
For special visit (if notice be given by 10 a.m.).	0	3	6
For night visit (8 p.m. to 8 a.m.)	0	5	0
For surgical operations requiring local or general anaesthetic or the treatment of miscarriage or abortion	1	1	0
For setting a fracture...	1	1	0
For reduction of dislocation	1	1	0
For administration of a general anaesthetic ...	1	1	0

A conference of subcommittees appointed by the Local Medical and Pharmaceutical Committees respectively was held with the object of: 1. Revising the tariff of drugs. 2. Considering (*a*) the question of extra fees for dispensing out of the regular hours; (*b*) the question of "repeat" prescriptions; (*c*) stock mixtures.

It was decided that no proprietary articles be admitted to the official list of drugs.

The question of securing the identification of insured persons was discussed, and it was resolved that the attention of the Liverpool Insurance Committee should be drawn to this subject.

It was decided unanimously that every member of the profession in the Liverpool area should be asked to contribute 5s. to cover the expenses of the Committee during the first year, and Dr. S. Hamilton Shaw, of 23, Prince's Avenue, was appointed Honorary Treasurer.

WEST RIDING OF YORKSHIRE.

THE eighth meeting of the Local Medical Committee for the West Riding of Yorkshire was held on May 9th. Dr. MAY was in the chair, and twenty members were present.

The SECRETARY reported that the resolutions adopted at the previous meeting regarding rules for medical benefit and income limit had been communicated to the Clerk of the Insurance Committee.

Charges for Emergency Dispensing.—It was announced that since the conference between the Committee and the chemists the Insurance Committee had arranged to pay a flat rate of 6d. per prescription for emergency dispensing as from April 13th.

New Representatives.—Dr. John Orford was appointed the Representative for Pontefract and Dr. W. Craik for Swinton.

Excessive Ordering of Drugs.—A letter was read from the Clerk to the Insurance Committee enclosing statement of account for special drugs ordered by a panel doctor, and it was resolved, in view of the powers of the Local Medical Committee in such matters as set out in Regulation 46 for checking extravagant prescribing, to ask the practitioner to attend the next meeting of the Committee to explain his prescribing for the last quarter.

Range of Medical Service.—A letter was read from a panel doctor inquiring what fees he might charge in the case of an insured married woman attended through a long illness, including confinement with eclampsia, etc. The Committee adopted a resolution expressing the opinion that the medical man could charge what he considered a suitable fee for the confinement, and that the practitioner called in to assist him at the confinement was entitled also to a suitable fee, but that the illness before the confinement and after the puerperal period of twenty-eight days was included in the contract for medical service.

West Riding Pharmacopoeia.—A report of the Pharmacopoeia Subcommittee was received, and the consideration of the draft pharmacopoeia postponed till the next meeting. The revised tariff of drugs was remitted to the Subcommittee for consideration and report.

District Insurance Committees.—The nomination of medical members was received and approved and directed to be forwarded to the Clerk of the Insurance Committee, as was also a resolution drawing the attention of the Insurance Committee to the fact that the full tenth of medical members had not been allowed for, as promised, on all the District Insurance Committees under the West Riding scheme, and requesting the Insurance Committee to so alter the scheme as to rectify this defect.

Temporary Residents.—Circulars 159/I.C. and 161/I.C. having been considered, the Committee adopted the following resolution:

That this Local Medical Committee protests against the proposed scheme as a breach of the contract entered into by members of the medical profession in the West Riding of Yorkshire, and cannot give its consent to any reduction in the amount of the remuneration which, as agreed in the original contracts, is to be paid to each practitioner on the panel in respect of each person included in his list.

LEICESTER.

Temporary Residents.

The memorandums 159/I.C. and 161/I.C. with reference to medical attendance on temporary residents were considered at a meeting of the Local Medical Committee on May 6th. The proposal contained in the memorandums was strongly condemned, and the opinion of the meeting has been conveyed to the Insurance Commissioners for England in the following letter:

2, Tower Street,
Leicester,
May 14th, 1913.

Dear Sir,

I am in receipt of your letter of the 3rd inst. with reference to Memo. No. 159/I.C.

My Committee have considered this Memo. 159/I.C. together with No. 161/I.C., and view with the greatest alarm this, the first attempt on the part of the Commissioners, to reduce the capitation rate of 7s. definitely promised by the Government and Commissioners during last winter.

Your letter states that the Commissioners have "decided to adopt" the arrangement mentioned in the above-named Memorandum, and it is only on the question of the scale of fees which the Commissioners desire the opinion of the various Local Medical Committees throughout the country. Inasmuch as the whole subject is one which affects the country at large, and not merely the health resorts, surely places other than health resorts have a right to a voice in the matter, and my Committee would suggest a conference with representative medical men from all parts of the country, and not merely "from the areas mainly affected" (par. 3, 161/I.C.)

Taking the Commissioners' own instance of 27s. as being the case-value of any particular person, my Committee is of the opinion that it is grossly unfair that this should be deducted from the amount available for the practitioners of this town. There are in Leicester about 90,000 insured persons, of whom probably at least 40,000 will be away for periods varying from one week to one month during the course of the year; and of these, judging by the amount of illness during the last quarter, about 10,000 will require treatment. Let us assume, however, that even only half this number is more nearly accurate, then 5,000s. × 27s.—that is, £6,750—would be deducted every year from Leicester alone towards the central fund—that is, an average of £96 per medical man on the panel.

This town not being a health resort, there would be practically no incoming persons to counterbalance this.

In the "Explanatory Statement as to Medical Benefit" issued in December last we were told that "the practitioners may confidently rely on receiving at least 7s., etc. In less than six months we find that we can no longer confidently rely" on the promises of the Commissioners, even on such an important matter as the amount of remuneration.

In face of the basis of contract signed by practitioners in January, this Committee is of opinion that the action of the Commissioners is *ultra vires* and definitely illegal.

Yours faithfully,
E. W. Hollyoak,
Honorary Secretary Local Medical Committee.

WEST SUFFOLK.

The West Suffolk Local Medical Committee has resolved to request every practitioner to record on the cards all services rendered in accordance with the symbols of Circular 156/I.C., paragraph 12, in order that any future claim for special payment for extras may be supported by evidence available to the Commissioners of actual work done.

The *Birmingham Health Insurance Pharmacopœia* was adopted for use in the area, and the Clerk of the Insurance Committee has been instructed to notify all practitioners and chemists in the area accordingly.

After a conference between the representatives of the Local Medical Committee and the Medical Benefit Sub-committee, it was agreed that the contract embodied in Form Med. 29 should be signed to run until December 31st, 1913; that the distance beyond which persons should not be assigned to any practitioner should be three miles; and that the amount payable in respect of services rendered under the agreement including the domiciliary treatment of tuberculosis should be at the rate of 1s. 9d. a quarter.

It was resolved to ask the Commissioners to receive a deputation from the Local Medical Committee with regard to the payment for anaesthetics, miscarriages, etc.

It was announced that the Clerk to the County Insurance Committee would on request supply to practitioners concerned forms for the transfer of patients by mutual consent under Regulation 26.

It was announced, further, that the card index register for patients would be issued at the earliest possible moment, and that the Medical Benefit Subcommittee had decided that the pink ticket should remain in force until June 30th, 1913.

It was reported that the new rules drawn up by the Medical Benefit Subcommittee had been accepted and that a copy would be sent to each friendly society and to every deposit contributor, as well as to every practitioner on the panel.

TUNBRIDGE WELLS.

The Local Medical Committee for the Tunbridge Wells district has been elected as follows and has received the recognition of the Insurance Commissioners:

Tunbridge Wells.—Dr. J. Cecil Rix (Chairman). Dr. F. A. Routch, 43, Mount Pleasant (Honorary Secretary), Drs. Perkins, Pincott, Riley, and Starling.
Southborough.—Dr. Biggs.
Tonbridge Urban.—Drs. Cardell and Watts.
Tonbridge Rural.—Drs. Oldham and Clarke.

MIDDLESEX.

The Middlesex County Local Medical Committee met on May 15th. Dr. Lowry (Chairman) presided.

Dr. Tresilian's resignation was received with regret, and Dr. Busfield (Enfield) nominated in his place.

The Committee will come to an end on October 31st, 1913, and a scheme for election of a new committee, prepared by Dr. A. H. Williams, was approved, and referred to a subcommittee consisting of Drs. Lowry, Williams, Camps, Brackenbury, Macevoy, North, and Shanks, for completion.

It was agreed to resist the attempts by the chemists to make a charge for copying prescriptions.

Temporary Residents.

It was pointed out that Medical Regulation No. 22 made no mention of "temporary" residents, and also that the "Explanatory statement of medical benefit as affecting medical practitioners" (page 7, paragraph 23) read: "The number on the list will fluctuate through removals, transfers, deaths, and persons becoming newly insured—subject to these small adjustments the practitioner may confidently rely on receiving at least 7s. per head per annum." No mention was made of "temporary" removals. Dr. Williams further showed that many of the "agreements" specified 1s. 9d. a quarter in the Fourth Schedule, the 1s. 9d. being filled in in ink when sent out by the Insurance Committee. Dr. Lowry pointed out that the contract with patients was for "the year."

After considerable discussion the following resolutions were adopted *nemine contradicente*, one member not voting:

That any deductions for medical attendance on persons temporarily away from their district be resisted, and that we endeavour to organize the panel doctors to resist it.
That the scheme set out in 161/I.C. was inequitable.

The Honorary Secretary was instructed to forward these resolutions to the Commissioners.

WESTMINSTER AND HOLBORN.

We are requested to state that at the meeting of the Provisional Medical Committee for Westminster and Holborn, at which two Local Medical Committees for these boroughs were respectively elected, Dr. Pennington moved that the distinction between panel and non-panel doctors should not be perpetuated, and that inasmuch as the London Medical Insurance Committee comprised medical practitioners both on and off the panels, a similar plan should be adopted by local committees. An amendment was moved designed rigorously to exclude all practitioners on the panel, but this was withdrawn in favour of an amendment moved by Dr. Bolton, making a distinction between those who had gone on the panel before the pledge was abrogated and those who joined afterwards. This was carried by 5 votes to 3, the majority of those present not voting.

COUNTY OF FIFE.

A MEETING of the Fife Local Medical Committee was held in the Station Hotel, Kircaldy, on May 1st. In the absence of the chairman (Dr. Orr) Dr. DOUGLAS presided, and seventeen others were present.

The Commissioners having stated that there were no funds at their disposal under the National Insurance Act which could be made available for defraying the expenses incurred in connexion with Local Medical Committees, it was decided that a temporary levy of 5s. per panel doctor be made for the ensuing year.

Temporary Residents.—The proposed alternative schemes for the provision of medical benefit to temporary residents were discussed, and the following motion was eventually carried:

In regard to the provision of medical benefit for temporary residents, the Local Medical Committee, while holding that the contract by medical men on the panel for medical service is one between each individual doctor and the Commissioners, and as such a contract with which they cannot interfere, would express its preference for a scheme worked on the case-value basis or the first alternative method.

Allocation of Insured Persons.—The method to be adopted in allocating insured persons who have not exercised their right of choice was defined in the following resolution, which was carried unanimously:

That the moneys which have accumulated during the first quarter in respect of those persons who have not selected their doctor be divided equally amongst the doctors on the panel in each district, and that there be urged upon the Insurance Committee the necessity of giving those persons who have not chosen their doctor a further opportunity to do so by sending an application form to each person who has not selected a doctor, that is, that the onus of selecting a doctor still be upon the insured persons rather than that they should have a doctor selected for them.

Persons Making their Own Arrangements.—The following motion was carried *nemine contradicente:*

That the Local Medical Committee inform the Fife County Insurance Committee that they do not approve of the applications of insured persons for permission to make their own arrangements being refused, as has been done in the circular letter from them of April 21st, 1913.

Treatment of Tuberculosis.—It was decided to adhere to the rates of payment for treatment for dependants suffering from tuberculosis laid down by the State Sickness Insurance Committee and already submitted to the Insurance Committee for the county, namely: Visit 2s. 6d., consultation 2s. 6d., injection of vaccine 2s. 6d. (the vaccine to be at the expense of the local authority), report 5s., and mileage 1s. per mile beyond a radius of two miles.

Model Rules for Insured Persons.—The Honorary Secretary was instructed to recommend the Local Insurance Committee to circulate model rules as to conduct of insured persons in receipt of medical benefit amongst insured persons throughout the county.

DUMBARTON.

AT a meeting of the Dumbarton County Local Medical Committee in Glasgow on May 1st it was reported that the County Medical Benefit Subcommittee had approved the representations of the Local Medical Committee except in regard to the rule governing Sunday work, which it wished not to refer to "surgeries" and to the method of allocating of insured persons, holding that no more insured persons should be allocated to doctors with 1,500 or more already on list. It was unanimously decided to press for equal division of the residue irrespective of the number already on each list, and to urge the adoption of a rule limiting Sunday work at practitioner's residence and surgery, or patient's home, to cases of serious emergency. The scheme for temporary residents was discussed, and by a majority of one it was decided to approve capitation deduction to form a central fund, but several of those present indicated that they would refuse to allow a deduction. It was agreed to adopt the card system of records of illness. It was decided to ask that full payment be made at the end of each quarter in future, also to ask that correspondence with the Insurance Committee be franked and that cheques include branch charges. It was further resolved to point out to the Insurance Committee that doctors entitled to payment at 9s. a head per annum had not been paid at that rate, and request an adjustment of the payments. It was also decided to request the Insurance Committee to make arrangements whereby doctors could order such drugs and dressings as were required for emergencies to be supplied direct to them by chemists. It was agreed to make representations to the County Insurance Committee on various other matters.

MEETINGS OF INSURANCE COMMITTEES.

NOTTINGHAM.

Proposed Recognition of Herbalists.

AT a meeting on May 17th the question of whether insured persons should be allowed to make their own arrangements with a view to receiving treatment from herbalists was decided in the negative by a majority of 1 on a total vote of 33. The decision was reached after prolonged discussion of a report of the Medical Service Subcommittee, which had reached the same decision also by a majority of 1 on a total vote of 6. In the course of the discussion stress was laid on the fact that only about 40 applications for permission to contract out in the fashion indicated had been received, though the area included over 90,000 insured persons; if permission were granted it would open the doors to Christian Scientists and others. Admittedly the applications were made not because of any monetary advantage, but because it would give herbalists a status which they had not yet enjoyed. The proper solution was for herbalists to get themselves registered as medical practitioners. Dr. Price pointed out that to grant the applications would be a breach of faith with the local medical profession, since it would associate them with unregistered persons in the treatment of the insured, and this might be ground for disciplinary action by the General Medical Council. Dr. Jacob suggested that it would be possible for an insured person who had been treated by a herbalist, but not received satisfaction, to bring an action against the Committee which was responsible for providing adequate treatment. Prior to the discussion a letter had been read from the Council of the Nottingham District United Friendly Societies, urging that "qualified medical herbalists" should be placed on the panel.

SOKE OF PETERBOROUGH.

At the monthly public meeting on May 14th it was decided to leave for decision by the Committee which comes into office next July the question whether medical men on the local panel should hand to each patient two prescriptions, in addition to keeping a copy for his own use. In connexion therewith it was stated that the chemists claimed that their agreements entitled them to expect panel doctors to write prescriptions in triplicate, he keeping one copy for his own use and handing the patient two, one to be retained by the chemist for reference purposes and the other to be sent by him with his bill to the Committee, and that if the chemist received only one prescription he should be allowed to charge a fee of 1d. for copying it. On the other hand it was indicated, on the authority of Dr. J. N. Collins, Honorary Secretary of the Local Medical Committee, that the panel medical officers regarded the proposal to charge a booking fee as preposterous. For the time being they would, under protest, continue to give each patient two prescriptions, but meanwhile the Local Medical Committee would address the national Insurance Commissioners on the question.

On consideration of the report of the Sanatorium Subcommittee it was resolved, on the suggestion of Dr. H. Clapham, that in public discussions on sanatorium questions, as also in the minutes of the General Committee, individual patients should be mentioned not by their names, but by numbers corresponding to their cases in a register which would be open to inspection by members of the Committee.

BATH.

Publication of Amounts Paid to Insurance Service Practitioners.

A discussion took place at the last meeting of the Bath Insurance Committee relative to the publication of the sums received by medical men on the panel. Objection was made to payments being sanctioned by the Committee without names being attached, but the Chairman pointed

out that the full particulars were available to members. Representations, he said, had been made by the medical practitioners in favour of non-publication of names and amounts, and the chemists had also asked that details as to the number of prescriptions made up by each chemist should not be published, as they thought that publication would operate unfairly. A proposal that the names and amounts be published was defeated by 10 votes to 6.

HAMPSHIRE.

A Half-holiday.

The Insurance Committee, at the request of the local Division of the British Medical Association, at its last meeting considered the question of a half-holiday for doctors, and resolved:

> That the Committee approves that the doctors do not see insured persons, except urgent cases, on Wednesdays after 1 p.m., and that the chemists do not dispense prescriptions on Wednesdays after 1 p.m., except between 6 and 7 p.m.

INSURANCE NOTES.

DISCLOSURE OF THE NATURE OF ILLNESSES.

At a meeting of representatives of labour organizations at Wigan, Dr. F. Rees gave an address on the subject of the disclosure of patients' illnesses on Insurance Act certificates. He mentioned that medical men in Leigh and elsewhere had refused to state the exact nature of the illness, and the doctors of Wigan had decided to take a similar course. Medical men were under an obligation not to reveal anything in relation to their patients, and the law said that if a doctor broke professional secrecy and revealed something which proved detrimental to a patient the latter could claim damages. He doubted whether the Insurance Act would exempt doctors from this liability. Insurance companies and employers might take advantage of the publication of the nature of a man's illness, and refuse in the one case to insure a man and in the other to employ him. It was well known how careful employers were at present in signing on men for the pits owing to their liability under the Workmen's Compensation Act. A man, after having rheumatic fever in his youth, might have a slight affection of the heart which would not prevent him from following his work, if careful, but if it were stated on a certificate that the man was suffering from heart disease he might be discharged at the first opportunity. Medical men were making this stand to maintain the honourable understanding and confidential relationship which had always existed in the past between doctor and patient.

Mr. Stephen Walsh, M.P., who presided, said that the thanks of the meeting were due to the doctors who were making such an honourable stand in this matter. The meeting, by its applause, endorsed this view.

TREATMENT OF TUBERCULOSIS IN CORNWALL.

The Cornwall County Council has resolved that, as the difference between treating insured persons and their dependants who are suffering from tuberculosis and treating all persons in the county is estimated at less than £1,000 a year, it is desirable to include all persons suffering from tuberculosis in the provision to be made.

MEDICAL TREATMENT ON AILSA CRAIG.

The medical practitioners on the panel in Girvan have intimated to the Ayr Insurance Committee that they cannot give their services to insured persons on the island of Ailsa Craig on the terms at present offered. It appeared that during the winter no boats went to the island from the mainland except when a beacon was lit. The journey often took twelve hours in such circumstances, and boat hire cost about £7. A subcommittee of the Insurance Committee has discussed a special mileage rate and a payment of so much an hour, and has decided to bring the matter before the Insurance Commissioners.

SANATORIUM BENEFIT IN ROCHDALE.

The Insurance Commissioners have disapproved as too costly a proposal to send Rochdale insured persons suffering from tuberculosis to the institution of the Bury and District Hospital Board at a payment of 35s. a week, with a minimum of £200 a year. At the last meeting of the Insurance Committee Dr. Bateman said that, in consequence of this decision, sanatorium benefit was a dead letter in Rochdale, although sufferers were supposed to have been receiving treatment since July 15th. Dr. Carse summarized the benefits at present being received by insured consumptives as "cod-liver oil and death certificates."

REPORTS OF LOCAL ACTION.

IRELAND.

Withdrawal of Approval of Friendly Society.

SOME time ago we drew attention to the risks attending the approval by the Insurance Commissioners of many small societies. At a meeting of the members of the Irish Railway Workers' Trade Union, summoned last week at the request of the Irish Insurance Commissioners, Dr. Murphy, on behalf of the Insurance Commissioners, stated that the society ought not to continue in existence as an approved society any longer. One member complained that, though he had been sick twice, he had got no benefits. Dr. Murphy announced that the Commissioners would withdraw approval from the society, and recommended those present to join other approved societies; this action, however, will apparently not relieve them of their liability to the present society. It is thought probable that in the near future the same fate may overtake some other approved societies.

Proposed Importation of Practitioners into Limerick.

As was reported over a month ago, the medical practitioners in Limerick have notified the Insurance Commissioners that they consider the remuneration offered for medical certificates under the Insurance Act quite inadequate, and refused to form a panel until such provision was made as would satisfy the demands previously made through the Conjoint Committee. We are informed that advertisements have recently been inserted in the Dublin and Limerick papers by the Insurance Commissioners, inviting applications from medical practitioners for appointments at a salary of £130 a year each, for the purpose of furnishing to approved societies and the Insurance Committee the medical certificates required for persons resident in the City of Limerick, in connexion with the administration of the National Insurance Act. The medical practitioners in Limerick have maintained their refusal to go on the panel for certificates, and the action of the Commissioners in seeking to make these appointments is clearly taken in the hope of breaking down this resistance. The Commissioners must, of course, fail if the medical profession remains true to itself and if medical practitioners in other parts of the United Kingdom refuse to accept the paltry bribe offered to enlist them as auxiliaries in defeating the local profession.

Londonderry Doctors and the Friendly Societies.

A situation, unique so far as Ireland is concerned, has arisen in Londonderry in connexion with the question of medical benefits under the Insurance Act. A public medical service has been organized by the doctors, and a substantial number of insured persons have joined it. In a published statement the doctors pointed out that under the old conditions persons were receiving medical attendance at as low a figure as a halfpenny a week, and it had become necessary for the doctors to make a stand to obtain a living wage. They therefore resigned all factory and workshop appointments and drew up a scale of remuneration, which the friendly societies rejected, whereupon the public medical service was formed, the terms being 1d. a week for workers under 16, 2d. a week for insured persons, with 1d. additional for wives, and a further 1d. for all members of a family under 16 not working. These terms were to include drugs. After this service was started a deputation of employers of labour suggested the following terms to the doctors for employees of factories and workshops: A halfpenny a week for each 5s. earned, with a limit of 2d., the contributions to be collected by the employers and paid over to the medical service, free choice of doctor to be retained. The medical men accepted these terms, but the friendly societies prevented their adoption by the employees, and the scheme fell through. The offer of the friendly societies is 1d. a week, including drugs. This offer the medical men have

all refused, and the Federation of Friendly Societies, it is reported, has brought, or intends to bring, a medical man from England to attend to insured persons in the city.

Trade Union Congress and Medical Benefits.

At the Trade Union Congress, held in Cork last week, the following resolution was passed:

> That the delegates of the various trades affiliated to the Irish Trades Congress demand that the medical benefits be extended to Ireland, and we consider 7s. 6d. as a capitation fee per insured member sufficient to cover member and wife and members of the family up to 16 years of age, and we strongly condemn the dispensary and Poor Law system at present in vogue in Ireland, as it makes a person a pauper; we desire that a true and proper system of help for deserving cases shall be instituted in place of the present degrading system, and the sooner it is done the better for the welfare of the country. The inquiry which has been held has not given satisfaction to organized labour.

CORRESPONDENCE.

FUTURE POLICY.

DR. STANLEY YEOMAN (Prestwich, Manchester) writes: What is the policy of the British Medical Association? Is it to wait and see how the cat jumps? Surely the cat has jumped, and though the majority did not like the jump, yet they have taken it, believing that their existence depended upon it. This jump was made immediately after the Association had given up the game. The British Medical Association, and almost every other association in the country, had declared by large majorities that the National Insurance Act was derogatory to the profession, yet within a few days the British Medical Association told all to work out their own salvation (on certain conditions certainly), with the result that most medical associations were at once in a funk, and took what was offered in the easiest way.

This is no doubt past history, but the present history is also plain. A good many doctors are making more money than they did before, and as long as they are making more they are content. Others are making less, though on the panel, because their best work is of the most importance. The remaining few are out of the Act, and though they are probably losing, yet they are gaining in self-respect. Money, though important, is not everything.

The future history is also plain. The profession will be divided into panel doctors and non-panel doctors. Which of these classes is going to be most thought of? Is it well for the profession to be so divided? Is it good for the country to have this division?

The whole medical profession a very short time ago said it was not, but they now say, "Well, it might have been worse," and some say they are better off. They are better off because A says, "I will attend B under the Act if B's family call A in," and for those who say it might have been worse—well, I agree with them; but it does not make it good for the nation.

We have now had over three months to find an answer to these questions. Neither the British Medical Association nor any other body has answered them. The solution may be almost impossible. If so, then can the British Medical Association act both in the interests of panel and non-panel doctors. I believe that it is utterly impossible. Then is it not time for the British Medical Association to say which party it is going to act for; in the meantime they are having help from both sides, and that is not fair. I have tried to put facts in as blunt a way as possible. It is no time to mince matters. If it is good for the nation, I shall be with you; if it is not good for the nation to have this division in the profession, I think the British Medical Association should at once say so.

DR. GEOFFREY PRICE (Kineton) writes: Cannot we do anything about this amending Act?

I take it that we are willing to attend insured persons for 9s. annually, payable quarterly in arrear.

We want:

The right to dispense.
Limitation of medical benefit—that is, no bandages, dressings, purgatives, or appliances to be supplied.
Right of patient to change his doctor quarterly only.
Abolition of temporary resident system.
Abolition of bookkeeping.
List of quarter's patients to be in our hands on the first day of the quarter, and no new patients to be accepted during the quarter.
Right to treat any insured patient whose name we did not receive on the first day of the quarter as a private patient during the quarter.
Income limit of £2 a week.
Abolition of medical benefit for domestic servants (their mistresses give us as much trouble as though they were private patients), or for any employed person who lives in the dwelling-house of his employer. In these cases the employer should be responsible for his doctor.

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

THE Council of the British Medical Association is prepared to receive applications for Research Scholarships as follows:

1. An ERNEST HART MEMORIAL SCHOLARSHIP, of the value of £200 per annum, for the study of some subject in the department of State Medicine.

3. THREE RESEARCH SCHOLARSHIPS, each of the value of £150 per annum, for research into some subject relating to the causation, prevention, or treatment of disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1913. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of Research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1913–14 must be made not later than Tuesday, June 10th, 1913, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

ALFRED COX, *Medical Secretary.*

429, Strand, London, W.C.

Hospitals and Asylums.

EDINBURGH DENTAL HOSPITAL.

THE report presented to the twenty-first annual general meeting of the Incorporated Edinburgh Dental Hospital and School, over which Dr. Guy, dean of the the hospital, presided, stated that the hospital continued to do work for the men and recruits of His Majesty's Army under arrangement with the War Office. During the year 162 recruits were rendered dentally efficient, while 153 regulars and 117 men of the Special Reserve were treated. The Army Council had noted "the excellent service rendered by the Edinburgh Dental Hospital."

HAWICK COTTAGE HOSPITAL.

THE annual report of this hospital stated that, although there was a deficit for the year of £44 13s. 10d., the annual subscriptions had kept up, notwithstanding the new burden which the National Insurance Act had imposed on employers and employed. During the year 224 patients were treated in the hospital, a decrease of 18 on the previous year, and 82 out-patients made use of the dispensary. The hospital now contains five public and two private wards, with twenty beds in all.

Meetings of Branches and Divisions.

GLASGOW AND WEST OF SCOTLAND BRANCH:

Dumbartonshire and Argyllshire Division.

The annual business meeting was held in Clydebank on April 29th. The annual report submitted by the Honorary Secretary, which showed an increase in the number of meetings and a marked advance in the average attendance, was approved.

Election of Officers.—The following office-bearers were elected:

Chairman.—Mr. J. Wilson, Ashville, Dumbarton.
Vice-Chairman.—Dr. John Gilmour, Dalmuir.
Honorary Secretary. — Dr. A. W. Sutherland, Barbain, Cardross.
Representative for Representative Meeting.—Dr. E. H. Cramb, Radnor Park.
Representatives on Branch Council.—Dr. A. D. McLachlan, Dr. A. W. Sutherland.
Executive Committee.—Dr. J. R. F. Cullen, Dr. T. M. Strang, with the above office-bearers.

Meetings.—It was unanimously agreed to meet in Dumbarton during the ensuing year unless exceptional circumstances require a meeting elsewhere.

Maternity Benefit.—It was agree to recommend Local Medical Committees in the Division to approach Insurance Committees and Commissioners with a view to establishing a method of securing payment of the fee of the doctor in attendance at confinements where maternity benefit was claimed.

Model Ethical Rules.—The model ethical rules were unanimously adopted.

Glasgow Central Division.

The annual meeting of this Division was held on May 19th, Dr. Robert Jardine in the chair.

With two dissentients, it was resolved to transmit to the Representative Meeting a notice of motion to delete Minute 45 of the Special Representative Meeting in January, in which work under the National Health Insurance Act is said to be "derogatory to the profession." It was felt that while the minute remained a friendly and strong co-operation of all members of the Association for the good of the profession was hardly possible.

Election of Officers.—The following office-bearers were elected:

Chairman.—Dr. J. Grant Andrew.
Vice-Chairman.—Dr. John Paterson.
Representative to Representative Meeting.—Dr. John Adams.
Honorary Secretary and Treasurer.—Dr. W. S. Syme.
Ordinary Members of Committee.—Dr. W. B. Inglis Pollock, Dr. R. Stockman, Dr. P. Maguire, Dr. P. N. Grant, Dr. G. H. Edington, Dr. R. Jardine.

Vote of Thanks.—A vote of thanks was passed to Dr. Jardine for his services as Chairman during the past five years, and the same compliment was paid to Dr. Adams.

LANCASHIRE AND CHESHIRE BRANCH:

Leigh Division.

At the annual meeting of the above Division held on May 15th, the following officers were elected for the ensuing year:

Chairman.—M. J. Halton.
Honorary Secretary.—G. H. Shaw.
Representative on Branch Council.—H. S. Hall.
Executive Committee.—T. Gray, W. Y. Martin, W. G. Robertson, C. W. Turner.

It was decided to send a copy of the statement forwarded to the Lancashire Insurance Committee setting out the objections of the profession to inserting on medical certificates details of the nature of the illness, which is published at p. 458, to the Medical Committees of all insurance areas in Lancashire.

Oldham Division.

The annual meeting was held in the Oldham Royal Infirmary on May 15th.

Model Ethical Rules.—The Model Rules were adopted.

Representative's Expenses.—It was resolved to create a fund from which the expenses of the Representative at Representative Meetings could be defrayed, and for this purpose it was decided to make a levy of 5s. a member.

Agenda for Representative Meeting.—This matter was left to the new committee for consideration.

Votes of Thanks.—Votes of thanks were cordially passed to Dr. Maitland and Dr. Frank Radcliffe for the invaluable services which they had rendered to the Division as Chairman and Honorary Secretary during a series of years.

Election of Officers.—The following were appointed:

Chairman.—Dr. Frank Radcliffe.
Vice-Chairman.—Dr. Godson.
Representative.—Dr. Pochin.
Members of Branch Council.—Drs. Fort and Pochin.
Honorary Secretary. — Dr. Malcolm Hutton (Shaw, near Oldham).
Committee.—Drs. Maitland, Doble, Edward Kershaw, Lendrum.
Ethical Committee.—The above with Dr. Patterson.

Southport Division.

The annual meeting of this Division, to which all members of the profession resident in the area of the Division were invited, was held in the Masonic Room of the Victoria Hotel at 8 p.m. There was an attendance of fifteen.

Annual Report.—The annual report of the Executive Committee was read.

Election of Officers.—The following officers were elected for the ensuing year:

Chairman.—Dr. Mackay.
Vice-Chairman.—Dr. Schofield.
Representative at Representative Meetings.—Dr. Baildon.
Deputy Representative.—Dr. Schofield.
Representatives on Branch Council.—Dr. Baildon and Dr. Harris.
Honorary Secretary and Treasurer.—Dr. Harris.
Members of Executive Committee.—Drs. Brown, Corkhill, Penrose, and Pridie.

Matters Referred to Divisions.—A discussion took place on the matters referred to Divisions (Supplement of April 19th, May 3rd, and May 10th) and on letters from the Medical Secretary dealing with these and allied subjects. During its course attention was called to the paragraph in the annual report of the Council condemning canvassing and touting for patients in connexion with the National Insurance Act (Supplement, May 3rd, p. 376), and to the warning issued by the President of the General Medical Council (Supplement, March 22nd, 1913, p. 265). Resolutions were passed unanimously instructing the Representative to vote against the raising of the annual subscription of the Association, and against forming a trade union in connexion with it.

Co-ordination of Action of Divisions and Local Medical Committees.—The proposal of the Council that in order to promote the co-ordination of action between Divisions and Local Medical Committees, members of such committees and medical members of Insurance Committees who are ordinary members of the Association resident within the area, should by resolution of the Branch be made *ex officio* members of the Branch Council was discussed, and the Representative was instructed to use his judgement in voting on the subject.

Expenses of Representatives.—A communication was received from a Branch Secretary with reference to the share of the Southport Division in the cost of paying the expenses of members attending meetings of the Representative Body, Council, and Committees was read, and the Secretary was instructed to invite every member of the profession in the Division to subscribe a sum not exceeding 10s.

Reports of Medical Service Subcommittee.—The Secretary of the Local Medical Committee, at the request of the Division, undertook to call the attention of the Insurance Committee, of which he is a member, to the importance of making reports from the Medical Service Subcommittee private.

Election to the Central Council.—The Division unanimously resolved to nominate Mr. F. C. Larkin for election to the Central Council of the Association.

Reorganization of Branch.—The question of the reorganization of the Branch and Divisional areas was considered, but a decision postponed to a later meeting.

METROPOLITAN COUNTIES BRANCH:

HARROW DIVISION.

THE annual meeting was held on May 15th in the Gayton Rooms, Harrow, Dr. A. H. WILLIAMS in the chair.

Election of Officers.—The following were elected:

Chairman.—Dr. J. Davidson.
Vice-Chairman.—Dr. H. S. Wansbrough Jones.
Honorary Secretary and Treasurer.—Dr. C. M. Pennefather.
Representative in Representative Meetings.—Dr. C. M. Pennefather.
Deputy Representative in Representative Meetings.—Dr. P. K. Muspratt.
Ordinary Members of Executive Committee.—Drs. B. H. Barton and A. H. Williams (Harrow), W. E. Dyson (Wembley), H. R. Harley (Wealdstone), H. J. Hildige (Pinner), R. E. Humphrey (Northwood), P. K. Muspratt (Uxbridge), and R. L. Romer (Stanmore).
Representative on the Branch Council.—Dr. G. M. Edwards.

Report of Executive Committee.—The HONORARY SECRETARY read the report for the year. It stated that the past year had been one of exceptional activity, and numerous meetings had been held to consider the medical provisions of the Insurance Act. As a result of this no papers on scientific subjects had been read before the Division. Nine meetings of the Division had been held, and to all of these meetings non-members of the Association had been invited. The average attendance was 29.4. The Provisional Medical Committee had met on seven occasions, with an average attendance of 12.7, and had been mainly occupied in drafting a scheme on the lines of a public medical service, originally intended to provide medical attendance for both insured and uninsured persons. Owing to the formation of panels of medical men for the treatment of insured persons this scheme now referred only to uninsured persons and juveniles, and several clubs and friendly societies had intimated their acceptance of the scale of fees. The membership of the Division, which in June, 1912, was 73, was now 64, the reduction in membership being due to one death and removal of members to other Divisions. Local District Medical Committees had been formed for the following three areas of the County of Middlesex Insurance Committee contained within the Division, and had received official recognition:

1. For Harrow Urban District, Ruislip, Northwood Urban District, and Pinner Parish—Chairman, A. H. Williams; Honorary Secretary, H. J. Hildige.
2. For Wealdstone and Wembley Urban Districts, Stanmore Parish, Kingsbury and Edgware—Chairman, G. H. Butler; Honorary Secretary, W. E. Dyson.
3. For Uxbridge Urban and Rural Districts, Yiewsley and Hayes Urban Districts—Chairman, J. Davidson; Honorary Secretary, P. K. Muspratt.

The Division held its first social function on May 1st, 1913, when a complimentary dinner was given to Dr. A. H. Williams, who retires from the chair, a post he has held for the last two years.

The *Financial Report* showed a small balance in hand.

Business of the Annual Representative Meeting.—This was considered, and instructions given to the Representative.

MARYLEBONE DIVISION.

THE annual general meeting of the Division was held at the rooms of the Medical Society of London on May 19th, at 5 p.m., Mr. ATWOOD THORNE in the chair. Eighteen members and one visitor were present.

Annual Report.—The annual report was presented, discussed, and adopted.

Election of Officers and Representatives.—The following officers were elected:

Chairman.—Dr. Charles Lyall.
Vice-Chairman.—Mr. Bishop Harman.
Honorary Treasurer.—Dr. Comyns Berkeley.
Honorary Secretary.—Dr. Francis W. Goodbody.
Representatives to the Branch Council.—The Chairman, Miss Margaret Fraser, Dr. Gordon Holmes, Mr. Warren Low, Mr. Betham Robinson, Dr. F. J. Smith, and Dr. Percy Spurgin.
Representatives to the Representative Meetings.—Dr. W. Griffith, Mr. Bishop Harman, Dr. Gordon Lane, Dr. Montgomery-Smith, Dr. Newton Pitt, Dr. David Roxburgh, and Dr. Francis W. Goodbody.

Nominations for Officers of Branch Council.—The Division nominated the following:

President-elect.—Mr. Atwood Thorne.
Honorary Treasurer.—Mr. Atwood Thorne.
Honorary Secretaries.—Dr. Crosse, Mr. Bishop Harman.

Election to Central Council.—On the motion of Dr. GOODBODY, seconded by Dr. GORDON LANE, the Division decided to support the candidatures of Drs. G. M. Biggs, C. Buttar, E. C. Montgomery-Smith, and F. J. Smith to the Central Council.

Votes of Thanks.—On the motion of Dr. MONTGOMERY-SMITH, seconded by Mrs. MARY SCHARLIEB, a hearty vote of thanks was accorded to the Chairman and Secretary for their services during the past year. Mr. ATWOOD THORNE acknowledged the compliment. Dr. WALL proposed, and Dr. HOLMES seconded, a hearty vote of thanks to the Representatives for their services during the past year. This was carried, and Dr. GOODBODY replied.

STRATFORD DIVISION.

Presentation to the Honorary Secretary and Representative.

SOME seventy members of the medical profession residing in the Old Stratford Division of the British Medical Association attended at the Stratford Town Hall on May 1st for the purpose of presenting to Dr. J. S. Nicoll, J.P., and Dr. Percy Rose a testimonial as a mark of esteem and appreciation of the valuable services rendered by those gentlemen as Honorary Secretary and Representative respectively during the past ten years.

Dr. SANDERS presided; Dr. Cox, the Medical Secretary, attended to do honour to the occasion, and Dr. Haslip, President of the Metropolitan Counties Branch, made the presentation, which consisted of a large and handsome silver tray and two pairs of massive silver candlesticks to Dr. Nicoll and an English lever gold watch and chain to Dr. Rose, which were suitably inscribed. To the fund for the presentation 124 medical practitioners had subscribed.

Dr. HASLIP said that it was especially gratifying, at a time when officials of the Association were being severely criticized in many quarters, to find the medical men practising in that large area united in recognizing the labours ungrudgingly entered upon and pursued for years by these two local officials of their great Association.

Dr. NICOLL, in acknowledging the presentation, said that he must speak the words that came straight from his heart and try to express his feelings in ordinary language. The testimonial he had received was far too handsome, and the words of Dr. Haslip far too flattering, for no one was more conscious of his demerits than he himself. At the same time, he felt most deeply the recognition by his brother practitioners of any services he had been able to render them, and was indeed bountifully repaid for his work.

Dr. ROSE, in responding, said he had been proud to act for so long a period as the official mouthpiece of the Stratford Division. He had certainly tried to do his best, and it gave him intense satisfaction to find his professional brethren felt he had in some small degree succeeded.

Future Organization of the Profession.

The presentation was followed by a discussion on the future organization of the profession, which was opened by Dr. Cox, who urged the necessity of keeping the Association strong and active, as the one body which represented every section of the profession. He deprecated the expenditure of the energy of members of the profession in internal bickering and the raising of class distinctions when what was necessary was to remain united in face of the common enemy. He alluded to the formation of various bodies for the professed purpose of doing things which it was alleged that the Association could not do, and advised caution, as, in his opinion, a body representative of a large majority of the profession would be more effective in advancing its interests than a small body, even if the latter possessed all the powers of a trade union. Dr. Cox quoted a number of instances in which the British Medical Association had been able to be of general assistance to the profession, including the Royal Navy and the Indian Medical Services.

Dr. HASLIP deprecated dividing the profession into two classes—panel and non-panel, and said the Association was democratic enough to contain all classes.

The discussion was continued by, among others, Drs. ROSE, STEEN, and HAY; and Dr. Cox made a general reply.

Wimbledon Division.

The annual meeting of the Wimbledon Division was held on May 15th, Dr. Powell Evans in the chair.

Annual Report and Election of Officers.—The annual report was received and adopted, and the following officers elected for the year 1913–14:

Chairman.—Dr. Bentley (Mitcham).
Vice-Chairman.—Dr. P. Evans.
Honorary Secretary and Treasurer.—Dr. George Cowie.
Executive Committee.—Drs. Barton, Belilios, Brabyn, Faric, Nash, Purcell, and Randall.
Representative at Representative Meeting.—Dr. Deas.
Representative to Branch Council.—Dr. Purcell.

The meeting decided unanimously to join the Surrey Branch in the event of such a Branch being formed.

NORTH LANCASHIRE AND SOUTH WESTMORLAND BRANCH:

Furness Division.

The annual meeting of the Furness Division was held at the Masonic Club, Barrow-in-Furness, on May 16th. Dr. Daniel was voted to the chair, and thirteen other members were present.

Election of Officers.—The following officers were appointed for 1913–14:

Chairman.—Dr. Pooley.
Vice-Chairman.—Dr. Allen.
Honorary Secretaries.—Drs. Alexander and Thompson.
Representative at Representative Meetings.—To be appointed by Kendal Division.
Deputy Representative.—Dr. Callaghan.
Representatives on Branch Council.—Drs. Callaghan and Johnston.
Two Members of Executive Committee.—Drs. Daniel and Livingston.

Vote of Thanks.—On the motion of Dr. Alexander a vote of thanks was accorded with acclamation to Dr. Livingston, the retiring Secretary, who had held that position for five years, and who had worked so strenuously on behalf of the Association during the passage of the Insurance Bill through Parliament.

Juvenile Clubs.—A prolonged discussion took place on the question of juvenile clubs, in which most of the members present took part. Eventually a scheme for juvenile contract practice was drawn up, and the Secretaries were instructed to present it to the State Sickness Insurance Committee for approval.

SOUTH-EASTERN BRANCH:

Croydon Division.

The annual meeting of the Croydon Division was held on May 14th.

Model Ethical Rules.—The Ethical Rules were adopted.

Election of Officers.—The officers for the year 1913–14 were elected as follows:

Chairman.—Dr. J. A. Howard.
Vice-Chairman.—Dr. John Wayte.
Honorary Secretary.—Dr. E. H. Willock.
Assistant Secretary.—Dr. C. G. C. Scudamore.
Representatives for Representative Meeting.—Dr. E. G. C. Daniel, Dr. E. H. Willock.
Deputy Representative for Representative Meeting.—Dr. C. G. C. Scudamore.
Representatives on Branch Council.—Dr. C. Owen Fowler and Dr. C. G. C. Scudamore.
Executive Committee.—Drs. W. V. Braddon, A. B. Carpenter, G. A. Clarkson, A. Z. C. Cressy, E. G. C. Daniel, W. McD. Ellis, C. O. Fowler, G. G. Genge, W. Gripper, R. M. Hugo, C. W. H. Newington, F. Nicholls, A. A. H. Partridge, J. J. Redfern, E. N. Reichardt, J. S. Richards, C. Tylor, G. Wale, R. J. Willson, C. Wray.

SOUTHERN BRANCH:

Salisbury Division.

A meeting of this Division was held on May 7th, when sixteen members were present.

Election of Officers.—The following officers were elected for the ensuing year:

Chairman.—J. O. March.
Vice-Chairman.—G. Kempe.
Secretary and Treasurer.—J. Armitage.
Representative of Division.—J. E. Gordon.
Representatives on Branch Council.—W. W. Ord, T. B. Henderson.
Executive Committee.—Drs. Saunders, Fison, Gould, Luckham.
Member of Golf Committee.—Mr. T. B. Henderson.

Votes of Thanks.—A unanimous vote of thanks was accorded to Mr. L. D. Saunders for his arduous duties as Chairman of the Division during the preceding year. On the motion of Dr. Blackmore, a vote of thanks was accorded to Dr. J. E. Gordon for the exceptional services he had rendered to the Division, not only in his fifteen years of office, but particularly during the last year, when he did an enormous amount of work in connexion with the Insurance Act, and was also entirely responsible for the Public Medical Service.

Insurance Act.—Dr. J. E. Gordon said that the points mentioned in the letter from the Medical Secretary as proper to be brought to the notice of the County Insurance Committee—including mileage, certificates, remuneration, income limit, representation on Insurance Committee—were receiving the attention of the Local Medical Committee.

Annual Report and Financial Statement.—The annual report of the Division stated that there had been nine meetings of the Division held during the year 1912, with an average attendance of 25. The business of the meetings was almost entirely devoted to matters relating to the National Insurance Act. The balance in the hands of the Treasurer was £2 11s. 5½d. It was again decided to give the sum of £2 2s. to the Salisbury Infirmary as a recognition of its kindness in allowing the Divisional meetings to be held at the infirmary.

Ethical Rules.—The meeting unanimously decided to adopt the Model Ethical Rules for a Division, as published in the British Medical Journal Supplement of September 21st, 1912 (including Rule Z).

Alteration of Grouping of Divisions.—A letter was read from the Branch Secretary in reference to the alteration of the grouping of the Divisions. A general discussion took place on the subject, and the feeling expressed by the meeting was that an alteration of the boundaries of the Division would probably have to be made. It was thought that there should be further discussion on the matter after more information had been received from the Branch Council and the other Divisions of the Branch.

Election of Members of Central Council.—It was decided that the Salisbury Division should support the nomination of the other Divisions of the Branch, and that it was desirable that all the Divisions of the Branch should nominate the same candidate for membership of the Council of the Association.

Clinical Meetings.—On the motion of Dr. Williams-Freeman, seconded by Dr. Fison, it was unanimously resolved:

> That the Executive Committee consider the best means to insure the holding of clinical meetings at regular intervals and to make arrangements accordingly.

Presentation.—Before the meeting the members of the profession in the Salisbury Division presented their retiring Honorary Secretary, Dr. J. E. Gordon, with a gold watch, and Mrs. Gordon with a rose bowl, to show their great appreciation of the work they had done, and to serve as a reminder of the continued gratitude and good will of the profession. Out of 52 men in general practice in the area of the Division 49 subscribed to the testimonial.

WAKEFIELD, PONTEFRACT, AND CASTLEFORD DIVISION.

A meeting of this Division was held at the Clayton Hospital, Wakefield, on May 6th. Dr. J. W. Walker (Wakefield) was in the chair, and twelve other members were present.

Model Ethical Rules.—The revised model ethical rules, approved by the Representative Meeting of July, 1912, and printed in the Supplement of the British Medical Journal of September 21st and 28th, 1912, were unanimously adopted.

Fund for Payment of Representative.—The Treasurer (Dr. Steven) presented his account, showing that the expenses during last year amounted to ten guineas, leaving a balance of £22 10s. 6d. in the bank.

Congratulations to Officers.—Upon the proposal of Dr. Eardley, seconded by Dr. Walker, the congratulations of the Division were offered to Dr. May and Dr. Hillman, who have been appointed Chairman and Vice-Chairman respectively of the Local Medical Committee of the West Riding of Yorkshire.

Date of Next Meeting.—It was decided to hold the next meeting of the Division not later than the end of May or beginning of June to consider the annual report of Council and the provisional agenda of the Annual Representative Meeting.

Association Notices.

NOMINATIONS FOR COUNCIL, 1913–14.

ENGLAND AND WALES.

North of England, and North Lancashire and South Westmorland Branches:
David Fee Todd, L.R.C.P., Beech House, Sunderland.

Yorkshire Branch:
Henry Johnstone Campbell, M.D., 36, Manningham Lane, Bradford.

Lancashire and Cheshire Branch:
John Brown, M.D., Burwood House, Bacup.
Thomas Arthur Helme, M.D., 8, St. Peter's Square, Manchester.
Frederic Charles Larkin, F.R.C.S., 54, Rodney Street, Liverpool.

East York, North Lincoln, and Midland Branches:
Adam Fulton, M.B., Armoy, Easford, Nottingham.

Cambridge and Huntingdon, East Anglian, and South Midland Branches:
Boston Elphinstone Fordyce, M.B., 61, Chesterton Road, Cambridge.

Birmingham and Staffordshire Branches:
Albert Lucas, F.R.C.S., 9, Easy Row, Birmingham.

North Wales, Shropshire, and Mid-Wales, and South Wales and Monmouthshire Branches:
William Frederick Brook, F.R.C.S., Longlands House, Swansea.

Metropolitan Counties Branch:
Moses George Biggs, M.D., 101, Northcote Road, Battersea, S.W.
Charles Buttar, M.D., 10, Kensington Gardens Square, W.
Major Greenwood, M.D., 243, Hackney Road, N.E.
Edwin Charles Montgomery-Smith, M.R.C.S., L.R.C.P., 36, Abbey Road, St. John's Wood, N.W.
Basil Gordon Morison, M.D., 115, Green Lanes, N.
Frederick John Smith, M.D., 138, Harley Street, W.

Bath and Bristol, Gloucestershire, West Somerset, and Worcestershire and Herefordshire Branches:
George Parker, M.D., 14, Pembroke Road, Bristol.

Dorset and West Hants and South-Western Branches:
Frank Fowler, M.D., 29, Poole Road, Bournemouth.

Oxford and Reading and Southern Branches:
Bonner Harris Mumby, M.D., Boro' Asylum, Portsmouth.

South-Eastern Branch:
Charles Henry Benham, M.D., 27, Sackville Road, Hove.
Thomas Barrett Heggs, M.D., Town Hall, Sittingbourne, Kent.
Cyril Courtenay Lord, M.R.C.S., L.R.C.P., 155, High Street, Gillingham, Kent.
John Scott, M.B., 18, Widmore Road, Bromley, Kent.

SCOTLAND.

Aberdeen, Northern Counties of Scotland, Dundee, and Perth Branches:
John Gordon, M.D., 1, Rubislaw Terrace, Aberdeen.

Edinburgh and Fife Branches:
John Rogerson Hamilton, M.D., Elm House, Hawick, N.B.

Glasgow and West of Scotland Branch (Four City Divisions):
John Adams, M.B., 1, Queen's Crescent, Glasgow.

Glasgow and West of Scotland (Four County Divisions), Border Counties, and Stirling Branches:
James Livingstone Loudon, M.D., Linnwood, Hamilton, N.B.

IRELAND.

Connaught and South-Eastern of Ireland Branches:
Denis Walshe, L.R.C.P.I., Graigue, co. Kilkenny.

Leinster Branch:
No nomination.

Munster Branch:
Professor Henry Corby, M.D., 19, St. Patrick's Place, Cork.

Ulster Branch:
Robert James Johnstone, F.R.C.S., 14, University Square, Belfast.

SPECIAL MEETING OF COUNCIL.

A SPECIAL Meeting of the Council will be held at Eleven o'clock in the forenoon of Friday, June 13th, in the Council Room at 429, Strand, London, W.C., to consider a Report of the Organization Committee on the Reform of the Present Constitution of the Association.

By Order,

GUY ELLISTON,

May 22nd, 1913. *Financial Secretary and Business Manager.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—Mr. W. M. Beaumont (4, Gay Street, Bath) and Dr. Newman Neild (9, Richmond Hill, Clifton, Bristol) Honorary Secretaries, give notice that the annual meeting of the Branch will be held on Wednesday, May 28th, in the Museum, Bath, at 5.30 p.m., when Dr. Roxburgh will resign the chair to Dr. J. Wigmore, President-elect, who will deliver the presidential address. The business of the meeting will be to receive the report of the Council and the Annual Financial Statement; to elect the officers of the Branch; to receive the report of the election of members of Council and of the Representatives of Divisions; to transact the necessary business; and to consider such subjects connected with the interest of the Branch and of the profession as may be brought before it.

BIRMINGHAM BRANCH.—Mr. J. Furneaux Jordan and Dr. J. G. Emanuel, Honorary Secretaries (9, Newhall Street, Birmingham), give notice that the annual meeting of the Birmingham Branch will be held in the Medical Institute on Thursday, June 19th, at 3 p.m. Business: Election of officers. Annual report and financial statement. Inaugural address by the incoming President, Mr. W. F. Haslam.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—Drs. Laurence E. Price and Duncan Davidson, Honorary Secretaries (15, Priory Row, Coventry), give notice that the annual meeting of the constituency of the Nuneaton and Tamworth and Coventry Divisions will be held at 3.30 p.m. on Thursday, June 5th, at the Coventry Hospital, to elect a Representative for the Brighton Meeting, and any other business. At the conclusion of this meeting the annual meeting of the Coventry Division will be held for the election of officers, to consider a proposed alteration of date of meetings, and to receive the report of the Executive Committee.

MALTA AND MEDITERRANEAN BRANCH.—Dr. A. V. Bernard, Honorary Secretary (Valetta) gives notice that the annual meeting of the Branch will be held at the Central Civil Hospital, Floriana, on May 31st, at 4 p.m.

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—Dr. A. G. Southcombe, Honorary Secretary (83, Sidney Road, Homerton, N.E.), gives notice that the eleventh annual general meeting of the Division will be held in Balfour Hall, Dunstan Street, Kingsland Road, on Friday, May 30th, at 3.30 p.m.

METROPOLITAN COUNTIES BRANCH: EAST HERTFORDSHIRE DIVISION.—Dr. H. D. Ledward, Honorary Secretary (123, Norton Way, Letchworth) gives notice that the first annual meeting of the Division will be held at 2.30 p.m., on Friday, June 20th, at the Town Hall, Ware, to elect officers, the Representative of the Division on the Branch Council, the ordinary members of the Executive Committee, and the Representative of the Division in Representative Meetings. To receive the Honorary Secretary's Annual Report. To alter Rule I defining the area of the Division in accordance with the decision of the Organization Committee of the Association. To consider the business of the Annual Representative Meeting and instruct the Representative thereon.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—Drs. Walter E. Fry and P. C. Raiment, Honorary Secretaries, give notice that the annual meeting will take place at Kensington Town Hall on Friday, June 13th, at 5 p.m., for the transaction of the following business: Annual report. Elect officers and Representatives for 1913–14, and elect Executive Committee.

NORTHERN COUNTIES OF SCOTLAND BRANCH: INVERNESSSHIRE DIVISION.—Dr. J. W. Mackenzie, Honorary Secretary (5, Castle Street, Inverness) gives notice that the annual meeting of the Division will be held at the Northern Infirmary, Inverness, on Wednesday, May 28th, at 3.30 p.m. Business: Executive Committee's Report. To elect Office-bearers and Representative and Deputy Representative in the Annual Representative Meeting, and to consider the business of that meeting. Members are requested to bring to the meeting the BRITISH MEDICAL JOURNAL SUPPLEMENT of April 19th, May 3rd and 10th, which contain matters specially referred to the Division.

South-Eastern Branch.—Dr. E. A. Starling, Honorary Secretary (Chillingworth House, Tunbridge Wells), gives notice that the sixty-ninth annual meeting of the Branch will be held on Wednesday, June 11th, at 1.30 p.m., at the Lion Hotel, High Street, Guildford. Dr. Arthur M. Mitchell (President-elect) invites members to lunch at the Lion Hotel, High Street, at 12.45 p.m. sharp. Agenda: In addition to the business of an ordinary meeting, (1) to receive the report of the election of officers for 1913–14; (2) to receive the annual report of the Council and financial statement, and (3) the ethical rules presented by the Council; (4) to consider the following resolution: "The South-Eastern Branch Council advise the Branch to request the Council of the Association to consent to the division of the unwieldy South-Eastern Branch into three Branches, corresponding with the three counties of Kent, Sussex, and Surrey." An excursion is arranged for the afternoon, to view the Lord Mayor Treloar's Cripples' Home at Alton, where Dr. and Mrs. Gauvain kindly invite the members to tea. The special train leaves Guildford Station at 2.40 p.m., returning about 5.30 p.m. Tickets for the return journey, 3s. 6d. each. The annual dinner will be held at the Lion Hotel, at 6.30 p.m. Members intending to be present at the lunch, excursion, or dinner wishing hospitality for the night are requested to signify their intention to Cecil P. Lankester, Esq., 1, Rectory Place, Guildford, not later than Saturday, June 7th.

South Midland Branch: Northamptonshire Division.—Dr. P. S. Hichens, Honorary Secretary, gives notice that the annual meeting of the Division will be held in the Board Room of the Northampton General Hospital on May 29th, at 2.30 p.m. The meeting will be preceded by a luncheon at Franklin's Restaurant, Guildhall Road, at 1.30 p.m. Those wishing to attend the luncheon should notify the Honorary Secretary two days beforehand. Agenda: Election of officers for the ensuing year. Annual report of the Division. Consideration of agenda for the Representative Meeting. Consideration of other memoranda sent down from the Association. If time permits some clinical cases will be shown.

Worcestershire and Herefordshire Branch.—Dr. S. Colen Legge, Honorary Secretary (24, Foregate Street, Worcester), gives notice that a meeting of the Branch will be held at the Imperial Hotel, Malvern, on May 29th, at 4.15 p.m.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In ninety-six of the largest English towns 9,018 births and 4,765 deaths were registered during the week ending Saturday, May 10th. The annual rate of mortality in these towns, which had been 15.8, 14.8, and 14.2 per 1,000 in the three preceding weeks, further fell to 13.9 per 1,000 in the week under notice. In London the death-rate was equal to 13.6, against 16.4, 14.8, and 14.2 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 7.5 in Acton, 8.1 in Bournemouth, 8.3 in Edmonton, 8.6 in Eastbourne, 8.8 in Southend-on-Sea, and 9.6 in Leyton and in Ilford to 18.8 in Carlisle and in Aberdare, 19.9 in Stockton-on-Tees, 20.2 in Bootle, 20.3 in Middlesbrough, and 22.3 in Walsall. Measles caused a death-rate of 1.6 in Wolverhampton, 2.3 in Edmonton, 2.7 in Wimbledon, 3.5 in Smethwick, 4.5 in Walsall, and 5.8 in St. Helens, and whooping-cough of 1.3 in Stoke-on-Trent, 1.4 in Bootle, and 1.6 in Brighton. The mortality from the remaining epidemic diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 38, or 0.8 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; of this number 6 were recorded in Birmingham, 6 in Liverpool, and 2 each in Warrington, Manchester, Preston, Barrow-in-Furness, and South Shields. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,334, 1,339, and 1,375 at the end of the three preceding weeks, had further risen to 1,403 on Saturday, the 10th inst.; 206 new cases were admitted during the week, against 215, 185, and 216 in the three preceding weeks.

In ninety-six of the largest English towns 7,833 births and 4,368 deaths were registered during the week ending Saturday, May 17th. The annual rate of mortality in these towns, which had been 14.8, 14.2, and 13.9 per 1,000 in the three preceding weeks, further fell to 12.8 per 1,000 in the week under notice. In London the death-rate was equal to 12.0, against 14.8, 14.2, and 13.6 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rate ranged from 5.8 in Oxford, 6.4 in Great Yarmouth, 6.6 in Ilford, 7.0 in Reading and in Lincoln, and 7.7 in Tynemouth and in Newport (Mon.) to 18.1 in Sunderland, 19.0 in Walsall, 19.2 in Brighton, 20.3 in Stoke-on-Trent, 20.8 in Preston, and 22.9 in Wakefield. Measles caused a death-rate of 1.7 in Stoke-on-Trent, 2.2 in Wolverhampton and in Salford, 2.7 in Wimbledon, 3.1 in St. Helens, and 4.5 in Walsall. The mortality from the remaining infective diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 36, or 0.8 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; of this number 6 were registered in Birmingham and 2 each in Stoke-on-Trent, Liverpool, St. Helens, Bury, Preston, and South Shields. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,339, 1,375, and 1,403 at the end of the three preceding weeks, had further risen to 1,411 on Saturday, May 17th; 171 new cases were admitted during the week, against 185, 216, and 206 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In the sixteen largest Scottish towns 1,174 births and 719 deaths were registered during the week ending Saturday, May 10th. The annual rate of mortality in these towns, which had been 17.7, 17.3, and 17.2 per 1,000 in the three preceding weeks, further fell to 16.6 in the week under notice, but was 2.7 per 1,000 above the rate in the ninety-six large English towns. Among the several Scottish towns the death-rates ranged from 6.0 in Kilmarnock, 9.2 in Ayr, and 11.0 in Clydebank to 18.0 in Coatbridge, 22.8 in Aberdeen, and 23.8 in Perth. The mortality from the principal infective diseases averaged 2.4 per 1,000, and was highest in Perth and Aberdeen. The 343 deaths from all causes registered in Glasgow included 26 from whooping-cough, 12 from measles, 11 from infantile diarrhoeal diseases, 6 from diphtheria, and 2 from scarlet fever. Sixteen deaths from measles, 3 from whooping-cough, and 2 from diphtheria were recorded in Aberdeen; 4 from whooping-cough in Edinburgh, 3 in Motherwell, 2 in Paisley, and 2 in Hamilton; and 5 from infantile diarrhoeal diseases in Dundee.

In the sixteen largest Scottish towns 1,250 births and 711 deaths were registered during the week ending Saturday, May 17th. The annual rate of mortality in these towns, which had been 17.3, 17.2, and 16.6 per 1,000 in the three preceding weeks, further fell to 16.4 in the week under notice, but was 3.6 per 1,000 above the rate recorded in the ninety-six large English towns. Among the several towns the death-rates ranged from 7.3 in Falkirk, 8.9 in Motherwell, and 11.0 in Clydebank to 20.3 in Hamilton, 20.4 in Coatbridge, and 23.5 in Kirkcaldy. The mortality from the principal infective diseases averaged 2.1 per 1,000, and was highest in Falkirk and Aberdeen. The 341 deaths from all causes registered in Glasgow included 18 from whooping-cough, 13 from measles, 7 from infantile diarrhoeal diseases, 3 from scarlet fever, and 1 from enteric fever. Eight deaths from whooping-cough were recorded in Edinburgh, 2 in Aberdeen, and 2 in Greenock, and 16 deaths from measles in Aberdeen and 3 in Dundee.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, May 10th, 629 births and 443 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 725 births and 425 deaths in the preceding period. These deaths represent a mortality of 19.3 per 1,000 of the aggregate population in the districts in question, as against 18.5 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 5.4 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 27.4 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 20.4 as against an average of 21.4 for the previous four weeks, in Dublin city 23.9 (as against 23.1), in Belfast 17.1 (as against 18.3), in Cork 23.8 (as against 24.1), in Londonderry 5.1 (as against 13.0), in Limerick 24.4 (as against 21.3), and in Waterford 20.9 (as against 16.6). The zymotic death-rate was 1.2 as against 0.9 in the previous week.

ENGLISH URBAN MORTALITY IN THE FIRST QUARTER OF 1913.

[Specially Reported for the "British Medical Journal."]

In the accompanying table will be found summarized the vital statistics of ninety-six of the largest English towns, based upon the Registrar-General's weekly returns for the first quarter of the year. The 113,172 births registered in these towns during the quarter were equal to an annual rate of 25.4 per 1,000 of the population, estimated at 17,852,766 in the middle of the year. In London the birth-rate last quarter was 25.7 per 1,000, while among the ninety-five other large towns it ranged from 13.1 in Hastings, 14.3 in Southport, 15.2 in Bournemouth, 15.3 in Bath, 15.4 in Hornsey, 16.0 in Blackpool, and 17.0 in Ilford to 31.7 in St. Helens and in Stockton-on-Tees, 32.0 in West Ham, 32.1 in Middlesbrough, 32.5 in Rhondda, and 32.9 in Warrington.

The 75,154 deaths registered in these towns during the quarter under notice corresponded to an annual rate of 16.9 per 1,000. In London the death-rate was 17.5 per 1,000, while among the other towns it ranged from 10.9 in Hornsey, 11.0 in Ilford, 11.2 in Ealing, 11.3 in Gillingham, 11.4 in Enfield, 11.6 in Eastbourne, and 11.8 in Walthamstow to 20.3 in West Hartlepool, 20.5 in Liverpool, 20.7 in Bootle and in South Shields, 21.7 in Preston, 22.1 in West Bromwich, 23.8 in Wigan, 24.7 in Stockton-on-Tees, and 25.7 in St. Helens.

The 75,154 deaths from all causes included 170 which were referred to enteric fever, 3,112 to measles, 312 to scarlet fever, 913 to whooping-cough, 668 to diphtheria, and 969 (among children under 2 years of age) to diarrhoea and enteritis. The 170 deaths from enteric fever were equal to an annual rate of 0.04 per 1,000; in London the rate from this disease was 0.03 per 1,000, while among the other towns it ranged upwards to 0.15 in Gillingham, in Wakefield and in Stockton-on-Tees, 0.17 in Preston, 0.20 in Stoke-on-Trent, and 0.24 in Merthyr Tydfil. The 3,112 fatal cases of measles corresponded to an annual rate of 0.70 per 1,000; in London the rate was of 0.75 per 1,000, while among the other towns it ranged upwards to 2.22 in Stockton-on-Tees, 2.34 in Barrow-in-Furness, 2.92 in Swindon, 4.55 in Wigan, 5.17 in West Bromwich, and 5.65 in St. Helens. The 312 deaths from scarlet fever were equal to an annual rate of 0.07 per 1,000; in London the scarlet fever death-rate was 0.05 per 1,000, while it ranged upwards in the other towns to 0.28 in Cambridge and in Darlington, 0.32 in Rhondda, 0.40 in St. Helens, 0.41 in Preston, and 0.46 in Aberdare. The 913 fatal cases of whooping-cough corresponded to an annual death-rate of 0.21 per 1,000; in London the death-rate from this disease was 0.27 per 1,000, while among the other towns it ranged upwards to 0.53 in Ipswich, 0.57 in Wigan, 0.77 in Acton, 0.81 in Warrington, 0.84 in Cambridge, and 0.93 in Rotherham. The 668 deaths from diphtheria were equal to an annual rate of 0.15 per 1,000; in London the mortality from this cause was at the rate of 0.10 per 1,000, while among the other towns it ranged upwards to 0.40 in Burnley, 0.47 in Swansea, 0.52 in Rhondda, 0.53 in Portsmouth, 0.66 in Coventry, and 0.80 in Barrow-in-Furness. The 969 deaths from diarrhoea and enteritis among children under 2 years of age were equal to a rate of 8.56 per 1,000 of the births registered during the quarter; in London the proportion was 10.30 per 1,000, while in the other large towns it ranged upwards to 13.61 in Ipswich, 13.73 in Salford, 16.00 in Oxford, 16.31 in Burnley, 16.89 in Bolton, 21.29 in Stoke-on-Trent, and 30.24 in West Bromwich.

Infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births, was equal to 125 per 1,000 last quarter. In London the rate of infant mortality was 116 per 1,000, while among the other towns the rates ranged from 65 in Hornsey, 68 in Gillingham, 69 in Eastbourne, 70 in Devonport, and 73 in East Ham to 177 in West Hartlepool, 183 in Rotherham and in Carlisle, 185 in St. Helens, 187 in Stoke-on-Trent, 202 in Preston, and 230 in Wigan.

The causes of 654, or 0.9 per cent., of the deaths registered in the ninety-six towns last quarter were not certified either by a registered medical practitioner or by a coroner. In 38 of the towns the causes of all the deaths were duly certified; among the other towns the highest proportions per cent. of uncertified deaths were 3.2 in Gillingham, 3.4 in Coventry and in Southport, 3.6 in Birmingham, 4.2 in Tynemouth, 4.6 in Bootle, 4.8 in Dudley, 5.4 in Warrington, 5.6 in Gateshead, and 6.8 in Darlington.

Analysis of the Vital Statistics of Ninety-six of the Largest English Towns during the First Quarter of 1913.

Towns.	Estimated Population middle of 1913.	Births.	Deaths.	Annual rate per 1,000 Living.		Deaths from							Deaths of Children under 1 year of age to 1,000 Births.	Rate per Cent. of Uncertified Deaths.
				Births.	Deaths.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping-cough.	Diphtheria.	Diarrhœa and Enteritis (under 2 years of age).		
96 Towns	17,852,766	113,172	75,154	25.4	16.9	170	—	3,112	312	913	668	969	125	0.9
London	4,518,191	28,945	19,695	25.7	17.5	29	—	845	52	300	113	298	116	0.1
Croydon	178,094	914	601	20.6	13.5	3	—	21	2	8	4	5	109	—
Wimbledon	58,156	279	181	19.2	12.5	1	—	6	—	1	4	3	125	—
Ealing	67,977	318	189	18.8	11.2	—	—	3	1	2	—	1	113	—
Acton	62,230	356	232	23.0	15.0	—	—	23	—	12	2	3	121	0.4
Willesden	163,655	970	530	23.8	13.0	1	—	40	1	11	1	2	111	0.2
Hornsey	87,596	336	237	15.4	10.9	1	—	8	—	4	2	—	65	0.4
Tottenham	145,736	918	474	25.3	13.0	—	—	19	2	3	6	9	107	—
Edmonton	69,086	474	249	27.5	14.5	—	—	30	—	2	3	2	127	—
Enfield	59,597	326	170	21.9	11.4	—	—	7	—	—	—	—	110	1.2
West Ham	294,223	2,347	1,237	32.0	16.9	4	—	61	6	12	11	22	101	0.4
East Ham	142,467	898	426	25.3	12.0	—	—	14	2	2	5	5	73	—
Leyton	130,922	757	390	23.2	11.9	—	—	19	—	6	2	4	77	—
Walthamstow	131,636	772	388	23.5	11.8	1	—	11	—	4	11	5	85	—
Ilford	87,040	368	238	17.0	11.0	—	—	18	1	1	2	—	84	—
Gillingham	54,530	325	154	23.9	11.3	2	—	—	—	—	2	—	68	3.2
Hastings	60,095	197	229	13.1	15.3	—	—	2	1	2	1	3	96	—
Eastbourne	54,691	233	168	17.1	11.6	1	—	21	1	—	2	—	69	—
Brighton	133,096	643	502	19.4	15.1	1	—	—	5	13	1	5	118	—
Portsmouth	241,256	1,534	906	25.5	15.1	3	—	1	3	9	32	11	106	0.6
Bournemouth	83,205	315	286	15.2	13.8	—	—	—	—	6	1	3	89	—
Southampton	122,412	728	428	23.9	14.0	—	—	15	—	—	3	2	78	—
Reading	89,339	441	299	19.8	13.4	2	—	—	—	6	3	2	111	0.3
Oxford	53,937	250	219	18.6	16.3	—	—	1	—	1	1	4	116	—
Northampton	90,793	456	356	20.2	15.7	1	—	35	3	1	6	5	118	—
Cambridge	57,696	257	212	18.1	14.9	—	—	—	4	12	1	—	113	0.5
Southend-on-Sea	70,825	327	222	18.5	12.6	1	—	7	—	2	2	2	110	2.3
Ipswich	75,682	441	294	23.4	15.6	—	—	1	1	10	4	6	113	—
Great Yarmouth	57,005	320	203	22.5	14.3	—	—	3	—	2	—	—	88	0.5
Norwich	123,288	714	434	23.2	14.1	1	—	2	3	7	3	3	83	—
Swindon	52,128	328	244	25.2	18.8	—	—	38	2	5	—	—	116	—
Plymouth	113,083	681	538	24.2	19.1	2	—	37	3	2	3	7	129	—
Devonport	84,371	513	267	24.4	12.7	—	—	4	1	1	8	3	70	—
Bath	69,944	267	291	15.3	16.7	—	—	28	—	6	—	2	146	—
Bristol	361,362	1,971	1,400	21.9	15.5	—	—	20	1	25	7	6	119	—
Gloucester	50,533	303	200	24.0	15.9	1	—	12	1	—	2	1	92	3.0
Stoke-on-Trent	239,284	1,879	1,186	31.5	19.9	12	—	18	2	29	23	40	187	2.4
Wolverhampton	95,601	642	441	26.9	18.5	—	—	37	—	9	3	5	137	—
Walsall	93,477	726	386	31.2	16.6	1	—	13	—	7	5	4	136	—
West Bromwich	69,088	496	381	28.8	22.1	—	—	89	—	7	—	15	167	1.0
Dudley	51,641	369	229	28.7	17.8	1	—	—	1	2	—	4	144	4.8
Birmingham	859,644	5,803	3,562	27.1	16.6	6	—	272	53	16	46	72	130	3.6
Smethwick	74,565	495	251	26.6	13.5	1	—	10	3	2	1	4	139	0.8
Coventry	115,064	768	441	26.8	15.4	1	—	7	—	3	19	4	132	3.4
Leicester	230,970	1,291	873	22.4	15.2	1	—	13	2	3	7	12	134	0.2
Lincoln	59,322	372	228	25.2	15.4	—	—	2	2	7	1	2	124	0.9
Grimsby	77,420	528	286	27.4	14.8	—	—	17	—	3	1	4	110	0.7
Nottingham	264,735	1,498	1,066	22.7	16.2	2	—	—	4	26	5	14	136	0.1
Derby	125,462	752	485	24.0	15.5	1	—	6	1	—	—	1	129	—
Stockport	112,480	636	443	22.7	15.8	2	—	—	1	2	3	7	132	0.2
Birkenhead	135,557	942	550	27.9	16.3	—	—	4	1	15	9	5	102	—
Wallasey	84,476	460	275	21.8	13.1	—	—	9	1	3	—	2	85	—
Liverpool	756,553	5,777	3,864	30.6	20.5	5	—	143	9	81	21	59	130	2.6
Bootle	72,186	506	372	28.1	20.7	—	—	25	—	8	1	5	170	4.6
St. Helens	99,469	785	638	31.7	25.7	1	—	140	10	4	5	5	185	3.0
Southport	71,092	254	265	14.3	15.0	—	—	1	1	2	—	3	87	3.4
Wigan	90,763	631	539	27.9	23.8	3	—	103	—	13	—	5	230	—
Warrington	74,065	608	313	32.9	17.0	2	—	8	—	15	—	3	138	5.4
Bolton	183,879	1,066	825	23.3	18.0	6	—	38	2	6	7	18	143	0.4
Bury	59,159	308	259	20.9	17.6	—	—	10	—	1	1	—	140	2.7
Manchester	730,976	4,706	3,218	25.8	17.7	11	—	89	18	25	38	61	128	0.3
Salford	233,849	1,530	950	26.2	16.3	7	—	14	2	7	6	21	127	0.3
Oldham	149,936	921	686	24.6	18.4	—	—	2	4	4	4	9	147	—
Rochdale	93,420	505	395	21.7	17.0	3	—	5	2	—	1	3	85	0.5
Burnley	109,021	613	501	22.6	18.4	1	—	—	1	2	11	10	170	2.8
Blackburn	133,971	727	605	21.8	18.1	1	—	1	—	8	1	8	140	2.1
Preston	118,070	688	638	23.4	21.7	5	—	60	12	3	4	8	202	2.7
Blackpool	61,012	243	240	16.0	15.8	—	—	1	—	—	3	—	111	2.1
Barrow-in-Furness	65,252	502	315	30.9	19.4	1	—	38	3	—	13	6	129	2.5
Huddersfield	110,882	538	446	19.5	16.1	—	—	9	6	—	3	1	78	—
Halifax	100,740	459	441	18.3	17.6	3	—	5	1	2	3	3	100	1.8
Bradford	290,540	1,420	1,126	19.6	15.5	2	—	2	4	10	20	2	92	—
Leeds	457,295	2,696	2,041	23.6	17.9	3	—	55	5	19	16	13	135	0.0
Dewsbury	53,855	319	255	23.8	19.0	1	—	3	2	1	1	3	163	—
Wakefield	52,291	295	216	22.7	16.6	2	—	1	—	1	1	3	159	—
Barnsley	52,897	391	242	29.6	18.4	—	—	4	—	2	1	1	159	—
Sheffield	471,662	3,255	2,140	27.7	18.2	5	—	227	11	8	15	16	134	1.1
Rotherham	64,432	482	321	30.0	20.0	—	—	5	1	15	4	3	183	1.6
York	83,329	529	319	25.5	15.4	—	—	—	—	2	3	3	121	—
Hull	287,032	2,000	1,102	27.9	15.4	2	—	5	—	8	11	9	106	0.6
Middlesbrough	107,993	864	480	32.1	17.8	—	—	9	3	—	3	11	140	1.3
Darlington	58,295	374	249	25.7	17.1	1	—	7	4	1	5	—	115	6.8
Stockton-on-Tees	52,316	414	322	31.7	24.7	2	—	29	1	5	2	1	174	1.2
West Hartlepool	64,234	474	325	29.6	20.3	2	—	20	—	—	4	—	177	0.9
Sunderland	152,377	1,171	766	30.8	20.2	1	—	30	1	2	9	3	146	1.7
South Shields	110,513	862	571	31.3	20.7	—	—	48	3	3	1	2	123	3.0
Gateshead	118,601	889	617	30.1	17.5	3	—	9	1	3	3	4	145	5.6
Newcastle-on-Tyne	271,295	1,855	1,250	27.4	18.5	4	—	49	3	17	13	4	150	0.4
Tynemouth	60,601	440	262	29.1	17.3	2	—	2	3	—	3	2	98	4.2
Carlisle	52,630	273	230	20.8	17.5	—	—	2	—	3	1	1	183	2.6
Newport (Mon.)	87,626	558	374	25.5	17.1	1	—	21	6	—	6	3	142	0.3
Cardiff	186,554	1,177	673	25.3	14.5	1	—	1	2	4	13	7	118	—
Rhondda	162,137	1,312	675	32.5	16.7	—	—	26	13	9	21	10	161	0.7
Merthyr Tydfil	83,808	628	330	30.1	15.8	5	—	5	3	2	3	7	153	0.3
Aberdare	52,619	398	232	30.3	17.7	—	—	7	6	3	2	3	173	—
Swansea	119,485	850	464	28.5	15.6	1	—	4	2	2	14	10	139	0.2

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following announcements are notified by the Admiralty:

Surgeon-General Sir JAMES PORTER, K.C.B., Director-General of the Medical Department, has been placed on the retired list at his own request, May 11th.

Surgeon-General ARTHUR W. MAY, C.B., Director-General of the Medical Department, has been granted the relative rank of Vice-Admiral, May 11th.

Surgeon-General Sir THOMAS D. GIMLETTE, K.C.B., has been placed on the retired list at his own request, May 6th. Deputy Surgeon-General JOHN J. DENNIS, M.D., has been promoted to the rank of Surgeon-General, May 11th. Deputy Surgeon-General WILLIAM TAIT, M.B., has been placed on the retired list at his own request, May 6th. Staff Surgeon D. G. ADDISON-SCOTT, M.B., to the *Excellent*, additional for *Albermarle*, May 22nd. Surgeon ALBERT E. MALONE, to the *Vivid*, additional for disposal, May 24th. Surgeon HAMLET M. WHELAN, to the *Vivid*, for disposal, May 24th. Surgeon ROBERT F. CORY, B.A., to the *Pembroke*, additional for disposal, May 24th. Surgeon HENRY STC. COLSON, to the *Pembroke*, additional for disposal, May 24th. Surgeon GEORGE A. FINEGAN, to the *Victory*, additional for disposal on termination of appointment to *Excellent*, undated. Surgeon JOHN T. D. S. HIGGINS, M.B., B.A., to the *Victory* for disposal, to be lent to the R.N. Barracks, vice Fairley, May 24th. Surgeon JACKSON G. BOAL, M.B., to the *Temeraire*, vice Sankey, June 5th. Surgeon FREDERICK ST. B. WICKHAM, to the *Pembroke* for disposal, May 24th. Surgeon SIDNEY PUNCH, to the *Victory* for disposal, May 24th. Surgeon O. F. O. SANKEY, M.B., to the *Dwarf*, on recommissioning, June 5th. Surgeon HERBERT STONE, M.B., has been placed on the retired list, April 30th.

ROYAL NAVAL VOLUNTEER RESERVE.

The following have been appointed Surgeons, with seniority of April 26th, and attached to the Clyde Division: DUNCAN LORIMER, HUGH S. REID, and DAVID P. D. WILKIE.

FREDERICK S. HEWETT, M.D., has been appointed Surgeon, unattached, May 5th.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

MAJOR T. F. RITCHIE, lately serving in West Africa, has joined the London district for duty.

Brevet-Major ARTHUR B. SMALLMAN, M.B., to be Assistant Instructor at the School of Army Sanitation, March 3rd.

Captain CHARLES G. THOMSON to be Major, May 3rd.

Captain G. G. COLLET has been granted leave for six months, *ex* India.

Captain C. A. T. CONYNGHAM has been appointed a Specialist in Dermatology, 5th (Mhow) Division, with effect from April 14th.

Captain F. A. H. CLARK has been appointed to the charge of the Brigade Laboratory, Calcutta, with effect from April 8th.

INDIAN MEDICAL SERVICE.

MAJOR R. H. PRICE, I.M.S., is appointed a Specialist in Advanced Operative Surgery, with effect from March 25th, 1913.

Major THOMAS STODART has been appointed Lieutenant-Colonel, January 30th.

Major F. N. WINDSOR has been granted combined leave for one year and eight months with effect from May 1st, 1913.

The services of Major H. R. NUTT have been placed permanently at the disposal of the Government of the United Provinces.

The promotion of Major FELIX OSWALD N. MELL, M.A., to his present rank is antedated from July 9th, 1908, as notified in the *Gazette* of October 20th, 1908, to January 29th, 1908.

The promotion of Major GEORGE BROWSE, M.D., to his present rank is antedated from January 27th, 1912, as notified in the *Gazette* of March 22nd, 1912, to July 27th, 1911.

The services of Captain R. A. LLOYD, I.M.S., have been placed at the disposal of the Central Provinces Administration for officiating civil employment.

Captain N. N. ROBSON, I.M.S., is appointed a Specialist in Mental Science, with effect from April 1st, 1913.

Captain D. G. COOPER, I.M.S., is appointed a Specialist in Electrical Science, with effect from March 21st, 1913.

Captain E. W. O'G. KIRWAN, I.M.S., is appointed a Specialist in Electrical Science, with effect from March 25th, 1913.

Captain H. P. COOK has been appointed to officiate as Civil Surgeon, Wano, with effect from April 11th, 1913.

The King has approved of the confirmation of the commission of the following Lieutenant on probation, with effect from July 27th, 1912: JORDAN C. JOHN, M.B.

TERRITORIAL FORCE.

ARMY MEDICAL SERVICE.

LIEUTENANT-COLONEL ASTLEY V. CLARKE, M.D., from the Fifth North General Hospital, to be Colonel, on appointment as Assistant Director of Medical Services of the North Midland Territorial Division, May 10th.

ROYAL ARMY MEDICAL CORPS.

Major JAMES R. KAYE, M.B., Sanitary Officer of the West Riding Territorial Division, to be Lieutenant-Colonel, May 17th.

Third West Riding Field Ambulance.—Lieutenant-Colonel THOMAS S. ADAIR, M.D., on completion of his period of service in command of a field ambulance, is retired, and is granted permission to retain his rank and to wear the prescribed uniform, May 17th.

Third London General Hospital.—HARRY E. BRUCE BRUCE-PORTER (formerly Surgeon-Captain, Army Medical Staff) to be Lieutenant-Colonel in the permanent personnel, March 12th.

Third Northern General Hospital.—Lieutenant-Colonel JOHN S. WHITE, M.D., F.R.C.S., from the permanent personnel, to be Lieutenant-Colonel, whose services will be available on mobilization, May 17th.

Second Western General Hospital.—Lieutenant-Colonel ABRAHAM M. EDGE, M.D., and Captain HENRY R. HUTTON, M.B., have resigned their commissions, May 3rd.

First Northumberland Field Ambulance.—JOSEPH W. CRAVEN, M.B., late Cadet Quartermaster Sergeant, Durham University Contingent, Senior Division, Officers' Training Corps, to be Lieutenant (supernumerary), March 22nd.

First Southern General Hospital.—Major WILLIAM F. HASLAM, F.R.C.S., to be Lieutenant-Colonel, April 5th; Captain GEORGE HEATON, F.R.C.S., to be Major, April 5th.

Sanitary Service.—Major WILLIAM J. HOWARTH, M.D., from Sanitary Officer, Home Counties Division, to be Major, whose services will be available on mobilization, May 7th.

Second London (City of London) Field Ambulance.—Captain EDWIN C. MONTGOMERY-SMITH to be Major, November 14th, 1912.

Second Lowland Field Ambulance.—Captain MATTHEW DUNNING, M.B., to be Major, April 5th.

Third Lowland Field Ambulance.—ANDREW J. BROWN to be Lieutenant, April 10th.

First North Midland Field Ambulance.—Lieutenant HENRY G. W. DAWSON, M.B., to be Captain, April 7th.

First London (City of London) General Hospital.—Major WALTER A. ATKINSON, M.D., to be Lieutenant-Colonel, March 17th; Quartermaster and Honorary Captain HENRY E. L. PURCELL is granted the honorary rank of Major, April 16th.

Attached to Units other than Medical Units.—Major WALTER M. HAMILTON, M.D., resigns his commission, and is granted permission to retain his rank and to wear the prescribed uniform, May 7th. Lieutenant WILLIAM R. WILSON, F.R.C.S.I., resigns his commission, May 7th. Surgeon-Lieutenant ELLERINGTON R. TURNER, M.B., from Sixth (Banff and Donside) Battalion, Gordon Highlanders, to be Captain, April 1st. Lieutenant ANDREW B. MURRAY, M.B., to be Captain, December 5th, 1912. JAMES A. STEPHEN, M.B., to be Lieutenant, April 16th. ALEXANDER S. M. MACGREGOR, M.D., to be Lieutenant, April 25th. Lieutenant-Colonel and Honorary Surgeon-Colonel FRANCIS J. WALKER, M.D., and Major WILLIAM ROXBURGH, M.D., have resigned their commissions, and are granted permission to retain their rank and to wear the prescribed uniform. Captain JOHN W. PRIDMORE resigns his commission, May 21st.

For Attachment to Units other than Medical Units.—HORSLEY DRUMMOND, M.B. (late Captain First Northern General Hospital) to be Lieutenant, June 8th, 1912. Supernumerary Lieutenant WILLIAM R. M. TURTLE, M.B., from the Third Anglian Field Ambulance, to be Lieutenant, May 17th. GEORGE W. MASON to be Lieutenant, April 2nd. ALEXANDER CROSS MALLACE, M.B., to be Lieutenant, April 29th.

SUPERNUMERARY FOR SERVICE WITH THE OFFICERS' TRAINING CORPS.

Lieutenant GORDON C. MCK. MATHISON, M.D. (serving with the University of London Contingent, Senior Division, Officers' Training Corps) resigns his commission, May 17th.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ABERYSTWITH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House-Surgeon and Secretary. Salary, £150 per annum.

ALNWICK INFIRMARY.—House-Surgeon. Salary, £140 per annum.

BARROW-IN-FURNESS: NORTH LONSDALE HOSPITAL.—Junior Resident House-Surgeon. Salary, £100 per annum.

BETHNAL GREEN INFIRMARY.—Assistant Medical Officer at the Infirmary and Workhouse. Salary, £100 per annum, increasing to £120.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary, £80 per annum.

BIRKENHEAD AND WIRRAL CHILDREN'S HOSPITAL.—House-Surgeon. Honorarium, £100 per annum.

BIRMINGHAM CITY.—Assistant Medical Officer of Health. Salary, £250 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM: RUBERY HILL ASYLUM.—Junior Assistant Medical Officer (male). Salary, £200 per annum.

BIRMINGHAM UNION.—Assistant Medical Officer at Dudley Road Infirmary. Salary, £125 per annum.

BIRMINGHAM UNIVERSITY.—Demonstratorship in Anatomy. Stipend, £150 per annum.

BOLINGBROKE HOSPITAL, Wandsworth Common, S.W.—Gynaecologist.

BOLTON INFIRMARY AND DISPENSARY.—Third House-Surgeon. Salary, £90 per annum

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRIGHTON COUNTY BOROUGH ASYLUM, Hayward's Heath.—Locumtenent Assistant Medical Officer. Salary, £4 4s. a week.

BRISTOL: COSSHAM MEMORIAL HOSPITAL, Kingswood.—House-Surgeon (male). Salary, £100 per annum.

BRISTOL ROYAL INFIRMARY.—Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £75 per annum.

BURNTWOOD: COUNTY MENTAL HOSPITAL.—Junior Assistant Medical Officer (male). Salary, £210 per annum, rising to £270.

CALCUTTA CORPORATION.—Health Officer. Monthly salary not less than Rs. 1500 and not more than Rs. 2000.

CAMBERWELL: PARISH OF ST. GILES.—Second and Third Assistant Medical Officer for the Infirmary, etc. Salary, £150 and £140 per annum respectively.

CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Resident Medical Officer. Salary, £90 per annum.

CHELSEA HOSPITAL FOR WOMEN.—Anaesthetist. Honorarium, £21 per annum.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House-Surgeon. Salary, £90 per annum, rising to £100.

DENBIGH: DENBIGHSHIRE INFIRMARY.—House-Surgeon. Salary, £100 per annum.

DENBIGH: NORTH WALES COUNTIES ASYLUM. — Medical Superintendent. Salary, £500 per annum, increasing to £700.

DEVON COUNTY ASYLUM, Exminster. — Third and Fourth Assistant Medical Officers. Salary, £200 per annum, rising to £250 and £220 respectively, with further increase on promotion to £350.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £75 per annum.

DEWSBURY UNION.—Resident Assistant Medical Officer of the Workhouse (female). Salary, £100 per annum.

DUBLIN: ROYAL HOSPITAL FOR INCURABLES, Donnybrook.—Resident Medical Officer (male). Salary, £120 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—(1) Medical Officer (male) to the Casualty Department. (2) House-Physician (male). (3) House-Physician and Assistant Casualty Officer. Salary for (1) £100 per annum, and for (2) and (3) £75 per annum.

EDINBURGH: THE HOSPICE.—Medical Woman to act as Resident. Honorarium, £25 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—House-Surgeon. Salary at the rate of £100 and £75 per annum.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £80 per annum.

GILBERT AND ELLICE ISLANDS PROTECTORATE.—Medical Officer. Salary, £350 per annum, rising to £550.

GLASGOW MATERNITY AND WOMEN'S HOSPITAL.—Two Out-door House-Surgeons at the Hospital and an Outdoor House-Surgeon at the West End Branch.

GUY'S HOSPITAL, S.E.—Honorary Anaesthetist.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon (male). Salary, £80 per annum,

HEREFORD COUNTY AND CITY ASYLUM, Burghill.—Assistant Medical Officer (male). Salary commencing £155 per annum.

HERTS COUNTY ASYLUM, St. Albans. — Locumtenent Assistant Medical Officer. Salary, 4 guineas a week.

HOVE: LADY CHICHESTER HOSPITAL. — Resident House-Physician (female). Salary, £30.

ITALIAN HOSPITAL, Queen Square, W.C.—House-Surgeon. Salary at the rate of £60 per annum.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

LANCASTER: COUNTY ASYLUM. — Assistant Medical Officer. Salary, £150 per annum.

LINCOLN MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

LIVERPOOL: PARKHILL SANATORIUM. — Assistant Resident Medical Officer. Salary, £150 per annum, increasing to £200.

LIVERPOOL STANLEY HOSPITAL.—Honorary Physician.

LONDON HOSPITAL, E.—Two House-Surgeons in the Dental School.

LONDON LOCK HOSPITAL.—House-Surgeon and Assistant House-Surgeon at the Female Hospital. Salary, £100 and £80 per annum respectively. House-Surgeon at the Male Hospital. Salary, £100 per annum.

LONDON SCHOOL OF MEDICINE FOR WOMEN. — Dr. Edith Pechey Phipson Post-Graduate Scholarship. Value, £40 per annum.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL.—Male Resident House-Surgeon. Salary, £120 per annum.

MANCHESTER: ANCOATS HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum.

MANCHESTER ROYAL INFIRMARY. — (1) House-Physician. (2) Junior House-Surgeon.

MANCHESTER TOWNSHIP.—Junior Resident Assistant Medical Officer for the Workhouse at Crumpsall. Salary, £110 per annum.

METROPOLITAN ASYLUMS BOARD. — Junior Male Assistant Medical Officers in the Infectious Hospitals Service. Salary, £180 per annum, rising to £240.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—House-Physician. Salary at the rate of £100 per annum.

NEWCASTLE-UPON-TYNE: HOSPITAL FOR SICK CHILDREN.—Honorary Assistant Physician.

NEWCASTLE-UPON-TYNE: ROYAL VICTORIA INFIRMARY.—Medical Registrar.

NORTHAMPTON COUNTY ASYLUM, Berry Wood.—Junior Assistant Medical Officer (male). Salary, £200 per annum, rising to £225.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon (male). Salary, £90 per annum, increasing to £100.

NOTTINGHAM GENERAL DISPENSARY. — Assistant Resident Surgeon (male) for Branch. Salary, £180 per annum.

PLAISTOW: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £80 per annum.

POPLAR HOSPITAL FOR ACCIDENTS, E.—Senior House-Surgeon. Salary at the rate of £135 per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL. — House-Physician (male). Salary at the rate of £75 per annum.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—(1) Honorary Physician or Surgeon to the X-Ray and Electric Department. (2) Clinical Assistants.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Dental Surgeon for L.C.C. School Dental Cases. Salary, £200 per annum.

READING: ROYAL BERKSHIRE HOSPITAL. — Second House-Surgeon. Salary, £80 per annum.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £80 per annum.

RICHMOND: ROYAL HOSPITAL. — Assistant House-Surgeon. Salary, £70 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon (male). Salary, £100 per annum.

ROYAL EAR HOSPITAL, Soho, W.—Clinical Assistants.

ROYAL NATIONAL MISSION TO DEEP SEA FISHERMEN.—Young Medical Men on the Hospital Vessels. Salary, £4 4s. a week.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—Assistant Surgeon at the Dreadnought Hospital.

SHEFFIELD: EAST END BRANCH OF CHILDREN'S HOSPITAL.—House-Surgeon. Salary, £75 per annum.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN. — Assistant House-Surgeon. Salary, £80 per annum.

SHEFFIELD ROYAL HOSPITAL. — Assistant House-Physician. Salary, £80 per annum.

SIERRA LEONE: PRINCESS CHRISTIAN HOSPITAL, Freetown.—Medical Missionary. Salary, £250 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHPORT INFIRMARY.—Junior House and Visiting Surgeon (male).—Salary, £80 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon (male). Salary, £90 per annum.

SOUTHWARK UNION INFIRMARY. — Second Assistant Medical Officer.—Salary, £120, increasing to £140.

STOKE-UPON-TRENT: INFECTIOUS DISEASES HOSPITAL, Bucknall.—Assistant Medical Officer (lady). Salary £100 per annum.

STOKE-UPON-TRENT UNION.—Assistant Resident Medical Officer for the Workhouse and Hospital. Salary, £130 per annum.

SUNDERLAND: MONKWEARMOUTH AND SOUTHWICK HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SUNDERLAND: ROYAL INFIRMARY.—Senior Resident. Salary, £150 per annum.

SURREY COUNTY ASYLUM, Netherne.—Locumtenent Medical Officer. Salary, £4 4s. per week.

TAUNTON: TAUNTON AND SOMERSET HOSPITAL.—(1) Senior House-Surgeon. (2) Resident Assistant House-Surgeon. Salary at the rate of £120 and £80 per annum respectively.

VENTNOR: ROYAL NATIONAL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Locumtenent. Salary, £5 5s. per week.

WAKEFIELD GENERAL HOSPITAL. — Second House-Surgeon (male). Salary, £100 per annum.

WARRINGTON COUNTY BOROUGH.—Assistant Medical Officer of Health. Salary, £250 per annum.

WEST HAM UNION.—(1) District Medical Officer, salary £450 per annum rising to £600. (2) Third and Fourth Assistant Resident Medical Officer (males) for the Infirmary, salary, £130 and £120 per annum respectively, rising to £150 and £140.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon. Salary, £120 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

WORCESTERSHIRE COUNTY ASYLUM, Bromsgrove. — Second Assistant Medical Officer (male). Salary, £225 per annum.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces the following vacant appointments: Pontyberem (Carmarthenshire), Sawston (Cambridgeshire).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

ALLAN, C. M., M.D.Edin., District Medical Officer of the Stoke-upon-Trent Union.

BEST, W. J., M.R.C.S.Eng., L.S.A., Certifying Factory Surgeon for the Dover District, co. Kent.

CLARE, T. C., M.B., B.S., F.R.C.S., Honorary Assistant Surgeon, Leicester Royal Infirmary.

DAVIS, Edward D. D., F.R.C.S.Eng., Surgeon-Laryngologist to the Mount Vernon Hospital for Consumption and Diseases of the Chest.

ELWELL, L. B., M.B.Sydney, Medical Officer of Health, Stanthorpe Shire Council, Queensland.

GILLIATT, William, M.D., M.S.Lond., F.R.C.S.Eng., Surgeon to Out-patients at the Samaritan Free Hospital for Women, Marylebone Road, N.W.

GREENE, C. W., M.B., M.S.Camb., Certifying Factory Surgeon for the Chatham District, co. Kent.

GROSVENOR, A. A., M.D.Dub., M.R.C.S., District Medical Officer of the Hitchin Union.

GROVES, E. W. Hey, M.S., F.R.C.S., Honorary Surgeon to the Bristol General Hospital.

HIGGINS, T. S., M.B., B.S.Lond., M.D., State Medical Officer of Health for St. Pancras.

HIRD, R. B. D., M.D.Birm., F.R.C.S.Edin., Medical Referee under the Workmen's Compensation Act, 1906, for County Court Circuits Nos. 21, 22, and 36, with a view to being employed in ophthalmic cases, vice Henry Eales, M.R.C.S.Eng., deceased.

LAPAGE, C. P., M.D., M.R.C.P., Lecturer on Diseases of Children to the University of Manchester and Honorary Physician for Children to the St. Mary's Hospitals, Manchester.

LIDWILL, M. C., M.D.Melb., Tutor in Anaesthetics, University of Sydney, New South Wales.

LINDEMAN, G. B., M.B., Government Medical Officer, Gunnedah, N.S.W.

MOLESWORTH, E. H., M.B., M.Ch.Sydney, Lecturer on Diseases of the Skin, University of Sydney, New South Wales.

STEWART, M., M.B., Ch.B.Edin., Certifying Factory Surgeon for the Portree District, co. Inverness.

TAIT, J. T., M.B.Melb., Surgical Registrar to the Melbourne Hospital.

TULLOCH, F. L., M.B., Ch.B.Edin., Resident at the City Hospital, Lodge Road, Birmingham.

TURNER, A. H., M.R.C.S., L.R.C.P., District Medical Officer of the Leigh Union.

WILLETT, James H., M.D.Liverp., Ch.B.Vict., Honorary Surgeon to the Liverpool Maternity Hospital and Ladies' Charity, vice Dr. Arthur Wallace, deceased.

MANCHESTER ROYAL INFIRMARY.—The following appointments have been made:
Honorary Consulting Physician.—Wilkinson, A. T., M.D., F.R.C.P.Lond.
Honorary Physician.—Cunliffe, E. N., M.B., B.S.Lond., M.D. Vict.
Assistant Director of the Clinical Laboratory.—Walker, James, M.B., Ch.B.Vict.
Assistant Surgical Officer to the Aural Department.—Sewell, D. L., M.B., B.S.Lond., M.R.C.S., L.R.C.P.
Medical Officer at the Central Branch.—Jefferson, J. C., M.B., B.S.Lond., M.R.C.S., L.R.C.P.
Reappointments:
Sixth Anaesthetist.—Benton, G. M., M.B., Ch.B.Vict.
Medical Officer for Home Patients.—Ashton, George, M.D.
Assistant Medical Officers.—Melland, C. H., M.R.C.P.; Tylecote, F. E., M.R.C.P.; Leech, E. B., M.R.C.P.
Assistant Surgical Officer.—Douglas, W. R., F.R.C.S.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTH.

CANE.—On Wednesday, May 21st, at the Minster Precincts, Peterborough, the wife of Leonard B. Cane, a son.

MARRIAGE.

PHIPSON—STOTT.—On May 14th, 1913, at St. Michael's-in-Lewes, by the Right. Rev. the Bishop of Lewes and the Rev. Henry Belcher, LL.D., Rector, Edward Selby Phipson, M.B., B.S.Lond., Captain, Indian Medical Service, youngest son of the late Ernest Thring Phipson, of Edgbaston, to Mary, youuger daughter of Hugh Stott, J.P., M.R.C.S., L.R.C.P., D.P.H., Mayor of Lewes.

DEATH.

HORSFALL.—On May 14th, at the Royal Infirmary, Huddersfield, Arthur Edward Horsfall, M.B., of Calf Key, Slaithwaite, in his 58th year, death resulting from a motor accident on May 8th.

DIARY FOR THE WEEK.

MONDAY.

MEDICAL SOCIETY OF LONDON, 11, Chandos Street, Cavendish Square, W.—8.30 p.m., Annual Conversazione. 9 p.m., The Annual Oration, Sir William Whitla: On the Trend of Thought in Recent Pharmacological Research.

ROYAL SOCIETY OF MEDICINE:
SECTION OF ODONTOLOGY, 8 p.m.—(1) Annual General Meeting. (2) Casual Communications. (3) Paper:—Mr. A. Hopewell-Smith: The Structure of the Dental Pulp in Ovarian Teratomata.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:
SECTION OF MEDICINE, 5.30 p.m.—(1) Annual General Meeting. (2) Paper:—Dr. H. A. Lediard: Cases of Chyliform Effusion, and the Chemistry of Such Effusions.
SECTION OF PSYCHIATRY, 6 p.m.—General Meeting. Election of Officers and Council for Session 1913-14.

WEDNESDAY.

ROYAL SOCIETY OF MEDICINE:
SECTION OF THE HISTORY OF MEDICINE, 5 p.m.—(1) Annual General Meeting. (2) Papers:—Dr. Chowry Muthu: The Ancient Systems of Indian Medicine. Dr. Galloway: The Priory of Ronceval at Charing, Middlesex. Dr. Nixon: Further Notes on Thomas Dover. Mr. Macleod Yearsley: (1) Two Relics of John Avery, F.R.C.S.Eng., sometime Surgeon to Charing Cross Hospital; (2) Elegant Medical Prescriptions for Various Disorders, by Dr. Hugh Smith, 1796.

SATURDAY.

ROYAL SOCIETY OF MEDICINE:
SECTION OF BALNEOLOGY AND CLIMATOLOGY.—Provincial Meeting at Bournemouth.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION.—Wednesday, 4.30 p.m., Lecture on the Site of Tuberculous Lesions at Different Ages.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Wednesday. Radiography: Saturday. Special Lectures each week.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical laboratory work daily (Saturday excepted), 10 to 12 a.m. Practical Protozoology, 2 to 3.30 p.m. daily. Advanced Protozoology, 10.30 to 1 p.m. daily. Medical Clinics, Tuesday and Thursday, at 3 p.m. Operations, Friday, at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL.—Post-graduate Clinic, Thursday, 4.15 p.m., Stricture of the Urethra.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Special Lectures at 5.15 p.m. daily except Saturday.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Cerebellar Disease. Friday, 3.30 p.m., Tumour of the Spinal Cord.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Medical and Surgical Clinics and Operations at 2.30 p.m. daily. Also Monday, Throat; Tuesday, Gynaecology; Wednesday, Skin, Eye, Children, *X* Rays; Friday, Eye. Special Lectures and Demonstrations as announced.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Monday, 4 p.m., Demonstration of Selected Surgical Cases.

ROTUNDA HOSPITAL, DUBLIN.—Continuation of the Post-graduate Course on Obstetrics and Gynaecology daily throughout the week except Saturday.

THROAT HOSPITAL, Golden Square, W.—Monday, 5.15 p.m., Special Demonstration on Selected Cases. Thursday, 5.15 p.m., Clinical Lecture.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Gynaecology: Monday, Tuesday, Wednesday, and Friday. Eye: Monday, Wednesday, Thursday, and Saturday. Throat, Nose, and Ear: Tuesday, Wednesday, Friday, and Saturday. Skin: Tuesday and Friday. Pediatrics: Wednesday and Saturday. A Lecture at 5 p.m. every day except Saturday.

[For further particulars of Lectures consult the Index to Advertisements.]

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		MAY.
24	Sat.	List of Nominations for Election on Council will be published in the JOURNAL of this date.
28	Wed.	Bath and Bristol Branch, Annual Meeting, Bath, 5.30 p.m.
		Inverness-shire Division, Annual Meeting, Inverness, 3.30 p.m.
29	Thur.	Northamptonshire Division, Northampton General Hospital, 2.30 p.m.; Luncheon, 1.30 p.m.
		Worcestershire and Herefordshire Branch, Malvern, 4.15 p.m.
30	Fri.	London: Journal Committee, 2.30 p.m.
		City Division, Annual Meeting, Balfour Hall, Kingsland Road, 3.30 p.m.
		JUNE.
4	Wed.	South Middlesex Division, Annual Meeting, Twickenham, 8.30 p.m.
5	Thur.	Coventry, Nuneaton, and Tamworth Divisions, Annual Meeting, Coventry Hospital, 3.30 p.m.

Date.		Meetings to be Held.
		JUNE (*continued*).
6	Fri.	London: Ethical Committee, 2 p.m.
		Hampstead Division, Annual Meeting.
7	Sat.	Date of issue of Voting Papers for Council Election from Head Office.
11	Wed.	South-Eastern Branch, Annual Meeting, Guildford, 1.30 p.m.; Luncheon, 12.45 p.m.; Annual Dinner, 6.30 p.m.
13	Fri.	London: *Special Meeting of Council, 11 a.m.* (Reform of Constitution.)
		Kensington Division, Annual Meeting, Kensington Town Hall, 5 p.m.
14	Sat.	Last day for receipt of Voting Papers at Head Office *re* Council Election.
17	Tues.	London: Organization Committee, 2.15 p.m.
19	Thur.	Birmingham Branch, Annual Meeting, Medical Institute, 3 p.m.
20	Fri.	East Hertfordshire Division, Annual Meeting, Ware, 2.30 p.m.
25	Wed.	London: Finance Committee, 2.30 p.m.
		Central Division, Annual Meeting, Medical Institute, Edmund Street, 3.30 p.m.
28	Sat.	Announcement of result of Election of Members to Council.

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, MAY 31ST, 1913.

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National Insurance.

LOCAL MEDICAL COMMITTEES.

BRISTOL.

THE following compose the Bristol Local Medical Committee, which has been recognized by the Commissioners:

Chairman.—Dr. Harry Grey.
Vice-Chairman.—Dr. A. N. Heron.
Honorary Treasurer.—Dr. George Parker, 14, Pembroke Road.
Honorary Secretary.—Dr. Leonard A. Moore, 45, Ashley Road.
Group Representatives.—Those marked with an asterisk are the conveners of the group—
Clifton.—Drs. C. Atchley, Lily Baker, Carling, Dacre, Flemming, Freeman, Harris, Lees, Myles, and Cecil Williams.
Westbury and Avonmouth.—Drs. *Ormerod and Rolfe.
Redland, Cotham, and Bishopston.—Drs. Barker, *Brasher, Hall, Heron, and McLeod.
Central.—Drs. Collinson, Moore, and *Page.
South.—Drs. Kerfoot, Logan, Lucas, and *F. E. Peake.
Eastville, Fishponds, and Staple Hill.—Drs. Bernard, Brown, and *Grey.
St. George.—*Dr. Mather.
Kingswood.—*Dr. Perrott.
Bristol General Hospital.—*Dr. Newman Neild.
Other Institutions.—*Dr. T. A. Green.
Co-opted.—*Dr. George Parker.
Ex Officio (Insurance Commissioners' nominees on the Local Insurance Committee).—Dr. Michell Clarke, Dr. T. M. Carter.
Executive.—The Chairman, Vice-Chairman, Treasurer and Secretary with Drs. Bernard, Bernard, Brasher, Brown, Collinson, and Hall.
Subcommittees: Representation Committee (to consider the reorganization of the Local Medical Committee on a permanent basis).—Drs. Barker, Logan, and Hall.
Drug Committee.—Drs. Bernard, Newman Neild, and Moore.
Medical Members of the Medical Service Subcommittee of the Local Insurance Committee.—Drs. Bernard, Brown, Collinson, Hall, and Elwin Harris.
Direct Representatives of the Profession on the Local Insurance Committee.—Dr. E. G. Hall and Dr. Leonard A. Moore.

Meetings of Committee.—The Local Medical Committee meets ordinarily every alternate Thursday. Group meetings are convened as occasion requires to ascertain the opinion of the profession on questions of major importance. It is hoped that practitioners in the city, and especially those on the panel, will bring to the notice of the Committee or of their representatives, any matters of interest, as this Committee has a statutory right to lay its views before the Local Insurance Committee.

Expenses of Committee.—The expenses of the Committee (printing, postages, etc.,) are being met *pro tem.* by a levy of 5s.

Temporary Residents.—At a meeting of the Committee held on May 13th the following resolution was carried:

> That inasmuch as each practitioner on the panel was promised a minimum 7s. (including payment for domiciliary treatment of insured persons suffering from tuberculosis) any deduction therefrom is a breach of contract; and that the Bristol Local Medical Committee strongly protests against the action proposed in Memo. 161 of the Insurance Commission.

BOURNEMOUTH.

Temporary Residents.—The members of the Bournemouth panel have signed a provisional agreement for three months from April 14th, and have thereby tentatively and under protest accepted the Commissioners' scheme for the payment for attendance upon temporary residents. It is felt that if any united action is to be taken in opposition to this scheme it ought to be initiated as soon as possible. The Bournemouth Local Medical Committee will do its utmost to bring the local panel into line with any general action in this matter; but to have any effect it must be very general, and it must be taken promptly. The agreement which the Commissioners ask the doctors on the panel to sign is an agreement in perpetuity, and once such an agreement has been definitely signed by the doctors all over the country it will be almost impossible to get anything like unanimous action.

Income Limit.—A subcommittee of the Local Medical Committee met a subcommittee of the Local Insurance Committee to discuss this question. So far the majority of the Insurance Committee has been very strongly against any income limit. It was pointed out by the doctors that in accordance with the Act any person who

is employed manually, or has been an insured person for five years and elects to remain a voluntary contributor, is entitled to medical benefit at the ordinary rate, no matter how large his income may be, unless an income limit is fixed, and that the absence of an income limit has kept doctors from joining the panel. After a very interesting discussion, the members of the Insurance Subcommittee intimated that they were prepared to support the fixing of an income limit of £160 per annum if this was agreed to by the Local Medical Committee, but that they could not consider any lower limit than this. "Also that the committee should favourably consider any applications by insured persons to contract out if the reason stated be that they could afford to pay higher fees for attendance." The Medical Subcommittee considers that even an income limit of £160 is important, and will advise the Local Medical Committee and the panel to agree to this rather than have no limit at all.

Deputies for Medical Representatives on the Insurance Committee.—The Commissioners have been approached on this point, but their reply was not favourable.

EAST SUSSEX.

The East Sussex Local Medical Committee has recently held four meetings, at which the average attendance has been nearly 50 per cent.

At a conference between the Executive Committee and the Local Insurance Committee, held on February 25th, it was agreed:

That all medical practitioners on the panel should be paid alike, irrespective of the date on which they joined.

That the allocation of insured persons who had not selected their medical attendant should stand over for the present, but that the final principle be that the unassigned residue be distributed in proportion to the number of persons already on the doctor's list. The unassigned residue of remuneration to be allocated on the same principle, except that practitioners desirous of limiting their list will not receive any part of the unassigned residue.

It was also suggested that a small subcommittee be formed, representing doctors on the panel, to allot sick insured persons who had been unable to secure acceptance by a doctor on the panel.

With a view to the special mileage grant, it was resolved to collect information as to the number of insured persons resident in places difficult of access.

At the adjourned meeting, on March 5th, the principal business was the consideration of the minutes of a conference mainly concerned with the methods of remuneration, held between the Medical Benefit Subcommittee of the Insurance Committee and a subcommittee of the Local Medical Committee. Instructions were given to arrange for meetings of medical practitioners in the ten insurance areas of East Sussex, and to form local subcommittees from each meeting. The principal duty of these committees will be to arrange for the medical attendance on insured persons, and for the distribution of those insured persons who had not yet been allocated.

At a meeting held on March 26th, the question of a night fee to chemists was discussed. It was finally resolved that while the Committee had no objection to the chemists receiving a night fee, it considered that it should be paid only to such chemists as made arrangements to supply medicines at any hour, both on Sundays and week-days, and should be a deduction from the drug suspense fund.

It was also resolved that a circular should be sent to practitioners advising them not to sign the new agreements while matters that had not been satisfactorily settled between the Insurance Committee and the Local Medical Committee were outstanding.

A conference was held at Lewes on April 7th between the Medical Benefit Subcommittee and the East Sussex Medical Committee, when Mr. W. Haviland, Chairman of the Medical Benefit Subcommittee, presided.

Fees for Anaesthetics.—Mr. Haviland stated that the Insurance Committee had no funds for this purpose, as the doctors had selected the capitation system of remuneration; but that if they desired to form a special fund for such fees, the Committee would give the matter careful consideration.

Certificates.—The Chairman stated that the Subcommittee realized that it would be more convenient that a common form of certificate should be adopted, that the form suggested by the Commissioners was unsatisfactory, and that the Medical Service Subcommittee would recommend the Insurance Committee to make recommendations to the Commissioners on the subject. With regard to the objection made by the Medical Committee to stating the nature of the disease on the certificate, the Chairman contended that this was a matter for the insured persons to settle.

Income Limit.—The Chairman ruled the discussion of the question of an income limit out of order, having regard to the decision of the Insurance Committee.

Contracting Out.—The Chairman stated that the Insurance Committee had resolved that persons could only be allowed to make their own arrangements in exceptional circumstances, but would carefully consider every case on its merits.

At the meeting held on April 16th, the question of prescription books was considered, and it was agreed to write the prescriptions in triplicate. A special form of book with 150 leaves was designed and ordered to be submitted to the Insurance Committee.

Temporary Residents.

At the meeting held on May 21st, the following resolutions relating to temporary residents were passed:

That the East Sussex Medical Committee, while approving the system of payment by attendance and accepting the scale of fees set out in Memorandum 161/I.C. of the National Health Commissioners regarding temporary residents, is of opinion that it would be unjust that the fund from which such payments are to be made should be deducted from the capitation fee of 6s. 6d. which the Government has agreed to pay.

The Committee is further of opinion that the Government should undertake to pay in full fees for attendance on temporary residents, and that it would be more satisfactory if the same system were adopted in the case of temporary removals within the county area as well as in that of temporary removals from other insurance areas.

KENT.

A meeting of the Kent County Medical Committee was held on May 26th at Maidstone. Dr. A. Maude (Chairman) and eighteen members were present.

Allocation of Insured Persons.—The Chairman stated that the Districts Subcommittee had recommended that the allocation of patients should be carried out with the approval of the District Medical Committees and practitioners.

Staffs of Infirmaries and Hospitals.—The Chairman reported that the Medical Benefit Subcommittee had not declined to permit contracting out of insured staffs of workhouse infirmaries, but, on the recommendation of the Kent County Medical Committee, had agreed that the insured staffs of voluntary hospitals should be allowed to contract out if they so desired. The resident medical officers of such hospitals would not be placed upon the county list.

Medical Attendance on Dependants of Insured Persons.—The scale of fees for the treatment of dependants of insured persons in Gillingham was considered, and the following resolution was adopted:

That this Committee thinks it is a very inopportune time for the Kent Insurance Committee to take any steps in supporting any scheme of whole-time panel doctors in any attempt to obtain practice among dependants of insured persons at any price, as in their view it must cause more friction between panel and non-panel doctors, which it should be the endeavour of the Insurance Committee to allay.

Renewal of Agreements.

The following resolutions were adopted:

That this Committee recommend that the medical practitioners who signed agreements until July 15th be advised to again sign for no longer than until September 15th.

That the Executive Committee be instructed to draft representations to the Kent Insurance Committee for such concessions and alterations to agreement as they may consider necessary.

Co-option of Members.—Drs. Scott and Starling were co-opted members of the Committee as President and Honorary Secretary of the Branch Council, owing to their residence in Kent.

TUNBRIDGE WELLS.

At a meeting of the Tunbridge Wells District Medical Committee, held on May 20th, it was reported that it had been recognized by the Commissioners.

The following resolutions were adopted:

A fee of 1s. be charged for each certificate required before the third day.

That a letter be written to the Kent Medical Committee pointing out the desirability of appointing a medical referee.

That this Committee advises all practitioners on the county list to refuse to treat insured persons temporarily resident outside their own district except as private patients until arrangements satisfactory to the profession have been formulated by the Commissioners, and also to decline to agree to any deduction from the amount which they should receive, under their agreement for a capitation payment, for the purposes of forming a fund for the provision of medical benefit for temporary residents.

The following matters were deferred to the next meeting: Method of allocation, scale of fees for anaesthetics and assistants, drug tariff, meeting of the practitioners in the district who are on the county list.

LEEDS.

Temporary Residents.

AT a meeting of the Leeds Local Medical Committee, held on May 22nd, Form 159/I.C. was discussed, and the following resolution was unanimously adopted:

That the scale of fees mentioned in the memorandum was satisfactory, but that the Insurance Commissioners should also be informed that this Committee protests emphatically against any agreement being made for holiday makers and convalescents, nor does it think such a course at all wise, as introducing an element into the working of the Act which is unwieldy and extremely difficult. Furthermore, it is pointed out that the proposed arrangement foreshadows an alteration in the rate and method of payment, which is a breach of the agreement signed by every doctor on the panel, and to such a breach of agreement the Committee cannot agree.

WIGAN.

A LOCAL Medical Committee for the county borough of Wigan has been constituted, and will hold office for twelve months. The Chairman is Dr. E. H. Monks, and the Honorary Secretary Dr. Thomas Campbell (Platt House, Platt Bridge, near Wigan), the total number of members of the committee being twelve.

Dr. John Blair and Dr. T. M. Angior have been appointed medical representatives on the Insurance Committee by the council of the county borough, and Dr. Ferdinand Rees by the Insurance Commissioners.

MEETINGS OF INSURANCE COMMITTEES.

LONDON.

THE London Insurance Committee sat for two hours on May 22nd, practically the whole of the time being occupied in dealing with medical questions.

Distribution of Unallotted Funds.

The Medical Benefit Subcommittee reported as to the distribution amongst doctors on the panel of £34,000 which had accumulated during the first quarter in respect of 400,000 insured persons who had not chosen a doctor. The subcommittee felt that the most equitable method of distributing this money would be according to the number of patients actually treated by each practitioner, but the data available was insufficient for payment to be made on this basis. Methods of payment in equal shares and payment in proportion to the number of accepted persons on each doctor's list had been considered. The latter method had been suggested by the committee representing the practitioners on the panel, and the subcommittee, after careful consideration, concurred with this view. The attention of certain doctors had been drawn to the fact that the Committee viewed with some uncertainty the possibility of adequate treatment being provided in cases where an exceptionally large number of insured persons had been accepted by a practitioner, and the subcommittee thought it would be inadvisable to pay any medical practitioner with over 2,000 persons on his panel list any of the moneys in the fund which had not yet been allocated.

The CHAIRMAN (Mr. J. A. Dawes, M.P.) moved a resolution in accordance with the subcommittee's report.

Mr. P. ROCKLIFF asked if the meeting could have chapter and verse for the right of the Committee to allocate the money amongst the doctors at this time. He could not find anything bearing on the matter.

The CHAIRMAN: The justification of the subcommittee's recommendation is Circular 10/I.C. of February 18th.

Mr. ROCKLIFF suggested that the Act or the Regulations, and not a circular, should weigh with the Committee.

The CHAIRMAN (after examining a document): Circular 10/I.C. does not refer to any Regulation or section of the Act. As this point has been raised—and it is an important one—I think I shall have to withdraw the recommendation.

Dr. H. H. MILLS reminded the Committee that the point had been before it for some time. In many districts Insurance Committees had already allocated the money accumulated in respect of persons who had not chosen a doctor.

The CHAIRMAN: The legal point is a difficult one. I have no doubt there is some justification, but I am not prepared to say now what it is.

It was agreed to postpone the report and to hold a special meeting to consider the matter.

Medical Service under the Act.

The Medical Service and Medical Benefit Subcommittees reported with reference to the instruction of the Committee on April 3rd to consider whether the present system of medical benefit in London could be improved (SUPPLEMENT, April 12th, p. 317). The Medical Benefit Subcommittee recommended that all questions relating to the technical, scientific, or medical details of treatment should be remitted to a special committee consisting of the medical practitioners who were members of the Insurance Committee. These matters would then not be dealt with directly by the Medical Service Subcommittee, which contained only three medical practitioners out of its seven members.

The Medical Service Subcommittee, however, thought this suggestion open to serious objection. It pointed out that the majority of complaints were not of a purely medical or scientific character, but were, in effect, complaints that a practitioner had not given adequate attention to a patient; questions partly of a medical character were sometimes inextricably intermingled with questions of fulfilment of contract. A special committee, such as the one suggested, would have no power to take evidence—a power which the Medical Service Subcommittee possessed—and its advice would have to be given on a general statement without first hand contact with the parties. The Medical Service Subcommittee thought the proper body to perform the functions suggested would be a subcommittee of the statutory Local Medical Committee, when recognized by the Commissioners. The subcommittee, however, did not wish to stand in the way of removing some of the uneasiness members of the medical profession felt at the possibility of lay interference in professional matters, and therefore recommended:

(*a*) That as a purely temporary measure, and until the new Medical Service Subcommittee shall have been appointed by the new Insurance Committee and the Local Medical Committee, when recognized by the Commissioners, the Medical Service Subcommittee be empowered to consult the Special Medical Subcommittee with regard to any questions involving purely technical, scientific, or medical details of the treatment provided by a practitioner.

(*b*) That the Chairman of the Medical Service Subcommittee be authorized to determine which cases should be dealt with in the manner suggested in the foregoing resolution.

(*c*) That the Special Medical Subcommittee do consist of the medical members of the Insurance Committee and the medical members of the Medical Service Subcommittee.

Mr. O. E. WARBURG, the Chairman of the Medical Service Subcommittee, in moving these recommendations, said he hoped they would meet the objections of the medical profession. The legitimate grievance would have to be met later on by an alteration of the Regulations, but if the Committee was to keep within the Act and Regulations as at present framed, it could not go further than the Subcommittee proposed. In reply to a question, Mr. Warburg said the proposed special committee would be consultative only; generally speaking, the subcommittee would always take its advice in medical matters, but it reserved its right to make its own decisions.

Mr. E. B. TURNER remarked that unless the interests of the insured persons were to suffer it was imperative to get more practitioners on the panel. It would be possible for the Insurance Committee, by a self-denying ordinance, to remedy a grievance that was militating against acceptance of service by doctors who ought to be on the panel if the Act was to be a success. One of the principal reasons why medical men had shown reluctance to accept service was the objection to any body on which they were in a minority determining questions of purely

technical, medical, scientific interest. He was prepared, on behalf of the practitioners of London, to accept the report as an indication that the Committee was disposed to meet the objections of the profession. If the Committee took this action he believed there would be a large influx of capable men, and that the medical service in London would be proportionately improved. Medical men did not wish a professional reputation to be at the mercy of a passing wave of prejudice; the proposed Special Medical Committee would afford the Insurance Committee authentic advice, and there was no doubt that doctors who were in the wrong would be much more severely dealt with by members of their own profession than by any lay body.

Mr. F. Briant expressed the opinion that the Committee, by passing this proposal, would do much to lessen the difficulty with regard to the allocation of the £34,000 in respect of persons who had not chosen doctors. A considerable influx to the panel might be expected to result in a reduction of the number of these persons. Medical men were justified in objecting to giving their medical opinions in a committee with laymen, and the Insurance Committee should meet this legitimate grievance.

Other members of the Committee spoke in sympathy with the proposal, and Mr. F. Coysh, Chairman of the General Purposes Subcommittee, said he hoped the discussion would assure members of the medical profession that there was no fear of lay control of their scientific work, and that there would in consequence be a large addition to the panel.

The recommendations set out above were then unanimously agreed to, and the words "as a purely temporary measure" were by consent deleted from Recommendation (*a*).

Proposed Extension of Contracting Out.

Another recommendation, directed to securing the wider co-operation of the medical profession, was also reported to the Committee, but as the papers had only been in the hands of members a few hours, its consideration was adjourned until the special meeting already mentioned. The recommendation suggested the extension of "contracting out" amongst the following classes of insured persons:

1. Sons and daughters of well-to-do parents who, through being on a rising salary, would go out of insurance in a short period.
2. Bank clerks and others similarly engaged who, being in a position to make extra payment, desired to continue treatment received from the family doctor who was not on the London panel.
3. Other cases of an exceptional nature, i.e., cases where a person specially desired to make additional payments to his doctor, whether on the panel or not, or where the medical practitioner, through age or the extent of his practice, was unable to join the panel, even for a limited number.

At the same time the Medical Benefit Subcommittee which made these proposals expressed the opinion that anything like wholesale contracting-out could not be allowed in the interests of insured persons, and that all applications should be considered on their merits.

Appointment of a Medical Referee Approved.

Discussion then took place at some length on a motion by Mr. Kingsley Wood in favour of the appointment of a medical referee. Mr. Wood urged that such an appointment would assist medical men on the panel who could not be expected to include in their duties the task of detecting the astute malingerer. It would save them from the disagreeable duty of reporting their own patients for malingering. The existence of a medical referee would make unnecessary the appointment of medical inspectors. He observed in the British Medical Journal that medical men in Gateshead and in Lancashire and Cheshire had put forward the same suggestion. The appointment of a medical referee would also help the approved societies which in some cases found themselves faced with claims by women to the extent of 50 per cent. beyond anticipations, and in the case of men 25 per cent. Malingering to the extent of 1 per cent. meant a very large sum weekly to the approved societies of the country.

The motion in favour of the appointment was carried by a large majority.

The Number of Patients on Lists.

Mr. P. Rockliff then moved:

That it is undesirable that any medical man on the London panel should undertake to treat a larger number of insured persons than 2,000; and that the clerk of the committee do inform the doctors on the panel accordingly.

Mr. Rockliff urged that it was no use trying to induce more medical practitioners to join the panel if there were not sufficient patients available. Arguing from the fact that 30,000 prescriptions were received every day at the offices of the Committee, Mr. Rockliff made an elaborate calculation as to the number of minutes given to each patient by a doctor, and urged that 2,000 was the maximum number that should be allotted to each doctor. A large number of people who selected from the first 760 doctors to join the London panel would probably like to have a second choice now that the number was larger.

Dr. Lauriston Shaw mentioned that the Medical Benefit Subcommittee had decided to indicate to all doctors with more than 2,000 on their lists that it viewed with some apprehension the effect upon the insurance scheme, and reminding the doctors that the Committee's duty was to see that proper attendance was given. Such a warning would doubtless prevent medical men from accepting an unduly large number of persons. He believed it was premature for the Committee to fix a limit; it had not yet sufficient knowledge of the conditions. Even if the Committee could decide what was the proper number of persons, it would be going against the whole spirit of the Act by interfering with the free choice of doctor. If the matter were left to work itself out, insured persons would be able to get the attendance they wished by exercising their right to free choice of doctor.

Dr. Evan Jones supported the motion. He thought the evidence showed that 2,000 was a sufficient number of patients for each doctor.

Sir Shirley Murphy thought it was premature to limit the number of persons on each list. The present difficulty would be solved by the addition of a large number of men to the panel.

Dr. H. H. Mills hoped the motion would not be pressed, and remarked that it would be an advantage in this matter if a new choice of doctor could be exercised at the end of six months, instead of twelve.

The Chairman: We have no power to deal with that.

Dr. Mills: Have we power to limit the list?

The Chairman: It will only be an opinion on the part of the Committee, if carried.

The resolution was approved by 13 votes to 7.

A Complaint and a Warning.

It was resolved to inform a doctor as to whom a complaint had been received, and who had accepted about 3,650 persons up to April 5th and a further 150 up to April 14th, that if the list was materially increased after May 22nd it might be necessary for the Insurance Committee to consider whether such a number on his panel would not be prejudicial to the efficiency of the medical service of insured persons.

INSURANCE NOTES.

The Difficulty in Wales.

No date has been fixed at present for the reception of the deputation of Welsh medical men which, we understand, is to be introduced by Dr. Addison. There appears, however, to be a sincere desire on the part of the Commissioners and other parties interested to arrive at an amicable settlement, and we are encouraged to hope that a method of adjustment will be found which will be acceptable to both parties.

The Position in Gillingham.

The position here is still full of interest. The refusal to accept certificates from practitioners not on the panel was very persistently maintained by some members of the committee, but within a day or two of the decision in Heard *v.* Pickthorne the town was red with large posters announcing the verdict, and every possible means was taken to disseminate the information. The thanks of all are undoubtedly due to the National Medical Guild for so pluckily seeing this matter through. Interest is chiefly

centred in the attempt of the committee, backed by the Commissioners, to coerce the panel doctors into treating dependants at fees considerably lower than those usually charged in the town. This at present is a local matter, but it will be well for those who are disposed to think that Gillingham is making a fuss about nothing to remember that if it succeeds there the system will spread very rapidly to the whole of the county. This is in reality a *ballon d'essai*, and members of the profession who trust the Commissioners' statement that it is not going to become general will probably find that they are leaning on a bruised reed. It is to be hoped that the doctors who have joined the panel will refuse to be used as tools to help the lay committee to crush out of existence those who do not feel disposed to do so. The long-talked-of allotment of insured persons has not yet taken place; some members of the committee recognize that it is a dangerous game, even in England, to coerce thousands of people to go to doctors to whom they will not go voluntarily.

DISTRIBUTION OF ACCUMULATED FUNDS.

In response to a proposal by the Northampton Insurance Committee to distribute the money accumulated in respect of insured persons who have not chosen a doctor in equal shares amongst the doctors on the panel, the Insurance Commissioners have stated that this suggestion could not be carried out and that advances should be made to doctors only on the basis of the number of insured persons accepted for treatment.

REPORTS OF LOCAL ACTION.

CROYDON.

A MEETING of doctors upon the panel for the County Borough of Croydon was held at the Croydon Hospital on May 23rd, Dr. WILLOCK being in the chair and twenty members present.

Temporary Residents.—The following resolution was adopted and a copy directed to be sent to the National Health Insurance Commission (England):

> That this meeting of doctors upon the panel for the Borough of Croydon strongly protests against any deduction as foreshadowed in Memorandum 159/I.C., and suggests:
>
> (*a*) That concerning that class of insured persons temporarily changing their residence for holiday or health purposes the regulations be so amended as to provide that medical benefit shall not be understood to include medical attendance and treatment in such class while so temporarily resident; and
>
> (*b*) That insured persons temporarily resident by reason of the nature of their occupation should be required to make their own arrangements.

Representatives on the Insurance Committee.—Drs. Willock and Wayte were appointed by the panel, Dr. Redfern by the Commissioners, and Dr. F. Nicholls by the Corporation of Croydon.

Vouchers for Medical Attendance.—It was reported that so far the Commissioners had refused to supply a voucher for each insured person to send to his doctor when requesting medical attendance, but the matter was still under the consideration of the Croydon Insurance Committee, and Dr. Nicholls had pointed out to the Commissioners that the regulations (Section 17, subsection 3) entitled the doctors to demand one.

Payments to Medical Practitioners.—The monthly amounts paid to the medical practitioners on the panel were printed in the reports of the Insurance Committee, but not published in the press.

Copies of Prescriptions.—Instead of allowing the proposed fee of 1d. to chemists for copying each prescription, the book has been so modified that a duplicate prescription can be given by the doctor.

Transfer of Patients.—It was reported that in the form for the transfer of insured persons from one doctor to another the Croydon Insurance Committee did not ask the reason for the desired change.

Certificate for Sickness Benefit in Maternity Cases attended by Midwives.—Attention was drawn to the fact that, to give a certificate for sickness benefit in respect of cases attended by a midwife, a doctor would have to attend an insured person at least once, while Section 8 (6) of the Insurance Act provided that medical benefit shall not include any right to medical treatment or attendance in respect of a confinement.

Allocation of Insured Persons.—It was stated that the Local Medical Committee had arranged a method for the assignment of all insured persons who had not chosen their doctor, but the necessary tickets, which should be supplied by the Croydon Insurance Committee, were still in "the dim and distant future."

SCOTLAND.

Edinburgh Royal Maternity Hospital and Maternity Benefit.

From the minutes of the Administration Subcommittee of the Burgh of Edinburgh Insurance Committee it appears that on April 30th a deputation from the directors of the hospital was received. The deputation included Mr. J. R. Middleton (Chairman of the Maternity Hospital Board), Mr. McLeod Gardiner, Dr. T. G. Nasmyth, and Councillor Buchan. It was emphasized by the deputies that the hospital should receive all possible support from the approved societies and the Insurance Committee, and it was stated that the hospital authorities, for their part, were prepared to give treatment to women entitled to maternity benefit in respect of their own or their husband's insurance, on such terms as might be arranged between each approved society and Insurance Committee and the directors. The draft proposed agreement was then considered and a clause was adjusted providing for the payment to the hospital out of the maternity benefit due to any member of an approved society or deposit contributor to whom or to whose wife or widow the hospital has given its services at her confinement of the sum of 15s., or such other less sum as represents 50 per cent. of the maternity benefit available in the particular case.

Mr. Leishman's Presence at Meetings of the Medical Benefit Subcommittee.

At the meeting of the Burgh of Edinburgh Insurance Committee on May 22nd some discussion arose as to the presence of Mr. Leishman, the Chairman of the Scottish Commissioners, at meetings of the Medical Benefit Subcommittee. The minutes of the subcommittee showed that Mr. Leishman had been present and had spoken in support of a letter from the Commissioners asking the Committee to reconsider their decision regarding the Post Office system. Mr. Andrew Eunson moved disapproval of the recommendation from the subcommittee that the Insurance Committee approve the Post Office medical system under Section 15 (4) of the Act, and complained of Mr. Leishman's attendance at the subcommittee, regarding it as an infringement of the position of the Insurance Committee. The subcommittee, he thought, should be censured for allowing Mr. Leishman to be present. Baillie Rusk said that he did not wish to overturn the minute, but he would support the objection to Mr. Leishman's presence without invitation. He suggested that a rule should be made providing that neither Mr. Leishman nor any other official be allowed to attend the meetings without request. He did not agree that Mr. Leishman's presence would influence the voting, but he thought it detracted from the dignity and responsibility which the Committee should possess. This position was generally agreed to. After further discussion, the Subcommittee's recommendation to approve the Post Office system was rejected by 25 votes to 16. Since the meeting a letter has been received from the Commissioners explaining the Chairman's action and throwing light upon the proceedings.

Medical Certificates.

Several letters have been appearing in the *Scotsman* lately regarding the violation of professional secrecy in the statement of the nature of a patient's illness in the medical certificate required for the approved societies under the Insurance Act. "M.D.," for instance, calls upon medical men to stand firm in their refusal to give such information until, at any rate, the matter has been brought before the Branch meetings of the British Medical Association.

Edinburgh Students and Vacation Employment.

Recently a representation was made to the Scottish Insurance Commissioners on behalf of large numbers of students at the training colleges, and also at Edinburgh

University, who accept employment in the Post Office during the summer and other vacations. It was pointed out that the students during the time they were employed, often one or two months, had to pay the weekly contributions under the Act. These were deducted from the wage, which was usually £1 weekly to such workers. The students considered it a hardship to have to pay the contributions when it was certain that they would not at any time later come within the scope of the Insurance Act, especially as the vacation employment was undertaken to assist the payment of class fees, or the cost of their maintenance during the periods of study. On these grounds, and also on the ground that they were being employed in a civil service department, they considered they had made a case for exemption.

The Scottish Insurance Commissioners have replied that the students will be compulsorily insurable while and so long as they are employed in this capacity. Exemption can only be claimed if they prove that they are in receipt of any pension or income of the annual value of £26 or upwards not dependent upon their personal exertions, or that they are ordinarily and mainly dependent for their livelihood upon some other person.

IRELAND.

Medical Certificates.

A conference of representatives of the friendly societies and the County Insurance Committee for North Tipperary, to which delegates from the County Medical Committee were invited, was held recently in Nenagh to discuss the question of medical certification. The doctors laid their views before the meeting, and after full discussion a resolution was passed unanimously to the effect that the sum of £50,000 for certification in Ireland was altogether inadequate, and impressing on the National Health Commission that this sum should be largely increased.

The difficulty of obtaining the consent of the medical profession to form panels for purposes of certification for the various counties in Ireland continues to be a problem which the Irish Commissioners have so far failed to solve. As was mentioned last week, they are trying an experiment in the city of Limerick by advertising for salaried medical officers to carry on the work of certification. The rate of remuneration offered is £130 per annum, with permission to engage in private practice. This is done with the object of forcing the medical profession to submit rather than suffer imported doctors to rob them of their practice. However, it is highly improbable Limerick will give in, seeing that the profession in the city is well organized and thoroughly determined. It is extremely unlikely that any Irish medical men will be found willing to take the positions, for they know the position in which medical men who set themselves in opposition to the wishes of the profession in other cities in the South of Ireland have found themselves.

Objection to Extension of Medical Benefit.

At the last meeting of the Athlone Board of Guardians the proposed extension of medical benefits was unanimously objected to on the ground that it would mean double expense while the Poor Law medical dispensary service continued, without any corresponding advantage to the insured persons or ratepayers. A vigorous protest was entered against the reception of insured persons for hospital treatment, for whom the societies would not pay.

Tuberculosis.

The Clare County Council last week elected Dr. Michael Garry, well known as an Irish international footballer, to be tuberculosis officer. The salary was fixed at £350 with travelling allowances.

The Mayo County Council has elected Dr. P. F. Murphy, Kiltimagh, as tuberculosis officer for the county.

The Meath County Council has decided to adopt the recommendation of the Finance Committee on the tuberculosis scheme. The Committee in view of the indisposition of several Government departments and public bodies concerned to meet its views, and having regard to the uncertainty of the income and expenditure under any scheme proposed, recommended the council to postpone indefinitely the framing of a scheme dealing with tuberculosis treatment.

A curious situation has arisen in connexion with the working of Peamount Sanatorium. Less than a fortnight ago Dr. J. J. M'Grath, of Limerick, was elected resident medical superintendent, and immediately afterwards a letter was received from the Local Government Board expressing surprise at the action of the committee, and refusing its sanction to the appointment. In consequence the committee met again and set aside its previous decision, and an order was made to readvertise the position. It is said that representatives of the contributing county councils supported the candidature of Dr. M'Grath. The objection of the Local Government Board to Dr. M'Grath's appointment is said to be based on the certificate he holds from the Allan Ryan Home and Collier Dispensary, which, however, was recognized by the Board last winter.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

A MEETING of the State Sickness Insurance Committee appointed by the Special Representative Meeting in November, 1912, was held at the house of the Association, 429, Strand, W.C., on Thursday, May 22nd. Dr. J. A. MACDONALD (Chairman) was in the chair, and the members present were:—*England and Wales:* Dr. R. M. Beaton (London), Mr. C. E. S. Flemming (Bradford-on-Avon), Dr. E. R. Fothergill (Brighton), Miss M. Frances Ivens, M.S. (Liverpool), Dr. Constance E. Long (London), Dr. E. O. Price (Bangor), Dr. D. G. Thomson (Norwich), Mr. E. B. Turner (London). *Scotland:* Dr. John Adams (Glasgow), Dr. R. McKenzie Johnston (Edinburgh). *Ex officio:* Mr. T. Jenner Verrall, Chairman of Representative Meetings.

AGED AND INFIRM MEMBERS OF FRIENDLY SOCIETIES.

The action of approved societies, in contravention of the agreement come to between the Association and the societies at the conference in October, 1911, with regard to the provision of medical attendance for aged and infirm members, was further considered, and the Committee decided that the Association should adhere to the opinion already expressed in respect to this matter,[1] and to continue its present policy of urging Divisions and Local Medical Committees to insist upon the carrying out of the provisions of Section 15 (2) (*e*) of the Act, which is as follows:

(*e*) The provision of medical attendance and treatment on the same terms as to remuneration as those arranged with respect to insured persons, to members of any friendly society which, or a separate section of which, becomes an approved society who were such members at the date of the passing of this Act, and who are not entitled to medical benefit under this part of this Act by reason either that they are of the age of 65 or upwards at the date of the commencement of this Act, or that being subject to permanent disablement at that date, they are not qualified to become insured persons.

AMENDMENTS OF THE ACT.

A report, with recommendations from the Amendments Subcommittee, was considered in detail. The State Sickness Insurance Committee, in accordance with the duty imposed upon it by the Council, decided to press for amendments of the Act or Regulations in the following respects:

Anaesthetics.

That a practitioner who finds it necessary in connexion with the medical attendance and treatment of any of the insured persons on his list, to obtain the services of another medical practitioner, should not be compelled himself to provide such services.

Income Limit.

1. That all persons whose income from all sources exceeds the sum of £160 per annum shall be required to "make their own arrangements," and that the amendment be so worded as to make it clear the words "income from all sources" includes any income received as a gift or allowance, and independent of the personal exertions of the recipient.

[1] The correspondence between the Association and Mr. Masterman, M.P., Chairman of the National Insurance Joint Committee, will be found in the issues of the SUPPLEMENT for March 8th (p. 238), March 22nd (p. 266), March 29th (p. 285).

2. That it shall be incumbent upon the Insurance Commissioners to require Insurance Committees to adopt a local income limit.

3. To ensure that any local income limit adopted by an Insurance Committee shall be submitted for the approval of the Commissioners in the same manner as various other arrangements of committees in respect of medical benefit are submitted.

Deputies.

Attention was called to the paragraph (91 *k*) of the annual report of the Council, in which it was stated that the Council intended to recommend the Annual Representative Meeting to request the Insurance Commissioners to advise Insurance Committees that their work would be greatly facilitated by the appointment of deputies for the directly elected medical practitioners on Insurance Committees. It was reported that the Scottish Insurance Commissioners had issued a considered opinion to the effect that it would not be competent for a deputy to attend meetings of Insurance Committees on behalf of any member thereon, inasmuch as appointment to the Committee was personal. The Committee, after consideration, advised the Council to recommend the Representative Body not at the present time to seek an amendment of the Act or Regulations allowing the appointment of deputies for the directly elected practitioners on Insurance Committees.

Practitioners' Contracts with Insurance Committees.

In paragraph 92 of the annual report of the Council, which dealt with the question as to improvements of local administration of the Act, it was recommended that the form of contract between medical practitioners and Insurance Committees should be referred to the Local Medical Committees for consideration before being sent for signature to the practitioners concerned. The object of this recommendation was that the Local Medical Committees concerned should be afforded an opportunity of perusing the draft agreements with practitioners framed by the Insurance Committees after consultation with the Local Medical Committee as provided in Regulation 7 (1). The State Sickness Insurance Committee has decided to press for the addition to Regulation 7 (1) of the following or some similar form of words to secure the above object:

and shall before submitting such draft agreements for the approval of the Insurance Commissioners forward copies thereof to the Local Medical Committee and allow that body reasonable time for consideration.

The same subparagraph in the report of the Council recommended that the contracts after signature should be returned to the Local Medical Committee. On consideration of this suggestion it was decided that amendment of the Act or Regulations in this connexion was not required, and that the object could best be secured by local arrangements between Insurance Committees and Local Medical Committees.

Medical Representation on Insurance Committee.

The State Sickness Insurance Committee expressed the opinion that the Act should be so amended as to secure that no one section of the members of an Insurance Committee shall constitute more than two-fifths of the total number of the Committee, and instructed the Amendments Subcommittee to draft the necessary amendments.

With regard to the constitution of District Committees, it was resolved that the Association should press for the addition to Regulation 59, which authorizes Insurance Committees to delegate powers or duties to District Committees, of a proviso to provide for the due representation of the medical profession in the following or similar words:

> Provided that as regards such District Insurance Committees the medical representation thereon shall be the same proportion as is accorded the medical profession on the Insurance Committees.

Night Calls.

The Committee resolved to press for an amendment of the Act enabling practitioners to make a small charge to insured persons in respect of night calls, such a change being preferable, as a deterrent, to any system of fines.

Diseases due to Misconduct.

The Committee also resolved to press for the deletion of the word "not" in the Section 15 (4) of the Act, as follows:

(4) Where, under any such rules as aforesaid, payment of sickness or disablement benefit is suspended on the ground that the disease or disablement has been caused by the misconduct of the person claiming the benefit, such person shall *not* thereby become disentitled to medical benefit.

Miscarriages and Abortions.

The Committee resolved to press for the amendment of the Act by the addition to Section 8 (6) of the words printed in italics below:

Section 8 (6). Medical benefit shall not include any right to medical treatment or attendance in respect of a confinement, *miscarriage, or abortion, or any condition arising therefrom within twenty-eight days.*

Medical Referees.

The Committee expressed the opinion that under the terms of Section 57 (3) of the Act regulating the appointment of officers, inspectors, referees, and servants by the Insurance Commissioners the Commissioners had power to appoint medical referees should they decide so to do. The Committee therefore resolved to press for the embodiment of the following paragraphs in the regulations to be made by the Insurance Commissioners governing Local Medical Committees:

(*a*) Provisions whereby Local Medical Committees shall be consulted in those instances where the Commissioners decide to appoint medical referees, as to whether such officers shall be whole or part-time officers.

(*b*) Power to such Committees to make nominations for such appointments.

(*c*) Provision whereby, in those instances where the Commissioners decide to appoint a medical referee for a district containing more than one insurance area the various Local Medical Committees concerned shall combine and submit their joint nominations.

It was further resolved that the Association should seek for the inclusion in any regulation or order of the Commissioners concerning the appointment of medical referees of words to secure that such officer shall (*a*) be removable by the authority by which he was appointed with the consent of the Insurance Joint Committee and not otherwise, and (*b*) shall not be appointed for a limited period only.

Seamen's National Insurance Society.

The administration of the Seamen's National Insurance Society, which had on several previous occasions been discussed by the Committee, was further considered, and it was decided that it was desirable that Section 48 (5) of the Act should be amended by the insertion of the words printed in italics:

> (5) The affairs of the Seamen's National Insurance Society shall be managed by a committee constituted in accordance with a scheme to be prepared by the Board of Trade with the approval of the Insurance Commissioners, comprising representatives of the Board of Trade, of shipowners, and of members of the Society in equal proportion, *and of representatives of the medical profession of the United Kingdom in the same proportion as is accorded the medical profession on Insurance Committees*, and the Society shall, notwithstanding anything in this part of this Act, become an approved society.

Maternity Fees.

The matter of fees to medical practitioners for attendance upon confinements in respect of which maternity benefit is received—a subject to which paragraph 127 of the annual report of Council was directed—was further considered in connexion with the report of the Midwives Subcommittee. It was resolved to transmit the opinion of the Council to the Insurance Commissioners.

Temporary Residents.

Upon this subject the Committee adopted the following resolution:

That the Association press for the amendment of the Act so as to provide—

1. That "medical benefit" shall not be understood to include medical attendance and treatment on insured

persons temporarily changing their residence for holiday or health purposes while so temporarily resident.

2. For the formation of a special fund entirely apart from any moneys already allocated for medical benefit to provide for the medical attendance and treatment of insured persons temporarily resident on account of ill-health.

Dispensing.

With reference to Regulation 30 (1), dealing with the arrangement for the supply by practitioners of drugs and appliances, and limiting its application to insured persons resident in a rural area at a distance of more than one mile from the place of business of a chemist on the list, the Committee, in view of the difficulties which have arisen as to the definition of the term "rural area," resolved to press for the deletion of the words "in a rural area," or for such other amendment of that regulation as would secure to medical practitioners the right, if they so elect, to dispense medicine for insured persons on their list in all cases in which the patient is more than a mile from a chemist on the list.

Termination of Agreements.

It was resolved to recommend that Regulation 21 should be amended by the inclusion of words to secure to a medical practitioner the right to terminate his agreement with an Insurance Committee by giving three months' notice at any time.

Conference of Representatives of Local Medical Committees.

The Committee received with thanks the offer of the Executive Committee of the annual meeting at Brighton to arrange a conference of representatives of Local Medical Committees and to meet incidental expenses. The State Sickness Insurance Committee undertook to prepare a suitable agenda for such a conference, which it is provisionally proposed should take place at 3 p.m. on Tuesday, July 22nd.

Insurance Joint Advisory Committee.

A letter was read from the Insurance Joint Committee acknowledging the Association's nomination of Dr. Cox for the vacancy on the Joint Advisory Committee, and stating that Dr. Cox had been appointed.

Compensation Cases.

Three applications for compensation were considered; in one instance a grant was made, and in two others it was resolved to obtain further information. A letter of thanks from a recipient of a grant from the fund was read.

Drafting and Presentation of Amendments.

The Amendments Subcommittee was instructed to draft, with legal assistance, amendments to the Act and Regulations to carry out the above recommendations after taking into consideration the terms of the amending Act which the Government had undertaken shortly to introduce.

The Committee also resolved to forward to the Insurance Commissioners a memorandum on the amendments desired, together with an intimation that the Committee was prepared to appoint a deputation to discuss such amendments with the Commissioners prior to the introduction into Parliament of the proposed amending bill. The Chairman of the Committee, Dr. J. A. Macdonald, the Chairman of Representative Meetings, Mr. T. Jenner Verrall, Mr. E. B. Turner, Deputy Chairman of Representative Meetings, and Mr. C. E. S. Flemming, were nominated as members of any such deputation.

THE DRUG TARIFF.

The following communication has been addressed to the London Insurance Committee:

Gentlemen,

The duty of investigating the proposed charges of the Pharmaceutical Committee's new tariff of drugs, etc., has been delegated to us by the executive of the London Medical Panel Committee. In an interview with the Pharmacists' Committee we were informed that, taking an average wholesale drug house price list, 25 per cent. (twenty-five per cent.) was added to the charges on that list in arriving at the charges made in the official tariff. (Wholesale houses, it may be mentioned, are in the habit of allowing a considerable discount off their list prices).

Practically in every instance the full 25 per cent. has been added for the tariff charges, but in a large number of instances this is greatly exceeded—a list of some of these excessive charges we append.

We note that the charge of 6s. 9d. is still adhered to as the price of an icebag for the head, whereas we have before pointed out that the article supplied is not the helmet-shaped ice cap which would allow of that price being charged, but the ordinary round icebag costing from 1s. 8d. to 3s. 9d.

The bandages are inferior, with frayed edges, and are of the cheapest possible quality.

All antiseptic dressings should be supplied in 1 oz., 2 oz., and 4 oz. sealed packages, as otherwise the word antiseptic is a misnomer, and a possible danger. Instances have come to our notice where antiseptic dressings have been cut off with shop scissors and wrapped up in ordinary paper.

We think that a charge of 4d. for dispensing a blister is exorbitant.

No charge for copying prescriptions should be allowed.

Many instances have come to our notice of discontent with the Act caused by chemists declining to dispense after 9 or 10 at night for patients who have just received their prescriptions. We think all chemists should dispense prescriptions if received by them up to 10 p.m., and should not tell patients they must wait until the next day.

Many medical men are in doubt as to whether they can order such necessary appliances as glass ear-syringes, camel-hair brushes, and eye-droppers. Some definite information as to the ordering of "extras" would be welcome.

Yours faithfully,

C. W. Hogarth.
C. H. Pring.
M. Bernstein.

As regards the prices given by us, we have taken for comparison the lists of Messrs. Evans, Lescher, and Webb, Limited, and the Hospital General Contracts Company as representative of the wholesale trades concerned.

	Price.	Price Should Be.	Tariff.
	s. d.	s. d.	s. d.
Liq. gutta percha	0 4 + 25%	0 5	0 7
Liq. opii sed. (B.P.C.)	$\frac{3}{88}$,,	0 7½	0 9½
Salicin	1 6 ,,	1 10	2 0
Sol. adrenalin hyd. (B.P.C.) ...	3 8 ,,	4 7	5 6
Sulphonal	1 0 ,,	1 3	1 5
Suppositories	0 8 ,,	0 10	1 3 (doz.)
Ung. bellad....	5 6 lb.	0 5½ oz.	0 9 oz.
SUNDRIES.	s. d.	s. d.	s. d.
Flannel bandages 6 yds. 2½ in.	0 6½	0 8	1 0
,, ,, 3 in.	0 7½	0 9½	1 3
Plaster ,, 2 in.	3 10 doz.	0 5 each	0 8 each
,, ,, 3 in.	0 5½	0 7	1 0
Lint	—	—	1 11 (very poor)
Soft rubber catheters	0 10 each (6s. 6d. doz.)	1 0½	1 8 each

PAYMENT FOR MEDICAL BENEFIT.

Results in the First Quarter.

We have been afforded an opportunity of inspecting the results of an investigation into the amount of medical work under the Insurance Act during the first quarter in an English district, partly rural and partly urban. The number of practitioners applied to were 100, of whom 40 replied, but the answers of only 32 were available for statistical purposes. The result of the analysis of the replies showed that the number of insured persons in the district was 20,161, and that the percentage of such persons under treatment each month varied from 5 to 15 per cent. Two practitioners reported under 5 per cent., five practitioners reported under 10 per cent., eighteen reported under 15 per cent., and five reported over 15 per cent. The total number of visits was 8,466, and the total number of consultations 15,677. The cases included 5 fractures, 76 operations, 26 cases in which a general anaesthetic was administered, 76 special visits, and 13 night visits. Sixteen practitioners stated that their private practice was diminished, eight that it was not affected, ten that the rate of remuneration would balance the loss, and three that it would not; the others were uncertain.

It appears, therefore, that as a rule from 10 to 15 per cent. of the insured persons were under treatment every month. This statement may be compared with those which have appeared in the daily press to the effect that the percentage was under 2. Taking the remuneration to be at the rate of 7s. a person per annum—namely, 6s. 6d. for medical attendance and 6d. for domiciliary treatment of tuberculosis—and comparing it with the ascertained number of visits and consultations, the rate of remuneration works out at 1s. 5d. an attendance. As in this district each medical man on the panel will have added to the capitation amount to which he is entitled, an amount for unallotted persons estimated at about 20 per cent., the rate for each attendance works out at 1s. 8d. This of course takes no account of medicine, nor is any allowance made for mileage, operations, etc.

The following comparison has been made with private practice at low fees:

INSURANCE WORK:	
20,160 persons at 1s. 9d. each...	£1,764
Add one-fifth for unallotted persons ...	353
	£2,117
PRIVATE PRACTICE:	
8,466 visits at 2s. 6d.	£1,058
15,677 consultations at 1s. 6d.	1,175
	£2,233

CORRESPONDENCE.

MEDICAL CERTIFICATES FOR SICKNESS BENEFIT.

DR. EDWARD A. CLARKE (Secretary, Dukinfield Local Medical Committee) writes: The following dictum is laid down in the annual report of the London and Counties Medical Protection Society for 1912:

"'Medical certificates' are so frequently required for one purpose or another that there is a danger of their being too readily given by medical men. Too great care cannot be exercised in giving medical certificates if they are to retain the consideration which is usually accorded to them. In no circumstances should a doctor sign a certificate containing any important statement which he knows merely from hearsay. In giving certificates of sickness medical men should not state the nature of the disease without the express permission of the patient or his legal representative. Accurate counterfoils or other records of all certificates should be kept. In the body of the certificate the use to which it is intended to be put should be stated, and so misuse of it may be prevented."

To-day under the Insurance Act medical men from north to south, from east to west, are expected to fill in and distribute broadcast these certificates, stating the nature of the illness from which the patient is suffering; and to stand up against this is as futile as trying to knock down a stone wall by kicking.

Dr. Shaw's statement published in the SUPPLEMENT of May 24th, page 458, is a most excellent exposition of the whole matter.

The Cheshire County Medical Committee has fought the matter until the last moment, and the only reply we have is that under paragraph 7 of our agreements we are bound to give any certificate required by the rules of the society to which the patient belongs. At a meeting of the Cheshire Insurance Committee it was stated that the certificates were for statistical purposes, and also that the society officials were going to judge by the nature of the illness how long the patients were likely to be off sick, and, again, they were to be used for the purpose of preventing malingering.

How these purposes are going to be served I am unable to see, unless the societies at the same time insist that upon the certificates an accurate diagnosis is to be placed, and such general terms as "debility," "anaemia," "influenza," etc., are to be banned. Then, again, are the societies going to stand in judgement over the doctor's certificates, and say who is or who is not to have sick pay? A married woman suffering from endometritis may be greatly benefited by a week or two's rest from the factory and able to do a little housework in the afternoon. The collector calls in the afternoon and finds her blackleading the grate, and before sick pay can be obtained a long discussion into her ailments will have to follow.

There is no doubt that endless friction is going to arise from this question of medical certification. The whole question of malingering hangs upon it. The matter is of such grave import to my mind that I think the Council of the British Medical Association should give the matter careful study, and, if such a thing were possible, give the medical profession a lead as to what they should do in the matter of certificates.

In this town we have not stated the nature of illness upon our certificates since January 15th last, but owing to the pressure brought to bear upon the patients by the friendly societies withholding sick pay, and so punishing the patients, it behoves us in the cause of humanity to comply for the present with these demands. We do so under protest, and at the same time asking the British Medical Association to consider the matter carefully, and if possible to give a lead.

TEMPORARY RESIDENTS.

Dr. T. CUMING ASKIN (Woodbridge, Suffolk) writes: The State Sickness Insurance Committee have given a lead—a belated one, I admit—in the case of temporary residents (vide SUPPLEMENT, May 17th, page 452). Are we going to follow their advice and refuse to attend these persons except as private patients—that is, refuse to sign the green vouchers? I hope so, because then the Government will be compelled to provide a special fund. If we do not we shall richly deserve all that is in store for us, and shall have nobody to blame but ourselves. Let us try to turn over a new leaf before it is too late. A wave of pessimism seems to be passing over the profession, and it is not to be wondered at, but I believe that even now we can do much if we only take heart and assert ourselves. One thing, however, is quite certain: the Local Medical Committees will soon become a laughing-stock and will lose all their power for good unless backed up by the profession generally.

As far as Memorandums 159 and 161 are concerned, we have a strong and unanswerable case. The fee of 8s. 6d. paid to the medical officers of the Post Office for "picked lives" and for a limited period is not tampered with, special provision being made for dealing with itinerants. Let us see to it that our capitation payment for all sorts and conditions of men is treated with equal respect.

In the Seamen's National Insurance Society the doctors are to be paid *in full* for work done and some provision is made for mileage, but none in the scale attached to Memorandum 161. Let us refuse to have anything to do with a credit scale of fees. It is not business.

"A FREE CHOICE!"

Dr. J. J. GORHAM (London, S.W.) writes: I have been unable to read your leader (p. 1126) until to-night (Monday), and it almost takes my breath away. Who told you that insured persons are "placed on the level of a duke" in having a "free choice of doctor"? What a comforting placebo we get from our journal after the scandalous treatment that thousands of us have received at the hands of Insurance Committees!

Take my own case: For many years I have acted, and am acting still, as honorary medical attendant to a home for boys. There happen to be six people on the premises who come under the Insurance Act, and they naturally chose me as their doctor, on the grounds that I have always attended them, and that as I am frequently on the spot several times a week they would have ample facilities for consulting me. A long correspondence ensued between the home and the Committee, and the upshot was that as I refused to go on the panel, and my patients would have no other doctor, the Insurance Committee graciously consented that I should attend the six insured persons at the home and my certificates would be recognized, but that I must not look to them (the Committee) for any claims for attendance. And now the weekly contributions of my patients, which have been regularly paid hitherto, are being graciously handed over to some panel doctor whom they have never even seen. And really, Sir, when you tell us you have "convinced the Chancellor of the Exchequer" on a previous occasion, you might try to convince him again that it is discreditable for a statesman to break a promise which he made deliberately on this very question of a "free choice of doctor."

ATTENDANCES OF COUNCIL, COMMITTEES, AND SUBCOMMITTEES FOR 1912-13.

The *President*, *Chairman of Representative Meetings*, *Chairman of Council*, and *Treasurer* are *ex officio* members of all Committees.

COUNCIL.

Members of Council.	Representative Meetings: Liverpool, July 19–24, 1912.	Representative Meetings: London, Nov. 19–20, 1912.	Representative Meetings: London, Dec. 21–23, 1912.	Representative Meetings: London, Jan. 17–18, 1913.	Council Meetings: Ann. Meet., July 22–26, 1912.	Council Meetings: October 31, 1912.	Council Meetings: November 13, 1912.	Council Meetings: November 21, 1912.	Council Meetings: December 4, 1912.	Council Meetings: December 23, 1912.	Council Meetings: January 18, 1913.	Council Meetings: January 29, 1913.	Council Meetings: April 23, 1913.	Council Meetings: April 30, 1913.	Total.
Macdonald, Dr. J. A., Taunton (Chairman)	5	2	2	2	3	1	1	1	1	1	1	1	1	1	23
Barr, Sir James, LL.D., Liverpool (President)	2	2	2	1	3	1	1	—	1	—	—	1	1	1	16
Hollis, Dr. W. Ainslie, Hove (President-Elect)	—	2	2	2	—	1	1	—	1	—	1	—	1	1	12
Verrall, Mr. T. Jenner, Bath (Chairman of Rep. Meetings)	5	2	2	2	3	1	1	1	1	1	1	1	1	1	23
Rayner, Dr. Edwin, Stockport (Treasurer)	5	2	2	2	3	1	1	—	1	—	—	1	1	1	20
Adams, Dr. John, Glasgow	5	2	1	2	2	1	—	1	1	—	—	—	1	—	16
Andrew, Dr. J. Grant, Glasgow (resigned)	5	2	2	—	2	1	1	—	1	1	—	—	—	—	15
Beaton, Dr. R. M., London	5	2	2	2	1	1	1	1	1	1	1	1	1	1	21
Benson, Surg.-Gen. P. H., I.M.S., Walmer (Indian Medical Service)	2	2	1	2	2	1	—	1	—	—	1	1	1	—	14
Bentham, Inspector-General R., R.N., London (Royal Navy Medical Service)															
Biggs, Dr. M. G., London	5	2	2	2	2	1	1	1	1	1	1	1	1	1	22
Buist, Dr. R. C., Dundee (resigned)	5	—	—	—	2	1	1	—	1	—	—	—	—	—	10
Buttar, Dr. Charles, London	3	2	2	2	2	1	—	1	1	1	1	1	1	1	19
Clow, Dr. W., Paisley	—	—	—	—	2	—	—	—	—	—	—	1	1	1	5
Corby, Professor H., Cork	—	—	2	—	—	1	—	—	—	1	—	—	1	—	5
Darling, Dr. J. Singleton, Lurgan	5	2	1	1	3	1	—	—	1	—	—	1	1	—	16
Dewar, Dr. Michael, Edinburgh (resigned)	5	2	—	—	3	1	1	1	1	—	—	—	—	—	14
Domville, Mr. E. J., Bristol	5	2	2	—	3	1	1	1	1	1	—	1	1	1	20
Durran, Dr. J. G., Leighton Buzzard (resigned)	5	2	1	—	2	1	—	1	1	—	—	—	—	—	13
Ewart, Dr. David, Chichester (New Zealand)	—	—	1	—	—	—	1	—	—	—	—	—	—	—	2
Farquharson, Dr. A. C., Spennymoor (resigned)	4	2	1	—	—	1	1	1	1	—	—	—	—	—	11
Finlay, Dr. D. E., Gloucester	—	—	—	—	2	—	—	—	—	—	1	1	1	1	6
Flemming, Mr. C. E. S., Bradford-on-Avon (resigned)	5	2	1	—	3	1	1	—	1	—	—	—	—	—	14
Fordyce, Dr. B. E., Cambridge	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2
Garstang, Mr. T. W. H., Altrincham	4	2	2	2	1	1	1	—	1	1	1	1	1	—	18
Gordon, Dr. John, Aberdeen	3	2	1	—	3	1	—	1	1	—	—	—	—	—	13
Greany, Surgeon-General J. P., I.M.S., London	5	2	1	—	2	1	1	—	1	—	—	—	1	1	15
Greenlees, Dr. T. D., London (South African Branches)	5	2	2	2	2	1	1	—	1	1	1	1	1	1	21
Greenwood, Dr. Major, London	5	2	2	—	3	1	1	—	1	1	1	1	—	—	20
Hamilton, Dr. J. R., Hawick	5	2	2	—	3	1	1	—	1	—	—	1	1	1	18
Harris, Lieut.-Col. F. W. H. Davie, R.A.M.C. Addlestone (resigned)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Haslip, Dr. G. E., London	—	—	—	—	3	—	—	—	—	—	1	1	1	—	5
Helme, Dr. T. A., Manchester	—	2	1	2	—	1	—	1	1	—	—	—	—	—	8
Henry, Dr. R. Wallace, Leicester	—	—	1	—	—	—	—	—	—	—	—	1	1	—	3
Johnstone, Mr. R. J., Belfast	5	—	1	—	2	1	1	—	—	—	—	1	1	—	11
Jones, Mr. Evan, London	—	—	—	—	—	—	—	—	—	—	1	1	—	—	2
Larkin, Mr. F. C., Liverpool	5	2	1	2	3	1	1	1	1	—	1	1	1	—	21
Lord, Mr. C. Courtenay, Gillingham	5	2	2	2	1	1	1	1	1	1	1	1	1	—	20
London, Dr. J. Livingstone, Hamilton	5	2	1	—	2	1	1	—	1	1	—	—	1	1	15
Lucas, Mr. Albert, Birmingham	5	2	1	—	3	1	1	1	1	—	1	—	1	—	17
Maclean, Dr. Ewen J., Cardiff (resigned)	5	2	2	—	3	1	—	1	1	1	—	—	—	—	16
Mactier, Dr. H. C., Wolverhampton	5	2	2	2	2	1	1	1	—	1	1	1	1	—	21
Mahon, Dr. R. B., Ballinrobe	—	—	—	—	—	—	—	—	—	—	1	1	—	—	2
Metcalfe, Dr. James, London	5	2	2	—	3	1	1	1	1	1	—	—	1	1	19
Milburn, Dr. C. H., Hull	—	2	—	—	—	1	—	1	1	—	—	1	1	1	8
Moir, Dr. J. Munro, Inverness	—	—	—	—	2	—	—	—	—	—	1	—	1	—	4
Morier, Dr. C. G. D., London (Australian Branches)	—	1	—	—	—	—	—	—	1	—	—	—	—	—	2
Oldham, Dr. H. F., Morecambe	—	—	—	—	—	—	—	—	—	—	—	1	1	—	2
Parker, Dr. George, Bristol	—	—	—	—	2	1	1	—	1	1	1	1	1	1	13
Pope, Dr. F. M., Leicester (dead)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7
Reynolds, Dr. E. S., Manchester	—	—	2	—	3	1	—	1	—	1	—	—	—	—	13
Shaw, Dr. Lauriston E., London (resigned)	—	2	—	—	1	1	1	1	1	—	—	—	—	—	11
Smith, Dr. F. J., London	—	—	—	—	—	—	—	1	—	1	—	1	1	1	12
Todd, Mr. D. F., Sunderland	—	—	—	—	1	1	1	1	1	—	1	1	—	—	10
Turner, Mr. E. B., London	—	—	—	—	1	—	1	1	1	1	1	1	1	1	11
Turrell, Dr. W. J., Oxford	—	—	—	—	2	1	1	—	—	—	—	1	1	—	6
Tyson, Dr. W. J., Folkestone	—	1	—	—	—	—	—	—	1	—	—	1	—	—	3
White, Professor A. H., Dublin	—	—	—	—	—	1	—	—	—	1	—	—	—	—	2
Williams, Mr. D. J., Llanelly	4	2	1	—	2	1	1	1	1	1	—	1	1	—	17
Willock, Mr. E. H., Croydon	—	—	—	—	—	—	—	—	—	—	1	—	1	—	5

Dr. W. Clow, *vice* Dr. J. Grant Andrew. Dr. D. E. Finlay, *vice* Mr. C. E. S. Flemming. Dr. B. E. Fordyce, *vice* Dr. J. G. Durran. Dr. G. E. Haslip, *vice* Dr. Ewen J. Maclean. Dr. R. Wallace Henry, *vice* Dr. F. M. Pope (deceased). Mr. Evan Jones, *vice* Dr. Lauriston Shaw. Dr. J. Munro Moir, *vice* Dr. Michael Dewar. Dr. H. F. Oldham, *vice* Dr. A. C. Farquharson. Mr. E. H. Willock, *vice* Dr. R. C. Buist.

ARRANGEMENTS COMMITTEE.

Members of Committee.	Oct. 16, 1912.	Oct. 23, 1912.	Total.
Chairman of Council (Chairman)	—	1	1
President	—	1	1
Chairman of Representative Meetings	—	1	1
Treasurer	—	1	1
Corby, Professor H., Cork	—	—	—
Dixon, Professor W. E., F.R.S., Cambridge	1	1	2
Gordon, Dr. John, Aberdeen	—	1	1
Smith, Dr. F. J., London	—	1	1
Thomas, Professor Wm. Thelwall, Liverpool	—	1	1
Local Representatives.			
Benham, Dr. C. H., Hove	—	1	1
Burchell, Mr. E., Hove	—	1	1
Fothergill, Dr. E. R., Hove	—	1	1
Hollis, Dr. W. Ainslie, Hove	—	1	1
Parry, Dr. L. A., Hove	—	1	1
Taylor, Mr. H. H., Hove	—	1	1

CENTRAL ETHICAL COMMITTEE.

Members of Committee.	Oct. 4, 1912.	Jan. 3, 1913.	April 4, 1913.	Dec. 9, 1912.	Feb. 18, 1913.	March 18, 1913.	Total.
Biggs, Dr. M. G., London (Chairman)	1	1	1				3
President	—	—	—				—
Chairman of Representative Meetings	—	—	—				—
Chairman of Council	—	—	—				—
Treasurer	—	—	—				—
Bateman, Dr. A. G., London	1	1	1				3
Ewart, Mr. J. Henry, Eastbourne	—	1	1				2
Farquharson, Dr. A. C., Spennymoor (resigned)	1	—	—				1
Goff, Dr. Bruce, Bothwell	1	1	—				2
Keay, Dr. J. H., London	1	—	—				1
Langdon-Down, Dr. R. L., Hampton Wick	1	1	1				3
Lee, Dr. P. G., Cork	1	1	1				3
Maclean, Dr. Ewen J., Cardiff	—	—	—				—
Parker, Dr. George, Bristol	1	1	1				3
Shaw, Dr. Lauriston E., London (resigned)	1	—	—				1
Williams, Mr. D. J., Llanelly	—	—	—				—

CENTRAL ETHICAL STANDING SUBCOMMITTEE.

Chairman of Central Ethical Committee (Chairman)	1	1	1				3
Bateman, Dr. A. G., London	1	1	1				3
Ewart, Mr. J. Henry, Eastbourne	1	1	1				3
Keay, Dr. J. H., London	1	1	1				3
Langdon-Down, Dr. R. L., Hampton Wick	1	1	1				3
Shaw, Dr. Lauriston E., London (resigned)	1	—	—				1

COLONIAL COMMITTEE.

Members of Committee.	Oct. 7, 1912.	April 7, 1913.	Total.
Greenlees, Dr. T. D., London (Chairman)	1	1	2
President	—	—	—
Chairman of Representative Meetings	—	—	—
Chairman of Council	—	—	—
Treasurer	—	—	—
Greany, Surgeon-General J. P., I.M.S., London	—	1	2
Turrell, Dr. W. J., Oxford	1	1	2
Tyson, Dr. W. J., Folkestone	—	1	1
Members of Council who represent Colonial Branches.			
Benson, Surgeon-General P. H., I.M.S. (India)	1	1	2
Ewart, Dr. David (New Zealand)	1	1	2
Morier, Dr. C. G. D. (Australia)	1	—	1

FINANCE COMMITTEE.

Members of Committee.	Oct. 23, 1912.	Jan. 22, 1913.	Mar. 5, 1913.	April 16, 1913.	Feb. 14, 1913.	Feb. 21, 1913.	Total.
TREASURER (Chairman)	1	1	1	1			4
President	1						1
Chairman of Representative Meetings	1	1	1	1			4
Chairman of Council	1		1	1			3
Buttar, Dr. Charles, London	1	1		1			3
Domville, Mr. E. J., Bristol	1	1	1	1			4
Ewart, Mr. J. Henry, Eastbourne	1	1		1			3
Flemming, Mr. C. E. S., Bradford-on-Avon (resigned)	1						1
Langdon-Down, Dr. R. L., Hampton Wick	1			1			2
Lawson, Dr. David, Banchory	1		1				2
Lucas, Mr. Albert, Birmingham	1	1	1	1			4
Moore, Dr. Milner, Eastbourne	1	1	1	1			4
Shaw, Dr. Lauriston E., London (resigned)	1						1
Todd, Mr. D. F., Sunderland	1	1	1				3
Chairman of Organization Committee	1	1	1	1			4
Chairman of Science Committee	1	1	1	1			4
Chairman of Medico-Political Committee				1			1
Chairman of Central Ethical Committee		1	1	1			3
FINANCE SUBCOMMITTEE.							
SMITH, Dr. F. J., London (Chairman)					1	1	2
Chairman of Representative Meetings					1	1	2
Chairman of Organization Committee							
Treasurer					1	1	
Buttar, Dr. Charles, London					1	1	2
Todd, Mr. D. F., Sunderland							

HOSPITALS COMMITTEE.

Members of Committee.	Oct. 2, 1912.	April 9, 1913.	Total.
JOHNSTONE, Mr. R. J., Belfast (Chairman)	1		1
President			
Chairman of Representative Meetings			
Chairman of Council			
Treasurer			
Biggs, Dr. M. G., London	1	1	2
Bushby, Dr. T., Liverpool		1	1
Ewart, Dr. David, Chichester			
Hamilton, Dr. J. R., Hawick		1	1
Howell, Dr. R. E., Middlesbrough	1		1
Keay, Dr. J. H., London	1		1
Lankester, Mr. C. P., Guildford	1	1	2
Mactier, Dr. H. C., Wolverhampton	1	1	2
Shaw, Dr. Lauriston E., London (resigned)	1		1
Smith, Dr. F. J., London	1		1
Swayne, Dr. F. G., London	1	1	2

IRISH COMMITTEE.

Members of Committee.	Nov. 30th, 1912.	Total.
JOHNSTONE, Mr. R. J., Belfast (Chairman)		
President		
Chairman of Representative Meetings		
Chairman of Council		
Treasurer		
Carey, Dr. R. B., Borris		
Cooke, Dr. J. G., Londonderry		
Corby, Professor H., Cork		
Costello, Dr. T. B., Tuam		
Craig, Dr. James, Dublin		
Darling, Dr. J. Singleton, Lurgan	1	1
Davison, Dr. John R., Belfast	1	1
Giusani, Dr. J. J., Cork		
Kenny, Dr. J. M., Granard	1	1
Kidd, Dr. F. W., Dublin		
Lee, Dr. P. G., Cork		
Mahon, Dr. R. B., Ballinrobe		
Mills, Dr. John, Ballinasloe		
Power, Dr. J., Cahir		
Quirke, Dr. James, Piltown		
Robb, Dr. J. Gardiner, Belfast		
Walshe, Dr. Denis, Graigue		
Warnock, Dr. H. T. A., Donegal	1	1
White, Professor A. H., Dublin	1	1

IRISH CONJOINT COMMITTEE.

Members of Committee.	Aug. 6, 1912.	Oct. 16, 1912.	Nov. 16, 1912.	Dec. 31, 1912.	Jan. 14, 1913.	Jan. 22, 1913.	Total.
JOHNSTONE, Mr. R. J., Belfast (Chairman)	1	1		1	1		4
Agnew, Dr. S. Lurgan	1	1	1	1	1	1	6
Coates, Dr. Stanley B., Belfast	1	1					2
Cooke, Dr. J. G., Londonderry		1					1
Costello, Dr. T. B., Tuam			1	1			2
Craig, Dr. James, Dublin			1				1
Darling, Dr. J. Singleton, Lurgan	1	1	1	1	1		5
Davidson, Dr. Thos. A., Belfast			1	1	1		3
Davison, Dr. John R., Belfast		1	1	1	1		4
Day, Dr. J. M., Dublin	1			1		1	3
Delahoyde, Dr. O. C. J., Dublin	1	1	1	1		1	5
Donnelly, Dr. T., Dublin	1	1	1	1	1	1	6
Foley, Dr. C. H., Ardrahan	1						1
Forde, Dr. Dudley, Strokestown						1	1
Grace, Dr. Pierce, Kilkenny			1	1			2
Giusani, Dr. J. J., Cork	1	1		1			3
Hayes, Dr. M. J., Cork		1	1	1			3
Hennessy, Dr. Thomas, Tipperary	1	1	1	1			5
Hickey, Dr. G. A., New Ross					1		1
Kenny, Dr. J. M., Granard	1		1				2
Kidd, Dr. F. W., Dublin	1	1	1			1	4
Kidd, Dr. L., Enniskillen	1		1	1		1	4
Lee, Dr. P. G., Cork	1						1
Lynn, Dr. Kathleen, Dublin		1	1	1		1	4
Macintosh, Dr. John, Belfast		1	1	1			3
Maguire, Dr. Katharine M. N., Dublin		1	1				2
Mahon, Dr. R. B., Ballinrobe		1					1
Mills, Dr. John, Ballinasloe	1					1	2
Mitchell, Dr. A. B., Belfast				1			1
Moorhead, Dr. T. H., Cavan				1			1
O'Connor, Dr. C. J., Celbridge	1	1	1	1			4
O'Donohoe, Dr. F. G., Castlerea	1						1
O Kane, Dr. Michael, Londonderry				1			1
Olpherts, Dr. John W., Downpatrick	1			1			2
Peacocke, Dr. George, Dublin			1				1
Power, Dr. J., Cahir	1	1	1	1	1		5
Purefoy, Dr. R. D., Dublin		1		1		1	3
Quirke, Dr. J., Piltown	1						1
Rowlette, Dr. R. J., Dublin			1	1		1	3
Ryan, Dr. J. D., Rathdrum		1		1		1	3
Thompson, Dr. Edward, Omagh				1			1
Walshe, Dr. Denis, Graigue	1		1	1			3
Warnock, Dr. H. T. A., Donegal	1	1					2
White, Professor A. H., Dublin	1	1	1	1	1	1	6
Woods, Mr. R. H., Dublin	1			1		1	3

SUBCOMMITTEES OF THE IRISH CONJOINT COMMITTEE.

Members of Committee.	Aug. 14, 1912.	Aug. 21, 1912.	Aug. 28, 1912.	Sept. 4, 1912.	Sept. 18, 1912.	Oct. 9, 1912.	Oct. 16, 1912.	Nov. 16, 1912.	Dec. 7, 1912.	Oct. 26, 1912.	Dec. 31, 1912.	Total.
SANATORIUM SUBCOMMITTEE.												
WOODS, Mr. R. H., Dublin (Chairman)		1	1	1	1	1			1			6
Agnew, Dr. S., Lurgan	1	1	1	1	1	1	1	1	1			9
Donnelly, Dr. T., Dublin	1	1	1				1	1				5
Johnstone, Mr. R. J., Belfast			1				1		1			3
Kidd, Dr. F. W., Dublin		1	1	1		1		1	1			6
Kidd, Dr. L., Enniskillen	1	1	1	1				1				5
O'Connor, Dr. C. J., Celbridge	1	1	1	1	1	1	1	1				9
White, Professor A. H., Dublin	1	1	1	1	1	1	1	1	1			9
EXECUTIVE SUBCOMMITTEE.												
JOHNSTONE, Mr. R. J., Belfast (Chairman)										1	1	2
Agnew, Dr. S., Lurgan										1	1	2
Day, Dr. J. M., Dublin												
Donnelly, Dr. T., Dublin										1		1
Giusani, Dr. J. J., Cork												
Hennessy, Dr. Thomas, Tipperary											1	1
Macintosh, Dr. John, Belfast												
Mahon, Dr. R. B., Ballinrobe												
Mills, Dr. John, Ballinasloe										1		1
O'Connor, Dr. C. J., Celbridge												
Power, Dr. Joseph, Cahir											1	1
Ryan, Dr. J. D., Rathdrum												
Warnock, Dr. H. T. A., Donegal												
White, Professor A. H., Dublin										1	1	2
HOSPITALS SUBCOMMITTEE.												
JOHNSTONE, Mr. R. J., Belfast (Chairman)										1		1
Cooke, Dr. J. G., Londonderry										1		1
Corby, Professor H., Cork										1		1
Cotter, Dr. J., Cork										1		1
Fogarty, Dr. W., Limerick										1		1
Fullerton, Mr. A., Belfast										1		1
Kidd, Dr. L., Enniskillen										1		1
Rowlette, Dr. R. J., Dublin										1		1
Stokes, Mr. Henry, Dublin										1		1
Townsend, Dr. H. R., Cork										1		1
White, Professor A. H., Dublin										1		1

JOURNAL COMMITTEE.

Members of Committee.	Oct. 11, 1912.	Jan. 10, 1913.	March 28, 1913.	Total.
LUCAS, Mr. Albert, Birmingham (Chairman)	1	1	1	3
President				
Chairman of Representative Meetings	1			1
Chairman of Council		1	1	3
Treasurer	1		1	2
Beaton, Dr. R. M., London	1	1	1	3
Buist, Dr. R. C., Dundee (resigned)	1	1		2
Milburn, Dr. C. H., Hull	1		1	2
Munro, Dr. D. G. M., Maidenhead	1	1	1	3
Whitby, Dr. C. J., Bath	1		1	2
Chairman of Central Ethical Committee	1	1		2
LIBEL ACTIONS SUBCOMMITTEE.				
BEATON, Dr. R. M., London (Chairman)	1	1		2
President				
Chairman of Representative Meetings	1	1		2
Chairman of Council				
Treasurer			1	1
Chairman of Journal Committee			1	1
Buist, Dr. R. C., Dundee (resigned)	1			1
Munro, Dr. D. G. M., Maidenhead	1	1		2

MEDICO-POLITICAL COMMITTEE.

Members of Committee.	Oct. 9, 1912.	April 2, 1913.	Feb. 26, 1913.	April 9, 1913.	Total.
GARSTANG, Mr. T. W. H., Altrincham (Chairman)	1	1			2
President					
Chairman of Representative Meetings					
Chairman of Council					
Treasurer					
Beaton, Dr. R. M., London	1	1			2
Dewar, Dr. M., Edinburgh (resigned)	1				1
Durran, Dr. J. G., Leighton Buzzard (resigned)	1				1
Flemming, Mr. C. E. S., Bradford-on-Avon (resigned)	1				1
Greer, Mr. W. J., Newport, Mon.	1	1			2
Heggs, Dr. T. Barrett, Sittingbourne	1	1			1
Henry, Dr. R. Wallace, Leicester	1				1
Maclean, Dr. Ewen J., Cardiff (resigned)	1				1
Reynolds, Dr. E. S., Manchester					
Todd, Mr. D. F., Sunderland	1				1
Williams, Dr. A. H., Harrow	1				1
Chairman of Public Health Committee	1	1			2
JOINT MEDICO-POLITICAL AND HOSPITALS SUBCOMMITTEE.					
CHAIRMAN OF HOSPITALS COMMITTEE (Chairman)			1		1
Representatives of Medico-Political Committee.					
Chairman of Medico-Political Committee					
Beaton, Dr. R. M., London			1	1	2
Macdonald, Dr. J. A., Taunton					
Maclean, Dr. Ewen J., Cardiff (resigned)					
Rayner, Dr. Edwin, Stockport					
Representatives of Hospitals Committee.					
Bushby, Dr. T., Liverpool			1	1	2
Ewart, Dr. David, Chichester					
Howell, Dr. R. E., Middlesbrough			1		1
Mackintosh, Dr. D. J., M.V.O., Glasgow			1	1	2
Mactier, Dr. H. C., Wolverhampton			1	1	2
Shaw, Dr. Lauriston E., London (resigned)					

NAVAL AND MILITARY COMMITTEE.

Members of Committee.	Oct. 7, 1912.	April 7, 1913.	Total.
*GREANY, Surgeon-General J. P., I.M.S., London (Chairman)	1	1	2
President			
Chairman of Representative Meetings			
Chairman of Council			
Treasurer			
Andrew, Dr. J. Grant, Glasgow			
Barrow, Colonel H. J. W., A.M.S. (ret.), London	1	1	2
Benson, Surgeon-General P. H., I.M.S., Walmer	1	1	2
*Bentham, Inspector-General R., R.N. (ret.), London			
*Harris, Lieut.-Col. F. W. H. Davie, R.A.M.C., Addlestone (resigned)	1		1
Thomas, Colonel J. Raglan, R.A.M.C.T.F., Exeter	1	1	2

* Representative on the Council of the Royal Navy Medical Service, Army Medical Service, Indian Medical Service.

ORGANIZATION COMMITTEE.

Members of Committee.	Oct. 15, 1912.	Jan. 14, 1913.	April 8, 1913.	Jan. 7, 1913.	April 1, 1913.	Feb. 11, 1913.	Total.
LARKIN, Mr. F. Charles, Liverpool (Chairman)	1	1	1				3
President							
Chairman of Representative Meetings							
Chairman of Council							
Treasurer							
Coombe, Mr. Russell, Exeter	1	1	1				3
Crosse, Dr. R. E., London (co-opted)			1				1
Garstang, Mr. T. W. H., Altrincham	1	1	1				3
Johnstone, Mr. R. J., Belfast							
Metcalfe, Dr. James, London	1	1	1				3
Williams, Dr. A. H., Harrow							
GRANTS SUBCOMMITTEE.							
CHAIRMAN OF ORGANIZATION COMMITTEE (Chairman)				1	1		2
Coombe, Mr. Russell, Exeter					1		1
Metcalfe, Dr. James, London							
Williams, Dr. A. H., Harrow							
CONFERENCE OF SECRETARIES SUBCOMMITTEE.							
COOMBE, Mr. RUSSELL, Exeter (Chairman)					1		1
Chairman Organization Committee					1		1
Greer, Mr. W. J., Newport (Mon.)					1		1
Heggs, Dr. T. Barrett, Sittingbourne					1		1
Reiment, Mr. P. C., London							
Williams, Dr. A. H., Harrow							
REGULATIONS AND STANDING ORDERS SUBCOMMITTEE.							
CHAIRMAN OF ORGANISATION COMMITTEE (Chairman)						1	1
Chairman of Representative Meetings						1	1
Chairman of Council						1	1
Treasurer						1	1
Garstang, Mr. T. W. H., Altrincham						1	1
With—							
Coombe, Mr. Russell, Exeter						1	1

PUBLIC HEALTH COMMITTEE.

Members of Committee.	Oct. 8th, 1912.	April [illegible], 1913.	July 25rd 1912.	Total.
DOMVILLE, Mr. E. J., Bristol (Chairman)	1	1		2
President				
Chairman of Representative Meetings	1			1
Chairman of Council				
Treasurer				
Farquharson, Dr. A. C., Spennymoor (resigned)	1			1
Heggs, Dr. T. Barrett, Sittingbourne	1	1		2
Jones, Mr. Herbert, Hereford	1			1
Lord, Mr. C. Courtenay, Gillingham		1		1
Lyster, Dr. R. A., Winchester	1	1		2
Wynne, Dr. F. E., Leigh				
VACCINATION SUBCOMMITTEE.				
DOMVILLE, Mr. E. J., Bristol (Chairman)			1	1
Cameron, Dr. A. G. R., Worthing			1	1
Drury, Dr. Arthur, Halifax			1	1
Jones, Mr. Herbert, Hereford			1	1
Keay, Dr. J. H., London			1	1
Lyster, Dr. R. A., Winchester				
Pringle, Dr. A. M. N., Ipswich				

SCIENCE COMMITTEE.

Members of Committee.	Oct. 5, 1912.	April 5, 1913.	Jan. 21, 1913.	Total.
SMITH, Dr. F. J., London (Chairman)	1	1		2
President				
Chairman of Representative Meetings				
Chairman of Council				
Treasurer				
Dixon, Professor W. E., F.R.S., Cambridge			1	1
Haldane, Dr. J. S., F.R.S., Oxford	1	1		2
Helme, Dr. T. A., Manchester				
Martin, Dr. C. J., F.R.S., London			1	1
Stockman, Professor Ralph, Glasgow			1	1
White, Professor A. H., Dublin			1	1
STANDING LIBRARY SUBCOMMITTEE.				
CHAIRMAN OF SCIENCE COMMITTEE (Chairman)				1 1
Treasurer				
Dixon, Professor W. E., F.R.S., Cambridge				
Martin, Dr. C. J., F.R.S., London				
Editor BRITISH MEDICAL JOURNAL				1 1

FORMER STATE SICKNESS INSURANCE COMMITTEE.

Members of Committee.	July 31, 1912.	Aug. 8, 1912.	Sept. 5, 1912.	Sept. 12, 1912.	Sept. 19, 1912.	Sept. 26, 1912.	Oct. 3, 1912.	Oct. 10, 1912.	Oct. 17, 1912.	Oct. 24, 1912.	Nov. 7, 1912.	Nov. 14, 1912.	Total.
CHAIRMAN OF COUNCIL (Chairman)	—	1	—	1	—	—	1	1	1	1	—	1	7
The President	—	—	1	1	1	1	1	—	1	—	—	—	6
Chairman of Representative Meetings	1	1	—	—	1	1	1	1	1	1	1	1	10
Treasurer	1	1	—	1	1	1	1	1	—	1	1	1	10
Adams, Dr. John, Glasgow	1	—	1	1	1	1	1	1	1	1	1	1	11
Beaton, Dr. R. M., London	—	1	1	1	1	1	1	1	1	1	1	1	11
Carter, Dr. T. M., Bristol	1	1	1	1	1	1	—	1	1	1	1	1	10
Darling, Dr. J. Singleton, Lurgan	1	—	1	—	1	—	1	—	—	1	—	—	5
Greenwood, Dr. Major, London	1	1	1	1	1	1	1	1	1	1	1	1	12
Hodgson, Dr. S., Salford	—	1	1	—	—	1	1	—	1	1	—	—	6
Ivens, Miss Mary H. F., M.S., Liverpool	—	1	1	1	1	—	1	1	1	1	1	1	10
Johnston, Dr. R. McKenzie, Edinburgh	1	1	—	1	1	1	1	—	1	1	1	1	10
Jones, Mr. Herbert, Hereford	—	—	—	—	—	—	1	1	1	1	1	—	6
Long, Miss Constance E., M.D., London	—	—	1	1	1	1	1	1	1	1	1	1	10
Maclean, Dr. Ewen J., Cardiff	—	1	1	1	1	1	1	1	1	1	1	1	11
Pearse, Dr. James, Trowbridge	—	—	1	—	1	1	1	—	1	1	1	—	7
Price, Dr. E. Owen, Bangor	1	1	1	—	1	1	1	1	1	1	1	1	11
Shaw, Dr. Lauriston E., London	—	—	—	—	1	1	1	1	1	1	1	1	8
Thomson, Dr. D. G., Norwich	1	—	—	1	1	1	—	1	1	1	—	1	8
Todd, Mr. D. F., Sunderland	1	1	1	1	1	1	1	1	1	1	1	1	12
Turner, Mr. E. B., London	1	—	—	—	1	1	1	1	1	1	1	1	9
White, Professor A. H., Dublin	1	—	—	1	—	—	—	—	—	—	—	—	2
Willock, Mr. E. H., Croydon	1	1	1	1	1	—	1	1	1	1	1	1	11

[N.B.—After the Representative Meeting, November 20th, 1912, a new Committee was constituted, *q.v.*]

PRESENT STATE SICKNESS INSURANCE COMMITTEE.

Appointed by the Special Representative Meeting, London, November 20th, 1912.

Members of Committee.	Nov. 28, 1912.	Dec. 12, 1912.	Dec. 17, 1912.	Dec. 30, 1912.	Jan. 2, 1913.	Jan. 9, 1913.	Jan. 23, 1913.	Feb. 6, 1913.	Feb. 20, 1913.	March 6, 1913.	March 13, 1913.	March 27, 1913.	April 10, 1913.	April 17, 1913.	Total.
CHAIRMAN OF COUNCIL (Chairman)	1	1	1	1	—	1	1	1	1	—	1	1	—	10	
President	—	—	—	—	1	—	1	—	1	—	—	1	—	1	5
Chairman of Representative Meetings	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
Treasurer	1	—	—	—	1	1	—	—	1	1	1	1	1	—	8
Adams, Dr. John, Glasgow	1	1	1	—	—	1	—	1	1	—	1	1	1	1	10
Beaton, Dr. M., London	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
Carter, Dr. T. M., Bristol	1	1	1	1	1	—	—	—	1	—	—	—	—	—	6
Costello, Dr. T. B., Tuam	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Darling, Dr. J. Singleton, Lurgan	1	—	—	—	1	—	—	—	—	—	—	—	1	—	3
*Fothergill, Dr. E. R., Brighton	—	—	—	—	—	—	—	1	1	1	1	1	1	1	7
Helme, Dr. T. A., Manchester	1	1	1	—	1	1	—	—	—	—	—	—	—	—	5
Ivens, Miss Mary H. F., M.S., L'pool	1	1	—	1	1	1	1	1	1	—	1	1	1	12	
Johnston, Dr. R. McKenzie, Edinburgh	1	—	1	—	—	1	1	1	1	1	1	1	1	10	
Jones, Mr. Herbert, Hereford	1	1	1	—	—	1	1	1	1	1	1	—	1	11	
Long, Miss Constance E., M.D., London	1	1	1	—	—	1	1	1	1	1	1	1	1	12	
Price, Dr. E. O., Bangor	1	1	1	—	—	—	—	1	1	1	1	1	1	9	
Thomson, Dr. D. G., Norwich	1	1	—	—	—	1	1	—	1	—	1	1	1	8	
Todd, Mr. D. F., Sunderland	1	—	—	—	1	1	—	1	—	1	—	1	1	—	7
Turner, Mr. E. B., London	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
Willock, Mr. E. H., Croydon (resigned)	1	1	1	1	1	1	1	—	—	—	—	—	—	—	7

* Appointed February 6th, 1915, vice Mr. Willock, resigned.

SUBCOMMITTEES OF THE STATE SICKNESS INSURANCE COMMITTEE.

Members of Committee.	Aug. 7, 1912.	Aug. 14, 1912.	Aug. 20, 1912.	Aug. 27, 1912.	April 8, 1913.	April 16, 1913.	Total.
PUBLIC MEDICAL SERVICE SUBCOMMITTEE.							
WILLOCK, Mr. E. H. Croydon (Chairman)	1	1	1	1			4
Daniel, Dr. E. G. C., Epsom	1	1	1	1			4
Henry, Dr. R. Wallace, Leicester				1	1		2
Hodgson, Dr. S., Salford	1	1	1	—			3
Ledward, Dr. H. A., Letchworth	1	1	1	1			4
Williams, Dr. A. H., Harrow			1	1	1		3
MIDWIVES SUBCOMMITTEE.							
IVENS, Miss Mary H. F., M.S., Liverpool (Chairman)						1	1	2
Chairman State Sickness Insurance Committee						—	—	—
Beaton, Dr. R. M., London						1	—	1
Fothergill, Dr. E. R., Brighton						1	1	2

SUBCOMMITTEES OF THE STATE SICKNESS INSURANCE COMMITTEE (*continued*).

Members of Committee.	Sept. 24, 1912.	Oct. 14, 1912.	Feb. 13, 1913.	Feb. 27, 1913.	March 19, 1913.	April 8, 1913.	April 15, 1913.	April 21, 1913.	March 19, 1913.	April 15, 1913.	Nov. 22, 1912.	Nov. 25, 1912.	Nov. 26, 1912.	Total.
SANATORIUM SUBCOMMITTEE.														
Chairman of State Sickness Insurance Committee														
Beaton, Dr. R. M., London	1	1												2
Jones, Mr. Herbert, Hereford	—	1												1
Shaw, Dr. Lauriston E., London	1	1												2
Turner, Mr. E. B., London	1	1												2
SPECIAL SUBCOMMITTEE.														
BEATON, Dr. R. M., London (Chairman)			1	1										2
Chairman of State Sickness Insurance Committee														
Fothergill, Dr. E. R., Brighton			1	1										2
Todd, Mr. D. F., Sunderland														
Willock, Mr. E. H., Croydon			1	1										2
SPECIAL SUBCOMMITTEE re SPECIAL FUNDS.														
BEATON, Dr. R. M., London (Chairman)						1	1	1	1					4
Chairman, State Sickness Insurance Committee														
Biggs, Dr. M. G., London														
Fothergill, Dr. E. R., Brighton						—	1	1	1					3
Johnston, Dr. R. McKenzie, Edinburgh						1	1	1	—					3
Jones, Mr. Herbert, Hereford						1	1	—	—					2
Todd, Mr. D. F., Sunderland						—	—	—	—					
Tomkins, Mr. H. H., London						—	—	1	1					2
SUBCOMMITTEE re AMENDMENTS TO ACT AND REGULATIONS.														
TURNER, Mr. E. B., London (Chairman)										1	1			2
Chairman of State Sickness Insurance Committee										1	—			1
Beaton, Dr. R. M., London										1	1			2
Flemming, Mr. C. E. S., Bradford-on-Avon										1	1			2
Fothergill, Dr. E. R., Brighton										—	1			1
Johnston, Dr. R. McKenzie, Edinburgh										1	1			2
Milward, Dr. W. Courtenay, Cardiff										1	—			1
Tomkins, Mr. H. H., London										1	1			2
Willock, Mr. E. H., Croydon										1	1			2
SUBCOMMITTEE TO ARRANGE CONFERENCE WITH THE CHANCELLOR OF THE EXCHEQUER.														
Chairman of Representative Meetings												1	1	3
Chairman of Council												1	1	3
Beaton, Dr. R. M., London												1	1	3
Helme, Dr. T. Arthur, Manchester												1	1	3
Turner, Mr. E. B., London												1	1	3

SCOTTISH COMMITTEE.

Members of Committee.	Oct. 25, 1912.	Dec. 27, 1912.	Feb. 21, 1913.	April 4, 1913.	Total.
HAMILTON, Dr. J. R., Hawick (Chairman)	1	1	1	1	4
President					
Chairman of Representative Meetings					
Chairman of Council					
Treasurer					
Adams, Dr. John, Glasgow					
Anderson, Dr. G. C., Methil			1	1	2
Andrew, Dr. J. Grant, Glasgow	1				1
Buist, Dr. R. C., Dundee	1	—	1	1	3
Carmichael, Dr. E. W. S., Edinburgh	1				1
Clow, Dr. W., Paisley			1	1	2
Dewar, Dr. Michael, Edinburgh	1	—	1	1	3
Fraser, Dr. T., Aberdeen					
Gordon, Dr. John, Aberdeen	1		1	1	3
Graham, Dr. R. Balfour, Edinburgh	1				1
Livingston, Dr. G. R., Dumfries	1	1	1	1	4
Loudon, Dr. J. Livingstone, Hamilton	1	—	1	—	2
Macfarlane, Dr. W. D., jun., Glasgow	1	—	—	1	2
Moir, Dr. J. Munro, Inverness	1	1	1	1	4
Moorhouse, Dr. J. E., Stirling	1	—	—	1	2
Smith, Dr. F. K., Aberdeen	1	—	—	—	1
Smith, Dr. J. Martin, Dundee	1	—	—	—	1
Taylor, Dr. W. A., Perth	1	1	1	1	4
Trotter, Dr. A., Perth	—	1	—	—	1

CONFERENCE OF REPRESENTATIVES OF COLLIERY SURGEONS.

Members of Committee.	Nov. 6th, 1912.	Total.
TODD, Mr. D. F., Sunderland (Chairman)	1	1
Battersby, Dr. J. H., Doncaster	1	1
Campbell, Dr. Thomas, Wigan	1	1
Castle, Dr. R. F., Darfield	1	1
Craig, Dr. William, Cowdenbeath	1	1
Crawford, Dr. C., Hamilton	1	1
Dickson, Dr. D. E., Lochgelly	1	1
Dillon, Dr. L. G., Seaham Harbour	1	1
Duncan, Dr. William, Chesterfield	1	1
Easterbrook, Dr. A. M., Gorebridge	1	1
Edwards, Dr. W. Bickerton, Neath	1	1
Farquharson, Dr. D. A. R., Washington	1	1
Fotheringham, Dr. John, Motherwell	1	1
Fraser, Dr. L. G., North Shields	1	1
Houfton, Dr. E. H., Mansfield	1	1
Joss, Dr. John, Denny	1	1
Lloyd, Dr. J. D. S., Chirk	1	1
Morgan, Mr. D. Naunton, Bargoed	1	1
Pegge, Dr. E. Vernon, Briton Ferry	1	1
Proud, Dr. F., Maryport	1	1
Smith, Dr. Andrew, Whickham	1	1
Thomas, Dr. W. E., Ystrad Rhondda	1	1
Wolverson, Dr. F., Walsall Wood	1	1

CONFERENCE OF REPRESENTATIVES OF THE BRITISH MEDICAL ASSOCIATION AND REPRESENTATIVES OF SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Members of Committee.	Nov. 12, 1912.	Total.
Representatives of Medico-Political Committee.		
The Chairman	1	1
Beaton, Dr. R. M., London	1	1
Durran, Dr. J. G., Leighton Buzzard	—	—
Garstang, Mr. T. W. H., Altrincham	1	1
Todd, Mr. D. F., Sunderland	—	—
Williams, Dr. A. H., Harrow	1	1
Representatives of Public Health Committee.		
Domville, Mr. E. J., Bristol	1	1
Farquharson, Dr. A. C., Spennymoor	1	1
Heggs, Dr. T. B., Sittingbourne	1	1
Lord, Mr. C. Courtenay, Gillingham	—	—
Lyster, Dr. R. A., Winchester	—	—
Wynne, Dr. F. E., Leigh	1	1
Representatives of State Sickness Insurance Committee.		
Carter, Dr. T. M., Bristol	1	1
Maclean, Dr. Ewen J., Cardiff	—	—
Shaw, Dr. Lauriston E., London	1	1
Turner, Mr. E. B., London	1	1
Verrall, Mr. T. Jenner, Bath	1	1
Willock, Mr. E. H., Croydon	—	—
Representatives of Society of Medical Officers of Health.		
Bailey, Dr. T. Ridley	1	1
Barlow, Mr. T. W. N.	1	1
Buchan, Dr. George F.	1	1
Butler, Dr. William	1	1
Dudfield, Dr. R.	1	1
Forbes, Dr. Duncan	1	1
Harris, Mr. A. Wellesley	1	1
Hill, Dr. A. Bostock	1	1
Hope, Dr. E. W.	1	1
Jones, Mr. Herbert	1	1
Lawrence, Dr. Sidney L.	1	1
Porter, Dr. A. E.	1	1

LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list. The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

Meetings of Branches and Divisions.

DORSET AND WEST HANTS BRANCH.

THE annual meeting of this Branch was held at Bournemouth on May 21st. The President, Mr. F. WINSON RAMSAY, was in the chair, and thirty-six members were present.

Annual Report and Financial Statement. — The TREASURER presented the financial statement for 1912, showing a balance in hand of £10 2s. 6d. The annual reports of the Branch and Divisions were read and received.

Congratulations to Dr. J. Roberts Thomson. — The PRESIDENT proposed that the congratulations of the Branch be sent to Dr. J. Roberts Thomson, who had that day received the honorary freedom of the Borough of Bournemouth. The vote was carried with acclamation.

Induction of the President.—The PRESIDENT introduced his successor, Dr. H. G. LYS, who took the chair and thanked Mr. Ramsay and the Branch.

Summer Meeting.—It was decided to hold the summer meeting at Wareham or Swanage.

Presidential Address.—The President, Dr. LYS, then gave the presidential address. Mr. CHARLES J. MARSH proposed and Mr. RAMSAY seconded a hearty vote of thanks to the President for his address, and for his kindness in entertaining members to luncheon at his house before the meeting and inviting them to tea at its close.

New Members.—The PRESIDENT announced that Dr. T. Martland and Dr. H. H. Woods had been elected members of the Association.

GLASGOW AND WEST OF SCOTLAND BRANCH.

THE annual general meeting of this Branch took place in Glasgow on May 13th. Dr. W. SEMPLE YOUNG, the retiring President, being in the chair.

Adoption of Reports.—The reports of the Honorary Secretary and the Honorary Treasurer were adopted on the proposal of Dr. W. G. MACPHERSON (Bothwell). That of the Honorary Secretary stated that 139 new members had been added to the membership roll during the year, and that the net membership on December 31st, 1912, was 864, as compared with 781 on the same date in the preceding year. At meetings of the Branch and its Council the time had been occupied almost solely by consideration of the Insurance Act as it affected members of the Association and the profession in general. Much serious work remained to be done, and the profession would still best be served by the united action of the Association.

Dr. JOHN ADAMS, Representative of the Branch on the Central Council of the Association, reported in regard to various subjects under consideration of the Council at the present time.

Election of Officers.—The following officers were elected:

President.—Dr. A. T. Campbell.
President-elect.—Dr. John Goff.
Vice-Presidents.—Dr. W. L. Muir and Dr. William Semple Young.
Honorary Secretary.—Dr. William Bryce.
Honorary Treasurer.—Dr. William Caskie.

Before vacating the chair the retiring president, Dr. W. S. YOUNG, thanked the Branch for the confidence placed in him during a trying and arduous year.

Vote of Thanks.—On the motion of Dr. JOHN ADAMS a a resolution conveying the thanks of the Branch to the outgoing office-bearers was adopted. It was acknowledged by Dr. W. D. MACFARLANE, who has been honorary secretary for several years.

On the completion of business a smoking concert was held.

LANCASHIRE AND CHESHIRE BRANCH:

PRESTON DIVISION.

THE annual general meeting of this Division was held on May 7th, when Dr. R. C. BROWN presided over twenty-six members.

Annual Report for the Year 1912.—The annual report showed that eleven general meetings had been held with an average attendance of 47. The Provisional Medical Committee had met thirteen times, with an average

attendance of 15.7. Reference was made to the loss the Division has sustained by the death of their Representative, Dr. J. E. Garner. The accounts of the Division and the Provisional Medical Committee were read and passed.

Election of Officers.—The following officers were appointed for the ensuing year:

President.—Dr. R. C. Brown.
Vice-Presidents.—Drs. A. C. Rayner and J. A. Harris.
Representative.—Dr. W. H. Irvin Sellers.
Deputy Representative.—Dr. J. E. Healey.
Representatives on Branch Council.—Drs. J. A. Harris and W. Sykes.
Honorary Secretary and Treasurer.—Dr. W. Sykes.
Committee.—Drs. J. E. Dunn, A. P. Mooney, W. J. Leighton, J. E. Healey, Turnbull Smith, A. I. Petyt, J. Lea.

Votes of Thanks.—On the motion of Dr. SHARPLES, seconded by Dr. DERHAM, a hearty vote of thanks was accorded to the officers for the very efficient way in which they had carried out their duties in this most trying year. Dr. BROWN and Dr. SYKES acknowledged the compliment.

Insurance Act.—A discussion was raised on maternity benefit, and the question of the appointment of whole-time consultants. These matters were referred to the Local Medical Committee. Dr. Petyt was elected for No. 5 Area, and Dr. W. J. Leighton for No. 11 Area, of the Lancashire County Medical Committee. It was decided to take no steps with regard to boundaries of Divisions unless requested by members.

Expenses of Representatives.—A communication having been read from the Branch Secretary with reference to the share of the Preston Division in the cost of paying the expenses of members attending meetings of the Representative Body, Council, and Committees, Dr. RIGG proposed, and Dr. SELLERS seconded, that a levy be made, and £5 5s. was collected from the members present. The Secretary was instructed to circularize the members not present at the meeting.

Temporary Residents.—Dr. RIGG opened a discussion on the method of payment by the Commissioners for the treatment of visitors and migratory persons. After considerable discussion, in which Drs. MOONEY, SELLARS, DERHAM, LEIGHTON, and PIMBLETT took part, Dr. DERHAM moved, and Dr. RIGG seconded, the following resolution, which was adopted:

> That this meeting strongly protests against any deduction made from the capitation fees of persons making visits to other areas, except genuine removals in pursuit of their occupation. And is of opinion that such deduction would be a breach of their agreement with practitioners on the panel, on the part of the Commissioners.

WARRINGTON DIVISION.

AT the annual meeting of this Division on May 20th, when Dr. BURROWES was in the chair, ten other members were present.

Vote of Condolence.—A vote of condolence with the family of the late Dr. Willett of Stockton Heath was passed.

Vote of Thanks.—A hearty vote of thanks was given to Dr. Burrowes for his services as Chairman during the past twelve months.

Election of Officers.—The following officers were elected:

Chairman.—Dr. Langdale.
Vice-Chairman.—Dr. Bennett.
Honorary Secretary and Treasurer.—Dr. T. A. Murray.
Representative on Branch Council.—Dr. Bowden, vice Dr. Burrowes, whose term has expired under the rules of the Division.
Members of the Executive.—Drs. Burrowes, Naden, and Binns.

Election to Central Council.—It was resolved to support Dr. Garstang and Mr. Larkin as candidates for the Central Council.

Alteration of By-law.—The by-law relating to the election of the Executive was altered in accordance with the recommendation of the Council.

Expenses of Representatives.—It was decided to make a voluntary levy of 6s. a member towards the expenses of Representatives, etc.

METROPOLITAN COUNTIES BRANCH:

LEWISHAM DIVISION.

THE annual general meeting of the Lewisham Division was held at Catford on May 19th.

Annual Report.—The annual report was adopted.

Election of Officers.—The following office-bearers were elected for the ensuing year:

Chairman.—Dr. T. Comber.
Vice-Chairman.—Dr. L. F. Hemmans.
Honorary Secretary and Treasurer.—Dr. H. M. Bundey.
Representative to Representative Meetings.—Dr. J. T. Macnamara.
Representative on Branch Council.—Dr. F. Hudson Evans.
Executive Committee.—Dr. T. W. Atkinson, Dr. F. S. Barnett, Dr. Charles Blue, Dr. A. Grayling, Dr. Wheeler O'Bryen, Dr. W. Wilson.

Vote of Thanks.—A very hearty vote of thanks was accorded Dr. Toogood, the retiring Chairman, for his zeal and assistance during the past year.

LAMBETH DIVISION.

THE annual meeting of the Lambeth Division was held at Bethlem Hospital on May 23rd.

Election of Officers.—The following officers were elected for the ensuing year:

Chairman.—Dr. W. H. B. Stoddart.
Vice-Chairman.—Dr. R. J. Farman.
Representatives on Branch Council.—Dr. H. Taylor and Dr. J. V. C. Denning.
Representatives at Representative Meetings.—Dr. T. H. Parkes Peers and Dr. M. Moran.
Honorary Secretary and Treasurer.—Dr. T. H. Parkes Peers.
Executive Committee.—Drs. Harvey Norton, F. O. Stoker, J. Morris Stoker, D. Hammond Fraser, A. J. McNickle, D. McCarthy, A. G. Everard, Stanley Brook, A. R. Moore, W. A. Atkinson, A. R. French, and G. R. Elwin.

TOWER HAMLETS DIVISION.

THE annual meeting of the Tower Hamlets Division was held on May 20th at the Public Health Offices, Stepney. Dr. GOODMAN was in the chair, and eleven other members were present.

Election of Officers.—The officers and committee were elected as follows:

Chairman.—Dr. Goodman.
Vice-Chairman.—Dr. Byrne.
Secretary.—Dr. Oxley.
Representative at Representative Meeting.—Dr. Oxley.
Representative to Branch Council.—Dr. Michael.
Committee.—Drs. Grant, Thomas, Cardale, Black, Hume, Williams, Toland, and Villacott.

Annual Report.—The report of the Executive Committee, which was adopted, stated that since the inauguration of this Division in July, 1912, nine general meetings, five Executive Committee meetings, and thirteen meetings of the Provisional Medical Committee had been held. The principal work of the Division had been in connexion with the Insurance Act. Four scientific meetings had been held and been addressed by Drs. Dundas Grant, Hadley, Russell Andrewes, and McAdam Eccles. The committee had considered the arrangements made for sanatorium benefit within the two boroughs concerned, and had made every effort to secure that this should be carried out on lines satisfactory to the local profession and in accordance with the policy of the British Medical Association. Negotiations were proceeding with the Seamen's National Insurance Society with the object of securing greater freedom of choice of doctor than at present exists for persons insured under that society, and especially to secure that the old patients of any particular doctor should have a right to continue to be treated by him. The committee was pleased to note the good work done by the Poplar and Stepney Medical Unions, and considered that some means of co-ordinating the work of these bodies and the Division would be of great advantage to the profession. The committee was pleased to report that in accordance with the by-laws of the Association the Division had now become a constituency for the purposes of the Representative Meeting, and was entitled to appoint a member to represent it at the forthcoming Annual Representative Meeting. The expenses of the Division had been heavy, owing partly to the committee's decision to invite all practitioners resident within the area to many of their meetings, in particular to those called to discuss matters in connexion with the National Insurance Act. The committee acknowledged the kindness of the chairman, who had allowed the use of his room for committee meetings. The number of members within the Division, which at the beginning of the year was seventy-eight, was now seventy-nine. The report concluded by expressing its indebtedness to Dr. Black, the late secretary,

for his arduous labours on behalf of the profession at a time of the greatest stress and difficulty.

Expenses of Representatives.—It was decided to raise a special fund by means of a subscription of 5s. from each member for the purpose of paying the expenses of the representative in so far as not met out of the central funds.

Medical Trade Union.—On the invitation of the Chairman, Dr. Gordon Ward, Secretary of the National Medical Medical Guild, addressed the meeting as to the advisability of joining a medical trade union.

Vote of Thanks.—The meeting terminated with a vote of thanks to the Chairman and Secretary.

MIDLAND BRANCH:

Chesterfield Division.

The annual meeting of the Chesterfield Division was held at Chesterfield on May 20th.

Presentation to Honorary Secretary.

Before proceeding to the business of the meeting, Dr. J. G. Shea stated that, as a mark of appreciation of the valuable services rendered by Dr. W. Duncan, the Honorary Secretary of the Division, the members had resolved to make a presentation to him, which, after consultation with Dr. Duncan, they had decided should be a useful article, that selected being a case of cutlery. Dr. R. A. McCrea then read an address, signed by the subscribers to the presentation. Dr. A. Green, the Chairman, added his personal testimony to the able manner in which Dr. Duncan had carried out the onerous duties of his office as Honorary Secretary during the past year, and handed the presentation to him. Dr. Duncan, in thanking his colleagues for their appreciation of his efforts, referred to the important and difficult part in the work which had been performed by Dr. R. Godwin Chase as organizer and Secretary of the Public Medical Service, and by the Subdivisional Honorary Secretaries, Drs. McCrea, A. M. Pilcher, A. Court, and T. Corkery; also to the work done by Dr. Court as Honorary Secretary of the Provisional Medical Committee, who had devoted much time and energy to the getting in, classification and dispatching of the numerous resignations of contract appointments; that without such assistance the work would have been impossible. He joined with his colleagues in thanking them for their untiring attention to matters so important to the interests of the profession. He referred with regret to the fact that, whilst locally a strong and gallant fight had been waged against such of the statutory conditions as were unjust, many practitioners had in respect of the uninsured accepted in many instances fees lower than the statutory fees for insured persons; and he warned them that this fact would be surely raised against them when in the future efforts were made to obtain improved remuneration. He urged that they should revise these lower terms, and should continue the fight, that they should keep themselves banded together and support the central organization, seeing that in such a course lay their only prospect of protecting the interests of the profession.

Annual Meeting.

Financial Statement.—Mr. A. Chawner, the Honorary Treasurer, presented the accounts and balance-sheet, which were approved.

Report of Executive Committee.—Dr. W. Duncan, the Honorary Secretary, presented the report of the Executive Committee, from which it appeared that the membership had increased from 47 to 66; there were only 23 practitioners in the area of the Division who were not members of the Association. Of these non-members 14 were principals and 9 assistants. The report was adopted.

Election of Officers.—The following officers of the Division were appointed:

Chairman.—Dr. J. G. Shea, J.P.
Vice-Chairman.—Mr. H. B. Fletcher, J.P.
Honorary Secretary.—Dr. W. Duncan.
Representative to the Representative Meeting.—Dr. W. Duncan.
Honorary Treasurer.—Mr. A. Chawner.
Representatives on Branch Council.—Drs. A. Court and A. Green.
Executive Committee.—Mr. C. Thorne, Dr. A. M. Pilcher, Mr. F. Marriott, Dr. G. Booth, J.P., Mr. J. A. Magee, Dr. T. Corkery, Dr. R. A. McCrea, and Mr. G. H. Mead, with the following *ex officio* members: The Chairman, the Vice-Chairman, the Honorary Secretary and Representative to Representative Meeting, the Honorary Treasurer, and the Representatives to the Branch Council.

Vote of Thanks.—A hearty vote of thanks was passed to Dr. Green, the retiring Chairman.

Clinical Meeting.—It was resolved that an evening clinical meeting should be held at a date to be fixed.

Local Medical Committee (Derbyshire).—A letter from the Honorary Secretary was read, in which two resolutions passed by that Committee were set out, namely:

1. That there be a fee of not less than 6d. charged for each certificate or club note issued by any medical practitioner (except the official certificate required by the Insurance Act), and, further, that the fee for certificates in compensation cases be arranged locally.
2. That a charge of not less than 1s. be made for examination of any candidate for any society or club.

After discussion it was resolved that a return be obtained from each practitioner within the area of the Division, setting out fully the terms of each contract held, and that each be asked to state whether he would agree to comply with the above-mentioned resolutions, and that if prevented from compliance by current contracts whether compliance would be given on the expiration of such contracts.

NORTHERN COUNTIES OF SCOTLAND BRANCH:

Ross and Cromarty Division.

The annual meeting of the Division was held in Dingwall on May 20th. Dr. McLean, Chairman, presided, seven other members being present.

Election of Officers.—The following office-bearers were appointed:

Chairman.—Dr. Kaye.
Vice-Chairman.—Dr. Adam.
Secretary and Treasurer.—Dr. Duncan.
Representatives on Branch Council.—Drs. Cameron and Knox.
Members of Executive Committee.—Drs. F. McRae, Smith, McLean, Middleton, Brodie, and Somerville.

Representation of the Division.—The question of a Representative for the constituency (Inverness, Ross, and Cromarty, Caithness and Sutherland) was discussed, and the Secretary was instructed to write the Secretaries of the other Divisions as to the mode of election. The meeting favoured a card vote owing to the difficulty in holding a joint meeting. The Secretary was also instructed to write the Council of the British Medical Association as to the special difficulties of holding joint meetings, and to ask for separate representation (By-law 30 (3)).

Model Ethical Rules.—The model rules for ethical procedure which were discussed at a previous meeting were approved and adopted.

Insurance Act.—Dr. Mackenzie brought up the question of certificates for insured persons, and it was unanimously agreed that the nature of illness should not be stated on the certificate, and the Secretary was instructed to write to this effect to the Insurance Committee.

Vote of Thanks.—Dr. McLean (Seaforth Sanatorium), the retiring Chairman, was heartily thanked for his able and untiring services as Chairman during the past strenuous year.

SOUTH-EASTERN BRANCH:

Guildford Division.

The annual meeting of the Guildford Division was held at the Royal Surrey County Hospital on May 16th. Dr. Kingsford, Chairman, took the chair, and there were nineteen members present.

Annual Report and Financial Statement.—The Secretary read the report of the Division's work during the past year, which, with the statement of accounts, was formally adopted.

Presentation to Officers.—The thanks of the meeting were given to the retiring Chairman (Dr. Kingsford) and the Secretary (Mr. Lankester), and Dr. Mitchell, President-elect of the Branch, made a presentation to each in the name of the Division. Dr. Mitchell referred to the services rendered by the gentlemen, especially in connexion with the fight against the National Insurance Act, recalling the fact that Dr. Kingsford had, at the special request of the Division, remained a second year in office. The testimonial took the form of a very handsome cheque, which Dr. Mitchell handed to the Chairman and

Secretary as an expression of the Division's gratitude and appreciation.

Election of Officers.—The following officers were elected for the ensuing years:

Chairman.—Mr. H. Branson Butler, F.R.C.S.Edin., Guildford.
Vice-Chairman.—Dr. Arnold Lyndon, Grayshott.
Honorary Secretary and Treasurer and Representative at Representative Meeting.—Dr. Cecil P. Lankester, Guildford.
Representative on Branch Council.—Dr. G. F. Bird, Godalming.
Executive Committee.—Dr. B. W. Bond, Mr. N. F. Kendall, Dr. B. H. Kingsford, Dr. A. M. Mitchell, Dr. B. H. Pain, Dr. H. F. Parker, Mr. F. E. Pearse, Dr. E. W. Sheaf, Dr. E. J. Smyth, Dr. A. Hope Walker, Dr. F. K. Weaver, Mr. R. W. Winstanley.

Reorganization of Branch.—A resolution of the South-Eastern Branch Council in favour of the division of the South-Eastern Branch into three Branches corresponding with the three counties of Kent, Sussex, and Surrey was then discussed and unanimously passed.

Subscription to Association.—Instructions were given to the Representative to the Annual Representative Meeting authorizing him (*inter alia*) to support an increase up to 10s. in the annual subscription for the general purposes of the Association; to oppose the suggestion of the Association becoming a trade union, but to support the motion by Leicester and Rutland in favour of the formation of a union registered under the Trade Union Acts.

Local Defence Fund.

A meeting was subsequently held of the guarantors to the Local Defence Fund, and it was resolved to make a levy of 5s. per guarantor (in addition to the one already paid of 15s.) as a grant to Central Office expenses.

Association Notices.

SPECIAL MEETING OF COUNCIL.

A SPECIAL Meeting of the Council will be held at Eleven o'clock in the forenoon of Friday, June 13th, in the Council Room at 429, Strand, London, W.C., to consider a Report of the Organization Committee on the Reform of the Present Constitution of the Association.

By Order,

GUY ELLISTON,

May 22nd, 1913. *Financial Secretary and Business Manager.*

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH.—Mr. J. Furneaux Jordan (9, Newhall Street, Birmingham) and Dr. J. G. Emanuel, Honorary Secretaries, give notice that the annual meeting of the Birmingham Branch will be held in the Medical Institute on Thursday, June 19th, at 3 p.m. Business: Election of officers. Annual report and financial statement. Inaugural address by the incoming President, Mr. W. F. Haslam.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—Drs. Laurence E. Price and Duncan Davidson (15, Priory Row, Coventry), Honorary Secretaries, give notice that the annual meeting of the constituency of the Nuneaton and Tamworth and Coventry Divisions will be held at 3.30 p.m. on Thursday, June 5th, at the Coventry Hospital, to elect a Representative for the Brighton Meeting, and any other business. At the conclusion of this meeting the annual meeting of the Coventry Division will be held for the election of officers, to consider a proposed alteration of date of meetings, and to receive the report of the Executive Committee.

BORDER COUNTIES BRANCH.—Dr. Livingston, Secretary, gives notice that the annual meeting of the Branch will be held in the Town and County Hotel, Carlisle, on Friday, June 27th.

METROPOLITAN COUNTIES BRANCH.—Drs. W. Griffith and R. E. Crosse (Honorary Secretaries) give notice that the annual general meeting of the Branch will be held at 429, Strand, W.C., on Tuesday, July 1st, at 4 p.m. The business will include a report as to the election of new officers, and the annual reports of Council and of representatives of the Branch on the Central Council. On the motion to adopt Model Ethical Rules for Branches, Dr. F. J. Smith gives notice that he will propose an alteration to the Model Ethical Rules by substituting the words "British Medical Association" for the words "Medical Profession" in Rule 1. President's address: The Profession and the Public. [The Model Ethical Rules are printed in the SUPPLEMENTS of September 21st and 28th, 1912, pages 325 and 350.]

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—Dr. A. G. Southcombe, Honorary Secretary (83, Sidney Road, Homerton, N.E.), gives notice that the eleventh annual general meeting of the Division will be held in Balfour Hall, Dunstan Street, Kingsland Road, on Friday, May 30th, at 3.30 p.m.

METROPOLITAN COUNTIES BRANCH: EAST HERTFORDSHIRE DIVISION.—Dr. H. D. Ledward, Honorary Secretary (123, Norton Way, Letchworth) gives notice that the first annual meeting of the Division will be held at 2.30 p.m., on Friday, June 20th, at the Town Hall, Ware, to elect officers, the representative of the Division on the Branch Council, the ordinary members of the Executive Committee, and the Representative of the Division in Representative Meetings. To receive the Honorary Secretary's Annual Report. To alter Rule I defining the area of the Division in accordance with the decision of the Organization Committee of the Association. To consider the business of the Annual Representative Meeting and instruct the Representative thereon.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—Drs. Walter E. Fry and P. C. Raiment, Honorary Secretaries, give notice that the annual meeting will take place at Kensington Town Hall on Thursday, June 12th, at 5 p.m., for the transaction of the following business: Annual report. Elect officers and Representatives for 1913-14, and elect Executive Committee.

MIDLAND BRANCH.—Dr. F. L. A. Greaves, Honorary Secretary and Treasurer (83, Friar Gate, Derby), announces that the annual meating of the Midland Branch will be held on June 13th, at 3 p.m., at Central Buildings, Leicester Public Medical Service, Bond Street, Leicester.

SOUTH MIDLAND BRANCH.—Dr. E. Harries-Jones, Honorary Secretary (16, Castilian Street, Northampton), announces that the annual meeting of the Branch will be held at Bedford on June 12th, under the presidency of Dr. Conning Hartley.

SOUTH-EASTERN BRANCH.—Dr. E. A. Starling, Honorary Secretary (Chillingworth House, Tunbridge Wells), gives notice that the sixty-ninth annual meeting of the Branch will be held on Wednesday, June 11th, at 1.30 p.m., at the Lion Hotel, High Street, Guildford. Dr. Arthur M. Mitchell (President-elect) invites members to lunch at the Lion Hotel, High Street, at 12.45 p.m. sharp. Agenda: In addition to the business of an ordinary meeting, (1) to receive the report of the election of officers for 1913-14; (2) to receive the annual report of the Council and financial statement, and (3) the ethical rules presented by the Council; (4) to consider the following resolution: "The South-Eastern Branch Council advise the Branch to request the Council of the Association to consent to the division of the unwieldy South-Eastern Branch into three Branches, corresponding with the three counties of Kent, Sussex, and Surrey." An excursion is arranged for the afternoon, to view the Lord Mayor Treloar's Cripples' Home at Alton, where Dr. and Mrs. Gauvain kindly invite the members to tea. The special train leaves Guildford Station at 2.40 p.m., returning about 5.30 p.m. Tickets for the return journey, 3s. 6d. each. The annual dinner will be held at the Lion Hotel, at 6.30 p.m. Members intending to be present at the lunch, excursion, or dinner wishing hospitality for the night are requested to signify their intention to Cecil P. Lankester, Esq., 1, Rectory Place, Guildford, not later than Saturday, June 7th.

SOUTH-WESTERN BRANCH.—Mr. Russell Coombe, Honorary Secretary, gives notice that the seventy-fourth annual meeting will be held on Wednesday, June 11th, at the Museum, Babbacombe Road, Torquay, at 3 p.m., when Dr. Hardwick will resign the chair to Mr. Eales, who will deliver his inaugural address. The report of the Branch Council for the year 1912-13 and the annual financial statement for the year 1912 will be presented, and the officers of the Branch will be elected for the year 1913-14. Luncheon, by the kind invitation of the President-elect and Torquay members, will take place from 1 p.m. to 2.30 p.m., at the Museum, Babbacombe Road. The annual dinner of the Branch will be held at the Torbay Hotel at 7.45 for 8 p.m. Tickets 7s. 6d. (exclusive of wine) can be had from Dr. Lacey, Melita, Torquay; application should be made not later than the first post on Monday, June 9th. Several Torquay members of the Branch have offered to put up visiting members for the night, and gentlemen desiring to avail themselves of this hospitality are requested to inform Dr. Lacey when making application for their dinner ticket. By the courtesy of the Torquay and South Devon Golf Club, members of the Branch and their wives will be made honorary members for Wednesday and Thursday; those wishing games arranged should communicate with Dr. Dalby, The Rosary, St. Marychurch, Torquay.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1913.

Tuesday, May 27th, 1913.

Sir DONALD MACALISTER, K.C.B., President, in the Chair.

THE ninety-seventh session of the General Council of Medical Education and Registration began at the offices of the Council, 299, Oxford Street, on Tuesday, May 27th.

NEW MEMBER.

Dr. William Russell, as representative of the Royal College of Physicians of Edinburgh for five years, from May 6th, 1913, in the place of Dr. George A. Gibson, deceased, was introduced by Mr. Hodsdon.

PRESIDENT'S ADDRESS.

The PRESIDENT then delivered his address:

Changes in the Council.

A year ago we welcomed Dr. George A. Gibson as a new member of the Council. At that time his great professional reputation encouraged us to look to him for long and valuable service as a colleague. Our hopes have now been frustrated by his untimely death. The expressions of regret which have come from those who best know what he was and what he had achieved serve to measure the greatness of our loss. We can but offer our sympathy to his bereaved family and friends, and record our own sorrow for the too-early close of his career of high purpose and endeavour. In his place the Royal College of Physicians of Edinburgh has appointed Dr. William Russell, a Fellow of the College, whose varied activities have won for him a prominent position among our Scottish brethren.

Irish Home Rule.

In my address last November I mentioned the steps that were taken to give effect to your resolution regarding the Government of Ireland Bill. Amendments to the bill were duly proposed, for the purpose of ensuring that the control of legislation relating to the Medical and Dentists Acts should be reserved to the Imperial Parliament. At first it seemed likely that the amendments might be favourably regarded by the House of Commons; but in the end, for reasons that had no apparent relation to the merits of your proposal, the Government opposed its adoption, and it was rejected. The Minister in charge of the bill and other members of the House have expressed the opinion that, even in the absence of restrictive provisions, the Irish Government would not be likely to propose any local legislation which might have the effect of invalidating the general currency of professional qualifications granted in Ireland. Experience alone can show whether that opinion is well founded. Under the procedure laid down for the further progress of the bill, it is doubtful whether the Council will have any other effective opportunity of calling the attention of Parliament to its views on the subject. If such an opportunity should arise, it may, I think, be assumed that your instructions of last June are still operative.

Direct Representation.

The bill of the Lord President of the Privy Council, for amending those provisions respecting the election of direct representatives which experience has shown to cause inconvenience and waste of public money, passed the House of Lords, and was read a first time in the House of Commons. Before the second reading, however, notices of motion by private members were placed on the order paper, which had the effect of blocking the progress of the bill. The terms of these notices suggested that the members responsible for them had misapprehended both the functions of the Council and the scope of the bill itself. Efforts were made through the proper channels to remove these misapprehensions. Before they were successful the end of the session approached; and, as the Government was unable to find time for prolonged second reading debate, the bill was withdrawn. So far as I can ascertain, the circumstances of the present session of Parliament are not favourable to its reintroduction. It is, however, satisfactory to know that the Government has recognized the imperfection of the statute under which our election regulations are made by the Privy Council, and that the Lord President has made a serious effort to procure its amendment in the interest of a more economical procedure.

Insurance Act.

In pursuance of your instructions respecting the National Insurance Act, the Special Committee has been active in considering the various professional questions to which its attention was directed, and in sending representations thereon to the Insurance Commissioners and other authorities concerned.

The Committee met in January, and had before it the revised Regulations for the Administration of Medical Benefit issued by the Commissioners. It was gratified to observe that practical effect had been given to its suggestions for the amendment of the draft Regulations, except in regard to the important question of "hospital or institutional treatment for insured persons requiring services beyond the competence of an ordinary medical practitioner." That question, it is now stated, cannot be dealt with by Regulations; it will require an an amending or supplementary Act of Parliament.

Under one of the forms of agreement appended to the Regulations, it appeared that in cases requiring a surgical operation no special provision was made for the administration of anaesthetics by a qualified person other than the operator himself. The Committee has called the attention of the Commissioners to the resolution of the Council on this subject, dated November 27th, 1909, and has urged upon them the desirability of sanctioning arrangements whereby the safeguard contemplated in that resolution may be secured to insured persons under all forms of agreement with practitioners engaged in the National Insurance service. Communications on the subject are still taking place, but no formal deliverance has yet been issued by the Commissioners.

While the Departmental Committee on Tuberculosis was considering its report, certain questions connected with the administration of "sanatorium benefit" under Section 16 of the Act were confidentially submitted to your Committee for consideration, and its comments on the provisional resolutions of the Departmental Committee were requested. The request was complied with, and a carefully considered reply was forwarded to the Committee. The recommendations of the report, which has since been presented to Parliament, and transmitted to the office for information, made it clear that weight has been attached to the views expressed by the National Insurance Act Committee on the Council's behalf.

During the early months of the year, while committees, societies, and practitioners were actively engaged in discussing and elaborating the measures to be taken for setting up the National Insurance service, numerous communications were received by the Registrar suggesting that particular bodies or persons, some favouring the institution of the service and others opposing it, were resorting to methods of advertising or canvassing of a kind to which objection might justly be taken by the Council. As it seemed likely that the warning notices already issued by the Council in relation to such methods were imperfectly known or understood, copies of these were forwarded to the Insurance Commissioners for their information, and were also communicated to the press, and to the various bodies and persons who appeared to be concerned. Steps are now in progress for circulating the notices still more widely among societies, committees, and others engaged in the administration of medical benefit throughout the kingdom. It is to be expected that, when they are fully informed of the conditions proper to professional service, these bodies will realize that it is necessary, in the discharge of their important functions, to guard against the introduction of methods that are inconsistent with right standards of professional conduct. Up to the present no formal complaint which is in accordance with the Standing Orders relating to cases for inquiry by the Council has been received in respect of any practitioner. Personally I am not without hope that, when the uncertainty and unrest naturally accompanying the establishment of an unfamiliar system of medical practice shall have ceased to be felt, the cautionary measures

adopted by the Council will obviate all occasion for formal complaints and inquiries under this head.

Hong Kong.

A further advance has been made in the direction of medical reciprocity within the empire by the application to the colony of Hong Kong of Part II of the Medical Act, 1886. In the opinion of the Executive Committee, the legal conditions affecting the practice in that colony of practitioners registered in the United Kingdom were equitable, and afforded a just basis for establishing the reciprocal relations contemplated in the Act. This opinion was communicated to the Privy Council on February 24th, and on March 7th His Majesty in Council was pleased to issue the necessary order. The Executive Committee has considered the regulations regarding courses of study and examinations prescribed for degrees in Medicine and Surgery by the new University of Hong Kong, and finding these to be sufficient to guarantee the efficiency of its graduates, the Committee proposes to recognize such degrees as qualifying for registration in the Colonial List.

Canada.

The Medical Council of Canada assembles next month in Ottawa, and will proceed to formulate regulations governing the licensing and registration of practitioners throughout the Dominion. We must wait until we are informed of the precise conditions under which practitioners registered in this country will be admitted to the Register of Canada and to the privilege of practising within its territory, before we make a representation to the Lord President on the subject of reciprocity with the Dominion as a whole. We have every reason to expect that acceptable conditions will be proposed.

In the meantime the Province of New Brunswick proposes, by an amendment of its Medical Act of 1903, to admit to its own *Register* "Any person desirous of practising in New Brunswick who is duly registered by the General Medical Council."

The Legislature of Newfoundland has also, by a recent enactment, assimilated its local law to that of other parts of the empire, and now prescribes for practitioners a curriculum of five years, instead of the four years which have hitherto sufficed.

Finance.

Last year the Finance Committee reported with regret that in 1911 the income of the Council and its Branch Councils fell short of its expenditure by £1,370. This year it is able to show that in 1912 there was a surplus of income over expenditure amounting to £1,105. The receipts from registration fees are larger by some £500; and the outgoings, thanks mainly to shorter sessions of the Council, and to economies effected by the efforts of the Treasurers and the Registrar, are considerably smaller. It is satisfactory also to note that the number of students registered at the commencement of their curriculum has risen by 165, and now coincides with the figure representing the average for the preceding five years. It would appear that the misgivings regarding the future of our profession which were freely expressed during the unsettlement of last year have exercised no deterrent effect on the body of youthful recruits. Their faith may prove to be wiser than our forebodings.

During the five years 1907 to 1911 inclusive the accounts showed a net accumulated deficit of about £1,370. The surplus of 1912 reduces the accumulation to some £270. Should we this year be spared the necessity either for long sessions or for by-elections under the costly regulations now in force, we may count with some confidence on wiping out the unfavourable balance altogether. Every proper means to this desirable end will, I feel sure, continue to be taken by the officers of the Council.

Work of Committees.

I do not propose to anticipate the Reports of the Standing Committees, now in a forward state of preparation, by touching on their probable contents. But I do wish to assure the Council, on my own knowledge, that the Chairmen of these Committees and their colleagues have spent much thought and labour upon them, that much correspondence and consultation of authorities have been required, and that the conclusions reached deserve the Council's careful consideration. For those who are charged with the guidance of these Committees, the period of recess is sometimes more laborious than the period of the Council's session.

After we have completed the formal business necessary at the opening of the session, it will be my duty to lay down the office which this day five years ago you were pleased to commit to my hands. I owe it to the devotion of the members and officers of the Council and to their ready response to every call made upon them if it should appear to you that my tenure of office has not greatly failed to meet your expectations. I cannot be ignorant of its shortcomings from my own hopes and desires, but I ask you to believe that these shortcomings are due to defect of power, not of will, to do better.

VOTE OF THANKS.

On the motion of Dr. LITTLE, seconded by Dr. NORMAN MOORE, a hearty vote of thanks was accorded to the President for his able address, and it was ordered to appear on the minutes.

SERVICE EXAMINATIONS.

The yearly tables relating to the examinations held by the different licensing bodies during 1912 were received and remitted to the Examination Committee for consideration, as were also tables showing the results of competitions for admission to the Navy, Army, and Indian Medical Services.

For the Indian Medical Service there were 22 entrants for 12 vacancies. In addition to the 12 who received commissions, 7 qualified but were not successful, and 3 were rejected. Two of the 12 successful candidates were graduates of the University of Aberdeen, 1 of these taking first place, 1 a graduate of the University of Glasgow, 1 a graduate of the National University of Ireland, and 7 were holders of the English Conjoint Diploma; 2 of the latter also held the licence in medicine and surgery of the University of Bombay.

For the Royal Army Medical Corps there were 44 entrants for 20 vacancies, but 9 did not compete. With one exception all were found qualified. Of the 20 successful candidates, 8 held the diploma of the English Conjoint Board, 1 of these taking the first place; 6 were graduates of the University of Edinburgh, 3 of the University of Dublin, 1 of the National University of Ireland, 1 of the University of London, and 1 was a holder of the Scottish Conjoint Licence.

At the Naval Medical Service examination 25 commissions were offered, but the number of candidates seems to have fallen below this number. Of the 14 commissions awarded, 7 went to holders of the English Conjoint Diploma, 1 being first on the list; 3 to graduates of the University of Edinburgh, 1 to a holder of the licence of the Society of Apothecaries of London, and 3 to holders of the Irish Conjoint Licence.

COMMITTEES.

The following Committees were appointed:

Pharmacopœia Committee.—The President (Chairman), Dr. Norman Moore, Sir George Philipson, Dr. Caton, Dr. Barrs, Sir Thomas Fraser, Dr. Cash, Sir John Moore, Sir William Whitla.

Finance Committee.—Mr. Tomes (Chairman), the President, Sir Henry Morris, Mr. Hodsdon, Dr. Little.

Dental Committee.—The President (Chairman), Sir Henry Morris, Mr. Tomes, Mr. Hodsdon, Sir Arthur Chance.

Dental Education and Examination Committee.—Mr. Tomes (Chairman), the President, Sir Henry Morris, Mr. Hodsdon, Dr. Knox, Sir Arthur Chance, Sir Charles Ball.

Students' Registration Committee.—Dr. Norman Moore (Chairman), the President, Dr. Langley Browne, Dr. Mackay, Dr. Norman Walker, Dr. Adye-Curran, Sir C. Nixon.

Business Committee.—Dr. Norman Moore (Chairman), the President, Sir Henry Morris, Sir Christopher Nixon.

Penal Cases Committee.—Dr. Saundby, Mr. Tomes, Dr. Norman Walker, and Sir Christopher Nixon.

Executive Committee.—Dr. Norman Moore, Sir Henry Morris, Mr. Tomes, Dr. Langley Browne, Mr. Hodsdon, Dr. Norman Walker, Sir John Moore, and Sir Charles Ball.

The President then vacated the chair, which was taken by Mr. TOMES.

Sir Donald MacAlister, whose term of office as President had expired, was unanimously re-elected.

Sir DONALD MACALISTER then took the chair, and briefly returned thanks for his re-election.

UNIVERSITIES OF CALCUTTA, BOMBAY, AND HONG KONG.

Reports from the Executive Committee were adopted, with the effect that the degrees of Master of Surgery and Master of Obstetrics of the University of Calcutta, the degrees of Medicine and Surgery of the University of Hong Kong, and the degree of Master of Surgery of the University of Bombay will in future be registrable on the *Medical Register*.

Dental Registration.

A report was received from the Executive Committee recommending that a person who is registered on the *Medical Register* should be permitted to register on the *Dentists Register* for a reduced fee of £2, and also that a duly qualified practitioner already registered on the *Dentists Register* desiring to be registered on the *Medical Register* should also pay a reduced fee of £2.

In moving the adoption of the report, Mr. Tomes said that it appeared only fair that if a man were on the *Medical Register* and wished to enter his name on the *Dentists Register*, he should pay a smaller fee than if he were not, and vice versa. The report was adopted, and the necessary alterations directed to be made in the Standing Orders.

Finance.

The Senior Treasurer, Mr. Tomes, in moving the adoption of the report of the Finance Committee, said that he had little to add to what the President had said in his address. The result for 1912 was very satisfactory in that there was a surplus instead of a deficit, although it did not wipe out the deficit of 1911. He paid a warm tribute to the efforts which the Registrar had made to reduce expenditure in a number of directions, in many instances with success.

Report.

The report showed that the income of the General and Branch Councils for the year ending December 31st, 1912, was £8,247, and that the expenditure was £7,142, so that there was a surplus of £1,105, and pointed out that the Council was especially fortunate in that an increase of income had coincided with a decrease of expenditure, so that a deficit of £1,370 in 1911 compared with a surplus in 1912. The committee saw no reason at present to anticipate that the accounts would be otherwise than satisfactory at the end of the present year. A new contract had been made for printing the *Register*, and in course of time this would, it was hoped, nearly wipe out the loss on the publication of the book, but the results would probably not be very apparent for two or three years. With regard to future receipts for the registration of practitioners, it was of interest to note that the number of students registered during the year was 1,397, which was 165 more than in 1911, and coincided almost exactly with the average of registrations for the previous five years. The investments of funds was being considered with a view of obtaining a better rate of interest, and the committee was sparing no efforts to place and keep the Council in a sound financial position.

The receipts by the Dental Fund for original registration fees showed an increase of £220, and as no further expenditure had been incurred on the inspection of examinations, a deficit of £158 in 1911 compared with the surplus of £466 in 1912.

Thanks to the contribution by the General Council to the funds of the Irish Branch, that Branch had started the year with a small surplus of £62. If circumstances were favourable, there might be no need to make a grant in 1913, but the Committee thought it best to ask permission to give £100 if required.

Mr. Tomes moved a resolution to give effect to the last recommendation, and this was seconded by Dr. Little and carried.

Restoration to the "Medical Register."

The Council considered *in camerâ* a report by the Executive Committee in regard to application for restoration of names after erasure under Section xxix of the Medical Act, 1858.

The President subsequently announced that the names of Allan Douglas Cameron and of Robert Kirk had been restored to the *Medical Register*, and the Council adjourned.

Wednesday, May 28th, 1913.

Sir Donald MacAlister, K.C.B., President, in the Chair.

Penal Cases.

The Council proceeded to the consideration of penal cases. Mr. Bodkin appeared as Legal Assessor and Mr. Harper as Solicitor.

Charge of Impersonation.

The first case for the consideration of the Council was that of Anthony Ciaramelli. The following notice of the inquiry had been sent:

May 2, 1913.

Sir,—On behalf of the General Medical Council I have to give you notice that on Wednesday, the 28th May, at 2 p.m., the Council will hold an inquiry at 299, Oxford Street, London, W., for the purpose of ascertaining the person at whose instance and the circumstances in which an entry was made in the *Medical Register* (Foreign List) as follows:

Name.	Address.	Date of Registration.	Qualifications.
Ciaramelli, Anthony	c/o Thomas Cook & Son, Ludgate Circus, E.C.	1909, April 27	M.D. Univ. Naples, 1905.

and further entries of the following changes of address, namely:

148, Norfolk Street, Glasgow.
c/o Herr Löwy Jacob, 1, Tabor Utca, Maros Vasarnely, Hungary.
Inhanguvo, Beira, E. Africa.
29, Langham Street, Portland Place, London, W.
c/o Löwy Lajos, Mav v. Lakatós, Verostorony, Szebenmegyi, Hungary,

and whether the said entries have been incorrectly made or fraudulently caused to be made in the said *Register* and should be erased therefrom.

This notice is sent to you as the person now or lately carrying on practice as a legally qualified medical practitioner in the name of Anthony Ciaramelli.

I am instructed to add that you may attend the inquiry personally, or may be represented by a solicitor with or without counsel. Any communication or application which you may desire to make relating to the matter of inquiry should be addressed to the Registrar of the Council at 299, Oxford Street, London, W., without delay.

Yours obediently,
Charles J. S. Harper,
Solicitor to the General Medical Council.

To Anthony Ciaramelli, Esq., M.D. (Naples),
c/o Löwy Lajos,
Mav v. Lakatós, Verostorony, Szebenmegyi, Hungary.

The name of Anthony Ciaramelli was called, but no person attended in answer to the notice.

Dr. Bateman, Secretary of the Medical Defence Union, the informants, attended to assist the Council with regard to the facts of the case. He said the evidence which he would lay before the Council would prove that this was a case of the impersonation of a living practitioner who was entitled, under the Medical Act of 1886, to be registered on the Foreign List. In 1909 application was received by the Registrar for registration under the Medical Act by virtue of a number of qualifications which were duly set out and affirmed to, and the name was inserted in the *Register* and had remained there ever since. The actual name of the impersonator he was unable to give to the Council, but he had masqueraded the country under the name of Muscat, Muscot, and F. W. More. Under the latter alias he practised at Manchester, as appeared from the declaration of Isaac Ephraim, clerk to the Jewish Board of Guardians, and also in partnership in Glasgow. In the year 1910 he was elected a member of the British Medical Association, and was later transferred to the Metropolitan Counties Branch. Dr. Bateman stated that the person had joined the panel, and not content with joining one panel had joined six. He had joined Hampstead, Holborn, Paddington, Marylebone, St. Pancras, and Westminster. Dr. Bateman put in photographs of signatures by Dr. Antonio Ciaramelli, of New York, authenticated by a public notary, the supposed applicant for registration in the Foreign List (of the *Medical Register*), and of the person who, it was alleged, actually obtained registration. Dr. Bateman also read a letter from Dr. Antonio Ciaramelli, of New York, enclosing photographs of a F. W. More, who was his professional partner in New York, and who, it was alleged, was the person who actually obtained registration as Anthony Ciaramelli. Dr. Bateman also put in his own declaration and that of Mr. Jacob Herman, tailor, of 48, Huntley Street, Tottenham Court Road, W., and submitted that on the evidence the entry had been obtained by fraud, and that the name should be expunged from the *Register*.

Mr. Cohen, Secretary of the Jewish Association for the Protection of Women, of Upper Baker Street, having given evidence as to the so-called "Dr. C. Anthony," strangers

were directed to withdraw. On their readmission, the PRESIDENT said: Dr. Bateman, I have to inform you that the Council has come to the conclusion that the Registrar shall be directed to erase the entry from the *Medical Register* of the name of Dr. Anthony Ciaramelli as having been improperly and irregularly procured to be entered in the list. I have also, on behalf of the Council, to convey our thanks to the Medical Defence Union, and we also thank yourself for the assistance you have given the Council in arriving at a satisfactory conclusion. No doubt it will be your part to communicate to the genuine Dr. Antonio Ciaramelli the effect of the decision arrived at by the Council.

Misdemeanour.

At the meeting of the Council on November 27th, 1912, the case of H. A. De Pinna, registered as of 20, Grosvenor Street, W., M.R.C.S.Eng., L.R.C.P.Lond., was considered, and the President then announced to Mr. Robb, solicitor for the accused, that the Council had found the conviction for misdemeanour alleged in the notice of inquiry to have been proved, but had postponed judgement until the next session. The case was further considered on May 28th, when Mr. Harper, solicitor to the Council, said that the case had been postponed in order to enable Mr. Robb to produce evidence as to the mental condition of Mr. De Pinna both at the time of the offence and since, and on that occasion Mr. Robb had undertaken to have Mr. De Pinna in attendance. Mr. Robb said that Mr. De Pinna had been appointed medical officer of health and resident medical officer to the Malcolm District Hospital, Western Australia, and several testimonials had been received from responsible persons in Australia stating that since his arrival his conduct had been above reproach. Mr. Robb stated that he also had testimonials from officers of the ship in which Mr. De Pinna went to Australia, saying that he filled the position of surgeon during the voyage with satisfaction. After various troubles, and in particular money troubles, during the later part of 1911 and the early part of 1912, Mr. De Pinna had a nervous breakdown, and there was a short period of temporary derangement or temporary irresponsibility. Mr. Robb asked the Council to deal leniently with the matter, and hoped that it would agree that it was right in all the circumstances not to bring Mr. De Pinna back from Australia.

Strangers and parties were directed to withdraw, and on their readmission the PRESIDENT announced the judgement of the Council as follows:

Mr. Robb, I have to inform you that the Council does not see fit to direct the Registrar to erase from the *Medical Register* the name of Mr. Herbert De Pinna.

Passport Declarations.

Dr. Alfred Benson, registered as of 79, Maida Vale, W., M.R.C.S.Eng., M.B.Oxford, attended in answer to the following charge:

That, being a registered medical practitioner, you were on January 8th, 1913, convicted at the Central Criminal Court on your own confession of the following misdemeanour—namely, of having unlawfully, falsely, knowingly, and deceitfully put forward and represented that certain declarations made by you upon forms of application for passports for certain persons named Louis Kiseneyder and Lucas Küschneyder respectively were true; for which offences you were fined £50.

The SOLICITOR for the Council said that the facts were admitted, but Dr. Benson stated that he had signed the papers without sufficient care and forethought. The Solicitor said that he did not believe that the declarations were signed fraudulently, but the practitioner had acted with great recklessness.

Dr. BENSON said that he had signed the forms by an error of judgement without giving close attention to the matter, and expressed his regret. In reply to the PRESIDENT, he said he took a fee for signing the documents—a consulting fee. The two men did not consult him medically. They gave him a name as that of a patient who knew them, and Dr. Benson, in the hurry of the moment, thought he recognized the name; he now knew that this was not so. The two men returned in August or September, requesting Dr. Benson to sign two more similar forms. He became suspicious and refused to do so. As far as he (Dr. Benson) recollected, they stated the certificates were for themselves.

Strangers were directed to withdraw, and on their readmission the PRESIDENT announced the judgement of the Council as follows:

Mr. Alfred Benson, I have to inform you that the Council has found your conviction proved, that the Council takes a very serious view indeed of the gravity of the offence of which you have been convicted, and that it has already marked its sense of the gravity of such offences by issuing, in the medical journals and elsewhere, in November, 1911, a warning notice to this effect: "Whereas registered medical practitioners are in certain cases bound by law to give, or may from time to time be called upon or requested to give, certificates signed by them in their professional capacity for subsequent use, either in courts of justice or for administrative purposes; and whereas such certificates include, amongst others"—I will read the one that refers to your offence—"certificates . . . for procuring the issue of Foreign Office passports . . . and whereas it has been made to appear to the General Council from time to time that some registered medical practitioners have given and signed untrue, misleading, or improper certificates of the above specified or other descriptions," and that is the offence of which you were convicted before the civil court, the Council, recognizing the serious nature of the responsibility thrown upon medical practitioners in relation to the giving of certificates, has gone further, and has given notice publicly—a notice of which you might have made yourself aware—"that any registered medical practitioner who shall be shown to have given any untrue, misleading, or improper certificate"—whether relating to the several matters I have specified or otherwise—"is liable to be adjudged by them to be guilty of infamous conduct in a professional respect, and to have his name erased from the *Medical Register*. In your case that is not the course adopted by the Council, because you were convicted in a civil court. In order to give you an opportunity to prove to the Council that you realize the gravity of the offence of which you were convicted, and of showing also to the Council that you are regarded by your professional brethren as one who in the future will conduct himself with scrupulous regard to the interests of the profession, the Council has postponed judgement until November next, and you will then be required to bring forward such evidence as it can accept on the points I have put before you—namely, your character generally, and your conduct as a medical man.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following appointments are notified by the Admiralty: Fleet Surgeon G. LEY to the *Duncan* on recommissioning, May 27th; Staff Surgeon P. D. RAMSAY to the *Ringdove* on recommissioning, May 27th; Staff Surgeon JOHN P. H. GREENHALGH to the Portland Hospital, June 2nd; Surgeon CECIL H. SYMONS to the *Duncan* on recommissioning, May 27th; Surgeon FRANCIS G. H. R. BLACK, M.B., to the *President*, additional, for survey of stores at Yarmouth Hospital, June 2nd, and Yarmouth Hospital, June 23rd, vice Hamilton; Surgeon ROBERT F. P. CORY to the *Hecla*, vice Black, June 2nd.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

COLONEL T. J. R. LUCAS, C.B., has been granted eighty-seven days' leave ex India.

Lieutenant-Colonel R. H. PENTON has been appointed to the command of the Station Hospital, Ranikhet.

Major H. SIMPSON has been appointed to the command of the Station Hospital, Muttra.

Major H. E. STADDON has been granted sixty days' leave.

Captain J. J. H. BECKTON has been granted six months' leave.

Captain E. M. MIDDLETON has been granted two months' leave.

Captain F. F. M. OMMANNEY appointed to Belfast for duty.

The undermentioned Lieutenants on probation are confirmed in their rank: ALEXANDER G. BIGGAM, M.B.; JAMES L. HUGGINS, M.B.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

CAPTAIN STUART G. MCALLUM, M.D., to be Major, May 15th.

The following have been appointed Lieutenants on probation: Cadet HERBERT S. GRIFFITH, from the London University Contingent, Officers' Training Corps, April 21st; Cadet Lance-Corporal CHRISTOPHER ATKINSON, from the Edinburgh University Contingent, Officers' Training Corps, April 26th.

The following Lieutenants have been confirmed in their rank: WILLIAM A. MILLER, M.B., MALCOLMSON K. NELSON, TRAVIS HAMPSON, M.B., and WILLIAM O. TOBIAS.

Cadet WILLIAM W. WAGSTAFFE, M.B., from the Inns of Court Contingent, Officers' Training Corps, to be Lieutenant on probation, April 24th.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL R. BIRD, M.V.O., C.I.E., M.D., F.R.C.S., Professor of Surgery, Medical College, Calcutta, has been granted leave on medical certificate.

Lieutenant-Colonel J. L. MACRAE, M.B., has been appointed Civil Surgeon, Coorg.

Lieutenant-Colonel W. H. OGILVIE, M.B., Civil Surgeon and Health Officer of the notified area, Delhi, has been granted six months' combined leave from May 2nd, 1913.

Lieutenant-Colonel C. R. M. GREEN, M.D., F.R.C.S., Professor of Midwifery, Medical College, Calcutta, has been granted leave.

Major J. C. H. LEICESTER, M.D., F.R.C.S., has been appointed to officiate as Professor of Midwifery, Medical College, Calcutta.

Major C. COX, Superintendent Rangoon Lunatic Asylum, has been granted leave on medical certificate, and Major A. SARGENT has been appointed to act for him.

Major E. O. THURSTON, M.B., F.R.C.S., has been appointed to officiate as Professor of Surgery, Medical College, Calcutta.

Brevet-Major W. T. MCCOWEN is appointed to the substantive medical charge of the 2/39th Garhwal Rifles.

The services of Captain W. R. SCROGGIE, Officiating Civil Surgeon, Coorg, have been replaced at disposal of Government of Madras.

Captain H. R. DUTTON has been appointed to officiate as Civil Surgeon and Health Officer of the notified area, Delhi.

Captain J. A. SHORTEN, M.B., has been appointed to officiate as Professor of Physiology, Medical College, Calcutta.

Captain F. R. COPPINGER is appointed to the substantive medical charge of the 109th Infantry.

Captain G. F. GRAHAM is appointed to the substantive medical charge of the 20th Infantry.

Lieutenant H. S. CORMACK is appointed a Specialist in Ophthalmology, with effect from April 14th, 1913.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-six of the largest English towns 9,561 births and 4,573 deaths were registered during the week ending Saturday, May 24th. The annual rate of mortality in these towns, which had been 14.2, 13.9, and 12.8 per 1,000 in the three preceding weeks, rose to 13.4 per 1,000 in the week under notice. In London the death-rate was also equal to 13.4 per 1,000, against 14.2, 13.6, and 12.0 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 4.8 in Ilford and in Eastbourne, 5.2 in Southend-on-Sea, 5.8 in Bootle, 5.9 in Acton and in East Ham, and 6.1 in Tottenham to 18.3 in Derby and in Middlesbrough, 19.2 in Dudley, 19.5 in West Hartlepool, 20.1 in Wigan, 22.6 in West Bromwich, and 22.9 in Walsall. Measles caused a death-rate of 1.6 in Salford, 2.0 in Stockton-on-Tees, 2.3 in West Bromwich, 3.0 in Dudley, and 7.3 in Walsall, and whooping-cough of 2.2 in Bootle. The mortality from the remaining infective diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 39, or 0.9 per cent. of the total deaths, were not certified either by a registered medical practitioner or by a coroner after inquest; of this number 6 were registered in Birmingham, 4 in Liverpool, 3 in Manchester, and 2 each in London, Portsmouth, Bury, and South Shields. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,375, 1,402, and 1,411 at the end of the three preceding weeks, had further risen to 1,441 on Saturday last; 193 new cases were admitted during the week, against 216, 206, and 171 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN the sixteen largest Scottish towns 1,172 births and 705 deaths were registered during the week ending Saturday, May 24th. The annual rate of mortality in these towns, which had been 17.2, 16.6, and 16.4 per 1,000 in the three preceding weeks, further fell to 16.3 in the week under notice, but was 2.9 per 1,000 above the rate in the ninety-six large English towns. Among the several towns the death-rates ranged from 8.5 in Clydebank, 9.6 in Coatbridge, and 10.4 in Kirkcaldy to 18.8 in Leith, 18.9 in Paisley, and 22.8 in Aberdeen. The mortality from the principal infective diseases averaged 2.1 per 1,000, and was highest in Motherwell and Aberdeen. The 312 deaths from all causes registered in Glasgow included 14 from measles, 14 from whooping-cough, 7 from infantile diarrhoeal diseases, 3 from diphtheria, and 1 from scarlet fever. Twenty-one deaths from measles were registered in Aberdeen, and 2 in Dundee; 2 deaths from diphtheria in Dundee, and 2 in Aberdeen; and 5 deaths from whooping-cough in Edinburgh, 3 in Motherwell, 2 in Aberdeen, and 2 in Greenock.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 17th, 642 births and 416 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 629 births and 443 deaths in the preceding period. These deaths represent a mortality of 18.1 per 1,000 of the aggregate population in the districts in question, as against 19.3 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 5.3 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 27.9 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 17.9 (as against an average of 19.9 for the previous four weeks), in Dublin City 17.4 (as against 21.2), in Belfast 18.2 (as against 18.6), in Cork 21.1 (as against 23.8), in Londonderry 14.0 (as against 13.4), in Limerick 9.5 (as against 16.3), and in Waterford 20.9 (as against 19.0). The zymotic death-rate was 1.4, as against 1.2 in the previous week.

During the week ending Saturday, May 24th, 601 births and 442 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 642 births and 416 deaths in the preceding period. These deaths represent a mortality of 19.2 per 1,000 of the aggregate population in the districts in question, as against 18.1 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 5.8 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 26.1 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 21.5, as against an average of 19.2 for the previous four weeks, in Dublin City 21.7 (as against 19.9), in Belfast 17.0 (as against 17.8), in Cork 27.2 (as against 24.6), in Londonderry 11.4 (as against 11.8), in Limerick 21.7 (as against 17.6), and in Waterford 22.8 (as against 20.4). The zymotic death-rate was 1.3, as against 1.4 in the previous week.

Hospitals and Asylums.

GUY'S HOSPITAL AND THE SOUTHWARK GUARDIANS.

BY the courtesy of the honorary secretaries of King Edward's Hospital Fund for London we have been furnished with a copy of the report of an inquiry by the Distribution Committee into complaints made by the Southwark Guardians in regard to Guy's Hospital. When considering the matter the committee had before it a summary of other cases which had been brought before it by the same guardians in 1903 and 1905, and two cases in 1911 to which its attention was drawn by press reports of inquests held on patients originally sent to Guy's Hospital. The differences of view in which all these matters originate is now quite an old story. The claim of the Southwark Guardians is to the effect that Guy's Hospital fails in its duty because when it states that it has no beds available, or considers a patient already in the hospital or seeking admission thereto, more suitable for treatment in a poor-law infirmary than in its own wards, the hospital declines any responsibility and sends the case to the guardians. This the guardians hold to be wrong, because they themselves fulfil their duty by making adequate provision for the necessitous poor, and it is the duty of Guy's to take in all cases above that class and particularly urgent cases. It would be foolish for them to establish a receiving house, because this would only encourage Guy's to send to them cases belonging to other unions. Guy's, on the other hand, claims that the fault lies with the guardians, who, having established their infirmary four miles away, ought to provide an emergency receiving house close at hand. The number of beds at Guy's is limited, and it cannot take in all kinds of cases, or even all urgent cases, and it is the duty of the guardians to provide for the sick poor for whom there is no accommodation in the hospitals. In regard to the question of establishing a receiving house, the Distribution Committee holds that in the circumstances the guardians ought to establish a receiving house, since they are legally entitled to do so. If the patients come from other parishes than those included in the Southwark unions this can be discovered and the expense made chargeable accordingly. Voluntary hospitals should not be expected to treat incurable cases, and it would be wrong for Guy's to overcrowd its surgical wards with emergency cases, the same observation applying, though not so strongly, to the medical wards. On the other hand, the Committee draws attention to one of the inquest cases mentioned and reaffirms the view which it expressed in the first instance. This was to the effect that additional provision ought to be made at Guy's for emergency cases, especially at night; two or more surgical beds should be kept free every night for emergencies. In regard to this the hospital has stated that when the scheme of extension on which it is engaged has been completed some years hence there will be space for a female accident ward if funds for its upkeep are then available. This, we confess, hardly seems to be enough, and we believe that the authorities of the hospital would be acting in the best interests of the institution if they made such provision for emergency cases as the Distribution Committee suggests, and, indeed, if they looked carefully into all the arrangements for dealing with such cases.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ABERYSTWITH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House-Surgeon and Secretary. Salary, £150 per annum.

BARNSLEY: BECKETT HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary, £100 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary, £80 per annum.

BIRKENHEAD UNION INFIRMARY.—Senior Male Resident Assistant Medical Officer. Salary, £150 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM: GENERAL HOSPITAL.—(1) Resident Medical Officer. (2) Obstetric House-Surgeon. Salary at the rate of £100 and £50 per annum respectively.

BIRMINGHAM: QUEEN'S HOSPITAL.—Third Surgeon to Out-patients. Honorarium, £50 per annum.

BIRMINGHAM UNIVERSITY.—Demonstratorship in Anatomy. Stipend, £150 per annum.

BOLTON INFIRMARY AND DISPENSARY.—Third House-Surgeon. Salary, £90 per annum.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRIGHTON COUNTY BOROUGH ASYLUM, Hayward's Heath.—Locumtenent Assistant Medical Officer. Salary, £4 4s. a week.

BRISTOL GENERAL HOSPITAL.—(1) Second House-Physician. (2) Casualty House-Surgeon. Salary at the rate of £80 per annum.

BRISTOL ROYAL INFIRMARY.—Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £75 per annum.

BURNTWOOD: COUNTY MENTAL HOSPITAL.—Junior Assistant Medical Officer (male). Salary, £210 per annum, increasing to £270.

BURY ST. EDMUNDS: WEST SUFFOLK GENERAL HOSPITAL. Resident Medical Officer. Salary, £100 per annum.

CALCUTTA CORPORATION.—Health Officer. Monthly salary not less than Rs. 1500 and not more than Rs. 2000.

CANCER HOSPITAL, Fulham Road, S.W.—Physiological Chemist to the Research Institute. Salary, £350 per annum.

CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Resident Medical Officer. Salary, £90 per annum.

CHELSEA HOSPITAL FOR WOMEN.—Anaesthetist. Honorarium, £21 per annum.

CITY OF LONDON LYING-IN HOSPITAL, City Road, E.C.—Resident Medical Officer. Salary at the rate of £50 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—(1) Senior House-Surgeon. (2) House-Physician. (3) Junior House-Surgeon. Salary for (1) £120, and for (2) and (3) £90 per annum, increasing to £100.

DENBIGH: NORTH WALES COUNTIES ASYLUM.—Medical Superintendent. Salary, £500 per annum, increasing to £700.

DERBY: DERBYSHIRE ROYAL INFIRMARY.—Assistant House-Surgeon. Salary, £60 per annum.

DEVON COUNTY ASYLUM, Exminster.—Third and Fourth Assistant Medical Officers. Salary, £200 per annum each, rising to £250 and £220 respectively, increasing to £350 on promotion.

DEVONPORT: ROYAL ALBERT HOSPITAL.—(1) House-Surgeon. Salary £50 for first six months, rising to £150 per annum. (2) Assistant House-Surgeon. Salary at the rate of £75 per annum.

DEWSBURY UNION.—Resident Assistant Medical Officer of the Workhouse (female). Salary, £100 per annum.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—(1) Medical Officer (male) to the Casualty Department. (2) House-Physician (male). (3) House-Physician and Assistant Casualty Officer. Salary for (1) £100 per annum, and for (2) and (3) £75 per annum.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of 100 guineas per annum.

GATESHEAD COUNTY BOROUGH.—Medical Superintendent at the Gateshead Asylum. Salary, £400 per annum.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Third House-Surgeon (male). Salary, £80 per annum.

HERTFORD COUNTY HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

IPSWICH: EAST SUFFOLK AND IPSWICH HOSPITAL.—(1) House-Physician. (2) Second House-Surgeon. Salary, £80 per annum each.

ITALIAN HOSPITAL, Queen Square, W.C.—House-Surgeon. Salary at the rate of £60 per annum.

KETTERING AND DISTRICT GENERAL HOSPITAL.—Resident Medical Officer. Salary, £100 per annum.

LANCASHIRE COUNTY COUNCIL, Preston.—Tuberculosis Officers. One at £500 and two at £400 per annum.

LEICESTER CORPORATION.—Assistant Medical Officer for the Tuberculosis Dispensary. Salary, £250 per annum.

LINCOLN MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

LIVERPOOL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Honorary Assistant Physician.

LIVERPOOL: PARK HILL SANATORIUM.—Assistant Resident Medical Officer. Salary, £150 per annum, increasing to £200.

LONDON LOCK HOSPITAL.—(1) Pathologist. (2) House-Surgeon to Female Hospital. (3) Assistant House-Surgeon to Female Hospital. (4) House-Surgeon to Male Hospital. Salary for (1) £50, for (2) and (4) £100, and for (3) £80 per annum.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL AND DISPENSARY.—Male Resident House-Surgeon. Salary, £120 per annum.

METROPOLITAN ASYLUMS BOARD.—Junior Male Assistant Medical Officers in the Infectious Hospitals Service. Salary, £180 per annum, rising to £240.

NEW ZEALAND GOVERNMENT.—Medical Superintendent for the Waikata Sanatorium. Salary, £500 per annum.

NORTHAMPTON COUNTY ASYLUM, Berry Wood.—Junior Assistant Medical Officer (male). Salary, £200 per annum, rising to £225.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon (male). Salary, £90 per annum, increasing to £100.

NORWICH: NORFOLK AND NORWICH HOSPITAL.—Casualty Officer and House-Surgeon. Salary, £60 per annum.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon (male) for Branch. Salary, £180 per annum.

PLAISTOW: MEDICAL MISSION HOSPITAL.—Junior Resident Medical Officer (female) for Dispensary.

QUEEN ADELAIDE'S DISPENSARY, Pollard Row, E.—Resident Medical Officer. Salary, £100 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—(1) Dental Surgeon for L.C.C. School Dental Cases. Salary, £200 per annum. (2) House-Physician. (3) House-Surgeon. Salary at the rate of £80 per annum for (2) and (3).

READING: ROYAL BERKSHIRE HOSPITAL.—Second House-Surgeon. Salary, £80 per annum.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum. [By accident the salary was printed as £80 last week instead of £150.]

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon (male). Salary, £100 per annum.

ROYAL EAR HOSPITAL, Soho, W.—Clinical Assistants.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant to the Clinical Pathologist (female). Salary, £50 per annum.

SCOTTISH PRISON SERVICE.—(1) Resident Medical Officer at Peterhead. Salary, £350 per annum. (2) Assistant Medical Officer for Perth Prison and Criminal Lunatic Department. Salary, £250 per annum.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—Assistant Surgeon at the Dreadnought Hospital.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Assistant House-Surgeon. Salary, £80 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £80 per annum.

SHREWSBURY: COUNTY ASYLUM.—Second Assistant Medical Officer. Salary, £170 per annum, rising to £190.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £80 per annum.

SOUTHPORT INFIRMARY.—Junior House and Visiting Surgeon (male). Salary, £80 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon (male). Salary, £90 per annum.

SOUTHWARK UNION INFIRMARY.—Second Assistant Medical Officer. Salary, £120, increasing to £140.

STOKE-ON-TRENT: INFECTIOUS DISEASES HOSPITAL, Bucknall.—Lady Resident Assistant Medical Officer. Salary, £100 per annum.

STOKE-UPON-TRENT UNION.—Assistant Resident Medical Officer for the Workhouse and Hospital. Salary, £130 per annum.

SUNDERLAND: MONKWEARMOUTH AND SOUTHWICK HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SUNDERLAND: ROYAL INFIRMARY.—Senior Resident. Salary, £150 per annum.

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £80 per annum.

THREE COUNTIES ASYLUM, near Hitchin.—Junior Assistant Medical Officer. Salary, £170 per annum, rising to £250.

TRURO: ROYAL CORNWALL INFIRMARY.—House-Surgeon (male). Salary, £100 per annum.

WAKEFIELD GENERAL HOSPITAL.—Second House-Surgeon (male). Salary, £100 per annum.

WEST END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, ETC., Welbeck Street, W.—Resident House-Physician. Salary at the rate of £75 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL.—Junior House-Physician. Salary at the rate of £75 per annum.

WEST HAM COUNTY BOROUGH.—Tuberculosis Officer. Salary, £500 per annum.

WEST LONDON HOSPITAL, Hammersmith Road, W.—House-Physician.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W.—Honorary Dentist.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon. Salary, £120 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—(1) Resident Medical Officer. (2) House-Surgeon. Salary, £100 per annum each.

WORCESTERSHIRE COUNTY ASYLUM, Bromsgrove.—Second Assistant Medical Officer (male). Salary, £225 per annum.

WORCESTER GENERAL INFIRMARY.—House-Physician. Salary, £100 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointment: Hoxne (Suffolk).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

BRAND, Miss, M.B., B.S., Clinical Assistant to Dr. Langmead, Royal Free Hospital, Gray's Inn Road, W.C.

HASTINGS, D. A., L.R.C.P. and S.Edin., L.F.P.S.Glasg., Medical Superintendent of the Highfield Infirmary, Liverpool.

HUGGINS, Sydney P., M.D.Lond., M.R.C.S., Honorary Surgeon to the High Wycombe Cottage Hospital.

KELLAWAY, C. H., M.B.Melb., Medical Registrar to the Melbourne Hospital.

LLOYD, H. Cairns, M.D., F.R.C.S.Edin., Honorary Infirmary Surgeon, Women's Hospital, Melbourne.

MAYNE, W. J. F., M.B., Ch.B.Edin., Dispensary Medical Officer and Medical Officer of Health to Ballyward District, Banbridge, co. Down.

NORMAN, G. P., M.D.Edin., Medical Officer to the Electrical Department, Oldham Royal Infirmary.

OUTRED, C. D., M.R.C.S., L.R.C.P., District Medical Officer of the Gravesend and Milton Union.

ROBERTSON, J. C., M.D., F.R.C.S.Edin., Honorary Gynaecologist, Newington State Hospital and Asylum, N.S.W.

ROBERTSON, William, M.D.Glas., D.P.H., F.P.S.Glas., Chief Tuberculosis Officer for the Burgh of Leith.

SMYTH, J. C., M.R.C.S., L.R.C.P., Tuberculosis Officer for Kent County.

WHITEHOUSE, Beckwith, M.S.Lond., F.R.C.S.Eng., Examiner under the Central Midwives Board for the Birmingham Centre, vice Jordan Lloyd, F.R.C.S., deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

ASHE.—On May 20th, at Royde House, Sale, the wife of C. S. Ashe, M.B., of a son.

MCCREA.—On May 23rd, at Ash Lodge, Chesterfield, the wife of R. A. McCrea, M.B., B.Ch., of a daughter.

DEATH.

ARCHER.—On Thursday, May 22nd, 1913, at 83, Vincent Square, Westminster, S.W., Thomas Launcelot Archer, M.R.C.S., Surgeon to the A Division, Metropolitan Police (Rochester Row), and Member of the British Medical Association, aged 52.

DIARY FOR THE WEEK.

TUESDAY.

ROENTGEN SOCIETY, King's College, Strand, W.C., 8.15 p.m.—Papers: (1) Professor C. G. Barkla, F.R.S.: Reflexion of *X* Rays. (2) Dr. R. W. A. Salmond: Experiments on the Reflexion of *X* Rays.

WEDNESDAY.

ROYAL SOCIETY OF MEDICINE:
SECTION OF OPHTHALMOLOGY, 8 p.m.—(1) Demonstration of Cases. (2) Annual Meeting. (3) Papers: Professor Worthington, F.R.S.: An Experimental Study of Normal Monocular Polyopia. Dr. Freeland Fergus: (*a*) Glaucoma associated with Venous Congestion; (*b*) A Case of Corneal Ulceration associated with Organisms resembling those found in Vincent's Angina. Mr. N. Bishop Harman: The Education of High Myopes. Mr. G. H. Pooley: A Case of Cyst of the Iris

THURSDAY.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, 4.15 p.m.—Agenda: (1) Election of Officers. (2) Clinical meeting.

ROYAL SOCIETY OF MEDICINE:
SECTION OF OBSTETRICS AND GYNAECOLOGY, 8 p.m.—(1) Short Communications: Dr. Arnold Lea: A Case of Puerperal Venous Thrombosis. Mr. Corrie Keep: Two Cases of Solid Papilloma of Ovary. (2) Paper: Dr. R. H. Paramore: Intra-abdominal Pressure in Pregnancy.

FRIDAY.

ROYAL SOCIETY OF MEDICINE:
SECTION OF LARYNGOLOGY, 4.30 p.m.—Demonstration of Cases and Specimens.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION, Wednesday, 4.30 p.m.—Demonstration of the Methods of Manufacturing and Testing Tuberculin.

LONDON HOSPITAL MEDICAL COLLEGE, Mile End, E.—Thursday, 2 p.m., Development of Mental Action.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Wednesday. Radiography: Saturday. Special Lectures each week.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical Laboratory Work daily (Saturday excepted), 10 to 12 a.m. Practical Entomology, 2 to 3.30 daily. Special Entomology, 10.30 to 1 p.m. daily. Medical Clinics, Tuesday and Thursday at 3 p.m. Operations, Friday, at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m.—Hydatids.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Ear, Nose, and Throat. Special Lectures at 5.15 p.m. daily except Friday and Saturday.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Clinical Lecture.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Medical and Surgical Clinics and Operations at 2.30 p.m. daily. Also Monday, Throat; Tuesday, Gynaecology; Wednesday, Skin, Eye, Children, *X* Rays; Friday, Eye. Special Lectures and Demonstrations as announced.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Tuesday, 4 p.m., Diagnosis in respect of certain Symptoms and Signs in Children.

ROTUNDA HOSPITAL, DUBLIN.—Continuation of the Post-graduate Course on Obstetrics and Gynaecology daily throughout the week except Saturday.

THROAT HOSPITAL, Golden Square, W.—Monday, 5.15 p.m., Special Demonstration of Selected Cases. Thursday, 5.15 p.m., Clinical Lecture.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, *X* Rays, and Operations, 2 p.m. daily. Gynaecology: Monday, Tuesday, Wednesday, and Friday. Eye: Monday, Wednesday, Thursday, and Saturday. Throat, Nose, and Ear: Tuesday, Wednesday, Friday, and Saturday. Skin: Tuesday and Friday. Pediatrics: Wednesday and Saturday. A Lecture at 5 p.m. every day except Saturday.

[For further particulars of Lectures consult the Index to Advertisements.]

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		JUNE.
4	Wed.	South Middlesex Division, Annual Meeting, Twickenham, 8.30 p.m.
5	Thur.	Coventry, Nuneaton, and Tamworth Divisions, Annual Meeting, Coventry Hospital, 3.30 p.m.
6	Fri.	London: Ethical Committee, 2 p.m. Hampstead Division, Annual Meeting.
7	Sat.	Date of issue of Voting Papers for Council Election from Head Office.
10	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
11	Wed.	South-Eastern Branch, Annual Meeting, Guildford, 1.30 p.m.; Luncheon, 12.45 p.m.; Annual Dinner, 6.30 p.m. South-Western Branch, Annual Meeting, Torquay, 3 p.m.; Luncheon, 1 p.m. to 2.30 p.m.; Annual Dinner, 7.45 p.m. for 8 p.m.
12	Thur.	Kensington Division, Annual Meeting, Kensington Town Hall, 5 p.m. South Midland Branch, Annual Meeting, Bedford.
13	Fri.	London: *Special Meeting of Council, 11 a.m.* (Reform of Constitution.) Midland Branch, Annual Meeting, Leicester, 3 p.m.
14	Sat.	Last day for receipt of Voting Papers at Head Office *re* Council Election.

Date.		Meetings to be Held.
		JUNE (*continued*).
17	Tues.	London: Organization Committee, 2.15 p.m.
19	Thur.	Birmingham Branch, Annual Meeting, Medical Institute, 3 p.m.
20	Fri.	East Hertfordshire Division, Annual Meeting, Ware, 2.30 p.m.
25	Wed.	London: Finance Committee, 2.30 p.m. Central Division, Annual Meeting, Medical Institute, Edmund Street, 3.30 p.m.
27	Fri.	Border Counties Branch, Annual Meeting, Carlisle.
28	Sat.	Announcement of result of Election of Members to Council.
		JULY.
1	Tues.	Metropolitan Counties Branch, Annual Meeting, 4 p.m., 429, Strand, W.C.
2	Wed.	London: Council Meeting.

ANNUAL MEETING, BRIGHTON, 1913.

Annual Representative Meeting, July 18th, and following days.

Presidential Address, Tuesday, July 22nd.

Sections—Wednesday, July 23rd; Thursday, July 24th; and Friday, July 26th.

International Medical Congress in London, August 6th to August 12th.

Printed and Published by the British Medical Association at their Offices, No. 429 Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 7TH, 1913.

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National Insurance.

British Medical Association.

AMENDMENT OF THE INSURANCE ACT.

PROPOSALS BY THE BRITISH MEDICAL ASSOCIATION.

THE British Medical Association has forwarded to the National Insurance Joint Committee a memorandum upon the amendment of the Act and Regulations which it deems desirable. The memorandum was accompanied by the following covering letter:

Offices of the British Medical Association,
Medical Department, 429, Strand, London, W.C.,
May 30th, 1913.

Sir,

Amendments to the Act and Regulations Proposed by the British Medical Association.

In view of the approaching introduction into Parliament of a Bill to amend the National Insurance Act, the British Medical Association is anxious to take any opportunities that may be offered for bringing forward certain suggestions which, if adopted, would, it believes, have the effect of improving the efficiency of the Act. The Association realizes that it would facilitate the progress of its suggested amendments if it could secure for them the approval of the Commissioners. I am therefore instructed to forward a Memorandum which includes not only the amendments of the Act, but also points which could be met by amendment of the Regulations.

The Association would be glad to know how far it may expect the assistance of the Commissioners in pressing for any of the amendments suggested, and in order to assist the Commissioners in understanding its point of view the Association would be glad, if desired, to send a small deputation to meet the Commissioners.

It would be of material assistance to the Association if it were possible for it to be supplied with an early copy of the amending Bill, and I am instructed to ask whether the Commissioners are in a position to comply with this request, or whether it should be made to the Chancellor of the Exchequer.

I am, Sir,
Your obedient Servant,
(Signed) ALFRED COX,
Medical Secretary.

The Secretary,
National Health Insurance Joint Committee.

MEMORANDUM

ON POINTS WHICH THE BRITISH MEDICAL ASSOCIATION DESIRES TO SUBMIT FOR THE CONSIDERATION OF THE INSURANCE COMMISSIONERS WITH A VIEW TO SECURING SUCH AMENDMENTS OF THE NATIONAL HEALTH INSURANCE ACT OR REGULATIONS AS MAY BE NECESSARY.

EXCLUSION OF CERTAIN SERVICES FROM MEDICAL BENEFIT.

1. Before the passing of the National Insurance Act, the British Medical Association lost no opportunity of impressing upon the Government the strong objection of the medical profession to providing certain services in respect of the remuneration payable to the medical profession for medical attendance and treatment. These services are (a) the provision of the services of a second practitioner; (b) attendance on insured persons for diseases caused by their own misconduct; and (c) attendance on miscarriages and abortions or any conditions arising therefrom within 28 days.

(a) *Provision of the Services of a Second Practitioner.*

2. The Association desires to press for the amendment of either the Act or Regulations, or both, as may be necessary, in order that it may be made clear that a practitioner who finds it necessary for any purpose in connection with the medical attendance on any of the insured persons on his list, to obtain the services of another practitioner, shall not be compelled as a part of his agreement to provide such services. In accordance with paragraph 2 of the First Schedule to the

Regulations, Part I., a practitioner is bound to give to his patients "such treatment as is of a kind which can consistently with the best interests of the patient be properly undertaken by a general practitioner of ordinary professional competence and skill." The Association would submit that no practitioner should be expected or encouraged to give an anæsthetic while at the same time rendering some other service to the patient; in fact, it is generally recognised that such a practice is dangerous and should be discouraged.

3. An insured person has no claim upon any doctor except that one in whose list his name is included. It is difficult, therefore, to see on what grounds, either legal or otherwise, an insured person can be expected to be provided with the services of a second doctor without extra payment. As a matter of fact contract practice patients at the present time do not expect anything of the kind, but in view of the inclusion of the administration of a general anæsthetic in Sections B, C, D, E, and F, of Part II. of the First Schedule to the Regulations, insured persons will undoubtedly begin to claim as a right the services of two doctors when such are needed. The encouragement of such an idea can only lead to disappointment and dissatisfaction when the claim is refused, or to the adoption of the dangerous practice of the simultaneous giving of an anæsthetic and the performance of some other service by one practitioner if it is insisted on. The Association would, therefore, press, quite as much in the public interest as in that of the medical profession, for such amendment of the Act or Regulations as is above specified.

(b) *Attendance on Insured Persons for Diseases caused by their own Misconduct.*

4. The Association desires again to press for the exclusion from the services included under medical benefit of the treatment of those cases of illness brought about by the misconduct of the person claiming benefit. The Association would propose the deletion of the word "not" in the following paragraph at the end of Section 14 (4) of the Act, or the embodiment of the principle in some other suitable way :—

> "Where under any such rule as aforesaid payment of sickness or disablement benefit is discontinued on the ground that the disease or disablement has been caused by the misconduct of the person claiming benefit, such person shall not thereby become disentitled to medical benefit."

(c) *Attendance on Miscarriages and Abortions.*

5. The Association finds that the objection which was expressed by the profession generally to the inclusion, among the services expected as part of medical benefit, of the treatment of cases of miscarriage and abortion, or any condition arising therefrom within 28 days, is as strong as ever. The Association would urge that it would be quite in accordance with the custom of all contract medical practice systems that such attendance should be paid for separately. These cases are often of the most troublesome kind and it is felt that the present rate of payment for medical attendance and treatment does not fairly cover cases of this nature. The Association, therefore, proposes to press for the addition of the following words to the end of Section 8 (6) of the Act :—

> "Miscarriage or abortion or any condition arising therefrom within 28 days."

Extra Payment for Night Calls.

6. It has always been recognised that there is a great risk that persons whose medical attendance is provided for them at an inclusive rate, and especially when the payment they make is an indirect one, will be tempted to make undue calls upon medical practitioners. The first three months of the operations of the Act have confirmed the universal opinion of the profession on this point. The Commissioners have themselves recognised the risk indicated by framing, and urging Insurance Committees to circulate, certain Model Rules which impose a penalty on insured persons who make frivolous calls upon their doctors. It is felt that there are serious difficulties in the way of enforcing such Rules, and as regards night visits—the great bugbear of a medical man's life—it is believed that the knowledge that practitioners were entitled to make a small charge in respect of each night call would act as a far more efficient deterrent on unnecessary calls at these hours than the Model Rules. Moreover, the liability to pay a small charge would not act as a deterrent in really serious cases. The Association desires, therefore, to press for such an amendment to the Act or Regulations as would enable a small charge to be made in respect of night calls.

Income Limit.

7. The fear of the profession that Section 15 (3) of the Act, authorising Insurance Committees to fix an income limit, would be more honoured in the breach than in the observance has been entirely verified by the experience of the past few months. The adoption of the principle by a very few Insurance Committees encourages the Association, however, to hope that the justice of its contention that people who are relatively well-to-do should not be allowed to take advantage of the contract medical arrangements under the Act, will eventually gain general recognition. In order that the principle should have a fair chance, which, under the present constitution of the Insurance Committees it has not now, the Association would urge for the amendment of the Act and Regulations so as to make it incumbent upon the Insurance Commissioners to require Insurance Committees to adopt a local income limit which, like most of the other arrangements proposed to be made between Insurance Committees and the medical profession, must be submitted for the approval of the Commissioners.

8. The Association desires further to press for the amendment of the Act so as to ensure that when the income from all sources of an insured person exceeds the sum of £160 per annum he shall be *required* "to make his own arrangements." This request seems to the Association to be extremely reasonable, because that limit is already recognised in connection with the voluntary contributor and several Insurance Committees have already fixed an income limit of £160 per annum for their areas without serious objection being taken. As a person who is required to make his own arrangements does not lose the benefit of the money he has subscribed for the purposes of the Act, and, in fact, would receive towards the cost of his medical attendance the sum of 9s., towards which he will only have subscribed the sum of 2s. 8d., the Association fails to see that there could be any reasonable objection to the present proposal.

9. The Association further presses for such amendment of the Act as will clearly define that in this case, as also in Section 1 (3), the term "total income from all sources" shall include any income which is independent of the personal exertions of the recipient, whether received as an allowance or otherwise.

10. It is felt to be necessary to press for such a definition because at the present time there are a good many cases in which the sons of well-to-do fathers, whose earned income is a very small portion of their total income, are taking advantage of the medical attendance provided under the arrangements made by Insurance Committees. Such persons do not need, and were never intended to receive, the medical attendance so provided.

Composition of Insurance Committees.

11. During the progress of the National Insurance Bill through the Houses of Parliament the Association repeatedly drew attention to the unfairness of the composition of the Insurance Committees, and experience has only strengthened the *a priori* opinion that a Committee in which one interest is given a permanent majority over all the other interests combined is unlikely by reason of the nature of its composition to give fair consideration to questions in which the interests of the dominant party are directly involved. The Association quite appreciates the argument that the insured persons, being subscribers to the Insurance Funds, are entitled to considerable representation on the Committees, but the recognition of the force of this argument makes it difficult to understand why the employers who are also subscribers, are not represented. The Association believes that the administration of the Insurance Act by the Insurance Committees would be more efficient, and that there would be less risk of friction among the different sections of the Committees, if no one interest formed more than two-fifths of the total membership of the Committees. The Association accordingly proposes to urge the modification of Section 59 of the Act to this effect.

Medical Representation on District Committees.

12. The absence of any Regulations providing for medical representation upon District Committees is giving rise to dissatisfaction in many areas. Although the Association understood that the profession would have similar representation on the District Committees to that afforded on the Insurance Committees, the understanding was not embodied definitely in the Act or Regulations. The Association can conceive of no valid objection to effective representation of the profession on the District Committees and is of opinion that the matter should now be dealt with definitely in the Regulations. The Association desires therefore to press for the addition to Regulation 59 of a proviso in the following or similar words :—

> "As regards such District Insurance Committees the medical representation thereon shall be in the same pro-

portion as is accorded to the medical profession on Local Insurance Committees."

SEAMEN'S NATIONAL INSURANCE SOCIETY.

13. Attention has been drawn to the absence of any representation of medical practitioners on the Committee of the Seamen's National Insurance Society. The reasonableness of the claim of the medical profession to representation on the Insurance Committees, which fulfil, as regards the general body of insured persons, the same functions as are fulfilled by the Seamen's National Insurance Society in regard to seamen, was recognised by Parliament, and the Association respectfully submits that the reasons which were admitted to be valid in the one case apply with equal force to the other. Certain questions have arisen which have necessitated informal negotiations between the Association and the Seamen's National Insurance Society, and the Association is of opinion that it would conduce to the efficiency of the administration of medical benefit by the Seamen's Society if the medical profession were represented upon its Committee in the same proportion as the profession is represented on the Insurance Committees. It is therefore suggested that Section 48 (5) of the Act should be amended by the insertion, after the word "proportions" in the 7th line of that Section, of the following or such other words as will secure the object desired:

> "and of representatives of the medical profession of the United Kingdom in the same proportion as is accorded to representatives of that profession on Insurance Committees."

MEDICAL TREATMENT OF TEMPORARY RESIDENTS.

14. The Association has given full consideration to the numerous difficulties connected with the provision of medical attendance and treatment to insured persons temporarily absent from their homes. No objection has been raised to the system laid down in Regulation 22, namely, that in the case of an insured person who changes his residence permanently, the remuneration due to the profession should be divided between the doctors concerned, in proportion to the time for which each of these doctors is respectively responsible for the treatment of the person concerned. Strong objection has been taken, however, as was mentioned in a communication forwarded by the Association on May 16th, 1913, to the proposed deduction from the moneys due under their agreements to the medical profession in order to pay for medical attendance on persons changing their residence temporarily either because they are on holiday, or for reasons of health. The Association has already proposed that persons who are on holiday should not be entitled to medical treatment under the Act, and would again press this upon the attention of the Commissioners. The Association proposes to move for the amendment of the Act so as to secure the provision by the Government of a special central fund, quite apart from the moneys already allocated for medical benefit, to provide for the medical attendance and treatment of insured persons temporarily resident on account of ill-health.

15. The Association desires also to press for the amendment of the Act or Regulations as may be necessary, so as to provide that insured persons temporarily resident by reason of the nature of their occupation should be *required* to make their own arrangements, as has already been done by the Insurance Committees, on the instruction of the Commissioners, as regards travellers, actors, etc.

TERMS OF PRACTITIONERS' CONTRACTS WITH INSURANCE COMMITTEES.

16. The Association has been informed that agreements between Insurance Committees and practitioners have in many cases been drawn up by the former bodies, issued, and often signed, before the local Medical Committees have had an opportunity of considering the terms of the agreement. The Association is aware that by the terms of Regulation 7 (1) the Insurance Committees must consult the Local Medical Committee before determining the conditions of service which it is proposed to invite practitioners to accept. It is evident, however, that this is not sufficient to secure that the terms of the agreement really get full consideration by both parties to the contract, and the Association would submit that the draft Agreement should be submitted to the local Medical Committees before individual medical practitioners are invited to sign it, and in addition, that the Insurance Committee, in forwarding the draft agreement to the Commissioners for approval, should forward with it (i.) a statement to the effect that it has been submitted to the Local Medical Committee, and (ii.) a statement of the views thereon of the Local Medical Committee.

17. The Association desires therefore to press for (i.) the addition to Regulation 7 (1) of the following, or such other words as will secure the above-named object:—

> "and shall before submitting such draft agreements for the approval of the Insurance Commissioners forward copies thereof to the Local Medical Committee and allow that body a reasonable time for consideration,"

and (ii.) the addition to Regulation 8 (a) of words to the following effect:—

> "together with a statement that such draft agreement has been submitted to the Local Medical Committee accompanied by a copy of the observations of the Local Medical Committee thereon."

FEES OF MEDICAL PRACTITIONERS FOR ATTENDANCE UPON CONFINEMENTS IN RESPECT OF WHICH MATERNITY BENEFIT IS RECEIVED.

18. The Association has given careful consideration to the Provisional Regulations of the Commissioners dealing with the fees payable to medical practitioners for attendance upon certain confinements in respect of which maternity benefit is received. So far as the Association has been able to ascertain the profession is absolutely unanimous that the maximum fee of 15s. allowed under these Regulations is entirely inadequate. It may be mentioned also, that very considerable objection is taken to the shortness of the time allowed to the medical practitioners in these Regulations in which they may claim the fees provided. The opinion of the profession is being asked for upon various questions arising under these Provisional Regulations, and it is hoped that in the meantime no steps will be taken by the Commissioners to make the Regulations permanent. After these opinions have been received and considered, the Association will approach the Commissioners again upon the whole subject.

TERMINATION OF AGREEMENTS BETWEEN INSURANCE COMMITTEES AND PRACTITIONERS.

19. The Association desires to suggest that arrangements should be made whereby a practitioner desiring to withdraw from the local list shall be allowed to do so by giving three months' notice at any time. At present, apparently by the terms of Regulation 21 (2), a practitioner can only withdraw by giving one month's notice terminable at the date of revision of the list.

DEFINITION OF RURAL AREA.

20. The Association has frequently been asked to secure a proper definition of the term "rural area" as used in Regulation 30 (1). At the present time there is no uniformity of action and a good deal of confusion is being caused by the indefiniteness of the present Regulation. The Association would therefore urge that the words "in a rural area" should be deleted from the aforesaid Regulation so as to enable medical practitioners, if they so elect, to dispense medicines for insured persons on their list in all cases where their patients are more than a mile from a chemist on the list.

MEDICAL REFEREES.

21. The Asssociation is being made aware, as no doubt the Commissioners are, that there is a growing feeling in favour of the appointment of medical referees in connection with the National Insurance Act, to which officers cases of alleged malingering could be referred either by the Insurance Commissioners, Insurance Committees, Approved Societies, or by medical practitioners. The Association is strongly in favour of the appointment of such officers and would urge that the appointments should be made, not by Insurance Committees or Approved Societies but by the Commissioners. This method of appointment the Association believes would give these officers a status superior to that of officers appointed locally, and would prevent that local wire-pulling which would almost certainly occur if the appointments were made either by the Insurance Committees or by the Approved Societies. The Association is aware that under the terms of the Act the Commissioners already have the power to appoint such officers. The Association would urge the great importance at the inception of any scheme of this kind of the adoption of the principle that an officer of this importance should have reasonable security of tenure of office so that he may be enabled to act without fear or favour. In the case of whole time officers being appointed they should, in the opinion of the Association, be entitled to superannuation. The Association would suggest that all such officers, when appointed, should be removable by the authority by whom they are appointed, that is to say by one of the bodies of National Commissioners, with the consent of the National

Insurance Joint Committee, and not otherwise, and should not be appointed for a limited time only. In making this suggestion the Association has in view the position of the Medical Officer of Health, who, it is common knowledge, is often prevented from acting as he would like to do in the interests of the community, because he knows that if he happens by his actions to offend some of the members of the local body which employs him, and who may be directly or indirectly affected by his actions, he may lose his position. The Association is anxious that a state of things which is a blot on one public service should not be allowed to obtain in connection with the proposed new service, and it trusts that the Commissioners will at the beginning lay down such terms of appointment as will attract the very best kind of officer.

22. In order that the persons appointed to these important posts shall be practitioners whose professional position and personality shall be such as will make them acceptable to the profession of the area in which they will have to act, the Association would suggest that in any Regulations to be made dealing with the method of appointment of medical referees the following points should be included:—

(a) Provision whereby the Local Medical Committee of an area or, if necessary, the combined Local Medical Committees, shall be consulted as to whether medical referees for that area should be whole or part time officers.

(b) Provision whereby the Local Medical Committees concerned may make nominations for such appointments.

LOCAL MEDICAL COMMITTEES.

LIVERPOOL.

THE sixteenth meeting of the Committee was held at the Liverpool Medical Institution on May 27th. In the absence of the Chairman (Dr. Larkin) Dr. T. CLARKE (the Vice-Chairman) presided, and fourteen other members were present.

Temporary Residents.—The discussion upon Memorandum 159/I.C. with reference to temporary residents was resumed. The HONORARY SECRETARY stated that, as requested at the last meeting, he had sent the following letter to the Insurance Commissioners:

May 15th, 1913.

Gentlemen,

The Liverpool Local Medical Committee has had before it Memorandum 159/I.C., and I am instructed to ask you if you would be good enough to make clear the following points:

Taking, as the Memorandum does, the "case-value" of an insured persons at 27s., and supposing a person removes temporarily to another district, say for one month, and during that time is seriously ill, and then returns to his proper area, how much of the 27s. is taken from the fund in his own area to the Central Fund for paying the fees of the doctor in the area in which he was temporarily resident?

Again, I am stating a case which I understand has actually occurred: an insured person was seriously ill for some weeks, and was attended by his doctor here in Liverpool for six weeks. He was then sent by his doctor to Buxton, and remained there for a fortnight under a doctor's care. His illness still continued, and he went to Blackpool where, under the care of another doctor, he made good progress, and returned home in another fortnight. What portion of this man's "case-value" would be apportioned to Liverpool, Buxton, and Blackpool respectively?

I am further instructed to inquire what steps the Commissioners propose to take to ensure that the procedure outlined in Section 10 will be the "normal."

It seems to this Committee that if the state of affairs mentioned in Section 2 as the result of experience is allowed, the procedure of Section 10 will become exceptional rather than "normal."

I am, Gentlemen,
Yours faithfully,
W. T. D. ALLEN,
Honorary Secretary, Local Medical Committee.

No reply had been received from the Commissioners, and it was decided to adjourn the discussion of the arrangements for temporary residents until the next meeting.

Expenses of Committee.—The Honorary Treasurer, Dr. HAMILTON SHAW, stated that the circular which had been issued to every member of the profession in the Liverpool area, asking for a contribution of 5s. to cover the expenses of the Committee during the first year, had so far been responded to by 54 non-panel and 61 panel practitioners.

LEWISHAM.

A GENERAL meeting of all the practitioners in the borough of Lewisham was held on May 29th, at Catford, for the purpose of electing a committee which shall seek recognition as the Local Medical Committee under the National Insurance Act. The meeting was representative of all the practitioners in the Division.

The following Committee was chosen:

Chairman: Dr. S. Barnett.

Honorary Secretary: Dr. H. M. Bunday, Endrick Bank, Honor Park Road, S.E.

Drs. T. Atkinson, Charles Blue, Hudson Evans, A. Grayling, T. Halliwell, L. Hemmans, F. Hogg, A. M. Moore, H. Munro, Wheeler O'Bryen, C. Peacock, W. Wilson.

The meeting terminated with a vote of thanks to the Chairman, Dr. Thornton Comber.

The Committee then met, and instructed the Honorary Secretary to apply for recognition.

ELGIN AND NAIRN.

MEETINGS of the Elgin and Nairn Local Medical Committee was held in Elgin on May 1st and 22nd, Dr. TAYLOR, Chairman, presiding.

Temporary Residents.—After considering Memorandum 159 I.C., it was unanimously agreed to inform the Commissioners that the Committee could sanction no scheme involving any deduction from the 7s. contracted for, but that a case-value contribution from the Insurance Committee was preferable to one on a capitation basis.

Charges by Chemists.—It was agreed to protest against the neglect to consult the Local Medical Committees as to charges of chemists.

Extra Certificates.—It was agreed that one certificate only be given for the purposes of the Insurance Act, and that for other certificates desired a fee of 1s. be charged, the fee to be paid by the individual requiring it or by his society.

Medical Members of Local Insurance Committees.—A letter was read from the Secretary of the Insurance Commissioners (Scotland) which stated they were now prepared to appoint two other medical men to the Local Insurance Committee, and asking the Local Medical Committee to suggest the names of medical men for the appointments. It was unanimously agreed to send up the names of Dr. Cruickshank (Nairn) and Dr. Campbell (Elgin), who had previously been offered these appointments but, at the request of the Association, had declined them.

Mileage.—The question of mileage was again discussed, and it was unanimously agreed to press for "one mile free" instead of "three miles free," as at present proposed.

Rules of Conduct, etc., for Insured Persons.—The SECRETARY reported that the additional rule suggested by the Local Medical Committee in regard to Sunday work had been passed by the Local Insurance Committee in the following terms:

Unless in cases of urgent necessity, an insured person shall not summon a practitioner to visit him or her on Sundays, nor attend at the practitioner's surgery on Sundays for advice.

Deputies.—The Secretary was instructed to bring before the notice of the Local Insurance Committee the desirability of allowing the medical members of the Committee to be represented by deputies.

Attendance at Contract Rates outside Scope of Insurance Act.—The question of medical men in the area having accepted appointments to attend the wives and children of insured persons at contract rates, without the consent of the Local Medical Committee, was considered by the Committee and referred to the Division.

SURREY

THE eleventh meeting of the Surrey Local Medical Committee was held at Surbiton on May 23rd, when Dr. LANKESTER was in the chair and seventeen other members were present.

Mileage.—The HONORARY SECRETARY read a letter received by the Surrey Insurance Committee from the Insurance Commissioners *re* mileage, asking for further details as to patients residing beyond three miles from their doctor. The Secretary was directed to see that this question was brought to the notice of the doctors on the panel who had patients residing in inaccessible places.

Finance.—A resolution was carried unanimously that all practitioners on the panel be asked to contribute a sum of 5s. each, and that other medical practitioners in the county not on the panel be asked to contribute 2s. 6d. to meet the expenses of the Local Medical Committee and of the nine District Medical Committees during the year 1913. Dr. A. R. Walter, of Reigate, was appointed Treasurer.

District Medical Committees.—A resolution was carried asking all District Medical Committees to deal as far as possible with the Insurance Commissioners and the Surrey Insurance Committee through the medium of the Local Medical Committee.

Prescription Book.—A new prescription book, containing a carbon fixed to the back of each prescription sheet, was agreed upon.

Temporary Residence.—A discussion on the Insurance Commissioners' Memorandum 159/I.C. took place, and it was unanimously agreed to forward to the Surrey Insurance Committee and the Insurance Commissioners the following resolutions:

1. The Central Fund suggested in the Memorandum 159/I.C. is to be made up of certain (variable) deductions from the capitation fee at present due to panel doctors.
2. The amount of this fee, after being promised in the circular from the Commissioners, was finally established by being embodied in the stamped and signed agreement entered into between the various Insurance Committees and the individual doctors.
3. Speaking for the doctors whom it represents, this Committee cannot possibly consent to any such breach of contract as would be caused by the reduction in the capitation fee proposed by this Memorandum.

Fees for Certificates.—The Local Medical Committee also discussed the fees for extra certificates and continuation certificates, and resolved that, "in the opinion of the Local Medical Committee, extra certificates and continuation certificates, whether weekly or otherwise, should be charged for at a minimum fee of 1s." The Secretary was directed to bring this statement to the notice of all the practitioners in the county.

Franking of Correspondence.—The Local Medical Committee was also unanimous in its opinion that all correspondence between practitioners and either the Insurance Commissioners or Insurance Committee should be franked.

Maternity Benefit.—A resolution was carried that it is desirable that practitioners when called in to assist a midwife shall not accept a lower fee than one guinea, and that all medical men practising in Surrey be informed of this resolution.

Medical Representatives on District Insurance Committees.—The following medical practitioners were unanimously elected to serve on the nine District Insurance Committees in Surrey:

Wimbledon: Dr. Purcell.
Reigate: Drs. Spencer, Palmer, and Mackenzie.
Sutton: Drs. Cazalet, Cressy, and Wilson.
Richmond: Dr. S. S. Burn.
Barnes: Dr. Wiggins.
Guildford: Drs. Butler, Wilcockson, Kendall, and Hussey.
Woking: Drs. Brewer, Woolridge, Pearse, and Gardiner.
South-Eastern: Drs. Jackson and Ellis.
Kingston: Drs. Sully, Cran, Carver, and F. G. Owen.

The Surrey Local Medical Committee consists of:

Chairman: Dr. Lankester, Guildford.
Vice-Chairman: Dr. A. E. Evans, Kingston Hill.
Honorary Secretary: Dr. Pain, Leatherhead.
Treasurer: Dr. A. R. Walters, Reigate.
Dr. Harold Bently, Mitcham; Dr. J. S. Burn, Richmond; Dr. Norman Carver, Surbiton; Dr. Cowie, Wimbledon; Dr. S. A. Clarke, Horley; Dr. H. R. Cran, Malden; Dr. Daniel, Epsom; Dr. Deas, Merton; Dr. Wm. McD. Ellis, Woldingham; Dr. Floyer, Egham; Dr. Gaynor, Redhill; Dr. Gripper, Wallington; Dr. Hodgson, Chertsey; Dr. H. N. Holberton, East Molesey; Dr. J. R. Johnson, Richmond; Dr. Kingsford, Woking; Dr. Lyndon, Haslemere; Dr. Maguire, Kew Gardens; Dr. L. C. Newton, Richmond; Dr. Partridge, Sutton; Dr. Martin Randle, Wimbledon; Dr. F. W. Robertson, Bletchingly.

SOUTHPORT.

THE Southport Local Committee, which has been recognized by the Commissioners, is composed as follows:

Chairman: Dr. Brown.
Secretary: Dr. Penrose, 43, Hoghton Street, Southport.
Drs. Baildon, Bentall, Lawson Cairns, de Courcy, Dall, Edmiston, Harker, Henderson, Limont, Littler, MacKay, Mulholland, Murison, Pridie, Reid, Harris, Lewis.

Representatives on Insurance Committee.—Elected by profession: Drs. Littler and Penrose. Elected by Borough Council: Dr. Mulholland. Elected by Commissioners: Dr. Lawson Cairns.

Members of the Insurance Committee being Elected as Town Councillors.—Drs. Limont and Pridie.

Medical Members of the Medical Service Subcommittee.—Drs. Brown, Dall, and Harris.

Medical Benefit Subcommittee.—Dr. Penrose.

Finance Subcommittee.—Dr. Pridie.

A number of meetings of the Local Medical Committee have been held, and delegates had been to London on two occasions to consult with the Commissioners regarding the day-book and prescription forms and arrangements for attending temporary residents. The question as to whether contracting-out should still be urged was fully discussed, and it was finally resolved:

That in view of the fact that contracting-out has hitherto been practically refused by the Insurance Committee, the members of the panel recommend that it shall not be allowed now.

Payment for Sanatorium Benefit.—It was resolved that payment be by capitation.

Distribution of Residue of Patients.—The Committee has decided that the residue of patients should be distributed *pro rata* to the number of patients already on the lists.

Expenses of Local Medical Committee.—An appeal for 2s. 6d. each is made to the local profession to meet the expenses of the year.

Schedule of Operations.—The question of preparing a schedule of operations which should not be performed under the insurance contract was raised. The general feeling was that it would be better not to have a schedule, but that each case should be dealt with as it arose.

Arrangements with Chemists.—A deputation from the chemists was received to discuss their claim for extra fees in certain cases. After negotiations the following arrangements were ratified by both parties.

(*a*) The chemists to be given a duplicate prescription in each case, but, in the event of a duplicate not being supplied, a penny fee to be allowed for copying.
(*b*) Chemists agree to accept "Rpt. Mist." when date of previous prescription is mentioned; in the event of the date not being supplied, a penny fee to be charged.
(*c*) Special dispensing fee for night and Sunday work not allowed.

Temporary Residents.—A special meeting of the Committee to which all the members of the panel were invited was held on May 28th, to discuss the question of attendance on temporary residents and Memorandum 161/I.C. There was a large attendance, and after full discussion the following resolutions were carried *nemine contradicente:*

That the members of the panel protest against any deduction being made from moneys due to them under the Insurance Act for the purposes of the scheme outlined in Memorandum 161.

That members of the panel refuse to accept the "green vouchers" after June 1st, and will only treat temporary residents as private patients until such time as suitable arrangements are provided by the Commissioners, unless holders of the vouchers be allocated by the Insurance Committee.

MEETINGS OF INSURANCE COMMITTEES.

MIDDLESEX.

Discretion of a Practitioner giving Domiciliary Treatment.

AT the meeting of the Middlesex Insurance Committee on June 2nd the Sanatorium Benefit Subcommittee recommended:

That no insured person receiving domiciliary treatment be given tuberculin or other similar substance without the consent of the tuberculosis officer.

Dr. BRACKENBURY said that if the tuberculosis officer had advised that a particular case was one for domiciliary treatment, it seemed to him as a practitioner a monstrous thing to say to that practitioner, "Yours is the responsibility for treating this patient, but you shall not use this or that drug in giving the treatment." He imagined the object of the proposal was that doctors on the panel should not administer large quantities of an expensive drug, but at the same time, if a patient were receiving treatment from a doctor in his own house, that doctor must be

allowed to say what drugs he would use in the best interests of the patient. No doubt, from the nature of the case, tuberculin would not usually enter into the treatment of domiciliary cases, and doubtless the doctor would avail himself of the services of a tuberculosis officer, but the proposal of the Subcommittee placed medical practitioners in a position no self-respecting medical man should be expected to acquiesce in. Dr. Brackenbury moved that the recommendation should be referred back.

Mr. W. Regester seconded it, and suggested that the insertion of the words "without consultation with the tuberculosis officer" would meet the views of Dr. Brackenbury.

Dr. Brackenbury was afraid he could not accept that.

Mr. Regester and the Chairman (Mr. W. S. Glyn-Jones, M.P.) appealed to the Chairman of the Subcommittee to withdraw the recommendation, and the report was then by leave withdrawn.

INSURANCE NOTES.

London.

Distribution of Unallotted Funds.

With reference to the point raised at the last meeting of the London Insurance Committee as to the legality of allocating funds accumulated in respect of insured persons who have not chosen a doctor (Supplement, May 31st, p. 475), the Medical Benefit Subcommittee has prepared a case for the opinion of the law officers of the Crown. Notice of an amendment to make no distribution from the accumulated funds until after the complete assignment of insured persons amongst the doctors on the panel has been given.

REPORTS OF LOCAL ACTION.

LONDON.

Proposed Transformation of the Medical Committee for the County of London.

Sir,—Last November, at open meetings of practitioners throughout the Divisions of the British Medical Association in London, representatives, of whom I am one, were elected to serve on a Medical Committee for the County of London. The stated purpose of this Committee was to supervise and protect the interest of medical practitioners in relation to the National Insurance Act, and it might become constituted a statutory Medical Committee if and when the terms of the Act in respect of medical benefit were approved by the profession. I need not remind your readers that medical opinion throughout almost the whole of London was, at the time, most hostile to the Act, and that the terms of the latter have not been approved by the profession. On the afternoon of Saturday, May 31st, I received the following telegram: "Urgent meeting, 429, Strand, Monday next (June 2nd), four. Raiment." Mr. Raiment could give me no information as to the object of this meeting. I ascertained, however, from another source that some project was afoot for the creation of a committee which should act as a statutory committee, and should be composed partly of members of the National Insurance Practitioners' Association and partly of others, but whether I was summoned to a meeting of some subcommittee or other body I did not know. Official information or official notice I had none. Not until Monday did I come to realize, and then not clearly, but by conjecture, that the meeting in question must be that of the Medical Committee for the County of London. I was unable to attend it owing to a pressing and prearranged engagement, but I subsequently learnt what occurred. At this conference, summoned so irregularly in such haste—almost indecent haste—with no published title or agenda, no indication of its purpose, there jumped, as it were, a proposal that the committee which I have shown to have been established under conditions absolutely prohibitive, should be utilized in the formation of a so-called statutory committee.

Stranger still is the fact that the proposal was carried, though not by an overwhelming majority, but in the teeth of vigorous dissent. Let it be noted that by this decision practitioners in the metropolitan Divisions unconsulted have been committed by certain of their representatives to a policy which they have never as a body approved, and which is now throughout a great part of the metropolitan area unreservedly condemned. It must be obvious that the whole method of these proceedings is unconstitutional and as contrary to established rule. It must be equally manifest that it is impossible to found on such a basis the authority of a committee which can be statutory under the terms of the Act.

In the circumstances recorded recrimination would be both natural and easy. It would not be quite unjustified. I shall not resort to it, but I shall express my deep regret, which without doubt has existence elsewhere also, that men of fundamentally honourable character should in this case have been misled into courses which cannot be regarded as either straight or fair. Theirs is not the professional way. Some alien influence has come in. Our hive has been invaded by the wax-moth, and these are its issues. It must be purged and a stronger, simpler plan of action prevail, or farewell to mutual confidence, the basis not only of medical but of all truly ordered life.—I am, etc.,

Islington, N., June 3rd. B. G. Morison.

*** We have referred the above letter to Dr. Haslip, who was in the chair at the meeting. Dr. Haslip writes as follows:

I thank you for the opportunity to give at once the true facts of the meeting of the Provisional Medical Committee elected for the County of London on Monday last. The meeting was held at the urgent request of one of the representatives of the medical profession on the Insurance Committee for the County of London. The meeting followed upon a previous meeting, at which the two medical representatives were instructed to find out in what position our Committee stood in the question of applying for statutory recognition. The report of their interview with Sir Robert Morant and Dr. Smith Whitaker was given by Dr. Evan Jones and Mr. E. B. Turner, and I also gave the result of my interviews with Sir Robert Morant. After a long discussion, the suggestion that there should be a round table conference of seven members of this Committee with seven members of a committee elected last January by the medical men who were on the panel was agreed to by the meeting, which consisted of 33 members out of a possible 52. The proposal was carried by a proportion of over three-sixths to two-sixths. The seven representatives nominated will have to report again to a meeting of my Committee before any final decision is arrived at. I have no desire to answer the personal side of Dr. Morison's letter. As Chairman of the Committee I have endeavoured to have no personal opinion, and the charge of dishonourable conduct I pass in silence, but I really think that any one who knew the work of Mr. Turner and Dr. Evan Jones should have hesitated before writing a letter casting on them the slightest suspicion of being concerned in any action which was not straightforward and fair.

LEICESTERSHIRE AND RUTLAND PUBLIC MEDICAL SERVICE.

The first annual meeting of this Public Medical Service was held at the Central Buildings of the Service, Bond Street, Leicester, on May 23rd. The chair was taken by Dr. R. Wallace Henry, and the officers for the year were elected as follows:

Chairman.—Dr. R. Wallace Henry.
Vice-Chairman.—Dr. J. B. Pike.
Treasurer.—Dr. Astley V. Clarke.
Secretary.—Dr. T. Arnold Johnston.

The Treasurer presented a report of the legal and other expenses associated with starting the Service, and explained how they had been met from a guarantee fund.

Reports were received from the eleven subdivisions of the Service, showing that the numbers who had become subscribers by March 31st were as follows:

Leicester Borough	47,800
Ashby and Bosworth	6,500
Barrow-on-Soar	1,800
Blaby	5,000
Coalville	10,000
Hinckley	2,384
Loughborough (urban)	5,137
Loughborough (rural)	1,750
Market Harborough	1,000
Malton	5,250
Rutland	2,500
Total uninsured persons	**89,321**

The Secretaries stated that in some of the districts in which collectors had been unknown formerly, members were slow in joining during the first few months, but as the Service became more widely known the numbers were increasing rapidly. All the speakers expressed the satisfaction of the medical practitoners with the altered conditions.

SCOTLAND.

Conference with Local Medical Committees.

Arrangements have been made for a conference between the Scottish Committee of the British Medical Association and the Local Medical Committees in Scotland to be held at the invitation of the Dundee Branch in the University College, Dundee, on July 4th, at 10.30 a.m. Notices of appointment of representatives and notices for the agenda must be sent to the Honorary Secretary of the Scottish Committee, Dr. George R. Livingston, 47, Castle Street, Dumfries, by June 20th.

IRELAND.

Medical Advisers.

The latest device of the Irish Insurance Commissioners in order to overcome the failure of the panel system for medical certification in Ireland is to advertise for "medical advisers," at a salary of £130 a year; they will almost certainly be required to sign the medical certificates of those patients whose doctor is not on the panel. This action of the Insurance Commissioners will be much resented and strenuously opposed by the whole profession. The Dublin County Borough Local Medical Committee held a meeting last week to consider the matter, and passed a resolution that, in their opinion, no practitioner should apply for the post of medical adviser as at present advertised by the Insurance Commissioners; a copy of this resolution has been sent to all doctors in Dublin. The terms offered to the profession in Ireland by the Insurance Committee of the Irish parliamentary party prior to the passing of the Insurance Act have never been withdrawn, and they were a minimum capitation fee of 2s. 6d. and a maximum capitation fee of 3s. for each insured.

Limerick.

The Insurance Commissioners have decided to send two medical officers to Limerick for the purpose of furnishing certificates in the case of insured persons under the Act, of whom there are over 10,000 in the city; the local doctors refused to go on the panel at a capitation rate of 9d. for each insured person. At this rate there would be about £400 to provide the salary for these two medical men, but the salary offered is £130 a year with permission to engage in private practice.

Tuberculosis Administration.

Dr. Thompson of Omagh, who is acting as tuberculosis officer for co. Tyrone during the absence in London of Dr. O'Keefe, who was recently appointed by the county council to this post, points out the following absurdity incidental to the working of the Insurance Act by the Commissioners. He has had occasion to visit cases of pulmonary consumption scattered over the county, some on the borders of Derry, others near Cookstown, and one forty miles from Omagh on the shores of Lough Neagh. All these cases had been treated carefully and generously by the dispensary doctors without special fee. Dr. Thompson had to examine those cases recommended for sanatorium treatment, and report on them to the County Insurance Committee. Some he recommended, but others he had to advise against as their condition was too advanced. The county committee increased the grant to these latter cases by a few shillings each week. When this action came to the notice of the Insurance Commissioners they objected to the extra payment to the advanced cases (so ill and helpless that they cannot either support themselves or their families, or encourage in many little ways an effort to limit the spread of the disease within the limits of their own families) unless they are under the direct care of a doctor, who must not be a dispensary doctor. To get over this difficulty the Insurance Commissioners suggest that these cases should be attended by the tuberculosis medical officer located at Omagh, whose chief business should be and is of course largely administrative, consultative, and for inspection purposes. Could any suggestion be more absurd than that this officer should have to undertake to treat a number of cases of advanced phthisis, for which very little can be done by any medical treatment, at distances varying from the centre to over forty miles? The Commissioners must know that in numberless country districts there is no other doctor than the dispensary doctor available, and that therefore those patients who are too advanced to be recommended for sanatorium treatment can be treated by nobody except the Poor Law medical officer.

INSURANCE ACT IN PARLIAMENT.

Amending Bill.

In reply to Mr. G. Locker-Lampson, the Prime Minister said that he was not prepared to anticipate the terms of the measure, and in a later reply to Mr. John Ward, Mr. Masterman said that he hoped the measure would be introduced shortly.

Report on Working of the Act.

In reply to Mr. James Hogge, Mr. Masterman said that he hoped to present to Parliament the reports of the Insurance Commissioners on the administration of the Act within a few days. The report would be a single volume covering the operations of the Joint Committee and the several Commissioners; but he was arranging for the reports of each of the National Commissions to be available in separate volumes.

Medical Benefit.

Fishermen.

Mr. Fell, in a question, called attention to the conditions under which medical benefit is available for fishermen.—In reply, Mr. Masterman said that benefits under the Act were not withheld from fishermen except where they were entitled to medical attendance and maintenance during sickness from their employer. Arrangements had been made whereby any insured persons, including fishermen, could when absent from their usual place of residence, obtain medical attendance and treatment from doctors on the panel in the area in which they were temporarily resident. A society which admitted fishermen or seamen could make special arrangements for enabling its members to obtain medical attendance at any ports in the United Kingdom on the production of their cards from panel doctors without payment. There was no necessity, therefore, for them to pay doctors' fees themselves, and consequently there was no provision for repayment.

Eligibility for Disablement Benefit.

Mr. MacCallum Scott asked whether an insured person now ill and in receipt of sickness benefit was entitled to keep on stamping his card himself, even though his illness lasted for more than twelve months, in order to complete 104 contributions, and so to qualify for disablement benefit.—Mr. Masterman said that such a person might if he chose pay the full weekly contribution, that is, his own and his employer's, even though his illness lasted for more than twelve months, in order to qualify for disablement benefit.

Doctors' Remuneration for Persons moving about.

Colonel Weston asked the Financial Secretary to the Treasury whether the regulations contained in Memorandum 159/I.C. involved deductions from the amount guaranteed to medical practitioners for each insured person; and, if so, whether the consent of the doctors had been obtained to such deductions; and, if not, what steps he proposed to take for the purpose of providing the minimum capitation fee guaranteed to the doctors by paragraph 22 of the explanatory statement issued by the Commissioners in December, 1912.—Mr. Masterman said: As I stated in reply to the hon. member for Nottingham on May 8th, a doctor is entitled under his contract with the Insurance Committee to be credited with a sum of 7s. in respect of each insured person for whose treatment he is responsible during the whole year. It follows that a deduction must be made from this sum in respect of every insured person for whom he ceases to be responsible during any portion of that year in order to pay the doctor who is in fact responsible for his treatment during that period.

Funds on account of Unallotted Persons.

Mr. Hall called attention to the money at the disposal of the London Insurance Committee in respect of those insured persons who had made no choice of medical men, and inquired as to its distribution, speaking of it as a "surplus" medical fund.—In reply Mr. Masterman said: The hon. gentleman is under a misapprehension. There is no surplus in the fund for medical benefit. The agreements entered into by the doctors on the panel of every Insurance Committee provide that the whole of the funds available for the medical treatment of insured persons under the arrangements made by the Insurance Committee shall be divided among the doctors who have entered into such agreements.

Mr. Worthington-Evans: Is the right hon. gentleman aware that there is said to be a sum of £30,000 or over unclaimed to the credit of the London Insurance Committee? What is going to be done with it?—Mr. Masterman: If it is stated, it must be a considerable misstatement. No money can be unclaimed, because all the money has to go to the doctors on the panel.

Medical Institutes.

Mr. Worthington-Evans asked whether payments had been withheld from medical institutes for medical benefit till recently; whether only 1s. 3d. a head was being paid for the quarter as against 1s. 9d. to the committees for the panel doctors; whether many unnecessary forms had had to be signed by the patients at the institutes; and for what reason these difficulties were put in the way of the institutes.—Mr. Masterman: Payments have been made in all cases in which the institute has been able to give the Insurance Committee and the Commissioners a reasonable assurance that it will be able to fulfil the conditions of medical benefit. The amount payable per member is not necessarily 1s. 9d. per quarter, but such sum, not exceeding 1s. 9d. per quarter, as is actually expended in providing medical attendance and treatment, and the amount of the advance payments must be limited accordingly pending evidence as to the expenses actually incurred. Where there is satisfactory evidence that more than 1s. 3d. has been expended, more than 1s. 3d. has been paid. The answer to the third part of the question is in the negative, and the fourth part does not arise.

Mr. Wing: Is the right hon. gentleman aware that these medical institutions are being bludgeoned out of existence by the regulations of the Insurance Commissions, and that when the Insurance Bill was passing through this House the Home Secretary promised equal treatment for medical institutions as for doctors on the panel which is not given at present?—Mr. Masterman: I think if the hon. gentleman looks into the matter he will see that that pledge has been fully carried out and that medical institutes are receiving for medical attention and treatment to insured persons exactly the same amount as doctors on the panels.

Mr. Worthington-Evans asked whether Insurance Committees had power to allocate members who had not selected a doctor to medical institutes, and whether such allocation was being made by the Wolverhampton Insurance Committee with the consent of the Insurance Commissioners.—Mr. Masterman said that the answer to the first part of the question was in the negative, and no such proposals had been submitted to the Commissioners by the Wolverhampton Insurance Committee.

Allotment Extraordinary.

In reply to Mr. Hunt, Mr. Masterman said that, under a scheme drawn up by the Medical Committee for adoption by the Insurance Committee, it was suggested that 600 insured persons living at Woodbridge should be allotted to three doctors living at Wickham Market. He added that the insured persons living at Woodbridge could have chosen a Woodbridge doctor, but that the Insurance Committee was now considering an arrangement which will make the proposed allocation unnecessary.

Maternity Benefit.

Mr. MacCallum Scott asked whether an unmarried mother who went to a hospital for her confinement and who had to pay a fee for admission to the hospital could have the amount of that fee refunded to her out of the maternity benefit.—Mr. Masterman said that if the sum that would have been due as maternity benefit had the woman not entered a hospital was not applied for the relief or maintenance of the woman's dependants, or paid direct to the hospital under an agreement previously concluded to pay for her treatment, it was payable to the woman herself when she left the hospital, either in kind or in instalments, or in a lump sum as the society determined, and such money might be available for repayment of the fee for admission.

In reply to Mr. Gretton, who inquired as to the cases in which the maternity benefit had been abused and squandered for extraneous purposes while the woman was in want or neglected, Mr. Masterman said that very few cases of the kind referred to in the first part of the question had been brought to the notice of the Commissioners. Under Section 19 of the Act it was the duty of a husband who received maternity benefit to make adequate provision, to the best of his power, for the maintenance and care of his wife during her confinement, and for a period of four weeks after her delivery, and if he neglected or refused to do so he was liable, upon summary conviction, to imprisonment, with or without hard labour, for any term not exceeding one month.

Sickness Benefit.

During Pregnancy.

Mr. G. Locker-Lampson asked at what time sickness benefit terminated in favour of maternity benefit; whether, when an employed woman was approaching her confinement and was certified a month before confinement to be incapable of work, she was entitled to sickness benefit, and up to how long before confinement; and whether such a woman ceasing work one week only before her confinement would receive sickness benefit.—Mr. Masterman said that an employed married woman was entitled to sickness benefit under the ordinary conditions while she was incapable of work through illness resulting from pregnancy, in addition to the maternity benefit payable in respect of her own or her husband's insurance, and without regard to the date at which that benefit is due. Sickness benefit was payable from the fourth day of her being rendered incapable of work by illness, and was payable while she so remained incapable both before and after confinement.

Persons in Hospitals.

In reply to Mr. James Mason, Mr. Masterman said that a circular was being prepared for issue to all societies, explaining that they could make payments in respect of sickness benefit to hospitals in respect of the treatment of their members if agreements had been concluded for the purpose.

Remuneration to Medical Officers of Health.

Mr. Hunt raised a question as to the power of Insurance Committees to vote payments to medical officers of health as had been done by the County Committee, which had voted 200 guineas to Dr. Howarth for his services to the Committee.—Mr. Masterman, in reply, said: "I am informed by the Insurance Committee that the sum mentioned was voted by them in consideration of the services rendered by Dr. Howarth as medical adviser of the Committee from the time when it was constituted in June, 1912, until March 25th last. The work performed by Dr. Howarth during this time obviated the necessity of the Committee obtaining alternative expert professional assistance, which would otherwise have been necessary or the administration of sanatorium benefit, and which would probably have cost much more than the sum paid to Dr. Howarth. Similar payments to medical officers of health for services of a like character have been voted by many other Insurance Committees, and have been approved by the Commission.

Sick Pay for the First Day.

In reply to Mr. Godfrey Locker-Lampson, Mr. Masterman said that to give full sick pay from the first day of certified illness instead of from the fourth day as at present arranged, and to give full sick pay—that is, 10s. for males and 7s. 6d. for females—to insured persons under 21 years of age, would involve an additional charge on the Exchequer of £1,200,000.

Number of Voluntary Contributors.

In reply to Sir A. Griffith-Boscawen, Mr. Masterman said that the number of voluntary contributors according

to the latest returns was 20,500. In further reply to Sir A. Griffith-Boscawen, who inquired the reasons for the smallness of the number, in view of the fact that there were over two million persons qualified and that the number estimated by the actuary was 829,000, Mr. Masterman said that he had no doubt the chief reason why the number was so much below the estimate of the actuary was the campaign carried on against the Insurance Act.

INSURANCE COMMITTEES (ADMISSION OF PRESS).

Mr. MacCallum Scott called attention to the decision of the Berwickshire Insurance Committee to exclude the press from its meetings and inquired as to the arrangements which were proposed to be made to afford publicity to the doings of Insurance Committees.—Mr. Masterman said: I am informed that the Committee have made arrangements to supply an official report of their proceedings to the press. The Scottish Commissioners have not issued any regulations on this subject. I may say, however, that the English Commissioners, in reply to questions on this subject, have suggested that the provisions of the Local Authorities (Admission of the Press to Meetings) Act, 1908, should be treated as applicable to meetings of Insurance Committees.

GRANT TO THE HIGHLANDS AND ISLANDS OF SCOTLAND.

In reply to Major Hope, Mr. Masterman said that the whole of the special grant of £10,000 for medical benefit and service in the Highlands and Islands of Scotland would be expended for the benefit of insured persons only.

CORRESPONDENCE.

TEMPORARY ABSENTEES.

DR. H. W. JACKSON (Middlesbrough) writes: I have read your leader on temporary absentees with great interest, and every panel practitioner will agree with you on the main question, that the Commissioners are not justified in making deductions from the local funds.

When, however, you appear to favour the methods suggested in the Memorandums, it will, I think, fill many of your readers with astonishment, as the panel funds in industrial areas would suffer a reduction far greater than the attendance received out of the area warrants. The Commissioners' calculations will not give a "case-value," but only a "record card value," and as a record card may contain particulars of many separate illnesses or "cases," the importance of this distinction is very marked.

The injustice of the scheme is in making a voucher card have the same value as a record card. The former has a very short currency, perhaps a week or two, and in no circumstances longer than three months; it will usually relate to one illness and have marked upon it a much smaller number of attendances than the average record card, which has a currency for a whole year.

In an industrial area the voucher cards will be issued chiefly to holiday makers and convalescent patients on a visit to the country or seaside for a week or two, and it is absurd to consider the attendance received at the same value as all the attendances obtained during the rest of the year whilst at home. The Commissioners would be much nearer realizing their ideals if they had suggested calculating the "attendance value" for each Committee's area, and making deductions from the total number of attendances on the voucher cards on this basis.

Dr. R. H. DIX (Sunderland) writes: I see in your article "Temporary Absentees" you say: "We are disposed to agree with those members of the Association who have expressed the opinion that if the justice of making any deduction be acknowledged, the method for forming and distributing the central fund is worthy of trial upon the understanding that should experience show it to operate inequitably it will be amended." I beg to disagree with you, and submit that the scheme bears on its face the stamp of inequity and injustice, both in the method for forming and for distributing the Central Fund.

First, with regard to the method for forming of the Central Fund. The so-called "case-value" is not a true case-value; it is the "annual patient value," the amount received for treating a patient for a *whole year*. A true "case-value" should be estimated from the number of illnesses and not from the number of patients. The true "case value" is less than the "annual patient value" and the method for calculating the value as set out in the circular will inflate the Central Fund at the expense of the Local Fund. An important point to note is the fact that, however slight the ailment of a temporary absentee, the total annual value of that patient is debited against the Local Panel Fund and credited to the Central Fund. This would be unjust, as I will presently show, even if a true case-value, for the whole of the illness is not paid out of the Central Fund in all cases.

Now with regard to the distribution of the Central Fund. Having got the Central Fund, who should be paid out of it? The answer should be, the man who does the work. A consideration of a few cases will show that this will not be so under the scheme, but that the strange doctor alone will receive anything for the treatment of these cases, and the panel doctor will get nothing.

1. A man is attended by a Central Fund doctor during the whole of his only illness during the medical year. This man's case-value goes to the Central Fund, and the Panel Fund doctor gets nothing. This is somewhere near justice, as the Panel Fund doctor does no work; but it is open to the objection that the remuneration for the slight cases is taken away when all cases are treated on a flat rate. It is only in slight cases where the whole of the attendance will be given by the Central Fund doctor.

2. A man is attended by a Central Fund doctor for a very slight ailment. This case value for the year is credited to the Central Fund. On returning home the same man has a serious illness requiring attendance by the Panel Fund doctor for three months. The Central Fund doctor is paid for his work out of the Central Fund. The Panel Fund doctor gets nothing because the case-value has been debited against the Local Panel Fund and the Panel Fund doctor cannot claim against the Central Fund for attendance given to any patient on his list.

3. A man goes through a serious illness for which he is attended by his Panel Fund doctor. During convalescence the doctor orders a change of air, and while away the patient sees a Central Fund doctor once or twice. Again the Central Fund doctor is paid for his work, while the Panel Fund doctor gets nothing and has no remedy.

Further instances are not required to prove that the Central Fund is not equitably distributed.

The Central Fund, if not subject to charges for administration, will provide a rate of remuneration greater than the area from which the patient comes, for two reasons, both of which act unfairly on the Local Panel Fund doctor.

1. The method of calculating the "case-value" is wrong and gives too high a value; it is the "annual patient value."

2. It is not intended to pay out of the Central Fund, formed by pooling the "annual patient values of these cases, the whole of the treatment required by the patient for the whole year, but only that part of the treatment which is given by the Central Fund doctor. For the rest of the treatment given by the Local Panel Fund doctor no one is paid.

And this is a scheme which, in the words of its framers, "will secure strict equity in the necessary apportionment of funds between Committees, and consequently in the amount of remuneration available for doctors undertaking the medical treatment of such persons." This is the scheme which you think might be tried by the profession to see how it will work. I submit that it would be utter folly for the profession to work the scheme, which bears its bad qualities on its face for anyone who has eyes to see, and I hope neither the Editorial department nor the Medical department of the British Medical Association will do anything but oppose it.

SURPLUS PANEL FUNDS.

DR. W. ROBERTS HARRIS (Stamford Hill) writes: Surely under the following sections of the Insurance Act and the National Health Insurance (Administration of Medical Benefit) Regulations the medical profession are entitled to the surplus money in the panel fund:

1. Section 65 of Insurance Act gives power to make Regulations which have the same force as the Act itself.

2. The National Health Insurance (Administration of Medical Benefit) Regulations, Part IV, Section 40, par. 3, provides for the division of the money in the panel fund amongst the practitioners in the ratio of their accounts.

British Medical Association.

EIGHTY-FIRST ANNUAL MEETING, BRIGHTON, JULY, 1913.

PROGRAMME OF BUSINESS.

President: Sir JAMES BARR, M.D., LL.D., F.R.S.E., Consulting Physician, Royal Infirmary, Liverpool.

President-elect: WILLIAM AINSLIE HOLLIS, M.A., M.D., F.R.C.P., Consulting Physician, Sussex County Hospital, Brighton.

Chairman of Representative Meetings: THOMAS JENNER VERRALL, M.R.C.S., L.R.C.P., Consulting Surgeon, Sussex County Hospital, Brighton.

Chairman of Council: JAMES ALEXANDER MACDONALD, M.D., LL.D., M.Ch., R.U.I., Honorary Physician, Taunton and Somerset Hospital, Taunton.

Treasurer: EDWIN RAYNER, M.D.Lond., B.A., F.R.C.S. Eng., Consulting Surgeon, Stockport Infirmary, Stockport.

The Eighty-first Annual Meeting of the British Medical Association will be held in Brighton in July, 1913. The President's Address will be delivered on Tuesday, July 22nd, and the Sections will meet on the three following days. The Annual Representative Meeting will begin on Friday, July 18th, at 10 a.m.

The Address in Medicine will be delivered by Professor GEORGE R. MURRAY, M.D., F.R.C.P., Physician, Royal Infirmary, Manchester, on Wednesday, July 23rd.

The Address in Surgery will be delivered by Sir BERKELEY MOYNIHAN, M.S., F.R.C.S., Surgeon, Leeds General Infirmary; Professor, Clinical Surgery, University, Leeds, on Thursday, July 24th.

The Popular Lecture will be delivered by EDMUND JOHNSON SPITTA, L.R.C.P.Lond., M.R.C.S.Eng., Hove, Brighton, on the evening of Friday, July 25th.

THE SECTIONS.

The scientific business of the meeting will be conducted in sixteen Sections, which will meet on Wednesday, July 23rd, Thursday, July 24th, and Friday, July 25th.

The President, Vice-Presidents, and Honorary Secretaries of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

BACTERIOLOGY AND PATHOLOGY.

Municipal Training College, Class Rooms 4 and 5, Second Floor.

President: J. W. H. EYRE, M.D., M.S., London. *Vice-Presidents:* G. MORGAN, F.R.C.S.Edin., Brighton; MYER COPLANS, M.D., Leeds; Professor E. J. MCWEENEY, M.D., F.R.C.P.I., Dublin. *Honorary Secretaries:* H. MILLER GALT, M.B., F.R.F.P.S., Sussex County Hospital, Brighton; J. A. BRAXTON HICKS, M.D., Westminster Hospital, London, S.W.; C. H. BENHAM, M.D., M.R.C.P., 27, Sackville Road, Hove.

The following is the provisional programme:

Wednesday.—Papers:

FARRANT, Mr. R. (London). Hyperthyroidism.
MCWEENEY, E. J., CROFTON, W. M., and MOORE, H. F. On Paratyphoid Infection.
GALT, Mr. Miller. On the Value of the Blood Count in Obscure Bacterial Infections.

Thursday.—Joint discussion with the Section of Pharmacology, Therapeutics, and Dietetics on Anaphylaxis: To be opened by Professor W. E. DIXON; followed by Professor G. Sims Woodhead (General Pathological Aspects), Drs. Thiele and Embleton (Special Bacteriological Aspects), E. W. Goodall (Clinical Aspects), H. H. Dale (General Experimental Point of View).

Papers:

COPLANS, Myer (Leeds). On the Action of Asbestos and other Finely Divided Substances on certain Toxins, Ferments, Protein, and other Materials.
COPLANS, Myer, and LLOYD, Mr. W. Gibbs. On the Action of Asbestos on Certain Physiological Substances.

Friday.—Papers:

The Staff of the John Howard McFadden Research Fund. Some Researches on the Jelly Method of Staining Cells Alive.
BUCHANAN, Dr. R. M. (Glasgow). On *Empusa Muscae* as a Trajector of Bacterial Infection.
LYONS, Mr. W. C. On the Specific Diagnostic and Therapeutic Value of Proteose-free Tuberculin.
GALT, Mr. Miller. Microscopical Demonstrations on Haematology.

SECTION OF CLIMATOLOGY AND BALNEOLOGY.

Municipal Technical School, Room 13, Ground Floor.

President: F. J. PALEY, M.D., Hove. *Vice-Presidents:* R. WHITTINGTON, M.D., B.Ch., Brighton; W. GORDON, M.D., F.R.C.P., Exeter; R. ACKERLEY, M.B., B.Ch., Llandrindod Wells. *Honorary Secretaries:* A. H. COPEMAN, M.D., Pavilion Parade, Brighton; D. DURWARD BROWN, M.D., Norfolk Lodge, Leeds Road, Harrogate.

The following programme has been adopted:

Wednesday.—Discussion on Sea Bathing: To be opened by Dr. W. J. TYSON.

Thursday.—Discussion on International Aspects of British Health Resorts: To be opened by Dr. NEVILLE WOOD.

Friday.—Papers.

The following paragraphs indicate the line that will be taken by the openers of the formal discussions:

Discussion on Sea Bathing.—(Dr. W. J. TYSON.) The literature of the subject in this country is scanty, but a good deal of work has been done by French and German writers. The subject naturally divides itself in the first place: (1) Sea water (composition, temperature, physical characteristics, and the immediate action of it on the skin and body generally). (2) Sea air (its composition, temperature, humidity, and their effects on the body). (3) The character and situation of the seaside resort—((*a*) aspect; (*b*) amount of verdure, (*c*) protection by cliffs and hills, (*d*) prevailing winds, and (*e*) bathing facilities). (4) Treatment by sea bathing. This will be under following heads: (*a*) Condition of the bather, (*b*) season or time of year, (*c*) time of day for bathing, (*d*) duration of stay in the sea, (*e*) mode of bathing, (*f*) frequency of bathing, (*g*) after the bath. Finally will be discussed the diseases that are benefited by sea bathing, some of the ills and minor ailments caused by it, and the diseases that are not improved by bathing.

Discussion on International Aspects of British Health Resorts.—(Dr. NEVILLE WOOD.) The term "health resort" will be used as implying a place to which patients are usually sent for a comparatively limited time and for a definite course of treatment, and as the equivalent of the German word *Kurort*. Hitherto the policy of British municipalities has been to beg the leaders of opinion to set their faces against the exodus to foreign resorts. Abroad the countries which make the least effort to keep their nationals at home reap the richest harvest from the health resort industry. Yet, notwithstanding their success in attracting foreigners, the natives are not outnumbered, for prestige achieved abroad enhances that enjoyed at home. It is this lack of international prestige which makes it difficult to convince many British invalids that British health resorts do not occupy a lower plane than those of the Continent. The remedial use of climates and baths is so well understood in the great medical centres abroad that there should be little difficulty in getting a hearing and securing a favourable

verdict when the value of British resorts for certain categories of foreign invalids has been sufficiently explained. It can be shown that Great Britain possesses spas of the highest rank, with a great variety of mineral waters from the weakest to the most concentrated in Europe, and well equipped for physiotherapy. Inland there are towns and villages now almost stationary in population which are awaiting a new stimulus for further development. Information as to such places is invited. In regard to Britain it is asked to what extent does it desire to be regarded as a resort? Is there any month in which it should be excluded from that category? It has been asked whether there is room at British resorts for any considerable number of visitors from abroad. The answer seems to be that the gain to those places whose chief season is in summer would arise from the fact that visitors from the Continent usually arrive in May or June, when they are not by any means overcrowded; while Americans come in the greatest numbers during the autumn months.

DERMATOLOGY.

Municipal Training College, Men's Common Room.

President: J. H. SEQUEIRA, M.D., F.R.C.P., London. *Vice-Presidents:* A. W. WILLIAMS, M.B., Brighton; F. H. BARENDT, M.D., F.R.C.S., Liverpool; W. GRIFFITH, M.B., M.R.C.P., London. *Honorary Secretaries:* A. M. DALDY, M.D., F.R.C.S., 17, Palmeira Square, Hove; F. GARDINER, M.D., F.R.C.S.Edin., 60, George Square, Edinburgh.

The following subjects have been chosen for discussion on two of the days of the meeting:

(1) The Fungous Affections of the Glabrous Skin: To be opened by Dr. H. G. ADAMSON. (2) The Nature, Varieties, Causes, and Treatment of Lupus Erythematosus: To be opened by Dr. J. M. H. MACLEOD, followed by Dr. ALFRED EDDOWES, and others.

The following paragraphs indicate the line that will be taken by the openers of the formal discussions:

Discussion on Fungous Affections.—(Dr. H. G. ADAMSON.) Recent observations and research have revealed the wide extension and the importance of diseases due to infection by mould fungi. The part of the subject to be dealt with here—Fungous Affections of the Glabrous Skin—may be conveniently considered under the following headings: (1) Ringworms of the Body (Tinea Circinata) and Pityriasis Versicolor. (2) Ringworm of the Groin (Eczema Marginatum or Tinea Cruris) and Erythrasma. (3) Ringworms of the extremities simulating Eczema. (4) Favus of animal origin. (5) Actinomycosis and Sporotrichosis and allied infections. Among other points which demand attention on account of their interest and of their practical utility are: The establishment of the plurality of these pathogenic fungi—of Ringworm, of Favus, of Tinea Versicolor, of Actinomyces, and of the more lately studied Sporotrichum; the importance of the comparatively recently acquired knowledge of the animal origin of many of these affections; the contrast between the superficial infections of Ringworm, Tinea Versicolor, Favus, etc., and those, such as Actinomycosis and Sporotrichosis, which may invade also the lymphatics, the bones, and the viscera; the question of the degree of immunity against further attacks produced by these various diseases; the method of contagion in epidemics of Tinea Cruris, a disease the causative fungus of which is distinct from those of all the animal ringworms and from other kinds of human ringworm; whether the rarity of Sporotrichosis in this country is real or merely apparent, and due to its confusion with cases of tertiary syphilis and of tuberculosis.

Discussion on Lupus Erythematosus.—(Dr. J. M. H. MACLEOD.) A description of the clinical varieties, namely, three—circumscribed or discoid types, lupus pernio, and the acute disseminated type. The histological characteristics: The primary and essential changes occur in the corium, those in the epidermis being secondary. Its nature and causation: (*a*) The arguments in favour of a tuberculous theory, namely: (1) In a certain number of cases of lupus erythematosus there is a personal evidence of tuberculosis, or a family history of the disease. (2) The clinical appearances of the lesions of lupus erythematosus may so closely resemble those of lupus vulgaris as to render the differential diagnosis difficult or almost impossible. (3) Lupus erythematosus may occur in association with lesions of the so-called toxi-tuberculide type, and according to certain writers belongs to the same category. (*b*) The arguments against this theory, namely: (1) Tubercle bacilli have never been found in the lesions of lupus erythematosus. (2) Inoculation experiments with excised tissue in susceptible animals have given negative results. (3) The histological architecture is totally unlike that produced by the reaction of the tissue to the presence of the tubercle bacillus and its toxins in the skin. (4) There is no record of a tuberculin injection having been followed by an outbreak of lupus erythematosus. (*c*) The arguments in favour of its toxic origin, namely: (1) Tendency to a symmetrical distribution of the lesions. (2) Close resemblance of certain cases, especially of the acute disseminated type to the toxic erythemata (E. multiforme). (3) The association of cases of the acute disseminated type with general toxaemia and visceral disease. (*d*) The relation of lupus erythematosus to circulatory disturbances. Conclusions. Lupus erythematosus is not a morbid entity due to one specific cause, but may be called forth by a number of different causes in predisposed individuals. The chief predisposing causes are age, sex, type of skin, and a defective peripheral circulation the result of general or local causes. The direct causes consist of: (*a*) Toxin circulating in the cutaneous blood vessels and acting on the vessel walls. (*b*) Local causes, such as extremes of temperature, traumatism, bites from insects, etc. It is dependent on a delicacy of the affected part in which the circulation is so depressed and feeble that local injury or the presence of toxins in the blood of the cutaneous capillaries cause so profound and lasting a disturbance that recovery from it without loss of tissue is impossible. Methods of treatment: General and local.

The exhibition and demonstration of cases will be an important feature of the Section, and arrangements will be made for the demonstration of cases on the Thursday and Friday.

DISEASES OF CHILDREN, INCLUDING ORTHOPAEDICS.

Municipal Training College, Class Room 2, First Floor.

President: G. F. STILL, M.D., F.R.C.P., London. *Vice-Presidents:* W. C. CHAFFEY, M.D., Hove; L. A. PARRY, M.D., F.R.C.S., Hove; A. F. VOELCKER, M.D., F.R.C.P., London; P. N. BLAKE ODGERS, F.R.C.S., Northampton. *Honorary Secretaries:* A. G. BATE, M.B., F.R.C.S.Ed., 8, Palmeira Avenue Mansions, Hove; A. E. NAISH, M.B., M.R.C.P., 5, Clarkehouse Road, Sheffield.

The following discussions have been arranged:

Wednesday.—Affections of the Heart in Childhood: To be opened by Dr. F. J. POYNTON and Dr. CAREY COOMBS.

Thursday.—The Choice of Methods in dealing with Paralytic Deformities in Children: To be opened by Mr. T. H. OPENSHAW, C.M.G.

Friday.—The Diagnosis and Treatment of Acute Inflammatory Conditions of the Abdomen in Children: To be opened by Mr. C. B. LOCKWOOD.

Thursday.—Paper:

Professor FOERSTER (Breslau). Posterior Root Section in the Treatment of Spastic Paralysis.

The following paragraphs indicate the line that will be taken by the openers of the formal discussions:

Discussion on Affections of the Heart.—(1) (Dr. POYNTON.) This will deal with the subject chiefly from the point of view of prevention. Allusion will be made to the importance of infection as a cause of heart disease, and opinions invited upon the relative importance of non-infective causes, such as overstrain, anaemia, etc. The bearing of these various causes upon prevention will be touched upon. The value of a study of the morbid anatomy of cardiac infections will be emphasized, as also the assistance afforded by the study of experimental carditis. The bearing of these studies upon the prevention of heart disease will also be considered. The symptomatology will be approached from the same aspect, and particular attention drawn to the rôle of the tonsils, and to a group of cases in which

tonsillitis and morbus cordis occur without other definite manifestations of illness. The symptoms of myocardial weakness will be considered and the assistance that new methods of investigation may afford in this direction referred to and the experiences of others cited. While admitting the great importance of myocardial lesions, Dr. Poynton will also direct attention to certain valvular lesions which take the prominent part in the course of morbus cordis in these particular cases. The difficulties that surround the symptomatology of heart disease in the young will be considered from the standpoint of prevention. The great need for preventive measures will be exemplified by the unsatisfactory position of the treatment of rheumatic heart disease at the present time, and the position of the salicylates and the value or otherwise of vaccine (specific immunity) methods put before the Section. Brief allusion will be made to some of the other cardiac infections, with the intention of obtaining from the various speakers their views as to their relative frequency as compared with the rheumatic. Some personal observations will be made upon the use of theolin-sodium acetate, anasarcin, and camphor in heart affections. Lastly, the various indications for prevention will be put forward as his particular contribution to the discussion.

(2) Dr. CAREY COOMBS will deal, first, with the necessity of recognizing the unimportant nature of certain cardiac disturbances in childhood, and secondly, with the factors determining prognosis in the acquired heart disease in childhood, with special reference to cardiac rheumatism.

ELECTRO-THERAPEUTICS.

Municipal Training College, Library.

President: W. DEANE BUTCHER, M.R.C.S., London. *Vice-Presidents:* C. F. BAILEY, M.D., M.R.C.P., Brighton; A. F. HERTZ, M.D., F.R.C.P., London; W. IRONSIDE BRUCE, M.D., London. *Honorary Secretaries:* W. B. PROWSE, M.R.C.S., 31, Vernon Terrace, Brighton; L. E. CREASY, M.R.C.S., L.R.C.P., 36, Weymouth Street, London, W.

The following is the preliminary programme:

Wednesday. — Papers and discussions on Roentgen Diagnosis.

Thursday.—Papers and discussions on Electro-diagnosis and Electro-therapeutics.

Friday.—Papers and Discussions on Roentgen Therapy and Radium.

There will be an exhibition of radiographs (negatives, prints, and lantern slides), and of photographs of cases treated by electro-therapeutic methods, ϖ rays, and radium. Members desirous of exhibiting are requested to communicate with Dr. Prowse.

GYNAECOLOGY AND OBSTETRICS.

Municipal Training College, Women's Common Room, Ground Floor.

President: R. SANDERSON, M.B., Hove. *Vice-Presidents:* CONSTANCE E. LONG, M.D., London; T. H. IONIDES, M.B., F.R.C.S., Hove; R. J. JOHNSTONE, M.B., F.R.C.S., Belfast; Professor BENJAMIN P. WATSON, Toronto. *Honorary Secretaries:* LOUISA MARTINDALE, M.B., B.S., 10, Marlborough Place, Brighton; W. RITCHIE, M.B., 10, St. James Terrace, Glasgow.

The following is the preliminary programme:

Wednesday. — Discussion on the Best Methods of dealing with Malpositions of the Uterus, especially with reference to Retrodisplacements and Prolapse.

Thursday.—Discussion on Affections of the Urinary Tract complicating Pregnancy.

Friday.—Short Papers and Pathological Demonstrations.

LARYNGOLOGY, RHINOLOGY, AND OTOLOGY.

Municipal Technical School, Room 45, Second Floor.

President: A. J. HUTCHISON, M.B., Brighton. *Vice-Presidents:* H. S. BARWELL, F.R.C.S., London; C. E. WOAKES, London. *Honorary Secretaries:* A. J. MARTINEAU, F.R.C.S.Edin., 22, Cambridge Road, Hove; W. S. SYME, M.D., 10, India Street, Glasgow; E. D. DARELAN DAVIS, F.R.C.S., 81, Harley Street, London, W.

The following programme has been arranged:

Wednesday.—Discussion: The Technique and After-Treatment of the Radical Mastoid Operation.

Thursday.—Discussion: The Care of Patients after Operations on the Nose and Naso-Pharynx. To be opened by Mr. HERBERT TILLEY.

Friday.—Papers.

The following paragraph indicates the line that will be taken by the opener of the second discussion:

Discussion on Operations on the Nose and Naso-pharynx.—(Mr. TILLEY.) The introducer will refer only to operations frequently performed and speak solely from his own experience. (1) *Galvano-cautery:* Necessity for cleansing nasal passages previous to operation. Application of antiseptic to eschar. Danger of septic infection by way of eschar—a personal experience. (2) *Anterior Turbinectomy:* Two complications to be guarded against: (*a*) Post-operative haemorrhage; (*b*) septic infection, which may lead to inflammation of tonsil or middle ear. (3) *Removal of Posterior End of Inferior Turbinal:* Chief complication is post-operative bleeding, often as late as the seventh or eighth day. Means of minimizing this risk by slowly removing enlargement by wire snare without previous application of cocaine or adrenalin, rest in bed, and avoidance of any straining movements. (4) *Submucous Resection of Septum:* (*a*) Post-operative bleeding. Its chances minimized by careful packing of nasal cavities after operation by means of suitable plugs which can be easily removed. (*b*) Septic infection. The value of tr. iodine as a means of sterilizing the "vestibule," and the area of operation. (*c*) Laxity of mucous membrane septum after operation in cases of morbid deviation and the justifiability of making a large perforation. A warning on the use of nasal douches as a means of cleansing the nasal cavities and the little risk of using a coarse nasal spray. *Nasal Polypi:* The necessity for allowing a due interval of time between successive operations when the cold snare is used, The avoidance of the galvano-cautery following removal by the snare. Curettement of the ethmoid for polypi a more serious operation. Need for rest in bed for two or three days, and then careful cleansing and avoidance of septic infection. *Operations on Maxillary Antrum:* (*a*) Alveolar perforation only advisable in acute cases of dental origin. Irrigation until purulent discharge ceases. A plug preferable to a tube. (*b*) Caldwell Luc method. Little after-care required beyond rest in bed for three days, followed by careful intranasal irrigation of antrum through suitable cannula. (*c*) Simple intranasal operation to establish a free antral opening. In both operations the healing is favoured and absence of after-complications minimized by washing the pus out of the antrum immediately before the operation. *Frontal Sinus Operation:* (A) Acute inflammation. (*a*) Intranasal method. Irrigation only necessary together with measures directed to improve general resistance of patient. (*b*) External operation. Maintenance of free drainage until inflammation of mucous membrane has ceased, when external wound may be allowed to close. (B) Chronic empyema. (*a*) Intranasal method. Irrigation after removal of middle turbinal and any obstructing anterior ethmoidal cells. Daily irrigation to be followed by injection of milder or stronger antiseptics. (*b*) External operation. Necessity of very gently removing mucous membrane and establishment of free intranasal and external drainage. *Sphenoidal Sinus Operation:* After-treatment almost entirely limited to keeping opening patent; methods of attaining this end. *The Operation for Adenoids:* Need of rest in bed for three or four days. Value of breathing exercises after the operation in certain cases of defective chest development. Summary. Operations within the nasal cavities or in the naso-pharynx are little liable to complications, and demand little in the way of after-treatment if (*a*) the parts are rendered as aseptic as possible previous to operation, (*b*) the surgeon's instruments are aseptic, (*c*) free drainage be provided for.

Arrangements have been made to exhibit preparations, specimens, drawings, or any instruments or apparatus appertaining to the work of the Section in the Annual Pathological Museum. Such exhibits should be sent to Mr. A. J. Martineau, 22, Cambridge Road, Brighton.

MEDICAL SOCIOLOGY.

Municipal Technical School, Room 21, Ground Floor.

President: R. J. RYLE, M.D., M.A., J.P., Brighton, *Vice-Presidents:* G. E. HASLIP, M.D., London; H. GERVIS, M.B., J.P., Brighton. *Honorary Secretaries:* E. R. FOTHERGILL, M.B., B.S., 38, Dyke Road, Brighton: H. D. LEDWARD, M.A., M.B., 123, Norton Way, Letchworth, Herts.

The following subjects have been chosen for discussion:

1. Crime and Punishment. Dr. CHARLES MERCIER, Sir BRYAN DONKIN, M.D., and Dr. JAMES SCOTT will read papers on different aspects of this subject as an introduction to a general discussion.

2. Hospitals in Relation to the Stage, the Public, and the Medical Profession. Sir HENRY BURDETT, K.C.B., and Mr. I. G. GIBBONS, D.Sc., will read papers on this subject, and their discussion will, it is hoped, prove valuable in helping to elucidate the problems involved in providing hospital accommodation for insured persons under the National Insurance Act.

3. Eugenics. It is expected that the discussion on this subject will be introduced by Professor BATESON, and that he will be followed by Dr. Stewart Mackintosh (Hampstead) and Mr. Benedict Davenport (New York).

MEDICINE.

Municipal Technical School, Room 30, First Floor.

President: E. HOBHOUSE, M.D., F.R.C.P., Hove. *Vice-Presidents:* J. F. GORDON DILL, M.D., M.R.C.P., Hove; R. HUTCHISON, M.D., F.R.C.P., London; W. BROADBENT, M.D., M.R.C.P., Hove; A. P. BEDDARD, M.D., F.R.C.P., London. *Honorary Secretaries:* DONALD HALL, M.D., M.R.C.P., 29, Brunswick Square, Hove; T. FRASER, M.B., 45, Elmbank Terrace, Aberdeen; W. LANGDON BROWN, M.D., F.R.C.P., 60, Welbeck Street, London, W.

The following programme has been adopted:

Wednesday.—Discussion on Non-diabetic Glycosuria. To be opened by Dr. A. E. GARROD, F.R.S.

Thursday.—Discussion on Fibrositis and Muscular Rheumatism. To be opened by Dr. A. P. LUFF.

Friday.—Papers.

The following paragraphs indicate the line that will be taken by the openers of the two following discussions:

Discussion on Non-diabetic Glycosuria.—(Dr. A. E. GARROD.) Diabetes is not a single disease, but a symptom-complex. The pathological and clinical classification of glycosurias. From a pathological standpoint most glycosuria is diabetic. Clinical classification: False glycosuria. Lactosuria, laevulosuria, pentosuria. The so-called renal diabetes: Its characteristic features and uncertain prognosis; it is probably less rare than has been supposed; a truly non-diabetic glycosuria. Temporary glycosuria, true and apparent: The glucose test and its clinical importance; alimentary glycosuria *ex amylo*. The question of recovery from diabetes; difficulty of being sure that recovery is permanent. Symptomatic glycosuria; glycosuria in infective maladies. Glycosuria with diseases of the ductless glands: Thyroid, pituitary, adrenalin glycosuria. Glycosuria with intestinal disorders: The rôle of the pancreas. Glycosuria with cerebral lesions: Puncture diabetes and its allies. Toxic glycosuria. Conclusions: Importance of glycosuria as a symptom. Need of further investigations, especially of cases of temporary glycosuria. Difficulties of such investigations.

Discussion on Fibrositis and Muscular Rheumatism.—(Dr. A. P. LUFF.) *Pathology:* Essentially an inflammatory hyperplasia of the white fibrous tissue, associated with exudation and proliferation of the connective tissue elements. Structures affected. Indurations. Toxic causation. Microbic causation probably a rare occurrence. Reference to work of Goadby and Ware. *Etiology:* Cold, damp, and wet. Extremes of heat and cold. Local injuries. Absorption of irritating toxins from the alimentary tract. Toxic or microbic infection from oral sepsis, tonsillitis, pharyngitis, influenza, febricula, etc. *Various Forms of Fibrositis:* Muscular rheumatism. Rheumatism of abdominal muscles simulating the pain of appendicitis, renal colic, biliary colic, etc. Fibrositis of the retrocolic and temporal muscles a common form of headache. Lumbago. Dupuytren's contraction. Fibrositis of the plantar fascia and painful sole and heel. Fibrositis of bursae. Fibrositis of joints. Fibrositis of the subcutaneous tissue. Chronic villous synovitis. *Treatment:* Rest. Limited use of the salicylates. Potassium iodide the most valuable drug. Fibrolysin. External applications. Leeching. Heat and ionization. Heat and the static wave current. Massage and exercises. Spa treatment. Diet. Underclothing.

NAVY AND ARMY, AND AMBULANCE.

Municipal Training College, Class Room 3, First Floor.

President: Colonel J. TURTON, V.D., F.R.C.S., late Assistant Director of Medical Service, T.F., Brighton. *Vice-Presidents:* Lieutenant-Colonel C. J. JACOMB-HOOD, R.A.M.C.T.F., Brighton; Deputy Surgeon-General P. B. HANDYSIDE, R.N., Plymouth; Major E. T. BIRRELL, R.A.M.C., Queen Alexandra Military Hospital, Grosvenor Road, S.W.; Colonel C. H. MILBURN, V.D., Hull. *Honorary Secretaries:* Lieutenant J. R. STEINHAEUSER, M.D., T.F., St. Andrew's Place, Lewes; Captain J. A. ROOTH, R.A.M.C.T.F., 1, Goldsmid Road, Brighton.

The arrangements so far made are as follows:

Wednesday.—Papers:

BIRRELL, Major, R.A.M.C. Notes on the Work of a British Red Cross Unit with the Bulgarians.

DONEGAL, Lieutenant-Colonel, R.A.M.C. The Relation of and Utility of Aeroplanes in connexion with Medical Services in the Field.

Thursday.—Papers:

DUREY, Dr. Louis, French Army Service. Study of the Use of Kinesitherapy in the After-treatment of Injuries received in the War.

KENNARD, Lieutenant D. G., R.A.M.C.(T.F.) A Proposed Light Ambulance for Yeomanry Regiments.

HOUGHTON, Major J. W., R.A.M.C. Spinal Analgesia in Military Service.

The following subjects are also suggested for discussion:

The Medical Service in the Tropics.
Hospital Ships.
Disinfection and its Application in Ships.
Diet of the Soldier.
Sanitation on the Line of March.
Water Supply on Field Service.

NEUROLOGY AND PSYCHOLOGICAL MEDICINE.

Municipal Training College, Dining Room.

President: J. TAYLOR, M.D., F.R.C.P., London. *Vice-Presidents:* A. W. MACKINTOSH, M.D., Aberdeen: W. H. B. STODDART, M.D., F.R.C.P., London; HELEN BOYLE, M.D., Hove. *Honorary Secretaries:* J. L. BASKIN, M.D., New Church Road, Hove; T. G. STEWART, M.B., 54, Queen Anne Street, London, W.

The following is the preliminary programme:

Wednesday.—Discussion on Sleep and the Treatment of Sleeplessness: To be opened by Sir GEORGE H. SAVAGE, followed by Dr. W. H. Butter Stoddart, and others.

Thursday.—Discussion on Vertigo: its Significance and Treatment. To be opened by Dr. RISIEN RUSSELL.

Friday.—Papers.

Members are invited to contribute any preparations, specimens or drawings, or any instruments or apparatus pertaining to the work of the Section, which have been designed by themselves, in order that arrangements may be made to form a special exhibit of such objects.

OPHTHALMOLOGY.

Municipal Technical School, Room 47, Second Floor.

President. T. H. BICKERTON, M.R.C.S., Liverpool. *Vice-Presidents:* H. H. TAYLOR, F.R.C.S., Hove; W. W. GRIFFIN, F.R.C.S., Hove; A. NICHOLSON, M.B., Hove; J. H. PARSONS, F.R.C.S., London. *Honorary Secretaries:* W. B. INGLIS POLLOCK, M.D., F.R.C.P.S., 276, Bath Street, Charing Cross, Glasgow; W. H. BRAILEY, M.D., 21, Lansdown Place, Hove.

The following subjects have been suggested for discussion, and it is hoped that all members will express their views on the practical treatment of these conditions:

The Question of Excision in cases of Injury of the Eye.
School Clinics and the Prevention of Myopia.
The Treatment of Chronic Dacryocystitis.

PHARMACOLOGY, THERAPEUTICS, AND DIETETICS.

Municipal Training College, Class Room 1, First Floor.

President: W. HALE WHITE, M.D., F.R.C.P., London. *Vice-Presidents:* J. C. UHTHOFF, M.D., Hove; H. BATTY SHAW, M.D., F.R.C.P., London; H. C. CAMERON, M.D., M.R.C.P., London. *Honorary Secretaries:* V. COW, M.D., The Bridge House, Great Shelford, Cambridge; E. R. HUNT, M.D., 3, Goldsmid Road, Brighton.

The following subjects have been selected for discussion:

Wednesday.—Urinary Antiseptics: To be opened by Mr. J. W. THOMSON WALKER.

Thursday.—Anaphylaxis: (Joint discussion with Section of Bacteriology and Pathology. For a list of those taking part in the discussion see p. 506.)

Friday.—The Use and Abuse of Hypnotics: To be opened by Dr. W. H. WILLCOX.

The following paragraphs indicate the line that will be taken by the openers of the formal discussions:

Discussion on Urinary Antiseptics.—(Mr. J. W. THOMSON WALKER.) Urinary antiseptics may be taken to include (1) drugs administered with the object of excretion in the urine, (2) serum and vaccine treatment, and (3) local applications to the different parts of the urinary tract. But in order to concentrate discussion the introducer suggests that only those falling into the first division should be considered. The following appear to be the lines along which discussion may most usefully be directed: (1) The varieties of urinary antiseptics and the method by which the antiseptic power of each is exercised. (2) The formaldehyde group is the most important, and should form the centre of discussion. (3) The effect of variation in the reaction of the urine upon bacterial growth in the urinary tract or upon the action of urinary antiseptics. (4) The causes, apart from changes in the reaction of the urine, of variation in the efficacy of urinary antiseptics in different cases. (5) Are urinary antiseptics selective in their action?

Discussion on the Use and Abuse of Hypnotics.—(Dr. W. H. WILLCOX.) By the term "hypnotic" is meant a drug, or a combination of drugs, which produces sleep resembling natural sleep. The dangers attaching to the use of hypnotics may be summarized as follows: (1) The unnecessary use of hypnotics. (2) The danger of the formation of a drug habit. (3) The danger of toxic symptoms resulting from the habitual use of hypnotics. (4) The danger of fatal poisoning. (5) Special dangers due to existing disease. (6) Idiosyncrasy. (7) The use of hypnotics when other measures of treatment should be employed; for example, the use of hypnotics when work should be given up and special treatment adopted. The pathological conditions in which the use of hypnotics is necessary may be summarized as follows: (1) The relief of pain. (2) Nervous causes of insomnia—for example, (*a*) psychical causes, (*b*) cerebro-spinal causes, and (*c*) the insomnia of insanity. (3) Toxic causes—for example, (*a*) microbic and parasitic infections, (*b*) chemical poisons, and (*c*) autointoxications. (4) Gastro-intestinal diseases. (5) Cardio-vascular diseases. (6) Respiratory diseases. (7) Genito-urinary diseases. (8) The insomnia of physiological epochs—for example, menopause, old age. The object of the discussion will be best attained by considering hypnotics individually and discussing the special uses and abuses attaching to them. They will be classified as follows, and the uses and abuses attaching to the respective members of each class discussed seriatim. (1) Derivatives of methane, namely, (*a*) the chloral-alcohol group, (*b*) the sulphone group, and (*c*) the ureide group. (2) Opium and its preparations and alkaloids and their derivatives. (3) The atropine group of hypnotics. (4) Cannabis indica and its preparations. (5) The inorganic bromides. (6) Vegetable hypnotics other than those mentioned above—for example, preparations of hops, etc. (7) Other hypnotics.

STATE MEDICINE.

Municipal Technical School, Room 16, Ground Floor.

President: E. W. HOPE, M.D., D.Sc., Liverpool. *Vice-Presidents:* A. GRIFFITH, M.D., Hove; G. V. BENSON, M.R.C.S., Lewes; W. A. BOND, M.D., M.O.H., London. *Honorary Secretaries:* G. W. STONE, M.R.C.S., L.R.C.P., Cumnor, Dyke Road, Brighton; T. B. HEGGS, M.D., Town Hall, Sittingbourne.

The following subjects have been selected for discussion:

(1) Port Sanitary Administration and the Importation of Disease: To be opened by Dr. HERBERT WILLIAMS, M.O.H. Port of London. (2) The Need for Popular Education in matters affecting the Public Health: To be opened by Professor H. R. KENWOOD.

Other subjects suggested are: (*a*) Maternity Benefit under the Insurance Act and its Connexion with the Midwives Act. (*b*) Treatment of School Children; Arrangements recently adopted for. (*c*) Prevention and Treatment of Tuberculosis; the Need for an Exact Comparison of the Methods at present used in. (*d*) Measles and Whooping-cough; the Need of Laboratory Investigation into the Means of Prevention.

The following paragraphs indicate the line that will be taken by the openers of the formal discussions:

Discussion on Port Sanitary Administration.—(Dr. HERBERT WILLIAMS.) Conditions on shipboard predisposing to the conveyance and spread of infectious disease. Legal powers for dealing with ships at ports of arrival: (*a*) Public Health Acts and by-laws made thereunder; (*b*) regulations issued by the Local Government Board. Port sanitary administration: (*a*) Medical inspection and supervision; (*b*) "quarantine"; (*c*) disinfection and fumigation of vessels. International Sanitary Convention held at Paris, 1911–12. Suggestions for improving the regulations, etc., for preventing the introduction of infectious disease by persons arriving on vessels.

Discussion on the Need for Popular Education in Matters affecting the Public Health.—(Professor H. R. KENWOOD.) The large amount of ignorance and apathy in respect to matters affecting the public health can only be effectually counteracted by such education as will enlighten and impress without exaggerating or alarming. Without a public demand the necessary stimulus and support both to legislators and administrators is lacking; and when trade conditions are not meeting public health requirements (as, for instance, the public milk supply) an educated public demand is almost essential to reforms. Without this education, Acts of Parliament and the supervision by sanitary authorities have but a limited value in raising the standard of public health. It is the duty of (*a*) the education authority and (*b*) the sanitary authority to promote this education. Education authorities are but slowly preparing the way for the discharge of this duty. Growing opportunities are leading to an increase in the efforts of sanitary authorities; but further measures are necessary. Some other agencies can also assist in this education, and should do so.

SURGERY.

Municipal Technical School, Room 35, First Floor.

President: W. THELWALL THOMAS, F.R.C.S., Liverpool. *Vice-Presidents:* R. F. JOWERS, F.R.C.S., Hove; W. TAYLOR, F.R.C.S.I., Dublin; STANLEY BOYD, F.R.C.S., London; J. W. BATTERHAM, F.R.C.S., St. Leonard's-on-Sea; W. FURNER, F.R.C.S., Hove. *Honorary Secretaries:* H. J. WALKER, F.R.C.S., The Priory, Springfield Road, Brighton; C. A. R. NITCH, F.R.C.S., 69, Harley Street, W.; F. K. SMITH, M.B., 207, Great Western Road, Aberdeen.

The following programme has been arranged:

Wednesday.—Discussion on the Diagnosis and Treatment of Primary Carcinoma of the Stomach. To be opened by Mr. G. H. MAKINS, C.B., followed by Messrs. Hey Groves, J. K. Dalziel, Paterson, R. F. Jowers, and Buck.

Papers:

WILKIE, D. P. D. Experimental Observation on the Cause of Death in Acute Intestinal Obstruction.
WARDEN, A. A. Radium and Inoperable Cancer.

Thursday.—Discussion on the Diagnosis and Treatment of Injuries of the Knee-joint other than Fractures and Dislocations. To be opened by Mr. A. M. MARTIN (Newcastle-on-Tyne), followed by Messrs. Openshaw, Walters, Deanesly, Whitelocke, Hey Groves, Dalziel, and Pinch.

Papers:

GROVES, E. W. Hey. The Operative Treatment of Fractures.
DALZIEL, J. K. Chronic Intestinal Arteritis.

Friday.—Papers:

WADE, H. Prostatism.
DALZIEL, J. K. Neuralgia of the Fifth Nerve Simulating Visceral Lesions.

The following paragraphs indicate the line that will be taken by the openers of the formal discussions:

Discussion on Primary Carcinoma of the Stomach.—(Mr. G. H. MAKINS.) Can a diagnosis of the disease at an early stage be obtained at present? *Methods of Diagnosis:* (*a*) In the early stages. Symptoms of indigestion accompanied by anaemia and progressive loss of strength, a posssible history pointing to the earlier presence of a simple ulcer; the test meal; examination of the faeces; skiagraphy; direct examination by the gastroscope; mechanical distension by air or carbonic acid gas; examination of the blood; examination of the urine; exploratory incision. (*b*) In the later stages. Symptoms such as pain, vomiting, haematemesis, or melaena. Dilatation is not always present; obvious peristalsis; the presence of a palpable tumour. Exploratory incision. (*c*) Differential diagnosis. *Methods of Treatment:* These depend on the position and extent of the growth; relative frequency of different locations; cardiac growths are unsuitable for any but palliative treatment; growths situated in the body of the stomach may be treated by gastrectomy, anastomosis, or rarely by jejunostomy; pyloric growths, which form from 50 to 60 per cent. of the series, the most generally satisfactory for operation. What are the limits within which radical operations may be undertaken? These are determined by: (1) The extent of the primary growth, the degree of lymphatic enlargement or infiltration, the extent of invasion of neighbouring organs—for example, transverse colon, pancreas, liver, and gall bladder. (2) The general condition of the patient. Operations are not justifiable in the presence of visceral metastases, distant lymphatic enlargements, as in the posterior triangle or groin, when the growth has extended to the abdominal wall at the umbilicus, or when malignant ascites is present. What are the respective fields of gastrectomy and gastro-enterostomy? Gastro-enterostomy is almost as severe an operation as partial gastrectomy, while the relief given extends over an average of only five months. Its adoption should be restricted to cases in which the extent of the growth renders a partial gastrectomy impracticable. Should this rule be adhered to when enlarged lymphatic glands alone form the practical difficulty? The objection to gastro-enterostomy as a preliminary procedure to gastrectomy is a real one. The technical conditions may be influenced for the worse when the second operation is undertaken, and the patient often puts off consent for the second operation too late as the result of the temporary relief afforded by the first. Gastrectomy is not a much more serious operation, and affords better results to the patient both immediate and remote. What is the best method of partial gastrectomy? An operation on the lines of Billroth No. 2 is the most generally useful. When the remnant of the cardiac end of the stomach is too small to allow of a successful lateral anastomosis, the loop of jejunum may be applied directly to the opening of the divided stomach by the methods of Polya, Reichel, Wilms, etc. Difficulties with the duodenal stump. Various methods of suture. Lewitt's method. Methods of dealing with partially resected organs. Results of partial, subtotal, and complete gastrectomy.

Discussion on Injuries of the Knee-joint other than Fractures and Dislocations.—(Mr. A. M. MARTIN.) (1) Points in anatomy of knee-joint bearing on injuries to be considered. (2) Diagnosis and treatment of simple traumatic synovitis; haemophilia; loose bodies. (3) Injuries to joints affected with other disease, such as osteo-arthritis, ruptured or torn semilunar cartilage.

TROPICAL MEDICINE.

Municipal Technical School, Room 17, Ground Floor.

President: Lieutenant-Colonel Sir WILLIAM LEISHMAN, M.B., F.R.S., R.A.M.C., London. *Vice-Presidents:* E. IRWIN SCOTT, M.D., Hove; Professor W. J. R. SIMPSON, C.M.G., M.D., F.R.C.P., London; Major W. S. HARRISON, R.A.M.C., Royal Army Medical College, Grosvenor Road, S.W. *Honorary Secretaries:* E. CURWEN, M.A., M.B., B.C., 1, St. Aubyn's, Hove; F. W. O'CONNOR, M.R.C.S., London School of Tropical Medicine, Royal Albert Dock, E.

The following is the preliminary programme:

Wednesday.—Discussion on the Causes of Invaliding in the Tropics. To be opened by Dr. CURWEN, followed by Drs. Basil Price (the Missionary Standpoint), Colonel R. Simpson, R.A.M.C. (the Army Standpoint), and Dr. Law.

Thursday.—Discussion on Dysentery. To be opened by Captain S. R. DOUGLAS, I.M.S., followed by Drs. C. M. Wenyon (Morphology of the Intestinal Amoebae), Savage (Serum Treatment), and Willmore (Treatment).

Friday.—Discussion on Filariasis. To be opened by Dr. Low.

Paper:

BIRT, Colonel C. Dengue and Phlebotomus Fever.

The following paragraph indicates the line that will be taken by the opener of the third discussion:

Discussion on Filariasis.—(Dr. Low.) It is proposed, first, to review the literature of human filariasis from June, 1911, to the end of May, 1913. A considerable amount of work, some of it of a very interesting nature, has been accomplished in that time. Papers dealing with the geographical distribution of the filariae have been numerous, as have also others on the morphology and points of distinction between the different species of embryos. Little, however, has been accomplished as regards the further elucidation of the pathology of the disease, with the exception of an interesting paper on chyluria and another upon various obscure suppurative conditions probably originated by the parasites. Elephantiasis has been more fully dealt with, several new operations having been proposed for its treatment. As regards *Filaria loa* Leiper has discovered the intermediete host. He states that the embryos undergo their metamorphosis in the salivary glands of biting fleas of the genus Chrysops, *C. dimidiata*, and *C. silacea*. The steps in the development are very similar to those which take place in the embryos of *F. bancrofti* in the mosquito. No further advances have been made as to respective intermediate hosts of *Filaria perstans* and *F. demarquayi*. Different lines of investigation are suggested for future work on *F. bancrofti*. One of the most promising of these is the epidemiology of the disease, but questions such as hyperfilariation, the duration of the life of the embryos in the blood, the pathology and pathological anatomy of the diseased conditions produced, and many others are also of equal interest. Many points also require solution as regards *F. loa* infections. One of the most peculiar features in these cases is the prolonged absence of embryonic or larval forms from the peripheral blood even though there is evidence of a fair infection of adults. To solve these and other points the author is following up a series of cases in detail. Attention is also drawn to a case described by Meinoff illustrating the same point. Pathologically also it is not known how the adult worms produce the peculiar swellings to which the name "Calabar swellings" has been given. Though several theories have been brought forward to explain the origin of these lesions, none of them is probably correct. The general question of filarial eosinophilia is also suggested as a promising piece of work for future investigations. The author continues with a reference to *Onchocerca volvulus* (*Filaria volvulus*), and finally states that there is a fruitful source of investigation awaiting any one who wishes to take up the subject of "human filariasis."

PROVISIONAL PROGRAMME.

The following is the provisional time table for the Brighton meeting:

FRIDAY, JULY 18TH.
10 A.M.—Annual Representative Meeting.

SATURDAY, JULY 19TH.
9.30 A.M.—Representative Meeting.

MONDAY, JULY 21ST.
9.30 A.M.—Council Meeting.
10 A.M.—Representative Meeting.

TUESDAY, JULY 22ND.
9.30 A.M.—Representative Meeting.
2 P.M.—Annual General Meeting.
8.30 P.M.—Adjourned General Meeting, President's Address.

WEDNESDAY, JULY 23RD.
9 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Medicine.
3 P.M.—Religious Services.
4 P.M.—Secretaries' Conference.
7 P.M.—Secretaries' Dinner.

Thursday, July 24th.
8 p.m.—National Temperance League Breakfast.
10 a.m. to 1 p.m.—Sectional Meetings.
12.30 p.m.—Address in Surgery.
7.30 p.m.—Annual Dinner.

Friday, July 25th.
9 a.m.—Council Meeting.
10 a.m. to 1 p.m.—Sectional Meetings.
8 p.m.—Popular Lecture.

Saturday, July 26th.
Excursions.

Honorary Local Treasurer—
H. H. Taylor, F.R.C.S.,
36, Brunswick Square, Hove.

Honorary Local Secretary—
Leonard Arthur Parry, M.D., F.R.C.S.,
83, Church Road, Hove.

THE PATHOLOGICAL MUSEUM.

The Pathological Museum Committee, whose constitution was set forth in our issue for May 17th, proposes to arrange the material it receives under the following heads:

(i) Exhibits bearing on discussions and papers in the various Sections.
(ii) Specimens and illustrations relating to any recent research work.
(iii) Instruments relating to clinical diagnosis and pathological investigation.
(iv) Individual specimens of special interest, or a series illustrating some special subject.

The Committee wishes it to be understood that the above are only suggestions, and that specimens illustrating any subject of special interest will be welcomed.

The Committee desires to enlist the hearty co-operation of members, and the Honorary Secretary will be glad to hear from those who are able to make an exhibit. Every care will be taken of specimens, and the contents of the Museum will be insured.

It is hoped that it will be possible for arrangements to be made whereby exhibitors may have an opportunity of demonstrating their specimens.

The Museum will occupy a central position in the same building as that in which the sectional work is carried on, and will be easy of access.

The Chairman of the Committee is Dr. E. Hobhouse (Hove), but all communications concerning it should be addressed to Dr. W. Broadbent or Dr. H. M. Galt, Honorary Secretaries, Pathological Museum Committee, 14, North Street, Brighton.

Association Notices.

SPECIAL MEETING OF COUNCIL.

A Special Meeting of the Council will be held at Eleven o'clock in the forenoon of Friday, June 13th, in the Council Room at 429, Strand, London, W.C., to consider a Report of the Organization Committee on the Reform of the Present Constitution of the Association.

By Order,
Guy Elliston,
Financial Secretary and Business Manager.

May 22nd, 1913.

DISCONTINUANCE OF AN EXISTING BRANCH: FORMATION OF TWO NEW BRANCHES.

The following changes have been made in accordance with the regulations of the Association, and take effect from the date of publication of this notice (June 7th):

Discontinuance of Natal Branch: Formation, in Substitution therefor, of Two New Branches.

That the existing Natal Branch of the Association be discontinued, and that, in substitution therefor, the existing Divisions of the Branch—namely, the Durban and Pietermaritzburg Divisions—be constituted as two independent Branches, having the following respective names and areas:

1. *Natal Coastal Branch.*—All the counties of Natal bordering on the sea coast, that is, the following counties: Alfred, Alexandra, Durban, Victoria, and the Province of Zululand (excepting the Nqutu District).

2. *Natal Inland Branch.*—All the inland counties of Natal—namely, Pietermaritzburg, Umvoti, Weenen, Klip River, Newcastle, Vryheid and Utrecht, and the Nqutu District of Zululand.

Representation in Representative Body.—Under the general principle adopted by the Council with regard to the representation in the Representative Body of Branches outside the United Kingdom (if adopted by the Council, 1913–14, when the representation of Divisions in the Representative Body for 1914–15 is being determined), each of the new Branches will be entitled to separate representation in the Representative Body, 1914–15, to return one Representative.

BRANCH AND DIVISION MEETINGS TO BE HELD.

Birmingham Branch.—Mr. J. Furneaux Jordan (9, Newhall Street, Birmingham) and Dr. J. G. Emanuel, Honorary Secretaries, give notice that the annual meeting of the Birmingham Branch will be held in the Medical Institute on Thursday, June 19th, at 3 p.m. Business: Election of officers. Annual report and financial statement. Inaugural address by the incoming President, Mr. W. F. Haslam.

Border Counties Branch.—Dr. Livingston, Secretary, gives notice that the annual meeting of the Branch will be held in the Town and County Hotel, Carlisle, on Friday, June 27th.

East York and North Lincoln Branch.—Dr. Edward Turton, Honorary Secretary (1, Albion Street, Hull), gives notice that the annual meeting of the East York and North Lincoln Branch will be held at Beverley on Friday, June 27th, at 4 p.m. Business: (1) Report of Branch Council. (2) Treasurer's Financial Statement. (3) Election of President-elect, Vice-President, and Honorary Secretary and Treasurer. (4) Address by the new President, Dr. J. Mitchell Wilson. (5) Any other business proper to annual meetings of the Branch.

Edinburgh Branch.—Dr. Michael Dewar and Mr. E. Scott Carmichael, Honorary Secretaries (24, Lauriston Place), give notice that the annual meeting of the Edinburgh Branch will be held in the Royal College of Physicians' Hall, Queen Street, on Thursday, June 26th, at 4 p.m.

Edinburgh Branch: South-Eastern Counties Division.—Dr. M. J. Oliver (Honorary Secretary, St. Boswells), gives notice that the annual meeting of the Division will be held in the Railway Hotel, Newtown St. Boswells, on Friday, June 27th, at 3 o'clock p.m., for the election of officers, the consideration of the annual report of the Executive Committee and financial statement; the discussion of various matters concerning the Insurance Act, including certificates, duties of Medical Service Subcommittee, expenses of Local Medical Committees, payment for services to temporary residents, and for instructing the Representative on the Representative Body.

Fife Branch.—Dr. G. C. Anderson, Honorary Secretary (Denbeath House, Methil), gives notice that the annual meeting of the Fife Branch will be held in the Station Hotel, Kirkcaldy, on Thursday, June 19th, at 3 p.m.

Metropolitan Counties Branch.—Drs. W. Griffith and R. E. Crosse (Honorary Secretaries) give notice that the annual general meeting of the Branch will be held at 429, Strand, W.C., on Tuesday, July 1st, at 4 p.m. The business will include a report as to the election of new officers, and the annual reports of Council and of representatives of the Branch on the Central Council. On the motion to adopt Model Ethical Rules for Branches, Dr. F. J. Smith gives notice that he will propose an alteration to the Model Ethical Rules by substituting the words "British Medical Association" for the words "Medical Profession" in Rule 1. President's address: The Profession and the Public. [The Model Ethical Rules are printed in the Supplements of September 21st and 28th, 1912, pages 325 and 350.]

Metropolitan Counties Branch: East Hertfordshire Division.—Dr. H. D. Ledward, Honorary Secretary (123, Norton Way, Letchworth) gives notice that the first annual meeting of the Division will be held at 2.30 p.m., on Friday, June 20th, at the Town Hall, Ware, to elect officers, the representative of the Division on the Branch Council, the ordinary members of the Executive Committee, and the Representative of the Division in Representative Meetings. To receive the Honorary Secretary's Annual Report. To alter Rule I defining the area of the Division in accordance with the decision of the Organization Committee of the Association. To consider the business of the Annual Representative Meeting and instruct the Representative thereon.

METROPOLITAN COUNTIES BRANCH: KENSINGTON DIVISION.—Drs. Walter E. Fry and P. C. Raiment, Honorary Secretaries, give notice that the annual meeting will take place at Kensington Town Hall on Thursday, June 12th, at 5 p.m., for the transaction of the following business: Annual report. Elect officers and Representatives for 1913–14, and elect Executive Committee.

MIDLAND BRANCH.—Dr. Francis L. A. Greaves, Honorary Secretary and Treasurer (83, Friar Gate, Derby), gives notice that the annual meeting of the Branch will be held on Friday, June 13th, at 3 p.m., at Central Buildings, Leicester Public Medical Service, Bond Street, Leicester, for the election of Branch officers, and to receive the report of Branch Council and financial statement. A discussion on Leicestershire's Medical Methods will be opened by the President, and continued by Drs. McAllister-Hewlings, Moffat Holmes, Wallace Henry, B. Martin, and J. C. Burkitt. The President-elect invites members from a distance to luncheon at his house, 19, Victoria Road, Leicester, at 1 to 2 p.m.; members accepting this invitation are requested to notify Dr. Astley Clarke on or before June 9th.

SOUTH-EASTERN BRANCH.—Dr. E. A. Starling, Honorary Secretary (Chillingworth House, Tunbridge Wells), gives notice that the sixty-ninth annual meeting of the Branch will be held on Wednesday, June 11th, at 1.30 p.m., at the Lion Hotel, High Street, Guildford. Dr. Arthur M. Mitchell (President-elect) invites members to lunch at the Lion Hotel, High Street, at 12.45 p.m. sharp. Agenda: In addition to the business of an ordinary meeting, (1) to receive the report of the election of officers for 1913–14; (2) to receive the annual report of the Council and financial statement, and (3) the ethical rules presented by the Council; (4) to consider the following resolution: "The South-Eastern Branch Council advise the Branch to request the Council of the Association to consent to the division of the unwieldy South-Eastern Branch into three Branches, corresponding with the three counties of Kent, Sussex, and Surrey." An excursion is arranged for the afternoon, to view the Lord Mayor Treloar's Cripples' Home at Alton, where Dr. and Mrs. Gauvain kindly invite the members to tea. The special train leaves Guildford Station at 2.40 p.m., returning about 5.30 p.m. Tickets for the return journey, 3s. 6d. each. The annual dinner will be held at the Lion Hotel, at 6.30 p.m. Members intending to be present at the lunch, excursion, or dinner wishing hospitality for the night are requested to signify their intention to Cecil P. Lankester, Esq., 1, Rectory Place, Guildford, not later than Saturday, June 7th.

SOUTH-EASTERN BRANCH: DARTFORD DIVISION. — Dr. H. Chisholm Will, Honorary Secretary (Southbank, Sidcup), gives notice that the annual meeting of the Dartford Division will be held at the Bull Hotel, Dartford, on Thursday, June 12th, at 3 p.m., when it is hoped that all members of the Division and all medical men residing therein will make a special effort to attend. Agenda: Report of Executive Council; election of officers and executive; consider Agenda of Annual Representative Meetings (see BRITISH MEDICAL JOURNAL SUPPLEMENT, May 3rd and 10th; members are particularly requested to bring their copies to the meeting); address by Dr. Courtenay Lord, member of Council of the British Medical Association.

SOUTH MIDLAND BRANCH.—Dr. E. Harries-Jones, Honorary Secretary (16, Castilian Street, Northampton), announces that the annual meeting of the Branch will be held at Bedford on June 12th, under the presidency of Dr. Conning Hartley.

SOUTH MIDLAND BRANCH: BUCKINGHAM DIVISION. — Dr. A. E. Larking, Honorary Secretary (Buckingham), gives notice that the annual meeting of the Division will be held on Wednesday, June 18th, at 3.30 p.m., at the Royal Bucks Hospital. The Committee will present its report for the past year, the officers for the ensuing year will be elected, and the Representative will be instructed how to vote at the Representative Meeting. The following resolution will be submitted: "That the Bucks Division do all in its power to discourage all contract practice outside the Insurance Act." A paper will be read by Dr. J. Horne Wilson (London) on The Active Treatment of Tuberculosis, and Dr. Burra will take part in the discussion.

SOUTH-WESTERN BRANCH.—Mr. Russell Coombe, Honorary Secretary, gives notice that the seventy-fourth annual meeting will be held on Wednesday, June 11th, at the Museum, Babbacombe Road, Torquay, at 3 p.m., when Dr. Hardwick will resign the chair to Mr. Eales, who will deliver his inaugural address. The report of the Branch Council for the year 1912-13 and the annual financial statement for the year 1912 will be presented, and the officers of the Branch will be elected for the year 1913–14. Luncheon, by the kind invitation of the President-elect and Torquay members, will take place from 1 p.m. to 2.30 p.m., at the Museum, Babbacombe Road. The annual dinner of the Branch will be held at the Torbay Hotel at 7.45 for 8 p.m. Tickets 7s. 6d. (exclusive of wine) can be had from Dr. Lacey, Melita, Torquay; application should be made not later than the first post on Monday, June 9th. Several Torquay members of the Branch have offered to put up visiting members for the night, and gentlemen desiring to avail themselves of this hospitality are requested to inform Dr. Lacey when making application for their dinner ticket. By the courtesy of the Torquay and South Devon Golf Club, members of the Branch and their wives will be made honorary members for Wednesday and Thursday; those wishing games arranged should communicate with Dr. Dalby, The Rosary, St. Marychurch, Torquay.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—Dr. S. Colen Legge, Honorary Secretary (24, Foregate Street, Worcester), gives notice that the annual meeting of the Worcestershire and Herefordshire Branch will be held at the Infirmary, Kidderminster, on Thursday, June 19th, at 4 p.m.

THE COUNCIL OF THE BRITISH MEDICAL ASSOCIATION.

SOUTH-EASTERN BRANCH.

DR. C. COURTENAY LORD of Gillingham, who is a candidate for election to the Council of the British Medical Association as representative of the South-Eastern Branch, asks us to state that he is the Honorary Secretary of the Rochester, Chatham, and Gillingham Division, is at present a member of the Council of the Association, and is a member of the Kent County Medical Committee.

Dr. C. H. Benham of Brighton, who is also a candidate, asks us to state that he was a member of the Council of the South-Eastern Branch in 1908–13, Honorary Secretary of the Brighton Division 1911–13, and its Representative 1912–13. He is also Chairman of the East Sussex Medical Committee and representative of the profession on the East Sussex Insurance Committee.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW EASTERN DIVISION.

THE annual meeting of the Glasgow Eastern Division was held in Bellgrove Hall on May 28th, when Dr. H. A. MCLEAN, Chairman of the Division, presided.

Election of Officers.—The office-bearers for 1913–14 were elected as follows:

Chairman.—Dr. Robert Davidson.
Vice-Chairman.—Dr. Alexander Johnston.
Honorary Secretary and Treasurer.—Dr. Hugh A. McLean.
Representative in Representative Meetings.—Dr. J. Wishart Kerr.
Deputy Representative.—Dr. Alexander Johnston.
Representatives on Branch Council.—Dr. Robert Davidson, Dr. J. Wishart Kerr, Dr. Hugh A. McLean.
Executive Committee.—Drs. P. S. Buchanan, J. B. Miller, A. P. Granger, James Dunlop (Dennistoun), William Bryce, Robert Scott, J. B. Stewart, James Battersby, and W. L. Muir.

Annual Report.—The SECRETARY submitted the annual report for 1912, which was cordially approved. It stated that at the beginning of the year membership was 113, that 14 new members had been elected, and that 5 had removed into the Division, making an aggregate of 132. During the year 9 had been removed, 1 by death, and 8 by change of address leaving the net membership at December 31st, 1912, 123, an increase of 10 for the year.

Election to Local Medical Committee.—Dr. J. F. Macgregor was elected to the vacancy on the Local Medical Committee caused by the resignation of Dr. J. P. Granger.

Votes of Thanks.—It was unanimously agreed to minute an expression of the appreciation of the services of Dr. McLean as chairman during the past year; and also a vote of thanks to the late secretary for his labours during the four years he had discharged the duties of that office.

Instruction of Representative.—The agenda for the Annual Representative Meeting was discussed very fully and the Representative instructed as to the various motions.

LANCASHIRE AND CHESHIRE BRANCH:

BLACKPOOL DIVISION.

THE annual meeting and dinner of this Division, to which all members of the profession resident in the area of the Division were invited, was held at the Clifton Hotel, Blackpool, on May 28th, at 8 p.m., Dr. STEWART in the chair. There was an attendance of twenty-two.

Report of Executive Committee.—The Honorary Secretary read the report, which stated that the past year had been one of exceptional activity owing to the consideration given to the medical provisions of the Insurance Act. Thirteen meetings were held, to six of which non-members of the Association were invited. The attendance at all the meetings was excellent, and at one meeting, in December, 1912, sixty-one practitioners were present. The membership during the past year had increased from 67 to 69.

Election of Officers.—The following officers were appointed for 1913–14:

Chairman.—Dr. Mitchell Penman.
Vice-Chairman.—Dr. T. Carr.
Honorary Secretary.—Dr. W. J. McL. Baird.
Representative for Representative Meetings.—Dr. H. T. Barton.
Representative on Branch Council.—Dr. W. J. McL. Baird.
Executive Committee.—Dr. L. M. McIntosh, Dr. R. H. W. Dunderdale, Dr. F. S. Rhodes, Dr. J. Stewart, Dr. T. Godley, Dr. T. Taylor, and Dr. C. Court.

Vote of Thanks.—A vote of thanks was passed to Dr. Stewart for his services as Chairman during the past year, and the same compliment was paid to Dr. Barton.

LEINSTER BRANCH:
East Leinster Division.

The annual general meeting of the East Leinster Division of the Leinster Branch of the British Medical Association was held in the Royal College of Physicians, Dublin, on May 28th.

Election of Officers.—The following officers were elected:

Chairman.—Dr. W. V. Furlong.
Vice-Chairman.—Dr. W. B. Mackay.
Honorary Secretary and Treasurer.—Dr. R. C. Peacocke, Blackrock, Dublin.
Representative for Representative Meetings.—Colonel W. T. Johnston, M.D., 8, Vesey Place, Kingstown.
Deputy Representative.—Dr. R. C. Peacocke.
Representatives on Branch Council.—Drs. Boyce, Dampier-Bennett, Good, Johnston, and Peacocke.
Executive Committee.—The above and Drs. Dawson, Goff, Heard, Hatch, Law, and Professor A. H. White (*ex officio*).

MIDLAND BRANCH:
Leicestershire and Rutland Division.

The annual meeting of the Division was held at the Royal Infirmary, Leicester, on May 21st, Dr. W. E. Gibbons in the chair.

Election of Officers.—The following were elected officers for the year 1913–14:

Chairman.—Dr. Sessions Barrett.
Vice-Chairman.—Dr. McAllister-Hewlings.
Honorary Secretary.—Dr. R. Wallace Henry.
Representatives on the Branch Council.—Drs. Cosens, Fagge, Stamford Gibbons, McAllister-Hewlings, Sevestre, and Waite.
Executive Committee.—Drs. C. H. Clarke, Holyoak, Johnston, Pike, Tibbles, Bonis, Logan, Clare, Holmes, Hicks, and Young.

Hearty votes of thanks were accorded Drs. Gibbons and Wallace Henry for their work as Chairman and Secretary during the year 1912–13.

Annual Report.—The annual report of the Council, which was approved, stated that the number of members in the Division was now 204, a decrease of fourteen during the year. Ten meetings of the Division had been held: The annual meeting dealing with the business of the Division, six with various aspects of the National Insurance Act, one with malingering, and two with scientific matters. The average attendance was sixty-eight. The Executive Committee had met on eight occasions, when the average attendance was thirteen. During the year the attention of the Committee has been chiefly directed to questions arising out of the administration of sanatorium and medical benefit. The Committee desired to place on record the great loss sustained by the Division in the death of Dr. F. M. Pope. The accounts of the Division for the year ending December 31st, 1912, had been duly audited, and showed a balance in hand of £1 5s. 9d.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:
North Glamorgan and Brecknock Division.

The annual meeting of this Division was held at Pontypridd on May 29th at 3 p.m., when the chair was taken by Dr. T. Finney, Aberaman.

Election of Officers.—The following officers were elected for the ensuing year:

Chairman.—Dr. T. R. Llewellyn, Penygraig.
Vice-Chairman.—Dr. H. Davies-Jones, Mountain Ash.
Secretary and Treasurer.—Mr. C. J. Weichert, Penygraig, re-elected.
Assistant Secretary.—Dr. A. T. Jones, Mountain Ash.
Representative for Representative Meetings.—Dr. W. E. Thomas, Ystrad, re-elected.
Deputy Representative.—Dr. T. R. Llewellyn.
Representatives on the Branch Council, in addition to the *ex officio* members.—Drs. T. R. Llewellyn, C. Biddle, D. N. Morgan, Howard Davies, and B. M. Lewis.
Representatives on the Contract Practice Committee.—Drs. T. R. Llewellyn, W. E. Thomas, and A. T. Jones.
Executive and Ethical Committees.—Drs. J. M. Rees, T. Finney, I. N. Morgan, C. Biddle, H. Davies-Jones, B. M. Lewis, Howard Davies, R. Ryce, J. R. Armstrong, A. J. Griffith, Trevor Cory, S. Glanville Morris, the Chairman, the Direct Representative, and the Secretaries.

Medical Aid Association.—The meeting considered a resolution, submitted to the Divisions by the South Wales and Monmouthshire Branch, dealing with Medical Aid Associations and similar schemes that are being started under the Insurance Act in various places in Wales, and, on the motion of Dr. C. Biddle, it was resolved that:

> This Division views with apprehension the formation of Medical Aid Associations in Wales, and calls upon the staffs of the various hospitals in Wales and Bristol to refuse professional recognition to those who accept such appointments, and to decline to attend, in any general or cottage hospitals, members of such associations or schemes, except under circumstances of grave emergency.

SCHOLARSHIPS AND GRANTS IN AID OF SCIENTIFIC RESEARCH.

SCHOLARSHIPS.

The Council of the British Medical Association is prepared to receive applications for Research Scholarships as follows:

1. An Ernest Hart Memorial Scholarship, of the value of £200 per annum, for the study of some subject in the department of State Medicine.
3. Three Research Scholarships, each of the value of £150 per annum, for research into some subject relating to the causation, prevention, or treatment of disease.

Each Scholarship is tenable for one year, commencing on October 1st, 1913. A Scholar may be reappointed for not more than two additional terms.

The conditions of the award of Scholarships are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

GRANTS.

The Council of the British Medical Association is also prepared to receive applications for Grants for the assistance of Research into the Causation, Treatment, or Prevention of Disease. Preference will be given, other things being equal, to members of the medical profession and to applicants who propose as subjects of investigation problems directly related to practical medicine.

The conditions of the award of Grants are stated in the Regulations, a copy of which will be supplied on application to the Medical Secretary of the Association, 429, Strand, London, W.C.

Applications.

Applications for Scholarships and Grants for the year 1913–14 must be made not later than Tuesday, June 10th, 1913, in the prescribed form, a copy of which will be supplied by the Medical Secretary on application.

Each application should be accompanied by testimonials, including a recommendation from the head of the laboratory, if any, in which the applicant proposes to work, setting out the fitness of the candidate to conduct such work, and the probable value of the work to be undertaken. This is not intended, however, to prevent applications for Grants in aid of work which need not be performed in a recognized laboratory.

Alfred Cox, *Medical Secretary.*

429, Strand, London, W.C.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1913.

Sir DONALD MACALISTER, K.C.B., President, in the Chair.

EXEMPTIONS FROM EXAMINATION.

THE Examination Committee, as instructed, presented a report on exemptions from examination granted by British licensing bodies in respect of portions of examinations conducted by bodies whose degrees and diplomas are not recognized for registration.

The Committee reported that tables prepared by the Registrar showed that during the five years 1907–1911 nine universities and licensing corporations had granted exemptions from some part of their professional examinations other than the final examinations on the ground that the candidates had passed equivalent examinations held by universities or bodies which did not grant qualifications recognized by the Council as entitling the holders to registration in the home, colonial, or foreign lists. The bodies granting such exemptions were the Universities of London, Edinburgh, Bristol, and Manchester; the English, Scottish, and Irish Conjoint Boards, the Apothecaries' Society of London, and the Apothecaries' Hall, Dublin. In 180 instances exemptions were granted from all the professional examinations except the final examinations in medicine, surgery, and midwifery. The report gave detailed tables of the exemptions granted by each of the nine bodies, and summarized the results in the following table:

Table showing the proportion between the number of qualifications granted and the number of candidates exempted from some portion of the earlier Professional Examinations during the five years 1907–1911 on the ground that they had passed equivalent examinations held by Universities or bodies whose qualifications are not recognized as admitting their holders to Registration in the United Kingdom Section of the "Medical Register" or the Colonial or Foreign Lists thereof.

	Number Qualified.	Exemptions.	Percentage (About).
University of London...	583	6	1.0
University of Edinburgh	949	10	1.0
University of Manchester	—	1	—
University of Bristol	—	1	—
English Conjoint Board	1,787	124	6.9
Scottish Conjoint Board	544	36	6.6
Irish Conjoint Board	301	5	1.6
Apothecaries' Society, London ...	202	18	8.9
Apothecaries' Hall, Dublin... ...	37	22	59.4

The Committee pointed out that this table showed that the Apothecaries' Hall of Dublin granted exemptions to a much larger extent in proportion to the number of qualifications granted than any of the other qualifying bodies, its percentage being more than six times that of the second on the list—the Apothecaries' Society of London. The Examination Committee expressed the opinion that the continued granting to candidates of exemptions in professional examinations on the ground that equivalent examinations had been passed before universities or bodies whose degrees and diplomas were not recognized by the General Medical Council for registration should be carefully supervised, and called attention to the fact that during the five years under review the majority of the universities and licensing bodies have stated that no such exemptions had been granted by them. The Committee did not recommend that the practice should be altogether discontinued, as many of the university examinations so recognized were undoubtedly of such high standard that it would be impossible to suggest that they were inadequate, or that they could be dealt with under Section XX of the Medical Act, 1858. The Committee, however, recalled the fact that last year the General Medical Council resolved:

That, in the absence of any sufficient evidence of the standard required, the Council advise the licensing bodies to refuse recognition of the First, Second, and Third Professional Examinations of Indian diplomates belonging to the "Subordinate Medical Department."

The Conjoint Boards in England, Scotland, and Ireland publish full lists of the universities and other licensing corporations whose examinations they accept as equivalent to their own for the purpose of exempting candidates; the Apothecaries' Society in London grant examination exemptions to candidates from all examinations except the final group, "on producing evidence that they have passed equivalent examinations before an examining board recognized by the Society." The Apothecaries' Hall, Dublin, states in its regulations that

A candidate is allowed for each professional examination which he has completed at any other licensing body, except the final.

Assuming that the words "licensing body" in this regulation mean a corporation granting qualifications accepted by this Council for registration, there is nothing to which the Council could object; but it appears to the Committee that the Apothecaries' Hall express their willingness to accept examinations held by any body, without any conditions whatsoever as to the approval or recognition of the said body by the Apothecaries' Hall or by any other authority.

The report was presented by the CHAIRMAN (Sir Charles Ball), who moved the following recommendation, which was seconded by Sir JOHN MOORE:

That a copy of this report be sent to the universities and other licensing bodies in the United Kingdom, and that they be requested to inform the Medical Council under what conditions (if any) they are prepared to recognize (as equivalent to their own) the professional examinations held by universities and licensing bodies whose degrees or diplomas are not registrable in the United Kingdom; and in the event of their proposing hereafter to grant such recognition, that they be further requested to supply the Medical Council with (1) a copy of their regulations on the subject, with (2) a list of the examining bodies whose examinations they are prepared to accept, for the purpose of exempting candidates from any of their own professional examinations, other than their final examinations in medicine, surgery, and midwifery, and with (3) a statement of the grounds on which they base their recognition of the examinations as being of adequate standard.

Dr. ADYE-CURRAN said that the regulation quoted should not be read in the sense the Committee had attributed to it. It was, he said, no doubt true that the Apothecaries' Hall, Ireland, granted more exemptions than other bodies, but that was because it had been deprived of its preliminary examination. The Hall had been starved by the authorities, but it did not intend to die without a severe struggle. It seemed to be subject to an organized persecution which he contended it did not deserve. It had done its best to fall into line with the views of the Council, and he objected to its actions being continually reviewed before the Council.

The recommendation was put and carried.

APOTHECARIES' HALL, IRELAND.

The Examination Committee presented a report upon the proposal made by its representatives in November last that the reports upon the Apothecaries' Hall of Ireland be discontinued until such time as the Council may direct, a motion which had been referred to the Committee for report. The first part of the report consisted of a brief summary of the origin of the special reports upon the Apothecaries' Hall, the effect of which was in part summarized in the statement that after the appointment of assistant examiners to the Apothecaries' Hall by the Medical Council the examinations held by that body were frequently inspected and reported upon, though there had been no regular inspection since 1902. In 1908 the assistant examiners had been instructed to conduct the surgical portion of the final examination and to supervise the medical and obstetrical portions, with the object of securing that at each qualifying examination the required standard of proficiency was maintained, and to report fully for the information of the Council as to the methods and standards that should be adopted at each qualifying examination. The Examination Committee recommended that these reports be discontinued, but in consequence of information before it was unable to advise the Council to dispense with all special supervision of the

examinations conducted by the Apothecaries' Hall. In view of the fact that, as appeared from the report on exemptions, those granted by the Apothecaries' Hall, Dublin, enormously exceeded the proportion granted by any other licensing corporations, the Examination Committee had made further inquiries as follows:

"The Examination Committee therefore have also had abstracted from the minutes for the same period of five years, the number of exemptions granted by the Apothecaries' Hall on account of similar examinations held by universities and other licensing corporations whose qualifications do admit to registration. The number is stated to be twenty-nine; this added to twenty-two, the number recorded in the above report on Resolution I, gives a total of fifty-one candidates who obtained exemption from some part of their professional examinations during the period of five years, 1907–11. During the same time only thirty-seven candidates passed the full examination in Medicine, Surgery, and Midwifery, and received the L.A.H., which admits the holder to registration, so that the number of candidates exempted from some portion of the necessary examinations exceeded the number of those who obtained the qualification by fourteen. This is equivalent in itself to a considerable rejection-rate, without counting candidates who presented themselves more than once for examination, or those, if any, who went up for all their examinations at the Apothecaries' Hall without obtaining any exemption.

"The returns as hitherto furnished by the Apothecaries' Hall to the Council do not show whether there were any candidates qualified who completed all their professional examinations at the Apothecaries' Hall, but in view of the above figures, if there were any, the number must have been extremely small.

"It is obvious that the candidates who seek this diploma are almost, if not entirely, those who have commenced their series of professional examinations elsewhere."

The report gave an analysis of the career of three gentlemen who during the last year had been registered on the qualification L.A.H. alone. From the full statement set out in the report it would appear that all three gentlemen had encountered considerable difficulty in satisfying the requirements of the examiners of other licensing bodies. The Committee concluded its report as follows:

The Examination Committee takes a very serious view of the statements contained in this report, especially in relation to the wholesale granting of exemptions from portions of the necessary examinations for obtaining the L.A.H., and also of the notice contained in the regulations published by the Apothecaries' Hall that without any reservation whatever "a candidate is allowed for each professional examination which he has completed at any other licensing body, except the Final."

The Examination Committee is of opinion that the Apothecaries' Hall should be afforded an opportunity of replying to this report before the Medical Council decides what, if any, action it desires to take in reference to it under Section 20 of the Medical Act, 1858.

The following recommendations appended to the report were then submitted seriatim by the Chairman of the Committee, Sir Charles Ball:

1. That a copy of this report be forwarded to the Apothecaries' Hall, and that they be requested to furnish the Medical Council with a detailed reply to the statements therein contained.
2. That the Apothecaries' Hall be requested for the future to send in their returns (required by the Medical Council under Section XVIII of the Medical Act, 1858) of exemptions from parts of examinations, and the results of examinations, in such a way that they can be presented to the Medical Council in the tabular form above indicated.
3. That, in accordance with the resolution of Council (Minutes, 1897, 41) assistant examiners for the Apothecaries' Hall be nominated by a committee elected for this purpose by the Medical Council and appointed by the President.
4. That an inspector be appointed under Section XVIII of the Medical Act, 1858, to visit the professional examinations held by the Apothecaries' Hall (other than the portions conducted by the assistant examiners) as often as he considers it necessary, to enable him to prepare an annual report to be submitted to the Medical Council dealing with the standard maintained, and the general character of such examinations.
5. That the inspector be appointed by the President, on the recommendation of the Committee referred to in No. 3. That the appointment be made in the first instance for one year, and that the remuneration of the inspector be 50 guineas for the year.
6. That for the future the Assistant Examiners in Surgery be required to report to the Medical Council only on the portion of the Final Examination which they conduct, describing the general standard of knowledge displayed by the candidates, and the facilities afforded to them for conducting the examination.
7. That for the future no payment be made out of the funds of the Medical Council to Assistant Examiners for duties required of them under Section 5 of the Medical Act, 1886.

Upon Recommendation 3 Dr. Adye-Curran said that the report was a cruel indictment of the body he represented. He had put down last session the motion that these reports should be discontinued, having regard to the many excellent reports received from the examiners, and why that motion was referred to the Examination Committee he did not know, unless it were to give an opportunity of reviving the fight with the Hall of years gone by by bringing up before the Council a rehash out of its musty volumes, in order to further malign and cripple its exertions in the Irish metropolis. Some twenty years ago the examination of the Apothecaries' Hall, Dublin, was reported upon as not being up to date, in common with many other bodies, and every half-year the fact was thrown in his face, and it was said, "This must be done," or something serious would happen, and an attempt was made to annihilate them, Apothecaries' Hall, Dublin. But it would fight to the last before submitting to being crushed out of existence by the Council. Many doctors under the Poor Law in Ireland could not hold their position unless they were compounders of some sort, and many of those who were otherwise qualified came up for the qualification of the Apothecaries' Hall, Dublin, in order to qualify themselves for holding appointments in Ireland, where they had to compound medicine. He protested that to adopt the recommendation that examiners should be appointed by the Committee would be taking a grave step without any just reason.

Dr. Macdonald inquired if it were a fact that previously the Council selected the examiners, and that the method was deliberately changed some years ago, and power given to the Apothecaries Hall, Dublin, to nominate.

The President replied that no power was given to the Hall to nominate. Any member could nominate, and sometimes it happened that the Apothecaries' Hall submitted a name; it was thought that nomination by the Council was the preferable method.

In reply to Mr. Verrall, the President said he had in emergency, such as the illness of an examiner, to appoint a substitute, but he felt the responsibility so great that he would be glad if the Council would undertake it.

Dr. Little said the argument Dr. Adye-Curran had advanced as to the necessity for men who were dispensary doctors in Ireland being able to compound was as old as the hills. The Poor Law Board, Ireland, fifty years ago first passed a resolution that medical men seeking appointments as dispensary doctors or Poor Law medical officers should have the double qualification.

On Recommendation 6 Dr. Adye-Curran said he understood that under the Act the assistant examiners could only report on the final examination. Now it appeared they were to report on a portion only of that examination.

After some further discussion, the recommendations of the Committee were adopted by the Council, together with the following resolution:

That the members of the Irish Branch Council be appointed a committee to nominate names to the President for assistant examiners in surgery to the Apothecaries' Hall of Ireland as vacancies arise.

Sir Charles Ball, Chairman of the Examination Committee, also presented the report of the Committee, accompanied by the reports of the assistant examiners, Sir Thomas Myles and Professor Conway Dwyer, on the final examinations of the Apothecaries' Hall, Dublin, held in January and April, 1913. Sir Charles Ball said it had been reported to the Examination Committee that at the surgical examinations at the Apothecaries' Hall, the examination on all subjects took place on one day. The candidates seemed to have been exhausted by the time the examination concluded.

The Examination Committee recommended:

That the examinations at the Apothecaries' Hall in clinical surgical paper, oral surgery (including surgical pathology), and surgical operations should occupy a period at each examination of at least two days.

Sir William Whitla seconded.

Dr. Adye-Curran said the reason the candidates were

exhausted was owing to one of the examiners coming late and so keeping the examination on to a late hour.

The recommendation was put and adopted.

STANDARD OF PRELIMINARY EDUCATION.

The report of the Education Committee upon the standard of the preliminary examination in general knowledge and upon the revision of the list of examinations to be recognized after the close of the year 1913 was presented by the Chairman (Dr. MACKAY), who called attention to the improvement that the report marked. The attention of the Council was frequently drawn to the insufficiency of the general education of practitioners, and in 1900 three educational experts were called in. They were concerned with the minimum general education to be recognized by the General Medical Council. The examinations were graded, and the term "junior examination" introduced. The Committee found year by year that the ages of those entering was increasing, and in 1910 the Council decided that certain junior examinations should cease to be recognized at the end of 1913. Certain bodies were anxious to meet the wishes of the Council as regards the standard to be observed in future, and Indian and Colonial bodies had been examining up to the standard required. It became necessary for the Education Committee to define once more the standard of examination which might be called the minimum test, and the idea of the Committee was that the standard should be of the nature of an intermediate examination. The Committee suggested that the whole examination should be passed in not more than two sittings. With regard to Indian and Colonial examinations the Committee recommended a revised list for approval by the Council. In conclusion he moved that the Council adopt the following recommendations of the Committee:

Recommendations [proposed to be] adopted by the Council to indicate the standard to be maintained in any Preliminary Examination in General Education:

I. THE CHARACTER OF THE EXAMINATION.

(*a*) In languages, each examination should be of not less than two hours' duration; and, if it includes questions on prescribed books, of not less than three hours' duration.

In mathematics (which should include arithmetic, algebra, and geometry) the examination should be of not less than three hours' duration.

(*b*) In each examination the questions should be such as to test, not merely memory, but a power of intelligent application of knowledge.

In English the paper should include an essay, and should test the candidate's power to apprehend the meaning of an unprepared passage. History and geography should form part of the examination.

In classics and modern language each paper should include a sufficient passage from an unprescribed book for translation into English; and questions on grammar. There should also be an adequate test of translation from English into the classical or modern language.

In arithmetic and algebra the questions and problems should involve intelligent knowledge of the principles underlying the rules. In geometry most of the questions should include a simple rider.

II. THE DISTRIBUTION OF MARKS.

In English not less than a third of the marks should be allotted to the essay and the unprepared passage taken together.

In classics and modern languages not more than a third of the marks should be allotted to translation from prescribed books.

In arithmetic and algebra the allotment of the marks among the questions should be, as far as possible, proportional to their difficulty, and the marks allotted to each question should be indicated upon the paper. In geometry simple riders to book questions should receive an adequate share of the marks.

III. The minimum percentage of pass in each subject should be:

(*a*) Latin, 50 per cent.: Greek, 45 per cent.
(*b*) Modern languages, 50 per cent.
(*c*) English, 50 per cent.
(*d*) Mathematics, 45 per cent.

[Section III was not adopted.]

IV. The whole examination should be passed at not more than two sittings; but candidates should be allowed to present themselves for re-examination as often as may be necessary to enable them to comply with this condition.

All the examining bodies should furnish yearly to the Council copies of the papers set at their examinations during the year for which the return is made.

The Committee also presented a list of examinations of Indian and Colonial bodies for recognition, in some instances only for the year 1914, pending the receipt of further information.

Dr. KNOX seconded.

Dr. THOMSON moved that instead of the words

> "Recommendations adopted by the Council to indicate the standard to be maintained in any preliminary examination in general education," the following should be substituted: "The Council herewith indicates the scope of the preliminary examination in general education necessary for recognition as qualifying for admission to the *Students' Register*."

Sir HENRY MORRIS seconded.

Mr. VERRALL, as a new member, desired to know the exact position with regard to the *Students' Register*.

The PRESIDENT said the Council established the *Students' Register* under no statutory authority, but for its own convenience, and in order that students might get on to it, it had said it would recognize all examinations that came up to a certain standard.

Dr. NORMAN MOORE observed that a man might become qualified without his name ever having been on the *Students' Register*, although it was a matter of great convenience that he should go on. His own feeling with regard to the report was that it was not a series of hard-and-fast regulations, but a general indication of the amount of general education the Council thought desirable for a man commencing his medical studies.

Sir CHRISTOPHER NIXON thought the Council should try and secure the concerted action of all educational bodies in the endeavour to obtain a school-leaving certificate which would show the character of the education, leaving a certain latitude as to the number of subjects.

Sir HENRY MORRIS agreed, and said that it would be useful if it were known that the Council was desirous of having such a certificate established.

The PRESIDENT observed that the opinion was expressed by it as long ago as 1904.

Some discussion then ensued as to the phraseology both of the amendment and the recommendation.

Dr. THOMSON, with the consent of the Council, recast his amendment to read:

> The Council herewith indicate the scope of the preliminary examination in general education recognized as qualifying for admission to the *Students' Register*.

The amendment was put and lost; thereupon

Dr. MACKAY withdrew the paragraph and substituted the following, which was agreed to:

> Recommendations adopted by the Council to indicate the scope and character of the preliminary examination in general education recognized as qualifying for admission to the *Students' Register*.

Dr. SAUNDBY moved that Recommendations Nos. I, II, III, and IV be referred back for further consideration.

Dr. NORMAN MOORE seconded.

Sir JOHN MOORE opposed, as it would be unfortunate to postpone communications with the Indian and Colonial bodies.

Sir HENRY MORRIS was of opinion that it would be a farce to adopt the proposals of the Committee omitting these recommendations.

Dr. MACDONALD did not see the use of the reference back, as it would only hang matters up for another eighteen months or so. No suggestion had been made, as far as he could see, as to how the means suggested by Dr. Mackay could otherwise be obtained.

Mr. TOMES thought provisional recognition might be given, as recommended in the report.

Sir F. CHAMPNEYS considered the Council was in a dilemma. In the circumstances the best thing to do would be to pass the Regulations in some such form as the Education Committee suggested, and then express a pious hope for an early introduction of the system of a school-leaving examination.

Dr. MACKAY, in reply, said the recommendations were just the answers the educational bodies wanted from the

Council, and if they were made more vague they would cease to be useful.

Dr. SAUNDBY said he was a persistent advocate for the improvement of preliminary education, and its present standard was exceedingly low; he hoped the Committee would take steps by which that could be improved.

The amendment was then put and lost.

Sir ARTHUR CHANCE moved to omit Paragraph III, including (*a*), (*b*), (*c*) and (*d*).

Sir JOHN MOORE seconded.

The amendment was put and declared carried, whereupon Dr. SAUNDBY asked for the names and numbers, when it appeared 16 voted for and 14 against.

Mr. THOMSON moved, and Sir HENRY MORRIS seconded, the omission of Clause II, but this was lost.

Sir HENRY MORRIS moved, and Dr. SAUNDBY seconded, the omission of the whole of the first clause.

This was lost.

Mr. THOMSON moved that the second paragraph of Recommendation IV should read: "All the examining bodies should be invited to furnish," etc.

Dr. MACKAY accepted the suggestion.

Dr. NORMAN MOORE suggested that Paragraph IV should read: "The several subjects should be passed at not more than two examinations."

Dr. MACKAY accepted the suggestion.

After some further discussion Sections I, II, and IV as amended were put as a whole and adopted. Whereupon Dr. MACKAY moved, Dr. NORMAN MOORE seconded, and it was resolved that Section B be approved.

Dr. MACKAY moved, Dr. NORMAN MOORE seconded, and it was resolved that Section C—

> The Committee recommend that the Preliminary Examination of the Royal College of Physicians and Surgeons, Ireland, continue to be recognized—

be approved.

Dr. MACKAY moved that subject to the maintenance of the standard defined in the Recommendations the Council should recognize the preliminary examination for medical students, conducted by the College of Preceptors; the preliminary medical examination of the Educational Institute of Scotland; the middle grade examination (with honours in three subjects) of the Intermediate Education Board of Ireland.

Dr. NORMAN MOORE had been strongly opposed to the inclusion of the Educational Institute of Scotland, but had been obliged to withdraw that opposition because there were people in Scotland who were unable to enter at any other preliminary examination for the purpose of entering the medical profession.

Mr. HODSDON said the Educational Institute was amongst the bodies which it was proposed to remove at the end of 1913, but, like other bodies, it had improved its examination, it had been inspected and most favourably reported on, and the Committee therefore felt justified in including them.

Dr. MACKAY's motion was agreed to.

Sir F. CHAMPNEYS moved as a rider to the report, and it was agreed:

> That the above recommendations be adopted in the hope of the early introduction of a system of school-leaving examinations in accordance with the suggestion of the General Medical Council of 1904.

ELECTION OF COMMITTEE.

On the motion of Dr. NORMAN MOORE the following nominations by the Branch Councils were adopted:

Examination Committee.—Dr. Taylor, Dr. Saundby, Dr. Caton (from English Branch Council), Sir Thomas Fraser, Dr. Russell, Dr. Norman Walker (from Scottish Branch Council), Sir John Moore, Sir Charles Ball, Dr. Kidd (from Irish Branch Council).

Education Committee.—Dr. Norman Moore, Sir G. Philipson, Sir Francis Champneys (from English Branch Council), Dr. Mackay, Mr. Hodsdon, Dr. Knox (from Scottish Branch Council), Sir Arthur Chance, Sir Christopher Nixon, Dr. Little (from Irish Branch Council).

Public Health Committee.—Dr. Lorrain Smith, Dr. Newsholme, Dr. Latimer (from English Branch Council), Dr. Norman Walker, Dr. Cash, Dr. McVail (from Scottish Branch Council), Sir John Moore, Dr. Adye-Curran, Dr. Kidd (from Irish Branch Council).

(To be continued.)

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

THE following notifications are announced by the Admiralty: Fleet Surgeon ROBERT D. JAMESON to the *Achilles* on recommissioning, June 5th; Staff Surgeon REGINALD THOMPSON to the *Hussar*, additional, June 10th, and *Hussar* on recommissioning, undated; Staff Surgeon ROBERT KENNEDY, M.B., to the Royal Marine Artillery, vice Thompson, June 20th; Surgeon JAMES G. DANSON to the *Achilles* on recommissioning, June 5th; Surgeon S. PUNCH to the *Endeavour*, May 27th; Surgeon FREDERICK ST. B. WICKHAM, lent to the *Blake*, temporary, June 7th.

The undermentioned Staff Surgeons have been advanced to the rank of Fleet Surgeons, May 25th: HUGH P. TURNBULL, CHARLES R. SHEWARD, M.B., SIDNEY ROACH, EUSTACE ARKWRIGHT, M.B., EDWARD D. J. O'MALLEY, WALTER K. HOPKINS, WALTER H. O. GARDE, F.R.C.S.Edin., RICHARD F. CLARK, ALGERNON CARTER BEAN, SAMUEL CONNER, M.B., ROBERT H. MORNEMENT, EDWIN FOLLIOTT, HENRY HUNT.

ROYAL NAVAL VOLUNTEER RESERVE.

CHARLES HENRY F. ATKINSON has been appointed Surgeon, May 22nd.

TERRITORIAL FORCE RESERVE.

ARMY MEDICAL SERVICE.

COLONEL RICHARD H. LUCE, M.B., F.R.C.S., late Assistant Director Medical Services, North Midland Territorial Division, to be Colonel, May 10th.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL EDWARD LLOYD WILLIAMS, to be Lieutenant-Colonel, March 31st.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-six of the largest English towns 8,864 births and 4,623 deaths were registered during the week ending Saturday, May 31st. The annual rate of mortality in these towns, which had been 13.9, 12.8, and 13.4 per 1,000 in the three preceding weeks, rose to 13.5 per 1,000 in the week under notice. In London last week the death-rate was equal to 12.9, against 13.6, 12.0, and 13.4 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 5.7 in Eastbourne, 5.9 in East Ham, 6.0 in Ilford, 6.6 in Southend-on-Sea, 6.7 in Walthamstow, and 7.1 in Dudley and in Newport (Mon.) to 19.2 in Sunderland, 20.9 in Stockton-on-Tees, 21.9 in Oldham, 22.2 in Stoke-on-Trent, 24.5 in Walsall, and 24.7 in Wigan. Measles caused a death-rate of 1.6 in Wolverhampton, 2.0 in Aberdare, 2.3 in West Bromwich, 2.8 in Smethwick, and 3.0 in Edmonton; scarlet fever of 2.6 in Tynemouth; whooping-cough of 1.3 in Norwich, 1.4 in Smethwick, and 1.5 in Edmonton; and diphtheria of 1.7 in Walsall. The mortality from enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 24, or 0.5 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; of this number, 4 were registered in Birmingham, 3 in Liverpool, 2 in Portsmouth, 2 in Stoke-on-Trent, and 2 in Sunderland. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,402, 1411, and 1,441 at the end of the three preceding weeks, had fallen to 1,430 on Saturday last; 177 new cases were admitted during the week, against 206, 171, and 193 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN the sixteen largest Scottish towns 1,223 births and 724 deaths were registered during the week ending Saturday, May 31st. The annual rate of mortality in these towns, which had been 16.6, 16.4, and 16.3 per 1,000 in the three preceding weeks, rose to 16.7 in the week under notice, and was 3.2 per 1,000 above the rate recorded in the ninety-six large English towns. Among the several towns the death-rates ranged from 3.0 in Kilmarnock, 6.1 in Ayr, and 8.8 in Falkirk to 18.9 in Paisley and in Hamilton, 20.1 in Greenock, and 24.7 in Aberdeen. The mortality from the principal infective diseases averaged 2.5 per 1,000, and was highest in Hamilton and Aberdeen. The 341 deaths from all causes registered in Glasgow included 20 from whooping-cough, 19 from measles, 6 from infantile diarrhoeal diseases, 5 from scarlet fever, 3 from enteric fever, and 1 from diphtheria. Twelve deaths from measles were recorded in Aberdeen and 2 in Dundee; 4 deaths from whooping-cough in Edinburgh, 3 in Aberdeen, 3 in Leith, and 2 each in Paisley, Greenock, and Motherwell; and 2 from diphtheria in Dundee.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ALL SAINTS' HOSPITAL FOR GENITO-URINARY DISEASES, Vauxhall Bridge Road, S.W.—(1) Three Assistant Surgeons; (2) Two Anæsthetists; (3) Bacteriologist.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BARNSLEY: BECKETT HOSPITAL AND DISPENSARY.—Junior House-Surgeon. Salary, £100 per annum.

BARROW-IN-FURNESS: NORTH LONSDALE HOSPITAL.—Junior Resident House-Surgeon. Salary, £100 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary, £80 per annum.

BIRKENHEAD UNION INFIRMARY.—Senior Male Resident Assistant Medical Officer. Salary, £150 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £200 per annum.

BIRMINGHAM GENERAL HOSPITAL.—Obstetric House-Surgeon. Salary at the rate of £50 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—House-Surgeon. Salary at the rate of £50 per annum, and bonus of £10 on satisfactory completion of six months' service.

BIRMINGHAM UNIVERSITY. — Demonstratorship in Anatomy. Stipend, £150 per annum.

BOLTON INFIRMARY AND DISPENSARY.—Third House-Surgeon. Salary, £90 per annum.

BOURNEMOUTH: ROYAL VICTORIA AND WEST HANTS HOSPITAL.—House-Surgeon. Salary, £80 per annum, rising to £100.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRISTOL GENERAL HOSPITAL. — Casualty House-Surgeon. Salary at the rate of £80 per annum.

BURNTWOOD: COUNTY MENTAL HOSPITAL.—Junior Assistant Medical Officer (male). Salary, £210 per annum, rising to £270.

BURY ST. EDMUNDS: WEST SUFFOLK GENERAL HOSPITAL. —Resident Medical Officer. Salary, £100 per annum.

CALCUTTA CORPORATION.—Health Officer. Monthly salary not less than Rs. 1500 and not more than Rs. 2000.

CANCER HOSPITAL, Fulham Road, S.W. — Senior and Junior House-Surgeons. Salary at the rate of £80 and £70 per annum respectively.

CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL. — Senior House-Surgeon. Salary, £120 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—(1) Senior House-Surgeon. (2) House-Physician. (3) Junior House-Surgeon. Salary, for (1) £120, and for (2) and (3) £90 per annum, increasing to £100.

DEVON COUNTY ASYLUM, Exminster.—Third and Fourth Assistant Medical Officers. Salary, £200 per annum each, rising to £250 and £220 respectively, increasing to £350 on promotion.

DORCHESTER: DORSET COUNTY HOSPITAL.—House-Surgeon. Salary, £100 per annum.

EDMONTON INFIRMARY.—Second Assistant Medical Officer. Salary, £140 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—House-Surgeon. Salary at the rate of £75 per annum.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of 100 guineas per annum.

FOLKESTONE: ROYAL VICTORIA HOSPITAL.—Resident House-Surgeon. Salary, £100 per annum.

GATESHEAD DISPENSARY.—Assistant Medical Officer. Salary, £200 per annum.

GREENWICH UNION.—Junior Assistant Medical Officer of the Infirmary and Workhouse. Salary, £100 per annum.

HALIFAX: ROYAL HALIFAX INFIRMARY. — Third House-Surgeon. Salary, £80 per annum.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Physician; (2) Two House-Surgeons, one for July 6th and the other for September 21st. Salary in each case £30 for six months and £2 10s. washing allowance.

KING'S COLLEGE HOSPITAL.—(1) Resident Casualty Officer; (2) Resident Assistant Clinical Pathologist.

LANCASTER: ROYAL LANCASTER INFIRMARY. — House-Surgeon. Salary, £110 per annum.

LEEDS: GENERAL INFIRMARY.—(1) Resident Surgical Officer; salary, £150 per annum. (2) House-Physician.

LEICESTER CORPORATION. — Assistant Medical Officer for the Tuberculosis Dispensary. Salary, £250 per annum.

LINCOLN COUNTY HOSPITAL. — Junior Male House-Surgeon. Salary at the rate of £100 per annum.

LINCOLN MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

LIVERPOOL HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Honorary Assistant Physician.

L.C.C. PECKHAM CENTRE FOR TREATMENT OF SCHOOL CHILDREN.—Local Practitioners. (*a*) For year ending July 31st, 1914: Medical Officers—one for *x*-ray treatment of ringworm; one for minor ailments. (*b*) For year ending July 31st, 1915: Anaesthetist; Medical Officers—two for nose, throat, and ear cases; two for *x*-ray treatment of ringworm; two for minor ailments; one for errors of refraction; and two qualified dentists.

LONDONDERRY DISTRICT LUNATIC ASYLUM.—Junior Male Assistant Medical Officer. Salary, £150 per annum.

LONDON HOSPITAL, Whitechapel, E.—Medical Registrar.

LOUGHBOROUGH AND DISTRICT GENERAL HOSPITAL.—Male Resident House-Surgeon. Salary, £120 per annum.

LOWESTOFT HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

MANCHESTER: BAGULEY SANATORIUM FOR THE TREATMENT OF TUBERCULOSIS.—Assistant Medical Officer. Salary £200 per annum.

MANCHESTER: NORTHERN HOSPITAL FOR WOMEN AND CHILDREN.—Junior House-Surgeon. Salary, £100 per annum.

MANCHESTER ROYAL INFIRMARY.—Assistant Medical Officer. Salary, £35 per annum.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—House-Surgeon. Honorarium £50 per annum.

MARGARET STREET HOSPITAL FOR CONSUMPTION, Margaret Street, W.—Assistant Honorary Physician.

METROPOLITAN HOSPITAL, Kingsland Road, N.E. — Medical Officer in charge of Electrical Department. Honorarium, £52 10s. per annum.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—House-Physician. Salary at the rate of £100 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead. — House-Physician. Salary, £75 per annum.

NESTING AND LUNNASTING PARISH COUNCIL. — Medical Officer. Salary, £50 per annum.

NEWCASTLE-UPON-TYNE DISPENSARY.—Vacancies on the Visiting Medical Assistants' Staff. Salary, £200 per annum.

NEW ZEALAND GOVERNMENT.—Medical Superintendent for the Waikata Sanatorium. Salary, £500 per annum.

NORTHAMPTON COUNTY ASYLUM, Berry Wood. — Assistant Medical Officer. Salary, £200 per annum, rising to £225.

NORTH RIDING ASYLUM, Clifton.—Male Second Assistant Medical Officer. Salary, £150 per annum, increasing to £220.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—Honorary Radiographer.

PLAISTOW: MEDICAL MISSION HOSPITAL. — Junior Resident Medical Officer (female) for Dispensary.

PLAISTOW: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £80 per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL. — House-Physician (male). Salary at the rate of £75 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—(1) House-Physician. (2) House-Surgeon. Salary at the rate of £80 per annum.

REDHILL: EARLSWOOD ASYLUM. — Junior Assistant Medical Officer. Salary, £150 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon (male). Salary, £100 per annum.

ROYAL EAR HOSPITAL, Soho, W.—Clinal Assistants.

ROYAL EYE HOSPITAL, Southwark. — Junior House-Surgeon. Salary at the rate of £50 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—(1) Assistant Anaesthetist; (2) Assistant to the Clinical Pathologist (females). Salary, £50 per annum each.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Salary at the rate of £120 per annum.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Senior Resident Medical Officer. Salary at the rate of £70 per annum.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN. — Assistant House-Surgeon. Salary, £80 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £80 per annum.

SHREWSBURY: COUNTY ASYLUM.—Second Assistant Medical Officer. Salary, £170 per annum, rising to £190.

SOUTHAMPTON COUNTY BOROUGH.—Assistant Medical Officer of Health. Salary, £200 per annum, rising to £250.

SOUTHAMPTON: FREE EYE HOSPITAL. —House-Surgeon. Salary, £100 per annum.

SOUTHPORT INFIRMARY.—Junior House and Visiting Surgeon (male). Salary, £80 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon (male). Salary, £90 per annum.

STIRLING: SECONDARY EDUCATION COMMITTEE OF STIRLINGSHIRE.—School Medical Inspector (male). Salary, £300 per annum.

STOKE-ON-TRENT: INFECTIOUS DISEASES HOSPITAL, Bucknall.—Lady Assistant Medical Officer. Salary, £100 per annum.

SUNDERLAND: MONKWEARMOUTH AND SOUTHWICK HOSPITAL.—House-Surgeon. Salary, £100 per annum.

TAUNTON: TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £80 per annum.

WAKEFIELD GENERAL HOSPITAL. — Second House-Surgeon. (male). Salary, £100 per annum.

WESTERN OPHTHALMIC HOSPITAL, Marylebone Road, N.W.—Two House-Surgeons (non-resident). Salary, £50 and £40 per annum respectively.

WEST HAM AND EASTERN GENERAL HOSPITAL.—Junior House-Physician. Salary at the rate of £75 per annum.

WEST HAM COUNTY BOROUGH.—Tuberculosis Officer. Salary, £500 per annum.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon. Salary, £120 per annum.

WOKINGHAM: PINEWOOD SANATORIUM.—Resident Assistant Medical Officer. Salary, £150 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

WORCESTERSHIRE COUNTY ASYLUM, Bromsgrove.—Second Assistant Medical Officer (male). Salary, £225 per annum.

WORCESTER GENERAL INFIRMARY.—House-Physician. Salary, £100 per annum.

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

ANGUS, William, M.D.Aberd., D.P.H.Camb., Assistant Medical Officer of Health and Chief Inspector of Nuisances for the City of Leeds.

BACH, E., M.B., B.S., M.R.C.S., L.R.C.P., Casualty Medical Officer to University College Hospital, W.C.

BATTEN, H. E., M.R.C.S., L.R.C.P., Assistant Medical Officer to the Hendon Infirmary of the Westminster Union.

BALL, W. Girling, F.R.C.S., Assistant Surgeon and Warden of the College to St. Bartholomew's Hospital.

CARMALT-JONES, D. W., M.D., M.R.C.P., Physician to Westminster Hospital.

DAW, S. W., F.R.C.S., Assistant Honorary Surgeon to the Leeds General Infirmary.

DOBSON, J. F., M.S., F.R.C.S., Honorary Surgeon to the Leeds General Infirmary, vice Mr. Littlewood, retired.

ELLIOTT, E. L., M.B., B.S.Lond., District Medical Officer of the Sevenoaks Union.

ETLINGER, F. Kincaid, M.R.C.S., L.R.C.P., Medical Superintendent of the Pinewood Sanatorium.

FINZI, N. S., M.B.Lond., Chief Assistant in the X-Ray Department, St. Bartholomew's Hospital.

GALLOWAY, Andrew F., M.D., C.M.Glasg., Surgeon to the City of London and East London Dispensary.

GOLDING, M., L.R.C.P. and S.Irel., District Medical Officer of the Bucklow Union.

HEWSON, R. Warreune Dale, L.R.C.P. and S.Edin., L.F.P.S.Glasg., Assistant Medical Officer to the Coton Hill Mental Hospital, Stafford.

LINDEMAN, G. B., M.B., Ch.M.Syd., Government Medical Officer, etc., Gunnedah, N.S.W.

PATTON, Alex., B.A., M.B., R.U.I., Medical Officer and Medical Officer of Health, Pomeroy, co. Tyrone.

POIGNAND, Ralph N., B.A., M.B., B.C.Cantab., M.R.C.S., L.R.C.P., District Medical Officer and Public Vaccinator of Stow Union.

THOMAS, J. Lynn, C.B., F.R.C.S., Honorary Consulting Surgeon to the Welsh National Memorial Association.

TURNER, G. J. K., M.B., District Medical Officer of the Lutterworth Union.

YOUNG, J., M.B., Ch.B.Glasg., Medical Officer of the Workhouse and Schools of the Ormskirk Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

MARRIAGE.

BANISTER—DIX.—On June 2nd, at Marylebone Parish Church, by the Rev. Howard Banister, Senior Curate of Great Yarmouth Parish Church (brother of the bridegroom), John Bright Banister, M.A., M.D., M.R.C.P., of 27, Welbeck Street, W., eldest son of Howard C. Banister, of Blundellsands, to Jacqueline Marion Marshall Dix, only daughter of Mrs. Dix, of London.

DEATHS.

MALCOLM SMITH.—At Sunninghill, Banchory, N.B., on the 3rd inst., D. Malcolm Smith, M.A., M.D., formerly of Liscard, Cheshire.

TARGETT.—On May 26th, James Henry Targett, Senior Obstetric Physician to Guy's Hospital, in his 51st year.

DIARY FOR THE WEEK.

TUESDAY.

ROYAL SOCIETY OF MEDICINE:
5 p.m., GENERAL MEETING OF FELLOWS: Election of Candidates for Fellowship.
SECTION OF SURGERY, 5.30 p.m.—Provincial meeting at Birmingham. Papers: Mr. Lawford Knaggs: Retro-peritoneal Rupture of the Duodenum. Mr. Jonathan Hutchinson: (1) A Note on the Treatment of Dupuytren's Contraction by an Improved Method. (2) The use of Kangaroo Tendon for Buried Sutures.

WEDNESDAY.

UNITED SERVICES MEDICAL SOCIETY, Royal Army Medical College, Grosvenor Road, S.W., 5 p.m.—Annual General Meeting.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION, Wednesday, 4.30 p.m.—Tuberculosis of the Mediastinal Glands in Children.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Wednesday. Radiography: Saturday. Special Lectures each week.

LONDON HOSPITAL MEDICAL COLLEGE, E.—Thursday, 2 p.m.: Motor Signs of Brain Action and Status.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC, Thursday, 4.15 p.m.—Surgical Cases for Diagnosis.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—Clinical demonstrations at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Surgical. Friday, Ear, Nose, and Throat. Special Lectures at 5.15 p.m. daily except Friday and Saturday.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Cerebellar Disease; Friday, 3.30 p.m., Clinical Lecture.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Special Summer Session Course: Demonstration of Clinical Methods, and of Selected Clinical Cases connected with Diseases of the Digestive System, with Clinical Lectures and Discussions from 11 a.m. to 5 p.m. daily.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Tuesday, 4 p.m., Paralysis and Paralytic Deformities in Children.

ROTUNDA HOSPITAL, DUBLIN.—Continuation of the Post-graduate Course on Obstetrics and Gynaecology daily throughout the week, except Saturday.

SEAMEN'S HOSPITAL SOCIETY, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical laboratory work daily (Saturday excepted) 10 to 12 a.m. Practical Entomology, 2 to 3.30 daily. Special Entomology, 10.30 to 1 p.m. daily. Medical Clinics, Tuesday and Thursday at 3 p.m. Operations, Friday at 3 p.m.

THROAT HOSPITAL, Golden Square, W.—Monday, 5.15 p.m., Special Demonstration on Selected Cases. Thursday, 5.15 p.m., Clinical Lecture.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, X Rays, and Operations, 2 p.m. daily. Gynaecology: Monday, Tuesday, Wednesday, and Friday. Eye: Monday, Wednesday, Thursday, and Saturday. Throat, Nose, and Ear: Tuesday, Wednesday, Friday, and Saturday. Skin: Tuesday and Friday. Pediatrics: Wednesday and Saturday. A Lecture at 5 p.m. daily except Saturday.

[*For further particulars of Lectures consult the Index to Advertisements.*]

DIARY OF THE ASSOCIATION.

Date.	Meetings to be Held.
	JUNE.
7 Sat.	Date of issue of Voting Papers for Council Election from Head Office.
10 Tues.	London: Metropolitan Counties Branch Council, 4 p.m. London: Public Health Committee, 3.30 p.m.
11 Wed.	London: Medico-Political Committee, 2 p.m. South-Eastern Branch, Annual Meeting, Guildford, 1.30 p.m.; Luncheon, 12.45 p.m.; Annual Dinner, 6.30 p.m. South-Western Branch, Annual Meeting, Torquay, 3 p.m.; Luncheon, 1 p.m. to 2.30 p.m.; Annual Dinner, 7.45 p.m. for 8 p.m.
12 Thur.	Dartford Division, Annual Meeting, Dartford, 3 p.m. Kensington Division, Annual Meeting, Kensington Town Hall, 5 p.m. South Midland Branch, Annual Meeting, Bedford.
13 Fri.	London: *Special Meeting of Council, 11 a.m.* (Reform of Constitution.) Midland Branch, Annual Meeting, Leicester, 3 p.m.; Luncheon, 1 to 2 p.m.
14 Sat.	Last day for receipt of Voting Papers at Head Office *re* Council Election.
17 Tues.	London: Organization Committee, 2.15 p.m.
18 Wed.	London: Hospitals Committee, 2.30 p.m. Buckingham Division, Annual Meeting, Buckingham, 3.30 p.m.
19 Thur.	Birmingham Branch, Annual Meeting, Medical Institute, 3 p.m.

Date.	Meetings to be Held.
	JUNE (*continued*).
19 Thur.	Fife Branch, Annual Meeting, Kirkcaldy, 3 p.m. Worcestershire and Herefordshire Branch, Annual Meeting, Kidderminster, 4 p.m.
20 Fri.	East Hertfordshire Division, Annual Meeting, Ware, 2.30 p.m.
25 Wed.	London: Finance Committee, 2.30 p.m. Central Division, Annual Meeting, Medical Institute, Edmund Street, 3.30 p.m.
26 Thur.	Edinburgh Branch, Annual Meeting, Royal College of Physicians' Hall, Queen Street, 4 p.m.
27 Fri.	Border Counties Branch, Annual Meeting, Carlisle. East York and North Lincoln Branch, Beverley, 4 p.m. South-Eastern Counties Division, Annua Meeting, St. Boswells, 3 p.m.
28 Sat.	Announcement of result of Election of Members to Council.
	JULY.
	ANNUAL MEETING, BRIGHTON, 1913.
	Annual Representative Meeting, July 18th, and following days.
	Presidential Address, Tuesday, July 22nd.
	Sections—Wednesday, July 23rd; Thursday, July 24th; and Friday, July 26th.
	International Medical Congress in London, August 6th to August 12th.

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SUPPLEMENT
TO THE
BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 14TH, 1913.

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National Insurance.

NATIONAL INSURANCE ACT.

MEDICAL AID INSTITUTES.

A DEPUTATION was received by the Chancellor of the Exchequer on Wednesday, June 4th, consisting of officers and supporters of various medical aid institutes and similar associations. The deputation was accompanied by Mr. Worthington-Evans and Mr. Leif Jones.

We understand that the general purpose which the members of the deputation had in view was to make representations against the effect of the present Regulations relating to medical aid associations and existing institutions. These Regulations provide, in effect, that the grants to be made to such institutions shall only cover the cost incurred in providing medical treatment and attendance for insured persons, which must be of an adequate character whilst allowing a proper margin for maintenance and expenses, and do not permit of a profit being made out of the medical service. The provisions of the Regulations are designed to carry out the undertakings given by the Chancellor of the Exchequer in November, 1911, that the contributions from the funds out of which medical benefit is payable are towards the cost of medical attendance and treatment, and will not be allowed to be devoted to other objects. It is to be hoped that the medical profession will be keenly alive to the principles which are involved in this agitation, and which also are presented in another form in the movement towards collective contracting out which has arisen in Wales.

It is quite evident that contracting out on a large scale is a procedure which may cut both ways, and if collective contracting out were once permitted to large groups of insured persons, and they were able to obtain the full money contribution allotted for medical benefit, and to make a profit out of its administration at the expense of the medical services, there would be nothing to prevent the money voted by Parliament for providing medical attendance and treatment for insured persons being applied to other objects. This is a side of contracting out which should be clearly borne in mind, and is a danger which may be attendant upon any ill-considered movement in this direction.

SICKNESS CLAIMS AND MEDICAL CERTIFICATES.

It would appear that statements and representations are being freely made by officers of approved societies to the effect that the demands upon the sick funds of the societies are greater than was anticipated, and that certificates of inability to work are being signed, it is said, by some medical men with too much readiness. Arising out of this the demand for the appointment of medical referees is attracting increased attention; and, apart from the circular issued by the General Medical Council, it is clearly to the interest of members of the medical profession that they should unite to prevent any abuses in this direction. A ground for this warning is found in the fact that there are signs of renewed agitation on the part of the older societies to be allowed to appoint their own medical

officers to attend upon their members. This, of course, would mean an amendment of the Insurance Act in a direction which, it is true, is not to be anticipated, but at the same time it is a movement which has strong support, and, if allowed to develop, would be very harmful to the best interests of medical practitioners. It is quite clear that the most effectual way of preventing it is to exercise constant care in the granting of certificates, and to see that no encouragement is given by any laxity to trivial or frivolous claims.

Warning Resolutions of the General Medical Council.

It may be convenient here to reproduce the warning notice issued by the General Medical Council in November, 1911:

Whereas registered medical practitioners are in certain cases bound by law to give, or may be from time to time called upon or requested to give, certificates signed by them in their professional capacity, for subsequent use either in courts of justice or for administrative purposes. And whereas such certificates include, *amongst others*:

Certificates:

(*a*) Under any statute relating to births, deaths or disposal of the dead.
(*b*) Under the Lunacy Acts.
(*c*) Under the Vaccination Acts.
(*d*) Under the Factory Acts.
(*e*) In relation to children or to excusing school attendance.
(*f*) In connexion with sick benefit, insurance and friendly societies.
(*g*) In connexion with workmen's compensation.
(*h*) In connexion with naval or merchant shipping.
(*i*) For procuring the issue of Foreign Office passports.
(*j*) For excusing attendance in courts of justice, in the public services, in public offices, or at ordinary employments.

And whereas it has been made to appear to the General Council from time to time that some registered medical practitioners have given and signed untrue, misleading, or improper certificates of the above specified or other descriptions.

Now, therefore, the General Medical Council hereby give notice that any registered medical practitioner who shall be shown to have given any untrue, misleading, or improper certificate, *whether relating to the several matters above specified or otherwise*, is liable to be adjudged by them to be guilty of "infamous conduct in a professional respect" and to have his name erased from the *Medical Register* under Section 29 of the Medical Act, 1858.

CANVASSING AND TOUTING.

In March last the President of the General Medical Council, as noted in the Supplement to the Journal of March 22nd, p. 265, wrote to the National Insurance Commission stating that the attention of the Council had been called to allegations that objectionable methods of advertising and canvassing had been employed in various parts of the country with the object of procuring the enrolment of insured persons and their dependants as the patients of particular medical practitioners. In some instances it was stated that the advertisements were so framed as to suggest that they were issued with the cognizance of the Insurance Commission or of local insurance authorities; in other instances touting or canvassing was said to have been practised in the supposed interest of approved societies and institutions, and of medical practitioners associated with the National Insurance service. The President went on to state that the Council had repeatedly taken steps to inform practitioners themselves of the grave liability they incurred by resorting to practices of this kind, and had more than once exercised its disciplinary functions in the restraint of wilful offenders. It appeared, however, that some of the local authorities, institutions, and societies concerned in the administration of medical benefit under the National Insurance Act might have acted in ignorance of the principle which guides professional conduct in relation to advertising and canvassing, and had thereby seriously endangered the position of practitioners professionally associated with them. The President therefore invited the Insurance Commissioners to call the attention of all Insurance Committees, Local Medical Committees, and approved societies and institutions to the following notices published by the General Medical Council on June 6th, 1889, and December 1st, 1905, and still operative:

Notices.

The General Medical Council considers that, in the interests of the medical profession, it is advisable to bring to the notice of its members certain resolutions which have from time to time been adopted as expressing the views of the Council upon certain forms of professional misconduct which have been or may be dealt with as amounting to "infamous conduct in a professional respect" within the meaning of Section 29 of the Medical Act, 1858. The Council, however, wishes it to be distinctly understood that these resolutions are not exhaustive of the forms of professional misconduct which may be dealt with by the General Medical Council under its disciplinary powers, and that the Council is not in any way precluded from considering and dealing with any form of professional misconduct outside the scope or precise language of the following resolutions:

(1) "That the Council strongly disapproves of medical practitioners associating themselves with medical aid associations which sytematically practise canvassing and advertising for the purpose of procuring patients." (June 6th, 1899.)

(2) "Whereas it has from time to time been made to appear to the General Medical Council that some registered medical practitioners have, with a view to their own gain and to the detriment of other practitioners, been in the habit of issuing or sanctioning the issue of advertisements of an objectionable character, or of employing or sanctioning the employment of agents or canvassers, for the purpose of procuring persons to become their patients: And whereas in the opinion of the Council such practices are contrary to the public interest and discreditable to the profession of medicine: The Council hereby gives notice that any registered medical practitioner resorting to such practices thereby renders himself liable to be charged under the 29th Section of the Medical Act, 1858, with 'infamous conduct in a professional respect,' and if after due inquiry he is judged by the Council to have been guilty of such conduct the Council may, if it sees fit, direct his name to be erased from the *Medical Register*." (December 1st, 1905.)

Copies of the letter addressed to the Insurance Commissioners, together with the resolutions quoted above, have recently been issued by the General Medical Council to secretaries of approved societies and institutions. (See also p. 527.)

THE POSITION IN SOUTH WALES.

Terms arranged at Swansea.

At a meeting in Swansea, on June 6th, attended by the Mayor and by representatives of the labour organizations, the friendly societies, and of medical practitioners (Drs. Nelson Jones, F. Knight, L. Freeman Marks, and Edgar Reid), a settlement was come to between the trade unions and the friendly societies and the medical practitioners in the Swansea district. The following terms of settlement were agreed to and signed by those present:

1. Rates of attendance to be 10s. 6d. for wife and children under 16 years per annum; 8s. 8d. for any one uninsured person per annum.
2. The fees to be collected by the friendly societies and labour organizations, and handed over quarterly to the medical men.
3. Each patient to have free choice of doctor from a panel of those willing to serve, and each doctor to have free choice of patients desiring his services.
4. No doctor whose conduct has received the ban of the British Medical Association shall be eligible for this panel.
5. The services to be rendered by the doctors shall conform to the regulations laid down in the Insurance Act.
6. Officials of the friendly societies and trade unions shall have free access to the doctors for consultation in regard to any number on the sick funds.
7. All ordinary certificates such as "going on" and "going off" notifications shall be granted free of cost.
8. The friendly societies and labour organizations pledge themselves to the following undertakings:

(*a*) That they oppose the formation of any medical aid society in Swansea.
(*b*) That they will use all the influence they possess to prevent the formation of any medical aid society in the districts served by the Swansea Hospital.
(*c*) That they will use all the influence they possess to get the kindred organizations in the district brought into line with the pledges given under (*a*) and (*b*).

9. The above undertakings are made in consideration of the recent resolution of the staff of the hospital—that is, refusing to treat patients from any medical aid society—being held in abeyance for a reasonable period, say till the end of the present year.

On the motion of Dr. KNIGHT, seconded by Mr. WILSON, one of the representatives of the labour organizations, a vote of thanks was carried to the Mayor for the leading part he had taken in bringing about the settlement.

The concessions made by the medical men are regarded as very generous. A Public Medical Service had already been started in Swansea to provide medical attendance and medicine for persons unable to pay the ordinary charges. All medical practitioners in the town and district became either honorary or active members of the service, which was open to all persons with incomes not exceeding £3 a week, who were given free choice of doctor from a list of fifteen names, subject to the consent of the doctor to act. The subscription for the service was 13s. per annum for the wife and (or) family under 16 years of age of an insured person, and for any one uninsured person 8s. 8d. per annum. It was arranged to charge the wives of permanently sick and aged members of friendly societies, 4s. 4d. per annum. The scheme provided that the subscriber was entitled to ordinary medical attendance and medicine, but not to attendance in respect of confinements, miscarriages, operations, or illnesses the result of personal misconduct. The friendly societies and labour organizations objected to these terms, and prepared the organization for a medical aid association to be put into force if the medical profession did not make concessions. The subscription to the association was to be 9s. 6d. per annum, and it was proposed to appoint two or three whole-time medical officers. At this stage the resolution of the staff of the Swansea Hospital, already published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 3rd, p. 398, was passed. This was followed by the announcement that the working classes proposed to stop their subscriptions to the hospital and so hamper the good work done in that institution.

The state of things which had come about in Swansea affected the whole of South Wales, as it was understood that in many places the lead of the friendly societies and labour organizations in Swansea would have been followed. It will be seen that in coming to the agreement last week in Swansea the medical practitioners have made the following concessions: They have accepted the rate of 10s. 6d. a year instead of 13s., but the lower rate will be the net payment to the practitioners, while from the higher rate proposed for the Public Medical Service, management expenses would have to be deducted; they have agreed to grant all ordinary certificates free of charge, and, according to Clause 5, to make no extra charge for operations, anaesthetics, etc. The terms now agreed establish free choice of doctor in place of the scheme for one or two doctors to be appointed by each society or club.

The settlement has been reached on the strict understanding that the labour organizations and friendly societies have pledged themselves to oppose the formation of any medical aid association in Swansea and the district, and to use their influence to disband those already formed. It is anticipated that the agreement will be loyally carried out on the side of the working man, and it is hoped that a friendly spirit will in future prevail between all the parties concerned. It will conduce to a satisfactory working of the agreement.

THE WELSH COAL FIELDS.

The position in the coal fields of Monmouth and Glamorgan still continues to be difficult and serious. We understand that, in response to the invitation that he should introduce the deputation to the Chancellor, Dr. Addison has visited South Wales, and that informal conferences have been held with a view to endeavouring to arrange a basis for negotiations. The Welsh Commissioners, as well as the Glamorgan and Monmouth Insurance Committees, must necessarily be parties to any settlement apart from the colliery surgeons and the workers' organizations, so that an adjustment of the differences presents peculiar difficulties. It is hoped, however, that a conference of a more definite character may be arranged at an early date.

LOCAL MEDICAL COMMITTEES.

BARROW-IN-FURNESS.

THIS Committee was recognized on March 4th for the current year. As originally constituted, it was composed of all the doctors on the panel, but it has since been enlarged to include all other qualified men in the town. The membership is 33—24 on the panel, 3 in general practice not on the panel, 1 retired, 1 in practice as a dentist only, and 4 holding whole-time appointments.

The following officers were elected for the year:

Chairman.—Dr. Daniel.
Honorary Secretary.—Dr. Lorton Wilson, Norwood, Barrow-in-Furness.
Executive Subcommittee.—Drs. Callaghan, Livingston, J. A. Reed and Thompson, with Chairman and Honorary Secretary *ex officio* members.
Representatives on Insurance Committee.—Drs. Livingston and J. A. Reed.
Representatives on Medical Service Subcommittee. — Drs. Alexander, Harper, and Livingston.

Constitution of New Committee.—A new constitution has been adopted and sent to the Commissioners for approval after this year. By this the Committee will consist of all qualified men in the town, and those district men on the panel for the borough; an executive subcommittee of 4, 3 elected from the panel, and 1 from the non-panel men, with the Chairman and Honorary Secretary as *ex officio* members. Nominations for the Chairman, Secretary, Committee, and Medical Representatives on Insurance Committee and on Medical Service Subcommittee are to be sent to the Secretary not later than three days before the annual meeting; if a contest is necessary, a postal vote is to be taken. All officers to hold office for a year, and to be eligible for re-election. The annual meeting is to be held in the first fortnight of January. A special meeting may be called at any time on a requisition from 20 per cent. of the members. The quorum for meetings of the Committee is to be 5, and for Subcommittee 3.

Certificates.—It was decided to charge 6d. for all extra certificates, and 2s. for examining new members for clubs.

Conferences with Chemists.—Two conferences have been held with the chemists, and a small pharmacopœia of thirty-five prescriptions has been drawn up. The new drug tariff was agreed to, including the clerical fee of 1d. on the understanding that the chemists continued to accept "Rep. mist." without any objection. Doctors were asked to supply duplicates of all original prescriptions; where this was not done the clerical fee would be charged; for repeat mixtures no duplicate would be necessary, and no clerical fee would be allowed.

Surgery Hours.—At the end of the first quarter it was unanimously agreed to have no surgery hours on Sundays or public holidays, but to attend urgent cases only.

Expenses of Committee.—The annual subscription is still unsettled, and a levy of 1s. a member has been collected to defray current expenses.

Malingering.—It was decided that this was a matter for the society complaining; the society should obtain the consent of the doctor in charge of the case to an independent examination, and should choose the consultant, preferably a man outside the town, and pay his fee, minimum one guinea.

Payment for First Quarter.—Payment was made for all names on each practitioner's list at the end of the quarter, the remaining money to be carried to a suspense account to be dealt with when the residue of patients are allotted. Many of the names on the lists are incorrectly placed there, as a good many medical cards were issued to insured persons over 65 not entitled to medical benefit.

Allocation.—A conference was held with the Medical Benefit Subcommittee, and the Local Medical Committee's scheme for allotment was agreed to. This was a division in equal shares, as far as possible by districts, but no practitioner is to be allowed more than 2,000 (fixed locally as a limit). Any practitioner who wishes to limit his list to a smaller number is to be allowed to do so.

Medical Benefit Subcommittee.—The question of placing a medical man on the Medical Benefit Subcommittee was brought up at this meeting, and Dr. Livingston was appointed as a result.

Temporary Residents.—The following resolution was unanimously approved and sent to the Commissioners:

> That inasmuch as the medical profession has been guaranteed a minimum capitation fee of 7s. per head per annum, we decline to accept Memorandums 159 and 161/I.C. as a fair solution of the question of payment for medical attendance on temporary residents, as it must involve the reduction of the amount of the capitation fee.

It was agreed to refuse to attend temporary residents except as private patients.

Income Limit.—The question of an income limit has been postponed till the election of the new Insurance Committee has taken place.

Committee Deputies. — The medical men on the Insurance Committee have been asked to urge on the Committee that deputies should be allowed to act for the medical men on the Committee, and that a doctor should be placed on all Subcommittees.

Persons over 65.—It was decided that no attendance be given to persons over 65 below the insurance rates—namely, 8s. 6d. including medicine, or 7s. without medicine.

Certificates for Sickness Benefit after Confinement.—It was decided that certificates for sickness benefit after confinement—as distinct from maternity benefit—in cases attended by a midwife only be a matter for private arrangement between doctor and patient, this being no part of a doctor's duty under the Insurance Act.

WEST RIDING OF YORKSHIRE.

The ninth meeting of the Local Medical Committee of the county of the West Riding of Yorkshire was held on May 30th. Dr. R. May was in the chair, and twenty-seven members were present.

District Insurance Committees.—A letter was read from the Clerk of the Insurance Committee acknowledging receipt of the resolution passed at the previous meeting, in which increased medical representation was demanded, and promising that the resolution should be submitted to the next meeting of the Medical Benefit Subcommittee.

Rules for Administration of Medical Benefit.—A letter was read from the Clerk stating that the applications of the Local Medical Committee for prints of these rules to be supplied to practitioners and insured persons had been considered by the Medical Benefit Subcommittee, which could not see its way to accede to the request. It was decided to renew the application.

Income Limit.—A letter from the Clerk was read stating that the resolutions which were carried unanimously by the Local Medical Committee at a meeting on April 11th had been considered by the Medical Benefit Subcommittee, which decided that no action be taken for the present, but that the matter should be reconsidered when the Insurance Committee was reconstituted in July.

New Representatives on the Local Medical Committee.—The Honorary Secretary read a letter from the Commissioners recognizing the recent changes in the constitution of the Committee, whereupon the three new members were welcomed by the Chairman, and took their seats—namely, Dr. Orford (Pontefract), Dr. Craik (Swinton), and Dr. Ross (Selby).

Excessive Ordering of Drugs.—With reference to the case of excessive ordering of drugs, noticed in the Supplement of May 24th, p. 459, it was reported that, after investigating the circumstances and hearing the practitioner concerned, the Committee reluctantly came to the conclusion that, under Regulation 46, the Insurance Committee might fairly surcharge him, should it think fit, for certain of the articles prescribed. The Secretary was directed to communicate this decision to the Clerk.

Pharmacopœia: Tariff of Drugs.—A further report of the Pharmacopœia Subcommittee was received, and, after discussion, the report, together with the draft pharmacopœia, was referred back to the Subcommittee for further consideration and amendment. The report of the Subcommittee on the revised tariff of drugs, etc., declining to approve the tariff, as being premature and uncalled for, was adopted. The Subcommittee was directed to prepare a list of articles deemed to be foods or proprietary articles which should not be prescribed as medicines, to be printed and circulated for the consideration of the Local Medical Committee.

KINGSTON-UPON-HULL.

Temporary Residents.—At a meeting of the Kingston-upon-Hull Local Medical Committee, held on June 3rd, the following resolution was passed:

> With regard to insured persons temporarily absent from home, the members of the Local Medical Committee are not willing to consent to, and protest against, any deduction from the remuneration of practitioners greater than the proportion of the capitation fees which covers the periods for which the practitioners cease to be responsible for the treatment of such insured persons.

EAST SUFFOLK.

Meetings of the East Suffolk Medical Committee have been held on April 24th, May 25th, and June 3rd.

Temporary Residents.—The Committee has recommended that temporary residents should be treated as private patients only, and should therefore not be accepted on lists as insured persons, and that the green vouchers should be ignored.

Tuberculosis Cases.—A suggested scale of fees for domiciliary attendance on these cases was considered and agreed to, with the exception of the item that 5s. could not be accepted as the limit allowed for attendance on any one case a week.

Payment of Accounts.—The action of the Insurance Committee in refusing to pay accounts of doctors (who had not signed the new agreement) for dispensing during the previous quarter was criticized, and the Honorary Secretary reported that as the result of further correspondence the Insurance Committee had admitted its liability, and orders had been given for the accounts to be paid.

CARDIFF.

The following is a list of the members of the Local Medical Committee:

Chairman.—Dr. Thos. Wallace.
Vice-Chairman.—Dr. Jas. Robinson.
Secretaries.—Drs. W. B. Crawford Treasure and E. E. Brierley.

Committee.

Dr. H. Campbell	Dr. H. Samuel
Dr. T. A. Chave	Dr. A. W. Sheen
Dr. H. G. G. Cook	Dr. H. E. Skyrme
Dr. E. T. Collins	Dr. R. J. Smith
Dr. D. Cargill Martin	Dr. W. Mitchell Stevens
Dr. Wm. Martin	Dr. C. T. Vachell
Dr. W. A. Neish	Dr. W. J. Corrigan } co-opted
Dr. H. Paterson	Dr. A. L. Thornley } co-opted
Dr. A. S. J. Pearse	

The Committee has been recognized by the Welsh Insurance Commissioners and six meetings have been held. Among the matters dealt with have been the rules for insured persons and the provision of a pharmacopœia which has been issued to the local practitioners. The Committee has undertaken the allocation of insured persons who had been refused by the medical men of their choice, and has arranged for their attendance in several cases by the nearest medical man available.

CORNWALL.

The following resolutions were adopted at a meeting of the Cornwall Medical Committee held at St. Austell on May 27th:

Distribution of Mileage Grant.—That meetings be called by the conveners in each district.

That the medical men in each district check the lists of insured persons, ruling out all persons who live within three miles by road of any doctor on the panel, and make a return to the County Medical Committee of:

(*a*) Number of patients in each practice living beyond a three-mile radius.

(*b*) All points in connexion with difficulty of access in any special cases.

Temporary Residents.—That we should urge on all practitioners in Cornwall:

(*a*) Not to agree to any deduction from moneys due to

them under the Insurance Act for the purposes of the scheme outlined in Memorandum 161.

(From this Memorandum it appears that the attendance of visitors is to be paid for out of a central fund, which will be formed out of moneys deducted from that due to practitioners in the district from which the visitor comes. And then the Commissioners only promise to pay a dividend.)

(*b*) Only to treat the above-mentioned classes of insured persons as private patients until such time as suitable arrangements are provided by the Commissioners.

Medical Certificates for Sickness Benefit in Respect to Cases Attended by Midwives.—That it is no part of the duties of insurance service practitioners, under their agreement, to visit maternity cases for the purpose of giving certificates, when such cases have been under the care of midwives, and it is hoped that imposition of this kind will be resisted by the individual practitioners and by the Local Medical Committees.

Fees for Non-Insured Members of Clubs.—That 8s. 6d. per head per annum be the charge for all non-insured members of clubs who were under the age of 65 years in July, 1911.

That the District Medical Committees be informed of this, and asked to see that this is carried out everywhere, and report to the County Medical Committee.

That non-insured persons (being members of clubs) over 65 years of age in July, 1911, be treated at the old rate, plus 2s. 6d. Government grant, where it was payable.

District Committees.—The Honorary Secretary to send to each district convener a list of men in his district, and ask him, when he calls his meeting, to arrange for the election of four medical representatives to serve on the District Insurance Committees.

(The names of those elected as representatives ought to be sent in, immediately after the election takes place, to Dr. J. W. Haughton, "Tannachie," Wood Lane, Falmouth, Honorary Secretary, Cornwall Medical Committee.)

HAMPSTEAD.

A MEETING of the Hampstead Provisional Medical Committee was held on June 5th, when Dr. J. FORD ANDERSON was in the chair and nine members were present.

National Insurance Act.—A letter from the Medical Secretary of the British Medical Association with reference to charges by chemists for copying prescriptions was read, and the consideration of documents relating to the expenses and co-ordination of Local Medical Committees, and regarding temporary residents, received from the Medical Secretary through the Honorary Secretary of the Hampstead Division, were postponed until there was a properly constituted medical committee able to deal with them.

MEETINGS OF INSURANCE COMMITTEES.

LONDON.

Distribution of Unalloted Funds.

A SPECIAL meeting of the London Insurance Committee was held on June 5th to consider the allocation of the funds accumulated in respect of 400,000 persons who had not exercised their right to select a doctor.

It will be recalled that at the last meeting of the Committee (BRITISH MEDICAL JOURNAL SUPPLEMENT, May 31st, p. 475) a proposal to distribute the money (£34,000) in proportion to the number of insured persons up to 2,000 on the list of each practitioner on the panel was withdrawn in order that the legal aspects might be considered. The Medical Benefit Subcommittee now recommended that the Insurance Commissioners be asked to take the opinion of the Law Officers of the Crown on the following points:

1. Whether, in view of the fact that there has been no allocation either by number or by name to doctors of insured persons who have not been accepted by a doctor, the Committee is (i) compelled, or (ii) has the right, to distribute the amount appropriated for medical benefit and domiciliary treatment in connexion with sanatorium benefit in respect of such insured persons, and which is approximately £34,000, among the doctors who, on or before April 14th, 1913, had joined the London panel.

2. If the reply is in the affirmative to either of the alternatives above mentioned, whether the Committee is empowered to adopt all or any of the methods suggested in Circular 10/I.C., dated February 18th, 1913, and also to set aside a certain portion of the sum in hand for the purpose of refunding to insured persons who had not made use of their medical tickets sums paid by them to doctors on the panel for attendance upon them during the period January 13th to April 14th, 1913.

3. If the reply is in the negative to both the alternatives above mentioned the Committee will be (i) compelled, or (ii) has the right to distribute the amount after the allocation of the residue of insured persons to the doctors has been made, and, if so, (iii) whether only to those doctors who were on the panel during the first quarter, or (iv) to all the doctors on the panel at the time of the allocation of the persons.

4. If the reply to the questions in the foregoing paragraphs 1 and 3 is in the negative, in what way the above-mentioned sum of £34,000 should be dealt with by the Committee.

5. Whether the Committee is justified in treating the amount to be distributed or otherwise dealt with as at the rate of 7s. per annum per insured person, notwithstanding that of this amount 2s. 6d. per insured person has not been authorized by Act of Parliament, but rests on a resolution of the House of Commons voting a supplemental amount to meet such 2s. 6d. per insured person.

6. Generally with regard to the matter.

Mr. O. E. WARBURG (Chairman of the Medical Service Subcommittee) moved an amendment:

That inasmuch as insured persons who have not selected a doctor are equitably entitled to the value of the treatment for which they have paid, it be referred to the Medical Benefit Subcommittee to consider and report as to the arrangements necessary to allow of the money due to those persons being carried to the Special Arrangements Fund.

Mr. Warburg said it was inequitable that money accrued in respect of persons who had not chosen a doctor should be allocated to practitioners on the panel who had performed no service to those persons nor had them allotted. He did not think medical men on the panel would desire to be paid for services they had not rendered or be given fees in respect of persons they had not undertaken to attend.

Dr. EVAN JONES seconded. He said that as these 400,000 people had not availed themselves yet of the services of any doctor and had paid their own medical bills, they were entitled to have the contributions they had paid held over for their own benefit. He was doubtful whether the accumulated funds would ever materialize; he thought that any money not spent out of the special 2s. 6d. provided by the Government would be retained by the Treasury.

Mr. MOFFREY suggested that Mr. Warburg's proposal should be submitted with the others for the opinion of the Law Officers of the Crown.

Dr. LAURISTON SHAW hoped this would be done. At the same time, he remarked that it would be ridiculous to suggest that the 400,000 people had received nothing during the last four months. They had received cover and the doctors had taken the insurance risk, for which they should receive payment.

Dr. H. H. MILLS opposed the amendment. He said that the reason the number 400,000 remained as high as it was was that the people had not become ill. Many of them were young adult persons who would probably not be ill in the first months or even years of the working of the Act. The amendment vitiated the principle of insurance, and in equity the money should be paid to the doctors who had undertaken the risk of sickness in the county during the time the money had accrued. Postponement of payment would be a great injustice to the medical profession. He hoped the Committee would proceed not to allot persons, because there were difficulties attached to that, but certainly to allot numbers of insured persons to individual doctors. He had the authority of the Chairman of the Joint Committee for stating that the money available for medical benefit would not be paid except to those doctors actually on the lists for the quarter.

Mr. KINGSLEY WOOD hoped that statement would not be taken as the last word on the subject.

The CHAIRMAN said he ought to have stopped Dr. Mills from making the statement.

Mr. F. BRIANT said that the persons who had not chosen a doctor were mainly of the indifferent and careless class. The amendment proposed to give them special consideration which other persons had not obtained. It placed a premium on the carelessness and indifference that had been one of the greatest difficulties in getting the Act into operation at all.

Mr. EDWARD SMITH thought the amendment ill-advised; the doctors on the panel might as well be asked to repay the moneys they had received in respect of persons who had been accepted but who had not received treatment. How would Dr. Evan Jones like his colleagues to be asked to do that? To submit this proposal to the Law Officers would be to make the Committee look ridiculous.

The CHAIRMAN remarked that he could not accept the amendment; and Mr. WARBURG said that as the feeling of

the Committee was obviously against him he would withdraw it.

Mr. KINGSLEY WOOD proposed that counsel's opinion, instead of that of the Law Officers, be taken, but after some debate this proposal was lost.

The recommendations of the Subcommittee as set out above were then carried.

The Medical Benefit Subcommittee also recommended:

> That the further consideration of the question of the distribution of the amount available in the panel fund be postponed until the opinion of the Law Officers has been received.

Mr. KINGSLEY WOOD moved an amendment:

> That no distribution shall be made of the amount in the panel fund until after the complete assignment of insured persons amongst the doctors on the panel.

He said there had been a great deal of heartburning amongst medical men in London as to the distribution of the amount accumulated, and he wanted the Committee to establish the principle that no allotment would be made until all the insured persons had been assigned. He felt that to be the intention of the Act and Regulations.

Mr. ROCKLIFF seconded.

Mr. COYSH hoped this proposal would not be carried. It was well known at the offices of the Committee that the assignment of insured persons could not be made for some months.

Dr. LAURISTON SHAW thought the doctors on the panel would hardly feel themselves to be properly treated if this proposal were carried.

Mr. BEN COOPER remarked that the amendment assumed a right on the part of the doctors to the money.

The CHAIRMAN asked Mr. Wood not to press the amendment, as it rather prejudged the questions to be submitted to the Law Officers.

The amendment was withdrawn and the recommendation carried.

Proposed Extension of Contracting-Out.

The Committee considered the adjourned recommendations of the Medical Benefit Subcommittee for the extension of contracting out under the conditions set out in the SUPPLEMENT of May 31st, p. 476.

Mr. COYSH moved an amendment to the effect that the Medical Benefit Subcommittee should consider each application on its merits. He said the General Purposes Subcommittee, on whose behalf he moved the amendment, felt there would be a risk in classifying definitely the classes of people who would be allowed to contract out. The Committee should have a perfectly free hand, but he hoped it would be understood that there would be no factious opposition, and that persons who made out a clear and reasonable case would have their applications granted.

The amendment was carried, with the proviso that the final decision should rest with the Insurance Committee. The report of the Subcommittee as amended was then approved.

ISLE OF WIGHT.

Medical Representation on Subcommittees.—At the last meeting of the Isle of Wight Insurance Committee a letter was read from Dr. J. W. Pridmore, Honorary Secretary of the Local Medical Committee, asking that one more medical representative might be placed on each Subcommittee of the Insurance Committee, and that a deputy might be allowed to attend if the member appointed was unable to be present. [At the last meeting it was decided, contrary to the wishes of the profession, to appoint only one of the three medical men on the Committee to each of the Subcommittees (SUPPLEMENT, April 19th, p. 338)].

Dr. G. BENINGTON WOOD urged that the acceptance of the proposal of the Local Medical Committee would promote goodwill and concord. The attitude the Committee had adopted up to the present suggested that it did not realize that the Local Medical Committee was a statutory body, and had a right of appeal to the Insurance Commissioners. The proposal was seconded by Dr. ROBERTSON, but opposed by several speakers, including Dr. WALKER.

The Committee decided not to accede to the request of the Local Medical Committee.

Other Medical Business.

A further letter was read from the Local Medical Committee asking that matters connected with the administration of medical benefit might be debated in private, and referred in the first place to the Medical Service Subcommittee; that the form of contract with medical men on the panel should be referred to the Local Medical Committee for consideration before being sent to the practitioners for signature; and that a common form of medical certificate should be adopted.

Some members expressed the wish that no notice should be taken of the letter, but by a majority it was decided that the letter be referred to a subcommittee.

Temporary Residents.

The following resolution, passed at a meeting of practitioners serving on the Isle of Wight panel, held at Newport on June 3rd, was afterwards adopted by the Local Medical Committee, and forwarded to the Insurance Committee and to the Insurance Commissioners (England):

> That this meeting advises all practitioners on the panel to refuse to treat insured persons temporarily resident outside their own district, except as private or non-paying patients, until arrangements satisfactory to the profession have been formulated by the Commissioners, and also to decline to agree to any deduction from the amount which they should receive under their agreement for a capitation payment for the purpose of forming a fund for the provision of medical benefit for temporary residents.

OLDHAM.

Temporary Residents.

The Finance Subcommittee of the Oldham Insurance Committee on May 30th adopted the following resolution:

> That no further green vouchers be issued until definite information is forthcoming as to the source of the income wherewith to meet the liability thus incurred.

This resolution was forwarded to the Commissioners, but we understand that no reply has been received. At an earlier date representations had been made to the Commissioners objecting to the proposal to arrive at the "case value" by taking the number of persons who had been sick during any year in the area as a basis of calculation, and it was argued that the basis that should be taken was the number of cases of sickness, since many insured people had many attacks of sickness in the year. When the Memorandums 159 and 161/I.C. were published, and it was seen that the case value was there calculated on the basis of sick persons, and not on cases of sickness, further representations were made to the Commissioners, who on May 31st replied that the question as to the precise method of reckoning cases for the calculation of the case value to be transferred to the Central Fund was under consideration.

INSURANCE NOTES.

EMPLOYERS' PARLIAMENTARY ASSOCIATION.

SIR CHARLES W. MACARA, Bart., President of the Employers' Parliamentary Association, has addressed a letter to the press, in which, on the part of his association, he expresses a strong opinion that a special Commission of a thoroughly representative character should at once be appointed to consider the insurance scheme with a view to such material amendment as may be found necessary, and that until this commission has reported no serious attempt should be made to amend the Act. He considers that in existing conditions of parliamentary business Parliament cannot give time to the consideration of the hundreds of amendments suggested, and that a repetition of the rushing tactics pursued in 1911 may result in making confusion worse confounded. He recalls the fact that during the passage of the bill through the House of Commons he took occasion to urge on the Chancellor of the Exchequer the necessity for due consideration of the measure, and that later on he and the association he represents strongly urged a postponement of the date of the coming into force until January, 1913, and proposed to the Prime Minister to receive a deputation of representatives of the great industrial employers in the kingdom, a request which Mr. Asquith refused. The case for postponement of the date of bringing the Act into

operation rested, Sir Charles Macara says, upon the view that the scheme was ridiculously complicated, needlessly cumbersome, grossly extravagant, and, moreover, that the incidence of taxation under it was evidently unequal and inequitable. He now contends that already, though sickness benefit has been payable for less than six months, the responsible leaders of approved societies are alarmed at the grave increase of malingering and in sickness claims, which threaten their institutions with insolvency, and are destroying the morale of a people hitherto noted for their self-reliance. While not opposed to a scheme of national sick insurance founded upon a knowledge of industrial conditions and upon experience, he considers that the Act operates most harshly upon those who need most consideration and help; that it is financially unsound; that it will issue in bitter disappointment to thousands; that its conditions and restrictions are arbitrary and offensive; that its incidence is invidious and unjust, and must ultimately result in increasing the cost of living and the burden of life; and that all these evils could have been avoided if reasonable time had been taken to enable those most interested to give the scheme due and proper consideration. He traverses the statement of the Chancellor of the Exchequer and his friends that the Act is working smoothly, and alleges that as regards vast numbers of people the scheme is as yet a dead letter, and that people are being compelled to pay but are not in many instances getting the benefits. Sir Charles Macara, as a member of the Liberal party, discusses the effect of the Act upon the prospect of that party, a matter into which we need not follow him.

STATEMENT OF NATURE OF DISEASE UPON CERTIFICATES.

At a meeting of the Lancashire and Cheshire Miners' Federation in Manchester, on June 7th, it was stated that the Insurance Commissioners were asking approved societies to require the nature of an illness to be stated on medical certificates for sickness benefit, and that certain societies were making this requirement. It was also stated that medical men were refusing to comply with this condition, and the delegates at the meeting passed a resolution "strongly supporting" the medical men in this action, and protesting against societies requiring the illness to be stated on medical certificates, as they believe it "to be fraught with the gravest danger to the interests of working people." It was also stated that Mr. Masterman's attention had been drawn to the matter.

MANCHESTER AND SALFORD.

A union of medical practitioners who are not working the Insurance Act has been formed under the title of the Northern Division of Non-panel Doctors (Manchester and Salford). The honorary secretary is Dr. Andrew C. Clarke, 402, Bury New Road, Higher Broughton, Manchester.

REPORTS OF LOCAL ACTION.

LONDON.

PROPOSED TRANSFORMATION OF THE MEDICAL COMMITTEE FOR THE COUNTY OF LONDON.

DR. B. G. MORISON (Islington, N.) writes: Dr. Haslip, in criticizing my letter in last week's issue (p. 502), refers to what he calls its personal side. I should like to state that I deliberately avoided personalities, which appear to me to be best left out of controversy. Moreover, I did not know of any particular person to whom the responsibility for the proceedings objected to should be attached. Dr. Haslip mentions the names of Mr. Evan Jones and Mr. E. B. Turner. I have always regarded both of these as honourable gentlemen who have done excellent work for their profession, and so I still regard them, even while differing from some of their opinions. Of Dr. Haslip himself I may say the same. I have no wish to discuss anew the procedure in connexion with the meeting of June 2nd; accusations would be odious and extenuations compromising.

SCOTLAND.

SCOTTISH MEDICAL INSURANCE COUNCIL.

THE Chairman of the Scottish Medical Insurance Council, Dr. William Russell, has by a circular dated June 3rd intimated its dissolution. The circular states that when the Council was formed it was determined that it should consist of representatives of the medical faculties of the four Scottish universities, of the three medical corporations, of the Scottish Committee of the British Medical Association, and of a representative elected by the practitioners in each Scottish insurance area. The circular goes on to state that a letter had been received from the Scottish Committee of the British Medical Association stating that it had unanimously decided to withdraw from the Scottish Medical Insurance Council. The Chairman of the Council took the view that having been constituted in the manner indicated above, the withdrawal of any one of the participating bodies led necessarily to the dissolution of the Council. His letter concluded with the following statement: "Whether the Council will be reconstituted at some future date will probably be determined by those who hold that the National Insurance Act requires drastic amendment in the interests of the public health as well as of the medical profession.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

A MEETING of the State Sickness Insurance Committee appointed by the Special Representative Meeting in November, 1912, was held at the house of the Association, 429, Strand, W.C., on Thursday, June 5th. Mr. T. JENNER VERRALL (Chairman of Representative Meetings) was in the chair, and the members present were:—*England and Wales:* Dr. R. M. Beaton (London), Mr. C. E. S. Flemming (Bradford-on-Avon), Dr. E. R. Fothergill (Brighton), Dr. Herbert Jones (Hereford), Dr. D. F. Todd (Sunderland), Mr. E. B. Turner (London). *Scotland:* Dr. John Adams (Glasgow), Dr. R. McKenzie Johnston (Edinburgh).

CERTIFICATES.

The Committee considered in connexion with communications it had received, the difficulties which have arisen in certain areas with respect to the number of separate certificates demanded by many approved societies. It was reported that the issue of a universal form of certificate promised by the Commissioners might be expected at an early date, and that at the last meeting of the Advisory Committee Sir Robert Morant had, in reply to a question, stated definitely that the only certificates which could, under the terms of the agreement, be required of medical practitioners were the initial certificate, the continuing certificate, and the final certificate.

CONFERENCE OF REPRESENTATIVES OF LOCAL MEDICAL COMMITTEES.

A communication was received from the local Honorary Secretary of the Annual Meeting at Brighton, stating that Mr. E. B. Turner had consented to act as chairman of the conference of representatives of Local Medical Committees to be held in Brighton during the Annual Meeting of the Association in that town.

The Chairman of the Committee, Mr. E. B. Turner, and the Medical Secretary were appointed to act in co-operation with the Brighton executive in arranging the agenda for the conference.

CANVASSING AND ADVERTISING IN CONNEXION WITH THE INSURANCE ACT.

The Medical Secretary reported that he had received the following letter, dated June 3rd, from the Registrar of the General Medical Council:

Dear Dr. Cox,

With reference to your letters of the 15th and 22nd April, relating to canvassing and advertising on behalf of medical men, the matter was considered by the National Insurance Act Committee of the Council during the recent Session, and in a few days I shall be issuing to the Secretaries of all approved Societies and to Societies under Section 15 (4) a copy of the letter which was recently addressed to the National Health Insurance Commission.

I think I am interpreting correctly the feeling of the Committee when I say that practitioners have been so

overwhelmed with circulars lately, and pamphlets of all sorts from the Commissioners and others, that the chances are that they would not read carefully a warning which was addressed to them, and consequently the very great expense involved would not be justified. The greatest offenders probably are the Societies, which frequently are ignorant of the subject of advertisements, and it is hoped therefore that one may to a large extent put a stop to the evil by means of circularizing them. I may mention that it will involve sending out something like 5,000 circulars as it is.

Yours faithfully,
(Signed) Norman C. King,
Registrar.

The Committee adopted the following resolution:

That the Registrar of the General Medical Council be informed that the Committee regrets that the letter addressed by the Council to the Insurance Commissioners and subsequently published in the medical press, concerning the subject of advertising in connexion with the National Insurance Act, appears to have been insufficient to prevent such practices; that the Committee would suggest for the consideration of the General Medical Council that a fresh circular couched in much stronger terms be issued; that the Committee, while noting the proposal to issue a copy of the previous letter to all approved societies and to "institutes" recognized under the Act, is of opinion that members of the profession should have the views of the Council brought to their notice individually; that the Committee, while not pressing the latter suggestion for the present, hopes that in any individual case brought to the notice of the General Medical Council, a communication will be forwarded to that individual drawing attention to the views of the Council upon the subject.

Persons Making their own Arrangements.

The Committee considered a recommendation from the Amendments Subcommittee to the following effect:

That the Association press for the amendment of Section 15 (3) of the Act to provide that every insured person applying to be allowed to make his own arrangements for medical attendance and treatment with a private medical practitioner shall be allowed so to do.

The Committee had before it the opinion of counsel (Mr. Sankey, K.C.) on the interpretation and amendment of the section. The Committee, after considerable discussion, finally resolved to obtain further legal opinion as to the possibility of framing an amendment of the Act providing that every insured person applying to be allowed to make his own arrangements with a private medical practitioner shall be allowed so to do, if this can be done, without running the risk of encouraging similar action to that taken in South Wales—namely, the wholesale granting by Insurance Committees of permission to insured persons to "make their own arrangements," and the consequent formation of medical aid schemes under lay control providing medical attendance and treatment both to insured persons and their dependants.

Temporary Residents.

On further consideration of this subject the Committee directed that a communication should be immediately addressed to Local Medical Committees, Branches, and Divisions to the following effect:

1. That the Committee, fortified by the expression of opinion by Scottish Commissioners and the similarity between the wording of the Scottish and English agreements, is of opinion that it is not legal for any deduction for the medical attendance and treatment of temporary residents, in the way suggested in Memorandums 159 and 161 of the English Commissioners, to be made from the capitation allowance without the consent of those affected.

2. That the Committee is of opinion that Regulation 22 does not refer to the question of provision of medical attendance and treatment to temporary residents, but only to those who really change their residence.

3. That the Committee suggests that practitioners should strongly oppose any deduction for the purpose suggested from moneys due to them, and repeats its former advice that temporary residents should only be treated as private patients pending the production of an equitable scheme.

4. That the Committee is of opinion that if the above advice is carried out the Government will have eventually to provide a special fund quite apart from money already allocated to medical benefit for the purpose.

5. That the Committee would advise those Local Medical Committees in whose area Insurance Committees are issuing the green ticket with respect to temporary residents to ask their Committees from what source they propose to obtain the funds to pay for the treatment of this class, and at the same time (if not already done) to intimate that the local practitioners object to any deduction of any part of the capitation allowance.

6. That Local Medical Committees be informed that the Memorandum upon Temporary Residents issued by Commissioners is a circular and not an order, and therefore does not carry any legal authority.

Compensation Cases.

A communication was received from an applicant whose case had been dealt with at the previous meeting, expressing his thanks for the compensation granted to him. With regard to a fresh application received, the Medical Secretary was instructed to make the customary inquiries.

Schemes for the Treatment of Insured Persons.

Various schemes for the treatment of insured persons were considered and generally approved, subject to the recommendation of the Council, to be considered at the forthcoming Annual Meeting, that in the matter of the treatment of uninsured persons no person earning more than £104 per annum should be treated under contract terms at all.

Treatment of Tuberculosis Cases.

The Chairman reported that at a conference between representatives of the Association and the Society of Medical Officers of Health, on May 28th, the question of the treatment of tuberculosis cases had been discussed, and that it was for the Committee to consider what suggestions it would, under the instructions contained in Minute 63 of the Special Representative Meeting of January, 1913, recommend the Council to place before the Representative Body. The relative minutes were as follows:

Annual Representative Meeting, 1912.

Minute 205.—That the payment to be made to medical practitioners for domiciliary attendance on patients certified to be suffering from tuberculosis shall be on a scale of fees, and not by capitation.

Special Representative Meeting, November, 1912.

Minute 92.— That if the form of payment for sanatorium benefit be the suggested capitation fee of 6d., it shall be for insured persons only, and shall not include dependants, and shall be for domiciliary treatment only.

Special Representative Meeting, January, 1913.

Minute 63.—That it be an instruction to the Council to consider the question of the attitude of the profession towards the tuberculosis treatment under the Act in view of the conditions as altered by this meeting.

The point was raised whether, in view of the decision of the Representative Meeting, the policy of the Association was that medical practitioners should be paid upon a scale of fees or upon a capitation fee. The Chairman expressed the opinion that in view of the minutes above quoted the policy of the Association was in favour of the payment of practitioners upon a scale of fees and not by capitation. Finally, the Committee decided to advise the Council to recommend the Representative Body that Minute 205 of the Annual Representative Meeting, 1912, should be rescinded, in order to leave to the local profession of any insurance area the right of deciding whether the profession of that locality shall be paid for the treatment of tuberculosis under the Insurance Act upon a scale of fees or by a capitation fee.

Memorandum to Insurance Commissioners.

The memorandum addressed to the National Insurance Joint Committee, published in the Supplement of June 7th, p. 797 et seq., was approved.

Development of Policy regarding Insurance Act.

The question of the development of the policy of the Association with regard to the Insurance Act and its possible extension in the future was considered and the following resolution was adopted:

That it be recommended to the Council:

(*a*) That it be reported to the Representative Body that, in view of the fact that it is exceedingly likely that the scope of the National Health Insurance Act will be so extended as to include in its operations various additional matters—for example, the treatment of children and dependants of insured, dental treatment, hospital treatment, alterations in the method of dealing with deposit contributors and casual labourers—it is desirable that the Association should be ready with its policy as to what a National Health Insurance Act should be, not merely from the point of view of the interests of the profession

but also from that of public health and the advancement of medical science. And

(*b*) That it be recommended to the Representative Body that the preparation of a full report upon the above lines be referred to a Committee; that such report be issued to the Divisions for their consideration and comment; that the report, together with a statement of the views of the Division thereon, be submitted if possible to the next Representative Meeting; and that the Council be given power to act for the Representative Body should an emergency arise in the meantime.

INSURANCE ACT IN PARLIAMENT.

Insurance Act Amendment Bill.

There is no further information available respecting the provisions of the proposed amending bill. According to the statement of the Prime Minister in the House of Commons on June 9th, we may expect the bill to be introduced shortly, and it is proposed after the second reading that it should be sent to a Grand Committee. On June 10th Mr. Masterman informed Lord Ninian Crichton-Stuart that the bill would not contain any proposals for death benefits.

Cost of Printing.

In reply to Mr. Cotton, Mr. Masterman furnished the following table showing the amounts received under the National Insurance Act up to May 1st, 1913, and the amounts spent on printing, etc., to that date:

	England.	Scotland.	Ireland.
	£	£	£
Total amount received to May 1st, 1913, National Health Insurance Fund	14,294,826	1,965,353	677,611
Unemployment Fund	1,361,726	236,448	60,815
	15,656,552	2,201,801	738,426
Estimated total expenditure on printing in connexion with Part I. (Health Insurance) and Part II. (Unemployment) to May 1st, 1913...	114,000	12,000	8,000

Allotment of Moneys relating to Insured Persons.

In an answer to Sir William Bull, Mr. Masterman repeated, on behalf of the Government, the explicit statement that the moneys relating to those insured persons who had made no choice of a medical attendant would be allotted in full amongst the medical men who are enrolled on the list. He said: I have no reason to suppose that any appreciable number of domestic servants or other insured persons will in case of illness neglect to avail themselves of their right to medical attendance and treatment from the doctors on the panel who are collectively responsible for such attendance and treatment; and who, for this reason, are entitled under their agreements to have divided among them the whole of the funds available for the medical treatment of insured persons under the arrangements made by the Committee.

In reply to Mr. Hunt, who asked whether doctors got money for patients they had not attended, Mr. Masterman said that if the doctors only got money for the patients they attended the Act would break down at once. They undertook the treatment of a certain number of persons, a large number of whom did not require treatment at all.

Medical Benefit.

Old and Disabled Members of Friendly Societies.

Mr. Masterman said, in reply to Sir Henry Havelock-Allan that he had nothing to add to previous answers to questions with regard to the provision of medical benefit for old and disabled members of friendly societies.

Size of Medical Lists.

Sir P. Magnus asked whether an Insurance Committee could place any limit on the number of insured persons to be allotted to a medical practitioner; and, if so, by what principle the Committee were guided in so doing.—Mr. Masterman said: It is the duty of the Insurance Committee in each area to see that the arrangements for medical benefit are such as to secure that the insured persons in their area receive adequate medical attendance and treatment. Subject to this, it appears to be undesirable to fix in advance a maximum number of insured persons to be allotted to a doctor, as the number for whom a doctor can properly be responsible must necessarily vary according to the circumstances of each particular case.

Medical Representation on Insurance Committees.

In reply to Mr. C. Bathurst, Mr. Masterman said that the membership of the Gloucester Insurance Committee was being increased from fifty to sixty in order to give the medical profession a representation of one-tenth without altering the composition of the Committee as prescribed by Section 59 of the National Insurance Act.

Conscientious Objectors.

Mr. F. Hall asked whether the decision as to what insured persons were to be allowed to make their own arrangements for medical attendance and treatment was one for the sole discretion of the Insurance Committees; if so, why had the Government promised the People's League of Medical Freedom to make every endeavour to secure that permission was granted to those who did not believe in the orthodox system of medicine, and desired the services of herbalists and other unqualified persons; and whether the Government would use its authority to ensure that permission to make their own arrangements was granted to those who had been unable to obtain the doctor of their choice because he refused to go on the panel, a condition with which unqualified persons were not asked to comply.—Mr. Masterman said that he had distinctly informed the deputation of the People's League of Medical Freedom that Insurance Committees could not be deprived of the discretion which was given them by the Act in regard to the matter. He had, however, promised that the Government would endeavour to secure that insured persons who had conscientious objections to orthodox systems of medicine, and were willing to make an assertion that they wished for some other form of treatment, should be given the money which otherwise would have been available for their medical benefit.

In reply to a further question by Mr. Hall, Mr. Masterman said that any Insurance Committee should authorize an insured person to deal with a doctor who was not on the panel. To Mr. Hall's further observation that no Insurance Committee was doing this no reply was returned.

Maternity Benefit.

Mr. Butler Lloyd asked the Chancellor of the Exchequer if the agent of an approved society was within his rights in withholding maternity benefits under the National Insurance Act for two months when the application was in perfect order.—The Financial Secretary to the Treasury, who replied, stated that an insured person duly qualified for maternity benefit, and making proper application for it, should certainly receive it without delay. If he were informed of any particular case in which delay had occurred he would make inquiries as to its cause.

Sanatorium Benefit.

Tuberculosis Dispensaries in London.

The President of the Local Government Board, in replying to a question by Mr. Astor, said he understood that up to the present eighteen whole-time tuberculosis officers had been appointed on the staff of tuberculosis dispensaries in London. The boroughs in which these officers had been appointed were Battersea, Bermondsey, Camberwell, Deptford, Fulham, Hampstead, Lambeth, Paddington, Poplar, Marylebone, Shoreditch, Stepney, Wandsworth, and Woolwich.

Ireland.

Rossclare Sanatorium.

In reply to Mr. Fetherstonhaugh, the Chief Secretary for Ireland said that an application for the approval of Rossclare as a sanatorium under Section 161 (*a*) of the National Insurance Act was made by the Women's National Health Association to the Local Government Board. The place had previously been visited by Sir William Thompson, the treasurer of the association, and a favourable report had been obtained from an architect, whose suggestions as to improvements had been carried

out. By the direction of the Board one of its medical inspectors, Dr. Brendan McCarthy, visited Rossclare, and, after personal inspection, recommended the approval of the sanatorium temporarily for a specified number of patients. Dr. McCarthy was a medical inspector of great experience, and was fully qualified to report on the points referred to him. The application for the Board's sanction was made on the responsibility of the Women's National Health Association, which had satisfied itself that the site was suitable for a sanatorium from a medical point of view. He was aware that Dr. Thompson of Omagh was professionally consulted by the association, and, as he had not visited the place for years, saw no no reason why he should have been consulted. The Board was aware that the place had not been a financial success when run as a private sanatorium, but had no knowledge of the reasons for this failure. He understood that the demands for admittance to the institution were now in excess of the accommodation, and that a number of the patients had greatly improved. The medical officer of the sanatorium resided at Enniskillen, about eight miles away, but he was in telephonic communication with Rossclare, and had a motor car.

CORRESPONDENCE.

[It is particularly requested that communications intended for publication should be written on one side of the paper only, and should be addressed to the Editor, British Medical Journal, 429, Strand, London, W.C.]

Ships' Surgeons and Seamen's Benefit.

Dr. A. G. Bateman (General Secretary, Medical Defence Union, 4, Trafalgar Square, W.C.) writes: The question as to whether ships' surgeons acting as medical officers upon vessels sailing from British ports under the British flag are entitled to any remuneration under the Insurance Act for medical attendance upon seamen and others who are insured persons has been put to the Medical Defence Union and a decision sought from the National Insurance Commissioners. It may be mentioned that neither the shipping companies nor the Seamen's Approved Society were able to give any decided opinions, although their advice was sought by the medical officer concerned. A letter was sent by me to the Insurance Commissioners, asking for a decision, on May 20th, and a reply was received on June 6th, as follows, from the Secretary:

I am directed by the National Health Insurance Commission (England) to state that no insured person is entitled to medical benefit while resident temporarily or permanently outside the United Kingdom. In the circumstances indicated in your letter an insured person is therefore not entitled to medical attendance under the National Insurance Act, and a ship's surgeon who in such cases attends an insured person is not entitled to remuneration under the Act.

This decision, which excludes all seamen from medical benefits under the Act, although both employers and employed have to pay their share of the tax under the Act, would appear to clash with the enactment that members of the Seamen's National Insurance Society, which is the approved society for seamen, shall be "deemed to be resident in England"; but that I must leave to more legal minds than my own to determine. As the decision may be of interest to ships' surgeons generally, I venture to ask that you will kindly give this letter publicity in the Journal.

The Amendment of the Act.

Dr. Theobald A. Palm (Aylesford, Kent) writes: While fully appreciating the efforts which have been made by the British Medical Association on behalf of the profession and in the interest of the public to minimize the evils of the Insurance Act, may I venture to criticize the memorandum with regard to amendment of the Act published in the Supplement to the Journal for June 7th?

However desirable or necessary the suggested amendments may be, the question arises whether in seeking to amend the Act we are not fostering the economic folly of tinkering machinery which is only fit for the scrap-heap, or committing the disastrous blunder of the practitioner who should ply with palliatives a patient suffering from a morbid growth for which the only remedy is removal by the knife. The Act subjects the rank and file of the profession to the tyranny of a body of Commissioners who are themselves the nominated and paid agents of a despotic Chancellor of the Exchequer. Can any amendment abolish the Commissioners? Imagine the butchers, bakers, and grocers of the United Kingdom put under the thumb of a similar body of Commissioners, who issued despotic regulations as to the terms upon which they should supply their customers. Would they be content with making respectful representations to those very Commissioners to ameliorate the conditions imposed upon them? Rather they would raise such a storm of indignation in the country as would drive the Chancellor and his Commissioners into private life.

What is wrong in principle can never be right in the application of the principle, and this is the reason why the Insurance Act is a tissue of wrongs to employed and employers, to the medical profession, and to the general public. The fundamental principle of the Act is interference with the liberty of the subject in his private and personal concerns, and the inevitable consequence is that it galls every one whom it touches. Not only so, it is demoralizing to all concerned. Freedom is not only the birthright of every Briton, it is the essential condition for the development of character. With regard to a proposed Act of Parliament involving a similar interference with personal freedom, many years ago an English bishop said that he would rather see England free than England sober. So to-day we would rather see the working class of England free than thrifty by compulsion, and free rather than panel-doctored. For the medical profession the alternative is to be free, even though underpaid as before the Act, or to be State slaves still underpaid under the Act. My conviction is, that in seeking to amend the Act we are straining out gnats and swallowing a camel. To agitate for the repeal of the Act may be quixotic, but it seems to me that the least we can demand is that we should have no dealings with Commissioners, and that every insured person should be perfectly free to make his own arrangements with any medical man he pleases. If this means "breaking down the Act," that may be a matter of chagrin to its author and its administrators, but no loss to any one else.

Liverpool Medical Committee and Temporary Residents.

Dr. Henry Thomas Barton (Secretary, Blackpool Medical Committee) writes: Through the courtesy of Dr. W. T. D. Allen I am able to state that the case cited by him in correspondence with the Commissioners regarding treatment of temporary residents (Supplement, June 7th, p. 500) was hypothetical, and was put forward to illustrate the carrying out of conditions laid down in Memo. 159/I.C. I wish this to be clearly understood, as here in Blackpool we are not accepting the green vouchers, and temporary residents are treated as private patients.

The Position in London.

Dr. E. H. Worth (Streatham, S.W.) writes: There is no doubt that we London men are in a strong position. The Insurance Committee are in a hopeless muddle; they must have 3,000 men on the panel to work the Act, especially as they have limited the number of insured persons per doctor to 2,000. They have only got 1,244 up to recently, and a good number have only accepted service for another three months; these men are tired of it already, and therefore are unlikely to renew their agreements. We stated our terms last year to Mr. Lloyd George, and, thank heaven, we have been manly enough to stick to them. London has held up the dependent's scheme of the Chancellor. I have it on good authority that it would have been brought in this year but for us. I congratulate the men of the metropolis. There are non-panel societies in all the suburbs; we want also a strong central body as a rallying point, and we must have one; if it wants money, 2s. 6d. from 5,000 non-panel doctors will produce £600. Harley Street must come in as well. Such a central body would be a rallying point not only for London, but for the good men and true all over the country, and perhaps the Manchester Society might see its way to amalgamate with it, and make it stronger than ever.

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.*]*

BIRMINGHAM BRANCH:
COVENTRY DIVISION.

THE annual meeting of the Division was held on June 5th. Dr. HAWLEY was in the chair, and was supported by eighteen members.

Election of Officers. — The following officers were unanimously elected:

Chairman.—Dr. T. A. B. Soden.
Vice-Chairman.—Dr. W. Growse.
Honorary Secretary.—Dr. D. Davidson.
Representative on Branch Council.—Dr. Orton.
Members of the Ethical Committee.—Drs. Kendrick, Pickup, Hawley, Lowman, Snell, and Worsley.

Monthly Meetings.—It was resolved that the monthly meetings should be held on the first Thursday of the month.

Annual Report.—The annual report of the Executive Committee was read and approved.

Vote of Thanks.—The Honorary Secretary was requested to write to the Committee of the Hospital thanking it for the use of the Board Room for the meetings of the Division.

NUNEATON, TAMWORTH, AND COVENTRY DIVISIONS.

THE annual constituency meeting of the Nuneaton and Tamworth and Coventry Divisions was held at the Coventry Hospital on June 5th. Dr. NASON was appointed to the chair, and fifteen members were present.

Election of Representative.—Dr. Orton was elected to represent the constituency at Brighton, with Dr. Milner Moore as his deputy.

Insurance Act.—The following resolution was unanimously passed:

> This constituency wishes most emphatically to reaffirm its opinion as to the nature and probable effects of the existing Regulations of the Insurance Act, and to protest with indignation against the methods of coercion applied by the Government to an honourable profession.

BORDER COUNTIES BRANCH:
SCOTTISH DIVISION.

THE general meeting of this Division was held at Dumfries on May 30th.

Annual Report.—The SECRETARY'S annual report was received.

Election of Officer-bearers.—The following officers were elected:

Chairman.—Dr. E. Shaw, Wigtown.
Vice-Chairman.—Dr. G. R. Livingston, Dumfries.
Honorary Secretary.—Dr. J. Dewar Robson.
Representative.—Dr. J. Dewar Robson.
Executive Committee.—Drs. Easterbrook, Rodger, Sanders, and Mr. George Watt.

Instruction of Representative.—The report of the Council having been considered, the Representative was instructed to move or support the amendment to Recommendation 21:

> That the time has arrived when the Representative Body should seriously consider the advisability of raising the annual subscription in order to meet *inter alia* the out-of-pocket expenses of Representatives at the Representative Meeting as well as their travelling expenses.

EAST ANGLIAN BRANCH:
SOUTH SUFFOLK DIVISION.

THE annual meeting of the South Suffolk Division was held at Ipswich on June 5th.

Election of Officers.—The following were elected officers for the year:

Chairman.—Dr. J. Hossack.
Vice-Chairman.—Dr. T. C. Askin.
Secretary.—Dr. J. Gutch.
Representatives on Branch Council.—Drs. J. Hossack and T. C. Askin.
Representative at Representative Meetings.—Dr. T. C. Askin.
Executive Committee.—Six additional members of Executive: Drs. Brogden, Havell, Redpath, Francis Ward, Young, and Staddon.

Annual Representative Meeting.—The business of the annual meeting was considered, and instructions given to Representative.

GLASGOW AND WEST OF SCOTLAND BRANCH:
GLASGOW NORTH-WESTERN DIVISION.

THE annual meeting was held in the Hillhead Burgh Hall on May 22nd. Dr. A. T. CAMPBELL presided, and five other members were present.

National Insurance Act.—Letters and various circulars forwarded by the Medical Secretary conveying information as to the action of the Council and various committees were read, and in accordance with the suggestion therein contained the Secretary was instructed to bring the matters to the notice of the Local Medical Committees.

Election of Officers.—The following office-bearers were appointed:

Chairman.—Dr. A. T. Campbell.
Vice-Chairman.—Dr. J. Lindsay.
Secretary.—Dr. E. J. Primrose.
Representatives to Branch Council.—Dr. Morton, Dr. Primrose.
Representative to Representative Meeting.—Dr. A. T. Campbell.
Members of Committee.—Drs. J. Baird, Mackintosh, Snodgrass, Todd, Graham, Caskie, A. G. Hay, Gray.

Election of Members.—It was proposed by Dr. MORTON, seconded by Dr. GRAY, and unanimously agreed:

> That a Branch Council should have the power to elect applicants for admission as members of the Association if the nomination is duly made by two members of the Branch concerned.

GLOUCESTERSHIRE BRANCH.

THE annual meeting of this Branch was held at the Royal Infirmary, Gloucester, on May 15th, at 6 p.m. Dr. MACARTNEY was in the chair, and twenty-eight members were present.

Election of Officers. — The following officers were appointed for the year 1913–14:

President.—Dr. C. V. Knight (Gloucester).
Council.—Dr. Ancrum, Mr. C. Braine-Hartnell, Mr. Buckell, Dr. Carter, Dr. Collins, Dr. A. B. Davies, Dr. Dent, Dr. Goss, Dr. Grosvenor, Dr. Johns, Dr. Mellish, Mr. G. A. Peake, with Dr. Macartney and Dr. Buchanan (from Forest of Dean section).
Scrutineers.—Dr. Ancrum and Mr. T. S. Ellis.
Auditors.—Mr. E. A. Dent and Mr. G. A. Peake.
Ethical Committee.—Mr. Buckill, Mr. T. S. Ellis, Mr. O. H. Fowler, Mr. Waddy, Dr. Mellish.
Secretary.—Dr. D. E. Finlay, Wells Dene, Gloucester.
Assistant Secretary.—Dr. Longridge, London Road, Cheltenham.

Nomination for Central Council.—Dr. G. Parker was nominated for election to the Central Council.

Annual Report and Financial Statement.—The annual report and financial statement, which had been circulated, was taken as read and passed.

Address.—Dr. H. MACNAUGHTON JONES (London) gave an address, entitled "*Bene diagnoscit, bene curet*," illustrated by lantern slides. A vote of thanks to Dr. Macnaughton Jones was proposed by Mr. WADDY, seconded by Mr. T. S. ELLIS, and carried.

LANCASHIRE AND CHESHIRE BRANCH:
BURNLEY DIVISION.

THE annual meeting of this Division was held on May 29th, Dr. CRUMP in the chair, nearly forty members being present.

Election of Officers.—The following officers were elected for the ensuing year:

President.—Dr. T. M. Scott.
Vice-President.—Dr. T. G. Crump.
Honorary Secretary and Treasurer.—Dr. A. E. Bird (re-elected).
Representative for Representative Meetings.—Dr. H. J. Robinson (re-elected).
Representative on Branch Council.—Dr. Jas. M. Ferguson (re-elected).
Executive Committee.—Drs. Chas. A. Anderson, A. Callam, F. E. Crossley, J. W. Clegg, Jas. Gardner, A. C. Glashan, A. Heys, F. W. Marsden, J. A. Mackenzie, G. S. Pullon, W. J. Purves, R. C. Rogers, T. Snowball, R. Stewart, J. Hoyle.

Vote of Thanks.—Dr. Crump was unanimously accorded a most hearty vote of thanks for his able and untiring work as President during the last twelve months—a period of the greatest anxiety and activity the Division had known.

Report of Committee.

The report of the committee, which was adopted, stated that the Division now numbers 94. There had been eleven Division meetings with an average attendance of 44, and twenty-nine committee meetings, with an average attendance of about 11, and two deputations. The greater part of the work of the Division during the year had been in opposing the obnoxious features of the Insurance Act as applied to medical benefit, and in trying to get the Act and its regulations amended so as to make it possible for the medical profession to undertake willing service under the Act, and still maintain the freedom and dignity of the profession. Although these efforts were not successful, still the Division held out in its fight for right until the very last, and not until the profession in practically the whole of the country had been coerced into unwilling service did the Division yield by a slight majority in the last twenty-four hours to accept service under the Act. The whole of the Division was loyal, any small minorities always falling in readily with the majorities, and thus the Division was able to keep a level front.

The Education Committee had sent out a circular and book of certificates asking the profession to state thereon the exact disease from which the certified child was suffering. The Executive Committee opposed this, and asked the members not to use these certificates.

The Dispute with the Poor Law Guardians.

The dispute between the Division and the guardians remains unsettled. The Division has taken action on behalf of the union district medical officers on account of the inadequacy of the remuneration, which was still far below the average paid in similar and local unions, although last June the guardians slightly increased the salary of some of the district medical officers. The Division has tried on two occasions to induce the guardians to meet a deputation from the doctors, but failed; the Mayor of Burnley on one occasion was likewise unsuccessful in bringing about an interview after the Executive Committee had agreed to accept his kindly offices. Letters sent to the guardians had no effect, and the Division, after securing the signatures of loyalty from all local medical practitioners (except one), asked the nine district medical officers to terminate their appointments as on January 1st, 1913. This they did. The guardians then, instead of discussing the matter with the profession, or raising the salaries as desired, brought forward a new scheme making the nine districts into fifteen, at the same time dismissing their public vaccinators and giving their duties to the suggested fifteen district Poor Law medical officers.

The Burnley Division opposed this to the guardians, and memorialized the Local Government Board. The Poor Law Medical Officers' Association of England and Wales also took the matter up, and supported the Burnley Division in its action, and wrote to the Local Government Board fully stating the facts, and especially calling attention to the action of the guardians in offering public vaccinator appointments to assist in obtaining underpaid Poor Law medical officers.

The Burnley Division at its last meeting in March, when forty members were present, resolved:

That this Division regards the action of the guardians in giving a month's formal notice to the public vaccinators in the union who were in no way a party to the original dispute, as an arbitrary act, and requests that these notices should be withdrawn, and that the present holders be reinstated in office.

That no application for any medical posts that may be advertised under the guardians shall be made until the Committee is satisfied.

That this Division would welcome the interference of the Local Government Board in this dispute either in the direction of holding an inquiry into the whole subject or in any other way that may be deemed advisable.

These resolutions were sent to the guardians, but without the desired effect.

The Executive Committee again, on April 16th, asked the guardians to meet a deputation to lay the medical aspect of the dispute before them, but again the reply was, "the Guardians passed no resolution thereon."

On May 15th the Local Government Board guardedly gave its assent "generally" to the proposals of the guardians as to the rearrangement of the districts—in the first instance for twelve months only—but made no reference whatever to the salaries to be paid, which was the matter in dispute.

The guardians next day advertised the fifteen appointments. On the same day the Executive Committee of the Division circularized every medical man in the district. A Warning Notice has been in the British Medical Journal for months, and articles and editorials had also appeared from time to time in it, and the *Lancet* had been asked to support the Division by refusing advertisements.

The Committee trust and rely on the written pledge of the members of the profession, and loyalty to one another, to uphold the late district medical officers, and public vaccinators, and support them, and the profession as a whole, against underpayment and sweating of their services.

Letter to the Local Government Board.

We gave last week an account of the present position in the Burnley district and a summary of the way in which it had been brought about. We are informed that the three medical men who accepted appointments under the guardians of the Burnley Union are now doing all the Poor Law and public vaccination work in the whole union. The Burnley Division has addressed the following letter to the President of the Local Government Board:

The British Medical Association, Burnley Division.

To the Right Hon. John Burns, M.P.,
President of the Local Government Board.

Sir,—With further reference to my letters of December 9th, 1912, and March 8th, 1913, to your Honourable Board, I am directed by the Burnley Division of the British Medical Association to protest very strongly to your Honourable Board against the confirming of (*a*) the medical appointments and (*b*) the medical arrangements in the other twelve districts for attendance on sick poor made on Thursday last (May 29th) by the Burnley Board of Guardians.

The grounds of the protests are:

The Inconsistency of the Guardians.

1. The reasons the guardians gave for splitting the union into smaller districts was that the population of most of the districts exceeded the number allowed under Article 159 of the General Consolidated Order, July 24th, 1847, of the Poor Law Commissioners.

On Thursday last (May 29th) the guardians considered applications for the fifteen medical posts they had advertised. There were only three applicants, and these applicants were appointed to the three districts for which they made application.

A small subcommittee was appointed at the same guardians' meeting to consider the question of medical relief in those districts for which there was no application.

This subcommittee has decided that the whole of the union is to be worked by these three medical officers and have fixed salaries for this work.

The first contention of the guardians—namely, that the original districts were too large and contained too great a population for one man to look after—thus falls to the ground, in that they now appoint three men to do the work which they considered was too great to be done as formerly by *nine*, and which they contend can only be efficiently done by fifteen.

2. It is impossible that considerable hardship to the sick poor will not be the result of this arrangement, many of whom will be called upon to travel five or six miles to get medical attendance; and, further, I am to point out that these three officers, who are busy general practitioners, will not be able to attend these persons at their own homes with any degree of efficiency or regularity.

3. I would further point out that in none of the three districts to which medical officers were appointed is the salary a sufficient one for the work to be done.

The whole of the profession in the Burnley Union, with these three exceptions, is unanimous in the opinion that the conditions of service offered are not such as can be accepted.

4. We understand that the opinion of the Local Government Board is that vaccination is most efficiently performed when done by officers holding appointments for large areas; the present policy of the Burnley Guardians is to appoint public vaccination for very small areas.

Moreover, without there having been any application for an increase of fees for vaccination, the guardians, after dismissing their public vaccinators, have voluntarily increased the fees for vaccination when giving the post to that of district medical officers. The reason appears obvious.

The Burnley Division of the British Medical Association therefore prays that you will not confirm the appointments made by the Burnley Guardians, nor will you permit the arrangement made by the said guardians for medical relief in those districts for which there were no applicants for office.

As the new Board of Guardians refused at their first meeting to receive a deputation of medical men, I am now desired to ask your Honourable Board to receive a deputation of medical men practising in the union. If, therefore, you are willing to receive such a deputation, and will inform me which would be a convenient date for you, I will arrange the matter for that date.—I am, your obedient Servant,

A. Edward Bird, *Hon. Secretary.*

Trafalgar House, Burnley, Lancs., 4th June, 1913.

BURY DIVISION.

THE annual meeting of the Bury Division was held on June 5th in the Derby Hotel, Bury. Dr. BAIRD occupied the chair, and fifteen members were present.

Annual Report.—The annual report stated that there had been eight meetings of the Division and nine meetings of the Provisional Medical Committee. All the Division meetings were open to non-members, and the attendance, which averaged about thirty, showed that the interest in the British Medical Association was well sustained. The membership, which was sixty-one at the beginning of the year, was now fifty-nine. There had been three deaths among the members—Drs. Lees, Deans, and Luck—and one resignation. New members and additions through change of address had nearly compensated for the losses, and the present membership showed as good a proportion to the medical population as any other Division in the country. The Committee had done much work, and thanks were expressed to its members for so faithfully responding to calls at short notice, and for the support they had given the Secretary in carrying out the work of the Division. Special thanks were due to the Chairman, who had given up much of his time and sacrificed many evenings to attend meetings. Since January 15th most of the local work had been done by Local Medical Committees, and regret was expressed that committees outside the borough had not availed themselves of the information and authority of the Association. It was to be hoped, however, that in the future some scheme of organization might be drawn up whereby Local Medical Committees were co-ordinated through the British Medical Association. The Bury Division included three Insurance areas: (1) the County Borough of Bury, (2) Area 16, and (3) Area 17 of the County of Lancashire. If Prestwich and Bacup were added to the Division the boundaries would be exactly coterminous, and the mutual interests of all three would, it was thought, be served by the Division. The financial statement for 1912 showed a small deficit on the ordinary fund, since made up by a grant from the Branch, and a small balance on the extraordinary fund derived from a levy on the members. This balance had since been expended, and a small deficit produced. The Division had responded very well to the call for the Central Defence Fund, the guarantees amounting to nearly £1,000, which for the size of the Division was the best in Lancashire and very near the top for the whole country. During the year a dinner has for the first time been held, which was heartily enjoyed by those who found it convenient to attend.

Election of Officers.—The following were duly elected:

Chairman.—Dr. A. B. Vine, M.B.
Vice-Chairman.—Dr. R. Crompton.
Joint Honorary Secretaries and Treasurers.—Dr. J. C. Turnbull, 134, Walmersley Road, Bury; Dr. P. F. Braithwaite, 123, Tottington Road, Bury.
Representative for Representative Meetings.—Mr. I. W. Johnson, F.R.C.S.
Deputy Representative.—Dr. J. W. Smith, Radcliffe.
Representatives on Branch Council.—Mr. I. W. Johnson, F.R.C.S.; Dr. A. B. Vine.
Executive Committee.—Drs. W. J. Baird, G. R. Hitchen, A. P. Nuttall, and Mr. A. Lucas.
Local Secretaries.—Radcliffe: Dr. J. W. Smith. Ramsbottom: Dr. H. Lawrie. Haslingden: Dr. J. A. Harrison. Rawtenstall: Mr. W. MacLaren McIlraith.

Special Meeting.—It was unanimously resolved to call a special meeting to consider the report of Council, and especially the proposed amendments to the Insurance Act.

Ethical Rules.—The model ethical rules were adopted unanimously.

Central Council Election.—It was resolved to recommend the members to vote for Dr. Helme and Mr. Larkin.

Votes of Thanks.—Votes of thanks to the retiring Chairman and Representative were heartily accorded.

MANCHESTER CENTRAL DIVISION.

AT the annual meeting, held at the Onward Buildings, Deansgate, on May 29th, Dr. JUDSON BURY was in the chair, and five other members were present.

Annual Report.—The Honorary Secretary (Dr. TYLECOTE) presented the annual statement, which, on the proposition of the CHAIRMAN, seconded by Dr. DAHMS, was received and adopted.

Election of Officers.—The following officers were elected for the ensuing year:

Chairman.—Dr. T. Arthur Helme.
Vice-Chairman.—Dr. Judson Bury.
Honorary Secretary and Treasurer.—Dr. Tylecote.
Representative to Representative Meetings.—Dr. Booth.
Deputy Representative.—Dr. T. Arthur Helme.
Representatives on the Branch Council.—Dr. Booth and Dr. Heywood.
Other Members of the Executive Committee.—Drs. John Ferguson, Annacker, Shaw, Douglas, and Ollerenshaw.
Representatives on the Joint Committee of Manchester and Salford.—Drs. Helme, Melland, Annacker, Cryer, and Tylecote.

Dr. HEYWOOD then took the chair, and on the motion of Dr. TYLECOTE, seconded by Mr. RAYNER, the best thanks of the Division were accorded to Dr. Judson Bury for his able and courteous conduct in the chair during the past year.

At the conclusion of the annual meeting an ordinary meeting of the Division was held, presided over by Dr. HEYWOOD.

Model Ethical Rules.—The Honorary Secretary (Dr. TYLECOTE) reported that the model ethical rules, which had been adopted by the Division, had now been sanctioned.

Expenses of Representatives, etc.—On the proposition of the CHAIRMAN, seconded by Mr. RAYNER, it was unanimously resolved:

> That the Honorary Secretary be instructed to issue a circular calling on each member for a contribution of 5s. as his share of the voluntary levy agreed to by this Division on November 12th last as a contribution to the expenses of the Representatives, members of council, and committees from the Branch who are away in London or at the Annual Meeting on Association business.

Representative Meeting.—On the proposition of Mr. RAYNER, seconded by Dr. DAHMS, it was unanimously resolved to instruct the Representative to the forthcoming Representative Meeting that unless a special meeting be called in the meantime to give him other instructions he be instructed to use his own discretion when voting at the forthcoming Representative Meeting at Brighton.

ST. HELENS DIVISION.

THE annual meeting of the St. Helens Division was held at St. Helens on June 2nd, when there was an exceptionally good attendance of members.

Election of Officers.—The following were elected officers for the ensuing year:

Chairman.—Dr. Arthur Dowling, J.P. (Haydock).
Vice-Chairman.—Dr. Jos. Unsworth.
Representative for Representative Meetings and Representative on the Branch Council.—Dr. F. Pickering Bassett.
Secretary and Treasurer.—Dr. F. J. Knowles (re-elected).
Executive Committee.—The office-bearers, together with Drs. Kerr and G. H. Cooke (St. Helens), Dr. Harold Watkins (Newton-le-Willows and Earlestown), and Dr. Youatt (Prescot).

METROPOLITAN COUNTIES BRANCH:

GREENWICH AND DEPTFORD DIVISION.

AT the annual general meeting of this Division, held on June 6th, the following were elected officers and committee for the ensuing year:

Chairman: Dr. R. D. Muir.
Vice-Chairman: Dr. E. G. Annis.
Honorary Secretary and Treasurer: Dr. W. H. Payne.
Representative for Representative Meetings: Dr. H. W. Roberts.
Representative on the Branch Council: Dr. C. J. Parke.
Executive Committee: Drs. T. Berry, W. S. Carpenter, C. G. Gooding, C. W. Hogarth, J. H. Keay, H. S. Knight, J. P. Purvis, C. G. Wallis, J. P. Walsh.

Annual Report.—The annual report and balance sheet was adopted unanimously. The report stated that 12 meetings of the Division had been held—7 of the old Greenwich Division, with an average attendance of 47; and 5 of the new Greenwich and Deptford Division, when the average attendance had been 36. The number of members of the Division was 83. The financial statement showed a small balance in hand.

Instruction of Representative.—It was decided to instruct the Representative not to vote for any increase of subscription to the Association, and that motions 12, 21, 23, 25, 28, 36, 37, 38, 39, 40, 43, 45, as in the provisional agenda, be agreed to; that motion 42 be not agreed to; that rider 44, 1 be not agreed to, 3 be agreed to; that motions 14 and 15 be left to the discretion of the Representative.

North Middlesex Division.

The eleventh annual meeting of the Division was held on May 21st. Dr. Richmond Bryce was in the chair, and twenty-five members were present.

Model Ethical Rules.—The Model Ethical Rules were adopted, and on the motion of Dr. Alice Winter, seconded by Dr. Lawrence, it was resolved that a copy of the rules be sent to every member of the Division before the next meeting.

Election of Officers.—The following office-bearers were elected for the coming year:

Chairman.—Dr. Leonard Grant.
Vice-Chairman.—Dr. Richmond Bryce.
Secretary and Treasurer.—Dr. Robert Bruce Marjoribanks.
Assistant Secretary.—Dr. Stewart Smith.
Representatives at Representative Meeting.—Dr. Fuller and Dr. Percival Barnes.
Deputy Representative.—Dr. R. T. Vivian.
Representatives on the Branch Council.—Dr. Brackenbury and Dr. Distin.
Other Members of the Executive Committee.—Dr. Burton, Dr. Cohen, Dr. R. T. Vivian, and Dr. F. C. Wood.

Dr. J. A. Percival Barnes, who had been nominated as one of the Secretaries of the Branch Council, withdrew in favour of Mr. Bishop Harman.

Secretary of Branch Council.—It was proposed by Dr. Brackenbury, seconded by Dr. Vivian, and resolved:

> That in the opinion of this Division the Secretaryship of the Branch Council be divided between London and the extra-metropolitan area, and that this opinion be sent to the Secretary of the Branch Council to be placed on the agenda of the annual meeting.

Vote of Thanks.—A vote of thanks to Dr. Richmond Bryce for his services in the chair for the past year brought the business of the meeting to a close.

Stratford Division.

The annual meeting of the Stratford Division was held on June 5th at West Ham Hospital.

Election of Officers.—The following were elected office-bearers for the ensuing year:

Chairman: Dr. Percy Rose.
Vice-Chairman: Dr. C. Sanders.
Honorary Secretary: Dr. P. J. S. Nicoll.
Representative at Representative Meetings.—Dr. H. S. Beadles.
Representatives on Branch Council.—Dr. Percy Rose and Honorary Secretary.
Executive Committee.—Mr. A. J. Couzens, Drs. Dayus, Drake, Frederick, Grogono, Hay, Randall, Steen, Taylor, and Troup.

Annual Report.—The annual report was read and adopted.

Willesden Division.

The annual meeting of the Willesden Division was held at St. Andrew's Schools on May 30th, when Dr. Coram James was in the chair, and twenty-two were present.

Election of Officers.—The following officers were elected:

Chairman.—Dr. Macevoy.
Vice-Chairman.—Dr. Armitage.
Honorary Secretary.—Dr. Skene.
Representative to Representative Body.—Dr. Macevoy.
Representative to Branch Council.—Dr. Traylen.
Committee.—Drs. Brindley, Cardinall, Clayton, James, Joy, Mechan, Moore, Rawes, Anderson Smith, Soden, Stocker, and Turner.

Annual Report.—The Honorary Secretary reported that the first meeting of the Division, which was formed by splitting off from the Hampstead Division, was held on May 30th, 1912. There were then 66 members; of these, 6 had left the district, 3 had resigned, and 1 was in arrears with his subscription. To make up for the loss of these 10, there were 16 new members, 5 of whom came into the district as new members; 11 already in general practice in the district had joined. The number of members in the Division was now 72. The Division had held during the year 14 meetings, to most of which non-members had been invited. There had been an average attendance of 36, the largest being 70, and the lowest 18. The Executive Committee and the Local Medical Committee usually met together. Eleven meetings had been held, with an average attendance of the Division's Executive of 11 out of 16.

Instruction of Representative.—The Representative was instructed to support Motions 15, 21, 23, 25, and 38, and to oppose Rider 44, and on other points to use his own discretion in voting.

Munster Branch.

The annual general meeting of this Branch was held on May 29th, Dr. J. T. O'Connor, President, in the chair.

Elections to the Association.—The following were elected members of the British Medical Association:

Dr. Henry Barter (St. Anne's, Blarney), Dr. J. T. Bouchier Hayes (Rathkeale, co. Limerick), Dr. J. T. Devane, F.R.C.S.I. (Limerick), Dr. H. Greene Moloney (Ballingarry, co. Limerick).

Election of Officers.—The following officers were elected:

President.—Dr. J. Reid (Bandon).
Vice-President.—Dr. McCall (Crosshaven).
Honorary Secretary and Treasurer.—Dr. Philip G. Lee (Cork).
Representative to Representative Meeting.—Dr. John Reid (Bandon).
Deputy Representative.—Dr. W. MacFettridge.
Representative of the Branch on the Irish Committee, British Medical Association.—Dr. J. Giusani (Patrick's Hill, Cork).
Council.—Drs. H. R. Townsend, Lucy Smith, J. T. O'Connor, E. Murphy, J. Cotter, C. Yelverton Pearson, W. Ashley Cummins, W. Donovan (Queenstown), T. Gelston Atkins, R. Crosbie, J. Booth, R. E. Foott (Monkstown).

Adoption of Model Rules.—The rules, which had been modified and received the approval of the Central Ethical Committee, were read and unanimously adopted as the rules of the Munster Branch.

Life Assurance Fees.—A short discussion took place on the matter of fees paid for life assurance.

Northern Counties of Scotland Branch: Inverness-shire Division.

The first annual meeting of the Inverness-shire Division was held on May 28th at the Northern Infirmary, Inverness. *Present:* Dr. MacFadyen, Chairman, and ten members.

Election of Officers.—The following officers were appointed for 1913–14:

Chairman.—Dr. John Munro Moir.
Vice-Chairman.—Dr. A. C. Miller (Fort William).
Honorary Secretary.—Dr. John W. MacKenzie (5, Castle Street, Inverness).
Representatives on Branch Council.—Dr. John MacDonald, M.O.H., and Dr. Thos. MacDonald (Beauly).
Executive Committee.—Dr. Balfour (Aviemore), Dr. Gillies (Inverness), Dr. Johnstone (Fort Augustus), Dr. Lindsay (Ardersier), Dr. T. C. Mackenzie (Inverness), and Dr. MacFadyen (Inverness). It was resolved that the first two names on the above Executive Committee should retire annually.
Representative for Representative Meeting.—Dr. John Munro Moir.
Deputy Representative.—Dr. James Murray.

Report of the Executive Committee.—The report of the Executive Committee, which was approved, stated that the Inverness Division was inaugurated on May 4th, 1912, when Dr. MacFadyen, senior, was appointed Chairman. Six meetings were held during the year with an average attendance of twelve members. The principal work of the Division has been in connexion with the Insurance Act. The Provisional Local Medical Committee, which has been approved by the Insurance Commissioners, also held numerous meetings. While regretting that all the points urged by the British Medical Association had not been granted, the Executive Committee recognized that it was largely owing to the pressure brought to bear on the Government and the Insurance Commissioners that better terms were granted to the profession. The Executive Committee felt, therefore, that the British Medical Association through the State Sickness Insurance Committee should still endeavour to obtain by an amending Act further improvements in connexion with several points relating to the administration of medical benefit. The Executive Committee noted with satisfaction that the recommendations of the Dewar Committee on medical service in the Highlands and Islands would do much to improve the condition of medical practitioners practising in those areas, and it was gratifying to recall that the Vice-Chairman of the Division (Dr. Millar, Fort William) was one of the Dewar Committee, and had given it valuable assistance. An Ethical Committee of the Division was appointed, with Dr. J. MacDonald, M.O.H., as chairman; it had met once, and ethical rules had been adopted and approved by the Central Council and circulated to members of the Division. The Executive Committee recorded the interest with which it heard that an

invitation had been sent by the Aberdeen Branch asking that the annual meeting of the British Medical Association should be held in Aberdeen in 1914. It was of much interest to the profession in Scotland to learn that through representations made by the Scottish Committee to the Central Council the duties of organizing the Branches, Divisions, and Local Medical Committees in Scotland had been transferred to the Scottish Committee. Sanction had also been given by the Central Council of a grant of £200 being given to the Scottish Committee for the expenses of the Committee. It was proposed to hold a conference of representatives of the Scottish Local Medical Committees once a year, and that when necessary special conferences should be held. It was considered that the action of the Scottish Committee would do much to consolidate the interests of the profession in Scotland.

Instruction of Representative.—The business of the Annual Representative Meeting (SUPPLEMENTS, BRITISH MEDICAL JOURNAL, of April 19th, May 3rd and 10th) was considered, and the Representative was instructed accordingly. Among other items, to oppose any motion to turn the British Medical Association into a trade union.

Vote of Thanks.—Dr. MacFadyen, the retiring Chairman, was thanked for his services in the chair during the past year.

OXFORD AND READING BRANCH:

OXFORD DIVISION.

A SPECIAL general meeting of the Division was held on May 30th at the Radcliffe Infirmary, Oxford. Sir WILLIAM OSLER presided, and about thirty members were present.

Reorganization of City Medical Committee. — The SECRETARY read the report of the subcommittee on the constitution of the City Medical Committee, and the reorganization recommended was duly ratified by the meeting.

Tuberculosis Scheme.—Dr. TURRELL introduced the following scheme, which after some remarks by Dr. ORMEROD (M.O.H. for City), Dr. BROOKS, and Sir WILLIAM OSLER, was accepted *nemine contradicente*, on the proposition of Dr. COLLIER.

SUGGESTED TUBERCULOSIS SCHEME FOR THE COUNTY AND CITY OF OXFORD.

In discussing a tuberculosis scheme it should be borne in mind that the primary object of the tuberculosis campaign is the eradication, as far as possible, of tuberculosis rather than the treatment of the disease.

Officers to be Appointed under the Scheme.

Bearing in mind the object mentioned above it is evident that the officer responsible for the working of the scheme should be the M.O.H. for the district or area affected; it is therefore suggested that the M.O.H. for each area should be appointed under the title of Chief Administrative Tuberculosis Officer for the administration of the scheme in his area.

The duties of this officer would be to exercise a general supervision and control over the working of the Act, and to carry out the duties and exercise the powers set forth in the Public Health (Tuberculosis) Regulations, 1912, Articles xi, xii, and xiii.

This scheme, however, must provide not only for the prevention of tuberculosis, but also for the treatment of such cases of tuberculosis as may either exist or arise.

The detection, clinical observation, and treatment of cases of tuberculosis belong more to the province of the Physician than to that of the M.O.H. It is therefore recommended that an Assistant (Clinical) Tuberculosis Officer be appointed, who, though under the general direction of the M.O.H., shall be head of the dispensary and have control of diagnosis and treatment.

The following is suggested as an outline of the duties of the Clinical Tuberculosis Officer:

1. To keep himself informed of the distribution and home conditions, etc., of all notified cases. All information would be obtained by the ordinary sanitary staff, and there would be no need for him to visit private cases.
2. To confer with the M.O.H. as to preventive measures, etc.
3. To be available for consultation with medical men both for diagnosis and to suggest lines of treatment.
4. To be responsible for examination of sputum.
5. To examine and keep under observation contacts and suspicious cases at the request or with the consent of the medical attendant (if there is one).
6. To act as Tuberculosis Officer to the Insurance Committee and to advise the local authority for purposes of sanatorium benefit.
7. To take charge of such tuberculosis dispensaries as may be established in his area.

It is anticipated that the time of the clinical tuberculosis officer for the county would be fully occupied in attending the dispensaries throughout the county and in attending to his other duties. The work of the City Clinical Tuberculosis Officer will not be so scattered, and he will therefore have more time at his disposal; it is therefore suggested that he be in addition appointed Assistant School Medical Officer. This additional appointment would bring him into touch with the poorer school children and would give him a useful insight into some of the social conditions prevailing among the poor of Oxford. And this arrangement would have the great additional advantage of relieving the M.O.H. of a portion of his present work, thus enabling him to perform the suggested duties of Chief Administrative Tuberculosis Officer, which otherwise, owing to the pressure of his public health work, he would be unable to undertake.

It is strongly recommended that these officers shall not be permitted to engage in private practice.

Institutions required under the Scheme.

The following institutions will be required for the efficient working of the scheme:

A Sanatorium; Dispensaries; Institution for observation of hospital cases, and for education of patients in preventive measures; Institution for incurable and dying cases.

It is felt that it does not fall within the scope of this scheme to urge the immediate building of a sanatorium.

Dispensaries.

In order to minimize expense it is recommended that wherever possible existing buildings and institutions should be made use of, and it is especially recommended both on the ground of economy and efficiency that the existing facilities at the Radcliffe Infirmary be utilized to the fullest extent.

It is recommended that a tuberculosis dispensary be established at the Radcliffe Infirmary under the charge of the City Clinical Tuberculosis Officer for the attendance at such times as may be determined of tuberculosis patients within the area of the City of Oxford.

It is recommended that a Tuberculosis Dispensary be established at the Radcliffe Infirmary under the charge of the County Clinical Tuberculosis Officer for the attendance of such cases as may reside in the neighbouring parts of the county, and for the attendance of such cases as from the nature of their complaints may need such facilities for their treatment as cannot be supplied at the Branch Dispensary.

It is recommended that Branch Dispensaries already established in the County of Oxford should be maintained under the care of the County Clinical Tuberculosis Officer.

Hospital for Observation Beds.

It is recommended that beds be provided at the Radcliffe Infirmary for the observation and treatment of such cases as may be considered by the City or County Tuberculosis Officer to require hospital treatment.

It is recommended that such cases, while occupying beds in the Infirmary, should be under the care of the Physician or Surgeon of the Institution to whom they are assigned; also that the Clinical Tuberculosis Officer concerned shall have free access to such cases for the purpose of taking such notes or keeping such records as may be required by the Insurance Committee or Commissioners.

Institutions for Incurable and Dying Cases.

It is strongly felt that neither of the above described institutions is a suitable place for the hopelessly incurable or dying cases; it is recognized nevertheless that these cases, especially in the latter and helpless stages, when they are apt to be surrounded with sympathetic relatives and friends, present an extremely dangerous source of infection. It is recommended that accommodation be provided for such cases.

Insurance Act.—On the motion of Dr. DUIGAN, Secretary, it was resolved that notice be sent to members and non-members in the Division area, and also to secretaries of clubs and friendly societies, to the effect that no persons

with an income above the insurance limit (£160 per annum) would be attended at contract rates.

Temporary Residents.—Dr. Higgs (Secretary of City Medical Committee) raised the question of attendance on migratory insurance patients, and it was unanimously resolved to support the State Sickness Insurance Committee in its request to every Division

1. Not to agree to any deduction from moneys due to them under the Act for the purpose of the schemes outlined in Memorandum 161, and
2. Only to treat the above-mentioned classes of insured persons as private patients until such time as suitable arrangements are provided by the Commissioners.

Notice of this resolution was directed to be sent to members and non-members in the Division.

The proceedings then terminated.

PERTHSHIRE BRANCH.

A meeting of the Perthshire Branch was held in the Perth Infirmary on May 30th, to which every practitioner in Perthshire was invited. Twenty members were present, and a keen discussion took place in regard to difficult questions in the Insurance Act.

Temporary Residents.—After discussion, on the motion of Dr. Tait (Alyth), seconded by Dr. Anderson (Pitlochry), the following resolution was carried unanimously:

That the decision come to by the Joint Local Medical Committee of Perth and Perthshire, at a meeting with Dr. McVail the Friday previous, be not approved of, either in regard to Schemes I or II, brought forward by the Scottish Insurance Commissioners, concerning the provision of medical benefit to temporary residents; and that we approve of the decision come to by the State Sickness Insurance Committee (see Supplement, British Medical Journal, May 17th, p. 452), that no fraction should be deducted from the doctors' 7s. promised by the Act; and that meantime we adhere to the decision previously come to by the practitioners in Perth and Perthshire, that insured persons who are temporary residents or summer visitors must make their own arrangements for medical attendance if required.

Medical Certificates for Sickness Benefit.—On the motion of Dr. Lyell, it was unanimously agreed to send a protest to the Insurance Commissioners—

(1) That medical men were compelled to put down the nature of diseases treated, thus giving private information which members of Local Insurance Committees may get access to; and (2) that it was high time some uniform certificate was agreed upon by the Commissioners.

Non-payment of Medical Men.—On the motion of Dr. Paton it was decided to protest strongly against the present holding up of moneys due to them by the Commissioners for insured persons, both allocated and unallocated. It was reported that great dissatisfaction prevailed on these and other points throughout the county of Perthshire, especially in view of the question of signing on for a further period of service on the panels at an early date.

SOUTH-EASTERN BRANCH:

Dover Division.

The annual meeting of the Dover Division was held on June 3rd. Dr. C. Wood, Chairman, took the chair, and there were eleven members present.

Annual Report.—The Secretary read the annual report of the Executive Committee and presented the statement of accounts, both of which were adopted.

Election of Officers.—The following officers were elected for the ensuing year:

Chairman.—Dr. Ian D. C. Howden, Dover.
Vice-Chairman.—Dr. F. B. Hulke, Deal.
Honorary Secretary and Treasurer.—Dr. J. H. Acheson, R.N.
Representative on Branch Council.—Dr. J. H. Acheson, R.N.
Executive Committee.—Drs. C. Wood and J. J. Day, besides the following (*ex officio*): The Chairman, Vice-Chairman, Representative for Representative Meeting, and Honorary Secretary.

Instruction of Representative.—Resolutions were subsequently passed that the Division approved of an increase up to 5s. in the annual subscription of the Association, but was opposed to the suggestion of the Association being formed into a trade union.

Votes of Thanks.—The meeting terminated with a hearty vote of thanks to Dr. C. Wood, the retiring chairman, for his services as Chairman of the Division for the past two years, who, in responding, said that he felt confident that the loyal support which he had always received from the members would be extended to his successor.

Eastbourne Division.

The tenth annual general meeting of the Eastbourne Division was held on May 16th, when there were present Mr. A. C. Roberts, Chairman, and twenty other members.

Annual Report.—The report of the Executive was read and adopted. It stated that the year was one of continued activity owing to the Insurance Act, and that the brunt of the work in organizing the local profession had been borne by the Provisional Medical Committee formed on April 4th. The results of its efforts had been (*a*) to induce every practitioner engaged in contract friendly society practice to tender his resignation last September, and (*b*) to negotiate successfully the Association's scale of fees for the domiciliary treatment of tuberculous persons with the Local Insurance Committee. The amended scheme for the treatment of elementary school children had failed to receive the sanction of the Board of Education. The number of members of the Division at the end of the year was sixty-seven. Eleven meetings of the Division, including seven jointly with medical non-members, were held, with an average attendance of twenty-four members and five non-members. The Executive Committee had held two meetings, when the average attendance was eight. The Provisional Medical Committee held four meetings, and the average attendance was sixteen.

Election of Officers.—The following were unanimously chosen:

Chairman.—Dr. A. Harper.
Vice-Chairman.—Dr. J. H. Ewart.
Honorary Secretary and Treasurer.—Dr. Wm. Muir Smith.
Representative on Branch Council.—Dr. Wm. Muir Smith.
Representative for Representative Meeting.—Dr. J. H. Ewart.
Executive Committee.—Dr. C. O'Brien Harding, J.P., A. A. Martin, R. Howie, W. J. C. Merry, and M. Milner Moore.

Reorganization of Branch.—On the consideration of the proposal of the South-Eastern Branch Council it was resolved to support the resolution of the South-Eastern Branch Council to obtain the consent of the Council to dividing the present unwieldy Branch into three separate Branches, corresponding with the counties of Kent, Sussex, and Surrey.

Dinner.—After the meeting members dined together under the chairmanship of Dr. A. Harper.

SOUTH-EASTERN OF IRELAND BRANCH.

An extraordinary meeting of the Branch was held in the Council Chamber, Town Hall, Clonmel, on June 4th. In the absence of the newly-elected President, Dr. P. O'Gorman (Gowran), Dr. R. R. O'Brien (Clonmel) occupied the chair; seven other members were present.

Resolutions.

The following resolutions were passed unanimously:

1. That our Secretary be directed to write to the Chairman of the Representative Meeting asking that an end be put to the dilatory proceedings under which the Representative Meeting lasts for several days, when it ought to be finished in two days.
   That our Representative be directed to move a resolution on the subject.
2. As it has come to our knowledge that blackleg certifiers are being sent to a neighbouring city, we wish to express our disapproval of that course, and, if persisted in, we call on all medical men within the area of the South-Eastern of Ireland Branch of the British Medical Association to discontinue all connexion with the working of the tuberculosis section of the Insurance Act.
3. We call the attention of the Representative Meeting of the British Medical Association to the fact that maternity benefit is being paid in Ireland to women attended by unqualified midwives, and urge that meeting to take such action as will prevent in the interest of the ignorant poor the continuance of such practice.
4. That all members of the Conjoint Committee who are on the panel or support those who are on the panel be called on to retire from that body before the Irish Medical Association co-operate with it.
5. That we, the South-Eastern of Ireland Branch of the British Medical Association, warmly protest against the

action of the BRITISH MEDICAL JOURNAL in refusing insertion to letter protesting against the dilatory proceedings of the Representative Body, whereby close on an entire week (a full week if time for travelling be taken into account) is consumed every year by the Representative Body instead of the couple of days which at most would suffice for the transaction of all useful business.

Election of New Member.—At a meeting of the Branch Council subsequently held Dr. Patrick Reid, Borris, co. Carlow, was elected a member of the Branch.

Dinner.—At the conclusion of the meeting the members dined together at the Ormonde Hotel.

SOUTHERN BRANCH:
CHANNEL ISLANDS DIVISION.

A MEETING of the Channel Islands constituency was held at the Royal Hotel, Guernsey, on May 22th. Dr. VOISIN (Jersey) presided, and seventeen others were present.

Statement of Representative.—The Representative, Dr. J. F. CARRUTHERS, suggested that as he had already fully reported to both Jersey and Guernsey the work of the Association for the last year and had nothing new to add, the meeting might dispense with a formal report from him. This was agreed to, and a unanimous vote of thanks was accorded to Dr. Carruthers for his services during the past year as Representative.

Election of Representative.—On the motion of Dr. BULTEEL, seconded by Dr. MAJOR, Dr. Carruthers was re-elected Representative for the coming year, with power to nominate a Deputy.

Vote of Thanks.—With a vote of thanks to the Chairman the meeting terminated.

GUERNSEY AND ALDERNEY DIVISION.

AT the annual meeting of this Division, held at Gardner's Royal Hotel, Guernsey, on May 29th, the Honorary Secretary, Dr. J. F. CARRUTHERS, made his annual report and financial statement, which were unanimously adopted; and a vote of thanks was accorded to him for his services in the past year.

Election of Officers.—The following officers were elected for the ensuing year:

Chairman.—Dr. H. Draper Bishop, M.O.H.
Honorary Secretary and Treasurer.—Dr. J. F. Carruthers (re-elected).
Librarian.—Dr. M. H. Bulteel (re-elected), with Drs. Aikman and Carruthers on the Committee.
Representative on the Branch Council.—Major E. H. Myles (re-elected).
Executive Committee.—Drs. Aikman, C. Carey, and Bulteel, with the President, Honorary Secretaries, and Branch Council Representative members *ex officio*.

Annual Dinner.—The annual dinner followed, at which sixteen members sat down; Drs. H. C. Major and E. O. B. Voisin of Jersey attended as guests, and ten other visitors were present, including His Excellency the Lieutenant-Governor, Sir Edward Hamilton, Mr. E. C. Ozanne, Procureur du Roi, and Mr. V. G. Carey, King's Receiver-General.

SOUTH MIDLAND BRANCH:
NORTHAMPTONSHIRE DIVISION.

THE annual meeting of the Division was held in the Northampton General Hospital on May 29th. The chair was taken by Dr. BAXTER, and later by Dr. COOKE; seventeen other members were present.

Election of Officers.—The following officers for the ensuing year were elected:

Chairman.—Dr. Cooke.
Vice-Chairman.—Dr. Bull (Stony Stratford).
Honorary Secretary and Treasurer.—Dr. Hichens.
Divisional Committee.—Drs. Cropley, Grindon, Linnell, Relton, and Tolputt.
Representatives on Branch Council.—Drs. Cooke, Greenfield, and Arthur.
Representative for Representative Meetings.—Dr. Dryland.
Deputy Representative.—Dr. Roughton.
Representatives on South Northants Nursing Committee.—Drs. Darley and Harrisson.

Vote of Thanks.—Dr. COOKE then took the chair and proposed a vote of thanks to Dr. Baxter, the retiring Chairman, which was carried with acclamation; and Dr. BAXTER replied.

Annual Report.—Dr. HICHENS then read the annual report, which showed that the membership, which on December 31st, 1912, numbered 126, had increased by 4, after allowing for 1 death, 5 resignations, and the loss of 8 members from the Division through change of residence. The financial statement showed a balance in hand at the end of 1912 of £19 7s. 7d. Nine meetings of the Division had been held, chiefly for the consideration of the National Insurance Act, and the average attendance had been over 45; the Executive Committee had met seven times.

Instruction of Representative.—The agenda for the Annual Representative Meeting was then discussed, and the Representative was directed to support or reject certain resolutions.

Expenses of Representatives.—The Division passed the following resolution:

That Divisions be allowed to pay their Representatives' out-of-pocket expenses other than travelling expenses.

SOUTH-WESTERN BRANCH:
PLYMOUTH DIVISION.

THE annual meeting of the Plymouth Division was held in the Medical Societies' Rooms, Plymouth, on May 27th. Dr. E. L. Fox, in the unavoidable absence of Mr. R. Jaques, presided. The attendance was smaller than usual.

Election of Officers.—The following were elected officers for the ensuing year:

Chairman: Mr. R. Jaques, F.R.C.S.
Honorary Secretary: E. J. Donbavand.
Branch Councillors: Drs. C. Cooke, Musgrave, McCulloch.
Executive Committee: Drs. Glinn, Lander, Pethybridge, and Style.

Vote of Thanks.—A cordial vote of thanks for past services was unanimously carried.

Instruction of Representative.—The meeting then considered the Council's report and recorded the opinions that it was desirable: (1) To increase the subscription to the Association. (2) To form a trades union for the whole rather than part of the members. (3) That the Representatives should receive out-of-pocket expenses, in addition to railway fare. (4) That postal votes are very necessary in obtaining a reliable estimate of the general opinion of the profession.

Contract Practice.—The HONORARY SECRETARY said that there was reason to believe that some medical men were underselling their colleagues in respect to certain clubs, and proposed that a circular should be sent to all practitioners in the Plymouth Divisional area to the effect that any practitioner in the Plymouth Divisional area of the British Medical Association who accepted friendly society and other appointments on contract terms less than those agreed to by the Division, would be considered as acting in a manner derogatory to the interests of the profession. This was carried, and the meeting terminated.

STIRLING BRANCH.

THE annual general meeting of the Stirling Branch was held at Alloa on May 28th.

Report of Branch Council.—The report of the Branch Council stated that eight meetings had been held during the year, with an average attendance of thirty-nine members.

Election of Office-bearers.—The following were elected for the ensuing year:

President.—Dr. Dyer (Alloa).
Vice-President.—Dr. Clarkson (Larbert).
Secretary.—Dr. Moorhouse (Stirling).
Branch Council.—Drs. Buist (Dunblane), Hunter (Falkirk), Joss (Denny), and McFarlan (Stirling).
Representatives of the Branch on the Colliery and Public Works Surgeons Committee for Scotland.—Drs. Joss and Robertson.

Annual Representative Meeting.—In connexion with the consideration of the business of the Annual Representative Meeting Dr. DYER read a paper on the Insurance Act in the light of experience. The address covered all the points which a four months' experience of the Act had brought to light, and was followed by an interesting discussion. The meeting passed a cordial vote of thanks to Dr. Dyer for his address, and directed that it should be printed and circulated to all practitioners within the Branch area.

NEW SOUTH WALES BRANCH.

Annual Meeting.

The annual meeting of the New South Wales Branch of the British Medical Association was held on March 28th, Dr. Clarence Read, President, being in the chair.

Annual Report of Council.

The annual report of the Council showed that at the end of the year the Branch numbered 894 members and that during its course eighteen meetings were held, the discussion thereat auguring well, it is stated, for the future development of the scientific side of the Branch's work. The Council itself held thirty-one meetings, while those of its Organization, Ethical, Contract Practice, and Premises Subcommittees aggregated thirty-eight.

Organization of the Professiou.

The report afforded evidence that a considerable amount of work had been accomplished in the direction of the organization of the profession and the progress of the Federal movement among the various State branches of Australia. Three new local associations have been formed during the year which are affiliated with this Branch. These were: The City Medical Association, which may be considered to be a revival of the old Sydney Metropolitan Association; the North-Eastern Medical Association, comprising the area of the northern rivers of the State; and the Illawarra Suburbs Medical Association. The Balmain District Medical Association, which was inaugurated in 1891 and reorganized in 1903, has now decided to become affiliated with the Branch. This raises the number of local medical associations affiliated with the New South Wales Branch of the British Medical Association to fifteen.

The Federal Committee.

The Federal Committee of the British Medical Association in Australasia, under the provisional constitution adopted for it by all the seven branches in Australasia, held its first session in Melbourne, May 27th to 29th, 1912, when several important subjects of general interest to the medical profession in Australasia were considered. This first meeting of the Federal Committee was duly recognized by the members of the Victorian Branch as an epoch-marking event in the organization of the profession in Australia. They took the opportunity of drawing public attention to it by entertaining the Committee at a dinner, at which His Excellency the Governor, Sir John Fuller, presided, and at which the Commonwealth Government was represented by the Hon. G. F. Pearce, Minister for Defence, and the State Government by the Premier, Mr. W. Watt. The second session of the Committee was held in Sydney at the British Medical Association Library, January 7th to 10th, 1913.

Conference with Friendly Societies.

The Council reported that during the year a conference was held between representatives of the friendly societies and the Council of the New South Wales Branch of the British Medical Association with a view to arriving at a better understanding between friendly societies and their medical officers. The result of this conference is briefly summarized as follows:

1. There are no real obstacles to the establishment of harmonious relations between the friendly societies and the members of the Association.

2. The medical institutes which support the practice of paying their medical officers by salary instead of on a per capita basis are discountenanced by the friendly societies.

3. The form of agreement approved by the Council and adopted by the North-Eastern Medical Association for use as a common form of agreement by its members was approved of by the conference as a suitable form of agreement for use by all lodges and their medical officers throughout the State.

It is interesting to know that the friendly societies' representatives at this conference admitted the justice of the principle of the wage limit in lodge contract practice.

The Hospital System.

Reference was made to the extension of the hospital system introduced during the year by the Government by the equipment of three of the asylums for the destitute near Sydney as general hospitals with honorary visiting medical staffs. In recognition of their new function they are now called State hospitals and asylums, and the Coast Hospital at Little Bay is now referred to as the National Hospital. These changes may easily be regarded as an instalment of a State general hospital system as distinct from the system in vogue in New South Wales of general hospitals supported by the contributions of the charitable and endowment of the benevolent, and not under Government management. An effort was made during the year by the Government to introduce a further extension of the hospital system by the establishment of free State general dispensaries, independent of the out-patients' department of the general hospitals. The New South Wales Branch of the British Medical Association promptly took steps to counteract this move by passing the folfowing resolutions, namely:

> That in view of the fact that medical attendance can be made available for all classes of the community through the agencies of public hospitals, friendly societies, and medical practitioners in their private practice, it is unnecessary and inadvisable to establish free general dispensaries; and that no member shall accept a position as honorary medical officer to any free general dispensary under Government control.

The British Medical Association Building.

Reference is also made to the financial success of the British Medical Association building, which is largely owing to the energy and devotion of the manager, Dr. W. H. Crago. The net result of the British Medical Association building operations for the year shows a profit of £594 7s. 2d.

The Influence of the Association.

The *Australasian Medical Gazette* at the end of 1912 completed its first year as a weekly publication. As anticipated, its value to members as a newspaper has been immensely increased as a result of the change of the monthly to the weekly issue.

In conclusion, the Council notes with satisfaction the steady growth of the influence of the Association in public matters in which the medical profession is concerned and the recognition afforded to the Association by the Government and public bodies. During the year Departments, both of the State and Commonwealth Governments, have consulted the Council on medical matters requiring consideration.

Election of Officers and Council.

The following were elected officers for the year: President, Dr. Sydney Jamieson; Vice-President, Dr. David Thomas; Members of the Council, Drs. Abbott, Armstrong, Barrington, Blackburn, Brady, Crago, Craig, Dick, Gillies, Hinder, Lipscomb, Maitland, Millard, Morton, Read, Rennie, Sandes, Todd. Dr. R. H. Todd was elected Representative of the Branch at the Annual Representative Meeting of the British Medical Association at Brighton in July, 1913. Drs. R. H. Todd and Gillies were nominated as delegates, on the invitation of the President-elect, Dr. W. Ainslie Hollis, to attend the Annual General Meeting of the British Medical Association at Brighton.

At the first meeting of the new Council, held on April 1st, Dr. R. H. Todd was re-elected Honorary Secretary, Dr. Sandes, Assistant Honorary Secretary; Dr. W. H. Crago, Honorary Treasurer; Dr. J. A. Dick, Honorary Librarian; Dr. G. E. Rennie, Editor of the *Australasian Medical Gazette*; Dr. J. B. Cleland, Assistant Editor; Dr. W. H. Crago, Manager.

A list of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list. The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

British Medical Association.

EIGHTY-FIRST ANNUAL MEETING, BRIGHTON, JULY, 1913.

THE SECTIONS.

THE scientific business of the meeting will be conducted in sixteen Sections, which will meet on Wednesday, July 23rd, Thursday, July 24th, and Friday, July 25th.

The President, Vice-Presidents, and Honorary Secretaries of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the BRITISH MEDICAL JOURNAL *without special permission.*

The following additional information in regard to the work of certain Sections has been received since our last issue:

SECTION OF DERMATOLOGY.

Paper:

WALSH, D. Circulatory Disorders in relation to Alopecia Areata and other forms of Baldness.

SECTION OF GYNAECOLOGY AND OBSTETRICS.

Wednesday.—Discussion on the Best Methods of dealing with Malpositions of the Uterus, especially with reference to Retrodisplacements and Prolapse, to be opened by Dr. MARY SCHARLIEB, Dr. HANS SCHLIMPERT (Freiburg), Mr. CUTHBERT LOCKYER, and Professor H. CORBY, followed by Messrs. A. E. Giles, Christopher Martin, N. T. Brewis, G. B. Marshall, W. Ritchie, F. Edge, and Drs. May Thorne and Mary Ivens.

Thursday.—Discussion on Affections of the Urinary Tract complicating Pregnancy, to be opened by Sir JOHN HALLIDAY CROOM, followed by Messrs. H. O. Nicholson, G. B. Marshall, W. H. P. Newnham, H. Williamson, Bryden Glendining, and F. Edge.

Friday.—Papers and pathological demonstrations:

GILES, A. E. Reasons for Early Operation on Uterine Fibroids.

MCILROY, A. Louise, WATSON, H. Ferguson and MCILROY, J. Hamilton. The Significance of the Wassermann Reaction in Gynaecological Diagnosis.

SCHLIMPERT, Dr. Hans. Abderhalden's Serum Reaction of Pregnancy.

The following paragraphs indicate the line that will be taken by the openers of the formal discussions:

Discussion on Methods of Dealing with Malpositions of the Uterus.—(Dr. SCHLIMPERT). Suture of the muscles of the pelvic floor as a remedy for the more severe cases of prolapse has been in use in the Frauenklinik at Freiburg since July, 1909. Two methods are in use: (1) Suture of the deep transverse perineal muscles without isolation of the musculi levatores. The musculi levatores are included in the suture or only approached to one another by suture of the deep transverse perineal muscles. (2) Suture of the separated musculi levatores. First the deep transverse perineal muscles are isolated, then the centrum peritoneum is cut through until the sphincter is reached. Then the deep transverse perineal muscles are also cut through, and the final stage is the union by iodine catgut of the edges of the pubic portion of the levator ani. At the same time as this operation an anterior and posterior colporrhaphy are performed, the bladder wall being also folded in, and besides this antefixation of the uterus (Alexander, Adami or ventrifixation, or vaginal fixation) is performed. In the case of multiparae, resection of the Fallopian tubes for the purpose of sterilization was usually performed in addition. Indications for this treatment; the operation, although the results are better than those formerly employed, must be acknowledged to be somewhat dangerous, and thus must be reserved for the severer forms of prolapse. For cases where the span between the levatores ani is about two fingerbreadths, the method (1) of operating is employed; on the other hand, where the space between the levatores ani is three to four fingerbreadths in width, method (2) must be used. In cases where the levatores ani cannot be palpated, the space between them being even more than four fingerbreadths, then colpocleisis must be performed.

Discussion on Affections of the Urinary Tract complicating Pregnancy.—(Sir HALLIDAY CROOM). (1) Abnormal constituents of urine: (*a*) Albumen, and urinary products associated with toxaemia of pregnancy; reference to the kidney of pregnancy; pre-eclamptic and nephritic toxaemia, eclampsia, eclampsia without albuminuria, hyperemesis gravidarum, coefficient of ammonia, anuria in toxaemia. (*b*) Sugar; glycosuria, lactosuria, pregnancy in diabetes. (2) Infection of urinary tract: pyelitis, cystitis, path of infection—upwards or downwards? (3) Retention of urine; in pregnancy, in the puerperium. (4) Incidence of stone in pregnancy. (5) Bladder—its anatomy in labour. Distension—diagnosis from retraction ring. Fistula formation.

SECTION OF ELECTRO-THERAPEUTICS.

The following is the programme:

Wednesday.—Introductory address by Professor C. G. BARKLA, F.R.S., on Secondary *X*-ray Radiations in Medicine.

Papers on Roentgen Diagnosis.

HERTZ, A. F. Suggested Normal Standards of the *X*-ray Examination of the Alimentary Canal.

BRUCE, Ironside. Collargol Injections in the Diagnosis of Diseases of the Urinary Tract.

JORDAN, A. C. Cardiospasm.

BYTHELL, W. J. S. The Radiography of Tuberculous Sinuses injected with Bismuth.

Thursday.—Papers on Electro-diagnosis and Electro-therapeutics.

JONES, Lewis. On the Use of Condensers in Electrical Testing.

NAGELSCHMIDT, Professor (Berlin). On Electrical Treatment of Nutritional Disorders.

BAILEY, C. F. Electro-therapeutics in Neuron Lesions.

CUMBERBATCH, E. P. Results of Muscle Testing by the Condensor Method.

LEWIS, T. The Electrocardiograph.

HARRIS, J. D. Secondary *X* Rays in connexion with Ionization.

HUMPHRIS, F. H. Electricity in the Reduction of High Arterial Tension.

Friday.—Discussion on the Use of the Gamma Radiations in Surgery, to be opened by Sir A. PEARCE GOULD and Dr. ROBERT ABBE (New York).

Papers on Roentgen-therapy and Radium.

HERNAMAN-JOHNSON, F. Indication for *X*-ray Radiation before, during, and after Operation for Cancer.

FOWLER, F. The Technique of *X*-Ray Treatment of Cancer.

SAVILL, Agnes. Two Cases of Fibroma cured by *X* Rays (Bordier's Method).

BAFTEN, G. B. *X*-Ray Treatment of Ringworm.

SECTION OF LARYNGOLOGY, RHINOLOGY, AND OTOLOGY.

Wednesday.—The discussion on The Technique and After-Treatment of the Radical Mastoid Operation will be opened by Dr. WILLIAM MILLIGAN.

Thursday.—In opening the discussion on this day Mr. H. TILLEY will be associated with Sir R. H. WOODS.

WILLIAMS, Watson. Exploration of the Accessory Sinuses of the Nose (Demonstration).

Friday.—Papers:

MAURICE, A. (Paris). The Re-education of the Powers of Hearing.

O'MALLEY, J. F. Suggestive Points of Analogy in Oto-sclerosis and Arthritis Deformans.

HETT, G. Seccombe. The Physiology, Anatomy, and Embryology of the Palatine Tonsils.

The following paragraph indicates the line that will be taken by the opener of the first discussion:

Discussion on The Technique and After-Treatment of the Radical Mastoid Operation.—(Dr. WILLIAM MILLIGAN). Importance of a detailed examination of the functional activity of the labyrinth prior to the performance of the radical mastoid operation; risks of a "radical" operation in cases of diffuse purulent (latent) labyrinthitis; possibility of converting a circumscribed into a diffuse serous

or purulent labyrinthitis; clinical symptoms in such an event. If latent labyrinthitis present, either no mastoid operation or a complete mastoidectomy and labyrinthectomy; danger of incomplete operations. *Method of Closing the Eustachian Tube:* Preparation of patient and operation area. Methods of opening mastoid antrum, hammer and gouge, gouge without hammer, burrs, advantages; objections; necessity of free removal of posterior meatal and outer attic walls. Flaps. Inner tympanic wall, how to deal with it. Disinfection of antro-meatal cavity. *After-Treatment:* Packing: advantages, disadvantages; dry treatment; use of spirit drops. Skin grafting; cell proliferants; blood-clot treatment; combination of one or more methods. Various methods statistically compared.

SECTION OF NEUROLOGY AND PSYCHOLOGICAL MEDICINE.

Friday.—Paper:

BROWN, Professor. The Psycho-Analytical Method of Freud.

SECTION OF PHARMACOLOGY, THERAPEUTICS, AND DIETETICS.

Wednesday.—After the discussion on Urinary Antiseptics a paper will be read by Dr. H. GRAY BARBOUR (University of Yale) on the Pharmacology of Body Temperature.

Friday.—After the discussion on Hypnotics the following papers will be read:

PRICE, F. W. Some Further Investigations of the Action of Digitalis on the Blood Pressure in Man.

HAIG, A. The Acid Child in Relation to Dietetic Errors.

SECTION OF TROPICAL MEDICINE.

Wednesday.—Discussion on the Causes of Invaliding in the Tropics. To be opened by Dr. G. BASIL PRICE and Colonel R. J. S. SIMPSON, C.M.G., A.M.S. (ret.).

Thursday.—Discussion on Dysentery. To be opened by Captain S. R. DOUGLAS.

The following paragraphs indicate the line that will be taken by the openers:

Discussion on the Causes of Invaliding in the Tropics.—(1) (Dr. PRICE). Some general considerations on climatic factors involved in tropical and subtropical residence. The report on an investigation into the causes of invaliding of missionary lives from 1890 to 1906 belonging to eighteen English missionary societies. The statistics available are in most cases very incomplete, since only the Church Missionary Society had medical records of its agents. This society deals, however, with a staff of about 1,200 missionaries, men and women; a careful analysis, therefore, is given of the returns afforded by this society, aad compared with those obtained from other sources. The principal headings of the analysis are: (1) The country or region concerned; (2) number of lives involved, men or women; (3) average years abroad and on furlough; (4) percentage of invalided and healthy lives; (5) incidence of illness which did not necessitate invaliding; (6) causes of illness and invaliding from each country. *Conclusions.*—(1) That the causes of illness and invaliding vary very widely according to the country concerned. As an example from the Church Missionary Society figures: *Japan:* 105 men and women; 16 invalided (or 15.2 per cent.), of which 13 (or 81.25 per cent.) are for neurasthenic conditions. *East Africa and Uganda:* 125 lives; 25 (or 20 per cent.) invalided, the more prominent causes of which are (*a*) malaria (20 per cent.), (*b*) blackwater fever (16 per cent.), (*c*) anaemia (16 per cent.). (2) The greater incidence of disease in certain countries, and the frequent susceptibility of the nervous and circulatory systems as the focus of disturbance. (3) The analysis brings into prominence the rôle that infective disease plays in invaliding and as a cause of illness; malaria, enteric fever, and bowel disorders are probably the most common. (4) The need for education of all going abroad as to the adoption and practice of safeguards to health is urgent, particularly as regards the use of quinine, vaccination against enteric, and small-pox. A further reference is made to cases of enteric fever and tuberculosis, stating the time of incidence and, in the latter case, to what extent family predisposition had been present. Tuberculosis occurring in a class of life which may be termed "selected" proves to be a very definite and repeated cause of invaliding and death amongst missionary lives.

(2) Colonel R. J. S. SIMPSON.—The questions to be answered are: (1) To what extent are tropical diseases effective in producing invaliding? (2) What are the diseases which most frequently result in invaliding? (3) Are the same causes effective in producing invaliding that were effective twenty years ago? The materials used in answering these questions are: The Army Medical Department Reports, taking the ratios of invaliding per 1,000 of strength for the periods 1886–95, 1896–1905, 1906–10 for India alone, and the period 1906–10 for all foreign stations. The term "invaliding" as applied in the Army Medical Service is defined, and the following conclusions are drawn: (*a*) Tropical diseases of themselves produce a relatively large temporary disability only. (*b*) The temporary invaliding from a station for causes other than tropical diseases is, over the whole of the foreign stations, closely related to the proportion of invalids from tropical diseases. (*c*) The important causes of invaliding, temporary and final, are in order of importance: Nervous and mental diseases, tuberculous diseases, diseases of the organs of special sense, including the eye; diseases of the heart, functional and organic. These are the same causes which are effective in Great Britain, and almost in the same order.

Discussion on Dysentery.—(Captain S. R. DOUGLAS). (1) The life-history of amoeba causing dysentery. (2) Cultivation of pathogenic amoeba. (3) Experimental work on animals. (4) Occurrence of amoebic dysentery in Europe. (5) Some of the rarer complications of dysentery. (6) Treatment of dysentery.

Honorary Local Treasurer—
H. H. TAYLOR, F.R.C.S.,
36, Brunswick Square, Hove.

Honorary Local Secretary—
LEONARD ARTHUR PARRY, M.D., F.R.C.S.,
83, Church Road, Hove.

THE PATHOLOGICAL MUSEUM.

THE Pathological Museum Committee, whose constitution was set forth in our issue for May 17th, proposes to arrange the material it receives under the following heads:

(i) Exhibits bearing on discussions and papers in the various Sections.
(ii) Specimens and illustrations relating to any recent research work.
(iii) Instruments relating to clinical diagnosis and pathological investigation.
(iv) Individual specimens of special interest, or a series illustrating some special subject.

The Committee wishes it to be understood that the above are only suggestions, and that specimens illustrating any subject of special interest will be welcomed.

The Committee desires to enlist the hearty co-operation of members, and the Honorary Secretary will be glad to hear from those who are able to make an exhibit. Every care will be taken of specimens, and the contents of the Museum will be insured.

It is hoped that it will be possible for arrangements to be made whereby exhibitors may have an opportunity of demonstrating their specimens.

The Museum will occupy a central position in the same building as that in which the sectional work is carried on, and will be easy of access.

The Chairman of the Committee is Dr. E. Hobhouse (Hove), but all communications concerning it should be addressed to Dr. W. Broadbent or Dr. H. M. Galt, Honorary Secretaries, Pathological Museum Committee, 14, North Street, Brighton.

In the article on the Annual Meeting which appeared in the JOURNAL of June 7th, there are three misprints at the top of the right hand column of p. 1227 which we wish to correct. The name of the divine who sang the fame of Richard Russell, the founder of the fame of Brighton as a health resort was not "Mannington," but Manningham; and he was parson not of "Levington," but of Jevington, a hamlet nestling in a hollow of the South Downs. In the second line of the Latin distich quoted, "selinet" should be "retinet."

PROVISIONAL PROGRAMME.

The following is the provisional time table for the Brighton meeting:

FRIDAY, JULY 18TH.

10 A.M.—Annual Representative Meeting.

SATURDAY, JULY 19TH.

9.30 A.M.—Representative Meeting.

MONDAY, JULY 21ST.

9.30 A.M.—Council Meeting.
10 A.M.—Representative Meeting.

TUESDAY, JULY 22ND.

9.30 A.M.—Representative Meeting.
2 P.M.—Annual General Meeting.
8.30 P.M.—Adjourned General Meeting, President's Address.

WEDNESDAY, JULY 23RD.

9 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Medicine.
3 P.M.—Religious Services.
4 P.M.—Secretaries' Conference.
7 P.M.—Secretaries' Dinner.

THURSDAY, JULY 24TH.

8 A.M.—National Temperance League Breakfast.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Surgery.
7.30 P.M.—Annual Dinner.

FRIDAY, JULY 25TH.

9 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
8 P.M.—Popular Lecture.

SATURDAY, JULY 26TH.

Excursions.

THE LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

THE following books were added to the Library between October and December, 1912:

Presented by the Author.

Stoddart, W. H. B.: The Mind and its Disorders, second edition. 1912

Presented by the General Medical Council.

Harper, C. J. S.: Legal Decisions upon the Medical and Dental Acts. 1912

Presented by the Faculté de Médecine et de Pharmacie de Lyon.

Thèses pour le Doctorat. 1910-11 and 1911-12

Presented by the Superintendent, Government Printing, Calcutta.

Scientific Memoirs by officers of the Medical and Sanitary Departments of the Government of India:

No. 51. Liston and Williams: A Streptothrix isolated from the Spleen of a Leper 1912
No. 52. Wells, R. T.: Dysentery in Hazaribagh Central Jail in January, 1910 to March, 1911 1912
No. 53. Patton, W. S.: The Development of the Parasite of Indian Kala-Azar 1912
No. 54. Cragg, F. W.: Studies on the Mouth Parts and Sucking Apparatus in the Blood-sucking Diptera 1912
No. 55. Cragg, F. W.: The Structure of Haematopota Pluvialis 1912
No. 56. Christophers, S. R.: Malaria in the Andamans. 1912

Added to the Library through the "British Medical Journal."

Abderhalden: Synthese der Zellbausteine in Planze und Tier 1912
Aikens, C.: Clinical Studies for Nurses, second edition 1912
Aikens, C.: Primary Studies for Nurses, second edition 1912
Baginsky, A.: Wohlfahrtseinrichtungen für Kinder in grossen Stadten 1911
Baily, H. W.: Clinical Pathology of Syphilis
Ballance, C. A.: Cerebral Decompression in Ordinary Practice 1912
Ballenger: Diseases of the Nose, Throat, and Ear 1908
Berkart: On Bronchial Asthma, third edition 1911
Billiarde, F. J.: Citizens in the Making 1912
Bridges, J. H.: Essays and Addresses 1907
Bruce, Mitchell, and Dilling: Materia Medica, ninth edition 1912
Brugsch and Schittenhelme: Lehrbuch klinischer Untersuchungsmethoden, 2 Aufl. 1911
Buchanan, R. E.: Veterinary Bacteriology 1911
Bunting, E. L. and D. E. L.: A School for Mothers 1907
Burrows, H.: Surgical Instruments and Appliances used in Operations, fourth edition 1912
Bury, J. S.: Diseases of the Nervous System 1912
Byrne, J.: Seasickness and Health 1912
Calder, A. B.: Lectures on Midwifery for Midwives 1912
Cheyne, Sir W. Watson: Tuberculous Diseases of the Bones and Joints 1911
Coleman, F.: Extraction of Teeth 1908
Coleman, W. M.: Lessons in Hygiene and Physiology 1907
Decastello and Krjukoff: Untersuchungen über die Struktur des Blutzellen 1911
Dekeyser: Physiothérapie du Lupus 1912
Dibdin, W. J.: Rise and Progress of Aërobic Methods of Sewage Disposal 1911
Duncan, D.: Life and Letters of Herbert Spencer 1908
Dutton, A. S.: The National Physique 1908
Fenger, C.: Collected Works 1912
Fischer, B.: Kurzgefasste Anleitung zu den wichtigeren hygienischen Untersuchungen, 2 Aufl. 1912
Fordyce, A. D.: Care of Infants and Young Children 1911
Fox, F.: Problems of the Pacific 1912
Fuller, G. W.: Sewage Disposal 1912
Garland and Lister: Sanatoria for the People 1911
Gemmill, J. F.: Teratology of Fishes 1912
Gibbs, W. S.: Food for the Invalid and Convalescent 1912
Grashey, R.: Atlas typischer Röntgenbilder, 2 Aufl. 1912
Grimshaw, J.: Eyestrain and Eyesight 1907
Grotjahn: Soziale Pathologie 1912
Von Gruber and E. Rudin: Fortpflanzung Vererbung Rassenhygiene 1911
Grube, C. G.: Infant Feeding 1912
Hecht, C.: Our Children's Health at Home and at School 1912
Heck, W. H.: Mental Discipline and Educational Values 1912
Herringham, W. P.: Kidney Diseases 1912
Hewer, Mrs. L.: Our Babies, for Mothers and Nurses 1908
Hill, W.: On Gastroscopy 1912
Ivy, R. H.: Applied Anatomy and Oral Surgery 1911
Jack, Florence: Cooking for Invalids 1912
Jacobs, B.: Manual of Public Health Law 1912
Kanthack, E.: Preservation of Infant Life 1907
Kuhnemann: Diagnose und Therapie inneren Krankheiten 1911
Latham and English: A System of Treatment by Many Writers, vols. 1, 2, 3, 4 1912
Lewandowski: Praktische Neurologie für Aerzte 1912
Lickley, J. D.: The Nervous System 1912
Von Linné: (Bref och Skrivelser af och till) Del 5, Del 6 1911-12
Lockwood, C. B.: Clinical Surgery 1911
Macleod, H. W. G.: Hygiene for Nurses 1911
Marshall, C. E.: Microbiology 1912
Martin, E.: Der Haftapparat der weiblichen Genitalien 1911
May and Worth: Diseases of the Eye, third edition 1911
Melville, Colonel C. H.: Military Hygiene and Sanitation 1912
Minchin, W. C.: Treatment, Prevention, and Cure of Tuberculosis and Lupus with Allyl sulphide 1912
Mitchell and Mudge: Outlines of Biology 1911
Morten, H.: Health in the Home Life 1907
Murray and Kelly: Handbook of Practical Treatment, vol. ii. 1911
Von Oettingen: Leitfaden der praktischen Kriegschirurgie. 1912
Oppenheimer, C.: Chemische Methodik für Aerzte, 2 Aufl. 1912
Packard, F. R.: Textbook of Diseases of the Nose, Throat, and Ear 1909
Pearson, C. T.: Modern Surgical Technique and its Relation to Operations and Wound Treatment 1911
Peters, O. H.: Observations upon the Natural History of Epidemic Diarrhoea 1911
Pickerill, H. P.: Stomatology in General Practice 1912
Pollock and Harrison: Gonococcal Infections 1912
Reinhardt, C.: Diet and the Maximum Duration of Life 1911
Robertson and McKendrick: Public Health Law 1912
Rule, W. B.: The Pyonex—its Theory and Practice 1907
Sadler, W.: Bacteria as Friends and Foes of the Dairy Farmer. 1912
Sahli: Tuberculin Treatment 1912
Savage, W. G.: Milk and the Public Health 1912
Schofield: Functional Nerve Disease 1908
Schuller, A.: Röntgen Diagnostik der Erkrankungen des Kopfes. 1912
Sezary, A.: Tuberculinothérapie et Sérotherapie 1912
Smith, E. R., Brown, N., and McCulloch, L.: The Structure and Development of Crown Gall—a Plant Cancer 1912
Smith, F. J.: Domestic Hygiene for Nurses 1911
Still, G. F.: Common Disorders and Diseases of Children, second edition 1912
Taylor, F. N.: The Main Drainage of Towns 1912
Thomson, H. Hyslop: Consumption in General Practice 1912
Turner, C. R.: Textbook of Prosthetic Dentistry 1907
Upson, H. S.: Insomnia and Nerve Strain 1908
Varis, S. M.: A Study of Malaria and Beri-Beri 1912
Veraguth: Klinische Untersuchung Nervenkranker 1911
Walker, A. H.: Food Inspector's Encyclopaedia 1912
Wallace, Alfred Russel: My Life, two vols. 1905
Waterhouse and Unwin: Old Towns and New Needs 1912
West, C.: How to Nurse Sick Children 1908
Whetham, W. D. and C. D.: An Introduction to Eugenics 1912
Whitaker, J. R.: Anatomy of the Brain and Spinal Cord, fourth edition 1911
Whitby, C.: The Doctor and His Work 1912

Wilkinson, W. C.: Tuberculin in Diagnosis and Treatment of Tuberculosis 1912
Williams, Chas.: Insanity: Its Causes and Prevention 1908
Woodcock, H. de C.: The Doctor and the People 1912
Yearsley, M.: Textbook of Diseases of the Ear 1908
Yonge, E. S.: Handbook of Diseases of the Throat and Nose 1909
Young, D. H.: Medical Education and Infant Feeding 1911

Calendars, Reports, and Transactions have been received from the following bodies:

Aberdeen University Calendar 1912-13
Adelaide, Report of the Medical Officer of Health 1911
Association Internationale d'Urologie, Procès Verbaux, Second Congress 1912
Birmingham University Calendar 1912-13
Cape of Good Hope, Report of Government and State-Aided Hospitals 1910-11
Cape Town Corporation, Report of the Medical Officer of Health 1912
Child Study Society, Journal of the, vols. i to v 1908-1912
Colombo, Report of Medical Officer 1910
Committee for the Study of Malaria in India, Report on Paludism, No. 5 1912
Conference on the Teaching of Temperance and Hygiene in the Universities and Schools of the British Empire, Proceedings 1907
Dublin University Calendar 1912-13
Dundee University Calendar 1912-13
Edinburgh Obstetrical Society Transactions, xxxvii 1911-12
Edinburgh School of Medicine of the Royal Colleges, Calendar 1912-13
Education Board, Report of a Departmental Committee appointed to inquire into certain questions in connexion with public elementary schools 1912
General Medical Council, Standing Orders revised till June, 1912
Glasgow Medico-Chirurgical Society, Transactions, vol. xi 1912
Jamaica and its Dependencies, Census Report 1911
Jamaica, Annual Report on the Lunatic Asylums 1911-12
Japan, Annual Report on the Health of the Imperial Navy, 1909
Johannesburg, Report of the Medical Officer of Health 1909-11
King's College Calendar 1912-13
Leeds University Calendar 1912-13
Lister Institute of Preventive Medicine, Collected Papers, No. 8 1912
Local Government Board—Reports to the Medical Officer:
Dr. Fletcher's Report on the Sanitary Circumstances of Newport Pagnell 1912
Dr. Hutchinson's Report on the Sanitary Circumstances of Oakengates, Shropshire 1912
Dr. Manby's Report on the Sanitary Circumstances of West Hartlepool 1912
London County Council, Annual Report of the Asylums Committee 1912
Metropolitan Water Board Reports:
Sixth Annual Report on the Chemical and Bacteriological Examination of Water 1912
Report on the Condition of the Metropolitan Water Supply, June, July 1912
National Conference on the Prevention of Destitution, Papers and Proceedings 1912
Navy, Statistical Report on the Health of 1911
New South Wales:
Report of the Inspector-General of the Insane 1910
Report on Leprosy 1910
Report of the Metropolitan Board of Water Supply and Sewerage 1911
New York Research Laboratory, Clinical Studies, vols. i to vi 1905-12
North of England Obstetrical and Gynaecological Society Transactions 1912
Ophthalmological Society of United Kingdom Transactions, xxxii 1912
Oxford University, Collected Papers from the Department of Pathology, vol. i 1909-11
Pathological Society of Philadelphia Proceedings, Parts 12, 13, 14 1912
Philadelphia Academy of Surgery Transactions, vol. xiv 1912
Queensland:
Annual Report of the Inspector-General of the Insane, 1910
Annual Report on Public Health 1910
Registrar-General for Scotland:
Fifty-sixth Annual Report, 1910 1912
Census Reports, Parts 20-26 1912
Royal College of Surgeons of England, Calendar 1912
Royal University of Ireland, Calendar 1912
Shanghai Municipal Council, Annual Report of the Medical Officer of Health 1911
Southern Surgical and Gynaecological Association, Transactions, vol. xxiv 1911
Straits Settlements, Annual Report of the Medical Department 1910
University College, London, Calendar 1912-13
University College Medical School, Collected Papers, vol. ii 1912
University of Wales, Calendar 1912-13
Victoria University, Manchester, Calendar 1912-13
Victoria, New South Wales, Report of Board of Public Health 1908-10
Victoria, New South Wales, Report on Hospitals for the Insane 1910
Victoria, New South Wales, Report of Minister of Public Instruction 1910-11
War Office, Annual Report on the Health of the Army 1911
Western Australia, Annual Health Report 1910
Western Australia, Report of the Inspector-General of the Insane 1910
West Kent Medico-Chirurgical Society Transactions 1911-12

BOOKS NEEDED TO COMPLETE SERIES.

THE LIBRARIAN will be glad to receive any of the following volumes, which are needed to complete series in the Library:

American Association of Genito-Urinary Surgeons. Transactions. 1906.
American Climatological Transactions. Vols. 1, 4, 5, 6.
American Dermatological Association Transactions. Vols. 5, 7, 8, 11, and 29.
American Journal of the Medical Sciences. New series, vols. 4, 5, 1842-3; vols. 14, 15, 1847-8; vols. 18-30, 1850; vol. 33, 1857; vol. 46, 1864-5; vol. 59; or any parts of these vols.
American Journal of Ophthalmology. Vols. 1-9.
American Laryngological Association. Transactions. Vols. 1-6, 8-9.
American Medical Association. Transactions, 2, 4, 6, 7, 11, 12, 14, 15, 16, 19, 20, 22, 31, after vol. 33, and the *Journal*, up to 1903 inclusive.
American Medico-Psychological Association. Transactions. Vol. 13, 1906.
American Otological Society. Transactions. Vol. 3, part 2, 1883.
American Public Health Association. Transactions. Any vols.
Analyst. Vols. 1-24.
Annals of Surgery. Vols. 13, 14, 26.
Archiv für Dermatologie und Syphilis. Bd. 24 and 25 (1892 and 1893).
Archives générales de médecine. Third new series 7-8 (1839-40); 4th series, 10-17, 20-25, 1852-55, 1858-64, 1872-1897; 1846-55 inclusive; 1857-64 inclusive; 1871
Archives of Ophthalmology. Vols. 1-3, 6, 7, 14, 15, 16 and 20.
Archives of Otology. Vols. 1-7, and 20-22.
Archives de Parasitologie. Vols. 1-8.
Archives of Pediatrics. Vols. 1-16.
Asylum Journal of Mental Science. Vol. 1, 1854.
Biochemical Journal. Vols. 1-4.
British Dental Journal. Vols. 1-29.
Biometrika. Vols. 2-6.
British Journal of Dermatology. Vol. 2, part 3.
British Laryngological and Rhinological Association, Transactions 1896-7-8-9.
Caledonian Medical Journal. Vol. 1 prior to 1894.
Canada Medical Journal. Vols. 1-4, 6, and after 8.
Carmichael Essays. Rivington, 1879.
Centralblatt für Augenheilkunde. Hirschberg. All prior to 1891; Index to 1891.
Centralblatt für Bakteriologie. Bound volumes prior to 1899.
Centralblatt für medicinische Wissenschaften. Vols. 1-19.
Centralblatt für Nervenheilkunde. 1878, 1879, 1886, 1889, 1890, 1892, and since 1893.
Congrès Français de Chirurgie. Transactions 1, 2, 3, 6, and 10, and all since 11th.
Congrès Internat. d'Obstétrique et de Gynécologie. 3, Amsterdam, 1899.
Congress für innere Medicin: Verhandlungen. 1-12, and 14, and since 18.
Dermatological Congress. Vienna, 1892.
Dermatologischer Jahresbericht, 1906-1908.
Dermatologische Zeitschrift. Vols. 1-16.
Dublin Quarterly Journal of the Medical Sciences. Vols. 1, 10, 17, 20, 28, and 35-40.
Edinburgh Obstetrical Transactions. Vol. 5.
Glasgow Medical Journal. 1833 and 1853-1868.
Glasgow Pathological Society. Transactions 1 and 2.
Guy's Hospital Gazette. Nos. 1 and 5. 1872.

To ensure the insertion of notices in this column they must be received at the Central Offices of the Association not later than the first post on Tuesday.

Association Notices.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH.—Mr. J. Furneaux Jordan (9, Newhall Street, Birmingham) and Dr. J. G. Emanuel, Honorary Secretaries, give notice that the annual meeting of the Birmingham Branch will be held in the Medical Institute on Thursday, June 19th, at 3 p.m. Business: Election of officers. Annual report and financial statement. Inaugural address by the incoming President, Mr. W. F. Haslam.

BORDER COUNTIES BRANCH.—Dr. Livingston, Secretary, gives notice that the annual meeting of the Branch will be held in the Town and County Hotel, Carlisle, on Friday, June 27th.

EAST YORK AND NORTH LINCOLN BRANCH.—Dr. Edward Turton, Honorary Secretary (1, Albion Street, Hull), gives notice that the annual meeting of the East York and North Lincoln Branch will be held at Beverley on Friday, June 27th, at 4 p.m. Business: (1) Report of Branch Council. (2) Treasurer's Financial Statement. (3) Election of President-elect, Vice-President, and Honorary Secretary and Treasurer. (4) Address by the new President, Dr. J. Mitchell Wilson. (5) Any other business proper to annual meetings of the Branch.

EDINBURGH BRANCH.—Dr. Michael Dewar and Mr. E. Scott Carmichael, Honorary Secretaries (24, Lauriston Place), give notice that the annual meeting of the Edinburgh Branch will be held in the Royal College of Physicians' Hall, Queen Street, on Thursday, June 26th, at 4 p.m.

EDINBURGH BRANCH: LOTHIANS DIVISION.—Dr. Alex. M. Easterbrook, Honorary Secretary (Arnprior, Gorebridge, Midlothian), gives notice that the annual meeting of the Lothians Division will be held on Thursday, June 19th, at Bangour Village, where Dr. Keay has kindly invited all medical men resident in the Lothians to lunch at 1.30 p.m. The business of the meeting will be: Consideration of ethical rules; Insurance Act—organizatien of profession, etc.; election of office-bearers. Dr. Keay will afterwards be glad to show members features of interest of Bangour Village. Tea. Members who propose attending the meeting are requested to inform Dr. Keay not later than June 16th.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—Dr. M. J. Oliver, Honorary Secretary (St. Boswells), gives notice that the annual meeting of the Division will be held in the Railway Hotel, Newtown St. Boswells, on Friday, June 27th, at 3 o'clock p.m., for the election of officers, the consideration of the annual report of the Executive Committee and financial statement; the discussion of various matters concerning the Insurance Act, including certificates, duties of Medical Service Subcommittee, expenses of Local Medical Committees, payment for services to temporary residents, and for instructing the Representative on the Representative Body.

FIFE BRANCH.—Dr. G. C. Anderson, Honorary Secretary (Denbeath House, Methil), gives notice that the annual meeting of the Fife Branch will be held in the Station Hotel, Kirkcaldy, on Thursday, June 19th, at 3 p.m.

GLASGOW AND WEST OF SCOTLAND BRANCH: LANARKSHIRE DIVISION.—Dr. J. Livingstone Loudon, Honorary Secretary (Hamilton), gives notice that the annual meeting of the Division will be held in St. Enoch Station Hotel, Glasgow, on Wednesday, June 18th, at 3.15 p.m. The business will include the reception of the Secretary and Treasurer's annual report; election of officers; matters referred to Divisions (see particularly SUPPLEMENT to BRITISH MEDICAL JOURNAL, April 19th and May 3rd and 10th); consideration of "Model Rules for Ethical Procedure" (see SUPPLEMENT to BRITISH MEDICAL JOURNAL, September 21st and 28th, 1912); domiciliary treatment of phthisis cases in dependants of insured persons.

LANCASHIRE AND CHESHIRE BRANCH: ST. HELENS AND WARRINGTON DIVISIONS.—Drs. T. A. Murray and F. J. Knowles, Honorary Secretaries, give notice that a meeting of these Divisions will be held at the Town Hall, Earlestown, at 4 p.m., on Tuesday, June 17th. Agenda: Election of Representative; agenda of Representative Meeting.

METROPOLITAN COUNTIES BRANCH.—Drs. W. Griffith and R. E. Crosse (Honorary Secretaries) give notice that the annual general meeting of the Branch will be held at 429, Strand, W.C., on Tuesday, July 1st, at 4 p.m. The business will include a report as to the election of new officers, and the annual reports of Council and of representatives of the Branch on the Central Council. On the motion to adopt Model Ethical Rules for Branches, Dr. F. J. Smith gives notice that he will propose an alteration to the Model Ethical Rules by substituting the words "British Medical Association" for the words "Medical Profession" in Rule 1. President's address: The Profession and the Public. [The Model Ethical Rules are printed in the SUPPLEMENTS of September 21st and 28th, 1912, pages 325 and 350.]

METROPOLITAN COUNTIES BRANCH: EAST HERTFORDSHIRE DIVISION.—Dr. H. D. Ledward, Honorary Secretary (123, Norton Way, Letchworth), gives notice that the first annual meeting of the Division will be held at 2.30 p.m., on Friday, June 20th, at the Town Hall, Ware, to elect officers, the representative of the Division on the Branch Council, the ordinary members of the Executive Committee, and the Representative of the Division in Representative Meetings. To receive the Honorary Secretary's Annual Report. To alter Rule I defining the area of the Division in accordance with the decision of the Organization Committee of the Association. To consider the business of the Annual Representative Meeting and instruct the Representative thereon.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—Dr. Hugh McD. Parrott, Honorary Secretary, gives notice that the annual meeting of the Wandsworth Division will take place on Thursday, July 10th, at 3.15, at Stanley's Restaurant, 235, Lavender Hill, Clapham Junction. Members of the Wimbledon Division are invited to attend at 4 p.m.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—Dr. J. Munro Moir, Honorary Secretary (4, Ardross Terrace, Inverness), gives notice that the annual meeting of this Branch will be held at the Highland Hotel, Strathpeffer Spa, on Friday, June 27th, at 11.30 a.m.

SOUTH-EASTERN BRANCH: ISLE OF THANET DIVISION.—Dr. Hugh M. Raven, Honorary Secretary (Barfield House, Broadstairs), gives notice that the annual meeting of the Isle of Thanet Division will be held at the Carlton Hotel, the Parade, Broadstairs, on Tuesday, June 17th, at 4 p.m., when Dr. F. Brightman will take the chair. The business of the meeting will be: (1) Election of officers for the year; (2) to receive the annual report of the Executive Committee and the accounts for the year; (3) alteration of Divisional rules; (4) to consider the business of the Annual Representative Meeting; (5) Correspondence, etc.

SOUTHERN BRANCH.—Dr. James Green, Honorary Secretary (Brandon House, Mile End, Portsmouth), gives notice that the fortieth annual meeting will be held at the Institute, Shanklin, Isle of Wight, on Thursday, July 3rd, at 1.30 p.m., Dr. F. W. Jollye, President, in the chair. Agenda: Election of officers for 1913-14, annual report of Council, balance sheet, general business. An address will be delivered by Dr. J. Cowper, of Shanklin, the President for the ensuing year. Dr. Cowper invites members of the Branch to luncheon at Daishe's Hotel at 2.15 p.m., and to a garden and tennis party, to which ladies are also invited, at 4 o'clock. The Arthur Webster Memorial Hospital and the Scio Hospital can be visited during the afternoon. Those members who wish to play golf are invited to do so by the Shanklin and Sandown Golf Club, and, if possible, a match will be arranged between the club and the medical visitors. Intending players will please communicate with Dr. Cowper not later than June 27th. Those gentlemen who intend to accept the President's hospitality will oblige by sending word to that effect to Dr. G. Benington Wood, Newlands, Sandown, Isle of Wight, not later than June 28th.

SOUTH MIDLAND BRANCH: BUCKINGHAM DIVISION. — Dr. A. E. Larking, Honorary Secretary (Buckingham), gives notice that the annual meeting of the Division will be held on Wednesday, June 18th, at 3.30 p.m., at the Royal Bucks Hospital. The Committee will present its report for the past year, the officers for the ensuing year will be elected, and the Representative will be instructed how to vote at the Representative Meeting. The following resolution will be submitted: "That the Bucks Division do all in its power to discourage all contract practice outside the Insurance Act." A paper will be read by Dr. J. Horne Wilson (London) on The Active Treatment of Tuberculosis, and Dr. Burra will take part in the discussion.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: SOUTH-WEST WALES DIVISION. — Dr. D. R. Price, Honorary Secretary (Ammanford, Carmarthen), gives notice that the annual meeting will be held at the Infirmary, Carmarthen, on Wednesday, June 18th. The out-going chairman (Dr. Edgar Davies) invites all the members to lunch at the Ivy Bush Hotel at 1 p.m.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—Dr. S. Colen Legge, Honorary Secretary (24, Foregate Street, Worcester), gives notice that the annual meeting of the Worcestershire and Herefordshire Branch will be held at the Infirmary, Kidderminster, on Thursday, June 19th, at 4 p.m.

YORKSHIRE BRANCH.—Dr. Adolph Bronner, Honorary Secretary (33, Manor Row, Bradford), gives notice that the annual meeting of the Yorkshire Branch will be held at the Clayton Hospital, Wakefield, on June 25th, for the election of Vice-President, Secretary, and Treasurer. Members intending to read papers, make any communications, propose new members, or show cases or specimens are requested to notify the Honorary Secretary at once. The annual dinner will take place at the Bull Hotel, at 6.30 p.m.

GENERAL COUNCIL
OF
MEDICAL EDUCATION AND REGISTRATION.

SUMMER SESSION, 1913.

Sir DONALD MACALISTER, K.C.B., President, in the Chair.

(Continued from p. 518.)

PUBLIC HEALTH COMMITTEE.

A REPORT from the Public Health Committee was presented by the Chairman, Sir JOHN W. MOORE, and approved. One of the matters dealt with in the report had reference to Section 18, subsection 2, of the Local Government Act, 1888, which made it essential for any person appointed after January 1st, 1892, to be medical officer of health to a county district or combination of districts containing a population of 50,000 or more inhabitants to be registered as the holder of a diploma in public health. It appeared that certain medical officers of health of such districts had failed to register their diplomas, but, in consequence of representations made by the Registrar, seven out of fourteen medical officers of health who had not previously registered their diplomas in public health had done so.

STUDENTS REGISTRATION COMMITTEE.

The report of this committee, presented by the Chairman, Dr. NORMAN MOORE, contained particulars with regard to certain exceptional cases and recommended that the City of London School, Giggleswick School, and the West Bromwich Municipal Secondary School, should be added to the list of institutions approved by the Council. The report was adopted.

BRITISH PHRAMACOPOEIA.

The report of the Pharmacopoeia Committee was adopted. It stated that the annual average sale of the *British Pharmacopoeia*, 1898, was maintained, and that up to the present time 45,029 copies of the *Pharmacopoeia* and 4,522 of the *Indian and Colonial Addendum* had been sold. A further impression of the *Pharmacopoeia* had been printed and had been placed for distribution in the hands of Messrs. Constable and Co., who had been appointed publishers to the Council. Six sections of the draft text of the new edition of the *Pharmacopoeia* had been prepared by the editors, and were undergoing revision by the Committee with the help of several committees of reference, and the greater part of the work was ready to go to press.

The Committee recommended that in response to an invitation received through the Privy Council Office the President should be authorized to appoint a delegate to represent the Council at the conference summoned by the Belgian Government to discuss the proposed establishment of an international bureau of information relating to pharmacopoeial unification.

RESULTS OF EXAMINATIONS.

The Examination Committee presented a report which was received and entered on the minutes. It embodied the accompanying table, showing the results of professional medical examinations during 1912.

In the subject of Operative Surgery:
- 5 Examining Boards give the passes and rejections.
- 5 Examining Boards state that it is included in Surgery.
- 12 Examining Boards do not allude to it.

In the subject of Ophthalmic Surgery or Ophthalmology:
- 6 Examining Boards give the passes and rejections.
- 6 Examining Boards state that it is included in Surgery.
- 9 Examining Boards do not allude to it, while the University of Oxford grants a special diploma in Ophthalmology.

In the subject of Mental Diseases:
- 14 Examining Boards give the passes and rejections.
- 2 Examining Boards say it is included in Medicine.
- 1 Examining Board says it has no special examination in it.
- 5 Examining Boards do not allude to it.

The Committee also presented a report on the returns as to examinations for the Medical Department for the Royal Navy, Royal Army Medical Corps, and the Indian Medical Service. (See SUPPLEMENT, May 31st, p. 491.)

PENAL CASES.

The Effect of a Divorce Court Decree.

The Council was occupied during a part of its sittings on May 28th and 29th in the consideration of the case of Dr. Arthur Richard Hopper, against whom it was alleged that he had abused his position as a medical man by committing adultery with a Mrs. Waite, whom he was attending professionally. It appeared that the events upon which the charge was founded took place in 1901–2, and that when an action brought by Mr. Waite was heard last year in the Divorce Court Mrs. Waite did not give evidence and was not in court, but Dr. Hopper went into the box and denied adultery. The jury found that adultery had been committed, and a decree dated March 7th was made absolute on September 18th, 1912. Mr. HARPER, Solicitor to the Council, said that Dr. Hopper had put in a letter in which he again denied that he ever committed adultery, but Mr. Harper submitted that the Council had to start from the point that a verdict had been given by a special jury of the High Court, and it was not competent for the Council to go behind that. All Dr. Hopper could do was to bring before the Council such circumstances in extenuation of his conduct as might reduce the gravity of the offence, and enable him to avoid being struck off the roll.

Mr. HARPER read the summing-up in the divorce proceedings, which he put in, and also the decree nisi, decree absolute, and the copy of the *Times* containing a report of the trial.

	Medicine.			Surgery.			Midwifery.		
	Passed.	Rejected.	Percentage of Rejected.	Passed.	Rejected.	Percentage of Rejected.	Passed.	Rejected.	Percentage of Rejected.
English Conjoint Board	374	232	38.3	407	269	39.8	384	233	37.8
Apothecaries' Society of London	35	18	33.9	33	27	45.0	34	15	30.6
*University of Oxford	24	11	31.4	24	11	31.4	24	11	31.4
University of Cambridge	85	29	25.4	83	65	43.9	97	16	14.1
*University of Durham	25	10	28.6	25	10	28.6	25	10	28.6
*University of London	93	119	54.8	98	119	54.8	98	119	54.8
University of Victoria, Manchester	27	9	25.0	26	9	25.4	25	10	28.6
University of Birmingham	16	3	15.8	12	9	42.9	12	9	42.9
*University of Liverpool	23	6	20.7	23	6	20.7	23	6	20.7
*University of Leeds	13	4	23.5	13	4	23.5	13	4	23.5
*University of Sheffield	1	—	—	1	—	—	1	—	—
*University of Bristol	7	7	50.0	7	7	50.0	7	7	50.0
University of Wales	—	—	—	—	—	—	—	—	—
Scottish Conjoint Board	73	109	59.9	83	121	59.3	64	57	47.1
University of Edinburgh	208	45	17.8	193	64	24.9	170	38	18.3
University of Aberdeen	36	8	18.2	36	8	18.2	35	8	18.9
University of Glasgow	83	26	23.9	93	25	21.2	82	26	24.1
*University of St. Andrews	13	2	13.3	13	2	13.3	13	2	13.3
Irish Conjoint Board	75	49	39.5	78	40	33.9	73	40	35.4
Apothecaries' Hall, Dublin	10	4	28.6	12	8	40.0	9	2	18.2
University of Dublin	26	5	16.1	37	14	27.4	39	12	23.5
National University of Ireland	45	22	33.8	45	33	42.3	46	15	24.6
*Queen's University, Belfast	32	23	41.8	32	23	41.8	32	23	41.8

* At these Examinations Medicine, Surgery, and Midwifery must be passed at one time.

Mr. TOBIN, on behalf of Dr. Hopper, submitted that it was an erroneous view of the law to start with that the mere fact that a jury had found a verdict was conclusive upon the Council. It was no proof that Dr. Hopper was guilty of the charge made against him that a jury had found him guilty of adultery. He submitted that an erroneous verdict in this case was brought about because Mrs. Waite, for reasons of her own, was absent from the Divorce Court at the time the case was tried. She was now present to-day, and he should ask the Council to hear from her the reasons why she did so. Replying to the LEGAL ASSESSOR, he admitted the Council could take into account the verdict of the jury in judging the circumstances of the case, but it was not binding upon it. As he understood the law a verdict when proved simply showed that such and such a verdict had been found in the case. If the Council ruled that he was precluded from laying evidence before it to show that that verdict was erroneous it might be committing a terrible wrong so far as his client was concerned.

When the Council resumed the consideration of the case on May 29th, Mr. HARPER asked that the Council should give a definite ruling on the question whether the decree nisi was conclusive evidence of the fact of adultery having occurred between Dr. Hopper and Mrs. Waite.

Mr. TOBIN said that the decree nisi was evidence only of the fact that the jury had found adultery proved. If the Council were to hold that that verdict was binding on it and that it was thereby precluded altogether from judging of the facts, it would not be doing justice. Such a procedure, to say that a man might be struck off the *Register* without any inquiry by the Council as to whether the verdict was right or not, would lead in some cases to a great miscarriage of justice. No evidence had been laid before the Council proving that there had been misconduct.

Mr. HARPER reminded the Council that it was not a court of law, armed with the power of putting witnesses on oath. The contention of Mr. Tobin was that, according to the rules of evidence as laid down by the courts, the Council had to receive fresh evidence of the fact of adultery, and ought not to take notice of the finding of the jury. He submitted that that was not a right conclusion. Dr. Hopper now denied adultery, but he had taken no steps to have the decree pronounced against him revised. Mr. Harper submitted it would be unwise for the Council not to accept the decrees which had been proved as conclusive evidence of the adultery.

Mr. TOBIN, in answer, submitted that he had a right to go into the true merits of the case. He contended that the Council, being the judges, had to ascertain the facts, and the decree nisi was only a factor in ascertaining the true facts; he submitted that the Council was bound in law to inquire into the case and come to an honest conclusion.

Strangers and parties were directed to withdraw. On readmission the PRESIDENT, addressing Mr. Tobin, said: With regard to the points raised by you, I have to inform you that the verdict and decree of the Divorce Court will be regarded as evidence in this inquiry of the facts involved in the verdict then delivered, but the Council will hear you in answer to the charge as formulated against Dr. Hopper and any evidence you may wish to submit to the Council.

Dr. HOPPER was called. He said that it was wholly untrue that any impropriety had taken place between himself and Mrs. Waite on any occasion.

Mrs. WAITE was called, and, in reply to Mr. TOBIN, denied that she had ever misconducted herself with Dr. Hopper.

Cross-examined by Mr. HARPER: She was in an out-of-the-way place in Herefordshire at the time of the trial, and only heard of it the night before it came on for hearing. She took no steps to have the decision reviewed, as she had lived a miserable life with her husband. Since the trial she never communicated with Dr. Hopper till May 21st this year.

In answer to the LEGAL ASSESSOR, she said she had had a child and registered it as her own and husband's child. Her husband had no knowledge of it until she told him some time before the divorce proceedings. He left her and she commenced proceedings for restitution of conjugal rights, to which he replied by instituting proceedings for a divorce, as he alleged the child was the result of adulterous intercourse with Dr. Hopper.

Strangers and parties were directed to withdraw. On readmission,

The PRESIDENT announced the judgement of the Council as follows:

Dr. Hopper, I have to inform you that the facts alleged against you in the Notice of Inquiry have not been proved to the satisfaction of the Council, and the complaint is accordingly dismissed.

DENTAL DISCIPLINARY CASE.

A report from the Dental Committee on complaints received against Joseph John Macaulay and Francis Clement Chandler, registered as in practice before July 22nd, 1878, was presented on May 30th. The Dental Committee reported that a company called Cole and Co. (Ireland), Ltd., was registered on July 29th, 1911, with a nominal capital of £2,000 in £1 shares, of which 1,802 had been issued—namely, 1,800 to Thomas Loftus Cole, who is not a registered dentist, and one each to J. J. Macaulay and F. C. Chandler. The report stated that the principal objects of the company shown in its memorandum were to acquire the various businesses carried on by Thomas Loftus Cole under the style or firm of Cole and Co. in Ireland, and to carry on the business of surgeon dentists, dentists' manufacturers of and dealers in artificial teeth and apparatus, preparations and appliances of all kinds for preserving or improving teeth or for providing artificial substitutes therefor, and any other business incidental thereto. From the annual returns registered February 11th, 1913, it appeared that each of the three shareholders was also a director. During the trial at the Cork assizes in March, 1913, of an action for negligence brought against the company, one John O'Dwyer gave evidence that he was employed by the firm, and performed dental operations in that capacity. The company had advertised extensively in the Irish press as surgeon dentists. Mr. J. J. Macaulay had written in answer to the notice of inquiry under date May 6th, 1913, stating that he had no alternative but to sever his connexion with the company, and that he had done so. Mr. F. C. Chandler had written that the notice of inquiry was the first intimation to him that he was a director, and that he would leave the employ of the company. No evidence was produced before the Committee by or on behalf of either practitioner in verification of these statements.

Mr. R. W. TURNER, counsel, who appeared for the British Dental Association, said that as the two practitioners were described as directors the company was rendered immune from prosecution for using the title of surgeon-dentists. As the company could not be penalized, the practitioners were charged with entering into contracts contrary to law, and covering unqualified men; he submitted that this was proved by the report of the Committee.

The matter having been considered by the Council *in camera*, the PRESIDENT announced the decision of the Council as follows:

Mr. Turner, I have to announce to you and to the public that, on the facts found in the report of the Dental Committee, it has been proved that Joseph John Macaulay and Francis Clement Chandler have been guilty of infamous or disgraceful conduct in a professional respect, and that the Registrar has been directed to erase from the *Dentists Register* the names of Joseph John Macaulay and Francis Clement Chandler.

VOTE OF THANKS.

On the motion of Dr. NORMAN MOORE a hearty vote of thanks was accorded to the President for his able services in the chair during the session, and the proceedings terminated.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on May 22nd, with Sir FRANCIS H. CHAMPNEYS in the chair.

Proposed Amendment of Rules.

A letter was considered from the Clerk of the Bedfordshire County Council, suggesting that the Rules should be amended so as to entail an obligation on the midwife to advise medical assistance in any case in which the

patient's temperature rises to above 100° F. in the morning on two successive days.

The Board resolved to reply that its suggestion would be noted for consideration at the next revision of the Rules.

Uncertified Persons.

A letter was considered from the medical officer of health for the County of Durham asking the opinion of the Board as to whether an uncertified person attending a woman in her confinement in company with a registered medical practitioner, and afterwards alone attending the mother for ten days without supervision from the medical practitioner, was guilty of an offence under Section 1 (2) of the Midwives Act, 1902. The Board resolved to reply that in the circumstances described the uncertified woman appeared to have acted as a monthly nurse, and not as a midwife.

Midwife and Pupil.

A letter was considered from the Clerk of the Hants County Council calling the attention of the Board to the system adopted by a midwife approved by the Board for training pupils in sending a pupil to act as her substitute in nursing a patient after her confinement.

The Board directed that the Clerk of the Hants County Council be informed that the Board had carefully considered the facts as stated in his letter, but did not think they proved that the midwife did not exercise adequate supervision, nor that the pupil was acting as an uncertified midwife.

Naval and Military Appointments.

ROYAL NAVAL MEDICAL SERVICE.

The following notifications are announced by the Admiralty: Surgeon-General Howard Todd, C.B., K.H.S., has been placed on the retired list at his own request, June 5th; Staff Surgeon George E. Macleod to the *Exmouth* on recommissioning, July 1st; Surgeon George A. S. Hamilton to the *Lancaster* on completing, July 7th; Surgeon H. M. Whelan to the *Hearty*, June 6th; Surgeon J. T. D. S. Higgins to the *Triton*, June 6th.

Royal Naval Volunteer Reserve.

Robert H. H. Jolly, M.B., has been appointed Surgeon (unattached), June 4th.

ARMY MEDICAL SERVICE.

Colonel R. J. Geddes, D.S.O., appointed Assistant Director of Medical Services, South-Western Coast Defences.

Royal Army Medical Corps.

Lieutenant-Colonel Thomas E. Noding is placed on retired pay, May 25th.

Major Charles Dalton to be Lieutenant-Colonel, vice J. J. C. Donnet, retired May 7th.

Major W. R. P. Goodwin has been appointed to the command of the Station Hospital, Cawnpore.

Major H. O. B. Browne-Mason has been appointed to officiate as Deputy Assistant Director of Medical Services, Poona Division.

Major W. A. Ward has joined the London District for duty.

Major Oliver L. Robinson to be Lieutenant-Colonel, vice T. E. Noding, retired, May 25th.

Captain Ernest G. Ffrench, M.D., to be Major, May 28th.

Captain A. C. A. Amy has been granted leave for seven months and eighteen days on private affairs.

Captain A. Hendry has been granted six months' leave out of India.

Captain T. McM. Phillips has been transferred to the Station Hospital, Cawnpore.

Lieutenant E. G. S. Cane has been appointed to the charge of the Brigade Laboratory, Colaba, with effect from May 1st.

SPECIAL RESERVE OF OFFICERS

Royal Army Medical Corps.

The following Lieutenants to be Captains: William H. L. McCarthy, M.D., May 17th; John Inester, M.B., May 24th; Ronald Mackinnon, M.B., June 7th.

The following have been appointed Lieutenants on probation: Cadet Lance-Corporal H. W. Maltby, from the Liverpool University Contingent, Officers' Training Corps, May 6th; Cadet Lance-Corporal Maurice P. Inglis, from the Edinburgh University Contingent, Officers' Training Corps, May 12th; Cadet Allan D. Fraser, from the Glasgow University Contingent, Officers' Training Corps, May 14th; Basil W. Brown, M.B., May 17th.

INDIAN MEDICAL SERVICE.

Surgeon-General Sir Charles P. Lukis, K.C.S.I., M.D., has been appointed Honorary Surgeon to the King, vice G. Bidie, C.I.E. M.B. (deceased), February 20th; Surgeon-General Aylmer M. Crofts, C.I.E., has been appointed Honorary Surgeon to the King, vice Sir C. Colvin-Smith, K.C.B., M.B. (deceased), March 2nd; Major T. C. Holdich Leicester, M.D., M.R.C.P., F.R.C.S., has been appointed to officiate as Professor of Midwifery and Gynaecology at the Medical College, Calcutta, and Surgeon to the Eden Hospital for Women, during the absence on leave of Lieutenant-Colonel C. R. M. Green, M.D., F.R.C.S., I.M.S.

Major S. Hunt has been appointed to officiate as Residency Surgeon, Bushire, with effect from April 15th, 1913, during the absence on leave of Captain C. B. McConaghy.

Captain C. B. McConaghy has been granted combined leave for two years, with effect from April 2nd, 1913.

Captain A. J. Lee, I.M.S., is appointed a Specialist in Electrical Science with effect from April 30th, 1913.

Captain T. C. Boyd, I.M.S., is appointed to the substantive medical charge of the 42nd Deoli Regiment.

Lieutenant R. W. G. Hingston has been placed temporarily on deputation with No. 15 (Survey) Party, with effect from April 11th, 1913.

Lieutenant T. A. Hughes, I.M.S., is appointed a Specialist in Prevention of Disease, with effect from May 5th, 1913.

Indian Subordinate Medical Department.

Senior Assistant Surgeon and Honorary Captain Frederick F. Bedell has retired, February 3rd.

TERRITORIAL FORCE.

Royal Army Medical Corps.

Third Home Counties Field Ambulance.—Lieutenant Hector G. G. Mackenzie, M.B., to be Captain, April 20th.

Highland Mounted Brigade Field Ambulance. — George G. Middleton, M.B., to be Lieutenant, April 1st.

South-Eastern Mounted Brigade Field Ambulance.—Lieutenant Frederick B. Treves, M.B., to be Captain, December 8th, 1911.

First East Anglian Field Ambulance.—Captain Ernest V. Gostling to be Major, March 13th.

Second East Anglian Field Ambulance.—Thomas A. Flynn to be Lieutenant, May 5th.

Third Home Counties Field Ambulance.—Alexander H. Brewer to be Lieutenant, May 2nd.

First East Lancashire Field Ambulance.—John C. Bramwell (late Cadet Staff Sergeant, Cambridge University Contingent, Senior Division, Officers' Training Corps), to be Quartermaster with the honorary rank of Lieutenant, April 10th.

First Wessex Field Ambulance.—Frank A. Roper, M.B., to be Lieutenant, April 22nd.

First Southern General Hospital.—Captain Walter J. Clarke resigns his commission, June 4th.

Attached to Units other than Medical Units.—Lieutenant Cecil Johnson, M.B., to be Captain, December 4th, 1912.

For Attachment to Units other than Medical Units.—James Henry Crane, M.D., to be Lieutenant, January 22nd. Ernest S. Stork, M.D., to be Lieutenant, April 23rd. Major James S. Warrack, M.D., from the First Home Counties Field Ambulance, to be Major, June 4th.

CHANGES OF STATION.

The following changes of station amongst the officers of the Army Medical Service have been officially reported to have taken place during April:

		FROM		TO
Surgeon-General	H. G. Hathaway	Lucknow	...	Darjeeling.
Colonel	H. M. Sloggett	Malta	...	Belfast.
Lieut.-Colonel	A. A. Sutton, D.S.O.	—		Aldershot.
,,	H. H. Adamson, M.B.	Newcastle	...	Strensall.
,,	J. Donaldson	Rawal Pindi	...	Jubbulpore.
,,	G. H. Barefoot	Ranikhet	...	London.
,,	L. Way	Bareilly	...	Ferozepore.
,,	J. D. Ferguson, D.S.O.	London	...	Straits Settlements.
Major	G Buchanan, M.B.	Agra	...	London.
,,	J. D. Alexander, M.B.	Darjeeling	...	Calcutta.
,,	H. W. K. Read	Pontefract	...	Secunderabad.
,,	F. M. Mangin	Aldershot	...	Allahabad.
,,	D. J. Collins, M.D.	Bangalore	...	Colaba.
,,	J. P. Silver, M.B.	Fort Camden, Queenstown Harbour		Cork.
,,	H. E. Staddon	Dover	...	Rawal Pindi.
,,	S. J. C. P. Perry, F.R.C.S.I.	Colaba	...	Deolali.
,,	J. Poe, M.B.	Bloemfontein	...	Shorncliffe.
,,	E. Brodribb	Dover	...	Malta.
,,	A. H. O. Young	Streusall	...	Jullundur.
,,	E. A. Bourke	—		Chester.
,,	R. H. S. Tuke, D.S.O.	Colchester	...	Royal Arsenal, Woolwich.
,,	W. B. Winkfield	Maymyo	...	Meiktila.
,,	J. W. Leake	—		Dover.
,,	G. J. A. Ormsby, M.D.	Meerut	...	Landour.
,,	H. K. Palmer	Aden	...	Mhow.
,,	H. Simson	Poona	...	Muttra.
,,	A. Chopping	Woolwich	...	Netley.
,,	A. H. Safford	Lucknow	...	Naini Tal.
,,	P. C. Douglass	Jubbulpore	...	Nowgong.
,,	E. Bennett	Delhi	...	Kirkee.
,,	W. S. Crosthwait	Fermoy	...	Ambala.
Captain	A. W. A. Irwin	Gibraltar	...	Irish Comd.
,,	H. W. Long, M.B.	Bodmin	...	Okehampton.
,,	J. McKenzie, M.B.	Caterham	...	Pirbright.
,,	C. A. J. A. Balck, M.B.	Curragh	...	Dublin.
,,	F. A. H. Clarke	Glasgow	...	Multan.
,,	W. W. Browne	Colchester	...	Poona.
,,	R. J. Franklin	Fort Camden, Queenstown Harbour		Lahore.
,,	D. G. Carmichael, M.B.	Glencorse	...	Rawal Pindi.
,,	T. E. Harty	Dublin	...	York.
,,	H. T. Stack, M.B.	Bareilly	...	Ranikhet.
,,	A. L. Otway, M.B.	Cosham	...	Portsmouth.
,,	E. C. Whitehead, M.B.	Glasgow	...	India.
,,	J. A. Turnbull	Worcester	...	Oxford.
,,	H. T. Wilson	Chatham	...	Maidstone.
,,	G. S. Wallace, M.B.	Aldershot	...	Woking.
,,	A. M. Rose, M.B.	Aldershot	...	Bordon.
,,	A. E. S. Irvine	—		Belfast.
,,	T. B. Moriarty	Lucknow	...	Aldershot.
,,	C. J. Wyatt, M.B.	Chatham	...	W. Africa.
,,	H. E. Priestley	Tidworth	...	Warwick.
,,	H. Stewart, M.B.	Ferozepore	...	N. Command.
,,	A. Dawson, M.B.	Aden	...	Curragh.
,,	F. Forrest	Birr	...	,,
,,	V. C. Honeybourne	Aden	...	Londonderry.
,,	C. T. Edmunds	Peshawar	...	S. Command.
,,	R. E. M. Newman, M.B.	Rawal Pindi	...	Chatham.

		FROM	TO
Captain	E. W. M. Paine	Pembroke Dock	Bury.
,,	F. D. G. Howell	Preston	Shrewsbury.
,,	E. M. O'Neill, M.B.	Youghal	Cork.
,,	T. W. O. Sexton	Woolwich	Hounslow.
,,	T. T. H. Robinson, M.B.	Sheffield	Lichfield.
,,	E. B. Lathbury	Bareilly	Ranikhet.
,,	E. J. Kavanagh, M.B.	Multan	E. Comd.
,,	C. H. Denyer	Agra	Landour.
,,	M. P. Leahy, M.B.	Kirkee	Irish Comd.
,,	G. F. Dawson, M.B.	Meerut	Chakrata.
,,	F. J. Stuart, M.B.	Agra	,,
,,	J. James, M.B.	Potchefstroom	Chatham.
,,	W. J. Dunn, M.B.	Mhow	Thayetmyo.
,,	A. E. G. Fraser	Cairo	E. Comd.
,,	A. M. Pollard	—	Wynberg.
,,	J. Startin	Poona	Satara.
,,	W. H. O'Riordan	Rawal Pindi	Murree.
,,	R. C. Priest, M.B.	Allahabad	Lebong.
,,	A. W. Bevis	Bloemfontein	Belfast.
,,	M. White, M.B.	Allahabad	Shwebo.
,,	F. R. Laing, M.B.	Bordon	Lucknow.
Lieutenant	T. J. Hallinan, M.B.	Dublin	,,
,,	J. D. Bowie, M.B.	Aldershot	Cairo.
,,	L. F. K. Way	Bloemfontein	Wynberg.
,,	B. Biggar, M.B.	Windsor	Cairo.
,,	J. D. Kidd, M.B.	Curragh	Secunderabad.
,,	W. S. R. Steven, M.B.	Hounslow	Quetta.
,,	E. G. S. Cane	Dublin	Poona.
,,	F. A. Robinson, M.B.	Curragh	Mhow.
,,	W. A. Frost, M.B.	Devonport	Poona.
,,	W. Bisset, M.B.	Lahore	Ambala
,,	P. Hayes, M.B.	Secunderabad	Wellington.
,,	P. M. J. Brett, M.B.	Cosham	Jhansi.
,,	R. T. Vivian	Curragh	Kildare.
,,	H. J. G. Wells, M.B.	Cork	Spike Island, Queenstown Harbour.
,,	A. Hood, M.B.	Lichfield	Richmond, Yorks.
,,	E. A. Strachan, M.B.	Fort George	Edinburgh.
,,	J. H. M. Frobisher, M.B.	Leeds	York.
,,	W. Stevenson, M.B.	Aldershot	Deepcut.
,,	C. M. Ingolby	Cork ,,	Tralee.
,,	S. J. Higgins	Fethard	Fermoy.
,,	E. V. Whitby, M.B.	Cork	,,

COLONIAL MEDICAL SERVICES.

THE following changes have been notified by the Colonial Office:

WEST AFRICAN MEDICAL STAFF.

New Appointments.—The following gentlemen have been selected for appointment to the Staff: T. A. Dowse, M.R.C.S.Eng., L.R.C.P.Lond., D.P.H.Cantab., Gold Coast; J. M. Benson, M.B., Ch.B.Edin., Northern Nigeria; E. H. Mayhew, M.D., B.C.Cantab., M.R.C.S.Eng., L.R.C.P. Lond., Sierra Leone; E. M. Condy, M.B., B.Ch., B.A.O.Dubl., D.P.H. Belfast, Gold Coast; F. M. P. Rice, M.R.C.S.Eng., L.R.C.P.Lond., Southern Nigeria: F. E. Whitehead, M.R.C.S.Eng., L.R.C.P.Lond., Sierra Leone; G. G. P. Beckett, M.D., B.Ch., B.A.O., L.M.Dubl., Gold Coast; W. A. Young, M.B., Ch.B.St. Andrews, Sierra Leone.

Retirements.—E. E. Maples, M.D., B.S.Lond., F.R.C.S.Eng., L.R.C.P. Lond., Medical Officer, Southern Nigeria, retires on pension; C. W. S. Boggs, L.S.A.Lond., Medical Officer, Gold Coast; H. Fleming, M.B., Ch.B., B.A.O.Dubl., Medical Officer, Sierra Leone.

Resignation.—G. M. Gray, M.D.Glasg., F.R.C.S.Eng., Medical Officer, Southern Nigeria.

OTHER COLONIES AND PROTECTORATES.

W. M. Chambers, L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.Glas., has been selected for appointment as a Medical Officer in the Federated Malay States. L. H. Taylor, M.B., B.S.Lond., M.R.C.S.Eng., L.R.C.P. Lond., has been selected for appointment as a Medical Officer in the Federated Malay States. V. T. W. Eagles, L.R.C.P. and S.Edin., L.R.F.P. and S.Glas., has been selected for appointment as a Medical Officer in the Federated Malay States. Miss E. M. Layman, M.B., B.S.Lond., has been selected for appointment as a Lady Medical Officer in the Federated Malay States. Miss L. S. McLean, M.B., Ch.B.St. Andrews, has been selected for appointment as a Lady Medical Officer in the Federated Malay States. V. Blacher Kyle, M.D., B.Ch., B.A.O.Dubl., L.M.Rotunda, has been selected for appointment as a Medical Officer in the Straits Settlements. G. S. Richardson, L.M.S.S.A.Lond., has been selected for appointment as a supernumerary Medical Officer in Jamaica. T. R. Boyd, M.B., Ch.B.Edin., has been selected for appointment as a Medical Officer in Fiji. C. R. Maitland Pattison, L.R.C.P. and S.Irel., L.M.Irel., has been selected for appointment as an Assistant Medical Officer at the Leper Asylum, Makogai Island, Fiji.

Vital Statistics.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

THE Registrar-General has just issued his return relating to the births and deaths in the first quarter of the year, and to the marriages during the three months ending December last. The marriage-rate during that period was equal to 17.5 per 1,000, or 0.8 per 1,000 more than the mean rate in the ten preceding fourth quarters.

The 216,330 births registered in England and Wales during the first three months of the year were equal to an annual rate of 23.8 per 1,000 of the population, estimated at 36,919,339 persons in the middle of the year; this rate is 3.1 per 1,000 below the mean rate in the ten preceding first quarters, and is the lowest rate recorded in the corresponding period of any year since civil registration was established. The birth-rates in the several counties ranged from 16.2 in Cardiganshire, 17.2 in Sussex, 17.8 in Dorsetshire, and 17.9 in Somersetshire and in Carnarvonshire to 27.4 in Carmarthenshire, 27.5 in Staffordshire, 28.3 in Monmouthshire, 29.4 in Glamorganshire, and 30.0 in Durham. In ninety-six of the largest towns the birth-rate averaged 25.4 per 1,000; in London it was 25.7 per 1,000, and in the other towns it ranged from 13.1 in Hastings, 14.3 in Southport, 15.2 in Bournemouth, 15.3 in Bath, and 15.4 in Hornsey to 31.7 in St. Helens and in Stockton-on-Tees, 32.0 in West Ham, 32.1 in Middlesbrough, 32.5 in Rhondda, and 32.9 in Warrington.

The excesses of births over deaths during the quarter was 69,774, against 85,284, 80,455, and 77,947 respectively in the corresponding quarters of the three preceding years. From a return issued by the Board of Trade, it appears that the passenger movement between the United Kingdom and places outside Europe resulted in a net balance outward of 66,620 persons of British nationality and of 19,901 aliens. Between the United Kingdom and the Continent of Europe there was a balance outward of 2,361 British and a balance inward of 26,114 aliens; thus the total passenger movement resulted in a net balance outward of 62,768 persons.

The deaths registered last quarter in England and Wales numbered 146,556, and were equal to an annual rate of 16.1 per 1,000, or 1.1 per 1,000 less than the mean rate in the corresponding period of the ten preceding years. The lowest county death-rates last quarter were 12.8 in Middlesex, 13.3 in Buckinghamshire and in Dorsetshire, 13.4 in Surrey, 13.6 in Essex, 13.7 in Hampshire, and 13.8 in Sussex; the highest rates were 17.6 in Cumberland and in Cardiganshire, 17.7 in Pembrokeshire, 17.9 in Anglesey, 18.0 in Northumberland, 18.3 in Lancashire, and 18.7 in Durham and in Merionethshire. In ninety-six of the largest towns the rate averaged 16.9 per 1,000; in London the rate was 17.5 per 1,000, and in the other towns it ranged from 10.9 in Hornsey, 11.0 in Ilford, 11.2 in Ealing, 11.3 in Gillingham, 11.4 in Enfield, and 11.6 in Eastbourne to 20.5 in Liverpool, 20.7 in Bootle and in South Shields, 21.7 in Preston, 22.1 in West Bromwich, 23.8 in Wigan, 24.7 in Stockton-on-Tees, and 25.7 in St. Helens.

The 146,556 deaths from all causes last quarter included 4,865 that were attributed to measles, 1,693 to whooping-cough, 1,551 to diarrhoea and enteritis (among children under 2 years of age), 1,196 to diphtheria, 542 to scarlet fever, 320 to enteric fever, and 5 to small-pox. The mortality from measles was 43 per cent. above the average, that from enteric fever, scarlet fever, and whooping-cough was little more than half the average, and that from diphtheria about two-thirds of the average.

The rate of infant mortality, measured by the proportion of deaths among children under 1 year of age to registered births was equal to 122 per 1,000, or 4 per 1,000 less than the average in the ten preceding first quarters. Among the several counties the rates of infant mortality last quarter ranged from 79 in Hertfordshire, 81 in Herefordshire, 84 in Montgomeryshire and in Flintshire, 88 in Essex, and 89 in Hampshire to 146 in Staffordshire and in Cumberland, 149 in Monmouthshire, 155 in Durham, 157 in Pembrokeshire, and 158 in Westmorland. In ninety-six of the largest towns the rate averaged 125 per 1,000; in London it was 116, while among the other towns it ranged from 65 in Hornsey, 68 in Gillingham, 69 in Eastbourne, 70 in Devonport, and 73 in East Ham to 183 in Rotherham and in Carlisle, 185 in St. Helens, 187 in Stoke-on-Trent, 202 in Preston, and 230 in Wigan.

The deaths among persons aged 1 to 65 years were at the annual rate of 8.6 per 1,000 of the population estimated to be living at this group of ages; and among persons aged 65 years and upwards the mortality was at the rate of 100.9 per 1,000 of the estimated population at those ages.

The mean temperature of the air last quarter was above the normal, and the rainfall during the quarter was everywhere in excess both as regards frequency and amount. The duration of bright sunshine was below the average in all parts of the country, the deficiency amounting in many districts to at least half an hour a day.

EPIDEMIC MORTALITY IN LONDON.

[SPECIALLY REPORTED FOR THE "BRITISH MEDICAL JOURNAL."]

THE accompanying diagram shows the prevalence of the principal epidemic diseases during the first quarter of the year. The fluctuations of each disease, and its relative fatality compared with the average in the corresponding periods of recent years, can thus be readily seen, except in the case of diarrhoea and enteritis among children under 2 years of age, for which the average mortality is not available.

Enteric Fever.—The fatal cases of enteric fever, which had been 28, 29, and 30 in the three preceding quarters, were 29 last quarter, and were 8 below the corrected average in the corresponding period of the five preceding years. This disease showed the highest proportional mortality in St. Marylebone, St. Pancras, Islington, Bethnal Green, and Lewisham. The number of enteric fever patients under treatment in the Metropolitan Asylums Hospitals, which had been 32, 49, and 37 at the end of the three preceding quarters, had risen again to 42 at the end of last quarter; 86 new cases were admitted during the quarter, against 93, 93, and 85 in the three preceding quarters.

Small-pox.—No death from small-pox was registered last quarter, and no case of this disease was under treatment in the Metropolitan Asylums Hospitals during the quarter.

Measles.—The deaths from measles, which had been 433, 376, and 783 in the three preceding quarters, numbered 845 last quarter, and were 138 in excess of the corrected average. This disease was proportionally most fatal in Kensington, Hammersmith, Finsbury, Shoreditch, Bethnal Green, and Battersea.

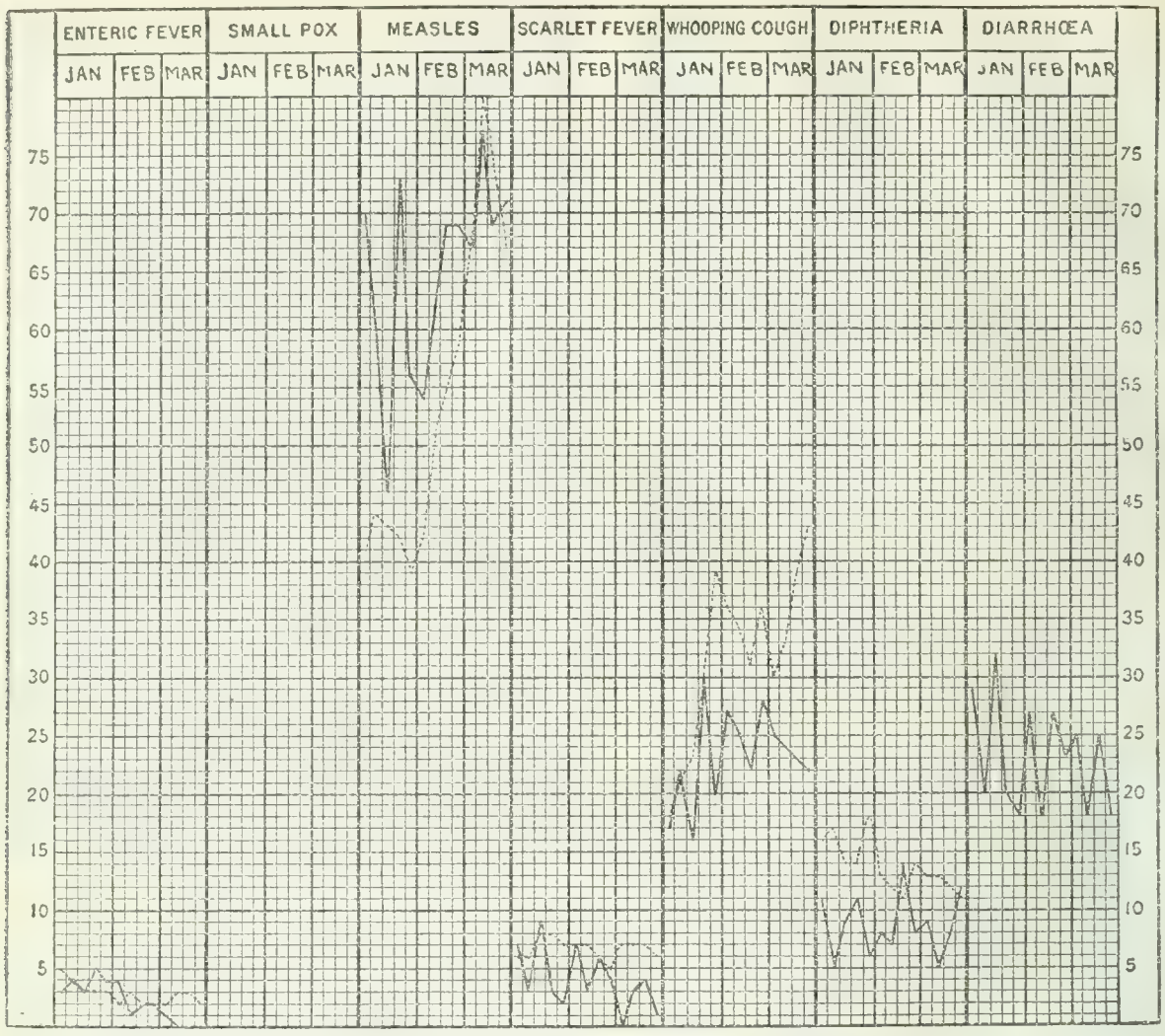
Scarlet Fever.—The fatal cases of scarlet fever, which had been 42, 44, and 50 in the three preceding quarters, were 52 last quarter, and were 35 below the corrected average number. Among the several boroughs this disease was most fatal in St. Marylebone, Islington, Hackney, Poplar, Lambeth, and Wandsworth. The Metropolitan Asylums Hospitals contained 1,436 scarlet fever patients at the end of last quarter, against 1,380, 1,845, and 2,088 at the end of the three preceding quarters; 2,366 new cases were admitted during the quarter, against 2,039, 2,856, and 3,542 in the three preceding quarters.

Whooping-cough.—The deaths from whooping-cough, which had been 354, 182, and 152 in the three preceding quarters, were 300 last quarter, and were 113 below the corrected average number in the corresponding periods of the five preceding years. The highest death-rates from this disease last quarter were recorded in Paddington, Hammersmith, Kensington, Bermondsey, Camberwell, Deptford, and Greenwich.

Diphtheria.—The fatal cases of diphtheria, which had been 99, 108, and 113 in the three preceding quarters, were 113 last quarter, and were 65 below the corrected average number. The greatest proportional mortality from this disease last quarter was recorded in Bermondsey, Deptford, Greenwich, and Lewisham. The number of diphtheria patients in the Metropolitan Asylums Hospitals, which had been 877, 941, and 959 at the end of the three preceding quarters, had declined again to 901 at the end of last quarter; 1,568 new cases were admitted during the quarter, against 1,440, 1,513, and 1,525 in the three preceding quarters.

Diarrhoea.—The 298 deaths under this heading are those attributed to diarrhoea and enteritis among children under 2 years of age; measured in proportion to the births registered in the several

DEATHS FROM EPIDEMIC DISEASES IN LONDON DURING THE FIRST QUARTER OF 1913.



NOTE.—The black lines show the *recorded* number of deaths from each disease during each week of the quarter. The dotted lines show the *average* number of deaths in the corresponding weeks of the five preceding years, 1908-12. Under the heading "Diarrhœa" are given the deaths from diarrhœa and enteritis among children under 2 years of age; the corrected average number of these deaths is not available.

boroughs during the quarter the mortality from this cause was greatest in Hammersmith, the City of Westminster, Islington, Shoreditch, Bethnal Green, and Stepney.

In conclusion, it may be stated that the aggregate mortality last quarter from these epidemic diseases (excluding diarrhœa) was 5.8 per cent. below the average.

HEALTH OF ENGLISH TOWNS.

In ninety-six of the largest English towns 8,845 births and 4,129 deaths were registered during the week ending Saturday, June 7th. The annual rate of mortality in these towns, which had been 12.8, 13.4, and 13.5 per 1,000 in the three preceding weeks, fell to 12.1 per 1,000 in the week under notice. In London last week the death-rate was equal to 11.6, against 12.0, 13.4, and 12.9 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 4.3 in Hastings, 4.4 in Walthamstow, 5.0 in Swindon, 5.4 in Hornsey, 5.9 in East Ham, and 6.4 in Tottenham to 17.4 in Dewsbury, 17.5 in Smethwick, 18.2 in Dudley, 19.3 in South Shields, 19.5 in Walsall, and 19.9 in Stockton-on-Tees. Measles caused a death-rate of 1.6 in Wolverhampton and in Salford, 1.8 in Bury, 2.0 in Dudley, 4.0 in Aberdare, and 5.0 in Walsall; scarlet fever of 1.8 in Newport (Mon.); and whooping-cough of 1.2 in Newcastle-on-Tyne and 1.6 in Brighton. The mortality from diphtheria and enteric fever showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 28, or 0.7 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; of this number 6 were registered in Birmingham, 3 in Liverpool, 3 in St. Helens, and 2 in Sunderland. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,411, 1,441, and 1,430 at the end of the three preceding weeks, were 1,427 on Saturday last; 202 new cases were admitted during the week, against 171, 193, and 177 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In the sixteen largest Scottish towns 1,187 births and 687 deaths were registered during the week ending Saturday, June 7th. The annual rate of mortality in these towns, which had been 16.4, 16.3, and 16.7 per 1,000 in the three preceding weeks, declined to 15.9 in the week under notice, but was 3.8 per 1,000 above the rate recorded in the ninety-six large English towns. Among the several towns the death-rates ranged from 5.4 in Hamilton, 6.1 in Clydebank and in Ayr, and 9.7 in Leith to 18.9 in Dundee, 19.5 in Kilmarnock, and 25.5 in Greenock. The mortality from the principal infective diseases averaged 2.2 per 1,000, and was highest in Dundee and Aberdeen. The 313 deaths from all causes registered in Glasgow included 19 from whooping-cough, 18 from measles, 5 from infantile diarrhoeal diseases, 4 from scarlet fever, 2 from diphtheria, and 1 from enteric fever. Eleven deaths from measles and 3 from whooping-cough were recorded in Aberdeen; 5 from measles and 3 from diphtheria in Dundee; and 5 from whooping-cough and 4 from infantile diarrhoea and enteritis in Edinburgh.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, May 31st, 699 births and 382 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 601 births and 442 deaths in the preceding period. These deaths represent a mortality of 16.6 per 1,000 of the aggregate population in the districts in question, as against 19.2 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 3.1 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 30.4 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 16.0, as against an average of 18.9 for the previous four weeks, in Dublin City 16.1 (as against 19.8), in Belfast 16.7 (as against 17.3), in Cork 17.0 (as against 22.3), in Londonderry 11.4 (as against 10.5), in Limerick 20.3 (as against 19.0), and in Waterford 15.2 (as against 19.9). The zymotic death-rate was 0.6, as against 1.3 in the previous week.

During the week ending Saturday, June 7th, 667 births and 393 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 699 births and 382 deaths in the preceding period. These deaths represent a mortality of 17.1 per 1,000 of the aggregate population in the districts in question, as against 16.6 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 5.0 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 29.0 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 15.9, as against an average of 17.8 for the previous four weeks, in Dublin city 16.9 (as against 18.0), in Belfast 17.1 (as against 17.3), in Cork 15.0 (as against 20.1), in Londonderry 22.9 (as against 14.9), in Limerick 16.2 (as against 16.9), and in Waterford 23.5 (as against 21.8). The zymotic death-rate was 1.3, as against 0.6 in the previous week.

Hospitals and Asylums.

KING EDWARD'S HOSPITAL FUND FOR LONDON.

THE report presented by the Executive Committee of King Edward's Hospital Fund for London at the annual meeting of its governors and general council on April 23rd was devoted mainly to a summary of the events of 1912, and of all these some account has already appeared in our columns. It brought into relief, however, a fact which is of somewhat lamentable kind if it is to be regarded as a presage of future years. Though the distribution last year was maintained at the maximum, this was thanks only to the existence of reserves. The true income for the year showed a material decrease in respect alike of legacies, donations, and subscriptions. The report made reference to the special inquiry held by the Fund in regard to the abuse of out-patient departments, the full text of which was published in the SUPPLEMENT to our issue for February 22nd, 1913. The council also received a report from the Distribution Committee relating to a controversy between it and St. George's Hospital in regard to the amount allocated to the medical school for pathological work done by the latter on behalf of the hospital. It has been suggested that if the sum paid to the school is in fact relatively large, this is due to the circumstance that as the school is small the expense involved by the maintenance of a pathological department for the joint benefit of itself and of the hospital is great in proportion to its means, and hence the hospital cannot be expected to get the services in question performed on the same terms as like institutions more happily situated. The Executive Committee of the Fund suggests that the hospital should pay the disputed amount, but should charge it against the discretionary fund and not against the general fund of the hospital, with the effect of avoiding any imputation that it is contributing towards medical education. A report of the Executive Committee recommended that a request by the hospital that the dispute between it and the Distribution Committee should be referred to an independent body should not be granted. Neither decision seems to us particularly happy. The proposed compromise would seem to involve a practical admission that the original allocation was right. As to the second point, it is not to be forgotten that an independent authority has in fact already investigated the facts of dispute, the late Lord Mayor having held an inquiry on behalf of the Hospital Sunday Fund, and found reason for holding that the allocation made by the hospital was just. But in any case it is to be hoped that in some way or other this unhappy controversy between St. George's Hospital and the King's Fund will now be brought rapidly to an end. It is most unfortunate that it should ever have occurred, for it is not inconceivable that, when taken in conjunction with the fact that two other great hospitals have given up applying to the King's Fund for assistance, it might help to raise a doubt as to whether the skill exercised by the Fund in the management of its affairs is as great as might be expected of so important a body.

ROYAL CANCER HOSPITAL, GLASGOW.

THE report presented to the annual general meeting of the Glasgow Royal Cancer Hospital, when Dr. Robert Gourlay, president, was in the chair, showed that during the year 162 in-patients and 34 out-patients had been treated, while the district nurse had made 1,562 visits. The average daily number of patients in the hospital throughout the year was 34.7. The financial statement for the year ending December 31st, 1912, showed a serious deficit, notwithstanding an exceptionally large amount received from legacies during the year. In the report by Mr. Walker, director of the research department, it was stated that a considerable amount of work had been done with colloidal selenium. Claims had been made that cases of cancer had been cured by the intravenous injection of this substance, and a preparation was now upon the market. Colloidal selenium was made and used in that hospital before the claims just mentioned were published or its employment in the case of cancer had been suggested, but though it had been used both experimentally and upon patients, there did not appear to be any ground for supposing that any specific curative effect was produced upon malignant growths. On the other hand, there was reason to believe that colloidal selenium, when injected intravenously, did mitigate the effects of infection by micro-organisms. It had been found that these injections partially if not completely destroyed micro-organisms in the system of such widely different kinds as pneumococci and trypanosomes. Sir George T. Beatson, senior surgeon, in his report on the indoor department, stated that, unfortunately, no special advance in the medical treatment of cancer could be claimed for the year just passed away, but during that period the hospital had been able to furnish to a certain proportion of its cases that relief by surgical measures and by the light treatment which were at present the only real satisfactory means for the permanent cure of cancer. Dean of Guild Roxburgh, in proposing the adoption of the report and financial statement, congratulated the directors on having completed their new buildings at a cost of £26,900, and on having opened them free of debt. He also congratulated them on the change of name by the addition of the word "Royal," which showed the interest taken in the hospital by King George and also by Princess Louise, who opened it. Bailie J. W. Stewart, in seconding, referred to the decreased subscriptions, and said there had been a good deal of disturbance to the stream of benevolence through the Insurance Act. He thought that would right itself as people came to realize that institutional treatment such as was provided in that and kindred institutions could not be had under any of the provisions of the Insurance Act.

AYR DISTRICT ASYLUM.

IN his report on Ayr District Asylum for 1912, Dr. G. Douglas M'Rae, the Medical Superintendent, states that in the beginning of the year the number of patients on the asylum register was 549 (294 men and 255 women). On December 31st there were 292 men and 257 women, giving a total of 549. The number of private cases was 30, one more than in the previous year. The admissions numbered 138 (71 men and 67 women). The total number of cases under treatment during the year was 687 (365 men and 322 women), or 17 below last year's number, which was the highest recorded. The men numbered 16 less than last year, but still 5 above the previous record in 1909, but the women numbered one less than last year. The number discharged was 82 (42 men and 40 women). The number of patients who died was 56 (31 men and 25 women). Hereditary predisposition to insanity was ascertained in only 22 per cent. of the cases, and alcoholic excess in 22 per cent. either as cause or symptom of the mental malady.

EDINBURGH ROYAL VICTORIA HOSPITAL.

THE annual meeting of this hospital was held on February 18th, the president, Sir Alexander Christison, being in the chair. Reference was made to the opening of the new tuberculosis dispensary in the past autumn, and to the knighthood which had been conferred upon Sir Robert Philip. The dispensary had several objects in view. It was intended to create a centre where the manifold aspects of tuberculosis could be comprehensively handled; it was to be a collecting centre for patients among the poorer classes where advice and treatment on modern lines would be available; and it was to be a centre from which a practical knowledge of the great principles of prevention would pass to the homes of the people. "The breeding-grounds of tuberculosis must be raided."

WESTERN DISPENSARY, EDINBURGH.

AT the annual meeting of the Western Dispensary, Riego Street, held on March 14th, Dr. John Orr presiding, it was reported that there was a regrettable decrease of 10 per cent. in the amount received from ordinary subscriptions. The Chairman commented on the alterations which had been carried out in the dispensary, which constituted a great improvement. He regretted the resignation of Dr. Murdoch Brown, who had given eight years' service as one of the medical staff. The appointment of Dr. Robert Cumming as one of the physicians was confirmed.

BIRMINGHAM GENERAL DISPENSARY.

THE number of patients admitted during 1912 by tickets was 62,520, showing a decrease of 448; but 4,527 dental patients were treated, showing on increase of 364. Emergency cases treated without tickets numbered 1,791, bringing up the entire number of patients to 68,838. The special expenditure of the year, amounting to £450, included an outlay of £400 on the furnishing and equipment of the tuberculosis department in Great Charles Street. The receipts totalled £12,556. The tuberculosis department was opened on the first Monday in November, 1912, and from this date up to February, 1913, the total number of new patients examined was 420. The subsequent attendances of those patients who were instructed to continue treatment averaged 64 a day during the past month. Those who were prevented by their occupations from attending during the day were seen from 5.30 to 9 p.m. on Monday and Thursday.

DUBLIN HOSPITAL SUNDAY FUND.

THE thirty-ninth annual report of the Dublin Hospital Sunday Fund states that the amount contributed in 1912 was £3,448 18s. 1d., being a decrease of £105 8s. 8d. as compared with 1911. The expenses of the year amounted to 7.13 per cent. of the total sum collected. The sum of £3,180 had been divided among the following sixteen institutions: Sir Patrick Dun's, Royal City of Dublin, Steevens's, Meath, Mercer, Drumcondra, Coombe, Rotunda, Royal Victoria Eye and Ear, Stillorgan Convalescent Home, Cork Street, Adelaide, Monkestown, Orthopaedic, National Children's, and the Rest for the Dying. A speaker said that he hoped that the public would continue to support the fund, notwithstanding the Insurance Act, which he thought would not in any way benefit the hospitals.

WEST END HOSPITAL FOR NERVOUS DISEASES, LONDON.

THE report submitted at the annual meeting of this hospital in March stated that, though subscriptions had fallen off, the deficit had been balanced by an increase in the receipts from patients' payments and legacies. The average weekly cost, both of in-patients and out-patients, had been reduced. The in-patients treated numbered 319, and there was a long waiting list, amounting, in the case of women, to four or five for each bed. The number of out-patients had risen from 2,528 in 1911 to 2,774 in the recently completed year.

THE CHILDREN'S HOSPITAL, BIRMINGHAM.

THE annual report for 1912 of the Birmingham and Midland Hospital for Sick Children showed that the in-patients numbered 845, against 1,023 in 1911; out-patients 12,295, against 13,342; and casualties 686, against 1,247; giving a total of 13,826 compared with 15,612. The average detention-rate of in-patients was 24.7 days in 1912, and 20.43 days in 1911. The contract for the erection of the new hospital had been made with Messrs. Barnsley and Sons, and the building operations were now in progress. A sum of about £13,000 was still required to complete the new hospital. The accounts for the year showed a deficiency of £86, but the income was larger by £315. The After-care Committee reported that 83 cases had been sent to them, which meant no less than 300 visits paid.

BRISTOL GENERAL HOSPITAL.

THE report presented to the annual meeting of the subscribers to the General Hospital showed that during the past year 2,340 in-patients, 15,199 casualties and emergencies, 18,493 out-patients, and 4,638 dental cases had been treated, an increase of 53 in-patients, and a decrease of 2,249 out-patients. This latter the committee thought satisfactory, and could not put it down to the Insurance Act, as it was not then working. There was a slight falling off of workmen's subscriptions, only £16, but on the whole the income was about the same. Expenditure showed an increase of £645, of which the Insurance Act accounted for £53. The extension of the hospital was progressing, and would cost when finished £36,676.

BRISTOL CHILDREN'S HOSPITAL.

THE Lord Mayor presided at the annual meeting of the Children's Hospital on March 5th. The report showed that during the year 1,450 women and 3,487 children were treated at the institution as out-patients, and 743 children and 73 women had been admitted as in-patients. Subscriptions from almost every source showed a falling off, which the honorary treasurer attributed to the Insurance Act. Several important changes had been made in the fabric of the hospital during the year, the operating theatre had been remodelled, electric light had been installed, and an efficient warming system had recently been completed. On the whole the financial state of the hospital was not much worse than a year ago, for the debt to the treasurer had only been increased by £20.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ABERYSTWITH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House-Surgeon (male). Salary, £130 per annum.

ALL SAINTS' HOSPITAL FOR GENITO-URINARY DISEASES, Vauxhall Bridge Road, S.W.—(1) Three Assistant Surgeons; (2) Two Anaesthetists; (3) Bacteriologist.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £80 per annum.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary, £80 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES.—Clinical Assistant. Honorarium at the rate of 52 guineas per annum.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £200 per annum.

BIRMINGHAM: QUEEN'S HOSPITAL.—(1) House-Physicians. (2) House-Surgeons. Salary at the rate of £50 per annum and £10 on completion of six months' service.

BOLTON INFIRMARY AND DISPENSARY.—Third House-Surgeon. Salary, £90 per annum.

BOURNEMOUTH: ROYAL VICTORIA AND WEST HANTS HOSPITAL.—House-Surgeon. Salary, £80 per annum, rising to £100.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BURNTWOOD: COUNTY MENTAL HOSPITAL.—Junior Assistant Medical Officer (male). Salary, £210 per annum, rising to £270.

BURY ST. EDMUNDS UNION.—(1) Medical Officer of the Workhouse and Infirmary. Salary, £50 per annum and fees. (2) Medical Officer for the Parish of St. Mary. Salary, £100 per annum.

BURY ST. EDMUNDS: WEST SUFFOLK GENERAL HOSPITAL.—Resident Medical Officer. Salary, £120 per annum.

CALCUTTA CORPORATION.—Health Officer. Monthly salary not less than Rs. 1500 and not more than Rs. 2000.

CANCER HOSPITAL, Fulham Road, S.W.—Senior and Junior House-Surgeons. Salary at the rate of £80 and £70 per annum respectively.

CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—(1) Senior House-Surgeon; (2) Junior House-Surgeon. Salary, £100 and £90 per annum respectively.

CARDIFF: KING EDWARD VII'S HOSPITAL.—House-Surgeon. Honorarium, £30 for six months.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—Senior House-Surgeon. Salary, £120 per annum.

CHESTER GENERAL INFIRMARY.—House-Physician. Salary, £90 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—(1) Senior House-Surgeon. (2) House-Physician. (3) Junior House-Surgeon. Salary, for (1) £120, and for (2) and (3) £90 per annum, increasing to £100.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £75 per annum.

DUBLIN: ROYAL VICTORIA EYE AND EAR HOSPITAL.—House-Surgeon. Salary, £40 per annum.

DURHAM COUNTY COUNCIL.—(1) Tuberculosis Officer. Salary, £500 per annum. (2) School Medical Inspector (male). Salary, £300 per annum.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—(1) House-Physician. Salary at the rate of £75 per annum. (2) Clinical Assistants in the Out-patient Departments.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of 100 guineas per annum.

FOLKESTONE: ROYAL VICTORIA HOSPITAL.—Assistant House-Surgeon. Salary, £100 per annum.

GATESHEAD DISPENSARY.—Assistant Medical Officer. Salary, £200 per annum.

GRIMSBY AND DISTRICT HOSPITAL.—(1) Senior House-Surgeon; (2) Junior House-Surgeon. Salary, £100 and £80 per annum respectively.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, W.C.—(1) House-Physician; (2) Two House-Surgeons, one for July 6th and the other for September 21st. Salary in each case £30 for six months and £2 10s. washing allowance.

HOSPITAL FOR WOMEN, Soho Square, W.—Pathologist and Registrar. Salary, £100 per annum.

IPSWICH: EAST SUFFOLK AND IPSWICH HOSPITAL.—(1) House-Physician; (2) Second House-Surgeon. Salary, £80 per annum each.

LANCASHIRE EDUCATION COMMITTEE.—School Medical Inspector. Salary, £250 per annum, rising to £400.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary, £100 per annum.

LEICESTERSHIRE AND RUTLAND ASYLUM.—Male Junior Assistant Medical Officer. Salary, £150 per annum, rising to £180.

LINCOLN MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

LIVERPOOL: STANLEY HOSPITAL.—Two House-Physicians. Salary, £75 per annum each.

LIVERPOOL UNIVERSITY: FACULTY OF MEDICINE.—Walter Myers Chair of Parasitology. Stipend, £600 per annum.

LONDON LOCK HOSPITAL.—House-Surgeon and Assistant House-Surgeon at the Female Hospital. Salary, £100 and £80 per annum respectively.

LOWESTOFT HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

MANCHESTER: BAGULEY SANATORIUM FOR THE TREATMENT OF TUBERCULOSIS.—Assistant Medical Officer. Salary, £200 per annum.

MILLER GENERAL HOSPITAL, Greenwich Road, S.E.—House-Physician. Salary at the rate of £100 per annum.

MONTROSE: ROYAL ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead.—House-Physician. Salary, £75 per annum.

NESTING AND LUNNASTING PARISH COUNCIL.—Medical Officer. Salary, £50 per annum.

NEWCASTLE-UPON-TYNE DISPENSARY.—Vacancies on the Visiting Medical Assistants' Staff. Salary, £200 per annum.

NEW HOSPITAL FOR WOMEN, Euston Road, N.W.—(1) Resident Medical Officer for the House of Recovery, Barnet. (2) Clinical Assistant. (3) Anaesthetist.

NORTHAMPTON COUNTY ASYLUM, Berry Wood.—Assistant Medical Officer. Salary, £200 per annum, rising to £225.

NORTHAMPTON COUNTY BOROUGH.—Assistant Medical Officer of Health. Salary, £300 per annum, rising to £350.

OLDHAM COUNTY BOROUGH.—Assistant Schools Medical Officer. Salary, £260 per annum, rising to £300.

ORKNEY: PARISH OF SHAPANSEY.—Medical Officer and Public Vaccinator.

PADDINGTON GREEN CHILDREN'S HOSPITAL, W.—Honorary Radiographer.

PARK HOSPITAL FOR CHILDREN, Hither Green, S.E.—Senior Assistant Medical Officer. Salary, £250 per annum.

PLAISTOW: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £80 per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—House-Physician (male). Salary at the rate of £75 per annum.

PRESTON: COUNTY ASYLUM, Whittingham.—Assistant Medical Officer. Salary, £200 per annum, rising to £250.

PUBLIC DISPENSARY, Drury Lane, W.C.—Resident Medical Officer. Salary, £105 per annum.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer for Out-patient Department. Salary at the rate of £60 per annum.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon (male). Salary, £100 per annum.

ROYAL DENTAL HOSPITAL, Leicester Square, W.—Joint Afternoon House-Anaesthetist. Honorarium, £24 a year.

ROYAL EAR HOSPITAL, Soho, W.—Clinical Assistants.

ROYAL EYE HOSPITAL, Southwark, S.E.—Junior House-Surgeon. Salary at the rate of £60 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant Anaesthetist. Salary, £50 per annum.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road, E.C.—Resident Medical Officer. Salary at the rate of £120 per annum.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Senior Resident Medical Officer. Salary at the rate of £70 per annum.

ST. HELENS COUNTY BOROUGH.—Medical Officer of Health. Salary, £550 per annum, rising to £650.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W. —Resident Medical Officer. Salary, £150 per annum.

ST. MARY'S HOSPITAL, Paddington, W.—Resident Assistant Anaesthetist. Salary at the rate of £100 per annum.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £50 per annum.

SHEFFIELD CHILDREN'S HOSPITAL.—House-Surgeon (male). Salary, £85 per annum.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Assistant House-Surgeon. Salary, £80 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £80 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £80 per annum.

SOUTHPORT INFIRMARY.—Junior House and Visiting Surgeon (male). Salary, £80 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon (male). Salary, £90 per annum.

STOKE-ON-TRENT COUNTY BOROUGH.—Assistant Medical Officer at the Stanfield Sanatorium. Salary, £250 per annum.

STOKE-ON-TRENT: INFECTIOUS DISEASES HOSPITAL, Bucknall.—Lady Resident Assistant Medical Officer. Salary, £150 per annum.

SUNDERLAND: MONKWEARMOUTH AND SOUTHWICK HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SWANSEA GENERAL AND EYE HOSPITAL.—House-Surgeon. Salary, £75 per annum.

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £80 per annum.

THREE COUNTIES ASYLUM, near Hitchin.—Junior Assistant Medical Officer. Salary, £170 per annum, rising to £250.

TORQUAY: TORBAY HOSPITAL.—Resident Medical Officer (male). Salary, £100 per annum and £5 for lectures to nurses.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—Pathologist. Salary, £105 per annum.

WAKEFIELD GENERAL HOSPITAL.—Second House-Surgeon. Salary, £120 per annum.

WARWICK ASYLUM.—Assistant Medical Officer. Salary, £175 per annum.

WEST BROMWICH AND DISTRICT HOSPITAL.—Assistant Resident House-Surgeon and Anaesthetist. Salary, £75 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL.—Junior House-Physician. Salary at the rate of £75 per annum.

WESTON-SUPER-MARE HOSPITAL.—House-Surgeon. Salary, £120 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

WORCESTER GENERAL INFIRMARY.—House-Physician. Salary, £100 per annum.

YEOVIL BOROUGH.—Medical Officer of Health and School Medical Officer. Salary, £500 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments: Aughrim (co. Wicklow), Broughton-in-Furness (Lancashire), Lydbrook (Gloucestershire), Penmachno (Carnarvonshire).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

BIRKS, M., M.B., B.S.Lond., Resident Superintendent of the Broken Hill Hospital, New South Wales.

BROWN, W. S., M.R.C.S., L.S.A., Visiting Medical Officer to the Paramatta Gaol, New South Wales.

CARRUTHERS, D., L.R.C.P. and S.Edin., Certifying Factory Surgeon for the Muirkirk District, co. Ayr.

CROWTHER, W. E., M.R.C.S., L.R.C.P., District and Workhouse Medical Officer of the Howden Union.

CUSCADEN, George, M.R.C.S., Honorary Obstetric Surgeon to the Women's Hospital, Melbourne, Victoria.

DICKSON, Ian D., M.B., Ch.B.Edin., appointed Medical Officer to the Boundary Commission acting on the Portuguese Border of North-West Rhodesia.

DOWNING, J. H., M.B., B.S.Melb., Resident Surgeon, Ballarat Hospital, Victoria.

GATER, H. J., L.M.S.S.A.Lond., L.M.R.C.P.I., Clinical Assistant, Royal Ear Hospital, Soho.

HANCOCK, Mary Deborah, M.A., L.R.C.P. and S.E., etc., Assistant School Medical Officer to the City of Birmingham.

HEWSON, R. Warrene Dale, L.R.C.P. and S.Edin., L.F.P. and S.Glasg., Assistant Medical Officer to Coton Hill Mental Hospital, Stafford.

HEYWOOD, W. B., M.D.Camb., Certifying Factory Surgeon for the Newbury District, co. Berks.

LAWRENCE, W. Bertram, M.R.C.S.Eng., L.R.C.P.Lond., Medical Officer, Tuberculosis Hospital, Cardiff, under the King Edward VII Welsh National Memorial.

LEECH, Ernest Bosdin, M.D., B.C.Cantab., D.P.H.Vict., M.R.C.P. Lond., M.R.C.S.Eng., Honorary Assistant Physician to the Manchester Royal Infirmary.

MACNAUGHT, Charles, M.D.Dub., Medical Superintendent Officer of Health for the Rathmines and Rathgar District, Dublin, vice Dr. Brown, deceased.

MARSH, F. N., M.B., District Medical Officer of the Wortley Union.

MOORE, C. A., M.S.Lond., Ch.M., F.R.C.S.Eng., Surgeon to the Cossham Memorial Hospital, Kingswood, Bristol.

NURAN, T. J., L.R.C.P. and S.Irel., Certifying Factory Surgeon for the Clonaslee District, Queen's County.

PATRICK, J. King, M.B., Ch.B., B.Sc.Glasg., D.P.H., Deputy Medical Officer of Health, Metropolitan Borough of Hampstead.

RAMSAY, Maxwell, M.B., Ch.B., House-Surgeon to the Royal Albert Hospital, Devonport.

ROBERTSON, R. K., M.B., Assistant Medical Officer to the Sheffield Union Poor Law Hospital.

ROMANES, A., M.B., B.S.Edin., Resident Assistant Medical Officer, Nottingham Parish Workhouse.

SHEARMAN, Cyril, M.B.Syd., Government Pathologist and Bacteriologist, Perth, West Australia.

SMITH, C. Lawson, M.B., Ch.B.Aberd., Assistant Honorary Medical Officer to the Hertford County Hospital.

SMITH, Edwin C. T., M.B., Ch.B.Lond., F.R.C.S.Edin., Honorary Assistant Ophthalmic Surgeon at St. Vincent's Hospital, Sydney, N.S.W.

SWEET, Elizabeth, M.B.Melb., Resident Medical Officer, Brisbane Children's Hospital, Queensland.

THOMAS, H. M., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Fishguard District, co. Pembroke.

WHITFORD, R. S., M.B., B.S.Melb., Medical Superintendent, Alfred Hospital, Melbourne.

WINK, C. Stewart, M.R.C.S., L.R.C.P., Medical Officer to the Halstead Union Workhouse and First Division of First District, Public Vaccinator, and Certifying Factory Surgeon.

MANCHESTER ROYAL INFIRMARY.—The following appointments have been made:

House-Physicians: Harold Heathcote, M.B., Ch.B.Vict.; J. E. Rivera, M.R.C.S., L.R.C.P.

Senior House-Surgeons: R. P. Stewart, M.B., Ch.B.Vict., M.R.C.S., L.R.C.P.; K. D. Bean, M.B., Ch.B.Vict.

Junior House-Surgeon: H. D. Willis, L.M.S.S.A.Lond.

House-Surgeon to Special Departments; T. H. Oliver, B.A., B.C.Cantab., M.B., Ch.B.Vict.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

DEATH.

BAKER.—On June 4th, at Cartagena, Spain, of cerebro-spinal meningitis, Herbert de Winter, younger son of A. de Winter Baker, M.R.C.S.Eng., L.R.C.P.Lond., 144, West Hill, Putney Heath, aged 25.

RECENT PUBLICATIONS.

First Aid to the Injured and Sick. By F. J. Warwick, B.A., M.B.Cantab., and A. C. Tunstall, M.D., C.M.Edin. Eighth edition. 1913. Bristol: John Wright and Sons. (Medium 16mo, pp. 260. Price 1s. net.)

A fresh and revised edition of a well-illustrated book containing a great amount of precise information on all aspects of its subject. A book only suited and intended for those prepared to study first aid very thoroughly. Despite a somewhat unattractive style of writing, necessitated by compression of matter, it has justly met with much success.

Consultations Médicales Françaises. Fasc. 37 to 51. By various authors. Paris: A. Poinat. 1912. (Double foolscap 16mo. 6d. post free.)

Further issues of a monthly publication to which we have frequently drawn attention. Each consists of a brief monograph on some subject in medicine, the authors, as a rule, being recognized teachers in French medical schools. They are usually of a very practical character and easily read in half an hour.

PUBLISHERS' ANNOUNCEMENTS.

AMONG the new books included in Mr. Murray's quarterly list are the following: A new edition of Sir Lauder Brunton's *Therapeutics of the Circulation*, and volume iii of the John Howard McFadden *Researches into Induced Cell-Reproduction and Cancer*, and other papers by H. C. Ross, J. W. Cropper, H. Bayon, W. J. Atkinson Butterfield, M.A., F.I.C., Assoc. Inst. Civ. Eng., and S. R. Moolgaokar, F.R.C.S. A part of these researches has been reprinted separately as a pamphlet entitled *The Problem of the Gas Works: Pitch Industries and Cancer*, for the purposes of the special inquiry now being made into the question of cancer in the gas work industry. Another work published is *The Reduction of Domestic Flies*, by Mr. Edward Holford Ross.

An English translation by Dr. Léon Blanc and Dr. H. de Méric of Dr. Albert Robin's book, the third edition of which was reviewed in the JOURNAL last November, will be published shortly under the title "Treatment of Tuberculosis" by Messrs. J. and A. Churchill. The same publishers have nearly ready an English translation by Mr. T. H. Pope, of the University of Birmingham, of a treatise on general and industrial organic chemistry by Ettore Molinari. The text contains 500 illustrations. They will also publish a new and revised edition (sixth) of *Surgical Pathology*, by Sir Anthony A. Bowlby, C.M.G., and Dr. F. W. Andrewes.

Mr. Henry Kimpton will shortly publish *Tuberculin in Diagnosis and Treatment*, by Francis M. Pottinger, M.D. (illustrated); *Epidemic Cerebro-Spinal Meningitis*, by Abraham Sophian, M.D. (illustrated); *The Modern Treatment of Nervous and Mental Diseases*, by British and American authors, edited by William A. White, M.D., and Smith Ely Jelliffe, M.D., in two volumes (illustrated); *Asthma and its Radical Treatment*, by James Adam, M.D.; *Handbook of Diseases of the Rectum*, by Louis J. Hirschman, M.D., second edition, revised and enlarged (illustrated).

Messrs. Smith Elder and Co. will publish on June 26th a work by Dr. W. McC. Wanklyn, formerly Medical Superintendent of the Small-pox Receiving Stations and River Ambulance Service of the Metropolitan Asylums Board, and now an Assistant Medical Officer of the London County Council, entitled *How to Diagnose Small-pox*. The work is based on an experience of small-pox extending over twenty years, and including the revision of the diagnosis of upwards of 10,000 cases.

DIARY FOR THE WEEK.

TUESDAY.

LONDON DERMATOLOGICAL SOCIETY, 49, Leicester Square, W.C.—4 p.m., Annual Meeting and Election of Officers. 5.15 p.m., Paper:—Dr. E. J. Reeve: The Treatment of Diseases of the Skin by Intensive Iodine Administration.

THURSDAY.

ROYAL SOCIETY OF MEDICINE:
SECTION OF DERMATOLOGY, 5 p.m.—(1) Annual General Meeting. (2) Exhibition of Cases and Specimens.

FRIDAY.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE, 11, Chandos Street, Cavendish Square, W., 8.30 p.m.—(1) Annual General Meeting. (2) Paper:—Dr. R. T. Leiper: Some Remarks on recently described Helminths of Man.

SATURDAY.

ROYAL SOCIETY OF MEDICINE:
SECTION OF DISEASES OF CHILDREN, 2.30 p.m., Provincial Meeting at the General Hospital, Northampton.—(1) Demonstration of Cases and Specimens. (2) Papers:—Dr. Hichens: Cases of Sudden Heart Failure in Children who have been Treated for Extensive Eczema. Dr. Robson: Nocturnal Enuresis.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION, Wednesday, 4.30 p.m.—The Clinical Diagnosis and the Treatment of Secondary Infections in Pulmonary Tuberculosis.

LONDON HOSPITAL MEDICAL COLLEGE, E., Thursday, 2 p.m.—Examination of Children.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Wednesday. Radiography: Saturday. Special Lectures each week.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical Laboratory work daily (Saturday excepted) 10 to 12 a.m. Practical Entomology 2 to 3.30 daily. Special Entomology 10.30 to 1 p.m. daily. Medical Clinics, Tuesday and Thursday at 3 p.m. Operations Friday at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC, Thursday, 4.15 p.m.—Vaccines.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin. Tuesday, Medical. Wednesday, Surgical. Thursday, Medical. Friday, Eye. Special Lectures at 5.15 p.m. daily, except Friday and Saturday.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Optic Neuritis.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E. — Friday, 4 p.m., Disorders of the Nervous System in Infancy and Childhood.

ROTUNDA HOSPITAL, DUBLIN.—Continuation of the Post-Graduate Course on Obstetrics and Gynaecology daily throughout the week, except Saturday.

THROAT HOSPITAL, Golden Square, W.—Monday, 5.15 p.m., Special Demonstration on Selected Cases; Thursday, 5.15 p.m., Clinical Lecture.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, X Rays, and Operations, 2 p.m. daily. Gynaecology: Monday, Tuesday, Wedday and Friday. Eye: Monday, Wednesday, Thursday, and Saturday. Throat, Nose and Ear: Tuesday, Wednesday, Friday, and Saturday. Skin: Tuesday and Friday. Pediatrics: Wednesday and Saturday. A Lecture at 5 p.m. daily, except Saturday.

[For further particulars of Lectures consult the Index to Advertisements.]

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		JUNE.
13	Fri.	London: *Special Meeting of Council, 11 a.m.* (Reform of Constitution.)
		Midland Branch, Annual Meeting, Leicester, 3 p.m.; Luncheon, 1 to 2 p.m.
14	Sat.	Last day for receipt of Voting Papers at Head Office *re* Council Election.
17	Tues.	London: Organization Committee, 2.15 p.m.
		Isle of Thanet Division, Annual Meeting, Broadstairs, 4 p.m.
		St. Helens and Warrington Divisions, Earlestown, 4 p.m.
18	Wed.	London: Hospitals Committee, 2.30 p.m.
		Altrincham Division, Annual Meeting, Altrincham, 4.30 p.m.
		Buckingham Division, Annual Meeting, Buckingham, 3.30 p.m.
		Lanarkshire Division, Annual Meeting, Glasgow, 3.15 p.m.
		South-West Wales Division, Annual Meeting, Carmarthen; Luncheon, 1 p.m.
19	Thur.	Birmingham Branch, Annual Meeting, Medical Institute, 3 p.m.
		Fife Branch, Annual Meeting, Kirkcaldy, 3 p.m.
		Lothians Division, Annual Meeting, Bangour Village; Luncheon, 1.30 p.m.
		Worcestershire and Herefordshire Branch, Annual Meeting, Kidderminster, 4 p.m.
20	Fri.	East Hertfordshire Division, Annual Meeting, Ware, 2.30 p.m.
25	Wed.	London: Finance Committee, 2.30 p.m.
		Central Division, Annual Meeting, Medical Institute, Edmund Street, 3.30 p.m.
		Yorkshire Branch, Annual Meeting, Wakefield; Annual Dinner, 6.30 p.m.

Date.		Meetings to be Held.
		JUNE (*continued*).
26	Thur.	Edinburgh Branch, Annual Meeting, Royal College of Physicians' Hall, Queen Street, 4 p.m.
27	Fri.	Border Counties Branch, Annual Meeting, Carlisle.
		East York and North Lincoln Branch, Beverley, 4 p.m.
		Northern Counties of Scotland Branch, Annual Meeting, Strathpeffer Spa, 11.30 a.m.
		South-Eastern Counties Division, Annual Meeting, St. Boswells, 3 p.m.
		JULY.
1	Tues.	Metropolitan Counties Branch, Annual Meeting, 4 p.m., 429, Strand, W.C.
2	Wed.	London: Council Meeting, 2 p.m.
3	Thur.	Southern Branch, Annual Meeting, Shanklin, 1.30 p.m.; Luncheon, 2.15 p.m.
4	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
8	Tues.	London: Ethical Subcommittee, 2 p.m.
10	Thur.	Wandsworth Division, Annual Meeting, Clapham Junction, 4 p.m.
12	Sat.	London: Science Committee, 11 a.m.
15	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.

ANNUAL MEETING, BRIGHTON, 1913.

Annual Representative Meeting, July 18th, and following days.

Presidential Address, Tuesday, July 22nd.

Sections—Wednesday, July 23rd; Thursday, July 24th; and Friday, July 26th.

International Medical Congress in London, August 6th to August 12th.

Printed and Published by the British Medical Association at their Offices, No. 429, Strand, in the Parish of St. Martin-in-the-Fields, in the County of Middlesex.

SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 21ST, 1913.

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SPECIAL NOTICE TO MEMBERS.

Every member is requested to preserve this "Supplement," which contains matters specially referred to Divisions, until the subjects have been discussed by the Division to which he belongs. BY ORDER.

Association Intelligence.

PROCEEDINGS OF COUNCIL.

A SPECIAL meeting of the Council of the British Medical Association was held on June 13th, for the discussion of a report of the Organization Committee on matters arising out of its consideration of the scheme for the reorganization of the Association drawn up by the Council of the Metropolitan Counties Branch. This scheme, which was printed in the SUPPLEMENT TO THE BRITISH MEDICAL JOURNAL of May 10th, p. 415, is quoted in the report now referred by the Council of the Association to the Divisions and the Annual Representative Meeting.

Present:

Dr. J. A. MACDONALD, LL.D., Taunton, Chairman of Council, in the Chair.

Sir JAMES BARR, M.D., LL.D., Liverpool, President.

Dr. W. AINSLIE HOLLIS, Hove, President-Elect.

Dr. EDWIN RAYNER, Stockport, Treasurer.

Dr. R. M. BEATON, London
Dr. M. G. BIGGS, London
Dr. CHARLES BUTTAR, London
Dr. WM. CLOW, Paisley
Professor HENRY CORBY, Cork
Dr. J. SINGLETON DARLING, Lurgan
Mr. E. J. DOMVILLE, Exeter
Dr. D. E. FINLAY, Gloucester
Dr. B. E. FORDYCE, Cambridge
Mr. T. W. H. GARSTANG, Altrincham
Dr. JOHN GORDON, Aberdeen
Surgeon-General J. P. GREANY, I.M.S., Ealing (Indian Medical Service)
Dr. T. D. GREENLEES, London (South African Branches)
Dr. MAJOR GREENWOOD, London
Dr. G. E. HASLIP, London
Mr. R. J. JOHNSTONE, Belfast
Mr. EVAN JONES, London
Mr. F. CHARLES LARKIN, Liverpool
Mr. C. COURTENAY LORD, Gillingham
Dr. J. LIVINGSTONE LOUDON, Hamilton, N.B.
Mr. ALBERT LUCAS, Birmingham
Dr. H. C. MACTIER, Wolverhampton
Dr. JAMES METCALFE, Bradford
Dr. C. H. MILBURN, Hull
Dr. C. G. D. MORIER, London (Victoria, South and West Australian Branches)
Dr. H. FALCONER OLDHAM, Morecambe
Dr. GEORGE PARKER, Bristol
Dr. E. S. REYNOLDS, Manchester
Dr. F. J. SMITH, London
Mr. E. B. TURNER, London
Dr. W. J. TURRELL, Oxford
Professor A. H. WHITE, Dublin
Mr. D. J. WILLIAMS, Llanelly
Mr. E. H. WILLOCK, Croydon

The report of the Organization Committee was presented by its Chairman (Mr. LARKIN), and certain general principles were first considered. After a long and animated discussion, in which most of the members of Council present took part, a resolution that paragraphs 26, 27, and 28 stand part of the report was adopted *nemine contradicente*. These paragraphs embody the principle that the Representative Body should be a deliberative assembly instead of, as at present, a body of delegates who are bound by any resolution which may have been passed by their constituencies during the three months previous to the meeting. During the course of this discussion the CHAIRMAN directed attention to a resolution adopted by the Council at its ordinary meeting on April 23rd last, and reported in paragraph 36 of the Annual Report of Council (BRITISH MEDICAL JOURNAL, SUPPLEMENT, May 3rd), expressing the opinion that a Representative of a constituency should be able to resign his position, or in the alternative that the constituency should be able, at a special meeting called for the purpose, and by a three-fourths majority of those present and voting, to call upon a Representative to resign. The Council further recommended that any vacancy so arising should be filled by the constituency in accordance with the rules of the Division or Divisions forming the constituency, and that if a Representative were permitted to resign the constituency should not be empowered to dismiss him. It was considered that it would be inadvisable to allow a deputy to act for a constituency during such portion only of a meeting of the Representative Body as the Representative might be unable to attend.

The sections of the report dealing with the proposal to reduce the size of the Representative Body were discussed at length, and eventually the following resolution was adopted:

> That the Council considers that the Representative Meeting is too large and ought to be reduced, but regards the reduction of the number of constituencies as inadvisable and more or less impracticable.

The method of taking a vote in the Representative Meeting detailed in paragraphs 12 and 13 was approved as a suitable method should the principle be accepted. A resolution was adopted recommending the Annual Representative Meeting in that case to instruct the Council to frame rules so that the votes of members representing large constituencies shall have due weight on a vote by a show of hands or on a roll call.

In the discussion on the paragraphs dealing with the suggestion that the Council should be elected directly by the Representative Body, with the addition of *ex officio* members and Representatives of Colonial Branches, the Chairman of the Organization Committee, in reply to a question, said that it was intended that the persons proposed for election by the Representative Body should be members of that body. After some discussion, during which the importance of retaining the territorial system of election was insisted upon, the following resolution was carried:

> That the Council recommend that no change should be made in the method of election for the Council.

The paragraphs of the report were gone through seriatim, and settled in the form in which they are printed in this issue.

The Council also adopted and referred to the Divisions a report on the referendum and postal vote embodying a history of the subject and concluding with six questions submitted for the consideration of Divisions upon which the Annual Representative Meeting will be invited to come to a decision.

MATTERS REFERRED TO DIVISIONS.

British Medical Association.

REPORT OF THE COUNCIL ON THE SCHEME OF REFORM OF THE PRESENT CONSTITUTION OF THE ASSOCIATION SUBMITTED BY THE METROPOLITAN COUNTIES BRANCH COUNCIL.

1. The Council has considered the Scheme of the Metropolitan Counties Branch Council, and submits its comments. Suggestions similar to many of those of the Metropolitan Counties Branch Council had already been before the Council and the conclusions of the Council on these are, for convenience, given as if they arose solely on this Scheme.

Report of the Metropolitan Counties Branch Council on the Reform of the Present Constitution of the Association.

DIVISIONS.

(i.) The Divisions would consider all matters of local interest and all matters referred to them by the Representative Body and Council. In matters of purely local interest the Divisions should report their decisions to the Branch Council and the Branch Council shall have power to forward reports received direct to the Central Authority, otherwise to consider them from the point of view of its Divisions collectively, and then report upon the whole question to the Central Authority.

(ii.) The powers of a Division in ethical matters brought before its notice be limited to the making of necessary preliminary inquiries, and to forwarding complaints to the Branch Council; the power to go direct to the Central Ethical Committee and the right of appeal being preserved as at present.

(iii.) Arrangements to be made for the enlargement of Scientific and Social Meetings, to which non-members resident in the Division would be, as far as possible, invited.

(iv.) The System of Wards to be encourged in each Division.

Election to Branch Council.

(v.) That each Division be allowed to have one Representative up to 200 Members, and an extra Representative for every 200 Members in addition or to the nearest 100 over 150 Members.

Election to Representative Body.

(vi.) The Representative Body to be elected directly by the Divisions of group of Divisions in the proportion of one Representative for every complete 200 Members.

POWERS OF BRANCH COUNCILS.

(i.) To deal, as at present, with finance and boundaries of Divisions.

(ii.) To deal with all questions that concern their areas, and to co-ordinate their constituent Divisions, reporting upon the questions involved to the Representative Body or Council, when it is necessary or desirable or when so directed by either of these bodies.

(iii.) To deal with ethical matters arising in the Divisions; the power to go direct to the Central Ethical Committee, and the right to appeal, being preserved as at present.

Composition of Branch Council.

(iv.) (a) To be composed of one representative up to 200 members from each Division, and an extra representative for every 200 members in addition or to the nearest 100 over 150 members.

That the President, President-Elect, Treasurer and two Honorary Secretaries of the Branch be *ex-officio* Members of this Council.

THE REPRESENTATIVE BODY.

Composition.

(i.) To be composed of Representatives elected directly by the Divisions by postal vote or in Divisional meeting as determined by the Divisions.

Duties.

(ii.) (a) To meet at least once in every year, but the existing machinery to be altered to enable meetings to be called at shorter notice than is at present possible.

(b) To be an assembly with full deliberative powers, and to be responsible for formulating the policy of the Association.

(c) To appoint the Council.

(d) To be empowered to delegate specific powers to the Council to take action upon its behalf until the next meeting of the Representative Body.

(NOTE.—The calling together of the Representative Body in a crisis may be very disadvantageous to the Association owing to the impossibility of keeping the transactions in any way private, thus involving the disclosure of the opinions and future plans of the Association to those to whom for the time being it finds itself in opposition.)

THE COUNCIL.

Election.

The Council shall be composed of the President of the Association, the President-Elect, the Past-President, the Chairman of Representative Meetings, the Chairman of Council, the Past Chairman of Council, and Treasurer *ex officio*.

(i.) To be elected by the Representative Body, and at least five-sixths to be Members of the Representative Body. Special provision to be made for Colonial Representatives.

Duties.

(ii.) (a) To carry out the duties assigned to it by the Representative Body.

(b) To appoint Standing Committees as at present, such to be reduced in size as far as is compatible with efficiency, and to be composed in the proportion of two Members of the Council to three or four Members elected by the Representative Body.

(NOTE.—This course would tend to shift some of the burden of work from Members of the Council.)

The Scotch and Irish Committees.

(c) More use to be made of these Committees, which should, in fact, co-ordinate their respective Branches.

The Scotch and Irish Committees shall have power to co-opt Members for local purposes.

(NOTE.—Many questions could thus be speedily dealt with on the spot by those competent to do so, and loss of time and the expense of journeys to London avoided.)

The Institution of New Committees.

(iii.) (a) To appoint a Parliamentary Committee with power to co-opt additional Members, to maintain and increase the influence of the Association in the Houses of Parliament, to keep in touch with all legislation, existing or proposed, that affects the medical profession, and to perform all such duties as at present are entrusted to the Parliamentary Sub-Committee of the Medico-Political Committee.

(b) To appoint a new Committee to organise and control systematic endeavour to awaken and keep awake interest in the Association, and to devise means to make it more attractive.

(NOTE.—Such a Committee should always have ready to date, lists of speakers, on various subjects, whether Medico-Political or Scientific, who would be willing and able to address Meetings in all parts of the Country, and it would be part of the duties of this Committee to arrange for interesting and attractive meetings to which non-members would be largely invited. Under the auspices of this Committee a new and valuable special department might be established to deal with all such questions of development, and, in addition, to

undertake on behalf of Members of the Association only, the transference of practices, the supply of "Locum-tenentes," and all business of that kind. If this were done at a charge for out-of-pocket expenses only, as might have to be the case, it would be a great boon to many Members and might attract others to join an Association, which would be of practical use to them.)

(c) To appoint for the purposes of each lawsuit in which the Association may be engaged, a special small Committee to represent the Association in the matter of conferring with and instructing the Solicitor with regard to the preparation and presentation of the case.

Points to be considered with regard to General Re-organisation.

(a) The Committee draws attention to the supreme necessity of economy before any question of raising the subscription is entertained.

(b) To consider the appointment of a chief to the Central Office, to supervise and co-ordinate the work and to ensure that the services of each department shall be readily available for the other departments, and to place the whole office upon a business basis.

(NOTE.—The Committee recognises the difficulties of such a step at the present time, and offers the suggestion that such difficulties might be overcome, for the time being, by the establishment of a small House Committee to supervise generally.)

(c) The establishment of definite departments and the more definite allocation of duties in the Medical Department, thus abolishing the present system under which all business goes through the hands of one official, and which cramps the development of the department, and throws more work upon the shoulders of one man than is wise or desirable.

The Branch Council is of opinion that it is undesirable to alter the Articles of Association, and the above plan has been proposed in accordance with this view.

Report of Council on the Scheme.

A.—DIVISIONS.

2. On consideration of paragraphs (i) and (ii), viz. :—

Divisions.

(i.) *The Divisions would consider all matters of local interest and all matters referred to them by the Representative Body and Council. In matters of purely local interest the Divisions should report their decisions to the Branch Council and the Branch Council shall have power to forward reports received direct to the Central Authority, otherwise to consider them from the point of view of its Divisions collectively, and then report upon the whole question to the Central Authority.*

(ii.) *The powers of a Division in ethical matters brought before its notice be limited to the making of necessary preliminary inquiries, and to forwarding complaints to the Branch Council; the power to go direct to the Central Ethical Committee and the right of appeal being preserved as at present:*

the Council suggests that the following paragraph conveys more clearly and fully what the suggestions of the Metropolitan Counties Branch Council would involve :—

General Powers.

The Divisions shall consider all matters referred to them by the Representative Body and Council, and in the case of matters to be brought before the Representative Meeting shall convey their views to their Representatives.

Save as regards the above mentioned matters, Divisions shall report to the Branch Council all their decisions and all matters they may wish to bring forward. Decisions of Divisions shall not become effective until confirmed by the Branch Council, but in cases of special emergency the President and Secretary of the Branch shall be empowered to act for the Branch Council.

Ethical Machinery.

The Council is of opinion that in cases involving the insertion of a Warning Notice, Divisions must have the right to deal with the Central Office direct, and ethical matters should be dealt with in strict accordance with the Model Ethical Rules, after communication with the Central Office.

3. The Council disagrees with the Branch Council in its proposal to alter the present ethical procedure. The present procedure has been evolved through long experience, and the last stage of this evolution, viz., the uniform Ethical Rules of Procedure, is only now in process of adoption by Divisions and Branches. It would, therefore, in the opinion of the Council, be unfortunate if this were interfered with before it has had an adequate trial.

Proposed Limitations of Powers of Divisions.

4. It appears to the Council that, inasmuch as the proposal of the Metropolitan Counties Branch Council limits the freedom of the Division to govern itself as it thinks fit and compels it to act only with the sanction of the Branch Council, it is a contravention of Article 17, so that the desire of the Metropolitan Counties Branch Council to produce a scheme which would not require any alteration of the Articles has, unfortunately, not been realised.

5. It should be noted that all power to *instruct* a Representative as contained in By-laws 32 and 39 is removed, as is also the power to send resolutions, or amendments, from the Division direct to the Representative Meeting, that is to say, a Resolution will first have to pass through the Branch Council where it may possibly be vetoed.

Scientific and Social Functions.

6. With regard to paragraph (iii.) of the Metropolitan Counties Branch Council's Scheme, viz. :

(iii.) *Arrangements to be made for the enlargement of Scientific and Social Meetings, to which non-members resident in the Division would be as far as possible invited,*

the Council suggests the following paragraph as a clearer statement of the objects aimed at by the paragraph :

That the Council should increase its efforts to encourage the Divisions to hold more scientific and social meetings, and to use these meetings as a means of inducing non-members to join the Association.

Wards, or Sub-Divisions.

7. With regard to paragraph (iv.) of the Scheme, viz. :

(iv.) *The System of Wards to be encouraged in each Division,*

the Council prefers the title of Sub-division to that of Ward, because the term Ward suggests merely town areas, whereas the idea contemplated by the Branch Council is the sub-division of either town or country Division areas.

The Council is strongly of opinion that the system of Sub-divisions might be very useful in some areas, and suggests that the paragraph be amended to read as follows :—

The system of Sub-divisions should be encouraged in suitable Division areas; Sub-divisions to have such powers only as are conferred upon them by the Division.

B.—ELECTION OF BRANCH COUNCIL.

8. The Council has considered paragraph (v.) together with paragraph (iv.) (a) under the heading, "Composition of Branch Council," in the Metropolitan Branch Council's Scheme, viz. :—

Election to Branch Council.

(v.) *That each Division be allowed to have one Representative up to 200 Members, and an extra Representative for every 200 Members in addition or to the nearest 100 over 150 Members.*

Composition of Branch Council.

(iv.) (*a*) *To be composed of one Representative up to 200 Members from each Division, and an extra Representative for every 200 Members in addition or to the nearest 100 over 150 Members.*

That the President, President-Elect, Treasurer and two Honorary Secretaries of the Branch be ex-officio Members of this Council,

and is of opinion that the composition of the Branch Council should be left in great measure for local determination, as the circumstances in different areas vary so much.

9. The Council suggests that By-law 16 (c) at present gives effect to the desires of the Metropolitan Counties Branch Council as regards *ex officio* Members of a Branch Council, and that the number of other Members of the Branch Council would best be regulated by an amendment of By-law 16 (d), which at present reads as follows:—

> (d) In the case of a Branch comprising more Divisions than one, Members elected by such Divisions in such manner that the number to be elected by each Division shall be as nearly as possible proportionate to the Membership of such Division.

The Council suggests that the By-law should be amended to read as follows:—

> (d) Such other Members as the Branch may by its Rules decide.

10. In any case By-law 16 (d) should be altered at the first opportunity, because if it were strictly carried out as it stands the Council of a Branch of only one Division would consist only of *ex officio* Members. This is not desirable, nor was it contemplated when the By-law was drafted; moreover, the Branches have found this Rule to be most difficult to carry out, and much ingenuity has had to be exercised in drafting Branch Rules that should be useful while yet not conflicting with By-law 16 (d).

C.—Election of Representative Body.

Restriction of Size.

11. With reference to the question of the size of the Representative Body, raised in paragraph (vi.) of the Scheme of the Metropolitan Branch Council, viz.:—

Election to Representative Body.

> (vi.) *The Representative Body to be elected directly by the Divisions or group of Divisions in the proportion of one Representative for every complete 200 Members.*

the Council has given a good deal of attention to the question of the diminution in size of the Representative Body, and is of opinion that the Representative Body is too large and should be reduced, but regards the reduction of the number of Constituencies as inadvisable and more or less impracticable.

The reduction of the number of Constituencies is surrounded with very great difficulties, as will be seen by reference to a hypothetical scheme for the election of the Representative Body having a maximum membership of 150 (exclusive of Members of Council), which has been drawn up for the information of the Divisions and Representative Body (*see* Appendix). Reference to this Appendix will show that any attempt to cut down the number of Constituencies must lead to the grouping of many Divisions which have very little in common, and in many cases to the swamping of the rural areas by towns. The Council is therefore of opinion that any attempt to reduce the size of the Representative Body should be directed to the cutting down of the number of Representatives coming from large Constituencies. This the Council considers can be done without any injustice to these Constituencies by arranging that on a vote by show of hands or by roll call the votes of Members representing large Constituencies shall have their due weight. If the Representative Body agrees that an attempt should be made to cut down the size of the Meeting in this way, the Council suggests that the Representative Body should refer to the Council the framing of By-laws and Standing Orders of the Representative Meeting which would secure that a Constituency which now sends, say four Representatives, and which under the new system might only send one, should be able to record, whenever desired, four votes.

Card Vote in Representative Meetings.

12. In considering the above matter it was realised that if the number of Representatives were reduced, thinly populated and rural areas would tend, if they are to be represented at all, to become, relatively to their numbers, more and more over-represented in comparison with densely populated districts. It is therefore probable that under such conditions, when important decisions were to be taken, the card vote would be more frequently resorted to.

13. Appreciating the great loss of time entailed by the present machinery of the card vote the Council has considered whether the matter might not be simplified, and recommends the following procedure to the Representative Body for adoption, whether the size of that Body is reduced or not:—

That the following be the Standing Order for the taking of a card vote.

A card vote shall be taken in the following manner:—

At the commencement of the Representative Meeting a list of those entitled to vote shall be prepared, with, in a column opposite the name of each, the number of votes to which the voter is entitled in accordance with By-law 39 (3).

The names of the Representatives shall be grouped together under their respective Branches in the alphabetical order of their Constituences and the reply "Aye" or "No" entered opposite his name in another column.

The necessary additions shall then be made.

Specimen List. In alphabetical order of Branches.

Name and Constituency.	Vote.		Card Vote Number.	Ayes.	Noes.
	Aye.	No.			
Bath & Bristol Branch.					
Whitby, C. J. (Bath) ..		X	132		132
Carter, T. M. (Bristol) ..	X				
Devis, H. F. (Bristol) ..	X		292	292	
Parker, G. (Bristol)	X				
Pearse, J. (Trowbridge) ..		X	48		48

[NOTE.—By forming the list in alphabetical order of Branches, with orderly arrangement of Divisions inside the Branches, those possibilities of error in counting are avoided which might arise, in the case of Divisions with more than one Representative, if the arrangement were that of alphabetical order of names of Representatives. This sheet when once printed could be used for "roll-call vote" and probably for record in Minutes of attendance of Representatives. Or it might be simply written out by a clerk.]

Powers of Branch Councils.

14. On consideration of paragraph (i.) of this section of the Scheme, viz.:—

Powers of Branch Councils.

> (i.) *To deal, as at present, with finance and boundaries of Divisions,*

as the Branch Councils at present deal with the finances and boundaries of Divisions, there is no necessity to make further comment.

15. As regards paragraph (ii.) of this section of the Scheme, viz.:—

> (ii.) *To deal with all questions that concern their areas, and to co-ordinate their constituent Divisions, reporting upon the questions involved to the Representative Body or Council, when it is necessary or desirable or when so directed by either of these bodies,*

the Council suggests the following paragraph as more fully elaborating the intention of the Metropolitan Counties Branch Council:—

> (a) The Branch Council shall decide whether any matter reported to it by a Division is of purely local interest; and if in the opinion of the Branch Council such is the case, it shall have the power to (1) approve, (2) disapprove, or (3) refer the matter back. Should the Branch Council come to the conclusion that it is not a matter of purely local concern, the Branch Council shall have the power to (1) approve, (2) disapprove, (3) refer the matter back to the Division, (4) convene meetings of any or all of its Divisions for consideration of the matter, or (5) report the matter to the Representative Body or the Council of the Association with such comments as it thinks fit.
>
> (b) The Branch Council shall report to the Representative Body or Council upon any matter when so directed by either of these Bodies, or when it deems such action desirable.

(c) The Branch Council shall have the power to take such steps as it may think desirable to co-ordinate the work of its constituent Divisions, or to initiate action amongst the whole or part of its Divisions.

16. The Council agrees with the Branch Council that it is desirable to enlarge the scope and increase the responsibilities of the Branch Councils, thereby making them more useful and important bodies than they are at present, giving them greater powers over the constituent Divisions of the Branch, and enabling Branch Councils to be used as a medium of communication between the Representative Body, or the Council, and the Divisions. It is believed that the adoption of such a principle would ensure greater local uniformity of action than at present, and that the Branch Councils would deal with many matters of minor or merely local importance which are now referred to the Representative Body.

Ethical Machinery.

17. The subject dealt with in paragraph (iii.) of this section of the Scheme, viz. :—

(iii.) *To deal with ethical matters arising in the Divisions; the power to go direct to the Central Ethical Committee, and the right of appeal being preserved as at present,*

has already been alluded to in paragraphs 3 and 4 of this Report.

Composition of Branch Council.

18. The subject dealt with in paragraph (iv.) of this section of the Scheme has already been considered in paragraphs 8 and 9 of this Report.

THE REPRESENTATIVE BODY.

Composition.

19. As Representatives may at present be elected either by postal vote or in Meetings of Constituencies, as determined by the Constituency, paragraph (i.) of this section of the Scheme, viz. :—

Composition.

(i.) *To be composed of Representatives elected directly by the Divisions by postal vote or in Divisional meeting as determined by the Divisions.*

does not seem to require discussion.

Duties. Report on the Possibility of Convening a Special Representative Meeting more quickly than at present.

20. As regards paragraph (ii.) (a) of this part of the Scheme, viz. :—

Duties.

(ii.) (a) *To meet at least once in every year, but the existing machinery to be altered to enable meetings to be called at shorter notice than is at present possible,*

the Council reports that this matter is one to which it has already given a good deal of attention. The Council thinks it advisable to deal with the matter very fully in connection with this paragraph of the Scheme as there is evidently considerable confusion as to the procedure at present in force as regards calling Special Representative Meetings.

21. The circumstances in which such a Meeting is required are, according to the experience of the Association, mainly of two kinds. First, when alterations are needed in the regulations of the Association, and have been drafted in accordance with the instructions of an Annual Representative Meeting. In this case there is no special hurry and the fourteen days' notice has not been felt to be too long. Secondly, when, as in January last, either the Council or some of the Divisions have come to the conclusion that circumstances demand that the policy of the Association, or some particular decision of the Representative Body needs at once to be reconsidered. In this case speed may be of the utmost importance.

22. According to By-law 36 a Special Representative Meeting shall be convened by the Chairman of Representative Meetings on a requisition of the Council or of 7 Constituencies.

23. It may be as well to state briefly the stages of the necessary procedure in each case.

A. *Special Representative Meeting called upon the requisition of the Council.*

(i.) The proposition originates—

(a) With the Chairman of Council, or (b) with 15 Members of Council.

(ii.) Chairman of Council orders notices to be issued for Special Meeting of Council.

(iii.) Preparation and issue of Council Meeting Notices.

(iv.) Period of Notice at discretion of Chairman of Council (By-law 56). It is, however, usual to give seven clear days' notice of the Agenda of each Meeting of Council (Standing Order 2 of Council).

(v.) Meeting of Council.

(vi.) Requisition of Council forwarded to Chairman of Representative Meetings. As the latter is generally present at a Council Meeting no interval would usually occur.

(vii.) Chairman of Representative Meetings orders insertion of notice in JOURNAL.

(viii.) Fourteen days' interval (By-law 36 (2)) occupied by :—

(1) Constituences in

(a) Honorary Secretaries of Constituencies issuing notice of meeting of Constituencies.

(b) Period of Notice which, by Rules of some Divisions, must be several days.

(c) Meeting of Constituencies and instructions to Representatives.

(2) By Central Office in (a) engaging rooms, (b) printing of documents, (c) other general arrangements.

B. *Representative Meeting called on Requisition of Seven Divisions.*

(i.) Originates by intercommunication between the Divisions, and passage of identical resolutions demanding meeting and stating specific business.

(ii.) Requisition received at Central Office.

(iii.) Requisition forwarded to Chairman of Representative Meetings (interval of 1 day occupied in transmission by post. (By-law 73 (3)).

(iv.) The Chairman of Representative Meetings orders insertion of Notice in JOURNAL (interval of 1 day).

(v.) Same as A (viii.).

24. It will be clear from the above statement that except for other delays caused by unavoidable or avoidable causes the only stage that could be shortened is A (viii.) or B (v.). By giving only 10 days' notice in the JOURNAL, the Meeting could be held in the middle of the second week after the notice was published, that is to say if the notice appeared in the JOURNAL published on Friday, January 1st, for example, the Meeting could be held on Tuesday the 12th. But it is very doubtful whether such a short notice would allow of the proper discussion of a matter which would necessarily be of vital importance. In the first place the JOURNAL does not reach all parts of the United Kingdom before Saturday night. Secondly, the pressure put upon the Secretaries of Constituencies in making their arrangements, getting out notices, etc., especially in scattered Constituencies where arrangements have to be made between two or more Secretaries of Divisions, would be extreme. Thirdly, it would often be difficult for Representatives to make their arrangements for getting away from their practices at any shorter notice than at present, and it must be remembered that it takes some Representatives nearly two days to reach London. It should be borne in mind that the minimum time of 14 days now allowed for the arrangements to be made centrally, is felt to be quite short enough, and it is doubtful whether they could be carried through efficiently in less time. Above everything the Council feels that for an Association of the magnitude of the British Medical Association, whose Members are so widely scattered and whose difficulties of meeting are so great, it is important that the time allowed for the formation of a decision which may be crucial should not be too drastically curtailed.

25. As regards the special point raised by the Notice of Motion given by the Maidstone Division for the Annual Representative Meeting, namely :—

That the following words be added to the end of paragraph (2) of By-law 36 :—

"In case of urgency the period of notice may be shortened at the discretion of the Council,"

it is to be noted that if the 14 days' notice is to be curtailed at all it would need to be curtailed in every case, that is to say that it should be reduced to a definite lesser period by the By-laws. The idea of the Maidstone Division of giving discretion to the Council to shorten the period is

in the opinion of the Council impracticable, at any rate in procedure B. In procedure A, it might be possible to allow the Council, at the Special Meeting at which it passed the requisition to the Chairman of Representative Meetings, to call a Meeting, to ask him also to shorten the period of notice if the Council and the Chairman of Representative Meetings were satisfied that the matter was of special importance and could be dealt with in the shortened time. But, in procedure B, the Meeting is called on the requisition of the seven Divisions. To give the Council power to shorten the period of notice in that case would be useless, as the Council to act would have to meet, and this would probably mean lengthening the time required to call a Special Representative Meeting instead of shortening it.

Proposed change in nature of Representative Body.

26. As regards sub-paragraph (b) of this section of the Scheme, viz. :—

> (b) *To be an assembly with full deliberative powers, and to be responsible for formulating the policy of the Association,*

the Council reports that it is in full agreement with the suggestion that the Representative Body should in future be an assembly with full deliberate powers. It is important that the Divisions should thoroughly realise the full force of the proposed change. If the suggestion were carried out the Members of the Representative Body would no longer be fettered as they are at present by the restriction contained in By-law 39 (4) which reads as follows :

> 39 (4) In voting upon any matter upon which a constituency has passed a resolution within the three months immediately preceding such Meeting, the Representative or Representatives of that Constituency shall be under obligation to vote in accordance with such resolution:

27. The Council is of opinion that the events of the past few months have shown that an assembly of delegates, who, whatever the evidence placed before them at the Representative Meeting may be, are unable to vote except in a way which has already been fixed for them, perhaps three months previously, is unfitted for the needs of the Association. The function of the Representative Body is to arrive at decisions which will represent the desires of the average member of the Association, and to formulate a policy which will be acceptable to as large a number as possible under the conditions existing at the time the policy is adopted. When the constituencies meet, those members present are aware of what they wish, on the evidence placed before them; but they are not aware of the feelings of other constituencies. To instruct a Representative, therefore, that he must not vote except in a manner laid down by his own particular constituency is to deprive him of the opportunity of profiting by the opinions of others, and of voting in the way which, after mature consideration and full debate, he thinks will most conduce to the welfare of the Association. In addition to this, as recent events have well proved, the political situation may change almost from day to day, and the instructions conveyed to a Representative at a meeting on one day may well turn out to be totally unsuitable to the needs of the situation existing on the day of the Representative Meeting. It appears to the Council therefore, that the object to be aimed at is to secure an assembly of men of judgment and honesty of purpose, trusted by those who elect them, and believed by their constituents to understand and represent the feelings and the opinions of the constituency, rather than one of men who are bound to vote in a given way irrespective of the evidence placed before them.

28. The checks upon the Representative must be those exercised on a Member of Parliament by his constituents, namely, first of all the pride which the average Representative takes in proving himself worthy of the trust reposed in him, and secondly the knowledge that if he misrepresents the feelings of his constituents he will not be elected at the next occasion, and may even be called upon to resign.

NOTE :—*The Council has already recommended an alteration of By-laws which would enable a Representative to resign his position and would also enable a constituency to call upon a Representative to resign (see paragraph 36, Annual Report of Council, Supplement to B.M.J., May 3rd, 1913, page 373).*

Method of appointing Council.

29. The subject of sub-paragraph (c) of this section of the Scheme is dealt with later in paragraphs 33-36 of this Report.

Delegation of duties to Council.

30. As regards sub-paragraph (d) of this part of the Scheme, viz. :—

> (d) *To be empowered to delegate specific powers to the Council to take action upon its behalf until the next meeting of the Representative Body,*

it appears that those responsible for the Scheme have overlooked, as indeed has generally been done, the wide powers conferred upon the Council as set forth in Article 34. It is laid down in that Article that not only is it the duty of the Council to act as the Executive of a General Meeting or of the Representative Body, but that it "shall exercise such powers and do such acts and things as may be exercised or done by the Association, and are not by the provisions of any statute or of the regulations or the By-laws directed to be exercised or done by a General Meeting or by the Representative Body." That is to say that in the absence of a direct ruling of the Representative Body, the Council, in the interval between Representative Meetings, has imposed upon it the duty of acting in the fullest way for the Association.

31. It would, therefore, be well within the powers of the Representative Body definitely to delegate much of its power in the interval between the Representative Meetings to the Council, even in reference to matters as to which the Representative Body had passed definite resolutions, and if the suggestion made by the Metropolitan Counties Branch Council, under the heading "The Council" were adopted, namely, that the Council be elected mainly by the Representative Body, it is probable that there would be little hesitation in so delegating these powers. In order that there shall be no misunderstanding of the situation, however, it would be desirable that each Annual Representative Meeting should by specific Resolution delegate its powers to the Council in the interval. If this were done the undoubted dangers mentioned by the Branch Council in the note to sub-paragraph (d) of this section of the Scheme, namely the risks entailed by a public discussion of policy or tactics, could be obviated to a large extent; as the Council, being definitely instructed to carry on the policy of the Association and if necessary even to modify it, would be able to act on the information placed before it in an emergency, or in a situation in which discussion in open Representative Meeting might seriously prejudice the interests of the Association.

32. Any compunction felt by the Representative Body as to thus handing over its powers even to the Council of the Association, would be modified by the fact that these powers could be regained at any time by summoning a Special Representative Meeting.

D. THE COUNCIL.

Election and Composition.

33. The preliminary paragraph of this section of the Scheme, viz. :—

> *Election.*
>
> *The Council shall be composed of the President of the Association, the President-Elect, the Past-President, the Chairman of Representative Meetings, the Chairman of Council, the Past Chairman of Council, and Treasurer ex officio,*

being simply a statement of the present position as regards the *ex-officio* membership of the Council, the Council does not think it necessary to deal further with the subject.

34. Careful consideration has been given to the suggestion made in the Scheme as follows :—

> *To be elected by the Representative Body, and at least five-sixths to be Members of the Representative Body. Special provision to be made for Colonial Representatives,*

namely, that the Council should in future be elected mainly by and from the Representative Body. The suggestion that the Council should be the Executive of the Representative Body and elected by it, was mooted by the Constitution Committee which re-organised the Association in 1902, but the proposal was felt at that time to be inopportune. Even then it was obvious that such a step was the logical consequence of the new constitution, but the old feeling in favour of Branch representation was very strong, the Representative Body was an untried body, and the result arrived at and embodied in the constitution was a compromise by which part of the Council is elected by grouped Branches and part by the Representative Body. The Council is of opinion that there is no reason to believe that the proposed change is desired by the Association as a whole, and considers that it would be inadvisable to adopt it.

35. The Council recognises that there is a good deal to be said in favour of the argument that the election of the Council by the Representative Body would go far to prevent distrust of the Council, the existence of which feeling has at times rendered the Council much less effective as the Executive of the Association than it would otherwise have been. The Council having stated its opinion on the proposed change leaves the matter to the judgment of the Association.

Duties.

36. The question, raised in sub-paragraph (a), of this part of the Scheme, viz. :—

Duties.

(ii.) (a) *To carry out the duties assigned to it by the Representative Body.*

has been fully dealt with in paragraphs 30 and 31 of this Report.

37. As regards sub-paragraph (b), viz. :—

(b) *To appoint Standing Committees as at present, such to be reduced in size as far as is compatible with efficiency, and to be composed in the proportion of two Members of the Council to three or four Members elected by the Representative Body,*

the Council is of opinion that the Committees are already as small as is compatible with efficiency, and therefore should not be reduced. The Council would draw attention to the fact that only at the last Annual Representative Meeting it was resolved to increase the size of the Public Health Committee because its membership had been found by experience to be too small for efficiency. As regards the respective proportions of Members of Council and Members elected by the Representative Body on each Committee, the Council believes that it is unnecessary at this stage to enter into details.

E. COMMITTEES.

Scottish Committee.

38. In view of the action of the Council at its meeting on April 23rd, 1913, as reported in paragraph 172 of the Annual Report of Council, page 388, of the Supplement, May 3rd, 1913, in taking steps to increase the powers of the Scottish Committee, the intention of paragraph (ii.), (c) of this section of the Branch Council's Scheme, viz. :—

The Scotch and Irish Committees.

(c) *More use to be made of these Committees which should, in fact, co-ordinate their respective Branches.*

The Scotch and Irish Committees shall have power to co-opt Members for local purposes,

seems to be met so far as Scotland is concerned.

Irish Committee.

39. The Irish Committee already possesses considerable powers for dealing with local affairs, but the situation in Ireland is complicated by the existence of the Conjoint Committee, of which all members of the Irish Committee are *ex-officio* members, but which also comprises an equal number of members selected from the Council of the Irish Medical Association, together with sixteen directly-elected representatives of the profession, two representatives of the medical women of Ireland, and representatives of the various teaching institutions and medical societies. This Committee has been recognised by the Association, and has been in part financed by it. The Irish Medical Association has however withdrawn its Representatives on this Committee by a Resolution passed at its Annual Meeting in June, 1913, and the effect of this step may be to put an end to the continued existence of the Conjoint Committee, at least for the present.

Parliamentary Committee.

40. The Council agrees with the suggestion of the establishment of a Parliamentary Committee as recommended by the Branch Council in sub-paragraph (a) of this section of the Scheme, viz. :—

The Institution of New Committees.

(iii.) (a) *To appoint a Parliamentary Committee with power to co-opt additional members, to maintain and increase the influence of the Association in the Houses of Parliament, to keep in touch with all legislation, existing or proposed, that affects the medical profession, and to perform all such duties as at present are entrusted to the Parliamentary Sub-Committee of the Medico-Political Committee.*

Propaganda Sub-Committee.

41. The Council agrees with the principle contained in sub-paragraph (b) of this part of the Scheme, viz. :—

(b) *To appoint a new Committee to organise and control systematic endeavour to awaken and keep awake interest in the Association, and to devise means to make it more attractive,*

(Note.—Such a Committee should always have ready to date, lists of speakers on various subjects, whether Medico-Political or Scientific, who would be willing and able to address Meetings in all parts of the Country, and it would be part of the duties of this Committee to arrange for interesting and attractive meetings to which non-members would be largely invited. Under the auspices of this Committee a new and valuable special department might be established to deal with all such questions of development, and, in addition, to undertake on behalf of Members of the Association only, the transference of practices, the supply of "Locum-tenentes," and all business of that kind. If this were done at a charge for out-of-pocket expenses only, as might have to be the case, it would be a great boon to many Members and might attract others to join an Association which would be of practical use to them.)

and is of opinion that the proposal could best be carried out by a special Standing Propaganda Sub-Committee of the Organisation Committee, which Sub-Committee could also consider the cognate subject of the Organisation of Medical Students. This Sub-Committee could also undertake the duties suggested in the first sentence in the note to sub-paragraph (b) of this section of the Branch Council's Scheme.

The Proposed Undertaking of Medical Agency Business.

42. As regards the suggestions contained in the remainder of the note to sub-paragraph (b) of this section of the Scheme the Council must point out that they are outside the powers obtainable by the Association, and it is therefore useless to consider them further.

Proposed Law Suits Committee.

43. As regards sub-paragraph (c) of this part of the Scheme, viz. :—

(c) *To appoint for the purposes of each lawsuit in which the Association may be engaged, a special small Committee to represent the Association in the matter of conferring with and instructing the Solicitor with regard to the preparation and presentation of the case,*

the Council has dealt with the subject herein mentioned by setting up a Standing Libel Actions Sub-Committee of the Journal Committee for dealing with any libel actions arising out of the publications of the Association, and has decided to leave any libel actions arising out of ethical procedure in the hands of the Central Ethical Committee.

F. GENERAL REORGANISATION.

Necessity for Economy.

44. As regards paragraph (a) of this section of the Scheme, viz. :—

Points to be considered with regard to General Reorganisation :—

(a) *The Committee draws attention to the supreme necessity of economy before any question of raising the subscription is entertained,*

the attention of the Representative Body is directed to recent decisions of the Council as reported in the Annual Report of Council, paragraphs 23 and 24, page 369, Supplement, May 3rd, 1913.

Direction of Central Office.

45. As regards paragraph (b) of this part of the Scheme, viz. :—

(b) *To consider the appointment of a chief to the Central Office, to supervise and co-ordinate the work and to ensure that the services of each department shall be readily available for the other departments, and to place the whole office upon a business basis,*

the Council is of opinion that the proposed appointment of a chief to supervise the work of the whole of the Central Office is impracticable. The Representative Meeting of 1908 on the recommendation of the Special Finance Inquiry Committee decided that the whole of the work of the Association

should be co-ordinated in three departments—Financial, Editorial, Medical and Professional respectively, under the following officers :—

(a) Financial Secretary and Business Manager.
(b) Editor.
(c) Medical Secretary.

who shall hold equal official positions in the Association. As the Council is of opinion that the reasons which led to the adoption of this principle in 1908 apply with the same force now, it recommends that the suggestion of the Metropolitan Counties Branch Council be not entertained.

Medical Department.

46. As regards paragraph (c) of this part of the Scheme, viz. :—

(c) *The establishment of definite departments and the more definite allocation of duties in the Medical Department, thus abolishing the present system under which all business goes through the hands of one official, and which cramps the development of the department, and throws more work upon the shoulders of one man than is wise or desirable,*

the Council is giving attention to the question of the allocation of duties in the Medical Department and hopes to be able to report on the matter in its Supplementary Report to be issued early in July.

APPENDIX.

REPORT SHOWING THE CHANGES ENTAILED BY AN ATTEMPT TO REDUCE THE REPRESENTATIVE BODY TO A MAXIMUM NUMBER OF 150 (EXCLUDING MEMBERS OF COUNCIL), WITH A TENTATIVE SCHEME OF GROUPING DIVISIONS INTO CONSTITUENCIES.

1. The following scheme is presented for the information of the Divisions and Representative Body to show how the reduction of the Representative Body might be brought about, and to illustrate the practical difficulties in any such attempt.

2. The Report shows (A) the general changes that would be entailed by the foregoing proposal, (B) a tentative Scheme of grouping for the election of Representatives not to exceed a maximum of 150 for the whole Association.

(A) *Changes involved in setting up a Representative Body composed of not more than 150 Representatives (in addition to the Council).*

3. These changes may be indicated under the following heads, though doubtless other aspects would also require consideration :—

(a) Size of Constituency.
(b) Mode of Election of Representatives and Deputy-Representatives.
(c) Mode of Instruction of Representatives.
(d) Composition of Division Executive Committee.
(e) Election of Members of Council by grouped Representatives.
(f) Expense of Representative Meetings.

(a) *Size of Constituency.*

4. As will be seen in detail on reference to Part (B) of this Report, a change from the present principle of "total number of Constituencies not to exceed 300," to a scheme where the maximum number of Representatives would be 150, would on an average slightly more than double the size of the Constituencies.

(b) *Mode of Election of Representatives and Deputy-Representatives.*

5. The proposal, if carried out, would probably tend to make a larger number of Constituencies than do so at present, elect their Representatives and Deputy-Representatives by voting paper instead of by the alternative method of a general meeting of the Constituency.

As Constituencies will under the suggested scheme, cover such wide areas, the difficulty of rapid calling together will be much increased, and therefore to elect a Deputy Representative in a hurry, would be probably found in many cases impossible. It might be well to recognise in the By-laws what is often done already, i.e., the election of a Deputy-Representative at the same time as the Representative.

(c) *Mode of Instruction of Representatives.*

6. It is, however, in connection with the question of the instruction of Representatives that the chief difficulty of a proposal of the kind would be found. At present, in whatever way Representatives are elected (general meeting or voting paper) a general meeting of the Constituency to instruct the Representative or Representatives must be held in order that the Representative shall be eligible to attend the meeting of the Representative Body. General meetings would continue to require to be held if the Representative is to continue to be specially instructed. Even if the proposal that a Representative should no longer be a delegate be adopted, the difficulty of his keeping in touch with the opinions of the larger constituencies will be considerable, as it would be difficult, if not impossible, for Divisions adequately to keep Representatives acquainted with their views through the post.

7. In connection with this and the foregoing item, it might be well in any event to arrange by By-law that the Honorary Secretary of the largest Division comprised in a Constituency should *ipso facto* act as Secretary of the Constituency, this provision to take the place of the present somewhat clumsy arrangement contemplated by By-law 32 (2).

(d) *Composition of Division Executive Committee.*

8. If the number of Representatives is decreased to the extent contemplated in the proposal under consideration, on the basis laid down in present By-law 18 the effective membership of the Executive Committee of a Division will be decreased, inasmuch as the Member (Members) representing in the Representative Body a Constituency of much wider area than the average present Constituency will, *ex-officio*, be a Member (Members) of the Executive of each Division comprised in the Constituency. It is probable in these circumstances that the Representative would not find it easily practicable to attend the meetings of the Executive Committees of all the Divisions comprised in his Constituency.

(e) *Election of Members of Council by Grouped Representatives.*

9. The principle of the election of Members of Council by grouped Representatives, if adhered to, would be vitally affected by any such reduction of the number of Representatives as is proposed. Whether only twelve members of Council, as at present, be elected by the grouped Representatives, or all the Members of Council be so elected, except the *Ex-officio*, Overseas, and Service Members, the group of electors would in many cases be reduced to a number so small that it would probably be considered inadvisable for the Council to be elected in this way.

(f) *Expense of Representative Meetings.*

10. The main expense of meetings of the Representative Body, namely, travelling expenses, would under this proposal be reduced by approximately one-half, and doubtless some of the other expenses would also be reduced, though not to the same extent.

(B) *Tentative Scheme of Grouping for the Election of a number of Representatives not to exceed a Maximum of 150 for the whole Association.*

11. If it were decided, under such a proposal as is contemplated, to retain the principle whereby as regards the United Kingdom additional Representatives are conceded in the case of large Constituencies, it is obvious that any suggested scheme of grouping must be framed with due recognition of the fact that substantial increases of membership must necessarily be accompanied by an increase in the number of Representatives. In addition, fresh formation from time to time of new Branches and Divisions in areas previously unorganised also at once necessitates an increase in the number of Representatives. If, therefore, the maximum possible number of Representatives for the whole Association is to be fixed at 150, any scheme of grouping on that basis must (unless it is to be liable to be materially altered upon every substantial influx of new or newly organised members) provide only, as at present, for a number of Representatives which is definitely short of the maximum possible.

12. At present the maximum possible number of Constituencies for the whole Association is fixed by the By-laws at 300. The actual number of Constituencies provided for by the Council is 213, namely, 170 inside and 43 outside the United Kingdom, carrying a total of 250 Representatives, namely, 207 for the United Kingdom and 43 for the Overseas

constituencies. The total number of Representatives actually elected for 1912-13 was 224, made up of 204 for the United Kingdom and 20 for the Constituencies outside the United Kingdom.

13. The present membership of the Association organised into Branches and Divisions is: (a) United Kingdom, 19,174; (b) outside the United Kingdom, 5,136; total, 24,310.

14. Reserving, in accordance with precedent, as a provision for representation of new or newly organised members joining or becoming organised at later dates, 20 seats in that portion of the Representative Body other than the Council, 130 seats remain for distribution between the Divisions and Division-Branches at home and abroad.

15. In distributing these 130 seats between the home and overseas bodies, it would appear to be reasonable to take as a basis of apportionment the respective numbers of Representatives, home and overseas, who attended at the Annual Representative Meeting, Liverpool, 1912. The very fullest opportunities have for several years been given by the Association to the overseas Divisions and Division-Branches to return Representatives to the Representative Body, it having been the custom of the Council to accord independent representation in the Representative Body to every organised overseas Division and Division-Branch. The average number of Overseas Representatives who have attended the Annual Representative Meetings during the past five years is nine. The numbers of Representatives recorded as attending at Liverpool were:—

Representatives of United Kingdom Constituencies	202
Representatives of Overseas Constituencies	15
	217

16. Distributing on these proportions the 130 available seats between the United Kingdom and Overseas bodies we arrive at the following numbers of Representatives:—

Representatives of Divisions and Division-Branches in the United Kingdom ...	121
Do. do. outside do. ...	9
	130

SCHEME OF CONSTITUENCIES FOR ELECTION OF A REPRESENTATIVE BODY TO CONSIST OF NOT MORE THAN 150 REPRESENTATIVES (EXCLUSIVE OF MEMBERS OF COUNCIL).

17. Under the tentative scheme submitted below there are provided for—

(1) 82 Constituencies in the United Kingdom, returning 107 Representatives.

(2) 4 Constituencies outside the United Kingdom, returning 9 Representatives.

This apportionment would continue the principle embodied in the procedure laid down by the existing By-laws, whereby the Divisions and Division-Branches in the United Kingdom have a larger representation in proportion to their membership than the Divisions and Division-Branches outside the United Kingdom. On the other hand if it were so desired, it would be an easy matter to allot, from the margin of 35 seats still available (namely, the 35 seats which together with the 116 seats as referred to above, make up a total number of Representatives "not to exceed 150,") additional seats to the bodies outside the United Kingdom.

18. An allotment of 121 Representatives to the Association in the United Kingdom gives, on an average, 1 Representative to each 158 members in that area, while an allotment of 9 seats to the members of the Association outside the United Kingdom organised into Branches and Divisions, gives, on an average, 1 Representative to each 570 members.

19. Tentatively, 150 is taken as the minimum number of members necessary to form a 1-Representative Constituency in the United Kingdom, a Constituency being allotted an additional Representative for each complete number of 150 members after the first 150. In the case of the Divisions and Division-Branches outside the United Kingdom 4 Constituencies are formed, electing among them 9 Representatives.

20. In forming these Constituencies the integrity of Branch areas is as far as possible preserved. The Branches and Divisions concerned would doubtless be formally consulted on the subject before their grouping was actually decided upon by the Council.

21. The proposed Constituencies are stated, in geographical order of Branches, for each of the main sub-divisions of the United Kingdom, namely (A) England and Wales (B) Scotland (C) Ireland, commencing with the northern Branches in each case, and (D) for the bodies outside the United Kingdom.

Divisions bracketed are grouped.

(A) *England and Wales.*

(16,002 *Members*; 89 *Representatives.*)

Constituencies.		No. of Reps.
(N. OF ENGLAND BRANCH, 840.)		
N. Northumberland	27	
Morpeth	23	
Blyth	16	
Hexham	26	
Tyneside	47	1
Consett	17	
	156	
Newcastle	211	1
Sunderland	122	
Hartlepool	30	
	152	1
Bishop Auckland ...	38	
Durham	25	
S. Shields	38	
Gateshead	59	1
	160	
Stockton	35	
Darlington	61	
Cleveland	65	1
	161	
(YORKSHIRE BRANCH, 1,142.)		
Scarborough ...	52	
York	85	
Harrogate	77	1
	214	
Leeds	214	1
Bradford	181	
Halifax	73	
Huddersfield ...	63	2
	317	
Wakefield	82	
Barnsley	57	
Rotherham	21	1
	160	
Sheffield	237	1
(N. LANCS. AND S. WESTMORLAND BRANCH, 140)		
(LANCASHIRE AND CHESHIRE BRANCH, 2,145.)		
Furness	51	
Kendal	31	
Lancaster	58	
Preston	77	1
	217	
Burnley	94	
Southport	75	
Blackburn	109	
Blackpool	66	2
	344	
Bolton	84	
Leigh	30	
Wigan	36	
St. Helens	39	1
	189	
Bury	56	
Rochdale	52	
Oldham	77	
Ashton	52	1
	237	
Manchester, Central	87	
,, N.	95	
,, Salford	95	
,, S.	99	
,, W.	87	3
	463	
Chester and Crewe	80	
Altrincham ...	82	1
	162	
Stockport, Macclesfield & E. Cheshire	109	
Glossop	8	
Warrington ...	39	1
	156	
Liverpool	391	
Birkenhead ...	113	
Isle of Man ...	13	3
	517	
(N. WALES BRANCH, 232.)		
Denbigh & Flint ...	79	
N. Carn. & Angl. ...	101	
S. Carn. & Mer. ...	52	1
	232	
(SHROPSHIRE AND MID-WALES BRANCH, 144.) (S. WALES AND MON. BRANCH, 693.)		
Shropshire & Mid-Wales	144	
S.-W. Wales ...	104	
... ...	...	1
...	248	
Monmouthshire ...	146	
N. Glamorgan & B.	128	
Swansea	108	2
	382	
Cardiff	207	1
(GLOUCESTERSHIRE BRANCH, 156.)		
Gloucestershire ...	156	

Constituencies.	No. of Reps.	
(BATH AND BRISTOL BRANCH, 465.)		
Bath	132	3
Bristol	286	
Trowbridge	47	
	465	
(S. WESTERN BRANCH, 564.)		
Exeter	156	1
Plymouth	117	1
Torquay	91	
	208	
Barnstaple	58	1
E. Cornwall	54	
W. Cornwall	88	
	200	
(W. SOMERSET BRANCH 87). (DORSET AND W. HANTS BRANCH 238).		
Bournemouth	157	1
W. Somerset	87	1
W. Dorset	81	
	168	
(SOUTHERN BRANCH 502).		
Southampton	94	1
Isle of Wight	60	
Guernsey & Alderney	27	
Jersey	21	
	202	
Portsmouth	166	2
Salisbury	50	
Winchester	84	
	300	
(S. EASTERN BRANCH 1,368.)		
Chichester & Worth.	68	1
Horsham	24	
Tunbridge Wells	73	
	165	
Brighton	228	1
Eastbourne	70	1
Hastings	89	
	159	
Folkestone	27	1
Dover	40	
Isle of Thanet	47	
Canterbury and Faversham	52	
	166	
Rochester, Chatham and Gillingham	51	1
Maidstone	52	
Sevenoaks	36	
Ashford	27	
	166	
Bromley	72	1
Guildford	78	
	150	
Dartford	66	2
Reigate	67	
Croydon	201	
	334	

Constituencies.	No. of Reps.	
(MET. COUNTIES BRANCH, 3933).		
Camberwell	108	1
Woolwich	43	
	151	
Greenwich and Deptford	83	1
Lewisham	83	
	166	
Lambeth	160	1
Wandsworth	260	2
Richmond	48	
	308	
Wimbledon	37	1
Kingston-on-Thames	63	
South Middlesex	60	
	160	
Ealing	133	1
Willesden	73	
	206	
City	200	1
E. Herts	59	1
W. ,,	91	
	150	
Hampstead	130	1
Harrow	62	
	192	
Kensington	385	3
Chelsea	121	
	506	
Marylebone	673	4
N. Middlesex	189	1
St. Pan. & Isling.	207	1
Westminster	289	1
Hendon & Finchley	71	1
S.-West Essex	98	
	169	
Stratford	128	1
Tower Hamlets	79	
	207	
(EAST ANGLIAN BRANCH, 547.)		
S. Essex	66	1
Mid ,,	40	
N.W. ,,	16	
N.E. ,,	72	
	194	
S. Suffolk	89	1
W. ,,	38	
N. ,,	38	
	165	
E. Norfolk	27	1
Norwich	53	
Mid-Norfolk	65	
W. ,,	43	
	188	

Constituencies.	No. of Reps.	
(CAMBRIDGE & HUNTS BRANCH 147, MIDLAND BRANCH 739.)		
Cambs. & Hunts.	119	1
Isle of Ely	28	
Kesteven	33	
	180	
Boston & Spalding	44	1
Lincoln	59	
Chesterfield	65	
	168	
Derby	148	2
Nottingham	186	
	334	
Leicester and Rutland	204	1
(S. MIDLAND BRANCH, 275.)		
Bedford	78	1
Bucks	74	
Northants	123	
	275	
(OXFORD & READING BRANCH, 336.)		
Maidenhead	70	2
Oxford	149	
Reading	117	
	336	

Constituencies.	No. of Reps.	
(WORCESTER AND HEREFORD BRANCH, 150.)		
Hereford	68	1
Worcester	82	
	150	
(BIRMINGHAM BRANCH, 673.)		
Warwick and Leamington	63	1
Coventry	48	
Dudley	45	
	156	
Bromsgrove	21	3
Central	408	
Walsall	23	
Nuneaton and Tamworth	23	
W. Bromwich	42	
	517	
(STAFFS BRANCH, 281.)		
Mid Staffs	82	1
N. ,,	126	
S. ,,	73	
	281	
E. YORK AND N. LINCOLN BRANCH, 205.)		
E. York	150	1
N. Lincoln	55	
	205	

(B) *Scotland.*

(2,214 *Members:* 13 *Representatives*).

Constituencies.	No. of Reps.	
(NORTHERN COUNTIES OF SCOTLAND BRANCH, 140). (PERTH BRANCH, 60)		
Banff, Elgin and Nairn	57	1
Caithness and Sutherland	19	
Inverness	38	
Ross and Cromarty	26	
Perth	60	
	200	
(ABERDEEN BRANCH, 209).		
Aberdeen	188	1
Orkney	11	
Shetland	10	
	209	
(DUNDEE BRANCH, 110). (FIFE BRANCH, 105). (STIRLING BRANCH, 86).		
Dundee	64	2
Forfarshire	46	
Fife	105	
Stirling	86	
	301	
(EDINBURGH BRANCH, 496).		
Edin. and Leith	343	2

Constituencies.	No. of Reps.	
S. Eastern Counties	60	1
Lothians	93	
	153	
(GLASGOW AND W. OF SCOTLAND BRANCH, 850).		
Glasgow Central	137	3
,, Eastern	117	
,, N. Western	133	
,, Southern	105	
	492	
Ayrshire	73	1
Lanarkshire	113	
	186	
Dumbartonshire and Argyleshire	57	1
Renfrewshire	115	
	172	
(BORDER COUNTIES BRANCH 158).		
English	72	1
Scottish	86	
	158	

(C) *Ireland.*

(958 Members; 5 Representatives.)

Constituencies.	No. of Reps.		Constituencies.	No. of Reps.	
(ULSTER BRANCH, 431.)			(LEINSTER BRANCH, 284; S. EAST OF IRELAND, 65.)		
Ballymoney, N. Antrim and S. Derry	22		Dublin	144	
Derry	46		N. Leinster ..	15	1
Enniskillen ...	13			159	
Omagh	14				
Mon. and Cavan ...	21	1	E. Leinster... ...	90	
Portadown and W. Down	78		Mid ,, ...	10	
	194		N.W. ,, ...	12	
			S.E. ,, ...	13	
Belfast	237	1	Carlow	8	1
			Kilkenny	22	
(CONNAUGHT BRANCH, 60; MUNSTER BRANCH, 118.)			Waterford	35	
				190	
N. Connaught ...	11				
Mid ,, ...	16				
S. ,, ...	33				
N. Munster ...	33				
W. ,, ...	9	1			
S. ,, ...	76				
	178				

(D) *Divisions and Division-Branches outside United Kingdom*

(5,136 Members; 9 Representatives).

Constituencies.	No. of Reps.		Constituencies.	No. of Reps.	
Assam Branch ...	17		Border (S.A.) Branch	102	
Baluchistan Branch	11		Cape (E. Province) Branch	47	
Bombay	222		Cape (W. Province) Branch	131	
Punjab Branch ...	70		East Africa and Uganda Branch	15	
S. Indian Branch ...	143		Griqualand West Branch	25	1
Ceylon	169	2	Natal Branch (2 Divisions) ...	130	
Hong Kong Branch	146		Orange Free State Branch	28	
Malaya Branch ...	109		Rhodesian Branch...	55	
Burma Branch ...	72		Transvaal Branch ...	214	
	959			747	
Barbados Branch ...	31				
Bermuda Branch ...	9				
British Guiana Branch	41				
Halifax (N.S.) Branch	51				
Jamaica Branch ...	49				
Leeward Isles Branch	20		New Zealand Branch (11 Divisions) ...	482	
Montreal Branch ...	53	1	Queensland Branch	225	
St. John (N.B.) Branch	25		South Australian Branch	212	
Saskatchewan Branch	35		Tasmanian Branch	70	
Toronto Branch ...	276		Victorian Branch ...	727	
Trinidad Branch ...	22		West Australian Branch	122	5
	612		New South Wales Branch	897	
			Egyptian Branch...	41	
			Gibraltar Branch ...	17	
			Malta Branch ...	25	
				2,818	

22. It will be seen that the above tentative Scheme furnishes a total of 116 Representatives, namely :—

(a)	For England and Wales ...	89
(b)	For Scotland	13
(c)	For Ireland	5
(d)	For Overseas	9
	Total	116

The total number of Constituencies is 86.

23. Provision for this number of Representatives would leave a total margin of 35 seats, to be drawn upon gradually as the membership of the Association increased.

24. It is obvious from the Scheme that it would give practical effect to the proposal for a Representative Body not to exceed 150 (exclusive of Members of Council), if 150 were fixed by By-law as the minimum number of Members of the Association for a Constituency in the United Kingdom and at the same time about 9 or more seats were alloted to the overseas bodies, additional 150's to qualify a Constituency (in the United Kingdom) for additional representation, at the rate of one additional Representative for each such 150.

25. It would be more conducive to a satisfactory grouping of the Divisions and Division-Branches outside the United Kingdom if say 15 seats (Representatives) were alloted to those bodies, the question of the size of the Constituencies outside the United Kingdom being left by By-law to the Council to determine, and if necessary to vary, at its discretion.

26. As regards the steps necessary to be taken to modify the composition of the Representative Body in the manner proposed in the resolution of the Committee, this could apparently be effected by comparatively simple alterations of the By-laws. It might be well to fix by By-law the maximum number of Representatives as well as, as at present, the maximum number of Constituencies. To simplify matters further a provision might at the same time be introduced into the By-laws to the effect that no Division or Branch shall be entitled to take part in the election of a Representative to the Representative Body which had not, according to the Annual List in operation when the grouping is decided upon, a duly appointed Executive Committee or Branch Council and officers. This principle has practically already been adopted by the Council with regard to the overseas bodies. It might also be worth while considering whether possession of proper rules should not be a condition of representation in the Representative Body.

REPORT OF THE COUNCIL ON THE QUESTION OF REFERENDUM AND POSTAL VOTE.

1. Ever since the re-constitution of the Association, and especially while the attempt to obtain a Royal Charter was before the Association, there have been many active Members of the Association who were not satisfied that sufficient safeguards existed to ensure that as far as possible the decisions of the Representative Meeting represented accurately the opinion of the Association, and the taking of a Referendum by Postal Vote was strongly urged as a satisfactory means of ensuring this.

At the Annual Representative Meeting, 1910, the following resolution was passed :—

> 330. That while recognising the necessity of proceeding without delay with the formation of a new Company, the Representative Meeting considers it desirable that a full consideration should be given by the Association to the question of the Referendum by postal vote, and the arrangements generally for securing that the decision of the Representative Meeting shall, as far as possible represent accurately the opinion of the Association, and that it be an instruction to the Council to prepare a Report on these subjects for the consideration of the Divisions, and, after receiving and considering the replies of the Divisions, to submit a Report with recommendations to the next possible Representative Meeting, whether that takes place under the present Company or under the new Company which it is proposed to form.

2. This Minute received the careful consideration of the Council and a detailed report with recommendations was published and "referred to Divisions" in the BRITISH MEDICAL JOURNAL Supplement, April 29th, 1911. Only 5 Divisions replied to the questions referred and the Council reported the whole matter to the Representative Meeting of 1911.

3. The recommendations of this report provided for (1) alterations being made in the Regulations to provide *inter alia* that a referendum might be demanded by 1/5th of the constituencies (containing not less than 1/5th of the membership of the Association); (2) enabling members under certain conditions to record their votes by post; (3) giving the Council or 1/10th of the constituencies power to compel reference to the Divisions of any resolutions which had been passed by the Representative Body without having been previously referred to the Divisions.

4. The Report was approved and the Council proceeded in the usual constitutional manner to carry out the instructions contained in the above Recommendations, and Counsel was asked to make the alterations in the Regulations and By-laws necessary to carry out the wishes of the Representative Meeting. Counsel pointed out, however, that if constituencies were to have the power to initiate a referendum all resolutions of the Representative Body, even of trivial character, would have to be submitted *after they were passed* and *before they could be acted on* to all the Divisions of the Association, even the most distant Colonial ones, and time would have to be given them to consider and decide whether or not they should demand a Referendum.

5. It was pointed out that this would mean the hanging up of every resolution of the Representative Meeting for fully six months in every case before action could be taken, and if a Referendum were demanded another six months would elapse before the resolution could become effective.

6. This opinion of Counsel was reported to the Annual Representative Meeting of 1912, and the following Resolution was carried :—

> 40. That in view of Counsel's opinion on the question of giving effect, in the Regulations of the Association, to the report on the Referendum and Postal Vote, approved by the Annual Representative Meeting, 1911, Minute 330 of the Annual Representative Meeting, 1910, be referred to the Council for further consideration and report as soon as possible.

7. In accordance with this instruction the Council has further considered the matter and reports as follows :—

It agrees with Counsel.

> (a) That as regards the present Referendum (as provided for in the Regulations and By-laws) it is impracticable to give the power to constituencies to demand it because such a provision would involve constant and useless delays.
>
> (b) That there is no need to distinguish between matters which have or have not been before Divisions, as in any case the Council in taking a Referendum would only be justified in doing so if it were not satisfied that the decisions of the Representative Body or General Meeting truly reflected the opinion of the Association, and the Representative Body or General Meeting could not reasonably object to the Council conscientiously exercising its constitutional duties.

8. It is at present the duty of the Council to obtain the opinion of the Members,

> (a) for information and instruction before action is taken by the Representative Meeting or General Meeting,
>
> (b) on appeal (*i. e.*, the Referendum, vide Art. 32) against a decision of the Representative Meeting or General Meeting which the Council does not consider truly reflects the opinion of the Association.

9. In either case the vote might be taken,

> (a) by Members assembled in meetings of Constituencies or Divisions, or
>
> (b) by a postal vote.

10. The Council is convinced that the Imperial character of the Association with its members spread over the whole globe makes a real plebiscite of the members, if not quite impossible, certainly absolutely useless. Not only for the reason of delay above mentioned, but because questions of common interest to the whole Empire seldom arise and nearly all matters with which the Association has to deal affect only a limited portion of the King's dominions.

11. The Council is of opinion that the present machinery is adequate for dealing with matters affecting the whole Association, whether it be the obtaining of information or instruction to be submitted to a General or Representative Meeting in order that it may give a vote, or the taking of a Referendum in accordance with Article 32.

12. The difficulty is that matters of such wide interest seldom arise. The majority of the questions with which the Association has to deal affect portions of the Empire only, and usually only the United Kingdom or some part of it. If appeals to members are to be of any real use they must be capable of being made to those only who have some direct interest in the result.

13. The Council accordingly drew up the following questions for consideration and submitted them to Counsel with a request for his opinion :—

> * *Minute* 570.—(a) The possibility, under the Regulations of the Association as now in force or to be altered for the purpose, of empowering the Council to make an appeal by means of a postal vote to a portion only of the Members of the Association in cases where it is felt that the question or questions upon which the vote is to be given affect only that portion of the Members of the Association appealed to.
>
> (b) Whether the decision obtained by means of a postal vote from a portion only of the Members of the Association in the manner above prescribed could be made binding on such portion of Members.
>
> (c) If so, whether instead of a fixed majority being laid down the Council could be given a discretionary power to make the decision binding on such portion of Members if, in its opinion, the majority in support justified it in doing so.

To this the following reply was received :—

Opinion of Mr. T. R. Colquhoun Dill.

As to the matters mentioned in Resolution 88* of the Organisation Committee (8th April, 1913) I am of opinion as follows :—

> (a) (b) The existing Regulations do not contemplate or authorise an appeal by the Council by means of a Postal Vote to a portion of the Members, and if such an appeal were actually made the decision obtained thereby would not be binding on the Members appealed to.
>
> Leaving out of sight decisions of the Central Ethical Committee (or the Council) on matters of professional conduct, the only way in which under the existing Regulations the members generally can be bound is by Resolution of the Representative Body or of a General Meeting of the Association (approved by the Council or on a Referendum). And it is outside the intention of the present Regulations that even the Representative Body should legislate specially and differentially for certain Divisions or Branches or groups of Divisions or Branches or for separate areas.
>
> The proposals before me are therefore a new departure.
>
> I have no doubt that the Regulations could be altered so as to enable such appeals to be made and to declare that decisions so obtained should bind the members appealed to.
>
> The intention would, I presume, be that as to the members affected ; these decisions would override any decision of the Representative Body or even of a General Meeting on the same subject, and would be enforceable (in the last resort) by expulsion. I need hardly point out that the alterations in the existing Regulations which would be required for these purposes would be extensive and far reaching.
>
> I presume that the questions as to which such appeals might be made would be questions of general policy ; it might however be considered whether they should be limited to any defined classes of question. The important point of the areas which may be dealt with separately in this way appears to have been already decided, viz., England, Wales, Scotland and Ireland.
>
> (c) In my opinion it would be possible to give to the Council the discretionary power suggested ; or possibly the discretion might be made exercisable only if some specified majority were obtained.
>
> T. R. Colquhoun Dill.
>
> Lincoln's Inn.
> 8th May, 1913.

14. From this it appears that "decisions of the Association" at present apply to the whole Association, but Counsel thinks that the suggested alterations could be made.

15. In view of the history of this matter, and of the latest opinion of Counsel, the Council now places the whole subject before the Representative Body in order to ascertain in what way, if any, it desires the Regulations of the Association to be altered.

In the opinion of the Council the following are the questions on which the opinion of the Association should be

* Minute 570 of the Council is the same as Minute 88 of the Organisation Committee.

ascertained. When this has been done the desired alteration of the Regulations can be proceeded with immediately:—

(a) Whether the Council should be empowered to take a referendum on any decision of the Representative Body either in the way suggested in Article 32 (that is by Meetings of the Divisions) or by a postal vote, and should also be empowered to extend the referendum or postal vote if it thought fit to the whole profession.

(b) Whether the Council should have power to consider whether the question to be submitted was one which affected one or more parts of the Kingdom, namely, England, Scotland, Ireland, Wales, or some Dominion, and to take the vote in any one or more of these parts as it thought fit.

(c) Whether in taking a referendum or postal vote on any question the Council should have power to decide what majority of the votes received would justify it in making the result of the vote binding upon the Members of the Association in those parts of the country consulted.

(d) Whether the Representative Body should be empowered, when passing any Resolution, to say to what portion of the Kingdom the Resolution should apply. In this case, if the Council decided to take a referendum or postal vote it would consult only that portion of the country designated by the Representative Body.

(e) Whether it should be competent for the Representative Body to discuss and come to decisions upon matters of policy which are only to affect and to be made applicable to certain portions of the Association.

(f) Whether the Division shall be empowered to lay down in their Rules that the opinion of the Division may be ascertained either by a postal vote of its members or by a vote in meeting as the Division shall decide.

16. There are certain other points bearing on this question on which the Council thinks it advisable to obtain the opinion of the Representative Body. At present a resolution carried in accordance with Article 31 becomes a decision of the Association and it becomes the duty of the Council to carry such resolution into effect (Article 34) unless the matter is upset on a Referendum (Article 32). It is held that it would be advisable in many cases to take a vote before carrying out a policy of importance. Would it be possible for the Representative Body under the present regulations (or could they be altered to make it legal?) and if so, does the Representative Body deem it desirable after having decided that a certain procedure or policy was advisable, that it should be able to declare that its decision on the matter should not be considered "the policy of the Association", and should be ignored by the Council until the result of a postal vote of the Association or profession to be taken forthwith by the Council, either on the whole question or on some portion thereof, had been ascertained? Would it be possible and desirable for the Representative Body at the same time to lay down the majority, either of voters or of the whole members of the Association or profession, it considered necessary for the carrying of the question?

17. Further, would it be possible for the policy laid down in a specific resolution to be declared to be the policy of the Association in certain areas, and not in others, or in areas where a certain majority was reached—not in others, and if it were possible to have such local policy, would it be possible to have all matters connected with it kept local to the area affected? And if these questions are answered in the affirmative does the Representative Body deem it desirable to make provision for such a course of action.

NOTE.—The matter may be made clearer by consideration of the following example:—

England, Scotland and Wales objected to the medical arrangements of the National Insurance Act and it became the policy of the British Medical Association to oppose their introduction in these areas. But so bad were the conditions of practice in Ireland that the Irish profession preferred the Insurance Act to them, and it became the policy of the Association to advocate the extension of Medical Benefit to Ireland. Now, if the Representative Body had wanted to refer this matter to the Divisions for information and instruction, or if the Council had wanted to take a Referendum in accordance with Article 32 on the matter, the Irish question could not have been referred solely to Ireland, which alone was capable of judging, but India, Australia, Canada and New Zealand, etc., would equally have had their voice in the matter.

British Medical Association.

Annual Representative Meeting, Brighton, 1913.

NOTICES OF MOTION FORWARDED BY DIVISIONS

SINCE THE PUBLICATION OF THE PROVISIONAL AGENDA FOR THE ANNUAL REPRESENTATIVE MEETING AT BRIGHTON.*

Question of Advisability of Recognition by Association of some Existing Medical Trade Union.

1. **Amendment,** by CHELSEA, to Motion contained in Item 15 of Provisional Agenda, as to a union of medical practitioners:

That the question be considered by the Association as to the advisability or otherwise of recognizing some existing medical trade union as a necessary adjunct to the defence forces of the profession, and of handing over to it such work as it may be inexpedient for the Association to undertake; or, in the event of a federation of medical trade unions being in existence, of recognizing such federation for work of this class.

Question of Payment of Expenses of Representatives.

2. **Amendment,** by SCOTTISH DIVISION, to Recommendation of Council contained in Item 21 of Provisional Agenda:

That the time has arrived when the Representative Body should seriously consider the advisability of raising the annual subscription in order to meet *inter alia* the out-of-pocket expenses of Representatives at Representative Meetings as well as their travelling expenses.

3. **Amendment,** by NORTHAMPTONSHIRE, to Recommendation of Council contained in Item 21 of Provisional Agenda:

That Divisions be allowed to pay their Representatives out-of-pocket expenses other than travelling expenses.

Policy of Association in relation to National Insurance Act.

4. **Amendment,** by GLASGOW CENTRAL, to Motion contained in Item 41 of Provisional Agenda, as to approval of Remainder of Annual Report of Council under heading "(H) State Sickness Insurance":

That, in order to preserve union in the Association, to secure co-ordination of Local Medical Committees, and to promote harmonious working within the profession, Minute 45 of the Special Representative Meeting, January, 1913, be rescinded, and that the policy of the Association in relation to the National Insurance Act, 1911, be based on Minute 48 of the same Meeting.

[*Minute 45 of S. R. M. of January, 1913, referred to.*
Resolved (one dissentient):
That this Meeting records its emphatic protest against the discreditable methods adopted by the Government whereby a position of urgency was created under which many practitioners, finding themselves threatened with financial ruin, were compelled to give unwilling service under the National Insurance Act, on terms which this Meeting considers to be derogatory to the profession and against the public interest.

Minute 48 of S. R. M. of January, 1913, referred to:
Resolved: That the Council be instructed (*a*) to take all necessary steps to watch and protect the interests of the profession under the National Insurance Act; (*b*) to take any opportunity that may be afforded for placing the representatives of the Association on the Advisory and Insurance Committees; (*c*) to obtain statutory recognition of Local Medical Committees in every Insurance area;

* The Provisional Agenda of the Annual Representative Meeting, Brighton, will be found in the BRITISH MEDICAL JOURNAL SUPPLEMENT of May 10th, 1913.

(*d*) to collect information as to defects in the Act and Regulations and to take all possible opportunities of remedying them.]

Central Insurance Defence Fund.

5. **Amendment,** by CAMBRIDGE AND HUNTINGDON, to Motion contained in Item 41 of Provisional Agenda, as to approval of Remainder of Annual Report of Council under heading "(H) State Sickness Insurance":

> That, in connexion with the question of the future of the Central Insurance Defence Fund, referred to in paragraph 141 of the Annual Report of Council, unless the Council is prepared to enforce payment of money guaranteed to the Fund, a complete statement of the receipts, expenditure, and outstanding liabilities of the Fund ought to be published immediately with a view to the early closure of that Fund, and that a Special National Fund should be instituted for the purposes outlined in paragraph 152 (*a*), (*b*), (*c*), and (*d*) of the Annual Report of Council.

6. **Amendment,** by WEST SUFFOLK, to Motion contained in Item 41 of Provisional Agenda, as to approval of Remainder of Annual Report of Council under heading, "(H) State Sickness Insurance":

> That, unless the Council is prepared to enforce payment of money guaranteed to the Central Insurance Defence Fund, a complete statement of the receipts, expenditure, and outstanding liabilities of the Fund should be published immediately with a view to the early closure of that Fund.

Existing Regulations under National Insurance Act: Methods of the Government.

7. **Rider,** by COVENTRY, to Motion contained in Item 41 of Provisional Agenda, as to approval of Remainder of Annual Report of Council under heading "(H) State Sickness Insurance":

> This Representative Meeting wishes most emphatically to reaffirm its opinion as to the nature and probable effects of the existing Regulations under the Insurance Act and to protest against the methods of coercion applied by the Government to an honourable profession.

Question of Formation of a Welsh Committee of the Association.

8. **Rider,** by CARDIFF, to Motion contained in Item 61 of Provisional Agenda, as to Report of the Committee of the Metropolitan Counties Branch appointed to consider the reform of the present constitution of the Association, arising out of paragraph (*c*) of that Report, as to Scottish and Irish Committees:

> That a Welsh Committee be established having similar powers and duties assigned to it as to the Scottish and Irish Committees.

ALFRED COX,
Medical Secretary.

June 18th, 1913.

Meetings of Branches and Divisions.

[*The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the* JOURNAL.]

EAST ANGLIAN BRANCH:

WEST SUFFOLK DIVISION.

A MEETING of the West Suffolk Division was held at Bury St. Edmunds on June 12th. Dr. WOOD presided, and seven other members were present. Dr. FORDYCE (Cambridge), who has recently been elected a member of Council, was also present by invitation.

Executive Committee.—The following with the office-bearers were elected to serve: Drs. Hinnell, Barwell, Bennett, Stiff, Leeming, Trotter, and Ritchie.

Election of Representative.—Dr. Wood was appointed to serve as Representative, vice Mr. Lucas, whose resignation was accepted with regret; a cordial vote of thanks to him for his services was carried unanimously. The instruction of the Representative was postponed to the next meeting, to be held early in July, when the report of the Council on the reorganization of the Association will be considered.

Guarantee Fund.—After discussion the resolution numbered 6 in the first column of this page was passed for submission to the Representative Meeting.

Scale of Fees.—Dr. BARWELL raised the question of fees for certificates under the Workmen's Compensation Act, life insurance, and "extra" certificates under the Insurance Act. After discussion the Executive Committee was instructed to issue a leaflet to all practitioners in the Division stating the fees fixed by it or by previous meetings of the Division.

Insurance Act Certificates.—Dr. FORDYCE informed the meeting that a practitioner is obliged to give to an insured person or his accredited representative certificates in conformity with the rules of the society to which he belongs, and that the nature of the complaint must be stated if these rules so require. A hearty vote of thanks to Dr. Fordyce for his presence at the meeting was carried unanimously, and the meeting adjourned.

GLASGOW AND WEST OF SCOTLAND BRANCH:

GLASGOW CENTRAL DIVISION.

Presentation to Dr. John Adams.

ON Tuesday, June 10th, Dr. John Adams, the Representative of the Division, was entertained at dinner in the Grosvenor Restaurant, Glasgow, by a number of members of the Division. Dr. ROBERT JARDINE presided, and there were thirty-eight present. On behalf of those present and of thirty-three other members, the CHAIRMAN presented Dr. Adams with a fitted suit case, and expressed to him the appreciation by the members of the valuable services he had given, not only to the Division with which he is directly associated, but also to the larger body of medical men whom he represents on various committees connected with the Association and with the profession. All recognized the zeal, foresight, and consistency he had always displayed in regard to questions of interest to medical men, and even the minority in the Division could not but admire his consistent attitude towards the Insurance Act and the intimate knowledge which he had been at pains to acquire of its details, a knowledge which made his appointment to the Chairmanship of the Glasgow Burgh Medical Committee particularly appropriate. Dr. ADAMS thanked all those who had been associated with the presentation for the kindness shown to him and for the expression of esteem even from those who sometimes differed from him on matters of medical politics. After all, the British Medical Association was a democratic body, and he would urge all to take a keener interest in its affairs.

METROPOLITAN COUNTIES BRANCH:

HAMPSTEAD DIVISION.

THE annual meeting of the Hampstead Division was held on June 6th, when Mr. WARE was in the chair, and eleven members were present.

Election of Officers and Committee.—The following were elected:

Chairman.—Dr. A. W. K. Picard.
Vice-Chairman.—Dr. E. L. Pritchard.
Honorary Secretary.—Mr. Sidney Boyd.
Representative on Branch Council.—Dr. Oakley.
Members of Executive Committee.—Mr. C. W. Allen, Dr. J. Ford Anderson, Dr. E. Alice Brown, Dr. G. P. Coldstream, Dr. A. W. George, Mr. W. Haward, Mr. W. E. Hills, Dr. H. Oppenheimer, Dr. E. A. Seymour, Dr. G. E. Shuttleworth, Mr. E. E. Ware.

Annual Report of Council.

The annual report of the Council (SUPPLEMENT, May 3rd) was considered, and the following points were decided:

Organization.—Recommendations A, D, and E were approved. The Representative was given a free hand in respect of B, and it was decided to leave C to the Branches concerned. Recommendation F was approved after some discussion on the question of raising the annual

subscription; it was decided to give the Representative a free hand in this matter. Recommendation G was approved with the exception of paragraph (4), which it was agreed should be opposed, as also Recommendation H. With regard to Recommendation J it was agreed that paragraph (*c*), By-law 16, and paragraph (*c*), By-law 18, should be opposed. In connexion with paragraph (*b*), relating to the insertion of Warning Notices, it was agreed that the Division adhere to its former statement.

State Sickness Insurance.—Some discussion took place concerning medical representation on District Insurance Committees, and it was proposed by Dr. DOBBIE, seconded by Mr. WARE, and carried unanimously, that in Section (*d*) the words "the same as" be altered to "not less than." Paragraph 126 was discussed, and it was agreed that the principle of placing resident medical officers of hospitals and other institutions on the panel for the purpose of attending the hospital staffs was strongly to be condemned. Paragraph 129 was also discussed, and it was agreed that parturient women in receipt of maternity benefit should be regarded as eligible for treatment in voluntary hospitals, and that part of the benefit should be given to the hospital. With regard to the proposed special fund considered in paragraph 151, the Executive Committee suggested that the word "panel" be inserted before "member" in paragraph (*i*). This was carried unanimously.

Public Health and Poor Law.—The recommendations of the Council concerning appointments of M.O.H. and S.M.O. were approved.

KINGSTON-ON-THAMES DIVISION.

Election of Officers.—At a meeting of the Kingston-on-Thames Division, held at the Surbiton Cottage Hospital on June 13th, the following were elected as officers for the ensuing year:

Chairman.—Dr. H. Cooper.
Vice-Chairman.—Dr. A. E. Evans.
Honorary Secretary and Treasurer.—Dr. N. C. Carver.
Representative at Representative Meeting.—Dr. Holberton.
Representatives on Branch Council.—Dr. A. E. Evans, Dr. Goodman.
Other Members of Executive Committee.—Drs. Coleman, Mowll, Gale, Taylor, Cran, Sully, Maxwell, Hyde.

ST. PANCRAS AND ISLINGTON DIVISION.

THE annual meeting of the St. Pancras and Islington Division was held on June 13th, the Chairman, Dr. R. M. BEATON, presiding.

Annual Report.

Dr. J. WILSON, the Honorary Secretary, presented the annual report, in which it was stated that the membership of the Division was 210 as compared with 233 last year. The 23 resignations included a number of migratory members—those attached to hospital staffs and others. Owing to the Insurance Act more meetings than usual were held during the year, and these were well attended. The report mentioned the self-sacrificing devotion to duty of the Chairman, Dr. Beaton, who, in addition to much other work on behalf of the Association, had attended every meeting of the Division and its committees except one.

The report was adopted, on the motion of Dr. B. G. MORISON, who heartily endorsed Dr. Wilson's reference to Dr. Beaton.

Election of Officers and Committee.

Dr. P. W. Rattray was unanimously elected Chairman of the Division for the ensuing year, on the motion of Dr. BEATON, seconded by Dr. WILSON.

When the appointment of other officers was about to be considered, Dr. SHERRY raised the question that in the nominations of the Executive Committee doctors on the panel were inadequately represented.

The CHAIRMAN explained that the question of panel or non-panel doctor had never entered into the minds of the Executive Committee in drawing up the list of nominations. It was open for other names to be put forward by any one present.

Dr. SHERRY intimated that he was not prepared with any names at the moment, and the adjournment of the meeting was moved in order that other nominations might be made. This proposal, however, was negatived.

Several members spoke in favour of representation being afforded those members of the Division who are on the panel, and offered to resign in favour of other nominees. Ultimately the matter was adjusted in an amicable spirit.

The following elections were made:

Vice-Chairman.—Dr. Alexander Brown.
Honorary Secretary and Treasurer.—Dr. J. Wilson.
Representatives on Representative Body.—Dr. Beaton and Dr. Morison.
Representatives on Branch Council.—Dr. G. F. Glinn and Dr. A. O. Wickham.
Executive Committee.—Drs. Alexander Adam, J. Crabb, J. N. Glaister, John Matheson, S. Rowntree, D. Thurston, N. H. Turner, and Bransby Yule.

Drs. BEATON and MORISON stated that they could accept the position of Representatives only if they were appointed as Representatives and not as delegates.

This was agreed to.

The Pledge.

The Executive Committee reported with reference to an instruction from the Division to take the necessary steps for the expulsion from membership of the Association of those members who, having signed the undertaking and pledge, joined the panel before January 18th. The Committee recommended that no further action be taken.

Dr. SHERRY supported the recommendation; to persist in a policy of expulsion, whether the Council endorsed it or not, would only engender ill feeling.

Dr. MORISON asked Dr. Sherry to include in his motion the words "in view of the fact that a vote of censure has been passed," in order that the action already taken by the Division might remain on record.

Dr. GORDON urged that the stigma on the twenty-six gentlemen referred to in the resolution should be removed by the rescission of the vote of censure.

Dr. FOURACRE hoped the advice of the executive would not be taken. Personally, he did not wish to remain in an Association with men who had been publicly declared guilty of conduct detrimental to the interests of the profession. The Association would be split if they were not removed.

Dr. GORDON said that in some cases it would have been suicide for the men to have kept off the panel until January 18th. He was one of the culprits, and he declared that if the resolution of condemnation were not rescinded he did not care to remain a member of the Association.

Ultimately the resolution that no action be taken was carried. The words suggested by Dr. Morison were also approved.

Finance.

It was stated that the Division had collected for administrative and defensive purposes £834, of which £437 remained in the bank. A meeting of the whole profession n the Division would be called to decide what to do with the money.

Valedictory Address by Retiring President.

Dr. BEATON, in acknowledging the various references to his services as Chairman and Representative, said that the Division had given him a splendid opportunity of helping the profession for which he thanked them, and that he was proud that the men of the Division had during the fight over the medical clauses of the Natural Insurance Act shown such a fine example and had stood together in a way that few constituencies had.

His year of office which closed that night was indeed a wonderful one in the history of the medical profession. They had entered upon it with high hopes, believing that a united profession would win reasonable conditions of service for itself, with freedom to act for the public weal. But they had failed. A little more determination, a little more readiness to suffer, and they would have won. Now the profession was diligently searching for a Jonah to throw overboard. Defective organization of the British Medical Association was very likely the Jonah it would send to the whales. Men were slow to accept blame. Yet slowly but surely this fact was being forced upon the mind of the profession, that the men, not the organization, were the cause of the failure. If they were to win in the fights of the future they must learn to suffer and be strong. One

of the results of the failure to get reasonable conditions of service was that in London and elsewhere many doctors on the panel had more patients than they could care for efficiently. This lack of efficient treatment had led to a loud outcry from the heads of the friendly societies, who accused the doctors of treating the insurance patients like paupers, of taking their money but not being willing to work for it. Moreover, these societies were not alone in complaining. The Rev. Silvester Horne, M.P. for Ipswich, who had been a staunch defender of the Insurance Act, allowed this criticism in the *London Signal*, which he controlled: "Those who come into contact very largely with insured persons are quite certain, notwithstanding all political assurances to the contrary, that medical benefit is neither satisfactory in character nor adequate in quantity. There are too few doctors by far, and many of those on the panel are such that if insured persons had really free choice they would never think of going to them." In corroboration of these complaints the following cases, supplied by a doctor in the Division who as examining doctor for a large commercial undertaking had special facilities for seeing how the insured persons were being treated by the panel doctors, were submitted for careful consideration: (1) A case of wound of the finger in December last. Treated at a London hospital with boric fomentations. In January a granulating wound of the subcutaneous tissues existed, and the panel doctor ordered bread poultices. The wound smelt of vinegar fermentation; necrosis of the phalanx supervened, notwithstanding which the bread poultices were continued. The man returned to the hospital, was still on the society's fund, and had lost a considerable part of the finger. (2) Bruised finger, effusion of blood under nail. Lead lotion ordered; finger became infected; lead lotion continued. (3) Inguinal hernia. Lead lotion ordered to be applied. Hernia not discovered. (4) A case of severe infected tonsillitis. Temperature 103°. Patient went to bed for eight days, and got up from bed three times to see the panel doctor, returning each time to bed. Full particulars of the above cases and others from the same source could be given if required. Surely it was not too much to say that conduct such as this was derogatory to the profession and against the best interest of the insured. The doctor was overworked, grew weary of his work and dissatisfied with himself. The patient distrusted the panel doctor, and suffered more than was necessary; many of them went to a non-panel doctor and so had to pay twice. An effective free choice of doctor would speedily put an end to this unfortunate state of things, and it was not beyond the bounds of possibility that a union of dissatisfied patients and dissatisfied doctors might force this important concession from the present Government.

A vote of thanks to the Chairman, proposed by Dr. Alexander Brown and seconded by Dr. Morison, concluded the proceedings.

South Middlesex Division.

The annual general meeting of this Division was held at Twickenham on June 4th, when Dr. C. C. Scott was in the chair.

Report by Honorary Secretary.—Dr. H. M. Cooper, the Honorary Secretary, reported that during the first year of the Division twelve meetings had been held with a good average attendance. The question of juvenile clubs, family clubs, uninsured adults, and temporary residents were discussed. The Honorary Secretary was directed to obtain the approval of the Association for the resolutions passed and then circularize all the practitioners in the Division.

Election of Officers.—The following officers were elected:

Chairman.—Dr. M. F. Cock (Ashford).
Vice-Chairman.—Dr. C. C. Scott (St. Margaret's).
Honorary Secretary and Treasurer.—Dr. H. M. Cooper (Hampton).
Representative for Representative Meetings.—Dr. R. Langdon-Down (Hampton Wick).
Deputy Representative for Representative Meetings.—Dr. W. H. Haslett, C.C. (Sunbury).
Representative on Branch Council.—Dr. W. H. Haslett.
Executive Committee.—Drs. Camps, Christian, Dendle, Günther, P. Langdon-Down, Marshall, Murphy, Still, Burstal, and Valerie.

Northern Counties of Scotland Branch:

Banff, Elgin, and Nairn Division.

The annual meeting of this Division was held at Gray's Hospital, Elgin, on June 7th, when a representative number of members were present.

Election of Officers.

The following office-bearers and committees were appointed:

Chairman.—Dr. Brodie Cruickshank, Nairn.
Vice-Chairman.—Dr. Sellar, Aberlour.
Secretary and Treasurer.—Dr. J. A. Stephen, Elgin.
Representative in Representative Meeting.—Dr. B. Cruickshank.
Substitute in Representative Meeting.—Dr. J. A. Stephen.
Representatives on Branch Council.—Drs. Johns and Rennie.
Executive Committee; Ordinary Members.—Drs. Adams (Forres), Alexander, Campbell, Ferguson, sen., Taylor (Keith), and Wilson.
Ethical Committee.—Chairman and Honorary Secretary, with Drs. Ferguson, Alexander, Campbell, Brander, and Taylor (Elgin).

Annual Report.

The annual report submitted by the Executive Committee was adopted, as was also the financial statement showing a deficit of 4s. 6d.

Annual Representative Meeting.

The annual report of Council was considered, and the Division expressed its gratification at the decision of Council to make the changes in the detailed organization of the Association as affecting Scotland detailed in paragraph 172 of the annual report. The business for the Annual Representative Meeting was discussed, and the Representative instructed to support Motions 13, 21, 25, 27, 36, 38, and 43.

Seamen's National Insurance Society.

Considerable discussion took place with regard to this society, thereafter Dr. Murray moved:

> That no medical man in this Division accept an appointment under the Seamen's National Insurance Society, and if any one has accepted, that he be requested to withdraw.

This was seconded by Dr. McHardy and unanimously agreed to, and the Honorary Secretary was instructed to write to those who were known to have accepted such appointments requesting them to resign such. It was pointed out that under the scheme of this society there was not absolute free choice of doctor (in actual practice), and that the tariff was less than the minimum tariff proposed by the Association.

Dr. Murray then moved, and Dr. Galloway seconded, that the following clause be included in any amending bill:

> That the Seamen's National Insurance Society be put on the same basis as other approved societies as regards medical treatment, giving absolute free choice of doctor, and that no tariff be agreed to which is less than that accepted by the British Medical Association.

This was unanimously agreed to.

The Honorary Secretary was instructed to write to the members of Parliament for the Division asking their support, and the Representative was instructed to bring the matter up at the Annual Representative Meeting. During the discussion the opinion was expressed that the Association might have adopted a stronger attitude in regard to this society and should have done more by central action rather than have left it to individual Divisions to fight.

Dependants on Insured Persons.

An expression of opinion on attendance on wives and children of insured persons or club members having been asked for, it was after discussion agreed by a majority of 7 to 4 not to attend such on contract terms except under the Insurance Act, and the question of men having already accepted such was referred to the Ethical Committee.

South-Eastern Branch:

Dartford Division.

The annual meeting of the Dartford Division was held on June 12th, when Dr. R. H. Steen, Vice-Chairman of the Division, presided.

Reorganization of Divisions.—It was resolved to agree to the proposed new Divisions.

Annual Report of Executive.—The HONORARY SECRETARY read the report, which showed an increase of three in the membership of the Division. The greater part of the meetings had been occupied with insurance work, but in spite of the efforts of the Division no material concessions had been obtained. District Insurance Committees had been formed for Gravesend, Erith, and Dartford, and two medical men appointed to each. A scientific paper had been read by Mr. J. F. O'Malley, of the Evelina Hospital (published in the BRITISH MEDICAL JOURNAL, April 26th, p. 699), and was much appreciated. Ethical and general rules had been adopted by the Division. The financial report showed that the Division had been threatened with a considerable deficit, owing to the inability of the Branch Council to give the usual grant, but, thanks to the decision of the Division to call for a levy of 5s. per member, the Divisional funds showed a slight balance.

Election of Officers.—The following were unanimously elected:

Chairman.—J. Crombie, M.B., Sidcup.
Vice-Chairman.—W. K. Glover, M.B., Dartford.
Honorary Secretary and Treasurer.—H. Chisholm Will, Sidcup.
Representative to Branch Council.—H. C. Will.
Representative to Annual Meeting.—H. C. Will.
Executive Council.—Drs. C. Firth, Greenway, Hartley, E. Knight, Murison, Pounds, Renton, Shute, H. Smith, Steen, and Walker.

Address.

A most interesting address was given by Dr. COURTENAY LORD, member of the Council, on the position of affairs. He dealt with the position in the country generally, then in the county of Kent, then that in Gillingham, and finally the position as regards the Association. Dr. Lord showed that the condition under all these heads was very unsatisfactory, and advocated many reforms which would place the Association in a stronger position, and enable it to do its work more efficiently. On the motion of Dr. STEEN, seconded by Dr. WILL, a hearty vote of thanks was accorded to Dr. Lord.

Agenda of Representative Meeting.—On the motion of Dr. SHUTE, seconded by Dr. HARTLEY, it was unanimously resolved to defer the consideration of the reports to the Annual Representative Meeting until the next meeting, to be held at Dartford on July 10th.

Votes of Thanks.—On the motion of Dr. HUGH SMITH a hearty vote of thanks was unanimously accorded to Dr. Chas. Firth (Gravesend) for the able manner in which he had acted as Chairman during the year. On the motion of Dr. SHUTE, a vote of thanks was accorded to Dr. H. Chisholm Will for his services as Honorary Secretary of the Division.

REIGATE DIVISION.

THE annual meeting of this Division was held at Reigate on June 9th, at 4 p.m., when eleven members were present.

Election of Officers.—The officers for the ensuing year were elected as follows:

Chairman.—Dr. Alec Walters.
Vice-Chairman and Representative at Annual Meeting.—Dr. Spencer Palmer.
Representatives on Branch Council.—Dr. C. Caldecott.
Honorary Secretary and Treasurer.—Dr. Gayner.
Executive Committee.—Drs. Alec Walters, Spencer Palmer, Hewetson, Price, Clarke, Porter, Ogle, Gayner, Blackler, Prince, Mackenzie, Thornton, Caldecott, and Drake.

Annual Report.—The annual report by the SECRETARY was read.

Instructions to Representative.—The annual report of Council and the agenda of the Annual Representative Meeting to be held at Brighton were discussed, and Dr. Spencer Palmer was instructed to support any scheme that will tend to diminish the expenses of the JOURNAL. Mr. HENRY SEWILL spoke at some length on this subject, and said that the editorial matter and contributions might be very much cut down and condensed, thereby saving a considerable sum of money each year. Instructions were also given negativing the raising of the subscription and the forming of a new company. By a small majority it was passed:

> That it is desirable that the Association shall, if possible, be formed into a trade union.

The State registration of nurses also received the approval of those present.

Vote of Thanks.—A hearty vote of thanks to the Chairman for so kindly undertaking the duties for the second year in succession, and for his past devoted and invaluable work in the interests of the profession, closed the proceedings.

SOUTH-WESTERN BRANCH.

THE seventy-fourth annual meeting of the South-Western Branch was held at Torquay on June 11th. Dr. HARDWICK (Newquay), the retiring President, took the chair, and forty-six members were present.

Annual Report.

The annual report presented to the meeting stated that the number of members of the Branch on April 30th, 1913, was 564, the same number as on April 30th, 1912. The matters that had chiefly occupied the attention of the Branch during the year related to the Insurance Act and contract practice, and the report enumerated various subjects which would call for serious attention in the immediate future. The first was the relation of Divisions and Branches to Local Medical Committees. As the latter did not and could not have ethical rules or disciplinary powers, it was desirable that points concerning uninsured persons should be referred to the Divisions of the Association, and one of the problems which confronted the Association was to provide machinery by which decisions of the majority of the practitioners on the panel, or of Local Medical Committees, could be brought into relation with the organization of the Association, so that its ethical rules and disciplinary powers could be utilized. The second point mentioned was the scheme of the Metropolitan Counties Branch for enlarging the powers of Branch councils, and enabling them to co-ordinate the work of the various Divisions in their areas. It was undesirable that three or four Divisions in a single insurance area should deal directly with an Insurance Committee notwithstanding the existence of a County Medical Committee. The necessary alterations in the areas of Divisions and Branches would in the case of the South-Western Branch be very slight. The third point was the regulation of contract midwifery attendance. The amount allowed for medical men in respect of maternity benefit under the Insurance Act was 15s., and arrangements would have to be made whereby the amount between this and the proper fee for a medical man was provided. This was a matter for Local Medical Committees. With regard to the considerable number of uninsured persons now getting midwives to attend ordinary confinements and sending for medical men only in cases of difficulty, it was incumbent on each Division to insist that nursing associations which employ midwives should make provision for the proper remuneration of medical men called in to assist midwives; co-ordination to provide for parallel fees was essential. The fourth point was the necessity for action on the part of the profession to combat the strenuous efforts of the friendly societies to depart from the agreement as to attendance on aged and infirm persons reached at the conference in 1911. The fifth point was as to the attendance on uninsured persons, women, and juveniles; as it was probable that before long the Act would be amended so that these persons also would become insured it would damage the profession in its future negotiations were the rates fixed below what had been agreed upon for insured persons. The financial statement showed a small balance in hand, which however might be absorbed in whole or in part by an outstanding account. The report went on to call attention to the great increase in the amount of secretarial work and the Branch Council asked the meeting to recognize the appointment of an assistant secretary. Further, it was becoming obvious that Local Medical Committees would in future need the services of a paid clerk, and it was pointed out that one county in England had, by arranging for the deduction of 1d. from every insured person's capitation fee, raised a sum of £500 a year to provide an office with a paid secretary and clerk for the Local Committee.

The report was approved.

Next Annual Meeting.—It was arranged that the annual meeting of the Branch for 1914 should be held in Plymouth, and Dr. W. L. Woollcombe of Plymouth was chosen President-elect. Dr. WOOLLCOMBE returned thanks.

Re-election of Honorary Secretary and Treasurer.—On the motion of Dr. DONBAVAND, seconded by Dr. DEAS, Mr. Russell Coombe was re-elected Honorary Secretary and Treasurer. In returning thanks, he said that it would be a great advantage if the Branch Council had more power to co-ordinate the four Divisions in which the Medical Committees of the county of Devon worked.

President's Address.

Dr. Hardwick vacated the chair, which was taken by Dr. G. YOUNG EALES (Torquay), who moved a vote of thanks to Dr. Hardwick, which was seconded by Dr. DEAS and carried.

Dr. EALES then delivered his presidential address, in which he spoke of the great advances which had been made by Torquay during the last twenty-seven years. The corporation, which had done so much for the town, had now a scheme for establishing medicated baths and swimming baths. In the baths there would be a ladies' section containing seven baths and sixteen dressing-rooms, and a gentlemen's section containing six baths and thirteen dressing-rooms. It was estimated that it would be possible to treat over 100 cases a day without undue pressure. The system would supply a long-felt want, as patients who had visited the northern watering places during the summer months would be able to continue the treatment during the winter months in a mild and salubrious climate.

Vote of Thanks.—A vote of thanks was passed to Dr. Eales on the motion of Dr. DAVY, who expressed the hope that Torquay and its new baths undertaking would prosper.

Annual Dinner.—The annual dinner was held at the Torbay Hotel, where, among the invited guests, were the Mayor of Torquay, Colonel C. R. Burn, M.P., and the Archdeacon of Totnes.

YORKSHIRE BRANCH:

HALIFAX DIVISION.

AT a meeting of the Division on June 11th Dr. CROSSLEY WRIGHT was in the chair, and twenty-six other members were present.

Presentation to the late Honorary Secretary.

The CHAIRMAN presented Dr. J. F. Hodgson, the late Honorary Secretary of the Division, with a silver teapot, on behalf of the members of the Division, and spoke in eulogistic terms of the capable manner in which Dr. Hodgson had conducted the arduous duties which had fallen to his lot.

Annual Report.

The annual report and balance sheet of the Division was read, and adopted, on the motion of Dr. PRIESTLEY LEECH, seconded by Dr. DORA MANN.

Election of Officers.

The following were elected officers of the Division for next year:

Chairman.—Dr. A. Drury.
Vice-Chairman.—Dr. P. V. Fry.
Representative for Representative Meeting.—Dr. A. Drury.
Representative on Branch Council.—Dr. A. Drury.
Honorary Secretary.—Dr. J. F. Gill.
Executive Committee.—Drs. T. W. Arnison, J. F. Hodgson, G. G. Lawson, Priestley Leech, J. Marshall, Armitage Morton, J. Sproull, and P. K. Steele.

Representative's Fund.

On the motion of Dr. MACAULAY, seconded by Dr. STEELE, it was decided to appoint a treasurer for the Representative's Fund, the method of collecting at meetings being unpleasant and unsatisfactory. On the motion of Dr. MACAULAY, seconded by Dr. PRIESTLEY LEECH, Dr. J. F. Hodgson was appointed Treasurer to the fund, and it was agreed, on the motion of Drs. HUNT and BRANSON, that there be an annual levy of 2s. 6d. a head on all members, to be increased if circumstances required.

Model Rules for Ethical Procedure.

At the last meeting of the Division these rules were adopted, with the exception of Rules 12 and 22. After letters from the Medical Secretary had been read, it was decided, on the motion of Dr. MACAULAY, seconded by Dr. PRIESTLEY LEECH, to adopt Rules 12 and 22 also.

Contract Practice Outside the Insurance Act.

The following motion, of which fourteen days' notice had been given in accordance with Rule 2 of the Rules for Ethical Procedure, was moved by Dr. MACAULAY, seconded by Dr. PRIESTLEY LEECH, and, after much discussion, was carried by 24 votes to 3:

> That this Division does not approve of contract practice outside the Insurance Act.

The case of a member then came up for consideration. The member in question had been allowed by the Executive Committee to resume a club appointment which he held previous to the passing of the Insurance Act. The meeting refused to ratify the action of the Executive Committee, and the member agreed to resign his appointment, although this will mean a considerable pecuniary loss to him, rather than oppose the wishes of the Division.

Medical Certificates for School Children.

It was announced that all the medical practitioners in the Calder Valley were refusing to give such certificates unless paid for by the Education Authority, as it is contended that they are given entirely for the benefit of that authority in order that it may not lose grants. A suggestion to make this action general throughout the Division was negatived.

Next Meeting of Division.

On the motion of Dr. DRURY, seconded by Dr. MORTON, it was decided to hold the next meeting of the Division on or about July 9th to consider the report and supplementary report of the Council, and the provisional agenda for the Annual Representative Meeting.

School Medical Officers for the Halifax Education Committee.

As the present whole-time school medical officer to the Halifax Education Committee is about to take up other duties, it was thought that the question of appointing part-time medical officers might suitably be brought forward, and it was decided to ask the Education Authority to receive a deputation from the Division on the subject.

Vote of Thanks to Retiring Chairman.

On the motion of Dr. DRURY, seconded by Dr. PRIESTLEY LEECH, a cordial vote of thanks was passed to the retiring chairman, Dr. J. Crossley Wright.

Association Notices.

ELECTION OF MEMBERS OF COUNCIL BY GROUPED REPRESENTATIVES.

NOTICE is hereby given that Nominations for candidates for election of Members of Council by grouped Representatives for the year 1913–14 will be received by the Medical Secretary up to the end of the first hour of the proceedings of the Annual Representative Meeting, on Monday, July 21st, 1913. Each Nomination must be on the prescribed form, copies of which will be forwarded by the Medical Secretary on application.

Separate forms have been prepared: (I) for Nomination by a Division (through its Representative), and (II) for Nomination by a Representative of a Constituency included in the Group, and those applying are requested to state for which purpose the form is desired.

The voting papers will be issued at the Representative Meeting to each Representative or Deputy-Representative of a Constituency in the United Kingdom in attendance at the Meeting.

By order of the Council.

ALFRED COX,
Medical Secretary.

June 19th, 1913.

CHANGE OF BOUNDARIES OF DIVISIONS AND BRANCHES.

THE following change has been made in accordance with the Articles and By-laws of the Association, and takes effect from the date of publication of this notice:

Alteration of Areas of Cambridge and Huntingdon and West Suffolk Divisions and of Cambridge and Huntingdon and East Anglian Branches.

That the Urban District of Newmarket be transferred from the area of the Cambridge and Huntingdon Division of the Cambridge and Huntingdon Branch to the area of the West Suffolk Division of the East Anglian Branch, and that the boundaries of these four bodies respectively be adjusted accordingly.

Representation in Representative Body.—No necessity for modification of the present grouping of the Cambridge and Huntingdon and Isle of Ely, and West Suffolk, Divisions arises from the carrying into effect of the above change.

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—Dr. Duncan Davidson, Honorary Secretary (15, Priory Row, Coventry), gives notice that a special meeting of the Coventry Division will be held at the Coventry Hospital on Tuesday, July 1st, at 8.30 p.m. Agenda: Recommendation of Ethical Committee; consideration of SUPPLEMENT of June 21st; letters from Medical Secretary; recommendations of Local Medical Committee, if any.

BORDER COUNTIES BRANCH.—Dr. Livingston, Secretary, gives notice that the annual meeting of the Branch will be held in the Town and County Hotel, Carlisle, on Friday, June 27th.

CAMBRIDGE AND HUNTINGDON BRANCH.—Dr. G. S. Haynes, Honorary Secretary, gives notice that the sixty-ninth annual meeting of the Branch will be held in Cambridge on Wednesday, July 16th. President-elect, Joseph Griffiths, M.A., M.D., M.C., F.R.C.S.

DORSET AND WEST HANTS BRANCH.—Dr. Frank Fowler, Honorary Secretary (29, Poole Road, Bournemouth), gives notice that the summer meeting will be held at the Town Hall, Wareham, on Wednesday, July 9th, at 3.30 p.m. Dr. Charles Mercier will read a paper, A Problem in Diagnosis. Any members having cases or short papers they would be willing to read are requested to communicate with the Honorary Secretary. Luncheon will be arranged at the Red Lion Hotel at 1.30; price 2s. 6d. The Rev. Canon Blackett has kindly promised to show members the churches and wall of the town after luncheon. Drs. Courtenay and Bell invite members to tea after the meeting.

EAST ANGLIAN BRANCH.—Dr. B. H. Nicholson, Honorary Secretary (East Lodge, Colchester), gives notice that the annual meeting of the East Anglian Branch will be held at Ipswich on Thursday, July 10th. Members wishing to read papers, etc., should communicate with Dr. Nicholson.

EAST YORK AND NORTH LINCOLN BRANCH.—Dr. Edward Turton, Honorary Secretary (1, Albion Street, Hull), gives notice that the annual meeting of the East York and North Lincoln Branch will be held at Beverley on Friday, June 27th, at 4 p.m. Business: (1) Report of Branch Council. (2) Treasurer's Financial Statement. (3) Election of President-elect, Vice-President, and Honorary Secretary and Treasurer. (4) Address by the new President, Dr. J. Mitchell Wilson. (5) Any other business proper to annual meetings of the Branch.

EDINBURGH BRANCH.—Dr. Michael Dewar and Mr. E. Scott Carmichael, Honorary Secretaries (24, Lauriston Place), give notice that the annual meeting of the Edinburgh Branch will be held in the Royal College of Physicians' Hall, Queen Street, on Thursday, June 26th, at 4 p.m.

EDINBURGH BRANCH: SOUTH-EASTERN COUNTIES DIVISION.—Dr. M. J. Oliver, Honorary Secretary (St. Boswells), gives notice that the annual meeting of the Division will be held in the Railway Hotel, Newtown St. Boswells, on Friday, June 27th, at 3 o'clock p.m., for the election of officers, the consideration of the annual report of the Executive Committee and financial statement; the discussion of various matters concerning the Insurance Act, including certificates, duties of Medical Service Subcommittee, expenses of Local Medical Committees, payment for services to temporary residents, and for instructing the Representative on the Representative Body.

METROPOLITAN COUNTIES BRANCH.—Drs. W. Griffith and R. E. Crosse (Honorary Secretaries) give notice that the annual general meeting of the Branch will be held at 429, Strand, W.C., on Tuesday, July 1st, at 4 p.m. The business will include a report as to the election of new officers, and the annual reports of Council and of representatives of the Branch on the Central Council. On the motion to adopt Model Ethical Rules for Branches, Dr. F. J. Smith gives notice that he will propose an alteration to the Model Ethical Rules by substituting the words "British Medical Association" for the words "Medical Profession" in Rule 1. President's Address: The Profession and the Public. [The Model Ethical Rules are printed in the SUPPLEMENTS of September 21st and 28th, 1912, pages 325 and 350.]

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—Dr. A. G. Southcombe, Honorary Secretary, gives notice that the adjourned annual general meeting will be held in Balfour Hall, Dunstan Street, Kingsland Road, on Wednesday, July 9th, at 3.30 p.m. The chief items of business before the meeting will be: (1) Report of Central Council (SUPPLEMENT, May 3rd). (2) Agenda for Representative Meeting (SUPPLEMENT, May 10th). (3) Report of Council upon reorganization of the Association (SUPPLEMENT, June 21st). (4) Supplementary Agenda for Representative Meeting (SUPPLEMENT, June 21st and July 5th); members are especially desired to preserve those SUPPLEMENTS and bring them to the meeting). (5) Instructions to Representatives. (6) Poor Law medical appointments—(i) Dr. Major Greenwood will call attention to the position in (*a*) Shoreditch and (*b*) Bethnal Green, and move a resolution; (ii) consideration of appointment of a deputation to the (*c*) Hackney Union Guardians. (7) The Chairman will report the results of the appeal and levy.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—Dr. Hugh McD. Parrott, Honorary Secretary, gives notice that the annual meeting of the Wandsworth Division will take place on Thursday, July 10th, at 3.15, at Stanley's Restaurant, 235, Lavender Hill, Clapham Junction. Members of the Wimbledon Division are invited to attend at 4 p.m.

MIDLAND BRANCH: LEICESTER AND RUTLAND DIVISION.—Dr. R. Wallace Henry, Honorary Secretary (6, Market Street, Leicester) gives notice that a meeting of the Division will be held in the Council Chamber, Hinckley, on Friday, June 27th, at 4 o'clock, when there will be a discussion on local industrial diseases, in which Drs. Jenkins, Garratt, Young, Horton Davies, Johnston, and Sevestre intend to take part. Dr. Sessions Barrett has kindly invited members attending the meeting to tea, at 3.30 o'clock, at Appleton House, and would be glad if those who intend to be present would communicate with him.

NORTHERN COUNTIES OF SCOTLAND BRANCH.—Dr. J. Munro Moir, Honorary Secretary (4, Ardross Terrace, Inverness), gives notice that the annual meeting of this Branch will be held at the Highland Hotel, Strathpeffer Spa, on Friday, June 27th, at 11.30 a.m.

NORTH OF ENGLAND BRANCH: NORTH NORTHUMBERLAND DIVISION.—Dr. R. B. Robson, Honorary Secretary, gives notice that the annual meeting of the North Northumberland Division will be held at the Alnwick Infirmary on Thursday, June 26th, at 3.30 p.m. Business: Election of officers, mileage question, etc.

SOUTHERN BRANCH.—Dr. James Green, Honorary Secretary (Brandon House, Mile End, Portsmouth), gives notice that the fortieth annual meeting will be held at the Institute, Shanklin, Isle of Wight, on Thursday, July 3rd, at 1.30 p.m., Dr. F. W. Jollye, President, in the chair. Agenda: Election of officers for 1913–14, annual report of Council, balance sheet, general business. An address will be delivered by Dr. J. Cowper, of Shanklin, the President for the ensuing year. Dr. Cowper invites members of the Branch to luncheon at Daishe's Hotel at 2.15 p.m., and to a garden and tennis party, to which ladies are also invited, at 4 o'clock. The Arthur Webster Memorial Hospital and the Scio Hospital can be visited during the afternoon. Those members who wish to play golf are invited to do so by the Shanklin and Sandown Golf Club, and, if possible, a match will be arranged between the club and the medical visitors. Intending players will please communicate with Dr. Cowper not later than June 27th. Those gentlemen who intend to accept the President's hospitality will oblige by sending word to that effect to Dr. G. Benington Wood, Newlands, Sandown, Isle of Wight, not later than June 28th.

STAFFORDSHIRE BRANCH.—Dr. Harold Hartley, Honorary General Secretary (Basford, Stoke-on-Trent), gives notice that the fortieth annual meeting of the Branch will be held at the Victoria Hotel, Wolverhampton, on Thursday, June 26th, at 5.25 p.m., when an address will be delivered by the President-elect, Mr. W. F. Cholmeley, F.R.C.S. The Agenda: Report of the Council and the financial statement will be presented; officers for the ensuing year (President-elect, Secretary and Treasurer) will be elected, and the place of holding the next annual meeting decided.

YORKSHIRE BRANCH.—Dr. Adolph Bronner, Honorary Secretary (33, Manor Row, Bradford), gives notice that the annual meeting of the Yorkshire Branch will be held at the Clayton Hospital, Wakefield, on June 25th, for the election of Vice-President, Secretary, and Treasurer. Members intending to read papers, make any communications, propose new members, or show cases or specimens are requested to notify the Honorary Secretary at once. The annual dinner will take place at the Bull Hotel, at 6.30 p.m.

A cricket match has been arranged in connexion with the Annual Meeting, on Saturday, July 26th—The Profession *v.* Brighton College. Play will commence at 11.30 on the College Ground. Any gentlemen wishing to play are requested to send their names as soon as possible to Mr. Geoffrey Bate, 8, Palmeira Avenue Mansions, Hove. In the afternoon the Head Master (the Rev. W. R. Dawson) and Mrs. Dawson will be glad to entertain members and their friends to tea, and the college will be open for inspection.

ELECTION OF COUNCIL, SESSION 1913-14.

BRANCHES IN THE UNITED KINGDOM.

BRANCHES INCLUDED IN GROUP.	NAME.	UNOPPOSED OR CONTEST.
North of England, and North Lancashire and South Westmorland Branches	Mr. D. F. TODD	Unopposed.
Yorkshire Branch	Dr. H. J. CAMPBELL	Unopposed.
Lancashire and Cheshire Branch	Dr. T. A. HELME	Elected.
	Mr. F. C. LARKIN	Elected.
	Dr. John Brown	—
East York and North Lincoln, and Midland Branches	Dr. ADAM FULTON	Unopposed.
Cambridge and Huntingdon, East Anglian, and South Midland Branches	Dr. B. E. FORDYCE	Unopposed.
Birmingham and Staffordshire Branches	Mr. ALBERT LUCAS	Unopposed.
North Wales, Shropshire and Mid-Wales, and South Wales and Monmouthshire Branches	Mr. W. F. BROOK	Unopposed.
Metropolitan Counties Branch	Dr. F. J. SMITH	Elected.
	Dr. CHARLES BUTTAR	Elected.
	Dr. MAJOR GREENWOOD	Elected.
	Mr. E. C. MONTGOMERY-SMITH	Elected.
	Dr. M. G. Biggs	—
	Dr. B. G. Morison	—
Bath and Bristol, Gloucestershire, West Somerset, and Worcestershire and Herefordshire Branches	Dr. GEORGE PARKER	Unopposed.
Dorset and West Hants, and South-Western Branches	Dr. FRANK FOWLER	Unopposed.
Oxford and Reading, and Southern Branches	Dr. B. H. MUMBY	Unopposed.
South-Eastern Branch	Mr. C. COURTENAY LORD	Elected.
	Dr. John Scott	—
	Dr. C. H. Benham	—
	Dr. T. Barrett Heggs	—
SCOTLAND.		
Aberdeen, Northern Counties, Dundee, and Perth Branches	Dr. JOHN GORDON	Unopposed.
Edinburgh and Fife Branches	Dr. J. R. HAMILTON	Unopposed.
Glasgow and West of Scotland Branch (4 City Divisions)	Dr. JOHN ADAMS	Unopposed.
Glasgow and West of Scotland (4 County Divisions), Border Counties, and Stirling Branches	Dr. J. LIVINGSTONE LOUDON	Unopposed.
IRELAND.		
Connaught and South-Eastern of Ireland Branches	Mr. DENIS WALSHE	Unopposed.
Leinster Branch	(No nomination received.)	
Munster Branch	Professor H. CORBY, M.D.	Unopposed.
Ulster Branch	Mr. R. J. JOHNSTONE	Unopposed.
COLONIAL RETURNS.		
New South Wales and Queensland Branches	Dr. C. J. MARTIN, F.R.S.	
New Zealand Branch	Dr. DAVID EWART.	
Baluchistan, Bombay, Punjab, Burmah, South Indian and Madras, Ceylon, and Assam Branches	Lieut.-Col. C. H. L. MEYER, I.M.S. (ret.)	
Malaya and Hong Kong and China Branches	Dr. J. MITFORD ATKINSON.	

CENTRAL COUNCIL ELECTION, 1913-14.

ANALYSIS OF VOTING.

THERE were three contests in the election of the Central Council, these taking place in the South-Eastern, Lancashire and Cheshire, and Metropolitan Counties Branches respectively. The transferable vote was again employed in these elections, and it is of interest to note that this method of voting has been adopted and applied by the Insurance Commissioners for England for the election of medical representatives to serve on insurance committees, and will again be used at the end of this month in the election of representatives of insured persons.

Under the system of the transferable vote the elector has one vote which he records by placing the figure 1 against the name of his favourite. The transferability of the vote is secured by permitting the elector to mark the name of his second choice with the figure 2, his third choice with the figure 3, and so on. The elector's vote may then be transferred to his second choice when his first choice does not require it for his own election, and to later choices in due sequence where necessary. In these elections it appeared that many of the electors thought that they would benefit their first choice by recording a preference for him alone. This is not the case. The vote is retained for the elector's first choice so long as he can make effective use of it, and it is only passed to the second choice when it can be no longer of any benefit to the first preference.

The South-Eastern Branch Election.

In the South-Eastern Branch there were four candidates for one seat, and the votes recorded were as follows:

	First Preferences.
Mr. Lord	198
Dr. Scott	177
Dr. Benham	81
Dr. Heggs	70
Total	526

Mr. Lord, although at the head of the poll, did not receive an absolute majority of all the votes cast, and could not on the first count be declared elected. In accordance with the principle of the second ballot, the candidates lowest on the poll—Drs. Benham and Heggs—were excluded from the contest, and their votes transferred to the second preferences of their supporters. The votes of both were transferred in one operation because the total of these two candidates amounted only to 151, which was less than the number of votes polled by Dr. Scott, the candidate next highest on the poll. It was found that Mr. Lord had been marked as next preference on 58 papers and Dr. Scott on 50, whilst on 43 the electors had shown no preference either for Mr. Lord or for Dr. Scott. The result of the transfer was as follows:

				Total Votes.
Mr. Lord	198	+	58	= 256
Dr. Scott	177	+	50	= 227

The former was accordingly declared elected.

The Lancashire and Cheshire Branch.

In the Lancashire and Cheshire Branch there were three candidates for two seats. The first preferences recorded were:

Dr. Helme	498
Mr. Larkin	281
Dr. Brown	56
Total	835

As there were two candidates to be elected, any candidate receiving over a third of all the votes was sure of election. The "quota" or number of votes necessary for election was therefore a third of 835 *plus* 1 vote—that is, 279 votes. As both Dr. Helme and Mr. Larkin had received more than this number they were declared elected, and no transfer of votes was necessary.

The Metropolitan Counties Branch.

In the Metropolitan Counties Branch election there were six candidates for four seats. The first preferences were as follows:

Dr. F. J. Smith	353
Dr. Charles Buttar	259
Dr. Greenwood	179
Dr. M. G. Biggs	101
Dr. B. G. Morison	96
Mr. Montgomery-Smith	73
Total	1,061

In this case, where there were four vacancies, the "quota" necessary for election was one more than a fifth of the votes recorded, or 213. Both Dr. Smith and Dr. Buttar had obtained more than this number of votes, and were accordingly declared elected. Their excess votes were distributed in strict proportion to the second preferences shown on their papers. The method by which this was done may be explained by giving the details of the transfer of Dr. Smith's surplus, which amounted to 140 votes. All Dr. Smith's papers were re-examined and sorted accordingly to the next available preferences. Dr. Buttar, being already elected, was not an "available" preference, and any papers on which Dr. Smith was marked 1 and Dr. Buttar 2 were carried on to the third preference. The total number of papers showing preferences was 319, divided as follows: Dr. Biggs 44, Dr. Greenwood 177, Mr. Montgomery-Smith 64, and Dr. Morison 34. From these 319 transferable papers Dr. Smith could spare 140, and the returning officer calculated by means of rule-of-three sums the numbers he could spare for Dr. Biggs, Dr. Greenwood, Mr. Montgomery-Smith, and Dr. Morison respectively. The numbers were 19, 78, 28, and 15. These were added to the previous totals of the candidates named, and the state of the poll became:

Dr. F. J. Smith	213 (*elected*)
Dr. Charles Buttar	259 (*elected*)
Dr. Greenwood	257
Dr. M. G. Biggs	120
Dr. B. G. Morison	111
Mr. Montgomery-Smith	101
Total	1,061

As Dr. Greenwood's total now exceeded the quota, he was declared elected. The surpluses of Drs. Buttar and Greenwood were next transferred in succession, with the following result:

Dr. F. J. Smith	213 (*elected*)
Dr. Charles Buttar	213 (*elected*)
Dr. Greenwood	213 (*elected*)
Mr. Montgomery-Smith	154
Dr. Biggs	140
Dr. Morison	128
Total	1,061

Three candidates had been elected, and one seat remained to be filled. The principle of the second ballot was again acted upon, and the lowest candidate was excluded from the poll, his votes being transferred to the next preferences indicated on his papers. In this transfer Mr. Montgomery-Smith, who had improved his position materially at each count, obtained the largest number of votes and was elected to the last seat, the final state of the poll being as follows:

Dr. Smith	213 (*elected*)
Dr. Buttar	213 (*elected*)
Dr. Greenwood	213 (*elected*)
Mr. Montgomery-Smith	185 (*elected*)
Dr. M. G. Biggs	157
Non-transferable papers ...	80
Total	1,061

In the Metropolitan Counties Branch there were eight spoilt papers, owing to electors marking candidates with crosses instead of with figures. Further, in this as in the other two elections, many electors did not make full use of their right of marking preferences. In the distribution of Dr. Morison's papers no less than eighty were non-transferable, owing to an insufficient number of preferences being marked. It should be realized that a second preference cannot possibly injure the position of the candidate to whom the first preference has been given, and there would then be less hesitation in placing all the candidates in the order of preference.

National Insurance.

LOCAL MEDICAL COMMITTEES.

COUNTY OF CHESHIRE.

THE fourteenth meeting of this Committee was held on June 15th at the Altrincham Hospital, Dr. GARSTANG being in the chair and eighteen members present.

Dr. HODGSON, on behalf of the Drug Subcommittee, reported that the new agreed tariff had been submitted in proof for revision; that the Committee had decided that the ordinary doses of the drugs should be printed; and that an effort should be made to influence the Commissioners to agree to the inclusion in the list of certain dressings (ribbon gauzes, etc., and sterile packets of gauze) and of pessaries and trusses. Certain vaccines and serums and a number of drugs and splints suggested by the Committee had already been accepted.

Treatment of Absentees.

The following reply of the Commissioners to the letter addressed to them on this subject (printed in SUPPLEMENT of May 3rd, p. 400) was received:

National Health Insurance Commission (England),
Buckingham Gate, London, S.W.,
May 13th, 1913.

Sir,—In reply to your letter of the 26th of April, I am directed by the National Health Insurance Commission (England) to thank you for your suggestions regarding the scale of fees to be adopted for calculating the remuneration of practitioners in respect of the medical attendance of temporary residents, and for the various observations submitted by you regarding the scheme for dealing with such cases outlined in Memorandum 161/I.C.

I am at the same time to inform you that the case value to be transferred will be the entire case value for the period on which the calculations are based, and that the amount transferred will not be a portion thereof proportionate to the length of absence from home.

The terms of your letter as to the amount to be transferred being a fraction of the case value proportionate to the length of the absence appear to involve some confusion as to the precise nature of "case value" itself. "Case value," while necessarily ascertained by the experience of working over a fixed period, such as a year, does not itself involve any consideration of duration of time. It is the average amount payable for a "case" of illness of average length and severity during the year. If, adopting your own illustration, it is assumed that ten persons are ill during the year out of a total number of thirty, their illnesses will vary from slight ailments involving only one or two attendances to serious or even chronic diseases, and the case value of 21s. will be the average remuneration payable for the entire treatment, representing an average of all the actual cases of varying severity in the area. Inasmuch, therefore, as "case value" represents average remuneration for the entire treatment of an average case of sickness, it is not measured by duration of treatment.

Further, as the persons temporarily removing from the area in question are presumably of the same average standard of health as those in the area, it may be assumed that the cases of illness which take place among them are of the same average severity as those which are treated in the area. Thus, the whole case value, being the amount payable for a case of average severity in the area, will be required to defray the cost of treatment of cases occurring outside the area, and the fact that the illness of an individual temporary resident may be below the average of severity will be counterbalanced by the fact that other temporary residents will have illnesses of more than average severity, the total averaging to the same degree of severity as that represented by "case value."

I am further to point out that the payment of 7s. referred to in the Memorandum to which you allude is the capitation fee payable in respect of each insured person for whom the doctor is at risk during the whole year. In addition, however, to those insured persons who actually fall ill, and in respect of whom case value is transferred, there will normally be other insured persons who remove without falling ill and in respect of whom the doctor is not at risk during the period of their absence. The case value transferred in the case of one person is, under average conditions, precisely equivalent to the amount which would have been transferred, if under the old arrangements all persons removing for however short a period, had given notice whether well or ill and had been temporarily removed from the list of their doctor. Persons who move temporarily will not under the new system be taken off the doctor's list and they will thus continue to be credited with remuneration in respect of them in circumstances in which under the previous system they would have ceased to receive remuneration. Such adjustment in the doctors' lists are expressly referred to in the explanatory Memorandum as to Medical Benefit cited by you; and the transfer of case value merely effects the adjustment which would have been necessary on the old system if notice had been properly given.

With regard to the fact that in the case of insured persons temporarily absent from home a case value will be transferred, whereas in the case of persons constantly travelling the capitation fee will be paid into the central fund, I am to point out that in the former case the payment will be made only where the insured person actually receives medical treatment: whereas in the latter case the capitation fee will be paid into the central fund whether or not the insured person is ill, thus securing that the equivalent of a case value will be available in respect of each constant traveller who receives treatment during the year.—I am, Sir, Your obedient Servant,

E. MACGOWAN.

Dr. Lionel J. Picton,
Saddler's Close, Holmes Chapel, Cheshire.

The Committee was not of the opinion that the reply removed the objections of the profession to the proposed deduction from the promised capitation fee. The Commissioners' argument would only be sound if temporary absentees were never ill in their own home area. The Committee accordingly resolved to notify the Joint Commission and the Insurance Committee that in the county of Cheshire green vouchers would not be accepted, and temporary absentees would only be treated as private patients.

Membership of District Insurance Committees.

It was reported that a doctor who had been introduced to a district by the friendly societies to oppose the local profession in treating the uninsured was nominated by the District Insurance Committee upon one of its subcommittees as a co-opted member. Dr. Hodgson had fought this matter at the County Insurance Committee, and induced the latter to decline to confirm the minutes of the District Committee. The Commissioners had been consulted, and took the view that the District Committee had the right to make any appointment it chose; therein they traverse the by-laws which they have approved, which subject the decisions of District Committees to the County Committee. The County Medical Committee approved the action of the County Insurance Committee.

Conference at Brighton.

Drs. Garstang (Chairman) and Picton (Honorary Secretary) were appointed to represent this Committee at the Conference of Representatives of Local Medical Committees at Brighton.

Co-ordination of Committee with British Medical Association Divisions.

It was decided that for the present matters raising questions of professional discipline in connexion with arrangements for contract practice amongst uninsured persons should be referred to the appropriate Division of the British Medical Association.

BIRKENHEAD.

Temporary Residents.

THE following questions were recently submitted by the Honorary Secretary of the Committee, Dr. J. Ratcliff-Gaylard, to the Insurance Commission for England:

1. If after the words "temporary resident" (page 5, line 6,* Memo. 161/I.C.) the words "receiving treatment" may be correctly read in?
2. If the Central Fund to be constituted will be made up of individual "case value" sums in respect of temporary residents *actually receiving treatment*; or of all temporary residents who have obtained vouchers whether used or not?
3. If such "case value" amounts will be calculated upon the period actually spent outside the area of permanent residence?

* In SUPPLEMENT, April 19th, p. 334, par. 5, line 7.

The Commissioners replied to the questions on June 2nd. The answer to question 1 was as follows:

In paragraph 5, line 6, the words "receiving treatment" would correctly be read in after the words "temporary residents" as implied in paragraphs 7 and 12.

The answer to question 2 was as follows:

The Central Fund will not include "case value" in respect of temporary residents who have obtained vouchers, but have not used them for the purpose of obtaining treatment.

The answer to question 3 was to the same effect as that given in reply to the Local Medical Committee of the County of Cheshire in the letter from the Commissioners set out in full at page 575.

After the receipt of the reply from the Insurance Commissioners, the following resolution was adopted by the Birkenhead Local Medical Committee, and forwarded to the Insurance Commission for England and to the Local Insurance Committee, with the statement that the practitioners on the panel in Birkenhead would only attend insured persons presenting form Med. 28 (*b*)—the green voucher—as private patients; and, further, would not permit any deduction being made from their capitation payments for the purpose of constituting a Central Fund.

Resolution.—The practitioners on the Birkenhead panel, being strongly of opinion that the schemes embodied in Memos. 159 and 161/I.C. is not an equitable one, decline to be parties to any agreement, or arrangements for the treatment of temporary residents under the conditions therein disclosed.

They are further of opinion that such proposed arrangements, if carried into effect, would constitute a breach of the agreements already signed.

LANCASHIRE COUNTY.

A LOCAL Medical Committee for the County of Lancaster has been constituted, and the names of the representatives are as follows:

District.	Name.	Address.
1	Dr. Bowman	Ulverston.
2	Dr. F. H. Oldham ...	Morecambe (*Chairman*).
3	Dr. J. Harrison ...	Garstang.
4	Dr. W. H. Buckley ...	Poulton-le-Fylde.
5	Dr. Petyt	Longton.
6	Dr. G. E. Orme ...	Clitheroe.
7	Dr. H. Henry	Blackburn.
8	Dr. James Craig ...	Church, near Blackburn.
9	Dr. A. E. Normington	Nelson.
10	Dr. Duckworth ...	Croston.
11	Dr. W. J. Leighton ...	Chorley.
12	Dr. T. W. Heywood...	Darwin.
13	Dr. Stewart	Haslingden.
14	Dr. T. Campbell ...	Platt Bridge, near Wigan (*Secretary*).
15	Dr. J. C. Eames ...	Stoneclough, Manchester.
16	Dr. D. P. M. Farquharson	Radcliffe.
17	Dr. J. A. Ashcroft ...	Littleborough.
18	Dr. M. Hutton ...	Oldham.
19	Dr. S. M. Green ...	Prescot.
20	Dr. Murray	Penketh (Warrington).
21	Dr. M. J. Halton ...	Leigh.
22	Dr. E. Higson ...	Swinton.
23	Dr. M. Mamourian ...	Ashton-under-Lyne.
24	Dr. H. H. Hitchon ...	Heywood.
25	Dr.	

Dr. Helme (Manchester), as direct representative of the profession on the Lancashire Insurance Committee, was elected member of the Committee *ex officio*.

The first meeting of the Committee was held on May 27th, when the following resolutions were carried:

1. The Medical Committee, having carefully considered the whole question of sick certificates in the case of insured persons, is of opinion that it would be seriously detrimental to the interests of the patient and of the public to place upon certificates the nature of the disease.
2. The Medical Committee is of opinion that the requirements of the certificate for continued incapacity might be satisfied by the doctor initialling the pay sheet.
3. The Medical Committee has no objection to medical officers of public institutions being placed upon the panel for the treatment of officials whilst resident in the institution, provided that the appointment be made by the honorary staff, but strongly disapproves of institutions receiving the capitation grant in respect of such officials, as such moneys should be paid to the appointed officer.

Statement of Nature of Disease upon Certificates.

On Thursday, May 29th, the Medical Committee met a deputation from the Lancashire Insurance Committee to consider the question of stating the nature of the illness on certificates.

The resolutions quoted above were handed to the deputation, and after some discussion the Medical Committee as a compromise submitted the following form of certificate as acceptable to the medical profession of Lancashire:

I certify that I have this day examined . . . and that $\frac{\text{he}}{\text{she}}$ is incapable of following $\frac{\text{his}}{\text{her}}$ usual employment by reason of $\frac{\text{sickness}}{\text{accident}}$ not, in my opinion, an industrial disease, and not caused by $\frac{\text{his}}{\text{her}}$ misconduct.

Signed.....

Date .....

BRADFORD.

THE payment of the sums due to doctors on the Bradford panel in respect of those insured persons who had chosen a doctor, up to April 14th, was made on May 29th.

Allocation.—There has been no allotment of insured persons who have not chosen a doctor. The Local Insurance Committee and the Local Medical Committee agreed that doctors on the panel would attend any unallotted insured person who presented an unsigned card, but that no doctor need accept such a case if more than half a mile from his house, unless he should be the nearest panel doctor. The Committee undertook to do everything in its power, by advertisement and otherwise, to get the unallotted to choose a doctor. The doctors are to be paid for the unallotted in proportion to the number each has on his list, and in the event of a distribution of unallotted persons they are to be distributed in the same proportion.

Transfers.—It has also been arranged that, in the event of an allotted person removing from the address at which he resided when his card was signed to a residence more than one mile from his doctor's residence, the insured person and the doctor will agree whether or not the said insured person is to remain on the doctor's list or be transferred to another doctor in the district to which he has gone. This arrangement has proved advantageous both to doctors and insured.

Temporary Residents.—The Bradford Local Medical Committee approved of the scale of fees for temporary residents, but strongly disapproved of the method by which it was suggested to raise the central fund.

WEST SUFFOLK.

THE sixth meeting of the West Suffolk Local Medical Committee was held at Bury St. Edmunds on June 12th.

Temporary Residents.—Letters from the State Sickness Insurance Committee, advising refusal to accept the arrangements proposed in Memos. 159 and 161/I.C., were read and considered. The Committee decided unanimously to follow this advice, and the Secretary was instructed to send the notices supplied by the British Medical Association announcing this decision to the Commissioners and to the County Insurance Committee. The Chairman and Secretary were requested to draw up a notice explaining the situation and announcing their decision, and to send a copy to every practitioner on the panel.

Conference of Local Medical Committees' Representatives.—A letter from the Executive Committee of the Annual Meeting of the British Medical Association at Brighton inviting Representatives to this conference was read, and the invitation was cordially accepted. Drs. Wood and Batt were appointed to serve.

Proposed Deputation to Commissioners.—A letter from the Commissioners expressing their willingness to meet a deputation from the Local Medical Committee was received. It was decided, however, that as the representations now being made by the State Sickness Insurance Committee covered all the ground which the deputation was to discuss, the need for it no longer existed. The Secretary was instructed to inform the Commissioners accordingly, and to thank them for their letter.

ESSEX.

THE seventh general meeting of the Essex Local Medical Committee was held on June 12th, when the resignations of Drs. Margaret Rorke, H. Bonnefin, and Clarence Wright were accepted with regret (Dr. Bernard Scott resigned May 8th). The vacancies caused had been filled

by elections in No. 1 and No. 2 District Medical Committees, and Drs. J. O. Goldie, P. R. Blake, John Brown, and C. E. Brunton were welcomed by the Chairman (Dr. Leigh Day).

A Treasurer Committee of three was appointed (Dr. Leigh Day, Dr. J. D. Wells, Dr. Harding H. Tomkins), and secretaries of district medical committees empowered to collect subscriptions for the finance scheme as an alternative to direct payment in order to expedite collection. The Secretary, having had letters complaining of the paucity of information concerning the doings of the Local Medical Committee received by practitioners, wishes to point out that reports have been published (see British Medical Journal, Supplement, March 8th and 22nd, and April 19th); that to circularize individual practitioners funds are indispensable; and that if districts will call meetings and invite local members of Local Medical Committees (as has been done in South-West Essex), information should be available. He again invites letters (address 492, Lee Bridge Road, Leyton, N.E.) on any difficulties from all individual practitioners, which will be analysed and laid before the Local Medical Committee. In this way effect could be given to the desires and opinions of the profession.

The questions of repetition of mixtures, income limit, representation on District Insurance Committees, payment of army contract doctors, and consultation of the Local Medical Committee by the Insurance Committee on all matters of medical benefit, though repeatedly laid before the Insurance Committee, remained unsettled. The drug tariff, with slight additions, was accepted last month. The payment of doctors dispensing in part or wholly for insured persons, amounts and dates of payment for panel work, Memorandums 159 and 161/I.C. were considered, and a letter addressed to the Insurance Committee thereon. The consideration of Memorandums I.C. was referred to the 21 District Medical Committees by circular letter. Resolutions from District Medical Committees concerning consultation of Local Medical Committee, irregular payment of panel doctors at arbitrary dates, inadequate representation on District Insurance Committees, and other matters were discussed, and representations on these subjects forwarded to the Insurance Committee.

An Emergency Committee of three (Drs. Day, Wells, Tomkins) was appointed to act between the monthly general meetings.

An invitation to send two Representatives to the Conference of Local Medical Committees at Brighton on July 24th was responded to by electing Drs. J. D. Wells and Harding H. Tomkins to attend. This conference was the outcome of a letter addressed to the State Sickness Insurance Committee of the British Medical Association and Organizing Committee early in March by Dr. Harding H. Tomkins, with the consent of a Committee of Medical Unions of East and North-East London, Essex, etc., requesting such a conference with a view to the national organization and consolidation of the entire profession, as it was hoped later to embrace every medico-political society—the British Medical Association included—in one co-ordination of interests, and so utilize the scattered societies, which now tend to disintegrate the power of the profession. Dr. Tomkins will welcome any points desired to be raised if sent before July 1st to 492, Lee Bridge Road, Leyton, N.E.

The Local Medical Committee hopes that all practitioners will take a personal and active interest in matters affecting the profession, and, by attending meetings of the District Medical Committees, secure the passage of resolutions expressing their opinions, which, if sent to the Secretary of the Local Medical Committee, can be collected and analysed so as to embody them in comprehensive resolutions of the Local Medical Committee, which, as opinions of the profession of Essex, will be enhanced in importance and be more likely to have weight with the Insurance Committee and Commissioners.

OXFORD.

A meeting of the Oxford Local Medical Committee was held in the Town Hall, on June 11th, when Dr. Ormerod was in the chair, and eight other members were present.

Temporary Residents.—A discussion took place on Memorandum 161/I.C., and after the whole question had been thoroughly debated it was unanimously decided to instruct the Secretary to sign the draft letter issued from the British Medical Association and send a copy to the Commissioners and the Local Insurance Committee.

Conference at Brighton.—It was also decided to send a representative to the conference at Brighton, and Dr. Rivers-Wilson was elected.

Meeting of Practitioners on the Panel.—At a full meeting of the panel which followed, the above decisions were unanimously agreed to. The panel also decided to ask the Insurance Committee to issue identification cards to all the insured, such cards to be produced by the insured when applying to his doctor for treatment. The pharmacopoeia drawn up for the London panel was adopted. It was decided to recommend to the Insurance Committee that at the allocation the residue of the insured who had not selected their doctor should be equally divided amongst every member of the panel, and where any member had as big a list now as he could deal with his share should be dealt with by mutual agreement amongst the members of the panel willing to take them.

BUCKS.

A meeting of the Bucks Local Medical Committee was held on May 30th at the Royal Bucks Hospital. Dr. Baker took the chair and fifteen members were present.

Responsibility of Employers.—The ruling of the Committee was asked for on a case in which a mistress had sent for a doctor to attend her servant, who was an insured person, and who knew nothing about the summons. After discussion the following resolution was carried unanimously:

> That in a case when the doctor is sent for by the employer, unless at the express wish of the patient, the employer should bear the responsibility for the fee, especially when the message is out of hours.

Model Rules.—It was decided to press for the issue of model rules.

Allocation of Patients.—It was resolved:

> That when the clerk to the Insurance Committee has completed the register cards of the persons who have not chosen a doctor, he be requested to divide them into the districts, eighteen in number, corresponding to the suggested panel areas.

The Secretary of the Medical Committee would then communicate with a member of the Committee, requesting him to act as secretary and arrange a meeting of all the practitioners practising in that district for the purpose of allocating these persons.

Temporary Residents.—This matter was discussed and the principle of deducting any sum from the amount agreed upon—namely, 9s. a year—was objected to and the views entertained by the British Medical Association supported.

Chemists' Subcommittee.—Dr. Baker reported the result of a meeting with the Pharmacists' Committee.

Income Limit.—A discussion took place on the advisability of pressing for the 50s. wage limit instead of waiting for the new committee. It was agreed that facilities should be allowed for any well-to-do persons to make their own arrangements; that doctors should suggest this to them when they brought their tickets to be signed.

KIRKCALDY.

A meeting of the Kirkcaldy Local Medical Committee was held on June 10th. Dr. C. Lesslie Curror was in the chair, and eleven members were present out of a total of fifteen.

Temporary Residents.—It was decided to act on the lines suggested in the letter from the British Medical Association, and the Secretary was instructed to write to the Commissioners and the Insurance Committee, informing them that the profession declined to allow any money to be deducted from the present panel fund for this purpose, and would treat all temporary residents as private patients.

Aged and Disabled Members of Friendly Societies.—A request from the Insurance Committee that the Local Medical Committee should reconsider the terms of 7s. per annum was declined.

Excessive Ordering of Drugs.—The information asked for at the meeting on April 29th was laid before the meeting. After careful consideration it was unanimously agreed that the excess was due to the nature of the prescribing of one practitioner. It was decided to request

the practitioner concerned to be present at a subsequent meeting, when he could have an opportunity of making an explanation. It was also decided to ask the chemist to be present at a joint meeting on the same evening.

INSURANCE NOTES.

Temporary Residents.

THE following is the form of a draft letter suggested by the State Sickness Insurance Committee for use by Medical Committees in communicating to Local Insurance Committees the objections of the profession to the method of providing payment for medical attendance and treatment of temporary residents set out in Memorandums 159 and 161/I.C.

.....June, 1913.

Sir,

I am instructed by the.....Local Medical Committee to inform you that the Committee has given consideration to the method recently proposed by the Insurance Commissioners in their Memorandums 159 and 161/I.C., for the payment of medical attendance on temporary residents, out of a central pool formed by deductions from the amounts due to the medical practitioners on whose lists the names of these temporary residents normally appear. The.....Local Medical Committee cannot consent to these deductions from the amounts promised to the practitioners in this area for the attendance upon the insured persons on their lists, as such a method appears to be sanctioned neither by the agreements made by practitioners nor by the Regulations.

As in the opinion of the Committee Regulation 22 does not concern temporary residents, and as it has been admitted that the method proposed in that Regulation would be inequitable as applied to temporary residents; and as it is admitted that the method suggested in Memorandums 159 and 161 cannot be enforced without the consent of the members of the medical profession and the chemists concerned, my Committee would urge that the only fair method of dealing with this problem would be by the provision of a Central Fund financed entirely apart from the 8s. 6d. per head now set apart for medical benefit. Until some such provision has been made the.....Local Medical Committee, speaking on behalf of the doctors on the local panel, gives notice that persons holding green vouchers can only be attended as private patients.

I am,

Yours faithfully,

.....

Honorary Secretary,

.....Local Medical Committee.

Supply of Drugs to Insured Persons.

The report has been issued of the Departmental Committee appointed at the end of February to inquire into the question whether, having regard to the interests of insured persons in obtaining an efficient and rapid supply of drugs, medicines, and appliances, and to the conditions under which these articles were supplied before the passing of the Insurance Act, any alteration is necessary in the conditions laid down by Section 15 (5) (iii) of the Insurance Act. Dr. J. S. Whitaker was the chairman, and the other members were Mr. Walter Davies (National Conference of Friendly Societies and Chairman of the Manchester Insurance Committee), Mr. J. C. Ledlie (Privy Council officer), Sir Claud Schuster, and Dr. Lauriston Shaw.

The Committee examined twenty-five witnesses, and now reports that it would be inadvisable to amend the subsection in the manner suggested so as to permit of arrangements for the dispensing of medicines for insured persons being made with persons other than persons, firms, or bodies corporate entitled to carry on the business of a chemist and druggist under the provisions of the Pharmacy Acts. But should it be deemed desirable that persons who are not qualified under the Pharmacy Acts but have been engaged in business as drug store proprietors should be permitted to enter into arrangements with Insurance Committees for dispensing medicines which do not contain scheduled poisons, the Committee recommends that the amendment of the Insurance Act should be framed not so as to confer a statutory right upon persons who do not at present possess it, but so as to authorize an Insurance Committee to enter into arrangements with persons known to it to have been bona fide engaged in business as drug store proprietors.

The Committee recommends that the Insurance Act should be so amended as to permit a person, firm, or body corporate, who or which has entered into arrangements with an Insurance Committee for the dispensing of medicines for insured persons, to employ in such dispensing, not necessarily under the supervision of a registered pharmacist, any person who shall have satisfied such conditions as may be prescribed by the Privy Council. These conditions should include a thorough practical knowledge of dispensing, the possession of a sufficient degree of general intelligence and education, and some knowledge of chemistry and of the nature and physical properties of drugs. The Committee further recommends that care should be taken to secure that the dispensing of medicine for the insured by persons who are not registered pharmacists nor specially qualified as dispensers shall in fact be carried out under the direct supervision of registered pharmacists. The Committee is, however, of opinion that it is desirable that steps should be taken to carry into effect, as regards qualified military dispensers and certified assistants to apothecaries under the Apothecaries Act, 1815, the powers conferred on the Council of the Pharmaceutical Society by Subsection (*b*) of Section 4 of the Poisons and Pharmacy Act, 1908, and that to this end definite proposals should be submitted by the War Office and the Society of Apothecaries to the Pharmaceutical Society.

Committee of Inquiry.

Provisional regulations, dated June 10th, 1913, as to the procedure for inquiries with respect to medical practitioners were issued on June 19th. The provisional regulations are made by the National Health Insurance Joint Committee acting jointly with the Insurance Commissioners and the Welsh Insurance Commissioners. They are designed to carry out the provisions contained in paragraph 54 (Inquiry as to Practitioner) of the Regulations for Medical Benefit issued in December, 1912 (see SUPPLEMENT to the BRITISH MEDICAL JOURNAL, December 7th, 1912, p. 635).

The Provisional Regulations provide that the Commissioners shall send to the practitioner a copy of the statement of complaint and a list of the documents proposed to be put in evidence. The practitioner personally or by an agent is authorized to inspect and take copies of any documents. The Commissioners take power to hold an inquiry to ascertain whether the continuance of a practitioner on a panel would be prejudicial to the efficiency of the medical service of the insured, even though no representation to that effect had been made to them. The Committee of Inquiry would be constituted in accordance with the second subparagraph of paragraph 54 of the Regulations for Medical Benefit, and would consist of two medical practitioners and one other person, who must be a barrister-at-law or a solicitor in actual practice.

Appended to the Provisional Regulations are two schedules. The first schedule contains form of notices to the practitioner and to the complainant of the intention to hold inquiry, for intimating to the practitioner the alleged facts and grounds on which the inquiry is based, of notice of inquiry to be sent to the Insurance Committee where it is not the complainant, and of notice to the practitioner of the case for inquiry and of the date appointed for holding it. The second schedule contains rules for procedure at the inquiry. The Committee will have power to hear witness and to adjourn the inquiry from time to time.

London.

It will have been observed that the London Insurance Committee has had under consideration on several occasions various suggestions for improving the conditions under which practitioners willing to do so might give medical attendance to insured persons in London. The matter was referred to a special subcommittee, which included representatives of the medical profession on the Insurance Committee. We understand that this subcommittee has now completed its work, and that its report, which, it is stated, embodies various important modifications in the present conditions, will probably be available for publication in our next issue.

We are informed that there is an impression among members of the medical profession in South London that protests against the discussion of the subject of free choice of doctor contained in the article published in the BRITISH MEDICAL JOURNAL of May 24th have been refused publication in the BRITISH MEDICAL JOURNAL. We desire to remove this impression. Two letters on the subject were received, and two letters only—one from Dr. J. J. Gorham, which was published in the SUPPLEMENT of May 31st, p. 481, and another from Dr. Kennish, Representative of Wandsworth and Wimbledon, which was not published because it was understood to be a private communication. A reply was addressed to Dr. Kennish, but, no doubt owing to an illness from which we regret to hear he has been suffering, the matter was not then cleared up. We desire to say that any communication from doctors who have not joined the panel in London or elsewhere will receive every consideration.

Hackney and Stoke Newington.

At an open meeting of practitioners on the panel resident in the boroughs of Hackney and Stoke Newington, held on June 6th, the following resolution was passed:

> That, in the opinion of practitioners on the panel in the boroughs of Hackney and Stoke Newington, we refuse to grant insurance certificates on the first day of illness.

The Chairman, as requested by the meeting, has sent a copy of this resolution to every practitioner on the panel in the boroughs.

THE NATIONAL MEDICAL UNION.

A general meeting of the National Medical Union was held in Manchester on June 4th. The business dealt with included the adoption of rules, and the consideration of some points in the future policy of the Union. In the absence of Mr. G. A. Wright, F.R.C.S. (the President), Mr. W. Coates, C.B., occupied the chair. The Executive Committee's report stated that the membership of the Union continued to grow, and testified to a growing disinclination among men on the panels to continue in the service owing to their conviction of the impossibility of carrying out satisfactory work under the Act. Numbers of letters from different parts of the kingdom have been received in which the writers expressed the hope that they would be able to resign service at an early date, and their intention, in that event, of joining the union. The adoption of the draft rules, prepared by the Executive Committee, was moved from the chair. By the rules, service in any capacity under the Act would be a bar to membership of the National Medical Union. Dr. Trotter, of Huddersfield, moved an amendment to the effect that only those "who accepted service on any panel or list, or in any position of profit to which they have been appointed by any Insurance Act authority" should be excluded from membership. Dr. Blumer (Stafford), Dr. Prebble (Blackburn), and Dr. Taylor (Bradford) spoke in favour of the amendment. Drs. Wheeler Hart, Fairclough, Brassey Brierley and others supported the excluding rules. Dr. Porter, Honorary Secretary of the Edinburgh Medical Guild, said that it comprised a majority of the practitioners in and around that town, and was strongly opposed to the acceptance of work of any character in connexion with the Act. The amendment was lost, and the rules as drafted were adopted. It was resolved that a complete list of members of the union should be printed and circulated among the members; and that as full a list as possible should be compiled of all non-panel practitioners in the kingdom. The Executive Committee was instructed to consider what measures should be taken to inform insured people of the validity of non-panel certificates, and to check the action of many insurance agents throughout the country who were instructing the insured patients that they must go to panel doctors. It was also decided that communications should be sent to all societies of non-service doctors with a view to the affiliation of such bodies with the National Medical Union.

THE POSITION OF WOMEN UNDER THE ACT.

A well attended conference, organized by the Faculty of Insurance (a body representative of approved societies) was held in London on June 14th, the general subject being the position of women under the National Insurance Act. The proceedings, which were prolonged, related in the main to such subjects as the misuse of the maternity benefit, the propriety of forming separate societies for women, the position of women as visitors and officials under the Act, and the extent, if any, to which there is a tendency among women either definitely to malinger or to remain too long on the sickness list. There was a very considerable variation in the views expressed on these subjects, but in regard to the maternity benefit there seemed to be a general admission that so far the sums granted have been considerably misused and that one factor in this circumstance has been undue delay in paying out the sum authorized. Several speakers held that even when the husband was known to be a worthless person there would be no advantage in administering the benefit through a society. The allotted sum should be paid to the mother promptly in cash. In regard to separate societies, evidence was brought forward to the effect that it is to the interest of men to keep women out of their societies and the interest of women to get into them; while it was also argued that ordinary friendly societies meet at places like public-houses where women would not attend, and that if women had their own societies with women officials, the latter would keep a watchful eye on their members. Most of the speakers admitted that women members of approved societies had so far been a cause of unduly heavy expense. Previous to the coming into operation of the Act there was very little experience, it was pointed out, in regard to women as members of friendly societies, and like many other insured persons, they did not realize that they must stand or fall by their own particular society; they had an idea that they had practically an unlimited source from which they could draw sickness benefit. It was exceedingly difficult to check the claims of women, and, apart from definite malingering, a danger was introduced by the fact that the weekly earnings of many women did not exceed the sickness benefit which they might draw. Hardships introduced by the Act in regard to domestic servants and nurses were mentioned by Miss Amy Hughes and Lady St. Helier, while it was also stated that difficulty had been experienced in getting women to fill posts under the Act which were open to them. Several speeches included allegations to the effect that at present medical men were far too ready to provide sickness certificates. The meeting concluded with an offer by the Faculty of Insurance to form a women's committee if this were desired.

PRESCRIPTION OF PROPRIETARY MEDICINES.

The Medical Benefit Subcommittee recently reported to the Plymouth Insurance Committee that it had passed the following resolution:

> That, as some doctors on the panel are ordering expensive drugs, and the charge on the drug fund appears likely to be much heavier in Plymouth than in Devonport, cases of what might be considered unduly expensive prescriptions be brought before the Subcommittee for consideration.

In reply to observations by medical men, it was explained that the Subcommittee had no thought of deciding whether particular drugs were rightly included in a prescription or not; what was meant was that the doctors were prescribing proprietary articles, and that the same drugs could be prescribed in a less expensive form.

LANCASHIRE.

Medical Certificates.

At a meeting of the Lancashire County Insurance Committee on June 9th, the question of the form of medical certificates to be given to insured persons was discussed. The question arose on consideration of the following resolution passed by the Medical Benefit Subcommittee, which was said to be regarded by the subcommittee as a reasonable compromise:

> It shall be treated as a breach of a doctor's agreement if he knowingly gives an insured person a certificate for sickness or disablement benefit under the Act, (1) in respect of an industrial disease, (2) if the illness is caused by the patient's own misconduct. The doctor shall state on the certificate the nature of the disease in every case of a disease notifiable to a local authority, and also in every case unless in his opinion to do so would militate against the patient's recovery; but if in such a case he refrains from stating the nature of the illness on the certificate, he shall, if requested, give his opinion of it in writing to a medical man who may

be employed by or on behalf of an approved society. The doctor shall state on each certificate whether in his opinion the illness has arisen from natural causes or from an accident.

It was plainly stated that the proposal was not likely to be accepted by the Medical Committee. The panel doctors had offered to give a certificate stating that the disease was not an industrial disease and not due to the patient's own misconduct, but apparently that did not satisfy the Insurance Committee. It was said that if approved societies knew the nature of an illness they would be in a better position to assist the doctors and to detect malingering. The Committee eventually decided by 18 votes to 14 to approve of the general principle of the resolution of the Medical Benefit Subcommittee given above, and appointed a deputation to meet the County Medical Committee to consider the question on this basis.

LEICESTERSHIRE.

Payment for Accident Cases.

The Leicestershire Insurance Committee last week considered a report by the Medical Benefit Subcommittee as to the remuneration of medical men in cases where insured persons met with accidents in mines and quarries. Figures were given showing the high incidence rate of accidents of a more or less serious character, and it was stated that, prior to the passing of the Act, medical practitioners in contract practice received special fees in respect of attendance in accident cases. These payments were being dropped now. The Committee decided to recommend the Insurance Commissioners that payments in respect of mining and stone quarrying be made out of the floating sixpence, and allocated amongst the doctors performing the additional work, or that a special fund be created to meet such cases.

Sick Nursing for Insured Persons.

A conference of Insurance Committees, approved societies, and nursing associations in Leicestershire has approved a scheme to provide for the sick nursing of insured persons. The scheme provides for the provision of necessary funds by means of a levy by approved societies of 3d. per insured member. Approved societies in Leicestershire are to be asked to give the scheme a provisional trial.

MEETINGS OF INSURANCE COMMITTEES.

LEEDS.

Free Choice of Doctor.

AT a meeting of the Leeds Insurance Committee on June 16th, Dr. EWING said that on April 15th he had given notice of the following resolution:

> That, as the general arrangements made to facilitate the treatment of insured persons will terminate on April 30th, every facility will be given by the Committee to enable the insured persons to now place their names on the list of the doctors of their choice; and the doctors will be encouraged to reduce their list, if found unworkable, or take on fresh names if deemed advisable.

He had expected that the Insurance Committee would be called to consider it, but no such meeting had been held. Everybody, he said, had believed that the arrangements were only temporary, and that after April 30th the insured person would be free to choose the doctor he preferred. He felt that both the insured persons and the doctors had been taken in from beginning to end, and he knew hundreds of insured persons who were not going to the doctor who had signed their pink tickets, but to their own practitioners. He hoped the Committee would express to the Commissioners its feeling on this betrayal. Dr. Ewing moved the resolution of which he had given notice.

Dr. BELL, who seconded, said that there had, beyond question, been a great misunderstanding on the point.

The CHAIRMAN, in reply to Mr. KELLY, said that he considered that no good purpose would have been served by calling the Committee together, as it was merely an administrative body, and no expression of its opinion could have altered the Regulations, and added, in reply to Dr. EWING, that he believed it was true that the public were not aware that insured persons could not choose another doctor for twelve months until Dr. Ewing had written to that effect to the press.

Mr. KELLY said that hundreds of friendly societies' officials, and himself amongst the number, did not know. The Clerk said that a transfer could be effected if a mutual agreement were arrived at between the two doctors concerned and the insured person, but Mr. KELLY said that doctors were unwilling to make a change, and several speakers maintained that the doctors were responsible for the present position.

Alderman JOSEPH CLARK said that some doctors were being penalized for remaining loyal to their association.

Dr. EWING, in replying on the discussion, said that the doctors who did not go on the panel at first might have been foolish from a business point of view, but they acted rightly. He urged that all insured persons were led to believe that they would have absolute free choice of doctor after April 30th.

The resolution was carried by 16 votes to 8, and the Clerk was directed to forward it to the Insurance Commissioners as a recommendation that the Regulations should be altered.

Medical Referee.

On the motion of Mr. KELLY, seconded by Dr. BELL, a proposal to appoint a medical referee with a view to preventing malingering was referred to the Medical Service Subcommittee.

Sanatorium Benefit.

Alderman J. CLARK, in moving the minutes of the Sanatorium Subcommittee, said that the City Council was being asked to provide over one hundred more beds, and the Association for the Prevention and Cure of Tuberculosis twenty beds. He believed that eventually much more would be required from the Council if it took all the cases; it was proposed that if new buildings were erected by the Corporation they should be built on sites belonging to it.

REPORTS OF LOCAL ACTION.

IRELAND.

MEDICAL CERTIFICATION.

THE Dublin papers have published what is stated to be an official announcement with regard to the measures taken by the Insurance Commissioners in Ireland with reference to medical certification in the county boroughs of Dublin, Limerick, and Waterford. It was announced that fifteen doctors had been appointed as salaried officials in Dublin, and their names were given as follows:

Surgeon-Colonel Adye-Curran, Dr. F. G. Adye-Curran, Dr. A. Atoch, Dr. J. Burgess, Dr. M. F. Donovan, Dr. H. W. Mason, Dr. R. Moore, Dr. J. J. O'Kelly (at present Medical Officer of Lettermore Dispensary District), Dr. O'Sullivan, Dr. E. Purcell, Dr. J. Sheppard, Dr. R. S. Stephens, Dr. S. Stritch, Dr. G. B. White, and Dr. Nora Williams. Two of these—namely, Dr. Mason and Dr. Sheppard—withdrew, and Dr. George M. Keating has, we are informed, been appointed to one of the vacancies so created.

It is said that the duties of these doctors will be to act as medical advisers to approved societies and to the Insurance Committees in respect of those insured persons resident in the City of Dublin and the urban districts of Rathmines, Rathgar, and Pembroke, who may be considered to be improperly claiming to be entitled to, or improperly in receipt of, sickness benefit under the Insurance Act.

It is believed that included in their duties will also be the obligation to give to insured patients all the certificates required in connexion with the administration of sanatorium benefit as well as certificates for sickness benefit, but this is not certainly known, and there may be some misapprehension. It is, however, understood that they will constitute a board of medical advisers to whom certain functions will be assigned with regard to cases of malingering.

We understand that Dr. Mason assigned as his reason for withdrawing that he could not act as medical adviser in opposition to the wishes of the profession. It is considered that the course of action indicated by these appointments represents an attempt on behalf of the Commissioners to frustrate the efforts of the profession to obtain proper remuneration for certification.

In the county borough of Limerick the Commissioners have given notice that they have appointed Dr. T. J. Lloyd and Dr. F. M. Kirwen for the purpose of furnishing

free of cost to persons resident in the county borough of Limerick the certificates required in connexion with the administration of sickness and sanatorium benefits. The notice further sets out the names of approved societies in Limerick the members of which have been assigned to one or other of these medical practitioners. In the county borough of Waterford it is reported that Dr. D. Kennedy and Dr. R. A. H. Williams have been appointed to discharge similar functions.

The Commissioners are proceeding to make arrangements with respect to those other areas where panels have not been formed, and in areas where the panel system is in operation Committees of Complaints and Committees of Inquiries are being established, and in certain areas it is also proposed to appoint medical referees. The Derry County Insurance Committee at a meeting in Coleraine last week temporarily appointed Dr. Adams, jun., Garvagh, their medical adviser, at a salary of £200 yearly.

INSURANCE ACT IN PARLIAMENT.

Medical Benefit.

Sickness Claims and Malingering.

Mr. Godfrey Locker-Lampson asked the Secretary to the Treasury (1) whether he had seen the report of a meeting of the Kent Insurance Committee on May 29th, wherein it was stated that the rate of sickness experienced was more than double that expected, and that in a district near Maidstone the rate went up to four times that expected; if so, what steps he proposed to take for the protection of approved societies; (2) whether the Insurance Commissioners had received representations from the approved societies under the National Insurance Act as to the prevalence of malingering; if so, whether he proposed to appoint medical referees for the purpose of checking malingering; and (3) whether the sickness claims received by approved societies under the National Insurance Act were in excess of those expected on the basis of the Government actuaries' calculations; and, if so, whether the excess arose from malingering.—Mr. Masterman said it was too early at present to make any generalization as to the actual claims for sickness benefit in comparison with the actuaries' estimates. He had seen a report of the meeting of the Insurance Committee referred to, from which it appeared that references were made to the rates of sickness in certain areas, but he was not aware that any general official statistics were available. As was to be expected, there was evidence that the claims on some societies, and in some districts, were above the normal, but such evidence as was at present available for the country as a whole did not point to any general excess over the actuarial expectations. The primary responsibility for checking malingering must, of course, rest upon the approved societies who administered the sickness benefit. The whole question, however, including the appointment of medical referees, was now receiving the most careful consideration of the Commissioners, who were obtaining information as to the character and extent of the problem.

Supply of Medicine.

Mr. Tyson Wilson asked (1) whether any decision had yet been come to regarding the appointment of inspectors of pharmacies; and (2) whether the auditors appointed to audit the accounts sent in by chemists who had supplied medicine under the provisions of the Insurance Act would have to possess a special knowledge of the price of drugs and the business of a chemist.—Mr. Masterman said that the matters referred to were under consideration, but he was not yet in a position to make any announcement in regard to them.

Reserves for Aged Persons.

Mr. Worthington-Evans asked whether the reserves necessary to give medical benefit to insured persons over the age of 70 were being accumulated; and, if so, whether by the Insurance Committees or by the approved societies.—Mr. Masterman said that the actuarial calculations allowed for the accumulation of the necessary reserve to provide medical benefit for surviving members of approved societies entitled to it after the age of 70. The reserve was, therefore, being accumulated out of the ordinary contributions received by societies in respect of their insured members.

Medical Aid Societies.

Sir J. D. Rees asked whether, in South Wales, medical aid societies were being formed into which insured persons were brought and medical men imported, who joined the panel as whole-time servants of such societies on a fixed salary, the Local Insurance Committees encouraging insured persons to make their own arrangements, under Section 15, subsection (3), with such medical aid societies, and to provide for their dependants by deductions from wages; whether such medical aid societies were paid by the Insurance Committees the sum due for medical attendance to insured persons, such payments being then pooled, and medical men being required to attend insured persons and their dependants for 6s. 6d. a head; and whether the Act contemplated, and the Government approved of, such a scheme.—Mr. Masterman said that two Insurance Committees had in a few instances allowed insured persons to make their own arrangements with medical aid societies attached to certain works in South Wales. In these circumstances the Insurance Committees proposed to make a contribution to the cost of providing medical attendance for the insured in conformity with Section 15, subsection (3), of the Insurance Act and Section 49 of the Regulations with respect to the administration of medical benefit. The sum contributed by the Insurance Committee would in no case be greater than the amount for which the medical society undertook the treatment of the insured person. The payment made in respect of dependants was not within the purview of the Insurance Committee.

Maternity Benefit.

Women in Poor Law and Other Institutes.

Mr. G. Locker-Lampson asked whether, under the Insurance Act, single or married women entering Poor Law institutions for the purpose of treatment during maternity were entitled to claim the full maternity benefits; and whether, if this were so, he would take steps to prevent persons claiming treatment at the expense of the rates, with a view to reducing the cost of Poor Law administration.—Mr. Masterman said that under Section 12 of the Act maternity benefit was not payable to or in respect of a woman while she was an inmate of one of the institutions referred to in the first part of the question. The sum which would otherwise have been payable must, however, be paid to, or applied in whole or in part to the relief or maintenance of her dependants, if any; and in so far as not so paid or applied, was payable to the woman or her husband as the case might be when she left the hospital, either in kind, or in instalments, or in a lump sum, as the society might determine. The latter part of the question should be addressed to the President of the Local Government Board.

Desertion by Husband.

Mr. G. Locker-Lampson asked the Secretary to the Treasury whether a married woman, not an insured person, who was deserted by her husband just before the birth of her child, could obtain the maternity benefit; and, if not, whether he would deal with this matter in the forthcoming amending bill.—Mr. Masterman said he thought that in the circumstances mentioned the society, which had discretion to administer the benefit otherwise than in cash, would be justified in using the money to make provision for the wife. The question of proposing a clause in the amending bill to enable the society to treat the benefit, in cases of desertion, as in every respect a benefit for the wife had been under consideration.

Sanatorium Benefit.

Estimated Cost of Sanatorium Benefit.

In reply to Mr. G. Locker-Lampson, who inquired as to how the estimate of 1s. 3d. per insured person was arrived at, Mr. Masterman said that the experience in the sphere of tuberculosis, as distinct from other diseases, possessed by friendly societies and the authorities of sanatoriums before the passing of the Act was too limited to be of much practical value in arriving at an estimate of the amount required to be provided by the Act for sanatorium benefit. A further difficulty was that tuberculosis was at the time not a notifiable disease. The figure was arrived at by a calculation based on the mortality statistics, and such experience as was available of the cost of treatment.

At a later date Mr. Godfrey Locker-Lampson asked the Secretary to the Treasury whether he had had an opportunity of testing the adequacy of the amount allowed per head under the National Insurance Act for the treatment of consumptives as compared with the actual cost to the Post Office Society, in which members were only admitted after satisfactorily passing a medical examination; and, if so, whether it was shown that the cost to that society, even with selected lives, has been substantially in excess of the figure (1s. 3d.) fixed under the National Insurance Act?—Mr. Masterman, after referring to his previous reply, said that in the case of the particular society referred to, the higher cost of administration, due to the society being only concerned with the administration of a single benefit, vitiated any comparison between the cost to the society and the cost to an Insurance Committee under the scheme of the Act.

Grants for Sanatorium Schemes.

Mr. Astor asked the President of the Local Government Board what was the total amount of the grant made available by the Chancellor of the Exchequer in a letter, dated July 31st, 1912, to Mr. Hobhouse which had already been distributed to local authorities by the Local Government Board; and what was the total which it was estimated would have to be paid by the Treasury to local authorities through the Local Government Board ultimately when treatment was provided for all persons in England who were neither insured nor dependants?—Mr. Burns replied that the sum of £125,000 included in the Estimates for this purpose had not yet been voted, so that it had not yet been possible to make any grants to local authorities on maintenance account in aid of their sanatorium schemes. It was not practicable at present to make any reliable estimate of the possible ultimate charge.

In further reply to questions by Mr. Astor and Mr. Worthington-Evans in respect of the £1,116,000 available for England for providing of dispensaries, sanatoriums, and hospitals for the treatment of tuberculous persons, Mr. Burns said that capital grants amounting to £11,491 had been made to authorities in England in aid of expenditure already incurred in providing tuberculosis dispensaries and sanatoriums for the treatment of tuberculosis. Those grants had been paid to the county council of Devon and the corporations of Birkenhead, Birmingham, Eastbourne, and Leicester. Further grants, amounting to £36,900, had been promised to various authorities in aid of expenditure already incurred or now being incurred, and large capital grants had also been promised to more than fifty other authorities whose schemes had been approved by the Board. The whole capital grant available for England had been provisionally allocated to counties and county boroughs on the basis of population.

WOMEN VOLUNTARY CONTRIBUTORS.

In reply to Mr. Worthington-Evans, Mr. Masterman said that out of 20,500 voluntary contributors, 5,600 were women.

CORRESPONDENCE.

THE AMENDMENT OF THE ACT.

DR. P. R. COOPER (Bowdon) writes: Like Dr. Palm (SUPPLEMENT, June 14th, 1913), I am greatly disappointed with the so-called amendments as published in SUPPLEMENT, June 7th. Apparently the State Sickness Insurance Committee have swallowed the Act whole, and, forgetting its basal wrongness of principle and the rightness and dignity of their previous attitude, they are now content with a few comparatively petty alterations.

The medical men who have stuck to their principles and ideals in maintaining the freedom and status of the profession are quietly dropped, despite the fact that many of them have risked (and lost) very largely, if not their all, in their fight for liberty, and for a scientific and worthy profession, rather than be drawn into a mere scramble for fees, irrespective of the sacred responsibilities of our calling.

I agree with Dr. Palm that it is radical and not symptomatic treatment which is called for in the amendment of this Act, not only in the interests of the medical profession, but of all concerned.

Already, as I foretold, the amount of malingering fostered by the Act threatens to bankrupt it, or rather to bankrupt the friendly societies, who are finding the "fruit" by no means so "refreshing" as they were led to suppose; and insistent demands are being made for the appointment of medical referees, as if this would solve the problem! A more fatal error cannot well be conceived. It is no disparagement to the acumen of any medical referee to point out that if a patient alleges he has a pain in his head, back, or any other part of his anatomy, the most expert medical man that ever lived cannot prove that he has not, although the doctor may very strongly suspect malingering. Even the less educated of people nowadays are well aware of the incontrovertibility of this simple fact. There is only one effective way to check malingering, and that is to make it to the individual's interest to keep well, or, being ill, to get well as quickly as possible. This can be done—as has been practically demonstrated—by adopting the private deposit system of the National Deposit Friendly Society, which also carries with it the other great desideratum of real free choice of doctor by the insured; but as I have so often referred to this in your columns, I will not trespass further on this subject at present.

The excellent stand made by the London practitioners encourages the hope—*pace* Dr. Lauriston Shaw—that it is not too late even now for a more enlightened and less arbitrary and despotic scheme of national insurance to be evolved, and I think the State Sickness Insurance Committee would be well advised to pursue a broader-minded policy and again insist upon certain fundamental cardinal points. Of these the question of the amount of remuneration to medical men might well be left in the background, whereas the conditions of service and opportunity for sound scientific work are vital matters.

THE DISTRIBUTION OF UNALLOTTED FUNDS BY THE LONDON INSURANCE COMMITTEE.

DR. W. OWEN WILLIAMS (Stepney) writes: The proceedings of the above Committee, as reported in the SUPPLEMENT of June 14th, cause considerable apprehension amongst practitioners on the panel, who made possible the working of medical benefit in London. The disputed sum (£34,000) represents 400,000 insured persons who failed to exercise their choice of doctor during the *first* quarter. Certain members of the Committee contend that, inasmuch as these persons did not receive treatment by practitioners on the panel, the latter are not entitled to any money in respect of such insured persons. A more preposterous proposition was never advanced by men occupying a responsible position. It displays colossal ignorance of the elementary principles of insurance. A surprising fact is that Dr. Evan Jones, a directly-elected representative of the medical profession on the Committee, should lend his support to this cool proposal to deprive his professional brethren of hard-earned money which is equitably due to them.

The unallotted portion of the panel fund for the first quarter undoubtedly belongs to those practitioners who rendered service during the corresponding period, and to no one else. It is not the fault of panel practitioners that the unassigned residue were not allocated at the end of the quarter. Had the allocation of persons been proceeded with, the amount of medical service rendered would not have been greater, inasmuch as *all* insured persons falling ill were treated by practitioners on the panel, the residue being healthy lives. The attendance-rate during the first quarter, in proportion to each doctor's list of acceptances, was relatively high, for the simple reason that all the chronic cases of illness had to be treated, besides acute diseases and slight temporary ailments. In default of the allocation of the healthy residue at the termination of the first quarter, the money representing such insured persons should rightly go to the doctors on the panel.

I have a dim recollection that Dr. Evan Jones was once upon a time an exponent of adequate remuneration. One regrets to repeat a platitude—that under any system of contract practice the contributions of *all* ("the well" and "the ill") pay for "the ill." If a portion of the accumulated funds representing "the well" be deducted, then the remuneration of the doctor will correspondingly be inadequate.

With regard to the negligible number of insured persons

who, according to Dr. Evan Jones, have paid their own medical bills, he should know that they have absolutely no claim to any contributions paid by them in respect of medical benefit unless they were granted permission to "contract out."

THE POSITION IN LONDON.

Dr. J. H. KEAY (Greenwich) writes: To offer any correction of the innumerable false statements made by correspondents of the JOURNAL and in the press as to the working of the Insurance Act would be an endless task. Dr. Worth has, however, contrived in a few lines to make so many statements that are utterly wrong and misleading as to the working of the Act in London that I cannot help referring to them and giving to practically all an absolute and entire contradiction.

1. He tells us that it is necessary to have 3,000 men on the panel in London in order to work the Act. As there are, roughly, 1,400,000 insured, that means for less than 500 a medical man is required. As every one who has had any experience of general practice well knows, such a contention is entirely untenable, and only shows to what straits men are driven to find reasons for opposing the Act.

2. He tells us that up to recently the number of doctors on the panel was 1,244. This is misleading. At the commencement there were over 700. The number to-day is 1,378. This information Dr. Worth could readily have obtained if he had asked for it. It is probably quite true that among this number there are some who have more on their list than they can properly attend to. At the same time, it is equally true that there are a much larger number—myself, for example—who can attend more than have applied to be placed on their list.

3. He further tells us that "a good number are tired of it already, and therefore are unlikely to renew their agreements." Personally I do not know of these men, but, judging from what has transpired in the past, I do not think they are numerous. Since the panel was formed in London there have been fifty-eight withdrawals. I have before me the list, and find that already eleven of this number have been removed by death, others have left the districts, some have thought it useless to continue because of the small number of the insured who applied to them, but only three have given as their reason dissatisfaction with the working of the Act. The fact is, that, now that it is found that the work is so much less than was confidently predicted, the number of doctors on the panel is likely to increase in pretty much the same way as it has in the past.

4. In these circumstances it must be evident that Dr. Worth's further assertion that the London Insurance Committee is in a hopeless muddle is entirely contrary to fact. There are medical men in London who have done their level best, by publishing wrong statements in the newspapers and otherwise, to make it a muddle. They have entirely failed, and will continue entirely to fail, while in not a single borough in London has it been found necessary to secure the services of a whole-time medical man.

The facts are as stated, and I challenge Dr. Worth or any of those who are of the same mind to refute the figures or contradict a word I have written. This being the case, were it not more reasonable that medical men in London should take the course adopted in practically all parts of the country and accept the inevitable, whether they like it or not? If the profession is divided there is immediate risk of objectionable institutions being approved, of an even worse form of contract practice than has ever existed in the past, and of much besides.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

In ninety-six of the largest English towns 9,037 births and 4,027 deaths were registered during the week ending Saturday, June 14th. The annual rate of mortality in these towns, which had been 13.4, 13.5, and 12.1 per 1,000 in the three preceding weeks, further declined to 11.8 per 1,000 in the week under notice. In London last week the death-rate did not exceed 11.4, against 13.4, 12.9, and 11.6 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 2.9 in Gillingham, 3.5 in Enfield, 3.6 in Ilford, 4.6 in Ealing, 5.6 in Bournemouth and in Smethwick, and 6.0 in Hornsey to 16.4 in Middlesbrough, 16.5 in Dewsbury, 17.4 in West Bromwich, 18.7 in Stoke-on-Trent, 21.2 in Dudley, and 23.9 in Stockton-on-Tees. Measles caused a death-rate of 1.3 in Stoke-on-Trent and in Salford, 1.7 in Walsall, and 2.0 in Dudley and in Aberdare. The mortality from the remaining infective diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 38, or 0.9 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; of this number 15 were registered in Birmingham, 3 in Liverpool, and 2 each in Ipswich, Leicester, Sunderland, and Gateshead. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,441, 1,430, and 1,427 at the end of the three preceding weeks, had further declined to 1,418 on Saturday last; 186 new cases were admitted during the week, against 193, 177, and 202 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

In the sixteen largest Scottish towns 1,205 births and 617 deaths were registered during the week ending Saturday, June 14th. The annual rate of mortality in these towns, which had been 16.3, 16.7, and 15.9 per 1,000 in the three preceding weeks, declined to 14.2 in the week under notice, but was 2.4 per 1,000 above the rate recorded in the ninety-six large English towns. Among the several towns the death-rates ranged from 7.3 in Falkirk, 8.9 in Perth, and 9.6 in Coatbridge to 15.6 in Kirkcaldy, 16.0 in Aberdeen, and 29.7 in Hamilton. The mortality from the principal infective diseases averaged 1.5 per 1,000, and was highest in Hamilton and Aberdeen. The 302 deaths from all causes registered in Glasgow included 19 from measles, 15 from whooping-cough, 3 from diphtheria, 1 from scarlet fever, and 1 from infantile diarrhoea. Seven deaths from measles and 4 from diphtheria were recorded in Aberdeen; 2 from measles and 4 from infantile diarrhoeal diseases in Dundee; and 2 from whooping-cough in Kirkcaldy and 2 in Hamilton.

HEALTH OF IRISH TOWNS.

During the week ending Saturday, June 14th, 701 births and 426 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 667 births and 393 deaths in the preceding period. These deaths represent a mortality of 18.5 per 1,000 of the aggregate population in the districts in question, as against 17.1 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 6.7 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 30.5 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 20.8, as against an average of 18.5 for the previous four weeks, in Dublin city 22.8 (as against 19.4), in Belfast 17.5 (as against 17.1), in Cork 17.0 (as against 19.0), in Londonderry 15.3 (as against 15.3), in Limerick 12.2 (as against 17.6), and in Waterford 19.0 (as against 21.4). The zymotic death-rate was 0.9, as against 1.3 in the previous week.

Naval and Military Appointments.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT ASTON R. DALE, to be Captain, May 29th; Cadet Sergeant THOMAS J. KELLY, from the Dublin University Contingent, Officers' Training Corps, to be Lieutenant on probation, May 26th.

The undermentioned cadets to be Lieutenants on probation; THOMAS MCCLURKIN, from the Belfast University Contingent, Officers' Training Corps, April 30th; DOUGLAS REID KING and GAVIN YOUNG, from the Glasgow University Contingent, Officers' Training Corps, May 1st; THOMAS INGRAM DUN, from the Glasgow University Contingent, Officers' Training Corps, May 2nd; HUGH KINGSLEY WARD, M.B., from the Oxford University Contingent, Officers' Training Corps, May 2nd.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL H. B. MELVILLE, has been appointed Civil Surgeon of Delhi.

Captain A. A. C. MCNEILL, is appointed to the substantive medical charge of the 46th Punjabis.

TERRITORIAL FORCE.

ROYAL ARMY MEDICAL CORPS.

First Southern General Hospital.—SEYMOUR G. BARLING (late Major, Second South Midland Field Ambulance) to be Major, whose services will be available on mobilization, May 9th.

Attached to Units other than Medical Units.—Lieutenant HARRY B. SPROAT, M.D., to be Captain, July 27th. Lieutenant JOSEPH D. WELLS, M.B., to be Captain, February 11th. Captain JOHN BRADFORD resigns his commission and is granted permission to retain his rank and to wear the prescribed uniform, June 14th.

Fifth London Field Ambulance.—Supernumerary Lieutenant FRANK COLEMAN is absorbed into the establishment, May 4th.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ABERYSTWITH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House-Surgeon (male). Salary, £130 per annum.

ALTON: LORD MAYOR TRELOAR CRIPPLES' HOSPITAL.—Assistant Resident Medical Officer. Salary at the rate of £100 per annum.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £100 per annum.

BERMONDSEY MEDICAL MISSION, Grange Road, S.E.—Locumtenent Assistant (female).

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary £80 per annum.

BIRMINGHAM: JAFFRAY BRANCH OF THE GENERAL HOSPITAL, Gravelly Hill.—Resident Medical and Surgical Officer. Salary, £150 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BIRMINGHAM UNION.—Assistant Resident Medical Officer at the Dudley Road Infirmary. Salary, £125 per annum.

BOURNEMOUTH: ROYAL VICTORIA AND WEST HANTS HOSPITAL.—House-Surgeon. Salary, £80 per annum, rising to £100.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRISTOL: COSSHAM MEMORIAL HOSPITAL, Kingswood.—House-Surgeon. Salary, £100 per annum.

BURNTWOOD: COUNTY MENTAL HOSPITAL.—Junior Assistant Medical Officer (male). Salary, £210 per annum, rising to £270.

BURY ST. EDMUNDS: WEST SUFFOLK GENERAL HOSPITAL.—Resident Medical Officer. Salary, £120 per annum.

CALCUTTA CORPORATION.—Health Officer. Monthly salary not less than Rs.1500 and not more than Rs.2000.

CANCER HOSPITAL, Fulham Road, S.W.—Senior and Junior House-Surgeons. Salary at the rate of £80 and £70 per annum respectively.

CANTERBURY BOROUGH ASYLUM.—Assistant Medical Officer (male). Salary, £160 per annum.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—(1) Senior House-Surgeon; (2) Junior House-Surgeon. Salary, £100 and £90 per annum respectively.

CARDIFF: KING EDWARD VII'S HOSPITAL.—House-Surgeon. Honorarium, £30 for six months.

CARDIFF: UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—Lecturer in Histology and Embryology. Salary, £200 per annum.

CHADDERTON URBAN DISTRICT.—Medical Officer of Health and School Medical Officer. Salary, £400 per annum.

CHELTENHAM GENERAL HOSPITAL.—House-Physician. Salary, £100 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £90 per annum.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Clinical Assistants in Out-patient Department.

COVENTRY AND WARWICKSHIRE HOSPITAL.—House-Physician and Junior House-Surgeon. Salary, £90 per annum, increasing to £100.

DENBIGH: NORTH WALES COUNTIES ASYLUM.—First and Second Assistant Medical Officers. Salary, £275 and £175 per annum respectively.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Salary at the rate of £75 per annum.

DURHAM COUNTY ASYLUM, Winterton.—Third and Fourth Assistant Medical Officers (male). Salary, £180 per annum each, rising to £200 and £220 respectively.

EASTBOURNE: PRINCESS ALICE MEMORIAL HOSPITAL.—Radiologist.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—(1) House-Surgeon. Salary at the rate of £75 per annum. (2) Clinical Assistants in the Out-patient Departments.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of 100 guineas per annum.

GLASGOW: VICTORIA INFIRMARY.—Director of Clinical Research Laboratories and Pathological Department. Salary, £350 per annum.

GLOUCESTESHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Remuneration at the rate of £80 per annum.

HAMPSTEAD GENERAL AND NORTH-WEST LONDON HOSPITAL.—Resident Casualty Officer. Salary, £140 per annum.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Maida Vale, W.—Honorary Radiographer.

HOSPITAL FOR WOMEN, Soho Square, W.—Pathologist and Registrar. Salary, £100 per annum.

HOVE: LADY CHICHESTER HOSPITAL.—Resident Medical Woman. Salary, £30.

IPSWICH: EAST SUFFOLK AND IPSWICH HOSPITAL.—(1) House-Physician; (2) Second House-Surgeon. Salary, £80 per annum each.

KENT COUNTY ASYLUM, Chartham.—Junior Assistant (Third) Medical Officer (male). Salary, £220 per annum.

KENT EDUCATION COMMITTEE.—Medical Inspector of School Children. Salary £250 per annum.

LANCASHIRE EDUCATION COMMITTEE.—School Medical Inspector. Salary, £250 per annum, rising to £400.

LANCASHIRE COUNTY ASYLUM, Winwick.—Assistant Medical Officer. Salary, £200 per annum, increasing to £250.

LEWES: COUNTY COUNCIL OF WEST SUSSEX.—Tuberculosis Officer. Salary, £500 per annum.

LINCOLN MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

LIVERPOOL EYE AND EAR INFIRMARY.—Honorary Assistant Surgeon.

LIVERPOOL: STANLEY HOSPITAL.—Two House-Physicians. Salary, £75 per annum each.

LIVERPOOL UNIVERSITY: FACULTY OF MEDICINE.—Walter Myers Chair of Parasitology. Stipend, £600 per annum.

LONDON THROAT HOSPITAL, Great Portland Street, W.—Honorary Assistant Anaesthetist.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST.—Honorary Assistant Physician.

MANCHESTER TOWNSHIP.—Junior Resident Assistant Medical Officer at the Workhouse, Crumpsall. Salary, £110 per annum.

MEDICAL MISSION HOSPITAL, Plaistow, E.—Senior Resident Medical Officer. Salary, £100 per annum.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Fitzroy Square, W.—Anaesthetist.

MILDMAY MISSION HOSPITAL, Bethnal Green, E.—Resident Medical Officer. Salary, £80 per annum.

MONTROSE: ROYAL ASYLUM.—Junior Assistant Medical Officer. Salary, £150 per annum.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead.—House-Physician. Salary, £75 per annum.

NESTING AND LUNNASTING PARISH COUNCIL.—Medical Officer. Salary, £50 per annum.

NORTHAMPTON COUNTY BOROUGH.—Assistant Medical Officer of Health. Salary, £300 per annum, rising to £350.

NORTH RIDING ASYLUM, Clifton, York.—Male Second Assistant Medical Officer. Salary, £150 per annum, rising to £200.

OLDHAM COUNTY BOROUGH.—Assistant Schools Medical Officer. Salary, £260 per annum, rising to £300.

ORKNEY: PARISH OF SHAPANSEY.—Medical Officer and Public Vaccinator.

PLAISTOW: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £80 per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—House-Physician. Salary at the rate of £75 per annum.

PRESTON: COUNTY ASYLUM, Whittingham.—Assistant Medical Officer. Salary, £200 per annum, rising to £250.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone Road, N.W.—Resident Medical Officer for Out-patient Department. Salary at the rate of £60 per annum.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £200 per annum.

ROCHESTER: ST. BARTHOLOMEW'S HOSPITAL.—Resident House-Physician. Salary, £110 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon (male). Salary, £100 per annum.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Senior Resident Medical Officer. Salary at the rate of £70 per annum.

ST. BARTHOLOMEW'S HOSPITAL, E.C.—Clinical Assistant for Department for Diseases of the Skin.

ST. HELEN'S COUNTY BOROUGH.—Medical Officer of Health. Salary, £550 per annum, rising to £650.

ST. MARYLEBONE GENERAL DISPENSARY, Welbeck Street, W.—Resident Medical Officer. Salary, £150 per annum.

ST. PANCRAS DISPENSARY, Oakley Square, N.W.—Resident Medical Officer. Salary, £105 per annum.

SALISBURY INFIRMARY.—Assistant House-Surgeon. Salary, £50 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Assistant Medical Registrar.

SHEFFIELD CHILDREN'S HOSPITAL.—House-Surgeon (male). Salary, £85 per annum.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Assistant House-Surgeon. Salary, £80 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £80 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SOUTHAMPTON: ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—Junior House-Surgeon. Salary at the rate of £80 per annum.

SOUTHPORT INFIRMARY.—Junior House and Visiting Surgeon (male). Salary, £80 per annum.

SOUTH SHIELDS EDUCATION AUTHORITY.—Assistant School Medical Officer. Salary, £250 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon (male). Salary, £90 per annum.

STIRLING DISTRICT ASYLUM, Larbert.—Junior Assistant Medical Officer. Salary, £150 per annum.

STOKE-ON-TRENT COUNTY BOROUGH.—Assistant Medical Officer at the Stanfield Sanatorium. Salary, £250 per annum.

STOKE-ON-TRENT: NORTH STAFFORDSHIRE INFIRMARY, Hartshill.—(1) Assistant Surgeon. (2) House-Surgeon; salary, £100 per annum.

SUNDERLAND: MONKWEARMOUTH AND SOUTHWICK HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SUNDERLAND: ROYAL INFIRMARY.—(1) House-Physician; (2) two Junior House-Surgeons (males). Salaries, £80 per annum.

THREE COUNTIES ASYLUM, near Hitchin.—Junior Assistant Medical Officer. Salary, £170 per annum, rising to £250.

THROAT HOSPITAL, Golden Square, W.—Resident House-Surgeon. Salary, £75 per annum.

TORQUAY: TORBAY HOSPITAL.—Resident Medical Officer (male). Salary, £100 per annum and £5 for lectures to nurses.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—Pathologist. Salary, £105 per annum.

WAKEFIELD GENERAL HOSPITAL.—Second House-Surgeon. Salary, £120 per annum.

WANDSWORTH UNION INFIRMARY.—Junior Assistant Medical Officer (male). Salary at the rate of £120 per annum.

WARWICK ASYLUM.—Assistant Medical Officer. Salary, £175 per annum.

WEST AFRICAN MEDICAL STAFF.—Vacancies in this Service. Salary, £400 per annum, rising to £600, with prospect of promotion to higher posts up to £1,200 and allowances.

WEST BROMWICH AND DISTRICT HOSPITAL.—Assistant Resident House-Surgeon and Anaesthetist. Salary, £75 per annum.

WESTMINSTER HOSPITAL, S.W.—Resident Obstetric Assistant.

WESTMORLAND CONSUMPTION SANATORIUM AND HOME, Meathop.—Second Assistant Medical Officer. Salary, £150 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum.

WORCESTER GENERAL INFIRMARY.—House-Physician. Salary, £120 per annum.

YEOVIL BOROUGH.—Medical Officer of Health and School Medical Officer. Salary, £500 per annum.

CERTIFYING FACTORY SURGEON.—The Chief Inspector of Factories announces the following vacant appointment: Gloucester (Gloucestershire).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

ARTHUR, James, M.D.Edin., Medical Officer of Health for the Wellingborough Rural District, vice F. H. Morris, M.D.St. And., resigned.

BLACKMORE, F. J. C., M.R.C.S.Eng., L.R.C.P.Lond., Senior Assistant Medical Officer, City Sanatorium, Yardley Road, Birmingham.

LUMB, John, M.B., B.S., D.P.H., Deputy Medical Officer to the Warrington Corporation.

MACINTYRE, Hugh, M.B., Medical Referee under the Workmen's Compensation Act, 1906, for the Dunoon and Inverary District of the Sheriffdom of Argyll.

MILLER, Thomas, M.B., Medical Referee under the Workmen's Compensation Act, 1906, for the Dumbarton District of the Sheriffdom of Stirling, Dumbarton and Clackmannan.

MYERS, Bernard, M.D.Edin., Physician to Western General Dispensary, Marylebone Road, N.W.

NAIRN, Cuthbert, M.B., Medical Referee under the Workmen's Compensation Act, 1906, for the Greenock District of the Sheriffdom of Bute.

ROBERTSON, J. Crawford, M.D.Glasg., F.R.C.S.Edin., Honorary Assistant Gynaecological Surgeon to the Sydney Hospital.

ROWNTREE, Cecil, M.B., B.S., F.R.C.S., Assistant Surgeon to the Dreadnought Hospital.

SEXTON, H. W., M.R.C.S., L.R.C.P., District Medical Officer of the Medway Union.

STEVENS, W. Mitchell, M.D.Lond., M.R.C.P.Lond., Senior Honorary Physician to the King Edward VII Hospital, Cardiff.

WALLER, Miss M. I., M.B., B.S.Lond., Resident Assistant Medical Officer of the Bradford Union Workhouse.

WINE, C. S., M.R.C.S., L.R.C.P., Certifying Factory Surgeon for the Halstead District, co. Essex, and District and Workhouse Medical Officer of the Halstead Union.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

MARRIAGE.

BRAY—WILLING.—On June 10th, at Trinity Road Church, Upper Tooting, by the Rev. R. E. Bray, father of the bridegroom, Frederick Richard Bray, of 17, Burngreave Road, Sheffield (late of Charing Cross Hospital), to Joan Jewell, youngest daughter of the late Charles Thos. Willing, of Reads, South Devon.

DIARY FOR THE WEEK.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION, S.W.—Wednesday, 4.30 p.m., On the "Controlled" Reactionless Use of New Tuberculin.

LONDON HOSPITAL MEDICAL COLLEGE, Mile End, E.—Thursday, 2 p.m., Nervous Children.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Wednesday. Radiography: Saturday. Special Lectures of each week.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical Laboratory work daily (Saturday excepted), 10 to 12 a.m. Practical Helminthology, 2 to 3.30 daily. Advanced Helminthology, 10 to 1 p.m. daily. Medical Clinics, Tuesday and Thursday at 3 p.m. Operations, Friday at 3 p.m.

MANCHESTER: ANCOATS HOSPITAL POST-GRADUATE CLINIC.—Thursday, 4.15 p.m., Demonstration of Medical and Surgical Cases.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Surgical; Friday, Ear, Nose, and Throat. Special Lectures at 5.15 p.m. daily, except Friday and Saturday.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday and Friday, 3.30 p.m., Spinal Localization.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Medical and Surgical Clinics and Operations at 2.30 p.m. daily. Also Monday, Throat; Tuesday, Gynaecology; Wednesday, Skin, Eye, Children, X rays; Friday, Eye. Special Lectures and Demonstrations as announced.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—Thursday, 4 p.m., Clinical Demonstration of Ear, Nose, and Throat Cases.

ROTUNDA HOSPITAL, DUBLIN.—Continuation of the Post-Graduate Course on Obstetrics and Gynaecology daily throughout the week, except Saturday.

THROAT HOSPITAL, Golden Square, W.—Monday, 5.15 p.m., Special Demonstration on Selected Cases. Thursday, 5.15 p.m., Clinical Lecture.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, X rays, and Operations, 2 p.m. daily. Gynaecology: Monday, Tuesday, Wednesday, and Friday. Eye: Monday, Wednesday, Thursday, and Saturday. Throat, Nose, and Ear: Tuesday, Wednesday, Friday, and Saturday. Skin: Tuesday and Friday. Pediatrics: Wednesday and Saturday. A Lecture at 5 p.m. daily except Saturday.

[*For further particulars of Lectures consult the Index to Advertisements.*]

DIARY OF THE ASSOCIATION.

Date.	Meetings to be Held.
	JUNE.
25 Wed.	London: Finance Committee, 2.30 p.m. Central Division, Annual Meeting, Medical Institute, Edmund Street, 3.30 p.m. Yorkshire Branch, Annual Meeting, Wakefield; Annual Dinner, 6.30 p.m.
26 Thur.	Edinburgh Branch, Annual Meeting, Royal College of Physicians' Hall, Queen Street, 4 p.m. North of England Branch, North Northumberland Division, Alnwick Infirmary, 3.30 p.m. Staffordshire Branch, Wolverhampton, 5.25 p.m.
27 Fri.	Border Counties Branch, Annual Meeting, Carlisle. East York and North Lincoln Branch, Beverley, 4 p.m. Leicester and Rutland Division, Hinckley, 4 p.m. Northern Counties of Scotland Branch, Annual Meeting, Strathpeffer Spa, 11.30 a.m. South-Eastern Counties Division, Annual Meeting, St. Boswells, 3 p.m.
	JULY.
1 Tues.	Coventry Division, Coventry Hospital, 8.30 p.m. Metropolitan Counties Branch, Annual Meeting, 4 p.m., 429, Strand, W.C.
2 Wed.	London: Council Meeting, 2 p.m.
3 Thur.	Southern Branch, Annual Meeting, Shanklin, 1.30 p.m.; Luncheon, 2.15 p.m.

Date.	Meetings to be Held.
	JULY (*continued*).
4 Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
8 Tues.	London: Ethical Committee, 2 p.m.
9 Wed.	City Division, Balfour Hall, Dunston Street, 3.30 p.m. Dorset and West Hants Branch, Wareham, 3.30 p.m.; Luncheon, 1.30 p.m.
10 Thur.	East Anglian Branch, Annual Meeting, Ipswich. Wandsworth Division, Annual Meeting, Clapham Junction, 4 p.m.
12 Sat.	London: Science Committee, 11 a.m.
15 Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
16 Wed.	Cambridge and Huntingdon Branch, Annual Meeting, Cambridge.

ANNUAL MEETING, BRIGHTON, 1913.

Annual Representative Meeting, July 18th, and following days.

Presidential Address, Tuesday, July 22nd.

Conference of Honorary Secretaries, 4 p.m.; Dinner, 7 p.m., Wednesday, July 23rd.

Sections—Wednesday, July 23rd; Thursday, July 24th; and Friday, July 26th.

Conference of Representatives of Local Medical Committees, Thursday, July 24th, 2.30 p.m., and following days if necessary.

International Medical Congress in London, August 6th to August 12th.

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SUPPLEMENT

TO THE

BRITISH MEDICAL JOURNAL.

LONDON: SATURDAY, JUNE 28TH, 1913.

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MEDICAL RESEARCH.

THE following official notice has been issued by the Chancellor of the Exchequer:

NATIONAL HEALTH INSURANCE.

Scheme for Research.

The Right Hon. D. Lloyd George, as Minister responsible to Parliament for National Health Insurance, has appointed the following persons as a Committee with executive functions, to be known as the Medical Research Committee, for the purpose of dealing with the money made available for research under the proviso to Subsection (2) of Section 16 of the National Insurance Act, 1911:

The Right Hon. Lord MOULTON OF BANK, LL.D., F.R.S. (Chairman).
CHRISTOPHER ADDISON, M.D., F.R.C.S., M.P.
WALDORF ASTOR, M.P.
Sir T. CLIFFORD ALLBUTT, K.C.B., M.D., F.R.C.P., F.R.S., Regius Professor of Physic, University of Cambridge.
CHARLES JOHN BOND, F.R.C.S., Senior Honorary Surgeon, Leicester Infirmary.
WILLIAM BULLOCH, M.D., F.R.S., Bacteriologist to the London Hospital and Professor of Bacteriology in the University of London.
MATTHEW HAY, M.D., LL.D., Professor of Forensic Medicine and Public Health, Aberdeen University.
FREDERICK GOWLAND HOPKINS, M.B., D.Sc., F.R.S., Reader in Chemical Physiology in the University of Cambridge.
Brevet Colonel Sir WILLIAM BOOG LEISHMAN, M.B., F.R.S., Professor of Pathology, Royal Army Medical College.

These first appointments are for three years in each case; in and after 1916 three members, to be selected in manner to be prescribed, shall retire at intervals of two years, their places being filled (whether by reappointment or otherwise) by the Minister responsible for National Health Insurance.

The duties of the Committee will be to formulate the general plan of research and inquiry at the outset and for each year, to make arrangements for carrying it out, and to supervise its conduct so far as may be necessary, and in particular to secure adequate co-ordination of the various parts of the scheme. The Committee will also deal with the collection and publication of information, and of the results of statistical and other inquiries so far as suitable or necessary. For this purpose it will determine, subject to the assent of the Minister responsible for National Health Insurance, the expenditure of the money available each year, the total of the sums available under paragraph (*b*) of Subsection (2) of Section 16 of the Act being about £57,000 per annum. Before the Minister responsible for National Health Insurance gives his final assent to the Medical Research Committee's scheme for any year, he will receive criticisms and suggestions in regard to it from the Advisory Council for Medical Research.

This Advisory Council has been appointed for the purpose by Mr. Lloyd George, as Minister responsible for National Health Insurance, after receiving suggestions for suitable names from each of the universities of the United Kingdom, from the Royal Colleges of Physicians and of Surgeons, from the Royal Society, and from other important public bodies interested in the question. It includes representatives of the four National Health Insurance Commissions, and the other principal Government departments concerned in medical work. The first appointments are for three years in each case; in and after 1916 one-third of the members, to be selected in manner to be prescribed, shall retire at intervals of two years, their places being filled (whether by reappointment or otherwise) by the Minister responsible for National Health Insurance.

The duty of the Advisory Council will be to consider the scheme of the Medical Research Committee, when referred to them as above explained, and to afford to the Minister all such criticisms and suggestions in regard to it as they may think desirable to submit to him from the point of view of securing that adequate consideration is given to the different problems arising and the various kinds of research work going on in the different parts of

the United Kingdom and in other portions of the Empire, in America, and in foreign countries, and also to the general scope of the research work to be undertaken under the Committee's scheme.

The membership of the Advisory Council for Medical Research is as follows:

The Right Hon. LORD MOULTON OF BANK, LL.D., F.R.S. (Chairman).
Miss L. B. ALDRICH-BLAKE, M.D., M.S.
Sir W. WATSON CHEYNE, Bart., C.B., F.R.C.S., F.R.S.
Sir WILLIAM S. CHURCH, Bart., K.C.B., M.D.
SIDNEY COUPLAND, M.D.
DAVID DAVIES, M.P.
SHERIDAN DELÉPINE, M.B.
Sir JAMES KINGSTON FOWLER, K.C.V.O., M.D.
Sir RICKMAN J. GODLEE, Bart., F.R.C.S.
Sir ALFRED PEARCE GOULD, K.C.V.O., F.R.C.S.
DAVID HEPBURN, M.D.
ARTHUR LATHAM, M.D.
Sir JOHN MCFADYEAN, M.B.
W. LESLIE MACKENZIE, M.D.
J. C. MCVAIL, M.D.
W. J. MAGUIRE, M.D.
S. H. C. MARTIN, M.D., F.R.S.
ROBERT MUIR, M.D.
ALEXANDER NAPIER, M.D.
Sir GEORGE NEWMAN, M.D.
ARTHUR NEWSHOLME, C.B., M.D.
J. M. O'CONNOR, M.B.
Sir WILLIAM OSLER, Bart., M.D., F.R.S.
A. C. O'SULLIVAN, M.B.
MARCUS S. PATERSON, M.D.
Sir ROBERT W. PHILIP, M.D.
Sir WILLIAM H. POWER, K.C.B., F.R.C.S., F.R.S.
H. MEREDITH RICHARDS, M.D.
LAURISTON E. SHAW, M.D.
ALBERT SMITH, M.P.
J. LORRAIN SMITH, M.D., F.R.S.
T. J. STAFFORD, C.B., F.R.C.S.I.
T. H. C. STEVENSON, M.D.
HAROLD J. STILES, F.R.C.S.Edin.
Sir STEWART STOCKMAN, M.R.C.V.S.
W. ST. CLAIR SYMMERS, M.B.
Miss JANE WALKER, M.D.
NORMAN WALKER, M.D.
J. SMITH WHITAKER, M.R.C.S., L.R.C.P.
Sir ARTHUR WHITELEGGE, K.C.B., M.D.
G. SIMS WOODHEAD, M.D.

ATTENDANCE ON UNINSURED DEPENDANTS.

WE have received the following letter, and have appended to it a report of an application for an injunction in a case of alleged touting by friendly societies heard on June 23rd in the Chancery Court at Liverpool, and also a note on a scheme to form a medical aid institute "under the National Insurance Act" at Newport Pagnell, a small town in Buckinghamshire with a population of a little over 4,000.

Sir,

The cessation of the dispute between the profession and the friendly societies in Swansea, while perhaps gratifying to the actual disputants, cannot be regarded with satisfaction by the profession at large when the terms of settlement are carefully reviewed.

The struggle has been bitter and prolonged, and doubtless all concerned are thankful that a truce has been called; but considered from the point of view of the highest interests of the profession, it cannot be said that the settlement arrived at is likely to be favourably accepted by the profession at large, or that the last word has been spoken on a very perplexing problem—the attendance on uninsured dependants in working class communities.

The remuneration agreed to, 10s. 6d. a family per annum, is obviously inadequate to ensure anything like a satisfactory standard of medical service for the uninsured dependants, and it is quite apparent that both the profession and the insured workers are depending on the contributions from the Insurance Funds to make up the deficiency.

This is a consequence of the Insurance Act which was never intended, and constitutes a grave injustice to the medical profession. In addition it cannot but have prejudicial effects on the medical service under the Insurance Act, and on the work of family practice. An inclusive payment per annum of 10s. 6d. a family of uninsured dependants, estimating at only one visit a month a family, works out at considerably less than 1s. a visit (including medicine), a totally inadequate payment for satisfactory work. It compares very unfavourably with the payment made under the Insurance Act, which it was understood was now the recognized standard rate for contract practice generally (children under 16 at half rates), and it is a payment which, I feel sure, will not be accepted by the general profession doing similar work in industrial communities throughout the country.

It is not my intention or desire to blame the profession in Swansea for accepting such terms. Apparently their acceptance has been more or less forced upon them by the opposition of competition from without and probably the still more disruptive competition from within, but all the same it is in the highest degree regrettable. If it becomes known in working-class districts that by combination and the collective use of medical payments due under the Insurance Act the profession may be so exploited that entire families of dependants can be medically attended for 2½d. a week, the outlook for the working-class practitioner will be worse than even before.

The profession in Swansea owe their disappointment to the opposition and menace of the so-called medical aid associations and suchlike combinations of insured workers and to the support given to these by members of their own profession. Against both of these the members of the British Medical Association must proceed without delay and with the full strength of a united Association.

The General Medical Council should be called upon to make employment under such exploiting medical companies—at any rate those formed since the introduction of the Insurance Act—a proceeding "infamous in a professional respect" on the part of any practitioner.

Up to the present its attitude towards medical aid associations has been much too tolerant, and its disciplinary measures against practitioners working under them have had little or no deterring effect. Medical aid associations use with impunity methods to procure members, and form a practice which would immediately bring a private practitioner under the ban of the General Medical Council. Like trade unions, in some respects they have placed themselves above the common law of the profession.

It is futile, for example, to make "systematic canvassing" (if this implies only "persistent canvassing") by medical aid associations the only ground for interference on the part of the General Medical Council.

A vigorous preliminary canvass, with accompanying trumpet blowing locally, is all that is needed in many populous districts to work up a large membership. A medical officer is then advertised for, and ultimately procured. His qualifications, experience, etc., are of no account, so long as he is only a doctor. Systematic and continuous canvassing may then be dispensed with. The association once formed is held together by pressure from within by methods known only to its members and officials. Established in a district such associations bolster up an inferior and degrading system of medical practice, offer a standing obstacle to fair and honest competition in the medical field, and continue an abiding menace to the freedom and prestige of the profession, and the well-being of the public medical field.

It is necessary also that the medical profession be protected against the unscrupulous and dishonourable within its ranks. That there are men in our profession ready to oust honest practitioners from their practices and become the "kick-abouts" of lay committees under medical aid associations experience goes to show. It is deplorable, but only too true. But surely the profession is strong enough and healthy enough to rid itself of such parasites, or to remove the conditions under which they thrive.

This is a matter for which we cannot blame the Insurance Commissioners; nor, on the other hand, seek their protection. The ethical standards and conditions of practice which exist in the profession are of our own making, and the Commissioners cannot, with all the goodwill in the world, do other than accept them as they are. Over such medical aid associations as are "approved institutions" they have certainly a controlling power, but these are few in comparison with the many quasi-medical institutions of recent growth over which they have little or no control.

No, we must put our own house in order and clear out the rats that infest it.

Let the Association, then, place this question in the medico-political programme at the July meeting, and declare its wishes respecting it in a manner that will command attention.

Then will the General Medical Council be roused to take speedy and effective steps to end a state of things which is a disgrace to our profession.

Stanley, co. Durham. J. CHARLES.

ACTION TO PREVENT ALLEGED TOUTING BY A FRIENDLY SOCIETY.

AT the Chancery Court in Liverpool on June 23rd, before Vice-Chancellor Stewart-Smith, K.C., in an action brought by Dr. Leonard Youatt, of Prescot, against Thomas Wright, William Beesley, Thomas Byron, and William Ashcroft, the plaintiff applied for an injunction until the trial of the action to restrain the defendants from procuring, or attempting to procure, by means of canvassing, touting, or otherwise, persons to be patients of the plaintiff in such manner that if the same were done with the sanction or acquiescence of the plaintiff it would amount to infamous conduct in a professional respect on his part within the meaning of Section 29 of the Medical Act, 1858.

Mr. R. Lawrence, on behalf of the plaintiff, stated that formerly the plaintiff and the four other medical practitioners at Prescot attended the members of the friendly societies in that district on the terms of receiving a fixed sum a member per annum, the member being free to select which doctor he would consult. After the passing of the Insurance Act an association composed of representatives of the friendly societies was formed for the purpose of negotiating with the doctors the terms on which medical attendance should be given to the juvenile members who did not come under the Act. Mr. Wright was the secretary and the other defendants members of the executive of the association. Not being able to come to an agreement, the defendants resolved to advise their juvenile members to go to one particular doctor, the object, it was alleged, being to injure the practice of the other four and thus induce them to consent to less favourable terms than they were demanding. At the end of April Mr. Wright gave notice to the five doctors terminating their contracts for attending juvenile members, and since then these persons had been told to go to Dr. Youatt. This was done without the sanction or consent of that gentleman. In his opinion it amounted to canvassing or touting for patients, and was a serious breach of medical etiquette, and if he acquiesced in or took advantage of it he would be guilty of infamous conduct in a professional respect and liable to be struck off the *Register*. This view was supported by affidavits made by an officer of the British Medical Association and by another doctor. Dr. Youatt was therefore compelled to take energetic steps to dissociate himself from the action taken by the defendants, and he was put to much trouble and annoyance, as well as suffering pecuniary loss, because he had to investigate every case of a patient coming to him in order to ascertain whether they were sent by the societies or had come of their own motion. He asked the defendants to give an undertaking not to repeat the conduct he complained of, but they had declined to do so. The matter was not one which must be regarded from a legal aspect alone. The point of view must be that of the medical profession, the decision what was professional misconduct being dependent upon the opinion of the Medical Council and not upon the opinion of the Court, except to this extent—that it must not act so unreasonably that the Court would say it did not act with bona fides.

Mr. Maberly, for the defendants, said the societies had to provide medical attendance for their members; they had been placed in a difficulty because of the demands made by the doctors, and they had told their members who wanted to know what they must do in a future illness, "Go to Dr. Youatt." They had no power to compel the members to do so, and, if he wished, Dr. Youatt could refuse to receive them. Until the recent breach he attended a good many of them. What had been done was merely to give advice.

The Vice-Chancellor pointed out that if it were made clear to the plaintiff whether the patients came from the societies, he could exercise his discretion as to whether he would treat them. But if it was not made clear, he would be put to much trouble in making inquiries. Was a ticket given which could be shown to Dr. Youatt?

Mr. Lawrence said if tickets were given bearing Dr. Youatt's name, it would be expressly doing what was contrary to medical etiquette. He wished to protect his client from the risk of any suggestion that he was acquiescing in it.

The Vice-Chancellor said it was clear from the proceedings that anything in the shape of advertising was done entirely in defiance of Dr. Youatt's wishes. He had done everything that a reasonable man could do, and Mr. Lawrence would be justified in not pressing his motion for an injunction.

Mr. Lawrence remarked that after that expression of opinion he would allow the motion to stand over, on the understanding that the case would be brought on for trial as speedily as possible.

PROPOSED MEDICAL INSTITUTE AT NEWPORT PAGNELL.

From a report in the *Northampton Echo* it appears that steps are being taken in Newport Pagnell apparently by a body called "the protest committee" to establish a medical institute in the town, where it would appear there is already a dispensary of this nature. At a public meeting on June 10th it was stated that the protest committee had proposed to adopt certain amendments of the dispensary rules, including (1) the abolition of the wage limit, (2) members and officers to have equal representation on the committee, which should be presided over by an independent chairman, the committee to decide as to a person being eligible for membership, (3) contributions—members over 16 years 6d. per month, under 16 years 3d. per month, no family to pay more than 1s. 3d. per month (this, it was stated, was an increase on the present rates of 25 per cent.).

The doctors have not accepted these conditions. Mr. Pride, who was introduced as a person who had been concerned in the foundation of several medical institutes, said that such organizations paid a doctor a fixed salary, and there were no class distinctions, no inquisition into the earnings of members, and the payment for each was about 4s. for adults and 2s. for children. Eventually the following resolution was adopted unanimously:

> That this meeting authorizes the protest committee to fix a scale of charges for the medical benefits for the wives and families of insured persons and others not eligible for State insurance, as nearly as possible equivalent to the present dispensary charges, and issue circulars on these lines asking the public to support the establishment of a medical institute by selecting the medical practitioner to be introduced to carry on the above work as their panel doctor, under the National Insurance Act, in November next.

We give the resolution as it appears in our contemporary, but it appears to require some explanation, although we assume that it may be taken as a further illustration of the tendency discussed by Dr. Charles in his letter.

LOCAL MEDICAL COMMITTEES.

BIRMINGHAM.

A MEETING of the local profession was held at the Medical Institute on June 20th, at 3 p.m., when over fifty practitioners attended.

Mr. ALBERT LUCAS, who was in the chair, reported that the Medical Committee elected on January 7th, 1913, was recognized on March 29th, and that thirteen meetings had been held, to the last five of which the medical representatives on the Local Insurance Committee—Mr. J. F. Jordan, Drs. Brash, Dain, and Thomas Wilson—had been invited. The three officers of the Committee had been appointed to serve on the Local Medical Service Subcommittee.

The following recommendations of the Medical Committee were fully discussed and approved:

1. *Income Limit.*—Panel doctors are asked to report to the Committee insured persons on their lists whose income exceeds £160 per annum. If there are a considerable number, as no income limit has yet been fixed, the Insurance Committee may ask these persons to make their own arrangements.

2. *Arrangements with the Midland Pharmaceutical Association.* — The following arrangements have been made:

(1) Chemists have agreed to dispense all medicines in bottles graduated in tablespoons; over 10 oz. the doctor to order in two-tablespoonful doses.

(2) Chemists have agreed not to charge for copying the present prescription forms, but a new form in triplicate without loose carbon paper has been approved for future use, to do away with the 1d. copying fee.

(3) Elastic webbing bandage, 2½ in. wide, at 7d. per yard, can now be supplied.

(4) Medicated gauzes will be supplied in 10 oz. sealed packets.

(5) No doctor is to write "Rep. mist." or chemist to dispense prescription unless written in full.

(6) No prescription to be repeated by chemist for a cash payment. Any allegation of infringement of this rule to be reported to Insurance Committee.

(7) Medicines dispensed and dressings used by medical practitioners in emergencies and in all urgent cases after 10 p.m. to be paid by a capitation charge from drug fund of 1s. per 100 insured persons on each doctor's list per quarter. This payment to be retrospective.

(8) Doctors not to order proprietary articles excessively.

3. *Certificates.*—A uniform fee of 6d. to be charged for all extra certificates. Where complaint is named certificate only to be given to sick person or his or her representative.

4. *Payment for Temporary Residents.*—The Committee, on behalf of practitioners, had notified the Local Insurance Committee and the Commissioners that they object to any deduction from the agreed capitation fee of 7s. per annum. Practitioners are requested not to treat insured persons with a green voucher, except as private patients.

5. *Expenses of Committee.*—The Committee has recommended:

(*a*) That panel doctors be asked to pay towards the expenses of the Committee for 1913:
5s. for the first 1,000 or portion of 1,000 persons on their list.
2s. 6d. for each additional 500 or portion of 500.

(*b*) That all local practitioners *not* on the panel be asked to pay 5s.

(*c*) That the expenses for locumtenents of the representatives on the Insurance Committee be paid when applied for.

(*d*) That the secretary be given an honorarium.

6. *Maternity Benefit.*—Drs. Trumper, Wilkinson, and Thomas Wilson have been appointed representatives of the medical profession on the Committee of the Birmingham Maternity Association. At a meeting of this Committee held on May 7th the following general points were discussed and unanimously agreed to:

(1) With a few exceptions the whole of the midwives in Birmingham be invited to join the association, and that a list of those midwives be sent round to the approved societies, the patient being allowed to choose her own midwife.

(2) The midwife to be paid the sum of 15s. direct by the approved society as part of the maternity benefit under the Act. Each midwife to pay to the association the sum of 1s. 6d. per case, the whole of which will be given to the fund for paying the doctors who may be called in.

(3) That a general statement be circulated recommending that women requiring services at confinement should engage a doctor at least three months beforehand, if not a doctor then a midwife.

(4) If one of the midwives on the list is selected, she is entitled to call in, if necessary, the nearest doctor, whose services will be paid for by the association. The scale of fees to be the same as those adopted by the Birmingham Central Division in March, 1905, and accepted by the guardians of Birmingham.

The advantage of the association to members of approved societies are many. In the first place the woman would have the services of a midwife whose work would be under supervision. The midwife would be able at once to call in a doctor if necessary, whose fee would be paid by the association. Only 15s. of the maternity benefit would be expended on the midwife or doctor, however serious the case might be, therefore in such cases the insured person would have a clear 15s. with which to provide other necessaries. The association would also be in close touch with the maternity hospital and could, no doubt, arrange for taking in special cases at once.

The following is a complete schedule and scale of fees adopted by the Central Division, March, 1905, with suggested alterations by the Medical Committee, for payment of fees by the Birmingham guardians to medical practitioners called in to assist midwives:

A.—In the case of a pregnant woman.
- (1) Where the midwife suspects a deformed pelvis.
- (2) Where there is loss of blood.
- (3) Where the pregnancy presents any other unusual features (as, for example, excessive sickness, persistent headache, dimness of vision, puffiness of face and hands, difficulty in emptying the bladder, incontinence of urine, large varicose veins, rupture), or where it is complicated by fever or any other serious condition.

Fee.—5s. for first visit and 2s. 6d. any subsequent visit. If first visit be between 9 p.m. and 9 a.m., 10s. 6d.

B.—In the case of a woman in labour.
- (1) In all presentations other than the uncomplicated vertex or breech.
  In all cases of breech presentation in primiparae.
  In all cases of flooding and convulsions.
  Also whenever there appears to be insufficient room for the child to pass, or when a tumour is felt in any part of the mother's passages.

Fee.—£2 2s., which should include five subsequent visits.

- (2) If the midwife, when the cervix is dilated, is unable to make out the presentation.
- (3) If there is loss of blood in excess of what is natural, at whatever time of the labour it may occur.
- (4) If an hour after the birth of the child the placenta has not been expelled and cannot be expressed (that is, pressed out), even if no bleeding has occurred.
- (5) In cases of rupture of the perineum or other serious injuries of the soft parts.

Fee.—£1 1s., to include five subsequent visits.

C.—In the case of lying-in women and in the case of newly-born children. Whenever, after delivery, the progress of the woman or child is not satisfactory; but in all events upon the occurrence of the subjoined conditions in:

(1) The mother.
- (1) Abdominal swelling and signs of insufficient contraction of the uterus.
- (2) Foul-smelling discharges.
- (3) Secondary post-partum haemorrhage.
- (4) Rigor.
- (5) Rise of temperature above 100.4° F., with quickening of the pulse for more than twenty-four hours.
- (6) Unusual swelling of the breasts with local tenderness or pain.

(2) The child.
- (1) Injuries received during birth.
- (2) Obvious malformations or deformities, not inconsistent with continued existence.
- (3) Concealed malformations, incapacity to suck or to take nourishment.
- (4) Inflammation to even the slightest degree of the eyes, eyelids, or ears.
- (5) Syphilitic appearance of the skin in certain parts.
- (6) Illness or feebleness arising from prematurity.
- (7) Malignant jaundice (*icterus neonatorum*).
- (8) Inflammation about the umbilicus (septic infection of the cord).

Fee.—5s. for first visit and 2s. 6d. for subsequent ones, but if the case be one of puerperal septicaemia, or if the first visit is between 9 p.m. and 9 a.m., the fee to be 10s. 6d.

D.—In all cases, if during pregnancy, labour, or lying-in, a woman dies before the arrival of a doctor.

Fee.—10s. 6d. for visit.

The Honorary Secretary (Dr. E. Osborne) was instructed to send a copy of the suggested scheme of the Birmingham Maternity Association for the approval of the British Medical Association.

DERBY.

Temporary Residents.

The Honorary Secretary of the Derby Local Medical Committee addressed a letter to the Insurance Commissioners in accordance with the resolutions of the Committee on this subject (see SUPPLEMENT, May 17th, p. 448). The following correspondence has since taken place:

National Health Insurance Commission (England),
Buckingham Gate, London, S.W.,
June 11th, 1913.

Sir,

In reply to your letter of the 10th of May, I am directed by the National Health Insurance Commission (England) to remind you that the sum referred to in your letter is the capitation rate of remuneration applicable only in respect of those insured persons for whose treatment the doctors in the area have been responsible during the whole year.

Under the system in force during the provisional period insured persons removing for however short a period, whether temporarily or otherwise, were required to give notice to the Committee to whose area they removed and were thereupon transferred from the lists of doctors in the old area to the lists of doctors in the new area. Under the old arrangements, therefore, the capitation fee payable to a doctor in respect of any given insured person was liable to be reduced by a sum proportionate to the period of his absence from the area of the doctor's practice, whether he required treatment during his absence or not. These adjustment are expressly referred to in the Explanatory Memorandum as to medical benefit referred to in your letter.

Under the new arrangements, however, insured persons changing their residence for a temporary period are no longer removed from the doctor's list, and the doctor accordingly continues to receive credit in respect of each such person on his list, notwithstanding the fact that he is not responsible for that person's treatment during his absence. In respect of every insured person temporarily resident outside the Committee's area who has fallen ill and has received treatment a transfer of "case value" is made; but the total sum transferred in the form of "case value" as regards any area is precisely equivalent to the total of the deductions to which the full capitation fees would have been subject under the old system owing to the temporary removal of insured persons from their doctor's lists during the periods of their absence from the area.

The new arrangement, therefore, subjects the doctors in any given area to no greater deductions than those to which they were previously liable. In place of a separate small deduction in respect of each insured person temporarily absent from the area whether ill or well, a larger deduction will be made in respect of those persons only who require treatment while temporarily absent; but the deductions in the latter case will be so calculated as to be equivalent to the sum of the separate deductions provided for under the previous arrangements. The net effect of the new system, therefore, is merely to vary the machinery of adjustment, not the amounts of the adjustments themselves; and the basis of the doctors' remuneration, as embodied in their agreements, is accordingly unaffected.—I am, Sir, your obedient servant,

(Signed) S. P. VIVIAN.

Dr. G. K. Smiley,
Honorary Secretary, Derby Local Medical Committee.

Derby Borough Medical Committee.

112, Kedleston Road, Derby,
June 23rd, 1913.

Sir,

Your letter of June 11th has been received and considered by my Committee, and I am instructed to reply as follows:

There are two main contentions which you seek to establish:

1. That the system described in Regulation 22 (Medical Benefit Regulations), by which the doctor loses credit for a patient as soon as that patient changes his residence to another area, applies to, or would be just and equitable if applied to, "temporary residents" who are absent from home for periods varying from one week up to twelve weeks; and

2. That the amount proposed to be deducted from the doctor's remuneration by the new method of "case value transfer" is precisely identical with what would be deducted were the system of Regulation 22 adopted for the "temporary residents."

The first contention seems to be largely a question of the intention and the interpretation of Regulation 22. As far as this Committee can learn from outside authorities, including the Scottish Commissioners, and your original explanatory circular, the Regulation refers to those insured persons who definitely change their residence from the area of an Insurance Committee to the area of another Committee, and does not refer to the temporary absence from home for a few weeks of an insured person. This interpretation is in accordance with the established custom in all contract practice hitherto carried on by doctors when dealing with friendly society members. In this Committee's own opinion and in that of the doctors whom it represents, the Regulation does not apply to "temporary residents," nor is it just or equitable that the method described in that Regulation should be made to apply to those "temporary residents."

With regard to the second contention, this Committee utterly fail to see on what grounds or on what method of calculation the conclusion is based. Until they know more of this method of calculation they must refuse to accept the result, which you put forward as a statement of fact, without any proofs.

In conclusion, therefore, my Committee feel that they can only advise the doctors whom they represent to continue to act as they have formerly acted in their contract practice, and look to the individual "temporary resident" for the remuneration which the green voucher purports to supply.—I am, yours faithfully,

G. KENNEDY SMILEY,
Honorary Secretary.

The Secretary,
National Health Insurance Commission (England),
London.

LANCASHIRE.

THE following are the names of the Statutory Medical Committee, Area No. 9, Lancashire County:

Dr. Agnew, Padiham (*Chairman*).	Dr. Hodges, Burnley.
	Dr. Stuart, Nelson.
Dr. Normington, Nelson (*Honorary Secretary*).	Dr. Findlay, Nelson.
	Dr. Pim, Barrowford.
Dr. Bromley, Padiham.	Dr. Wilson, Brierfield.
Dr. Joynson, Padiham.	Dr. Dickie, Colne.
Dr. Rogers, Burnley.	Dr. Doyle, Colne.
Dr. Callam, Burnley.	Dr. McCauley, Colne.

Many meetings have been held, and the last was held on June 5th, at 4 p.m., in the Bull Hotel, Burnley, when the Secretary's report from the Preston meeting was read and fully discussed. Area No. 9 is in agreement with Area 21, and considers it inadvisable to state the nature of illness on the certificate, and instructed the Secretary to support that view at the Local Medical Committee meeting at Preston.

STAFFORDSHIRE.

A MEETING of the Staffordshire County Medical Committee was held at Stafford on June 3rd.

The following recommendations of the Executive Committee were considered and adopted without dissent:

That all doctors on the county panel be requested to resume the practice recently discontinued by recommendation of this Committee, of providing prescriptions in duplicate for the use of the chemist.

That all doctors on the county panel abstain from ordering proprietary medicines unless the requirements of the case will be met *only* by the use of such proprietary preparation.

The Secretary was instructed to send a copy of the resolutions to every doctor on the panel, with such explanation as might be necessary, pointing out in the case of the first that it was the outcome of a conference with the representatives of the County Pharmacists Association, and in the case of the second, drawing attention to Section 46 of the Insurance Regulations, in which the penalties for excessive prescribing are set forth. By carrying out the spirit of the recommendations it is hoped that the whole of the "floating sixpence" will be secured to the medical profession.

BEDFORDSHIRE.

THE fifth meeting of the Bedfordshire Medical Committee was held at the Bedfordshire County Hospital on June 20th, Dr. J. W. BONE in the chair, and fourteen others were present.

Status of the Committee.

The CHAIRMAN announced that no reply had been received from the National Insurance Commissioners in answer to the Secretary's letter applying for the permanent recognition of the Medical Committee, to which so far only temporary recognition had been granted. The Secretary was instructed to communicate with the Commissioners requesting permanent recognition.

Proceedings of the County Insurance Committee.

The CHAIRMAN detailed to the meeting the decisions affecting the practitioners of the county arrived at by the Bedfordshire Insurance Committee:

(*a*) The model rules for the administration of medical benefit had been printed and circulated to the practitioners concerned. The hours agreed upon by the Medical Committee were accepted, and it was decided that there should be no surgery attendance on Sundays or Bank Holidays, and that there should be one half holiday per week, the day chosen in the towns being that adopted for early closing.

(*b*) The application for an income limit was refused.

(*c*) A list of unallotted panel patients would be drawn up after the lapse of a certain time, and it would be left for the doctors to divide them up among themselves.

(*d*) A further payment of 7d., in addition to the 1s. 2d. already paid to the doctors, had been passed by the Committee. It appears that the balance of the floating 6d. and the fees for unallotted patients will not be distributed before the end of the year.

Prescription Book.—The CHAIRMAN demonstrated the "Carbac" triplicate prescription book, and it was decided to adopt the pattern for Bedfordshire. Dr. J. G. DURRAN remarked on the hardships inflicted upon practitioners resident near county boundaries, since they might be called upon to adopt as many different patterns of prescription books as the counties in which their work lay. The only remedy was the adoption of a universal pattern. He promised to bring the "Carbac" to the notice of the Buckinghamshire Medical Committee.

Expenses of Committee.—The CHAIRMAN announced that the County Insurance Committee had consented to the collection of a levy of ½ per cent. from those practitioners who signed a form agreeing to it, and that this sum would be deducted "at the source" and handed to the treasurer of the Medical Committee, a small honorarium being paid to the clerk for the trouble of collection.

Temporary Residents.—The CHAIRMAN outlined the proposals of the Commissioners with regard to the administration of medical benefit in the case of temporary residents as set forth in Memorandum 159 I.C. The correspondence from the British Medical Association on this subject was then submitted to the meeting and discussed, and on the motion of Dr. KILHAM ROBERTS, seconded by Dr. WAUGH, it was unanimously resolved:

That the policy of the Association be supported—that is, that medical men should refuse to consent to any deduction being made from their panel fees, and that all green vouchers should be refused.

It was also unanimously agreed that this decision should be announced to the authorities forthwith on the forms supplied by the Association. It was further decided that all the practitioners on the panel for Bedfordshire be circularized of this action.

Conference of Representatives of Local Medical Committees.—Dr. J. W. Bone was invited to represent the Bedfordshire Medical Council at the conference of Representatives of Local Medical Committees to be held at Brighton on Thursday, July 24th, during the Eighty-first Annual Meeting of the Association.

Model Rules.

Letters containing complaints were read from two practitioners, and the Secretary was instructed how to deal with the points raised.

The CHAIRMAN announced that he had been in communication with the Clerk to the Bedfordshire Insurance

Committee with a view to printing cards of the model rules, hours of attendance, and holidays, to be hung up in the surgery of each panel practitioner, and had been informed that the Committee could not accede to this request as it had no funds for the purpose. It was thereupon decided that the Medical Committee print the cards and also a supply of leaflets, and distribute them to the practitioners concerned.

PLYMOUTH.

At meetings of Plymouth Local Medical Committee, held on May 29th and June 18th, the following matters were discussed:

Constitution of the Local Medical Committee.—The question having been raised whether there was fair representation of the panel on this Committee, it was shown that the condition is as follows:

Total doctors in practice in Plymouth and residing in Plymouth	68
Doctors on the panel and residing in Plymouth ...	29
Constitution of the Local Medical Committee:	
General practitioners on the panel...	7
General practitioners not on the panel	6
Consultants or specialists	4
Total	17

Medical Benefit for Temporary Residents.—On May 29th a resolution was passed and forwarded to the Commissioners and to the Plymouth Insurance Committee to the effect that in the opinion of the Local Medical Committee any deduction from the 7s. capitation fee constitutes a breach of the agreement entered into by the doctors on the panel. On May 18th a memorial signed by all the doctors on the panel in Plymouth with one exception came before the Local Medical Committee, in which they stated their intention to refuse to allow any deduction from the 7s. capitation fee in order to make a pool in accordance with the method suggested in Memorandum 159 I.C., and declining to attend visitors holding green tickets except as private patients. It was decided to send a copy of the memorial to the Insurance Committee, together with the printed letter on the subject recently issued by the British Medical Association.

Committee of Panel Doctors.—It having been suggested by one panel doctor that a meeting of the panel should be called by the Clerk to the Insurance Committee in order to form a committee, the Clerk to the Insurance Committee was informed that in the opinion of the Local Medical Committee it was not necessary or desirable to set up another committee, and that this Committee was arranging a panel subcommittee which was intended to ensure full representation of the views of doctors on the panel.

List of Panel Practitioners.—The new list having been submitted to the Committee, it was pointed out that the method of exposing the names, qualifications, addresses, and surgery hours of panel doctors on large posters in post offices and chemists' shop windows was not in accordance with the ethics of the profession. It was decided to notify the Insurance Committee that the Local Medical Committee strongly disapproves of the practice, and would be willing to suggest other and less objectionable ways of making known the names, etc., of doctors on the panel.

MIDLOTHIAN.

Maternity Benefit.

The Midlothian Medical Committee became aware that certain officials of approved societies were representing to persons insured through their societies (1) that the Commissioners have issued a table of charges fixing the fees payable to doctors in connexion with accouchements; (2) that the highest fee so payable is 15s.; and (3) that no insured person need pay more than that sum in all.

The Committee found that the basis of these representations was a leaflet issued by the English Commissioners, and refers only to England, where in consequence of the Midwives Act, which does not apply to Scotland, it had been deemed necessary to make a scale of charges, which, however, applied only to cases in which a midwife had been employed and, finding difficulty, called in a doctor.

Acting on the instructions of the Committee, the Secretary, Dr. Alex. M. Easterbrook, addressed a letter to the Scottish Commission on May 6th, pointing out the above circumstances and asking the following questions:

1. Notwithstanding the Act, is not the fee for attendance by a doctor on the wife of an insured member at a confinement still a matter of private contract between that insured person and the doctor?
2. Is any power given by the Act to approved societies to determine the amount of such fee?
3. Even although the approved society mortgages only a portion of the 30s. of maternity benefit as a fee for the doctor is it not still competent for the doctor to recover the balance of his fee should the portion so mortgaged be insufficient to meet it?
4. Is there any regulation of the Scottish Commissioners fixing the doctor's fee in these cases?
5. Are the Commissioners empowered by the Act so far as it applies to Scotland to fix doctors' fees in such cases?

To this communication the following reply was received:

National Health Insurance Commission (Scotland),
83, Princes Street, Edinburgh,
May 28th, 1913.

Sir,

I am directed by the Scottish Insurance Commissioners to acknowledge your letter of 6th instant, in which you refer to a point arising in connexion with the administration of maternity benefit, and put forward five queries relating to the same subject.

In the first place, with regard to the point raised in your letter, I am to advert to Section 18 (1) of the National Insurance Act, in which it is provided that if, in the case of a midwife being selected by a mother to attend her, a duly qualified medical practitioner is subsequently summoned in pursuance of the rules made under the Midwives Act, 1902, the prescribed fee shall, subject to regulations made by the Insurance Commissioners, be recoverable as part of the maternity benefit. In accordance with this provision, the English Insurance Commissioners have issued regulations dated 10th January, 1913, prescribing the fees of duly qualified medical practitioners summoned in pursuance of the rules made under the Midwives Act. The Midwives Act, however, and the rules made under the Midwives Act do not run in Scotland, and the Scottish Commissioners have not issued regulations dealing with the point under notice. In Scotland, if a midwife has been selected by a mother to attend her, and a medical practitioner is subsequently summoned to treat any emergency or complication which may have arisen, the fee payable to the practitioner for his services is for arrangement between parties.

In the second place, with regard to your five queries, I am to reply:

1. The total amount of the fee payable for attendance by a doctor at the confinement of the wife of an insured person entitled to maternity benefit—or of an insured person, if a woman entitled to maternity benefit in her own right—is a matter of private contract between the insured person and the doctor.
2. Approved societies are not empowered by the National Insurance Act to determine the total amount of the fee payable by the insured persons specified in Answer 1.
3. An approved society may at its discretion make arrangements for administering a portion of maternity benefit by a direct payment to the doctor in consideration of his attendance at the confinement of a member—or of the wife of a member, as the case may be—entitled to maternity benefit. If such payment, in the view of the doctor, is not sufficient remuneration for the services rendered by him, the fact that such arrangements have been made and given effect to will not debar the doctor from claiming from the insured person such further remuneration as under the circumstances he may consider warranted. On the other hand, the doctor cannot demand a larger sum from the society than that fixed by the society.
4. The Scottish Insurance Commissioners have not made Regulations fixing the fees payable to doctors for attendance at confinements under maternity benefit.
5. The National Insurance Act does not provide for the making of such regulations by the Commissioners.

I am, Sir, your obedient servant,

(Signed) John Jeffrey,
Secretary.

To this letter Dr. Easterbrook replied in the following terms:

Memorandum 159 I.C. was duly considered by the Midlothian Local Medical Committee, and it was resolved by the Committee "that it could not agree to any deduc-

tion being made from the capitation fee, which was promised as a minimum to each practitioner on the panel as an inducement to accept service under the Act. It was further resolved that it should be intimated to the Commissioners that, in the opinion of the Committee, it is unfair to ask the profession at this time to submit to such proposed deduction." I would further refer you to the letter of Dr. Alfred Cox, Medical Secretary to the British Medical Association, to the National Health Insurance Joint Committee, dealing with the subject, which appears upon the first page of the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of May 24th, 1913, and which letter more fully embodied the views of the profession.

SELKIRKSHIRE.

By kind invitation of Dr. Somerville, a meeting of the Selkirkshire Local Medical Committee was held at his residence, The Grange, Galashiels, on June 16th. Every member of the Committee, with one exception, was present.

Conference of Local Medical Committees' Representatives at Dundee.—Dr. Muir (Chairman), whom failing, Dr. Tyrrell (Secretary), was appointed to attend a conference of representatives of Local Medical Committees at Dundee on July 4th, and was specially instructed to bring under the notice of the conference the necessity of having uniformity of all certificates for medical benefit under the Insurance Act, and to have a minimum of clerical work by the profession in granting these certificates. The exclusion of treatment of venereal diseases and abortions was also considered necessary in any amendment of the Insurance Act.

Temporary Residents.—The meeting unanimously decided to instruct the Secretary to fill up and sign the draft letter issued from the British Medical Association, and send a copy to the Local Insurance Committee and the Commissioners.

Vote of Thanks.—After the meeting tea was partaken of, and a walk through the grounds and a vote of thanks to Dr. Somerville ended a most enjoyable afternoon, combining business with pleasure.

INSURANCE NOTES.

LONDON.

CONDITIONS OF MEDICAL SERVICE.

WE have received from the Clerk to the Insurance Committee for the County of London the statement printed in the opposite column.

Paragraphs 4 and 5 should be read along with form 43/I.C. for the use of insured persons desiring to make their own arrangements and embodying an undertaking to be signed by the doctor; this document was published in the SUPPLEMENT to the BRITISH MEDICAL JOURNAL of March 1st, p. 214. It provided that remuneration for medical attendance should be at an inclusive rate per quarter, or calculated on a tariff of fees, the practitioner undertaking to furnish quarterly a statement of attendances and treatment. The conditions the practitioner is required by this document to undertake to fulfil were:

1. The keeping and furnishing of records in the form prescribed by the Insurance Commissioners, of the diseases of the insured person attended by me, and of any treatment of him, and of such further records as may at any time hereafter be agreed between the Insurance Committee and the Local Medical Committee.
2. The furnishing, at the request of the insured person, of such certificates as are required to be furnished by him for the purposes of the National Insurance Act in connexion with any claim for sickness or disablement benefit made by him in pursuance of the rules of the society of which he is a member, or of the Committee, as the case may be.
3. The giving of any domiciliary treatment which may be required in the event of the insured person being recommended for sanatorium benefit.

We understand that the intention of the London Insurance Committee is that the name of any practitioner undertaking to attend a limited number of insured persons shall be placed on the general alphabetical list for London, but not on the local or borough panel list, and that his name shall be marked by a star, showing that he is only willing to attend a limited number. This arrangement, we apprehend, will not satisfy those practitioners who desire that the attendance given under the Insurance Act to persons making their own arrangements should be on the basis of private practice. At the same time, the provision of paragraph 5 will apparently meet some of the difficulties felt by some practitioners, for it is to be assumed that when the 400,000 insured persons who have not yet selected a doctor are allotted none of them will be assigned to any practitioner who has undertaken to attend only a limited number of persons.

Statement by London Insurance Committee.

The Insurance Committee for the County of London understand that there is considerable misapprehension in the minds of certain medical men with regard to various points connected with the administration of the Insurance Act. They think it well, therefore, to make the following statement:

1. In cases where a question arising between an insured person and a doctor involves purely technical, scientific, or medical details of the treatment by a practitioner, the Committee have decided that the matter shall be considered by a Special Committee consisting of the medical members of the Insurance Committee and of the Medical Service Subcommittee.
2. With regard to the question of inspection, the Committee wish it to be clearly understood that there is no intention either on the part of the Committee or, as they understand, on the part of the Insurance Commissioners, to appoint inspectors to inquire into the diagnosis and treatment of diseases by medical practitioners. The only appointments which the Committee are at present considering are those of part-time medical advisers with a view to inquiring into and deciding alleged cases of malingering in consultation with the doctor in attendance.
3. The Committee are anxious to do everything in their power to reduce the amount of clerical work required of practitioners on the panel.
4. All applications by insured persons to make their own arrangements in special circumstances with doctors, either on or not on the panel, are considered on their merits.
5. The Committee have been given to understand that private practice prevents a number of medical men from entering into agreements with the Committee for the treatment of any large number of insured persons, while they would accept small numbers. In order to meet such cases the Committee have arranged for medical practitioners to join the panel for the purpose of treating a limited number of insured persons and to suitably indicate their names in the panel, and the fact that they accept service under this condition.

The Committee have also expressed the opinion that it is undesirable that any practitioner on the panel should undertake the treatment of a larger number of insured persons than 2,000.

MEDICAL ADVISERS.

The General Purposes Subcommittee presented to the London Insurance Committee on June 26th a report in accordance with a resolution of the Insurance Committee adopted on May 22nd to the effect that it was desirable to appoint a medical adviser whose duties should include the examination of such applicants for benefit as may be referred to him by the Committee. The report of the subcommittee stated that there were approximately 1,400,000 insured persons in the County of London, and that among them were members of 862 different approved societies. The Committee was, therefore, of opinion that it would be necessary to engage more than one medical adviser to deal with questions arising as to malingering or invalidism, and recommended the appointment of four part-time medical advisers for six months. It advised that cases should be referred to a medical adviser by the Insurance Committee at the request of the approved society, and that the Committee should then arrange for the medical adviser to visit the insured person whose benefit was in question in company with the medical practitioner in attendance. The medical adviser would be consulted only on questions dealing with fitness or otherwise of an insured person, and would be required to report to the Insurance Committee any *mala fide* applicant for certificates. The Medical Benefit Subcommittee has concurred in the proposals, and the Finance Subcommittee has also concurred in them as a temporary arrangement. The recommendations formulated by the General Purposes Subcommittee were as follows:

(*a*) That, subject to the approval of the Insurance Commissioners, the employment be authorized, for a period not exceeding six months, of four part-time medical advisers.

(*b*) That a fee of 7s. 6d. be allowed for each examination by a medical adviser of an insured person as to his fitness or otherwise for work, the fee to include the issue of the necessary certificate.

(*c*) That, subject to the payment to the Committee of a sum of 2s. 6d. by an approved society in respect of each examination of an insured person applying for sickness benefit under the National Insurance Act, 1911, the services of a medical adviser be placed at the disposal of the approved society.

(*d*) That it be the duty of a medical adviser (i) to examine and check certificates referred to him by the Insurance Committee; (ii) to visit, in company with the medical practitioner in attendance, any insured person whose application for sickness benefit is in question; and (iii) to report on each case to the Insurance Committee.

SALFORD AND MANCHESTER.

At a general meeting of the medical profession of Salford, held on June 20th, it was resolved to continue the present system of medical attendance under the Insurance Act from July 15th to the end of the year. The Salford system is one in which there is an absolute free choice of doctor, patients changing their doctor whenever they think fit, and in practice it is found that they do so not infrequently. The money available for the doctors under medical benefit is pooled and distributed to the doctors on the panel by the Insurance Committee after the Local Medical Committee has scrutinized the doctors' accounts. Payment is nominally at the rate of 2s. for an attendance at the surgery, and 2s. 6d. for a visit, with extras for night calls, operations, anaesthetics, etc. The doctors are required to enter up in their day-books every service rendered, and at the end of each month to forward to the Local Medical Committee the whole of the sheets used from the day-book, including the tear-off slip, which was intended for the use of the Commissioners. The Local Medical Committee has thus before it all the work of every doctor, with his diagnosis of every case attended, and uses its discretion in cutting down anything which it considers over-attendance before allowing the accounts to rank for the division of the pool. In addition to this a grand average is obtained of the number of attendances that have been given to all insured persons throughout the borough, and any doctor whose attendances exceed this average is cut down to the average, though those below the average are not credited with anything more than what they have recorded in their day-books. Even after all these deductions have been made, the money available for the first quarter up to April 15th has only sufficed to pay the doctors 56 per cent. of their accounts if reckoned according to the nominal scale of fees. It need hardly be said that the system entails a vast amount of work of a character not always agreeable to the Local Medical Committee, as no doctor can be altogether satisfied to have his accounts cut down possibly in both the ways mentioned above, before ranking for a share in a pool which after all is only sufficient to pay 56 per cent. of the reduced accounts.

The position of the chemists in Salford is even worse than that of the doctors, as the amount available for the first quarter was only sufficient to pay them 46 per cent. of their accounts—less than the bare cost of materials supplied to the prescriptions of the doctors. Permission has now been obtained to apply a proportion of the floating sixpence so as to raise the 46 per cent., but this, of course, only goes a short way towards reducing the loss to the chemists.

A good deal of dissatisfaction is being expressed with the amount of clerical work required from the doctors, and especially as this is to be very seriously increased under the new system which the Commissioners propose to introduce. In addition to entering up the day-books, with a few modifications of no great importance, it is proposed that a card shall be kept for each patient containing the full year's account of each patient for the use of the Commissioners, the attendances being copied from the day-books on to the cards in each case. At the same time, the present tear-off slip of the day-books, which was at first intended for the use of the Commissioners, will still be required for the use of the Local Medical Committee, so that it may see the diagnosis in each case, and from that judge each month whether there has been any over-attendance. Thus there will be a double system of entering up for each patient—once fully in the day-book almost as at present, and again on the card which the Commissioners propose to require; and the meeting of the profession passed a resolution protesting against the increase of clerical work which the new system of the Commissioners would entail. The factors which weighed principally with the Salford practitioners in their decision to continue the present system to the end of the year, in spite of all the objections to it, were, first, the greater freedom to the doctors owing to the absolute free choice of doctor by patient with similar freedom on the part of the doctors to refuse to attend any patient at any time; and secondly, the fact that the present system will provide statistics showing the amount of work required from insurance doctors, and the inadequacy of the money now available for both doctors and chemists. In addition to this, there is the rooted objection to the ordinary contract practice system.

At a meeting of the Manchester Insurance Committee on June 24th, the representatives of the Local Medical Committee reported that a postcard vote had been taken of the doctors in the Manchester area on the question whether the present system of payment per attendance should be continued or the capitation system adopted in its place, and that a very large majority of the votes were in favour of a continuance of the present system to the end of the year. The system in force in Manchester is in nearly all respects identical with that of Salford, alluded to above, and the same considerations have influenced the Manchester doctors in deciding to give the present system a full year's trial.

SCOTLAND.

Action by an Insured Person against a Doctor.

From a report in the *Edinburgh Evening Dispatch* we learn that an action has been brought in the Glasgow Small Debt Court by an insured person in Glasgow against a doctor, claiming £3 11s., and alleging that as an insured person under the Insurance Act he required medical treatment in February, 1913, but that the defender failed to give him treatment between February 4th and 11th, and the pursuer had to call in another doctor not on the panel. The defender pleaded that the pursuer had no title to sue, and that the proper party to sue was the Glasgow Burgh Insurance Committee. The Sheriff has delivered judgement on this preliminary point, and said that the pursuer founded his title to sue on the averment of a contract completed between the defender and himself in the course of and through statutory procedure. The Sheriff thought that pursuer's interpretation of the legal position was correct, and therefore repelled the defender's plea and ordered proof.

IRELAND.

"Medical Advisers."

It has been officially announced that the medical advisers recently appointed by the Irish Insurance Commissioners for the purposes of certification met in Dublin last week. Their duties and powers were fully explained to them, and they were specially instructed as regards their attitude towards other medical practitioners from the point of view of medical ethics, and the course to be adopted in dealing with cases of industrial disease, etc. A Board of Medical Advisers was constituted, and Surgeon-Colonel Adye-Curran and Dr. Seymour Stritch were appointed chairman and secretary respectively. Arrangements were made to secure central offices as a place of meeting for the board. The method of allocation of insured members was outlined, and it is anticipated that the services of the Medical Advisers will be available for approved societies and Insurance Committees as from July 1st.

Sanatorium Benefit Suspended in Dublin.

The arrangement made by the Insurance Commissioners with regard to medical advisers was considered at the last meeting of the Insurance Committee of the County Borough of Dublin, when a resolution was adopted by 10 votes to 1 (three members of the Committee, including the Countess of Aberdeen, declining to vote) to the effect that the Committee was of opinion that it was impossible to carry out satisfactorily the sanatorium benefit clauses of the Act if applicants for benefit were to be compelled to secure certificates from some one of the medical advisers. The Committee, therefore, refused to undertake the responsibility of administering this portion of the Act. The result would appear to be that for the time being sanatorium benefit is suspended in Dublin.

IRISH MEDICAL ASSOCIATION.

Refusal to Work the Act.

The following resolutions were passed last week by the Council of the Irish Medical Association:

1. That since the Irish Insurance Commissioners have adopted a system of medical certification for sickness benefit, as well as a system of treatment and certification for tuberculosis for the insured, in opposition to the Irish medical profession, the County and Borough Insurance Committees representing employers and insured, we call upon all Local and County and Borough Medical Committees to refuse to assist the Insurance Commissioners in their determination to administer the Act in defiance of the views of those most concerned.
2. That we refuse to work the sanatorium part of the Insurance Act, in view of the action of the Insurance Commissioners in appointing medical men for certification for purposes of sickness and sanatorium benefits in opposition to the wishes of the Irish Medical Association.

CONJOINT COMMITTEE.

A meeting of the Conjoint Committee was held at the Royal College of Surgeons on June 18th, with Sir ROBERT H. WOODS, and subsequently Dr. R. J. JOHNSTONE, in the chair. The following members were present: Drs. F. W. Kidd, H. T. Warnack, J. Mills, Kathleen Lynn, E. Thompson, J. G. Cooke, J. S. Darling, R. J. Rowlette, Katherine Maguire, W. Doolin, D. Forde, A. H. White, and O'C. J. De la Hoyde. The Medical Secretary (Dr. M. R. J. Hayes) and Mr. C. H. Gick were also in attendance.

The minutes of the last meeting, held on April 26th, and of the special meeting held on May 9th, were read, confirmed, and signed.

Resignation of Representatives, Irish Medical Association.—In conformity with the resolution passed at the annual meeting of the Irish Medical Association, calling upon its representatives to resign their positions on the Conjoint Committee, resignations were received from the following: Drs. Stanley B. Coates, J. D. Ryan, J. W. Olpherts, G. A. Hickey, Thomas Hennessy, John M. Day, J. J. Curran, Leonard Kidd, O'C. J. De la Hoyde, and Dr. Donnelly. The Medical Secretary was directed to reply, stating that the resignations had been accepted with regret, but to point out to Dr. Donnelly that the resolution passed at the annual meeting of the Irish Medical Association had reference to its representatives, but not its members, as stated in his letter of resignation.

Limerick.—A letter was read from Dr. J. F. Devane, dealing with the importation of two doctors into Limerick to supply certificates for insured persons, and the following resolution was passed:

> That this Committee sanctions the remission of fees for certificates by practitioners in Limerick in necessitous cases pending the settlement of the question.

Derry.—The position of the medical men in Derry was dealt with by Dr. COOKE, and the peculiar circumstances existing there having been considered, Dr. Cooke was instructed to convey the advice of the Conjoint Committee to his colleagues.

Conjoint Committee, 1913–14.—The arrangements for election of a Conjoint Committee for 1913–14 having been considered, it was resolved to send a concise statement of the work done by the Conjoint Committee during the past eighteen months to each member of the profession in Ireland, and to convene a delegates' meeting representative of the profession in Ireland, to which each Local Medical Committee be asked to send 5 or 7 representatives. A member of the Conjoint Committee would be *ex officio* a member of the meeting without the power of voting unless he were also a delegate to the meeting. The date of the meeting was provisionally fixed for Thursday, July 17th.

Salaried Medical Certifying Officers.—The action of the Insurance Commissioners in appointing salaried medical practitioners for the purpose of certification in areas where the panels had failed having been discussed, the following resolutions were passed and copies directed to be sent to the Insurance Commissioners:

> That the Conjoint Committee regret the action of the Insurance Commissioners in appointing medical advisers in the county boroughs of Dublin, Waterford, and Limerick, and in threatening to adopt similar measures in other areas, and we condemn their action as a Government department in offering preferential treatment as an inducement to medical men to join the panels contrary to the expressed decision of the profession in their areas. That we regard the action of the Commissioners in this matter as intimidatory, and in view of the altered circumstances, suggest that the Local Medical Committees should reconsider their action in advising their men to go on the panel for certification.
>
> That we call upon the universities, colleges, and hospitals to use their influence in preventing recently qualified medical practitioners from accepting all appointments under the Insurance Act in opposition to the wishes of Local and Borough Medical Committees.

THE INSURANCE SCHEME.

STATE SICKNESS INSURANCE COMMITTEE.

A MEETING of the State Sickness Insurance Committee appointed by the Special Representative Meeting in November, 1912, was held at the house of the Association, 429, Strand, W.C., on Thursday, June 19th, Dr. J. A. MACDONALD, and afterwards Mr. E. B. TURNER, in the chair, and the other members present were:—*England and Wales:* Dr. R. M. Beaton (London), Mr. C. E. S. Flemming (Bradford-on-Avon), Dr. E. R. Fothergill (Brighton), Dr. Herbert Jones (Hereford), Dr. Constance E. Long (London), Dr. D. G. Thomson (Norwich). *Scotland:* Dr. John Adams (Glasgow), Dr. R. McKenzie Johnston (Edinburgh).

Special Fund for Organization.

The Committee considered at length a report presented by a subcommittee on the subject of the formation of a special fund for the effective organization of the profession. The report was amended and forwarded to the Council with the recommendation that it should be submitted to the Annual Representative Meeting.

The report will be considered by the Council at its meeting on July 2nd, and the Committee placed on record its appreciation of the work of the Special Fund Subcommittee, and particularly that of the chairman, Dr. BEATON, who in returning thanks expressed his appreciation of the services of the Financial and Medical Secretaries in this respect.

CO-ORDINATION OF THE WORK OF LOCAL MEDICAL COMMITTEES.

At the suggestion of the CHAIRMAN a resolution was adopted advising the Council to recommend the Representative Meeting to express the opinion that no system of reorganization of the Association can be effective or complete which does not take into consideration the position of Local Medical Committees and devise some means of co-ordinating their work with that of the Association.

RULES AND STANDING ORDERS OF LOCAL MEDICAL COMMITTEES.

A set of model rules, a model constitution, and model standing orders for Local Medical Committees were submitted by the Amendments Subcommittee, and, after discussion and emendation, approved for submission to the Council.

WORKMEN'S COMPENSATION ACT CERTIFICATES.

The Committee instructed the members of the deputation appointed to meet the Insurance Commissioners with reference to the Insurance Act Amending Bill to raise the question whether an insured person in receipt of compensation under the Workmen's Compensation Act, and therefore not receiving sickness or disablement benefit, is entitled to require the practitioner on whose list his name appears to supply him with compensation certificates, and to obtain, if possible, a definite pronouncement upon the question.

SEAMEN'S NATIONAL INSURANCE SOCIETY.

The question of the administration of the Seamen's National Insurance Society, discussed at the meeting of the Committee on May 22nd, was further considered, and it was resolved that Section 48 (5) of the Act should be amended by the insertion of the words in italics:

> The affairs of the Seamen's National Insurance Society shall be managed by a committee constituted in accordance with a scheme to be prepared by the Board of Trade with the approval of the Insurance Commissioners, comprising representatives of the Board of Trade, of shipowners, and of members of the

Society in equal proportions, *and of representatives of the medical profession of the United Kingdom in the same proportion as is accorded the medical profession on Insurance Committees, half of whom shall be appointed by the Insurance Commissioners, and half by the British Medical Association*, and the Society shall, notwithstanding anything in this part of the Act, become an approved society.

Tuberculosis Schemes.

The MEDICAL SECRETARY reported that difficulty was being experienced in the matter of interpreting the policy of the Association so far as advertisements for tuberculosis officers were concerned, and that certain cases of difficulty had arisen, whereupon the Committee resolved to recommend the Council as follows:

> That it be recommended to the Representative Body that all possible steps be taken by the Association to prevent the appointment at less salaries than £500 per annum of tuberculosis officers whose duty, whatever their designation be, includes the control of the clinical arrangements concerning tuberculosis cases, and whose relation as regards such cases to the local profession will be that of consultant.

It was also resolved that, pending fresh development, further action under Minute 63 of the Special Representative Meeting in January should be postponed, and that the Council should be advised to again refer the question of the administration of sanatorium benefit to a conference of representatives of the Association and of the Society of Medical Officers of Health which it was proposed to hold early next session.

The Committee considered a communication from Dr. T. C. Askin, asking whether the Committee approved the charge of 1s. for four days' medicine supplied by practitioners to dependants of insured, and also to insured persons suffering from tuberculosis, and pointing out that under the rules of the Seamen's Society the fee was 1s. for two days. The Committee expressed its disapproval of this method of payment of practitioners for the supply of medicine, and suggested that the best solution of the question would be that practitioners supplying medicine should receive payment on the scale of fees allowed to pharmacists under the Act.

Maternity Benefit: Fees to Practitioners called in by Midwives.

Arising out of a communication received from the Kent County Insurance Committee, the State Sickness Insurance Committee resolved as follows:

> That a reply be sent to the effect (*a*) that the Association considers the fees inadequate which are allowed under the Regulations in question of the Insurance Commissioners to practitioners called in on the advice of midwives; (*b*) that prior to the passing of the Insurance Act many local authorities had made provision for the payment of a fee of £1 1s. to practitioners called in in such cases, whereas, consequent upon the Regulations in question, there was no provision for the payment of any higher fee than 15s. for the same services; and (*c*) that the Association considered it to be the duty either of the Insurance Commissioners or local authorities to find some remedy for the situation thus created.

Staff of Poor Law Institutions.

A communication was read from the Poor Law Medical Officers' Association, and the Committee resolved to forward a communication to the Local Government Board, (i) drawing attention to the facts reported by the Council of the Poor Law Medical Officers' Association, (ii) stating that the British Medical Association is strongly of opinion that in all those cases where the medical officer of a Poor Law institution is required under any agreement with an Insurance Committee to attend as insured persons any of the members of the resident staff of such institution, the proper proportion of moneys paid by the Local Insurance Committee in respect of medical attendance and treatment of such insured persons should be paid to the medical officer of the institution who is responsible for such attendance or treatment.

Transfer of Patients.

In continuation of the consideration of the forms for the transfer of patients dealt with by the Committee at its meeting on April 17th (SUPPLEMENT, April 26th, p. 349), a letter was read from the Insurance Commissioners in reply to a letter addressed to them by instructions of the Committee. The letter from the Commissioners stated that the London Insurance Committee had adopted a revised form of transfer from one practitioner to another which did not require any statement from the insured person as to his reasons for desiring to be transferred.

Compensation Cases.

Seven applications to the Committee for grants from the Central Insurance Defence Fund were received. In one case a grant was made; in another, it was arranged to make a loan without interest; in another the applicant was requested to inform the Committee at the end of the year of any loss he might be able to prove to have been caused by action taken out of loyalty to the policy of the Association; and in the remaining cases it was resolved to ask the applicants to say whether they were really in such financial embarrassment as to necessitate a grant.

Treatment of Uninsured Persons.

The CHAIRMAN reported that he had on behalf of the Committee approved schemes for the treatment of uninsured persons submitted by the South Middlesex and Mid-Staffordshire Divisions. In another case the Chairman was authorized to approve of the scheme subject to satisfactory answers to certain inquiries.

Conference of Representatives of Local Medical Committees.

An invitation to the members of the Committee to take part in the conference of representatives of Local Medical Committees to be held on July 24th in Brighton during the forthcoming Annual Meeting was received, and the CHAIRMAN reported that all the members of the Council of the Association had received a similar invitation.

Future Meetings of the Committee.

At an early stage of the meeting Dr. MACDONALD drew attention to the fact that it would probably not be necessary for the Committee to meet again, but that various matters of detail might arise in the interval before the appointment of a fresh Committee. An Executive Subcommittee was appointed to deal with such matters, consisting of Drs. Macdonald, Beaton, McKenzie Johnston, Fothergill, Turner, and Flemming. Authority was given to the Chairman to summon a meeting of the whole Committee at any time should he consider it necessary.

INSURANCE ACT IN PARLIAMENT.

Medical Benefit.

Payment for Drugs (London).

MR. HARRY LAWSON asked the Secretary to the Treasury whether in the county of London the payments made for the supply of drugs to chemists and pharmacists were much in arrear; whether the Insurance Committee for the county of London was justified in withholding payments for a quarter because the account rendered was sent in a few days after the expiry of the preceding quarter; whether he was aware that such delay inflicted hardships upon chemists because of the drain upon their trading capital; and whether the Insurance Commissioners had issued any regulations referring to such payments.—Mr. Masterman said that the Regulations which were incorporated in the agreements entered into by the chemists provided for periodical advances, although a final settlement could only be made at the end of the year, and advances up to 75 per cent. of the accounts rendered by the chemists up to the end of last quarter were promptly paid by the London Insurance Committee. With regard to the second part of the question, he was informed by the Insurance Committee that it did not withhold payments because the accounts were rendered a few days after the expiry of the preceding quarter.

Medical Benefit for Aged Persons.

Mr. Worthington-Evans asked whether the sum being accumulated out of the ordinary contributions for the purpose of providing medical benefit to insured persons after the age of 70 was being accumulated by the Insurance Committees, who at present had to provide the benefit, or by the approved societies or by the Insurance Commissioners; what was the amount of such reserve at any recent date; and whether it was separately invested.—Mr. Masterman replied that the Insurance Committees

received from societies in any year only the sums necessary to provide medical benefit for that year. The liability to accumulate the sum from which the Insurance Committees received payment in respect of medical benefit to persons over the age of 70 rested entirely upon societies. This liability was duly provided for in the actuarial calculations, but no particular part of the reserves of societies or of the contributions received by them was allotted to any one item of benefit.

Ireland.

In reply to Mr. William O'Brien, Mr. Masterman said that the report of Lord Ashby St. Ledger's Treasury Committee had not yet been published, and that it was not proposed in the bill to amend the Insurance Act to extend medical benefit to Ireland.

Seamen.

In reply to Major M'Calmont, Mr. Masterman said that Section 48 (12) provided that members of the Seamen's National Insurance Society should for the purposes of the National Insurance Act be deemed to reside in England. He was not aware of any case in which a difficulty had arisen in the case of seamen whose homes were in Ireland.

Statement of Nature of Disease upon Certificates.

Viscount Dalrymple asked the Chancellor of the Exchequer whether friendly societies were carrying out the principles and intentions of the National Insurance Act when they withheld the payment of sickness benefit to patients whose doctors conscientiously refrained from specifying the nature of the disease upon their certificate, merely writing "illness" or "accident," as the case might be.—Mr. Masterman replied that he could not understand how a doctor could conscientiously refrain from giving the certificates which he had contracted to give in his agreement with the Insurance Committee.

On a later day, Viscount Dalrymple asked the Chancellor of the Exchequer whether the panel doctors had contracted to specify in their certificates the actual nature of the disease of an insured patient; and whether the approved societies were entitled to withhold sick benefit if the actual disease was not specified.—Mr. Masterman said: The panel doctors have contracted to furnish, at the request of the insured patient, such certificates as are required to be furnished by that person in connexion with any claim for sickness or disablement benefit made by him in pursuance of the rules of the society of which he is a member. And the approved societies are entitled, as trustees of the funds which they disburse, to require from an insured person claiming sickness or disablement benefit under the Act, sufficient evidence of his suffering from specific disease or bodily or mental disablement to satisfy them that he is legally entitled to receive the benefit which he claims.

SANATORIUM BENEFIT.

Scottish County Councils.

Mr. James Hogge asked the Secretary for Scotland how many county councils in Scotland had refused to meet the deficit in the circumstances detailed under Section 17 of the National Insurance Act in connexion with the treatment of tuberculosis.—Mr. Masterman said that only one county council in Scotland had refused to accept responsibility for sharing with the Treasury half of any expenditure on the treatment of insured persons and dependants over and above what was provided for this purpose from the National Health Insurance Fund.

Mr. James Hogge asked whether the Local Government Board had distributed any of the money grant towards the capital expenditure on sanatoriums to any county council in Scotland under Section 64 of the National Insurance Act; and, if so, how much and to which councils.—Mr. McKinnon Wood replied that no portion of the capital grant had yet been distributed. Before distributing any portion of the grant the Board required that a complete scheme for dealing with tuberculosis should be submitted to them. For various reasons no council, either of a county or one of the larger burghs, had yet been able to submit a complete scheme, but the councils were actively engaged on the preparatory work, and were in consultation with the Board. The Board was urging them to expedite the work so that schemes might be submitted for final approval as soon as possible.

Mr. Masterman, in reply to a question by Major Hope, said that one county council in Scotland had already agreed to pay half of any expenditure on the treatment of tuberculosis of insured persons over and above what was provided for the purpose from the National Health Insurance Fund, and other councils had the matter under consideration.

In answer to a further question by Major Hope, Mr. Masterman said that in all counties in Scotland Insurance Committees had provided adequate sanatorium benefit for insured persons. Six County Insurance Committees had further resolved to extend sanatorium benefit to dependants, and had transmitted to the Commissioners estimates of expenditure on sanatorium benefit for insured persons and their dependants in terms of Section 17 of the National Insurance Act.

Proposed Tuberculosis Dispensary in Islington.

Mr. Lough asked the President of the Local Government Board whether a draft scheme for the establishment of a dispensary for the treatment of persons suffering from tuberculosis was submitted by the Public Health Committee of the metropolitan borough of Islington to the Local Government Board in the early part of May, and, if so, what action, if any, had been taken by the Board upon it; and whether he was aware that inconvenience was being caused to the local health authority of Islington by reason of the delay in obtaining the Board's sanction to a scheme prepared in the interest of the public health of Islington.—Mr. Burns admitted that the facts were as stated in the first part of the question. The Local Government Board had invited the observations of the London County Council on the proposals contained in the draft scheme, and had also communicated with the Insurance Commissioners in the matter. He regretted that inconvenience should be caused to the borough council by any delay in coming to a decision upon its proposals, and the Board would communicate with the borough council as soon as it received a reply to the letters which it had addressed to the Insurance Commissioners and the County Council.

MATERNITY BENEFIT.

In reply to Mr. MacCallum Scott, Mr. Masterman said that an insured woman whose husband was over 65 when he became insured, and whose society did not undertake to pay him maternity benefit, was not entitled to claim maternity benefit in respect of her own insurance.

CORRESPONDENCE.

STATEMENT OF NATURE OF DISEASE UPON CERTIFICATE.

DR. ERNEST C. HADLEY (Birmingham) writes: Whether the nature of the illness should be inserted in invalidity certificates is a question of much importance at the present time. I may at once say that I am strongly opposed to so doing for the following reasons:

I. Because it is a breach of professional confidence to do so, even if the patient to whom one gives the certificate is specifically asked whether he has any objection.

A. Take, first of all the case of the patient who says that he does not object. It is still, in my opinion, a breach of professional confidence in most cases, and especially in the case of the uneducated, to do so because:

(i) Owing to the patients' confidence in their medical attendant, they trust him not to do anything prejudicial to their interests.

(ii) They do not or may not themselves understand the nature of the complaint from the nomenclature given to it in the certificate.

(iii) They may not recognize the complaint as one the knowledge of which in the hands of a third party may act to their detriment from a business or morality point of view.

(iv) In the case of women there are many complaints which, although not coming under the above headings, yet nevertheless appear indecorous in the hands of clerks, and which may cause unnecessary embarrassment to certain women of the better classes who have to personally present these open certificates.

B. Secondly, the patient may refuse to consent to have the diagnosis of his illness inserted in the certificate; in this case the doctor's line of action is, of course, quite clear, but the patient at once places himself in collision

with his society, which may try, quite illegally, to withhold or inconveniently delay granting him his sickness benefit.

II. Because the inserting of a diagnosis in a certificate (usually on the first day that the patient is seen by a medical man) is a temptation to that medical man:

(i) To insert a false diagnosis, to avoid the troubles to which I have above alluded, or, at all events, a misleading one, which is just as bad.
(ii) To insert the name of a symptom, perhaps an unessential one or one common to many diseases, as a diagnosis in order
(*a*) To appease the societies' demands.
(*b*) To protect their patients from an unpleasant diagnosis appearing in writing against them.
(*c*) To protect themselves from committing themselves rashly to an exact scientific diagnosis and from legal disabilities.

It is often very difficult or impossible for a medical man to arrive at an accurate diagnosis at the time when the certificate is required; not from want of knowledge—rather the reverse—but on account of pressure of time, want of convenience for complete examination, or lack of sufficient observation. In whatever way one looks at this question, there can be no doubt that the mistaken demand for a diagnosis on first certificates leads to inaccurate, unscientific, and false certification.

It is still necessary to view this question from the societies' point of view, and ask, Why do they ask so insistently for a diagnosis upon these certificates? I believe the following to be a few of the chief reasons:

1. To check the doctor in giving certificates for inability to work without committing himself to a reason in the form of a diagnosis. From this it is clear that societies have not yet learnt the valuelessness of such diagnoses.
2. To check malingering by having each patient labelled with some complaint.
3. Pure and unadulterated idle curiosity and inquisitiveness.

For the reasons given—and there are many more—I consider it is clearly the duty of the medical profession to refuse to put any diagnosis upon ordinary "unable to work" certificates. If for any special reason a diagnosis or report is required by a society upon any particular patient, this should be given by the doctor as an extra with the written request or consent of the patient, and the information should be paid for by the party requiring it. Even in this case, if the patient refuses consent, then the doctor clearly cannot divulge the nature of the patient's complaint, and the matter must be left to be settled by the patient and his society as best they can, possibly by reference to a medical referee or otherwise.

May I therefore urge all Local Medical Committees to consider this question carefully, and pass as soon as possible some such resolution as follows:

That all approved societies be notified that the medical profession in future will not insert any diagnosis upon "unable to work" certificates given for the purpose of claiming sickness benefit except in exceptional cases, and then only with the written consent, or at the written request, of the patient concerned.

Even in this latter event it is requisite that the patient should be fully informed by the doctor of the diagnosis which it will be necessary to put in the certificate, so as to give the patient an opportunity of withdrawing his consent or request should he desire to do so.

Ships' Surgeons and Seamen's Benefit.

Dr. P. Heywood Hadfield (Newbury, Berks) writes: In the Supplement of June 14th (p. 530) Dr. Bateman writes under the above heading. Apparently he is not fully informed as to the conditions of medical work at sea. Permit me to offer some notes on the Insurance Act as it affects the sea.

Previous to the Insurance Act all owners of foreign-going ships (carrying over a certain number of souls) were required under existing Acts to carry a duly registered medical man and to provide free medical attention, medicines, etc., for (*a*) all "steerage"—now usually called third class—passengers and (*b*) all members of the crew during the period of (*a*) the contract ticket and (*b*) employment under the articles. The steerage passenger is evidently not entitled to treatment on board ship under the Insurance Act, nor does he make during the voyage period any contribution; neither does the ship owner or the State on his behalf. I refer to the steerage passenger no more.

Members of the crew are on a very different footing, since—in addition to treatment to which they have been and still are entitled under the Merchant Shipping Acts and Employers' Liability Acts—they are now further entitled to benefits (ashore and afloat) under the Insurance Act. Since medical benefit is almost the only benefit under the latter Act—especially as the majority of sailors are unmarried—it is obvious that these two benefits are identical. The seaman in reality is worse off than before, as he now has to pay his weekly contribution for what he previously obtained for nothing—his only added benefit consists in the fact that he will now be entitled to medical benefit for that part of the year—a very short one—which he spends ashore. The shipowner is also worse off, as he has to pay the doctor—as before—and the employer's contribution: on that account he has been let off one penny as compared with the land employer. The State contribution also appears to vanish into thin air. (I do not propose to refer to the "complications"—for example, the contributions enforced from the owner in respect of Lascar, Chinese, and foreign employees entitled to no benefits under the Act, but for whom a contribution must nevertheless be paid.) The Seamen's National Insurance Society was invented for the Insurance Act under the aegis of the Board of Trade, and must be receiving an enormous revenue under the Act. It should therefore, since it has not to provide the normal amount of medical attendance to its members (who are at sea), and since it pays nothing to the ship surgeon, be in a position to offer its members great extra benefits. Such were promised, but, so far as I am aware, nothing has as yet materialized. Its members are even denied free choice of doctor, as they are informed that they must seek medical attendance from one of a list of doctors whose names are published at the "shipping offices." So far as I have been able to ascertain, there is no satisfactory arrangement whereby a sailor who lives inland can obtain medical treatment while ashore.

Where does the ship surgeon come in? Well, he is just where he was before the Insurance Act—no better and no worse off. He gets now, as he got then, his £10 a month, and he does the same amount of work now as he did then. But since £10 a month, plus board and lodging, cannot be regarded as a *satisfactory* return for perhaps a thousand "contract" patients, it is obvious that he should be and could be better off. Since the contributions under the Insurance Act are in great part for the provision of medical attendance, and since the ship surgeon provides at least three-quarters of that attendance, it is only justice that some portion of the contributed funds should go to pay him for the work he does. As it is, the money is being side-tracked for other than medical purposes, and the medical profession at sea is being exploited.

The proposition that the ship surgeon—who does the work—should benefit under the Act seems to me so manifestly fair that I am inclined to hope that were it brought before the Chancellor by some authoritative body, some provision might result in the forthcoming Amendment Bill.

Who is to act on behalf of the ship surgeon?

There is a Ship Surgeon Subcommittee of the British Medical Association, though so far as the columns of the Journal are concerned its doings are unglorified and unsung. Here is an outlet and a worthy one for its energies. I conclude my letter with my moral.

The Position in London.

Dr. W. E. Barton (Streatham, S.W.) writes to controvert Dr. Keay's sweeping assertion as to innumerable false statements in the British Medical Journal as to the working of the Insurance Act:—I have carefully read the correspondence every week and I can assure him that this assertion of his is the only "false statement" I have yet noticed. Dr. Keay is probably correct in stating that the number of doctors on the panel is 1,378, but let me point out to him that this includes 100 who are not resident in the districts where their services are required, besides medical officers of hospitals and institutions and others who are on the panel for a very limited number of patients, so that there are probably only about 1,200 general practitioners available to attend the rest of the 1,400,000 "insured" in the London area, giving an average of over 1,000 for each of these doctors.

With regard to the number each doctor can adequately attend, this depends entirely on the locality in which he resides, as it must be in direct ratio to his number of private patients. I believe I have had more experience of contract practice than the average general practitioner, and I can confidently assert that no man who has a fair private practice can give adequate medical attention to 1,000 insured people as well.

It is also a fact that many of the panel doctors are heartily sick of the work. Dr. Keay need only read his BRITISH MEDICAL JOURNAL to be convinced as to this.

It is also true that the London Insurance Committee is in a hopeless muddle; this can be proved by reading the statements made by Mr. F. G. Harris and Mr. Rockliff in the published reports of meetings of this Committee. More recently, in the *Times* of June 21st, a reference is made to the annual report of the General Federation of Trades Unions that this report expresses the opinion

That the medical and sanatorium benefits are not worth one-eighth of the money now being spent on them, as they neither make for the improvement of national health nor the prevention of the spread of tuberculosis.

Dr. Keay ends his letter by writing: "If the profession is divided," etc. Surely he is not so obsessed with his affection for the Insurance Act that he cannot realize that there is no *if* about it. The profession *is* divided, and it is through men like him that the unity of the profession was broken. The panel doctors sold their birthright of honour for a mess of pottage, and by their bitter wails we hear on all sides they are finding it a very indigestible, badly prepared, and extremely nauseating compound. And yet Dr. Keay asks the non-panel men to come to the rescue and join with him to prevent an even worse mess being doled out.

Dr. E. H. WORTH (Streatham, S.W.) writes: Dr. Keay, like myself and 99 per cent. of the profession, signed a pledge that we would not accept any other terms but those embodied in the celebrated cardinal points. He has accepted other conditions, and now, like the fox in the fable who having had his own tail cut off, is very anxious that we shall all "accept the inevitable" and have ours amputated, also. Speaking for myself, my word is my bond and nothing will make me sell my honour by breaking it, and now to detail.

1. It is necessary to have 3,000 men on the panel in London if the work is to be done properly. In the old club days 1,500 doctors were required to work them; there are now four times the number of patients in receipt of contract advice, therefore at least twice that number of doctors are necessary.

2. A well-known member at the last London Insurance Committee meeting gave the number of panel doctors as 1,244, and I believe him. (My letter was sent to you three weeks before you published it.)

3. I stated that a good number of panel doctors were tired of insurance work already. Dr. Keay does not believe me; if however he will turn to page 578 of the same SUPPLEMENT he will read as follows: "The Executive Committee of the National Medical Union stated that the membership of the union continued to grow, and testified to a growing disinclination among men on the panels to continue in the service owing to their conviction of the impossibility of carrying out satisfactory work under the Act. Numbers of letters from different parts of the kingdom have been received in which the writers have expressed the hope that they would be able to resign service at an early date."

4. My statement that the London Insurance Committee is in a hopeless muddle is a fact.

I therefore restate my claim that we London men are in a strong position, not one-quarter of us are on the panels, and never will be under present conditions.

The old London Medical Committee, called the fighting committee, is again in working order, and I trust will draw all panel and non-panel doctors to it. In Edinburgh and district the majority are non-panel men, and the Manchester Union is strong and healthy and increasing in numbers daily. I would like to see an amalgamation of the London Committee with the Manchester Medical Union and the Edinburgh Guild. We would then have a fighting force of probably 12,000 men.

Vital Statistics.

HEALTH OF ENGLISH TOWNS.

IN ninety-six of the largest English towns 8,612 births and 3,979 deaths were registered during the week ending Saturday, June 21st. The annual rate of mortality in these towns, which had been 13.5, 12.1, and 11.8 per 1,000 in the three preceding weeks, further fell to 11.6 per 1,000 in the week under notice. In London last week the death-rate was equal to 11.0, against 12.9, 11.6, and 11.4 per 1,000 in the three preceding weeks. Among the ninety-five other large towns the death-rates ranged from 5.9 in Southend-on-Sea, 6.1 in Ealing, 6.3 in Smethwick, 6.4 in Leyton, 6.5 in Hornsey, and 7.0 in Lincoln to 17.3 in Walsall, 17.7 in Stoke-on-Trent, 17.9 in Darlington and in West Hartlepool, 18.4 in Dewsbury, and 18.8 in Bootle. Measles caused a death-rate of 2.2 in Wolverhampton and 5.0 in Walsall, and whooping-cough of 1.5 in Edmonton and in Newcastle-on-Tyne, and 1.6 in Brighton. The mortality from the remaining infective diseases showed no marked excess in any of the large towns, and no fatal case of small-pox was registered during the week. The causes of 28, or 0.7 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; of this number, 5 were registered in Birmingham, 3 in Gateshead, and 2 each in Portsmouth, Liverpool, St. Helens, and Carlisle. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had been 1,430, 1,427, and 1,418 at the end of the three preceding weeks, had risen to 1,489 on Saturday last; 273 new cases were admitted during the week, against 177, 202, and 186 in the three preceding weeks.

HEALTH OF SCOTTISH TOWNS.

IN the sixteen largest Scottish towns 1,209 births and 643 deaths were registered during the week ending Saturday, June 21st. The annual rate of mortality in these towns, which had been 16.7, 15.9, and 14.3 per 1,000 in the three preceding weeks, increased to 14.8 in the week under notice, and was 3.2 per 1,000 above the rate recorded in the ninety-six large English towns. Among the several towns the death-rates ranged from 8.5 in Clydebank, 12.0 in Kilmarnock, and 12.8 in Paisley to 18.8 in Greenock, 19.5 in Kirkcaldy, and 20.3 in Hamilton. The mortality from the principal infective diseases averaged 1.7 per 1,000, and was highest in Aberdeen and Hamilton. The 276 deaths from all causes registered in Glasgow included 12 from measles, 9 from whooping-cough, 4 from diphtheria, 4 from infantile diarrhoea, 1 from enteric fever, and 1 from scarlet fever. Sixteen deaths from measles and 2 from whooping-cough were recorded in Aberdeen; 3 from measles and 3 from whooping-cough in Hamilton; 3 from whooping-cough in Edinburgh; 2 from measles in Dundee; and 2 from diphtheria in Kirkcaldy.

HEALTH OF IRISH TOWNS.

DURING the week ending Saturday, June 21st, 613 births and 380 deaths were registered in the twenty-seven principal urban districts of Ireland, as against 701 births and 426 deaths in the preceding period. These deaths represent a mortality of 16.5 per 1,000 of the aggregate population in the districts in question, as against 18.5 per 1,000 in the previous period. The mortality in these Irish areas was, therefore, 4.9 per 1,000 higher than the corresponding rate in the ninety-six English towns during the week ending on the same date. The birth-rate, on the other hand, was equal to 26.7 per 1,000 of population. As for mortality of individual localities, that in the Dublin registration area was 17.5, this being the same as that for the previous four weeks, in Dublin city 19.3 (as against 18.8), in Belfast 14.0 (as against 16.3), in Cork 17.0 (as against 16.5), in Londonderry 14.0 (as against 15.9), in Limerick 19.0 (as against 16.9) and in Waterford 38.0 (as against 25.2). The zymotic death-rate was 1.2 as against 0.9 in the previous week.

Naval and Military Appointments.

ARMY MEDICAL SERVICE.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT-COLONEL J. THOMSON has left Queen Alexandra Military Hospital for duty at Aldershot.

Major H. S. THURSTON has been posted to the Dublin District.

Major F. J. WHELAN has been appointed to command the Station Hospital, Jhansi.

The following officers have been granted an extension of their Indian tour of service for one year: Brevet Colonel R. S. F. HENDERSON, K.H.P.; Lieutenant-Colonels H. J. FLETCHER and H. I. POCOCK; Major E. V. AYLEN and W. A. S. J GRAHAM; and Captains C. E. L. HARDING, F. T. TURNER, D. F. MCKENZIE, D. T. MACCARTHY, and H. W. FAREBROTHER.

Captain E. D. CADDELL has been appointed to command the Station Hospital, Aden.

Captain J. R. FOSTER has been appointed to command the Station Hospital, Neemuch.

SPECIAL RESERVE OF OFFICERS.

ROYAL ARMY MEDICAL CORPS.

LIEUTENANT WILLIAM S. HYDE is confirmed in his rank. HENRY H. MULHOLLAND, M.B., late cadet, Belfast University Contingent, Officers' Training Corps, to be Lieutenant on probation, May 9th.

The undermentioned to be Lieutenants on probation, May 27th: Cadet Serjeant KENNETH A. M. TOMORY, from the Edinburgh University Contingent, Officers' Training Corps; Cadet Corporal JOHN TAYLOR, from the St. Andrews University Contingent, Officers' Training Corps: HENRY P CROW, late Cadet Glasgow University Contingent, Officers' Training Corps; DAVID MACKIE, late Cadet Glasgow University Contingent, Officers' Training Corps.

INDIAN MEDICAL SERVICE.

LIEUTENANT-COLONEL PATRICK HEHIR, M.D., F.R.C.S.E., has been promoted to Colonel, March 25th.

Lieutenant-Colonel KANTA PRASAD, M.B., has retired, June 3rd.

Lieutenant-Colonel HENRY C. L. ARNIM has retired, June 13th.

INDIAN SUBORDINATE MEDICAL SERVICE.

To be Senior Assistant Surgeon, with the honorary rank of Lieutenant, March 10th; First Class Assistant Surgeons GEORGE T. BYERS, CHARLES REGINALD W. BANCROFT, PATRICK EDWARD O'DONOGHUE.

Meetings of Branches and Divisions.

[The proceedings of the Divisions and Branches of the Association relating to Scientific and Clinical Medicine, when reported by the Honorary Secretaries, are published in the body of the JOURNAL.*]*

CAMBRIDGE AND HUNTINGDON BRANCH:

ISLE OF ELY DIVISION.

THE annual general meeting of this Division was held at March, on June 10th, under the chairmanship of Dr. H. C. MEACOCK; twelve other members being present.

Presentation to the Honorary Secretary.—Before the business of the meeting commenced the CHAIRMAN, on behalf of the practitioners of the Isle, presented to the Honorary Secretary (Dr. A. C. S. Waters) a handsome silver rose bowl, together with an illuminated address, in recognition of his services to the Division during the past year. Dr. WATERS, in reply, thanked the Chairman and members for their very kind and handsome gift, which had come as a complete surprise to him. He wished especially to thank Drs. Meacock and Tylor for the great help they had given him during the past year.

Election of Officers.—The question was raised as to whether Dr. Meacock could be re-elected chairman for a second term of office, the meeting being unanimous in its appreciation of the untiring services rendered to the Division by him during the most critical period in the history of the Association. Dr. MEACOCK thanked the members for their continued confidence in him, but preferred a chairman to be elected from the other end of the Isle. Dr. H. F. Curl, of Ely, was then unanimously elected chairman for the ensuing year. The following officers were also elected:

Vice-Chairman.—Dr. C. H. Gunson, Wisbech.
Honorary Secretary.—Dr. A. C. S. Waters (re-elected).
Executive Committee.—Drs. H. F. Curl, R. H. Barrett, F. H. Beckett, H. Clapham, F. A. Evison, J. H. Fegan, C. H. Gunson, C. H. Harding, P. A. Hendley, A. Hamilton, O. Horrocks, C. W. Howe, H. C. Meacock, C. E. Stephens, M. F. Tylor, J. J. Waddelow, A. C. S. Waters.

Insurance Act.—A letter from the Medical Secretary, referring to temporary residents, aged and infirm members of friendly societies, and certificates for sickness benefits in the case of patients attended by midwives, was referred to the Local Medical Committee for consideration.

Alteration of Boundaries.—The suggested alteration of boundaries of Divisions and Branches to make them coincide with insurance districts and areas was considered, and the opinion was expressed that where this could conveniently be arranged it would be of benefit to all concerned.

DUNDEE BRANCH.

ANNUAL MEETING OF DIVISION.

THE annual meeting of the Dundee Division was held on June 19th in University College, with Dr. C. S. YOUNG in the chair.

Election of Officers.—The office-bearers for the year were appointed as follows:

Chairman.—Dr. R. C. Buist.
Vice-Chairman.—Dr. Charles Kerr.
Secretary.—Dr. Martin Smith.
Executive Committee.—Dr. A. P. Low, Dr. W. Corsar Anderson, Dr. J. Strathearn.
Representative in Representative Meetings.—Dr. C. S. Young.

Annual Representative Meeting.—The annual report of Council and the agenda for the Representative Meeting were considered and instructions given to the Representative.

ANNUAL MEETING OF BRANCH.

The annual meeting of the Dundee Branch was held at the close of the Division meeting, when Dr. W. E. FOGGIE, Vice-President, took the chair. The office-bearers for the year were appointed:

President.—Dr. W. Kinnear.
Past President.—Dr. Charles Aymer, Bervie.
President-elect.—Dr. J. D. Gilruth, Arbroath.
Vice-Presidents.—Dr. G. A. Pirie, Dr. H. C. Colman, Broughty Ferry.
Secretaries.—Dr. R. C. Buist, Dr. Martin Smith.
Treasurer.—Mr. D. M. Greig.
Council.—Dr. A. P. Low, Dr. W. Corsar Anderson, Dr. J. Strathearn.

EDINBURGH BRANCH:

EDINBURGH AND LEITH DIVISION.

THE annual meeting of the Division was held on June 18th in the Gartshore Hall. Dr. JAMES RITCHIE, Chairman of the Division, presided, and 103 members attended.

Model Ethical Rules.—The model ethical rules of procedure were brought before the meeting, when the SENIOR SECRETARY read a letter from the Central Ethical Committee stating the most urgent importance of adopting these rules. Dr. JAMES SMITH moved and Dr. SIMLA PATERSON seconded:

That these rules be allowed to lie on the table.

Dr. M. DEWAR moved and Dr. BORROWMAN seconded:

That these rules be discussed.

The motion was carried by a very large majority, only eight voting for the amendment.

Annual Representative Meeting.

The Report of Council and the provisional agenda for the Representative Meeting were then considered. The SENIOR SECRETARY read a letter from the Medical Secretary on the action of the Council in the interest of the non-panel doctors.

On the motion of Dr. STEVENS, seconded by Dr. F. PORTER, the following resolution was carried unanimously:

That every insured person shall have the right to be attended as a private patient by any registered medical practitioner willing to attend, without the necessity of any form of contract on the part of the practitioner, and without the loss to the insured of any of the benefits of the National Insurance Act; and that the British Medical Association be requested to incorporate this provision in their proposed amendments to the Act.

Dr. JAMES SMITH moved and Dr. TORRANCE THOMSON seconded:

That with regard to Motion 38 of the provisional agenda, this Division disapproves of any contract practice being undertaken outside of the National Act.

An amendment was moved by Dr. BOWIE and seconded by Dr. GREEN:

That this Division disapproves of that kind of contract practice which remunerates the medical attendant at a fixed sum per head per year.

Six voted for the amendment and 36 for the motion.

Dr. SHOOLBREAD moved and Dr. R. ROBERTSON seconded:

That this Division approves of contract practice provided the rate of remuneration be fixed on a reasonable and rational basis with free choice of doctor.

Sixteen voted for the amendment and 51 for the motion.

The original motion was then put to the meeting as a substantive motion, when 47 voted for it and 5 against.

Dr. ARCHIBALD MACKINTOSH moved and Dr. CORMACK SMITH seconded:

That Minute 45 of the Special Representative Meeting held in January, in which work under the National Insurance Act is said to be derogatory to the profession, be retained.

Dr. SHOOLBREAD moved and Dr. BARKER seconded:

That the word "derogatory" be deleted.

Thirteen voted for the amendment and 64 for the motion.

Dr. JOHN CUMMING moved, Dr. E. F. ARMOUR seconded, and it was unanimously agreed:

That with regard to Motion 25 of the provisional agenda, referring to By-laws 16 and 18, that Clause 16 (*d*) and Clause 18 (*c*) be not adopted.

Dr. F. PORTER moved and Dr. T. J. THYNE seconded:

That this Division disapproves of the British Medical Association being formed into or being in any way associated with a medical trade union.

The direct negative was moved by Dr. F. K. KERR and seconded by Dr. R. ROBERTSON; 6 voted for the negative and 76 for the motion.

The annual report of the Executive was given by the SENIOR SECRETARY.

The following members were elected office-bearers for the year 1913–14:

Chairman.—Dr. R. A. Lundie.
Vice-Chairmen.—Dr. James Ritchie, Dr. E. F. Armour.
Senior Secretary and Treasurer.—Dr. G. Keppie Paterson.
Junior Secretary.—Dr. J. D. Comrie.
Representatives to the Representative Meeting.—Drs. T. J. Thyne, J. Stevens, F. Porter.
Representatives to the Branch Council.—Drs. J. M. Bowie, R. McKenzie Johnston, R. A. Lundie, G. Keppie Paterson, James Smith.
Executive Committee.—Drs. P. G. Borrowman, G. Dickson, J. Lamond Lackie, Archibald Mackintosh, W. H. Miller, R. S. Mowat, G. W. Simla Paterson, J. Playfair, W. Stewart, H. Torrance Thomson, A. Logan Turner, R. Thin.

LANCASHIRE AND CHESHIRE BRANCH:
WARRINGTON DIVISION.

A MEETING of the St. Helens and Warrington Divisions was held at the Town Hall, Earlestown, on June 17th. Dr. DOWLING was in the chair, and eight other members were present.

Election of Representatives.—Dr. Bassett (St. Helens) was re-elected Representative. The Secretaries were empowered to find a deputy if necessary.

Annual Representative Meeting.—Notices of motions for the Representative Meeting were discussed, and the Representative was instructed to act as he considered best with regard to Nos. 15, 36, 37, 42. Resolutions were adopted supporting Nos. 16, 21, 22, 23, 25, 36, 37, 45, 58, and opposing Nos. 44 and 27. The Representative was instructed to support No. 11, providing that the subscription be not raised above a guinea and a half. The Representative was requested to support any practical suggestions for the co-ordination of the relation of Divisions and Insurance Committees, and was also requested to support the candidature of Mr. Garstang.

Vote of Thanks.—A vote of thanks was passed to Dr. Watkins for making arrangements for meeting in the Town Hall.

METROPOLITAN COUNTIES BRANCH:
EAST HERTFORDSHIRE DIVISION.

THE first annual meeting of the East Hertfordshire Division was held at the Town Hall, Ware, on June 20th. Dr. A. J. BOYD presided, and thirteen other members were present.

Election of Officers.—The following were duly elected:

Chairman.—Dr. J. H. Gilbertson, Hitchin.
Vice-Chairman.—Dr. W. F. Clark, Cheshunt.
Honorary Secretary and Treasurer.—Dr. H. D. Ledward, Letchworth.
Representatives on Branch Council.—Dr. C. P. Charles, Hitchin; Dr. W. H. Sturge, Hoddesdon.
Ordinary Members of Executive Committee.—Dr. Boyd, Ware; Dr. Lawson Smith, Hertford; Dr. Odell, Hertford; Dr. Brittain, Hatfield; Dr. Fell, Buntingford; Dr. Windsor, Royston; Dr. Dockray, Bishop's Stortford.
Representative in Representative Meetings.—Dr. H. D. Ledward, Letchworth.
Deputy Representative.—Dr. J. H. Gilbertson, Hitchin.

Annual Report.—The HONORARY SECRETARY presented the annual report, which stated that the membership of the Division was now 59, a net increase of 10. There had been nine meetings of the Division during the year, with an average attendance of 24 members; in addition, two meetings had been held in each of the three wards, and the executive of the Provisional Medical Committee met five times. The chief work of the year had been in relation to the Insurance Act. An important matter outside that Act which was dealt with successfully was a proposal of the Standing Joint Committee of the county in reference to medical attendance upon members of the county police force; the county authorities proposed a partly contributory scheme without free choice of doctor, at an inclusive fee of 8s. 6d. a year with the Poor Law extras; owing to the joint action of the two Hertfordshire Divisions, the county authorities decided to bear the whole cost of the scheme, and to pay a capitation fee of 10s. a year with the Poor Law extras.

Annual Representative Meeting.—The provisional agenda of the Annual Representative Meeting was briefly considered, and the Representative was instructed to vote against any increase of the subscription to the Association, and also against the suggestion to convert the Association into a trade union.

Vote of Thanks to Chairman.—The meeting terminated with a very hearty vote of thanks to the retiring Chairman, Dr. A. J. Boyd (Ware), for his able conduct in the chair during the past strenuous year.

Garden Party.—After the meeting the members and their wives were entertained by Dr. and Mrs. Boyd at a garden party at the Manor House, Ware.

NORTH OF ENGLAND BRANCH:
GATESHEAD AND CONSETT DIVISIONS.

THE annual meeting of the Gateshead and Consett Divisions was held at the Dispensary on June 18th. Dr. STEWART, Chairman, and fourteen other members were present.

Correspondence.

The Chairman (Dr. STEWART) gave a synopsis of several important communications from the Central Office of the British Medical Association relative to work under the Insurance Act, laying special emphasis on the portions dealing with "certificates" and the attendance on "temporary residents." This correspondence having previously been before the Local Medical Committee, the Chairman informed the meeting that a circular letter would shortly be issued to each member setting forth in concise detail the several recommendations in these memoranda.

Election of Officers.

The following officers were unanimously elected:

Chairman.—Dr. E. C. Moore.
Honorary Secretary.—James Patton.
Executive Committee.—Drs. Moore, Durant, Farquharson, Green, and Patton.
Branch Council.—The above members of Executive Committee, together with Drs. Speirs and Kempster.
Representative to Representative Meeting.—Dr. Ewen J. Maclean, Cardiff.
Deputy Representative.—Dr. Farquharson, Washington.

Presentations to Representative and Honorary Secretary.

The CHAIRMAN then made a presentation of a silver salver and fountain pen to the Representative, Dr. Durant, and a silver salver and rose bowl to the Honorary Secretary, Dr. James Patton, as an expression of the Divisions' appreciation of their exceptional services during the years 1911–1912.

The Chairman, in making the presentation, drew attention to the abnormal calls made upon these two gentlemen, and stated that the members felt that such services demanded recognition.

Drs. DURANT and PATTON replied, thanking the members for their gifts.

SOUTH-EASTERN BRANCH:
HASTINGS DIVISION.

THE annual meeting of the Hastings Division was held on June 13th at Bexhill-on-Sea. Dr. WILLS, the Chairman, received the members at tea at 4.30 p.m., twelve members being present.

Election of Officers.—The following were elected as officers for the ensuing year:

Chairman.—Dr. Barker, St. Leonards-on-Sea.
Vice-Chairman.—Dr. Redmayne, St. Leonards-on-Sea.
Honorary Secretary.—Dr. G. Vickerman Hewland, St. Leonards-on-Sea.
Representative for Representative Meeting.—Dr. Geo. Locke, Hastings.
Representative on Branch Council.—Dr. F. W. S. Culhane, Hastings.
Executive Committee.—Drs. A. E. Baker, G. A. Ballingall, A. W. Brodribb, W. Daunt, A. T. Field, A. H. H. Huckle, R. M. Johnson, A. H. Joseph, H. Stanley, and J. T. Wills.

Malignant Growth in the Uterus and Rectum.—Mr. DOUGLAS DREW read a paper on the treatment of malignant growths in the uterus and rectum. He pointed out the advances that had been made in the treatment of cancer of these organs by the radical operation of Wertheim for cancer of the uterus, and by the abdomino-perineal method of extirpating the rectum with the tissues in which infection was known to spread. The address was much appreciated, and a hearty vote of thanks was given Mr. Douglas Drew for his paper.

SOUTH MIDLAND BRANCH.

THE annual meeting of the South Midland Branch was held at St. Peter's Hall, Bedford, on June 12th, under the presidency of Dr. CONNING HARTLEY. Prior to the meeting

the President entertained the forty-three members present at luncheon. The following new members were elected: Dr. D. E. Walker (Guilsborough, Northants), Dr. Hope (Byfield), Dr. J. H. Bayly (Bedford), Dr. Martin Coombs (Bedford), Dr. Penny (Wolverton).

Model Ethical Rules.—The Model Ethical Rules for a Branch were passed *nemine contradicente*. It was also proposed and carried that a short summary be appended to all voluminous reports and draft rules sent out by the Central Association.

Branch Benevolent Fund.—The following committeee was appointed to deal with benevolent funds in the Branch: Mr. G. H. Percival (Northants), Dr. Bower (Bedford), Dr. Baker (Bucks), with Mr. Blake-Odgers as Honorary Secretary.

Presidential Address.—The President (Dr. CONNING HARTLEY) delivered his presidential address on Personal Insurance and Pensions for Medical Men. He advocated strongly the endowment policy as a means of investment, which protects the medical man's family in case of his death, whereas if he lived to a certain fixed age a large sum was payable to him, or he could have the option of a pension for life. Such policy was also useful as a surety if the doctor had to buy his house or practice, and premiums were deducted from income tax like ordinary expenses of practice. Generally speaking, a medical man had no time or inclination to watch the fluctuations of the money market, so a safe investment by insurance became necessary.

Dysentery.—Sir PARDEY LUKIS read the paper on dysentery which is published at p. 1357.

BUCKINGHAMSHIRE DIVISION.

THE annual meeting of the Buckinghamshire Division was held on June 18th at the Royal Bucks Hospital, when the chair was taken by Dr. BENSON, and later by Dr. SHAW, and seventeen others were present.

Election of Officers.—The following officers were elected for the ensuing year:

Chairman.—Dr. J. Shaw.
Vice-Chairman.—Dr. Deyns.
Honorary Secretary.—Dr. Larking.
Representative.—Dr. Bradbrook.
Deputy Representative.—Dr. Shaw.
Committee.—Drs. Benson, Henderson, Kennish, Perrin, Reynolds, and E. O. Turner.
Representatives on Branch Council.—Drs. Baker and Durran.

Dr. BENSON, on vacating the chair, thanked the members for their consideration during the past year, and expressed a hope that the coming one would be quieter. Dr. BRADBROOK said that he had now the honour of acting as Representative for five years, and he must distinctly say that it must be the last time.

Subscription to the Association.—The annual report was received and adopted. The report of the Council was considered, and the proposed increase in the subscription to the Association was discussed. Some thought it was necessary to raise the subscription to 30s. a year, and that, as a voluntary one was not the success expected, this was necessary to keep the Association free from debt. Others thought that a rise in the subscription would lead to a loss owing to resignations, and that the extra 5s. would not balance this. It was hoped that some means might be found whereby all members of the profession should contribute to such objects as the Defence Fund, and that a method might be found, by donations from the Local Medical Committees, to limit the calls upon the funds of the Association. An estimated deficit of £5,000 was not business. Finally the following resolution was carried by 11 votes to 4:

> That endeavours be made to curtail expenses, and that the present time is not opportune for increasing the subscription to the Association.

Treatment of Tuberculosis.—Dr. HORNE WILSON then gave an address on the active treatment of tuberculosis. He dealt mainly with treatment advocated by Dr. Camac Wilkinson by tuberculin, stating that it was much less expensive than sanatorium treatment, and very satisfactory in its results. It was really Koch's treatment in a modified form. The reaction should never produce a temperature of more than 99.4°. The doses should be small, and given twice a week; then the dose should be increased until immunity was produced, and the patient should come again once every six months for three years to see if it lasted. The cures in suitable cases amounted to 70 per cent. A discussion took place, in which Drs. SHAW, PERRIN, BUXTON, LARKING, HENDERSON, and BURRA took part. It was pointed out that tuberculin treatment was difficult in the country when the patients had to come long distances. At present most of the cases dealt with under the Insurance Act were old ones and unsuitable for tuberculin. Sanatorium treatment combined with tuberculin was the best. A hearty vote of thanks was passed to Dr. Horne Wilson for his address.

The discussion of the subject of contract practice was postponed.

Tea was provided, and a very pleasant and instructive meeting was then brought to a close.

SOUTH-WESTERN BRANCH:
WEST CORNWALL DIVISION.

THE annual meeting of the West Cornwall Division was held at the Royal Cornwall Infirmary, Truro, on June 19th.

Presentation to Honorary Secretary.—A presentation of a silver kettle, a gold watch-bracelet, and a purse of gold was made to Dr. Mark Taylor from some of the members of the Division as an appreciation of his ten years' work as Honorary Secretary. Dr. TAYLOR suitably replied, and remarked that though at times the work had been hard, it had been a pleasure and enabled him to make so many lasting friendships.

Election of Officers.—The following officers were elected for the ensuing year:

Chairman.—Dr. A. E. Permewan, Redruth.
Vice-Chairman.—Dr. A. Shaw, St. Austell.
Honorary Secretary and Treasurer.—Dr. L. L. Phillips, Redruth.
Representative on Representative Council.—Dr. Mark Taylor, Helston.
Deputy Representative.—Dr. F. Chown, Hayle.
Representatives on Branch Council.—Drs. Permewan, Shaw, and Phillips.
Ethical and Executive Committee.—Dr. Taylor, under heading *a* (By-law 18 in Report of Council); Drs. Permewan, Shaw, and Phillips, under heading *b*; Drs. Nesbitt, Wilson, Chown, F. Hichens, Whitworth, Sharp, Haughton, Gilchrist, and Goldie, under heading *c*; and Dr. H. Sutton, under heading *d*.

Treatment of Uninsured Persons.—A discussion then took place on the question of non-insured members of clubs, and it was decided to hold district meetings throughout the Division and obtain signatures to an agreement not to accept a fee less than 8s. 6d. a head per annum, with the exception of those persons over 65 years of age, who would be treated at the old club rates *plus* 2s. 6d. Government grant where that was payable.

Royal Medical Benevolent Fund.—An appeal for the Royal Medical Benevolent Fund resulted in £2 16s. 6d. being collected.

Annual Representative Meeting.—The provisional agenda for the Annual Representative Meeting was then considered and the Representative instructed thereon.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.

THE annual meeting of the Branch was held at the Infirmary, Kidderminster, on June 19th. Mr. C. S. MORRISON, President, took the chair, and there were eleven members present.

Annual Report.—The SECRETARY read the annual report of the Branch Council and presented the statement of accounts, both of which were adopted.

Election of Officers.—The following officers were elected:

President.—Mr. J. Lionel Stretton.
President-elect.—Mr. Herbert Jones.
Honorary Secretary and Treasurer.—Mr. S. Colin Legge (re-elected).

Mr. J. LIONEL STRETTON showed some very interesting cases and pathological specimens, and conducted members to view the operating theatre and aseptic furniture designed by himself, and subsequently entertained the members to tea.

Vote of Thanks.—A hearty vote of thanks was passed to the retiring President, Mr. C. S. Morrison, for his services to the Branch during the past year.

YORKSHIRE BRANCH:
HUDDERSFIELD DIVISION.

THE annual meeting of the Huddersfield Division was held at the Huddersfield Royal Infirmary, on June 20th, Dr. IRVING was in the chair, and ten other members were present.

Annual Report.—The annual report was read by the HONORARY SECRETARY and adopted. It stated that the membership was 61, a decrease of 4 from the previous year, and there were 33 non-members in the area of the Division.

Local Guarantee Fund.—The sum of £36 15s. was raised by this fund to meet the extraordinary expenses in connexion with the meetings held to consider the Insurance Act; and on the motion of Dr. CHAMBERS, seconded by Dr. CROSLAND, it was resolved *nemine contradicente:*

That no further calls be made on the Local Guarantee Fund.

Vote of Thanks to Retiring Officers.—On the proposal of Dr. ED. WALKER, seconded by Dr. CROSLAND, a vote of thanks was passed to the retiring officers.

Election of Officers.—The following were elected officers for the ensuing twelve months:

Chairman.—Dr. C. B. Braithwaite, Golcar.
Vice-Chairmen.—Dr. John Irving, Huddersfield; Dr. Geo. W. K. Crosland, Huddersfield.
Honorary Secretary and Treasurer.—Dr. A. L. M'Cully, 51, New North Road, Huddersfield.
Representative for Representative Meeting.—Dr. D. L. Cairns, Huddersfield.
Representative on Branch Council.—Dr. David Wilson, jun., Gledholt, Huddersfield.
Executive Committee.—Drs. H. C. Baldwin, J. H. Chambers, J. W. Draper, W. Macdonald, Mr. C. D. Pye-Smith, Drs. P. Rattray, R. H. Rigby, Edward Walker, H. W. Williams.

Model Ethical Rules.—The model ethical rules approved by the Annual Representative Meeting were adopted.

Association Notices.

QUARTERLY MEETING OF COUNCIL.

THE Quarterly Meeting of the Council will be held at Eleven o'clock in the forenoon of Wednesday, July 2nd, in the Council Room at 429, Strand, London, W.C.

By Order,

GUY ELLISTON,
Financial Secretary and Business Manager.

June 26th, 1913.

ELECTION OF MEMBERS OF COUNCIL BY GROUPED REPRESENTATIVES.

NOTICE is hereby given that Nominations for candidates for election of Members of Council by grouped Representatives for the year 1913–14 will be received by the Medical Secretary up to the end of the first hour of the proceedings of the Annual Representative Meeting, on Monday, July 21st, 1913. Each Nomination must be on the prescribed form, copies of which will be forwarded by the Medical Secretary on application.

Separate forms have been prepared: (I) for Nomination by a Division (through its Representative), and (II) for Nomination by a Representative of a Constituency included in the Group, and those applying are requested to state for which purpose the form is desired.

The voting papers will be issued at the Representative Meeting to each Representative or Deputy Representative of a Constituency in the United Kingdom in attendance at the Meeting.

By order of the Council,

ALFRED COX,
Medical Secretary.

June 19th, 1913.

THE LIBRARY OF THE BRITISH MEDICAL ASSOCIATION.

A LIST of periodical publications, official reports, and Blue Books in the Library of the British Medical Association available for issue to members on loan has been printed, and copies can be obtained free on application to the Librarian, at the house of the Association, 429, Strand, W.C. The regulations governing the loan of these publications are stated in the introduction to the list. The Library is open for consultation from 10 a.m. till 5 p.m. (on Saturdays till 2 p.m.).

BRANCH AND DIVISION MEETINGS TO BE HELD.

BIRMINGHAM BRANCH: COVENTRY DIVISION.—Dr. Duncan Davidson, Honorary Secretary (15, Priory Row, Coventry), gives notice that a special meeting of the Coventry Division will be held at the Coventry Hospital on Tuesday, July 1st, at 8.30 p.m. Agenda: Recommendation of Ethical Committee; consideration of SUPPLEMENT of June 21st; letters from Medical Secretary; recommendations of Local Medical Committee, if any.

CAMBRIDGE AND HUNTINGDON BRANCH.—Dr. G. S. Haynes, Honorary Secretary, gives notice that the sixty-ninth annual meeting of the Branch will be held in Cambridge on Wednesday, July 16th. President-elect, Joseph Griffiths, M.A., M.D., M.C., F.R.C.S.

DORSET AND WEST HANTS BRANCH.—Dr. Frank Fowler, Honorary Secretary (39, Poole Road, Bournemouth), gives notice that the summer meeting will be held at the Town Hall, Wareham, on Wednesday, July 9th, at 3.30 p.m. Dr. Charles Mercier will read a paper, A Problem in Diagnosis. Any members having cases or short papers they would be willing to read are requested to communicate with the Honorary Secretary. Luncheon will be arranged at the Red Lion Hotel at 1.30; price 2s. 6d. The Rev. Canon Blackett has kindly promised to show members the churches and wall of the town after luncheon. Drs. Courtenay and Bell invite members to tea after the meeting.

EAST ANGLIAN BRANCH.—Dr. B. H. Nicholson, Honorary Secretary (East Lodge, Colchester), gives notice that the annual meeting of the East Anglian Branch will be held at Ipswich on Thursday, July 10th. Members wishing to read papers, etc., should communicate with Dr. Nicholson.

METROPOLITAN COUNTIES BRANCH.—Drs. W. Griffith and R. E. Crosse, Honorary Secretaries, give notice that the annual general meeting of the Branch will be held at 429, Strand, W.C., on Tuesday, July 1st, at 4 p.m. The business will include a report as to the election of new officers, and the annual reports of Council and of representatives of the Branch on the Central Council. On the motion to adopt Model Ethical Rules for Branches, Dr. F. J. Smith gives notice that he will propose an alteration to the Model Ethical Rules by substituting the words "British Medical Association" for the words "Medical Profession" in Rule 1. President's address: The Profession and the Public. [The Model Ethical Rules are printed in the SUPPLEMENTS of September 21st and 28th, 1912, pages 325 and 350.]

METROPOLITAN COUNTIES BRANCH: CITY DIVISION.—Dr. A. G. Southcombe, Honorary Secretary, gives notice that the adjourned annual general meeting will be held in Balfour Hall, Dunstan Street, Kingsland Road, on Wednesday, July 9th, at 3.30 p.m. The chief items of business before the meeting will be: (1) Report of Central Council (SUPPLEMENT, May 3rd). (2) Agenda for Representative Meeting (SUPPLEMENT, May 10th). (3) Report of Council upon reorganization of the Association (SUPPLEMENT, June 21st). (4) Supplementary Agenda for Representative Meeting (SUPPLEMENT, June 21st and July 5th); members are especially desired to preserve those SUPPLEMENTS and bring them to the meeting). (5) Instructions to Representatives. (6) Poor Law medical appointments—(i) Dr. Major Greenwood will call attention to the position in (*a*) Shoreditch and (*b*) Bethnal Green, and move a resolution; (ii) consideration of appointment of a deputation to the (*c*) Hackney Union Guardians. (7) The Chairman will report the results of the appeal and levy.

METROPOLITAN COUNTIES BRANCH: WANDSWORTH DIVISION.—Dr. Hugh McD. Parrott, Honorary Secretary, gives notice that the annual meeting of the Wandsworth Division will take place on Thursday, July 10th, at 3.15, at Stanley's Restaurant, 235, Lavender Hill, Clapham Junction. Members of the Wimbledon Division are invited to attend at 4 p.m.

SOUTHERN BRANCH.—Dr. James Green, Honorary Secretary (Brandon House, Mile End, Portsmouth), gives notice that the fortieth annual meeting will be held at the Institute, Shanklin, Isle of Wight, on Thursday, July 3rd, at 1.30 p.m., Dr. F. W. Jollye, President, in the chair. Agenda: Election of officers for 1913–14, annual report of Council, balance sheet, general business. An address will be delivered by Dr. J. Cowper, of Shanklin, the President for the ensuing year. Dr. Cowper invites members of the Branch to luncheon at Daishe's Hotel at 2.15 p.m., and to a garden and tennis party, to which ladies are also invited, at 4 o'clock. The Arthur Webster Memorial Hospital and the Scio Hospital can be visited during the afternoon. Those members who wish to play golf are invited to do so by the Shanklin and Sandown Golf Club, and, if possible, a match will be arranged between the club and the medical visitors. Intending players will please communicate with Dr. Cowper. Those gentlemen who intend to accept the President's hospitality will oblige by sending word to that effect to Dr. G. Benington Wood, Newlands, Sandown, Isle of Wight, not later than June 28th.

British Medical Association.

EIGHTY-FIRST ANNUAL MEETING, BRIGHTON, JULY, 1913.

THE SECTIONS.

The scientific business of the meeting will be conducted in sixteen Sections, which will meet on Wednesday, July 23rd, Thursday, July 24th, and Friday, July 25th.

The President, Vice-Presidents, and Honorary Secretaries of each Section constitute a Committee of Reference for that Section, and exercise the power of inviting, accepting, or declining any paper, and of arranging the order in which accepted papers shall be read. Communications with respect to papers should be addressed to one of the Honorary Secretaries.

A paper read in the Section must not exceed fifteen minutes, and no subsequent speech must exceed ten minutes.

Papers read are the property of the British Medical Association, and cannot be published elsewhere than in the British Medical Journal *without special permission.*

The following additional information has been received since our last issue:

Section of Climatology and Balneology.

The following papers have been accepted:

Hobhouse, Dr. E. Some Remarks on the Climate of Brighton.
Ackerley, Dr. R. Massage in Fibrositis and other Painful Affections.
Foster, Dr. Michael. Some Balneological Methods used in Italy.
Boyd, Mr. Shepherd. Notes on Egypt and the Nile as a Health Resort.
Gordon, W., and Thomas, Drs. Distribution of Cancer Cases in two Registration Districts of North-East Cornwall.
Buckley, Dr. C. Rationale of the Plombières System of Treatment.
Brown, Dr. Durward. Panniculitis.
Woodcock, Dr. H. de C. Tuberculosis from the Climatological Point of View.

Section of Dermatology.

The following programme has been arranged:

Wednesday.—Discussion on the Fungous Affections of the Glabrous Skin: To be opened by Dr. H. G. Adamson, followed by Dr. Alfred Bolam, Dr. G. Pernet, and others.

Thursday.—Discussion on the Nature, Varieties, Causes, and Treatment of Lupus Erythematosus: To be opened by Dr. J. M. H. MacLeod, followed by Dr. Robert Wild, Sir Malcolm Morris, Dr. Alfred Eddowes, and others.

Papers.—The following papers will be read:

Pernet, Dr. George. On Veronal Rashes.
Meachen, Dr. Norman. A Preliminary Note upon the Treatment of Tuberculosis of the Skin by means of Copper.
Bunch, Dr. J. L. On the Treatment of Skin Affections by Solid Carbon Dioxide.
Walsh, Dr. David. Circulatory Disorders in Relation to Alopecia Areata and other forms of Baldness.
Gardiner, Dr. F.
Davis, Dr. Haldin. On Ointments.
Williams, Dr. A. W. On the Treatment of Chronic Ulcer of the Leg.
Dore, Dr. S. E. The Use and Action of X Rays in Psoriasis and other Skin Diseases.
Hobson, Dr. L. J. The Treatment of Common Skin Diseases at the Harrogate Spa.
Tomkinson, Dr. J. G. An Unusual Form of Keloid.

Abstracts of the papers introductory to the two formal discussions will be found in the Supplement for June 7th, p. 507.

Section of Diseases of Children.

The following is the programme:

Wednesday.—Discussion on Affections of the Heart in Childhood: To be opened by Dr. Poynton and Dr. Carey Coombs.

Papers:

Lane-Claypon, Dr. Janet. Some Statistical and Experimental Data as to Infant Feeding.
Mumford, Dr. The Heart in relation to Athletic, Gymnastic, and Swing Exercise in Adolescent Boys.
Nicholl, Mr. J. H. The Surgery of Childhood; a Plea for the more Extensive Use of the Out-patient Department for Operations on Children. Coupled with an account of the Organization necessary for After-care.

Thursday.—Discussion on the Choice of Methods in Dealing with Paralytic Deformities in Children: To be opened by Mr. T. Openshaw, C.M.G., followed by Professor Foerster, Breslau (Posterior Root Section in the Treatment of Spastic Paralysis), and Messrs. Robert Jones, Edred Corner, Laming Evans, F. W. Goyder, Kellett Smith, R. Ollerenshaw, W. J. Midelton, and H. H. Rayner.

Friday.—Discussion on the Diagnosis and Treatment of Acute Inflammatory Affections of the Abdomen in Children: To be opened by Mr. C. B. Lockwood, followed by Messrs. Edred Corner, R. H. A. Whitelocke, C. H. Milburn, Keogh Murphy, W. J. Tyson, and F. C. Pybus.

Papers:

Smith, Mr. Kellet. The Necessity for Selection and for Skilled Supervision in the Treatment of Spinal Deformities by Exercise.
Bankart, Mr. Blundell. The Treatment of Poliomyelitis.

Discussion on Acute Inflammatory Affections of the Abdomen.—In opening the discussion Mr. Lockwood will lay special stress on the question of diagnosis and the relative importance of various clinical phenomena. He will afterwards deal with the indications for operation, and finally adduce some illustrative cases.

Discussion on Affections of the Heart. Abstracts of the opening papers will be found on p. 507 of the Supplement for June 7th.

Section of Gynaecology and Obstetrics.

Discussion on the Methods of Dealing with Uterine Malpositions.—The following paragraph indicates the line that will be taken by Professor Corby:

Two of the most important causes of retrodisplacements of the uterus are relaxation of the posterior vaginal wall and increased weight of the uterus. The dorsal position and making the posterior wall tense are useful when replacing the uterus; a special method of using the sound. Treatment for keeping a replaced uterus in position: (1) By pessaries; (2) by vaginal operations; (3) by abdominal operations. The vaginal operations must frequently include (*a*) lessening the increased weight of the uterus, which is mainly due to enlargement of the cervix—resulting from cervicitis; and (*b*) by shortening the posterior vaginal wall to make it tense, and, if necessary, dealing similarly with the anterior wall. Ventrisuspension and ventrifixation are often, but not always, successful in keeping fundus forwards. The dangers of these operations. Notes of cases of ventrisuspension. In one of them kidney disease developed. Was this the result of pressure of the gravid uterus on the bladder and ureters? The results and dangers of shortening the round ligaments are similar to those of ventrisuspension and ventrifixation. The causes and treatment of prolapse of the uterus are almost identical with those of retrodisplacements.

Section of Laryngology, Rhinology, and Otology.

Additional paper:

Richards, Professor Owen (Cairo). Rhino-scleroma.

We are informed that the paper mentioned on page 539 of the Supplement for June 14th on the re-education of the powers of hearing will be discussed by Mr. Richard Lake, and that Dr. Howard Humphris is its joint author.

Section of Medical Sociology.

The following programme has been arranged:

Wednesday.—Discussion on Eugenics: To be opened by Mr. Edgar Schuster, M.A., B.Sc., Dr. Harry Campbell, and Dr. Stewart Mackintosh, followed by Dr. R. R. Rentoul, Sir James Barr, Mr. E. J. Lidbetter, and Miss A. H. B. Kirby (Secretary, National Association for the Feeble-minded).

Thursday.—Discussion on Crime and Punishment: To be opened by Dr. James Scott, Dr. C. A. Mercier, and Sir H. Bryan Donkin, followed by Dr. F. J. Smith, Mr. A. O. Jennings, LL.B. (Registrar, High Court of Justice), Major Atcherley (Chief Constable for the West Riding), the Rev. W. D. Morrison (late Chaplain H.M. Prisons), Mr. Hugh

Elliott, the Rev. C. B. Simpson (Chaplain Inspector H.M. Prisons), and Dr. Drury Pennington.

Friday.—Discussion on Hospitals in relation to the State, the Public, and the Medical Profession: To be opened by Professor BENJAMIN MOORE, Mr. I. G. GIBBON, D.Sc., Professor W. PFEIFFER, Dr. ADOLF GOTTSTEIN (Charlottenburg), and Professor GROBER (Jena), followed by Dr. Christopher Addison, M.P., Sir Henry Burdett, Mr. C. A. Parker, and Mr. W. P. Wright (Grand Master, Independent Order of Oddfellows). Mr. C. F. Masterman, M.P., Chairman of the Joint Committee of Insurance Commissioners, has also intimated his desire to be present if his engagements permit.

The following paragraphs indicate the lines that will be taken by the openers of the formal discussions:

(1) *Discussion on Eugenics.*—Mr. EDGAR SCHUSTER: (*a*) A consideration of the questions to which it is desirable to obtain an answer, in order to organize an effective control over the racial qualities of future generations; (*b*) an endeavour to indicate the problems for the solution of which the active co-operation of the medical profession is more particularly necessary. Dr. HARRY CAMPBELL: Theoretically it is possible to breed a race of man perfect in form and supreme in moral and intellectual endowment. Practically such a consummation is impossible; nevertheless some effort should be made to maintain a high standard of human fitness by a due observance of the more obvious facts of heredity. It is not at present advisable to put any legal restraint upon biologically right marriages. Natural selection is still stringently operative in civilized communities, and may safely be relied upon to prevent the human race from getting appreciably below the present standard of fitness. What is needed, above all, is that the public should be educated in the fundamental principles of evolution. The great truths of science have not yet been incorporated into our religious and ethical codes. Dr. STEWART MACKINTOSH: The British people is divisible into two primary elements—native and intrusive. Many of the intrusive elements evince definite signs of imperfect adaptation, except in most favourable circumstances, to the climatic conditions of the British Isles. This is because the climate of their areas of evolution and characterization differ from British climate in material respects. There are also local types among the British people, which, being specialized for local conditions, are deficient in powers of adaptation and acclimatization to strange environments. During the past century changes in national habits and occupations have brought about reassortment of national elements, and disintegration of old-established communities and reassemblage of their units in alien environments are prime factors in the phenomena of degeneration. Popular consciousness of the resulting danger is evinced by such cries as "Back to the Land," "to the Simple Life," "to Nature." How far are such ideas feasible? The simple traditions suitable to a simple age no longer meet the needs. Greater complexity of life requires a corresponding increase in conscious control of social organization and environment. The eugenics movement is a welcome sign of advance in this direction. Recognition of the biological basis of social phenomena is of supreme importance. The profound influence of man's migration has not hitherto received due attention and consideration. Its effect on children requires particular study.

Discussion on Crime and Punishment.—Dr. JAMES SCOTT: (*a*) It is difficult to frame a satisfactory short definition of crime. (*b*) It is an offence against social order. (*c*) Is it a disease? (*d*) Is punishment of crime necessary? (*e*) What are the objects of punishment? (*f*) Who should be punished? (*g*) Past and present methods of punishing. (*h*) Punishment according to the nature of the offence, with little or no regard to the offenders; and the converse method. The points considered most suitable for discussion are those marked (*c*), (*e*), and (*g*). Dr. C. A. MERCIER: Crime is a consequence of the social state. It consists in acts dangerous or detrimental to society, and arises from the preponderance of selfish over social desires, which preponderance is evidence of the imperfect socialization of man, due to the comparatively small number of generations that he has lived in societies. Crimes are of three kinds: Treasons, or direct attacks on the fabric of society; private crimes, which tend to destroy society by piecemeal attrition; and racial crimes, which interfere with the renewal of society by the production and rearing of children. Crime being destructive or detrimental to society, society must suppress crime or perish. The criminal, being an extra-selfish person, must be reformed by an appeal to his selfishness—that is, by proving to him that the consequence of crime will be unpleasant to him. Sir BRYAN DONKIN: It is assumed (1) that the State is justified in coercing law breakers with a view to the protection of the community. (2) That not only the harm done to society, but also the character and condition of the criminal must be taken into account in correction and treatment. (3) That the controversy concerning "free will" and "determinism" does not concern the practical penologist. (4) That all men are potential law breakers. In all punishments the element of retaliation is inevitable even if the object in view is reformation. Any State treatment of crime involves coercion and loss of liberty. The two questions that require discussion on this basis are: (*a*) The desirability of improving the criterion of legal responsibility for criminal acts. The best criterion is that given by Dr. Mercier in his book on criminal responsibility. It is applicable to cases of mental defect as well as to others, and recognizes attenuative responsibility in the interests both of the public and of the criminal. (*b*) The functions of the State in relation to the reform of the criminal by such work, for example, as that represented by the Borstal institutions.

Discussion on Hospitals.—Professor BENJAMIN MOORE: The hospital of the future must be designed to meet three objects correlated together: (1) Prevention of disease, (2) treatment, (3) advance of knowledge. There must be unification of the present partial systems under (1) Public health and municipal authorities, (2) Poor Law authorities, (3) voluntary bodies. The absence of unification and of a common direction of interests leads to drifting in policy, wasteful overlapping, and neglect of many cases, to the great public danger of the community. The new unified system need not lead to the loss of voluntary help from present workers, nor the loss of aid from private donors. The finances of the national or municipal system may come from three sources: (1) Municipal, (2) State funds, (3) voluntary donations. The functions and limitations of voluntary aid or beneficence are pointed out, and it is claimed that charity in kind or money, being quite inadequate for the upkeep, must be made to disappear or take a new channel. The control must follow the source of finance, but it is pointed out that this need not mean any considerable change in the personnel of the committees directing the hospitals. The hospital of the future must form the centre and head quarters of the unit of medical service fighting disease in the district. All, or nearly all, medical men in the district must work in relationship to the hospital and have access to it. All work done in the hospital must be done in future not as a charity, but as an essential part of the physician's or surgeon's daily work. Mr. I. G. GIBBON: (1) General hospitals are provided by public authorities in Germany, especially by local authorities. In addition, there are many hospitals provided by religious and philanthropic bodies. There has been a very large increase of hospital accommodation in recent years. This is attributed partly to the spread of insurance. The provision of hospital accommodation is still increasing. The conditions at the general hospitals differ considerably in different places. Some of the hospitals are very large; thus the Eppendorf Hospital at Hamburg has 2,200 beds. Payment has to made for treatment. There are different rates of charges according to the maintenance provided. Insurance societies give hospital benefit. Payment for treatment has generally to be made by the Poor Law department, failing other means. In some places a medical director is in charge of the whole of the hospital. In some he has charge only of the medical work, the other branches being under a lay director. The large hospitals have separate departments, each with its medical officer (subordinate in some respects to the principal medical director) and assistants. Medical officers may have outside consultative practice in addition to their hospital work. (2) The cost of providing hospitals has gone up to a disturbing degree. There are signs of reaction against the high capital expenditure. Information

is given of the cost of building in a number of cases. The cost per bed, without cost of land and equipment, ranges in the instances given from £94 to £450. (3) The cost of maintenance of a patient per day ranges from about 3s. to 5s., excluding capital costs and building maintenance, but is higher in some cases. Capital costs alone add 9d. or 1s. more. Of the cost per bed, from 1s. to 2s. for salaries and wages (excluding payments in kind). The number of persons employed at a number of hospitals for which particulars are given ranged in most cases from 100 to 200 per 100,000 days of maintenance of patients in the year. (4) The number of doctors employed generally ranged from 8 to 12 per 100,000 days of maintenance in the year. Salaries differ much. Medical directors may receive from £125 to £600 a year, with residence in some cases. Assistants receive from £50 to £100 a year, with board and lodging; senior assistants receive more. The *Leipziger Verband* (doctors' organization) passed a resolution in 1908 that assistants should have a commencing salary of not less than £60 a year, with board and lodging, and annual increments of not less than £10. Medical officers may receive additional payments from patients in the superior classes; they may also have a private consultative practice. Assistants also may to some extent receive fees additional to their salary. (5) Nurses are often engaged through associations. In several cases the nurses are supplied by religious orders or associations. This materially reduces the expenses, especially in the case of Roman Catholic orders. Payments may be made partly, in some cases only, to the order or association. The tendency, however, seems to be to rely on lay associations. Training is given for twelve or eighteen months. Twelve months' training is required for the State examination. Probationers generally receive little pay beyond their keep. Qualified nurses receive from £18 to £30 or £35 a year, according to place and length of service, with higher salaries for those in the highest positions. In a number of instances quoted the average annual payment per nurse ranged from £7 to £32. (6) The rates charged to patients differ considerably in different localities. As a rule there are three classes. The rates are from about 6s. to 12s. per day in Class 1; from about 4s. to 7s. in Class 2; and from 2s. to 3s. in Class 3. The rates in Class 1 more than cover expenses; those for Class 2 are below expenses; those for Class 3 are much below. Additional payments may have to be made for some special forms of treatment. (7) Most of the patients are treated in the lowest class. Insurance societies use the hospital freely, and a considerable proportion of patients are treated at the cost of the societies. Very striking is the large proportion of patients who are treated at the cost of the Poor Law; more than half the total number of days of maintenance of patients are in many cases so charged. The total receipts for the treatment of patients generally meet only a part of the expenditure, even excluding capital costs, often comparatively only a small part; less than one-half at many places. The charge on the public funds is therefore high, being as much as an average of over 2s. per patient per day, and in several instances over 3s. (8) The main conclusions are stated, and it is pointed out that the German system, which is not wholly satisfactory, is not necessarily suitable for other countries. Account has to be taken of national and local conditions and developments. The problem is dealt with in some of its aspects in the author's book on *Medical Benefit in Germany and Denmark*. Professor Pfeiffer, Dr. Gottstein, and Professor Grober: These authors deal with the following questions: (1) Are there any private hospitals controlled by the medical profession only? If so, under what conditions are they governed? (2) Have there been any large voluntary hospitals (that is, hospitals that have been supported only by private persons) that have become State hospitals and are now receiving payment from the State? If so, what has brought about this change? (3) Is there State control, insurance society control, and (or) control by the medical profession of State hospitals; and, if so, to what extent in each case? (4) Are the doctors that form the staff of State hospitals consultants only, or are they general practitioners, or both? If general practitioners hold these posts at the same time as the consultants, how is this viewed by the consultant, and how is friction avoided? How is the staff chosen? Is it elected by a lay committee or by the other members of the staff; or are all the eligible doctors in the district allowed to attend the patients in the hospitals? How is the staff paid? Is it by salary or an honorarium; and has this salary or honorarium any relation to the number of patients attended? Are there any advantages obtained either (*a*) inside the hospital or (*b*) amongst the residents in the town from being a member of a staff? If so, what are they? Are the number of beds apportioned to each member of the staff limited? That is, should there be provided an increased number of beds, is the staff thereby automatically increased? (5) What is the procedure which has to be followed in order to admit an insured person to the benefits of the hospital? Is it done by a letter of recommendation from (*a*) a subscriber to a hospital, (*b*) a doctor, (*c*) an insurance society, (*d*) the State, (*e*) the Poor Law, or by personal payment? (6) Is there any differentiation made in the State hospitals between the patients? That is, are acute cases separated from chronic; or special diseases separated from general diseases; or those requiring special skill from those requiring general treatment? (7) Are special wards or beds in the wards provided for insured persons? Is the administration of such wards or beds kept entirely separate from the wards or beds provided for other persons? By administration is meant the expenses incurred as well as the appointment of the doctors to be attendants to these beds. (8) Are there any conditions attached to the grants made to these hospitals by (*a*) the State, or (*b*) insurance societies? And, if so, what are these conditions? Have these grants any relation to the number of patients treated? (9) Is there any midwifery attendance given under the rules of the State hospitals to insured women or the wives of insured men? If so, is the attendance given in the homes of the women as well as in the hospitals? Who actually gives the attendance? Is it medical students, members of the staff, or midwives, or all three? What are the other arrangements that are made? (10) What has been the effect of the formation of State hospitals on (*a*) the patients and the public generally; (*b*) the status of members of the medical profession; (*c*) the progress of medical research?

Section of Neurology and Psychological Medicine.

The following programme has been arranged:

Wednesday.—Discussion on Sleep and the Treatment of Sleeplessness: To be opened by Sir George H. Savage, to be followed by Drs. W. H. Butler Stoddart, Constance E. Long, J. R. Lord, and D. G. Thomson.

Thursday.—Discussion on Vertigo, its Significance and Treatment: To be opened by Dr. J. S. Risien Russell, followed by Drs. E. Farquhar Buzzard, Harry Campbell, Leonard Guthrie, Ashley Mackintosh, Aldren Turner, W. B. Warrington, and Mr. Sidney Scott.

Friday.—Papers:

Boyd, Dr. William, and Brunton, Dr. G. L. On the Occurrence of Micrococci in the Blood and Cerebro-spinal Fluid of Two Cases of Mania.

Klein, Dr. S. R., New York. Determination of Urea in Epilepsy Before and After the Attack.

Wingfield, Dr. Hugh. Suggestion in the Treatment of Alcoholism.

Brown, Dr. William. Case of Extensive Amnesia of Remote Date Cured by Psycho-analysis and Hypnosis.

Eder, Dr. M. D. The Present Position of Psycho-analysis.

The following paragraphs indicate the lines that will be taken by the openers of the formal discussions:

Discussion on Sleep and Sleeplessness.—Sir George Savage: Various theories as to the cause of and necessity for sleep. The evidence in favour of any true hypnotoxin as a general cause of sleep is not sufficient. Opposed to such a view are (1) the power of voluntary sleep, and (2) the sleep of hypnotic suggestion. That sleep is only partial as far as the brain is concerned is shown by memory in dreams and the persistence of organic nerve relations during sleep. Observation on hibernating animals and on the brains of animals killed by sleep deprivation point to some changes in the frontal areas in these extreme cases of sleeplessness. There are various kinds and qualities of sleep. Sleep is not an essential for all living animals. The need of sleep varies greatly with habit, with temperament, and with age. Sleep differs in quality of refreshment; dreamy sleep is not necessarily less refreshing than dreamless sleep. Sleepiness may

depend on (1) bodily, or (2) brain disorder. Conditions found in sleeping sickness and in general paralysis. Sleeplessness may depend on physical or psychical causes —(1) bodily disease, (2) brain disease, (3) mental disorder. There is much sleep hypochondriasis. Persons sleep more than they think they do. Treatment of sleeplessness may be divided into the general and the therapeutical. Brief reference to the chief drugs—(1) the opium series, (2) the simple chemical series (bromides), (3) the compound chemical series. Particular reference will be made to the use of hypnotic suggestion with cases in which it has been used.

Discussion on Vertigo, its Significance and Treatment.—Dr. RISIEN RUSSELL: Severe vertigo is most commonly due to affection of the ear; vertigo of moderate severity may be due to a variety of different conditions. *Aural Vertigo*—What are the essential diagnostic features of aural vertigo? *Ocular Vertigo*—Is vertigo due to ocular defects ever so pronounced as to be confounded with the more severe varieties due to gross intracranial disease or aural affection? *Gastric or Hepatic Vertigo*—Can gastric or hepatic derangements cause vertigo of such severity as to be confounded with that due to aural or intracranial disease? *Vertigo due to Arterio-sclerosis of the Cerebral Vessels*—Vertigo due to arterio-sclerosis may simulate in some respects vertigo of aural origin, or by reason of concomitant symptoms present features similar to those of intracranial tumour. Vertigo may be a premonitory symptom of a gross vascular lesion of the brain, or may be associated with an apoplectic seizure. In a special though rare group of cases of arterio-sclerosis of the cerebral vessels without evidence of paralysis or lesion of the cerebellum, there may occur vertigo of such sudden onset as to indicate its vascular origin. It may be so severe as to necessitate the exclusion of aural affection and epilepsy. *Vertigo in Epilepsy*—The vertigo occurring in epilepsy is most liable to be confounded with that of aural origin. *Vertigo in General Diseases of the Nervous System*—Vertigo is most frequently met with in disseminated sclerosis. Although deafness is often associated with tabes it is seldom accompanied by vertigo.

SECTION OF SURGERY.

The paper by Mr. J. K. DALZIEL on Neuralgia Simulating Visceral Lesions relates, not as stated in a previous issue, to the fifth nerve, but to the twelfth nerve.

A cricket match has been arranged in connexion with the Annual Meeting, on Saturday, July 26th—The Profession *v.* Brighton College. Play will commence at 11.30 on the College Ground. Any gentlemen wishing to play are requested to send their names as soon as possible to Mr. Geoffrey Bate, 8, Palmeira Avenue Mansions, Hove. In the afternoon the Head Master (the Rev. W. R. Dawson) and Mrs. Dawson will be glad to entertain members and their friends to tea, and the college will be open for inspection.

Honorary Local Treasurer—
H. H. TAYLOR, F.R.C.S.,
36, Brunswick Square, Hove.

Honorary Local Secretary—
LEONARD ARTHUR PARRY, M.D., F.R.C.S.,
5, The Drive, Hove.

PROVISIONAL PROGRAMME.

The following is the provisional time table for the Brighton meeting:

FRIDAY, JULY 18TH.

10 A.M.—Annual Representative Meeting.

SATURDAY, JULY 19TH.

9.30 A.M.—Representative Meeting.

MONDAY, JULY 21ST.

9.30 A.M.—Council Meeting.
10 A.M.—Representative Meeting.

TUESDAY, JULY 22ND.

9.30 A.M.—Representative Meeting.
2 P.M.—Annual General Meeting.
8.30 P.M.—Adjourned General Meeting, President's Address.

WEDNESDAY, JULY 23RD.

9 A.M.—Roman Catholic Service at St. John Baptist Church.
9 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Medicine.
3.30 P.M.—Service at St. Peter's Church.
4 P.M.—Secretaries' Conference.
7 P.M.—Secretaries' Dinner.
8.30 P.M.—Soirée by the Mayor of Brighton.

THURSDAY, JULY 24TH.

8 A.M.—National Temperance League Breakfast.
10 A.M. to 1 P.M.—Sectional Meetings.
12.30 P.M.—Address in Surgery.
2.30 P.M.—Conference of Representatives of Local Medical Committees, to be continued on following days if necessary.
7.30 P.M.—Annual Dinner.

FRIDAY, JULY 25TH.

9 A.M.—Council Meeting.
10 A.M. to 1 P.M.—Sectional Meetings.
8 P.M.—Popular Lecture.
8.30 P.M.—Reception by the Brighton Division.

SATURDAY, JULY 26TH.

Excursions.

* Academic dress to be worn.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on June 19th, with Sir FRANCIS H. CHAMPNEYS in the chair.

Register of Cases.

A letter from the M.O.H., Newport, Monmouthshire, asking the opinion of the Board as to whether a register of cases kept by more than one midwife in common should be so arranged as to distinguish the records of each individual midwife was further considered, along with a letter from the Matron of the Monmouthshire Training Centre for Midwives, who expressed her willingness to distinguish the records of each individual midwife. The Board decided that the complaint of the M.O.H., Newport, had been met, and that a copy of her letter be sent to him.

Certificates of Training.

A letter was read from the Honorary Secretary of the Association of Inspectors of Midwives forwarding a copy of a resolution passed at the annual meeting of the association in April, 1913, with reference to the approval of midwives for the purpose of signing the certificates of practical training for candidates for the examination, and with reference to the form of the certificate of attendance on cases. The Board resolved to reply that the Board's rule is to hold every principal answerable for his or her subordinates.

Amendment of Midwives Act.

A letter was considered from the Town Clerk of Stoke-on-Trent urging the amendment of Section 5 of the Midwives Act, 1902, so as to provide for the assessment of contributions from Local Supervising Authorities on some principle more equitable in operation than that arising from apportionment on the basis of the number of midwives giving notice of intention to practise in any given area. The Board in reply pointed out that it had recommended the incorporation in the amending bill of a clause in accordance with the suggestion now made, and that it would not fail to support it by all means in its power.

Maternity Benefit: Fees of Practitioners called in by Midwives.

A letter was considered from the Clerk of the Kent Insurance Committee calling the attention of the Board to a difficulty experienced by midwives in getting medical help in cases of emergency for women entitled to medical benefit. The Board replied that it had no power over the assignment of fees under the Insurance Act, and that the responsibility of advising medical aid was laid upon the midwife by the rules.

Vacancies and Appointments.

VACANCIES.

WARNING NOTICE.—Attention is called to a Notice (see Index to Advertisements—Warning Notice) appearing in our advertisement columns, giving particulars of vacancies as to which inquiries should be made before application.

ABERDEEN COUNTY.—Tuberculosis Officer. Salary, £500 per annum.

ABERDEEN UNIVERSITY.—Additional Examiner in (1) Diploma in Public Health, (2) Medical Jurisprudence and Public Health, (3) Medicine, (4) Midwifery.

ABERYSTWITH INFIRMARY AND CARDIGANSHIRE GENERAL HOSPITAL.—House-Surgeon (male). Salary, £130 per annum.

ALTON: LORD MAYOR TRELOAR CRIPPLES' HOSPITAL.—Assistant Resident Medical Officer. Salary at the rate of £100 per annum.

BANBURY: HORTON INFIRMARY.—House-Surgeon. Salary, £100 per annum.

BELGRAVE HOSPITAL FOR CHILDREN, Clapham Road, S.W.—Resident and Junior Resident Medical Officers (males). Salary at the rate of £60 and £40 per annum respectively.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon (male). Salary, £80 per annum.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Third House-Surgeon. Salary, £75 per annum.

BOLTON INFIRMARY AND DISPENSARY.—Third House-Surgeon. Salary, £90 per annum.

BOURNEMOUTH: ROYAL VICTORIA AND WEST HANTS HOSPITAL.—House-Surgeon. Salary, £80 per annum, rising to £100.

BRENTWOOD: ESSEX COUNTY ASYLUM.—Two Assistant Medical Officers. Salary, £160 per annum, rising to £200, and on promotion to £400.

BRIDGWATER HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

BRISTOL: COSSHAM MEMORIAL HOSPITAL, Kingswood.—House-Surgeon. Salary, £100 per annum.

BRISTOL ROYAL HOSPITAL FOR SICK CHILDREN AND WOMEN.—Junior Resident Officer. Salary, £80 per annum.

BRISTOL ROYAL INFIRMARY.—Obstetric and Ophthalmic House-Surgeon. Salary at the rate of £75 per annum.

CANCER HOSPITAL, Fulham Road, S.W.—Senior and Junior House-Surgeons. Salary at the rate of £80 and £70 per annum respectively.

CANTERBURY: KENT AND CANTERBURY HOSPITAL.—Junior House-Surgeon. Salary, £90 per annum.

CARDIFF: UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—Lecturer in Histology and Embryology. Salary, £200 per annum.

CHESTER GENERAL INFIRMARY.—House-Physician. Salary, £90 per annum.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL.—House-Physician. Salary, £90 per annum.

COVENTRY AND WARWICKSHIRE HOSPITAL.—House-Physician and Junior House-Surgeon. Salary, £90 per annum, increasing to £100.

DENBIGH: NORTH WALES COUNTIES ASYLUM.—First and Second Assistant Medical Officers. Salaries, £275 and £175 per annum respectively.

DEVONPORT: ROYAL ALBERT HOSPITAL.—Assistant House-Surgeon. Salary, at the rate of £75 per annum.

DEWSBURY AND DISTRICT GENERAL INFIRMARY.—House-Surgeon. Salary, £120 per annum.

DORSET COUNTY COUNCIL EDUCATION COMMITTEE.—Dental Surgeon. Salary, £260 per annum.

DURHAM COUNTY ASYLUM, Winterton.—Third and Fourth Assistant Medical Officers (male). Salary, £180 per annum each, rising to £200 and £220 respectively.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Medical Officer (male). Salary, £100 per annum.

EDINBURGH: ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.—Four Resident Medical Officers.

ESSEX EDUCATION COMMITTEE, Chelmsford.—School Inspector. Salary, £250 per annum, rising to £300.

EXETER: ROYAL DEVON AND EXETER HOSPITAL.—Assistant House-Surgeon. Salary at the rate of 100 guineas per annum.

GATESHEAD DISPENSARY.—Assistant Medical Officer. Salary, £200 per annum.

GLASGOW: VICTORIA INFIRMARY.—Director of Clinical Research Laboratories and Pathological Department. Salary, £350 per annum.

GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House-Surgeon. Remuneration at the rate of £80 per annum.

GREENWICH UNION.—Junior Assistant Medical Officer of the Infirmary and Workhouse. Salary, £125 per annum.

HALIFAX EDUCATION COMMITTEE.—School Medical Officer. Salary, £300 per annum.

HALIFAX: ROYAL HALIFAX INFIRMARY.—Second House-Surgeon (male). Salary, £100 per annum.

HAMPSTEAD GENERAL AND NORTH-WEST LONDON HOSPITAL.—Resident Casualty Officer. Salary, £140 per annum.

IPSWICH EAST SUFFOLK AND IPSWICH HOSPITAL.—(1) House-Physician. (2) Second House-Surgeon. Salary, £80 each.

KENT COUNTY ASYLUM, Chartham.—Junior Assistant (Third) Medical Officer (male). Salary, £220 per annum.

KENT EDUCATION COMMITTEE.—Medical Inspector of School Children. Salary, £250 per annum.

KING EDWARD VII WELSH NATIONAL MEMORIAL ASSOCIATION, Cardiff.—Assistant Tuberculosis Officers. Salary, £300 per annum.

LEEDS GENERAL INFIRMARY.—(1) Resident Casualty Officer. (2) Ophthalmic House-Surgeon. (3) Resident Medical Officer at the Ida and Robert Arthington Hospitals. Salary, £125, £50, and £60 per annum respectively.

LEEDS PUBLIC DISPENSARY.—Senior Resident Medical Officer. Salary, £200 per annum.

LINCOLN MENTAL HOSPITAL.—Assistant Medical Officer. Salary, £150 per annum.

LIVERPOOL UNIVERSITY: FACULTY OF MEDICINE.—Walter Myers Chair of Parasitology. Stipend, £600 per annum.

LONDON COUNTY ASYLUM, Colney Hatch, N.—Junior Assistant Medical Officer. Salary, £170 per annum.

LONDON COUNTY COUNCIL: HAMMERSMITH DENTAL CENTRE.—(1) Two Dental Officers. (2) Anaesthetist. Salary for (1) £100 per annum each; and for (2) £25 per annum.

LONDON HOSPITAL, E.—(1) Assistant Physician. (2) First Assistant to Dr. Mackenzie in the Cardiac Department. Salary at the rate of £500 per annum.

LOWESTOFT HOSPITAL.—House-Surgeon. Salary at the rate of £100 per annum.

MANCHESTER: ST. MARY'S HOSPITALS FOR WOMEN AND CHILDREN.—Two House-Surgeons. Salary, £50 per annum each.

MANCHESTER TOWNSHIP.—Assistant Medical Officer for the Workhouse at Crumpsall. Salary £110 per annum.

MANCHESTER: VICTORIA MEMORIAL JEWISH HOSPITAL.—Lady Resident Medical Officer. Salary at the rate of £80 per annum.

MEDICAL MISSION HOSPITAL, Plaistow, E.—Senior Resident Medical Officer. Salary, £100 per annum.

NEWARK-UPON-TRENT HOSPITAL AND DISPENSARY.—Resident Medical Officer. Salary, £100 per annum.

NEWCASTLE-UPON-TYNE: HOSPITAL FOR SICK CHILDREN.—Honorary Assistant Surgeon.

NORTHAMPTON: BERRY WOOD ASYLUM.—Locumtenent. Salary, 5 guineas a week.

NORTHAMPTON GENERAL HOSPITAL.—House-Surgeon (male). Salary, £100 per annum, increasing to £110.

NORTH RIDING ASYLUM, Clifton.—Second Assistant Medical Officer. Salary, £180 per annum, rising to £250.

ORKNEY: PARISH OF SHAPANSEY.—Medical Officer and Public Vaccinator. Salary, £90 per annum.

PETERBOROUGH INFIRMARY.—House-Surgeon (male). Salary, £120 per annum.

PLAISTOW: ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.—Assistant Resident Medical Officer. Salary at the rate of £80 per annum.

PORTSMOUTH: ROYAL PORTSMOUTH HOSPITAL.—House-Physician (male). Salary at the rate of £75 per annum.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, E.—House-Physician. Salary at the rate of £80 per annum.

REDHILL: EARLSWOOD ASYLUM.—Junior Assistant Medical Officer. Salary, £200 per annum.

RHAYADER UNION.—Medical Officer for the Workhouse. Salary, £30 per annum.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House-Surgeon (male). Salary, £100 per annum.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Ophthalmic Surgeon.

ST. MARYLEBONE PARISH INFIRMARY.—First Assistant Medical Officer. Salary, £180 per annum.

SAMARITAN FREE HOSPITAL FOR WOMEN, Marylebone Road, N.W.—Surgical Registrar.

SHEFFIELD: JESSOP HOSPITAL FOR WOMEN.—Assistant House-Surgeon. Salary, £80 per annum.

SHEFFIELD ROYAL HOSPITAL.—Assistant House-Physician. Salary, £80 per annum.

SOUTHAMPTON: FREE EYE HOSPITAL.—House-Surgeon. Salary, £100 per annum

SOUTHPORT INFIRMARY.—Junior House and Visiting Surgeon (male). Salary, £80 per annum.

SOUTH SHIELDS: INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House-Surgeon (male). Salary, £90 per annum.

SOUTHWARK UNION.—Assistant Medical Superintendent of the Infirmary. Salary, £150 per annum, rising to £180.

STIRLING DISTRICT ASYLUM, Larbert.—Junior Assistant Medical Officer. Salary, £150 per annum.

SUNDERLAND: MONKSWEARMOUTH AND SOUTHWICK HOSPITAL.—House-Surgeon. Salary, £100 per annum.

SUNDERLAND: ROYAL INFIRMARY.—(1) House-Physician: (2) two Junior House-Surgeons (male). Salaries, £80 per annum.

TAUNTON AND SOMERSET HOSPITAL.—Resident Assistant House-Surgeon. Salary at the rate of £80 per annum.

THREE COUNTIES ASYLUM, near Hitchin.—Junior Assistant Medical Officer. Salary, £200 per annum, rising to £250.

THROAT HOSPITAL, Golden Square, W.—Resident House-Surgeon. Salary, £75 per annum.

TRURO: ROYAL CORNWALL INFIRMARY.—House-Surgeon. Salary, £100 per annum.

VICTORIA HOSPITAL FOR CHILDREN, Tite Street, S.W.—(1) House-Physician. (2) House-Surgeon. Salary, £40.

WAKEFIELD GENERAL HOSPITAL.—Second House Surgeon. Salary. £120 per annum.

WARWICK ASYLUM.—Assistant Medical Officer. Salary, £175 per annum.

WEST BROMWICH AND DISTRICT HOSPITAL.—Assistant Resident House-Surgeon and Anaesthetist. Salary, £75 per annum.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford, E.—(1) Senior House-Physician. (2) Junior House-Physician. Salary, £100 and £75 per annum respectively. (3) Honorary Radiographer.

WHITECHAPEL UNION.—Second Assistant Resident Medical Officer (male), at the Infirmary. Salary, £120 per annum, rising to £140.

WHITEHAVEN AND WEST CUMBERLAND INFIRMARY.—Resident House-Surgeon. Salary, £120 per annum.

WINCHESTER: ROYAL HAMPSHIRE COUNTY HOSPITAL.—House-Physician (Male). Salary, £80 per annum.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—(1) Resident Medical Officer. (2) House-Surgeon. Salary, £100 per annum each.

WORCESTER GENERAL INFIRMARY.—House-Physician. Salary, £120 per annum.

CERTIFYING FACTORY SURGEONS.—The Chief Inspector of Factories announces the following vacant appointments:—Clevedon (Somerset), Harrow (Middlesex), Northfleet (Kent).

This list of vacancies is compiled from our advertisement columns, where full particulars will be found. To ensure notice in this column advertisements must be received not later than the first post on Wednesday morning.

APPOINTMENTS.

BARLET, Jehan M., M.D.Brux., L.R.C.P.Lond., M.R.C.S.Eng., Anaesthetist to the French Hospital, London.

BROOKS, Miss Gertrude, M.B., B.S., Assistant Anaesthetist to the Chelsea Hospital for Women.

DAVIDSON, J. A., M.D.Aberd., Medical Officer to the Central London District Schools.

EDWARDS, K. C., Certifying Factory Surgeon for the Sawston District, co. Cambridge.

FRENCH, Herbert, M.D.Oxon., F.R.C.P.Lond., Examiner in Medicine to the Society of Apothecaries, London.

FUNK, Casimir, Ph.D.Berne, D.Sc.Lond., Physiological Chemist to the Research Institute of the Cancer Hospital.

GALLOWAY, A. F., M.D.Glasg., Medical Examiner, Accident Claims, Norwich Union Fire Insurance Society.

GOODWIN, A., M.B., B.S., M.R.C.S., L.R.C.P., Casualty Medical Officer to University College Hospital.

GREEVES, R. Affleck, M.B., B.S., F.R.C.S., Surgeon to the Eye Department at the Paddington Green Children's Hospital.

HOLDEN, Oscar, M.B., D.P.H., Junior Assistant Medical Officer to Yardley Road Sanatorium and to the Municipal Tuberculosis Dispensary, Birmingham.

MACLEAN, A. Bruce, M.B., Ch.B.Glasg., Outdoor House-Surgeon at the Glasgow Maternity and Women's Hospital.

MARTIN, James H., M.D., Obstetric Physician at the West-End Branch of the Glasgow Maternity and Women's Hospital.

MURRAY, H. Leith, M.D.Aberd., Honorary Assistant Surgeon to the Hospital for Women, Liverpool.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which sum should be forwarded in Post Office Orders or Stamps with the notice not later than Wednesday morning in order to ensure insertion in the current issue.

BIRTHS.

FITZWILLIAMS.—On June 22nd, at 31, Grosvenor Street, W., the wife of Duncan C. L. Fitzwilliams, M.D., Ch.M., of a daughter.

HAY.—On June 19th, at Medina Lodge, Cowes, I.W., to Dr. and Mrs. Arthur Hay—a daughter.

DEATHS.

DAVIES.—On June 12th, 1913, after a short illness, Mary Elizabeth Mildred Davies, second daughter of the late Herbert Davies, M.D., of 23, Finsbury Square, E.C., and Hampstead, aged 52 years.

JONES.—On June 18th, at Manor Road, Wallington, Hermann Johnston Jones, M.D.Heidelberg, M.R.C.S.Eng. and L.R.C.P.Lond., aged 72.

DIARY FOR THE WEEK.

THURSDAY.

ROYAL SOCIETY OF MEDICINE:

SECTION OF OBSTETRICS AND GYNAECOLOGY, 1, Wimpole Street, W., 8 p.m.—Paper:—Mr. Charles P. Childe: Suggestions for the Technique and Performance of Wertheim's Abdominal Panhysterectomy. 9 p.m.—Presidential Address: Observations on the Toxaemias of Pregnancy and on Eugenics from the Obstetrical Standpoint.

POST-GRADUATE COURSES AND LECTURES.

BROMPTON HOSPITAL FOR CONSUMPTION, S.W.—Wednesday, 4.30 p.m., The Modern Aspects of Cardiac Arrhythmia.

LONDON HOSPITAL MEDICAL COLLEGE, E.—Thursday, 2 p.m., Children Mentally Defective.

LONDON SCHOOL OF CLINICAL MEDICINE, Dreadnought Hospital, Greenwich.—General Medical and Surgical Clinics, daily. Throat, Nose, and Ear: Monday and Thursday. Skin: Tuesday and Friday. Eye: Wednesday and Saturday. Pathology: Wednesday. Radiography: Saturday. Special Lectures each week.

LONDON SCHOOL OF TROPICAL MEDICINE, Royal Albert Dock, E.—Lectures daily (Saturday excepted) at 12 and 4 p.m. Practical Laboratory work daily (Saturdays excepted), 10 to 12 a.m. Practical Helminthology, 2 to 3.30 daily. Advanced Helminthology, 10 to 1 p.m. daily. Medical Clinics, Tuesday and Thursday at 3 p.m. Operations, Friday at 3 p.m.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC, 22, Chenies Street, W.C.—The following Clinical Demonstrations have been arranged for next week at 4 p.m. each day: Monday, Skin; Tuesday, Medical; Wednesday, Surgical; Thursday, Medical; Friday, Ear, Nose, and Throat. Special Lectures at 5.15 p.m. daily, except Friday and Saturday.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, W.C.—Tuesday, 3.30 p.m., Treatment of Tabes Dorsalis. Friday, 3.30 p.m., Visual Disturbances.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.—Medical and Surgical Clinics and Operations at 2.30 p.m. daily. Also Monday, Throat; Tuesday, Gynaecology; Wednesday, Skin, Eye, Children, X rays; Friday, Eye. Special Lectures and Demonstrations as announced.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney Road, N.E.—Wednesday, 4 p.m., The Significance of Cough and Wasting in Childhood.

ROTUNDA HOSPITAL, DUBLIN.—Continuation of the Post-Graduate Course on Obstetrics and Gynaecology daily throughout the week, except Saturday.

THROAT HOSPITAL, Golden Square, W.—Monday, 5.15 p.m., Special Demonstration of Selected Cases. Thursday, 5.15 p.m., Clinical Lecture.

WEST LONDON POST-GRADUATE COLLEGE, Hammersmith Road, W.—Medical and Surgical Clinics, X Rays, and Operations 2 p.m. daily. Gynaecology: Monday, Tuesday, Wednesday, and Friday. Eye: Monday, Wednesday, Thursday, and Saturday. Throat, Nose, and Ear: Tuesday, Wednesday, Friday, and Saturday. Skin: Tuesday and Friday. Pediatrics: Wednesday and Saturday. A Lecture at 5 p.m. daily except Saturday.

[*For further particulars of Lectures consult the Index to Advertisements.*]

DIARY OF THE ASSOCIATION.

Date.		Meetings to be Held.
		JUNE.
27	Fri.	Border Counties Branch, Annual Meeting, Carlisle.
		East York and North Lincoln Branch, Beverley, 4 p.m.
		Leicester and Rutland Division, Hinckley, 4 p.m.
		JULY.
1	Tues.	Coventry Division, Coventry Hospital, 8.30 p.m.
		Metropolitan Counties Branch, Annual Meeting, 4 p.m., 429, Strand, W.C.
2	Wed.	London: Council Meeting, **11 a.m.**
3	Thur.	Southern Branch, Annual Meeting, Shanklin, 1.30 p.m.; Luncheon, 2.15 p.m.
4	Fri.	Hampstead Division, Central Library, Finchley Road, 8.15 p.m.
8	Tues.	London: Ethical Committee, 2 p.m.
9	Wed.	City Division, Balfour Hall, Dunston Street, 3.30 p.m.
		Dorset and West Hants Branch, Wareham, 3.30 p.m.; Luncheon, 1.30 p.m.
10	Thur.	East Anglian Branch, Annual Meeting, Ipswich.

Date.		Meetings to be Held.
		JULY (*continued*).
10	Thur.	Wandsworth Division, Annual Meeting, Clapham Junction, 4 p.m.
12	Sat.	London: Science Committee, 11 a.m.
15	Tues.	London: Metropolitan Counties Branch Council, 4 p.m.
16	Wed.	Cambridge and Huntingdon Branch, Annual Meeting, Cambridge.

ANNUAL MEETING, BRIGHTON, 1913.

Annual Representative Meeting, July 18th, and following days.

Presidential Address, Tuesday, July 22nd.

Conference of Honorary Secretaries, 4 p.m.; Dinner, 7 p.m., Wednesday, July 23rd.

Sections—Wednesday, July 23rd; Thursday, July 24th; and Friday, July 26th.

Conference of Representatives of Local Medical Committees, Thursday, July 24th, 2.30 p.m., and following days if necessary.

International Medical Congress in London, August 6th to August 12th.

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AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

1. Cancer of Head of Pancreas.

CHAUFFARD (*Journ. des praticiens*, November 16th, 1912) relates the history of two cases of cancer of the head of the pancreas, the symptomatology of which, although presenting differences in detail, was identical in fundamental points. The first case was a man of 53 years of age, of good history and vigorous habits. The illness began with symptoms of ordinary dyspepsia, with loss of appetite, distaste for meat, fat, and soups, and a burning sensation in the stomach. Vomiting occurred at intervals. Wasting began to be noticed, and latterly became very marked. Jaundice appeared and remained constant and intense, with intolerable itching up to the day of his death. The faeces were clay-coloured, becoming rose-tinted after being exposed some time to the air, this being due to oxidation of chromogen. The amount of urea eliminated by the urine, contrary to the usual experience in visceral cancer, was almost normal. The liver and gall bladder on examination were found to be much enlarged, but no tumour could be felt on palpation. Chemical examination of the faeces showed a great diminution in the percentage of acid fats and soaps, but a great increase in the neutral fats the latter from a normal of 25 per cent. rising to 88 per cent. The patient now had a severe attack of pain in the region of the gall bladder—evidently an access of cholecystitis—which lasted for several hours, but was finally relieved. He developed another symptom which in the opinion of the author is very rare—a persistent and excessive salivation. Vomiting of a sooty-black material now became constant, and the patient died in a state of collapse. On autopsy the surface of the liver and the hepatic parenchyma was dotted over with small secondary lesions. The second patient first complained of sensation of weight after eating, sour taste in the mouth, nausea, but no vomiting. He was attacked by girdle-like pains, especially at night, and bearing no apparent relation to any food taken. Icterus developed and again became extreme, but in this case there was no pruritus. Wasting became a marked feature. The liver and gall bladder were again much enlarged. The author goes on to say that the symptomatology is in these cases dominated by the close association of the liver and pancreas, and, further, that cancer of the pancreas usually being very indurated in character, compression of the biliary and pancreatic ducts is the rule. According to the author, the girdle-like pains in the last case are to be explained by the close contiguity of the solar plexus and the semilunar ganglia. This is more especially in evidence when the body of the pancreas is involved. Glycosuria may be present, but it has been frequently noted that a pre-existing glycosuria disappears when cancer of the pancreas is established. The disappearance of sugar in the urine of a diabetic without valid dietetic or therapeutic reason must be looked upon with suspicion. The differential diagnosis from cancer of the ampulla of Vater may be made by two indications. In cancer of the ampulla the jaundice is less stable and less constant; there is as a rule blood in the faeces. In cancer of the pancreas this is not the case. The author, while pointing out the risks of surgical interference, states that a laparotomy with freeing of adhesions very often not only relieves pain, but the intolerable itching also. The chances ought to be fairly put to the patient's friends.

2. The "Fourth Disease," or Dukes's Exanthem.

F. VALAGUSSA (*Rivista Ospedaliera*, Rome, 1912, ii, 827) gives a brief description of this disorder, described by Dukes in 1900, and in 1885 by Filatow as rubeola scarlatinosa. He then goes at some length into von Pirquet's views on the mode of production and significance of the rashes seen in the specific infectious fevers and in serum disease; von Pirquet regards the incubation period as the time demanded by the tissues for the formation of the specific antibodies, and the specific eruptions as evidence that the antibodies have combined with the antigens (or toxins giving rise to the production of antibodies) secreted by the infecting agent (bacterium, protozoon, etc.) that is the cause of the specific disease. He assumes that the antibodies cause agglutination of the infecting organisms, and so give rise to multiple cutaneous capillary embolisms, and so to the rashes characteristic of small-pox, scarlet fever, and other disorders. Valagussa then details the uncertainties that exist as to what it is that is the infecting agent in scarlet fever, and describes the experiments that have been made with regard to its transmission to apes, rabbits, and other animals; he concludes that scarlet fever, like small-pox, is caused by an ultramicroscopic organism. His observations at Rome lead him to believe that cases of the fourth disease sometimes precede but more often follow outbreaks of scarlet fever. Twice he has seen two or three cases of the fourth disease followed after seven to ten days by typical cases of scarlet fever in other patients; he has seen the fourth disease occur in children who had had scarlet fever from forty days to seven months before in 12 instances (1909–11); and, conversely, he has noted the occurrence of scarlet fever in 19 children who had had the fourth disease from eleven days to two months previously (1909–12). He concludes that the two diseases are closely connected and due to the same infecting agent, but represent different degrees of reaction to it on the part of the body. He finds albuminuria between the fifteenth and the twenty-first days of the disease in 16 per cent. of the patients with the fourth disease; out of 42 patients with it, 35 had acetonuria, 5 of the 35 also had diaceturia. The frequent or even constant occurrence of acetonuria in scarlet fever is, he says, well known. He regards the fourth disease as a *forme fruste* (as the French would say) of scarlet fever, and asserts that it should be made notifiable, because it may spread scarlet fever.

3. Tumour of the Hypophysis.

ROZABAL (*Revista de Med. y Cir. Pract.*, September 14th, 1912), at the May session of the Academia Medico-Quirurgica Española, showed two brothers with all the symptoms regarded as characteristic of tumour of the pharyngeal portion of the pituitary body, and consequent deficient action of that part of the organ. In the family history there was nothing of interest beyond the facts that both parents were of short stature and that the mother had experienced repeated abortions. This latter fact notwithstanding, the Wassermann reaction was negative in both parents and children. The elder boy, 14 years of age, commenced to suffer from dimness of vision at about 3 years of age. This gradually increased until he was able to distinguish objects only in limited portions of the field of vision. Soon it was noted that he was growing very bulky, especially about the belly and thighs. At the same time he ceased to grow in height. The external genital organs remained in a rudimentary condition. When first seen by Rozabal his height was 1.17 metre, much adipose tissue everywhere; the thighs and pubis were of the feminine type, the genital organs no more developed than in a boy of 4 years of age. There was double optic atrophy, and he counted fingers with difficulty at a distance of a metre. The arterial tension was 13.0, urine normal, hands extraordinarily small. The appearance and history in the case of the brother, 11 years of age, were similar but somewhat more advanced. There was typical hemianopsia. Both patients had a supernumerary digit on each foot, and the younger in addition a penile hypospadias. A radiograph of the sella turcica showed nothing worthy of mention. This combination of signs—increase of fatty tissue, cessation of growth, atrophy of the genital organs—forms the syndrome of Frölich, and is regarded as a consequence of tumour of the pituitary body with hypofunction of the gland. In some respects it is the reverse of acromegalia, nearly always due to hyperfunction of the gland. The author considers, in view of the usual relative benignity of tumours in these cases and the teratological alterations which were present—supernumerary toes, hypospadias—that there was probably in these two cases a cyst formed by an invagination of the ectoderm at the level of the pharyngeal portion of the hypophysis. These are the first cases of the syndrome of Frölich which have been reported from Spain.

SURGERY.

4. Tetany following Thyroidectomy.

FRANCIS J. SHEPHERD (*Ann. of Surg.*, November, 1912) follows up a brief historical sketch of the work done in investigating the causes of tetany after thyroidectomy

with the statement that the weight of opinion tends to prove that post-operative tetany is dependent on the removal or destruction or injury of the parathyroids. There are two theories of the functions of the parathyroids: (1) That an antitoxin is developed by the parathyroids which neutralizes certain waste products of tissue metabolism, so that when the parathyroids are destroyed a toxic material is formed in the blood which causes tetany (Berkeley); (2) that the calcium metabolism of the cells of the body is controlled by the parathyroids and that their removal causes a rapid disappearance of the soluble salts of calcium from the blood (W. G. McCallum). The latter theory is not strictly held now even by its author, but it is thought that there is something in it from the fact that fractures in animals whose parathyroids have been removed heal much more slowly than in normal animals, and that after removal of the parathyroids the skeleton, as a whole, takes on changes resembling rickets in young animals and more like osteomalacia when the animals are old. The parathyroids are to be regarded as organs of vital importance to the economy. It is hardly possible to recognize them during operation on the thyroid in the human subject. The author reports a case in a woman of 34, who had had goitre for twenty-one years. Operation was performed, all the thyroid except the upper pole of the left lobe being removed. Parathyroids were carefully looked for, but not seen. On the third day symptoms of tetany appeared (formication, sense of weight and oppression, giddiness, numbness in legs, stiffness and flexion of fingers and toes, acute pains in legs). On the fifth day drachm doses of calcium lactate were administered every three hours, and in six hours there was marked amelioration of the symptoms. The drug was taken intermittently, and whenever it was stopped the symptoms again presented themselves. Parathyroid extract also was administered. It was found that the combination of calcium lactate and parathyroid extract suited best, and that the former alone did better than the latter alone. After six months the patient still had some sense of oppression in the head, which was corrected by calcium lactate taken in 20-grain doses twice a day. The results of the case show that calcium will cure temporarily any case of tetany due to insufficiency or removal of the parathyroids. The author refers also to other means of treatment, such as hypodermic injections of nucleo-proteid principle of parathyroid (Beebe) and transplantation of parathyroids of animals into muscle or into bone marrow (Kocher).

5. Diverticulitis Simulating Appendicitis.

A CASE of inflammation of Meckel's diverticulum simulating appendicitis is reported by C. Schwenk (*Berl. klin. Woch.*, November 18th, 1912). A married woman, aged 21, who had not previously suffered from abdominal disease, suddenly developed severe pain in the region of the appendix while walking. She had swallowed two gramophone needles the day before. At first the pain was intermittent; later it spread to the whole of the abdomen, but was still most severe on the right side. She vomited frequently, was constipated, and experienced pain on micturition. Thirty-six hours after the onset the clinical picture was in every respect characteristic of appendicitis. The temperature was 101.8° and the pulse 100. There were abdominal tenderness and distension, and on the right side the percussion note was distinctly tympanitic. Rectal examination showed tenderness about the pouch of Douglas. The diagnosis of hysterical fever was negatived by the objective phenomena, and by a skiagraph which showed a needle in the ileo-caecal region. Laparotomy revealed slight and recent infection of the peritoneum and intestine. The serous coat of the latter presented small haematomata. The appendix, which contained no foreign body but was somewhat injected, was removed. Palpation of the small intestine in the ileo-caecal region revealed nothing. When the pelvis was raised so as to expose the urino-genital organs, a small cylindrical tumour, resembling a recent hydrops of the Fallopian tube, was detected. It was covered by a serous membrane, and from its blind end villi projected. It proved to be an 8 cm. long Meckel's diverticulum situated 1 m. from the ileo-caecal valve. Its distal end was club-shaped and occupied by the needle, both ends of which protruded freely. Amputation of the diverticulum was not feasible so the needle was withdrawn, and the wounds it left were carefully closed by several rows of sutures. The wounds healed by first intention, and the patient was discharged on the seventh day. The author emphasizes the relation of Meckel's diverticulum to acute abdominal disease, and recalls the case, published by Müller, in which the discovery of a gangrenous diverticulum was too late to save the patient's life.

6. Ligneous Phlegmon.

FAZANO (*Gazz. degli Osped.*, October 27th, 1912) reports 12 cases of ligneous phlegmon, a condition first described by Reclus, most of which cases occurred in the cervical region, but subsequent experience showed that it is not confined to this region, but may occur in various parts of the body, including the abdominal cavity, and it is especially in this latter region that such hard masses may be mistaken for malignant disease. Two of the author's cases, occurring in association with chronic appendicitis, well illustrate the great difficulty in differentiating the two conditions. Various organisms have been found in association with these tumours, but no one organism is constantly to be found; it seems probable that in every case the organisms are of attenuated virulence. Predisposing causes are bad general health, traumata—in fact, any of the usual causes of irritation, but it may occur in healthy subjects as some of the author's cases show. The only pathognomic sign is the extreme hardness of the mass, which may appear as a diffuse induration or a definite nodular tumour. The skin, as a rule, is not adherent at the outset, but usually becomes so later. Slow absorption may take place, or eventual softening and the formation of pus. Pain and tenderness are usually very slight or even absent, and fever is slight and evanescent. The diagnosis is extremely difficult, even where such a condition is suspected, and time alone can clear the matter up. The greatest difficulty occurs when it is a question as to whether the mass is a malignant tumour or not, and immediate operation may in some cases be necessitated. The two cases of tumour in the right iliac region above referred to are very instructive from this point of view. Amongst the author's cases were examples of cervical phlegmon, gluteal, the dorsal aspect of the foot (in sequel to a foreign body), the abdominal parietes (the result of a buried suture), etc. Unfortunately there is no certain sign which enables one quickly to recognize these ligneous phlegmons from other indurated masses; only a careful consideration of all the factors and a watching attitude enables one to solve the problems eventually. The presence of hyperleucocytosis is in favour of phlegmon.

7. Pseudo-lumbar Puncture in Enurosis.

ALLASIA (*La Pediatria*, October 31st, 1912), believing that the success of the lumbar puncture in the treatment of essential enuresis in children is due to the psychical effect rather than to the puncture *per se*, has treated a series of cases by what he calls pseudo-epidural puncture. He carries out all the details of the ordinary lumbar puncture, but instead of injecting the physiological solution into the spinal canal, he merely injects it into the subcutaneous tissue. He says his results were quite as good in this method as in the more severe mode of treatment. All cases where the enuresis might possibly be due to such causes as adenoids, morbid urine, etc., were excluded, and only essential or idiopathic cases taken. Brief details of 23 cases are given, and these had 35 pseudo-lumbar punctures. In 16 no results were observed, in 2 the enuresis ceased for one night, in 8 for a few days, in 3 for some weeks, and in 3 for some months. Looked at in another way, 12 of the 23 cases got no benefit, 6 had slight and transitory relief, 5 were relieved for long periods. These cases, compared with another series of true lumbar puncture, led the author to believe that the main factor when relief follows is one of mental suggestion, and the contrary is that essential enuresis is a neurosis.

OBSTETRICS.

8. Pituitrin and the Ductless Glands in Obstetrics.

REYNOLDS of Philadelphia (*Amer. Journ. Obstet.*, October, 1912) has made use of pituitary extract in order to determine its action on the mammary glands, cardio-vascular system, and uterus. He publishes some cases where it undoubtedly proved to be a powerful galactogogue and a stimulator of uterine contractions in from fifteen to thirty minutes after intramuscular injection. It causes a rise in blood pressure and slowing of the pulse, the highest pressure occurring between twenty and thirty minutes after the injection. Lastly, it does not cause an inflammatory reaction at the site of the injection or any noticeable nervous symptoms. On the other hand, Reynolds insists that pituitary extract is inactive in the presence of fever. In three instances which he reports in abstract the extract was used in the febrile period with negative results, whilst in all the extract proved active when employed

after the temperature had fallen. The first patient had twice attempted to terminate the pregnancy within the previous two months. Labour occurred close upon term, pelvic inflammation developed on the sixth day, and an abscess was opened in the right groin. No milk could be drawn from the breasts. Two weeks after abatement of the fever, 1 c.cm. of pituitary extract was injected one evening into the deltoid. On the next morning a thin watery secretion ran rather freely from the nipple, and ½ drachm of milk was withdrawn by the breast pump: this secretion lasted for four days. The second case, where gonorrhoeal infection complicated the puerperium, was somewhat similar. There was no milk in the breasts from birth: at the end of the third week the temperature was normal, pulse 114, systolic pressure 98, and diastolic 85: then 1 c.cm. of the extract was injected into the upper arm. Thirty minutes later the pulse was 96, systolic pressure 105, and diastolic pressure 95. On the next day the injection, of the same amount into the same part, was repeated. Six hours later 1½ drachms of milk were withdrawn from the left breast and 1 drachm from the right. In the last case labour was induced in a multipara suffering from eclampsia. The breasts secreted hardly any milk. At the beginning of the third week, the patient being restored to general good health, the extract was given as in the second case. Not only did milk begin to be secreted, but the patient was soon able to suckle her child. In patients where there had been no fever from the first the extract proved an active galactogogue from the first, and it checked uterine haemorrhages. Sajous (ibid.) dwells on the beneficent influence of thyroid extract on lactation and on the share of the thyroid and parathyroids in the physiology of pregnancy. Adrenal haemorrhages in the fetus, detected in 45 per cent. of necropsies on nurslings, deserve consideration. Sajous believes that thyroid extract given to the pregnant mother protects the fetus from changes which lead to adrenal complications after birth. The other ductless glands, including the pituitary body and the ovaries, belong, like the adrenals, to the chromaffin system and are closely related to one another through the sympathetic system which plays an important part in the many functional relationships which they so plainly show. Krusen (ibid.) is of a similar opinion. Lutein is undoubtedly the internal secretion of the ovary, and its extract may give relief in ovarian insufficiency.

GYNAECOLOGY.

9. Menstrual Psychoses.

H. KÖNIG states that it has been recognized for ages that a large number of women present psychic anomalies during the menstrual period which pass off when the period ends and leave the woman quite sound. An analysis of these records reveals the inclusion of a number of distinct conditions, but although many of the supposed anomalies of menstruation can be classified under recognized mental disturbances, a number remain which correspond to what Krafft-Ebing called "psychosis menstrualis" (*Berl. klin. Woch.*, August 26th, 1912). The author first discusses the distinction between hysterical and non-hysterical mental disturbances appearing during menstruation. Given a marked case, in which hysterical signs and a hysterical habit are discernible, it is reasonable to suppose that the psychosis is in part, at all events, dependent on the hysteria, and therefore the prognosis will be less favourable than when it is not so influenced. The same may be said in regard to epilepsy. He objects to the view that every case of menstrual psychosis need have an ascertainable basis. Of course this condition will only be found in a person who possesses a certain degree of psycho-physical degeneracy, but it is unreasonable to require a more definite basis for changes in a predisposed individual during a time when the normal individual undergoes an alteration in bodily habit in mood and in capability for work. The author divides the cases into (1) those psychoses which occur periodically with regular intervals before the first menstruation and which do not recur after the first period; (2) ovulation psychoses, occurring either once, or several times, or at each period; and (3) the so-called epochal menstrual psychosis. Instances of the first and third groups are rare, the author having only come across one of each, but those of the second group are very common. They include the hysterical, epileptic, and the non-classified cases. The disturbance may be pre- or post-menstrual, or may occur during the period. The more common forms are the maniacal, the melancholic, and the hallucinatory, the latter resembling a condition of amentia very closely. A number of these cases lose their initial characters and pass over into chronic psychoses, either of the catatonic or of the maniacal-depressive type. After discussing the justification of associating these forms of psychosis with menstruation, which has been questioned by some psychologists, he turns with caution to the prognosis. In general terms he states that the earlier the condition sets in the worse is the prognosis. This, of course, does not apply to those cases included in the first group of the classification. An exception is found in the so-called pseudo-menstrual climacteric insanity. In such cases, although the onset takes place in advancing years, the prognosis is bad. He cites some cases as illustration for the prognosis. The author further adds a few words on the etiology of these conditions, about which he admits very little is known.

THERAPEUTICS.

10. Salvarsan and the Nervous System.

SPIETHOFF analyses the question of the frequency of neuro-recurrence in the treatment of syphilis on the basis of his wide experience with salvarsan and other medicaments (*Muench. med. Woch.*, May 14th and 21st, 1912). Finger has stated that since salvarsan has been introduced the frequency of recurrent symptoms of nervous implication has increased markedly, and this he ascribes to the treatment. Spiethoff agrees that more cases of nervous symptoms occurring during the course of syphilis after treatment have been seen since salvarsan has been introduced, but he also finds that they are more common when small doses of salvarsan are used, and he has come to the conclusion that they occur in inverse proportion to the size of the dose. In his cases he has registered 0.97 per cent. of neuro-recurrences. If only those cases are included in which observation was carried out for a fairly long time, the frequency is found to be considerably greater, but when analysed in relation to the intensity of the dose he is able to show that while 25 per cent. of the cases which were given two injections of an alkaline solution intravenously, and which were kept under control for at least four months, showed neuro-recurrences, only 12.5 per cent. were met with when three injections were given. The phenomenon was not seen at all when a more energetic treatment was followed. He gives details of the symptoms under discussion in his cases. He states that the prognosis and treatment of these symptoms do not differ from similar symptoms observed before the salvarsan era. He finds salvarsan extremely useful in combating these symptoms, and, indeed, goes as far as saying that in one of his cases (optic neuritis) the removal of the symptoms would not in all probability have cleared up so completely with mercury as it did with salvarsan. In the course of these observations he finds that a comparison of the analyses of the spinal fluid yields more exact information than Wassermann's test does, both in regard to diagnosis and treatment. The cell counts and the determination of the albumen content by Nonne's method of precipitation often reveal signs of increase of the disease, when the complement deviation test of the serum of cerebro-spinal fluid gives no information at all. In speaking of the salvarsan treatment of tabes he feels justified in recommending its trial in all cases. An existing nervous lesion independent of syphilis, such as epilepsy, is not affected one way or the other by salvarsan, and he especially points out that fits are not produced by the injections. In syphilitic affections of the central nervous system he gives salvarsan and mercury when the signs are localized to one or two cerebral nerves, but when the process is more diffuse he prefers to start with mercury, and later on to give salvarsan in gradually increasing doses, when tolerance is established. He records two cases of very severe symptoms following the injection of slightly acid solutions of salvarsan for primary and secondary syphilis respectively, in one of which a fatal termination occurred. In conclusion, he expresses the opinion that in spite of Finger's, Ravaut's, and Levy Bing's publications, salvarsan should be given in full doses even when there are signs of spinal irritation. Lumbar puncture forms the best means of treating the headache arising in these cases.

11. Blenotin.

F. BERGER (*Wien. med. Klin.*, No. 17, 1912) describes an antigonorrhoeal internal remedy put on the market,

in capsule form, under the name of blenotin. Each capsule contains sandal oil 0.16 gram, myrrh 0.02 gram, camphor 0.02 gram, hexamethylenetetramine 0.12 gram, boracic acid 0.11 gram, champignon extract 0.02 gram. The author describes cases illustrative of the action of blenotin in acute gonorrhoea of the anterior part of the urethra, of gonorrhoeal cystitis, and of gonorrhoea in infants. The effects are those to be expected from such a combination of remedies already well known in urological practice. The effect of sandal oil in the pure form was clearly seen, but the sandal oil caused no gastric disturbance or kidney symptoms. As a rule, in patients complaining of bladder trouble, the appetite improved with the disappearance of the local symptoms. The effect of blenotin in anterior urethritis was excellent. The secretion in a few cases had already begun to diminish by the second or third day, but more usually after a week's time; it dried up altogether frequently in ten to fourteen days. In one case described the discharge had ceased after only five days. As a rule, gonococci had also disappeared by the tenth to the fourteenth day. In favourable cases clear urine was passed after from ten to twelve days. In order to test the preparation more satisfactorily, the author, in the cases described, gave blenotin alone without local treatment. Judging from the results obtained, he has no doubt that blenotin would prove a most useful aid in the treatment of posterior urethritis, and might even, if taken early, be a prophylactic against spread of the gonorrhoeal process to the posterior part of the urethra. The cases of gonorrhoeal cystitis were a good test of the efficacy of the remedy. In these cases the very severe strangury, which was accompanied by scalding and tenesmus, had usually disappeared in from four to ten days, and objective improvement kept pace with the subjective change. A complete clearing of the urine was seen on an average in twelve days. The author warmly recommends benotin as a result of his own trial of it.

12. X-ray Treatment of Hyperidrosis.

IN a paper read before the Société de Radiologie Médicale de Paris (*Bull. et mém.*, June, 1913), Belot speaks favourably of *x*-ray treatment in localized hyperidrosis, more particularly palmar and plantar ephidrosis. The type of hyperidrosis most amenable to this treatment is that in which the condition exists independently of emotional stimulus, although it is, of course, intensified by the emotions. In purely emotional hyperidrosis, the *x* rays are of slighter value. The increased sensibility of the tissues in conditions of excessive sweating makes treatment difficult, and the rays may produce troublesome reactions without any beneficial result. In special cases of this kind the author resorts first of all to a course of internal medication, and only turns to the *x* rays after the modification of the soil. In all cases when the trouble is of an emotional character, general treatment should be associated with the local applications—douches and anodynes for the nervous disorder, alkalines and iodide for the arthritic diathesis if it exists; and tonics (such as arsenic, phosphates, etc.) for the anaemia. Electrotherapy (faradization of the spinal cord) is also useful. The function of the *x* rays is to induce partial but not total atrophy in the cells of the glandular elements, and to resist the hyperactivity which is the cause of the condition. It is important to divide the *x*-ray dose equally over the area, and for this purpose the region is partitioned off into segments. On the plantar surface, for instance, the heel, the hollow of the foot, and the toe portion are separately irradiated. In treating the palm some means has to be adopted to keep it immobile and level, and the distance of the thenar eminences and of the fingers from the focus of the tube is carefully taken. The dose, directed through aluminium filters, varies with the individual. A full but not a heavy dose (maximum 4 Holzknecht units) is given, being smaller in the case of the female, especially the female blonde, than in the case of the male. A second and rather smaller irradiation is given eighteen or twenty days after the first; and the state of the skin, the evolution of the reaction, and the persistence of the hyperidrosis, determine the subsequent treatment. Generally five or six sittings suffice; one should never go beyond eight or ten. After three or four irradiations some secretory change is usually noted, but the evolution of the atrophic phenomena is not immediate. Plantar hyperidrosis is more rebellious than hyperidrosis of the hands or the axilla, but there are few instances of trouble from the reaction, a passing redness only being noted in the more sensitive skins.

13. Iodine in Whooping-cough.

CAVAZZANI (*La Pediatria*, February, 1912), after ten years' experience of the above mode of treatment, says that iodine is a valuable drug in the treatment of whooping-cough. The value of iodine in tuberculosis and in various infective diseases has been recognized by many authors, and the present author speaks highly of its use in typhoid. It is contraindicated in acute infectious—for example, pneumonia, acute nephritis, measles, scarlatina, acute rheumatism, and influenza. In whooping-cough it is said to diminish the attacks of whooping, to shorten the disease and make it generally milder. During the last ten years, the author says, he has seen no severe case such as he used to see before he began the iodine treatment. It does not act as a direct specific. He administers the drug as follows: He dissolves the metallic iodine in KI and water in the proportion of 1 part of iodine to 15 parts each of KI and water. Of this mixture he gives 4 to 6 drops per diem in sweetened milk to a child of 1 year, increasing up to 10 to 15 drops in children over 5 years. Given in this way, he has not observed any intolerance. It does not matter in what stage of the disease it is given. Apparently, in addition, he sometimes gives quinine or camphor monobromide.

PATHOLOGY.

14. Colorimetric Quantitative Estimation of Albumen.

THE methods of estimating albumen in urine in use in clinical practice are quite unreliable. It has been shown repeatedly by capable investigators that Esbach's test yields results which differ very considerably from the real content of albumen. M. Claudius calls attention to this and to the experience that the ordinary heat test is not available for clinical purposes (*Muench. med. Woch.*, October 8th, 1912). He now describes a colorimetric method of quantitative estimation of albumen, which yields accurate results and which he claims is easy to carry out. It is based on the principle that if a solution of albumen also contains a dye and the albumen is precipitated, the coagulum absorbs part of the dye, leaving the filtrate less strongly tinted than before. The degree of decolorization will indicate the amount of albumen precipitated. The test is carried out as follows: A reagent is made up of trichloracetic acid, tannic acid (which not only assists the precipitation of the albumen, but also acts as a mordant), and acid fuchsin. The urine to be tested must be either neutral or slightly acid, and perfectly clear. The acidifying may be attained with acetic acid, and the clarifying by filtration. It is then diluted with equal parts of a 2 per cent. aqueous sodium chloride solution. By means of a 5 c.cm. pipette, exactly 5 c.cm. of the reagent and 5 c.cm. of the diluted urine is dropped into a 15 or 20 c.cm. flask. The pipette should be rinsed before the urine is measured. The flask is then closed with a cork and well shaken. The albumen soon separates out and is agglutinated. This is filtered off through a dry filter, and the filtrate is collected in a dry, clean test tube. A graduated tube is then taken and filled up to a point marked "5" with the diluent, and a second tube with the normal fluid. The diluent consists of a solution of trichloracetic acid and picric acid, and is of exactly the same colour as that of a "normal" or standard tube. The normal colour fluid is a mixture of 1 part of reagent and 200 parts of diluent; 50 c.mm. of the filtrate is now delivered into the diluent by means of a capillary pipette, care being taken that the amount is absolute. The mixing is attained by sucking the fluid up the pipette and blowing it out again several times. The colour of the mixture is now compared with that of the normal fluid. If the colour is deeper than that of the normal fluid, diluent is dropped by means of a dropper until the colours correspond. If it is weaker, the test must be repeated with a weaker dilution of urine in sodium chloride solution. The graduated tube containing the mixture is so arranged that the upper level of the fluid indicates the parts of albumen per 1,000. The smallest differences represent $\frac{1}{4}$ per cent. The accuracy of the test was controlled by comparing the results of tests with albuminous urines, the control being worked out by gravimetric analysis. The differences were found to be minimal. The author also gives the results obtained with the same samples of urine by Esbach's test, which showed an error of nearly 50 per cent. The apparatus necessary for the test and the reagents are obtainable from Drübler and Co., Leipzig.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

15. Nervous Sequelae of Cerebro-spinal Meningitis.

SAINTON (*Journ. des praticiens*, October 19th, 1912) states that, whatever the micro-organism, there is a common symptomatology in these cases. At a variable time from the date of recovery, (*a*) sensory, (*b*) motor, (*c*) psychical disturbances arise. The first of these is the most frequent, and deafness is probably more common than any other sequela. It results in all probability from atrophy of the auditory nerve, or partial destruction of the cochlea. Ocular sequelae are less common and generally improve. There may be paralysis of the third or sixth pair of nerves. In other cases there is pupillary inequality, mycosis, mydriasis, or more rarely optic atrophy. With regard to motor disturbances, the general rule is to find spastic paralysis, with exaggeration of reflexes. Sometimes there is tremor and nystagmus. Persistent aphasia has also been noted. Voison has seen a case followed by epilepsy, and a case related by the author had a similar result. There was a crisis which began with an aura of gastric origin, nausea and vomiting, loss of consciousness, and epileptic convulsions. An examination of the cerebro-spinal fluid between the crises was normal, and made immediately after a crisis showed a slight lymphocytosis. The general condition in this case was good. The psychical disturbances are variable. There is generally a change of disposition, and in some cases a state of dementia results. In these cases a state of extreme hydrocephaly was revealed at autopsy. Sometimes the malady, though cured clinically, may remain latent. The best means of preventing these sequelae appears to lie in the use of antimeningococcic serum. In bad cases it ought to be injected directly in contact with the nerve centres.

16. Herpes Zoster and Varicella.

THE relation of herpes zoster to varicella is commented on by P. Heim (*Berl. klin. Woch.*, December 9th, 1912), who observed the following cases: A doctor's wife became feverish on May 5th. Next day she had stabbing pain in the left side of the chest, where a number of red spots appeared. Seen the same evening, this eruption was characteristic of herpes zoster. At this period only one child—a 6-year-old girl—was at home, but four days later a 3-year-old son came home. On May 16th—ten days after the mother's eruption appeared—the girl developed typical varicella of moderate severity, the maximum temperature being 100° F. On May 22nd the boy developed varicella in a severe form, the temperature being 103° F. for several days, and the body being covered throughout by the eruption. In his right axilla, over an area the width of two fingers, the vesicles were smaller than elsewhere, and were arranged like those of herpes zoster; here, too, the child complained of pain. Evidently both children must have been infected by the mother, for only six days intervened between the outbreak of their eruptions, and the average incubation period of varicella is fourteen to seventeen days, and never under eight days. The mother's eruption ceased exactly at the middle line, and new vesicles appeared in the same area on the third and fifth days of her illness. She had never suffered from varicella, although, at the age of 4, she had not been isolated from two sisters who had contracted the disease. Bokáy, in 1880, observed two children of the same family one of whom suffered from typical herpes zoster of the chest. The other developed typical varicella ten days later. In the course of the following twenty-one years he saw eight other similar cases, the periods between the appearance of herpes and of varicella ranging from eight to twenty days. On three occasions the herpes was followed by two, three, and four cases respectively of varicella. One of his cases is of special interest. A patient was admitted to hospital with lumbar-femoral herpes on October 29th. On November 9th another patient suffering from a tumour of the spleen developed varicella. In none of Bokáy's nine cases of varicella was any source of infection other than herpes demonstrable. The author also observed the simultaneous occurrence of epidemics of herpes zoster and varicella in Budapest in 1912, and he believes that the hitherto unknown germ of varicella may, under certain conditions, cause a localized eruption like that of herpes zoster, and that, with further development, it may again cause a varicella-like eruption.

17. Tuberculosis in Infancy.

COZZOLINO (*La Pediatria*, October 31st, 1912), discussing some of the difficulties in the diagnosis of pulmonary tuberculosis in infancy, points out that neither radioscopy nor tuberculin reactions give decided evidence between a rather prolonged post-influenzal febrile condition and a tracheo-bronchial tuberculosis, and he gives cases of this from both points of view. Schick's sign (expiratory stridor) remains still a valuable diagnostic sign of enlarged tracheo-bronchial glands, even when associated with manifest pulmonary tuberculosis. Pulmonary tuberculosis starting in the tracheo-bronchial glands is not necessarily fatal in the first year of life. The daily (and prolonged) administration of fairly large doses of cod-liver oil to tuberculous children does not necessarily give rise to exudative manifestations. The differential diagnosis between bronchiectasis and pulmonary tuberculosis in infancy is decided more often on clinical signs and symptoms than on laboratory tests. Unfortunate mistakes may be made in either direction if too much stress is laid on the results of laboratory tests alone.

18. Loss of Weight in New-born Infants.

MENSI (*La Pediatria*, September 30th, 1912), taking the weights of the children admitted into hospital during the first nine months of 1911, and all artificially fed, found that in 32 admitted on the second day after birth the mean loss of weight was 108 grams, in 94 admitted on the third day the loss was 320 grams, and in 71 admitted on the fourth day the mean loss was 213 grams. The loss of weight was usually proportional to the absolute weight of the body. The length of the period during which weight is lost depends largely on the quality of the first food, whether human or artificial, but also to some extent on the "quotient of energy" of the child. Whether this physiological loss of weight is due to lack of water taken in or to abnormal elimination of water and tissue waste is uncertain. The author, in some observations on tissue change in a baby 2 days old, found that the elimination of CO_2 varied from 13 to 16 mg. per kilogram; insensible perspiration he puts down at 100 per cent., accepting the usual figures, and in general accepts the theory that the loss of weight is largely due to loss of water. There is also some loss of nitrogenous matter, but this is of less consequence. The author next discusses the relation between loss of weight and the development of jaundice, and from his figures it appears that the icteric children had lost less weight than normal up to the time of the appearance of the jaundice. As regards the viscosity of the blood, this was found to be higher in the jaundiced children. From testing the iodophile reaction of the blood and the resistance of the blood corpuscles the author found even in the pre-icteric stage the blood pressure was lower than normal. The percentage of urine passed in relation to liquid ingested in 3 normal children was 44, 55, and 57 per cent., whilst in 5 icteric it fell to 27, 28, 35, 44, and 52 per cent. respectively.

SURGERY.

19. Incandescent Light in the Treatment of Atonic Wounds.

LAQUERRIÈRE AND LOUBIER (*Arch. d'électr. méd.*, November 25th, 1912) have treated several cases of obstinate atonic wounds with the ordinary incandescent lamp. For this treatment they reserve the term "luminotherapy," as distinct from "phototherapy," in which the rays of the arc lamp are used. These superficial wounds had shown no inclination to heal after the application of dressings and other treatments. Daily exposures of from twenty to thirty minutes to the lamp were given, the lamp being of 32 candle power and placed in a reflector. In one case a suppurating wound on the dorsal surface of the ring finger following an accident had refused to cicatrize for a month, and the whole of the finger was oedematous and the nail had disappeared. By the tenth sitting with the lamp the oedema had diminished and the wound had a better aspect; by the twenty-sixth there only remained a very small tenacious patch, and this finally disappeared by the fortieth. In a second case painful wounds on the foot had followed upon a burn, and had refused to respond to

ordinary treatment. White light in this instance gave rise to severe itching after the sittings, but on using a lamp the glass of which was tinted blue the light was well tolerated and resulted in a marked sensation of relief. From the fifth sitting the amelioration was considerable, and after the twelfth sitting the healing was so well advanced that only ordinary dressings were deemed necessary to complete it. As instances of the deeper action of luminotherapy and the trophic character of the radiations the authors cite two cases of osseous rarefaction, one affecting the index finger and the other the astragalus, both of which improved greatly under this simple treatment.

20. Operative Treatment of Acute Circumscribed Phlebitis.

K. Büdinger (*Wien. klin. Woch.*, No. 32) has, he believes, been the first operator to treat by operation cases of acute circumscribed phlebitis. The customary conservative methods of treatment of this condition are tedious, and as a rule are followed by incomplete recovery; one or more phleboliths or venous knobs are left behind, and both give rise to symptoms and may easily form a starting point for fresh inflammatory processes. The author takes certain precautions against embolism. There is no mechanical, energetic, preliminary cleansing of the operation site. Any pressure on the inflamed veins is absolutely avoided, and the site is merely painted gently with benzine, or with iodine tincture, which is equally free from danger. Infiltration anaesthesia is not employed. The operative measures are as gentle as possible. An incision, 1 to 2 cm. in length, is made into each palpable nodule directly through the wall of the vein into the thrombus, and the thrombus removed either with forceps or, if it is firmly in position, with a spoon; but removal by the spoon must not be by scraping movements. Sometimes a long thrombus can be drawn out from the venous nodule. If, at the operation, it is found that purulent softening has already begun, large pieces of the veins can often be removed without any force of pull being required, the vessel having been first divided at either limit of the inflammatory area. Bleeding is never severe. The wounds are not stitched up nor plugged, but simply covered with a sterile bandage. The patients are allowed to stand on the day after the operation and also to walk a little. As a rule the wound is already healed on the eighth day, when the dressing is first changed.

21. Anaesthesia by Intramuscular Injections of Ether.

Guibé (*Journ. des praticiens*, November 2nd, 1912) discusses critically this method of anaesthesia as advocated by Descarpentries. The method is described as follows: A syringe holding from 20 to 50 c.cm. is used with a long platinum needle, and the patient's eyes being bandaged to prevent the irritation of the rays of light, multiple injections are given into the muscular tissues of the buttock at intervals of a few minutes. The dosage depends upon three factors: (1) The susceptibility and receptivity of the patient; (2) the degree of anaesthesia required; (3) the duration of the anaesthesia. For an average woman 60 c.cm. of ether in six doses of 10 c.cm. each are used, this amount being increased in emotional and nervous subjects. Anaesthesia can be prolonged by additional injections. According to the originator of the method, at the time of injection there is severe but transient pain, followed immediately by swelling of the parts. The patient feels an indefinable malaise, and his breath smells of ether. The anaesthesia follows the usual course, and in about twenty minutes is complete. Consciousness returns gradually, and in an average case is quite restored in about half an hour. According to the author, the disadvantages of the method greatly outweigh any possible advantages it may have. Cases which are not suitable for general anaesthesia may be quite satisfactorily dealt with by spinal anaesthesia. The initial pain, he says, is very severe, and persists locally after anaesthesia is over. But the inconstancy of result is a more serious drawback. The anaesthesia is often incomplete or too short, and it is often necessary to complete it with chloroform or ethyl chloride. There is also a variability in the rate of absorption, according to the tissue into which the injection is made, with the result that there is not enough ether circulating in the blood at one time to establish proper anaesthesia. Another notable objection to the method is the impossibility of arresting the anaesthesia at will. It may be prolonged for some hours after the operation is over—a consideration which might prove serious after certain operations. In the author's view, the advantages of the method are too slight and the inconveniences too grave to recommend it for any other than very exceptional use.

22. Coxa Vara of Infancy and Congenital Luxation of the Hip.

Petit de la Villéon (*Gaz. hebd. des sc. méd.*, 1912, xxxiii) draws attention to a sign which he considers, in the absence of radiography, is diagnostic of coxa vara—namely, internal hyporotation. The patient is examined in the following manner: The child is laid on the healthy side, the suspected thigh flexed to a right angle on the pelvis, and the leg to a right angle on the thigh. The surgeon faces the child and seizes the condyloid process of the femur, the knee is kept above the table, the femur resting in an horizontal plane and parallel to that of the table. The surgeon then performs internal rotation of the femur, and at the maximum of this movement measures the angle made by the leg; if this represents 45 degrees the articulation is normal, if 90 degrees = congenital luxation, if 25 degrees or under = coxa vara.

OBSTETRICS.

23. Expectant Treatment of Eclampsia.

Writing from Zweifel's clinic in Leipzig, Lichtenstein seeks to place the so-called expectant treatment of eclampsia on a sound scientific basis and to explain its *rationale* (*Muench. med. Woch.*, August 13th, 1912). Hitherto the active treatment of this condition by rapid emptying of the uterus and by decapsulation of the kidney was carried out because the various statistics appeared to show that the best results were obtained by these procedures. The cases were divided in these statistics into "early" delivery cases, in which the uterus was emptied after the first or at latest the second eclamptic fit, and the "late" or "rapid" delivery cases, in which delivery was not carried out until after the third attack. Now Lichtenstein points out that since Dührssen's statistics were published, in 1893, eclampsia during the puerperal period has been excluded from the statistics. Eclampsia occurring after the birth of the infant, however, represents some 20 per cent. of all the eclampsia cases, and this form of the disease has a mortality of 20 per cent., which is as high as that of the late delivery cases, and about three times as high as the early cases. If emptying the uterus *per se* has such a marked effect on the course of the eclampsia, he argues, how can this be accounted for? Again, in a certain number of cases pregnancy is interrupted as a prophylactic measure when eclampsia is threatening. In 13 cases of this kind, 9 attacks of eclampsia occurred before the uterus was emptied and 4 during the lying-in period. This led Lichtenstein to regard the cases which do not break out until the lying-in period in the same light as the early delivery cases and to group them together in the statistics. The result was that the morbidity and mortality of the former group (that is, early cases plus puerperal cases) are as high as those of the late delivery cases. The obvious conclusion was that immediate delivery is not necessary. On the other hand, he recognizes that the results of the active treatment are better than were the old narcotic treatment results. On analysing the process he came to the conclusion that the improvement did not depend on the fact of the emptying of the uterus but on the manner in which it was emptied. Taking the average amount of blood lost at a normal birth at 400 c.cm., he finds that this amount is exceeded in the operative delivery of eclamptic patients in 52 per cent. of the cases, as against only between 4 and 5 per cent. of the spontaneously delivered eclamptic patients; 40 per cent. of the eclamptic patients lost more than 500 c.cm. after operative delivery, as against none of the spontaneous deliveries. Women in whom the eclampsia passed off after the delivery lost about half as much again blood as those in whom it continued, and about four times as much as those in whom the fit began after the birth. These facts led him to the conclusion that the quantity of blood lost is more important than the emptying of the uterus of the ovum. He therefore introduced a new method of treating eclampsia patients in April, 1911. This consisted in bleeding combined with anaesthesia, according to the directions given by Stroganoff. The method is carried out by bleeding to the extent of 500 c.cm., when the patient is either not in labour or only in the first stage. If she has borne the child, or if the birth can be completed rapidly, the bleeding is carried out immediately after the birth. After the bleeding is completed, the patient is given morphine and chloral, and

later ether anaesthesia. The room is kept quiet, no external stimuli are permitted to reach the patient, and no heat is applied, in order that sweating may be prevented, which would have the effect of concentrating the blood too much. Forty-five patients were treated in this manner. The amount of blood abstracted per patient was 710 c.cm. The infantile mortality was 40 per cent., as against 38 per cent. in the 400 cases treated by the active method. The mortality of the viable children, however, was 25 per cent., as against 36 per cent. in the previous cases. The delivery was completed spontaneously in 53 per cent., as against 22 per cent. The fits stopped in 60 per cent. of the cases at once, which is about the same ratio as with the active treatment. The average number of attacks per case was 5.1, as against 13 in the eclampsia cases of the previous fifteen years. The maternal mortality was 11.1 per cent. The mortality of the patients during the previous ten years treated by the active method was 18.5 per cent. The highest year gave a mortality of 33.33 per cent., while only one year showed a mortality percentage of less than 11.1. In analysing the causes of death in the 5 cases, he found that one patient died of double pneumonia, after having been given a powder. A second died of peritonitis; in this case two attempts had been made prior to admission to hospital to deliver with forceps. In a third, the cause of death was probably pneumonia. In 40 per cent. of the cases the eclampsia cleared up "intercurrently"—that is, before the child was born. This is a very high proportion. The author also adds the results obtained by others who have adopted this method of treatment, which were also favourable. He does not enter into a discussion of the theoretical significance of the facts brought to light, but reserves this for another communication.

GYNAECOLOGY.

24. Physiological Function of the Ovary.

A. LOUISE MCILROY (*Journ. of Obst. and Gyn. of the Brit. Emp.*, July, 1912) has carried out a series of experiments on rabbits, rats, and guinea-pigs to determine the physiological function of the different constituents of the ovary, and especially of the interstitial cells, and some additional experiments as to the influence of uterine secretion upon the ovaries. The operations were done under antiseptic precautions, with the animals placed upon a modified Trendelenburg table. In the first five experiments double oöphorectomy was performed, the animals being allowed to live after operation for periods which varied from 62 to 400 days in the different cases. In the two cases in which the animal was pregnant at the time of the operation abortion took place in one case after three, in the other after four days. In all cases atrophy of the uterus occurred, the rate of atrophy being directly protionate to the time the animal was kept alive after the operation. The muscular wall showed the atrophic changes first, the glands persisted for some time but gradually disappeared; the epithelium lining the uterus was always found to be still present, though the cells were more flattened than normal. No cyclic sexual phenomena appeared to occur after double oöphorectomy. The mammae and external genitals atrophied. Six operations were performed to find the effect of the removal of the uterus and Fallopian tubes, and six to find the effect of retention of uterine secretion upon the ovaries and general nutrition of the animal; in no case were either the ovaries, the general development, or the nutrition influenced. There is no evidence that the uterus is responsible for the phenomena of menstruation or prooestrum more than that it is the channel for excretion of substances generated or controlled by the ovary itself. In the next two experiments one ovary was removed, in one of them the uterine horn of the opposite side was ligatured at both ends and in the other the uterine horn on the same side, and there was thus retention of uterine secretion. It appeared that compensatory hypertrophy of the other ovary follows removal of one ovary even in the absence of pregnancy or oestrus and in the presence of retained saline fluid from the uterus. Two other experiments in which double oöphorectomy was performed and both uterine horns ligatured also showed that uterine secretion has no inhibitory effect upon the growth of the ovary and it does not counteract the atrophy of the uterus after removal of both ovaries. In the last six cases double oöphorectomy was performed and ovarian grafting carried out. In one case a small piece of cortex of human ovary was grafted on to the kidney of a rabbit; in this case the uterus was atrophied when the animal was killed 200 days later, the mammae were small and there was no evidence of the graft. In the other five, pieces of the cortex of one of the ovaries removed was transplanted in one case on to the uterine wall, in two others on to the right kidney, in another on to the peritoneum of the abdominal wall, and in the last into uterine muscle. The animals were kept alive for from 60 to 200 days after operation. Special note was taken of the influence of the interstitial cells as contrasted with the follicles on the graft. The conclusion arrived at was that ovarian grafts prevent atrophy for a time, but ultimate degeneration takes place in the transplanted tissue followed by atrophy of the uterus. The rate of degeneration varies with the site of implantation, the more vascular the site the longer the persistence of the graft. Degeneration takes place first in the cells of the corpus luteum. The follicles show cystic degeneration. The interstitial cells persist much longer than the follicles, and they appear to control the nutrition of the uterus, as atrophy takes place when these cells are degenerated and no atrophy when they are present even without any trace of follicles.

THERAPEUTICS.

25. High-frequency Treatment of Vesical Tumours.

BACHRACH (*Wien. med. Woch.*, No. 31, 1912) advocates the endovesical treatment of tumours of the bladder by means of the high-frequency current. He points out that the invention of the cystoscope made endovesical surgery possible, and led to the introduction of several useful instruments combining the principles of the snare and the cautery. Nevertheless, opinions are still divided on the respective merits of the endovesical treatment and the abdominal operation. The mortality after the abdominal operation, especially under a local anaesthetic, is practically *nil*, while, on the other hand, recent improvements in technique have extended the scope of the endovesical method. The author employs the instrument introduced by Beer of New York, and obtainable from the firm of Wappler in that city. It consists of a single electrode made of six fine copper wires twisted into a cable, which is passed through the cystoscope, and used in the same fashion as a ureter catheter. The bladder is filled with a sterile fluid, the cable is passed in and pushed in a little way into the substance of the tumour, and the current is then passed for twenty or thirty seconds. Round the electrode a white slough forms, in the middle of which, after withdrawal of the instrument, a black charred spot can be seen. The current is applied in three or four places at each sitting. In a few days the necrosed portion separates and is passed out in micturition. Three or four sittings, each lasting about four minutes for every application of the current for thirty seconds, suffice to remove a large papilloma. The patient feels absolutely no pain so long as the spark touches only the new growth—a fact which safeguards the more sensitive vesical mucous membrane from serious injury, while it admits of the thorough removal of the growth. The author points out that the well-known tendency of papillomatous tumours of the bladder to recur and finally to take on a malignant character is met more effectually by the searching influence of the high-frequency current than it can ever be by the snare and cautery. The high-frequency current is relatively a radical cure. Another advantage which he claims for this treatment is not only its simplicity but the fact that tumours situated in certain regions difficult of access, such as the vertex or the neck of the bladder, can be handled far more readily with the cable than by any modification of the snare. He thinks, however, that the snare may often be helpful, both in shortening the treatment by removing large pedunculated masses, leaving only their base to be treated with the cable, and also in removing portions of the growth for microscopic examination. The high-frequency current can also be used to check haemorrhage in cases of carcinoma, and is valuable in the treatment of inflammatory growths both in the bladder and in the posterior urethra. The author describes cases illustrating the apparently permanent removal of repeatedly recurring tumours with signs of malignancy, but admits that his own 15 cases are too recent to allow him to speak with certainty of the permanence of the cure. He says, however, that Beer has collected 187 cases, extending over a period of two years, in which the results of this treatment are thoroughly satisfactory.

26. Treatment of Tetanus by Intradural Injections of Magnesium Sulphate.

Theodor Kocher (*Corr.-Bl. f. schweizer Aerzte*, September 10th, 1912) has successfully employed a modification of Meltzer's method in the treatment of tetanus. A carter, aged 56, was seen on November 29th. A fortnight previously, during stable work, he cut his left thumb. The wound was cleansed and sutured on the following morning. Eight days after the accident the wound had suppurated, and the sutures were removed. On November 27th trismus appeared. This was followed by lumbar pain and rigidity, which spread to the shoulders, arms, and legs. On admission to hospital there were marked opisthotonos, dysphagia, and profuse sweating. The temperature and pulse were normal. The wound was cleansed and painted with iodine. Ten c.cm. of tetanus antitoxin were injected hypodermically near the wound, and towards night a similar amount was injected intravenously. Two hypodermic injections of 2 per cent. carbolic acid (Baccelli's method) were also given. But, in spite of treatment, the tonic spasms increased, and the face became cyanosed. On November 30th, at noon, 2 c.cm. of a 25 per cent. solution of magnesium sulphate were injected into the lumbar subarachnoid space. The muscular rigidity soon decreased. In the evening a second subarachnoid injection of magnesium sulphate and a third injection of 10 c.cm. of tetanus antitoxin were administered; 500 c.cm. of sterilized water were injected subcutaneously. On December 1st the rigidity was less, but spontaneous micturition was impossible. An intradural injection of 3 c.cm. of a 25 per cent. magnesium sulphate solution, and also hypodermic injections of morphine and carbolic acid, were given. On December 2nd micturition was normal. Injections of carbolic acid and chloral were given. On December 4th the rigidity again became marked, and 5 c.cm. of the magnesium sulphate solution were again injected. Fifteen minutes later the rigidity decreased, first in the legs, then, in order, in the abdomen and arms. An hour later the patient could sit up, and soon the muscles were fully relaxed. Later in the day some rigidity recurred. On December 5th, on the increase of rigidity, 5 c.cm. of the magnesium solution were injected. The rigidity decreased within half an hour. The treatment was repeated with the same good result on December 6th and 7th. On December 8th four doses of 15 gr. of calcium chloride were given. On December 14th the muscular rigidity had almost disappeared, but there was again retention of urine with suppression of the patellar reflexes. The patient was discharged cured on the thirtieth day after admission to hospital. In two further cases of tetanus with severe attacks of tonic spasm and opisthotonos, which occurred as often as twenty times in fifteen minutes, intradural injections of magnesium sulphate were equally successful in combating the muscular spasms; recovery followed in both cases. In the first of these cases after the seventh injection of 5 c.cm. of the magnesium sulphate solution unconsciousness supervened and respiration ceased. Tracheotomy was performed, a cannula was introduced nearly as far as the bifurcation of the trachea, and oxygen was insufflated. Sufficient space existed between the walls of the cannula and trachea for the exit of the gas or air. The cyanosis subsided, but the respirations remained at two or three in the minute during an hour. Consciousness was recovered twenty-four hours later. Tetanus antitoxin was also employed. This method of treatment is based on the researches of Meltzer and Auer, who found that magnesium sulphate and chloride when injected subcutaneously in the proportion of 1.5 grams per kilo of body weight produce deep sleep with muscular relaxation and abolition of all reflexes except the conjunctival and trigeminal. Doses exceeding 2 grams per kilo are followed by arrest of respiration, the heart continuing to beat for a time and the blood pressure being maintained. Hence resuscitation is possible by artificial respiration, providing O'Dwyer's apparatus for intralaryngeal insufflation under pressure is used. Local applications of 25 per cent. magnesium sulphate solution to nerve trunks produce complete nerve block, both conductivity and excitability being suppressed. Sensory nerves are more rapidly affected than motor. Mathews and Brooks conclude that magnesium salts, like curare, paralyse the motor nerve endings before the respiratory centre. However this may be, physostigmine, which is physiologically antagonistic to curare, is also antagonistic to magnesium, and invariably stimulates the respiratory centre. If respiratory paralysis is threatened, the danger may be rapidly moved by Arnd's method of washing out the lumbar sac with sterile normal saline solution; the only disadvantage is temporary paralysis of the bladder. The position of the patient at the time of and after the injection is of great importance. The action of the magnesium is at first local. Hence, if the body is raised almost vertically and the neck is flexed, the evil effects on the respiratory centre may be avoided. But if the upper part of the body is involved, and especially in cephalic tetanus, it is desirable to extend the action of the salt to the medulla oblongata. For this purpose the legs may be raised above the body for a time. This was done in the writer's third case for two hours after an injection, with the result that two hours' profound sleep in complete muscular relaxation resulted. Kocher believes the strength of the solution recommended by Meltzer to be unnecessarily strong. Fifteen per cent. proved ample. Of this solution as much as 10 c.cm. may be safely injected. Two injections may be given daily, though owing to a cumulative action not at too short intervals. Thus two doses of respectively 7 and 10 c.cm. were given within five hours. Deep sleep, from which the patient could not be awakened, and stertorous breathing resulted. If the urgency of the symptoms rapidly necessitates a second dose, the amount injected should be reduced by half.

27. Effects of Various Drugs on the Bacteria of the Skin.

S. Hidaka (*Wien. med. Klin.*, No. 34, 1912) makes a further communication as to his experiments with regard to the effect of different dermatological treatments on the bacterial contents of the skin. His first contribution appeared in the same journal, No. 44, 1911. In each experiment he has applied the same treatment at three different sites, and he has further increased the value of his results by repeating each experiment six to eight times, and taking an average of the results obtained. The different preparations tested were oleum rusci, acid. pyrogall., resorcin, acid. salicyl., chrysarobin, ichthyol, sulphur precip., tumenol and sulfoform. They were applied as far as was possible both in the form of ointments, as a paint, and in alcoholic and oily solutions. The paint contained 10 per cent. of the drug to be tested made up with zinc oxydat., talc venet., glycerin and aq. dest. The ointments used all contained 10 per cent. of the particular drug used. The results arrived at were that: (1) Oleum rusci, pyrogallic acid, and ichthyol had the strongest action in diminishing the number of bacteria, while resorcin, chrysarobin, etc., had less effect; (2) the action of these drugs when applied in the form of the paint or in alcoholic solutions was considerably more powerful than when given as ointments or in oily solutions.

PATHOLOGY.

28. Cammidge's Reaction.

Zuccola (*Rif. Med.*, November 16th, 1912) gives the result of his researches upon the nature and origin of the crystals found in the urine by Cammidge's reaction. He first tried the effect of various substances which are said to be the more or less direct source of the crystals. And, first, to fifteen healthy subjects showing no Cammidge reaction he gave 15 grams of glycerine, and found that, if crystals were present, they were not of the Cammidge type, so that he concluded that the crystals in question in the true Cammidge reaction were not due to glycerine. So, also, with pentoses isolated from fresh pancreas by the Salkowski method, the crystals produced did not behave exactly as they do in the ordinary Cammidge reaction. The author infers that if it is a pentose which gives the reaction this cannot be entirely derived from a direct destruction of nucleo-proteins derived from the pancreas. To further elucidate this he experimented with the other pentoses—namely, arabinose and xylose—but found that the osazones formed from these differed in several ways from the typical Cammidge osazone. Similar negative conclusions were arrived at with regard to saccharose, glucose, levulose and sorbinose, mannose and galactose. The net result of these researches was negative—that is, it is not possible to say exactly what substance it is which gives the Cammidge reaction. Assuming it to be a hydrocarbon, one source of difficulty lies in the determination of the fusion point of the crystals and in getting them pure; errors also arise from the differing solubility in H_2SO_4, partly due to the relation between the size of the crystal and the size of the drop of acid. Not every saccharoid capable of combining with phenylhydrazin will give a true Cammidge reaction. Probably the pseudo-reaction after the administration of glycerin is due to the syrup (glucose and saccharose) mixed with it.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

29. Visceroptosis.

CAWADIAS (*Journ. des praticiens*, November 23rd, 1912) discusses this subject fully. This condition, originally referred to as the syndrome of Glénard, has now, he points out, associated with it the name of Stiller, who has shown the relationship of these cases to a special diathesis. The term "visceroptosis," he maintains, is not sufficient. In considering this syndrome it is necessary to consider the soil which engenders it, its mode of commencement, and the manner in which it terminates. Stiller has termed it the "asthenic diathesis," which is congenital, and characterized by hypoplasia of the nervous system and of the digestive system. The evolution of the condition is without any marked symptoms, and is frequently only discovered by accident, or accidental causes precipitate the symptom complex of neurasthenia, digestive troubles, and visceral ptoses. At puberty, for example, any one of these may be accentuated, so also during pregnancy. The three elements coexist and are mutually aggravating, forming the most perfect vicious cycle in gastro-intestinal pathology. The neurasthenic element is characterized by headaches, neuralgias, physical asthenia, intellectual and moral depression. The gastro-intestinal condition is variable, although the rule is a state of hypochlorhydria with gastric atony. There is generally constipation. On standing behind the patient and grasping the abdomen with both hands round the body, we find that raising the flaccid abdominal wall gives relief, while, on disengaging the hands again, the discomfort returns. All the abdominal organs are affected in varying degree, although radiography has shown that a state of gastroptosis is not so usual, the most usual condition being, in the author's opinion, elongation of the atonic stomach vertically. The condition is progressive, and presents remissions and paroxysms. The patient becomes hypochondriacal and finally melancholic. The movement of gases in the intestine frequently creates strange delusions. The skin of the abdomen is dry and falls into folds, while a network of superficial veins covers the surface. At this stage floating kidney may be readily felt, whilst the transverse colon may be noted to have fallen to the inter-iliac line and stomach clapotage may be induced at the level of the umbilicus. Remissions occur, especially in the nervous and digestive troubles; the visceroptosis alone persists. Sometimes crises of spasmodicity occur, during which the nervous system is notably excited, the stomach hypersthenic, and the intestine painfully contracted. The diagnosis is difficult in neurasthenia with secondary symptoms of dyspepsia. In the syndrome of Glénard-Stiller there is usually a long history of vague nervous and digestive troubles dating back to childhood. This with the presence of visceral ptosis is decisive. With regard to treatment: Children born of parents suffering from this disease ought to be put under a careful regimen of diet and exercise from the beginning. The neurasthenic state is best dealt with by hydrotherapy, electricity, and the use of glycerophosphates by injection. Psychotherapy is a very necessary adjunct in these cases also. The physician must gain the confidence of his patient and reassure him as to the seriousness of the visceral ptoses. The author does not approve of the treatment of the digestive trouble by sur-alimentation. He believes in aiming at a normal dietary as far as possible. The visceroptosis is to be healed by suitable abdominal exercises and massage. The application of a carefully chosen abdominal belt is of much use. At the commencement of treatment rest in bed is of great benefit. The nerve balance is restored and the abdominal organs regain in some measure their normal position. Surgical intervention is not generally called for.

30. Angina Pectoris and Tobacco.

MOURIQUAND AND BOUCHAT (*Arch. des mal. du coeur, des vaisseaux, et du sang*, October 12th, 1912) relate the history of a man, 54 years of age, who was suddenly seized with an attack of angina pectoris, and died during the crisis. His father had died at 55 from heart disease. The patient's heart had been good, there having been no disease of childhood except an otorrhoea, which had left him rather deaf. There was no history of gonorrhoea, no signs of alcoholism, and no history of articular rheumatism. He denied emphatically having had syphilis, and an examination of the genital organs seemed to bear this out. He had been in the habit of smoking thirty to forty cigarettes a day, as well as several cigars. About two months before his decease he had complained of dyspnoea and palpitation on any effort, these being accompanied latterly by a sense of thoracic and precordial constriction. At this time, on examination, there were no cardiac bruits to be heard, while the sounds were hard and vibrating. There was no pain on pressure over the pericardium and the pulse was regular. All the other organs seemed sound functionally. KI gave relief for some time, but latterly he became intolerant of it. He began to cough and the expectoration was blood-stained. Towards the end there was galop rhythm. On autopsy the heart was found to weigh 380 grams. There was slight sclerosis of the mitral valve, but no narrowing or insufficiency. The aortic valve was healthy. On the ascending portion of the aorta several gelatiniform plaques, about the size of a lentil, were seen. The orifice of the right coronary artery was scarcely visible, while the left was still more difficult to see, and was narrowed by one of the plaques spoken of. The authors then discuss various experiments on rabbits, in which tobacco was administered as nicotine in an infusion. The results of a number of investigations showed that in the rabbit tobacco in this form is causative of atheromatous degeneration. Deniconitized tobacco similarly given rarely resulted in atheroma. In the authors' opinion, these experiments are inconclusive, because other agents, such as adrenalin, salts of lead, ergotin, all bring this about. The experiments do not prove, therefore, that in man tobacco is a cause of atheroma. They do not, indeed, believe that it does. Atheroma alone rarely causes stenosis of the coronary arteries or of the aorta, and the authors' conclusion is that there is no such thing as fatal angina pectoris of tobacco origin only. All the evidence goes to show that the gelatiniform plaques referred to are identical with those noted in syphilis. No stigmata of specific disease were found, but they agree that the fatal crisis in the case of the patient referred to was due to the presence of a coronary lesion of specific origin, and that the tobacco undoubtedly hastened the end by the vaso-constrictive effect of the nicotine. The gelatiniform plaques were as typical as possible, and the histological report showed that they were such as are found in syphilitic aortitis—that is to say, a fibro-hyaline thickening of the endothelium and evidences of inflammatory lesions in the tunica media resulting in destruction of the elastic fibres. The lesions produced by nicotine, on the other hand, are not so much inflammatory as degenerative. In spite of the clinical findings, the pre-existing lesions found on autopsy settled the issue in this case.

31. Acromegaly.

CHAMBERS, BRUCE, AND MACKENZIE (*Med. Bulletin, Univ. Toronto*, July, 1912) report a case of acromegaly in a woman, aged 39, in whom enlargement of the hands and face was first noted about three years previously, and gradually increasing headache, dizziness, and failing eyesight during the past nine months prior to admission to hospital. The patient presented features of the masculine type, with sluggish speech and mentality. There was a forward curvature of the upper part of the spine, and the subcutaneous tissue all over the body was thickened. The face was abnormally large and asymmetrical, the left side being more prominent than the right. The lower jaw projected forwards so that the lower incisors were half an inch in front of the upper. The ears were large, and the supraorbital, temporal, malar, parietal, and frontal prominences were enlarged. The hands were very large, with short, stubby fingers, coarse skin, and very prominent thenar and hypothenar eminences. The sternum at the level of the fourth rib was about 3 in. in width, and in the sitting posture the costal margin reached the iliac crest. She slept badly, and was generally mentally depressed, with occasional hallucinations as to seeing persons and animals and hearing noises and voices. The fields of vision and visual acuity were diminished, smell was lost, and hearing defective. Movements were sluggish, but there was no paralysis, and all the reflexes were present though depressed, especially on the left side. X-ray examination showed

irregularities and thickenings of the bones of the skull, and general enlargement of the bones of the hands. Under 20-grain doses of potassium iodide three times a day the failure of the eyesight, diminution of the visual fields, and mental deterioration gradually increased, and the following operation was performed with a view to removal of the tumour of the hypophysis by the oro-nasal method. After a preliminary tracheotomy the upper lip was separated from the superior maxilla through an incision in its mucous membrane about five-sixths of an inch from the muco-cutaneous junction. The middle and lower turbinates, the vomer and perpendicular plate of the ethmoid were removed, and the septum divided and displaced laterally. After removal of the anterior wall of the sphenoidal sinuses the floor of the sella turcica was broken through and a reddish tumour exposed. Owing to free haemorrhage from the nose removal of the tumour was not attempted at this stage, but the sphenoidal and nasal cavities were packed with gauze saturated with adrenalin, which effectually controlled the haemorrhage. Unfortunately the tracheotomy tube was then removed, for about six hours later, owing to haemorrhage entering the larynx, the patient died before the tube could be replaced and relief therefrom obtained. The autopsy revealed the fact that had the patient survived it would have been quite easy to remove the tumour at a later stage. The operation would be most safely accomplished in two stages, the preliminary stage consisting of removal of the septum, anterior wall of the sphenoid, and middle turbinates, thus allowing the sella turcica and the tumour to be dealt with at the second stage without being handicapped by haemorrhage: 40.7 per cent. is the mortality in reported cases up to the present.

SURGERY.

32. Artificial Pneumothorax.

Faginoli (*Rif. Med.*, October 19th, 1912) gives his experience in 40 cases of phthisis treated by the production of artificial pneumothorax since February, 1911. In technique the danger of gas embolisms can be avoided by carefully watching the manometer and only admitting the nitrogen when the oscillations of the columns are free and ample (8 to 12 cm.) and synchronous with the respiratory movements. Secondary infection of the pleura as a result of the puncture is so rare as to be almost negligible. In nearly 2,000 infiltrations the author has had no seriously unfavourable results, and this he attributes largely to the observance of the following points: (1) The needle must be introduced slowly and steadily; (2) the gas should not be introduced until the manometric conditions above mentioned are fulfilled; (3) the gas in the apparatus ought to be at zero pressure and enter the pleura by spontaneous aspiration. The puncture was usually made in the eighth or ninth intercostal space in the mid-axillary line. Sometimes the patient suffers acute pain when the gas enters, but this is unusual. In one case a severe attack of pleural eclampsia followed, but was soon over and not repeated in succeeding operations. Emphysema (subcutaneous) was noticed once or twice and herpes zoster once. In 5 of the 45 cases it was impossible to produce a pneumothorax owing to the dense pleural adhesions. Caution is necessary in attempting too much where there are extensive adhesions, as haemoptysis may occur. Of the 32 cases where the treatment was systematically carried out 27 had bilateral lesions and 5 monolateral. One of the chief and most constant of the benefits resulting was the quick diminution and disappearance of the fever, most marked, as one would expect, in the monolateral cases. Another good result was the notable decrease in the amount of excretion, but tubercle bacilli were always found in such sputa as there were. A steady increase in weight and disappearance of night sweats were the rule. Only in 3 of the 27 bilateral cases was any improvement noted in the untreated lung. Some of the patients were treated in addition with tuberculin, but without any notable advantage. Sixteen of the cases have left the sanatorium, and 8 of these have returned to work. What the final result may be in all of these cases time alone can say, but as far as they go they show that with care the treatment is almost innocuous and clearly beneficial. The treatment was continued for periods varying from four to seventeen months.

33. Metastatic Tumours in the Skin.

In describing a case in some detail and discussing the questions raised by it, M. Askanazy is able to demonstrate that the study of cancerous growths affecting the nerves and their endings in the skin has been markedly neglected (*Berl. klin. Woch.*, November 11th, 1912). The patient was admitted into hospital in the last stages of a mammary carcinoma. The history was peculiar in that the primary growth was still comparatively small and had not implicated much of the surrounding tissue. The patient found that her general health was rapidly giving way, and that numerous small nodules appeared within twenty-four hours in the skin of various regions of the body. She felt a sensation of "drawing," and within the following few hours a nodule would appear in the same site. That this occurred in fact was confirmed by clinical observation. The removal of the primary growth failed to arrest the course of the disease, and the patient died after a short stay in hospital. Histological examination of excised cutaneous nodules and of the same after death showed that in each case the new growth was a secondary scirrhous carcinoma growing in the lymphatic spaces around a nerve, often implicating a Vater-Pacini body, and always avoiding the blood vessels. The infiltration into the nerve tissue was usually defined, but in no instance was there a trace of inflammatory reaction. It is notable that the nodules scarcely increased in size after the first appearance.

34. Foerster's Operation for Gastric Crises in Tabes.

Charbonnel (*Gaz. hebd. des. sci. méd.*, 1912, xxxiii) resected the seventh, eighth, and ninth posterior dorsal roots in a man of 38 suffering from severe gastric crises as a result of tabes dorsalis. At the moment of section the breathing and pulse became accelerated, and after the operation there was a temporary retention of the urine and passing paralysis of the lower limbs. The result was not satisfactory, and the author thinks this was probably due to the insufficiency of the operation, and if another occasion offers he proposes to resect the fifth to the eleventh roots on both sides. Franke's operation consists of stretching the fifth to the twelfth intercostal nerves on each side, and Charbonnel considers this the operation of choice. Koenig injects deeply into the muscles of the back each side of the median line between the sixth and tenth dorsal nerves 100 c.cm. of a 0.5 per 100 solution of novocain, and Charbonnel considers this should be first tried, and, if it fails, recourse should be had to Franke's operation, leaving Foerster's operation as a *dernier ressort*.

35. How Pyelography may be Misleading.

The method known as "pyelography," which consists of making radiographs of the renal pelvis after collargol has been injected, may on rare occasions lead to error. This is illustrated in a case of movable kidney with painful crises, brought forward by Reynard and Nogier (*Arch. d'électr. méd.*, November 25th, 1912). The presence of calculus in the renal pelvis being suspected, a radiograph without collargol was first made, and gave a negative result. Then it was thought possible that the hypothetical calculus was one of those which consist almost entirely of uric acid, and therefore are more or less transparent to x rays in the ordinary way, only being rendered visible by contrast with the different degree of opacity of the collargol. After injection the renal pelvis was seen distended with collargol, and in the centre was a small contrasting shadow, which was thought to be a calculus. An intervention was made, but no calculus was forthcoming, and the trouble was found to be due to a movable kidney. In the opinion of the authors, the opaque shadow surrounded by collargol was probably due to the extremity of a Malpighian pyramid, rather larger than usual, which was so situated that it did not allow the collargol to fill the whole of the renal pelvis uniformly. They suggest that in pyelography only those shadows remote from the calices should be regarded as characteristic of calculus.

36. Ocular Complications in Impetigo.

The occurrence of keratitis in cases of impetigo contagiosa has received scant mention in ophthalmic literature. Stelwagon notes that lesions of the conjunctiva may exceptionally complicate the skin eruption. Bazer records a case in which a boy was affected with impetigo on the face, arms, and neck. In the right eye in the limbus corneae neighbourhood were numerous pin head-sized, clear blisters, whose contents contained cocci. Hansell in *Ophthalmology* for January, 1912, records another case. A delicate girl suffered from a pustular eruption, and also from an ulcerative keratitis. Although these cases are rare, it is quite common for an eye surrounded by impetiginous crusts to be affected with a conjunctivitis which disappears when the skin disease is cured,

OBSTETRICS.

37. Pituitrin as an Oxytoxic.

MALINOWSKY (*Zentralbl. f. Gynäk.*, No. 43. 1912) reports very favourably on pituitrin, and publishes charts showing the rhythm of uterine contractions—normal, violent, and tetanic—excited by doses of this material. His researches were conducted in the Obstetrical Department of the University of Kasan. In suitable doses pituitrin acts promptly on the uterine musculature. Intrauterine pressure rises greatly after injection, the action of the body beginning in about five minutes; it does not matter whether the upper arm, thigh, or the abdominal wall be chosen. The effects of 1 c.cm. of pituitrin last for about one hour. The duration of each pain is perceptibly diminished, and so are the intervals between the pains. After a moderate dose the pains show a normal rhythm—increment, acme, and subsidence. "*Sturmwehen*," however, are noted after almost every administration of pituitrin, and are violent according to the amount injected; these tetanoid contractions last for about eleven minutes, but Malinowsky seems to consider them to be a physiological curiosity, as he has never found them to do any harm to mother or child. Pituitrin acts most favourably in the second stage of labour and at the end of the first. In the earlier state of dilatation of the cervix pituitrin sets up true tetanic contractions, lasting over one-quarter of an hour in certain cases under observation. They were primiparae with membranes unruptured and cervix but little dilated, or multiparae with marked rigidity of the os externum. Yet in both types the uterine contractions returned to their normal character and rhythm as labour advanced. In primiparae after rupture of the membranes tetanus of the uterus was not observed. The fetal heart sounds during the tetanic spasms fell to 60-50 beats per minute, but rose as labour progressed, and the child was born alive without any signs of asphyxia. One cubic centimetre is quite enough for a dose; repeated smaller doses are less satisfactory. The strongest dose not liable to produce ill effects is about 1.3 c.cm. The dose can always be repeated; the second, whether given whilst the effects of the first persist or after they have subsided, never fails to act on the uterine muscle. The third stage is, as a rule, uncomplicated; "the placenta was always expelled spontaneously," and atony of the uterus after delivery was not observed in the cases under Malinowsky's care. Pituitrin appears to be contraindicated where the mother is subject to cardiac and renal disease. Altogether Malinowsky considers pituitrin to be an excellent oxytoxic, and the injection is painless. But, he repeats, caution is necessary in the earliest stage of labour and in cases of rigid os, independently of pelvic contraction or impediments due to the fetus.

GYNAECOLOGY.

38. Hyperaemic Treatment of the Uterus.

ACCORDING to Felix Turan (*Wien. med. Woch.*, April 27th, 1912), the treatment of chronic metritis and endometritis has undergone radical changes in the last few years, owing to the futility of the ordinary local methods. Among the list of failures must be included the treatment by suction exerted on the cervix. Some writers, it is true, claim good results from this procedure, but as they have combined it with other methods, their testimony is unconvincing. Nor is it likely that an unhealthy condition of the uterus can be cured by a procedure the action of which is limited to the cervix. This procedure, which has been tested by several authorities during the past seven years, consists of introducing into the vagina a speculum, which embraces the cervix in an airtight space. When this is exhausted the cervix becomes flushed with blood, while the rest of the uterus is unaffected. Another disadvantage of this method is the pain it causes. The duration of the treatment is consequently limited to a maximum of fifteen minutes, which, according to Bier and other authorities, is totally inadequate. A further drawback to the suction treatment of the cervix is the oedema of the external os which it causes, and which obstructs the free flow of fluid from the uterine cavity. Therefore, though this procedure is safe and easy, it is unsatisfactory. Yet, if suitably prescribed, Bier's treatment seems a rational method of rectifying those disturbances of the uterus which are due to disorders of the circulation, and for the past seven years the writer has been perfecting his method by which suction is directly applied to the interior of the uterus. A catheter is used, the metallic uterine end of which is longitudinally fenestrated. To suit the requirements of every case, several sizes are necessary, and the intrauterine end varies in length from 3 to 6 cm. At the junction of the intrauterine with the intravaginal end there is a rubber ring which prevents the escape of air through the external os and which holds the catheter in place. The vaginal end is 10 to 12 cm. long and is made of semi-elastic material. It is connected with that limb of a mercurial manometer in which the mercury has been previously drawn up by suction. The manometer, therefore, serves both as a suction pump and as a gauge. Before the catheter is introduced the external genitals are carefully cleaned, a speculum is introduced, and the cervix is pulled down by forceps. It is seldom necessary to dilate the cervix beforehand for, in chronic endometritis, it usually admits a thin catheter without difficulty. When it has been introduced, the vagina is packed with gauze to steady it. The degree of suction is read off the manometer, the connecting tube is clamped, and is then disconnected from the manometer, the projecting vaginal end of the catheter being secured by a safety pin to the patient's clothing. She is now free to recline for a little, and to walk about gently if she wishes. When the process is completed for the day, the catheter is withdrawn by a quick jerk, care being taken not to open the clamp before the catheter is removed, otherwise air will enter into the uterus. After use the catheter contains mucus, and when the suction has been powerful and the patient haemophilic it also contains traces of blood. After the first introduction, the procedure, which is painless in skilled hands, takes but little time. The treatment should be repeated daily at first, and later every other day, usually sixteen to eighteen repetitions are advisable. The treatment should be suspended during menstruation, and abandoned if it causes embarrassing haemorrhage. Irritability of the uterine appendages is also a contraindication. On the first occasion the treatment is maintained for fifteen minutes only. As the patient becomes used to it it may be gradually prolonged to several hours every time. The writer began with a negative pressure of 60 to 70 mm. of mercury, but finding that this frequently induced severe haemorrhage he reduced the pressure to less than 50 mm. No serious haemorrhage has occurred since. None of his 52 patients suffered any injury or discomfort from the treatment, nor was infection of the uterus by the catheter ever observed. The avoidance of this complication is attributed to the scrupulous cleanliness practised. The writer's material includes 33 cases of chronic endometritis and 19 miscellaneous cases, including such conditions as amenorrhoea, infantile uterus, habitual abortion, and sterility. Of the 33 cases mentioned, 10 were treated by congestion alone. The results were highly satisfactory in most cases, the patients gaining in general health and weight and the uterine discharge changing from a mucopurulent to a serous nature, and finally ceasing altogether. Conditions such as erosions and menorrhagia also showed marked improvement.

THERAPEUTICS.

39. Scarlet Fever and Intravenous Injections of Salvarsan.

LENZMANN (*Wien. med. Klin.*, November 17th, 1912) has tried the effect of salvarsan on 20 cases of scarlet fever, all of which were severe, and some very severe. At first very small doses were given, 0.05 gram as an initial dose, to persons of 16 to 18 years of age, lest the large quantities of toxins present in the system should give a special sensitiveness to salvarsan and its poisonous action should be increased. These small doses had no effect on the general condition, but also no effect on the course of the disease. The author now gives to patients of 15 years of age and upwards an initial dose of 0.2 gram and repeats the dose on several consecutive days. To children of from 3 to 8 years the initial dose is 0.1 gram, and from 8 to 15 is 0.15 gram. In quite small children, for whom intravenous injection may be impracticable, the author injects a weak alkaline solution subcutaneously, the patient being under chloroform. The effect of salvarsan was quite typical. The fever, instead of keeping up for the first four days, began to fall quickly. Thus in one severe case of haemorrhagic scarlet fever the temperature on the evening of the second day was down to 38.9° C. (102° F.); after a renewed rise it came down on the third day as low as 38.8° C. (101.8° F.); on the fourth day to 38.2° C. (100.7° F.), and on the fifth to normal. In the cases as a whole the fever might be described as

showing a step-like descent like that seen in the defervescence after typhoid. After each dose the fever rises for from two to four hours, and then quickly falls. After the first dose the fall is only a total one of 5 to 6 points, and lasts only for a few hours. After the second dose there is again a short rise and then a fall of from 1 to 2 degrees. A third injection brings it to about 38° C. (100.4° F.). On the fifth day it comes down to normal. With regard to other symptoms in the author's cases, the rash quickly lost its vivid colour and came out only sparingly on the arms and legs. Subjectively the patient felt much better during the intervals of lower temperature. In two very severe cases the condition by the second day had very greatly improved, vomiting and diarrhœa had disappeared; in the hæmorrhagic case nose bleeding ceased on the third day. The speedy improvement in the throat symptoms was of even greater significance. After the first injection there was clear improvement in the symptoms on swallowing; on the third day the tongue had cleaned and pain on swallowing disappeared. In no case did necrotic processes develop, however severe the inflammatory symptoms had appeared to be in the prodromal stage and on the first day before the injection. The only complication in any of the cases was the development of an otitis media in the hæmorrhagic case on the eleventh day. No harmful side-effects were observed. In cases in which the pulse was soft or irregular the dose on the second day was only half the initial dose; but the initial dose was returned to on the third day if the fever were lower. As a rule the nearer the patient was to defervescence the better able he became to bear a large dose. Possibly larger doses than these recorded here could be safely given, but further investigations are needed. The author concludes that: (1) Treatment of scarlet fever by intravenous injections of salvarsan or by subcutaneous injections of weak alkaline solutions exercise a favourable influence on the cause of the disease; (2) dangerous complications seem to be avoided as a result of its use; (3) with careful dosage the treatment is harmless.

40. Vaccines in the Treatment of Pertussis.

Ladd (*Arch. of Pediat.*, August 1912) records a series of cases of pertussis treated with a vaccine prepared from Bordet's bacillus. Resembling the influenza bacillus in size and shape it is usually present in the viscid exudate expectorated from the bronchi during paroxysms of coughing, and the strongest evidence of its being the causative factor of whooping-cough is afforded by the agglutination and complement fixation reactions first observed by Bordet, and since confirmed by numerous investigators. After growing the organisms on blood-agar in the incubator for twenty-four hours the growth is washed off with sterile salt solution, and a bacterial count made of the number of organisms per cubic centimetre. After killing the organism by heating in a water bath at 60° C. the emulsion is diluted with salt solution to the desired bacterial count per cubic centimetre. The cases selected were typical of the disease, and the blood counts showed the relative increase in mononuclear cells. A minimum interval of five days was given between each injection, and no harmful effects were produced, there being neither constitutional symptoms nor local reaction. At first doses of 20 million were given at each treatment even to an infant, but later injections of 40 million were given four times to babies of nine months. No other treatment was adopted, and all recovered without complications on an average in five weeks from the commencement of the treatment, which was usually started in the third week of the disease. The vaccine certainly appeared to have a favourable effect in cutting short the attacks, and it is at least worthy of a further trial.

41. The Rational Treatment of Phthisis.

Sabourin (*Journ. des praticiens*, October 12th, 1912) expresses the opinion that, amidst the innumerable list of serums, vaccines, and tuberculins, the true foundation of all antituberculosis therapeutics may be lost sight of. These are (1) a pure atmosphere, night and day; (2) regulation of both exercise and rest; (3) a sufficiency of good nourishment; (4) hardening of the organism by all reasonable methods. The latter comprises all hygienic measures capable of exalting the resistance of the individual, raising the vitality of his tissues, and restoring the functions of assimilation and disassimilation. The patient must accustom himself to cold and changes of atmosphere, fearing neither wind nor rain. This hardening treatment is of benefit in a great number of persons actually tuberculous, and should be still more valuable as a prophylactic in those who are likely to be susceptible to tuberculous attack. The author admits that outrageous exaggerations of the rational method of treatment have been tried, and with unfortunate results. To apply the method indiscriminately to all tuberculous persons is bad practice. The treatment of all cases of tuberculosis is essentially individual and particular. The dietary, too, must not be lost sight of, ought not to be too rigid in any respect, and may range from suralimentation on the lines of a purely flesh dietary to a more or less severe vegetarian dietary. In the author's view this treatment is obviously more suited for patients under sanatorium conditions than in ordinary life. He asserts that tuberculino-therapy is losing ground even amongst its warmest partisans. The rational method of treatment is bound to become more and more perfected.

PATHOLOGY.

42. Rhythmical Contractions of Isolated Heart-muscle Cells outside the Organism.

The work of Carrel, Braus, Harrison, Burrows, and others in the attempt to cultivate animal tissue cells outside the body has received a material addition by the introduction of improved technique. M. T. Burrows (*Muench. med. Woch.*, No. 27, 1912) records the technique which he has been experimenting with in the cultivation of heart-muscle cells, and then proceeds to give an account of the results of his observations. Growth is divided into two distinct periods. First, there takes place a lively migration of cells from the original piece of tissue, and next the cells undergo division and differentiation. The first period begins toward the end of the first day and lasts about five days, while the second period progresses slowly and is prolonged. In some cases as early as the fifth day, while in others on the fourteenth day, rhythmic pulsation of the cells is seen. This is in the divided and differentiated cells. This rhythmic movement is seen not only in the growth derived from young embryos, but also from those of fourteen days old embryos. The isolated cells are spindle-shaped, and the contraction is seen distinctly, the relaxation being sudden and most striking. The important part of these observations appears to depend on the fact that on the fourteenth, fifteenth, and sixteenth days the pulsation of the migrated cells remained synchronous with that of the main piece, but after this the migrated cells pulsated at a different tempo. It thus appears that the cultivated heart cells possess a spontaneous contractility, and that the myogenous theory of the heart beat receives a powerful support by these observations.

43. Synthetic Antigens for the Meiostagmin Reaction in Malignant Tumours.

G. Izar (*Wien. klin. Woch.*, No. 33, 1912) describes the attempts made at the Pathological Institute of the University of Catania to remove the difficulties which arise in carrying out the meiostagmin reaction as a result of the variability of the antigen. The experiments were in three directions. Attempts were made: (1) To purify the antigen by successive precipitation from methyl alcoholic solutions by means of various precipitants; (2) to use synthetic preparations as antigens instead of antigens such as the methyl alcoholic tumour extracts of Ascoli and Izar, the pancreatic extract of Micheli and Cattoretti, or the lecithin extract of Köhler and Luger; (3) to substitute for the customary proof of reaction, proof by complement fixation with purified synthetic antigens, or by the occurrence of haemolysis as a result of the setting free of haemolytic substances on the use of suitable antigens. The results are described under the three different heads. The preparation obtained from successive precipitation of pancreas antigen in methyl alcoholic solution by means of treatment with acetone, ethyl alcohol, ether, benzol, and petrol ether, proved no more stable than the initial alcoholic extract, but while the initial extract was insoluble in acetone the later product was soluble—a circumstance which is of interest in view of the solubility in acetone of Köhler and Luger's lecithin extract. The following antigens, prepared according to Fischer's method, proved to be usable: myristil (Witte), peptone, myristil-albumose from Witte's peptone, myristil-albumose prepared by digestion of calf's pancreas with trypsin and with pepsine and hydrochloric acid, myristil-edestin-elastine-caseineo-kyrine. Instead of myristil acid was also used the fatty acids of oleic and palmitic acids freed from calf pancreas, from human sarcomata, from carcinomata, and from cocoa butter. Complement fixation with the purified antigens proved to be equally strong both with tumour and non-tumour cases. The experiments with regard to haemolysis proved more hopeful, but further investigations are required.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

44. Dropsy of the Whole Biliary System.

DROPSY of the gall bladder and bile ducts is discussed by Silas Lindquist (*Upsala Läkareföreningens Förhandlingar*, vol. xvii, Nos. 4 and 5), who summarizes the observations on this condition since it was first described by Courvoisier in 1890. Twenty-two cases have been recorded, and the author contributes the following: Towards the close of her eighth pregnancy, a woman, aged 38, developed colitis, with alternate diarrhœa and constipation. Violent attacks of pain near the lower costal margin were accompanied by nausea and perspiration. The attacks grew worse, and the stools became grey. The light yellow urine contained albumen, granular casts, leucocytes, and bile pigments. After the completion of labour, a large, tender swelling was found in the right abdomen, which was much distended. Under its thin wall the outline of the colon and of part of the small intestine was visible. In the epigastrium the lower border of the liver was easily palpable, and it merged gradually into the tender swelling, which extended down to the middle of Poupart's ligament. The spleen was palpable below the left costal margin, and the pouch of Douglas was tender on palpation per rectum. The temperature was 101.3°. Laparotomy revealed an enormously enlarged liver and a much distended cæcum, the gas in which was withdrawn by puncture to facilitate exploration. The surface of the liver, which was livid, was perfectly smooth, glistening, and covered by a network of white, almost transparent vessels. The gall bladder and bile ducts were dilated, but contained no stones. In the right half of the peritoneal cavity and about the liver was a cloudy, slightly haemorrhagic fluid, which contained the colon bacillus. The duodenum, pancreas, and stomach appeared normal; but close to the middle line, beside the aorta, and at the level of the pancreas, was an enlarged lymphatic gland of the size of a thumb. On puncture, the gall bladder yielded an almost transparent, watery, and slightly viscid fluid. The walls of the bladder were thickened and œdematous, and its ducts were found, on probing, to be open. Cholecystostomy was performed. The fluid which escaped from the gall bladder was sterile, and it gradually acquired a yellow tinge. The patient, who also suffered from chronic bronchitis, made a slow recovery. Brunner traces dropsical fluid in the gall bladder and bile ducts to lymphatic glands within their walls. The bile ducts and the neck of the gall bladder are supplied with glands which, under normal conditions, secrete a fluid which mixes with the bile and constitutes, according to Langenbuch, only 0.1 per cent. of the contents of the gall bladder. Cholelithiasis induces glandular hypertrophy in the wall of the gall bladder, and Tornqvist, who examined the fundus of the gall bladder in 12 healthy cases and in 33 cases of cholelithiasis, found in the first class no deep-seated glands, but they were present in 20 cases in the second class. Probably both gall stones and infection stimulate the growth of glands which secrete freely. When stenosis of the bile duct is complete, bile escapes by the lymphatic and blood vessels, and is replaced by secretion from the hypertrophied glands in the walls of the gall bladder. Why dropsy of the whole biliary system is so rare it is difficult to explain, and in the author's case, in which there were no gall stones nor stenosis of the bile ducts, the marked stasis in the biliary system is at first sight inexplicable. The author suggests that pregnancy was the primary cause of the stasis, for disorders of the liver and of the biliary system are of common occurrence in pregnancy. But it is not clear whether pregnancy acts merely by mechanical obstruction caused by the proximity of the uterus and liver, or whether it injures the latter by toxins or microbes.

45. Ulcerating X-Ray Dermatitis.

G. DARIER (*Ann. de dermat. et syph.*, October-November, 1912) describes a case of ulcerating *x*-ray dermatitis, the interest and importance of which centres in the fact that the lesions developed with extreme and obstinate chronicity, after a latent period of nearly twelve years. The patient was a woman aged 49, who in 1899 was treated for a supposed tumor mammæ by the Roentgen rays. She received in all more than thirty sittings of fifteen minutes' duration each. They were given over a period of four months—twice weekly for three months, and then once a week for one month or longer (December, 1899). She has never had *x* rays since. In June, 1900, six months after the last exposure, she developed a superficial *x*-ray dermatitis, which gradually gave place to a plaque of scleroderma associated with some loss of substance, and great pain and hyperæsthesia (February, 1901). After treatment with zinc paste and other mild measures she was discharged cured (November, 1901), and it was not till July, 1911, that is, eleven years and seven months after the last *x*-ray exposure, that the condition described by the author as an ulcer surrounded by three concentric zones of pathologically altered skin, set in. These zones, he states, are an expression of the diminishing destructive intensity of the rays from the centre (= the normal ray) to the periphery, and are typically the result of weak but very numerous and closely approximated applications. The interesting feature of the case is the fact that from November, 1901, until July, 1911, the patient was quite well, and that then, without assignable cause on her part, the ulcer slowly developed. It required six months to heal up. In his complete histological survey of the case Darier excludes epithelioma—a common sequela in an *x*-ray burn—and describes the microscopical findings in each zone. Briefly summarized from periphery to centre they were (1) excessive cornification and epidermal hypertrophy, with slight round cell infiltration in the papillæ of the corium, in zone 1. (2) Degeneration, more or less marked, of the epidermis, and necrosis of the papillary body (zone 2). (3) Complete destruction of the epidermis, and fibrosis in the papillary layer with marked dilatation of the vessels in the corium, in sections near the centre of the ulcer itself (central zone 3).

46. Haemophilia Neonatorum in a Family of Four Infants.

PITFIELD (*Archives of Pediatrics*, October, 1912) records four cases of haemophilia neonatorum occurring in brothers, whose parents were both healthy, with no tendency to bleed. The first boy, soon after a natural birth, became very yellow, vomited black material, and passed tarry stools, and the condition was accompanied by fever and rapid loss of weight. Though at the end of eighteen days the icterus was intense, he finally completely recovered. The second boy became jaundiced three days after birth and subdural haemorrhages followed, as manifested by coma and convulsions, from which he eventually recovered, but his mental and nervous health remained defective until somewhat improved five years later by a cranioplastic operation for the release of some dural adhesions, which occupied the site of the old subdural haemorrhages. The third boy was icteric when born, and became profoundly so when 48 hours old, dying from subdural haemorrhages before living three days. In addition to the subdural haemorrhages, the autopsy disclosed haemorrhages into the liver. With this history of haemophilic jaundice ascending in degree of malignancy in these three children, large prophylactic doses of calcium chloride were administered to the mother and acid fruits excluded from her diet during her pregnancy with the fourth child, and ether was used instead of chloroform at the labour. The fourth boy weighed 8¾ lb. at birth and did not exhibit the slightest tendency to bleed from the cord or from mucous membranes. In five hours a faint icterus appeared, which, by the end of twenty-four hours, had become marked, and minute petechial haemorrhages were seen in the skin. Serum obtained from the veins of the nurse were injected. During the second and third day 72 c.cm. of blood were injected in doses from 4 c.cm. to 15 c.cm., and at the end of three days the petechiæ and jaundice had disappeared, and the child looked and remained normal.

47. The Bismuth Meal.

A. F. HERTZ (*Arch. Roentgen Ray*, November, 1912) states that Rippmann and he have found that the weight of the bismuth mixed with the food produces a very slight degree of distortion of the stomach, which is greatly increased in cases of atonic dilatation. It also tends to drag the cæcum and the end of the ileum downwards. It is clear, therefore, that the smaller the dose of bismuth used in examinations of the alimentary canal, the more accurate will be the results obtained by means of the *x* rays. Except in very stout individuals, 2 oz. of a bismuth salt is ample for all practical purposes. The use of 6 oz. trebles the error.

SURGERY.

48. Treatment of Cancer of the Stomach by Radium.

Two interesting cases in which radium has been applied successfully in cancer of the stomach are described by Julien (*Arch. d'électr. méd.*, December 10th, 1912). A combined method of external and internal application was employed, the internal application being made by bringing the radium simply to the surface of the tumour. One of the patients had a tumour in the pyloric region the size of a small mandarin orange. His state of extreme cachexia not permitting an operation such as gastro-enterostomy, radium was applied after laparotomy under cocaine. The tumour, situated on the anterior face of the stomach, was found to be much more flattened than the palpation had suggested: therefore the idea of introducing a radium tube into the mass of the tumour had to be abandoned for fear of penetrating the stomachal cavity. The radium tube used was one of the kind employed by Dominici, and contained 1 cg. of pure radium sulphate, with an external activity of 12,000. This was placed in a Nélaton's soft-rubber catheter, the extremity of which was closed with silk. The catheter was held in position by two loops of catgut, which, however, permitted the tube easily to be displaced when necessary. The tube remained in position upon the tumour for fifty hours. During the first half of that time, at the end of each period of six hours or so, the tube was lowered vertically 1 cm. by means of a silver-wire attachment. During the second half of the time it was made to ascend by stages in the same manner. Thus the tumour was divided into four zones, each of which was irradiated for about twelve hours in half periods of six hours each, save the lowermost zone, which was irradiated for twelve consecutive hours. In addition to this internal application, two tubes of radium (1 cg. of pure radium sulphate each, external activity, 12,000 and 11,000), sheathed in silver, were placed upon the abdomen. The operation was normal, and there was reunion by first intention. By the tenth day the tumour was proved by palpation to have entirely disappeared. There only remained, in the region which it had occupied, a sensation of resistance, clearly submuscular. In a second case a similar tumour was discovered, and an identical operation was practised, save that two tubes were introduced instead of one, each containing 1 cg. of pure radium sulphate. The time of application was seventy-five hours. Externally no fewer than six applicators were used, including three tubes of various activities, and three varnish apparatus. In this case also the consequences of operation were normal. By the tenth day the tumour had considerably diminished. The pulsations transmitted by the abdominal aorta were no longer visible, as they had been previously, although they were demonstrable on palpation. The general state also was better. A month later a second external application was made, and the tumour diminished further. Within a few months, after yet another application, the tumour entirely disappeared, and the patient, whose digestive troubles had continued for five years, resumed a normal life.

49. Death in Local Narcosis.

G. Ritter (*Wien. med. Klin.*, No. 30) describes the death of a girl 16 years of age during local anaesthesia, before the beginning of an operation for goitre. The goitre caused tracheal compression, and there was moderate tachycardia, but otherwise the patient was healthy. A dose of 1.5 gram of adalin per os, followed half an hour later by 0.015 gram of morphine subcutaneously, had been given at 10 o'clock on the morning of the operation to relieve the patient's nervousness and excitability. She was brought into the operating theatre about 11.15 o'clock, and at that time she was placid, and, in answer to questions, said she felt tired; but she was fully conscious. At about 11.30 o'clock the customary dose of 50 c.cm. of a 2 per cent. solution of alypin was injected into the site of operation. Ten minutes after the end of the injection unconsciousness suddenly set in, accompanied by twitchings of all the muscles, gasping respiration, cyanosis, and small irregular pulse. The eyes were widely opened, the pupils narrow, and the corneal reflex absent. The attack passed off after thirty to forty seconds, but consciousness did not return, and the pulse remained irregular and smaller than before. The attacks recurred at the beginning at intervals of a few minutes, and then even more frequently. In spite of the most assiduous and energetic treatment the patient died after about eight hours. The author considers that death in this case was probably due to the combined effect of the narcotics employed and of alypin. The case is, so far as he knows, unique.

50. Ocular Leprosy.

Ocular leprosy is an exceedingly rare state in England: but whereas the circulation of this Journal comprises the whole British Empire, in parts of which leprosy is not uncommon, a summary of Dr. Fernandez's paper which appears in *Ophthalmology* for January, 1912, will not be out of place. Dr. Fernandez writes from Cuba, where leprosy is on the increase. Ocular complications are frequent in leprosy, and sight is often completely destroyed. Fernandez, acting as oculist to the Leprosy Hospital in Cuba, has found eye symptoms in 150 patients out of 250 examined. Loss of eyebrows and eyelashes is found in all advanced cases, and later the hair also disappears. Often these leprous changes are not limited to alopecia: ulceration and necrosis of the lids follow, and distortions of the tarsus are frequent, causing both ectropion and entropion. Tubercular lepromata appear in the conjunctiva, and these extend into the cornea, giving rise to a leprous keratitis. This causes opacity of the whole cornea, and, in contradistinction to leprosy affecting other parts of the eye, is apt to be exceedingly painful. This keratitis is not amenable to treatment and perforation is common. Calderaro states that Hansen's *Bacillus leprae* is frequently present in the limbus. True lepromata of the cornea itself are rare. The leucomata left by the leprous ulceration are astonishingly white and are associated with a thinning of the cornea, two phenomena which seem to be characteristic of corneal leprosy. Leprous iritis is common and is very painful; it is always an iridocyclitis. The retina and choroid are only very rarely affected. It is perfectly proper to extract an ordinary senile cataract in a case of leprosy.

51. Coxa Vara Cervicale of Infectious Origin.

Rocher (*Gaz. hebd. des sc. méd. de Bordeaux*, 1912, xxxiii) describes the case of a boy, 16 years of age, who at the age of 10 suffered from arthritic symptoms following acute scarlet fever. The case was treated as one of coxalgia for many years, and was accompanied by painful crises with stiffness, shortness of the limb, and limitation of movements, pain on pressure applied to the head of the femur, and slight atrophy of the limb. Radiography revealed flattening of the superior part of the head of the femur, with enlargement. The treatment consisted of immobilization by means of bandages, thermo-therapy, revulsions, and an extra sole to the boot. The author narrates this case to show that coxa vara can be caused by an infectious malady, as Froelich maintains.

OBSTETRICS.

52. Puerperal Fever.

According to Brandt (*Norsk Magazin for Laegevidenskaben*, October, 1912) the incidence of puerperal fever at the present time is overrated, as the diagnosis is frequently made on insufficient grounds. Only a carefully conducted necropsy provides reliable evidence for or against puerperal fever, as the following case shows. A primipara, aged 26, underwent a normal confinement at full term. The temperature throughout the puerperium was subfebrile, and a swelling was detected extending from the right border of the uterus to the right iliac fossa. The patient coughed considerably, and there were signs of pulmonary tuberculosis in the left apex. The child died twenty-six days after birth, and the mother died three days later. The necropsy showed the cause of death in both cases to be tuberculosis, and the swelling in the pelvis to be due to tuberculous salpingitis. The following case aroused much interest in Christiania in 1911, as the patient's husband reported the authorities of the maternity hospital to the Minister of Justice for gross negligence. The patient was a 2-para whose first confinement had been complicated by placenta praevia and severe haemorrhage, the child being stillborn. At the second confinement, which lasted 21½ hours, no internal examination was made. A living child was born, and only one suture was required for a slight wound of the perineum. On the evening of the third day the temperature rose to 100.2° in the axilla, and on the eighth and ninth days it was 95.5°; otherwise it was subnormal. The slight rise of temperature was attributed to a "cold," for on the fifth day herpes labii appeared. The mother and child were discharged on the fourteenth day apparently quite well. Shortly afterwards the mother felt unwell, but her physician detected no illness. Another physician was summoned, who found fever, and a swelling to the left of the uterus. He attributed the death, which occurred a

month after the patient's discharge, to puerperal fever. But this diagnosis is reprehensible, for the history of the case is not characteristic of such a state, and it is more likely that an old inflammatory focus, possibly a pyosalpinx due to the placenta praevia of the first confinement, flared up after the second confinement. Many other instances are recorded of perforated gastric and duodenal ulcers, of appendicitis, miliary tuberculosis, gonorrhoea, extragenital thrombosis, osteomyelitis, etc., which were the causes of fever in the puerperium. But, after the exclusion of these cases, the incidence of true puerperal fever is still deplorably high. In Norway alone the yearly toll is 100, in Germany it is about 5,000, and in France about 8,000. When Semmelweis succeeded in reducing the mortality from puerperal fever to 0.5 per cent., he prophesied that a further reduction would be impossible. To day the mortality from this cause is still 0.2 per cent. in Norway, and 0.3 in France and Germany. Assuming the conduct of labour to be blameless, owing to the skilled use of antiseptics and the avoidance of internal examinations, the causes of puerperal fever at the present time are: (*a*) Autoinfection by the blood stream from a distant focus, such as a tonsillitis, a mastitis, or an otitis media; and (*b*) autoinfection from germs already present in the uterus and its appendages before labour. Tonsillitis is common in the puerperium, and Brandt has noticed the coincidence of fever among the maternity patients and epidemics of tonsillitis, with or without diphtheria bacilli, among the nurses. In the following case the only source of infection detected was a whitlow. A 4-para, aged 30, was admitted to hospital after labour had lasted for some time and the liquor had escaped. Pulse and temperature were normal, and labour was terminated in four hours. No internal examination had been made. Defaecation on the fifth day was followed by abdominal pain and high fever; the lochia also became offensive. Next day a whitlow of the right thumb was detected. Death occurred on the thirteenth day, and the necropsy showed parametritis, peritonitis, and a small fragment of placenta within the uterus. It is a popular belief that phlebitis in the puerperium is due to infection during labour, but this is not necessarily so. A 2-para, aged 36, who suffered from painful varicosities of the veins of the legs during her second pregnancy, underwent a normal confinement, no internal examination being made. On the day of her confinement periphlebitis of the saphena veins on both sides was detected. Thrombosis of both veins followed, there was severe pain and oedema in both limbs, and the patient was confined to her bed for three months. In this case to associate the phlebitis with infection during labour is absurd, for the former already existed when infection might have occurred. Puerperal fever caused by faulty technique, by infection from a distant focus in the patient's body, and by autoinfection from germs already present in the uterus is common enough, but it is often diagnosed when a host of other diseases are to blame.

GYNAECOLOGY.

53. Adnexal Infection.

DE BORIS (*La sem. méd.*, No. 48), in a paper on adnexal complications following confinement, describes a condition which he calls lymphangitis of the superior border of the broad ligament. Clinically there are three forms—the algesic, the exudative, and the suppurative. The first is characterized by a slight rise of temperature on the third day, offensive lochia which are not at first discoloured, and moderate pain in the right iliac fossa. The condition clears up in two or three days. The second form is characterized by the presence of a tumour, generally on the right side; the onset is similar to that of the first form, though the fever is more marked; shivering is rare, and constitutional disturbance is slight. The uterus always remains mobile, but involution is delayed. The lochia, generally offensive, become chocolate coloured on the fifth day and eventually purulent—a state of things which the author considers is not due to salpingitis. In from eight days to a month and a half the exudation is completely absorbed. The third form differs from the second in that the tumour is larger, the lochia are fetid, the temperature is markedly remittent, and there are rigors. At the same time the general state is relatively little altered as compared with a septicaemic infection. Pathologically and clinically the conditions resemble the classic entity of phlegmon of the broad ligament or periuterine phlegmon, but there is a difference: the uterus in the conditions under consideration preserves its mobility, and the infection seeks for choice the upper part of the broad ligament; in periuterine phlegmon the infection is localized at the base. The diagnosis is easy, but on the right side there may be confusion with appendicitis; however, an appendicitis giving rise to so large a tumour would probably be accompanied by vomiting, meteorism, and violent pains. As regards treatment, one has to guard against operating simply because there is a tumour; most of the cases will clear up under medical treatment, of which the most essential item is the application of ice to the abdomen.

THERAPEUTICS.

54. Intestinal Movements under the Influence of Aperients.

F. MEYER-BETZ AND T. GEBHARDT have published in considerable detail the results of their investigations of the intestinal movements under the influence of various purgatives and aperients in healthy persons by means of *x* ray illumination (*Muench. med. Woch.*, August 13th and 20th, 1912). They state that this work could scarcely have been carried out without the excellent observations of Magnus and Padtberg on the cat having preceded. It is important in a short abstract to give the important data which form the subject of the communication, but the reader who is interested in the same will be well advised to refer to the original article. After describing the method of procedure, they give an account of typical experiments usually conducted on young patients whose digestive apparatus were natural. They divide these into four classes. In the first they deal with senna and aloes. The stomach and small intestine are not affected by these drugs. The action, limited to the large intestine, is not a stormy one, but consists of a combination of increased peristalsis with what has been termed by Schwarz as "small movements of the colon." The contents are well intermixed and the passage through the colon into the sigmoid flexure and rectum is a rapid one. Variations and minor points in the action of these two purgatives are both described in the text and illustrated by diagrams. In the next class castor oil is dealt with. In this case, although vomiting was at times noticed, no increased peristalsis of the stomach could be detected. The action on the small intestine is best marked when the oil reaches the already full gut, and in the course of from three to four hours causes the whole contents to be thrown into the colon. The movements in the small intestine are partly rolling peristaltic movements and partly rhythmical segmentative movements. The mass reaching the colon remains practically fluid and the normal real caecum movements are not observed. The haustra are not well marked and the intestine is filled with gas, probably from secretion. No "small colon movement" is present and the discharge of the mass into the sigmoid and rectum takes place suddenly as the result of increased onward peristalsis. The third group of purgatives, that of the drastics, is represented by jalap. The results obtained correspond to a great extent with Padtberg's colocynth experiments. The increased secretion in the small intestine leads to a complete filling of the gut. In about three hours the contents of the small intestine is discharged. The normal caecum activity is absent and the rapid passage through the large intestine of the fluid motion is characterized by repeated filling and sudden emptying of the ampulla. The fourth group is that of the salines. In this case the marked watery secretion of the intestine leads to an almost uniform passage of the fluid motion throughout the whole intestinal tract. The action is similar to that of jalap. The authors further have investigated the action of calomel. This drug stimulates every segment of the intestine. In the small intestine rolling movements are produced, and, while the secretion is not increased, the peristalsis often becomes stormy. This is best seen in the large intestine. They find that calomel is endowed with the power of emptying the intestines better than any other drug, and state that if it were not for the danger of an undesired absorption of the poison it would be the best and most searching purgative that we possess.

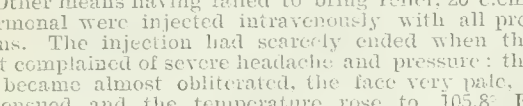
55. Alarming Symptoms after Hormonal Injections.

THE number of accidents following injections of hormonal has recently been increased. W. Wolf (*Muench. med. Woch.*, May 14th, 1912) reports the case of a man, aged 23 years, who had been subjected to splenectomy a year previously, on account of rupture of the spleen. An operation for a

ventral hernia having been performed, the author proceeded to give an injection of hormonal into the median vein two days later, to deal with symptoms pointing to peritonitis. These were distension of the abdomen, feeling of fullness and absence of flatus and faeces. He had only given 3 c.cm., when the patient suddenly turned pale, the pupils became dilated, the lips cyanotic, and the expression of face betokened fear. He complained of a severe headache. No pulse could be felt. The injection was interrupted, and after camphor, wine, etc., had been administered he gradually got better. The collapse was most alarming while it lasted. H. Birrenbach (*Muench. med. Woch.*, May 21st, 1912) injected 20 c.cm. of hormonal into the gluteal muscles. The patient was in good circumstances, and the injection, which was undertaken for obstinate constipation, was carried out in her private house. At first no signs were noted, but after a minute or two the face became red and she complained of severe headache and giddiness. Then she became intensely pale, the pulse was dicrotic, small, and soon disappeared, and consciousness was lost. He could only just hear the cardiac sounds. Not having any trained assistance at hand and being limited to what was to be found in a private house, he gave her champagne, hot coffee, and massage over the heart. Consciousness returned after about twenty minutes, but the headache persisted for some hours. Five hours later two motions were passed, and since then a stool has been passed each day or each alternate day. Birrenbach states that the accident was most alarming to witness. D. Frischberg (*Muench. med. Woch.*, April 30th, 1912) records the case of a man who underwent an operation for appendicitis. During the following four days complete obstruction of the bowels developed with signs of peritonitis. Other means having failed to bring relief, 20 c.cm. of hormonal were injected intravenously with all precautions. The injection had scarcely ended when the patient complained of severe headache and pressure: the pulse became almost obliterated, the face very pale, a rigor ensued and the temperature rose to 105.8° F. Camphor and other restoratives were applied and the attack passed off, but the patient suffered from the headache and other symptoms for some time. The effect of the hormonal was exceedingly good, the flatus and motions passing within a short time. A similar, but not quite so severe, experience was made by H. Bovermann (*Muench. med. Woch.*, July 9th, 1912) in a woman, on whom he had performed an operation for cancer of the gall bladder. In this case the action of the hormonal was excellent, but the symptoms developing one and a half hours after the injection were most alarming. Two deaths have been recorded, the first by Madlener, and the second, recently, by Jurasz (*Deut. med. Woch.*, No. 22, 1912), and R. Mohr (*Berl. klin. Woch.*, June 24th, 1912) warns the practitioner that a most alarming collapse, which may be fatal, may occur in any case in which hormonal is injected. He attributes the collapse to a sudden lowering of the blood pressure, and he raises the question whether the action is due to a specific hormon. In some animal experiments, he has found that quite small doses of adrenalin sufficed to remove all the action of hormonal, which suggests that there was no direct action increasing peristalsis.

56. Melubrin.

MELUBRIN or the phenyl-dimethyl pyrazolon amido-methane sulphonate of sodium having the formula:



or, in other words, antipyrine, with one hydrogen group substituted by amido-methane sulphonate of sodium, is manufactured by Meister, Lucius, and Brüning, of Höchst. It is a white crystalline powder, possessing but little taste, and is soluble in water to the extent of 1 part by weight in 1 part of water. Solutions of melubrin are not stable, and it is therefore advisable to prescribe it in dry form. A few favourable reports of its action having been published, the preparation has been tested in the General Municipal Hospital in Friedrichshain, Berlin, in Professor Stadelmann's wards. F. Hoppe (*Berl. klin. Woch.*, May 27th, 1912) now gives the results of this trial. In acute rheumatism satisfactory results were obtained. The temperature fell, profuse sweating broke out, the pain, swelling, and redness of the joints disappeared or were materially reduced in three days' medication. Return of pain and other symptoms was at times noted, but a fresh exhibition of the drug rapidly removed the same. As a rule, the dose given was 1 gram three or four times a day, but at times the daily maximum was increased up to 8 grams. No signs of salicylism were met with, even when full doses were employed. In about 6 cases the drug failed to reduce the pain and swelling of the joints and at times even the temperature. In these cases salicylic acid or aspirin succeeded in removing the refractory symptoms. Hoppe states that while they had not observed any beneficial action in cases of endocarditis, no harm accrued in giving the preparation even in the presence of well-marked heart disease. The only result obtained in chronic rheumatism was a slight and temporary diminution of the pains. It also failed to act in gouty arthritis. It acted well in sciatica. The antipyretic action was tested in cases of pneumonia. In a few the fever was uninfluenced, while in other cases it was reduced to some extent. In pulmonary tuberculosis it was given three times a day in doses of 1 gram. The temperature was reduced, but the sweating was so profuse that the patients refused to continue with it. The dose was then modified by dissolving 5 or 6 grams in 200 c.cm. of water and giving up to a tablespoonful of this solution seven times a day. In 4 cases it acted well, without any objectionable sweating or loss of appetite. The urine of patients who had received melubrin yielded a violet coloration with perchloride of iron, and in some cases it possessed strong reducing properties. The reducing substance proved to be glycuronic acid. A disadvantage of melubrin as against salicylic acid is its price, which is 57 marks 50 pfennings pro kilogram.

PATHOLOGY.

57. The Staining of Spirochaeta Pallida.

TRIBONDEAU (*Bull. de la Soc. Franç. de Derm. et Syph.*, November, 1912) says there are three desiderata for the successful staining of the organism: (1) The material should be obtained from the infiltrated tissues around the chancre and not from its surface where other micro-organisms abound. (2) All substances which are stainable with silver nitrate, such as, for example, haemoglobin, should be eliminated as far as possible. (3) The method of fixation and impregnation with silver should be as energetic as possible as the *Treponema* stains with difficulty. Three solutions which can be kept in stock for months are requisite—a fixative, a mordant, and a silver nitrate solution. (*a*) The fixative consists of:

Formalin, 40 per cent.	2 grams
Pure acetic acid	1 gram
Distilled water	100 grams

(*b*) The mordant is:

Tannic acid	5 grams
Distilled water	100 ,,

(*c*) And the silver solution, made alkaline by Fontana's method—that is:

$AgNO_3$	1 gram
Aq. destill.	20 grams

To 15 c.cm. of this solution add ammonia drop by drop until the sepia precipitate produced completely disappears. To the alkaline solution thus obtained the remaining 5 c.cm. of $AgNO_3$ are gradually added until the solution remains slightly opaque after shaking. This solution (*c*) keeps active and constant for several months. Technique: (1) The syphilitic material obtained after drying of the chancre with cotton-wool and scarification of the edges till slight bleeding occurs is spread on a slide in the ordinary way and dried in air or the incubator at 37° C. It must not be fixed by heat. (2) Fixation and dehaemoglobinization are achieved by irrigation for one minute with the fixative (*a*), and the action is perfected by a few drops of absolute alcohol, which are allowed to dry on the inclined slide. (3) The mordant (*b*) is allowed to act over a flame till just steaming for thirty seconds. (4) Wash in tap water thirty seconds. (5) Pour off excess of water, and without drying add the ammoniated silver solution, which must be allowed to act over a flame as in (3) for thirty seconds. (6) Wash in distilled water and dry on blotting paper. It will be seen that the time occupied by these manœuvres does not exceed five minutes. The films should have a yellowish tint when finished. They should not be mounted in balsam or left for long under cedar-wood oil or xylol, or the stain will fade. The *Treponema* is easily seen, especially where it overlies the red blood corpuscles. The *Sp. refringens* and *balanitidis* are distinguished by their darker tint and morphological characters. It is claimed for the method that it is easy, certain, and rapid, that dried specimens can be examined with success even a year later, and that it requires no special skill or expensive apparatus.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

58. Harmless Adventitious Cardiac Murmurs in Children.

W. Schlieps (*Jahrbuch für Kinderheilkunde*, September, 1912) has investigated the incidence of adventitious cardiac murmurs among children, 273 of whom were examined. None who had suffered from articular rheumatism, scarlet fever, or diphtheria was included in this investigation, yet a hundred cases of systolic murmur were found. All the children were repeatedly examined at different times, in different positions, and both before and after exercise. Cardio-pulmonary murmurs constituted 63 per cent. of all the murmurs. The distinction between this murmur and that of organic heart disease is made by observing the soft, blowing character, the irregularity, and the changeableness of the former. The two latter characteristics may appear spontaneously or may be elicited by certain acts. Thus, the murmurs not merely come and go, but they become loud or soft, according as respiration is varied and the posture of the body is changed. Murmurs which are heard in one position, and which disappear in others, are always cardio-pulmonary in children, and are never due to valvular disease. The importance, therefore, of examining a heart in various positions cannot be overrated. Of the 63 cases of cardio-pulmonary murmur, it was audible in 27 cases only when the child was standing. In 14 cases it was audible only in the horizontal position, and in 6 cases it was equally audible in both positions. In 16 cases it was audible, but not equally loud, in both positions. Sometimes a cardio-pulmonary murmur does not appear till several deep breaths have been taken, and many children in whom such a murmur was detected on the first examination were found on subsequent examinations to show no murmur. This was due to the fact that on the first examination the child's lungs were examined before the heart, and the child was instructed during the examination of the lungs to take deep breaths. On subsequent occasions only the heart was examined, and thus the deep respiratory movements which elicited the murmur were omitted. While cardio-pulmonary murmurs constitute two-thirds of all adventitious cardiac murmurs, there is another class of adventitious murmur which makes up the remaining third, and to which the writer applies the term "atonic murmur." He found it in 27 of his patients, and it was almost invariably associated with pallor, emaciation, and muscular flabbiness. This murmur, which is systolic and loudest over the apex, differs in many respects from the cardio-pulmonary murmur. Thus its intensity is but little affected by deep respiration, changes of position or exercise. The cause of this murmur is a local or general loss of tone by the heart. This loss of tone differs from the simple cardiac dilatation to which the murmur was formerly attributed. It is sometimes difficult to distinguish atonic murmurs from those of endocarditis and myocarditis; but the distinction between atonic and cardio-pulmonary murmurs is easily made. Only when the two forms are combined in the same person are they difficult to distinguish. When a systolic murmur gives place to a clear first sound on psychic stimulation, compression of the abdominal aorta, or elevation of the lower limbs, no serious disease of the heart exists. The absence of any cardio-vascular irregularity, subjective or objective, either at rest or after exercise, is further proof of the unimportance of a systolic murmur. Difficult cases do, however, exist among children in whom severe heart disease may cause little discomfort. In such cases the pulse is an invaluable guide, for it reveals serious cardiac disease when its rate is markedly increased and its rhythm altered by bodily exercise. The cardio-pulmonary murmur calls for no treatment. The atonic murmur, however, requires treatment which aims at restoring weight, energy, and colour to the patient. Diet that is merely fattening should be replaced by one containing little milk and a liberal supply of meat, cheese, and fruit. Combined with suitable exercise this régime often banishes cardiac murmurs with astonishing rapidity. Drugs and confinement to bed are pernicious factors to be most strenuously avoided.

59. X-ray Indications of a Malformed Liver.

In a paper read before the Société de Radiologie Médicale de Paris (*Bull. et mém.*, No. 39, 1912) Aubourg describes a case in which subsequent *post-mortem* examination bore out the essential truth of the *x*-ray picture. It was noted, on examining a patient's abdomen by means of the *x* rays, that the upper and external part of the hepatic shadow appeared abnormally clear. This clear space, obviously below the diaphragm, was similar to the pulmonary transparency above. The surface affected was about the size of the palm of the hand, and it was taken to be a case of hepatoptosis with an intestinal loop insinuated between the liver and the diaphragm. The patient was examined four times by means of the *x* rays, and the radiological picture was the same in every case, being modified neither by direct palpation nor by the retraction of the abdominal wall. The patient died later, and it was then found, on opening the abdomen, that the liver was malformed, and that its general position was oblique. An examination of the right lobe posteriorly showed that, instead of presenting a convex surface, it was depressed to within 10 cm. of the oesophagus, and formed a concave furrow, with which the kidney was not directly in contact. It was evidently a malformation, because, at the summit of the hepatic-renal space, the liver showed a deep vertical notch, and into this space during life a portion of the intestine had slipped, corresponding to the lower part of the right lung. The interest of the autopsy lay in the fact that this was the first case of the kind which was discovered radiologically and subsequently demonstrated *post mortem*. The autopsy proved, however, that the condition was not one of falling liver but of a malformation of that organ. Once again it was not the *x*-ray picture that was at fault but its interpretation.

60. Rheumatic Neuritis.

Pierret (*Echo méd. du Nord.*, 1912. xvi) describes three cases, two of the arm and one of the leg, of neuritis following rheumatic fever. The disease showed itself by muscular atrophy, pain produced by or increased on pressure, hypoaesthesia, and diminished electrical excitability. The disease is a rare one, and can occur during the acute attack or during the period of convalescence. Alcoholism may act as a predisposing cause. The most marked characteristic is rapid muscular atrophy. Glossy skin is sometimes met with, and sensory troubles are frequently superadded. The prognosis is usually favourable. There is no reaction of degeneration. The duration of the disease does not exceed two months. The best treatment is by salicylates and the galvanic current.

61. Septic Rheumatoid Affections.

The etiology of rheumatic affections has long been a matter of dispute—a number of observers claiming that the affections are caused by streptococci, while others claim that the cocci are present only as secondary infective organisms. J. Schürer discusses the part played by the streptococci, and especially by *Streptococcus viridans*, in atypical forms of septic arthritis (*Muench. med. Woch.*, November 5th, 1912). Choosing cases in which salicylates failed to act, he investigated the blood bacteriologically. The first patient had suffered from swelling and pain of joints three weeks before admission. Nearly all the joints were affected; the temperature varied between 100° and 102° F.; anaemia was present, and, while salicylates failed to relieve, antipyrin and its derivatives acted fairly well. The blood was examined by sowing some 20 c.cm. on dextrose-agar, ordinary agar, and broth. The third test revealed some small greyish-green colonies on the dextrose-agar plates, which proved to be *Streptococcus viridans*. A horse was immunized with these organisms and the serum was applied therapeutically, but without beneficial result. The affection proved refractory to all forms of ordinary treatment, and therefore the tonsils were enucleated. In one a large abscess was found. At first, even this did not appear to influence the course of illness, but later some improvement was seen. Ultimately the patient improved considerably, the pains were no longer present, but there was marked stiffness of the previously affected joints. The second patient complained of joint pains and swelling on the fifth day of a febrile sore throat. A soft systolic murmur was heard at the apex. *Streptococcus viridans* was cultured from the blood in the third week of illness. Salicylates proved of little value, while antipyrin brought slight relief; 100 c.cm. of the serum prepared from the

cocci of the first patient was injected intramuscularly. This caused a diminution of the joint affection, but the temperature remained heightened. Both tonsils were extirpated, which was followed by the disappearance of all the symptoms. A third case of a similar nature is also recorded. The author is of opinion that since he has found streptococci in three cases of septic rheumatic affection within a short space of time, it is likely that systematic examination of the blood will prove that this organism is a common cause of these cases.

SURGERY.

62. Biliary Peritonitis without Perforation of the Biliary System.

THE escape of bile into the peritoneum without any gross lesion of the biliary system is discussed by F. Wolff (*Berl. klin. Woch.*, December 9th, 1912), who has observed three such cases. One patient, who had suffered from typhoid fever three years earlier, suddenly developed violent abdominal pain. When admitted to hospital, fifteen hours later, his abdomen was distended, rigid, and tender. As the pain was most severe in the region of the appendix, the abdomen was opened at this point. More than one litre of mucous, dark-green bile escaped from the peritoneal cavity, both the parietal and visceral linings of which were somewhat inflamed. After the healthy appendix had been excised the abdominal wound was enlarged upwards to facilitate the exploration of the gall bladder and ducts. The former was filled with bile, its serous coat was normal, its walls were not thickened, and it contained no stones. Palpation of the biliary passages revealed nothing abnormal. The operation was hastily completed owing to the patient's weakness. A tube and a gauze tampon were inserted near the common bile duct, on the assumption that a perforation might have occurred in it or in the duodenum. The patient recovered. Another patient, who had suffered for some time from abdominal symptoms, suddenly developed violent pain in the abdomen. Twenty hours later he was admitted to hospital, where symptoms of appendicitis led to an exploratory laparotomy. Several litres of mucous, dark-green bile escaped from the peritoneal cavity. After the removal of the healthy appendix the other organs were examined, and a small perforation, of the size of a lentil, and covered by a fibrinous deposit, was found on the anterior surface of the duodenum, a few centimetres from the pylorus. Apart from slight inflammation, the gall bladder and bile ducts were normal. The perforation was closed, a drain was inserted, and an uneventful recovery was effected. A third patient had suffered for two days from vomiting and abdominal pain when seen by the author. There was retention of flatus and faeces, and the abdomen was much distended. Perforation of the appendix and peritonitis were diagnosed; but when the abdomen was opened a large quantity of cloudy, bile-stained, purulent fluid escaped, and the appendix proved to be healthy. The gall bladder contained many stones, and between it, the liver, and duodenum were many adhesions. Nowhere, however, could a perforation be found. The gall bladder was freed from adhesions, sutured to a small opening in the abdominal wall, opened, and drained. Death followed two days later. At the necropsy the stomach and the upper portion of the small intestine were found much dilated. A coil of the ileum was rotated on its own axis, and lay compressed within the pelvis. The gall bladder and cystic duct contained many small stones, but neither of these organs nor the common bile duct showed any ulceration. The stomach and intestine showed no perforation. The author recognizes two forms of biliary peritonitis. In the one bile oozes through the wall of a diseased gall bladder; in the other it escapes through a perforation in the biliary system or in such organs as the duodenum and stomach, into which bile may flow. In the first form the process is obscure. Simple catarrh or chronic inflammation alone is insufficient to cause biliary peritonitis, for while the former is common, the latter is very rare. For the same reason stasis alone cannot account for the condition; and though gall stones were found in the author's third case they caused no obstruction. Doberauer holds that the gall bladder after recovery from typhoid fever may become permeable to bile; but the author discredits this view, even in his first case, in which he thinks the bile must have escaped through a perforated duodenum. This explanation applies also to the second case. In the third case the author doubts whether the peritonitis was caused by the state of the biliary system, or vice versa. He inclines to the latter view, though he cannot show how a primary peritonitis can cause a transudation of bile through the walls of the biliary system.

63. Dislocation of the Patella about a Horizontal Axis.

MALLOCH (*Med. Bull. Univ. Toronto*, July 1912) records the case of a boy, aged 14, in whom, as the result of striking his knee against the handle of a hand-car, the patella was rotated about a transverse axis, with its lower border directed forwards and the upper border backwards, so that its cartilaginous posterior surface faced downwards and its anterior free surface directly upwards. There was no lateral displacement or vertical rotation. As an immediate result of the accident the knee was locked in complete extension and the joint distended with fluid. There was no bruising or abrasion of the skin, and in the situation of the patella a marked narrow bony transverse ridge was felt, passing downwards, from which the ligamentum patellae could be seen and felt as a tense band. Above the ridge was a saucer-shaped depression, capable of holding a hen's egg, the floor of which was formed by the untorn muscular fibres of the quadriceps. The ligamentum patellae was stretched but intact, and there was no separation of its periosteum. Even under ether reduction failed, but on opening the joint and affording escape to 3 oz. of blood clot and synovia reduction was easily accomplished. The patient was an active, healthy, rather loose-jointed boy, and the patella was normal in shape and size. Since reduction was so easily accomplished upon the entrance of air into and the escape of blood from the joint it would appear that the bone was held in its abnormal position by the pressure of the effused blood, and possibly aspiration would have done equally well as incision.

64. Aseptic and Antiseptic Treatment of Wounds.

P. SICK enters minutely into the question of the possibility of dealing aseptically with wounds, and comes to the conclusion that true asepsis is impossible, at all events for wounds and for the skin (*Deut. med. Woch.*, November 7th, 1912). Antiseptic measures are required for the preparation of ligatures. He finds that it is wiser and very common to use a non-irritating drying antiseptic, such as noviform gauze, for those regions in which experience teaches the surgeon the wound is unlikely to remain hermetically sealed without. The use of a very small quantity of such an antiseptic not only does no harm, but actually is productive of good. On the other hand, the free use of antiseptic douches and other solutions or of antiseptic powders has proved harmful to wounds. In wounds of some hours' standing, especially if they be infected and inflamed, antiseptic tamponage lessens the virulence and inhibits the growth of the imprisoned micro-organisms, while the absorption of the secretion into the tampon and its frequent removal assists the bactericidal action of the tissue fluids in destroying the germs. This can be demonstrated in all cases, save in tetanus, glanders, and rabies wounds. He has found that iodoform, isoform, and vioform, as well as the milder bismuth preparation, noviform, are of high value for these purposes.

OBSTETRICS.

65. Caesarean Section.

AT the International Congress for Midwifery and Gynaecology, held in Berlin in September, 1912, Henkel (*Muench. med. Woch.*, October 1st, 1912) reviewed the recent advances in Caesarean section, and reported 33 cases in which transperitoneal cervical Caesarean section had been performed. The only fatal case in his series was that of a patient in the ninth month of pregnancy, who had lost much blood from a central placenta praevia. The patient, who had been repeatedly examined, and whose cervix scarcely admitted one finger, was sent to hospital, where a stinking tampon was removed. The operation was successfully performed, and the patient remained afebrile till the nineteenth day, when fever set in. Death occurred four days later. Professor Henkel had left her perfectly well, and was astonished on his return from his holiday to find her dead. Death was due to a phlegmon, which had developed between the bladder and the anterior wall of the cervix. Had it been incised and drainage been effected through the vagina, the patient would probably have survived. This death should therefore be attributed to post operative neglect rather than to the original

operation. With this exception, the operations were satisfactory, although in only three cases were the membranes intact at the time of operation. In many cases labour had begun outside the hospital, to which the patients were admitted after rupture of the membranes. In several cases four days had elapsed between the rupture of the membranes and the operation. Some of the patients were already febrile, and diplococci and streptococci were demonstrable in the uterine secretion; others, again, had been examined more than fifteen times, by students without rubber gloves, after rupture of the membranes. In the case of a primipara with a contracted pelvis there was a transverse presentation with prolapse of an arm. The membranes had been ruptured four days before admission, and the child was dead. The narrowness of the pelvis was not so extreme as to render the passage of the child by this route impossible, but the fear of rupture of the uterus and of other injuries led to the choice of Caesarean section, the result of which was excellent. While the prognosis for classical Caesarean section in those cases in which the membranes have been ruptured for some time and fruitless efforts have been made to hasten labour with unclean hands is bad, it is relatively good for transperitoneal cervical Caesarean section. Professor Henkel's material was largely composed of infected cases, but the exact proportion of infected to sterile cases remains unknown, for at the time of operation it is frequently impossible to classify patients in this respect. That purulent peritonitis may exist without causing any local symptoms is shown by the following case: A woman, aged 18, had suffered from fever and rigors for some days. The abdomen was neither distended nor tender. No rigidity of the muscles was detected and no vomiting occurred. Extraperitoneal cervical Caesarean section was attempted, but a tear was made in the peritoneum, though which pus escaped. Had this condition been detected only after death, it is certain that it would have been traced to the operation. There are, however, cases in which signs of a generalized infection are unmistakable at the time of operation, and for these the only treatment which offers a chance of recovery is the removal of the uterus.

GYNAECOLOGY.

66. Pseudomyxoma Peritonei.

WILSON (*Journ. of Obstet. and Gyn. of the British Empire*, October, 1912) has met with six typical cases of the above condition. These occurred amongst 144 cases of glandular pseudo-mucinous cysts of the ovary, giving the unusually high proportion of over 4 per cent. Pseudomyxoma of the peritoneum occurs most frequently between the ages of 40 and 60, and is most frequently found in multiparae. Menstruation is usually not affected, but a large proportion of the women have already passed the menopause. The onset, symptoms, and physical signs do not differ remarkably from those of the ordinary glandular cyst of the ovary. The growth is generally rapid; pain is often absent; there is neither tenderness nor notable evidence of irritation of the peritoneum. General emaciation is common. The physical signs are those of a large ovarian cyst, the outlines being not very well defined, and the consistence elastic. The very free mobility of the uterus floating in free fluid, as in ordinary cases of ascites, is never present in these cases. In none of Wilson's patients was any symptom or sign elicited that pointed to a previous rupture or perforation of the cyst wall, and in none of them was the true diagnosis suspected until the abdominal incision was made. The ovarian cyst in these cases is a multilocular one, the loculi being filled with the characteristic gelatinous material, and divided by very delicate transparent connective tissue septa lined by columnar secreting epithelium, which is the source of the gelatinous material. The Fallopian tube is generally normal and unaffected; the mesosalpinx is usually free, but may be found opened up by the growth of the ovarian cyst. A dermoid loculus may be found in the midst of the ovarian cyst, a concurrence which is not very uncommon in glandular ovarian cysts in general. Towards the distal pole of the ovarian tumour the capsule becomes more delicate and thin, until finally it gives way, and the jelly-like material oozes gently into the peritoneal cavity. The tenacious consistence appears to prevent the material from sinking into the lower part of the cavity and pelvis; the jelly seems rather to have a tendency to be carried to the upper part of the cavity, where it is commonly found between the diaphragm and the upper surfaces of the liver, spleen, and stomach. The parietal peritoneum is thickened, opaque, and has lost its gloss; where the gelatinous material is more closely in contact with it the surface is often found velvety or granular, and occasionally small transparent prominences are seen in some parts of the peritoneum. Some observers have considered the gelatinous mass to be the product of a specific peritoneal affection, but the author considers that what happens is that the peritoneum attempts to absorb or to encapsule the jelly-like substance, which acts as a foreign body; a chronic inflammation is the result, and the term "chronic pseudomyxomatous peritonitis" is justified in the majority of cases. The affection leads in no very long time to death. Puncture of the cyst is highly dangerous. The only method of treatment that affords a chance of success is removal of the cyst and, as far as possible, of the whole of the gelatinous effusion. The only effectual method of performing the latter task is by copious flushing with normal saline solution. This fluid causes the masses to swell up and become loosened, and it is to the use of it that the author attributes the relatively good results in his cases. One case in which boracic lotion had been used died on the ninth day from ileus, but the other five made a good recovery. Of these, one, in whom there were true metastases, remained well for more than two years, and then died of a psoas abscess; of the others, three remain well after eight, seven, and two years respectively, while the fourth was operated on less than a year ago.

THERAPEUTICS.

67. Intravenous Serum Treatment of Pneumonia.

W. WEITZ (*Wien. med. Klin.*, No. 26, 1912) describes the treatment of pneumonia by intravenous injections of Neufeld-Händel pneumococcus serum. Neufeld and Händel found in experiments on animals that in pneumococcus infections only large doses of serum could be depended upon against large amounts of culture; smaller doses had no corresponding value for weaker infections, and on further diminution of the dose the serum soon ceased to have any effect. They therefore recommend that intravenous injections of large amounts of serum should be substituted for subcutaneous injections, because by the subcutaneous method only small quantities of the antibodies gradually enter the circulation. The author has treated 38 cases—3 women and 35 men—on these lines. The men were usually of the labouring class; many of them were hard drinkers. No children were treated, and only 2 patients of more than 60 years of age, otherwise the patients were fairly evenly distributed amongst the different age-periods. The injections were made into the cutaneous veins of the forearm, after anaphylaxis had been guarded against by ascertaining that the patients had not previously received serum treatment. The single dose of serum was usually from 20 to 30 c.cm., and later 40 c.cm. was frequently given as an initial dose; occasionally only 10 c.cm. was given. In 3 cases a single injection only was made, but usually two or three injections at twelve-hour intervals, and in some of the more protracted cases as many as ten injections were made. No harmful effect of the serum on heart or respiration was observed. Serum rashes occurred in 6 cases, but were never severe. The ordinary treatment of pneumonia was given in addition to the serum treatment. One patient was subjected to the injections on the first day of illness. In this case the doses given were inadequate to prevent steep rises of temperature succeeding the falls of temperature which followed the injections, but the temperature became finally normal at the end of the fifth day of illness. In 16 cases the treatment was begun on the second day; 12 of these ran a clearly abortive course, the temperature beginning to fall steadily on the third day, and becoming normal usually on the fourth; in 2 cases the temperature was already normal on the morning of the third day of illness, in 1 after a single injection of 30 c.cm. of serum, in the other after a single one of 20 c.cm. The effect of the serum was specially noticeable in the case of a man 65 years of age who was admitted to hospital showing signs of dangerous cardiac weakness, of an exceedingly stout woman 50 years of age, and of a man 57 years of age with severe diabetes—all three of them cases in which spontaneous recovery was unlikely to occur. One case only in which the injections were begun on the second day ended fatally, and in this the action of the serum was shown in the disappearance of pneumococci from the

blood and in a very marked destruction of the pneumococci in the affected lung. In 3 of the "second-day" cases there appeared to be no cutting short of the illness as a result of the serum treatment. In 2 cases in which treatment was begun on the second day, one of them being a case which had run an abortive course, and in one case in which treatment was begun on the third day, exudative pleurisy developed. In 6 cases treatment was begun on the third day; 5 recovered, 4 of them running an abortive course, 1 died from a streptococcus sepsis, the origin of which was not very clear. In 8 cases treatment was begun on the fourth day; 2 died, both of them cases of mixed infection. In 5 of the 8 the temperature was favourably affected by treatment and became normal on the sixth day of illness—that is, two days after the beginning of treatment. As a rule, the serum treatment was not begun later than the fourth day. In 5 very severe cases it was tried as late as the fifth day, but 4 out of the 5 patients died. In 2 cases it was begun on the sixth day, both patients being free from fever on the eighth day. The author's conclusion is that the Neufeld-Händel pneumococcus serum injected into the veins has a specific action in a majority of cases of pneumonia, and should be extensively made use of, especially in early cases.

68. The Serum Treatment of Hydrocele.

CAFORIO (*Rif. Med.*, September 7th and 14th, 1912) has treated 73 cases of hydrocele by injections of hydrocele fluid. For the most part the fluid of the patient's own hydrocele was used, but in a few cases hydrocele fluid from other human subjects was injected. One thing comes out clearly in the report of these cases—namely, the innocuous character of the treatment. No bad effects were observed. The hydrocele was usually not emptied, but a certain quantity withdrawn, and then a small amount (usually about 5 c.cm.) of this injected into the subcutaneous tissue. In the 7 cases where the hydrocele was symptomatic of inflammatory or neoplastic lesions of the testes the results were negative, but that is only what one might expect. Of the remaining 66 cases, 8 showed marked thickening of the vaginal sheath, 56 were typical idiopathic hydroceles, 10 were tuberculous. About 300 punctures were made in all, and in only 4 cases was there slight local reaction. Immediate cure (= complete reabsorption of the fluid) occurred in 96 per cent., but relapse was very frequent (80 per cent.), but after a second injection lasting cure occurred in 42 per cent. of the cases. The more recent the case the better the result. The number of injections necessary for complete absorption varied from 1 to 5, and was dependent on the size, age, and previous history of the hydrocele. No relation seemed to exist between the rapidity of the cure and the amount of fluid injected. Hydrocele fluid taken from other hydroceles did not seem to act at all. The *modus operandi* of the cure cannot be explained, as in merely local reactions—for example, in bilateral hydroceles, where only one side was injected—the good effect was noted on both sides. Possibly it acts by stimulating the renal epithelium and inducing some obscure immunizing action. The method is technically extremely simple, and although it is by no means a cure for every case of hydrocele, short of the more heroic surgical procedures, it seems an advance on mere tapping.

69. Bismuth in Gastric and Duodenal Ulcers.

AARON (*Amer. Journ. of Med. Sciences*, October, 1912) discusses the treating of gastric and duodenal ulcers with bismuth, the protection afforded by the subnitrate being both physical and chemical. From its consistency, fine distribution, and high specific gravity, bismuth forms a layer over the ulcer, mechanically protecting it from injury, its chemical action producing a mucous secretion, so that the protective layer is a muco-bismuth mixture. The drug must never be regarded as a substitute for rest in the treatment of ulcer, its main indication being as a reinforcement in treatment, and when the ulcer becomes chronic, relapses, or causes pain. It is most effectual in cases of overacidity, the chief requirement in its use being to cover the ulcer with a large and resistant protective layer which can be renewed and supplemented at regular intervals. As soon as subjective symptoms are relieved the daily dose may be tentatively reduced according to the clinical indications. It should be administered finely suspended in a liquid medium, 10 to 20 grams of the subnitrate being taken in a tumbler of warm water on an empty stomach which has been cleansed three-quarters of an hour previously by 150 c.cm. of Carlsbad or Vichy water, or it can be administered suspended in olive oil. The treatment must be adapted to each individual case, since occasionally the bismuth treatment may prove to be unsuitable, and some observers prefer the subcarbonate to the subnitrate, and bismuth subgallate is a useful substitute.

PATHOLOGY.

70. Spontaneous Recovery from Cancer.

THERE are, according to A. Theilhaber (*Deut. med. Woch.*, June 27th, 1912), 200 published cases of spontaneous recovery from cancer in which the evidence is convincing. The disease in most of these cases was far advanced before recovery was made, and it is probable that the cases in which patients recovered spontaneously from cancer that was too early to be clinically recognizable, are numerous. But, apart from such early cases, there are many others in which cancer was diagnosed and recovery was effected. Though in many of these cases the diagnosis was doubtless incorrect, there probably were several among them of true cancer. Such cases are, however, seldom published, on account of the physician's distrust of his original diagnosis. The conception of the incurability of cancer is still firmly rooted, and the public's attitude towards cancer in this respect is to-day what it was towards consumption a generation ago. It is common for surgeons operating for cancer of the uterus to find that, even after extensive removal of cancerous deposits, there yet remain others which are beyond the range of the knife. The prognosis in such cases is usually hopeless, but not necessarily so, and in three cases of this description the writer observed complete recovery. The first of these was operated on in December, 1905, and the last in May, 1908. In the following case, seen by the author early in 1912, the diagnosis of cancer was confirmed by a microscopic examination of an excised portion of the growth. The patient, a married woman 56 years old, whose menopause had occurred four years earlier, complained of irregular uterine haemorrhage which had lasted for a year. The external os was dilated, and there were many ulcerating nodules in the cervix. The uterus was somewhat enlarged and no longer movable. Swellings were detected in the parametrium on both sides of the uterus, that to the left being adherent to the uterus and the pelvis. There was also a tumour behind the uterus in the pouch of Douglas. A profuse and offensive discharge escaped from the cervix. Treatment consisted of curetting and cauterizing the growth. Eight days later hyperaemia of the uterus was induced by hot hip baths and intravaginal treatment with hot air and hot douches. For six weeks—at first every day and later every other day—0.05 gram of cacodylate of soda was given subcutaneously. Five injections of a uterine extract were also given. The patient, who had been very debilitated and anaemic, improved steadily. The discharge grew less, till it completely ceased and the swellings about the uterus disappeared. After five months the ulcers in the cervix had cicatrized and the external os and the uterus had regained their normal dimensions. A corresponding improvement in the patient's general health was also effected, and she felt perfectly well. The author's treatment of inoperable cancer and of post-operative growths is based on the assumption that local anaemia and malnutrition of the tissues favour the growth of cancer. He therefore stimulates circulation in the diseased area by general and localized treatment. The former consists of sea bathing or residence in a mountainous district. The latter includes hot-air baths and douches, as well as injections of fibrolysin. The following case also illustrates the success of his methods: In May, 1910, a married woman was found to have advanced cancer in the breast. The growth was adherent to the pectoral muscles and the axillary glands were invaded. A radical operation was performed, the affected muscles and glands being excised. But four weeks later the arm was painful and oedematous, and there was a swelling in the axilla. The site of the operation was daily treated by Bier's method of hyperaemia. The pain, oedema, and swelling in the axilla disappeared in a few weeks. But the two latter returned a few months later. They disappeared again on treatment with hot air, and one year and nine months after the operation there were no signs of relapse. The author therefore concludes that not only does cancer disappear of itself, but it is also amenable to non-operative treatment in certain cases. He does not, however, dogmatize on his system of treatment, nor does he push it to the exclusion of operative measures.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

71. Cerebral Symptoms in Phthisis without Meningitis.

The appearance of marked cerebral symptoms in phthisis is, according to E. Querner (*Berl. klin. Woch.*, November 11th, 1912), often interpreted as tuberculous meningitis, and when they disappear and the patient recovers, the physician points to the case as illustrating the fallacy of regarding tuberculous meningitis as incurable. True enough, a few cases of recovery from tuberculous meningitis have been recorded in which tubercle bacilli were found in the cerebro-spinal fluid, but the classical symptoms of tuberculous meningitis may also exist without any lesion of the brain or meninges. It is therefore impossible to diagnose tuberculous meningitis only from clinical observations, and proof positive of this condition is obtainable only by a necropsy or the demonstration of tubercle bacilli in the cerebro-spinal fluid. The writer reports the two following cases: A workman, aged 29, had suffered from phthisis for over a year. He was a heavy drinker and had a nervous temperament. The temperature was high, the pulmonary disease was actively progressive, but the urine was normal. On his admission to hospital he showed no signs of any nerve lesion. A month later he developed a slight attack of otitis media, his liver becoming at the same time swollen and tender. Between two and three weeks later signs of cerebral disease appeared. Kernig's and Oppenheim's signs were positive, and there were general peripheral hyperaesthesia and delirium. There was cervical rigidity, and the pupils failed occasionally to react to light. Cerebro-spinal fluid withdrawn by exploratory puncture contained blood, but no tubercle bacilli. Death occurred after the cerebral symptoms had lasted for nearly three weeks. The necropsy revealed no cerebral abnormality except a slight excess of cerebro-spinal fluid and dilatation of the ventricles. A joiner, aged 63, suffered from phthisis and alcoholism. He was febrile, his pulmonary disease was actively progressive, and his left lung was compressed by a pleural effusion, 1,500 c.cm. of which were withdrawn. This eased his respiration. Soon afterwards cerebral symptoms appeared. Delirium, cervical rigidity, peripheral hyperaesthesia, Oppenheim's and Kernig's signs, and finally general convulsions were observed. This condition lasted for fourteen days, at the end of which the patient died. No anatomical lesion of the brain or meninges was demonstrable at the necropsy. The question naturally arises, How do the classical signs of tuberculous meningitis arise in such cases? The author agrees with the explanation given by Lyonnet, who found that the cerebro-spinal fluid of patients suffering from tuberculous meningitis, when injected into tuberculous guinea-pigs, caused the same reaction as tuberculin. He concluded that the symptoms of tuberculous meningitis are due to the presence in the cerebro-spinal fluid of a tuberculin, and that the severity of the symptoms is proportional to the toxicity and quantity of this substance. This view accounts for the lack of conformity between the severity of the symptoms and the anatomical changes found *post mortem* in cases of tuberculous meningitis. Lyonnet further describes a condition which he calls *encéphalopathie tuberculineuse*. This is due to the same tuberculin in the cerebro-spinal fluid as that which evokes the symptoms of tuberculous meningitis, but it is unaccompanied by any anatomical lesion of the brain or meninges. He includes in this class cases of epileptiform convulsions in tuberculous patients, as well as many cases which have hitherto been quoted as illustrating the curability of tuberculous meningitis.

72. Hypernephroma in the Nervous System.

Collins and Armour (*Amer. Journ. of Med. Sci.*, November, 1912) record a case of Jacksonian epilepsy caused by a metastasis of hypernephroma, in which there was no objective sign indicative of extensive and advanced disease. The patient, a man aged 45, and of previous good health, developed typical Jacksonian epilepsy, with twitching of the left thumb and index finger, paraesthesia of the left hand and forearm, followed on five occasions by unconsciousness and generalized convulsions. Loss of power and dexterity gradually developed in the left upper arm, and to a slight degree in the left half of the body, together with loss of sense of position in the left hand and fingers, and absence of the left plantar reflex. There was an inconstant astereognosis of the left hand, and slight increase of the tendon jerks of the left half of the body. A mild somnolency was the only symptom, aside from the Jacksonian attacks, which he ever developed. Five months after the initial symptom the patient had a series of convulsions and died, a week prior to which a slow rhythmical tremor of the left thumb and index finger, consisting of adductor movements at the rate of about one per second, developed. A large whitish tumour was found in the right flank, and this had invaded the upper pole of the right kidney, surrounding the adrenal, and extending into the under surface of the right lobe of the liver. Metastases up to ⅝ in. in diameter were present in many parts of the liver, and there was a small metastasis ¼ in. in diameter in the wall of the duodenum. The only other metastasis, 1½ in. in diameter, was found in the right cerebral hemisphere, involving the arm area, and especially the hand area. Beyond causing frequent aversion to food the primary tumour never gave any indication of its presence. Microscopically, its structure and that of the metastases in the liver and duodenum resembled that of the adrenal cortex, but this resemblance was lost in the metastasis in the brain. In this last the cells were large, polyhedral, staining deeply, and with nuclei in many stages of degeneration, while many of the cells had taken on phagocytic function, and were seen to have ingested red and white blood cells. The extraordinary absence of general symptoms of brain tumour was probably due to the fact that it had not caused much increase in intracranial pressure. Congenital in origin, later in life these hypernephromas may grow rapidly, as in this instance, with invasion of tissues and dissemination of metastases, which are usually found in bone, there being very few recorded instances of a metastasis in the brain.

73. Neuritis of External Popliteal Nerve following Typhoid Fever.

Rudolf (*Med. Bull. Univ. Toronto*, July, 1912) reports a case of neuritis of the external popliteal nerve following typhoid fever in a woman aged 30. When admitted to hospital the patient was in the eighth day of a typical typhoid fever with rose spots, enlarged spleen, and positive Widal. The course was severe, with considerable diarrhoea and a temperature occasionally reaching over 106°. A week later she was given a vaccine of 200 million bacilli, which was twice repeated in larger doses at six and five day intervals. Nephritis and uraemia developed, followed by two severe haemorrhages from the bowel, after which she began to improve, and at the end of eight weeks from the commencement she was convalescent, the temperature having been normal for some days. She then casually complained that her left foot felt numb and that she was unable to move the toes. On examination the foot lay limp and flaccid with complete inability to dorsiflex the foot or the toes, but the foot could be pointed downwards and the toes could be flexed on the sole. An area of complete and definitely limited anaesthesia was present over the area supplied by the musculo-cutaneous and anterior tibial nerves, and all the muscles on the anterior and external aspects of the leg were involved. Higher up the nerve was not affected, as shown by the absence of anaesthesia about the knee supplied by two cutaneous branches, and there was no evidence of any nerve involvement elsewhere. The patient a few months later was reported as being much better and able to walk a mile, though there was still a little foot-drop and inability to dorsiflex the toes. The anaesthesia was limited to a small area between the great and second toe, the surface supplied by the anterior tibial nerve. Such cases of affection of a single nerve are rare, as the condition, when it does occur as a complication of typhoid, is usually multiple.

SURGERY.

74. Anaesthesia of the Arm.

Anaesthesia of the arm induced by injecting a 2 per cent. solution of novocain-suprarenin into the brachial plexus is described by D. Kulenkampff (*Deut. med. Woch.*, October

3rd. 1912), who has practised this method in 140 cases. For the first 70 cases he gave 10 c.cm. of the solution to adults, and 5 c.cm. to children. For his later cases he doubled these doses so as to hasten anaesthesia. The injection causes so little pain that it is unnecessary to give morphine beforehand; but it may be useful when the anaesthesia wears off two to three hours after the operation. Under this combined treatment many patients suffer no pain. The injection is made above the clavicle, and the brachial plexus is sought at the level of the first rib, which, being immediately behind the plexus, prevents the needle penetrating to a dangerous depth. Both the patient and operator are seated. The position of the subclavian artery is ascertained by palpation, and the needle is inserted external to it. Fear of wounding this artery sometimes leads to the insertion of the needle exterior to both brachial plexus and artery, the wounding of which by a fine needle is not necessarily dangerous. In fact, the author has punctured it with impunity, as his needle is very fine. The distance between the skin and first rib is 1 to 3 cm.; and in their passage over the latter the nerves of the brachial plexus form a compact bundle, in which the median is superficial to the radial nerve. A cork which is fitted on to the needle is fixed flush with the skin when the needle has been arrested by the first rib. The length of the needle is thus adjusted to prevent its passage beyond the first rib in the course of probing for the nerves. These are sometimes struck before the first rib is reached, paraesthesia being induced after puncture of the deep fascia. This symptom usually appears first in the hand and middle finger, and later in the thumb. But when the rib is reached without paraesthesia the needle is withdrawn for about 1 cm., and its direction is slightly altered, before it is again thrust as far as the cork permits. Only partial anaesthesia is obtained by injecting the solution near, but not into, the nerves. Considerable practice and patience are sometimes necessary, for the nerves may slip away from the point of the needle. Again, the solution must not be injected till paraesthesia has been induced; otherwise slight anaesthesia will result, and the operator will be deprived of the reaction of paraesthesia, which is his best guide to the plexus. Complete paralysis and anaesthesia of the arm are induced from one to three minutes after the injection, and the anaesthesia lasts for one and a half to three hours. In some cases the sympathetic system was involved: the face flushed, the pupils and eyelids contracted, and sweat broke out on the injected side. No permanent paralysis or other disaster followed the injections, which, the author claims, secure safe and simple anaesthesia.

75. Mastoiditis.

NICOLL AND FIELDER (*Archives of Pediatrics*, August, 1912) record a case of mastoiditis followed by general sepsis with symptoms of tetanus, which presented extreme difficulty in diagnosis in spite of every facility for careful study. A girl, aged 4, was vaccinated a fortnight previously, and twelve days later she became drowsy, unable to open the mouth or take solid food, and on the following day convulsions set in at irregular but frequent intervals. On admission to hospital she was unconscious, cyanotic, and with jaws fixed, any attempt to open them setting up a clonus. Pupils were equal and reacting, and the eyes tended to turn to the left. There were no paralyses, no Kernig, no Babinsky, the reflexes were exaggerated, and ankle and patellar clonus easily obtained. There was moderate rigidity, and the hands, fingers, and wrists were in position of tetany. The vaccination presented a perfectly normal appearance, and both the vaccine therefrom and from the stock used were negative by culture and animal inoculation when tested for tetanus; 17,000 units of tetanus antitoxin were given intravenously without improving the condition, and 30 c.cm. of clear fluid under moderate pressure were obtained by lumbar puncture. Two days later 9,000 units of antitoxin were given intramuscularly, and Babinsky sign was present on the left side. Aural examination showed slight redness and bulging of the left tympanic membrane, paracentesis of which produced free bleeding but no pus, and the following day the ears appeared normal. The unconsciousness gradually deepened, and cyanosis became more marked, a blood culture showing haemolysing streptococci in abundance. Death occurred eight days after admission. *Post-mortem* examination revealed an abundant whitish exudate giving Gram-positive diplococci and streptococci in pure culture in both middle ears and the mastoid cells, and cultures of the spleen showed streptococci. Although the diagnosis of tetanus was beginning to be doubted a few days before death, seeing that the patient became unconscious so early, the true cause was not suspected. The case shows clearly how mastoid disease may exist without any local evidence, and also that such a condition, with the subsequent occurrence of general sepsis, may cause lockjaw and other symptoms indistinguishable from those usually due to localized lesions in the meninges.

OBSTETRICS.

76. Heart Disease and Pregnancy.

THE majority of observers have come to regard the existence of heart disease during pregnancy, parturition, and the puerperium as a particularly dangerous condition. Fellner and Jaschke took up an unusual position in this respect, and Jaschke in particular formulated the doctrine that the course of a pathological affection of the heart is not materially influenced by the fact of pregnancy. Klages (*Muench. med. Woch.*, No. 24, 1912) gives the details of a case of a woman who showed all the signs of aortic disease during her first pregnancy. This case, the author considers, supports the views put forward by Jaschke, especially in regard to the presence of a serious complication in all cases which terminate fatally during pregnancy. The woman was 27 years of age, and was admitted into hospital on December 2nd, 1911, in the belief that labour had commenced. There had been some pains. It was found that there was a loud systolic murmur at all the orifices, more especially over the aortic orifice; the second pulmonary sound was somewhat accentuated. The pulse was strong, regular, and not frequent. There was some albuminuria, with granular and hyaline casts, blood corpuscles, and epithelium in the urine. In the evening the patient had an attack of dyspnoea, with slight cyanosis, pulse 140 to 150, very irregular, and some oedema. The attack lasted a quarter of an hour. The urine became somewhat sparse, and during the night two further attacks took place. No urine was passed until about 50 c.cm. was drawn off by catheter at noon on the following day. The fetal heart sounds were not distinct, but the mother's condition was fairly comfortable during the day. An attempt was made to improve the cardiac action, in order that the birth might be completed as rapidly as possible. On the next afternoon the patient became drowsy and occasional convulsive movements were noted. A distinct improvement was noted after this, and the pulse became more regular and stronger. What were believed to be fetal heart sounds were indistinctly heard on the left side. During the night the patient suddenly complained of a feeling of fear and after a short period of extreme cyanosis, died. A *post-mortem* Caesarean section revealed a child that had been dead for some hours. The *post-mortem* examination was conducted in the Pathological Institute, and it was then found that there were multiple gummata of the heart wall with perforation and sacculation. The gummatous process had implicated the aortic endocardium, and the heart was dilated, hypertrophied, and showed fatty degeneration. It thus appears that the unhappy termination could not be ascribed to the effect of pregnancy on the cardiac affection.

77. Treatment of Puerperal Phlebitis.

VANVERTS AND PAUCOT (*Echo méd. du Nord*, 1912, xvi) consider the two following forms: I. Phlegmasia alba dolens. II. Utero-pelvic phlebitis. I. (*a*) Prophylaxis. This consists of rigorous asepsis during childbirth and reparation of perineal or vaginal wounds. Hagapoff recommends slight elevation of the lower limbs for six days, commencing at the fourth, after parturition. (*b*) Curative—which consists of palliative measures, local and general. Complete rest is indicated, with slight elevation of the affected member, hot baths, hot-air baths, and fomentations. Pinard advises slight vesication with ammonium hydrochloride; others prefer calmatives, as belladonna and opium. The general treatment comprises drugs, as quinine and strychnine, and a dechlorhydrated diet. The authors do not advise the patient to get up until thirty days at least after the last elevation of temperature, and a flannel bandage should be applied. II. Utero-pelvic phlebitis. The *general* treatment of pyaemia should be adopted, and care be taken that there is nothing retained in the uterus. Serum-therapy has proved successful in some cases. *Surgical*: The authors consider that surgical intervention is justified in cases where there are no extravascular lesions and where the affection is localized; intervention is always a serious matter. Out of 82 cases collected by the authors from the literature 49 died. The operations practised are of two kinds: (*a*) Ligature of the veins through the vagina,

extraperitoneally or transperitoneally through the abdomen; the authors prefer the last method. (*b*) Direct treatment of the phlebitic focus by drainage extraperitoneally.

GYNAECOLOGY.

78. X Rays in the Treatment of Uterine Fibroma.

LAQUERRIÈRE AND LOUBIER (*Arch. d'électr. méd.*, August 25th, 1912) described seven gynaecological observations in which radio-therapy yielded interesting results. In one case of uterine fibroma, although the dosage was very small, the growth diminished considerably in size, such diminution taking place before any modification of the menses. Afterwards a definite menopause was established. In another case, in which the dosage again was feeble, there was diminution in size and arrest of hæmorrhage without amenorrhœa. In a third case, a woman of 53 years, the uterus returned to a normal size, and the retarded menopause was obtained. In a fourth case, a young woman, the action on the uterus was independent of the action on the ovaries, an ovariotomy having been done long before. The treatment stopped the leucorrhœa, the dysmenorrhœa, and the oozing of blood during the intermenstrual periods. The fibroma did not disappear, but it became more mobile and less accessible to palpation. In a fifth case, in which, together with fibroma, there were inoperable complications, great local and general improvement followed upon radio-therapy. A sixth case demonstrated that even in a woman of considerable age (47) an exceptional resistance to the inhibitory action of the *x* rays on the ovaries might be encountered. For five months the abundance of the menses was in no way modified, and a very large total dose—some 26 Holzknecht—had to be given at each of the four points at which the rays were directed before the menopause was established. Finally, in another case, in spite of prolonged treatment, and of a dosage well up to the limit of what is tolerable for the epidermis, the *x* rays did not cause amenorrhœa in a woman of 27 years.

79. Inflammatory Affections of the Uterine Appendages.

TÖPFER (*Berl. klin. Woch.*, September 2nd, 1912) discusses the treatment of inflammatory conditions of the uterine appendages, with especial reference to Solm's operation, and comes to the conclusion that these affections should in every case be treated conservatively at first, unless large, easily reached collections of pus render surgical interference necessary. If these means fail after repeated and persistent trials, operative treatment should be considered. The social position of the patient and the degree of suffering must influence the gynaecologist in his decision. In the less severe cases in which the uterus is freely movable and adhesions are not numerous double salpingectomy, performed vaginally, is the best operation. In more severe cases the abdominal or combined operation is needed. A portion of the ovary must be left. The employment of Solm's method of dealing with the stump extrauterinely, closing the true pelvis completely, and by draining through the vagina, exudation from the stump and adhesions can be avoided and a complete cure can be achieved. Töpfer states that a radical operation has now become unpermissible, save in very rare cases, and then only in old patients.

THERAPEUTICS.

80. Heliotherapy in Tuberculosis.

ROLLIER (*Wien. klin. Woch.*, No. 28, 1912) discusses the history of the sun treatment of tuberculosis: he lays stress upon the special efficacy of the treatment when carried out in mountain climates, and then describes his own experience of the method at Leysin. It is above all in surgical tuberculosis that heliotherapy has given its most striking results, and after observation of 700 cases of surgical tuberculosis treated at Leysin during the last nine years Rollier maintains that recovery can be obtained in all forms of the disease, at every stage and at every age period. In all cases the author recommends a full sun-bath as well as local sun-baths. The beginning of the treatment is gradual, more and more surface is exposed to the sun for increasing periods of time daily on a fixed plan until the complete bath is reached, as a rule, on the seventh day. By this cautious progress the development of an erythema solare is prevented, and a too intense reaction to local treatment is guarded against by similar means. The rate of recovery appears to vary with the rate at which pigmentation proceeds. No unpleasant side-effects resulted from the treatment in the author's cases and the patients' general condition greatly improved. Blood examinations were made to determine the effect of the treatment on erythrocytes and leucocytes. As a rule in cases of closed tuberculosis and good general condition the number of erythrocytes increased on the first to the third day and reached a maximum of 5,500,000 to 7,500,000. The more serious the prognosis the more slowly the maximum was reached and the higher it was. With the onset of clinical recovery the number fell to an average of 5,500,000. With regard to white corpuscles, it appeared to be true that in all open forms of tuberculosis and in a few closed ones there is an increase in polynuclear leucocytes at the expense of the lymphocytes, large mononuclear forms, and transition forms; as the case proceeds towards recovery the condition is reversed, the leucocyte curve falls and the lymphocyte curve rises. The use of irremovable plaster-of-Paris splints is not compatible with the treatment and is abandoned. In spondylitis immobilization is brought about by a linen girdle made fast to the bed and by axillary bandages. The patient lies on his abdomen, so that the bandages have only to be loosened to expose the back to the sunlight. The anterior surface of the spine and the pelvis are treated with the patient on his back. Spontaneous absorption of chronic abscesses frequently occurs. In coxitis and gonitis heliotherapy is combined with continuous extension. The author finds that a spontaneous recovery of joint function in surgical tuberculosis is a directly characteristic result of heliotherapy. It occurs without any attempt being made to bring it about by either active or passive movements. One of the first effects of sun treatment is the relief of pain, especially in all cases of tuberculous peritonitis, osteitis, and arthritis, and the relief was usually apparent almost immediately in cases of tuberculous cystitis or disease of the adnexa. In tuberculous adenitis the action of the sunlight is particularly a solvent one; the glands are either absorbed and disappear spontaneously, or they are softened and recovery occurs after one or two punctures. The eliminating action is especially noticeable in the case of sequestra, and the author has had a large number of cases of spontaneous extrusion of sequestra in different localities with subsequent healing. Cases of tuberculous peritonitis, and especially of caseous tuberculous peritonitis, responded particularly well to the treatment, as did those of ileo-cæcal and other intestinal fistulæ. Tuberculous disease of the urogenital tract is also especially mentioned as being amenable to treatment. The results reported in the series of cases were controlled by the use of *x* rays. The cases are tabulated with full details. Of 450 cases of closed forms of tuberculosis, 393 recovered, 41 were improved, 11 were stationary, and 5 died. Of 200 cases of open forms of tuberculosis, 137 recovered, 29 improved, 14 were stationary, and 20 died. In the list of deaths are included all those cases in which death has occurred up to the present time after the return home of the patient. The cases date back to the year 1903. A large number of the patients treated were those for whom all other methods had failed, and some were in a condition of cachexia on arrival, and already showed signs of amyloid disease. In 4 out of 5 of the cases of closed forms of tuberculosis in which death occurred the patients also suffered either from tuberculosis of the lungs in the second or third stage or from ulcerative intestinal tuberculosis. Six cases of relapse occurred in the whole series.

81. Vaccine Treatment of Gonorrhœa.

DROBNY (*Vratchebnaia Gazeta*, June 17th, 1912) has tried vaccines in 136 cases of gonorrhœal infection, including acute, subacute, and chronic urethritis, acute and chronic cystitis, acute and chronic epididymitis, acute orchitis, chronic prostatitis, chronic folliculitis, chronic pyelitis, vesiculitis, cavernitis, chronic polyarthritis, and chronic pyelitis. The dose of the vaccine used was established by means of the opsonic index, but he does not think this estimation necessary during treatment; the clinical signs are a sufficient guide. The initial dose was 20 to 25 million cocci, increased by the same amount up to 100 million. In only one case was 200 million reached. In children the dose was from 2 to 8 million. Injections were given twice a week, to the number of 15 in most cases. After this, the gonococci had disappeared from the discharge. As the result of his observations, Drobny concludes that

vaccines have a specific action in cases where the gonococci have penetrated into the tissues, such as prostatitis, epididymitis, and arthritis, but that they have no action on affections of the mucous membrane, such as urethritis and cystitis. In spite of this, however, he recommends treatment to be begun as early as possible, in order to avoid gonococcal complications. He concludes that a combination of vaccine with ordinary treatment shortens the duration of the disease and leads to a more complete cure.

82. Deaths after Salvarsan.

HIRSCH (*Muench. med. Woch.*, July, 1912) reports two cases of death after intravenous injection of salvarsan. Both cases occurred after the second injection. In the first case, a healthy young man with primary syphilis, an intravenous injection of 0.5 gram salvarsan was well borne, but a second injection of the same dose, made after twelve days, was followed by fever, vomiting, and diarrhoea, and two days later by icterus, dryness of the throat, enlargement of the liver, and albuminuria. On the following day there were tremors of the legs and severe cramp, extending to the whole body; the pulse became imperceptible, breathing stertorous, and the pupils were dilated. Death took place after three or four similar attacks. In the second case, a healthy young woman with secondary syphilis, two intravenous injections of 0.3 gram and 0.4 gram salvarsan, together with two courses of salicylate of mercury injections caused no bad symptoms. But, two months after the second injection of salvarsan, the patient became suddenly unconscious, with dilated pupils, icterus, and cramps of the extremities, soon followed by death. As the predominant symptoms in these cases (gastro-intestinal symptoms, icterus, cramp, and dryness in the throat) are all characteristic of arsenical intoxication, the author considers that the cause of death was arsenical poisoning, in persons with a hypersensitiveness to this drug.

83. Treatment of Rickets.

A NUMBER of observers have come to the conclusion that rickets and osteomalacia are manifestations of one and the same disease, the difference consisting in the fact that the former is a disease of childhood and the latter one of adult life. Babs and Neus have recently recommended pituitrin in the treatment of osteomalacia, and it has therefore occurred to Klotz (*Muench. med. Woch.*, May 21st, 1912) to try extract of pituitary gland in rickets also. He started with the consideration of the fact that while thyroid gland contains a considerable quantity of iodine, suprarenal gland a considerable quantity of sulphur, and so on, pituitary gland contains a considerable quantity of phosphorus. The retention of phosphorus and calcium is increased in rickety children by medication with phosphorus cod-liver oil. Phosphorus alone does not affect the storing up of calcium, but, on considering the composition of cod-liver oil, it becomes probable that a fair proportion of the phosphorus exists in the form of nuclein phosphoric acid and glycerine phosphoric of nuclein and lecithin respectively. In order to gain a better insight into the action, he treated some of his cases with lecithol extract of malt, which contains 2.5 per cent. of pure lecithin. Improvement not only in the general condition but also in the power of walking was recorded on taking this medicament. This improvement was maintained only as long as the preparation was given, and the symptoms returned when it was stopped. In all, the experiments with pituitary extract and lecithin was limited to 5 cases. He used a special extract of pituitary gland, called hypophysochrom. In 4 of the cases the children were able to stand after from seven to fourteen days after the treatment was started; they began to walk in seven, fourteen, twenty-one, and twenty-one days respectively, and all could walk nearly alone within forty-two days. An improvement in respect to the general condition was also recorded. The excellent results obtained in these few cases inclines the author to the view that in rickets one is dealing with disturbances of phosphorus and not calcium metabolism. He is of opinion that further investigations are required before the pharmacology of the pituitary gland can be regarded as in a satisfactory state.

84. Treatment of Phlebitis by Urotropin.

RÉNON AND RICHET (*Journ. des praticiens*, October 19th, 1912), while noting the importance of urotropin as a urinary and biliary antiseptic, call attention to the possibility of its value in certain vascular infections, notably in phlebitis. Whereas no benefit resulted in a case of tuberculous phlebitis or in phlebitis accompanying malignant disease, rapid improvement resulted in bad cases of varicose phlebitis, and in two cases which were post-influenzal, as well as in one following enteric fever. In three or four days the condition had almost disappeared. The dose was 1 gram per diem, taken morning and evening. The authors offer no explanation of this improvement, but suggest that the matter is worthy of inquiry, especially in cases of puerperal phlebitis.

PATHOLOGY.

85. The Danger of X-ray Applications on the Abdomen.

A SERIOUS warning against extensive *x*-ray irradiation of the abdomen appears in an interim report by Regaud, Nogier, and Lacassagne (*Arch. d'électr. méd.*, October 10th, 1912) on lesions of the alimentary canal observed to follow such irradiation in animals. The findings are put forward with some urgency, owing to the manner in which *x* rays are now applied to the abdomen in uterine fibroma, splenomegaly, and neoplasms of the alimentary canal itself. With non-filtered rays the seat of danger is the skin, but with the thick filters and powerful apparatus now employed to ensure strong doses in the deeper parts another danger arises, greater, though less apparent, than that of radiodermatitis, namely, the danger of setting up severe lesions of the digestive passages. The experiments of these investigators have been carried out on dogs. It is admitted that among animals of different species there are differences in the sensitivity of the digestive mucous membrane. The rabbit, for instance, appears to have a membrane much less sensitive than the dog. But there is such a similarity between the dog and man, both in the structure of the mucosa and in the alimentary régime they undergo, that a parallel is justifiable. Particulars of six experiments upon healthy dogs are given. In the first experiment a bitch with gravid uterus received a single dose of *x* rays over the abdominal region corresponding to the major portions of the intestine. An aluminium filter 2 mm. in thickness was used; the distance of the focus from the skin was 250 mm.; the duration of exposure one hour, and the incident dose exceeded 11 on the scale of the Bordier radiochromometer, or 10 Holzknecht units. The animal died within thirty-six hours. Autopsy revealed a uterus with commencing abortion without haemorrhage, and an intense congestion of the alimentary canal with small but diffuse haemorrhage. The proximate cause of death was uncertain, but the remote cause was undoubtedly the irradiation. In another experiment a dog received over the posterior half of the abdomen a weak dose (corresponding to Bordier 1, or the tint B of Sabouraud-Noiré, or 5 Holzknecht units) under 2 mm. of aluminium. It died twenty-three days later, after showing some loss of weight. Two days before death, in company with two other dogs, neither of which showed any after-effects, it ate a quantity of chicken bones. At the autopsy signs of commencing peritonitis were observed, and it was supposed that the irradiation had lowered the resistance of the intestinal mucosa, and that a traumatism caused by the chicken bones had provoked an acute infection. A third dog received irradiations at intervals over an extensive region of the abdomen during a period of thirteen months. Each of the five doses, given through various thicknesses of aluminium, brought about temporary digestive troubles, and the animal died a month after the last irradiation, which was much stronger than the others. The subsequent investigation placed it beyond doubt that the rays had given rise to severe lesions, microscopic in character, of the digestive mucosa, and that these lesions caused the cachexia to which the animal succumbed. The authors conclude that *x* rays, sufficiently filtered so as not to be absorbed too readily by the skin and abdominal wall, exercise on the gastric and intestinal mucosa of the dog a powerful and selective cyto-caustic action. The glands of the gastric fundus appear to be most susceptible in this respect, and in the small intestine the glands of Lieberkühn can be made to disappear in the course of a few days with a strong dose. Extreme care is therefore necessary in applying *x* rays over any extensive area of the abdomen, and the importance of this is emphasized by the difficulty of securing effective localization under such circumstances, and the virtual impossibility of doing so when treating neoplasms of the alimentary canal itself.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

86. Hospitals and Typhoid Carriers.

Brannan (*Amer. Journ. Med. Sci.*, September, 1912) conducted an examination of the faeces and urine in 119 cases during convalescence from typhoid fever, and in 48 cases during the active stage, an average of two examinations being made in each case. About 1 case in 5 gave positive findings during the active stage of the disease, and 1 in 8 during convalescence. In Bellevue and its allied hospitals no typhoid patient is discharged unless bacteriologically free, at least two successive negative examinations being required in each case, and it is believed that this measure of precaution will arrest the great majority of typhoid carriers, though it is recognized that patients discharged as bacteria-free after only two negative results may still be potential carriers. Instructions in the simple rules of cleanliness should be given to each patient on discharge, especially to those who will become engaged in the preparation or distribution of food, and, as far as possible, they should be prevented from following occupations involving the handling of food and drink. The hospital should further notify the health authorities in order that they may take the necessary precautions to protect the public. Of 140 individuals, 25 were intending, on discharge from hospital, to follow such an occupation, thus showing how impossible it would be to compel a change of work, and emphasizing the importance of instructing them carefully how to avoid conveying infection. Regulations for the control of typhoid carriers are in force in some European countries and in the English army, and of the various lines of treatment which have been adopted in an endeavour to sterilize carriers, army surgeons report the following results from the five different methods tried: (1) Lactic acid bacilli cause only a temporary disappearance of the typhoid bacilli; (2) acidifying the urine fails to cure the bacilluria; (3) the administration of antiseptics causes decided diminution in the number of bacilli both in faecal and urinary carriers, and this effect is markedly enhanced by a concurrent treatment with low diet, aperients in faecal cases, and diuretics in urinary cases; (4) *x* rays are beneficial in gall-bladder infection; and (5) vaccines cause only a temporary disappearance, though they might possibly have a better chance if combined with diuretics in urinary carriers, and *x*-ray treatment in gall-bladder cases.

87. Acute Haemorrhagic Nephritis in Phthisis.

In spite of the rarity of acute haemorrhagic nephritis in phthisis, F. Tobiesen (*Ugeskrift for Laeger*, September 26th, 1912) has collected 21 cases from two Danish hospitals. When haematuria occurs in phthisis, it may be due to tuberculosis of the kidneys or to haemorrhagic nephritis. The author is convinced of the correctness of the latter diagnosis in all but two of his cases. In one no casts were found in the urine, but uneventful recovery occurred. In the other, tubercle bacilli were, indeed, once found in the urine, but not during the haematuria. As the symptoms were not those of renal tuberculosis, the tubercle bacilli found had probably been excreted by the kidneys from the circulating blood, where these germs have often been demonstrated in phthisical patients. The haematuria is probably due to toxins formed in the diseased lung, and not to the bacillus itself, for it may follow an injection of tuberculin. In support of this view Holst has recorded the case of a young man suffering from tuberculous effusions into the pleura and peritoneum. Potassium acetate was given to aid diuresis, the increase in which was followed by a fatal attack of haemorrhagic nephritis. Many of the author's patients suffered from serous exudates, the resorption of which, Holst argues, floods the kidneys with toxin. There is little doubt that the kidneys of patients who thus react by haematuria have abnormally low powers of resistance to begin with. All but 2 of the 21 patients were in the third stage of consumption, and in 5 cases the haematuria was preceded by haemoptysis. Probably the latter causes the rapid spread of the pulmonary disease, and thus favours the formation of much toxin. The haematuria often disappeared with astonishing rapidity, especially when the condition of the lungs improved. Many patients, on the other hand, died during or soon after the haematuria. The necropsies in these cases showed enlargement of the kidneys. The cortex on section was swollen and brawny, the pyramids were dark red, the tubules were lined by partly degenerated epithelium, and contained hyaline and blood casts. The outline of many of the blood vessels was blurred, and some of the glomeruli were swollen and invaded by numerous round cells. In cases of old-standing phthisis the kidneys also showed amyloid disease.

88. Conjugal Specific Chronic Meningitis.

Babinski (*Journ. des praticiens*, December 14th, 1912) refers to several cases which he says come under this heading. The first is that of a woman who suffered from violent headaches, vomiting, and a certain weakness of intelligence. There was papillary congestion and other indications of intracranial pressure. The cerebro-spinal fluid showed a lymphocytosis, and the Wassermann test was positive. Under the influence of iodo-mercurial treatment she much improved. Her husband, on examination, was proved to be suffering from tabes. Another case was that of a woman of 31, who developed interstitial keratitis. There was abolition of the left knee-jerk, and dilatation and immobility of the pupils. An examination of the cerebro-spinal fluid showed lymphocytosis, and the blood serum gave a positive Wassermann reaction. The history of the case was that the father had contracted syphilis during the pregnancy of his wife. The child was infected but the mother escaped. A third case was that of a little girl who had partial epileptic crises, and suffered also from hemiparesis of the left side. Lumbar puncture showed a lymphocytosis, and the Wassermann reaction was positive. The father had contracted syphilis five years before. He contaminated his wife and they both contaminated the child. This is a case of familial rather than hereditary transmission. According to the author, it is well to examine all the members of a family when one of them displays nervous manifestations of an organic character. The perpetuation of nervous affections in the transmission of syphilis is a striking fact, and it has been suggested that the virus of syphilis is selective as to the nervous system in certain cases. It is certain that if two individuals have contracted syphilis from the same source, one may develop organic disease of the nervous system and the other escape. It is desirable to examine thoroughly suspected subjects, as, for example, the wife of a man who suffers from tabes. The treatment in these cases ought to be thorough, and the author makes a point of submitting all cases of tabes in his practice to mercurial treatment. It has been noted of late years that the general aspect of tabes dorsalis has been less grave than formerly, and this is to be attributed in large measure to early antisyphilitic treatment.

89. Alastrim.

Jacobs (*Schweiz. Rundschau*, No. 6, December 21st, 1912) describes under this name a mild form of epidemic very similar to small-pox, but differing from it in the following particulars: (1) In an epidemic at Sao Paulo the mortality was about ½ per cent.; (2) the disease is less dangerous in children than in adults; (3) there is no secondary fever, pustulation is quicker, and the fetid smell of small-pox is absent; (4) cicatricial formation is wanting, after the pustule dries a smooth irregular scar remains, with borders as if nibbled by insects; (5) although vaccination is a prophylactic against alastrim, cases have been observed in which persons vaccinated shortly before (one to two years) suffered from alastrim, and of 15 persons who had passed through an attack of alastrim six months previously 7 (46.6 per cent.) reacted positively to vaccination. Most patients complain at the beginning of pains in the neck, the tonsils become red but not much swollen. In the following days pains are complained of throughout the body, vomiting, loss of appetite, headache, and fever are noticed, and the urine is high coloured. The incubation stage lasts from ten to fourteen days. The eruption begins almost always on the face and spreads to the arms, chest, abdomen, thighs, back, and, lastly, the palms of the hands and the soles of the feet. Purulent changes take place in the papules and vesicles in from three to five days, and the scab falls off in about ten days. Pustules may form on the conjunctiva, and in almost all cases are found on the mucous membrane of the lips, gums, and pharynx. The

severity of the disease and the prognosis depend on the numbers and confluence of the pustules, and the cases may accordingly be divided into mild, where the pustules are irregularly distributed throughout the body; moderately severe, in which cases the pustules are confluent on the face and fairly thickly set over the whole body: and severe, in which they become confluent over the whole body, and cause death nearly always in old and feeble individuals. Of the author's 49 cases the mortality did not reach 4 per cent. The origin of the disease is Africa, where it is called Amaas. Aragao considers that varicella, alastrim, and variola are all derived from a common ancestor, and should be placed in one group.

SURGERY.

90. Hour-glass Constriction of the Stomach.

An interesting case of gastric stricture, which incidentally illustrates the value of radioscopic examination, is described by Barjon and Rey (*Arch. d'électr. méd.*, January 10th, 1913). The patient had been subject to dyspeptic troubles for a number of years, and this condition, which dieting and rest had temporarily relieved, was succeeded by a more acute one, with severe gastric pains and black vomiting. The crises began regularly about four in the afternoon, and lasted until supper time. A radioscopic examination with the aid of bismuth was made, and it was then apparent that the stomach was divided into two portions, one of which was almost entirely above the umbilicus. The upper independent cavity communicated with the lower by an extremely narrow passage, and, after being filled, this lower cavity in its turn began to contract, and emptied at the true pylorus. There was, however, some degree of retention, because further screen examinations, made five and nine hours afterwards, showed that a notable quantity of bismuth remained. The curious phenomenon was that each cavity seemed to maintain its independent contractility, and that each had its own pylorus. When the upper cavity was in contraction the lower one was in repose, and when the lower cavity contracted, the upper remained slack. On surgical intervention the *x*-ray picture was confirmed, the stomach being divided into two portions by the medio-gastric stenosis, thus presenting the familiar hour-glass appearance. There were signs of an ulcer in process of healing. The constricted part of the stomach was lightly adherent to the pancreas. It was detached gradually, a medio-gastric resection was made, the narrowed part being removed, and a suture on three planes reunited the two cavities. On examining the removed portion, it was found to be exceedingly narrow, about 1 cm. in diameter, and only admitting the little finger on forcing. A good recovery was made, and when the patient left the hospital, three weeks later, the stomach was found to have taken almost its normal form and dimensions; there remained only a slight medio-gastric narrowing, rendered more apparent by the contractions of the walls, and appearing to be due to some degree of cicatricial retraction at the place of suture. A further examination was made three and a half months afterwards, and the stomach was then found to be entirely normal in form and calibre, the pylorus giving a perfect evacuation. The authors state, on the basis of this and of another somewhat similar case, that the radioscopic examination is of the greatest utility in making the diagnosis precise, and in giving operative indications. The presence of multiple ulcers is an indication for gastrectomy, lesser measures being habitually insufficient.

91. Mediastino-pericarditis.

Dunn and Summers (*Amer. Journ. Med. Sci.*, January, 1913) record their observations on a case of mediastino-pericarditis treated by cardiolysis. The patient, a man aged 29, with negative family history, had diphtheria followed by paralysis when 11, and this was the only disease that he had ever suffered from. Three years prior to observation he complained of "bloating," tiring easily, and shortness of breath on exertion, which rapidly grew worse, so that almost from the beginning he had been entirely incapacitated. Dyspnoea and orthopnoea were marked, the face dusky red, and the veins of the neck and face were turgid, with a marked diastolic collapse. Violent pulsation was present in the precordium, consisting of a slow systolic retraction with a rapid vibratory diastolic thrust, with systolic retraction of the left costal arch. Broadbent's sign was present, the respiration rapid and upper thoracic in type, and a marked diastolic shock could be palpated. The area of cardiac dullness was increased, and did not change with change of position. A loud systolic murmur, best heard at the apex, was present over the whole of the precordium, and a second diastolic heart sound over the entire right ventricle, the heart's action being irregular and rapid. The left lower pleural cavity was obliterated, and the lower border of the left lung in the precordium did not move with respiration. Under treatment in hospital compensation was restored, the heart's action became regular, the murmur disappeared, and the cardiac sounds, from being blurred, became clear. Ten days later cardiolysis was performed with a view of untethering the heart from the costo-pericardial adhesions and allowing the enlarged organ freer play. A musculo-cutaneous flap down to the ribs was raised, and the third, fourth, fifth, and sixth ribs, with their cartilages, were resected flush with the sternum, thus exposing the pericardium and left pleura in an area measuring 5 in. vertically and 4½ in. horizontally. The pericardium was found to be adherent to the chest wall, and the pleura thickened and adherent. With the exception of a mild bronchopneumonia, which did not disturb compensation, convalescence was uneventful. The onset was insidious, and, with the exception of diphtheria at 11 years of age, there had been no illness to which the condition could be attributed. In mediastino-pericarditis the descent of the diaphragm during inspiration pulls at the heart, chest wall, root of lungs, and posterior mediastinum, and respiration is defective, inspiration producing a worse condition than expiration, since the heart and large vessels are fixed to their surroundings. An important diagnostic sign of adherent pericarditis is the absence of forward movement of the chest. For the success of the operation it is essential that there should be present diastolic shock, systolic retraction at the apex, and ability of the cardiac muscle to compensate.

92. Radiographic Indications for Pyelotomy.

In making a radiological examination as a preliminary to pyelotomy, Arcelin and Rafin (*Arch. d'électr. méd.*, January 10th, 1913) insist upon the necessity of the perfect immobility of the kidney. Long exposures, made with inadequate apparatus, have given results which have been confused by movement, and small calculi, which would have been quite visible on a short exposure, have escaped detection. The progress of radiographic technique has now made it possible to obtain renal records within a fraction of a second. The authors state that at their own hospital in Lyons, with a rectifier on the alternating current, they are able to obtain excellent radiographs of the kidney in from one-third to one-tenth of a second, and that even those who do not possess the more powerful outfits may, by the use of intensive coils, secure good radiographs in two or three seconds. An intensifying screen is necessary, as it is only this which permits of such radiographs being made within the period of apnoea. Radiological diagnosis of calculi is not to be trusted when respiratory movements take place during exposure. The authors estimate that with these rapid exposures it is possible to see the contour of the kidney in 80 per cent. of the cases, and under such conditions it is easy to say whether or not the calculus is at the site of the renal pelvis. In the remaining 20 per cent. the renal contour is invisible, whatever the technique employed, and these cases constitute a still unsolved problem. One authority affirms that when the radiograph shows the shadow of a calculus to be placed in such a manner that the distance which separates its inner border from the median line does not exceed 5 cm., one may conclude that the calculus is placed in the pelvis of the kidney, with the reservation that this shadow must lie between the transverse processes of the first and second lumbar vertebrae. The present authors state, however, that many calculi of the renal pelvis by no means fulfil these conditions. Out of seventeen calculi for which they have operated by pyelotomy, only four have come within these limits. Some calculi of the renal pelvis project their shadows to the level of the first lumbar vertebra, others to the level of the third. Some, in children, almost touch the shadow of the spinal column; others, in adults, are as much as 75 mm. from the median line. When the contour of the kidney is visible, the radiologist can give the surgeon certain complementary information as to the exact position of the calculus, and by radiographing at different times the mobility or fixity of the kidney and the calculus may also be studied. If a radiograph indicates a calculus of the renal pelvis having ramifications up to the calices, the authors are of opinion that pyelotomy is contraindicated.

OBSTETRICS.

93. Pituitrin in Obstetric Medicine.

UDACTA (*Revista de Medicina y Cirugia Practicas*, October 14th and 28th, 1912) reported to the Spanish Gynaecological Society two cases of uterine haemorrhage treated with pituitrin. The first was a woman two months pregnant, who had been passing coagula and large pieces of "flesh" which microscopically appeared to be placenta. Three days after being first seen she had a slight haemorrhage, and about six minutes after its appearance she was given a hypodermic injection of pituitrin. Fifteen minutes later she felt pain, and expelled from the uterus a quantity of blood. Forty-two minutes later there came away a coagulum and a mass of placental tissue. That was the last of her symptoms, and she has remained well since. In the second case the patient's uterus expelled the placenta after the first injection of pituitrin. In the discussion Botin said that he had experience of the action of pituitrin in 4 cases. In 3 of them the result was excellent; in the fourth case there was no result. He referred to the great difficulty in the experimental study of the action of the extract of the pituitary gland in the living animal. The operation for its removal was so severe that it was difficult to distinguish the effects of its removal from the effects due to the severe traumatism necessary in removing it. The recent introduction by Parache of the orbital method of reaching the gland involved much less injury to neighbouring parts, and may have better results. The injection of pituitrin causes first of all a tetanic contraction of the uterine muscle, which after a short time ceases, and is succeeded by other contractions altogether resembling those of normal labour. Attempts to avoid the initial tetanic uterine contraction by giving smaller doses have not been successful. So far, pituitrin appears to be quite harmless to both mother and fetus. One peculiarity of its action is that tolerance seems to be very quickly established, so that even the second injection acts less energetically than the first, and the third than the second. For this reason, the drug should not be used in the first complication which occurs (unless this is really serious), as otherwise a later moment of greater danger will find us deprived of its full power of assistance. It results from its power of increasing the normal intermittent contractions of the uterus that it can often be used in uterine inertia before the child's birth, and in this way replace the use of the forceps. Mañueco remarked that our knowledge of the drug was still much too incomplete to justify any enthusiasm about it. This might lead to its falling unduly into discredit. He believed that in the reactionary relaxation of the muscular fibres of the uterus following its use haemorrhage was to be feared. For this reason he always repeated the injection if the pains faltered towards the end of the labour. In every case an exact diagnosis of the cause of the delay in the course of parturition was essential. To use pituitrin, for example, in a case of pelvic contraction could only lead to a calamity. More study of the effect of the drug on the contractions of the uterus, by means of the locodynamometer, was required.

GYNAECOLOGY.

94. The Relation between the Lungs and Genital Organs in Tuberculous Women.

VON BARDELEBEN (*Arch. gén. de méd.*, September, 1912) writes: Genital tuberculosis is generally the result of pulmonary tuberculosis. On the other hand, clinical observations teach us that the prognosis of pulmonary tuberculosis is considerably worse when genital tuberculosis coexists with it. That is why, at autopsies, the latter is very often found to be accompanied by extensive pulmonary tuberculosis, whereas opportune extirpation of the genital focus very often cures an incipient pulmonary tuberculosis. During pregnancy the placenta or the placental site is, in most cases, the focus of this reciprocal and retroactive effect. It frequently harbours large numbers of circulating tubercle bacilli, and these, on separation of the placenta, again become mobile. The greater the chance of tubercle bacilli circulating in the blood, as in active pulmonary tuberculosis, the worse the effect of gestation, and, vice versa, it is much more rare for tuberculosis to be unfavourably influenced by pregnancy when there is small chance of the bacilli circulating, as in an inactive latent pulmonary tuberculosis. These facts are proved by anatomical examinations of placentas, and therapeutic operations have given the same results. Artificial abortion alone is only of use in those cases where hardly any tubercle bacilli are found in the placenta (uncomplicated catarrhal affections of the apices of the lungs up to the fourth month of pregnancy), but it is insufficient in cases where many tubercles are found there. In these latter cases the results are as good as in the former if, in addition to removing the fetus, excision of the placental site is performed. Equally, local puerperal and post-puerperal affections disappear after excision of the placenta. The ovaries take no part in the aggravation of pulmonary tuberculosis during gestation; on the contrary, their total extirpation aggravates those cases in which simple artificial abortion is indicated. In the class of case where abortion alone is not sufficient, excision of the placental site is preferable to extirpation of the uterus, which, however, gives good results.

95. Carcinoma of Cervix at the Age of 18.

CRAIGIN (*Amer. Journ. Obstet.*, January, 1913), at a recent meeting of the New York Obstetrical Society, related a case which he reports as the youngest instance of carcinoma of the uterus ever under his own observation. A girl had been subject for several months to menorrhagia, which was mitigated by rest, ergot, and other measures. A large cauliflower growth projected from the cervix, and a portion was removed and examined at the Crocker Cancer Research Laboratory and by experts elsewhere. There could be no doubt that it was a true carcinoma. Craigin saw her in consultation on April 26th, 1912. On May 4th he performed Wertheim's operation, and when the patient was seen on September 16th, 1912, there was no evidence of recurrence.

THERAPEUTICS.

93. Acetonuria and the Treatment of Diabetes.

VON NOORDEN (*Wien. med. Woch.*, No. 28, 1912) discusses the significance of the presence of acetone in diabetic urine and its practical bearing on treatment. He remarks that although acetone is constantly found in the urine in cases of diabetic coma, its presence is often physiological and does not necessarily indicate danger. Premising that the chemistry of the production of acetone is not fully understood, he says that its forerunners, β-oxybutyric acid and diacetic acid, are formed principally in the liver by the incomplete oxidation of fats. Normally, under the as yet imperfectly understood influence of glycogen, the fatty acids are oxidized with the formation of carbonic acid and water, but when, even in a healthy person, owing to withdrawal of carbohydrates from the diet, glycogen is not produced in sufficient quantity, a faulty metabolism of the fats takes place, and ketones (an intermediate stage in their combustion) appear in their blood. If this starch-free diet be continued, a kind of tolerance is established, and apparently the liver manufactures glycogen out of fats and other materials not usually so converted, for in a few days the superabundant ketones disappear. In diabetes the liver cells lose, to a greater or less extent, their power of storing up glycogen, which is hurried away and converted into sugar almost as fast as it is formed. The faster the glycogen is thus destroyed the greater is the production of ketones. In applying these considerations to treatment and prognosis, the author divides cases of glycosuria into mild and severe. Mild cases he defines as those in which a partial or complete withdrawal of carbohydrates from the diet secures the disappearance of sugar from the urine, while in severe cases it is not possible to get rid of the sugar unless not only carbohydrates, but also, to a great extent, albuminous substances, are excluded. He distinguishes two types of mild cases. In the first the urine of a patient on ordinary diet contains 3 or 4 per cent. of sugar, but no acetone. A restriction of the amount of carbohydrate food by removing the stimulus which that gives to the sugar-producing liver cells, rests them, removes their hypersensibility, and soon causes a diminution in the output of sugar. After a few weeks starchy foods may safely be taken again in moderation; but, as an immediate result of the restriction of carbohydrates, acetone will appear in the urine. This should not be regarded as a danger signal of impending coma, but as a physiological phenomenon. The restricted diet should be continued, and in a few days the acetone will disappear. In the second type of case the patient has followed a regimen for some time, but has not been entirely deprived of starchy foods. On his taking to a strict diet the sugar disappears without any access of ketones, for the liver cells have

become accustomed to the paucity of starch, and its complete withdrawal makes but little difference in the formation of glycogen. Acetonuria does not, in the author's opinion, necessarily call for any alteration in the treatment, and he has long since ceased to give alkalis in these mild cases. It is to be observed, however, that there are patients with slight glycosuria who, whether on strict diet or on a moderate allowance of carbohydrates, continually pass a few decigrams of acetone. Some of these cases are harmless, especially in old age or pregnancy; but when in young people the amount of acetone exceeds 0.2 gram daily, even though no sugar be found in the urine after a moderate amount of starchy food, the prognosis is grave. In these cases sugar will be present in the blood although it is not eliminated by the kidneys, and in spite of the acetonuria the strictest diet should be ordered, together with alkaline medicines. The severe cases are also divided by the author into two types. In the first, in spite of a fairly restricted diet, the urine still contains sugar and a small quantity of acetone, but the patient remains in apparently good health except for certain complications such as furuncles, visual disturbances, and neuralgia. These cases always tend to grow worse, and attempt should be made to bring them back to a less severe grade by gradually reducing the amount of starchy food. At first the output of sugar will diminish, but the acetone will increase. A change from strict diet to one of egg and vegetable, and then to oats for a few days, will correct the excess of acetone, and the strict diet can then be resumed. One day's complete abstention from food will sometimes inaugurate a change for the better. The author holds that although the addition of carbohydrates to the food will for a time diminish the output of acetone, yet it is not right thus to endanger the future of the patient; but every effort should be made to combat the tendency to ketonaemia, not by the convenient method of giving carbohydrates, but by systematically resting the sugar-forming process in the liver. Of the second type are those cases in which, in spite of every effort, sugar is constantly present in the urine, and the withdrawal of carbohydrates only leads to a formidable increase in the amount of acetone. The author believes that the glycogen formed in the liver from the carbohydrates brought to it by the portal blood has a fleeting influence on the metabolism of fats before it is hurried away, and, though it cannot entirely prevent the formation of ketones, if the carbohydrates are supplied in abundance, there will always be enough glycogen present to check their too rapid formation. The diet, therefore, must contain carbohydrates, but about once a week the patient should have a "hunger day," during which he lies in bed and takes nothing but tea, clear bouillon, and brandy and soda-water. Discussing the use of alkaline medicines, the author remarks that they do not prevent the formation of ketones, but they neutralize the fatty acids and favour their elimination from the blood. He thinks they should be used freely in severe cases. With regard to levulose, although this form of sugar admittedly forms glycogen most readily, the author has not found it of much practical value; but he lays stress on the good effect of large quantities of alcohol given on the occasional hunger days, and he claims that impending coma may often be warded off by a strict oatmeal diet for a few days.

97. Adalin.

Xaver Walter (*Wien. klin. Woch.*, No. 26, 1912) describes his experience of adalin as a narcotic and sedative. Adalin is a white, crystalline, rather bitter powder without odour, which is soluble only slightly in cold water, more in warm water, and most in fats. It is prepared by the firm of Bayer and Co. The chemical formula is

$$C_2H_5 \quad Br$$
$$\quad\quad C$$
$$C_2H_6 \quad CONH-CONH_2.$$

Thus, in adalin, bromine is combined with the ethyl and acetyl groups. The author has used adalin in 60 cases, which included cases of tuberculosis, insufficiency of the cardiac muscle, arterio-sclerosis, typhoid fever, sciatica, chronic alcoholic poisoning, cardiac neurosis, bronchial asthma, neurasthenia, hysteria, Basedow's disease, anaemia, and syphilis of the central nervous system. He has found adalin a very efficient narcotic. As a rule, a dose of 0.75 to 1.0 gram (11.6 to 15.5 grains) given in hot tea was followed within three-quarters to one hour by a sleep which lasted from eight to ten hours. The patients woke up feeling refreshed. The sleep was not deep and could easily be broken, but the patient readily fell asleep again. There were no severe side-effects. In 3 cases there were headaches and a sense of heaviness. Adaptation of the dose to the individual case is always needed. Thus, in one case of obstinate sleeplessness, a dose of 0.5 gram (7.7 grains) proved too large and induced a sleep of more than twelve hours' duration, with sleepiness on the following day, while in other cases 1.5 gram (23.2 grains) is the minimum effective dose. With continuous use doses smaller than the initial one become effective, and adalin can be given for comparatively long periods without any sign of its losing its effect. Illustrative cases are given in which adalin was successful where other narcotics had failed. The author finds adalin as a rule more certain in its action than narcotics such as veronal and trional; in two cases only veronal proved the more effective. The action of bromine preparations was weaker than that of adalin. Adalin is especially useful in sleeplessness of nervous origin, in a whole series of cardiac neuroses, and in organic heart disease.

98. Death after Neo-Salvarsan.

Lévy (*Ann. des mal. vén.*, October, 1912) reports a case of death after injection of neo-salvarsan. The patient, an apparently healthy man, but said to be somewhat alcoholic, received four injections of neo-salvarsan (0.45, 0.60, 0.60, 0.90 gram) for primary syphilis. The first three injections were well tolerated; but six days after the fourth injection the patient suffered from intense dyspnoea, and died on the fourteenth day. No autopsy was made. The author attributes the death to arsenical intoxication, predisposed to by alcoholic degeneration of the liver. He mentions the experimental work of Ritter and others which shows that salvarsan has a particularly noxious effect on the liver.

PATHOLOGY.

99. The Nature of the Tuberculin Reaction.

F. Meyer and K. E. F. Schmitz have investigated a number of points in connexion with the mode of action of tuberculin, and publish their results in the *Deut. med. Woch.*, October 17th, 1912. Yamanouchi has attempted to transfer the susceptibility of tuberculous animals to normal animals by the injection of the serum of the former. The animal thus passively immunized was injected with tuberculin, in order that a reaction might be attained. Various observers obtained varying results, and the diagnostic importance of the procedure has not been proved. Starting from this idea, the authors first injected the serum of rabbits which had been rendered tuberculous with bovine tubercle bacilli into normal rabbits. After twenty-four hours a trial injection of tuberculin made from bovine bacilli was injected. The results were inconstant, sometimes a rising of temperature following and sometimes no such rise occurring. The next series of experiments consisted of the injection of a mixture of tuberculous serum and tuberculin with and without normal guinea-pig's serum (complement). With the serum of a freshly infected rabbit a well marked reaction was obtained, while when the serum of an animal which had been tuberculous for a long time was used the reaction was slight. In the next place they mixed tuberculin with the blood of a tuberculous rabbit and also with the red blood corpuscles. A very well marked reaction was obtained in this manner. They further determined that the washings of the blood corpuscle-tuberculin mixture after sharp centrifugalization could produce the reaction, and also that the tuberculous rabbit from which the serum or blood was obtained reacted sharply to tuberculin. As a result of these and other experiments, they give the following explanation for the nature of the tuberculin reaction. Small quantities of tuberculin when injected are taken up by the red blood corpuscles and carried to the tuberculous foci. In this situation receptors which have the greatest affinity to tuberculin are present in more or less recent cases, but at a later period other receptors are found in the blood cells. The focal receptors attract the corpuscles and tuberculin, and in this manner the local reaction is produced. The combination of receptor and tuberculin produces a toxin which on becoming free causes a general reaction. In progressive cases the receptors of the blood are so saturated with tuberculin that a freeing on renewed injection of tuberculin does not take place and therefore the reaction is negative. On the other hand, after prolonged treatment with small doses, the body responds by the formation of increasing quantities of toxin which induces a non-sensibility to tuberculin. This may perhaps be attained by the production of a true antitoxin.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

100. Atropine Reaction in Cardiac Disease.

TALLEY (*Amer. Journ. of Med. Sciences*, October, 1912) discusses the prognostic significance of the atropine reaction in cardiac disease, the throat dryness and impaired vision resulting from $\frac{1}{50}$ to $\frac{1}{25}$ of a grain hypodermically, soon passing off without any other untoward effect. This method of releasing the vagus action, and of comparing the effect on normal and diseased hearts, led to the use of the reaction in the study and treatment of cardiac disease, and showed its prognostic significance in cardiac cases, especially auricular fibrillation, and how it may be used in the study of digitalis action, since it was found to be unusual for cases giving small reactions to respond well to digitalis. Patients with rheumatic mitral disease developing auricular fibrillation with rapid pulse-rate, gave large atropine reactions, the pulse-rate, with the vagal influence abolished, depending upon either stimulus production or conduction. Cases of auricular fibrillation show marked slowing under digitalis, many small beats disappearing, the remainder being more even in height and the diastolic pauses more regular. Under atropine many of the small beats reappear at the expense of the diastolic pauses as the pulse accelerates. The atropine reaction in the normal heart is probably from 30 to 40, and a reaction of 20 or less, in a heart not recently subjected to exhausting disease, points to degeneration of the cardiac muscle, and makes the chance of improvement under treatment unpromising. Cases of auricular fibrillation, with responses normal or above, are promising subjects for treatment, two reactions, one before and one on full digitalis, enabling a determination possible as to whether the vagal or the cardiac tissue factor is the greater. Those cases with a large cardiac tissue factor are usually the ones sufficiently improved by treatment to return to their occupations.

101. The Detection of Occult Gastric Bleeding.

ONE of the chief difficulties in deciding whether small, easily overlooked quantities of blood are passed into the intestine from the stomach consists in distinguishing between exogenous from endogenous blood in the faeces. I. Boas (*Deut. med. Woch.*, October 31st, 1912) finds that many patients object to be kept without meat diet altogether for several days, and inasmuch as it is a matter of trust in ambulant patients that they carry out instructions rigidly, he has devised a method of overcoming this difficulty. If hydrogen peroxide is added to meat the haemoglobin splits off the odd oxygen atom from the peroxide, and this freed oxygen decolorizes the pigment entirely. He therefore instructs his patients to take from 100 to 125 grams of minced or scraped meat (veal or chicken for choice), and add to it 100 c.cm. of a 3 per cent. hydrogen peroxide in a porcelain dish. This has to be stirred until the colour is quite removed and a snowy white meat results. A plentiful froth must be produced. The meat is then transferred to a sieve and well washed under the tap to remove all the peroxide. It is then made into croquettes. First the patient is told to take a suitable purgative—for example, Carlsbad salts, rhubarb, magnesia, or some aperient bitter water—and then to take no other meat for two or three days, save the decolorized meat. At the end of this time the analysis of the faeces may be undertaken, and any blood found will certainly be endogenous.

102. Congenital Syphilis.

TERRIEN, BABONNEIX, AND DAUTRELLE (*Bull. de la Soc. de Pédiatrie*, December, 1912) publish an interesting case of hereditary syphilis on the father's side, with symptoms analogous to those seen in congenital muscular atrophy. The child was 19 months old; born at term, breast-fed, and able to sit up at 7 months, when convulsions began, followed a little later by apparent failure of sight. On examination there was marked muscular atony, so much so that the limbs could be bent in extraordinary ways, as though the joints were dislocated; the patient was unable to sit up or to control the head. There was, however, no paralysis, no choreic movements, no fibrillary twitching, no athetosis. The muscles of the eyes, the tongue, and deglutition acted normally. Tendon reflexes were present, but skin reflexes absent; Babinski's sign was elicited. Sensibility seemed to be intact, and there were no vasomotor symptoms. There was grey atrophy of both papillae, of the post-neurotic type, with marked diminution of vision. The child could not speak and was mentally backward. The electrical reactions showed under-excitability of the trapezius and the pectorals, both to galvanism and faradism. No R.D. Lumbar puncture showed moderate lymphocytosis. There was marked obesity, the spleen was enlarged; the head was large, with projecting frontal bosses, and the anterior fontanelle was open. Wassermann reaction was positive; the teeth were normal. In the matter of diagnosis the condition most resembled the congenital muscular atony of Oppenheim, but in this disease the amyotony is observed from the first days of life, active movements are very limited, there is always abolition or diminution of tendon reflexes; ocular phenomena have never been observed, and the intelligence is intact. In view of the obesity, a symptom often associated with disorders of internal secretion, the authors consider that all the phenomena may be explained by a specific lesion of the hypophysis. Injections of biniodide brought about a considerable diminution of the atonic phenomena and a marked improvement of vision.

103. Laryngeal Tuberculosis.

OPPIKOFER (*Schweizerische Rundschau f. Med.*, 1912, No. 6, December 21st), writing on this disease, says it is commonest between 20 and 40 years of age; men are more frequently affected than women, owing to the greater use in the former of tobacco, alcohol, etc. The disease is nearly always secondary. About 20 to 30 per cent. of cases of pulmonary tuberculosis suffer from the same disease in the larynx. Infection is chiefly from the sputum, but may occur through the blood or lymphatics, or from direct inhalation. The most frequent appearance of the larynx is that of infiltration or ulcer formation; miliary tumours are rare. The infiltration at the beginning is usually solitary, and situated on the true or false vocal cords, or on the posterior wall of the larynx. Later on, if the disease progresses, ulcers form, which may be superficial or penetrate into the muscular tissue and even the perichondrium. Later on extensive perichondritis, oedema, abscesses, and cartilaginous necrosis result. The perichondritis is more frequent in the arytenoid than in the other cartilages. The disease shows itself by hoarseness, loss of voice, or paralysis of a vocal cord, pain on coughing and swallowing, and shortness of breath, but it should be noted that the disease can progress without any symptoms. The prognosis is always serious, but cure can result if the lung condition improves; if the pulmonary disease progresses, there is little hope of any improvement in the larynx. The author considers the various remedies that have been recommended for the treatment of the disease, both local and general, but does not consider that any real remedy has yet been found.

104. Influence of Pregnancy on Psoriasis.

PETRINI says (*Bull. de Soc. Franç de Derm. et Syph.*, November, 1912) it is well known that psoriasis may make its first appearance during pregnancy, or immediately after a confinement; but in the author's case the lesions, which were of the intractable papulo-squamous disseminated type, disappeared completely with conception, only to return with the birth of the child. The patient assured him that a similar freedom from eruption had coincided with every one of her previous four pregnancies, and that she always felt well, and put on weight at these times. The author has not been able to find a report of a similar case in the literature, and emphasizes the great rarity of the syndrome by calling attention to the frequency with which psoriasis disappears during periods of sickness, only to recur with renewed vigour when the patient is restored to normal health.

SURGERY.

105. Renal Tuberculosis.

F. SUTER publishes the permanent results of 60 cases of renal tuberculosis treated by nephrectomy (*Muench. med. Woch.*, November 5th, 1912). He states that in 53 out of the 60 cases the patients sought assistance on account of

a disagreeable sensation during micturition and of an increased frequency of the same. In the 7 remaining cases the patients came to the doctor either on account of pain in the kidney or for some independent condition, and in the latter case the diagnosis was made by accident, on the analysis of the urine. In discussing the differential diagnosis, he points out that the use of a separator for the collection of the urine from one or other kidney may only be relied upon when the urine from the one kidney is quite normal, while that from the other is purulent, and when the cystoscopic appearances coincide with the results of the urine analysis. Of the 60 persons operated on 5 died, yielding a total mortality of 8 per cent., 1 died twenty-four hours after the operation and 4 died at a later date, the cause of death being pulmonary tuberculosis, puerperal fever, uraemia, and miliary tuberculosis. Of the 55 patients who are still living, 5 need not be further considered, since the operation has been performed within the last six months, 28 (56 per cent.) are completely cured, and 17 (34 per cent.) are considerably improved. The remaining 5 were little or only temporarily improved; 5 of the considerably improved patients still complain of bladder symptoms (due to scars, etc.) but the urine is quite clear. Particulars of the not improved cases are given. In critically surveying the cases, the author finds that the capacity of the bladder is of great importance for the chances of recovery. The capacity at the time of the first examination of those cases which were cured had an average of 270 c.cm.; it was 150 c.cm. in the case of the "considerably improved" patients, and 130 c.cm. in the "little improved" cases. The third class shows a high average, as the result of one case in which the bladder was capable of holding 400 c.cm. at the time of the operation. The rest only yielded an average of 60 c.cm. The prognosis is always favourable if the surgeon can begin the treatment when only one kidney is affected and when the bladder is not implicated. It is stated that the chances of cure are better in women than in men. In 16 cases the kidney was totally destroyed and caseous; of these cases 8 recovered completely. He cites some histories in support of his contention that the risk of postponing the operative treatment in the hope that Nature will effect a cure is too great to be justified. Nephrotomy has not yielded satisfactory results in his hands, and while x rays and tuberculin may be required when an operation cannot be carried out, the treatment for one-sided renal tuberculosis is nephrectomy.

105. Rhizotomy for Gastric Crises in Tabes Dorsalis.

Frazier (*Amer. Journ. of Med. Sciences*, January, 1913) advocates rhizotomy for the relief of gastric crises in tabes dorsalis in suitable cases where other measures have failed, because the procedure is physiologically sound and has been followed by good results in a considerable percentage of cases, those hitherto recorded showing entire relief in 30 per cent. and a partial relief in 56 per cent. A man, aged 40, had suffered for three years from attacks of violent pain and vomiting recurring every four to six weeks. There was no evidence of any lesion of the upper abdomen, as ascertained at a previous operation for suspected cholelithiasis, but the symptoms of tabes dorsalis were well defined. Through a unilateral laminectomy the seventh, eighth, ninth, and tenth sensory dorsal roots were divided, with the exception of the tenth on the right side owing to difficulty of exposure. Some weakness in the right leg and retention of urine ensued, which passed off before the patient left hospital, and he has since reported as having remained entirely relieved from pain and vomiting, and as having gained steadily in weight. Contrary to German and French usage, the performance of the operation at one sitting is advocated unless contraindicated by the condition of the patient, and the anaesthetic is best administered by intratracheal insufflation. Although in the case recorded unilateral laminectomy was sufficient for adequate exposure of the roots, bilateral exposure facilitates and shortens the operation and does not afterwards materially interfere with the strength of the back or the patient's comfort. Experience points to the fact that the seventh to the eleventh (inclusive) dorsal roots should be severed, and probably the fifth and sixth, as recurrences or partial successes have been attributed to the fact that too few roots have been cut, and subsequent further rhizotomy has effected a cure. The above procedure will of course be useless in cases of pneumogastric origin in which root resection is contraindicated. Although among the 30 cases gathered from the literature there were five deaths, the mortality from the operation need not be excessive if care be taken in the selection of suitable cases, bearing in mind that in many instances of tabes dorsalis the patients are anything but fit subjects for operative intervention.

107. Transplantation of Bone Marrow.

In a preliminary notice, O. M. Chiari records some experiments which he has carried out on the transplantation of bone marrow (*Muench. med. Woch.*, November 12th, 1912). Having first attempted to implant the medulla of the sternum or of the femur into the space under the fascia of the rectus abdominalis or into a preperitoneal pocket, without success, he turned his attention to the spleen as a possible site for the transplantation. He removed a portion of the medulla of the femur of a rabbit and inserted it into the parenchyma of the spleen of the same animal through a narrow canal prepared by a blunt probe. The capsule was then sutured over the wound, and the abdomen closed. Some technical difficulties were met with on account of the haemorrhage arising from the spleen and other causes. The whole animal, with the exception of the splenic region, was then exposed to x rays with the object of producing a general damage to the bone marrow still *in situ*. Apart from an abortion, no harm was apparent from the rays, and after five months, during which time the rabbit remained well, it was killed. The examination showed that the piece of marrow was not only still alive, but proliferation of medullary cells (erythroblasts, myelocytes, etc.) was found. There was a small splinter of bone at the lower edge. It appears that the piece of marrow of the size of a millet seed had grown to that of a pea.

108. Ulcus Cruris Varicosum and Syphilis.

Zinsser and Philipp (*Zeit. f. Dermat.*, December, 1912) state that the differential diagnosis of varicose and syphilitic ulcers of the leg are elementary points with which every student is familiar. The pre-existence of varicose veins, the tendency for the involvement of the lower third of the leg, and the congested, often eczematous, condition of the parts surrounding the typical irregular, shallow, dirty-looking ulcer in the former condition, as opposed to the still more typical punched-out circular or reniform luetic ulcer, which tends to be grouped in the upper third of the leg, and often presents the oft-described wash-leather slough on its surface, are points too well known to require further description. The authors of this article are concerned with cases in which the points above stated are not sufficiently obvious, or in which typical varicose ulcers occur in syphilitic patients. As an aid to diagnosis they have availed themselves in a number of cases of the services of a radiographer, who found in a surprisingly large percentage of the cases photographed periostitic changes which could only be ascribed to syphilis. These changes were present in some cases in which the clinical appearances entirely agreed with the diagnosis of varicose ulcer. Most of such cases occur in old people, whose memory for anything which may throw suspicion on the possibility of a luetic taint incurred in their youth is proverbially unsound. As a further support, therefore, to their theory the Wassermann reaction was performed in 36 cases, and in 28 of these proved positive. The underlying syphilitic bases of such cases can hardly, therefore, be negatived, and they are in all probability due to specific inflammatory conditions—as, for example, endophlebitis or phlebitis obliterans—which may precede or go hand in hand with the adjuvant varicose condition of the veins. The practical bearing of the discovery is of great importance, and suggests that in every case in which the ordinary treatment for varicose ulcer fails an antiluetic one should be also tried. In every case in which the authors followed the therapeutic indication, except those which had undergone marked secondary changes—over thirty years' persistence—cure or alleviation followed. Salvarsan was not administered.

OBSTETRICS.

109. Treatment of Flooding in Pregnancy and Labour.

Paul Bar (*Bull. de la Soc. d'Obstét. et de Gyn. de Paris*, July, 1912) has issued a full statistical report of his public experience of haemorrhages associated with gestation, which he analyses at some length. He groups his series into three subdivisions. First, he reviews haemorrhage in pregnancy from vicious insertion of the placenta. He finds that women who have been subject to severe and repeated bleeding run little risk of death if there be already no infection, provided that no infection is allowed

to occur during any obstetrical manœuvres or operations in the course of the labour and the removal of the placenta, and all haemorrhage at the same time checked, as a very little bleeding in these cases may prove fatal. Bar declares that lacerations of the cervix caused by hasty dilatation are especially dangerous. Secondly, he discusses the subdivision, including retroplacental haemorrhage, in pregnancy. He advises caution, whether labour be not threatening, or whether it is beginning. He relates two cases of embolism, one where the uterine wall was the seat of a true apoplexy, and one where there was sepsis in the puerperium and infection of the urinary tract; all four died, but the fourth case was imprudently removed from the maternity and died at home. Diagnosis of retroplacental haemorrhage is by no means easy in many instances, and Bar relates a case where all clinical symptoms pointed to this complication. Labour had set in, and black clots were expelled, whilst the cervix was long and rigid and undilated. He performed Caesarean section. The uterine wall was not ecchymosed, and when the dead child was extracted no trace of retroperitoneal haemorrhage could be detected. It proved best, according to Bar's experience of this series, to deliver through the natural passage should the cervix be sufficiently dilated or readily dilatable. If the cervix be in a less favourable condition an abdominal operation is indicated. Bar insists that the "classical" or conservative Caesarean section is only justifiable if the general condition be good, all evidence of infection absent, and ecchymoses in the muscular wall of the uterus absent or but little marked; otherwise, hysterectomy is necessary. Vaginal Caesarean section is reserved by Bar for exceptional cases where great haste is imperative, and hysterectomy, therefore, not quite advisable. Bar includes in his third group haemorrhages of the *post-partum* class. When due to uterine atony surgical aid is rarely called for. As a rule, haemorrhages due to laceration of the cervix are checked by the tampon. But when this is not the case, and when on drawing down the cervix with the volsella the bleeding vessel cannot be seen and secured, sutures *en masse* are unsafe. It is better, Bar insists, to operate from above so that the divided vessels can be quickly ligatured.

110. Rupture of Uterus: Avulsed Fetal Head in Broad Ligament.

BRETSCHNEIDER (*Zentralbl. f. Gyn.*, No. 43, 1912) reported two cases of ruptured uterus in private practice at a recent meeting of the Leipzig Obstetrical Society. In the first, the injury was caused by turning shortly after the membranes had ruptured; the laceration extended from the fundus down to the posterior fornix. Abdominal section was promptly undertaken, and the laceration was closed by suture. The operation was performed in a cottage; the patient made a good recovery. In the second case, breech extraction was attempted in labour at the sixth month. Much force was used, and the head was torn off as the trunk was extracted. Great haemorrhage ensued, and the patient was sent to the Leipzig maternity. The os externum, rigid and but little dilated, and the cervix were laid open. Then the head was extracted, the uterine walls had been lacerated along the right side, but the rupture was incomplete in so far as it did not involve the serous coat. Thus the peritoneal cavity was not opened. The fetal head had been pushed out into the right broad ligament, and was invested by its layers. The bladder and right ureter were not damaged. The cervix was united by suture to the body of the uterus, and the wound drained. The patient recovered.

GYNAECOLOGY.

111. Cysts of the Mesentery, Chylous and Others.

PROUST AND MONOD (*Rev. de gynéc. et de chir. abdom.*, September, 1912) have prepared a full monograph on this type of cystic tumour, based on an example of true chylous cyst removed by Proust, and carefully examined by pathologists. The patient was 67 years of age, and the growth, "like a ball rolling about in the belly," had been noted by her for about six months. It caused pains so that she could not walk. It was as big as a fetal head at term, resistant, dull on percussion, and not very movable. Ovarian cyst was diagnosed, though the fornices were quite free, and movements of the cyst did not affect the cervix. On opening the abdomen the tumour was found to lie in the folds of the mesentery, but neither could be separated without damage to the mesenteric vessels. The intestine over the tumour was therefore resected, but after the removal of the tumour with its mesenteric capsule, Proust found that the remaining intestine adjacent to the excised segment appeared insufficiently protected by the mesentery. On that account he removed nearly 8 in. of intestine above the upper cut end. Then a latero-lateral anastomosis of the two ends was made. Nevertheless there was still great difficulty in bringing the divided borders of the mesentery together, and in fact it proved impossible to close the breach by suture, so that nothing more could be done except to introduce a drainage-tube with two strips of gauze into the gap. Flatus passed by the rectum on the third day; then black vomit (not analysed) was ejected at intervals up to the seventh day. The gauze was removed on the ninth, and the drainage tube on the twentieth. The patient was in good health, and quite free from abdominal pain two months after the operation. The cyst contained 750 c.cm. of a viscid milky fluid, which proved on examination to be mostly chyle—that is to say, it resembled lymph in composition, but contained much fat. Lecithin, as well as cholesterine, was detected in this cystic fluid, the authors noting that Noel Paton has shown that both exist in normal human chyle. As for pathology, the authors divide these tumours into (1) lymphatic cysts, including those containing chyle; (2) serous cysts, developed by adhesion of opposite sides of the mesentery; and (3) epithelial cysts of congenital origin, either from Meckel's diverticulum or aberrant germs of the intestinal canal, or from Wolffian relics, or from dermoid elements. The last subvariety may be a simple intramesenteric or retroperitoneal tumour, or a complex tridermic growth either grafted from a dermoid ovary or representing fetal inclusion. The main feature of importance to the surgeon operating on any type of mesenteric cyst is the fact that resection of the involved small intestine is usually necessary—that is to say, it must be performed whenever the capsule of the cyst, the two folds of the mesentery, are adherent so that the blood vessels are certain to be damaged and the nutrition of the gut cut off if the tumour be enucleated. The authors admit that enucleation is the best method when the mesentery is non-adherent, as is often the case with small serous and lymphatic cysts.

THERAPEUTICS.

112. Mechanical Treatment of Skin Disease.

SCHIFF (*Wien. med. Woch.*, No. 26, 1912) remarks on the great advance made in the treatment of skin diseases during the last twenty years, first by the light of Finsen, then with the *x* rays and radium, and later by massage and by the studies of Bier on hyperaemia. As pointed out by Unna, the effects of treatment can be observed experimentally on the skin at once and with certainty, and this applies not only to the chemical remedies which he used, but also to various mechanical means, so that more rapid progress has been possible in the therapeutics of skin diseases than in any other branch of healing. The author contrasts with primitive apparatus the modern application of heat and cold to the tissues, instancing the diathermic method, in which by means of a high tension current heat can be originated in the tissues themselves. As other triumphs of electrical treatment he mentions its use by Shoemaker, Winkler, and Ehrmann to promote absorption, to check inflammation and congestive erythema, to kill parasites, and to allay tenderness and irritation in such conditions as anal fissure, cracked nipples, burns, and herpes zoster. The value of the Roentgen rays, he says, is established in the treatment of lupus, of mycosis fungoides, and of favus; in the removal of naevi, angiomata, and keloids, and possibly even of cancerous growths; and in the relief of hyperidrosis and hypertrichosis. Radium emanations have proved useful in slow-healing ulceration due to tubercle, syphilis, or other causes; in Aleppo boil; and in excessive pigmentation. The use of massage has been extended by Jacquet with good results to the relief of all forms of pruritus, of eczema, seborrhoea rosacea, and even of the most severe forms of acne. In opposition to the teaching of Hebra, who forbade the use of water in many skin diseases, Lassar has proved the great value of hydrotherapy in over 10,000 cases of eczema, particularly in the bullous and moist forms; and continuous baths have been used with success in pemphigus, psoriasis, ichthyosis, lichen ruber, pityriasis rubra, and in extensive burns. Apart from the effect of water itself sublimate baths in syphilis, calcium sulphide baths in scabies, and hot Japanese baths in leprosy afford examples of special balneotherapy. Hot air has been shown by Holländer to be valuable in the treatment of lupus and of primary

syphilides; and the results of Bier's congestive treatment of diabetic skin diseases and of local bacterial inflammations are well known. In conclusion, the author considers the mechanical treatment of skin diseases to be the treatment of the future, as the chemical treatment is the treatment of yesterday. The discriminating physician of to-day will use each in its place; but to attain success with the mechanical treatment the practitioner must possess, not only a knowledge of disease, but also a practical acquaintance with the technical details of every form of apparatus he would use.

113. Hypodermic Injections of Oxygen in Pulmonary Tuberculosis.

The idea of treating phthisis by oxygen originated with Priestley himself. The method of injecting the gas subcutaneously was invented by Spallanzani, who showed that the skin of batracians absorbs more than their lungs, and that the cellular tissue absorbs all the oxygen which is injected into it. Inhalations of oxygen were employed in pulmonary affections in 1780 with good effect, but some bad results caused a violent reaction against them, and their use in phthisis, except as a desperate remedy, was altogether abandoned after 1789. Bayeux (*Arch. gén. de méd.*, September, 1912), having observed the good effects of subcutaneous oxygenation in dyspnoea, conceived the idea of applying the method in pulmonary tuberculosis. He used it in 36 cases; 7 cases are reported in detail; all had serious and well-marked symptoms, and the result in each case was excellent. Of the remaining 29 cases, 11 suffered from tuberculosis with slight symptoms, and all were cured; 12 were long-standing cases with cavitation, and of these 3 were sent home relieved of their acute symptoms and all the others are on the road to cure after three months' treatment; 2 cases, still under treatment, are not expected to recover, but their dyspnoea has disappeared as a result of the injections; 4 cases died whilst undergoing the treatment, 3 of them having been relieved of their dyspnoea, night sweats, and insomnia, whilst in one the effect was *nil*. For the administration of the gas the author has evolved an apparatus which permits of very precise instillations and of exact regulation of the rapidity of the flow; the rate of flow is regulated in litres per hour by means of a graduated disc. If it is necessary to stop an acute asphyxia, as much oxygen as possible is injected in the shortest time possible; but in dealing with a chronic case the treatment is not so simple. In the latter type of case the author lays down the following rules: (1) Never exceed a speed of 1 litre in twelve minutes. (2) Rarely give a dose of more than ½ litre a day. (3) In cases of moderate severity be content with an injection every three days, changing the site of the puncture—buttock, lumbar region, external region of the thigh, outer third of abdominal region—with each injection. The amount to be given varies with the age and state of the patient: for infants 100 c.cm., for children 150 c.cm., for adolescents 300 c.cm., for adults 500 c.cm. The graver the condition the more often must injections be made; which is not to say that more gas must be administered, for the writer has observed that slowness of absorption of the oxygen is in direct relation to the gravity of the tuberculous intoxication, a fact which he has found valuable in prognosis.

114. Sozoiodol in Diphtheria.

R. Weissmann (Reprint from the *Fortschritte d. Medizin*, No. 40, 1912) states that to form a better idea of the value of the various medicaments which he has used in his practice, he has turned up his case books of past years and has attempted to learn a lesson from them. He first used a preparation called sodium sozoiodol in May, 1897, and he briefly relates his experience. It is used for ulcers, soft sores, etc., in the form of a coarse powder, and in the form of a finely divided powder for affections of the nasopharynx and the larynx, either with some indifferent vehicle or mixed with some other active medicament. It is further employed in solution for catarrhal affections, especially for gonorrhoea and for syphilis. It is also useful in ophthalmic practice in from 1 to 6 per cent. solution. He has used sodium sozoiodol in 335 cases since 1897. Of these 13 were cases of scarlatina, 13 of acute or chronic catarrh of the nose, 22 cases of pharyngeal catarrh, 42 cases of faucial diphtheria, 108 cases of follicular tonsillitis, and 137 cases of catarrhal tonsillitis. He obtained highly satisfactory results, using an improvised insufflator, in his tonsillitis cases. In his inflammatory cases, besides the sozoiodol treatment he gave purges and also inunctions with Credé's ointment. He states further that the results in scarlatina were very satisfactory. In diphtheria he claims to have obtained the best results. He much prefers the less rough treatment of sodium sozoiodol insufflation to the old energetic plan of painting the throat. The moment the diagnosis is made he uses his sodium sozoiodol and also gives colloidal silver, either in the form of Credé's ointment, or as an enema to be retained, or as an intravenous injection. Of his 42 cases only one child died. In the remaining cases the membrane disappeared in two days in 4 cases, in three days 8 times, in four days 9 times, in five days 19 times, and in six days in 1 case. He regards this treatment as more than a local therapy. The sooner the membrane is cast off, the less toxin will be absorbed, and he attributes to the early disappearance of the membrane the rapid manner in which his patients recovered. In conclusion he states that sodium sozoiodol is non-toxic, and that he has not observed any undesired or unpleasant symptoms which could be attributed to the drug.

PATHOLOGY.

115. Potentia Generandi after Bilateral Tuberculous Epididymitis.

While neither bilateral tuberculous epididymitis nor subsequent castration affects potentia coeundi as a rule, it has generally been supposed, according to P. Bull (*Deut. med. Woch.*, October 3rd, 1912) that the former condition entailed sterility. This assumption is discredited by the following case: A carpenter, aged 35, noticed at the age of 12 that his testicles were abnormally large. In October, 1904, he married at the age of 27, and a child was born exactly nine months later. In January, 1906, the right testicle was removed with the right epididymis, which was much enlarged, caseous, and the seat of an abscess. The left epididymis was not removed, although it was enlarged, firm, and nodular. This condition had been stationary for many years, and it was feared that complete castration would rob the patient of potentia coeundi. In January, 1907, and again in December, 1908, his wife was confined. When examined in 1910 and 1912, the semen lacked the smell and reactions of prostatic secretion, but it contained many motionless spermatozoa of normal appearance. It is obviously difficult conclusively to prove that the wife's husband is the father of her children, but the following points are in favour of this hypothesis. The semen contained spermatozoa which, though motionless under the microscope, may have been lively enough on emission. The first child was born exactly nine months after marriage, and the second child closely resembled her father. After the birth of her third child, the mother, of her own initiative, applied for anti-conceptional aid in relation to her husband.

116. A Simple Method of Preparing Haemin Crystals.

Nippe points out that the usual method of preparing haemin crystals for the recognition of blood has certain disadvantages (*Deut. med. Woch.*, November 21st, 1912). Haemin crystals are compounds of haemin with one of the halogens. It is possible at times to obtain crystals by treating the blood with glacial acetic acid, the chlorides in the serum supplying the halogen. As a rule, however, sodium chloride is added. If this be done in substance, since it is only slightly soluble in the acetic acid, a larger or smaller quantity of sodium chloride crystals may obscure the result. It is not uncommon for some of the chloride in solution to crystallize out. If the chloride is used in solution, the disadvantages are removed, but in this case only about one-tenth volume per cent. will be present. He therefore conceived the idea that if the halogens are dissolved in the glacial acetic acid, since the molecules exist in solution in a dissociated state and free chlorine, bromine or iodine ions are present, a satisfactory result would be obtained by using the potassium chloride, bromide, and iodide together. He therefore dissolved 0.1 gram of each in 100 grams of glacial acetic acid. Testing with sodium thiosulphate solution, he could prove the presence of free iodine and bromine in the solution. The test is carried out by placing a few drops of the solution with the blood traces on a slide, covering it with a cover glass and warming gently. A plentiful crop of crystals appears when blood is present. The excess of fluid can be sucked off or allowed to evaporate, and the preparation can be made permanent by sealing with Canada balsam. The crystals are clearly seen, tinted a light reddish-brown by the free bromine and iodine. He was able to demonstrate their presence from old, decomposed bloodstains, admixed with rust, from old carbon monoxide blood and various other blood-containing material.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

117. Tuberculosis and Zona.

THE frequently close association of a tuberculous infection and herpes zoster is emphasized by Bernardeau in an article in *La Province médicale* of November 2nd, 1912. The author relates the case of a Colonial officer of the French army who after undue exposure to cold and wet was attacked by severe muscular and articular pains. The pain finally localized itself at the upper and inner aspect of the left buttock near the iliac crest, and a day or two later an erythematous rash appeared over the same area, followed by a vesicular eruption. The herpetic eruption was interesting as following the territory supplied by the small sciatic and the posterior branches of the lumbar nerves, and anteriorly the genito-crural nerve. The attack terminated in about three weeks. In this case the only previous suggestion of tuberculosis had been a slight attack of pleurisy some years before. Later on and apparently as the result of a traumatism of the lumbo-sacral region a haematoma formed, and, the patient's health being undermined at the time by malaria, a fistulous opening followed. This discharged freely, and there was evidence of considerable destruction of bones involving both sides of the sacro-iliac articulation. The patient gradually lost ground, developed amyloid degeneration of the kidneys, an intense and persistent diarrhœa, and succumbed. The author goes on to say that in his opinion zona is not itself a disease, but a syndrome which may be noted in a variety of circumstances. Intercostal herpes in the course of pulmonary tuberculosis is a well-known fact which has been emphasized by Potain and others. It has been pointed out that zona is due to a nervous localization of tuberculosis. In the author's view its occurrence reveals a state of tuberculosis in evolution not hitherto suspected by clinical or other means. It is of great prognostic value in doubtful cases.

118. Pneumococcal Infection.

FULTON (*Pediatrics*, October, 1912), in considering pneumococcal infection in infancy and childhood, reports a series of 6 cases in which the only treatment adopted was by pneumococcus vaccine and open air. Since it is generally conceded that the pneumococcus may find its way to any portion of the body, and there set up a primary local inflammation which may or may not become general, pneumonia may in some cases be merely a local expression of an infection which was general from the start. The constitutional symptoms of acute pneumococcal infection—namely, chill, high continued fever, tachypnœa, increased arterial tension, and signs of meningeal irritation—are characteristic irrespective of the site of local manifestation, and in cases where there is no definite pneumonia it is difficult, and at times impossible, to arrive at a diagnosis even after bacterial investigation. Pneumonia is the most common local expression of such a general infection, but since it is not the only factor to be dealt with the ordinary treatment of the pneumonia alone is not likely to be entirely successful. The 6 cases reported were treated in the open air with Parke, Davis, and Co.'s pneumococcus vaccine with markedly beneficial results in all but 1 case in which permission to try the vaccine early was refused. Whether the infection is in the lung or elsewhere treatment by vaccine is of value, the more so the earlier it can be used. A stock vaccine is better than an autogenous one, since the possibility of a rapid tolerance for an individual vaccine, with the consequent need for a series of autogenous vaccines, is avoided, a course which would not only take time but add very considerably to the cost. The experimental pneumococcus vaccine (Parke, Davis, and Co.) from its multitudinous source minimizes the possibility of such tolerance being established.

119. Vaccination and Small-pox.

POLLACI (*Rif. Med.*, August 24th, 1912) gives an account of an extensive epidemic of small-pox which occurred recently in Palermo (6,353 cases, 2,060 deaths), and particularly with regard to 2,979 cases treated by him in two lazaretti between July 27th, 1911, and June 27th, 1912. Of these 2,979 cases, 1,653 (52 per cent.) were unvaccinated, 1,272 (42 per cent.) vaccinated, and 54 (1 per cent.) revaccinated. There were 1,636 men and 1,343 women. Most of the cases were admitted in the third or fourth stage of the disease. The mortality amongst the non-vaccinated was 32 per cent., amongst the vaccinated 17 per cent., and in the revaccinated 7 per cent. Figures are also given in reference to age, sex, and clinical variety of the disease. In addition, there were some 1,766 persons of all ages, who for various reasons (contacts, nurses, attendants, etc.) were admitted: 982 of these were successfully vaccinated, 717 gave negative results, and 267 doubtful. Beyond a few cases of slight roseola, no ill effects followed the vaccination. Of the 181 persons in immediate attendance on the sick, not one contracted the disease. Of the remaining 1,585 (2 per cent.) caught small-pox, and all recovered. Taking all the cases, men show a slightly greater proclivity to small-pox and a small excess (2 per cent.) in mortality. As showing the influence of vaccination on the types of disease, it was found that whereas confluent and obstinate types affected the non-vaccinated in the proportion of 25 per cent. and 24 per cent., the vaccinated were only attacked in 9 per cent. and 19 per cent., and the revaccinated 0.67 and 0.53 per cent. On the other hand, the mild varioloid type attacked 12 per cent. of the vaccinated and only 2 per cent. of the unvaccinated. As in all statistics of this class, it is important to bear in mind the difference between morbidity and mortality in estimating the value of vaccination. Seeing that the morbidity of small-pox is greater in early life and that vaccination immunity probably does not last more than five years on an average, the benefits of vaccination should be seen most convincingly in the early years, and the author's figures help to prove his statement.

120. Hypokinetic and Dyskinetic Constipation.

THE observations of the normal faecal movement and distribution by means of *x* rays have led the way to a more minute study of the various forms of constipation. G. Schwarz (*Munch. med. Woch.*, October 1st, 1912) records his observations in cases of chronic constipation. He divides these cases into two groups, the first of which shows some forty-eight hours after the intake of the contrast meal no formation of what he designates the globus pelvicus, and an abnormally large amount of continuity. In the *x*-ray observations it is seen that the colon is often very long and much convoluted. The second group shows a globus pelvicus after forty-eight hours, but the faecal column becomes greatly segmented, and there is an increased retrograde action. The author gives brief clinical accounts of each type, and illustrates the cases by pictures representing the appearance as seen by means of the *x*-ray illumination. The first group he calls hypokinetic. The motility of the colon is not disturbed, but that of the caecum, sigmoid flexure, etc., is markedly so. The second group he calls dyskinetic. Here the function is disturbed in the colon, and partakes of the type of an exaggeration of the normal power of detachment of portions of the faecal column.

121. Diagnosis of Enlarged Thymus.

PARK AND MCGUIRE (*Archiv. of Intern. Med.*, September 15th, 1912) criticize the percussion methods of Jacobi and Boggs for diagnosing enlargement of the thymus. Jacobi presupposes a movement of the thymus in an antero-posterior direction, while Boggs assumes an up-and-down movement, and both aim at the determination of a movable dullness based on the hypothesis that the organ is movable. Anatomically the thymus is loosely fastened inside its own capsule, which latter, however, is most intimately attached to all the thoracic structures. At an autopsy its attachment to the sternum must be freed before the sternum can be removed, and any attempt to lift the thymus out of the thorax necessitates the pericardium, with the heart and diaphragm, being lifted also. The attachments could not be more universal, nor those posteriorly more firm, than they are, so that it is difficult to regard the gland as movable. In a series of 29 autopsies both methods were investigated by inspecting the thymus through a window cut in the upper part of the manubrium. The organ was found to be invariably in close apposition to the sternal wall (*contra* Jacobi), and immobile when the procedure, as performed by Boggs himself on the living subject, was carried out (*contra* Boggs). The lower limit of the thymus dullness corre-

sponds to the margins of the lungs, and the theory that the lower border of the thymus dullness rises when the thymus is drawn upwards is no more reasonable than would be the idea that the waistcoat opening moved upward when the shirt is drawn upwards. So long as the lung margins remain stationary the lower border of the thymus dullness remains stationary also, even supposing that portions of the thymus below that opening were drawn up into the dull area. It is concluded, therefore, that percussion methods of the thymus, based on the theory of its mobility, are founded on a false anatomical hypothesis.

SURGERY.

122. Simple Cysts of Bone.

Ever since Virchow first drew attention to the occurrence of cysts in bone, numerous writers have narrated cases. The relation of simple cysts with osteitis fibrosa was discussed by Mauclaire over a year ago, and he concluded that the pathogeny was very complex and many new observations were required. In the *Archives provinciales de chirurgie* (October, 1912) P. Canaguier contributes a long article on the subject. Simple cysts of bone are to be regarded as quite definite entities. The cyst is not a concomitant of other diseases nor dependent upon them, but is the principal lesion of the bone. Thus definitely limited it is found that there are not many cases on record: 97 being the total number known. A case in the author's practice may be taken as typical: A girl of 7 years presented a swelling in the upper end of the humerus, regarded as a painless tumour which did not interfere with use of the arm; at 9 years she fell and sustained a fracture at the upper extremity of the humerus, this fracture had all the classical signs except pain, the bone became consolidated in six weeks; at ten years the same accident happened, and again the force causing it was slight; at 12 years again the same lesion occurred. On each occasion the size of the limb at the seat of swelling subsided immediately very markedly. After the third fracture the child was brought to hospital. Three months later at operation the periosteum and muscles were easily separated from the bone, and the first stroke of the gouge penetrated a bony wall not thicker than a playing card. The cavity contained serous fluid and no other tissue. A septum separated it from the head of the humerus; when this was perforated the head was found to contain red pulpy material. A few weeks later resection of the affected portion of the humerus, about half of the bone, was performed preserving the articular surface of the head, and a graft consisting of freshly removed tibia of a young goat was inserted. Suppuration ensued, but the graft held and union at both ends took place; the final result was fairly satisfactory. Practically all these cases of simple cysts of bone have the same symptoms, the same etiology, the same evolution. As to etiology, trauma plays an important part. Trauma is frequently the first fact to draw attention to the condition, but there is a number of cases, about two-thirds of the whole, in which injury was known to precede the cystic formation. It is usually in the growing period of bone that these cysts are found. Their seat of predilection is in the juxta-epiphyseal part of long bones. This author does not agree that they do not cross the epiphyseal line into the epiphysis. The contents of the cyst are as a rule serous fluid which does not contain cellular elements or organisms. As regards symptomatology, these cases only present themselves when fracture has occurred. Pain is seldom present; the fracture occurs spontaneously, or is produced by slight causes. Radiography shows a clear space in the head of the bone, indicating that there is only a shell of bone. The growth of the cysts is slow; they are usually benign. Diagnosis frequently depends entirely on the findings at operation. Treatment resolves itself into (1) attempts to cure the cyst by curettage, filling up the space with an antiseptic paste or resection of the cyst-bearing portion of bone, and (2) preserving the utility of the limb by means of bone grafts. Several theories have been advanced to explain the pathology. Virchow regarded the cyst as resulting from the breaking down of a sarcoma, and there seems to be a certain number which have a true sarcomatous basis, but they are apparently benign. Recklinghausen's theory of osteitis fibrosa is at the present time the favourite explanation; according to this theory, this special form of osteitis is characterized by the formation of fibrous tissue in the medulla with cysts and giant cells. But it may be that the cyst formation is associated with a local inflammatory process. Other theories are the parasitic and the traumatic. According to the latter, intraosseous haemorrhage occurs: this is sufficient to provoke medullization of the bone, and ultimately a cyst is formed. The author believes that osteitis fibrosa is at the bottom of the whole group of bone cysts, but does not think that that condition is the sole explanation. His conclusions are that simple cysts of bone are not all of the same pathogenesis, and that they may be derived (1) from tumour, generally sarcoma; (2) from osteitis fibrosa; (3) from a chronic attenuated inflammatory process; and (4) from a traumatism which may act by the formation of a haematoma within the bone, or by favouring the starting of an inflammatory process, or osteitis fibrosa.

123. Fascia Lata in Dura Mater Plastic Operations.

Mauclaire (*Arch. gén. de chir.*, October 25th, 1912) points out that organic grafting is still experimental. So far the greatest success has followed grafting of fascia lata and tibia, both of which have been employed by this author. The results of the employment of fascia lata to re-enforce abdominal aponeurosis in the radical cure of inguinal hernia in subjects where the abdominal wall was very weak have been encouraging. So also have been the results after operation for umbilical and incisional (post-operative) ventral hernia; while in femoral hernia a graft of fascia lata with a fragment of muscle has been successfully used as a stopper to close the femoral opening. Mauclaire narrates a case in which loss of substance of the dura mater was made up by a piece of fascia lata. A patient had recived a bullet in his head, and as a consequence of two exploratory operations, of which the second proved a success, a considerable aperture was made in the dura mater so that suture was impossible. A piece of fascia lata 4 cm. square, with a little portion of adherent muscle, was placed muscle side innermost over the opening in the dura mater between that membrane and the bone; the disc of bone was then placed over it. The healing was uncomplicated. This, or a similar operation, has already been frequently performed. Perhaps the most interesting observations are those by Rehn, who sought to repair the loss of dura mater by implantation of fatty tissue. The object is to obtain hermetic closure of the breach, and to preserve the nutrition of the graft without formation of adhesions to brain or to the cutaneous flap. Fat seemed to be suitable for this purpose. The pieces transplanted in man persisted for several months, and the adhesions with the pia were very slight. In one case Rehn transplanted a piece of fat the size of the palm of the hand, 1 cm. thick, to replace the portion of dura mater resected. The loss of bone was also made up by an osteoplastic flap. Kirschner prefers to employ fascia lata, and has a list of 17 cases operated by this method. Healing was always satisfactory, and in the cases operated on for epilepsy of cortical origin the fits ceased to occur after the wound had healed. Where a large graft was used the fascia lata amply resisted cranial pressure so that no hernia cerebri formed. It is too soon to state definitely that absolute cure has resulted, but experiment seems to show that fascia lata comes nearest to the ideal grafting substance, although it does not possess endothelium on its inner surface which is applied to the surface of the brain. The objection to peritoneum which may be obtained from hernial sacs is that the endothelium tends to be readily destroyed by faults of nutrition and to form adhesions. In addition, it is to be noted that autotransplantation is more likely to succeed than homotransplantation. A piece of fascia lata may act as a bridge, and the endothelium from the cut edges of the dura mater may (it has not yet been proved) grow inwards, and ultimately cover the inner surface of the graft very much in the same way as the epidermis grows concentrically to cover an ulcer of the skin. The transplanted material must form an impermeable barrier, and the subdural space must be hermetically sealed. Fascia is the only tissue which can be sutured with such an object.

124. Removal of Lacrymal Gland in Epithelioma of Inner Canthus.

Mauclaire (*Arch. gén. de chir.*, November 25th, 1912) was called upon to operate on a case of epithelioma of inner end of left eye. In removing the tumour it was of course necessary to remove the lacrymal puncta and ducts for a certain distance. He feared the patient might suffer from obstinate permanent epiphora; so, to obviate that risk, he decided to remove the whole lacrymal gland, both its palpebral and orbital portions. This was easily and successfully accomplished. One month afterwards there was no epiphora; the cornea was sufficiently moist and efficiently lubricated by the conjunctival glands.

OBSTETRICS.

125. Intramammary Injections of Air in Eclampsia.

A REPORT on 3 cases of eclampsia successfully treated by injections of air into the breasts is given by C. F. Licht (*Ugeskrift for Laeger*, July 18th, 1912), whose procedure was based on the observation that an afebrile disease which occurs in cattle before, during, or after calving time has for some years been successfully treated by distending the udder with air, injected by a bicycle pump. This disease usually attacks strong cattle which are good milkers, and its symptoms are paresis, loss of consciousness and, in some cases, cramps. Originally the disease often ran a fatal course, but after Schmidt in 1897 introduced the treatment by injection of a solution of potassium iodide into the milk ducts, it became easy to cure, and lost its dangerous character. Now the potassium iodide has been replaced by air, the effect of which is so rapid that veterinary surgeons boast of giving an injection, retiring to smoke a pipe, and, when this is done, finding the cow already cured. This result is attributed to the destructive action of air on hypothetical toxins in the udder. The writer noted that this disease and eclampsia presented the following features in common: Relation to gestation, absence of fever, the toxic character of the symptoms, and the special liability of strong subjects with large mammary glands to contract the diseases. The first patient to be treated was a well-built primipara, aged 23, who had suffered from vomiting during pregnancy, and had suddenly developed cramps, three attacks of which occurred before admission to hospital. Ten minutes later, another attack occurred. There were cyanosis of the face, foam about the mouth, and clonic contractions of all the limbs. The fetal head occupied a high level in the pelvis, and was movable. The cervix admitted one finger. There were no fetal movements or heart sounds. Subcutaneous injections of pituitrin and sea-water were given, and about 300 c.cm. of air were injected into each breast at five or six different points, as it was impossible to pass the needle's point directly into the milk ducts. During this procedure another attack occurred. This was the last. Sixteen hours after the injections were given the mother was delivered of a dead child. A few days later the temperature began to rise, and death occurred thirteen days after the completion of labour, the patient showing signs of sepsis and renal disease. The second patient, a 4-para, aged 32, developed oedema, nausea, vomiting, and headache in the eighth month of pregnancy, when she was admitted to hospital. Twenty minutes later a typical eclamptic attack occurred, which lasted for ten seconds, and was accompanied by loss of consciousness and twitchings of the face and limbs. Two similar attacks followed in rapid succession. The pulse was 136, and the urine contained albumen. The treatment included injections of salt water and pituitrin, and 200 c.cm. of air were injected into each breast. No more attacks occurred, and after the birth of a dead child the mother recovered. The third patient was a 10-para, aged 37, who towards the close of her pregnancy developed headache, vomiting, dimness of vision, partial loss of consciousness, oedema of the legs, but no cramps. The urine was dark and cloudy, and it contained a large quantity of albumen. Treatment as already described was adopted, the amount of air injected being 900 c.cm. This was followed by improvement of the mental condition and sleep after the patient had long been restless. A living child was born, and no relapse occurred. The injections of air were easily administered and caused little discomfort. Resorption was completed in eight to fourteen days. There is but little danger of air embolism, as there are no large blood vessels in the neighbourhood, and the presence of the needle's point in a blood vessel can be detected by aspiration. The writer attributes the cessation of the eclamptic symptoms in all his cases to the injections of air and not to the saline solution, little of which had been absorbed when the symptoms began to disappear.

GYNAECOLOGY.

126. Dystocia from Cicatricial Atresia of Os.

ROUVIER AND BENHAMOU (*Bull. de la Soc. d'Obstét. et de Gyn. de Paris*, etc., July, 1912) are greatly opposed to extreme operative measures advocated at the present day in cases of labour impeded by cicatricial contraction of the os externum. More than one living obstetrician has undertaken abdominal Caesarean section, yet even Küchenmeister's scissors, the bistoury, or multiple small incisions are by no means indispensable. The dangers of neglect and delay are the possibility of severe laceration of the inferior segment, not very common, or the detachment of a circular piece of the cervix, an extremely rare complication; yet experience has shown that these dangers may be avoided by simple dilatation of the os externum with the finger, as Naegelé taught eighty years ago. Burcau, more recently, made use of vaginal injections at 118° in a labour where there was great stenosis and rupture of the uterus seemed imminent. The patient was a multipara. As he was getting ready a bistoury to make small notches in the edge of the contracted os externum the cicatrix yielded and the child was delivered spontaneously. Rouvier and Benhamou relate their own experience. Their patient, 27 years of age, had suffered from some complication following her second confinement four years previously. The head presented, and no instrument, it seems, was used; but in a few months free haemorrhages occurred, which were checked by a medicated tampon, but what compound or chemical was used did not transpire. Benhamou examined the patient and discovered sclerosis of the cicatricial type; the cervical canal appeared to be impermeable, yet she became pregnant, and the treatment, dilatation with laminaria tents, had to be discontinued. No tent had as yet been successfully passed through the canal of the cervix. At term the membranes ruptured prematurely, and three days later pains set in. Rouvier found an orifice of the size of a pin's head, and managed to pass a blunt probe through it. After a little manipulation he introduced his forefinger, rotated it in the cervical canal, and then passed in his middle finger. Almost immediately the cervix opened widely, and two hours later a robust infant was born. Six months afterwards the uterus appeared normal and the cervix somewhat indurated but permeable. This case shows, the authors insist, that, guided by a probe, the finger can usually be used as a dilator. It is only where the cervix is destroyed by cicatricial changes that Caesarean section is required.

THERAPEUTICS.

127. Psychotherapy in Gastropathy.

CRESPIN (*Prov. méd.*, October 5th, 1912) emphasizes the importance of taking into account the psychical factor in the treatment of many gastric disorders. In these cases the medical psychologist has an advantage which his more stereotyped *confrère* does not possess. The latter is too often obsessed by the necessity of finding some organic lesion to account for the illness, he omits to note the mental factor and directs his treatment solely to the local condition which he assumes exists. The author describes several cases, all suffering from gastropathy in varying degree. The history of each case shows an emotional or nervous origin. A false idea of the situation takes possession of the patient's mind, and, owing to a frequently debilitated nervous system, becomes deeply rooted. This was accentuated in each case originally by the unconscious aid of a medical man who ordered local treatment only. The author dwells upon the necessity of gaining the confidence of these patients; he insists that no detail of their lives is too insignificant for examination, that the assistance of the family and friends of the patient must be sought. The history of one of these cases is in practical correspondence with all the others. The patient was a girl of 16, whose parents were farm servants and in good health. Her illness began two years before, when she received a slight blow on the pit of the stomach. Her health began to fail rapidly. For some days she suffered from a heavy, deep-seated pain, after which followed bilious vomiting and loss of appetite. She had a marked aversion from food, partly because of the fear of making herself worse. She saw a medical man, who advised a very restricted diet, especially as regards meat of any kind. She followed his advice literally, but got no better, and had to give up work. On examination there was found to be marked hyperaesthesia over the epigastric region, even gentle stroking causing pain. The stomach was not unduly dilated, although there was some aërophagy, and the *x* rays showed that motility was normal. An examination of the gastric contents showed no alimentary débris, and fluid rich in HCl. The conclusion was that a slight hypersecretion existed without any pyloric obstruction. This hypersecretion was not in evidence when the stomach was more or less full. In the author's view, a lack of the usual utilization of the gastric juice is the main cause of the trouble. Irritation of the mucosa

and pylorlo spasm followed. The patient had a positive fear of eating, especially meat, which she has come to consider a poison in her case. She took great interest in the various methods of examination employed, and, gaining confidence, was gradually brought to believe that to eat a little meat would do her no harm. Following a return to normal diet the gastric symptoms abated, and the patient's belief in her cure was established. The author emphatically states that this was no case of hysteria. The gastropathy arose from an emotional incident—a traumatism. The cure was certainly by persuasion or suggestion, but whereas hysteria can be cured similarly in certain cases, this happens much more immediately and dramatically than in the case under review. Here the result was obtained after many weeks' effort to convince the patient of the error of her belief. The author concludes by pointing out that these gastropathies are not necessarily mere chimeras of the patient's imagination, for certain emotions can result in real gastric disorder which must be dealt with accordingly.

128. Salvarsan in Oriental Sore.

O. V. Petersen (*Mucnch. med. Woch.*, November 12th, 1912) has employed salvarsan in doses of from 0.4 to 0.6 gram intravenously in cases of Leishmaniasis with good effect, and in view of the fact that out of 36 cases treated in this way 16 were cured, 4 were discharged nearly cured, 11 were materially improved within a short time of observation, 3 could not be traced, and only 2 proved uninfluenced, concludes that the drug has a specific action on the causal protozoa. He points out that the dosage should be decreased proportionately for children or weakly adults. He has only had a small experience with the ointment and oily preparations of salvarsan, but the results obtained up to the present are promising. His experience teaches him that if no effect is obtained within two weeks a second injection should be given, and he sees no objection to a third or fourth injection being employed if necessary, but the occasion has not occurred in his experience. He, however, recognizes that the more obstinate forms, in which the sore does not become ulcerated, may require repeated injections. He calls attention to the fact that Oriental sore goes under a large number of names, including Delhi sore, *kokandka*, *pian-bios*, etc.; but the condition called "tropical ulcer" is a totally different disease and must be distinguished from Oriental sore. He considers that the local treatment of the ulcerating surfaces in Oriental sore with methylene blue should be further investigated.

129. Balsams in Gonorrhoea.

Ribollet (*Ann. drs. mal. vén.*, December, 1912) considers that the administration of balsams in the early stages of gonorrhoea increases the duration of the disease, and often causes complications. He points out that the balsams have no bactericidal action on the gonococcens, and only diminish the pain and the suppuration. But to diminish suppuration in the acute stage of gonorrhoea is to counteract the natural means of evacuation of the gonococci, the latter, instead of becoming absorbed by the phagocytes, remain in the urethra and penetrate into the mucous membrane and urethral glands. He therefore recommends that balsams should not be given till the gonococci have disappeared. Among the complications which he considers may be due to early administration of balsams are gonorrhoea, rheumatism, stricture, and chronic inflammation of the glands of the urethra and prostate. Balsams are, however, useful in the decline of the disease when gonococci have disappeared from the discharge, especially in cases of posterior urethritis, with dysuria or haematuria. Balsams should be given in large doses at first, and then gradually decreased. The author considers santal inferior to copaiba or cubebs.

130. Thorium in Leukaemia.

Nagelschmidt calls attention to two peculiar observations which he has made in the course of the treatment of leukaemia with thorium X. The clinical history of the patient does not offer any special interest, the more so as the improvement attained was still of short duration when the communication was written (*Deut. med. Woch.*, September 26th, 1912). The spleen was greatly enlarged and extended almost to the right iliac spine. X rays failed to influence this tumour. About sixteen hours after the first injection of thorium, the patient noticed that his abdomen had become suddenly quite soft. The spleen could be palpated deeply, without any pain being produced. This softness passed off in about half an hour, and the condition was then precisely the same as before. The second point of importance was as follows: At the time of the first thorium injection, the patient was extremely anaemic and only showed 30 per cent. haemoglobin. The effect of this on the anaemia was not marked, and in the time following the cachexia increased, the appetite was lost, and the patient became thin and weak. As the haemoglobin sank to 25 per cent., he prescribed iron, starting it at the time of the second injection of thorium. The effect was striking. The general condition improved visibly, the haemoglobin content of the blood rose to 50 per cent. and later to 65 per cent., the appetite became normal, and the patient was able to take walks. The author leaves these two observations uncriticized, and reports them in order that others may watch for similar occurrences.

131. Modern Tuberculin Treatment.

B. Möllers (*Berl. klin. Woch.*, October 14th, 1912) analyses the development of the tuberculin treatment of tuberculosis and on the basis of his own experience, as well as of the opinions of other authors, expresses his views in regard to this question. He concludes that the most reliable method of treating tuberculosis is a combined "open air dietetic" and tuberculin treatment. Early cases, he states, may be treated by means of tuberculin as "out-patients," provided that the cases are carefully selected. The characteristic of the modern tuberculin treatment is the gradual, almost insensible, increase of dosage from small to large doses. General reactions should be avoided. He is convinced that the method of application is of greater importance than the choice of the variety of tuberculin in determining the effect of the treatment. He urges further that the treatment may never be carried out in a schematic manner, but that each case must be treated on its merits, special attention being paid to the course of the disease and to the degree of susceptibility to tuberculin. The tuberculin should be injected subcutaneously. He finds that a single course of tuberculin is not sufficient to effect a cure, but that many courses should be given, during the course of months, if not years. He pleads for the general use by medical practitioners of tuberculin, in order that a comprehensive effort may be made to cope with the disease.

PATHOLOGY.

132. Malignant Embryonic Adenoma of the Liver in Infancy.

A previously healthy and well-nourished female child began to grow pale and lose weight at the age of 6 months; six weeks later the mother noted a swelling in the abdomen, and brought the child to the hospital a fortnight later, when it was seen by A. Peiper (*Jahrbuch f. Kinderheilk.*, Berlin, 1912, 3 F., xxv, 690). He found it a thin and very pale infant, with a soft, lumpy, almost fluctuating abdominal tumour, continuous with the liver and reaching down on the left side to the pelvis. Exploratory laparotomy showed some ascites and a soft haemorrhagic growth apparently originating in the liver: the wound was plugged, the opening sewn up: the child died four days later, aged 8½ months. *Post mortem* the liver was found to be much deformed, especially in the left lobe, by a diffuse, marrowy, whitish tumour, particularly well seen on the inferior surface of the liver. The gall bladder and bile ducts were free from growth; the other abdominal organs, the heart, the lungs, and the brain were natural. There was no sign of cirrhosis of the liver, though its tissue was atrophic where pressed upon by the neoplasm. Microscopically the tumour showed cells of three main types, with intermediate transitional forms. First, cells with deeply staining nucleus and scanty protoplasm, sometimes showing amitotic cell division, closely resembling embryonic liver cells before they have been arranged and differentiated into either liver cells or bile-duct cells; secondly, cells arranged into columns and alveoli much as liver cells are, but richer in nuclei, in places degenerated, rarely producing any biliary secretion; and, thirdly, cells resembling and arranged as imperfectly formed bile ducts. Haemorrhages were seen throughout the new growth; no giant cells were observed. Peiper discusses a number of more or less similar cases of malignant hepatic disease culled from the literature, and concludes that in his instance the cancer was produced by carcinomatous degeneration of the (embryonic) liver (Anlage), and he thinks it comparable to the case of an eleven months female infant with hepatic cancer described in 1900 by Weber. Many quotations from the literature are given.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

133. Fatal Pachymeningitis Five Years after Injury.

THE medico-legal expert has frequently to decide whether pachymeningitis is traumatic or not, and E. Kasemeyer (*Deut. med. Woch.*, October 24th, 1912) considers that true haemorrhagic pachymeningitis may follow an injury to the skull, that it may be slowly progressive, and that it may be fatal several years later. In support of this view he reports the case of a bailiff's assistant who, at the age of 20, was kicked on the forehead by a horse. It is not clear whether he was stunned or not, at any rate he was able to walk away without assistance. Afterwards, he suffered from loss of appetite and occasional headaches, when the weather changed. Five years after the accident he caught a severe cold. His head ached violently, but he continued his work till a fortnight later, when he had a rigor and went to bed. He became delirious, and showed symptoms of meningitis when admitted to hospital. Here a furrow was detected in his forehead, just over his left eye, almost deep enough to contain the little finger. The left eyebrow was scarred and distorted. The pupils, which were equal, reacted very slowly to light. The tongue protruded, and the patient was very sensitive to pressure upon his neck and shoulders. There was no albuminuria, but the reflexes were exaggerated on both sides. Icebags were applied to the head and neck, and morphine was given for the increasing restlessness. The temperature, which had been normal on admission, rose to 104.7°, complete coma set in, and the patient died. The diagnosis of meningitis was confirmed by a throat swab and an exploratory lumbar puncture, both of which yielded typical pneumococci. At the necropsy small quantities of yellow pus were found in many sulci beneath the pia mater, the glistening appearance of which was in many places lost. The dura and the pia were firmly adherent to each other under the depressed portion of the skull, which presented four nodules corresponding to the furrow on the outer surface. When the membranes were separated from the brain at this point, 2 to 3 c.cm. of yellow pus were found. Here, too, the cortex of the brain was partially destroyed. The dura mater, detached from the skull at this point, was seen under the microscope to contain numerous capillary blood vessels, some of which were recently formed and ended blindly. In several places extravasations of blood or deposits of pigment were seen. The deeper layers of the dura consisted chiefly of dense fibrous tissue. The author explains the origin of the progressive haemorrhagic pachymeningitis in the following way: The capillaries of the dura were ruptured by the kick; the clot formed became organized, and the new vessels which appeared, degenerated and ruptured. This process involved the pia and the cortex of the brain, which thus became locally eroded. When, therefore, germs invaded the body, they found in the injured area a *locus minoris resistentiae* whence they spread to other parts of the brain, and to the cerebro-spinal fluid.

134. Intermittent Spinal Claudication.

RECKORD (*Amer. Journ. Med. Sci.*, November, 1912) mentions two cases of intermittent spinal claudication, a condition due to defective blood supply of the lumbar enlargement, whereby only sufficient blood is received for the physiological processes in the passive state, the supply being inadequate for the increased demands during activity. A man aged 43 complained of weakness in the left leg, and burning sensation and pain in the lumbar region, which began suddenly while cutting grass three years previously, with weakness in both legs, and though he continued working the stiffness and weakness kept pulling him up from time to time. While walking all power left his left leg, and he fell unless supported; but in a few minutes the power returned, and he was able to proceed. There was also an accompanying transitory loss of power in the left arm, and the foot became cold, getting warmer again as he recovered. He was attacked about once a day with jerking of his left leg, which became forcibly flexed on the thigh, and the great toe moved backwards and forwards. These attacks took place lying or sitting, but if he stood and bore some light weight the movements stopped, and if he bore much weight the leg suddenly gave way. After lying down and on waking he could urinate freely, but during the day the urine was slow in coming, and dribbled intermittently at first. He complained of a sense of weakness in the region of the second lumbar vertebra. The left upper extremity was normal with the exception of daily attacks of numbness, radiating from the shoulder to the fingers, without any pain. The left lower extremity showed impairment of muscular force and power, and at times the leg was as if dead. The patellar reflexes were exaggerated, especially after walking, and there was a moderate Babinski. The second case was that of a man aged 47, whose chief complaint was pain in the back, and severe pain in the knees when walking down steps. After walking for a few minutes the legs became stiff and powerless, which passed off after a short rest. The reflexes were all greatly increased, but there was no ankle clonus, and upon exertion there was violent trembling of the legs. The pupils were unequal, with feeble reaction to light, and there was some slight swaying with the eyes closed. The gait was spastic in both legs. The diagnosis of this condition from peripheral intermittent claudication depends upon the absence of pain and circulatory disturbances, and the presence of vesical and rectal symptoms. Males are more frequently affected than females, and one side is generally affected sooner than the other. The course of the disorder may be rapid or insidious, but it tends to go on to spastic paraplegia if untreated. The organic reflexes are affected from the commencement, the most common symptom being precipitate micturition, and the Babinski sign is generally present. The ensuing paraplegia may resemble a hemiplegia, as the two sides are usually affected unequally.

135. X-ray Localization of a Focus of Pulmonary Gangrene.

BÉCLÈRE has brought before the Société de Radiologie médicale de Paris (*Bull. et mém.*, No. 39, 1912) a case in which a focus of pulmonary gangrene was revealed radioscopically in a bronchitic subject. The fluorescent screen placed in front of the thorax revealed at the pulmonary hilum a shadow, the contours of which were rather indistinct, while at the centre was a little horizontal line surmounted by a transparent area. The appearance was suggestive of a collection of pus with gas above. On shaking the patient, the phenomenon of the Hippocratic succussion, clear though slight, was obtained. An examination from the back showed the contours much more clearly, with the line of liquid more strongly marked. It appeared, therefore, that the lesion was nearer to the dorsal than to the anterior region. By examining in different directions, the shadow of the focus was enabled to be dissociated from the shadow given by the vertebral column, and the matter was clinched by an examination in the sagittal position, which showed the focus to be well in the rear. A second radioscopic examination was made five days after the first, and, the lesion being more accentuated, it was determined to operate. Under radioscopic and radiographic guidance, the operation was completely successful, and the cavity drained.

136. Pyloric Obstruction.

PISEK AND LE WALD (*Archives of Pediatrics*, December, 1912) discuss pyloric obstruction in infants, with a comparative study of the normal stomach, and indicate an additional means towards an early establishment of diagnosis in order to be able to determine positively whether or not any given case shall be treated medically or surgically. From an *x*-ray study of normal stomachs of infants at varying ages fed with bismuth milk mixtures, with the baby in a vertical position, the natural contour of the organ *in situ* was found to assume varying forms, as shown in twenty-two *x*-ray pictures figured. Liquid foods begin normally to be expelled from the stomach into the duodenum within a minute or two after ingestion, and this fact is helpful in the diagnosis of conditions of pyloric obstruction. If it becomes possible by such a series of bismuth radiographs to demonstrate accurately that milk is retained longer than would be the case in the normal stomach it becomes possible to determine the type of obstruction. Thus cases of true tumour with so small a lumen as to practically occlude the passage of food into the duodenum would be operated upon while the general condition remained good, whereas in cases of spasm without tumour formation the time, and the amount, of

food passing through the pylorus can be estimated, and thus the advisability of resorting to medical rather than surgical treatment determined. Every suspected case of pyloric obstruction, therefore, should be studied radiographically before deciding what line of treatment is best.

SURGERY.

137. Traumatic Appendicitis.

RECENT literature on the subject of traumatic appendicitis is collected and discussed by G. Benestad (*Norsk Magazin for Lægevidenskaben*, December, 1912), who contributes the following case: A forester, aged 22, who had previously been perfectly well, was carrying one end of a log on his shoulder, while his companion, who carried the other end, let it fall without warning. Stumbling and falling backwards and to the left, the patient was struck by the log on the right side of the abdomen. The blow was rather painful, and the log lay for a little while on the abdomen, between the costal margin and the crest of the ilium. The patient could not work for a quarter of an hour, and he suffered some discomfort for several hours. After bicycling on the same day, he vomited his supper and a few dark coagula of blood, of the size of coffee beans. During the following night, he suffered from violent abdominal pain which was at first general, but which was later confined to the ileo-caecal region. At the end of a week, during which the pain had gradually subsided, the patient returned to work. Four similar attacks of pain recurred during the following two and a half years, their manifestations being the same on each occasion, except for slight variations in the intensity of the pain. An operation was performed after the fifth attack had subsided, and tenderness had disappeared everywhere except on deep palpation over McBurney's point. The caecum was slightly adherent to the anterior abdominal wall from which it was detached. The neighbouring coils of small intestine were now found matted together, and too firmly adherent to be separated from each other. The 7 cm.-long appendix formed a crescent about the lower end of the caecum to which it was slightly adherent. Its distal end was club-shaped, and its walls were thickened. Its lumen was completely occluded 2 cm. from the base by a stricture, distal to which was a little mucus, but no faecal concretion. No ulceration could be detected. The patient recovered. The author points out that since Neumann in 1900 published his observations on the relation of trauma to appendicitis, about 100 cases of traumatic appendicitis have been recorded. But some writers still deny its existence, and Sprengel insists on the occasional relation between trauma and appendicitis being purely accidental. Other writers concede a causal relation between the two conditions; but they confine the diagnosis of traumatic appendicitis to those cases in which the appendicitis occurred only a few hours after the trauma. Such cases are rare. Far more common are the recorded cases in which a considerable interval existed between the trauma and the appendicitis; and the incidence of traumatic appendicitis has further been extended by writers who include such factors as a hard day's work, horn blowing, and defaecation under the heading "trauma." Hence the estimates of the frequency of traumatic appendicitis vary widely, and range from 0.8 to 8 per cent. of all cases of appendicitis. The author's estimate is 2 per cent., but he admits that this is rather a speculative opinion. The diagnosis in cases of traumatic appendicitis is seldom made early, as the symptoms are usually interpreted as those of contusion only. The appendicitis being thus masked in its early stages, it is little wonder that the mortality is about 50 per cent., and five times greater than in other forms of acute appendicitis. A characteristic feature of traumatic appendicitis is the existence of two kinds of pain. The first is due to the trauma alone, and passes off in a few hours. The second is due to the activity of micro-organisms in the effused blood, and therefore arises only after an interval of some hours.

138. Surgical Anatomy and Surgery of Horseshoe Kidney.

CARLIER AND GÉRARD (*L'Echo méd. du Nord*, 1912, xvi) pp. 429–39 and 442–52) divide horseshoe kidney into the following varieties: (*a*) Symmetrical: (1) concavity below, (2) concavity above; (*b*) asymmetrical, kidney *en I*, with the hilum to the left or the right. They find out of 68,989 autopsies in various countries, 862 cases of horseshoe kidney: the isthmus connected the inferior poles of the two kidneys in 88 per cent. of cases, and in 91 per cent. the concavity was superior. The isthmus passed in front of the aorta and veins in 90 per cent. The arteries to the kidney are increased in number in nearly all cases. Symptoms: There may be none of any kind during life. The most predominant is marked pain in the lower part of the abdomen and in the lumbar region. Pressure on the vessels may cause oedema of the legs and ascites. Hydronephrosis is the most frequent complication. The authors have collected all the cases (13) in which hydronephrosis and horseshoe kidney were associated and on which operation was performed. Only one ended in death. Lithiasis is less common than hydronephrosis. All recorded cases (9) occurred in adults or those advanced in years. Hydronephrosis or pyonephrosis are frequently coexistent. The symptoms are not characteristic. Radiography shows proximity of the calculus to the vertebral column. The operations that have been performed are: heminephrectomy, pyelotomy, and nephrolithotomy. Three cases ended in death after operation. Pyonephrosis has been observed as a complication. The symptoms here met with are those usually associated with this condition. Three cases had been published in which a calculus was not present. Tuberculosis is rare. Only five cases had been published, three in men. The symptoms are the same as are noted in tuberculosis of the kidney. Heminephrectomy, removal of the kidney, resection of the diseased portion, and *morcellement* have been performed. Four of the five cases ended in complete cure. Solid tumours: Two cases, both of sarcoma, had been published. Cysts: Two have been reported: number one in a child 6 years of age, and one in a woman aged 59. Resection was successful in both instances. Horseshoe kidney without other pathological conditions is best treated by liberation of the two parts of the organ by section of the isthmus.

139. Fortanini's Method of Treating Pulmonary Tuberculosis.

LEURET (*Gaz. hebd. des sci. méd. de Bordeaux*, 1912, xxxiii, December 15th, 22nd, and 29th) considers the subject of the production of artificial pneumothorax in three articles as follows.' After describing his instrumentation and method of puncture, he details seven personal cases and three others under other medical supervision, and then considers the indications. These are unilateral serious tuberculosis, tuberculosis without any other serious visceral lesion, and a sound heart. Laryngeal phthisis is a contraindication. The results are twofold—those that occur immediately after the operation and those that take place during the first days or weeks after the same. In the former category come severe pain with superficial breathing, small pulse, cyanosis of the lips, shivering, attacks of coughing, and vomiting. He has never seen sudden death, as described by some authors. Morphine seems to act as a prophylactic of these symptoms, but very slow admission of the air to the chest is the best preventive. In the second category come the marked change of the expectoration, which ceases to be purulent and becomes mucoid and decreases in amount, and the cough becomes less and disappears. The temperature becomes lowered after a rise for the first twenty-four hours and the signs of tuberculosis become less and less, but these latter do not in all cases show permanent improvement, and all the author's cases, save one, finally died from a return of the morbid process, so that the author finds that the treatment does not lead to a permanent cure.

OBSTETRICS.

140. The Serum Diagnosis of Pregnancy.

THE Halle Professor of Physiology, Professor Emil Abderhalden, invites clinicians and practitioners to collect a large body of evidence to determine the diagnostic value of his serum test for pregnancy (*Deut. med. Woch.*, November 14th, 1912). If a solution of albumen be injected into the blood stream, the serum gains the power of breaking down the albuminous molecule, a power which it did not possess before. A destructive ferment is created *ad hoc*. Not only is this true for foreign substances, it is equally true for those body constituents which may be regarded as being only foreign to the blood. Each organ may be thus regarded. Abderhalden therefore came to the conclusion that the placenta would be a foreign substance in this sense to the blood, but experience has shown that chorionic tissue actually does find its way into the blood stream during pregnancy. Consequently the blood would form an antiplacental ferment in every pregnancy. This he demonstrates. The methods employed are two: The

first depends on the change in the light refraction of light of the serum after an albumen has been dissociated. The second is the dialysis procedure. In performing this it is necessary to test the membrane used very carefully, not only as to its capability of retaining all proteids, but also as to its capability of allowing a satisfactory amount of peptone to pass through within a given time. A piece of placenta weighing about 1 gram is finely cut up after being boiled. The process of boiling must be repeated until the water no longer gives a reaction with triectohydrinden hydrate. The piece of placenta and 1.5 c.cm. of the serum, which must be free from haemoglobin, are placed in the skin and the serum washed in with water. The fluid is covered with a layer of toluol. The skin is immersed in a suitable vessel, and so arranged that the outer water reaches a higher level than the inner fluid. This is then incubated for sixteen hours at 37° C. A control is put up without placenta. After the time has passed, the outer fluid is tested with triectohydrinden hydrate (or by the biuret test, but this is not so good). If a violet colour develops, some partially dissociated placenta has passed through the membrane, and therefore the ferment which can break down placenta must be present in the serum. Professor Abderhalden has tried the method in about 500 cases, and finds that it is positive in every case of pregnancy in various animals and in the human subject. He has obtained distinct reactions with the placenta of animals of a different species to that of the animal whose serum was tested, but the results are not so clear or constant as when the placenta of the same species is used. But he recognizes that the test might fail at times. It might be positive without pregnancy, although this would destroy all idea of a specific reaction. For these reasons, he wishes clinicians to use the test largely to determine its value for practical purposes.

GYNAECOLOGY.

141. Sterility and Tuberculosis of the Peritoneum.

HASTINGS TWEEDY (*Journ. of Obst. and Gyn. of the British Empire*, December, 1912) publishes a case of extensive tuberculous disease of both Fallopian tubes, together with miliary tuberculosis of the whole peritoneum. The patient's sole complaint was of sterility; examination revealed nothing abnormal, and the true condition was only revealed by operation. Tweedy comments that textbooks contain much information as to the conditions capable of diagnosis by bimanual examination, but no systematic endeavour has been made to tabulate the diseases which cannot be so discovered. Ovaries are often enveloped in a membrane, which suffices to prevent the escape of ova, and yet this condition gives no palpable sign. Normal tubes are so soft that they can rarely be palpated. No difficulty arises in feeling a tube which is tense with fluid; but if the fluid contents do not approach to its fullest capacity and at the same time the walls are soft, it is not possible to make an exact diagnosis. Subperitoneal myomata may escape observation, even though they attain the size of a small egg. Miliary tuberculosis without adhesions, and occlusion of the tubes without distension, cannot be detected. In sterility associated with retroversion the cure of the displacement by abdominal section affords the opportunity of observing and rectifying many previously unobserved abnormalities. In the absence of retroversion, when no disease has been detected, and after fair trial of the usual procedures, the author believes it is justifiable to open the abdomen. In dealing with diseased parts when found he endeavours to remove the diseased parts, to open the lumen of the tubes, to retain uninjured as much normal tissue as possible, to bring the resected ovary and tube stump into as close proximity as possible, and to tuck them away in a manner which will expose them least to adhesions with the intestines. The fimbriated ends constitute an important factor in impregnation, and no trouble is too great to preserve them. It frequently happens that their adherent walls can be separated and their lumens opened by the passage of a probe. To prevent subsequent sealing of the tubes by adhesions the author has sometimes stitched the ovary into the tube-mouth.

142. Crochet Needle in Bladder.

PAKOWSKY (*Bull. et mém. de la Soc. Anat. de Paris*, October, 1912) reports an instance of a foreign body in the female bladder which caused the development of a calculus and perforated the bowel, yet did not occasion any discomfort for three years. Then the patient, aged 36, became subject for six months to chronic cystitis. Ultimately she came under the care of Marion at the Hôpital Lariboisière. The sound being passed, a calculus as big as a walnut was detected, without difficulty: it lay in the neck of the bladder, encroaching on the urethra, and was quite fixed. Radiography confirmed the presence of a calculus. As the shade of a straight object could be defined running across the cavity of the bladder, it was clear that the stone had formed around a foreign body. The patient admitted that a bone crochet needle had been introduced into the bladder three years and a half previously. Cystoscopy also proved the presence of a calculus, but it was found impossible to get a view of the foreign body. Suprapubic cystotomy was performed. As the bladder was being insufflated air was heard escaping with a distinct noise, and it seemed to enter the peritoneal cavity. The bladder was opened and the calculus seized, but it was fixed, and could not be extracted until the projecting piece of bone was rotated upwards and backwards and pulled upon firmly. Then a communication with the intestine was detected; the greater part of the crochet needle lay in the bowel. The bladder was drained and the closing of the entero-vesical fistula left for operative treatment later on. No air or liquid faeces had ever passed out through the urethra.

THERAPEUTICS.

143. Pituitrin in Heart Failure after Diphtheria.

H. VON WILLEBRAND (*Finska Lackarcsaellskapets Handlingar*, vol. liv, 1912) points out that the treatment of low blood pressure in the infectious diseases by injections of adrenalin is very successful, but that it is not perfectly satisfactory: for, as Straub has shown, only 6 per cent. of the drug reaches the circulating blood, while the remainder is disintegrated at the site of injection. Pospischill accordingly gives 3 c.cm. of Parke Davis's preparation undiluted three or four times a day; but this amount may cause suppuration, and even extensive necrosis of the skin at the site of injection. Glycosuria is another transitory but disturbing sequel. On account of these flaws in the action of adrenalin, the author has substituted pituitrin on account of its powerful action on unstriated muscle. He employs Parke Davis's original preparation, 1 c.cm. of which contains 0.1 gram of glandular extract. Twenty cases of diphtheria complicated by weakness of the heart and low blood pressure were treated, and only in two did the drug fail. No glycosuria or other complication followed its use; and in several cases the effect of an injection was most striking. One patient, a girl aged 2 years, was admitted to hospital four days after diphtheria had developed. Her condition was alarming, the temperature being 98.6°, while the pulse could not be felt. Respiration was laboured and stridulous. Treatment consisted of intubation and the injection of 9,000 units of serum into a vein, and 6,000 units under the skin. Caffeine and camphor were also injected. On the fifth day of the illness the general condition was better, respiration was unobstructed, the pulse was 140, and its volume was fairly satisfactory. But on the sixth day she suddenly collapsed, and the pulse was scarcely palpable. Caffeine and camphor were injected, but were ineffective. A subcutaneous injection of 0.3 c.cm. of pituitrin was now given. The improvement which followed was almost instantaneous, and about four hours later the volume of the pulse was satisfactory, and its rate was 140. The tube was removed after a few days without difficulty, but nine hours later a sudden relapse occurred: the pulse was no longer palpable, and the general condition was most alarming. The injection of the same dose of pituitrin was so rapidly beneficial that the child sat up happily in her bed an hour later. During the next five days similar attacks were successfully combated by the same treatment, and its substitution by injections of caffeine and camphor on two occasions was most unsatisfactory, for they had apparently no influence on the weakness of the heart or on the blood pressure. The patient was finally discharged in perfect health. The author regrets that his observations do not include accurate measurements of the blood pressure, and he admits that pituitrin is only of use in coping with weakness of the heart and loss of tone in the blood vessels. The best treatment for the infection itself remains the injection of antitoxin. Fortunately, the severe collapse which may follow diphtheria is rare, and the commoner and slighter forms of vascular disturbances seen after diphtheria are speedily and effectively treated by such stimulants as caffeine, strychnine, and digitalis.

144. Salvarsan in Syphilis.

Kannengiesser publishes the results of the observations made in the Cologne Academy of Medicine in regard to the effect of salvarsan treatment of syphilis (*Muench. med. Woch.*, May 21st and 28th, 1912). After fully discussing the various points, he concludes that salvarsan, alone or in combination with mercury or iodides, is capable of removing the symptoms of syphilis in every stage, even when other methods of treatment have failed. The best method of application is by intravenous injection. In order to obtain permanent results, it should be given, in combination with mercury, in repeated doses, and the total amount given must be large. While he recognizes the impossibility of fixing a minimum total dose of salvarsan for the cure of syphilis, he suggests that from 3 to 4 grams of salvarsan, together with an inunction of about 180 grams of mercurial ointment, should suffice, in the majority of cases, to obtain permanent results. Wassermann's test should be used before and during the treatment, especially to enable the physician to push the injections when the patient showed a very marked reaction to begin with, and also to mark the point when the reaction becomes negative. After this further injections should be employed to render the result certain. A negative reaction following an insufficient treatment or a long time after the treatment has ended is no criterion of cure. The best procedure is that suggested by Gennerich and recommended by Milan to give provocative injection of salvarsan and then to control the serum. This is, however, difficult to carry out in practice. He is of opinion that the increased frequency of neuro-recurrences since salvarsan has been introduced is due to a certain effect of the medicament on the nerves, which creates a *locus minoris resistentiae* in those cases that are insufficiently treated. Sudden death after salvarsan has been injected occurs very rarely. In some cases the cause is entirely unknown, while in others there is some evidence that the salvarsan may be responsible. The risks are so small in comparison with the extraordinary curative action of the drug that they may be neglected. It may be possible at a later date to find a means of detecting the susceptibility of individuals toward salvarsan.

145. The Treatment of Chronic Eczema by Heat.

J. Tóth (*Berl. klin. Woch.*, October 7th, 1912) has made personal experience of the beneficial effect of a thermic treatment of eczema, and recommends this method very warmly. The first application should be that of radiating heat. The affected part is exposed to the heat of an open fire, oven, or other source of heat, and the temperature acting should reach from 100° to 115° C. The part is slowly moved in front of the source of heat until the intolerable itching has either moderated considerably or leaves off altogether. The procedure is to be repeated three times a day. Later it is only required twice, then once a day, and, lastly, it need only be applied once in two or three days. The next procedure is the application of moist heat. Four or five litres of water are brought to boiling on a stove; a handkerchief or piece of linen is folded four or five times and dipped into the water. As soon as the excess of water has run off, the cloth is applied gently and rapidly to the affected part. As soon as the skin accustoms itself to the heat, the handkerchief may be applied more firmly and hotter to the skin. Acute eczema with scabs, etc., yield to this form of treatment in about five or six weeks. During the healing the itching can be kept within bounds and sleep can be assured at night. After a pause of several weeks it is necessary to begin over again, as recurrences nearly always take place. In spite of the very long time required for the treatment, the author believes that the results are better than by chemical means.

146. Daily Lavage of the Rectum for Haemorrhoids.

In the course of a detailed account of the anatomy of the rectum, Professor Lenhossék (*Deut. med. Woch.*, May 30th, 1912) points out that its lower portion is lined with squamous epithelium, which extends up to a greater height than was formerly supposed. In fact, the junction of the squamous with the columnar epithelium does not occur, as was supposed, at the upper border of the annulus haemorrhoidalis, but at the level of the sinus rectalis and the lower border of the ridge of Morgagni. While the columnar epithelium of the intestine is naturally protected against the action of the products of digestion, squamous epithelium appears to be less resistant in this respect, though under normal conditions it is unaffected by contact with the faeces. But under abnormal conditions, such as sedentary life, its resistance is lowered, and the inflammation which occurs extends to the submucous tissues, including the blood vessels. Chronic phlebitis and the familiar varicosity of the haemorrhoidal veins follow. An important factor in this inflammation is, according to the writer, the retention of small particles of faeces in the folds of Morgagni or in those of the annulus haemorrhoidalis after defaecation. That these particles are detached from the main mass of the faeces, and are retained within the rectum after defaecation, may be shown by the subsequent administration of an enema, when a considerable amount of residual faeces will be washed out. The bacterial and chemical poisons which these faeces contain must clearly favour irritation and inflammation of the lining of the rectum. As the mucous membrane above the sphincter ani is obviously beyond the reach of the ordinary toilette of defaecation, lavage of the rectum becomes necessary. The writer uses lukewarm water injected through a vulcanite nozzle from a syringe with a capacity of 100 c.cm. The process is completed by wiping the anus with moist and then with dry cotton-wool. The lavage may also be necessary before defaecation if constipation exists. The process soon becomes as much a matter of routine as the toilet of the teeth or hands. It is, of course, only necessary for the sufferers from haemorrhoids.

PATHOLOGY.

147. Rupture of the Dura Mater in the Newborn.

Leopold Meyer and E. Hauch (*Arch. mens. d'obstét. et de gynéc.*, No. 3, March, 1912) describe the results of their investigations into the causes, extent, and frequency of laceration of the dura mater in newborn infants. After referring to Benecke's pioneer work in this direction, the authors give a brief anatomical description of the tentorium cerebelli and falx cerebri at birth, and detail the results of their experiments in the artificial production of laceration in these structures. They find that if bilateral pressure is exerted upon the fetal skull, the fibres of the tentorium are stretched, but that if force is exerted from before backward this tension is much increased, being aided by lateral displacement of the temporal bones. Forcible dislodgement backwards of the vertex produces tension in the antero-posterior fibres of the falx, with rupture of the same if the pressure is long sustained. If the cranial cavity is just filled with cotton-wool to replace the cerebral tissue laceration is more easily produced, as the tentorium and falx are fixed thereby. Meyer and Hauch have carefully examined the intracranial conditions in all stillborn children, or those dying shortly after birth, in the Rigshospital at Copenhagen from October, 1910, to April, 1911. In 1,200 births the fetal mortality was 64, and autopsy revealed ruptures of the dura mater upon twenty-eight occasions. In 15 of these cases the laceration was small, and did not account for death. The remaining 13, however, undoubtedly died as a result of the intracranial lesions; 6 were stillborn, and in all a complete laceration of the tentorium, with much haemorrhage, was found. Amongst the remaining 7 children, who were born alive but died shortly afterwards, two examples of severe trauma produced by purely natural forces occurred. In one case severe laceration of the tentorium and falx cerebri and much haemorrhage was found in a child born eight weeks before term. Delivery was spontaneous, and the presentation was the first vertex. On another occasion rupture of the superior longitudinal sinus occurred in a child born spontaneously one month before term, and who died fourteen hours after birth. The tentorium cerebelli is usually the seat of rupture, and considerable lesions may occur without any laceration of the falx. No injury to the inferior longitudinal sinus was noted. As to the cause of trauma, the authors note that in 66 forceps deliveries the application of the forceps in 20 cases was faulty. Amongst these, eight examples of serious laceration occurred. In 46 cases where proper application was made no case of trauma was noted. These observations confirm the old doctrine that a faulty application, especially one in the antero-posterior diameter, is very dangerous to the child. Trauma, again, is more frequent in footling or breech deliveries than with forceps. Lastly, in those cases where ruptures were found after spontaneous delivery, the children were always small and premature, the head under these circumstances not being sufficiently strong to withstand the natural forces of labour. The paper is accompanied by twelve excellent photographs and a tabulated series of cases.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

148. Serum Diagnosis in Congenital Syphilis.

STINER (*Corresp. Blatt.*, No. 16, 1912) discusses the light thrown on congenital syphilis by the Wassermann reaction. An examination of the blood of 45 women, mothers of syphilitic children, showed that the reaction was positive in nearly the same proportion (about half of the cases) in those known to have syphilis as in those who appeared healthy. From this he argues that the mother of a syphilitic child should always be regarded as syphilitic. He seeks to show that the child of a syphilitic father seldom infects the mother, and considers that the theory that the reacting bodies, but not the spirochaetes, may pass from the blood of the child into the circulation of the mother is disproved by the observations of Boas, who found that children whose mothers reacted positively to the test gave at birth a positive reaction themselves, although they were free from symptoms of the disease; but this reaction could not be obtained from the children's blood after a short time, though it persisted undiminished for months in the blood of the mother. This fact goes to show that the reacting bodies originate with the mother and pass to the child. In 102 cases of stillbirth the mothers reacted positively although 75 of them were apparently healthy, and in every case spirochaetes were found in the body of the fetus as well as in the maternal parts of the placenta. In these women also the Wassermann reaction persisted for months, which supports the view that the reacting bodies are produced in the individual in whom they are found. The writer argues that even a negative reaction in the mother with a positive reaction in the child should not be taken as proof of paternal transmission; for the mother may have previously received treatment, and so the Wassermann reaction may fail, and yet she may harbour spirochaetes and infect the child. On the other hand, the mother may have a gumma but no spirochaetes in the blood, and the child then escapes infection. Baisch considers that a positive Wassermann reaction depends upon the presence of spirochaetes, and concludes that the apparently healthy mothers of syphilitic children are spirochaete "carriers." This view receives corroboration from the fact that a woman who has had stillborn children by a syphilitic husband may bear syphilitic children to a second or third healthy husband, she herself remaining clinically healthy all the time. The early recognition of congenital syphilis is of the greatest importance in treatment, and, owing to the frequent absence, from various causes, of any distinct family history, the Wassermann reaction is here particularly useful. The writer suggests that the blood may conveniently be obtained by wet cupping in infants if there should be any difficulty in opening a vein. There is practically no other European disease which gives the reaction (except scarlatina), so that a positive result is a clear proof of syphilis; and a negative result, when symptoms suggestive of syphilis are present and the patient has had no previous treatment, excludes that disease with certainty. The writer also calls attention to the large proportion of mental disease, especially idiocy, due to syphilis; he thinks that a systematic blood examination would show the nature of these cases and would lead to a more rational treatment with some prospect of relief.

149. The Treatment of Phthisis by Artificial Pneumothorax.

MOLON (*Gazz. degli Osped.*, August 25th, 1912) gives his experience of the above treatment in 45 cases. In 12 of these it was not possible to induce pneumothorax owing to extensive pleural adhesions. In 3 the treatment had to be abandoned owing to the onset of complications. In 6 (severe cases with bilateral lesions) after a period of improvement the lesion on the non-operated side increased so rapidly that the treatment had to be abandoned. In 3 marked improvement followed, although owing to adhesions complete pneumothorax could not be induced. In 3 improvement was so marked that the patients left the hospital and refused further treatment. In 18 excellent results were obtained and treatment is still carried out. Four refused to continue treatment owing to the pain of the stretched adhesions. In the 33 in whom treatment was carried out, 24 were unquestionably benefited. Pleural eclampsia was only observed in 1 case; the attack lasted half an hour and passed off without leaving any bad result. This may be avoided by giving an endopleural injection of stovaine. By watching for negative pressure in the water manometer one can know the pleural cavity is entered—occasionally a fallacy arises from penetration into a bronchus, in this case the manometer follows the respiratory curve. As a greater security against gas embolism the author suggests using oxygen for the first injection instead of nitrogen. Pleural adhesions give rise to the chief difficulty in this mode of treatment. The best regions for the introduction of the gas are the axillary and the infrascapular. A right-sided pneumothorax is better borne than a left. The amount of gas introduced varies from 100 c.cm. to 1,000 c.cm. according to the tolerance of the patient. Usually the pressure should not exceed +5 in the water manometer, at any rate at the beginning, but it may go up to +30, and having once accomplished compression of the lung a pressure of +1 or +2 suffices. Radioscopic examination is useful as an index of what is going on. Among the secondary phenomena noted are faintness, dyspnoea, tachycardia, pain, laryngeal spasm, bloody sputa, endopleural haemorrhage, cough, fever, cyanosis and pleural effusion. The best results are obtained in unilateral cases and the pneumothorax should be kept up for at least a year.

150. The Diagnosis of Chronic Appendicitis.

L. DREYER (*Munch. med. Woch.*, August 20th, 1912) finds that the diagnosis of chronic appendicitis or of appendicitis during an interval between acute attacks is often very difficult. In order to assist the diagnosis in doubtful cases he has employed inflation of the rectum. Air is pumped in through the anus. At first no special pain is complained of, but as soon as the air reached the caecum the patient complains of the same kind of pain as that experienced during an acute attack. The pain is frequently referred to the umbilical region. In inflating the bowel of patients not suffering from chronic appendicitis no complaints of pain were made. The author cites some typical cases in which this method assisted materially in forming the diagnosis, which was in each case confirmed by operation.

151. Tracheal Cough in Malaria.

MAX BUCH (*Finska Läkaresällskapets Handlingar*, November, 1912) has frequently noticed attacks of coughing which occurred at certain hours every day in patients suffering from malaria. This complication, which occurred in 20 out of 150 cases, sometimes synchronized with the attacks of fever, and sometimes appeared when the attacks ceased. In 1 case of intermittent fever, the attacks of fever occurred twice a day, at 2 a.m. and at 5 p.m. Coughing began three hours after the onset of the fever and lasted for three to four hours. In another case the coughing began every evening at nine, and the fever lasted from twelve midnight till 3 a.m. Like other symptoms of malaria, such as giddiness, tinnitus, headache, etc., tracheal cough bears to the fever a definite relation which varies in different cases. The author was consulted by a boat-builder, aged 73, who suffered from a dry cough which awoke him every morning at 4, and continued till 6 o'clock. After this condition had lasted a week he developed at 9 p.m. a rigor accompanied by a violent, dry cough. Both ceased a little later, but he was again awaked at 4 a.m. by the usual cough. Subsequently every evening at 9 rigors and coughing occurred, and the patient felt weak and ill. The apex of the right lung was indurated, but there were no signs of active pulmonary disease, and there was no bronchitis. Pressure upon the trachea invariably evoked a violent attack of coughing, and the diagnosis of trachitis was therefore made. The author considers that a double malarial infection existed, and that the evening cough was a symptom of typical intermittent fever, while the morning cough was a manifestation of masked ague. This view he based on the development of the evening cough several days after the morning cough began, and on its curious reaction to quinine. This, if given just before, during, or just after an attack of fever, causes, as is now well known, more harm than good. As it is most beneficial when given from three to seven hours before an attack, the author gave 0.6 gram at 5 p.m. on

three successive days. After the first dose the evening cough ceased, but the morning cough remained. The same dose of quinine was now given at 11 p.m. on four successive nights. The morning cough ceased after the first dose, the patient again felt quite well, and pressure on his trachea no longer induced coughing. This test is, in the author's opinion, most valuable in the diagnosis of dry coughs apart from malaria. Examination of the pharynx and larynx may, it is true, reveal the cause of such a cough: but when these appear healthy, and examination of the chest is negative, the physician is often in doubt as to the existence or not of pulmonary tuberculosis. The author has found that pressure on the trachea near the sternum induces coughing only when trachitis exists. In some cases in which coughing due to pressure on the trachea was anticipated, the patient complained only of pain, which healthy persons did not experience with the same degree of pressure.

SURGERY.

152. Paralysis from Extension Treatment of Fractured Femur.

THE treatment of fractures of the femur by continuous extension has, according to M. Weichert (*Berl. klin. Woch.*, January 13th, 1912) raised the standard of improvement considerably; and while a shortening of 1 to 2 cm. was formerly considered a satisfactory result, nothing short of perfect union without any shortening is now successfully aimed at. This is due to extension by weight, the amount of which has been raised by Bardenheuer to 60 lb. in muscular men. Records of paralysis after this treatment have not yet appeared, but the author has observed 5 cases of paralysis of the external popliteal nerve since 1910, when he began to use heavy weights for extension. As he has treated 224 cases of fractured femur by extension, and as the paralyses occurred only after heavy weights were used, he claims that they and not ignorance of technique are responsible for the consequences. It was at first thought that the paralysis might be due to pressure upon the external popliteal nerve against the fibula, but paralysis occurred in one case in which this possibility was excluded owing to a window having been cut in the bandage at the point where it traversed the head and neck of the fibula. Reducing the weights used minimizes the risk of paralysis, but this concession leaves the treatment of fractures of the femur at the old, unsatisfactory stage. The author has therefore returned to the use of heavy weights, and keeps the thigh raised and the knee flexed. With this procedure he has escaped paralyses because he thinks flexion at the knee relieves tension on the sciatic nerve. The distribution of the paralysis was the same in every case, and the nerves involved were the musculo-cutaneous, the anterior tibial, and nervus cutaneus surae lateralis. The paralysis of the latter, which branches off from the external popliteal nerve above the popliteal space, is further proof of the condition being independent of pressure over the fibula. The injury to the nerves clearly occurred at a higher level, and the external popliteal nerve is more vulnerable than the internal, which has a better blood supply, and which is surrounded by more elastic tissues. In the first two cases no elevation or abduction existed, but these were present in the three latter cases. The first patient was a man, aged 47, whose fracture was subtrochanteric. The weight applied was 50 lb. There was no shortening of the limb, and the paralysis disappeared in nine months. The second patient was a man, aged 22, whose fracture was compound and involved the middle of the femur. The weight applied was 30 lb. The paralysis appeared a fortnight later, and after three months it had partly disappeared. The third patient was a man, aged 52, whose fracture involved the upper third of the right femur. There was considerable displacement, and the limb was 6 cm. shorter than its fellow. The fracture was set under an anaesthetic, and a weight of 36 lb. was applied. Owing to the patient's delirium, the bandages were frequently displaced. A week after the fracture paralysis occurred, and the fifth toe became cold and white. Gangrene of the fourth and fifth toes followed, and no improvement in the paralysis occurred. As this patient suffered from advanced arterio-sclerosis, it is possible that the paralysis was due to interference with the blood supply rather than the nerve supply of the affected part. The fourth patient was a schoolboy, aged 11, whose fracture was transverse, and involved the middle of the right thigh. The limb was 4 cm. shorter than its fellow. Extension by a weight of 26 lb. was applied without any previous attempt to set the fracture, but, owing to the lad's restlessness, the bandages had to be replaced thrice. The paralysis appeared five weeks after the fracture, when the bone had firmly set, and there was no shortening. The knee was stiff, and the muscles of the limb were much atrophied. Some time later the paralysis had almost disappeared, and only slight weakness of dorsal flexion of the big toe and slight loss of sensation in the area supplied by the musculo-cutaneous nerve were still demonstrable. The fifth patient was a man, aged 27, whose transverse fracture of the upper third of the left femur shortened the limb by 5 cm. Extension by a weight of 36 lb. was applied without previous setting of the fracture. There was no permanent shortening, but the paralysis which ensued had diminished to a slight degree only four months after the fracture. The author considers that this type of paralysis takes about a year to disappear, and that the best treatment consists of massage, exercises, galvanism, and hot air baths.

153. A Bismuth Preparation for Radiography.

A NEW formula for the preparation of the bismuth mixture is given by Réchou (*Arch. d'électr. méd.*, February 10th, 1913), who lays stress upon the fact that the ordinary solutions of bismuth carbonate and gum syrup have a tendency to form a double layer in the stomach. The bismuth carbonate, being heavy, is rapidly deposited, and the liquid vehicle, containing little of the carbonate, remains above it. The use of rice-milk with the carbonate gives rise to the same phenomenon. Under these conditions the shadow on the fluorescent screen shows the lower part of the stomach in clear relief, and leaves the other outlines indistinct. Thus, pathological irregularities pass unperceived, or are seen only in a fugitive manner. The following formula is said to produce a bismuth liquid which is homogeneous and gives no sediment:

Bismuth carbonate	120 grams
Gum arabic	20 grams
Gum tragacanth	5 grams
Syrup (simple)	150 c.cm.
Water	350 c.cm.

To aromatize the mixture, orange water is used. The patient can absorb about 550 c.cm., and a uniformly opaque stomachal shadow is given on the screen. In preparing the mixture the solid substances are pulverized together in a mortar, and to these is added, little by little, the mixture of water and syrup. The gum makes a perfect emulsion with the bismuth carbonate, the bismuth being slightly syrupy but very fluid. It has been found by experiments *in vitro* that bismuth prepared in this manner remains perfectly homogeneous for more than twenty-four hours, whereas with the ordinary preparation of gum syrup, water, and bismuth carbonate the last named will be almost completely deposited by the end of that time.

154. Franke's Operation for the Gastric Crises of Tabes.

INGELRAUS (*L'Echo méd. du. Nord*, 1912, lx) describes the history of this operation, which consists of stretching the intercostal nerves on both sides. The nerves usually chosen are the fifth to the twelfth. The operation has proved successful in numerous cases, but the result is not always certain, and death from pneumothorax has resulted.

OBSTETRICS.

155. Pituitary Gland in Midwifery.

IN view of the various opinions which have been expressed as to the therapeutic value of pituitary gland extract for the increase of the uterine activity during labour, and also as to the disadvantages of this medication, M. Eisenbach has recorded his own experience and draws certain conclusions from the same (*Muench. med. Woch.*, November 5th, 1912). In the first place, he seeks for an explanation of the reported inconstancy of the action of extracts of the gland. These could be (1) that the dosage employed by different obstetricians has varied too largely, (2) that the indications for its use are variously interpreted, and (3) that the preparations are not always equally active. In regard to the first point, he is of opinion that only when a large number of publications have been issued will it be possible to ascertain the optimum dosage. The second point depends on the capability of the uterus to respond to chemical stimulation. It is well known that the uterine muscle is much more susceptible to stimuli at the end of pregnancy than at the commencement, and

this fact will account for the failures when given for the purpose of bringing on an abortion. He has made the experiment twice, once in the third month on account of a missed abortion, and once in the fifth month, but in neither case with the desired effect. He gave pituitary gland extract in 28 other cases, including 12 in the first stage of labour, 4 in the second stage, and 12 in the third stage. Out of the 16 cases in which it was given during the labour up to the time of the birth, it acted well 11 times, but in 5 cases the action was not strong enough. Pituglandol made by Hoffmann-La Roche (stated to contain 0.1 gram of gland in 1 c.cm. of extract) was given in doses of from 1 to 2 c.cm. intramuscularly. The injections were repeated when necessary after one hour or more. He suggests that in the first stage, when these doses only produce a weak response, larger doses might be used, but he questions whether the cost incurred would be justified. After these doses no ill effects were noticed either in the mother or in the child, and there was no tendency to haemorrhage in the third stage. In regard to uterine inertia during the third stage, he states that in those cases in which massage and ergot failed to control the atonic bleeding he gave the extract with uniformly good results. He therefore feels justified in regarding pituitary gland extract as the best medicament that we possess for stimulating uterine contractions, but admits that it is not an absolutely reliable and certain drug. If suitable cases are selected and the doses are appropriate, it is capable of beneficially influencing cases of atonic inertia, and thus avoiding the use of forceps, dilators, etc. It is useless in artificial abortion, but does no harm to either mother or child.

156. Emotional Jaundice and Acute Yellow Atrophy in Pregnancy.

ROUVIER AND LAFFONT (*Bull. de la Soc. d'Obstét. et de Gyn. de Paris*, etc., April, 1912) refer to Blot and others, who have observed instances of emotional jaundice in pregnancy passing into icterus gravis, and report a well-marked case under their own observation. A woman, aged 31, lost her child in the street when approaching the end of her fourth pregnancy. Her anxiety was intense until the child was found at the end of two hours. Almost immediately afterwards she began to show symptoms of jaundice. Next morning she was sent into hospital. There was uniform icterus, lemon-yellow in tint: the conjunctivae and the mucosae were involved. The liver was enlarged and tender, the urine mahogany-coloured, the pulse 90, and temperature 100°. Yet the general condition was good, and the patient related her recent experiences very clearly. Labour pains set in a few hours after admission, and early on the following morning she was delivered spontaneously of a male child nearly 6½ lb. in weight. It was slightly jaundiced, but the symptoms disappeared within a few days. The liquor amnii was greenish-yellow and abundant. There was very little blood lost during or after delivery, but the temperature exceeded 104°. For a few days the patient seemed to be improving, but on the fifth all the symptoms of acute yellow atrophy set in. There was delirium and rapid pulse, which soon could not be counted, and the patient died within a few hours. No necropsy was allowed.

GYNAECOLOGY.

157. The Relation of the Brain to the Ovarian Function.

CARLO CENI (*Archiv. ital. per le mal. nerv. e ment.*, vol. xxxviii, August, 1912) experimented on a number of hens and pigeons to examine the relation of the brain to the function of the ovary. One hemisphere was removed, and the birds that survived the traumatic shock were killed after successive periods varying from a few months to three years, and their ovaries were examined histologically. The primary effect of the trauma was to cause them to cease laying eggs for several months. In the year following the operation they began to lay again, but in the second year some of them laid about half the number of eggs, others ceased laying entirely. The birds were otherwise in a healthy condition. The examination of the ovaries showed a premature progressive involution affecting the whole of the parenchyma. The writer considers that these changes are the expression of a permanent state of functional torpor of the organ, in consequence of which ovulation is more limited than under normal conditions, and finally becomes entirely arrested. This functional disturbance may be considered as a premature dynamic exhaustion of the sexual gland. The conclusion drawn is that very intimate dynamic relations exist between the brain and the ovaries, and that the function of the latter is directly dependent on the anatomical and functional integrity of the former. The writer considers that his results have an important bearing on human pathology and on the question of limited reproduction in persons afflicted with neuropathic degeneration.

158. Dermoid Tumour of Both Fallopian Tubes.

NIGEL STARK (*Journ. Obst. and Gyn. Brit. Emp.*, October, 1912) was consulted by a woman aged 38, who had been married for ten years but was sterile. Menstruation was regular, free, and preceded by pain. The general health was good. On examination the uterus was found to be in the normal position and of normal size, but a fixed doughy swelling was definable in each lateral fornix. Neither was tender or painful. On opening the abdomen the swelling proved to be tubal, not ovarian; the right Fallopian tube was removed, whilst the swelling in the left tube was excised, the cut ends of the tube being afterwards united by suture, so that a shortened oviduct remained with its canal patent and the fimbriae intact. Both tumours were of the size of a Tangerine orange. The right involved the greater portion of the tube, the left lay in the outer third, not involving the infundibulum. They were cysts containing sebaceous matter, hair, and plates of very hard bone. Three other authentic instances of dermoid cyst of the Fallopian tube have been reported (Pozzi, Jacobs, and Noto); Stark's fourth instance of a tumour of the kind was peculiar in being bilateral.

THERAPEUTICS.

159. Idiosyncrasy to Arsenic.

Two cases of idiosyncrasy to arsenic in the form of sodium cacodylate are recorded by C. Staeubli (*Deut. med. Woch.*, December 26th, 1912), who reviews the recent advances made in the study of the action of the various compounds of arsenic on the body. One patient, a man aged 52, suffered from malaria, general debility, and neurasthenia, for which sodium cacodylate was prescribed. The first injection of 0.05 gram, taken from a Bloch's ampulla, caused no disturbance. The same amount was introduced into the right forearm four days later. After twenty-four hours a rectal temperature of 101.8, great weakness, pain in all the limbs and in the loins, and a sensation of pressure in the head were observed. The site of the injection was hot and brawny, and erysipelas was suspected. Next day, however, the temperature was almost normal, the general condition was better, and the local swelling was no larger. Scrupulous cleanliness was exercised, when, four days later, the same dose was given, but twenty-four hours later the same phenomena recurred, and the injections were therefore discontinued. The drug had been administered to many other patients without ill effects by the author, when he again observed symptoms of idiosyncrasy. The patient, a woman aged 36, who suffered from exophthalmic goitre, had been given twenty-four injections of 0.05 gram of Clin's sodium cacodylate on twenty-four consecutive days without ill effects. On August 14th the last injection was given. On August 24th she left the lowlands and came to St. Moritz, where, two days later, she was given an injection of 0.05 gram of the drug. Next day her temperature was 102.2°, and she complained of "rheumatic" pains throughout her body, anorexia, and headache. Her respiration was laboured and asthmatic. Although scrupulous cleanliness had been exercised, the site of the injection was hot and brawny. On the second day the patient was much better, and on the third day the temperature was normal and the swelling began slowly to disappear. As the needle had previously contained tuberculin, it was thought that a trace of this might have been injected with the sodium cacodylate, for the reaction was like that which follows an injection of tuberculin. This view was disproved by the repetition of the reaction on September 8th, twenty-four hours after the patient had injected half the usual dose of sodium cacodylate into her left thigh. The local but not the general reaction occurred. On September 9th the author substituted Bloch's for Clin's preparation, and injected 0.05 gram into the right thigh after careful disinfection of the skin. Next day the temperature rose to 102°, with a rigor in the evening. The other symptoms resembled those of the previous attacks, but were less marked. The site of the injection was again inflamed. The patient had completely recovered when, on September 16th, she was given an injection of 0.025 gram.

Twenty-four hours later the site of the injection was firm and swollen, and the temperature was slightly raised. The same dose, injected on September 20th, produced less fever, but a more violent local reaction than on the previous occasion. The cutaneous reaction to the drug was now tested by von Pirquet's method. After the skin had been cleansed and lightly scarified in three places, glycerine was applied to two places and sodium cacodylate to one. After eighteen hours the two former control places showed no reaction, while on the third place a reddened and infiltrated papule, 8 mm. in diameter, had appeared. This increased in size during the next thirty hours, and was still palpable two days later. The only explanation the author can give for the patient's erratic behaviour is that the passage from a low to a high level effected a change in the metabolism which rendered the tissues intolerant to the drug.

160. Treatment of Sleeplessness.

In dealing with the treatment of sleeplessness E. Meyer points out that a number of patients consult their medical advisers on account of "sleeplessness"; but on closer investigation it appears that the symptom which leads them to seek treatment is a limitation of the duration of sleep and the fact that they are unrefreshed in the morning (*Deut. med. Woch.*, September 12th, 1912). Simple disturbances of sleep practically do not occur unless associated with some body disturbance, either past or present. In a few cases the disturbance is periodic and is a kind of psychotic affection. It should be the duty of the practitioner to discover the other symptoms with which the sleep disturbance is connected. It is quite a common thing for nervous children to sleep badly. The exciting causes may be some extraordinary excitement, bodily exertion, or tiring and emotional causes. The treatment of severe cases of this kind should be directed to strengthening the nervous system and regulating the hygienic conditions of life. Psychic influences from the parents and the doctor do much good, but care must be exercised that neither severe, unkind treatment nor exaggerated mildness are employed. Narcotics are very rarely needed. The possibility of worms must be borne in mind in these cases. The disturbance in adults may be secondary to affections of the lungs, heart, or skin, or there may be a painful nervous disease, such as neuralgia, neuritis, tabes, or cerebral syphilis. At times organic diseases of the nervous system are manifested only by disturbance of sleep at first. It is not uncommon for a general paralytic to come to the medical practitioner on account of this symptom. The next category of cases belong to the poisonings. Chronic alcoholism, nicotine poisoning, intoxication with tea or coffee and the like may be responsible for the disturbance, and the author also points out that sleeplessness may arise in the course of morphinism. The disturbances of sleep in marked mental disturbances are well known. In functional neuroses—such as hysteria, neurasthenia, etc.—sleeplessness is not infrequently met with. The type of the disturbance in these cases is very definite. Finally, he mentions the sleeplessness of the climacteric. The treatment of the symptoms must consist first of all in the treatment of the primary condition causing it. In the second place, much good can be done by paying attention to the hygiene of sleep and of the bedroom. By small means the physician may be able to remove the symptom altogether in nervous patients. Next, hydrotherapeutic means may be adopted. Wet compresses, packs, partial baths, etc., are useful. Baths often work well in the sleeplessness of the climacteric. Hypnosis is often an excellent soporific, but as a rule the practitioner is not experienced in this. Electro-therapeutic measures may do good. In discussing drugs, he refers first to the various valerian preparations, and such drugs as aspirin, pyramidon, and bromides. Before giving hypnotics or narcotics, the physician should remember that he is merely dealing with a symptom; at times, however, it is impossible to get on without them. Morphine should never be used for sleeplessness; chloral hydrate had better also be avoided on account of its action on the heart. Paraldehyde in doses of from 3 to 5 grams, amyl hydrate, isopral, and veronal are mentioned, and it is said that trional and sulphonal are not given as they used to be, on account of the production of haematoporphyrinuria. The author further mentions medinal, hedonal, hypnal, hypnoval, malonal, veronacetin, and luminal, but does not discuss the risks attending their use, though he utters a warning against inducing a habit. He commends Bürgi's suggestion, to give the dose in two parts, and also to combine two drugs which act in a different manner.

PATHOLOGY.

161. The Metabolism in Barlow's Disease.

Infants suffering from Barlow's disease are not rare in Germany, but the patients come mostly from the upper and middle classes; this explains why their metabolism has not hitherto been investigated. F. Lust and L. Klocman (*Jahrb. f. Kinderheilk.*, Berlin, 1912, 3 F., xxv) believe themselves to be the first to examine it; their patient, the 18-months-old child of an extremely rickety woman, was the fruit of a Caesarean operation; was breast-fed for six months, cut its first teeth at 8 months, walked at 12 months. At 14 months the first signs of Barlow's disease appeared—restlessness, irritability, inability to walk or even sit up, swelling of the extremities; at 16 months the gums became discoloured and bled easily, epistaxis occurred, and there had been diarrhoea almost all the time when the infant came under observation two months later. At this time it weighed 14.8 lb. instead of the normal 25.3 lb., was very anaemic, made practically no voluntary movements, screamed when touched; the chest showed marked rickety deformity, there was much swelling in the neighbourhood of the epiphyses of the long bones of the arms and legs, crepitation could be felt in the shoulder-joints. Skiagrams showed subperiosteal haematomas. The blood contained 3 million red, 2,400 nucleated red, and 11,000 white cells per cubic millimetre, with 40 per cent. of haemoglobin; of the white cells, 57 per cent. were lymphocytes, 32 per cent. polymorphonuclears. The authors set themselves to examine its metabolism for three periods of four days each; during the first period on a diet of boiled milk, oatmeal, and sugar, analogous to the diet which had been responsible for the onset of its disease; during the second period, three weeks later, on a similar diet, but with the use of unboiled milk; during the third period, a month later, by which time the child was clinically cured, on a diet like that given in the second period. The total ash, the N, the Cl, the P, and the CaO, were determined for the urine and faeces excreted during these three periods. The results of the analyses are rather surprising. The authors found that during the first period of four days there was an abnormally large retention of CaO and P, and a normal retention of Cl and of the total ash of the food. At the time of the second period of investigation the child was much better, and had gained 1 lb. in weight; during this period there was a much-increased secretion of the total ash and of all its separate constituents, as if the child was now eliminating a quantity of useless material stored up during its illness. The balance-sheet showed that while about 31 grams of total ash were taken in in the diet, 48.3 grams were excreted in the urine and faeces. By the date of the third period of four days, when the child was clinically well, its weight had increased to 17 lb; the phosphate and total ash balance-sheets now showed small positive balances, much below the normal in size. Hence, the authors conclude, Barlow's disease cannot be due primarily to a lack of mineral constituents in the food; it must rather be associated with an abnormal retention of mineral matter, and of lime salts in particular, in the system. Whether this retention is the cause of the disease or one of its effects they are unable to say; at any rate, the mineral metabolism of Barlow's disease is unlike that of rickets.

162. Syphilis of the Heart.

Pierret and Duhot (*L'Echo méd. du Nord*, 1912, Ix) describe 18 cases of various affections of the heart due to syphilis treated with mercury successfully, and find that the disease may be acquired or hereditary. It usually appears in the tertiary period, three to ten years after the chancre, and is met with most frequently between the ages of 30 and 40 years, slightly more frequently in men (60 per cent.). It may affect the myocardium in the form of gummata, chiefly in the left ventricle, the interventricular septum, and the right ventricle, more rarely in the auricle or interauricular septum, or as syphilitic myocarditis; it also gives rise to inflammation of the coronary arteries, the endocardium, or the pericardium; and Fournier has noted an etiological relationship between hereditary syphilis and cardiac or arterial malformations, especially persistence of the duct of Botalli. Persistent bradycardia is a frequent symptom, and a positive Wassermann reaction is extremely often noticed. When treated early cardiac syphilis is curable, but when untreated may lead to aneurysm of the heart and rupture. The best treatment is by injections of soluble salts of mercury intravenously, especially the cyanide; iodides and the usual treatment of cardiopathics are also in place. If these methods are unsuccessful salvarsan should be tried.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

163. Tinnitus Aurium.

IN discussing the prognosis and treatment of tinnitus, Wittmaack (*Deut. med. Woch.*, September 26th, 1912) states that he does not regard a sharp distinction between objective and subjective noises as feasible. In the same manner, it is not always possible to distinguish between subjective sounds and entotic sounds. The characteristics which can be attributed to the sounds, however, should be noted in each case. After entering upon the subject of the presence or absence of rhythm in the sounds, which can be ascertained by requiring the patient to describe them fully and imitate them, he turns his attention to the etiology of the various forms of tinnitus. He commences with a large group in which no objective changes can be found in the ear. When the hearing is not reduced in sharpness, an organic aural basis of the tinnitus may be excluded. When the noises are rhythmical, the first possibility is to identify the rhythm with that of the arterial pulse. At times the noises are objectively audible by means of the stethoscope or otoscope. Under normal conditions the arterial pulse is not heard by the subject, but pathological changes in the peripheral circulation or in the heart may render it audible. Aneurysms in the neighbourhood of the ear or neck frequently produce intense and irritating noises. In these cases the pulsation may be seen or felt. But cases of this kind are rare. Again, tumours, such as a goitre, enlarged glands in the neck, etc., may cause the tinnitus. Should peripheral causes not be found, the heart must be examined to ascertain whether the noises are due to a definite heart disease or even to a temporary increase of the cardiac activity due to bodily exertions or to psychical excitement. An increase in pressure of the cerebral fluid, and also sounds produced in anaemia, must likewise be thought of. Less frequently the rhythm corresponds to that of the respiration. At times periodically recurring sounds of an irregular rhythm may be produced by the condition of contraction of certain muscles. In these cases a rapid tempo similar to the ticking of a watch may point to a spasmodic condition of the muscular apparatus of the Eustachian tube. The next group of cases dealt with in which no changes in the ear can be found includes those cases with arrhythmical noises. In many cases the noises are the only symptoms of the condition, or by far the most prominent one. The basis on which such noises are produced is most commonly neurasthenic. The author calls attention to the fact that a perfectly normal person hears very similar noises when in an absolutely noiseless room. The difference between the normal perception of noises perceived in a so-called acoustic chamber and those of neurasthenic tinnitus lies in the pathological tendency of the neurasthenic to exaggerated self-observation. The noises are not imagined. He discusses the probable production of the sounds in these cases. Somewhat similar are the noises in hysteria, only in these cases the psychical element is pronounced. In treating of the prognosis of tinnitus he states that much depends on the cause. When there is a neurasthenic basis an examination of the ear and any form of local treatment will probably do harm, and may alter the prognosis considerably. On the other hand, when the cause lies in the circulatory apparatus, cure may be effected at times, as, for instance, when there is an operable aneurysm. Should an aneurysm be present which cannot be dealt with surgically, symptomatic means may do some good. The same holds good in the cases of tumours, goitre, and the like. In the case of cardiac disease, the treatment will have to be directed entirely to the endeavour to compensate the cardiac defect. When the heart condition is amenable to treatment the noises may disappear. In neurasthenia the attention of the patient should be deflected from his ear. Suggestion may be employed with advantage. Wittmaack finds it useful to place the patient in a room where some loud, rhythmical noise can be heard. The babbling of a brook or some similar noise in nature, or, failing this, the ticking of a loud alarum clock, may suffice to cover the tinnitus. The prognosis is unfavourable when the tinnitus is due to a combination of neurasthenia and arterial pulsation. Next he turns to tinnitus associated with organic changes of the ear. He discusses the production of noises as a result of inflammatory processes of the middle ear or of the tube or its pharyngeal orifice. The most favoured view is that the noises are produced in the muscles or vascular apparatus. Cerumen is, further, a fruitful cause of tinnitus. Passing on to catarrhal processes of the middle ear, the formation of adhesions and oto-sclerosis, he admits that the etiology is by no means clear. In the last named the noises frequently take on a pulsating character, which would lead to the supposition that they are produced in the vessels. Acute processes involving the middle ear yield better to treatment than chronic processes, and in the majority of these the otologist will not be able to do entirely without symptomatic remedies. In the last place, he deals with tinnitus arising in the course of disturbance of the internal ear. The treatment depends in these cases on whether one is dealing with an intoxication or infection, a nerve change or a constitutional disease. If a poison can be avoided, such as quinine, salicylic acid, alcohol, or nicotine, the prognosis is in so far good, provided that the damage done is not irreparable. Less good can be done when there is locomotor ataxy, general paralysis, leukaemia, cachexia, or arterio-sclerosis. In conclusion, he deals with what he speaks of as symptomatic treatment. Bromides and valerian are mentioned first. Next, iodides, sweating agents, arsenic, and thyroid substance are cited as yielding good results at times. Counter-irritation, hyperaemia, and hydrotherapeutic procedures are often worth trying. In desperate cases an attempt may be made by lumbar puncture, and, as a last resort, he cites the operative opening of the labyrinth and its destruction. The effect of these various remedies and the actual prognosis of each case will depend on the minute analysis of each case; and it may be possible, when all the participating factors have been considered, to combine several therapeutic measures with beneficial results.

164. Infection of the Kidneys by Bacillus coli.

A REPORT by Munich (*Archiv für klin. Chir.*, vol. 98, No. 3) on 60 cases of renal infection, in which bacteriological investigations were made, brings out the following points: As a rule the prognosis in acute unilateral *coli* infection of the kidneys is good, but it is doubtful when both kidneys are involved. The necropsy on two patients who succumbed to the infection showed the kidneys to be permeated with multiple miliary abscesses. The ultimate results of the infection were studied in 21 cases which the author followed up for a considerable period. In 18 of these the *Bacillus coli* was the only germ found; in 1 case there was a mixed infection, and in 3 cases the nature of the infection was not stated. The treatment was conservative in 11 cases, nephrotomy was performed in 4, and nephrectomy in 6 cases. Subsequently the urine was sterile in 6 cases, in 6 a pure culture of *B. coli* was found, in 6 this germ coexisted with staphylococci, in 1 a pure culture of staphylococci, and in another a pure culture of streptococci, were found. Ten patients showed no symptom, 9 still suffered from occasional but slight attacks of pain in the region of the kidneys, and 2 suffered from severe and continuous renal pain. The author finds that nephrectomy gives good results in cases of severe unilateral infection. But most cases of slight and acute *coli* pyelitis and pyelonephritis require no operation, for they rapidly react to rest in bed, urotropin, and a liberal consumption of water. When fever, rigors, and unilateral pain persist, the author recommends catheterization of the ureter as the best aid to drainage; but he seldom practises lavage of the renal pelvis as advocated by Casper, for he finds this method is no improvement upon simple drainage. He advises nephrotomy when such threatening symptoms as fever and rigors persist, and he admits that when the disease is complicated by pregnancy, the induction of labour may be a necessity. Vaccine treatment he has not practised.

165. Stenosis of the Duodenum.

ANDERS (*Amer. Journ. of Med. Sciences*, September, 1912) finds, from a statistical study, that the acquired form of stenosis of the duodenum occurs more often than is generally supposed, and that there exists a somewhat close relationship between this condition and such causative affections as duodenal ulcer, carcinoma, disease of the head of the pancreas and of other adjacent structures. He reports the case of a woman, aged 56, who had

suffered for four years with attacks diagnosed as "acute gastritis." A fortnight prior to coming under observation she had been seized with acute pain and tenderness in the right hypochondrium, lasting about three minutes, and recurring three or four times daily without apparent relation to food. The pain was not referred, and jaundice followed the first attack, and a small mass, which did not move with respiration, was palpable. Gall stones were not present under *x* rays, but the pylorus was seen to be in relation with the gall-bladder region, suggesting adhesions. After about a fortnight's improvement, vomiting of large quantities of bile-stained fluid recurred without recurrence of pain. At operation the duodenum was found to be markedly adherent to the under surface of the liver and kinked, the stenosis being due partly to the cicatrix of an old ulcer and partly to the kinking from adhesions. From a statistical examination of 262 collected cases, 215 were due to benign causes, and therefore amenable to operation. The absence of meteorism; the presence of biliary, but never faecal, vomiting; the disappearance of the meteorism in the epigastrium after vomiting, and early anuria, are the symptoms recognized as being of major diagnostic importance in stenosis below the ampulla of Vater. In those cases due principally to kinking the diagnosis of duodenal obstruction is generally impossible, such a kink as a rule resulting from adhesions produced by an ulcer or other lesions, and colicky epigastric pains, recurring regularly three to five hours after meals, will usually be present. If the kink is above the ampulla of Vater, the symptoms will be practically identical with those of pyloric stenosis, but of more acute development. If the kinking be below the ampulla of Vater, oft-repeated vomiting of biliary secretion becomes a prominent symptom. When the obstruction is situated at the ampulla of Vater, the condition can usually be diagnosticated during life, since the usual gastro-intestinal symptoms with chronic jaundice and progressive emaciation result from the absence of the biliary and pancreatic secretions, and marked dilatation of the stomach and duodenum above the stenosis usually occurs. When below the ampulla of Vater, in addition to the pain and vomiting of bile, the stools will be acholic and constipated, and analysis of the gastric contents will usually show an absence of free hydrochloric acid, due to the reflux of alkaline intestinal secretions from the duodenum into the stomach.

SURGERY.

166. Camphor in Surgery.

BAUDEL (*Prov. méd.*, January 4th, 1913) writes enthusiastically on the use of camphor dissolved in oil in a great variety of cases. He quotes Lemaire as having written upon the dosage of camphor and its toxicity even in small doses in certain cases. The author has not found it toxic even when given in massive doses in operations involving the peritoneum. There are two methods of administration: (*a*) subcutaneous, (*b*) intraperitoneal. Baudel quotes several cases of severe injury with shock, or shock following operation, in which 20 c.cm. of camphor in oil were given. In one case this was repeated three times in one day with marked improvement in the pulse and general condition. There were no toxic symptoms. In every case the breath had an odour of camphor some time after injection. The injections are painless and cause no local reaction. In the intraperitoneal cases, the value of Recklinghausen's discovery that a small quantity of oil in the peritoneal cavity diminishes absorption by the lymphatics and so prevents resorption of toxic materials, is enhanced by the use of camphor in oil, as the latter acts as a cardiac tonic as well as being an antiseptic; further, it diminishes the risk of adhesions. The author in his personal practice has injected as much as 150 grams of a 10 per cent. solution. His statistics fully bear out the benefits of the method.

167. Chancre of Thumb Complicated by Suppurative Arthritis of the Interphalangeal Joint.

LEBAR AND JOURDANET (*Bull. de la Soc. Franc. de Derm. et Syph.*, January, 1913) state that an elderly woman contracted the infection on the dorsal surface of her right thumb four weeks after dressing and poulticing a malignant phagedaenic ulcer, with secondary eruption and mucous tubercles, in her son. *Spirochaetae pallidae* were found in both cases. After five days the thumb became painful and swollen, and on exploring the ulcer the probe penetrated the joint between the first and second phalanges, evacuating therefrom a small quantity of thin sero-pus. The case was turned over to a surgeon, who opened the joint dorsally, and made a counterpuncture on the palmar surface. Healing was very rapid, and in ten days cicatrization was complete without loss of movement in the joint. A day or two later, a maculo-papular eruption made its appearance on the face, trunk, and limbs. The attempts to inject salvarsan had failed, owing to the smallness of the veins, and recourse was had to intensive treatment with mercury, and proto-iodide and biniodide by intramuscular injections, according to Jacquet's method, under which all symptoms subsided, so that in six weeks the woman was able to leave the hospital for out-patient treatment. The author raises the interesting question of the etiology of the arthritis. A suppurative arthritis complicating a primary chancre has no precedent in the literature of syphilis, and the possibility of a specially malignant spirochaete in this connexion cannot be excluded. More probably, however, the common organisms of suppuration (streptococci or staphylococci) must be held responsible, but it is very uncommon for an arthritis due to either of them to be cured without relic in so short a time. The third possibility is the infection of the joint with the organism originally responsible for the phagedaena in the son. It is very unfortunate that an examination of the pus from the joint was not made at the time of the operation.

168. Thiersch's Skin Grafts in Varicose Ulcers.

PETGES (*Gaz. hebd. des sci. méd.*, 1912, xxxiii) warmly recommends the above treatment, which he successfully employed in a case of extensive varicose ulceration of the leg in a man 59 years of age. The ulcers were first cauterized by silver nitrate, and after a week of this treatment were treated by iodine vapour produced by a special apparatus, and after three days the ulcers were ready for skin grafting. In a week the grafts had become firmly adherent, and the ulcers, which had existed for years, were healed in a month after commencement of treatment.

OBSTETRICS.

169. Obstetric Hints.

WRITING from the German obstetric clinic in Prague, H. H. Schmid (*Muench. med. Woch.*, August 28th, 1912) gives some practical hints, which he thinks will be welcomed by the practitioner. In practically all difficult manipulations, such as version, reposition of a prolapsed arm or cord, and the like, the pelvis should be raised, as is done for spinal anaesthesia. He states that the manipulation becomes incomparably easier in this position than when the patient is lying on one plane. It must, however, be pointed out that the Continental obstetricians employ the dorsal and not the left lateral position. The second point which he touches upon is that of ether anaesthesia. He is of opinion that the dogma of the textbooks that chloroform only may be used in childbirth should be done away with. Chloroform tends to damage both the kidneys and the liver, and it is just these organs which are already more or less damaged during pregnancy. On the other hand, the heart is usually strong enough to withstand the extra strain of the parturition, and he is therefore in favour of selecting ether as the better anaesthetic of the two for childbirth. It can be given by the drop method, inducing a very light unconsciousness, even in very protracted labours. The third subject is that of the suture of the torn perineum. He states that in the majority of large obstetric clinics the obstetrician does not bother about such small details as the suturing of a perineum. It is, in his opinion, absolutely necessary to suture a second degree tear in stages, and to pay special attention to the exact apposition of the muscular layer and the fascia. In order to obtain satisfactory results, two things are necessary: First, the operator must be able to examine the tear carefully in a good light; and, secondly, the patient must keep quite still while it is being sewn up. Both conditions are very materially facilitated by the employment of Braun's local anaesthesia (½ per cent. novocain solution with 0.0005 per cent. suprarenin). Between 50 and 75 c.cm. of the solution is usually required. This renders the parts absolutely anaesthetic, and the operator can inspect the deeper parts of the wound and apply as many sutures as are necessary without causing the patient any pain. If the first point of insertion of the injection needle be through the wound, even the injection need not cause any pain. The wounds heal well by first intention. Further, he calls attention to

the coincidence of the appearance of dyspeptic symptoms in the infant and the getting up of the mother. He explains this coincidence in that while the mother is still kept in bed, the infant is put to the breast at the proper intervals by the nurse. When once the mother gets up she succumbs to the temptation of giving the baby the breast each time it cries, which naturally produces indigestion. In the last place, he recommends ozet baths for premature infants.

GYNAECOLOGY.

170. Facial Palsy in Child delivered Spontaneously.

CARLSSON (*Zentralbl. f. Gynäk.*, No. 45, 1912) has reported and tabulated some researches to throw light on this complication. Facial palsy is the most common of all the forms of paralysis in the newborn child. In a large majority of cases it follows instrumental delivery, being due to direct pressure of the blade of the forceps on the facial nerve at its point of exit from the stylo-mastoid foramen. Yet it is occasionally observed after spontaneous birth. In that case there may be defective development of the nerve or arrested development of the petrous portion of the temporal bone. Otherwise the paralysis is caused by injury, during birth, to the facial nerve or its centre. Kennedy of Dublin was the first to describe an authentic case (1836), and Carlsson tabulates 36 instances of this condition. The table shows that the paralysis is nearly always peripheral, and is caused by pressure on the facial nerve at its exit from the cranium, just as in forceps cases. In at least 19, if not 20, the pressure was against the symphysis pubis: the twentieth case (Crone) was complicated by an exostosis of the symphysis pubis, the pelvis being otherwise normal, so that it is not quite of the same type as the 19 previous cases, and, besides, the face presented. In 8 the fetal head was pressed against the promontory of the sacrum, the portion near the ear receiving the most direct pressure. In 4 there was much doubt, in 3 congenital lesions were suspected, although there had been local pressure, apparently, as well; the paralysis remained for months after birth, and no after-history was reported. Pressure from the shoulder was observed in one case; the mother had a very pendulous abdomen; the child was fat, and a deep depression in the integument lay close to the left ear, corresponding to the rounded left shoulder. The relative frequency of injury to the right and left facial nerve could not be ascertained, as reports were deficient as to this point in at least seven cases. In nearly all instances where the question of the pelvis was noted there was moderate contraction, the flat rachitic type predominating. The paralysis disappeared on the average in about a week.

THERAPEUTICS.

171. Phototherapy for Tuberculous Glands.

ISELIN (*Corresp.-Blatt.*, No. 20, 1912) relates his experience in the treatment of 202 cases of tuberculous glands with *x* rays. The results were good; and he states that at Basle during the past three years surgical treatment in these cases has been almost abandoned. The researches of Grober have shown that tubercle bacilli may gain entrance to the lungs by way of the tonsils and retro-pharyngeal glands, and the author considers that the treatment of glands in which bacilli are lodged is therefore of the greatest importance. So long as the glands are single and not softened, he thinks thorough extirpation the best method, but when they are matted together or softened the conservative treatment with light is to be preferred. Direct insolation has proved beneficial in these cases; but it is only in certain places, such as Alpine heights or in hot climates, that it can be satisfactorily carried out. Moreover, experiments by Finsen and others seem to indicate that the effects produced at Leysin on the deeper tissues by insolation must demand some other explanation, for they have shown that not only pigment in or on the skin, but also the red colouring matter of the blood, greatly hinders the passage of the chemical rays. Thus, a piece of photographic paper buried in a dog's body to the depth of 3 cm. remained unchanged after the animal had been exposed to strong sunlight for an hour; and a strip placed behind the lobe of the ear was affected by light much more quickly if the blood were squeezed out of the tissues between two plates of glass. Roentgen rays have the advantage of being more penetrating than sunlight. Perthes has shown that at a depth of 4 cm. the light retains 40 per cent. of its intensity, and this penetrative power may be increased by passing it through a thin plate of aluminium, which, moreover, filters off the rays most injurious to the skin. The sensitiveness of the skin also may be diminished by any means tending to deprive it of blood; while, conversely, the effect on a diseased area is more intense during the focal hyperaemia induced by a tuberculin reaction, or by Bier's congestion, or in any other way. It is not claimed that the bacilli are killed by the *x* rays; the intensity of light required for that would destroy the overlying tissues. The success of the treatment is only rendered possible by the fact (which has been verified experimentally) that the light has a more destructive action on glandular tissue and granulations than it has on the connective tissues. The process is slow, and its exact nature has not yet been satisfactorily explained, but the effect on the diseased structures is evident. A few hours after the treatment the parts affected become swollen, but a fortnight later matted glands become separated, abscesses shrink, and fistulae close up after one or two sittings. Caseous glands require about ten sittings, but end by disintegrating without previously undergoing any apparent structural change. The treatment of large masses is long and tedious, and may fail on account of the sensitiveness of the skin to the rays; but the results are better than those of extirpation, for scarring is avoided, and all infected glands are searched out and destroyed by the light. Wetterer disputes the view that general infection may follow the destruction of tuberculous glands, but the author has seen this happen once, and temporary disturbance of the general health as an effect of the rays is common. However, the influence on the general health of the patient is usually very good, and the author suggests that the destruction of the tuberculous glands may give rise to some kind of auto-inoculation, instancing in support of this view the injection of sterilized caseous gland tissue by Patersen with the object of raising the opsonic index. In conclusion, the author considers that the use of *x* rays is of real value in these cases, superior to sunlight in its local effects, but inferior to it in its tonic effects on the whole body. He recommends, therefore, that if possible the treatment should include sun baths for the whole body, with local applications of *x* rays once every three or four weeks.

172. Arsenic and Pancreatin in Pernicious Anaemia.

L. BRIEGER (*Deut. med. Woch.*, November 14th, 1912) recalls a publication by himself and Trebing, in which they set out that the high antitryptic titre found in persons suffering from carcinoma could be reduced to the normal level by an internal medication with pancreatin. They further found that other carcinomatous patients resisted this action of the ferment. The indications of the previous observations were interpreted as suggesting that pancreatin might when combined with other medicaments prove of some therapeutic use in certain diseases. For example, they suggest the treatment of tuberculosis with tuberculin and pancreatin. Brieger now returns to this idea and states that after a high antitryptic titre was found in the blood of persons suffering from pernicious anaemia, an attempt was made to treat this disease with arsenic combined with pancreatin. The result was beneficial, although only temporary. He gives the clinical histories of three cases. Two of the patients died at a later date, after they had been discharged improved from hospital. The third patient was treated three years ago and is still under observation as an out-patient. She has remained well up to the present. The treatment has therefore to be repeated from time to time, a careful control being exercised in the interval. The high titre has been reduced to normal limits. Brieger repeats that this does not mean cure, since this reduction of the titre was attained in the case of several cancer patients, and was accompanied by a constitutional improvement, but the treatment "naturally did not exercise any influence on the carcinomatous process, nor did it arrest the ultimate termination of the disease." He raises the question whether the pancreatin medication may not effect a catalytic action on the diseased tissues.

173. Joha, a Salvarsan Preparation.

SCHINDLER'S salvarsan preparation, joha, has been the subject of a number of favourable reports and a few unfavourable ones. In order to increase the total of cases recorded which have been treated with joha, H. Lindenheim gives his experience in some detail (*Berl. klin. Woch.*, November 11th, 1912). He has given it in intramuscular injection to 36 patients—seventy-five single

injections. In one case, where he employed Lesser's technique of removing the barrel of the syringe after inserting the needle into the gluteus medius, to see whether any blood issues from the needle, sudden dyspnoea, cyanosis, and signs of pulmonary embolus set in. These signs passed off after the administration of opium. In all subsequent cases he employed Schäffer's modification of drawing back the piston of the syringe before removing the barrel, so that if any vessel has been opened the exit of blood from the needle is ensured. He did not experience the same accident again. In one case in which the heart was dilated he experienced a severe cardiac collapse after the injection, and warns others not to inject any salvarsan preparation when there are any signs of cardiac affections. In all other cases the substance was absorbed without any alarming effects. In six cases a slight infiltration *in situ* was noticed. This can, he states, be avoided by directing the patients to rest for twenty-four hours after the injection. The initial dose given was 1 c.cm. of joha, which is equivalent to 0.4 gram of salvarsan; later he has given 1.5 c.cm. After a week's interval he gives a second dose of 1.5 c.cm., so that the patient receives 1.2 grams of salvarsan. The usual combination with mercury salicylate, etc., and potassium iodide, is recommended. He finds from the clinical experience of his cases that joha exhibits all the favourable action of salvarsan, and exerts a rapid healing action on cutaneous and mucous manifestations and malignant syphilis. He finds that it can be employed without keeping the patient in bed, or even at home, and, given the proper technique, he claims that it is free from harmful results, always excluding cases of heart disease.

174. Electro-magnetic Arsenic Treatment of Cancer.

H. Spude (*Muench. med. Woch.*, 31, 1912) wishes to secure priority for himself in respect to what he calls the new electro-magnetic arsenic treatment of cancer. He has applied it in two cases, one of a facial "cancer" (a piece was excised for microscopical diagnosis and confirmed the diagnosis of "cancer"), and one of a cancerous tumour of the forehead. In both it was successful. The treatment consists in the local application of finely divided oxide of iron which is subjected to the action of an ordinary powerful electro-magnet with rapidly alternating polarization, thus causing the iron particles to vibrate. The second part of the treatment is the injection of atoxyl, either intravenously or locally. The author attempts to argue the *rationale* of this treatment. He admits, however, that a purely chemotherapeutic treatment would be more ideal, but since such does not appear to be forthcoming at present, he calls attention to his method, which may yield good results.

PATHOLOGY.

175. Haematogenous Origin of Acute Appendicitis.

Widal (*Bull. de l'Acad. de Méd.*, October 22nd, 1912) raises this important question. He submits that a blood culture frequently gives evidence of a pre-existing bacteriaemia in localized inflammatory conditions, and relates the case of a woman, aged 45, who was admitted to hospital with a diagnosis of typhoid fever. The patient had been suddenly attacked with fever, rigors, headache, and diarrhoea. There was no vomiting, however, and no epistaxis. The skin was of a subicteric tint, and sibilant and sonorous râles were heard over the lungs. There was slight delirium and an abundant eruption of typical rose-coloured spots all over the abdomen. The diazo-reaction was present. After a few days the typhoid stupor increased, the motions ceased, there was intense meteorism, marked abdominal rigidity, and a peritonitic facies. There was neither vomiting nor nausea. The patient succumbed in a state of coma. On autopsy there were none of the usual indications of typhoid fever in the small intestine. The sole lesions present affected the appendix, the caecum, and the initial portion of the ascending colon. On incision into the appendix there were several typical gangrenous lesions, one of which had perforated. The inner surface of the appendix was for the most part covered by a black, putrid material. On the interior aspect of the caecum were found a number of ecchymotic spots. The mesentery was normal, as were the other abdominal organs. Great numbers of short, motile, Gram-negative organisms were found in the appendix. In one instance they seemed to have occupied the lumen of a capillary. Blood cultures taken in the case of this patient before death resulted in the growth of motile bacilli which were Gram-negative. The appearance of the colonies upon gelatine was intermediate between *B. typhosus* and *B. coli*. Further investigation, including blood serum tests, identified the organism as *B. paratyphoid* B. The peritoneal fluid contained these and also a Gram-positive diplo-streptococcus. The gall bladder contained the same bacillus, which agglutinated 1 in 1,500 of the patient's serum. The author goes on to say that the case had the usual ending of a *paratyphoid* B septicaemia, and that it emphasizes the view of those clinicians who have been struck with the frequency of appendicitis in infectious diseases. It has been noted in connexion with morbilli, influenza, pneumonia, and scarlatina. Numerous observations, too, have shown that the entry of an appendicular infection may be by a premonitory angina, or even a subcutaneous suppuration. It has been suggested, as the result of some recent experiments, that the appendix acts as an agent for the elimination of organisms circulating in the blood. The author goes on to say that it is not suggested that every attack of appendicitis has its origin in a circulatory infection, but maintains that these results enlarge the field of the diagnosis of infectious maladies by means of blood culture.

176. Chronic Sclerosis in Youth.

Daniel Routier (*Bulletins de la Soc. Anat. de Paris*, March, 1912) describes a pair of kidneys each about 30 grams or 1 oz. in weight. The clinical history is of importance. A girl, aged 16, was admitted into hospital with left pleurisy, and chronic psoriasis all over the body. She was in a torpid condition and died three days later after several uraemic convulsions. She had only left work for about a week, but no information about her antecedents or the beginning of her malady could be obtained. Two and a half pints of serum were found in the left pleura, and the opposite lung was full of white infarcts. The heart and liver were normal. The kidneys were difficult to find, they were sunk deeply back in the loins and had to be dissected out. They were pinkish-grey, with granular surface and adherent capsule. They were both extremely small: on cutting into them only three pyramids were detected, which in the left kidney were hardly definable, being mixed up with dense yellow sclerotic tissue. The cortex in both organs seemed completely metamorphosed and was indistinguishable. Under the microscope the signs of chronic atrophic nephritis were found very advanced, the tubes were scanty, dilated and separated by dense fibrous tissue, the glomeruli very scanty, whilst the arteries appeared unchanged, their coats showing no thickening. A few collections of tubes were detected in areas free from sclerosis, looking like adenomata. They apparently represented compensatory hypertrophy. The fatal result of the acute malady was not remarkable, but the kidneys must have been diseased for a long period, therefore it is remarkable that they carried on their functions for so long without causing constitutional disturbance.

177. The Acidity of the Urine in Lordotic Albuminuria.

Pavy named the albuminuria met with in children which disappears on lying down and reappears in the upright position "cyclic": Kuttner called it "albuminuria minima," and Heubner gave it the term "orthostatic albuminuria." Jehle pointed out that in numerous cases the excretion of albumen could be induced by giving the spinal column a lordotic position, and thus suggested the term "lordotic albuminuria." The diagnosis is rendered difficult by the fact that some observers have found blood cells and casts, while others maintain that these are not present in pure cases, and further that cases have been observed in which the albuminuria is intermittent in character, and also that a large number of cases can scarcely be classified in which various kidney and urinary symptoms are met with. E. Fränkel (*Deut. med. Woch.*, October 17th, 1912) has attempted to clear up some of the difficulty by studying the condition of the titration acidity of the urine in cases of lordotic albuminuria. He was able to demonstrate that in a certain number of children thus affected an increase of the acidity can be recorded simultaneously with the albuminuria, after the spinal column has been placed in a position of lordosis. He has further found that if a sufficient dose of sodium carbonate is previously given no albumen is excreted after this experiment. On the other hand, when there is a distinct nephritis due to scarlatina, with or without lordotic albuminuria, sodium carbonate fails to prevent the albuminuria.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

178. Endobronchial Treatment of Asthma and Bronchitis.

A REPORT on the treatment of 3 cases of bronchitis and 27 cases of asthma by the local application of drugs is given by C. Heilskov and L. Mahler (*Ugeskrift for Laeger*, December 12th, 1912). The treatment was ambulatory only in 5 cases, and all the patients had undergone various other forms of treatment elsewhere in vain. Most had also undergone endonasal treatment with but little benefit. The following procedure was adopted. Half an hour before the treatment a hypodermic injection of 0.5 to 1 cg. of morphine was given. The pharynx and larynx were painted with a 10 per cent. solution of cocaine-adrenalin. The bronchoscope was introduced as the patient sat on a low seat, breathing deep and slowly. The solution, which was administered by a Brüning's spray, usually contained the following drugs: Novocain 10 cg., adrenalin 1 gram of a 1 per cent. solution, sodium chloride 9 grams of a 0.9 per cent. solution. When the secretion of mucus is profuse the solution must be applied at intervals, during which the patient coughs up the accumulated secretion. The spray is slowly introduced as far as the bifurcation of the trachea, and as the spray traverses the different bronchi the solution is steadily blown out. In the course of about 120 insufflations the authors have observed no alarming symptoms. It was necessary to repeat the treatment sometimes as often as ten times. Of the cases of bronchitis, 1 was "successfully" treated, 1 was much improved, and 1 was unaffected by the treatment. Of the cases of asthma, 5 were subsequently free from attacks, the period of observation being over one year. In 10 cases there was improvement and in 12 no permanent improvement could be claimed although temporary relief was experienced. In 1 of these cases recovery was apparently effected after the fourth insufflation, but eight days later the attacks recurred and were refractory to further treatment. The patients included 13 men, 16 women, and 1 child. All experienced temporary relief, respiration became less laboured, and they could take deeper breaths for some hours after an insufflation. The expectoration, too, became temporarily profuse in several cases. Many explanations of the benefit derived from the treatment are forthcoming. Nowotny, who sees in asthmatic attacks the result of oedema of the mucous membrane and narrowing of the bronchi by accumulations of secretion, holds that cocaine and adrenalin reduce the hyperaemia and swelling of the bronchi, and that the bronchoscope acts mechanically as an expectorant. Ephraim, who regards asthmatic attacks as a result of spasm of the bronchial muscles, argues that the passage of the bronchoscope may cure asthma, just as the passage of a sound down the oesophagus may permanently cure oesophageal spasm. He considers, however, that anaesthesia and anaemia induced by the drugs are more important factors. The authors think that their good results depend on both factors; but when in 3 cases they introduced the bronchoscope without applying drugs through it, the subsequent improvement was as great as when drugs were also given.

179. Pyelitis in Children.

STILL (*Pediatrics*, October, 1912) describes the symptoms, diagnosis, and treatment of pyelitis in children. The fact that the disease is most prevalent in female infants under 2 years of age is consistent with the view that infection ascends through the urinary tract from faecal soiling of the vulva, though occasionally the route may be via the blood, as is the case when seen in boys. Abrupt in onset, the child suddenly goes cold and blue, with or without an actual rigor, and is found to have an otherwise unexplained fever unless the urine has been examined, which is the one essential in diagnosis. Albumen may be so slight as to be overlooked by the nitric acid test, and consequently the test by boiling a layer should be used. Even with only a trace of albumen and an apparent absence of deposit, a few pus cells will be found microscopically, six, or even fewer, to the field being sufficient to account for a severe attack. Since only a spot or two of urine is needed for this purpose it is possible to obtain this, even in quite small babies, by arranging a mackintosh under the child, and it is best to examine from a shaken-up specimen rather than from one which has stood, or been centrifugalized, since it is important to have a standard of comparison, not only of the presence of pus cells, but also of how many there are to a field. The urine is markedly acid, and under a one-sixth objective shows an average of six to thirty pus cells per field, and occasionally bacilli either singly or in clumps may be seen. When the disease has become chronic, and in older children, the diagnosis is often difficult unless the urine is examined, among the most common mistakes being tuberculous meningitis, cerebro-spinal meningitis, typhoid fever, a latent pneumonia, influenza, gastro-enteritis, or dentition. Rarely will it be necessary to obtain a catheter specimen, though care must be taken in children suffering from vulvo-vaginitis that the specimen is not contaminated from this source. Prognosis is good under treatment, which consists mainly in alkalinization of the urine. The alkalinity must be maintained night and day for at least a week or ten days after all symptoms have subsided, and for this purpose potassium citrate in 5-grain doses should be given every two hours during the day, and every three hours by night. The urine should be frequently tested with litmus directly it is passed, and in order to keep up the alkalinity it may be necessary to increase the dosage up to even 20 grains every two hours. Should the larger doses disturb digestion, sodium bicarbonate or potassium may be substituted to maintain alkalinity when once this has been obtained by the citrate. Occasionally the alkalis fail, when urotropine or salol, or in obstinate cases an autogenous vaccine, may be tried: 10 to 15 minims of brandy may be needed every four hours if the large dosage of potassium citrate causes depression, and if any tendency to convulsions develops, ¼ to 1 grain of phenazonum, with 2 or 3 grains of sodium bromide, may be given to a child from 6 to 12 months old. This should be given in a separate mixture, so as not to interfere with the frequent administration of the potassium citrate.

180. Reflex Contractions of the Large Intestine.

LEBON AND AUBOURG have presented before the Société de Radiologie médicale de Paris (*Bull. et mém.*, January, 1913) a number of bismuth radiographs to illustrate the fact that direct excitation of the stomach and first part of the small intestine may increase the peristalsis of the colon. A subject who had been given a meal of rice containing 100 grams of bismuth carbonate in the evening was radiographed twice next morning, once at 9.45, without having taken anything previously, and again at 10.30, after the ingestion of two glasses of milk. The changes produced during this brief interval were indicated clearly by the form of the bismuth mass, and were shown to affect the ascending, transverse, and descending colon. By other experiments the authors show that these modifications of the colon are produced rapidly, and are not due to gaseous distension of the stomach, nor anything save reflex contractions of the large intestine. The ingestion of exciting substances demonstrates that the stomach is one of the generalized zones of colic contraction. The absorption of a cachet of quassia powder provokes this contraction, but the effect is much more rapid and notable if a tablespoonful of water with 2 mg. of quassin be taken, the appearance of the contents of the large intestine being modified within a few minutes. Caffeine and caffeine citrate act in the same manner, and the drinking of a cup of strong coffee sends the bismuth material in the ascending colon towards the iliac colon, without the production of antiperistaltic movement. The authors have also examined the large intestine after percussion of the lumbar vertebrae, and comparative radiographs show that this undoubtedly produces modifications of the large intestine. They add that vertebral reflexotherapy has given good results in constipation.

181. Radiographic Examination of "Typhoid Spine."

THE "typhoid spine," as it is called, or that complication of typhoid fever in which the patient complains of pain in the lumbar and sacral regions, has been studied radiologically by Auclair, Weissenbach, and Aubourg (*Bull. et mém. Soc. de Radiol. méd. de Paris*, January, 1913). Clinical examination in such cases frequently reveals antero-posterior and lateral deviations of the spine. The evolution is subacute, lasting usually from three months to one year, and terminating as a rule by resolution. As

a result of the radiological examination of typhoid patients having this vertebral complication, the authors divide the visible lesions into three orders: (1) Very small lesions of the vertebral body, such as are found in osteitis; (2) lesions of the intervertebral discs, characterized by the absence of a clear space between the vertebrae; (3) a lesion, appearing to be the result of a special process, which takes the form of a thick "muff" surrounding the spine, and by its opacity probably hides other lesions of the vertebral bodies or discs. This perivertebral thickening is not dissimilar from the appearance seen in certain forms of Pott's disease. The authors do not suggest that it is characteristic of typhoid spondylitis, for spondylitis of other infectious origin than that of Eberth's bacillus may give the same spinal aspect, but upon this point there is little information available. The curious feature in connexion with the vertebral appearance in typhoid, according to these authors, is that there are two phases of evolution. In the acute stage there are no distinct lesions visible, but only a certain deviation of the lumbar vertebrae. The perivertebral thickening above described only makes its appearance towards the end of the acute stage, and the authors are of opinion that the opacity is due to the infiltration of calcareous salts.

SURGERY.

182. Local Anaesthesia in Fractures and Dislocations.

Two methods of inducing local anaesthesia in fractures and dislocations of the limbs are discussed by H. Braun (*Deut. med. Woch.*, January 2nd, 1913). For the arm, the best method is the injection of an anaesthetic, such as novocain-suprarenin, into the brachial plexus as it passes over the first rib. Carried out skilfully, this procedure ensures complete paralysis and anaesthesia of the whole arm; and it is available also for dislocation at the shoulder-joint. The other method is preferable in injuries to the lower limb, and consists of injecting an anaesthetic directly into the site of the fracture or dislocation. The author uses a 1 per cent. solution of novocain-suprarenin, which he injects after the lesion has been investigated by the *x* rays and other methods, and after the skin has been painted with tincture of iodine. The anaesthetic must be injected from several quarters and in many directions; and, when considerable displacement has followed a fracture, the ends of the fractured bone require separate anaesthesia. Similarly, when two bones in a limb are fractured, all four ends may require separate anaesthesia. After a dislocation the anaesthetic is injected around and into the joint. Anaesthesia soon becomes complete, and the muscles relax as under a general anaesthetic. The beneficial results of the latter are thus attained without that danger to life and struggling which the induction of general anaesthesia provokes. In the course of a year the author has treated about 50 cases of fracture and dislocation by this method. Many other cases of dislocation of the fingers and compound fracture of the arm were reduced or set after the brachial plexus had been anaesthetized. No accident followed either method, and asepsis was followed by scrupulous cleanliness, and by not introducing the needle through unhealthy skin. A detailed account of two cases of dislocation at the hip are given, as this is a difficult joint to anaesthetize locally, and the test of the method's reliability is in other respects severe. In one case the dislocation was sciatic and recent. A long needle was introduced at two points in the gluteal region, and 25 c.cm. of the anaesthetic were injected over the head of the femur and 20 c.cm. into the acetabulum. The femur being dislocated, it was no longer a guide to the acetabulum, which was therefore sought by introducing the needle immediately behind the anterior superior spine of the ilium. The needle's point was now kept close to the ilium on its course to the acetabulum, and an innominate bone was held by the patient's side to act as a further guide. When the acetabulum was reached a small quantity of blood was aspirated. The injection was almost immediately followed by relaxation of the previously rigid muscles, and in ten minutes reduction of the dislocation was easily effected. The patient experienced no pain during the reduction, and the only source of discomfort was the tight grip of the operator's hands. In the second case an obturator dislocation had lasted forty-eight hours; 20 c.cm. of the anaesthetic were injected about the head of the femur, which was palpable below the adductor muscles. The acetabulum was reached by the same route as in the first case, and in a few minutes the limb was relaxed. There was, however, still some pain in the region of the great trochanter, and 10 c.cm. of the anaesthetic were accordingly injected around the bone from the outer aspect of the thigh. Five minutes later anaesthesia was complete, and the dislocation was reduced at the first attempt.

183. Impassable Cicatricial Contraction of Oesophagus.

DELAGENIÈRE (*Arch. prov. de chir.*, December, 1912) points out that in the opinion of oesophagoscopists 8 per cent. of all cases of cicatricial contraction are impassable from above downwards. These cases are suitable for endo-stomachic treatment by retrograde dilatation, because the obstruction lies mostly at the lower end of the oesophagus. He has already reported cases dealt with by this route, and he now puts on record two more. The first was acute: the man was operated on fourteen days after having swallowed a quantity of ammonia. Unsuccessful attempts having been made to pass bougies from above downwards, laparotomy was performed, the stomach opened, and a rubber oesophageal bougie passed along the finger through the obstruction of swollen mucosa from below upwards towards the pharynx. A catheter of the calibre of the bougie was passed by means of the first instrument and kept in position, with the eye end in the stomach, and the stomach wound was closed. Jejunostomy was then performed, to allow of the feeding of the patient, because of the inflamed state of the gastric mucosa. The patient, however, succumbed a few hours later. The second case was operated on two months after the swallowing of the caustic solution, and by that time complete occlusion had occurred. Through the opening made in the stomach the lower end of the oesophagus was found to be simply a cicatricial mass with a central depression. A crucial incision was made in this mass and a sound passed from below upwards. The patient was meanwhile fed by the gastrostomy wound, and very slow gradual dilatation accomplished from above downwards, though the patient was unable to take ordinary food till about the fortieth day after operation. Three weeks after the first operation the gastrostomy wound was closed. Delagenière advocates the method because the opening in the stomach permits examination of its wall and the operator may decide at once whether gastrostomy or jejunostomy will best serve for feeding. Then absolute rest of the oesophagus may be obtained, so that an impassable stricture may become passable. Lastly, retrograde progressive dilatation may be practised through this opening. As regards technique, the author makes a fairly large opening into the stomach and tries by means of a speculum to see the oesophageal orifice. This manœuvre may be rendered easier if a cushion or sand pillow be placed beneath the patient, as is practised in gall-bladder operations. To make the incisions in the cicatrix he uses a bistoury; the urethrotome of Albarran is also of value. The orifice is then dilated by sounds and one is passed into the now widened opening, its outer end being fixed in a small stomach wound made for the purpose; the large wound is then closed. Delagenière does not now use the silk thread method of Abbé, as he believes that when the stricture is rendered permeable by bougies sufficiently large, passed from below upwards, and the oesophagus put at rest by the gastrostomy, the stricture can be efficiently treated by dilatation from above.

184. Osteo-Synthesis for Fracture of Humerus.

BRAU-TAPIE (*Gaz. hebd. des sc. méd.*, xxxiv, January 3rd, 1913) relates the case of a child, aged 6, who sustained a compound fracture of the lower extremity of the humerus. An ivory peg, about 2 mm. in diameter ($\frac{1}{12}$ in.) was introduced into the lower segment and directed upwards, posteriorly and externally, into the humerus. The wound was drained and a plaster bandage applied. Fifteen days later active and passive mobility of the joint to 90 degrees were possible.

OBSTETRICS.

185. Pituitary Extract as an Ecbolic.

E. HAUCH AND LEOPOLD MEYER (*Arch. mens. d'obstét. et de gynéc.*, No. 10, October, 1912) record some interesting results of an experimental inquiry into the value of pituitary extract in childbirth. They have employed pituitrin (Parke, Davis and Co.) in 0.5 c.cm. doses in 65 cases at the Rigshospital in Copenhagen, and state that the drug has quite fulfilled their expectations. No untoward results were noted in either mother or child, even when the dose was repeated, and the influence

upon the course of labour in the majority of cases was remarkable. Nineteen failures were encountered, but these included 7 abortions and 2 premature labours. Hauch and Meyer's experience is in accord with that of other authors, who have stated that pituitrin is less efficacious the earlier it is used in pregnancy. The drug is most useful when employed to stimulate pains following secondary uterine inertia. It is less useful in the case of primary inertia and will not induce labour. The authors quote in detail 6 cases where the extract has been successfully employed to terminate labour rapidly when delay was experienced during the second stage. In no case was forceps required. They have also successfully used it in a case of twin labour with prolapse of the cord. Both children were born alive. With regard to pelvic contraction, they note that the disproportion between the head and brim should not be too great. In some cases of fetal distress, however, pituitrin may be employed with advantage. Immediately the indication for artificial delivery occurs an injection may be given, and in many cases it will be quite unnecessary to use forceps. The authors also record their experience of the drug in cases of placenta praevia. As mentioned previously, pituitary extract is not of the same value at the commencement of labour, and hence it is not to be expected that it will prove an infallible remedy in placenta praevia, where symptoms occur usually before labour has begun. However, in 7 cases occurring at the Rigshospital, 4 successes are recorded, and the authors conclude that in cases of lateral placenta praevia, when labour has commenced, some measure of success may be attained if injection is combined with rupture of the membranes. Care is required, however, as in the majority of cases haemorrhage continues for some time after the administration of the drug, and it is necessary by external manipulation to force the head into the pelvis. Further trials are required before more definite statements can be made, but the results so far obtained are sufficiently encouraging to warrant continuation of this treatment in placenta praevia.

186. Prognosis and Prophylaxis of Albuminuria in Pregnancy.

LEPAGE (*Ann. de gynéc. et d'obstét.*, October–November, 1912) discusses this question in full in all its phases. The obstetrical prognosis of a pregnancy with albuminuria, occurring in a subject where the complication has attended a previous pregnancy, is the more favourable the better she is watched and the better she follows the advice of her physician throughout gestation. Care is needed from the very beginning of pregnancy. When in a previous pregnancy there have been eclamptic attacks or premature detachment of the placenta requiring interruption of the labour, the urine must be examined once a week at least, and every month—especially in the seventh, eighth, and ninth months—the urine should be submitted to a complete analysis. Lepage considers that the patient may be profitably instructed how to test for albumen herself. The diet should be almost restricted to water and milk. Lacto-vegetarian diet is allowable when the complication during a previous pregnancy was relatively mild. Diet to effect dechloruration is needed in some cases. Pinard's *régime blanc* (milk, puddings, white meat) is to be allowed when, although the patient has been subject to the characteristic intoxication, marked by albuminuria in one of her previous pregnancies, she has also passed normally through one or more besides. General hygienic measures are imperative, as chills, overwork, and fatigue involve great perils. Arterial tension must be noted, as it may be necessary to bleed the patient.

GYNAECOLOGY.

187. Tuberculous Dermoid Cysts of the Ovary.

CHAREONNEL AND PIERRE-NADEL (*La Province méd.*, No. 39) publish a case of this very rare condition. The cyst removed by them had the usual contents of a dermoid. In the wall were multiple thickenings suggesting malignant degeneration. Microscopical examination showed that the greater part of the wall contained very thick inflammatory tissue presenting the usual histological characters of tuberculous lesions. Besides perfectly schematic Koster's follicles, there were softened grumous masses without histological characters, some of which were invaded by many polynuclear leucocytes. There was a tendency to encapsulation and cicatrization of the lesions, in short, a classical picture of nodular tubercle was presented. Tuberculosis developing on a dermoid cyst is far more rare than malignant degeneration, and also than tuberculosis of a mucoid ovarian cyst. In nearly all cases the lesion is secondary to a tuberculous focus in the genital organs, but in this case the vagina, the uterus, the tubes, and the peritoneum were absolutely healthy; the other ovary contained a mucous cyst the size of an egg. Tuberculosis of the ovary is very exceptionally primary; most often it is the tube or the peritoneum that is the starting point, whence the ovary may become infected by the lymphatic channels or even directly through the rupture of a follicle. Gorizontor has demonstrated the truth of this by experiment; after inoculation genital tuberculosis developed far more often from peritoneal inoculations than from subcutaneous, intestinal, or pulmonary inoculations, and the most frequent seat was the cellular tissue of the ligaments, then the tubes and uterus, last the ovaries. This case, however, proves that tuberculosis of the ovary or its tumours may be primary, or rather, that it may be "locally" primary, for it is very probably secondary to some hidden deep-seated tuberculous focus, infection being conveyed by the blood stream. The writers throw out the hypothetical suggestion that the twin embryo which the dermoid cyst represents may have been tuberculous from the origin, perhaps hereditarily, either alone or at the same time as the subject which carried it.

THERAPEUTICS.

188. Treatment of Leukaemia with Thorium X.

W. FALTA, KRISER, AND L. ZEHNER (*Wien. klin. Woch.*, No. 12, 1912) report on 5 cases of leukaemia treated with thorium X. Thorium X may be administered in the form of a soluble compound either per os or subcutaneously, but the authors found that when administered per os the effect was less constant and less intense, so that, in the experiments described the subcutaneous method alone was employed. Experiments on guinea-pigs, rabbits, and dogs have shown that after a moderate dose of thorium X the number of leucocytes first rises and then quickly falls and remains lower than before for a considerable time, while otherwise the animals show no striking change; with very large doses the fall is very rapid, and leucocytes may altogether disappear from the circulating blood, the animals dying with symptoms of increasing weakness. All the experiments go to show that (1) thorium X has an intense selective action on the leucocytes, and (2) that with suitable dosage no other injury to the organism results. The selective action is similar to that seen with enormous doses of radium emanations and with strong Roentgen-ray applications, but exceeds either in effectiveness. The author next tried the effect of thorium X on the leucocytes in cases of advanced carcinoma in human beings and found it to be the same as in animal experiments. The first patient treated for leukaemia was a man 43 years of age, suffering from severe lymphatic leukaemia and trachoma of at least three years' duration. The patient in the months before thorium X treatment was begun had been treated by raying, and at first had appeared to improve, but latterly the raying had no effect, and the number of leucocytes had risen to 1,000,000. At the beginning of the thorium X treatment the number rose still further up to 1,700,000, but then fell rapidly to 20,000, while the subjective condition also improved. In the course of three days the number rose again to 180,000, but after further injections came down to under 100,000; the spleen diminished in size, and became no longer palpable, and the glands became smaller and softer. About five days after the last injection severe pneumonia developed, and proved fatal after nine days. Observation of the other cases does not support the idea that the development of pneumonia depended on the treatment. The next case was of lymphatic leukaemia in a woman 52 years of age, whose symptoms dated from the beginning of 1909. In 1910 this patient had been treated by raying. When she came under the author's care the number of leucocytes was between 600,000 and 700,000, the lymphocytes about 95 per cent.; the spleen reached to the symphysis, and to the right beyond the umbilicus; the liver was increased, the abdomen distended and tense, and the patient could scarcely sit up as a result of weakness. Under treatment with thorium X the leucocytes fell so that after twenty-six injections the number stood at 200,000, lymphocytes 86 per cent.; the spleen was smaller and softer, the abdominal walls were soft, the patient's subjective condition was good, and she was able to help in the work of the ward. In two cases of myeloid leukaemia the results were equally

good, though in one of them the thorium treatment was begun five days only after a last Roentgen-raying, so that this may have conduced to the result. The cases are too recent for conclusions as to the permanency of the results or as to the relative value of thorium X and Roentgen-ray treatment; the most that can be said on the latter point is that in two instances in which Roentgen-ray treatment was no longer effective the use of thorium X led to improvement, but it is always possible that if thorium X after some time failed, Roentgen-ray applications might be effective. Thorium treatment allows of graduated dosage, and avoids the danger of injury to the skin from the rays, but whether it is likely itself to cause injury is not as yet known. Further observations are required.

189. Radiotherapeutic Treatment of Chronic Adenitis.

MAX ROQUES (*Arch. d'électr. méd.*, July 25th, 1912) states that *x*-ray treatment acts very favourably in chronic adenitis due to micro-organisms. The inflammation rapidly clears up, and the aesthetic result is superior to that obtained by incision and drainage. All the varieties of peripheral glandular inflammation are more or less amenable to radiotherapy, but of course an advanced generalized condition or a severe intercurrent affection may negative or modify the *x*-ray treatment. The *x* rays are also useful in intrathoracic adenopathies, the diminution or disappearance of the cough, hoarseness, and other symptoms testifying to the value of such a procedure. Except when the general state is extremely grave radiotherapy should be essayed in the case of intra-abdominal tuberculous glands, especially when operation is contra-indicated, but a special degree of watchfulness is required in view of the local and general reactions. The author enters minutely into questions of technique. He employs one (or more) of three standard dosages:

	Milliampèrage.	Time of Exposure.	Distance of Anticathode from Skin.
Weak dose	0.5	10-20 min.	15 cm.
Mean dose	0.8-1.3	20-30 min.	15 cm.
Strong dose ...	1.0-2.0	30-50 min.	15 cm.

Generally speaking, he prefers to administer a massive dose at one sitting, or in the course of two or three sittings within two or three days, followed by a rest of from twenty to twenty-five days. But he modifies his technique according to the clinical variety and phase of the case before him, and when the case seems to require it he uses, instead of the massive dose, a mean dose given about every eight days, or small doses repeated every two or three days. He employs also a large series of aluminium filters, varying in thickness from 0.1 mm. up to 1 mm. In intrathoracic adenitis, after having determined by means of the *x*-ray screen the situation of the principal glands affected, and having traced them on superimposed tarlatan, he uses the massive dose method, and takes advantage of four points of entrance for the rays—two lateral and one anterior and one posterior. In intra-abdominal adenitis, a smaller or the mean dose administered with eight day intervals is the more prudent. If there are several perceptible masses, each mass should be exposed in a complete sitting or in part of a long sitting, according to the indications furnished by the general state.

190. Rhodane.

L. V. DALMADY (*Wien. klin. Woch.*, No. 21, 1912) has made use of sodium rhodanide for the last seven years in the treatment of the lancinating pains of tabetics, of arterio-sclerosis, and of angiospastic migraine, and has made trial of it in other conditions also. He gives the drug in a mixture made up with water and syrup, or in drops of a concentrated 1 in 10 solution. The single dose of sodium rhodanide is 0.15 to 0.25 gram (2.3 grains to 3.9 grains), and from 0.45 to 1.25 grams (6.9 grains to 19.5 grains) can be taken per day. No unpleasant side-effects were observed, except that in a case of bronchial asthma in which the drug was given experimentally a rhodane catarrh similar to an iodine catarrh developed. The cases of lancinating pains treated were those in which the pains were a prominent symptom and had proved resistant to the ordinary analgetics. With a few exceptions, the favourable effect, both on the pains and on the general condition, was unmistakable. It became evident from the third to the fifth day after the beginning of the treatment, and could not, therefore, have been the result of suggestion. In some cases the attacks of pain were altogether stopped, but in the majority the attacks merely became fewer in number and the pain less severe. The treatment was continued at longest for a month continuously, and the effect was noticeable for two or three weeks longer. The danger of the drug losing its effect was lessened by this method of administration, but in one case the cure proved ineffectual when tried for the third time, and the patient had to fall back on the older analgetics. The author's impression was that the paraesthesias, and especially the girdle sensation, were favourably influenced. Rhodane treatment was tried in five cases of angiospastic migraine. In a typical case described the patient, who was 46 years of age, had suffered from severe migraine attacks since the age of 14, sometimes as often as three times in a week. After taking rhodane for ten days the patient had no attack for forty days, a longer free period than ever before. She then had a severe attack; treatment was begun again, and another free period of forty days followed. Since that time the patient has taken three or four rhodane cures yearly, each cure lasting from ten to fourteen days, and she has remained free from migraine. In a case of a peculiar neurosis of the sympathetic, in a man 35 years of age, rhodane proved successful where water cures, electric treatment, and bromides had failed.

PATHOLOGY.

191. Deaths after Neo-Salvarsan.

DARIER (*Bull. de la Soc. Franç. de Derm. et Syph.*, November, 1912) records two cases which occurred in young men aged respectively 31 and 28. The first was suffering from tertiary tuberculo-verrucose manifestations on both upper extremities, but otherwise was in robust health; the other was a weakly individual in the secondary stage, with pronounced pulmonary tuberculosis and albuminuria. Both cases had already received courses of mercurial injections. The neo-salvarsan was given intravenously to both patients, according to Ehrlich's directions. The first case received on September 25th 0.6 gram, and on September 26th 0.75 gram, without toxic manifestations. On October 2nd a third injection of 0.9 gram was given, and on October 6th, sixty-seven hours after the last injection, he died in convulsions, with a temperature of 105° F. The other patient, after receiving successively on September 28th, October 2nd and 5th, 0.45, 0.75, and 0.9 gram of the drug, died in a similar manner on October 14th, nine days after the last injection. In a lengthy survey and discussion of these two cases and six others of a similar kind the author comes to the following important conclusions: (1) Neo-salvarsan would appear to be more dangerous than salvarsan. (2) Neo-salvarsan can produce very serious nervous symptoms, notably encephalomyelitis and progressive neuritis of an arsenical type. (3) Exceptionally it may cause death with symptoms of acute arsenical poisoning. (4) These catastrophes are caused apparently by retention of the drug, due to inefficient or slow elimination, and at the present moment we have no criterion which can certainly enable us to prevent occasional accidents. It is obviously impossible to refuse administration to every case in which there would appear to be lesions of the kidney or liver. His advice is to begin treatment with small doses (a minimum of 0.2 gram or 0.3 gram at first), and to increase the dosage by reasonable amounts, with minimal intervals of five or seven days, and to be sure that the preceding injection was not followed by any symptom of intolerance, and to ascertain that the urinary excretion of arsenic is proceeding normally.

192. Thomsen's Disease, or Myotonia Congenita.

DÉJERINE (*Journ. des praticiens*, 1912, lvii) describes a case of this rare disease in a patient, a man 44 years of age. All the signs of the disease were well marked. The author, with Sottas, was the first to make an autopsy on such a case, but found no lesion of the nervous system. The muscles were enlarged, and vacuoles existed in the fibres, with an increase of the nuclei of the sarcolemma, and a hyperplasia of the interstitial tissue. The author considers that the muscle is the seat of the muscular phenomena, and the latter are the result of an abnormal development of striated muscles. For a complete consideration of the disease Erb's monograph should be consulted.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

193. Tuberculin in Febrile Phthisis.

In a paper illustrated by numerous temperature charts, J. W. Samson (*Berl. klin. Woch.*, November 25th, 1912) reports favourably on the use of very small doses of tuberculin in febrile phthisis. Hitherto some authorities, including Sahli, Bandelier, and Röpke, have occasionally obtained good results by this method, but others have reported unfavourably on it. The author holds that though small doses of tuberculin have been given they have not hitherto been small enough, and that doses as small as 0.00001 mg. of old tuberculin or 0.0001 of Koch's bacillary emulsion are not ineffective. The first and last doses which he gave in one case were 0.0001 and 10.0 mg. of old tuberculin. In another case the first and last doses of bacillary emulsion were 0.0001 and 0.8 mg. In another case the initial dose of bacillary emulsion was as small as 0.00001 mg. The tuberculin treatment of febrile phthisis differs in many respects from the treatment of afebrile cases with tuberculin, for not only must the initial dose be very small, but no attempt must be made to reach those large doses to which early cases of afebrile phthisis may ultimately attain. The disappearance of fever is often the only effect of the tuberculin, and the author is careful to point out that a fall of temperature is not necessarily synonymous with the arrest of the disease. He confirms the observations of other workers that the temperature generally persists at the same level until several injections have been given, when it falls to normal. This is the case with slight and moderate fever in the first and second stages of the disease. In the third stage this effect is only obtained in a few cases. By his cautious dosage the author aims at avoiding reactions of which the focal reaction, indefinitely prolonged, is most harmful. He has observed as the result of relatively large doses a state of "protracted focal reaction" with increased physical signs over the lungs, increased cough and expectoration, and more than the usual number of bacilli in the sputum. By the adoption of his minute doses these symptoms are avoided; and if the temperature is further raised by an injection it is not repeated till the temperature has fallen to its former level, when a similar dose is given. This dose is now repeated, and only when it causes no reaction is it increased. Intervals of only three to five days are allowed between each injection so long as no reaction occurs. It matters little what form of tuberculin is used, but it may be advisable to avoid old tuberculin in advanced laryngeal tuberculosis for fear of a focal hyperaemic reaction. In addition to the two forms of tuberculin already mentioned, the author recommends Fritz Meyer's sensitized bacillary emulsion. In the process of gradually raising the dose of tuberculin, special care is necessary at the transition between solutions of different strength, for reaction to tuberculin depends not only on the actual amount but also on the concentration. The view that small doses of tuberculin render the body hypersensitive is a common fallacy due to a confusion between intolerance to vaccines and serum anaphylaxis. Only by large or too frequent doses of tuberculin can its therapeutic action be destroyed. The patients suitable for this form of tuberculin treatment are those whose fever has persisted in spite of hygienic and dietetic treatment, and who are unsuitable for the artificial pneumothorax treatment. Patients whose fever disappears on treatment with tuberculin fall into three groups. In one the pulmonary disease grows less and its permanent arrest may be effected. In another the pulmonary disease remains stationary, but the weight, appetite, pulse, and general vitality show marked improvement, and life is much prolonged. In a third group the disease is progressive in spite of a normal temperature. Life is, however, prolonged by some months, which are passed in relative comfort. A similar condition is sometimes found among patients who, without any specific treatment, became afebrile shortly before death. In both cases the cessation of fever induces a feeling of well-being and health, the attainment of which in the moribund is alone sufficient warrant for the treatment.

194. Acute Abdominal Aortitis.

Minet, Leclercq, and Holleau (*L'Echo méd. du Nord*, 1912, lx) consider this disease under the following headings: (1) *Symptoms.*—(*a*) Accessory. Pain is habitually the first symptom to occur, and increases quickly in severity. It takes on the form of violent cramps in the stomach, intestine, liver, or kidney, and simulates disease of these organs. It may radiate to the lower limbs. The dorsal position seems to aggravate it. Nausea, vomiting, constipation, flatulence, diarrhoea, and even haemorrhage may occur with it, but are very variable. Intense dyspnoea, vertigo, intermittency of the heart, which feels as if it stopped between the stomach and the abdomen, had also been noticed. (*b*) Essential. Pain most often just above the umbilicus, painful on pressure, enlargement of the aorta, which can sometimes be detected, and deviation and mobility of the vessel, usually to the left side, with marked pulsations and contraction of the right rectus muscle, form a symptomatic triad to which Potain has drawn attention. Hypertension of the dorsalis pedis artery is very frequent, and Teissier finds that the degree of aortic irritation is generally proportional to this hypertension. Elevation of the temperature nearly always occurs during the attacks of aortitis, and persists for a variable length of time. (2) *Complications.*—Gastric crises characterized by violent pains in the stomach, nausea and vomiting are frequent. Intestinal crises are more rare, and manifest themselves by pain in the bowels and diarrhœa. Muco-membranous entero-colitis seems to have some narrow relationship to abdominal aortitis. Nephritis is rare, and likewise appendicitis. Emboli are extremely infrequent. Asphyxia of the foot, with threatening gangrene, has been noticed. (3) *Evolution: Prognosis.*—The disease sometimes sets in suddenly, and sometimes insidiously. Cure is sometimes rapid, and sometimes the symptoms last for weeks or months. An acute case never becomes chronic. The prognosis is usually favourable, but death has occurred. Aortitis of the abdominal aorta is less serious than that of the thoracic part. (4) *Diagnosis.*—Abdominal pain at the level of the aorta, or deviation and incurvation of the vessel, and hypertension of the dorsalis pedis, permit of the diagnosis of acute aortitis. Tabetic crises very similar to aortitic crises can be excluded by the presence of other signs of tabes. In cases of aortic aneurysm and abdominal crises from various diseases the absence of hypertension of the dorsalis pedis will generally give a clue to the diagnosis. (5) *Etiology and Pathogeny.*—Primary acute abdominal aortitis is very rare, and it is said to have occurred after cold, fatigue, and trauma, and infections, as influenza, typhoid fever, scarlet fever, etc. It is more commonly the result of secondary causes by propagation from one of the neighbouring organs. The majority of the symptoms are of reflex origin from the periaortic and pericardiac plexuses, or from the large sympathetic. (6) *Treatment.*—Rest in bed. Very warm fomentations, belladonna plaster, blisters, leeches, have their advocates. Aspirin, sodium salicylate, amyl nitrite, trinitrine, bromides, especially the salt of strontium (1 to 2 grams per diem), belladonna, valerian, have all been recommended. Convalescence can frequently be hastened by mineral water, especially at Royat, Plombières, or Châtel-Guyon.

195. Thrombo-phlebitis in Typhoid.

Conner (*Archiv. of Intern. Med.*, December 15th, 1912) regards many of the obscure late interruptions of the normal course of typhoid as having a common underlying cause in thrombo-phlebitis. Although the incidence of this complication is usually placed at 2 per cent., an earlier recognition of milder and less characteristic manifestations will show that venous thrombosis occurs in from 10 per cent. to 15 per cent. of all cases of typhoid. The development of the condition is gradual and commences long before its classical symptoms develop, so that these latter appear only late in the process, which is much more extensively disseminated than the actual symptoms indicate, and even with the frank symptoms of the trouble quite circumscribed there is usually a widely scattered thrombosis. Notes of 63 cases are given, clearly pointing to the conclusion that a very large proportion of the pulmonary and pleural complications of typhoid are embolic in nature, especially those in which the embolus is small, the symptoms mild and transient, and the prognosis good, the signs occurring several days before any of the usual local symptoms of phlebitis can be discovered. It was further noted that, in cases complicated by phlebitis, multiple chills, for which no satisfactory

cause has hitherto been assigned, were frequent, and in those cases where no phlebitis was recognized symptoms suggestive of pulmonary embolism occurred, so that it was difficult to escape the conclusion that these obscure multiple chills bear some direct relation to the thrombotic process in the peripheral veins. Another occasional complication occurring late or during convalescence is a condition of painful and exquisitely tender toes, and, although the causal relation between phlebitis and this condition is not proved, the association of the two is so frequent as to warrant an assumption that such association is not merely accidental. From the transient character of the symptoms and the lack of trophic changes, it can hardly be attributed to an actual neuritis, and it is probable that there is a primary thrombosis of the veins in the region of the heel, and that the subsequent periphlebitic exudate irritates the closely adjacent plantar nerves, and such a cause may underlie many of the cases of localized neuritis which frequently complicate typhoid fever. There is no entirely satisfactory explanation of the cause of the fever in latent phlebitis, though intravenous injections on animals with sterile finely divided paraffin are regularly followed by a rise of temperature. The temperature which precedes a thrombo-phlebitis should be looked for several days before the first apparent manifestation of the condition, and it may be concluded that many of the unaccountable rises of temperature occurring during convalescence from typhoid, and most of the protracted and irregular types of post-typhoid fever, are due to thrombo-phlebitis.

SURGERY.

196. Fatal Post-scarlatinal Perirenal Haematoma.

W. HERING (*Deut. med. Woch.*, January 2nd, 1913) records the case of a lad, aged 7, who suffered from pain in the umbilicus and left testicle three weeks after developing scarlet fever, the course of which had hitherto been normal. The pain in the testicle increased and spread upwards till the whole of the left inguinal canal and the lower part of the abdomen on the left side were painful. The temperature was 100.4° and the pulse 80. There was progressive anaemia and rapid respiration, but there was no loss of consciousness. Two days after the onset of these symptoms the pulse was 150, the temperature was subfebrile, and the abdomen was somewhat distended, being markedly rigid even on light palpation on the left side. The urine contained neither albumen nor blood. The spermatic cord and the neighbouring structures were swollen and tender. This condition, combined with vomiting and absence of motions and flatus, led to the diagnosis of incarcerated omental hernia followed by intestinal obstruction and peritonitis. But an incision over the left cord showed no hernia. The testicle, however, was suffused with blood and was as large as a pigeon's egg. A little bloodstained serous fluid was found in the tunica vaginalis. An exploratory laparotomy was now made, when bloodstained, sero-fibrinous fluid was found in the peritoneal cavity, the lining of which was covered with a fibrinous deposit. Though the intestines were distended, no hernia or constriction of the intestine was demonstrable. The parietal peritoneum bulged over the left kidney, and was livid from this point down to the pelvis. A needle was introduced and dark red fluid blood was aspirated from the swelling. As drainage of this haematoma by the abdominal route was considered unsatisfactory, the abdomen was closed, and the flank was incised over the left kidney. The lumbar muscles, the retroperitoneal tissues, and the fatty capsule of the kidney were suffused with fluid and coagulated blood. Death followed three days later. The necropsy showed diffuse, purulent peritonitis and a normal appendix. Except for slight hyperaemia of the cortex and slight haemorrhagic injection of the right renal pelvis, the kidneys were normal. Neither at the operation nor the necropsy could the site of the haemorrhage be found, and the author thinks that a capillary haemorrhage must have occurred, either in the left suprarenal body or in the neighbouring structures. He also traces the paralytic, progressive, intestinal obstruction to the haemorrhage, which must have been due to the scarlet fever.

197. Non-tuberculous Cold Abscess and Non-acute Staphylococcic Abscess and Osteomyelitis.

ABADIE (*Arch. prov. de chir.*, December, 1912) contributes a paper which he entitles "Cold Abscess and Chronic Osteitis from Staphylococcic Infection: Tuberculous Acute Abscess and Acute Osteitis." Surgeons are too apt to regard cold abscess as synonymous with tuberculosis, and to look upon all acute abscesses and osteitis as staphylococcic. Non-tuberculous cold abscess does exist. He cites four cases, two in his own practice, where abscesses, which clinically were designated "cold," appeared several years after an acute attack of osteomyelitis, good health being experienced in the interval. The pus was found to contain staphylococci, but a previous and long-cured infection need not necessarily have been present. The staphylococcus may, without early acute infection, of its own accord give rise to a cold non-osteopathic abscess. Abadie quotes a case narrated by Schwarz and Kahn and another in his own practice which were multiple in their localizations. Abadie's patient was a child of 4 years who, two and a half months before, had suffered from measles followed by imperfect recovery. A week before admission into hospital multiple abscesses, symmetrical, painless, and of slow growth, formed in the neck and lumbar region. Incision of the lumbar swellings was made; the pus contained staphylococci. A staphylococcic invasion may be silent: a tuberculous invasion may, on the other hand, be acute. Broca has pointed out already that hydrarthroses of rapid acute formation, simulating acute staphylococcic or streptococcic infection, may develop in the knee, and may (after inoculation of guinea-pigs with the exudate) prove to be tuberculous. This evidence may be confirmed by later development of "white swelling." Indeed, there may actually be pus—an acute suppurative tuberculous arthritis. Abadie does not admit that an organism must necessarily give rise in every case to the same clinical characteristics. The virulence of a particular species of organism is far from being constant. In proportion as the evolution of the disease is prolonged, the virulence of the initial infective agent will become attenuated. It is evident then that late torpid staphylococcic manifestations are to be explained by a slow attenuation of the virulence of the organism. Again, the coefficient of resistance of the body plays a part. Regarding tuberculosis (quoting Calmette with approval) it may be that the majority of individuals have been infected from infancy by the digestive tract. This attenuated infection manifests itself mostly by mesenteric gland reaction, and confers relative immunity. New invasions will not be more tolerated by the organism but will provoke defensive reaction, tending to the expulsion of the infecting agents and damaged tissues. It will be well in every case of apparent cold abscess to make microscopic examination, and also inoculation experiments, before deciding that it is tuberculous.

198. Diaphragmatic Hernia.

VOGEL (*Amer. Journ. of Med. Sciences*, February, 1913) reports a marked case of congenital diaphragmatic hernia unaccompanied by any subjective symptoms, death resulting from an independent lesion. A man, aged 47, was admitted to hospital suffering from stenosis of the large intestine with peritonitis, ending fatally, and the history included no symptoms of the remarkable condition revealed at the autopsy. On opening the thorax the colon was found occupying the left chest through a left-sided diaphragmatic defect. The spleen was about in the position of the heart, which was pushed over to the right, its left border being 2.5 cm. to the right of the median line. The left lung was collapsed, and the left chest was filled with omentum, caput coli, transverse and descending colon, the latter being straight, and running directly to the brim of the pelvis. The stomach was above the diaphragm with the duodenum passing through the hernial opening, which occupied the posterior and lateral portions of the diaphragm and was about 15 cm. in diameter. Such hernias may be classified under three headings: (1) True hernias, consisting of protrusions of abdominal viscera through congenital or acquired openings, with pleura and peritoneum to form a sac; (2) false hernias, in which there is no true sac; and (3) diaphragmatic eventration, due to relaxation of a portion of the diaphragm itself. The condition is much commoner than is generally supposed, and it may exist indefinitely without giving rise to symptoms. If sufficiently large the physical signs are usually significant, and dextrocardia with signs suggesting pneumothorax should always lead to a suspicion of some form of diaphragmatic hernia, and to a radiographic study of the thorax, several examinations at different times and positions, and with and without bismuth, being necessary. In traumatic hernias operation is indicated as soon as the existence of a fresh wound in the diaphragm is ascertained, and the prognosis is good when a prompt operation is performed. In chronic hernias prophylaxis of incarceration is the main object, surgical interference being indicated only in the event of incarceration occurring.

OBSTETRICS.

129. Direct Transfusion after Placental Haemorrhage.

Oui, in the *Bull. de l'Acad. de Méd.* of October 29th, 1912, relates a case in which this operation was carried out successfully. The patient had had five normal accouchements; the first half of the sixth pregnancy was normal also. She then complained of severe pains in the right lumbar region. On examination there was evidence of marked increase in size of right kidney. There was a good deal of pus in the urine. She was put upon a lacto-vegetarian diet, but with no effect. Labour came on, and there was some bleeding, but on rupture of the membranes this ceased externally as the head engaged. There was every evidence that the haemorrhage was due to detachment of the placenta. The pulse became small and accelerated. A dead child was delivered soon after. There was formidable haemorrhage after delivery, and the placenta was found completely detached. It was removed, as were all intrauterine clots. Meantime the patient had collapsed. She was exsanguine, and her pulse 140. All the usual methods of restoration were tried, but produced only momentary benefit. Finally recourse was had to direct transfusion from the radial artery of the patient's husband into the median cephalic vein of the patient. This was carried out according to the procedure of Carrel, slightly modified. In a few minutes the lips of the patient, who by this time was quite insensible, began to be faintly coloured; her eyes opened, and her pulse became perceptible again. The radial artery of the donor was rather small, and the transfusion was continued at his request for an hour. The pulse gradually fell to 92 per minute, and ultimately the patient made a good recovery. In this case the massive injections of normal saline which would have been necessary were contraindicated on account of the renal insufficiency. Other isotonic serums might have been used, but the difficulty of preparation and sterilization render such quite inappropriate in a case of this kind. The author does not believe that in grave cases of puerperal haemorrhage the effect of saline infusion is as powerful as direct transfusion. The volume alone of the latter could not so powerfully raise vascular tension, and in the author's view the mode of action is not clear. This method is the procedure of choice in such an emergency, and is preferable to the use of special cannulae, and, further, there is no risk of the formation of clots.

GYNAECOLOGY.

200. Extrauterine Pregnancy.

Farrar Cobb (*Annals of Surgery*, December, 1912) has made an investigation into the question of the management of grave emergency cases of extrauterine pregnancy with the object of obtaining information as to the wisdom of immediate operation in desperate cases of rupture with severe haemorrhage, as in a recent discussion delay was advised in some cases. He studied 137 cases of tubal and insterstitial pregnancy in Massachusetts General Hospital from 1902 to 1910. His conclusions are: (1) More than one-third of all cases of extrauterine pregnancy occur in women who have never before been pregnant. (2) Pelvic inflammation or salpingitis is not an essential or even frequent causative factor. (3) Most of the cases of complete rupture with alarming haemorrhage occur in the early weeks, often in the first month; these are the cases which are rapidly fatal unless operated on. Cases that have gone two months or more are those which furnish the greatest number of non-emergency cases. (4) Cases of sudden severe rupture, in which signs of marked intra-abdominal haemorrhage are present, often simulate other grave abdominal emergencies. (5) In grave emergencies, with signs of extreme haemorrhage, operation should be done at once without waiting for a possible reaction. (6) In the less severe cases of tubular rupture, without signs of marked haemorrhage, a correct diagnosis is often difficult or impossible. (7) The menstrual history cannot be relied upon; many of the most alarming cases had skipped no period. (8) The character and location of the pain may vary within wide limits. (9) Tubular abortions are nearly as frequent as tubular ruptures. The author insists upon a very minute technique: absolutely everything in connexion with the operation should be in readiness before it is begun. Shock and collapse, until the haemorrhage is stopped, should be combated by morphine subcutaneously and artificial heat. The anaesthetic should be ether. At the first signs of muscular relaxation the patient should be placed in the Trendelenburg position and abdomen opened in the middle line. Without attempting to evacuate the blood and clots first, one ovarian artery and then the other should be caught with long clamps. As soon as this is done intravenous salt infusion should be started, strychnine given, and the blood and clots washed from the abdominal cavity with generous use of hot salt solution. The tube in which the pregnancy is located should be doubly ligated and removed and the abdominal wall closed by through-and-through silkworm gut sutures without drainage. The patient should be in bed in fifteen minutes from the time the anaesthesia is started.

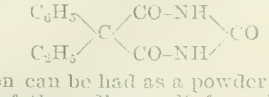
THERAPEUTICS.

201. The Therapeutic Value of Camphor.

Heard and Brooks (*Amer. Journ. of Med. Sciences*, February, 1913) investigated clinically and experimentally the therapeutic value of camphor. During the last three weeks of a case dying from an infection secondary to a suppurative cholecystitis, there were several acute attacks of alarming circulatory breakdown occurring during the course of a clinical auricular fibrillation, and apparently due to the action of the infective agents upon the myocardium and vasomotor apparatus. The hypodermic injection of camphor was followed in more than one instance by a marked temporary improvement in the character of the pulse and in the general condition of the patient. Considerable divergence of opinion exists as to the safe dose of camphor, some fearing to give more than 2 to 5 grains, while others claim that ten times those amounts can be administered without bad effect, the explanation of this variation probably lying in the metabolism and excretion of the drug. When absorbed it quickly unites with glycuronic acid and is thus rendered inert, being subsequently excreted in the urine as campho-glycuronic acid. A variable portion may escape such combination and be excreted uncombined by the lungs, and to this portion is attributed the physiologic action of the drug. Schultz explains the toxic effect in poorly nourished infants on the assumption that there is not sufficient available glycuronic acid to combine with the camphor, and consequently the uncombined portion becomes greatly increased; whereas in well nourished infants no intoxication followed the administration of relatively large doses, because there was enough glycuronic acid to unite with all the camphor. If this theory is correct, care should be exercised in giving camphor to patients with a poor glycuronic acid content. The drug restores the heart after poisoning with chloral, muscarine, strychnine, etc. Clinically the investigation was limited to a study of the effects of hypodermic injections of the drug, dissolved in oil, upon the circulatory system of human subjects presenting varying conditions of the cardio-vascular apparatus. Records of the pulse and of systolic and diastolic blood pressure were made at frequent intervals, covering an average period of two hours. Polygraphic tracings were taken in several of the fibrillation cases before, during, and after the use of camphor, but in no instance was any alteration in the type of the radial or venous pulse observed. The laboratory results were in agreement with the clinical findings, camphor injected subcutaneously in oil, in doses as large as 50 grains, producing no definite effects. While it may be an active agent in certain disorders in which there is an abnormally small glycuronic acid content, and may act favourably upon cardiac muscle poisoned by chloral, muscarine, or strychnine, it cannot be relied upon as a cardiac stimulant, nor feared as a toxic agent, in doses and under the conditions studied.

202. Luminal.

F. Bayer and Co. of Elberfeld have associated themselves with Merck of Darmstadt in bringing out a new sedative and hypnotic, called "luminal." The need for new hypnotics and soporifics is recognized, especially in neurological and psychiatric practice, since the larger the variety at hand the better is the chance of avoiding a habit for the one or other. Besides, each drug has its special indications, and usually fail in some patients, so that other drugs have to be tried. Luminal is the phenyl-ethyl-barbituric acid, having the formula:



The preparation can be had as a powder or in tablet form, or in the form of the sodium salt for subcutaneous injection. The acid is little soluble in cold water, while the sodium salt is readily so. The dosage advised varies according to the case from 0.2 to 0.6 gram; 0.3 for women

and 0.4 gram for men is said to have approximately the same action as 0.5 gram of veronal. P. Schaefer (*Berl. klin. Woch.*, May 27th, 1912) has used it in infirmary practice, and recommends it as a sedative and as a simple hypnotic. He has found it capable of relieving pain of organic origin. He states that its action is more powerful than the majority of ordinary sedatives. But he warns the reader not to give it in cases with severe changes in the heart and vessels exist, such as arterio-sclerosis. He gave it to one patient with chronic bronchitis and arterio-sclerosis in doses of 0.4 gram. Later he gave 0.5 gram, and the sleep was so deep that a hypostatic pneumonia and cardiac weakness set in from which the patient died on the fifth day. He is of opinion that the patient might not have died so soon if the luminal had not been given. A. Wetzel (*Berl. klin. Woch.*, May 13th, 1912) has used it in the Heidelberg psychiatric clinic, and is specially pleased with the effect of the subcutaneous injections. He gave it in a variety of mental conditions, comparing the result with that of other hypnotics. The dose given varied between 0.3 and 0.4 gram. The only undesired effect met with was the occurrence of vomiting, which was seen in some cases. The best results were obtained in patients who were fairly quiet but who slept badly. These patients often refuse to take medicines by mouth, and the subcutaneous application of the drug in 20 per cent. solution is extremely handy. The sleep induced is a very natural one. Graeffner (*Berl. klin. Woch.*, May 13th, 1912) reports that when given with a warm drink at night time sleep is induced in about half an hour and lasts for many hours. In the following nights sleep is obtainable without a fresh dose. It can be given as a suppository. Unpleasant side-effects were not met with save a slight degree of giddiness and prolonged sleepiness. He advises 0.2 gram as the initial dose, which can be increased up to 0.4 or 0.5 gram if necessary. He found that it was useless in cases where the cause of sleeplessness was pain, thus differing in this respect from Schaefer. O. Juliusburger (*Berl. klin. Woch.*, May 13th, 1912) has had an experience of this drug in 120 patients. In mild cases of sleeplessness he found 0.2 to 0.3 gram sufficient, but in more complicated or obstinate cases he gave up to 0.6 gram and at times even up to 0.8 gram. He never had any difficulty in decreasing the dose, even after he had given 0.6 gram for twenty-two or twenty-three nights. At times luminal failed to produce the desired effect, but in some of the cases it acted very well when given later. In the excitable stages of general paralysis it acted well. It was also of much use in epilepsy and delirium tremens. He points out that in the treatment of the morphine and alcohol habit it acted extremely well. He is opinion that luminal is calculated to replace hyoscine to a certain extent.

203. Pituitrin in Osteomalacia.

C. KOCH (*Wien. med. Klin.*, No. 25, 1912) reports on 3 cases of osteomalacia treated with pituitrin. The first was a severe typical case whose origin was possibly a pregnancy which had ended in abortion five years earlier. The patient was given 2 c.cm. of pituitrin subcutaneously every day, and had completely recovered when a total of 190 c.cm. had been injected. At first no result of the treatment was perceptible, and there was thought of changing the treatment, but improvement began to be visible after 12 c.cm. had been given, and in spite of frequent relapses recovery occurred as stated above. The second and third cases were not such typical ones, but the characteristic symptom of pain on pressure along the whole length of the bones could be demonstrated so clearly that the diagnosis was at any rate a very probable one. The cases resembled one another, in that in each the nervous system was markedly involved. In both cases a prompt action was obtained in Case II after 5 c.cm. of pituitrin, in Case III after 3 c.cm. of pituglandol, which appears to resemble pituitrin in its action. It is characteristic that though narcotics and antirheumatic remedies had no effect in removing the acute pain, a striking improvement, especially in the subjective condition, followed when only a few cubic centimetres of pituitrin had been administered. With regard to side-effects, in one case the first two injections, but not later ones, were followed by severe occipital headache, which lasted for about six hours, and then gradually disappeared, while occasionally also in this case the earlier injections were followed by temporary exacerbation of the bone pains. In the second case there was an outbreak of miliaria crystallina at the back of the head and the elbow-joint after the first injections, together with an increased secretion of sweat; and the rash persisted for some days. These two cases suggest that in osteomalacia there may be a specific reaction to pituitrin, which disappears after the first few doses. The first patient began to complain of pain at the site of injection after the injections had been going on for some time, and the addition of a small quantity of novocaine was found to be necessary. These cases showed the harmlessness of pituitrin or of pituglandol as compared with adrenalin in the treatment of osteomalacia, while the effect upon the disease appeared to be similar, or perhaps even better, than that of the adrenalin preparations.

PATHOLOGY.

204. Serum Diagnosis of Echinococcal Infections.

BENNO HAHN finds that the ordinary methods of diagnosing echinococcal infections are very apt to fail (*Muench. med. Woch.*, No. 27, 1912). After reviewing the individual signs of echinococcus and the frequency with which these various signs are absent, proceeds to give an account of his observations with Ghedini's serological method. Ghedini claimed absolute specificity from the complement-deviation reaction, but this has recently been questioned. Hahn therefore considers it of importance to record the results of his studies in this direction. The antigens with which he worked included the fluid from echinococcal cysts of human origin and from the pig and ox. He also used alcoholic and aqueous extracts from the cyst walls of these various infections. Lastly, he made alcoholic and aqueous extracts of *Taenia saginata*. The patient's serum was inactivized by heating to 56° C. for thirty minutes, greater heat proving destructive to the antibody. Guinea-pig's serum served as complement, a 5 per cent. suspension of sheep's blood corpuscles were utilized as the corpuscles for haemolysis, and the amboceptor was a dried haemolysis prepared in the Behring Works in Marburg. It is unnecessary in this place to enter into the quantitative details of the tests put up. Of the five patients who were suffering from echinococcus infections, Nos. 1, 3, and 4 gave positive reactions with alcoholic and aqueous extracts of human cyst wall, with aqueous extract of ox cyst wall, and with aqueous extract of *Taenia saginata*, but negative reactions with all the other antigens, negative reactions with Wassermann's test, and no reaction when no antigen was employed. No. 2 gave the same positive reactions, and also with the alcoholic extract of pig's cyst wall, and with ox cystic fluid; the other tests proved negative. No. 5 yielded a negative reaction with all antigens before operation, but after the removal of the cysts a positive reaction was obtained when the antigen was either the alcoholic or aqueous extract of human cyst wall, aqueous extract of ox cyst wall, or *Taenia saginata*. Three patients infected with *Taenia saginata* yielded a positive reaction with alcoholic and aqueous extracts of human cyst wall, aqueous extract of ox cyst wall, and aqueous extracts of *Taenia saginata*; 15 normal persons and 15 syphilitic persons were also tested. In all cases a negative, or at most a very doubtful, reaction was obtained with the serum of these persons. He therefore concludes that Ghedini's complement test for echinococcus proves the presence of this or of *Taenia saginata*. The best antigen appears to be an aqueous extract of the cyst wall, while the cystic fluid does not contain sufficient antigen to be of use. If an alcoholic antigen is employed, it is necessary for the syphilitic reaction to be negative, as the test in this case may not be specific. A negative reaction does not exclude an infection.

205. The Leprosy Bacillus in the Lymph Nodes of Leper Contacts.

SOREL (*La presse méd.*, No. 100, 1912, p. 1016) examined both in lepers and leper contacts those lymph nodes which are accessible to puncture, such as the inguinal, epitrochlear, and cervical. In 8 out of 19 lepers he found leprosy bacilli in these nodes. He examined also in this manner 15 persons living with 7 lepers, and in one case, the sister of a leper, he found leprosy bacilli in the left inguinal nodes, although she herself presented no visible evidence of the existence of leprosy. Marchoux, who presented Sorel's note to the Société de Pathologie Exotique of Paris, remarked that these researches, like those of Lebeuf, tend to establish an analogy between the leprosy of man and of the rat in the first stage of the disease. In man, as in the rat, leprosy can exist in the latent state and remain isolated in the lymph nodes for a long time, and even, it may be, for life.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

206. Barlow's Disease.

DE SAGHER (*Ann. de méd. et chir. infant.*, March, 1913) refers to the difficulties of diagnosis in this disease. The classical picture is typical enough, but in many cases the symptoms are so masked and incomplete that the condition is not easy to recognize. Nearly all the cases reported to the Society of Pediatrics (Paris) have been wrongly diagnosed at first. The children have been treated for Pott's disease, coxalgia, osteomyelitis, and syphilitic pseudo-paralysis. In a case cited by Guinon the syndrome was represented only by pains in the legs. "When a child is brought to you with a painful paraplegia, think of Barlow's disease, says Hutinel; do not wait for symptoms of scurvy to make your diagnosis." The diagnosis is arrived at by elimination: when examination of the spine and the reflexes has excluded Pott's disease, when examination of the joints has shown that they are free and are not the seat of the pain, when there are no signs of coxalgia or of infantile paralysis, Barlow's disease must be considered, especially if the child has been artificially fed. The disease occurs for the most part among the children of the well-to-do, for the reason that the lower classes cannot afford patent foods; also, the writer thinks, because the latter class are in the habit of early giving their children bread, potatoes, and fruit, which, however unsuitable in other respects, are antiscorbutic. Lesage believes that the mild form is common, and even concludes that if an infant of over 6 months becomes suddenly peevish and cries when its lower limbs are touched, it is suffering from the disease. One often sees a child who has begun to walk become extremely sensitive in the lower limbs and refuse to walk. Change the diet and the child walks. To prevent this mild form de Sagher has devised a prophylactic treatment which he prescribes for all artificially-fed children. From the age of 6 months he gives from two to six teaspoonfuls of grape juice, at the seventh or eighth month he adds one to three teaspoonfuls of compote, preferably of banana. These foods, besides their antiscorbutic properties, have the advantage of combating constipation, and their iron content cannot but be beneficial at an age when the reserve of this metal in the liver is becoming exhausted.

207. Indications for an Artificial Pneumothorax in Phthisis.

N. VON JAGIC (*Wien. med. Woch.*, February 1st, 1913) states that the pneumothorax treatment of phthisis has been adopted in so many cases and for so long, that it is now possible to lay down definite indications for its employment. He excludes all cases of slight and moderate disease in which there is still a prospect of recovery under ordinary hygienic and dietetic treatment. Extensive disease of both lungs, active intestinal and amyloid disease are also contraindications; but albuminuria without other signs of nephritis is not necessarily a contraindication. Pleural adhesions and rigid-walled cavities prevent collapse of the lung, and are in consequence unfavourable to the treatment; but their existence cannot be demonstrated till attempts to collapse the lung have failed. The most suitable case is that in which one lung is extensively and actively diseased and the other is healthy. This ideal is seldom realized, for phthisis is almost invariably bilateral. Good results are, however, obtained in cases presenting slight infiltration or apical catarrh in the healthier of the two lungs. When the whole of the upper lobe of this lung is involved, the treatment may be unsatisfactory. Haemoptysis localized to one lung may be promptly arrested by an artificial pneumothorax when all other measures have failed. Obstinate fever and laryngeal tuberculosis may improve under the treatment, provided the condition of the lungs is satisfactory. The most suitable age for the treatment is from 15 to 35, but good results have been recorded of children only a few years old. Cardio-vascular complications do not necessarily prohibit the induction of a pneumothorax. The author expresses astonishment at the want of discomfort following displacement of the heart and blood vessels by a pneumothorax; and in one case he found complete dextrocardia unaccompanied by distress on walking. The right ventricle may become hypertrophied under these conditions, but necropsies have also shown that no hypertrophy of the heart follows the presence in the chest for several months of a large pneumothorax. Possibly the heart of the consumptive is often incapable of hypertrophy.

208. Spasmodic Dysphagia of Neuropathics.

HARTENBERG (*Journ. des praticiens*, 1912, xxvi) treats these cases as follows: All spiced food or alcoholic drinks should be forbidden, hydrotherapy and 1 or 2 grains of KBr per diem, a ¼ mg. of hydrobromate of scopolamine subcutaneously injected during the spasm, the continuous current in the region of the spasm for twenty minutes 20 to 30 milliampères, and psychotherapy, assuring the patient that the treatment will be successful. Generally two weeks are necessary to bring about a cure.

209. Paraldehyde Poisoning.

AFTER commenting on the extensive use of paraldehyde as a hypnotic, L. Fornaca and G. Quarelli (*Berl. klin. Woch.*, December 23rd, 1912) point out that toxic effects are rare though such large quantities as 150 grams have been taken within thirty-six hours by one patient. The same amount was taken in one dose by Mackenzie's patient, who slept heavily and was perfectly well twenty-four hours later. In the author's case, however, delirium, resembling that of chronic alcoholism, was observed. The patient, a doctor 48 years old, had been perfectly healthy till, at the age of 32, he fractured his right parietal bone. Subsequently he suffered from severe insomnia, for which he used in succession chloral, sulphonal, trional, and veronal, the latter being taken daily in doses of 5 grams for five years. At the age of 42 he began to take paraldehyde in daily doses of 2 grams. During the next five years this dosage was gradually raised to 15 grams a day without interference to his work. Two months before admission to hospital he suffered from alternate fits of depression and excitement, accompanied by tremor of his hands and disturbances of speech. This condition drove the patient to larger doses of paraldehyde. In one week he took 500 grams. Alarmed by his condition he swallowed over 100 grams of paraldehyde, and then went to a hospital, where he was admitted in a semi-conscious condition. The smell of paraldehyde filled the whole room, and for eight days he was delirious. At the height of the delirium his temperature was 104° and his pulse was 134. He perspired profusely, and once exhibited an epileptic attack. After the delirium culminated on the fourth day the patient improved steadily, and on the ninth day he was again normal. On the twentieth day he returned to his work, which he performed satisfactorily. The authors found that the hot pack, small doses of paraldehyde, and large doses of bromide were of little use during the delirium. Injections of morphine also proved useless; but opium, in the form of pantopon, was most beneficial: 6 cg. of this drug was injected in three doses on the fourth day, and it was increased until 10 cg. were given in 24 hours. The authors attribute the epileptic attack to heredity (the mother had suffered from such attacks since the birth of a child), to the old fracture of the skull, and to the acute toxic state of the patient.

SURGERY.

210. Latent Erysipelas.

A. SCHLESINGER (*Deut. med. Woch.*, January 16th, 1913) records two cases of erysipelas remarkable for their long incubation period. One patient was a nurse, aged 40, who had previously been well, and whose left hand had been scratched by a woman dying from a septic abortion. Though disregarded, the scratch healed quickly. But a fortnight later the left elbow became painful, and a month after the infection the patient felt ill and suffered severe pain in the arm. The ulnar nerve and its immediate neighbourhood were tender, but not swollen. Neuralgia of the ulnar nerve was diagnosed, and iodine, alcoholic compresses, aspirin, and pyramidon were prescribed. Only transitory relief was effected, and the patient was confined to her bed with a temperature of 99.3° in the evening. Six weeks after infection the temperature was higher, and there was a tender swelling over the ulna. Periostitis was now diagnosed, but rest and antineuralgic drugs were

prescribed in vain. Two months after infection the swelling was more extensive and superficial, although up to this date the skin and subcutaneous tissues were not involved. The morning and evening temperatures were 99.5° and 100.4° respectively. At this period a circumscribed, raised, and red patch appeared in the skin over the tender swelling. In three days this patch had grown to the size of a small plate, and was characteristic of erysipelas. Simultaneously with the development of this rash the deep-seated pain and swelling in the forearm disappeared. During the following fortnight the rash spread over the neck, head, and back, and then slowly faded away. The temperature at this period ranged between 99.5° and 101°. At no time was it indicative of typical erysipelas, and it is possible that the effect of the germs on the temperature was modified by their delayed incubation. No doubt they had multiplied in the tissues some weeks before they gave rise to a typical eruption, for an inflammatory reaction began over the ulna a fortnight after infection; but even this period is extraordinarily long, for the usual incubation period of erysipelas is one to two days, and the longest period hitherto known is, according to Tillmann, eight days. The suddenness with which pain and swelling ceased in this case as soon as the rash appeared on the arm distinguishes it from that common group of cases in which a deep-seated phlegmon precedes by a few days a typical eruption of erysipelas without any diminution of the swelling and pain in the underlying structures. The second patient was a girl, aged 7, whose tuberculous cervical glands were excised under local anaesthesia. The cavity left after their removal was plugged with a tampon, and a few ligatures were applied. The tampon was changed on the sixth day, when the wound was painted with tincture of iodine. On the twelfth day deep infiltration of the wound began, and was interpreted as the result of pent-up pus. The wound was therefore re-opened, but no pus was found. Tincture of iodine was applied during the next few days, during which the infiltration increased. On the twenty-sixth day the temperature was 100.4°, and the swelling in the neck was as large as a child's fist. On the thirty-second day, when the temperature was 102.2° in the evening, a small red and sharply circumscribed spot appeared over the swelling. Next day it was as large as a small plate, and during the following weeks it spread over the neck, face, and head. Finally, with a fall of the temperature to normal, it faded away completely. Evidently in this case also the germs deserted the deeper structures as soon as they invaded the skin and subcutaneous tissues, for with the appearance of the rash the deep swelling in the neck vanished.

211. Sacro-iliac Displacement.

Young (*Amer. Journ. of Med. Sci.*, July, 1912), in considering sacro-iliac displacement, points out that when the ligamentous attachments preserve their normal tone a certain degree of movement at the articulation is compatible with health, and consequently it follows that, should anything tend to disturb this tonicity, or in any way interfere with the associated musculature, increased movement will result. Some of the more common affections have their origin in an abnormal sacro-iliac articulation or in the neighbouring nervous structures, and an obscure case of sciatica, lumbago, etc., may often have its origin in a too movable articulation, which may also be weakened by a direct trauma or the impoverished health following long illnesses. The simplest type of the affection is strain, which usually becomes corrected when the musculature adjusts itself; but a continuance of the faulty position gives rise to a displacement or rupture of the ligaments with marked instability in the joint. In more pronounced cases there may be complete dislocation, which does not permit of voluntary replacement, and the accompanying neuralgias are the result of some pathological condition of the joint. It should always be borne in mind that the resulting ligamentous changes may become a fertile field for the invasion and development of an infecting process—for example, tuberculous arthritis. Pain, limitation of motion, abnormal mobility, and changes in attitude are the usual characteristic symptoms, and the best method of testing abnormal mobility in the joint is to ask the patient to stand with the knee fixed and then to raise and lower the heel in rapid succession. Spontaneous reduction may take place, but when this does not occur it can be effected by placing the patient prone and producing forced extension with traction of the limb, or the patient may be placed between two chairs, situated at an interval of about a foot and a half, while the surgeon makes downward pressure over the site of the articulation. An efficient belt should be worn, the principle involved in any such apparatus being the exertion of pressure by a pad upon the sacrum, either at its upper or lower part, according to the case. After-treatment consists in developing the affected parts by exercises, massage, vibration, and electricity continued over a long period of time.

212. Sudden Death from Embolism Subsequent to an Undetected Fracture of the Neck of the Femur.

Julien (*Echo méd. du Nord.*, 1913, xvii, January 19th) describes the case of a man, aged 48, who fell from a height, who died suddenly fourteen days after the accident. *Post-mortem* examination revealed a fracture of the neck of the femur undetected during life, fibrinous clots in the right heart and pulmonary artery, and slight congestion of the lungs.

OBSTETRICS.

213. Suffocation in a Suckling.

J. Hjort (*Norsk Magazin for Laegevidenskaben*, February, 1913) records the case of an eight-day-old child whose death he traces to aspiration of milk into the bronchi. Towards the end of suckling at 10 a.m., the child gurgled, but continued to suck the nipple for a short time. There was no regurgitation of milk, as often happened at the end of a meal. On being put back into the cradle, the child whimpered continuously instead of going to sleep as usual. At midday the face and hands were cyanosed, and respiration was laboured. An hour later the author found the skin everywhere cold and cyanosed. Though regular, the heart sounds were feeble, and no pulse could be felt. No air entry was audible over the lungs. Warm bottles, warm baths, cold douches, artificial respiration, and injections of camphor partially restored the child, whose cyanosis diminished. At 2 a.m. on the following night air entry was audible over the lungs, the pulse could be felt, and the child slept peacefully. But the previous symptoms recurred an hour later, and death occurred at 4.30 a.m. The necropsy showed a few punctate haemorrhages in the skin of the head, but no haemorrhage into the bones of the head, the meninges, or brain, although they were filled with blood. There were a few haemorrhages into the pericardium and pleurae. The lungs contained much blood, but there was no pneumonic infiltration. The alveoli contained air, and all the bronchi, including the smallest, contained a greyish white, viscid fluid, in which there were no solid particles. In the trachea it was frothy. It was not apparently analysed. The umbilicus was healthy, the thymus was normal, and there was no oedema of the glottis. The author can find no record of a similar case.

214. Rupture of the Uterus in the First Months of Pregnancy.

Jullieu (*Écho méd. du Nord*, 1912, lx) records three cases of this occurrence in women, 36 (two) and 30 years of age. One of the former died suddenly from embolism on the sixth day after operation, and the other two recovered. The author believes that vaginal hysterectomy is the ideal operation.

GYNAECOLOGY.

215. Pyosalpinx in Virgins.

De Rouville, of Montpellier (*Rev. de gynéc. et de chirurg. abdom.*, November, 1911) discussed the question of pyosalpinx in the virgin at the last meeting of the Association française de chirurgie. He has examined and reported several instances where both virginity and tuberculosis were authenticated. He insists, however, that there are cases where pyosalpinx exists in virgin patients where it is equally clear that neither tuberculous, gonococcal, or puerperal infection caused the suppuration. He operated on a maiden lady, aged 46, subject for four years to symptoms of pelvic inflammation. There was a big double pyosalpinx, which was removed together with the body of the uterus. The disease was of the familiar type associated with local infection, and there was no trace of tubercle, but the pus was free from the gonococcus, and from the well-known bacteria of puerperal infection. Under the usual tests and inoculations nothing could be made out, and when cultured colonies of a staphylococcus and a diplococcus appeared, neither of which could be identified, M. de Rouville concludes that pyosalpinx

may be due to other causes than the three already universally recognized. We might add that a dirty syringe, septic material in the fluid which it throws up into the patient's genital tract, or some gynaecological instrument, may convey infection in these doubtful cases. For obvious reasons we require more aid from the bacteriologist for determining the significance of pyosalpinx in single women.

216. Roentgen Rays Treatment of Uterine Fibromyomata.

DE BORIS (*La Semaine Méd.*, No. 40) discusses the above method of treatment. The results, he says, are truly remarkable. The first effect of *x* rays is often to increase the metrorrhagia or the abundance of the periods; this effect is apparently due to stimulation of the ovaries and is more marked with small doses. The second effect is scantiness or amenorrhoea, with disappearance of pain due to diminution in the size of the tumour. The local effects are more or less marked and more or less easy to obtain according to the age of the patient, the results being far more brilliant in women past 40 than in women with more active ovaries. According to Gauss it requires an average of 366 minutes' irradiation to obtain amenorrhoea from the age of 31 to 40, 240 from 41 to 50, 204 from 51 to 55, and 142 from 56 to 60. Most observers have noted amelioration of cardiopathies, but, on the other hand, others have observed a number of phenomena concomitant with the treatment, the most constant being vesical tenesmus and intestinal contractions. The writer holds, with the majority of radiologists, that the symptoms of artificial menopause are less marked when it is brought about by this means than when it is the result of surgical operation. The therapeutic effects are undoubtedly due to the action of the rays on the ovaries, and it has been shown that the rays have an elective action on the germinative epithelium. The treatment has the advantage over ovariotomy that it does not radically suppress the ovaries so that their internal secretion is to some extent conserved; also that it acts on the myoma itself. As to constancy of the results opinions differ, some observers claiming 99 and 100 per cent. of good results while others only claim from 60 to 70 per cent. On the question of safety the writer considers that the method is free from danger provided always that it is in competent hands. Albers-Schönberg has inaugurated a technique of which the principal points are: The use of bulbs of moderate hardness, a focal distance of 38 cm., a total exposure of eighteen minutes divided into three sittings (one a day), an interval of at least fourteen days between each series of sittings, a skin filter, a current of 2 to 3 milliampères, and a quantity of rays not exceeding a total of 6 to 7.5 units Kienböck for the three days. Bordier and Gauss, by using filters of aluminium, are able to give larger doses (10 units Kienböck), thus shortening the treatment and avoiding the initial recrudescence of menorrhagia and metrorrhagia. By the method of small doses the treatment takes at least six months, often more; with large doses it takes from seven weeks to three and a half months. Much difference of opinion obtains as to whether malignant degeneration of the tumour is a contraindication to the treatment; but the diagnosis of malignancy is very difficult, and according to Döderlein is impossible. That being so the writer holds that, supposing radiotherapy fulfils its promises, it ought to be used, since the risks of cancerization on the one hand and the operation mortality on the other are about equal. Two more positive contraindications are gangrene of the myomata and mucous polyps; the first requires urgent treatment, and the second are easily and effectually removed. Submucous myomata, which act as foreign bodies in the uterine cavity, should be treated by hysterectomy. Concomitant infections of the adnexa are generally considered a contraindication, but Menge thinks that recent infection is a doubtful contraindication, whilst old infection may be ignored. For the rapidly growing myomata of young women, with abundant haemorrhage, many authorities prefer hysterectomy, but de Boris advises that radiotherapy should first be tried, seeing that, when successful, it brings about a less violent menopause. The treatment has the advantages that it is almost absolutely safe, and that it avoids the shock and the other risks and drawbacks of an operation. On the other hand, it is very expensive owing to the short life of the bulbs, and it takes a long time. Another disadvantage is the difficulty of diagnosis; and lamentable mistakes may be made by irradiating cysts, fibromas, cancers of the ovary and the uterus, not to mention salpingites. The results of radiotherapy are very promising, but as yet it is impossible to say whether they will be maintained. Many successes appear to be quite definite, but among young women recurrences are frequent. Much work has yet to be done before a final judgement can be given and a precise list of indications and contraindications can be drawn up.

THERAPEUTICS.

217. Cerebral Congestion after Neo-Salvarsan.

PORKEL (*Ann. des mal. vén.*, November, 1912) reports a case of cerebral congestion occurring three days after the third injection of neo-salvarsan, and lasting two days. The patient, a man, aged 23, with secondary syphilis, received three intravenous injections of neo-salvarsan in five days, a total of 2.55 grams of the drug. The symptoms of cerebral congestion were rise of temperature, rapid pulse, congestion of the face, paraphasia, rubeoliform rash on body, dilated pupils, transient convulsions of the arms. These symptoms, which lasted two days, were treated by ice to the head, blisters to the neck, leeches to the mastoid region, adrenalin, and potassium bromide. Under this treatment the patient recovered; but, as the author remarks, similar symptoms, and even fatal haemorrhagic encephalitis, have been many times reported after intravenous injections of salvarsan, and he thinks the same may occur after neo-salvarsan if it is given in large doses or even in small doses repeated at too frequent intervals. In the case reported freshly-distilled water was used. This is interesting in view of Wechselman's explanation of the symptoms as being due to the use of stale distilled water containing bacteria.

218. Molyform.

E. LAMPÉ AND H. KLOSE (*Wien. med. Klin.*, No. 20, 1912) have investigated by animal experiment the bactericidal action of molyform. They had previously known that paper and other materials soaked in molyform solution became resistant to destructive influences, that in chemical works those who worked with molybdic acid never suffered from toxic eczemas, and those who had acquired obstinate skin diseases in other departments quickly recovered if working with molybdic acid, and that cholera vibrios and typhoid bacilli were destroyed by $\frac{1}{2}$ to $\frac{3}{4}$ per cent. molyform solution. Molyform is a fine white powder of astringent taste, soluble in water up to 10 per cent., and giving the specific reaction for molybdic acid and its salts. The authors tested molyform on sixteen guinea-pigs. The dose given varied from 0.09 to 0.1 gram per kilogram of body weight. The following case is a typical one: An intravenous injection of molyform was given to a guinea-pig severely infected with streptococci. Within three hours the temperature fell to normal, and the animal was once more running about. Injections were also made into each of thirty dogs. With a dose of 0.09 gram per kilogram the effect was similar to that observed in guinea-pigs. A dose of 0.25 gram per kilogram proved fatal to dogs within twenty-four hours, the animals being attacked by diarrhoea and vomiting, followed by clonic-tonic contractions of the muscles of the whole body. Intravenous doses of 0.12 gram per kilogram gave rise to symptoms of the same nature as with the larger dose, but did not prove fatal. The drug was excreted chiefly through the kidneys, the urine giving the molybdic acid reaction an hour after the injection. Marked phagocytosis followed the injection of molyform. The authors concluded as a result of their experiments that molyform possesses very great antiseptic properties, and can be given in relatively large doses without injury. Their experimental conclusions were confirmed by clinical tests. They employed for clinical purposes either pure molyform, a 5 per cent. molyform ointment, a 3 per cent. watery solution, 5 per cent. molyform gauze, or 10 or 20 per cent. powder. The authors found that molyform applied to healthy granular tissue greatly quickened the growth of epithelium. Catarrh of the bladder even of years' duration quickly yielded to local treatment with molyform solutions; in gynaecological work it proved a mild but most efficient deodorizing antiseptic. The irritation of carcinomatous ulcers could be kept in check by molyform. The authors never saw any harmful side-effects, and especially never any kidney irritation from the external use of the drug, and they therefore felt justified in injecting it into closed tuberculous abscesses. In one case in which iodoform glycerine had failed, two injections of 15 c.cm. of a 3 per cent. molyform solution caused the pus in a tuberculous ulcer to be replaced by pure serum, and later complete healing followed. Chronic eczemas, acne, and other skin affections which had proved resistant to treatment healed rapidly under molyform ointment. Further investigations are needed as to the action of

intravenous injections of molyform in general septic processes; the authors tried the treatment in two already hopeless cases, and thought the results encouraging. They strongly recommend an extensive trial of molyform in surgical, gynaecological, and dermatological practice.

219. Serum Treatment of Chronic Purpura.

ELSNER AND MEADER (*Amer. Journ. of Med. Sci.*, February, 1913) record two cases of chronic purpura with the results of treatment with animal serum. The first case, that of a woman aged 45, had presented for three years the characteristic signs of chronic purpura, the lesions being indiscriminately distributed and not limited in type, with repeated circumscribed gangrenous patches following purpuric macules. From a pustule covering a small purpuric spot a vaccine was prepared and three injections given, the necrobiosis being favourably influenced, but there was no effect upon the general condition. Several injections of animal (rabbit) serum were administered over a period of eighteen months, the effect being distinctly symptomatic in controlling the haemorrhagic lesions, and in addition decidedly tonic and exhilarating, though not in any way curative, since at the end the patient was still suffering from chronic purpura, while thoroughly realizing that no other remedy was so effective in controlling the symptoms as the injection of animal serum. In the second case, that of a woman aged 56, alarming symptoms of anaphylaxis followed the third injection of rabbit serum, but there was no recurrence after the fourth, the patient having completely recovered from the chronic purpura, of which there had been no sign of recurrence nine months later. In order to prevent anaphylaxis similar cases should be injected during ten-day periods, the number and dosage of the injections being dependent upon the effects of safe initial and second doses. The doses in these cases varied from 1 to 17 c.cm., and in both cases a general improvement and increased weight followed almost immediately. In sporadic haemophilia and acute purpura the results with animal serum are permanent and the cure definite, the prognosis in chronic cases being less favourable as far as permanency is concerned. Rabbit serum is preferable to other serums for such treatment, but in an emergency antidiphtheritic serum may be substituted until a fresh serum can be obtained. Though the rationale of the serum treatment of haemorrhagic diseases is not at present quite clear, it was observed that the blood platelets became very numerous after a series of small doses of serum, and this was accompanied clinically by considerable improvement in the patient's condition.

220. Treatment of Typhoid Fever in Children.

DELÉARDE (*Écho méd. du Nord*, 1912, lx) recommends the following treatment. When the temperature does not exceed 39° C. no remedies are necessary. The best drinks are milk, bouillon, and eau d'Evian at regular intervals in doses of 100 to 150 grams. If the evacuations are slight a mild purgative, as castor oil or a little magnesia, is all that is necessary. If diarrhoea exceeds five to six motions in the twenty-four hours, benzonaphthol and sodium bicarbonate, āā 0.25 gram, four times a day, in cachets, should be given, or salol 0.20 gram, sodium borate 0.10 gram, thrice daily. Cold baths are badly supported by children, and should only be given for five minutes at a time when the temperature reaches 40° C. It is better for the water to be at a temperature of 30 to 32° F., and a warm drink of tea or coffee should be given. Cold applications, as a rubber bag of ice, are also of value. Where pulmonary or cardiac complications occur sinapisms, repeated twice a day for ten to fifteen minutes, should be applied to the chest, and oil of camphor 1 in 10 in doses of 1 c.cm. four times in twenty-four hours in a child of 5 or more should be injected subcutaneously, or the following prescription instead: Sulphate of sparteine 0.50 gram, neutral sulphate of strychnine 0.005 gram, distilled and sterilized water 10 c.cm. Each cubic centimetre contains 5 cg. of sparteine and a demimilligram of strychnine; 2 cg. of sparteine should be injected once a day. When the temperature has ceased to rise above 37° C. in the evening for two or three days farinaceous food may be commenced with eggs and fruit.

PATHOLOGY.

221. Diphtheria Bacilli in Urine.

CONRADI AND BIERAST found diphtheria bacilli in the urine of about one-third of all the patients examined. They only proved that the bacilli were true Klebs-Loeffler bacilli in 6 cases. R. Koch has followed up this subject, and published the results of his investigations (*Deut. med. Woch.*, No. 50, 1912). He examined the urine of 26 patients, working up some 111 samples of urine. In 4 samples, derived from 2 patients, diphtheria bacilli were found. In 10 further samples, derived from 5 patients, bacilli suspiciously like diphtheria bacilli were found, but they were unable to cultivate them in pure culture, or in some cases they obtained an avirulent, uncharacteristic strain. In the urine of scarlatina patients who were not suffering from diphtheria, 4 samples out of 19 contained a diphtheroid organism. These were not pathogenic to animals. The positive finds were derived from early cases in which death from cardiac and vascular paralysis followed at an early date.

222. Radiographic Study of Acromegaly and Gigantism.

X-RAY examination, say Marquès and Peyron (*Arch. d'électr. méd.*, January 10th, 1913), may be of service in clearing up some of the vexed questions relating to acromegaly. From the etiological point of view, there are some who claim that acromegaly and gigantism have no connexion with each other, and others that gigantism is the acromegaly of adolescence. From the anatomo-physiological point of view, it is still uncertain whether the modifications of the pituitary gland are of primary or secondary importance. Again, in order to make the clinical syndrome clear, many facts still remain to be established, particularly with regard to the antecedents and family connexions of acromegalics, and to the cases of incomplete acromegaly and of acromegalo-gigantism. As to the radiographic features of acromegalic cases, Béclère has instanced the dilatation of the frontal sinus, the thickening of the cranial walls, and the expansion of the pituitary fossa, or Turkish saddle, at the upper surface of the sphenoid bone. The present authors state that in cases of typical acromegaly the radiograph will illustrate with great clearness the expansion of the Turkish saddle, and that it is possible sometimes to perceive on the negative the shadow of the hypertrophied pituitary gland. In the case of incomplete forms of this dyscrasia it is worth while to take successive radiographs of the skull, these being useful either for diagnosis or prognosis. The authors give particulars of cases in which an increasing expansion of the Turkish saddle has been concurrent with an increase of the functional troubles; and of other cases in children in which there were some signs of acromegaly in the features, though the "drumstick" deformity of the phalanges suggested a hypertrophic pneumic osteoarthropathy. In these cases the radiograph of the head showed an expansion of the Turkish saddle, which was a point in favour of the diagnosis of acromegaly. The authors conclude that, in addition to the typical cases, account must be taken of certain complex forms, which they place in three groups: (1) Incomplete acromegalics, the patients having all the physical signs but few or none of the functional ones, or inversely; the radiograph in these cases shows an abnormal development of the Turkish saddle. (2) Acromegalo-gigantism, including cases of giants possessing some physical and some functional signs of acromegaly; the radiograph in these cases also shows an expansion of the Turkish saddle. (3) "Acromegalism," by which term the authors propose to designate the group of signs found in the descendants or collaterals of acromegalics. They have studied several families in which one or other parent was clearly acromegalic, the children presenting certain characteristic deformities.

223. Experimental Lesions of the Central Nervous System.

J. T. MACCURDY AND H. M. EVANS have studied certain experimental lesions of the central nervous system with the aid of the intra-vitam stain, trypan blue. They found (*Berl. klin. Woch.*, September 2nd, 1912) that freshly-killed nerve cells are vitally stained. The stain affected both the nucleus and diffusely the protoplasm. Even the processes are coloured and stand out in relief against the unstained matrix. In damaged cells, the stain appears in granular form in the protoplasm. In the injection of the virus an unavoidable wound is created, and in examining the cells of this wound they found that the glia cells which have been killed show the same changes toward the vital staining as do the nerve cells. All the granular cells met with are exquisitely contrasted by the staining, and the endothelial cells of the vessels bordering on the wound also reveal well-stained granules in their protoplasm.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

224. The Psychic Aspect of Cerebral Arterio-Sclerosis.

THE scantiness of the literature on the subject of psychic disturbances in cerebral arterio-sclerosis is commented on by Jarl Hagelstam (*Finska Läkaresällskapets Handlingar*, November, 1912), who reports some illustrative cases. One patient, a woman, aged 58, had been nervous from childhood, and had suffered from giddiness for many years. She had incurred many troubles of late years, and had developed increasingly frequent headaches. Occasionally she suffered from causeless weeping and complete amnesic aphasia of short duration. Although she had previously been energetic, lively, and enterprising, she became depressed, and in some ways childish, without showing gross stupidity. After this condition had lasted, with remissions, for about three years, the patient suddenly collapsed on to a chair, and was unable to walk for some days. She was perfectly conscious, and no weakness of the lower limbs could be detected. Later, slight ataxia of the right arm and leg were noticed, as well as paraesthesia of the right arm, and a sense of numbness in the right leg. After a period of five years, during which the patient felt very ill, and persistently predicted her speedy death, she suddenly became restless and partially unconscious. A severe headache occurred which terminated in coma and death. The necropsy showed marked atheromatous degeneration of arteries of the brain, and foci of softening, from the size of a pin's head to that of a lentil, which were most numerous in the basal ganglia. Not a trace of arterio-sclerosis could be found in the heart and the main blood vessels. In another case, a woman aged 62, whose temperament had always been nervous and restless, became very excited after repeated and prolonged mental trouble. She felt constantly giddy, and complained of singing in the head. As these symptoms were aggravated by the slightest movement she kept to her bed, where she remained for about two years. She could, however, both stand and walk, and the strength and mobility of her legs seemed unimpaired. She constantly complained of "her terrible illness," and her capacity for critical reasoning became slowly less. But there were no paralyses or sensory disturbances, and no signs to suggest a focal, cerebral lesion. The tension of her arteries was high, the second heart sound was accentuated, and slight oedema of her hands and feet were sometimes noticed. Her condition grew worse in spite of slight transitory remissions, slight facial paralysis appeared, and partial loss of consciousness was followed by death. The necropsy showed a very marked degree of atheroma of all the arteries of the brain, including the most minute. Areas of softening, of the size of a bean, and evidently of no recent origin, were found in the lenticular nucleus and the thalamus of both sides. Arterio-sclerosis of the coronary arteries, and an early stage of granular kidney were also found. In his analysis of the symptoms of the "nervous" form of diffuse arterio-sclerosis of the cerebral vessels, Dr. Hagelstam attaches most importance to a sense of giddiness and noises in the head as aids to diagnosis. Headache is a less constant symptom, though intermittent headache is not uncommon. General depression, restlessness, and a sense of severe illness are characteristic symptoms of the disease in its more advanced stages; and there are usually signs of slight mental derangement. These conditions, combined with slight and transitory signs of a focal cerebral lesion, constitute the clinical picture of a disease which is more common than is generally supposed.

225. Induced Albuminuria in the Detection of Latent Nephritis.

SCALIA (*Rif. Med.*, January 11th, 1913) has made observations on 84 persons suffering from various diseases (excluding acute infections) whose urine had previously shown no trace of albumen, by attempting to induce albuminuria in them by means of injections of pure egg albumen. He refers in some detail to the work of others on similar lines, and then gives an account of his own experiments. The dose injected was usually 2 c.cm. and only one injection was given. This as a rule gave rise to no disturbance, and only in a few cases—16 in all—induced any albuminuria. If albuminuria followed it was always slight and of short duration (about eight hours as an average), and did not appear earlier than eight or later than twenty-two hours after injection. The type of albuminuria was monocyclic with a maximum intensity at the beginning of elimination. In persons already affected with marked albuminuria the injection of white of egg made very little change in the amount of albumen. In diseases not materially affecting the body as a whole the egg albumen injections were usually negative in their results, but in diseases affecting various organs and producing secondary effects, a latent weakness of the kidneys was often evoked. This was especially so in the case of hepatic disease, where the egg albumen test frequently disclosed a lowered resistance of the kidney. Albuminuria induced in this way may be the only evidence of renal change.

226. Treatment of Obesity.

GALISCH (*Sem. méd.*, No. 50) recommends the following régime in cases of of obesity. In the morning the patient takes a cup of tea with buttered bread, and if he is too hungry to wait for luncheon he takes an egg with a small piece of bread and butter at ten o'clock. At one o'clock the meal consists of meat, vegetables, salad, and a compôte. In the afternoon he takes coffee with a little biscuit or white bread with butter. In the evening he gets simply a small piece of bread and butter. At the first breakfast and the midday meal the amount taken must be sufficient for the patient to leave the table completely satisfied. For the first two or three days the patient feels very hungry in the evening; but this quickly passes off, and he soon gets into the habit of eating more at the first two meals, this excess of alimentation being counteracted by the exercise and work done during the afternoon. The régime is founded on the idea that it is the food taken in the evening and followed by the repose of night which particularly contributes to the formation of adipose tissue, and also on the fact that the obese generally prefer their evening meal. All Galisch's patients who have undergone the treatment have lost one or two pounds a week. When the normal weight has been attained some increase may be allowed in the evening meal, but the patients should be weighed constantly, and if there is any relapse they must return to the previous diet.

227. Gastro-Intestinal Arterio-sclerosis.

FRAGONI (*Riv. Critic. di Clin. Med.*, An. xiv, 1913), in a lengthy contribution, raises several very interesting questions in relation to the above subject. The effects of arterio-sclerosis in other parts of the body are well known and definite, but in the gastro-intestinal region there is much room for further knowledge, and there is no reason for supposing that this region should escape any more than any other. In the etiology the same causes which produce arterio-sclerosis elsewhere are efficient in the gastro-intestinal region; in the German cases (and most of the cases hitherto described are German) beer and smoking seem to play rather a predominant part, and for the same reason the male sex is preferred. A good deal of discussion is given to the pathological anatomy and a special appendix devoted to the mesenteric arteries, which are described as anatomically and functionally anastomotic vessels, but practically terminal, which means that only under exceptionally favourable conditions can anastomosis take place after blockage. Clinically the author groups the cases into gastric arterio-sclerosis—(1) pseudo-gastralgic angina, (2) gastrorrhagia, (3) dyspeptic—and intestinal, (*a*) enteralgia, (*b*) thrombotica. Differential diagnosis, as one may suppose, is extremely difficult, and it is largely by a process of exclusion that one arrives at a definite diagnosis. Reading the long list of symptoms, any one of which might be due to some other cause, it is hard to disentangle a clear picture of gastro-intestinal arterio-sclerosis as an entity in itself, and perhaps one could not expect that, but there is much interesting evidence to show that this should be borne in mind as a possible cause of certain gastro-intestinal phenomena. In regard to unexplained haematemesis, cramp of the stomach, colic, etc., the suggestion of arterio-sclerosis may well throw light in a dim region of speculation and possibly avoid the surgical solution of looking inside to see. A very full bibliography is appended.

SURGERY.

228. Spontaneous Gastro-enterostomy discovered Radiologically.

A RARE gastro-intestinal condition in which *x*-ray diagnosis "has had all the value of laparotomy without chloroform or incision" is reported by Douarre (*Arch. d'électr. méd.*, March 10th, 1913). The patient had suffered from digestive troubles for four years, accentuating as time went on, and giving rise to crises increasingly frequent and severe. These culminated in an extremely acute attack, occurring six months before radioscopic examination. This attack, which lasted for four or five hours, and was accompanied by a sensation at the stomach only to be compared to burning with a hot iron, was followed by a diminution of the symptoms, except that of constipation, and in subsequent months, although there was still pain after every meal, it was much less acute than formerly. Ultimately a radioscopic examination, made after the ingestion of gum bismuth, revealed a stomach apparently normal in situation, form, and mode of filling. It was noted, however, that in spite of particularly energetic contractions in the prepyloric region, no portion of the bismuth appeared to clear the pylorus and pass into the duodenum during the five or ten minutes of observation. On studying the method of evacuation more thoroughly there was seen to be a diverticular shadow, like a triangle, appended to the lowest part of the stomachal cul-de-sac, and a brief observation of the movement of the bismuth at this point was sufficient to suggest an abnormal communication between the stomach and a portion of the intestine. The general image of the stomach having excluded all idea of medio-gastric biloculation, there remained the alternative of a communication between the stomach and the small intestine or a gastro-colic fistula. Repeated radioscopic examination, as well as the clinical findings, negatived this second hypothesis, for the small intestine evidently fulfilled its part in the digestive function. At no period of the examination, however, was any appreciable trace of bismuth found in the duodenum, and the evacuation from the stomach took place very slowly, some of the bismuth remaining in that organ more than twenty-four hours after ingestion. It appeared, therefore, that, owing probably to a cicatricial constriction of the pylorus, the stomach was emptied almost entirely by this natural gastro-enterostomy. The commencement of the evacuation, which did not follow immediately upon the ingestion of the bismuth liquid, made it evident that the perforation acted as a true muscular orifice, analogous to what is produced in surgical gastro-enterostomy, permitting the passage of the stomachal contents only under the influence of contractions or of a relaxation. Another anomaly in this case was a twist in the tract of the transverse colon, probably due to inflammatory adherences, this being responsible for the persistent constipation. Altogether the *x*-ray findings made it possible to reconstitute the clinical history of the patient. The digestive troubles and painful crises were attributable to one or more ulcerations in the prepyloric region, and these crises increased in intensity up to the day when spontaneous perforation occurred.

229. Treatment of Generalized Acute Peritonit's.

JACOULET (*Rev. Franç. de méd. et de chir.*, 1912, No. 16) divides the treatment under the following headings: *Preoperative:* The patient should be placed in the semi-sitting posture, a large bladder of ice placed over the abdomen, and six to ten drops of a 1 to 1,000 solution of adrenalin injected subcutaneously. *Operative:* Usually local anaesthesia is sufficient; 1 per 200 solution of novocain with some drops of 1 per 1,000 adrenalin should be injected, and, if a general anaesthetic be required, ether or ethyl chloride, and never chloroform. The lines of incision depend on the diagnosis. If the origin be an appendicitis, the abdominal wall at the external edge of the rectus should be incised; if perforation of the stomach or duodenum, the incision should be made above the umbilicus. If the cause of the peritonitis be doubtful, the incision for appendicitis should be made, and, if the appendix be healthy, the incision should be prolonged upwards, and the duodenum, pylorus, and gall bladder examined, and, if necessary, a new incision made. Drainage in all cases is necessary. *Post-operative:* Immediately after the operation the patient should be placed in the semi-sitting position, and continuous proctoclysis carried out with a solution of sodium chloride 7 grams, calcium chloride 7 grams, water 1,000 grams; this should be continued drop by drop for three days or more. Thirty to 40 c.cm. of a solution of 1 to 10 of oil of camphor in the twenty-four hours make an excellent adjuvant to the treatment, and it is good practice to inject intraperitoneally before closing the wound after operation 200 to 300 c.cm. of the same solution carefully sterilized. If operative intervention and the other treatment just described are futile, enterostomy or caecostomy should be performed.

230. Rectal Ether Narcosis.

FEDERICI (*Gazz. degli Osped.*, August 1st, 1912) reports the case of an emphysematous man, aged 67, who was operated upon for inguinal hernia. As he was not considered a good subject for a general anaesthetic by the mouth, it was decided to administer ether per rectum, and, after a preliminary injection of 1 cg. of morphine and atropine, and washing out the rectum, 1 litre of a 5 per cent. solution of ether in physiological solution was given per rectum. Beyond a slight burning feeling in the rectum and towards the descending colon, no discomfort was complained of, and the operation was finished without the patient feeling any pain. The breath smelt of ether. After the operation, the patient did not suffer from any local trouble in the rectum, no diarrhoea, no proctitis, and the abdomen was normal. No vomiting was observed either during or after operation. Increased frequency of micturition (every three-quarters of an hour) was noticed for three or four days, but this gradually disappeared before the eighth day, when the patient died. During life no albumen or sugar had been detected in the urine. At the *post-mortem* examination, however, both kidneys were in a state of chronic interstitial nephritis, whilst in the left kidney there was evident acute diffuse haemorrhagic parenchymatous nephritis. The lungs were both congested, and there was some old leptomeningitis. The cause of death was the state of the kidneys, which the author is inclined to attribute to the ether.

231. Smooth Pigmented Naevi, or an Unusual Form of Xeroderma Pigmentosum?

BALZER ET BELLOIR (*Bull. de la Soc. Franç. de Dermat. et Syph.*, January, 1913) report the case of a girl, aged 15, who since the age of 5 weeks has presented the appearances for which she is now attending the Saint Louis clinic. The lesions, which were originally few in number and discrete, have during the last few years become more numerous and confluent in places. They were first noticed circumlabially and chiefly under the nostrils, and consisted of small pigmented points of a brownish colour, flush with the skin, and of the size of a pin's head. The mucous membranes were similarly affected and that from the commencement. At the present time the lips, chin, and nose, chiefly in the middle line, and part of the forehead are the sites of numerous pinhead macular spots of a greyish-yellow, grey, or black colour. Those at the lip margins are more marked and dark in colour, and their elements are particularly obvious on the mucous surfaces, both of lips and cheeks. The tongue is free. There are no epitheliomatous lesions to be seen anywhere on the body. In discussing the diagnosis it is important to note that no members of the family are suffering from xeroderma (a common affection in families, a member of which presents xeroderma pigmentosa), also that the lesions are mucous as well as dermal, and that they appeared originally altogether at the same time. These points are in favour of pigmentary naevi. The other possibility requires careful observation especially at the present age, for it is certain that the pigmentations have for some time past been on the increase. Radium applications are being tried.

OBSTETRICS.

232. Prolapse of the Placenta.

MÜNCHMEYER (*Archiv f. Gynäk.*, xxxiii, 1888), some twenty-five years ago wrote on this rare condition. Reported cases are accepted with great diffidence by obstetrical authorities because it is always possible that the placenta was actually attached in part at least to the cervix, in other words that in more than one instance the case was really "placenta praevia" wrongly interpreted. The question is important for the practitioner and midwife. Hence it is interesting to read the report of a case under observation last year in Leopold Meyer's maternity department at Copenhagen (*Monatsschr. f. Geb. u. Gyn.*, May, 1912). The medical superintendent, Dr. J. P. Hartmann, published the case last spring. It was associated with a grave complication. The patient, 25 years of

age, had been subject to kidney disease ever since an attack of diphtheria sixteen years previously. She had borne two children. During her second pregnancy when she was under close observation the urine was highly albuminous. The child was born alive at term, and the patient went into the medical wards of the Copenhagen Hospital after convalescence from the puerperium. The third pregnancy was associated with great aggravation of the renal disorder. Once more the patient was admitted into a medical ward. She had reached about the sixth month of gestation. A little blood and, it was believed, liquor amnii came away, and as there were hypogastric pains the patient was transferred to the maternity. The urine was highly albuminous and full of casts, and there was oedema of the legs and eyelids. Some coagula came away. The placenta could be readily defined presenting at the os externum. Hydrostatic dilators were introduced as placenta praevia was not unreasonably diagnosed. No liquor amnii escaped, but neither was there any bleeding. Pains were induced, but they were very weak. The pressure was increased cautiously, but the pains did not strengthen, and the patient's condition grew very bad, the oedema increasing perceptibly. As the bag was withdrawn a quantity of liquor amnii came away, strongly blood stained, followed by a clot of the size of a fist; yet there was no flooding. The fundus was pressed, and then the placenta began to pass into the vagina till it presented at the vulva. The membranes were torn widely open, and immediately an arm prolapsed. Hartmann turned and then delivered the fetus, without difficulty, by expression. A cotyledon, spontaneously torn off, came away after an intrauterine injection. There had been practically no flooding during the induced labour, but the patient died a few hours after delivery. Advanced chronic tubal nephritis, with extensive characteristic changes in the viscera were discovered at the necropsy. The placenta was full of white infarcts and circumscribed coagula. Its maternal aspect was compressed by a wide layer of old coagulum. On examining the uterus the true nature of the obstetrical complication became evident. The placental site lay on the inner aspect of the fundus posteriorly, and did not come near the cervix at any point. Thus the placenta had become detached from its favourable insertion, and had been pressed downwards or had slipped downwards when the uterus was in a state of relaxation, and ultimately presented. The remarkable absence of flooding in association with a placenta lying across the os externum should be borne in mind. Hartmann adds to his report a second case under observation in a garrison hospital. A woman in her second pregnancy miscarried in the sixth month. The pains at the beginning were associated with flooding. On admission into hospital it was found that the waters had come away, the membranes protruding from the vagina. The placenta lay in the vaginal canal. The fetal head now presented, expression failed, and the obstetrician, Ammentorps, turned and delivered. A little blood came away afterwards, but the uterus contracted badly, so that the tampon was applied. The patient, 28 years old and apparently healthy, recovered. Hartmann gives a good summary of researches on the subject. As the complete detachment of the placenta, from its site high up in the uterine cavity, the necessary preliminary to prolapse, entails haemorrhage, there must always be risk to the mother. Complete detachment allowing unhindered uterine contraction is less serious than partial detachment. The peril to the fetus is, for an evident reason, extreme, yet in more than one case the child was saved, though delivered five or even ten minutes after its placenta. Hartmann observed the same phenomenon in a case of true placenta praevia. The placenta was detached, and not till ten minutes later could the child be extracted. To his great surprise, it was alive.

GYNAECOLOGY.

233. Results of Hysteropexy.

Bazy (*Rev. de gynéc.*, June, 1912) reviews hysteropexy according to clinical evidence and comes to the conclusion that it is not only useless but also dangerous. Some operators bring together the round ligaments and fix them to the parietes. Being very extensible, the uterus so treated is not prejudiced should pregnancy occur, but the ligaments under such conditions are not elastic and do not undergo involution after childbirth. Hence, as secondary operations have shown, a long tough band runs from the uterus to the parietes. Even when no pregnancy occurs this band often develops in course of time. It is a standing danger to intestine. But Bazy shows that a graver complication may develop. The band, becoming longer and longer as the uterus drags on it, tends to split into its original component parts, the right and left round ligaments. Then two rigid bands run from the uterus to the parietes, doubling the danger to the intestine as far as they are concerned, and adding a third and greater danger of obstruction, for a deep and narrow fossa forms between them, a most unnatural disposition which interferes with the rising of the distended bladder below, and itself becomes a sac into which intestine will insinuate itself, and undergo incarceration or strangulation. Metrorrhagia, common after direct suspension of the uterus, has been noted by Bazy in a case where he detected this unnatural fossa. The dangers of direct suspension are even greater. Between the fundus fixed to the parietes and the point on the parietes to which it is applied and sutured, a cord gradually develops, the fundal or suspensory ligament of F. E. Taylor. It may exceed two inches in length, and it is a source of obstruction; indeed, it is wonderful that strangulation does not always develop. Kreutzmann, in 1902, reported seven cases of acute obstruction after the ordinary ventral fixation. Bazy admits that Doran and Wallace practised methods where no space was left under the band running between the uterus and the parietes. The former surgeon brings together the peritoneum on the inner aspect of each round ligament, uniting them by suture. A yet more theoretically perfect operation is the union of the isthmus or lower part of the uterus to the parietes. It is important for us to bear in mind Bazy's experience in a secondary operation for salpingitis after an "isthmic hysteropexy." The latter had been performed two years and ten months previously. He found that the band which developed between the isthmus and the point on the parietes to which it had been fixed had undergone a remarkable change. The tissues of the band at the lowest part of its attachment to the uterus had atrophied, whilst more fibrous or cicatricial tissue had developed along the upper part of its attachment. Thus a gap had formed below the band, just the complication which "isthmic hysteropexy" is supposed to avoid. On the other hand, the upper part of the band had come to lie close to the fundus. These two changes, mainly the result of steady dragging of the entire uterus, had reduced the operation to a simple "fundal hysteropexy." A coil of intestine had already forced its way under the "fundal ligament," and filled the vesico-uterine pouch, a most perilous condition. M. Bazy concludes that operations for the direct or ligamentary fixation of the uterus to the abdominal wall can be and ought to be absolutely discarded. They can or may be rejected because, in his opinion, they are simply no good. Where there is prolapse the uterus soon sinks down again, dragging on the dangerous newly-made bands of adhesions. In cases of retroflexion, ventral fixation without doubt gives temporary relief, but Jagle finds, as the result of secondary operations, that this fixation is not constant. After-histories about operations for disorders, mainly sources of discomfort, may be misleading, as the patient may continue to feel comfortable, though pelvic exploration shows that the parietal union has begun to yield. Some surgeons advocate well-known extraperitoneal operations on the round ligaments, but as they are distensible but not elastic bad results may ensue should the patient become pregnant. Plastic operations on the pelvic floor are, according to Bazy, the right steps towards radical cure of distressing displacements of the female organs. Most flexions and prolapses, the gynaecologist must by the way admit, cause little discomfort. In old subjects hysterectomy alone ensures cure. Lastly, ventral fixations ought to be discarded, because they are dangerous. Intestinal obstructions have been frequently reported, and perhaps more often not reported or overlooked, and Bazy adds that severe metrorrhagia is a common result of an operation of this type.

THERAPEUTICS.

234. The Pathogenesis of Mercurial Stomatitis and Colitis.

Almkvist (*Dermat. Zeitsch.*, November, 1912, December, 1912), in a long series of clinical and experimental observations, provides additional proofs of his original explanation of this important toxic action of mercury, and replies to the criticisms of other writers in a very convincing manner. According to him putrefactive processes in the mouth, dependent mainly on pyorrhoea, cause erosion and a loose, congested condition of the mucous membrane in the meshes of which H_2S is generated and freely absorbed.

The capillaries which supply the mouth are charged with mercury which, meeting in this situation with the H_2S, will be converted into the sulphide, which is deposited in the tissues and capillary walls as a black precipitate which can be demonstrated microscopically and chemically. Mercury sulphide is very toxic, as he has experimentally shown, and the damage done to the vascular system locally can therefore readily be accounted for. Further erosion leading to ulceration is the result, and if there is much circulatory disturbance the organisms which abound in this cavity of the body become so virulent and the body resistance so weak that even gangrene may ensue. To Sabbattani's suggestion that the local selective action of mercury on the mouth is due to the ionic concentration of Hg in the saliva owing to the low protein and high chloride content of the latter the author returns what would seem to be an unanswerable reply—namely, that mercury perchloride (1 to 4,000) and mixtures of mercury and iodoform locally applied have not only prevented but have actually cured mercurial stomatitis, and that such has been for quite a long time the chief therapeutic measure used in the St. Göran Hospital in such cases. The colitis is explained in much the same way, and it is noteworthy that in animals such as dogs, in which the intestinal putrefactive processes are not marked, colic and diarrhoea with watery and blood-stained stools are exceedingly difficult to produce.

235. Excretion of Formaldehyde: Burnam's Test.

Commenting upon the very general use of the preparations of formaldehyde, L'Esperance, in the *Boston Med. and Surg. Journ.* (vol. clxvii, No. 17), points out that it is too often assumed that because the drug is decomposed in the kidneys of one patient it will necessarily do so in the case of all. Some cases of coliuria improve greatly under urotropin, others again show no improvement. This has been hitherto attributed rather to the peculiarity of the micro-organism concerned than to the patient. The work of Burnam brings forward disquieting evidence to the effect that only one patient in two is able to break up urotropin in such a way that formaldehyde appears in the urine. The routine administration of urotropin, for example in typhoid fever, must be accompanied by evidence of the necessary reduction into formaldehyde in order to justify the practice. Formaldehyde to be of any value as a urinary antiseptic must be present in the proportion of 1 in 5,000. Burnam's test is reliable and quickly performed. It is carried out as follows: To 10 c.cm. of urine in a test-tube is added (1) of a 5 per cent. solution of phenylhydrazine hydrochloride, 3 drops; (2) of a 5 per cent. solution of sodium nitro-prusside, 3 drops; (3) of a saturated solution of sodium hydrate, a few drops poured down the side of the test-tube. As the latter diffuses through the urine, if formaldehyde is present, a deep purplish black colour is seen, changing quickly to dark green, gradually becoming lighter and finally becoming pale yellow. In a urine containing no formaldehyde, on the other hand, the same test gives a reddish colour gradually changing to light yellow. Measured by this test only 50 per cent. of these patients excrete formaldehyde. This was noted in all conditions of age, sex, normal and abnormal states of the kidney, and was constant. About an hour was the average time in which the drug appeared in the urine, and it continued to be excreted for from four to six hours. No symptoms were reported by the patients not excreting formaldehyde. Of those who showed formaldehyde in the urine—as indicated by the Burnam test—the symptoms varied from slight haematuria and a burning sensation along the urinary tract to a vague sense of malaise. These symptoms ceased with a discontinuance of the drug. The test was applied to 250 patients taking urotropin by the mouth. The conclusions to be drawn are: That formaldehyde appears in the urine in only 52 per cent. of patients taking urotropine; that the reaction of the urine is of no importance; alkalis taken in combination with urotropin have no effect; the duration of the excretion of formaldehyde lasts for a varying period up to six hours; that increased dosage does not affect excretion in negative urines; that patients not excreting formaldehyde have no symptoms however much urotropin is taken.

236. Elimination of Salvarsan.

Caffarena (*La Pediatria*, No. 4, 1912) found that salvarsan was eliminated through the milk whether it was given endovenously or intramuscularly; if given through the veins elimination takes place for two or three days; if given intramuscularly it takes from ten to twelve days; hence if an effect is desired on the suckling infant it is better to give the drug by the intramuscular method, and all the more as after endovenous administration to the mother bad effects have been noticed in the child. Probably this is due to the setting free of a large amount of endotoxin as a result of the very rapid destruction of spirochaetes which follows direct venous ingestion of salvarsan. Indirect antisyphilitic treatment of the child through the mother would not suffice for a severe case of congenital syphilis; in such a case some direct treatment, whether by injection or otherwise, of the child is necessary.

237. Treatment of Purpura by Radiotherapy.

Triboulet, Albert Weil, and Paraf (*Bull. de la Soc. de Pédiatrie*, November, 1912) reported the case of a girl of 7 suffering from purpuric patches, with vomiting, abdominal pains, and violent attacks of epistaxis. No family history of haemophilia, coagulation normal, spleen enlarged. Antidiphtheritic serum, adrenalin, peptone, hemostyl, splenic extract, mercurial inunctions, were all tried successively without benefit. Four applications of x rays (two to the spleen and one to each femoral diaphysis) rapidly brought about a cure, and when seen two months after her discharge from the hospital the patient remained perfectly well. X rays have not previously been employed in conditions of haemophilia and purpura, and *a priori* the treatment would seem irrational, since it has been shown that leukaemic patients so treated suffer from intense anaemia with considerable diminution in the number of red corpuscles. But it must be remembered that this result is brought about by very strong doses; mild doses, on the contrary, stimulate the cells of the haematopoietic organs. Asher and Bayer have demonstrated that small doses of the rays applied to the spleen act on the metabolism of the iron, bringing about its conversion into haemoglobin. In the case here reported the maximum total dose at each irradiation was 2 units H.

PATHOLOGY.

238. The Detection of Fat in Stools.

Although the estimation of fat in the faeces is of great clinical value, many authorities have admitted that the difficulty of carrying out the tests with accuracy renders its employment useless. L. Saathoff describes a simplified method of recognizing fat in stools microscopically and estimating the quantity present (*Muench. med. Woch.*, October 29th, 1912). Every motion contains fat. F. Müller has found that during fasting as much as 1 gram out of a total of 3 grams of dried matter is passed daily, while a normal person is said to pass about 30 grams of solid matter—dried faeces, absolutely freed from water—daily, of which 6 grams is fat. It is, however, significant that the amounts contained in the faeces of different individuals vary considerably. Fat is present in faeces chief in the form of potassium soap, to a less extent as fatty acids, and only to a very small extent as neutral fat. Attempts to melt the fatty substances and to estimate the quantity from the size of the fat drops under the microscope were found to be unreliable. The fact that Sudan III, a diazo dye, is frequently used to render fat visible in histology induced Saathoff to work out a method with this substance. The fat is dyed a yellow or red colour when treated with saturated (80 per cent.) solutions. The method is as follows: A piece of faeces of about the size of a pea is roughly rubbed down on a microscope slide. If the motion is thin or fluid, it may be advisable to heat the slide over the spirit lamp until a tenacious consistence is attained. Two or three drops of Sudan III solution are now applied, and the whole well rubbed together. The Sudan III solution is prepared by mixing 90 c.cm. of glacial acetic acid and 10 c.cm. of a 96 per cent. alcohol and dissolving as much of the dye as can be placed on a threepenny-bit in this. As soon as the mixture with the faeces is homogeneous and equally stained red, a cover-glass is placed on it and pressed firmly to leave only a thin film. The slide is then heated for half a minute over the flame, but not so hot that boiling takes place. It is then placed under the microscope for examination with a high magnification. All the fat is now visible, either as yellow or any colour up to intense red globules. These are readily recognized in contrast with the pale yellow background. The stained fat loses its colour on cooling, and colourless crystals appear. Reheating revives the intense colouring. The author has set up a general scheme whereby the approximate quantity of fat in a stool can be estimated in this manner. He gives some results of his observations with the method.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

239. Arterio-sclerotic Neuritis.

Though barely recognized, neuritis due to arterio-sclerosis is, in the opinion of O. Foerster (*Wien. med. Woch.*, January 25th, 1913), not uncommon, for he has observed it in sixteen cases during the past six years. In all these cases general arterio-sclerosis existed before the neuritis, and the blood pressure was abnormally high. In most cases the arteries were thickened and tortuous, the heart showed signs of myocarditis and steno-cardia, a systolic murmur was audible over the aorta, and the urine contained a little albumen. Transitory glycosuria, which was independent of the patient's diet, was also frequently observed. In none of the cases was any other cause of the neuritis demonstrable. Wassermann's reaction was invariably negative, and such factors as alcohol and infectious diseases were also absent. Five of the patients were about 50 years old and 5 were between 60 and 70, and 6 were between 70 and 80. The condition is not, therefore, invariably a late sequel to arterio-sclerosis in elderly people. Hitherto the records of arterio-sclerotic neuritis have almost exclusively been of cases of polyneuritis, the nerves of the legs and arms, as well as the cranial and intercostal nerves, being involved simultaneously or in rapid succession. But most of the author's cases showed strict limitation of the neuritis. In 6 cases the nerves of the crural plexus were involved, and pain was felt in the outer aspect of the thigh and, later on, its anterior aspect. At first this pain occurred only after walking, and it ceased with rest. Later, it became continuous, and was troublesome at night. But though the pain might be excruciating, it was not accompanied by tenderness on pressure over the muscles or nerves of the affected area. The author repeatedly reiterates this observation, which he finds of great importance in differential diagnosis. There was also no paravertebral tenderness, but the patellar reflexes were absent. In one case in which the neuritis was unilateral, the absence of patellar reflex was bilateral. In some cases atrophy of the ilio-psoas, quadriceps extensor, and adductor muscles was accompanied by altered reaction to electrical stimulation. Motor paralysis, when present, invariably occurred later than the pain. Two out of the 6 cases in which the crural plexus was involved were unilateral, 3 were first unilateral and then bilateral, and 1 was bilateral from the beginning. In another group of 13 cases the sciatic plexus was involved. The original diagnosis was commonly sciatica, and the patients complained of pain in the hips, the buttocks, and in the back of the thigh and leg, down to the external malleolus. But neither the sciatic nerve, its branches, nor the muscles they supplied were tender. Lasègue's sciatic sign and paravertebral tenderness were also absent. In some cases there was paraesthesia of the foot, and in every case the Achilles reflex was absent. Atrophy of the muscles supplied by the peroneal and tibial nerves was common, but muscular weakness was frequently not noticed till the patient had walked for some time. In 1 case violent pain and paraesthesia in both limbs, absence of patellar and Achilles reflexes, involvement of the bladder, and positive Romberg without motor paralyses, formed a group of phenomena suggestive of tabes. The disorders of the bladder observed in 3 cases were probably due to neuritis of the pudendal plexus. But it is also possible that they were due to arterio-sclerosis of the brain. None of the dorsal nerves was involved; but in 3 cases slight pain and paraesthesia were observed in the arms, and in 1 case marked neuritis of the left arm was followed by atrophy of many of the muscles of the forearm. In 2 cases there was bilateral trigeminal neuritis without pain on pressure. With these exceptions, the cranial nerves were intact. The course of the disease was very erratic, remissions were frequent, and a transition from a mononeuritis to a polyneuritis was often seen. Complete recovery was also observed. Many of the patients died of arterio-sclerosis of the brain after the neuritis had existed for a long time.

240. Angina of Ludwig.

Reclus (*Journ. des praticiens*, March 8th, 1913) describes several cases of this disease. The first of these, which may be taken as typical of the others, was the case of a waiter, aged 25 years, who suffered for some time from severe pain in a diseased molar, and in whom there was an enlarged submaxillary gland on the same side. The swelling spread rapidly, and finally involved the whole of the submaxillary area on both sides. The inflammatory area was of woody hardness, and the skin a rosy flush, but was noticeably free over the subjacent tissues. The mucosa of the floor of the mouth, which was the upper limit of the inflamed area, was difficult to see, on account of the trismus present, but appeared to be raised in a soft, cushion-like, almost gelatinous swelling. Under local anaesthesia a deep incision was made by means of the thermo-cautery, the platinum knife being heated to a white heat. A fetid, serous fluid, apparently gaseous, escaped freely. A tampon soaked in iodine strongly fortified with alcohol was then introduced, and the walls of the cavity were well bathed with it. As tincture of iodine decomposes almost immediately in contact with organic albuminoids, these dressings have to be changed frequently at first. The recovery was very satisfactory. In two other cases which the author details the dyspnoea associated with Ludwig's angina was very pronounced, and caused some anxiety, but a similar procedure had a successful issue. All of these cases showed the anatomical limitations of the inflammatory area of the disease. It is a space bounded in front by the posterior surface of the arc formed by the inferior maxilla, below by the muscular band of the mylo-hyoid ensheathed in its aponeurosis, and above by the sublingual mucosa. In the author's opinion Ludwig's angina has nothing specific about it, and may be associated with a variety of infective agents, the streptococcus being perhaps the most common. It is apt to arise in cases of temporary debility, and a common feature in all the cases quoted was the existence of a carious tooth and an enlarged but almost painless submaxillary gland. An important point, and often a source of error for the clinician as to the gravity of the condition, is the fact that the rosy-tinted and glistening skin moves freely over the underlying tissues. The necessity for early and active interference is emphasized by the risk of grave toxaemia and asphyxia in these cases. Any delay may necessitate tracheotomy, which would have to be undertaken in the most unfavourable circumstances. With every day's delay the mortality of the disease rises rapidly. General anaesthesia in these cases is dangerous.

241. Erythema Nodosum in Children.

Durante (*La Pediatria*, September 30th, 1912) reviews the various theories as to the nature of erythema nodosum and comes to the conclusion that it is a specific disease, and not a manifestation of rheumatism, tubercle, etc. It is true no definite organism has as yet been isolated, but that is equally true, for example, of scarlet fever. The diseases most likely to be confounded with erythema nodosum are rheumatism, polymorphous erythema, and the erythema induratum of Bazin. That some patients develop tubercle subsequently to an attack of erythema nodosum does not make erythema nodosum a manifestation of tubercle any more than such a sequence of events would turn measles into such a manifestation, and tubercle not infrequently follows measles. A few instances of limited epidemics have been recorded, so that it is possible erythema nodosum is very slightly contagious. If we consider the onset of the disease, its uniformity of course, the constancy and unity of the elementary lesions, the possible complications, and the general clinical behaviour, there is as good a reason for believing it to be a definite morbid entity as for most other diseases. In the three cases reported by the author von Pirquet's reaction was negative in each case.

SURGERY.

242. Tuberculous Peritonitis and Trauma.

E. Edèn (*Upsala Lackarforenings Forhandlingar*, February 17th, 1913) records a case of tuberculous peritonitis following a fall. The patient, a girl aged 6, had been quite well till six months ago, when she began to waste and to complain of abdominal pain; a younger sister also complained of abdominal pain. The milk supply of the family came from tuberculous cows. Two days before admission to hospital the patient fell on the ground, and immediately

complained of violent abdominal pain, which did not, however, prevent her walking a few steps to her home. She had not fallen on any sharp object, and no external injury was demonstrable: but her abdomen was everywhere tender, and for two days she was treated at home with cold compresses. She refused food, vomited frequently, and, with the exception of one motion passed after the accident, her bowels did not act. In hospital her temperature was 99.8° and her pulse 120. There was no dullness on percussion or marked hardness of the abdomen, which was somewhat distended and tender. A laparotomy showed great distension of the intestines, the surfaces of which were dull, dry, and covered with a thin layer of fibrin. The pelvis contained a small quantity of blood-stained fluid. An abscess cavity large enough to contain an orange was found in the mesentery of the jejunum. The mesentery elsewhere contained many enlarged glands, but there were no adhesions between the coils of intestine or between the intestine and the abdominal wall. Enterotomy was performed on both the large and small intestine, and cheesy, blood-stained matter was removed from the ruptured and half empty abscess cavity, which was then plugged with a tampon. The tumour which had formed around the abscess was now excised, and was found to consist of typical tuberculous tissues. The patient recovered. The author considers that the fall ruptured the abscess and thus started the peritonitis. As a rule, when tuberculosis of an abdominal organ extends to the peritoneum, adhesions form locally and thus prevent the generalization of the peritonitis. Another rare feature of this case is the shortness of the interval between the commencement of the peritonitis and the operation. This explains the absence of adhesions, thick deposits of fibrin, and of the tuberculous nodules found in tuberculous peritonitis of old standing. Lüche alone appears to have recorded a similar case.

243. Electrolysis of the Urethra, Prostate, Lacrymal Duct, and Oesophagus.

LAFOND-GRELLETY (*Gaz. hebd. des sci. méd.*, 1913, xxxiv, No. 6) publishes the following results of electrolysis: *Urethra:* 46 cases of stricture; 8 cases in which no bougie would pass, 7 cures, 1 inoperable; 14 cases of stricture without discharge, all cured; 24 cases with discharge, 23 cured, in 1 the discharge continued. *Prostate:* 6 cases, 5 cures. *Lacrymal duct:* 4 cases, all cured. *Oesophagus:* 1 case of carcinoma of the oesophagus, much relieved.

244. Hemisporosis.

BALZER AND BELLOIR (*Bull. de derm. et syph.*, February, 1913) draw attention to hemisporosis as reported in the literature, and for fuller information refer the reader to the publications of Gougerot and Caraven, Schramek, Pinoy, and De Beurmann, whose work, *Les Sporotrichoses*, was published in Paris last year. The case they reported concerned that of a fruit porter, who two months before attending hospital had suffered from furuncles of the neck. A month later there developed in the interscapular region a small, slightly painful swelling which quickly increased in size and broke down in fifteen days, the resulting ulcer, when first shown, being the size of a florin, with dusky red, irregular, soft, infiltrated margins, and discharging a sero-purulent fluid from under the yellow, crust-covered base. A smaller and similar lesion was found on the antero-internal surface of the right tibia. It was noted that the patient, whose Wassermann reaction was found to be negative, was in the habit of slinging his fruit basket round his bare neck, from which source he no doubt contracted the infection. Cultures of the typical organism—a mycelium with bulb-shaped protogonidia (so called) and chains of circular deuterogonidia—were successfully grown on maltose agar in ten days. The cultures were also typical in appearance and consisted at first of small, greyish-white, downy discs, enlarging later to circular cerebriform patches of a rusty and chocolate brown colour. The authors suggest that in all cases of soft gummatous tumours, where the Wassermann reaction is negative, cultures should be made, as a positive find will save the patient from surgical interference or antisyphilitic treatment. The lesions yield rapidly to the internal administration of potassium iodide in large doses.

245. Hydatid Cyst of Liver.

VERDELET (*Gaz. hebd. des sci. méd. de Bordeaux*, 1912, xxxiii) describes the case of a woman 50 years of age operated for a hydatid cyst of the liver, in whom six months afterwards an echinococcus cyst occurred in the cicatrix. The cyst was removed and cure resulted. The author draws attention to the necessity of antiseptic precautions to prevent secondary infection.

OBSTETRICS.

246. Fatal Haemorrhage from Vagina and Vulva after Labour.

A CASE of haematoma of the vagina terminating in profuse haemorrhage and death is reported by R. Roemer (*Zentralbl. f. Gyn.*, January 25th, 1913). The patient, whose two previous confinements had been normal, was 23 years old when attended at her third confinement by a midwife. No instruments were used, but half an hour after the completion of labour violent pain like that of labour was experienced, together with a sensation of pressure in the lumbar region and about the rectum. These symptoms were ignored till the midwife saw a swelling of the size of a fist projecting from the vagina through the vulva. An hour later a medical man found this swelling as large as a child's head. Three hours *post partum* the patient was sent to the hospital, on her way to which the swelling burst and flooded the stretcher with about two litres of blood. She was now very anaemic, her pulse was 130, small, and of low tension, and the firmly contracted uterus extended to the umbilicus. The whole of the posterior vaginal wall was stripped from the underlying structures and was torn from above downwards, but the uterus and peritoneum were intact. Although the patient rallied under treatment with stimulants and subcutaneous injections of saline solution, death followed six hours *post partum*. The author attributes the haemorrhage to rupture of a large blood vessel in the paravaginal tissues during the passage of the child's head, and he reflects unfavourably on the delay which cost the patient her life. Had she been admitted sooner to hospital, had the bleeding vessel been found and ligatured, and had a tampon been inserted, death would, he thinks, have been avoided. This view is supported by the experience of Walther, whose patient complained of pressure about the anus within an hour of the completion of labour. Haematoma of the upper portion of the vagina was discovered, and active measures were taken which saved the patient's life. In another case described by the same writer a vaginal haematoma as large as a fist was not interfered with. Sepsis followed and the patient died. The mortality from vaginal haematoma is not, however, very high, and out of 50 cases collected by v. Winckel there were 6 deaths, 3 of which were directly due to the haemorrhage.

247. Pernicious Vomiting of Pregnancy.

WHITRIDGE WILLIAMS (*Journ. of Obstet. and Gyn. of the British Empire*, November, 1912) has revised his views on this subject. He still holds to his original classification of reflex, neurotic, and toxaemic vomiting, and regards the toxaemic element in the first two forms merely as a predisposing factor. The toxaemic type occurs much less frequently than the neurotic, but considerably less frequently than the reflex variety; but its diagnosis is not so simple as the author had originally believed. Formerly he taught that the toxaemic form, being associated with profound degenerative lesions in the liver and kidneys, as well as with marked changes in metabolism, could be sharply differentiated from the others; that it was characterized by the increase in the proportion of nitrogen excreted as ammonia, and that when the ammonia coefficient exceeded 10 or 15 per cent. it should be regarded as an indication for the prompt termination of pregnancy. It now appears that the significance of a high ammonia coefficient is not specific, but may be a manifestation of starvation following neurotic vomiting, or of an acidosis due to various causes. Nevertheless for clinical purposes we can consider a case as toxaemic in origin whenever a seriously ill patient, presenting a high ammonia coefficient (20 per cent. or more), fails to improve after a few days' complete rest in bed, combined with suggestive treatment, energetic rectal feeding, and the administration of large quantities of saline solution per rectum and beneath the skin. Furthermore, the appearance of coffee-ground vomit, well-marked icterus, and a semi-comatose condition, justifies an almost positive diagnosis, provided chloroform has not been employed as an anaesthetic. If improvement does not promptly follow appropriate treatment the existence of toxaemic vomiting should be assumed, and abortion promptly induced. In the absence of genital lesions, a low ammonia coefficient indicates neurotic vomiting, which can be cured by suggestion and dietetic treatment, no matter how ill the patient may appear. In primiparae vaginal hysterotomy is the most conservative method of emptying the uterus. Nitrous oxide gas or ether should be used for anaesthesia in preference to chloroform, since chloroform has a deleterious

effect upon the liver, and in cases of delayed chloroform poisoning similar hepatic lesions are found to those seen in cases of death from toxaemic vomiting.

GYNAECOLOGY.

248. Radium and X Rays in the Treatment of Uterine Fibroma.

THE use of radium, either alone or associated with *x* rays, in the treatment of uterine fibroma has been the subject of an interesting discussion in the Société de Radiologie Médicale de Paris (*Bull. et mém.*, No. 42, 1913). The discussion was initiated by a communication made previously to the Société d'Obstétrique et de Gynécologie by Bouchacourt and Chéron, who advocated the radium method. The opinion of all the radiologists, however, was adverse to the excessive claims made for radium in this connexion. Haret, for example, questioned the statement of the authors of the paper to the effect that the radiation from a tube of radium inserted into the uterus was almost entirely absorbed by the uterine muscle and fibrous tissues. It was well known that in a radiograph of the pelvis no trace of the uterus was visible, owing to the penetrating character of the *x* radiation. Was it likely, therefore, that the radiation from a tube of radium, which was so very much more penetrating, could be arrested almost totally by the uterus? Nor would this authority accept the statement that the technique of radiumtherapy was easier than that of radiotherapy. Properly to employ either method required not only a knowledge of the various factors of dosage but a considerable experience. The authors had stated that at the beginning of *x*-ray treatment, using feeble doses, they had occasionally observed an increase of haemorrhage, due to the excitation of the ovarian function, but the testimony of Haret was that, although he himself had given nothing but feeble *x*-ray doses, he had never witnessed this phenomenon in forty cases. Béclère endorsed Haret's criticisms, and dealt with the insinuation that radium was therapeutically much superior to the *x* rays because of its greater penetrating powers. The epithet "ultra-penetrating" in connexion with radium seemed to have the same talismanic value for some workers as the label "extra dry" possessed for certain palates when it appeared on bottles of champagne. Without doubt the gamma rays of radium surpassed greatly in penetrating power the rays emitted by the hardest *x*-ray tube, but the gamma rays did not constitute more than the tenth part of the total radiation. The extreme tenuity of the useful dose in the case of radium was compensated for by the lengthened time of exposure, but in order that this should not be dangerous it was necessary that the gamma rays only should come into play, and therefore that the salt of radium should be filtered through an envelope of lead at least 8 mm. thick—a condition very rarely fulfilled. The advantage of radium lay in the possibility of introducing it into cavities inaccessible to the *x* rays. It represented, in fact, a pocket edition of the *x*-ray tube. Other radiologists having expressed themselves to similar effect, the reply of Bouchacourt was directed mainly to the question as to whether or not *x* rays in feeble doses were capable of increasing the haemorrhage by exciting the ovarian function. Personally he had observed twice a recrudescence of haemorrhage in the days which followed the first weak irradiation, and he quoted the experience of Guilleminot, Falk, and others in support of his view. Belot summed up the discussion by saying that the gamma rays were much more penetrating than the most rapid *x* rays actually known, but the quantity of effective radiation for a given sample was feeble when compared with the quantity of *x* rays emitted by a tube, and by virtue of this very penetrability of the radium rays the amount of energy which they gave up to the cellular elements while traversing the tissue was small.

THERAPEUTICS.

249. Treatment of Seborrhoeic Alopecia.

THEODOR MAYER (*Wien. med. Klin.*, No. 33, 1912) discusses the treatment, general, dietetic and local, of alopecia seborrhoeica. Massage aims at increasing, at least temporarily, the local circulation, and at mechanically loosening the skin, which is often too tightly stretched. For the latter purpose the hands are laid flat on each side above and behind the ears and the skin moved by shoving movements, without rubbing, towards the vertex, so as to be thrown into folds. Such movements should be carried out twice a day, 100 times on each occasion. When there is already definite thinning of the hair this procedure should be followed by tapotement carried to the point of beginning to induce redness of the skin. Local drug treatment aims at the removal of excess of fat and then at the application to the diseased hair follicles of drugs, such as sulphur, tar, resorcin, naphthol, etc., which have been found empirically to be useful. Lassar's hair cure appears to meet all the indications, and has been found by the author to be, in the majority of cases, the most useful. In it the head is lathered with tar soap, washed, and lightly dried; sublimate solution is next applied, the head then rubbed with naphthol spirit 0.3 in 2.000, and finally the hair, which may be too much dried, oiled with 2 per cent. salicyl oil. In specially severe cases concentrated tar oil, turpentine, vaseline, chrysarobin, or sulphur ointment can be applied. The defect of the treatment is the length of time needed for its application, and to meet this defect the firm of Arthur Wolff, Berlin and Breslau, has prepared sapalcol (sapo-alcohol), a medium for the application of the required drugs by the use of which the procedure is shortened. Sapalcol is a cream-like preparation put up in tubes, and it contains mixtures of fat acid, alkalis with spirit, a small quantity of a fatty body, and one or other of the drugs above mentioned. It becomes fluid almost immediately it is applied to the skin, and penetration is so complete that after slight massage the skin becomes dry and clean. Dry rubbing with sapalcol answers better than the use of the customary hair pomades, because sapalcol is not fatty, and its soap and spirit constituents help towards a more intense and penetrative action of the drug which it contains. Sapalcol is applied at night and any remnant of it washed off in the morning. The massage recommended above should be carried out before sapalcol is applied at night and after the hair has been washed in the morning. If a specially strong action is required the treatment can also be given during the day, or a spirituous hair wash used. Any excessive drying of the hair can be met by impregnation of the hair, but not the skin, with 2 per cent. salicyl oil (ac. salicyl. 1.0, tinct. benz. 2.0, ol. olivae optim. ad 50). In the case of women with long hair the sapalcol treatment can be carried out easily with only a weekly, not a daily, washing of the hair. The sapalcol treatment of the majority of cases of seborrhoea is begun with sulphur sapalcol and continued with tar sapalcol, or the two preparations can be used alternately. Tar and afridol sapalcol are, it is claimed, specially indicated when there is much itching, naphthol sapalcol in cases in which a slight irritant action is required, and resorcin sapalcol where there is an accompanying acne. The author also warmly recommends the use of sapalcol prophylactically for the hair.

250. Insipina.

D. E. P. NOGUERA (*Revista di Medicina y Cirugia practicas*, October 21st, 1911) mentions as derivatives of quinine the best known tasteless up to the present—ether-ethyl-carbonate-euquinine; the neutral ether carbonate—aristoquina; and the *a* combination with salicylic acid—saloquinia. Quite recently, however, a new compound has been obtained—a sulphate of ether-diglicolico, to which the name "insipina" has been applied. It is a crystalline powder insoluble in water, alcohol, ether, and chloroform, but very soluble in acids. It has scarcely any bitter taste, is less toxic than any of the tasteless quinine compounds already mentioned, and contains 72.2 per cent. of quinine, that is, nearly as much as the sulphate of that alkaloid. Dr. Umberto Sylva, who has employed it in a large number of cases and in large doses (30 grains daily), has convinced himself that it is better tolerated than the salts of quinine. In cases of enteric fever in which there were evidences of cardiac weakness, small doses—less than 15 gr.—seemed to act as a tonic to the heart, increasing the force of its systole, the blood pressure, and diminishing the frequency of the pulse. Other statements made are as follows: Insipina is very readily eliminated by the kidneys, and its presence in the urine can be demonstrated by Bouchardat's reaction ten minutes after administration. The albumen, in cases of albuminuria, is not increased. Like quinine, it diminishes metabolism, and less nitrogen is excreted in the urine, but its action in this respect is only about half as energetic as that of quinine. Lastly, the observations of Werner (of the Institute of Tropical Medicine of Hamburg) has proved that insipina in malaria acts as rapidly and surely as quinine, but must be given in doses half again as large.

251. Relapses after Salvarsan in Syphilis.

GAUCHER AND LEVY-FRANCKEL (*Ann. des mal. vén.*, January, 1913) report on 52 cases of relapse after treatment of syphilis by salvarsan and neo-salvarsan, chiefly

from the St. Louis Hospital, Paris, partly from literature. They find that salvarsan, whether given during the primary or the secondary stage, only modifies the evolution of the disease by retarding the further symptoms, and that there is no relation between the apparent cure nor between the gravity of the relapse and the number and dose of the injections; for instance, a case of severe iritis occurred after twelve intravenous injections of 0.15 gram. They draw attention to the frequency of recurrent roseola and redux chancre, or chancre recurring *in situ*, after treatment during the secondary period. They also point out the danger of false security given to patients treated by salvarsan, especially as regards marriage. With regard to the effect on the Wassermann reaction, this may remain positive or become negative, but a positive reaction was obtained in some cases with Desmoulières's antigen (1 per cent. cholesterin added to an alcoholic maceration of powdered heredo-syphilitic liver extracted with ether) when the usual Wassermann was negative. The authors conclude that salvarsan is only indicated when mercury fails, and when the liver, kidneys, nervous system, eyes, and ears are sound, and that it "whitewashes" syphilis, but does not cure it.

252. The Therapeutic Value of Carbenzyme.

CARBENZYME is the name given by Freund and Redlich of Berlin for carbon which has absorbed pancreatic ferment and put up in sterile ampullae, each containing 0.25 gram. A. Sticker and S. Rubaschow have made some experimental investigations in regard to this preparation before proceeding to their clinical tests (*Berl. klin. Woch.*, October 28th, 1912). Carbenzyme, they claim, is a reliable sterile preparation, which is much less influenced in its therapeutic action by chloroform, alcohol, potassium permanganate, etc., than the other trypsin preparations. It acts equally well when emulsified in glycerine as in sodium hydrate solution. It does not attach normal tissue, save fat, and digests dead and decomposing tissues and the contents of cysts. Injections of carbenzyme produce a marked reaction when there is an acute inflammatory process or when a pathological lesion leads to an increased tension of the tissues. Tuberculous pus is rendered more fluid, serous, and dark by carbenzyme. Albuminolytic processes continue in tuberculous suppurative lesions for about ten days. Clinically, the authors noted a beneficial influence on tuberculosis of the soft parts, on cold abscesses, tuberculous hygromata, and on softened lymphatic glands. In gangrene the dead tissue is digested, but the connective tissue capsule is left intact.

253. Treatment of Chronic Eczema.

TÓTH (*Sem. méd.* No. 45) recommends the employment of radiant heat and boiling water in the treatment of chronic eczema, a method which he found successful in his own case after other means had failed. The affected region is exposed to the radiant heat from a stove, or from any other source, giving a temperature of 100 to 115° C. The limb is slowly passed before the source of heat five or six times till the itching provoked by the heat has disappeared or nearly so. This manœuvre is repeated two or three times at each sitting of which there are three a day. As improvement appears the number of applications is gradually diminished to one every two or three days. The distance of exposure is determined by the intensity of the morbid process. After irradiation a folded napkin is wrung out of boiling water and applied gradually to the affected part; it is then again soaked in boiling water and applied more energetically, care being always taken to wring it out thoroughly. In cases of weeping eczema with the skin infiltrated, oedematous, and covered with rhagades and acute lesions of all kinds, these phenomena clear up in from five to six weeks under the treatment. The discharge improves in character in two or three days and the crusts disappear in about a fortnight. In several weeks improvement is so marked that one is tempted to believe that permanent cure is imminent, but in fact several relapses generally follow which, however, become less frequent and less severe. The treatment is rather long, but Tóth is convinced that it gives excellent and permanent results. The special advantages of the method are that it is clean, that it is simple, and that it is soothing, particularly in regard to the itching and the acute eruptive phenomena.

254. The Treatment of Ophthalmia Neonatorum.

IN discussing the treatment of ophthalmia neonatorum, A. Lehle has compared the action of silver nitrate, silver acetate, and a preparation called sophol, which is a combination of silver and formaldehyde-nucleinic acid (*Muench. med. Woch.*, October 1st, 1912). This last-named preparation is manufactured by the Elberfeld Farbenwerke (formerly F. Bayer and Co.). It is employed in a 5 per cent. solution. The irritant action of silver nitrate is less marked when the silver acetate is used. But even the acetate does not fulfil the requirements of ophthalmia neonatorum completely. In 0.2 per cent. of the cases in which it was tried gonococci could be found three and four days after birth respectively, when the acetate was carefully instilled into the eyes at birth. No cases of late infection were met with. Sophol was used in a large series of cases. In 8 per cent. there was a very mild irritation; only in 1.5 per cent. was redness and swelling met with. In 0.5 per cent. there was some purulent conjunctivitis. This indicates, according to the author, that the irritation from sophol is much less than from the other silver compounds. Its bactericidal action was highly satisfactory; pain is not produced by instilling drops into the eyes, and it has proved to be quite harmless. He points out that it is quite stable. He therefore considers that it should replace silver nitrate in the prophylactic treatment of the eyes of newborn infants.

PATHOLOGY.

255. Inclusion Bodies in Scarlet-Fever Blood.

NICOLL, jun. (*Arch. of Pediatrics*, June, 1912), from further research upon inclusive bodies in scarlet-fever blood, records the results of his examination of 115 cases of scarlet fever with 80 controls. Since these bodies are of practical rather than scientific value the controls were selected as far as possible from such pathological conditions as the clinician is frequently required to differentiate from scarlet fever. Manson's stain (borax, methyl blue) is the most useful and best fulfils all requirements of diagnosis, the red blood cells taking up a bluish-green tinge, the nuclei of the leucocytes a very deep blue, the cytoplasm a very faint blue, and the inclusions a shade between the two. These bodies vary in shape and size and, in fresh cases of scarlet fever, from one to six or more are found in nearly all the polymorphonuclear cells. They generally tend to disappear after the first week of the disease. Of the 115 cases only 16 failed to show the inclusion bodies, 12 having been ill more than seven days, and one dying within twenty-four hours from a fulminating type of the disease. It may be fairly concluded that these bodies will be found up to and including the fourth day of the disease in every case of scarlet fever with the exception of the fulminating type, in which case the tissues have had no time to react. They will not be present in cases of antitoxin rashes, measles, German measles, various toxic rashes, and ordinary tonsillitis, but they are present in cases of general sepsis—a condition frequently confused with scarlet fever, and, unfortunately, therefore indistinguishable from it by the blood examination. In technique it is essential that a small drop of blood should be spread evenly and thinly, so that the leucocytes may lie flat and by themselves, and not be distorted or cramped. The smear is fixed in methyl alcohol, washed, and stained with Manson's stain for from ten to thirty seconds. Then, after further washing, it can be examined with oil immersion, thus affording a valuable method of differential diagnosis between scarlet fever and nearly all the conditions resembling it.

256. The Inhibition of Haemolysis by Syphilitic Serum.

M. POPOFF (*Deut. med. Woch.*, September 26th, 1912) has examined the capability of syphilitic serums in inhibiting the haemolysis of guinea-pig's blood corpuscles. It appears that normal serum, when added to saline fluid and a suspension of guinea-pig's red blood cells, causes the latter to become dissolved. Popoff found that this occurs regularly when 0.1 c.cm. of serum, 0.9 c.cm. of saline fluid, and 0.1 c.cm. of guinea-pig's blood cells (diluted to 1 in 5) are mixed. He also used 0.2 c.cm. of serum and 0.3 c.cm. In each case the saline fluid and blood cells are added. If the serum yields a positive Wassermann test, the haemolysis does not take place. On testing over 600 serums in this way side by side with the Wassermann test, he found that 75 per cent. gave inhibition to haemolysis and a positive Wassermann. The remaining 25 per cent. gave a haemolysis with his test. He tested some 161 normal serums, and in 2 cases he obtained partial inhibition of the haemolysis. Complete haemolysis was effected in all the others. He adds a few remarks on the partial absence of complement in normal and pathological serums.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

257. Neuritis following Pneumonia.

ALTHOUGH neuritis is a rare sequel of pneumonia according to Biermann (*Dent. med. Woch.*, January 23rd, 1913), he has lately seen three patients with this complication. One was a servant girl, aged 24, whose croupous pneumonia of the left lung was followed by crisis on the seventh day. Pain and weakness in both arms were noticed on the tenth day, and for the following three weeks the patient could not lift her arms to feed herself. The pain was practically limited to the shoulders and upper arms, whereas the hands and fingers showed partial anaesthesia. After five months the muscles supplied by the thoracicus major, axillaris, subscapularis longus, radialis, and medianus nerves on the right side showed paresis and atrophy. On the left side the nerves involved were the subscapularis longus, musculo-cutaneous, and radialis. The patient recovered in two years. Another patient was a farmer, aged 22, who developed pneumonia for the third time. About a fortnight later both arms became painful, and within twenty-four hours there was marked paralysis of both arms and shoulders. Considerable atrophy followed, and though the paralysis was not progressive it had not completely disappeared six months later. The cervical segments of the cord were probably involved, for there was slight inequality of the pupils on accommodation and reaction to light. Vasomotor and trophic disturbances, such as punctate redness of the skin and recurrent desquamation, combined with absence of symptoms referred to the bladder, and the slow cessation of the paralysis and atrophy, confirmed the diagnosis of neuritis. A certain degree of alcoholism in this case may have rendered the nerves specially susceptible to the toxin of pneumonia. The third patient, a married woman aged 47, developed pneumonia concurrently with the menopause. Pain in the lower dorsal vertebrae and lower ribs followed a little later, and was succeeded by violent pain in both legs from the knees to the toes. Burning and stabbing pains were felt in the soles of the feet and the outer aspect of the legs, which became very weak. Subsequently the muscles of the leg began to twitch and the first three fingers of the left hand showed slight loss of sensation. The right facial nerve was also slightly paralysed. With those two exceptions the disease was limited to the lower limbs. Here the muscles of the hip, the adductors and abductors of the thigh, and the extensors and flexors of the leg were intact. The peroneal muscles on both sides were weak, the gait was jerky, and the feet dragged. The Achilles reflexes were weak, but the patellar reflexes were normal. The patient improved slowly under treatment with sun and carbonic acid baths and phenacetin, 0.5 gram of which was given thrice a day. When discharged a few weeks later the patient could walk without a stick, and the only trace of the neuritis was slight loss of sensation in the soles of the feet.

258. Pellagra.

AFTER an extensive and intensive epidemiological study of pellagra in the south, Assistant Surgeon R. M. Grimm (Public Health Reports, quoted in the *Journal of the American Medical Association*, April 5th) thus summarizes his results:—*Race:* More cases were found among the whites than among the negroes. *Sex:* More cases were found among the females of each race than among the males. *Age:* More persons developed the disease at ages between 20 and 40 years than at other ages. *Case Mortality-Rate:* The case mortality-rate is higher among the negroes than among the whites, highest among the coloured females, and lowest among the white males. *Case Insanity-Rate:* The case rate of insanity incidence is higher among the negroes than among the whites, and higher among the males than among the females. *Marital Condition:* Among the married and widowed pellagrins the females predominate; the single pellagrins are equally divided among the sexes. *Environment:* More cases occurred under conditions of poverty than of comfort, and more under conditions of comfort than of affluence. *Location of Homes:* More cases developed in persons living in small towns and villages than among those living in the rural districts. *Relation of Cases:* More cases developed in the immediate vicinity of other cases than otherwise. *Food:* The relationship existing between the cases of pellagra in this series and the character of the food supply admits, at present, of no conclusion. In investigations of this character, however, this relationship demands consideration. *Incidence:* Pellagra seems to have been on a gradual but constant increase in the districts visited, with the probable exception of the year 1912. *Prevalence:* Pellagra is more prevalent than is ordinarily supposed even by the physicians practising in pellagrous communities, and there are many persons in pellagrous communities who present symptoms of a mild pellagrous condition which do not ordinarily come to the attention of the physician on account of the mild character of these symptoms. It is added: "Since the deduction of a correct conclusion presupposes the existence of unquestionable premisses, no definite conclusion regarding etiology has been drawn from the results of the work. Premisses based on work in other lines seem to be necessary before such a conclusion on this point can be drawn. The possibility of some insect playing a part in the dissemination of the disease does not seem inconsistent with the facts presented above." From Grimm's observations the relationship between pellagra and food seems to be a real one, but whether the character of the food may act only in predisposing to conditions which favour the development of pellagra, or whether certain articles of food act as the real exciting agent, or whether they act only as exaggerators of the symptoms (as the sunlight, for instance), is an open question. It is possible that certain articles of food may act in all three ways.

259. Abnormal X-ray Reaction following Syphilis.

REGAD (*Arch d'électr. méd.*, September 25th, 1912) brings forward a case of severe radio-dermatitis following two very feeble applications of the *x* rays. The treatment was given for a pronounced freckling upon the dorsal face of both hands. (The patient had spent a quarter of a century in the tropical climate of Tongking, Indo-China.) At neither of the two sittings, which were separated by an interval of six weeks, was an "erythema dose" administered. Some inflammation was forthcoming, however, twenty-seven days after the second sitting, and left in its train a few days later an ulceration the size of a 2-franc piece on the back of each hand. One hand also showed a hard and painful oedema, and the fingers remained demiflexed. The patient energetically denied that he was a syphilitic, and the most scrupulous examination from this point of view was negative. It was concluded that life in the tropics, with the paludism and dysentery to which the patient was subject, had diminished the resistance of the organism and thus encouraged infection, due, perhaps, to soiled dressings. The patient passed out of the author's hands, and some months later the author learnt from a medical man attending him that although the ulcerations might be considered as cured, symptoms of general paralysis were supervening, and later that there had been a rapid evolution of this malady, from which the patient had died. It was then found that the patient was an old syphilitic and had admitted his full knowledge of the fact to his intimates. The author takes the case to be a further proof of the rôle played by syphilis in the abnormal reactions that occasionally follow radiotherapy in spite of the most careful technique, and he suggests that a congress of radiologists should discuss measures for their legal protection in such circumstances.

260. Arterial Vibration in Corrigan's Disease.

WEBER (*Journ. des praticiens*, January 4th, 1913) calls attention to a proceeding in the investigation of the hammer pulse of Corrigan which is more distinctive in its results than the ordinary clinical method of applying the finger over the radial artery. The palm of the hand is applied to the lower and anterior extremity of the forearm in such a manner that the fingers are bent round the posterior aspect; moderate pressure of the palm gradually applied over the arterial region gives evidence of a vibratory tremor resembling the purring of a cat in certain cases. This tremor is accentuated on raising the limb as in the ordinary demonstration of Corrigan's pulse. The same thing is experienced in the case of the lower extremity. The author relates a case of typical aortic

disease in which there was no thrill to the finger applied in the ordinary way, but in which, when the arm was grasped in the manner indicated, there was marked tremor. His conclusion is that, whilst the ordinary linear examination of the larger arteries is sufficient as indicating a marked tremor, the method may have negative results in the examination of the radial artery or the dorsal artery of the foot, and in such cases contact over a larger surface in the manner indicated frequently gives evidence of intense tremor, accentuated by elevation.

SURGERY.

231. Prolapse of the Rectum with Ulceration and Perforation.

GREIWARIK (*Gaz. hebd. des sci. méd. de Bordeaux*, 1912, xxxiii) narrates the case of a man, 35 years of age, who had suffered for three years from prolapse of the rectum. Ulceration occurred in the peritoneal portion and ruptured the rectum through the opening of which the small intestine protruded. Taxis failed to reduce the protruding bowel, and owing to the condition of the patient operation was not performed. The patient died three hours afterwards; no autopsy was performed, and the author thinks death was due either to haemorrhage from a mesenteric vessel or reflexly from traction on the solar plexus.

262. Eczema Marginatum.

NICOLAN (*Ann. de derm. et syph.*, February, 1913) cites personal observations of 35 cases (29 men, 6 women) during four years of work in his clinic. Only three times was there a history of family infection—in two cases husband and wife, in the third both parents and their two children. The lesions, which are almost invariably localized to, or at any rate primary in, the cruro-scrotal region, are always sharply demarcated from the healthy skin and do not show any tendency to spread beyond the folds. In appearance they resemble often in colour, consistency, circinate edge and dry surface, the lesions of tinea circinata, with which they have doubtless been confounded in the past, but the fact that children are very rarely infected by the epidermophyton inguinale (the age of Nicolan's patients varied between 15 and 40 years) should suggest the correct diagnosis to the practitioner. The cases most difficult to diagnose are undoubtedly those which attack the interdigital clefts and the toes and plantar aspect of the foot. Where the suspicion arises, the cruro-scrotal region should always be examined and a few scales placed in potash for microscopical purposes. Once the diagnosis is assured, the cure is only a matter of a week or two. The author orders a weak chrysarobin ointment. He describes the microscopical appearances and the cultural features of the fungus at considerable length. The latter grow best on a maltose agar (Chaunt) at room temperature and show evidence of growth in the shape of downy-white points in from five to eight days. They extend peripherally and assume a characteristic yellowish-green to grey tint in from thirty to forty-five days, by which time they have grown to a crateriform colony the size of about a two-shilling piece, the limit of their growth, and they then undergo pleomorphism. Under the microscope can be distinguished ribbon-like threads of mycelium composed of rectangular cells of variable length but of a constant breadth. Here and there these elements have undergone irregular development; they become vivid or inflated in appearance, and in places even present the appearance of watch chains. The illustrations given by the author are exceedingly clear and instructive.

233. Cranial Spina Bifida.

PETIT DE LA VILLÉON (*Gaz. hebd. des sci. méd.*, 1913, xxxiv, No. 6) describes a case of a girl 7 years of age suffering from a large tumour protruding from the posterior region of the head. Incision of the swelling removed a large quantity of cerebro-spinal fluid, and the swelling disappeared. A pedicle attached to the swelling was removed, and the whole sac dissected out. The child made a good recovery.

234. Fibroma of the Orbit.

TEULIÈRES (*Gaz. hebd. des sci. de méd. de Bordeaux*, 1913, xxxiv, January 26th) divides fibromata of the orbit into those that arise (1) in front and (2) behind the capsule of Tenon, and describes a case of the former, in a woman 33 years of age, which arose as the result of a blow. It affected the periosteum of the orbital border. Removal showed all the appearances of a fibroma.

OBSTETRICS.

265. Extract of Pituitary Body in Labour.

THE treatment of uterine inertia during labour must be adapted to the condition of the uterine muscle and to the work which it has to perform. Uterine weakness must be distinguished from faulty pressing down by the abdominal muscles, and care must be taken that the weak pains which are supposed to indicate a primary inertia are not periodic pains of pregnancy. Fries (*Deut. med. Woch.*, September 12th, 1912) dismisses secondary inertia rapidly by pointing out that this usually results from some abnormal resistance, and is thus a sign of exhaustion of the muscle, which must be treated, like all other forms of exhaustion, by rest, provided that no vital indications exist for a speedy termination of the labour. For primary inertia, mechanical, thermic, and medicamentous measures may be adopted. The mechanical and the thermic measures are not dealt with in detail. The former remain the last resort, while the latter are unreliable. Among the medicines employed to enable the uterus to perform its work, only quinine and ergot are worthy of consideration. Recently a third active substance has been introduced—namely, the pituitary gland. The latter have proved themselves to be reliable and harmless substances, which yield good results in the first and second stages of labour, provided that no considerable resistance has to be overcome and that there are no indications for immediate delivery. The action in the third stage is uncertain and not so good as ergot. Further, he points out that pituitary preparations do not suffice for the induction and completion of abortions or premature labours. A great advantage of these extracts is that they are non-toxic and can be combined with cardiac stimulants, morphine and ergot. The ecbolic action is not impaired by such combination. He is of opinion that a general adoption of these preparations into general practice would limit the number of operative deliveries, which he regards as a great gain.

266. Condition of the Kidneys in Eclampsia.

A. ZINSSER is quite justified in calling attention to the fact that a large number of questions in connexion with eclampsia are awaiting solution (*Berl. klin. Woch.*, March 3rd, 1913). He has set himself two specific questions, and deals briefly with the replies. The first is, "Does the degree of damage to the kidney run parallel to the severity of the eclampsia?" In attempting to answer this question, he reviews the possibility of being able to ascertain the condition of a kidney during an attack of eclampsia. The indicators formerly relied on were: The excretion of albumen, the composition of the urinary sediment, and the amount of urine excreted. The more modern methods dealing with the tests of renal function can scarcely be put into action during the extremely brief time available during the eclamptic attack. It has been shown that eclampsia may set in before the amount of urine is diminished; and, further, that it may pass off before the oliguria or anuria ceases, and cases are on record in which no oliguria accompanied the eclampsia at all. In the same way albuminuria need not be an accompaniment of eclampsia. No indication of the prognosis of a case can be derived from the estimation of the nitrogen content of the urine, or from the amount of chlorides excreted. But Zinsser points out that in oedematous eclampsia after delivery, if the amount of chlorides in the urine suddenly and permanently sinks to a fraction of the normal quantity (under 0.1 gram) the prognosis is extremely bad, while as long as the amount remains permanently above average values, even a severe case of eclampsia may be regarded in a favourable light. Unfortunately this sudden drop in the chloride content of the urine takes place after the organism is severely damaged. The author regrets that we have no indication of the prognosis before this has occurred, so that a suitable form of treatment might be applied. The second question is, Can the damage to the kidney essentially influence the course of illness? or, in other words, Can we act on the kidney therapeutically in order to alter the course of the eclampsia? The reply to this is in the negative. He shows that the kidney is not the only organ damaged in the disease. The kidney may, during an attack of eclampsia, be quite capable of excreting nitrogen satisfactorily, and even when this is not the case, the shortness of the time prevents the retention of N bodies from being so marked as to control the condition. Arguing by the analogy of scarlatinal uraemia, he finds that the renal insufficience for sodium chloride and water producing oedema stands prominent in the condition. The chlorides are markedly diminished in the urine, less water is excreted, and oedema takes

place. The convulsions are regarded as the signs of oedema of the brain. It would thus appear to be more rational to aim at the treatment of the oedema than of the defect of the kidney. Trephining the skull or lumbar puncture at times yield extraordinary results in uraemia, and the same may apply for a few cases of eclampsia. But in the majority of cases of eclampsia it is quite useless to perform lumbar puncture or to decapsulate the kidney. All attempts to eliminate the hypothetical poison from the system by the kidney fail. It is therefore necessary to study the problem further in order to attempt to find a reliable prognostic indicator which can be relied on before the organism is past hope of assistance, and a rational therapeutic procedure which may free the organism from the noxious agent of eclampsia.

GYNAECOLOGY.

267. The Umbilicus in Women and New-born Children.

SOME observations on the relation of the umbilicus to fixed points bordering the abdomen have been published by Kakouchkin (*Roussky Vratch*, December, 1911; *Sem. méd.*, May 29th, 1912). Those points are the summit of the ensiform cartilage, the upper border of the symphysis, and the right and left anterior superior spines of the ilium. He detected great variation, as might be expected. Measurements were taken first from 173 women who had never borne children. Out of these 91 were from 17 to 25 years of age, and in them the average distance from the umbilicus to the ensiform cartilage was 17.5 cm., or 6¾ in.; from the umbilicus to the symphysis, 15.1 cm., or a little under 6 in.; from the umbilicus to the anterior superior iliac spine, 15.6 c.m., or 6¼ in. right, and 15.2 cm., or 6 in. left; 72 were from 26 to 40 years of age, and in them the average of the first measurement was 17.2 cm., or over 6¾ in.; of the second 15.2 cm., or about 6 in.; and of the third, 15.1 cm., or a little under 6 in., right and left; 10 were from 41 to 64 years of age and the averages in this group were, for the first measurement 19.5 cm., or a little under 7¾ in.; for the second 18 cm., or 7⅛ in.; and for the third measurement 19.3 cm., or 7⅝ in., right and left. It is remarkable that asymmetry appears, according to Kakouchkin's statistics, to be distinctly marked not in the two older but in the youngest group, where the umbilicus was further from the right iliac spine than from the left. All dimensions appear to increase after forty. Next, Kakouchkin measured 150 uniparous women. The average of the first measurement was 17.3 cm., or over 6¾ in.; of the second 15.1 cm., or under 6 in.; and of the third 15.3 c.m., or a little over 6 in., on both sides. This symmetry of the umbilicus and the iliac spines is noteworthy, especially in relation to the asymmetry in young nulliparae. Then 216 multiparae were measured. The first measurement, ensiform cartilage to umbilicus, was on the average 17.6 cm., or a little under 7 in.; the second, from the umbilicus to the pubes, 15.3 cm., or over 6 in.; whilst the third comes out unsymmetrical, as in young nulliparae—namely, 15.9 cm., or over 6¼ in.—from the navel to the right iliac spine, and 15.4 cm., or under 6⅛ in., between the navel and the left spine. The distance, as in the young subjects, was greater on the right side. The averages of the total, or 539 subjects measured, is 17.5 cm., or over 6⅞ in., for the first measurement, 15.2 cm., or a little under 6 in. for the second, and 15.7 cm., or under 6⅛ in. for the third, on the right side, and 15.4 cm., or under 6⅛ in., on the left. Kakouchkin seems to agree with Tillaux in making out that the umbilicus lies at a fairly even distance between the ensiform cartilage and the pubes. He finds, however, that the lower part of the abdomen is the part which undergoes the most distension in pregnancy. In multiparae all dimensions increase more than in primiparae, especially the third measurement, between the navel and the iliac spines. The distance, contrary to what was found in young nulliparae and in multiparae, was greater on the left side. This might, Kakouchkin thinks, be due to the dragging of the round ligament of the liver on the umbilicus, the recti at the same time tending to part along the middle line. The umbilicus approaches the ensiform cartilage and lies further from the symphysis as the waist develops. In the newborn, as is generally admitted, the umbilicus lies below the middle of the body. Kakouchkin finds that it lies relatively higher in the heavier infants, yet in females it lies higher on the average than in male newborn children, as in the former, which are relatively smaller, the upper part of the body is also relatively ill-developed. Kakouchkin would fain trace a distinct relation between the topography of the umbilicus in the fetus and its presentation, at least at term. Obstetricians will note the latter qualification. In breech cases at term the umbilicus, in his experience, always lies higher in the abdomen of the fetus than in the fetus which presents at its head.

THERAPEUTICS.

263. Treatment of Arterio-sclerosis.

DISCUSSING the treatment of arterio-sclerosis, A. Strubell points out that the modern conception of the condition necessitates a fresh consideration of the suitable therapeutic measures (*Deut. med. Woch.*, November 7th, 1912). He distinguishes six stages of arterial disease. The first is v. Basch's pseudo-angiosclerosis, in which the blood pressure varies, and the electro-cardiogram is normal. The second shows a raised pressure; the cardiac action is sufficient, and the electro-cardiogram shows but little change. This indicates beginning angiosclerosis of the small vessels. The third stage is that of secondary insufficience of the heart; the pressure is raised, the electro-cardiogram reveals a heightened auricular notch, there is dyspnoea, slight hypertrophy of the heart, etc.; the fourth stage is signalized by the implication of the cardiac muscle in the process. The pressure is raised, the terminal tremor is weaker and the auricular notch is much raised and dyspnoea is present. In the fifth stage, the blood pressure is much raised, there is a negative delayed tremor in the electro-cardiogram, markedly increased initial tremor, dilatation of the aorta, as seen by the roentgenogram, etc. Here the angio-sclerosis and arterio-sclerosis, the cardiac sclerosis and the aortic sclerosis are fully developed. In the last stage, which he terms that of manifest arterio-sclerosis, the kidneys are implicated and there is permanent albuminuria. It is obvious that the treatment of the later stages can only be symptomatic, and that the rational therapy must begin before any signs have shown themselves, in the form of a prophylactic treatment. Strubell therefore suggests treating apparently healthy persons with the view of preventing arterial degeneration. Bodily exercise must be prescribed for the sedentary person, regulation of the diet for the gourmand and the gourmet, syphilitic symptoms must be energetically combated, and the use of tobacco and alcohol must be kept within bounds. In regard to the psychic nervous element of the causation, he is of opinion that if we could induce people to avoid worry and annoyance, much would be gained. Failing this, balneo-therapeutic measures, including alternating current baths, carbonic acid gas baths, warm prolonged baths, and the like, all mollify the nervous system. Turning to the treatment of the various stages of the disease, he enters into a discussion as to the efficacy of iodides. Romberg has stated that iodides lower the viscosity of the blood. Determann, on the basis of some careful experiments, denies this. He therefore asks what action can be expected from iodides. He maintains that this drug may not be given any longer without some well-defined knowledge of what it effects. In the first place, he objects strongly to the use of the potassium salt, which he regards as a highly toxic substance. His experiments with sodium iodide on the opsonic index show that an action on the immunizing processes is undoubtedly effected. It is an open question whether the iodide should be given in capsules or by subcutaneous injection. Of the organic iodine preparations, he has obtained good results with iodival, iodglidine, and sajodin. Another means of reducing blood pressure is the drinking of the waters at certain spas, for example, Marienbad, Kissingen, Homburg, or Salzschlirf. Electric baths, massage, and such cardiac remedies as strophanthus or one of the digitalis preparations will be found useful when the heart muscle is either intact or but little affected. He also mentions that at times blood-letting may be able to prevent an apoplexy. In conclusion, the author is strongly of opinion that it is very unwise to forbid alcohol and smoking altogether in advanced cases. Small doses of the former in the form of a glass of wine acts favourably on the heart, and the smoking of a mild cigar may be useful in making expectoration more easy. In any case, neither can do any harm, if limited to a reasonable degree.

269. Validol.

E. P. NOGUERA, reviewing recent pharmacology and therapeutics in the *Revista de Med. y Cirugía practicas* (October 21st, 1912) describes some new applications of validol. This drug was introduced into medicine by Dr. Schwerenski of Berlin in 1897, who considered it a true chemical

combination of valerianic acid with menthol. It contains, however, 30 per cent. of free menthol, which makes it a powerful diffusive stimulant and antispasmodic. It is thus useful in hysteria, depression with cardiac weakness, and in all asthenic neuroses. Recently, however, it has been employed with great success by Baldeker and others as a cardiac stimulant and sedative in neurasthenic conditions, with which are associated attacks of palpitation and fainting; also in cardiac debility occurring in the course of other maladies (pneumonia, scarlet fever, influenza, etc.). It seems to be especially useful in the case of young children, in the vomiting of pregnancy, in seasickness and gastric neuroses. According to Baldeker, when given to children under 5 years of age in doses of 10 to 4 drops in syrup, an improvement in the pulse can be noted in twelve to fifteen minutes. In twenty to twenty-five minutes all the symptoms—cyanosis, dyspnoea, etc.—are markedly relieved. In the vomiting of pregnancy Sydney Hall has had excellent results from the administration of validol, and says that it should always be tried before artificial abortion is resorted to. Dr. Kendall of the Australian Navy, and Dr. G. Vandaela, Surgeon to the Red Star Line, have found it one of the best remedies they have tried in seasickness. Lastly, Stekel of Vienna has found it valuable as a sedative in conditions of nervous or psychical excitement.

270. Salvarsan in Diseases of the Eye.

BENDA (*Wien. med. Woch.*, Nos. 26 and 27, 1912) gives his experience of the use of salvarsan in various syphilitic affections of the eye. He injected it intravenously in a faintly alkaline solution, and only very slight reactions were caused. In 30 cases of keratitis treated in this way he noticed no better effect on the course of the disease than he had been accustomed to obtain with mercury and potassium iodide. Out of 19 cases of irido-cyclitis the other eye became involved in 3—a complication which during the last four years the author had not known to follow the older form of treatment. In 3 cases of choroiditis the injections left the condition unaltered. In 6 cases of optic neuritis there was no improvement which might not fairly be attributed to the concomitant use of mercury. In one of these cases severe retino-choroiditis set in resembling that seen in hereditary syphilis. The author has never known this to result from the older form of treatment, and has only seen it three times in acquired syphilis, and then only in cases which had received no treatment. In 14 cases of optic nerve atrophy due to tabes no improvement resulted, while of 9 cases of paralysis of the ocular muscles only 3 showed improvement after salvarsan. The author's conclusions are that while the injections caused no injury to the eye, except in 3 cases, the effect of salvarsan in the secondary stage was no greater than that to be derived from mercury, and post-syphilitic affections were quite uninfluenced. This accords with the observation of Elschnig that salvarsan has no sterilizing effect in generalized syphilis, and that the Wassermann reaction is no more affected by it than by mercury and iodine alone. The author, however, advises its use in all these cases, if only for its good effect in eliminating spirochaetes; but on account of the severe focal reactions which it may cause in the spirochaete "areas," he recommends that it should not be used in acute conditions until a preliminary course of mercury has to some extent reduced the inflammation.

271. Treatment of Asthma.

O. WEISS (*Deut. med. Woch.*, September 19th, 1912) is of opinion that a healthy condition of human blood is dependent on a healthy condition of the blood-forming organs, on a correct gaseous exchange of the blood and of the skin, on a proper excretory function, and on the regular action of the ductless glands. As far as asthma is concerned, he believes that the thyroid, pituitary gland, adrenal, and testes or ovaries play the most important part. He therefore conceived the idea of treating asthma with extracts of these organs. He employs a mixture of adrenal extract with pituitary gland extract. (For some reason not stated he recommends a special mixture, introduced under a protected name.) Each ampulla of his mixture contains 1.1 c.cm. of extract, corresponding to 0.0008 gram of adrenal extract and 0.04 of pituitary gland (infundibulum) extract. The author claims that he has given this mixture in 3,000 doses, and has only experienced a failure in its action some ten times. These cases necessitated a repetition of the dose after twelve to fifteen minutes. The mixture is, in his opinion, absolutely harmless, and can be tolerated in ten times the dose he employs without ill effects.

PATHOLOGY.

272. The Hemianopic Pupil Reaction and Wilbrand's Prism Test.

Two tests are used to determine whether the lesion which causes a homonymous hemianopia is situated in the optic tract or above the bursal ganglia. One is the hemianopic pupil reaction known as Wernicke's test; the other is Wilbrand's prism test. The exact course of the pupillary reflex fibres is undetermined, but it may be assumed that the centripetal pupillary fibres do not go beyond the primary optic ganglia; while Bechterew's theory of their decussation directly behind the chiasm into the grey matter on the floor of the third ventricle can no longer be maintained. The pupillary paths certainly traverse the greater part of the optic tract, and possibly continue on as Bernheimer's fibres into the external geniculate body. The presence of hemianopic pupil inactivity or hemiopic reaction, which Hess calls hemipinesis, has been held a valuable sign, localizing the lesion in a spot which impairs the function of some of the fibres forming the reflex arc for the pupil reflex; in other words, the presence of the hemiopic reaction places the lesion in the tract. Hess, however, concludes that it is of no practical importance. It is essential to use Hess's apparatus, otherwise diffused light vitiates the results. Hess obviates this error by a method of alternate illumination. Two equally illuminated surfaces are ultimately uncovered, so that first the blind and then the seeing half of the retina is exposed while the total amount of light entering the eye is hardly altered. The pupil is observed with a telescope. Wilbrand's prism phenomenon is carried out as follows:—A small circle of white paper is placed upon a black surface, and the patient is seated before it with one eye bandaged. He is asked to look at the spot, and a strong prism is placed before the eye in such a way that the image of the spot is thrown upon the blind half of the retina. We notice whether the eye at once moves to find the object again, and whether the movement is reversed when the prism is withdrawn. The presence of this reaction places the lesion in the cerebrum, the absence of the reaction locates it in the tract. Behr considers this reaction more accurate than hemipinesis. Bielschowski, Konories, and Koellner have all obtained anomalous results. Jess, in a paper which is translated in the *Archives of Ophthalmology*, January, 1913, has investigated these tests in 8 cases. He finds the hemianopic pupil inaction test to be accurate in each case, but the prism test was useless for topical diagnosis. We have recently ourselves tried these two tests in two cases of hemianopsia, and in both they were found to be mutually confirmatory, and in accordance with other clinical evidence. It is obvious that both tests require careful investigation, for at present doubt must be thrown upon both of them.

273. Rivalta's Reaction in Sputum.

CASALI (*Rif. Med.*, July 27th, 1912) analyses the results of this test in 63 cases, mostly tuberculous. The test depends on the coagulation of albumen in the presence of very dilute solutions of sodium carbonate and acetic acid. In the case of sputa, 10 c.cm. of the sputum is mixed with 10 c.cm. of distilled water, stirred, and filtered; and a test solution is prepared by adding 2 minims of acetic acid to 100 c.cm. of water and a solution of sodium carbonate (1 minim of a saturated solution to 100 c.cm. of water). A drop of the filtrate is added to this solution and a precipitate looked for; if the reaction is positive, the filtrate is diluted with the sodium carbonate solution until the reaction vanishes. The 63 cases were examined in this manner, and the albumen also estimated by the Gantz and Herz method. It was then found that in many cases where the albumen reaction was well marked the Rivalta reaction disappeared after relatively few dilutions, and in other cases, where the albumen was scarce, the Rivalta remained positive up to strong dilution, in some cases even when albumen was absent there was a positive Rivalta's result. So that it looks as if the Rivalta reaction was not due to the albumen *in toto*, but to some substance (? englobulin, pseudoglobulin, phinoglobulin) present in different proportions in the sputa. Again, it is now found that the limit of dilution in tuberculous cases was always greater than 1 in 10. This was so definite that the author says that, excluding pneumonia, it is safe to diagnose pulmonary tubercle every time that expectoration subjected to Rivalta's test shows a limit of sensitiveness to dilutions 1 in 10, and he suggests that the protein giving this reaction is of vascular origin, due to the influence of the tubercle bacillus or its toxin, on the walls of the pulmonary vessels, allowing his protein to pass out of the blood to a degree greater than occurs in other respiratory diseases.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

274. Paroxysmal Haemoglobinuria and Lordosis.

L. JEHLE (*Wien. klin. Woch.*, February 27th, 1913) holds that under certain conditions lordosis may precipitate an attack of haemoglobinuria provided this condition is already imminent. In support of this view he records the case of a boy, aged 8 years, who had been weakly from birth. When 2 years old he began to walk and to suffer from attacks of haemoglobinuria, which were ushered in by rigors lasting for half an hour. The haemoglobinuria lasted only a day or two, and as it occurred during the winter, it was traced by the mother to chills. Three weeks before admission to hospital the boy became slightly jaundiced, and the haemoglobinuria was of daily occurrence. The heart was somewhat dilated, the aortic sound was accentuated, and the spleen was slightly enlarged. In hospital the urine was found to be dark red, the urobilin reaction was marked, and the spectroscope showed haemoglobin and methaemoglobin. There was also much albumen, and the sediment contained granular, amorphous débris and a few red cells and granular casts. On the second day the urine was lighter in colour, and there were only traces of albumen. On the fourth day the urine was at first normal, but during an examination the boy felt chilly and passed blood-red urine. Next day the urine was again clear until the boy got up and attended a demonstration in another room, when his temperature rose to 101.5°, and marked haemoglobinuria and albuminuria appeared. During the next five days he was kept in bed, his temperature and urine remaining normal. But when he was fixed in a position of lordosis for a quarter of an hour the temperature rose to 101°, marked haemoglobinuria and albuminuria appeared, and pain and lassitude were complained of by the boy, whose pallor was striking. The boy was kept in bed, and on the evening of the same day the urine was again normal. The experiment was repeated frequently with the same result. Later it induced the same degree of albuminuria, but less haemoglobinuria, and finally it induced albuminuria without a rise of temperature or haemoglobinuria. The author gives a detailed account of another child, aged 10½ years, who was subject to attacks of haemoglobinuria. The induction of lordosis caused albuminuria, but no haemoglobinuria; and this further confirmed the author's view that lordosis may be a secondary cause of haemoglobinuria, but that it is not a *sine quâ non* for this condition.

275. Acute Polyarthritis due to the Colon Bacillus.

AFTER discussing the growing importance attached to the *Bacillus coli* as a cause of disease in man, A. LUGER (*Wien. med. Woch.*, February 22nd, 1913) reports the following case: A man, aged 43, who had contracted gonorrhoea in his youth, had been subject for some years to attacks of abdominal pain, nausea, and vomiting. The pain was most violent in the upper, right abdomen, and was on one occasion accompanied by a rigor and slight jaundice. The pulse during an attack was as slow as 48 and the blood pressure was 80. The urine was clear, acid, and normal except for an excess of urobilin. Cholelithiasis was diagnosed. After these attacks had ceased for four years the gonorrhoea returned, and was treated for a year and a half, at the end of which the joints, beginning with the left knee, began to swell. All the large joints and those of the fingers became exquisitely tender and painful, and passive and active movements were thereby much limited. There was no redness of the skin, which was swollen and doughy over the knees and wrists. The urine now contained much yellowish-red sediment and urobilin, traces of albumen, a few hyaline casts, many leucocytes and erythrocytes, but no bacteria. It was acid and the specific gravity was 1026. A blood count showed a moderate degree of leucocytosis. A week later bacteria were found in the urine but not in the blood. The arthritis persisted for many weeks with high fever of a septic character. Salicylates had little influence on its course, and rigors were common. During one of these the blood yielded five colonies of the colon bacillus on a blood-agar medium. The arthritis and fever lasted about two months, at the end of which the blood yielded no more bacteria, while the urine contained a few. The author thinks the colon bacillus was present in the joints, and that the arthritis was not merely due to toxins, for it was severe, and resembled that in which typhoid bacilli have been demonstrated in the joints. Three explanations of the mode of infection in this case are plausible. The cholelithiasis may have been the primary cause, and the bacilli grown in the biliary passages may have spread to the blood, have been excreted by the kidneys, and have thus caused a descending *coli* pyelitis and cystitis; or the local treatment of the gonorrhoea may have started a *coli* cystitis, which was followed by infection of the blood stream, for it has been shown that the passage of a catheter may be sufficient to infect the blood with the colon bacillus. Finally, the germs may have migrated from the bowel to the bladder. The author considers, however, that the bacilluria was secondary to the bacillaemia.

276. Indicanuria.

MORGAN (*Amer. Journ. of Med. Sci.*, December, 1912) records observations upon 148 patients whose urine showed an excess of indican. The test employed was 10 c.cm. HCl, 10 c.cm. of a 1 per cent. solution of potassium chlorate, three drops of which were added to the urine and shaken up with 5 c.cm. of chloroform. The blue colour in the chloroform indicative of an excess of indican was arbitrarily graded as to intensity from +1 (sky blue) to +6 (very black blue). Indol results from bacterial digestion or putrefaction of proteids, the lower ileum being the chief laboratory for the process, and the colon the principal seat of absorption. The cases observed were about equally divided between the sexes, and usually the indican was incidentally present during treatment for other gastro-intestinal disorders, being in some transitory, in some recurrent, and in others more or less constant. Obstipation from obstruction of the transverse colon, or above it, may result in profound indicanuria, but this diminishes as the obstruction is lower down, and affections of the lower part of the bowel are rarely complicated by the condition. The most frequent cause appears to be a combination of improper diet with a run-down state and loss of nerve tone. The one symptom complained of in the largest number of patients was gas formation in the bowel, 96 being troubled in this way; and in addition the typical symptom-complex of the condition consists of vertigo, dull headache, languor, drowsiness, depression, lack of ambition, inability to concentrate the mind, insomnia, irritability, muscle pains and cramps, cold extremities, and fetid breath. While none of these symptoms are constant, nearly all cases exhibit some of them, very few having none at all. Treatment consists in measures to prevent the formation of toxins and the elimination of those formed, disorders of the gastro-intestinal tract receiving first attention. When direct treatment for the condition is needed, irrigations of salt, soda, argyrol, or ichthyol solutions are effective, ichthyol solutions often answering when others have failed. Diet aims at reducing the protein or any food favourable to the growth of the putrefactive bacteria, but butter milk and lactic acid bacilli treatment do not give the results that theoretically might be expected. Restoration of nerve tone, where overwork is a factor, is of the greatest importance.

277. Tabetic Arthropathies.

LANDOLFI (*Rif. Med.*, December 7th, 1912) in a synthetic review of recent work on the above subject reminds us how comparatively new the whole subject is. The joints most frequently attacked are those of the knee, hip, and shoulder, and the lower limbs give 75 per cent. of the cases; lately a good deal has been said about the tabetic foot. The lesions may be single or multiple, and may appear early or late in the disease, perhaps more often in the ataxic stage. Insensibility is a common feature—for example, in the knee-joint forced extension gives rise to little pain. The joint may become affected gradually or with great suddenness, there may be much effusion, or it may be comparatively dry, with much scrunching. The tabetic foot has received special attention of late years. Many explanations have been given of these arthropathies, and the theories may be broadly classified into two groups—the nervous and the non-nervous. Critical objection has been made as to most of them, and the question is still

unsolved. One of the most recent theories is that of Babinski and Barré, which traces the condition to vascular lesions of a syphilitic type in the articular arteries. According to these authors tabetic arthropathy is not an essential part of tabes, is not tabetic. Clinically it may appear as an arthropathy in tabetics or as an arthropathy of tabetic type occurring in syphilitics who have not got tabes. Landolfi attempts to co-ordinate the various theories as follows, starting with syphilis as the parent factor: On the one hand you have articular lesions and on the other the nervous lesions of tabes; of the articular lesions you have one group of arthropathies without tabes, a middle group of tabes plus non-tabetic arthropathies, modifiable with antisyphilitic treatment; and a third group of tabes plus tabetic arthropathies non-influenced by specific treatment. The joint lesions of syringomyelia differ from those of a tabetic type in more generally affecting the upper extremities, in being homolateral if multiple, and being often associated with suppuration or skin ulcers.

SURGERY.

278. The Surgical Treatment of Graves's Disease.

THE surgical treatment of Graves's disease is a modern development, following on the general acceptance of Möbius's theory that the disease is due to a hyperfunction of the thyroid gland. Some surgeons have gone so far as to recommend operative measures in the earliest stages of all cases. A. Schlesinger gives an account of his experience of this surgical treatment of exophthalmic goitre in 20 cases, including severe, moderately severe, and mild cases, all of which were at least of six months' duration (*Berl. klin. Woch.*, January 13th, 1913). In all cases a medical form of treatment had been previously undertaken. In 3 cases the enlargement of the thyroid gland was only moderate, while the nervous symptoms were marked. In spite of having looked carefully for it, he has never been able to satisfy himself that the thymus gland had persisted in any case. He removed one lobe and part of the other in 2 cases; and in the remainder of the cases he removed one lateral lobe and the middle lobe, save in 1 case, in which he merely excised the middle lobe. The operations were conducted with local anaesthesia (½ per cent. novocaine and suprarenin), but in a few cases the anaesthesia was not sufficient, and ether had to be given as well. The superior thyroid artery was always tied first of all, and later, before the posterior wall of the gland was freed, the inferior thyroid artery was also ligatured. In 1 case he experienced a severe haemorrhage on disengaging the lower end of the gland, which he was able to control with forceps. He also experienced secondary haemorrhage once, owing to the slipping of the ligature on the superior thyroid artery. Since then he applies a double ligature. Aphonia followed the operation once, but this disappeared spontaneously after a time. The recurrent laryngeal nerve was not damaged. Of the twenty patients three were followed up for about six months, when they were in good condition, with markedly diminished symptoms. The remaining seventeen patients were kept under observation until the time of writing. Of these three were cured completely, no symptoms having been seen for two years. Four were nearly cured, that is, subjectively and objectively almost without signs of the disease. He gives the details of two of these cases, showing the very remarkable disappearance of a severe psychosis, which he was forced to regard as being due to the disease. The other case was a typical one of secondary Graves's disease, goitre having been present from birth, and the symptoms having developed with an increase in size of the middle lobe. On the removal of this the symptoms practically disappeared. Seven further cases were considerably improved. In one of these cases the operation was followed by a diminution of the symptoms, but there was still severe cardiac asthma. When seen three years later the patient had developed well-marked myxoedema, she was practically demented (she had not been intelligent before), and there was distinct tetany. He had left a piece of the left lobe of the size of a man's fist, but no trace of this could then be felt. The asthma had disappeared. On giving her thyroid gland she improved considerably, but there were still traces of the myxoedema and the tetany. In two other cases recurrence of the symptoms were observed after two and three years respectively. These symptoms disappeared after medication with arsenic and electricity. The last of the seventeen patients also suffered from a recurrence. He discusses the question of persistent thymus and the risks of sudden death after operation, and then passes on to consider the technique of the operations. He regards his results, in that there was not a single death or total failure, as good luck, since other operators have only obtained from 15 per cent. to 75 per cent. cures.

279. Fractures of the Superior Maxilla.

ALTHOUGH fracture of small portions of the superior maxilla is common, the involvement of the body of the bone is rare, as it is protected by the surrounding bony prominences and by the overlying pad of fat which is most marked in children. Yet R. Vogel (*Wien. klin. Woch.*, March 20th, 1913) has recently seen three cases of extensive fracture of the superior maxilla. A carter, aged 46, fell from a hay wagon while he was asleep and drunk. He struck the pavement with the left side of his body and head, but was able to get up at once and continue driving. Next day he was admitted to hospital, where he was found to be perfectly conscious in spite of extensive injuries to the head. The second, third, fourth, and fifth ribs on the left side were fractured, but there was sign of other internal injuries. On the left side the face was bruised and swollen, the cheek was cut over the malar bone, and the left eye showed traumatic exophthalmos, chemosis, conjunctival injection, and rupture of the sclera. The nose and the whole of the upper jaw moved as one piece on mastication. But this caused no pain. Although the upper jaw was altogether detached from the base of the skull and from its other bony attachments, the union between the right and left maxilla was maintained. The infraorbital margin on both sides moved with the upper jaw, the line of fracture running through the zygomatic process on the right side and along the outer angle of the orbit on the left side. On this side the processus coronoideus was also fractured. There was no lesion of the oral mucous membrane, but pressure on the pterygoid processes from within the mouth elicited characteristic pain. Suppuration and purulent thrombo-phlebitis of the cavernous sinus followed, and death occurred on the eighth day. Curious features of this case were the absence of cerebral symptoms, of paraesthesia and anaesthesia, of symptoms referred to the trigeminal nerve, and of marked discomfort. It was also strange that in spite of the complete detachment of the two bones from the base of the skull there was but little displacement, and the mucous membrane of the mouth was intact. A mason, aged 18, was rendered unconscious by a fall from a scaffolding. The right side of his face was swollen by oedema and haemorrhage, and the conjunctivae were also oedematous. There was crepitation over the root of the nose, the upper and lower incisors were loosened, and the mucous membranes in their neighbourhood were cut. The soft palate was divided in the middle line by a sagittal cut, which was separated by a small bridge of intact mucous membrane from a similar cut over the hard palate. This was divided in the median, sagittal plane by a 4 mm. wide furrow. The separation of the one maxilla from the other was easily demonstrated by crepitus. Excessive haemorrhage was arrested by the insertion of a tampon into the nose, and by the suture of the wound in the soft palate. The wound in the hard palate was left to heal by granulation, and the patient was discharged in three weeks. A man, aged 26, fell on his face, the whole of which became swollen. Crepitation could be elicited between the nasal bones, and between them and the frontal process. The mucous membrane covering the hard palate was divided in the median line by a sagittal wound which began just behind the teeth, and extended backwards for 5 cm. The wound extended to the hard palate, the two sides of which were separated by a 3 mm. wide cleft. The mucous membrane of the floor of the internal nares was, however, intact. The wound in the mouth was sutured, and an uninterrupted recovery was made. Discussing the diagnosis and treatment of fractures of the superior maxilla, the author points out that the nasal bones, the malar bones, and the pterygoid processes are the most common sites of pain and tenderness. Haemorrhage from the nose and mouth, and suffusion of the eyelids and orbits with blood, are common and serious conditions. The orbit may become enlarged owing to the downward displacement of its lower border. The lining of the mouth is seldom involved, and marked displacement of the bones is rare. These fractures are, therefore, often overlooked. It is easy to readjust the displaced fragments of bone, but the maintenance of such readjustment usually necessitates skilful dentistry. In the majority of cases, however, owing to the absence of marked displacement, the bones unite rapidly and without deformity, and treatment is limited to suture of surface wounds and the practice of oral antisepsis.

OBSTETRICS.

280. Phenolsulphonephthalein Test of Renal Function in Pregnancy.

SONDERN AND HARVEY, JUN. (*Bulletin Lying-in Hosp.*, New York, November, 1912), from observations in 21 cases, give a prelimary report upon the phenolsulphonephthalein test for estimating renal function in pregnancy, both as an aid in proving whether the diminished excretion of nitrogen is due to interference with function, and also as a guide to the degree of interference with renal function in toxaemia of pregnancy and threatened eclampsia. In order to insure free urinary secretion, 300 to 400 c.cm. of water are administered half an hour prior to the test, at the end of which time the bladder is completely emptied by catheter, and 1 c.cm. of phenolsulphonephthalein solution, containing 6 mg. of the drug, is given subcutaneously. Convenient ampoules are prepared for this purpose. The urine is then allowed to drain through the catheter into a test tube containing a drop of 25 per cent. sodium hydrate solution, and the time of the appearance of the first faint pink tinge noted. The catheter is then withdrawn, and all urine secreted during the next hour is voided into one receptacle, and all that secreted at the end of the second hour into another receptacle, and the amount of the drug excreted can be determined colorimetrically. Normally the drug appears in the urine in from five to eleven minutes, and in the first hour from 38 per cent. to 60 per cent., and in the second 22 per cent. to 25 per cent. is excreted, making a total for the two hours of from 60 to 85 per cent. The excretion of the drug does not correspond with the quantity of urine excreted, nor is there any constant relationship between its excretion and the amount of total solids or of any particular solid in the specimen. In severe cases of acute nephritis the permeability of the drug was decidedly decreased, and in cases of long-standing parenchymatous nephritis the time of the appearance of the drug was always delayed, and the amount excreted below normal. A similar delayed appearance and decreased output was noted in cases of chronic interstitial nephritis, and in a number of instances a marked decrease in, and even absence of, excretion with normal total solids and nitrogen excretion was soon followed by death from uraemia. The above observations show that the delayed appearance of the drug, and particularly the diminished excretion in the two-hour period of observation, are direct guides to the functional activity of the kidneys, and any functional derangement is more easily and accurately determined than by a diminution in the excretion of total solids or of nitrogen. Examinations made late in pregnancy in 18 clinically normal pregnancies showed a relatively diminished excretion, and consequently an interference with renal function, as compared with observations on normal non-pregnant cases, as shown in the following comparison:

	Normal Cases.	Eighteen Normal Pregnancies.
Average time of appearance	8 minutes	12 minutes.
Average excreted first hour	50 per cent.	26 per cent.
Average excreted second hour	24 per cent.	19 per cent.
Average excreted two hours	75 per cent.	45 per cent.

Although insufficient to justify definite conclusions, these data are suggestive of the depression in nitrogen secretion in late pregnancy being due to interference in renal function, and in the absence of actual renal lesions it may be fairly inferred that the cause is disturbed kidney circulation due to pressure of the gravid uterus.

THERAPEUTICS.

281. Cranial Nerve Disease after Salvarsan.

ALEX. ZALOZIECKI AND RICH. FRÜHWALD (*Wien. klin. Woch.*, Nos. 29 and 30, 1912) have made a careful study of cases of so-called salvarsan neuro-relapse. Lumbar puncture and examination of the cerebro-spinal fluid was undertaken in all cases, and was also undertaken, for purposes of comparison, in a series of cases of early syphilitic nerve disease and of early syphilis. The authors have taken the following characteristics as typical of normal cerebro-spinal fluid: A pressure which varies between wide limits, but does not rise above 15 to 18 cm.; no contained cells, or at most up to 5 to 10 lymphocytes to the cubic millimetre; the amount of albumen very constant, from half to one-fifth per 1,000; (in a pathological increase of albumen the globulin constituent especially takes part, a circumstance upon which depends the value of the Nonne-Apelt reaction); a negative Wassermann reaction. The smallest deviation from the normal consists in an increase in the number of cells. Such an increase is very frequent in syphilities, and by itself has little diagnostic meaning. A positive Nonne-Apelt, on the other hand, shows increase of albumen and is proof of an atomical lesion of the central nervous system. Differences in degree of change in the cerebro-spinal fluid probably correspond to differences in extent and acuteness of the lesion. In acute meningitis marked cell increase may be absent, but increase in albumen is always present. The first six cases described are of neuro-relapse with diffuse disease and involvement of the cranial nerves. In the first four the relapse occurred at intervals of eight or, in one, of ten weeks after a salvarsan injection; in all severe headache was the first symptom and preceded by several weeks the occurrence of the paralysis which marked the definite onset. The fifth case was an especially important one; here the relapse occurred eight months after infection; the disease had been treated from the third month with mercury, but not with salvarsan. The cerebro-spinal fluid in all the six cases showed clearly the changes characteristic of meningeal disease; there was in all a speedy retrogression of the symptoms on the introduction of specific treatment. The sixth case is one of great significance, because in it the case was diagnosed as one of neuro-relapse by means of lumbar puncture when in the stage of severe headache before the onset of paralysis. The next six cases were instances of affections of isolated cranial nerves—most commonly the optic nerve—in which the changes typical of involvement of the meninges were found in the cerebro-spinal fluid on lumbar puncture. The first two were of salvarsan neuro-relapse with an acute onset, in which the process quickly localized itself to the optic nerve. With the retrogression of the acute symptoms the cerebro-spinal fluid changes also diminished—the number of cells became much smaller, and fibrinogen disappeared from the fluid. A distinction between such cases of salvarsan neuro-relapse and other cases of optic neuritis occurring in the secondary stage is important because of the more severe course often run by the former, and four cases of optic neuritis occurring in the second stage when no salvarsan had been given were therefore investigated. The first three of them had received no antisyphilitic treatment; the optic neuritis was double, and subjectively ran a course without symptoms. The cerebro-spinal fluid was essentially the same as in the preceding cases, and the conclusion to be drawn is that in these cases the syphilitic process involved further portions of the meninges, and may perhaps have extended to the optic nerve from the meninges. The fourth case was different. The patient had already been treated with mercury. Optic neuritis was severe and one-sided, and must have been in existence for some time. The only change in the cerebro-spinal fluid was a moderate increase in the number of cells, and the case must therefore be considered as being at the time of the examination narrowly localized to the optic nerve. In all these cases salvarsan treatment was given. The later course of the last case was of great interest. A relapse occurred about eight weeks after the last injection of salvarsan, and then affected another part of the eyes but that optic neuritis had been known to be present before salvarsan was given a salvarsan relapse would have been diagnosed; perhaps, indeed, the salvarsan did have an effect upon the later course of the case. In two of the cases salvarsan treatment did good, the third was resistant to salvarsan, but the symptoms yielded to a mercury inunction cure. Two cases of the development of optic neuritis are next described, one of which is only distinguished from the previous cases of diffuse meningitis with involvement of the cranial nerves by the absence of clinical symptoms typical of meningitis. Next comes a case of double optic neuritis occurring five months after infection and eight weeks after salvarsan treatment, in which the cerebro-spinal fluid was almost normal and the meninges not appreciably involved. Finally, two cases of affections of the auditory nerve are described, one which was characteristic of early syphilitic auditory disturbance, and occurred in an untreated case of syphilis, the other showing marked clinical symptoms of meningitis; positive cerebro-spinal fluid change was present in both. From the whole series of cases it is clear that in any given case it is impossible to say with certainty whether we are dealing with a salvarsan relapse or not.

Lumbar puncture may also fail to discover any differences between the relapse after the salvarsan treatment or without it. With regard to the possibility of the salvarsan injection itself causing an atomical change in the cerebro-spinal fluid, the authors' investigations, though they include only a comparatively small number of cases, make this appear improbable. Thirty cases of secondary syphilis without nerve affections were examined for purposes of comparison, forty lumbar punctures being made. The Nonne-Apelt reaction and amount of albumen were found to be normal in 23 cases, and showed slight changes in 5. In 2 cases only were considerable changes in the cerebro-spinal fluid present; these 2 must be considered as cases of latent syphilitic meningitis. The whole series of cases support the view that in the early secondary stage spirochaetes often settle in the central nervous system, and may there give rise to extensive changes not necessarily accompanied by obvious clinical symptoms.

282. Electrical Treatment of Commencing Muscular Atrophy.

MARQUÈS AND PECH (*Arch. d'électr. méd.*, September 10th, 1912) describe the result of electrical treatment in a curious case of commencing muscular atrophy following upon traumatism. Severe contusions between the second lumbar and the left iliac crest, together with a deep wound at the right ischio-rectal fossa, had been produced as a consequence of a fall. Paralysis of the anal and vesical sphincters ensued, with anaesthesia of the genital organs and of the anal region. The sphincteric troubles amended to some extent in the course of a few days, but micturition and defaecation were not entirely under control, and the former at least gave rise to no sensation. In addition to these clinical phenomena of medullary origin—which still persist, although more than a year has elapsed since the accident—the patient presented other troubles of less certain causation, including the beginning of atrophy of the lower members, with pain along the tract of the left sciatic. Electrical examination showed that none of the muscles of the left leg reacted to the faradic current, and that with the galvanic current the contraction was only slow and dragging. In the right leg there was but a slight degree of hypo-excitability. Treatment of both members by galvanization (15 milliampères for fifteen minutes) was instituted, with faradic excitation localized at the muscles of the right leg, and rhythmic galvanic excitation at the muscles of the left. The faradic brush was also applied to the zone of anaesthesia. Amelioration was rapidly produced, thus showing the peripheral origin of the motor troubles. The right leg returned to its normal condition after the first applications. The other leg also improved, and within a few weeks the patient was able to walk without the aid of a stick. Some months later he was found on examination to betray only a slight feebleness of the left leg, which was fatigued more quickly than the right.

283. Treatment of Typhoid Carriers.

DEHLER (*Münch. med. Woch.*, April 16th, 1912) has for some time past advocated operative treatment for the cure of the condition indicated by the name "typhoid carrier." The operations performed in 1906 and 1907—these cases have already been published—were successful. In one case, during the first six months after the operation, only 3 of 109 stools contained typhoid bacilli, and since then 187 stools have been examined with a negative result in each case. In the other, 2 of the first 17 stools contained bacilli, while none of the subsequent 80 stools contained any. In these two cases, cholecystotomy with prolonged drainage was performed. He considers, however, that the complete removal of the gall bladder with drainage of the hepatic duct would be a more rational operation. He now records two further operations. In the first, a female patient aged 64 years, without any known history of typhoid fever, was found to be a carrier in 1904. Up to 1907 she was examined forty-two times, and in thirty-six bacilli were found in the motions. On April 23rd, 1907, she was submitted to operation. The gall bladder was found to be perforated at the fundus. A large empyema was evacuated, some gall stones removed, and the gall bladder plugged and drained. She recovered. At first the bile did not flow well through the drain, and for a time the majority of the motions contained typhoid bacilli. Later this became rarer, until October 3rd, 1907. Since then no bacilli have been found in any of the 167 samples examined. The other patient was a nurse who contracted enteric fever from an unknown source. In September of 1909 she was again taken ill with fever, jaundice, and tenderness in the region of the gal bladder. On October 10th typhoid bacilli were found in the motions. On May 5th, 1910, her gall bladder was removed. The walls were thickened and infiltrated with small abscesses; no stones were found, and the turbid bile contained typhoid bacilli in pure culture. The hepatic duct was drained, and sodium cholate given. The bile was deflected through the wound. Fifteen days after the operation the motions were free from bacilli, and the drainage of the duct was maintained for five weeks, until no further typhoid bacilli were found in the bile. Since biliary fistula has healed her motions have remained free from typhoid bacilli. He claims that this is the only proper treatment for typhoid carriers.

PATHOLOGY.

284. The Central Innervation of the Urinary Bladder.

R. LICHTENSTERN (*Wien. klin. Woch.*, XXV, 1912) has made a notable contribution to the physiology of the interbrain and the central innervation of the bladder in a special part of that region. Karplus and Kreidl found in dogs and cats that electrical stimulation of the base of the diencephalon at a point between the optic tract and the third nerves, and behind the tract and on the outer side of the infundibulum, gave maximal pupillo dilatation, a widening of the palpebral fissure, a retraction of the third eyelid, with lacrymal and salivary secretion, and a profuse secretion of sweat in all four paws, together with a protracted contraction of the urinary bladder, both when empty and when full. Lichtenstern has studied the effects of stimulation of this hypothalamic region in cats; he performed laparotomy, opened the urethra, introduced a sound into the bladder, and detached the insertions of the abdominal muscles; he obtained a manometric rise of 5 to 6 cm. When the bladder contained but little fluid, it remained strongly contracted, and the contraction yielded only to affusion with warm water or vesical injection of warm water. He also made in animals serial sections of the conus medullaris, and found that section below the second sacral segment did not prevent the contraction of the bladder induced by hypothalamic stimulation, whereas injury of that segment did inhibit it. The work of Langley and Anderson, and also that of Elliott, showed that the nervi erigentes, which rise in the sacral cord, contract the bladder muscle, relax the sphincter vesicae, and have an antagonistic action on the hypogastric nerves which come from the lumbar cord. Lichtenstern found also that, after extirpation of one or both cerebral hemispheres, the effect of excitation of the sympathetic centre in question was twice as great from the manometric point of view as it was without such preliminary extirpation. He concludes that stimulation of the hypothalamus leads to bladder contraction, which is effected by way of the nervi erigentes rising in the spinal cord between the second and third sacral segments, and that this contraction is not prevented by extirpation of the cerebral hemisphere or hemispheres. He mentions that hypothalmic stimulation had no effect on the uterus or the spermatic cord.

285. The So-called Toxicity of Ascarides.

EGUERRINI (*Archiv di Biolog. Milan*, An. 64, f. iv) criticizes some of the evidence adduced in favour of the toxic power of ascarides, and gives the result of certain experiments on the frog's heart when the animal was injected with various extracts of ascarides. The coelomatic fluid of the parasite was first used, then an extract of the cuticular and muscular apparatus, next an extract of the intestines and genital organs, and, finally, an extract of the parasites *en masse*. In every case the result was negative, as far as any changes in the cardiogram could be detected. As the method (Engelman's) used by the author is very delicate, it does not appear that ascarides possess any toxic property. When authors affirm that certain phenomena are symptomatic of worms, or that certain symptoms are likely to occur in people who harbour these parasites, or, again, that certain symptoms have followed the experimental injection of extracts prepared from ascarides, the author replies by a direct negative, and says that if any of these things have occurred it is not a case of cause and effect, but either a coincidence or an error of observation. The particular ascaris experimented with by the author was the *A. megalocephala*.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

286. Periosteal Reflexes.

MYERSON (*Archives of Internal Medicine*, July 15th, 1912), in a preliminary paper on some unfamiliar and some new periosteal reflexes, considers the following: (1) Those obtained by tapping the ulnar styloid process when a contraction of the biceps, or of the posterior fibres of the deltoid, or of a combination of both results; and if the response is very active the reflex spreads to the supraspinati and infraspinati, rhomboids, trapezius, and biceps, comparable as an extensor response to the flexor response in the radial reflex. (2) A series of homolateral and contralateral responses from different bony points of the lower limb. With the patient lying in an easy, natural, relaxed attitude, the legs slightly abducted and rotated outwards, percussion in certain areas produces the following results: (*a*) From the internal condyle a homolateral adductor reflex, occasionally accompanied by (*b*) a less lively contralateral response; (*c*) from the anterior surface of the tibia a homolateral reflex, accompanied occasionally by (*d*), a weaker contralateral response; (*e*) from the external condyle a homolateral, frequently accompanied by (*f*), a more lively contralateral response; (*g*) from the sole of the foot a homolateral always accompanied by (*h*), a much livelier, and of more frequent occurrence, contralateral; (*i*) from the anterior superior spine a contralateral adductor response accompanied by a less lively homolateral. The homolaterals are livelier than the contralaterals down to the sole of the foot, where the relationship becomes reversed on passing from the internal to the external condyle. The activity of these reflexes is in direct relationship with that of the tendon reflexes, being active when the latter are active, and vice versa, and they are marked in diseases of the cortex, especially in uncomplicated general paresis, in cerebral arterio-sclerosis, in diseases of the pyramidal tract, and in preataxic tabes (though being absent in advanced tabes), in exophthalmic goitre, and in neurasthenia. Seeing that these reflexes are elicited from easily accessible surfaces, they should form part of every routine examination as affording additional information upon the patient's reflex irritability.

287. The Clinical Value of Electro-cardiograms.

H. E. HERING has attempted to ascertain the value of electro-cardiograms for clinical purposes in accordance with the present state of our knowledge and in the light of our present experience (*Deut. med. Woch.*, November 14th, 1912). He finds that the form of the electro-cardiogram in man reveals the function of indirect deviation, the position and the site of excitability of the heart. Of these three variables, only the first named is usually known, and for this reason the interpretation of electro-cardiograms must be associated with considerable uncertainty, and the clinical application of this form of examination suffers considerably in its possibilities. He proceeds to state that a normal electro-cardiogram does not exist; each cardiogram is individual. It is a highly delicite differential indicator, and reveals differences which other methods cannot register, but which may be physiological variations of function. The difficulty in determining whether each characteristic of the cardiogram is physiological or pathological further limits its use clinically. In regard to arrhythmia, the electro-cardiogram does reveal important information. Further advance can only be expected if full consideration be directed towards the deviation and the position of the heart. The external position of the body and the phase of respiration exercise a considerable influence on the curves.

288. Chyluria.

LAFFORGUE (*Journ. des practiciens*, March 1st, 1913) relates the case of a man who suffered from repeated attacks of this kind. Latterly they were complicated by haematuria. The onset generally began with violent pains in the testicles accompanied by fever and rigors. Haematuria then supervened, and after about forty-eight hours was replaced by the chyluria which persisted until the patient was dieted. His general condition was excellent. The matter is interesting from several points of view: (*a*) The character of the urine. This is milky with red deposits. On standing there is no appreciable sediment. There is a creamy pellicle on the surface consisting of fatty matter. A chemical examination shows that the urine clears completely with Adami's fluid and glycerine, and partially by boiling with alcohol. The matters in suspension are insoluble in ether, chloroform, xylol, and acetone. Heated with potassium the urine clears up almost completely. The results of experiments would seem to show that the trouble is chiefly due to neutral fats. The complete insolubility in xylol excludes lecithins. The fatty matter and suspension takes up the colour from osmic acid slowly and indifferently. (*b*) The parallel between the appearances of the chyluria, and its immediate disappearance on a milk diet. It returns on the ingestion of haricots, pastry, fondants, chocolate. Wine and champagne have a particularly bad effect, while Strauss has further proved that if 150 grams of butter be added to the ordinary milk diet, the chyluria returns within twenty-four hours. (*c*) The origin of the chyluria. The author has found no evidence to support the view that in this case the condition was due to the bilharzia or filaria. In his opinion there are two types of chyluria: the one definitely due to a parasite; the other being the "fatty diabetes" of Gubler. These must be distinguished from one another. The chemical analyses of the urine should help this differentiation. Further information is needed however.

289. Spontaneous Perirenal Haemorrhage.

ABETRI (*Rif. Med.*, December 21st, 1912) reports in detail the case of a woman, aged 49, who, after a fall, developed a tumour in one loin and intermittent haematuria. The accident happened on December 20th, and on March 5th the swelling was incised and found to be a cystic haematoma: the kidney was removed, and the final result was excellent. The cause of the haemorrhage appeared to be an arterio-sclerotic condition of some of the cortical arteries. The author has been able to collect 24 similar cases, 11 occurring in males and 13 in females. The age of the patients varied from 16 to 76 years. Both sides were equally liable. The size of the haematomas varied from that of a hen's egg to that of a man's head. The exact pathogenesis of these haemorrhages is uncertain, but their ultimate origin is always renal, and usually there is evidence of arterio-sclerosis, either in association with chronic interstitial nephritis or more rarely with parenchymatous nephritis and periarteritis. In the acute cases the symptoms are violent and sudden pain in one loin, signs of internal haemorrhage, and the appearance of a lumbar tumour; later on ecchymosis of the loin or the scrotum may develop; haematuria may or may not be present, and may be intermittent. The chronic cases are more difficult. The appearances of the cyst when opened are such as one might expect in any haematoma, and, just as in any other haematoma, secondary septic changes may occur. The treatment is purely surgical. Mere incision with removal of the clot is not satisfactory, and is often followed by severe and fatal haemorrhage. The proper treatment is to remove the kidney, unless this is contraindicated by serious disease in the other kidney. As far as present figures go, nephrectomy gives a cure of 83.5 per cent., whilst mere incision is only 62.5 per cent. These deal merely with spontaneous haemorrhages, and do not include traumatism or haemorrhage secondary to tuberculous ulceration, new growths, haemophilia, etc.

290. Quantitative Estimation of Uric Acid.

VATTUONE (*Gazz. degli Osped.*, October 3rd, 1912) has carried out a series of contract experiments with the Ruheman method of estimating uric acid in the urine as compared with the Hopkins method. The difference in the two results were so very slight as to be practically negligible, and, since the Ruheman method is much simpler, it is worth knowing. Into a simple graduation tube (known as the "uricometer") 18 to 20 minims of carbon sulphide are dropped, and on this an alcoholic solution of iodine (containing 0.015 gram of pure iodine). To this is added as much urine as corresponds to the scale, indicating 2 grams per 1.000. More urine is added until the brown colour of the iodine becomes more like straw; the whole is then vigorously shaken and the carbon sulphide becomes violet. Urine is then added drop by drop until

the carbon sulphide becomes nearly colourless; as a rule very little urine is required. The index is then read off on the scale and the amount of uric acid readily and quickly ascertained. If the amount of uric acid is above or below the scale figures, it is only necessary to divide the urine or the iodine as may be necessary and divide or multiply as the case may require. Bile pigments, glucose, and albumen (unless in large quantities) do not interfere with the test.

SURGERY.

291. Post-operative Parotitis.

B. VALENTIN (*Berl. klin. Woch.*, March 16th, 1913) has collected the observations made on post-operative parotitis in the period 1904 to 1912. The condition had been observed about twenty-five years earlier as a sequel to ovariotomy, but it was misinterpreted as a result of an obscure relation between the reproductive organs and the parotid gland. It is now known that the condition may follow operations other than those on the reproductive organs. Indeed, post-operative parotitis is now recognized as a more common sequel to operations on the gastro-intestinal tract than on the ovaries, and it may also follow operations on the breast. The author observed two cases, in one of which appendectomy had been performed on a patient aged 33. The appendix had caused symptoms for the first time fourteen hours before the operation, at which it was found to be injected and covered with a recent layer of fibrin. The patient was afebrile till the fourth day, when the temperature rose suddenly, and the left parotid became swollen. The abdominal wound healed by first intention, but the parotid suppurated, pus being evacuated by an incision, and the patient ultimately recovering. In the second case the patient was a woman, aged 88, who was operated on for an incarcerated hernia with a faecal fistula. The purulent swelling of the parotid which followed ended fatally. The complication usually occurs five to six days after the operation, and is almost invariably accompanied by general discomfort, high fever, and pain. Two to four days later it is common for the second parotid to become involved, the patient presenting an appearance typical of mumps. In Germany the condition apparently ends most often in suppuration, and, owing to the firmness of the fascia covering the gland, pus tends to track into the ear, the skull, the neck of the thorax, with fatal results. In France a more optimistic prognosis is given, and, as suppuration is considered to be the exception and not the rule, conservative treatment is advised. This consists of massage of the gland and Stenson's duct two or three times a day. The author recommends the application of wet compresses or Bier's hyperaemia at first. Later, if the fever, pain, swelling, and discomfort persist or increase, the gland should be incised, even if no fluctuation is demonstrable. The condition may be caused in one of three ways: By pressure exercised by the anaesthetist's hand while the jaw is fixed in a certain position; by infection from the blood stream in the same manner as a sore throat is supposed to infect the appendix; and by infection from the mouth. The two first views are but briefly discussed by the author, who devoted most of his space to the third view, the evidence in favour of which is considerable. Pawlow showed that the secretion of the submaxillary glands is much reduced when the abdominal cavity is opened and the intestines are drawn forward. He also showed that the inhibition of secretion from the glands is proportional to the duration of the laparotomy. Under these circumstances it is natural to suppose that germs in the mouth, which otherwise would have been washed away by the flow of saliva, gain access to the glands. Pawlow's observations and the author's deductions therefrom are, however, confined to parotitis following abdominal operations; and another explanation is necessary for parotitis following operations on the breast and haemorrhoidal vessels. According to Berth, chloroform alone is able to reduce the secretion of saliva; and after ether anaesthesia, patients are exhausted and breathe with open mouths without swallowing, and thus the escape of germs into the submaxillary glands may again be facilitated. But parotitis may follow an operation performed under local anaesthesia, and Bachrach has reported such a case. Gastrostomy was performed, and the patient fed through the fistula. Nine days later parotitis occurred. This was probably due to the enforced idleness of the parotids during the artificial feeding by the fistula. Parotitis following the use of morphine may also be due to lack of secretion and increased facilities for germs to spread up Stenson's duct. Legueu has induced parotitis in dogs by implanting germs in their mouths after the administration of atropin. He obtained the same results by reducing the fluid in the body by venesection. The view that germs reach the glands by their ducts from the mouth is further confirmed by Orth and Hanau, who showed that the ducts were first infected, and that the central portions of the gland were infected before the outlying portions. The author concludes that post-operative parotitis is the outcome of a concatenation of circumstances.

292. Botryomycosis.

ETIENNE (*Proc. méd.*, March 15th, 1913) relates the case of a patient who for about seven months had had a small tumour of a vivid red colour about the size of the head of a large pin on the ulnar side of the terminal phalanx of the middle finger. The patient did not remember having received a blow of any kind. The tumour slowly increased in size, and latterly became ulcerated and bled readily. It was cut off and the pedicle cauterized with $AgNO_3$, but after an interval reappeared. The nail remained normal, and movement of the terminal phalanx was unimpaired. The patient's general condition was good. Ultimately the growth was freely removed. From the surface of a section of the tumour a culture was made on Sabouraud's medium, the result being a growth resembling *Staphylococcus aureus*. In making the culture every precaution was taken to avoid any contamination. A section of the growth examined with the naked eye showed a whitish pedicle prolonged into the subjacent tissue and dividing into branches in the interior of the tumour itself. The intervening tissue was of a reddish colour. Microscopically the tumour appeared to be formed of fibrous tissue for the most part, branching in all directions, and small, dilated vessels filled with red cells, and surrounded by numerous cells of two types—a few with large nuclei, the others being embryonic cells. The latter more particularly surround the vessels, giving the growth the appearance of a granuloma. The epithelium is abnormal, and there is considerable hypertrophy of the corneal layer. Bacteriologically the cells described by Letulle and those of Labbé were not found. The author details the very conflicting opinions offered on the identity of these growths. Poncel and Dor, at the commencement of their researches, proposed the terms "inflammatory papilloma" or "infective granuloma." It has been suggested by some authorities that the condition is identical with botryomycosis, which attacks the spermatic cord of the horse after castration, and is caused by a parasite allied to actinomycosis. In this the botryococcus and staphylococcus play the principal rôle in the formation of the lesion. As already mentioned, there has been some discussion as to the identity of these infective agents. Morphologically they are alike, but culturally they show decided differences. In the author's case the staphylococcus only—or a coccus indistinguishable from it—was found. The identity of the lesion in the horse and in man is still in dispute. Certainly there is no evidence of contagion from the horse to man at present. The author concludes by stating that in his view the growth in question was an inflammatory fibro-papilloma. The causative agent, it must be admitted, is still in doubt. In the tumour found in the human being it has not been isolated—as has been done in the case of the horse—nor has it reproduced the original lesion after inoculation.

293. Acute Peritonitis ending in Cure.

CURTILLET AND LOMBARD (*Rev. franç. de méd. et de chir.*, 1912, No. 15) describe the following cases: (1) Peritonitis following acute appendicitis in a boy of 12, followed a month afterwards by a subphrenic abscess. (2) Intestinal perforation during the course of typhoid fever, operated upon twelve hours afterwards. The cellular tissue, contaminated by the peritoneal liquid, sloughed. (3) Acute appendicitis and peritonitis at the commencement of typhoid fever. (4) Traumatic perforation of the intestine with peritonitis and sloughing of the abdominal wall. The perforation was due to a fall from a horse.

OBSTETRICS.

294. Abderhalden's Dialysis Reaction for Pregnancy.

ABDERHALDEN (*Deut. med. Woch.*, 1912, p. 2161) and Petri (*Zentralbl. f. Gynaek.*, 1913, No. 7) deal with the technique of this reaction. Founding himself on the parenteral entrance of fetal albumen by deportation of syncytium, Abderhalden showed that the serum in pregnancy had

a special power of breaking up fetal albumen, and that this could be demonstrated by a polarisation method and by a dialysis method. With special apparatus and experience the former is specially suitable for qualitative work, but the dialysis method can be made available in any moderately equipped clinical laboratory. A set of dialysis capsules (Diffusionshülse, Schleicher u. Schüll, Düren) must be procured. From these must be selected by experiment a series which are impermeable for albumen but all permeable by peptone at nearly equal rate. For this they are laid in water and then carefully washed, and their permeability successively tested with serum and with peptone solution. The biuret reaction may be used as test, but preference is given to the reaction with triketohydrindenhydrate (ninhydrin, Lucius u. Brüning, Hoechst). After dialysis from sixteen to twenty-four hours, to 10 c.cm. of the dialysate add 0.2 c.cm. of a 1 per cent. watery solution of ninhydrin, and boil for a minute. A positive reaction gives a violet-blue colour, a negative no change or slight yellow colour. The capsules are serviceable for many experiments, and are kept in sterile water to which a little chloroform or toluol is added. The test is carried out as follows: Placenta is washed blood-free and coagulated by boiling. Successive boilings are made till the water shows no substances reacting with ninhydrin. Four boilings or more may be needed. Of the coagulated tissue 1 gram, in lentil-sized pieces, is placed in the dialysis capsule, and to it is added 1.5 c.cm. of the serum to be tested, absolutely haemoglobin-free. The capsule is then held closed with two fingers, and thoroughly washed with water. A layer of toluol is added, and the capsule is then placed in 20 c.cm. of distilled water in a dialysis flask. The surface of the water must be higher than that of the serum in the capsule. The water also is covered with a layer of toluol. The flask is now placed in the incubator for about sixteen hours. Thereafter 10 c.cm. of the dialysate, free from toluol, is removed with a pipette, and tested with ninhydrin as described.

GYNAECOLOGY.

295. Hypertonus in Women.

G. SCHIEKELE (*Wien. med. Klin.*, No. 31, 1912) discusses the significance of some of the rarer forms of hypertonus. Some of the cases are gynaecological and are diagnosed as cases of endometritis because of the presence of profuse menstruation occurring regularly or irregularly. The patients suffer from symptoms such as excitability, headaches, heat waves, sweating, palpitations, and disinclination and disability for work. Depression or a sense of inadequacy may also be present; the face is often flushed, though redness and pallor may alternate; there is sometimes a slight tremor and dermography. The pulse-rate is usually increased to 110 or 120 per second, but not often to any greater degree; the heart appears to be normal, though a slight systolic murmur is occasionally heard. The kidneys appear to be normal. The blood pressure is increased to from 150 to 180 mm.; lymphocytosis and raised eosinophilia may be present. The patients are, as a rule, no longer young, the youngest of the author's patients being 29 years old, and many within the preclimacteric period. The author gives notes of 4 cases illustrative of the condition. The first 2 were of patients not yet in the preclimacteric period. Improvement in the first case followed the administration of thyroid extract. Curetting was carried out in the second case, but without improvement of the symptoms, while histologically the endometrium was found to be normal. In this case the condition improved almost immediately after a change of diet and administration of corpus luteum extract. The other two patients were older, one 48, the other 50 years of age. In the first case curetting was followed by diminution of menstrual loss, but not by any general improvement in the symptoms. In the second menstruation had become scanty and irregular, and psychical depression was a marked feature of the case. Here, again, corpus luteum extract, although it did not lead to any lowering of the blood pressure, caused definite improvement in the general condition; the patient felt better, and was able to work better. Earlier researches have shown that the internal secretion of the ovaries acts in the direction of causing lowering of the blood pressure; the increased blood pressure of the menopause follows the withdrawal of this action. There is, apparently, a heightening of the sympathetic tonus. A similar condition may also occur before the ovaries have become altogether without function—that is, in the preclimacteric period. The first two cases—those of women of a younger age—fall into line with the other two, if we accept that in the former the disturbance of function of the ovaries was a primary condition. The irregular bleedings would then be one of the numerous symptoms of this condition, and would have no connexion with an anatomical change in the uterus or uterine mucous membrane. This theory is supported by the favourable effect seen in such cases from the administration of ovarian or corpus luteum extract. The case cited above, in which thyroid extract proved beneficial, tends to show that the secretions of the internal secretory glands must have many substances in common. Further investigations are needed, but the author's cases are convincing as to the fact that abnormal haemorrhages from the uterus have origin in different causes in different groups of cases, and such different groups call for recognition and for different forms of treatment directed to the particular cause in each group.

THERAPEUTICS.

293. Treatment of Arthritic Rheumatism.

P. JUNGHANS is of opinion that the treatment of rheumatic affections with antipyretics has been disappointing (*Deut. med. Woch.*, November 7th, 1912). He finds that salicylic acid is not a specific remedy, and that the most it can do is to reduce fever, relieve pain, and diminish the joint swelling. Menzer has found that better results can be obtained without salicylates by local and general application of warmth. The author has therefore treated a number of rheumatic cases without salicylates. He placed the affected joint at rest, usually by means of a splint. The joint was painted with ichthyol and well packed with many layers of wool. In 21 out of 45 cases this alone effected a complete cure. In those cases in which this more or less expectative procedure did not suffice he applied either local heat or Bier's hyperaemia. In 24 cases he found that an active method of treatment was required. The high price of Menzer's antistreptococcic serum formed a bar to its general use. He therefore turned his attention to collargol in those cases in which salicylates proved useless. He preferred giving intravenous injections to applying the collargol per rectum, partly because the action is more rapid, and partly because it is easier both for the practitioner and for the patient. The dose employed was 2 c.cm. of a 5 per cent. solution. Rectal application, however, yielded excellent results. He was able to observe a rapid and permanent cure in the majority of his cases; severe recurrences were scarcely met with, and the heart remained free from gross lesions. In those cases in which a cardiac affection was already present the condition of the heart tended to improve, or at all events not to get worse. He recommends this form of treatment for all cases of rheumatism.

297. Treatment of Nervous Gastric Crises.

FIESSINGER (*Journ. des praticiens*, 1912, lvi) considers the treatment as follows:—Medical external measures: Rest in bed is necessary; cataplasms or warm applications to the epigastrium, ethyl chloride to the vertebral column, and galvanization—one electrode on the dorso-lumbar region and one, the positive, on the epigastrium, with a current of 20 milliampères. Régime: Iced water by the mouth, and lavement of physiological serum, 250 grams for each lavement with 20 drops of Sydenham's laudanum, or cutaneous injections of sodium chloride or glycose (500 c.cm. to 1 pint); iced milk (one-third Vichy-Célestin water), or laudanum in milk (5 drops per cup), or iced champagne or coffee may be given if iced water is not retained. Drugs: (1) Applications to the abdomen. Laudanum (20 to 40 drops or a cataplasm or warm compress), or a liniment of chloroform, 10 grams, liquid extract of opium, belladonna, and henbane, āā 2 grams, balsam 30 grams. (2) Lavements or suppositories: Lavements containing opium, or suppositories of opium and belladonna or antipyrin, exalgine, or dionin by lavements if absorption by the mouth is not possible. (3) Draughts or solutions: Chloroform water (saturated) 80 c.cm., syrup of ether 10 c.cm., syrup of codeina 30 c.cm., hydrochlorate of cocaine 0.10 gram, or dionin 0.20 gram, aqua laurocerasi 10 grams; 6 to 8 drops for a dose. Morphine hypodermically should only be given as a last resource. Santonine 0.10 gram thrice daily, oxalate of cerium 0.05 gram to 0.15 gram thrice daily in pills, inhalation of amyl nitrite, sodium nitrite subcutaneously and daily, have all been employed with success. Robin recommends sodium bicarbonate 1.50 gram, magnesium hydrate 1 gram, carbonate of precipitated chalk 1 gram, powdered sugar 1 gram, bismuth

subnitrate 0.50 gram; codeine 0.005 gram every three hours during the day. Koenig injects into the muscles of the back, between the sixth and tenth dorsal vertebrae, 100 c.cm. of a solution of novocain 0.53 gram per 100. Lumbar puncture has given good results, and the injection of cocaine, stovaine, or novocain into the subarachnoid space has also had good effect. Marinesco has had better results with the following injection into the same place: Magnesium sulphate 25 per cent. solution, 1 c.cm. for 25 lb. weight of the patient. Surgical:—Foerster's operation: Open the dural sac after laminectomy, and resect the fifth, sixth, seventh, eighth, ninth, and tenth posterior roots of the cord. Franke's operation: Stretching of the sixth, seventh, eighth, ninth, and tenth intercostal nerves each side of the spinal column. The results of Foerster's operation are as follows: Death 15 per cent., return of the crises 17 per cent., complete cure 14 per cent., improvement 55 per cent.; and those of Franke, 7 out of 10 successful, 2 relapses, 1 death. These operations should only be performed as a last resort.

298. The Therapeutic Action of Tryamine.

HOYT (*Amer. Journ. Med. Sciences*, July, 1912) studied the pressor effects due to p-hydroxyphenylethylamin (tryamine) in twenty instances. There is considerable evidence to show that the above amine is formed in the human intestine from tyrosin, and that it is the most active pressor substance in extracts of putrid meat and in the watery extract of ergot. Dale and Dixon found that intravenous injection of tryamine caused a marked abrupt rise in blood pressure resembling that of epinephrin, except that the latent period is greater and the rise of pressure more prolonged, and that it is active either when administered hypodermically or by the mouth. From observations upon the twenty cases selected by the author as being those in which the blood pressure was likely to remain constant, and therefore such that any distinct changes following administration of the drug would be most probably due to that drug, the effect of hypodermic doses up to 20 mg. was found to be very slight. The drug is freely soluble in water, produces no gastro-intestinal irritation, and when given by the mouth it is uncertain and slow in action. In doses from 20 mg. to 40 mg. it produce a marked, abrupt, but extremely fugacious rise, sometimes associated with slowing of the pulse-rate and irregular cardiac action. The writer is in agreement with Clark, who, working independently, arrived at the same conclusions. In the treatment of marked vasomotor depression tryamine should be of value, but it cannot be relied upon for any prolonged action.

299. Treatment of Dysphagia in Tuberculous Laryngitis.

J. LAWRENCE (*Journ. des praticiens*, 1912, xxvi) recommends that dysphagia in tuberculous laryngitis should be treated by injections of alcohol into the superior laryngeal nerve. Technique: A solid platinum needle, 4 cm. in length, should be made to fit an ordinary syringe containing 2 c.cm. Two solutions are necessary, (*a*) an anaesthetic liquid such as physiological serum 100 grams; novocain, 0.50 gram; adrenalin, 1 per cent., 25 drops. (*b*) Alcohol at 0.85°. One c.cm. of the first solution should first be injected and the syringe then withdrawn (the needle still being in position) and 1 c.cm. of alcohol drawn into it; the syringe is then attached to the needle and the alcohol injected. Some minutes after the injection the patients feel a sensation of numbness, accompanied by difficulty in swallowing. At the end of 10 to 20 minutes the pains reappear, which may last some hours to a day and then disappear it may be for 10, 20, 40, or 60 days.

300. Rectal Administration of Salvarsan.

RAJAT (*Ann. des mal. vén.*, November, 1912), while not wishing to defend salvarsan nor to advocate its employment instead of mercury, draws attention to the administration of the drug per rectum, a method which he considers of equal value to other methods. The patient is prepared by an enema of a litre of water. The dose of salvarsan is dissolved in 120 c.cm. of artificial serum in the proportion of 5 per 1,000, with the addition of soda, if necessary, to obtain complete solution. It is administered by means of a rubber injector, and retained for thirty-six to forty-eight hours. The author maintains that the effects obtained are absolutely similar to those after intravenous injection, and that rectal administration is free from many of the dangers of other methods. He has tried it in 125 cases.

PATHOLOGY.

301. Phenolsuphophthalein as a Renal Test.

ROWNTREE AND GERAGHTY have recently described a new means of testing the condition of the kidney before the removal of one organ. The substance employed in this test is phenolsulphophthalein. Injected subcutaneously, intramuscularly or intravenously, this substance is quite harmless in doses of 6 mg. J. Vogel (*Berl. klin. Woch.*, November 11th, 1912) has used the method, and is of opinion that it is of high value, although there are a few points on which he does not agree with the American investigators. The quantity to be injected is dissolved in 1 c.cm. of water and injected, preferably intramuscularly. It is then necessary to collect the urine from each kidney separately, and according to Vogel to continue this collection until the whole of the injected substance is excreted. The urine is stained a vivid bluish red, when rendered alkaline with sodium hydrate. The quantitative analysis is best performed by means of Königsberger and Autenrieth's colorimetric apparatus. Rowntree and Geraghty stated that in from 65 to 80 per cent. of the cases, the whole of the 6 mg. is excreted within two hours, but Vogel finds that this is not so. He comes, however, to the conclusion that the rate of excretion is of less importance than the relative quantity excreted by each kidney and the fact whether the whole is excreted by each kidney and the fact whether the whole is excreted. He describes the method which he adopted for collecting the urine from each kidney by means of ureteral catheterization. At first he compares the results obtained with those obtained with phloridzin, indigo-carmine and cryoscopy, but he has since learnt that phenolsulphophthalein can be trusted without control, and at most he uses a cryoscopic examination of the blood. The test has not failed him, when he has proceeded to remove a non-functionating kidney, but it may give rise to the impression that the kidney which it is proposed to preserve is not sufficiently active to support life, when this is not the case. The author learnt this in a desperate case, in which he underlook the risk of removing a kidney which was completely converted into an abscess cavity, when the function of the other organ appeared doubtful by the test. The patient was going down hill, and after the operation, he was delighted to find that remaining renal tissue sufficed for the maintenance of life. In dealing with the technical details, he mentions that urinary pigment and blood may obscure the colour results. The former may be overcome by precipitating the pigments with acetate of lead, while the admixture of blood from an accidental injury during the passage of the catheter rarely lasts long.

302. Teratoma of the Thyroid in a Fetus.

A. W. RUSSELL AND MILLS KENNEDY (*Journ. of Obst. and Gyn. of the Brit. Empire*, February, 1913) report a case of this very rare condition. The mother was a 3-gravida, and when labour commenced a diagnosis of brow presentation with hydramnios was made. Fourteen pints of fluid were drawn off, and she was subsequently delivered by forceps of a fully developed dead female child. A tumour about the size of a large Jaffa orange, which had obstructed labour by preventing flexion, occupied the neck from the symphysis menti to the sternal notch, about two-thirds of it being situated on the right of the middle of the neck. The tumour lay beneath the deep cervical fascia, had a distinct fibrous covering, and was trilobular. It displaced but did not occlude the oesophagus and trachea, but it formed a distinct mechanical obstruction to the entrance to the larynx. On section it was seen to be irregularly cystic, the cysts tending to be multilocular. Histologically very little thyroid tissue was found to be present. There was an adenomatous tissue the epithelium of which was much richer than that of ordinary thyroid tissue, but the greater bulk of the tumour was made up of heterogeneous tissue elements in which structures representing all three layers of the embryo were present, showing that the tumour was undoubtedly a teratoma. The following elements could all be seen in one microscopic section: (*a*) Epiblastic: stratified squamous epithelium, hair follicles, sweat glands, gliomatous tissue, pigmented columnar epithelium (retina). (*b*) Mesoblastic: hyaline cartilage, bone. (*c*) Hypoblastic: columnar epithelium of tracho-bronchial and gastro-intestinal characters. According to current theory the growth originated from some fetal inclusion of "blastomeres" or "totipotent cells," and the inclusion being recognizable as a large tumour at birth, it is evident that the included cells must have undergone development practically *pari passu* with the host.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

303. Congenital Megacolon (Hirschsprung's Disease).

FAGO (*Gazz. degli Osped.*, March 9th, 1913) in a study of this condition points out that although Hirschsprung drew attention to this anomaly, the condition had been described earlier (in 1846) by Favalli. Incidentally he draws attention to the disadvantage of naming diseases after their discoverer instead of after some leading feature. Following Concetti he divides the disease into (1) macrocolia and (2) megacolia. Macrocolia is the more benign condition and consists in a lengthening of the colon especially in the descending and in the sigmoid part—for example, in one case the total length of the colon was 102 cm. as against 72 cm. which is the average. This increased length means greater inflexion so as to get it all packed away in the abdomen. In megacolia there is an enlargement of the colon in its entirety both in its diameter and in the thickness of its walls. The colon may also be enlarged unequally and associated with localized dilatation and hypertrophies. Various histological changes may occur in the different coats of the intestinal wall and the enlargement of the colon involves displacements of the abdominal organs, especially the liver. In newborn babies the first symptom is usually a delay in the expulsion of the meconium and early constipation, suggesting the possibility of imperforate anus; the abdomen soon becomes tympanitic. In older children obstinate constipation, meteorism, pressure symptoms are the leading symptoms. Peristalsis can be observed. Vomiting is rare until the later stages. Congenital megacolon almost always terminates fatally, either through autointoxication, colitis, and exhaustion. Nevertheless, it is compatible with a fairly long life, the chief trouble being the constipation. In rare cases death may occur from perforative peritonitis, or from intestinal obstruction. Of the 111 cases collated by the author, death occurred in 64. In the cases operated upon the deaths were 38.8 per cent.; in the unoperated, 75.8 per cent. The male sex is more often affected (84 males, 20 females, 7 sex not recorded). As regards age, 21 were under 1 year, 27 between 1 and 10 years, 15 between 10 and 20, 12 between 20 and 40, and 14 over 40 years. The etiology remains unknown. The differential diagnosis consists chiefly in excluding all the commoner possibilities of meteorism, and the author goes rather fully into this question. In treatment oil purgatives are seldom efficacious, or soon lose their efficacy; salines often cause severe vomiting. Large injections into the colon are more useful. Massage, electricity, exercise, and strychnine are also useful. Various surgical procedures have been tried, from simple intestinal puncture up to colectomy. Colostomy has for the most part proved disastrous. The latest suggestion is to sew up the colon upon itself, the serous and muscular coat of the bowel being the only parts touched. Some success has followed this operation, which is less severe than the previous procedures.

304. The Excretion of Sodium Chloride by the Kidney.

BORCHARDT examines the data connected with the excretion of sodium chloride by the healthy and diseased kidney, and discusses the facts critically (*Deut. med. Woch.*, September 12th, 1912). He comes to the conclusion that, in contrast to the majority of urinary substances, sodium chloride is excreted by means of filtration through the glomeruli, and is concentrated by absorption of water in the tubules. Frey has shown that, apart from this, a small portion of the common salt is reabsorbed in the place of secreted material. Marked retrograde absorption of sodium chlorides takes place when the tubules of the kidney are damaged. In this case, instead of the vital reabsorption of water, retrograde absorption of the glomerular filtrate—that is, the provisional urine—takes place, so that a concentration of sodium chloride cannot take place. A retention of chlorides also takes place in defective glomeruli during the acute stage, which can be explained by the assumption of a lessened filtration of provisional urine in the glomeruli. As a rule, however, this retention passes off rapidly. In mild or chronic glomerular disease the sodium chloride excretion, if not interfered with, and any salt which has previously been retained, can be washed out in the urine. A normal excretion of sodium chloride always indicates that the renal epithelium is not markedly damaged. Retention of chloride is one factor in the production of nephritis oedema.

305. Hypophysial Nanism.

BRUNIER has described a new hypophysial syndrome characterized by arrested growth and a persistence of infantile type. A translation of his paper by Frederick appears in the *Annals of Ophthalmology* for April, 1912. Marie, Fröhlich, and Bartels have described other symptom complexes caused by lesions of the pituitary body, and it is to-day universally admitted that acromegaly is due to overaction of the anterior lobe of the hypophysis, while diminished function of the posterior lobe leads to an adiposo-genital degeneration. It is also well known that in giants lesions of the hypophysis are not rare, and Brissaud and Meige believe that gigantism and acromegaly are one and the same pituitary disease; gigantism is acromegaly during the period of growth, and acromegaly is gigantism when body growth has ceased. There are, however, some little-known troubles during the period of growth of persons afflicted with pituitary lesions, which manifest themselves as arrested development of the skeleton. Brunier draws attention to this "hypophysial nanism," which is apparently due to a decreased functioning of the anterior lobe commencing in infancy. This fact has been proved by experiments. Aschner, Gemelli, and Fischera showed that removing the pituitary body in young animals gave rise to a certain amount of nanism and infantilism. Brunier's case, although 26 years old, looked like a child, and was the size of an ordinary child of 8 years old. One optic disc was completely atrophic and the eye quite blind. An examination of the other eye showed that the field was hemianopic in character. There was complete impotence and double cryptorchism. Skiagraphs showed that the sella turcica was enlarged and the epiphyses ununited. Similar cases have been described.

306. Uncontrollable Haemorrhage in Infants.

K. BLÜHDORN calls attention to the conditions spoken of as uncontrollable haemorrhage in infants, and gives his experience of the treatment of the same by means of serum and calcium salts (*Berl. klin. Woch.*, January 6th, 1913). He was called upon to treat a case of severe melaena neonatorum, one of Henoch's purpura abdominalis, and a third case of severe bleeding from the umbilicus in a 10 days old infant, who was suffering from sepsis with pernicious jaundice. In all these cases the condition of the infants was extremely grave, and experience showed him that death would in ordinary circumstances take place. In the first instance he gave the patient, a 3 days' old child, an injection of 2.5 c.cm. of diphtheria antitoxin for the serum action, and 0.5 gram of calcium acetate every two hours. In all the infant took 3 grams of calcium acetate. In the second case 3.8 c.cm. of diphtheria serum were injected twice; the patient was 6 months old. In addition he gave 2 grams of calcium chloride each day. In the third case the serum was injected subcutaneously around the umbilicus, and a tampon soaked in normal human blood and serum was applied to the navel. This child also received calcium chloride. All the three patients made rapid and complete recoveries. Experimentally he demonstrated that in the third case the coagulability of the blood was diminished. Normal blood was found to clot in two minutes; the blood from the umbilicus did not coagulate until seven minutes, the same blood with an equal part of serum clotted in two minutes, and the patient's blood mixed with clotted normal blood coagulated within fifty seconds. The manner in which the bleeding ceased in all three cases justifies him in his opinion in regarding the improvement as a direct result of the action of the serum. He gave diphtheria antitoxin instead of normal horse serum, because he had it ready, while time would have elapsed if he had waited for the latter. He is of opinion that fresh serum, if obtainable, is preferable to older serum, but in ordinary general practice it is not easy to procure fresh human serum. In regard to the calcium salts he prefers the soluble chloride or acetate to the insoluble lactate and citrate. The dosage must be large. He gave them in solution with saccharine and anise, by mouth.

SURGERY.

307. Cancer of the Stomach.

S. WEIL (*Berl. klin. Woch.*, March 3rd, 1913) gives an account of the results of the treatment of gastric carcinoma in Küttner's surgical clinic in Breslau. He states that 15,000 persons die of gastric carcinoma every year in the German Empire, and if his 2 to 3 per cent. of complete cures had general application this would mean the saving of from 300 to 450 lives each year. During the past five years resection had been performed in the clinic 149 times. In 14 of these cases the tumour proved to be benign, but the author points out that there is no means of determining with absolute certainty, before the tumour is placed under the microscope, the benignity of certain lesions of the stomach; he maintains that it is only fair to the patient that the only chance of recovery is given, should the disease turn out to be cancer. Pain was present as an early symptom only in 10 per cent. of the cases, vomiting in 20 per cent., while loss of flesh was seen in every case. In 80 per cent. of his cases a tumour could be detected by palpation, but this does not mean that the tumour cannot be properly resected. He points out that success depends, *inter alia*, on an ideal co-operation of the surgeon with his assistants, and, for this reason, he considers it advisable to adhere to one technique, in which all who assist may become proficient. In Küttner's clinic the operation usually carried out was Billroth's second method. He gives many highly interesting details in regard to the disease found at the operation and the methods adopted for dealing with special cases. The operation mortality (limited to the carcinoma patients) was 22 per cent. In 18 out of the 31 patients who died in this manner purulent affections of the peritoneum set in. At times this was due to the giving way of the sutures; in others the peritoneal cavity was already infected before the operation, while in a third category it was found to be impossible in the extremely difficult operations to avoid contamination. He gives a most important table of the ultimate results of the operations. One hundred and four patients were able to leave the clinic, the majority in a comfortable condition. Of those who were operated before 1907 not one is now living. Of those who were operated on in 1908 4 are now alive and well; while of those operated on in 1909, 1910, 1911, and 1912, 5, 5, 13, and 13 respectively are still living. Eight patients have been freed from their disease and have not had a recurrence for three years or more, which he regards as cure. In 16 per cent. of the patients operated on life was prolonged for more than three years. The complete recovery of from 2 to 3 per cent. applies to all carcinoma of the stomach patients admitted in 1907, 1908, and 1909. He calls attention to the fact that the condition of the patients after resection is far more comfortable than after gastro-enterostomy, and that the improvement lasts longer. In comparing his cases with those published previously from the same clinic he finds that the operation mortality has decreased, but that the percentage of permanent cures has remained about the same. He pleads for an earlier operation in order that more lives can be saved.

308. Non-specific Infections of Submaxillary Gland.

POTEL AND VERHAEGHE (*Echo méd. du Nord.*, 1913, xvii, Nos. 5 and 6) describe the non-specific infections of the submaxillary gland. Anything which modifies or decreases the secretions of the gland favours the invasion by microbes, hence contraction of the duct, or a foreign body or calculus play a part, so also cachexia, organic diseases, as diabetes, Bright's disease, etc. The disease may also spread from carious teeth, thrush, and phthisis, and the like. Inflammation of the gland and swelling of the cells and oedematous infiltration of the intestinal tissue represent the first stage, and this passes on to suppuration. The epithelium of the duct loses its striation, the lumen is full of lymphocytes, and the epithelial cells desquamate. Some of the affected parts of the glands desquamate, others become atrophied. The capillaries rupture and small haemorrhages result. If the disease becomes chronic sclerosis occurs. The acute form may be primary or secondary, and be of the catarrhal or suppurative variety. The former is chiefly met with in old people. The temperature rises and the gland enlarges, becomes red, hot, and painful. The disease is short if suppuration does not occur. In some cases the inflammation is due to a calculus, and colicky pains occur in the gland, and are known under the name of salivary colic. Pains in the throat and towards the ear are frequent, and difficulty in swallowing is always present. When the gland suppurates the dullness and pain are more marked and the redness more excessive. Here again the cause may be a calculus, or as a result of other and neighbouring infections. In chronic cases the gland becomes sclerosed and hard, and a nodule movable under the skin can be felt. Prognosis: This should always be reserved. The catarrhal form becomes cured in a few days; that due to calculus is more serious, and may last for some time without any symptoms, but usually presents exacerbations and remissions. The suppurative forms, as a result of infection elsewhere, generally usher in a fatal termination. In the acute forms the diagnosis is usually easy. The symptoms described sufficiently indicate the nature of the diagnosis. In the suppurative forms pus may frequently be pressed from the canal of Wirsung. Regarding treatment the authors say that in children sweets should be forbidden and disinfection of the mouth undertaken. In cases of calculus removal of the same should be undertaken, and warm compresses and disinfection of the mouth indicated. When suppuration occurs incision of the gland is imperative. In the chronic forms, if the condition is troublesome, extirpation of the gland is the only remedy.

309. Scopolamine as an Anaesthetic.

AMONG local anaesthesia, one of the best known combinations is scopolamine and morphine. Physiologically these two drugs are antagonists, and it has been stated that the mixture could not be regarded as a safe one. H. Offergeld (*Deut. med. Woch.*, No. 50, 1912) now suggests the combination of scopolamine and omnipon, and reports the results which he has obtained with these drugs in support of his contention that the mixture is safe, reliable, and efficacious. His experiments are divided into three groups, according to the doses given. In all cases he injected 0.04 gram of omnipon, and he varied the dose of scopolamine from 0.0004 to 0.0006 and 0.0007 gram. The effect of the smallest dose was a quieting one but sleep was not produced. This, however, was obtained with quite small quantities of ether or chloroform, and in each case was satisfactory. The medium doses effected a drowsy state, with complete amnesia. In one patient, however, no sleepiness was obtained at all. The full doses were given for major and prolonged surgical procedures, and were usually associated with the inhalation of an anaesthetic. The quantity of the latter, however, was extremely small, and in a few cases the sleep was maintained past the stage of diminishing doses of chloroform but also without any at all. He gave the mixture to patients with various organic diseases; even lung and heart cases tolerated the narcosis well in the majority of cases. A few cases of respiratory disturbances were met with in these cases, and the same took place in persons with normal organs. Myocarditis appeared to be the most dangerous complication. Two of his patients died, one five days after the operation of acute heart failure, and the other after a septic abortion. The operation conducted under scopolamine and omnipon brought some temporary improvement, but the symptoms returned with a rigor, and after death septic thrombi and complicating myocarditis were found. In summing up his experiences, Offergeld states that if care be exercised in the dosage the mixture is calculated to rob inhalation anaesthesia of much of its dangers.

OBSTETRICS.

310. Nervous Affections in Pregnancy.

A. SAENGER (*Muench. med. Woch.*, October 8th, 1912) discusses a few nervous affections which occur during pregnancy and which stand in direct relationship with the same. First he tells of cases of polyneuritis. In one case, all the extremities as well as the muscles of deglutition and of the rectum were paralysed; in a second case, there was also a general distribution of the paralysis. Both cases ended in complete recovery. Möbius has recorded a case of neuritis affecting the ulnar and median nerves following a severe parturition. Other cases are also mentioned. Saenger also records a case of retrobulbar optic neuritis in the puerperium. There was total blindness of both eyes. Partial recovery followed in a few months. In all these cases the author regards that the cause existed during the pregnancy. Autointoxications occur during pregnancy, as is shown both by albuminuria and by the vomiting of pregnancy. The causes of hyperemesis gravidarum are supposed to be either hysteria or the marked passive movements in the

uterus, affecting the intestines, or the disproportion between the uterus and the growing contents of the same, or the direct reflex action on the part of the increasing uterine wall. Saenger recognizes that hysteria may play a part in some cases, but it certainly does not account for all the cases. His own opinion is that the most common origin of hyperemesis is of a toxic nature, and supports this view by calling attention to the frequency with which it is associated with polyneuritis. Next, he turns his attention to epilepsy in pregnancy. He shows that at times the attacks can be controlled by the exhibition of cerebrin and bromides. In some cases a previously-existing epilepsy may be favourably influenced by pregnancy, while in others the reverse may be the case. He cites cases in which a latent epilepsy became active again during pregnancy and in which the patients lost their lives in status epilepticus. Some difficulty may be experienced when epilepsy is associated with eclampsia. As a rule, the differential diagnosis is not difficult. Lastly, he deals with puerperal insanity. He cites cases in support of the view that when a previous attack has been experienced and recovery has followed, the question of the induction of abortion should be considered, should a fresh pregnancy occur. His cases show that this procedure may lead to very satisfactory results. He is of opinion that many a woman can be saved from permanent insanity if an abortion is induced in good time.

GYNAECOLOGY.

311. Radio-therapeutic Treatment of Uterine Myomata.

ALBERS-SCHÖNBERG (*Arch. d'électr. méd.*, April 10th and 25th, 1913) describes his technique in the deep radiotherapy of uterine myomata. The *x* rays are indicated in all myomata except the following, in which operative treatment is preferable or incumbent, namely, pedunculated myomata of the neck of the uterus; myomata combined with a carcinoma of the mucosa; rapidly increasing myomata with abundant haemorrhage and metrorrhagia, raising a suspicion of sarcomatous degeneration, gangrenous myomata, and, finally, myomata which have caused acute retention by compression of the bladder. Women over the age of 40 years are the most amenable to *x* ray treatment, and the action of the rays is more rapid and certain the nearer that the subject approaches the natural menopause. For younger women the dose must be considerably increased, and even then all possibility of relapse is not evaded. Generally speaking, the diminution of the myoma is very slow, the first improvement being announced by the patients themselves, who experience less heaviness in the abdomen. In a number of cases a considerable increase of haemorrhage has been observed after the first sittings, diminishing after subsequent sittings. In certain cases also an alteration of the menstrual blood has been noticed, the blood presenting no longer a clotted and coagulated appearance, while the menstruations have been less painful. In one case he observed an augmentation of the haemoglobin content of the blood from 30 per cent. to 90 per cent., but in other cases, chiefly those of women of poor condition who could not exercise the necessary care during treatment, while there has been a diminution of the myoma and a complete disappearance of the haemorrhage, the haemoglobin content has remained comparatively low. In no case that he has treated has he found any severe burning. A passing redness, some degree of erythema, a distension of the pilous follicules have been the only phenomena observed. Lesions of the skin may be altogether avoided by a prudent technique. At first he used filters of tin and leather, but he thinks now that aluminium filters, 2 mm. in thickness, are an additional safeguard so far as the security of the skin is concerned. Two methods of dosage are in vogue, that of the Hamburg school, in which exactly the necessary dose is applied and no regard is paid to the duration of treatment, and that of the Freiburg school, in which strong doses are applied within as short a time as possible. He favours the former method, which has given him 78 per cent. of cures among the cases treated. His dosage has ranged between 60 X and 100 X on the Kienböck quantitometric scale. At first he irradiated at a single point of entrance, applying a bundle of rays sufficiently great to fall perpendicularly on the abdominal wall, and thus reaching at once all the genital organs. Subsequently he irradiated at two points of entrance, projecting the rays obliquely and laterally, the patient being in lateral or dorsal decubitus. But, in view of the uncertainty of reaching the ovaries and the myomata by this second method, he has returned to his former practice of irradiating at a single point of entrance, and in order to accelerate the treatment he employs two tubes, working at the same time, one of them being placed below, and the other above the patient. Each series of irradiations is limited to four sittings of eight minutes each.

THERAPEUTICS.

312. Serum Treatment of Erysipelas.

DURING the past two years, Welz (*Therap. Monats.*, April, 1913) has used the polyvalent Meyer-Ruppel serum in 23 cases of erysipelas. All the patients were seriously ill and febrile, and the dose was usually 100 c.cm. injected into a vein. Twelve other paptients were given the serum by the mouth, but this method was abandoned, as it appeared to be futile. The serum's action in each case was first tested by injecting 10 c.cm. subcutaneously, and, when this was well tolerated, a large dose was slowly injected into the same patient's cubital vein. During or immediately after this injection rigors and collapse sometimes occurred, but in only one case did they necessitate the use of cardiac and cutaneous stimulants. In most cases the injections caused no reaction. Two patients exhibited a typical serum rash eight days after the injection, and complications of erysipelas, such as transitory cardiac and renal disturbances, were not evaded by the use of serum. The injections were given on the second to the fourteenth day of the illness, and were supplemented by the application of a cooling lotion to the inflamed parts. Two of the patients died. About half of the remainder showed a uniform reaction, the temperature being taken ever other hour in the axilla. First there was a slight rise immediately after the injection, accompanied by a sense of discomfort, chilliness, and vomiting in some cases. On the evening of the same day, and during the following night, the temperature fell, to rise again next day, but to a lower level than before. On and after the third day it was normal. This fall of temperature was accompanied by general and local improvement. This type of temperature curve corresponds with that commonly observed in cases of septic infection treated with antistreptococcal serum. Of the remaining patients, 4 showed a fall of temperature by lysis after the injection, and 5 showed no immediate improvement, although they ultimately recovered. No change in the number of the leucocytes was observed in the two cases in which the blood was examined. Summing up his observations, the author considers that the serum was responsible for the fall of temperature in half his cases, that the serum's failure to influence the temperature in some cases was due to its being a stock serum without a specific action on every strain of germ causing erysipelas, and that in the successful cases the serum reduced the temperature irrespective of the stage at which the disease existed when the injection was given. Thus, in one case, a girl aged 19 had been ill for eleven days without improvement when the serum was injected, and a rapid recovery was effected; but it is doubtful whether the serum reduces the frequency of relapses, two of which occurred in the author's series. The objections to the general use of this serum are its cost (30 marks for 100 c.cm.) and the risk of collapse. This may, indeed, be lessened by injecting the serum cautiously and very slowly, but it cannot be altogether eliminated. The serum should not, therefore, be given in slight cases, nor in cases in which disturbances of the circulation are the most prominent features of the illness.

313. Nervous Symptoms after Salvarsan.

RAVAUT (*Ann. de derm. et syph.*, March, 1913) cites a case in which the patient, a man aged 31, contracted a chancre in January, 1911, for which he received nine mercurial injections and a course of mercury by the mouth. In July of the same year there were hypertrophic, oral, and palatal plaques, but no symptoms drawing attention to the nervous system. The Wassermann reaction was positive. Four intravenous injections of salvarsan—0.3, 0.4, 0.5, 0.6 gram at intervals of a few days—were given in the latter part of July and beginning of August, and in September fifteen intravenous injections of cyanide of mercury—0.01 gram—were administered. The mucous plaques healed after the first salvarsan injection, and none of these had any more serious sequel than persistent headache, of which the patient was still complaining in January, 1912, and for which mercury and iodide were freely prescribed. In May the patient again presented himself for further treatment of the same symptoms, which had continued in spite of all measures. In November he returned,

complaining of very sharp pain in his left flank with nocturnal exacerbations. The physical examination pointed to a diagnosis of intercostal neuritis in the last dorsal nerve roots. The history of the case then suggested the possibility of a specific etiology—possibly meningeal—and lumbar puncture was proposed and accepted. The cerebro-spinal fluid was under considerable pressure, and contained a large excess of lymphocytes, some polynuclears, and a few cells resembling plasma cells. There was a good deal of albumen, and the Wassermann reaction of the cerebro-spinal fluid was positive. The withdrawal of the fluid had a marked therapeutic effect, for his pain subsided, and the headaches markedly diminished. Enesol was then injected intravenously every day (3 c.cm.), and under its influence there was still further amelioration of symptoms. In January, 1913, the patient's symptoms had completely subsided; the Wassermann reaction of the blood was negative, but that of the cerebro-spinal fluid still positive. The patient wrote that towards the end of that month the pain had returned, with weakness of the right leg, and a patch of anaesthesia on the outer side of the left thigh. The chronic syphilitic meningitis had recurred, as is its wont, in spite of the most energetic and radical treatment. The author emphasizes the importance of an examination of the cerebro-spinal fluid in all cases of syphilitic neural manifestations, especially where there is any chance of the presence of a latent meningeal endarteritis syphilitica. He goes so far as to say that it is dangerous to base one's antisyphilitic treatment on the results of the Wassermann reaction of the blood alone, for it is always possible, as in this case, that active cerebro-spinal syphilis may be progressing, with a negative reaction to Wassermann's test in the peripheral circulation.

314. A New Morphine Substitute.

E. P. NOGUERA (*Revista de Medicina y Cirugia Practicas*, October 21st, 1912) summarizes the considerations and evidence which have been advanced in favour of "narcophina" as a succedaneum for morphine. He points out that a mixture of all the alkaloids of opium has a narcotic effect not only greater than the morphine in it will account for, but considerably greater than a summation of the effects of the different alkaloids would lead us to anticipate. Most of the alkaloids other than morphine are present in very small amount, and some of them have an action which is antagonistic to that of morphine. It is to Straub (Director of the Institute of Pharmacology in Freiburg) that we are indebted for the first attempt to explain this discrepancy—the physiological action of morphine and the total alkaloids of opium. According to Straub, the increased effect of morphine when united with the other alkaloids of opium is due to the presence of one of them only—narcotina, which is present in very small quantity, and is by itself almost inactive. It is a case in which the two alkaloids added ($a+b$) have a physiological effect nearer to their product ($a \times b$). On cats narcotina has no particular effect, nor does morphine produce narcosis in cats. A quantity of morphine sufficient to narcotize any other animal of equal weight produces in the cat a state of violent excitement. If, however, a mixture of equal parts of morphine and narcotina be administered to a cat, no excitement follows; the animal becomes dull, indifferent to its surroundings, and soon sleeps. It appears also from Straub's experiments on other animals that the paralysing action of morphine on the respiratory centre is very much lessened—in some cases abolished by the addition to the morphine of an equal quantity of narcotina. In the case of mice the toxicity of morphine, with narcotina added, is so small as to be scarcely measurable. Straub has experimented with different proportions of the two alkaloids, and has found that the maximum increase in the narcotic effect of the morphine and decrease in its toxicity is obtained when they are mixed in equal quantities. Opium contains only 0.02 per cent. of narcotina as against 10 per cent. of morphine. Straub has had prepared a double salt, the two alkaloids in equal proportions—a meconate of morphine and narcotina—which he calls narcophina. Clinical trials of this drug in the University of Breslau and in the Gynaecological Clinic of Freiburg, by Zehle, Hans Schlimpert, etc., in most of the conditions in which morphine is usually given, and in many (diseases of the organs of respiration, etc.) in which it is (alone) contraindicated, seem to substantiate these conclusions. Narcophina is given in doses of 2 or 3 cg. as a simple hypnotic. Sleep generally supervenes in from a half to one hour and lasts six to eight hours. As is usual in the case of new hypnotics or morphine substitutes, it is claimed that all the undesirable after-effects are absent.

PATHOLOGY.

315. Bacteriological Investigation of Bile.

PETRY AND BOLDYREFF have described a method of obtaining bile in the stomach by means of an oil test breakfast. It was found that a large quantity of oil caused a regurgitation of pancreatic juice and bile mixed. This find led G. Királyfi to undertake a methodical investigation of the bacteriology of the bile in varying conditions (*Berl. klin. Woch.*, October 14th, 1912). Working with aseptic oil and instruments, he succeeded in obtaining results on which he claims that reliance can be placed. He found that under normal conditions the upper part of the duodenum is sterile (39 times out of 69). In cholecystitis, the bile obtained by means of the oil test meal revealed *B. coli* in the majority of cases, while streptococci, staphylococci, and other pathological micro-organisms were found at times. In cholelithiasis, bacteria were only found exceptionally in the bile. He explains this by assuming that in some cases the flow of bile is hindered mechanically and the bacteria are kept back in the same way, and in a certain number of cases, as has been shown by Aschoff, Riedel, and others, gall stones are sterile. The examination yielded bacteria in cases of gastro-intestinal affections, but in these cases, the bacterial flora of the stomach and intestines often obscure the bacteria of the bile. When there is an acidity or hyperacidity, a positive result can be obtained. This form of investigation may be of the utmost importance in enteric fever. In the early stages before Widal's test is positive, and before the bacteriological examination of the faeces or blood reveals the nature of the illness, the examination of the bile may yield a pure culture of *B. typhosus*. When bacteria are found in the bile without any signs or symptoms pointing to a disturbance in the bile ducts or in the gastro-intestinal tract, two possibilities are possible: either there is a very insidious affection of the gall bladder, a cholecystitis without symptoms, or the infection is secondary, which is the more likely with staphylococci than with other organisms. He has further ascertained that there is a distinct connexion between infections of the bile and the albumen content of the fluid. A strong reaction with sulpho-salicylic acid is only met with when the bile contains bacteria. This reaction, when marked, and the find of bacteria indicate cholecystitis. A less marked reaction possesses no diagnostic significance. The albumen test of bile may reveal a symptomless cholecystitis. The content of albumen is found to be independent of any collection of pus cell and the only conclusion which can be drawn from the detection of a large number of these cells under the microscope is that somewhere in the bile ducts there is an inflammatory affection. Otherwise, he does not regard the microscopic appearance of diagnostic value.

316. Pathogeny of Albuminuric Retinitis.

CHAUFFARD (*Journ. des praticiens*, January 18th, 1913) refers to the numerous theories advanced on this subject, and points out that the modern one of azotaemia only partially explains the lesions. The author has noted particular properties of the blood serum in those cases. Certain of the lesions as described by Widal and Gaucher are probably due to retention of chlorides, and have disappeared under dechloridization. But in addition to these the observations of Chauffard have proved another factor in the case in a great number of instances—that is, a state of hypercholesteraemia. He quotes a case of albuminuria with double neuro-papillitis in which an analysis of the blood serum showed an almost normal urea content; but considerable augmentation of cholesterin—about six times the normal amount. Lumbar puncture was practised in this case, and 30 c.cm. of fluid withdrawn in a state of hypertension. This was followed by considerable relief of all the symptoms, including the headache and ocular symptoms. The researches of the author have shown that azotaemia and cholesteraemia follow an inverse evolution. The latter is constantly present in chronic nephritis, but not during the acute period. It appears to have been proved that the white retinal plaques are not composed of fat, but of a lipoid substance. The author suggests that it is the excess of cholesterin in the blood serum which is deposited in the retina as the pearly spots characteristic of albuminuric retinitis. There is some evidence that these processes have a suprarenal origin. In such cases the author recommends lumbar puncture to diminish tension, and a dietary consisting of skimmed milk, green vegetables, and a little roast meat prepared without butter or salt.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

317. Chylocele.

E. LEVIN (*Med. Klin.*, April 6th, 1913) defines chylocele as an encapsuled collection of sterile bile in the peritoneal cavity, and he reports two cases illustrating this condition, which has not, he says, hitherto been described. It has lately been shown that bile may escape into the peritoneum by transudation without any gross lesion of the biliary system, such bile being either already infected, or becoming so after its escape into the peritoneum. The author claims that bile may escape from the gall bladder, the extra- or intra-hepatic biliary passages into the peritoneal cavity, and become encapsuled therein without being infected; and that the capsule formed about the bile may be developed after its effusion, or it may have already been partially formed by adhesions, between which the chylocele forms in the same manner as a retrouterine haematocele. A chylocele may form either as a sequel to rupture of the biliary passages, or to transudation of bile, as the following cases show:—A married woman, aged 50, had suffered for about eight weeks from pain about the right costal margin. She had also suffered for a year from abdominal pain after eating, from nausea, and occasional vomiting. She was cachectic and somewhat jaundiced. The abdomen was distended but nowhere rigid or tender. No free fluid in the abdominal cavity was demonstrable. The liver dullness was increased, and along the right costal margin several painless nodules could easily be felt. The temperature was raised, and the pulse, though strong, was rapid. Cancer of the liver was at first diagnosed, and, later, cancer of the stomach. After six weeks in hospital the patient suddenly died. The necropsy showed a large carcinoma of the pylorus compressing the common bile duct. The gall bladder, extra- and intra-hepatic biliary passages were much dilated, and a chylocele containing about two litres of pure bile was found below and behind the right lobe of the liver, and bounded behind by the diaphragm. Its walls were fibrous, smooth, and green. Two smooth-walled ducts, thicker than a lead pencil, passed from the lower part of the chylocele into the substance of the right lobe of the liver, the whole of whose under surface was covered by the chylocele. Evidently two of the biliary passages in the right lobe of the liver had given way, and bile had escaped into the peritoneal sac, becoming immediately encapsuled, or escaping between adhesions which had previously formed in the neighbourhood of the liver. The nodules felt over the liver during life yielded on incision a milk-like fluid. A married woman, aged 71, had suffered from abdominal pain and violent vomiting for about four weeks. Two weeks earlier there had been transitory jaundice. The abdomen was distended, and there was a dull area extending from the liver dullness on the right to three fingerbreadths below the umbilicus on the left, and, when traced upwards, merging into the cardiac dullness. Cholecystitis and cholelithiasis were diagnosed, and laparotomy was performed in the middle line above the umbilicus. Division of the anterior layer of the peritoneum and omentum revealed a smooth-walled cavity containing about 1½ litres of bile. This was withdrawn and a tampon inserted. The patient died a month later. At the necropsy the anterior surface of the liver was found firmly adherent to the abdominal wall. The drainage tube which had been inserted after the operation passed into a cavity of the size of an apple, with thick fibrous walls, and containing pus and bile-like matter. A second cavity of similar formation was filled with pure bile, and was situated between the spleen, the tail of the pancreas, and the diaphragm. A third such cavity, also containing pure bile and of the size of an apple, was found in front of the foramen of Winslow, extending as far as to the ligamentum gastro-colicum. The gall bladder was much shrunken and packed with small stones. The extra-hepatic biliary passages were much dilated, and also contained stones. At no point, inside or outside the liver, could a perforation of the biliary passages be found. The author concludes, therefore, that the gall stones caused biliary obstruction, and that bile consequently transuded into the peritoneum, in which it became encapsuled in three separate compartments.

318. Bismuth Poisoning.

WARFIELD (*Amer. Journ. of Med. Sciences*, November, 1912) records a case of bismuth poisoning following the injection of 2 oz. of bismuth subnitrate paste into an ilio-psoas abscess, and he incidentally remarks the absence of adequate description of such intoxication in modern textbooks. Previous observers had noted the toxicity of bismuth when administered to animals, a characteristic brownish-violet stomatitis being present. The patient, a girl, aged 9, had been treated a year previously for tuberculosis of the spine with an ilio-psoas abscess, which pointed in front of the leg opposite the lesser trochanter. After two incisions, one above and one below Poupart's ligament, 2 oz. of bismuth subnitrate paste (Beck's) were injected into the sinus, after which the sinus closed, and no paste was ever extruded. Within a fortnight a black line appeared at the gum margins, and this persisted until, nine months later, a sore started in the right cheek opposite the second molar tooth, with, later, a violet-black discoloration of the right side of the tongue, in the centre of which discoloration was a white opaque serrated membrane adherent to the underlying tissues. On the buccal surface of the right cheek were two discoloured plaques of the same appearance as the ulcer on the tongue. An *x* ray of the right lumbar region showed an irregular shadow of the bismuth paste, which did not appear to be much encapsulated. From this and other reported cases three stages of the condition may be recognized as typical of bismuth poisoning, and differing from the poisoning of lead and mercury: (1) Benign, where the violet-black line is the only manifestation; (2) moderately severe, in which there is a stomatitis characterized by discoloration of the gum margins and tattooing of the mucosa, which extends to the buccal cavity; and (3) a severe form, in which ulceration and secondary infections supervene, with general constitutional symptoms. The violet black line on the gums is usually the first sign of the poisoning. Since there is a definite danger of poisoning following the injection of bismuth subnitrate into sinuses, care should be taken that the paste is extruded and not left *in situ* too long, and in *x*-ray work in the intestines it is best to withhold the drug in inflammatory cases, or where the patients are debilitated. Bismuth carbonate and oxide of iron are recommended, and are being used, as substitutes to avoid the danger of poisoning.

319. The Origin of Nephritic Oedema.

FARINI (*Gazz. degli Osped.*, February 23rd, 1913), in a synthetic review of this subject, starts by pointing out some of the well-known differences between nephritic oedema and other forms of oedema, and shows how the former are localized independent of the laws of gravity, and are often wandering and fugacious. Some of the older cardio-vascular theories (for example, Bright's) are to-day given up, as it was found in opposition to the hydraemic theory that the oedema might precede the albuminuria, whilst in other cases with a marked dilution of the blood there was no oedema. Again, it is possible to have anuria without dropsy, so that hydraemic plethora by itself will not account for oedema. Theories based on differences of osmotic pressure are not entirely satisfactory, as cryoscopic research shows the changes in the molecular concentration of the blood serum, in electrical conductivity, and in filtration power, stand in no constant relation to the presence of oedema. The retention of sodium chloride is not sufficient to explain all cases, but clinically there are a few cases where a diet free from salt has a marked beneficial effect on reducing the oedema. The probable explanation of these cases seems somewhat as follows. Perhaps the most effective cause of oedema is the presence of certain substances—for example, nephrolysin, nephroblastin, etc., whose property it is to stimulate the vasal endothelium; if these substances are present in small quantities, they may not set up oedema, except in the presence of a good deal of retained sodium chloride, so that by reducing the intake of salt the additional stimulus which this gives is removed and the nephrolysins left are not sufficient to keep up the oedema; hence the improvement which follows in certain cases by limiting the intake of salt. Where this treatment fails it is probable that there is a large amount of nephrolysin upon which the salt has, of course, no influence. This theory does not

explain the curious distribution of nephritic oedema, but it suggests why in some cases a salt-free diet succeeds and fails in others.

SURGERY.

320. Tuberculosis of the Prostate.

IN 18 cases of tuberculosis of the testicle, E. Löwenstein (*Deut. med. Woch.*, March 13th, 1913) found tubercle bacilli in the urine. Even after the removal of diseased testicles and seminal vesicles tubercle bacilli were sometimes found in the urine. In 2 cases in which unilateral castration had been performed a year earlier the urine withdrawn from both ureters was found to be sterile, while the urine withdrawn from the bladder teemed with bacilli. Also in the remaining 16 cases there was no sign of renal tuberculosis. There were also no signs of irritation of the bladder, and the urinary sediment was not indicative of disease of the bladder. Digital exploration of the seminal vesicles did not once reveal any definite sign of disease; and though such negative evidence is not altogether convincing, it is probable that the seminal vesicles in most, if not all, of these cases were intact. The source of the tubercle bacilli was therefore narrowed down to the prostate. But there was no other sign of prostatic disease. The gland exhibited no swelling, hardening, softening, or pain on defaecation or micturition. There was also no tenesmus, and secretion pressed out of the prostate was apparently normal. It has, however, been emphasized by Frisch that tuberculous foci in the lateral lobes of the prostate usually cause no symptoms at first, and that they may cause no discomfort for a long time. It has hitherto been generally held that tuberculosis of the prostate is rare. But the author agrees with G. Koch in regarding tuberculosis of the testicle without involvement of the rest of the genital tract as rare, and isolated tuberculosis of the prostate as exceedingly common. Koch has collected the statistics of seven surgeons whose 243 cases of genital tuberculosis are thus classified: Isolated tuberculosis of the prostate, 78 cases; isolated tuberculosis of the testicle and epididymis, 47 cases; combined tuberculosis of the prostate, testicle, and epididymis, 118 cases. Koch himself found tuberculosis of the prostate in 86 out of 87 cases of genital tuberculosis. Probably the prostate is infected by the blood stream. It is also highly probable that tuberculosis conveyed to the prostate by the blood stream may extend thence to the vas, the epididymis, and testicle by their ducts; for Oppenheimer and Low have shown that germs may pass to these organs by their ducts when antiperistaltic movements occur.

321. Lupus Erythematosus.

GAUCHER (*Journ. des praticiens*, February 15th, 1913) points out that, although primarily this condition is generally to be regarded as distinct from tuberculous lupus, it has sometimes changed into the latter condition, and occurs in tuberculous families. Further, the serum of patients suffering from lupus erythematosus agglutinates the bacillus of tubercle. Clinically the diagnosis may be made by the fact that lupus erythematosus attacks adults, more especially females, while tuberculous lupus commences in childhood or youth. The condition may be confused with papular syphilides, but the latter are characterized by the squamous periphery known as the collar of Biedl. Further, they are indolent in type. Possible confusion may also arise with some cases of herpes circinata. In these cases a microscopic examination may be necessary. More difficult sometimes is the differential diagnosis from seborrhoeic eczema and psoriasis. The edge of the former is not so hard as lupus, while the regional disposition of psoriasis assists in settling the diagnosis. The diagnosis of generalized lupus erythematosus is as a rule not difficult. The constitutional treatment is that of tuberculosis. The local treatment is directed to produce counter-irritation. Equal parts of iodine and acetic acid may be used, or, according to Hardy, a solution of metallic iodine and potassium iodide. In the intervals some inert paste or powder may be used. If the former application is too irritating a solution of resorcin may be tried, and in the intervals 2 to 5 per cent. pomade of salicylic acid. Resorcin may be similarly employed as a paste. On the more limited plaques a plaster of black soap after the formula of Hebra may be applied for a period lasting from half an hour to three hours. In the older and more rebellious types of the disease linear scarification is recommended, associated with the local application of potassium permanganate; and in the most inveterate cases galvano-puncture.

322. A Late Secondary Syphilide.

BALZER AND BELLOIR (*Bull. de Soc. Franç. de Derm. et Syph.*, January, 1913) relate a case of late secondary syphilis. The interest of this case lies, according to them, in the fact that the patient must have had syphilis for at least five years before the outbreak of the present lesions, since a palmar specific eruption had been present all that time untreated. In all probability the disease was contracted before 1892, when she had a miscarriage, following closely on her marriage in 1890 to an admittedly infected second husband. The authors describe the present eruption as a recurrent peribuccal erythemato-papular syphilide. It is situated concentrically with the lips, and appears to radiate from the left labial commissure. The elements of it are nodular and infiltrated, irregular in shape, and of the rosy colour of raw ham. The margins are sharply demarcated from the healthy skin. On the mucous surfaces of the labial commissures are definite mucous patches. The tongue has a corrugated appearance, and presents, on its borders only, some small leucoplastic patches. The pharynx and palate are free; nothing else of a specific character can be discovered on the body, and the patient's general condition is good. In 1910 she had an identical irruption, similarly localized, which disappeared quite rapidly under mercury and potassium iodide. This treatment has been repeated, and the lesions have almost disappeared. This type of case—namely, a recurrent papular peribuccal syphilide *in eodem loco*—was first described and recognized as a clinical entity by M. Fournier, who gave it the name of "syphilide papuleuse péribuccale récidivante," pointing out that the disease can maintain its secondary characters for a considerable time, reappearing in a form analogous and similarly situated to the lesions present originally in the secondary period.

323. Sporotrichosis from the Surgical Standpoint.

GORSE (*Arch. de méd. et de pharm. militaires*, March, 1913) gives a summary of all the clinical manifestations hitherto attributed by laboratory tests to this newly-discovered fungus (Blurmann, 1903). After referring to the appearances and differential diagnosis of the various types met with on the skin, he passes to a consideration of those osseous and arthritic types most likely to be referred to the surgeon. Usually such a case will be absolutely indistinguishable clinically from a chronic osteomyelitis due to other causes (especially tubercle), and it is only the growth of cultures in the laboratory on Sabouraud's medium that can definitely settle the question. The importance from the patient's point of view—when possibly an amputation may be under consideration—of definitely excluding this fungus as a cause of the existing condition can hardly be overestimated, for every case, so far, has been permanently cured by the administration of from 30 to 120 grains of potassium iodide per diem. The pathological histology of bony lesions due to the sporothrix does not differ in any important particular from that of ordinary hyperplastic or rarefying osteomyelitis, but the dictum *noli me tangere* applies in the treatment of this disease perhaps more than in any under surgical control. In a cavity containing pus this may be aspirated and washed out with iodide solution, but any sort of radical interference is contraindicated. Sporotrichosis, besides its special affinity for the skin, the bones, and the joints, has been met with in all the organs, and has given rise to the most complex and diverse clinical signs. Whilst most commonly a chronic affection resembling tubercle or syphilis in its local manifestations, cases of acute abscess and even of septicaemia have been described, and as the treatment is specific the possibility of its presence ought not to be lost sight of in any case where the local signs are a little unusual, and especially in such cases when serious radical measures are about to be undertaken.

OBSTETRICS.

324. Physometra from Fetal Putrefaction.

BONNET-LABORDERIE (*Bull. de la Soc. d'Obstét. et de Gynéc. de Paris*, etc., March, 1913) reports three instances of distension of the gravid uterus with gases produced by the decomposition of a dead fetus. In the first case premature rupture of the membranes occurred, and two days later sudden tetanus of the uterus set in without any previous pains, and Bossi's dilator was applied. Basiotripsy was found necessary, and the child was delivered. During these manœuvres quantities of fetid gas kept escaping, with considerable noise, and also putrid reddish

fluid. The cervix was lacerated laterally, and parametritic deposit developed, with high temperature, but the patient recovered. In the second case a dead fetus was retained in the cavity of a fibromatous uterus, and the placenta presented. The periods had been absent for eleven months. Febrile attacks set in; the patient for a while rejected all advice, but at length a hysterectomy was performed. The uterus was full of putrid gas. The patient died thirty-six hours after operation. The third patient, a unipara aged 24, sought medical advice on October 25th, 1912. The last periods were seen on November 23rd, 1911, and the last coitus on December 5th. No pains had been felt until October 15th, 1912; then a quantity of fluid came away. On the 22nd some pains, not very strong, set in; the head lay above the pelvis, but the pelvis was quite roomy. After exploration the pains became strong. The fetal head, very bulky, filled the pelvic cavity, and the forceps could not be made to grasp it. Much fetid fluid escaped from the vagina, and the patient, it appeared, had recently felt rigors. The pains ceased, the uterus was found greatly distended, and its upper portion was tympanitic on percussion. At length, after another examination, it was found that the fetus was hydrocephalic. Foul gas escaped with a distinct sound during the explorations, and after craniotomy and extraction the perineum, deeply lacerated during the delivery of the shoulders, was repaired. The fetus was very big, independently of its deformed head, and quite macerated. A large area of the perineum and adjacent vulva sloughed, yet the patient recovered rapidly, and was able to leave hospital at the end of a fortnight. The space of time between the last coitus and the first pains was 322 days, nearly eight weeks over the average in normal pregnancy, and implied retention of the dead fetus.

GYNAECOLOGY.

325. Large Retro-cervical Fibromyoma in Girl.

ROSENSTEIN (*Monats. f. Geb. u. Gyn.*, February, 1913), in reporting a series of operations for fibroid disease of the uterus before a meeting of the Gynaecological Society at Breslau, described one instance of retro-cervical fibromyoma developed at an unusually early age. The patient's periods began at the age of 13, and were always free. Seven years later she suffered for several months from hypogastric and sacral pains, followed by dysuria and ultimately incontinence of urine. The thoracic viscera were sound. A large hard tumour could be felt above the symphysis, and it extended downwards below the portio. Rosenstein operated, endeavouring to save the uterus on account of the patient's youth. He enucleated the tumour—a typical fibro-myoma—but found that he had opened the cervical canal, and was compelled to remove the uterus as well. The left ovary was of the size of a child's fist, owing to a cyst which was filled with blood; it was removed, whilst the opposite ovary was saved. The patient recovered. The measurements and weight of the tumour are not given in the report.

THERAPEUTICS.

326. Spinal Anaesthesia with Stovaine.

BEDESCHI (*Gazz. degli Osped.*, February 25th, 1913) analyses the results of 924 cases of spinal anaesthesia observed during the last three years at the hospital in Ravenna. The amount injected varied from 4 to 7½ cg., and the usual precautions were observed. The mean duration of anaesthesia was forty to forty-five minutes. In 4 cases where the patient was put into the Trendelenburg position the anaesthesia reached above the umbilical zone, and in one case even reached the head. If a patient has once been anaesthetized in this way, the same dose, especially if given at a comparatively short interval of time, will not suffice. In the few cases where this was attempted it was found necessary to have recourse to a general anaesthetic. In the few cases where anaesthesia seemed to fail at the first attempt, the failure was probably more apparent than real, and usually occurred in very neurotic subjects, who translated a mere tactile into a painful sensation. The age of the patients varied from 16 to 60 years. Amongst the immediate accidents resulting from the injection were pallor, cold sweats, slowing of the respiration and pulse, nausea, and vomiting. These usually occurred on placing the patient horizontally or in the Trendelenburg position, and could for the most part be overcome by the injection of cardiac stimulants. Rectal incontinence was noted in 30 per cent. of the cases. Serious collapse only occurred in two cases. Amongst the later results the following were noted: Headache, retention of urine (10 per cent.), and rather persistent paralysis of the sphincters. Although these accidents are not very numerous nor very serious they are sufficient in the author's opinion to detract considerably from the general use of spinal anaesthesia which the earlier statistics seemed to suggest, and he now prefers to confine its use to those cases in which a very small amount of the anaesthetic is all that is necessary.

327. The Action of the Alkaloids of Opium.

IN 1909 Sahli introduced a preparation under the name "pantopon," in which all the alkaloids of opium were contained, which was soluble in water, and could be injected subcutaneously without producing any symptoms of local irritation. E. S. Faust raises the question whether all the alkaloids are required to bring about the full therapeutic effect of opium (*Muench. med. Woch.*, November 12th, 1912). It has been shown on the one hand that the action of opium is actually the action of morphine, and on the other that the action of two alkaloids given together is not the sum of each when given alone, but the one may be enormously increased by the second. In view of the many aspects which still need illumination, the author has conducted a direct investigation. He prepared mixtures of various opium alkaloids, and not only made pharmaceutical observations with these, but also requested clinicians to employ them in practice and report on the action. As a result of his studies he maintains that all the alkaloids are not necessary to produce a full opium effect. The only essential alkaloid is morphine. He therefore considers that both pantopon and also opium contain unnecessary ballast. A combination of morphine with some of the more important of the opium alkaloids does not diminish its paralysing action on the sensory apparatus, but rather tends to increase it. On the other hand, the paralysing action of morphine on the respiratory centre can be diminished and even neutralized in certain cases by judicious combination with thebain and certain other alkaloids. He is inclined to believe that morphine excites the so-called vomiting centre, and that this action may be checked to some extent by some of the alkaloids. He is convinced that neither narcotin, nor narcein, nor papaverin, nor any combination of them, has any influence on the preservation of the tone of the stomach or on its power of emptying itself. For practical purposes he advises the two following mixtures of opium alkaloids, for which he suggests the name of laudanon I and II. Morphine 0.010 gram, narcotin 0.006 gram, codein 0.001 gram, thebain 0.0005 gram, papaverin 0.002 gram, and narcein 0.0005 gram in the first; and morphine 0.01 gram, narcotin 0.002 gram, codein 0.001 gram, papaverin 0.0001 gram, thebain 0.0005 gram, and narcein 0.0001 gram in the second.

328. Ringworm Treatment in Country Districts.

CERESOLE of Venice (*Arch. d'électr. méd.*, January 25th, 1913) describes the first experiment in what he calls the ambulatory system of treating ringworm by *x* rays in a country village. Some time ago it was found by the sanitary inspector of the Venice prefecture that in a scattered village of the province large numbers of children were suffering from ringworm of the scalp. The disease had existed more or less for years, and the village authorities had never dreamed of taking any measures, therapeutic or prophylactic. On an exact list being drawn up after a house-to-house visitation, the number of ringworm cases, most of them very severe, was returned at nearly 150, and these were ordered to be conveyed for treatment to the hospital at Venice. The authorities of the village, however, declared that it was impossible for them to spend the sum necessary to give effect to this measure, and the parents also were indisposed to send the children to the city hospital; therefore Mahomet had to come to the mountain, and it was decided to obtain an *x*-ray installation, the current being furnished by a dynamo actuated by a benzine motor. This was lodged in the village, and a radiologist—the author—was sent three days a week to make the applications. After the usual preparatory treatment the small patients were *x*-rayed in turn, each case occupying about an hour and a half. The head was divided into five regions, and the epilation dose was obtained for each region in about a quarter of an hour. The parents were instructed to wash the children's heads with soap and water each morning, and when the fall of hair commenced they were told to effect the epilation with the hand. After

this the scalp was treated every day alternately with tincture of iodine and with sulpho-salicylic pomade for a week, and then the latter emollient alone was given until the regrowth of the hair. By this method the author treated 137 cases, with 94 per cent. of cures and without any trace of radio-dermatitis. The hair invariably fell within fifteen or eighteen days, and grew again as regularly as could be expected in view of the atrophy of the scalp owing to the long duration of the disease. One *x*-ray tube sufficed for the whole two hundred hours of working, and the extemporized village infirmary still possesses a perfect installation. Such a method of treatment presents difficulties owing to the straggling character of the population and the repugnance of the peasants to submit their children, but the result has been most encouraging, and represents a considerable economy as against detention in hospital.

329. Dioradin (Radio-active Menthol Iodine) in Tuberculosis.

THE action of dioradin on tuberculosis has been tested by J. Kahn (*Zeit. für Tuberkulose*, vol. xix, Part 5, 1913), whose verdict is distinctly unfavourable. It was claimed by Scandeffy that the drug completely immunizes guinea-pigs against tuberculosis. The author experimented with twenty-four guinea-pigs, all of which were infected with tuberculosis, fifteen being treated with dioradin, and nine being used as controls. Full details of the technique and dosage of the injections are given by the author, who argues that the conditions were as favourable to the drug as possible. Yet the results were negative, both groups of guinea-pigs developing tuberculosis. As a rule, the control guinea-pigs lived somewhat longer than those treated with dioradin, the injection of which probably lowered the animal's vitality. Four patients in an advanced stage of pulmonary tuberculosis were also given injections of dioradin, as it was asserted by Beinheim and Dienpart that the drug effects marked improvement, even in the advanced stages of the disease. In the first case haemoptysis followed the first injection. After forty injections there was transitory improvement, subjective and objective. But this soon ceased, and the last state of the patient was worse than the first. In the second case haemoptysis occurred after the seventh injection. For this reason, and because the temperature had been raised during the injections, the treatment was abandoned. It was also an utter failure in the remaining two cases, and in only one was the treatment unaccompanied by haemoptysis. The author does not venture to condemn the treatment dogmatically on the strength of these four cases, but he argues that in the face of his experiments on guinea-pigs the extravagant claims made for dioradin by its advocates are untenable.

330. Combined Scarification and Radiotherapy in Lupus.

SOME excellent results in the treatment of lupus vulgaris by a combined method of scarification and radiotherapy are brought forward by Marquès (*Arch. d'électr. méd.*, February 10th, 1913). The author has adopted the plan of making linear scarifications in squares across the whole lupous surface, and immediately afterwards irradiating the region with a small dose of *x* rays—less than an erythema dose—without a filter. This combined procedure is repeated fifteen or twenty days afterwards, the dose being slightly smaller, and is repeated again after a similar period until the region is completely cicatrized. One of the observations relates to a boy of 12 years, who had a six years' history of lupus on the face, resulting in the disappearance of the whole of the antero-inferior part of the nose and the invasion of the neighbouring regions. Six sittings were given at intervals of three weeks, and the result was complete cicatrization, and a more aesthetic appearance than would have resulted with either method taken alone. The author states that, encouraged by the results of this method of treating lupus of the orifices, he has tried the same plan in the case of hypertrophic lupus, vegetating and ulcerous, of the limbs. A girl aged 19 years was treated in this manner for lupus of the dorsal region of the foot. It was a bad case, with crusts and ulcerations on a congested, oedematous and painful surface. Three times the scarifications were carried out, followed immediately by irradiation, and the patient was cured, the cure, as in the other cases, dating back for more than a year. When the ulcer occupies a very large surface, it is divided into zones, each zone being treated separately and each receiving the same quantity of *x* rays.

PATHOLOGY.

331. Haemoglobinuria.

J. W. MILLER (*Berl. klin. Woch.*, October 7th, 1912) analyses the varieties of haemoglobinuria and their modes of origin. To commence with, he deals with serum haemoglobinuria. Every case of haemoglobinuria presupposes the presence of blood pigment free in the blood. This haemoglobinaemia may be artificially produced by the action of specific haemolysins. Free haemoglobin in the blood stream, however, is dealt with to a very large extent by the liver, which possesses the capability of transforming it into bile pigment or haematoidin. Small quantities of the pigment can be transformed by the spleen, bone marrow, and cortex of the kidney into haemosiderin. Should these organs fail to perform their functions, the haemoglobin will pass unchanged into the bile and urine, to be recognized as haemoglobinocholia and haemoglobinuria. The author discusses the significance of jaundice in haemoglobinuria, and after showing that in arseniuretted hydrogen poisoning, for example, the bile is so inspissated that the gall bladder and ducts are filled with a stagnant, gelatinous fluid, which can only pass into the intestine slowly, he emphasizes the doctrine that a true haematogenous jaundice cannot exist. On turning to the types of haemoglobinuria, he first speaks of that following burns. Helsted has shown that extensive lethal burns are always associated with haemoglobinuria, that comparatively extensive burns with marked implication of the general condition yield some blood pigment in the urine; that after severe burns without serious constitutional symptoms, but little, if any, haemoglobinuria is met with, and that the symptoms are seen after small burns with a fatal termination. Haemoglobinuria due to the effect of cold is also discussed. Next he describes those curious cases in which this symptom has been noted after strenuous marching. He points out that other forms of over-exertion do not lead to the same result. Toxic haemoglobinuria follows the inhalation of arseniuretted, antimoniuretted, and sulphuretted hydrogen; carbolic, hydrochloric, sulphuric, oxalic, chromic, and other acids; glycerine, chloroform, sulphonal, bile salts, saponin, strychnine, tannin, the poison of truffles, ricin, abrin, robin, crotin, phallin, and other alkaloids, and the toxins of toads, spiders, snakes, etc. Methaemoglobinuria follows potassium chlorate, phenylhydrazin, naphthol, turpentine, iodine, bromine, ether, carbon, disulphide, etc. These various forms are briefly discussed. Next he mentions the haemoglobinuria of pregnancy, "water" haemoglobinuria, post-haemorrhagic haemoglobinuria, and the haemoglobinuria of the domestic animals. It is thus manifest that haemoglobinuria may develop from noxes acting on the respiratory and digestive tract, from the skin, uterus, blood vessels, and from wounds.

332. The Toxicity of Methyl Alcohol.

A. LANGGAARD has experimented on rabbits in order to ascertain some facts in regard to the toxicology of methyl alcohol (*Berl. klin. Woch.*, September 2nd, 1912). A comparison with ethyl alcohol was made in each case. Giving doses of 3 c.cm. pro kilo body weight diluted in equal parts of water, 19 and 21 doses were required to produce death, while 23 doses of ethyl alcohol were required to produce the same result. With 5 c.cm. pro kilo doses, 10 killed in the case of methyl and 12 in the case of ethyl alcohol. Five doses of 6 c.cm. pro kilo body weight of methyl alcohol produced death, but 9 similar doses of ethyl alcohol were required. When the dose was increased up to 8 c.cm. pro kilo body weight, 3 doses of each of the alcohols killed. In regard to a single lethal dose he found that 10 c.cm. of ethyl alcohol killed all six rabbits, while the same dose of methyl alcohol only killed one out of six. The minimum lethal dose of methyl alcohol appears to be 14 c.cm. pro kilo of body weight for rabbits. It thus may be stated that methyl alcohol is more poisonous than ethyl alcohol when given in daily repeated doses, while in large single doses the reverse is the case. Rühle (*Berl. klin. Woch.*, November 4th, 1912) objects to the deduction drawn by Langgaard on the ground that herbivorae are unsuitable test animals. On testing the toxicity of methyl alcohol as against ethyl alcohol in dogs, he found that the former was considerably more toxic. The reason he gives for the diminished reaction to single doses of methyl alcohol in rabbits is that the presence of formic acid, which is a toxic product of disintegration of methyl alcohol, in the blood of normal rabbits protects these animals to a certain extent.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

333. An Epidemic of Gastro-Intestinal Disease.

IN the course of the past year several cases of poisoning have occurred which, according to A. Eisenheimer (*Med. Klin.*. February 16th, 1913), have been attributed to the presence in food of vanilla used as a flavouring agent. The symptoms were those of acute gastro-enteritis or cholera, and the part played by vanilla was in certain cases obscure. The following epidemic is described by the author, whose diagnosis of poisoning by vanilla proved mistaken. A household consisting of ten persons developed signs of severe gastro-enteritis one evening. They had previously eaten meat-soup, veal, pork, beans and cucumbers, as well as groats flavoured with vanilla. One of the patients had eaten no soup, two had eaten neither beans nor cucumbers, and those who had eaten veal had not eaten pork. By a process of exclusion, therefore, the dish containing vanilla was suspected. This had been prepared from groats, sugar, and eggs in an enamelled iron vessel, which was found to be in good condition. Vanilla had been added both before and after cooking, and the pudding had been kept for one day before it was served. The symptoms which occurred five hours after it had been eaten consisted of pains in the head, limbs, and abdomen, vomiting of bile-stained fluid, tenesmus, severe diarrhoea, and, in many cases, high fever and rapid pulse. In some cases the condition was most alarming, and the patients were unable to resume their work for a fortnight. No typhoid or paratyphoid bacilli were demonstrable in the blood, urine, or faeces; and chemical, bacteriological, and inoculation investigations of the vanilla used by the cook were completely negative. No milk had been added to the pudding, and the groats and sugar used must also be considered blameless, for they have never been convicted of provoking severe gastro-enteritis. There remains, therefore, only the egg albumen, which may not have been fresh when added to the pudding, and which may have yielded a large amount of microbes and toxin during the interval between the preparation and the eating of the dish. At all events, egg albumen is a favourable medium for the growth of microbes; and the symptoms observed in the author's epidemic correspond closely to those of other epidemics which have been traced to infected albumen.

334. Diverticulitis.

STANTON (*Boston Med. and Surg. Journ.*, vol. clxviii, No. 10) relates the history of five cases of diverticulitis. He points out that Meckel's diverticulum is a true congenital diverticulum in that it embraces all the coats of the intestinal wall. It is usually attached to the ileum, rarely more than 3 ft. from the caecum. The symptoms resemble those of appendicitis; the pain, however, is nearer the umbilicus. Alarming complications may arise by its adhesion to the wall of the bowel or to the abdominal wall. Acquired diverticula, on the other hand, are not true diverticula; they may be likened rather to herniae of the mucous membrane protruding through the muscular layer. They are most commonly formed along the mesenteric border of the large intestine, particularly on the sigmoid. They hardly ever occur above the splenic flexure. In other words, in that section of the bowel developed from the embryonic hind gut they are to be found most usually. These diverticula occur in fleshy individuals about middle life, and increased abdominal pressure due to any cause, such as constipation, seems to be a factor in their causation. They may be single or multiple. Their occurrence during the so-called cancer age is of importance, in view of the fact that in about one-fourth of the cases which come to operation malignant changes are taking place. Magrath and Wilson have called attention to the possible origin of cancer in the isolated groups of cells found in cases of diverticulitis. Sometimes a condition known as peridiverticulitis is produced, resulting in the formation of a tumour about the size of a hen's egg. This, on clinical examination, may easily be mistaken for malignant disease. The symptoms of an attack have been described as those of a left-sided appendicitis. The initial epigastric pain is not so common, however, as in appendicitis. The differential diagnosis from carcinoma is often difficult. The recurrence of attacks is in favour of diverticulitis. The presence of blood in the stools, on the other hand, favours cancer. The inflammation may subside or abscess formation may occur, with rupture into the bladder or one of the neighbouring viscera. If rupture occurs extraperitoneally, it is likely to be followed by a persistent faecal fistula. If the patient is old, and the attack is slight, it is better to leave it alone. Colotomy may be necessary, however, or even resection of part of the gut. The author's conclusions are as follows: (1) Diverticulitis is not a rare disease; (2) recessional attacks of left-sided abdominal pain, with tenderness and tumour formation is, in the absence of any active urinary disturbance, usually due to an inflamed diverticulum; (3) as a focus of chronic irritation it may be the starting-point of cancer of the sigmoid.

335. Intoxication by Carbon Monoxide.

CHAUFFARD (*Journ. des praticiens*, March 15th, 1913) draws attention to some interesting points in a case of this kind. The case was one of attempted suicide, and on arrival at hospital the patient was almost comatose. The face had the characteristic rosy flush of CO poisoning, and there were slight contractions. A marked feature was an extreme exaggeration of the olecranon reflex. In the lower limbs this was not so marked, although Babinski's sign was positive on both sides. There was rectal incontinence and retention of urine. On the following day signs of meningeal irritation appeared—notably Kernig's sign—and the respiration took on the Cheyne Stokes rhythm. A lumbar puncture was done, but with negative results. The next day the patient remained in a state of coma vigil, and there was paresis of the upper limbs. The urine contained neither albumen or sugar—the latter a fact to be noted. The author goes on to say that poisoning by CO ought to be regarded from the point of view of the blood corpuscles only. The effects on the nervous system have also to be studied. There was no azotaemia in this case, but, on the other hand, the amount of cholesterin was above the normal. An excess of urobilin was also present. These signs indicate that the hepatic cells have been affected. Although there was no evidence in the cerebro-spinal fluid of the fact, experimentation by Bard and Hirtz has proved the existence of intense congestion of the pia mater and haemorrhages in cases of intoxication by CO. There is, the author concludes, a toxic encephalitis in these cases. In the case under review it appears rather to have been a toxic myelopathy. The absence of any cytological reaction might be accounted for by the limitation of the lesions. The question of prognosis goes beyond the immediate effects of the intoxication. The secondary nervous lesions resulting from toxaemia have to be considered. The ultimate prognosis therefore has to be guarded. Sometimes a slow neuritis like that following arsenical poisoning occurs. The treatment consists of blood-letting to the extent of 300 grams, inhalations of oxygen, and subcutaneous injections of sterilized oxygen, following the method of Ramond. This cannot displace the CO fixed in the red cells, but assists in their more rapid regeneration. Cardiac stimulants, such as sparteine, are also useful. Complete rest for the central nervous system is also enjoined.

336. Acute Gout of the Larynx.

BUSS (*Med. Klin.*, April 6th, 1913), commenting on the growing interest taken in gouty conditions of the larynx, records the case of an officer, aged 60, who had long suffered from gout, and who complained of violent dysphagia and difficulty in speaking. The pharynx showed nothing abnormal apart from a moderate degree of redness. But the epiglottis was very red and swollen; it was erect, and apparently fixed in this position. On its free border were two to three greyish-yellow spots surrounded by intensely red mucous membrane. The rest of the larynx, including the vocal cords, was apparently healthy. The appearance of the epiglottis was suggestive of a burn or cauterization; but the history of the case pointed to a gouty condition, and the spots were diagnosed as deposits of uric acid. A 5 per cent. solution of cocaine was prescribed as a spray, and the general treatment for gout was adopted. The patient, who had previously found the acute attacks respond satisfactorily to large doses of aspirin, took it on this occasion also. Next day the symptoms had abated, but at the same time

the right knee became swollen in a manner already familiar to the patient. A few days later the dysphagia had disappeared, and the difficulties of speech had ceased completely. The epiglottis had regained its normal mobility, and was no longer swollen and red, and the spots previously seen were now only just visible. The rapidity with which the laryngeal condition yielded to the general treatment of gout is the best proof of its gouty nature.

SURGERY.

337. Treatment of Spastic Contractures.

STOFFEL (*Amer. Journ. of Orthopaedic Surgery*, May, 1913), remarking the unsatisfactory results of tendon operations for spastic contractures, devised an operation upon the nerves giving better results and suitable for the majority of cases. In order to exclude the predominance of the spastic muscle, and so reduce its tension as to render antagonistic co-operation possible, he does not regard the individual muscles as units, either from an anatomical or physiological aspect, but separates each into several sections and subdivisions, designating a muscle unit as the aggregate of muscle fibres innervated by the ramification of one nerve fibre, the nerve of the motor ganglion cell. Many such units go to form a muscle division, and several divisions make up a muscle complex, while several muscle complexes compose the whole muscle. The nerve is built up in perfect analogy to the muscle, the nerve unit being the nerve fibre, the nerve of the motor ganglion cell, several fibres forming a funiculus, and several funiculi collecting into a branch, the nerve of a muscle representing the sum of branches. Each one of the funiculi of a nerve supplies motor fibres to a definite portion of muscle, and severance of one of these funiculi, or destruction of its motor ganglion cells in the anterior horn, produces a paralysis isolated to the muscle group of those portions of the muscle which are supplied with motor fibres by the respective funiculi. Having demonstrated the cable structure of a nerve, the interior topography of the nerve followed, and the topography of the muscle cross-section for the large extremity nerves has been accurately defined in a previous work. Operations on the peripheral nerves are governed by the two facts that the extremity nerve represents a cable, and that every motor and sensory tract has its definite position in the cable. The operation aims at injuring the spastic muscle only to such an extent that it can no longer disturb the muscle equilibrium, while its function is preserved and it is possible to so regulate the severance of motor nerve tracts that the desired degree of energy in the muscle can be obtained. Exact anatomical knowledge of the topography of the nerve cross-section is essential, and in nearly a hundred operations performed lesion of a nerve tract other than those intended has not occurred. All spastic contractures localized in definite muscles or muscle groups are suitable for such operations, but familiarity with technique and the cross-section relationship of nerves is essential for success. Notes and details of cases and operations are given showing the advantage gained, such operations on the nervous system affording a distinct advance upon tendon operations for similar conditions.

338. Pseudo-calculus of the Kidney.

MARIO PONZIO, of Turin (*Arch. d'électr. méd.*, March 25th, 1913) has compiled a long list of conditions which in a radiograph may simulate renal calculus. These include phleboliths of the renal vein, small calcifications of serous purses in the muscular masses of the lumbar region, myositis ossificans of the psoas and quadratus lumborum muscles, exostoses of the surface of the iliac bone, calcifications of the cartilaginous extremity of the lower and false ribs, and abnormal calcifications of the extremity of the transverse apophyses of the lower dorsal and first lumbar vertebrae. Of a different order are the intestinal calculi, which may be mistaken for renal. Even when the calculous shadow is seen superposed on the shadow of the kidney it may not signify nephrolithiasis, for the colon, which traverses this region, may itself contain a small calculus. Enteroliths in the colon, too, as well as pathological lesions of organs adjacent to the kidney, may give rise to error. In one instance a carcinoma of the head of the pancreas with calcifications was mistaken for renal calculus, and the same danger applies in the case of calculi of the gall bladder, especially when these are rich in salts of lime. The biliary calculi, however, can usually be differentiated, because of their situation exterior to the renal shadow, and their true position may be revealed by a second radiograph, made with the patient lying on his abdomen. More difficult is the differential diagnosis when there are pathological calcifications of the epiploïc appendages or the prevertebral lymphatic or mesenteric glands. The difficulties of diagnosis are further aggravated by the fact that in the renal region itself there may exist pathological lesions, such as incrustations of the efferent vessels localized thickening of the renal parenchyma, as well as cicatrices, which may readily simulate the existence of a calculus. The radiological differentiation between these forms and that of the true calculus poor in salts of lime or magnesia is excessively difficult and frequently impossible. To all these sources of error the author adds one from his own experience. The radiograph in this case revealed an ovoid body the size of a hazel nut, situated in the renal territory. This, combined with the clinical symptoms, pain and haematuria, made it appear probable that the case was one of calculus of the renal pelvis. An operation was performed, but no trace of such calculus was discoverable, though the kidney was found enlarged at the lower extremity by reason of a cystic dilatation. The renal cavity was then explored and at its inner wall there was found a hard body, corresponding in form and dimensions to the one observed in the radiograph. When extirpated its smooth and hard surface proved to be constituted by a shell of calcareous matter intermingled with osseous substance, and this enclosed a blood clot perfectly conserved. On a histological examination of the coating the characteristic structure of a large vein was observed, though it was not possible to state exactly whether this belonged to the renal investment proper or to the retroperitoneal tissues. The case had its pathological interest, because, in spite of the well advanced and complex lesion of the wall of the vessel, this continued to be permeable by the circulation.

339. Phrenicotomy in Pulmonary Disease.

DURING the past two years the division of one phrenic nerve in order partially to immobilize one side of the diaphragm and thus limit the movements of the lung on the same side, has been discussed by several writers, and F. Sauerbruch (*Muench. med. Woch.*, March 25th, 1913) has now performed the operation five times. After division of the nerve, the diaphragm rises to the position it normally occupies in extreme expiration, and scarcely moves on respiration. The slight movements it now makes are of the paradoxical type, the diaphragm sinking on expiration and rising on inspiration. The normal respiratory changes in the volume of the lung are lessened, particularly in the lower lobe which is partially compressed by the diaphragm. It has been experimentally shown that phrenicotomy favours the growth of fibrous tissue in the lung, just as a pneumothorax or ligature of the pulmonary arteries or veins. It is therefore claimed for phrenicotomy that it immobilizes, compresses, and induces fibrosis in the lung; and these are the factors on which the success of plastic operations on the chest depend. But phrenicotomy is a much simpler undertaking than the resection of several ribs. The operation is easy, and causes little discomfort to the patient, who is able to leave his bed in two or three days. It is performed on the patient in a semi-recumbent position with the head turned away from the operator so as to stretch the muscles of the neck on the side to be operated on. A 10 cm. long incision is made over the posterior border of the sterno-mastoid muscle, extending down to the clavicle. After separation of the overlying muscles, the scalenus anticus is exposed, the sterno-mastoid meanwhile being drawn to the middle line, and the omo-hyoid being displaced downwards. The phrenic nerve will now be found passing over the scalenus anticus from above downwards. It is divided after isolation, during which the patient complains of dull pain in the lung. One patient suffered from severe pulmonary tuberculosis on the right side, and a moderate amount of disease on the left side. The cough, which had previously been troublesome, ceased at once. In 2 cases phrenicotomy was performed for bronchiectasis; and in 1 of these the sputum speedily fell from 300 to 150 to 200 c.cm. In 2 cases the operation was performed for tuberculosis of the left upper lobe as a preliminary to resection of ribs. In both cases the division of the phrenic nerve was followed by diminution of cough and expectoration. The value of the operation cannot, according to the author, yet be accurately gauged.

340. Syphilis and Cancer.

GOUGEROT (*Journ. des praticiens*, 1912, lvi) finds that syphilis and cancer are frequently associated. According to his statistics, amongst 157 cases of syphilis of the

tongue, 102 showed cancerous growth at some time or other. When the two diseases are associated the author finds as follows: If the patient bears signs of old syphilis but no active lesion is present, the treatment should be that for cancer. If both lesions are active both diseases should be treated. Iodides are contraindicated, but arsenic or mercury may be employed.

OBSTETRICS.

341. Infant Mortality and the Accoucheur.

CHAMBRELENT (*Journ. de méd. de Bordeaux*, No. 17) emphasizes the importance of the infantile death-rate in the question of depopulation. The proportion of stillbirths to live-births in the principal towns of France is about 8 per cent.; abortions are not included in this figure, but only cases at the period of viability. The chief causes of stillbirth are albuminuria of pregnancy and malpresentations, and the author estimates that half the stillborn children might be saved if their mothers were properly examined during pregnancy. At his consultation for pregnant women, one found in 1910 that 135 cases out of 642 presented complications or anomalies requiring special care, and as the result of such care the birth-mortality was reduced to 2.85 per cent., or a saving of nearly two-thirds as compared with the official figure. Since the institution of consultations for pregnant women there has been a tendency for the proportion of stillbirths to diminish, but the consultations are not used to the extent they should be, and not till women understand that it is to their own and their children's interest that they be examined during pregnancy will the consultations bear their full fruit. As well as his part in the prevention of stillbirths, the accoucheur has an important duty in the instruction of mothers on the care of their children, particularly during the first year. The proportion of children who die during the first year is 15 per cent. to the births, or a yearly loss of 120,000 units to the population of France. This proportion could be greatly reduced by the supervision of children during the first year of life, as is proved by the fact that, whereas the death-rate in Bordeaux during three years from infantile diarrhoea was 38.29 per 1,000 of the births, the proportion of deaths among children attending the consultations was only 9.69 per 1,000. Further, at the Pouponnière at Porchfontaine, where the newly-born receive meticulous care, the infantile death-rate is only 3 per cent., as against 15 per cent. for the whole of France. Such good results can hardly be hoped for in private practice, but the mortality can be reduced by more than half by careful supervision during the first year, particularly in the matter of feeding. Good results are especially to be obtained by insisting on maternal suckling. It is extremely rare for a mother to have insufficient milk to feed her child at the outset, and after the first few weeks there is no objection to supplementing her milk with cow's milk, provided the latter is of good quality and properly administered. Only in very exceptional cases should the employment of a wet nurse be advised, for by this means another child is robbed of its mother's milk, and is exposed to all the risks of a stranger's care.

GYNAECOLOGY.

342. Artificial Vagina.

BALFOUR MARSHALL (*Journ. of Obstet. and Gyn.*, April, 1913) says that it is important to recognize that there are two distinct types of atresia vaginae, since for the cases belonging to the first class, in which a functioning uterus is present, operation is imperative, owing to the formation of a haematoma from retained menses; whereas in the second class, in which the uterus is absent or very rudimentary, the justification of making an artificial vagina is a matter of opinion. In the first class hysterectomy as an operation of selection should, if possible, be avoided, and the formation of an artificial vagina be attempted, not only to permit of the escape of the menstrual flow, but to give the afflicted woman the chance of becoming a mother. Should pregnancy ensue, delivery should be by Caesarean section, since parturition destroys the artificial vagina. The most recent improvement in plastic operations is Pfannenstiel's, which consists in freeing the cervix by laparotomy after partially opening the recto-vesical septum from below, then completing the opening of the septum from above, and, after closing the abdomen, attaching the cervix to the skin edge of the vulvar orifice or mucosa of a vaginal rudiment. In the second class the writer very much doubts the justifiability of performing an operation which, while giving the patient a coitional vagina, cannot give her a uterus. He would, however, be willing to operate by Baldwin's method (transplantation of a resected segment of ileum), if specially requested by both husband and wife, and provided both parties clearly understand what the operation means. Apart from ethics, the surgeon must not lose sight of the fact that he may be condemning the husband to the life-long companionship of a pseudo-hermaphrodite with cryptorchidism. It is quite unjustifiable to make an artificial vagina in an unmarried girl simply because she wishes to get married. The after-results of operations where the vagina is formed by transplanted bowel have been most successful, as the canal does not show the same tendency to excessive contraction, but it secretes mucus more or less freely. So far as is known, fifteen cases of ileum transplantation have been done with no deaths from the operation. Nevertheless, it cannot be said that an operation involving resection of the bowel is absolutely safe, and the justifiability of performing it must be left to the personal view of the operating gynaecologist.

THERAPEUTICS.

343. Mercurial Preparations in Spirochaetosis.

J. ABELIN (*Deut. med. Woch.*, September 26th, 1912) has investigated the pharmacological action of a large number of mercurial preparations, more especially in relation to spirochaete infections. Pharmacologists have endeavoured to prepare a combination of mercury which, while exercising the same action as the ordinary mercury compounds, does not produce such toxic or irritating effects. The modern endeavours in this direction chiefly concern the aromatic mercurial compounds. Imitative of the composition of atoxyl, Dimroth was able to show that the salicylate of mercury contains a firmly bound Hg group, which does not give the reactions of free mercury ions. The possibilities of aromatic compounds are found to consist in the attachment of the Hg atom direct to one of the carbon atoms of the benzol ring, with a side chain tacked on to the mercury, or the mercury may be attached to two benzol rings, with or without some organic radical arising from one of the carbon groups. For example, the oxy-mercuric benzoate of sodium has the former constitution. The disinfecting power of this body can be raised by the introduction of a cholorine or iodine atom, or a methyl or methyloxy group in the ortho position of the ring, while a hydroxyl, an amido, or a sulpho group diminishes this power. The second type proves to be little toxic in many instances, such as the dinitro-mercuric, diphenyl-dicarbonate of sodium. While the lethal dose of this compound is high its disinfecting power is low. A further instance of the Hg atom being so firmly bound to the carbon atom of the benzol ring that the metal has practically no chance of acting toxically is given in the case of mercuric dibenzoate of sodium. It has been found that this compound is largely excreted unaltered in the urine. Mercuric diproprionate of sodium is one of the least toxic of the mercuric compounds. Another means of attaining slight toxicity is the introduction of a group like the sulpho group as an agent which lowers the poisonous effect of the metal. In this case the Hg atom is not fixed in the ring but takes part in a side chain. Such a compound is met with in dimethyl-phenyl-pyrazalon-sulph-amino mercury. Abelin enters into a detailed discussion of the pharmacological and toxicological action of a number of mercury compounds, and concludes that the toxicity of the compounds stands in some relation to the chemical constitution. The toxicity may be reduced in the two manners already mentioned, and conversely the most toxic compounds are those in which the Hg can be ionized most readily. He further points out that mercury is stored up in the liver, and in hepatic exudations after the injection of the various mercury compounds; and, finally, he finds that the aromatic compounds have distinct therapeutic advantages over other organic and inorganic compounds of this metal.

344. Nitro-glycerine in Seasickness.

O. BURWINKEL (*Wien. medizin. Klinik*, No. 29, 1912) suggests the use of nitro-glycerine as a remedy for seasickness. Its use appeared to him to be hopeful on the theory, recently again brought forward by Peters, that in seasickness we have to do with a cramp of the vessels and anaemia of the central nervous system. He tried it

himself on a voyage, taking at need a teaspoonful of the following solution: Solut. alcohol nitro-glycerin (1 per cent.) m xx, aq. dest. 150.0. As a result, the symptoms of seasickness were quickly and strikingly alleviated. The result was temporary only, and the dose had to be frequently repeated, which can be done with perfect safety. He suggests that the inhalation of amyl nitrite might prove to be even more efficacious.

345. Diathermy in the Treatment of Blennorrhagia.

Carlos Santos Fils, of Lisbon, has worked out a method of treating blennorrhagia by means of diathermy (*Arch. d'électr. méd.*, March 25th, 1913), for which purpose he has constructed a special electrode. This "thermo-electrode" consists of a mercury thermometer surrounded, by means of galvanoplasty, with a layer of copper. It can be used for the mobile or fixed part of the anterior urethra, according as to whether it is introduced up to the root of the penis or to the bulb. A modified form is employed for posterior urethritis. The indifferent electrode, when the mobile part of the urethra is acted on, is constituted by a conducting cylinder surrounding the penis, contact being made by means of wadding saturated in saline water, so that the active thermo-electrode is placed in the axis of the cylinder formed by the indifferent electrode. When, on the other hand, the treatment is applied to the fixed part of the anterior urethra, two indifferent electrodes are placed on the anterior surface of the thighs and pelvis. By experiments *in vitro* the author has found that the gonococci of greatest resistance are killed off with a temperature of 112° F. in forty-five minutes, and of 121° in five minutes. The lower of these temperatures can be reached gradually in the human organism without producing damage. The author brings forward some clinical cases in which mean temperatures of 110 to 112° F. have been employed for forty-five minutes or an hour or more in the treatment both of the mobile and of the fixed part of the urethra, and he holds that the results in these preliminary cases justify the hopes entertained with regard to this particular diathermic application.

346. Premonitions of Intolerance to Salvarsan.

Milian (*Bull. de Soc. Franç. de Derm. et Syph.*, December, 1912) says the symptoms will sometimes develop coincidently with the injection, and should put the practitioner on his guard. He discusses them under three heads: (1) Gustatory or olfactory; (2) glandular hypersecretion; (3) phenomena of vaso-dilatation. (1) The most common are those of the taste or smell of ether, salt, or garlic; sometimes the patient thinks he smells them in the room. It is not infrequent to find the pulse considerably slowed down in such cases, and it is worthy of note that tolerant individuals never present this phenomenon. (2) Hypersecretion of tears or saliva is a very common phenomenon in those who are intolerant, coming on during the injection itself, and persisting for several days afterwards. Occasionally the nasal symptom just precedes the onset of the severe toxic reaction, and an immediately induced "cold in the head" should always put the practitioner on his guard. Mucous membranes in general, especially those of the stomach and intestines, are portals of excretion, and the diarrhoea so frequently symptomatic of intolerance is doubtless an expression of hypersecretion from the glands of Lieberkühn. (3) Cardio-vascular signs occurred in Milian's cases 26 times in a series of 532 cases. They appeared during the injection, and consisted in cyanosis and congestion of the face, swelling of the lips and tongue, praecordial distress, and the usual concomitants of the syncopal state. Such cases especially call for the utmost caution in administration. When slowness of the pulse is not a symptom of a too rapid injection, it is probably an indication of bulbar susceptibility, and syncopal tendencies.

347. Neuronal.

Max Seige (*Deut. med. Woch.*, September 26th, 1912) reports on neuronal, a drug which has been in use for some eight years, and which has yielded good results in the psychiatric clinic in Jena. The doses employed varied between 0.5 and 3 grams. In simple sleeplessness, especially in patients suffering from increased emotional susceptibilities, neurasthenia, or hysteria, from ½ to 1½ grams suffice to induce quiet sleep. In certain severe cases, it is true, neuronal does not act so well as paraldehyde. Siege had also obtained satisfactory results in the neuroses accompanying the climacterium, and also in dysmenorrhoea. While this drug alone was not satisfactory in epilepsy, he obtained good results by a combination of it with amyl hydrate. In maniacal patients, 2 grams of neuronal only sufficed to quiet the patient for a very short time. On the other hand, regular medication with from 1½ to 2 grams a day for five or six days produced a very quieting effect. Even when ½ gram was given three times a day, it became possible to place the refractory patients into the permanent bath. The only disturbances which he has observed as a result of the drug were slight indistinctness of speech and slight unsteadiness of gait. The kidneys were never harmed, and the blood pressure was not lowered. He speaks favourably of a combination of neuronal and antifebrin (1 gram of neuronal with ¼ gram of antifebrin) as a sedative for pain. This combination was found especially useful for the intolerable headache in arterio-sclerosis and tumour of the brain. It also acted well in migraine.

348. Treatment of Taenia by Thymol.

Artault (*Bull. de thérap.*, February 23rd, 1913), in all cases of taenia, gives crystallized thymol, 25 cg. in cachets daily, fasting. Generally the taenia is expelled on the third or fourth day, but it is advisable to continue the treatment for a week to ensure the complete expulsion of the parasite. The process is simple, the tolerance is perfect, and the ill effects are *nil*. The author has treated 23 cases with perfect results, and recommends the treatment as the method of choice. The only precaution to be observed is that the patient shall abstain from alcohol while taking the treatment.

PATHOLOGY.

349. Symptoms Due to Bacillus pyocyaneus.

C. Klieneberger (*Deut. med. Woch.*, December 26th, 1912) considers that the *Bacillus pyocyaneus* is pathogenic to man, and that it not only causes local suppuration, but that it also invades the blood stream, and causes symptoms of generalized infection. He admits, however, that the virulence of this bacillus is still in dispute, and that some authors hold that it invades the body only after its vitality has been reduced by long suppuration, gastro-intestinal catarrh, or tuberculosis. This view he discredits, for he has found the bacillus in the blood of otherwise healthy persons who exhibited merely transient septic manifestations. He also argues that were the blood oftener examined in cases of obscure transient fever, the discovery of the bacillus would often be made. It usually enters the body through abrasions or ulcers of the integument and mucous membranes. The urinary tract may also be a portal, though this mode of infection has hitherto been scarcely mentioned, in spite of its being, according to the author, quite common. The diagnosis of a generalized infection is made by cultivating the bacillus from the circulating blood and by a positive agglutination test. This probably varies with the nature and duration of the infection, and the prognosis, contrary to the opinion of earlier writers, is not necessarily bad. A man, aged 47, who had suffered for many years from renal calculus, for which nephrotomy had been performed on the left side, developed cough, fever, and purulent expectoration four weeks before admission to hospital. He also suffered from anorexia and diarrhoea. The sputum teemed with pneumococci, but contained no tubercle bacilli. The cloudy urine contained traces of albumen and pus and numerous staphylococci. Great improvement was effected in hospital, and the temperature was normal when the patient began to get up. But this was suddenly followed by a rigor and a temperature of 104.4°. Headache and anorexia were complained of, but there were no objective signs to indicate the nature of the fever. The cultivation of 15 c.cm. of blood on various media yielded, however, fifteen colonies of *Bacillus pyocyaneus*. Next day the temperature rose to 105° and three more rigors occurred. On the following day there was one rigor, and the temperature fell to 102.2°. This soon became normal, and the headache and anorexia ceased. Nine days after the onset of the fever the patient was discharged in perfect health. Throughout the illness Widal's reaction was consistently negative to the typhoid bacillus, while it was positive to the *Bacillus pyocyaneus*. This bacillus was also cultivated from the scrotum, which was eczematous, owing to incontinence of urine. A culture of the *Bacillus pyocyaneus*, made from the patient's blood, was injected into the peritoneal cavity of a guinea-pig, which died twenty hours later. Its peritoneal cavity contained a watery exudate, and the lining of this cavity was covered by a gelatinous membrane, which also appeared on the surface of the diaphragm, liver, stomach, and colon. The bacillus was again recovered from the interior of the guinea-pig's heart. The author thinks that the bacillus reached the patient's blood through the kidneys.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

350 The Fate of Carbohydrates in the Body.

A. JOLLES points out that since carbohydrates form between two-thirds and three-quarters of the usual diet of man, their metabolism is of vast importance (*Berl. klin. Woch.*, September 23rd, 1912). The chief carbohydrates of human diet are the starches and the hexoses, while the pentoses only enter into the question to a slight extent. Some of the problems are yet unsolved: for instance, which ferments split up the polysaccharides into monosaccharides, whether maltose is reduced to dextrose in the interior of the intestine or in the intestinal wall. On the other hand, it is certain that starch is split up first to dextrin, next to maltose, and lastly to dextrose. What the fate of the resulting dextrose is forms a matter on which opinions differ. He finds that there are reasons for refusing to accept the view of a primary splitting up into carbonic acid and alcohol, and a subsequent oxidation of the alcohol to carbonic acid. Another view suggests that lactose is an intermediary product. Jolles investigated the chemical behaviour of the various sugars in the presence of very weak alkalis and when undergoing oxidation. Jolles makes the following deduction: The ingestion of carbohydrates raises the respiratory quotient considerably; it is the most prolific source of muscle power, and is a more economical source of heat than fat. Glucose, which is the type of carbohydrate met with in the blood, is acted upon by the mild alkalinity of the blood and by a variety of oxidizing agents (peroxydase, catalase, and other ferments), and is reduced to acids of almost the lowest molecular weight, principally in the form of formic acid, which in their turn are rapidly oxidized to carbonic acid and water. The formic acid cannot act toxically, firstly because it only exists as an intermediary product for a very short time, and secondly because, like many other metabolic products, it is rendered harmless by being combined with acid products, such as sulphuric acid, glycocol or glycuronic acid. He suggests that lactic acid derived from muscle furthers the immediate dissociation of the carbohydrates, by means of a restricted supply of oxygen. Jolles shows that it is possible, under favourable conditions of oxidation, to obtain glycuronic acid directly from dextrose. This fact is of great importance. In the first place it shows that glycuronic acid may serve as the intermediary product in the splitting up of dextrose, and in the second that the source of glycuronic acid in the body may be the carbohydrates. Whether glycuronic acid can be substituted under certain conditions by sulphuric acid is an open question; but Jolles points out that when the organism loses the capability of oxidizing sugar to glycuronic acid, an important means of getting rid of poisonous dissociation products is lost.

351. Raynaud's Disease with a Positive Wassermann Reaction.

GAUCHER, GOUGEROT, AND MEAUX SAINT-MARE (*Bull. de derm. et syph.*, February, 1913) describe the typical syndrome in a stable boy, aged 21. The stages were well marked in his case, tending in the course of a month to develop from local syncope and local asphyxia towards gangrene of the finger tips, especially of the right hand. The crises were exceedingly painful, but were markedly benefited by the constant current (positive pole to the neck, negative in a basin of water covering affected extremity, 5 milliampères passed for ten to fifteen minutes daily), and the affiation of hot air at 60°. The Wassermann reaction was found to be strongly positive, in spite of the denials of the patient of ever having contracted the disease, and he was accordingly subjected to intensive mercurial treatment by injection, and potassium iodide per os, under the influence of which very distinct amelioration of his symptoms was noted. In their discussion of the etiology of this affection the authors emphasize their belief that most cases are the sequel of hereditary syphilis, or of acquired syphilis on a hereditary syphilitic basis; and they quote from the literature several cases in support of this view. As for the pathology, they regard (1) vascular spasm, caused either by a syphilitic peripheral neuritis or a central vasomotor disturbance, as the primary feature, and they consider that a secondary endarteritis from prolonged vaso-constriction suffices to complete the clinical symptoms; or (2) alternatively and more probably, that the endarteritis is primary and remains latent symptomatically, until a spasm set up through the nerve channels determines the onset of local asphyxia and subsequent syncope and gangrene.

352. Alkaptonuria.

BALDWIN (*Amer. Journ. of Med. Sci.*, January, 1913) records a case of alkaptonuria in a widow, aged 31, suffering from vague rheumatoid pains in her back and neck, accompanied by a general feeling of weakness. Ten years previously she had been told that she had diabetes, to which there was a family tendency, but no history of other abnormality in the urine of any member of the family. When 1 year old it was noticed that the patient's diapers were stained by the urine, and as she grew older the clothing became stained a red brick or maroon colour. Tall, dark, and well nourished, the sclerotic coats of the eyes presented a greyish tint (ochronosis), and there was one small dark spot in the cartilage of the left ear. The urine gave the characteristic reactions of alkaptonuria due to the presence of homogentisic acid, a powerful reducing agent turning brown when oxidized. When freshly voided the urine was pale yellow, but it soon assumed a brownish tint, which slowly darkened until it became nearly black. The addition of an alkali caused the surface exposed to the air to become brown quickly, and the darkening of the entire specimen was hastened. Patients with this condition present no characteristic symptoms, and the only diagnostic alteration in their metabolism is the failure to normally burn tyrosin and phenylalanin, which become converted into homogentisic acid, and this is excreted unchanged in the urine. In the above case the principal symptoms were the constant presence in the urine of homogentisic acid, the darkening of the sclerotic coats of the eyes and slight darkening of the cartilage of the ear, and the local irritation of the strongly acid urine. In addition, there were noted a general weakness, neurotic disposition, tendency to rheumatoid pains, and an irritation of the bladder causing increased bladder cells and leucocytes in the urine. A rapid coagulation of the blood and low tolerance for sugar, with a family history of diabetes, were also noted. The patient was of German origin, and most of the cases have been reported by German physicians, and of those reported from other countries several have been German.

353. Etiology of Alopecia.

SABOURAUD (*Ann. de derm. et de syph.*, February, 1913), after a short and admittedly incomplete survey of the alopecia associated or coincident with the cessation of the menstrual flow, reaches the following conclusions: Ten cases were post-climacteric, two during pregnancy, and two after a double ovariotomy. (1) There is an alopecia in women, which follows the menopause, or prolonged suppression of the menses. This type may be mild or severe, and obstinate to all forms of treatment, both local and opotherapeutic (with ovarian extract). (2) An alopecia may follow ovariotomy. Its prognosis is equally variable. (3) In a few rare cases the condition may occur during pregnancy, and in these the prognosis is relatively good. Sabouraud also mentions a case of a man 40 years old where a complete alopecia of the whole body coincided with a bilateral tuberculous orchitis, for which double castration had to be performed. The hair loss began on the chin during the course of the disease, had progressed slowly for fourteen years, and had nothing to do with the operation.

SURGERY.

354. Membranous Pericolitis (Jackson's Membrane).

IN 1908 Jabez N. Jackson described certain pathological changes found in the region of the ascending colon, to which he gave the descriptive name of "membranous colitis," or the "pericolic membrane." This membrane has since been known in this country as "Jackson's membrane," and various explanations of its pathology and etiology have been hazarded. In *Annals of Surgery*,

March, 1913, a further study of the subject is presented along with a summary of the whole matter from the beginning. The author discusses the various etiological theories put forward—the congenital, the mechanical, the inflammatory. His personal observation of a considerable number of cases at operation inclines him to the belief that varied causes may be responsible for the production of this membrane. One case observed was clearly and unmistakably associated with antecedent acute appendicitis with abscess. Two cases suggested the correctness of the congenital theory, which regards the membrane as a lateral expansion of the omentum fixed to the posterior abdominal wall on the outer side of the ascending colon, while a few cases suffering from alternating constipation and diarrhœa have led him to suspect a coincident colitis. The symptomatology is sufficiently established to permit a diagnosis on clinical evidences only. The symptoms, briefly, are: Pain of moderate severity, of definite abrupt onset, more or less constant though marked by "acute spells"; tenderness, generally diffuse, with no rectus rigidity; marked constipation; gaseous distension of cæcum, palpable and often visible; mucous diarrhœa; disturbances of digestion simulating gastric disease; loss of weight and tone; neurasthenia. The membrane is apparently only productive of these diagnostic signs when it has become a factor in the establishment of mechanical interference with intestinal peristalsis. The restriction of the pericolic membrane in about the upper two-thirds or thereabouts of the ascending colon results in long-continued distension of the cæcum, and that again in dilatation of the cæcum. The treatment of the condition may vary with the view of its etiology. If the symptoms are relatively slight with little or no mechanical interference with the peristaltic activity, non-surgical treatment may avail (massage, exercise, dietetic regulation, etc.). Surgical treatment is generally called for, because most cases are of long standing and already medical means have been tried. In discussing operative treatment two factors have to be kept in mind: first, the presence of the membrane; second, the resultant dilatation of cæcum. Treatment of one of these alone must necessarily be inefficient. In Jackson's original operations effort was directed to removal of the constricting effect of the pericolic membrane; in about 75 per cent. the result was quite satisfactory, but in a few cases no benefit at all followed. On the ground that the cæcal dilatation was possibly the cause of failure, the operation of cæcal plication was performed as a supplementary proceeding. Plication is done by longitudinal reefing mattress sutures, usually one paralleling each longitudinal band, or by two or three series of transverse sutures, turning in each a fold of about ¾ in. depth. These sutures are of linen, and pick up both musculosa and serosa. The combined operation has been employed by the author for a year in ten cases, and so far with apparently perfect success. Regarding the operation on the membrane itself, the author holds that it ought to be removed entirely. The remaining covering of the supposed raw surface is really an epithelial lining of lymph space which will take the place of peritoneum. No one method is applicable in all cases; and it must not be forgotten that post-operative treatment must be rigorous by correction of diet, regulation of habits, muscular exercise, and abdominal massage.

355. X-ray Diagnosis in Dermatology.

THE use of the *x* rays for the diagnosis of certain cutaneous affections has been advocated by Belot and Nahan before the Société de Radiologie Médicale de Paris (*Bull. et mém.*, March, 1913). They do not suggest that all dermatoses should be subjected to radiographic examination, but in certain cases the procedure is extremely useful. The method is advised when there are circumscribed deposits and calcareous material in the skin or subcutaneous tissues, such as the "stony tumours," or calcified lobules of adipose tissue in old people, true osteomas of the skin, subcutaneous varicosed calcified veins, and that rare and curious condition known as subcutaneous calcareous granuloma. One typical case described is that of a small tumour on the chin, stone-like in character at its centre. The radiograph showed this centre as a deeper shadow and a curious one by reason of its osseous structure. Trabeculæ were clearly distinguishable, suggesting the appearance of the spongy tissue of the epiphyses of the skeleton, and in this way the tumour was revealed, not as a simple calcified mass, such as is presented frequently by fibromas of the skin, but as a true osseous transformation. In another case, one of subcutaneous varicosed calcified veins in arm and shoulder, the radiograph, by the contour of the soft parts, readily furnished an idea as to the state of deformity of the diseased region. It also showed the distribution of the concretions in the subcutaneous tissues, which simulated the appearance of a discharge of grains of lead, save that they were of smaller opacity, and it demonstrated conclusively the soundness of the bone. In the case of the tumour-like nodules in subcutaneous calcareous granuloma the radiographs again furnished proof that the calcified points were much more numerous than there was reason to suppose from the clinical examination, and concretions were found widely disseminated in the subcutaneous cellular tissue. The radiographs also brought out the integrity of the bone and the absence of connexion between the bone and the concretions. In this particular instance it was the radiograph alone which permitted the diagnosis of the nature of these subcutaneous tumefactions to be made. The authors insist upon the value of radiography for elucidating the actual number and distribution of calcified points, and add that by this means they are able to detect fresh nodules at the beginning of their evolution when clinically they are not appreciable. This is of great importance in an affection so obscure as subcutaneous calcareous granuloma, and an affection in which the point of anatomical departure of the processes of calcification is in doubt. By revealing the differences in opacity of the elements which constitute the dermic productions, the rays furnish practically a means of chemical analysis, the transparency of bodies being in effect a function of their atomic weight.

356. Operative Treatment of Elephantiasis.

KONDOLLON (*Zentralbl. f. Chir.*, No. 30, 1912) points out that treatment of chronic oedema of elephantiasis type by posture, compression bandages, and massage fails, and surgical aid is required. Mikulicz, Lanz, and Sampson Handley have each suggested operative methods. The last-mentioned method is well known to English readers. The Lanz operation seeks to establish a collateral lymph circulation by introducing strips of fascia into holes in the bone (femur) and by cutting multiple openings in the fascia lata. Anatomical observations have led the author to another procedure, adopted in six cases. He noted that in addition to the well-known changes in the skin and subcutaneous tissue, the fascia was thickened up to 3 cm., densely infiltrated, immobile; the upper surface of the aponeurosis was irregular, of opaque appearance; the inner surface next the muscles was of normal glistening colour and consistence. The greater portion or the retained lymph came from the neighbourhood of the thickened aponeurosis. Microscopically the tissue was found to be dense fibrous structure, which in various parts showed a separation and softening of the bundles from oedema and small-celled infiltration. The underlying muscles, examined both macroscopically and microscopically, were found to be quite normal. These observations, the recollection of previous failures, and the fact that the lymph stasis in old-standing elephantiasis occurs chiefly in the fascia, seemed to indicate the establishment of a wide communication between the subcutaneous tissues and the musculature. From previous experiments he knew that the muscles will quickly absorb lymph. The technique as applied to the leg is as follows: Two long incisions, one on each side from knee to ankle (if necessary two also in the thigh), are made; removal of the subcutaneous fascia and its covering of fat; removal of a strip of aponeurosis as long as the incision and three or four fingers broad; haemostasis and suture of skin without drainage. He has operated in six cases, and is exceedingly well pleased with the results. Two of the cases, of thirty and twelve years' duration respectively, withstood other methods of treatment, but responded well to this operation. Healing occupied from one to two months, and the hard, dense, infiltrated tissues became soft and pliable.

OBSTETRICS.

357. Sudden Death from Attempted Abortion.

LANDE (*Journ. de méd. de Bordeaux*, No. 19) was called to see the dead body of a girl of 18. He found no trace of external violence, but noted that a No. 12 gum-elastic sound had been introduced into the vagina. There was a little blood on the inner aspect of the thighs, and the left thumb and index finger were blood-stained. The inferior lobes of the lungs were very slightly congested; the right ventricle contained a fibrinous clot; the liver and kidneys were congested; the other organs were normal. The sound which had been introduced into the vagina did not, at the time of examination, enter the uterus. The uterus

contained a complete ovum, but the placenta was separated, and there was a retroplacental effusion of blood, the condition being apparently due to abortive manœuvres. There was no organic lesion which could have accounted for the death, and Lande estimated that the girl must have died suddenly while abortion was being attempted, but whether by herself or by another it was impossible to say. As a rule, the introduction of an instrument into the cervix is painless, but occasionally women complain of sharp pain, faintness, vomiting, giddiness, etc. These symptoms may be followed by sudden death. Vibert reports the case of a young woman, four months pregnant, who went to a midwife to have an abortion procured. The midwife introduced a cannula into the os, but before she could make an injection the woman complained of feeling very ill, lost consciousness, and rapidly died. Grave or fatal inhibitory phenomena of genital origin may be observed, though rarely, apart from criminal practices. Thus a vaginal examination or injection have sometimes caused sudden death, and Vibert considers that inhibition must be attributed to physiological conditions which are transient and variable from one moment to another, rather than to the intensity of the traumatism or a special susceptibility of the nervous system. Brouardel thinks that the cessation of palpitations or intermittences in certain nervous women following cauterization of a small ulcer of the cervix is a proof of the intimate relation between the innervation of the genital organs and that of the heart. At all events the incidence of sudden death of genital origin ought not to be forgotten because of the question of medical responsibility which may arise.

GYNAECOLOGY.

358. Placental Cancer or Malignant Chorion-epithelioma of the Fallopian Tube.

BAZY (*Ann. de gynéc. et d'obstét.*, April, 1913) publishes a short but instructive monograph on chorion-epithelioma in association with tubal pregnancy. Eleven authentic cases of this condition have been reported, and Bazy adds a twelfth, which was observed in Ribemont-Dessaigne's practice. A young woman, aged 25, believed herself to be pregnant, but she fell ill in the seventh month, and uncontrollable vomiting set in. The right side of the abdomen alone was prominent: indeed, her left was flat. The uterus was enlarged, but the abdominal swelling corresponded to a tumour as big as an adult head entirely to its right. The fetal heart sounds were audible. As there was increasing anaemia, Bazy operated. The tumour was extremely vascular, so as to look like a sponge soaked to its full with blood. It broke up on handling, bleeding to an alarming extent, as it was full of big venous sinuses, but the operator found that the right utero-ovarian ligament ran on to it. The bleeding mass adhered closely to the uterus, which, in order to save time, was amputated with the tumour and right ovary. The left ovary being cystic, the left appendages were removed. Much peritoneum was stripped off during the separation of the outer and lower part of the tumour from the adjacent parts, so as to necessitate gauze packing. The patient died thirty-six hours after the operation. Bazy describes minutely the microscopical appearances of the tissues of the tumour, which was a true cancerous degeneration of the placental tissues of a tubal gestation sac. Unfortunately no autopsy was allowed. Bazy reviews the other cases of malignant chorion-epithelioma of the gravid tube. Surgically the great vascularity and friability of the cancerous sac and its tendency to adhere to all adjacent tissues makes its removal far more difficult than the amputation of a tubal sac with its fetus and normal placenta. Out of 9 operations for the removal of a cancerous sac, it had to be removed piece by piece in no less than 5.

THERAPEUTICS.

359. Tuberculosis and the Salts of Copper.

LUTON (*Provinciál.*, December 14th, 1912) points out that the value of the salts of copper in tuberculosis has been rather overshadowed by the general adoption of tuberculin as a means of treatment. All the various manifestations of tuberculosis are available for treatment by the salts of copper. Articular, osseous, glandular, and even testicular tuberculosis yield more or less rapidly to the treatment when begun early. Lupus also is successfully influenced by cupric medication. In the incipient stage of pulmonary tuberculosis the results are very good, and the author quotes a case in the second stage which he treated by this method with marked success. He admits, however, that this is exceptional. If copper is given as an injection in a case of coxalgia, the affected articulation shows slight congestion for some days, and the tissues are painful. After three or four weeks, however, these symptoms gradually disappears. In the more advanced cases several injections may have to be given at intervals of a fortnight. The existence of fever is regarded as an obstacle to the treatment. For the purpose of injection the acetate and colloidal phosphate of copper are the salts most generally employed. Electro-cuprol, the chloride, and tartrate have also been used. Copper may be used internally in the form of a pill in cases in which the stomach is irritable or when the lesions are too advanced for hypodermic treatment. For tuberculous peritonitis and glandular conditions a paste of copper may be used in much the same way as mercurial inunctions, in a proportion of 1 in 100 or even 1 in 1,000 when there is an irritable surface lesion. When copper is administered internally it is as well to give a little milk or Vichy water, or a menthol pastille at the same time. The pill the author recommends is the acetate of copper—1 centigram for a dose. For hypodermic use the following formula is a good one:

Sodium phosphatis	5 gr.
Glycerini)	
Aquæ)	āā to 60 gr.

and

Cupri acetatis...	1 gr.
Glycerini)	
Aquæ)	āā to 40 gr.

The two solutions are mixed without filtration. One gram of the mixture is equal to a centigram of the acetate of copper. In general the site of injection does not matter, but a deep injection into the buttock is on the whole the best procedure. If the resulting reaction is slight the injection may be repeated as discretion suggests. The duration of treatment varies, and the requirements of the case must be judged by results.

360. Injections of Alcohol into the Gasserian Ganglion.

W. ALEXANDER AND E. UNGER (*Berl. klin. Woch.*, January 27th, 1913) consider that peripheral and central resection of nerves for trigeminal neuralgia has become obsolete since the introduction of injections of alcohol into the branches of the trigeminal nerve. Hitherto relapses have followed both the resection of nerves and the injection of alcohol into their sheaths; and extirpation of the Gasserian ganglion has been undertaken as a last resort. But the difficulties of this operation are great, and its mortality, in spite of technical improvements, is still very high. The chief dangers are: Pressure on the brain during the operation, circulatory disturbances following ligature of the middle meningeal artery, venous haemorrhage, and neuro-paralytic keratitis. The authors claim that these dangers can be lessened if the ganglion is destroyed *in situ* by injections of alcohol. In one case they attempted to inject alcohol through the foramen ovale into the ganglion, using Hartel's technique. But they failed to find the foramen. They therefore exposed the ganglion by Krause's method without having to ligature the middle meningeal artery, or to use the large instruments necessary for extirpation of the ganglion. Only local anaesthesia was employed till the ganglion was exposed. Then ether was administered, for, had a solution of novocain been injected into the ganglion, the alcohol subsequently injected would have been diluted and its action lessened. A few minims of an 80 per cent. solution of alcohol were injected through a long needle into the intracranial portions of the second and third branches of the trigeminal nerve, as well as into that part of the ganglion from which these branches arise. As O. May has shown that régeneration of the ganglion may occur after a single injection of alcohol, care was taken to inject it in many places, so that many deposits of alcohol might become confluent and render the necrosis of the injected area complete. The patient thus treated had suffered since 1900 from toothache of the upper jaw on the right side. A year later the tongue and lower jaw were involved. In 1909 the infraorbital nerve was resected without any improvement. Injections of alcohol into the second and third branches of the trigeminal nerve gave only temporary relief, and the procedure described above was accordingly adopted in October, 1912. Headache and paraesthesia followed during the first few days. On the fifth day there were complete analgesia in the area supplied by the second and third branches of the trigeminal nerve, and slight lagophthalmos, owing to the division of

some branches of the facial nerve on the right side. The corneal reflex was, however, unaffected, and, though the lagophthalmos persisted, no disease of the cornea followed. No relapse had occurred two months after the operation, but the writers admit that the permanence of the results is not yet assured. Among the advantages of their procedure over extirpation of the ganglion is the accuracy with which its destruction may be limited. A part only of the ganglion may thus be treated, and, in the case described, that part of the ganglion was spared from which the first branch of the trigeminal nerve arises.

361. Rectal Injections of Salvarsan in Chorea.

WEILL, MOURIQUAND, AND GOYET (*Annales de méd. et de chir. infant.*, December 1st, 1912) report a case of very grave chorea successfully treated by this method. A girl of 13, who had had a previous attack which had yielded to treatment by arsenic, came into hospital with a recurrence of a mild type. Instead of improving under ordinary treatment, she became worse; she grew pale and lost flesh, and the choreic movements became continual and generalized, so much so that she had to be fed, was unable to stand, and when in bed banged her arms and legs against the bedposts. It was decided to try salvarsan, but intravenous injection was out of the question on account of her condition, apart from the usual difficulty of finding the veins in children. She was accordingly given, by means of a long cannula, a rectal injection of 0.05 gram salvarsan, prepared as for intravenous injection, and diluted with 10 grams NaCl solution (5 per cent.), to which were added 5 drops of laudanum: the injection was retained scarcely an hour. In nine days an injection of 0.10 gram salvarsan was given, which was also retained an hour. In a week she showed slight improvement, and began to be able to feed herself; she was given 0.20 gram salvarsan, which she retained seven hours. After two days she showed marked improvement: she lay quietly in her bed, could answer questions, and could eat and drink without soiling the bed. She still retained some choreic movements, but they were not continuous. She became more happy and felt better: her appetite returned, and she began to gain weight rapidly. The treatment was admirably borne, and the writers are continuing in the hope of being able to report a complete cure in the near future.

362. Sulphur in Dermatological Practice.

THE application of sulphur in the treatment of skin affections offers some serious disadvantages. Vörner has therefore experimented with this subject, and offers two improved methods (*Munch. med. Woch.*, No. 35, 1912). The first he calls sulphuration. He prepares a concentrated solution of potassium sulphide in water; 50 grams are dissolved in 100 grams of water. This is a yellow fluid, and is to be painted on the skin, which must first be dried thoroughly and then freed from fat. After the fluid has dried on to the skin a second coat may be applied. The skin is then treated by blowing acetic vapour by means of a hand bellows, or, failing this, the surface may be dabbed with 5 to 10 per cent. acetic acid. When this is done the sulphur will be found adhering firmly and in a thick coat to every part of the skin on which the solution was painted. The second method is by ointment. He calls the ointment thiolan for convenience. It is prepared by dissolving 2 to 2.5 grams of sulphur in a kilogram of fat at from 50° to 100° C., then adding 45 to 50 grams of sulphurated oil, and lastly, the precipitate from 40 or 50 grams of calcium sulphuricum, after it has been rendered anhydrous by washing on the filter paper with alcohol. He advises the application of heat with this ointment. He has obtained excellent results with both methods in those cases in which the therapeutic action of sulphur is desired.

PATHOLOGY.

363. A Serum Reaction in Psoriasis.

ACCORDING to A. Sommer (*Berl. klin. Woch.*, January 13th, 1913) the pupil of an isolated frog's eye dilates rapidly in normal serum, but it remains contracted if it is placed in serum taken from a patient suffering from psoriasis. He has tested this reaction in 21 cases, and has not once found it fail. It was also so definite that observers who did not know which of two specimens of serum were normal distinguished the one from the other merely by the condition of the pupil. The serum employed for purposes of control was taken from healthy persons, and from the subjects of gonorrhoea, syphilis, soft sores, and lupus. None of them deviated from normal, and patients suffering from other skin diseases, such as dermatitis herpetiformis, lichen chronicus, lichen ruber planus, prurigo, and eczema, also exhibited no specific reaction when the frog's pupil was immersed in their serums. The reaction seems, therefore, to be confined to psoriasis, the extent of which varies directly with the strength of the reaction. Thus, when the disease involved a large area of the skin, the contraction of the pupil was very marked; while the contraction was less obvious, and was even followed by partial dilatation, when the psoriasis was limited to a few spots. The technique of the reaction is simple. The frog's vertebral column is divided, and its spinal cord is broken. Both eyes are enucleated and placed in physiological saline solution. From being widely dilated in the frog's head they at once become contracted in the saline solution. One eye is now placed in normal serum, the other in the serum of a patient suffering from psoriasis. In five to ten minutes the first eye is plainly dilated, while the second remains contracted. Only after half an hour, and when the psoriasis is not very extensive, does the second pupil begin to dilate. The reaction is also positive many years after psoriasis has disappeared, and this was the case with a patient who had suffered from psoriasis six years before, and who had subsequently exhibited slight transitory recrudescences of the disease. The author considers that the reaction is due to conditions of the blood which cause the psoriasis, and that it is not a secondary manifestation dependent on the cutaneous eruption. Adrenalin, even in as dilute a solution as 1 in 20 million, acts on the pupil in the same manner as the serum in psoriasis. But in this disease the reaction is clearly not due to the presence of this substance, for if it be destroyed by oxidation before the test is carried out, the reaction is yet the same as before. The author therefore concludes that the reaction depends on bodies in the blood which resemble adrenalin, but which differ from this substance in not being readily destroyed by oxidation.

364. A Simplified Gram Technique.

STAINING by Gram's method is apt to be neglected, chiefly because the solution of gentian-violet in aniline oil rapidly deteriorates, and dirty specimens are the result of an attempt made with a partly-spoilt solution. Dr. Snyder, of Toledo, U.S.A., has devised a method (*Annals of Ophthalmology*, November, 1912) in which, instead of the gentian-violet stain, a stain made according to the following formula:

Methyl-Violet Stain.

Melted carbolic acid crystals	12.5 c.cm.
Absolute ethyl alcohol	25.0 c.cm.
Methyl-violet 6 B (Gruebler)	1.0 gram.

Dissolve, keep in a warm place for twenty-four hours, and filter.

Lugol's Solution.

Iodine crystals	1 part
Potassium iodine	2 parts
Distilled water	300 parts.

The following method is recommended for staining smear preparations: A clean slide is taken, and the patient's number marked on it. A drop of formalin solution 1 in 1,000 in distilled water is placed upon the slide. Some of the secretion is evenly mixed with the drop of formalin solution. A drop of absolute alcohol is now placed upon the original drop to fix the slide. The author finds that alcohol fixation is superior to the flame method. When the alcohol evaporates, a thin smear is left upon the slide. Three or four drops of distilled water are placed upon the smear, and to the water is added one drop of the methyl-violet stain. This is left for twenty-five seconds, and then the slide is washed under the tap. Lugol's solution is now added, and after fifteen seconds the smear is decolorized with absolute alcohol. Now wash again under the tap and counterstain with a 5 per cent. watery solution of safranin or weak fuchsin for five seconds. Wash again, dry and examine, either with cedar oil alone or after a coverslip has been laid upon a drop of Canada balsam. It is best, however, not to use a cover-glass at all. The solutions keep indefinitely, and are always ready. The author describes a loop made of platino-iridium wire for taking up secretion from the eye and from other situations. Those who work in hot countries where the aniline solution decomposes in a couple of days will, it is thought, appreciate the advantages of this stain.

AN EPITOME OF CURRENT MEDICAL LITERATURE.

MEDICINE.

365. Acute Fatal Tetany in a Day-old Child.

M. KRUGER-FRANKE (*Zentralbl. f. Gyn.*, January 11th, 1913) claims that the following case is in some respects unique. A primipara, aged 33, was confined with twins. After labour had lasted forty hours, the os was only 3 cm. wide, and the breech of the first child had not descended much. The pains also were weak. After labour had lasted sixty hours, a dead and macerated child was born. The liquor stank. Half an hour later the head of the second child presented at the os. The membranes were ruptured, and version was performed. The child was asphyxiated when born, and it was necessary to pass a catheter down the trachea to remove some stinking liquor which had been aspirated. Respiration was successfully started, but the child's cries were feeble throughout the day. Next day it was somnolent, and the cries were still feeble. The limbs were partially flexed at the elbows and knees, and did not yield to passive extension. Opisthotonos and cervical rigidity were also present, and all the muscles showed tonic contractions. The skin was like wet pulp, and stinking purulent matter was vomited. The stomach was repeatedly washed out with sterile saline solution; but no improvement followed, and the child refused nourishment. Death occurred on the second day. Streptococci were found in the intestine, which was opened under antiseptic precautions, and death was attributed to absorption of toxins from the intestines, and to sepsis. The author was unable to secure a necropsy on the brain, but he does not think that meningitis existed, for the period between infection and the onset of symptoms was too short for such a condition to be the cause of death. The earliest case of meningitis recorded is one in which the symptoms appeared five days after birth. This allows an incubation period of several days, whereas in the author's case the time between rupture of the membranes with consequent infection of the living child by the liquor of the dead child and the onset of symptoms was much shorter. The rarity of the condition described must be largely due to the present standard of cleanliness in midwifery; for a few decades earlier the mortality from sepsis among infants was as high as 30 per cent., according to Epstein, whose statistics are obtained from a maternity hospital in Prague.

366. Radiological Diagnosis of Pulmonary Granulation in Infants.

RIBADEAU-DUMAS AND ALBERT WEIL, in a communication to the Société de Radiologie Médicale de Paris (*Bull. et mém.*, March, 1913) state that, while following up their work upon the radiological diagnosis of tuberculosis in infancy, they have found it possible with suitable technique to obtain radiographic evidence of pulmonary granular processes in sucking children. In the cadaver very clear radiographs of pulmonary granulation are forthcoming, but in the case of the living it is necessary under ordinary conditions to have the thorax immobile and the exposure made in apnoea, and infants do not lend themselves to this form of examination. With instantaneous radiography, however, such images are obtainable, and the authors bring forward four cases, three being those of infants suffering from tuberculous meningitis, and the fourth that of an infant in a typhoid condition, and in each case small miliary spots studded over the pulmonary field were visible in the radiographs, the stereoscopic image making it plain that they occupied unequal depths. The comparison of the radiographs with necroscopic records of other cases confirmed the diagnosis.

367. Poisoning by Deodorized Gas.

E. THOMSON (*Petersburger med. Zeit.*, February 1st, 1913) gives an account of the poisoning by odourless gas of several persons in a house into which gas had escaped through the soil. The house was not supplied with gas, and the nearest gaspipe was underground several yards away. The house was one-storied and contained ten rooms. During the summer the drains were repaired and a new water supply and soil pipe were laid on and an old cesspool was closed. In the following winter, when the ground was frozen, a party was given. During the next night all the twelve persons sleeping in the house suffered from intractable vomiting, violent headache, and lassitude. As none of the other guests who slept out was affected, and as three persons who slept in the basement of the house and who did not share in its festivities were included among the sufferers, the food and drink of the party were clearly not to blame. During the day the patients recovered, only to suffer from a more severe form of the illness on the following night. As soon as they slept elsewhere they recovered, while three volunteers who slept in the house developed their predecessors' symptoms. Poisoning by noxious fumes was suspected, but their source was not at first evident. The ground over the old cesspool was opened up, when odourless and inflammable gas was found to be escaping. This was clearly not sulphuretted hydrogen. The problem was solved when a leak was detected in a gaspipe as it passed over a water-pipe, several yards from the house. The gas had evidently escaped through the cesspool, up a ventilation shaft which opened under the house, and had thus invaded the whole house. The frozen condition of the ground may account for the direction in which the gas passed.

368. Blindness as a Result of Acute Anaemia after Loss of Blood.

BETTREMIEUX (*Echo méd. du Nord.*, 1912, lx) narrates the case of a man who suffered from severe haematemesis, and two days after the last attack complained of feebleness of vision, which gradually increased until total blindness resulted. The ophthalmoscope revealed complete atrophy of the papillae. The author quotes other instances from the literature and draws attention to Terson's treatment—namely, an injection of 400 c.cm. of artificial serum—as worthy of consideration.

369. Cardiac Symptoms of Endemic Goitre.

J. BAUER (*Deut. med. Woch.*, October 17th, 1912) has analysed the various cardiac disturbances associated with endemic goitre and has compared these disturbances with those met with in Graves's disease. He finds that in endemic goitre a pathological condition of the heart can be recognized clinically, which is quite distinct from the condition spoken of as "Kropfherz" (goitre-heart). The condition which he describes is characterized by a systolic murmur, which is best heard over the pulmonary orifice by an accentuation of the second pulmonary sound and by an extension of the cardiac dullness to the left. The impulse at the apex is not increased, the pulse is not accelerated, and subjective cardiac symptoms are not complained of. He is of opinion that this form of cardiac disturbance is toxic in origin, the noxious agent being the thyroid gland. He suggests that the condition may be spoken of as a "torpid" type of a thyreo-toxic goitre heart, as contrasted with the "erethic" type, described by Krauss. He recognizes transitions from what he describes as the normal, dysgenital heart disturbances due to anaemia, pseudochlorosis, etc., to the torpid and to the erethic types of goitre heart disturbances.

370. Hydatid Cyst in Children.

VERDELET (*Gaz. hebd. de la Soc. Méd. de Bordeaux*, 1913, No. 18) describes a case of paranephritic hydatid cyst in a child of 8, a hydatid cyst in a child of 10, both ending in recovery, and a case of multiple hydatid cysts of the abdomen in a child of 7 ending in death. The condition is rare in children. Of the author's 23 personal observations only 3 were in children. The dog is the animal which always propagates the disease. The treatment is always surgical.

SURGERY.

371. Removal of a Tuberculous Bladder.

L. CASPER (*Berl. klin. Woch.*, March 17th, 1913) claims that the following case establishes certain of his contentions which have hitherto been opposed: A man suffered from advanced tuberculosis of the left kidney, which was removed. The vesical symptoms from which he had suffered before the operation abated, and the urine secreted by the remaining kidney was clear, and contained only a moderate number of leucocytes. At the end of the

next six years, during which the patient pursued his work as a locksmith, he again suffered from violent pain in the bladder, continuous tenesmus, and painful micturition, which was distressingly frequent. The urine was cloudy and purulent. The patient was extremely emaciated, and as no other treatment gave relief, the bladder was completely removed, and the right ureter was implanted into the skin in the lumbar region. The pain and tenesmus ceased at once, and the patient gained 12 lb. in weight during the following three months. At this stage he was shown to the Medical Society of Berlin, when the urine escaping by the ureter was clear, and contained only a few leucocytes and casts. During the discussion which followed three objections were raised to the author's action. It was urged that puncture of the bladder was preferable to extirpation. But the former increases instead of relieving pain and tenesmus, and the presence of a cannula or permanent catheter in a tuberculous bladder renders previously intermittent tenesmus continuous. A second objection raised was the difficulty of collecting the urine from a ureter transplanted to the skin. This objection is certainly valid, although the latest contrivances enable the patient to keep dry except under certain movements, when a few drops of urine elude the best fitting receptacle. A third objection to the author's procedure was based on the common supposition that a kidney whose ureter opens directly on the surface of the body must inevitably be destroyed, sooner or later, by an ascending infection. This objection, raised three months after the operation, could not forthwith be dismissed as invalid. But nearly a year and a half after the operation the urine was found to be perfectly clear and without a trace of albumen. It contained a few leucocytes, but no bacteria. The patient at this stage was free from his previous symptoms, could walk without much discomfort, and could pursue the occupation of a caretaker.

372. Early Recognition of Vesical Tumours.

CHUTE (*Boston Med. and Surg. Journ.*, February 27th, 1913) discusses the unsatisfactory character of the results of operation in these cases. He points out the great range of operative treatment from intravesical cauterization of papillomata to the removal of a part, or even the whole, of the bladder. But having realized the limit of operative possibilities, satisfactory results, he states, can only accrue when earlier recognition of these cases occurs than is at present the case. To this end the author refers to the significance of haematuria, which is seen quite early in these cases. As this occurs in many other conditions, and is often in any case unattended by pain, there is too often a dilatory method of dealing with it. Haematuria as a symptom should be regarded in much the same light as a tumour of the breast now is. It may be innocent and trivial, but this must be definitely demonstrated to be the case. The author states that he has not seen a tumour of the bladder which was not actually or potentially malignant. Even papillomata, although microscopically benign, may proliferate and finally break down, ulcerate, and become septic. The author emphasizes the difficulty at times of discovering the source of the bleeding. A cystoscopic diagnosis cannot be made in a single examination. Before operation it is essential to accurately localize the lesion, as in the open and collapsed bladder there is much difficulty in recognizing a small and non-infiltrated area. The author's conclusion is that the only satisfactory treatment of tumours of the bladder is early and complete removal by excision.

373. Amauroses and Amblyopias from Ischaemia after Haemorrhage.

DUHOT AND PIERRET (*Echo méd. du Nord*, 1913, No. 17) review, with four personal observations, amauroses occurring after haemorrhages from various organs. Haematemesis has been the preceding cause in about 35 per cent. of cases, metrorrhagia in 28 to 38 per cent., epistaxis in 7 to 8 per cent., haemoptysis and haematuria in 1 per cent. In some cases the blindness is fulminating, in others acute, and in others delayed. The lesions are nearly always bilateral. The pupils are clouded, unequal, and dilated, light reflex is diminished, and accommodation enfeebled. Examination by the ophthalmoscope may be negative. In the majority of cases papillary discoloration occurs, the fundus of the eye being pale, the arteries frequently contracted, the veins slightly increased in size and filled with blood. In a second form papillary oedema occurs, the arteries are markedly contracted, and the veins tortuous and dilated. Retinal haemorrhages are frequent. The commonest termination is simple atrophy with slight excavation of the papilla. In cases of amblyopia the atrophy is only partial. The prognosis is always very grave. In cases where there are no appreciable lesions of the fundus, *restitutio ad integrum* is the rule, but when the papilla is strongly affected cure or amelioration are rare. The essential cause is a retino-optic ischaemia. The treatment consists in arresting the haemorrhage, for which purpose gelatine, calcium chloride, and haemopoietic serums are useful. The head should be lowered and the patient placed in the horizontal position and the limbs elevated and bandaged. Amyl nitrite or trinitrine may be given with advantage. Subcutaneous or intravenous injections of physiological serum, transfusion of blood, and injections of ether and caffeine or spartein should be employed, and subconjunctival injections of sublimate (1 in 2,000) and chloride of gold (1 in 1,000) have been recommended, as well as iridectomy and sclerectomy.

374. Formalin Treatment of Echinococcus Cysts.

FELIX FRANKE (*Zentralbl. f. Chir.*, No. 29, 1912) recalls the formalin treatment of the echinococcus sac recommended by him eleven years ago. He still regards his method as superior to the methods of injection of iodoform and glycerine and of sublimate solution. A recent case is typical of all. The patient was a woman of 57 who had a very large echinococcus cyst in the right lobe of the liver, first properly differentiated after removal of a piece of rib for exploration. The cyst was emptied of innumerable daughter cysts of varying size. These formed a thick pulpy mass, requiring to be removed with a tablespoon and weighing 5½ lb. After thorough cleansing of the sac with spoon and gauze swabs, the cavity was filled with 50 grams of a 5 per cent. solution of formalin in glycerine and water, and thoroughly washed out. The sac was closed in two layers with catgut, and the large abdominal wound also was closed except for a small drain leading down to the sutures of the closed sac. Primary healing followed, and sixteen days after the operation the patient left the hospital. Examined two months later liver dullness was rather less than normal. The author regards the method as superior to drainage or attempts to extirpate the echinococcus sac. The technique of treatment by formalin will depend on the nature and condition of the echinococcus lesion. A simple cyst filled with fluid only may be punctured and emptied as completely as possible, filled again with 150 to 300 grams of a ½ to 1 per cent. watery solution of formalin; this is left in the cyst for five minutes, and is then permitted to flow out by the cannula; lastly, the puncture is closed by a purse-string suture. A small quantity of formalin remains in the cyst, and suffices to kill remaining daughter cells. If the contents of the cyst are not simply a thin fluid, instead of the watery solution a 5 per cent. solution of formalin in glycerine may be employed; its weight permits it to reach outlying corners of the cyst cavity. Should the contents of the cyst be a pulpy mass, as in the case narrated, the cyst must be opened wide, the contents thoroughly evacuated, its walls cleansed with gauze swabs, the cavity filled with formalin glycerine solution, and almost completely emptied again. The cyst may be diminished in size by doubling in sutures. Extirpation of the sac is unnecessary, and often, indeed, is dangerous, as the author found in a recent case.

375. Abnormal Mobility of Caecum.

DELBET (*Rev. de Thérap.*, 1913, No. 10) finds that abnormal mobility of the caecum and dilatation of that part of the intestine are capable of producing certain symptoms resembling appendicitis and thereby leading to an error in diagnosis. Fixation in the former and removal in the latter condition are frequently successful.

OBSTETRICS.

376. Treatment of Haemorrhagic Disease of the Newborn.

VINCENT (*Archives of Pediatrics*, December, 1912) gives notes of 15 cases of haemorrhagic disease of the newborn, and advocates the use of human blood or its derivatives in the treatment of the condition. Eleven of the cases, of which eight were cured, were treated by transfusion, the treatment effecting an immediate change from sickness to health. Four cases received injections under the skin of the back of whole human blood drawn from an adult, and, although these cases ended fatally, the issue cannot be attributed to ineffectiveness of the treatment, since three of them were moribund, and in the fourth the injection was not repeated as should have been the case. Since the trouble is probably due to a defect in the infant's blood,

which is apparently improved by either injections of serum or whole blood, or by transfusion, it would seem that the latter is more likely to be the ideal method, because it directly restores to the circulation all the elements needed for coagulation, besides correcting the anaemia by replacing the cellular elements lost through haemorrhage. Where bleeding is rapid and profuse, immediate transfusion is indicated, but where the initial haemorrhages are slight, blood or serum injections may be undertaken, a whole-blood injection being administered first to save delay, and sufficient blood being collected to furnish serum for further treatment. Transfusion is a more formidable procedure than serum or blood injection, but its results are immediate and permanent. The author transfuses with coated glass tubes 13 cm. long and 3 mm. in diameter, the end inserted into the infant's vein being 2.5 mm. in diameter. The danger of air embolism may be averted by filling the tubes with salt solution, which is held in the tube by a small plug of sterile cotton covered with vaseline. The radial artery of the donor is connected with the infant's external jugular vein, a flow of five minutes usually being sufficient, and care should be taken that the flow is not too rapid and is stopped when the infant's face regains its normal colour. With the exception of those cases where the bleeding is due to bacterial infection, syphilis, and ulceration of the stomach or duodenum, or where the location and not the extent of the haemorrhage is the vital factor, as in the brain adrenals, etc., experience shows that the use of human blood or its derivatives properly applied to suit each individual case is capable of curing a large percentage of these cases.

GYNAECOLOGY.

377. Radiotherapy of Uterine Fibroma.

JAULIN, in a communication to the Société de Radiologie Médicale de Paris (*Bull. et. mém.*, April, 1913), states that he has treated nine cases of uterine fibroma by means of *x* rays, the principal value of his observations lying in the fact that the six successful cases date back for a considerable period. Of the three others, two were still under treatment, and the third, a woman of 64 years in whom the tumour had taken a malignant aspect, was a failure both with *x* rays and with subsequent surgical treatment. The author's original practice was to use an aluminium filter 1 mm. in thickness, the equivalent spark being 10 to 12 cm., and the dose about 3 Holzknecht units (tint 0 on the Bordier chromoradiometer, or 6 X on the quantitometer of Kienböck) at the point of introduction. The rays were directed principally to the ovaries, the irradiation being made at the iliac fossae and in the flanks, while the median region occupied by the fibroma was little or non-irradiated. When patients complained of sharp pain at the region of the sacrum, irradiation was also made at the posterior part of the pelvis. Later he gave higher doses, using a filter of 2 mm. thickness, but he does not believe, after observing the reactions obtained on the skin of his patients, that it is prudent to go beyond the limits of tint 0 under the filter. He has waited three weeks or a month before returning to the irradiation of the same point. The definite results obtained in the six cases of functional cure were: (1) The suppression, not only of the haemorrhages, but also of the menses; (2) the suppression or diminution of the pain; and (3) the decrease in the size of the fibroma, though in no case did this disappear completely. Upon the disappearance of haemorrhage and pain, however, he classes the case as cured, for these are the symptoms to which the patients attach most importance. The age of the six patients cured varied from 36 to 47 years. In two instances the haemorrhages were augmented at the beginning of the treatment.

THERAPEUTICS.

378. Artificial Pneumothorax in Phthisis.

LEURET (*Arch. gén. de méd.*, March, 1913) considers that the only cases of pulmonary tuberculosis suitable for treatment by artificial pneumothorax are serious cases with unilateral lesions, not spontaneously curable, not associated with serious visceral lesions, and with a sound heart. Tuberculous laryngitis is a particular contraindication. The treatment is thus of very limited application, and in a large number of cases Leuret has found less than 4 per cent. suitable. The primordial indication is in acute cases, but the author thinks the method might usefully be employed in chronic cases with acute exacerbations. With regard to results, the author has never experienced such accidents as sudden death, pleural epilepsy, etc., noted by other writers, but he has several times observed violent pain, with shallow respiration, small pulse, cyanosis, coldness of the extremities, cough and vomiting. Such symptoms have passed off rapidly, and were only seen in his earlier cases, when the injections were probably made too rapidly. Extreme slowness of penetration of the air into the pleural cavity is the most certain means of prevention of these ill effects. The immediate therapeutic results are often remarkable. The temperature falls, often to normal, after a twenty-four hours' exacerbation; the expectoration is rapidly diminished; the cough becomes infrequent; the general condition is improved, and the tuberculous process is arrested. Unfortunately the "cure" is only temporary, all Leuret's patients having relapsed after a variable interval; and he holds with Burnaud that the method is not of universal application, but is an expedient to be proposed to patients who would be condemned to death without it.

379. Deaths after Salvarsan and Neo-Salvarsan.

BUMIER (*Ann. des mal. vén.*, February, 1913) has collected 23 cases of death after the administration of salvarsan and neo-salvarsan during six months. Analysis of these cases shows (1) that the subjects were mostly young, from 19 to 32 years of age; (2) that death nearly always occurred after the second injection in the case of salvarsan, and the third or fourth in the case of neo-salvarsan; (3) that the dose of salvarsan was not usually above 0.60 gram, and in some cases was only 0.30 or 0.40 gram, but in the case of neo-salvarsan high doses of 1.20 or 1.40 grams were often given; (4) that the injections were mostly intravenous, but in two cases death occurred after the second injection of 0.35 gram, and after an intramuscular injection of 0.30 gram in each buttock; (5) that the toxic effects are in most cases identical with those produced by experiment; almost immediately after injection appear fever, vomiting, diarrhoea, sometimes scarlatiniform eruptions, paralysis, delirium and convulsions, followed by coma and death on the third or fourth day after injection; (6) that at the autopsy there is generally found hyperaemia of the brain and meninges, haemorrhagic encephalitis and congestion of all the viscera. To explain these accidents faulty preparation, impurities in the distilled water, Herxheimer's reaction, etc., have been invoked. It appears more rational to attribute them to arsenical poisoning, since the accidents correspond to those observed in arsenical intoxication. Bumier concludes that as there is no criterion by which these accidents can be avoided, even in young subjects with no organic disease, nor any therapeutic means by which they can be got rid of when produced, such dangerous substances cannot be used with too great prudence.

380. Anogon.

E. KOCH (reprint from the *Med. Klin.*, Nos. 39-40, 1912) has investigated the pharmacological action of a compound known as "anogon," which is the di-iodoxy-(p) sulphobenzoate of mercury, having the formula $C_6H_2I_2O$–Hg–SO_3–Hg. Anogon contains 48.95 per cent. of Hg and 31.78 per cent. of I, is insoluble in the usual solvents, and can well be used in oily suspension. It possesses a strong antiseptic action, which is due to the primary splitting off of iodine and the subsequent liberation of mercury ions. Rabbits tolerate doses of 0.1 gram without symptoms of toxic effect, while 0.54 gram was given in seven weeks without disturbance. The chemical changes were followed in mice. After injection, highly refractive, clear rhomboid crystals appear in the yellow anogon mass. Within a short time some crystals are seen free. A little later, minute black globules of about one-tenth of the size of a red blood corpuscle, with a distinct concentric outline, are seen. These have the appearance of a percussion cap. The next step in the dissociation is the liberation of iodine and the formation of the sodium or potassium salt of the compound. Koch states that the black droplets are mercury in colloidal condition. The reaction locally is not great, but the number of leucocytes which aggregate is large. At no time does the organism absorb a considerable quantity of mercury at one time. He is of opinion that the mercury ions are present in small quantities and in low concentration, but that they are continuously being liberated. He therefore conceives that anogon should prove itself a good reliable mercury-iodide preparation, which will not give rise to alarming toxic properties. He suggests that the utility in syphilis should be marked, in that the mercury would kill off the spirochaetes and the

iodine neutralize the endotoxins, and clear them out of the organism. He states that it has been tried with good results in Strassburg and Dorpat for syphilis.

381. Intravenous Injection of Salvarsan in the Chorea of Sydenham.

MARIE AND CHATELIN (*Bull. de l'Acad. de Méd.*, December, 1912) draw attention to the value of salvarsan and neosalvarsan in this condition. Four injections in doses of 20 to 35 cg. were given at eight days' interval. They have had no accident of any kind, or, at the most, a transient malaise, and, in some cases, a scarlatiniform eruption. This method of treatment is more rapid in its results than any other treatment, the duration of the disease being shortened to about a month from the commencement of the treatment. A marked feature in all cases was the rapid improvement of the general condition, more especially of nutrition, and this was so even when the choreic movements disappeared comparatively slowly. A certain number of the patients who had suffered severely from vomiting and almost complete anorexia developed an appetite and gained weight. This eutrophic action was one of the remarkable features of the treatment. The ages of the patients varied from 8 to 19 years and in a good many of the cases the Wassermann test was done on the cerebro-spinal fluid with negative results. The author quotes Von Bokay and Haines as being the first to use salvarsan subcutaneously in classical cases of chorea. Recently Weill and others have used "606" per rectum in chorea, and claim to have obtained an appreciable amelioration of the symptoms. The authors do not believe that the beneficial effects which follow the use of salvarsan in chorea are in any way proof that the disease is syphilitic in origin. The arsenic may quite well be supposed to act by increasing the leucocytes and so adding to the resistance of the body to toxins.

382. Iodides in the Treatment of Tuberculosis.

NIEVELING finds that the physician is forced at times to resort to medicamentous treatment in phthisis, and has turned his attention to the effects of iodglidin, of which he states that better results are obtained than when creosote or guaiacol preparations are used (*Berl. klin. Woch.*, October 14th, 1912). He gives the details of a number of cases treated with iodglidin, and concludes by stating that in nearly every case the thick, sticky mucus is rendered more fluid and is more easily expectorated. In the majority of his cases the dyspnoea was markedly relieved by the iodide, the cardiac action became stronger, and in numerous cases the palpitations ceased. He is not in a position to say whether iodides can affect the fever of phthisis; in the febrile cases in which he employed iodglidin no benefit was derived. He is, however, of opinion that iodine influences the scarring and induration of pulmonary foci favourably, and at all events delays the disintegration of tuberculous tissue. He naturally does not suggest that iodides should be given in substitution of the general treatment, but as a supplementary measure.

383. Indications and Contraindications of Potassium Iodide in Syphilis.

GAUCHER (*Journ. des praticiens*, 1912, xxvi) finds that this drug is an adjuvant of mercury, and should be given at all stages of syphilis in serious cases. It is contraindicated in laryngeal lesions, owing to its power of producing congestion of the membrane, and should be given with great caution in pulmonary tuberculosis, whether associated or not with syphilis. In gumma of the lung it acts, on the contrary, very well, and should be administered. In acute nephritis iodide should not be given; in secondary syphilitic nephritis it likewise should be avoided if the amount of urine is scarce, but if abundant with a normal amount of urea, it is an excellent remedy. In amyloid degeneration it is the remedy *par excellence*.

PATHOLOGY.

384. Antitoxic Content of the Blood of Diphtheria Patients.

IN theory the effect of injecting diphtheria antitoxin during a severe attack of acute diphtheria would be that a greater or less proportion of the antibody introduced would be bound by the diphtheria toxin and that the rest of the stock, so to speak, would be used up during the remainder of the illness. W. Beyer (*Deut. med. Woch.*, No. 50, 1912) has investigated this problem and finds that these theoretical expectations are not realized. He claims that his results bring fresh proof of the extreme activity of the antitoxic treatment of diphtheria. His method consisted in collecting the serum of patients who had received antitoxin, before and after the injection, diluting this serum and mixing it with measured quantities of diphtheria toxin and injecting the mixture into guinea-pigs. His results were as follows: In no early case before antitoxin was administered could he discover any antitoxin in the mixture at all. This held good up to the end of the febrile period. In a number of mild and severe cases which were treated by antitoxin, practically the whole of the antitoxin was accounted for in the blood shortly after the injection. This was arrived at by titrating the serum drawn off with the toxin, calculating the amount in antitoxin units in the sample used and calculating this content for the total quantity of blood. When the antitoxin was injected intravenously, nearly the whole was accounted for within a short time, but if the antitoxin was injected under the skin, the absorption was much slower. In one case only one-fifteenth of the injected quantity was found on the following day. The author draws from this the deduction that in acute cases it is far better to inject intravenously than subcutaneously. The quantity of antitoxin usually diminishes slowly, about one quarter to one half of the quantity being frequently found on the third or fourth days. On the sixth day he often found as much as one-third to one-fourth, while on the seventh day he found one-sixth. After two or three weeks the quantity still found was very small, and in some cases none was found. He continues to discuss the negative finds late in convalescence. It thus appears that no antitoxin is formed actively in the body of a patient who has been treated with antitoxin. He leaves it an open question whether the small quantities of toxin which are absorbed into the circulatory fluids are so completely neutralized by the large excess of antitoxin that no stimulation is present for the active formation of native antitoxin. In conclusion, he pleads for early intravenous injections rather than large doses.

385. Circumscribed Necrotic Fatty Tumours.

HERMANN KÜTTNER (*Berl. klin. Woch.*, January 6th, 1913) describes some unusual conditions which he considers may be of value in throwing light on the pathology of fatty tissue. In the first case, that of a 56-year old somewhat corpulent lady, abdominal attacks of considerable severity recurred within the course of three weeks, and on physical examination, a round, hard tumour of the size of a fetal head was found in the ileo-caecal region. He was inclined to regard the tumour as inflammatory. At the operation, on separating the coils of adherent intestines, some opaque fluid escaped. This fluid did not have any characters of pus, but rather looked like necrosed fat. A cavity was then found in which a large mass of particulate material was found. This was removed, and after it was ascertained that the appendix was quite intact, the wound was tamponned. Microscopically, the material proved to be necrotic fat, with a few round cells and some fat granular cells. No elements of a tumour were discovered, and the bacteriological examination proved negative. The second case was that of a stout man, aged 45 years, who was taken ill suddenly, with violent vomiting, rigors, and high fever. He complained of pain in the region of the stomach and liver, radiating to the right shoulder and arm. No flatus or stool was passed. A tumour was felt in the region of the gall bladder, and an operation was undertaken for its removal. Attached to the ascending colon at the level of the gall bladder a tumour was found in the omentum, having all the appearances of necrotic fat. It was removed. Nothing else pathological was found, and the patient made a good recovery. Microscopically, the tumour proved to consist of connective tissue septa, containing numerous leucocytes, large cells containing blood pigment and spindle connective tissue cells. Between the septa were fat lobules of necrotic fatty tissue. In a third case a mammary tumour was removed which likewise proved to consist of fatty tissue imbedded in connective tissue septa. In this case there was marked inflammatory infiltration of the septa, with numerous lymphocytes, and spindle-shaped cells. In the necrosed fatty portions some giant cells were seen in which bundles of needle-shaped crystals were placed. These stained pale yellow with Sudan stain, and dark blue with Fischler's fatty acids stain. The author considers that it is more probable that the chronic inflammation followed as a secondary process on the splitting up of the fat. He considers that these tumours deserve notice in view of the fact that they differ in several respects from the fat necrosis described by Lanz, Targett, Shattock, and others.

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